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#### INTERVENTO

**FONDO COMPLEMENTARE AL PIANO NAZIONALE DI RIPRESA E RESILIENZA**  
**PROGRAMMA "SICURO, VERDE E SOCIALE: RIQUALIFICAZIONE DELL'EDILIZIA RESIDENZIALE PUBBLICA"**

**PROGETTO DI MANUTENZIONE STRAORDINARIA PER IL RESTAURO E RISANAMENTO  
CONSERVATIVO DI DUE CASAMENTI A CORTE SITI IN  
COMUNE DI BOLOGNA LOCALITA' CIRENAICA.  
VIA LIBIA CIV. 29÷51 PER COMPLESSIVI 70 ALLOGGI  
DI ERP CON RELATIVE PERTINENZE E PARTI COMUNI**

LOTTO **3053/PN\_2**

## PROGETTO ESECUTIVO

TAV.		OGGETTO  TABULATI DI CALCOLO CIVICO 29-31 STATO DI FATTO			DATA		
TAB_01					Settembre 2022		
SCALA					N. DISEGNO		
VERSIONE	DESCRIZIONE		DATA	REDATTO	VERIFICATO		APPROVATO
00	PRIMA EMISSIONE		Settembre 2022	F. DALMONTE	N. LEONE		N. LEONE
01							
02							
03							

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TABULATI DI CALCOLO  
CIVICI 29-31  
STATO DI FATTO



## Sommario

1 Risultati numerici.....	3
1.1 Sollecitazioni.....	3
1.1.1 Sollecitazioni aste.....	3
1.1.1.1 Convenzioni di segno aste.....	3
1.1.2 Sollecitazioni gusci.....	5
1.1.2.1 Convenzioni di segno gusci.....	5
1.1.2.2 Sollecitazioni estreme gusci.....	7
1.1.2.3 Sollecitazioni estreme gusci non verticali.....	8
1.1.2.4 Sollecitazioni estreme gusci verticali.....	10
1.1.3 Sollecitazioni gusci armati.....	11
1.1.3.1 Convenzioni di segno gusci.....	11
1.1.4 Sollecitazioni gusci muratura.....	13
1.1.4.1 Convenzioni di segno gusci muratura.....	13
1.1.5 Sollecitazioni aste in muratura.....	15
1.1.5.1 Convenzioni di segno aste.....	15
1.1.6 Sollecitazioni aste in muratura FRCM.....	17
1.1.6.1 Convenzioni di segno aste.....	17
1.1.7 Sollecitazioni aste in muratura armata.....	20
1.1.7.1 Convenzioni di segno aste.....	20
1.2 Reazioni nodali.....	22
1.2.1 Reazioni nodali estreme.....	22
1.2.2 Reazioni nodali in combinazioni di carico.....	23
1.3 Risposta modale.....	304
1.4 Equilibrio globale forze.....	305
1.5 Risposta di spettro.....	306
1.6 Annotazioni solutore.....	306
1.7 Statistiche soluzione.....	307



# 1 Risultati numerici

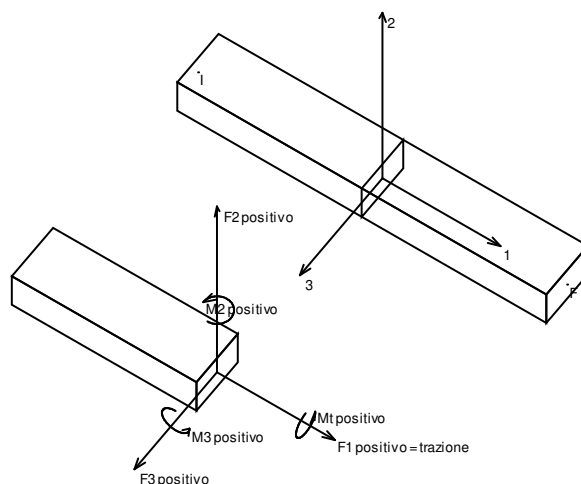
## 1.1 Sollecitazioni

### 1.1.1 Sollecitazioni aste

#### 1.1.1.1 Convenzioni di segno aste

Le abbreviazioni relative alle sollecitazioni sugli elementi aste sono da intendersi:

- $F1$  (N): sforzo normale nell'asta;
- $F2$ : sforzo di taglio agente nella direzione dell'asse locale 2;
- $F3$ : sforzo di taglio agente nella direzione dell'asse locale 3;
- $M1$  ( $M_t$ ): momento attorno all'asse locale 1; equivale al momento torcente;
- $M2$ : momento attorno all'asse locale 2;
- $M3$ : momento attorno all'asse locale 3.



La convenzione sui segni per i parametri di sollecitazione delle aste è la seguente:

presa un'asta con nodo iniziale  $i$  e nodo finale  $f$ , asse 1 che va da  $i$  a  $f$ , assi 2 e 3 presi secondo quanto indicato nei paragrafi successivi relativi al sistema locale delle aste sezionando l'asta in un punto e considerando la sezione sinistra del punto in cui si è effettuato il taglio (sezione da cui esce il versore asse 1) i parametri di sollecitazione sono positivi se hanno verso e direzione concordi con il sistema di riferimento locale dell'asta 1, 2, 3 (per i momenti si adotta la regola della mano destra).

Il sistema è definito diversamente per tre categorie di aste, a seconda che siano originate da:

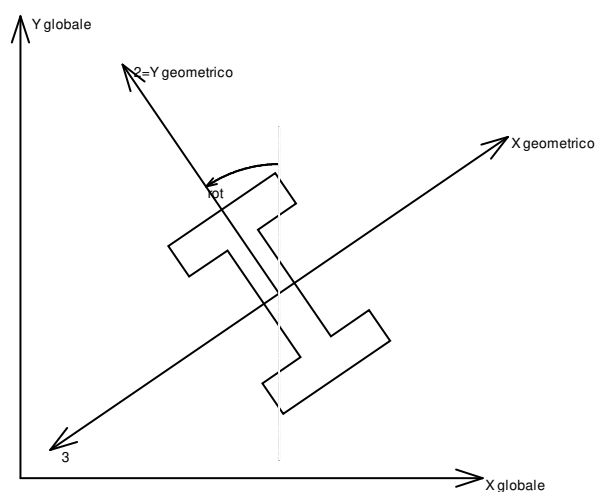
- aste verticali ad esempio pilastri e colonne;
- aste non verticali non di c.a., ad esempio travi di acciaio o legno;
- aste non verticali in c.a.: travi in c.a. di piano, falda o a quota generica.

Nel seguito si indica con 1, 2 e 3 il sistema locale dell'asta che non sempre coincide con gli assi principali della sezione. Si ricorda che per assi principali si intendono gli assi rispetto a cui si ha il raggio di inerzia minimo e massimo. Gli assi 1, 2 e 3 rispettano la regola della mano destra.



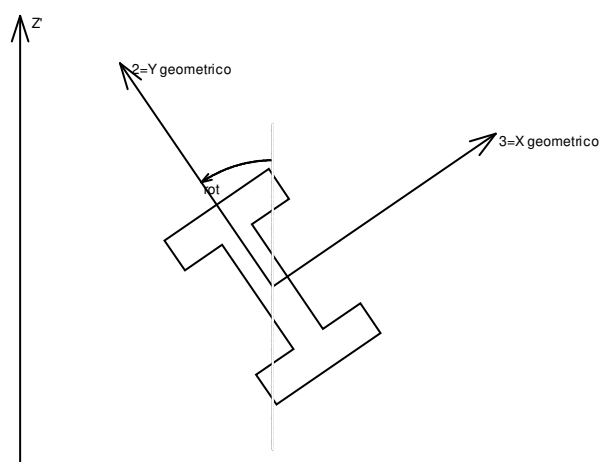


## Sistema locale aste verticali



Nella figura si considera l'asse 1 uscente dal foglio (l'osservatore guarda in direzione opposta a quella dell'asse 1).

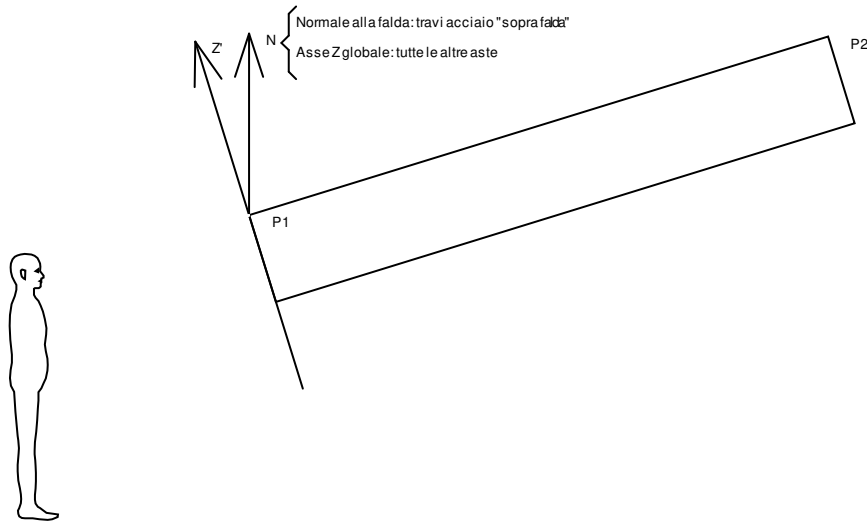
## Sistema locale aste non verticali



Nella figura si considera l'asse 1 entrante nel foglio (l'osservatore guarda in direzione coincidente a quella dell'asse 1).

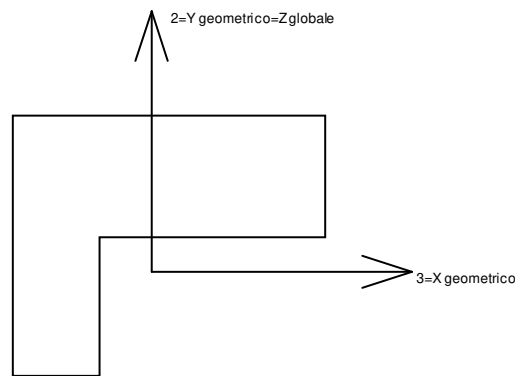
L'asse Z' è illustrato nella figura seguente dove:

- P1 è il punto di inserimento iniziale dell'asta;
- P2 è il punto di inserimento finale dell'asta;
- N è la normale al piano o falda di inserimento;



Z' è quindi l'intersezione tra il piano passante per P1, P2 contenente N e il piano della sezione iniziale dell'asta.

**Sistema locale aste derivanti da travi in c.a.**



Nella figura si considera l'asse 1 entrante nel foglio (l'osservatore guarda in direzione coincidente a quella dell'asse 1). L'asse 2 è sempre verticale e quindi coincidente con l'asse Z globale nonché con l'asse y geometrico. L'asse 3 coincide con l'asse x geometrico. Si sottolinea il fatto che gli assi 2 e 3 non corrispondono agli assi principali della sezione.

## 1.1.2 Sollecitazioni gusci

### 1.1.2.1 Convenzioni di segno gusci

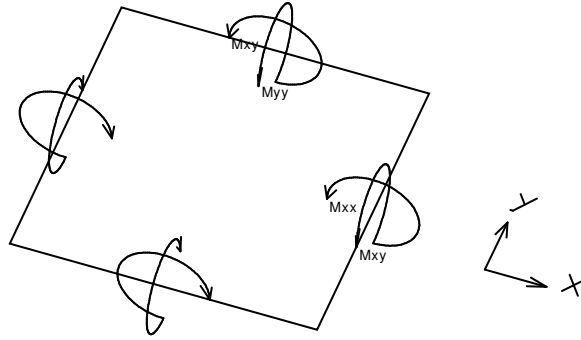
Sono individuate distinte convenzioni di segno in relazione al tipo di elemento strutturale a cui il guscio si riferisce:

- convenzione per gusci non verticali, originati ad esempio da piastre e platee;
- convenzione per gusci verticali, originati ad esempio da pareti e muri.

#### Convenzione di segno per gusci non verticali

Il sistema di riferimento nel quale sono espressi i parametri di sollecitazione è così definito: origine appartenente al piano dell'elemento, asse x e y contenuti nel piano dell'elemento e terzo asse (z) ortogonale al piano dell'elemento a formare una terna destrorsa. In particolare l'asse x ha proiezione in pianta parallela ed equivale all'asse globale X. Nel caso di piastre orizzontali (caso più comune) gli assi x, y e z locali all'elemento sono paralleli ed equivale agli assi X, Y e Z globali. Si sottolinea che non ha alcun interesse collocare esattamente nel piano dell'elemento la posizione dell'origine in quanto i parametri di sollecitazione sono invarianti rispetto a tale posizione.

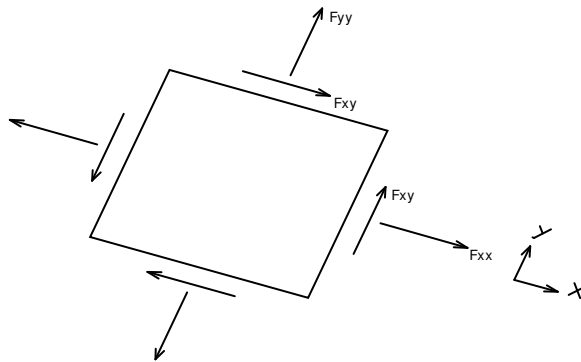
In figura è mostrato un elemento infinitesimo di shell orizzontale con indicato il sistema di riferimento e i parametri di sollecitazione  $M_{xx}$ ,  $M_{yy}$ ,  $M_{xy}$ .



Si definiscono:

- $M_{xx}$ : momento flettente [Forza\*Lunghezza/Lunghezza] agente sul bordo di normale x (verso positivo indicato dalla freccia in figura che tende le fibre inferiori);
- $M_{yy}$ : momento flettente [Forza\*Lunghezza/Lunghezza] agente sul bordo di normale y (verso positivo indicato dalla freccia in figura che tende le fibre inferiori);
- $M_{xy}$ : momento torcente [Forza\*Lunghezza/Lunghezza] agente sui bordi (verso positivo indicato dalla freccia in figura).

Per quanto riguarda le sollecitazioni estensionali si faccia riferimento alla figura seguente dove per lo stesso elemento infinitesimo di shell orizzontale con indicato il sistema di riferimento e i parametri di sollecitazione  $F_{xx}$ ,  $F_{yy}$ ,  $F_{xy}$ .



Si definiscono:

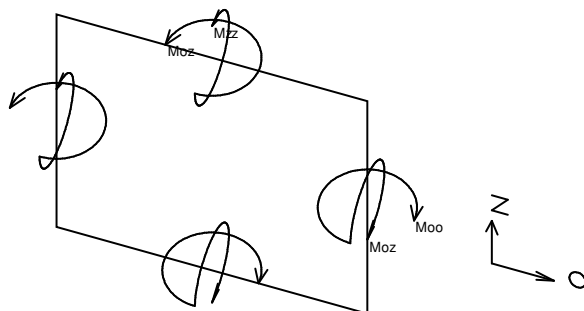
- $F_{xx}$ : sforzo estensionale [Forza/Lunghezza] agente sul bordo di normale x (verso positivo indicato dalla freccia in figura che mette in trazione l'elemento);
- $F_{yy}$ : sforzo estensionale [Forza/Lunghezza] agente sul bordo di normale all'asse y (verso positivo indicato dalla freccia in figura che mette in trazione l'elemento);
- $F_{xy}$ : sforzo di taglio [Forza/Lunghezza] agente sui bordi (verso positivo indicato dalla freccia in figura).

Vengono riportati inoltre i tagli fuori dal piano dell'elemento guscio:

- $V_x$ : taglio fuori piano [Forza/Lunghezza] applicato al bordo di normale parallela all'asse x;
- $V_y$ : taglio fuori piano [Forza/Lunghezza] applicato al bordo di normale parallela all'asse y.

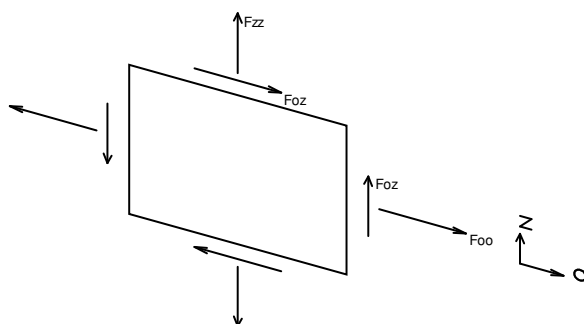
#### Convenzione di segno per gusci verticali

Il sistema di riferimento nel quale sono espressi i parametri di sollecitazione è così definito: origine appartenente al piano dell'elemento, asse O (ascisse) e z (ordinate) contenuti nel piano dell'elemento e terzo asse ortogonale al piano dell'elemento a formare una terna destrorsa. In particolare l'asse O è orizzontale e l'asse z parallelo ed equiverso con l'asse Z globale. Si sottolinea che non ha alcun interesse collocare esattamente nel piano dell'elemento la posizione dell'origine in quanto i parametri di sollecitazione sono invarianti rispetto a tale posizione. In figura è mostrato un elemento infinitesimo di shell orizzontale con indicato il sistema di riferimento e i parametri di sollecitazione  $M_{xx}$ ,  $M_{yy}$ ,  $M_{xy}$ .



- Moo: momento flettente distribuito  $[Forza * Lunghezza / Lunghezza]$  applicato al bordo di normale parallela all'asse O (verso positivo indicato dalla freccia in figura che tende le fibre inferiori);
- Mzz: momento flettente distribuito  $[Forza * Lunghezza / Lunghezza]$  applicato al bordo di normale parallela all'asse z (verso positivo indicato dalla freccia in figura che tende le fibre inferiori);
- Moz: momento 'torcente' distribuito  $[Forza * Lunghezza / Lunghezza]$  applicato sui bordi (verso positivo indicato dalla freccia in figura).

Per quanto riguarda le sollecitazioni estensionali si faccia riferimento alla figura seguente dove per lo stesso elemento infinitesimo di shell con indicato il sistema di riferimento i parametri di sollecitazione Foo, Fzz, Foz sono rispettivamente:



- Fzz: sforzo tensionale distribuito  $[Forza / Lunghezza]$  applicato al bordo di normale parallela all'asse z (verso positivo indicato dalla freccia in figura che mette in trazione l'elemento);
- Foo: sforzo tensionale distribuito  $[Forza / Lunghezza]$  applicato al bordo di normale parallela all'asse O (verso positivo indicato dalla freccia in figura che mette in trazione l'elemento);
- Foz: sforzo tagliante distribuito  $[Forza / Lunghezza]$  applicato sui bordi (verso positivo indicato dalla freccia in figura).

Vengono riportati inoltre i tagli fuori dal piano dell'elemento guscio:

- Vo: taglio fuori piano applicato al bordo di normale parallela all'asse O;
- Vz: taglio fuori piano applicato al bordo di normale parallela all'asse z.

#### 1.1.2.2 Sollecitazioni estreme gusci

**Shell:** elemento guscio a cui si riferiscono le sollecitazioni.

**Ind:** indice del guscio.

**Cont.:** contesto a cui si riferiscono le sollecitazioni.

**N.br.:** nome breve della condizione o combinazione di carico.

**Nodo:** nodo su cui si basa il guscio a cui si riferisce la sollecitazione.

**Ind:** indice del nodo.

**Sollecitazione:** valori della sollecitazione.

**M11:** componente M11 della sollecitazione del guscio nel nodo indicato.  $[daN * m / m]$

**M12:** componente M12 della sollecitazione del guscio nel nodo indicato.  $[daN * m / m]$

**M22:** componente M22 della sollecitazione del guscio nel nodo indicato.  $[daN * m / m]$

**F11:** componente F11 della sollecitazione del guscio nel nodo indicato.  $[daN / m]$

**F12:** componente F12 della sollecitazione del guscio nel nodo indicato.  $[daN / m]$

**F22:** componente F22 della sollecitazione del guscio nel nodo indicato.  $[daN / m]$

**V13:** componente V13 della sollecitazione del guscio nel nodo indicato.  $[daN / m]$

**V23:** componente V23 della sollecitazione del guscio nel nodo indicato.  $[daN / m]$

#### Sollecitazioni con momento M11 minimo

Vengono mostrati i soli 5 gusci più sollecitati.

Shell	Cont.	Nodo	Sollecitazione							
Ind	N.br.	Ind	M11	M12	M22	F11	F12	F22	V13	V23
373	SLV 11	1383	-1799	447	-455	-4662	805	-8144	4170	1374



Shell	Cont.	Nodo	Sollecitazione							
Ind	N.br.	Ind	M11	M12	M22	F11	F12	F22	V13	V23
72	SLV 3	1383	-1289	-11	-350	-1707	1489	-5115	-2666	1272
143	SLV 1	1383	-1118	145	-336	-1337	156	-5026	2897	1190
356	SLV 11	1370	-1052	-49	-245	-10337	-2296	-10477	-2198	735
151	SLV 11	1244	-950	-58	-375	24886	9138	-13277	-3208	654

#### Sollecitazioni con momento M11 massimo

Vengono mostrati i soli 5 gusci più sollecitati.

Shell	Cont.	Nodo	Sollecitazione							
Ind	N.br.	Ind	M11	M12	M22	F11	F12	F22	V13	V23
143	SLV 15	1383	1504	-90	422	-1019	-1	-6503	-4150	-1605
373	SLV 5	1383	1287	-260	322	3428	6406	-2587	-3053	-921
72	SLV 13	1383	1004	71	268	-928	2481	-6560	1986	-776
356	SLV 5	1370	942	22	220	6119	623	-7011	2188	-587
2459	SLV 7	1244	887	47	366	27709	7210	-13297	3042	-945

#### Sollecitazioni con momento M22 minimo

Vengono mostrati i soli 5 gusci più sollecitati.

Shell	Cont.	Nodo	Sollecitazione							
Ind	N.br.	Ind	M11	M12	M22	F11	F12	F22	V13	V23
2124	SLV 11	1383	-768	220	-1233	-4039	-5523	-26487	2071	-2572
366	SLV 11	1382	-236	365	-770	-13072	-854	-1964	649	1571
373	SLV 11	1382	246	580	-753	17355	1353	710	4170	2003
781	SLV 3	1383	-532	-48	-738	-1342	214	-1712	-1251	-1499
771	SLV 1	1383	-478	45	-730	-631	-127	125	1420	-1548

#### Sollecitazioni con momento M22 massimo

Vengono mostrati i soli 5 gusci più sollecitati.

Shell	Cont.	Nodo	Sollecitazione							
Ind	N.br.	Ind	M11	M12	M22	F11	F12	F22	V13	V23
771	SLV 15	1383	597	-61	771	497	-454	2151	-1779	1708
781	SLV 13	1383	452	39	729	-245	2148	3751	1091	1406
299	SLV 9	97	159	5	638	-1240	937	-6075	38	497
306	SLV 9	97	159	5	638	-1865	1024	-6373	-41	494
292	SLV 5	98	159	-4	636	-1631	383	-6307	64	484

#### Sollecitazioni con sforzo F11 minimo

Vengono mostrati i soli 5 gusci più sollecitati.

Shell	Cont.	Nodo	Sollecitazione							
Ind	N.br.	Ind	M11	M12	M22	F11	F12	F22	V13	V23
2452	SLV 7	1305	-391	-94	76	-45318	-23254	-12937	-1224	-165
262	SLV 11	1215	-245	-88	-222	-45033	-1248	-11525	1361	-518
1060	SLV 7	1281	141	47	144	-42791	3333	-8336	974	538
261	SLV 7	1216	114	127	117	-39557	1380	-2774	-87	468
908	SLV 11	1284	171	-44	132	-38270	-4235	-9122	-995	385

#### Sollecitazioni con sforzo F11 massimo

Vengono mostrati i soli 5 gusci più sollecitati.

Shell	Cont.	Nodo	Sollecitazione							
Ind	N.br.	Ind	M11	M12	M22	F11	F12	F22	V13	V23
279	SLV 11	1378	501	-172	123	42583	8010	2529	618	-1153
286	SLV 11	1378	493	109	119	39854	-5276	2617	737	-1165
307	SLV 7	1377	542	-167	96	38384	-6764	2685	-597	-897
300	SLV 11	1377	526	-87	126	37880	5083	1741	161	-1019
2578	SLV 7	1226	829	-123	306	35993	-5162	-4588	-2926	-637

#### Sollecitazioni con sforzo F22 minimo

Vengono mostrati i soli 5 gusci più sollecitati.

Shell	Cont.	Nodo	Sollecitazione							
Ind	N.br.	Ind	M11	M12	M22	F11	F12	F22	V13	V23
2120	SLV 7	1608	30	-90	-98	2986	-10785	-39175	385	-899
367	SLU 81	870	22	21	20	-994	3698	-34552	-116	655
2124	SLV 7	1529	168	134	-373	-8847	11314	-29864	-535	-2404
2119	SLV 11	1605	-15	-74	-67	2487	-6895	-29681	217	-888
267	SLU 81	869	4	27	-124	-868	-2766	-26653	-10	131

#### Sollecitazioni con sforzo F22 massimo

Vengono mostrati i soli 5 gusci più sollecitati.

Shell	Cont.	Nodo	Sollecitazione							
Ind	N.br.	Ind	M11	M12	M22	F11	F12	F22	V13	V23
2120	SLV 9	1608	-12	82	269	-4768	8484	18374	-291	170
2119	SLV 5	1605	32	69	216	-3675	7770	16360	-274	309
937	SLV 7	1976	-9	-54	-53	2465	-6372	15830	-245	452
929	SLV 11	1979	-14	93	-22	2457	6667	15398	149	348
992	SLV 7	2462	-39	-118	137	1141	-4971	13847	-332	-258

#### 1.1.2.3 Sollecitazioni estreme gusci non verticali

**Shell:** elemento guscio a cui si riferiscono le sollecitazioni.

**Ind:** indice del guscio.

**Cont.:** contesto a cui si riferiscono le sollecitazioni.

**N.br.:** nome breve della condizione o combinazione di carico.

**Nodo:** nodo su cui si basa il guscio a cui si riferisce la sollecitazione.

**Ind:** indice del nodo.

**Sollecitazione:** valori della sollecitazione.



**Mxx:** componente Mxx della sollecitazione del guscio nel nodo indicato. [daN\*m/m]  
**Mxy:** componente Mxy della sollecitazione del guscio nel nodo indicato. [daN\*m/m]  
**Myy:** componente Myy della sollecitazione del guscio nel nodo indicato. [daN\*m/m]  
**Fxx:** componente Fxx della sollecitazione del guscio nel nodo indicato. [daN/m]  
**Fxy:** componente Fxy della sollecitazione del guscio nel nodo indicato. [daN/m]  
**Fyy:** componente Fyy della sollecitazione del guscio nel nodo indicato. [daN/m]  
**Vx:** componente Vo della sollecitazione del guscio nel nodo indicato. [daN/m]  
**Vy:** componente Vz della sollecitazione del guscio nel nodo indicato. [daN/m]

#### Sollecitazioni con momento Mxx minimo

Vengono mostrati i soli 5 gusci più sollecitati.

Shell	Cont.	Nodo	Sollecitazione							
Ind	N.br.	Ind	Mxx	Mxy	Myy	Fxx	Fxy	Fyy	Vx	Vy
2687	SLV 11	1385	-785	-30	-180	-2272	-5164	-7783	-1474	553
2124	SLV 11	1383	-768	220	-1233	-4039	-5523	-26487	2071	-2572
1975	SLV 11	3093	-615	-84	-148	11363	-1256	283	-987	200
307	SLV 9	1377	-553	170	-23	-28501	7346	-4074	824	-74
2147	SLV 7	3093	-549	-90	-131	10507	-851	118	964	184

#### Sollecitazioni con momento Mxx massimo

Vengono mostrati i soli 5 gusci più sollecitati.

Shell	Cont.	Nodo	Sollecitazione							
Ind	N.br.	Ind	Mxx	Mxy	Myy	Fxx	Fxy	Fyy	Vx	Vy
2687	SLV 5	1385	721	-1	177	720	-157	-4912	1631	-468
1975	SLV 5	3093	591	86	140	-4995	388	-1821	1027	-217
300	SLV 7	1377	545	-96	132	36361	4294	1280	233	-986
307	SLV 7	1377	541	-168	97	38359	-6829	2709	-598	-896
2147	SLV 9	3093	535	84	126	-3957	1624	-1575	-1007	-200

#### Sollecitazioni con momento Myy minimo

Vengono mostrati i soli 5 gusci più sollecitati.

Shell	Cont.	Nodo	Sollecitazione							
Ind	N.br.	Ind	Mxx	Mxy	Myy	Fxx	Fxy	Fyy	Vx	Vy
2124	SLV 11	1383	-768	220	-1233	-4039	-5523	-26487	2071	-2572
2123	SLV 11	1382	-140	51	-583	-8408	-3914	1870	358	-745
2120	SLV 11	1393	-95	-63	-410	-7299	5962	-34680	-177	-944
2119	SLV 11	1390	-88	-75	-376	9129	-4569	-27199	167	-888
2122	SLV 11	1381	-87	35	-365	-9254	-5482	728	220	26

#### Sollecitazioni con momento Myy massimo

Vengono mostrati i soli 5 gusci più sollecitati.

Shell	Cont.	Nodo	Sollecitazione							
Ind	N.br.	Ind	Mxx	Mxy	Myy	Fxx	Fxy	Fyy	Vx	Vy
2124	SLV 5	1383	472	-153	614	1165	9464	-220	-1242	791
2123	SLV 9	1568	112	31	409	-9613	7711	-9601	-260	32
2122	SLV 9	1575	66	31	337	-10197	4745	-4479	-123	-401
2121	SLV 5	1582	84	44	319	-10652	-3633	-5787	-117	-441
2120	SLV 9	1588	122	63	291	-4756	-6478	-15691	-298	-274

#### Sollecitazioni con sforzo Fxx minimo

Vengono mostrati i soli 5 gusci più sollecitati.

Shell	Cont.	Nodo	Sollecitazione							
Ind	N.br.	Ind	Mxx	Mxy	Myy	Fxx	Fxy	Fyy	Vx	Vy
279	SLV 5	1378	-511	159	-35	-29375	-7726	-3033	-829	37
307	SLV 9	1377	-553	170	-23	-28501	7346	-4074	824	-74
300	SLV 5	1377	-527	47	-42	-26132	-4269	-3253	-486	43
286	SLV 5	1378	-506	-75	-33	-25750	4624	-3260	-378	55
2697	SLV 5	1362	-279	-73	-39	-21608	-7061	-2966	-419	-2

#### Sollecitazioni con sforzo Fxx massimo

Vengono mostrati i soli 5 gusci più sollecitati.

Shell	Cont.	Nodo	Sollecitazione							
Ind	N.br.	Ind	Mxx	Mxy	Myy	Fxx	Fxy	Fyy	Vx	Vy
279	SLV 11	1378	502	-171	122	42555	8081	2558	620	-1152
286	SLV 11	1378	494	108	118	39834	-5344	2637	734	-1167
307	SLV 7	1377	541	-168	97	38359	-6829	2709	-598	-896
300	SLV 11	1377	526	-87	126	37864	5141	1757	162	-1019
2697	SLV 11	1362	256	58	40	26629	5987	5434	249	-395

#### Sollecitazioni con sforzo Fyy minimo

Vengono mostrati i soli 5 gusci più sollecitati.

Shell	Cont.	Nodo	Sollecitazione							
Ind	N.br.	Ind	Mxx	Mxy	Myy	Fxx	Fxy	Fyy	Vx	Vy
2120	SLV 7	1608	30	-90	-98	2956	-10843	-39146	384	-899
2124	SLV 7	1529	168	134	-373	-8848	11315	-29863	-535	-2404
2119	SLV 11	1605	-15	-74	-67	2504	-6854	-29698	218	-887
272	SLV 7	1393	272	-187	-235	14548	1176	-22507	442	-48
279	SLV 7	1393	370	-230	-244	33649	-6111	-21622	482	446

#### Sollecitazioni con sforzo Fyy massimo

Vengono mostrati i soli 5 gusci più sollecitati.

Shell	Cont.	Nodo	Sollecitazione							
Ind	N.br.	Ind	Mxx	Mxy	Myy	Fxx	Fxy	Fyy	Vx	Vy
2120	SLV 9	1608	-11	82	269	-4745	8516	18350	-291	171



Shell	Cont.	Nodo	Sollecitazione							
Ind	N.br.	Ind	Mxx	Mxy	Myy	Fxx	Fxy	Fyy	Vx	Vy
2119	SLV 5	1605	31	69	216	-3695	7745	16380	-274	309
272	SLV Y	1204	204	165	-203	-11797	7130	11622	260	198
2273	SLV Y	1604	-10	63	-105	3218	6065	11379	-197	427
2121	SLV Y	1379	99	49	-207	-5298	3332	11098	167	218

#### 1.1.2.4 Sollecitazioni estreme gusci verticali

**Shell:** elemento guscio a cui si riferiscono le sollecitazioni.

**Ind:** indice del guscio.

**Cont.:** contesto a cui si riferiscono le sollecitazioni.

**N.br.:** nome breve della condizione o combinazione di carico.

**Nodo:** nodo su cui si basa il guscio a cui si riferisce la sollecitazione.

**Ind:** indice del nodo.

**Sollecitazione:** valori della sollecitazione.

**Moo:** componente Moo della sollecitazione del guscio nel nodo indicato. [daN\*m/m]

**Moz:** componente Moz della sollecitazione del guscio nel nodo indicato. [daN\*m/m]

**Mzz:** componente Mzz della sollecitazione del guscio nel nodo indicato. [daN\*m/m]

**Foo:** componente Foo della sollecitazione del guscio nel nodo indicato. [daN/m]

**Foz:** componente Foz della sollecitazione del guscio nel nodo indicato. [daN/m]

**Fzz:** componente Fzz della sollecitazione del guscio nel nodo indicato. [daN/m]

**Vo:** componente Vo della sollecitazione del guscio nel nodo indicato. [daN/m]

**Vz:** componente Vz della sollecitazione del guscio nel nodo indicato. [daN/m]

#### Sollecitazioni con momento Moo minimo

Vengono mostrati i soli 5 gusci più sollecitati.

Shell	Cont.	Nodo	Sollecitazione							
Ind	N.br.	Ind	Moo	Moz	Mzz	Foo	Foz	Fzz	Vo	Vz
373	SLV 11	1383	-1799	447	-455	-4662	805	-8144	4170	1374
72	SLV 3	1383	-1289	-11	-350	-1707	1489	-5115	-2666	1272
143	SLV 1	1383	-1118	145	-336	-1337	156	-5026	2897	1190
356	SLV 11	1370	-1052	-49	-245	-10337	-2296	-10477	-2198	735
151	SLV 11	1244	-950	-58	-375	24886	9138	-13277	-3208	654

#### Sollecitazioni con momento Moo massimo

Vengono mostrati i soli 5 gusci più sollecitati.

Shell	Cont.	Nodo	Sollecitazione							
Ind	N.br.	Ind	Moo	Moz	Mzz	Foo	Foz	Fzz	Vo	Vz
143	SLV 15	1383	1504	-90	422	-1019	-1	-6503	-4150	-1605
373	SLV 5	1383	1287	-260	322	3428	6406	-2587	-3053	-921
72	SLV 13	1383	1004	71	268	-928	2481	-6560	1986	-776
356	SLV 5	1370	942	22	220	6119	623	-7011	2188	-587
263	SLV 11	1249	869	-64	176	-33382	16964	-2442	-4540	-1354

#### Sollecitazioni con momento Mzz minimo

Vengono mostrati i soli 5 gusci più sollecitati.

Shell	Cont.	Nodo	Sollecitazione							
Ind	N.br.	Ind	Moo	Moz	Mzz	Foo	Foz	Fzz	Vo	Vz
366	SLV 11	1382	-236	365	-770	-13072	-854	-1964	649	1571
373	SLV 11	1382	246	580	-753	17355	1353	710	4170	2003
781	SLV 3	1383	-532	-48	-738	-1342	214	-1712	-1251	-1499
771	SLV 1	1383	-478	45	-730	-631	-127	125	1420	-1548
299	SLV 7	97	-161	-5	-645	-2380	-451	-9063	-39	-441

#### Sollecitazioni con momento Mzz massimo

Vengono mostrati i soli 5 gusci più sollecitati.

Shell	Cont.	Nodo	Sollecitazione							
Ind	N.br.	Ind	Moo	Moz	Mzz	Foo	Foz	Fzz	Vo	Vz
771	SLV 15	1383	597	-61	771	497	-454	2151	-1779	1708
781	SLV 13	1383	452	39	729	245	2148	3751	1091	1406
299	SLV 9	97	159	5	638	-1240	937	-6075	38	497
306	SLV 9	97	159	5	638	-1865	1024	-6373	-41	494
292	SLV 5	98	159	-4	636	-1631	383	-6307	64	484

#### Sollecitazioni con sforzo Foo minimo

Vengono mostrati i soli 5 gusci più sollecitati.

Shell	Cont.	Nodo	Sollecitazione							
Ind	N.br.	Ind	Moo	Moz	Mzz	Foo	Foz	Fzz	Vo	Vz
2452	SLV 7	1305	391	-94	-76	-45318	23254	-12937	-1224	165
262	SLV 11	1215	-245	-88	-222	-45033	-1248	-11525	1361	-518
1060	SLV 7	1281	141	47	144	-42791	3333	-8336	974	538
261	SLV 7	1216	114	127	117	-39557	1380	-2774	-87	468
908	SLV 11	1284	171	-44	132	-38270	-4235	-9122	-995	385

#### Sollecitazioni con sforzo Foo massimo

Vengono mostrati i soli 5 gusci più sollecitati.

Shell	Cont.	Nodo	Sollecitazione							
Ind	N.br.	Ind	Moo	Moz	Mzz	Foo	Foz	Fzz	Vo	Vz
2578	SLV 7	1226	-829	-123	-306	35993	5162	-4588	-2926	637
1974	SLV 7	1263	-2	-35	4	33180	-1074	-8725	-302	-57
264	SLV 11	1212	202	-132	-206	32577	-3596	1610	966	714
261	SLV 9	1216	-186	-110	-202	31333	-953	-9153	-549	-321
260	SLV 5	1217	102	-43	84	31009	-3906	2723	1062	-1125



### Sollecitazioni con sforzo Fzz minimo

Vengono mostrati i soli 5 gusci più sollecitati.

Shell Ind	Cont. N.br.	Nodo Ind	Sollecitazione							
			Moo	Moz	Mzz	Foo	Foz	Fzz	Vo	Vz
367	SLU 81	870	22	21	20	-994	3698	-34552	-116	655
267	SLU 81	869	4	27	-124	-868	-2766	-26653	-10	131
1210	SLV 7	1264	-258	-64	-141	-17410	-9095	-26211	-959	-650
368	SLU 81	870	18	-3	4	30	1720	-25137	-23	-16
271	SLU 82	347	-4	16	-10	-1053	2653	-22718	-1	205

### Sollecitazioni con sforzo Fzz massimo

Vengono mostrati i soli 5 gusci più sollecitati.

Shell Ind	Cont. N.br.	Nodo Ind	Sollecitazione							
			Moo	Moz	Mzz	Foo	Foz	Fzz	Vo	Vz
937	SLV 7	1976	-9	-54	-53	2465	-6372	15830	-245	452
929	SLV 11	1979	-14	93	-22	2457	6667	15398	149	348
992	SLV 7	2462	-39	-118	137	1141	-4971	13847	-332	-258
1088	SLV Y	1975	-11	52	-60	2045	4820	13800	232	395
265	SLV Y	1379	290	165	-257	-7510	4696	12379	378	218

## 1.1.3 Sollecitazioni gusci armati

### 1.1.3.1 Convenzioni di segno gusci

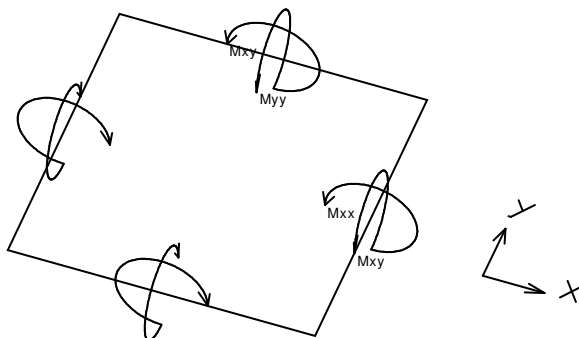
Sono individuate distinte convenzioni di segno in relazione al tipo di elemento strutturale a cui il guscio si riferisce:

- convenzione per gusci non verticali, originati ad esempio da piastre e platee;
- convenzione per gusci verticali, originati ad esempio da pareti e muri.

#### Convenzione di segno per gusci non verticali

Il sistema di riferimento nel quale sono espressi i parametri di sollecitazione è così definito: origine appartenente al piano dell'elemento, asse x e y contenuti nel piano dell'elemento e terzo asse (z) ortogonale al piano dell'elemento a formare una terna destrorsa. In particolare l'asse x ha proiezione in pianta parallela ed equiversa all'asse globale X. Nel caso di piastre orizzontali (caso più comune) gli assi x, y e z locali all'elemento sono paralleli ed equiversi agli assi X, Y e Z globali. Si sottolinea che non ha alcun interesse collocare esattamente nel piano dell'elemento la posizione dell'origine in quanto i parametri di sollecitazione sono invarianti rispetto a tale posizione.

In figura è mostrato un elemento infinitesimo di shell orizzontale con indicato il sistema di riferimento e i parametri di sollecitazione  $M_{xx}$ ,  $M_{yy}$ ,  $M_{xy}$ .

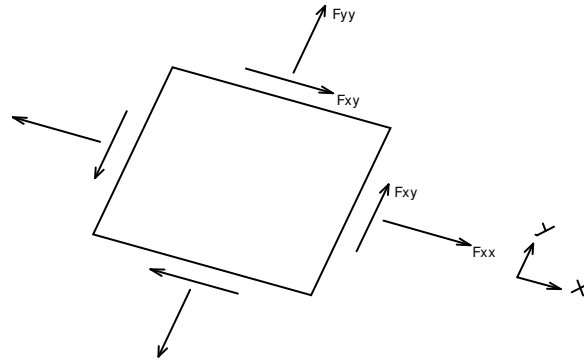


Si definiscono:

- $M_{xx}$ : momento flettente  $[Forza \cdot Lunghezza / Lunghezza]$  agente sul bordo di normale x (verso positivo indicato dalla freccia in figura che tende le fibre inferiori);
- $M_{yy}$ : momento flettente  $[Forza \cdot Lunghezza / Lunghezza]$  agente sul bordo di normale y (verso positivo indicato dalla freccia in figura che tende le fibre inferiori);
- $M_{xy}$ : momento torcente  $[Forza \cdot Lunghezza / Lunghezza]$  agente sui bordi (verso positivo indicato dalla freccia in figura).

Per quanto riguarda le sollecitazioni estensionali si faccia riferimento alla figura seguente dove per lo stesso elemento infinitesimo di shell orizzontale con indicato il sistema di riferimento e i parametri di sollecitazione  $F_{xx}$ ,  $F_{yy}$ ,  $F_{xy}$ .





Si definiscono:

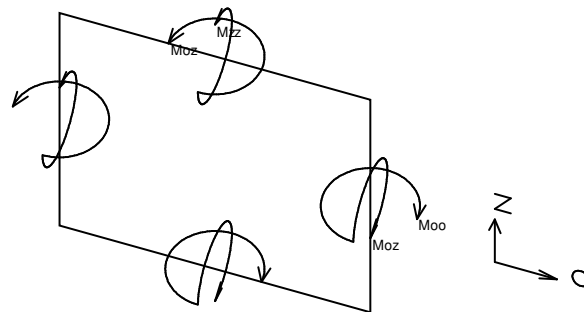
- $F_{xx}$ : sforzo estensionale [Forza/Lunghezza] agente sul bordo di normale  $x$  (verso positivo indicato dalla freccia in figura che mette in trazione l'elemento);
- $F_{yy}$ : sforzo estensionale [Forza/Lunghezza] agente sul bordo di normale all'asse  $y$  (verso positivo indicato dalla freccia in figura che mette in trazione l'elemento);
- $F_{xy}$ : sforzo di taglio [Forza/Lunghezza] agente sui bordi (verso positivo indicato dalla freccia in figura).

Vengono riportati inoltre i tagli fuori dal piano dell'elemento guscio:

- $V_x$ : taglio fuori piano [Forza/Lunghezza] applicato al bordo di normale parallela all'asse  $x$ ;
- $V_y$ : taglio fuori piano [Forza/Lunghezza] applicato al bordo di normale parallela all'asse  $y$ .

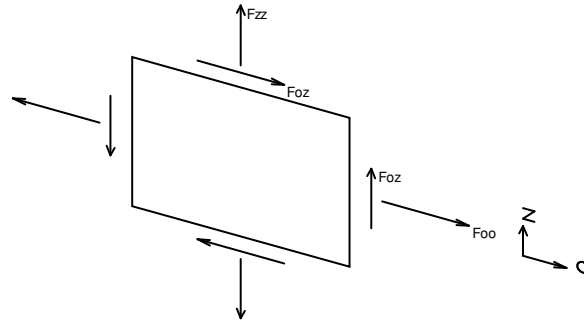
#### Convenzione di segno per gusci verticali

Il sistema di riferimento nel quale sono espressi i parametri di sollecitazione è così definito: origine appartenente al piano dell'elemento, asse  $O$  (ascisse) e  $z$  (ordinate) contenuti nel piano dell'elemento e terzo asse ortogonale al piano dell'elemento a formare una terna destrorsa. In particolare l'asse  $O$  è orizzontale e l'asse  $z$  parallelo ed equiverso con l'asse  $Z$  globale. Si sottolinea che non ha alcun interesse collocare esattamente nel piano dell'elemento la posizione dell'origine in quanto i parametri di sollecitazione sono invarianti rispetto a tale posizione. In figura è mostrato un elemento infinitesimo di shell orizzontale con indicato il sistema di riferimento e i parametri di sollecitazione  $M_{oo}$ ,  $M_{zz}$ ,  $M_{oz}$ .



- $M_{oo}$ : momento flettente distribuito [Forza\*Lunghezza/Lunghezza] applicato al bordo di normale parallela all'asse  $O$  (verso positivo indicato dalla freccia in figura che tende le fibre inferiori);
- $M_{zz}$ : momento flettente distribuito [Forza\*Lunghezza/Lunghezza] applicato al bordo di normale parallela all'asse  $z$  (verso positivo indicato dalla freccia in figura che tende le fibre inferiori);
- $M_{oz}$ : momento 'torcente' distribuito [Forza\*Lunghezza/Lunghezza] applicato sui bordi (verso positivo indicato dalla freccia in figura).

Per quanto riguarda le sollecitazioni estensionali si faccia riferimento alla figura seguente dove per lo stesso elemento infinitesimo di shell con indicato il sistema di riferimento i parametri di sollecitazione  $F_{oo}$ ,  $F_{zz}$ ,  $F_{oz}$  sono rispettivamente:



- $F_{zz}$ : sforzo tensionale distribuito [Forza/Lunghezza] applicato al bordo di normale parallela all'asse  $z$  (verso positivo indicato dalla freccia in figura che mette in trazione l'elemento);
- $F_{oo}$ : sforzo tensionale distribuito [Forza/Lunghezza] applicato al bordo di normale parallela all'asse  $O$  (verso positivo indicato dalla freccia in figura che mette in trazione l'elemento);
- $F_{oz}$ : sforzo tagliante distribuito [Forza/Lunghezza] applicato sui bordi (verso positivo indicato dalla freccia in figura).

Vengono riportati inoltre i tagli fuori dal piano dell'elemento guscio:

- $V_o$ : taglio fuori piano applicato al bordo di normale parallela all'asse  $O$ ;
- $V_z$ : taglio fuori piano applicato al bordo di normale parallela all'asse  $z$ .

### 1.1.4 Sollecitazioni gusci muratura

#### 1.1.4.1 Convenzioni di segno gusci muratura

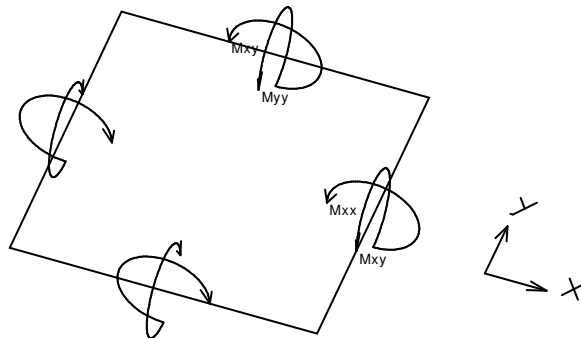
Sono individuate distinte convenzioni di segno in relazione al tipo di elemento strutturale a cui il guscio muratura si riferisce:

- convenzione per gusci non verticali, originati ad esempio da piastre e platee;
- convenzione per gusci verticali, originati ad esempio da pareti e muri.

#### Convenzione di segno per gusci non verticali

Il sistema di riferimento nel quale sono espressi i parametri di sollecitazione è così definito: origine appartenente al piano dell'elemento, asse  $x$  e  $y$  contenuti nel piano dell'elemento e terzo asse ( $z$ ) ortogonale al piano dell'elemento a formare una terna destrorsa. In particolare l'asse  $x$  ha proiezione in pianta parallela ed equivale all'asse globale  $X$ . Nel caso di piastre orizzontali (caso più comune) gli assi  $x$ ,  $y$  e  $z$  locali all'elemento sono paralleli ed equivale agli assi  $X$ ,  $Y$  e  $Z$  globali. Si sottolinea che non ha alcun interesse collocare esattamente nel piano dell'elemento la posizione dell'origine in quanto i parametri di sollecitazione sono invarianti rispetto a tale posizione.

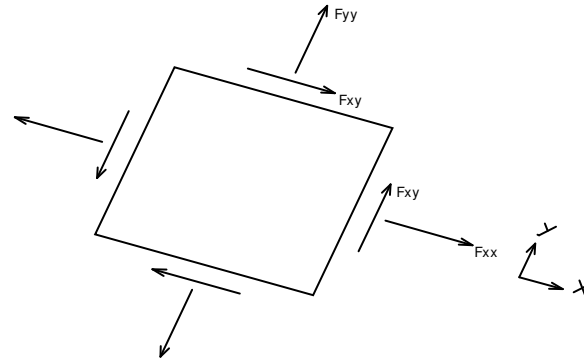
In figura è mostrato un elemento infinitesimo di shell orizzontale con indicato il sistema di riferimento e i parametri di sollecitazione  $M_{xx}$ ,  $M_{yy}$ ,  $M_{xy}$ .



Si definiscono:

- $M_{xx}$ : momento flettente [Forza\*Lunghezza/Lunghezza] agente sul bordo di normale  $x$  (verso positivo indicato dalla freccia in figura che tende le fibre inferiori);
- $M_{yy}$ : momento flettente [Forza\*Lunghezza/Lunghezza] agente sul bordo di normale  $y$  (verso positivo indicato dalla freccia in figura che tende le fibre inferiori);
- $M_{xy}$ : momento torcente [Forza\*Lunghezza/Lunghezza] agente sui bordi (verso positivo indicato dalla freccia in figura).

Per quanto riguarda le sollecitazioni estensionali si faccia riferimento alla figura seguente dove per lo stesso elemento infinitesimo di shell orizzontale con indicato il sistema di riferimento e i parametri di sollecitazione  $F_{xx}$ ,  $F_{yy}$ ,  $F_{xy}$ .

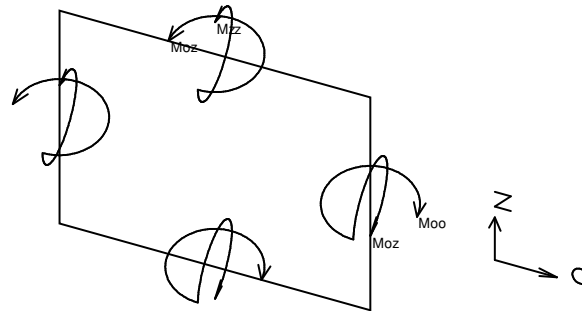


Si definiscono:

- $F_{xx}$ : sforzo tensionale [Forza/Lunghezza] agente sul bordo di normale  $x$  (verso positivo indicato dalla freccia in figura che mette in trazione l'elemento);
- $F_{yy}$ : sforzo tensionale [Forza/Lunghezza] agente sul bordo di normale all'asse  $y$  (verso positivo indicato dalla freccia in figura che mette in trazione l'elemento);
- $F_{xy}$ : sforzo tagliante [Forza/Lunghezza] agente sui bordi (verso positivo indicato dalla freccia in figura).

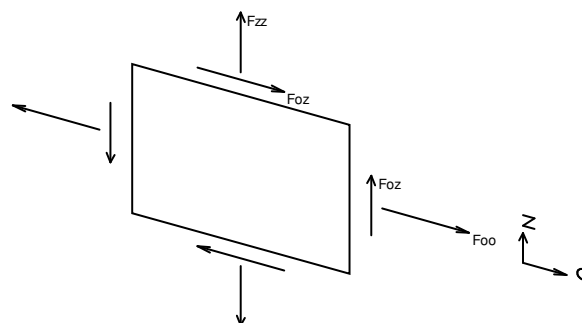
#### Convenzione di segno per gusci verticali

Il sistema di riferimento nel quale sono espressi i parametri di sollecitazione è così definito: origine appartenente al piano dell'elemento, asse  $O$  (ascisse) e  $z$  (ordinate) contenuti nel piano dell'elemento e terzo asse ortogonale al piano dell'elemento a formare una terna destrorsa. In particolare l'asse  $O$  è orizzontale e l'asse  $z$  parallelo ed equiverso con l'asse  $Z$  globale. Si sottolinea che non ha alcun interesse collocare esattamente nel piano dell'elemento la posizione dell'origine in quanto i parametri di sollecitazione sono invarianti rispetto a tale posizione. In figura è mostrato un elemento infinitesimo di shell orizzontale con indicato il sistema di riferimento e i parametri di sollecitazione  $M_{oo}$ ,  $M_{zz}$ ,  $M_{oz}$ .



- $M_{oo}$ : momento flettente distribuito [Forza\*Lunghezza/Lunghezza] applicato al bordo di normale parallela all'asse  $O$  (verso positivo indicato dalla freccia in figura che tende le fibre inferiori);
- $M_{zz}$ : momento flettente distribuito [Forza\*Lunghezza/Lunghezza] applicato al bordo di normale parallela all'asse  $z$  (verso positivo indicato dalla freccia in figura che tende le fibre inferiori);
- $M_{oz}$ : momento 'torcente' distribuito [Forza\*Lunghezza/Lunghezza] applicato sui bordi (verso positivo indicato dalla freccia in figura).

Per quanto riguarda le sollecitazioni estensionali si faccia riferimento alla figura seguente dove per lo stesso elemento infinitesimo di shell con indicato il sistema di riferimento i parametri di sollecitazione  $F_{oo}$ ,  $F_{zz}$ ,  $F_{oz}$  sono rispettivamente:



- $F_{zz}$ : sforzo tensionale distribuito [Forza/Lunghezza] applicato al bordo di normale parallela all'asse  $z$  (verso positivo indicato dalla freccia in figura che mette in trazione l'elemento);



-  $F_{oo}$ : sforzo tensionale distribuito [Forza/Lunghezza] applicato al bordo di normale parallela all'asse O (verso positivo indicato dalla freccia in figura che mette in trazione l'elemento);

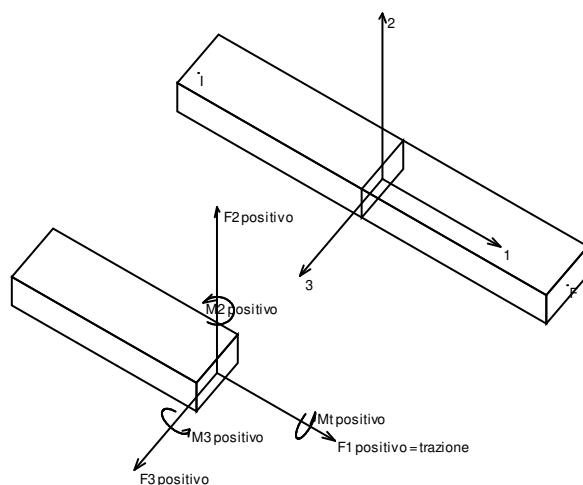
-  $F_{oz}$ : sforzo tagliante distribuito [Forza/Lunghezza] applicato sui bordi (verso positivo indicato dalla freccia in figura).

## 1.1.5 Sollecitazioni aste in muratura

### 1.1.5.1 Convenzioni di segno aste

Le abbreviazioni relative alle sollecitazioni sugli elementi aste sono da intendersi:

- $F_1$  (N): sforzo normale nell'asta;
- $F_2$ : sforzo di taglio agente nella direzione dell'asse locale 2;
- $F_3$ : sforzo di taglio agente nella direzione dell'asse locale 3;
- $M_1$  (Mt): momento attorno all'asse locale 1; equivale al momento torcente;
- $M_2$ : momento attorno all'asse locale 2;
- $M_3$ : momento attorno all'asse locale 3.



La convenzione sui segni per i parametri di sollecitazione delle aste è la seguente:

presa un'asta con nodo iniziale  $i$  e nodo finale  $f$ , asse 1 che va da  $i$  a  $f$ , assi 2 e 3 presi secondo quanto indicato nei paragrafi successivi relativi al sistema locale delle aste sezionando l'asta in un punto e considerando la sezione sinistra del punto in cui si è effettuato il taglio (sezione da cui esce il versore asse 1) i parametri di sollecitazione sono positivi se hanno verso e direzione concordi con il sistema di riferimento locale dell'asta 1, 2, 3 (per i momenti si adotta la regola della mano destra).

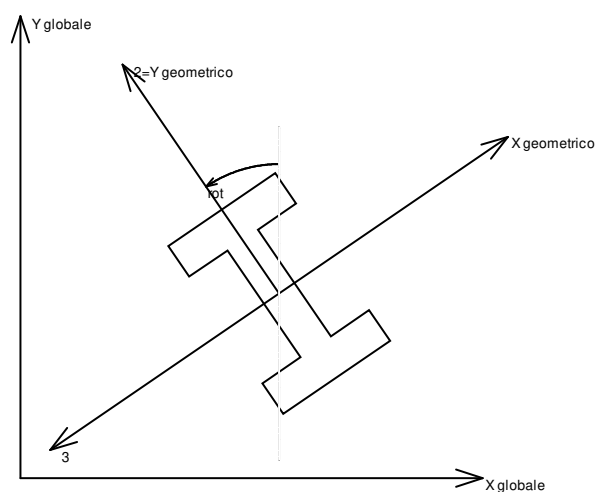
Il sistema è definito diversamente per tre categorie di aste, a seconda che siano originate da:

- aste verticali ad esempio pilastri e colonne;
- aste non verticali non di c.a., ad esempio travi di acciaio o legno;
- aste non verticali in c.a.: travi in c.a. di piano, falda o a quota generica.

Nel seguito si indica con 1, 2 e 3 il sistema locale dell'asta che non sempre coincide con gli assi principali della sezione. Si ricorda che per assi principali si intendono gli assi rispetto a cui si ha il raggio di inerzia minimo e massimo. Gli assi 1, 2 e 3 rispettano la regola della mano destra.

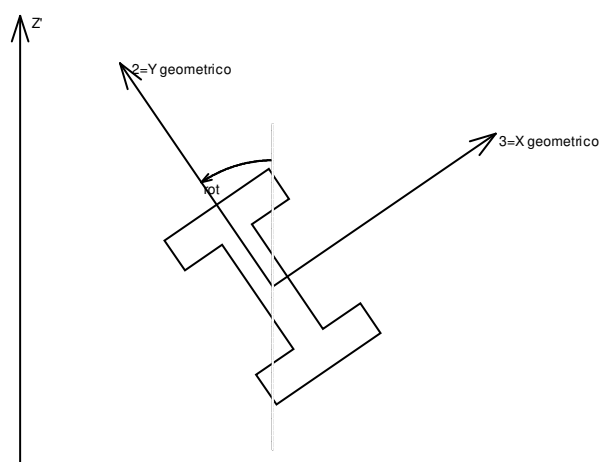


## Sistema locale aste verticali



Nella figura si considera l'asse 1 uscente dal foglio (l'osservatore guarda in direzione opposta a quella dell'asse 1).

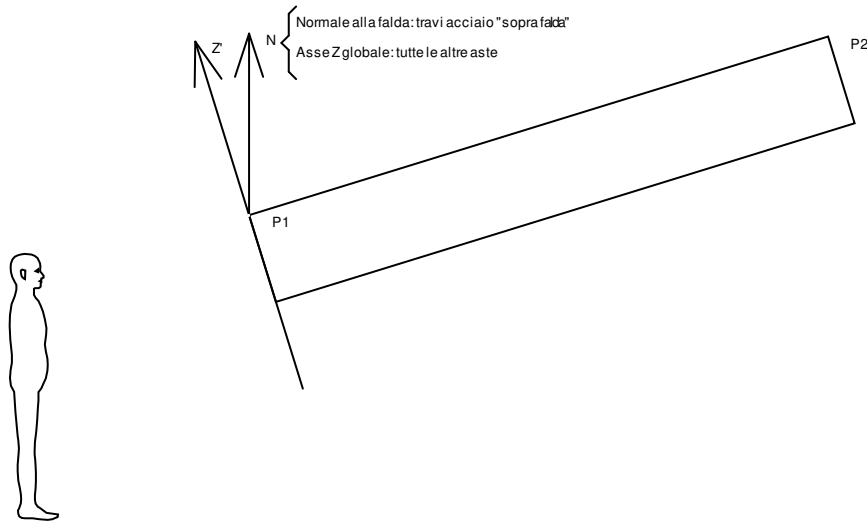
## Sistema locale aste non verticali



Nella figura si considera l'asse 1 entrante nel foglio (l'osservatore guarda in direzione coincidente a quella dell'asse 1).

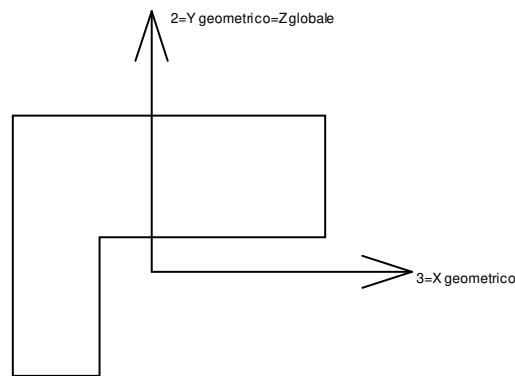
L'asse Z' è illustrato nella figura seguente dove:

- P1 è il punto di inserimento iniziale dell'asta;
- P2 è il punto di inserimento finale dell'asta;
- N è la normale al piano o falda di inserimento;



Z' è quindi l'intersezione tra il piano passante per P1, P2 contenente N e il piano della sezione iniziale dell'asta.

**Sistema locale aste derivanti da travi in c.a.**



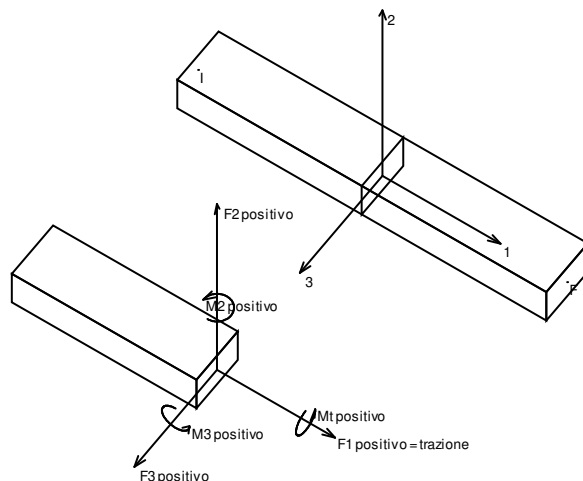
Nella figura si considera l'asse 1 entrante nel foglio (l'osservatore guarda in direzione coincidente a quella dell'asse 1). L'asse 2 è sempre verticale e quindi coincidente con l'asse Z globale nonché con l'asse y geometrico. L'asse 3 coincide con l'asse x geometrico. Si sottolinea il fatto che gli assi 2 e 3 non corrispondono agli assi principali della sezione.

### 1.1.6 Sollecitazioni aste in muratura FRCM

#### 1.1.6.1 Convenzioni di segno aste

Le abbreviazioni relative alle sollecitazioni sugli elementi aste sono da intendersi:

- F1 (N): sforzo normale nell'asta;
- F2: sforzo di taglio agente nella direzione dell'asse locale 2;
- F3: sforzo di taglio agente nella direzione dell'asse locale 3;
- M1 (Mt): momento attorno all'asse locale 1; equivale al momento torcente;
- M2: momento attorno all'asse locale 2;
- M3: momento attorno all'asse locale 3.



La convenzione sui segni per i parametri di sollecitazione delle aste è la seguente:

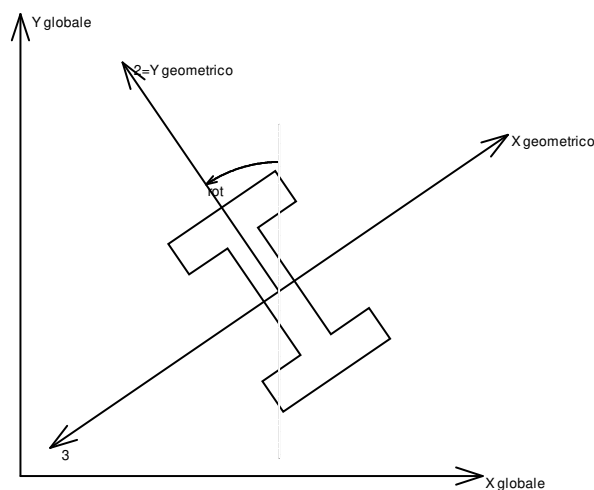
presa un'asta con nodo iniziale  $i$  e nodo finale  $f$ , asse 1 che va da  $i$  a  $f$ , assi 2 e 3 presi secondo quanto indicato nei paragrafi successivi relativi al sistema locale delle aste sezionando l'asta in un punto e considerando la sezione sinistra del punto in cui si è effettuato il taglio (sezione da cui esce il versore asse 1) i parametri di sollecitazione sono positivi se hanno verso e direzione concordi con il sistema di riferimento locale dell'asta 1, 2, 3 (per i momenti si adotta la regola della mano destra).

Il sistema è definito diversamente per tre categorie di aste, a seconda che siano originate da:

- aste verticali ad esempio pilastri e colonne;
- aste non verticali non di c.a., ad esempio travi di acciaio o legno;
- aste non verticali in c.a.: travi in c.a. di piano, falda o a quota generica.

Nel seguito si indica con 1, 2 e 3 il sistema locale dell'asta che non sempre coincide con gli assi principali della sezione. Si ricorda che per assi principali si intendono gli assi rispetto a cui si ha il raggio di inerzia minimo e massimo. Gli assi 1, 2 e 3 rispettano la regola della mano destra.

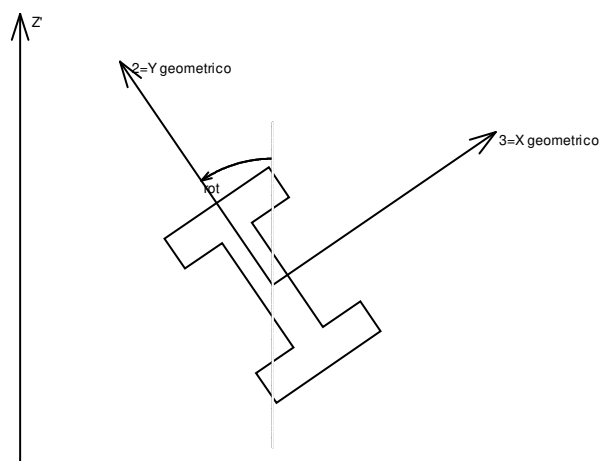
#### Sistema locale aste verticali



Nella figura si considera l'asse 1 uscente dal foglio (l'osservatore guarda in direzione opposta a quella dell'asse 1).



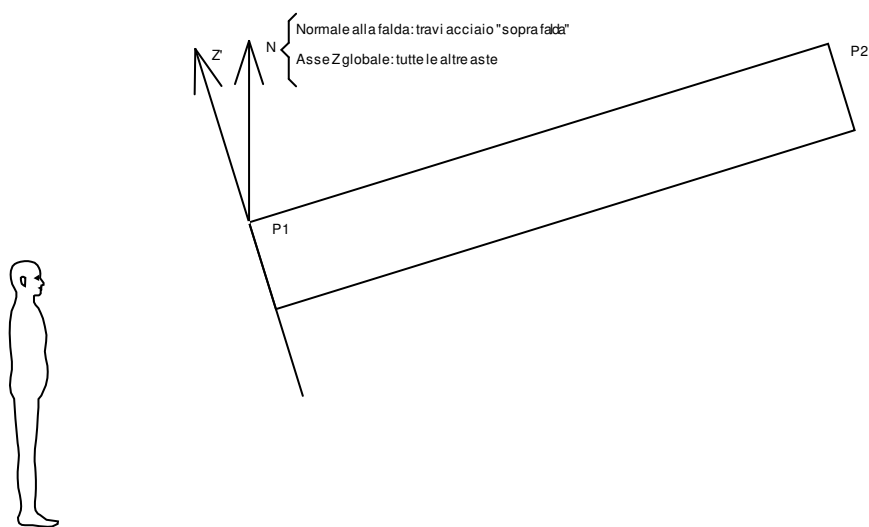
## Sistema locale aste non verticali



Nella figura si considera l'asse 1 entrante nel foglio (l'osservatore guarda in direzione coincidente a quella dell'asse 1).

L'asse  $Z'$  è illustrato nella figura seguente dove:

- $P1$  è il punto di inserimento iniziale dell'asta;
- $P2$  è il punto di inserimento finale dell'asta;
- $N$  è la normale al piano o falda di inserimento;

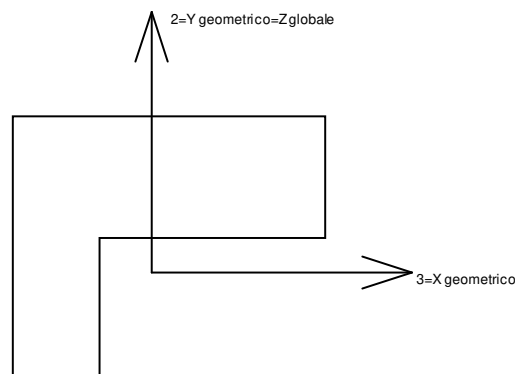


$Z'$  è quindi l'intersezione tra il piano passante per  $P1, P2$  contenente  $N$  e il piano della sezione iniziale dell'asta.





## Sistema locale aste derivanti da travi in c.a.



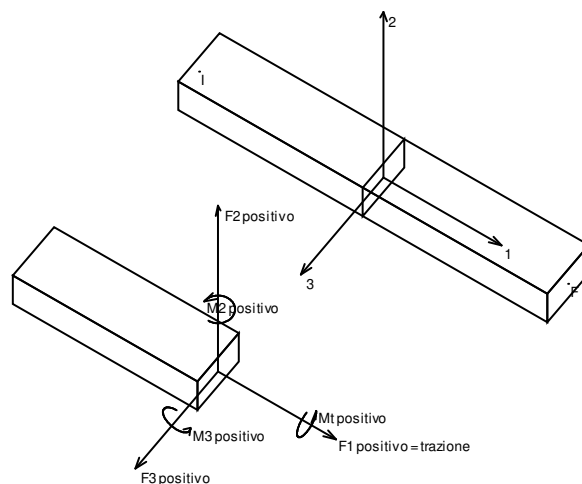
Nella figura si considera l'asse 1 entrante nel foglio (l'osservatore guarda in direzione coincidente a quella dell'asse 1). L'asse 2 è sempre verticale e quindi coincidente con l'asse Z globale nonché con l'asse y geometrico. L'asse 3 coincide con l'asse x geometrico. Si sottolinea il fatto che gli assi 2 e 3 non corrispondono agli assi principali della sezione.

### 1.1.7 Sollecitazioni aste in muratura armata

#### 1.1.7.1 Convenzioni di segno aste

Le abbreviazioni relative alle sollecitazioni sugli elementi aste sono da intendersi:

- F1 (N): sforzo normale nell'asta;
- F2: sforzo di taglio agente nella direzione dell'asse locale 2;
- F3: sforzo di taglio agente nella direzione dell'asse locale 3;
- M1 (Mt): momento attorno all'asse locale 1; equivale al momento torcente;
- M2: momento attorno all'asse locale 2;
- M3: momento attorno all'asse locale 3.



La convenzione sui segni per i parametri di sollecitazione delle aste è la seguente:

presa un'asta con nodo iniziale i e nodo finale f, asse 1 che va da i a f, assi 2 e 3 presi secondo quanto indicato nei paragrafi successivi relativi al sistema locale delle aste sezionando l'asta in un punto e considerando la sezione sinistra del punto in cui si è effettuato il taglio (sezione da cui esce il versore asse 1) i parametri di sollecitazione sono positivi se hanno verso e direzione concordi con il sistema di riferimento locale dell'asta 1, 2, 3 (per i momenti si adotta la regola della mano destra).

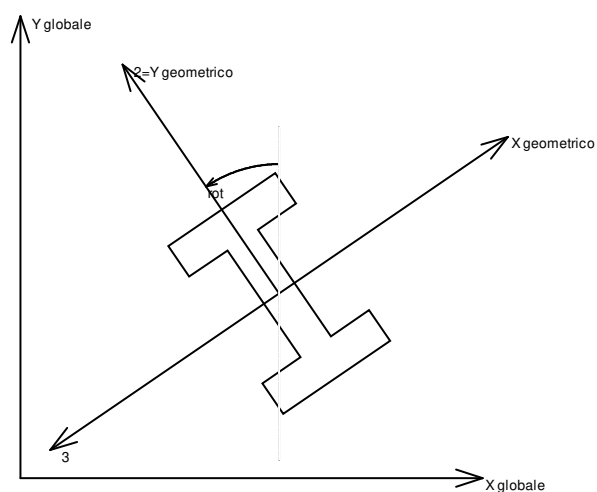
Il sistema è definito diversamente per tre categorie di aste, a seconda che siano originate da:

- aste verticali ad esempio pilastri e colonne;
- aste non verticali non di c.a., ad esempio travi di acciaio o legno;
- aste non verticali in c.a.: travi in c.a. di piano, falda o a quota generica.

Nel seguito si indica con 1, 2 e 3 il sistema locale dell'asta che non sempre coincide con gli assi principali della sezione. Si ricorda che per assi principali si intendono gli assi rispetto a cui si ha il raggio di inerzia minimo e massimo. Gli assi 1, 2 e 3 rispettano la regola della mano destra.

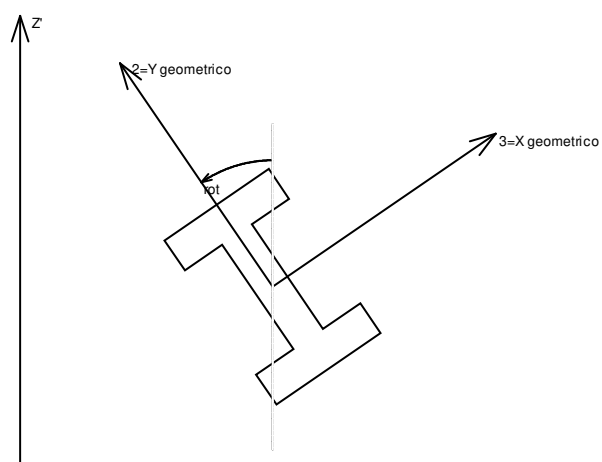


## Sistema locale aste verticali



Nella figura si considera l'asse 1 uscente dal foglio (l'osservatore guarda in direzione opposta a quella dell'asse 1).

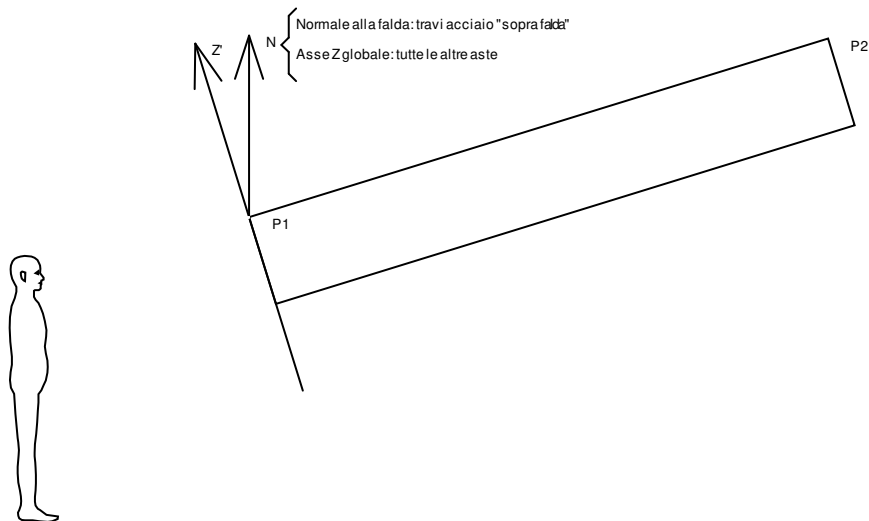
## Sistema locale aste non verticali



Nella figura si considera l'asse 1 entrante nel foglio (l'osservatore guarda in direzione coincidente a quella dell'asse 1).

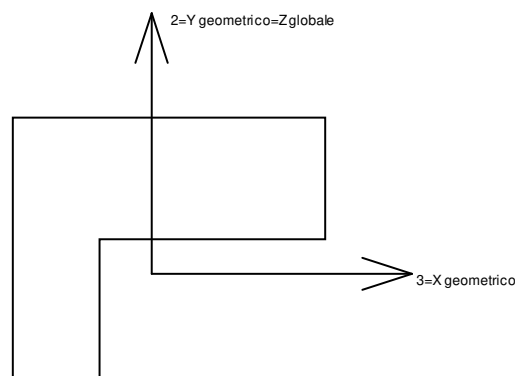
L'asse Z' è illustrato nella figura seguente dove:

- P1 è il punto di inserimento iniziale dell'asta;
- P2 è il punto di inserimento finale dell'asta;
- N è la normale al piano o falda di inserimento;



Z' è quindi l'intersezione tra il piano passante per P1, P2 contenente N e il piano della sezione iniziale dell'asta.

Sistema locale aste derivanti da travi in c.a.



Nella figura si considera l'asse 1 entrante nel foglio (l'osservatore guarda in direzione coincidente a quella dell'asse 1). L'asse 2 è sempre verticale e quindi coincidente con l'asse Z globale nonché con l'asse y geometrico. L'asse 3 coincide con l'asse x geometrico. Si sottolinea il fatto che gli assi 2 e 3 non corrispondono agli assi principali della sezione.

## 1.2 Reazioni nodali

### 1.2.1 Reazioni nodali estreme

**Nodo:** Nodo sollecitato dalla reazione vincolare.

**Ind.:** indice del nodo.

**Cont.:** Contesto a cui si riferisce la reazione vincolare.

**N.br.:** nome breve della condizione o combinazione di carico.

**Reazione a traslazione:** reazione vincolare traslazionale del nodo.

**x:** componente X della reazione vincolare del nodo. [daN]

**y:** componente Y della reazione vincolare del nodo. [daN]

**z:** componente Z della reazione vincolare del nodo. [daN]

**Reazione a rotazione:** reazione vincolare rotazionale del nodo.

**x:** componente X della reazione a rotazione del nodo. [daN\*m]

**y:** componente Y della reazione a rotazione del nodo. [daN\*m]

**z:** componente Z della reazione a rotazione del nodo. [daN\*m]

#### Reazioni Fx minime

Vengono mostrati i soli 5 nodi più sollecitati.

Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
102	SLU 82	-1200	63	4643	-13.02	-31.9	-2.35



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
96	SLV 13	-1108	76	3359	-78.92	-50.52	0.34
94	SLV 13	-1061	63	3426	-65.4	-48.52	0.28
95	SLV 13	-1054	71	3377	-73.22	-42.48	0.33
97	SLV 13	-1037	80	3383	-82.45	-44.37	0.31

#### Reazioni Fx massime

Vengono mostrati i soli 5 nodi più sollecitati.

Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
71	SLV 1	1029	-12	2568	-2.72	52.7	0.01
79	SLV 1	914	54	2468	-53.6	40.49	-0.66
81	SLV 1	878	55	2773	-52.06	39.23	-0.73
77	SLV 1	876	49	2179	-48.91	39.92	-0.33
3	SLV 5	847	-7	3309	-15.48	40.37	-0.04

#### Reazioni Fy minime

Vengono mostrati i soli 5 nodi più sollecitati.

Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
134	SLV 7	46	-758	2779	34.37	25.38	0.04
114	SLV 7	18	-745	1372	29.74	15.76	0
111	SLV 7	18	-740	1432	29.88	13.52	0
117	SLV 7	19	-730	1354	29.67	-4.25	0
131	SLV 7	69	-730	2414	30.91	44.44	-0.05

#### Reazioni Fy massime

Vengono mostrati i soli 5 nodi più sollecitati.

Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
41	SLV 9	32	874	3847	-36.59	13.76	-0.04
44	SLV 9	44	871	3206	-39.81	22.62	0.08
38	SLV 9	-754	806	4996	-27.34	-20.73	-0.11
60	SLV 5	17	740	1890	-31.36	16.21	0
47	SLV 9	34	735	2945	-28.23	23.98	0.06

#### Reazioni Fz minime

Vengono mostrati i soli 5 nodi più sollecitati.

Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
38	SLV Y	263	-333	-1487	12.82	6.11	0.14
2	SLV Y	-312	-277	-1474	11.04	-8.26	0.16
104	SLV Y	139	307	-1309	19.29	14.84	0.19
20	SLV Y	326	-208	-1202	9.47	11.89	-0.01
70	SLV X	-241	-38	-1035	1.35	-9.46	0.24

#### Reazioni Fz massime

Vengono mostrati i soli 5 nodi più sollecitati.

Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
101	SLU 81	-767	38	7469	-13.17	-43.08	0.06
88	SLU 82	21	-59	6898	1.26	-9.55	0
104	SLU 81	-644	195	6642	-16.82	-34.1	-0.08
100	SLU 81	-482	19	6627	-2	-25.67	-0.01
99	SLU 81	-313	16	6103	3.61	-15.46	0.03

### 1.2.2 Reazioni nodali in combinazioni di carico

**Nodo:** Nodo sollecitato dalla reazione vincolare.

**Ind.:** indice del nodo.

**Cont.:** Contesto a cui si riferisce la reazione vincolare.

**N.br.:** nome breve della condizione o combinazione di carico.

**Reazione a traslazione:** reazione vincolare traslazionale del nodo.

**x:** componente X della reazione vincolare del nodo. [daN]

**y:** componente Y della reazione vincolare del nodo. [daN]

**z:** componente Z della reazione vincolare del nodo. [daN]

**Reazione a rotazione:** reazione vincolare rotazionale del nodo.

**x:** componente X della reazione a rotazione del nodo. [daN\*m]

**y:** componente Y della reazione a rotazione del nodo. [daN\*m]

**z:** componente Z della reazione a rotazione del nodo. [daN\*m]

Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
2	SLU 1	336	308	2335	-10.82	8.44	-0.03
2	SLU 2	242	318	1967	-12	5.9	0
2	SLU 3	336	308	2335	-10.82	8.44	-0.03
2	SLU 4	279	314	2114	-11.53	6.92	-0.01
2	SLU 5	242	318	1967	-12	5.9	0
2	SLU 6	336	308	2335	-10.82	8.44	-0.03
2	SLU 7	279	314	2114	-11.53	6.92	-0.01
2	SLU 8	336	308	2335	-10.82	8.44	-0.03
2	SLU 9	279	314	2114	-11.53	6.92	-0.01
2	SLU 10	315	361	2360	-13.72	7.98	-0.02
2	SLU 11	409	351	2728	-12.55	10.52	-0.04



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
2	SLU 12	352	357	2507	-13.25	8.99	-0.03
2	SLU 13	315	361	2360	-13.72	7.98	-0.02
2	SLU 14	409	351	2728	-12.55	10.52	-0.04
2	SLU 15	352	357	2507	-13.25	8.99	-0.03
2	SLU 16	409	351	2728	-12.55	10.52	-0.04
2	SLU 17	352	357	2507	-13.25	8.99	-0.03
2	SLU 18	440	370	2897	-13.29	11.41	-0.05
2	SLU 19	384	376	2676	-13.99	9.89	-0.03
2	SLU 20	440	370	2897	-13.29	11.41	-0.05
2	SLU 21	384	376	2676	-13.99	9.89	-0.03
2	SLU 22	368	330	2518	-11.69	9.32	-0.03
2	SLU 23	274	340	2150	-12.87	6.78	-0.01
2	SLU 24	368	330	2518	-11.69	9.32	-0.03
2	SLU 25	311	336	2298	-12.4	7.8	-0.02
2	SLU 26	274	340	2150	-12.87	6.78	-0.01
2	SLU 27	368	330	2518	-11.69	9.32	-0.03
2	SLU 28	311	336	2298	-12.4	7.8	-0.02
2	SLU 29	368	330	2518	-11.69	9.32	-0.03
2	SLU 30	311	336	2298	-12.4	7.8	-0.02
2	SLU 31	347	383	2543	-14.59	8.86	-0.02
2	SLU 32	441	373	2911	-13.42	11.4	-0.05
2	SLU 33	384	379	2691	-14.12	9.87	-0.03
2	SLU 34	347	383	2543	-14.59	8.86	-0.02
2	SLU 35	441	373	2911	-13.42	11.4	-0.05
2	SLU 36	384	379	2691	-14.12	9.87	-0.03
2	SLU 37	441	373	2911	-13.42	11.4	-0.05
2	SLU 38	384	379	2691	-14.12	9.87	-0.03
2	SLU 39	472	392	3080	-14.16	12.29	-0.06
2	SLU 40	416	397	2859	-14.86	10.76	-0.04
2	SLU 41	472	392	3080	-14.16	12.29	-0.06
2	SLU 42	416	397	2859	-14.86	10.76	-0.04
2	SLU 43	425	394	2973	-13.77	10.67	-0.03
2	SLU 44	331	403	2605	-14.94	8.13	-0.01
2	SLU 45	425	394	2973	-13.77	10.67	-0.03
2	SLU 46	369	399	2752	-14.48	9.15	-0.02
2	SLU 47	331	403	2605	-14.94	8.13	-0.01
2	SLU 48	425	394	2973	-13.77	10.67	-0.03
2	SLU 49	369	399	2752	-14.48	9.15	-0.02
2	SLU 50	425	394	2973	-13.77	10.67	-0.03
2	SLU 51	369	399	2752	-14.48	9.15	-0.02
2	SLU 52	404	447	2998	-16.67	10.21	-0.02
2	SLU 53	498	437	3366	-15.5	12.75	-0.05
2	SLU 54	442	443	3145	-16.2	11.23	-0.03
2	SLU 55	404	447	2998	-16.67	10.21	-0.02
2	SLU 56	498	437	3366	-15.5	12.75	-0.05
2	SLU 57	442	443	3145	-16.2	11.23	-0.03
2	SLU 58	498	437	3366	-15.5	12.75	-0.05
2	SLU 59	442	443	3145	-16.2	11.23	-0.03
2	SLU 60	530	455	3534	-16.23	13.64	-0.06
2	SLU 61	473	461	3314	-16.94	12.12	-0.04
2	SLU 62	530	455	3534	-16.23	13.64	-0.06
2	SLU 63	473	461	3314	-16.94	12.12	-0.04
2	SLU 64	458	415	3156	-14.64	11.55	-0.04
2	SLU 65	363	425	2788	-15.82	9.01	-0.01
2	SLU 66	458	415	3156	-14.64	11.55	-0.04
2	SLU 67	401	421	2935	-15.35	10.03	-0.02
2	SLU 68	363	425	2788	-15.82	9.01	-0.01
2	SLU 69	458	415	3156	-14.64	11.55	-0.04
2	SLU 70	401	421	2935	-15.35	10.03	-0.02
2	SLU 71	458	415	3156	-14.64	11.55	-0.04
2	SLU 72	401	421	2935	-15.35	10.03	-0.02
2	SLU 73	437	468	3181	-17.54	11.09	-0.03
2	SLU 74	531	458	3549	-16.37	13.63	-0.06
2	SLU 75	474	464	3328	-17.07	12.11	-0.04
2	SLU 76	437	468	3181	-17.54	11.09	-0.03
2	SLU 77	531	458	3549	-16.37	13.63	-0.06
2	SLU 78	474	464	3328	-17.07	12.11	-0.04
2	SLU 79	531	458	3549	-16.37	13.63	-0.06
2	SLU 80	474	464	3328	-17.07	12.11	-0.04
2	SLU 81	562	477	3717	-17.11	14.52	-0.06
2	SLU 82	506	483	3497	-17.81	13	-0.05
2	SLU 83	562	477	3717	-17.11	14.52	-0.06
2	SLU 84	506	483	3497	-17.81	13	-0.05
2	SLE RA 1	345	315	2387	-11.07	8.69	-0.03
2	SLE RA 2	282	321	2142	-11.85	7	-0.01
2	SLE RA 3	345	315	2387	-11.07	8.69	-0.03
2	SLE RA 4	307	319	2240	-11.54	7.68	-0.02
2	SLE RA 5	282	321	2142	-11.85	7	-0.01
2	SLE RA 6	345	315	2387	-11.07	8.69	-0.03
2	SLE RA 7	307	319	2240	-11.54	7.68	-0.02
2	SLE RA 8	345	315	2387	-11.07	8.69	-0.03
2	SLE RA 9	307	319	2240	-11.54	7.68	-0.02
2	SLE RA 10	331	350	2404	-13	8.38	-0.02
2	SLE RA 11	394	343	2649	-12.22	10.08	-0.04
2	SLE RA 12	356	347	2502	-12.69	9.06	-0.03
2	SLE RA 13	331	350	2404	-13	8.38	-0.02
2	SLE RA 14	394	343	2649	-12.22	10.08	-0.04
2	SLE RA 15	356	347	2502	-12.69	9.06	-0.03
2	SLE RA 16	394	343	2649	-12.22	10.08	-0.04
2	SLE RA 17	356	347	2502	-12.69	9.06	-0.03



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
2	SLE RA 18	414	356	2762	-12.71	10.67	-0.04
2	SLE RA 19	377	360	2615	-13.18	9.66	-0.03
2	SLE RA 20	414	356	2762	-12.71	10.67	-0.04
2	SLE RA 21	377	360	2615	-13.18	9.66	-0.03
2	SLE FR 1	345	315	2387	-11.07	8.69	-0.03
2	SLE FR 2	332	316	2338	-11.23	8.35	-0.03
2	SLE FR 3	345	315	2387	-11.07	8.69	-0.03
2	SLE FR 4	353	328	2451	-11.72	8.95	-0.03
2	SLE FR 5	366	327	2500	-11.56	9.29	-0.03
2	SLE FR 6	380	335	2575	-11.89	9.68	-0.04
2	SLE QP 1	345	315	2387	-11.07	8.69	-0.03
2	SLE QP 2	366	327	2500	-11.56	9.29	-0.03
2	SLD 1	505	397	3121	-14	14.06	-0.09
2	SLD 2	505	397	3121	-14	14.06	-0.09
2	SLD 3	432	327	2766	-11.21	12.15	-0.05
2	SLD 4	432	327	2766	-11.21	12.15	-0.05
2	SLD 5	518	455	3224	-16.53	13.62	-0.11
2	SLD 6	518	455	3224	-16.53	13.62	-0.11
2	SLD 7	276	220	2042	-7.23	7.24	0.02
2	SLD 8	276	220	2042	-7.23	7.24	0.02
2	SLD 9	456	434	2958	-15.9	11.33	-0.09
2	SLD 10	456	434	2958	-15.9	11.33	-0.09
2	SLD 11	214	199	1776	-6.6	4.95	0.04
2	SLD 12	214	199	1776	-6.6	4.95	0.04
2	SLD 13	299	327	2233	-11.92	6.43	-0.01
2	SLD 14	299	327	2233	-11.92	6.43	-0.01
2	SLD 15	227	256	1879	-9.13	4.52	0.02
2	SLD 16	227	256	1879	-9.13	4.52	0.02
2	SLV 1	702	493	3983	-17.33	20.76	-0.17
2	SLV 2	702	493	3983	-17.33	20.76	-0.17
2	SLV 3	515	327	3099	-10.71	15.8	-0.08
2	SLV 4	515	327	3099	-10.71	15.8	-0.08
2	SLV 5	750	629	4286	-23.34	20.25	-0.22
2	SLV 6	750	629	4286	-23.34	20.25	-0.22
2	SLV 7	126	74	1338	-1.27	3.73	0.1
2	SLV 8	126	74	1338	-1.27	3.73	0.1
2	SLV 9	605	579	3661	-21.86	14.85	-0.16
2	SLV 10	605	579	3661	-21.86	14.85	-0.16
2	SLV 11	-19	25	713	0.21	-1.67	0.15
2	SLV 12	-19	25	713	0.21	-1.67	0.15
2	SLV 13	217	327	1901	-12.42	2.77	0.01
2	SLV 14	217	327	1901	-12.42	2.77	0.01
2	SLV 15	30	161	1016	-5.8	-2.18	0.11
2	SLV 16	30	161	1016	-5.8	-2.18	0.11
3	SLU 1	311	7	1955	-2.42	15.49	-0.01
3	SLU 2	200	9	1687	1.08	10.3	0
3	SLU 3	311	7	1955	-2.42	15.49	-0.01
3	SLU 4	245	8	1794	-0.32	12.37	0
3	SLU 5	200	9	1687	1.08	10.3	0
3	SLU 6	311	7	1955	-2.42	15.49	-0.01
3	SLU 7	245	8	1794	-0.32	12.37	0
3	SLU 8	311	7	1955	-2.42	15.49	-0.01
3	SLU 9	245	8	1794	-0.32	12.37	0
3	SLU 10	288	10	2004	0.51	14.47	0
3	SLU 11	398	9	2272	-2.99	19.66	-0.01
3	SLU 12	332	10	2111	-0.89	16.55	-0.01
3	SLU 13	288	10	2004	0.51	14.47	0
3	SLU 14	398	9	2272	-2.99	19.66	-0.01
3	SLU 15	332	10	2111	-0.89	16.55	-0.01
3	SLU 16	398	9	2272	-2.99	19.66	-0.01
3	SLU 17	332	10	2111	-0.89	16.55	-0.01
3	SLU 18	436	9	2408	-3.23	21.45	-0.01
3	SLU 19	369	10	2247	-1.13	18.33	-0.01
3	SLU 20	436	9	2408	-3.23	21.45	-0.01
3	SLU 21	369	10	2247	-1.13	18.33	-0.01
3	SLU 22	348	8	2103	-2.69	17.29	-0.01
3	SLU 23	237	9	1835	0.81	12.1	0
3	SLU 24	348	8	2103	-2.69	17.29	-0.01
3	SLU 25	282	9	1942	-0.59	14.17	0
3	SLU 26	237	9	1835	0.81	12.1	0
3	SLU 27	348	8	2103	-2.69	17.29	-0.01
3	SLU 28	282	9	1942	-0.59	14.17	0
3	SLU 29	348	8	2103	-2.69	17.29	-0.01
3	SLU 30	282	9	1942	-0.59	14.17	0
3	SLU 31	324	11	2152	0.24	16.27	0
3	SLU 32	435	9	2420	-3.26	21.46	-0.01
3	SLU 33	369	10	2259	-1.16	18.35	-0.01
3	SLU 34	324	11	2152	0.24	16.27	0
3	SLU 35	435	9	2420	-3.26	21.46	-0.01
3	SLU 36	369	10	2259	-1.16	18.35	-0.01
3	SLU 37	435	9	2420	-3.26	21.46	-0.01
3	SLU 38	369	10	2259	-1.16	18.35	-0.01
3	SLU 39	473	10	2556	-3.5	23.25	-0.01
3	SLU 40	406	11	2395	-1.41	20.13	-0.01
3	SLU 41	473	10	2556	-3.5	23.25	-0.01
3	SLU 42	406	11	2395	-1.41	20.13	-0.01
3	SLU 43	392	9	2491	-3.05	19.52	-0.01
3	SLU 44	281	10	2223	0.45	14.33	0
3	SLU 45	392	9	2491	-3.05	19.52	-0.01
3	SLU 46	325	10	2330	-0.95	16.4	-0.01



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
3	SLU 47	281	10	2223	0.45	14.33	0
3	SLU 48	392	9	2491	-3.05	19.52	-0.01
3	SLU 49	325	10	2330	-0.95	16.4	-0.01
3	SLU 50	392	9	2491	-3.05	19.52	-0.01
3	SLU 51	325	10	2330	-0.95	16.4	-0.01
3	SLU 52	368	12	2540	-0.12	18.5	0
3	SLU 53	479	10	2808	-3.62	23.69	-0.01
3	SLU 54	413	11	2647	-1.52	20.58	-0.01
3	SLU 55	368	12	2540	-0.12	18.5	0
3	SLU 56	479	10	2808	-3.62	23.69	-0.01
3	SLU 57	413	11	2647	-1.52	20.58	-0.01
3	SLU 58	479	10	2808	-3.62	23.69	-0.01
3	SLU 59	413	11	2647	-1.52	20.58	-0.01
3	SLU 60	517	11	2944	-3.86	25.48	-0.01
3	SLU 61	450	12	2783	-1.76	22.36	-0.01
3	SLU 62	517	11	2944	-3.86	25.48	-0.01
3	SLU 63	450	12	2783	-1.76	22.36	-0.01
3	SLU 64	429	10	2639	-3.32	21.32	-0.01
3	SLU 65	318	11	2371	0.18	16.13	0
3	SLU 66	429	10	2639	-3.32	21.32	-0.01
3	SLU 67	362	11	2478	-1.22	18.2	-0.01
3	SLU 68	318	11	2371	0.18	16.13	0
3	SLU 69	429	10	2639	-3.32	21.32	-0.01
3	SLU 70	362	11	2478	-1.22	18.2	-0.01
3	SLU 71	429	10	2639	-3.32	21.32	-0.01
3	SLU 72	362	11	2478	-1.22	18.2	-0.01
3	SLU 73	405	13	2688	-0.39	20.3	-0.01
3	SLU 74	516	11	2956	-3.89	25.49	-0.01
3	SLU 75	449	12	2795	-1.79	22.38	-0.01
3	SLU 76	405	13	2688	-0.39	20.3	-0.01
3	SLU 77	516	11	2956	-3.89	25.49	-0.01
3	SLU 78	449	12	2795	-1.79	22.38	-0.01
3	SLU 79	516	11	2956	-3.89	25.49	-0.01
3	SLU 80	449	12	2795	-1.79	22.38	-0.01
3	SLU 81	553	12	3092	-4.14	27.28	-0.01
3	SLU 82	487	13	2931	-2.04	24.16	-0.01
3	SLU 83	553	12	3092	-4.14	27.28	-0.01
3	SLU 84	487	13	2931	-2.04	24.16	-0.01
3	SLE RA 1	322	7	1997	-2.49	16.01	-0.01
3	SLE RA 2	248	8	1819	-0.16	12.54	0
3	SLE RA 3	322	7	1997	-2.49	16.01	-0.01
3	SLE RA 4	277	8	1890	-1.09	13.93	-0.01
3	SLE RA 5	248	8	1819	-0.16	12.54	0
3	SLE RA 6	322	7	1997	-2.49	16.01	-0.01
3	SLE RA 7	277	8	1890	-1.09	13.93	-0.01
3	SLE RA 8	322	7	1997	-2.49	16.01	-0.01
3	SLE RA 9	277	8	1890	-1.09	13.93	-0.01
3	SLE RA 10	306	9	2030	-0.54	15.32	0
3	SLE RA 11	380	8	2209	-2.87	18.79	-0.01
3	SLE RA 12	336	9	2102	-1.48	16.71	-0.01
3	SLE RA 13	306	9	2030	-0.54	15.32	0
3	SLE RA 14	380	8	2209	-2.87	18.79	-0.01
3	SLE RA 15	336	9	2102	-1.48	16.71	-0.01
3	SLE RA 16	380	8	2209	-2.87	18.79	-0.01
3	SLE RA 17	336	9	2102	-1.48	16.71	-0.01
3	SLE RA 18	405	9	2299	-3.04	19.98	-0.01
3	SLE RA 19	360	9	2192	-1.64	17.9	-0.01
3	SLE RA 20	405	9	2299	-3.04	19.98	-0.01
3	SLE RA 21	360	9	2192	-1.64	17.9	-0.01
3	SLE FR 1	322	7	1997	-2.49	16.01	-0.01
3	SLE FR 2	307	7	1962	-2.03	15.31	-0.01
3	SLE FR 3	322	7	1997	-2.49	16.01	-0.01
3	SLE FR 4	332	8	2052	-2.19	16.51	-0.01
3	SLE FR 5	347	8	2088	-2.66	17.2	-0.01
3	SLE FR 6	363	8	2148	-2.77	17.99	-0.01
3	SLE QP 1	322	7	1997	-2.49	16.01	-0.01
3	SLE QP 2	347	8	2088	-2.66	17.2	-0.01
3	SLD 1	543	-2	2516	-0.62	26.16	-0.02
3	SLD 2	543	-2	2516	-0.62	26.16	-0.02
3	SLD 3	451	0	2276	3.13	21.88	-0.01
3	SLD 4	451	0	2276	3.13	21.88	-0.01
3	SLD 5	545	2	2581	-7.73	26.38	-0.02
3	SLD 6	545	2	2581	-7.73	26.38	-0.02
3	SLD 7	238	8	1780	4.76	12.11	0
3	SLD 8	238	8	1780	4.76	12.11	0
3	SLD 9	455	7	2396	-10.08	22.29	-0.02
3	SLD 10	455	7	2396	-10.08	22.29	-0.02
3	SLD 11	148	14	1595	2.42	8.02	0
3	SLD 12	148	14	1595	2.42	8.02	0
3	SLD 13	242	16	1900	-8.44	12.51	-0.01
3	SLD 14	242	16	1900	-8.44	12.51	-0.01
3	SLD 15	150	18	1660	-4.69	8.23	0
3	SLD 16	150	18	1660	-4.69	8.23	0
3	SLV 1	821	-16	3112	1.88	38.83	-0.03
3	SLV 2	821	-16	3112	1.88	38.83	-0.03
3	SLV 3	585	-11	2509	11.24	27.83	-0.01
3	SLV 4	585	-11	2509	11.24	27.83	-0.01
3	SLV 5	847	-7	3309	-15.48	40.37	-0.04
3	SLV 6	847	-7	3309	-15.48	40.37	-0.04
3	SLV 7	60	10	1301	15.7	3.7	0.01



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
3	SLV 8	60	10	1301	15.7	3.7	0.01
3	SLV 9	633	6	2875	-21.02	30.7	-0.03
3	SLV 10	633	6	2875	-21.02	30.7	-0.03
3	SLV 11	-154	22	867	10.17	-5.98	0.02
3	SLV 12	-154	22	867	10.17	-5.98	0.02
3	SLV 13	109	26	1666	-16.55	6.57	0
3	SLV 14	109	26	1666	-16.55	6.57	0
3	SLV 15	-128	31	1064	-7.2	-4.43	0.01
3	SLV 16	-128	31	1064	-7.2	-4.43	0.01
4	SLU 1	212	8	1830	-3.21	7.34	0
4	SLU 2	122	9	1651	4.52	3.54	-0.01
4	SLU 3	212	8	1830	-3.21	7.34	0
4	SLU 4	158	9	1723	1.43	5.06	0
4	SLU 5	122	9	1651	4.52	3.54	-0.01
4	SLU 6	212	8	1830	-3.21	7.34	0
4	SLU 7	158	9	1723	1.43	5.06	0
4	SLU 8	212	8	1830	-3.21	7.34	0
4	SLU 9	158	9	1723	1.43	5.06	0
4	SLU 10	195	12	1940	3.67	6.16	-0.01
4	SLU 11	284	11	2119	-4.06	9.96	0
4	SLU 12	230	11	2011	0.58	7.68	0
4	SLU 13	195	12	1940	3.67	6.16	-0.01
4	SLU 14	284	11	2119	-4.06	9.96	0
4	SLU 15	230	11	2011	0.58	7.68	0
4	SLU 16	284	11	2119	-4.06	9.96	0
4	SLU 17	230	11	2011	0.58	7.68	0
4	SLU 18	315	12	2242	-4.43	11.08	0
4	SLU 19	261	12	2135	0.21	8.8	0
4	SLU 20	315	12	2242	-4.43	11.08	0
4	SLU 21	261	12	2135	0.21	8.8	0
4	SLU 22	241	9	1965	-3.61	8.38	0
4	SLU 23	152	10	1786	4.12	4.57	-0.01
4	SLU 24	241	9	1965	-3.61	8.38	0
4	SLU 25	187	10	1857	1.03	6.1	0
4	SLU 26	152	10	1786	4.12	4.57	-0.01
4	SLU 27	241	9	1965	-3.61	8.38	0
4	SLU 28	187	10	1857	1.03	6.1	0
4	SLU 29	241	9	1965	-3.61	8.38	0
4	SLU 30	187	10	1857	1.03	6.1	0
4	SLU 31	224	13	2075	3.27	7.2	0
4	SLU 32	313	12	2253	-4.47	11	0
4	SLU 33	260	12	2146	0.17	8.72	0
4	SLU 34	224	13	2075	3.27	7.2	0
4	SLU 35	313	12	2253	-4.47	11	0
4	SLU 36	260	12	2146	0.17	8.72	0
4	SLU 37	313	12	2253	-4.47	11	0
4	SLU 38	260	12	2146	0.17	8.72	0
4	SLU 39	344	13	2377	-4.83	12.12	0
4	SLU 40	291	13	2270	-0.19	9.84	0
4	SLU 41	344	13	2377	-4.83	12.12	0
4	SLU 42	291	13	2270	-0.19	9.84	0
4	SLU 43	265	10	2333	-4.04	9.19	0
4	SLU 44	176	11	2154	3.7	5.39	0
4	SLU 45	265	10	2333	-4.04	9.19	0
4	SLU 46	212	11	2226	0.6	6.91	0
4	SLU 47	176	11	2154	3.7	5.39	0
4	SLU 48	265	10	2333	-4.04	9.19	0
4	SLU 49	212	11	2226	0.6	6.91	0
4	SLU 50	265	10	2333	-4.04	9.19	0
4	SLU 51	212	11	2226	0.6	6.91	0
4	SLU 52	248	14	2443	2.84	8.01	0
4	SLU 53	338	13	2621	-4.89	11.81	0
4	SLU 54	284	13	2514	-0.25	9.53	0
4	SLU 55	248	14	2443	2.84	8.01	0
4	SLU 56	338	13	2621	-4.89	11.81	0
4	SLU 57	284	13	2514	-0.25	9.53	0
4	SLU 58	338	13	2621	-4.89	11.81	0
4	SLU 59	284	13	2514	-0.25	9.53	0
4	SLU 60	369	14	2745	-5.25	12.93	0
4	SLU 61	315	14	2638	-0.61	10.65	0
4	SLU 62	369	14	2745	-5.25	12.93	0
4	SLU 63	315	14	2638	-0.61	10.65	0
4	SLU 64	295	11	2468	-4.44	10.22	0
4	SLU 65	205	12	2289	3.29	6.42	0
4	SLU 66	295	11	2468	-4.44	10.22	0
4	SLU 67	241	12	2360	0.2	7.94	0
4	SLU 68	205	12	2289	3.29	6.42	0
4	SLU 69	295	11	2468	-4.44	10.22	0
4	SLU 70	241	12	2360	0.2	7.94	0
4	SLU 71	295	11	2468	-4.44	10.22	0
4	SLU 72	241	12	2360	0.2	7.94	0
4	SLU 73	277	15	2577	2.44	9.04	0
4	SLU 74	367	14	2756	-5.29	12.84	0
4	SLU 75	313	14	2649	-0.65	10.56	0
4	SLU 76	277	15	2577	2.44	9.04	0
4	SLU 77	367	14	2756	-5.29	12.84	0
4	SLU 78	313	14	2649	-0.65	10.56	0
4	SLU 79	367	14	2756	-5.29	12.84	0
4	SLU 80	313	14	2649	-0.65	10.56	0
4	SLU 81	398	15	2880	-5.66	13.97	0





Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
4	SLU 82	344	16	2773	-1.02	11.69	0
4	SLU 83	398	15	2880	-5.66	13.97	0
4	SLU 84	344	16	2773	-1.02	11.69	0
4	SLE RA 1	220	8	1869	-3.33	7.64	0
4	SLE RA 2	161	9	1749	1.83	5.1	0
4	SLE RA 3	220	8	1869	-3.33	7.64	0
4	SLE RA 4	184	9	1797	-0.23	6.12	0
4	SLE RA 5	161	9	1749	1.83	5.1	0
4	SLE RA 6	220	8	1869	-3.33	7.64	0
4	SLE RA 7	184	9	1797	-0.23	6.12	0
4	SLE RA 8	220	8	1869	-3.33	7.64	0
4	SLE RA 9	184	9	1797	-0.23	6.12	0
4	SLE RA 10	209	11	1942	1.26	6.85	0
4	SLE RA 11	268	10	2061	-3.89	9.38	0
4	SLE RA 12	233	11	1989	-0.8	7.86	0
4	SLE RA 13	209	11	1942	1.26	6.85	0
4	SLE RA 14	268	10	2061	-3.89	9.38	0
4	SLE RA 15	233	11	1989	-0.8	7.86	0
4	SLE RA 16	268	10	2061	-3.89	9.38	0
4	SLE RA 17	233	11	1989	-0.8	7.86	0
4	SLE RA 18	289	11	2143	-4.14	10.13	0
4	SLE RA 19	253	11	2072	-1.05	8.61	0
4	SLE RA 20	289	11	2143	-4.14	10.13	0
4	SLE RA 21	253	11	2072	-1.05	8.61	0
4	SLE FR 1	220	8	1869	-3.33	7.64	0
4	SLE FR 2	208	9	1845	-2.29	7.13	0
4	SLE FR 3	220	8	1869	-3.33	7.64	0
4	SLE FR 4	229	9	1927	-2.54	7.88	0
4	SLE FR 5	241	9	1951	-3.57	8.39	0
4	SLE FR 6	255	10	2006	-3.73	8.88	0
4	SLE QP 1	220	8	1869	-3.33	7.64	0
4	SLE QP 2	241	9	1951	-3.57	8.39	0
4	SLD 1	431	-5	2244	-1.23	16.13	0.02
4	SLD 2	431	-5	2244	-1.23	16.13	0.02
4	SLD 3	359	0	2095	7.2	13.18	0.01
4	SLD 4	359	0	2095	7.2	13.18	0.01
4	SLD 5	407	-2	2265	-15.66	15.18	0.02
4	SLD 6	407	-2	2265	-15.66	15.18	0.02
4	SLD 7	167	14	1768	12.46	5.35	-0.01
4	SLD 8	167	14	1768	12.46	5.35	-0.01
4	SLD 9	314	4	2134	-19.6	11.42	0.02
4	SLD 10	314	4	2134	-19.6	11.42	0.02
4	SLD 11	75	21	1637	8.52	1.59	-0.01
4	SLD 12	75	21	1637	8.52	1.59	-0.01
4	SLD 13	122	18	1807	-14.34	3.59	0
4	SLD 14	122	18	1807	-14.34	3.59	0
4	SLD 15	50	23	1658	-5.91	0.64	-0.01
4	SLD 16	50	23	1658	-5.91	0.64	-0.01
4	SLV 1	699	-23	2651	1.42	27.01	0.04
4	SLV 2	699	-23	2651	1.42	27.01	0.04
4	SLV 3	513	-11	2275	22.5	19.35	0.01
4	SLV 4	513	-11	2275	22.5	19.35	0.01
4	SLV 5	660	-18	2732	-34.05	25.59	0.05
4	SLV 6	660	-18	2732	-34.05	25.59	0.05
4	SLV 7	40	20	1477	36.23	0.06	-0.03
4	SLV 8	40	20	1477	36.23	0.06	-0.03
4	SLV 9	441	-2	2425	-43.36	16.71	0.03
4	SLV 10	441	-2	2425	-43.36	16.71	0.03
4	SLV 11	-179	36	1170	26.91	-8.82	-0.04
4	SLV 12	-179	36	1170	26.91	-8.82	-0.04
4	SLV 13	-31	30	1627	-29.64	-2.58	-0.01
4	SLV 14	-31	30	1627	-29.64	-2.58	-0.01
4	SLV 15	-217	41	1251	-8.56	-10.24	-0.03
4	SLV 16	-217	41	1251	-8.56	-10.24	-0.03
5	SLU 1	194	10	1791	-3.6	9.22	0
5	SLU 2	122	7	1681	9.23	6.04	-0.01
5	SLU 3	194	10	1791	-3.6	9.22	0
5	SLU 4	150	8	1725	4.1	7.31	-0.01
5	SLU 5	122	7	1681	9.23	6.04	-0.01
5	SLU 6	194	10	1791	-3.6	9.22	0
5	SLU 7	150	8	1725	4.1	7.31	-0.01
5	SLU 8	194	10	1791	-3.6	9.22	0
5	SLU 9	150	8	1725	4.1	7.31	-0.01
5	SLU 10	197	10	1963	8.27	9.39	-0.01
5	SLU 11	269	13	2074	-4.56	12.58	0
5	SLU 12	226	11	2007	3.14	10.67	-0.01
5	SLU 13	197	10	1963	8.27	9.39	-0.01
5	SLU 14	269	13	2074	-4.56	12.58	0
5	SLU 15	226	11	2007	3.14	10.67	-0.01
5	SLU 16	269	13	2074	-4.56	12.58	0
5	SLU 17	226	11	2007	3.14	10.67	-0.01
5	SLU 18	301	14	2195	-4.97	14.02	0
5	SLU 19	258	12	2128	2.73	12.11	-0.01
5	SLU 20	301	14	2195	-4.97	14.02	0
5	SLU 21	258	12	2128	2.73	12.11	-0.01
5	SLU 22	224	11	1922	-4.05	10.62	0
5	SLU 23	152	8	1811	8.78	7.43	-0.01
5	SLU 24	224	11	1922	-4.05	10.62	0
5	SLU 25	181	9	1856	3.64	8.71	-0.01
5	SLU 26	152	8	1811	8.78	7.43	-0.01



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
5	SLU 27	224	11	1922	-4.05	10.62	0
5	SLU 28	181	9	1856	3.64	8.71	-0.01
5	SLU 29	224	11	1922	-4.05	10.62	0
5	SLU 30	181	9	1856	3.64	8.71	-0.01
5	SLU 31	227	11	2094	7.82	10.79	-0.01
5	SLU 32	299	14	2204	-5.01	13.98	0
5	SLU 33	256	12	2138	2.69	12.07	-0.01
5	SLU 34	227	11	2094	7.82	10.79	-0.01
5	SLU 35	299	14	2204	-5.01	13.98	0
5	SLU 36	256	12	2138	2.69	12.07	-0.01
5	SLU 37	299	14	2204	-5.01	13.98	0
5	SLU 38	256	12	2138	2.69	12.07	-0.01
5	SLU 39	332	15	2325	-5.42	15.42	0
5	SLU 40	288	14	2259	2.27	13.51	-0.01
5	SLU 41	332	15	2325	-5.42	15.42	0
5	SLU 42	288	14	2259	2.27	13.51	-0.01
5	SLU 43	241	12	2284	-4.52	11.51	0
5	SLU 44	169	9	2173	8.31	8.32	-0.01
5	SLU 45	241	12	2284	-4.52	11.51	0
5	SLU 46	198	10	2217	3.18	9.6	-0.01
5	SLU 47	169	9	2173	8.31	8.32	-0.01
5	SLU 48	241	12	2284	-4.52	11.51	0
5	SLU 49	198	10	2217	3.18	9.6	-0.01
5	SLU 50	241	12	2284	-4.52	11.51	0
5	SLU 51	198	10	2217	3.18	9.6	-0.01
5	SLU 52	244	12	2455	7.35	11.68	-0.01
5	SLU 53	317	15	2566	-5.48	14.87	0
5	SLU 54	273	13	2500	2.22	12.96	-0.01
5	SLU 55	244	12	2455	7.35	11.68	-0.01
5	SLU 56	317	15	2566	-5.48	14.87	0
5	SLU 57	273	13	2500	2.22	12.96	-0.01
5	SLU 58	317	15	2566	-5.48	14.87	0
5	SLU 59	273	13	2500	2.22	12.96	-0.01
5	SLU 60	349	16	2687	-5.89	16.31	0
5	SLU 61	305	15	2621	1.8	14.4	-0.01
5	SLU 62	349	16	2687	-5.89	16.31	0
5	SLU 63	305	15	2621	1.8	14.4	-0.01
5	SLU 64	272	14	2414	-4.97	12.91	0
5	SLU 65	200	11	2304	7.85	9.72	-0.01
5	SLU 66	272	14	2414	-4.97	12.91	0
5	SLU 67	229	12	2348	2.72	11	-0.01
5	SLU 68	200	11	2304	7.85	9.72	-0.01
5	SLU 69	272	14	2414	-4.97	12.91	0
5	SLU 70	229	12	2348	2.72	11	-0.01
5	SLU 71	272	14	2414	-4.97	12.91	0
5	SLU 72	229	12	2348	2.72	11	-0.01
5	SLU 73	275	14	2586	6.89	13.08	-0.01
5	SLU 74	347	17	2697	-5.93	16.27	0
5	SLU 75	304	15	2631	1.76	14.35	-0.01
5	SLU 76	275	14	2586	6.89	13.08	-0.01
5	SLU 77	347	17	2697	-5.93	16.27	0
5	SLU 78	304	15	2631	1.76	14.35	-0.01
5	SLU 79	347	17	2697	-5.93	16.27	0
5	SLU 80	304	15	2631	1.76	14.35	-0.01
5	SLU 81	379	18	2818	-6.35	17.71	0
5	SLU 82	336	16	2752	1.35	15.79	-0.01
5	SLU 83	379	18	2818	-6.35	17.71	0
5	SLU 84	336	16	2752	1.35	15.79	-0.01
5	SLE RA 1	202	10	1829	-3.73	9.62	0
5	SLE RA 2	154	8	1755	4.82	7.5	-0.01
5	SLE RA 3	202	10	1829	-3.73	9.62	0
5	SLE RA 4	174	9	1784	1.4	8.35	-0.01
5	SLE RA 5	154	8	1755	4.82	7.5	-0.01
5	SLE RA 6	202	10	1829	-3.73	9.62	0
5	SLE RA 7	174	9	1784	1.4	8.35	-0.01
5	SLE RA 8	202	10	1829	-3.73	9.62	0
5	SLE RA 9	174	9	1784	1.4	8.35	-0.01
5	SLE RA 10	204	10	1943	4.18	9.74	-0.01
5	SLE RA 11	253	12	2017	-4.37	11.86	0
5	SLE RA 12	224	11	1973	0.76	10.59	-0.01
5	SLE RA 13	204	10	1943	4.18	9.74	-0.01
5	SLE RA 14	253	12	2017	-4.37	11.86	0
5	SLE RA 15	224	11	1973	0.76	10.59	-0.01
5	SLE RA 16	253	12	2017	-4.37	11.86	0
5	SLE RA 17	224	11	1973	0.76	10.59	-0.01
5	SLE RA 18	274	13	2098	-4.64	12.82	0
5	SLE RA 19	245	12	2053	0.49	11.55	-0.01
5	SLE RA 20	274	13	2098	-4.64	12.82	0
5	SLE RA 21	245	12	2053	0.49	11.55	-0.01
5	SLE FR 1	202	10	1829	-3.73	9.62	0
5	SLE FR 2	193	10	1814	-2.02	9.2	0
5	SLE FR 3	202	10	1829	-3.73	9.62	0
5	SLE FR 4	214	11	1894	-2.29	10.16	0
5	SLE FR 5	224	11	1909	-4	10.58	0
5	SLE FR 6	238	12	1963	-4.18	11.22	0
5	SLE QP 1	202	10	1829	-3.73	9.62	0
5	SLE QP 2	224	11	1909	-4	10.58	0
5	SLD 1	412	5	2122	-2.72	18.53	0.01
5	SLD 2	412	5	2122	-2.72	18.53	0.01
5	SLD 3	352	-6	2037	11.2	15.8	0



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
5	SLD 4	352	-6	2037	11.2	15.8	0
5	SLD 5	373	25	2102	-24.73	17.1	0.01
5	SLD 6	373	25	2102	-24.73	17.1	0.01
5	SLD 7	170	-10	1818	21.68	8.02	-0.01
5	SLD 8	170	-10	1818	21.68	8.02	-0.01
5	SLD 9	278	31	2000	-29.68	13.15	0.01
5	SLD 10	278	31	2000	-29.68	13.15	0.01
5	SLD 11	75	-3	1716	16.73	4.07	-0.02
5	SLD 12	75	-3	1716	16.73	4.07	-0.02
5	SLD 13	96	27	1782	-19.2	5.36	0
5	SLD 14	96	27	1782	-19.2	5.36	0
5	SLD 15	35	17	1697	-5.28	2.63	-0.01
5	SLD 16	35	17	1697	-5.28	2.63	-0.01
5	SLV 1	676	-4	2416	-1.77	29.65	0.02
5	SLV 2	676	-4	2416	-1.77	29.65	0.02
5	SLV 3	519	-28	2201	33.11	22.6	0
5	SLV 4	519	-28	2201	33.11	22.6	0
5	SLV 5	598	44	2389	-56.24	26.98	0.04
5	SLV 6	598	44	2389	-56.24	26.98	0.04
5	SLV 7	74	-38	1669	60.04	3.51	-0.03
5	SLV 8	74	-38	1669	60.04	3.51	-0.03
5	SLV 9	374	60	2149	-68.04	17.66	0.03
5	SLV 10	374	60	2149	-68.04	17.66	0.03
5	SLV 11	-150	-22	1430	48.24	-5.82	-0.04
5	SLV 12	-150	-22	1430	48.24	-5.82	-0.04
5	SLV 13	-71	50	1618	-41.11	-1.44	-0.01
5	SLV 14	-71	50	1618	-41.11	-1.44	-0.01
5	SLV 15	-228	26	1402	-6.23	-8.48	-0.03
5	SLV 16	-228	26	1402	-6.23	-8.48	-0.03
6	SLU 1	146	10	1765	-3.47	4.85	0
6	SLU 2	91	2	1714	14.66	2.41	-0.01
6	SLU 3	146	10	1765	-3.47	4.85	0
6	SLU 4	113	5	1735	7.41	3.39	-0.01
6	SLU 5	91	2	1714	14.66	2.41	-0.01
6	SLU 6	146	10	1765	-3.47	4.85	0
6	SLU 7	113	5	1735	7.41	3.39	-0.01
6	SLU 8	146	10	1765	-3.47	4.85	0
6	SLU 9	113	5	1735	7.41	3.39	-0.01
6	SLU 10	158	5	1997	13.77	4.82	-0.01
6	SLU 11	213	13	2048	-4.36	7.26	0
6	SLU 12	180	8	2018	6.52	5.8	-0.01
6	SLU 13	158	5	1997	13.77	4.82	-0.01
6	SLU 14	213	13	2048	-4.36	7.26	0
6	SLU 15	180	8	2018	6.52	5.8	-0.01
6	SLU 16	213	13	2048	-4.36	7.26	0
6	SLU 17	180	8	2018	6.52	5.8	-0.01
6	SLU 18	242	14	2170	-4.74	8.29	0
6	SLU 19	209	10	2139	6.14	6.83	-0.01
6	SLU 20	242	14	2170	-4.74	8.29	0
6	SLU 21	209	10	2139	6.14	6.83	-0.01
6	SLU 22	172	11	1895	-3.89	5.79	0
6	SLU 23	118	4	1844	14.24	3.35	-0.01
6	SLU 24	172	11	1895	-3.89	5.79	0
6	SLU 25	140	7	1865	6.98	4.33	-0.01
6	SLU 26	118	4	1844	14.24	3.35	-0.01
6	SLU 27	172	11	1895	-3.89	5.79	0
6	SLU 28	140	7	1865	6.98	4.33	-0.01
6	SLU 29	172	11	1895	-3.89	5.79	0
6	SLU 30	140	7	1865	6.98	4.33	-0.01
6	SLU 31	185	7	2127	13.34	5.76	-0.01
6	SLU 32	240	15	2178	-4.79	8.2	0
6	SLU 33	207	10	2148	6.09	6.73	-0.01
6	SLU 34	185	7	2127	13.34	5.76	-0.01
6	SLU 35	240	15	2178	-4.79	8.2	0
6	SLU 36	207	10	2148	6.09	6.73	-0.01
6	SLU 37	240	15	2178	-4.79	8.2	0
6	SLU 38	207	10	2148	6.09	6.73	-0.01
6	SLU 39	269	16	2300	-5.17	9.23	0
6	SLU 40	236	11	2269	5.71	7.77	-0.01
6	SLU 41	269	16	2300	-5.17	9.23	0
6	SLU 42	236	11	2269	5.71	7.77	-0.01
6	SLU 43	180	13	2250	-4.36	5.99	0
6	SLU 44	125	5	2199	13.77	3.55	-0.01
6	SLU 45	180	13	2250	-4.36	5.99	0
6	SLU 46	147	8	2220	6.52	4.52	-0.01
6	SLU 47	125	5	2199	13.77	3.55	-0.01
6	SLU 48	180	13	2250	-4.36	5.99	0
6	SLU 49	147	8	2220	6.52	4.52	-0.01
6	SLU 50	180	13	2250	-4.36	5.99	0
6	SLU 51	147	8	2220	6.52	4.52	-0.01
6	SLU 52	193	8	2482	12.88	5.96	-0.01
6	SLU 53	247	16	2533	-5.25	8.4	0
6	SLU 54	215	11	2503	5.62	6.93	-0.01
6	SLU 55	193	8	2482	12.88	5.96	-0.01
6	SLU 56	247	16	2533	-5.25	8.4	0
6	SLU 57	215	11	2503	5.62	6.93	-0.01
6	SLU 58	247	16	2533	-5.25	8.4	0
6	SLU 59	215	11	2503	5.62	6.93	-0.01
6	SLU 60	276	17	2655	-5.64	9.43	0
6	SLU 61	244	12	2624	5.24	7.96	-0.01



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
6	SLU 62	276	17	2655	-5.64	9.43	0
6	SLU 63	244	12	2624	5.24	7.96	-0.01
6	SLU 64	207	14	2380	-4.79	6.93	0
6	SLU 65	152	6	2329	13.34	4.49	-0.01
6	SLU 66	207	14	2380	-4.79	6.93	0
6	SLU 67	174	9	2350	6.09	5.46	-0.01
6	SLU 68	152	6	2329	13.34	4.49	-0.01
6	SLU 69	207	14	2380	-4.79	6.93	0
6	SLU 70	174	9	2350	6.09	5.46	-0.01
6	SLU 71	207	14	2380	-4.79	6.93	0
6	SLU 72	174	9	2350	6.09	5.46	-0.01
6	SLU 73	220	9	2612	12.45	6.89	-0.01
6	SLU 74	274	17	2663	-5.68	9.33	0
6	SLU 75	241	12	2633	5.2	7.87	-0.01
6	SLU 76	220	9	2612	12.45	6.89	-0.01
6	SLU 77	274	17	2663	-5.68	9.33	0
6	SLU 78	241	12	2633	5.2	7.87	-0.01
6	SLU 79	274	17	2663	-5.68	9.33	0
6	SLU 80	241	12	2633	5.2	7.87	-0.01
6	SLU 81	303	18	2785	-6.06	10.36	0
6	SLU 82	270	14	2754	4.81	8.9	-0.01
6	SLU 83	303	18	2785	-6.06	10.36	0
6	SLU 84	270	14	2754	4.81	8.9	-0.01
6	SLE RA 1	153	10	1803	-3.59	5.12	0
6	SLE RA 2	117	5	1768	8.5	3.5	-0.01
6	SLE RA 3	153	10	1803	-3.59	5.12	0
6	SLE RA 4	131	7	1782	3.66	4.15	-0.01
6	SLE RA 5	117	5	1768	8.5	3.5	-0.01
6	SLE RA 6	153	10	1803	-3.59	5.12	0
6	SLE RA 7	131	7	1782	3.66	4.15	-0.01
6	SLE RA 8	153	10	1803	-3.59	5.12	0
6	SLE RA 9	131	7	1782	3.66	4.15	-0.01
6	SLE RA 10	162	7	1957	7.9	5.1	-0.01
6	SLE RA 11	198	13	1991	-4.18	6.73	0
6	SLE RA 12	176	9	1971	3.07	5.75	-0.01
6	SLE RA 13	162	7	1957	7.9	5.1	-0.01
6	SLE RA 14	198	13	1991	-4.18	6.73	0
6	SLE RA 15	176	9	1971	3.07	5.75	-0.01
6	SLE RA 16	198	13	1991	-4.18	6.73	0
6	SLE RA 17	176	9	1971	3.07	5.75	-0.01
6	SLE RA 18	217	13	2072	-4.44	7.41	0
6	SLE RA 19	196	10	2052	2.81	6.44	-0.01
6	SLE RA 20	217	13	2072	-4.44	7.41	0
6	SLE RA 21	196	10	2052	2.81	6.44	-0.01
6	SLE FR 1	153	10	1803	-3.59	5.12	0
6	SLE FR 2	146	9	1796	-1.17	4.8	0
6	SLE FR 3	153	10	1803	-3.59	5.12	0
6	SLE FR 4	165	10	1877	-1.43	5.48	0
6	SLE FR 5	172	11	1883	-3.84	5.81	0
6	SLE FR 6	185	12	1937	-4.01	6.27	0
6	SLE QP 1	153	10	1803	-3.59	5.12	0
6	SLE QP 2	172	11	1883	-3.84	5.81	0
6	SLD 1	353	8	2054	-4.23	13.15	0.01
6	SLD 2	353	8	2054	-4.23	13.15	0.01
6	SLD 3	304	-8	2000	15.28	11.06	0
6	SLD 4	304	-8	2000	15.28	11.06	0
6	SLD 5	301	34	2016	-33.54	11.19	0.01
6	SLD 6	301	34	2016	-33.54	11.19	0.01
6	SLD 7	138	-19	1837	31.48	4.21	-0.01
6	SLD 8	138	-19	1837	31.48	4.21	-0.01
6	SLD 9	207	41	1930	-39.17	7.41	0.01
6	SLD 10	207	41	1930	-39.17	7.41	0.01
6	SLD 11	44	-12	1751	25.85	0.43	-0.02
6	SLD 12	44	-12	1751	25.85	0.43	-0.02
6	SLD 13	41	31	1766	-22.97	0.56	0
6	SLD 14	41	31	1766	-22.97	0.56	0
6	SLD 15	-8	15	1713	-3.46	-1.53	-0.01
6	SLD 16	-8	15	1713	-3.46	-1.53	-0.01
6	SLV 1	604	3	2289	-5.75	23.39	0.02
6	SLV 2	604	3	2289	-5.75	23.39	0.02
6	SLV 3	477	-35	2156	43.24	17.93	0
6	SLV 4	477	-35	2156	43.24	17.93	0
6	SLV 5	495	67	2208	-78.72	19.36	0.03
6	SLV 6	495	67	2208	-78.72	19.36	0.03
6	SLV 7	71	-61	1763	84.59	1.17	-0.03
6	SLV 8	71	-61	1763	84.59	1.17	-0.03
6	SLV 9	274	84	2004	-92.28	10.45	0.02
6	SLV 10	274	84	2004	-92.28	10.45	0.02
6	SLV 11	-150	-45	1559	71.03	-7.74	-0.03
6	SLV 12	-150	-45	1559	71.03	-7.74	-0.03
6	SLV 13	-132	58	1611	-50.93	-6.31	-0.01
6	SLV 14	-132	58	1611	-50.93	-6.31	-0.01
6	SLV 15	-259	19	1478	-1.94	-11.77	-0.02
6	SLV 16	-259	19	1478	-1.94	-11.77	-0.02
7	SLU 1	159	10	1748	-3.04	7.41	0
7	SLU 2	123	-2	1748	19.87	5.8	-0.01
7	SLU 3	159	10	1748	-3.04	7.41	0
7	SLU 4	137	2	1748	10.71	6.44	0
7	SLU 5	123	-2	1748	19.87	5.8	-0.01
7	SLU 6	159	10	1748	-3.04	7.41	0



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
7	SLU 7	137	2	1748	10.71	6.44	0
7	SLU 8	159	10	1748	-3.04	7.41	0
7	SLU 9	137	2	1748	10.71	6.44	0
7	SLU 10	197	1	2037	19.14	9	-0.01
7	SLU 11	233	13	2036	-3.77	10.62	0
7	SLU 12	211	5	2036	9.97	9.65	-0.01
7	SLU 13	197	1	2037	19.14	9	-0.01
7	SLU 14	233	13	2036	-3.77	10.62	0
7	SLU 15	211	5	2036	9.97	9.65	-0.01
7	SLU 16	233	13	2036	-3.77	10.62	0
7	SLU 17	211	5	2036	9.97	9.65	-0.01
7	SLU 18	264	14	2160	-4.09	11.99	0
7	SLU 19	243	7	2160	9.66	11.02	-0.01
7	SLU 20	264	14	2160	-4.09	11.99	0
7	SLU 21	243	7	2160	9.66	11.02	-0.01
7	SLU 22	189	11	1879	-3.39	8.74	0
7	SLU 23	153	-1	1879	19.52	7.13	-0.01
7	SLU 24	189	11	1879	-3.39	8.74	0
7	SLU 25	167	4	1879	10.35	7.77	0
7	SLU 26	153	-1	1879	19.52	7.13	-0.01
7	SLU 27	189	11	1879	-3.39	8.74	0
7	SLU 28	167	4	1879	10.35	7.77	0
7	SLU 29	189	11	1879	-3.39	8.74	0
7	SLU 30	167	4	1879	10.35	7.77	0
7	SLU 31	227	2	2168	18.78	10.33	-0.01
7	SLU 32	263	14	2167	-4.13	11.95	0
7	SLU 33	241	7	2168	9.62	10.98	-0.01
7	SLU 34	227	2	2168	18.78	10.33	-0.01
7	SLU 35	263	14	2167	-4.13	11.95	0
7	SLU 36	241	7	2168	9.62	10.98	-0.01
7	SLU 37	263	14	2167	-4.13	11.95	0
7	SLU 38	241	7	2168	9.62	10.98	-0.01
7	SLU 39	294	15	2291	-4.44	13.32	0
7	SLU 40	273	8	2291	9.3	12.35	-0.01
7	SLU 41	294	15	2291	-4.44	13.32	0
7	SLU 42	273	8	2291	9.3	12.35	-0.01
7	SLU 43	196	12	2228	-3.82	9.18	0
7	SLU 44	160	0	2228	19.09	7.57	-0.01
7	SLU 45	196	12	2228	-3.82	9.18	0
7	SLU 46	175	5	2228	9.92	8.21	-0.01
7	SLU 47	160	0	2228	19.09	7.57	-0.01
7	SLU 48	196	12	2228	-3.82	9.18	0
7	SLU 49	175	5	2228	9.92	8.21	-0.01
7	SLU 50	196	12	2228	-3.82	9.18	0
7	SLU 51	175	5	2228	9.92	8.21	-0.01
7	SLU 52	234	3	2516	18.35	10.77	-0.01
7	SLU 53	270	15	2516	-4.56	12.38	0
7	SLU 54	248	8	2516	9.19	11.42	-0.01
7	SLU 55	234	3	2516	18.35	10.77	-0.01
7	SLU 56	270	15	2516	-4.56	12.38	0
7	SLU 57	248	8	2516	9.19	11.42	-0.01
7	SLU 58	270	15	2516	-4.56	12.38	0
7	SLU 59	248	8	2516	9.19	11.42	-0.01
7	SLU 60	302	17	2639	-4.87	13.76	0
7	SLU 61	280	9	2639	8.87	12.79	-0.01
7	SLU 62	302	17	2639	-4.87	13.76	0
7	SLU 63	280	9	2639	8.87	12.79	-0.01
7	SLU 64	226	14	2359	-4.18	10.51	0
7	SLU 65	190	1	2359	18.73	8.9	-0.01
7	SLU 66	226	14	2359	-4.18	10.51	0
7	SLU 67	205	6	2359	9.56	9.54	-0.01
7	SLU 68	190	1	2359	18.73	8.9	-0.01
7	SLU 69	226	14	2359	-4.18	10.51	0
7	SLU 70	205	6	2359	9.56	9.54	-0.01
7	SLU 71	226	14	2359	-4.18	10.51	0
7	SLU 72	205	6	2359	9.56	9.54	-0.01
7	SLU 73	264	4	2647	17.99	12.1	-0.01
7	SLU 74	300	17	2647	-4.92	13.71	0
7	SLU 75	278	9	2647	8.83	12.75	-0.01
7	SLU 76	264	4	2647	17.99	12.1	-0.01
7	SLU 77	300	17	2647	-4.92	13.71	0
7	SLU 78	278	9	2647	8.83	12.75	-0.01
7	SLU 79	300	17	2647	-4.92	13.71	0
7	SLU 80	278	9	2647	8.83	12.75	-0.01
7	SLU 81	332	18	2770	-5.23	15.09	0
7	SLU 82	310	11	2771	8.51	14.12	-0.01
7	SLU 83	332	18	2770	-5.23	15.09	0
7	SLU 84	310	11	2771	8.51	14.12	-0.01
7	SLE RA 1	168	10	1786	-3.14	7.79	0
7	SLE RA 2	143	2	1786	12.14	6.72	0
7	SLE RA 3	168	10	1786	-3.14	7.79	0
7	SLE RA 4	153	5	1786	6.03	7.15	0
7	SLE RA 5	143	2	1786	12.14	6.72	0
7	SLE RA 6	168	10	1786	-3.14	7.79	0
7	SLE RA 7	153	5	1786	6.03	7.15	0
7	SLE RA 8	168	10	1786	-3.14	7.79	0
7	SLE RA 9	153	5	1786	6.03	7.15	0
7	SLE RA 10	193	4	1978	11.64	8.85	-0.01
7	SLE RA 11	217	12	1978	-3.63	9.93	0
7	SLE RA 12	202	7	1978	5.54	9.28	0



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
7	SLE RA 13	193	4	1978	11.64	8.85	-0.01
7	SLE RA 14	217	12	1978	-3.63	9.93	0
7	SLE RA 15	202	7	1978	5.54	9.28	0
7	SLE RA 16	217	12	1978	-3.63	9.93	0
7	SLE RA 17	202	7	1978	5.54	9.28	0
7	SLE RA 18	238	13	2060	-3.84	10.84	0
7	SLE RA 19	223	8	2060	5.33	10.2	0
7	SLE RA 20	238	13	2060	-3.84	10.84	0
7	SLE RA 21	223	8	2060	5.33	10.2	0
7	SLE FR 1	168	10	1786	-3.14	7.79	0
7	SLE FR 2	163	8	1786	-0.08	7.58	0
7	SLE FR 3	168	10	1786	-3.14	7.79	0
7	SLE FR 4	184	9	1868	-0.29	8.49	0
7	SLE FR 5	189	11	1868	-3.35	8.71	0
7	SLE FR 6	203	12	1923	-3.49	9.32	0
7	SLE QP 1	168	10	1786	-3.14	7.79	0
7	SLE QP 2	189	11	1868	-3.35	8.71	0
7	SLD 1	367	10	2036	-5.59	16.12	0.01
7	SLD 2	367	10	2036	-5.59	16.12	0.01
7	SLD 3	327	-11	1957	19	14.37	0
7	SLD 4	327	-11	1957	19	14.37	0
7	SLD 5	303	42	2039	-41.31	13.58	0.01
7	SLD 6	303	42	2039	-41.31	13.58	0.01
7	SLD 7	170	-27	1774	40.65	7.76	-0.01
7	SLD 8	170	-27	1774	40.65	7.76	-0.01
7	SLD 9	208	49	1962	-47.34	9.66	0.01
7	SLD 10	208	49	1962	-47.34	9.66	0.01
7	SLD 11	74	-20	1697	34.62	3.83	-0.01
7	SLD 12	74	-20	1697	34.62	3.83	-0.01
7	SLD 13	50	33	1779	-25.69	3.04	-0.01
7	SLD 14	50	33	1779	-25.69	3.04	-0.01
7	SLD 15	10	12	1699	-1.11	1.3	-0.01
7	SLD 16	10	12	1699	-1.11	1.3	-0.01
7	SLV 1	615	9	2269	-9.78	26.38	0.02
7	SLV 2	615	9	2269	-9.78	26.38	0.02
7	SLV 3	511	-42	2075	52.09	21.87	0.01
7	SLV 4	511	-42	2075	52.09	21.87	0.01
7	SLV 5	473	88	2283	-99.12	20.85	0.03
7	SLV 6	473	88	2283	-99.12	20.85	0.03
7	SLV 7	129	-83	1635	107.12	5.81	-0.02
7	SLV 8	129	-83	1635	107.12	5.81	-0.02
7	SLV 9	249	104	2100	-113.82	11.6	0.02
7	SLV 10	249	104	2100	-113.82	11.6	0.02
7	SLV 11	-96	-66	1453	92.42	-3.44	-0.03
7	SLV 12	-96	-66	1453	92.42	-3.44	-0.03
7	SLV 13	-134	64	1661	-58.79	-4.45	-0.01
7	SLV 14	-134	64	1661	-58.79	-4.45	-0.01
7	SLV 15	-237	13	1467	3.09	-8.96	-0.03
7	SLV 16	-237	13	1467	3.09	-8.96	-0.03
8	SLU 1	136	9	1745	-2.56	4.66	0
8	SLU 2	117	-6	1787	24.08	3.7	0
8	SLU 3	136	9	1745	-2.56	4.66	0
8	SLU 4	125	0	1770	13.42	4.08	0
8	SLU 5	117	-6	1787	24.08	3.7	0
8	SLU 6	136	9	1745	-2.56	4.66	0
8	SLU 7	125	0	1770	13.42	4.08	0
8	SLU 8	136	9	1745	-2.56	4.66	0
8	SLU 9	125	0	1770	13.42	4.08	0
8	SLU 10	184	-3	2084	23.5	6.12	0
8	SLU 11	204	12	2043	-3.14	7.08	0
8	SLU 12	192	3	2068	12.84	6.5	0
8	SLU 13	184	-3	2084	23.5	6.12	0
8	SLU 14	204	12	2043	-3.14	7.08	0
8	SLU 15	192	3	2068	12.84	6.5	0
8	SLU 16	204	12	2043	-3.14	7.08	0
8	SLU 17	192	3	2068	12.84	6.5	0
8	SLU 18	232	14	2170	-3.39	8.11	0
8	SLU 19	221	4	2195	12.6	7.54	0
8	SLU 20	232	14	2170	-3.39	8.11	0
8	SLU 21	221	4	2195	12.6	7.54	0
8	SLU 22	164	11	1879	-2.85	5.64	0
8	SLU 23	144	-5	1921	23.79	4.68	0
8	SLU 24	164	11	1879	-2.85	5.64	0
8	SLU 25	152	1	1904	13.13	5.06	0
8	SLU 26	144	-5	1921	23.79	4.68	0
8	SLU 27	164	11	1879	-2.85	5.64	0
8	SLU 28	152	1	1904	13.13	5.06	0
8	SLU 29	164	11	1879	-2.85	5.64	0
8	SLU 30	152	1	1904	13.13	5.06	0
8	SLU 31	212	-2	2219	23.21	7.1	0
8	SLU 32	231	14	2177	-3.43	8.06	0
8	SLU 33	220	4	2202	12.56	7.48	0
8	SLU 34	212	-2	2219	23.21	7.1	0
8	SLU 35	231	14	2177	-3.43	8.06	0
8	SLU 36	220	4	2202	12.56	7.48	0
8	SLU 37	231	14	2177	-3.43	8.06	0
8	SLU 38	220	4	2202	12.56	7.48	0
8	SLU 39	260	15	2305	-3.68	9.09	0
8	SLU 40	248	6	2330	12.31	8.52	0
8	SLU 41	260	15	2305	-3.68	9.09	0



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
8	SLU 42	248	6	2330	12.31	8.52	0
8	SLU 43	168	12	2222	-3.23	5.72	0
8	SLU 44	148	-4	2264	23.41	4.76	0
8	SLU 45	168	12	2222	-3.23	5.72	0
8	SLU 46	156	2	2247	12.75	5.14	0
8	SLU 47	148	-4	2264	23.41	4.76	0
8	SLU 48	168	12	2222	-3.23	5.72	0
8	SLU 49	156	2	2247	12.75	5.14	0
8	SLU 50	168	12	2222	-3.23	5.72	0
8	SLU 51	156	2	2247	12.75	5.14	0
8	SLU 52	216	-1	2562	22.83	7.18	0
8	SLU 53	235	15	2520	-3.81	8.14	0
8	SLU 54	223	5	2545	12.17	7.56	0
8	SLU 55	216	-1	2562	22.83	7.18	0
8	SLU 56	235	15	2520	-3.81	8.14	0
8	SLU 57	223	5	2545	12.17	7.56	0
8	SLU 58	235	15	2520	-3.81	8.14	0
8	SLU 59	223	5	2545	12.17	7.56	0
8	SLU 60	264	16	2648	-4.06	9.18	0
8	SLU 61	252	7	2673	11.93	8.6	0
8	SLU 62	264	16	2648	-4.06	9.18	0
8	SLU 63	252	7	2673	11.93	8.6	0
8	SLU 64	195	13	2357	-3.52	6.7	0
8	SLU 65	176	-3	2398	23.12	5.74	0
8	SLU 66	195	13	2357	-3.52	6.7	0
8	SLU 67	184	4	2382	12.46	6.12	0
8	SLU 68	176	-3	2398	23.12	5.74	0
8	SLU 69	195	13	2357	-3.52	6.7	0
8	SLU 70	184	4	2382	12.46	6.12	0
8	SLU 71	195	13	2357	-3.52	6.7	0
8	SLU 72	184	4	2382	12.46	6.12	0
8	SLU 73	243	0	2696	22.54	8.16	0
8	SLU 74	263	16	2654	-4.1	9.12	0
8	SLU 75	251	7	2679	11.89	8.54	0
8	SLU 76	243	0	2696	22.54	8.16	0
8	SLU 77	263	16	2654	-4.1	9.12	0
8	SLU 78	251	7	2679	11.89	8.54	0
8	SLU 79	263	16	2654	-4.1	9.12	0
8	SLU 80	251	7	2679	11.89	8.54	0
8	SLU 81	291	17	2782	-4.35	10.16	0
8	SLU 82	280	8	2807	11.64	9.58	0
8	SLU 83	291	17	2782	-4.35	10.16	0
8	SLU 84	280	8	2807	11.64	9.58	0
8	SLE RA 1	144	10	1783	-2.65	4.94	0
8	SLE RA 2	131	-1	1811	15.12	4.3	0
8	SLE RA 3	144	10	1783	-2.65	4.94	0
8	SLE RA 4	136	3	1800	8.01	4.55	0
8	SLE RA 5	131	-1	1811	15.12	4.3	0
8	SLE RA 6	144	10	1783	-2.65	4.94	0
8	SLE RA 7	136	3	1800	8.01	4.55	0
8	SLE RA 8	144	10	1783	-2.65	4.94	0
8	SLE RA 9	136	3	1800	8.01	4.55	0
8	SLE RA 10	176	1	2010	14.73	5.91	0
8	SLE RA 11	189	12	1982	-3.03	6.55	0
8	SLE RA 12	181	5	1998	7.63	6.17	0
8	SLE RA 13	176	1	2010	14.73	5.91	0
8	SLE RA 14	189	12	1982	-3.03	6.55	0
8	SLE RA 15	181	5	1998	7.63	6.17	0
8	SLE RA 16	189	12	1982	-3.03	6.55	0
8	SLE RA 17	181	5	1998	7.63	6.17	0
8	SLE RA 18	208	12	2067	-3.2	7.24	0
8	SLE RA 19	200	6	2084	7.46	6.86	0
8	SLE RA 20	208	12	2067	-3.2	7.24	0
8	SLE RA 21	200	6	2084	7.46	6.86	0
8	SLE FR 1	144	10	1783	-2.65	4.94	0
8	SLE FR 2	142	8	1789	0.91	4.81	0
8	SLE FR 3	144	10	1783	-2.65	4.94	0
8	SLE FR 4	161	8	1874	0.74	5.5	0
8	SLE FR 5	163	10	1868	-2.81	5.63	0
8	SLE FR 6	176	11	1925	-2.92	6.09	0
8	SLE QP 1	144	10	1783	-2.65	4.94	0
8	SLE QP 2	163	10	1868	-2.81	5.63	0
8	SLD 1	339	12	2045	-6.87	12.77	0.01
8	SLD 2	339	12	2045	-6.87	12.77	0.01
8	SLD 3	307	-13	1925	21.9	11.37	0
8	SLD 4	307	-13	1925	21.9	11.37	0
8	SLD 5	266	48	2103	-47.67	9.91	0.01
8	SLD 6	266	48	2103	-47.67	9.91	0.01
8	SLD 7	157	-34	1704	48.25	5.22	-0.01
8	SLD 8	157	-34	1704	48.25	5.22	-0.01
8	SLD 9	170	55	2033	-53.87	6.04	0
8	SLD 10	170	55	2033	-53.87	6.04	0
8	SLD 11	61	-28	1634	42.05	1.35	-0.01
8	SLD 12	61	-28	1634	42.05	1.35	-0.01
8	SLD 13	20	34	1812	-27.52	-0.11	0
8	SLD 14	20	34	1812	-27.52	-0.11	0
8	SLD 15	-13	9	1692	1.25	-1.52	-0.01
8	SLD 16	-13	9	1692	1.25	-1.52	-0.01
8	SLV 1	582	15	2291	-13.59	22.62	0.01
8	SLV 2	582	15	2291	-13.59	22.62	0.01



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
8	SLV 3	498	-46	1998	58.9	18.99	0
8	SLV 4	498	-46	1998	58.9	18.99	0
8	SLV 5	417	105	2440	-115.99	16.23	0.02
8	SLV 6	417	105	2440	-115.99	16.23	0.02
8	SLV 7	136	-100	1463	125.64	4.13	-0.02
8	SLV 8	136	-100	1463	125.64	4.13	-0.02
8	SLV 9	191	121	2274	-131.27	7.12	0.01
8	SLV 10	191	121	2274	-131.27	7.12	0.01
8	SLV 11	-90	-84	1297	110.36	-4.97	-0.02
8	SLV 12	-90	-84	1297	110.36	-4.97	-0.02
8	SLV 13	-171	67	1739	-64.52	-7.74	-0.01
8	SLV 14	-171	67	1739	-64.52	-7.74	-0.01
8	SLV 15	-255	6	1446	7.96	-11.37	-0.02
8	SLV 16	-255	6	1446	7.96	-11.37	-0.02
9	SLU 1	152	9	1746	-2.26	6.79	0
9	SLU 2	150	-8	1817	26.76	6.64	0
9	SLU 3	152	9	1746	-2.26	6.79	0
9	SLU 4	151	-1	1788	15.15	6.7	0
9	SLU 5	150	-8	1817	26.76	6.64	0
9	SLU 6	152	9	1746	-2.26	6.79	0
9	SLU 7	151	-1	1788	15.15	6.7	0
9	SLU 8	152	9	1746	-2.26	6.79	0
9	SLU 9	151	-1	1788	15.15	6.7	0
9	SLU 10	220	-5	2125	26.28	9.66	0
9	SLU 11	222	12	2054	-2.75	9.81	0
9	SLU 12	221	2	2096	14.67	9.72	0
9	SLU 13	220	-5	2125	26.28	9.66	0
9	SLU 14	222	12	2054	-2.75	9.81	0
9	SLU 15	221	2	2096	14.67	9.72	0
9	SLU 16	222	12	2054	-2.75	9.81	0
9	SLU 17	221	2	2096	14.67	9.72	0
9	SLU 18	252	13	2186	-2.96	11.1	0
9	SLU 19	251	3	2228	14.46	11.01	0
9	SLU 20	252	13	2186	-2.96	11.1	0
9	SLU 21	251	3	2228	14.46	11.01	0
9	SLU 22	181	10	1884	-2.51	8.08	0
9	SLU 23	180	-7	1955	26.51	7.93	0
9	SLU 24	181	10	1884	-2.51	8.08	0
9	SLU 25	180	0	1926	14.9	7.99	0
9	SLU 26	180	-7	1955	26.51	7.93	0
9	SLU 27	181	10	1884	-2.51	8.08	0
9	SLU 28	180	0	1926	14.9	7.99	0
9	SLU 29	181	10	1884	-2.51	8.08	0
9	SLU 30	180	0	1926	14.9	7.99	0
9	SLU 31	250	-4	2263	26.03	10.94	0
9	SLU 32	252	13	2192	-3	11.09	0
9	SLU 33	251	3	2234	14.42	11	0
9	SLU 34	250	-4	2263	26.03	10.94	0
9	SLU 35	252	13	2192	-3	11.09	0
9	SLU 36	251	3	2234	14.42	11	0
9	SLU 37	252	13	2192	-3	11.09	0
9	SLU 38	251	3	2234	14.42	11	0
9	SLU 39	282	14	2324	-3.21	12.38	0
9	SLU 40	281	4	2366	14.21	12.29	0
9	SLU 41	282	14	2324	-3.21	12.38	0
9	SLU 42	281	4	2366	14.21	12.29	0
9	SLU 43	187	11	2222	-2.85	8.39	0
9	SLU 44	185	-6	2293	26.17	8.24	0
9	SLU 45	187	11	2222	-2.85	8.39	0
9	SLU 46	186	1	2265	14.56	8.3	0
9	SLU 47	185	-6	2293	26.17	8.24	0
9	SLU 48	187	11	2222	-2.85	8.39	0
9	SLU 49	186	1	2265	14.56	8.3	0
9	SLU 50	187	11	2222	-2.85	8.39	0
9	SLU 51	186	1	2265	14.56	8.3	0
9	SLU 52	256	-3	2601	25.69	11.25	0
9	SLU 53	257	14	2530	-3.34	11.4	0
9	SLU 54	256	4	2573	14.08	11.31	0
9	SLU 55	256	-3	2601	25.69	11.25	0
9	SLU 56	257	14	2530	-3.34	11.4	0
9	SLU 57	256	4	2573	14.08	11.31	0
9	SLU 58	257	14	2530	-3.34	11.4	0
9	SLU 59	256	4	2573	14.08	11.31	0
9	SLU 60	288	15	2662	-3.55	12.7	0
9	SLU 61	287	5	2705	13.87	12.61	0
9	SLU 62	288	15	2662	-3.55	12.7	0
9	SLU 63	287	5	2705	13.87	12.61	0
9	SLU 64	217	13	2360	-3.1	9.68	0
9	SLU 65	215	-5	2431	25.92	9.53	0
9	SLU 66	217	13	2360	-3.1	9.68	0
9	SLU 67	216	2	2403	14.31	9.59	0
9	SLU 68	215	-5	2431	25.92	9.53	0
9	SLU 69	217	13	2360	-3.1	9.68	0
9	SLU 70	216	2	2403	14.31	9.59	0
9	SLU 71	217	13	2360	-3.1	9.68	0
9	SLU 72	216	2	2403	14.31	9.59	0
9	SLU 73	285	-2	2739	25.44	12.54	0
9	SLU 74	287	15	2668	-3.59	12.69	0
9	SLU 75	286	5	2711	13.82	12.6	0
9	SLU 76	285	-2	2739	25.44	12.54	0





Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
9	SLU 77	287	15	2668	-3.59	12.69	0
9	SLU 78	286	5	2711	13.82	12.6	0
9	SLU 79	287	15	2668	-3.59	12.69	0
9	SLU 80	286	5	2711	13.82	12.6	0
9	SLU 81	317	17	2800	-3.8	13.98	0
9	SLU 82	316	6	2843	13.62	13.89	0
9	SLU 83	317	17	2800	-3.8	13.98	0
9	SLU 84	316	6	2843	13.62	13.89	0
9	SLE RA 1	160	9	1785	-2.33	7.16	0
9	SLE RA 2	159	-2	1833	17.02	7.06	0
9	SLE RA 3	160	9	1785	-2.33	7.16	0
9	SLE RA 4	159	2	1814	9.28	7.1	0
9	SLE RA 5	159	-2	1833	17.02	7.06	0
9	SLE RA 6	160	9	1785	-2.33	7.16	0
9	SLE RA 7	159	2	1814	9.28	7.1	0
9	SLE RA 8	160	9	1785	-2.33	7.16	0
9	SLE RA 9	159	2	1814	9.28	7.1	0
9	SLE RA 10	206	0	2038	16.69	9.07	0
9	SLE RA 11	207	11	1991	-2.66	9.17	0
9	SLE RA 12	206	4	2019	8.95	9.11	0
9	SLE RA 13	206	0	2038	16.69	9.07	0
9	SLE RA 14	207	11	1991	-2.66	9.17	0
9	SLE RA 15	206	4	2019	8.95	9.11	0
9	SLE RA 16	207	11	1991	-2.66	9.17	0
9	SLE RA 17	206	4	2019	8.95	9.11	0
9	SLE RA 18	227	12	2078	-2.8	10.03	0
9	SLE RA 19	227	5	2107	8.81	9.97	0
9	SLE RA 20	227	12	2078	-2.8	10.03	0
9	SLE RA 21	227	5	2107	8.81	9.97	0
9	SLE FR 1	160	9	1785	-2.33	7.16	0
9	SLE FR 2	160	7	1795	1.54	7.14	0
9	SLE FR 3	160	9	1785	-2.33	7.16	0
9	SLE FR 4	180	8	1883	1.4	8	0
9	SLE FR 5	180	10	1873	-2.47	8.02	0
9	SLE FR 6	194	11	1932	-2.56	8.6	0
9	SLE QP 1	160	9	1785	-2.33	7.16	0
9	SLE QP 2	180	10	1873	-2.47	8.02	0
9	SLD 1	331	14	2052	-8.11	14.14	0.01
9	SLD 2	331	14	2052	-8.11	14.14	0.01
9	SLD 3	356	-14	1900	23.71	15.22	0
9	SLD 4	356	-14	1900	23.71	15.22	0
9	SLD 5	187	53	2157	-52.43	8.22	0.01
9	SLD 6	187	53	2157	-52.43	8.22	0.01
9	SLD 7	272	-39	1651	53.65	11.82	0
9	SLD 8	272	-39	1651	53.65	11.82	0
9	SLD 9	89	59	2096	-58.59	4.22	0
9	SLD 10	89	59	2096	-58.59	4.22	0
9	SLD 11	174	-33	1589	47.48	7.82	-0.01
9	SLD 12	174	-33	1589	47.48	7.82	-0.01
9	SLD 13	4	34	1847	-28.65	0.82	0
9	SLD 14	4	34	1847	-28.65	0.82	0
9	SLD 15	30	6	1695	3.17	1.9	-0.01
9	SLD 16	30	6	1695	3.17	1.9	-0.01
9	SLV 1	532	20	2304	-16.92	22.33	0.01
9	SLV 2	532	20	2304	-16.92	22.33	0.01
9	SLV 3	598	-49	1931	63.26	25.08	0.01
9	SLV 4	598	-49	1931	63.26	25.08	0.01
9	SLV 5	187	117	2568	-128.42	8.15	0.02
9	SLV 6	187	117	2568	-128.42	8.15	0.02
9	SLV 7	405	-111	1325	138.86	17.3	-0.01
9	SLV 8	405	-111	1325	138.86	17.3	-0.01
9	SLV 9	-44	132	2421	-143.81	-1.26	0.01
9	SLV 10	-44	132	2421	-143.81	-1.26	0.01
9	SLV 11	174	-97	1179	123.48	7.89	-0.02
9	SLV 12	174	-97	1179	123.48	7.89	-0.02
9	SLV 13	-237	69	1815	-68.21	-9.03	-0.01
9	SLV 14	-237	69	1815	-68.21	-9.03	-0.01
9	SLV 15	-172	0	1442	11.98	-6.29	-0.01
9	SLV 16	-172	0	1442	11.98	-6.29	-0.01
10	SLU 1	136	9	1754	-2.25	4.82	0
10	SLU 2	150	-9	1842	27.67	5.33	0
10	SLU 3	136	9	1754	-2.25	4.82	0
10	SLU 4	145	-2	1807	15.7	5.12	0
10	SLU 5	150	-9	1842	27.67	5.33	0
10	SLU 6	136	9	1754	-2.25	4.82	0
10	SLU 7	145	-2	1807	15.7	5.12	0
10	SLU 8	136	9	1754	-2.25	4.82	0
10	SLU 9	145	-2	1807	15.7	5.12	0
10	SLU 10	213	-6	2160	27.17	7.61	0
10	SLU 11	199	12	2072	-2.75	7.1	0
10	SLU 12	208	1	2125	15.2	7.41	0
10	SLU 13	213	-6	2160	27.17	7.61	0
10	SLU 14	199	12	2072	-2.75	7.1	0
10	SLU 15	208	1	2125	15.2	7.41	0
10	SLU 16	199	12	2072	-2.75	7.1	0
10	SLU 17	208	1	2125	15.2	7.41	0
10	SLU 18	226	13	2208	-2.97	8.08	0
10	SLU 19	235	3	2261	14.98	8.39	0
10	SLU 20	226	13	2208	-2.97	8.08	0
10	SLU 21	235	3	2261	14.98	8.39	0



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
10	SLU 22	164	10	1896	-2.51	5.8	0
10	SLU 23	178	-8	1984	27.41	6.31	0
10	SLU 24	164	10	1896	-2.51	5.8	0
10	SLU 25	172	0	1949	15.44	6.1	0
10	SLU 26	178	-8	1984	27.41	6.31	0
10	SLU 27	164	10	1896	-2.51	5.8	0
10	SLU 28	172	0	1949	15.44	6.1	0
10	SLU 29	164	10	1896	-2.51	5.8	0
10	SLU 30	172	0	1949	15.44	6.1	0
10	SLU 31	241	-5	2302	26.91	8.59	0
10	SLU 32	227	13	2214	-3.01	8.08	0
10	SLU 33	235	3	2267	14.94	8.39	0
10	SLU 34	241	-5	2302	26.91	8.59	0
10	SLU 35	227	13	2214	-3.01	8.08	0
10	SLU 36	235	3	2267	14.94	8.39	0
10	SLU 37	227	13	2214	-3.01	8.08	0
10	SLU 38	235	3	2267	14.94	8.39	0
10	SLU 39	254	15	2350	-3.23	9.06	0
10	SLU 40	262	4	2403	14.72	9.37	0
10	SLU 41	254	15	2350	-3.23	9.06	0
10	SLU 42	262	4	2403	14.72	9.37	0
10	SLU 43	168	11	2231	-2.84	5.93	0
10	SLU 44	182	-7	2319	27.08	6.44	0
10	SLU 45	168	11	2231	-2.84	5.93	0
10	SLU 46	176	1	2284	15.12	6.24	0
10	SLU 47	182	-7	2319	27.08	6.44	0
10	SLU 48	168	11	2231	-2.84	5.93	0
10	SLU 49	176	1	2284	15.12	6.24	0
10	SLU 50	168	11	2231	-2.84	5.93	0
10	SLU 51	176	1	2284	15.12	6.24	0
10	SLU 52	245	-4	2637	26.58	8.72	0
10	SLU 53	231	14	2549	-3.34	8.21	0
10	SLU 54	239	4	2602	14.61	8.52	0
10	SLU 55	245	-4	2637	26.58	8.72	0
10	SLU 56	231	14	2549	-3.34	8.21	0
10	SLU 57	239	4	2602	14.61	8.52	0
10	SLU 58	231	14	2549	-3.34	8.21	0
10	SLU 59	239	4	2602	14.61	8.52	0
10	SLU 60	258	16	2686	-3.56	9.19	0
10	SLU 61	266	5	2738	14.4	9.5	0
10	SLU 62	258	16	2686	-3.56	9.19	0
10	SLU 63	266	5	2738	14.4	9.5	0
10	SLU 64	195	13	2374	-3.1	6.91	0
10	SLU 65	209	-5	2461	26.82	7.42	0
10	SLU 66	195	13	2374	-3.1	6.91	0
10	SLU 67	204	2	2426	14.86	7.21	0
10	SLU 68	209	-5	2461	26.82	7.42	0
10	SLU 69	195	13	2374	-3.1	6.91	0
10	SLU 70	204	2	2426	14.86	7.21	0
10	SLU 71	195	13	2374	-3.1	6.91	0
10	SLU 72	204	2	2426	14.86	7.21	0
10	SLU 73	272	-2	2779	26.32	9.7	0
10	SLU 74	258	16	2692	-3.6	9.19	0
10	SLU 75	267	5	2744	14.35	9.5	0
10	SLU 76	272	-2	2779	26.32	9.7	0
10	SLU 77	258	16	2692	-3.6	9.19	0
10	SLU 78	267	5	2744	14.35	9.5	0
10	SLU 79	258	16	2692	-3.6	9.19	0
10	SLU 80	267	5	2744	14.35	9.5	0
10	SLU 81	285	17	2828	-3.82	10.17	0
10	SLU 82	294	6	2880	14.14	10.48	0
10	SLU 83	285	17	2828	-3.82	10.17	0
10	SLU 84	294	6	2880	14.14	10.48	0
10	SLE RA 1	144	9	1795	-2.33	5.1	0
10	SLE RA 2	154	-3	1853	17.62	5.44	0
10	SLE RA 3	144	9	1795	-2.33	5.1	0
10	SLE RA 4	150	2	1830	9.64	5.3	0
10	SLE RA 5	154	-3	1853	17.62	5.44	0
10	SLE RA 6	144	9	1795	-2.33	5.1	0
10	SLE RA 7	150	2	1830	9.64	5.3	0
10	SLE RA 8	144	9	1795	-2.33	5.1	0
10	SLE RA 9	150	2	1830	9.64	5.3	0
10	SLE RA 10	196	-1	2065	17.29	6.96	0
10	SLE RA 11	186	11	2007	-2.66	6.62	0
10	SLE RA 12	192	4	2042	9.31	6.83	0
10	SLE RA 13	196	-1	2065	17.29	6.96	0
10	SLE RA 14	186	11	2007	-2.66	6.62	0
10	SLE RA 15	192	4	2042	9.31	6.83	0
10	SLE RA 16	186	11	2007	-2.66	6.62	0
10	SLE RA 17	192	4	2042	9.31	6.83	0
10	SLE RA 18	204	12	2097	-2.8	7.28	0
10	SLE RA 19	210	5	2132	9.16	7.48	0
10	SLE RA 20	204	12	2097	-2.8	7.28	0
10	SLE RA 21	210	5	2132	9.16	7.48	0
10	SLE FR 1	144	9	1795	-2.33	5.1	0
10	SLE FR 2	146	7	1806	1.66	5.17	0
10	SLE FR 3	144	9	1795	-2.33	5.1	0
10	SLE FR 4	164	8	1897	1.52	5.82	0
10	SLE FR 5	162	10	1885	-2.47	5.75	0
10	SLE FR 6	174	11	1946	-2.57	6.19	0



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
10	SLE QP 1	144	9	1795	-2.33	5.1	0
10	SLE QP 2	162	10	1885	-2.47	5.75	0
10	SLD 1	318	16	2059	-9.22	12.01	0
10	SLD 2	318	16	2059	-9.22	12.01	0
10	SLD 3	338	-13	1889	24.35	12.83	0.01
10	SLD 4	338	-13	1889	24.35	12.83	0.01
10	SLD 5	179	56	2195	-55.41	6.38	0
10	SLD 6	179	56	2195	-55.41	6.38	0
10	SLD 7	245	-41	1629	56.49	9.13	0.01
10	SLD 8	245	-41	1629	56.49	9.13	0.01
10	SLD 9	80	62	2142	-61.43	2.38	-0.01
10	SLD 10	80	62	2142	-61.43	2.38	-0.01
10	SLD 11	146	-36	1576	50.47	5.13	0
10	SLD 12	146	-36	1576	50.47	5.13	0
10	SLD 13	-13	34	1882	-29.29	-1.33	-0.01
10	SLD 14	-13	34	1882	-29.29	-1.33	-0.01
10	SLD 15	7	5	1712	4.28	-0.5	0
10	SLD 16	7	5	1712	4.28	-0.5	0
10	SLV 1	526	24	2307	-19.43	20.39	0.01
10	SLV 2	526	24	2307	-19.43	20.39	0.01
10	SLV 3	577	-49	1890	65.14	22.51	0.02
10	SLV 4	577	-49	1890	65.14	22.51	0.02
10	SLV 5	194	125	2645	-135.82	6.93	-0.01
10	SLV 6	194	125	2645	-135.82	6.93	-0.01
10	SLV 7	364	-118	1254	146.08	14	0.01
10	SLV 8	364	-118	1254	146.08	14	0.01
10	SLV 9	-39	138	2517	-151.02	-2.49	-0.01
10	SLV 10	-39	138	2517	-151.02	-2.49	-0.01
10	SLV 11	130	-104	1126	130.88	4.58	0.01
10	SLV 12	130	-104	1126	130.88	4.58	0.01
10	SLV 13	-253	69	1881	-70.08	-11.01	-0.02
10	SLV 14	-253	69	1881	-70.08	-11.01	-0.02
10	SLV 15	-202	-4	1463	14.49	-8.89	-0.01
10	SLV 16	-202	-4	1463	14.49	-8.89	-0.01
11	SLU 1	149	9	1762	-2.58	6.5	0
11	SLU 2	177	-8	1853	26.73	7.62	0
11	SLU 3	149	9	1762	-2.58	6.5	0
11	SLU 4	166	-1	1817	15	7.17	0
11	SLU 5	177	-8	1853	26.73	7.62	0
11	SLU 6	149	9	1762	-2.58	6.5	0
11	SLU 7	166	-1	1817	15	7.17	0
11	SLU 8	149	9	1762	-2.58	6.5	0
11	SLU 9	166	-1	1817	15	7.17	0
11	SLU 10	241	-5	2179	26.09	10.35	0
11	SLU 11	213	13	2088	-3.22	9.23	0
11	SLU 12	230	2	2143	14.36	9.9	0
11	SLU 13	241	-5	2179	26.09	10.35	0
11	SLU 14	213	13	2088	-3.22	9.23	0
11	SLU 15	230	2	2143	14.36	9.9	0
11	SLU 16	213	13	2088	-3.22	9.23	0
11	SLU 17	230	2	2143	14.36	9.9	0
11	SLU 18	240	14	2228	-3.49	10.4	0
11	SLU 19	257	4	2283	14.09	11.07	0
11	SLU 20	240	14	2228	-3.49	10.4	0
11	SLU 21	257	4	2283	14.09	11.07	0
11	SLU 22	178	11	1908	-2.9	7.72	0
11	SLU 23	205	-6	1999	26.4	8.84	0
11	SLU 24	178	11	1908	-2.9	7.72	0
11	SLU 25	194	1	1963	14.68	8.39	0
11	SLU 26	205	-6	1999	26.4	8.84	0
11	SLU 27	178	11	1908	-2.9	7.72	0
11	SLU 28	194	1	1963	14.68	8.39	0
11	SLU 29	178	11	1908	-2.9	7.72	0
11	SLU 30	194	1	1963	14.68	8.39	0
11	SLU 31	269	-3	2325	25.76	11.57	0
11	SLU 32	242	14	2234	-3.54	10.45	0
11	SLU 33	258	4	2289	14.04	11.12	0
11	SLU 34	269	-3	2325	25.76	11.57	0
11	SLU 35	242	14	2234	-3.54	10.45	0
11	SLU 36	258	4	2289	14.04	11.12	0
11	SLU 37	242	14	2234	-3.54	10.45	0
11	SLU 38	258	4	2289	14.04	11.12	0
11	SLU 39	269	15	2374	-3.82	11.62	0
11	SLU 40	286	5	2429	13.77	12.29	0
11	SLU 41	269	15	2374	-3.82	11.62	0
11	SLU 42	286	5	2429	13.77	12.29	0
11	SLU 43	184	12	2241	-3.24	8.03	0
11	SLU 44	212	-5	2332	26.07	9.15	0
11	SLU 45	184	12	2241	-3.24	8.03	0
11	SLU 46	200	1	2295	14.34	8.7	0
11	SLU 47	212	-5	2332	26.07	9.15	0
11	SLU 48	184	12	2241	-3.24	8.03	0
11	SLU 49	200	1	2295	14.34	8.7	0
11	SLU 50	184	12	2241	-3.24	8.03	0
11	SLU 51	200	1	2295	14.34	8.7	0
11	SLU 52	276	-2	2658	25.42	11.88	0
11	SLU 53	248	15	2567	-3.88	10.76	0
11	SLU 54	265	5	2621	13.7	11.43	0
11	SLU 55	276	-2	2658	25.42	11.88	0
11	SLU 56	248	15	2567	-3.88	10.76	0



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
11	SLU 57	265	5	2621	13.7	11.43	0
11	SLU 58	248	15	2567	-3.88	10.76	0
11	SLU 59	265	5	2621	13.7	11.43	0
11	SLU 60	275	16	2707	-4.16	11.93	0
11	SLU 61	292	6	2761	13.43	12.6	0
11	SLU 62	275	16	2707	-4.16	11.93	0
11	SLU 63	292	6	2761	13.43	12.6	0
11	SLU 64	212	13	2387	-3.57	9.25	0
11	SLU 65	240	-4	2477	25.74	10.37	0
11	SLU 66	212	13	2387	-3.57	9.25	0
11	SLU 67	229	3	2441	14.02	9.92	0
11	SLU 68	240	-4	2477	25.74	10.37	0
11	SLU 69	212	13	2387	-3.57	9.25	0
11	SLU 70	229	3	2441	14.02	9.92	0
11	SLU 71	212	13	2387	-3.57	9.25	0
11	SLU 72	229	3	2441	14.02	9.92	0
11	SLU 73	304	-1	2804	25.1	13.1	0
11	SLU 74	277	16	2713	-4.21	11.98	0
11	SLU 75	293	6	2767	13.38	12.65	0
11	SLU 76	304	-1	2804	25.1	13.1	0
11	SLU 77	277	16	2713	-4.21	11.98	0
11	SLU 78	293	6	2767	13.38	12.65	0
11	SLU 79	277	16	2713	-4.21	11.98	0
11	SLU 80	293	6	2767	13.38	12.65	0
11	SLU 81	304	18	2853	-4.48	13.15	0
11	SLU 82	321	7	2907	13.1	13.82	0
11	SLU 83	304	18	2853	-4.48	13.15	0
11	SLU 84	321	7	2907	13.1	13.82	0
11	SLE RA 1	157	10	1804	-2.67	6.84	0
11	SLE RA 2	176	-2	1864	16.87	7.59	0
11	SLE RA 3	157	10	1804	-2.67	6.84	0
11	SLE RA 4	168	3	1840	9.05	7.29	0
11	SLE RA 5	176	-2	1864	16.87	7.59	0
11	SLE RA 6	157	10	1804	-2.67	6.84	0
11	SLE RA 7	168	3	1840	9.05	7.29	0
11	SLE RA 8	157	10	1804	-2.67	6.84	0
11	SLE RA 9	168	3	1840	9.05	7.29	0
11	SLE RA 10	218	0	2082	16.44	9.41	0
11	SLE RA 11	200	12	2021	-3.1	8.66	0
11	SLE RA 12	211	5	2058	8.62	9.11	0
11	SLE RA 13	218	0	2082	16.44	9.41	0
11	SLE RA 14	200	12	2021	-3.1	8.66	0
11	SLE RA 15	211	5	2058	8.62	9.11	0
11	SLE RA 16	200	12	2021	-3.1	8.66	0
11	SLE RA 17	211	5	2058	8.62	9.11	0
11	SLE RA 18	218	13	2114	-3.28	9.44	0
11	SLE RA 19	229	6	2151	8.44	9.89	0
11	SLE RA 20	218	13	2114	-3.28	9.44	0
11	SLE RA 21	229	6	2151	8.44	9.89	0
11	SLE FR 1	157	10	1804	-2.67	6.84	0
11	SLE FR 2	161	8	1816	1.24	6.99	0
11	SLE FR 3	157	10	1804	-2.67	6.84	0
11	SLE FR 4	179	8	1909	1.05	7.77	0
11	SLE FR 5	175	11	1897	-2.86	7.62	0
11	SLE FR 6	188	11	1959	-2.98	8.14	0
11	SLE QP 1	157	10	1804	-2.67	6.84	0
11	SLE QP 2	175	11	1897	-2.86	7.62	0
11	SLD 1	336	17	1888	-10.02	14.13	0.01
11	SLD 2	336	17	1888	-10.02	14.13	0.01
11	SLD 3	353	-13	2060	23.92	14.84	0.01
11	SLD 4	353	-13	2060	23.92	14.84	0.01
11	SLD 5	197	58	1633	-56.48	8.5	0
11	SLD 6	197	58	1633	-56.48	8.5	0
11	SLD 7	255	-41	2208	56.65	10.87	0.01
11	SLD 8	255	-41	2208	56.65	10.87	0.01
11	SLD 9	96	63	1586	-62.36	4.38	-0.01
11	SLD 10	96	63	1586	-62.36	4.38	-0.01
11	SLD 11	153	-36	2161	50.76	6.75	0
11	SLD 12	153	-36	2161	50.76	6.75	0
11	SLD 13	-2	34	1734	-29.63	0.41	-0.01
11	SLD 14	-2	34	1734	-29.63	0.41	-0.01
11	SLD 15	15	4	1906	4.31	1.12	-0.01
11	SLD 16	15	4	1906	4.31	1.12	-0.01
11	SLV 1	551	26	1871	-20.68	22.84	0.02
11	SLV 2	551	26	1871	-20.68	22.84	0.02
11	SLV 3	596	-47	2295	64.75	24.69	0.02
11	SLV 4	596	-47	2295	64.75	24.69	0.02
11	SLV 5	220	127	1247	-137.79	9.39	0
11	SLV 6	220	127	1247	-137.79	9.39	0
11	SLV 7	370	-118	2658	147.01	15.54	0.02
11	SLV 8	370	-118	2658	147.01	15.54	0.02
11	SLV 9	-19	140	1136	-152.72	-0.29	-0.01
11	SLV 10	-19	140	1136	-152.72	-0.29	-0.01
11	SLV 11	131	-106	2547	132.08	5.86	0
11	SLV 12	131	-106	2547	132.08	5.86	0
11	SLV 13	-245	69	1499	-70.46	-9.44	-0.02
11	SLV 14	-245	69	1499	-70.46	-9.44	-0.02
11	SLV 15	-201	-5	1923	14.97	-7.59	-0.02
11	SLV 16	-201	-5	1923	14.97	-7.59	-0.02
12	SLU 1	139	10	1774	-3.22	5.02	0



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
12	SLU 2	177	-5	1855	24.02	6.64	0
12	SLU 3	139	10	1774	-3.22	5.02	0
12	SLU 4	162	1	1823	13.12	5.99	0
12	SLU 5	177	-5	1855	24.02	6.64	0
12	SLU 6	139	10	1774	-3.22	5.02	0
12	SLU 7	162	1	1823	13.12	5.99	0
12	SLU 8	139	10	1774	-3.22	5.02	0
12	SLU 9	162	1	1823	13.12	5.99	0
12	SLU 10	235	-2	2188	23.13	8.75	0
12	SLU 11	197	14	2107	-4.12	7.12	0
12	SLU 12	220	4	2156	12.23	8.1	0
12	SLU 13	235	-2	2188	23.13	8.75	0
12	SLU 14	197	14	2107	-4.12	7.12	0
12	SLU 15	220	4	2156	12.23	8.1	0
12	SLU 16	197	14	2107	-4.12	7.12	0
12	SLU 17	220	4	2156	12.23	8.1	0
12	SLU 18	221	15	2250	-4.5	8.03	0
12	SLU 19	244	6	2299	11.85	9	0
12	SLU 20	221	15	2250	-4.5	8.03	0
12	SLU 21	244	6	2299	11.85	9	0
12	SLU 22	166	12	1924	-3.66	5.99	0
12	SLU 23	204	-4	2005	23.58	7.62	0
12	SLU 24	166	12	1924	-3.66	5.99	0
12	SLU 25	189	3	1972	12.69	6.97	0
12	SLU 26	204	-4	2005	23.58	7.62	0
12	SLU 27	166	12	1924	-3.66	5.99	0
12	SLU 28	189	3	1972	12.69	6.97	0
12	SLU 29	166	12	1924	-3.66	5.99	0
12	SLU 30	189	3	1972	12.69	6.97	0
12	SLU 31	262	0	2338	22.69	9.72	0.01
12	SLU 32	224	15	2257	-4.55	8.1	0
12	SLU 33	247	6	2306	11.79	9.07	0
12	SLU 34	262	0	2338	22.69	9.72	0.01
12	SLU 35	224	15	2257	-4.55	8.1	0
12	SLU 36	247	6	2306	11.79	9.07	0
12	SLU 37	224	15	2257	-4.55	8.1	0
12	SLU 38	247	6	2306	11.79	9.07	0
12	SLU 39	248	17	2400	-4.94	9	0
12	SLU 40	271	7	2449	11.41	9.98	0
12	SLU 41	248	17	2400	-4.94	9	0
12	SLU 42	271	7	2449	11.41	9.98	0
12	SLU 43	172	13	2255	-4.04	6.19	0
12	SLU 44	210	-3	2336	23.21	7.81	0
12	SLU 45	172	13	2255	-4.04	6.19	0
12	SLU 46	195	3	2303	12.31	7.16	0
12	SLU 47	210	-3	2336	23.21	7.81	0
12	SLU 48	172	13	2255	-4.04	6.19	0
12	SLU 49	195	3	2303	12.31	7.16	0
12	SLU 50	172	13	2255	-4.04	6.19	0
12	SLU 51	195	3	2303	12.31	7.16	0
12	SLU 52	268	1	2669	22.32	9.92	0.01
12	SLU 53	229	16	2588	-4.93	8.29	0
12	SLU 54	252	7	2637	11.42	9.27	0
12	SLU 55	268	1	2669	22.32	9.92	0.01
12	SLU 56	229	16	2588	-4.93	8.29	0
12	SLU 57	252	7	2637	11.42	9.27	0
12	SLU 58	229	16	2588	-4.93	8.29	0
12	SLU 59	252	7	2637	11.42	9.27	0
12	SLU 60	254	18	2731	-5.37	9.27	0
12	SLU 61	277	8	2780	11.03	10.17	0
12	SLU 62	254	18	2731	-5.37	9.27	0
12	SLU 63	277	8	2780	11.03	10.17	0
12	SLU 64	198	14	2405	-4.48	7.16	0
12	SLU 65	237	-1	2486	22.77	8.79	0
12	SLU 66	198	14	2405	-4.48	7.16	0
12	SLU 67	221	5	2453	11.87	8.14	0
12	SLU 68	237	-1	2486	22.77	8.79	0
12	SLU 69	198	14	2405	-4.48	7.16	0
12	SLU 70	221	5	2453	11.87	8.14	0
12	SLU 71	198	14	2405	-4.48	7.16	0
12	SLU 72	221	5	2453	11.87	8.14	0
12	SLU 73	294	2	2819	21.88	10.89	0.01
12	SLU 74	256	18	2738	-5.37	9.27	0
12	SLU 75	279	8	2787	10.98	10.24	0
12	SLU 76	294	2	2819	21.88	10.89	0.01
12	SLU 77	256	18	2738	-5.37	9.27	0
12	SLU 78	279	8	2787	10.98	10.24	0
12	SLU 79	256	18	2738	-5.37	9.27	0
12	SLU 80	279	8	2787	10.98	10.24	0
12	SLU 81	281	19	2881	-5.75	10.17	0
12	SLU 82	304	10	2930	10.6	11.15	0
12	SLU 83	281	19	2881	-5.75	10.17	0
12	SLU 84	304	10	2930	10.6	11.15	0
12	SLE RA 1	147	11	1817	-3.35	5.3	0
12	SLE RA 2	172	0	1871	14.82	6.38	0
12	SLE RA 3	147	11	1817	-3.35	5.3	0
12	SLE RA 4	162	4	1849	7.55	5.95	0
12	SLE RA 5	172	0	1871	14.82	6.38	0
12	SLE RA 6	147	11	1817	-3.35	5.3	0
12	SLE RA 7	162	4	1849	7.55	5.95	0



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
12	SLE RA 8	147	11	1817	-3.35	5.3	0
12	SLE RA 9	162	4	1849	7.55	5.95	0
12	SLE RA 10	211	3	2093	14.22	7.78	0
12	SLE RA 11	185	13	2039	-3.94	6.7	0
12	SLE RA 12	201	7	2071	6.96	7.35	0
12	SLE RA 13	211	3	2093	14.22	7.78	0
12	SLE RA 14	185	13	2039	-3.94	6.7	0
12	SLE RA 15	201	7	2071	6.96	7.35	0
12	SLE RA 16	185	13	2039	-3.94	6.7	0
12	SLE RA 17	201	7	2071	6.96	7.35	0
12	SLE RA 18	202	14	2134	-4.2	7.3	0
12	SLE RA 19	217	8	2167	6.7	7.95	0
12	SLE RA 20	202	14	2134	-4.2	7.3	0
12	SLE RA 21	217	8	2167	6.7	7.95	0
12	SLE FR 1	147	11	1817	-3.35	5.3	0
12	SLE FR 2	152	9	1828	0.28	5.51	0
12	SLE FR 3	147	11	1817	-3.35	5.3	0
12	SLE FR 4	168	10	1923	0.03	6.11	0
12	SLE FR 5	163	12	1912	-3.6	5.9	0
12	SLE FR 6	174	12	1976	-3.77	6.3	0
12	SLE QP 1	147	11	1817	-3.35	5.3	0
12	SLE QP 2	163	12	1912	-3.6	5.9	0
12	SLD 1	325	17	2062	-10.41	12.43	0.01
12	SLD 2	325	17	2062	-10.41	12.43	0.01
12	SLD 3	346	-11	1903	22.52	13.23	0.01
12	SLD 4	346	-11	1903	22.52	13.23	0.01
12	SLD 5	180	57	2198	-55.58	6.65	0
12	SLD 6	180	57	2198	-55.58	6.65	0
12	SLD 7	250	-39	1668	54.17	9.31	0.01
12	SLD 8	250	-39	1668	54.17	9.31	0.01
12	SLD 9	76	62	2156	-61.38	2.49	-0.01
12	SLD 10	76	62	2156	-61.38	2.49	-0.01
12	SLD 11	147	-34	1626	48.38	5.15	0.01
12	SLD 12	147	-34	1626	48.38	5.15	0.01
12	SLD 13	-20	34	1921	-29.73	-1.43	-0.01
12	SLD 14	-20	34	1921	-29.73	-1.43	-0.01
12	SLD 15	2	6	1762	3.2	-0.64	0
12	SLD 16	2	6	1762	3.2	-0.64	0
12	SLV 1	541	26	2275	-20.51	21.16	0.01
12	SLV 2	541	26	2275	-20.51	21.16	0.01
12	SLV 3	596	-45	1886	62.3	23.27	0.02
12	SLV 4	596	-45	1886	62.3	23.27	0.02
12	SLV 5	193	124	2612	-134.28	7.27	-0.01
12	SLV 6	193	124	2612	-134.28	7.27	-0.01
12	SLV 7	377	-114	1313	141.77	14.32	0.02
12	SLV 8	377	-114	1313	141.77	14.32	0.02
12	SLV 9	-50	137	2511	-148.98	-2.52	-0.02
12	SLV 10	-50	137	2511	-148.98	-2.52	-0.02
12	SLV 11	134	-101	1212	127.07	4.53	0.01
12	SLV 12	134	-101	1212	127.07	4.53	0.01
12	SLV 13	-270	69	1938	-69.51	-11.48	-0.02
12	SLV 14	-270	69	1938	-69.51	-11.48	-0.02
12	SLV 15	-214	-3	1549	13.31	-9.36	-0.01
12	SLV 16	-214	-3	1549	13.31	-9.36	-0.01
13	SLU 1	154	11	1789	-4.09	6.55	0
13	SLU 2	197	-1	1846	19.79	8.38	0.01
13	SLU 3	154	11	1789	-4.09	6.55	0
13	SLU 4	180	4	1823	10.24	7.65	0
13	SLU 5	197	-1	1846	19.79	8.38	0.01
13	SLU 6	154	11	1789	-4.09	6.55	0
13	SLU 7	180	4	1823	10.24	7.65	0
13	SLU 8	154	11	1789	-4.09	6.55	0
13	SLU 9	180	4	1823	10.24	7.65	0
13	SLU 10	257	3	2187	18.56	10.94	0.01
13	SLU 11	214	15	2129	-5.32	9.11	0
13	SLU 12	240	8	2164	9.01	10.21	0.01
13	SLU 13	257	3	2187	18.56	10.94	0.01
13	SLU 14	214	15	2129	-5.32	9.11	0
13	SLU 15	240	8	2164	9.01	10.21	0.01
13	SLU 16	214	15	2129	-5.32	9.11	0
13	SLU 17	240	8	2164	9.01	10.21	0.01
13	SLU 18	240	17	2275	-5.84	10.2	0
13	SLU 19	266	9	2309	8.49	11.3	0.01
13	SLU 20	240	17	2275	-5.84	10.2	0
13	SLU 21	266	9	2309	8.49	11.3	0.01
13	SLU 22	183	13	1943	-4.68	7.78	0
13	SLU 23	226	1	2000	19.2	9.61	0.01
13	SLU 24	183	13	1943	-4.68	7.78	0
13	SLU 25	209	6	1977	9.65	8.88	0.01
13	SLU 26	226	1	2000	19.2	9.61	0.01
13	SLU 27	183	13	1943	-4.68	7.78	0
13	SLU 28	209	6	1977	9.65	8.88	0.01
13	SLU 29	183	13	1943	-4.68	7.78	0
13	SLU 30	209	6	1977	9.65	8.88	0.01
13	SLU 31	286	5	2340	17.97	12.16	0.01
13	SLU 32	243	17	2283	-5.91	10.33	0
13	SLU 33	269	9	2317	8.42	11.43	0.01
13	SLU 34	286	5	2340	17.97	12.16	0.01
13	SLU 35	243	17	2283	-5.91	10.33	0
13	SLU 36	269	9	2317	8.42	11.43	0.01



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
13	SLU 37	243	17	2283	-5.91	10.33	0
13	SLU 38	269	9	2317	8.42	11.43	0.01
13	SLU 39	269	18	2429	-6.43	11.43	0
13	SLU 40	295	11	2463	7.9	12.53	0.01
13	SLU 41	269	18	2429	-6.43	11.43	0
13	SLU 42	295	11	2463	7.9	12.53	0.01
13	SLU 43	190	14	2273	-5.12	8.1	0
13	SLU 44	233	2	2330	18.76	9.93	0.01
13	SLU 45	190	14	2273	-5.12	8.1	0
13	SLU 46	216	7	2307	9.21	9.19	0.01
13	SLU 47	233	2	2330	18.76	9.93	0.01
13	SLU 48	190	14	2273	-5.12	8.1	0
13	SLU 49	216	7	2307	9.21	9.19	0.01
13	SLU 50	190	14	2273	-5.12	8.1	0
13	SLU 51	216	7	2307	9.21	9.19	0.01
13	SLU 52	293	5	2671	17.54	12.48	0.01
13	SLU 53	250	18	2613	-6.34	10.65	0
13	SLU 54	276	10	2647	7.99	11.75	0.01
13	SLU 55	293	5	2671	17.54	12.48	0.01
13	SLU 56	250	18	2613	-6.34	10.65	0
13	SLU 57	276	10	2647	7.99	11.75	0.01
13	SLU 58	250	18	2613	-6.34	10.65	0
13	SLU 59	276	10	2647	7.99	11.75	0.01
13	SLU 60	276	19	2759	-6.86	11.75	0
13	SLU 61	302	12	2793	7.46	12.85	0.01
13	SLU 62	276	19	2759	-6.86	11.75	0
13	SLU 63	302	12	2793	7.46	12.85	0.01
13	SLU 64	219	16	2427	-5.71	9.32	0
13	SLU 65	262	3	2484	18.17	11.15	0.01
13	SLU 66	219	16	2427	-5.71	9.32	0
13	SLU 67	245	8	2461	8.62	10.42	0.01
13	SLU 68	262	3	2484	18.17	11.15	0.01
13	SLU 69	219	16	2427	-5.71	9.32	0
13	SLU 70	245	8	2461	8.62	10.42	0.01
13	SLU 71	219	16	2427	-5.71	9.32	0
13	SLU 72	245	8	2461	8.62	10.42	0.01
13	SLU 73	323	7	2824	16.95	13.71	0.01
13	SLU 74	279	19	2767	-6.93	11.88	0
13	SLU 75	305	12	2801	7.4	12.98	0.01
13	SLU 76	323	7	2824	16.95	13.71	0.01
13	SLU 77	279	19	2767	-6.93	11.88	0
13	SLU 78	305	12	2801	7.4	12.98	0.01
13	SLU 79	279	19	2767	-6.93	11.88	0
13	SLU 80	305	12	2801	7.4	12.98	0.01
13	SLU 81	305	21	2912	-7.46	12.97	0
13	SLU 82	331	14	2947	6.87	14.07	0.01
13	SLU 83	305	21	2912	-7.46	12.97	0
13	SLU 84	331	14	2947	6.87	14.07	0.01
13	SLE RA 1	162	12	1833	-4.26	6.9	0
13	SLE RA 2	191	3	1871	11.66	8.12	0.01
13	SLE RA 3	162	12	1833	-4.26	6.9	0
13	SLE RA 4	179	7	1856	5.29	7.63	0
13	SLE RA 5	191	3	1871	11.66	8.12	0.01
13	SLE RA 6	162	12	1833	-4.26	6.9	0
13	SLE RA 7	179	7	1856	5.29	7.63	0
13	SLE RA 8	162	12	1833	-4.26	6.9	0
13	SLE RA 9	179	7	1856	5.29	7.63	0
13	SLE RA 10	231	6	2098	10.84	9.83	0.01
13	SLE RA 11	202	14	2060	-5.08	8.61	0
13	SLE RA 12	219	9	2083	4.48	9.34	0
13	SLE RA 13	231	6	2098	10.84	9.83	0.01
13	SLE RA 14	202	14	2060	-5.08	8.61	0
13	SLE RA 15	219	9	2083	4.48	9.34	0
13	SLE RA 16	202	14	2060	-5.08	8.61	0
13	SLE RA 17	219	9	2083	4.48	9.34	0
13	SLE RA 18	219	15	2157	-5.43	9.34	0
13	SLE RA 19	237	10	2180	4.13	10.07	0
13	SLE RA 20	219	15	2157	-5.43	9.34	0
13	SLE RA 21	237	10	2180	4.13	10.07	0
13	SLE FR 1	162	12	1833	-4.26	6.9	0
13	SLE FR 2	168	10	1840	-1.08	7.15	0
13	SLE FR 3	162	12	1833	-4.26	6.9	0
13	SLE FR 4	185	11	1938	-1.43	7.88	0
13	SLE FR 5	179	13	1930	-4.61	7.63	0
13	SLE FR 6	191	13	1995	-4.84	8.12	0
13	SLE QP 1	162	12	1833	-4.26	6.9	0
13	SLE QP 2	179	13	1930	-4.61	7.63	0
13	SLD 1	339	35	2064	-10.38	14.07	0
13	SLD 2	339	35	2064	-10.38	14.07	0
13	SLD 3	371	8	1932	20.25	15.39	0.01
13	SLD 4	371	8	1932	20.25	15.39	0.01
13	SLD 5	178	60	2171	-52.8	7.56	0
13	SLD 6	178	60	2171	-52.8	7.56	0
13	SLD 7	286	-29	1730	49.31	11.97	0.01
13	SLD 8	286	-29	1730	49.31	11.97	0.01
13	SLD 9	72	55	2130	-58.53	3.3	-0.01
13	SLD 10	72	55	2130	-58.53	3.3	-0.01
13	SLD 11	180	-35	1689	43.58	7.71	0.01
13	SLD 12	180	-35	1689	43.58	7.71	0.01
13	SLD 13	-13	17	1928	-29.47	-0.13	0



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
13	SLD 14	-13	17	1928	-29.47	-0.13	0
13	SLD 15	19	-10	1796	1.16	1.19	0
13	SLD 16	19	-10	1796	1.16	1.19	0
13	SLV 1	552	68	2254	-19.02	22.64	0.01
13	SLV 2	552	68	2254	-19.02	22.64	0.01
13	SLV 3	635	2	1931	57.92	26.05	0.02
13	SLV 4	635	2	1931	57.92	26.05	0.02
13	SLV 5	165	129	2517	-125.63	6.96	-0.01
13	SLV 6	165	129	2517	-125.63	6.96	-0.01
13	SLV 7	442	-91	1441	130.84	18.34	0.02
13	SLV 8	442	-91	1441	130.84	18.34	0.02
13	SLV 9	-84	116	2419	-140.06	-3.07	-0.02
13	SLV 10	-84	116	2419	-140.06	-3.07	-0.02
13	SLV 11	194	-104	1343	116.41	8.31	0.02
13	SLV 12	194	-104	1343	116.41	8.31	0.02
13	SLV 13	-277	23	1929	-67.14	-10.79	-0.01
13	SLV 14	-277	23	1929	-67.14	-10.79	-0.01
13	SLV 15	-193	-43	1606	9.8	-7.38	0
13	SLV 16	-193	-43	1606	9.8	-7.38	0
14	SLU 1	150	12	1812	-5	5.43	0
14	SLU 2	195	4	1835	14.43	7.45	0.01
14	SLU 3	150	12	1812	-5	5.43	0
14	SLU 4	177	7	1826	6.66	6.64	0.01
14	SLU 5	195	4	1835	14.43	7.45	0.01
14	SLU 6	150	12	1812	-5	5.43	0
14	SLU 7	177	7	1826	6.66	6.64	0.01
14	SLU 8	150	12	1812	-5	5.43	0
14	SLU 9	177	7	1826	6.66	6.64	0.01
14	SLU 10	253	8	2183	12.86	9.54	0.01
14	SLU 11	207	16	2161	-6.57	7.52	0
14	SLU 12	235	12	2174	5.08	8.73	0.01
14	SLU 13	253	8	2183	12.86	9.54	0.01
14	SLU 14	207	16	2161	-6.57	7.52	0
14	SLU 15	235	12	2174	5.08	8.73	0.01
14	SLU 16	207	16	2161	-6.57	7.52	0
14	SLU 17	235	12	2174	5.08	8.73	0.01
14	SLU 18	232	18	2310	-7.25	8.41	0
14	SLU 19	259	13	2323	4.41	9.63	0.01
14	SLU 20	232	18	2310	-7.25	8.41	0
14	SLU 21	259	13	2323	4.41	9.63	0.01
14	SLU 22	179	14	1971	-5.75	6.49	0
14	SLU 23	224	6	1994	13.68	8.51	0.01
14	SLU 24	179	14	1971	-5.75	6.49	0
14	SLU 25	206	9	1985	5.91	7.7	0.01
14	SLU 26	224	6	1994	13.68	8.51	0.01
14	SLU 27	179	14	1971	-5.75	6.49	0
14	SLU 28	206	9	1985	5.91	7.7	0.01
14	SLU 29	179	14	1971	-5.75	6.49	0
14	SLU 30	206	9	1985	5.91	7.7	0.01
14	SLU 31	282	10	2342	12.11	10.6	0.01
14	SLU 32	236	18	2320	-7.32	8.57	0
14	SLU 33	264	14	2333	4.33	9.79	0.01
14	SLU 34	282	10	2342	12.11	10.6	0.01
14	SLU 35	236	18	2320	-7.32	8.57	0
14	SLU 36	264	14	2333	4.33	9.79	0.01
14	SLU 37	236	18	2320	-7.32	8.57	0
14	SLU 38	264	14	2333	4.33	9.79	0.01
14	SLU 39	261	20	2469	-8	9.47	0.01
14	SLU 40	288	15	2483	3.66	10.68	0.01
14	SLU 41	261	20	2469	-8	9.47	0.01
14	SLU 42	288	15	2483	3.66	10.68	0.01
14	SLU 43	185	15	2301	-6.24	6.7	0
14	SLU 44	231	7	2324	13.19	8.72	0.01
14	SLU 45	185	15	2301	-6.24	6.7	0
14	SLU 46	212	10	2315	5.41	7.91	0.01
14	SLU 47	231	7	2324	13.19	8.72	0.01
14	SLU 48	185	15	2301	-6.24	6.7	0
14	SLU 49	212	10	2315	5.41	7.91	0.01
14	SLU 50	185	15	2301	-6.24	6.7	0
14	SLU 51	212	10	2315	5.41	7.91	0.01
14	SLU 52	288	11	2672	11.61	10.81	0.01
14	SLU 53	243	19	2650	-7.82	8.78	0.01
14	SLU 54	270	15	2663	3.84	10	0.01
14	SLU 55	288	11	2672	11.61	10.81	0.01
14	SLU 56	243	19	2650	-7.82	8.78	0.01
14	SLU 57	270	15	2663	3.84	10	0.01
14	SLU 58	243	19	2650	-7.82	8.78	0.01
14	SLU 59	270	15	2663	3.84	10	0.01
14	SLU 60	267	21	2799	-8.49	9.68	0.01
14	SLU 61	294	16	2813	3.17	10.89	0.01
14	SLU 62	267	21	2799	-8.49	9.68	0.01
14	SLU 63	294	16	2813	3.17	10.89	0.01
14	SLU 64	214	17	2460	-6.99	7.75	0
14	SLU 65	260	9	2483	12.44	9.78	0.01
14	SLU 66	214	17	2460	-6.99	7.75	0
14	SLU 67	241	12	2474	4.67	8.97	0.01
14	SLU 68	260	9	2483	12.44	9.78	0.01
14	SLU 69	214	17	2460	-6.99	7.75	0
14	SLU 70	241	12	2474	4.67	8.97	0.01
14	SLU 71	214	17	2460	-6.99	7.75	0





Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
14	SLU 72	241	12	2474	4.67	8.97	0.01
14	SLU 73	317	13	2831	10.86	11.87	0.01
14	SLU 74	272	21	2809	-8.57	9.84	0.01
14	SLU 75	299	17	2822	3.09	11.06	0.01
14	SLU 76	317	13	2831	10.86	11.87	0.01
14	SLU 77	272	21	2809	-8.57	9.84	0.01
14	SLU 78	299	17	2822	3.09	11.06	0.01
14	SLU 79	272	21	2809	-8.57	9.84	0.01
14	SLU 80	299	17	2822	3.09	11.06	0.01
14	SLU 81	296	23	2958	-9.24	10.74	0.01
14	SLU 82	323	18	2972	2.42	11.95	0.01
14	SLU 83	296	23	2958	-9.24	10.74	0.01
14	SLU 84	323	18	2972	2.42	11.95	0.01
14	SLE RA 1	158	13	1858	-5.21	5.73	0
14	SLE RA 2	189	7	1873	7.74	7.08	0.01
14	SLE RA 3	158	13	1858	-5.21	5.73	0
14	SLE RA 4	177	10	1867	2.56	6.54	0.01
14	SLE RA 5	189	7	1873	7.74	7.08	0.01
14	SLE RA 6	158	13	1858	-5.21	5.73	0
14	SLE RA 7	177	10	1867	2.56	6.54	0.01
14	SLE RA 8	158	13	1858	-5.21	5.73	0
14	SLE RA 9	177	10	1867	2.56	6.54	0.01
14	SLE RA 10	227	10	2105	6.69	8.47	0.01
14	SLE RA 11	197	16	2090	-6.26	7.12	0
14	SLE RA 12	215	12	2099	1.51	7.93	0.01
14	SLE RA 13	227	10	2105	6.69	8.47	0.01
14	SLE RA 14	197	16	2090	-6.26	7.12	0
14	SLE RA 15	215	12	2099	1.51	7.93	0.01
14	SLE RA 16	197	16	2090	-6.26	7.12	0
14	SLE RA 17	215	12	2099	1.51	7.93	0.01
14	SLE RA 18	213	17	2189	-6.71	7.72	0
14	SLE RA 19	231	14	2199	1.06	8.53	0.01
14	SLE RA 20	213	17	2189	-6.71	7.72	0
14	SLE RA 21	231	14	2199	1.06	8.53	0.01
14	SLE FR 1	158	13	1858	-5.21	5.73	0
14	SLE FR 2	164	12	1861	-2.62	6	0
14	SLE FR 3	158	13	1858	-5.21	5.73	0
14	SLE FR 4	181	13	1960	-3.07	6.6	0
14	SLE FR 5	175	14	1957	-5.66	6.33	0
14	SLE FR 6	186	15	2024	-5.96	6.73	0
14	SLE QP 1	158	13	1858	-5.21	5.73	0
14	SLE QP 2	175	14	1957	-5.66	6.33	0
14	SLD 1	332	35	2077	-9.97	12.72	0.01
14	SLD 2	332	35	2077	-9.97	12.72	0.01
14	SLD 3	376	12	1978	17.25	14.34	0.01
14	SLD 4	376	12	1978	17.25	14.34	0.01
14	SLD 5	155	56	2142	-48.23	5.79	0
14	SLD 6	155	56	2142	-48.23	5.79	0
14	SLD 7	302	-23	1814	42.49	11.19	0.01
14	SLD 8	302	-23	1814	42.49	11.19	0.01
14	SLD 9	48	51	2100	-53.82	1.46	-0.01
14	SLD 10	48	51	2100	-53.82	1.46	-0.01
14	SLD 11	194	-28	1772	36.91	6.87	0.01
14	SLD 12	194	-28	1772	36.91	6.87	0.01
14	SLD 13	-26	16	1936	-28.58	-1.69	0
14	SLD 14	-26	16	1936	-28.58	-1.69	0
14	SLD 15	18	-8	1837	-1.36	-0.06	0
14	SLD 16	18	-8	1837	-1.36	-0.06	0
14	SLV 1	540	66	2244	-16.51	21.19	0.01
14	SLV 2	540	66	2244	-16.51	21.19	0.01
14	SLV 3	652	8	2006	51.73	25.37	0.02
14	SLV 4	652	8	2006	51.73	25.37	0.02
14	SLV 5	115	118	2405	-112.42	4.45	-0.01
14	SLV 6	115	118	2405	-112.42	4.45	-0.01
14	SLV 7	488	-76	1610	115.05	18.38	0.03
14	SLV 8	488	-76	1610	115.05	18.38	0.03
14	SLV 9	-138	104	2305	-126.38	-5.73	-0.02
14	SLV 10	-138	104	2305	-126.38	-5.73	-0.02
14	SLV 11	235	-90	1509	101.09	8.21	0.02
14	SLV 12	235	-90	1509	101.09	8.21	0.02
14	SLV 13	-303	20	1909	-63.06	-12.72	-0.01
14	SLV 14	-303	20	1909	-63.06	-12.72	-0.01
14	SLV 15	-191	-39	1670	5.19	-8.54	0
14	SLV 16	-191	-39	1670	5.19	-8.54	0
15	SLU 1	167	13	1847	-5.66	6.96	0
15	SLU 2	209	10	1825	8.59	8.75	0.01
15	SLU 3	167	13	1847	-5.66	6.96	0
15	SLU 4	192	11	1834	2.89	8.04	0.01
15	SLU 5	209	10	1825	8.59	8.75	0.01
15	SLU 6	167	13	1847	-5.66	6.96	0
15	SLU 7	192	11	1834	2.89	8.04	0.01
15	SLU 8	167	13	1847	-5.66	6.96	0
15	SLU 9	192	11	1834	2.89	8.04	0.01
15	SLU 10	271	15	2185	6.75	11.35	0.01
15	SLU 11	229	17	2207	-7.5	9.56	0.01
15	SLU 12	254	16	2194	1.05	10.64	0.01
15	SLU 13	271	15	2185	6.75	11.35	0.01
15	SLU 14	229	17	2207	-7.5	9.56	0.01
15	SLU 15	254	16	2194	1.05	10.64	0.01
15	SLU 16	229	17	2207	-7.5	9.56	0.01



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
15	SLU 17	254	16	2194	1.05	10.64	0.01
15	SLU 18	256	19	2361	-8.28	10.67	0.01
15	SLU 19	281	18	2348	0.26	11.75	0.01
15	SLU 20	256	19	2361	-8.28	10.67	0.01
15	SLU 21	281	18	2348	0.26	11.75	0.01
15	SLU 22	200	15	2014	-6.52	8.3	0
15	SLU 23	241	12	1992	7.72	10.1	0.01
15	SLU 24	200	15	2014	-6.52	8.3	0
15	SLU 25	225	13	2001	2.02	9.38	0.01
15	SLU 26	241	12	1992	7.72	10.1	0.01
15	SLU 27	200	15	2014	-6.52	8.3	0
15	SLU 28	225	13	2001	2.02	9.38	0.01
15	SLU 29	200	15	2014	-6.52	8.3	0
15	SLU 30	225	13	2001	2.02	9.38	0.01
15	SLU 31	304	17	2352	5.88	12.7	0.01
15	SLU 32	262	19	2374	-8.36	10.9	0.01
15	SLU 33	287	18	2361	0.18	11.98	0.01
15	SLU 34	304	17	2352	5.88	12.7	0.01
15	SLU 35	262	19	2374	-8.36	10.9	0.01
15	SLU 36	287	18	2361	0.18	11.98	0.01
15	SLU 37	262	19	2374	-8.36	10.9	0.01
15	SLU 38	287	18	2361	0.18	11.98	0.01
15	SLU 39	289	21	2528	-9.15	12.02	0.01
15	SLU 40	314	20	2515	-0.6	13.1	0.01
15	SLU 41	289	21	2528	-9.15	12.02	0.01
15	SLU 42	314	20	2515	-0.6	13.1	0.01
15	SLU 43	206	16	2343	-7.05	8.59	0
15	SLU 44	247	13	2322	7.19	10.38	0.01
15	SLU 45	206	16	2343	-7.05	8.59	0
15	SLU 46	231	14	2330	1.49	9.66	0.01
15	SLU 47	247	13	2322	7.19	10.38	0.01
15	SLU 48	206	16	2343	-7.05	8.59	0
15	SLU 49	231	14	2330	1.49	9.66	0.01
15	SLU 50	206	16	2343	-7.05	8.59	0
15	SLU 51	231	14	2330	1.49	9.66	0.01
15	SLU 52	310	18	2682	5.35	12.98	0.01
15	SLU 53	268	21	2704	-8.89	11.19	0.01
15	SLU 54	293	19	2691	-0.35	12.26	0.01
15	SLU 55	310	18	2682	5.35	12.98	0.01
15	SLU 56	268	21	2704	-8.89	11.19	0.01
15	SLU 57	293	19	2691	-0.35	12.26	0.01
15	SLU 58	268	21	2704	-8.89	11.19	0.01
15	SLU 59	293	19	2691	-0.35	12.26	0.01
15	SLU 60	295	23	2858	-9.68	12.3	0.01
15	SLU 61	320	21	2845	-1.13	13.38	0.01
15	SLU 62	295	23	2858	-9.68	12.3	0.01
15	SLU 63	320	21	2845	-1.13	13.38	0.01
15	SLU 64	239	18	2510	-7.92	9.93	0.01
15	SLU 65	280	15	2489	6.32	11.73	0.01
15	SLU 66	239	18	2510	-7.92	9.93	0.01
15	SLU 67	264	16	2497	0.63	11.01	0.01
15	SLU 68	280	15	2489	6.32	11.73	0.01
15	SLU 69	239	18	2510	-7.92	9.93	0.01
15	SLU 70	264	16	2497	0.63	11.01	0.01
15	SLU 71	239	18	2510	-7.92	9.93	0.01
15	SLU 72	264	16	2497	0.63	11.01	0.01
15	SLU 73	343	20	2849	4.48	14.33	0.01
15	SLU 74	301	23	2871	-9.76	12.53	0.01
15	SLU 75	326	21	2858	-1.21	13.61	0.01
15	SLU 76	343	20	2849	4.48	14.33	0.01
15	SLU 77	301	23	2871	-9.76	12.53	0.01
15	SLU 78	326	21	2858	-1.21	13.61	0.01
15	SLU 79	301	23	2871	-9.76	12.53	0.01
15	SLU 80	326	21	2858	-1.21	13.61	0.01
15	SLU 81	328	25	3025	-10.55	13.64	0.01
15	SLU 82	353	23	3012	-2	14.72	0.01
15	SLU 83	328	25	3025	-10.55	13.64	0.01
15	SLU 84	353	23	3012	-2	14.72	0.01
15	SLE RA 1	176	13	1894	-5.9	7.34	0
15	SLE RA 2	204	12	1880	3.59	8.54	0.01
15	SLE RA 3	176	13	1894	-5.9	7.34	0
15	SLE RA 4	193	12	1886	-0.2	8.06	0.01
15	SLE RA 5	204	12	1880	3.59	8.54	0.01
15	SLE RA 6	176	13	1894	-5.9	7.34	0
15	SLE RA 7	193	12	1886	-0.2	8.06	0.01
15	SLE RA 8	176	13	1894	-5.9	7.34	0
15	SLE RA 9	193	12	1886	-0.2	8.06	0.01
15	SLE RA 10	246	15	2120	2.37	10.27	0.01
15	SLE RA 11	218	16	2135	-7.13	9.08	0.01
15	SLE RA 12	235	15	2126	-1.43	9.79	0.01
15	SLE RA 13	246	15	2120	2.37	10.27	0.01
15	SLE RA 14	218	16	2135	-7.13	9.08	0.01
15	SLE RA 15	235	15	2126	-1.43	9.79	0.01
15	SLE RA 16	218	16	2135	-7.13	9.08	0.01
15	SLE RA 17	235	15	2126	-1.43	9.79	0.01
15	SLE RA 18	236	18	2237	-7.66	9.82	0.01
15	SLE RA 19	252	17	2229	-1.96	10.54	0.01
15	SLE RA 20	236	18	2237	-7.66	9.82	0.01
15	SLE RA 21	252	17	2229	-1.96	10.54	0.01
15	SLE FR 1	176	13	1894	-5.9	7.34	0



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
15	SLE FR 2	182	13	1892	-4	7.58	0.01
15	SLE FR 3	176	13	1894	-5.9	7.34	0
15	SLE FR 4	200	14	1994	-4.53	8.33	0.01
15	SLE FR 5	194	15	1997	-6.43	8.09	0
15	SLE FR 6	206	16	2066	-6.78	8.58	0
15	SLE QP 1	176	13	1894	-5.9	7.34	0
15	SLE QP 2	194	15	1997	-6.43	8.09	0
15	SLD 1	346	34	2111	-9.1	14.17	0.01
15	SLD 2	346	34	2111	-9.1	14.17	0.01
15	SLD 3	405	14	2035	13.8	16.6	0.01
15	SLD 4	405	14	2035	13.8	16.6	0.01
15	SLD 5	149	51	2147	-41.97	6.23	0
15	SLD 6	149	51	2147	-41.97	6.23	0
15	SLD 7	348	-15	1893	34.38	14.33	0.02
15	SLD 8	348	-15	1893	34.38	14.33	0.02
15	SLD 9	40	45	2102	-47.23	1.85	-0.01
15	SLD 10	40	45	2102	-47.23	1.85	-0.01
15	SLD 11	239	-21	1848	29.11	9.95	0.01
15	SLD 12	239	-21	1848	29.11	9.95	0.01
15	SLD 13	-17	15	1960	-26.66	-0.43	-0.01
15	SLD 14	-17	15	1960	-26.66	-0.43	-0.01
15	SLD 15	43	-5	1883	-3.76	2	0
15	SLD 16	43	-5	1883	-3.76	2	0
15	SLV 1	545	62	2272	-13.29	22.18	0.01
15	SLV 2	545	62	2272	-13.29	22.18	0.01
15	SLV 3	697	14	2085	44.02	28.39	0.03
15	SLV 4	697	14	2085	44.02	28.39	0.03
15	SLV 5	69	103	2363	-95.42	2.91	-0.02
15	SLV 6	69	103	2363	-95.42	2.91	-0.02
15	SLV 7	576	-59	1740	95.64	23.58	0.04
15	SLV 8	576	-59	1740	95.64	23.58	0.04
15	SLV 9	-187	89	2254	-108.49	-7.41	-0.03
15	SLV 10	-187	89	2254	-108.49	-7.41	-0.03
15	SLV 11	320	-73	1632	82.56	13.27	0.03
15	SLV 12	320	-73	1632	82.56	13.27	0.03
15	SLV 13	-309	16	1910	-56.88	-12.22	-0.02
15	SLV 14	-309	16	1910	-56.88	-12.22	-0.02
15	SLV 15	-157	-33	1723	0.43	-6.01	0
15	SLV 16	-157	-33	1723	0.43	-6.01	0
16	SLU 1	161	12	1896	-5.68	5.73	0
16	SLU 2	200	15	1826	3.18	7.54	0.01
16	SLU 3	161	12	1896	-5.68	5.73	0
16	SLU 4	185	14	1854	-0.36	6.82	0.01
16	SLU 5	200	15	1826	3.18	7.54	0.01
16	SLU 6	161	12	1896	-5.68	5.73	0
16	SLU 7	185	14	1854	-0.36	6.82	0.01
16	SLU 8	161	12	1896	-5.68	5.73	0
16	SLU 9	185	14	1854	-0.36	6.82	0.01
16	SLU 10	261	20	2203	1.29	9.71	0.01
16	SLU 11	222	17	2273	-7.57	7.9	0
16	SLU 12	245	19	2231	-2.25	8.99	0.01
16	SLU 13	261	20	2203	1.29	9.71	0.01
16	SLU 14	222	17	2273	-7.57	7.9	0
16	SLU 15	245	19	2231	-2.25	8.99	0.01
16	SLU 16	222	17	2273	-7.57	7.9	0
16	SLU 17	245	19	2231	-2.25	8.99	0.01
16	SLU 18	248	19	2434	-8.38	8.83	0
16	SLU 19	271	20	2393	-3.06	9.92	0.01
16	SLU 20	248	19	2434	-8.38	8.83	0
16	SLU 21	271	20	2393	-3.06	9.92	0.01
16	SLU 22	195	14	2073	-6.57	6.93	0
16	SLU 23	233	17	2004	2.29	8.74	0.01
16	SLU 24	195	14	2073	-6.57	6.93	0
16	SLU 25	218	16	2032	-1.25	8.01	0.01
16	SLU 26	233	17	2004	2.29	8.74	0.01
16	SLU 27	195	14	2073	-6.57	6.93	0
16	SLU 28	218	16	2032	-1.25	8.01	0.01
16	SLU 29	195	14	2073	-6.57	6.93	0
16	SLU 30	218	16	2032	-1.25	8.01	0.01
16	SLU 31	294	22	2381	0.4	10.91	0.01
16	SLU 32	255	19	2450	-8.45	9.1	0
16	SLU 33	278	21	2409	-3.14	10.19	0.01
16	SLU 34	294	22	2381	0.4	10.91	0.01
16	SLU 35	255	19	2450	-8.45	9.1	0
16	SLU 36	278	21	2409	-3.14	10.19	0.01
16	SLU 37	255	19	2450	-8.45	9.1	0
16	SLU 38	278	21	2409	-3.14	10.19	0.01
16	SLU 39	281	21	2612	-9.26	10.03	0
16	SLU 40	304	22	2570	-3.95	11.12	0.01
16	SLU 41	281	21	2612	-9.26	10.03	0
16	SLU 42	304	22	2570	-3.95	11.12	0.01
16	SLU 43	198	15	2403	-7.08	7.04	0
16	SLU 44	237	18	2334	1.78	8.85	0.01
16	SLU 45	198	15	2403	-7.08	7.04	0
16	SLU 46	222	17	2362	-1.76	8.13	0.01
16	SLU 47	237	18	2334	1.78	8.85	0.01
16	SLU 48	198	15	2403	-7.08	7.04	0
16	SLU 49	222	17	2362	-1.76	8.13	0.01
16	SLU 50	198	15	2403	-7.08	7.04	0
16	SLU 51	222	17	2362	-1.76	8.13	0.01



Nodo	Cont.	Reazione a traslazione				Reazione a rotazione			
		x	y	z		x	y	z	
16	SLU 52	298	23	2711		-0.11	11.02	0.01	
16	SLU 53	259	20	2780		-8.97	9.21	0	
16	SLU 54	282	22	2739		-3.65	10.3	0.01	
16	SLU 55	298	23	2711		-0.11	11.02	0.01	
16	SLU 56	259	20	2780		-8.97	9.21	0	
16	SLU 57	282	22	2739		-3.65	10.3	0.01	
16	SLU 58	259	20	2780		-8.97	9.21	0	
16	SLU 59	282	22	2739		-3.65	10.3	0.01	
16	SLU 60	285	22	2942		-9.78	10.14	0.01	
16	SLU 61	308	23	2900		-4.46	11.23	0.01	
16	SLU 62	285	22	2942		-9.78	10.14	0.01	
16	SLU 63	308	23	2900		-4.46	11.23	0.01	
16	SLU 64	232	17	2581		-7.97	8.23	0	
16	SLU 65	270	20	2512		0.89	10.05	0.01	
16	SLU 66	232	17	2581		-7.97	8.23	0	
16	SLU 67	255	19	2539		-2.65	9.32	0.01	
16	SLU 68	270	20	2512		0.89	10.05	0.01	
16	SLU 69	232	17	2581		-7.97	8.23	0	
16	SLU 70	255	19	2539		-2.65	9.32	0.01	
16	SLU 71	232	17	2581		-7.97	8.23	0	
16	SLU 72	255	19	2539		-2.65	9.32	0.01	
16	SLU 73	331	25	2889		-1	12.22	0.01	
16	SLU 74	292	22	2958		-9.85	10.41	0.01	
16	SLU 75	315	24	2917		-4.54	11.49	0.01	
16	SLU 76	331	25	2889		-1	12.22	0.01	
16	SLU 77	292	22	2958		-9.85	10.41	0.01	
16	SLU 78	315	24	2917		-4.54	11.49	0.01	
16	SLU 79	292	22	2958		-9.85	10.41	0.01	
16	SLU 80	315	24	2917		-4.54	11.49	0.01	
16	SLU 81	318	24	3120		-10.66	11.34	0.01	
16	SLU 82	341	25	3078		-5.35	12.42	0.01	
16	SLU 83	318	24	3120		-10.66	11.34	0.01	
16	SLU 84	341	25	3078		-5.35	12.42	0.01	
16	SLE RA 1	171	13	1946		-5.93	6.07	0	
16	SLE RA 2	197	15	1900		-0.03	7.28	0.01	
16	SLE RA 3	171	13	1946		-5.93	6.07	0	
16	SLE RA 4	186	14	1919		-2.39	6.8	0.01	
16	SLE RA 5	197	15	1900		-0.03	7.28	0.01	
16	SLE RA 6	171	13	1946		-5.93	6.07	0	
16	SLE RA 7	186	14	1919		-2.39	6.8	0.01	
16	SLE RA 8	171	13	1946		-5.93	6.07	0	
16	SLE RA 9	186	14	1919		-2.39	6.8	0.01	
16	SLE RA 10	237	18	2151		-1.29	8.73	0.01	
16	SLE RA 11	211	16	2198		-7.19	7.52	0	
16	SLE RA 12	227	17	2170		-3.65	8.24	0.01	
16	SLE RA 13	237	18	2151		-1.29	8.73	0.01	
16	SLE RA 14	211	16	2198		-7.19	7.52	0	
16	SLE RA 15	227	17	2170		-3.65	8.24	0.01	
16	SLE RA 16	211	16	2198		-7.19	7.52	0	
16	SLE RA 17	227	17	2170		-3.65	8.24	0.01	
16	SLE RA 18	228	17	2306		-7.73	8.14	0	
16	SLE RA 19	244	18	2278		-4.19	8.86	0.01	
16	SLE RA 20	228	17	2306		-7.73	8.14	0	
16	SLE RA 21	244	18	2278		-4.19	8.86	0.01	
16	SLE FR 1	171	13	1946		-5.93	6.07	0	
16	SLE FR 2	176	13	1937		-4.75	6.31	0	
16	SLE FR 3	171	13	1946		-5.93	6.07	0	
16	SLE FR 4	193	15	2045		-5.29	6.93	0	
16	SLE FR 5	188	14	2054		-6.47	6.69	0	
16	SLE FR 6	200	15	2126		-6.83	7.1	0	
16	SLE QP 1	171	13	1946		-5.93	6.07	0	
16	SLE QP 2	188	14	2054		-6.47	6.69	0	
16	SLD 1	335	16	2016		-23.34	12.72	0.01	
16	SLD 2	335	16	2016		-23.34	12.72	0.01	
16	SLD 3	405	31	1924		-5.35	15.32	0.01	
16	SLD 4	405	31	1924		-5.35	15.32	0.01	
16	SLD 5	126	-9	2183		-38.83	4.56	-0.01	
16	SLD 6	126	-9	2183		-38.83	4.56	-0.01	
16	SLD 7	359	43	1875		21.16	13.22	0.02	
16	SLD 8	359	43	1875		21.16	13.22	0.02	
16	SLD 9	17	-14	2233		-34.11	0.16	-0.01	
16	SLD 10	17	-14	2233		-34.11	0.16	-0.01	
16	SLD 11	250	37	1925		25.89	8.82	0.01	
16	SLD 12	250	37	1925		25.89	8.82	0.01	
16	SLD 13	-29	-3	2184		-7.6	-1.94	-0.01	
16	SLD 14	-29	-3	2184		-7.6	-1.94	-0.01	
16	SLD 15	41	13	2092		10.4	0.66	0	
16	SLD 16	41	13	2092		10.4	0.66	0	
16	SLV 1	528	18	1969		-48.41	20.65	0.01	
16	SLV 2	528	18	1969		-48.41	20.65	0.01	
16	SLV 3	706	55	1736		-3.44	27.29	0.03	
16	SLV 4	706	55	1736		-3.44	27.29	0.03	
16	SLV 5	20	-42	2381		-87.26	0.8	-0.02	
16	SLV 6	20	-42	2381		-87.26	0.8	-0.02	
16	SLV 7	613	84	1606		62.65	22.94	0.04	
16	SLV 8	613	84	1606		62.65	22.94	0.04	
16	SLV 9	-237	-56	2502		-75.59	-9.56	-0.04	
16	SLV 10	-237	-56	2502		-75.59	-9.56	-0.04	
16	SLV 11	356	71	1727		74.32	12.58	0.03	
16	SLV 12	356	71	1727		74.32	12.58	0.03	



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
16	SLV 13	-330	-27	2372	-9.51	-13.91	-0.02
16	SLV 14	-330	-27	2372	-9.51	-13.91	-0.02
16	SLV 15	-152	11	2140	35.47	-7.26	0
16	SLV 16	-152	11	2140	35.47	-7.26	0
17	SLU 1	168	10	1959	-4.77	6.92	0
17	SLU 2	200	18	1845	-0.76	8.26	0.01
17	SLU 3	168	10	1959	-4.77	6.92	0
17	SLU 4	187	15	1891	-2.37	7.73	0.01
17	SLU 5	200	18	1845	-0.76	8.26	0.01
17	SLU 6	168	10	1959	-4.77	6.92	0
17	SLU 7	187	15	1891	-2.37	7.73	0.01
17	SLU 8	168	10	1959	-4.77	6.92	0
17	SLU 9	187	15	1891	-2.37	7.73	0.01
17	SLU 10	263	21	2245	-2.37	10.87	0.01
17	SLU 11	231	13	2359	-6.38	9.52	0
17	SLU 12	250	18	2290	-3.98	10.33	0.01
17	SLU 13	263	21	2245	-2.37	10.87	0.01
17	SLU 14	231	13	2359	-6.38	9.52	0
17	SLU 15	250	18	2290	-3.98	10.33	0.01
17	SLU 16	231	13	2359	-6.38	9.52	0
17	SLU 17	250	18	2290	-3.98	10.33	0.01
17	SLU 18	259	15	2530	-7.07	10.64	0
17	SLU 19	278	20	2462	-4.66	11.45	0.01
17	SLU 20	259	15	2530	-7.07	10.64	0
17	SLU 21	278	20	2462	-4.66	11.45	0.01
17	SLU 22	204	11	2151	-5.53	8.37	0
17	SLU 23	236	19	2037	-1.52	9.71	0.01
17	SLU 24	204	11	2151	-5.53	8.37	0
17	SLU 25	223	16	2083	-3.12	9.17	0.01
17	SLU 26	236	19	2037	-1.52	9.71	0.01
17	SLU 27	204	11	2151	-5.53	8.37	0
17	SLU 28	223	16	2083	-3.12	9.17	0.01
17	SLU 29	204	11	2151	-5.53	8.37	0
17	SLU 30	223	16	2083	-3.12	9.17	0.01
17	SLU 31	299	23	2437	-3.13	12.32	0.01
17	SLU 32	267	15	2551	-7.14	10.97	0
17	SLU 33	286	20	2482	-4.73	11.78	0.01
17	SLU 34	299	23	2437	-3.13	12.32	0.01
17	SLU 35	267	15	2551	-7.14	10.97	0
17	SLU 36	286	20	2482	-4.73	11.78	0.01
17	SLU 37	267	15	2551	-7.14	10.97	0
17	SLU 38	286	20	2482	-4.73	11.78	0.01
17	SLU 39	295	16	2722	-7.83	12.09	0
17	SLU 40	314	21	2654	-5.42	12.89	0.01
17	SLU 41	295	16	2722	-7.83	12.09	0
17	SLU 42	314	21	2654	-5.42	12.89	0.01
17	SLU 43	206	12	2481	-5.95	8.5	0
17	SLU 44	238	20	2367	-1.94	9.84	0.01
17	SLU 45	206	12	2481	-5.95	8.5	0
17	SLU 46	225	17	2413	-3.54	9.31	0.01
17	SLU 47	238	20	2367	-1.94	9.84	0.01
17	SLU 48	206	12	2481	-5.95	8.5	0
17	SLU 49	225	17	2413	-3.54	9.31	0.01
17	SLU 50	206	12	2481	-5.95	8.5	0
17	SLU 51	225	17	2413	-3.54	9.31	0.01
17	SLU 52	301	24	2767	-3.54	12.45	0.01
17	SLU 53	269	16	2881	-7.56	11.1	0
17	SLU 54	289	20	2812	-5.15	11.91	0
17	SLU 55	301	24	2767	-3.54	12.45	0.01
17	SLU 56	269	16	2881	-7.56	11.1	0
17	SLU 57	289	20	2812	-5.15	11.91	0
17	SLU 58	269	16	2881	-7.56	11.1	0
17	SLU 59	289	20	2812	-5.15	11.91	0
17	SLU 60	297	17	3052	-8.25	12.22	0
17	SLU 61	316	22	2984	-5.84	13.02	0
17	SLU 62	297	17	3052	-8.25	12.22	0
17	SLU 63	316	22	2984	-5.84	13.02	0
17	SLU 64	242	14	2673	-6.7	9.95	0
17	SLU 65	274	22	2559	-2.69	11.29	0.01
17	SLU 66	242	14	2673	-6.7	9.95	0
17	SLU 67	261	19	2605	-4.3	10.75	0.01
17	SLU 68	274	22	2559	-2.69	11.29	0.01
17	SLU 69	242	14	2673	-6.7	9.95	0
17	SLU 70	261	19	2605	-4.3	10.75	0.01
17	SLU 71	242	14	2673	-6.7	9.95	0
17	SLU 72	261	19	2605	-4.3	10.75	0.01
17	SLU 73	337	25	2959	-4.3	13.89	0.01
17	SLU 74	305	17	3073	-8.31	12.55	0
17	SLU 75	324	22	3004	-5.9	13.36	0
17	SLU 76	337	25	2959	-4.3	13.89	0.01
17	SLU 77	305	17	3073	-8.31	12.55	0
17	SLU 78	324	22	3004	-5.9	13.36	0
17	SLU 79	305	17	3073	-8.31	12.55	0
17	SLU 80	324	22	3004	-5.9	13.36	0
17	SLU 81	333	19	3244	-9	13.67	0
17	SLU 82	352	24	3176	-6.59	14.47	0
17	SLU 83	333	19	3244	-9	13.67	0
17	SLU 84	352	24	3176	-6.59	14.47	0
17	SLE RA 1	178	10	2014	-4.99	7.33	0
17	SLE RA 2	199	16	1938	-2.32	8.23	0.01



Nodo	Cont.	Reazione a traslazione				Reazione a rotazione		
Ind.	N.br.	x	y	z		x	y	z
17	SLE RA 3	178	10	2014		-4.99	7.33	0
17	SLE RA 4	191	13	1968		-3.39	7.87	0
17	SLE RA 5	199	16	1938		-2.32	8.23	0.01
17	SLE RA 6	178	10	2014		-4.99	7.33	0
17	SLE RA 7	191	13	1968		-3.39	7.87	0
17	SLE RA 8	178	10	2014		-4.99	7.33	0
17	SLE RA 9	191	13	1968		-3.39	7.87	0
17	SLE RA 10	242	18	2205		-3.39	9.97	0.01
17	SLE RA 11	220	13	2280		-6.06	9.07	0
17	SLE RA 12	233	16	2235		-4.46	9.61	0
17	SLE RA 13	242	18	2205		-3.39	9.97	0.01
17	SLE RA 14	220	13	2280		-6.06	9.07	0
17	SLE RA 15	233	16	2235		-4.46	9.61	0
17	SLE RA 16	220	13	2280		-6.06	9.07	0
17	SLE RA 17	233	16	2235		-4.46	9.61	0
17	SLE RA 18	239	14	2395		-6.52	9.81	0
17	SLE RA 19	251	17	2349		-4.92	10.35	0
17	SLE RA 20	239	14	2395		-6.52	9.81	0
17	SLE RA 21	251	17	2349		-4.92	10.35	0
17	SLE FR 1	178	10	2014		-4.99	7.33	0
17	SLE FR 2	182	11	1999		-4.46	7.51	0
17	SLE FR 3	178	10	2014		-4.99	7.33	0
17	SLE FR 4	200	12	2113		-4.91	8.26	0
17	SLE FR 5	196	11	2128		-5.45	8.08	0
17	SLE FR 6	208	12	2204		-5.76	8.57	0
17	SLE QP 1	178	10	2014		-4.99	7.33	0
17	SLE QP 2	196	11	2128		-5.45	8.08	0
17	SLD 1	336	14	2102		-18.51	13.68	0
17	SLD 2	336	14	2102		-18.51	13.68	0
17	SLD 3	418	25	1968		-5.58	17.07	0.01
17	SLD 4	418	25	1968		-5.58	17.07	0.01
17	SLD 5	113	-6	2324		-28.97	4.62	-0.02
17	SLD 6	113	-6	2324		-28.97	4.62	-0.02
17	SLD 7	388	33	1877		14.11	15.91	0.02
17	SLD 8	388	33	1877		14.11	15.91	0.02
17	SLD 9	5	-11	2379		-25.01	0.24	-0.02
17	SLD 10	5	-11	2379		-25.01	0.24	-0.02
17	SLD 11	279	28	1932		18.07	11.54	0.01
17	SLD 12	279	28	1932		18.07	11.54	0.01
17	SLD 13	-26	-3	2288		-5.31	-0.92	-0.01
17	SLD 14	-26	-3	2288		-5.31	-0.92	-0.01
17	SLD 15	57	9	2154		7.61	2.47	0
17	SLD 16	57	9	2154		7.61	2.47	0
17	SLV 1	518	17	2073		-37.87	20.96	0
17	SLV 2	518	17	2073		-37.87	20.96	0
17	SLV 3	728	46	1735		-5.56	29.62	0.03
17	SLV 4	728	46	1735		-5.56	29.62	0.03
17	SLV 5	-26	-30	2625		-64.18	-1.19	-0.04
17	SLV 6	-26	-30	2625		-64.18	-1.19	-0.04
17	SLV 7	674	65	1497		43.52	27.67	0.05
17	SLV 8	674	65	1497		43.52	27.67	0.05
17	SLV 9	-282	-43	2760		-54.42	-11.52	-0.05
17	SLV 10	-282	-43	2760		-54.42	-11.52	-0.05
17	SLV 11	418	53	1631		53.28	17.34	0.04
17	SLV 12	418	53	1631		53.28	17.34	0.04
17	SLV 13	-335	-24	2522		-5.34	-13.47	-0.03
17	SLV 14	-335	-24	2522		-5.34	-13.47	-0.03
17	SLV 15	-125	5	2183		26.97	-4.81	0
17	SLV 16	-125	5	2183		26.97	-4.81	0
18	SLU 1	139	4	2030		-3.07	4.65	-0.01
18	SLU 2	169	15	1884		-2.41	6.02	0
18	SLU 3	139	4	2030		-3.07	4.65	-0.01
18	SLU 4	157	11	1942		-2.67	5.47	-0.01
18	SLU 5	169	15	1884		-2.41	6.02	0
18	SLU 6	139	4	2030		-3.07	4.65	-0.01
18	SLU 7	157	11	1942		-2.67	5.47	-0.01
18	SLU 8	139	4	2030		-3.07	4.65	-0.01
18	SLU 9	157	11	1942		-2.67	5.47	-0.01
18	SLU 10	224	17	2310		-3.44	7.91	-0.01
18	SLU 11	194	6	2456		-4.1	6.54	-0.02
18	SLU 12	212	13	2368		-3.7	7.36	-0.01
18	SLU 13	224	17	2310		-3.44	7.91	-0.01
18	SLU 14	194	6	2456		-4.1	6.54	-0.02
18	SLU 15	212	13	2368		-3.7	7.36	-0.01
18	SLU 16	194	6	2456		-4.1	6.54	-0.02
18	SLU 17	212	13	2368		-3.7	7.36	-0.01
18	SLU 18	218	7	2639		-4.54	7.35	-0.02
18	SLU 19	236	13	2551		-4.14	8.17	-0.01
18	SLU 20	218	7	2639		-4.54	7.35	-0.02
18	SLU 21	236	13	2551		-4.14	8.17	-0.01
18	SLU 22	172	5	2239		-3.56	5.8	-0.01
18	SLU 23	202	16	2093		-2.9	7.17	0
18	SLU 24	172	5	2239		-3.56	5.8	-0.01
18	SLU 25	190	12	2151		-3.16	6.62	-0.01
18	SLU 26	202	16	2093		-2.9	7.17	0
18	SLU 27	172	5	2239		-3.56	5.8	-0.01
18	SLU 28	190	12	2151		-3.16	6.62	-0.01
18	SLU 29	172	5	2239		-3.56	5.8	-0.01
18	SLU 30	190	12	2151		-3.16	6.62	-0.01
18	SLU 31	257	18	2519		-3.92	9.06	-0.01



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
18	SLU 32	227	7	2665	-4.59	7.7	-0.02
18	SLU 33	245	13	2577	-4.19	8.52	-0.01
18	SLU 34	257	18	2519	-3.92	9.06	-0.01
18	SLU 35	227	7	2665	-4.59	7.7	-0.02
18	SLU 36	245	13	2577	-4.19	8.52	-0.01
18	SLU 37	227	7	2665	-4.59	7.7	-0.02
18	SLU 38	245	13	2577	-4.19	8.52	-0.01
18	SLU 39	251	8	2847	-5.03	8.51	-0.02
18	SLU 40	269	14	2760	-4.63	9.33	-0.01
18	SLU 41	251	8	2847	-5.03	8.51	-0.02
18	SLU 42	269	14	2760	-4.63	9.33	-0.01
18	SLU 43	170	5	2568	-3.83	5.65	-0.01
18	SLU 44	199	16	2421	-3.16	7.01	-0.01
18	SLU 45	170	5	2568	-3.83	5.65	-0.01
18	SLU 46	187	12	2480	-3.43	6.47	-0.01
18	SLU 47	199	16	2421	-3.16	7.01	-0.01
18	SLU 48	170	5	2568	-3.83	5.65	-0.01
18	SLU 49	187	12	2480	-3.43	6.47	-0.01
18	SLU 50	170	5	2568	-3.83	5.65	-0.01
18	SLU 51	187	12	2480	-3.43	6.47	-0.01
18	SLU 52	254	18	2847	-4.19	8.91	-0.01
18	SLU 53	225	7	2994	-4.86	7.54	-0.02
18	SLU 54	242	14	2906	-4.46	8.36	-0.01
18	SLU 55	254	18	2847	-4.19	8.91	-0.01
18	SLU 56	225	7	2994	-4.86	7.54	-0.02
18	SLU 57	242	14	2906	-4.46	8.36	-0.01
18	SLU 58	225	7	2994	-4.86	7.54	-0.02
18	SLU 59	242	14	2906	-4.46	8.36	-0.01
18	SLU 60	248	8	3176	-5.3	8.35	-0.02
18	SLU 61	266	14	3088	-4.9	9.17	-0.01
18	SLU 62	248	8	3176	-5.3	8.35	-0.02
18	SLU 63	266	14	3088	-4.9	9.17	-0.01
18	SLU 64	203	6	2776	-4.31	6.8	-0.02
18	SLU 65	232	17	2630	-3.65	8.17	-0.01
18	SLU 66	203	6	2776	-4.31	6.8	-0.02
18	SLU 67	220	13	2689	-3.92	7.62	-0.01
18	SLU 68	232	17	2630	-3.65	8.17	-0.01
18	SLU 69	203	6	2776	-4.31	6.8	-0.02
18	SLU 70	220	13	2689	-3.92	7.62	-0.01
18	SLU 71	203	6	2776	-4.31	6.8	-0.02
18	SLU 72	220	13	2689	-3.92	7.62	-0.01
18	SLU 73	287	19	3056	-4.68	10.06	-0.01
18	SLU 74	258	8	3202	-5.34	8.69	-0.02
18	SLU 75	276	14	3115	-4.94	9.51	-0.01
18	SLU 76	287	19	3056	-4.68	10.06	-0.01
18	SLU 77	258	8	3202	-5.34	8.69	-0.02
18	SLU 78	276	14	3115	-4.94	9.51	-0.01
18	SLU 79	258	8	3202	-5.34	8.69	-0.02
18	SLU 80	276	14	3115	-4.94	9.51	-0.01
18	SLU 81	281	9	3385	-5.78	9.5	-0.02
18	SLU 82	299	15	3297	-5.38	10.32	-0.02
18	SLU 83	281	9	3385	-5.78	9.5	-0.02
18	SLU 84	299	15	3297	-5.38	10.32	-0.02
18	SLE RA 1	149	5	2090	-3.21	4.98	-0.01
18	SLE RA 2	168	12	1992	-2.77	5.89	-0.01
18	SLE RA 3	149	5	2090	-3.21	4.98	-0.01
18	SLE RA 4	161	9	2031	-2.95	5.53	-0.01
18	SLE RA 5	168	12	1992	-2.77	5.89	-0.01
18	SLE RA 6	149	5	2090	-3.21	4.98	-0.01
18	SLE RA 7	161	9	2031	-2.95	5.53	-0.01
18	SLE RA 8	149	5	2090	-3.21	4.98	-0.01
18	SLE RA 9	161	9	2031	-2.95	5.53	-0.01
18	SLE RA 10	205	13	2276	-3.45	7.15	-0.01
18	SLE RA 11	185	6	2374	-3.9	6.24	-0.01
18	SLE RA 12	197	10	2315	-3.63	6.79	-0.01
18	SLE RA 13	205	13	2276	-3.45	7.15	-0.01
18	SLE RA 14	185	6	2374	-3.9	6.24	-0.01
18	SLE RA 15	197	10	2315	-3.63	6.79	-0.01
18	SLE RA 16	185	6	2374	-3.9	6.24	-0.01
18	SLE RA 17	197	10	2315	-3.63	6.79	-0.01
18	SLE RA 18	201	6	2495	-4.19	6.78	-0.02
18	SLE RA 19	213	11	2437	-3.93	7.33	-0.01
18	SLE RA 20	201	6	2495	-4.19	6.78	-0.02
18	SLE RA 21	213	11	2437	-3.93	7.33	-0.01
18	SLE FR 1	149	5	2090	-3.21	4.98	-0.01
18	SLE FR 2	153	6	2070	-3.12	5.16	-0.01
18	SLE FR 3	149	5	2090	-3.21	4.98	-0.01
18	SLE FR 4	168	7	2192	-3.42	5.7	-0.01
18	SLE FR 5	164	5	2211	-3.51	5.52	-0.01
18	SLE FR 6	175	5	2293	-3.7	5.88	-0.01
18	SLE QP 1	149	5	2090	-3.21	4.98	-0.01
18	SLE QP 2	164	5	2211	-3.51	5.52	-0.01
18	SLD 1	301	8	2198	-4.37	11.16	-0.01
18	SLD 2	301	8	2198	-4.37	11.16	-0.01
18	SLD 3	384	18	2024	-12.55	14.26	0
18	SLD 4	384	18	2024	-12.55	14.26	0
18	SLD 5	80	-8	2471	8.64	2.51	-0.03
18	SLD 6	80	-8	2471	8.64	2.51	-0.03
18	SLD 7	356	23	1891	-18.62	12.84	0.01
18	SLD 8	356	23	1891	-18.62	12.84	0.01



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
18	SLD 9	-27	-13	2532	11.61	-1.8	-0.04
18	SLD 10	-27	-13	2532	11.61	-1.8	-0.04
18	SLD 11	249	18	1952	-15.65	8.52	0.01
18	SLD 12	249	18	1952	-15.65	8.52	0.01
18	SLD 13	-55	-7	2399	5.54	-3.22	-0.03
18	SLD 14	-55	-7	2399	5.54	-3.22	-0.03
18	SLD 15	28	2	2225	-2.64	-0.13	-0.01
18	SLD 16	28	2	2225	-2.64	-0.13	-0.01
18	SLV 1	478	12	2186	-5.44	18.51	-0.01
18	SLV 2	478	12	2186	-5.44	18.51	-0.01
18	SLV 3	690	36	1748	-25.98	26.45	0.02
18	SLV 4	690	36	1748	-25.98	26.45	0.02
18	SLV 5	-62	-29	2867	27.07	-2.62	-0.06
18	SLV 6	-62	-29	2867	27.07	-2.62	-0.06
18	SLV 7	643	51	1409	-41.4	23.84	0.04
18	SLV 8	643	51	1409	-41.4	23.84	0.04
18	SLV 9	-314	-41	3014	34.39	-12.8	-0.07
18	SLV 10	-314	-41	3014	34.39	-12.8	-0.07
18	SLV 11	391	40	1556	-34.08	13.66	0.03
18	SLV 12	391	40	1556	-34.08	13.66	0.03
18	SLV 13	-361	-26	2675	18.97	-15.41	-0.05
18	SLV 14	-361	-26	2675	18.97	-15.41	-0.05
18	SLV 15	-149	-2	2237	-1.57	-7.48	-0.02
18	SLV 16	-149	-2	2237	-1.57	-7.48	-0.02
19	SLU 1	125	1	2120	-1.66	5.13	0.01
19	SLU 2	146	8	1959	-2.11	5.93	-0.01
19	SLU 3	125	1	2120	-1.66	5.13	0.01
19	SLU 4	138	5	2023	-1.93	5.61	0
19	SLU 5	146	8	1959	-2.11	5.93	-0.01
19	SLU 6	125	1	2120	-1.66	5.13	0.01
19	SLU 7	138	5	2023	-1.93	5.61	0
19	SLU 8	125	1	2120	-1.66	5.13	0.01
19	SLU 9	138	5	2023	-1.93	5.61	0
19	SLU 10	196	8	2416	-2.6	7.98	-0.01
19	SLU 11	175	1	2577	-2.15	7.18	0.01
19	SLU 12	188	5	2481	-2.42	7.66	0
19	SLU 13	196	8	2416	-2.6	7.98	-0.01
19	SLU 14	175	1	2577	-2.15	7.18	0.01
19	SLU 15	188	5	2481	-2.42	7.66	0
19	SLU 16	175	1	2577	-2.15	7.18	0.01
19	SLU 17	188	5	2481	-2.42	7.66	0
19	SLU 18	196	1	2773	-2.36	8.06	0.01
19	SLU 19	209	5	2677	-2.63	8.54	0
19	SLU 20	196	1	2773	-2.36	8.06	0.01
19	SLU 21	209	5	2677	-2.63	8.54	0
19	SLU 22	156	1	2349	-1.9	6.39	0.01
19	SLU 23	178	8	2187	-2.35	7.19	-0.01
19	SLU 24	156	1	2349	-1.9	6.39	0.01
19	SLU 25	169	5	2252	-2.17	6.87	0
19	SLU 26	178	8	2187	-2.35	7.19	-0.01
19	SLU 27	156	1	2349	-1.9	6.39	0.01
19	SLU 28	169	5	2252	-2.17	6.87	0
19	SLU 29	156	1	2349	-1.9	6.39	0.01
19	SLU 30	169	5	2252	-2.17	6.87	0
19	SLU 31	228	8	2645	-2.84	9.24	-0.01
19	SLU 32	207	1	2806	-2.39	8.44	0.01
19	SLU 33	219	6	2709	-2.66	8.92	0
19	SLU 34	228	8	2645	-2.84	9.24	-0.01
19	SLU 35	207	1	2806	-2.39	8.44	0.01
19	SLU 36	219	6	2709	-2.66	8.92	0
19	SLU 37	207	1	2806	-2.39	8.44	0.01
19	SLU 38	219	6	2709	-2.66	8.92	0
19	SLU 39	228	1	3002	-2.59	9.32	0.01
19	SLU 40	241	6	2905	-2.86	9.8	0
19	SLU 41	228	1	3002	-2.59	9.32	0.01
19	SLU 42	241	6	2905	-2.86	9.8	0
19	SLU 43	151	1	2678	-2.08	6.24	0.01
19	SLU 44	173	9	2517	-2.53	7.04	-0.01
19	SLU 45	151	1	2678	-2.08	6.24	0.01
19	SLU 46	164	6	2581	-2.35	6.72	0
19	SLU 47	173	9	2517	-2.53	7.04	-0.01
19	SLU 48	151	1	2678	-2.08	6.24	0.01
19	SLU 49	164	6	2581	-2.35	6.72	0
19	SLU 50	151	1	2678	-2.08	6.24	0.01
19	SLU 51	164	6	2581	-2.35	6.72	0
19	SLU 52	223	9	2974	-3.02	9.09	-0.01
19	SLU 53	202	1	3135	-2.57	8.29	0.01
19	SLU 54	214	6	3038	-2.84	8.77	0
19	SLU 55	223	9	2974	-3.02	9.09	-0.01
19	SLU 56	202	1	3135	-2.57	8.29	0.01
19	SLU 57	214	6	3038	-2.84	8.77	0
19	SLU 58	202	1	3135	-2.57	8.29	0.01
19	SLU 59	214	6	3038	-2.84	8.77	0
19	SLU 60	223	1	3331	-2.77	9.17	0.01
19	SLU 61	236	6	3234	-3.04	9.64	0
19	SLU 62	223	1	3331	-2.77	9.17	0.01
19	SLU 63	236	6	3234	-3.04	9.64	0
19	SLU 64	183	1	2906	-2.32	7.5	0.01
19	SLU 65	204	9	2745	-2.77	8.3	-0.01
19	SLU 66	183	1	2906	-2.32	7.5	0.01





Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
19	SLU 67	196	6	2810	-2.59	7.98	0
19	SLU 68	204	9	2745	-2.77	8.3	-0.01
19	SLU 69	183	1	2906	-2.32	7.5	0.01
19	SLU 70	196	6	2810	-2.59	7.98	0
19	SLU 71	183	1	2906	-2.32	7.5	0.01
19	SLU 72	196	6	2810	-2.59	7.98	0
19	SLU 73	255	9	3202	-3.25	10.35	-0.01
19	SLU 74	233	1	3364	-2.8	9.55	0.01
19	SLU 75	246	6	3267	-3.07	10.03	0
19	SLU 76	255	9	3202	-3.25	10.35	-0.01
19	SLU 77	233	1	3364	-2.8	9.55	0.01
19	SLU 78	246	6	3267	-3.07	10.03	0
19	SLU 79	233	1	3364	-2.8	9.55	0.01
19	SLU 80	246	6	3267	-3.07	10.03	0
19	SLU 81	255	1	3560	-3.01	10.43	0.01
19	SLU 82	268	6	3463	-3.28	10.9	0
19	SLU 83	255	1	3560	-3.01	10.43	0.01
19	SLU 84	268	6	3463	-3.28	10.9	0
19	SLE RA 1	134	1	2185	-1.73	5.49	0.01
19	SLE RA 2	148	6	2078	-2.03	6.02	-0.01
19	SLE RA 3	134	1	2185	-1.73	5.49	0.01
19	SLE RA 4	142	4	2121	-1.91	5.81	0
19	SLE RA 5	148	6	2078	-2.03	6.02	-0.01
19	SLE RA 6	134	1	2185	-1.73	5.49	0.01
19	SLE RA 7	142	4	2121	-1.91	5.81	0
19	SLE RA 8	134	1	2185	-1.73	5.49	0.01
19	SLE RA 9	142	4	2121	-1.91	5.81	0
19	SLE RA 10	182	6	2383	-2.35	7.39	0
19	SLE RA 11	167	1	2490	-2.05	6.86	0.01
19	SLE RA 12	176	4	2426	-2.23	7.18	0
19	SLE RA 13	182	6	2383	-2.35	7.39	0
19	SLE RA 14	167	1	2490	-2.05	6.86	0.01
19	SLE RA 15	176	4	2426	-2.23	7.18	0
19	SLE RA 16	167	1	2490	-2.05	6.86	0.01
19	SLE RA 17	176	4	2426	-2.23	7.18	0
19	SLE RA 18	182	1	2621	-2.19	7.44	0.01
19	SLE RA 19	190	4	2556	-2.37	7.76	0
19	SLE RA 20	182	1	2621	-2.19	7.44	0.01
19	SLE RA 21	190	4	2556	-2.37	7.76	0
19	SLE FR 1	134	1	2185	-1.73	5.49	0.01
19	SLE FR 2	137	2	2164	-1.79	5.6	0
19	SLE FR 3	134	1	2185	-1.73	5.49	0.01
19	SLE FR 4	151	2	2295	-1.93	6.18	0
19	SLE FR 5	148	1	2316	-1.87	6.08	0.01
19	SLE FR 6	158	1	2403	-1.96	6.47	0.01
19	SLE QP 1	134	1	2185	-1.73	5.49	0.01
19	SLE QP 2	148	1	2316	-1.87	6.08	0.01
19	SLD 1	367	4	2312	-2.65	15.01	0
19	SLD 2	367	4	2312	-2.65	15.01	0
19	SLD 3	280	11	2107	-6.64	11.38	-0.01
19	SLD 4	280	11	2107	-6.64	11.38	-0.01
19	SLD 5	345	-9	2626	3.95	14.26	0.02
19	SLD 6	345	-9	2626	3.95	14.26	0.02
19	SLD 7	57	14	1942	-9.35	2.16	-0.01
19	SLD 8	57	14	1942	-9.35	2.16	-0.01
19	SLD 9	240	-12	2690	5.62	9.99	0.03
19	SLD 10	240	-12	2690	5.62	9.99	0.03
19	SLD 11	-48	11	2006	-7.69	-2.11	-0.01
19	SLD 12	-48	11	2006	-7.69	-2.11	-0.01
19	SLD 13	16	-9	2525	2.9	0.78	0.02
19	SLD 14	16	-9	2525	2.9	0.78	0.02
19	SLD 15	-70	-2	2320	-1.09	-2.85	0.01
19	SLD 16	-70	-2	2320	-1.09	-2.85	0.01
19	SLV 1	672	7	2313	-3.65	27.53	0
19	SLV 2	672	7	2313	-3.65	27.53	0
19	SLV 3	451	25	1801	-13.74	18.23	-0.03
19	SLV 4	451	25	1801	-13.74	18.23	-0.03
19	SLV 5	641	-24	3091	12.9	26.62	0.05
19	SLV 6	641	-24	3091	12.9	26.62	0.05
19	SLV 7	-96	35	1385	-20.74	-4.39	-0.05
19	SLV 8	-96	35	1385	-20.74	-4.39	-0.05
19	SLV 9	393	-33	3247	17	16.54	0.06
19	SLV 10	393	-33	3247	17	16.54	0.06
19	SLV 11	-344	26	1541	-16.64	-14.47	-0.04
19	SLV 12	-344	26	1541	-16.64	-14.47	-0.04
19	SLV 13	-155	-23	2831	10.01	-6.07	0.04
19	SLV 14	-155	-23	2831	10.01	-6.07	0.04
19	SLV 15	-376	-5	2319	-0.09	-15.37	0.01
19	SLV 16	-376	-5	2319	-0.09	-15.37	0.01
20	SLU 1	38	228	2883	-8.78	0.78	0
20	SLU 2	53	221	2689	-9.02	1.34	0
20	SLU 3	38	228	2883	-8.78	0.78	0
20	SLU 4	47	224	2767	-8.93	1.11	0
20	SLU 5	53	221	2689	-9.02	1.34	0
20	SLU 6	38	228	2883	-8.78	0.78	0
20	SLU 7	47	224	2767	-8.93	1.11	0
20	SLU 8	38	228	2883	-8.78	0.78	0
20	SLU 9	47	224	2767	-8.93	1.11	0
20	SLU 10	77	272	3324	-11.21	2.05	0
20	SLU 11	63	279	3517	-10.97	1.49	0



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
20	SLU 12	72	275	3401	-11.11	1.82	0
20	SLU 13	77	272	3324	-11.21	2.05	0
20	SLU 14	63	279	3517	-10.97	1.49	0
20	SLU 15	72	275	3401	-11.11	1.82	0
20	SLU 16	63	279	3517	-10.97	1.49	0
20	SLU 17	72	275	3401	-11.11	1.82	0
20	SLU 18	73	301	3789	-11.9	1.79	0
20	SLU 19	82	297	3673	-12.05	2.13	0
20	SLU 20	73	301	3789	-11.9	1.79	0
20	SLU 21	82	297	3673	-12.05	2.13	0
20	SLU 22	58	254	3205	-9.85	1.42	0
20	SLU 23	72	246	3012	-10.1	1.98	0
20	SLU 24	58	254	3205	-9.85	1.42	0
20	SLU 25	67	249	3089	-10	1.75	0
20	SLU 26	72	246	3012	-10.1	1.98	0
20	SLU 27	58	254	3205	-9.85	1.42	0
20	SLU 28	67	249	3089	-10	1.75	0
20	SLU 29	58	254	3205	-9.85	1.42	0
20	SLU 30	67	249	3089	-10	1.75	0
20	SLU 31	97	297	3646	-12.29	2.69	0
20	SLU 32	83	305	3840	-12.04	2.13	0
20	SLU 33	91	300	3723	-12.19	2.46	0
20	SLU 34	97	297	3646	-12.29	2.69	0
20	SLU 35	83	305	3840	-12.04	2.13	0
20	SLU 36	91	300	3723	-12.19	2.46	0
20	SLU 37	83	305	3840	-12.04	2.13	0
20	SLU 38	91	300	3723	-12.19	2.46	0
20	SLU 39	93	327	4111	-12.98	2.43	0
20	SLU 40	102	322	3995	-13.13	2.77	0
20	SLU 41	93	327	4111	-12.98	2.43	0
20	SLU 42	102	322	3995	-13.13	2.77	0
20	SLU 43	43	288	3637	-11.04	0.79	0
20	SLU 44	58	280	3444	-11.29	1.35	0
20	SLU 45	43	288	3637	-11.04	0.79	0
20	SLU 46	52	283	3521	-11.19	1.13	0
20	SLU 47	58	280	3444	-11.29	1.35	0
20	SLU 48	43	288	3637	-11.04	0.79	0
20	SLU 49	52	283	3521	-11.19	1.13	0
20	SLU 50	43	288	3637	-11.04	0.79	0
20	SLU 51	52	283	3521	-11.19	1.13	0
20	SLU 52	82	332	4078	-13.48	2.06	0
20	SLU 53	68	339	4272	-13.23	1.5	0
20	SLU 54	76	334	4155	-13.38	1.84	0
20	SLU 55	82	332	4078	-13.48	2.06	0
20	SLU 56	68	339	4272	-13.23	1.5	0
20	SLU 57	76	334	4155	-13.38	1.84	0
20	SLU 58	68	339	4272	-13.23	1.5	0
20	SLU 59	76	334	4155	-13.38	1.84	0
20	SLU 60	78	361	4543	-14.17	1.8	0
20	SLU 61	87	356	4427	-14.32	2.14	0.01
20	SLU 62	78	361	4543	-14.17	1.8	0
20	SLU 63	87	356	4427	-14.32	2.14	0.01
20	SLU 64	63	313	3960	-12.12	1.43	0
20	SLU 65	77	306	3766	-12.36	1.99	0
20	SLU 66	63	313	3960	-12.12	1.43	0
20	SLU 67	71	309	3844	-12.26	1.77	0
20	SLU 68	77	306	3766	-12.36	1.99	0
20	SLU 69	63	313	3960	-12.12	1.43	0
20	SLU 70	71	309	3844	-12.26	1.77	0
20	SLU 71	63	313	3960	-12.12	1.43	0
20	SLU 72	71	309	3844	-12.26	1.77	0
20	SLU 73	102	357	4400	-14.55	2.7	0
20	SLU 74	87	364	4594	-14.31	2.14	0
20	SLU 75	96	360	4478	-14.45	2.48	0
20	SLU 76	102	357	4400	-14.55	2.7	0
20	SLU 77	87	364	4594	-14.31	2.14	0
20	SLU 78	96	360	4478	-14.45	2.48	0
20	SLU 79	87	364	4594	-14.31	2.14	0
20	SLU 80	96	360	4478	-14.45	2.48	0
20	SLU 81	98	386	4866	-15.24	2.44	0
20	SLU 82	106	382	4750	-15.39	2.78	0.01
20	SLU 83	98	386	4866	-15.24	2.44	0
20	SLU 84	106	382	4750	-15.39	2.78	0.01
20	SLE RA 1	44	235	2975	-9.08	0.96	0
20	SLE RA 2	54	231	2846	-9.25	1.33	0
20	SLE RA 3	44	235	2975	-9.08	0.96	0
20	SLE RA 4	50	232	2898	-9.18	1.18	0
20	SLE RA 5	54	231	2846	-9.25	1.33	0
20	SLE RA 6	44	235	2975	-9.08	0.96	0
20	SLE RA 7	50	232	2898	-9.18	1.18	0
20	SLE RA 8	44	235	2975	-9.08	0.96	0
20	SLE RA 9	50	232	2898	-9.18	1.18	0
20	SLE RA 10	70	265	3269	-10.71	1.81	0
20	SLE RA 11	60	269	3398	-10.54	1.43	0
20	SLE RA 12	66	267	3320	-10.64	1.66	0
20	SLE RA 13	70	265	3269	-10.71	1.81	0
20	SLE RA 14	60	269	3398	-10.54	1.43	0
20	SLE RA 15	66	267	3320	-10.64	1.66	0
20	SLE RA 16	60	269	3398	-10.54	1.43	0
20	SLE RA 17	66	267	3320	-10.64	1.66	0



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
20	SLE RA 18	67	284	3579	-11.17	1.64	0
20	SLE RA 19	73	281	3502	-11.27	1.86	0
20	SLE RA 20	67	284	3579	-11.17	1.64	0
20	SLE RA 21	73	281	3502	-11.27	1.86	0
20	SLE FR 1	44	235	2975	-9.08	0.96	0
20	SLE FR 2	46	234	2949	-9.12	1.03	0
20	SLE FR 3	44	235	2975	-9.08	0.96	0
20	SLE FR 4	53	249	3130	-9.74	1.24	0
20	SLE FR 5	51	250	3156	-9.71	1.16	0
20	SLE FR 6	56	260	3277	-10.13	1.3	0
20	SLE QP 1	44	235	2975	-9.08	0.96	0
20	SLE QP 2	51	250	3156	-9.71	1.16	0
20	SLD 1	188	250	3164	-9.84	6.91	-0.01
20	SLD 2	188	250	3164	-9.84	6.91	-0.01
20	SLD 3	264	197	2871	-7.44	9.7	-0.01
20	SLD 4	264	197	2871	-7.44	9.7	-0.01
20	SLD 5	-24	330	3603	-13.39	-1.34	0.01
20	SLD 6	-24	330	3603	-13.39	-1.34	0.01
20	SLD 7	231	155	2627	-5.39	7.95	-0.01
20	SLD 8	231	155	2627	-5.39	7.95	-0.01
20	SLD 9	-129	345	3686	-14.03	-5.62	0.01
20	SLD 10	-129	345	3686	-14.03	-5.62	0.01
20	SLD 11	126	170	2710	-6.03	3.66	0
20	SLD 12	126	170	2710	-6.03	3.66	0
20	SLD 13	-162	303	3441	-11.98	-7.37	0.02
20	SLD 14	-162	303	3441	-11.98	-7.37	0.02
20	SLD 15	-86	250	3148	-9.58	-4.59	0.01
20	SLD 16	-86	250	3148	-9.58	-4.59	0.01
20	SLV 1	366	248	3180	-9.94	14.44	-0.02
20	SLV 2	366	248	3180	-9.94	14.44	-0.02
20	SLV 3	562	123	2459	-4.26	21.58	-0.03
20	SLV 4	562	123	2459	-4.26	21.58	-0.03
20	SLV 5	-151	439	4258	-18.39	-5.68	0.01
20	SLV 6	-151	439	4258	-18.39	-5.68	0.01
20	SLV 7	501	23	1853	0.54	18.11	-0.02
20	SLV 8	501	23	1853	0.54	18.11	-0.02
20	SLV 9	-399	477	4460	-19.96	-15.78	0.02
20	SLV 10	-399	477	4460	-19.96	-15.78	0.02
20	SLV 11	253	61	2055	-1.03	8	0
20	SLV 12	253	61	2055	-1.03	8	0
20	SLV 13	-460	377	3854	-15.16	-19.25	0.03
20	SLV 14	-460	377	3854	-15.16	-19.25	0.03
20	SLV 15	-264	252	3132	-9.48	-12.12	0.03
20	SLV 16	-264	252	3132	-9.48	-12.12	0.03
21	SLU 1	-28	2	2151	-1.42	0.04	0
21	SLU 2	-30	9	2019	-0.93	-0.17	0.01
21	SLU 3	-28	2	2151	-1.42	0.04	0
21	SLU 4	-29	6	2072	-1.13	-0.09	0.01
21	SLU 5	-30	9	2019	-0.93	-0.17	0.01
21	SLU 6	-28	2	2151	-1.42	0.04	0
21	SLU 7	-29	6	2072	-1.13	-0.09	0.01
21	SLU 8	-28	2	2151	-1.42	0.04	0
21	SLU 9	-29	6	2072	-1.13	-0.09	0.01
21	SLU 10	-26	9	2502	-1.31	0.32	0.02
21	SLU 11	-23	3	2633	-1.8	0.52	0
21	SLU 12	-25	7	2554	-1.51	0.4	0.01
21	SLU 13	-26	9	2502	-1.31	0.32	0.02
21	SLU 14	-23	3	2633	-1.8	0.52	0
21	SLU 15	-25	7	2554	-1.51	0.4	0.01
21	SLU 16	-23	3	2633	-1.8	0.52	0
21	SLU 17	-25	7	2554	-1.51	0.4	0.01
21	SLU 18	-21	3	2840	-1.96	0.73	0
21	SLU 19	-23	7	2761	-1.67	0.61	0.01
21	SLU 20	-21	3	2840	-1.96	0.73	0
21	SLU 21	-23	7	2761	-1.67	0.61	0.01
21	SLU 22	-18	3	2401	-1.58	0.55	0
21	SLU 23	-20	9	2270	-1.1	0.35	0.01
21	SLU 24	-18	3	2401	-1.58	0.55	0
21	SLU 25	-19	6	2322	-1.29	0.43	0.01
21	SLU 26	-20	9	2270	-1.1	0.35	0.01
21	SLU 27	-18	3	2401	-1.58	0.55	0
21	SLU 28	-19	6	2322	-1.29	0.43	0.01
21	SLU 29	-18	3	2401	-1.58	0.55	0
21	SLU 30	-19	6	2322	-1.29	0.43	0.01
21	SLU 31	-16	9	2752	-1.48	0.83	0.02
21	SLU 32	-14	3	2884	-1.96	1.04	0
21	SLU 33	-15	7	2805	-1.67	0.91	0.01
21	SLU 34	-16	9	2752	-1.48	0.83	0.02
21	SLU 35	-14	3	2884	-1.96	1.04	0
21	SLU 36	-15	7	2805	-1.67	0.91	0.01
21	SLU 37	-14	3	2884	-1.96	1.04	0
21	SLU 38	-15	7	2805	-1.67	0.91	0.01
21	SLU 39	-12	3	3090	-2.13	1.24	0
21	SLU 40	-13	7	3012	-1.84	1.12	0.01
21	SLU 41	-12	3	3090	-2.13	1.24	0
21	SLU 42	-13	7	3012	-1.84	1.12	0.01
21	SLU 43	-39	3	2710	-1.79	-0.13	0
21	SLU 44	-42	9	2579	-1.3	-0.33	0.01
21	SLU 45	-39	3	2710	-1.79	-0.13	0
21	SLU 46	-41	7	2631	-1.5	-0.25	0.01



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
21	SLU 47	-42	9	2579	-1.3	-0.33	0.01
21	SLU 48	-39	3	2710	-1.79	-0.13	0
21	SLU 49	-41	7	2631	-1.5	-0.25	0.01
21	SLU 50	-39	3	2710	-1.79	-0.13	0
21	SLU 51	-41	7	2631	-1.5	-0.25	0.01
21	SLU 52	-37	10	3061	-1.68	0.15	0.01
21	SLU 53	-35	3	3193	-2.17	0.35	0
21	SLU 54	-36	7	3114	-1.88	0.23	0.01
21	SLU 55	-37	10	3061	-1.68	0.15	0.01
21	SLU 56	-35	3	3193	-2.17	0.35	0
21	SLU 57	-36	7	3114	-1.88	0.23	0.01
21	SLU 58	-35	3	3193	-2.17	0.35	0
21	SLU 59	-36	7	3114	-1.88	0.23	0.01
21	SLU 60	-33	4	3399	-2.33	0.56	0
21	SLU 61	-34	7	3321	-2.04	0.44	0.01
21	SLU 62	-33	4	3399	-2.33	0.56	0
21	SLU 63	-34	7	3321	-2.04	0.44	0.01
21	SLU 64	-30	3	2961	-1.95	0.39	0
21	SLU 65	-32	9	2829	-1.47	0.18	0.01
21	SLU 66	-30	3	2961	-1.95	0.39	0
21	SLU 67	-31	7	2882	-1.66	0.26	0.01
21	SLU 68	-32	9	2829	-1.47	0.18	0.01
21	SLU 69	-30	3	2961	-1.95	0.39	0
21	SLU 70	-31	7	2882	-1.66	0.26	0.01
21	SLU 71	-30	3	2961	-1.95	0.39	0
21	SLU 72	-31	7	2882	-1.66	0.26	0.01
21	SLU 73	-28	10	3312	-1.85	0.67	0.01
21	SLU 74	-25	4	3443	-2.33	0.87	0
21	SLU 75	-27	7	3364	-2.04	0.75	0.01
21	SLU 76	-28	10	3312	-1.85	0.67	0.01
21	SLU 77	-25	4	3443	-2.33	0.87	0
21	SLU 78	-27	7	3364	-2.04	0.75	0.01
21	SLU 79	-25	4	3443	-2.33	0.87	0
21	SLU 80	-27	7	3364	-2.04	0.75	0.01
21	SLU 81	-23	4	3650	-2.5	1.08	0
21	SLU 82	-25	8	3571	-2.21	0.95	0.01
21	SLU 83	-23	4	3650	-2.5	1.08	0
21	SLU 84	-25	8	3571	-2.21	0.95	0.01
21	SLE RA 1	-25	2	2222	-1.47	0.18	0
21	SLE RA 2	-26	7	2135	-1.14	0.05	0.01
21	SLE RA 3	-25	2	2222	-1.47	0.18	0
21	SLE RA 4	-26	5	2170	-1.27	0.1	0
21	SLE RA 5	-26	7	2135	-1.14	0.05	0.01
21	SLE RA 6	-25	2	2222	-1.47	0.18	0
21	SLE RA 7	-26	5	2170	-1.27	0.1	0
21	SLE RA 8	-25	2	2222	-1.47	0.18	0
21	SLE RA 9	-26	5	2170	-1.27	0.1	0
21	SLE RA 10	-24	7	2456	-1.4	0.37	0.01
21	SLE RA 11	-22	3	2544	-1.72	0.51	0
21	SLE RA 12	-23	5	2491	-1.53	0.42	0
21	SLE RA 13	-24	7	2456	-1.4	0.37	0.01
21	SLE RA 14	-22	3	2544	-1.72	0.51	0
21	SLE RA 15	-23	5	2491	-1.53	0.42	0
21	SLE RA 16	-22	3	2544	-1.72	0.51	0
21	SLE RA 17	-23	5	2491	-1.53	0.42	0
21	SLE RA 18	-21	3	2682	-1.83	0.64	0
21	SLE RA 19	-22	5	2629	-1.63	0.56	0
21	SLE RA 20	-21	3	2682	-1.83	0.64	0
21	SLE RA 21	-22	5	2629	-1.63	0.56	0
21	SLE FR 1	-25	2	2222	-1.47	0.18	0
21	SLE FR 2	-25	3	2205	-1.4	0.16	0
21	SLE FR 3	-25	2	2222	-1.47	0.18	0
21	SLE FR 4	-24	3	2343	-1.51	0.29	0
21	SLE FR 5	-24	2	2360	-1.57	0.32	0
21	SLE FR 6	-23	3	2452	-1.65	0.41	0
21	SLE QP 1	-25	2	2222	-1.47	0.18	0
21	SLE QP 2	-24	2	2360	-1.57	0.32	0
21	SLD 1	196	-6	2371	-0.56	9.45	-0.02
21	SLD 2	196	-6	2371	-0.56	9.45	-0.02
21	SLD 3	120	0	2201	3.55	6.17	0
21	SLD 4	120	0	2201	3.55	6.17	0
21	SLD 5	158	-9	2622	-7.5	8.03	-0.03
21	SLD 6	158	-9	2622	-7.5	8.03	-0.03
21	SLD 7	-96	11	2054	6.19	-2.89	0.02
21	SLD 8	-96	11	2054	6.19	-2.89	0.02
21	SLD 9	49	-6	2666	-9.34	3.54	-0.02
21	SLD 10	49	-6	2666	-9.34	3.54	-0.02
21	SLD 11	-205	14	2098	4.35	-7.39	0.02
21	SLD 12	-205	14	2098	4.35	-7.39	0.02
21	SLD 13	-167	5	2519	-6.7	-5.53	0
21	SLD 14	-167	5	2519	-6.7	-5.53	0
21	SLD 15	-243	11	2349	-2.59	-8.8	0.01
21	SLD 16	-243	11	2349	-2.59	-8.8	0.01
21	SLV 1	502	-18	2395	0.78	22.19	-0.03
21	SLV 2	502	-18	2395	0.78	22.19	-0.03
21	SLV 3	309	-3	1973	11.23	13.84	0
21	SLV 4	309	-3	1973	11.23	13.84	0
21	SLV 5	428	-27	3011	-16.71	19.55	-0.06
21	SLV 6	428	-27	3011	-16.71	19.55	-0.06
21	SLV 7	-218	24	1604	18.11	-8.29	0.05



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
21	SLV 8	-218	24	1604	18.11	-8.29	0.05
21	SLV 9	170	-19	3117	-21.26	8.93	-0.05
21	SLV 10	170	-19	3117	-21.26	8.93	-0.05
21	SLV 11	-475	32	1709	13.56	-18.9	0.05
21	SLV 12	-475	32	1709	13.56	-18.9	0.05
21	SLV 13	-356	8	2747	-14.37	-13.2	-0.01
21	SLV 14	-356	8	2747	-14.37	-13.2	-0.01
21	SLV 15	-550	23	2325	-3.93	-21.55	0.03
21	SLV 16	-550	23	2325	-3.93	-21.55	0.03
22	SLU 1	-90	3	2075	-1.97	-4.12	0.01
22	SLU 2	-121	12	1970	0.54	-5.51	0.01
22	SLU 3	-90	3	2075	-1.97	-4.12	0.01
22	SLU 4	-108	8	2012	-0.47	-4.95	0.01
22	SLU 5	-121	12	1970	0.54	-5.51	0.01
22	SLU 6	-90	3	2075	-1.97	-4.12	0.01
22	SLU 7	-108	8	2012	-0.47	-4.95	0.01
22	SLU 8	-90	3	2075	-1.97	-4.12	0.01
22	SLU 9	-108	8	2012	-0.47	-4.95	0.01
22	SLU 10	-139	13	2440	-0.07	-6.44	0.01
22	SLU 11	-108	5	2544	-2.58	-5.05	0.01
22	SLU 12	-127	10	2482	-1.08	-5.88	0.01
22	SLU 13	-139	13	2440	-0.07	-6.44	0.01
22	SLU 14	-108	5	2544	-2.58	-5.05	0.01
22	SLU 15	-127	10	2482	-1.08	-5.88	0.01
22	SLU 16	-108	5	2544	-2.58	-5.05	0.01
22	SLU 17	-127	10	2482	-1.08	-5.88	0.01
22	SLU 18	-116	5	2746	-2.84	-5.45	0.01
22	SLU 19	-135	10	2683	-1.34	-6.28	0.01
22	SLU 20	-116	5	2746	-2.84	-5.45	0.01
22	SLU 21	-135	10	2683	-1.34	-6.28	0.01
22	SLU 22	-92	4	2323	-2.21	-4.3	0.01
22	SLU 23	-123	12	2218	0.3	-5.69	0.01
22	SLU 24	-92	4	2323	-2.21	-4.3	0.01
22	SLU 25	-110	9	2260	-0.71	-5.13	0.01
22	SLU 26	-123	12	2218	0.3	-5.69	0.01
22	SLU 27	-92	4	2323	-2.21	-4.3	0.01
22	SLU 28	-110	9	2260	-0.71	-5.13	0.01
22	SLU 29	-92	4	2323	-2.21	-4.3	0.01
22	SLU 30	-110	9	2260	-0.71	-5.13	0.01
22	SLU 31	-141	13	2688	-0.31	-6.62	0.01
22	SLU 32	-110	5	2793	-2.82	-5.23	0.01
22	SLU 33	-129	10	2730	-1.32	-6.06	0.01
22	SLU 34	-141	13	2688	-0.31	-6.62	0.01
22	SLU 35	-110	5	2793	-2.82	-5.23	0.01
22	SLU 36	-129	10	2730	-1.32	-6.06	0.01
22	SLU 37	-110	5	2793	-2.82	-5.23	0.01
22	SLU 38	-129	10	2730	-1.32	-6.06	0.01
22	SLU 39	-118	6	2994	-3.08	-5.63	0.02
22	SLU 40	-137	11	2931	-1.58	-6.46	0.01
22	SLU 41	-118	6	2994	-3.08	-5.63	0.02
22	SLU 42	-137	11	2931	-1.58	-6.46	0.01
22	SLU 43	-116	4	2612	-2.48	-5.3	0.01
22	SLU 44	-147	13	2507	0.03	-6.69	0.01
22	SLU 45	-116	4	2612	-2.48	-5.3	0.01
22	SLU 46	-135	9	2549	-0.98	-6.13	0.01
22	SLU 47	-147	13	2507	0.03	-6.69	0.01
22	SLU 48	-116	4	2612	-2.48	-5.3	0.01
22	SLU 49	-135	9	2549	-0.98	-6.13	0.01
22	SLU 50	-116	4	2612	-2.48	-5.3	0.01
22	SLU 51	-135	9	2549	-0.98	-6.13	0.01
22	SLU 52	-165	14	2977	-0.58	-7.62	0.01
22	SLU 53	-135	5	3082	-3.09	-6.23	0.02
22	SLU 54	-153	10	3019	-1.59	-7.06	0.01
22	SLU 55	-165	14	2977	-0.58	-7.62	0.01
22	SLU 56	-135	5	3082	-3.09	-6.23	0.02
22	SLU 57	-153	10	3019	-1.59	-7.06	0.01
22	SLU 58	-135	5	3082	-3.09	-6.23	0.02
22	SLU 59	-153	10	3019	-1.59	-7.06	0.01
22	SLU 60	-143	6	3283	-3.35	-6.62	0.02
22	SLU 61	-161	11	3220	-1.85	-7.46	0.02
22	SLU 62	-143	6	3283	-3.35	-6.62	0.02
22	SLU 63	-161	11	3220	-1.85	-7.46	0.02
22	SLU 64	-118	5	2861	-2.72	-5.47	0.01
22	SLU 65	-149	13	2756	-0.21	-6.86	0.01
22	SLU 66	-118	5	2861	-2.72	-5.47	0.01
22	SLU 67	-137	10	2798	-1.22	-6.31	0.01
22	SLU 68	-149	13	2756	-0.21	-6.86	0.01
22	SLU 69	-118	5	2861	-2.72	-5.47	0.01
22	SLU 70	-137	10	2798	-1.22	-6.31	0.01
22	SLU 71	-118	5	2861	-2.72	-5.47	0.01
22	SLU 72	-137	10	2798	-1.22	-6.31	0.01
22	SLU 73	-167	14	3225	-0.82	-7.79	0.02
22	SLU 74	-137	6	3330	-3.33	-6.4	0.02
22	SLU 75	-155	11	3267	-1.83	-7.24	0.02
22	SLU 76	-167	14	3225	-0.82	-7.79	0.02
22	SLU 77	-137	6	3330	-3.33	-6.4	0.02
22	SLU 78	-155	11	3267	-1.83	-7.24	0.02
22	SLU 79	-137	6	3330	-3.33	-6.4	0.02
22	SLU 80	-155	11	3267	-1.83	-7.24	0.02
22	SLU 81	-145	6	3531	-3.59	-6.8	0.02



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
22	SLU 82	-163	11	3469	-2.09	-7.64	0.02
22	SLU 83	-145	6	3531	-3.59	-6.8	0.02
22	SLU 84	-163	11	3469	-2.09	-7.64	0.02
22	SLE RA 1	-91	4	2146	-2.04	-4.17	0.01
22	SLE RA 2	-111	9	2076	-0.37	-5.1	0.01
22	SLE RA 3	-91	4	2146	-2.04	-4.17	0.01
22	SLE RA 4	-103	7	2104	-1.04	-4.73	0.01
22	SLE RA 5	-111	9	2076	-0.37	-5.1	0.01
22	SLE RA 6	-91	4	2146	-2.04	-4.17	0.01
22	SLE RA 7	-103	7	2104	-1.04	-4.73	0.01
22	SLE RA 8	-91	4	2146	-2.04	-4.17	0.01
22	SLE RA 9	-103	7	2104	-1.04	-4.73	0.01
22	SLE RA 10	-123	10	2389	-0.78	-5.72	0.01
22	SLE RA 11	-103	4	2459	-2.45	-4.79	0.01
22	SLE RA 12	-115	8	2417	-1.44	-5.35	0.01
22	SLE RA 13	-123	10	2389	-0.78	-5.72	0.01
22	SLE RA 14	-103	4	2459	-2.45	-4.79	0.01
22	SLE RA 15	-115	8	2417	-1.44	-5.35	0.01
22	SLE RA 16	-103	4	2459	-2.45	-4.79	0.01
22	SLE RA 17	-115	8	2417	-1.44	-5.35	0.01
22	SLE RA 18	-108	5	2593	-2.62	-5.06	0.01
22	SLE RA 19	-120	8	2551	-1.62	-5.61	0.01
22	SLE RA 20	-108	5	2593	-2.62	-5.06	0.01
22	SLE RA 21	-120	8	2551	-1.62	-5.61	0.01
22	SLE FR 1	-91	4	2146	-2.04	-4.17	0.01
22	SLE FR 2	-95	5	2132	-1.71	-4.36	0.01
22	SLE FR 3	-91	4	2146	-2.04	-4.17	0.01
22	SLE FR 4	-100	5	2266	-1.88	-4.62	0.01
22	SLE FR 5	-96	4	2280	-2.22	-4.44	0.01
22	SLE FR 6	-99	4	2369	-2.33	-4.61	0.01
22	SLE QP 1	-91	4	2146	-2.04	-4.17	0.01
22	SLE QP 2	-96	4	2280	-2.22	-4.44	0.01
22	SLD 1	128	-7	2271	-0.9	4.78	0.01
22	SLD 2	128	-7	2271	-0.9	4.78	0.01
22	SLD 3	60	1	2154	7.79	2.12	-0.01
22	SLD 4	60	1	2154	7.79	2.12	-0.01
22	SLD 5	74	-11	2455	-15.01	2.37	0.03
22	SLD 6	74	-11	2455	-15.01	2.37	0.03
22	SLD 7	-152	15	2064	13.97	-6.51	-0.02
22	SLD 8	-152	15	2064	13.97	-6.51	-0.02
22	SLD 9	-40	-7	2496	-18.4	-2.36	0.04
22	SLD 10	-40	-7	2496	-18.4	-2.36	0.04
22	SLD 11	-266	19	2105	10.57	-11.24	-0.01
22	SLD 12	-266	19	2105	10.57	-11.24	-0.01
22	SLD 13	-251	7	2406	-12.22	-10.99	0.03
22	SLD 14	-251	7	2406	-12.22	-10.99	0.03
22	SLD 15	-319	15	2289	-3.53	-13.65	0.02
22	SLD 16	-319	15	2289	-3.53	-13.65	0.02
22	SLV 1	438	-23	2265	0.76	17.54	0
22	SLV 2	438	-23	2265	0.76	17.54	0
22	SLV 3	266	-4	1974	22.87	10.78	-0.04
22	SLV 4	266	-4	1974	22.87	10.78	-0.04
22	SLV 5	325	-34	2716	-34.85	12.42	0.06
22	SLV 6	325	-34	2716	-34.85	12.42	0.06
22	SLV 7	-248	31	1747	38.84	-10.13	-0.06
22	SLV 8	-248	31	1747	38.84	-10.13	-0.06
22	SLV 9	57	-23	2813	-43.27	1.26	0.08
22	SLV 10	57	-23	2813	-43.27	1.26	0.08
22	SLV 11	-517	41	1844	30.42	-21.29	-0.04
22	SLV 12	-517	41	1844	30.42	-21.29	-0.04
22	SLV 13	-458	11	2586	-27.3	-19.65	0.06
22	SLV 14	-458	11	2586	-27.3	-19.65	0.06
22	SLV 15	-630	31	2295	-5.19	-26.42	0.02
22	SLV 16	-630	31	2295	-5.19	-26.42	0.02
23	SLU 1	-103	6	1997	-2.66	-3.24	0.01
23	SLU 2	-164	10	1906	3.86	-5.75	0
23	SLU 3	-103	6	1997	-2.66	-3.24	0.01
23	SLU 4	-140	9	1942	1.25	-4.74	0
23	SLU 5	-164	10	1906	3.86	-5.75	0
23	SLU 6	-103	6	1997	-2.66	-3.24	0.01
23	SLU 7	-140	9	1942	1.25	-4.74	0
23	SLU 8	-103	6	1997	-2.66	-3.24	0.01
23	SLU 9	-140	9	1942	1.25	-4.74	0
23	SLU 10	-189	13	2359	3.04	-6.51	0.01
23	SLU 11	-128	8	2449	-3.48	-4	0.01
23	SLU 12	-165	11	2395	0.43	-5.51	0.01
23	SLU 13	-189	13	2359	3.04	-6.51	0.01
23	SLU 14	-128	8	2449	-3.48	-4	0.01
23	SLU 15	-165	11	2395	0.43	-5.51	0.01
23	SLU 16	-128	8	2449	-3.48	-4	0.01
23	SLU 17	-165	11	2395	0.43	-5.51	0.01
23	SLU 18	-139	9	2643	-3.84	-4.33	0.01
23	SLU 19	-176	12	2589	0.08	-5.84	0.01
23	SLU 20	-139	9	2643	-3.84	-4.33	0.01
23	SLU 21	-176	12	2589	0.08	-5.84	0.01
23	SLU 22	-109	7	2240	-2.98	-3.38	0.01
23	SLU 23	-171	11	2149	3.55	-5.89	0
23	SLU 24	-109	7	2240	-2.98	-3.38	0.01
23	SLU 25	-146	9	2186	0.94	-4.89	0.01
23	SLU 26	-171	11	2149	3.55	-5.89	0



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
23	SLU 27	-109	7	2240	-2.98	-3.38	0.01
23	SLU 28	-146	9	2186	0.94	-4.89	0.01
23	SLU 29	-109	7	2240	-2.98	-3.38	0.01
23	SLU 30	-146	9	2186	0.94	-4.89	0.01
23	SLU 31	-196	13	2602	2.73	-6.66	0.01
23	SLU 32	-134	9	2693	-3.8	-4.14	0.01
23	SLU 33	-171	11	2638	0.12	-5.65	0.01
23	SLU 34	-196	13	2602	2.73	-6.66	0.01
23	SLU 35	-134	9	2693	-3.8	-4.14	0.01
23	SLU 36	-171	11	2638	0.12	-5.65	0.01
23	SLU 37	-134	9	2693	-3.8	-4.14	0.01
23	SLU 38	-171	11	2638	0.12	-5.65	0.01
23	SLU 39	-145	10	2886	-4.15	-4.47	0.01
23	SLU 40	-182	12	2832	-0.24	-5.98	0.01
23	SLU 41	-145	10	2886	-4.15	-4.47	0.01
23	SLU 42	-182	12	2832	-0.24	-5.98	0.01
23	SLU 43	-131	7	2512	-3.35	-4.16	0.01
23	SLU 44	-193	12	2422	3.17	-6.67	0
23	SLU 45	-131	7	2512	-3.35	-4.16	0.01
23	SLU 46	-168	10	2458	0.56	-5.67	0.01
23	SLU 47	-193	12	2422	3.17	-6.67	0
23	SLU 48	-131	7	2512	-3.35	-4.16	0.01
23	SLU 49	-168	10	2458	0.56	-5.67	0.01
23	SLU 50	-131	7	2512	-3.35	-4.16	0.01
23	SLU 51	-168	10	2458	0.56	-5.67	0.01
23	SLU 52	-218	14	2874	2.35	-7.44	0.01
23	SLU 53	-157	9	2965	-4.17	-4.92	0.01
23	SLU 54	-194	12	2910	-0.26	-6.43	0.01
23	SLU 55	-218	14	2874	2.35	-7.44	0.01
23	SLU 56	-157	9	2965	-4.17	-4.92	0.01
23	SLU 57	-194	12	2910	-0.26	-6.43	0.01
23	SLU 58	-157	9	2965	-4.17	-4.92	0.01
23	SLU 59	-194	12	2910	-0.26	-6.43	0.01
23	SLU 60	-168	10	3159	-4.53	-5.25	0.01
23	SLU 61	-204	13	3104	-0.61	-6.76	0.01
23	SLU 62	-168	10	3159	-4.53	-5.25	0.01
23	SLU 63	-204	13	3104	-0.61	-6.76	0.01
23	SLU 64	-138	8	2756	-3.67	-4.3	0.01
23	SLU 65	-199	13	2665	2.86	-6.82	0.01
23	SLU 66	-138	8	2756	-3.67	-4.3	0.01
23	SLU 67	-175	11	2701	0.25	-5.81	0.01
23	SLU 68	-199	13	2665	2.86	-6.82	0.01
23	SLU 69	-138	8	2756	-3.67	-4.3	0.01
23	SLU 70	-175	11	2701	0.25	-5.81	0.01
23	SLU 71	-138	8	2756	-3.67	-4.3	0.01
23	SLU 72	-175	11	2701	0.25	-5.81	0.01
23	SLU 73	-224	15	3118	2.03	-7.58	0.01
23	SLU 74	-163	10	3208	-4.49	-5.06	0.01
23	SLU 75	-200	13	3154	-0.57	-6.57	0.01
23	SLU 76	-224	15	3118	2.03	-7.58	0.01
23	SLU 77	-163	10	3208	-4.49	-5.06	0.01
23	SLU 78	-200	13	3154	-0.57	-6.57	0.01
23	SLU 79	-163	10	3208	-4.49	-5.06	0.01
23	SLU 80	-200	13	3154	-0.57	-6.57	0.01
23	SLU 81	-174	11	3402	-4.84	-5.39	0.01
23	SLU 82	-211	14	3348	-0.93	-6.9	0.01
23	SLU 83	-174	11	3402	-4.84	-5.39	0.01
23	SLU 84	-211	14	3348	-0.93	-6.9	0.01
23	SLE RA 1	-105	6	2066	-2.75	-3.28	0.01
23	SLE RA 2	-146	9	2006	1.6	-4.95	0
23	SLE RA 3	-105	6	2066	-2.75	-3.28	0.01
23	SLE RA 4	-129	8	2030	-0.14	-4.28	0.01
23	SLE RA 5	-146	9	2006	1.6	-4.95	0
23	SLE RA 6	-105	6	2066	-2.75	-3.28	0.01
23	SLE RA 7	-129	8	2030	-0.14	-4.28	0.01
23	SLE RA 8	-105	6	2066	-2.75	-3.28	0.01
23	SLE RA 9	-129	8	2030	-0.14	-4.28	0.01
23	SLE RA 10	-162	11	2308	1.05	-5.46	0.01
23	SLE RA 11	-121	7	2368	-3.3	-3.79	0.01
23	SLE RA 12	-146	9	2332	-0.69	-4.79	0.01
23	SLE RA 13	-162	11	2308	1.05	-5.46	0.01
23	SLE RA 14	-121	7	2368	-3.3	-3.79	0.01
23	SLE RA 15	-146	9	2332	-0.69	-4.79	0.01
23	SLE RA 16	-121	7	2368	-3.3	-3.79	0.01
23	SLE RA 17	-146	9	2332	-0.69	-4.79	0.01
23	SLE RA 18	-129	8	2497	-3.53	-4	0.01
23	SLE RA 19	-153	10	2461	-0.93	-5.01	0.01
23	SLE RA 20	-129	8	2497	-3.53	-4	0.01
23	SLE RA 21	-153	10	2461	-0.93	-5.01	0.01
23	SLE FR 1	-105	6	2066	-2.75	-3.28	0.01
23	SLE FR 2	-113	7	2054	-1.88	-3.61	0.01
23	SLE FR 3	-105	6	2066	-2.75	-3.28	0.01
23	SLE FR 4	-120	7	2183	-2.12	-3.83	0.01
23	SLE FR 5	-112	7	2196	-2.99	-3.49	0.01
23	SLE FR 6	-117	7	2282	-3.14	-3.64	0.01
23	SLE QP 1	-105	6	2066	-2.75	-3.28	0.01
23	SLE QP 2	-112	7	2196	-2.99	-3.49	0.01
23	SLD 1	121	-7	2323	-17.95	6.36	0
23	SLD 2	121	-7	2323	-17.95	6.36	0
23	SLD 3	53	3	2242	-3.91	3.35	-0.02



Nodo	Cont.	Reazione a traslazione				Reazione a rotazione		
Ind.	N.br.	x	y	z		x	y	z
23	SLD 4	53	3	2242		-3.91	3.35	-0.02
23	SLD 5	61	-13	2356		-28.77	4.02	0.04
23	SLD 6	61	-13	2356		-28.77	4.02	0.04
23	SLD 7	-166	21	2087		18.03	-6	-0.03
23	SLD 8	-166	21	2087		18.03	-6	-0.03
23	SLD 9	-58	-8	2304		-24.01	-0.99	0.05
23	SLD 10	-58	-8	2304		-24.01	-0.99	0.05
23	SLD 11	-285	26	2035		22.8	-11.01	-0.02
23	SLD 12	-285	26	2035		22.8	-11.01	-0.02
23	SLD 13	-277	10	2149		-2.06	-10.34	0.03
23	SLD 14	-277	10	2149		-2.06	-10.34	0.03
23	SLD 15	-345	21	2069		11.98	-13.35	0.01
23	SLD 16	-345	21	2069		11.98	-13.35	0.01
23	SLV 1	445	-28	2507		-40.6	20.08	-0.01
23	SLV 2	445	-28	2507		-40.6	20.08	-0.01
23	SLV 3	271	-3	2307		-4.88	12.37	-0.06
23	SLV 4	271	-3	2307		-4.88	12.37	-0.06
23	SLV 5	320	-42	2593		-68.45	15.28	0.08
23	SLV 6	320	-42	2593		-68.45	15.28	0.08
23	SLV 7	-262	43	1925		50.62	-10.44	-0.09
23	SLV 8	-262	43	1925		50.62	-10.44	-0.09
23	SLV 9	38	-29	2466		-56.6	3.45	0.1
23	SLV 10	38	-29	2466		-56.6	3.45	0.1
23	SLV 11	-544	56	1798		62.48	-22.27	-0.06
23	SLV 12	-544	56	1798		62.48	-22.27	-0.06
23	SLV 13	-495	16	2084		-1.09	-19.35	0.07
23	SLV 14	-495	16	2084		-1.09	-19.35	0.07
23	SLV 15	-669	41	1884		34.63	-27.07	0.02
23	SLV 16	-669	41	1884		34.63	-27.07	0.02
24	SLU 1	-115	7	1931		-2.99	-5.16	0.01
24	SLU 2	-205	6	1835		8.66	-9.02	0
24	SLU 3	-115	7	1931		-2.99	-5.16	0.01
24	SLU 4	-169	7	1874		4	-7.48	0.01
24	SLU 5	-205	6	1835		8.66	-9.02	0
24	SLU 6	-115	7	1931		-2.99	-5.16	0.01
24	SLU 7	-169	7	1874		4	-7.48	0.01
24	SLU 8	-115	7	1931		-2.99	-5.16	0.01
24	SLU 9	-169	7	1874		4	-7.48	0.01
24	SLU 10	-237	9	2274		7.77	-10.45	0.01
24	SLU 11	-147	9	2369		-3.88	-6.59	0.01
24	SLU 12	-201	9	2312		3.11	-8.91	0.01
24	SLU 13	-237	9	2274		7.77	-10.45	0.01
24	SLU 14	-147	9	2369		-3.88	-6.59	0.01
24	SLU 15	-201	9	2312		3.11	-8.91	0.01
24	SLU 16	-147	9	2369		-3.88	-6.59	0.01
24	SLU 17	-201	9	2312		3.11	-8.91	0.01
24	SLU 18	-160	10	2557		-4.26	-7.21	0.01
24	SLU 19	-214	10	2500		2.73	-9.52	0.01
24	SLU 20	-160	10	2557		-4.26	-7.21	0.01
24	SLU 21	-214	10	2500		2.73	-9.52	0.01
24	SLU 22	-125	8	2170		-3.32	-5.63	0.01
24	SLU 23	-215	7	2074		8.33	-9.49	0
24	SLU 24	-125	8	2170		-3.32	-5.63	0.01
24	SLU 25	-179	8	2113		3.67	-7.94	0.01
24	SLU 26	-215	7	2074		8.33	-9.49	0
24	SLU 27	-125	8	2170		-3.32	-5.63	0.01
24	SLU 28	-179	8	2113		3.67	-7.94	0.01
24	SLU 29	-125	8	2170		-3.32	-5.63	0.01
24	SLU 30	-179	8	2113		3.67	-7.94	0.01
24	SLU 31	-247	10	2513		7.43	-10.92	0.01
24	SLU 32	-156	10	2608		-4.22	-7.06	0.01
24	SLU 33	-210	10	2551		2.77	-9.37	0.01
24	SLU 34	-247	10	2513		7.43	-10.92	0.01
24	SLU 35	-156	10	2608		-4.22	-7.06	0.01
24	SLU 36	-210	10	2551		2.77	-9.37	0.01
24	SLU 37	-156	10	2608		-4.22	-7.06	0.01
24	SLU 38	-210	10	2551		2.77	-9.37	0.01
24	SLU 39	-170	11	2796		-4.6	-7.67	0.02
24	SLU 40	-224	11	2739		2.39	-9.99	0.01
24	SLU 41	-170	11	2796		-4.6	-7.67	0.02
24	SLU 42	-224	11	2739		2.39	-9.99	0.01
24	SLU 43	-146	9	2428		-3.77	-6.55	0.01
24	SLU 44	-237	8	2333		7.88	-10.41	0.01
24	SLU 45	-146	9	2428		-3.77	-6.55	0.01
24	SLU 46	-201	8	2371		3.22	-8.87	0.01
24	SLU 47	-237	8	2333		7.88	-10.41	0.01
24	SLU 48	-146	9	2428		-3.77	-6.55	0.01
24	SLU 49	-201	8	2371		3.22	-8.87	0.01
24	SLU 50	-146	9	2428		-3.77	-6.55	0.01
24	SLU 51	-201	8	2371		3.22	-8.87	0.01
24	SLU 52	-268	10	2771		6.99	-11.84	0.01
24	SLU 53	-178	11	2866		-4.66	-7.98	0.01
24	SLU 54	-232	11	2809		2.33	-10.3	0.01
24	SLU 55	-268	10	2771		6.99	-11.84	0.01
24	SLU 56	-178	11	2866		-4.66	-7.98	0.01
24	SLU 57	-232	11	2809		2.33	-10.3	0.01
24	SLU 58	-178	11	2866		-4.66	-7.98	0.01
24	SLU 59	-232	11	2809		2.33	-10.3	0.01
24	SLU 60	-191	12	3054		-5.04	-8.6	0.02
24	SLU 61	-245	12	2997		1.95	-10.91	0.01





Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
24	SLU 62	-191	12	3054	-5.04	-8.6	0.02
24	SLU 63	-245	12	2997	1.95	-10.91	0.01
24	SLU 64	-156	10	2667	-4.1	-7.02	0.01
24	SLU 65	-246	9	2572	7.55	-10.88	0.01
24	SLU 66	-156	10	2667	-4.1	-7.02	0.01
24	SLU 67	-210	9	2610	2.89	-9.33	0.01
24	SLU 68	-246	9	2572	7.55	-10.88	0.01
24	SLU 69	-156	10	2667	-4.1	-7.02	0.01
24	SLU 70	-210	9	2610	2.89	-9.33	0.01
24	SLU 71	-156	10	2667	-4.1	-7.02	0.01
24	SLU 72	-210	9	2610	2.89	-9.33	0.01
24	SLU 73	-278	11	3010	6.65	-12.31	0.01
24	SLU 74	-188	12	3105	-5	-8.45	0.02
24	SLU 75	-242	12	3048	1.99	-10.76	0.01
24	SLU 76	-278	11	3010	6.65	-12.31	0.01
24	SLU 77	-188	12	3105	-5	-8.45	0.02
24	SLU 78	-242	12	3048	1.99	-10.76	0.01
24	SLU 79	-188	12	3105	-5	-8.45	0.02
24	SLU 80	-242	12	3048	1.99	-10.76	0.01
24	SLU 81	-201	13	3293	-5.38	-9.06	0.02
24	SLU 82	-255	13	3236	1.61	-11.37	0.01
24	SLU 83	-201	13	3293	-5.38	-9.06	0.02
24	SLU 84	-255	13	3236	1.61	-11.37	0.01
24	SLE RA 1	-118	7	1999	-3.08	-5.3	0.01
24	SLE RA 2	-178	7	1935	4.68	-7.87	0.01
24	SLE RA 3	-118	7	1999	-3.08	-5.3	0.01
24	SLE RA 4	-154	7	1961	1.58	-6.84	0.01
24	SLE RA 5	-178	7	1935	4.68	-7.87	0.01
24	SLE RA 6	-118	7	1999	-3.08	-5.3	0.01
24	SLE RA 7	-154	7	1961	1.58	-6.84	0.01
24	SLE RA 8	-118	7	1999	-3.08	-5.3	0.01
24	SLE RA 9	-154	7	1961	1.58	-6.84	0.01
24	SLE RA 10	-199	8	2228	4.09	-8.82	0.01
24	SLE RA 11	-139	9	2291	-3.68	-6.25	0.01
24	SLE RA 12	-175	9	2253	0.98	-7.79	0.01
24	SLE RA 13	-199	8	2228	4.09	-8.82	0.01
24	SLE RA 14	-139	9	2291	-3.68	-6.25	0.01
24	SLE RA 15	-175	9	2253	0.98	-7.79	0.01
24	SLE RA 16	-139	9	2291	-3.68	-6.25	0.01
24	SLE RA 17	-175	9	2253	0.98	-7.79	0.01
24	SLE RA 18	-148	10	2417	-3.93	-6.66	0.01
24	SLE RA 19	-184	9	2378	0.73	-8.2	0.01
24	SLE RA 20	-148	10	2417	-3.93	-6.66	0.01
24	SLE RA 21	-184	9	2378	0.73	-8.2	0.01
24	SLE FR 1	-118	7	1999	-3.08	-5.3	0.01
24	SLE FR 2	-130	7	1986	-1.53	-5.81	0.01
24	SLE FR 3	-118	7	1999	-3.08	-5.3	0.01
24	SLE FR 4	-139	8	2112	-1.78	-6.22	0.01
24	SLE FR 5	-127	8	2124	-3.34	-5.7	0.01
24	SLE FR 6	-133	8	2208	-3.51	-5.98	0.01
24	SLE QP 1	-118	7	1999	-3.08	-5.3	0.01
24	SLE QP 2	-127	8	2124	-3.34	-5.7	0.01
24	SLD 1	111	4	2264	-22.85	4.34	0
24	SLD 2	111	4	2264	-22.85	4.34	0
24	SLD 3	45	-10	2198	-3.22	1.6	-0.02
24	SLD 4	45	-10	2198	-3.22	1.6	-0.02
24	SLD 5	45	29	2267	-38.97	1.45	0.05
24	SLD 6	45	29	2267	-38.97	1.45	0.05
24	SLD 7	-176	-20	2046	26.47	-7.66	-0.04
24	SLD 8	-176	-20	2046	26.47	-7.66	-0.04
24	SLD 9	-78	36	2203	-33.15	-3.75	0.06
24	SLD 10	-78	36	2203	-33.15	-3.75	0.06
24	SLD 11	-299	-13	1982	32.29	-12.86	-0.03
24	SLD 12	-299	-13	1982	32.29	-12.86	-0.03
24	SLD 13	-299	26	2051	-3.46	-13.01	0.04
24	SLD 14	-299	26	2051	-3.46	-13.01	0.04
24	SLD 15	-365	12	1985	16.18	-15.75	0.02
24	SLD 16	-365	12	1985	16.18	-15.75	0.02
24	SLV 1	443	-1	2471	-52.5	18.31	-0.01
24	SLV 2	443	-1	2471	-52.5	18.31	-0.01
24	SLV 3	270	-38	2303	-2.49	11.16	-0.07
24	SLV 4	270	-38	2303	-2.49	11.16	-0.07
24	SLV 5	306	61	2484	-93.94	12.33	0.1
24	SLV 6	306	61	2484	-93.94	12.33	0.1
24	SLV 7	-269	-61	1922	72.77	-11.48	-0.11
24	SLV 8	-269	-61	1922	72.77	-11.48	-0.11
24	SLV 9	15	77	2327	-79.44	0.07	0.13
24	SLV 10	15	77	2327	-79.44	0.07	0.13
24	SLV 11	-560	-45	1764	87.26	-23.74	-0.08
24	SLV 12	-560	-45	1764	87.26	-23.74	-0.08
24	SLV 13	-524	53	1946	-4.19	-22.57	0.09
24	SLV 14	-524	53	1946	-4.19	-22.57	0.09
24	SLV 15	-697	17	1777	45.83	-29.72	0.03
24	SLV 16	-697	17	1777	45.83	-29.72	0.03
25	SLU 1	-83	8	1897	-3.07	-3.15	0.01
25	SLU 2	-183	2	1784	13.93	-7.3	0
25	SLU 3	-83	8	1897	-3.07	-3.15	0.01
25	SLU 4	-143	4	1829	7.13	-5.64	0
25	SLU 5	-183	2	1784	13.93	-7.3	0
25	SLU 6	-83	8	1897	-3.07	-3.15	0.01



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
25	SLU 7	-143	4	1829	7.13	-5.64	0
25	SLU 8	-83	8	1897	-3.07	-3.15	0.01
25	SLU 9	-143	4	1829	7.13	-5.64	0
25	SLU 10	-207	5	2218	13.04	-8.25	0
25	SLU 11	-107	10	2332	-3.96	-4.1	0.01
25	SLU 12	-167	7	2264	6.24	-6.59	0.01
25	SLU 13	-207	5	2218	13.04	-8.25	0
25	SLU 14	-107	10	2332	-3.96	-4.1	0.01
25	SLU 15	-167	7	2264	6.24	-6.59	0.01
25	SLU 16	-107	10	2332	-3.96	-4.1	0.01
25	SLU 17	-167	7	2264	6.24	-6.59	0.01
25	SLU 18	-117	11	2518	-4.34	-4.51	0.01
25	SLU 19	-177	8	2450	5.86	-7	0.01
25	SLU 20	-117	11	2518	-4.34	-4.51	0.01
25	SLU 21	-177	8	2450	5.86	-7	0.01
25	SLU 22	-90	9	2137	-3.41	-3.42	0.01
25	SLU 23	-190	3	2023	13.59	-7.57	0
25	SLU 24	-90	9	2137	-3.41	-3.42	0.01
25	SLU 25	-150	5	2069	6.79	-5.91	0.01
25	SLU 26	-190	3	2023	13.59	-7.57	0
25	SLU 27	-90	9	2137	-3.41	-3.42	0.01
25	SLU 28	-150	5	2069	6.79	-5.91	0.01
25	SLU 29	-90	9	2137	-3.41	-3.42	0.01
25	SLU 30	-150	5	2069	6.79	-5.91	0.01
25	SLU 31	-214	6	2458	12.71	-8.52	0
25	SLU 32	-114	11	2571	-4.3	-4.37	0.01
25	SLU 33	-174	8	2503	5.9	-6.86	0.01
25	SLU 34	-214	6	2458	12.71	-8.52	0
25	SLU 35	-114	11	2571	-4.3	-4.37	0.01
25	SLU 36	-174	8	2503	5.9	-6.86	0.01
25	SLU 37	-114	11	2571	-4.3	-4.37	0.01
25	SLU 38	-174	8	2503	5.9	-6.86	0.01
25	SLU 39	-124	12	2757	-4.68	-4.78	0.02
25	SLU 40	-184	9	2689	5.52	-7.27	0.01
25	SLU 41	-124	12	2757	-4.68	-4.78	0.02
25	SLU 42	-184	9	2689	5.52	-7.27	0.01
25	SLU 43	-106	10	2384	-3.88	-4	0.01
25	SLU 44	-206	4	2271	13.12	-8.15	0
25	SLU 45	-106	10	2384	-3.88	-4	0.01
25	SLU 46	-166	6	2316	6.32	-6.49	0.01
25	SLU 47	-206	4	2271	13.12	-8.15	0
25	SLU 48	-106	10	2384	-3.88	-4	0.01
25	SLU 49	-166	6	2316	6.32	-6.49	0.01
25	SLU 50	-106	10	2384	-3.88	-4	0.01
25	SLU 51	-166	6	2316	6.32	-6.49	0.01
25	SLU 52	-230	7	2705	12.24	-9.1	0.01
25	SLU 53	-130	12	2819	-4.76	-4.95	0.01
25	SLU 54	-190	9	2751	5.44	-7.44	0.01
25	SLU 55	-230	7	2705	12.24	-9.1	0.01
25	SLU 56	-130	12	2819	-4.76	-4.95	0.01
25	SLU 57	-190	9	2751	5.44	-7.44	0.01
25	SLU 58	-130	12	2819	-4.76	-4.95	0.01
25	SLU 59	-190	9	2751	5.44	-7.44	0.01
25	SLU 60	-140	13	3005	-5.14	-5.36	0.02
25	SLU 61	-200	10	2937	5.06	-7.85	0.01
25	SLU 62	-140	13	3005	-5.14	-5.36	0.02
25	SLU 63	-200	10	2937	5.06	-7.85	0.01
25	SLU 64	-113	11	2624	-4.22	-4.27	0.01
25	SLU 65	-213	5	2510	12.79	-8.42	0
25	SLU 66	-113	11	2624	-4.22	-4.27	0.01
25	SLU 67	-173	7	2556	5.98	-6.76	0.01
25	SLU 68	-213	5	2510	12.79	-8.42	0
25	SLU 69	-113	11	2624	-4.22	-4.27	0.01
25	SLU 70	-173	7	2556	5.98	-6.76	0.01
25	SLU 71	-113	11	2624	-4.22	-4.27	0.01
25	SLU 72	-173	7	2556	5.98	-6.76	0.01
25	SLU 73	-237	8	2945	11.9	-9.37	0.01
25	SLU 74	-136	13	3058	-5.1	-5.22	0.02
25	SLU 75	-197	10	2990	5.1	-7.71	0.01
25	SLU 76	-237	8	2945	11.9	-9.37	0.01
25	SLU 77	-136	13	3058	-5.1	-5.22	0.02
25	SLU 78	-197	10	2990	5.1	-7.71	0.01
25	SLU 79	-136	13	3058	-5.1	-5.22	0.02
25	SLU 80	-197	10	2990	5.1	-7.71	0.01
25	SLU 81	-147	14	3244	-5.48	-5.63	0.02
25	SLU 82	-207	11	3176	4.72	-8.12	0.01
25	SLU 83	-147	14	3244	-5.48	-5.63	0.02
25	SLU 84	-207	11	3176	4.72	-8.12	0.01
25	SLE RA 1	-85	8	1966	-3.17	-3.22	0.01
25	SLE RA 2	-152	4	1890	8.17	-5.99	0
25	SLE RA 3	-85	8	1966	-3.17	-3.22	0.01
25	SLE RA 4	-125	6	1920	3.63	-4.88	0.01
25	SLE RA 5	-152	4	1890	8.17	-5.99	0
25	SLE RA 6	-85	8	1966	-3.17	-3.22	0.01
25	SLE RA 7	-125	6	1920	3.63	-4.88	0.01
25	SLE RA 8	-85	8	1966	-3.17	-3.22	0.01
25	SLE RA 9	-125	6	1920	3.63	-4.88	0.01
25	SLE RA 10	-168	6	2180	7.57	-6.63	0.01
25	SLE RA 11	-101	10	2255	-3.76	-3.86	0.01
25	SLE RA 12	-141	8	2210	3.04	-5.52	0.01



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
Ind.	N.br.						
25	SLE RA 13	-168	6	2180	7.57	-6.63	0.01
25	SLE RA 14	-101	10	2255	-3.76	-3.86	0.01
25	SLE RA 15	-141	8	2210	3.04	-5.52	0.01
25	SLE RA 16	-101	10	2255	-3.76	-3.86	0.01
25	SLE RA 17	-141	8	2210	3.04	-5.52	0.01
25	SLE RA 18	-108	10	2379	-4.01	-4.13	0.01
25	SLE RA 19	-148	8	2334	2.79	-5.79	0.01
25	SLE RA 20	-108	10	2379	-4.01	-4.13	0.01
25	SLE RA 21	-148	8	2334	2.79	-5.79	0.01
25	SLE FR 1	-85	8	1966	-3.17	-3.22	0.01
25	SLE FR 2	-98	7	1950	-0.9	-3.78	0.01
25	SLE FR 3	-85	8	1966	-3.17	-3.22	0.01
25	SLE FR 4	-105	8	2075	-1.16	-4.05	0.01
25	SLE FR 5	-92	9	2090	-3.42	-3.5	0.01
25	SLE FR 6	-96	9	2172	-3.59	-3.68	0.01
25	SLE QP 1	-85	8	1966	-3.17	-3.22	0.01
25	SLE QP 2	-92	9	2090	-3.42	-3.5	0.01
25	SLD 1	143	6	2241	-26.51	6.45	0.01
25	SLD 2	143	6	2241	-26.51	6.45	0.01
25	SLD 3	79	-13	2172	-1.56	3.69	-0.02
25	SLD 4	79	-13	2172	-1.56	3.69	-0.02
25	SLD 5	75	37	2240	-48.19	3.68	0.05
25	SLD 6	75	37	2240	-48.19	3.68	0.05
25	SLD 7	-137	-27	2010	34.97	-5.53	-0.04
25	SLD 8	-137	-27	2010	34.97	-5.53	-0.04
25	SLD 9	-47	44	2170	-41.82	-1.46	0.06
25	SLD 10	-47	44	2170	-41.82	-1.46	0.06
25	SLD 11	-259	-20	1939	41.34	-10.67	-0.03
25	SLD 12	-259	-20	1939	41.34	-10.67	-0.03
25	SLD 13	-263	31	2007	-5.28	-10.68	0.04
25	SLD 14	-263	31	2007	-5.28	-10.68	0.04
25	SLD 15	-327	11	1938	19.67	-13.45	0.01
25	SLD 16	-327	11	1938	19.67	-13.45	0.01
25	SLV 1	471	3	2470	-61.75	20.35	0
25	SLV 2	471	3	2470	-61.75	20.35	0
25	SLV 3	303	-46	2290	1.91	13.07	-0.06
25	SLV 4	303	-46	2290	1.91	13.07	-0.06
25	SLV 5	332	80	2476	-117.47	14.7	0.11
25	SLV 6	332	80	2476	-117.47	14.7	0.11
25	SLV 7	-229	-81	1877	94.73	-9.57	-0.11
25	SLV 8	-229	-81	1877	94.73	-9.57	-0.11
25	SLV 9	45	98	2302	-101.57	2.58	0.13
25	SLV 10	45	98	2302	-101.57	2.58	0.13
25	SLV 11	-516	-62	1703	110.63	-21.69	-0.09
25	SLV 12	-516	-62	1703	110.63	-21.69	-0.09
25	SLV 13	-486	63	1889	-8.75	-20.06	0.08
25	SLV 14	-486	63	1889	-8.75	-20.06	0.08
25	SLV 15	-655	15	1710	54.91	-27.34	0.02
25	SLV 16	-655	15	1710	54.91	-27.34	0.02
26	SLU 1	-70	9	1914	-3.1	-3.42	0.01
26	SLU 2	-161	-1	1787	18.94	-7.22	0
26	SLU 3	-70	9	1914	-3.1	-3.42	0.01
26	SLU 4	-125	3	1838	10.12	-5.7	0
26	SLU 5	-161	-1	1787	18.94	-7.22	0
26	SLU 6	-70	9	1914	-3.1	-3.42	0.01
26	SLU 7	-125	3	1838	10.12	-5.7	0
26	SLU 8	-70	9	1914	-3.1	-3.42	0.01
26	SLU 9	-125	3	1838	10.12	-5.7	0
26	SLU 10	-183	2	2233	18.07	-8.29	0
26	SLU 11	-91	12	2360	-3.97	-4.48	0.01
26	SLU 12	-146	6	2284	9.26	-6.76	0.01
26	SLU 13	-183	2	2233	18.07	-8.29	0
26	SLU 14	-91	12	2360	-3.97	-4.48	0.01
26	SLU 15	-146	6	2284	9.26	-6.76	0.01
26	SLU 16	-91	12	2360	-3.97	-4.48	0.01
26	SLU 17	-146	6	2284	9.26	-6.76	0.01
26	SLU 18	-101	13	2552	-4.34	-4.94	0.02
26	SLU 19	-156	7	2475	8.89	-7.22	0.01
26	SLU 20	-101	13	2552	-4.34	-4.94	0.02
26	SLU 21	-156	7	2475	8.89	-7.22	0.01
26	SLU 22	-76	10	2162	-3.45	-3.75	0.01
26	SLU 23	-167	0	2034	18.59	-7.56	0
26	SLU 24	-76	10	2162	-3.45	-3.75	0.01
26	SLU 25	-131	4	2085	9.78	-6.04	0
26	SLU 26	-167	0	2034	18.59	-7.56	0
26	SLU 27	-76	10	2162	-3.45	-3.75	0.01
26	SLU 28	-131	4	2085	9.78	-6.04	0
26	SLU 29	-76	10	2162	-3.45	-3.75	0.01
26	SLU 30	-131	4	2085	9.78	-6.04	0
26	SLU 31	-189	3	2481	17.73	-8.62	0
26	SLU 32	-97	13	2608	-4.31	-4.81	0.02
26	SLU 33	-152	7	2532	8.91	-7.1	0.01
26	SLU 34	-189	3	2481	17.73	-8.62	0
26	SLU 35	-97	13	2608	-4.31	-4.81	0.02
26	SLU 36	-152	7	2532	8.91	-7.1	0.01
26	SLU 37	-97	13	2608	-4.31	-4.81	0.02
26	SLU 38	-152	7	2532	8.91	-7.1	0.01
26	SLU 39	-107	14	2799	-4.68	-5.27	0.02
26	SLU 40	-162	8	2723	8.54	-7.55	0.01
26	SLU 41	-107	14	2799	-4.68	-5.27	0.02



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
26	SLU 42	-162	8	2723	8.54	-7.55	0.01
26	SLU 43	-89	11	2403	-3.91	-4.33	0.01
26	SLU 44	-180	1	2276	18.13	-8.14	0
26	SLU 45	-89	11	2403	-3.91	-4.33	0.01
26	SLU 46	-144	5	2327	9.31	-6.61	0.01
26	SLU 47	-180	1	2276	18.13	-8.14	0
26	SLU 48	-89	11	2403	-3.91	-4.33	0.01
26	SLU 49	-144	5	2327	9.31	-6.61	0.01
26	SLU 50	-89	11	2403	-3.91	-4.33	0.01
26	SLU 51	-144	5	2327	9.31	-6.61	0.01
26	SLU 52	-202	4	2723	17.26	-9.2	0
26	SLU 53	-110	14	2850	-4.78	-5.39	0.02
26	SLU 54	-165	8	2773	8.45	-7.68	0.01
26	SLU 55	-202	4	2723	17.26	-9.2	0
26	SLU 56	-110	14	2850	-4.78	-5.39	0.02
26	SLU 57	-165	8	2773	8.45	-7.68	0.01
26	SLU 58	-110	14	2850	-4.78	-5.39	0.02
26	SLU 59	-165	8	2773	8.45	-7.68	0.01
26	SLU 60	-119	15	3041	-5.15	-5.85	0.02
26	SLU 61	-174	9	2965	8.07	-8.13	0.01
26	SLU 62	-119	15	3041	-5.15	-5.85	0.02
26	SLU 63	-174	9	2965	8.07	-8.13	0.01
26	SLU 64	-95	12	2651	-4.26	-4.66	0.01
26	SLU 65	-186	2	2524	17.78	-8.47	0
26	SLU 66	-95	12	2651	-4.26	-4.66	0.01
26	SLU 67	-150	6	2575	8.97	-6.95	0.01
26	SLU 68	-186	2	2524	17.78	-8.47	0
26	SLU 69	-95	12	2651	-4.26	-4.66	0.01
26	SLU 70	-150	6	2575	8.97	-6.95	0.01
26	SLU 71	-95	12	2651	-4.26	-4.66	0.01
26	SLU 72	-150	6	2575	8.97	-6.95	0.01
26	SLU 73	-208	5	2970	16.92	-9.53	0.01
26	SLU 74	-116	15	3097	-5.12	-5.73	0.02
26	SLU 75	-171	9	3021	8.1	-8.01	0.01
26	SLU 76	-208	5	2970	16.92	-9.53	0.01
26	SLU 77	-116	15	3097	-5.12	-5.73	0.02
26	SLU 78	-171	9	3021	8.1	-8.01	0.01
26	SLU 79	-116	15	3097	-5.12	-5.73	0.02
26	SLU 80	-171	9	3021	8.1	-8.01	0.01
26	SLU 81	-126	16	3289	-5.49	-6.18	0.02
26	SLU 82	-181	10	3212	7.73	-8.46	0.01
26	SLU 83	-126	16	3289	-5.49	-6.18	0.02
26	SLU 84	-181	10	3212	7.73	-8.46	0.01
26	SLE RA 1	-71	9	1985	-3.2	-3.51	0.01
26	SLE RA 2	-133	2	1900	11.49	-6.05	0
26	SLE RA 3	-71	9	1985	-3.2	-3.51	0.01
26	SLE RA 4	-108	5	1934	5.62	-5.04	0.01
26	SLE RA 5	-133	2	1900	11.49	-6.05	0
26	SLE RA 6	-71	9	1985	-3.2	-3.51	0.01
26	SLE RA 7	-108	5	1934	5.62	-5.04	0.01
26	SLE RA 8	-71	9	1985	-3.2	-3.51	0.01
26	SLE RA 9	-108	5	1934	5.62	-5.04	0.01
26	SLE RA 10	-147	4	2198	10.92	-6.76	0.01
26	SLE RA 11	-86	11	2282	-3.78	-4.22	0.01
26	SLE RA 12	-123	7	2231	5.04	-5.74	0.01
26	SLE RA 13	-147	4	2198	10.92	-6.76	0.01
26	SLE RA 14	-86	11	2282	-3.78	-4.22	0.01
26	SLE RA 15	-123	7	2231	5.04	-5.74	0.01
26	SLE RA 16	-86	11	2282	-3.78	-4.22	0.01
26	SLE RA 17	-123	7	2231	5.04	-5.74	0.01
26	SLE RA 18	-92	12	2410	-4.02	-4.53	0.01
26	SLE RA 19	-129	8	2359	4.79	-6.05	0.01
26	SLE RA 20	-92	12	2410	-4.02	-4.53	0.01
26	SLE RA 21	-129	8	2359	4.79	-6.05	0.01
26	SLE FR 1	-71	9	1985	-3.2	-3.51	0.01
26	SLE FR 2	-84	8	1968	-0.26	-4.02	0.01
26	SLE FR 3	-71	9	1985	-3.2	-3.51	0.01
26	SLE FR 4	-90	8	2095	-0.51	-4.32	0.01
26	SLE FR 5	-78	10	2112	-3.45	-3.82	0.01
26	SLE FR 6	-82	10	2197	-3.61	-4.02	0.01
26	SLE QP 1	-71	9	1985	-3.2	-3.51	0.01
26	SLE QP 2	-78	10	2112	-3.45	-3.82	0.01
26	SLD 1	143	9	2265	-28.83	5.59	0.01
26	SLD 2	143	9	2265	-28.83	5.59	0.01
26	SLD 3	91	-14	2188	0.86	3.47	-0.02
26	SLD 4	91	-14	2188	0.86	3.47	-0.02
26	SLD 5	67	45	2274	-56.09	2.22	0.05
26	SLD 6	67	45	2274	-56.09	2.22	0.05
26	SLD 7	-106	-33	2020	42.87	-4.85	-0.04
26	SLD 8	-106	-33	2020	42.87	-4.85	-0.04
26	SLD 9	-50	52	2205	-49.76	-2.78	0.06
26	SLD 10	-50	52	2205	-49.76	-2.78	0.06
26	SLD 11	-223	-25	1951	49.19	-9.86	-0.03
26	SLD 12	-223	-25	1951	49.19	-9.86	-0.03
26	SLD 13	-246	34	2036	-7.75	-11.1	0.04
26	SLD 14	-246	34	2036	-7.75	-11.1	0.04
26	SLD 15	-298	10	1960	21.94	-13.23	0.01
26	SLD 16	-298	10	1960	21.94	-13.23	0.01
26	SLV 1	450	9	2495	-67.77	18.67	0.01
26	SLV 2	450	9	2495	-67.77	18.67	0.01



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
26	SLV 3	312	-50	2295	8.08	13.02	-0.06
26	SLV 4	312	-50	2295	8.08	13.02	-0.06
26	SLV 5	290	99	2531	-137.79	11.49	0.11
26	SLV 6	290	99	2531	-137.79	11.49	0.11
26	SLV 7	-170	-97	1864	115.06	-7.33	-0.11
26	SLV 8	-170	-97	1864	115.06	-7.33	-0.11
26	SLV 9	15	117	2361	-121.95	-0.3	0.13
26	SLV 10	15	117	2361	-121.95	-0.3	0.13
26	SLV 11	-446	-79	1694	130.9	-19.13	-0.09
26	SLV 12	-446	-79	1694	130.9	-19.13	-0.09
26	SLV 13	-467	69	1929	-14.98	-20.66	0.08
26	SLV 14	-467	69	1929	-14.98	-20.66	0.08
26	SLV 15	-606	11	1729	60.88	-26.3	0.01
26	SLV 16	-606	11	1729	60.88	-26.3	0.01
27	SLU 1	-66	10	1959	-3.1	-2.89	0.01
27	SLU 2	-137	-4	1831	23.35	-6.03	-0.01
27	SLU 3	-66	10	1959	-3.1	-2.89	0.01
27	SLU 4	-109	2	1882	12.77	-4.77	0
27	SLU 5	-137	-4	1831	23.35	-6.03	-0.01
27	SLU 6	-66	10	1959	-3.1	-2.89	0.01
27	SLU 7	-109	2	1882	12.77	-4.77	0
27	SLU 8	-66	10	1959	-3.1	-2.89	0.01
27	SLU 9	-109	2	1882	12.77	-4.77	0
27	SLU 10	-162	0	2297	22.51	-7.16	0
27	SLU 11	-91	13	2425	-3.94	-4.03	0.01
27	SLU 12	-133	5	2348	11.93	-5.91	0
27	SLU 13	-162	0	2297	22.51	-7.16	0
27	SLU 14	-91	13	2425	-3.94	-4.03	0.01
27	SLU 15	-133	5	2348	11.93	-5.91	0
27	SLU 16	-91	13	2425	-3.94	-4.03	0.01
27	SLU 17	-133	5	2348	11.93	-5.91	0
27	SLU 18	-101	14	2625	-4.3	-4.51	0.01
27	SLU 19	-144	6	2548	11.57	-6.39	0
27	SLU 20	-101	14	2625	-4.3	-4.51	0.01
27	SLU 21	-144	6	2548	11.57	-6.39	0
27	SLU 22	-74	11	2218	-3.46	-3.29	0.01
27	SLU 23	-146	-2	2090	23	-6.43	0
27	SLU 24	-74	11	2218	-3.46	-3.29	0.01
27	SLU 25	-117	3	2141	12.42	-5.17	0
27	SLU 26	-146	-2	2090	23	-6.43	0
27	SLU 27	-74	11	2218	-3.46	-3.29	0.01
27	SLU 28	-117	3	2141	12.42	-5.17	0
27	SLU 29	-74	11	2218	-3.46	-3.29	0.01
27	SLU 30	-117	3	2141	12.42	-5.17	0
27	SLU 31	-170	1	2557	22.16	-7.56	0
27	SLU 32	-99	14	2685	-4.29	-4.43	0.01
27	SLU 33	-142	6	2608	11.58	-6.31	0
27	SLU 34	-170	1	2557	22.16	-7.56	0
27	SLU 35	-99	14	2685	-4.29	-4.43	0.01
27	SLU 36	-142	6	2608	11.58	-6.31	0
27	SLU 37	-99	14	2685	-4.29	-4.43	0.01
27	SLU 38	-142	6	2608	11.58	-6.31	0
27	SLU 39	-109	16	2885	-4.65	-4.91	0.01
27	SLU 40	-152	8	2808	11.22	-6.8	0.01
27	SLU 41	-109	16	2885	-4.65	-4.91	0.01
27	SLU 42	-152	8	2808	11.22	-6.8	0.01
27	SLU 43	-83	12	2457	-3.91	-3.62	0.01
27	SLU 44	-154	-1	2329	22.54	-6.76	0
27	SLU 45	-83	12	2457	-3.91	-3.62	0.01
27	SLU 46	-126	4	2380	11.96	-5.5	0
27	SLU 47	-154	-1	2329	22.54	-6.76	0
27	SLU 48	-83	12	2457	-3.91	-3.62	0.01
27	SLU 49	-126	4	2380	11.96	-5.5	0
27	SLU 50	-83	12	2457	-3.91	-3.62	0.01
27	SLU 51	-126	4	2380	11.96	-5.5	0
27	SLU 52	-179	2	2796	21.7	-7.89	0
27	SLU 53	-108	15	2924	-4.75	-4.75	0.01
27	SLU 54	-150	7	2847	11.12	-6.64	0.01
27	SLU 55	-179	2	2796	21.7	-7.89	0
27	SLU 56	-108	15	2924	-4.75	-4.75	0.01
27	SLU 57	-150	7	2847	11.12	-6.64	0.01
27	SLU 58	-108	15	2924	-4.75	-4.75	0.01
27	SLU 59	-150	7	2847	11.12	-6.64	0.01
27	SLU 60	-118	17	3124	-5.11	-5.24	0.01
27	SLU 61	-161	9	3047	10.76	-7.12	0.01
27	SLU 62	-118	17	3124	-5.11	-5.24	0.01
27	SLU 63	-161	9	3047	10.76	-7.12	0.01
27	SLU 64	-91	13	2717	-4.27	-4.02	0.01
27	SLU 65	-162	0	2589	22.19	-7.16	0
27	SLU 66	-91	13	2717	-4.27	-4.02	0.01
27	SLU 67	-134	5	2640	11.61	-5.9	0
27	SLU 68	-162	0	2589	22.19	-7.16	0
27	SLU 69	-91	13	2717	-4.27	-4.02	0.01
27	SLU 70	-134	5	2640	11.61	-5.9	0
27	SLU 71	-91	13	2717	-4.27	-4.02	0.01
27	SLU 72	-134	5	2640	11.61	-5.9	0
27	SLU 73	-187	3	3055	21.35	-8.29	0
27	SLU 74	-116	17	3183	-5.1	-5.16	0.01
27	SLU 75	-159	9	3107	10.77	-7.04	0.01
27	SLU 76	-187	3	3055	21.35	-8.29	0



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
27	SLU 77	-116	17	3183	-5.1	-5.16	0.01
27	SLU 78	-159	9	3107	10.77	-7.04	0.01
27	SLU 79	-116	17	3183	-5.1	-5.16	0.01
27	SLU 80	-159	9	3107	10.77	-7.04	0.01
27	SLU 81	-126	18	3383	-5.46	-5.64	0.02
27	SLU 82	-169	10	3307	10.41	-7.53	0.01
27	SLU 83	-126	18	3383	-5.46	-5.64	0.02
27	SLU 84	-169	10	3307	10.41	-7.53	0.01
27	SLE RA 1	-68	10	2033	-3.2	-3	0.01
27	SLE RA 2	-116	1	1947	14.43	-5.1	0
27	SLE RA 3	-68	10	2033	-3.2	-3	0.01
27	SLE RA 4	-97	5	1982	7.38	-4.26	0
27	SLE RA 5	-116	1	1947	14.43	-5.1	0
27	SLE RA 6	-68	10	2033	-3.2	-3	0.01
27	SLE RA 7	-97	5	1982	7.38	-4.26	0
27	SLE RA 8	-68	10	2033	-3.2	-3	0.01
27	SLE RA 9	-97	5	1982	7.38	-4.26	0
27	SLE RA 10	-132	3	2259	13.87	-5.85	0
27	SLE RA 11	-85	12	2344	-3.76	-3.76	0.01
27	SLE RA 12	-113	7	2293	6.82	-5.02	0.01
27	SLE RA 13	-132	3	2259	13.87	-5.85	0
27	SLE RA 14	-85	12	2344	-3.76	-3.76	0.01
27	SLE RA 15	-113	7	2293	6.82	-5.02	0.01
27	SLE RA 16	-85	12	2344	-3.76	-3.76	0.01
27	SLE RA 17	-113	7	2293	6.82	-5.02	0.01
27	SLE RA 18	-92	13	2477	-4	-4.09	0.01
27	SLE RA 19	-120	8	2426	6.58	-5.34	0.01
27	SLE RA 20	-92	13	2477	-4	-4.09	0.01
27	SLE RA 21	-120	8	2426	6.58	-5.34	0.01
27	SLE FR 1	-68	10	2033	-3.2	-3	0.01
27	SLE FR 2	-78	8	2016	0.32	-3.42	0.01
27	SLE FR 3	-68	10	2033	-3.2	-3	0.01
27	SLE FR 4	-85	9	2149	0.08	-3.75	0.01
27	SLE FR 5	-75	11	2166	-3.44	-3.33	0.01
27	SLE FR 6	-80	12	2255	-3.6	-3.55	0.01
27	SLE QP 1	-68	10	2033	-3.2	-3	0.01
27	SLE QP 2	-75	11	2166	-3.44	-3.33	0.01
27	SLD 1	125	35	2304	-29.75	5.23	0.03
27	SLD 2	125	35	2304	-29.75	5.23	0.03
27	SLD 3	87	8	2217	3.86	3.58	0.01
27	SLD 4	87	8	2217	3.86	3.58	0.01
27	SLD 5	41	59	2340	-62.31	1.74	0.05
27	SLD 6	41	59	2340	-62.31	1.74	0.05
27	SLD 7	-83	-31	2049	49.72	-3.76	-0.03
27	SLD 8	-83	-31	2049	49.72	-3.76	-0.03
27	SLD 9	-67	53	2283	-56.61	-2.9	0.05
27	SLD 10	-67	53	2283	-56.61	-2.9	0.05
27	SLD 11	-192	-37	1992	55.43	-8.4	-0.03
27	SLD 12	-192	-37	1992	55.43	-8.4	-0.03
27	SLD 13	-238	14	2115	-10.74	-10.24	0.01
27	SLD 14	-238	14	2115	-10.74	-10.24	0.01
27	SLD 15	-275	-13	2028	22.87	-11.89	-0.01
27	SLD 16	-275	-13	2028	22.87	-11.89	-0.01
27	SLV 1	402	72	2514	-70.38	17.12	0.06
27	SLV 2	402	72	2514	-70.38	17.12	0.06
27	SLV 3	302	4	2287	15.58	12.69	0
27	SLV 4	302	4	2287	15.58	12.69	0
27	SLV 5	220	133	2615	-153.91	9.53	0.12
27	SLV 6	220	133	2615	-153.91	9.53	0.12
27	SLV 7	-114	-95	1857	132.65	-5.25	-0.09
27	SLV 8	-114	-95	1857	132.65	-5.25	-0.09
27	SLV 9	-37	117	2475	-139.54	-1.41	0.11
27	SLV 10	-37	117	2475	-139.54	-1.41	0.11
27	SLV 11	-370	-111	1717	147.02	-16.19	-0.1
27	SLV 12	-370	-111	1717	147.02	-16.19	-0.1
27	SLV 13	-453	18	2045	-22.47	-19.35	0.02
27	SLV 14	-453	18	2045	-22.47	-19.35	0.02
27	SLV 15	-553	-50	1818	63.5	-23.78	-0.04
27	SLV 16	-553	-50	1818	63.5	-23.78	-0.04
28	SLU 1	-98	10	2006	-2.99	-4.39	0.01
28	SLU 2	-142	-6	1894	26.97	-6.29	-0.01
28	SLU 3	-98	10	2006	-2.99	-4.39	0.01
28	SLU 4	-124	0	1939	14.98	-5.53	0
28	SLU 5	-142	-6	1894	26.97	-6.29	-0.01
28	SLU 6	-98	10	2006	-2.99	-4.39	0.01
28	SLU 7	-124	0	1939	14.98	-5.53	0
28	SLU 8	-98	10	2006	-2.99	-4.39	0.01
28	SLU 9	-124	0	1939	14.98	-5.53	0
28	SLU 10	-181	-3	2380	26.2	-7.98	-0.01
28	SLU 11	-136	14	2492	-3.76	-6.09	0.01
28	SLU 12	-163	4	2425	14.22	-7.22	0
28	SLU 13	-181	-3	2380	26.2	-7.98	-0.01
28	SLU 14	-136	14	2492	-3.76	-6.09	0.01
28	SLU 15	-163	4	2425	14.22	-7.22	0
28	SLU 16	-136	14	2492	-3.76	-6.09	0.01
28	SLU 17	-163	4	2425	14.22	-7.22	0
28	SLU 18	-153	15	2700	-4.08	-6.81	0.01
28	SLU 19	-180	5	2633	13.89	-7.95	0
28	SLU 20	-153	15	2700	-4.08	-6.81	0.01
28	SLU 21	-180	5	2633	13.89	-7.95	0



Nodo	Cont.	Reazione a traslazione				Reazione a rotazione			
Ind.	N.br.	x	y	z		x	y	z	
28	SLU 22	-114	12	2276		-3.33	-5.11	0.01	
28	SLU 23	-158	-5	2165		26.63	-7.01	-0.01	
28	SLU 24	-114	12	2276		-3.33	-5.11	0.01	
28	SLU 25	-141	2	2209		14.64	-6.25	0	
28	SLU 26	-158	-5	2165		26.63	-7.01	-0.01	
28	SLU 27	-114	12	2276		-3.33	-5.11	0.01	
28	SLU 28	-141	2	2209		14.64	-6.25	0	
28	SLU 29	-114	12	2276		-3.33	-5.11	0.01	
28	SLU 30	-141	2	2209		14.64	-6.25	0	
28	SLU 31	-197	-1	2651		25.86	-8.7	0	
28	SLU 32	-153	15	2762		-4.1	-6.81	0.01	
28	SLU 33	-179	5	2695		13.88	-7.95	0	
28	SLU 34	-197	-1	2651		25.86	-8.7	0	
28	SLU 35	-153	15	2762		-4.1	-6.81	0.01	
28	SLU 36	-179	5	2695		13.88	-7.95	0	
28	SLU 37	-153	15	2762		-4.1	-6.81	0.01	
28	SLU 38	-179	5	2695		13.88	-7.95	0	
28	SLU 39	-169	17	2971		-4.42	-7.53	0.01	
28	SLU 40	-196	7	2904		13.55	-8.67	0	
28	SLU 41	-169	17	2971		-4.42	-7.53	0.01	
28	SLU 42	-196	7	2904		13.55	-8.67	0	
28	SLU 43	-122	13	2515		-3.77	-5.46	0.01	
28	SLU 44	-166	-4	2403		26.19	-7.36	-0.01	
28	SLU 45	-122	13	2515		-3.77	-5.46	0.01	
28	SLU 46	-148	3	2448		14.2	-6.6	0	
28	SLU 47	-166	-4	2403		26.19	-7.36	-0.01	
28	SLU 48	-122	13	2515		-3.77	-5.46	0.01	
28	SLU 49	-148	3	2448		14.2	-6.6	0	
28	SLU 50	-122	13	2515		-3.77	-5.46	0.01	
28	SLU 51	-148	3	2448		14.2	-6.6	0	
28	SLU 52	-204	0	2890		25.42	-9.05	0	
28	SLU 53	-160	16	3001		-4.54	-7.16	0.01	
28	SLU 54	-187	6	2934		13.44	-8.29	0	
28	SLU 55	-204	0	2890		25.42	-9.05	0	
28	SLU 56	-160	16	3001		-4.54	-7.16	0.01	
28	SLU 57	-187	6	2934		13.44	-8.29	0	
28	SLU 58	-160	16	3001		-4.54	-7.16	0.01	
28	SLU 59	-187	6	2934		13.44	-8.29	0	
28	SLU 60	-177	18	3210		-4.87	-7.88	0.01	
28	SLU 61	-203	8	3143		13.11	-9.02	0	
28	SLU 62	-177	18	3210		-4.87	-7.88	0.01	
28	SLU 63	-203	8	3143		13.11	-9.02	0	
28	SLU 64	-138	14	2786		-4.11	-6.18	0.01	
28	SLU 65	-182	-2	2674		25.85	-8.08	-0.01	
28	SLU 66	-138	14	2786		-4.11	-6.18	0.01	
28	SLU 67	-164	4	2718		13.86	-7.32	0	
28	SLU 68	-182	-2	2674		25.85	-8.08	-0.01	
28	SLU 69	-138	14	2786		-4.11	-6.18	0.01	
28	SLU 70	-164	4	2718		13.86	-7.32	0	
28	SLU 71	-138	14	2786		-4.11	-6.18	0.01	
28	SLU 72	-164	4	2718		13.86	-7.32	0	
28	SLU 73	-221	1	3160		25.08	-9.77	0	
28	SLU 74	-176	18	3272		-4.88	-7.88	0.01	
28	SLU 75	-203	8	3205		13.1	-9.02	0	
28	SLU 76	-221	1	3160		25.08	-9.77	0	
28	SLU 77	-176	18	3272		-4.88	-7.88	0.01	
28	SLU 78	-203	8	3205		13.1	-9.02	0	
28	SLU 79	-176	18	3272		-4.88	-7.88	0.01	
28	SLU 80	-203	8	3205		13.1	-9.02	0	
28	SLU 81	-193	19	3480		-5.21	-8.6	0.02	
28	SLU 82	-220	9	3413		12.77	-9.74	0.01	
28	SLU 83	-193	19	3480		-5.21	-8.6	0.02	
28	SLU 84	-220	9	3413		12.77	-9.74	0.01	
28	SLE RA 1	-102	11	2083		-3.09	-4.6	0.01	
28	SLE RA 2	-132	0	2009		16.88	-5.86	0	
28	SLE RA 3	-102	11	2083		-3.09	-4.6	0.01	
28	SLE RA 4	-120	4	2039		8.89	-5.36	0	
28	SLE RA 5	-132	0	2009		16.88	-5.86	0	
28	SLE RA 6	-102	11	2083		-3.09	-4.6	0.01	
28	SLE RA 7	-120	4	2039		8.89	-5.36	0	
28	SLE RA 8	-102	11	2083		-3.09	-4.6	0.01	
28	SLE RA 9	-120	4	2039		8.89	-5.36	0	
28	SLE RA 10	-158	2	2333		16.37	-6.99	0	
28	SLE RA 11	-128	13	2407		-3.6	-5.73	0.01	
28	SLE RA 12	-146	6	2363		8.38	-6.49	0	
28	SLE RA 13	-158	2	2333		16.37	-6.99	0	
28	SLE RA 14	-128	13	2407		-3.6	-5.73	0.01	
28	SLE RA 15	-146	6	2363		8.38	-6.49	0	
28	SLE RA 16	-128	13	2407		-3.6	-5.73	0.01	
28	SLE RA 17	-146	6	2363		8.38	-6.49	0	
28	SLE RA 18	-139	14	2546		-3.82	-6.21	0.01	
28	SLE RA 19	-157	7	2502		8.17	-6.97	0	
28	SLE RA 20	-139	14	2546		-3.82	-6.21	0.01	
28	SLE RA 21	-157	7	2502		8.17	-6.97	0	
28	SLE FR 1	-102	11	2083		-3.09	-4.6	0.01	
28	SLE FR 2	-108	8	2068		0.9	-4.85	0.01	
28	SLE FR 3	-102	11	2083		-3.09	-4.6	0.01	
28	SLE FR 4	-119	10	2207		0.69	-5.34	0.01	
28	SLE FR 5	-113	12	2222		-3.31	-5.08	0.01	
28	SLE FR 6	-121	12	2315		-3.45	-5.41	0.01	



Nodo	Cont.	Reazione a traslazione				Reazione a rotazione		
		x	y	z		x	y	z
28	SLE QP 1	-102	11	2083		-3.09	-4.6	0.01
28	SLE QP 2	-113	12	2222		-3.31	-5.08	0.01
28	SLD 1	70	35	2335		-29.3	2.84	0.03
28	SLD 2	70	35	2335		-29.3	2.84	0.03
28	SLD 3	47	5	2232		7.13	1.9	0
28	SLD 4	47	5	2232		7.13	1.9	0
28	SLD 5	-24	64	2411		-66.36	-1.29	0.06
28	SLD 6	-24	64	2411		-66.36	-1.29	0.06
28	SLD 7	-100	-36	2070		55.07	-4.41	-0.03
28	SLD 8	-100	-36	2070		55.07	-4.41	-0.03
28	SLD 9	-127	59	2375		-61.69	-5.76	0.05
28	SLD 10	-127	59	2375		-61.69	-5.76	0.05
28	SLD 11	-203	-41	2033		59.74	-8.88	-0.04
28	SLD 12	-203	-41	2033		59.74	-8.88	-0.04
28	SLD 13	-274	18	2212		-13.75	-12.07	0.01
28	SLD 14	-274	18	2212		-13.75	-12.07	0.01
28	SLD 15	-297	-12	2110		22.68	-13	-0.01
28	SLD 16	-297	-12	2110		22.68	-13	-0.01
28	SLV 1	322	71	2507		-69.75	13.72	0.06
28	SLV 2	322	71	2507		-69.75	13.72	0.06
28	SLV 3	262	-5	2244		23.5	11.22	0
28	SLV 4	262	-5	2244		23.5	11.22	0
28	SLV 5	109	145	2707		-164.67	4.34	0.13
28	SLV 6	109	145	2707		-164.67	4.34	0.13
28	SLV 7	-92	-109	1829		146.16	-3.97	-0.1
28	SLV 8	-92	-109	1829		146.16	-3.97	-0.1
28	SLV 9	-135	132	2615		-152.78	-6.2	0.12
28	SLV 10	-135	132	2615		-152.78	-6.2	0.12
28	SLV 11	-336	-122	1737		158.05	-14.5	-0.11
28	SLV 12	-336	-122	1737		158.05	-14.5	-0.11
28	SLV 13	-489	29	2201		-30.11	-21.39	0.02
28	SLV 14	-489	29	2201		-30.11	-21.39	0.02
28	SLV 15	-549	-48	1937		63.14	-23.88	-0.04
28	SLV 16	-549	-48	1937		63.14	-23.88	-0.04
29	SLU 1	-148	10	2023		-2.7	-6.24	0.01
29	SLU 2	-168	-9	1936		29.58	-7.33	-0.01
29	SLU 3	-148	10	2023		-2.7	-6.24	0.01
29	SLU 4	-160	-1	1970		16.67	-6.9	0
29	SLU 5	-168	-9	1936		29.58	-7.33	-0.01
29	SLU 6	-148	10	2023		-2.7	-6.24	0.01
29	SLU 7	-160	-1	1970		16.67	-6.9	0
29	SLU 8	-148	10	2023		-2.7	-6.24	0.01
29	SLU 9	-160	-1	1970		16.67	-6.9	0
29	SLU 10	-229	-5	2429		28.96	-9.94	-0.01
29	SLU 11	-209	14	2515		-3.32	-8.85	0.01
29	SLU 12	-221	2	2463		16.05	-9.5	0
29	SLU 13	-229	-5	2429		28.96	-9.94	-0.01
29	SLU 14	-209	14	2515		-3.32	-8.85	0.01
29	SLU 15	-221	2	2463		16.05	-9.5	0
29	SLU 16	-209	14	2515		-3.32	-8.85	0.01
29	SLU 17	-221	2	2463		16.05	-9.5	0
29	SLU 18	-235	15	2727		-3.58	-9.96	0.01
29	SLU 19	-247	4	2674		15.78	-10.62	0
29	SLU 20	-235	15	2727		-3.58	-9.96	0.01
29	SLU 21	-247	4	2674		15.78	-10.62	0
29	SLU 22	-176	12	2297		-2.99	-7.45	0.01
29	SLU 23	-197	-7	2210		29.29	-8.54	-0.01
29	SLU 24	-176	12	2297		-2.99	-7.45	0.01
29	SLU 25	-188	0	2245		16.38	-8.1	0
29	SLU 26	-197	-7	2210		29.29	-8.54	-0.01
29	SLU 27	-176	12	2297		-2.99	-7.45	0.01
29	SLU 28	-188	0	2245		16.38	-8.1	0
29	SLU 29	-176	12	2297		-2.99	-7.45	0.01
29	SLU 30	-188	0	2245		16.38	-8.1	0
29	SLU 31	-257	-4	2703		28.67	-11.14	-0.01
29	SLU 32	-237	15	2790		-3.61	-10.05	0.01
29	SLU 33	-249	4	2737		15.76	-10.71	0
29	SLU 34	-257	-4	2703		28.67	-11.14	-0.01
29	SLU 35	-237	15	2790		-3.61	-10.05	0.01
29	SLU 36	-249	4	2737		15.76	-10.71	0
29	SLU 37	-237	15	2790		-3.61	-10.05	0.01
29	SLU 38	-249	4	2737		15.76	-10.71	0
29	SLU 39	-263	17	3001		-3.87	-11.17	0.02
29	SLU 40	-275	5	2949		15.49	-11.82	0
29	SLU 41	-263	17	3001		-3.87	-11.17	0.02
29	SLU 42	-275	5	2949		15.49	-11.82	0
29	SLU 43	-183	13	2535		-3.41	-7.7	0.01
29	SLU 44	-203	-6	2449		28.87	-8.79	-0.01
29	SLU 45	-183	13	2535		-3.41	-7.7	0.01
29	SLU 46	-195	1	2483		15.96	-8.36	0
29	SLU 47	-203	-6	2449		28.87	-8.79	-0.01
29	SLU 48	-183	13	2535		-3.41	-7.7	0.01
29	SLU 49	-195	1	2483		15.96	-8.36	0
29	SLU 50	-183	13	2535		-3.41	-7.7	0.01
29	SLU 51	-195	1	2483		15.96	-8.36	0
29	SLU 52	-264	-3	2941		28.25	-11.4	-0.01
29	SLU 53	-243	16	3028		-4.03	-10.31	0.02
29	SLU 54	-256	5	2976		15.34	-10.96	0
29	SLU 55	-264	-3	2941		28.25	-11.4	-0.01
29	SLU 56	-243	16	3028		-4.03	-10.31	0.02





Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
29	SLU 57	-256	5	2976	15.34	-10.96	0
29	SLU 58	-243	16	3028	-4.03	-10.31	0.02
29	SLU 59	-256	5	2976	15.34	-10.96	0
29	SLU 60	-269	18	3239	-4.3	-11.42	0.02
29	SLU 61	-282	6	3187	15.07	-12.08	0
29	SLU 62	-269	18	3239	-4.3	-11.42	0.02
29	SLU 63	-282	6	3187	15.07	-12.08	0
29	SLU 64	-211	14	2810	-3.7	-8.91	0.01
29	SLU 65	-231	-4	2723	28.58	-10	-0.01
29	SLU 66	-211	14	2810	-3.7	-8.91	0.01
29	SLU 67	-223	3	2757	15.67	-9.56	0
29	SLU 68	-231	-4	2723	28.58	-10	-0.01
29	SLU 69	-211	14	2810	-3.7	-8.91	0.01
29	SLU 70	-223	3	2757	15.67	-9.56	0
29	SLU 71	-211	14	2810	-3.7	-8.91	0.01
29	SLU 72	-223	3	2757	15.67	-9.56	0
29	SLU 73	-292	-1	3215	27.96	-12.6	0
29	SLU 74	-271	18	3302	-4.32	-11.51	0.02
29	SLU 75	-284	6	3250	15.05	-12.17	0
29	SLU 76	-292	-1	3215	27.96	-12.6	0
29	SLU 77	-271	18	3302	-4.32	-11.51	0.02
29	SLU 78	-284	6	3250	15.05	-12.17	0
29	SLU 79	-271	18	3302	-4.32	-11.51	0.02
29	SLU 80	-284	6	3250	15.05	-12.17	0
29	SLU 81	-297	19	3513	-4.58	-12.63	0.02
29	SLU 82	-310	8	3461	14.78	-13.28	0.01
29	SLU 83	-297	19	3513	-4.58	-12.63	0.02
29	SLU 84	-310	8	3461	14.78	-13.28	0.01
29	SLE RA 1	-156	11	2101	-2.78	-6.59	0.01
29	SLE RA 2	-170	-2	2043	18.74	-7.31	0
29	SLE RA 3	-156	11	2101	-2.78	-6.59	0.01
29	SLE RA 4	-164	3	2066	10.13	-7.02	0
29	SLE RA 5	-170	-2	2043	18.74	-7.31	0
29	SLE RA 6	-156	11	2101	-2.78	-6.59	0.01
29	SLE RA 7	-164	3	2066	10.13	-7.02	0
29	SLE RA 8	-156	11	2101	-2.78	-6.59	0.01
29	SLE RA 9	-164	3	2066	10.13	-7.02	0
29	SLE RA 10	-210	0	2372	18.32	-9.05	0
29	SLE RA 11	-196	13	2429	-3.19	-8.32	0.01
29	SLE RA 12	-205	5	2395	9.72	-8.76	0
29	SLE RA 13	-210	0	2372	18.32	-9.05	0
29	SLE RA 14	-196	13	2429	-3.19	-8.32	0.01
29	SLE RA 15	-205	5	2395	9.72	-8.76	0
29	SLE RA 16	-196	13	2429	-3.19	-8.32	0.01
29	SLE RA 17	-205	5	2395	9.72	-8.76	0
29	SLE RA 18	-214	14	2570	-3.37	-9.07	0.01
29	SLE RA 19	-222	6	2535	9.54	-9.5	0
29	SLE RA 20	-214	14	2570	-3.37	-9.07	0.01
29	SLE RA 21	-222	6	2535	9.54	-9.5	0
29	SLE FR 1	-156	11	2101	-2.78	-6.59	0.01
29	SLE FR 2	-159	8	2089	1.52	-6.73	0.01
29	SLE FR 3	-156	11	2101	-2.78	-6.59	0.01
29	SLE FR 4	-176	9	2230	1.35	-7.48	0.01
29	SLE FR 5	-173	12	2242	-2.96	-7.33	0.01
29	SLE FR 6	-185	12	2336	-3.08	-7.83	0.01
29	SLE QP 1	-156	11	2101	-2.78	-6.59	0.01
29	SLE QP 2	-173	12	2242	-2.96	-7.33	0.01
29	SLD 1	4	33	2336	-27.83	0.25	0.04
29	SLD 2	4	33	2336	-27.83	0.25	0.04
29	SLD 3	-16	2	2218	10.02	-0.61	0
29	SLD 4	-16	2	2218	10.02	-0.61	0
29	SLD 5	-89	66	2450	-67.82	-3.75	0.07
29	SLD 6	-89	66	2450	-67.82	-3.75	0.07
29	SLD 7	-157	-39	2055	58.34	-6.62	-0.04
29	SLD 8	-157	-39	2055	58.34	-6.62	-0.04
29	SLD 9	-189	63	2429	-64.25	-8.04	0.06
29	SLD 10	-189	63	2429	-64.25	-8.04	0.06
29	SLD 11	-258	-43	2034	61.91	-10.91	-0.05
29	SLD 12	-258	-43	2034	61.91	-10.91	-0.05
29	SLD 13	-330	22	2266	-15.93	-14.05	0.02
29	SLD 14	-330	22	2266	-15.93	-14.05	0.02
29	SLD 15	-351	-10	2147	21.92	-14.91	-0.01
29	SLD 16	-351	-10	2147	21.92	-14.91	-0.01
29	SLV 1	247	67	2482	-66.88	10.61	0.07
29	SLV 2	247	67	2482	-66.88	10.61	0.07
29	SLV 3	195	-14	2181	30.07	8.41	-0.01
29	SLV 4	195	-14	2181	30.07	8.41	-0.01
29	SLV 5	32	150	2770	-169.17	1.39	0.16
29	SLV 6	32	150	2770	-169.17	1.39	0.16
29	SLV 7	-142	-118	1767	153.99	-5.95	-0.12
29	SLV 8	-142	-118	1767	153.99	-5.95	-0.12
29	SLV 9	-205	141	2717	-159.9	-8.72	0.14
29	SLV 10	-205	141	2717	-159.9	-8.72	0.14
29	SLV 11	-378	-127	1713	163.26	-16.05	-0.13
29	SLV 12	-378	-127	1713	163.26	-16.05	-0.13
29	SLV 13	-541	37	2303	-35.98	-23.08	0.03
29	SLV 14	-541	37	2303	-35.98	-23.08	0.03
29	SLV 15	-593	-43	2002	60.97	-25.28	-0.05
29	SLV 16	-593	-43	2002	60.97	-25.28	-0.05
30	SLU 1	-203	9	1998	-2.21	-8.31	0.01



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
30	SLU 2	-195	-10	1939	30.99	-8.04	-0.01
30	SLU 3	-203	9	1998	-2.21	-8.31	0.01
30	SLU 4	-198	-3	1962	17.71	-8.15	0
30	SLU 5	-195	-10	1939	30.99	-8.04	-0.01
30	SLU 6	-203	9	1998	-2.21	-8.31	0.01
30	SLU 7	-198	-3	1962	17.71	-8.15	0
30	SLU 8	-203	9	1998	-2.21	-8.31	0.01
30	SLU 9	-198	-3	1962	17.71	-8.15	0
30	SLU 10	-279	-7	2421	30.58	-11.43	-0.01
30	SLU 11	-287	13	2481	-2.61	-11.7	0.01
30	SLU 12	-282	1	2445	17.3	-11.54	0
30	SLU 13	-279	-7	2421	30.58	-11.43	-0.01
30	SLU 14	-287	13	2481	-2.61	-11.7	0.01
30	SLU 15	-282	1	2445	17.3	-11.54	0
30	SLU 16	-287	13	2481	-2.61	-11.7	0.01
30	SLU 17	-282	1	2445	17.3	-11.54	0
30	SLU 18	-322	14	2687	-2.79	-13.16	0.01
30	SLU 19	-318	2	2652	17.13	-13	0
30	SLU 20	-322	14	2687	-2.79	-13.16	0.01
30	SLU 21	-318	2	2652	17.13	-13	0
30	SLU 22	-243	11	2267	-2.4	-9.95	0.01
30	SLU 23	-236	-9	2207	30.8	-9.68	-0.01
30	SLU 24	-243	11	2267	-2.4	-9.95	0.01
30	SLU 25	-239	-1	2231	17.52	-9.79	0
30	SLU 26	-236	-9	2207	30.8	-9.68	-0.01
30	SLU 27	-243	11	2267	-2.4	-9.95	0.01
30	SLU 28	-239	-1	2231	17.52	-9.79	0
30	SLU 29	-243	11	2267	-2.4	-9.95	0.01
30	SLU 30	-239	-1	2231	17.52	-9.79	0
30	SLU 31	-320	-6	2690	30.39	-13.08	-0.01
30	SLU 32	-327	14	2749	-2.81	-13.35	0.01
30	SLU 33	-323	2	2714	17.11	-13.19	0
30	SLU 34	-320	-6	2690	30.39	-13.08	-0.01
30	SLU 35	-327	14	2749	-2.81	-13.35	0.01
30	SLU 36	-323	2	2714	17.11	-13.19	0
30	SLU 37	-327	14	2749	-2.81	-13.35	0.01
30	SLU 38	-323	2	2714	17.11	-13.19	0
30	SLU 39	-363	15	2956	-2.98	-14.8	0.02
30	SLU 40	-359	3	2921	16.94	-14.64	0
30	SLU 41	-363	15	2956	-2.98	-14.8	0.02
30	SLU 42	-359	3	2921	16.94	-14.64	0
30	SLU 43	-250	12	2505	-2.8	-10.24	0.01
30	SLU 44	-242	-8	2446	30.4	-9.97	-0.01
30	SLU 45	-250	12	2505	-2.8	-10.24	0.01
30	SLU 46	-245	0	2470	17.12	-10.07	0
30	SLU 47	-242	-8	2446	30.4	-9.97	-0.01
30	SLU 48	-250	12	2505	-2.8	-10.24	0.01
30	SLU 49	-245	0	2470	17.12	-10.07	0
30	SLU 50	-250	12	2505	-2.8	-10.24	0.01
30	SLU 51	-245	0	2470	17.12	-10.07	0
30	SLU 52	-326	-5	2928	29.99	-13.36	-0.01
30	SLU 53	-334	15	2988	-3.21	-13.63	0.02
30	SLU 54	-329	3	2952	16.71	-13.47	0
30	SLU 55	-326	-5	2928	29.99	-13.36	-0.01
30	SLU 56	-334	15	2988	-3.21	-13.63	0.02
30	SLU 57	-329	3	2952	16.71	-13.47	0
30	SLU 58	-334	15	2988	-3.21	-13.63	0.02
30	SLU 59	-329	3	2952	16.71	-13.47	0
30	SLU 60	-369	16	3195	-3.38	-15.09	0.02
30	SLU 61	-365	4	3159	16.53	-14.93	0
30	SLU 62	-369	16	3195	-3.38	-15.09	0.02
30	SLU 63	-365	4	3159	16.53	-14.93	0
30	SLU 64	-290	13	2774	-3	-11.88	0.01
30	SLU 65	-283	-7	2715	30.2	-11.61	-0.01
30	SLU 66	-290	13	2774	-3	-11.88	0.01
30	SLU 67	-286	1	2738	16.92	-11.72	0
30	SLU 68	-283	-7	2715	30.2	-11.61	-0.01
30	SLU 69	-290	13	2774	-3	-11.88	0.01
30	SLU 70	-286	1	2738	16.92	-11.72	0
30	SLU 71	-290	13	2774	-3	-11.88	0.01
30	SLU 72	-286	1	2738	16.92	-11.72	0
30	SLU 73	-367	-4	3197	29.79	-15.01	-0.01
30	SLU 74	-374	16	3257	-3.4	-15.28	0.02
30	SLU 75	-370	4	3221	16.51	-15.12	0
30	SLU 76	-367	-4	3197	29.79	-15.01	-0.01
30	SLU 77	-374	16	3257	-3.4	-15.28	0.02
30	SLU 78	-370	4	3221	16.51	-15.12	0
30	SLU 79	-374	16	3257	-3.4	-15.28	0.02
30	SLU 80	-370	4	3221	16.51	-15.12	0
30	SLU 81	-410	18	3464	-3.58	-16.73	0.02
30	SLU 82	-406	6	3428	16.34	-16.57	0.01
30	SLU 83	-410	18	3464	-3.58	-16.73	0.02
30	SLU 84	-406	6	3428	16.34	-16.57	0.01
30	SLE RA 1	-214	10	2075	-2.26	-8.78	0.01
30	SLE RA 2	-210	-3	2035	19.87	-8.6	0
30	SLE RA 3	-214	10	2075	-2.26	-8.78	0.01
30	SLE RA 4	-211	2	2051	11.02	-8.67	0
30	SLE RA 5	-210	-3	2035	19.87	-8.6	0
30	SLE RA 6	-214	10	2075	-2.26	-8.78	0.01
30	SLE RA 7	-211	2	2051	11.02	-8.67	0



Nodo	Cont.	Reazione a traslazione				Reazione a rotazione		
		x	y	z		x	y	z
30	SLE RA 8	-214	10	2075		-2.26	-8.78	0.01
30	SLE RA 9	-211	2	2051		11.02	-8.67	0
30	SLE RA 10	-265	-1	2357		19.6	-10.86	0
30	SLE RA 11	-270	12	2397		-2.53	-11.04	0.01
30	SLE RA 12	-267	4	2373		10.74	-10.93	0
30	SLE RA 13	-265	-1	2357		19.6	-10.86	0
30	SLE RA 14	-270	12	2397		-2.53	-11.04	0.01
30	SLE RA 15	-267	4	2373		10.74	-10.93	0
30	SLE RA 16	-270	12	2397		-2.53	-11.04	0.01
30	SLE RA 17	-267	4	2373		10.74	-10.93	0
30	SLE RA 18	-294	13	2534		-2.65	-12.01	0.01
30	SLE RA 19	-291	5	2511		10.63	-11.9	0
30	SLE RA 20	-294	13	2534		-2.65	-12.01	0.01
30	SLE RA 21	-291	5	2511		10.63	-11.9	0
30	SLE FR 1	-214	10	2075		-2.26	-8.78	0.01
30	SLE FR 2	-213	7	2067		2.16	-8.74	0.01
30	SLE FR 3	-214	10	2075		-2.26	-8.78	0.01
30	SLE FR 4	-237	8	2205		2.05	-9.71	0.01
30	SLE FR 5	-238	11	2213		-2.38	-9.75	0.01
30	SLE FR 6	-254	11	2305		-2.46	-10.39	0.01
30	SLE QP 1	-214	10	2075		-2.26	-8.78	0.01
30	SLE QP 2	-238	11	2213		-2.38	-9.75	0.01
30	SLD 1	-83	31	2212		-26.44	-3.01	0.04
30	SLD 2	-83	31	2212		-26.44	-3.01	0.04
30	SLD 3	-51	0	2083		11.25	-1.66	0.01
30	SLD 4	-51	0	2083		11.25	-1.66	0.01
30	SLD 5	-241	65	2409		-66.77	-9.78	0.07
30	SLD 6	-241	65	2409		-66.77	-9.78	0.07
30	SLD 7	-133	-40	1978		58.88	-5.27	-0.04
30	SLD 8	-133	-40	1978		58.88	-5.27	-0.04
30	SLD 9	-344	62	2448		-63.64	-14.23	0.07
30	SLD 10	-344	62	2448		-63.64	-14.23	0.07
30	SLD 11	-236	-43	2017		62.01	-9.71	-0.05
30	SLD 12	-236	-43	2017		62.01	-9.71	-0.05
30	SLD 13	-426	22	2343		-16.01	-17.83	0.02
30	SLD 14	-426	22	2343		-16.01	-17.83	0.02
30	SLD 15	-394	-10	2214		21.68	-16.48	-0.02
30	SLD 16	-394	-10	2214		21.68	-16.48	-0.02
30	SLV 1	125	63	2216		-64.3	6.01	0.09
30	SLV 2	125	63	2216		-64.3	6.01	0.09
30	SLV 3	206	-17	1890		32.32	9.4	0
30	SLV 4	206	-17	1890		32.32	9.4	0
30	SLV 5	-252	148	2709		-167.49	-10.17	0.17
30	SLV 6	-252	148	2709		-167.49	-10.17	0.17
30	SLV 7	17	-119	1621		154.57	1.15	-0.13
30	SLV 8	17	-119	1621		154.57	1.15	-0.13
30	SLV 9	-494	140	2805		-159.32	-20.64	0.15
30	SLV 10	-494	140	2805		-159.32	-20.64	0.15
30	SLV 11	-225	-126	1717		162.73	-9.33	-0.15
30	SLV 12	-225	-126	1717		162.73	-9.33	-0.15
30	SLV 13	-682	38	2536		-37.08	-28.9	0.03
30	SLV 14	-682	38	2536		-37.08	-28.9	0.03
30	SLV 15	-602	-42	2209		59.54	-25.5	-0.06
30	SLV 16	-602	-42	2209		59.54	-25.5	-0.06
31	SLU 1	-250	8	1933		-1.58	-10.4	0.01
31	SLU 2	-216	-12	1901		31.11	-9.24	-0.02
31	SLU 3	-250	8	1933		-1.58	-10.4	0.01
31	SLU 4	-229	-4	1914		18.04	-9.7	-0.01
31	SLU 5	-216	-12	1901		31.11	-9.24	-0.02
31	SLU 6	-250	8	1933		-1.58	-10.4	0.01
31	SLU 7	-229	-4	1914		18.04	-9.7	-0.01
31	SLU 8	-250	8	1933		-1.58	-10.4	0.01
31	SLU 9	-229	-4	1914		18.04	-9.7	-0.01
31	SLU 10	-322	-9	2356		30.96	-13.68	-0.01
31	SLU 11	-356	10	2388		-1.73	-14.84	0.01
31	SLU 12	-336	-1	2368		17.89	-14.14	0
31	SLU 13	-322	-9	2356		30.96	-13.68	-0.01
31	SLU 14	-356	10	2388		-1.73	-14.84	0.01
31	SLU 15	-336	-1	2368		17.89	-14.14	0
31	SLU 16	-356	10	2388		-1.73	-14.84	0.01
31	SLU 17	-336	-1	2368		17.89	-14.14	0
31	SLU 18	-401	12	2582		-1.8	-16.74	0.01
31	SLU 19	-381	0	2563		17.82	-16.04	0
31	SLU 20	-401	12	2582		-1.8	-16.74	0.01
31	SLU 21	-381	0	2563		17.82	-16.04	0
31	SLU 22	-302	9	2187		-1.65	-12.58	0.01
31	SLU 23	-268	-11	2155		31.04	-11.42	-0.01
31	SLU 24	-302	9	2187		-1.65	-12.58	0.01
31	SLU 25	-282	-3	2168		17.97	-11.88	0
31	SLU 26	-268	-11	2155		31.04	-11.42	-0.01
31	SLU 27	-302	9	2187		-1.65	-12.58	0.01
31	SLU 28	-282	-3	2168		17.97	-11.88	0
31	SLU 29	-302	9	2187		-1.65	-12.58	0.01
31	SLU 30	-282	-3	2168		17.97	-11.88	0
31	SLU 31	-374	-8	2610		30.89	-15.86	-0.01
31	SLU 32	-408	12	2642		-1.8	-17.02	0.01
31	SLU 33	-388	0	2623		17.82	-16.32	0
31	SLU 34	-374	-8	2610		30.89	-15.86	-0.01
31	SLU 35	-408	12	2642		-1.8	-17.02	0.01
31	SLU 36	-388	0	2623		17.82	-16.32	0



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
31	SLU 37	-408	12	2642	-1.8	-17.02	0.01
31	SLU 38	-388	0	2623	17.82	-16.32	0
31	SLU 39	-454	13	2837	-1.87	-18.92	0.01
31	SLU 40	-433	1	2817	17.75	-18.22	0
31	SLU 41	-454	13	2837	-1.87	-18.92	0.01
31	SLU 42	-433	1	2817	17.75	-18.22	0
31	SLU 43	-307	10	2426	-2.03	-12.78	0.01
31	SLU 44	-273	-10	2394	30.66	-11.61	-0.01
31	SLU 45	-307	10	2426	-2.03	-12.78	0.01
31	SLU 46	-286	-2	2407	17.58	-12.08	0
31	SLU 47	-273	-10	2394	30.66	-11.61	-0.01
31	SLU 48	-307	10	2426	-2.03	-12.78	0.01
31	SLU 49	-286	-2	2407	17.58	-12.08	0
31	SLU 50	-307	10	2426	-2.03	-12.78	0.01
31	SLU 51	-286	-2	2407	17.58	-12.08	0
31	SLU 52	-379	-7	2848	30.51	-16.05	-0.01
31	SLU 53	-413	12	2880	-2.18	-17.21	0.01
31	SLU 54	-393	1	2861	17.43	-16.52	0
31	SLU 55	-379	-7	2848	30.51	-16.05	-0.01
31	SLU 56	-413	12	2880	-2.18	-17.21	0.01
31	SLU 57	-393	1	2861	17.43	-16.52	0
31	SLU 58	-413	12	2880	-2.18	-17.21	0.01
31	SLU 59	-393	1	2861	17.43	-16.52	0
31	SLU 60	-458	14	3075	-2.25	-19.12	0.01
31	SLU 61	-438	2	3056	17.37	-18.42	0
31	SLU 62	-458	14	3075	-2.25	-19.12	0.01
31	SLU 63	-438	2	3056	17.37	-18.42	0
31	SLU 64	-359	11	2680	-2.1	-14.96	0.01
31	SLU 65	-325	-9	2648	30.59	-13.79	-0.01
31	SLU 66	-359	11	2680	-2.1	-14.96	0.01
31	SLU 67	-339	-1	2661	17.51	-14.26	0
31	SLU 68	-325	-9	2648	30.59	-13.79	-0.01
31	SLU 69	-359	11	2680	-2.1	-14.96	0.01
31	SLU 70	-339	-1	2661	17.51	-14.26	0
31	SLU 71	-359	11	2680	-2.1	-14.96	0.01
31	SLU 72	-339	-1	2661	17.51	-14.26	0
31	SLU 73	-431	-6	3103	30.44	-18.23	-0.01
31	SLU 74	-465	14	3135	-2.25	-19.39	0.01
31	SLU 75	-445	2	3115	17.36	-18.7	0
31	SLU 76	-431	-6	3103	30.44	-18.23	-0.01
31	SLU 77	-465	14	3135	-2.25	-19.39	0.01
31	SLU 78	-445	2	3115	17.36	-18.7	0
31	SLU 79	-465	14	3135	-2.25	-19.39	0.01
31	SLU 80	-445	2	3115	17.36	-18.7	0
31	SLU 81	-511	15	3329	-2.32	-21.3	0.01
31	SLU 82	-490	3	3310	17.3	-20.6	0
31	SLU 83	-511	15	3329	-2.32	-21.3	0.01
31	SLU 84	-490	3	3310	17.3	-20.6	0
31	SLE RA 1	-265	8	2006	-1.6	-11.03	0.01
31	SLE RA 2	-242	-5	1984	20.19	-10.25	-0.01
31	SLE RA 3	-265	8	2006	-1.6	-11.03	0.01
31	SLE RA 4	-251	0	1993	11.48	-10.56	0
31	SLE RA 5	-242	-5	1984	20.19	-10.25	-0.01
31	SLE RA 6	-265	8	2006	-1.6	-11.03	0.01
31	SLE RA 7	-251	0	1993	11.48	-10.56	0
31	SLE RA 8	-265	8	2006	-1.6	-11.03	0.01
31	SLE RA 9	-251	0	1993	11.48	-10.56	0
31	SLE RA 10	-313	-3	2287	20.09	-13.21	-0.01
31	SLE RA 11	-335	10	2309	-1.7	-13.98	0.01
31	SLE RA 12	-322	2	2296	11.38	-13.52	0
31	SLE RA 13	-313	-3	2287	20.09	-13.21	-0.01
31	SLE RA 14	-335	10	2309	-1.7	-13.98	0.01
31	SLE RA 15	-322	2	2296	11.38	-13.52	0
31	SLE RA 16	-335	10	2309	-1.7	-13.98	0.01
31	SLE RA 17	-322	2	2296	11.38	-13.52	0
31	SLE RA 18	-366	11	2439	-1.75	-15.25	0.01
31	SLE RA 19	-352	3	2426	11.33	-14.79	0
31	SLE RA 20	-366	11	2439	-1.75	-15.25	0.01
31	SLE RA 21	-352	3	2426	11.33	-14.79	0
31	SLE FR 1	-265	8	2006	-1.6	-11.03	0.01
31	SLE FR 2	-260	6	2001	2.76	-10.87	0.01
31	SLE FR 3	-265	8	2006	-1.6	-11.03	0.01
31	SLE FR 4	-290	6	2131	2.71	-12.14	0.01
31	SLE FR 5	-295	9	2136	-1.65	-12.29	0.01
31	SLE FR 6	-315	9	2222	-1.67	-13.14	0.01
31	SLE QP 1	-265	8	2006	-1.6	-11.03	0.01
31	SLE QP 2	-295	9	2136	-1.65	-12.29	0.01
31	SLD 1	-140	31	2093	-25.95	-5.61	0.04
31	SLD 2	-140	31	2093	-25.95	-5.61	0.04
31	SLD 3	-93	1	1959	10.04	-3.67	0.01
31	SLD 4	-93	1	1959	10.04	-3.67	0.01
31	SLD 5	-321	61	2326	-63.53	-13.24	0.07
31	SLD 6	-321	61	2326	-63.53	-13.24	0.07
31	SLD 7	-162	-38	1880	56.45	-6.75	-0.04
31	SLD 8	-162	-38	1880	56.45	-6.75	-0.04
31	SLD 9	-428	56	2392	-59.74	-17.83	0.06
31	SLD 10	-428	56	2392	-59.74	-17.83	0.06
31	SLD 11	-269	-43	1945	60.24	-11.35	-0.05
31	SLD 12	-269	-43	1945	60.24	-11.35	-0.05
31	SLD 13	-497	17	2312	-13.33	-20.92	0.01



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
31	SLD 14	-497	17	2312	-13.33	-20.92	0.01
31	SLD 15	-450	-13	2179	22.66	-18.97	-0.02
31	SLD 16	-450	-13	2179	22.66	-18.97	-0.02
31	SLV 1	65	64	2035	-63.92	3.27	0.09
31	SLV 2	65	64	2035	-63.92	3.27	0.09
31	SLV 3	186	-11	1698	28.41	8.2	0
31	SLV 4	186	-11	1698	28.41	8.2	0
31	SLV 5	-371	140	2617	-160.35	-15.11	0.16
31	SLV 6	-371	140	2617	-160.35	-15.11	0.16
31	SLV 7	33	-111	1493	147.39	1.33	-0.13
31	SLV 8	33	-111	1493	147.39	1.33	-0.13
31	SLV 9	-623	129	2778	-150.68	-25.92	0.14
31	SLV 10	-623	129	2778	-150.68	-25.92	0.14
31	SLV 11	-219	-122	1655	157.06	-9.48	-0.15
31	SLV 12	-219	-122	1655	157.06	-9.48	-0.15
31	SLV 13	-776	29	2573	-31.7	-32.79	0.02
31	SLV 14	-776	29	2573	-31.7	-32.79	0.02
31	SLV 15	-655	-46	2236	60.63	-27.85	-0.07
31	SLV 16	-655	-46	2236	60.63	-27.85	-0.07
32	SLU 1	-265	6	1853	-0.95	-10.79	0
32	SLU 2	-200	-13	1850	29.88	-8.06	-0.01
32	SLU 3	-265	6	1853	-0.95	-10.79	0
32	SLU 4	-226	-5	1851	17.55	-9.15	-0.01
32	SLU 5	-200	-13	1850	29.88	-8.06	-0.01
32	SLU 6	-265	6	1853	-0.95	-10.79	0
32	SLU 7	-226	-5	1851	17.55	-9.15	-0.01
32	SLU 8	-265	6	1853	-0.95	-10.79	0
32	SLU 9	-226	-5	1851	17.55	-9.15	-0.01
32	SLU 10	-317	-11	2266	29.98	-12.75	-0.01
32	SLU 11	-381	8	2270	-0.85	-15.48	0.01
32	SLU 12	-342	-4	2267	17.65	-13.84	0
32	SLU 13	-317	-11	2266	29.98	-12.75	-0.01
32	SLU 14	-381	8	2270	-0.85	-15.48	0.01
32	SLU 15	-342	-4	2267	17.65	-13.84	0
32	SLU 16	-381	8	2270	-0.85	-15.48	0.01
32	SLU 17	-342	-4	2267	17.65	-13.84	0
32	SLU 18	-431	9	2448	-0.81	-17.49	0.01
32	SLU 19	-392	-3	2446	17.69	-15.85	0
32	SLU 20	-431	9	2448	-0.81	-17.49	0.01
32	SLU 21	-392	-3	2446	17.69	-15.85	0
32	SLU 22	-323	7	2088	-0.9	-13.13	0
32	SLU 23	-258	-12	2084	29.94	-10.39	-0.01
32	SLU 24	-323	7	2088	-0.9	-13.13	0
32	SLU 25	-284	-5	2086	17.6	-11.49	-0.01
32	SLU 26	-258	-12	2084	29.94	-10.39	-0.01
32	SLU 27	-323	7	2088	-0.9	-13.13	0
32	SLU 28	-284	-5	2086	17.6	-11.49	-0.01
32	SLU 29	-323	7	2088	-0.9	-13.13	0
32	SLU 30	-284	-5	2086	17.6	-11.49	-0.01
32	SLU 31	-375	-10	2500	30.04	-15.08	-0.01
32	SLU 32	-439	9	2504	-0.8	-17.82	0.01
32	SLU 33	-400	-3	2502	17.7	-16.18	0
32	SLU 34	-375	-10	2500	30.04	-15.08	-0.01
32	SLU 35	-439	9	2504	-0.8	-17.82	0.01
32	SLU 36	-400	-3	2502	17.7	-16.18	0
32	SLU 37	-439	9	2504	-0.8	-17.82	0.01
32	SLU 38	-400	-3	2502	17.7	-16.18	0
32	SLU 39	-489	9	2682	-0.76	-19.83	0.01
32	SLU 40	-450	-2	2680	17.74	-18.18	0
32	SLU 41	-489	9	2682	-0.76	-19.83	0.01
32	SLU 42	-450	-2	2680	17.74	-18.18	0
32	SLU 43	-324	8	2329	-1.26	-13.23	0.01
32	SLU 44	-260	-11	2326	29.58	-10.49	-0.01
32	SLU 45	-324	8	2329	-1.26	-13.23	0.01
32	SLU 46	-286	-4	2327	17.24	-11.59	0
32	SLU 47	-260	-11	2326	29.58	-10.49	-0.01
32	SLU 48	-324	8	2329	-1.26	-13.23	0.01
32	SLU 49	-286	-4	2327	17.24	-11.59	0
32	SLU 50	-324	8	2329	-1.26	-13.23	0.01
32	SLU 51	-286	-4	2327	17.24	-11.59	0
32	SLU 52	-376	-10	2742	29.68	-15.18	-0.01
32	SLU 53	-441	10	2745	-1.16	-17.92	0.01
32	SLU 54	-402	-2	2743	17.34	-16.28	0
32	SLU 55	-376	-10	2742	29.68	-15.18	-0.01
32	SLU 56	-441	10	2745	-1.16	-17.92	0.01
32	SLU 57	-402	-2	2743	17.34	-16.28	0
32	SLU 58	-441	10	2745	-1.16	-17.92	0.01
32	SLU 59	-402	-2	2743	17.34	-16.28	0
32	SLU 60	-491	10	2924	-1.12	-19.93	0.01
32	SLU 61	-452	-1	2921	17.38	-18.29	0
32	SLU 62	-491	10	2924	-1.12	-19.93	0.01
32	SLU 63	-452	-1	2921	17.38	-18.29	0
32	SLU 64	-382	8	2563	-1.2	-15.56	0.01
32	SLU 65	-318	-11	2560	29.63	-12.83	-0.01
32	SLU 66	-382	8	2563	-1.2	-15.56	0.01
32	SLU 67	-344	-3	2561	17.3	-13.92	0
32	SLU 68	-318	-11	2560	29.63	-12.83	-0.01
32	SLU 69	-382	8	2563	-1.2	-15.56	0.01
32	SLU 70	-344	-3	2561	17.3	-13.92	0
32	SLU 71	-382	8	2563	-1.2	-15.56	0.01



Nodo	Cont.	Reazione a traslazione				Reazione a rotazione			
Ind.	N.br.	x	y	z		x	y	z	
32	SLU 72	-344	-3	2561		17.3	-13.92	0	
32	SLU 73	-434	-9	2976		29.73	-17.52	-0.01	
32	SLU 74	-499	10	2979		-1.1	-20.25	0.01	
32	SLU 75	-460	-1	2977		17.4	-18.61	0	
32	SLU 76	-434	-9	2976		29.73	-17.52	-0.01	
32	SLU 77	-499	10	2979		-1.1	-20.25	0.01	
32	SLU 78	-460	-1	2977		17.4	-18.61	0	
32	SLU 79	-499	10	2979		-1.1	-20.25	0.01	
32	SLU 80	-460	-1	2977		17.4	-18.61	0	
32	SLU 81	-548	11	3158		-1.06	-22.26	0.01	
32	SLU 82	-510	0	3156		17.44	-20.62	0	
32	SLU 83	-548	11	3158		-1.06	-22.26	0.01	
32	SLU 84	-510	0	3156		17.44	-20.62	0	
32	SLE RA 1	-281	6	1920		-0.94	-11.46	0	
32	SLE RA 2	-238	-6	1918		19.62	-9.64	-0.01	
32	SLE RA 3	-281	6	1920		-0.94	-11.46	0	
32	SLE RA 4	-256	-1	1919		11.4	-10.37	0	
32	SLE RA 5	-238	-6	1918		19.62	-9.64	-0.01	
32	SLE RA 6	-281	6	1920		-0.94	-11.46	0	
32	SLE RA 7	-256	-1	1919		11.4	-10.37	0	
32	SLE RA 8	-281	6	1920		-0.94	-11.46	0	
32	SLE RA 9	-256	-1	1919		11.4	-10.37	0	
32	SLE RA 10	-316	-5	2195		19.69	-12.76	-0.01	
32	SLE RA 11	-359	8	2198		-0.87	-14.58	0.01	
32	SLE RA 12	-333	0	2196		11.46	-13.49	0	
32	SLE RA 13	-316	-5	2195		19.69	-12.76	-0.01	
32	SLE RA 14	-359	8	2198		-0.87	-14.58	0.01	
32	SLE RA 15	-333	0	2196		11.46	-13.49	0	
32	SLE RA 16	-359	8	2198		-0.87	-14.58	0.01	
32	SLE RA 17	-333	0	2196		11.46	-13.49	0	
32	SLE RA 18	-392	8	2317		-0.84	-15.92	0.01	
32	SLE RA 19	-366	0	2315		11.49	-14.83	0	
32	SLE RA 20	-392	8	2317		-0.84	-15.92	0.01	
32	SLE RA 21	-366	0	2315		11.49	-14.83	0	
32	SLE FR 1	-281	6	1920		-0.94	-11.46	0	
32	SLE FR 2	-273	4	1920		3.17	-11.09	0	
32	SLE FR 3	-281	6	1920		-0.94	-11.46	0	
32	SLE FR 4	-306	4	2039		3.2	-12.43	0	
32	SLE FR 5	-315	7	2039		-0.91	-12.8	0	
32	SLE FR 6	-337	7	2118		-0.89	-13.69	0.01	
32	SLE QP 1	-281	6	1920		-0.94	-11.46	0	
32	SLE QP 2	-315	7	2039		-0.91	-12.8	0	
32	SLD 1	-160	30	1962		-25.56	-6.12	0.03	
32	SLD 2	-160	30	1962		-25.56	-6.12	0.03	
32	SLD 3	-95	4	1828		7.36	-3.37	0	
32	SLD 4	-95	4	1828		7.36	-3.37	0	
32	SLD 5	-366	54	2219		-58.24	-14.96	0.05	
32	SLD 6	-366	54	2219		-58.24	-14.96	0.05	
32	SLD 7	-151	-35	1773		51.51	-5.81	-0.03	
32	SLD 8	-151	-35	1773		51.51	-5.81	-0.03	
32	SLD 9	-478	48	2306		-53.33	-19.79	0.04	
32	SLD 10	-478	48	2306		-53.33	-19.79	0.04	
32	SLD 11	-264	-41	1859		56.42	-10.64	-0.04	
32	SLD 12	-264	-41	1859		56.42	-10.64	-0.04	
32	SLD 13	-534	10	2250		-9.18	-22.22	0.01	
32	SLD 14	-534	10	2250		-9.18	-22.22	0.01	
32	SLD 15	-470	-17	2116		23.74	-19.48	-0.02	
32	SLD 16	-470	-17	2116		23.74	-19.48	-0.02	
32	SLV 1	44	66	1853		-63.81	2.63	0.06	
32	SLV 2	44	66	1853		-63.81	2.63	0.06	
32	SLV 3	209	-2	1517		20.7	9.7	0	
32	SLV 4	209	-2	1517		20.7	9.7	0	
32	SLV 5	-458	127	2494		-147.95	-18.89	0.11	
32	SLV 6	-458	127	2494		-147.95	-18.89	0.11	
32	SLV 7	94	-99	1372		133.74	4.68	-0.09	
32	SLV 8	94	-99	1372		133.74	4.68	-0.09	
32	SLV 9	-723	113	2707		-135.56	-30.27	0.1	
32	SLV 10	-723	113	2707		-135.56	-30.27	0.1	
32	SLV 11	-171	-114	1584		146.13	-6.71	-0.11	
32	SLV 12	-171	-114	1584		146.13	-6.71	-0.11	
32	SLV 13	-838	16	2562		-22.52	-35.3	0.01	
32	SLV 14	-838	16	2562		-22.52	-35.3	0.01	
32	SLV 15	-673	-52	2225		61.99	-28.23	-0.05	
32	SLV 16	-673	-52	2225		61.99	-28.23	-0.05	
33	SLU 1	-260	4	1792		-0.49	-11.08	0	
33	SLU 2	-179	-13	1811		27.17	-7.9	-0.01	
33	SLU 3	-260	4	1792		-0.49	-11.08	0	
33	SLU 4	-211	-6	1803		16.11	-9.17	0	
33	SLU 5	-179	-13	1811		27.17	-7.9	-0.01	
33	SLU 6	-260	4	1792		-0.49	-11.08	0	
33	SLU 7	-211	-6	1803		16.11	-9.17	0	
33	SLU 8	-260	4	1792		-0.49	-11.08	0	
33	SLU 9	-211	-6	1803		16.11	-9.17	0	
33	SLU 10	-298	-12	2189		27.44	-12.93	-0.01	
33	SLU 11	-379	6	2170		-0.22	-16.11	0	
33	SLU 12	-331	-5	2182		16.38	-14.2	0	
33	SLU 13	-298	-12	2189		27.44	-12.93	-0.01	
33	SLU 14	-379	6	2170		-0.22	-16.11	0	
33	SLU 15	-331	-5	2182		16.38	-14.2	0	
33	SLU 16	-379	6	2170		-0.22	-16.11	0	



Nodo	Cont.	Reazione a traslazione				Reazione a rotazione			
		x	y	z		x	y	z	
33	SLU 17	-331	-5	2182		16.38	-14.2	0	
33	SLU 18	-431	6	2333		-0.1	-18.27	0	
33	SLU 19	-382	-4	2344		16.49	-16.36	0	
33	SLU 20	-431	6	2333		-0.1	-18.27	0	
33	SLU 21	-382	-4	2344		16.49	-16.36	0	
33	SLU 22	-320	5	2007		-0.35	-13.59	0	
33	SLU 23	-238	-13	2026		27.31	-10.41	-0.01	
33	SLU 24	-320	5	2007		-0.35	-13.59	0	
33	SLU 25	-271	-6	2018		16.25	-11.68	0	
33	SLU 26	-238	-13	2026		27.31	-10.41	-0.01	
33	SLU 27	-320	5	2007		-0.35	-13.59	0	
33	SLU 28	-271	-6	2018		16.25	-11.68	0	
33	SLU 29	-320	5	2007		-0.35	-13.59	0	
33	SLU 30	-271	-6	2018		16.25	-11.68	0	
33	SLU 31	-358	-11	2404		27.58	-15.45	-0.01	
33	SLU 32	-439	6	2386		-0.08	-18.62	0	
33	SLU 33	-390	-4	2397		16.52	-16.72	0	
33	SLU 34	-358	-11	2404		27.58	-15.45	-0.01	
33	SLU 35	-439	6	2386		-0.08	-18.62	0	
33	SLU 36	-390	-4	2397		16.52	-16.72	0	
33	SLU 37	-439	6	2386		-0.08	-18.62	0	
33	SLU 38	-390	-4	2397		16.52	-16.72	0	
33	SLU 39	-490	7	2548		0.04	-20.78	0	
33	SLU 40	-442	-4	2559		16.63	-18.88	0	
33	SLU 41	-490	7	2548		0.04	-20.78	0	
33	SLU 42	-442	-4	2559		16.63	-18.88	0	
33	SLU 43	-317	6	2255		-0.68	-13.54	0	
33	SLU 44	-236	-12	2274		26.98	-10.36	-0.01	
33	SLU 45	-317	6	2255		-0.68	-13.54	0	
33	SLU 46	-269	-5	2267		15.91	-11.63	0	
33	SLU 47	-236	-12	2274		26.98	-10.36	-0.01	
33	SLU 48	-317	6	2255		-0.68	-13.54	0	
33	SLU 49	-269	-5	2267		15.91	-11.63	0	
33	SLU 50	-317	6	2255		-0.68	-13.54	0	
33	SLU 51	-269	-5	2267		15.91	-11.63	0	
33	SLU 52	-356	-11	2653		27.25	-15.39	-0.01	
33	SLU 53	-437	7	2634		-0.41	-18.57	0	
33	SLU 54	-388	-4	2646		16.18	-16.67	0	
33	SLU 55	-356	-11	2653		27.25	-15.39	-0.01	
33	SLU 56	-437	7	2634		-0.41	-18.57	0	
33	SLU 57	-388	-4	2646		16.18	-16.67	0	
33	SLU 58	-437	7	2634		-0.41	-18.57	0	
33	SLU 59	-388	-4	2646		16.18	-16.67	0	
33	SLU 60	-488	7	2797		-0.3	-20.73	0	
33	SLU 61	-439	-3	2808		16.3	-18.82	0	
33	SLU 62	-488	7	2797		-0.3	-20.73	0	
33	SLU 63	-439	-3	2808		16.3	-18.82	0	
33	SLU 64	-377	6	2471		-0.54	-16.05	0	
33	SLU 65	-296	-11	2490		27.12	-12.87	-0.01	
33	SLU 66	-377	6	2471		-0.54	-16.05	0	
33	SLU 67	-328	-4	2482		16.05	-14.14	0	
33	SLU 68	-296	-11	2490		27.12	-12.87	-0.01	
33	SLU 69	-377	6	2471		-0.54	-16.05	0	
33	SLU 70	-328	-4	2482		16.05	-14.14	0	
33	SLU 71	-377	6	2471		-0.54	-16.05	0	
33	SLU 72	-328	-4	2482		16.05	-14.14	0	
33	SLU 73	-415	-10	2868		27.39	-17.91	-0.01	
33	SLU 74	-497	7	2849		-0.27	-21.09	0	
33	SLU 75	-448	-3	2861		16.32	-19.18	0	
33	SLU 76	-415	-10	2868		27.39	-17.91	-0.01	
33	SLU 77	-497	7	2849		-0.27	-21.09	0	
33	SLU 78	-448	-3	2861		16.32	-19.18	0	
33	SLU 79	-497	7	2849		-0.27	-21.09	0	
33	SLU 80	-448	-3	2861		16.32	-19.18	0	
33	SLU 81	-548	8	3012		-0.16	-23.24	0	
33	SLU 82	-499	-3	3023		16.44	-21.34	0	
33	SLU 83	-548	8	3012		-0.16	-23.24	0	
33	SLU 84	-499	-3	3023		16.44	-21.34	0	
33	SLE RA 1	-277	5	1853		-0.45	-11.79	0	
33	SLE RA 2	-223	-7	1866		17.99	-9.68	0	
33	SLE RA 3	-277	5	1853		-0.45	-11.79	0	
33	SLE RA 4	-244	-2	1861		10.62	-10.52	0	
33	SLE RA 5	-223	-7	1866		17.99	-9.68	0	
33	SLE RA 6	-277	5	1853		-0.45	-11.79	0	
33	SLE RA 7	-244	-2	1861		10.62	-10.52	0	
33	SLE RA 8	-277	5	1853		-0.45	-11.79	0	
33	SLE RA 9	-244	-2	1861		10.62	-10.52	0	
33	SLE RA 10	-303	-6	2118		18.17	-13.03	0	
33	SLE RA 11	-357	5	2106		-0.27	-15.15	0	
33	SLE RA 12	-324	-2	2113		10.8	-13.88	0	
33	SLE RA 13	-303	-6	2118		18.17	-13.03	0	
33	SLE RA 14	-357	5	2106		-0.27	-15.15	0	
33	SLE RA 15	-324	-2	2113		10.8	-13.88	0	
33	SLE RA 16	-357	5	2106		-0.27	-15.15	0	
33	SLE RA 17	-324	-2	2113		10.8	-13.88	0	
33	SLE RA 18	-391	6	2214		-0.19	-16.59	0	
33	SLE RA 19	-358	-1	2221		10.87	-15.32	0	
33	SLE RA 20	-391	6	2214		-0.19	-16.59	0	
33	SLE RA 21	-358	-1	2221		10.87	-15.32	0	
33	SLE FR 1	-277	5	1853		-0.45	-11.79	0	



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
33	SLE FR 2	-266	2	1856	3.24	-11.37	0
33	SLE FR 3	-277	5	1853	-0.45	-11.79	0
33	SLE FR 4	-300	3	1964	3.32	-12.81	0
33	SLE FR 5	-311	5	1961	-0.37	-13.23	0
33	SLE FR 6	-334	5	2034	-0.32	-14.19	0
33	SLE QP 1	-277	5	1853	-0.45	-11.79	0
33	SLE QP 2	-311	5	1961	-0.37	-13.23	0
33	SLD 1	-157	29	1866	-24.48	-6.59	0.02
33	SLD 2	-157	29	1866	-24.48	-6.59	0.02
33	SLD 3	-84	6	1739	4.21	-3.54	0.01
33	SLD 4	-84	6	1739	4.21	-3.54	0.01
33	SLD 5	-375	47	2126	-51.12	-15.86	0.03
33	SLD 6	-375	47	2126	-51.12	-15.86	0.03
33	SLD 7	-132	-30	1702	44.52	-5.71	-0.02
33	SLD 8	-132	-30	1702	44.52	-5.71	-0.02
33	SLD 9	-490	40	2221	-45.26	-20.76	0.02
33	SLD 10	-490	40	2221	-45.26	-20.76	0.02
33	SLD 11	-247	-37	1797	50.38	-10.6	-0.02
33	SLD 12	-247	-37	1797	50.38	-10.6	-0.02
33	SLD 13	-538	4	2184	-4.95	-22.92	0
33	SLD 14	-538	4	2184	-4.95	-22.92	0
33	SLD 15	-465	-19	2057	23.74	-19.88	-0.01
33	SLD 16	-465	-19	2057	23.74	-19.88	-0.01
33	SLV 1	43	65	1730	-61.78	2.08	0.04
33	SLV 2	43	65	1730	-61.78	2.08	0.04
33	SLV 3	232	7	1410	11.89	9.96	0.01
33	SLV 4	232	7	1410	11.89	9.96	0.01
33	SLV 5	-491	111	2376	-130.53	-20.6	0.07
33	SLV 6	-491	111	2376	-130.53	-20.6	0.07
33	SLV 7	139	-83	1312	115.05	5.68	-0.05
33	SLV 8	139	-83	1312	115.05	5.68	-0.05
33	SLV 9	-761	93	2611	-115.79	-32.15	0.05
33	SLV 10	-761	93	2611	-115.79	-32.15	0.05
33	SLV 11	-131	-102	1547	129.79	-5.87	-0.06
33	SLV 12	-131	-102	1547	129.79	-5.87	-0.06
33	SLV 13	-854	3	2513	-12.63	-36.42	0
33	SLV 14	-854	3	2513	-12.63	-36.42	0
33	SLV 15	-665	-55	2193	61.04	-28.54	-0.04
33	SLV 16	-665	-55	2193	61.04	-28.54	-0.04
34	SLU 1	-232	3	1781	-0.29	-9.82	0
34	SLU 2	-135	-11	1807	22.91	-5.45	0
34	SLU 3	-232	3	1781	-0.29	-9.82	0
34	SLU 4	-174	-5	1797	13.63	-7.2	0
34	SLU 5	-135	-11	1807	22.91	-5.45	0
34	SLU 6	-232	3	1781	-0.29	-9.82	0
34	SLU 7	-174	-5	1797	13.63	-7.2	0
34	SLU 8	-232	3	1781	-0.29	-9.82	0
34	SLU 9	-174	-5	1797	13.63	-7.2	0
34	SLU 10	-246	-10	2161	23.22	-10.02	0
34	SLU 11	-343	4	2136	0.02	-14.39	0
34	SLU 12	-285	-4	2151	13.94	-11.77	0
34	SLU 13	-246	-10	2161	23.22	-10.02	0
34	SLU 14	-343	4	2136	0.02	-14.39	0
34	SLU 15	-285	-4	2151	13.94	-11.77	0
34	SLU 16	-343	4	2136	0.02	-14.39	0
34	SLU 17	-285	-4	2151	13.94	-11.77	0
34	SLU 18	-390	5	2287	0.15	-16.35	0
34	SLU 19	-332	-4	2303	14.07	-13.73	0
34	SLU 20	-390	5	2287	0.15	-16.35	0
34	SLU 21	-332	-4	2303	14.07	-13.73	0
34	SLU 22	-288	4	1984	-0.13	-12.14	0
34	SLU 23	-192	-11	2010	23.07	-7.77	0
34	SLU 24	-288	4	1984	-0.13	-12.14	0
34	SLU 25	-230	-5	2000	13.79	-9.52	0
34	SLU 26	-192	-11	2010	23.07	-7.77	0
34	SLU 27	-288	4	1984	-0.13	-12.14	0
34	SLU 28	-230	-5	2000	13.79	-9.52	0
34	SLU 29	-288	4	1984	-0.13	-12.14	0
34	SLU 30	-230	-5	2000	13.79	-9.52	0
34	SLU 31	-303	-10	2364	23.38	-12.35	0
34	SLU 32	-399	5	2339	0.18	-16.72	0
34	SLU 33	-341	-4	2354	14.1	-14.09	0
34	SLU 34	-303	-10	2364	23.38	-12.35	0
34	SLU 35	-399	5	2339	0.18	-16.72	0
34	SLU 36	-341	-4	2354	14.1	-14.09	0
34	SLU 37	-399	5	2339	0.18	-16.72	0
34	SLU 38	-341	-4	2354	14.1	-14.09	0
34	SLU 39	-447	5	2490	0.31	-18.68	0
34	SLU 40	-389	-4	2506	14.23	-16.05	0
34	SLU 41	-447	5	2490	0.31	-18.68	0
34	SLU 42	-389	-4	2506	14.23	-16.05	0
34	SLU 43	-282	4	2246	-0.44	-11.97	0
34	SLU 44	-185	-10	2272	22.76	-7.6	0
34	SLU 45	-282	4	2246	-0.44	-11.97	0
34	SLU 46	-224	-4	2262	13.48	-9.35	0
34	SLU 47	-185	-10	2272	22.76	-7.6	0
34	SLU 48	-282	4	2246	-0.44	-11.97	0
34	SLU 49	-224	-4	2262	13.48	-9.35	0
34	SLU 50	-282	4	2246	-0.44	-11.97	0
34	SLU 51	-224	-4	2262	13.48	-9.35	0





Nodo	Cont.	Reazione a traslazione				Reazione a rotazione			
Ind.	N.br.	x	y	z		x	y	z	
34	SLU 52	-296	-9	2626		23.07	-12.17		0
34	SLU 53	-393	5	2600		-0.13	-16.54		0
34	SLU 54	-335	-4	2616		13.79	-13.92		0
34	SLU 55	-296	-9	2626		23.07	-12.17		0
34	SLU 56	-393	5	2600		-0.13	-16.54		0
34	SLU 57	-335	-4	2616		13.79	-13.92		0
34	SLU 58	-393	5	2600		-0.13	-16.54		0
34	SLU 59	-335	-4	2616		13.79	-13.92		0
34	SLU 60	-440	6	2752		0.01	-18.5		0
34	SLU 61	-383	-3	2768		13.93	-15.88		0
34	SLU 62	-440	6	2752		0.01	-18.5		0
34	SLU 63	-383	-3	2768		13.93	-15.88		0
34	SLU 64	-338	5	2449		-0.27	-14.29		0
34	SLU 65	-242	-10	2475		22.93	-9.92		0
34	SLU 66	-338	5	2449		-0.27	-14.29		0
34	SLU 67	-280	-4	2465		13.65	-11.67		0
34	SLU 68	-242	-10	2475		22.93	-9.92		0
34	SLU 69	-338	5	2449		-0.27	-14.29		0
34	SLU 70	-280	-4	2465		13.65	-11.67		0
34	SLU 71	-338	5	2449		-0.27	-14.29		0
34	SLU 72	-280	-4	2465		13.65	-11.67		0
34	SLU 73	-353	-9	2829		23.24	-14.5		0
34	SLU 74	-449	5	2803		0.04	-18.87		0
34	SLU 75	-391	-3	2819		13.96	-16.24		0
34	SLU 76	-353	-9	2829		23.24	-14.5		0
34	SLU 77	-449	5	2803		0.04	-18.87		0
34	SLU 78	-391	-3	2819		13.96	-16.24		0
34	SLU 79	-449	5	2803		0.04	-18.87		0
34	SLU 80	-391	-3	2819		13.96	-16.24		0
34	SLU 81	-497	6	2955		0.17	-20.83		0
34	SLU 82	-439	-3	2971		14.09	-18.2		0
34	SLU 83	-497	6	2955		0.17	-20.83		0
34	SLU 84	-439	-3	2971		14.09	-18.2		0
34	SLE RA 1	-248	4	1839		-0.25	-10.48		0
34	SLE RA 2	-183	-6	1857		15.22	-7.57		0
34	SLE RA 3	-248	4	1839		-0.25	-10.48		0
34	SLE RA 4	-209	-2	1850		9.03	-8.74		0
34	SLE RA 5	-183	-6	1857		15.22	-7.57		0
34	SLE RA 6	-248	4	1839		-0.25	-10.48		0
34	SLE RA 7	-209	-2	1850		9.03	-8.74		0
34	SLE RA 8	-248	4	1839		-0.25	-10.48		0
34	SLE RA 9	-209	-2	1850		9.03	-8.74		0
34	SLE RA 10	-257	-6	2093		15.43	-10.62		0
34	SLE RA 11	-322	4	2076		-0.04	-13.53		0
34	SLE RA 12	-283	-2	2086		9.24	-11.78		0
34	SLE RA 13	-257	-6	2093		15.43	-10.62		0
34	SLE RA 14	-322	4	2076		-0.04	-13.53		0
34	SLE RA 15	-283	-2	2086		9.24	-11.78		0
34	SLE RA 16	-322	4	2076		-0.04	-13.53		0
34	SLE RA 17	-283	-2	2086		9.24	-11.78		0
34	SLE RA 18	-353	4	2177		0.05	-14.84		0
34	SLE RA 19	-315	-2	2187		9.33	-13.09		0
34	SLE RA 20	-353	4	2177		0.05	-14.84		0
34	SLE RA 21	-315	-2	2187		9.33	-13.09		0
34	SLE FR 1	-248	4	1839		-0.25	-10.48		0
34	SLE FR 2	-235	2	1843		2.85	-9.9		0
34	SLE FR 3	-248	4	1839		-0.25	-10.48		0
34	SLE FR 4	-267	2	1944		2.94	-11.21		0
34	SLE FR 5	-279	4	1941		-0.16	-11.79		0
34	SLE FR 6	-301	4	2008		-0.1	-12.66		0
34	SLE QP 1	-248	4	1839		-0.25	-10.48		0
34	SLE QP 2	-279	4	1941		-0.16	-11.79		0
34	SLD 1	-133	27	1840		-22.43	-5.58		0.01
34	SLD 2	-133	27	1840		-22.43	-5.58		0.01
34	SLD 3	-55	9	1731		1.02	-2.06		0.01
34	SLD 4	-55	9	1731		1.02	-2.06		0.01
34	SLD 5	-353	39	2076		-42.4	-15.25		0.01
34	SLD 6	-353	39	2076		-42.4	-15.25		0.01
34	SLD 7	-94	-23	1712		35.75	-3.54		0
34	SLD 8	-94	-23	1712		35.75	-3.54		0
34	SLD 9	-465	30	2169		-36.07	-20.04		0
34	SLD 10	-465	30	2169		-36.07	-20.04		0
34	SLD 11	-205	-31	1805		42.08	-8.33		0
34	SLD 12	-205	-31	1805		42.08	-8.33		0
34	SLD 13	-504	-1	2150		-1.34	-21.52		0
34	SLD 14	-504	-1	2150		-1.34	-21.52		0
34	SLD 15	-426	-19	2041		22.11	-18		-0.01
34	SLD 16	-426	-19	2041		22.11	-18		-0.01
34	SLV 1	57	62	1698		-56.86	2.43		0.02
34	SLV 2	57	62	1698		-56.86	2.43		0.02
34	SLV 3	260	16	1425		3.37	11.6		0.01
34	SLV 4	260	16	1425		3.37	11.6		0.01
34	SLV 5	-486	92	2282		-108.5	-21.43		0.02
34	SLV 6	-486	92	2282		-108.5	-21.43		0.02
34	SLV 7	190	-63	1372		92.24	9.13		-0.01
34	SLV 8	190	-63	1372		92.24	9.13		-0.01
34	SLV 9	-749	71	2509		-92.55	-32.71		0.01
34	SLV 10	-749	71	2509		-92.55	-32.71		0.01
34	SLV 11	-73	-84	1600		108.19	-2.15		-0.01
34	SLV 12	-73	-84	1600		108.19	-2.15		-0.01



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
34	SLV 13	-819	-8	2456	-3.68	-35.18	-0.01
34	SLV 14	-819	-8	2456	-3.68	-35.18	-0.01
34	SLV 15	-616	-55	2184	56.54	-26.01	-0.01
34	SLV 16	-616	-55	2184	56.54	-26.01	-0.01
35	SLU 1	-222	3	1837	-0.33	-10.16	0
35	SLU 2	-128	-7	1843	17.31	-6.23	0.01
35	SLU 3	-222	3	1837	-0.33	-10.16	0
35	SLU 4	-166	-3	1841	10.25	-7.8	0
35	SLU 5	-128	-7	1843	17.31	-6.23	0.01
35	SLU 6	-222	3	1837	-0.33	-10.16	0
35	SLU 7	-166	-3	1841	10.25	-7.8	0
35	SLU 8	-222	3	1837	-0.33	-10.16	0
35	SLU 9	-166	-3	1841	10.25	-7.8	0
35	SLU 10	-234	-6	2193	17.54	-10.89	0.01
35	SLU 11	-328	4	2187	-0.09	-14.81	0
35	SLU 12	-272	-2	2190	10.49	-12.46	0.01
35	SLU 13	-234	-6	2193	17.54	-10.89	0.01
35	SLU 14	-328	4	2187	-0.09	-14.81	0
35	SLU 15	-272	-2	2190	10.49	-12.46	0.01
35	SLU 16	-328	4	2187	-0.09	-14.81	0
35	SLU 17	-272	-2	2190	10.49	-12.46	0.01
35	SLU 18	-373	4	2337	0.01	-16.81	0
35	SLU 19	-317	-2	2340	10.59	-14.45	0.01
35	SLU 20	-373	4	2337	0.01	-16.81	0
35	SLU 21	-317	-2	2340	10.59	-14.45	0.01
35	SLU 22	-276	3	2038	-0.21	-12.57	0
35	SLU 23	-183	-7	2044	17.43	-8.64	0.01
35	SLU 24	-276	3	2038	-0.21	-12.57	0
35	SLU 25	-221	-3	2041	10.38	-10.21	0
35	SLU 26	-183	-7	2044	17.43	-8.64	0.01
35	SLU 27	-276	3	2038	-0.21	-12.57	0
35	SLU 28	-221	-3	2041	10.38	-10.21	0
35	SLU 29	-276	3	2038	-0.21	-12.57	0
35	SLU 30	-221	-3	2041	10.38	-10.21	0
35	SLU 31	-289	-6	2393	17.67	-13.29	0.01
35	SLU 32	-383	4	2387	0.03	-17.22	0
35	SLU 33	-327	-2	2391	10.61	-14.86	0.01
35	SLU 34	-289	-6	2393	17.67	-13.29	0.01
35	SLU 35	-383	4	2387	0.03	-17.22	0
35	SLU 36	-327	-2	2391	10.61	-14.86	0.01
35	SLU 37	-383	4	2387	0.03	-17.22	0
35	SLU 38	-327	-2	2391	10.61	-14.86	0.01
35	SLU 39	-428	4	2537	0.13	-19.21	0
35	SLU 40	-372	-2	2541	10.71	-16.86	0.01
35	SLU 41	-428	4	2537	0.13	-19.21	0
35	SLU 42	-372	-2	2541	10.71	-16.86	0.01
35	SLU 43	-269	4	2320	-0.47	-12.38	0
35	SLU 44	-176	-6	2326	17.17	-8.46	0.01
35	SLU 45	-269	4	2320	-0.47	-12.38	0
35	SLU 46	-213	-2	2323	10.11	-10.03	0
35	SLU 47	-176	-6	2326	17.17	-8.46	0.01
35	SLU 48	-269	4	2320	-0.47	-12.38	0
35	SLU 49	-213	-2	2323	10.11	-10.03	0
35	SLU 50	-269	4	2320	-0.47	-12.38	0
35	SLU 51	-213	-2	2323	10.11	-10.03	0
35	SLU 52	-282	-6	2675	17.4	-13.11	0.01
35	SLU 53	-375	4	2669	-0.23	-17.04	0
35	SLU 54	-319	-2	2673	10.35	-14.68	0.01
35	SLU 55	-282	-6	2675	17.4	-13.11	0.01
35	SLU 56	-375	4	2669	-0.23	-17.04	0
35	SLU 57	-319	-2	2673	10.35	-14.68	0.01
35	SLU 58	-375	4	2669	-0.23	-17.04	0
35	SLU 59	-319	-2	2673	10.35	-14.68	0.01
35	SLU 60	-421	5	2819	-0.13	-19.03	0
35	SLU 61	-365	-1	2823	10.45	-16.68	0.01
35	SLU 62	-421	5	2819	-0.13	-19.03	0
35	SLU 63	-365	-1	2823	10.45	-16.68	0.01
35	SLU 64	-324	4	2520	-0.35	-14.79	0
35	SLU 65	-231	-6	2526	17.29	-10.86	0.01
35	SLU 66	-324	4	2520	-0.35	-14.79	0
35	SLU 67	-268	-2	2524	10.24	-12.43	0.01
35	SLU 68	-231	-6	2526	17.29	-10.86	0.01
35	SLU 69	-324	4	2520	-0.35	-14.79	0
35	SLU 70	-268	-2	2524	10.24	-12.43	0.01
35	SLU 71	-324	4	2520	-0.35	-14.79	0
35	SLU 72	-268	-2	2524	10.24	-12.43	0.01
35	SLU 73	-337	-5	2876	17.53	-15.52	0.01
35	SLU 74	-430	5	2870	-0.11	-19.44	0
35	SLU 75	-374	-1	2873	10.47	-17.09	0.01
35	SLU 76	-337	-5	2876	17.53	-15.52	0.01
35	SLU 77	-430	5	2870	-0.11	-19.44	0
35	SLU 78	-374	-1	2873	10.47	-17.09	0.01
35	SLU 79	-430	5	2870	-0.11	-19.44	0
35	SLU 80	-374	-1	2873	10.47	-17.09	0.01
35	SLU 81	-476	5	3020	-0.01	-21.44	0
35	SLU 82	-420	-1	3023	10.57	-19.08	0.01
35	SLU 83	-476	5	3020	-0.01	-21.44	0
35	SLU 84	-420	-1	3023	10.57	-19.08	0.01
35	SLE RA 1	-237	3	1895	-0.29	-10.85	0
35	SLE RA 2	-175	-4	1899	11.46	-8.23	0.01



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
35	SLE RA 3	-237	3	1895	-0.29	-10.85	0
35	SLE RA 4	-200	-1	1897	6.76	-9.28	0
35	SLE RA 5	-175	-4	1899	11.46	-8.23	0.01
35	SLE RA 6	-237	3	1895	-0.29	-10.85	0
35	SLE RA 7	-200	-1	1897	6.76	-9.28	0
35	SLE RA 8	-237	3	1895	-0.29	-10.85	0
35	SLE RA 9	-200	-1	1897	6.76	-9.28	0
35	SLE RA 10	-246	-3	2132	11.62	-11.33	0.01
35	SLE RA 11	-308	3	2128	-0.14	-13.95	0
35	SLE RA 12	-271	-1	2130	6.92	-12.38	0
35	SLE RA 13	-246	-3	2132	11.62	-11.33	0.01
35	SLE RA 14	-308	3	2128	-0.14	-13.95	0
35	SLE RA 15	-271	-1	2130	6.92	-12.38	0
35	SLE RA 16	-308	3	2128	-0.14	-13.95	0
35	SLE RA 17	-271	-1	2130	6.92	-12.38	0
35	SLE RA 18	-338	4	2227	-0.07	-15.28	0
35	SLE RA 19	-301	0	2230	6.99	-13.71	0
35	SLE RA 20	-338	4	2227	-0.07	-15.28	0
35	SLE RA 21	-301	0	2230	6.99	-13.71	0
35	SLE FR 1	-237	3	1895	-0.29	-10.85	0
35	SLE FR 2	-225	2	1895	2.06	-10.32	0
35	SLE FR 3	-237	3	1895	-0.29	-10.85	0
35	SLE FR 4	-255	2	1995	2.13	-11.65	0
35	SLE FR 5	-268	3	1994	-0.23	-12.18	0
35	SLE FR 6	-288	3	2061	-0.18	-13.06	0
35	SLE QP 1	-237	3	1895	-0.29	-10.85	0
35	SLE QP 2	-268	3	1994	-0.23	-12.18	0
35	SLD 1	-129	24	1890	-19.19	-6.19	0
35	SLD 2	-129	24	1890	-19.19	-6.19	0
35	SLD 3	-56	12	1810	-1.78	-3.02	0.01
35	SLD 4	-56	12	1810	-1.78	-3.02	0.01
35	SLD 5	-335	29	2085	-32.32	-15.18	-0.01
35	SLD 6	-335	29	2085	-32.32	-15.18	-0.01
35	SLD 7	-95	-13	1817	25.71	-4.63	0.01
35	SLD 8	-95	-13	1817	25.71	-4.63	0.01
35	SLD 9	-440	20	2172	-26.17	-19.73	-0.01
35	SLD 10	-440	20	2172	-26.17	-19.73	-0.01
35	SLD 11	-200	-22	1904	31.87	-9.17	0.01
35	SLD 12	-200	-22	1904	31.87	-9.17	0.01
35	SLD 13	-479	-5	2179	1.33	-21.33	-0.01
35	SLD 14	-479	-5	2179	1.33	-21.33	-0.01
35	SLD 15	-406	-18	2099	18.74	-18.17	0
35	SLD 16	-406	-18	2099	18.74	-18.17	0
35	SLV 1	53	56	1744	-48.53	1.6	0.01
35	SLV 2	53	56	1744	-48.53	1.6	0.01
35	SLV 3	241	25	1548	-3.8	9.86	0.02
35	SLV 4	241	25	1548	-3.8	9.86	0.02
35	SLV 5	-458	67	2217	-82.56	-20.57	-0.02
35	SLV 6	-458	67	2217	-82.56	-20.57	-0.02
35	SLV 7	171	-38	1563	66.54	6.96	0.03
35	SLV 8	171	-38	1563	66.54	6.96	0.03
35	SLV 9	-706	45	2426	-67	-31.31	-0.03
35	SLV 10	-706	45	2426	-67	-31.31	-0.03
35	SLV 11	-78	-61	1772	82.11	-3.78	0.02
35	SLV 12	-78	-61	1772	82.11	-3.78	0.02
35	SLV 13	-776	-19	2441	3.35	-34.21	-0.02
35	SLV 14	-776	-19	2441	3.35	-34.21	-0.02
35	SLV 15	-588	-50	2245	48.08	-25.95	0
35	SLV 16	-588	-50	2245	48.08	-25.95	0
36	SLU 1	-235	2	1957	-0.5	-10.29	0
36	SLU 2	-139	-3	1910	10.99	-5.85	0
36	SLU 3	-235	2	1957	-0.5	-10.29	0
36	SLU 4	-177	-1	1929	6.4	-7.63	0
36	SLU 5	-139	-3	1910	10.99	-5.85	0
36	SLU 6	-235	2	1957	-0.5	-10.29	0
36	SLU 7	-177	-1	1929	6.4	-7.63	0
36	SLU 8	-235	2	1957	-0.5	-10.29	0
36	SLU 9	-177	-1	1929	6.4	-7.63	0
36	SLU 10	-241	-2	2275	11.1	-10.16	0
36	SLU 11	-338	3	2322	-0.4	-14.6	-0.01
36	SLU 12	-280	0	2294	6.5	-11.93	0
36	SLU 13	-241	-2	2275	11.1	-10.16	0
36	SLU 14	-338	3	2322	-0.4	-14.6	-0.01
36	SLU 15	-280	0	2294	6.5	-11.93	0
36	SLU 16	-338	3	2322	-0.4	-14.6	-0.01
36	SLU 17	-280	0	2294	6.5	-11.93	0
36	SLU 18	-382	3	2478	-0.35	-16.44	-0.01
36	SLU 19	-324	0	2450	6.55	-13.78	0
36	SLU 20	-382	3	2478	-0.35	-16.44	-0.01
36	SLU 21	-324	0	2450	6.55	-13.78	0
36	SLU 22	-290	2	2165	-0.45	-12.57	-0.01
36	SLU 23	-193	-2	2119	11.04	-8.14	0
36	SLU 24	-290	2	2165	-0.45	-12.57	-0.01
36	SLU 25	-232	0	2137	6.45	-9.91	0
36	SLU 26	-193	-2	2119	11.04	-8.14	0
36	SLU 27	-290	2	2165	-0.45	-12.57	-0.01
36	SLU 28	-232	0	2137	6.45	-9.91	0
36	SLU 29	-290	2	2165	-0.45	-12.57	-0.01
36	SLU 30	-232	0	2137	6.45	-9.91	0
36	SLU 31	-296	-2	2484	11.15	-12.44	0



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
36	SLU 32	-393	3	2530	-0.34	-16.88	-0.01
36	SLU 33	-335	0	2502	6.55	-14.22	0
36	SLU 34	-296	-2	2484	11.15	-12.44	0
36	SLU 35	-393	3	2530	-0.34	-16.88	-0.01
36	SLU 36	-335	0	2502	6.55	-14.22	0
36	SLU 37	-393	3	2530	-0.34	-16.88	-0.01
36	SLU 38	-335	0	2502	6.55	-14.22	0
36	SLU 39	-437	3	2687	-0.3	-18.73	-0.01
36	SLU 40	-379	0	2659	6.6	-16.07	0
36	SLU 41	-437	3	2687	-0.3	-18.73	-0.01
36	SLU 42	-379	0	2659	6.6	-16.07	0
36	SLU 43	-287	3	2472	-0.67	-12.59	-0.01
36	SLU 44	-190	-2	2426	10.83	-8.15	0
36	SLU 45	-287	3	2472	-0.67	-12.59	-0.01
36	SLU 46	-229	0	2444	6.23	-9.93	0
36	SLU 47	-190	-2	2426	10.83	-8.15	0
36	SLU 48	-287	3	2472	-0.67	-12.59	-0.01
36	SLU 49	-229	0	2444	6.23	-9.93	0
36	SLU 50	-287	3	2472	-0.67	-12.59	-0.01
36	SLU 51	-229	0	2444	6.23	-9.93	0
36	SLU 52	-293	-1	2791	10.93	-12.46	0
36	SLU 53	-390	3	2837	-0.56	-16.9	-0.01
36	SLU 54	-332	1	2810	6.33	-14.24	0
36	SLU 55	-293	-1	2791	10.93	-12.46	0
36	SLU 56	-390	3	2837	-0.56	-16.9	-0.01
36	SLU 57	-332	1	2810	6.33	-14.24	0
36	SLU 58	-390	3	2837	-0.56	-16.9	-0.01
36	SLU 59	-332	1	2810	6.33	-14.24	0
36	SLU 60	-434	4	2994	-0.52	-18.74	-0.01
36	SLU 61	-376	1	2966	6.38	-16.08	0
36	SLU 62	-434	4	2994	-0.52	-18.74	-0.01
36	SLU 63	-376	1	2966	6.38	-16.08	0
36	SLU 64	-341	3	2681	-0.62	-14.88	-0.01
36	SLU 65	-245	-2	2634	10.88	-10.44	0
36	SLU 66	-341	3	2681	-0.62	-14.88	-0.01
36	SLU 67	-284	0	2653	6.28	-12.22	0
36	SLU 68	-245	-2	2634	10.88	-10.44	0
36	SLU 69	-341	3	2681	-0.62	-14.88	-0.01
36	SLU 70	-284	0	2653	6.28	-12.22	0
36	SLU 71	-341	3	2681	-0.62	-14.88	-0.01
36	SLU 72	-284	0	2653	6.28	-12.22	0
36	SLU 73	-348	-1	2999	10.98	-14.75	0
36	SLU 74	-444	4	3046	-0.51	-19.18	-0.01
36	SLU 75	-386	1	3018	6.38	-16.52	0
36	SLU 76	-348	-1	2999	10.98	-14.75	0
36	SLU 77	-444	4	3046	-0.51	-19.18	-0.01
36	SLU 78	-386	1	3018	6.38	-16.52	0
36	SLU 79	-444	4	3046	-0.51	-19.18	-0.01
36	SLU 80	-386	1	3018	6.38	-16.52	0
36	SLU 81	-488	4	3202	-0.47	-21.03	-0.01
36	SLU 82	-431	1	3174	6.43	-18.37	0
36	SLU 83	-488	4	3202	-0.47	-21.03	-0.01
36	SLU 84	-431	1	3174	6.43	-18.37	0
36	SLE RA 1	-251	2	2016	-0.49	-10.94	0
36	SLE RA 2	-186	-1	1985	7.18	-7.98	0
36	SLE RA 3	-251	2	2016	-0.49	-10.94	0
36	SLE RA 4	-212	0	1998	4.11	-9.17	0
36	SLE RA 5	-186	-1	1985	7.18	-7.98	0
36	SLE RA 6	-251	2	2016	-0.49	-10.94	0
36	SLE RA 7	-212	0	1998	4.11	-9.17	0
36	SLE RA 8	-251	2	2016	-0.49	-10.94	0
36	SLE RA 9	-212	0	1998	4.11	-9.17	0
36	SLE RA 10	-255	0	2229	7.25	-10.86	0
36	SLE RA 11	-319	3	2260	-0.42	-13.81	-0.01
36	SLE RA 12	-281	1	2241	4.18	-12.04	0
36	SLE RA 13	-255	0	2229	7.25	-10.86	0
36	SLE RA 14	-319	3	2260	-0.42	-13.81	-0.01
36	SLE RA 15	-281	1	2241	4.18	-12.04	0
36	SLE RA 16	-319	3	2260	-0.42	-13.81	-0.01
36	SLE RA 17	-281	1	2241	4.18	-12.04	0
36	SLE RA 18	-349	3	2364	-0.39	-15.04	-0.01
36	SLE RA 19	-310	1	2345	4.21	-13.27	0
36	SLE RA 20	-349	3	2364	-0.39	-15.04	-0.01
36	SLE RA 21	-310	1	2345	4.21	-13.27	0
36	SLE FR 1	-251	2	2016	-0.49	-10.94	0
36	SLE FR 2	-238	2	2010	1.05	-10.35	0
36	SLE FR 3	-251	2	2016	-0.49	-10.94	0
36	SLE FR 4	-267	2	2114	1.08	-11.58	0
36	SLE FR 5	-280	2	2121	-0.46	-12.17	-0.01
36	SLE FR 6	-300	3	2190	-0.44	-12.99	-0.01
36	SLE QP 1	-251	2	2016	-0.49	-10.94	0
36	SLE QP 2	-280	2	2121	-0.46	-12.17	-0.01
36	SLD 1	-155	20	1998	-14.63	-6.89	-0.02
36	SLD 2	-155	20	1998	-14.63	-6.89	-0.02
36	SLD 3	-84	14	1907	-3.56	-3.63	-0.01
36	SLD 4	-84	14	1907	-3.56	-3.63	-0.01
36	SLD 5	-350	17	2223	-21.49	-15.53	-0.02
36	SLD 6	-350	17	2223	-21.49	-15.53	-0.02
36	SLD 7	-114	-4	1918	15.4	-4.67	0.01
36	SLD 8	-114	-4	1918	15.4	-4.67	0.01



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
36	SLD 9	-446	8	2323	-16.31	-19.68	-0.02
36	SLD 10	-446	8	2323	-16.31	-19.68	-0.02
36	SLD 11	-210	-13	2018	20.58	-8.82	0.01
36	SLD 12	-210	-13	2018	20.58	-8.82	0.01
36	SLD 13	-476	-9	2334	2.65	-20.72	0
36	SLD 14	-476	-9	2334	2.65	-20.72	0
36	SLD 15	-405	-16	2243	13.71	-17.46	0.01
36	SLD 16	-405	-16	2243	13.71	-17.46	0.01
36	SLV 1	8	48	1836	-36.55	-0.07	-0.04
36	SLV 2	8	48	1836	-36.55	-0.07	-0.04
36	SLV 3	192	32	1616	-8.1	8.46	-0.01
36	SLV 4	192	32	1616	-8.1	8.46	-0.01
36	SLV 5	-473	40	2368	-54.43	-21.48	-0.05
36	SLV 6	-473	40	2368	-54.43	-21.48	-0.05
36	SLV 7	141	-13	1636	40.4	6.95	0.03
36	SLV 8	141	-13	1636	40.4	6.95	0.03
36	SLV 9	-701	17	2605	-41.31	-31.3	-0.04
36	SLV 10	-701	17	2605	-41.31	-31.3	-0.04
36	SLV 11	-87	-35	1873	53.52	-2.87	0.04
36	SLV 12	-87	-35	1873	53.52	-2.87	0.04
36	SLV 13	-752	-27	2625	7.18	-32.81	0
36	SLV 14	-752	-27	2625	7.18	-32.81	0
36	SLV 15	-568	-43	2405	35.63	-24.28	0.03
36	SLV 16	-568	-43	2405	35.63	-24.28	0.03
37	SLU 1	-294	4	2231	-1.01	-15.04	0.01
37	SLU 2	-196	3	2095	4.49	-10.54	0.01
37	SLU 3	-294	4	2231	-1.01	-15.04	0.01
37	SLU 4	-235	3	2149	2.29	-12.34	0.01
37	SLU 5	-196	3	2095	4.49	-10.54	0.01
37	SLU 6	-294	4	2231	-1.01	-15.04	0.01
37	SLU 7	-235	3	2149	2.29	-12.34	0.01
37	SLU 8	-294	4	2231	-1.01	-15.04	0.01
37	SLU 9	-235	3	2149	2.29	-12.34	0.01
37	SLU 10	-309	3	2513	4.44	-15.81	0.01
37	SLU 11	-406	4	2650	-1.06	-20.31	0.01
37	SLU 12	-348	4	2568	2.24	-17.61	0.01
37	SLU 13	-309	3	2513	4.44	-15.81	0.01
37	SLU 14	-406	4	2650	-1.06	-20.31	0.01
37	SLU 15	-348	4	2568	2.24	-17.61	0.01
37	SLU 16	-406	4	2650	-1.06	-20.31	0.01
37	SLU 17	-348	4	2568	2.24	-17.61	0.01
37	SLU 18	-455	5	2829	-1.09	-22.57	0.01
37	SLU 19	-396	4	2747	2.22	-19.87	0.01
37	SLU 20	-455	5	2829	-1.09	-22.57	0.01
37	SLU 21	-396	4	2747	2.22	-19.87	0.01
37	SLU 22	-355	4	2467	-1.05	-17.9	0.01
37	SLU 23	-257	3	2331	4.45	-13.4	0.01
37	SLU 24	-355	4	2467	-1.05	-17.9	0.01
37	SLU 25	-296	3	2386	2.25	-15.2	0.01
37	SLU 26	-257	3	2331	4.45	-13.4	0.01
37	SLU 27	-355	4	2467	-1.05	-17.9	0.01
37	SLU 28	-296	3	2386	2.25	-15.2	0.01
37	SLU 29	-355	4	2467	-1.05	-17.9	0.01
37	SLU 30	-296	3	2386	2.25	-15.2	0.01
37	SLU 31	-369	4	2749	4.4	-18.67	0.01
37	SLU 32	-467	5	2886	-1.1	-23.17	0.01
37	SLU 33	-409	4	2804	2.2	-20.47	0.01
37	SLU 34	-369	4	2749	4.4	-18.67	0.01
37	SLU 35	-467	5	2886	-1.1	-23.17	0.01
37	SLU 36	-409	4	2804	2.2	-20.47	0.01
37	SLU 37	-467	5	2886	-1.1	-23.17	0.01
37	SLU 38	-409	4	2804	2.2	-20.47	0.01
37	SLU 39	-516	5	3065	-1.13	-25.43	0.01
37	SLU 40	-457	4	2983	2.18	-22.73	0.01
37	SLU 41	-516	5	3065	-1.13	-25.43	0.01
37	SLU 42	-457	4	2983	2.18	-22.73	0.01
37	SLU 43	-361	5	2820	-1.3	-18.57	0.01
37	SLU 44	-264	4	2683	4.2	-14.07	0.01
37	SLU 45	-361	5	2820	-1.3	-18.57	0.01
37	SLU 46	-303	4	2738	2	-15.87	0.01
37	SLU 47	-264	4	2683	4.2	-14.07	0.01
37	SLU 48	-361	5	2820	-1.3	-18.57	0.01
37	SLU 49	-303	4	2738	2	-15.87	0.01
37	SLU 50	-361	5	2820	-1.3	-18.57	0.01
37	SLU 51	-303	4	2738	2	-15.87	0.01
37	SLU 52	-376	4	3102	4.15	-19.34	0.01
37	SLU 53	-474	5	3238	-1.35	-23.84	0.02
37	SLU 54	-415	5	3156	1.95	-21.14	0.01
37	SLU 55	-376	4	3102	4.15	-19.34	0.01
37	SLU 56	-474	5	3238	-1.35	-23.84	0.02
37	SLU 57	-415	5	3156	1.95	-21.14	0.01
37	SLU 58	-474	5	3238	-1.35	-23.84	0.02
37	SLU 59	-415	5	3156	1.95	-21.14	0.01
37	SLU 60	-522	6	3417	-1.37	-26.1	0.02
37	SLU 61	-463	5	3335	1.93	-23.4	0.01
37	SLU 62	-522	6	3417	-1.37	-26.1	0.02
37	SLU 63	-463	5	3335	1.93	-23.4	0.01
37	SLU 64	-422	5	3056	-1.34	-21.43	0.02
37	SLU 65	-324	4	2919	4.16	-16.93	0.01
37	SLU 66	-422	5	3056	-1.34	-21.43	0.02



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
37	SLU 67	-364	4	2974	1.96	-18.73	0.01
37	SLU 68	-324	4	2919	4.16	-16.93	0.01
37	SLU 69	-422	5	3056	-1.34	-21.43	0.02
37	SLU 70	-364	4	2974	1.96	-18.73	0.01
37	SLU 71	-422	5	3056	-1.34	-21.43	0.02
37	SLU 72	-364	4	2974	1.96	-18.73	0.01
37	SLU 73	-437	5	3338	4.11	-22.2	0.01
37	SLU 74	-535	6	3474	-1.39	-26.7	0.02
37	SLU 75	-476	5	3392	1.91	-24	0.01
37	SLU 76	-437	5	3338	4.11	-22.2	0.01
37	SLU 77	-535	6	3474	-1.39	-26.7	0.02
37	SLU 78	-476	5	3392	1.91	-24	0.01
37	SLU 79	-535	6	3474	-1.39	-26.7	0.02
37	SLU 80	-476	5	3392	1.91	-24	0.01
37	SLU 81	-583	6	3653	-1.41	-28.96	0.02
37	SLU 82	-524	5	3571	1.89	-26.26	0.01
37	SLU 83	-583	6	3653	-1.41	-28.96	0.02
37	SLU 84	-524	5	3571	1.89	-26.26	0.01
37	SLE RA 1	-312	4	2299	-1.02	-15.85	0.01
37	SLE RA 2	-246	3	2208	2.65	-12.86	0.01
37	SLE RA 3	-312	4	2299	-1.02	-15.85	0.01
37	SLE RA 4	-272	3	2244	1.18	-14.06	0.01
37	SLE RA 5	-246	3	2208	2.65	-12.86	0.01
37	SLE RA 6	-312	4	2299	-1.02	-15.85	0.01
37	SLE RA 7	-272	3	2244	1.18	-14.06	0.01
37	SLE RA 8	-312	4	2299	-1.02	-15.85	0.01
37	SLE RA 9	-272	3	2244	1.18	-14.06	0.01
37	SLE RA 10	-321	4	2487	2.61	-16.37	0.01
37	SLE RA 11	-386	4	2578	-1.06	-19.37	0.01
37	SLE RA 12	-347	4	2523	1.14	-17.57	0.01
37	SLE RA 13	-321	4	2487	2.61	-16.37	0.01
37	SLE RA 14	-386	4	2578	-1.06	-19.37	0.01
37	SLE RA 15	-347	4	2523	1.14	-17.57	0.01
37	SLE RA 16	-386	4	2578	-1.06	-19.37	0.01
37	SLE RA 17	-347	4	2523	1.14	-17.57	0.01
37	SLE RA 18	-419	4	2697	-1.07	-20.87	0.01
37	SLE RA 19	-379	4	2643	1.13	-19.08	0.01
37	SLE RA 20	-419	4	2697	-1.07	-20.87	0.01
37	SLE RA 21	-379	4	2643	1.13	-19.08	0.01
37	SLE FR 1	-312	4	2299	-1.02	-15.85	0.01
37	SLE FR 2	-298	4	2281	-0.29	-15.25	0.01
37	SLE FR 3	-312	4	2299	-1.02	-15.85	0.01
37	SLE FR 4	-331	4	2400	-0.3	-16.76	0.01
37	SLE FR 5	-344	4	2418	-1.04	-17.36	0.01
37	SLE FR 6	-365	4	2498	-1.05	-18.36	0.01
37	SLE QP 1	-312	4	2299	-1.02	-15.85	0.01
37	SLE QP 2	-344	4	2418	-1.04	-17.36	0.01
37	SLD 1	-234	16	2249	-8.83	-12.27	0
37	SLD 2	-234	16	2249	-8.83	-12.27	0
37	SLD 3	-161	14	2051	-3.67	-8.92	0
37	SLD 4	-161	14	2051	-3.67	-8.92	0
37	SLD 5	-422	11	2667	-11.21	-20.9	0.02
37	SLD 6	-422	11	2667	-11.21	-20.9	0.02
37	SLD 7	-178	3	2009	6.01	-9.76	0
37	SLD 8	-178	3	2009	6.01	-9.76	0
37	SLD 9	-510	5	2828	-8.09	-24.96	0.03
37	SLD 10	-510	5	2828	-8.09	-24.96	0.03
37	SLD 11	-265	-3	2169	9.14	-13.82	0
37	SLD 12	-265	-3	2169	9.14	-13.82	0
37	SLD 13	-526	-6	2785	1.59	-25.8	0.03
37	SLD 14	-526	-6	2785	1.59	-25.8	0.03
37	SLD 15	-453	-8	2587	6.76	-22.45	0.02
37	SLD 16	-453	-8	2587	6.76	-22.45	0.02
37	SLV 1	-93	35	2034	-20.87	-5.74	-0.01
37	SLV 2	-93	35	2034	-20.87	-5.74	-0.01
37	SLV 3	97	29	1548	-7.57	2.99	-0.02
37	SLV 4	97	29	1548	-7.57	2.99	-0.02
37	SLV 5	-557	22	3040	-27.16	-27.12	0.03
37	SLV 6	-557	22	3040	-27.16	-27.12	0.03
37	SLV 7	77	3	1420	17.18	1.99	-0.02
37	SLV 8	77	3	1420	17.18	1.99	-0.02
37	SLV 9	-764	5	3417	-19.25	-36.71	0.05
37	SLV 10	-764	5	3417	-19.25	-36.71	0.05
37	SLV 11	-130	-14	1796	25.08	-7.6	-0.01
37	SLV 12	-130	-14	1796	25.08	-7.6	-0.01
37	SLV 13	-784	-21	3289	5.5	-37.71	0.05
37	SLV 14	-784	-21	3289	5.5	-37.71	0.05
37	SLV 15	-594	-27	2803	18.8	-28.98	0.03
37	SLV 16	-594	-27	2803	18.8	-28.98	0.03
38	SLU 1	-376	423	2948	-13.05	-10.44	0
38	SLU 2	-296	446	2698	-13.72	-8.48	-0.03
38	SLU 3	-376	423	2948	-13.05	-10.44	0
38	SLU 4	-328	437	2798	-13.45	-9.26	-0.02
38	SLU 5	-296	446	2698	-13.72	-8.48	-0.03
38	SLU 6	-376	423	2948	-13.05	-10.44	0
38	SLU 7	-328	437	2798	-13.45	-9.26	-0.02
38	SLU 8	-376	423	2948	-13.05	-10.44	0
38	SLU 9	-328	437	2798	-13.45	-9.26	-0.02
38	SLU 10	-396	499	3252	-15.19	-11.64	-0.01
38	SLU 11	-475	477	3503	-14.51	-13.6	0.02



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
38	SLU 12	-427	490	3353	-14.92	-12.42	0
38	SLU 13	-396	499	3252	-15.19	-11.64	-0.01
38	SLU 14	-475	477	3503	-14.51	-13.6	0.02
38	SLU 15	-427	490	3353	-14.92	-12.42	0
38	SLU 16	-475	477	3503	-14.51	-13.6	0.02
38	SLU 17	-427	490	3353	-14.92	-12.42	0
38	SLU 18	-518	499	3741	-15.14	-14.95	0.03
38	SLU 19	-470	513	3590	-15.55	-13.78	0.01
38	SLU 20	-518	499	3741	-15.14	-14.95	0.03
38	SLU 21	-470	513	3590	-15.55	-13.78	0.01
38	SLU 22	-430	455	3259	-13.92	-12.16	0.01
38	SLU 23	-351	478	3009	-14.6	-10.2	-0.02
38	SLU 24	-430	455	3259	-13.92	-12.16	0.01
38	SLU 25	-383	469	3109	-14.33	-10.99	-0.01
38	SLU 26	-351	478	3009	-14.6	-10.2	-0.02
38	SLU 27	-430	455	3259	-13.92	-12.16	0.01
38	SLU 28	-383	469	3109	-14.33	-10.99	-0.01
38	SLU 29	-430	455	3259	-13.92	-12.16	0.01
38	SLU 30	-383	469	3109	-14.33	-10.99	-0.01
38	SLU 31	-450	531	3563	-16.07	-13.36	0.01
38	SLU 32	-530	508	3814	-15.39	-15.32	0.03
38	SLU 33	-482	522	3664	-15.79	-14.15	0.01
38	SLU 34	-450	531	3563	-16.07	-13.36	0.01
38	SLU 35	-530	508	3814	-15.39	-15.32	0.03
38	SLU 36	-482	522	3664	-15.79	-14.15	0.01
38	SLU 37	-530	508	3814	-15.39	-15.32	0.03
38	SLU 38	-482	522	3664	-15.79	-14.15	0.01
38	SLU 39	-572	531	4052	-16.02	-16.67	0.04
38	SLU 40	-525	544	3901	-16.42	-15.5	0.02
38	SLU 41	-572	531	4052	-16.02	-16.67	0.04
38	SLU 42	-525	544	3901	-16.42	-15.5	0.02
38	SLU 43	-470	540	3726	-16.66	-12.98	-0.01
38	SLU 44	-390	562	3476	-17.34	-11.02	-0.03
38	SLU 45	-470	540	3726	-16.66	-12.98	-0.01
38	SLU 46	-422	553	3576	-17.07	-11.8	-0.02
38	SLU 47	-390	562	3476	-17.34	-11.02	-0.03
38	SLU 48	-470	540	3726	-16.66	-12.98	-0.01
38	SLU 49	-422	553	3576	-17.07	-11.8	-0.02
38	SLU 50	-470	540	3726	-16.66	-12.98	-0.01
38	SLU 51	-422	553	3576	-17.07	-11.8	-0.02
38	SLU 52	-490	615	4030	-18.81	-14.18	-0.01
38	SLU 53	-569	593	4281	-18.13	-16.14	0.01
38	SLU 54	-521	606	4130	-18.53	-14.96	0
38	SLU 55	-490	615	4030	-18.81	-14.18	-0.01
38	SLU 56	-569	593	4281	-18.13	-16.14	0.01
38	SLU 57	-521	606	4130	-18.53	-14.96	0
38	SLU 58	-569	593	4281	-18.13	-16.14	0.01
38	SLU 59	-521	606	4130	-18.53	-14.96	0
38	SLU 60	-612	616	4518	-18.76	-17.49	0.02
38	SLU 61	-564	629	4368	-19.16	-16.32	0.01
38	SLU 62	-612	616	4518	-18.76	-17.49	0.02
38	SLU 63	-564	629	4368	-19.16	-16.32	0.01
38	SLU 64	-524	571	4037	-17.53	-14.7	0
38	SLU 65	-445	594	3787	-18.21	-12.74	-0.02
38	SLU 66	-524	571	4037	-17.53	-14.7	0
38	SLU 67	-477	585	3887	-17.94	-13.53	-0.01
38	SLU 68	-445	594	3787	-18.21	-12.74	-0.02
38	SLU 69	-524	571	4037	-17.53	-14.7	0
38	SLU 70	-477	585	3887	-17.94	-13.53	-0.01
38	SLU 71	-524	571	4037	-17.53	-14.7	0
38	SLU 72	-477	585	3887	-17.94	-13.53	-0.01
38	SLU 73	-544	647	4341	-19.68	-15.9	0
38	SLU 74	-624	624	4592	-19	-17.86	0.02
38	SLU 75	-576	638	4441	-19.41	-16.69	0.01
38	SLU 76	-544	647	4341	-19.68	-15.9	0
38	SLU 77	-624	624	4592	-19	-17.86	0.02
38	SLU 78	-576	638	4441	-19.41	-16.69	0.01
38	SLU 79	-624	624	4592	-19	-17.86	0.02
38	SLU 80	-576	638	4441	-19.41	-16.69	0.01
38	SLU 81	-666	647	4829	-19.63	-19.21	0.03
38	SLU 82	-619	661	4679	-20.04	-18.04	0.02
38	SLU 83	-666	647	4829	-19.63	-19.21	0.03
38	SLU 84	-619	661	4679	-20.04	-18.04	0.02
38	SLE RA 1	-391	432	3037	-13.3	-10.93	0
38	SLE RA 2	-338	448	2870	-13.75	-9.63	-0.01
38	SLE RA 3	-391	432	3037	-13.3	-10.93	0
38	SLE RA 4	-360	442	2937	-13.57	-10.15	-0.01
38	SLE RA 5	-338	448	2870	-13.75	-9.63	-0.01
38	SLE RA 6	-391	432	3037	-13.3	-10.93	0
38	SLE RA 7	-360	442	2937	-13.57	-10.15	-0.01
38	SLE RA 8	-391	432	3037	-13.3	-10.93	0
38	SLE RA 9	-360	442	2937	-13.57	-10.15	-0.01
38	SLE RA 10	-405	483	3240	-14.73	-11.73	0
38	SLE RA 11	-458	468	3407	-14.27	-13.03	0.01
38	SLE RA 12	-426	477	3307	-14.55	-12.25	0.01
38	SLE RA 13	-405	483	3240	-14.73	-11.73	0
38	SLE RA 14	-458	468	3407	-14.27	-13.03	0.01
38	SLE RA 15	-426	477	3307	-14.55	-12.25	0.01
38	SLE RA 16	-458	468	3407	-14.27	-13.03	0.01
38	SLE RA 17	-426	477	3307	-14.55	-12.25	0.01



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
38	SLE RA 18	-486	483	3565	-14.69	-13.94	0.02
38	SLE RA 19	-454	492	3465	-14.96	-13.16	0.01
38	SLE RA 20	-486	483	3565	-14.69	-13.94	0.02
38	SLE RA 21	-454	492	3465	-14.96	-13.16	0.01
38	SLE FR 1	-391	432	3037	-13.3	-10.93	0
38	SLE FR 2	-381	436	3004	-13.39	-10.67	0
38	SLE FR 3	-391	432	3037	-13.3	-10.93	0
38	SLE FR 4	-409	451	3162	-13.81	-11.57	0
38	SLE FR 5	-420	448	3196	-13.72	-11.83	0.01
38	SLE FR 6	-439	458	3301	-13.99	-12.43	0.01
38	SLE QP 1	-391	432	3037	-13.3	-10.93	0
38	SLE QP 2	-420	448	3196	-13.72	-11.83	0.01
38	SLD 1	-349	453	2929	-14.21	-8.6	-0.05
38	SLD 2	-349	453	2929	-14.21	-8.6	-0.05
38	SLD 3	-288	369	2568	-10.97	-7.2	-0.01
38	SLD 4	-288	369	2568	-10.97	-7.2	-0.01
38	SLD 5	-490	576	3663	-18.77	-12.99	-0.06
38	SLD 6	-490	576	3663	-18.77	-12.99	-0.06
38	SLD 7	-289	297	2460	-7.98	-8.32	0.05
38	SLD 8	-289	297	2460	-7.98	-8.32	0.05
38	SLD 9	-551	599	3931	-19.45	-15.35	-0.04
38	SLD 10	-551	599	3931	-19.45	-15.35	-0.04
38	SLD 11	-349	319	2728	-8.66	-10.67	0.08
38	SLD 12	-349	319	2728	-8.66	-10.67	0.08
38	SLD 13	-551	526	3823	-16.46	-16.46	0.03
38	SLD 14	-551	526	3823	-16.46	-16.46	0.03
38	SLD 15	-491	442	3462	-13.22	-15.06	0.06
38	SLD 16	-491	442	3462	-13.22	-15.06	0.06
38	SLV 1	-261	461	2594	-14.87	-4.35	-0.12
38	SLV 2	-261	461	2594	-14.87	-4.35	-0.12
38	SLV 3	-103	261	1702	-7.18	-0.68	-0.04
38	SLV 4	-103	261	1702	-7.18	-0.68	-0.04
38	SLV 5	-611	754	4368	-25.73	-15.14	-0.16
38	SLV 6	-611	754	4368	-25.73	-15.14	-0.16
38	SLV 7	-86	89	1395	-0.09	-2.93	0.12
38	SLV 8	-86	89	1395	-0.09	-2.93	0.12
38	SLV 9	-754	806	4996	-27.34	-20.73	-0.11
38	SLV 10	-754	806	4996	-27.34	-20.73	-0.11
38	SLV 11	-228	141	2023	-1.7	-8.52	0.17
38	SLV 12	-228	141	2023	-1.7	-8.52	0.17
38	SLV 13	-737	634	4690	-20.25	-22.98	0.05
38	SLV 14	-737	634	4690	-20.25	-22.98	0.05
38	SLV 15	-579	434	3798	-12.56	-19.32	0.14
38	SLV 16	-579	434	3798	-12.56	-19.32	0.14
39	SLU 1	0	133	1820	-2.46	-0.63	0.01
39	SLU 2	5	155	1636	-0.49	2.35	-0.01
39	SLU 3	0	133	1820	-2.46	-0.63	0.01
39	SLU 4	3	147	1709	-1.28	1.16	0
39	SLU 5	5	155	1636	-0.49	2.35	-0.01
39	SLU 6	0	133	1820	-2.46	-0.63	0.01
39	SLU 7	3	147	1709	-1.28	1.16	0
39	SLU 8	0	133	1820	-2.46	-0.63	0.01
39	SLU 9	3	147	1709	-1.28	1.16	0
39	SLU 10	5	151	1920	0.48	2.2	0
39	SLU 11	0	129	2105	-1.49	-0.78	0.01
39	SLU 12	3	142	1994	-0.31	1.01	0
39	SLU 13	5	151	1920	0.48	2.2	0
39	SLU 14	0	129	2105	-1.49	-0.78	0.01
39	SLU 15	3	142	1994	-0.31	1.01	0
39	SLU 16	0	129	2105	-1.49	-0.78	0.01
39	SLU 17	3	142	1994	-0.31	1.01	0
39	SLU 18	0	127	2227	-1.07	-0.85	0.01
39	SLU 19	3	141	2116	0.11	0.94	0
39	SLU 20	0	127	2227	-1.07	-0.85	0.01
39	SLU 21	3	141	2116	0.11	0.94	0
39	SLU 22	0	134	1954	-2.08	-0.72	0.01
39	SLU 23	5	156	1770	-0.11	2.26	-0.01
39	SLU 24	0	134	1954	-2.08	-0.72	0.01
39	SLU 25	3	147	1843	-0.9	1.07	0
39	SLU 26	5	156	1770	-0.11	2.26	-0.01
39	SLU 27	0	134	1954	-2.08	-0.72	0.01
39	SLU 28	3	147	1843	-0.9	1.07	0
39	SLU 29	0	134	1954	-2.08	-0.72	0.01
39	SLU 30	3	147	1843	-0.9	1.07	0
39	SLU 31	5	152	2054	0.86	2.11	0
39	SLU 32	0	130	2239	-1.11	-0.87	0.01
39	SLU 33	3	143	2128	0.07	0.92	0
39	SLU 34	5	152	2054	0.86	2.11	0
39	SLU 35	0	130	2239	-1.11	-0.87	0.01
39	SLU 36	3	143	2128	0.07	0.92	0
39	SLU 37	0	130	2239	-1.11	-0.87	0.01
39	SLU 38	3	143	2128	0.07	0.92	0
39	SLU 39	0	128	2361	-0.69	-0.94	0.01
39	SLU 40	3	141	2250	0.49	0.85	0
39	SLU 41	0	128	2361	-0.69	-0.94	0.01
39	SLU 42	3	141	2250	0.49	0.85	0
39	SLU 43	0	173	2320	-3.33	-0.78	0.01
39	SLU 44	5	195	2136	-1.36	2.19	0
39	SLU 45	0	173	2320	-3.33	-0.78	0.01
39	SLU 46	3	186	2210	-2.15	1	0





Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
39	SLU 47	5	195	2136	-1.36	2.19	0
39	SLU 48	0	173	2320	-3.33	-0.78	0.01
39	SLU 49	3	186	2210	-2.15	1	0
39	SLU 50	0	173	2320	-3.33	-0.78	0.01
39	SLU 51	3	186	2210	-2.15	1	0
39	SLU 52	5	191	2420	-0.39	2.04	0
39	SLU 53	0	169	2605	-2.36	-0.94	0.01
39	SLU 54	3	182	2494	-1.18	0.85	0
39	SLU 55	5	191	2420	-0.39	2.04	0
39	SLU 56	0	169	2605	-2.36	-0.94	0.01
39	SLU 57	3	182	2494	-1.18	0.85	0
39	SLU 58	0	169	2605	-2.36	-0.94	0.01
39	SLU 59	3	182	2494	-1.18	0.85	0
39	SLU 60	0	167	2727	-1.94	-1.01	0.01
39	SLU 61	3	181	2616	-0.76	0.78	0
39	SLU 62	0	167	2727	-1.94	-1.01	0.01
39	SLU 63	3	181	2616	-0.76	0.78	0
39	SLU 64	0	174	2454	-2.95	-0.87	0.01
39	SLU 65	5	196	2270	-0.98	2.1	0
39	SLU 66	0	174	2454	-2.95	-0.87	0.01
39	SLU 67	3	187	2344	-1.77	0.91	0
39	SLU 68	5	196	2270	-0.98	2.1	0
39	SLU 69	0	174	2454	-2.95	-0.87	0.01
39	SLU 70	3	187	2344	-1.77	0.91	0
39	SLU 71	0	174	2454	-2.95	-0.87	0.01
39	SLU 72	3	187	2344	-1.77	0.91	0
39	SLU 73	5	192	2554	-0.01	1.95	0
39	SLU 74	0	169	2739	-1.98	-1.03	0.01
39	SLU 75	3	183	2628	-0.8	0.76	0
39	SLU 76	5	192	2554	-0.01	1.95	0
39	SLU 77	0	169	2739	-1.98	-1.03	0.01
39	SLU 78	3	183	2628	-0.8	0.76	0
39	SLU 79	0	169	2739	-1.98	-1.03	0.01
39	SLU 80	3	183	2628	-0.8	0.76	0
39	SLU 81	0	168	2861	-1.56	-1.1	0.01
39	SLU 82	3	181	2750	-0.38	0.69	0
39	SLU 83	0	168	2861	-1.56	-1.1	0.01
39	SLU 84	3	181	2750	-0.38	0.69	0
39	SLE RA 1	0	133	1859	-2.35	-0.65	0.01
39	SLE RA 2	3	148	1735	-1.04	1.33	0
39	SLE RA 3	0	133	1859	-2.35	-0.65	0.01
39	SLE RA 4	2	142	1785	-1.56	0.54	0
39	SLE RA 5	3	148	1735	-1.04	1.33	0
39	SLE RA 6	0	133	1859	-2.35	-0.65	0.01
39	SLE RA 7	2	142	1785	-1.56	0.54	0
39	SLE RA 8	0	133	1859	-2.35	-0.65	0.01
39	SLE RA 9	2	142	1785	-1.56	0.54	0
39	SLE RA 10	3	145	1925	-0.39	1.23	0
39	SLE RA 11	0	131	2048	-1.71	-0.76	0.01
39	SLE RA 12	2	140	1974	-0.92	0.44	0
39	SLE RA 13	3	145	1925	-0.39	1.23	0
39	SLE RA 14	0	131	2048	-1.71	-0.76	0.01
39	SLE RA 15	2	140	1974	-0.92	0.44	0
39	SLE RA 16	0	131	2048	-1.71	-0.76	0.01
39	SLE RA 17	2	140	1974	-0.92	0.44	0
39	SLE RA 18	0	130	2130	-1.43	-0.8	0.01
39	SLE RA 19	2	138	2056	-0.64	0.39	0
39	SLE RA 20	0	130	2130	-1.43	-0.8	0.01
39	SLE RA 21	2	138	2056	-0.64	0.39	0
39	SLE FR 1	0	133	1859	-2.35	-0.65	0.01
39	SLE FR 2	1	136	1834	-2.09	-0.26	0.01
39	SLE FR 3	0	133	1859	-2.35	-0.65	0.01
39	SLE FR 4	1	135	1915	-1.81	-0.3	0.01
39	SLE FR 5	0	132	1940	-2.07	-0.7	0.01
39	SLE FR 6	0	131	1994	-1.89	-0.73	0.01
39	SLE QP 1	0	133	1859	-2.35	-0.65	0.01
39	SLE QP 2	0	132	1940	-2.07	-0.7	0.01
39	SLD 1	2	148	2336	-2.41	2.57	0.01
39	SLD 2	2	148	2336	-2.41	2.57	0.01
39	SLD 3	8	32	2137	2.68	5.29	0
39	SLD 4	8	32	2137	2.68	5.29	0
39	SLD 5	-9	313	2360	-9.9	-3.83	0.02
39	SLD 6	-9	313	2360	-9.9	-3.83	0.02
39	SLD 7	11	-73	1698	7.08	5.22	-0.01
39	SLD 8	11	-73	1698	7.08	5.22	-0.01
39	SLD 9	-11	338	2182	-11.23	-6.61	0.03
39	SLD 10	-11	338	2182	-11.23	-6.61	0.03
39	SLD 11	9	-48	1520	5.75	2.44	-0.01
39	SLD 12	9	-48	1520	5.75	2.44	-0.01
39	SLD 13	-8	233	1743	-6.83	-6.68	0.02
39	SLD 14	-8	233	1743	-6.83	-6.68	0.02
39	SLD 15	-2	117	1544	-1.74	-3.97	0.01
39	SLD 16	-2	117	1544	-1.74	-3.97	0.01
39	SLV 1	3	167	2880	-2.73	6.75	0.01
39	SLV 2	3	167	2880	-2.73	6.75	0.01
39	SLV 3	18	-107	2389	9.38	13.6	-0.02
39	SLV 4	18	-107	2389	9.38	13.6	-0.02
39	SLV 5	-21	560	2966	-20.65	-8.85	0.05
39	SLV 6	-21	560	2966	-20.65	-8.85	0.05
39	SLV 7	28	-356	1330	19.74	13.98	-0.04



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
Ind.	N.br.						
39	SLV 8	28	-356	1330	19.74	13.98	-0.04
39	SLV 9	-28	621	2550	-23.89	-15.38	0.06
39	SLV 10	-28	621	2550	-23.89	-15.38	0.06
39	SLV 11	21	-295	913	16.5	7.46	-0.03
39	SLV 12	21	-295	913	16.5	7.46	-0.03
39	SLV 13	-18	372	1491	-13.53	-15	0.04
39	SLV 14	-18	372	1491	-13.53	-15	0.04
39	SLV 15	-3	97	1000	-1.42	-8.14	0.01
39	SLV 16	-3	97	1000	-1.42	-8.14	0.01
40	SLU 1	1	123	1155	-1.79	-0.32	0
40	SLU 2	2	88	1131	1.26	-0.29	0
40	SLU 3	1	123	1155	-1.79	-0.32	0
40	SLU 4	1	102	1140	0.04	-0.3	0
40	SLU 5	2	88	1131	1.26	-0.29	0
40	SLU 6	1	123	1155	-1.79	-0.32	0
40	SLU 7	1	102	1140	0.04	-0.3	0
40	SLU 8	1	123	1155	-1.79	-0.32	0
40	SLU 9	1	102	1140	0.04	-0.3	0
40	SLU 10	2	104	1375	1.72	-0.39	0
40	SLU 11	2	140	1399	-1.33	-0.42	0
40	SLU 12	2	119	1384	0.5	-0.4	0
40	SLU 13	2	104	1375	1.72	-0.39	0
40	SLU 14	2	140	1399	-1.33	-0.42	0
40	SLU 15	2	119	1384	0.5	-0.4	0
40	SLU 16	2	140	1399	-1.33	-0.42	0
40	SLU 17	2	119	1384	0.5	-0.4	0
40	SLU 18	2	147	1503	-1.14	-0.46	0
40	SLU 19	2	126	1489	0.69	-0.45	0
40	SLU 20	2	147	1503	-1.14	-0.46	0
40	SLU 21	2	126	1489	0.69	-0.45	0
40	SLU 22	1	132	1278	-1.6	-0.36	0
40	SLU 23	2	96	1253	1.45	-0.33	0
40	SLU 24	1	132	1278	-1.6	-0.36	0
40	SLU 25	2	110	1263	0.23	-0.35	0
40	SLU 26	2	96	1253	1.45	-0.33	0
40	SLU 27	1	132	1278	-1.6	-0.36	0
40	SLU 28	2	110	1263	0.23	-0.35	0
40	SLU 29	1	132	1278	-1.6	-0.36	0
40	SLU 30	2	110	1263	0.23	-0.35	0
40	SLU 31	2	113	1497	1.9	-0.44	0
40	SLU 32	2	149	1522	-1.14	-0.46	0
40	SLU 33	2	127	1507	0.68	-0.45	0
40	SLU 34	2	113	1497	1.9	-0.44	0
40	SLU 35	2	149	1522	-1.14	-0.46	0
40	SLU 36	2	127	1507	0.68	-0.45	0
40	SLU 37	2	149	1522	-1.14	-0.46	0
40	SLU 38	2	127	1507	0.68	-0.45	0
40	SLU 39	2	156	1626	-0.95	-0.51	0
40	SLU 40	2	135	1612	0.88	-0.49	0
40	SLU 41	2	156	1626	-0.95	-0.51	0
40	SLU 42	2	135	1612	0.88	-0.49	0
40	SLU 43	2	157	1459	-2.39	-0.4	0
40	SLU 44	2	122	1435	0.66	-0.37	0
40	SLU 45	2	157	1459	-2.39	-0.4	0
40	SLU 46	2	136	1445	-0.56	-0.38	0
40	SLU 47	2	122	1435	0.66	-0.37	0
40	SLU 48	2	157	1459	-2.39	-0.4	0
40	SLU 49	2	136	1445	-0.56	-0.38	0
40	SLU 50	2	157	1459	-2.39	-0.4	0
40	SLU 51	2	136	1445	-0.56	-0.38	0
40	SLU 52	2	138	1679	1.12	-0.47	0
40	SLU 53	2	174	1703	-1.93	-0.5	0
40	SLU 54	2	153	1689	-0.1	-0.48	0
40	SLU 55	2	138	1679	1.12	-0.47	0
40	SLU 56	2	174	1703	-1.93	-0.5	0
40	SLU 57	2	153	1689	-0.1	-0.48	0
40	SLU 58	2	174	1703	-1.93	-0.5	0
40	SLU 59	2	153	1689	-0.1	-0.48	0
40	SLU 60	2	181	1808	-1.74	-0.54	0
40	SLU 61	2	160	1793	0.09	-0.52	0
40	SLU 62	2	181	1808	-1.74	-0.54	0
40	SLU 63	2	160	1793	0.09	-0.52	0
40	SLU 64	2	166	1582	-2.2	-0.44	0
40	SLU 65	2	130	1558	0.85	-0.41	0
40	SLU 66	2	166	1582	-2.2	-0.44	0
40	SLU 67	2	144	1568	-0.37	-0.42	0
40	SLU 68	2	130	1558	0.85	-0.41	0
40	SLU 69	2	166	1582	-2.2	-0.44	0
40	SLU 70	2	144	1568	-0.37	-0.42	0
40	SLU 71	2	166	1582	-2.2	-0.44	0
40	SLU 72	2	144	1568	-0.37	-0.42	0
40	SLU 73	3	147	1802	1.3	-0.52	0
40	SLU 74	2	183	1826	-1.74	-0.54	0
40	SLU 75	2	161	1812	0.08	-0.53	0
40	SLU 76	3	147	1802	1.3	-0.52	0
40	SLU 77	2	183	1826	-1.74	-0.54	0
40	SLU 78	2	161	1812	0.08	-0.53	0
40	SLU 79	2	183	1826	-1.74	-0.54	0
40	SLU 80	2	161	1812	0.08	-0.53	0
40	SLU 81	2	190	1931	-1.55	-0.59	0



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
40	SLU 82	3	169	1916	0.28	-0.57	0
40	SLU 83	2	190	1931	-1.55	-0.59	0
40	SLU 84	3	169	1916	0.28	-0.57	0
40	SLE RA 1	1	126	1190	-1.73	-0.33	0
40	SLE RA 2	2	102	1174	0.3	-0.31	0
40	SLE RA 3	1	126	1190	-1.73	-0.33	0
40	SLE RA 4	1	111	1180	-0.52	-0.32	0
40	SLE RA 5	2	102	1174	0.3	-0.31	0
40	SLE RA 6	1	126	1190	-1.73	-0.33	0
40	SLE RA 7	1	111	1180	-0.52	-0.32	0
40	SLE RA 8	1	126	1190	-1.73	-0.33	0
40	SLE RA 9	1	111	1180	-0.52	-0.32	0
40	SLE RA 10	2	113	1336	0.6	-0.38	0
40	SLE RA 11	2	137	1353	-1.43	-0.4	0
40	SLE RA 12	2	123	1343	-0.21	-0.39	0
40	SLE RA 13	2	113	1336	0.6	-0.38	0
40	SLE RA 14	2	137	1353	-1.43	-0.4	0
40	SLE RA 15	2	123	1343	-0.21	-0.39	0
40	SLE RA 16	2	137	1353	-1.43	-0.4	0
40	SLE RA 17	2	123	1343	-0.21	-0.39	0
40	SLE RA 18	2	142	1422	-1.3	-0.43	0
40	SLE RA 19	2	128	1413	-0.08	-0.42	0
40	SLE RA 20	2	142	1422	-1.3	-0.43	0
40	SLE RA 21	2	128	1413	-0.08	-0.42	0
40	SLE FR 1	1	126	1190	-1.73	-0.33	0
40	SLE FR 2	1	121	1187	-1.33	-0.33	0
40	SLE FR 3	1	126	1190	-1.73	-0.33	0
40	SLE FR 4	1	126	1257	-1.2	-0.35	0
40	SLE FR 5	1	130	1260	-1.6	-0.36	0
40	SLE FR 6	2	134	1306	-1.52	-0.38	0
40	SLE QP 1	1	126	1190	-1.73	-0.33	0
40	SLE QP 2	1	130	1260	-1.6	-0.36	0
40	SLD 1	-2	128	1264	-1.47	0.52	0.01
40	SLD 2	-2	128	1264	-1.47	0.52	0.01
40	SLD 3	-1	39	1178	2.48	1.34	0
40	SLD 4	-1	39	1178	2.48	1.34	0
40	SLD 5	-2	264	1392	-7.55	-1.35	0.01
40	SLD 6	-2	264	1392	-7.55	-1.35	0.01
40	SLD 7	3	-31	1105	5.6	1.4	0
40	SLD 8	3	-31	1105	5.6	1.4	0
40	SLD 9	0	292	1415	-8.81	-2.12	0
40	SLD 10	0	292	1415	-8.81	-2.12	0
40	SLD 11	5	-3	1128	4.34	0.63	0
40	SLD 12	5	-3	1128	4.34	0.63	0
40	SLD 13	3	222	1342	-5.69	-2.06	0
40	SLD 14	3	222	1342	-5.69	-2.06	0
40	SLD 15	5	133	1256	-1.74	-1.23	0
40	SLD 16	5	133	1256	-1.74	-1.23	0
40	SLV 1	-7	122	1269	-1.19	1.66	0.01
40	SLV 2	-7	122	1269	-1.19	1.66	0.01
40	SLV 3	-3	-90	1059	8.34	3.76	0.01
40	SLV 4	-3	-90	1059	8.34	3.76	0.01
40	SLV 5	-7	449	1581	-15.94	-2.93	0.01
40	SLV 6	-7	449	1581	-15.94	-2.93	0.01
40	SLV 7	6	-257	881	15.84	4.05	-0.01
40	SLV 8	6	-257	881	15.84	4.05	-0.01
40	SLV 9	-3	518	1639	-19.05	-4.77	0.01
40	SLV 10	-3	518	1639	-19.05	-4.77	0.01
40	SLV 11	10	-188	939	12.73	2.21	-0.01
40	SLV 12	10	-188	939	12.73	2.21	-0.01
40	SLV 13	6	351	1461	-11.55	-4.47	-0.01
40	SLV 14	6	351	1461	-11.55	-4.47	-0.01
40	SLV 15	10	139	1251	-2.02	-2.38	-0.01
40	SLV 16	10	139	1251	-2.02	-2.38	-0.01
41	SLU 1	-3	318	2455	-12.76	-1.42	-0.01
41	SLU 2	-11	356	2331	-12.38	-6.86	-0.01
41	SLU 3	-3	318	2455	-12.76	-1.42	-0.01
41	SLU 4	-8	341	2380	-12.53	-4.68	-0.01
41	SLU 5	-11	356	2331	-12.38	-6.86	-0.01
41	SLU 6	-3	318	2455	-12.76	-1.42	-0.01
41	SLU 7	-8	341	2380	-12.53	-4.68	-0.01
41	SLU 8	-3	318	2455	-12.76	-1.42	-0.01
41	SLU 9	-8	341	2380	-12.53	-4.68	-0.01
41	SLU 10	-12	360	2757	-12.58	-7.33	-0.01
41	SLU 11	-4	322	2882	-12.96	-1.89	-0.02
41	SLU 12	-9	345	2807	-12.73	-5.15	-0.01
41	SLU 13	-12	360	2757	-12.58	-7.33	-0.01
41	SLU 14	-4	322	2882	-12.96	-1.89	-0.02
41	SLU 15	-9	345	2807	-12.73	-5.15	-0.01
41	SLU 16	-4	322	2882	-12.96	-1.89	-0.02
41	SLU 17	-9	345	2807	-12.73	-5.15	-0.01
41	SLU 18	-4	323	3064	-13.04	-2.09	-0.02
41	SLU 19	-9	346	2990	-12.82	-5.35	-0.01
41	SLU 20	-4	323	3064	-13.04	-2.09	-0.02
41	SLU 21	-9	346	2990	-12.82	-5.35	-0.01
41	SLU 22	-3	326	2691	-13.16	-1.66	-0.02
41	SLU 23	-12	364	2567	-12.79	-7.09	-0.01
41	SLU 24	-3	326	2691	-13.16	-1.66	-0.02
41	SLU 25	-8	349	2617	-12.94	-4.92	-0.01
41	SLU 26	-12	364	2567	-12.79	-7.09	-0.01



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
41	SLU 27	-3	326	2691	-13.16	-1.66	-0.02
41	SLU 28	-8	349	2617	-12.94	-4.92	-0.01
41	SLU 29	-3	326	2691	-13.16	-1.66	-0.02
41	SLU 30	-8	349	2617	-12.94	-4.92	-0.01
41	SLU 31	-13	368	2994	-12.99	-7.56	-0.01
41	SLU 32	-4	329	3118	-13.36	-2.13	-0.02
41	SLU 33	-9	352	3043	-13.14	-5.39	-0.01
41	SLU 34	-13	368	2994	-12.99	-7.56	-0.01
41	SLU 35	-4	329	3118	-13.36	-2.13	-0.02
41	SLU 36	-9	352	3043	-13.14	-5.39	-0.01
41	SLU 37	-4	329	3118	-13.36	-2.13	-0.02
41	SLU 38	-9	352	3043	-13.14	-5.39	-0.01
41	SLU 39	-5	331	3301	-13.45	-2.33	-0.02
41	SLU 40	-10	354	3226	-13.22	-5.59	-0.01
41	SLU 41	-5	331	3301	-13.45	-2.33	-0.02
41	SLU 42	-10	354	3226	-13.22	-5.59	-0.01
41	SLU 43	-4	411	3110	-16.44	-1.76	-0.02
41	SLU 44	-12	449	2986	-16.07	-7.2	-0.01
41	SLU 45	-4	411	3110	-16.44	-1.76	-0.02
41	SLU 46	-8	434	3036	-16.22	-5.03	-0.01
41	SLU 47	-12	449	2986	-16.07	-7.2	-0.01
41	SLU 48	-4	411	3110	-16.44	-1.76	-0.02
41	SLU 49	-8	434	3036	-16.22	-5.03	-0.01
41	SLU 50	-4	411	3110	-16.44	-1.76	-0.02
41	SLU 51	-8	434	3036	-16.22	-5.03	-0.01
41	SLU 52	-13	453	3413	-16.27	-7.67	-0.01
41	SLU 53	-4	415	3537	-16.65	-2.23	-0.02
41	SLU 54	-9	438	3462	-16.42	-5.5	-0.02
41	SLU 55	-13	453	3413	-16.27	-7.67	-0.01
41	SLU 56	-4	415	3537	-16.65	-2.23	-0.02
41	SLU 57	-9	438	3462	-16.42	-5.5	-0.02
41	SLU 58	-4	415	3537	-16.65	-2.23	-0.02
41	SLU 59	-9	438	3462	-16.42	-5.5	-0.02
41	SLU 60	-5	416	3720	-16.73	-2.44	-0.02
41	SLU 61	-10	439	3645	-16.51	-5.7	-0.02
41	SLU 62	-5	416	3720	-16.73	-2.44	-0.02
41	SLU 63	-10	439	3645	-16.51	-5.7	-0.02
41	SLU 64	-4	418	3347	-16.85	-2	-0.02
41	SLU 65	-12	457	3223	-16.47	-7.44	-0.01
41	SLU 66	-4	418	3347	-16.85	-2	-0.02
41	SLU 67	-9	441	3272	-16.62	-5.26	-0.01
41	SLU 68	-12	457	3223	-16.47	-7.44	-0.01
41	SLU 69	-4	418	3347	-16.85	-2	-0.02
41	SLU 70	-9	441	3272	-16.62	-5.26	-0.01
41	SLU 71	-4	418	3347	-16.85	-2	-0.02
41	SLU 72	-9	441	3272	-16.62	-5.26	-0.01
41	SLU 73	-13	460	3649	-16.68	-7.91	-0.01
41	SLU 74	-5	422	3773	-17.05	-2.47	-0.02
41	SLU 75	-10	445	3699	-16.83	-5.73	-0.02
41	SLU 76	-13	460	3649	-16.68	-7.91	-0.01
41	SLU 77	-5	422	3773	-17.05	-2.47	-0.02
41	SLU 78	-10	445	3699	-16.83	-5.73	-0.02
41	SLU 79	-5	422	3773	-17.05	-2.47	-0.02
41	SLU 80	-10	445	3699	-16.83	-5.73	-0.02
41	SLU 81	-5	424	3956	-17.14	-2.67	-0.02
41	SLU 82	-10	447	3882	-16.91	-5.93	-0.02
41	SLU 83	-5	424	3956	-17.14	-2.67	-0.02
41	SLU 84	-10	447	3882	-16.91	-5.93	-0.02
41	SLE RA 1	-3	320	2523	-12.87	-1.49	-0.01
41	SLE RA 2	-8	346	2440	-12.62	-5.11	-0.01
41	SLE RA 3	-3	320	2523	-12.87	-1.49	-0.01
41	SLE RA 4	-6	336	2473	-12.72	-3.66	-0.01
41	SLE RA 5	-8	346	2440	-12.62	-5.11	-0.01
41	SLE RA 6	-3	320	2523	-12.87	-1.49	-0.01
41	SLE RA 7	-6	336	2473	-12.72	-3.66	-0.01
41	SLE RA 8	-3	320	2523	-12.87	-1.49	-0.01
41	SLE RA 9	-6	336	2473	-12.72	-3.66	-0.01
41	SLE RA 10	-9	348	2724	-12.76	-5.42	-0.01
41	SLE RA 11	-4	323	2807	-13.01	-1.8	-0.02
41	SLE RA 12	-7	338	2757	-12.86	-3.98	-0.01
41	SLE RA 13	-9	348	2724	-12.76	-5.42	-0.01
41	SLE RA 14	-4	323	2807	-13.01	-1.8	-0.02
41	SLE RA 15	-7	338	2757	-12.86	-3.98	-0.01
41	SLE RA 16	-4	323	2807	-13.01	-1.8	-0.02
41	SLE RA 17	-7	338	2757	-12.86	-3.98	-0.01
41	SLE RA 18	-4	324	2929	-13.06	-1.93	-0.02
41	SLE RA 19	-7	339	2879	-12.91	-4.11	-0.01
41	SLE RA 20	-4	324	2929	-13.06	-1.93	-0.02
41	SLE RA 21	-7	339	2879	-12.91	-4.11	-0.01
41	SLE FR 1	-3	320	2523	-12.87	-1.49	-0.01
41	SLE FR 2	-4	325	2506	-12.82	-2.21	-0.01
41	SLE FR 3	-3	320	2523	-12.87	-1.49	-0.01
41	SLE FR 4	-4	326	2628	-12.88	-2.35	-0.01
41	SLE FR 5	-3	321	2644	-12.93	-1.62	-0.01
41	SLE FR 6	-3	322	2726	-12.97	-1.71	-0.02
41	SLE QP 1	-3	320	2523	-12.87	-1.49	-0.01
41	SLE QP 2	-3	321	2644	-12.93	-1.62	-0.01
41	SLD 1	6	354	2435	-14.95	7.63	-0.01
41	SLD 2	6	354	2435	-14.95	7.63	-0.01
41	SLD 3	-4	221	2199	-9.12	2.87	-0.01



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
41	SLD 4	-4	221	2199	-9.12	2.87	-0.01
41	SLD 5	13	533	2940	-22.39	8.38	-0.02
41	SLD 6	13	533	2940	-22.39	8.38	-0.02
41	SLD 7	-17	89	2152	-2.94	-7.5	0
41	SLD 8	-17	89	2152	-2.94	-7.5	0
41	SLD 9	11	553	3136	-22.92	4.25	-0.03
41	SLD 10	11	553	3136	-22.92	4.25	-0.03
41	SLD 11	-20	110	2349	-3.47	-11.62	-0.01
41	SLD 12	-20	110	2349	-3.47	-11.62	-0.01
41	SLD 13	-3	421	3090	-16.74	-6.11	-0.02
41	SLD 14	-3	421	3090	-16.74	-6.11	-0.02
41	SLD 15	-12	288	2854	-10.91	-10.88	-0.02
41	SLD 16	-12	288	2854	-10.91	-10.88	-0.02
41	SLV 1	19	399	2168	-17.7	21.78	-0.01
41	SLV 2	19	399	2168	-17.7	21.78	-0.01
41	SLV 3	-5	82	1585	-3.89	9.44	0.01
41	SLV 4	-5	82	1585	-3.89	9.44	0.01
41	SLV 5	39	825	3386	-35.31	24.1	-0.03
41	SLV 6	39	825	3386	-35.31	24.1	-0.03
41	SLV 7	-39	-231	1442	10.73	-17.01	0.01
41	SLV 8	-39	-231	1442	10.73	-17.01	0.01
41	SLV 9	32	874	3847	-36.59	13.76	-0.04
41	SLV 10	32	874	3847	-36.59	13.76	-0.04
41	SLV 11	-45	-182	1903	9.45	-27.35	0
41	SLV 12	-45	-182	1903	9.45	-27.35	0
41	SLV 13	-2	561	3704	-21.97	-12.69	-0.04
41	SLV 14	-2	561	3704	-21.97	-12.69	-0.04
41	SLV 15	-25	244	3121	-8.16	-25.02	-0.02
41	SLV 16	-25	244	3121	-8.16	-25.02	-0.02
42	SLU 1	-5	178	1642	-12.21	-2.47	0
42	SLU 2	4	221	1604	-15.32	2.99	0
42	SLU 3	-5	178	1642	-12.21	-2.47	0
42	SLU 4	0	204	1619	-14.08	0.8	0
42	SLU 5	4	221	1604	-15.32	2.99	0
42	SLU 6	-5	178	1642	-12.21	-2.47	0
42	SLU 7	0	204	1619	-14.08	0.8	0
42	SLU 8	-5	178	1642	-12.21	-2.47	0
42	SLU 9	0	204	1619	-14.08	0.8	0
42	SLU 10	3	237	1839	-17.27	2.4	0
42	SLU 11	-6	194	1877	-14.16	-3.06	0
42	SLU 12	-1	220	1855	-16.03	0.22	0
42	SLU 13	3	237	1839	-17.27	2.4	0
42	SLU 14	-6	194	1877	-14.16	-3.06	0
42	SLU 15	-1	220	1855	-16.03	0.22	0
42	SLU 16	-6	194	1877	-14.16	-3.06	0
42	SLU 17	-1	220	1855	-16.03	0.22	0
42	SLU 18	-6	200	1978	-15	-3.31	0
42	SLU 19	-1	226	1955	-16.86	-0.04	0
42	SLU 20	-6	200	1978	-15	-3.31	0
42	SLU 21	-1	226	1955	-16.86	-0.04	0
42	SLU 22	-5	188	1754	-13.23	-2.78	0
42	SLU 23	3	231	1716	-16.34	2.69	0
42	SLU 24	-5	188	1754	-13.23	-2.78	0
42	SLU 25	0	214	1731	-15.1	0.5	0
42	SLU 26	3	231	1716	-16.34	2.69	0
42	SLU 27	-5	188	1754	-13.23	-2.78	0
42	SLU 28	0	214	1731	-15.1	0.5	0
42	SLU 29	-5	188	1754	-13.23	-2.78	0
42	SLU 30	0	214	1731	-15.1	0.5	0
42	SLU 31	2	247	1951	-18.29	2.1	0
42	SLU 32	-6	203	1989	-15.18	-3.36	0
42	SLU 33	-1	229	1966	-17.05	-0.09	0
42	SLU 34	2	247	1951	-18.29	2.1	0
42	SLU 35	-6	203	1989	-15.18	-3.36	0
42	SLU 36	-1	229	1966	-17.05	-0.09	0
42	SLU 37	-6	203	1989	-15.18	-3.36	0
42	SLU 38	-1	229	1966	-17.05	-0.09	0
42	SLU 39	-7	210	2090	-16.02	-3.61	0
42	SLU 40	-2	236	2067	-17.88	-0.34	0
42	SLU 41	-7	210	2090	-16.02	-3.61	0
42	SLU 42	-2	236	2067	-17.88	-0.34	0
42	SLU 43	-6	228	2096	-15.53	-3.11	0
42	SLU 44	3	271	2058	-18.63	2.35	0
42	SLU 45	-6	228	2096	-15.53	-3.11	0
42	SLU 46	-1	254	2073	-17.39	0.17	0
42	SLU 47	3	271	2058	-18.63	2.35	0
42	SLU 48	-6	228	2096	-15.53	-3.11	0
42	SLU 49	-1	254	2073	-17.39	0.17	0
42	SLU 50	-6	228	2096	-15.53	-3.11	0
42	SLU 51	-1	254	2073	-17.39	0.17	0
42	SLU 52	2	287	2294	-20.58	1.76	0
42	SLU 53	-7	244	2331	-17.48	-3.7	0
42	SLU 54	-2	270	2309	-19.34	-0.42	0
42	SLU 55	2	287	2294	-20.58	1.76	0
42	SLU 56	-7	244	2331	-17.48	-3.7	0
42	SLU 57	-2	270	2309	-19.34	-0.42	0
42	SLU 58	-7	244	2331	-17.48	-3.7	0
42	SLU 59	-2	270	2309	-19.34	-0.42	0
42	SLU 60	-7	250	2432	-18.31	-3.95	0
42	SLU 61	-2	276	2410	-20.18	-0.67	0



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
42	SLU 62	-7	250	2432	-18.31	-3.95	0
42	SLU 63	-2	276	2410	-20.18	-0.67	0
42	SLU 64	-6	238	2208	-16.55	-3.41	0
42	SLU 65	2	281	2170	-19.65	2.05	0
42	SLU 66	-6	238	2208	-16.55	-3.41	0
42	SLU 67	-1	264	2185	-18.41	-0.14	0
42	SLU 68	2	281	2170	-19.65	2.05	0
42	SLU 69	-6	238	2208	-16.55	-3.41	0
42	SLU 70	-1	264	2185	-18.41	-0.14	0
42	SLU 71	-6	238	2208	-16.55	-3.41	0
42	SLU 72	-1	264	2185	-18.41	-0.14	0
42	SLU 73	1	297	2405	-21.6	1.46	0
42	SLU 74	-7	253	2443	-18.5	-4	0
42	SLU 75	-2	279	2420	-20.36	-0.72	0
42	SLU 76	1	297	2405	-21.6	1.46	0
42	SLU 77	-7	253	2443	-18.5	-4	0
42	SLU 78	-2	279	2420	-20.36	-0.72	0
42	SLU 79	-7	253	2443	-18.5	-4	0
42	SLU 80	-2	279	2420	-20.36	-0.72	0
42	SLU 81	-8	260	2544	-19.33	-4.25	0
42	SLU 82	-3	286	2521	-21.2	-0.98	0
42	SLU 83	-8	260	2544	-19.33	-4.25	0
42	SLU 84	-3	286	2521	-21.2	-0.98	0
42	SLE RA 1	-5	181	1674	-12.51	-2.56	0
42	SLE RA 2	1	210	1648	-14.58	1.08	0
42	SLE RA 3	-5	181	1674	-12.51	-2.56	0
42	SLE RA 4	-1	198	1659	-13.75	-0.37	0
42	SLE RA 5	1	210	1648	-14.58	1.08	0
42	SLE RA 6	-5	181	1674	-12.51	-2.56	0
42	SLE RA 7	-1	198	1659	-13.75	-0.37	0
42	SLE RA 8	-5	181	1674	-12.51	-2.56	0
42	SLE RA 9	-1	198	1659	-13.75	-0.37	0
42	SLE RA 10	0	220	1805	-15.88	0.69	0
42	SLE RA 11	-6	191	1831	-13.81	-2.95	0
42	SLE RA 12	-2	209	1816	-15.05	-0.77	0
42	SLE RA 13	0	220	1805	-15.88	0.69	0
42	SLE RA 14	-6	191	1831	-13.81	-2.95	0
42	SLE RA 15	-2	209	1816	-15.05	-0.77	0
42	SLE RA 16	-6	191	1831	-13.81	-2.95	0
42	SLE RA 17	-2	209	1816	-15.05	-0.77	0
42	SLE RA 18	-6	196	1898	-14.36	-3.12	0
42	SLE RA 19	-2	213	1883	-15.6	-0.93	0
42	SLE RA 20	-6	196	1898	-14.36	-3.12	0
42	SLE RA 21	-2	213	1883	-15.6	-0.93	0
42	SLE FR 1	-5	181	1674	-12.51	-2.56	0
42	SLE FR 2	-4	187	1669	-12.92	-1.83	0
42	SLE FR 3	-5	181	1674	-12.51	-2.56	0
42	SLE FR 4	-4	191	1736	-13.48	-2	0
42	SLE FR 5	-5	185	1741	-13.06	-2.73	0
42	SLE FR 6	-5	188	1786	-13.43	-2.84	0
42	SLE QP 1	-5	181	1674	-12.51	-2.56	0
42	SLE QP 2	-5	185	1741	-13.06	-2.73	0
42	SLD 1	2	211	1998	-17.29	4.61	-0.02
42	SLD 2	2	211	1998	-17.29	4.61	-0.02
42	SLD 3	10	87	1904	-11.98	9.24	-0.02
42	SLD 4	10	87	1904	-11.98	9.24	-0.02
42	SLD 5	-16	381	1961	-22.38	-7.55	-0.01
42	SLD 6	-16	381	1961	-22.38	-7.55	-0.01
42	SLD 7	13	-32	1647	-4.69	7.89	0
42	SLD 8	13	-32	1647	-4.69	7.89	0
42	SLD 9	-23	403	1835	-21.43	-13.35	0
42	SLD 10	-23	403	1835	-21.43	-13.35	0
42	SLD 11	6	-10	1521	-3.75	2.1	0.01
42	SLD 12	6	-10	1521	-3.75	2.1	0.01
42	SLD 13	-21	284	1578	-14.14	-14.7	0.01
42	SLD 14	-21	284	1578	-14.14	-14.7	0.01
42	SLD 15	-12	160	1484	-8.84	-10.06	0.02
42	SLD 16	-12	160	1484	-8.84	-10.06	0.02
42	SLV 1	10	246	2344	-23.18	14.05	-0.05
42	SLV 2	10	246	2344	-23.18	14.05	-0.05
42	SLV 3	32	-48	2119	-10.5	25.81	-0.04
42	SLV 4	32	-48	2119	-10.5	25.81	-0.04
42	SLV 5	-33	649	2263	-35.32	-15.54	-0.03
42	SLV 6	-33	649	2263	-35.32	-15.54	-0.03
42	SLV 7	39	-330	1513	6.93	23.68	0
42	SLV 8	39	-330	1513	6.93	23.68	0
42	SLV 9	-49	701	1969	-33.06	-29.14	-0.01
42	SLV 10	-49	701	1969	-33.06	-29.14	-0.01
42	SLV 11	23	-279	1219	9.2	10.09	0.02
42	SLV 12	23	-279	1219	9.2	10.09	0.02
42	SLV 13	-42	419	1363	-15.62	-31.27	0.03
42	SLV 14	-42	419	1363	-15.62	-31.27	0.03
42	SLV 15	-21	125	1138	-2.95	-19.5	0.04
42	SLV 16	-21	125	1138	-2.95	-19.5	0.04
43	SLU 1	-1	144	1088	-9.97	-1.15	0
43	SLU 2	0	125	1111	-10.31	-1.22	0
43	SLU 3	-1	144	1088	-9.97	-1.15	0
43	SLU 4	-1	133	1102	-10.17	-1.19	0
43	SLU 5	0	125	1111	-10.31	-1.22	0
43	SLU 6	-1	144	1088	-9.97	-1.15	0



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
43	SLU 7	-1	133	1102	-10.17	-1.19	0
43	SLU 8	-1	144	1088	-9.97	-1.15	0
43	SLU 9	-1	133	1102	-10.17	-1.19	0
43	SLU 10	-1	158	1329	-13.11	-1.61	0.01
43	SLU 11	-1	177	1305	-12.76	-1.54	0
43	SLU 12	-1	166	1320	-12.97	-1.58	0.01
43	SLU 13	-1	158	1329	-13.11	-1.61	0.01
43	SLU 14	-1	177	1305	-12.76	-1.54	0
43	SLU 15	-1	166	1320	-12.97	-1.58	0.01
43	SLU 16	-1	177	1305	-12.76	-1.54	0
43	SLU 17	-1	166	1320	-12.97	-1.58	0.01
43	SLU 18	-1	191	1399	-13.96	-1.71	0.01
43	SLU 19	-1	180	1413	-14.17	-1.75	0.01
43	SLU 20	-1	191	1399	-13.96	-1.71	0.01
43	SLU 21	-1	180	1413	-14.17	-1.75	0.01
43	SLU 22	-1	160	1196	-11.32	-1.34	0
43	SLU 23	-1	141	1220	-11.67	-1.41	0
43	SLU 24	-1	160	1196	-11.32	-1.34	0
43	SLU 25	-1	149	1211	-11.53	-1.38	0
43	SLU 26	-1	141	1220	-11.67	-1.41	0
43	SLU 27	-1	160	1196	-11.32	-1.34	0
43	SLU 28	-1	149	1211	-11.53	-1.38	0
43	SLU 29	-1	160	1196	-11.32	-1.34	0
43	SLU 30	-1	149	1211	-11.53	-1.38	0
43	SLU 31	-1	174	1438	-14.46	-1.8	0.01
43	SLU 32	-1	193	1414	-14.12	-1.73	0.01
43	SLU 33	-1	182	1428	-14.33	-1.77	0.01
43	SLU 34	-1	174	1438	-14.46	-1.8	0.01
43	SLU 35	-1	193	1414	-14.12	-1.73	0.01
43	SLU 36	-1	182	1428	-14.33	-1.77	0.01
43	SLU 37	-1	193	1414	-14.12	-1.73	0.01
43	SLU 38	-1	182	1428	-14.33	-1.77	0.01
43	SLU 39	-1	208	1507	-15.32	-1.9	0.01
43	SLU 40	-1	196	1522	-15.52	-1.94	0.01
43	SLU 41	-1	208	1507	-15.32	-1.9	0.01
43	SLU 42	-1	196	1522	-15.52	-1.94	0.01
43	SLU 43	-1	182	1377	-12.49	-1.43	0
43	SLU 44	-1	163	1400	-12.84	-1.5	0
43	SLU 45	-1	182	1377	-12.49	-1.43	0
43	SLU 46	-1	170	1391	-12.7	-1.47	0
43	SLU 47	-1	163	1400	-12.84	-1.5	0
43	SLU 48	-1	182	1377	-12.49	-1.43	0
43	SLU 49	-1	170	1391	-12.7	-1.47	0
43	SLU 50	-1	182	1377	-12.49	-1.43	0
43	SLU 51	-1	170	1391	-12.7	-1.47	0
43	SLU 52	-1	196	1618	-15.63	-1.89	0.01
43	SLU 53	-1	215	1594	-15.28	-1.82	0.01
43	SLU 54	-1	203	1609	-15.49	-1.86	0.01
43	SLU 55	-1	196	1618	-15.63	-1.89	0.01
43	SLU 56	-1	215	1594	-15.28	-1.82	0.01
43	SLU 57	-1	203	1609	-15.49	-1.86	0.01
43	SLU 58	-1	215	1594	-15.28	-1.82	0.01
43	SLU 59	-1	203	1609	-15.49	-1.86	0.01
43	SLU 60	-1	229	1688	-16.48	-1.99	0.01
43	SLU 61	-1	218	1702	-16.69	-2.03	0.01
43	SLU 62	-1	229	1688	-16.48	-1.99	0.01
43	SLU 63	-1	218	1702	-16.69	-2.03	0.01
43	SLU 64	-1	198	1485	-13.85	-1.62	0.01
43	SLU 65	-1	179	1509	-14.19	-1.69	0.01
43	SLU 66	-1	198	1485	-13.85	-1.62	0.01
43	SLU 67	-1	187	1500	-14.06	-1.66	0.01
43	SLU 68	-1	179	1509	-14.19	-1.69	0.01
43	SLU 69	-1	198	1485	-13.85	-1.62	0.01
43	SLU 70	-1	187	1500	-14.06	-1.66	0.01
43	SLU 71	-1	198	1485	-13.85	-1.62	0.01
43	SLU 72	-1	187	1500	-14.06	-1.66	0.01
43	SLU 73	-1	212	1727	-16.99	-2.08	0.01
43	SLU 74	-1	231	1703	-16.64	-2.01	0.01
43	SLU 75	-1	220	1717	-16.85	-2.05	0.01
43	SLU 76	-1	212	1727	-16.99	-2.08	0.01
43	SLU 77	-1	231	1703	-16.64	-2.01	0.01
43	SLU 78	-1	220	1717	-16.85	-2.05	0.01
43	SLU 79	-1	231	1703	-16.64	-2.01	0.01
43	SLU 80	-1	220	1717	-16.85	-2.05	0.01
43	SLU 81	-1	245	1796	-17.84	-2.18	0.01
43	SLU 82	-1	234	1811	-18.05	-2.22	0.01
43	SLU 83	-1	245	1796	-17.84	-2.18	0.01
43	SLU 84	-1	234	1811	-18.05	-2.22	0.01
43	SLE RA 1	-1	149	1119	-10.35	-1.2	0
43	SLE RA 2	-1	136	1135	-10.58	-1.25	0
43	SLE RA 3	-1	149	1119	-10.35	-1.2	0
43	SLE RA 4	-1	141	1128	-10.49	-1.23	0
43	SLE RA 5	-1	136	1135	-10.58	-1.25	0
43	SLE RA 6	-1	149	1119	-10.35	-1.2	0
43	SLE RA 7	-1	141	1128	-10.49	-1.23	0
43	SLE RA 8	-1	149	1119	-10.35	-1.2	0
43	SLE RA 9	-1	141	1128	-10.49	-1.23	0
43	SLE RA 10	-1	158	1280	-12.45	-1.51	0
43	SLE RA 11	-1	171	1264	-12.22	-1.47	0
43	SLE RA 12	-1	163	1273	-12.36	-1.49	0



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
43	SLE RA 13	-1	158	1280	-12.45	-1.51	0
43	SLE RA 14	-1	171	1264	-12.22	-1.47	0
43	SLE RA 15	-1	163	1273	-12.36	-1.49	0
43	SLE RA 16	-1	171	1264	-12.22	-1.47	0
43	SLE RA 17	-1	163	1273	-12.36	-1.49	0
43	SLE RA 18	-1	180	1326	-13.02	-1.58	0
43	SLE RA 19	-1	173	1336	-13.15	-1.61	0.01
43	SLE RA 20	-1	180	1326	-13.02	-1.58	0
43	SLE RA 21	-1	173	1336	-13.15	-1.61	0.01
43	SLE FR 1	-1	149	1119	-10.35	-1.2	0
43	SLE FR 2	-1	146	1122	-10.4	-1.21	0
43	SLE FR 3	-1	149	1119	-10.35	-1.2	0
43	SLE FR 4	-1	156	1184	-11.2	-1.32	0
43	SLE FR 5	-1	158	1181	-11.15	-1.32	0
43	SLE FR 6	-1	165	1222	-11.68	-1.39	0
43	SLE QP 1	-1	149	1119	-10.35	-1.2	0
43	SLE QP 2	-1	158	1181	-11.15	-1.32	0
43	SLD 1	-5	163	1095	-11.61	3.13	-0.01
43	SLD 2	-5	163	1095	-11.61	3.13	-0.01
43	SLD 3	-2	71	1152	-7.76	1.64	-0.01
43	SLD 4	-2	71	1152	-7.76	1.64	-0.01
43	SLD 5	-6	300	1069	-17.14	2.26	0
43	SLD 6	-6	300	1069	-17.14	2.26	0
43	SLD 7	3	-8	1259	-4.28	-2.67	0
43	SLD 8	3	-8	1259	-4.28	-2.67	0
43	SLD 9	-4	324	1103	-18.02	0.04	0.01
43	SLD 10	-4	324	1103	-18.02	0.04	0.01
43	SLD 11	4	17	1293	-5.16	-4.89	0.01
43	SLD 12	4	17	1293	-5.16	-4.89	0.01
43	SLD 13	1	245	1210	-14.55	-4.27	0.02
43	SLD 14	1	245	1210	-14.55	-4.27	0.02
43	SLD 15	3	153	1267	-10.69	-5.76	0.02
43	SLD 16	3	153	1267	-10.69	-5.76	0.02
43	SLV 1	-10	168	976	-12.14	9.32	-0.03
43	SLV 2	-10	168	976	-12.14	9.32	-0.03
43	SLV 3	-4	-51	1114	-3.01	5.57	-0.02
43	SLV 4	-4	-51	1114	-3.01	5.57	-0.02
43	SLV 5	-13	494	910	-25.31	7.57	-0.01
43	SLV 6	-13	494	910	-25.31	7.57	-0.01
43	SLV 7	8	-237	1370	5.15	-4.95	0
43	SLV 8	8	-237	1370	5.15	-4.95	0
43	SLV 9	-9	554	992	-27.45	2.32	0.01
43	SLV 10	-9	554	992	-27.45	2.32	0.01
43	SLV 11	12	-177	1452	3	-10.2	0.02
43	SLV 12	12	-177	1452	3	-10.2	0.02
43	SLV 13	3	368	1248	-19.3	-8.2	0.03
43	SLV 14	3	368	1248	-19.3	-8.2	0.03
43	SLV 15	9	148	1386	-10.16	-11.95	0.03
43	SLV 16	9	148	1386	-10.16	-11.95	0.03
44	SLU 1	-1	279	2295	-13.88	-1.35	0.01
44	SLU 2	-14	318	2290	-16.18	-10.96	-0.01
44	SLU 3	-1	279	2295	-13.88	-1.35	0.01
44	SLU 4	-9	303	2292	-15.26	-7.11	0
44	SLU 5	-14	318	2290	-16.18	-10.96	-0.01
44	SLU 6	-1	279	2295	-13.88	-1.35	0.01
44	SLU 7	-9	303	2292	-15.26	-7.11	0
44	SLU 8	-1	279	2295	-13.88	-1.35	0.01
44	SLU 9	-9	303	2292	-15.26	-7.11	0
44	SLU 10	-15	321	2650	-16.97	-11.42	0
44	SLU 11	-2	282	2656	-14.67	-1.81	0.01
44	SLU 12	-10	305	2653	-16.05	-7.58	0
44	SLU 13	-15	321	2650	-16.97	-11.42	0
44	SLU 14	-2	282	2656	-14.67	-1.81	0.01
44	SLU 15	-10	305	2653	-16.05	-7.58	0
44	SLU 16	-2	282	2656	-14.67	-1.81	0.01
44	SLU 17	-10	305	2653	-16.05	-7.58	0
44	SLU 18	-2	283	2810	-15.01	-2.01	0.01
44	SLU 19	-10	306	2807	-16.39	-7.77	0
44	SLU 20	-2	283	2810	-15.01	-2.01	0.01
44	SLU 21	-10	306	2807	-16.39	-7.77	0
44	SLU 22	-1	286	2494	-14.48	-1.56	0.01
44	SLU 23	-14	325	2489	-16.79	-11.17	-0.01
44	SLU 24	-1	286	2494	-14.48	-1.56	0.01
44	SLU 25	-9	309	2491	-15.87	-7.32	0
44	SLU 26	-14	325	2489	-16.79	-11.17	-0.01
44	SLU 27	-1	286	2494	-14.48	-1.56	0.01
44	SLU 28	-9	309	2491	-15.87	-7.32	0
44	SLU 29	-1	286	2494	-14.48	-1.56	0.01
44	SLU 30	-9	309	2491	-15.87	-7.32	0
44	SLU 31	-15	327	2849	-17.58	-11.63	0
44	SLU 32	-2	288	2855	-15.27	-2.02	0.01
44	SLU 33	-10	312	2851	-16.66	-7.78	0
44	SLU 34	-15	327	2849	-17.58	-11.63	0
44	SLU 35	-2	288	2855	-15.27	-2.02	0.01
44	SLU 36	-10	312	2851	-16.66	-7.78	0
44	SLU 37	-2	288	2855	-15.27	-2.02	0.01
44	SLU 38	-10	312	2851	-16.66	-7.78	0
44	SLU 39	-2	289	3009	-15.61	-2.22	0.01
44	SLU 40	-10	313	3006	-17	-7.98	0
44	SLU 41	-2	289	3009	-15.61	-2.22	0.01





Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
44	SLU 42	-10	313	3006	-17	-7.98	0
44	SLU 43	-1	361	2916	-17.83	-1.68	0.01
44	SLU 44	-14	400	2910	-20.14	-11.29	0
44	SLU 45	-1	361	2916	-17.83	-1.68	0.01
44	SLU 46	-9	384	2912	-19.22	-7.45	0
44	SLU 47	-14	400	2910	-20.14	-11.29	0
44	SLU 48	-1	361	2916	-17.83	-1.68	0.01
44	SLU 49	-9	384	2912	-19.22	-7.45	0
44	SLU 50	-1	361	2916	-17.83	-1.68	0.01
44	SLU 51	-9	384	2912	-19.22	-7.45	0
44	SLU 52	-15	402	3271	-20.93	-11.75	0
44	SLU 53	-2	363	3276	-18.62	-2.15	0.01
44	SLU 54	-10	387	3273	-20.01	-7.91	0
44	SLU 55	-15	402	3271	-20.93	-11.75	0
44	SLU 56	-2	363	3276	-18.62	-2.15	0.01
44	SLU 57	-10	387	3273	-20.01	-7.91	0
44	SLU 58	-2	363	3276	-18.62	-2.15	0.01
44	SLU 59	-10	387	3273	-20.01	-7.91	0
44	SLU 60	-2	364	3431	-18.96	-2.34	0.01
44	SLU 61	-10	388	3427	-20.35	-8.11	0
44	SLU 62	-2	364	3431	-18.96	-2.34	0.01
44	SLU 63	-10	388	3427	-20.35	-8.11	0
44	SLU 64	-2	368	3114	-18.44	-1.89	0.01
44	SLU 65	-15	407	3109	-20.74	-11.5	0
44	SLU 66	-2	368	3114	-18.44	-1.89	0.01
44	SLU 67	-9	391	3111	-19.82	-7.66	0
44	SLU 68	-15	407	3109	-20.74	-11.5	0
44	SLU 69	-2	368	3114	-18.44	-1.89	0.01
44	SLU 70	-9	391	3111	-19.82	-7.66	0
44	SLU 71	-2	368	3114	-18.44	-1.89	0.01
44	SLU 72	-9	391	3111	-19.82	-7.66	0
44	SLU 73	-15	409	3470	-21.54	-11.96	0
44	SLU 74	-2	370	3475	-19.23	-2.35	0.01
44	SLU 75	-10	393	3472	-20.61	-8.12	0
44	SLU 76	-15	409	3470	-21.54	-11.96	0
44	SLU 77	-2	370	3475	-19.23	-2.35	0.01
44	SLU 78	-10	393	3472	-20.61	-8.12	0
44	SLU 79	-2	370	3475	-19.23	-2.35	0.01
44	SLU 80	-10	393	3472	-20.61	-8.12	0
44	SLU 81	-3	371	3629	-19.57	-2.55	0.01
44	SLU 82	-10	394	3626	-20.95	-8.32	0
44	SLU 83	-3	371	3629	-19.57	-2.55	0.01
44	SLU 84	-10	394	3626	-20.95	-8.32	0
44	SLE RA 1	-1	281	2352	-14.05	-1.41	0.01
44	SLE RA 2	-10	307	2348	-15.59	-7.81	0
44	SLE RA 3	-1	281	2352	-14.05	-1.41	0.01
44	SLE RA 4	-6	297	2350	-14.97	-5.25	0
44	SLE RA 5	-10	307	2348	-15.59	-7.81	0
44	SLE RA 6	-1	281	2352	-14.05	-1.41	0.01
44	SLE RA 7	-6	297	2350	-14.97	-5.25	0
44	SLE RA 8	-1	281	2352	-14.05	-1.41	0.01
44	SLE RA 9	-6	297	2350	-14.97	-5.25	0
44	SLE RA 10	-10	309	2589	-16.11	-8.12	0
44	SLE RA 11	-2	283	2592	-14.58	-1.72	0.01
44	SLE RA 12	-7	298	2590	-15.5	-5.56	0
44	SLE RA 13	-10	309	2589	-16.11	-8.12	0
44	SLE RA 14	-2	283	2592	-14.58	-1.72	0.01
44	SLE RA 15	-7	298	2590	-15.5	-5.56	0
44	SLE RA 16	-2	283	2592	-14.58	-1.72	0.01
44	SLE RA 17	-7	298	2590	-15.5	-5.56	0
44	SLE RA 18	-2	283	2695	-14.8	-1.85	0.01
44	SLE RA 19	-7	299	2693	-15.73	-5.69	0
44	SLE RA 20	-2	283	2695	-14.8	-1.85	0.01
44	SLE RA 21	-7	299	2693	-15.73	-5.69	0
44	SLE FR 1	-1	281	2352	-14.05	-1.41	0.01
44	SLE FR 2	-3	286	2351	-14.36	-2.69	0
44	SLE FR 3	-1	281	2352	-14.05	-1.41	0.01
44	SLE FR 4	-3	287	2454	-14.58	-2.82	0
44	SLE FR 5	-1	282	2455	-14.28	-1.54	0.01
44	SLE FR 6	-2	282	2524	-14.43	-1.63	0.01
44	SLE QP 1	-1	281	2352	-14.05	-1.41	0.01
44	SLE QP 2	-1	282	2455	-14.28	-1.54	0.01
44	SLD 1	17	318	2277	-15.77	17.26	0.01
44	SLD 2	17	318	2277	-15.77	17.26	0.01
44	SLD 3	4	176	2135	-9.65	9.13	-0.01
44	SLD 4	4	176	2135	-9.65	9.13	-0.01
44	SLD 5	23	508	2616	-24.01	16.43	0.03
44	SLD 6	23	508	2616	-24.01	16.43	0.03
44	SLD 7	-19	35	2144	-3.61	-10.67	-0.02
44	SLD 8	-19	35	2144	-3.61	-10.67	-0.02
44	SLD 9	16	529	2766	-24.94	7.59	0.03
44	SLD 10	16	529	2766	-24.94	7.59	0.03
44	SLD 11	-26	56	2294	-4.54	-19.51	-0.02
44	SLD 12	-26	56	2294	-4.54	-19.51	-0.02
44	SLD 13	-7	388	2775	-18.9	-12.21	0.02
44	SLD 14	-7	388	2775	-18.9	-12.21	0.02
44	SLD 15	-20	246	2633	-12.78	-20.34	0.01
44	SLD 16	-20	246	2633	-12.78	-20.34	0.01
44	SLV 1	45	365	2044	-17.7	45.93	0.01
44	SLV 2	45	365	2044	-17.7	45.93	0.01



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
44	SLV 3	12	27	1699	-3.08	24.79	-0.03
44	SLV 4	12	27	1699	-3.08	24.79	-0.03
44	SLV 5	62	819	2856	-37.47	44.76	0.06
44	SLV 6	62	819	2856	-37.47	44.76	0.06
44	SLV 7	-47	-307	1704	11.26	-25.7	-0.06
44	SLV 8	-47	-307	1704	11.26	-25.7	-0.06
44	SLV 9	44	871	3206	-39.81	22.62	0.08
44	SLV 10	44	871	3206	-39.81	22.62	0.08
44	SLV 11	-65	-255	2054	8.92	-47.84	-0.05
44	SLV 12	-65	-255	2054	8.92	-47.84	-0.05
44	SLV 13	-15	537	3212	-25.47	-27.87	0.05
44	SLV 14	-15	537	3212	-25.47	-27.87	0.05
44	SLV 15	-47	199	2866	-10.85	-49.01	0.01
44	SLV 16	-47	199	2866	-10.85	-49.01	0.01
45	SLU 1	-7	46	1565	1.83	-3.83	0
45	SLU 2	2	20	1621	4.95	2.79	0
45	SLU 3	-7	46	1565	1.83	-3.83	0
45	SLU 4	-2	30	1599	3.7	0.14	0
45	SLU 5	2	20	1621	4.95	2.79	0
45	SLU 6	-7	46	1565	1.83	-3.83	0
45	SLU 7	-2	30	1599	3.7	0.14	0
45	SLU 8	-7	46	1565	1.83	-3.83	0
45	SLU 9	-2	30	1599	3.7	0.14	0
45	SLU 10	0	9	1831	6.34	1.86	0
45	SLU 11	-9	34	1775	3.22	-4.77	0
45	SLU 12	-3	19	1808	5.1	-0.79	0
45	SLU 13	0	9	1831	6.34	1.86	0
45	SLU 14	-9	34	1775	3.22	-4.77	0
45	SLU 15	-3	19	1808	5.1	-0.79	0
45	SLU 16	-9	34	1775	3.22	-4.77	0
45	SLU 17	-3	19	1808	5.1	-0.79	0
45	SLU 18	-9	29	1865	3.82	-5.17	0
45	SLU 19	-4	14	1898	5.69	-1.19	0
45	SLU 20	-9	29	1865	3.82	-5.17	0
45	SLU 21	-4	14	1898	5.69	-1.19	0
45	SLU 22	-8	42	1665	2.42	-4.31	0
45	SLU 23	1	17	1721	5.54	2.32	0
45	SLU 24	-8	42	1665	2.42	-4.31	0
45	SLU 25	-3	27	1699	4.29	-0.33	0
45	SLU 26	1	17	1721	5.54	2.32	0
45	SLU 27	-8	42	1665	2.42	-4.31	0
45	SLU 28	-3	27	1699	4.29	-0.33	0
45	SLU 29	-8	42	1665	2.42	-4.31	0
45	SLU 30	-3	27	1699	4.29	-0.33	0
45	SLU 31	-1	5	1931	6.93	1.38	0
45	SLU 32	-9	31	1875	3.82	-5.24	0
45	SLU 33	-4	15	1909	5.69	-1.27	0
45	SLU 34	-1	5	1931	6.93	1.38	0
45	SLU 35	-9	31	1875	3.82	-5.24	0
45	SLU 36	-4	15	1909	5.69	-1.27	0
45	SLU 37	-9	31	1875	3.82	-5.24	0
45	SLU 38	-4	15	1909	5.69	-1.27	0
45	SLU 39	-10	26	1965	4.41	-5.64	0
45	SLU 40	-5	10	1998	6.28	-1.67	0
45	SLU 41	-10	26	1965	4.41	-5.64	0
45	SLU 42	-5	10	1998	6.28	-1.67	0
45	SLU 43	-9	61	2000	2.18	-4.82	0
45	SLU 44	0	35	2056	5.3	1.8	0
45	SLU 45	-9	61	2000	2.18	-4.82	0
45	SLU 46	-4	45	2034	4.05	-0.85	0
45	SLU 47	0	35	2056	5.3	1.8	0
45	SLU 48	-9	61	2000	2.18	-4.82	0
45	SLU 49	-4	45	2034	4.05	-0.85	0
45	SLU 50	-9	61	2000	2.18	-4.82	0
45	SLU 51	-4	45	2034	4.05	-0.85	0
45	SLU 52	-2	24	2266	6.69	0.87	0
45	SLU 53	-10	49	2210	3.57	-5.76	0
45	SLU 54	-5	34	2244	5.44	-1.78	0
45	SLU 55	-2	24	2266	6.69	0.87	0
45	SLU 56	-10	49	2210	3.57	-5.76	0
45	SLU 57	-5	34	2244	5.44	-1.78	0
45	SLU 58	-10	49	2210	3.57	-5.76	0
45	SLU 59	-5	34	2244	5.44	-1.78	0
45	SLU 60	-11	44	2300	4.17	-6.16	0
45	SLU 61	-6	29	2333	6.04	-2.18	0
45	SLU 62	-11	44	2300	4.17	-6.16	0
45	SLU 63	-6	29	2333	6.04	-2.18	0
45	SLU 64	-10	57	2101	2.77	-5.3	0
45	SLU 65	-1	32	2156	5.89	1.33	0
45	SLU 66	-10	57	2101	2.77	-5.3	0
45	SLU 67	-4	42	2134	4.64	-1.32	0
45	SLU 68	-1	32	2156	5.89	1.33	0
45	SLU 69	-10	57	2101	2.77	-5.3	0
45	SLU 70	-4	42	2134	4.64	-1.32	0
45	SLU 71	-10	57	2101	2.77	-5.3	0
45	SLU 72	-4	42	2134	4.64	-1.32	0
45	SLU 73	-2	20	2366	7.28	0.4	0
45	SLU 74	-11	45	2310	4.16	-6.23	0
45	SLU 75	-6	30	2344	6.03	-2.26	0
45	SLU 76	-2	20	2366	7.28	0.4	0



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
45	SLU 77	-11	45	2310	4.16	-6.23	0
45	SLU 78	-6	30	2344	6.03	-2.26	0
45	SLU 79	-11	45	2310	4.16	-6.23	0
45	SLU 80	-6	30	2344	6.03	-2.26	0
45	SLU 81	-12	41	2400	4.76	-6.63	0
45	SLU 82	-7	25	2434	6.63	-2.66	0
45	SLU 83	-12	41	2400	4.76	-6.63	0
45	SLU 84	-7	25	2434	6.63	-2.66	0
45	SLE RA 1	-7	45	1594	2	-3.97	0
45	SLE RA 2	-1	28	1631	4.08	0.45	0
45	SLE RA 3	-7	45	1594	2	-3.97	0
45	SLE RA 4	-4	34	1616	3.25	-1.32	0
45	SLE RA 5	-1	28	1631	4.08	0.45	0
45	SLE RA 6	-7	45	1594	2	-3.97	0
45	SLE RA 7	-4	34	1616	3.25	-1.32	0
45	SLE RA 8	-7	45	1594	2	-3.97	0
45	SLE RA 9	-4	34	1616	3.25	-1.32	0
45	SLE RA 10	-2	20	1771	5.01	-0.18	0
45	SLE RA 11	-8	37	1734	2.93	-4.59	0
45	SLE RA 12	-5	27	1756	4.18	-1.94	0
45	SLE RA 13	-2	20	1771	5.01	-0.18	0
45	SLE RA 14	-8	37	1734	2.93	-4.59	0
45	SLE RA 15	-5	27	1756	4.18	-1.94	0
45	SLE RA 16	-8	37	1734	2.93	-4.59	0
45	SLE RA 17	-5	27	1756	4.18	-1.94	0
45	SLE RA 18	-9	34	1794	3.33	-4.86	0
45	SLE RA 19	-5	23	1816	4.57	-2.21	0
45	SLE RA 20	-9	34	1794	3.33	-4.86	0
45	SLE RA 21	-5	23	1816	4.57	-2.21	0
45	SLE FR 1	-7	45	1594	2	-3.97	0
45	SLE FR 2	-6	41	1601	2.41	-3.09	0
45	SLE FR 3	-7	45	1594	2	-3.97	0
45	SLE FR 4	-6	38	1661	2.81	-3.35	0
45	SLE FR 5	-8	41	1654	2.4	-4.24	0
45	SLE FR 6	-8	39	1694	2.66	-4.42	0
45	SLE QP 1	-7	45	1594	2	-3.97	0
45	SLE QP 2	-8	41	1654	2.4	-4.24	0
45	SLD 1	7	68	1862	1.65	7.63	-0.01
45	SLD 2	7	68	1862	1.65	7.63	-0.01
45	SLD 3	15	-58	1798	7.08	12.94	-0.01
45	SLD 4	15	-58	1798	7.08	12.94	-0.01
45	SLD 5	-16	240	1814	-6.06	-8.74	-0.01
45	SLD 6	-16	240	1814	-6.06	-8.74	-0.01
45	SLD 7	12	-179	1599	12.04	8.98	0
45	SLD 8	12	-179	1599	12.04	8.98	0
45	SLD 9	-27	262	1708	-7.24	-17.46	0
45	SLD 10	-27	262	1708	-7.24	-17.46	0
45	SLD 11	0	-157	1494	10.86	0.27	0.01
45	SLD 12	0	-157	1494	10.86	0.27	0.01
45	SLD 13	-31	141	1510	-2.28	-21.42	0.02
45	SLD 14	-31	141	1510	-2.28	-21.42	0.02
45	SLD 15	-22	15	1446	3.15	-16.1	0.02
45	SLD 16	-22	15	1446	3.15	-16.1	0.02
45	SLV 1	26	102	2143	0.7	23.04	-0.04
45	SLV 2	26	102	2143	0.7	23.04	-0.04
45	SLV 3	47	-195	1987	13.68	36.61	-0.03
45	SLV 4	47	-195	1987	13.68	36.61	-0.03
45	SLV 5	-29	510	2038	-17.81	-16.63	-0.02
45	SLV 6	-29	510	2038	-17.81	-16.63	-0.02
45	SLV 7	40	-480	1516	25.48	28.59	0
45	SLV 8	40	-480	1516	25.48	28.59	0
45	SLV 9	-55	562	1791	-20.68	-37.07	0
45	SLV 10	-55	562	1791	-20.68	-37.07	0
45	SLV 11	13	-427	1269	22.6	8.15	0.02
45	SLV 12	13	-427	1269	22.6	8.15	0.02
45	SLV 13	-62	277	1320	-8.89	-45.08	0.04
45	SLV 14	-62	277	1320	-8.89	-45.08	0.04
45	SLV 15	-42	-20	1164	4.1	-31.52	0.04
45	SLV 16	-42	-20	1164	4.1	-31.52	0.04
46	SLU 1	-3	33	1034	1.98	-2.17	0
46	SLU 2	-3	-29	1087	5.85	-2.38	0
46	SLU 3	-3	33	1034	1.98	-2.17	0
46	SLU 4	-3	-4	1066	4.31	-2.3	0
46	SLU 5	-3	-29	1087	5.85	-2.38	0
46	SLU 6	-3	33	1034	1.98	-2.17	0
46	SLU 7	-3	-4	1066	4.31	-2.3	0
46	SLU 8	-3	33	1034	1.98	-2.17	0
46	SLU 9	-3	-4	1066	4.31	-2.3	0
46	SLU 10	-4	-29	1283	7.01	-3.14	0
46	SLU 11	-4	33	1230	3.14	-2.92	0
46	SLU 12	-4	-4	1262	5.46	-3.05	0
46	SLU 13	-4	-29	1283	7.01	-3.14	0
46	SLU 14	-4	33	1230	3.14	-2.92	0
46	SLU 15	-4	-4	1262	5.46	-3.05	0
46	SLU 16	-4	33	1230	3.14	-2.92	0
46	SLU 17	-4	-4	1262	5.46	-3.05	0
46	SLU 18	-4	33	1314	3.63	-3.25	0
46	SLU 19	-4	-4	1346	5.96	-3.38	0
46	SLU 20	-4	33	1314	3.63	-3.25	0
46	SLU 21	-4	-4	1346	5.96	-3.38	0



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
46	SLU 22	-3	34	1131	2.51	-2.54	0
46	SLU 23	-4	-29	1184	6.38	-2.75	0
46	SLU 24	-3	34	1131	2.51	-2.54	0
46	SLU 25	-4	-4	1163	4.83	-2.67	0
46	SLU 26	-4	-29	1184	6.38	-2.75	0
46	SLU 27	-3	34	1131	2.51	-2.54	0
46	SLU 28	-4	-4	1163	4.83	-2.67	0
46	SLU 29	-3	34	1131	2.51	-2.54	0
46	SLU 30	-4	-4	1163	4.83	-2.67	0
46	SLU 31	-5	-28	1380	7.53	-3.51	0
46	SLU 32	-4	34	1327	3.66	-3.29	0
46	SLU 33	-4	-4	1359	5.99	-3.42	0
46	SLU 34	-5	-28	1380	7.53	-3.51	0
46	SLU 35	-4	34	1327	3.66	-3.29	0
46	SLU 36	-4	-4	1359	5.99	-3.42	0
46	SLU 37	-4	34	1327	3.66	-3.29	0
46	SLU 38	-4	-4	1359	5.99	-3.42	0
46	SLU 39	-5	34	1411	4.16	-3.62	0
46	SLU 40	-5	-4	1443	6.48	-3.75	0
46	SLU 41	-5	34	1411	4.16	-3.62	0
46	SLU 42	-5	-4	1443	6.48	-3.75	0
46	SLU 43	-4	43	1310	2.4	-2.69	0
46	SLU 44	-4	-19	1364	6.27	-2.9	0
46	SLU 45	-4	43	1310	2.4	-2.69	0
46	SLU 46	-4	5	1342	4.72	-2.82	0
46	SLU 47	-4	-19	1364	6.27	-2.9	0
46	SLU 48	-4	43	1310	2.4	-2.69	0
46	SLU 49	-4	5	1342	4.72	-2.82	0
46	SLU 50	-4	43	1310	2.4	-2.69	0
46	SLU 51	-4	5	1342	4.72	-2.82	0
46	SLU 52	-5	-19	1560	7.42	-3.66	0
46	SLU 53	-5	43	1506	3.55	-3.45	0
46	SLU 54	-5	6	1538	5.88	-3.58	0
46	SLU 55	-5	-19	1560	7.42	-3.66	0
46	SLU 56	-5	43	1506	3.55	-3.45	0
46	SLU 57	-5	6	1538	5.88	-3.58	0
46	SLU 58	-5	43	1506	3.55	-3.45	0
46	SLU 59	-5	6	1538	5.88	-3.58	0
46	SLU 60	-5	43	1591	4.05	-3.77	0
46	SLU 61	-5	6	1622	6.37	-3.9	0
46	SLU 62	-5	43	1591	4.05	-3.77	0
46	SLU 63	-5	6	1622	6.37	-3.9	0
46	SLU 64	-4	43	1408	2.92	-3.06	0
46	SLU 65	-4	-19	1461	6.79	-3.27	0
46	SLU 66	-4	43	1408	2.92	-3.06	0
46	SLU 67	-4	6	1440	5.25	-3.19	0
46	SLU 68	-4	-19	1461	6.79	-3.27	0
46	SLU 69	-4	43	1408	2.92	-3.06	0
46	SLU 70	-4	6	1440	5.25	-3.19	0
46	SLU 71	-4	43	1408	2.92	-3.06	0
46	SLU 72	-4	6	1440	5.25	-3.19	0
46	SLU 73	-5	-19	1657	7.95	-4.03	0
46	SLU 74	-5	43	1604	4.08	-3.82	0
46	SLU 75	-5	6	1636	6.4	-3.95	0
46	SLU 76	-5	-19	1657	7.95	-4.03	0
46	SLU 77	-5	43	1604	4.08	-3.82	0
46	SLU 78	-5	6	1636	6.4	-3.95	0
46	SLU 79	-5	43	1604	4.08	-3.82	0
46	SLU 80	-5	6	1636	6.4	-3.95	0
46	SLU 81	-5	44	1688	4.58	-4.14	0
46	SLU 82	-6	6	1720	6.9	-4.27	0
46	SLU 83	-5	44	1688	4.58	-4.14	0
46	SLU 84	-6	6	1720	6.9	-4.27	0
46	SLE RA 1	-3	33	1061	2.13	-2.27	0
46	SLE RA 2	-3	-8	1097	4.71	-2.42	0
46	SLE RA 3	-3	33	1061	2.13	-2.27	0
46	SLE RA 4	-3	8	1083	3.68	-2.36	0
46	SLE RA 5	-3	-8	1097	4.71	-2.42	0
46	SLE RA 6	-3	33	1061	2.13	-2.27	0
46	SLE RA 7	-3	8	1083	3.68	-2.36	0
46	SLE RA 8	-3	33	1061	2.13	-2.27	0
46	SLE RA 9	-3	8	1083	3.68	-2.36	0
46	SLE RA 10	-4	-8	1228	5.48	-2.92	0
46	SLE RA 11	-4	33	1192	2.9	-2.78	0
46	SLE RA 12	-4	8	1213	4.45	-2.86	0
46	SLE RA 13	-4	-8	1228	5.48	-2.92	0
46	SLE RA 14	-4	33	1192	2.9	-2.78	0
46	SLE RA 15	-4	8	1213	4.45	-2.86	0
46	SLE RA 16	-4	33	1192	2.9	-2.78	0
46	SLE RA 17	-4	8	1213	4.45	-2.86	0
46	SLE RA 18	-4	33	1248	3.23	-2.99	0
46	SLE RA 19	-4	8	1270	4.78	-3.08	0
46	SLE RA 20	-4	33	1248	3.23	-2.99	0
46	SLE RA 21	-4	8	1270	4.78	-3.08	0
46	SLE FR 1	-3	33	1061	2.13	-2.27	0
46	SLE FR 2	-3	25	1069	2.65	-2.3	0
46	SLE FR 3	-3	33	1061	2.13	-2.27	0
46	SLE FR 4	-3	25	1125	2.98	-2.52	0
46	SLE FR 5	-3	33	1118	2.46	-2.49	0
46	SLE FR 6	-3	33	1155	2.68	-2.63	0



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
46	SLE QP 1	-3	33	1061	2.13	-2.27	0
46	SLE QP 2	-3	33	1118	2.46	-2.49	0
46	SLD 1	6	42	994	2.15	5.16	-0.01
46	SLD 2	6	42	994	2.15	5.16	-0.01
46	SLD 3	4	-56	1045	6.33	3.28	-0.01
46	SLD 4	4	-56	1045	6.33	3.28	-0.01
46	SLD 5	4	184	1003	-3.98	2.66	0
46	SLD 6	4	184	1003	-3.98	2.66	0
46	SLD 7	-5	-142	1173	9.97	-3.61	0
46	SLD 8	-5	-142	1173	9.97	-3.61	0
46	SLD 9	-1	208	1062	-5.04	-1.36	0
46	SLD 10	-1	208	1062	-5.04	-1.36	0
46	SLD 11	-10	-118	1232	8.91	-7.64	0.01
46	SLD 12	-10	-118	1232	8.91	-7.64	0.01
46	SLD 13	-10	122	1190	-1.41	-8.26	0.01
46	SLD 14	-10	122	1190	-1.41	-8.26	0.01
46	SLD 15	-13	25	1241	2.78	-10.14	0.01
46	SLD 16	-13	25	1241	2.78	-10.14	0.01
46	SLV 1	19	53	822	1.73	15.74	-0.02
46	SLV 2	19	53	822	1.73	15.74	-0.02
46	SLV 3	13	-182	949	11.92	10.98	-0.02
46	SLV 4	13	-182	949	11.92	10.98	-0.02
46	SLV 5	14	396	836	-13.21	10.2	-0.01
46	SLV 6	14	396	836	-13.21	10.2	-0.01
46	SLV 7	-9	-388	1260	20.75	-5.67	0
46	SLV 8	-9	-388	1260	20.75	-5.67	0
46	SLV 9	2	455	975	-15.83	0.69	0
46	SLV 10	2	455	975	-15.83	0.69	0
46	SLV 11	-20	-330	1399	18.14	-15.18	0.01
46	SLV 12	-20	-330	1399	18.14	-15.18	0.01
46	SLV 13	-19	249	1286	-6.99	-15.96	0.02
46	SLV 14	-19	249	1286	-6.99	-15.96	0.02
46	SLV 15	-26	13	1413	3.2	-20.72	0.02
46	SLV 16	-26	13	1413	3.2	-20.72	0.02
47	SLU 1	-2	157	2269	-4.73	-1.5	0
47	SLU 2	-15	142	2339	-2.73	-13.24	-0.01
47	SLU 3	-2	157	2269	-4.73	-1.5	0
47	SLU 4	-10	148	2311	-3.53	-8.54	-0.01
47	SLU 5	-15	142	2339	-2.73	-13.24	-0.01
47	SLU 6	-2	157	2269	-4.73	-1.5	0
47	SLU 7	-10	148	2311	-3.53	-8.54	-0.01
47	SLU 8	-2	157	2269	-4.73	-1.5	0
47	SLU 9	-10	148	2311	-3.53	-8.54	-0.01
47	SLU 10	-16	125	2665	-1.7	-13.66	-0.01
47	SLU 11	-2	140	2595	-3.69	-1.92	0
47	SLU 12	-10	131	2637	-2.49	-8.96	-0.01
47	SLU 13	-16	125	2665	-1.7	-13.66	-0.01
47	SLU 14	-2	140	2595	-3.69	-1.92	0
47	SLU 15	-10	131	2637	-2.49	-8.96	-0.01
47	SLU 16	-2	140	2595	-3.69	-1.92	0
47	SLU 17	-10	131	2637	-2.49	-8.96	-0.01
47	SLU 18	-3	132	2735	-3.25	-2.1	0
47	SLU 19	-11	123	2777	-2.05	-9.15	-0.01
47	SLU 20	-3	132	2735	-3.25	-2.1	0
47	SLU 21	-11	123	2777	-2.05	-9.15	-0.01
47	SLU 22	-2	155	2450	-4.51	-1.67	0
47	SLU 23	-15	140	2519	-2.52	-13.41	-0.01
47	SLU 24	-2	155	2450	-4.51	-1.67	0
47	SLU 25	-10	146	2491	-3.31	-8.71	-0.01
47	SLU 26	-15	140	2519	-2.52	-13.41	-0.01
47	SLU 27	-2	155	2450	-4.51	-1.67	0
47	SLU 28	-10	146	2491	-3.31	-8.71	-0.01
47	SLU 29	-2	155	2450	-4.51	-1.67	0
47	SLU 30	-10	146	2491	-3.31	-8.71	-0.01
47	SLU 31	-16	123	2845	-1.48	-13.83	-0.01
47	SLU 32	-3	138	2776	-3.48	-2.1	0
47	SLU 33	-11	129	2818	-2.28	-9.14	-0.01
47	SLU 34	-16	123	2845	-1.48	-13.83	-0.01
47	SLU 35	-3	138	2776	-3.48	-2.1	0
47	SLU 36	-11	129	2818	-2.28	-9.14	-0.01
47	SLU 37	-3	138	2776	-3.48	-2.1	0
47	SLU 38	-11	129	2818	-2.28	-9.14	-0.01
47	SLU 39	-3	130	2916	-3.04	-2.28	0
47	SLU 40	-11	121	2957	-1.84	-9.32	-0.01
47	SLU 41	-3	130	2916	-3.04	-2.28	0
47	SLU 42	-11	121	2957	-1.84	-9.32	-0.01
47	SLU 43	-2	205	2888	-6.22	-1.9	0
47	SLU 44	-15	190	2957	-4.22	-13.63	-0.01
47	SLU 45	-2	205	2888	-6.22	-1.9	0
47	SLU 46	-10	196	2930	-5.02	-8.94	-0.01
47	SLU 47	-15	190	2957	-4.22	-13.63	-0.01
47	SLU 48	-2	205	2888	-6.22	-1.9	0
47	SLU 49	-10	196	2930	-5.02	-8.94	-0.01
47	SLU 50	-2	205	2888	-6.22	-1.9	0
47	SLU 51	-10	196	2930	-5.02	-8.94	-0.01
47	SLU 52	-16	173	3284	-3.19	-14.05	-0.01
47	SLU 53	-3	188	3214	-5.19	-2.32	0
47	SLU 54	-11	179	3256	-3.99	-9.36	-0.01
47	SLU 55	-16	173	3284	-3.19	-14.05	-0.01
47	SLU 56	-3	188	3214	-5.19	-2.32	0



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
47	SLU 57	-11	179	3256	-3.99	-9.36	-0.01
47	SLU 58	-3	188	3214	-5.19	-2.32	0
47	SLU 59	-11	179	3256	-3.99	-9.36	-0.01
47	SLU 60	-3	180	3354	-4.74	-2.5	0
47	SLU 61	-11	171	3396	-3.54	-9.54	-0.01
47	SLU 62	-3	180	3354	-4.74	-2.5	0
47	SLU 63	-11	171	3396	-3.54	-9.54	-0.01
47	SLU 64	-2	203	3069	-6.01	-2.07	0
47	SLU 65	-16	188	3138	-4.01	-13.8	-0.01
47	SLU 66	-2	203	3069	-6.01	-2.07	0
47	SLU 67	-10	194	3110	-4.81	-9.11	-0.01
47	SLU 68	-16	188	3138	-4.01	-13.8	-0.01
47	SLU 69	-2	203	3069	-6.01	-2.07	0
47	SLU 70	-10	194	3110	-4.81	-9.11	-0.01
47	SLU 71	-2	203	3069	-6.01	-2.07	0
47	SLU 72	-10	194	3110	-4.81	-9.11	-0.01
47	SLU 73	-17	171	3464	-2.97	-14.22	-0.01
47	SLU 74	-3	186	3395	-4.97	-2.49	0
47	SLU 75	-11	177	3436	-3.77	-9.53	-0.01
47	SLU 76	-17	171	3464	-2.97	-14.22	-0.01
47	SLU 77	-3	186	3395	-4.97	-2.49	0
47	SLU 78	-11	177	3436	-3.77	-9.53	-0.01
47	SLU 79	-3	186	3395	-4.97	-2.49	0
47	SLU 80	-11	177	3436	-3.77	-9.53	-0.01
47	SLU 81	-3	178	3535	-4.53	-2.67	0
47	SLU 82	-12	169	3576	-3.33	-9.71	-0.01
47	SLU 83	-3	178	3535	-4.53	-2.67	0
47	SLU 84	-12	169	3576	-3.33	-9.71	-0.01
47	SLE RA 1	-2	157	2321	-4.67	-1.55	0
47	SLE RA 2	-11	147	2367	-3.33	-9.37	-0.01
47	SLE RA 3	-2	157	2321	-4.67	-1.55	0
47	SLE RA 4	-7	151	2349	-3.87	-6.25	-0.01
47	SLE RA 5	-11	147	2367	-3.33	-9.37	-0.01
47	SLE RA 6	-2	157	2321	-4.67	-1.55	0
47	SLE RA 7	-7	151	2349	-3.87	-6.25	-0.01
47	SLE RA 8	-2	157	2321	-4.67	-1.55	0
47	SLE RA 9	-7	151	2349	-3.87	-6.25	-0.01
47	SLE RA 10	-11	135	2585	-2.65	-9.66	-0.01
47	SLE RA 11	-2	145	2538	-3.98	-1.83	0
47	SLE RA 12	-8	139	2566	-3.18	-6.53	-0.01
47	SLE RA 13	-11	135	2585	-2.65	-9.66	-0.01
47	SLE RA 14	-2	145	2538	-3.98	-1.83	0
47	SLE RA 15	-8	139	2566	-3.18	-6.53	-0.01
47	SLE RA 16	-2	145	2538	-3.98	-1.83	0
47	SLE RA 17	-8	139	2566	-3.18	-6.53	-0.01
47	SLE RA 18	-2	140	2631	-3.68	-1.95	0
47	SLE RA 19	-8	134	2659	-2.88	-6.65	-0.01
47	SLE RA 20	-2	140	2631	-3.68	-1.95	0
47	SLE RA 21	-8	134	2659	-2.88	-6.65	-0.01
47	SLE FR 1	-2	157	2321	-4.67	-1.55	0
47	SLE FR 2	-4	155	2330	-4.4	-3.12	0
47	SLE FR 3	-2	157	2321	-4.67	-1.55	0
47	SLE FR 4	-4	150	2423	-4.1	-3.24	0
47	SLE FR 5	-2	152	2414	-4.37	-1.67	0
47	SLE FR 6	-2	148	2476	-4.17	-1.75	0
47	SLE QP 1	-2	157	2321	-4.67	-1.55	0
47	SLE QP 2	-2	152	2414	-4.37	-1.67	0
47	SLD 1	27	195	2257	-8.49	25.94	0
47	SLD 2	27	195	2257	-8.49	25.94	0
47	SLD 3	15	52	2163	-2.28	16.12	-0.02
47	SLD 4	15	52	2163	-2.28	16.12	-0.02
47	SLD 5	26	381	2511	-15.04	21.51	0.02
47	SLD 6	26	381	2511	-15.04	21.51	0.02
47	SLD 7	-16	-94	2195	5.68	-11.24	-0.03
47	SLD 8	-16	-94	2195	5.68	-11.24	-0.03
47	SLD 9	12	398	2633	-14.43	7.89	0.03
47	SLD 10	12	398	2633	-14.43	7.89	0.03
47	SLD 11	-30	-78	2317	6.29	-24.86	-0.02
47	SLD 12	-30	-78	2317	6.29	-24.86	-0.02
47	SLD 13	-19	251	2665	-6.47	-19.46	0.02
47	SLD 14	-19	251	2665	-6.47	-19.46	0.02
47	SLD 15	-31	108	2570	-0.25	-29.29	0
47	SLD 16	-31	108	2570	-0.25	-29.29	0
47	SLV 1	71	253	2052	-14.16	67.94	-0.01
47	SLV 2	71	253	2052	-14.16	67.94	-0.01
47	SLV 3	39	-85	1820	0.59	42.32	-0.04
47	SLV 4	39	-85	1820	0.59	42.32	-0.04
47	SLV 5	68	694	2658	-29.68	58.06	0.05
47	SLV 6	68	694	2658	-29.68	58.06	0.05
47	SLV 7	-38	-431	1883	19.49	-27.33	-0.06
47	SLV 8	-38	-431	1883	19.49	-27.33	-0.06
47	SLV 9	34	735	2945	-28.23	23.98	0.06
47	SLV 10	34	735	2945	-28.23	23.98	0.06
47	SLV 11	-72	-391	2170	20.94	-61.41	-0.05
47	SLV 12	-72	-391	2170	20.94	-61.41	-0.05
47	SLV 13	-43	388	3008	-9.33	-45.67	0.04
47	SLV 14	-43	388	3008	-9.33	-45.67	0.04
47	SLV 15	-75	51	2775	5.42	-71.29	0.01
47	SLV 16	-75	51	2775	5.42	-71.29	0.01
48	SLU 1	-9	116	1491	-8.53	-4.83	0



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
Ind.	N.br.						
48	SLU 2	-1	99	1593	-9.24	1.97	0
48	SLU 3	-9	116	1491	-8.53	-4.83	0
48	SLU 4	-4	106	1552	-8.96	-0.75	0
48	SLU 5	-1	99	1593	-9.24	1.97	0
48	SLU 6	-9	116	1491	-8.53	-4.83	0
48	SLU 7	-4	106	1552	-8.96	-0.75	0
48	SLU 8	-9	116	1491	-8.53	-4.83	0
48	SLU 9	-4	106	1552	-8.96	-0.75	0
48	SLU 10	-3	111	1779	-10.72	0.75	0
48	SLU 11	-11	128	1677	-10.01	-6.05	0
48	SLU 12	-6	118	1738	-10.44	-1.97	0
48	SLU 13	-3	111	1779	-10.72	0.75	0
48	SLU 14	-11	128	1677	-10.01	-6.05	0
48	SLU 15	-6	118	1738	-10.44	-1.97	0
48	SLU 16	-11	128	1677	-10.01	-6.05	0
48	SLU 17	-6	118	1738	-10.44	-1.97	0
48	SLU 18	-11	133	1757	-10.64	-6.57	0.01
48	SLU 19	-7	123	1818	-11.07	-2.49	0.01
48	SLU 20	-11	133	1757	-10.64	-6.57	0.01
48	SLU 21	-7	123	1818	-11.07	-2.49	0.01
48	SLU 22	-10	124	1580	-9.31	-5.44	0
48	SLU 23	-2	107	1683	-10.02	1.36	0
48	SLU 24	-10	124	1580	-9.31	-5.44	0
48	SLU 25	-5	114	1642	-9.74	-1.36	0
48	SLU 26	-2	107	1683	-10.02	1.36	0
48	SLU 27	-10	124	1580	-9.31	-5.44	0
48	SLU 28	-5	114	1642	-9.74	-1.36	0
48	SLU 29	-10	124	1580	-9.31	-5.44	0
48	SLU 30	-5	114	1642	-9.74	-1.36	0
48	SLU 31	-4	119	1869	-11.5	0.13	0.01
48	SLU 32	-12	136	1767	-10.79	-6.66	0.01
48	SLU 33	-7	126	1828	-11.22	-2.58	0.01
48	SLU 34	-4	119	1869	-11.5	0.13	0.01
48	SLU 35	-12	136	1767	-10.79	-6.66	0.01
48	SLU 36	-7	126	1828	-11.22	-2.58	0.01
48	SLU 37	-12	136	1767	-10.79	-6.66	0.01
48	SLU 38	-7	126	1828	-11.22	-2.58	0.01
48	SLU 39	-12	141	1847	-11.42	-7.19	0.01
48	SLU 40	-8	131	1908	-11.85	-3.11	0.01
48	SLU 41	-12	141	1847	-11.42	-7.19	0.01
48	SLU 42	-8	131	1908	-11.85	-3.11	0.01
48	SLU 43	-11	148	1907	-10.82	-6.07	0
48	SLU 44	-3	132	2009	-11.53	0.73	0
48	SLU 45	-11	148	1907	-10.82	-6.07	0
48	SLU 46	-6	138	1969	-11.25	-1.99	0
48	SLU 47	-3	132	2009	-11.53	0.73	0
48	SLU 48	-11	148	1907	-10.82	-6.07	0
48	SLU 49	-6	138	1969	-11.25	-1.99	0
48	SLU 50	-11	148	1907	-10.82	-6.07	0
48	SLU 51	-6	138	1969	-11.25	-1.99	0
48	SLU 52	-5	144	2196	-13.01	-0.49	0.01
48	SLU 53	-13	160	2094	-12.3	-7.29	0.01
48	SLU 54	-8	150	2155	-12.73	-3.21	0.01
48	SLU 55	-5	144	2196	-13.01	-0.49	0.01
48	SLU 56	-13	160	2094	-12.3	-7.29	0.01
48	SLU 57	-8	150	2155	-12.73	-3.21	0.01
48	SLU 58	-13	160	2094	-12.3	-7.29	0.01
48	SLU 59	-8	150	2155	-12.73	-3.21	0.01
48	SLU 60	-14	165	2174	-12.93	-7.81	0.01
48	SLU 61	-9	155	2235	-13.36	-3.73	0.01
48	SLU 62	-14	165	2174	-12.93	-7.81	0.01
48	SLU 63	-9	155	2235	-13.36	-3.73	0.01
48	SLU 64	-12	156	1997	-11.6	-6.68	0.01
48	SLU 65	-4	139	2099	-12.31	0.12	0.01
48	SLU 66	-12	156	1997	-11.6	-6.68	0.01
48	SLU 67	-7	146	2058	-12.03	-2.6	0.01
48	SLU 68	-4	139	2099	-12.31	0.12	0.01
48	SLU 69	-12	156	1997	-11.6	-6.68	0.01
48	SLU 70	-7	146	2058	-12.03	-2.6	0.01
48	SLU 71	-12	156	1997	-11.6	-6.68	0.01
48	SLU 72	-7	146	2058	-12.03	-2.6	0.01
48	SLU 73	-6	151	2286	-13.79	-1.1	0.01
48	SLU 74	-14	168	2183	-13.08	-7.9	0.01
48	SLU 75	-9	158	2245	-13.51	-3.82	0.01
48	SLU 76	-6	151	2286	-13.79	-1.1	0.01
48	SLU 77	-14	168	2183	-13.08	-7.9	0.01
48	SLU 78	-9	158	2245	-13.51	-3.82	0.01
48	SLU 79	-14	168	2183	-13.08	-7.9	0.01
48	SLU 80	-9	158	2245	-13.51	-3.82	0.01
48	SLU 81	-15	173	2263	-13.71	-8.42	0.01
48	SLU 82	-10	163	2325	-14.14	-4.35	0.01
48	SLU 83	-15	173	2263	-13.71	-8.42	0.01
48	SLU 84	-10	163	2325	-14.14	-4.35	0.01
48	SLE RA 1	-9	118	1516	-8.75	-5	0
48	SLE RA 2	-4	107	1584	-9.23	-0.47	0
48	SLE RA 3	-9	118	1516	-8.75	-5	0
48	SLE RA 4	-6	111	1557	-9.04	-2.28	0
48	SLE RA 5	-4	107	1584	-9.23	-0.47	0
48	SLE RA 6	-9	118	1516	-8.75	-5	0
48	SLE RA 7	-6	111	1557	-9.04	-2.28	0



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
48	SLE RA 8	-9	118	1516	-8.75	-5	0
48	SLE RA 9	-6	111	1557	-9.04	-2.28	0
48	SLE RA 10	-5	115	1709	-10.21	-1.29	0
48	SLE RA 11	-10	126	1641	-9.74	-5.82	0
48	SLE RA 12	-7	119	1682	-10.02	-3.1	0
48	SLE RA 13	-5	115	1709	-10.21	-1.29	0
48	SLE RA 14	-10	126	1641	-9.74	-5.82	0
48	SLE RA 15	-7	119	1682	-10.02	-3.1	0
48	SLE RA 16	-10	126	1641	-9.74	-5.82	0
48	SLE RA 17	-7	119	1682	-10.02	-3.1	0
48	SLE RA 18	-11	130	1694	-10.16	-6.17	0
48	SLE RA 19	-8	123	1735	-10.45	-3.45	0
48	SLE RA 20	-11	130	1694	-10.16	-6.17	0
48	SLE RA 21	-8	123	1735	-10.45	-3.45	0
48	SLE FR 1	-9	118	1516	-8.75	-5	0
48	SLE FR 2	-8	116	1530	-8.85	-4.1	0
48	SLE FR 3	-9	118	1516	-8.75	-5	0
48	SLE FR 4	-8	119	1583	-9.27	-4.45	0
48	SLE FR 5	-9	122	1570	-9.18	-5.35	0
48	SLE FR 6	-10	124	1605	-9.46	-5.58	0
48	SLE QP 1	-9	118	1516	-8.75	-5	0
48	SLE QP 2	-9	122	1570	-9.18	-5.35	0
48	SLD 1	12	164	1705	-12.85	10.36	-0.01
48	SLD 2	12	164	1705	-12.85	10.36	-0.01
48	SLD 3	19	37	1778	-7.63	15.55	-0.01
48	SLD 4	19	37	1778	-7.63	15.55	-0.01
48	SLD 5	-13	328	1500	-18.2	-8.52	0
48	SLD 6	-13	328	1500	-18.2	-8.52	0
48	SLD 7	9	-98	1742	-0.79	8.81	0
48	SLD 8	9	-98	1742	-0.79	8.81	0
48	SLD 9	-28	341	1397	-17.56	-19.51	0.01
48	SLD 10	-28	341	1397	-17.56	-19.51	0.01
48	SLD 11	-5	-85	1639	-0.15	-2.18	0.01
48	SLD 12	-5	-85	1639	-0.15	-2.18	0.01
48	SLD 13	-38	207	1362	-10.72	-26.26	0.02
48	SLD 14	-38	207	1362	-10.72	-26.26	0.02
48	SLD 15	-31	79	1434	-5.5	-21.06	0.02
48	SLD 16	-31	79	1434	-5.5	-21.06	0.02
48	SLV 1	40	223	1879	-17.87	30.9	-0.04
48	SLV 2	40	223	1879	-17.87	30.9	-0.04
48	SLV 3	57	-79	2065	-5.54	44.23	-0.03
48	SLV 4	57	-79	2065	-5.54	44.23	-0.03
48	SLV 5	-21	609	1380	-30.47	-14.69	-0.01
48	SLV 6	-21	609	1380	-30.47	-14.69	-0.01
48	SLV 7	37	-396	2000	10.6	29.74	0
48	SLV 8	37	-396	2000	10.6	29.74	0
48	SLV 9	-56	639	1139	-28.95	-40.44	0.01
48	SLV 10	-56	639	1139	-28.95	-40.44	0.01
48	SLV 11	2	-366	1759	12.12	3.99	0.02
48	SLV 12	2	-366	1759	12.12	3.99	0.02
48	SLV 13	-76	322	1075	-12.81	-54.94	0.04
48	SLV 14	-76	322	1075	-12.81	-54.94	0.04
48	SLV 15	-59	21	1260	-0.48	-41.61	0.04
48	SLV 16	-59	21	1260	-0.48	-41.61	0.04
49	SLU 1	-4	102	983	-7.57	-3.01	0
49	SLU 2	-5	54	1048	-6.65	-3.34	0
49	SLU 3	-4	102	983	-7.57	-3.01	0
49	SLU 4	-5	73	1022	-7.01	-3.2	0
49	SLU 5	-5	54	1048	-6.65	-3.34	0
49	SLU 6	-4	102	983	-7.57	-3.01	0
49	SLU 7	-5	73	1022	-7.01	-3.2	0
49	SLU 8	-4	102	983	-7.57	-3.01	0
49	SLU 9	-5	73	1022	-7.01	-3.2	0
49	SLU 10	-7	83	1225	-9.02	-4.41	0
49	SLU 11	-6	131	1160	-9.94	-4.07	0
49	SLU 12	-6	102	1199	-9.39	-4.27	0
49	SLU 13	-7	83	1225	-9.02	-4.41	0
49	SLU 14	-6	131	1160	-9.94	-4.07	0
49	SLU 15	-6	102	1199	-9.39	-4.27	0
49	SLU 16	-6	131	1160	-9.94	-4.07	0
49	SLU 17	-6	102	1199	-9.39	-4.27	0
49	SLU 18	-7	144	1236	-10.95	-4.53	0
49	SLU 19	-7	115	1275	-10.4	-4.73	0
49	SLU 20	-7	144	1236	-10.95	-4.53	0
49	SLU 21	-7	115	1275	-10.4	-4.73	0
49	SLU 22	-5	117	1071	-8.74	-3.53	0
49	SLU 23	-6	68	1136	-7.82	-3.86	0
49	SLU 24	-5	117	1071	-8.74	-3.53	0
49	SLU 25	-6	88	1110	-8.18	-3.73	0
49	SLU 26	-6	68	1136	-7.82	-3.86	0
49	SLU 27	-5	117	1071	-8.74	-3.53	0
49	SLU 28	-6	88	1110	-8.18	-3.73	0
49	SLU 29	-5	117	1071	-8.74	-3.53	0
49	SLU 30	-6	88	1110	-8.18	-3.73	0
49	SLU 31	-7	97	1313	-10.19	-4.93	0
49	SLU 32	-7	146	1248	-11.11	-4.6	0
49	SLU 33	-7	117	1287	-10.56	-4.8	0
49	SLU 34	-7	97	1313	-10.19	-4.93	0
49	SLU 35	-7	146	1248	-11.11	-4.6	0
49	SLU 36	-7	117	1287	-10.56	-4.8	0





Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
49	SLU 37	-7	146	1248	-11.11	-4.6	0
49	SLU 38	-7	117	1287	-10.56	-4.8	0
49	SLU 39	-7	158	1324	-12.12	-5.06	0
49	SLU 40	-8	129	1363	-11.57	-5.25	0
49	SLU 41	-7	158	1324	-12.12	-5.06	0
49	SLU 42	-8	129	1363	-11.57	-5.25	0
49	SLU 43	-6	128	1248	-9.44	-3.73	0
49	SLU 44	-6	79	1313	-8.51	-4.06	0
49	SLU 45	-6	128	1248	-9.44	-3.73	0
49	SLU 46	-6	99	1287	-8.88	-3.93	0
49	SLU 47	-6	79	1313	-8.51	-4.06	0
49	SLU 48	-6	128	1248	-9.44	-3.73	0
49	SLU 49	-6	99	1287	-8.88	-3.93	0
49	SLU 50	-6	128	1248	-9.44	-3.73	0
49	SLU 51	-6	99	1287	-8.88	-3.93	0
49	SLU 52	-8	108	1490	-10.89	-5.13	0
49	SLU 53	-7	157	1425	-11.81	-4.8	0
49	SLU 54	-7	128	1464	-11.25	-4.99	0
49	SLU 55	-8	108	1490	-10.89	-5.13	0
49	SLU 56	-7	157	1425	-11.81	-4.8	0
49	SLU 57	-7	128	1464	-11.25	-4.99	0
49	SLU 58	-7	157	1425	-11.81	-4.8	0
49	SLU 59	-7	128	1464	-11.25	-4.99	0
49	SLU 60	-8	169	1501	-12.82	-5.25	0
49	SLU 61	-8	140	1540	-12.27	-5.45	0
49	SLU 62	-8	169	1501	-12.82	-5.25	0
49	SLU 63	-8	140	1540	-12.27	-5.45	0
49	SLU 64	-6	143	1335	-10.61	-4.25	0
49	SLU 65	-7	94	1401	-9.68	-4.58	0
49	SLU 66	-6	143	1335	-10.61	-4.25	0
49	SLU 67	-7	113	1375	-10.05	-4.45	0
49	SLU 68	-7	94	1401	-9.68	-4.58	0
49	SLU 69	-6	143	1335	-10.61	-4.25	0
49	SLU 70	-7	113	1375	-10.05	-4.45	0
49	SLU 71	-6	143	1335	-10.61	-4.25	0
49	SLU 72	-7	113	1375	-10.05	-4.45	0
49	SLU 73	-8	123	1578	-12.06	-5.65	0
49	SLU 74	-8	172	1513	-12.98	-5.32	0
49	SLU 75	-8	142	1552	-12.42	-5.52	0
49	SLU 76	-8	123	1578	-12.06	-5.65	0
49	SLU 77	-8	172	1513	-12.98	-5.32	0
49	SLU 78	-8	142	1552	-12.42	-5.52	0
49	SLU 79	-8	172	1513	-12.98	-5.32	0
49	SLU 80	-8	142	1552	-12.42	-5.52	0
49	SLU 81	-8	184	1589	-13.99	-5.78	0
49	SLU 82	-9	155	1628	-13.44	-5.98	0
49	SLU 83	-8	184	1589	-13.99	-5.78	0
49	SLU 84	-9	155	1628	-13.44	-5.98	0
49	SLE RA 1	-5	106	1008	-7.9	-3.16	0
49	SLE RA 2	-5	74	1051	-7.29	-3.38	0
49	SLE RA 3	-5	106	1008	-7.9	-3.16	0
49	SLE RA 4	-5	87	1034	-7.53	-3.29	0
49	SLE RA 5	-5	74	1051	-7.29	-3.38	0
49	SLE RA 6	-5	106	1008	-7.9	-3.16	0
49	SLE RA 7	-5	87	1034	-7.53	-3.29	0
49	SLE RA 8	-5	106	1008	-7.9	-3.16	0
49	SLE RA 9	-5	87	1034	-7.53	-3.29	0
49	SLE RA 10	-6	93	1170	-8.87	-4.09	0
49	SLE RA 11	-6	126	1126	-9.48	-3.87	0
49	SLE RA 12	-6	106	1152	-9.11	-4	0
49	SLE RA 13	-6	93	1170	-8.87	-4.09	0
49	SLE RA 14	-6	126	1126	-9.48	-3.87	0
49	SLE RA 15	-6	106	1152	-9.11	-4	0
49	SLE RA 16	-6	126	1126	-9.48	-3.87	0
49	SLE RA 17	-6	106	1152	-9.11	-4	0
49	SLE RA 18	-6	134	1177	-10.16	-4.17	0
49	SLE RA 19	-6	115	1203	-9.79	-4.31	0
49	SLE RA 20	-6	134	1177	-10.16	-4.17	0
49	SLE RA 21	-6	115	1203	-9.79	-4.31	0
49	SLE FR 1	-5	106	1008	-7.9	-3.16	0
49	SLE FR 2	-5	100	1017	-7.78	-3.2	0
49	SLE FR 3	-5	106	1008	-7.9	-3.16	0
49	SLE FR 4	-5	108	1067	-8.46	-3.5	0
49	SLE FR 5	-5	115	1059	-8.58	-3.46	0
49	SLE FR 6	-5	120	1092	-9.03	-3.66	0
49	SLE QP 1	-5	106	1008	-7.9	-3.16	0
49	SLE QP 2	-5	115	1059	-8.58	-3.46	0
49	SLD 1	9	134	897	-9.52	7	-0.01
49	SLD 2	9	134	897	-9.52	7	-0.01
49	SLD 3	7	34	951	-5.44	4.9	-0.01
49	SLD 4	7	34	951	-5.44	4.9	-0.01
49	SLD 5	3	272	928	-15.04	2.86	0
49	SLD 6	3	272	928	-15.04	2.86	0
49	SLD 7	-6	-61	1109	-1.46	-4.13	0
49	SLD 8	-6	-61	1109	-1.46	-4.13	0
49	SLD 9	-5	291	1009	-15.7	-2.79	0
49	SLD 10	-5	291	1009	-15.7	-2.79	0
49	SLD 11	-14	-43	1189	-2.12	-9.78	0
49	SLD 12	-14	-43	1189	-2.12	-9.78	0
49	SLD 13	-17	196	1166	-11.72	-11.83	0.01



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
49	SLD 14	-17	196	1166	-11.72	-11.83	0.01
49	SLD 15	-20	95	1220	-7.64	-13.92	0.01
49	SLD 16	-20	95	1220	-7.64	-13.92	0.01
49	SLV 1	29	160	673	-10.76	21.4	-0.02
49	SLV 2	29	160	673	-10.76	21.4	-0.02
49	SLV 3	22	-81	810	-1.03	16.12	-0.01
49	SLV 4	22	-81	810	-1.03	16.12	-0.01
49	SLV 5	15	493	735	-23.99	12.01	-0.01
49	SLV 6	15	493	735	-23.99	12.01	-0.01
49	SLV 7	-7	-308	1192	8.44	-5.6	0
49	SLV 8	-7	-308	1192	8.44	-5.6	0
49	SLV 9	-3	538	926	-25.6	-1.32	0
49	SLV 10	-3	538	926	-25.6	-1.32	0
49	SLV 11	-26	-263	1382	6.83	-18.93	0.01
49	SLV 12	-26	-263	1382	6.83	-18.93	0.01
49	SLV 13	-33	310	1307	-16.13	-23.04	0.01
49	SLV 14	-33	310	1307	-16.13	-23.04	0.01
49	SLV 15	-39	70	1444	-6.4	-28.32	0.02
49	SLV 16	-39	70	1444	-6.4	-28.32	0.02
50	SLU 1	-2	132	2250	-7.57	-1.45	0
50	SLU 2	-14	111	2362	-7.46	-13.65	-0.01
50	SLU 3	-2	132	2250	-7.57	-1.45	0
50	SLU 4	-9	120	2317	-7.51	-8.77	-0.01
50	SLU 5	-14	111	2362	-7.46	-13.65	-0.01
50	SLU 6	-2	132	2250	-7.57	-1.45	0
50	SLU 7	-9	120	2317	-7.51	-8.77	-0.01
50	SLU 8	-2	132	2250	-7.57	-1.45	0
50	SLU 9	-9	120	2317	-7.51	-8.77	-0.01
50	SLU 10	-15	97	2658	-7.39	-13.9	-0.01
50	SLU 11	-2	118	2547	-7.5	-1.7	0
50	SLU 12	-10	106	2614	-7.43	-9.02	-0.01
50	SLU 13	-15	97	2658	-7.39	-13.9	-0.01
50	SLU 14	-2	118	2547	-7.5	-1.7	0
50	SLU 15	-10	106	2614	-7.43	-9.02	-0.01
50	SLU 16	-2	118	2547	-7.5	-1.7	0
50	SLU 17	-10	106	2614	-7.43	-9.02	-0.01
50	SLU 18	-3	112	2674	-7.47	-1.8	0
50	SLU 19	-10	100	2741	-7.4	-9.13	-0.01
50	SLU 20	-3	112	2674	-7.47	-1.8	0
50	SLU 21	-10	100	2741	-7.4	-9.13	-0.01
50	SLU 22	-2	132	2417	-7.78	-1.53	0
50	SLU 23	-14	111	2528	-7.67	-13.73	-0.01
50	SLU 24	-2	132	2417	-7.78	-1.53	0
50	SLU 25	-9	119	2483	-7.72	-8.85	-0.01
50	SLU 26	-14	111	2528	-7.67	-13.73	-0.01
50	SLU 27	-2	132	2417	-7.78	-1.53	0
50	SLU 28	-9	119	2483	-7.72	-8.85	-0.01
50	SLU 29	-2	132	2417	-7.78	-1.53	0
50	SLU 30	-9	119	2483	-7.72	-8.85	-0.01
50	SLU 31	-15	97	2825	-7.6	-13.98	-0.01
50	SLU 32	-3	118	2713	-7.71	-1.78	0
50	SLU 33	-10	105	2780	-7.64	-9.1	-0.01
50	SLU 34	-15	97	2825	-7.6	-13.98	-0.01
50	SLU 35	-3	118	2713	-7.71	-1.78	0
50	SLU 36	-10	105	2780	-7.64	-9.1	-0.01
50	SLU 37	-3	118	2713	-7.71	-1.78	0
50	SLU 38	-10	105	2780	-7.64	-9.1	-0.01
50	SLU 39	-3	112	2841	-7.67	-1.88	0
50	SLU 40	-10	99	2907	-7.61	-9.2	-0.01
50	SLU 41	-3	112	2841	-7.67	-1.88	0
50	SLU 42	-10	99	2907	-7.61	-9.2	-0.01
50	SLU 43	-2	172	2868	-9.77	-1.86	0
50	SLU 44	-14	151	2980	-9.66	-14.06	-0.01
50	SLU 45	-2	172	2868	-9.77	-1.86	0
50	SLU 46	-10	160	2935	-9.71	-9.18	-0.01
50	SLU 47	-14	151	2980	-9.66	-14.06	-0.01
50	SLU 48	-2	172	2868	-9.77	-1.86	0
50	SLU 49	-10	160	2935	-9.71	-9.18	-0.01
50	SLU 50	-2	172	2868	-9.77	-1.86	0
50	SLU 51	-10	160	2935	-9.71	-9.18	-0.01
50	SLU 52	-15	137	3276	-9.59	-14.31	-0.01
50	SLU 53	-3	158	3165	-9.7	-2.11	0
50	SLU 54	-10	146	3232	-9.63	-9.43	-0.01
50	SLU 55	-15	137	3276	-9.59	-14.31	-0.01
50	SLU 56	-3	158	3165	-9.7	-2.11	0
50	SLU 57	-10	146	3232	-9.63	-9.43	-0.01
50	SLU 58	-3	158	3165	-9.7	-2.11	0
50	SLU 59	-10	146	3232	-9.63	-9.43	-0.01
50	SLU 60	-3	152	3292	-9.67	-2.21	0
50	SLU 61	-10	140	3359	-9.6	-9.53	-0.01
50	SLU 62	-3	152	3292	-9.67	-2.21	0
50	SLU 63	-10	140	3359	-9.6	-9.53	-0.01
50	SLU 64	-2	172	3035	-9.98	-1.94	0
50	SLU 65	-15	150	3146	-9.87	-14.14	-0.01
50	SLU 66	-2	172	3035	-9.98	-1.94	0
50	SLU 67	-10	159	3101	-9.92	-9.26	-0.01
50	SLU 68	-15	150	3146	-9.87	-14.14	-0.01
50	SLU 69	-2	172	3035	-9.98	-1.94	0
50	SLU 70	-10	159	3101	-9.92	-9.26	-0.01
50	SLU 71	-2	172	3035	-9.98	-1.94	0



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
50	SLU 72	-10	159	3101	-9.92	-9.26	-0.01
50	SLU 73	-15	136	3443	-9.8	-14.39	-0.01
50	SLU 74	-3	158	3331	-9.91	-2.18	0
50	SLU 75	-10	145	3398	-9.84	-9.51	-0.01
50	SLU 76	-15	136	3443	-9.8	-14.39	-0.01
50	SLU 77	-3	158	3331	-9.91	-2.18	0
50	SLU 78	-10	145	3398	-9.84	-9.51	-0.01
50	SLU 79	-3	158	3331	-9.91	-2.18	0
50	SLU 80	-10	145	3398	-9.84	-9.51	-0.01
50	SLU 81	-3	152	3459	-9.88	-2.29	0
50	SLU 82	-11	139	3525	-9.81	-9.61	-0.01
50	SLU 83	-3	152	3459	-9.88	-2.29	0
50	SLU 84	-11	139	3525	-9.81	-9.61	-0.01
50	SLE RA 1	-2	132	2298	-7.63	-1.47	0
50	SLE RA 2	-10	118	2372	-7.56	-9.61	-0.01
50	SLE RA 3	-2	132	2298	-7.63	-1.47	0
50	SLE RA 4	-7	124	2342	-7.59	-6.35	-0.01
50	SLE RA 5	-10	118	2372	-7.56	-9.61	-0.01
50	SLE RA 6	-2	132	2298	-7.63	-1.47	0
50	SLE RA 7	-7	124	2342	-7.59	-6.35	-0.01
50	SLE RA 8	-2	132	2298	-7.63	-1.47	0
50	SLE RA 9	-7	124	2342	-7.59	-6.35	-0.01
50	SLE RA 10	-10	109	2570	-7.51	-9.77	-0.01
50	SLE RA 11	-2	123	2496	-7.58	-1.64	0
50	SLE RA 12	-7	114	2540	-7.54	-6.52	-0.01
50	SLE RA 13	-10	109	2570	-7.51	-9.77	-0.01
50	SLE RA 14	-2	123	2496	-7.58	-1.64	0
50	SLE RA 15	-7	114	2540	-7.54	-6.52	-0.01
50	SLE RA 16	-2	123	2496	-7.58	-1.64	0
50	SLE RA 17	-7	114	2540	-7.54	-6.52	-0.01
50	SLE RA 18	-2	119	2580	-7.56	-1.71	0
50	SLE RA 19	-7	110	2625	-7.52	-6.59	-0.01
50	SLE RA 20	-2	119	2580	-7.56	-1.71	0
50	SLE RA 21	-7	110	2625	-7.52	-6.59	-0.01
50	SLE FR 1	-2	132	2298	-7.63	-1.47	0
50	SLE FR 2	-3	129	2313	-7.62	-3.1	0
50	SLE FR 3	-2	132	2298	-7.63	-1.47	0
50	SLE FR 4	-4	125	2397	-7.6	-3.17	0
50	SLE FR 5	-2	128	2382	-7.61	-1.54	0
50	SLE FR 6	-2	125	2439	-7.6	-1.59	0
50	SLE QP 1	-2	132	2298	-7.63	-1.47	0
50	SLE QP 2	-2	128	2382	-7.61	-1.54	0
50	SLD 1	36	174	2249	-9.6	32.73	0.02
50	SLD 2	36	174	2249	-9.6	32.73	0.02
50	SLD 3	24	33	2174	-3.38	22.24	0.01
50	SLD 4	24	33	2174	-3.38	22.24	0.01
50	SLD 5	27	356	2456	-17.63	24.67	0.02
50	SLD 6	27	356	2456	-17.63	24.67	0.02
50	SLD 7	-12	-115	2206	3.08	-10.33	-0.01
50	SLD 8	-12	-115	2206	3.08	-10.33	-0.01
50	SLD 9	8	371	2559	-18.31	7.25	0.01
50	SLD 10	8	371	2559	-18.31	7.25	0.01
50	SLD 11	-31	-100	2309	2.41	-27.75	-0.03
50	SLD 12	-31	-100	2309	2.41	-27.75	-0.03
50	SLD 13	-28	223	2591	-11.84	-25.32	-0.02
50	SLD 14	-28	223	2591	-11.84	-25.32	-0.02
50	SLD 15	-40	82	2516	-5.63	-35.82	-0.03
50	SLD 16	-40	82	2516	-5.63	-35.82	-0.03
50	SLV 1	92	236	2078	-12.21	84.75	0.06
50	SLV 2	92	236	2078	-12.21	84.75	0.06
50	SLV 3	62	-99	1886	2.52	57.35	0.03
50	SLV 4	62	-99	1886	2.52	57.35	0.03
50	SLV 5	71	668	2582	-31.34	65.91	0.06
50	SLV 6	71	668	2582	-31.34	65.91	0.06
50	SLV 7	-28	-448	1942	17.78	-25.44	-0.03
50	SLV 8	-28	-448	1942	17.78	-25.44	-0.03
50	SLV 9	24	704	2823	-33	22.35	0.03
50	SLV 10	24	704	2823	-33	22.35	0.03
50	SLV 11	-75	-412	2183	16.12	-68.99	-0.06
50	SLV 12	-75	-412	2183	16.12	-68.99	-0.06
50	SLV 13	-66	355	2879	-17.75	-60.43	-0.03
50	SLV 14	-66	355	2879	-17.75	-60.43	-0.03
50	SLV 15	-96	20	2687	-3.01	-87.83	-0.06
50	SLV 16	-96	20	2687	-3.01	-87.83	-0.06
51	SLU 1	-10	52	1456	0.72	-5.48	0.01
51	SLU 2	-4	-14	1578	4.72	0.86	0.01
51	SLU 3	-10	52	1456	0.72	-5.48	0.01
51	SLU 4	-6	12	1529	3.12	-1.68	0.01
51	SLU 5	-4	-14	1578	4.72	0.86	0.01
51	SLU 6	-10	52	1456	0.72	-5.48	0.01
51	SLU 7	-6	12	1529	3.12	-1.68	0.01
51	SLU 8	-10	52	1456	0.72	-5.48	0.01
51	SLU 9	-6	12	1529	3.12	-1.68	0.01
51	SLU 10	-6	-13	1753	5.4	-0.59	0.01
51	SLU 11	-12	52	1631	1.4	-6.93	0.01
51	SLU 12	-8	13	1704	3.8	-3.12	0.01
51	SLU 13	-6	-13	1753	5.4	-0.59	0.01
51	SLU 14	-12	52	1631	1.4	-6.93	0.01
51	SLU 15	-8	13	1704	3.8	-3.12	0.01
51	SLU 16	-12	52	1631	1.4	-6.93	0.01



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
51	SLU 17	-8	13	1704	3.8	-3.12	0.01
51	SLU 18	-13	53	1706	1.69	-7.55	0.01
51	SLU 19	-9	14	1779	4.09	-3.74	0.01
51	SLU 20	-13	53	1706	1.69	-7.55	0.01
51	SLU 21	-9	14	1779	4.09	-3.74	0.01
51	SLU 22	-11	53	1540	0.99	-6.2	0.01
51	SLU 23	-5	-12	1662	4.99	0.14	0.01
51	SLU 24	-11	53	1540	0.99	-6.2	0.01
51	SLU 25	-7	14	1613	3.39	-2.4	0.01
51	SLU 26	-5	-12	1662	4.99	0.14	0.01
51	SLU 27	-11	53	1540	0.99	-6.2	0.01
51	SLU 28	-7	14	1613	3.39	-2.4	0.01
51	SLU 29	-11	53	1540	0.99	-6.2	0.01
51	SLU 30	-7	14	1613	3.39	-2.4	0.01
51	SLU 31	-7	-11	1837	5.67	-1.3	0.01
51	SLU 32	-13	54	1715	1.67	-7.64	0.01
51	SLU 33	-9	15	1788	4.07	-3.84	0.01
51	SLU 34	-7	-11	1837	5.67	-1.3	0.01
51	SLU 35	-13	54	1715	1.67	-7.64	0.01
51	SLU 36	-9	15	1788	4.07	-3.84	0.01
51	SLU 37	-13	54	1715	1.67	-7.64	0.01
51	SLU 38	-9	15	1788	4.07	-3.84	0.01
51	SLU 39	-14	55	1790	1.96	-8.26	0.01
51	SLU 40	-10	16	1864	4.36	-4.46	0.01
51	SLU 41	-14	55	1790	1.96	-8.26	0.01
51	SLU 42	-10	16	1864	4.36	-4.46	0.01
51	SLU 43	-12	66	1863	0.85	-6.88	0.01
51	SLU 44	-6	1	1985	4.85	-0.54	0.01
51	SLU 45	-12	66	1863	0.85	-6.88	0.01
51	SLU 46	-8	27	1936	3.25	-3.08	0.01
51	SLU 47	-6	1	1985	4.85	-0.54	0.01
51	SLU 48	-12	66	1863	0.85	-6.88	0.01
51	SLU 49	-8	27	1936	3.25	-3.08	0.01
51	SLU 50	-12	66	1863	0.85	-6.88	0.01
51	SLU 51	-8	27	1936	3.25	-3.08	0.01
51	SLU 52	-8	2	2160	5.52	-1.98	0.01
51	SLU 53	-14	67	2038	1.52	-8.32	0.01
51	SLU 54	-11	28	2111	3.92	-4.52	0.01
51	SLU 55	-8	2	2160	5.52	-1.98	0.01
51	SLU 56	-14	67	2038	1.52	-8.32	0.01
51	SLU 57	-11	28	2111	3.92	-4.52	0.01
51	SLU 58	-14	67	2038	1.52	-8.32	0.01
51	SLU 59	-11	28	2111	3.92	-4.52	0.01
51	SLU 60	-15	68	2113	1.81	-8.94	0.01
51	SLU 61	-12	29	2187	4.21	-5.14	0.01
51	SLU 62	-15	68	2113	1.81	-8.94	0.01
51	SLU 63	-12	29	2187	4.21	-5.14	0.01
51	SLU 64	-13	68	1948	1.12	-7.6	0.01
51	SLU 65	-7	3	2070	5.12	-1.26	0.01
51	SLU 66	-13	68	1948	1.12	-7.6	0.01
51	SLU 67	-10	29	2021	3.52	-3.79	0.01
51	SLU 68	-7	3	2070	5.12	-1.26	0.01
51	SLU 69	-13	68	1948	1.12	-7.6	0.01
51	SLU 70	-10	29	2021	3.52	-3.79	0.01
51	SLU 71	-13	68	1948	1.12	-7.6	0.01
51	SLU 72	-10	29	2021	3.52	-3.79	0.01
51	SLU 73	-10	4	2245	5.79	-2.7	0.01
51	SLU 74	-16	69	2123	1.79	-9.04	0.01
51	SLU 75	-12	30	2196	4.19	-5.24	0.01
51	SLU 76	-10	4	2245	5.79	-2.7	0.01
51	SLU 77	-16	69	2123	1.79	-9.04	0.01
51	SLU 78	-12	30	2196	4.19	-5.24	0.01
51	SLU 79	-16	69	2123	1.79	-9.04	0.01
51	SLU 80	-12	30	2196	4.19	-5.24	0.01
51	SLU 81	-17	70	2198	2.08	-9.66	0.01
51	SLU 82	-13	30	2271	4.48	-5.86	0.01
51	SLU 83	-17	70	2198	2.08	-9.66	0.01
51	SLU 84	-13	30	2271	4.48	-5.86	0.01
51	SLE RA 1	-10	52	1480	0.8	-5.69	0.01
51	SLE RA 2	-6	9	1561	3.47	-1.46	0.01
51	SLE RA 3	-10	52	1480	0.8	-5.69	0.01
51	SLE RA 4	-8	26	1529	2.4	-3.15	0.01
51	SLE RA 5	-6	9	1561	3.47	-1.46	0.01
51	SLE RA 6	-10	52	1480	0.8	-5.69	0.01
51	SLE RA 7	-8	26	1529	2.4	-3.15	0.01
51	SLE RA 8	-10	52	1480	0.8	-5.69	0.01
51	SLE RA 9	-8	26	1529	2.4	-3.15	0.01
51	SLE RA 10	-7	9	1678	3.92	-2.42	0.01
51	SLE RA 11	-11	53	1596	1.25	-6.65	0.01
51	SLE RA 12	-9	27	1645	2.85	-4.11	0.01
51	SLE RA 13	-7	9	1678	3.92	-2.42	0.01
51	SLE RA 14	-11	53	1596	1.25	-6.65	0.01
51	SLE RA 15	-9	27	1645	2.85	-4.11	0.01
51	SLE RA 16	-11	53	1596	1.25	-6.65	0.01
51	SLE RA 17	-9	27	1645	2.85	-4.11	0.01
51	SLE RA 18	-12	53	1646	1.44	-7.06	0.01
51	SLE RA 19	-10	27	1695	3.04	-4.53	0.01
51	SLE RA 20	-12	53	1646	1.44	-7.06	0.01
51	SLE RA 21	-10	27	1695	3.04	-4.53	0.01
51	SLE FR 1	-10	52	1480	0.8	-5.69	0.01



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
51	SLE FR 2	-9	43	1496	1.33	-4.84	0.01
51	SLE FR 3	-10	52	1480	0.8	-5.69	0.01
51	SLE FR 4	-10	44	1546	1.53	-5.25	0.01
51	SLE FR 5	-11	52	1530	0.99	-6.1	0.01
51	SLE FR 6	-11	53	1563	1.12	-6.37	0.01
51	SLE QP 1	-10	52	1480	0.8	-5.69	0.01
51	SLE QP 2	-11	52	1530	0.99	-6.1	0.01
51	SLD 1	15	95	1667	-0.44	11.96	-0.01
51	SLD 2	15	95	1667	-0.44	11.96	-0.01
51	SLD 3	20	-41	1747	5.37	16.6	-0.01
51	SLD 4	20	-41	1747	5.37	16.6	-0.01
51	SLD 5	-11	271	1450	-8.24	-7.71	0
51	SLD 6	-11	271	1450	-8.24	-7.71	0
51	SLD 7	7	-181	1715	11.11	7.74	0
51	SLD 8	7	-181	1715	11.11	7.74	0
51	SLD 9	-28	286	1344	-9.12	-19.94	0.01
51	SLD 10	-28	286	1344	-9.12	-19.94	0.01
51	SLD 11	-10	-166	1609	10.22	-4.48	0.01
51	SLD 12	-10	-166	1609	10.22	-4.48	0.01
51	SLD 13	-41	145	1313	-3.38	-28.8	0.02
51	SLD 14	-41	145	1313	-3.38	-28.8	0.02
51	SLD 15	-36	10	1392	2.42	-24.16	0.02
51	SLD 16	-36	10	1392	2.42	-24.16	0.02
51	SLV 1	48	153	1842	-2.38	35.69	-0.03
51	SLV 2	48	153	1842	-2.38	35.69	-0.03
51	SLV 3	61	-170	2048	11.59	47.65	-0.03
51	SLV 4	61	-170	2048	11.59	47.65	-0.03
51	SLV 5	-14	573	1311	-21.2	-11.7	-0.01
51	SLV 6	-14	573	1311	-21.2	-11.7	-0.01
51	SLV 7	32	-504	1998	25.36	28.17	0
51	SLV 8	32	-504	1998	25.36	28.17	0
51	SLV 9	-53	609	1062	-23.37	-40.36	0.01
51	SLV 10	-53	609	1062	-23.37	-40.36	0.01
51	SLV 11	-8	-468	1748	23.19	-0.5	0.03
51	SLV 12	-8	-468	1748	23.19	-0.5	0.03
51	SLV 13	-83	275	1011	-9.6	-59.85	0.04
51	SLV 14	-83	275	1011	-9.6	-59.85	0.04
51	SLV 15	-69	-48	1217	4.37	-47.89	0.05
51	SLV 16	-69	-48	1217	4.37	-47.89	0.05
52	SLU 1	-5	44	964	0.93	-3.52	0
52	SLU 2	-6	-34	1036	5.05	-3.91	0
52	SLU 3	-5	44	964	0.93	-3.52	0
52	SLU 4	-6	-3	1007	3.4	-3.75	0
52	SLU 5	-6	-34	1036	5.05	-3.91	0
52	SLU 6	-5	44	964	0.93	-3.52	0
52	SLU 7	-6	-3	1007	3.4	-3.75	0
52	SLU 8	-5	44	964	0.93	-3.52	0
52	SLU 9	-6	-3	1007	3.4	-3.75	0
52	SLU 10	-8	-21	1208	5.47	-5.18	0
52	SLU 11	-7	57	1136	1.35	-4.79	0
52	SLU 12	-8	10	1179	3.82	-5.02	0
52	SLU 13	-8	-21	1208	5.47	-5.18	0
52	SLU 14	-7	57	1136	1.35	-4.79	0
52	SLU 15	-8	10	1179	3.82	-5.02	0
52	SLU 16	-7	57	1136	1.35	-4.79	0
52	SLU 17	-8	10	1179	3.82	-5.02	0
52	SLU 18	-8	63	1210	1.53	-5.33	0
52	SLU 19	-8	16	1253	4	-5.56	0
52	SLU 20	-8	63	1210	1.53	-5.33	0
52	SLU 21	-8	16	1253	4	-5.56	0
52	SLU 22	-6	52	1049	1.08	-4.14	0
52	SLU 23	-7	-26	1121	5.2	-4.53	0
52	SLU 24	-6	52	1049	1.08	-4.14	0
52	SLU 25	-7	5	1092	3.55	-4.38	0
52	SLU 26	-7	-26	1121	5.2	-4.53	0
52	SLU 27	-6	52	1049	1.08	-4.14	0
52	SLU 28	-7	5	1092	3.55	-4.38	0
52	SLU 29	-6	52	1049	1.08	-4.14	0
52	SLU 30	-7	5	1092	3.55	-4.38	0
52	SLU 31	-9	-13	1293	5.62	-5.8	0
52	SLU 32	-8	65	1221	1.51	-5.41	0
52	SLU 33	-8	18	1264	3.98	-5.64	0
52	SLU 34	-9	-13	1293	5.62	-5.8	0
52	SLU 35	-8	65	1221	1.51	-5.41	0
52	SLU 36	-8	18	1264	3.98	-5.64	0
52	SLU 37	-8	65	1221	1.51	-5.41	0
52	SLU 38	-8	18	1264	3.98	-5.64	0
52	SLU 39	-9	70	1295	1.69	-5.95	0
52	SLU 40	-9	23	1337	4.16	-6.19	0
52	SLU 41	-9	70	1295	1.69	-5.95	0
52	SLU 42	-9	23	1337	4.16	-6.19	0
52	SLU 43	-7	55	1225	1.15	-4.36	0
52	SLU 44	-7	-23	1296	5.27	-4.75	0
52	SLU 45	-7	55	1225	1.15	-4.36	0
52	SLU 46	-7	8	1268	3.62	-4.59	0
52	SLU 47	-7	-23	1296	5.27	-4.75	0
52	SLU 48	-7	55	1225	1.15	-4.36	0
52	SLU 49	-7	8	1268	3.62	-4.59	0
52	SLU 50	-7	55	1225	1.15	-4.36	0
52	SLU 51	-7	8	1268	3.62	-4.59	0



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
Ind.	N.br.						
52	SLU 52	-9	-10	1468	5.69	-6.02	0
52	SLU 53	-8	68	1396	1.58	-5.63	0
52	SLU 54	-9	21	1439	4.05	-5.86	0
52	SLU 55	-9	-10	1468	5.69	-6.02	0
52	SLU 56	-8	68	1396	1.58	-5.63	0
52	SLU 57	-9	21	1439	4.05	-5.86	0
52	SLU 58	-8	68	1396	1.58	-5.63	0
52	SLU 59	-9	21	1439	4.05	-5.86	0
52	SLU 60	-9	74	1470	1.76	-6.17	0
52	SLU 61	-10	27	1513	4.23	-6.41	0
52	SLU 62	-9	74	1470	1.76	-6.17	0
52	SLU 63	-10	27	1513	4.23	-6.41	0
52	SLU 64	-7	62	1310	1.31	-4.98	0
52	SLU 65	-8	-16	1381	5.43	-5.37	0
52	SLU 66	-7	62	1310	1.31	-4.98	0
52	SLU 67	-8	15	1352	3.78	-5.22	0
52	SLU 68	-8	-16	1381	5.43	-5.37	0
52	SLU 69	-7	62	1310	1.31	-4.98	0
52	SLU 70	-8	15	1352	3.78	-5.22	0
52	SLU 71	-7	62	1310	1.31	-4.98	0
52	SLU 72	-8	15	1352	3.78	-5.22	0
52	SLU 73	-10	-3	1553	5.85	-6.64	0
52	SLU 74	-9	75	1481	1.73	-6.25	0
52	SLU 75	-10	29	1524	4.2	-6.49	0
52	SLU 76	-10	-3	1553	5.85	-6.64	0
52	SLU 77	-9	75	1481	1.73	-6.25	0
52	SLU 78	-10	29	1524	4.2	-6.49	0
52	SLU 79	-9	75	1481	1.73	-6.25	0
52	SLU 80	-10	29	1524	4.2	-6.49	0
52	SLU 81	-10	81	1555	1.91	-6.8	0
52	SLU 82	-11	34	1598	4.38	-7.03	0
52	SLU 83	-10	81	1555	1.91	-6.8	0
52	SLU 84	-11	34	1598	4.38	-7.03	0
52	SLE RA 1	-6	46	989	0.97	-3.7	0
52	SLE RA 2	-6	-6	1036	3.72	-3.96	0
52	SLE RA 3	-6	46	989	0.97	-3.7	0
52	SLE RA 4	-6	15	1017	2.62	-3.85	0
52	SLE RA 5	-6	-6	1036	3.72	-3.96	0
52	SLE RA 6	-6	46	989	0.97	-3.7	0
52	SLE RA 7	-6	15	1017	2.62	-3.85	0
52	SLE RA 8	-6	46	989	0.97	-3.7	0
52	SLE RA 9	-6	15	1017	2.62	-3.85	0
52	SLE RA 10	-7	3	1151	4	-4.8	0
52	SLE RA 11	-7	55	1103	1.26	-4.54	0
52	SLE RA 12	-7	24	1132	2.9	-4.7	0
52	SLE RA 13	-7	3	1151	4	-4.8	0
52	SLE RA 14	-7	55	1103	1.26	-4.54	0
52	SLE RA 15	-7	24	1132	2.9	-4.7	0
52	SLE RA 16	-7	55	1103	1.26	-4.54	0
52	SLE RA 17	-7	24	1132	2.9	-4.7	0
52	SLE RA 18	-7	59	1152	1.38	-4.9	0
52	SLE RA 19	-8	28	1181	3.02	-5.06	0
52	SLE RA 20	-7	59	1152	1.38	-4.9	0
52	SLE RA 21	-8	28	1181	3.02	-5.06	0
52	SLE FR 1	-6	46	989	0.97	-3.7	0
52	SLE FR 2	-6	36	998	1.52	-3.75	0
52	SLE FR 3	-6	46	989	0.97	-3.7	0
52	SLE FR 4	-6	40	1047	1.64	-4.11	0
52	SLE FR 5	-6	50	1038	1.09	-4.06	0
52	SLE FR 6	-6	52	1070	1.17	-4.3	0
52	SLE QP 1	-6	46	989	0.97	-3.7	0
52	SLE QP 2	-6	50	1038	1.09	-4.06	0
52	SLD 1	12	71	852	0.31	8.25	0
52	SLD 2	12	71	852	0.31	8.25	0
52	SLD 3	9	-34	910	4.7	6.07	0
52	SLD 4	9	-34	910	4.7	6.07	0
52	SLD 5	3	216	895	-5.8	2.94	0
52	SLD 6	3	216	895	-5.8	2.94	0
52	SLD 7	-6	-135	1087	8.84	-4.33	0
52	SLD 8	-6	-135	1087	8.84	-4.33	0
52	SLD 9	-7	235	989	-6.65	-3.79	0
52	SLD 10	-7	235	989	-6.65	-3.79	0
52	SLD 11	-15	-116	1181	7.99	-11.06	0
52	SLD 12	-15	-116	1181	7.99	-11.06	0
52	SLD 13	-21	134	1166	-2.52	-14.19	0
52	SLD 14	-21	134	1166	-2.52	-14.19	0
52	SLD 15	-24	29	1223	1.87	-16.37	0
52	SLD 16	-24	29	1223	1.87	-16.37	0
52	SLV 1	36	101	595	-0.79	25.14	-0.01
52	SLV 2	36	101	595	-0.79	25.14	-0.01
52	SLV 3	29	-154	741	9.94	19.66	-0.01
52	SLV 4	29	-154	741	9.94	19.66	-0.01
52	SLV 5	17	452	683	-15.74	13.02	-0.01
52	SLV 6	17	452	683	-15.74	13.02	-0.01
52	SLV 7	-6	-398	1171	20.02	-5.26	0
52	SLV 8	-6	-398	1171	20.02	-5.26	0
52	SLV 9	-7	498	905	-17.83	-2.86	0
52	SLV 10	-7	498	905	-17.83	-2.86	0
52	SLV 11	-29	-352	1392	17.93	-21.14	0.01
52	SLV 12	-29	-352	1392	17.93	-21.14	0.01



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
52	SLV 13	-41	254	1335	-7.75	-27.78	0.01
52	SLV 14	-41	254	1335	-7.75	-27.78	0.01
52	SLV 15	-48	-1	1481	2.98	-33.26	0.01
52	SLV 16	-48	-1	1481	2.98	-33.26	0.01
53	SLU 1	-1	26	2240	0.41	-1.09	0
53	SLU 2	-12	-33	2378	3.97	-12.45	-0.01
53	SLU 3	-1	26	2240	0.41	-1.09	0
53	SLU 4	-8	-10	2323	2.54	-7.91	-0.01
53	SLU 5	-12	-33	2378	3.97	-12.45	-0.01
53	SLU 6	-1	26	2240	0.41	-1.09	0
53	SLU 7	-8	-10	2323	2.54	-7.91	-0.01
53	SLU 8	-1	26	2240	0.41	-1.09	0
53	SLU 9	-8	-10	2323	2.54	-7.91	-0.01
53	SLU 10	-12	-60	2652	5.33	-12.4	-0.01
53	SLU 11	-2	-1	2514	1.78	-1.04	0
53	SLU 12	-8	-36	2597	3.91	-7.85	-0.01
53	SLU 13	-12	-60	2652	5.33	-12.4	-0.01
53	SLU 14	-2	-1	2514	1.78	-1.04	0
53	SLU 15	-8	-36	2597	3.91	-7.85	-0.01
53	SLU 16	-2	-1	2514	1.78	-1.04	0
53	SLU 17	-8	-36	2597	3.91	-7.85	-0.01
53	SLU 18	-2	-12	2631	2.36	-1.01	0
53	SLU 19	-8	-47	2714	4.5	-7.83	-0.01
53	SLU 20	-2	-12	2631	2.36	-1.01	0
53	SLU 21	-8	-47	2714	4.5	-7.83	-0.01
53	SLU 22	-1	19	2396	0.81	-1.02	0
53	SLU 23	-12	-40	2534	4.37	-12.38	-0.01
53	SLU 24	-1	19	2396	0.81	-1.02	0
53	SLU 25	-8	-17	2479	2.94	-7.84	-0.01
53	SLU 26	-12	-40	2534	4.37	-12.38	-0.01
53	SLU 27	-1	19	2396	0.81	-1.02	0
53	SLU 28	-8	-17	2479	2.94	-7.84	-0.01
53	SLU 29	-1	19	2396	0.81	-1.02	0
53	SLU 30	-8	-17	2479	2.94	-7.84	-0.01
53	SLU 31	-12	-67	2808	5.73	-12.33	-0.01
53	SLU 32	-2	-8	2670	2.18	-0.97	0
53	SLU 33	-8	-43	2753	4.31	-7.78	-0.01
53	SLU 34	-12	-67	2808	5.73	-12.33	-0.01
53	SLU 35	-2	-8	2670	2.18	-0.97	0
53	SLU 36	-8	-43	2753	4.31	-7.78	-0.01
53	SLU 37	-2	-8	2670	2.18	-0.97	0
53	SLU 38	-8	-43	2753	4.31	-7.78	-0.01
53	SLU 39	-2	-19	2787	2.76	-0.94	0
53	SLU 40	-8	-54	2870	4.9	-7.76	-0.01
53	SLU 41	-2	-19	2787	2.76	-0.94	0
53	SLU 42	-8	-54	2870	4.9	-7.76	-0.01
53	SLU 43	-2	36	2859	0.39	-1.45	0
53	SLU 44	-12	-23	2997	3.95	-12.81	-0.01
53	SLU 45	-2	36	2859	0.39	-1.45	0
53	SLU 46	-8	0	2942	2.53	-8.26	-0.01
53	SLU 47	-12	-23	2997	3.95	-12.81	-0.01
53	SLU 48	-2	36	2859	0.39	-1.45	0
53	SLU 49	-8	0	2942	2.53	-8.26	-0.01
53	SLU 50	-2	36	2859	0.39	-1.45	0
53	SLU 51	-8	0	2942	2.53	-8.26	-0.01
53	SLU 52	-12	-49	3271	5.32	-12.75	-0.01
53	SLU 53	-2	9	3133	1.76	-1.39	0
53	SLU 54	-8	-26	3216	3.9	-8.2	-0.01
53	SLU 55	-12	-49	3271	5.32	-12.75	-0.01
53	SLU 56	-2	9	3133	1.76	-1.39	0
53	SLU 57	-8	-26	3216	3.9	-8.2	-0.01
53	SLU 58	-2	9	3133	1.76	-1.39	0
53	SLU 59	-8	-26	3216	3.9	-8.2	-0.01
53	SLU 60	-2	-2	3250	2.35	-1.36	0
53	SLU 61	-8	-37	3333	4.48	-8.18	-0.01
53	SLU 62	-2	-2	3250	2.35	-1.36	0
53	SLU 63	-8	-37	3333	4.48	-8.18	-0.01
53	SLU 64	-2	29	3015	0.79	-1.37	0
53	SLU 65	-12	-30	3153	4.35	-12.74	-0.01
53	SLU 66	-2	29	3015	0.79	-1.37	0
53	SLU 67	-8	-7	3097	2.93	-8.19	-0.01
53	SLU 68	-12	-30	3153	4.35	-12.74	-0.01
53	SLU 69	-2	29	3015	0.79	-1.37	0
53	SLU 70	-8	-7	3097	2.93	-8.19	-0.01
53	SLU 71	-2	29	3015	0.79	-1.37	0
53	SLU 72	-8	-7	3097	2.93	-8.19	-0.01
53	SLU 73	-13	-56	3426	5.72	-12.68	-0.01
53	SLU 74	-2	2	3288	2.16	-1.32	0
53	SLU 75	-8	-33	3371	4.3	-8.13	-0.01
53	SLU 76	-13	-56	3426	5.72	-12.68	-0.01
53	SLU 77	-2	2	3288	2.16	-1.32	0
53	SLU 78	-8	-33	3371	4.3	-8.13	-0.01
53	SLU 79	-2	2	3288	2.16	-1.32	0
53	SLU 80	-8	-33	3371	4.3	-8.13	-0.01
53	SLU 81	-2	-9	3406	2.75	-1.29	0
53	SLU 82	-8	-44	3489	4.88	-8.11	-0.01
53	SLU 83	-2	-9	3406	2.75	-1.29	0
53	SLU 84	-8	-44	3489	4.88	-8.11	-0.01
53	SLE RA 1	-1	24	2285	0.52	-1.07	0
53	SLE RA 2	-8	-16	2377	2.89	-8.65	-0.01



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
53	SLE RA 3	-1	24	2285	0.52	-1.07	0
53	SLE RA 4	-6	0	2340	1.95	-5.62	0
53	SLE RA 5	-8	-16	2377	2.89	-8.65	-0.01
53	SLE RA 6	-1	24	2285	0.52	-1.07	0
53	SLE RA 7	-6	0	2340	1.95	-5.62	0
53	SLE RA 8	-1	24	2285	0.52	-1.07	0
53	SLE RA 9	-6	0	2340	1.95	-5.62	0
53	SLE RA 10	-9	-33	2559	3.81	-8.61	-0.01
53	SLE RA 11	-2	6	2467	1.43	-1.03	0
53	SLE RA 12	-6	-17	2522	2.86	-5.58	0
53	SLE RA 13	-9	-33	2559	3.81	-8.61	-0.01
53	SLE RA 14	-2	6	2467	1.43	-1.03	0
53	SLE RA 15	-6	-17	2522	2.86	-5.58	0
53	SLE RA 16	-2	6	2467	1.43	-1.03	0
53	SLE RA 17	-6	-17	2522	2.86	-5.58	0
53	SLE RA 18	-2	-2	2546	1.83	-1.02	0
53	SLE RA 19	-6	-25	2601	3.25	-5.56	0
53	SLE RA 20	-2	-2	2546	1.83	-1.02	0
53	SLE RA 21	-6	-25	2601	3.25	-5.56	0
53	SLE FR 1	-1	24	2285	0.52	-1.07	0
53	SLE FR 2	-3	16	2303	1	-2.59	0
53	SLE FR 3	-1	24	2285	0.52	-1.07	0
53	SLE FR 4	-3	8	2381	1.39	-2.57	0
53	SLE FR 5	-1	16	2363	0.91	-1.06	0
53	SLE FR 6	-1	11	2415	1.17	-1.05	0
53	SLE QP 1	-1	24	2285	0.52	-1.07	0
53	SLE QP 2	-1	16	2363	0.91	-1.06	0
53	SLD 1	40	106	2178	-3.28	36.67	-0.02
53	SLD 2	40	106	2178	-3.28	36.67	-0.02
53	SLD 3	30	-31	2253	3.05	26.08	-0.03
53	SLD 4	30	-31	2253	3.05	26.08	-0.03
53	SLD 5	27	251	2194	-9.94	26.32	0.01
53	SLD 6	27	251	2194	-9.94	26.32	0.01
53	SLD 7	-8	-206	2444	11.15	-8.98	-0.03
53	SLD 8	-8	-206	2444	11.15	-8.98	-0.03
53	SLD 9	5	238	2282	-9.32	6.87	0.02
53	SLD 10	5	238	2282	-9.32	6.87	0.02
53	SLD 11	-30	-219	2532	11.77	-28.44	-0.01
53	SLD 12	-30	-219	2532	11.77	-28.44	-0.01
53	SLD 13	-33	63	2472	-1.22	-28.19	0.03
53	SLD 14	-33	63	2472	-1.22	-28.19	0.03
53	SLD 15	-43	-74	2547	5.11	-38.78	0.02
53	SLD 16	-43	-74	2547	5.11	-38.78	0.02
53	SLV 1	103	231	1919	-9.11	93.74	-0.06
53	SLV 2	103	231	1919	-9.11	93.74	-0.06
53	SLV 3	76	-95	2117	6.01	66.17	-0.08
53	SLV 4	76	-95	2117	6.01	66.17	-0.08
53	SLV 5	71	576	1928	-25.04	69.21	0.02
53	SLV 6	71	576	1928	-25.04	69.21	0.02
53	SLV 7	-20	-512	2591	25.39	-22.71	-0.06
53	SLV 8	-20	-512	2591	25.39	-22.71	-0.06
53	SLV 9	17	545	2135	-23.56	20.6	0.06
53	SLV 10	17	545	2135	-23.56	20.6	0.06
53	SLV 11	-74	-543	2798	26.86	-71.32	-0.02
53	SLV 12	-74	-543	2798	26.86	-71.32	-0.02
53	SLV 13	-78	128	2608	-4.19	-68.28	0.08
53	SLV 14	-78	128	2608	-4.19	-68.28	0.08
53	SLV 15	-106	-199	2807	10.94	-95.85	0.06
53	SLV 16	-106	-199	2807	10.94	-95.85	0.06
54	SLU 1	-10	121	1430	-7.42	-5.78	0.01
54	SLU 2	-6	75	1544	-6.67	-0.27	0.01
54	SLU 3	-10	121	1430	-7.42	-5.78	0.01
54	SLU 4	-7	93	1498	-6.97	-2.47	0.01
54	SLU 5	-6	75	1544	-6.67	-0.27	0.01
54	SLU 6	-10	121	1430	-7.42	-5.78	0.01
54	SLU 7	-7	93	1498	-6.97	-2.47	0.01
54	SLU 8	-10	121	1430	-7.42	-5.78	0.01
54	SLU 9	-7	93	1498	-6.97	-2.47	0.01
54	SLU 10	-8	99	1713	-8.26	-1.85	0.01
54	SLU 11	-13	145	1599	-9.01	-7.36	0.01
54	SLU 12	-10	117	1667	-8.56	-4.06	0.01
54	SLU 13	-8	99	1713	-8.26	-1.85	0.01
54	SLU 14	-13	145	1599	-9.01	-7.36	0.01
54	SLU 15	-10	117	1667	-8.56	-4.06	0.01
54	SLU 16	-13	145	1599	-9.01	-7.36	0.01
54	SLU 17	-10	117	1667	-8.56	-4.06	0.01
54	SLU 18	-14	156	1671	-9.69	-8.04	0.01
54	SLU 19	-11	128	1739	-9.24	-4.74	0.01
54	SLU 20	-14	156	1671	-9.69	-8.04	0.01
54	SLU 21	-11	128	1739	-9.24	-4.74	0.01
54	SLU 22	-11	134	1512	-8.22	-6.56	0.01
54	SLU 23	-7	87	1626	-7.47	-1.05	0.01
54	SLU 24	-11	134	1512	-8.22	-6.56	0.01
54	SLU 25	-9	106	1580	-7.77	-3.25	0.01
54	SLU 26	-7	87	1626	-7.47	-1.05	0.01
54	SLU 27	-11	134	1512	-8.22	-6.56	0.01
54	SLU 28	-9	106	1580	-7.77	-3.25	0.01
54	SLU 29	-11	134	1512	-8.22	-6.56	0.01
54	SLU 30	-9	106	1580	-7.77	-3.25	0.01
54	SLU 31	-9	111	1794	-9.07	-2.63	0.01





Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
54	SLU 32	-14	158	1680	-9.82	-8.14	0.01
54	SLU 33	-11	130	1749	-9.37	-4.84	0.01
54	SLU 34	-9	111	1794	-9.07	-2.63	0.01
54	SLU 35	-14	158	1680	-9.82	-8.14	0.01
54	SLU 36	-11	130	1749	-9.37	-4.84	0.01
54	SLU 37	-14	158	1680	-9.82	-8.14	0.01
54	SLU 38	-11	130	1749	-9.37	-4.84	0.01
54	SLU 39	-15	168	1753	-10.5	-8.82	0.01
54	SLU 40	-12	140	1821	-10.05	-5.52	0.01
54	SLU 41	-15	168	1753	-10.5	-8.82	0.01
54	SLU 42	-12	140	1821	-10.05	-5.52	0.01
54	SLU 43	-13	154	1831	-9.37	-7.25	0.01
54	SLU 44	-8	107	1945	-8.62	-1.73	0.01
54	SLU 45	-13	154	1831	-9.37	-7.25	0.01
54	SLU 46	-10	125	1899	-8.92	-3.94	0.01
54	SLU 47	-8	107	1945	-8.62	-1.73	0.01
54	SLU 48	-13	154	1831	-9.37	-7.25	0.01
54	SLU 49	-10	125	1899	-8.92	-3.94	0.01
54	SLU 50	-13	154	1831	-9.37	-7.25	0.01
54	SLU 51	-10	125	1899	-8.92	-3.94	0.01
54	SLU 52	-11	131	2114	-10.21	-3.32	0.01
54	SLU 53	-15	178	2000	-10.96	-8.83	0.01
54	SLU 54	-13	149	2068	-10.51	-5.52	0.01
54	SLU 55	-11	131	2114	-10.21	-3.32	0.01
54	SLU 56	-15	178	2000	-10.96	-8.83	0.01
54	SLU 57	-13	149	2068	-10.51	-5.52	0.01
54	SLU 58	-15	178	2000	-10.96	-8.83	0.01
54	SLU 59	-13	149	2068	-10.51	-5.52	0.01
54	SLU 60	-16	188	2072	-11.64	-9.51	0.01
54	SLU 61	-14	160	2140	-11.19	-6.2	0.01
54	SLU 62	-16	188	2072	-11.64	-9.51	0.01
54	SLU 63	-14	160	2140	-11.19	-6.2	0.01
54	SLU 64	-14	166	1913	-10.17	-8.03	0.01
54	SLU 65	-9	119	2027	-9.42	-2.51	0.01
54	SLU 66	-14	166	1913	-10.17	-8.03	0.01
54	SLU 67	-11	138	1981	-9.72	-4.72	0.01
54	SLU 68	-9	119	2027	-9.42	-2.51	0.01
54	SLU 69	-14	166	1913	-10.17	-8.03	0.01
54	SLU 70	-11	138	1981	-9.72	-4.72	0.01
54	SLU 71	-14	166	1913	-10.17	-8.03	0.01
54	SLU 72	-11	138	1981	-9.72	-4.72	0.01
54	SLU 73	-12	143	2195	-11.01	-4.1	0.01
54	SLU 74	-17	190	2081	-11.77	-9.61	0.01
54	SLU 75	-14	162	2150	-11.31	-6.3	0.01
54	SLU 76	-12	143	2195	-11.01	-4.1	0.01
54	SLU 77	-17	190	2081	-11.77	-9.61	0.01
54	SLU 78	-14	162	2150	-11.31	-6.3	0.01
54	SLU 79	-17	190	2081	-11.77	-9.61	0.01
54	SLU 80	-14	162	2150	-11.31	-6.3	0.01
54	SLU 81	-18	200	2153	-12.45	-10.29	0.01
54	SLU 82	-15	172	2222	-12	-6.98	0.01
54	SLU 83	-18	200	2153	-12.45	-10.29	0.01
54	SLU 84	-15	172	2222	-12	-6.98	0.01
54	SLE RA 1	-11	125	1453	-7.65	-6	0.01
54	SLE RA 2	-7	94	1529	-7.15	-2.33	0.01
54	SLE RA 3	-11	125	1453	-7.65	-6	0.01
54	SLE RA 4	-9	106	1499	-7.35	-3.8	0.01
54	SLE RA 5	-7	94	1529	-7.15	-2.33	0.01
54	SLE RA 6	-11	125	1453	-7.65	-6	0.01
54	SLE RA 7	-9	106	1499	-7.35	-3.8	0.01
54	SLE RA 8	-11	125	1453	-7.65	-6	0.01
54	SLE RA 9	-9	106	1499	-7.35	-3.8	0.01
54	SLE RA 10	-9	110	1642	-8.21	-3.38	0.01
54	SLE RA 11	-12	141	1566	-8.71	-7.06	0.01
54	SLE RA 12	-10	122	1611	-8.41	-4.85	0.01
54	SLE RA 13	-9	110	1642	-8.21	-3.38	0.01
54	SLE RA 14	-12	141	1566	-8.71	-7.06	0.01
54	SLE RA 15	-10	122	1611	-8.41	-4.85	0.01
54	SLE RA 16	-12	141	1566	-8.71	-7.06	0.01
54	SLE RA 17	-10	122	1611	-8.41	-4.85	0.01
54	SLE RA 18	-13	148	1614	-9.16	-7.51	0.01
54	SLE RA 19	-11	129	1660	-8.86	-5.31	0.01
54	SLE RA 20	-13	148	1614	-9.16	-7.51	0.01
54	SLE RA 21	-11	129	1660	-8.86	-5.31	0.01
54	SLE FR 1	-11	125	1453	-7.65	-6	0.01
54	SLE FR 2	-10	119	1469	-7.55	-5.27	0.01
54	SLE FR 3	-11	125	1453	-7.65	-6	0.01
54	SLE FR 4	-11	126	1517	-8	-5.72	0.01
54	SLE FR 5	-11	132	1502	-8.1	-6.46	0.01
54	SLE FR 6	-12	136	1534	-8.41	-6.76	0.01
54	SLE QP 1	-11	125	1453	-7.65	-6	0.01
54	SLE QP 2	-11	132	1502	-8.1	-6.46	0.01
54	SLD 1	15	236	1639	-12.43	12.04	-0.01
54	SLD 2	15	236	1639	-12.43	12.04	-0.01
54	SLD 3	19	101	1712	-6.99	15.92	-0.01
54	SLD 4	19	101	1712	-6.99	15.92	-0.01
54	SLD 5	-10	369	1433	-17.66	-6.79	0
54	SLD 6	-10	369	1433	-17.66	-6.79	0
54	SLD 7	4	-83	1675	0.49	6.14	0.01
54	SLD 8	4	-83	1675	0.49	6.14	0.01



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
54	SLD 9	-26	347	1328	-16.7	-19.05	0.01
54	SLD 10	-26	347	1328	-16.7	-19.05	0.01
54	SLD 11	-13	-105	1570	1.45	-6.12	0.02
54	SLD 12	-13	-105	1570	1.45	-6.12	0.02
54	SLD 13	-41	163	1291	-9.22	-28.83	0.02
54	SLD 14	-41	163	1291	-9.22	-28.83	0.02
54	SLD 15	-37	27	1364	-3.77	-24.95	0.03
54	SLD 16	-37	27	1364	-3.77	-24.95	0.03
54	SLV 1	49	379	1814	-18.32	36.4	-0.03
54	SLV 2	49	379	1814	-18.32	36.4	-0.03
54	SLV 3	59	57	2003	-5.45	46.48	-0.02
54	SLV 4	59	57	2003	-5.45	46.48	-0.02
54	SLV 5	-9	694	1309	-30.69	-8.89	-0.01
54	SLV 6	-9	694	1309	-30.69	-8.89	-0.01
54	SLV 7	25	-379	1938	12.22	24.71	0.01
54	SLV 8	25	-379	1938	12.22	24.71	0.01
54	SLV 9	-48	643	1065	-28.42	-37.62	0.01
54	SLV 10	-48	643	1065	-28.42	-37.62	0.01
54	SLV 11	-14	-431	1694	14.49	-4.02	0.03
54	SLV 12	-14	-431	1694	14.49	-4.02	0.03
54	SLV 13	-82	207	1000	-10.76	-59.39	0.04
54	SLV 14	-82	207	1000	-10.76	-59.39	0.04
54	SLV 15	-71	-115	1189	2.11	-49.31	0.05
54	SLV 16	-71	-115	1189	2.11	-49.31	0.05
55	SLU 1	-6	112	957	-6.85	-3.69	0
55	SLU 2	-6	48	1025	-5.06	-4.08	0
55	SLU 3	-6	112	957	-6.85	-3.69	0
55	SLU 4	-6	74	998	-5.78	-3.92	0
55	SLU 5	-6	48	1025	-5.06	-4.08	0
55	SLU 6	-6	112	957	-6.85	-3.69	0
55	SLU 7	-6	74	998	-5.78	-3.92	0
55	SLU 8	-6	112	957	-6.85	-3.69	0
55	SLU 9	-6	74	998	-5.78	-3.92	0
55	SLU 10	-8	89	1197	-7.5	-5.43	0
55	SLU 11	-7	153	1129	-9.29	-5.03	0
55	SLU 12	-8	115	1170	-8.22	-5.27	0
55	SLU 13	-8	89	1197	-7.5	-5.43	0
55	SLU 14	-7	153	1129	-9.29	-5.03	0
55	SLU 15	-8	115	1170	-8.22	-5.27	0
55	SLU 16	-7	153	1129	-9.29	-5.03	0
55	SLU 17	-8	115	1170	-8.22	-5.27	0
55	SLU 18	-8	170	1203	-10.34	-5.61	0
55	SLU 19	-9	132	1244	-9.26	-5.85	0
55	SLU 20	-8	170	1203	-10.34	-5.61	0
55	SLU 21	-9	132	1244	-9.26	-5.85	0
55	SLU 22	-6	133	1043	-8.08	-4.35	0
55	SLU 23	-7	69	1110	-6.28	-4.75	0
55	SLU 24	-6	133	1043	-8.08	-4.35	0
55	SLU 25	-7	95	1083	-7	-4.59	0
55	SLU 26	-7	69	1110	-6.28	-4.75	0
55	SLU 27	-6	133	1043	-8.08	-4.35	0
55	SLU 28	-7	95	1083	-7	-4.59	0
55	SLU 29	-6	133	1043	-8.08	-4.35	0
55	SLU 30	-7	95	1083	-7	-4.59	0
55	SLU 31	-9	110	1282	-8.72	-6.09	0
55	SLU 32	-8	174	1215	-10.52	-5.7	0
55	SLU 33	-9	136	1255	-9.44	-5.93	0
55	SLU 34	-9	110	1282	-8.72	-6.09	0
55	SLU 35	-8	174	1215	-10.52	-5.7	0
55	SLU 36	-9	136	1255	-9.44	-5.93	0
55	SLU 37	-8	174	1215	-10.52	-5.7	0
55	SLU 38	-9	136	1255	-9.44	-5.93	0
55	SLU 39	-9	191	1288	-11.56	-6.27	0
55	SLU 40	-10	153	1329	-10.49	-6.51	0
55	SLU 41	-9	191	1288	-11.56	-6.27	0
55	SLU 42	-10	153	1329	-10.49	-6.51	0
55	SLU 43	-7	138	1216	-8.49	-4.57	0
55	SLU 44	-7	75	1283	-6.7	-4.96	0
55	SLU 45	-7	138	1216	-8.49	-4.57	0
55	SLU 46	-7	100	1256	-7.41	-4.8	0
55	SLU 47	-7	75	1283	-6.7	-4.96	0
55	SLU 48	-7	138	1216	-8.49	-4.57	0
55	SLU 49	-7	100	1256	-7.41	-4.8	0
55	SLU 50	-7	138	1216	-8.49	-4.57	0
55	SLU 51	-7	100	1256	-7.41	-4.8	0
55	SLU 52	-9	116	1455	-9.13	-6.31	0
55	SLU 53	-9	179	1388	-10.93	-5.91	0
55	SLU 54	-9	141	1428	-9.85	-6.15	0
55	SLU 55	-9	116	1455	-9.13	-6.31	0
55	SLU 56	-9	179	1388	-10.93	-5.91	0
55	SLU 57	-9	141	1428	-9.85	-6.15	0
55	SLU 58	-9	179	1388	-10.93	-5.91	0
55	SLU 59	-9	141	1428	-9.85	-6.15	0
55	SLU 60	-10	197	1461	-11.98	-6.49	0
55	SLU 61	-10	159	1502	-10.9	-6.72	0
55	SLU 62	-10	197	1461	-11.98	-6.49	0
55	SLU 63	-10	159	1502	-10.9	-6.72	0
55	SLU 64	-8	159	1301	-9.71	-5.23	0
55	SLU 65	-8	96	1368	-7.92	-5.62	0
55	SLU 66	-8	159	1301	-9.71	-5.23	0



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
55	SLU 67	-8	121	1341	-8.64	-5.47	0
55	SLU 68	-8	96	1368	-7.92	-5.62	0
55	SLU 69	-8	159	1301	-9.71	-5.23	0
55	SLU 70	-8	121	1341	-8.64	-5.47	0
55	SLU 71	-8	159	1301	-9.71	-5.23	0
55	SLU 72	-8	121	1341	-8.64	-5.47	0
55	SLU 73	-10	137	1540	-10.36	-6.97	0
55	SLU 74	-10	200	1473	-12.15	-6.58	0
55	SLU 75	-10	162	1513	-11.08	-6.81	0
55	SLU 76	-10	137	1540	-10.36	-6.97	0
55	SLU 77	-10	200	1473	-12.15	-6.58	0
55	SLU 78	-10	162	1513	-11.08	-6.81	0
55	SLU 79	-10	200	1473	-12.15	-6.58	0
55	SLU 80	-10	162	1513	-11.08	-6.81	0
55	SLU 81	-11	218	1546	-13.2	-7.15	0
55	SLU 82	-11	180	1587	-12.12	-7.39	0
55	SLU 83	-11	218	1546	-13.2	-7.15	0
55	SLU 84	-11	180	1587	-12.12	-7.39	0
55	SLE RA 1	-6	118	982	-7.2	-3.88	0
55	SLE RA 2	-6	76	1027	-6.01	-4.14	0
55	SLE RA 3	-6	118	982	-7.2	-3.88	0
55	SLE RA 4	-6	93	1009	-6.49	-4.04	0
55	SLE RA 5	-6	76	1027	-6.01	-4.14	0
55	SLE RA 6	-6	118	982	-7.2	-3.88	0
55	SLE RA 7	-6	93	1009	-6.49	-4.04	0
55	SLE RA 8	-6	118	982	-7.2	-3.88	0
55	SLE RA 9	-6	93	1009	-6.49	-4.04	0
55	SLE RA 10	-8	103	1141	-7.63	-5.04	0
55	SLE RA 11	-7	145	1096	-8.83	-4.77	0
55	SLE RA 12	-7	120	1123	-8.11	-4.93	0
55	SLE RA 13	-8	103	1141	-7.63	-5.04	0
55	SLE RA 14	-7	145	1096	-8.83	-4.77	0
55	SLE RA 15	-7	120	1123	-8.11	-4.93	0
55	SLE RA 16	-7	145	1096	-8.83	-4.77	0
55	SLE RA 17	-7	120	1123	-8.11	-4.93	0
55	SLE RA 18	-8	157	1146	-9.53	-5.16	0
55	SLE RA 19	-8	131	1173	-8.81	-5.32	0
55	SLE RA 20	-8	157	1146	-9.53	-5.16	0
55	SLE RA 21	-8	131	1173	-8.81	-5.32	0
55	SLE FR 1	-6	118	982	-7.2	-3.88	0
55	SLE FR 2	-6	110	991	-6.96	-3.93	0
55	SLE FR 3	-6	118	982	-7.2	-3.88	0
55	SLE FR 4	-6	121	1040	-7.66	-4.31	0
55	SLE FR 5	-6	130	1031	-7.9	-4.26	0
55	SLE FR 6	-7	137	1064	-8.37	-4.52	0
55	SLE QP 1	-6	118	982	-7.2	-3.88	0
55	SLE QP 2	-6	130	1031	-7.9	-4.26	0
55	SLD 1	12	148	841	-8.72	8.6	0
55	SLD 2	12	148	841	-8.72	8.6	0
55	SLD 3	10	42	900	-4.44	6.43	0
55	SLD 4	10	42	900	-4.44	6.43	0
55	SLD 5	3	296	885	-14.65	2.89	0
55	SLD 6	3	296	885	-14.65	2.89	0
55	SLD 7	-5	-58	1081	-0.36	-4.35	0
55	SLD 8	-5	-58	1081	-0.36	-4.35	0
55	SLD 9	-7	317	981	-15.44	-4.18	0
55	SLD 10	-7	317	981	-15.44	-4.18	0
55	SLD 11	-16	-37	1177	-1.15	-11.41	0
55	SLD 12	-16	-37	1177	-1.15	-11.41	0
55	SLD 13	-22	217	1162	-11.37	-14.95	0
55	SLD 14	-22	217	1162	-11.37	-14.95	0
55	SLD 15	-25	111	1221	-7.08	-17.12	0
55	SLD 16	-25	111	1221	-7.08	-17.12	0
55	SLV 1	38	175	578	-9.9	26.23	0
55	SLV 2	38	175	578	-9.9	26.23	0
55	SLV 3	31	-82	727	0.42	20.77	0
55	SLV 4	31	-82	727	0.42	20.77	0
55	SLV 5	17	533	669	-24.15	13.17	0
55	SLV 6	17	533	669	-24.15	13.17	0
55	SLV 7	-5	-323	1166	10.24	-5.03	0
55	SLV 8	-5	-323	1166	10.24	-5.03	0
55	SLV 9	-8	583	896	-26.05	-3.49	0
55	SLV 10	-8	583	896	-26.05	-3.49	0
55	SLV 11	-29	-273	1393	8.35	-21.69	0
55	SLV 12	-29	-273	1393	8.35	-21.69	0
55	SLV 13	-44	342	1335	-16.22	-29.3	0
55	SLV 14	-44	342	1335	-16.22	-29.3	0
55	SLV 15	-50	85	1484	-5.9	-34.76	0
55	SLV 16	-50	85	1484	-5.9	-34.76	0
56	SLU 1	-1	-44	2208	0.2	-0.44	0
56	SLU 2	-9	-97	2367	1.92	-9.74	0.01
56	SLU 3	-1	-44	2208	0.2	-0.44	0
56	SLU 4	-6	-76	2303	1.23	-6.02	0
56	SLU 5	-9	-97	2367	1.92	-9.74	0.01
56	SLU 6	-1	-44	2208	0.2	-0.44	0
56	SLU 7	-6	-76	2303	1.23	-6.02	0
56	SLU 8	-1	-44	2208	0.2	-0.44	0
56	SLU 9	-6	-76	2303	1.23	-6.02	0
56	SLU 10	-9	-126	2618	2.8	-9.25	0.01
56	SLU 11	0	-73	2459	1.08	0.05	0



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
Ind.	N.br.						
56	SLU 12	-5	-104	2554	2.12	-5.53	0
56	SLU 13	-9	-126	2618	2.8	-9.25	0.01
56	SLU 14	0	-73	2459	1.08	0.05	0
56	SLU 15	-5	-104	2554	2.12	-5.53	0
56	SLU 16	0	-73	2459	1.08	0.05	0
56	SLU 17	-5	-104	2554	2.12	-5.53	0
56	SLU 18	0	-85	2567	1.46	0.26	0
56	SLU 19	-5	-117	2662	2.49	-5.32	0.01
56	SLU 20	0	-85	2567	1.46	0.26	0
56	SLU 21	-5	-117	2662	2.49	-5.32	0.01
56	SLU 22	0	-54	2353	0.44	-0.17	0
56	SLU 23	-9	-107	2511	2.16	-9.46	0.01
56	SLU 24	0	-54	2353	0.44	-0.17	0
56	SLU 25	-5	-85	2448	1.48	-5.74	0
56	SLU 26	-9	-107	2511	2.16	-9.46	0.01
56	SLU 27	0	-54	2353	0.44	-0.17	0
56	SLU 28	-5	-85	2448	1.48	-5.74	0
56	SLU 29	0	-54	2353	0.44	-0.17	0
56	SLU 30	-5	-85	2448	1.48	-5.74	0
56	SLU 31	-9	-135	2762	3.05	-8.98	0.01
56	SLU 32	0	-82	2604	1.33	0.32	0
56	SLU 33	-5	-114	2699	2.36	-5.26	0.01
56	SLU 34	-9	-135	2762	3.05	-8.98	0.01
56	SLU 35	0	-82	2604	1.33	0.32	0
56	SLU 36	-5	-114	2699	2.36	-5.26	0.01
56	SLU 37	0	-82	2604	1.33	0.32	0
56	SLU 38	-5	-114	2699	2.36	-5.26	0.01
56	SLU 39	0	-94	2712	1.71	0.53	0
56	SLU 40	-5	-126	2807	2.74	-5.05	0.01
56	SLU 41	0	-94	2712	1.71	0.53	0
56	SLU 42	-5	-126	2807	2.74	-5.05	0.01
56	SLU 43	-1	-54	2821	0.18	-0.67	0
56	SLU 44	-9	-107	2979	1.9	-9.96	0.01
56	SLU 45	-1	-54	2821	0.18	-0.67	0
56	SLU 46	-6	-86	2916	1.21	-6.24	0
56	SLU 47	-9	-107	2979	1.9	-9.96	0.01
56	SLU 48	-1	-54	2821	0.18	-0.67	0
56	SLU 49	-6	-86	2916	1.21	-6.24	0
56	SLU 50	-1	-54	2821	0.18	-0.67	0
56	SLU 51	-6	-86	2916	1.21	-6.24	0
56	SLU 52	-9	-135	3230	2.78	-9.47	0.01
56	SLU 53	-1	-82	3072	1.06	-0.18	0
56	SLU 54	-6	-114	3167	2.09	-5.76	0.01
56	SLU 55	-9	-135	3230	2.78	-9.47	0.01
56	SLU 56	-1	-82	3072	1.06	-0.18	0
56	SLU 57	-6	-114	3167	2.09	-5.76	0.01
56	SLU 58	-1	-82	3072	1.06	-0.18	0
56	SLU 59	-6	-114	3167	2.09	-5.76	0.01
56	SLU 60	-1	-95	3180	1.44	0.03	0
56	SLU 61	-6	-126	3275	2.47	-5.55	0.01
56	SLU 62	-1	-95	3180	1.44	0.03	0
56	SLU 63	-6	-126	3275	2.47	-5.55	0.01
56	SLU 64	-1	-64	2966	0.42	-0.39	0
56	SLU 65	-9	-117	3124	2.14	-9.69	0.01
56	SLU 66	-1	-64	2966	0.42	-0.39	0
56	SLU 67	-6	-95	3061	1.45	-5.97	0
56	SLU 68	-9	-117	3124	2.14	-9.69	0.01
56	SLU 69	-1	-64	2966	0.42	-0.39	0
56	SLU 70	-6	-95	3061	1.45	-5.97	0
56	SLU 71	-1	-64	2966	0.42	-0.39	0
56	SLU 72	-6	-95	3061	1.45	-5.97	0
56	SLU 73	-9	-145	3375	3.02	-9.2	0.01
56	SLU 74	0	-92	3217	1.3	0.09	0
56	SLU 75	-5	-124	3312	2.34	-5.48	0.01
56	SLU 76	-9	-145	3375	3.02	-9.2	0.01
56	SLU 77	0	-92	3217	1.3	0.09	0
56	SLU 78	-5	-124	3312	2.34	-5.48	0.01
56	SLU 79	0	-92	3217	1.3	0.09	0
56	SLU 80	-5	-124	3312	2.34	-5.48	0.01
56	SLU 81	0	-104	3325	1.68	0.3	0
56	SLU 82	-5	-136	3420	2.71	-5.27	0.01
56	SLU 83	0	-104	3325	1.68	0.3	0
56	SLU 84	-5	-136	3420	2.71	-5.27	0.01
56	SLE RA 1	-1	-47	2250	0.27	-0.36	0
56	SLE RA 2	-6	-82	2355	1.42	-6.56	0
56	SLE RA 3	-1	-47	2250	0.27	-0.36	0
56	SLE RA 4	-4	-68	2313	0.96	-4.08	0
56	SLE RA 5	-6	-82	2355	1.42	-6.56	0
56	SLE RA 6	-1	-47	2250	0.27	-0.36	0
56	SLE RA 7	-4	-68	2313	0.96	-4.08	0
56	SLE RA 8	-1	-47	2250	0.27	-0.36	0
56	SLE RA 9	-4	-68	2313	0.96	-4.08	0
56	SLE RA 10	-6	-101	2523	2	-6.23	0
56	SLE RA 11	0	-66	2417	0.86	-0.04	0
56	SLE RA 12	-4	-87	2480	1.55	-3.76	0
56	SLE RA 13	-6	-101	2523	2	-6.23	0
56	SLE RA 14	0	-66	2417	0.86	-0.04	0
56	SLE RA 15	-4	-87	2480	1.55	-3.76	0
56	SLE RA 16	0	-66	2417	0.86	-0.04	0
56	SLE RA 17	-4	-87	2480	1.55	-3.76	0



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
56	SLE RA 18	0	-74	2489	1.11	0.1	0
56	SLE RA 19	-4	-95	2552	1.8	-3.62	0
56	SLE RA 20	0	-74	2489	1.11	0.1	0
56	SLE RA 21	-4	-95	2552	1.8	-3.62	0
56	SLE FR 1	-1	-47	2250	0.27	-0.36	0
56	SLE FR 2	-2	-54	2271	0.5	-1.6	0
56	SLE FR 3	-1	-47	2250	0.27	-0.36	0
56	SLE FR 4	-2	-62	2343	0.75	-1.46	0
56	SLE FR 5	-1	-55	2321	0.52	-0.22	0
56	SLE FR 6	0	-60	2369	0.69	-0.13	0
56	SLE QP 1	-1	-47	2250	0.27	-0.36	0
56	SLE QP 2	-1	-55	2321	0.52	-0.22	0
56	SLD 1	32	26	2144	-3.15	26.88	-0.03
56	SLD 2	32	26	2144	-3.15	26.88	-0.03
56	SLD 3	42	-98	2246	2.69	37.23	-0.02
56	SLD 4	42	-98	2246	2.69	37.23	-0.02
56	SLD 5	-6	156	2113	-9.44	-7.79	-0.02
56	SLD 6	-6	156	2113	-9.44	-7.79	-0.02
56	SLD 7	28	-255	2454	10.03	26.71	0.01
56	SLD 8	28	-255	2454	10.03	26.71	0.01
56	SLD 9	-29	145	2189	-8.99	-27.16	0
56	SLD 10	-29	145	2189	-8.99	-27.16	0
56	SLD 11	5	-266	2530	10.48	7.34	0.02
56	SLD 12	5	-266	2530	10.48	7.34	0.02
56	SLD 13	-43	-12	2397	-1.65	-37.68	0.02
56	SLD 14	-43	-12	2397	-1.65	-37.68	0.02
56	SLD 15	-33	-135	2499	4.19	-27.33	0.03
56	SLD 16	-33	-135	2499	4.19	-27.33	0.03
56	SLV 1	79	137	1892	-8.21	66.85	-0.06
56	SLV 2	79	137	1892	-8.21	66.85	-0.06
56	SLV 3	105	-157	2155	5.67	93.61	-0.05
56	SLV 4	105	-157	2155	5.67	93.61	-0.05
56	SLV 5	-16	447	1793	-23.15	-20.69	-0.05
56	SLV 6	-16	447	1793	-23.15	-20.69	-0.05
56	SLV 7	71	-530	2671	23.11	68.51	0.02
56	SLV 8	71	-530	2671	23.11	68.51	0.02
56	SLV 9	-72	420	1972	-22.07	-68.96	-0.01
56	SLV 10	-72	420	1972	-22.07	-68.96	-0.01
56	SLV 11	15	-557	2849	24.19	20.24	0.05
56	SLV 12	15	-557	2849	24.19	20.24	0.05
56	SLV 13	-106	47	2488	-4.62	-94.05	0.05
56	SLV 14	-106	47	2488	-4.62	-94.05	0.05
56	SLV 15	-80	-246	2751	9.25	-67.29	0.07
56	SLV 16	-80	-246	2751	9.25	-67.29	0.07
57	SLU 1	-10	91	1446	-1.61	-5.64	0.01
57	SLU 2	-7	25	1547	1.9	-1.16	0.01
57	SLU 3	-10	91	1446	-1.61	-5.64	0.01
57	SLU 4	-8	52	1507	0.49	-2.95	0.01
57	SLU 5	-7	25	1547	1.9	-1.16	0.01
57	SLU 6	-10	91	1446	-1.61	-5.64	0.01
57	SLU 7	-8	52	1507	0.49	-2.95	0.01
57	SLU 8	-10	91	1446	-1.61	-5.64	0.01
57	SLU 9	-8	52	1507	0.49	-2.95	0.01
57	SLU 10	-10	47	1723	1.54	-2.77	0.01
57	SLU 11	-13	113	1622	-1.97	-7.25	0.01
57	SLU 12	-11	74	1683	0.13	-4.56	0.01
57	SLU 13	-10	47	1723	1.54	-2.77	0.01
57	SLU 14	-13	113	1622	-1.97	-7.25	0.01
57	SLU 15	-11	74	1683	0.13	-4.56	0.01
57	SLU 16	-13	113	1622	-1.97	-7.25	0.01
57	SLU 17	-11	74	1683	0.13	-4.56	0.01
57	SLU 18	-14	123	1697	-2.13	-7.94	0.01
57	SLU 19	-12	83	1758	-0.02	-5.26	0.01
57	SLU 20	-14	123	1697	-2.13	-7.94	0.01
57	SLU 21	-12	83	1758	-0.02	-5.26	0.01
57	SLU 22	-11	102	1531	-1.8	-6.43	0.01
57	SLU 23	-8	36	1632	1.71	-1.95	0.01
57	SLU 24	-11	102	1531	-1.8	-6.43	0.01
57	SLU 25	-9	63	1592	0.3	-3.74	0.01
57	SLU 26	-8	36	1632	1.71	-1.95	0.01
57	SLU 27	-11	102	1531	-1.8	-6.43	0.01
57	SLU 28	-9	63	1592	0.3	-3.74	0.01
57	SLU 29	-11	102	1531	-1.8	-6.43	0.01
57	SLU 30	-9	63	1592	0.3	-3.74	0.01
57	SLU 31	-11	59	1808	1.35	-3.56	0.01
57	SLU 32	-14	124	1707	-2.16	-8.04	0.01
57	SLU 33	-12	85	1768	-0.06	-5.35	0.01
57	SLU 34	-11	59	1808	1.35	-3.56	0.01
57	SLU 35	-14	124	1707	-2.16	-8.04	0.01
57	SLU 36	-12	85	1768	-0.06	-5.35	0.01
57	SLU 37	-14	124	1707	-2.16	-8.04	0.01
57	SLU 38	-12	85	1768	-0.06	-5.35	0.01
57	SLU 39	-15	134	1782	-2.32	-8.73	0.01
57	SLU 40	-13	94	1843	-0.21	-6.04	0.01
57	SLU 41	-15	134	1782	-2.32	-8.73	0.01
57	SLU 42	-13	94	1843	-0.21	-6.04	0.01
57	SLU 43	-13	115	1850	-2.03	-7.06	0.01
57	SLU 44	-10	49	1952	1.48	-2.58	0.01
57	SLU 45	-13	115	1850	-2.03	-7.06	0.01
57	SLU 46	-11	75	1911	0.07	-4.37	0.01



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
57	SLU 47	-10	49	1952	1.48	-2.58	0.01
57	SLU 48	-13	115	1850	-2.03	-7.06	0.01
57	SLU 49	-11	75	1911	0.07	-4.37	0.01
57	SLU 50	-13	115	1850	-2.03	-7.06	0.01
57	SLU 51	-11	75	1911	0.07	-4.37	0.01
57	SLU 52	-12	71	2128	1.12	-4.19	0.01
57	SLU 53	-15	137	2026	-2.39	-8.67	0.01
57	SLU 54	-13	97	2087	-0.29	-5.98	0.01
57	SLU 55	-12	71	2128	1.12	-4.19	0.01
57	SLU 56	-15	137	2026	-2.39	-8.67	0.01
57	SLU 57	-13	97	2087	-0.29	-5.98	0.01
57	SLU 58	-15	137	2026	-2.39	-8.67	0.01
57	SLU 59	-13	97	2087	-0.29	-5.98	0.01
57	SLU 60	-16	146	2102	-2.55	-9.36	0.02
57	SLU 61	-15	107	2162	-0.44	-6.68	0.02
57	SLU 62	-16	146	2102	-2.55	-9.36	0.02
57	SLU 63	-15	107	2162	-0.44	-6.68	0.02
57	SLU 64	-14	126	1936	-2.22	-7.85	0.01
57	SLU 65	-11	60	2037	1.29	-3.37	0.01
57	SLU 66	-14	126	1936	-2.22	-7.85	0.01
57	SLU 67	-12	86	1996	-0.11	-5.16	0.01
57	SLU 68	-11	60	2037	1.29	-3.37	0.01
57	SLU 69	-14	126	1936	-2.22	-7.85	0.01
57	SLU 70	-12	86	1996	-0.11	-5.16	0.01
57	SLU 71	-14	126	1936	-2.22	-7.85	0.01
57	SLU 72	-12	86	1996	-0.11	-5.16	0.01
57	SLU 73	-13	82	2213	0.93	-4.98	0.02
57	SLU 74	-17	148	2111	-2.58	-9.46	0.02
57	SLU 75	-15	108	2172	-0.48	-6.77	0.02
57	SLU 76	-13	82	2213	0.93	-4.98	0.02
57	SLU 77	-17	148	2111	-2.58	-9.46	0.02
57	SLU 78	-15	108	2172	-0.48	-6.77	0.02
57	SLU 79	-17	148	2111	-2.58	-9.46	0.02
57	SLU 80	-15	108	2172	-0.48	-6.77	0.02
57	SLU 81	-18	157	2187	-2.74	-10.15	0.02
57	SLU 82	-16	118	2248	-0.63	-7.47	0.02
57	SLU 83	-18	157	2187	-2.74	-10.15	0.02
57	SLU 84	-16	118	2248	-0.63	-7.47	0.02
57	SLE RA 1	-10	94	1470	-1.67	-5.86	0.01
57	SLE RA 2	-8	50	1538	0.67	-2.88	0.01
57	SLE RA 3	-10	94	1470	-1.67	-5.86	0.01
57	SLE RA 4	-9	68	1511	-0.26	-4.07	0.01
57	SLE RA 5	-8	50	1538	0.67	-2.88	0.01
57	SLE RA 6	-10	94	1470	-1.67	-5.86	0.01
57	SLE RA 7	-9	68	1511	-0.26	-4.07	0.01
57	SLE RA 8	-10	94	1470	-1.67	-5.86	0.01
57	SLE RA 9	-9	68	1511	-0.26	-4.07	0.01
57	SLE RA 10	-10	65	1655	0.43	-3.95	0.01
57	SLE RA 11	-12	109	1587	-1.91	-6.94	0.01
57	SLE RA 12	-11	83	1628	-0.5	-5.15	0.01
57	SLE RA 13	-10	65	1655	0.43	-3.95	0.01
57	SLE RA 14	-12	109	1587	-1.91	-6.94	0.01
57	SLE RA 15	-11	83	1628	-0.5	-5.15	0.01
57	SLE RA 16	-12	109	1587	-1.91	-6.94	0.01
57	SLE RA 17	-11	83	1628	-0.5	-5.15	0.01
57	SLE RA 18	-13	115	1638	-2.01	-7.4	0.01
57	SLE RA 19	-12	89	1678	-0.61	-5.61	0.01
57	SLE RA 20	-13	115	1638	-2.01	-7.4	0.01
57	SLE RA 21	-12	89	1678	-0.61	-5.61	0.01
57	SLE FR 1	-10	94	1470	-1.67	-5.86	0.01
57	SLE FR 2	-10	86	1484	-1.2	-5.27	0.01
57	SLE FR 3	-10	94	1470	-1.67	-5.86	0.01
57	SLE FR 4	-11	92	1534	-1.3	-5.73	0.01
57	SLE FR 5	-11	101	1520	-1.77	-6.32	0.01
57	SLE FR 6	-12	105	1554	-1.84	-6.63	0.01
57	SLE QP 1	-10	94	1470	-1.67	-5.86	0.01
57	SLE QP 2	-11	101	1520	-1.77	-6.32	0.01
57	SLD 1	15	222	1650	-2.69	10.55	0
57	SLD 2	15	222	1650	-2.69	10.55	0
57	SLD 3	12	82	1714	3.13	13.69	0
57	SLD 4	12	82	1714	3.13	13.69	0
57	SLD 5	2	349	1463	-10.88	-6.02	0
57	SLD 6	2	349	1463	-10.88	-6.02	0
57	SLD 7	-9	-117	1675	8.53	4.44	0.01
57	SLD 8	-9	-117	1675	8.53	4.44	0.01
57	SLD 9	-13	318	1365	-12.07	-17.09	0.01
57	SLD 10	-13	318	1365	-12.07	-17.09	0.01
57	SLD 11	-24	-147	1578	7.34	-6.63	0.02
57	SLD 12	-24	-147	1578	7.34	-6.63	0.02
57	SLD 13	-34	119	1327	-6.67	-26.34	0.02
57	SLD 14	-34	119	1327	-6.67	-26.34	0.02
57	SLD 15	-37	-20	1391	-0.85	-23.2	0.03
57	SLD 16	-37	-20	1391	-0.85	-23.2	0.03
57	SLV 1	51	387	1816	-4.04	32.78	-0.03
57	SLV 2	51	387	1816	-4.04	32.78	-0.03
57	SLV 3	42	55	1982	9.91	40.99	-0.02
57	SLV 4	42	55	1982	9.91	40.99	-0.02
57	SLV 5	20	691	1357	-23.61	-7.04	-0.01
57	SLV 6	20	691	1357	-23.61	-7.04	-0.01
57	SLV 7	-7	-418	1911	22.89	20.32	0.01



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
57	SLV 8	-7	-418	1911	22.89	20.32	0.01
57	SLV 9	-15	619	1130	-26.43	-32.97	0.01
57	SLV 10	-15	619	1130	-26.43	-32.97	0.01
57	SLV 11	-42	-490	1683	20.07	-5.6	0.03
57	SLV 12	-42	-490	1683	20.07	-5.6	0.03
57	SLV 13	-65	147	1059	-13.45	-53.64	0.04
57	SLV 14	-65	147	1059	-13.45	-53.64	0.04
57	SLV 15	-73	-186	1225	0.5	-45.43	0.05
57	SLV 16	-73	-186	1225	0.5	-45.43	0.05
58	SLU 1	-5	82	988	-1.21	-3.52	0
58	SLU 2	-6	3	1052	2.61	-3.88	0
58	SLU 3	-5	82	988	-1.21	-3.52	0
58	SLU 4	-6	35	1027	1.08	-3.74	0
58	SLU 5	-6	3	1052	2.61	-3.88	0
58	SLU 6	-5	82	988	-1.21	-3.52	0
58	SLU 7	-6	35	1027	1.08	-3.74	0
58	SLU 8	-5	82	988	-1.21	-3.52	0
58	SLU 9	-6	35	1027	1.08	-3.74	0
58	SLU 10	-8	38	1240	1.97	-5.18	0
58	SLU 11	-7	116	1176	-1.84	-4.82	0
58	SLU 12	-8	69	1214	0.44	-5.04	0
58	SLU 13	-8	38	1240	1.97	-5.18	0
58	SLU 14	-7	116	1176	-1.84	-4.82	0
58	SLU 15	-8	69	1214	0.44	-5.04	0
58	SLU 16	-7	116	1176	-1.84	-4.82	0
58	SLU 17	-8	69	1214	0.44	-5.04	0
58	SLU 18	-8	131	1256	-2.12	-5.38	0
58	SLU 19	-8	84	1295	0.17	-5.6	0
58	SLU 20	-8	131	1256	-2.12	-5.38	0
58	SLU 21	-8	84	1295	0.17	-5.6	0
58	SLU 22	-6	100	1081	-1.58	-4.17	0
58	SLU 23	-7	21	1146	2.24	-4.53	0
58	SLU 24	-6	100	1081	-1.58	-4.17	0
58	SLU 25	-7	53	1120	0.71	-4.38	0
58	SLU 26	-7	21	1146	2.24	-4.53	0
58	SLU 27	-6	100	1081	-1.58	-4.17	0
58	SLU 28	-7	53	1120	0.71	-4.38	0
58	SLU 29	-6	100	1081	-1.58	-4.17	0
58	SLU 30	-7	53	1120	0.71	-4.38	0
58	SLU 31	-9	56	1333	1.6	-5.83	0
58	SLU 32	-8	135	1269	-2.21	-5.47	0
58	SLU 33	-8	87	1308	0.08	-5.68	0
58	SLU 34	-9	56	1333	1.6	-5.83	0
58	SLU 35	-8	135	1269	-2.21	-5.47	0
58	SLU 36	-8	87	1308	0.08	-5.68	0
58	SLU 37	-8	135	1269	-2.21	-5.47	0
58	SLU 38	-8	87	1308	0.08	-5.68	0
58	SLU 39	-9	149	1349	-2.49	-6.03	0
58	SLU 40	-9	102	1388	-0.2	-6.24	0
58	SLU 41	-9	149	1349	-2.49	-6.03	0
58	SLU 42	-9	102	1388	-0.2	-6.24	0
58	SLU 43	-7	100	1252	-1.45	-4.36	0
58	SLU 44	-7	22	1317	2.37	-4.72	0
58	SLU 45	-7	100	1252	-1.45	-4.36	0
58	SLU 46	-7	53	1291	0.84	-4.57	0
58	SLU 47	-7	22	1317	2.37	-4.72	0
58	SLU 48	-7	100	1252	-1.45	-4.36	0
58	SLU 49	-7	53	1291	0.84	-4.57	0
58	SLU 50	-7	100	1252	-1.45	-4.36	0
58	SLU 51	-7	53	1291	0.84	-4.57	0
58	SLU 52	-9	56	1505	1.73	-6.02	0
58	SLU 53	-8	135	1440	-2.08	-5.66	0
58	SLU 54	-9	87	1479	0.21	-5.87	0
58	SLU 55	-9	56	1505	1.73	-6.02	0
58	SLU 56	-8	135	1440	-2.08	-5.66	0
58	SLU 57	-9	87	1479	0.21	-5.87	0
58	SLU 58	-8	135	1440	-2.08	-5.66	0
58	SLU 59	-9	87	1479	0.21	-5.87	0
58	SLU 60	-9	150	1520	-2.35	-6.22	0
58	SLU 61	-10	102	1559	-0.06	-6.43	0
58	SLU 62	-9	150	1520	-2.35	-6.22	0
58	SLU 63	-10	102	1559	-0.06	-6.43	0
58	SLU 64	-7	118	1345	-1.81	-5	0
58	SLU 65	-8	40	1410	2	-5.36	0
58	SLU 66	-7	118	1345	-1.81	-5	0
58	SLU 67	-8	71	1384	0.47	-5.22	0
58	SLU 68	-8	40	1410	2	-5.36	0
58	SLU 69	-7	118	1345	-1.81	-5	0
58	SLU 70	-8	71	1384	0.47	-5.22	0
58	SLU 71	-7	118	1345	-1.81	-5	0
58	SLU 72	-8	71	1384	0.47	-5.22	0
58	SLU 73	-10	74	1598	1.37	-6.66	0
58	SLU 74	-9	153	1533	-2.45	-6.31	0
58	SLU 75	-10	106	1572	-0.16	-6.52	0
58	SLU 76	-10	74	1598	1.37	-6.66	0
58	SLU 77	-9	153	1533	-2.45	-6.31	0
58	SLU 78	-10	106	1572	-0.16	-6.52	0
58	SLU 79	-9	153	1533	-2.45	-6.31	0
58	SLU 80	-10	106	1572	-0.16	-6.52	0
58	SLU 81	-10	168	1614	-2.72	-6.86	0



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
58	SLU 82	-11	120	1652	-0.43	-7.08	0
58	SLU 83	-10	168	1614	-2.72	-6.86	0
58	SLU 84	-11	120	1652	-0.43	-7.08	0
58	SLE RA 1	-6	87	1014	-1.31	-3.71	0
58	SLE RA 2	-6	35	1057	1.23	-3.95	0
58	SLE RA 3	-6	87	1014	-1.31	-3.71	0
58	SLE RA 4	-6	56	1040	0.21	-3.85	0
58	SLE RA 5	-6	35	1057	1.23	-3.95	0
58	SLE RA 6	-6	87	1014	-1.31	-3.71	0
58	SLE RA 7	-6	56	1040	0.21	-3.85	0
58	SLE RA 8	-6	87	1014	-1.31	-3.71	0
58	SLE RA 9	-6	56	1040	0.21	-3.85	0
58	SLE RA 10	-7	58	1183	0.81	-4.81	0
58	SLE RA 11	-7	110	1140	-1.74	-4.57	0
58	SLE RA 12	-7	79	1165	-0.21	-4.72	0
58	SLE RA 13	-7	58	1183	0.81	-4.81	0
58	SLE RA 14	-7	110	1140	-1.74	-4.57	0
58	SLE RA 15	-7	79	1165	-0.21	-4.72	0
58	SLE RA 16	-7	110	1140	-1.74	-4.57	0
58	SLE RA 17	-7	79	1165	-0.21	-4.72	0
58	SLE RA 18	-7	120	1193	-1.92	-4.95	0
58	SLE RA 19	-8	88	1219	-0.39	-5.09	0
58	SLE RA 20	-7	120	1193	-1.92	-4.95	0
58	SLE RA 21	-8	88	1219	-0.39	-5.09	0
58	SLE FR 1	-6	87	1014	-1.31	-3.71	0
58	SLE FR 2	-6	77	1023	-0.81	-3.75	0
58	SLE FR 3	-6	87	1014	-1.31	-3.71	0
58	SLE FR 4	-6	86	1077	-0.99	-4.13	0
58	SLE FR 5	-6	97	1068	-1.5	-4.08	0
58	SLE FR 6	-6	104	1104	-1.62	-4.33	0
58	SLE QP 1	-6	87	1014	-1.31	-3.71	0
58	SLE QP 2	-6	97	1068	-1.5	-4.08	0
58	SLD 1	11	105	893	-1.94	7.94	0
58	SLD 2	11	105	893	-1.94	7.94	0
58	SLD 3	9	-3	954	2.5	5.84	0.01
58	SLD 4	9	-3	954	2.5	5.84	0.01
58	SLD 5	3	263	923	-8.36	2.7	0
58	SLD 6	3	263	923	-8.36	2.7	0
58	SLD 7	-5	-97	1127	6.43	-4.28	0
58	SLD 8	-5	-97	1127	6.43	-4.28	0
58	SLD 9	-7	291	1009	-9.42	-3.88	0
58	SLD 10	-7	291	1009	-9.42	-3.88	0
58	SLD 11	-15	-69	1213	5.36	-10.86	0
58	SLD 12	-15	-69	1213	5.36	-10.86	0
58	SLD 13	-21	197	1182	-5.49	-14	0
58	SLD 14	-21	197	1182	-5.49	-14	0
58	SLD 15	-23	89	1243	-1.06	-16.1	0
58	SLD 16	-23	89	1243	-1.06	-16.1	0
58	SLV 1	35	119	650	-2.65	24.42	0.01
58	SLV 2	35	119	650	-2.65	24.42	0.01
58	SLV 3	28	-143	806	8.17	19.14	0.01
58	SLV 4	28	-143	806	8.17	19.14	0.01
58	SLV 5	16	502	706	-18.24	12.49	0
58	SLV 6	16	502	706	-18.24	12.49	0
58	SLV 7	-5	-373	1226	17.81	-5.14	0.01
58	SLV 8	-5	-373	1226	17.81	-5.14	0.01
58	SLV 9	-7	567	910	-20.8	-3.02	-0.01
58	SLV 10	-7	567	910	-20.8	-3.02	-0.01
58	SLV 11	-28	-308	1430	15.25	-20.65	0
58	SLV 12	-28	-308	1430	15.25	-20.65	0
58	SLV 13	-40	337	1330	-11.16	-27.29	-0.01
58	SLV 14	-40	337	1330	-11.16	-27.29	-0.01
58	SLV 15	-47	75	1486	-0.34	-32.58	-0.01
58	SLV 16	-47	75	1486	-0.34	-32.58	-0.01
59	SLU 1	1	-195	2206	11.04	0.56	0
59	SLU 2	-2	-261	2418	15.31	-4.84	0.01
59	SLU 3	1	-195	2206	11.04	0.56	0
59	SLU 4	-1	-235	2333	13.6	-2.68	0.01
59	SLU 5	-2	-261	2418	15.31	-4.84	0.01
59	SLU 6	1	-195	2206	11.04	0.56	0
59	SLU 7	-1	-235	2333	13.6	-2.68	0.01
59	SLU 8	1	-195	2206	11.04	0.56	0
59	SLU 9	-1	-235	2333	13.6	-2.68	0.01
59	SLU 10	0	-302	2659	17.5	-3.8	0.01
59	SLU 11	3	-236	2448	13.23	1.6	-0.01
59	SLU 12	1	-275	2575	15.79	-1.64	0
59	SLU 13	0	-302	2659	17.5	-3.8	0.01
59	SLU 14	3	-236	2448	13.23	1.6	-0.01
59	SLU 15	1	-275	2575	15.79	-1.64	0
59	SLU 16	3	-236	2448	13.23	1.6	-0.01
59	SLU 17	1	-275	2575	15.79	-1.64	0
59	SLU 18	3	-254	2552	14.17	2.05	-0.01
59	SLU 19	1	-293	2678	16.73	-1.19	0
59	SLU 20	3	-254	2552	14.17	2.05	-0.01
59	SLU 21	1	-293	2678	16.73	-1.19	0
59	SLU 22	2	-213	2345	12	1.09	-0.01
59	SLU 23	-1	-279	2556	16.27	-4.31	0.01
59	SLU 24	2	-213	2345	12	1.09	-0.01
59	SLU 25	0	-253	2472	14.56	-2.15	0
59	SLU 26	-1	-279	2556	16.27	-4.31	0.01





Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
59	SLU 27	2	-213	2345	12	1.09	-0.01
59	SLU 28	0	-253	2472	14.56	-2.15	0
59	SLU 29	2	-213	2345	12	1.09	-0.01
59	SLU 30	0	-253	2472	14.56	-2.15	0
59	SLU 31	0	-320	2798	18.46	-3.27	0.01
59	SLU 32	3	-254	2586	14.19	2.13	-0.01
59	SLU 33	1	-293	2713	16.75	-1.11	0
59	SLU 34	0	-320	2798	18.46	-3.27	0.01
59	SLU 35	3	-254	2586	14.19	2.13	-0.01
59	SLU 36	1	-293	2713	16.75	-1.11	0
59	SLU 37	3	-254	2586	14.19	2.13	-0.01
59	SLU 38	1	-293	2713	16.75	-1.11	0
59	SLU 39	4	-272	2690	15.13	2.58	-0.01
59	SLU 40	2	-311	2817	17.69	-0.66	0
59	SLU 41	4	-272	2690	15.13	2.58	-0.01
59	SLU 42	2	-311	2817	17.69	-0.66	0
59	SLU 43	1	-248	2821	14.02	0.54	0
59	SLU 44	-2	-313	3032	18.29	-4.85	0.01
59	SLU 45	1	-248	2821	14.02	0.54	0
59	SLU 46	-1	-287	2948	16.58	-2.69	0.01
59	SLU 47	-2	-313	3032	18.29	-4.85	0.01
59	SLU 48	1	-248	2821	14.02	0.54	0
59	SLU 49	-1	-287	2948	16.58	-2.69	0.01
59	SLU 50	1	-248	2821	14.02	0.54	0
59	SLU 51	-1	-287	2948	16.58	-2.69	0.01
59	SLU 52	0	-354	3274	20.48	-3.81	0.01
59	SLU 53	3	-289	3063	16.21	1.59	-0.01
59	SLU 54	1	-328	3189	18.77	-1.65	0
59	SLU 55	0	-354	3274	20.48	-3.81	0.01
59	SLU 56	3	-289	3063	16.21	1.59	-0.01
59	SLU 57	1	-328	3189	18.77	-1.65	0
59	SLU 58	3	-289	3063	16.21	1.59	-0.01
59	SLU 59	1	-328	3189	18.77	-1.65	0
59	SLU 60	3	-306	3166	17.15	2.03	-0.01
59	SLU 61	2	-345	3293	19.71	-1.2	0
59	SLU 62	3	-306	3166	17.15	2.03	-0.01
59	SLU 63	2	-345	3293	19.71	-1.2	0
59	SLU 64	2	-266	2959	14.99	1.07	-0.01
59	SLU 65	-1	-331	3170	19.25	-4.33	0.01
59	SLU 66	2	-266	2959	14.99	1.07	-0.01
59	SLU 67	0	-305	3086	17.55	-2.17	0
59	SLU 68	-1	-331	3170	19.25	-4.33	0.01
59	SLU 69	2	-266	2959	14.99	1.07	-0.01
59	SLU 70	0	-305	3086	17.55	-2.17	0
59	SLU 71	2	-266	2959	14.99	1.07	-0.01
59	SLU 72	0	-305	3086	17.55	-2.17	0
59	SLU 73	0	-372	3412	21.44	-3.28	0.01
59	SLU 74	3	-307	3201	17.17	2.12	-0.01
59	SLU 75	2	-346	3328	19.73	-1.12	0
59	SLU 76	0	-372	3412	21.44	-3.28	0.01
59	SLU 77	3	-307	3201	17.17	2.12	-0.01
59	SLU 78	2	-346	3328	19.73	-1.12	0
59	SLU 79	3	-307	3201	17.17	2.12	-0.01
59	SLU 80	2	-346	3328	19.73	-1.12	0
59	SLU 81	4	-324	3305	18.11	2.56	-0.01
59	SLU 82	2	-363	3431	20.67	-0.68	0
59	SLU 83	4	-324	3305	18.11	2.56	-0.01
59	SLU 84	2	-363	3431	20.67	-0.68	0
59	SLE RA 1	1	-201	2246	11.32	0.71	0
59	SLE RA 2	-1	-244	2387	14.16	-2.89	0.01
59	SLE RA 3	1	-201	2246	11.32	0.71	0
59	SLE RA 4	0	-227	2330	13.02	-1.45	0
59	SLE RA 5	-1	-244	2387	14.16	-2.89	0.01
59	SLE RA 6	1	-201	2246	11.32	0.71	0
59	SLE RA 7	0	-227	2330	13.02	-1.45	0
59	SLE RA 8	1	-201	2246	11.32	0.71	0
59	SLE RA 9	0	-227	2330	13.02	-1.45	0
59	SLE RA 10	0	-271	2548	15.62	-2.2	0
59	SLE RA 11	2	-228	2407	12.77	1.4	-0.01
59	SLE RA 12	1	-254	2492	14.48	-0.76	0
59	SLE RA 13	0	-271	2548	15.62	-2.2	0
59	SLE RA 14	2	-228	2407	12.77	1.4	-0.01
59	SLE RA 15	1	-254	2492	14.48	-0.76	0
59	SLE RA 16	2	-228	2407	12.77	1.4	-0.01
59	SLE RA 17	1	-254	2492	14.48	-0.76	0
59	SLE RA 18	3	-239	2476	13.4	1.7	-0.01
59	SLE RA 19	2	-266	2561	15.11	-0.46	0
59	SLE RA 20	3	-239	2476	13.4	1.7	-0.01
59	SLE RA 21	2	-266	2561	15.11	-0.46	0
59	SLE FR 1	1	-201	2246	11.32	0.71	0
59	SLE FR 2	1	-209	2274	11.88	-0.01	0
59	SLE FR 3	1	-201	2246	11.32	0.71	0
59	SLE FR 4	1	-221	2343	12.51	0.29	0
59	SLE FR 5	2	-212	2315	11.94	1.01	0
59	SLE FR 6	2	-220	2361	12.36	1.21	-0.01
59	SLE QP 1	1	-201	2246	11.32	0.71	0
59	SLE QP 2	2	-212	2315	11.94	1.01	0
59	SLD 1	-38	-140	2096	7.76	23.71	-0.06
59	SLD 2	-38	-140	2096	7.76	23.71	-0.06
59	SLD 3	-27	-240	2304	13.54	33.48	-0.09



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
59	SLD 4	-27	-240	2304	13.54	33.48	-0.09
59	SLD 5	-28	-39	1934	1.93	-7	0.03
59	SLD 6	-28	-39	1934	1.93	-7	0.03
59	SLD 7	11	-372	2627	21.18	25.57	-0.08
59	SLD 8	11	-372	2627	21.18	25.57	-0.08
59	SLD 9	-7	-52	2003	2.7	-23.55	0.07
59	SLD 10	-7	-52	2003	2.7	-23.55	0.07
59	SLD 11	31	-385	2696	21.95	9.01	-0.04
59	SLD 12	31	-385	2696	21.95	9.01	-0.04
59	SLD 13	30	-184	2326	10.34	-31.47	0.08
59	SLD 14	30	-184	2326	10.34	-31.47	0.08
59	SLD 15	42	-284	2534	16.12	-21.7	0.05
59	SLD 16	42	-284	2534	16.12	-21.7	0.05
59	SLV 1	-97	-40	1787	1.85	56.9	-0.14
59	SLV 2	-97	-40	1787	1.85	56.9	-0.14
59	SLV 3	-68	-280	2298	15.79	81.8	-0.22
59	SLV 4	-68	-280	2298	15.79	81.8	-0.22
59	SLV 5	-71	203	1382	-12.22	-20	0.08
59	SLV 6	-71	203	1382	-12.22	-20	0.08
59	SLV 7	24	-596	3085	34.23	63.02	-0.19
59	SLV 8	24	-596	3085	34.23	63.02	-0.19
59	SLV 9	-21	171	1545	-10.34	-61	0.18
59	SLV 10	-21	171	1545	-10.34	-61	0.18
59	SLV 11	75	-627	3248	36.1	22.01	-0.09
59	SLV 12	75	-627	3248	36.1	22.01	-0.09
59	SLV 13	72	-145	2332	8.09	-79.79	0.21
59	SLV 14	72	-145	2332	8.09	-79.79	0.21
59	SLV 15	100	-385	2843	22.03	-54.88	0.13
59	SLV 16	100	-385	2843	22.03	-54.88	0.13
60	SLU 1	-9	139	1476	-7	-4.91	0.01
60	SLU 2	-7	97	1556	-6.11	-1.55	0.01
60	SLU 3	-9	139	1476	-7	-4.91	0.01
60	SLU 4	-8	113	1524	-6.46	-2.89	0.01
60	SLU 5	-7	97	1556	-6.11	-1.55	0.01
60	SLU 6	-9	139	1476	-7	-4.91	0.01
60	SLU 7	-8	113	1524	-6.46	-2.89	0.01
60	SLU 8	-9	139	1476	-7	-4.91	0.01
60	SLU 9	-8	113	1524	-6.46	-2.89	0.01
60	SLU 10	-10	136	1746	-7.98	-3.04	0.01
60	SLU 11	-11	178	1665	-8.87	-6.4	0.01
60	SLU 12	-10	153	1714	-8.34	-4.38	0.01
60	SLU 13	-10	136	1746	-7.98	-3.04	0.01
60	SLU 14	-11	178	1665	-8.87	-6.4	0.01
60	SLU 15	-10	153	1714	-8.34	-4.38	0.01
60	SLU 16	-11	178	1665	-8.87	-6.4	0.01
60	SLU 17	-10	153	1714	-8.34	-4.38	0.01
60	SLU 18	-12	195	1747	-9.67	-7.04	0.01
60	SLU 19	-11	169	1795	-9.14	-5.02	0.01
60	SLU 20	-12	195	1747	-9.67	-7.04	0.01
60	SLU 21	-11	169	1795	-9.14	-5.02	0.01
60	SLU 22	-10	157	1567	-7.9	-5.63	0.01
60	SLU 23	-8	115	1647	-7.01	-2.27	0.01
60	SLU 24	-10	157	1567	-7.9	-5.63	0.01
60	SLU 25	-9	132	1615	-7.36	-3.62	0.01
60	SLU 26	-8	115	1647	-7.01	-2.27	0.01
60	SLU 27	-10	157	1567	-7.9	-5.63	0.01
60	SLU 28	-9	132	1615	-7.36	-3.62	0.01
60	SLU 29	-10	157	1567	-7.9	-5.63	0.01
60	SLU 30	-9	132	1615	-7.36	-3.62	0.01
60	SLU 31	-11	155	1837	-8.88	-3.76	0.01
60	SLU 32	-13	196	1757	-9.77	-7.12	0.01
60	SLU 33	-12	171	1805	-9.24	-5.11	0.01
60	SLU 34	-11	155	1837	-8.88	-3.76	0.01
60	SLU 35	-13	196	1757	-9.77	-7.12	0.01
60	SLU 36	-12	171	1805	-9.24	-5.11	0.01
60	SLU 37	-13	196	1757	-9.77	-7.12	0.01
60	SLU 38	-12	171	1805	-9.24	-5.11	0.01
60	SLU 39	-14	213	1838	-10.57	-7.76	0.01
60	SLU 40	-13	188	1886	-10.04	-5.74	0.01
60	SLU 41	-14	213	1838	-10.57	-7.76	0.01
60	SLU 42	-13	188	1886	-10.04	-5.74	0.01
60	SLU 43	-11	174	1887	-8.79	-6.14	0.01
60	SLU 44	-9	132	1967	-7.9	-2.78	0.01
60	SLU 45	-11	174	1887	-8.79	-6.14	0.01
60	SLU 46	-10	149	1935	-8.25	-4.12	0.01
60	SLU 47	-9	132	1967	-7.9	-2.78	0.01
60	SLU 48	-11	174	1887	-8.79	-6.14	0.01
60	SLU 49	-10	149	1935	-8.25	-4.12	0.01
60	SLU 50	-11	174	1887	-8.79	-6.14	0.01
60	SLU 51	-10	149	1935	-8.25	-4.12	0.01
60	SLU 52	-12	171	2157	-9.77	-4.27	0.01
60	SLU 53	-14	213	2077	-10.66	-7.63	0.01
60	SLU 54	-13	188	2125	-10.13	-5.61	0.01
60	SLU 55	-12	171	2157	-9.77	-4.27	0.01
60	SLU 56	-14	213	2077	-10.66	-7.63	0.01
60	SLU 57	-13	188	2125	-10.13	-5.61	0.01
60	SLU 58	-14	213	2077	-10.66	-7.63	0.01
60	SLU 59	-13	188	2125	-10.13	-5.61	0.01
60	SLU 60	-15	230	2158	-11.46	-8.26	0.01
60	SLU 61	-14	205	2206	-10.93	-6.25	0.01



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
60	SLU 62	-15	230	2158	-11.46	-8.26	0.01
60	SLU 63	-14	205	2206	-10.93	-6.25	0.01
60	SLU 64	-12	192	1978	-9.69	-6.86	0.01
60	SLU 65	-11	151	2058	-8.8	-3.5	0.01
60	SLU 66	-12	192	1978	-9.69	-6.86	0.01
60	SLU 67	-11	167	2026	-9.15	-4.84	0.01
60	SLU 68	-11	151	2058	-8.8	-3.5	0.01
60	SLU 69	-12	192	1978	-9.69	-6.86	0.01
60	SLU 70	-11	167	2026	-9.15	-4.84	0.01
60	SLU 71	-12	192	1978	-9.69	-6.86	0.01
60	SLU 72	-11	167	2026	-9.15	-4.84	0.01
60	SLU 73	-13	190	2248	-10.67	-4.99	0.02
60	SLU 74	-15	232	2168	-11.56	-8.35	0.01
60	SLU 75	-14	207	2216	-11.03	-6.33	0.02
60	SLU 76	-13	190	2248	-10.67	-4.99	0.02
60	SLU 77	-15	232	2168	-11.56	-8.35	0.01
60	SLU 78	-14	207	2216	-11.03	-6.33	0.02
60	SLU 79	-15	232	2168	-11.56	-8.35	0.01
60	SLU 80	-14	207	2216	-11.03	-6.33	0.02
60	SLU 81	-16	248	2250	-12.36	-8.99	0.02
60	SLU 82	-15	223	2298	-11.83	-6.97	0.02
60	SLU 83	-16	248	2250	-12.36	-8.99	0.02
60	SLU 84	-15	223	2298	-11.83	-6.97	0.02
60	SLE RA 1	-9	144	1502	-7.25	-5.12	0.01
60	SLE RA 2	-8	116	1555	-6.66	-2.88	0.01
60	SLE RA 3	-9	144	1502	-7.25	-5.12	0.01
60	SLE RA 4	-8	127	1534	-6.9	-3.77	0.01
60	SLE RA 5	-8	116	1555	-6.66	-2.88	0.01
60	SLE RA 6	-9	144	1502	-7.25	-5.12	0.01
60	SLE RA 7	-8	127	1534	-6.9	-3.77	0.01
60	SLE RA 8	-9	144	1502	-7.25	-5.12	0.01
60	SLE RA 9	-8	127	1534	-6.9	-3.77	0.01
60	SLE RA 10	-10	142	1682	-7.91	-3.87	0.01
60	SLE RA 11	-11	170	1628	-8.5	-6.11	0.01
60	SLE RA 12	-10	153	1660	-8.15	-4.77	0.01
60	SLE RA 13	-10	142	1682	-7.91	-3.87	0.01
60	SLE RA 14	-11	170	1628	-8.5	-6.11	0.01
60	SLE RA 15	-10	153	1660	-8.15	-4.77	0.01
60	SLE RA 16	-11	170	1628	-8.5	-6.11	0.01
60	SLE RA 17	-10	153	1660	-8.15	-4.77	0.01
60	SLE RA 18	-12	181	1683	-9.04	-6.54	0.01
60	SLE RA 19	-11	165	1715	-8.68	-5.19	0.01
60	SLE RA 20	-12	181	1683	-9.04	-6.54	0.01
60	SLE RA 21	-11	165	1715	-8.68	-5.19	0.01
60	SLE FR 1	-9	144	1502	-7.25	-5.12	0.01
60	SLE FR 2	-9	138	1512	-7.13	-4.67	0.01
60	SLE FR 3	-9	144	1502	-7.25	-5.12	0.01
60	SLE FR 4	-10	150	1567	-7.67	-5.09	0.01
60	SLE FR 5	-10	155	1556	-7.79	-5.54	0.01
60	SLE FR 6	-10	163	1592	-8.14	-5.83	0.01
60	SLE QP 1	-9	144	1502	-7.25	-5.12	0.01
60	SLE QP 2	-10	155	1556	-7.79	-5.54	0.01
60	SLD 1	10	285	1732	-12.97	10.46	0.02
60	SLD 2	10	285	1732	-12.97	10.46	0.02
60	SLD 3	7	148	1679	-7.42	7.84	0.02
60	SLD 4	7	148	1679	-7.42	7.84	0.02
60	SLD 5	1	402	1689	-17.76	3.23	0.01
60	SLD 6	1	402	1689	-17.76	3.23	0.01
60	SLD 7	-10	-55	1512	0.74	-5.5	0.02
60	SLD 8	-10	-55	1512	0.74	-5.5	0.02
60	SLD 9	-10	365	1600	-16.31	-5.59	0
60	SLD 10	-10	365	1600	-16.31	-5.59	0
60	SLD 11	-21	-92	1422	2.18	-14.32	0.01
60	SLD 12	-21	-92	1422	2.18	-14.32	0.01
60	SLD 13	-27	162	1433	-8.15	-18.93	0
60	SLD 14	-27	162	1433	-8.15	-18.93	0
60	SLD 15	-30	25	1380	-2.61	-21.55	0
60	SLD 16	-30	25	1380	-2.61	-21.55	0
60	SLV 1	38	461	1974	-20.01	32.29	0.03
60	SLV 2	38	461	1974	-20.01	32.29	0.03
60	SLV 3	29	136	1837	-6.88	25.43	0.04
60	SLV 4	29	136	1837	-6.88	25.43	0.04
60	SLV 5	17	740	1890	-31.36	16.21	0
60	SLV 6	17	740	1890	-31.36	16.21	0
60	SLV 7	-11	-343	1432	12.39	-6.65	0.04
60	SLV 8	-11	-343	1432	12.39	-6.65	0.04
60	SLV 9	-9	654	1680	-27.97	-4.43	-0.02
60	SLV 10	-9	654	1680	-27.97	-4.43	-0.02
60	SLV 11	-37	-430	1222	15.79	-27.3	0.02
60	SLV 12	-37	-430	1222	15.79	-27.3	0.02
60	SLV 13	-49	174	1275	-8.69	-36.52	-0.02
60	SLV 14	-49	174	1275	-8.69	-36.52	-0.02
60	SLV 15	-57	-151	1137	4.43	-43.38	-0.01
60	SLV 16	-57	-151	1137	4.43	-43.38	-0.01
61	SLU 1	-4	130	1032	-6.56	-3.02	0
61	SLU 2	-5	64	1089	-4.41	-3.32	0
61	SLU 3	-4	130	1032	-6.56	-3.02	0
61	SLU 4	-5	90	1066	-5.27	-3.2	0
61	SLU 5	-5	64	1089	-4.41	-3.32	0
61	SLU 6	-4	130	1032	-6.56	-3.02	0



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
61	SLU 7	-5	90	1066	-5.27	-3.2	0
61	SLU 8	-4	130	1032	-6.56	-3.02	0
61	SLU 9	-5	90	1066	-5.27	-3.2	0
61	SLU 10	-7	118	1300	-7	-4.45	0
61	SLU 11	-6	184	1244	-9.15	-4.16	0
61	SLU 12	-6	144	1278	-7.86	-4.33	0
61	SLU 13	-7	118	1300	-7	-4.45	0
61	SLU 14	-6	184	1244	-9.15	-4.16	0
61	SLU 15	-6	144	1278	-7.86	-4.33	0
61	SLU 16	-6	184	1244	-9.15	-4.16	0
61	SLU 17	-6	144	1278	-7.86	-4.33	0
61	SLU 18	-7	207	1334	-10.26	-4.64	0
61	SLU 19	-7	167	1368	-8.97	-4.82	0
61	SLU 20	-7	207	1334	-10.26	-4.64	0
61	SLU 21	-7	167	1368	-8.97	-4.82	0
61	SLU 22	-5	157	1138	-7.87	-3.59	0
61	SLU 23	-6	91	1194	-5.72	-3.88	0
61	SLU 24	-5	157	1138	-7.87	-3.59	0
61	SLU 25	-6	118	1172	-6.58	-3.76	0
61	SLU 26	-6	91	1194	-5.72	-3.88	0
61	SLU 27	-5	157	1138	-7.87	-3.59	0
61	SLU 28	-6	118	1172	-6.58	-3.76	0
61	SLU 29	-5	157	1138	-7.87	-3.59	0
61	SLU 30	-6	118	1172	-6.58	-3.76	0
61	SLU 31	-7	145	1406	-8.31	-5.01	0
61	SLU 32	-7	211	1349	-10.46	-4.72	0
61	SLU 33	-7	172	1383	-9.17	-4.9	0
61	SLU 34	-7	145	1406	-8.31	-5.01	0
61	SLU 35	-7	211	1349	-10.46	-4.72	0
61	SLU 36	-7	172	1383	-9.17	-4.9	0
61	SLU 37	-7	211	1349	-10.46	-4.72	0
61	SLU 38	-7	172	1383	-9.17	-4.9	0
61	SLU 39	-8	234	1439	-11.58	-5.21	0
61	SLU 40	-8	195	1473	-10.28	-5.38	0
61	SLU 41	-8	234	1439	-11.58	-5.21	0
61	SLU 42	-8	195	1473	-10.28	-5.38	0
61	SLU 43	-6	159	1306	-8.08	-3.74	0
61	SLU 44	-6	93	1363	-5.93	-4.03	0
61	SLU 45	-6	159	1306	-8.08	-3.74	0
61	SLU 46	-6	119	1340	-6.79	-3.91	0
61	SLU 47	-6	93	1363	-5.93	-4.03	0
61	SLU 48	-6	159	1306	-8.08	-3.74	0
61	SLU 49	-6	119	1340	-6.79	-3.91	0
61	SLU 50	-6	159	1306	-8.08	-3.74	0
61	SLU 51	-6	119	1340	-6.79	-3.91	0
61	SLU 52	-8	147	1574	-8.52	-5.16	0
61	SLU 53	-7	213	1517	-10.67	-4.87	0
61	SLU 54	-7	173	1551	-9.38	-5.05	0
61	SLU 55	-8	147	1574	-8.52	-5.16	0
61	SLU 56	-7	213	1517	-10.67	-4.87	0
61	SLU 57	-7	173	1551	-9.38	-5.05	0
61	SLU 58	-7	213	1517	-10.67	-4.87	0
61	SLU 59	-7	173	1551	-9.38	-5.05	0
61	SLU 60	-8	236	1608	-11.78	-5.36	0
61	SLU 61	-8	197	1642	-10.49	-5.53	0
61	SLU 62	-8	236	1608	-11.78	-5.36	0
61	SLU 63	-8	197	1642	-10.49	-5.53	0
61	SLU 64	-6	187	1411	-9.39	-4.3	0
61	SLU 65	-7	121	1468	-7.24	-4.6	0
61	SLU 66	-6	187	1411	-9.39	-4.3	0
61	SLU 67	-7	147	1445	-8.1	-4.48	0
61	SLU 68	-7	121	1468	-7.24	-4.6	0
61	SLU 69	-6	187	1411	-9.39	-4.3	0
61	SLU 70	-7	147	1445	-8.1	-4.48	0
61	SLU 71	-6	187	1411	-9.39	-4.3	0
61	SLU 72	-7	147	1445	-8.1	-4.48	0
61	SLU 73	-8	175	1679	-9.83	-5.73	0
61	SLU 74	-8	241	1622	-11.98	-5.44	0
61	SLU 75	-8	201	1657	-10.69	-5.61	0
61	SLU 76	-8	175	1679	-9.83	-5.73	0
61	SLU 77	-8	241	1622	-11.98	-5.44	0
61	SLU 78	-8	201	1657	-10.69	-5.61	0
61	SLU 79	-8	241	1622	-11.98	-5.44	0
61	SLU 80	-8	201	1657	-10.69	-5.61	0
61	SLU 81	-9	264	1713	-13.09	-5.92	0
61	SLU 82	-9	224	1747	-11.8	-6.1	0
61	SLU 83	-9	264	1713	-13.09	-5.92	0
61	SLU 84	-9	224	1747	-11.8	-6.1	0
61	SLE RA 1	-5	137	1062	-6.93	-3.19	0
61	SLE RA 2	-5	94	1100	-5.5	-3.38	0
61	SLE RA 3	-5	137	1062	-6.93	-3.19	0
61	SLE RA 4	-5	111	1085	-6.07	-3.3	0
61	SLE RA 5	-5	94	1100	-5.5	-3.38	0
61	SLE RA 6	-5	137	1062	-6.93	-3.19	0
61	SLE RA 7	-5	111	1085	-6.07	-3.3	0
61	SLE RA 8	-5	137	1062	-6.93	-3.19	0
61	SLE RA 9	-5	111	1085	-6.07	-3.3	0
61	SLE RA 10	-6	130	1241	-7.23	-4.14	0
61	SLE RA 11	-6	173	1203	-8.66	-3.94	0
61	SLE RA 12	-6	147	1226	-7.8	-4.06	0



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
61	SLE RA 13	-6	130	1241	-7.23	-4.14	0
61	SLE RA 14	-6	173	1203	-8.66	-3.94	0
61	SLE RA 15	-6	147	1226	-7.8	-4.06	0
61	SLE RA 16	-6	173	1203	-8.66	-3.94	0
61	SLE RA 17	-6	147	1226	-7.8	-4.06	0
61	SLE RA 18	-6	189	1264	-9.4	-4.27	0
61	SLE RA 19	-6	163	1286	-8.54	-4.38	0
61	SLE RA 20	-6	189	1264	-9.4	-4.27	0
61	SLE RA 21	-6	163	1286	-8.54	-4.38	0
61	SLE FR 1	-5	137	1062	-6.93	-3.19	0
61	SLE FR 2	-5	129	1070	-6.65	-3.23	0
61	SLE FR 3	-5	137	1062	-6.93	-3.19	0
61	SLE FR 4	-5	144	1130	-7.39	-3.55	0
61	SLE FR 5	-5	153	1123	-7.68	-3.51	0
61	SLE FR 6	-5	163	1163	-8.17	-3.73	0
61	SLE QP 1	-5	137	1062	-6.93	-3.19	0
61	SLE QP 2	-5	153	1123	-7.68	-3.51	0
61	SLD 1	8	154	978	-7.91	6.43	0.01
61	SLD 2	8	154	978	-7.91	6.43	0.01
61	SLD 3	6	47	1041	-3.55	4.45	0.01
61	SLD 4	6	47	1041	-3.55	4.45	0.01
61	SLD 5	3	316	984	-14.37	2.47	0
61	SLD 6	3	316	984	-14.37	2.47	0
61	SLD 7	-6	-42	1193	0.18	-4.12	0
61	SLD 8	-6	-42	1193	0.18	-4.12	0
61	SLD 9	-5	348	1052	-15.53	-2.9	0
61	SLD 10	-5	348	1052	-15.53	-2.9	0
61	SLD 11	-13	-10	1261	-0.98	-9.49	0
61	SLD 12	-13	-10	1261	-0.98	-9.49	0
61	SLD 13	-16	259	1205	-11.8	-11.47	-0.01
61	SLD 14	-16	259	1205	-11.8	-11.47	-0.01
61	SLD 15	-19	152	1267	-7.44	-13.45	-0.01
61	SLD 16	-19	152	1267	-7.44	-13.45	-0.01
61	SLV 1	27	159	775	-8.37	20.08	0.01
61	SLV 2	27	159	775	-8.37	20.08	0.01
61	SLV 3	21	-101	935	2.17	15.07	0.02
61	SLV 4	21	-101	935	2.17	15.07	0.02
61	SLV 5	14	549	775	-23.86	11.16	0
61	SLV 6	14	549	775	-23.86	11.16	0
61	SLV 7	-7	-318	1309	11.26	-5.53	0.01
61	SLV 8	-7	-318	1309	11.26	-5.53	0.01
61	SLV 9	-3	624	936	-26.61	-1.49	-0.01
61	SLV 10	-3	624	936	-26.61	-1.49	-0.01
61	SLV 11	-24	-243	1470	8.51	-18.18	0
61	SLV 12	-24	-243	1470	8.51	-18.18	0
61	SLV 13	-31	407	1310	-17.52	-22.09	-0.02
61	SLV 14	-31	407	1310	-17.52	-22.09	-0.02
61	SLV 15	-37	147	1470	-6.98	-27.1	-0.01
61	SLV 16	-37	147	1470	-6.98	-27.1	-0.01
62	SLU 1	4	-302	1244	6.33	0.74	0.14
62	SLU 2	19	-353	1406	7.58	0.3	0.19
62	SLU 3	4	-302	1244	6.33	0.74	0.14
62	SLU 4	13	-332	1341	7.08	0.48	0.17
62	SLU 5	19	-353	1406	7.58	0.3	0.19
62	SLU 6	4	-302	1244	6.33	0.74	0.14
62	SLU 7	13	-332	1341	7.08	0.48	0.17
62	SLU 8	4	-302	1244	6.33	0.74	0.14
62	SLU 9	13	-332	1341	7.08	0.48	0.17
62	SLU 10	21	-394	1548	8.59	1.03	0.31
62	SLU 11	6	-343	1386	7.34	1.47	0.27
62	SLU 12	15	-373	1483	8.09	1.21	0.3
62	SLU 13	21	-394	1548	8.59	1.03	0.31
62	SLU 14	6	-343	1386	7.34	1.47	0.27
62	SLU 15	15	-373	1483	8.09	1.21	0.3
62	SLU 16	6	-343	1386	7.34	1.47	0.27
62	SLU 17	15	-373	1483	8.09	1.21	0.3
62	SLU 18	6	-361	1447	7.77	1.78	0.32
62	SLU 19	16	-391	1544	8.52	1.52	0.35
62	SLU 20	6	-361	1447	7.77	1.78	0.32
62	SLU 21	16	-391	1544	8.52	1.52	0.35
62	SLU 22	4	-323	1323	6.82	1.1	0.2
62	SLU 23	20	-374	1484	8.07	0.66	0.25
62	SLU 24	4	-323	1323	6.82	1.1	0.2
62	SLU 25	14	-354	1420	7.57	0.83	0.23
62	SLU 26	20	-374	1484	8.07	0.66	0.25
62	SLU 27	4	-323	1323	6.82	1.1	0.2
62	SLU 28	14	-354	1420	7.57	0.83	0.23
62	SLU 29	4	-323	1323	6.82	1.1	0.2
62	SLU 30	14	-354	1420	7.57	0.83	0.23
62	SLU 31	22	-415	1626	9.07	1.39	0.37
62	SLU 32	6	-364	1464	7.82	1.83	0.33
62	SLU 33	16	-395	1561	8.57	1.56	0.36
62	SLU 34	22	-415	1626	9.07	1.39	0.37
62	SLU 35	6	-364	1464	7.82	1.83	0.33
62	SLU 36	16	-395	1561	8.57	1.56	0.36
62	SLU 37	6	-364	1464	7.82	1.83	0.33
62	SLU 38	16	-395	1561	8.57	1.56	0.36
62	SLU 39	7	-382	1525	8.25	2.14	0.38
62	SLU 40	17	-412	1622	9	1.88	0.41
62	SLU 41	7	-382	1525	8.25	2.14	0.38



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
62	SLU 42	17	-412	1622	9	1.88	0.41
62	SLU 43	4	-386	1591	8.07	0.84	0.16
62	SLU 44	20	-436	1753	9.32	0.4	0.21
62	SLU 45	4	-386	1591	8.07	0.84	0.16
62	SLU 46	14	-416	1688	8.82	0.58	0.19
62	SLU 47	20	-436	1753	9.32	0.4	0.21
62	SLU 48	4	-386	1591	8.07	0.84	0.16
62	SLU 49	14	-416	1688	8.82	0.58	0.19
62	SLU 50	4	-386	1591	8.07	0.84	0.16
62	SLU 51	14	-416	1688	8.82	0.58	0.19
62	SLU 52	22	-477	1894	10.32	1.13	0.33
62	SLU 53	6	-427	1732	9.07	1.57	0.29
62	SLU 54	16	-457	1829	9.82	1.31	0.32
62	SLU 55	22	-477	1894	10.32	1.13	0.33
62	SLU 56	6	-427	1732	9.07	1.57	0.29
62	SLU 57	16	-457	1829	9.82	1.31	0.32
62	SLU 58	6	-427	1732	9.07	1.57	0.29
62	SLU 59	16	-457	1829	9.82	1.31	0.32
62	SLU 60	7	-444	1793	9.5	1.88	0.34
62	SLU 61	17	-474	1890	10.25	1.62	0.37
62	SLU 62	7	-444	1793	9.5	1.88	0.34
62	SLU 63	17	-474	1890	10.25	1.62	0.37
62	SLU 64	5	-407	1669	8.55	1.2	0.22
62	SLU 65	21	-457	1831	9.8	0.76	0.27
62	SLU 66	5	-407	1669	8.55	1.2	0.22
62	SLU 67	15	-437	1766	9.3	0.93	0.25
62	SLU 68	21	-457	1831	9.8	0.76	0.27
62	SLU 69	5	-407	1669	8.55	1.2	0.22
62	SLU 70	15	-437	1766	9.3	0.93	0.25
62	SLU 71	5	-407	1669	8.55	1.2	0.22
62	SLU 72	15	-437	1766	9.3	0.93	0.25
62	SLU 73	23	-498	1972	10.8	1.49	0.4
62	SLU 74	7	-448	1811	9.55	1.93	0.35
62	SLU 75	17	-478	1908	10.3	1.66	0.38
62	SLU 76	23	-498	1972	10.8	1.49	0.4
62	SLU 77	7	-448	1811	9.55	1.93	0.35
62	SLU 78	17	-478	1908	10.3	1.66	0.38
62	SLU 79	7	-448	1811	9.55	1.93	0.35
62	SLU 80	17	-478	1908	10.3	1.66	0.38
62	SLU 81	8	-465	1871	9.98	2.24	0.4
62	SLU 82	17	-496	1968	10.73	1.98	0.43
62	SLU 83	8	-465	1871	9.98	2.24	0.4
62	SLU 84	17	-496	1968	10.73	1.98	0.43
62	SLE RA 1	4	-308	1267	6.47	0.84	0.16
62	SLE RA 2	14	-342	1375	7.3	0.55	0.19
62	SLE RA 3	4	-308	1267	6.47	0.84	0.16
62	SLE RA 4	10	-328	1331	6.97	0.67	0.18
62	SLE RA 5	14	-342	1375	7.3	0.55	0.19
62	SLE RA 6	4	-308	1267	6.47	0.84	0.16
62	SLE RA 7	10	-328	1331	6.97	0.67	0.18
62	SLE RA 8	4	-308	1267	6.47	0.84	0.16
62	SLE RA 9	10	-328	1331	6.97	0.67	0.18
62	SLE RA 10	16	-369	1469	7.97	1.04	0.27
62	SLE RA 11	5	-336	1361	7.14	1.33	0.24
62	SLE RA 12	11	-356	1426	7.64	1.15	0.26
62	SLE RA 13	16	-369	1469	7.97	1.04	0.27
62	SLE RA 14	5	-336	1361	7.14	1.33	0.24
62	SLE RA 15	11	-356	1426	7.64	1.15	0.26
62	SLE RA 16	5	-336	1361	7.14	1.33	0.24
62	SLE RA 17	11	-356	1426	7.64	1.15	0.26
62	SLE RA 18	6	-347	1401	7.43	1.54	0.28
62	SLE RA 19	12	-367	1466	7.93	1.36	0.3
62	SLE RA 20	6	-347	1401	7.43	1.54	0.28
62	SLE RA 21	12	-367	1466	7.93	1.36	0.3
62	SLE FR 1	4	-308	1267	6.47	0.84	0.16
62	SLE FR 2	6	-315	1288	6.64	0.78	0.16
62	SLE FR 3	4	-308	1267	6.47	0.84	0.16
62	SLE FR 4	7	-327	1329	6.92	0.99	0.2
62	SLE FR 5	4	-320	1307	6.76	1.05	0.19
62	SLE FR 6	5	-328	1334	6.95	1.19	0.22
62	SLE QP 1	4	-308	1267	6.47	0.84	0.16
62	SLE QP 2	4	-320	1307	6.76	1.05	0.19
62	SLD 1	-28	-263	1139	4.91	-11.53	-1.64
62	SLD 2	-28	-263	1139	4.91	-11.53	-1.64
62	SLD 3	-17	-339	1344	7.73	-7.01	-0.93
62	SLD 4	-17	-339	1344	7.73	-7.01	-0.93
62	SLD 5	-22	-188	946	1.92	-9.58	-1.44
62	SLD 6	-22	-188	946	1.92	-9.58	-1.44
62	SLD 7	15	-440	1629	11.33	5.49	0.94
62	SLD 8	15	-440	1629	11.33	5.49	0.94
62	SLD 9	-6	-200	986	2.18	-3.39	-0.55
62	SLD 10	-6	-200	986	2.18	-3.39	-0.55
62	SLD 11	31	-452	1668	11.59	11.68	1.83
62	SLD 12	31	-452	1668	11.59	11.68	1.83
62	SLD 13	26	-301	1271	5.78	9.11	1.32
62	SLD 14	26	-301	1271	5.78	9.11	1.32
62	SLD 15	37	-377	1476	8.6	13.63	2.03
62	SLD 16	37	-377	1476	8.6	13.63	2.03
62	SLV 1	-80	-184	901	2.36	-29.98	-4.33
62	SLV 2	-80	-184	901	2.36	-29.98	-4.33



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
62	SLV 3	-51	-365	1397	9.09	-18.58	-2.53
62	SLV 4	-51	-365	1397	9.09	-18.58	-2.53
62	SLV 5	-65	-3	433	-4.76	-25.54	-3.89
62	SLV 6	-65	-3	433	-4.76	-25.54	-3.89
62	SLV 7	32	-609	2086	17.66	12.44	2.11
62	SLV 8	32	-609	2086	17.66	12.44	2.11
62	SLV 9	-23	-31	528	-4.14	-10.34	-1.72
62	SLV 10	-23	-31	528	-4.14	-10.34	-1.72
62	SLV 11	74	-637	2181	18.28	27.64	4.28
62	SLV 12	74	-637	2181	18.28	27.64	4.28
62	SLV 13	60	-275	1218	4.43	20.69	2.92
62	SLV 14	60	-275	1218	4.43	20.69	2.92
62	SLV 15	89	-456	1714	11.16	32.08	4.72
62	SLV 16	89	-456	1714	11.16	32.08	4.72
63	SLU 1	-6	111	1538	-2.95	-3.5	0
63	SLU 2	-5	66	1602	-0.58	-1.24	0.01
63	SLU 3	-6	111	1538	-2.95	-3.5	0
63	SLU 4	-6	84	1577	-1.53	-2.14	0.01
63	SLU 5	-5	66	1602	-0.58	-1.24	0.01
63	SLU 6	-6	111	1538	-2.95	-3.5	0
63	SLU 7	-6	84	1577	-1.53	-2.14	0.01
63	SLU 8	-6	111	1538	-2.95	-3.5	0
63	SLU 9	-6	84	1577	-1.53	-2.14	0.01
63	SLU 10	-7	103	1819	-1.68	-2.41	0.01
63	SLU 11	-8	149	1755	-4.06	-4.67	0.01
63	SLU 12	-8	121	1793	-2.63	-3.31	0.01
63	SLU 13	-7	103	1819	-1.68	-2.41	0.01
63	SLU 14	-8	149	1755	-4.06	-4.67	0.01
63	SLU 15	-8	121	1793	-2.63	-3.31	0.01
63	SLU 16	-8	149	1755	-4.06	-4.67	0.01
63	SLU 17	-8	121	1793	-2.63	-3.31	0.01
63	SLU 18	-9	165	1848	-4.53	-5.17	0.01
63	SLU 19	-8	137	1886	-3.1	-3.81	0.01
63	SLU 20	-9	165	1848	-4.53	-5.17	0.01
63	SLU 21	-8	137	1886	-3.1	-3.81	0.01
63	SLU 22	-7	128	1641	-3.45	-4.06	0.01
63	SLU 23	-6	83	1706	-1.08	-1.8	0.01
63	SLU 24	-7	128	1641	-3.45	-4.06	0.01
63	SLU 25	-7	101	1680	-2.03	-2.7	0.01
63	SLU 26	-6	83	1706	-1.08	-1.8	0.01
63	SLU 27	-7	128	1641	-3.45	-4.06	0.01
63	SLU 28	-7	101	1680	-2.03	-2.7	0.01
63	SLU 29	-7	128	1641	-3.45	-4.06	0.01
63	SLU 30	-7	101	1680	-2.03	-2.7	0.01
63	SLU 31	-8	120	1923	-2.18	-2.97	0.01
63	SLU 32	-9	166	1858	-4.56	-5.23	0.01
63	SLU 33	-8	139	1897	-3.13	-3.87	0.01
63	SLU 34	-8	120	1923	-2.18	-2.97	0.01
63	SLU 35	-9	166	1858	-4.56	-5.23	0.01
63	SLU 36	-8	139	1897	-3.13	-3.87	0.01
63	SLU 37	-9	166	1858	-4.56	-5.23	0.01
63	SLU 38	-8	139	1897	-3.13	-3.87	0.01
63	SLU 39	-10	182	1951	-5.03	-5.73	0.01
63	SLU 40	-9	155	1990	-3.6	-4.37	0.01
63	SLU 41	-10	182	1951	-5.03	-5.73	0.01
63	SLU 42	-9	155	1990	-3.6	-4.37	0.01
63	SLU 43	-7	139	1964	-3.67	-4.36	0.01
63	SLU 44	-7	93	2028	-1.3	-2.09	0.01
63	SLU 45	-7	139	1964	-3.67	-4.36	0.01
63	SLU 46	-7	111	2003	-2.25	-3	0.01
63	SLU 47	-7	93	2028	-1.3	-2.09	0.01
63	SLU 48	-7	139	1964	-3.67	-4.36	0.01
63	SLU 49	-7	111	2003	-2.25	-3	0.01
63	SLU 50	-7	139	1964	-3.67	-4.36	0.01
63	SLU 51	-7	111	2003	-2.25	-3	0.01
63	SLU 52	-9	131	2245	-2.4	-3.26	0.01
63	SLU 53	-9	176	2181	-4.77	-5.53	0.01
63	SLU 54	-9	149	2219	-3.35	-4.17	0.01
63	SLU 55	-9	131	2245	-2.4	-3.26	0.01
63	SLU 56	-9	176	2181	-4.77	-5.53	0.01
63	SLU 57	-9	149	2219	-3.35	-4.17	0.01
63	SLU 58	-9	176	2181	-4.77	-5.53	0.01
63	SLU 59	-9	149	2219	-3.35	-4.17	0.01
63	SLU 60	-10	192	2274	-5.24	-6.03	0.01
63	SLU 61	-10	165	2312	-3.82	-4.67	0.01
63	SLU 62	-10	192	2274	-5.24	-6.03	0.01
63	SLU 63	-10	165	2312	-3.82	-4.67	0.01
63	SLU 64	-8	156	2067	-4.17	-4.92	0.01
63	SLU 65	-8	110	2132	-1.8	-2.66	0.01
63	SLU 66	-8	156	2067	-4.17	-4.92	0.01
63	SLU 67	-8	129	2106	-2.75	-3.56	0.01
63	SLU 68	-8	110	2132	-1.8	-2.66	0.01
63	SLU 69	-8	156	2067	-4.17	-4.92	0.01
63	SLU 70	-8	129	2106	-2.75	-3.56	0.01
63	SLU 71	-8	156	2067	-4.17	-4.92	0.01
63	SLU 72	-8	129	2106	-2.75	-3.56	0.01
63	SLU 73	-10	148	2349	-2.9	-3.83	0.01
63	SLU 74	-10	193	2284	-5.27	-6.09	0.01
63	SLU 75	-10	166	2323	-3.85	-4.73	0.01
63	SLU 76	-10	148	2349	-2.9	-3.83	0.01



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
63	SLU 77	-10	193	2284	-5.27	-6.09	0.01
63	SLU 78	-10	166	2323	-3.85	-4.73	0.01
63	SLU 79	-10	193	2284	-5.27	-6.09	0.01
63	SLU 80	-10	166	2323	-3.85	-4.73	0.01
63	SLU 81	-11	210	2377	-5.74	-6.59	0.01
63	SLU 82	-11	182	2416	-4.32	-5.23	0.01
63	SLU 83	-11	210	2377	-5.74	-6.59	0.01
63	SLU 84	-11	182	2416	-4.32	-5.23	0.01
63	SLE RA 1	-6	116	1567	-3.1	-3.66	0
63	SLE RA 2	-6	86	1610	-1.51	-2.15	0.01
63	SLE RA 3	-6	116	1567	-3.1	-3.66	0
63	SLE RA 4	-6	98	1593	-2.15	-2.76	0.01
63	SLE RA 5	-6	86	1610	-1.51	-2.15	0.01
63	SLE RA 6	-6	116	1567	-3.1	-3.66	0
63	SLE RA 7	-6	98	1593	-2.15	-2.76	0.01
63	SLE RA 8	-6	116	1567	-3.1	-3.66	0
63	SLE RA 9	-6	98	1593	-2.15	-2.76	0.01
63	SLE RA 10	-7	111	1755	-2.25	-2.93	0.01
63	SLE RA 11	-8	141	1712	-3.83	-4.44	0.01
63	SLE RA 12	-7	123	1738	-2.88	-3.54	0.01
63	SLE RA 13	-7	111	1755	-2.25	-2.93	0.01
63	SLE RA 14	-8	141	1712	-3.83	-4.44	0.01
63	SLE RA 15	-7	123	1738	-2.88	-3.54	0.01
63	SLE RA 16	-8	141	1712	-3.83	-4.44	0.01
63	SLE RA 17	-7	123	1738	-2.88	-3.54	0.01
63	SLE RA 18	-8	152	1774	-4.15	-4.78	0.01
63	SLE RA 19	-8	134	1800	-3.2	-3.87	0.01
63	SLE RA 20	-8	152	1774	-4.15	-4.78	0.01
63	SLE RA 21	-8	134	1800	-3.2	-3.87	0.01
63	SLE FR 1	-6	116	1567	-3.1	-3.66	0
63	SLE FR 2	-6	110	1576	-2.78	-3.36	0.01
63	SLE FR 3	-6	116	1567	-3.1	-3.66	0
63	SLE FR 4	-7	121	1638	-3.1	-3.69	0.01
63	SLE FR 5	-7	127	1629	-3.41	-4	0.01
63	SLE FR 6	-7	134	1671	-3.62	-4.22	0.01
63	SLE QP 1	-6	116	1567	-3.1	-3.66	0
63	SLE QP 2	-7	127	1629	-3.41	-4	0.01
63	SLD 1	6	256	1808	-8.43	7.01	0.01
63	SLD 2	6	256	1808	-8.43	7.01	0.01
63	SLD 3	1	119	1759	-2.79	4.6	0.02
63	SLD 4	1	119	1759	-2.79	4.6	0.02
63	SLD 5	4	374	1758	-13.48	2.96	0
63	SLD 6	4	374	1758	-13.48	2.96	0
63	SLD 7	-11	-84	1593	5.34	-5.07	0.02
63	SLD 8	-11	-84	1593	5.34	-5.07	0.02
63	SLD 9	-2	338	1665	-12.16	-2.92	-0.01
63	SLD 10	-2	338	1665	-12.16	-2.92	-0.01
63	SLD 11	-17	-120	1501	6.66	-10.95	0.01
63	SLD 12	-17	-120	1501	6.66	-10.95	0.01
63	SLD 13	-15	135	1500	-4.03	-12.59	-0.01
63	SLD 14	-15	135	1500	-4.03	-12.59	-0.01
63	SLD 15	-19	-2	1451	1.61	-15	0
63	SLD 16	-19	-2	1451	1.61	-15	0
63	SLV 1	23	432	2053	-15.27	22.06	0.02
63	SLV 2	23	432	2053	-15.27	22.06	0.02
63	SLV 3	11	106	1926	-1.87	15.82	0.04
63	SLV 4	11	106	1926	-1.87	15.82	0.04
63	SLV 5	19	712	1948	-27.3	13.29	-0.02
63	SLV 6	19	712	1948	-27.3	13.29	-0.02
63	SLV 7	-18	-373	1527	17.38	-7.52	0.04
63	SLV 8	-18	-373	1527	17.38	-7.52	0.04
63	SLV 9	5	627	1732	-24.2	-0.47	-0.03
63	SLV 10	5	627	1732	-24.2	-0.47	-0.03
63	SLV 11	-32	-458	1311	20.48	-21.28	0.03
63	SLV 12	-32	-458	1311	20.48	-21.28	0.03
63	SLV 13	-25	147	1332	-4.96	-23.81	-0.03
63	SLV 14	-25	147	1332	-4.96	-23.81	-0.03
63	SLV 15	-36	-178	1206	8.45	-30.05	-0.01
63	SLV 16	-36	-178	1206	8.45	-30.05	-0.01
64	SLU 1	-3	101	1107	-2.47	-2.22	0
64	SLU 2	-3	29	1159	0.85	-2.42	0
64	SLU 3	-3	101	1107	-2.47	-2.22	0
64	SLU 4	-3	58	1138	-0.48	-2.34	0
64	SLU 5	-3	29	1159	0.85	-2.42	0
64	SLU 6	-3	101	1107	-2.47	-2.22	0
64	SLU 7	-3	58	1138	-0.48	-2.34	0
64	SLU 8	-3	101	1107	-2.47	-2.22	0
64	SLU 9	-3	58	1138	-0.48	-2.34	0
64	SLU 10	-4	76	1406	-0.44	-3.27	0
64	SLU 11	-4	148	1355	-3.75	-3.06	0
64	SLU 12	-4	105	1386	-1.76	-3.18	0
64	SLU 13	-4	76	1406	-0.44	-3.27	0
64	SLU 14	-4	148	1355	-3.75	-3.06	0
64	SLU 15	-4	105	1386	-1.76	-3.18	0
64	SLU 16	-4	148	1355	-3.75	-3.06	0
64	SLU 17	-4	105	1386	-1.76	-3.18	0
64	SLU 18	-5	168	1461	-4.3	-3.42	0
64	SLU 19	-5	125	1492	-2.31	-3.55	0
64	SLU 20	-5	168	1461	-4.3	-3.42	0
64	SLU 21	-5	125	1492	-2.31	-3.55	0





Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
64	SLU 22	-4	126	1231	-3.15	-2.64	0
64	SLU 23	-4	53	1282	0.16	-2.85	0
64	SLU 24	-4	126	1231	-3.15	-2.64	0
64	SLU 25	-4	82	1262	-1.16	-2.76	0
64	SLU 26	-4	53	1282	0.16	-2.85	0
64	SLU 27	-4	126	1231	-3.15	-2.64	0
64	SLU 28	-4	82	1262	-1.16	-2.76	0
64	SLU 29	-4	126	1231	-3.15	-2.64	0
64	SLU 30	-4	82	1262	-1.16	-2.76	0
64	SLU 31	-5	100	1530	-1.12	-3.69	0
64	SLU 32	-5	172	1479	-4.44	-3.48	0
64	SLU 33	-5	129	1510	-2.45	-3.61	0
64	SLU 34	-5	100	1530	-1.12	-3.69	0
64	SLU 35	-5	172	1479	-4.44	-3.48	0
64	SLU 36	-5	129	1510	-2.45	-3.61	0
64	SLU 37	-5	172	1479	-4.44	-3.48	0
64	SLU 38	-5	129	1510	-2.45	-3.61	0
64	SLU 39	-5	192	1585	-4.99	-3.85	0
64	SLU 40	-5	149	1616	-3	-3.97	0
64	SLU 41	-5	192	1585	-4.99	-3.85	0
64	SLU 42	-5	149	1616	-3	-3.97	0
64	SLU 43	-4	123	1396	-2.98	-2.74	0
64	SLU 44	-4	51	1448	0.34	-2.94	0
64	SLU 45	-4	123	1396	-2.98	-2.74	0
64	SLU 46	-4	80	1427	-0.99	-2.86	0
64	SLU 47	-4	51	1448	0.34	-2.94	0
64	SLU 48	-4	123	1396	-2.98	-2.74	0
64	SLU 49	-4	80	1427	-0.99	-2.86	0
64	SLU 50	-4	123	1396	-2.98	-2.74	0
64	SLU 51	-4	80	1427	-0.99	-2.86	0
64	SLU 52	-5	98	1696	-0.94	-3.79	0
64	SLU 53	-5	170	1644	-4.26	-3.58	0
64	SLU 54	-5	127	1675	-2.27	-3.7	0
64	SLU 55	-5	98	1696	-0.94	-3.79	0
64	SLU 56	-5	170	1644	-4.26	-3.58	0
64	SLU 57	-5	127	1675	-2.27	-3.7	0
64	SLU 58	-5	170	1644	-4.26	-3.58	0
64	SLU 59	-5	127	1675	-2.27	-3.7	0
64	SLU 60	-5	190	1751	-4.81	-3.94	0
64	SLU 61	-5	147	1782	-2.82	-4.07	0
64	SLU 62	-5	190	1751	-4.81	-3.94	0
64	SLU 63	-5	147	1782	-2.82	-4.07	0
64	SLU 64	-4	148	1520	-3.66	-3.16	0
64	SLU 65	-4	75	1572	-0.34	-3.37	0
64	SLU 66	-4	148	1520	-3.66	-3.16	0
64	SLU 67	-4	104	1551	-1.67	-3.28	0
64	SLU 68	-4	75	1572	-0.34	-3.37	0
64	SLU 69	-4	148	1520	-3.66	-3.16	0
64	SLU 70	-4	104	1551	-1.67	-3.28	0
64	SLU 71	-4	148	1520	-3.66	-3.16	0
64	SLU 72	-4	104	1551	-1.67	-3.28	0
64	SLU 73	-6	122	1820	-1.63	-4.21	0
64	SLU 74	-5	194	1768	-4.94	-4	0
64	SLU 75	-5	151	1799	-2.95	-4.13	0
64	SLU 76	-6	122	1820	-1.63	-4.21	0
64	SLU 77	-5	194	1768	-4.94	-4	0
64	SLU 78	-5	151	1799	-2.95	-4.13	0
64	SLU 79	-5	194	1768	-4.94	-4	0
64	SLU 80	-5	151	1799	-2.95	-4.13	0
64	SLU 81	-6	214	1874	-5.49	-4.37	0
64	SLU 82	-6	171	1905	-3.5	-4.49	0
64	SLU 83	-6	214	1874	-5.49	-4.37	0
64	SLU 84	-6	171	1905	-3.5	-4.49	0
64	SLE RA 1	-3	108	1142	-2.67	-2.34	0
64	SLE RA 2	-3	60	1177	-0.45	-2.47	0
64	SLE RA 3	-3	108	1142	-2.67	-2.34	0
64	SLE RA 4	-3	79	1163	-1.34	-2.42	0
64	SLE RA 5	-3	60	1177	-0.45	-2.47	0
64	SLE RA 6	-3	108	1142	-2.67	-2.34	0
64	SLE RA 7	-3	79	1163	-1.34	-2.42	0
64	SLE RA 8	-3	108	1142	-2.67	-2.34	0
64	SLE RA 9	-3	79	1163	-1.34	-2.42	0
64	SLE RA 10	-4	91	1342	-1.31	-3.04	0
64	SLE RA 11	-4	139	1307	-3.52	-2.9	0
64	SLE RA 12	-4	110	1328	-2.19	-2.98	0
64	SLE RA 13	-4	91	1342	-1.31	-3.04	0
64	SLE RA 14	-4	139	1307	-3.52	-2.9	0
64	SLE RA 15	-4	110	1328	-2.19	-2.98	0
64	SLE RA 16	-4	139	1307	-3.52	-2.9	0
64	SLE RA 17	-4	110	1328	-2.19	-2.98	0
64	SLE RA 18	-4	153	1378	-3.89	-3.14	0
64	SLE RA 19	-4	124	1399	-2.56	-3.22	0
64	SLE RA 20	-4	153	1378	-3.89	-3.14	0
64	SLE RA 21	-4	124	1399	-2.56	-3.22	0
64	SLE FR 1	-3	108	1142	-2.67	-2.34	0
64	SLE FR 2	-3	99	1149	-2.22	-2.36	0
64	SLE FR 3	-3	108	1142	-2.67	-2.34	0
64	SLE FR 4	-3	112	1220	-2.59	-2.61	0
64	SLE FR 5	-3	122	1213	-3.03	-2.58	0
64	SLE FR 6	-4	130	1260	-3.28	-2.74	0



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
64	SLE QP 1	-3	108	1142	-2.67	-2.34	0
64	SLE QP 2	-3	122	1213	-3.03	-2.58	0
64	SLD 1	5	123	1104	-3.28	4.41	0.01
64	SLD 2	5	123	1104	-3.28	4.41	0.01
64	SLD 3	2	17	1166	1.04	2.62	0.01
64	SLD 4	2	17	1166	1.04	2.62	0.01
64	SLD 5	3	283	1086	-9.67	2.24	0
64	SLD 6	3	283	1086	-9.67	2.24	0
64	SLD 7	-6	-71	1294	4.75	-3.74	0
64	SLD 8	-6	-71	1294	4.75	-3.74	0
64	SLD 9	-1	314	1133	-10.82	-1.42	-0.01
64	SLD 10	-1	314	1133	-10.82	-1.42	-0.01
64	SLD 11	-10	-40	1340	3.6	-7.4	0
64	SLD 12	-10	-40	1340	3.6	-7.4	0
64	SLD 13	-9	227	1260	-7.11	-7.78	-0.01
64	SLD 14	-9	227	1260	-7.11	-7.78	-0.01
64	SLD 15	-12	120	1322	-2.78	-9.57	-0.01
64	SLD 16	-12	120	1322	-2.78	-9.57	-0.01
64	SLV 1	16	128	947	-3.76	14.06	0.02
64	SLV 2	16	128	947	-3.76	14.06	0.02
64	SLV 3	10	-129	1107	6.74	9.49	0.02
64	SLV 4	10	-129	1107	6.74	9.49	0.02
64	SLV 5	13	515	891	-19.18	9.35	0
64	SLV 6	13	515	891	-19.18	9.35	0
64	SLV 7	-10	-345	1423	15.82	-5.9	0.01
64	SLV 8	-10	-345	1423	15.82	-5.9	0.01
64	SLV 9	3	588	1003	-21.89	0.74	-0.02
64	SLV 10	3	588	1003	-21.89	0.74	-0.02
64	SLV 11	-19	-271	1535	13.11	-14.51	0
64	SLV 12	-19	-271	1535	13.11	-14.51	0
64	SLV 13	-17	373	1319	-12.8	-14.64	-0.03
64	SLV 14	-17	373	1319	-12.8	-14.64	-0.03
64	SLV 15	-23	115	1479	-2.3	-19.22	-0.02
64	SLV 16	-23	115	1479	-2.3	-19.22	-0.02
65	SLU 1	-1	121	1608	-5.44	-1.52	0
65	SLU 2	-1	95	1657	-4.92	-0.22	0
65	SLU 3	-1	121	1608	-5.44	-1.52	0
65	SLU 4	-1	105	1637	-5.13	-0.74	0
65	SLU 5	-1	95	1657	-4.92	-0.22	0
65	SLU 6	-1	121	1608	-5.44	-1.52	0
65	SLU 7	-1	105	1637	-5.13	-0.74	0
65	SLU 8	-1	121	1608	-5.44	-1.52	0
65	SLU 9	-1	105	1637	-5.13	-0.74	0
65	SLU 10	-2	138	1907	-6.65	-0.87	0
65	SLU 11	-2	163	1858	-7.16	-2.18	0
65	SLU 12	-2	148	1888	-6.86	-1.39	0
65	SLU 13	-2	138	1907	-6.65	-0.87	0
65	SLU 14	-2	163	1858	-7.16	-2.18	0
65	SLU 15	-2	148	1888	-6.86	-1.39	0
65	SLU 16	-2	163	1858	-7.16	-2.18	0
65	SLU 17	-2	148	1888	-6.86	-1.39	0
65	SLU 18	-2	181	1966	-7.9	-2.46	0
65	SLU 19	-2	166	1995	-7.59	-1.67	0
65	SLU 20	-2	181	1966	-7.9	-2.46	0
65	SLU 21	-2	166	1995	-7.59	-1.67	0
65	SLU 22	-1	140	1726	-6.23	-1.83	0
65	SLU 23	-2	115	1775	-5.72	-0.52	0
65	SLU 24	-1	140	1726	-6.23	-1.83	0
65	SLU 25	-2	125	1755	-5.93	-1.05	0
65	SLU 26	-2	115	1775	-5.72	-0.52	0
65	SLU 27	-1	140	1726	-6.23	-1.83	0
65	SLU 28	-2	125	1755	-5.93	-1.05	0
65	SLU 29	-1	140	1726	-6.23	-1.83	0
65	SLU 30	-2	125	1755	-5.93	-1.05	0
65	SLU 31	-3	157	2025	-7.45	-1.17	0
65	SLU 32	-2	182	1976	-7.96	-2.48	0
65	SLU 33	-2	167	2005	-7.65	-1.7	0
65	SLU 34	-3	157	2025	-7.45	-1.17	0
65	SLU 35	-2	182	1976	-7.96	-2.48	0
65	SLU 36	-2	167	2005	-7.65	-1.7	0
65	SLU 37	-2	182	1976	-7.96	-2.48	0
65	SLU 38	-2	167	2005	-7.65	-1.7	0
65	SLU 39	-3	201	2083	-8.7	-2.76	0
65	SLU 40	-3	185	2113	-8.39	-1.98	0
65	SLU 41	-3	201	2083	-8.7	-2.76	0
65	SLU 42	-3	185	2113	-8.39	-1.98	0
65	SLU 43	-1	150	2050	-6.79	-1.88	0
65	SLU 44	-2	125	2099	-6.28	-0.57	0
65	SLU 45	-1	150	2050	-6.79	-1.88	0
65	SLU 46	-1	135	2080	-6.49	-1.09	0
65	SLU 47	-2	125	2099	-6.28	-0.57	0
65	SLU 48	-1	150	2050	-6.79	-1.88	0
65	SLU 49	-1	135	2080	-6.49	-1.09	0
65	SLU 50	-1	150	2050	-6.79	-1.88	0
65	SLU 51	-1	135	2080	-6.49	-1.09	0
65	SLU 52	-2	167	2349	-8.01	-1.22	0
65	SLU 53	-2	193	2301	-8.52	-2.53	0
65	SLU 54	-2	177	2330	-8.21	-1.74	0
65	SLU 55	-2	167	2349	-8.01	-1.22	0
65	SLU 56	-2	193	2301	-8.52	-2.53	0



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
65	SLU 57	-2	177	2330	-8.21	-1.74	0
65	SLU 58	-2	193	2301	-8.52	-2.53	0
65	SLU 59	-2	177	2330	-8.21	-1.74	0
65	SLU 60	-2	211	2408	-9.26	-2.81	0
65	SLU 61	-3	196	2437	-8.95	-2.02	0
65	SLU 62	-2	211	2408	-9.26	-2.81	0
65	SLU 63	-3	196	2437	-8.95	-2.02	0
65	SLU 64	-2	170	2168	-7.59	-2.18	0
65	SLU 65	-2	144	2217	-7.08	-0.87	0
65	SLU 66	-2	170	2168	-7.59	-2.18	0
65	SLU 67	-2	154	2197	-7.28	-1.4	0
65	SLU 68	-2	144	2217	-7.08	-0.87	0
65	SLU 69	-2	170	2168	-7.59	-2.18	0
65	SLU 70	-2	154	2197	-7.28	-1.4	0
65	SLU 71	-2	170	2168	-7.59	-2.18	0
65	SLU 72	-2	154	2197	-7.28	-1.4	0
65	SLU 73	-3	187	2467	-8.81	-1.53	0
65	SLU 74	-2	212	2418	-9.32	-2.84	0
65	SLU 75	-3	197	2448	-9.01	-2.05	0
65	SLU 76	-3	187	2467	-8.81	-1.53	0
65	SLU 77	-2	212	2418	-9.32	-2.84	0
65	SLU 78	-3	197	2448	-9.01	-2.05	0
65	SLU 79	-2	212	2418	-9.32	-2.84	0
65	SLU 80	-3	197	2448	-9.01	-2.05	0
65	SLU 81	-3	230	2526	-10.06	-3.12	0
65	SLU 82	-3	215	2555	-9.75	-2.33	0
65	SLU 83	-3	230	2526	-10.06	-3.12	0
65	SLU 84	-3	215	2555	-9.75	-2.33	0
65	SLE RA 1	-1	126	1642	-5.66	-1.61	0
65	SLE RA 2	-1	109	1674	-5.32	-0.74	0
65	SLE RA 3	-1	126	1642	-5.66	-1.61	0
65	SLE RA 4	-1	116	1661	-5.46	-1.09	0
65	SLE RA 5	-1	109	1674	-5.32	-0.74	0
65	SLE RA 6	-1	126	1642	-5.66	-1.61	0
65	SLE RA 7	-1	116	1661	-5.46	-1.09	0
65	SLE RA 8	-1	126	1642	-5.66	-1.61	0
65	SLE RA 9	-1	116	1661	-5.46	-1.09	0
65	SLE RA 10	-2	138	1841	-6.47	-1.17	0
65	SLE RA 11	-2	154	1809	-6.81	-2.05	0
65	SLE RA 12	-2	144	1828	-6.61	-1.52	0
65	SLE RA 13	-2	138	1841	-6.47	-1.17	0
65	SLE RA 14	-2	154	1809	-6.81	-2.05	0
65	SLE RA 15	-2	144	1828	-6.61	-1.52	0
65	SLE RA 16	-2	154	1809	-6.81	-2.05	0
65	SLE RA 17	-2	144	1828	-6.61	-1.52	0
65	SLE RA 18	-2	167	1880	-7.31	-2.23	0
65	SLE RA 19	-2	156	1900	-7.1	-1.71	0
65	SLE RA 20	-2	167	1880	-7.31	-2.23	0
65	SLE RA 21	-2	156	1900	-7.1	-1.71	0
65	SLE FR 1	-1	126	1642	-5.66	-1.61	0
65	SLE FR 2	-1	123	1649	-5.6	-1.44	0
65	SLE FR 3	-1	126	1642	-5.66	-1.61	0
65	SLE FR 4	-1	135	1720	-6.09	-1.62	0
65	SLE FR 5	-1	138	1713	-6.16	-1.8	0
65	SLE FR 6	-2	146	1761	-6.49	-1.92	0
65	SLE QP 1	-1	126	1642	-5.66	-1.61	0
65	SLE QP 2	-1	138	1713	-6.16	-1.8	0
65	SLD 1	-2	260	1916	-10.99	4.13	0.02
65	SLD 2	-2	260	1916	-10.99	4.13	0.02
65	SLD 3	-8	124	1868	-5.46	1.92	0.02
65	SLD 4	-8	124	1868	-5.46	1.92	0.02
65	SLD 5	6	381	1847	-15.99	3.34	-0.01
65	SLD 6	6	381	1847	-15.99	3.34	-0.01
65	SLD 7	-11	-72	1687	2.44	-4.05	0.02
65	SLD 8	-11	-72	1687	2.44	-4.05	0.02
65	SLD 9	9	349	1740	-14.75	0.45	-0.02
65	SLD 10	9	349	1740	-14.75	0.45	-0.02
65	SLD 11	-9	-104	1580	3.68	-6.94	0.01
65	SLD 12	-9	-104	1580	3.68	-6.94	0.01
65	SLD 13	5	153	1559	-6.86	-5.52	-0.03
65	SLD 14	5	153	1559	-6.86	-5.52	-0.03
65	SLD 15	0	17	1511	-1.33	-7.73	-0.02
65	SLD 16	0	17	1511	-1.33	-7.73	-0.02
65	SLV 1	-3	425	2191	-17.55	12.33	0.04
65	SLV 2	-3	425	2191	-17.55	12.33	0.04
65	SLV 3	-17	104	2069	-4.49	6.65	0.06
65	SLV 4	-17	104	2069	-4.49	6.65	0.06
65	SLV 5	18	711	2042	-29.39	11.04	-0.02
65	SLV 6	18	711	2042	-29.39	11.04	-0.02
65	SLV 7	-26	-359	1635	14.15	-7.87	0.05
65	SLV 8	-26	-359	1635	14.15	-7.87	0.05
65	SLV 9	24	636	1792	-26.47	4.27	-0.05
65	SLV 10	24	636	1792	-26.47	4.27	-0.05
65	SLV 11	-21	-434	1385	17.07	-14.64	0.02
65	SLV 12	-21	-434	1385	17.07	-14.64	0.02
65	SLV 13	14	173	1358	-7.83	-10.25	-0.06
65	SLV 14	14	173	1358	-7.83	-10.25	-0.06
65	SLV 15	1	-148	1236	5.23	-15.92	-0.04
65	SLV 16	1	-148	1236	5.23	-15.92	-0.04
66	SLU 1	-1	110	1187	-5.02	-1.23	0



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
Ind.	N.br.						
66	SLU 2	-1	48	1231	-2.81	-1.34	0
66	SLU 3	-1	110	1187	-5.02	-1.23	0
66	SLU 4	-1	73	1213	-3.69	-1.29	0
66	SLU 5	-1	48	1231	-2.81	-1.34	0
66	SLU 6	-1	110	1187	-5.02	-1.23	0
66	SLU 7	-1	73	1213	-3.69	-1.29	0
66	SLU 8	-1	110	1187	-5.02	-1.23	0
66	SLU 9	-1	73	1213	-3.69	-1.29	0
66	SLU 10	-1	97	1520	-4.93	-1.82	0
66	SLU 11	-1	160	1476	-7.14	-1.71	0
66	SLU 12	-1	122	1502	-5.81	-1.77	0
66	SLU 13	-1	97	1520	-4.93	-1.82	0
66	SLU 14	-1	160	1476	-7.14	-1.71	0
66	SLU 15	-1	122	1502	-5.81	-1.77	0
66	SLU 16	-1	160	1476	-7.14	-1.71	0
66	SLU 17	-1	122	1502	-5.81	-1.77	0
66	SLU 18	-1	181	1600	-8.05	-1.91	0
66	SLU 19	-1	144	1626	-6.72	-1.98	0
66	SLU 20	-1	181	1600	-8.05	-1.91	0
66	SLU 21	-1	144	1626	-6.72	-1.98	0
66	SLU 22	-1	136	1332	-6.1	-1.47	0
66	SLU 23	-1	73	1376	-3.89	-1.58	0
66	SLU 24	-1	136	1332	-6.1	-1.47	0
66	SLU 25	-1	98	1358	-4.77	-1.53	0
66	SLU 26	-1	73	1376	-3.89	-1.58	0
66	SLU 27	-1	136	1332	-6.1	-1.47	0
66	SLU 28	-1	98	1358	-4.77	-1.53	0
66	SLU 29	-1	136	1332	-6.1	-1.47	0
66	SLU 30	-1	98	1358	-4.77	-1.53	0
66	SLU 31	-1	123	1665	-6.01	-2.06	-0.01
66	SLU 32	-1	186	1621	-8.22	-1.95	0
66	SLU 33	-1	148	1647	-6.9	-2.01	-0.01
66	SLU 34	-1	123	1665	-6.01	-2.06	-0.01
66	SLU 35	-1	186	1621	-8.22	-1.95	0
66	SLU 36	-1	148	1647	-6.9	-2.01	-0.01
66	SLU 37	-1	186	1621	-8.22	-1.95	0
66	SLU 38	-1	148	1647	-6.9	-2.01	-0.01
66	SLU 39	-1	207	1745	-9.13	-2.15	-0.01
66	SLU 40	-1	169	1771	-7.81	-2.22	-0.01
66	SLU 41	-1	207	1745	-9.13	-2.15	-0.01
66	SLU 42	-1	169	1771	-7.81	-2.22	-0.01
66	SLU 43	-1	134	1494	-6.15	-1.51	0
66	SLU 44	-1	72	1537	-3.94	-1.62	0
66	SLU 45	-1	134	1494	-6.15	-1.51	0
66	SLU 46	-1	97	1520	-4.83	-1.58	0
66	SLU 47	-1	72	1537	-3.94	-1.62	0
66	SLU 48	-1	134	1494	-6.15	-1.51	0
66	SLU 49	-1	97	1520	-4.83	-1.58	0
66	SLU 50	-1	134	1494	-6.15	-1.51	0
66	SLU 51	-1	97	1520	-4.83	-1.58	0
66	SLU 52	-1	122	1826	-6.06	-2.1	-0.01
66	SLU 53	-1	184	1783	-8.28	-1.99	0
66	SLU 54	-1	147	1809	-6.95	-2.06	-0.01
66	SLU 55	-1	122	1826	-6.06	-2.1	-0.01
66	SLU 56	-1	184	1783	-8.28	-1.99	0
66	SLU 57	-1	147	1809	-6.95	-2.06	-0.01
66	SLU 58	-1	184	1783	-8.28	-1.99	0
66	SLU 59	-1	147	1809	-6.95	-2.06	-0.01
66	SLU 60	-1	206	1907	-9.19	-2.2	-0.01
66	SLU 61	-1	168	1933	-7.86	-2.26	-0.01
66	SLU 62	-1	206	1907	-9.19	-2.2	-0.01
66	SLU 63	-1	168	1933	-7.86	-2.26	-0.01
66	SLU 64	-1	160	1639	-7.23	-1.75	0
66	SLU 65	-1	97	1682	-5.02	-1.86	0
66	SLU 66	-1	160	1639	-7.23	-1.75	0
66	SLU 67	-1	122	1665	-5.91	-1.82	0
66	SLU 68	-1	97	1682	-5.02	-1.86	0
66	SLU 69	-1	160	1639	-7.23	-1.75	0
66	SLU 70	-1	122	1665	-5.91	-1.82	0
66	SLU 71	-1	160	1639	-7.23	-1.75	0
66	SLU 72	-1	122	1665	-5.91	-1.82	0
66	SLU 73	-2	147	1971	-7.15	-2.34	-0.01
66	SLU 74	-1	210	1928	-9.36	-2.23	-0.01
66	SLU 75	-2	172	1954	-8.03	-2.3	-0.01
66	SLU 76	-2	147	1971	-7.15	-2.34	-0.01
66	SLU 77	-1	210	1928	-9.36	-2.23	-0.01
66	SLU 78	-2	172	1954	-8.03	-2.3	-0.01
66	SLU 79	-1	210	1928	-9.36	-2.23	-0.01
66	SLU 80	-2	172	1954	-8.03	-2.3	-0.01
66	SLU 81	-2	231	2052	-10.27	-2.44	-0.01
66	SLU 82	-2	194	2078	-8.94	-2.5	-0.01
66	SLU 83	-2	231	2052	-10.27	-2.44	-0.01
66	SLU 84	-2	194	2078	-8.94	-2.5	-0.01
66	SLE RA 1	-1	117	1229	-5.33	-1.29	0
66	SLE RA 2	-1	76	1258	-3.85	-1.37	0
66	SLE RA 3	-1	117	1229	-5.33	-1.29	0
66	SLE RA 4	-1	92	1246	-4.44	-1.34	0
66	SLE RA 5	-1	76	1258	-3.85	-1.37	0
66	SLE RA 6	-1	117	1229	-5.33	-1.29	0
66	SLE RA 7	-1	92	1246	-4.44	-1.34	0



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
66	SLE RA 8	-1	117	1229	-5.33	-1.29	0
66	SLE RA 9	-1	92	1246	-4.44	-1.34	0
66	SLE RA 10	-1	109	1450	-5.27	-1.69	0
66	SLE RA 11	-1	151	1421	-6.74	-1.61	0
66	SLE RA 12	-1	126	1439	-5.86	-1.66	0
66	SLE RA 13	-1	109	1450	-5.27	-1.69	0
66	SLE RA 14	-1	151	1421	-6.74	-1.61	0
66	SLE RA 15	-1	126	1439	-5.86	-1.66	0
66	SLE RA 16	-1	151	1421	-6.74	-1.61	0
66	SLE RA 17	-1	126	1439	-5.86	-1.66	0
66	SLE RA 18	-1	165	1504	-7.35	-1.75	0
66	SLE RA 19	-1	140	1521	-6.46	-1.8	0
66	SLE RA 20	-1	165	1504	-7.35	-1.75	0
66	SLE RA 21	-1	140	1521	-6.46	-1.8	0
66	SLE FR 1	-1	117	1229	-5.33	-1.29	0
66	SLE FR 2	-1	109	1235	-5.03	-1.31	0
66	SLE FR 3	-1	117	1229	-5.33	-1.29	0
66	SLE FR 4	-1	123	1317	-5.64	-1.45	0
66	SLE FR 5	-1	132	1311	-5.93	-1.43	0
66	SLE FR 6	-1	141	1366	-6.34	-1.52	0
66	SLE QP 1	-1	117	1229	-5.33	-1.29	0
66	SLE QP 2	-1	132	1311	-5.93	-1.43	0
66	SLD 1	-1	226	1230	-9.63	2.37	0.01
66	SLD 2	-1	226	1230	-9.63	2.37	0.01
66	SLD 3	-4	121	1287	-5.33	0.9	0.01
66	SLD 4	-4	121	1287	-5.33	0.9	0.01
66	SLD 5	3	319	1200	-13.56	1.94	0
66	SLD 6	3	319	1200	-13.56	1.94	0
66	SLD 7	-6	-31	1391	0.76	-2.96	0
66	SLD 8	-6	-31	1391	0.76	-2.96	0
66	SLD 9	4	294	1232	-12.63	0.1	0
66	SLD 10	4	294	1232	-12.63	0.1	0
66	SLD 11	-5	-56	1422	1.69	-4.8	-0.01
66	SLD 12	-5	-56	1422	1.69	-4.8	-0.01
66	SLD 13	2	142	1336	-6.54	-3.76	-0.02
66	SLD 14	2	142	1336	-6.54	-3.76	-0.02
66	SLD 15	0	37	1393	-2.24	-5.23	-0.02
66	SLD 16	0	37	1393	-2.24	-5.23	-0.02
66	SLV 1	-2	357	1111	-14.75	7.67	0.03
66	SLV 2	-2	357	1111	-14.75	7.67	0.03
66	SLV 3	-9	103	1257	-4.37	3.9	0.03
66	SLV 4	-9	103	1257	-4.37	3.9	0.03
66	SLV 5	9	585	1029	-24.33	7.01	0.01
66	SLV 6	9	585	1029	-24.33	7.01	0.01
66	SLV 7	-14	-262	1517	10.29	-5.54	0
66	SLV 8	-14	-262	1517	10.29	-5.54	0
66	SLV 9	12	526	1106	-22.15	2.68	0
66	SLV 10	12	526	1106	-22.15	2.68	0
66	SLV 11	-11	-321	1593	12.46	-9.87	-0.02
66	SLV 12	-11	-321	1593	12.46	-9.87	-0.02
66	SLV 13	7	160	1366	-7.5	-6.77	-0.03
66	SLV 14	7	160	1366	-7.5	-6.77	-0.03
66	SLV 15	0	-94	1512	2.89	-10.53	-0.04
66	SLV 16	0	-94	1512	2.89	-10.53	-0.04
67	SLU 1	6	86	1729	-1.95	0.47	-0.02
67	SLU 2	5	60	1770	-0.58	1.05	-0.02
67	SLU 3	6	86	1729	-1.95	0.47	-0.02
67	SLU 4	5	70	1753	-1.13	0.82	-0.02
67	SLU 5	5	60	1770	-0.58	1.05	-0.02
67	SLU 6	6	86	1729	-1.95	0.47	-0.02
67	SLU 7	5	70	1753	-1.13	0.82	-0.02
67	SLU 8	6	86	1729	-1.95	0.47	-0.02
67	SLU 9	5	70	1753	-1.13	0.82	-0.02
67	SLU 10	6	96	2073	-1.56	1.03	-0.02
67	SLU 11	6	121	2033	-2.93	0.44	-0.02
67	SLU 12	6	106	2057	-2.11	0.79	-0.02
67	SLU 13	6	96	2073	-1.56	1.03	-0.02
67	SLU 14	6	121	2033	-2.93	0.44	-0.02
67	SLU 15	6	106	2057	-2.11	0.79	-0.02
67	SLU 16	6	121	2033	-2.93	0.44	-0.02
67	SLU 17	6	106	2057	-2.11	0.79	-0.02
67	SLU 18	7	136	2163	-3.35	0.43	-0.02
67	SLU 19	7	121	2187	-2.53	0.78	-0.02
67	SLU 20	7	136	2163	-3.35	0.43	-0.02
67	SLU 21	7	121	2187	-2.53	0.78	-0.02
67	SLU 22	6	101	1870	-2.37	0.46	-0.02
67	SLU 23	6	76	1911	-1	1.04	-0.02
67	SLU 24	6	101	1870	-2.37	0.46	-0.02
67	SLU 25	6	86	1894	-1.55	0.81	-0.02
67	SLU 26	6	76	1911	-1	1.04	-0.02
67	SLU 27	6	101	1870	-2.37	0.46	-0.02
67	SLU 28	6	86	1894	-1.55	0.81	-0.02
67	SLU 29	6	101	1870	-2.37	0.46	-0.02
67	SLU 30	6	86	1894	-1.55	0.81	-0.02
67	SLU 31	7	111	2214	-1.97	1.01	-0.02
67	SLU 32	7	137	2174	-3.35	0.43	-0.02
67	SLU 33	7	121	2198	-2.53	0.78	-0.02
67	SLU 34	7	111	2214	-1.97	1.01	-0.02
67	SLU 35	7	137	2174	-3.35	0.43	-0.02
67	SLU 36	7	121	2198	-2.53	0.78	-0.02



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
67	SLU 37	7	137	2174	-3.35	0.43	-0.02
67	SLU 38	7	121	2198	-2.53	0.78	-0.02
67	SLU 39	7	152	2304	-3.77	0.42	-0.02
67	SLU 40	7	137	2328	-2.94	0.77	-0.02
67	SLU 41	7	152	2304	-3.77	0.42	-0.02
67	SLU 42	7	137	2328	-2.94	0.77	-0.02
67	SLU 43	7	106	2199	-2.4	0.61	-0.02
67	SLU 44	7	81	2240	-1.02	1.19	-0.02
67	SLU 45	7	106	2199	-2.4	0.61	-0.02
67	SLU 46	7	91	2224	-1.57	0.96	-0.02
67	SLU 47	7	81	2240	-1.02	1.19	-0.02
67	SLU 48	7	106	2199	-2.4	0.61	-0.02
67	SLU 49	7	91	2224	-1.57	0.96	-0.02
67	SLU 50	7	106	2199	-2.4	0.61	-0.02
67	SLU 51	7	91	2224	-1.57	0.96	-0.02
67	SLU 52	8	116	2544	-2	1.17	-0.03
67	SLU 53	8	142	2503	-3.38	0.59	-0.02
67	SLU 54	8	126	2528	-2.55	0.94	-0.03
67	SLU 55	8	116	2544	-2	1.17	-0.03
67	SLU 56	8	142	2503	-3.38	0.59	-0.02
67	SLU 57	8	126	2528	-2.55	0.94	-0.03
67	SLU 58	8	142	2503	-3.38	0.59	-0.02
67	SLU 59	8	126	2528	-2.55	0.94	-0.03
67	SLU 60	8	157	2633	-3.8	0.58	-0.03
67	SLU 61	8	142	2658	-2.97	0.93	-0.03
67	SLU 62	8	157	2633	-3.8	0.58	-0.03
67	SLU 63	8	142	2658	-2.97	0.93	-0.03
67	SLU 64	8	122	2340	-2.81	0.6	-0.02
67	SLU 65	7	96	2381	-1.44	1.18	-0.02
67	SLU 66	8	122	2340	-2.81	0.6	-0.02
67	SLU 67	7	106	2365	-1.99	0.95	-0.02
67	SLU 68	7	96	2381	-1.44	1.18	-0.02
67	SLU 69	8	122	2340	-2.81	0.6	-0.02
67	SLU 70	7	106	2365	-1.99	0.95	-0.02
67	SLU 71	8	122	2340	-2.81	0.6	-0.02
67	SLU 72	7	106	2365	-1.99	0.95	-0.02
67	SLU 73	8	132	2685	-2.42	1.16	-0.03
67	SLU 74	8	157	2644	-3.79	0.58	-0.03
67	SLU 75	8	142	2669	-2.97	0.92	-0.03
67	SLU 76	8	132	2685	-2.42	1.16	-0.03
67	SLU 77	8	157	2644	-3.79	0.58	-0.03
67	SLU 78	8	142	2669	-2.97	0.92	-0.03
67	SLU 79	8	157	2644	-3.79	0.58	-0.03
67	SLU 80	8	142	2669	-2.97	0.92	-0.03
67	SLU 81	9	172	2774	-4.21	0.57	-0.03
67	SLU 82	9	157	2799	-3.39	0.91	-0.03
67	SLU 83	9	172	2774	-4.21	0.57	-0.03
67	SLU 84	9	157	2799	-3.39	0.91	-0.03
67	SLE RA 1	6	90	1769	-2.07	0.46	-0.02
67	SLE RA 2	5	73	1796	-1.16	0.85	-0.02
67	SLE RA 3	6	90	1769	-2.07	0.46	-0.02
67	SLE RA 4	6	80	1786	-1.52	0.7	-0.02
67	SLE RA 5	5	73	1796	-1.16	0.85	-0.02
67	SLE RA 6	6	90	1769	-2.07	0.46	-0.02
67	SLE RA 7	6	80	1786	-1.52	0.7	-0.02
67	SLE RA 8	6	90	1769	-2.07	0.46	-0.02
67	SLE RA 9	6	80	1786	-1.52	0.7	-0.02
67	SLE RA 10	6	97	1999	-1.81	0.84	-0.02
67	SLE RA 11	6	114	1972	-2.73	0.45	-0.02
67	SLE RA 12	6	104	1988	-2.18	0.68	-0.02
67	SLE RA 13	6	97	1999	-1.81	0.84	-0.02
67	SLE RA 14	6	114	1972	-2.73	0.45	-0.02
67	SLE RA 15	6	104	1988	-2.18	0.68	-0.02
67	SLE RA 16	6	114	1972	-2.73	0.45	-0.02
67	SLE RA 17	6	104	1988	-2.18	0.68	-0.02
67	SLE RA 18	7	124	2059	-3.01	0.44	-0.02
67	SLE RA 19	6	114	2075	-2.46	0.67	-0.02
67	SLE RA 20	7	124	2059	-3.01	0.44	-0.02
67	SLE RA 21	6	114	2075	-2.46	0.67	-0.02
67	SLE FR 1	6	90	1769	-2.07	0.46	-0.02
67	SLE FR 2	6	87	1775	-1.89	0.54	-0.02
67	SLE FR 3	6	90	1769	-2.07	0.46	-0.02
67	SLE FR 4	6	97	1862	-2.17	0.53	-0.02
67	SLE FR 5	6	100	1856	-2.35	0.46	-0.02
67	SLE FR 6	6	107	1914	-2.54	0.45	-0.02
67	SLE QP 1	6	90	1769	-2.07	0.46	-0.02
67	SLE QP 2	6	100	1856	-2.35	0.46	-0.02
67	SLD 1	1	211	2106	-6.54	2.61	-0.02
67	SLD 2	1	211	2106	-6.54	2.61	-0.02
67	SLD 3	-3	76	2057	-0.99	1.1	-0.03
67	SLD 4	-3	76	2057	-0.99	1.1	-0.03
67	SLD 5	11	339	2005	-12.03	3.39	-0.02
67	SLD 6	11	339	2005	-12.03	3.39	-0.02
67	SLD 7	-4	-113	1842	6.47	-1.63	-0.03
67	SLD 8	-4	-113	1842	6.47	-1.63	-0.03
67	SLD 9	15	313	1870	-11.18	2.55	-0.01
67	SLD 10	15	313	1870	-11.18	2.55	-0.01
67	SLD 11	1	-139	1707	7.32	-2.48	-0.02
67	SLD 12	1	-139	1707	7.32	-2.48	-0.02
67	SLD 13	15	125	1655	-3.72	-0.19	-0.01



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
67	SLD 14	15	125	1655	-3.72	-0.19	-0.01
67	SLD 15	10	-11	1606	1.83	-1.7	-0.01
67	SLD 16	10	-11	1606	1.83	-1.7	-0.01
67	SLV 1	-4	361	2445	-12.22	5.65	-0.03
67	SLV 2	-4	361	2445	-12.22	5.65	-0.03
67	SLV 3	-15	41	2321	0.9	1.82	-0.04
67	SLV 4	-15	41	2321	0.9	1.82	-0.04
67	SLV 5	20	664	2221	-25.2	7.81	-0.01
67	SLV 6	20	664	2221	-25.2	7.81	-0.01
67	SLV 7	-17	-403	1808	18.51	-4.93	-0.03
67	SLV 8	-17	-403	1808	18.51	-4.93	-0.03
67	SLV 9	29	604	1905	-23.22	5.84	0
67	SLV 10	29	604	1905	-23.22	5.84	0
67	SLV 11	-8	-464	1491	20.49	-6.9	-0.02
67	SLV 12	-8	-464	1491	20.49	-6.9	-0.02
67	SLV 13	27	159	1391	-5.6	-0.91	0
67	SLV 14	27	159	1391	-5.6	-0.91	0
67	SLV 15	16	-161	1267	7.51	-4.73	0
67	SLV 16	16	-161	1267	7.51	-4.73	0
68	SLU 1	1	58	1285	-1.15	-0.38	0
68	SLU 2	1	-7	1321	1.67	-0.42	0
68	SLU 3	1	58	1285	-1.15	-0.38	0
68	SLU 4	1	19	1307	0.54	-0.4	0
68	SLU 5	1	-7	1321	1.67	-0.42	0
68	SLU 6	1	58	1285	-1.15	-0.38	0
68	SLU 7	1	19	1307	0.54	-0.4	0
68	SLU 8	1	58	1285	-1.15	-0.38	0
68	SLU 9	1	19	1307	0.54	-0.4	0
68	SLU 10	1	23	1660	0.93	-0.57	0
68	SLU 11	1	87	1624	-1.88	-0.54	0
68	SLU 12	1	48	1645	-0.19	-0.56	0
68	SLU 13	1	23	1660	0.93	-0.57	0
68	SLU 14	1	87	1624	-1.88	-0.54	0
68	SLU 15	1	48	1645	-0.19	-0.56	0
68	SLU 16	1	87	1624	-1.88	-0.54	0
68	SLU 17	1	48	1645	-0.19	-0.56	0
68	SLU 18	2	100	1769	-2.2	-0.61	0
68	SLU 19	2	61	1790	-0.51	-0.63	0
68	SLU 20	2	100	1769	-2.2	-0.61	0
68	SLU 21	2	61	1790	-0.51	-0.63	0
68	SLU 22	1	73	1455	-1.55	-0.46	0
68	SLU 23	1	9	1491	1.27	-0.49	0
68	SLU 24	1	73	1455	-1.55	-0.46	0
68	SLU 25	1	34	1477	0.14	-0.48	0
68	SLU 26	1	9	1491	1.27	-0.49	0
68	SLU 27	1	73	1455	-1.55	-0.46	0
68	SLU 28	1	34	1477	0.14	-0.48	0
68	SLU 29	1	73	1455	-1.55	-0.46	0
68	SLU 30	1	34	1477	0.14	-0.48	0
68	SLU 31	2	38	1830	0.54	-0.65	0
68	SLU 32	2	103	1794	-2.28	-0.62	0
68	SLU 33	2	64	1816	-0.59	-0.64	0
68	SLU 34	2	38	1830	0.54	-0.65	0
68	SLU 35	2	103	1794	-2.28	-0.62	0
68	SLU 36	2	64	1816	-0.59	-0.64	0
68	SLU 37	2	103	1794	-2.28	-0.62	0
68	SLU 38	2	64	1816	-0.59	-0.64	0
68	SLU 39	2	115	1939	-2.59	-0.69	0
68	SLU 40	2	77	1961	-0.9	-0.71	0
68	SLU 41	2	115	1939	-2.59	-0.69	0
68	SLU 42	2	77	1961	-0.9	-0.71	0
68	SLU 43	1	69	1612	-1.36	-0.47	0
68	SLU 44	1	5	1648	1.46	-0.5	0
68	SLU 45	1	69	1612	-1.36	-0.47	0
68	SLU 46	1	31	1634	0.33	-0.49	0
68	SLU 47	1	5	1648	1.46	-0.5	0
68	SLU 48	1	69	1612	-1.36	-0.47	0
68	SLU 49	1	31	1634	0.33	-0.49	0
68	SLU 50	1	69	1612	-1.36	-0.47	0
68	SLU 51	1	31	1634	0.33	-0.49	0
68	SLU 52	2	35	1987	0.72	-0.66	0
68	SLU 53	2	99	1951	-2.09	-0.63	0
68	SLU 54	2	60	1972	-0.4	-0.65	0
68	SLU 55	2	35	1987	0.72	-0.66	0
68	SLU 56	2	99	1951	-2.09	-0.63	0
68	SLU 57	2	60	1972	-0.4	-0.65	0
68	SLU 58	2	99	1951	-2.09	-0.63	0
68	SLU 59	2	60	1972	-0.4	-0.65	0
68	SLU 60	2	112	2096	-2.4	-0.69	0
68	SLU 61	2	73	2117	-0.72	-0.72	0
68	SLU 62	2	112	2096	-2.4	-0.69	0
68	SLU 63	2	73	2117	-0.72	-0.72	0
68	SLU 64	1	85	1782	-1.75	-0.55	0
68	SLU 65	2	20	1818	1.06	-0.58	0
68	SLU 66	1	85	1782	-1.75	-0.55	0
68	SLU 67	1	46	1804	-0.07	-0.57	0
68	SLU 68	2	20	1818	1.06	-0.58	0
68	SLU 69	1	85	1782	-1.75	-0.55	0
68	SLU 70	1	46	1804	-0.07	-0.57	0
68	SLU 71	1	85	1782	-1.75	-0.55	0



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
68	SLU 72	1	46	1804	-0.07	-0.57	0
68	SLU 73	2	50	2157	0.33	-0.74	0
68	SLU 74	2	115	2121	-2.49	-0.71	0
68	SLU 75	2	76	2143	-0.8	-0.73	0
68	SLU 76	2	50	2157	0.33	-0.74	0
68	SLU 77	2	115	2121	-2.49	-0.71	0
68	SLU 78	2	76	2143	-0.8	-0.73	0
68	SLU 79	2	115	2121	-2.49	-0.71	0
68	SLU 80	2	76	2143	-0.8	-0.73	0
68	SLU 81	2	127	2266	-2.8	-0.77	0
68	SLU 82	2	88	2288	-1.11	-0.8	0
68	SLU 83	2	127	2266	-2.8	-0.77	0
68	SLU 84	2	88	2288	-1.11	-0.8	0
68	SLE RA 1	1	62	1334	-1.26	-0.4	0
68	SLE RA 2	1	19	1358	0.61	-0.43	0
68	SLE RA 3	1	62	1334	-1.26	-0.4	0
68	SLE RA 4	1	36	1348	-0.14	-0.42	0
68	SLE RA 5	1	19	1358	0.61	-0.43	0
68	SLE RA 6	1	62	1334	-1.26	-0.4	0
68	SLE RA 7	1	36	1348	-0.14	-0.42	0
68	SLE RA 8	1	62	1334	-1.26	-0.4	0
68	SLE RA 9	1	36	1348	-0.14	-0.42	0
68	SLE RA 10	1	39	1583	0.13	-0.53	0
68	SLE RA 11	1	82	1559	-1.75	-0.51	0
68	SLE RA 12	1	56	1574	-0.63	-0.52	0
68	SLE RA 13	1	39	1583	0.13	-0.53	0
68	SLE RA 14	1	82	1559	-1.75	-0.51	0
68	SLE RA 15	1	56	1574	-0.63	-0.52	0
68	SLE RA 16	1	82	1559	-1.75	-0.51	0
68	SLE RA 17	1	56	1574	-0.63	-0.52	0
68	SLE RA 18	1	90	1656	-1.96	-0.55	0
68	SLE RA 19	1	64	1671	-0.83	-0.57	0
68	SLE RA 20	1	90	1656	-1.96	-0.55	0
68	SLE RA 21	1	64	1671	-0.83	-0.57	0
68	SLE FR 1	1	62	1334	-1.26	-0.4	0
68	SLE FR 2	1	53	1338	-0.89	-0.41	0
68	SLE FR 3	1	62	1334	-1.26	-0.4	0
68	SLE FR 4	1	62	1435	-1.1	-0.45	0
68	SLE FR 5	1	70	1430	-1.47	-0.45	0
68	SLE FR 6	1	76	1495	-1.61	-0.48	0
68	SLE QP 1	1	62	1334	-1.26	-0.4	0
68	SLE QP 2	1	70	1430	-1.47	-0.45	0
68	SLD 1	-2	148	1365	-4.51	0.84	0
68	SLD 2	-2	148	1365	-4.51	0.84	0
68	SLD 3	-4	46	1412	-0.36	-0.03	-0.01
68	SLD 4	-4	46	1412	-0.36	-0.03	-0.01
68	SLD 5	3	248	1339	-8.68	1.27	0
68	SLD 6	3	248	1339	-8.68	1.27	0
68	SLD 7	-3	-92	1496	5.16	-1.65	-0.01
68	SLD 8	-3	-92	1496	5.16	-1.65	-0.01
68	SLD 9	5	232	1364	-8.1	0.76	0
68	SLD 10	5	232	1364	-8.1	0.76	0
68	SLD 11	-1	-107	1521	5.74	-2.17	-0.01
68	SLD 12	-1	-107	1521	5.74	-2.17	-0.01
68	SLD 13	6	95	1449	-2.58	-0.86	0
68	SLD 14	6	95	1449	-2.58	-0.86	0
68	SLD 15	4	-7	1496	1.57	-1.74	0
68	SLD 16	4	-7	1496	1.57	-1.74	0
68	SLV 1	-5	256	1270	-8.78	2.68	-0.01
68	SLV 2	-5	256	1270	-8.78	2.68	-0.01
68	SLV 3	-10	9	1390	1.28	0.43	-0.01
68	SLV 4	-10	9	1390	1.28	0.43	-0.01
68	SLV 5	7	501	1199	-18.92	3.9	0.01
68	SLV 6	7	501	1199	-18.92	3.9	0.01
68	SLV 7	-10	-323	1601	14.6	-3.59	-0.02
68	SLV 8	-10	-323	1601	14.6	-3.59	-0.02
68	SLV 9	12	464	1259	-17.55	2.69	0.01
68	SLV 10	12	464	1259	-17.55	2.69	0.01
68	SLV 11	-4	-360	1661	15.97	-4.79	-0.01
68	SLV 12	-4	-360	1661	15.97	-4.79	-0.01
68	SLV 13	12	132	1470	-4.22	-1.33	0.01
68	SLV 14	12	132	1470	-4.22	-1.33	0.01
68	SLV 15	8	-115	1591	5.84	-3.58	0
68	SLV 16	8	-115	1591	5.84	-3.58	0
69	SLU 1	0	399	1286	-7.31	-0.67	0.14
69	SLU 2	-3	391	1266	-7.09	-0.98	0.23
69	SLU 3	0	399	1286	-7.31	-0.67	0.14
69	SLU 4	-2	394	1274	-7.17	-0.86	0.2
69	SLU 5	-3	391	1266	-7.09	-0.98	0.23
69	SLU 6	0	399	1286	-7.31	-0.67	0.14
69	SLU 7	-2	394	1274	-7.17	-0.86	0.2
69	SLU 8	0	399	1286	-7.31	-0.67	0.14
69	SLU 9	-2	394	1274	-7.17	-0.86	0.2
69	SLU 10	-2	501	1621	-8.94	-1.25	0.28
69	SLU 11	2	509	1642	-9.16	-0.93	0.18
69	SLU 12	0	504	1630	-9.03	-1.12	0.24
69	SLU 13	-2	501	1621	-8.94	-1.25	0.28
69	SLU 14	2	509	1642	-9.16	-0.93	0.18
69	SLU 15	0	504	1630	-9.03	-1.12	0.24
69	SLU 16	2	509	1642	-9.16	-0.93	0.18





Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
69	SLU 17	0	504	1630	-9.03	-1.12	0.24
69	SLU 18	2	556	1794	-9.96	-1.05	0.2
69	SLU 19	0	551	1782	-9.82	-1.23	0.26
69	SLU 20	2	556	1794	-9.96	-1.05	0.2
69	SLU 21	0	551	1782	-9.82	-1.23	0.26
69	SLU 22	1	458	1477	-8.3	-0.8	0.16
69	SLU 23	-2	450	1457	-8.09	-1.12	0.26
69	SLU 24	1	458	1477	-8.3	-0.8	0.16
69	SLU 25	-1	453	1465	-8.17	-0.99	0.22
69	SLU 26	-2	450	1457	-8.09	-1.12	0.26
69	SLU 27	1	458	1477	-8.3	-0.8	0.16
69	SLU 28	-1	453	1465	-8.17	-0.99	0.22
69	SLU 29	1	458	1477	-8.3	-0.8	0.16
69	SLU 30	-1	453	1465	-8.17	-0.99	0.22
69	SLU 31	-1	559	1813	-9.94	-1.38	0.3
69	SLU 32	3	568	1833	-10.16	-1.07	0.21
69	SLU 33	1	563	1821	-10.03	-1.26	0.27
69	SLU 34	-1	559	1813	-9.94	-1.38	0.3
69	SLU 35	3	568	1833	-10.16	-1.07	0.21
69	SLU 36	1	563	1821	-10.03	-1.26	0.27
69	SLU 37	3	568	1833	-10.16	-1.07	0.21
69	SLU 38	1	563	1821	-10.03	-1.26	0.27
69	SLU 39	3	615	1986	-10.95	-1.18	0.23
69	SLU 40	1	610	1973	-10.82	-1.37	0.29
69	SLU 41	3	615	1986	-10.95	-1.18	0.23
69	SLU 42	1	610	1973	-10.82	-1.37	0.29
69	SLU 43	0	499	1606	-9.15	-0.82	0.17
69	SLU 44	-3	491	1586	-8.94	-1.13	0.27
69	SLU 45	0	499	1606	-9.15	-0.82	0.17
69	SLU 46	-2	494	1594	-9.02	-1.01	0.23
69	SLU 47	-3	491	1586	-8.94	-1.13	0.27
69	SLU 48	0	499	1606	-9.15	-0.82	0.17
69	SLU 49	-2	494	1594	-9.02	-1.01	0.23
69	SLU 50	0	499	1606	-9.15	-0.82	0.17
69	SLU 51	-2	494	1594	-9.02	-1.01	0.23
69	SLU 52	-2	600	1942	-10.79	-1.4	0.31
69	SLU 53	2	608	1962	-11.01	-1.09	0.22
69	SLU 54	0	603	1950	-10.88	-1.28	0.28
69	SLU 55	-2	600	1942	-10.79	-1.4	0.31
69	SLU 56	2	608	1962	-11.01	-1.09	0.22
69	SLU 57	0	603	1950	-10.88	-1.28	0.28
69	SLU 58	2	608	1962	-11.01	-1.09	0.22
69	SLU 59	0	603	1950	-10.88	-1.28	0.28
69	SLU 60	2	655	2115	-11.8	-1.2	0.24
69	SLU 61	0	650	2102	-11.67	-1.39	0.3
69	SLU 62	2	655	2115	-11.8	-1.2	0.24
69	SLU 63	0	650	2102	-11.67	-1.39	0.3
69	SLU 64	1	558	1798	-10.15	-0.96	0.2
69	SLU 65	-2	549	1777	-9.93	-1.27	0.29
69	SLU 66	1	558	1798	-10.15	-0.96	0.2
69	SLU 67	-1	553	1786	-10.02	-1.15	0.25
69	SLU 68	-2	549	1777	-9.93	-1.27	0.29
69	SLU 69	1	558	1798	-10.15	-0.96	0.2
69	SLU 70	-1	553	1786	-10.02	-1.15	0.25
69	SLU 71	1	558	1798	-10.15	-0.96	0.2
69	SLU 72	-1	553	1786	-10.02	-1.15	0.25
69	SLU 73	-1	659	2133	-11.79	-1.54	0.34
69	SLU 74	2	667	2153	-12.01	-1.22	0.24
69	SLU 75	0	662	2141	-11.88	-1.41	0.3
69	SLU 76	-1	659	2133	-11.79	-1.54	0.34
69	SLU 77	2	667	2153	-12.01	-1.22	0.24
69	SLU 78	0	662	2141	-11.88	-1.41	0.3
69	SLU 79	2	667	2153	-12.01	-1.22	0.24
69	SLU 80	0	662	2141	-11.88	-1.41	0.3
69	SLU 81	3	714	2306	-12.8	-1.34	0.26
69	SLU 82	1	709	2294	-12.67	-1.52	0.32
69	SLU 83	3	714	2306	-12.8	-1.34	0.26
69	SLU 84	1	709	2294	-12.67	-1.52	0.32
69	SLE RA 1	1	416	1341	-7.59	-0.71	0.14
69	SLE RA 2	-2	411	1327	-7.44	-0.92	0.21
69	SLE RA 3	1	416	1341	-7.59	-0.71	0.14
69	SLE RA 4	-1	413	1333	-7.5	-0.83	0.18
69	SLE RA 5	-2	411	1327	-7.44	-0.92	0.21
69	SLE RA 6	1	416	1341	-7.59	-0.71	0.14
69	SLE RA 7	-1	413	1333	-7.5	-0.83	0.18
69	SLE RA 8	1	416	1341	-7.59	-0.71	0.14
69	SLE RA 9	-1	413	1333	-7.5	-0.83	0.18
69	SLE RA 10	-1	484	1564	-8.68	-1.09	0.24
69	SLE RA 11	2	489	1578	-8.83	-0.88	0.18
69	SLE RA 12	0	486	1570	-8.74	-1.01	0.21
69	SLE RA 13	-1	484	1564	-8.68	-1.09	0.24
69	SLE RA 14	2	489	1578	-8.83	-0.88	0.18
69	SLE RA 15	0	486	1570	-8.74	-1.01	0.21
69	SLE RA 16	2	489	1578	-8.83	-0.88	0.18
69	SLE RA 17	0	486	1570	-8.74	-1.01	0.21
69	SLE RA 18	2	520	1680	-9.36	-0.96	0.19
69	SLE RA 19	1	517	1671	-9.27	-1.08	0.23
69	SLE RA 20	2	520	1680	-9.36	-0.96	0.19
69	SLE RA 21	1	517	1671	-9.27	-1.08	0.23
69	SLE FR 1	1	416	1341	-7.59	-0.71	0.14



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
69	SLE FR 2	0	415	1338	-7.56	-0.75	0.16
69	SLE FR 3	1	416	1341	-7.59	-0.71	0.14
69	SLE FR 4	1	446	1440	-8.09	-0.82	0.17
69	SLE FR 5	1	447	1442	-8.12	-0.78	0.16
69	SLE FR 6	1	468	1510	-8.47	-0.83	0.17
69	SLE QP 1	1	416	1341	-7.59	-0.71	0.14
69	SLE QP 2	1	447	1442	-8.12	-0.78	0.16
69	SLD 1	-21	415	1328	-7.77	-2.98	0.76
69	SLD 2	-21	415	1328	-7.77	-2.98	0.76
69	SLD 3	-4	355	1166	-6.04	-1.24	0.28
69	SLD 4	-4	355	1166	-6.04	-1.24	0.28
69	SLD 5	-30	528	1655	-10.63	-4.08	1.07
69	SLD 6	-30	528	1655	-10.63	-4.08	1.07
69	SLD 7	24	329	1113	-4.88	1.72	-0.54
69	SLD 8	24	329	1113	-4.88	1.72	-0.54
69	SLD 9	-22	566	1772	-11.36	-3.28	0.85
69	SLD 10	-22	566	1772	-11.36	-3.28	0.85
69	SLD 11	32	366	1230	-5.61	2.51	-0.75
69	SLD 12	32	366	1230	-5.61	2.51	-0.75
69	SLD 13	6	540	1719	-10.2	-0.32	0.04
69	SLD 14	6	540	1719	-10.2	-0.32	0.04
69	SLD 15	23	480	1557	-8.47	1.41	-0.44
69	SLD 16	23	480	1557	-8.47	1.41	-0.44
69	SLV 1	-52	373	1184	-7.34	-6.21	1.64
69	SLV 2	-52	373	1184	-7.34	-6.21	1.64
69	SLV 3	-11	228	787	-3.21	-1.77	0.41
69	SLV 4	-11	228	787	-3.21	-1.77	0.41
69	SLV 5	-79	645	1967	-14.15	-9.14	2.47
69	SLV 6	-79	645	1967	-14.15	-9.14	2.47
69	SLV 7	61	162	643	-0.38	5.65	-1.63
69	SLV 8	61	162	643	-0.38	5.65	-1.63
69	SLV 9	-59	733	2241	-15.86	-7.22	1.95
69	SLV 10	-59	733	2241	-15.86	-7.22	1.95
69	SLV 11	80	250	918	-2.09	7.58	-2.15
69	SLV 12	80	250	918	-2.09	7.58	-2.15
69	SLV 13	12	666	2098	-13.03	0.2	-0.09
69	SLV 14	12	666	2098	-13.03	0.2	-0.09
69	SLV 15	54	522	1701	-8.9	4.64	-1.32
69	SLV 16	54	522	1701	-8.9	4.64	-1.32
70	SLU 1	344	7	2907	-0.02	7.19	-0.35
70	SLU 2	352	-8	2964	0.22	7.21	-0.36
70	SLU 3	344	7	2907	-0.02	7.19	-0.35
70	SLU 4	349	-2	2941	0.13	7.2	-0.36
70	SLU 5	352	-8	2964	0.22	7.21	-0.36
70	SLU 6	344	7	2907	-0.02	7.19	-0.35
70	SLU 7	349	-2	2941	0.13	7.2	-0.36
70	SLU 8	344	7	2907	-0.02	7.19	-0.35
70	SLU 9	349	-2	2941	0.13	7.2	-0.36
70	SLU 10	451	-5	3541	0.26	9.82	-0.46
70	SLU 11	443	10	3484	0.02	9.8	-0.45
70	SLU 12	448	1	3518	0.17	9.81	-0.45
70	SLU 13	451	-5	3541	0.26	9.82	-0.46
70	SLU 14	443	10	3484	0.02	9.8	-0.45
70	SLU 15	448	1	3518	0.17	9.81	-0.45
70	SLU 16	443	10	3484	0.02	9.8	-0.45
70	SLU 17	448	1	3518	0.17	9.81	-0.45
70	SLU 18	485	11	3731	0.04	10.92	-0.49
70	SLU 19	490	2	3765	0.18	10.93	-0.49
70	SLU 20	485	11	3731	0.04	10.92	-0.49
70	SLU 21	490	2	3765	0.18	10.93	-0.49
70	SLU 22	387	8	3172	0	8.25	-0.39
70	SLU 23	395	-7	3228	0.24	8.27	-0.4
70	SLU 24	387	8	3172	0	8.25	-0.39
70	SLU 25	392	-1	3206	0.14	8.26	-0.4
70	SLU 26	395	-7	3228	0.24	8.27	-0.4
70	SLU 27	387	8	3172	0	8.25	-0.39
70	SLU 28	392	-1	3206	0.14	8.26	-0.4
70	SLU 29	387	8	3172	0	8.25	-0.39
70	SLU 30	392	-1	3206	0.14	8.26	-0.4
70	SLU 31	494	-4	3805	0.27	10.88	-0.5
70	SLU 32	486	11	3748	0.03	10.86	-0.49
70	SLU 33	491	2	3782	0.18	10.87	-0.49
70	SLU 34	494	-4	3805	0.27	10.88	-0.5
70	SLU 35	486	11	3748	0.03	10.86	-0.49
70	SLU 36	491	2	3782	0.18	10.87	-0.49
70	SLU 37	486	11	3748	0.03	10.86	-0.49
70	SLU 38	491	2	3782	0.18	10.87	-0.49
70	SLU 39	528	12	3996	0.05	11.98	-0.53
70	SLU 40	533	3	4030	0.19	11.99	-0.54
70	SLU 41	528	12	3996	0.05	11.98	-0.53
70	SLU 42	533	3	4030	0.19	11.99	-0.54
70	SLU 43	433	9	3689	-0.02	8.98	-0.44
70	SLU 44	441	-6	3746	0.22	9	-0.45
70	SLU 45	433	9	3689	-0.02	8.98	-0.44
70	SLU 46	437	0	3723	0.12	8.99	-0.45
70	SLU 47	441	-6	3746	0.22	9	-0.45
70	SLU 48	433	9	3689	-0.02	8.98	-0.44
70	SLU 49	437	0	3723	0.12	8.99	-0.45
70	SLU 50	433	9	3689	-0.02	8.98	-0.44
70	SLU 51	437	0	3723	0.12	8.99	-0.45



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
70	SLU 52	539	-4	4322	0.25	11.62	-0.55
70	SLU 53	532	12	4266	0.01	11.59	-0.54
70	SLU 54	536	3	4300	0.16	11.61	-0.54
70	SLU 55	539	-4	4322	0.25	11.62	-0.55
70	SLU 56	532	12	4266	0.01	11.59	-0.54
70	SLU 57	536	3	4300	0.16	11.61	-0.54
70	SLU 58	532	12	4266	0.01	11.59	-0.54
70	SLU 59	536	3	4300	0.16	11.61	-0.54
70	SLU 60	574	13	4513	0.03	12.71	-0.58
70	SLU 61	579	4	4547	0.17	12.73	-0.59
70	SLU 62	574	13	4513	0.03	12.71	-0.58
70	SLU 63	579	4	4547	0.17	12.73	-0.59
70	SLU 64	476	10	3953	-0.01	10.04	-0.48
70	SLU 65	484	-5	4010	0.23	10.06	-0.49
70	SLU 66	476	10	3953	-0.01	10.04	-0.48
70	SLU 67	481	1	3987	0.13	10.05	-0.49
70	SLU 68	484	-5	4010	0.23	10.06	-0.49
70	SLU 69	476	10	3953	-0.01	10.04	-0.48
70	SLU 70	481	1	3987	0.13	10.05	-0.49
70	SLU 71	476	10	3953	-0.01	10.04	-0.48
70	SLU 72	481	1	3987	0.13	10.05	-0.49
70	SLU 73	582	-2	4587	0.27	12.68	-0.59
70	SLU 74	575	13	4530	0.03	12.65	-0.58
70	SLU 75	579	4	4564	0.17	12.67	-0.59
70	SLU 76	582	-2	4587	0.27	12.68	-0.59
70	SLU 77	575	13	4530	0.03	12.65	-0.58
70	SLU 78	579	4	4564	0.17	12.67	-0.59
70	SLU 79	575	13	4530	0.03	12.65	-0.58
70	SLU 80	579	4	4564	0.17	12.67	-0.59
70	SLU 81	617	14	4777	0.04	13.77	-0.62
70	SLU 82	622	5	4811	0.19	13.79	-0.63
70	SLU 83	617	14	4777	0.04	13.77	-0.62
70	SLU 84	622	5	4811	0.19	13.79	-0.63
70	SLE RA 1	357	8	2983	-0.01	7.49	-0.36
70	SLE RA 2	362	-3	3021	0.15	7.51	-0.37
70	SLE RA 3	357	8	2983	-0.01	7.49	-0.36
70	SLE RA 4	360	1	3006	0.08	7.5	-0.37
70	SLE RA 5	362	-3	3021	0.15	7.51	-0.37
70	SLE RA 6	357	8	2983	-0.01	7.49	-0.36
70	SLE RA 7	360	1	3006	0.08	7.5	-0.37
70	SLE RA 8	357	8	2983	-0.01	7.49	-0.36
70	SLE RA 9	360	1	3006	0.08	7.5	-0.37
70	SLE RA 10	428	-1	3405	0.17	9.25	-0.43
70	SLE RA 11	422	9	3367	0.01	9.23	-0.43
70	SLE RA 12	426	3	3390	0.11	9.24	-0.43
70	SLE RA 13	428	-1	3405	0.17	9.25	-0.43
70	SLE RA 14	422	9	3367	0.01	9.23	-0.43
70	SLE RA 15	426	3	3390	0.11	9.24	-0.43
70	SLE RA 16	422	9	3367	0.01	9.23	-0.43
70	SLE RA 17	426	3	3390	0.11	9.24	-0.43
70	SLE RA 18	451	10	3532	0.02	9.98	-0.45
70	SLE RA 19	454	4	3555	0.12	9.99	-0.46
70	SLE RA 20	451	10	3532	0.02	9.98	-0.45
70	SLE RA 21	454	4	3555	0.12	9.99	-0.46
70	SLE FR 1	357	8	2983	-0.01	7.49	-0.36
70	SLE FR 2	358	6	2990	0.02	7.49	-0.36
70	SLE FR 3	357	8	2983	-0.01	7.49	-0.36
70	SLE FR 4	386	6	3155	0.03	8.24	-0.39
70	SLE FR 5	385	8	3148	0	8.23	-0.39
70	SLE FR 6	404	9	3258	0.01	8.73	-0.41
70	SLE QP 1	357	8	2983	-0.01	7.49	-0.36
70	SLE QP 2	385	8	3148	0	8.23	-0.39
70	SLD 1	503	92	3626	-3.42	12.93	-0.51
70	SLD 2	503	92	3626	-3.42	12.93	-0.51
70	SLD 3	472	-43	3555	2.27	11.62	-0.47
70	SLD 4	472	-43	3555	2.27	11.62	-0.47
70	SLD 5	467	238	3399	-9.66	11.62	-0.49
70	SLD 6	467	238	3399	-9.66	11.62	-0.49
70	SLD 7	364	-212	3162	9.31	7.27	-0.35
70	SLD 8	364	-212	3162	9.31	7.27	-0.35
70	SLD 9	406	229	3134	-9.31	9.2	-0.43
70	SLD 10	406	229	3134	-9.31	9.2	-0.43
70	SLD 11	302	-222	2896	9.66	4.85	-0.29
70	SLD 12	302	-222	2896	9.66	4.85	-0.29
70	SLD 13	297	60	2741	-2.27	4.85	-0.31
70	SLD 14	297	60	2741	-2.27	4.85	-0.31
70	SLD 15	266	-75	2670	3.42	3.54	-0.27
70	SLD 16	266	-75	2670	3.42	3.54	-0.27
70	SLV 1	667	205	4272	-8.08	19.43	-0.69
70	SLV 2	667	205	4272	-8.08	19.43	-0.69
70	SLV 3	585	-113	4094	5.37	15.96	-0.58
70	SLV 4	585	-113	4094	5.37	15.96	-0.58
70	SLV 5	593	551	3754	-22.82	16.85	-0.64
70	SLV 6	593	551	3754	-22.82	16.85	-0.64
70	SLV 7	321	-512	3162	22.01	5.3	-0.29
70	SLV 8	321	-512	3162	22.01	5.3	-0.29
70	SLV 9	449	528	3133	-22.01	11.17	-0.49
70	SLV 10	449	528	3133	-22.01	11.17	-0.49
70	SLV 11	176	-534	2541	22.82	-0.38	-0.15
70	SLV 12	176	-534	2541	22.82	-0.38	-0.15



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
70	SLV 13	184	130	2201	-5.37	0.5	-0.2
70	SLV 14	184	130	2201	-5.37	0.5	-0.2
70	SLV 15	103	-189	2024	8.08	-2.96	-0.1
70	SLV 16	103	-189	2024	8.08	-2.96	-0.1
71	SLU 1	473	-1	1876	-1.06	26.38	-0.05
71	SLU 2	489	0	1924	-1.64	27.43	-0.05
71	SLU 3	473	-1	1876	-1.06	26.38	-0.05
71	SLU 4	482	0	1905	-1.41	27.01	-0.05
71	SLU 5	489	0	1924	-1.64	27.43	-0.05
71	SLU 6	473	-1	1876	-1.06	26.38	-0.05
71	SLU 7	482	0	1905	-1.41	27.01	-0.05
71	SLU 8	473	-1	1876	-1.06	26.38	-0.05
71	SLU 9	482	0	1905	-1.41	27.01	-0.05
71	SLU 10	653	0	2276	-1.59	36.03	-0.05
71	SLU 11	636	-1	2228	-1.02	34.98	-0.05
71	SLU 12	646	-1	2257	-1.36	35.61	-0.05
71	SLU 13	653	0	2276	-1.59	36.03	-0.05
71	SLU 14	636	-1	2228	-1.02	34.98	-0.05
71	SLU 15	646	-1	2257	-1.36	35.61	-0.05
71	SLU 16	636	-1	2228	-1.02	34.98	-0.05
71	SLU 17	646	-1	2257	-1.36	35.61	-0.05
71	SLU 18	706	-1	2379	-0.99	38.67	-0.05
71	SLU 19	716	-1	2408	-1.34	39.3	-0.05
71	SLU 20	706	-1	2379	-0.99	38.67	-0.05
71	SLU 21	716	-1	2408	-1.34	39.3	-0.05
71	SLU 22	544	-1	2041	-1.07	30.24	-0.05
71	SLU 23	561	0	2089	-1.64	31.29	-0.05
71	SLU 24	544	-1	2041	-1.07	30.24	-0.05
71	SLU 25	554	0	2070	-1.41	30.87	-0.05
71	SLU 26	561	0	2089	-1.64	31.29	-0.05
71	SLU 27	544	-1	2041	-1.07	30.24	-0.05
71	SLU 28	554	0	2070	-1.41	30.87	-0.05
71	SLU 29	544	-1	2041	-1.07	30.24	-0.05
71	SLU 30	554	0	2070	-1.41	30.87	-0.05
71	SLU 31	724	-1	2441	-1.59	39.89	-0.04
71	SLU 32	708	-1	2393	-1.02	38.84	-0.05
71	SLU 33	718	-1	2422	-1.36	39.47	-0.05
71	SLU 34	724	-1	2441	-1.59	39.89	-0.04
71	SLU 35	708	-1	2393	-1.02	38.84	-0.05
71	SLU 36	718	-1	2422	-1.36	39.47	-0.05
71	SLU 37	708	-1	2393	-1.02	38.84	-0.05
71	SLU 38	718	-1	2422	-1.36	39.47	-0.05
71	SLU 39	778	-1	2544	-1	42.53	-0.04
71	SLU 40	788	-1	2573	-1.34	43.16	-0.04
71	SLU 41	778	-1	2544	-1	42.53	-0.04
71	SLU 42	788	-1	2573	-1.34	43.16	-0.04
71	SLU 43	590	-1	2382	-1.38	32.97	-0.07
71	SLU 44	606	0	2431	-1.96	34.02	-0.07
71	SLU 45	590	-1	2382	-1.38	32.97	-0.07
71	SLU 46	600	0	2411	-1.73	33.6	-0.07
71	SLU 47	606	0	2431	-1.96	34.02	-0.07
71	SLU 48	590	-1	2382	-1.38	32.97	-0.07
71	SLU 49	600	0	2411	-1.73	33.6	-0.07
71	SLU 50	590	-1	2382	-1.38	32.97	-0.07
71	SLU 51	600	0	2411	-1.73	33.6	-0.07
71	SLU 52	770	-1	2783	-1.91	42.62	-0.06
71	SLU 53	753	-1	2734	-1.33	41.58	-0.07
71	SLU 54	763	-1	2763	-1.68	42.2	-0.06
71	SLU 55	770	-1	2783	-1.91	42.62	-0.06
71	SLU 56	753	-1	2734	-1.33	41.58	-0.07
71	SLU 57	763	-1	2763	-1.68	42.2	-0.06
71	SLU 58	753	-1	2734	-1.33	41.58	-0.07
71	SLU 59	763	-1	2763	-1.68	42.2	-0.06
71	SLU 60	823	-1	2885	-1.31	45.26	-0.06
71	SLU 61	833	-1	2914	-1.66	45.89	-0.06
71	SLU 62	823	-1	2885	-1.31	45.26	-0.06
71	SLU 63	833	-1	2914	-1.66	45.89	-0.06
71	SLU 64	661	-1	2547	-1.39	36.83	-0.07
71	SLU 65	678	0	2595	-1.96	37.88	-0.07
71	SLU 66	661	-1	2547	-1.39	36.83	-0.07
71	SLU 67	671	-1	2576	-1.73	37.46	-0.07
71	SLU 68	678	0	2595	-1.96	37.88	-0.07
71	SLU 69	661	-1	2547	-1.39	36.83	-0.07
71	SLU 70	671	-1	2576	-1.73	37.46	-0.07
71	SLU 71	661	-1	2547	-1.39	36.83	-0.07
71	SLU 72	671	-1	2576	-1.73	37.46	-0.07
71	SLU 73	841	-1	2948	-1.91	46.48	-0.06
71	SLU 74	825	-1	2899	-1.34	45.43	-0.06
71	SLU 75	835	-1	2928	-1.68	46.06	-0.06
71	SLU 76	841	-1	2948	-1.91	46.48	-0.06
71	SLU 77	825	-1	2899	-1.34	45.43	-0.06
71	SLU 78	835	-1	2928	-1.68	46.06	-0.06
71	SLU 79	825	-1	2899	-1.34	45.43	-0.06
71	SLU 80	835	-1	2928	-1.68	46.06	-0.06
71	SLU 81	895	-2	3050	-1.32	49.12	-0.06
71	SLU 82	905	-1	3079	-1.66	49.75	-0.06
71	SLU 83	895	-2	3050	-1.32	49.12	-0.06
71	SLU 84	905	-1	3079	-1.66	49.75	-0.06
71	SLE RA 1	493	-1	1923	-1.07	27.48	-0.05
71	SLE RA 2	504	0	1955	-1.45	28.18	-0.05



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
71	SLE RA 3	493	-1	1923	-1.07	27.48	-0.05
71	SLE RA 4	500	0	1942	-1.3	27.9	-0.05
71	SLE RA 5	504	0	1955	-1.45	28.18	-0.05
71	SLE RA 6	493	-1	1923	-1.07	27.48	-0.05
71	SLE RA 7	500	0	1942	-1.3	27.9	-0.05
71	SLE RA 8	493	-1	1923	-1.07	27.48	-0.05
71	SLE RA 9	500	0	1942	-1.3	27.9	-0.05
71	SLE RA 10	613	-1	2190	-1.42	33.92	-0.05
71	SLE RA 11	602	-1	2158	-1.03	33.22	-0.05
71	SLE RA 12	609	-1	2177	-1.26	33.64	-0.05
71	SLE RA 13	613	-1	2190	-1.42	33.92	-0.05
71	SLE RA 14	602	-1	2158	-1.03	33.22	-0.05
71	SLE RA 15	609	-1	2177	-1.26	33.64	-0.05
71	SLE RA 16	602	-1	2158	-1.03	33.22	-0.05
71	SLE RA 17	609	-1	2177	-1.26	33.64	-0.05
71	SLE RA 18	649	-1	2258	-1.02	35.68	-0.05
71	SLE RA 19	655	-1	2278	-1.25	36.1	-0.05
71	SLE RA 20	649	-1	2258	-1.02	35.68	-0.05
71	SLE RA 21	655	-1	2278	-1.25	36.1	-0.05
71	SLE FR 1	493	-1	1923	-1.07	27.48	-0.05
71	SLE FR 2	495	-1	1930	-1.14	27.62	-0.05
71	SLE FR 3	493	-1	1923	-1.07	27.48	-0.05
71	SLE FR 4	542	-1	2030	-1.13	30.08	-0.05
71	SLE FR 5	540	-1	2024	-1.05	29.94	-0.05
71	SLE FR 6	571	-1	2091	-1.04	31.58	-0.05
71	SLE QP 1	493	-1	1923	-1.07	27.48	-0.05
71	SLE QP 2	540	-1	2024	-1.05	29.94	-0.05
71	SLD 1	745	-6	2252	-1.71	39.52	-0.03
71	SLD 2	745	-6	2252	-1.71	39.52	-0.03
71	SLD 3	703	0	2174	0.53	38.19	-0.04
71	SLD 4	703	0	2174	0.53	38.19	-0.04
71	SLD 5	665	-10	2211	-4.66	34.83	-0.03
71	SLD 6	665	-10	2211	-4.66	34.83	-0.03
71	SLD 7	525	8	1950	2.83	30.4	-0.06
71	SLD 8	525	8	1950	2.83	30.4	-0.06
71	SLD 9	554	-9	2097	-4.93	29.48	-0.04
71	SLD 10	554	-9	2097	-4.93	29.48	-0.04
71	SLD 11	415	9	1836	2.55	25.05	-0.07
71	SLD 12	415	9	1836	2.55	25.05	-0.07
71	SLD 13	376	-2	1874	-2.64	21.69	-0.07
71	SLD 14	376	-2	1874	-2.64	21.69	-0.07
71	SLD 15	335	4	1795	-0.39	20.36	-0.08
71	SLD 16	335	4	1795	-0.39	20.36	-0.08
71	SLV 1	1029	-12	2568	-2.72	52.7	0.01
71	SLV 2	1029	-12	2568	-2.72	52.7	0.01
71	SLV 3	918	1	2367	2.79	49.24	-0.01
71	SLV 4	918	1	2367	2.79	49.24	-0.01
71	SLV 5	855	-25	2492	-9.91	42.03	0
71	SLV 6	855	-25	2492	-9.91	42.03	0
71	SLV 7	485	21	1822	8.46	30.47	-0.08
71	SLV 8	485	21	1822	8.46	30.47	-0.08
71	SLV 9	595	-22	2225	-10.56	29.41	-0.03
71	SLV 10	595	-22	2225	-10.56	29.41	-0.03
71	SLV 11	225	23	1556	7.8	17.85	-0.11
71	SLV 12	225	23	1556	7.8	17.85	-0.11
71	SLV 13	162	-3	1680	-4.89	10.65	-0.09
71	SLV 14	162	-3	1680	-4.89	10.65	-0.09
71	SLV 15	51	11	1479	0.61	7.18	-0.12
71	SLV 16	51	11	1479	0.61	7.18	-0.12
72	SLU 1	188	4	1885	-2.21	0.39	0.01
72	SLU 2	189	5	1938	-3.28	-0.01	0.01
72	SLU 3	188	4	1885	-2.21	0.39	0.01
72	SLU 4	189	5	1916	-2.85	0.15	0.01
72	SLU 5	189	5	1938	-3.28	-0.01	0.01
72	SLU 6	188	4	1885	-2.21	0.39	0.01
72	SLU 7	189	5	1916	-2.85	0.15	0.01
72	SLU 8	188	4	1885	-2.21	0.39	0.01
72	SLU 9	189	5	1916	-2.85	0.15	0.01
72	SLU 10	290	7	2281	-3.28	2.18	0.01
72	SLU 11	289	5	2228	-2.22	2.59	0.01
72	SLU 12	289	6	2260	-2.86	2.34	0.01
72	SLU 13	290	7	2281	-3.28	2.18	0.01
72	SLU 14	289	5	2228	-2.22	2.59	0.01
72	SLU 15	289	6	2260	-2.86	2.34	0.01
72	SLU 16	289	5	2228	-2.22	2.59	0.01
72	SLU 17	289	6	2260	-2.86	2.34	0.01
72	SLU 18	332	6	2376	-2.22	3.53	0.01
72	SLU 19	333	7	2407	-2.86	3.28	0.01
72	SLU 20	332	6	2376	-2.22	3.53	0.01
72	SLU 21	333	7	2407	-2.86	3.28	0.01
72	SLU 22	229	4	2048	-2.26	1.09	0.01
72	SLU 23	229	6	2101	-3.33	0.69	0.01
72	SLU 24	229	4	2048	-2.26	1.09	0.01
72	SLU 25	229	5	2080	-2.9	0.85	0.01
72	SLU 26	229	6	2101	-3.33	0.69	0.01
72	SLU 27	229	4	2048	-2.26	1.09	0.01
72	SLU 28	229	5	2080	-2.9	0.85	0.01
72	SLU 29	229	4	2048	-2.26	1.09	0.01
72	SLU 30	229	5	2080	-2.9	0.85	0.01
72	SLU 31	330	7	2444	-3.34	2.88	0.01



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
72	SLU 32	329	6	2392	-2.27	3.29	0.01
72	SLU 33	330	7	2423	-2.91	3.05	0.01
72	SLU 34	330	7	2444	-3.34	2.88	0.01
72	SLU 35	329	6	2392	-2.27	3.29	0.01
72	SLU 36	330	7	2423	-2.91	3.05	0.01
72	SLU 37	329	6	2392	-2.27	3.29	0.01
72	SLU 38	330	7	2423	-2.91	3.05	0.01
72	SLU 39	373	7	2539	-2.27	4.23	0.01
72	SLU 40	373	7	2570	-2.91	3.99	0.01
72	SLU 41	373	7	2539	-2.27	4.23	0.01
72	SLU 42	373	7	2570	-2.91	3.99	0.01
72	SLU 43	231	5	2394	-2.85	0.27	0.01
72	SLU 44	231	6	2447	-3.92	-0.14	0.01
72	SLU 45	231	5	2394	-2.85	0.27	0.01
72	SLU 46	231	5	2426	-3.49	0.03	0.01
72	SLU 47	231	6	2447	-3.92	-0.14	0.01
72	SLU 48	231	5	2394	-2.85	0.27	0.01
72	SLU 49	231	5	2426	-3.49	0.03	0.01
72	SLU 50	231	5	2394	-2.85	0.27	0.01
72	SLU 51	231	5	2426	-3.49	0.03	0.01
72	SLU 52	332	7	2791	-3.93	2.06	0.01
72	SLU 53	331	6	2738	-2.86	2.46	0.01
72	SLU 54	332	7	2770	-3.5	2.22	0.01
72	SLU 55	332	7	2791	-3.93	2.06	0.01
72	SLU 56	331	6	2738	-2.86	2.46	0.01
72	SLU 57	332	7	2770	-3.5	2.22	0.01
72	SLU 58	331	6	2738	-2.86	2.46	0.01
72	SLU 59	332	7	2770	-3.5	2.22	0.01
72	SLU 60	375	7	2885	-2.86	3.4	0.01
72	SLU 61	375	8	2917	-3.5	3.16	0.01
72	SLU 62	375	7	2885	-2.86	3.4	0.01
72	SLU 63	375	8	2917	-3.5	3.16	0.01
72	SLU 64	271	5	2558	-2.91	0.97	0.01
72	SLU 65	272	7	2610	-3.97	0.57	0.01
72	SLU 66	271	5	2558	-2.91	0.97	0.01
72	SLU 67	272	6	2589	-3.55	0.73	0.01
72	SLU 68	272	7	2610	-3.97	0.57	0.01
72	SLU 69	271	5	2558	-2.91	0.97	0.01
72	SLU 70	272	6	2589	-3.55	0.73	0.01
72	SLU 71	271	5	2558	-2.91	0.97	0.01
72	SLU 72	272	6	2589	-3.55	0.73	0.01
72	SLU 73	373	8	2954	-3.98	2.76	0.01
72	SLU 74	372	7	2901	-2.91	3.16	0.01
72	SLU 75	372	8	2933	-3.55	2.92	0.01
72	SLU 76	373	8	2954	-3.98	2.76	0.01
72	SLU 77	372	7	2901	-2.91	3.16	0.01
72	SLU 78	372	8	2933	-3.55	2.92	0.01
72	SLU 79	372	7	2901	-2.91	3.16	0.01
72	SLU 80	372	8	2933	-3.55	2.92	0.01
72	SLU 81	415	8	3048	-2.92	4.1	0.01
72	SLU 82	416	8	3080	-3.56	3.86	0.02
72	SLU 83	415	8	3048	-2.92	4.1	0.01
72	SLU 84	416	8	3080	-3.56	3.86	0.02
72	SLE RA 1	200	4	1932	-2.22	0.59	0.01
72	SLE RA 2	200	5	1967	-2.94	0.32	0.01
72	SLE RA 3	200	4	1932	-2.22	0.59	0.01
72	SLE RA 4	200	4	1953	-2.65	0.43	0.01
72	SLE RA 5	200	5	1967	-2.94	0.32	0.01
72	SLE RA 6	200	4	1932	-2.22	0.59	0.01
72	SLE RA 7	200	4	1953	-2.65	0.43	0.01
72	SLE RA 8	200	4	1932	-2.22	0.59	0.01
72	SLE RA 9	200	4	1953	-2.65	0.43	0.01
72	SLE RA 10	267	6	2196	-2.94	1.79	0.01
72	SLE RA 11	267	5	2161	-2.23	2.05	0.01
72	SLE RA 12	267	6	2182	-2.66	1.89	0.01
72	SLE RA 13	267	6	2196	-2.94	1.79	0.01
72	SLE RA 14	267	5	2161	-2.23	2.05	0.01
72	SLE RA 15	267	6	2182	-2.66	1.89	0.01
72	SLE RA 16	267	5	2161	-2.23	2.05	0.01
72	SLE RA 17	267	6	2182	-2.66	1.89	0.01
72	SLE RA 18	296	5	2259	-2.23	2.68	0.01
72	SLE RA 19	296	6	2280	-2.66	2.52	0.01
72	SLE RA 20	296	5	2259	-2.23	2.68	0.01
72	SLE RA 21	296	6	2280	-2.66	2.52	0.01
72	SLE FR 1	200	4	1932	-2.22	0.59	0.01
72	SLE FR 2	200	4	1939	-2.37	0.54	0.01
72	SLE FR 3	200	4	1932	-2.22	0.59	0.01
72	SLE FR 4	229	5	2037	-2.37	1.16	0.01
72	SLE FR 5	228	4	2030	-2.23	1.22	0.01
72	SLE FR 6	248	5	2095	-2.23	1.64	0.01
72	SLE QP 1	200	4	1932	-2.22	0.59	0.01
72	SLE QP 2	228	4	2030	-2.23	1.22	0.01
72	SLD 1	422	0	2191	-4.47	8.86	0.01
72	SLD 2	422	0	2191	-4.47	8.86	0.01
72	SLD 3	386	6	2098	1.67	7.07	0
72	SLD 4	386	6	2098	1.67	7.07	0
72	SLD 5	341	-5	2219	-12.21	6.22	0.03
72	SLD 6	341	-5	2219	-12.21	6.22	0.03
72	SLD 7	222	13	1909	8.25	0.26	-0.01
72	SLD 8	222	13	1909	8.25	0.26	-0.01



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
72	SLD 9	235	-4	2150	-12.71	2.17	0.03
72	SLD 10	235	-4	2150	-12.71	2.17	0.03
72	SLD 11	116	14	1840	7.76	-3.79	-0.01
72	SLD 12	116	14	1840	7.76	-3.79	-0.01
72	SLD 13	71	3	1961	-6.12	-4.64	0.02
72	SLD 14	71	3	1961	-6.12	-4.64	0.02
72	SLD 15	35	8	1868	0.02	-6.42	0.01
72	SLD 16	35	8	1868	0.02	-6.42	0.01
72	SLV 1	688	-5	2425	-7.86	19.4	0.01
72	SLV 2	688	-5	2425	-7.86	19.4	0.01
72	SLV 3	593	8	2180	7.29	14.67	-0.01
72	SLV 4	593	8	2180	7.29	14.67	-0.01
72	SLV 5	510	-19	2520	-26.88	13.86	0.05
72	SLV 6	510	-19	2520	-26.88	13.86	0.05
72	SLV 7	194	26	1703	23.6	-1.93	-0.04
72	SLV 8	194	26	1703	23.6	-1.93	-0.04
72	SLV 9	263	-17	2357	-28.05	4.37	0.06
72	SLV 10	263	-17	2357	-28.05	4.37	0.06
72	SLV 11	-53	28	1539	22.43	-11.42	-0.03
72	SLV 12	-53	28	1539	22.43	-11.42	-0.03
72	SLV 13	-136	1	1879	-11.74	-12.23	0.03
72	SLV 14	-136	1	1879	-11.74	-12.23	0.03
72	SLV 15	-231	14	1634	3.4	-16.97	0.01
72	SLV 16	-231	14	1634	3.4	-16.97	0.01
73	SLU 1	257	7	1873	-3.5	17.15	0.01
73	SLU 2	264	9	1923	-4.9	17.83	0.01
73	SLU 3	257	7	1873	-3.5	17.15	0.01
73	SLU 4	261	8	1903	-4.34	17.56	0.01
73	SLU 5	264	9	1923	-4.9	17.83	0.01
73	SLU 6	257	7	1873	-3.5	17.15	0.01
73	SLU 7	261	8	1903	-4.34	17.56	0.01
73	SLU 8	257	7	1873	-3.5	17.15	0.01
73	SLU 9	261	8	1903	-4.34	17.56	0.01
73	SLU 10	387	11	2265	-4.79	24.56	0.01
73	SLU 11	381	9	2216	-3.4	23.87	0.01
73	SLU 12	384	10	2246	-4.24	24.28	0.01
73	SLU 13	387	11	2265	-4.79	24.56	0.01
73	SLU 14	381	9	2216	-3.4	23.87	0.01
73	SLU 15	384	10	2246	-4.24	24.28	0.01
73	SLU 16	381	9	2216	-3.4	23.87	0.01
73	SLU 17	384	10	2246	-4.24	24.28	0.01
73	SLU 18	434	10	2363	-3.35	26.76	0.01
73	SLU 19	437	11	2393	-4.19	27.17	0.01
73	SLU 20	434	10	2363	-3.35	26.76	0.01
73	SLU 21	437	11	2393	-4.19	27.17	0.01
73	SLU 22	309	8	2036	-3.54	20.1	0.01
73	SLU 23	315	10	2086	-4.93	20.78	0.01
73	SLU 24	309	8	2036	-3.54	20.1	0.01
73	SLU 25	313	9	2066	-4.37	20.51	0.01
73	SLU 26	315	10	2086	-4.93	20.78	0.01
73	SLU 27	309	8	2036	-3.54	20.1	0.01
73	SLU 28	313	9	2066	-4.37	20.51	0.01
73	SLU 29	309	8	2036	-3.54	20.1	0.01
73	SLU 30	313	9	2066	-4.37	20.51	0.01
73	SLU 31	439	12	2429	-4.83	27.51	0.01
73	SLU 32	432	10	2379	-3.43	26.83	0.01
73	SLU 33	436	11	2409	-4.27	27.24	0.01
73	SLU 34	439	12	2429	-4.83	27.51	0.01
73	SLU 35	432	10	2379	-3.43	26.83	0.01
73	SLU 36	436	11	2409	-4.27	27.24	0.01
73	SLU 37	432	10	2379	-3.43	26.83	0.01
73	SLU 38	436	11	2409	-4.27	27.24	0.01
73	SLU 39	485	11	2526	-3.39	29.71	0.01
73	SLU 40	489	12	2556	-4.23	30.12	0.01
73	SLU 41	485	11	2526	-3.39	29.71	0.01
73	SLU 42	489	12	2556	-4.23	30.12	0.01
73	SLU 43	317	9	2379	-4.54	21.28	0.01
73	SLU 44	323	10	2428	-5.93	21.96	0.01
73	SLU 45	317	9	2379	-4.54	21.28	0.01
73	SLU 46	320	10	2408	-5.38	21.69	0.01
73	SLU 47	323	10	2428	-5.93	21.96	0.01
73	SLU 48	317	9	2379	-4.54	21.28	0.01
73	SLU 49	320	10	2408	-5.38	21.69	0.01
73	SLU 50	317	9	2379	-4.54	21.28	0.01
73	SLU 51	320	10	2408	-5.38	21.69	0.01
73	SLU 52	446	13	2771	-5.83	28.69	0.02
73	SLU 53	440	11	2721	-4.44	28.01	0.01
73	SLU 54	444	12	2751	-5.27	28.41	0.02
73	SLU 55	446	13	2771	-5.83	28.69	0.02
73	SLU 56	440	11	2721	-4.44	28.01	0.01
73	SLU 57	444	12	2751	-5.27	28.41	0.02
73	SLU 58	440	11	2721	-4.44	28.01	0.01
73	SLU 59	444	12	2751	-5.27	28.41	0.02
73	SLU 60	493	12	2868	-4.39	30.89	0.02
73	SLU 61	497	13	2898	-5.23	31.3	0.02
73	SLU 62	493	12	2868	-4.39	30.89	0.02
73	SLU 63	497	13	2898	-5.23	31.3	0.02
73	SLU 64	368	10	2542	-4.57	24.23	0.01
73	SLU 65	375	11	2592	-5.97	24.91	0.01
73	SLU 66	368	10	2542	-4.57	24.23	0.01



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
73	SLU 67	372	11	2572	-5.41	24.64	0.01
73	SLU 68	375	11	2592	-5.97	24.91	0.01
73	SLU 69	368	10	2542	-4.57	24.23	0.01
73	SLU 70	372	11	2572	-5.41	24.64	0.01
73	SLU 71	368	10	2542	-4.57	24.23	0.01
73	SLU 72	372	11	2572	-5.41	24.64	0.01
73	SLU 73	498	14	2935	-5.87	31.64	0.02
73	SLU 74	492	12	2885	-4.47	30.96	0.02
73	SLU 75	496	13	2915	-5.31	31.37	0.02
73	SLU 76	498	14	2935	-5.87	31.64	0.02
73	SLU 77	492	12	2885	-4.47	30.96	0.02
73	SLU 78	496	13	2915	-5.31	31.37	0.02
73	SLU 79	492	12	2885	-4.47	30.96	0.02
73	SLU 80	496	13	2915	-5.31	31.37	0.02
73	SLU 81	545	13	3032	-4.43	33.84	0.02
73	SLU 82	549	14	3062	-5.26	34.25	0.02
73	SLU 83	545	13	3032	-4.43	33.84	0.02
73	SLU 84	549	14	3062	-5.26	34.25	0.02
73	SLE RA 1	272	7	1920	-3.51	17.99	0.01
73	SLE RA 2	276	8	1953	-4.44	18.44	0.01
73	SLE RA 3	272	7	1920	-3.51	17.99	0.01
73	SLE RA 4	275	8	1939	-4.07	18.26	0.01
73	SLE RA 5	276	8	1953	-4.44	18.44	0.01
73	SLE RA 6	272	7	1920	-3.51	17.99	0.01
73	SLE RA 7	275	8	1939	-4.07	18.26	0.01
73	SLE RA 8	272	7	1920	-3.51	17.99	0.01
73	SLE RA 9	275	8	1939	-4.07	18.26	0.01
73	SLE RA 10	359	10	2181	-4.37	22.93	0.01
73	SLE RA 11	354	9	2148	-3.44	22.48	0.01
73	SLE RA 12	357	9	2168	-4	22.75	0.01
73	SLE RA 13	359	10	2181	-4.37	22.93	0.01
73	SLE RA 14	354	9	2148	-3.44	22.48	0.01
73	SLE RA 15	357	9	2168	-4	22.75	0.01
73	SLE RA 16	354	9	2148	-3.44	22.48	0.01
73	SLE RA 17	357	9	2168	-4	22.75	0.01
73	SLE RA 18	390	10	2246	-3.41	24.4	0.01
73	SLE RA 19	392	10	2266	-3.97	24.67	0.01
73	SLE RA 20	390	10	2246	-3.41	24.4	0.01
73	SLE RA 21	392	10	2266	-3.97	24.67	0.01
73	SLE FR 1	272	7	1920	-3.51	17.99	0.01
73	SLE FR 2	273	8	1926	-3.7	18.08	0.01
73	SLE FR 3	272	7	1920	-3.51	17.99	0.01
73	SLE FR 4	308	8	2024	-3.67	20	0.01
73	SLE FR 5	307	8	2017	-3.48	19.91	0.01
73	SLE FR 6	331	8	2083	-3.46	21.19	0.01
73	SLE QP 1	272	7	1920	-3.51	17.99	0.01
73	SLE QP 2	307	8	2017	-3.48	19.91	0.01
73	SLD 1	523	2	2134	-7.97	29.57	0.01
73	SLD 2	523	2	2134	-7.97	29.57	0.01
73	SLD 3	498	10	2047	3.65	28.51	0
73	SLD 4	498	10	2047	3.65	28.51	0
73	SLD 5	410	-5	2184	-22.45	24.42	0.04
73	SLD 6	410	-5	2184	-22.45	24.42	0.04
73	SLD 7	326	20	1895	16.28	20.88	-0.02
73	SLD 8	326	20	1895	16.28	20.88	-0.02
73	SLD 9	288	-4	2140	-23.25	18.94	0.04
73	SLD 10	288	-4	2140	-23.25	18.94	0.04
73	SLD 11	205	21	1851	15.49	15.4	-0.02
73	SLD 12	205	21	1851	15.49	15.4	-0.02
73	SLD 13	117	6	1988	-10.61	11.31	0.02
73	SLD 14	117	6	1988	-10.61	11.31	0.02
73	SLD 15	92	14	1901	1.01	10.25	0.01
73	SLD 16	92	14	1901	1.01	10.25	0.01
73	SLV 1	816	-5	2310	-14.78	42.73	0.02
73	SLV 2	816	-5	2310	-14.78	42.73	0.02
73	SLV 3	751	13	2077	14.05	40.05	-0.02
73	SLV 4	751	13	2077	14.05	40.05	-0.02
73	SLV 5	558	-23	2459	-50.6	30.83	0.07
73	SLV 6	558	-23	2459	-50.6	30.83	0.07
73	SLV 7	342	36	1682	45.51	21.88	-0.06
73	SLV 8	342	36	1682	45.51	21.88	-0.06
73	SLV 9	272	-20	2353	-52.47	17.95	0.08
73	SLV 10	272	-20	2353	-52.47	17.95	0.08
73	SLV 11	56	39	1576	43.64	8.99	-0.05
73	SLV 12	56	39	1576	43.64	8.99	-0.05
73	SLV 13	-137	3	1958	-21.01	-0.22	0.04
73	SLV 14	-137	3	1958	-21.01	-0.22	0.04
73	SLV 15	-201	21	1725	7.82	-2.91	0
73	SLV 16	-201	21	1725	7.82	-2.91	0
74	SLU 1	60	8	1854	-4.17	-3.57	0.01
74	SLU 2	56	10	1900	-5.75	-4.1	0.01
74	SLU 3	60	8	1854	-4.17	-3.57	0.01
74	SLU 4	57	9	1882	-5.12	-3.89	0.01
74	SLU 5	56	10	1900	-5.75	-4.1	0.01
74	SLU 6	60	8	1854	-4.17	-3.57	0.01
74	SLU 7	57	9	1882	-5.12	-3.89	0.01
74	SLU 8	60	8	1854	-4.17	-3.57	0.01
74	SLU 9	57	9	1882	-5.12	-3.89	0.01
74	SLU 10	127	12	2246	-5.27	-2.85	0.01
74	SLU 11	132	11	2200	-3.7	-2.31	0.01





Nodo	Cont.	Reazione a traslazione				Reazione a rotazione		
		x	y	z		x	y	z
74	SLU 12	129	12	2227		-4.64	-2.63	0.01
74	SLU 13	127	12	2246		-5.27	-2.85	0.01
74	SLU 14	132	11	2200		-3.7	-2.31	0.01
74	SLU 15	129	12	2227		-4.64	-2.63	0.01
74	SLU 16	132	11	2200		-3.7	-2.31	0.01
74	SLU 17	129	12	2227		-4.64	-2.63	0.01
74	SLU 18	163	12	2348		-3.5	-1.78	0.01
74	SLU 19	160	13	2376		-4.44	-2.09	0.01
74	SLU 20	163	12	2348		-3.5	-1.78	0.01
74	SLU 21	160	13	2376		-4.44	-2.09	0.01
74	SLU 22	87	10	2019		-4.07	-3.31	0.01
74	SLU 23	82	11	2065		-5.65	-3.84	0.01
74	SLU 24	87	10	2019		-4.07	-3.31	0.01
74	SLU 25	84	10	2046		-5.02	-3.63	0.01
74	SLU 26	82	11	2065		-5.65	-3.84	0.01
74	SLU 27	87	10	2019		-4.07	-3.31	0.01
74	SLU 28	84	10	2046		-5.02	-3.63	0.01
74	SLU 29	87	10	2019		-4.07	-3.31	0.01
74	SLU 30	84	10	2046		-5.02	-3.63	0.01
74	SLU 31	154	13	2411		-5.17	-2.58	0.01
74	SLU 32	158	12	2365		-3.6	-2.05	0.01
74	SLU 33	156	13	2392		-4.54	-2.37	0.01
74	SLU 34	154	13	2411		-5.17	-2.58	0.01
74	SLU 35	158	12	2365		-3.6	-2.05	0.01
74	SLU 36	156	13	2392		-4.54	-2.37	0.01
74	SLU 37	158	12	2365		-3.6	-2.05	0.01
74	SLU 38	156	13	2392		-4.54	-2.37	0.01
74	SLU 39	189	13	2513		-3.4	-1.51	0.01
74	SLU 40	187	14	2540		-4.34	-1.83	0.01
74	SLU 41	189	13	2513		-3.4	-1.51	0.01
74	SLU 42	187	14	2540		-4.34	-1.83	0.01
74	SLU 43	69	11	2354		-5.46	-4.74	0.01
74	SLU 44	64	12	2400		-7.03	-5.27	0.01
74	SLU 45	69	11	2354		-5.46	-4.74	0.01
74	SLU 46	66	12	2381		-6.4	-5.05	0.01
74	SLU 47	64	12	2400		-7.03	-5.27	0.01
74	SLU 48	69	11	2354		-5.46	-4.74	0.01
74	SLU 49	66	12	2381		-6.4	-5.05	0.01
74	SLU 50	69	11	2354		-5.46	-4.74	0.01
74	SLU 51	66	12	2381		-6.4	-5.05	0.01
74	SLU 52	136	14	2746		-6.56	-4.01	0.01
74	SLU 53	141	13	2700		-4.99	-3.48	0.01
74	SLU 54	138	14	2727		-5.93	-3.8	0.01
74	SLU 55	136	14	2746		-6.56	-4.01	0.01
74	SLU 56	141	13	2700		-4.99	-3.48	0.01
74	SLU 57	138	14	2727		-5.93	-3.8	0.01
74	SLU 58	141	13	2700		-4.99	-3.48	0.01
74	SLU 59	138	14	2727		-5.93	-3.8	0.01
74	SLU 60	172	14	2848		-4.78	-2.94	0.01
74	SLU 61	169	15	2875		-5.73	-3.26	0.01
74	SLU 62	172	14	2848		-4.78	-2.94	0.01
74	SLU 63	169	15	2875		-5.73	-3.26	0.01
74	SLU 64	95	12	2519		-5.36	-4.47	0.01
74	SLU 65	91	13	2565		-6.93	-5	0.01
74	SLU 66	95	12	2519		-5.36	-4.47	0.01
74	SLU 67	93	13	2546		-6.3	-4.79	0.01
74	SLU 68	91	13	2565		-6.93	-5	0.01
74	SLU 69	95	12	2519		-5.36	-4.47	0.01
74	SLU 70	93	13	2546		-6.3	-4.79	0.01
74	SLU 71	95	12	2519		-5.36	-4.47	0.01
74	SLU 72	93	13	2546		-6.3	-4.79	0.01
74	SLU 73	163	15	2910		-6.46	-3.75	0.01
74	SLU 74	167	14	2864		-4.88	-3.21	0.01
74	SLU 75	165	15	2892		-5.83	-3.53	0.01
74	SLU 76	163	15	2910		-6.46	-3.75	0.01
74	SLU 77	167	14	2864		-4.88	-3.21	0.01
74	SLU 78	165	15	2892		-5.83	-3.53	0.01
74	SLU 79	167	14	2864		-4.88	-3.21	0.01
74	SLU 80	165	15	2892		-5.83	-3.53	0.01
74	SLU 81	198	15	3012		-4.68	-2.68	0.01
74	SLU 82	195	16	3040		-5.63	-2.99	0.01
74	SLU 83	198	15	3012		-4.68	-2.68	0.01
74	SLU 84	195	16	3040		-5.63	-2.99	0.01
74	SLE RA 1	68	9	1901		-4.14	-3.5	0.01
74	SLE RA 2	65	10	1932		-5.19	-3.85	0.01
74	SLE RA 3	68	9	1901		-4.14	-3.5	0.01
74	SLE RA 4	66	9	1920		-4.77	-3.71	0.01
74	SLE RA 5	65	10	1932		-5.19	-3.85	0.01
74	SLE RA 6	68	9	1901		-4.14	-3.5	0.01
74	SLE RA 7	66	9	1920		-4.77	-3.71	0.01
74	SLE RA 8	68	9	1901		-4.14	-3.5	0.01
74	SLE RA 9	66	9	1920		-4.77	-3.71	0.01
74	SLE RA 10	113	11	2162		-4.88	-3.01	0.01
74	SLE RA 11	116	10	2132		-3.83	-2.66	0.01
74	SLE RA 12	114	11	2150		-4.46	-2.87	0.01
74	SLE RA 13	113	11	2162		-4.88	-3.01	0.01
74	SLE RA 14	116	10	2132		-3.83	-2.66	0.01
74	SLE RA 15	114	11	2150		-4.46	-2.87	0.01
74	SLE RA 16	116	10	2132		-3.83	-2.66	0.01
74	SLE RA 17	114	11	2150		-4.46	-2.87	0.01



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
74	SLE RA 18	136	11	2230	-3.69	-2.3	0.01
74	SLE RA 19	134	11	2249	-4.32	-2.51	0.01
74	SLE RA 20	136	11	2230	-3.69	-2.3	0.01
74	SLE RA 21	134	11	2249	-4.32	-2.51	0.01
74	SLE FR 1	68	9	1901	-4.14	-3.5	0.01
74	SLE FR 2	67	9	1907	-4.35	-3.57	0.01
74	SLE FR 3	68	9	1901	-4.14	-3.5	0.01
74	SLE FR 4	88	10	2006	-4.22	-3.21	0.01
74	SLE FR 5	88	9	2000	-4.01	-3.14	0.01
74	SLE FR 6	102	10	2066	-3.92	-2.9	0.01
74	SLE QP 1	68	9	1901	-4.14	-3.5	0.01
74	SLE QP 2	88	9	2000	-4.01	-3.14	0.01
74	SLD 1	309	14	2103	-11.11	5.52	0.01
74	SLD 2	309	14	2103	-11.11	5.52	0.01
74	SLD 3	279	0	2023	6.61	4.03	-0.01
74	SLD 4	279	0	2023	6.61	4.03	-0.01
74	SLD 5	200	31	2153	-33.03	1.71	0.03
74	SLD 6	200	31	2153	-33.03	1.71	0.03
74	SLD 7	100	-14	1885	26.07	-3.24	-0.02
74	SLD 8	100	-14	1885	26.07	-3.24	-0.02
74	SLD 9	77	33	2115	-34.08	-3.03	0.04
74	SLD 10	77	33	2115	-34.08	-3.03	0.04
74	SLD 11	-24	-12	1847	25.01	-7.99	-0.02
74	SLD 12	-24	-12	1847	25.01	-7.99	-0.02
74	SLD 13	-103	19	1977	-14.63	-10.31	0.02
74	SLD 14	-103	19	1977	-14.63	-10.31	0.02
74	SLD 15	-133	5	1897	3.1	-11.8	0.01
74	SLD 16	-133	5	1897	3.1	-11.8	0.01
74	SLV 1	610	20	2261	-21.94	17.32	0.01
74	SLV 2	610	20	2261	-21.94	17.32	0.01
74	SLV 3	532	-13	2045	22.25	13.45	-0.03
74	SLV 4	532	-13	2045	22.25	13.45	-0.03
74	SLV 5	362	61	2406	-76.4	8.87	0.07
74	SLV 6	362	61	2406	-76.4	8.87	0.07
74	SLV 7	104	-46	1686	70.88	-4.03	-0.07
74	SLV 8	104	-46	1686	70.88	-4.03	-0.07
74	SLV 9	73	65	2314	-78.9	-2.24	0.08
74	SLV 10	73	65	2314	-78.9	-2.24	0.08
74	SLV 11	-186	-42	1594	68.38	-15.15	-0.06
74	SLV 12	-186	-42	1594	68.38	-15.15	-0.06
74	SLV 13	-356	31	1955	-30.26	-19.73	0.04
74	SLV 14	-356	31	1955	-30.26	-19.73	0.04
74	SLV 15	-433	-1	1739	13.92	-23.6	0
74	SLV 16	-433	-1	1739	13.92	-23.6	0
75	SLU 1	156	9	1806	-4.35	11.91	-0.01
75	SLU 2	158	10	1846	-5.99	12.35	-0.01
75	SLU 3	156	9	1806	-4.35	11.91	-0.01
75	SLU 4	158	10	1830	-5.34	12.17	-0.01
75	SLU 5	158	10	1846	-5.99	12.35	-0.01
75	SLU 6	156	9	1806	-4.35	11.91	-0.01
75	SLU 7	158	10	1830	-5.34	12.17	-0.01
75	SLU 8	156	9	1806	-4.35	11.91	-0.01
75	SLU 9	158	10	1830	-5.34	12.17	-0.01
75	SLU 10	254	12	2190	-5.03	17.65	-0.01
75	SLU 11	252	11	2149	-3.39	17.22	-0.01
75	SLU 12	253	11	2174	-4.37	17.48	-0.01
75	SLU 13	254	12	2190	-5.03	17.65	-0.01
75	SLU 14	252	11	2149	-3.39	17.22	-0.01
75	SLU 15	253	11	2174	-4.37	17.48	-0.01
75	SLU 16	252	11	2149	-3.39	17.22	-0.01
75	SLU 17	253	11	2174	-4.37	17.48	-0.01
75	SLU 18	293	11	2297	-2.97	19.49	-0.01
75	SLU 19	294	12	2321	-3.96	19.75	-0.01
75	SLU 20	293	11	2297	-2.97	19.49	-0.01
75	SLU 21	294	12	2321	-3.96	19.75	-0.01
75	SLU 22	195	10	1969	-4.05	14.19	-0.01
75	SLU 23	197	11	2009	-5.69	14.63	-0.01
75	SLU 24	195	10	1969	-4.05	14.19	-0.01
75	SLU 25	196	11	1993	-5.04	14.45	-0.01
75	SLU 26	197	11	2009	-5.69	14.63	-0.01
75	SLU 27	195	10	1969	-4.05	14.19	-0.01
75	SLU 28	196	11	1993	-5.04	14.45	-0.01
75	SLU 29	195	10	1969	-4.05	14.19	-0.01
75	SLU 30	196	11	1993	-5.04	14.45	-0.01
75	SLU 31	293	13	2353	-4.73	19.93	-0.01
75	SLU 32	291	11	2313	-3.09	19.5	-0.01
75	SLU 33	292	12	2337	-4.07	19.76	-0.01
75	SLU 34	293	13	2353	-4.73	19.93	-0.01
75	SLU 35	291	11	2313	-3.09	19.5	-0.01
75	SLU 36	292	12	2337	-4.07	19.76	-0.01
75	SLU 37	291	11	2313	-3.09	19.5	-0.01
75	SLU 38	292	12	2337	-4.07	19.76	-0.01
75	SLU 39	332	12	2460	-2.67	21.77	-0.01
75	SLU 40	333	13	2484	-3.66	22.03	-0.01
75	SLU 41	332	12	2460	-2.67	21.77	-0.01
75	SLU 42	333	13	2484	-3.66	22.03	-0.01
75	SLU 43	190	11	2291	-5.76	14.71	-0.01
75	SLU 44	192	13	2332	-7.4	15.14	-0.01
75	SLU 45	190	11	2291	-5.76	14.71	-0.01
75	SLU 46	191	12	2316	-6.74	14.97	-0.01



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
75	SLU 47	192	13	2332	-7.4	15.14	-0.01
75	SLU 48	190	11	2291	-5.76	14.71	-0.01
75	SLU 49	191	12	2316	-6.74	14.97	-0.01
75	SLU 50	190	11	2291	-5.76	14.71	-0.01
75	SLU 51	191	12	2316	-6.74	14.97	-0.01
75	SLU 52	288	14	2676	-6.44	20.45	-0.01
75	SLU 53	286	13	2635	-4.79	20.01	-0.01
75	SLU 54	287	14	2660	-5.78	20.27	-0.01
75	SLU 55	288	14	2676	-6.44	20.45	-0.01
75	SLU 56	286	13	2635	-4.79	20.01	-0.01
75	SLU 57	287	14	2660	-5.78	20.27	-0.01
75	SLU 58	286	13	2635	-4.79	20.01	-0.01
75	SLU 59	287	14	2660	-5.78	20.27	-0.01
75	SLU 60	327	14	2783	-4.38	22.29	-0.01
75	SLU 61	328	14	2807	-5.37	22.55	-0.01
75	SLU 62	327	14	2783	-4.38	22.29	-0.01
75	SLU 63	328	14	2807	-5.37	22.55	-0.01
75	SLU 64	229	12	2454	-5.46	16.99	-0.01
75	SLU 65	231	13	2495	-7.1	17.42	-0.01
75	SLU 66	229	12	2454	-5.46	16.99	-0.01
75	SLU 67	230	13	2479	-6.45	17.25	-0.01
75	SLU 68	231	13	2495	-7.1	17.42	-0.01
75	SLU 69	229	12	2454	-5.46	16.99	-0.01
75	SLU 70	230	13	2479	-6.45	17.25	-0.01
75	SLU 71	229	12	2454	-5.46	16.99	-0.01
75	SLU 72	230	13	2479	-6.45	17.25	-0.01
75	SLU 73	327	15	2839	-6.14	22.73	-0.01
75	SLU 74	324	14	2798	-4.5	22.29	-0.01
75	SLU 75	326	15	2823	-5.48	22.55	-0.01
75	SLU 76	327	15	2839	-6.14	22.73	-0.01
75	SLU 77	324	14	2798	-4.5	22.29	-0.01
75	SLU 78	326	15	2823	-5.48	22.55	-0.01
75	SLU 79	324	14	2798	-4.5	22.29	-0.01
75	SLU 80	326	15	2823	-5.48	22.55	-0.01
75	SLU 81	365	15	2946	-4.08	24.57	-0.01
75	SLU 82	367	15	2970	-5.07	24.83	-0.01
75	SLU 83	365	15	2946	-4.08	24.57	-0.01
75	SLU 84	367	15	2970	-5.07	24.83	-0.01
75	SLE RA 1	167	9	1852	-4.27	12.57	-0.01
75	SLE RA 2	169	10	1879	-5.36	12.86	-0.01
75	SLE RA 3	167	9	1852	-4.27	12.57	-0.01
75	SLE RA 4	168	10	1868	-4.92	12.74	-0.01
75	SLE RA 5	169	10	1879	-5.36	12.86	-0.01
75	SLE RA 6	167	9	1852	-4.27	12.57	-0.01
75	SLE RA 7	168	10	1868	-4.92	12.74	-0.01
75	SLE RA 8	167	9	1852	-4.27	12.57	-0.01
75	SLE RA 9	168	10	1868	-4.92	12.74	-0.01
75	SLE RA 10	233	11	2108	-4.72	16.39	-0.01
75	SLE RA 11	231	10	2081	-3.62	16.1	-0.01
75	SLE RA 12	232	11	2098	-4.28	16.28	-0.01
75	SLE RA 13	233	11	2108	-4.72	16.39	-0.01
75	SLE RA 14	231	10	2081	-3.62	16.1	-0.01
75	SLE RA 15	232	11	2098	-4.28	16.28	-0.01
75	SLE RA 16	231	10	2081	-3.62	16.1	-0.01
75	SLE RA 17	232	11	2098	-4.28	16.28	-0.01
75	SLE RA 18	259	11	2180	-3.35	17.62	-0.01
75	SLE RA 19	259	11	2196	-4	17.79	-0.01
75	SLE RA 20	259	11	2180	-3.35	17.62	-0.01
75	SLE RA 21	259	11	2196	-4	17.79	-0.01
75	SLE FR 1	167	9	1852	-4.27	12.57	-0.01
75	SLE FR 2	168	9	1858	-4.48	12.62	-0.01
75	SLE FR 3	167	9	1852	-4.27	12.57	-0.01
75	SLE FR 4	195	10	1956	-4.21	14.14	-0.01
75	SLE FR 5	195	10	1950	-3.99	14.08	-0.01
75	SLE FR 6	213	10	2016	-3.81	15.09	-0.01
75	SLE QP 1	167	9	1852	-4.27	12.57	-0.01
75	SLE QP 2	195	10	1950	-3.99	14.08	-0.01
75	SLD 1	451	16	2049	-13.8	24.92	-0.02
75	SLD 2	451	16	2049	-13.8	24.92	-0.02
75	SLD 3	419	-3	1970	9.82	23.59	-0.01
75	SLD 4	419	-3	1970	9.82	23.59	-0.01
75	SLD 5	320	41	2099	-42.75	19.36	-0.03
75	SLD 6	320	41	2099	-42.75	19.36	-0.03
75	SLD 7	214	-24	1837	35.98	14.91	0.01
75	SLD 8	214	-24	1837	35.98	14.91	0.01
75	SLD 9	176	43	2064	-43.96	13.25	-0.03
75	SLD 10	176	43	2064	-43.96	13.25	-0.03
75	SLD 11	69	-22	1802	34.77	8.81	0.01
75	SLD 12	69	-22	1802	34.77	8.81	0.01
75	SLD 13	-30	22	1931	-17.8	4.58	-0.01
75	SLD 14	-30	22	1931	-17.8	4.58	-0.01
75	SLD 15	-62	3	1852	5.82	3.24	0
75	SLD 16	-62	3	1852	5.82	3.24	0
75	SLV 1	798	26	2198	-28.75	39.6	-0.04
75	SLV 2	798	26	2198	-28.75	39.6	-0.04
75	SLV 3	718	-21	1989	30.31	36.28	-0.01
75	SLV 4	718	-21	1989	30.31	36.28	-0.01
75	SLV 5	498	87	2343	-101	26.78	-0.06
75	SLV 6	498	87	2343	-101	26.78	-0.06
75	SLV 7	230	-72	1644	95.87	15.7	0.03



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
75	SLV 8	230	-72	1644	95.87	15.7	0.03
75	SLV 9	160	91	2257	-103.85	12.46	-0.05
75	SLV 10	160	91	2257	-103.85	12.46	-0.05
75	SLV 11	-108	-67	1558	93.01	1.39	0.04
75	SLV 12	-108	-67	1558	93.01	1.39	0.04
75	SLV 13	-328	40	1912	-38.29	-8.12	-0.01
75	SLV 14	-328	40	1912	-38.29	-8.12	-0.01
75	SLV 15	-409	-7	1703	20.77	-11.44	0.02
75	SLV 16	-409	-7	1703	20.77	-11.44	0.02
76	SLU 1	38	9	1778	-4.27	-3	-0.03
76	SLU 2	33	10	1815	-5.89	-3.44	-0.04
76	SLU 3	38	9	1778	-4.27	-3	-0.03
76	SLU 4	35	9	1800	-5.24	-3.26	-0.03
76	SLU 5	33	10	1815	-5.89	-3.44	-0.04
76	SLU 6	38	9	1778	-4.27	-3	-0.03
76	SLU 7	35	9	1800	-5.24	-3.26	-0.03
76	SLU 8	38	9	1778	-4.27	-3	-0.03
76	SLU 9	35	9	1800	-5.24	-3.26	-0.03
76	SLU 10	95	11	2164	-4.47	-2.3	-0.04
76	SLU 11	99	10	2128	-2.85	-1.86	-0.04
76	SLU 12	96	11	2149	-3.82	-2.12	-0.04
76	SLU 13	95	11	2164	-4.47	-2.3	-0.04
76	SLU 14	99	10	2128	-2.85	-1.86	-0.04
76	SLU 15	96	11	2149	-3.82	-2.12	-0.04
76	SLU 16	99	10	2128	-2.85	-1.86	-0.04
76	SLU 17	96	11	2149	-3.82	-2.12	-0.04
76	SLU 18	125	10	2277	-2.24	-1.37	-0.04
76	SLU 19	123	11	2299	-3.21	-1.63	-0.04
76	SLU 20	125	10	2277	-2.24	-1.37	-0.04
76	SLU 21	123	11	2299	-3.21	-1.63	-0.04
76	SLU 22	60	9	1943	-3.78	-2.75	-0.03
76	SLU 23	56	11	1979	-5.4	-3.19	-0.04
76	SLU 24	60	9	1943	-3.78	-2.75	-0.03
76	SLU 25	57	10	1965	-4.75	-3.01	-0.04
76	SLU 26	56	11	1979	-5.4	-3.19	-0.04
76	SLU 27	60	9	1943	-3.78	-2.75	-0.03
76	SLU 28	57	10	1965	-4.75	-3.01	-0.04
76	SLU 29	60	9	1943	-3.78	-2.75	-0.03
76	SLU 30	57	10	1965	-4.75	-3.01	-0.04
76	SLU 31	117	12	2329	-3.98	-2.05	-0.04
76	SLU 32	121	11	2292	-2.36	-1.61	-0.04
76	SLU 33	118	11	2314	-3.33	-1.87	-0.04
76	SLU 34	117	12	2329	-3.98	-2.05	-0.04
76	SLU 35	121	11	2292	-2.36	-1.61	-0.04
76	SLU 36	118	11	2314	-3.33	-1.87	-0.04
76	SLU 37	121	11	2292	-2.36	-1.61	-0.04
76	SLU 38	118	11	2314	-3.33	-1.87	-0.04
76	SLU 39	147	11	2442	-1.75	-1.12	-0.04
76	SLU 40	145	12	2464	-2.72	-1.38	-0.04
76	SLU 41	147	11	2442	-1.75	-1.12	-0.04
76	SLU 42	145	12	2464	-2.72	-1.38	-0.04
76	SLU 43	42	11	2255	-5.72	-3.99	-0.04
76	SLU 44	37	12	2292	-7.33	-4.42	-0.04
76	SLU 45	42	11	2255	-5.72	-3.99	-0.04
76	SLU 46	39	12	2277	-6.69	-4.25	-0.04
76	SLU 47	37	12	2292	-7.33	-4.42	-0.04
76	SLU 48	42	11	2255	-5.72	-3.99	-0.04
76	SLU 49	39	12	2277	-6.69	-4.25	-0.04
76	SLU 50	42	11	2255	-5.72	-3.99	-0.04
76	SLU 51	39	12	2277	-6.69	-4.25	-0.04
76	SLU 52	98	13	2641	-5.91	-3.28	-0.05
76	SLU 53	103	12	2605	-4.29	-2.85	-0.04
76	SLU 54	100	13	2626	-5.27	-3.11	-0.05
76	SLU 55	98	13	2641	-5.91	-3.28	-0.05
76	SLU 56	103	12	2605	-4.29	-2.85	-0.04
76	SLU 57	100	13	2626	-5.27	-3.11	-0.05
76	SLU 58	103	12	2605	-4.29	-2.85	-0.04
76	SLU 59	100	13	2626	-5.27	-3.11	-0.05
76	SLU 60	129	13	2754	-3.68	-2.36	-0.05
76	SLU 61	126	14	2776	-4.66	-2.62	-0.05
76	SLU 62	129	13	2754	-3.68	-2.36	-0.05
76	SLU 63	126	14	2776	-4.66	-2.62	-0.05
76	SLU 64	64	12	2420	-5.23	-3.74	-0.04
76	SLU 65	59	13	2456	-6.85	-4.18	-0.05
76	SLU 66	64	12	2420	-5.23	-3.74	-0.04
76	SLU 67	61	12	2442	-6.2	-4	-0.04
76	SLU 68	59	13	2456	-6.85	-4.18	-0.05
76	SLU 69	64	12	2420	-5.23	-3.74	-0.04
76	SLU 70	61	12	2442	-6.2	-4	-0.04
76	SLU 71	64	12	2420	-5.23	-3.74	-0.04
76	SLU 72	61	12	2442	-6.2	-4	-0.04
76	SLU 73	120	14	2806	-5.42	-3.03	-0.05
76	SLU 74	125	13	2769	-3.81	-2.6	-0.05
76	SLU 75	122	14	2791	-4.78	-2.86	-0.05
76	SLU 76	120	14	2806	-5.42	-3.03	-0.05
76	SLU 77	125	13	2769	-3.81	-2.6	-0.05
76	SLU 78	122	14	2791	-4.78	-2.86	-0.05
76	SLU 79	125	13	2769	-3.81	-2.6	-0.05
76	SLU 80	122	14	2791	-4.78	-2.86	-0.05
76	SLU 81	151	13	2919	-3.2	-2.11	-0.05



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
76	SLU 82	149	14	2941	-4.17	-2.37	-0.05
76	SLU 83	151	13	2919	-3.2	-2.11	-0.05
76	SLU 84	149	14	2941	-4.17	-2.37	-0.05
76	SLE RA 1	44	9	1825	-4.13	-2.93	-0.03
76	SLE RA 2	41	10	1850	-5.21	-3.22	-0.03
76	SLE RA 3	44	9	1825	-4.13	-2.93	-0.03
76	SLE RA 4	42	9	1840	-4.78	-3.11	-0.03
76	SLE RA 5	41	10	1850	-5.21	-3.22	-0.03
76	SLE RA 6	44	9	1825	-4.13	-2.93	-0.03
76	SLE RA 7	42	9	1840	-4.78	-3.11	-0.03
76	SLE RA 8	44	9	1825	-4.13	-2.93	-0.03
76	SLE RA 9	42	9	1840	-4.78	-3.11	-0.03
76	SLE RA 10	82	10	2082	-4.26	-2.46	-0.04
76	SLE RA 11	85	10	2058	-3.18	-2.17	-0.04
76	SLE RA 12	83	10	2073	-3.83	-2.34	-0.04
76	SLE RA 13	82	10	2082	-4.26	-2.46	-0.04
76	SLE RA 14	85	10	2058	-3.18	-2.17	-0.04
76	SLE RA 15	83	10	2073	-3.83	-2.34	-0.04
76	SLE RA 16	85	10	2058	-3.18	-2.17	-0.04
76	SLE RA 17	83	10	2073	-3.83	-2.34	-0.04
76	SLE RA 18	103	10	2158	-2.77	-1.84	-0.04
76	SLE RA 19	101	11	2173	-3.42	-2.02	-0.04
76	SLE RA 20	103	10	2158	-2.77	-1.84	-0.04
76	SLE RA 21	101	11	2173	-3.42	-2.02	-0.04
76	SLE FR 1	44	9	1825	-4.13	-2.93	-0.03
76	SLE FR 2	44	9	1830	-4.34	-2.99	-0.03
76	SLE FR 3	44	9	1825	-4.13	-2.93	-0.03
76	SLE FR 4	61	9	1930	-3.94	-2.66	-0.03
76	SLE FR 5	62	9	1925	-3.72	-2.6	-0.03
76	SLE FR 6	73	9	1992	-3.45	-2.39	-0.03
76	SLE QP 1	44	9	1825	-4.13	-2.93	-0.03
76	SLE QP 2	62	9	1925	-3.72	-2.6	-0.03
76	SLD 1	336	19	2020	-16.05	8.09	-0.06
76	SLD 2	336	19	2020	-16.05	8.09	-0.06
76	SLD 3	300	-6	1941	12.64	6.54	0.02
76	SLD 4	300	-6	1941	12.64	6.54	0.02
76	SLD 5	198	49	2072	-50.94	2.94	-0.17
76	SLD 6	198	49	2072	-50.94	2.94	-0.17
76	SLD 7	79	-33	1812	44.7	-2.2	0.11
76	SLD 8	79	-33	1812	44.7	-2.2	0.11
76	SLD 9	44	51	2038	-52.15	-3.01	-0.17
76	SLD 10	44	51	2038	-52.15	-3.01	-0.17
76	SLD 11	-75	-31	1778	43.49	-8.15	0.1
76	SLD 12	-75	-31	1778	43.49	-8.15	0.1
76	SLD 13	-177	24	1909	-20.08	-11.75	-0.08
76	SLD 14	-177	24	1909	-20.08	-11.75	-0.08
76	SLD 15	-212	0	1831	8.61	-13.3	0
76	SLD 16	-212	0	1831	8.61	-13.3	0
76	SLV 1	707	33	2163	-34.85	22.57	-0.11
76	SLV 2	707	33	2163	-34.85	22.57	-0.11
76	SLV 3	617	-28	1957	37.06	18.62	0.09
76	SLV 4	617	-28	1957	37.06	18.62	0.09
76	SLV 5	393	108	2309	-122.12	10.94	-0.36
76	SLV 6	393	108	2309	-122.12	10.94	-0.36
76	SLV 7	91	-94	1622	117.58	-2.22	0.31
76	SLV 8	91	-94	1622	117.58	-2.22	0.31
76	SLV 9	33	112	2228	-125.02	-2.99	-0.37
76	SLV 10	33	112	2228	-125.02	-2.99	-0.37
76	SLV 11	-269	-90	1541	114.68	-16.14	0.29
76	SLV 12	-269	-90	1541	114.68	-16.14	0.29
76	SLV 13	-493	46	1893	-44.5	-23.83	-0.16
76	SLV 14	-493	46	1893	-44.5	-23.83	-0.16
76	SLV 15	-583	-15	1687	27.41	-27.78	0.04
76	SLV 16	-583	-15	1687	27.41	-27.78	0.04
77	SLU 1	140	8	1756	-4.17	9.69	-0.06
77	SLU 2	141	9	1788	-5.7	9.97	-0.07
77	SLU 3	140	8	1756	-4.17	9.69	-0.06
77	SLU 4	140	9	1775	-5.09	9.86	-0.06
77	SLU 5	141	9	1788	-5.7	9.97	-0.07
77	SLU 6	140	8	1756	-4.17	9.69	-0.06
77	SLU 7	140	9	1775	-5.09	9.86	-0.06
77	SLU 8	140	8	1756	-4.17	9.69	-0.06
77	SLU 9	140	9	1775	-5.09	9.86	-0.06
77	SLU 10	227	10	2147	-3.99	14.54	-0.08
77	SLU 11	226	9	2115	-2.46	14.25	-0.07
77	SLU 12	226	10	2134	-3.37	14.43	-0.07
77	SLU 13	227	10	2147	-3.99	14.54	-0.08
77	SLU 14	226	9	2115	-2.46	14.25	-0.07
77	SLU 15	226	10	2134	-3.37	14.43	-0.07
77	SLU 16	226	9	2115	-2.46	14.25	-0.07
77	SLU 17	226	10	2134	-3.37	14.43	-0.07
77	SLU 18	262	10	2269	-1.72	16.21	-0.07
77	SLU 19	263	10	2288	-2.64	16.38	-0.08
77	SLU 20	262	10	2269	-1.72	16.21	-0.07
77	SLU 21	263	10	2288	-2.64	16.38	-0.08
77	SLU 22	175	9	1923	-3.56	11.65	-0.06
77	SLU 23	176	10	1955	-5.09	11.94	-0.07
77	SLU 24	175	9	1923	-3.56	11.65	-0.06
77	SLU 25	175	10	1943	-4.48	11.82	-0.07
77	SLU 26	176	10	1955	-5.09	11.94	-0.07



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
77	SLU 27	175	9	1923	-3.56	11.65	-0.06
77	SLU 28	175	10	1943	-4.48	11.82	-0.07
77	SLU 29	175	9	1923	-3.56	11.65	-0.06
77	SLU 30	175	10	1943	-4.48	11.82	-0.07
77	SLU 31	262	11	2315	-3.38	16.5	-0.08
77	SLU 32	261	10	2283	-1.85	16.22	-0.07
77	SLU 33	261	11	2302	-2.76	16.39	-0.08
77	SLU 34	262	11	2315	-3.38	16.5	-0.08
77	SLU 35	261	10	2283	-1.85	16.22	-0.07
77	SLU 36	261	11	2302	-2.76	16.39	-0.08
77	SLU 37	261	10	2283	-1.85	16.22	-0.07
77	SLU 38	261	11	2302	-2.76	16.39	-0.08
77	SLU 39	298	10	2437	-1.11	18.17	-0.08
77	SLU 40	298	11	2456	-2.03	18.35	-0.08
77	SLU 41	298	10	2437	-1.11	18.17	-0.08
77	SLU 42	298	11	2456	-2.03	18.35	-0.08
77	SLU 43	169	11	2225	-5.63	11.92	-0.07
77	SLU 44	171	12	2257	-7.16	12.21	-0.08
77	SLU 45	169	11	2225	-5.63	11.92	-0.07
77	SLU 46	170	11	2244	-6.54	12.09	-0.08
77	SLU 47	171	12	2257	-7.16	12.21	-0.08
77	SLU 48	169	11	2225	-5.63	11.92	-0.07
77	SLU 49	170	11	2244	-6.54	12.09	-0.08
77	SLU 50	169	11	2225	-5.63	11.92	-0.07
77	SLU 51	170	11	2244	-6.54	12.09	-0.08
77	SLU 52	257	13	2616	-5.44	16.77	-0.09
77	SLU 53	255	12	2584	-3.92	16.49	-0.08
77	SLU 54	256	12	2603	-4.83	16.66	-0.09
77	SLU 55	257	13	2616	-5.44	16.77	-0.09
77	SLU 56	255	12	2584	-3.92	16.49	-0.08
77	SLU 57	256	12	2603	-4.83	16.66	-0.09
77	SLU 58	255	12	2584	-3.92	16.49	-0.08
77	SLU 59	256	12	2603	-4.83	16.66	-0.09
77	SLU 60	292	12	2738	-3.18	18.44	-0.09
77	SLU 61	293	13	2757	-4.1	18.61	-0.09
77	SLU 62	292	12	2738	-3.18	18.44	-0.09
77	SLU 63	293	13	2757	-4.1	18.61	-0.09
77	SLU 64	205	11	2392	-5.02	13.89	-0.08
77	SLU 65	206	12	2425	-6.55	14.17	-0.09
77	SLU 66	205	11	2392	-5.02	13.89	-0.08
77	SLU 67	205	12	2412	-5.93	14.06	-0.08
77	SLU 68	206	12	2425	-6.55	14.17	-0.09
77	SLU 69	205	11	2392	-5.02	13.89	-0.08
77	SLU 70	205	12	2412	-5.93	14.06	-0.08
77	SLU 71	205	11	2392	-5.02	13.89	-0.08
77	SLU 72	205	12	2412	-5.93	14.06	-0.08
77	SLU 73	292	13	2784	-4.83	18.74	-0.1
77	SLU 74	291	12	2752	-3.31	18.45	-0.09
77	SLU 75	291	13	2771	-4.22	18.62	-0.09
77	SLU 76	292	13	2784	-4.83	18.74	-0.1
77	SLU 77	291	12	2752	-3.31	18.45	-0.09
77	SLU 78	291	13	2771	-4.22	18.62	-0.09
77	SLU 79	291	12	2752	-3.31	18.45	-0.09
77	SLU 80	291	13	2771	-4.22	18.62	-0.09
77	SLU 81	327	13	2906	-2.57	20.41	-0.09
77	SLU 82	328	13	2925	-3.49	20.58	-0.1
77	SLU 83	327	13	2906	-2.57	20.41	-0.09
77	SLU 84	328	13	2925	-3.49	20.58	-0.1
77	SLE RA 1	150	8	1804	-3.99	10.25	-0.06
77	SLE RA 2	150	9	1825	-5.01	10.44	-0.07
77	SLE RA 3	150	8	1804	-3.99	10.25	-0.06
77	SLE RA 4	150	9	1816	-4.61	10.36	-0.06
77	SLE RA 5	150	9	1825	-5.01	10.44	-0.07
77	SLE RA 6	150	8	1804	-3.99	10.25	-0.06
77	SLE RA 7	150	9	1816	-4.61	10.36	-0.06
77	SLE RA 8	150	8	1804	-3.99	10.25	-0.06
77	SLE RA 9	150	9	1816	-4.61	10.36	-0.06
77	SLE RA 10	208	10	2064	-3.87	13.48	-0.07
77	SLE RA 11	207	9	2043	-2.85	13.29	-0.07
77	SLE RA 12	207	10	2056	-3.46	13.41	-0.07
77	SLE RA 13	208	10	2064	-3.87	13.48	-0.07
77	SLE RA 14	207	9	2043	-2.85	13.29	-0.07
77	SLE RA 15	207	10	2056	-3.46	13.41	-0.07
77	SLE RA 16	207	9	2043	-2.85	13.29	-0.07
77	SLE RA 17	207	10	2056	-3.46	13.41	-0.07
77	SLE RA 18	232	9	2146	-2.36	14.6	-0.07
77	SLE RA 19	232	10	2159	-2.98	14.71	-0.07
77	SLE RA 20	232	9	2146	-2.36	14.6	-0.07
77	SLE RA 21	232	10	2159	-2.98	14.71	-0.07
77	SLE FR 1	150	8	1804	-3.99	10.25	-0.06
77	SLE FR 2	150	9	1808	-4.2	10.29	-0.06
77	SLE FR 3	150	8	1804	-3.99	10.25	-0.06
77	SLE FR 4	174	9	1910	-3.71	11.59	-0.06
77	SLE FR 5	174	9	1906	-3.51	11.55	-0.06
77	SLE FR 6	191	9	1975	-3.18	12.42	-0.06
77	SLE QP 1	150	8	1804	-3.99	10.25	-0.06
77	SLE QP 2	174	9	1906	-3.51	11.55	-0.06
77	SLD 1	473	25	2016	-21.66	23.61	-0.17
77	SLD 2	473	25	2016	-21.66	23.61	-0.17
77	SLD 3	438	-3	1937	10.86	22.19	0.02



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
77	SLD 4	438	-3	1937	10.86	22.19	0.02
77	SLD 5	317	57	2059	-58.27	17.34	-0.38
77	SLD 6	317	57	2059	-58.27	17.34	-0.38
77	SLD 7	200	-38	1795	50.12	12.58	0.25
77	SLD 8	200	-38	1795	50.12	12.58	0.25
77	SLD 9	148	55	2017	-57.13	10.53	-0.37
77	SLD 10	148	55	2017	-57.13	10.53	-0.37
77	SLD 11	32	-39	1753	51.26	5.77	0.26
77	SLD 12	32	-39	1753	51.26	5.77	0.26
77	SLD 13	-90	21	1876	-17.87	0.92	-0.14
77	SLD 14	-90	21	1876	-17.87	0.92	-0.14
77	SLD 15	-125	-8	1796	14.65	-0.5	0.05
77	SLD 16	-125	-8	1796	14.65	-0.5	0.05
77	SLV 1	876	49	2179	-48.91	39.92	-0.33
77	SLV 2	876	49	2179	-48.91	39.92	-0.33
77	SLV 3	789	-21	1972	32.73	36.35	0.13
77	SLV 4	789	-21	1972	32.73	36.35	0.13
77	SLV 5	518	127	2303	-140.95	25.47	-0.85
77	SLV 6	518	127	2303	-140.95	25.47	-0.85
77	SLV 7	226	-107	1611	131.19	13.58	0.7
77	SLV 8	226	-107	1611	131.19	13.58	0.7
77	SLV 9	123	124	2202	-138.2	9.53	-0.82
77	SLV 10	123	124	2202	-138.2	9.53	-0.82
77	SLV 11	-169	-110	1509	133.94	-2.37	0.72
77	SLV 12	-169	-110	1509	133.94	-2.37	0.72
77	SLV 13	-440	38	1841	-39.74	-13.24	-0.26
77	SLV 14	-440	38	1841	-39.74	-13.24	-0.26
77	SLV 15	-528	-32	1633	41.9	-16.81	0.21
77	SLV 16	-528	-32	1633	41.9	-16.81	0.21
78	SLU 1	77	8	1759	-4.22	-0.56	-0.09
78	SLU 2	75	9	1788	-5.61	-0.81	-0.1
78	SLU 3	77	8	1759	-4.22	-0.56	-0.09
78	SLU 4	76	9	1776	-5.05	-0.71	-0.09
78	SLU 5	75	9	1788	-5.61	-0.81	-0.1
78	SLU 6	77	8	1759	-4.22	-0.56	-0.09
78	SLU 7	76	9	1776	-5.05	-0.71	-0.09
78	SLU 8	77	8	1759	-4.22	-0.56	-0.09
78	SLU 9	76	9	1776	-5.05	-0.71	-0.09
78	SLU 10	138	10	2164	-3.85	0.52	-0.11
78	SLU 11	140	9	2135	-2.46	0.78	-0.1
78	SLU 12	139	10	2152	-3.29	0.62	-0.1
78	SLU 13	138	10	2164	-3.85	0.52	-0.11
78	SLU 14	140	9	2135	-2.46	0.78	-0.1
78	SLU 15	139	10	2152	-3.29	0.62	-0.1
78	SLU 16	140	9	2135	-2.46	0.78	-0.1
78	SLU 17	139	10	2152	-3.29	0.62	-0.1
78	SLU 18	167	10	2296	-1.71	1.35	-0.1
78	SLU 19	166	10	2314	-2.54	1.2	-0.11
78	SLU 20	167	10	2296	-1.71	1.35	-0.1
78	SLU 21	166	10	2314	-2.54	1.2	-0.11
78	SLU 22	102	9	1933	-3.59	-0.12	-0.09
78	SLU 23	100	10	1962	-4.98	-0.38	-0.1
78	SLU 24	102	9	1933	-3.59	-0.12	-0.09
78	SLU 25	101	9	1950	-4.42	-0.28	-0.1
78	SLU 26	100	10	1962	-4.98	-0.38	-0.1
78	SLU 27	102	9	1933	-3.59	-0.12	-0.09
78	SLU 28	101	9	1950	-4.42	-0.28	-0.1
78	SLU 29	102	9	1933	-3.59	-0.12	-0.09
78	SLU 30	101	9	1950	-4.42	-0.28	-0.1
78	SLU 31	163	11	2338	-3.22	0.96	-0.11
78	SLU 32	165	10	2309	-1.83	1.21	-0.1
78	SLU 33	164	10	2327	-2.67	1.06	-0.11
78	SLU 34	163	11	2338	-3.22	0.96	-0.11
78	SLU 35	165	10	2309	-1.83	1.21	-0.1
78	SLU 36	164	10	2327	-2.67	1.06	-0.11
78	SLU 37	165	10	2309	-1.83	1.21	-0.1
78	SLU 38	164	10	2327	-2.67	1.06	-0.11
78	SLU 39	192	10	2471	-1.08	1.78	-0.11
78	SLU 40	191	11	2488	-1.91	1.63	-0.12
78	SLU 41	192	10	2471	-1.08	1.78	-0.11
78	SLU 42	191	11	2488	-1.91	1.63	-0.12
78	SLU 43	91	11	2226	-5.7	-0.87	-0.11
78	SLU 44	89	12	2255	-7.09	-1.13	-0.12
78	SLU 45	91	11	2226	-5.7	-0.87	-0.11
78	SLU 46	90	11	2244	-6.53	-1.02	-0.12
78	SLU 47	89	12	2255	-7.09	-1.13	-0.12
78	SLU 48	91	11	2226	-5.7	-0.87	-0.11
78	SLU 49	90	11	2244	-6.53	-1.02	-0.12
78	SLU 50	91	11	2226	-5.7	-0.87	-0.11
78	SLU 51	90	11	2244	-6.53	-1.02	-0.12
78	SLU 52	152	13	2632	-5.33	0.21	-0.13
78	SLU 53	155	12	2603	-3.94	0.46	-0.12
78	SLU 54	153	12	2620	-4.77	0.31	-0.13
78	SLU 55	152	13	2632	-5.33	0.21	-0.13
78	SLU 56	155	12	2603	-3.94	0.46	-0.12
78	SLU 57	153	12	2620	-4.77	0.31	-0.13
78	SLU 58	155	12	2603	-3.94	0.46	-0.12
78	SLU 59	153	12	2620	-4.77	0.31	-0.13
78	SLU 60	182	12	2764	-3.19	1.03	-0.13
78	SLU 61	180	13	2782	-4.02	0.88	-0.13



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
78	SLU 62	182	12	2764	-3.19	1.03	-0.13
78	SLU 63	180	13	2782	-4.02	0.88	-0.13
78	SLU 64	117	11	2401	-5.07	-0.44	-0.12
78	SLU 65	114	12	2430	-6.46	-0.69	-0.13
78	SLU 66	117	11	2401	-5.07	-0.44	-0.12
78	SLU 67	115	12	2418	-5.9	-0.59	-0.12
78	SLU 68	114	12	2430	-6.46	-0.69	-0.13
78	SLU 69	117	11	2401	-5.07	-0.44	-0.12
78	SLU 70	115	12	2418	-5.9	-0.59	-0.12
78	SLU 71	117	11	2401	-5.07	-0.44	-0.12
78	SLU 72	115	12	2418	-5.9	-0.59	-0.12
78	SLU 73	178	13	2806	-4.7	0.64	-0.14
78	SLU 74	180	12	2777	-3.31	0.89	-0.13
78	SLU 75	178	13	2795	-4.15	0.74	-0.13
78	SLU 76	178	13	2806	-4.7	0.64	-0.14
78	SLU 77	180	12	2777	-3.31	0.89	-0.13
78	SLU 78	178	13	2795	-4.15	0.74	-0.13
78	SLU 79	180	12	2777	-3.31	0.89	-0.13
78	SLU 80	178	13	2795	-4.15	0.74	-0.13
78	SLU 81	207	13	2938	-2.56	1.46	-0.13
78	SLU 82	206	13	2956	-3.39	1.31	-0.14
78	SLU 83	207	13	2938	-2.56	1.46	-0.13
78	SLU 84	206	13	2956	-3.39	1.31	-0.14
78	SLE RA 1	84	8	1808	-4.04	-0.43	-0.09
78	SLE RA 2	83	9	1828	-4.96	-0.6	-0.09
78	SLE RA 3	84	8	1808	-4.04	-0.43	-0.09
78	SLE RA 4	83	9	1820	-4.59	-0.53	-0.09
78	SLE RA 5	83	9	1828	-4.96	-0.6	-0.09
78	SLE RA 6	84	8	1808	-4.04	-0.43	-0.09
78	SLE RA 7	83	9	1820	-4.59	-0.53	-0.09
78	SLE RA 8	84	8	1808	-4.04	-0.43	-0.09
78	SLE RA 9	83	9	1820	-4.59	-0.53	-0.09
78	SLE RA 10	125	10	2079	-3.79	0.29	-0.1
78	SLE RA 11	126	9	2059	-2.87	0.46	-0.1
78	SLE RA 12	125	10	2071	-3.42	0.35	-0.1
78	SLE RA 13	125	10	2079	-3.79	0.29	-0.1
78	SLE RA 14	126	9	2059	-2.87	0.46	-0.1
78	SLE RA 15	125	10	2071	-3.42	0.35	-0.1
78	SLE RA 16	126	9	2059	-2.87	0.46	-0.1
78	SLE RA 17	125	10	2071	-3.42	0.35	-0.1
78	SLE RA 18	144	9	2167	-2.36	0.84	-0.1
78	SLE RA 19	143	10	2179	-2.92	0.74	-0.1
78	SLE RA 20	144	9	2167	-2.36	0.84	-0.1
78	SLE RA 21	143	10	2179	-2.92	0.74	-0.1
78	SLE FR 1	84	8	1808	-4.04	-0.43	-0.09
78	SLE FR 2	84	9	1812	-4.22	-0.47	-0.09
78	SLE FR 3	84	8	1808	-4.04	-0.43	-0.09
78	SLE FR 4	102	9	1920	-3.72	-0.09	-0.09
78	SLE FR 5	102	9	1916	-3.54	-0.05	-0.09
78	SLE FR 6	114	9	1988	-3.2	0.2	-0.09
78	SLE QP 1	84	8	1808	-4.04	-0.43	-0.09
78	SLE QP 2	102	9	1916	-3.54	-0.05	-0.09
78	SLD 1	406	26	2073	-22.81	11.91	-0.26
78	SLD 2	406	26	2073	-22.81	11.91	-0.26
78	SLD 3	373	-5	1991	12	10.55	0.04
78	SLD 4	373	-5	1991	12	10.55	0.04
78	SLD 5	243	61	2088	-62.12	5.59	-0.6
78	SLD 6	243	61	2088	-62.12	5.59	-0.6
78	SLD 7	133	-42	1814	53.92	1.07	0.4
78	SLD 8	133	-42	1814	53.92	1.07	0.4
78	SLD 9	71	59	2018	-60.99	-1.18	-0.59
78	SLD 10	71	59	2018	-60.99	-1.18	-0.59
78	SLD 11	-39	-43	1744	55.05	-5.7	0.42
78	SLD 12	-39	-43	1744	55.05	-5.7	0.42
78	SLD 13	-168	22	1841	-19.07	-10.66	-0.22
78	SLD 14	-168	22	1841	-19.07	-10.66	-0.22
78	SLD 15	-201	-9	1759	15.74	-12.02	0.08
78	SLD 16	-201	-9	1759	15.74	-12.02	0.08
78	SLV 1	815	52	2298	-51.86	28.07	-0.51
78	SLV 2	815	52	2298	-51.86	28.07	-0.51
78	SLV 3	732	-24	2084	35.66	24.62	0.23
78	SLV 4	732	-24	2084	35.66	24.62	0.23
78	SLV 5	442	137	2355	-150.77	13.62	-1.35
78	SLV 6	442	137	2355	-150.77	13.62	-1.35
78	SLV 7	165	-117	1642	140.96	2.11	1.13
78	SLV 8	165	-117	1642	140.96	2.11	1.13
78	SLV 9	40	134	2190	-148.03	-2.22	-1.32
78	SLV 10	40	134	2190	-148.03	-2.22	-1.32
78	SLV 11	-238	-120	1477	143.7	-13.72	1.16
78	SLV 12	-238	-120	1477	143.7	-13.72	1.16
78	SLV 13	-528	42	1748	-42.73	-24.72	-0.41
78	SLV 14	-528	42	1748	-42.73	-24.72	-0.41
78	SLV 15	-611	-34	1534	44.79	-28.17	0.33
78	SLV 16	-611	-34	1534	44.79	-28.17	0.33
79	SLU 1	169	9	1794	-4.47	10.02	-0.11
79	SLU 2	172	9	1821	-5.69	10.26	-0.12
79	SLU 3	169	9	1794	-4.47	10.02	-0.11
79	SLU 4	171	9	1810	-5.2	10.17	-0.11
79	SLU 5	172	9	1821	-5.69	10.26	-0.12
79	SLU 6	169	9	1794	-4.47	10.02	-0.11





Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
79	SLU 7	171	9	1810	-5.2	10.17	-0.11
79	SLU 8	169	9	1794	-4.47	10.02	-0.11
79	SLU 9	171	9	1810	-5.2	10.17	-0.11
79	SLU 10	259	11	2226	-4.15	14.75	-0.14
79	SLU 11	256	10	2199	-2.93	14.5	-0.13
79	SLU 12	258	10	2216	-3.66	14.65	-0.13
79	SLU 13	259	11	2226	-4.15	14.75	-0.14
79	SLU 14	256	10	2199	-2.93	14.5	-0.13
79	SLU 15	258	10	2216	-3.66	14.65	-0.13
79	SLU 16	256	10	2199	-2.93	14.5	-0.13
79	SLU 17	258	10	2216	-3.66	14.65	-0.13
79	SLU 18	294	10	2373	-2.27	16.42	-0.13
79	SLU 19	295	11	2389	-3	16.57	-0.14
79	SLU 20	294	10	2373	-2.27	16.42	-0.13
79	SLU 21	295	11	2389	-3	16.57	-0.14
79	SLU 22	208	9	1981	-3.94	12.03	-0.12
79	SLU 23	210	10	2008	-5.16	12.27	-0.13
79	SLU 24	208	9	1981	-3.94	12.03	-0.12
79	SLU 25	209	10	1997	-4.67	12.18	-0.12
79	SLU 26	210	10	2008	-5.16	12.27	-0.13
79	SLU 27	208	9	1981	-3.94	12.03	-0.12
79	SLU 28	209	10	1997	-4.67	12.18	-0.12
79	SLU 29	208	9	1981	-3.94	12.03	-0.12
79	SLU 30	209	10	1997	-4.67	12.18	-0.12
79	SLU 31	297	11	2413	-3.62	16.76	-0.14
79	SLU 32	294	11	2386	-2.4	16.51	-0.14
79	SLU 33	296	11	2402	-3.13	16.66	-0.14
79	SLU 34	297	11	2413	-3.62	16.76	-0.14
79	SLU 35	294	11	2386	-2.4	16.51	-0.14
79	SLU 36	296	11	2402	-3.13	16.66	-0.14
79	SLU 37	294	11	2386	-2.4	16.51	-0.14
79	SLU 38	296	11	2402	-3.13	16.66	-0.14
79	SLU 39	332	11	2560	-1.74	18.43	-0.14
79	SLU 40	333	12	2576	-2.47	18.58	-0.15
79	SLU 41	332	11	2560	-1.74	18.43	-0.14
79	SLU 42	333	12	2576	-2.47	18.58	-0.15
79	SLU 43	207	11	2268	-5.99	12.33	-0.14
79	SLU 44	210	12	2295	-7.21	12.58	-0.15
79	SLU 45	207	11	2268	-5.99	12.33	-0.14
79	SLU 46	209	11	2284	-6.73	12.48	-0.14
79	SLU 47	210	12	2295	-7.21	12.58	-0.15
79	SLU 48	207	11	2268	-5.99	12.33	-0.14
79	SLU 49	209	11	2284	-6.73	12.48	-0.14
79	SLU 50	207	11	2268	-5.99	12.33	-0.14
79	SLU 51	209	11	2284	-6.73	12.48	-0.14
79	SLU 52	297	13	2700	-5.68	17.06	-0.16
79	SLU 53	294	12	2674	-4.45	16.82	-0.16
79	SLU 54	296	13	2690	-5.19	16.96	-0.16
79	SLU 55	297	13	2700	-5.68	17.06	-0.16
79	SLU 56	294	12	2674	-4.45	16.82	-0.16
79	SLU 57	296	13	2690	-5.19	16.96	-0.16
79	SLU 58	294	12	2674	-4.45	16.82	-0.16
79	SLU 59	296	13	2690	-5.19	16.96	-0.16
79	SLU 60	331	13	2847	-3.79	18.74	-0.16
79	SLU 61	333	13	2863	-4.53	18.89	-0.17
79	SLU 62	331	13	2847	-3.79	18.74	-0.16
79	SLU 63	333	13	2863	-4.53	18.89	-0.17
79	SLU 64	245	12	2455	-5.46	14.34	-0.15
79	SLU 65	248	12	2482	-6.68	14.59	-0.16
79	SLU 66	245	12	2455	-5.46	14.34	-0.15
79	SLU 67	247	12	2471	-6.2	14.49	-0.15
79	SLU 68	248	12	2482	-6.68	14.59	-0.16
79	SLU 69	245	12	2455	-5.46	14.34	-0.15
79	SLU 70	247	12	2471	-6.2	14.49	-0.15
79	SLU 71	245	12	2455	-5.46	14.34	-0.15
79	SLU 72	247	12	2471	-6.2	14.49	-0.15
79	SLU 73	335	14	2887	-5.15	19.07	-0.17
79	SLU 74	332	13	2860	-3.92	18.83	-0.16
79	SLU 75	334	13	2877	-4.66	18.97	-0.17
79	SLU 76	335	14	2887	-5.15	19.07	-0.17
79	SLU 77	332	13	2860	-3.92	18.83	-0.16
79	SLU 78	334	13	2877	-4.66	18.97	-0.17
79	SLU 79	332	13	2860	-3.92	18.83	-0.16
79	SLU 80	334	13	2877	-4.66	18.97	-0.17
79	SLU 81	370	13	3034	-3.27	20.75	-0.17
79	SLU 82	371	14	3050	-4	20.9	-0.18
79	SLU 83	370	13	3034	-3.27	20.75	-0.17
79	SLU 84	371	14	3050	-4	20.9	-0.18
79	SLE RA 1	180	9	1847	-4.32	10.59	-0.11
79	SLE RA 2	182	9	1865	-5.13	10.76	-0.12
79	SLE RA 3	180	9	1847	-4.32	10.59	-0.11
79	SLE RA 4	181	9	1858	-4.81	10.69	-0.11
79	SLE RA 5	182	9	1865	-5.13	10.76	-0.12
79	SLE RA 6	180	9	1847	-4.32	10.59	-0.11
79	SLE RA 7	181	9	1858	-4.81	10.69	-0.11
79	SLE RA 8	180	9	1847	-4.32	10.59	-0.11
79	SLE RA 9	181	9	1858	-4.81	10.69	-0.11
79	SLE RA 10	240	10	2136	-4.11	13.74	-0.13
79	SLE RA 11	238	10	2118	-3.29	13.58	-0.12
79	SLE RA 12	239	10	2128	-3.78	13.68	-0.13



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
79	SLE RA 13	240	10	2136	-4.11	13.74	-0.13
79	SLE RA 14	238	10	2118	-3.29	13.58	-0.12
79	SLE RA 15	239	10	2128	-3.78	13.68	-0.13
79	SLE RA 16	238	10	2118	-3.29	13.58	-0.12
79	SLE RA 17	239	10	2128	-3.78	13.68	-0.13
79	SLE RA 18	263	10	2234	-2.85	14.86	-0.13
79	SLE RA 19	264	10	2244	-3.34	14.96	-0.13
79	SLE RA 20	263	10	2234	-2.85	14.86	-0.13
79	SLE RA 21	264	10	2244	-3.34	14.96	-0.13
79	SLE FR 1	180	9	1847	-4.32	10.59	-0.11
79	SLE FR 2	181	9	1851	-4.48	10.62	-0.11
79	SLE FR 3	180	9	1847	-4.32	10.59	-0.11
79	SLE FR 4	206	9	1967	-4.04	11.9	-0.12
79	SLE FR 5	205	9	1963	-3.88	11.87	-0.12
79	SLE FR 6	222	9	2040	-3.59	12.73	-0.12
79	SLE QP 1	180	9	1847	-4.32	10.59	-0.11
79	SLE QP 2	205	9	1963	-3.88	11.87	-0.12
79	SLD 1	507	28	2173	-23.72	24.03	-0.34
79	SLD 2	507	28	2173	-23.72	24.03	-0.34
79	SLD 3	475	-4	2088	11.7	22.67	0.04
79	SLD 4	475	-4	2088	11.7	22.67	0.04
79	SLD 5	344	62	2155	-63.55	17.59	-0.76
79	SLD 6	344	62	2155	-63.55	17.59	-0.76
79	SLD 7	238	-42	1872	54.52	13.04	0.51
79	SLD 8	238	-42	1872	54.52	13.04	0.51
79	SLD 9	173	61	2055	-62.27	10.7	-0.74
79	SLD 10	173	61	2055	-62.27	10.7	-0.74
79	SLD 11	66	-44	1771	55.79	6.15	0.53
79	SLD 12	66	-44	1771	55.79	6.15	0.53
79	SLD 13	-65	22	1838	-19.46	1.08	-0.27
79	SLD 14	-65	22	1838	-19.46	1.08	-0.27
79	SLD 15	-97	-9	1753	15.96	-0.29	0.11
79	SLD 16	-97	-9	1753	15.96	-0.29	0.11
79	SLV 1	914	54	2468	-53.6	40.49	-0.66
79	SLV 2	914	54	2468	-53.6	40.49	-0.66
79	SLV 3	834	-23	2248	35.56	37.03	0.28
79	SLV 4	834	-23	2248	35.56	37.03	0.28
79	SLV 5	540	140	2448	-154.02	25.7	-1.71
79	SLV 6	540	140	2448	-154.02	25.7	-1.71
79	SLV 7	272	-118	1715	143.18	14.18	1.43
79	SLV 8	272	-118	1715	143.18	14.18	1.43
79	SLV 9	138	137	2211	-150.94	9.57	-1.66
79	SLV 10	138	137	2211	-150.94	9.57	-1.66
79	SLV 11	-129	-122	1478	146.27	-1.96	1.48
79	SLV 12	-129	-122	1478	146.27	-1.96	1.48
79	SLV 13	-424	41	1679	-43.32	-13.29	-0.51
79	SLV 14	-424	41	1679	-43.32	-13.29	-0.51
79	SLV 15	-504	-36	1459	45.84	-16.74	0.43
79	SLV 16	-504	-36	1459	45.84	-16.74	0.43
80	SLU 1	121	9	1839	-4.9	1.38	-0.12
80	SLU 2	122	10	1864	-5.94	1.28	-0.13
80	SLU 3	121	9	1839	-4.9	1.38	-0.12
80	SLU 4	121	9	1854	-5.52	1.32	-0.13
80	SLU 5	122	10	1864	-5.94	1.28	-0.13
80	SLU 6	121	9	1839	-4.9	1.38	-0.12
80	SLU 7	121	9	1854	-5.52	1.32	-0.13
80	SLU 8	121	9	1839	-4.9	1.38	-0.12
80	SLU 9	121	9	1854	-5.52	1.32	-0.13
80	SLU 10	187	11	2300	-4.86	2.62	-0.16
80	SLU 11	186	11	2274	-3.82	2.72	-0.15
80	SLU 12	186	11	2289	-4.44	2.66	-0.15
80	SLU 13	187	11	2300	-4.86	2.62	-0.16
80	SLU 14	186	11	2274	-3.82	2.72	-0.15
80	SLU 15	186	11	2289	-4.44	2.66	-0.15
80	SLU 16	186	11	2274	-3.82	2.72	-0.15
80	SLU 17	186	11	2289	-4.44	2.66	-0.15
80	SLU 18	214	12	2461	-3.36	3.29	-0.16
80	SLU 19	214	12	2476	-3.98	3.23	-0.17
80	SLU 20	214	12	2461	-3.36	3.29	-0.16
80	SLU 21	214	12	2476	-3.98	3.23	-0.17
80	SLU 22	150	10	2039	-4.58	1.95	-0.14
80	SLU 23	151	11	2064	-5.61	1.85	-0.14
80	SLU 24	150	10	2039	-4.58	1.95	-0.14
80	SLU 25	151	10	2054	-5.2	1.89	-0.14
80	SLU 26	151	11	2064	-5.61	1.85	-0.14
80	SLU 27	150	10	2039	-4.58	1.95	-0.14
80	SLU 28	151	10	2054	-5.2	1.89	-0.14
80	SLU 29	150	10	2039	-4.58	1.95	-0.14
80	SLU 30	151	10	2054	-5.2	1.89	-0.14
80	SLU 31	216	12	2500	-4.53	3.19	-0.17
80	SLU 32	215	12	2475	-3.5	3.29	-0.16
80	SLU 33	216	12	2490	-4.12	3.23	-0.17
80	SLU 34	216	12	2500	-4.53	3.19	-0.17
80	SLU 35	215	12	2475	-3.5	3.29	-0.16
80	SLU 36	216	12	2490	-4.12	3.23	-0.17
80	SLU 37	215	12	2475	-3.5	3.29	-0.16
80	SLU 38	216	12	2490	-4.12	3.23	-0.17
80	SLU 39	243	13	2661	-3.03	3.86	-0.17
80	SLU 40	244	13	2677	-3.65	3.8	-0.18
80	SLU 41	243	13	2661	-3.03	3.86	-0.17



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
80	SLU 42	244	13	2677	-3.65	3.8	-0.18
80	SLU 43	147	12	2322	-6.48	1.6	-0.16
80	SLU 44	148	12	2347	-7.52	1.5	-0.17
80	SLU 45	147	12	2322	-6.48	1.6	-0.16
80	SLU 46	148	12	2337	-7.11	1.54	-0.16
80	SLU 47	148	12	2347	-7.52	1.5	-0.17
80	SLU 48	147	12	2322	-6.48	1.6	-0.16
80	SLU 49	148	12	2337	-7.11	1.54	-0.16
80	SLU 50	147	12	2322	-6.48	1.6	-0.16
80	SLU 51	148	12	2337	-7.11	1.54	-0.16
80	SLU 52	213	14	2782	-6.44	2.84	-0.19
80	SLU 53	212	13	2757	-5.4	2.93	-0.18
80	SLU 54	213	14	2772	-6.03	2.88	-0.19
80	SLU 55	213	14	2782	-6.44	2.84	-0.19
80	SLU 56	212	13	2757	-5.4	2.93	-0.18
80	SLU 57	213	14	2772	-6.03	2.88	-0.19
80	SLU 58	212	13	2757	-5.4	2.93	-0.18
80	SLU 59	213	14	2772	-6.03	2.88	-0.19
80	SLU 60	240	14	2944	-4.94	3.51	-0.19
80	SLU 61	241	14	2959	-5.56	3.45	-0.2
80	SLU 62	240	14	2944	-4.94	3.51	-0.19
80	SLU 63	241	14	2959	-5.56	3.45	-0.2
80	SLU 64	177	12	2522	-6.16	2.17	-0.17
80	SLU 65	177	13	2547	-7.19	2.07	-0.18
80	SLU 66	177	12	2522	-6.16	2.17	-0.17
80	SLU 67	177	13	2537	-6.78	2.11	-0.17
80	SLU 68	177	13	2547	-7.19	2.07	-0.18
80	SLU 69	177	12	2522	-6.16	2.17	-0.17
80	SLU 70	177	13	2537	-6.78	2.11	-0.17
80	SLU 71	177	12	2522	-6.16	2.17	-0.17
80	SLU 72	177	13	2537	-6.78	2.11	-0.17
80	SLU 73	242	15	2983	-6.11	3.41	-0.2
80	SLU 74	242	14	2958	-5.08	3.51	-0.19
80	SLU 75	242	15	2973	-5.7	3.45	-0.2
80	SLU 76	242	15	2983	-6.11	3.41	-0.2
80	SLU 77	242	14	2958	-5.08	3.51	-0.19
80	SLU 78	242	15	2973	-5.7	3.45	-0.2
80	SLU 79	242	14	2958	-5.08	3.51	-0.19
80	SLU 80	242	15	2973	-5.7	3.45	-0.2
80	SLU 81	270	15	3144	-4.61	4.08	-0.21
80	SLU 82	270	15	3159	-5.24	4.02	-0.21
80	SLU 83	270	15	3144	-4.61	4.08	-0.21
80	SLU 84	270	15	3159	-5.24	4.02	-0.21
80	SLE RA 1	130	9	1896	-4.81	1.54	-0.13
80	SLE RA 2	130	10	1913	-5.5	1.48	-0.13
80	SLE RA 3	130	9	1896	-4.81	1.54	-0.13
80	SLE RA 4	130	10	1906	-5.22	1.5	-0.13
80	SLE RA 5	130	10	1913	-5.5	1.48	-0.13
80	SLE RA 6	130	9	1896	-4.81	1.54	-0.13
80	SLE RA 7	130	10	1906	-5.22	1.5	-0.13
80	SLE RA 8	130	9	1896	-4.81	1.54	-0.13
80	SLE RA 9	130	10	1906	-5.22	1.5	-0.13
80	SLE RA 10	173	11	2203	-4.78	2.37	-0.15
80	SLE RA 11	173	11	2186	-4.09	2.43	-0.14
80	SLE RA 12	173	11	2196	-4.5	2.39	-0.15
80	SLE RA 13	173	11	2203	-4.78	2.37	-0.15
80	SLE RA 14	173	11	2186	-4.09	2.43	-0.14
80	SLE RA 15	173	11	2196	-4.5	2.39	-0.15
80	SLE RA 16	173	11	2186	-4.09	2.43	-0.14
80	SLE RA 17	173	11	2196	-4.5	2.39	-0.15
80	SLE RA 18	191	11	2311	-3.78	2.82	-0.15
80	SLE RA 19	192	11	2321	-4.19	2.78	-0.16
80	SLE RA 20	191	11	2311	-3.78	2.82	-0.15
80	SLE RA 21	192	11	2321	-4.19	2.78	-0.16
80	SLE FR 1	130	9	1896	-4.81	1.54	-0.13
80	SLE FR 2	130	9	1899	-4.95	1.53	-0.13
80	SLE FR 3	130	9	1896	-4.81	1.54	-0.13
80	SLE FR 4	148	10	2024	-4.64	1.91	-0.14
80	SLE FR 5	148	10	2020	-4.5	1.92	-0.13
80	SLE FR 6	160	10	2103	-4.29	2.18	-0.14
80	SLE QP 1	130	9	1896	-4.81	1.54	-0.13
80	SLE QP 2	148	10	2020	-4.5	1.92	-0.13
80	SLD 1	435	29	2273	-24.21	13.42	-0.38
80	SLD 2	435	29	2273	-24.21	13.42	-0.38
80	SLD 3	406	-1	2186	10.13	12.26	0.02
80	SLD 4	406	-1	2186	10.13	12.26	0.02
80	SLD 5	279	61	2228	-62.5	7.13	-0.82
80	SLD 6	279	61	2228	-62.5	7.13	-0.82
80	SLD 7	180	-39	1938	51.98	3.27	0.52
80	SLD 8	180	-39	1938	51.98	3.27	0.52
80	SLD 9	116	59	2103	-60.98	0.58	-0.79
80	SLD 10	116	59	2103	-60.98	0.58	-0.79
80	SLD 11	17	-41	1813	53.5	-3.28	0.55
80	SLD 12	17	-41	1813	53.5	-3.28	0.55
80	SLD 13	-109	21	1855	-19.13	-8.42	-0.29
80	SLD 14	-109	21	1855	-19.13	-8.42	-0.29
80	SLD 15	-139	-9	1768	15.21	-9.57	0.11
80	SLD 16	-139	-9	1768	15.21	-9.57	0.11
80	SLV 1	823	56	2623	-53.83	28.91	-0.74
80	SLV 2	823	56	2623	-53.83	28.91	-0.74



Nodo	Cont.	Reazione a traslazione				Reazione a rotazione			
Ind.	N.br.	x	y	z		x	y	z	
80	SLV 3	748	-19	2400		32.72	26.03	0.25	
80	SLV 4	748	-19	2400		32.72	26.03	0.25	
80	SLV 5	464	137	2540		-150.57	14.39	-1.82	
80	SLV 6	464	137	2540		-150.57	14.39	-1.82	
80	SLV 7	215	-112	1796		137.93	4.79	1.48	
80	SLV 8	215	-112	1796		137.93	4.79	1.48	
80	SLV 9	82	132	2245		-146.93	-0.94	-1.75	
80	SLV 10	82	132	2245		-146.93	-0.94	-1.75	
80	SLV 11	-168	-117	1501		141.57	-10.54	1.55	
80	SLV 12	-168	-117	1501		141.57	-10.54	1.55	
80	SLV 13	-452	38	1641		-41.72	-22.18	-0.52	
80	SLV 14	-452	38	1641		-41.72	-22.18	-0.52	
80	SLV 15	-527	-36	1418		44.83	-25.07	0.47	
80	SLV 16	-527	-36	1418		44.83	-25.07	0.47	
81	SLU 1	199	10	1920		-5.42	10.97	-0.13	
81	SLU 2	203	10	1945		-6.26	11.24	-0.14	
81	SLU 3	199	10	1920		-5.42	10.97	-0.13	
81	SLU 4	201	10	1935		-5.93	11.13	-0.13	
81	SLU 5	203	10	1945		-6.26	11.24	-0.14	
81	SLU 6	199	10	1920		-5.42	10.97	-0.13	
81	SLU 7	201	10	1935		-5.93	11.13	-0.13	
81	SLU 8	199	10	1920		-5.42	10.97	-0.13	
81	SLU 9	201	10	1935		-5.93	11.13	-0.13	
81	SLU 10	289	13	2424		-5.82	15.7	-0.17	
81	SLU 11	285	12	2399		-4.98	15.42	-0.16	
81	SLU 12	287	12	2414		-5.49	15.59	-0.17	
81	SLU 13	289	13	2424		-5.82	15.7	-0.17	
81	SLU 14	285	12	2399		-4.98	15.42	-0.16	
81	SLU 15	287	12	2414		-5.49	15.59	-0.17	
81	SLU 16	285	12	2399		-4.98	15.42	-0.16	
81	SLU 17	287	12	2414		-5.49	15.59	-0.17	
81	SLU 18	321	13	2604		-4.79	17.33	-0.18	
81	SLU 19	324	14	2619		-5.3	17.5	-0.18	
81	SLU 20	321	13	2604		-4.79	17.33	-0.18	
81	SLU 21	324	14	2619		-5.3	17.5	-0.18	
81	SLU 22	240	11	2141		-5.38	13.1	-0.15	
81	SLU 23	244	11	2166		-6.22	13.37	-0.15	
81	SLU 24	240	11	2141		-5.38	13.1	-0.15	
81	SLU 25	242	11	2156		-5.88	13.26	-0.15	
81	SLU 26	244	11	2166		-6.22	13.37	-0.15	
81	SLU 27	240	11	2141		-5.38	13.1	-0.15	
81	SLU 28	242	11	2156		-5.88	13.26	-0.15	
81	SLU 29	240	11	2141		-5.38	13.1	-0.15	
81	SLU 30	242	11	2156		-5.88	13.26	-0.15	
81	SLU 31	330	14	2645		-5.78	17.83	-0.19	
81	SLU 32	326	13	2620		-4.94	17.55	-0.18	
81	SLU 33	328	14	2635		-5.44	17.72	-0.18	
81	SLU 34	330	14	2645		-5.78	17.83	-0.19	
81	SLU 35	326	13	2620		-4.94	17.55	-0.18	
81	SLU 36	328	14	2635		-5.44	17.72	-0.18	
81	SLU 37	326	13	2620		-4.94	17.55	-0.18	
81	SLU 38	328	14	2635		-5.44	17.72	-0.18	
81	SLU 39	363	14	2825		-4.75	19.46	-0.19	
81	SLU 40	365	15	2840		-5.25	19.63	-0.2	
81	SLU 41	363	14	2825		-4.75	19.46	-0.19	
81	SLU 42	365	15	2840		-5.25	19.63	-0.2	
81	SLU 43	245	12	2421		-7.06	13.53	-0.16	
81	SLU 44	249	13	2446		-7.9	13.8	-0.17	
81	SLU 45	245	12	2421		-7.06	13.53	-0.16	
81	SLU 46	247	12	2436		-7.57	13.69	-0.17	
81	SLU 47	249	13	2446		-7.9	13.8	-0.17	
81	SLU 48	245	12	2421		-7.06	13.53	-0.16	
81	SLU 49	247	12	2436		-7.57	13.69	-0.17	
81	SLU 50	245	12	2421		-7.06	13.53	-0.16	
81	SLU 51	247	12	2436		-7.57	13.69	-0.17	
81	SLU 52	334	15	2924		-7.46	18.26	-0.2	
81	SLU 53	330	15	2899		-6.62	17.98	-0.2	
81	SLU 54	333	15	2914		-7.13	18.15	-0.2	
81	SLU 55	334	15	2924		-7.46	18.26	-0.2	
81	SLU 56	330	15	2899		-6.62	17.98	-0.2	
81	SLU 57	333	15	2914		-7.13	18.15	-0.2	
81	SLU 58	330	15	2899		-6.62	17.98	-0.2	
81	SLU 59	333	15	2914		-7.13	18.15	-0.2	
81	SLU 60	367	16	3105		-6.43	19.89	-0.21	
81	SLU 61	369	16	3119		-6.94	20.06	-0.22	
81	SLU 62	367	16	3105		-6.43	19.89	-0.21	
81	SLU 63	369	16	3119		-6.94	20.06	-0.22	
81	SLU 64	286	13	2642		-7.02	15.65	-0.18	
81	SLU 65	290	14	2667		-7.86	15.93	-0.19	
81	SLU 66	286	13	2642		-7.02	15.65	-0.18	
81	SLU 67	288	14	2657		-7.52	15.82	-0.18	
81	SLU 68	290	14	2667		-7.86	15.93	-0.19	
81	SLU 69	286	13	2642		-7.02	15.65	-0.18	
81	SLU 70	288	14	2657		-7.52	15.82	-0.18	
81	SLU 71	286	13	2642		-7.02	15.65	-0.18	
81	SLU 72	288	14	2657		-7.52	15.82	-0.18	
81	SLU 73	375	16	3145		-7.42	20.39	-0.22	
81	SLU 74	371	16	3120		-6.58	20.11	-0.21	
81	SLU 75	374	16	3135		-7.08	20.28	-0.22	
81	SLU 76	375	16	3145		-7.42	20.39	-0.22	



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
81	SLU 77	371	16	3120	-6.58	20.11	-0.21
81	SLU 78	374	16	3135	-7.08	20.28	-0.22
81	SLU 79	371	16	3120	-6.58	20.11	-0.21
81	SLU 80	374	16	3135	-7.08	20.28	-0.22
81	SLU 81	408	17	3325	-6.39	22.02	-0.23
81	SLU 82	410	17	3340	-6.89	22.18	-0.23
81	SLU 83	408	17	3325	-6.39	22.02	-0.23
81	SLU 84	410	17	3340	-6.89	22.18	-0.23
81	SLE RA 1	211	10	1984	-5.41	11.57	-0.13
81	SLE RA 2	213	10	2000	-5.97	11.76	-0.14
81	SLE RA 3	211	10	1984	-5.41	11.57	-0.13
81	SLE RA 4	212	10	1994	-5.74	11.69	-0.14
81	SLE RA 5	213	10	2000	-5.97	11.76	-0.14
81	SLE RA 6	211	10	1984	-5.41	11.57	-0.13
81	SLE RA 7	212	10	1994	-5.74	11.69	-0.14
81	SLE RA 8	211	10	1984	-5.41	11.57	-0.13
81	SLE RA 9	212	10	1994	-5.74	11.69	-0.14
81	SLE RA 10	270	12	2319	-5.68	14.73	-0.16
81	SLE RA 11	268	12	2303	-5.11	14.54	-0.16
81	SLE RA 12	269	12	2313	-5.45	14.65	-0.16
81	SLE RA 13	270	12	2319	-5.68	14.73	-0.16
81	SLE RA 14	268	12	2303	-5.11	14.54	-0.16
81	SLE RA 15	269	12	2313	-5.45	14.65	-0.16
81	SLE RA 16	268	12	2303	-5.11	14.54	-0.16
81	SLE RA 17	269	12	2313	-5.45	14.65	-0.16
81	SLE RA 18	292	12	2439	-4.99	15.82	-0.17
81	SLE RA 19	294	13	2449	-5.33	15.93	-0.17
81	SLE RA 20	292	12	2439	-4.99	15.82	-0.17
81	SLE RA 21	294	13	2449	-5.33	15.93	-0.17
81	SLE FR 1	211	10	1984	-5.41	11.57	-0.13
81	SLE FR 2	211	10	1987	-5.52	11.61	-0.14
81	SLE FR 3	211	10	1984	-5.41	11.57	-0.13
81	SLE FR 4	236	11	2124	-5.39	12.88	-0.15
81	SLE FR 5	235	11	2120	-5.28	12.85	-0.14
81	SLE FR 6	251	11	2211	-5.2	13.7	-0.15
81	SLE QP 1	211	10	1984	-5.41	11.57	-0.13
81	SLE QP 2	235	11	2120	-5.28	12.85	-0.14
81	SLD 1	508	29	2394	-24	24.04	-0.39
81	SLD 2	508	29	2394	-24	24.04	-0.39
81	SLD 3	475	1	2310	7.74	22.61	-0.02
81	SLD 4	475	1	2310	7.74	22.61	-0.02
81	SLD 5	367	58	2331	-59.04	18.36	-0.77
81	SLD 6	367	58	2331	-59.04	18.36	-0.77
81	SLD 7	257	-34	2049	46.77	13.62	0.44
81	SLD 8	257	-34	2049	46.77	13.62	0.44
81	SLD 9	213	55	2192	-57.33	12.08	-0.73
81	SLD 10	213	55	2192	-57.33	12.08	-0.73
81	SLD 11	103	-36	1910	48.48	7.33	0.48
81	SLD 12	103	-36	1910	48.48	7.33	0.48
81	SLD 13	-5	20	1931	-18.3	3.08	-0.27
81	SLD 14	-5	20	1931	-18.3	3.08	-0.27
81	SLD 15	-38	-7	1846	13.44	1.66	0.1
81	SLD 16	-38	-7	1846	13.44	1.66	0.1
81	SLV 1	878	55	2773	-52.06	39.23	-0.73
81	SLV 2	878	55	2773	-52.06	39.23	-0.73
81	SLV 3	794	-13	2557	28	35.57	0.17
81	SLV 4	794	-13	2557	28	35.57	0.17
81	SLV 5	556	127	2644	-140.74	26.32	-1.69
81	SLV 6	556	127	2644	-140.74	26.32	-1.69
81	SLV 7	275	-99	1924	126.13	14.11	1.31
81	SLV 8	275	-99	1924	126.13	14.11	1.31
81	SLV 9	195	121	2317	-136.69	11.58	-1.6
81	SLV 10	195	121	2317	-136.69	11.58	-1.6
81	SLV 11	-86	-106	1597	130.18	-0.62	1.4
81	SLV 12	-86	-106	1597	130.18	-0.62	1.4
81	SLV 13	-324	34	1684	-38.56	-9.88	-0.45
81	SLV 14	-324	34	1684	-38.56	-9.88	-0.45
81	SLV 15	-408	-33	1468	41.5	-13.54	0.45
81	SLV 16	-408	-33	1468	41.5	-13.54	0.45
82	SLU 1	139	10	1992	-5.87	1.78	-0.12
82	SLU 2	141	11	2017	-6.52	1.77	-0.13
82	SLU 3	139	10	1992	-5.87	1.78	-0.12
82	SLU 4	140	10	2007	-6.26	1.77	-0.13
82	SLU 5	141	11	2017	-6.52	1.77	-0.13
82	SLU 6	139	10	1992	-5.87	1.78	-0.12
82	SLU 7	140	10	2007	-6.26	1.77	-0.13
82	SLU 8	139	10	1992	-5.87	1.78	-0.12
82	SLU 9	140	10	2007	-6.26	1.77	-0.13
82	SLU 10	199	14	2532	-6.81	2.65	-0.17
82	SLU 11	197	14	2508	-6.16	2.66	-0.16
82	SLU 12	198	14	2522	-6.55	2.65	-0.17
82	SLU 13	199	14	2532	-6.81	2.65	-0.17
82	SLU 14	197	14	2508	-6.16	2.66	-0.16
82	SLU 15	198	14	2522	-6.55	2.65	-0.17
82	SLU 16	197	14	2508	-6.16	2.66	-0.16
82	SLU 17	198	14	2522	-6.55	2.65	-0.17
82	SLU 18	222	15	2728	-6.28	3.03	-0.18
82	SLU 19	223	15	2743	-6.67	3.03	-0.18
82	SLU 20	222	15	2728	-6.28	3.03	-0.18
82	SLU 21	223	15	2743	-6.67	3.03	-0.18



Nodo	Cont.	Reazione a traslazione				Reazione a rotazione		
		x	y	z		x	y	z
82	SLU 22	169	12	2232		-6.14	2.29	-0.14
82	SLU 23	171	12	2256		-6.8	2.29	-0.15
82	SLU 24	169	12	2232		-6.14	2.29	-0.14
82	SLU 25	170	12	2246		-6.54	2.29	-0.15
82	SLU 26	171	12	2256		-6.8	2.29	-0.15
82	SLU 27	169	12	2232		-6.14	2.29	-0.14
82	SLU 28	170	12	2246		-6.54	2.29	-0.15
82	SLU 29	169	12	2232		-6.14	2.29	-0.14
82	SLU 30	170	12	2246		-6.54	2.29	-0.15
82	SLU 31	229	15	2771		-7.09	3.17	-0.19
82	SLU 32	227	15	2747		-6.44	3.17	-0.18
82	SLU 33	228	15	2762		-6.83	3.17	-0.18
82	SLU 34	229	15	2771		-7.09	3.17	-0.19
82	SLU 35	227	15	2747		-6.44	3.17	-0.18
82	SLU 36	228	15	2762		-6.83	3.17	-0.18
82	SLU 37	227	15	2747		-6.44	3.17	-0.18
82	SLU 38	228	15	2762		-6.83	3.17	-0.18
82	SLU 39	252	17	2968		-6.56	3.55	-0.2
82	SLU 40	253	17	2982		-6.95	3.54	-0.2
82	SLU 41	252	17	2968		-6.56	3.55	-0.2
82	SLU 42	253	17	2982		-6.95	3.54	-0.2
82	SLU 43	170	13	2508		-7.53	2.13	-0.16
82	SLU 44	173	13	2532		-8.19	2.13	-0.16
82	SLU 45	170	13	2508		-7.53	2.13	-0.16
82	SLU 46	172	13	2523		-7.92	2.13	-0.16
82	SLU 47	173	13	2532		-8.19	2.13	-0.16
82	SLU 48	170	13	2508		-7.53	2.13	-0.16
82	SLU 49	172	13	2523		-7.92	2.13	-0.16
82	SLU 50	170	13	2508		-7.53	2.13	-0.16
82	SLU 51	172	13	2523		-7.92	2.13	-0.16
82	SLU 52	231	16	3048		-8.48	3.01	-0.2
82	SLU 53	228	16	3023		-7.82	3.01	-0.2
82	SLU 54	230	16	3038		-8.21	3.01	-0.2
82	SLU 55	231	16	3048		-8.48	3.01	-0.2
82	SLU 56	228	16	3023		-7.82	3.01	-0.2
82	SLU 57	230	16	3038		-8.21	3.01	-0.2
82	SLU 58	228	16	3023		-7.82	3.01	-0.2
82	SLU 59	230	16	3038		-8.21	3.01	-0.2
82	SLU 60	253	18	3244		-7.95	3.39	-0.21
82	SLU 61	254	18	3259		-8.34	3.39	-0.21
82	SLU 62	253	18	3244		-7.95	3.39	-0.21
82	SLU 63	254	18	3259		-8.34	3.39	-0.21
82	SLU 64	200	14	2747		-7.81	2.65	-0.17
82	SLU 65	203	15	2772		-8.46	2.64	-0.18
82	SLU 66	200	14	2747		-7.81	2.65	-0.17
82	SLU 67	202	15	2762		-8.2	2.65	-0.18
82	SLU 68	203	15	2772		-8.46	2.64	-0.18
82	SLU 69	200	14	2747		-7.81	2.65	-0.17
82	SLU 70	202	15	2762		-8.2	2.65	-0.18
82	SLU 71	200	14	2747		-7.81	2.65	-0.17
82	SLU 72	202	15	2762		-8.2	2.65	-0.18
82	SLU 73	261	18	3287		-8.75	3.52	-0.22
82	SLU 74	258	18	3263		-8.1	3.53	-0.21
82	SLU 75	260	18	3277		-8.49	3.52	-0.22
82	SLU 76	261	18	3287		-8.75	3.52	-0.22
82	SLU 77	258	18	3263		-8.1	3.53	-0.21
82	SLU 78	260	18	3277		-8.49	3.52	-0.22
82	SLU 79	258	18	3263		-8.1	3.53	-0.21
82	SLU 80	260	18	3277		-8.49	3.52	-0.22
82	SLU 81	283	19	3483		-8.22	3.9	-0.23
82	SLU 82	285	19	3498		-8.62	3.9	-0.23
82	SLU 83	283	19	3483		-8.22	3.9	-0.23
82	SLU 84	285	19	3498		-8.62	3.9	-0.23
82	SLE RA 1	147	11	2061		-5.95	1.92	-0.13
82	SLE RA 2	149	11	2077		-6.38	1.92	-0.13
82	SLE RA 3	147	11	2061		-5.95	1.92	-0.13
82	SLE RA 4	148	11	2070		-6.21	1.92	-0.13
82	SLE RA 5	149	11	2077		-6.38	1.92	-0.13
82	SLE RA 6	147	11	2061		-5.95	1.92	-0.13
82	SLE RA 7	148	11	2070		-6.21	1.92	-0.13
82	SLE RA 8	147	11	2061		-5.95	1.92	-0.13
82	SLE RA 9	148	11	2070		-6.21	1.92	-0.13
82	SLE RA 10	188	13	2421		-6.58	2.51	-0.16
82	SLE RA 11	186	13	2404		-6.14	2.51	-0.16
82	SLE RA 12	187	13	2414		-6.4	2.51	-0.16
82	SLE RA 13	188	13	2421		-6.58	2.51	-0.16
82	SLE RA 14	186	13	2404		-6.14	2.51	-0.16
82	SLE RA 15	187	13	2414		-6.4	2.51	-0.16
82	SLE RA 16	186	13	2404		-6.14	2.51	-0.16
82	SLE RA 17	187	13	2414		-6.4	2.51	-0.16
82	SLE RA 18	203	14	2551		-6.22	2.76	-0.17
82	SLE RA 19	204	14	2561		-6.48	2.76	-0.17
82	SLE RA 20	203	14	2551		-6.22	2.76	-0.17
82	SLE RA 21	204	14	2561		-6.48	2.76	-0.17
82	SLE FR 1	147	11	2061		-5.95	1.92	-0.13
82	SLE FR 2	148	11	2064		-6.03	1.92	-0.13
82	SLE FR 3	147	11	2061		-5.95	1.92	-0.13
82	SLE FR 4	164	12	2211		-6.12	2.17	-0.14
82	SLE FR 5	164	12	2208		-6.03	2.18	-0.14
82	SLE FR 6	175	12	2306		-6.08	2.34	-0.15



Nodo	Cont.	Reazione a traslazione				Reazione a rotazione		
Ind.	N.br.	x	y	z		x	y	z
82	SLE QP 1	147	11	2061		-5.95	1.92	-0.13
82	SLE QP 2	164	12	2208		-6.03	2.18	-0.14
82	SLD 1	422	28	2479		-22.88	12.6	-0.34
82	SLD 2	422	28	2479		-22.88	12.6	-0.34
82	SLD 3	387	4	2401		5.01	11.29	-0.05
82	SLD 4	387	4	2401		5.01	11.29	-0.05
82	SLD 5	294	52	2407		-53.39	7.28	-0.64
82	SLD 6	294	52	2407		-53.39	7.28	-0.64
82	SLD 7	178	-26	2148		39.58	2.93	0.32
82	SLD 8	178	-26	2148		39.58	2.93	0.32
82	SLD 9	150	50	2267		-51.64	1.42	-0.61
82	SLD 10	150	50	2267		-51.64	1.42	-0.61
82	SLD 11	34	-29	2009		41.33	-2.93	0.36
82	SLD 12	34	-29	2009		41.33	-2.93	0.36
82	SLD 13	-59	19	2014		-17.07	-6.94	-0.23
82	SLD 14	-59	19	2014		-17.07	-6.94	-0.23
82	SLD 15	-94	-5	1937		10.83	-8.25	0.06
82	SLD 16	-94	-5	1937		10.83	-8.25	0.06
82	SLV 1	771	51	2852		-48.1	26.7	-0.62
82	SLV 2	771	51	2852		-48.1	26.7	-0.62
82	SLV 3	682	-7	2655		22.27	23.38	0.09
82	SLV 4	682	-7	2655		22.27	23.38	0.09
82	SLV 5	481	112	2700		-125.38	14.57	-1.37
82	SLV 6	481	112	2700		-125.38	14.57	-1.37
82	SLV 7	184	-82	2043		109.19	3.5	1.01
82	SLV 8	184	-82	2043		109.19	3.5	1.01
82	SLV 9	144	106	2372		-121.25	0.85	-1.3
82	SLV 10	144	106	2372		-121.25	0.85	-1.3
82	SLV 11	-154	-88	1716		113.32	-10.22	1.09
82	SLV 12	-154	-88	1716		113.32	-10.22	1.09
82	SLV 13	-354	30	1761		-34.33	-19.03	-0.38
82	SLV 14	-354	30	1761		-34.33	-19.03	-0.38
82	SLV 15	-443	-28	1564		36.04	-22.35	0.34
82	SLV 16	-443	-28	1564		36.04	-22.35	0.34
83	SLU 1	209	11	2099		-6.03	11.64	-0.11
83	SLU 2	214	11	2124		-6.5	11.96	-0.11
83	SLU 3	209	11	2099		-6.03	11.64	-0.11
83	SLU 4	212	11	2114		-6.31	11.83	-0.11
83	SLU 5	214	11	2124		-6.5	11.96	-0.11
83	SLU 6	209	11	2099		-6.03	11.64	-0.11
83	SLU 7	212	11	2114		-6.31	11.83	-0.11
83	SLU 8	209	11	2099		-6.03	11.64	-0.11
83	SLU 9	212	11	2114		-6.31	11.83	-0.11
83	SLU 10	293	15	2688		-7.47	16.31	-0.15
83	SLU 11	287	15	2663		-7.01	15.99	-0.15
83	SLU 12	291	15	2678		-7.29	16.18	-0.15
83	SLU 13	293	15	2688		-7.47	16.31	-0.15
83	SLU 14	287	15	2663		-7.01	15.99	-0.15
83	SLU 15	291	15	2678		-7.29	16.18	-0.15
83	SLU 16	287	15	2663		-7.01	15.99	-0.15
83	SLU 17	291	15	2678		-7.29	16.18	-0.15
83	SLU 18	321	16	2905		-7.43	17.85	-0.17
83	SLU 19	324	16	2920		-7.71	18.04	-0.17
83	SLU 20	321	16	2905		-7.43	17.85	-0.17
83	SLU 21	324	16	2920		-7.71	18.04	-0.17
83	SLU 22	251	12	2363		-6.61	13.87	-0.13
83	SLU 23	256	13	2388		-7.07	14.19	-0.13
83	SLU 24	251	12	2363		-6.61	13.87	-0.13
83	SLU 25	254	13	2378		-6.89	14.06	-0.13
83	SLU 26	256	13	2388		-7.07	14.19	-0.13
83	SLU 27	251	12	2363		-6.61	13.87	-0.13
83	SLU 28	254	13	2378		-6.89	14.06	-0.13
83	SLU 29	251	12	2363		-6.61	13.87	-0.13
83	SLU 30	254	13	2378		-6.89	14.06	-0.13
83	SLU 31	335	17	2952		-8.05	18.54	-0.17
83	SLU 32	329	16	2927		-7.58	18.22	-0.17
83	SLU 33	333	17	2942		-7.86	18.41	-0.17
83	SLU 34	335	17	2952		-8.05	18.54	-0.17
83	SLU 35	329	16	2927		-7.58	18.22	-0.17
83	SLU 36	333	17	2942		-7.86	18.41	-0.17
83	SLU 37	329	16	2927		-7.58	18.22	-0.17
83	SLU 38	333	17	2942		-7.86	18.41	-0.17
83	SLU 39	363	18	3169		-8	20.08	-0.19
83	SLU 40	366	18	3184		-8.28	20.28	-0.19
83	SLU 41	363	18	3169		-8	20.08	-0.19
83	SLU 42	366	18	3184		-8.28	20.28	-0.19
83	SLU 43	257	13	2638		-7.65	14.36	-0.13
83	SLU 44	263	13	2663		-8.11	14.68	-0.14
83	SLU 45	257	13	2638		-7.65	14.36	-0.13
83	SLU 46	260	13	2653		-7.93	14.55	-0.14
83	SLU 47	263	13	2663		-8.11	14.68	-0.14
83	SLU 48	257	13	2638		-7.65	14.36	-0.13
83	SLU 49	260	13	2653		-7.93	14.55	-0.14
83	SLU 50	257	13	2638		-7.65	14.36	-0.13
83	SLU 51	260	13	2653		-7.93	14.55	-0.14
83	SLU 52	341	17	3227		-9.09	19.03	-0.18
83	SLU 53	336	17	3202		-8.62	18.71	-0.17
83	SLU 54	339	17	3217		-8.9	18.9	-0.18
83	SLU 55	341	17	3227		-9.09	19.03	-0.18
83	SLU 56	336	17	3202		-8.62	18.71	-0.17



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
83	SLU 57	339	17	3217	-8.9	18.9	-0.18
83	SLU 58	336	17	3202	-8.62	18.71	-0.17
83	SLU 59	339	17	3217	-8.9	18.9	-0.18
83	SLU 60	369	19	3444	-9.04	20.57	-0.19
83	SLU 61	373	19	3459	-9.32	20.77	-0.19
83	SLU 62	369	19	3444	-9.04	20.57	-0.19
83	SLU 63	373	19	3459	-9.32	20.77	-0.19
83	SLU 64	299	15	2902	-8.22	16.59	-0.15
83	SLU 65	304	15	2927	-8.69	16.92	-0.16
83	SLU 66	299	15	2902	-8.22	16.59	-0.15
83	SLU 67	302	15	2917	-8.5	16.79	-0.15
83	SLU 68	304	15	2927	-8.69	16.92	-0.16
83	SLU 69	299	15	2902	-8.22	16.59	-0.15
83	SLU 70	302	15	2917	-8.5	16.79	-0.15
83	SLU 71	299	15	2902	-8.22	16.59	-0.15
83	SLU 72	302	15	2917	-8.5	16.79	-0.15
83	SLU 73	383	19	3491	-9.66	21.26	-0.2
83	SLU 74	378	19	3466	-9.2	20.94	-0.19
83	SLU 75	381	19	3481	-9.48	21.14	-0.2
83	SLU 76	383	19	3491	-9.66	21.26	-0.2
83	SLU 77	378	19	3466	-9.2	20.94	-0.19
83	SLU 78	381	19	3481	-9.48	21.14	-0.2
83	SLU 79	378	19	3466	-9.2	20.94	-0.19
83	SLU 80	381	19	3481	-9.48	21.14	-0.2
83	SLU 81	411	21	3708	-9.61	22.81	-0.21
83	SLU 82	415	21	3723	-9.89	23	-0.21
83	SLU 83	411	21	3708	-9.61	22.81	-0.21
83	SLU 84	415	21	3723	-9.89	23	-0.21
83	SLE RA 1	221	11	2174	-6.2	12.27	-0.11
83	SLE RA 2	224	11	2191	-6.51	12.49	-0.12
83	SLE RA 3	221	11	2174	-6.2	12.27	-0.11
83	SLE RA 4	223	11	2184	-6.38	12.4	-0.11
83	SLE RA 5	224	11	2191	-6.51	12.49	-0.12
83	SLE RA 6	221	11	2174	-6.2	12.27	-0.11
83	SLE RA 7	223	11	2184	-6.38	12.4	-0.11
83	SLE RA 8	221	11	2174	-6.2	12.27	-0.11
83	SLE RA 9	223	11	2184	-6.38	12.4	-0.11
83	SLE RA 10	277	14	2567	-7.16	15.39	-0.14
83	SLE RA 11	273	14	2550	-6.85	15.17	-0.14
83	SLE RA 12	275	14	2560	-7.03	15.3	-0.14
83	SLE RA 13	277	14	2567	-7.16	15.39	-0.14
83	SLE RA 14	273	14	2550	-6.85	15.17	-0.14
83	SLE RA 15	275	14	2560	-7.03	15.3	-0.14
83	SLE RA 16	273	14	2550	-6.85	15.17	-0.14
83	SLE RA 17	275	14	2560	-7.03	15.3	-0.14
83	SLE RA 18	296	15	2712	-7.13	16.42	-0.15
83	SLE RA 19	298	15	2722	-7.31	16.54	-0.15
83	SLE RA 20	296	15	2712	-7.13	16.42	-0.15
83	SLE RA 21	298	15	2722	-7.31	16.54	-0.15
83	SLE FR 1	221	11	2174	-6.2	12.27	-0.11
83	SLE FR 2	222	11	2178	-6.26	12.32	-0.11
83	SLE FR 3	221	11	2174	-6.2	12.27	-0.11
83	SLE FR 4	244	12	2339	-6.54	13.56	-0.13
83	SLE FR 5	243	12	2336	-6.48	13.52	-0.13
83	SLE FR 6	258	13	2443	-6.66	14.35	-0.13
83	SLE QP 1	221	11	2174	-6.2	12.27	-0.11
83	SLE QP 2	243	12	2336	-6.48	13.52	-0.13
83	SLD 1	452	7	2584	-20.75	22.13	-0.27
83	SLD 2	452	7	2584	-20.75	22.13	-0.27
83	SLD 3	494	26	2518	2.39	23.9	-0.07
83	SLD 4	494	26	2518	2.39	23.9	-0.07
83	SLD 5	243	-18	2510	-45.86	13.43	-0.48
83	SLD 6	243	-18	2510	-45.86	13.43	-0.48
83	SLD 7	382	45	2291	31.29	19.31	0.2
83	SLD 8	382	45	2291	31.29	19.31	0.2
83	SLD 9	105	-21	2380	-44.24	7.73	-0.45
83	SLD 10	105	-21	2380	-44.24	7.73	-0.45
83	SLD 11	244	43	2161	32.91	13.61	0.23
83	SLD 12	244	43	2161	32.91	13.61	0.23
83	SLD 13	-8	-1	2153	-15.35	3.13	-0.18
83	SLD 14	-8	-1	2153	-15.35	3.13	-0.18
83	SLD 15	34	18	2087	7.8	4.9	0.02
83	SLD 16	34	18	2087	7.8	4.9	0.02
83	SLV 1	728	-2	2926	-42.06	33.5	-0.48
83	SLV 2	728	-2	2926	-42.06	33.5	-0.48
83	SLV 3	837	45	2759	16.33	38.09	0.03
83	SLV 4	837	45	2759	16.33	38.09	0.03
83	SLV 5	224	-63	2765	-105.7	12.55	-0.99
83	SLV 6	224	-63	2765	-105.7	12.55	-0.99
83	SLV 7	586	93	2210	88.92	27.85	0.68
83	SLV 8	586	93	2210	88.92	27.85	0.68
83	SLV 9	-99	-68	2461	-101.87	-0.82	-0.93
83	SLV 10	-99	-68	2461	-101.87	-0.82	-0.93
83	SLV 11	262	87	1906	92.75	14.49	0.74
83	SLV 12	262	87	1906	92.75	14.49	0.74
83	SLV 13	-350	-21	1912	-29.28	-11.06	-0.28
83	SLV 14	-350	-21	1912	-29.28	-11.06	-0.28
83	SLV 15	-242	26	1745	29.11	-6.46	0.22
83	SLV 16	-242	26	1745	29.11	-6.46	0.22
84	SLU 1	120	10	2181	-5.67	0.47	-0.08





Nodo	Cont.	Reazione a traslazione				Reazione a rotazione			
		x	y	z		x	y	z	
84	SLU 2	124	10	2206		-5.96	0.51	-0.08	
84	SLU 3	120	10	2181		-5.67	0.47	-0.08	
84	SLU 4	122	10	2196		-5.84	0.49	-0.08	
84	SLU 5	124	10	2206		-5.96	0.51	-0.08	
84	SLU 6	120	10	2181		-5.67	0.47	-0.08	
84	SLU 7	122	10	2196		-5.84	0.49	-0.08	
84	SLU 8	120	10	2181		-5.67	0.47	-0.08	
84	SLU 9	122	10	2196		-5.84	0.49	-0.08	
84	SLU 10	164	14	2807		-7.4	0.43	-0.12	
84	SLU 11	161	14	2782		-7.11	0.4	-0.12	
84	SLU 12	163	14	2797		-7.28	0.41	-0.12	
84	SLU 13	164	14	2807		-7.4	0.43	-0.12	
84	SLU 14	161	14	2782		-7.11	0.4	-0.12	
84	SLU 15	163	14	2797		-7.28	0.41	-0.12	
84	SLU 16	161	14	2782		-7.11	0.4	-0.12	
84	SLU 17	163	14	2797		-7.28	0.41	-0.12	
84	SLU 18	178	16	3039		-7.73	0.36	-0.13	
84	SLU 19	180	16	3055		-7.9	0.38	-0.13	
84	SLU 20	178	16	3039		-7.73	0.36	-0.13	
84	SLU 21	180	16	3055		-7.9	0.38	-0.13	
84	SLU 22	146	12	2466		-6.44	0.71	-0.1	
84	SLU 23	150	12	2491		-6.73	0.74	-0.1	
84	SLU 24	146	12	2466		-6.44	0.71	-0.1	
84	SLU 25	148	12	2481		-6.61	0.73	-0.1	
84	SLU 26	150	12	2491		-6.73	0.74	-0.1	
84	SLU 27	146	12	2466		-6.44	0.71	-0.1	
84	SLU 28	148	12	2481		-6.61	0.73	-0.1	
84	SLU 29	146	12	2466		-6.44	0.71	-0.1	
84	SLU 30	148	12	2481		-6.61	0.73	-0.1	
84	SLU 31	190	16	3092		-8.17	0.66	-0.13	
84	SLU 32	187	16	3067		-7.88	0.63	-0.13	
84	SLU 33	189	16	3082		-8.05	0.65	-0.13	
84	SLU 34	190	16	3092		-8.17	0.66	-0.13	
84	SLU 35	187	16	3067		-7.88	0.63	-0.13	
84	SLU 36	189	16	3082		-8.05	0.65	-0.13	
84	SLU 37	187	16	3067		-7.88	0.63	-0.13	
84	SLU 38	189	16	3082		-8.05	0.65	-0.13	
84	SLU 39	204	18	3325		-8.5	0.59	-0.15	
84	SLU 40	206	18	3340		-8.67	0.61	-0.15	
84	SLU 41	204	18	3325		-8.5	0.59	-0.15	
84	SLU 42	206	18	3340		-8.67	0.61	-0.15	
84	SLU 43	147	12	2737		-7.1	0.54	-0.1	
84	SLU 44	151	12	2763		-7.39	0.57	-0.1	
84	SLU 45	147	12	2737		-7.1	0.54	-0.1	
84	SLU 46	149	12	2752		-7.28	0.56	-0.1	
84	SLU 47	151	12	2763		-7.39	0.57	-0.1	
84	SLU 48	147	12	2737		-7.1	0.54	-0.1	
84	SLU 49	149	12	2752		-7.28	0.56	-0.1	
84	SLU 50	147	12	2737		-7.1	0.54	-0.1	
84	SLU 51	149	12	2752		-7.28	0.56	-0.1	
84	SLU 52	191	17	3364		-8.84	0.49	-0.14	
84	SLU 53	188	17	3338		-8.55	0.46	-0.14	
84	SLU 54	190	17	3354		-8.72	0.48	-0.14	
84	SLU 55	191	17	3364		-8.84	0.49	-0.14	
84	SLU 56	188	17	3338		-8.55	0.46	-0.14	
84	SLU 57	190	17	3354		-8.72	0.48	-0.14	
84	SLU 58	188	17	3338		-8.55	0.46	-0.14	
84	SLU 59	190	17	3354		-8.72	0.48	-0.14	
84	SLU 60	205	18	3596		-9.16	0.42	-0.15	
84	SLU 61	207	18	3611		-9.34	0.44	-0.15	
84	SLU 62	205	18	3596		-9.16	0.42	-0.15	
84	SLU 63	207	18	3611		-9.34	0.44	-0.15	
84	SLU 64	173	14	3022		-7.87	0.77	-0.12	
84	SLU 65	177	14	3048		-8.16	0.8	-0.12	
84	SLU 66	173	14	3022		-7.87	0.77	-0.12	
84	SLU 67	175	14	3038		-8.05	0.79	-0.12	
84	SLU 68	177	14	3048		-8.16	0.8	-0.12	
84	SLU 69	173	14	3022		-7.87	0.77	-0.12	
84	SLU 70	175	14	3038		-8.05	0.79	-0.12	
84	SLU 71	173	14	3022		-7.87	0.77	-0.12	
84	SLU 72	175	14	3038		-8.05	0.79	-0.12	
84	SLU 73	217	19	3649		-9.61	0.72	-0.15	
84	SLU 74	214	19	3623		-9.32	0.69	-0.15	
84	SLU 75	216	19	3639		-9.49	0.71	-0.15	
84	SLU 76	217	19	3649		-9.61	0.72	-0.15	
84	SLU 77	214	19	3623		-9.32	0.69	-0.15	
84	SLU 78	216	19	3639		-9.49	0.71	-0.15	
84	SLU 79	214	19	3623		-9.32	0.69	-0.15	
84	SLU 80	216	19	3639		-9.49	0.71	-0.15	
84	SLU 81	231	21	3881		-9.93	0.66	-0.17	
84	SLU 82	233	21	3896		-10.11	0.67	-0.17	
84	SLU 83	231	21	3881		-9.93	0.66	-0.17	
84	SLU 84	233	21	3896		-10.11	0.67	-0.17	
84	SLE RA 1	128	10	2262		-5.89	0.54	-0.09	
84	SLE RA 2	130	10	2279		-6.08	0.56	-0.09	
84	SLE RA 3	128	10	2262		-5.89	0.54	-0.09	
84	SLE RA 4	129	10	2272		-6	0.55	-0.09	
84	SLE RA 5	130	10	2279		-6.08	0.56	-0.09	
84	SLE RA 6	128	10	2262		-5.89	0.54	-0.09	
84	SLE RA 7	129	10	2272		-6	0.55	-0.09	



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
84	SLE RA 8	128	10	2262	-5.89	0.54	-0.09
84	SLE RA 9	129	10	2272	-6	0.55	-0.09
84	SLE RA 10	157	13	2680	-7.04	0.51	-0.11
84	SLE RA 11	154	13	2663	-6.85	0.49	-0.11
84	SLE RA 12	156	13	2673	-6.96	0.5	-0.11
84	SLE RA 13	157	13	2680	-7.04	0.51	-0.11
84	SLE RA 14	154	13	2663	-6.85	0.49	-0.11
84	SLE RA 15	156	13	2673	-6.96	0.5	-0.11
84	SLE RA 16	154	13	2663	-6.85	0.49	-0.11
84	SLE RA 17	156	13	2673	-6.96	0.5	-0.11
84	SLE RA 18	166	15	2835	-7.26	0.47	-0.12
84	SLE RA 19	167	15	2845	-7.38	0.48	-0.12
84	SLE RA 20	166	15	2835	-7.26	0.47	-0.12
84	SLE RA 21	167	15	2845	-7.38	0.48	-0.12
84	SLE FR 1	128	10	2262	-5.89	0.54	-0.09
84	SLE FR 2	128	10	2266	-5.92	0.55	-0.09
84	SLE FR 3	128	10	2262	-5.89	0.54	-0.09
84	SLE FR 4	140	12	2437	-6.34	0.52	-0.1
84	SLE FR 5	139	12	2434	-6.3	0.52	-0.1
84	SLE FR 6	147	13	2548	-6.57	0.5	-0.1
84	SLE QP 1	128	10	2262	-5.89	0.54	-0.09
84	SLE QP 2	139	12	2434	-6.3	0.52	-0.1
84	SLD 1	342	8	2648	-17.54	8.89	-0.07
84	SLD 2	342	8	2648	-17.54	8.89	-0.07
84	SLD 3	384	22	2591	0.39	10.44	-0.19
84	SLD 4	384	22	2591	0.39	10.44	-0.19
84	SLD 5	136	-11	2585	-36.86	0.67	0.1
84	SLD 6	136	-11	2585	-36.86	0.67	0.1
84	SLD 7	276	37	2394	22.89	5.85	-0.32
84	SLD 8	276	37	2394	22.89	5.85	-0.32
84	SLD 9	2	-13	2474	-35.49	-4.82	0.12
84	SLD 10	2	-13	2474	-35.49	-4.82	0.12
84	SLD 11	142	35	2283	24.26	0.36	-0.3
84	SLD 12	142	35	2283	24.26	0.36	-0.3
84	SLD 13	-106	1	2277	-12.98	-9.41	0
84	SLD 14	-106	1	2277	-12.98	-9.41	0
84	SLD 15	-63	16	2220	4.94	-7.85	-0.13
84	SLD 16	-63	16	2220	4.94	-7.85	-0.13
84	SLV 1	608	2	2943	-34.3	19.92	-0.02
84	SLV 2	608	2	2943	-34.3	19.92	-0.02
84	SLV 3	718	37	2799	10.91	23.95	-0.33
84	SLV 4	718	37	2799	10.91	23.95	-0.33
84	SLV 5	113	-44	2806	-83.28	0.24	0.4
84	SLV 6	113	-44	2806	-83.28	0.24	0.4
84	SLV 7	479	73	2324	67.44	13.65	-0.64
84	SLV 8	479	73	2324	67.44	13.65	-0.64
84	SLV 9	-201	-49	2544	-80.04	-12.62	0.44
84	SLV 10	-201	-49	2544	-80.04	-12.62	0.44
84	SLV 11	165	68	2062	70.68	0.8	-0.59
84	SLV 12	165	68	2062	70.68	0.8	-0.59
84	SLV 13	-439	-13	2069	-23.51	-22.91	0.13
84	SLV 14	-439	-13	2069	-23.51	-22.91	0.13
84	SLV 15	-330	22	1925	21.7	-18.89	-0.18
84	SLV 16	-330	22	1925	21.7	-18.89	-0.18
85	SLU 1	186	8	2285	-4.58	11.3	-0.05
85	SLU 2	192	8	2312	-4.71	11.65	-0.05
85	SLU 3	186	8	2285	-4.58	11.3	-0.05
85	SLU 4	189	8	2301	-4.66	11.51	-0.05
85	SLU 5	192	8	2312	-4.71	11.65	-0.05
85	SLU 6	186	8	2285	-4.58	11.3	-0.05
85	SLU 7	189	8	2301	-4.66	11.51	-0.05
85	SLU 8	186	8	2285	-4.58	11.3	-0.05
85	SLU 9	189	8	2301	-4.66	11.51	-0.05
85	SLU 10	255	12	2957	-6.25	15.66	-0.07
85	SLU 11	249	12	2931	-6.11	15.31	-0.08
85	SLU 12	252	12	2947	-6.19	15.52	-0.08
85	SLU 13	255	12	2957	-6.25	15.66	-0.07
85	SLU 14	249	12	2931	-6.11	15.31	-0.08
85	SLU 15	252	12	2947	-6.19	15.52	-0.08
85	SLU 16	249	12	2931	-6.11	15.31	-0.08
85	SLU 17	252	12	2947	-6.19	15.52	-0.08
85	SLU 18	276	14	3207	-6.77	17.03	-0.09
85	SLU 19	279	13	3223	-6.85	17.24	-0.09
85	SLU 20	276	14	3207	-6.77	17.03	-0.09
85	SLU 21	279	13	3223	-6.85	17.24	-0.09
85	SLU 22	224	10	2595	-5.36	13.52	-0.06
85	SLU 23	230	9	2622	-5.5	13.87	-0.06
85	SLU 24	224	10	2595	-5.36	13.52	-0.06
85	SLU 25	228	9	2611	-5.45	13.73	-0.06
85	SLU 26	230	9	2622	-5.5	13.87	-0.06
85	SLU 27	224	10	2595	-5.36	13.52	-0.06
85	SLU 28	228	9	2611	-5.45	13.73	-0.06
85	SLU 29	224	10	2595	-5.36	13.52	-0.06
85	SLU 30	228	9	2611	-5.45	13.73	-0.06
85	SLU 31	293	14	3268	-7.04	17.88	-0.09
85	SLU 32	287	14	3241	-6.9	17.53	-0.09
85	SLU 33	291	14	3257	-6.98	17.74	-0.09
85	SLU 34	293	14	3268	-7.04	17.88	-0.09
85	SLU 35	287	14	3241	-6.9	17.53	-0.09
85	SLU 36	291	14	3257	-6.98	17.74	-0.09



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
85	SLU 37	287	14	3241	-6.9	17.53	-0.09
85	SLU 38	291	14	3257	-6.98	17.74	-0.09
85	SLU 39	314	15	3518	-7.56	19.25	-0.1
85	SLU 40	318	15	3534	-7.64	19.46	-0.1
85	SLU 41	314	15	3518	-7.56	19.25	-0.1
85	SLU 42	318	15	3534	-7.64	19.46	-0.1
85	SLU 43	228	9	2864	-5.68	13.93	-0.06
85	SLU 44	234	9	2890	-5.81	14.28	-0.06
85	SLU 45	228	9	2864	-5.68	13.93	-0.06
85	SLU 46	232	9	2880	-5.76	14.14	-0.06
85	SLU 47	234	9	2890	-5.81	14.28	-0.06
85	SLU 48	228	9	2864	-5.68	13.93	-0.06
85	SLU 49	232	9	2880	-5.76	14.14	-0.06
85	SLU 50	228	9	2864	-5.68	13.93	-0.06
85	SLU 51	232	9	2880	-5.76	14.14	-0.06
85	SLU 52	297	13	3536	-7.35	18.29	-0.09
85	SLU 53	291	13	3510	-7.22	17.94	-0.09
85	SLU 54	295	13	3526	-7.3	18.15	-0.09
85	SLU 55	297	13	3536	-7.35	18.29	-0.09
85	SLU 56	291	13	3510	-7.22	17.94	-0.09
85	SLU 57	295	13	3526	-7.3	18.15	-0.09
85	SLU 58	291	13	3510	-7.22	17.94	-0.09
85	SLU 59	295	13	3526	-7.3	18.15	-0.09
85	SLU 60	318	15	3786	-7.87	19.66	-0.1
85	SLU 61	322	15	3802	-7.95	19.87	-0.1
85	SLU 62	318	15	3786	-7.87	19.66	-0.1
85	SLU 63	322	15	3802	-7.95	19.87	-0.1
85	SLU 64	267	11	3174	-6.47	16.15	-0.07
85	SLU 65	273	11	3201	-6.6	16.5	-0.07
85	SLU 66	267	11	3174	-6.47	16.15	-0.07
85	SLU 67	270	11	3190	-6.55	16.36	-0.07
85	SLU 68	273	11	3201	-6.6	16.5	-0.07
85	SLU 69	267	11	3174	-6.47	16.15	-0.07
85	SLU 70	270	11	3190	-6.55	16.36	-0.07
85	SLU 71	267	11	3174	-6.47	16.15	-0.07
85	SLU 72	270	11	3190	-6.55	16.36	-0.07
85	SLU 73	336	15	3847	-8.14	20.51	-0.1
85	SLU 74	330	15	3820	-8	20.16	-0.1
85	SLU 75	333	15	3836	-8.08	20.37	-0.1
85	SLU 76	336	15	3847	-8.14	20.51	-0.1
85	SLU 77	330	15	3820	-8	20.16	-0.1
85	SLU 78	333	15	3836	-8.08	20.37	-0.1
85	SLU 79	330	15	3820	-8	20.16	-0.1
85	SLU 80	333	15	3836	-8.08	20.37	-0.1
85	SLU 81	357	17	4097	-8.66	21.88	-0.11
85	SLU 82	360	17	4113	-8.74	22.09	-0.11
85	SLU 83	357	17	4097	-8.66	21.88	-0.11
85	SLU 84	360	17	4113	-8.74	22.09	-0.11
85	SLE RA 1	197	8	2374	-4.8	11.93	-0.05
85	SLE RA 2	201	8	2391	-4.89	12.17	-0.05
85	SLE RA 3	197	8	2374	-4.8	11.93	-0.05
85	SLE RA 4	199	8	2384	-4.86	12.07	-0.05
85	SLE RA 5	201	8	2391	-4.89	12.17	-0.05
85	SLE RA 6	197	8	2374	-4.8	11.93	-0.05
85	SLE RA 7	199	8	2384	-4.86	12.07	-0.05
85	SLE RA 8	197	8	2374	-4.8	11.93	-0.05
85	SLE RA 9	199	8	2384	-4.86	12.07	-0.05
85	SLE RA 10	243	11	2822	-5.92	14.84	-0.07
85	SLE RA 11	239	11	2804	-5.83	14.61	-0.07
85	SLE RA 12	241	11	2815	-5.88	14.75	-0.07
85	SLE RA 13	243	11	2822	-5.92	14.84	-0.07
85	SLE RA 14	239	11	2804	-5.83	14.61	-0.07
85	SLE RA 15	241	11	2815	-5.88	14.75	-0.07
85	SLE RA 16	239	11	2804	-5.83	14.61	-0.07
85	SLE RA 17	241	11	2815	-5.88	14.75	-0.07
85	SLE RA 18	257	12	2989	-6.26	15.75	-0.08
85	SLE RA 19	259	12	2999	-6.32	15.89	-0.08
85	SLE RA 20	257	12	2989	-6.26	15.75	-0.08
85	SLE RA 21	259	12	2999	-6.32	15.89	-0.08
85	SLE FR 1	197	8	2374	-4.8	11.93	-0.05
85	SLE FR 2	198	8	2377	-4.82	11.98	-0.05
85	SLE FR 3	197	8	2374	-4.8	11.93	-0.05
85	SLE FR 4	215	9	2562	-5.26	13.13	-0.06
85	SLE FR 5	215	9	2558	-5.24	13.08	-0.06
85	SLE FR 6	227	10	2681	-5.53	13.84	-0.07
85	SLE QP 1	197	8	2374	-4.8	11.93	-0.05
85	SLE QP 2	215	9	2558	-5.24	13.08	-0.06
85	SLD 1	417	6	2681	-0.62	21.4	-0.04
85	SLD 2	417	6	2681	-0.62	21.4	-0.04
85	SLD 3	460	17	2738	-13.36	23.24	-0.11
85	SLD 4	460	17	2738	-13.36	23.24	-0.11
85	SLD 5	209	-8	2508	15.48	12.79	0.05
85	SLD 6	209	-8	2508	15.48	12.79	0.05
85	SLD 7	354	28	2698	-27.01	18.92	-0.18
85	SLD 8	354	28	2698	-27.01	18.92	-0.18
85	SLD 9	75	-10	2418	16.53	7.24	0.06
85	SLD 10	75	-10	2418	16.53	7.24	0.06
85	SLD 11	220	27	2608	-25.96	13.38	-0.17
85	SLD 12	220	27	2608	-25.96	13.38	-0.17
85	SLD 13	-31	1	2379	2.88	2.92	-0.01



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
Ind.	N.br.						
85	SLD 14	-31	1	2379	2.88	2.92	-0.01
85	SLD 15	13	12	2436	-9.87	4.76	-0.08
85	SLD 16	13	12	2436	-9.87	4.76	-0.08
85	SLV 1	682	2	2842	6.69	32.34	-0.01
85	SLV 2	682	2	2842	6.69	32.34	-0.01
85	SLV 3	796	29	2985	-25.49	37.16	-0.19
85	SLV 4	796	29	2985	-25.49	37.16	-0.19
85	SLV 5	182	-34	2425	47.15	11.55	0.22
85	SLV 6	182	-34	2425	47.15	11.55	0.22
85	SLV 7	562	56	2904	-60.13	27.61	-0.36
85	SLV 8	562	56	2904	-60.13	27.61	-0.36
85	SLV 9	-132	-37	2212	49.65	-1.45	0.24
85	SLV 10	-132	-37	2212	49.65	-1.45	0.24
85	SLV 11	247	53	2691	-57.64	14.61	-0.34
85	SLV 12	247	53	2691	-57.64	14.61	-0.34
85	SLV 13	-366	-10	2131	15.01	-11	0.07
85	SLV 14	-366	-10	2131	15.01	-11	0.07
85	SLV 15	-253	17	2275	-17.17	-6.18	-0.11
85	SLV 16	-253	17	2275	-17.17	-6.18	-0.11
86	SLU 1	58	4	2348	-2.85	-2.42	-0.02
86	SLU 2	62	3	2376	-2.85	-2.4	-0.02
86	SLU 3	58	4	2348	-2.85	-2.42	-0.02
86	SLU 4	60	3	2365	-2.85	-2.41	-0.02
86	SLU 5	62	3	2376	-2.85	-2.4	-0.02
86	SLU 6	58	4	2348	-2.85	-2.42	-0.02
86	SLU 7	60	3	2365	-2.85	-2.41	-0.02
86	SLU 8	58	4	2348	-2.85	-2.42	-0.02
86	SLU 9	60	3	2365	-2.85	-2.41	-0.02
86	SLU 10	74	6	3049	-4.03	-3.8	-0.04
86	SLU 11	70	6	3021	-4.03	-3.81	-0.04
86	SLU 12	72	6	3038	-4.03	-3.8	-0.04
86	SLU 13	74	6	3049	-4.03	-3.8	-0.04
86	SLU 14	70	6	3021	-4.03	-3.81	-0.04
86	SLU 15	72	6	3038	-4.03	-3.8	-0.04
86	SLU 16	70	6	3021	-4.03	-3.81	-0.04
86	SLU 17	72	6	3038	-4.03	-3.8	-0.04
86	SLU 18	75	7	3309	-4.53	-4.41	-0.04
86	SLU 19	77	7	3326	-4.54	-4.4	-0.04
86	SLU 20	75	7	3309	-4.53	-4.41	-0.04
86	SLU 21	77	7	3326	-4.54	-4.4	-0.04
86	SLU 22	74	5	2677	-3.45	-2.67	-0.03
86	SLU 23	78	5	2705	-3.45	-2.65	-0.03
86	SLU 24	74	5	2677	-3.45	-2.67	-0.03
86	SLU 25	77	5	2693	-3.45	-2.66	-0.03
86	SLU 26	78	5	2705	-3.45	-2.65	-0.03
86	SLU 27	74	5	2677	-3.45	-2.67	-0.03
86	SLU 28	77	5	2693	-3.45	-2.66	-0.03
86	SLU 29	74	5	2677	-3.45	-2.67	-0.03
86	SLU 30	77	5	2693	-3.45	-2.66	-0.03
86	SLU 31	90	7	3378	-4.63	-4.05	-0.04
86	SLU 32	86	8	3350	-4.63	-4.06	-0.04
86	SLU 33	89	7	3366	-4.63	-4.06	-0.04
86	SLU 34	90	7	3378	-4.63	-4.05	-0.04
86	SLU 35	86	8	3350	-4.63	-4.06	-0.04
86	SLU 36	89	7	3366	-4.63	-4.06	-0.04
86	SLU 37	86	8	3350	-4.63	-4.06	-0.04
86	SLU 38	89	7	3366	-4.63	-4.06	-0.04
86	SLU 39	92	9	3638	-5.13	-4.66	-0.05
86	SLU 40	94	9	3655	-5.14	-4.65	-0.05
86	SLU 41	92	9	3638	-5.13	-4.66	-0.05
86	SLU 42	94	9	3655	-5.14	-4.65	-0.05
86	SLU 43	70	4	2939	-3.5	-3.05	-0.03
86	SLU 44	73	4	2967	-3.5	-3.04	-0.03
86	SLU 45	70	4	2939	-3.5	-3.05	-0.03
86	SLU 46	72	4	2956	-3.5	-3.05	-0.03
86	SLU 47	73	4	2967	-3.5	-3.04	-0.03
86	SLU 48	70	4	2939	-3.5	-3.05	-0.03
86	SLU 49	72	4	2956	-3.5	-3.05	-0.03
86	SLU 50	70	4	2939	-3.5	-3.05	-0.03
86	SLU 51	72	4	2956	-3.5	-3.05	-0.03
86	SLU 52	85	7	3640	-4.68	-4.44	-0.04
86	SLU 53	82	7	3612	-4.68	-4.45	-0.04
86	SLU 54	84	7	3629	-4.68	-4.44	-0.04
86	SLU 55	85	7	3640	-4.68	-4.44	-0.04
86	SLU 56	82	7	3612	-4.68	-4.45	-0.04
86	SLU 57	84	7	3629	-4.68	-4.44	-0.04
86	SLU 58	82	7	3612	-4.68	-4.45	-0.04
86	SLU 59	84	7	3629	-4.68	-4.44	-0.04
86	SLU 60	87	8	3901	-5.18	-5.05	-0.05
86	SLU 61	89	8	3917	-5.18	-5.04	-0.05
86	SLU 62	87	8	3901	-5.18	-5.05	-0.05
86	SLU 63	89	8	3917	-5.18	-5.04	-0.05
86	SLU 64	86	5	3268	-4.1	-3.31	-0.03
86	SLU 65	90	5	3296	-4.1	-3.29	-0.03
86	SLU 66	86	5	3268	-4.1	-3.31	-0.03
86	SLU 67	88	5	3285	-4.1	-3.3	-0.03
86	SLU 68	90	5	3296	-4.1	-3.29	-0.03
86	SLU 69	86	5	3268	-4.1	-3.31	-0.03
86	SLU 70	88	5	3285	-4.1	-3.3	-0.03
86	SLU 71	86	5	3268	-4.1	-3.31	-0.03



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
86	SLU 72	88	5	3285	-4.1	-3.3	-0.03
86	SLU 73	102	8	3969	-5.28	-4.69	-0.05
86	SLU 74	98	8	3941	-5.28	-4.7	-0.05
86	SLU 75	100	8	3958	-5.28	-4.69	-0.05
86	SLU 76	102	8	3969	-5.28	-4.69	-0.05
86	SLU 77	98	8	3941	-5.28	-4.7	-0.05
86	SLU 78	100	8	3958	-5.28	-4.69	-0.05
86	SLU 79	98	8	3941	-5.28	-4.7	-0.05
86	SLU 80	100	8	3958	-5.28	-4.69	-0.05
86	SLU 81	103	9	4229	-5.78	-5.3	-0.05
86	SLU 82	105	9	4246	-5.78	-5.29	-0.05
86	SLU 83	103	9	4229	-5.78	-5.3	-0.05
86	SLU 84	105	9	4246	-5.78	-5.29	-0.05
86	SLE RA 1	63	4	2442	-3.02	-2.49	-0.03
86	SLE RA 2	65	4	2460	-3.02	-2.48	-0.02
86	SLE RA 3	63	4	2442	-3.02	-2.49	-0.03
86	SLE RA 4	64	4	2453	-3.02	-2.48	-0.02
86	SLE RA 5	65	4	2460	-3.02	-2.48	-0.02
86	SLE RA 6	63	4	2442	-3.02	-2.49	-0.03
86	SLE RA 7	64	4	2453	-3.02	-2.48	-0.02
86	SLE RA 8	63	4	2442	-3.02	-2.49	-0.03
86	SLE RA 9	64	4	2453	-3.02	-2.48	-0.02
86	SLE RA 10	73	6	2909	-3.81	-3.41	-0.03
86	SLE RA 11	71	6	2890	-3.81	-3.42	-0.03
86	SLE RA 12	72	6	2902	-3.81	-3.41	-0.03
86	SLE RA 13	73	6	2909	-3.81	-3.41	-0.03
86	SLE RA 14	71	6	2890	-3.81	-3.42	-0.03
86	SLE RA 15	72	6	2902	-3.81	-3.41	-0.03
86	SLE RA 16	71	6	2890	-3.81	-3.42	-0.03
86	SLE RA 17	72	6	2902	-3.81	-3.41	-0.03
86	SLE RA 18	74	7	3083	-4.14	-3.82	-0.04
86	SLE RA 19	76	6	3094	-4.14	-3.81	-0.04
86	SLE RA 20	74	7	3083	-4.14	-3.82	-0.04
86	SLE RA 21	76	6	3094	-4.14	-3.81	-0.04
86	SLE FR 1	63	4	2442	-3.02	-2.49	-0.03
86	SLE FR 2	63	4	2445	-3.02	-2.49	-0.02
86	SLE FR 3	63	4	2442	-3.02	-2.49	-0.03
86	SLE FR 4	67	5	2638	-3.36	-2.89	-0.03
86	SLE FR 5	66	5	2634	-3.36	-2.89	-0.03
86	SLE FR 6	68	5	2762	-3.58	-3.15	-0.03
86	SLE QP 1	63	4	2442	-3.02	-2.49	-0.03
86	SLE QP 2	66	5	2634	-3.36	-2.89	-0.03
86	SLD 1	273	2	2718	-0.49	7.05	-0.02
86	SLD 2	273	2	2718	-0.49	7.05	-0.02
86	SLD 3	309	12	2781	-8.59	5.61	-0.06
86	SLD 4	309	12	2781	-8.59	5.61	-0.06
86	SLD 5	73	-11	2563	9.79	2.28	0.03
86	SLD 6	73	-11	2563	9.79	2.28	0.03
86	SLD 7	195	22	2775	-17.22	-2.53	-0.1
86	SLD 8	195	22	2775	-17.22	-2.53	-0.1
86	SLD 9	-62	-12	2493	10.5	-3.25	0.04
86	SLD 10	-62	-12	2493	10.5	-3.25	0.04
86	SLD 11	60	21	2705	-16.51	-8.06	-0.09
86	SLD 12	60	21	2705	-16.51	-8.06	-0.09
86	SLD 13	-177	-2	2486	1.88	-11.38	0
86	SLD 14	-177	-2	2486	1.88	-11.38	0
86	SLD 15	-141	8	2550	-6.23	-12.82	-0.04
86	SLD 16	-141	8	2550	-6.23	-12.82	-0.04
86	SLV 1	545	-4	2826	4.08	20.57	0
86	SLV 2	545	-4	2826	4.08	20.57	0
86	SLV 3	641	22	2986	-16.46	16.81	-0.1
86	SLV 4	641	22	2986	-16.46	16.81	-0.1
86	SLV 5	65	-36	2449	30.03	9.86	0.12
86	SLV 6	65	-36	2449	30.03	9.86	0.12
86	SLV 7	384	48	2983	-38.45	-2.69	-0.19
86	SLV 8	384	48	2983	-38.45	-2.69	-0.19
86	SLV 9	-252	-39	2285	31.73	-3.09	0.14
86	SLV 10	-252	-39	2285	31.73	-3.09	0.14
86	SLV 11	68	46	2819	-36.75	-15.63	-0.18
86	SLV 12	68	46	2819	-36.75	-15.63	-0.18
86	SLV 13	-509	-12	2282	9.75	-22.58	0.04
86	SLV 14	-509	-12	2282	9.75	-22.58	0.04
86	SLV 15	-413	13	2442	-10.8	-26.34	-0.06
86	SLV 16	-413	13	2442	-10.8	-26.34	-0.06
87	SLU 1	124	-1	2394	-1.07	9.58	0
87	SLU 2	130	-1	2425	-0.93	9.9	-0.01
87	SLU 3	124	-1	2394	-1.07	9.58	0
87	SLU 4	128	-1	2413	-0.99	9.77	-0.01
87	SLU 5	130	-1	2425	-0.93	9.9	-0.01
87	SLU 6	124	-1	2394	-1.07	9.58	0
87	SLU 7	128	-1	2413	-0.99	9.77	-0.01
87	SLU 8	124	-1	2394	-1.07	9.58	0
87	SLU 9	128	-1	2413	-0.99	9.77	-0.01
87	SLU 10	170	-1	3118	-1.47	13.31	-0.01
87	SLU 11	164	0	3087	-1.61	12.98	-0.01
87	SLU 12	168	-1	3105	-1.52	13.18	-0.01
87	SLU 13	170	-1	3118	-1.47	13.31	-0.01
87	SLU 14	164	0	3087	-1.61	12.98	-0.01
87	SLU 15	168	-1	3105	-1.52	13.18	-0.01
87	SLU 16	164	0	3087	-1.61	12.98	-0.01



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
87	SLU 17	168	-1	3105	-1.52	13.18	-0.01
87	SLU 18	181	0	3384	-1.84	14.44	-0.01
87	SLU 19	185	0	3402	-1.76	14.63	-0.01
87	SLU 20	181	0	3384	-1.84	14.44	-0.01
87	SLU 21	185	0	3402	-1.76	14.63	-0.01
87	SLU 22	155	0	2738	-1.35	11.61	-0.01
87	SLU 23	160	-1	2769	-1.21	11.94	-0.01
87	SLU 24	155	0	2738	-1.35	11.61	-0.01
87	SLU 25	158	-1	2757	-1.27	11.81	-0.01
87	SLU 26	160	-1	2769	-1.21	11.94	-0.01
87	SLU 27	155	0	2738	-1.35	11.61	-0.01
87	SLU 28	158	-1	2757	-1.27	11.81	-0.01
87	SLU 29	155	0	2738	-1.35	11.61	-0.01
87	SLU 30	158	-1	2757	-1.27	11.81	-0.01
87	SLU 31	200	-1	3462	-1.75	15.34	-0.01
87	SLU 32	195	0	3431	-1.88	15.01	-0.01
87	SLU 33	198	0	3450	-1.8	15.21	-0.01
87	SLU 34	200	-1	3462	-1.75	15.34	-0.01
87	SLU 35	195	0	3431	-1.88	15.01	-0.01
87	SLU 36	198	0	3450	-1.8	15.21	-0.01
87	SLU 37	195	0	3431	-1.88	15.01	-0.01
87	SLU 38	198	0	3450	-1.8	15.21	-0.01
87	SLU 39	212	0	3728	-2.11	16.47	-0.02
87	SLU 40	215	0	3747	-2.03	16.67	-0.02
87	SLU 41	212	0	3728	-2.11	16.47	-0.02
87	SLU 42	215	0	3747	-2.03	16.67	-0.02
87	SLU 43	151	-1	2994	-1.29	11.75	-0.01
87	SLU 44	157	-2	3025	-1.16	12.08	-0.01
87	SLU 45	151	-1	2994	-1.29	11.75	-0.01
87	SLU 46	155	-1	3013	-1.21	11.95	-0.01
87	SLU 47	157	-2	3025	-1.16	12.08	-0.01
87	SLU 48	151	-1	2994	-1.29	11.75	-0.01
87	SLU 49	155	-1	3013	-1.21	11.95	-0.01
87	SLU 50	151	-1	2994	-1.29	11.75	-0.01
87	SLU 51	155	-1	3013	-1.21	11.95	-0.01
87	SLU 52	197	-1	3718	-1.7	15.48	-0.01
87	SLU 53	191	-1	3687	-1.83	15.15	-0.01
87	SLU 54	194	-1	3706	-1.75	15.35	-0.01
87	SLU 55	197	-1	3718	-1.7	15.48	-0.01
87	SLU 56	191	-1	3687	-1.83	15.15	-0.01
87	SLU 57	194	-1	3706	-1.75	15.35	-0.01
87	SLU 58	191	-1	3687	-1.83	15.15	-0.01
87	SLU 59	194	-1	3706	-1.75	15.35	-0.01
87	SLU 60	208	0	3984	-2.06	16.61	-0.01
87	SLU 61	211	-1	4003	-1.98	16.81	-0.01
87	SLU 62	208	0	3984	-2.06	16.61	-0.01
87	SLU 63	211	-1	4003	-1.98	16.81	-0.01
87	SLU 64	182	-1	3338	-1.57	13.79	-0.01
87	SLU 65	187	-1	3370	-1.44	14.11	-0.01
87	SLU 66	182	-1	3338	-1.57	13.79	-0.01
87	SLU 67	185	-1	3357	-1.49	13.98	-0.01
87	SLU 68	187	-1	3370	-1.44	14.11	-0.01
87	SLU 69	182	-1	3338	-1.57	13.79	-0.01
87	SLU 70	185	-1	3357	-1.49	13.98	-0.01
87	SLU 71	182	-1	3338	-1.57	13.79	-0.01
87	SLU 72	185	-1	3357	-1.49	13.98	-0.01
87	SLU 73	227	-1	4062	-1.97	17.52	-0.01
87	SLU 74	221	0	4031	-2.11	17.19	-0.01
87	SLU 75	225	-1	4050	-2.03	17.39	-0.01
87	SLU 76	227	-1	4062	-1.97	17.52	-0.01
87	SLU 77	221	0	4031	-2.11	17.19	-0.01
87	SLU 78	225	-1	4050	-2.03	17.39	-0.01
87	SLU 79	221	0	4031	-2.11	17.19	-0.01
87	SLU 80	225	-1	4050	-2.03	17.39	-0.01
87	SLU 81	238	0	4328	-2.34	18.65	-0.02
87	SLU 82	242	0	4347	-2.26	18.84	-0.02
87	SLU 83	238	0	4328	-2.34	18.65	-0.02
87	SLU 84	242	0	4347	-2.26	18.84	-0.02
87	SLE RA 1	133	-1	2492	-1.15	10.16	-0.01
87	SLE RA 2	137	-1	2513	-1.06	10.38	-0.01
87	SLE RA 3	133	-1	2492	-1.15	10.16	-0.01
87	SLE RA 4	135	-1	2505	-1.09	10.29	-0.01
87	SLE RA 5	137	-1	2513	-1.06	10.38	-0.01
87	SLE RA 6	133	-1	2492	-1.15	10.16	-0.01
87	SLE RA 7	135	-1	2505	-1.09	10.29	-0.01
87	SLE RA 8	133	-1	2492	-1.15	10.16	-0.01
87	SLE RA 9	135	-1	2505	-1.09	10.29	-0.01
87	SLE RA 10	163	-1	2975	-1.42	12.64	-0.01
87	SLE RA 11	160	0	2954	-1.51	12.43	-0.01
87	SLE RA 12	162	-1	2967	-1.45	12.56	-0.01
87	SLE RA 13	163	-1	2975	-1.42	12.64	-0.01
87	SLE RA 14	160	0	2954	-1.51	12.43	-0.01
87	SLE RA 15	162	-1	2967	-1.45	12.56	-0.01
87	SLE RA 16	160	0	2954	-1.51	12.43	-0.01
87	SLE RA 17	162	-1	2967	-1.45	12.56	-0.01
87	SLE RA 18	171	0	3152	-1.66	13.4	-0.01
87	SLE RA 19	173	0	3165	-1.61	13.53	-0.01
87	SLE RA 20	171	0	3152	-1.66	13.4	-0.01
87	SLE RA 21	173	0	3165	-1.61	13.53	-0.01
87	SLE FR 1	133	-1	2492	-1.15	10.16	-0.01



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
87	SLE FR 2	134	-1	2496	-1.13	10.2	-0.01
87	SLE FR 3	133	-1	2492	-1.15	10.16	-0.01
87	SLE FR 4	145	-1	2694	-1.28	11.17	-0.01
87	SLE FR 5	144	-1	2690	-1.3	11.13	-0.01
87	SLE FR 6	152	0	2822	-1.4	11.78	-0.01
87	SLE QP 1	133	-1	2492	-1.15	10.16	-0.01
87	SLE QP 2	144	-1	2690	-1.3	11.13	-0.01
87	SLD 1	357	-6	2745	0.14	19.88	0.01
87	SLD 2	357	-6	2745	0.14	19.88	0.01
87	SLD 3	390	2	2812	-3.92	21.28	-0.02
87	SLD 4	390	2	2812	-3.92	21.28	-0.02
87	SLD 5	159	-14	2605	5.29	11.64	0.04
87	SLD 6	159	-14	2605	5.29	11.64	0.04
87	SLD 7	267	12	2828	-8.25	16.29	-0.05
87	SLD 8	267	12	2828	-8.25	16.29	-0.05
87	SLD 9	22	-13	2552	5.64	5.97	0.04
87	SLD 10	22	-13	2552	5.64	5.97	0.04
87	SLD 11	130	13	2775	-7.89	10.62	-0.06
87	SLD 12	130	13	2775	-7.89	10.62	-0.06
87	SLD 13	-101	-3	2569	1.32	0.99	0
87	SLD 14	-101	-3	2569	1.32	0.99	0
87	SLD 15	-68	4	2636	-2.74	2.38	-0.03
87	SLD 16	-68	4	2636	-2.74	2.38	-0.03
87	SLV 1	639	-13	2812	2.43	31.45	0.04
87	SLV 2	639	-13	2812	2.43	31.45	0.04
87	SLV 3	724	7	2981	-7.9	35.12	-0.03
87	SLV 4	724	7	2981	-7.9	35.12	-0.03
87	SLV 5	164	-34	2471	15.5	11.66	0.12
87	SLV 6	164	-34	2471	15.5	11.66	0.12
87	SLV 7	447	31	3033	-18.96	23.9	-0.12
87	SLV 8	447	31	3033	-18.96	23.9	-0.12
87	SLV 9	-158	-32	2347	16.35	-1.64	0.11
87	SLV 10	-158	-32	2347	16.35	-1.64	0.11
87	SLV 11	125	33	2909	-18.1	10.6	-0.13
87	SLV 12	125	33	2909	-18.1	10.6	-0.13
87	SLV 13	-435	-8	2399	5.3	-12.86	0.02
87	SLV 14	-435	-8	2399	5.3	-12.86	0.02
87	SLV 15	-350	12	2568	-5.04	-9.19	-0.06
87	SLV 16	-350	12	2568	-5.04	-9.19	-0.06
88	SLU 1	9	-13	3801	-0.09	-4.76	0
88	SLU 2	9	-69	3863	2.2	-4.88	0
88	SLU 3	9	-13	3801	-0.09	-4.76	0
88	SLU 4	9	-46	3838	1.29	-4.83	0
88	SLU 5	9	-69	3863	2.2	-4.88	0
88	SLU 6	9	-13	3801	-0.09	-4.76	0
88	SLU 7	9	-46	3838	1.29	-4.83	0
88	SLU 8	9	-13	3801	-0.09	-4.76	0
88	SLU 9	9	-46	3838	1.29	-4.83	0
88	SLU 10	9	-74	4953	2.21	-6.97	0
88	SLU 11	10	-18	4891	-0.09	-6.84	0
88	SLU 12	9	-52	4928	1.29	-6.92	0
88	SLU 13	9	-74	4953	2.21	-6.97	0
88	SLU 14	10	-18	4891	-0.09	-6.84	0
88	SLU 15	9	-52	4928	1.29	-6.92	0
88	SLU 16	10	-18	4891	-0.09	-6.84	0
88	SLU 17	9	-52	4928	1.29	-6.92	0
88	SLU 18	10	-20	5358	-0.08	-7.74	0
88	SLU 19	10	-54	5395	1.29	-7.81	0
88	SLU 20	10	-20	5358	-0.08	-7.74	0
88	SLU 21	10	-54	5395	1.29	-7.81	0
88	SLU 22	23	-15	4353	-0.1	-5.24	0
88	SLU 23	22	-71	4414	2.2	-5.36	0
88	SLU 24	23	-15	4353	-0.1	-5.24	0
88	SLU 25	22	-49	4389	1.28	-5.31	0
88	SLU 26	22	-71	4414	2.2	-5.36	0
88	SLU 27	23	-15	4353	-0.1	-5.24	0
88	SLU 28	22	-49	4389	1.28	-5.31	0
88	SLU 29	23	-15	4353	-0.1	-5.24	0
88	SLU 30	22	-49	4389	1.28	-5.31	0
88	SLU 31	23	-77	5504	2.2	-7.44	0
88	SLU 32	23	-20	5442	-0.09	-7.32	0
88	SLU 33	23	-54	5479	1.29	-7.4	0
88	SLU 34	23	-77	5504	2.2	-7.44	0
88	SLU 35	23	-20	5442	-0.09	-7.32	0
88	SLU 36	23	-54	5479	1.29	-7.4	0
88	SLU 37	23	-20	5442	-0.09	-7.32	0
88	SLU 38	23	-54	5479	1.29	-7.4	0
88	SLU 39	23	-23	5910	-0.09	-8.22	0
88	SLU 40	23	-56	5946	1.29	-8.29	0
88	SLU 41	23	-23	5910	-0.09	-8.22	0
88	SLU 42	23	-56	5946	1.29	-8.29	0
88	SLU 43	7	-16	4753	-0.12	-6.02	0
88	SLU 44	7	-72	4814	2.18	-6.14	0
88	SLU 45	7	-16	4753	-0.12	-6.02	0
88	SLU 46	7	-49	4790	1.26	-6.09	0
88	SLU 47	7	-72	4814	2.18	-6.14	0
88	SLU 48	7	-16	4753	-0.12	-6.02	0
88	SLU 49	7	-49	4790	1.26	-6.09	0
88	SLU 50	7	-16	4753	-0.12	-6.02	0
88	SLU 51	7	-49	4790	1.26	-6.09	0



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
88	SLU 52	7	-77	5904	2.18	-8.23	0
88	SLU 53	8	-21	5843	-0.11	-8.11	0
88	SLU 54	7	-55	5880	1.27	-8.18	0
88	SLU 55	7	-77	5904	2.18	-8.23	0
88	SLU 56	8	-21	5843	-0.11	-8.11	0
88	SLU 57	7	-55	5880	1.27	-8.18	0
88	SLU 58	8	-21	5843	-0.11	-8.11	0
88	SLU 59	7	-55	5880	1.27	-8.18	0
88	SLU 60	8	-23	6310	-0.11	-9	0
88	SLU 61	8	-57	6347	1.27	-9.07	0
88	SLU 62	8	-23	6310	-0.11	-9	0
88	SLU 63	8	-57	6347	1.27	-9.07	0
88	SLU 64	21	-18	5304	-0.12	-6.5	0
88	SLU 65	20	-74	5365	2.17	-6.62	0
88	SLU 66	21	-18	5304	-0.12	-6.5	0
88	SLU 67	20	-52	5341	1.26	-6.57	0
88	SLU 68	20	-74	5365	2.17	-6.62	0
88	SLU 69	21	-18	5304	-0.12	-6.5	0
88	SLU 70	20	-52	5341	1.26	-6.57	0
88	SLU 71	21	-18	5304	-0.12	-6.5	0
88	SLU 72	20	-52	5341	1.26	-6.57	0
88	SLU 73	21	-80	6455	2.18	-8.71	0
88	SLU 74	21	-23	6394	-0.12	-8.59	0
88	SLU 75	21	-57	6431	1.26	-8.66	0
88	SLU 76	21	-80	6455	2.18	-8.71	0
88	SLU 77	21	-23	6394	-0.12	-8.59	0
88	SLU 78	21	-57	6431	1.26	-8.66	0
88	SLU 79	21	-23	6394	-0.12	-8.59	0
88	SLU 80	21	-57	6431	1.26	-8.66	0
88	SLU 81	21	-26	6861	-0.11	-9.48	0
88	SLU 82	21	-59	6898	1.26	-9.55	0
88	SLU 83	21	-26	6861	-0.11	-9.48	0
88	SLU 84	21	-59	6898	1.26	-9.55	0
88	SLE RA 1	13	-13	3959	-0.09	-4.89	0
88	SLE RA 2	13	-51	4000	1.44	-4.98	0
88	SLE RA 3	13	-13	3959	-0.09	-4.89	0
88	SLE RA 4	13	-36	3983	0.83	-4.94	0
88	SLE RA 5	13	-51	4000	1.44	-4.98	0
88	SLE RA 6	13	-13	3959	-0.09	-4.89	0
88	SLE RA 7	13	-36	3983	0.83	-4.94	0
88	SLE RA 8	13	-13	3959	-0.09	-4.89	0
88	SLE RA 9	13	-36	3983	0.83	-4.94	0
88	SLE RA 10	13	-54	4726	1.44	-6.37	0
88	SLE RA 11	13	-17	4685	-0.09	-6.29	0
88	SLE RA 12	13	-39	4710	0.83	-6.33	0
88	SLE RA 13	13	-54	4726	1.44	-6.37	0
88	SLE RA 14	13	-17	4685	-0.09	-6.29	0
88	SLE RA 15	13	-39	4710	0.83	-6.33	0
88	SLE RA 16	13	-17	4685	-0.09	-6.29	0
88	SLE RA 17	13	-39	4710	0.83	-6.33	0
88	SLE RA 18	13	-18	4997	-0.09	-6.88	0
88	SLE RA 19	13	-41	5021	0.83	-6.93	0
88	SLE RA 20	13	-18	4997	-0.09	-6.88	0
88	SLE RA 21	13	-41	5021	0.83	-6.93	0
88	SLE FR 1	13	-13	3959	-0.09	-4.89	0
88	SLE FR 2	13	-21	3967	0.21	-4.91	0
88	SLE FR 3	13	-13	3959	-0.09	-4.89	0
88	SLE FR 4	13	-22	4278	0.22	-5.51	0
88	SLE FR 5	13	-15	4270	-0.09	-5.49	0
88	SLE FR 6	13	-16	4478	-0.09	-5.89	0
88	SLE QP 1	13	-13	3959	-0.09	-4.89	0
88	SLE QP 2	13	-15	4270	-0.09	-5.49	0
88	SLD 1	269	23	4109	-1.81	5.16	0
88	SLD 2	269	23	4109	-1.81	5.16	0
88	SLD 3	236	-79	4211	2.79	3.61	0
88	SLD 4	236	-79	4211	2.79	3.61	0
88	SLD 5	140	151	4066	-7.58	0.05	0.01
88	SLD 6	140	151	4066	-7.58	0.05	0.01
88	SLD 7	30	-189	4408	7.75	-5.11	-0.01
88	SLD 8	30	-189	4408	7.75	-5.11	-0.01
88	SLD 9	-4	159	4133	-7.93	-5.87	0.01
88	SLD 10	-4	159	4133	-7.93	-5.87	0.01
88	SLD 11	-114	-180	4474	7.4	-11.03	-0.01
88	SLD 12	-114	-180	4474	7.4	-11.03	-0.01
88	SLD 13	-210	50	4329	-2.97	-14.59	0
88	SLD 14	-210	50	4329	-2.97	-14.59	0
88	SLD 15	-243	-52	4432	1.63	-16.14	-0.01
88	SLD 16	-243	-52	4432	1.63	-16.14	-0.01
88	SLV 1	616	76	3881	-4.27	19.63	0.01
88	SLV 2	616	76	3881	-4.27	19.63	0.01
88	SLV 3	532	-170	4140	6.83	15.67	0
88	SLV 4	532	-170	4140	6.83	15.67	0
88	SLV 5	322	386	3760	-18.19	8.06	0.02
88	SLV 6	322	386	3760	-18.19	8.06	0.02
88	SLV 7	40	-435	4624	18.83	-5.16	-0.02
88	SLV 8	40	-435	4624	18.83	-5.16	-0.02
88	SLV 9	-14	405	3916	-19.01	-5.82	0.02
88	SLV 10	-14	405	3916	-19.01	-5.82	0.02
88	SLV 11	-296	-416	4780	18.01	-19.04	-0.02
88	SLV 12	-296	-416	4780	18.01	-19.04	-0.02





Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
88	SLV 13	-506	140	4401	-7.01	-26.65	0
88	SLV 14	-506	140	4401	-7.01	-26.65	0
88	SLV 15	-590	-106	4660	4.09	-30.61	-0.01
88	SLV 16	-590	-106	4660	4.09	-30.61	-0.01
89	SLU 1	100	-1	2631	-0.26	8.34	0.01
89	SLU 2	99	-2	2660	-0.06	8.45	0.01
89	SLU 3	100	-1	2631	-0.26	8.34	0.01
89	SLU 4	100	-1	2648	-0.14	8.41	0.01
89	SLU 5	99	-2	2660	-0.06	8.45	0.01
89	SLU 6	100	-1	2631	-0.26	8.34	0.01
89	SLU 7	100	-1	2648	-0.14	8.41	0.01
89	SLU 8	100	-1	2631	-0.26	8.34	0.01
89	SLU 9	100	-1	2648	-0.14	8.41	0.01
89	SLU 10	143	-1	3466	-0.13	11.81	0.01
89	SLU 11	144	0	3438	-0.33	11.71	0.01
89	SLU 12	144	-1	3455	-0.21	11.77	0.01
89	SLU 13	143	-1	3466	-0.13	11.81	0.01
89	SLU 14	144	0	3438	-0.33	11.71	0.01
89	SLU 15	144	-1	3455	-0.21	11.77	0.01
89	SLU 16	144	0	3438	-0.33	11.71	0.01
89	SLU 17	144	-1	3455	-0.21	11.77	0.01
89	SLU 18	163	0	3784	-0.36	13.15	0.01
89	SLU 19	163	-1	3801	-0.24	13.21	0.01
89	SLU 20	163	0	3784	-0.36	13.15	0.01
89	SLU 21	163	-1	3801	-0.24	13.21	0.01
89	SLU 22	135	-1	3047	-0.25	10.41	0.01
89	SLU 23	134	-1	3076	-0.05	10.52	0.01
89	SLU 24	135	-1	3047	-0.25	10.41	0.01
89	SLU 25	134	-1	3064	-0.13	10.48	0.01
89	SLU 26	134	-1	3076	-0.05	10.52	0.01
89	SLU 27	135	-1	3047	-0.25	10.41	0.01
89	SLU 28	134	-1	3064	-0.13	10.48	0.01
89	SLU 29	135	-1	3047	-0.25	10.41	0.01
89	SLU 30	134	-1	3064	-0.13	10.48	0.01
89	SLU 31	178	-1	3882	-0.13	13.89	0.01
89	SLU 32	179	0	3854	-0.33	13.78	0.01
89	SLU 33	178	-1	3871	-0.21	13.85	0.01
89	SLU 34	178	-1	3882	-0.13	13.89	0.01
89	SLU 35	179	0	3854	-0.33	13.78	0.01
89	SLU 36	178	-1	3871	-0.21	13.85	0.01
89	SLU 37	179	0	3854	-0.33	13.78	0.01
89	SLU 38	178	-1	3871	-0.21	13.85	0.01
89	SLU 39	198	0	4200	-0.36	15.22	0.02
89	SLU 40	197	0	4217	-0.24	15.29	0.02
89	SLU 41	198	0	4200	-0.36	15.22	0.02
89	SLU 42	197	0	4217	-0.24	15.29	0.02
89	SLU 43	119	-1	3278	-0.33	10.13	0.01
89	SLU 44	118	-2	3306	-0.13	10.24	0.01
89	SLU 45	119	-1	3278	-0.33	10.13	0.01
89	SLU 46	118	-2	3295	-0.21	10.2	0.01
89	SLU 47	118	-2	3306	-0.13	10.24	0.01
89	SLU 48	119	-1	3278	-0.33	10.13	0.01
89	SLU 49	118	-2	3295	-0.21	10.2	0.01
89	SLU 50	119	-1	3278	-0.33	10.13	0.01
89	SLU 51	118	-2	3295	-0.21	10.2	0.01
89	SLU 52	162	-1	4113	-0.21	13.61	0.01
89	SLU 53	163	-1	4085	-0.41	13.5	0.01
89	SLU 54	162	-1	4102	-0.29	13.56	0.01
89	SLU 55	162	-1	4113	-0.21	13.61	0.01
89	SLU 56	163	-1	4085	-0.41	13.5	0.01
89	SLU 57	162	-1	4102	-0.29	13.56	0.01
89	SLU 58	163	-1	4085	-0.41	13.5	0.01
89	SLU 59	162	-1	4102	-0.29	13.56	0.01
89	SLU 60	182	-1	4430	-0.44	14.94	0.01
89	SLU 61	181	-1	4447	-0.32	15	0.02
89	SLU 62	182	-1	4430	-0.44	14.94	0.01
89	SLU 63	181	-1	4447	-0.32	15	0.02
89	SLU 64	153	-1	3694	-0.33	12.21	0.01
89	SLU 65	152	-2	3722	-0.13	12.31	0.01
89	SLU 66	153	-1	3694	-0.33	12.21	0.01
89	SLU 67	152	-2	3711	-0.21	12.27	0.01
89	SLU 68	152	-2	3722	-0.13	12.31	0.01
89	SLU 69	153	-1	3694	-0.33	12.21	0.01
89	SLU 70	152	-2	3711	-0.21	12.27	0.01
89	SLU 71	153	-1	3694	-0.33	12.21	0.01
89	SLU 72	152	-2	3711	-0.21	12.27	0.01
89	SLU 73	196	-1	4529	-0.2	15.68	0.02
89	SLU 74	197	-1	4501	-0.4	15.57	0.01
89	SLU 75	196	-1	4518	-0.28	15.64	0.02
89	SLU 76	196	-1	4529	-0.2	15.68	0.02
89	SLU 77	197	-1	4501	-0.4	15.57	0.01
89	SLU 78	196	-1	4518	-0.28	15.64	0.02
89	SLU 79	197	-1	4501	-0.4	15.57	0.01
89	SLU 80	196	-1	4518	-0.28	15.64	0.02
89	SLU 81	216	0	4846	-0.44	17.01	0.02
89	SLU 82	215	-1	4863	-0.32	17.08	0.02
89	SLU 83	216	0	4846	-0.44	17.01	0.02
89	SLU 84	215	-1	4863	-0.32	17.08	0.02
89	SLE RA 1	110	-1	2750	-0.25	8.93	0.01
89	SLE RA 2	110	-1	2769	-0.12	9.01	0.01



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
89	SLE RA 3	110	-1	2750	-0.25	8.93	0.01
89	SLE RA 4	110	-1	2762	-0.17	8.98	0.01
89	SLE RA 5	110	-1	2769	-0.12	9.01	0.01
89	SLE RA 6	110	-1	2750	-0.25	8.93	0.01
89	SLE RA 7	110	-1	2762	-0.17	8.98	0.01
89	SLE RA 8	110	-1	2750	-0.25	8.93	0.01
89	SLE RA 9	110	-1	2762	-0.17	8.98	0.01
89	SLE RA 10	139	-1	3307	-0.17	11.25	0.01
89	SLE RA 11	140	-1	3288	-0.3	11.18	0.01
89	SLE RA 12	139	-1	3299	-0.22	11.22	0.01
89	SLE RA 13	139	-1	3307	-0.17	11.25	0.01
89	SLE RA 14	140	-1	3288	-0.3	11.18	0.01
89	SLE RA 15	139	-1	3299	-0.22	11.22	0.01
89	SLE RA 16	140	-1	3288	-0.3	11.18	0.01
89	SLE RA 17	139	-1	3299	-0.22	11.22	0.01
89	SLE RA 18	152	0	3518	-0.33	12.14	0.01
89	SLE RA 19	152	-1	3530	-0.25	12.18	0.01
89	SLE RA 20	152	0	3518	-0.33	12.14	0.01
89	SLE RA 21	152	-1	3530	-0.25	12.18	0.01
89	SLE FR 1	110	-1	2750	-0.25	8.93	0.01
89	SLE FR 2	110	-1	2754	-0.23	8.95	0.01
89	SLE FR 3	110	-1	2750	-0.25	8.93	0.01
89	SLE FR 4	123	-1	2984	-0.25	9.91	0.01
89	SLE FR 5	123	-1	2981	-0.28	9.89	0.01
89	SLE FR 6	131	-1	3134	-0.29	10.54	0.01
89	SLE QP 1	110	-1	2750	-0.25	8.93	0.01
89	SLE QP 2	123	-1	2981	-0.28	9.89	0.01
89	SLD 1	359	-6	2862	-1.95	19.7	0
89	SLD 2	359	-6	2862	-1.95	19.7	0
89	SLD 3	392	1	2933	2.63	20.86	0.02
89	SLD 4	392	1	2933	2.63	20.86	0.02
89	SLD 5	143	-13	2839	-7.72	11.08	-0.02
89	SLD 6	143	-13	2839	-7.72	11.08	-0.02
89	SLD 7	254	11	3072	7.54	14.94	0.04
89	SLD 8	254	11	3072	7.54	14.94	0.04
89	SLD 9	-8	-12	2889	-8.09	4.85	-0.02
89	SLD 10	-8	-12	2889	-8.09	4.85	-0.02
89	SLD 11	103	11	3122	7.17	8.71	0.04
89	SLD 12	103	11	3122	7.17	8.71	0.04
89	SLD 13	-146	-3	3029	-3.18	-1.07	0
89	SLD 14	-146	-3	3029	-3.18	-1.07	0
89	SLD 15	-113	4	3099	1.4	0.09	0.02
89	SLD 16	-113	4	3099	1.4	0.09	0.02
89	SLV 1	673	-14	2698	-4.62	32.8	-0.02
89	SLV 2	673	-14	2698	-4.62	32.8	-0.02
89	SLV 3	757	4	2872	7.05	35.76	0.03
89	SLV 4	757	4	2872	7.05	35.76	0.03
89	SLV 5	160	-32	2632	-19.28	12.28	-0.08
89	SLV 6	160	-32	2632	-19.28	12.28	-0.08
89	SLV 7	441	28	3212	19.62	22.14	0.09
89	SLV 8	441	28	3212	19.62	22.14	0.09
89	SLV 9	-195	-29	2749	-20.17	-2.35	-0.07
89	SLV 10	-195	-29	2749	-20.17	-2.35	-0.07
89	SLV 11	86	30	3329	18.73	7.51	0.09
89	SLV 12	86	30	3329	18.73	7.51	0.09
89	SLV 13	-512	-6	3089	-7.6	-15.97	-0.01
89	SLV 14	-512	-6	3089	-7.6	-15.97	-0.01
89	SLV 15	-427	12	3263	4.07	-13.01	0.04
89	SLV 16	-427	12	3263	4.07	-13.01	0.04
90	SLU 1	-66	3	2737	-1.29	-7.63	0.01
90	SLU 2	-70	3	2758	-1.18	-7.9	0.01
90	SLU 3	-66	3	2737	-1.29	-7.63	0.01
90	SLU 4	-68	3	2749	-1.22	-7.79	0.01
90	SLU 5	-70	3	2758	-1.18	-7.9	0.01
90	SLU 6	-66	3	2737	-1.29	-7.63	0.01
90	SLU 7	-68	3	2749	-1.22	-7.79	0.01
90	SLU 8	-66	3	2737	-1.29	-7.63	0.01
90	SLU 9	-68	3	2749	-1.22	-7.79	0.01
90	SLU 10	-92	6	3633	-1.43	-10.91	0.02
90	SLU 11	-88	6	3612	-1.53	-10.64	0.02
90	SLU 12	-90	6	3625	-1.47	-10.8	0.02
90	SLU 13	-92	6	3633	-1.43	-10.91	0.02
90	SLU 14	-88	6	3612	-1.53	-10.64	0.02
90	SLU 15	-90	6	3625	-1.47	-10.8	0.02
90	SLU 16	-88	6	3612	-1.53	-10.64	0.02
90	SLU 17	-90	6	3625	-1.47	-10.8	0.02
90	SLU 18	-97	8	3987	-1.64	-11.93	0.02
90	SLU 19	-100	7	4000	-1.57	-12.09	0.02
90	SLU 20	-97	8	3987	-1.64	-11.93	0.02
90	SLU 21	-100	7	4000	-1.57	-12.09	0.02
90	SLU 22	-64	5	3195	-1.32	-8.58	0.01
90	SLU 23	-68	4	3216	-1.21	-8.85	0.01
90	SLU 24	-64	5	3195	-1.32	-8.58	0.01
90	SLU 25	-66	5	3207	-1.25	-8.74	0.01
90	SLU 26	-68	4	3216	-1.21	-8.85	0.01
90	SLU 27	-64	5	3195	-1.32	-8.58	0.01
90	SLU 28	-66	5	3207	-1.25	-8.74	0.01
90	SLU 29	-64	5	3195	-1.32	-8.58	0.01
90	SLU 30	-66	5	3207	-1.25	-8.74	0.01
90	SLU 31	-90	7	4091	-1.46	-11.86	0.02



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
90	SLU 32	-86	8	4070	-1.56	-11.6	0.02
90	SLU 33	-88	7	4083	-1.5	-11.76	0.02
90	SLU 34	-90	7	4091	-1.46	-11.86	0.02
90	SLU 35	-86	8	4070	-1.56	-11.6	0.02
90	SLU 36	-88	7	4083	-1.5	-11.76	0.02
90	SLU 37	-86	8	4070	-1.56	-11.6	0.02
90	SLU 38	-88	7	4083	-1.5	-11.76	0.02
90	SLU 39	-95	9	4445	-1.67	-12.89	0.02
90	SLU 40	-98	9	4458	-1.6	-13.05	0.02
90	SLU 41	-95	9	4445	-1.67	-12.89	0.02
90	SLU 42	-98	9	4458	-1.6	-13.05	0.02
90	SLU 43	-86	4	3400	-1.66	-9.59	0.01
90	SLU 44	-90	4	3422	-1.55	-9.86	0.01
90	SLU 45	-86	4	3400	-1.66	-9.59	0.01
90	SLU 46	-89	4	3413	-1.6	-9.75	0.01
90	SLU 47	-90	4	3422	-1.55	-9.86	0.01
90	SLU 48	-86	4	3400	-1.66	-9.59	0.01
90	SLU 49	-89	4	3413	-1.6	-9.75	0.01
90	SLU 50	-86	4	3400	-1.66	-9.59	0.01
90	SLU 51	-89	4	3413	-1.6	-9.75	0.01
90	SLU 52	-112	7	4297	-1.8	-12.87	0.02
90	SLU 53	-108	7	4276	-1.91	-12.6	0.02
90	SLU 54	-111	7	4288	-1.84	-12.76	0.02
90	SLU 55	-112	7	4297	-1.8	-12.87	0.02
90	SLU 56	-108	7	4276	-1.91	-12.6	0.02
90	SLU 57	-111	7	4288	-1.84	-12.76	0.02
90	SLU 58	-108	7	4276	-1.91	-12.6	0.02
90	SLU 59	-111	7	4288	-1.84	-12.76	0.02
90	SLU 60	-117	8	4651	-2.01	-13.89	0.02
90	SLU 61	-120	8	4663	-1.95	-14.05	0.02
90	SLU 62	-117	8	4651	-2.01	-13.89	0.02
90	SLU 63	-120	8	4663	-1.95	-14.05	0.02
90	SLU 64	-84	5	3859	-1.69	-10.54	0.02
90	SLU 65	-89	5	3880	-1.59	-10.81	0.02
90	SLU 66	-84	5	3859	-1.69	-10.54	0.02
90	SLU 67	-87	5	3871	-1.63	-10.7	0.02
90	SLU 68	-89	5	3880	-1.59	-10.81	0.02
90	SLU 69	-84	5	3859	-1.69	-10.54	0.02
90	SLU 70	-87	5	3871	-1.63	-10.7	0.02
90	SLU 71	-84	5	3859	-1.69	-10.54	0.02
90	SLU 72	-87	5	3871	-1.63	-10.7	0.02
90	SLU 73	-111	8	4755	-1.83	-13.82	0.02
90	SLU 74	-106	8	4734	-1.94	-13.56	0.02
90	SLU 75	-109	8	4746	-1.87	-13.72	0.02
90	SLU 76	-111	8	4755	-1.83	-13.82	0.02
90	SLU 77	-106	8	4734	-1.94	-13.56	0.02
90	SLU 78	-109	8	4746	-1.87	-13.72	0.02
90	SLU 79	-106	8	4734	-1.94	-13.56	0.02
90	SLU 80	-109	8	4746	-1.87	-13.72	0.02
90	SLU 81	-115	9	5109	-2.04	-14.85	0.02
90	SLU 82	-118	9	5122	-1.98	-15.01	0.02
90	SLU 83	-115	9	5109	-2.04	-14.85	0.02
90	SLU 84	-118	9	5122	-1.98	-15.01	0.02
90	SLE RA 1	-65	4	2867	-1.29	-7.9	0.01
90	SLE RA 2	-68	4	2882	-1.22	-8.08	0.01
90	SLE RA 3	-65	4	2867	-1.29	-7.9	0.01
90	SLE RA 4	-67	4	2876	-1.25	-8.01	0.01
90	SLE RA 5	-68	4	2882	-1.22	-8.08	0.01
90	SLE RA 6	-65	4	2867	-1.29	-7.9	0.01
90	SLE RA 7	-67	4	2876	-1.25	-8.01	0.01
90	SLE RA 8	-65	4	2867	-1.29	-7.9	0.01
90	SLE RA 9	-67	4	2876	-1.25	-8.01	0.01
90	SLE RA 10	-83	6	3465	-1.39	-10.09	0.02
90	SLE RA 11	-80	6	3451	-1.46	-9.91	0.02
90	SLE RA 12	-82	6	3459	-1.42	-10.02	0.02
90	SLE RA 13	-83	6	3465	-1.39	-10.09	0.02
90	SLE RA 14	-80	6	3451	-1.46	-9.91	0.02
90	SLE RA 15	-82	6	3459	-1.42	-10.02	0.02
90	SLE RA 16	-80	6	3451	-1.46	-9.91	0.02
90	SLE RA 17	-82	6	3459	-1.42	-10.02	0.02
90	SLE RA 18	-86	7	3701	-1.53	-10.77	0.02
90	SLE RA 19	-88	6	3709	-1.49	-10.88	0.02
90	SLE RA 20	-86	7	3701	-1.53	-10.77	0.02
90	SLE RA 21	-88	6	3709	-1.49	-10.88	0.02
90	SLE FR 1	-65	4	2867	-1.29	-7.9	0.01
90	SLE FR 2	-66	4	2870	-1.28	-7.94	0.01
90	SLE FR 3	-65	4	2867	-1.29	-7.9	0.01
90	SLE FR 4	-72	5	3120	-1.35	-8.8	0.01
90	SLE FR 5	-71	5	3117	-1.36	-8.76	0.01
90	SLE FR 6	-76	5	3284	-1.41	-9.34	0.01
90	SLE QP 1	-65	4	2867	-1.29	-7.9	0.01
90	SLE QP 2	-71	5	3117	-1.36	-8.76	0.01
90	SLD 1	207	-1	2975	-5.55	2.82	0
90	SLD 2	207	-1	2975	-5.55	2.82	0
90	SLD 3	167	7	3055	5.24	0.96	0.02
90	SLD 4	167	7	3055	5.24	0.96	0.02
90	SLD 5	73	-9	2953	-18.98	-2.47	-0.02
90	SLD 6	73	-9	2953	-18.98	-2.47	-0.02
90	SLD 7	-60	17	3221	16.98	-8.66	0.04
90	SLD 8	-60	17	3221	16.98	-8.66	0.04



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
90	SLD 9	-82	-8	3014	-19.71	-8.86	-0.01
90	SLD 10	-82	-8	3014	-19.71	-8.86	-0.01
90	SLD 11	-215	19	3282	16.26	-15.05	0.04
90	SLD 12	-215	19	3282	16.26	-15.05	0.04
90	SLD 13	-310	3	3180	-7.96	-18.48	0.01
90	SLD 14	-310	3	3180	-7.96	-18.48	0.01
90	SLD 15	-350	11	3260	2.82	-20.34	0.03
90	SLD 16	-350	11	3260	2.82	-20.34	0.03
90	SLV 1	586	-10	2779	-12.24	18.59	-0.02
90	SLV 2	586	-10	2779	-12.24	18.59	-0.02
90	SLV 3	484	10	2975	15.26	13.81	0.03
90	SLV 4	484	10	2975	15.26	13.81	0.03
90	SLV 5	281	-31	2718	-46.34	6.7	-0.06
90	SLV 6	281	-31	2718	-46.34	6.7	-0.06
90	SLV 7	-60	37	3373	45.34	-9.24	0.08
90	SLV 8	-60	37	3373	45.34	-9.24	0.08
90	SLV 9	-83	-28	2862	-48.07	-8.28	-0.05
90	SLV 10	-83	-28	2862	-48.07	-8.28	-0.05
90	SLV 11	-424	40	3517	43.62	-24.22	0.08
90	SLV 12	-424	40	3517	43.62	-24.22	0.08
90	SLV 13	-626	-1	3260	-17.99	-31.33	0
90	SLV 14	-626	-1	3260	-17.99	-31.33	0
90	SLV 15	-729	20	3456	9.51	-36.12	0.04
90	SLV 16	-729	20	3456	9.51	-36.12	0.04
91	SLU 1	-31	7	2772	-2.22	2.84	0.02
91	SLU 2	-34	7	2787	-2.2	2.86	0.02
91	SLU 3	-31	7	2772	-2.22	2.84	0.02
91	SLU 4	-32	7	2781	-2.21	2.85	0.02
91	SLU 5	-34	7	2787	-2.2	2.86	0.02
91	SLU 6	-31	7	2772	-2.22	2.84	0.02
91	SLU 7	-32	7	2781	-2.21	2.85	0.02
91	SLU 8	-31	7	2772	-2.22	2.84	0.02
91	SLU 9	-32	7	2781	-2.21	2.85	0.02
91	SLU 10	-43	11	3701	-2.28	3.99	0.02
91	SLU 11	-41	11	3685	-2.31	3.97	0.02
91	SLU 12	-42	11	3694	-2.29	3.99	0.02
91	SLU 13	-43	11	3701	-2.28	3.99	0.02
91	SLU 14	-41	11	3685	-2.31	3.97	0.02
91	SLU 15	-42	11	3694	-2.29	3.99	0.02
91	SLU 16	-41	11	3685	-2.31	3.97	0.02
91	SLU 17	-42	11	3694	-2.29	3.99	0.02
91	SLU 18	-45	13	4076	-2.34	4.46	0.03
91	SLU 19	-47	13	4086	-2.33	4.47	0.03
91	SLU 20	-45	13	4076	-2.34	4.46	0.03
91	SLU 21	-47	13	4086	-2.33	4.47	0.03
91	SLU 22	-26	9	3256	-2.14	3.73	0.02
91	SLU 23	-29	9	3271	-2.12	3.75	0.02
91	SLU 24	-26	9	3256	-2.14	3.73	0.02
91	SLU 25	-28	9	3265	-2.13	3.74	0.02
91	SLU 26	-29	9	3271	-2.12	3.75	0.02
91	SLU 27	-26	9	3256	-2.14	3.73	0.02
91	SLU 28	-28	9	3265	-2.13	3.74	0.02
91	SLU 29	-26	9	3256	-2.14	3.73	0.02
91	SLU 30	-28	9	3265	-2.13	3.74	0.02
91	SLU 31	-38	13	4185	-2.2	4.88	0.03
91	SLU 32	-36	13	4169	-2.23	4.86	0.03
91	SLU 33	-37	13	4178	-2.21	4.87	0.03
91	SLU 34	-38	13	4185	-2.2	4.88	0.03
91	SLU 35	-36	13	4169	-2.23	4.86	0.03
91	SLU 36	-37	13	4178	-2.21	4.87	0.03
91	SLU 37	-36	13	4169	-2.23	4.86	0.03
91	SLU 38	-37	13	4178	-2.21	4.87	0.03
91	SLU 39	-40	15	4560	-2.26	5.35	0.03
91	SLU 40	-42	15	4570	-2.25	5.36	0.03
91	SLU 41	-40	15	4560	-2.26	5.35	0.03
91	SLU 42	-42	15	4570	-2.25	5.36	0.03
91	SLU 43	-42	9	3437	-2.92	3.39	0.02
91	SLU 44	-44	9	3453	-2.89	3.41	0.02
91	SLU 45	-42	9	3437	-2.92	3.39	0.02
91	SLU 46	-43	9	3447	-2.9	3.4	0.02
91	SLU 47	-44	9	3453	-2.89	3.41	0.02
91	SLU 48	-42	9	3437	-2.92	3.39	0.02
91	SLU 49	-43	9	3447	-2.9	3.4	0.02
91	SLU 50	-42	9	3437	-2.92	3.39	0.02
91	SLU 51	-43	9	3447	-2.9	3.4	0.02
91	SLU 52	-54	13	4366	-2.98	4.54	0.03
91	SLU 53	-52	13	4350	-3	4.52	0.03
91	SLU 54	-53	13	4360	-2.99	4.53	0.03
91	SLU 55	-54	13	4366	-2.98	4.54	0.03
91	SLU 56	-52	13	4350	-3	4.52	0.03
91	SLU 57	-53	13	4360	-2.99	4.53	0.03
91	SLU 58	-52	13	4350	-3	4.52	0.03
91	SLU 59	-53	13	4360	-2.99	4.53	0.03
91	SLU 60	-56	15	4742	-3.04	5.01	0.03
91	SLU 61	-58	15	4751	-3.02	5.02	0.03
91	SLU 62	-56	15	4742	-3.04	5.01	0.03
91	SLU 63	-58	15	4751	-3.02	5.02	0.03
91	SLU 64	-37	11	3921	-2.84	4.27	0.02
91	SLU 65	-40	11	3937	-2.81	4.3	0.02
91	SLU 66	-37	11	3921	-2.84	4.27	0.02



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
91	SLU 67	-38	11	3931	-2.82	4.29	0.02
91	SLU 68	-40	11	3937	-2.81	4.3	0.02
91	SLU 69	-37	11	3921	-2.84	4.27	0.02
91	SLU 70	-38	11	3931	-2.82	4.29	0.02
91	SLU 71	-37	11	3921	-2.84	4.27	0.02
91	SLU 72	-38	11	3931	-2.82	4.29	0.02
91	SLU 73	-49	15	4850	-2.9	5.43	0.03
91	SLU 74	-47	15	4834	-2.92	5.41	0.03
91	SLU 75	-48	15	4844	-2.91	5.42	0.03
91	SLU 76	-49	15	4850	-2.9	5.43	0.03
91	SLU 77	-47	15	4834	-2.92	5.41	0.03
91	SLU 78	-48	15	4844	-2.91	5.42	0.03
91	SLU 79	-47	15	4834	-2.92	5.41	0.03
91	SLU 80	-48	15	4844	-2.91	5.42	0.03
91	SLU 81	-51	17	5226	-2.96	5.9	0.03
91	SLU 82	-53	17	5235	-2.94	5.91	0.03
91	SLU 83	-51	17	5226	-2.96	5.9	0.03
91	SLU 84	-53	17	5235	-2.94	5.91	0.03
91	SLE RA 1	-29	8	2910	-2.2	3.09	0.02
91	SLE RA 2	-31	8	2920	-2.18	3.11	0.02
91	SLE RA 3	-29	8	2910	-2.2	3.09	0.02
91	SLE RA 4	-31	8	2916	-2.19	3.1	0.02
91	SLE RA 5	-31	8	2920	-2.18	3.11	0.02
91	SLE RA 6	-29	8	2910	-2.2	3.09	0.02
91	SLE RA 7	-31	8	2916	-2.19	3.1	0.02
91	SLE RA 8	-29	8	2910	-2.2	3.09	0.02
91	SLE RA 9	-31	8	2916	-2.19	3.1	0.02
91	SLE RA 10	-38	11	3529	-2.24	3.86	0.02
91	SLE RA 11	-36	11	3519	-2.26	3.85	0.02
91	SLE RA 12	-37	11	3525	-2.25	3.86	0.02
91	SLE RA 13	-38	11	3529	-2.24	3.86	0.02
91	SLE RA 14	-36	11	3519	-2.26	3.85	0.02
91	SLE RA 15	-37	11	3525	-2.25	3.86	0.02
91	SLE RA 16	-36	11	3519	-2.26	3.85	0.02
91	SLE RA 17	-37	11	3525	-2.25	3.86	0.02
91	SLE RA 18	-39	12	3780	-2.28	4.17	0.02
91	SLE RA 19	-40	12	3786	-2.27	4.18	0.02
91	SLE RA 20	-39	12	3780	-2.28	4.17	0.02
91	SLE RA 21	-40	12	3786	-2.27	4.18	0.02
91	SLE FR 1	-29	8	2910	-2.2	3.09	0.02
91	SLE FR 2	-30	8	2912	-2.2	3.1	0.02
91	SLE FR 3	-29	8	2910	-2.2	3.09	0.02
91	SLE FR 4	-33	9	3173	-2.22	3.42	0.02
91	SLE FR 5	-32	9	3171	-2.23	3.42	0.02
91	SLE FR 6	-34	10	3345	-2.24	3.63	0.02
91	SLE QP 1	-29	8	2910	-2.2	3.09	0.02
91	SLE QP 2	-32	9	3171	-2.23	3.42	0.02
91	SLD 1	252	1	2992	-9.87	14	0
91	SLD 2	252	1	2992	-9.87	14	0
91	SLD 3	218	12	3089	9.06	15.22	0.03
91	SLD 4	218	12	3089	9.06	15.22	0.03
91	SLD 5	106	-10	2970	-33.23	4.74	-0.03
91	SLD 6	106	-10	2970	-33.23	4.74	-0.03
91	SLD 7	-10	26	3294	29.87	8.81	0.07
91	SLD 8	-10	26	3294	29.87	8.81	0.07
91	SLD 9	-54	-8	3048	-34.32	-1.98	-0.03
91	SLD 10	-54	-8	3048	-34.32	-1.98	-0.03
91	SLD 11	-171	28	3372	28.78	2.09	0.07
91	SLD 12	-171	28	3372	28.78	2.09	0.07
91	SLD 13	-282	6	3252	-13.51	-8.39	0.01
91	SLD 14	-282	6	3252	-13.51	-8.39	0.01
91	SLD 15	-317	17	3349	5.42	-7.17	0.04
91	SLD 16	-317	17	3349	5.42	-7.17	0.04
91	SLV 1	640	-11	2747	-22.07	28.1	-0.04
91	SLV 2	640	-11	2747	-22.07	28.1	-0.04
91	SLV 3	549	15	2986	26.26	31.3	0.04
91	SLV 4	549	15	2986	26.26	31.3	0.04
91	SLV 5	308	-37	2681	-81.49	5.97	-0.11
91	SLV 6	308	-37	2681	-81.49	5.97	-0.11
91	SLV 7	4	51	3478	79.63	16.63	0.14
91	SLV 8	4	51	3478	79.63	16.63	0.14
91	SLV 9	-69	-33	2864	-84.08	-9.8	-0.1
91	SLV 10	-69	-33	2864	-84.08	-9.8	-0.1
91	SLV 11	-372	55	3661	77.04	0.86	0.15
91	SLV 12	-372	55	3661	77.04	0.86	0.15
91	SLV 13	-614	3	3356	-30.71	-24.47	0
91	SLV 14	-614	3	3356	-30.71	-24.47	0
91	SLV 15	-705	29	3595	17.62	-21.27	0.08
91	SLV 16	-705	29	3595	17.62	-21.27	0.08
92	SLU 1	-169	9	2787	-2.53	-10.77	0.03
92	SLU 2	-174	9	2798	-2.57	-11.05	0.03
92	SLU 3	-169	9	2787	-2.53	-10.77	0.03
92	SLU 4	-172	9	2794	-2.56	-10.93	0.03
92	SLU 5	-174	9	2798	-2.57	-11.05	0.03
92	SLU 6	-169	9	2787	-2.53	-10.77	0.03
92	SLU 7	-172	9	2794	-2.56	-10.93	0.03
92	SLU 8	-169	9	2787	-2.53	-10.77	0.03
92	SLU 9	-172	9	2794	-2.56	-10.93	0.03
92	SLU 10	-243	13	3739	-2.04	-15.54	0.04
92	SLU 11	-238	13	3728	-1.99	-15.26	0.04



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
92	SLU 12	-241	13	3735	-2.02	-15.43	0.04
92	SLU 13	-243	13	3739	-2.04	-15.54	0.04
92	SLU 14	-238	13	3728	-1.99	-15.26	0.04
92	SLU 15	-241	13	3735	-2.02	-15.43	0.04
92	SLU 16	-238	13	3728	-1.99	-15.26	0.04
92	SLU 17	-241	13	3735	-2.02	-15.43	0.04
92	SLU 18	-268	15	4131	-1.76	-17.19	0.04
92	SLU 19	-271	15	4138	-1.79	-17.36	0.04
92	SLU 20	-268	15	4131	-1.76	-17.19	0.04
92	SLU 21	-271	15	4138	-1.79	-17.36	0.04
92	SLU 22	-195	11	3290	-2.14	-12.6	0.03
92	SLU 23	-200	11	3301	-2.18	-12.88	0.03
92	SLU 24	-195	11	3290	-2.14	-12.6	0.03
92	SLU 25	-198	11	3297	-2.17	-12.77	0.03
92	SLU 26	-200	11	3301	-2.18	-12.88	0.03
92	SLU 27	-195	11	3290	-2.14	-12.6	0.03
92	SLU 28	-198	11	3297	-2.17	-12.77	0.03
92	SLU 29	-195	11	3290	-2.14	-12.6	0.03
92	SLU 30	-198	11	3297	-2.17	-12.77	0.03
92	SLU 31	-269	15	4242	-1.65	-17.38	0.04
92	SLU 32	-264	15	4231	-1.61	-17.1	0.04
92	SLU 33	-267	15	4238	-1.63	-17.27	0.04
92	SLU 34	-269	15	4242	-1.65	-17.38	0.04
92	SLU 35	-264	15	4231	-1.61	-17.1	0.04
92	SLU 36	-267	15	4238	-1.63	-17.27	0.04
92	SLU 37	-264	15	4231	-1.61	-17.1	0.04
92	SLU 38	-267	15	4238	-1.63	-17.27	0.04
92	SLU 39	-294	17	4634	-1.38	-19.03	0.05
92	SLU 40	-297	17	4641	-1.4	-19.2	0.04
92	SLU 41	-294	17	4634	-1.38	-19.03	0.05
92	SLU 42	-297	17	4641	-1.4	-19.2	0.04
92	SLU 43	-211	11	3451	-3.42	-13.37	0.03
92	SLU 44	-216	11	3462	-3.46	-13.65	0.03
92	SLU 45	-211	11	3451	-3.42	-13.37	0.03
92	SLU 46	-214	11	3457	-3.45	-13.53	0.03
92	SLU 47	-216	11	3462	-3.46	-13.65	0.03
92	SLU 48	-211	11	3451	-3.42	-13.37	0.03
92	SLU 49	-214	11	3457	-3.45	-13.53	0.03
92	SLU 50	-211	11	3451	-3.42	-13.37	0.03
92	SLU 51	-214	11	3457	-3.45	-13.53	0.03
92	SLU 52	-285	16	4403	-2.93	-18.14	0.04
92	SLU 53	-280	16	4392	-2.89	-17.86	0.04
92	SLU 54	-283	16	4398	-2.91	-18.03	0.04
92	SLU 55	-285	16	4403	-2.93	-18.14	0.04
92	SLU 56	-280	16	4392	-2.89	-17.86	0.04
92	SLU 57	-283	16	4398	-2.91	-18.03	0.04
92	SLU 58	-280	16	4392	-2.89	-17.86	0.04
92	SLU 59	-283	16	4398	-2.91	-18.03	0.04
92	SLU 60	-310	17	4795	-2.66	-19.79	0.05
92	SLU 61	-313	17	4801	-2.68	-19.96	0.05
92	SLU 62	-310	17	4795	-2.66	-19.79	0.05
92	SLU 63	-313	17	4801	-2.68	-19.96	0.05
92	SLU 64	-237	13	3954	-3.03	-15.2	0.04
92	SLU 65	-241	13	3965	-3.08	-15.48	0.04
92	SLU 66	-237	13	3954	-3.03	-15.2	0.04
92	SLU 67	-239	13	3961	-3.06	-15.37	0.04
92	SLU 68	-241	13	3965	-3.08	-15.48	0.04
92	SLU 69	-237	13	3954	-3.03	-15.2	0.04
92	SLU 70	-239	13	3961	-3.06	-15.37	0.04
92	SLU 71	-237	13	3954	-3.03	-15.2	0.04
92	SLU 72	-239	13	3961	-3.06	-15.37	0.04
92	SLU 73	-311	17	4906	-2.54	-19.98	0.05
92	SLU 74	-306	17	4895	-2.5	-19.7	0.05
92	SLU 75	-309	17	4901	-2.52	-19.87	0.05
92	SLU 76	-311	17	4906	-2.54	-19.98	0.05
92	SLU 77	-306	17	4895	-2.5	-19.7	0.05
92	SLU 78	-309	17	4901	-2.52	-19.87	0.05
92	SLU 79	-306	17	4895	-2.5	-19.7	0.05
92	SLU 80	-309	17	4901	-2.52	-19.87	0.05
92	SLU 81	-336	19	5298	-2.27	-21.63	0.05
92	SLU 82	-339	19	5305	-2.29	-21.8	0.05
92	SLU 83	-336	19	5298	-2.27	-21.63	0.05
92	SLU 84	-339	19	5305	-2.29	-21.8	0.05
92	SLE RA 1	-176	10	2931	-2.42	-11.29	0.03
92	SLE RA 2	-180	10	2938	-2.45	-11.48	0.03
92	SLE RA 3	-176	10	2931	-2.42	-11.29	0.03
92	SLE RA 4	-178	10	2935	-2.44	-11.4	0.03
92	SLE RA 5	-180	10	2938	-2.45	-11.48	0.03
92	SLE RA 6	-176	10	2931	-2.42	-11.29	0.03
92	SLE RA 7	-178	10	2935	-2.44	-11.4	0.03
92	SLE RA 8	-176	10	2931	-2.42	-11.29	0.03
92	SLE RA 9	-178	10	2935	-2.44	-11.4	0.03
92	SLE RA 10	-226	13	3566	-2.09	-14.48	0.03
92	SLE RA 11	-223	13	3558	-2.06	-14.29	0.03
92	SLE RA 12	-225	13	3563	-2.08	-14.4	0.03
92	SLE RA 13	-226	13	3566	-2.09	-14.48	0.03
92	SLE RA 14	-223	13	3558	-2.06	-14.29	0.03
92	SLE RA 15	-225	13	3563	-2.08	-14.4	0.03
92	SLE RA 16	-223	13	3558	-2.06	-14.29	0.03
92	SLE RA 17	-225	13	3563	-2.08	-14.4	0.03



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
92	SLE RA 18	-242	14	3827	-1.91	-15.58	0.04
92	SLE RA 19	-244	14	3831	-1.93	-15.69	0.04
92	SLE RA 20	-242	14	3827	-1.91	-15.58	0.04
92	SLE RA 21	-244	14	3831	-1.93	-15.69	0.04
92	SLE FR 1	-176	10	2931	-2.42	-11.29	0.03
92	SLE FR 2	-177	10	2932	-2.42	-11.33	0.03
92	SLE FR 3	-176	10	2931	-2.42	-11.29	0.03
92	SLE FR 4	-197	11	3201	-2.27	-12.61	0.03
92	SLE FR 5	-196	11	3200	-2.27	-12.58	0.03
92	SLE FR 6	-209	12	3379	-2.16	-13.43	0.03
92	SLE QP 1	-176	10	2931	-2.42	-11.29	0.03
92	SLE QP 2	-196	11	3200	-2.27	-12.58	0.03
92	SLD 1	102	16	2981	-13.94	0.09	0.05
92	SLD 2	102	16	2981	-13.94	0.09	0.05
92	SLD 3	62	-2	3099	14.09	-1.74	-0.01
92	SLD 4	62	-2	3099	14.09	-1.74	-0.01
92	SLD 5	-46	39	2956	-48.28	-6.01	0.12
92	SLD 6	-46	39	2956	-48.28	-6.01	0.12
92	SLD 7	-180	-20	3348	45.15	-12.09	-0.07
92	SLD 8	-180	-20	3348	45.15	-12.09	-0.07
92	SLD 9	-213	41	3052	-49.69	-13.06	0.13
92	SLD 10	-213	41	3052	-49.69	-13.06	0.13
92	SLD 11	-347	-17	3444	43.75	-19.14	-0.06
92	SLD 12	-347	-17	3444	43.75	-19.14	-0.06
92	SLD 13	-455	24	3301	-18.62	-23.41	0.07
92	SLD 14	-455	24	3301	-18.62	-23.41	0.07
92	SLD 15	-495	6	3418	9.41	-25.24	0.01
92	SLD 16	-495	6	3418	9.41	-25.24	0.01
92	SLV 1	510	24	2678	-32.58	17.37	0.08
92	SLV 2	510	24	2678	-32.58	17.37	0.08
92	SLV 3	404	-20	2973	39.16	12.57	-0.07
92	SLV 4	404	-20	2973	39.16	12.57	-0.07
92	SLV 5	176	82	2596	-120.17	3.69	0.26
92	SLV 6	176	82	2596	-120.17	3.69	0.26
92	SLV 7	-176	-65	3579	118.97	-12.31	-0.22
92	SLV 8	-176	-65	3579	118.97	-12.31	-0.22
92	SLV 9	-216	87	2820	-123.5	-12.84	0.28
92	SLV 10	-216	87	2820	-123.5	-12.84	0.28
92	SLV 11	-568	-60	3804	115.64	-28.84	-0.21
92	SLV 12	-568	-60	3804	115.64	-28.84	-0.21
92	SLV 13	-796	42	3426	-43.69	-37.73	0.13
92	SLV 14	-796	42	3426	-43.69	-37.73	0.13
92	SLV 15	-902	-2	3721	28.05	-42.53	-0.02
92	SLV 16	-902	-2	3721	28.05	-42.53	-0.02
93	SLU 1	-136	10	2759	-2.24	-2.32	0.03
93	SLU 2	-139	10	2766	-2.35	-2.35	0.03
93	SLU 3	-136	10	2759	-2.24	-2.32	0.03
93	SLU 4	-138	10	2763	-2.3	-2.34	0.03
93	SLU 5	-139	10	2766	-2.35	-2.35	0.03
93	SLU 6	-136	10	2759	-2.24	-2.32	0.03
93	SLU 7	-138	10	2763	-2.3	-2.34	0.03
93	SLU 8	-136	10	2759	-2.24	-2.32	0.03
93	SLU 9	-138	10	2763	-2.3	-2.34	0.03
93	SLU 10	-199	14	3713	-0.89	-3.62	0.05
93	SLU 11	-196	14	3706	-0.77	-3.6	0.05
93	SLU 12	-198	14	3710	-0.84	-3.61	0.05
93	SLU 13	-199	14	3713	-0.89	-3.62	0.05
93	SLU 14	-196	14	3706	-0.77	-3.6	0.05
93	SLU 15	-198	14	3710	-0.84	-3.61	0.05
93	SLU 16	-196	14	3706	-0.77	-3.6	0.05
93	SLU 17	-198	14	3710	-0.84	-3.61	0.05
93	SLU 18	-222	15	4112	-0.15	-4.14	0.05
93	SLU 19	-224	15	4116	-0.22	-4.16	0.05
93	SLU 20	-222	15	4112	-0.15	-4.14	0.05
93	SLU 21	-224	15	4116	-0.22	-4.16	0.05
93	SLU 22	-160	11	3270	-1.42	-2.77	0.04
93	SLU 23	-163	11	3276	-1.53	-2.8	0.04
93	SLU 24	-160	11	3270	-1.42	-2.77	0.04
93	SLU 25	-162	11	3274	-1.49	-2.78	0.04
93	SLU 26	-163	11	3276	-1.53	-2.8	0.04
93	SLU 27	-160	11	3270	-1.42	-2.77	0.04
93	SLU 28	-162	11	3274	-1.49	-2.78	0.04
93	SLU 29	-160	11	3270	-1.42	-2.77	0.04
93	SLU 30	-162	11	3274	-1.49	-2.78	0.04
93	SLU 31	-224	15	4224	-0.07	-4.07	0.05
93	SLU 32	-220	15	4217	0.04	-4.04	0.05
93	SLU 33	-222	15	4221	-0.03	-4.06	0.05
93	SLU 34	-224	15	4224	-0.07	-4.07	0.05
93	SLU 35	-220	15	4217	0.04	-4.04	0.05
93	SLU 36	-222	15	4221	-0.03	-4.06	0.05
93	SLU 37	-220	15	4217	0.04	-4.04	0.05
93	SLU 38	-222	15	4221	-0.03	-4.06	0.05
93	SLU 39	-246	17	4623	0.67	-4.59	0.06
93	SLU 40	-248	17	4627	0.6	-4.6	0.06
93	SLU 41	-246	17	4623	0.67	-4.59	0.06
93	SLU 42	-248	17	4627	0.6	-4.6	0.06
93	SLU 43	-168	12	3412	-3.19	-2.87	0.04
93	SLU 44	-171	12	3418	-3.3	-2.9	0.04
93	SLU 45	-168	12	3412	-3.19	-2.87	0.04
93	SLU 46	-170	12	3416	-3.25	-2.89	0.04



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
93	SLU 47	-171	12	3418	-3.3	-2.9	0.04
93	SLU 48	-168	12	3412	-3.19	-2.87	0.04
93	SLU 49	-170	12	3416	-3.25	-2.89	0.04
93	SLU 50	-168	12	3412	-3.19	-2.87	0.04
93	SLU 51	-170	12	3416	-3.25	-2.89	0.04
93	SLU 52	-232	16	4366	-1.84	-4.17	0.05
93	SLU 53	-229	16	4359	-1.73	-4.14	0.05
93	SLU 54	-231	16	4363	-1.79	-4.16	0.05
93	SLU 55	-232	16	4366	-1.84	-4.17	0.05
93	SLU 56	-229	16	4359	-1.73	-4.14	0.05
93	SLU 57	-231	16	4363	-1.79	-4.16	0.05
93	SLU 58	-229	16	4359	-1.73	-4.14	0.05
93	SLU 59	-231	16	4363	-1.79	-4.16	0.05
93	SLU 60	-255	17	4765	-1.1	-4.69	0.06
93	SLU 61	-257	17	4769	-1.17	-4.7	0.06
93	SLU 62	-255	17	4765	-1.1	-4.69	0.06
93	SLU 63	-257	17	4769	-1.17	-4.7	0.06
93	SLU 64	-192	14	3922	-2.37	-3.31	0.05
93	SLU 65	-195	14	3929	-2.48	-3.34	0.05
93	SLU 66	-192	14	3922	-2.37	-3.31	0.05
93	SLU 67	-194	14	3926	-2.44	-3.33	0.05
93	SLU 68	-195	14	3929	-2.48	-3.34	0.05
93	SLU 69	-192	14	3922	-2.37	-3.31	0.05
93	SLU 70	-194	14	3926	-2.44	-3.33	0.05
93	SLU 71	-192	14	3922	-2.37	-3.31	0.05
93	SLU 72	-194	14	3926	-2.44	-3.33	0.05
93	SLU 73	-256	18	4876	-1.02	-4.61	0.06
93	SLU 74	-253	18	4870	-0.91	-4.59	0.06
93	SLU 75	-255	18	4874	-0.98	-4.6	0.06
93	SLU 76	-256	18	4876	-1.02	-4.61	0.06
93	SLU 77	-253	18	4870	-0.91	-4.59	0.06
93	SLU 78	-255	18	4874	-0.98	-4.6	0.06
93	SLU 79	-253	18	4870	-0.91	-4.59	0.06
93	SLU 80	-255	18	4874	-0.98	-4.6	0.06
93	SLU 81	-279	19	5276	-0.28	-5.13	0.07
93	SLU 82	-281	19	5280	-0.35	-5.15	0.07
93	SLU 83	-279	19	5276	-0.28	-5.13	0.07
93	SLU 84	-281	19	5280	-0.35	-5.15	0.07
93	SLE RA 1	-143	10	2905	-2	-2.45	0.04
93	SLE RA 2	-145	10	2909	-2.08	-2.47	0.04
93	SLE RA 3	-143	10	2905	-2	-2.45	0.04
93	SLE RA 4	-144	10	2908	-2.05	-2.46	0.04
93	SLE RA 5	-145	10	2909	-2.08	-2.47	0.04
93	SLE RA 6	-143	10	2905	-2	-2.45	0.04
93	SLE RA 7	-144	10	2908	-2.05	-2.46	0.04
93	SLE RA 8	-143	10	2905	-2	-2.45	0.04
93	SLE RA 9	-144	10	2908	-2.05	-2.46	0.04
93	SLE RA 10	-185	13	3541	-1.1	-3.32	0.04
93	SLE RA 11	-183	13	3537	-1.03	-3.3	0.04
93	SLE RA 12	-184	13	3539	-1.07	-3.31	0.04
93	SLE RA 13	-185	13	3541	-1.1	-3.32	0.04
93	SLE RA 14	-183	13	3537	-1.03	-3.3	0.04
93	SLE RA 15	-184	13	3539	-1.07	-3.31	0.04
93	SLE RA 16	-183	13	3537	-1.03	-3.3	0.04
93	SLE RA 17	-184	13	3539	-1.07	-3.31	0.04
93	SLE RA 18	-200	14	3807	-0.61	-3.66	0.05
93	SLE RA 19	-202	14	3810	-0.66	-3.67	0.05
93	SLE RA 20	-200	14	3807	-0.61	-3.66	0.05
93	SLE RA 21	-202	14	3810	-0.66	-3.67	0.05
93	SLE FR 1	-143	10	2905	-2	-2.45	0.04
93	SLE FR 2	-143	10	2906	-2.02	-2.45	0.04
93	SLE FR 3	-143	10	2905	-2	-2.45	0.04
93	SLE FR 4	-160	11	3177	-1.6	-2.82	0.04
93	SLE FR 5	-160	11	3176	-1.58	-2.81	0.04
93	SLE FR 6	-171	12	3356	-1.31	-3.06	0.04
93	SLE QP 1	-143	10	2905	-2	-2.45	0.04
93	SLE QP 2	-160	11	3176	-1.58	-2.81	0.04
93	SLD 1	112	20	2925	-17.53	8.79	0.07
93	SLD 2	112	20	2925	-17.53	8.79	0.07
93	SLD 3	157	-6	3060	19.62	10.56	-0.03
93	SLD 4	157	-6	3060	19.62	10.56	-0.03
93	SLD 5	-146	52	2896	-62.72	-2.01	0.2
93	SLD 6	-146	52	2896	-62.72	-2.01	0.2
93	SLD 7	2	-32	3346	61.13	3.88	-0.13
93	SLD 8	2	-32	3346	61.13	3.88	-0.13
93	SLD 9	-322	55	3005	-64.3	-9.51	0.21
93	SLD 10	-322	55	3005	-64.3	-9.51	0.21
93	SLD 11	-174	-30	3456	59.55	-3.61	-0.12
93	SLD 12	-174	-30	3456	59.55	-3.61	-0.12
93	SLD 13	-476	28	3291	-22.79	-16.19	0.11
93	SLD 14	-476	28	3291	-22.79	-16.19	0.11
93	SLD 15	-432	3	3426	14.36	-14.42	0.01
93	SLD 16	-432	3	3426	14.36	-14.42	0.01
93	SLV 1	473	33	2575	-42.96	24.22	0.13
93	SLV 2	473	33	2575	-42.96	24.22	0.13
93	SLV 3	587	-31	2920	52.3	28.76	-0.13
93	SLV 4	587	-31	2920	52.3	28.76	-0.13
93	SLV 5	-144	115	2473	-158.48	-1.6	0.45
93	SLV 6	-144	115	2473	-158.48	-1.6	0.45
93	SLV 7	238	-99	3622	159.06	13.55	-0.39





Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
93	SLV 8	238	-99	3622	159.06	13.55	-0.39
93	SLV 9	-558	121	2730	-162.23	-19.18	0.47
93	SLV 10	-558	121	2730	-162.23	-19.18	0.47
93	SLV 11	-176	-93	3878	155.31	-4.03	-0.37
93	SLV 12	-176	-93	3878	155.31	-4.03	-0.37
93	SLV 13	-907	53	3431	-55.47	-34.39	0.2
93	SLV 14	-907	53	3431	-55.47	-34.39	0.2
93	SLV 15	-793	-11	3776	39.79	-29.85	-0.05
93	SLV 16	-793	-11	3776	39.79	-29.85	-0.05
94	SLU 1	-218	10	2743	-1.63	-11.98	0.04
94	SLU 2	-223	10	2746	-1.81	-12.26	0.04
94	SLU 3	-218	10	2743	-1.63	-11.98	0.04
94	SLU 4	-221	10	2745	-1.74	-12.15	0.04
94	SLU 5	-223	10	2746	-1.81	-12.26	0.04
94	SLU 6	-218	10	2743	-1.63	-11.98	0.04
94	SLU 7	-221	10	2745	-1.74	-12.15	0.04
94	SLU 8	-218	10	2743	-1.63	-11.98	0.04
94	SLU 9	-221	10	2745	-1.74	-12.15	0.04
94	SLU 10	-322	13	3702	0.66	-17.61	0.05
94	SLU 11	-317	13	3699	0.84	-17.33	0.05
94	SLU 12	-320	13	3701	0.73	-17.5	0.05
94	SLU 13	-322	13	3702	0.66	-17.61	0.05
94	SLU 14	-317	13	3699	0.84	-17.33	0.05
94	SLU 15	-320	13	3701	0.73	-17.5	0.05
94	SLU 16	-317	13	3699	0.84	-17.33	0.05
94	SLU 17	-320	13	3701	0.73	-17.5	0.05
94	SLU 18	-359	14	4109	1.9	-19.62	0.06
94	SLU 19	-362	14	4111	1.79	-19.79	0.06
94	SLU 20	-359	14	4109	1.9	-19.62	0.06
94	SLU 21	-362	14	4111	1.79	-19.79	0.06
94	SLU 22	-262	11	3261	-0.37	-14.41	0.05
94	SLU 23	-267	11	3264	-0.54	-14.68	0.05
94	SLU 24	-262	11	3261	-0.37	-14.41	0.05
94	SLU 25	-265	11	3263	-0.47	-14.57	0.05
94	SLU 26	-267	11	3264	-0.54	-14.68	0.05
94	SLU 27	-262	11	3261	-0.37	-14.41	0.05
94	SLU 28	-265	11	3263	-0.47	-14.57	0.05
94	SLU 29	-262	11	3261	-0.37	-14.41	0.05
94	SLU 30	-265	11	3263	-0.47	-14.57	0.05
94	SLU 31	-366	14	4220	1.92	-20.03	0.06
94	SLU 32	-361	14	4217	2.1	-19.75	0.06
94	SLU 33	-364	14	4219	2	-19.92	0.06
94	SLU 34	-366	14	4220	1.92	-20.03	0.06
94	SLU 35	-361	14	4217	2.1	-19.75	0.06
94	SLU 36	-364	14	4219	2	-19.92	0.06
94	SLU 37	-361	14	4217	2.1	-19.75	0.06
94	SLU 38	-364	14	4219	2	-19.92	0.06
94	SLU 39	-403	15	4627	3.16	-22.05	0.06
94	SLU 40	-406	15	4629	3.05	-22.21	0.06
94	SLU 41	-403	15	4627	3.16	-22.05	0.06
94	SLU 42	-406	15	4629	3.05	-22.21	0.06
94	SLU 43	-269	12	3388	-2.55	-14.75	0.05
94	SLU 44	-274	12	3391	-2.73	-15.02	0.05
94	SLU 45	-269	12	3388	-2.55	-14.75	0.05
94	SLU 46	-272	12	3390	-2.66	-14.91	0.05
94	SLU 47	-274	12	3391	-2.73	-15.02	0.05
94	SLU 48	-269	12	3388	-2.55	-14.75	0.05
94	SLU 49	-272	12	3390	-2.66	-14.91	0.05
94	SLU 50	-269	12	3388	-2.55	-14.75	0.05
94	SLU 51	-272	12	3390	-2.66	-14.91	0.05
94	SLU 52	-372	15	4348	-0.26	-20.37	0.06
94	SLU 53	-367	15	4344	-0.08	-20.09	0.06
94	SLU 54	-370	15	4346	-0.19	-20.26	0.06
94	SLU 55	-372	15	4348	-0.26	-20.37	0.06
94	SLU 56	-367	15	4344	-0.08	-20.09	0.06
94	SLU 57	-370	15	4346	-0.19	-20.26	0.06
94	SLU 58	-367	15	4344	-0.08	-20.09	0.06
94	SLU 59	-370	15	4346	-0.19	-20.26	0.06
94	SLU 60	-410	17	4754	0.97	-22.39	0.07
94	SLU 61	-413	17	4756	0.87	-22.55	0.07
94	SLU 62	-410	17	4754	0.97	-22.39	0.07
94	SLU 63	-413	17	4756	0.87	-22.55	0.07
94	SLU 64	-313	14	3906	-1.29	-17.17	0.06
94	SLU 65	-318	14	3909	-1.47	-17.45	0.06
94	SLU 66	-313	14	3906	-1.29	-17.17	0.06
94	SLU 67	-316	14	3908	-1.39	-17.34	0.06
94	SLU 68	-318	14	3909	-1.47	-17.45	0.06
94	SLU 69	-313	14	3906	-1.29	-17.17	0.06
94	SLU 70	-316	14	3908	-1.39	-17.34	0.06
94	SLU 71	-313	14	3906	-1.29	-17.17	0.06
94	SLU 72	-316	14	3908	-1.39	-17.34	0.06
94	SLU 73	-416	17	4866	1	-22.8	0.07
94	SLU 74	-411	17	4863	1.18	-22.52	0.07
94	SLU 75	-414	17	4864	1.07	-22.68	0.07
94	SLU 76	-416	17	4866	1	-22.8	0.07
94	SLU 77	-411	17	4863	1.18	-22.52	0.07
94	SLU 78	-414	17	4864	1.07	-22.68	0.07
94	SLU 79	-411	17	4863	1.18	-22.52	0.07
94	SLU 80	-414	17	4864	1.07	-22.68	0.07
94	SLU 81	-454	18	5272	2.24	-24.81	0.07



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
94	SLU 82	-457	18	5274	2.13	-24.98	0.07
94	SLU 83	-454	18	5272	2.24	-24.81	0.07
94	SLU 84	-457	18	5274	2.13	-24.98	0.07
94	SLE RA 1	-231	10	2891	-1.27	-12.67	0.04
94	SLE RA 2	-234	10	2893	-1.39	-12.86	0.04
94	SLE RA 3	-231	10	2891	-1.27	-12.67	0.04
94	SLE RA 4	-233	10	2892	-1.34	-12.79	0.04
94	SLE RA 5	-234	10	2893	-1.39	-12.86	0.04
94	SLE RA 6	-231	10	2891	-1.27	-12.67	0.04
94	SLE RA 7	-233	10	2892	-1.34	-12.79	0.04
94	SLE RA 8	-231	10	2891	-1.27	-12.67	0.04
94	SLE RA 9	-233	10	2892	-1.34	-12.79	0.04
94	SLE RA 10	-300	12	3531	0.26	-16.43	0.05
94	SLE RA 11	-297	12	3528	0.38	-16.24	0.05
94	SLE RA 12	-299	12	3530	0.31	-16.35	0.05
94	SLE RA 13	-300	12	3531	0.26	-16.43	0.05
94	SLE RA 14	-297	12	3528	0.38	-16.24	0.05
94	SLE RA 15	-299	12	3530	0.31	-16.35	0.05
94	SLE RA 16	-297	12	3528	0.38	-16.24	0.05
94	SLE RA 17	-299	12	3530	0.31	-16.35	0.05
94	SLE RA 18	-325	13	3802	1.08	-17.77	0.05
94	SLE RA 19	-327	13	3803	1.01	-17.88	0.05
94	SLE RA 20	-325	13	3802	1.08	-17.77	0.05
94	SLE RA 21	-327	13	3803	1.01	-17.88	0.05
94	SLE FR 1	-231	10	2891	-1.27	-12.67	0.04
94	SLE FR 2	-232	10	2891	-1.29	-12.71	0.04
94	SLE FR 3	-231	10	2891	-1.27	-12.67	0.04
94	SLE FR 4	-260	11	3165	-0.59	-14.24	0.05
94	SLE FR 5	-259	11	3164	-0.56	-14.2	0.05
94	SLE FR 6	-278	12	3346	-0.09	-15.22	0.05
94	SLE QP 1	-231	10	2891	-1.27	-12.67	0.04
94	SLE QP 2	-259	11	3164	-0.56	-14.2	0.05
94	SLD 1	29	23	2897	-20.7	-1.8	0.1
94	SLD 2	29	23	2897	-20.7	-1.8	0.1
94	SLD 3	81	-10	3045	24.9	0.33	-0.05
94	SLD 4	81	-10	3045	24.9	0.33	-0.05
94	SLD 5	-251	65	2859	-75.75	-13.71	0.28
94	SLD 6	-251	65	2859	-75.75	-13.71	0.28
94	SLD 7	-78	-45	3353	76.23	-6.61	-0.2
94	SLD 8	-78	-45	3353	76.23	-6.61	-0.2
94	SLD 9	-440	67	2975	-77.35	-21.79	0.3
94	SLD 10	-440	67	2975	-77.35	-21.79	0.3
94	SLD 11	-267	-43	3469	74.63	-14.69	-0.19
94	SLD 12	-267	-43	3469	74.63	-14.69	-0.19
94	SLD 13	-599	32	3283	-26.02	-28.74	0.14
94	SLD 14	-599	32	3283	-26.02	-28.74	0.14
94	SLD 15	-547	-1	3432	19.57	-26.61	-0.01
94	SLD 16	-547	-1	3432	19.57	-26.61	-0.01
94	SLV 1	411	43	2520	-52.75	14.64	0.19
94	SLV 2	411	43	2520	-52.75	14.64	0.19
94	SLV 3	543	-41	2903	64.27	20.12	-0.19
94	SLV 4	543	-41	2903	64.27	20.12	-0.19
94	SLV 5	-259	148	2392	-193.7	-13.85	0.66
94	SLV 6	-259	148	2392	-193.7	-13.85	0.66
94	SLV 7	182	-132	3665	196.37	4.39	-0.59
94	SLV 8	182	-132	3665	196.37	4.39	-0.59
94	SLV 9	-701	154	2663	-197.49	-32.8	0.68
94	SLV 10	-701	154	2663	-197.49	-32.8	0.68
94	SLV 11	-259	-126	3937	192.57	-14.56	-0.57
94	SLV 12	-259	-126	3937	192.57	-14.56	-0.57
94	SLV 13	-1061	63	3426	-65.4	-48.52	0.28
94	SLV 14	-1061	63	3426	-65.4	-48.52	0.28
94	SLV 15	-929	-21	3808	51.62	-43.05	-0.1
94	SLV 16	-929	-21	3808	51.62	-43.05	-0.1
95	SLU 1	-174	10	2716	-1.01	-5.16	0.04
95	SLU 2	-178	10	2716	-1.26	-5.22	0.04
95	SLU 3	-174	10	2716	-1.01	-5.16	0.04
95	SLU 4	-176	10	2716	-1.16	-5.19	0.04
95	SLU 5	-178	10	2716	-1.26	-5.22	0.04
95	SLU 6	-174	10	2716	-1.01	-5.16	0.04
95	SLU 7	-176	10	2716	-1.16	-5.19	0.04
95	SLU 8	-174	10	2716	-1.01	-5.16	0.04
95	SLU 9	-176	10	2716	-1.16	-5.19	0.04
95	SLU 10	-262	12	3674	2.1	-7.96	0.06
95	SLU 11	-258	12	3674	2.36	-7.91	0.06
95	SLU 12	-260	12	3674	2.2	-7.94	0.06
95	SLU 13	-262	12	3674	2.1	-7.96	0.06
95	SLU 14	-258	12	3674	2.36	-7.91	0.06
95	SLU 15	-260	12	3674	2.2	-7.94	0.06
95	SLU 16	-258	12	3674	2.36	-7.91	0.06
95	SLU 17	-260	12	3674	2.2	-7.94	0.06
95	SLU 18	-294	13	4084	3.8	-9.08	0.06
95	SLU 19	-296	13	4084	3.64	-9.12	0.06
95	SLU 20	-294	13	4084	3.8	-9.08	0.06
95	SLU 21	-296	13	4084	3.64	-9.12	0.06
95	SLU 22	-213	11	3237	0.64	-6.46	0.05
95	SLU 23	-217	11	3237	0.38	-6.51	0.05
95	SLU 24	-213	11	3237	0.64	-6.46	0.05
95	SLU 25	-215	11	3237	0.49	-6.49	0.05
95	SLU 26	-217	11	3237	0.38	-6.51	0.05



Nodo	Cont.	Reazione a traslazione				Reazione a rotazione		
		x	y	z		x	y	z
95	SLU 27	-213	11	3237		0.64	-6.46	0.05
95	SLU 28	-215	11	3237		0.49	-6.49	0.05
95	SLU 29	-213	11	3237		0.64	-6.46	0.05
95	SLU 30	-215	11	3237		0.49	-6.49	0.05
95	SLU 31	-301	13	4195		3.75	-9.26	0.06
95	SLU 32	-297	13	4195		4	-9.2	0.06
95	SLU 33	-299	13	4195		3.85	-9.24	0.06
95	SLU 34	-301	13	4195		3.75	-9.26	0.06
95	SLU 35	-297	13	4195		4	-9.2	0.06
95	SLU 36	-299	13	4195		3.85	-9.24	0.06
95	SLU 37	-297	13	4195		4	-9.2	0.06
95	SLU 38	-299	13	4195		3.85	-9.24	0.06
95	SLU 39	-333	14	4606		5.44	-10.38	0.07
95	SLU 40	-335	14	4605		5.29	-10.41	0.07
95	SLU 41	-333	14	4606		5.44	-10.38	0.07
95	SLU 42	-335	14	4605		5.29	-10.41	0.07
95	SLU 43	-213	12	3352		-1.87	-6.26	0.06
95	SLU 44	-217	12	3352		-2.13	-6.32	0.06
95	SLU 45	-213	12	3352		-1.87	-6.26	0.06
95	SLU 46	-215	12	3352		-2.03	-6.3	0.06
95	SLU 47	-217	12	3352		-2.13	-6.32	0.06
95	SLU 48	-213	12	3352		-1.87	-6.26	0.06
95	SLU 49	-215	12	3352		-2.03	-6.3	0.06
95	SLU 50	-213	12	3352		-1.87	-6.26	0.06
95	SLU 51	-215	12	3352		-2.03	-6.3	0.06
95	SLU 52	-301	15	4310		1.23	-9.07	0.07
95	SLU 53	-297	15	4310		1.49	-9.01	0.07
95	SLU 54	-299	15	4310		1.34	-9.04	0.07
95	SLU 55	-301	15	4310		1.23	-9.07	0.07
95	SLU 56	-297	15	4310		1.49	-9.01	0.07
95	SLU 57	-299	15	4310		1.34	-9.04	0.07
95	SLU 58	-297	15	4310		1.49	-9.01	0.07
95	SLU 59	-299	15	4310		1.34	-9.04	0.07
95	SLU 60	-333	16	4720		2.93	-10.19	0.07
95	SLU 61	-335	16	4720		2.78	-10.22	0.07
95	SLU 62	-333	16	4720		2.93	-10.19	0.07
95	SLU 63	-335	16	4720		2.78	-10.22	0.07
95	SLU 64	-252	13	3873		-0.22	-7.56	0.06
95	SLU 65	-256	13	3873		-0.48	-7.62	0.06
95	SLU 66	-252	13	3873		-0.22	-7.56	0.06
95	SLU 67	-254	13	3873		-0.38	-7.59	0.06
95	SLU 68	-256	13	3873		-0.48	-7.62	0.06
95	SLU 69	-252	13	3873		-0.22	-7.56	0.06
95	SLU 70	-254	13	3873		-0.38	-7.59	0.06
95	SLU 71	-252	13	3873		-0.22	-7.56	0.06
95	SLU 72	-254	13	3873		-0.38	-7.59	0.06
95	SLU 73	-340	16	4831		2.88	-10.36	0.07
95	SLU 74	-336	16	4831		3.14	-10.3	0.07
95	SLU 75	-338	16	4831		2.98	-10.34	0.07
95	SLU 76	-340	16	4831		2.88	-10.36	0.07
95	SLU 77	-336	16	4831		3.14	-10.3	0.07
95	SLU 78	-338	16	4831		2.98	-10.34	0.07
95	SLU 79	-336	16	4831		3.14	-10.3	0.07
95	SLU 80	-338	16	4831		2.98	-10.34	0.07
95	SLU 81	-372	17	5242		4.58	-11.48	0.08
95	SLU 82	-374	17	5242		4.42	-11.52	0.08
95	SLU 83	-372	17	5242		4.58	-11.48	0.08
95	SLU 84	-374	17	5242		4.42	-11.52	0.08
95	SLE RA 1	-185	10	2865		-0.54	-5.53	0.05
95	SLE RA 2	-188	10	2865		-0.71	-5.57	0.05
95	SLE RA 3	-185	10	2865		-0.54	-5.53	0.05
95	SLE RA 4	-187	10	2865		-0.64	-5.55	0.05
95	SLE RA 5	-188	10	2865		-0.71	-5.57	0.05
95	SLE RA 6	-185	10	2865		-0.54	-5.53	0.05
95	SLE RA 7	-187	10	2865		-0.64	-5.55	0.05
95	SLE RA 8	-185	10	2865		-0.54	-5.53	0.05
95	SLE RA 9	-187	10	2865		-0.64	-5.55	0.05
95	SLE RA 10	-244	12	3503		1.54	-7.4	0.05
95	SLE RA 11	-241	12	3503		1.71	-7.36	0.05
95	SLE RA 12	-243	12	3503		1.6	-7.38	0.05
95	SLE RA 13	-244	12	3503		1.54	-7.4	0.05
95	SLE RA 14	-241	12	3503		1.71	-7.36	0.05
95	SLE RA 15	-243	12	3503		1.6	-7.38	0.05
95	SLE RA 16	-241	12	3503		1.71	-7.36	0.05
95	SLE RA 17	-243	12	3503		1.6	-7.38	0.05
95	SLE RA 18	-265	12	3777		2.67	-8.15	0.06
95	SLE RA 19	-267	12	3777		2.56	-8.17	0.06
95	SLE RA 20	-265	12	3777		2.67	-8.15	0.06
95	SLE RA 21	-267	12	3777		2.56	-8.17	0.06
95	SLE FR 1	-185	10	2865		-0.54	-5.53	0.05
95	SLE FR 2	-186	10	2865		-0.57	-5.54	0.05
95	SLE FR 3	-185	10	2865		-0.54	-5.53	0.05
95	SLE FR 4	-210	11	3138		0.39	-6.32	0.05
95	SLE FR 5	-209	11	3138		0.43	-6.31	0.05
95	SLE FR 6	-225	11	3321		1.07	-6.84	0.05
95	SLE QP 1	-185	10	2865		-0.54	-5.53	0.05
95	SLE QP 2	-209	11	3138		0.43	-6.31	0.05
95	SLD 1	95	27	2872		-23.41	6.77	0.12
95	SLD 2	95	27	2872		-23.41	6.77	0.12
95	SLD 3	149	-13	3028		29.3	9.03	-0.06



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
95	SLD 4	149	-13	3028	29.3	9.03	-0.06
95	SLD 5	-200	76	2821	-86.67	-5.81	0.35
95	SLD 6	-200	76	2821	-86.67	-5.81	0.35
95	SLD 7	-20	-57	3343	89.03	1.71	-0.27
95	SLD 8	-20	-57	3343	89.03	1.71	-0.27
95	SLD 9	-399	78	2934	-88.18	-14.34	0.36
95	SLD 10	-399	78	2934	-88.18	-14.34	0.36
95	SLD 11	-219	-55	3456	87.52	-6.82	-0.26
95	SLD 12	-219	-55	3456	87.52	-6.82	-0.26
95	SLD 13	-568	34	3249	-28.45	-21.66	0.16
95	SLD 14	-568	34	3249	-28.45	-21.66	0.16
95	SLD 15	-514	-5	3405	24.26	-19.4	-0.03
95	SLD 16	-514	-5	3405	24.26	-19.4	-0.03
95	SLV 1	499	53	2495	-61.25	24.16	0.25
95	SLV 2	499	53	2495	-61.25	24.16	0.25
95	SLV 3	636	-49	2900	74.07	29.85	-0.23
95	SLV 4	636	-49	2900	74.07	29.85	-0.23
95	SLV 5	-204	178	2331	-223.31	-5.8	0.83
95	SLV 6	-204	178	2331	-223.31	-5.8	0.83
95	SLV 7	251	-162	3681	227.75	13.16	-0.76
95	SLV 8	251	-162	3681	227.75	13.16	-0.76
95	SLV 9	-670	183	2596	-226.9	-25.79	0.85
95	SLV 10	-670	183	2596	-226.9	-25.79	0.85
95	SLV 11	-215	-157	3945	224.16	-6.83	-0.73
95	SLV 12	-215	-157	3945	224.16	-6.83	-0.73
95	SLV 13	-1054	71	3377	-73.22	-42.48	0.33
95	SLV 14	-1054	71	3377	-73.22	-42.48	0.33
95	SLV 15	-918	-31	3782	62.1	-36.79	-0.15
95	SLV 16	-918	-31	3782	62.1	-36.79	-0.15
96	SLU 1	-200	10	2732	-0.57	-10.68	0.04
96	SLU 2	-206	10	2730	-0.92	-10.99	0.04
96	SLU 3	-200	10	2732	-0.57	-10.68	0.04
96	SLU 4	-204	10	2731	-0.78	-10.86	0.04
96	SLU 5	-206	10	2730	-0.92	-10.99	0.04
96	SLU 6	-200	10	2732	-0.57	-10.68	0.04
96	SLU 7	-204	10	2731	-0.78	-10.86	0.04
96	SLU 8	-200	10	2732	-0.57	-10.68	0.04
96	SLU 9	-204	10	2731	-0.78	-10.86	0.04
96	SLU 10	-301	12	3708	3.07	-15.94	0.05
96	SLU 11	-295	12	3711	3.43	-15.63	0.05
96	SLU 12	-298	12	3709	3.22	-15.82	0.05
96	SLU 13	-301	12	3708	3.07	-15.94	0.05
96	SLU 14	-295	12	3711	3.43	-15.63	0.05
96	SLU 15	-298	12	3709	3.22	-15.82	0.05
96	SLU 16	-295	12	3711	3.43	-15.63	0.05
96	SLU 17	-298	12	3709	3.22	-15.82	0.05
96	SLU 18	-336	13	4130	5.14	-17.75	0.06
96	SLU 19	-339	13	4128	4.93	-17.94	0.06
96	SLU 20	-336	13	4130	5.14	-17.75	0.06
96	SLU 21	-339	13	4128	4.93	-17.94	0.06
96	SLU 22	-245	11	3265	1.34	-13.03	0.05
96	SLU 23	-251	11	3262	0.99	-13.34	0.05
96	SLU 24	-245	11	3265	1.34	-13.03	0.05
96	SLU 25	-249	11	3264	1.13	-13.22	0.05
96	SLU 26	-251	11	3262	0.99	-13.34	0.05
96	SLU 27	-245	11	3265	1.34	-13.03	0.05
96	SLU 28	-249	11	3264	1.13	-13.22	0.05
96	SLU 29	-245	11	3265	1.34	-13.03	0.05
96	SLU 30	-249	11	3264	1.13	-13.22	0.05
96	SLU 31	-346	13	4241	4.98	-18.3	0.06
96	SLU 32	-340	13	4243	5.34	-17.99	0.06
96	SLU 33	-343	13	4242	5.13	-18.17	0.06
96	SLU 34	-346	13	4241	4.98	-18.3	0.06
96	SLU 35	-340	13	4243	5.34	-17.99	0.06
96	SLU 36	-343	13	4242	5.13	-18.17	0.06
96	SLU 37	-340	13	4243	5.34	-17.99	0.06
96	SLU 38	-343	13	4242	5.13	-18.17	0.06
96	SLU 39	-381	14	4663	7.05	-20.11	0.06
96	SLU 40	-384	14	4661	6.84	-20.29	0.06
96	SLU 41	-381	14	4663	7.05	-20.11	0.06
96	SLU 42	-384	14	4661	6.84	-20.29	0.06
96	SLU 43	-245	12	3370	-1.4	-13.07	0.05
96	SLU 44	-251	12	3367	-1.75	-13.38	0.05
96	SLU 45	-245	12	3370	-1.4	-13.07	0.05
96	SLU 46	-248	12	3368	-1.61	-13.26	0.05
96	SLU 47	-251	12	3367	-1.75	-13.38	0.05
96	SLU 48	-245	12	3370	-1.4	-13.07	0.05
96	SLU 49	-248	12	3368	-1.61	-13.26	0.05
96	SLU 50	-245	12	3370	-1.4	-13.07	0.05
96	SLU 51	-248	12	3368	-1.61	-13.26	0.05
96	SLU 52	-345	14	4345	2.25	-18.33	0.06
96	SLU 53	-340	14	4348	2.6	-18.02	0.06
96	SLU 54	-343	14	4346	2.39	-18.21	0.06
96	SLU 55	-345	14	4345	2.25	-18.33	0.06
96	SLU 56	-340	14	4348	2.6	-18.02	0.06
96	SLU 57	-343	14	4346	2.39	-18.21	0.06
96	SLU 58	-340	14	4348	2.6	-18.02	0.06
96	SLU 59	-343	14	4346	2.39	-18.21	0.06
96	SLU 60	-380	15	4767	4.31	-20.15	0.07
96	SLU 61	-384	15	4765	4.1	-20.33	0.07



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
96	SLU 62	-380	15	4767	4.31	-20.15	0.07
96	SLU 63	-384	15	4765	4.1	-20.33	0.07
96	SLU 64	-290	13	3902	0.51	-15.43	0.06
96	SLU 65	-296	13	3900	0.16	-15.74	0.06
96	SLU 66	-290	13	3902	0.51	-15.43	0.06
96	SLU 67	-293	13	3901	0.3	-15.61	0.06
96	SLU 68	-296	13	3900	0.16	-15.74	0.06
96	SLU 69	-290	13	3902	0.51	-15.43	0.06
96	SLU 70	-293	13	3901	0.3	-15.61	0.06
96	SLU 71	-290	13	3902	0.51	-15.43	0.06
96	SLU 72	-293	13	3901	0.3	-15.61	0.06
96	SLU 73	-390	15	4878	4.16	-20.69	0.07
96	SLU 74	-385	15	4881	4.51	-20.38	0.07
96	SLU 75	-388	15	4879	4.3	-20.57	0.07
96	SLU 76	-390	15	4878	4.16	-20.69	0.07
96	SLU 77	-385	15	4881	4.51	-20.38	0.07
96	SLU 78	-388	15	4879	4.3	-20.57	0.07
96	SLU 79	-385	15	4881	4.51	-20.38	0.07
96	SLU 80	-388	15	4879	4.3	-20.57	0.07
96	SLU 81	-425	16	5300	6.22	-22.5	0.07
96	SLU 82	-429	16	5298	6.01	-22.69	0.07
96	SLU 83	-425	16	5300	6.22	-22.5	0.07
96	SLU 84	-429	16	5298	6.01	-22.69	0.07
96	SLE RA 1	-213	10	2885	-0.02	-11.35	0.04
96	SLE RA 2	-217	10	2883	-0.26	-11.56	0.04
96	SLE RA 3	-213	10	2885	-0.02	-11.35	0.04
96	SLE RA 4	-215	10	2884	-0.17	-11.47	0.04
96	SLE RA 5	-217	10	2883	-0.26	-11.56	0.04
96	SLE RA 6	-213	10	2885	-0.02	-11.35	0.04
96	SLE RA 7	-215	10	2884	-0.17	-11.47	0.04
96	SLE RA 8	-213	10	2885	-0.02	-11.35	0.04
96	SLE RA 9	-215	10	2884	-0.17	-11.47	0.04
96	SLE RA 10	-280	11	3535	2.41	-14.86	0.05
96	SLE RA 11	-276	11	3537	2.64	-14.65	0.05
96	SLE RA 12	-279	11	3536	2.5	-14.78	0.05
96	SLE RA 13	-280	11	3535	2.41	-14.86	0.05
96	SLE RA 14	-276	11	3537	2.64	-14.65	0.05
96	SLE RA 15	-279	11	3536	2.5	-14.78	0.05
96	SLE RA 16	-276	11	3537	2.64	-14.65	0.05
96	SLE RA 17	-279	11	3536	2.5	-14.78	0.05
96	SLE RA 18	-303	12	3816	3.78	-16.07	0.05
96	SLE RA 19	-306	12	3815	3.64	-16.19	0.05
96	SLE RA 20	-303	12	3816	3.78	-16.07	0.05
96	SLE RA 21	-306	12	3815	3.64	-16.19	0.05
96	SLE FR 1	-213	10	2885	-0.02	-11.35	0.04
96	SLE FR 2	-214	10	2884	-0.07	-11.39	0.04
96	SLE FR 3	-213	10	2885	-0.02	-11.35	0.04
96	SLE FR 4	-241	10	3164	1.07	-12.81	0.05
96	SLE FR 5	-240	10	3164	1.12	-12.76	0.05
96	SLE FR 6	-258	11	3351	1.88	-13.71	0.05
96	SLE QP 1	-213	10	2885	-0.02	-11.35	0.04
96	SLE QP 2	-240	10	3164	1.12	-12.76	0.05
96	SLD 1	81	30	2911	-25.39	1.29	0.13
96	SLD 2	81	30	2911	-25.39	1.29	0.13
96	SLD 3	128	-16	3073	32.46	3.27	-0.07
96	SLD 4	128	-16	3073	32.46	3.27	-0.07
96	SLD 5	-216	85	2843	-94.58	-11.55	0.38
96	SLD 6	-216	85	2843	-94.58	-11.55	0.38
96	SLD 7	-57	-66	3382	98.26	-4.95	-0.29
96	SLD 8	-57	-66	3382	98.26	-4.95	-0.29
96	SLD 9	-423	87	2947	-96.03	-20.58	0.39
96	SLD 10	-423	87	2947	-96.03	-20.58	0.39
96	SLD 11	-264	-64	3485	96.81	-13.97	-0.29
96	SLD 12	-264	-64	3485	96.81	-13.97	-0.29
96	SLD 13	-609	37	3256	-30.23	-28.8	0.16
96	SLD 14	-609	37	3256	-30.23	-28.8	0.16
96	SLD 15	-561	-9	3417	27.63	-26.82	-0.04
96	SLD 16	-561	-9	3417	27.63	-26.82	-0.04
96	SLV 1	508	60	2552	-67.35	20.03	0.27
96	SLV 2	508	60	2552	-67.35	20.03	0.27
96	SLV 3	627	-55	2970	81.16	24.99	-0.25
96	SLV 4	627	-55	2970	81.16	24.99	-0.25
96	SLV 5	-197	201	2346	-244.66	-10.44	0.9
96	SLV 6	-197	201	2346	-244.66	-10.44	0.9
96	SLV 7	201	-185	3740	250.37	6.08	-0.83
96	SLV 8	201	-185	3740	250.37	6.08	-0.83
96	SLV 9	-681	206	2588	-248.14	-31.61	0.92
96	SLV 10	-681	206	2588	-248.14	-31.61	0.92
96	SLV 11	-284	-180	3982	246.9	-15.09	-0.8
96	SLV 12	-284	-180	3982	246.9	-15.09	-0.8
96	SLV 13	-1108	76	3359	-78.92	-50.52	0.34
96	SLV 14	-1108	76	3359	-78.92	-50.52	0.34
96	SLV 15	-989	-39	3777	69.59	-45.56	-0.17
96	SLV 16	-989	-39	3777	69.59	-45.56	-0.17
97	SLU 1	-151	10	2779	-0.45	-5.72	0.04
97	SLU 2	-155	10	2774	-0.92	-5.82	0.04
97	SLU 3	-151	10	2779	-0.45	-5.72	0.04
97	SLU 4	-153	10	2776	-0.73	-5.78	0.04
97	SLU 5	-155	10	2774	-0.92	-5.82	0.04
97	SLU 6	-151	10	2779	-0.45	-5.72	0.04



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
97	SLU 7	-153	10	2776	-0.73	-5.78	0.04
97	SLU 8	-151	10	2779	-0.45	-5.72	0.04
97	SLU 9	-153	10	2776	-0.73	-5.78	0.04
97	SLU 10	-229	12	3787	3.35	-8.85	0.05
97	SLU 11	-224	11	3792	3.83	-8.75	0.04
97	SLU 12	-227	12	3789	3.54	-8.81	0.04
97	SLU 13	-229	12	3787	3.35	-8.85	0.05
97	SLU 14	-224	11	3792	3.83	-8.75	0.04
97	SLU 15	-227	12	3789	3.54	-8.81	0.04
97	SLU 16	-224	11	3792	3.83	-8.75	0.04
97	SLU 17	-227	12	3789	3.54	-8.81	0.04
97	SLU 18	-256	12	4226	5.66	-10.05	0.05
97	SLU 19	-259	12	4223	5.38	-10.11	0.05
97	SLU 20	-256	12	4226	5.66	-10.05	0.05
97	SLU 21	-259	12	4223	5.38	-10.11	0.05
97	SLU 22	-187	11	3330	1.57	-7.24	0.04
97	SLU 23	-191	11	3325	1.1	-7.34	0.04
97	SLU 24	-187	11	3330	1.57	-7.24	0.04
97	SLU 25	-190	11	3327	1.28	-7.3	0.04
97	SLU 26	-191	11	3325	1.1	-7.34	0.04
97	SLU 27	-187	11	3330	1.57	-7.24	0.04
97	SLU 28	-190	11	3327	1.28	-7.3	0.04
97	SLU 29	-187	11	3330	1.57	-7.24	0.04
97	SLU 30	-190	11	3327	1.28	-7.3	0.04
97	SLU 31	-265	13	4338	5.37	-10.36	0.05
97	SLU 32	-260	13	4343	5.84	-10.27	0.05
97	SLU 33	-263	13	4340	5.56	-10.33	0.05
97	SLU 34	-265	13	4338	5.37	-10.36	0.05
97	SLU 35	-260	13	4343	5.84	-10.27	0.05
97	SLU 36	-263	13	4340	5.56	-10.33	0.05
97	SLU 37	-260	13	4343	5.84	-10.27	0.05
97	SLU 38	-263	13	4340	5.56	-10.33	0.05
97	SLU 39	-292	13	4777	7.68	-11.57	0.05
97	SLU 40	-295	13	4774	7.39	-11.62	0.05
97	SLU 41	-292	13	4777	7.68	-11.57	0.05
97	SLU 42	-295	13	4774	7.39	-11.62	0.05
97	SLU 43	-184	12	3423	-1.28	-6.92	0.05
97	SLU 44	-188	12	3418	-1.75	-7.02	0.05
97	SLU 45	-184	12	3423	-1.28	-6.92	0.05
97	SLU 46	-186	12	3420	-1.56	-6.98	0.05
97	SLU 47	-188	12	3418	-1.75	-7.02	0.05
97	SLU 48	-184	12	3423	-1.28	-6.92	0.05
97	SLU 49	-186	12	3420	-1.56	-6.98	0.05
97	SLU 50	-184	12	3423	-1.28	-6.92	0.05
97	SLU 51	-186	12	3420	-1.56	-6.98	0.05
97	SLU 52	-262	14	4431	2.53	-10.04	0.06
97	SLU 53	-257	14	4436	3	-9.95	0.05
97	SLU 54	-260	14	4433	2.72	-10.01	0.05
97	SLU 55	-262	14	4431	2.53	-10.04	0.06
97	SLU 56	-257	14	4436	3	-9.95	0.05
97	SLU 57	-260	14	4433	2.72	-10.01	0.05
97	SLU 58	-257	14	4436	3	-9.95	0.05
97	SLU 59	-260	14	4433	2.72	-10.01	0.05
97	SLU 60	-289	15	4870	4.83	-11.25	0.06
97	SLU 61	-291	15	4867	4.55	-11.3	0.06
97	SLU 62	-289	15	4870	4.83	-11.25	0.06
97	SLU 63	-291	15	4867	4.55	-11.3	0.06
97	SLU 64	-220	13	3975	0.74	-8.44	0.05
97	SLU 65	-224	13	3970	0.27	-8.53	0.05
97	SLU 66	-220	13	3975	0.74	-8.44	0.05
97	SLU 67	-222	13	3972	0.46	-8.49	0.05
97	SLU 68	-224	13	3970	0.27	-8.53	0.05
97	SLU 69	-220	13	3975	0.74	-8.44	0.05
97	SLU 70	-222	13	3972	0.46	-8.49	0.05
97	SLU 71	-220	13	3975	0.74	-8.44	0.05
97	SLU 72	-222	13	3972	0.46	-8.49	0.05
97	SLU 73	-298	15	4983	4.54	-11.56	0.06
97	SLU 74	-293	15	4988	5.02	-11.47	0.06
97	SLU 75	-296	15	4985	4.73	-11.52	0.06
97	SLU 76	-298	15	4983	4.54	-11.56	0.06
97	SLU 77	-293	15	4988	5.02	-11.47	0.06
97	SLU 78	-296	15	4985	4.73	-11.52	0.06
97	SLU 79	-293	15	4988	5.02	-11.47	0.06
97	SLU 80	-296	15	4985	4.73	-11.52	0.06
97	SLU 81	-325	16	5422	6.85	-12.76	0.06
97	SLU 82	-327	16	5419	6.57	-12.82	0.06
97	SLU 83	-325	16	5422	6.85	-12.76	0.06
97	SLU 84	-327	16	5419	6.57	-12.82	0.06
97	SLE RA 1	-161	10	2936	0.13	-6.16	0.04
97	SLE RA 2	-164	10	2933	-0.19	-6.22	0.04
97	SLE RA 3	-161	10	2936	0.13	-6.16	0.04
97	SLE RA 4	-163	10	2934	-0.06	-6.2	0.04
97	SLE RA 5	-164	10	2933	-0.19	-6.22	0.04
97	SLE RA 6	-161	10	2936	0.13	-6.16	0.04
97	SLE RA 7	-163	10	2934	-0.06	-6.2	0.04
97	SLE RA 8	-161	10	2936	0.13	-6.16	0.04
97	SLE RA 9	-163	10	2934	-0.06	-6.2	0.04
97	SLE RA 10	-213	11	3608	2.66	-8.24	0.04
97	SLE RA 11	-210	11	3612	2.98	-8.18	0.04
97	SLE RA 12	-212	11	3610	2.79	-8.21	0.04



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
97	SLE RA 13	-213	11	3608	2.66	-8.24	0.04
97	SLE RA 14	-210	11	3612	2.98	-8.18	0.04
97	SLE RA 15	-212	11	3610	2.79	-8.21	0.04
97	SLE RA 16	-210	11	3612	2.98	-8.18	0.04
97	SLE RA 17	-212	11	3610	2.79	-8.21	0.04
97	SLE RA 18	-231	12	3901	4.2	-9.04	0.05
97	SLE RA 19	-233	12	3899	4.01	-9.08	0.05
97	SLE RA 20	-231	12	3901	4.2	-9.04	0.05
97	SLE RA 21	-233	12	3899	4.01	-9.08	0.05
97	SLE FR 1	-161	10	2936	0.13	-6.16	0.04
97	SLE FR 2	-162	10	2936	0.06	-6.17	0.04
97	SLE FR 3	-161	10	2936	0.13	-6.16	0.04
97	SLE FR 4	-183	10	3225	1.29	-7.04	0.04
97	SLE FR 5	-182	10	3226	1.35	-7.02	0.04
97	SLE FR 6	-196	11	3419	2.16	-7.6	0.04
97	SLE QP 1	-161	10	2936	0.13	-6.16	0.04
97	SLE QP 2	-182	10	3226	1.35	-7.02	0.04
97	SLD 1	140	31	2993	-26.31	7.09	0.12
97	SLD 2	140	31	2993	-26.31	7.09	0.12
97	SLD 3	182	-17	3150	34.13	8.87	-0.07
97	SLD 4	182	-17	3150	34.13	8.87	-0.07
97	SLD 5	-150	90	2917	-98.61	-5.49	0.35
97	SLD 6	-150	90	2917	-98.61	-5.49	0.35
97	SLD 7	-9	-71	3441	102.84	0.45	-0.28
97	SLD 8	-9	-71	3441	102.84	0.45	-0.28
97	SLD 9	-355	92	3010	-100.14	-14.49	0.36
97	SLD 10	-355	92	3010	-100.14	-14.49	0.36
97	SLD 11	-215	-69	3534	101.31	-8.56	-0.27
97	SLD 12	-215	-69	3534	101.31	-8.56	-0.27
97	SLD 13	-546	38	3301	-31.43	-22.92	0.15
97	SLD 14	-546	38	3301	-31.43	-22.92	0.15
97	SLD 15	-504	-10	3459	29.01	-21.14	-0.04
97	SLD 16	-504	-10	3459	29.01	-21.14	-0.04
97	SLV 1	569	64	2660	-70.01	25.94	0.25
97	SLV 2	569	64	2660	-70.01	25.94	0.25
97	SLV 3	673	-59	3068	85.15	30.32	-0.23
97	SLV 4	673	-59	3068	85.15	30.32	-0.23
97	SLV 5	-113	214	2437	-255.38	-3.77	0.83
97	SLV 6	-113	214	2437	-255.38	-3.77	0.83
97	SLV 7	231	-198	3798	261.81	10.82	-0.77
97	SLV 8	231	-198	3798	261.81	10.82	-0.77
97	SLV 9	-595	219	2654	-259.11	-24.86	0.85
97	SLV 10	-595	219	2654	-259.11	-24.86	0.85
97	SLV 11	-251	-193	4015	258.07	-10.28	-0.75
97	SLV 12	-251	-193	4015	258.07	-10.28	-0.75
97	SLV 13	-1037	80	3383	-82.45	-44.37	0.31
97	SLV 14	-1037	80	3383	-82.45	-44.37	0.31
97	SLV 15	-934	-43	3792	72.7	-39.99	-0.17
97	SLV 16	-934	-43	3792	72.7	-39.99	-0.17
98	SLU 1	-153	10	2897	-0.76	-8.5	0.03
98	SLU 2	-160	10	2890	-1.37	-8.89	0.03
98	SLU 3	-153	10	2897	-0.76	-8.5	0.03
98	SLU 4	-157	10	2893	-1.13	-8.74	0.03
98	SLU 5	-160	10	2890	-1.37	-8.89	0.03
98	SLU 6	-153	10	2897	-0.76	-8.5	0.03
98	SLU 7	-157	10	2893	-1.13	-8.74	0.03
98	SLU 8	-153	10	2897	-0.76	-8.5	0.03
98	SLU 9	-157	10	2893	-1.13	-8.74	0.03
98	SLU 10	-229	12	3973	2.73	-12.73	0.04
98	SLU 11	-222	11	3980	3.35	-12.33	0.03
98	SLU 12	-226	12	3976	2.98	-12.57	0.04
98	SLU 13	-229	12	3973	2.73	-12.73	0.04
98	SLU 14	-222	11	3980	3.35	-12.33	0.03
98	SLU 15	-226	12	3976	2.98	-12.57	0.04
98	SLU 16	-222	11	3980	3.35	-12.33	0.03
98	SLU 17	-226	12	3976	2.98	-12.57	0.04
98	SLU 18	-252	12	4444	5.11	-13.97	0.04
98	SLU 19	-256	12	4440	4.74	-14.21	0.04
98	SLU 20	-252	12	4444	5.11	-13.97	0.04
98	SLU 21	-256	12	4440	4.74	-14.21	0.04
98	SLU 22	-187	11	3485	1.18	-10.4	0.03
98	SLU 23	-194	11	3477	0.56	-10.8	0.03
98	SLU 24	-187	11	3485	1.18	-10.4	0.03
98	SLU 25	-192	11	3480	0.81	-10.64	0.03
98	SLU 26	-194	11	3477	0.56	-10.8	0.03
98	SLU 27	-187	11	3485	1.18	-10.4	0.03
98	SLU 28	-192	11	3480	0.81	-10.64	0.03
98	SLU 29	-187	11	3485	1.18	-10.4	0.03
98	SLU 30	-192	11	3480	0.81	-10.64	0.03
98	SLU 31	-263	13	4561	4.67	-14.63	0.04
98	SLU 32	-257	12	4568	5.28	-14.24	0.04
98	SLU 33	-261	13	4563	4.91	-14.47	0.04
98	SLU 34	-263	13	4561	4.67	-14.63	0.04
98	SLU 35	-257	12	4568	5.28	-14.24	0.04
98	SLU 36	-261	13	4563	4.91	-14.47	0.04
98	SLU 37	-257	12	4568	5.28	-14.24	0.04
98	SLU 38	-261	13	4563	4.91	-14.47	0.04
98	SLU 39	-286	13	5032	7.04	-15.88	0.04
98	SLU 40	-290	13	5028	6.67	-16.12	0.04
98	SLU 41	-286	13	5032	7.04	-15.88	0.04



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
98	SLU 42	-290	13	5028	6.67	-16.12	0.04
98	SLU 43	-187	12	3565	-1.65	-10.4	0.04
98	SLU 44	-194	12	3557	-2.26	-10.79	0.04
98	SLU 45	-187	12	3565	-1.65	-10.4	0.04
98	SLU 46	-191	12	3560	-2.02	-10.63	0.04
98	SLU 47	-194	12	3557	-2.26	-10.79	0.04
98	SLU 48	-187	12	3565	-1.65	-10.4	0.04
98	SLU 49	-191	12	3560	-2.02	-10.63	0.04
98	SLU 50	-187	12	3565	-1.65	-10.4	0.04
98	SLU 51	-191	12	3560	-2.02	-10.63	0.04
98	SLU 52	-263	14	4640	1.84	-14.62	0.04
98	SLU 53	-256	14	4648	2.46	-14.23	0.04
98	SLU 54	-260	14	4643	2.09	-14.47	0.04
98	SLU 55	-263	14	4640	1.84	-14.62	0.04
98	SLU 56	-256	14	4648	2.46	-14.23	0.04
98	SLU 57	-260	14	4643	2.09	-14.47	0.04
98	SLU 58	-256	14	4648	2.46	-14.23	0.04
98	SLU 59	-260	14	4643	2.09	-14.47	0.04
98	SLU 60	-286	15	5112	4.22	-15.87	0.04
98	SLU 61	-290	15	5108	3.85	-16.11	0.05
98	SLU 62	-286	15	5112	4.22	-15.87	0.04
98	SLU 63	-290	15	5108	3.85	-16.11	0.05
98	SLU 64	-222	13	4152	0.29	-12.3	0.04
98	SLU 65	-228	13	4145	-0.33	-12.7	0.04
98	SLU 66	-222	13	4152	0.29	-12.3	0.04
98	SLU 67	-226	13	4148	-0.08	-12.54	0.04
98	SLU 68	-228	13	4145	-0.33	-12.7	0.04
98	SLU 69	-222	13	4152	0.29	-12.3	0.04
98	SLU 70	-226	13	4148	-0.08	-12.54	0.04
98	SLU 71	-222	13	4152	0.29	-12.3	0.04
98	SLU 72	-226	13	4148	-0.08	-12.54	0.04
98	SLU 73	-297	15	5228	3.78	-16.53	0.05
98	SLU 74	-291	15	5236	4.39	-16.13	0.05
98	SLU 75	-295	15	5231	4.02	-16.37	0.05
98	SLU 76	-297	15	5228	3.78	-16.53	0.05
98	SLU 77	-291	15	5236	4.39	-16.13	0.05
98	SLU 78	-295	15	5231	4.02	-16.37	0.05
98	SLU 79	-291	15	5236	4.39	-16.13	0.05
98	SLU 80	-295	15	5231	4.02	-16.37	0.05
98	SLU 81	-320	16	5700	6.15	-17.78	0.05
98	SLU 82	-324	16	5695	5.78	-18.01	0.05
98	SLU 83	-320	16	5700	6.15	-17.78	0.05
98	SLU 84	-324	16	5695	5.78	-18.01	0.05
98	SLE RA 1	-163	10	3065	-0.2	-9.04	0.03
98	SLE RA 2	-167	10	3060	-0.61	-9.31	0.03
98	SLE RA 3	-163	10	3065	-0.2	-9.04	0.03
98	SLE RA 4	-166	10	3062	-0.45	-9.2	0.03
98	SLE RA 5	-167	10	3060	-0.61	-9.31	0.03
98	SLE RA 6	-163	10	3065	-0.2	-9.04	0.03
98	SLE RA 7	-166	10	3062	-0.45	-9.2	0.03
98	SLE RA 8	-163	10	3065	-0.2	-9.04	0.03
98	SLE RA 9	-166	10	3062	-0.45	-9.2	0.03
98	SLE RA 10	-213	11	3782	2.12	-11.86	0.03
98	SLE RA 11	-209	11	3787	2.53	-11.6	0.03
98	SLE RA 12	-212	11	3784	2.29	-11.76	0.03
98	SLE RA 13	-213	11	3782	2.12	-11.86	0.03
98	SLE RA 14	-209	11	3787	2.53	-11.6	0.03
98	SLE RA 15	-212	11	3784	2.29	-11.76	0.03
98	SLE RA 16	-209	11	3787	2.53	-11.6	0.03
98	SLE RA 17	-212	11	3784	2.29	-11.76	0.03
98	SLE RA 18	-229	12	4097	3.7	-12.69	0.04
98	SLE RA 19	-231	12	4094	3.46	-12.85	0.04
98	SLE RA 20	-229	12	4097	3.7	-12.69	0.04
98	SLE RA 21	-231	12	4094	3.46	-12.85	0.04
98	SLE FR 1	-163	10	3065	-0.2	-9.04	0.03
98	SLE FR 2	-164	10	3064	-0.29	-9.1	0.03
98	SLE FR 3	-163	10	3065	-0.2	-9.04	0.03
98	SLE FR 4	-183	10	3373	0.89	-10.19	0.03
98	SLE FR 5	-183	10	3374	0.97	-10.14	0.03
98	SLE FR 6	-196	11	3581	1.75	-10.87	0.03
98	SLE QP 1	-163	10	3065	-0.2	-9.04	0.03
98	SLE QP 2	-183	10	3374	0.97	-10.14	0.03
98	SLD 1	120	31	3151	-31.98	3.48	0.09
98	SLD 2	120	31	3151	-31.98	3.48	0.09
98	SLD 3	171	-18	3291	28.1	5.91	-0.05
98	SLD 4	171	-18	3291	28.1	5.91	-0.05
98	SLD 5	-169	90	3094	-100.03	-9.74	0.27
98	SLD 6	-169	90	3094	-100.03	-9.74	0.27
98	SLD 7	1	-72	3563	100.22	-1.64	-0.22
98	SLD 8	1	-72	3563	100.22	-1.64	-0.22
98	SLD 9	-366	92	3186	-98.29	-18.64	0.28
98	SLD 10	-366	92	3186	-98.29	-18.64	0.28
98	SLD 11	-196	-69	3655	101.97	-10.54	-0.21
98	SLD 12	-196	-69	3655	101.97	-10.54	-0.21
98	SLD 13	-536	38	3458	-26.16	-26.19	0.12
98	SLD 14	-536	38	3458	-26.16	-26.19	0.12
98	SLD 15	-485	-10	3598	33.92	-23.76	-0.03
98	SLD 16	-485	-10	3598	33.92	-23.76	-0.03
98	SLV 1	524	64	2831	-83.35	21.67	0.19
98	SLV 2	524	64	2831	-83.35	21.67	0.19





Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
98	SLV 3	648	-61	3199	70.93	27.66	-0.19
98	SLV 4	648	-61	3199	70.93	27.66	-0.19
98	SLV 5	-158	215	2653	-258.32	-9.68	0.65
98	SLV 6	-158	215	2653	-258.32	-9.68	0.65
98	SLV 7	255	-200	3881	255.95	10.29	-0.61
98	SLV 8	255	-200	3881	255.95	10.29	-0.61
98	SLV 9	-620	220	2868	-254.02	-30.57	0.67
98	SLV 10	-620	220	2868	-254.02	-30.57	0.67
98	SLV 11	-207	-194	4096	260.26	-10.6	-0.59
98	SLV 12	-207	-194	4096	260.26	-10.6	-0.59
98	SLV 13	-1013	81	3550	-69	-47.94	0.25
98	SLV 14	-1013	81	3550	-69	-47.94	0.25
98	SLV 15	-889	-43	3918	85.29	-41.95	-0.13
98	SLV 16	-889	-43	3918	85.29	-41.95	-0.13
99	SLU 1	-151	10	3071	-1.69	-7.26	0.02
99	SLU 2	-156	10	3062	-2.47	-7.34	0.02
99	SLU 3	-151	10	3071	-1.69	-7.26	0.02
99	SLU 4	-154	10	3065	-2.16	-7.31	0.02
99	SLU 5	-156	10	3062	-2.47	-7.34	0.02
99	SLU 6	-151	10	3071	-1.69	-7.26	0.02
99	SLU 7	-154	10	3065	-2.16	-7.31	0.02
99	SLU 8	-151	10	3071	-1.69	-7.26	0.02
99	SLU 9	-154	10	3065	-2.16	-7.31	0.02
99	SLU 10	-222	12	4246	0.86	-10.73	0.02
99	SLU 11	-217	12	4255	1.64	-10.65	0.02
99	SLU 12	-220	12	4249	1.17	-10.7	0.02
99	SLU 13	-222	12	4246	0.86	-10.73	0.02
99	SLU 14	-217	12	4255	1.64	-10.65	0.02
99	SLU 15	-220	12	4249	1.17	-10.7	0.02
99	SLU 16	-217	12	4255	1.64	-10.65	0.02
99	SLU 17	-220	12	4249	1.17	-10.7	0.02
99	SLU 18	-245	12	4762	3.07	-12.1	0.02
99	SLU 19	-248	13	4757	2.6	-12.15	0.02
99	SLU 20	-245	12	4762	3.07	-12.1	0.02
99	SLU 21	-248	13	4757	2.6	-12.15	0.02
99	SLU 22	-186	11	3710	-0.1	-9.05	0.02
99	SLU 23	-191	11	3701	-0.88	-9.14	0.02
99	SLU 24	-186	11	3710	-0.1	-9.05	0.02
99	SLU 25	-189	11	3705	-0.57	-9.1	0.02
99	SLU 26	-191	11	3701	-0.88	-9.14	0.02
99	SLU 27	-186	11	3710	-0.1	-9.05	0.02
99	SLU 28	-189	11	3705	-0.57	-9.1	0.02
99	SLU 29	-186	11	3710	-0.1	-9.05	0.02
99	SLU 30	-189	11	3705	-0.57	-9.1	0.02
99	SLU 31	-256	13	4885	2.45	-12.53	0.02
99	SLU 32	-251	13	4894	3.23	-12.44	0.02
99	SLU 33	-254	13	4889	2.77	-12.49	0.02
99	SLU 34	-256	13	4885	2.45	-12.53	0.02
99	SLU 35	-251	13	4894	3.23	-12.44	0.02
99	SLU 36	-254	13	4889	2.77	-12.49	0.02
99	SLU 37	-251	13	4894	3.23	-12.44	0.02
99	SLU 38	-254	13	4889	2.77	-12.49	0.02
99	SLU 39	-279	14	5402	4.66	-13.9	0.02
99	SLU 40	-282	14	5396	4.19	-13.95	0.02
99	SLU 41	-279	14	5402	4.66	-13.9	0.02
99	SLU 42	-282	14	5396	4.19	-13.95	0.02
99	SLU 43	-185	12	3773	-2.75	-8.82	0.02
99	SLU 44	-190	13	3764	-3.53	-8.9	0.02
99	SLU 45	-185	12	3773	-2.75	-8.82	0.02
99	SLU 46	-188	12	3767	-3.22	-8.87	0.02
99	SLU 47	-190	13	3764	-3.53	-8.9	0.02
99	SLU 48	-185	12	3773	-2.75	-8.82	0.02
99	SLU 49	-188	12	3767	-3.22	-8.87	0.02
99	SLU 50	-185	12	3773	-2.75	-8.82	0.02
99	SLU 51	-188	12	3767	-3.22	-8.87	0.02
99	SLU 52	-255	15	4948	-0.19	-12.3	0.02
99	SLU 53	-251	14	4957	0.59	-12.21	0.02
99	SLU 54	-253	14	4951	0.12	-12.26	0.02
99	SLU 55	-255	15	4948	-0.19	-12.3	0.02
99	SLU 56	-251	14	4957	0.59	-12.21	0.02
99	SLU 57	-253	14	4951	0.12	-12.26	0.02
99	SLU 58	-251	14	4957	0.59	-12.21	0.02
99	SLU 59	-253	14	4951	0.12	-12.26	0.02
99	SLU 60	-279	15	5464	2.02	-13.66	0.02
99	SLU 61	-281	15	5459	1.55	-13.71	0.03
99	SLU 62	-279	15	5464	2.02	-13.66	0.02
99	SLU 63	-281	15	5459	1.55	-13.71	0.03
99	SLU 64	-219	13	4412	-1.15	-10.61	0.02
99	SLU 65	-224	14	4403	-1.93	-10.7	0.02
99	SLU 66	-219	13	4412	-1.15	-10.61	0.02
99	SLU 67	-222	13	4407	-1.62	-10.67	0.02
99	SLU 68	-224	14	4403	-1.93	-10.7	0.02
99	SLU 69	-219	13	4412	-1.15	-10.61	0.02
99	SLU 70	-222	13	4407	-1.62	-10.67	0.02
99	SLU 71	-219	13	4412	-1.15	-10.61	0.02
99	SLU 72	-222	13	4407	-1.62	-10.67	0.02
99	SLU 73	-290	16	5587	1.4	-14.09	0.03
99	SLU 74	-285	15	5596	2.18	-14.01	0.03
99	SLU 75	-288	15	5591	1.71	-14.06	0.03
99	SLU 76	-290	16	5587	1.4	-14.09	0.03



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
99	SLU 77	-285	15	5596	2.18	-14.01	0.03
99	SLU 78	-288	15	5591	1.71	-14.06	0.03
99	SLU 79	-285	15	5596	2.18	-14.01	0.03
99	SLU 80	-288	15	5591	1.71	-14.06	0.03
99	SLU 81	-313	16	6103	3.61	-15.46	0.03
99	SLU 82	-316	16	6098	3.14	-15.51	0.03
99	SLU 83	-313	16	6103	3.61	-15.46	0.03
99	SLU 84	-316	16	6098	3.14	-15.51	0.03
99	SLE RA 1	-161	10	3253	-1.24	-7.77	0.02
99	SLE RA 2	-164	10	3247	-1.76	-7.83	0.02
99	SLE RA 3	-161	10	3253	-1.24	-7.77	0.02
99	SLE RA 4	-163	10	3250	-1.55	-7.8	0.02
99	SLE RA 5	-164	10	3247	-1.76	-7.83	0.02
99	SLE RA 6	-161	10	3253	-1.24	-7.77	0.02
99	SLE RA 7	-163	10	3250	-1.55	-7.8	0.02
99	SLE RA 8	-161	10	3253	-1.24	-7.77	0.02
99	SLE RA 9	-163	10	3250	-1.55	-7.8	0.02
99	SLE RA 10	-208	12	4037	0.46	-10.09	0.02
99	SLE RA 11	-205	11	4043	0.99	-10.03	0.02
99	SLE RA 12	-207	11	4039	0.67	-10.07	0.02
99	SLE RA 13	-208	12	4037	0.46	-10.09	0.02
99	SLE RA 14	-205	11	4043	0.99	-10.03	0.02
99	SLE RA 15	-207	11	4039	0.67	-10.07	0.02
99	SLE RA 16	-205	11	4043	0.99	-10.03	0.02
99	SLE RA 17	-207	11	4039	0.67	-10.07	0.02
99	SLE RA 18	-224	12	4381	1.94	-11	0.02
99	SLE RA 19	-225	12	4377	1.62	-11.03	0.02
99	SLE RA 20	-224	12	4381	1.94	-11	0.02
99	SLE RA 21	-225	12	4377	1.62	-11.03	0.02
99	SLE FR 1	-161	10	3253	-1.24	-7.77	0.02
99	SLE FR 2	-162	10	3252	-1.34	-7.78	0.02
99	SLE FR 3	-161	10	3253	-1.24	-7.77	0.02
99	SLE FR 4	-181	11	3590	-0.39	-8.75	0.02
99	SLE FR 5	-180	10	3592	-0.28	-8.74	0.02
99	SLE FR 6	-192	11	3817	0.35	-9.39	0.02
99	SLE QP 1	-161	10	3253	-1.24	-7.77	0.02
99	SLE QP 2	-180	10	3592	-0.28	-8.74	0.02
99	SLD 1	85	38	3341	-31.82	3.67	0.08
99	SLD 2	85	38	3341	-31.82	3.67	0.08
99	SLD 3	143	-9	3457	24.74	5.94	-0.02
99	SLD 4	143	-9	3457	24.74	5.94	-0.02
99	SLD 5	-188	89	3341	-95.53	-8.46	0.19
99	SLD 6	-188	89	3341	-95.53	-8.46	0.19
99	SLD 7	5	-66	3726	93.01	-0.89	-0.15
99	SLD 8	5	-66	3726	93.01	-0.89	-0.15
99	SLD 9	-365	87	3457	-93.58	-16.59	0.19
99	SLD 10	-365	87	3457	-93.58	-16.59	0.19
99	SLD 11	-172	-68	3842	94.96	-9.02	-0.16
99	SLD 12	-172	-68	3842	94.96	-9.02	-0.16
99	SLD 13	-503	30	3727	-25.31	-23.42	0.06
99	SLD 14	-503	30	3727	-25.31	-23.42	0.06
99	SLD 15	-445	-17	3842	31.25	-21.15	-0.05
99	SLD 16	-445	-17	3842	31.25	-21.15	-0.05
99	SLV 1	439	80	2988	-81.04	20.23	0.18
99	SLV 2	439	80	2988	-81.04	20.23	0.18
99	SLV 3	580	-39	3294	64.27	25.75	-0.08
99	SLV 4	580	-39	3294	64.27	25.75	-0.08
99	SLV 5	-208	212	2946	-244.91	-8.42	0.47
99	SLV 6	-208	212	2946	-244.91	-8.42	0.47
99	SLV 7	261	-185	3966	239.48	9.98	-0.41
99	SLV 8	261	-185	3966	239.48	9.98	-0.41
99	SLV 9	-621	206	3217	-240.05	-27.46	0.45
99	SLV 10	-621	206	3217	-240.05	-27.46	0.45
99	SLV 11	-152	-191	4237	244.34	-9.06	-0.43
99	SLV 12	-152	-191	4237	244.34	-9.06	-0.43
99	SLV 13	-940	60	3889	-64.84	-43.23	0.12
99	SLV 14	-940	60	3889	-64.84	-43.23	0.12
99	SLV 15	-799	-59	4195	80.47	-37.71	-0.14
99	SLV 16	-799	-59	4195	80.47	-37.71	-0.14
100	SLU 1	-239	11	3295	-3.74	-12.55	0
100	SLU 2	-245	11	3286	-4.72	-12.99	0
100	SLU 3	-239	11	3295	-3.74	-12.55	0
100	SLU 4	-242	11	3290	-4.33	-12.82	0
100	SLU 5	-245	11	3286	-4.72	-12.99	0
100	SLU 6	-239	11	3295	-3.74	-12.55	0
100	SLU 7	-242	11	3290	-4.33	-12.82	0
100	SLU 8	-239	11	3295	-3.74	-12.55	0
100	SLU 9	-242	11	3290	-4.33	-12.82	0
100	SLU 10	-341	14	4601	-3.1	-18.26	-0.01
100	SLU 11	-335	13	4610	-2.12	-17.82	-0.01
100	SLU 12	-339	14	4605	-2.71	-18.08	-0.01
100	SLU 13	-341	14	4601	-3.1	-18.26	-0.01
100	SLU 14	-335	13	4610	-2.12	-17.82	-0.01
100	SLU 15	-339	14	4605	-2.71	-18.08	-0.01
100	SLU 16	-335	13	4610	-2.12	-17.82	-0.01
100	SLU 17	-339	14	4605	-2.71	-18.08	-0.01
100	SLU 18	-377	15	5174	-1.43	-20.08	-0.01
100	SLU 19	-380	15	5168	-2.01	-20.34	-0.01
100	SLU 20	-377	15	5174	-1.43	-20.08	-0.01
100	SLU 21	-380	15	5168	-2.01	-20.34	-0.01



Nodo	Cont.	Reazione a traslazione				Reazione a rotazione		
		x	y	z		x	y	z
100	SLU 22	-290	12	4002		-2.91	-15.33	0
100	SLU 23	-297	13	3992		-3.89	-15.77	0
100	SLU 24	-290	12	4002		-2.91	-15.33	0
100	SLU 25	-294	12	3996		-3.5	-15.59	0
100	SLU 26	-297	13	3992		-3.89	-15.77	0
100	SLU 27	-290	12	4002		-2.91	-15.33	0
100	SLU 28	-294	12	3996		-3.5	-15.59	0
100	SLU 29	-290	12	4002		-2.91	-15.33	0
100	SLU 30	-294	12	3996		-3.5	-15.59	0
100	SLU 31	-393	15	5307		-2.27	-21.04	-0.01
100	SLU 32	-387	15	5317		-1.29	-20.6	-0.01
100	SLU 33	-391	15	5311		-1.88	-20.86	-0.01
100	SLU 34	-393	15	5307		-2.27	-21.04	-0.01
100	SLU 35	-387	15	5317		-1.29	-20.6	-0.01
100	SLU 36	-391	15	5311		-1.88	-20.86	-0.01
100	SLU 37	-387	15	5317		-1.29	-20.6	-0.01
100	SLU 38	-391	15	5311		-1.88	-20.86	-0.01
100	SLU 39	-428	16	5880		-0.59	-22.85	-0.01
100	SLU 40	-432	16	5874		-1.18	-23.12	-0.01
100	SLU 41	-428	16	5880		-0.59	-22.85	-0.01
100	SLU 42	-432	16	5874		-1.18	-23.12	-0.01
100	SLU 43	-292	13	4042		-5.15	-15.37	0
100	SLU 44	-299	14	4032		-6.13	-15.81	0
100	SLU 45	-292	13	4042		-5.15	-15.37	0
100	SLU 46	-296	14	4036		-5.74	-15.63	0
100	SLU 47	-299	14	4032		-6.13	-15.81	0
100	SLU 48	-292	13	4042		-5.15	-15.37	0
100	SLU 49	-296	14	4036		-5.74	-15.63	0
100	SLU 50	-292	13	4042		-5.15	-15.37	0
100	SLU 51	-296	14	4036		-5.74	-15.63	0
100	SLU 52	-395	17	5347		-4.5	-21.07	-0.01
100	SLU 53	-389	16	5357		-3.53	-20.63	-0.01
100	SLU 54	-393	16	5351		-4.11	-20.9	-0.01
100	SLU 55	-395	17	5347		-4.5	-21.07	-0.01
100	SLU 56	-389	16	5357		-3.53	-20.63	-0.01
100	SLU 57	-393	16	5351		-4.11	-20.9	-0.01
100	SLU 58	-389	16	5357		-3.53	-20.63	-0.01
100	SLU 59	-393	16	5351		-4.11	-20.9	-0.01
100	SLU 60	-430	17	5920		-2.83	-22.89	-0.01
100	SLU 61	-434	18	5915		-3.42	-23.15	-0.01
100	SLU 62	-430	17	5920		-2.83	-22.89	-0.01
100	SLU 63	-434	18	5915		-3.42	-23.15	-0.01
100	SLU 64	-344	15	4748		-4.32	-18.15	0
100	SLU 65	-350	15	4739		-5.3	-18.58	0
100	SLU 66	-344	15	4748		-4.32	-18.15	0
100	SLU 67	-348	15	4742		-4.9	-18.41	0
100	SLU 68	-350	15	4739		-5.3	-18.58	0
100	SLU 69	-344	15	4748		-4.32	-18.15	0
100	SLU 70	-348	15	4742		-4.9	-18.41	0
100	SLU 71	-344	15	4748		-4.32	-18.15	0
100	SLU 72	-348	15	4742		-4.9	-18.41	0
100	SLU 73	-447	18	6054		-3.67	-23.85	-0.01
100	SLU 74	-441	17	6063		-2.7	-23.41	-0.01
100	SLU 75	-444	18	6057		-3.28	-23.67	-0.01
100	SLU 76	-447	18	6054		-3.67	-23.85	-0.01
100	SLU 77	-441	17	6063		-2.7	-23.41	-0.01
100	SLU 78	-444	18	6057		-3.28	-23.67	-0.01
100	SLU 79	-441	17	6063		-2.7	-23.41	-0.01
100	SLU 80	-444	18	6057		-3.28	-23.67	-0.01
100	SLU 81	-482	19	6627		-2	-25.67	-0.01
100	SLU 82	-486	19	6621		-2.59	-25.93	-0.01
100	SLU 83	-482	19	6627		-2	-25.67	-0.01
100	SLU 84	-486	19	6621		-2.59	-25.93	-0.01
100	SLE RA 1	-253	11	3497		-3.5	-13.35	0
100	SLE RA 2	-258	11	3491		-4.16	-13.64	0
100	SLE RA 3	-253	11	3497		-3.5	-13.35	0
100	SLE RA 4	-256	11	3493		-3.9	-13.52	0
100	SLE RA 5	-258	11	3491		-4.16	-13.64	0
100	SLE RA 6	-253	11	3497		-3.5	-13.35	0
100	SLE RA 7	-256	11	3493		-3.9	-13.52	0
100	SLE RA 8	-253	11	3497		-3.5	-13.35	0
100	SLE RA 9	-256	11	3493		-3.9	-13.52	0
100	SLE RA 10	-322	13	4367		-3.07	-17.15	-0.01
100	SLE RA 11	-318	13	4374		-2.42	-16.86	-0.01
100	SLE RA 12	-320	13	4370		-2.81	-17.03	-0.01
100	SLE RA 13	-322	13	4367		-3.07	-17.15	-0.01
100	SLE RA 14	-318	13	4374		-2.42	-16.86	-0.01
100	SLE RA 15	-320	13	4370		-2.81	-17.03	-0.01
100	SLE RA 16	-318	13	4374		-2.42	-16.86	-0.01
100	SLE RA 17	-320	13	4370		-2.81	-17.03	-0.01
100	SLE RA 18	-345	14	4750		-1.96	-18.36	-0.01
100	SLE RA 19	-348	14	4746		-2.35	-18.54	-0.01
100	SLE RA 20	-345	14	4750		-1.96	-18.36	-0.01
100	SLE RA 21	-348	14	4746		-2.35	-18.54	-0.01
100	SLE FR 1	-253	11	3497		-3.5	-13.35	0
100	SLE FR 2	-254	11	3496		-3.63	-13.41	0
100	SLE FR 3	-253	11	3497		-3.5	-13.35	0
100	SLE FR 4	-282	12	3872		-3.17	-14.91	0
100	SLE FR 5	-281	12	3873		-3.04	-14.85	0
100	SLE FR 6	-299	12	4123		-2.73	-15.86	0



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
100	SLE QP 1	-253	11	3497	-3.5	-13.35	0
100	SLE QP 2	-281	12	3873	-3.04	-14.85	0
100	SLD 1	7	38	3629	-31.18	-3.63	0.05
100	SLD 2	7	38	3629	-31.18	-3.63	0.05
100	SLD 3	-56	-5	3516	18.25	-0.67	-0.04
100	SLD 4	-56	-5	3516	18.25	-0.67	-0.04
100	SLD 5	-100	85	3972	-86.44	-15.97	0.15
100	SLD 6	-100	85	3972	-86.44	-15.97	0.15
100	SLD 7	-308	-59	3593	78.3	-6.11	-0.15
100	SLD 8	-308	-59	3593	78.3	-6.11	-0.15
100	SLD 9	-253	82	4152	-84.39	-23.59	0.15
100	SLD 10	-253	82	4152	-84.39	-23.59	0.15
100	SLD 11	-462	-61	3774	80.36	-13.73	-0.16
100	SLD 12	-462	-61	3774	80.36	-13.73	-0.16
100	SLD 13	-506	29	4230	-24.33	-29.03	0.03
100	SLD 14	-506	29	4230	-24.33	-29.03	0.03
100	SLD 15	-569	-14	4116	25.09	-26.08	-0.06
100	SLD 16	-569	-14	4116	25.09	-26.08	-0.06
100	SLV 1	398	78	3316	-75.08	11.32	0.14
100	SLV 2	398	78	3316	-75.08	11.32	0.14
100	SLV 3	244	-33	3024	51.89	18.67	-0.1
100	SLV 4	244	-33	3024	51.89	18.67	-0.1
100	SLV 5	157	199	4148	-217.22	-18.15	0.4
100	SLV 6	157	199	4148	-217.22	-18.15	0.4
100	SLV 7	-357	-169	3176	206.01	6.35	-0.39
100	SLV 8	-357	-169	3176	206.01	6.35	-0.39
100	SLV 9	-204	192	4570	-212.09	-36.06	0.38
100	SLV 10	-204	192	4570	-212.09	-36.06	0.38
100	SLV 11	-718	-175	3598	211.14	-11.56	-0.4
100	SLV 12	-718	-175	3598	211.14	-11.56	-0.4
100	SLV 13	-806	56	4722	-57.98	-48.37	0.09
100	SLV 14	-806	56	4722	-57.98	-48.37	0.09
100	SLV 15	-960	-54	4430	68.99	-41.02	-0.14
100	SLV 16	-960	-54	4430	68.99	-41.02	-0.14
101	SLU 1	-377	18	3668	-7.79	-20.85	0.03
101	SLU 2	-378	20	3661	-8.96	-20.77	0.04
101	SLU 3	-377	18	3668	-7.79	-20.85	0.03
101	SLU 4	-378	19	3664	-8.49	-20.8	0.04
101	SLU 5	-378	20	3661	-8.96	-20.77	0.04
101	SLU 6	-377	18	3668	-7.79	-20.85	0.03
101	SLU 7	-378	19	3664	-8.49	-20.8	0.04
101	SLU 8	-377	18	3668	-7.79	-20.85	0.03
101	SLU 9	-378	19	3664	-8.49	-20.8	0.04
101	SLU 10	-534	28	5179	-10.76	-29.74	0.05
101	SLU 11	-532	27	5185	-9.59	-29.81	0.04
101	SLU 12	-533	27	5181	-10.29	-29.77	0.05
101	SLU 13	-534	28	5179	-10.76	-29.74	0.05
101	SLU 14	-532	27	5185	-9.59	-29.81	0.04
101	SLU 15	-533	27	5181	-10.29	-29.77	0.05
101	SLU 16	-532	27	5185	-9.59	-29.81	0.04
101	SLU 17	-533	27	5181	-10.29	-29.77	0.05
101	SLU 18	-599	30	5836	-10.36	-33.66	0.05
101	SLU 19	-600	31	5832	-11.06	-33.61	0.05
101	SLU 20	-599	30	5836	-10.36	-33.66	0.05
101	SLU 21	-600	31	5832	-11.06	-33.61	0.05
101	SLU 22	-461	22	4479	-8.51	-25.66	0.04
101	SLU 23	-462	23	4472	-9.68	-25.59	0.04
101	SLU 24	-461	22	4479	-8.51	-25.66	0.04
101	SLU 25	-461	23	4475	-9.21	-25.62	0.04
101	SLU 26	-462	23	4472	-9.68	-25.59	0.04
101	SLU 27	-461	22	4479	-8.51	-25.66	0.04
101	SLU 28	-461	23	4475	-9.21	-25.62	0.04
101	SLU 29	-461	22	4479	-8.51	-25.66	0.04
101	SLU 30	-461	23	4475	-9.21	-25.62	0.04
101	SLU 31	-617	32	5990	-11.48	-34.56	0.05
101	SLU 32	-616	30	5996	-10.31	-34.63	0.05
101	SLU 33	-617	31	5993	-11.01	-34.59	0.05
101	SLU 34	-617	32	5990	-11.48	-34.56	0.05
101	SLU 35	-616	30	5996	-10.31	-34.63	0.05
101	SLU 36	-617	31	5993	-11.01	-34.59	0.05
101	SLU 37	-616	30	5996	-10.31	-34.63	0.05
101	SLU 38	-617	31	5993	-11.01	-34.59	0.05
101	SLU 39	-682	34	6647	-11.08	-38.47	0.05
101	SLU 40	-683	35	6643	-11.78	-38.43	0.05
101	SLU 41	-682	34	6647	-11.08	-38.47	0.05
101	SLU 42	-683	35	6643	-11.78	-38.43	0.05
101	SLU 43	-462	22	4490	-9.88	-25.45	0.04
101	SLU 44	-463	24	4483	-11.05	-25.37	0.05
101	SLU 45	-462	22	4490	-9.88	-25.45	0.04
101	SLU 46	-462	23	4486	-10.58	-25.4	0.05
101	SLU 47	-463	24	4483	-11.05	-25.37	0.05
101	SLU 48	-462	22	4490	-9.88	-25.45	0.04
101	SLU 49	-462	23	4486	-10.58	-25.4	0.05
101	SLU 50	-462	22	4490	-9.88	-25.45	0.04
101	SLU 51	-462	23	4486	-10.58	-25.4	0.05
101	SLU 52	-618	32	6001	-12.85	-34.34	0.06
101	SLU 53	-617	31	6008	-11.68	-34.42	0.05
101	SLU 54	-618	31	6004	-12.38	-34.37	0.06
101	SLU 55	-618	32	6001	-12.85	-34.34	0.06
101	SLU 56	-617	31	6008	-11.68	-34.42	0.05



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
101	SLU 57	-618	31	6004	-12.38	-34.37	0.06
101	SLU 58	-617	31	6008	-11.68	-34.42	0.05
101	SLU 59	-618	31	6004	-12.38	-34.37	0.06
101	SLU 60	-683	34	6658	-12.45	-38.26	0.06
101	SLU 61	-684	35	6654	-13.15	-38.21	0.06
101	SLU 62	-683	34	6658	-12.45	-38.26	0.06
101	SLU 63	-684	35	6654	-13.15	-38.21	0.06
101	SLU 64	-545	26	5301	-10.6	-30.27	0.05
101	SLU 65	-547	27	5294	-11.77	-30.19	0.05
101	SLU 66	-545	26	5301	-10.6	-30.27	0.05
101	SLU 67	-546	27	5297	-11.3	-30.22	0.05
101	SLU 68	-547	27	5294	-11.77	-30.19	0.05
101	SLU 69	-545	26	5301	-10.6	-30.27	0.05
101	SLU 70	-546	27	5297	-11.3	-30.22	0.05
101	SLU 71	-545	26	5301	-10.6	-30.27	0.05
101	SLU 72	-546	27	5297	-11.3	-30.22	0.05
101	SLU 73	-702	36	6812	-13.57	-39.16	0.06
101	SLU 74	-700	34	6819	-12.4	-39.23	0.06
101	SLU 75	-701	35	6815	-13.1	-39.19	0.06
101	SLU 76	-702	36	6812	-13.57	-39.16	0.06
101	SLU 77	-700	34	6819	-12.4	-39.23	0.06
101	SLU 78	-701	35	6815	-13.1	-39.19	0.06
101	SLU 79	-700	34	6819	-12.4	-39.23	0.06
101	SLU 80	-701	35	6815	-13.1	-39.19	0.06
101	SLU 81	-767	38	7469	-13.17	-43.08	0.06
101	SLU 82	-768	39	7465	-13.87	-43.03	0.06
101	SLU 83	-767	38	7469	-13.17	-43.08	0.06
101	SLU 84	-768	39	7465	-13.87	-43.03	0.06
101	SLE RA 1	-401	19	3899	-8	-22.22	0.04
101	SLE RA 2	-402	20	3895	-8.78	-22.17	0.04
101	SLE RA 3	-401	19	3899	-8	-22.22	0.04
101	SLE RA 4	-402	20	3897	-8.46	-22.19	0.04
101	SLE RA 5	-402	20	3895	-8.78	-22.17	0.04
101	SLE RA 6	-401	19	3899	-8	-22.22	0.04
101	SLE RA 7	-402	20	3897	-8.46	-22.19	0.04
101	SLE RA 8	-401	19	3899	-8	-22.22	0.04
101	SLE RA 9	-402	20	3897	-8.46	-22.19	0.04
101	SLE RA 10	-505	26	4907	-9.97	-28.15	0.05
101	SLE RA 11	-504	25	4911	-9.2	-28.2	0.04
101	SLE RA 12	-505	25	4909	-9.66	-28.17	0.04
101	SLE RA 13	-505	26	4907	-9.97	-28.15	0.05
101	SLE RA 14	-504	25	4911	-9.2	-28.2	0.04
101	SLE RA 15	-505	25	4909	-9.66	-28.17	0.04
101	SLE RA 16	-504	25	4911	-9.2	-28.2	0.04
101	SLE RA 17	-505	25	4909	-9.66	-28.17	0.04
101	SLE RA 18	-549	27	5345	-9.71	-30.76	0.04
101	SLE RA 19	-549	28	5342	-10.18	-30.73	0.05
101	SLE RA 20	-549	27	5345	-9.71	-30.76	0.04
101	SLE RA 21	-549	28	5342	-10.18	-30.73	0.05
101	SLE FR 1	-401	19	3899	-8	-22.22	0.04
101	SLE FR 2	-401	19	3898	-8.15	-22.21	0.04
101	SLE FR 3	-401	19	3899	-8	-22.22	0.04
101	SLE FR 4	-445	22	4332	-8.67	-24.78	0.04
101	SLE FR 5	-445	22	4333	-8.51	-24.79	0.04
101	SLE FR 6	-475	23	4622	-8.85	-26.49	0.04
101	SLE QP 1	-401	19	3899	-8	-22.22	0.04
101	SLE QP 2	-445	22	4333	-8.51	-24.79	0.04
101	SLD 1	-221	10	3851	-29.83	-12.17	0.12
101	SLD 2	-221	10	3851	-29.83	-12.17	0.12
101	SLD 3	-264	42	3689	6.14	-14.18	-0.02
101	SLD 4	-264	42	3689	6.14	-14.18	-0.02
101	SLD 5	-312	-31	4434	-69.45	-17.96	0.28
101	SLD 6	-312	-31	4434	-69.45	-17.96	0.28
101	SLD 7	-457	77	3894	50.43	-24.65	-0.2
101	SLD 8	-457	77	3894	50.43	-24.65	-0.2
101	SLD 9	-434	-34	4772	-67.45	-24.92	0.27
101	SLD 10	-434	-34	4772	-67.45	-24.92	0.27
101	SLD 11	-579	74	4232	52.43	-31.62	-0.2
101	SLD 12	-579	74	4232	52.43	-31.62	-0.2
101	SLD 13	-627	1	4977	-23.16	-35.39	0.09
101	SLD 14	-627	1	4977	-23.16	-35.39	0.09
101	SLD 15	-670	33	4815	12.81	-37.4	-0.05
101	SLD 16	-670	33	4815	12.81	-37.4	-0.05
101	SLV 1	85	-8	3216	-62.9	4.94	0.26
101	SLV 2	85	-8	3216	-62.9	4.94	0.26
101	SLV 3	-24	74	2814	29.22	-0.14	-0.11
101	SLV 4	-24	74	2814	29.22	-0.14	-0.11
101	SLV 5	-122	-112	4608	-164.54	-8.17	0.66
101	SLV 6	-122	-112	4608	-164.54	-8.17	0.66
101	SLV 7	-483	162	3267	142.52	-25.09	-0.56
101	SLV 8	-483	162	3267	142.52	-25.09	-0.56
101	SLV 9	-407	-118	5399	-159.54	-24.48	0.63
101	SLV 10	-407	-118	5399	-159.54	-24.48	0.63
101	SLV 11	-769	155	4058	147.52	-41.4	-0.58
101	SLV 12	-769	155	4058	147.52	-41.4	-0.58
101	SLV 13	-867	-31	5852	-46.24	-49.43	0.18
101	SLV 14	-867	-31	5852	-46.24	-49.43	0.18
101	SLV 15	-975	51	5450	45.88	-54.51	-0.18
101	SLV 16	-975	51	5450	45.88	-54.51	-0.18
102	SLU 1	-584	24	2261	-6.01	-15.45	-1.05



Nodo	Cont.	Reazione a traslazione				Reazione a rotazione		
		x	y	z		x	y	z
102	SLU 2	-586	24	2261		-6.62	-15.66	-1.15
102	SLU 3	-584	24	2261		-6.01	-15.45	-1.05
102	SLU 4	-585	24	2261		-6.38	-15.58	-1.11
102	SLU 5	-586	24	2261		-6.62	-15.66	-1.15
102	SLU 6	-584	24	2261		-6.01	-15.45	-1.05
102	SLU 7	-585	24	2261		-6.38	-15.58	-1.11
102	SLU 8	-584	24	2261		-6.01	-15.45	-1.05
102	SLU 9	-585	24	2261		-6.38	-15.58	-1.11
102	SLU 10	-833	43	3219		-9.44	-22.23	-1.69
102	SLU 11	-831	42	3219		-8.82	-22.02	-1.59
102	SLU 12	-832	42	3219		-9.19	-22.15	-1.65
102	SLU 13	-833	43	3219		-9.44	-22.23	-1.69
102	SLU 14	-831	42	3219		-8.82	-22.02	-1.59
102	SLU 15	-832	42	3219		-9.19	-22.15	-1.65
102	SLU 16	-831	42	3219		-8.82	-22.02	-1.59
102	SLU 17	-832	42	3219		-9.19	-22.15	-1.65
102	SLU 18	-937	50	3630		-10.03	-24.84	-1.82
102	SLU 19	-938	50	3629		-10.4	-24.96	-1.88
102	SLU 20	-937	50	3630		-10.03	-24.84	-1.82
102	SLU 21	-938	50	3629		-10.4	-24.96	-1.88
102	SLU 22	-716	32	2772		-7.26	-18.95	-1.29
102	SLU 23	-718	33	2771		-7.87	-19.16	-1.39
102	SLU 24	-716	32	2772		-7.26	-18.95	-1.29
102	SLU 25	-717	33	2772		-7.62	-19.07	-1.35
102	SLU 26	-718	33	2771		-7.87	-19.16	-1.39
102	SLU 27	-716	32	2772		-7.26	-18.95	-1.29
102	SLU 28	-717	33	2772		-7.62	-19.07	-1.35
102	SLU 29	-716	32	2772		-7.26	-18.95	-1.29
102	SLU 30	-717	33	2772		-7.62	-19.07	-1.35
102	SLU 31	-965	51	3729		-10.68	-25.73	-1.93
102	SLU 32	-963	50	3730		-10.07	-25.52	-1.83
102	SLU 33	-964	51	3729		-10.44	-25.65	-1.89
102	SLU 34	-965	51	3729		-10.68	-25.73	-1.93
102	SLU 35	-963	50	3730		-10.07	-25.52	-1.83
102	SLU 36	-964	51	3729		-10.44	-25.65	-1.89
102	SLU 37	-963	50	3730		-10.07	-25.52	-1.83
102	SLU 38	-964	51	3729		-10.44	-25.65	-1.89
102	SLU 39	-1069	58	4140		-11.28	-28.34	-2.06
102	SLU 40	-1070	59	4140		-11.64	-28.46	-2.12
102	SLU 41	-1069	58	4140		-11.28	-28.34	-2.06
102	SLU 42	-1070	59	4140		-11.64	-28.46	-2.12
102	SLU 43	-714	28	2765		-7.39	-18.89	-1.28
102	SLU 44	-716	29	2764		-8	-19.1	-1.38
102	SLU 45	-714	28	2765		-7.39	-18.89	-1.28
102	SLU 46	-715	28	2764		-7.75	-19.01	-1.34
102	SLU 47	-716	29	2764		-8	-19.1	-1.38
102	SLU 48	-714	28	2765		-7.39	-18.89	-1.28
102	SLU 49	-715	28	2764		-7.75	-19.01	-1.34
102	SLU 50	-714	28	2765		-7.39	-18.89	-1.28
102	SLU 51	-715	28	2764		-7.75	-19.01	-1.34
102	SLU 52	-963	47	3722		-10.81	-25.67	-1.92
102	SLU 53	-961	46	3722		-10.2	-25.46	-1.82
102	SLU 54	-962	47	3722		-10.57	-25.58	-1.88
102	SLU 55	-963	47	3722		-10.81	-25.67	-1.92
102	SLU 56	-961	46	3722		-10.2	-25.46	-1.82
102	SLU 57	-962	47	3722		-10.57	-25.58	-1.88
102	SLU 58	-961	46	3722		-10.2	-25.46	-1.82
102	SLU 59	-962	47	3722		-10.57	-25.58	-1.88
102	SLU 60	-1067	54	4133		-11.41	-28.27	-2.05
102	SLU 61	-1068	54	4133		-11.77	-28.4	-2.11
102	SLU 62	-1067	54	4133		-11.41	-28.27	-2.05
102	SLU 63	-1068	54	4133		-11.77	-28.4	-2.11
102	SLU 64	-846	36	3275		-8.63	-22.38	-1.52
102	SLU 65	-848	37	3275		-9.24	-22.59	-1.62
102	SLU 66	-846	36	3275		-8.63	-22.38	-1.52
102	SLU 67	-847	37	3275		-9	-22.51	-1.58
102	SLU 68	-848	37	3275		-9.24	-22.59	-1.62
102	SLU 69	-846	36	3275		-8.63	-22.38	-1.52
102	SLU 70	-847	37	3275		-9	-22.51	-1.58
102	SLU 71	-846	36	3275		-8.63	-22.38	-1.52
102	SLU 72	-847	37	3275		-9	-22.51	-1.58
102	SLU 73	-1095	55	4232		-12.06	-29.17	-2.16
102	SLU 74	-1093	55	4233		-11.45	-28.95	-2.06
102	SLU 75	-1094	55	4233		-11.81	-29.08	-2.12
102	SLU 76	-1095	55	4232		-12.06	-29.17	-2.16
102	SLU 77	-1093	55	4233		-11.45	-28.95	-2.06
102	SLU 78	-1094	55	4233		-11.81	-29.08	-2.12
102	SLU 79	-1093	55	4233		-11.45	-28.95	-2.06
102	SLU 80	-1094	55	4233		-11.81	-29.08	-2.12
102	SLU 81	-1199	63	4643		-12.65	-31.77	-2.29
102	SLU 82	-1200	63	4643		-13.02	-31.9	-2.35
102	SLU 83	-1199	63	4643		-12.65	-31.77	-2.29
102	SLU 84	-1200	63	4643		-13.02	-31.9	-2.35
102	SLE RA 1	-622	26	2407		-6.37	-16.45	-1.12
102	SLE RA 2	-623	27	2407		-6.77	-16.59	-1.18
102	SLE RA 3	-622	26	2407		-6.37	-16.45	-1.12
102	SLE RA 4	-622	26	2407		-6.61	-16.53	-1.16
102	SLE RA 5	-623	27	2407		-6.77	-16.59	-1.18
102	SLE RA 6	-622	26	2407		-6.37	-16.45	-1.12
102	SLE RA 7	-622	26	2407		-6.61	-16.53	-1.16



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
102	SLE RA 8	-622	26	2407	-6.37	-16.45	-1.12
102	SLE RA 9	-622	26	2407	-6.61	-16.53	-1.16
102	SLE RA 10	-788	39	3045	-8.65	-20.97	-1.54
102	SLE RA 11	-786	38	3046	-8.24	-20.83	-1.48
102	SLE RA 12	-787	39	3045	-8.49	-20.91	-1.52
102	SLE RA 13	-788	39	3045	-8.65	-20.97	-1.54
102	SLE RA 14	-786	38	3046	-8.24	-20.83	-1.48
102	SLE RA 15	-787	39	3045	-8.49	-20.91	-1.52
102	SLE RA 16	-786	38	3046	-8.24	-20.83	-1.48
102	SLE RA 17	-787	39	3045	-8.49	-20.91	-1.52
102	SLE RA 18	-857	44	3319	-9.05	-22.71	-1.63
102	SLE RA 19	-858	44	3319	-9.29	-22.79	-1.67
102	SLE RA 20	-857	44	3319	-9.05	-22.71	-1.63
102	SLE RA 21	-858	44	3319	-9.29	-22.79	-1.67
102	SLE FR 1	-622	26	2407	-6.37	-16.45	-1.12
102	SLE FR 2	-622	26	2407	-6.45	-16.48	-1.13
102	SLE FR 3	-622	26	2407	-6.37	-16.45	-1.12
102	SLE FR 4	-692	31	2681	-7.25	-18.35	-1.29
102	SLE FR 5	-692	31	2681	-7.17	-18.33	-1.27
102	SLE FR 6	-739	35	2863	-7.71	-19.58	-1.37
102	SLE QP 1	-622	26	2407	-6.37	-16.45	-1.12
102	SLE QP 2	-692	31	2681	-7.17	-18.33	-1.27
102	SLD 1	-532	3	2235	-3.42	-12.53	-0.8
102	SLD 2	-532	3	2235	-3.42	-12.53	-0.8
102	SLD 3	-504	66	2119	-14.02	-11.33	-2.23
102	SLD 4	-504	66	2119	-14.02	-11.33	-2.23
102	SLD 5	-687	-72	2724	10.03	-18.41	1.05
102	SLD 6	-687	-72	2724	10.03	-18.41	1.05
102	SLD 7	-593	137	2336	-25.3	-14.41	-3.74
102	SLD 8	-593	137	2336	-25.3	-14.41	-3.74
102	SLD 9	-792	-74	3026	10.96	-22.24	1.2
102	SLD 10	-792	-74	3026	10.96	-22.24	1.2
102	SLD 11	-697	135	2638	-24.37	-18.25	-3.59
102	SLD 12	-697	135	2638	-24.37	-18.25	-3.59
102	SLD 13	-881	-3	3243	-0.32	-25.32	-0.31
102	SLD 14	-881	-3	3243	-0.32	-25.32	-0.31
102	SLD 15	-852	60	3127	-10.92	-24.12	-1.75
102	SLD 16	-852	60	3127	-10.92	-24.12	-1.75
102	SLV 1	-320	-41	1645	2.3	-4.81	-0.1
102	SLV 2	-320	-41	1645	2.3	-4.81	-0.1
102	SLV 3	-246	119	1353	-24.31	-1.75	-3.65
102	SLV 4	-246	119	1353	-24.31	-1.75	-3.65
102	SLV 5	-692	-232	2813	36.02	-18.92	4.45
102	SLV 6	-692	-232	2813	36.02	-18.92	4.45
102	SLV 7	-447	300	1840	-52.67	-8.71	-7.36
102	SLV 8	-447	300	1840	-52.67	-8.71	-7.36
102	SLV 9	-938	-237	3522	38.33	-27.95	4.81
102	SLV 10	-938	-237	3522	38.33	-27.95	4.81
102	SLV 11	-692	295	2549	-50.36	-17.73	-7
102	SLV 12	-692	295	2549	-50.36	-17.73	-7
102	SLV 13	-1138	-56	4008	9.97	-34.91	1.1
102	SLV 14	-1138	-56	4008	9.97	-34.91	1.1
102	SLV 15	-1065	104	3716	-16.64	-31.84	-2.44
102	SLV 16	-1065	104	3716	-16.64	-31.84	-2.44
103	SLU 1	-64	-1	521	-0.02	-12.92	-0.02
103	SLU 2	-59	3	539	-0.56	-12.78	0.1
103	SLU 3	-64	-1	521	-0.02	-12.92	-0.02
103	SLU 4	-61	1	532	-0.34	-12.84	0.05
103	SLU 5	-59	3	539	-0.56	-12.78	0.1
103	SLU 6	-64	-1	521	-0.02	-12.92	-0.02
103	SLU 7	-61	1	532	-0.34	-12.84	0.05
103	SLU 8	-64	-1	521	-0.02	-12.92	-0.02
103	SLU 9	-61	1	532	-0.34	-12.84	0.05
103	SLU 10	-187	0	337	-0.25	-21.34	0.02
103	SLU 11	-191	-3	320	0.28	-21.48	-0.1
103	SLU 12	-189	-1	330	-0.04	-21.4	-0.02
103	SLU 13	-187	0	337	-0.25	-21.34	0.02
103	SLU 14	-191	-3	320	0.28	-21.48	-0.1
103	SLU 15	-189	-1	330	-0.04	-21.4	-0.02
103	SLU 16	-191	-3	320	0.28	-21.48	-0.1
103	SLU 17	-189	-1	330	-0.04	-21.4	-0.02
103	SLU 18	-246	-4	233	0.41	-25.15	-0.13
103	SLU 19	-243	-2	244	0.09	-25.07	-0.06
103	SLU 20	-246	-4	233	0.41	-25.15	-0.13
103	SLU 21	-243	-2	244	0.09	-25.07	-0.06
103	SLU 22	-128	-2	429	0.14	-17.31	-0.06
103	SLU 23	-123	2	447	-0.4	-17.18	0.06
103	SLU 24	-128	-2	429	0.14	-17.31	-0.06
103	SLU 25	-125	0	440	-0.18	-17.23	0.01
103	SLU 26	-123	2	447	-0.4	-17.18	0.06
103	SLU 27	-128	-2	429	0.14	-17.31	-0.06
103	SLU 28	-125	0	440	-0.18	-17.23	0.01
103	SLU 29	-128	-2	429	0.14	-17.31	-0.06
103	SLU 30	-125	0	440	-0.18	-17.23	0.01
103	SLU 31	-250	-1	245	-0.1	-25.74	-0.02
103	SLU 32	-255	-5	227	0.44	-25.87	-0.14
103	SLU 33	-252	-2	238	0.12	-25.79	-0.06
103	SLU 34	-250	-1	245	-0.1	-25.74	-0.02
103	SLU 35	-255	-5	227	0.44	-25.87	-0.14
103	SLU 36	-252	-2	238	0.12	-25.79	-0.06



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
103	SLU 37	-255	-5	227	0.44	-25.87	-0.14
103	SLU 38	-252	-2	238	0.12	-25.79	-0.06
103	SLU 39	-310	-6	141	0.57	-29.54	-0.17
103	SLU 40	-307	-3	151	0.25	-29.46	-0.1
103	SLU 41	-310	-6	141	0.57	-29.54	-0.17
103	SLU 42	-307	-3	151	0.25	-29.46	-0.1
103	SLU 43	-61	-1	709	-0.08	-15.29	-0.01
103	SLU 44	-56	3	727	-0.62	-15.15	0.11
103	SLU 45	-61	-1	709	-0.08	-15.29	-0.01
103	SLU 46	-58	1	720	-0.4	-15.21	0.06
103	SLU 47	-56	3	727	-0.62	-15.15	0.11
103	SLU 48	-61	-1	709	-0.08	-15.29	-0.01
103	SLU 49	-58	1	720	-0.4	-15.21	0.06
103	SLU 50	-61	-1	709	-0.08	-15.29	-0.01
103	SLU 51	-58	1	720	-0.4	-15.21	0.06
103	SLU 52	-184	1	525	-0.31	-23.71	0.03
103	SLU 53	-189	-3	508	0.22	-23.85	-0.09
103	SLU 54	-186	-1	518	-0.1	-23.77	-0.02
103	SLU 55	-184	1	525	-0.31	-23.71	0.03
103	SLU 56	-189	-3	508	0.22	-23.85	-0.09
103	SLU 57	-186	-1	518	-0.1	-23.77	-0.02
103	SLU 58	-189	-3	508	0.22	-23.85	-0.09
103	SLU 59	-186	-1	518	-0.1	-23.77	-0.02
103	SLU 60	-243	-4	421	0.35	-27.52	-0.12
103	SLU 61	-241	-2	432	0.03	-27.44	-0.05
103	SLU 62	-243	-4	421	0.35	-27.52	-0.12
103	SLU 63	-241	-2	432	0.03	-27.44	-0.05
103	SLU 64	-125	-2	617	0.08	-19.68	-0.05
103	SLU 65	-120	2	635	-0.46	-19.55	0.07
103	SLU 66	-125	-2	617	0.08	-19.68	-0.05
103	SLU 67	-122	0	628	-0.24	-19.6	0.02
103	SLU 68	-120	2	635	-0.46	-19.55	0.07
103	SLU 69	-125	-2	617	0.08	-19.68	-0.05
103	SLU 70	-122	0	628	-0.24	-19.6	0.02
103	SLU 71	-125	-2	617	0.08	-19.68	-0.05
103	SLU 72	-122	0	628	-0.24	-19.6	0.02
103	SLU 73	-248	-1	433	-0.16	-28.11	-0.01
103	SLU 74	-253	-4	415	0.38	-28.24	-0.13
103	SLU 75	-250	-2	426	0.06	-28.16	-0.06
103	SLU 76	-248	-1	433	-0.16	-28.11	-0.01
103	SLU 77	-253	-4	415	0.38	-28.24	-0.13
103	SLU 78	-250	-2	426	0.06	-28.16	-0.06
103	SLU 79	-253	-4	415	0.38	-28.24	-0.13
103	SLU 80	-250	-2	426	0.06	-28.16	-0.06
103	SLU 81	-307	-5	329	0.51	-31.91	-0.16
103	SLU 82	-304	-3	339	0.19	-31.83	-0.09
103	SLU 83	-307	-5	329	0.51	-31.91	-0.16
103	SLU 84	-304	-3	339	0.19	-31.83	-0.09
103	SLE RA 1	-82	-1	495	0.02	-14.17	-0.03
103	SLE RA 2	-79	1	507	-0.33	-14.08	0.05
103	SLE RA 3	-82	-1	495	0.02	-14.17	-0.03
103	SLE RA 4	-80	0	502	-0.19	-14.12	0.02
103	SLE RA 5	-79	1	507	-0.33	-14.08	0.05
103	SLE RA 6	-82	-1	495	0.02	-14.17	-0.03
103	SLE RA 7	-80	0	502	-0.19	-14.12	0.02
103	SLE RA 8	-82	-1	495	0.02	-14.17	-0.03
103	SLE RA 9	-80	0	502	-0.19	-14.12	0.02
103	SLE RA 10	-164	0	372	-0.13	-19.79	0
103	SLE RA 11	-167	-3	360	0.23	-19.88	-0.08
103	SLE RA 12	-165	-1	367	0.01	-19.83	-0.03
103	SLE RA 13	-164	0	372	-0.13	-19.79	0
103	SLE RA 14	-167	-3	360	0.23	-19.88	-0.08
103	SLE RA 15	-165	-1	367	0.01	-19.83	-0.03
103	SLE RA 16	-167	-3	360	0.23	-19.88	-0.08
103	SLE RA 17	-165	-1	367	0.01	-19.83	-0.03
103	SLE RA 18	-204	-4	303	0.31	-22.33	-0.11
103	SLE RA 19	-202	-2	310	0.1	-22.27	-0.06
103	SLE RA 20	-204	-4	303	0.31	-22.33	-0.11
103	SLE RA 21	-202	-2	310	0.1	-22.27	-0.06
103	SLE FR 1	-82	-1	495	0.02	-14.17	-0.03
103	SLE FR 2	-82	-1	497	-0.05	-14.16	-0.02
103	SLE FR 3	-82	-1	495	0.02	-14.17	-0.03
103	SLE FR 4	-118	-2	440	0.04	-16.6	-0.04
103	SLE FR 5	-119	-2	437	0.11	-16.62	-0.05
103	SLE FR 6	-143	-3	399	0.17	-18.25	-0.07
103	SLE QP 1	-82	-1	495	0.02	-14.17	-0.03
103	SLE QP 2	-119	-2	437	0.11	-16.62	-0.05
103	SLD 1	-55	23	604	-3.49	-12.85	0.76
103	SLD 2	-55	23	604	-3.49	-12.85	0.76
103	SLD 3	11	4	788	-0.75	-9.41	0.13
103	SLD 4	11	4	788	-0.75	-9.41	0.13
103	SLD 5	-199	34	209	-5.13	-20.69	1.15
103	SLD 6	-199	34	209	-5.13	-20.69	1.15
103	SLD 7	20	-29	821	4.01	-9.25	-0.96
103	SLD 8	20	-29	821	4.01	-9.25	-0.96
103	SLD 9	-257	25	54	-3.79	-23.99	0.85
103	SLD 10	-257	25	54	-3.79	-23.99	0.85
103	SLD 11	-38	-38	666	5.35	-12.55	-1.26
103	SLD 12	-38	-38	666	5.35	-12.55	-1.26
103	SLD 13	-248	-8	87	0.97	-23.83	-0.24





Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
Ind.	N.br.						
103	SLD 14	-248	-8	87	0.97	-23.83	-0.24
103	SLD 15	-182	-27	270	3.72	-20.39	-0.87
103	SLD 16	-182	-27	270	3.72	-20.39	-0.87
103	SLV 1	25	59	815	-8.77	-8.1	1.96
103	SLV 2	25	59	815	-8.77	-8.1	1.96
103	SLV 3	190	11	1275	-1.78	0.53	0.35
103	SLV 4	190	11	1275	-1.78	0.53	0.35
103	SLV 5	-326	89	-147	-13.17	-27.17	3
103	SLV 6	-326	89	-147	-13.17	-27.17	3
103	SLV 7	224	-71	1386	10.16	1.63	-2.38
103	SLV 8	224	-71	1386	10.16	1.63	-2.38
103	SLV 9	-461	67	-511	-9.94	-34.87	2.27
103	SLV 10	-461	67	-511	-9.94	-34.87	2.27
103	SLV 11	89	-94	1022	13.39	-6.07	-3.11
103	SLV 12	89	-94	1022	13.39	-6.07	-3.11
103	SLV 13	-427	-15	-400	2	-33.77	-0.46
103	SLV 14	-427	-15	-400	2	-33.77	-0.46
103	SLV 15	-262	-64	60	9	-25.14	-2.07
103	SLV 16	-262	-64	60	9	-25.14	-2.07
104	SLU 1	-326	150	3816	-10.95	-14.14	-0.05
104	SLU 2	-320	136	3793	-10.29	-13.56	-0.06
104	SLU 3	-326	150	3816	-10.95	-14.14	-0.05
104	SLU 4	-322	142	3802	-10.55	-13.8	-0.05
104	SLU 5	-320	136	3793	-10.29	-13.56	-0.06
104	SLU 6	-326	150	3816	-10.95	-14.14	-0.05
104	SLU 7	-322	142	3802	-10.55	-13.8	-0.05
104	SLU 8	-326	150	3816	-10.95	-14.14	-0.05
104	SLU 9	-322	142	3802	-10.55	-13.8	-0.05
104	SLU 10	-445	136	4734	-11.74	-22.46	-0.06
104	SLU 11	-450	149	4757	-12.41	-23.04	-0.06
104	SLU 12	-447	141	4743	-12.01	-22.69	-0.06
104	SLU 13	-445	136	4734	-11.74	-22.46	-0.06
104	SLU 14	-450	149	4757	-12.41	-23.04	-0.06
104	SLU 15	-447	141	4743	-12.01	-22.69	-0.06
104	SLU 16	-450	149	4757	-12.41	-23.04	-0.06
104	SLU 17	-447	141	4743	-12.01	-22.69	-0.06
104	SLU 18	-503	149	5160	-13.03	-26.85	-0.06
104	SLU 19	-500	141	5146	-12.63	-26.5	-0.06
104	SLU 20	-503	149	5160	-13.03	-26.85	-0.06
104	SLU 21	-500	141	5146	-12.63	-26.5	-0.06
104	SLU 22	-391	150	4329	-11.73	-18.72	-0.06
104	SLU 23	-386	137	4306	-11.06	-18.14	-0.06
104	SLU 24	-391	150	4329	-11.73	-18.72	-0.06
104	SLU 25	-388	142	4315	-11.33	-18.37	-0.06
104	SLU 26	-386	137	4306	-11.06	-18.14	-0.06
104	SLU 27	-391	150	4329	-11.73	-18.72	-0.06
104	SLU 28	-388	142	4315	-11.33	-18.37	-0.06
104	SLU 29	-391	150	4329	-11.73	-18.72	-0.06
104	SLU 30	-388	142	4315	-11.33	-18.37	-0.06
104	SLU 31	-511	137	5247	-12.51	-27.03	-0.06
104	SLU 32	-516	150	5270	-13.18	-27.61	-0.06
104	SLU 33	-513	142	5256	-12.78	-27.26	-0.06
104	SLU 34	-511	137	5247	-12.51	-27.03	-0.06
104	SLU 35	-516	150	5270	-13.18	-27.61	-0.06
104	SLU 36	-513	142	5256	-12.78	-27.26	-0.06
104	SLU 37	-516	150	5270	-13.18	-27.61	-0.06
104	SLU 38	-513	142	5256	-12.78	-27.26	-0.06
104	SLU 39	-569	150	5674	-13.8	-31.42	-0.06
104	SLU 40	-566	142	5660	-13.4	-31.07	-0.06
104	SLU 41	-569	150	5674	-13.8	-31.42	-0.06
104	SLU 42	-566	142	5660	-13.4	-31.07	-0.06
104	SLU 43	-401	194	4785	-13.98	-16.82	-0.07
104	SLU 44	-395	181	4762	-13.31	-16.24	-0.07
104	SLU 45	-401	194	4785	-13.98	-16.82	-0.07
104	SLU 46	-397	186	4771	-13.58	-16.47	-0.07
104	SLU 47	-395	181	4762	-13.31	-16.24	-0.07
104	SLU 48	-401	194	4785	-13.98	-16.82	-0.07
104	SLU 49	-397	186	4771	-13.58	-16.47	-0.07
104	SLU 50	-401	194	4785	-13.98	-16.82	-0.07
104	SLU 51	-397	186	4771	-13.58	-16.47	-0.07
104	SLU 52	-520	181	5703	-14.76	-25.13	-0.08
104	SLU 53	-525	194	5726	-15.43	-25.71	-0.07
104	SLU 54	-522	186	5712	-15.03	-25.36	-0.07
104	SLU 55	-520	181	5703	-14.76	-25.13	-0.08
104	SLU 56	-525	194	5726	-15.43	-25.71	-0.07
104	SLU 57	-522	186	5712	-15.03	-25.36	-0.07
104	SLU 58	-525	194	5726	-15.43	-25.71	-0.07
104	SLU 59	-522	186	5712	-15.03	-25.36	-0.07
104	SLU 60	-579	194	6129	-16.05	-29.52	-0.07
104	SLU 61	-575	186	6115	-15.65	-29.17	-0.08
104	SLU 62	-579	194	6129	-16.05	-29.52	-0.07
104	SLU 63	-575	186	6115	-15.65	-29.17	-0.08
104	SLU 64	-467	195	5298	-14.75	-21.39	-0.07
104	SLU 65	-461	182	5275	-14.08	-20.81	-0.07
104	SLU 66	-467	195	5298	-14.75	-21.39	-0.07
104	SLU 67	-463	187	5284	-14.35	-21.05	-0.07
104	SLU 68	-461	182	5275	-14.08	-20.81	-0.07
104	SLU 69	-467	195	5298	-14.75	-21.39	-0.07
104	SLU 70	-463	187	5284	-14.35	-21.05	-0.07
104	SLU 71	-467	195	5298	-14.75	-21.39	-0.07



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
104	SLU 72	-463	187	5284	-14.35	-21.05	-0.07
104	SLU 73	-586	181	6216	-15.53	-29.71	-0.08
104	SLU 74	-591	195	6239	-16.2	-30.29	-0.07
104	SLU 75	-588	187	6225	-15.8	-29.94	-0.08
104	SLU 76	-586	181	6216	-15.53	-29.71	-0.08
104	SLU 77	-591	195	6239	-16.2	-30.29	-0.07
104	SLU 78	-588	187	6225	-15.8	-29.94	-0.08
104	SLU 79	-591	195	6239	-16.2	-30.29	-0.07
104	SLU 80	-588	187	6225	-15.8	-29.94	-0.08
104	SLU 81	-644	195	6642	-16.82	-34.1	-0.08
104	SLU 82	-641	187	6629	-16.42	-33.75	-0.08
104	SLU 83	-644	195	6642	-16.82	-34.1	-0.08
104	SLU 84	-641	187	6629	-16.42	-33.75	-0.08
104	SLE RA 1	-344	150	3963	-11.18	-15.45	-0.05
104	SLE RA 2	-341	141	3947	-10.73	-15.06	-0.06
104	SLE RA 3	-344	150	3963	-11.18	-15.45	-0.05
104	SLE RA 4	-342	144	3953	-10.91	-15.22	-0.06
104	SLE RA 5	-341	141	3947	-10.73	-15.06	-0.06
104	SLE RA 6	-344	150	3963	-11.18	-15.45	-0.05
104	SLE RA 7	-342	144	3953	-10.91	-15.22	-0.06
104	SLE RA 8	-344	150	3963	-11.18	-15.45	-0.05
104	SLE RA 9	-342	144	3953	-10.91	-15.22	-0.06
104	SLE RA 10	-424	141	4575	-11.7	-20.99	-0.06
104	SLE RA 11	-427	150	4590	-12.14	-21.38	-0.06
104	SLE RA 12	-425	144	4581	-11.88	-21.15	-0.06
104	SLE RA 13	-424	141	4575	-11.7	-20.99	-0.06
104	SLE RA 14	-427	150	4590	-12.14	-21.38	-0.06
104	SLE RA 15	-425	144	4581	-11.88	-21.15	-0.06
104	SLE RA 16	-427	150	4590	-12.14	-21.38	-0.06
104	SLE RA 17	-425	144	4581	-11.88	-21.15	-0.06
104	SLE RA 18	-463	150	4859	-12.56	-23.92	-0.06
104	SLE RA 19	-461	144	4850	-12.29	-23.69	-0.06
104	SLE RA 20	-463	150	4859	-12.56	-23.92	-0.06
104	SLE RA 21	-461	144	4850	-12.29	-23.69	-0.06
104	SLE FR 1	-344	150	3963	-11.18	-15.45	-0.05
104	SLE FR 2	-344	148	3960	-11.09	-15.37	-0.05
104	SLE FR 3	-344	150	3963	-11.18	-15.45	-0.05
104	SLE FR 4	-379	148	4228	-11.5	-17.91	-0.06
104	SLE FR 5	-380	150	4231	-11.59	-17.99	-0.06
104	SLE FR 6	-404	150	4411	-11.87	-19.69	-0.06
104	SLE QP 1	-344	150	3963	-11.18	-15.45	-0.05
104	SLE QP 2	-380	150	4231	-11.59	-17.99	-0.06
104	SLD 1	-333	99	3948	-12.65	-26.1	-0.1
104	SLD 2	-333	99	3948	-12.65	-26.1	-0.1
104	SLD 3	-300	176	3630	-7.79	-22.57	-0.06
104	SLD 4	-300	176	3630	-7.79	-22.57	-0.06
104	SLD 5	-416	17	4628	-19.28	-25.77	-0.14
104	SLD 6	-416	17	4628	-19.28	-25.77	-0.14
104	SLD 7	-306	275	3569	-3.08	-14.02	0.01
104	SLD 8	-306	275	3569	-3.08	-14.02	0.01
104	SLD 9	-454	24	4894	-20.1	-21.97	-0.13
104	SLD 10	-454	24	4894	-20.1	-21.97	-0.13
104	SLD 11	-344	283	3835	-3.9	-10.21	0.03
104	SLD 12	-344	283	3835	-3.9	-10.21	0.03
104	SLD 13	-460	123	4833	-15.39	-13.41	-0.05
104	SLD 14	-460	123	4833	-15.39	-13.41	-0.05
104	SLD 15	-427	201	4515	-10.53	-9.88	-0.01
104	SLD 16	-427	201	4515	-10.53	-9.88	-0.01
104	SLV 1	-272	27	3590	-14.13	-37.42	-0.17
104	SLV 2	-272	27	3590	-14.13	-37.42	-0.17
104	SLV 3	-189	211	2804	-2.56	-28.51	-0.06
104	SLV 4	-189	211	2804	-2.56	-28.51	-0.06
104	SLV 5	-474	-166	5231	-29.9	-37.32	-0.26
104	SLV 6	-474	-166	5231	-29.9	-37.32	-0.26
104	SLV 7	-196	447	2612	8.67	-7.65	0.12
104	SLV 8	-196	447	2612	8.67	-7.65	0.12
104	SLV 9	-563	-148	5851	-31.85	-28.34	-0.23
104	SLV 10	-563	-148	5851	-31.85	-28.34	-0.23
104	SLV 11	-286	466	3232	6.72	1.34	0.15
104	SLV 12	-286	466	3232	6.72	1.34	0.15
104	SLV 13	-571	88	5659	-20.62	-7.47	-0.05
104	SLV 14	-571	88	5659	-20.62	-7.47	-0.05
104	SLV 15	-488	272	4873	-9.05	1.43	0.06
104	SLV 16	-488	272	4873	-9.05	1.43	0.06
105	SLU 1	4	-108	1707	4.07	0.13	0.02
105	SLU 2	4	-126	1731	4.96	-0.41	0.02
105	SLU 3	4	-108	1707	4.07	0.13	0.02
105	SLU 4	4	-119	1721	4.6	-0.19	0.02
105	SLU 5	4	-126	1731	4.96	-0.41	0.02
105	SLU 6	4	-108	1707	4.07	0.13	0.02
105	SLU 7	4	-119	1721	4.6	-0.19	0.02
105	SLU 8	4	-108	1707	4.07	0.13	0.02
105	SLU 9	4	-119	1721	4.6	-0.19	0.02
105	SLU 10	6	-164	2035	6.28	-0.05	0.02
105	SLU 11	6	-146	2011	5.39	0.48	0.02
105	SLU 12	6	-157	2026	5.92	0.16	0.02
105	SLU 13	6	-164	2035	6.28	-0.05	0.02
105	SLU 14	6	-146	2011	5.39	0.48	0.02
105	SLU 15	6	-157	2026	5.92	0.16	0.02
105	SLU 16	6	-146	2011	5.39	0.48	0.02



Nodo	Cont.	Reazione a traslazione				Reazione a rotazione			
		x	y	z		x	y	z	
Ind.	N.br.								
105	SLU 17	6	-157	2026		5.92	0.16	0.02	
105	SLU 18	7	-163	2141		5.96	0.63	0.02	
105	SLU 19	7	-173	2156		6.49	0.31	0.02	
105	SLU 20	7	-163	2141		5.96	0.63	0.02	
105	SLU 21	7	-173	2156		6.49	0.31	0.02	
105	SLU 22	5	-125	1848		4.67	0.26	0.02	
105	SLU 23	4	-143	1872		5.56	-0.28	0.02	
105	SLU 24	5	-125	1848		4.67	0.26	0.02	
105	SLU 25	5	-136	1862		5.21	-0.06	0.02	
105	SLU 26	4	-143	1872		5.56	-0.28	0.02	
105	SLU 27	5	-125	1848		4.67	0.26	0.02	
105	SLU 28	5	-136	1862		5.21	-0.06	0.02	
105	SLU 29	5	-125	1848		4.67	0.26	0.02	
105	SLU 30	5	-136	1862		5.21	-0.06	0.02	
105	SLU 31	6	-181	2176		6.89	0.08	0.02	
105	SLU 32	7	-164	2152		6	0.61	0.02	
105	SLU 33	7	-174	2166		6.53	0.29	0.02	
105	SLU 34	6	-181	2176		6.89	0.08	0.02	
105	SLU 35	7	-164	2152		6	0.61	0.02	
105	SLU 36	7	-174	2166		6.53	0.29	0.02	
105	SLU 37	7	-164	2152		6	0.61	0.02	
105	SLU 38	7	-174	2166		6.53	0.29	0.02	
105	SLU 39	8	-180	2282		6.57	0.77	0.02	
105	SLU 40	7	-191	2297		7.1	0.44	0.02	
105	SLU 41	8	-180	2282		6.57	0.77	0.02	
105	SLU 42	7	-191	2297		7.1	0.44	0.02	
105	SLU 43	6	-135	2170		5.08	0.12	0.02	
105	SLU 44	5	-152	2195		5.97	-0.41	0.02	
105	SLU 45	6	-135	2170		5.08	0.12	0.02	
105	SLU 46	5	-145	2185		5.61	-0.2	0.02	
105	SLU 47	5	-152	2195		5.97	-0.41	0.02	
105	SLU 48	6	-135	2170		5.08	0.12	0.02	
105	SLU 49	5	-145	2185		5.61	-0.2	0.02	
105	SLU 50	6	-135	2170		5.08	0.12	0.02	
105	SLU 51	5	-145	2185		5.61	-0.2	0.02	
105	SLU 52	7	-190	2499		7.29	-0.06	0.02	
105	SLU 53	7	-173	2475		6.4	0.48	0.02	
105	SLU 54	7	-184	2489		6.94	0.15	0.02	
105	SLU 55	7	-190	2499		7.29	-0.06	0.02	
105	SLU 56	7	-173	2475		6.4	0.48	0.02	
105	SLU 57	7	-184	2489		6.94	0.15	0.02	
105	SLU 58	7	-173	2475		6.4	0.48	0.02	
105	SLU 59	7	-184	2489		6.94	0.15	0.02	
105	SLU 60	8	-189	2605		6.97	0.63	0.02	
105	SLU 61	8	-200	2620		7.5	0.31	0.02	
105	SLU 62	8	-189	2605		6.97	0.63	0.02	
105	SLU 63	8	-200	2620		7.5	0.31	0.02	
105	SLU 64	6	-152	2311		5.69	0.25	0.02	
105	SLU 65	6	-169	2336		6.57	-0.28	0.02	
105	SLU 66	6	-152	2311		5.69	0.25	0.02	
105	SLU 67	6	-162	2326		6.22	-0.07	0.02	
105	SLU 68	6	-169	2336		6.57	-0.28	0.02	
105	SLU 69	6	-152	2311		5.69	0.25	0.02	
105	SLU 70	6	-162	2326		6.22	-0.07	0.02	
105	SLU 71	6	-152	2311		5.69	0.25	0.02	
105	SLU 72	6	-162	2326		6.22	-0.07	0.02	
105	SLU 73	7	-208	2640		7.9	0.07	0.03	
105	SLU 74	8	-190	2615		7.01	0.61	0.02	
105	SLU 75	8	-201	2630		7.54	0.29	0.03	
105	SLU 76	7	-208	2640		7.9	0.07	0.03	
105	SLU 77	8	-190	2615		7.01	0.61	0.02	
105	SLU 78	8	-201	2630		7.54	0.29	0.03	
105	SLU 79	8	-190	2615		7.01	0.61	0.02	
105	SLU 80	8	-201	2630		7.54	0.29	0.03	
105	SLU 81	9	-207	2746		7.58	0.76	0.02	
105	SLU 82	8	-217	2761		8.11	0.44	0.03	
105	SLU 83	9	-207	2746		7.58	0.76	0.02	
105	SLU 84	8	-217	2761		8.11	0.44	0.03	
105	SLE RA 1	5	-113	1747		4.24	0.17	0.02	
105	SLE RA 2	4	-125	1763		4.83	-0.19	0.02	
105	SLE RA 3	5	-113	1747		4.24	0.17	0.02	
105	SLE RA 4	4	-120	1757		4.6	-0.05	0.02	
105	SLE RA 5	4	-125	1763		4.83	-0.19	0.02	
105	SLE RA 6	5	-113	1747		4.24	0.17	0.02	
105	SLE RA 7	4	-120	1757		4.6	-0.05	0.02	
105	SLE RA 8	5	-113	1747		4.24	0.17	0.02	
105	SLE RA 9	4	-120	1757		4.6	-0.05	0.02	
105	SLE RA 10	5	-150	1966		5.72	0.04	0.02	
105	SLE RA 11	6	-139	1950		5.12	0.4	0.02	
105	SLE RA 12	6	-146	1960		5.48	0.19	0.02	
105	SLE RA 13	5	-150	1966		5.72	0.04	0.02	
105	SLE RA 14	6	-139	1950		5.12	0.4	0.02	
105	SLE RA 15	6	-146	1960		5.48	0.19	0.02	
105	SLE RA 16	6	-139	1950		5.12	0.4	0.02	
105	SLE RA 17	6	-146	1960		5.48	0.19	0.02	
105	SLE RA 18	6	-150	2037		5.5	0.5	0.02	
105	SLE RA 19	6	-157	2046		5.86	0.29	0.02	
105	SLE RA 20	6	-150	2037		5.5	0.5	0.02	
105	SLE RA 21	6	-157	2046		5.86	0.29	0.02	
105	SLE FR 1	5	-113	1747		4.24	0.17	0.02	



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
Ind.	N.br.						
105	SLE FR 2	5	-115	1750	4.36	0.09	0.02
105	SLE FR 3	5	-113	1747	4.24	0.17	0.02
105	SLE FR 4	5	-126	1837	4.74	0.2	0.02
105	SLE FR 5	5	-124	1834	4.62	0.27	0.02
105	SLE FR 6	6	-131	1892	4.87	0.33	0.02
105	SLE QP 1	5	-113	1747	4.24	0.17	0.02
105	SLE QP 2	5	-124	1834	4.62	0.27	0.02
105	SLD 1	-2	-94	2086	3.16	1.15	0.03
105	SLD 2	-2	-94	2086	3.16	1.15	0.03
105	SLD 3	1	-227	2032	8.64	2.55	0.02
105	SLD 4	1	-227	2032	8.64	2.55	0.02
105	SLD 5	-3	88	1991	-4.14	-1.6	0.04
105	SLD 6	-3	88	1991	-4.14	-1.6	0.04
105	SLD 7	10	-358	1812	14.14	3.08	0
105	SLD 8	10	-358	1812	14.14	3.08	0
105	SLD 9	1	109	1856	-4.91	-2.55	0.03
105	SLD 10	1	109	1856	-4.91	-2.55	0.03
105	SLD 11	13	-336	1677	13.37	2.13	0
105	SLD 12	13	-336	1677	13.37	2.13	0
105	SLD 13	9	-21	1636	0.59	-2.02	0.01
105	SLD 14	9	-21	1636	0.59	-2.02	0.01
105	SLD 15	13	-154	1582	6.08	-0.62	0
105	SLD 16	13	-154	1582	6.08	-0.62	0
105	SLV 1	-13	-52	2428	1.17	2.21	0.05
105	SLV 2	-13	-52	2428	1.17	2.21	0.05
105	SLV 3	-4	-367	2291	14.11	5.74	0.02
105	SLV 4	-4	-367	2291	14.11	5.74	0.02
105	SLV 5	-14	376	2221	-16.04	-4.5	0.07
105	SLV 6	-14	376	2221	-16.04	-4.5	0.07
105	SLV 7	16	-675	1762	27.09	7.26	-0.02
105	SLV 8	16	-675	1762	27.09	7.26	-0.02
105	SLV 9	-6	427	1905	-17.86	-6.72	0.05
105	SLV 10	-6	427	1905	-17.86	-6.72	0.05
105	SLV 11	24	-624	1447	25.28	5.03	-0.03
105	SLV 12	24	-624	1447	25.28	5.03	-0.03
105	SLV 13	15	119	1377	-4.87	-5.2	0.01
105	SLV 14	15	119	1377	-4.87	-5.2	0.01
105	SLV 15	23	-196	1239	8.07	-1.68	-0.02
105	SLV 16	23	-196	1239	8.07	-1.68	-0.02
106	SLU 1	1	-98	1261	3.81	-0.13	0
106	SLU 2	1	-150	1288	6.08	-0.12	0
106	SLU 3	1	-98	1261	3.81	-0.13	0
106	SLU 4	1	-129	1278	5.17	-0.13	0
106	SLU 5	1	-150	1288	6.08	-0.12	0
106	SLU 6	1	-98	1261	3.81	-0.13	0
106	SLU 7	1	-129	1278	5.17	-0.13	0
106	SLU 8	1	-98	1261	3.81	-0.13	0
106	SLU 9	1	-129	1278	5.17	-0.13	0
106	SLU 10	2	-195	1621	7.75	-0.15	0
106	SLU 11	2	-142	1594	5.48	-0.15	0
106	SLU 12	2	-174	1610	6.84	-0.15	0
106	SLU 13	2	-195	1621	7.75	-0.15	0
106	SLU 14	2	-142	1594	5.48	-0.15	0
106	SLU 15	2	-174	1610	6.84	-0.15	0
106	SLU 16	2	-142	1594	5.48	-0.15	0
106	SLU 17	2	-174	1610	6.84	-0.15	0
106	SLU 18	2	-162	1737	6.2	-0.16	0
106	SLU 19	2	-193	1753	7.55	-0.16	0
106	SLU 20	2	-162	1737	6.2	-0.16	0
106	SLU 21	2	-193	1753	7.55	-0.16	0
106	SLU 22	2	-120	1429	4.65	-0.13	0
106	SLU 23	2	-172	1456	6.91	-0.13	0
106	SLU 24	2	-120	1429	4.65	-0.13	0
106	SLU 25	2	-151	1446	6	-0.13	0
106	SLU 26	2	-172	1456	6.91	-0.13	0
106	SLU 27	2	-120	1429	4.65	-0.13	0
106	SLU 28	2	-151	1446	6	-0.13	0
106	SLU 29	2	-120	1429	4.65	-0.13	0
106	SLU 30	2	-151	1446	6	-0.13	0
106	SLU 31	2	-217	1789	8.58	-0.15	0
106	SLU 32	2	-165	1762	6.31	-0.16	0
106	SLU 33	2	-196	1778	7.67	-0.15	0
106	SLU 34	2	-217	1789	8.58	-0.15	0
106	SLU 35	2	-165	1762	6.31	-0.16	0
106	SLU 36	2	-196	1778	7.67	-0.15	0
106	SLU 37	2	-165	1762	6.31	-0.16	0
106	SLU 38	2	-196	1778	7.67	-0.15	0
106	SLU 39	2	-184	1905	7.03	-0.17	0
106	SLU 40	2	-215	1921	8.39	-0.16	0
106	SLU 41	2	-184	1905	7.03	-0.17	0
106	SLU 42	2	-215	1921	8.39	-0.16	0
106	SLU 43	2	-119	1582	4.67	-0.17	0
106	SLU 44	2	-172	1609	6.94	-0.16	0
106	SLU 45	2	-119	1582	4.67	-0.17	0
106	SLU 46	2	-151	1598	6.03	-0.16	0
106	SLU 47	2	-172	1609	6.94	-0.16	0
106	SLU 48	2	-119	1582	4.67	-0.17	0
106	SLU 49	2	-151	1598	6.03	-0.16	0
106	SLU 50	2	-119	1582	4.67	-0.17	0
106	SLU 51	2	-151	1598	6.03	-0.16	0



Nodo	Cont.	Reazione a traslazione				Reazione a rotazione		
		x	y	z		x	y	z
106	SLU 52	2	-216	1942	8.6	-0.19	0	
106	SLU 53	2	-164	1915	6.34	-0.19	0	
106	SLU 54	2	-195	1931	7.7	-0.19	0	
106	SLU 55	2	-216	1942	8.6	-0.19	0	
106	SLU 56	2	-164	1915	6.34	-0.19	0	
106	SLU 57	2	-195	1931	7.7	-0.19	0	
106	SLU 58	2	-164	1915	6.34	-0.19	0	
106	SLU 59	2	-195	1931	7.7	-0.19	0	
106	SLU 60	2	-183	2058	7.05	-0.2	0	
106	SLU 61	2	-215	2074	8.41	-0.2	0	
106	SLU 62	2	-183	2058	7.05	-0.2	0	
106	SLU 63	2	-215	2074	8.41	-0.2	0	
106	SLU 64	2	-142	1750	5.5	-0.17	0	
106	SLU 65	2	-194	1777	7.77	-0.16	0	
106	SLU 66	2	-142	1750	5.5	-0.17	0	
106	SLU 67	2	-173	1766	6.86	-0.17	0	
106	SLU 68	2	-194	1777	7.77	-0.16	0	
106	SLU 69	2	-142	1750	5.5	-0.17	0	
106	SLU 70	2	-173	1766	6.86	-0.17	0	
106	SLU 71	2	-142	1750	5.5	-0.17	0	
106	SLU 72	2	-173	1766	6.86	-0.17	0	
106	SLU 73	2	-239	2110	9.44	-0.19	0	
106	SLU 74	2	-186	2083	7.17	-0.19	0	
106	SLU 75	2	-218	2099	8.53	-0.19	0	
106	SLU 76	2	-239	2110	9.44	-0.19	0	
106	SLU 77	2	-186	2083	7.17	-0.19	0	
106	SLU 78	2	-218	2099	8.53	-0.19	0	
106	SLU 79	2	-186	2083	7.17	-0.19	0	
106	SLU 80	2	-218	2099	8.53	-0.19	0	
106	SLU 81	2	-206	2226	7.89	-0.2	0	
106	SLU 82	2	-237	2242	9.25	-0.2	0	
106	SLU 83	2	-206	2226	7.89	-0.2	0	
106	SLU 84	2	-237	2242	9.25	-0.2	0	
106	SLE RA 1	1	-104	1309	4.05	-0.13	0	
106	SLE RA 2	1	-139	1327	5.56	-0.13	0	
106	SLE RA 3	1	-104	1309	4.05	-0.13	0	
106	SLE RA 4	1	-125	1320	4.96	-0.13	0	
106	SLE RA 5	1	-139	1327	5.56	-0.13	0	
106	SLE RA 6	1	-104	1309	4.05	-0.13	0	
106	SLE RA 7	1	-125	1320	4.96	-0.13	0	
106	SLE RA 8	1	-104	1309	4.05	-0.13	0	
106	SLE RA 9	1	-125	1320	4.96	-0.13	0	
106	SLE RA 10	2	-169	1549	6.67	-0.14	0	
106	SLE RA 11	2	-134	1531	5.16	-0.15	0	
106	SLE RA 12	2	-155	1542	6.07	-0.14	0	
106	SLE RA 13	2	-169	1549	6.67	-0.14	0	
106	SLE RA 14	2	-134	1531	5.16	-0.15	0	
106	SLE RA 15	2	-155	1542	6.07	-0.14	0	
106	SLE RA 16	2	-134	1531	5.16	-0.15	0	
106	SLE RA 17	2	-155	1542	6.07	-0.14	0	
106	SLE RA 18	2	-147	1626	5.64	-0.15	0	
106	SLE RA 19	2	-168	1637	6.54	-0.15	0	
106	SLE RA 20	2	-147	1626	5.64	-0.15	0	
106	SLE RA 21	2	-168	1637	6.54	-0.15	0	
106	SLE FR 1	1	-104	1309	4.05	-0.13	0	
106	SLE FR 2	1	-111	1313	4.35	-0.13	0	
106	SLE FR 3	1	-104	1309	4.05	-0.13	0	
106	SLE FR 4	1	-124	1408	4.83	-0.14	0	
106	SLE FR 5	1	-117	1405	4.53	-0.14	0	
106	SLE FR 6	2	-125	1468	4.85	-0.14	0	
106	SLE QP 1	1	-104	1309	4.05	-0.13	0	
106	SLE QP 2	1	-117	1405	4.53	-0.14	0	
106	SLD 1	-3	-96	1348	3.57	0.27	0.01	
106	SLD 2	-3	-96	1348	3.57	0.27	0.01	
106	SLD 3	-1	-195	1382	7.61	1.1	0	
106	SLD 4	-1	-195	1382	7.61	1.1	0	
106	SLD 5	-3	40	1336	-1.88	-1.27	0.01	
106	SLD 6	-3	40	1336	-1.88	-1.27	0.01	
106	SLD 7	3	-291	1449	11.58	1.49	0	
106	SLD 8	3	-291	1449	11.58	1.49	0	
106	SLD 9	-1	57	1360	-2.52	-1.77	0	
106	SLD 10	-1	57	1360	-2.52	-1.77	0	
106	SLD 11	6	-274	1473	10.94	1	-0.01	
106	SLD 12	6	-274	1473	10.94	1	-0.01	
106	SLD 13	4	-39	1428	1.45	-1.37	0	
106	SLD 14	4	-39	1428	1.45	-1.37	0	
106	SLD 15	6	-138	1461	5.48	-0.54	0	
106	SLD 16	6	-138	1461	5.48	-0.54	0	
106	SLV 1	-10	-64	1265	2.16	0.72	0.01	
106	SLV 2	-10	-64	1265	2.16	0.72	0.01	
106	SLV 3	-5	-304	1351	11.91	2.85	0	
106	SLV 4	-5	-304	1351	11.91	2.85	0	
106	SLV 5	-9	263	1232	-10.96	-3.11	0.02	
106	SLV 6	-9	263	1232	-10.96	-3.11	0.02	
106	SLV 7	7	-537	1519	21.52	3.99	-0.01	
106	SLV 8	7	-537	1519	21.52	3.99	-0.01	
106	SLV 9	-4	303	1290	-12.47	-4.26	0.01	
106	SLV 10	-4	303	1290	-12.47	-4.26	0.01	
106	SLV 11	12	-497	1577	20.02	2.83	-0.02	
106	SLV 12	12	-497	1577	20.02	2.83	-0.02	



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
Ind.	N.br.						
106	SLV 13	8	71	1458	-2.85	-3.12	0
106	SLV 14	8	71	1458	-2.85	-3.12	0
106	SLV 15	13	-169	1544	6.89	-0.99	-0.01
106	SLV 16	13	-169	1544	6.89	-0.99	-0.01
107	SLU 1	-5	-9	2730	-1.83	-2.51	-0.01
107	SLU 2	-2	-24	2730	-1.13	-1.4	-0.01
107	SLU 3	-5	-9	2730	-1.83	-2.51	-0.01
107	SLU 4	-3	-18	2730	-1.41	-1.85	-0.01
107	SLU 5	-2	-24	2730	-1.13	-1.4	-0.01
107	SLU 6	-5	-9	2730	-1.83	-2.51	-0.01
107	SLU 7	-3	-18	2730	-1.41	-1.85	-0.01
107	SLU 8	-5	-9	2730	-1.83	-2.51	-0.01
107	SLU 9	-3	-18	2730	-1.41	-1.85	-0.01
107	SLU 10	-5	-101	3362	1.16	-3.25	-0.01
107	SLU 11	-8	-85	3362	0.46	-4.36	-0.01
107	SLU 12	-7	-95	3362	0.88	-3.7	-0.01
107	SLU 13	-5	-101	3362	1.16	-3.25	-0.01
107	SLU 14	-8	-85	3362	0.46	-4.36	-0.01
107	SLU 15	-7	-95	3362	0.88	-3.7	-0.01
107	SLU 16	-8	-85	3362	0.46	-4.36	-0.01
107	SLU 17	-7	-95	3362	0.88	-3.7	-0.01
107	SLU 18	-10	-118	3633	1.44	-5.15	-0.01
107	SLU 19	-8	-128	3632	1.86	-4.49	-0.01
107	SLU 20	-10	-118	3633	1.44	-5.15	-0.01
107	SLU 21	-8	-128	3632	1.86	-4.49	-0.01
107	SLU 22	-7	-49	3076	-0.65	-3.47	-0.01
107	SLU 23	-4	-64	3076	0.04	-2.36	-0.01
107	SLU 24	-7	-49	3076	-0.65	-3.47	-0.01
107	SLU 25	-5	-58	3076	-0.23	-2.8	-0.01
107	SLU 26	-4	-64	3076	0.04	-2.36	-0.01
107	SLU 27	-7	-49	3076	-0.65	-3.47	-0.01
107	SLU 28	-5	-58	3076	-0.23	-2.8	-0.01
107	SLU 29	-7	-49	3076	-0.65	-3.47	-0.01
107	SLU 30	-5	-58	3076	-0.23	-2.8	-0.01
107	SLU 31	-7	-141	3708	2.34	-4.21	-0.01
107	SLU 32	-10	-125	3708	1.64	-5.32	-0.02
107	SLU 33	-8	-135	3708	2.06	-4.65	-0.01
107	SLU 34	-7	-141	3708	2.34	-4.21	-0.01
107	SLU 35	-10	-125	3708	1.64	-5.32	-0.02
107	SLU 36	-8	-135	3708	2.06	-4.65	-0.01
107	SLU 37	-10	-125	3708	1.64	-5.32	-0.02
107	SLU 38	-8	-135	3708	2.06	-4.65	-0.01
107	SLU 39	-12	-158	3979	2.62	-6.11	-0.02
107	SLU 40	-10	-168	3979	3.04	-5.45	-0.02
107	SLU 41	-12	-158	3979	2.62	-6.11	-0.02
107	SLU 42	-10	-168	3979	3.04	-5.45	-0.02
107	SLU 43	-5	2	3430	-2.79	-2.94	-0.01
107	SLU 44	-3	-13	3430	-2.09	-1.83	-0.01
107	SLU 45	-5	2	3430	-2.79	-2.94	-0.01
107	SLU 46	-4	-7	3430	-2.37	-2.27	-0.01
107	SLU 47	-3	-13	3430	-2.09	-1.83	-0.01
107	SLU 48	-5	2	3430	-2.79	-2.94	-0.01
107	SLU 49	-4	-7	3430	-2.37	-2.27	-0.01
107	SLU 50	-5	2	3430	-2.79	-2.94	-0.01
107	SLU 51	-4	-7	3430	-2.37	-2.27	-0.01
107	SLU 52	-6	-90	4062	0.21	-3.68	-0.01
107	SLU 53	-9	-74	4062	-0.49	-4.79	-0.01
107	SLU 54	-7	-84	4062	-0.07	-4.12	-0.01
107	SLU 55	-6	-90	4062	0.21	-3.68	-0.01
107	SLU 56	-9	-74	4062	-0.49	-4.79	-0.01
107	SLU 57	-7	-84	4062	-0.07	-4.12	-0.01
107	SLU 58	-9	-74	4062	-0.49	-4.79	-0.01
107	SLU 59	-7	-84	4062	-0.07	-4.12	-0.01
107	SLU 60	-10	-107	4333	0.49	-5.58	-0.02
107	SLU 61	-9	-117	4333	0.91	-4.91	-0.01
107	SLU 62	-10	-107	4333	0.49	-5.58	-0.02
107	SLU 63	-9	-117	4333	0.91	-4.91	-0.01
107	SLU 64	-7	-38	3777	-1.61	-3.89	-0.01
107	SLU 65	-5	-53	3776	-0.91	-2.79	-0.01
107	SLU 66	-7	-38	3777	-1.61	-3.89	-0.01
107	SLU 67	-6	-47	3777	-1.19	-3.23	-0.01
107	SLU 68	-5	-53	3776	-0.91	-2.79	-0.01
107	SLU 69	-7	-38	3777	-1.61	-3.89	-0.01
107	SLU 70	-6	-47	3777	-1.19	-3.23	-0.01
107	SLU 71	-7	-38	3777	-1.61	-3.89	-0.01
107	SLU 72	-6	-47	3777	-1.19	-3.23	-0.01
107	SLU 73	-8	-130	4408	1.38	-4.63	-0.01
107	SLU 74	-11	-114	4409	0.69	-5.74	-0.02
107	SLU 75	-9	-124	4408	1.11	-5.08	-0.02
107	SLU 76	-8	-130	4408	1.38	-4.63	-0.01
107	SLU 77	-11	-114	4409	0.69	-5.74	-0.02
107	SLU 78	-9	-124	4408	1.11	-5.08	-0.02
107	SLU 79	-11	-114	4409	0.69	-5.74	-0.02
107	SLU 80	-9	-124	4408	1.11	-5.08	-0.02
107	SLU 81	-12	-147	4679	1.67	-6.53	-0.02
107	SLU 82	-11	-157	4679	2.09	-5.87	-0.02
107	SLU 83	-12	-147	4679	1.67	-6.53	-0.02
107	SLU 84	-11	-157	4679	2.09	-5.87	-0.02
107	SLE RA 1	-5	-20	2829	-1.5	-2.78	-0.01
107	SLE RA 2	-3	-31	2829	-1.03	-2.05	-0.01



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
107	SLE RA 3	-5	-20	2829	-1.5	-2.78	-0.01
107	SLE RA 4	-4	-26	2829	-1.22	-2.34	-0.01
107	SLE RA 5	-3	-31	2829	-1.03	-2.05	-0.01
107	SLE RA 6	-5	-20	2829	-1.5	-2.78	-0.01
107	SLE RA 7	-4	-26	2829	-1.22	-2.34	-0.01
107	SLE RA 8	-5	-20	2829	-1.5	-2.78	-0.01
107	SLE RA 9	-4	-26	2829	-1.22	-2.34	-0.01
107	SLE RA 10	-6	-82	3250	0.5	-3.28	-0.01
107	SLE RA 11	-8	-71	3250	0.03	-4.02	-0.01
107	SLE RA 12	-6	-78	3250	0.31	-3.57	-0.01
107	SLE RA 13	-6	-82	3250	0.5	-3.28	-0.01
107	SLE RA 14	-8	-71	3250	0.03	-4.02	-0.01
107	SLE RA 15	-6	-78	3250	0.31	-3.57	-0.01
107	SLE RA 16	-8	-71	3250	0.03	-4.02	-0.01
107	SLE RA 17	-6	-78	3250	0.31	-3.57	-0.01
107	SLE RA 18	-9	-93	3431	0.69	-4.55	-0.01
107	SLE RA 19	-7	-99	3431	0.97	-4.1	-0.01
107	SLE RA 20	-9	-93	3431	0.69	-4.55	-0.01
107	SLE RA 21	-7	-99	3431	0.97	-4.1	-0.01
107	SLE FR 1	-5	-20	2829	-1.5	-2.78	-0.01
107	SLE FR 2	-5	-22	2829	-1.4	-2.64	-0.01
107	SLE FR 3	-5	-20	2829	-1.5	-2.78	-0.01
107	SLE FR 4	-6	-44	3010	-0.75	-3.16	-0.01
107	SLE FR 5	-6	-42	3010	-0.84	-3.31	-0.01
107	SLE FR 6	-7	-57	3130	-0.4	-3.66	-0.01
107	SLE QP 1	-5	-20	2829	-1.5	-2.78	-0.01
107	SLE QP 2	-6	-42	3010	-0.84	-3.31	-0.01
107	SLD 1	-6	-67	2778	-4.92	4.01	0.03
107	SLD 2	-6	-67	2778	-4.92	4.01	0.03
107	SLD 3	-18	58	2595	1.13	-0.54	0.01
107	SLD 4	-18	58	2595	1.13	-0.54	0.01
107	SLD 5	13	-239	3219	-11.25	5.79	0.03
107	SLD 6	13	-239	3219	-11.25	5.79	0.03
107	SLD 7	-29	178	2606	8.94	-9.38	-0.03
107	SLD 8	-29	178	2606	8.94	-9.38	-0.03
107	SLD 9	16	-262	3413	-10.62	2.76	0.01
107	SLD 10	16	-262	3413	-10.62	2.76	0.01
107	SLD 11	-25	155	2800	9.57	-12.41	-0.05
107	SLD 12	-25	155	2800	9.57	-12.41	-0.05
107	SLD 13	6	-142	3425	-2.81	-6.08	-0.03
107	SLD 14	6	-142	3425	-2.81	-6.08	-0.03
107	SLD 15	-7	-17	3241	3.24	-10.63	-0.05
107	SLD 16	-7	-17	3241	3.24	-10.63	-0.05
107	SLV 1	-4	-102	2486	-10.51	14.57	0.09
107	SLV 2	-4	-102	2486	-10.51	14.57	0.09
107	SLV 3	-36	195	2023	3.83	2.97	0.04
107	SLV 4	-36	195	2023	3.83	2.97	0.04
107	SLV 5	42	-510	3555	-25.49	19.65	0.09
107	SLV 6	42	-510	3555	-25.49	19.65	0.09
107	SLV 7	-63	479	2011	22.3	-19.02	-0.06
107	SLV 8	-63	479	2011	22.3	-19.02	-0.06
107	SLV 9	51	-563	4008	-23.98	12.4	0.04
107	SLV 10	51	-563	4008	-23.98	12.4	0.04
107	SLV 11	-55	426	2464	23.81	-26.27	-0.11
107	SLV 12	-55	426	2464	23.81	-26.27	-0.11
107	SLV 13	23	-279	3997	-5.5	-9.59	-0.07
107	SLV 14	23	-279	3997	-5.5	-9.59	-0.07
107	SLV 15	-8	18	3533	8.83	-21.19	-0.11
107	SLV 16	-8	18	3533	8.83	-21.19	-0.11
108	SLU 1	-2	-122	1571	4.08	-1.89	0
108	SLU 2	-4	-132	1587	4.31	-2.88	0
108	SLU 3	-2	-122	1571	4.08	-1.89	0
108	SLU 4	-3	-128	1580	4.22	-2.48	0
108	SLU 5	-4	-132	1587	4.31	-2.88	0
108	SLU 6	-2	-122	1571	4.08	-1.89	0
108	SLU 7	-3	-128	1580	4.22	-2.48	0
108	SLU 8	-2	-122	1571	4.08	-1.89	0
108	SLU 9	-3	-128	1580	4.22	-2.48	0
108	SLU 10	-3	-176	1837	5.8	-2.9	0
108	SLU 11	-2	-165	1821	5.57	-1.91	0
108	SLU 12	-3	-171	1831	5.71	-2.5	0
108	SLU 13	-3	-176	1837	5.8	-2.9	0
108	SLU 14	-2	-165	1821	5.57	-1.91	0
108	SLU 15	-3	-171	1831	5.71	-2.5	0
108	SLU 16	-2	-165	1821	5.57	-1.91	0
108	SLU 17	-3	-171	1831	5.71	-2.5	0
108	SLU 18	-2	-183	1928	6.21	-1.92	0
108	SLU 19	-3	-190	1938	6.35	-2.51	0
108	SLU 20	-2	-183	1928	6.21	-1.92	0
108	SLU 21	-3	-190	1938	6.35	-2.51	0
108	SLU 22	-2	-141	1688	4.76	-1.95	0
108	SLU 23	-4	-152	1704	4.99	-2.94	0
108	SLU 24	-2	-141	1688	4.76	-1.95	0
108	SLU 25	-3	-148	1698	4.9	-2.54	0
108	SLU 26	-4	-152	1704	4.99	-2.94	0
108	SLU 27	-2	-141	1688	4.76	-1.95	0
108	SLU 28	-3	-148	1698	4.9	-2.54	0
108	SLU 29	-2	-141	1688	4.76	-1.95	0
108	SLU 30	-3	-148	1698	4.9	-2.54	0
108	SLU 31	-3	-195	1954	6.48	-2.96	0



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
Ind.	N.br.						
108	SLU 32	-2	-185	1939	6.25	-1.97	0
108	SLU 33	-3	-191	1948	6.39	-2.56	0
108	SLU 34	-3	-195	1954	6.48	-2.96	0
108	SLU 35	-2	-185	1939	6.25	-1.97	0
108	SLU 36	-3	-191	1948	6.39	-2.56	0
108	SLU 37	-2	-185	1939	6.25	-1.97	0
108	SLU 38	-3	-191	1948	6.39	-2.56	0
108	SLU 39	-2	-203	2046	6.89	-1.98	0
108	SLU 40	-3	-210	2055	7.03	-2.57	0
108	SLU 41	-2	-203	2046	6.89	-1.98	0
108	SLU 42	-3	-210	2055	7.03	-2.57	0
108	SLU 43	-3	-151	2002	5.07	-2.43	0
108	SLU 44	-4	-162	2018	5.3	-3.42	0
108	SLU 45	-3	-151	2002	5.07	-2.43	0
108	SLU 46	-4	-158	2011	5.21	-3.02	0
108	SLU 47	-4	-162	2018	5.3	-3.42	0
108	SLU 48	-3	-151	2002	5.07	-2.43	0
108	SLU 49	-4	-158	2011	5.21	-3.02	0
108	SLU 50	-3	-151	2002	5.07	-2.43	0
108	SLU 51	-4	-158	2011	5.21	-3.02	0
108	SLU 52	-4	-205	2268	6.79	-3.44	0
108	SLU 53	-3	-195	2252	6.56	-2.45	0
108	SLU 54	-4	-201	2262	6.7	-3.05	0
108	SLU 55	-4	-205	2268	6.79	-3.44	0
108	SLU 56	-3	-195	2252	6.56	-2.45	0
108	SLU 57	-4	-201	2262	6.7	-3.05	0
108	SLU 58	-3	-195	2252	6.56	-2.45	0
108	SLU 59	-4	-201	2262	6.7	-3.05	0
108	SLU 60	-3	-213	2360	7.2	-2.46	0
108	SLU 61	-3	-220	2369	7.34	-3.05	0
108	SLU 62	-3	-213	2360	7.2	-2.46	0
108	SLU 63	-3	-220	2369	7.34	-3.05	0
108	SLU 64	-3	-171	2119	5.75	-2.49	0
108	SLU 65	-4	-182	2135	5.98	-3.48	0
108	SLU 66	-3	-171	2119	5.75	-2.49	0
108	SLU 67	-4	-178	2129	5.89	-3.09	0
108	SLU 68	-4	-182	2135	5.98	-3.48	0
108	SLU 69	-3	-171	2119	5.75	-2.49	0
108	SLU 70	-4	-178	2129	5.89	-3.09	0
108	SLU 71	-3	-171	2119	5.75	-2.49	0
108	SLU 72	-4	-178	2129	5.89	-3.09	0
108	SLU 73	-4	-225	2385	7.47	-3.5	0
108	SLU 74	-3	-214	2370	7.25	-2.51	0
108	SLU 75	-3	-221	2379	7.38	-3.11	0
108	SLU 76	-4	-225	2385	7.47	-3.5	0
108	SLU 77	-3	-214	2370	7.25	-2.51	0
108	SLU 78	-3	-221	2379	7.38	-3.11	0
108	SLU 79	-3	-214	2370	7.25	-2.51	0
108	SLU 80	-3	-221	2379	7.38	-3.11	0
108	SLU 81	-2	-233	2477	7.88	-2.52	0
108	SLU 82	-3	-239	2486	8.02	-3.12	0
108	SLU 83	-2	-233	2477	7.88	-2.52	0
108	SLU 84	-3	-239	2486	8.02	-3.12	0
108	SLE RA 1	-2	-127	1604	4.28	-1.9	0
108	SLE RA 2	-3	-134	1615	4.43	-2.56	0
108	SLE RA 3	-2	-127	1604	4.28	-1.9	0
108	SLE RA 4	-3	-132	1611	4.37	-2.3	0
108	SLE RA 5	-3	-134	1615	4.43	-2.56	0
108	SLE RA 6	-2	-127	1604	4.28	-1.9	0
108	SLE RA 7	-3	-132	1611	4.37	-2.3	0
108	SLE RA 8	-2	-127	1604	4.28	-1.9	0
108	SLE RA 9	-3	-132	1611	4.37	-2.3	0
108	SLE RA 10	-3	-163	1782	5.42	-2.58	0
108	SLE RA 11	-2	-156	1771	5.27	-1.92	0
108	SLE RA 12	-3	-160	1778	5.36	-2.31	0
108	SLE RA 13	-3	-163	1782	5.42	-2.58	0
108	SLE RA 14	-2	-156	1771	5.27	-1.92	0
108	SLE RA 15	-3	-160	1778	5.36	-2.31	0
108	SLE RA 16	-2	-156	1771	5.27	-1.92	0
108	SLE RA 17	-3	-160	1778	5.36	-2.31	0
108	SLE RA 18	-2	-168	1843	5.7	-1.92	0
108	SLE RA 19	-3	-173	1849	5.79	-2.32	0
108	SLE RA 20	-2	-168	1843	5.7	-1.92	0
108	SLE RA 21	-3	-173	1849	5.79	-2.32	0
108	SLE FR 1	-2	-127	1604	4.28	-1.9	0
108	SLE FR 2	-2	-129	1607	4.31	-2.04	0
108	SLE FR 3	-2	-127	1604	4.28	-1.9	0
108	SLE FR 4	-2	-141	1678	4.73	-2.04	0
108	SLE FR 5	-2	-140	1676	4.7	-1.91	0
108	SLE FR 6	-2	-148	1724	4.99	-1.91	0
108	SLE QP 1	-2	-127	1604	4.28	-1.9	0
108	SLE QP 2	-2	-140	1676	4.7	-1.91	0
108	SLD 1	-8	-120	1882	3.63	1.88	-0.02
108	SLD 2	-8	-120	1882	3.63	1.88	-0.02
108	SLD 3	-3	-255	1822	9.19	4.11	-0.02
108	SLD 4	-3	-255	1822	9.19	4.11	-0.02
108	SLD 5	-11	71	1828	-4.05	-4.15	0
108	SLD 6	-11	71	1828	-4.05	-4.15	0
108	SLD 7	5	-379	1630	14.48	3.28	-0.01
108	SLD 8	5	-379	1630	14.48	3.28	-0.01





Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
Ind.	N.br.						
108	SLD 9	-9	100	1722	-5.08	-7.1	0.01
108	SLD 10	-9	100	1722	-5.08	-7.1	0.01
108	SLD 11	7	-351	1524	13.46	0.33	0
108	SLD 12	7	-351	1524	13.46	0.33	0
108	SLD 13	-1	-24	1530	0.21	-7.93	0.02
108	SLD 14	-1	-24	1530	0.21	-7.93	0.02
108	SLD 15	4	-159	1470	5.78	-5.7	0.02
108	SLD 16	4	-159	1470	5.78	-5.7	0.02
108	SLV 1	-17	-93	2164	2.12	6.73	-0.05
108	SLV 2	-17	-93	2164	2.12	6.73	-0.05
108	SLV 3	-5	-413	2010	15.28	12.42	-0.06
108	SLV 4	-5	-413	2010	15.28	12.42	-0.06
108	SLV 5	-25	359	2055	-16.04	-7.94	0
108	SLV 6	-25	359	2055	-16.04	-7.94	0
108	SLV 7	15	-707	1544	27.85	11.01	-0.03
108	SLV 8	15	-707	1544	27.85	11.01	-0.03
108	SLV 9	-20	427	1808	-18.44	-14.83	0.03
108	SLV 10	-20	427	1808	-18.44	-14.83	0.03
108	SLV 11	21	-639	1297	25.45	4.12	0
108	SLV 12	21	-639	1297	25.45	4.12	0
108	SLV 13	1	133	1342	-5.88	-16.23	0.06
108	SLV 14	1	133	1342	-5.88	-16.23	0.06
108	SLV 15	13	-187	1188	7.29	-10.55	0.05
108	SLV 16	13	-187	1188	7.29	-10.55	0.05
109	SLU 1	0	-127	1158	4.42	-0.71	0
109	SLU 2	0	-174	1184	6.25	-0.71	0
109	SLU 3	0	-127	1158	4.42	-0.71	0
109	SLU 4	0	-155	1174	5.52	-0.71	0
109	SLU 5	0	-174	1184	6.25	-0.71	0
109	SLU 6	0	-127	1158	4.42	-0.71	0
109	SLU 7	0	-155	1174	5.52	-0.71	0
109	SLU 8	0	-127	1158	4.42	-0.71	0
109	SLU 9	0	-155	1174	5.52	-0.71	0
109	SLU 10	0	-233	1467	8.33	-0.92	0
109	SLU 11	0	-185	1441	6.49	-0.92	0
109	SLU 12	0	-214	1457	7.59	-0.92	0
109	SLU 13	0	-233	1467	8.33	-0.92	0
109	SLU 14	0	-185	1441	6.49	-0.92	0
109	SLU 15	0	-214	1457	7.59	-0.92	0
109	SLU 16	0	-185	1441	6.49	-0.92	0
109	SLU 17	0	-214	1457	7.59	-0.92	0
109	SLU 18	0	-210	1563	7.38	-1.01	0
109	SLU 19	0	-239	1578	8.48	-1.01	0
109	SLU 20	0	-210	1563	7.38	-1.01	0
109	SLU 21	0	-239	1578	8.48	-1.01	0
109	SLU 22	0	-156	1301	5.46	-0.81	0
109	SLU 23	0	-204	1327	7.3	-0.81	0
109	SLU 24	0	-156	1301	5.46	-0.81	0
109	SLU 25	0	-184	1317	6.56	-0.81	0
109	SLU 26	0	-204	1327	7.3	-0.81	0
109	SLU 27	0	-156	1301	5.46	-0.81	0
109	SLU 28	0	-184	1317	6.56	-0.81	0
109	SLU 29	0	-156	1301	5.46	-0.81	0
109	SLU 30	0	-184	1317	6.56	-0.81	0
109	SLU 31	0	-262	1610	9.37	-1.02	0
109	SLU 32	0	-214	1584	7.53	-1.02	0
109	SLU 33	0	-243	1600	8.63	-1.02	0
109	SLU 34	0	-262	1610	9.37	-1.02	0
109	SLU 35	0	-214	1584	7.53	-1.02	0
109	SLU 36	0	-243	1600	8.63	-1.02	0
109	SLU 37	0	-214	1584	7.53	-1.02	0
109	SLU 38	0	-243	1600	8.63	-1.02	0
109	SLU 39	0	-239	1705	8.42	-1.11	0
109	SLU 40	0	-268	1721	9.52	-1.11	0
109	SLU 41	0	-239	1705	8.42	-1.11	0
109	SLU 42	0	-268	1721	9.52	-1.11	0
109	SLU 43	0	-155	1457	5.38	-0.89	0
109	SLU 44	0	-202	1483	7.22	-0.89	0
109	SLU 45	0	-155	1457	5.38	-0.89	0
109	SLU 46	0	-183	1473	6.49	-0.89	0
109	SLU 47	0	-202	1483	7.22	-0.89	0
109	SLU 48	0	-155	1457	5.38	-0.89	0
109	SLU 49	0	-183	1473	6.49	-0.89	0
109	SLU 50	0	-155	1457	5.38	-0.89	0
109	SLU 51	0	-183	1473	6.49	-0.89	0
109	SLU 52	0	-261	1766	9.3	-1.1	0
109	SLU 53	0	-213	1740	7.46	-1.1	0
109	SLU 54	0	-241	1756	8.56	-1.1	0
109	SLU 55	0	-261	1766	9.3	-1.1	0
109	SLU 56	0	-213	1740	7.46	-1.1	0
109	SLU 57	0	-241	1756	8.56	-1.1	0
109	SLU 58	0	-213	1740	7.46	-1.1	0
109	SLU 59	0	-241	1756	8.56	-1.1	0
109	SLU 60	0	-238	1861	8.35	-1.19	0
109	SLU 61	0	-266	1877	9.45	-1.19	0
109	SLU 62	0	-238	1861	8.35	-1.19	0
109	SLU 63	0	-266	1877	9.45	-1.19	0
109	SLU 64	0	-184	1600	6.42	-0.99	0
109	SLU 65	0	-232	1626	8.26	-0.99	0
109	SLU 66	0	-184	1600	6.42	-0.99	0



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
109	SLU 67	0	-212	1615	7.53	-0.99	0
109	SLU 68	0	-232	1626	8.26	-0.99	0
109	SLU 69	0	-184	1600	6.42	-0.99	0
109	SLU 70	0	-212	1615	7.53	-0.99	0
109	SLU 71	0	-184	1600	6.42	-0.99	0
109	SLU 72	0	-212	1615	7.53	-0.99	0
109	SLU 73	0	-290	1908	10.34	-1.2	0
109	SLU 74	0	-242	1883	8.5	-1.2	0
109	SLU 75	0	-271	1898	9.6	-1.2	0
109	SLU 76	0	-290	1908	10.34	-1.2	0
109	SLU 77	0	-242	1883	8.5	-1.2	0
109	SLU 78	0	-271	1898	9.6	-1.2	0
109	SLU 79	0	-242	1883	8.5	-1.2	0
109	SLU 80	0	-271	1898	9.6	-1.2	0
109	SLU 81	0	-267	2004	9.39	-1.29	0
109	SLU 82	0	-296	2019	10.49	-1.29	0
109	SLU 83	0	-267	2004	9.39	-1.29	0
109	SLU 84	0	-296	2019	10.49	-1.29	0
109	SLE RA 1	0	-135	1199	4.71	-0.74	0
109	SLE RA 2	0	-167	1216	5.94	-0.74	0
109	SLE RA 3	0	-135	1199	4.71	-0.74	0
109	SLE RA 4	0	-154	1210	5.45	-0.74	0
109	SLE RA 5	0	-167	1216	5.94	-0.74	0
109	SLE RA 6	0	-135	1199	4.71	-0.74	0
109	SLE RA 7	0	-154	1210	5.45	-0.74	0
109	SLE RA 8	0	-135	1199	4.71	-0.74	0
109	SLE RA 9	0	-154	1210	5.45	-0.74	0
109	SLE RA 10	0	-206	1405	7.32	-0.88	0
109	SLE RA 11	0	-174	1388	6.1	-0.88	0
109	SLE RA 12	0	-193	1398	6.83	-0.88	0
109	SLE RA 13	0	-206	1405	7.32	-0.88	0
109	SLE RA 14	0	-174	1388	6.1	-0.88	0
109	SLE RA 15	0	-193	1398	6.83	-0.88	0
109	SLE RA 16	0	-174	1388	6.1	-0.88	0
109	SLE RA 17	0	-193	1398	6.83	-0.88	0
109	SLE RA 18	0	-191	1469	6.69	-0.94	0
109	SLE RA 19	0	-210	1479	7.42	-0.94	0
109	SLE RA 20	0	-191	1469	6.69	-0.94	0
109	SLE RA 21	0	-210	1479	7.42	-0.94	0
109	SLE FR 1	0	-135	1199	4.71	-0.74	0
109	SLE FR 2	0	-141	1203	4.96	-0.74	0
109	SLE FR 3	0	-135	1199	4.71	-0.74	0
109	SLE FR 4	0	-158	1284	5.55	-0.8	0
109	SLE FR 5	0	-152	1280	5.31	-0.8	0
109	SLE FR 6	0	-163	1334	5.7	-0.84	0
109	SLE QP 1	0	-135	1199	4.71	-0.74	0
109	SLE QP 2	0	-152	1280	5.31	-0.8	0
109	SLD 1	-3	-58	1210	1.63	1.51	-0.01
109	SLD 2	-3	-58	1210	1.63	1.51	-0.01
109	SLD 3	0	-160	1249	5.87	2.88	-0.01
109	SLD 4	0	-160	1249	5.87	2.88	-0.01
109	SLD 5	-5	31	1201	-2.22	-2.2	0
109	SLD 6	-5	31	1201	-2.22	-2.2	0
109	SLD 7	4	-309	1329	11.9	2.4	0
109	SLD 8	4	-309	1329	11.9	2.4	0
109	SLD 9	-4	6	1231	-1.29	-3.99	0
109	SLD 10	-4	6	1231	-1.29	-3.99	0
109	SLD 11	5	-335	1360	12.83	0.6	0.01
109	SLD 12	5	-335	1360	12.83	0.6	0.01
109	SLD 13	0	-143	1311	4.74	-4.48	0.02
109	SLD 14	0	-143	1311	4.74	-4.48	0.02
109	SLD 15	3	-245	1350	8.98	-3.1	0.02
109	SLD 16	3	-245	1350	8.98	-3.1	0.02
109	SLV 1	-7	72	1110	-3.49	4.46	-0.03
109	SLV 2	-7	72	1110	-3.49	4.46	-0.03
109	SLV 3	-1	-175	1209	6.78	8	-0.03
109	SLV 4	-1	-175	1209	6.78	8	-0.03
109	SLV 5	-12	290	1079	-12.91	-4.59	-0.01
109	SLV 6	-12	290	1079	-12.91	-4.59	-0.01
109	SLV 7	10	-533	1408	21.32	7.21	0
109	SLV 8	10	-533	1408	21.32	7.21	0
109	SLV 9	-10	230	1152	-10.71	-8.8	0
109	SLV 10	-10	230	1152	-10.71	-8.8	0
109	SLV 11	12	-594	1481	23.52	2.99	0.02
109	SLV 12	12	-594	1481	23.52	2.99	0.02
109	SLV 13	0	-129	1352	3.83	-9.59	0.03
109	SLV 14	0	-129	1352	3.83	-9.59	0.03
109	SLV 15	7	-376	1450	14.1	-6.05	0.04
109	SLV 16	7	-376	1450	14.1	-6.05	0.04
110	SLU 1	-3	-47	2411	0.65	-2.3	0
110	SLU 2	0	-71	2425	1.9	-0.59	0
110	SLU 3	-3	-47	2411	0.65	-2.3	0
110	SLU 4	-1	-62	2419	1.4	-1.27	0
110	SLU 5	0	-71	2425	1.9	-0.59	0
110	SLU 6	-3	-47	2411	0.65	-2.3	0
110	SLU 7	-1	-62	2419	1.4	-1.27	0
110	SLU 8	-3	-47	2411	0.65	-2.3	0
110	SLU 9	-1	-62	2419	1.4	-1.27	0
110	SLU 10	-2	-120	2860	3.06	-2.54	0.01
110	SLU 11	-5	-96	2847	1.82	-4.24	0.01



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
110	SLU 12	-3	-111	2855	2.57	-3.22	0.01
110	SLU 13	-2	-120	2860	3.06	-2.54	0.01
110	SLU 14	-5	-96	2847	1.82	-4.24	0.01
110	SLU 15	-3	-111	2855	2.57	-3.22	0.01
110	SLU 16	-5	-96	2847	1.82	-4.24	0.01
110	SLU 17	-3	-111	2855	2.57	-3.22	0.01
110	SLU 18	-6	-117	3033	2.32	-5.07	0.01
110	SLU 19	-4	-131	3041	3.07	-4.05	0.01
110	SLU 20	-6	-117	3033	2.32	-5.07	0.01
110	SLU 21	-4	-131	3041	3.07	-4.05	0.01
110	SLU 22	-4	-75	2656	1.37	-3.3	0.01
110	SLU 23	-1	-99	2669	2.61	-1.59	0
110	SLU 24	-4	-75	2656	1.37	-3.3	0.01
110	SLU 25	-2	-89	2664	2.12	-2.27	0.01
110	SLU 26	-1	-99	2669	2.61	-1.59	0
110	SLU 27	-4	-75	2656	1.37	-3.3	0.01
110	SLU 28	-2	-89	2664	2.12	-2.27	0.01
110	SLU 29	-4	-75	2656	1.37	-3.3	0.01
110	SLU 30	-2	-89	2664	2.12	-2.27	0.01
110	SLU 31	-4	-147	3105	3.78	-3.54	0.01
110	SLU 32	-6	-124	3091	2.54	-5.24	0.01
110	SLU 33	-5	-138	3099	3.28	-4.22	0.01
110	SLU 34	-4	-147	3105	3.78	-3.54	0.01
110	SLU 35	-6	-124	3091	2.54	-5.24	0.01
110	SLU 36	-5	-138	3099	3.28	-4.22	0.01
110	SLU 37	-6	-124	3091	2.54	-5.24	0.01
110	SLU 38	-5	-138	3099	3.28	-4.22	0.01
110	SLU 39	-8	-144	3278	3.04	-6.07	0.01
110	SLU 40	-6	-159	3286	3.78	-5.05	0.01
110	SLU 41	-8	-144	3278	3.04	-6.07	0.01
110	SLU 42	-6	-159	3286	3.78	-5.05	0.01
110	SLU 43	-3	-52	3051	0.6	-2.64	0.01
110	SLU 44	0	-76	3064	1.85	-0.94	0
110	SLU 45	-3	-52	3051	0.6	-2.64	0.01
110	SLU 46	-1	-67	3059	1.35	-1.62	0
110	SLU 47	0	-76	3064	1.85	-0.94	0
110	SLU 48	-3	-52	3051	0.6	-2.64	0.01
110	SLU 49	-1	-67	3059	1.35	-1.62	0
110	SLU 50	-3	-52	3051	0.6	-2.64	0.01
110	SLU 51	-1	-67	3059	1.35	-1.62	0
110	SLU 52	-3	-125	3499	3.01	-2.88	0.01
110	SLU 53	-5	-101	3486	1.77	-4.59	0.01
110	SLU 54	-4	-115	3494	2.52	-3.56	0.01
110	SLU 55	-3	-125	3499	3.01	-2.88	0.01
110	SLU 56	-5	-101	3486	1.77	-4.59	0.01
110	SLU 57	-4	-115	3494	2.52	-3.56	0.01
110	SLU 58	-5	-101	3486	1.77	-4.59	0.01
110	SLU 59	-4	-115	3494	2.52	-3.56	0.01
110	SLU 60	-7	-122	3673	2.27	-5.42	0.01
110	SLU 61	-5	-136	3681	3.02	-4.4	0.01
110	SLU 62	-7	-122	3673	2.27	-5.42	0.01
110	SLU 63	-5	-136	3681	3.02	-4.4	0.01
110	SLU 64	-4	-80	3296	1.32	-3.64	0.01
110	SLU 65	-1	-104	3309	2.56	-1.94	0.01
110	SLU 66	-4	-80	3296	1.32	-3.64	0.01
110	SLU 67	-2	-94	3304	2.07	-2.62	0.01
110	SLU 68	-1	-104	3309	2.56	-1.94	0.01
110	SLU 69	-4	-80	3296	1.32	-3.64	0.01
110	SLU 70	-2	-94	3304	2.07	-2.62	0.01
110	SLU 71	-4	-80	3296	1.32	-3.64	0.01
110	SLU 72	-2	-94	3304	2.07	-2.62	0.01
110	SLU 73	-4	-152	3744	3.73	-3.88	0.01
110	SLU 74	-7	-128	3731	2.49	-5.59	0.01
110	SLU 75	-5	-143	3739	3.23	-4.56	0.01
110	SLU 76	-4	-152	3744	3.73	-3.88	0.01
110	SLU 77	-7	-128	3731	2.49	-5.59	0.01
110	SLU 78	-5	-143	3739	3.23	-4.56	0.01
110	SLU 79	-7	-128	3731	2.49	-5.59	0.01
110	SLU 80	-5	-143	3739	3.23	-4.56	0.01
110	SLU 81	-8	-149	3918	2.99	-6.42	0.01
110	SLU 82	-6	-164	3925	3.73	-5.4	0.01
110	SLU 83	-8	-149	3918	2.99	-6.42	0.01
110	SLU 84	-6	-164	3925	3.73	-5.4	0.01
110	SLE RA 1	-3	-55	2481	0.86	-2.58	0.01
110	SLE RA 2	-1	-71	2490	1.69	-1.45	0
110	SLE RA 3	-3	-55	2481	0.86	-2.58	0.01
110	SLE RA 4	-2	-65	2487	1.35	-1.9	0
110	SLE RA 5	-1	-71	2490	1.69	-1.45	0
110	SLE RA 6	-3	-55	2481	0.86	-2.58	0.01
110	SLE RA 7	-2	-65	2487	1.35	-1.9	0
110	SLE RA 8	-3	-55	2481	0.86	-2.58	0.01
110	SLE RA 9	-2	-65	2487	1.35	-1.9	0
110	SLE RA 10	-3	-104	2780	2.47	-2.74	0.01
110	SLE RA 11	-5	-88	2772	1.64	-3.88	0.01
110	SLE RA 12	-4	-97	2777	2.13	-3.2	0.01
110	SLE RA 13	-3	-104	2780	2.47	-2.74	0.01
110	SLE RA 14	-5	-88	2772	1.64	-3.88	0.01
110	SLE RA 15	-4	-97	2777	2.13	-3.2	0.01
110	SLE RA 16	-5	-88	2772	1.64	-3.88	0.01
110	SLE RA 17	-4	-97	2777	2.13	-3.2	0.01



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
110	SLE RA 18	-5	-102	2896	1.97	-4.43	0.01
110	SLE RA 19	-4	-111	2901	2.47	-3.75	0.01
110	SLE RA 20	-5	-102	2896	1.97	-4.43	0.01
110	SLE RA 21	-4	-111	2901	2.47	-3.75	0.01
110	SLE FR 1	-3	-55	2481	0.86	-2.58	0.01
110	SLE FR 2	-3	-58	2483	1.02	-2.35	0
110	SLE FR 3	-3	-55	2481	0.86	-2.58	0.01
110	SLE FR 4	-3	-72	2607	1.36	-2.91	0.01
110	SLE FR 5	-4	-69	2606	1.19	-3.14	0.01
110	SLE FR 6	-4	-79	2689	1.41	-3.51	0.01
110	SLE QP 1	-3	-55	2481	0.86	-2.58	0.01
110	SLE QP 2	-4	-69	2606	1.19	-3.14	0.01
110	SLD 1	-7	-116	2448	3.61	10.74	0.02
110	SLD 2	-7	-116	2448	3.61	10.74	0.02
110	SLD 3	-19	22	2339	-2.86	3.61	0.02
110	SLD 4	-19	22	2339	-2.86	3.61	0.02
110	SLD 5	14	-293	2723	11.71	11.83	0
110	SLD 6	14	-293	2723	11.71	11.83	0
110	SLD 7	-27	168	2361	-9.82	-11.92	0.02
110	SLD 8	-27	168	2361	-9.82	-11.92	0.02
110	SLD 9	20	-306	2850	12.2	5.64	-0.01
110	SLD 10	20	-306	2850	12.2	5.64	-0.01
110	SLD 11	-22	154	2488	-9.33	-18.1	0.01
110	SLD 12	-22	154	2488	-9.33	-18.1	0.01
110	SLD 13	12	-160	2872	5.24	-9.89	-0.01
110	SLD 14	12	-160	2872	5.24	-9.89	-0.01
110	SLD 15	0	-22	2763	-1.22	-17.01	-0.01
110	SLD 16	0	-22	2763	-1.22	-17.01	-0.01
110	SLV 1	-10	-180	2248	6.86	30.82	0.04
110	SLV 2	-10	-180	2248	6.86	30.82	0.04
110	SLV 3	-42	148	1971	-8.5	12.61	0.05
110	SLV 4	-42	148	1971	-8.5	12.61	0.05
110	SLV 5	42	-600	2920	26.19	34.67	0
110	SLV 6	42	-600	2920	26.19	34.67	0
110	SLV 7	-63	493	1994	-25.01	-26.03	0.03
110	SLV 8	-63	493	1994	-25.01	-26.03	0.03
110	SLV 9	56	-632	3217	27.4	19.76	-0.02
110	SLV 10	56	-632	3217	27.4	19.76	-0.02
110	SLV 11	-50	461	2292	-23.81	-40.94	0.01
110	SLV 12	-50	461	2292	-23.81	-40.94	0.01
110	SLV 13	35	-286	3241	10.88	-18.88	-0.04
110	SLV 14	35	-286	3241	10.88	-18.88	-0.04
110	SLV 15	3	41	2963	-4.48	-37.09	-0.03
110	SLV 16	3	41	2963	-4.48	-37.09	-0.03
111	SLU 1	-6	-141	1482	5.61	-3.65	0.01
111	SLU 2	-8	-153	1493	6.24	-4.9	0.01
111	SLU 3	-6	-141	1482	5.61	-3.65	0.01
111	SLU 4	-7	-148	1488	5.99	-4.4	0.01
111	SLU 5	-8	-153	1493	6.24	-4.9	0.01
111	SLU 6	-6	-141	1482	5.61	-3.65	0.01
111	SLU 7	-7	-148	1488	5.99	-4.4	0.01
111	SLU 8	-6	-141	1482	5.61	-3.65	0.01
111	SLU 9	-7	-148	1488	5.99	-4.4	0.01
111	SLU 10	-9	-199	1706	7.98	-5.33	0.01
111	SLU 11	-7	-187	1695	7.36	-4.08	0.01
111	SLU 12	-8	-194	1702	7.73	-4.83	0.01
111	SLU 13	-9	-199	1706	7.98	-5.33	0.01
111	SLU 14	-7	-187	1695	7.36	-4.08	0.01
111	SLU 15	-8	-194	1702	7.73	-4.83	0.01
111	SLU 16	-7	-187	1695	7.36	-4.08	0.01
111	SLU 17	-8	-194	1702	7.73	-4.83	0.01
111	SLU 18	-7	-207	1787	8.1	-4.26	0.01
111	SLU 19	-8	-214	1794	8.48	-5.01	0.01
111	SLU 20	-7	-207	1787	8.1	-4.26	0.01
111	SLU 21	-8	-214	1794	8.48	-5.01	0.01
111	SLU 22	-7	-162	1583	6.43	-3.91	0.01
111	SLU 23	-8	-175	1594	7.05	-5.16	0.01
111	SLU 24	-7	-162	1583	6.43	-3.91	0.01
111	SLU 25	-8	-170	1590	6.8	-4.66	0.01
111	SLU 26	-8	-175	1594	7.05	-5.16	0.01
111	SLU 27	-7	-162	1583	6.43	-3.91	0.01
111	SLU 28	-8	-170	1590	6.8	-4.66	0.01
111	SLU 29	-7	-162	1583	6.43	-3.91	0.01
111	SLU 30	-8	-170	1590	6.8	-4.66	0.01
111	SLU 31	-9	-220	1808	8.8	-5.59	0.01
111	SLU 32	-7	-208	1797	8.17	-4.34	0.01
111	SLU 33	-8	-216	1803	8.55	-5.09	0.01
111	SLU 34	-9	-220	1808	8.8	-5.59	0.01
111	SLU 35	-7	-208	1797	8.17	-4.34	0.01
111	SLU 36	-8	-216	1803	8.55	-5.09	0.01
111	SLU 37	-7	-208	1797	8.17	-4.34	0.01
111	SLU 38	-8	-216	1803	8.55	-5.09	0.01
111	SLU 39	-8	-228	1888	8.92	-4.53	0.01
111	SLU 40	-9	-235	1895	9.3	-5.28	0.01
111	SLU 41	-8	-228	1888	8.92	-4.53	0.01
111	SLU 42	-9	-235	1895	9.3	-5.28	0.01
111	SLU 43	-8	-176	1892	7.01	-4.66	0.01
111	SLU 44	-10	-188	1903	7.64	-5.9	0.01
111	SLU 45	-8	-176	1892	7.01	-4.66	0.01
111	SLU 46	-9	-183	1898	7.39	-5.4	0.01



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
111	SLU 47	-10	-188	1903	7.64	-5.9	0.01
111	SLU 48	-8	-176	1892	7.01	-4.66	0.01
111	SLU 49	-9	-183	1898	7.39	-5.4	0.01
111	SLU 50	-8	-176	1892	7.01	-4.66	0.01
111	SLU 51	-9	-183	1898	7.39	-5.4	0.01
111	SLU 52	-10	-234	2116	9.38	-6.33	0.01
111	SLU 53	-9	-222	2105	8.76	-5.08	0.01
111	SLU 54	-10	-229	2112	9.13	-5.83	0.01
111	SLU 55	-10	-234	2116	9.38	-6.33	0.01
111	SLU 56	-9	-222	2105	8.76	-5.08	0.01
111	SLU 57	-10	-229	2112	9.13	-5.83	0.01
111	SLU 58	-9	-222	2105	8.76	-5.08	0.01
111	SLU 59	-10	-229	2112	9.13	-5.83	0.01
111	SLU 60	-9	-241	2197	9.51	-5.27	0.01
111	SLU 61	-10	-249	2203	9.88	-6.02	0.01
111	SLU 62	-9	-241	2197	9.51	-5.27	0.01
111	SLU 63	-10	-249	2203	9.88	-6.02	0.01
111	SLU 64	-8	-197	1993	7.83	-4.92	0.01
111	SLU 65	-10	-210	2004	8.46	-6.17	0.01
111	SLU 66	-8	-197	1993	7.83	-4.92	0.01
111	SLU 67	-9	-205	1999	8.21	-5.67	0.01
111	SLU 68	-10	-210	2004	8.46	-6.17	0.01
111	SLU 69	-8	-197	1993	7.83	-4.92	0.01
111	SLU 70	-9	-205	1999	8.21	-5.67	0.01
111	SLU 71	-8	-197	1993	7.83	-4.92	0.01
111	SLU 72	-9	-205	1999	8.21	-5.67	0.01
111	SLU 73	-11	-255	2217	10.2	-6.6	0.01
111	SLU 74	-9	-243	2207	9.58	-5.35	0.01
111	SLU 75	-10	-251	2213	9.95	-6.1	0.01
111	SLU 76	-11	-255	2217	10.2	-6.6	0.01
111	SLU 77	-9	-243	2207	9.58	-5.35	0.01
111	SLU 78	-10	-251	2213	9.95	-6.1	0.01
111	SLU 79	-9	-243	2207	9.58	-5.35	0.01
111	SLU 80	-10	-251	2213	9.95	-6.1	0.01
111	SLU 81	-9	-263	2298	10.32	-5.53	0.01
111	SLU 82	-10	-270	2305	10.7	-6.28	0.01
111	SLU 83	-9	-263	2298	10.32	-5.53	0.01
111	SLU 84	-10	-270	2305	10.7	-6.28	0.01
111	SLE RA 1	-6	-147	1511	5.85	-3.73	0.01
111	SLE RA 2	-7	-155	1518	6.26	-4.56	0.01
111	SLE RA 3	-6	-147	1511	5.85	-3.73	0.01
111	SLE RA 4	-7	-152	1515	6.09	-4.23	0.01
111	SLE RA 5	-7	-155	1518	6.26	-4.56	0.01
111	SLE RA 6	-6	-147	1511	5.85	-3.73	0.01
111	SLE RA 7	-7	-152	1515	6.09	-4.23	0.01
111	SLE RA 8	-6	-147	1511	5.85	-3.73	0.01
111	SLE RA 9	-7	-152	1515	6.09	-4.23	0.01
111	SLE RA 10	-8	-186	1660	7.42	-4.84	0.01
111	SLE RA 11	-7	-178	1653	7.01	-4.01	0.01
111	SLE RA 12	-7	-183	1658	7.26	-4.51	0.01
111	SLE RA 13	-8	-186	1660	7.42	-4.84	0.01
111	SLE RA 14	-7	-178	1653	7.01	-4.01	0.01
111	SLE RA 15	-7	-183	1658	7.26	-4.51	0.01
111	SLE RA 16	-7	-178	1653	7.01	-4.01	0.01
111	SLE RA 17	-7	-183	1658	7.26	-4.51	0.01
111	SLE RA 18	-7	-191	1714	7.51	-4.13	0.01
111	SLE RA 19	-8	-196	1719	7.76	-4.63	0.01
111	SLE RA 20	-7	-191	1714	7.51	-4.13	0.01
111	SLE RA 21	-8	-196	1719	7.76	-4.63	0.01
111	SLE FR 1	-6	-147	1511	5.85	-3.73	0.01
111	SLE FR 2	-6	-149	1512	5.93	-3.89	0.01
111	SLE FR 3	-6	-147	1511	5.85	-3.73	0.01
111	SLE FR 4	-7	-162	1573	6.43	-4.02	0.01
111	SLE FR 5	-6	-160	1572	6.34	-3.85	0.01
111	SLE FR 6	-7	-169	1612	6.68	-3.93	0.01
111	SLE QP 1	-6	-147	1511	5.85	-3.73	0.01
111	SLE QP 2	-6	-160	1572	6.34	-3.85	0.01
111	SLD 1	2	-152	1751	5.79	4.68	-0.02
111	SLD 2	2	-152	1751	5.79	4.68	-0.02
111	SLD 3	6	-288	1694	11.36	7.11	-0.02
111	SLD 4	6	-288	1694	11.36	7.11	-0.02
111	SLD 5	-10	49	1712	-2.27	-4.98	-0.01
111	SLD 6	-10	49	1712	-2.27	-4.98	-0.01
111	SLD 7	4	-405	1523	16.3	3.13	0
111	SLD 8	4	-405	1523	16.3	3.13	0
111	SLD 9	-17	85	1621	-3.61	-10.82	0.01
111	SLD 10	-17	85	1621	-3.61	-10.82	0.01
111	SLD 11	-3	-370	1432	14.96	-2.72	0.02
111	SLD 12	-3	-370	1432	14.96	-2.72	0.02
111	SLD 13	-19	-33	1449	1.32	-14.81	0.03
111	SLD 14	-19	-33	1449	1.32	-14.81	0.03
111	SLD 15	-15	-169	1392	6.89	-12.38	0.03
111	SLD 16	-15	-169	1392	6.89	-12.38	0.03
111	SLV 1	12	-138	1998	4.98	15.81	-0.05
111	SLV 2	12	-138	1998	4.98	15.81	-0.05
111	SLV 3	23	-461	1851	18.17	22.12	-0.05
111	SLV 4	23	-461	1851	18.17	22.12	-0.05
111	SLV 5	-17	336	1923	-14.06	-7.53	-0.02
111	SLV 6	-17	336	1923	-14.06	-7.53	-0.02
111	SLV 7	18	-740	1432	29.88	13.52	0



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
Ind.	N.br.						
111	SLV 8	18	-740	1432	29.88	13.52	0
111	SLV 9	-31	420	1711	-17.2	-21.22	0.01
111	SLV 10	-31	420	1711	-17.2	-21.22	0.01
111	SLV 11	4	-657	1221	26.74	-0.17	0.03
111	SLV 12	4	-657	1221	26.74	-0.17	0.03
111	SLV 13	-36	140	1293	-5.48	-29.82	0.06
111	SLV 14	-36	140	1293	-5.48	-29.82	0.06
111	SLV 15	-25	-183	1145	7.7	-23.5	0.07
111	SLV 16	-25	-183	1145	7.7	-23.5	0.07
112	SLU 1	-2	-146	1067	5.77	-1.47	0
112	SLU 2	-2	-193	1090	7.75	-1.49	0
112	SLU 3	-2	-146	1067	5.77	-1.47	0
112	SLU 4	-2	-174	1081	6.96	-1.48	0
112	SLU 5	-2	-193	1090	7.75	-1.49	0
112	SLU 6	-2	-146	1067	5.77	-1.47	0
112	SLU 7	-2	-174	1081	6.96	-1.48	0
112	SLU 8	-2	-146	1067	5.77	-1.47	0
112	SLU 9	-2	-174	1081	6.96	-1.48	0
112	SLU 10	-3	-258	1330	10.27	-1.97	0
112	SLU 11	-3	-211	1306	8.29	-1.95	0
112	SLU 12	-3	-240	1320	9.48	-1.96	0
112	SLU 13	-3	-258	1330	10.27	-1.97	0
112	SLU 14	-3	-211	1306	8.29	-1.95	0
112	SLU 15	-3	-240	1320	9.48	-1.96	0
112	SLU 16	-3	-211	1306	8.29	-1.95	0
112	SLU 17	-3	-240	1320	9.48	-1.96	0
112	SLU 18	-3	-239	1409	9.37	-2.16	0
112	SLU 19	-3	-268	1423	10.56	-2.17	0
112	SLU 20	-3	-239	1409	9.37	-2.16	0
112	SLU 21	-3	-268	1423	10.56	-2.17	0
112	SLU 22	-2	-179	1188	7.03	-1.71	0
112	SLU 23	-2	-226	1211	9.02	-1.72	0
112	SLU 24	-2	-179	1188	7.03	-1.71	0
112	SLU 25	-2	-207	1202	8.22	-1.71	0
112	SLU 26	-2	-226	1211	9.02	-1.72	0
112	SLU 27	-2	-179	1188	7.03	-1.71	0
112	SLU 28	-2	-207	1202	8.22	-1.71	0
112	SLU 29	-2	-179	1188	7.03	-1.71	0
112	SLU 30	-2	-207	1202	8.22	-1.71	0
112	SLU 31	-3	-291	1450	11.54	-2.2	0
112	SLU 32	-3	-244	1427	9.55	-2.19	0
112	SLU 33	-3	-272	1441	10.75	-2.19	0
112	SLU 34	-3	-291	1450	11.54	-2.2	0
112	SLU 35	-3	-244	1427	9.55	-2.19	0
112	SLU 36	-3	-272	1441	10.75	-2.19	0
112	SLU 37	-3	-244	1427	9.55	-2.19	0
112	SLU 38	-3	-272	1441	10.75	-2.19	0
112	SLU 39	-3	-272	1529	10.63	-2.39	0
112	SLU 40	-3	-300	1543	11.83	-2.4	0
112	SLU 41	-3	-272	1529	10.63	-2.39	0
112	SLU 42	-3	-300	1543	11.83	-2.4	0
112	SLU 43	-2	-179	1346	7.06	-1.84	0
112	SLU 44	-2	-226	1369	9.05	-1.85	0
112	SLU 45	-2	-179	1346	7.06	-1.84	0
112	SLU 46	-2	-207	1360	8.25	-1.84	0
112	SLU 47	-2	-226	1369	9.05	-1.85	0
112	SLU 48	-2	-179	1346	7.06	-1.84	0
112	SLU 49	-2	-207	1360	8.25	-1.84	0
112	SLU 50	-2	-179	1346	7.06	-1.84	0
112	SLU 51	-2	-207	1360	8.25	-1.84	0
112	SLU 52	-3	-291	1608	11.57	-2.33	0
112	SLU 53	-3	-244	1585	9.58	-2.32	0
112	SLU 54	-3	-272	1599	10.78	-2.33	0
112	SLU 55	-3	-291	1608	11.57	-2.33	0
112	SLU 56	-3	-244	1585	9.58	-2.32	0
112	SLU 57	-3	-272	1599	10.78	-2.33	0
112	SLU 58	-3	-244	1585	9.58	-2.32	0
112	SLU 59	-3	-272	1599	10.78	-2.33	0
112	SLU 60	-3	-272	1687	10.66	-2.52	0
112	SLU 61	-3	-300	1701	11.86	-2.53	0
112	SLU 62	-3	-272	1687	10.66	-2.52	0
112	SLU 63	-3	-300	1701	11.86	-2.53	0
112	SLU 64	-3	-212	1466	8.33	-2.07	0
112	SLU 65	-3	-259	1490	10.31	-2.08	0
112	SLU 66	-3	-212	1466	8.33	-2.07	0
112	SLU 67	-3	-240	1480	9.52	-2.08	0
112	SLU 68	-3	-259	1490	10.31	-2.08	0
112	SLU 69	-3	-212	1466	8.33	-2.07	0
112	SLU 70	-3	-240	1480	9.52	-2.08	0
112	SLU 71	-3	-212	1466	8.33	-2.07	0
112	SLU 72	-3	-240	1480	9.52	-2.08	0
112	SLU 73	-3	-324	1729	12.84	-2.56	0
112	SLU 74	-3	-277	1705	10.85	-2.55	0
112	SLU 75	-3	-305	1719	12.04	-2.56	0
112	SLU 76	-3	-324	1729	12.84	-2.56	0
112	SLU 77	-3	-277	1705	10.85	-2.55	0
112	SLU 78	-3	-305	1719	12.04	-2.56	0
112	SLU 79	-3	-277	1705	10.85	-2.55	0
112	SLU 80	-3	-305	1719	12.04	-2.56	0
112	SLU 81	-4	-305	1808	11.93	-2.76	0



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
112	SLU 82	-4	-333	1822	13.12	-2.76	0
112	SLU 83	-4	-305	1808	11.93	-2.76	0
112	SLU 84	-4	-333	1822	13.12	-2.76	0
112	SLE RA 1	-2	-156	1101	6.13	-1.54	0
112	SLE RA 2	-2	-187	1117	7.45	-1.55	0
112	SLE RA 3	-2	-156	1101	6.13	-1.54	0
112	SLE RA 4	-2	-174	1111	6.92	-1.55	0
112	SLE RA 5	-2	-187	1117	7.45	-1.55	0
112	SLE RA 6	-2	-156	1101	6.13	-1.54	0
112	SLE RA 7	-2	-174	1111	6.92	-1.55	0
112	SLE RA 8	-2	-156	1101	6.13	-1.54	0
112	SLE RA 9	-2	-174	1111	6.92	-1.55	0
112	SLE RA 10	-3	-230	1276	9.13	-1.87	0
112	SLE RA 11	-2	-199	1261	7.81	-1.86	0
112	SLE RA 12	-3	-218	1270	8.6	-1.87	0
112	SLE RA 13	-3	-230	1276	9.13	-1.87	0
112	SLE RA 14	-2	-199	1261	7.81	-1.86	0
112	SLE RA 15	-3	-218	1270	8.6	-1.87	0
112	SLE RA 16	-2	-199	1261	7.81	-1.86	0
112	SLE RA 17	-3	-218	1270	8.6	-1.87	0
112	SLE RA 18	-3	-218	1329	8.53	-2	0
112	SLE RA 19	-3	-236	1339	9.32	-2	0
112	SLE RA 20	-3	-218	1329	8.53	-2	0
112	SLE RA 21	-3	-236	1339	9.32	-2	0
112	SLE FR 1	-2	-156	1101	6.13	-1.54	0
112	SLE FR 2	-2	-162	1105	6.39	-1.54	0
112	SLE FR 3	-2	-156	1101	6.13	-1.54	0
112	SLE FR 4	-2	-180	1173	7.11	-1.68	0
112	SLE FR 5	-2	-174	1170	6.85	-1.68	0
112	SLE FR 6	-2	-187	1215	7.33	-1.77	0
112	SLE QP 1	-2	-156	1101	6.13	-1.54	0
112	SLE QP 2	-2	-174	1170	6.85	-1.68	0
112	SLD 1	3	-70	1072	2.81	3.51	-0.01
112	SLD 2	3	-70	1072	2.81	3.51	-0.01
112	SLD 3	6	-173	1115	6.96	5.13	-0.01
112	SLD 4	6	-173	1115	6.96	5.13	-0.01
112	SLD 5	-4	13	1074	-0.65	-2.59	0
112	SLD 6	-4	13	1074	-0.65	-2.59	0
112	SLD 7	4	-329	1219	13.17	2.83	0
112	SLD 8	4	-329	1219	13.17	2.83	0
112	SLD 9	-8	-19	1120	0.53	-6.18	0
112	SLD 10	-8	-19	1120	0.53	-6.18	0
112	SLD 11	0	-361	1265	14.35	-0.77	0.01
112	SLD 12	0	-361	1265	14.35	-0.77	0.01
112	SLD 13	-10	-176	1224	6.74	-8.49	0.01
112	SLD 14	-10	-176	1224	6.74	-8.49	0.01
112	SLD 15	-8	-278	1268	10.88	-6.86	0.01
112	SLD 16	-8	-278	1268	10.88	-6.86	0.01
112	SLV 1	10	74	934	-2.78	10.33	-0.02
112	SLV 2	10	74	934	-2.78	10.33	-0.02
112	SLV 3	17	-174	1045	7.24	14.49	-0.02
112	SLV 4	17	-174	1045	7.24	14.49	-0.02
112	SLV 5	-8	277	930	-11.23	-4.38	-0.01
112	SLV 6	-8	277	930	-11.23	-4.38	-0.01
112	SLV 7	13	-551	1301	22.16	9.48	0
112	SLV 8	13	-551	1301	22.16	9.48	0
112	SLV 9	-18	202	1039	-8.46	-12.83	0
112	SLV 10	-18	202	1039	-8.46	-12.83	0
112	SLV 11	4	-625	1409	24.93	1.03	0.01
112	SLV 12	4	-625	1409	24.93	1.03	0.01
112	SLV 13	-21	-174	1295	6.46	-17.85	0.02
112	SLV 14	-21	-174	1295	6.46	-17.85	0.02
112	SLV 15	-15	-422	1406	16.47	-13.69	0.03
112	SLV 16	-15	-422	1406	16.47	-13.69	0.03
113	SLU 1	-2	-73	2241	2.8	-2.15	0
113	SLU 2	1	-98	2257	3.78	-0.22	0
113	SLU 3	-2	-73	2241	2.8	-2.15	0
113	SLU 4	0	-88	2251	3.39	-0.99	0
113	SLU 5	1	-98	2257	3.78	-0.22	0
113	SLU 6	-2	-73	2241	2.8	-2.15	0
113	SLU 7	0	-88	2251	3.39	-0.99	0
113	SLU 8	-2	-73	2241	2.8	-2.15	0
113	SLU 9	0	-88	2251	3.39	-0.99	0
113	SLU 10	-1	-130	2595	5.11	-2.12	0
113	SLU 11	-4	-106	2580	4.13	-4.05	0
113	SLU 12	-3	-121	2589	4.72	-2.89	0
113	SLU 13	-1	-130	2595	5.11	-2.12	0
113	SLU 14	-4	-106	2580	4.13	-4.05	0
113	SLU 15	-3	-121	2589	4.72	-2.89	0
113	SLU 16	-4	-106	2580	4.13	-4.05	0
113	SLU 17	-3	-121	2589	4.72	-2.89	0
113	SLU 18	-5	-120	2725	4.7	-4.87	0
113	SLU 19	-4	-135	2734	5.29	-3.71	0
113	SLU 20	-5	-120	2725	4.7	-4.87	0
113	SLU 21	-4	-135	2734	5.29	-3.71	0
113	SLU 22	-3	-93	2435	3.6	-3.12	0
113	SLU 23	0	-118	2451	4.58	-1.19	0
113	SLU 24	-3	-93	2435	3.6	-3.12	0
113	SLU 25	-2	-108	2445	4.19	-1.96	0
113	SLU 26	0	-118	2451	4.58	-1.19	0



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
113	SLU 27	-3	-93	2435	3.6	-3.12	0
113	SLU 28	-2	-108	2445	4.19	-1.96	0
113	SLU 29	-3	-93	2435	3.6	-3.12	0
113	SLU 30	-2	-108	2445	4.19	-1.96	0
113	SLU 31	-3	-150	2789	5.92	-3.09	0
113	SLU 32	-6	-126	2773	4.93	-5.02	0
113	SLU 33	-4	-140	2783	5.52	-3.86	0
113	SLU 34	-3	-150	2789	5.92	-3.09	0
113	SLU 35	-6	-126	2773	4.93	-5.02	0
113	SLU 36	-4	-140	2783	5.52	-3.86	0
113	SLU 37	-6	-126	2773	4.93	-5.02	0
113	SLU 38	-4	-140	2783	5.52	-3.86	0
113	SLU 39	-6	-140	2919	5.51	-5.83	0
113	SLU 40	-5	-154	2928	6.09	-4.68	0
113	SLU 41	-6	-140	2919	5.51	-5.83	0
113	SLU 42	-5	-154	2928	6.09	-4.68	0
113	SLU 43	-2	-88	2847	3.36	-2.46	0
113	SLU 44	0	-113	2863	4.34	-0.53	0
113	SLU 45	-2	-88	2847	3.36	-2.46	0
113	SLU 46	-1	-103	2856	3.95	-1.3	0
113	SLU 47	0	-113	2863	4.34	-0.53	0
113	SLU 48	-2	-88	2847	3.36	-2.46	0
113	SLU 49	-1	-103	2856	3.95	-1.3	0
113	SLU 50	-2	-88	2847	3.36	-2.46	0
113	SLU 51	-1	-103	2856	3.95	-1.3	0
113	SLU 52	-2	-146	3201	5.68	-2.43	0
113	SLU 53	-5	-121	3185	4.7	-4.36	0
113	SLU 54	-3	-136	3195	5.29	-3.21	0
113	SLU 55	-2	-146	3201	5.68	-2.43	0
113	SLU 56	-5	-121	3185	4.7	-4.36	0
113	SLU 57	-3	-136	3195	5.29	-3.21	0
113	SLU 58	-5	-121	3185	4.7	-4.36	0
113	SLU 59	-3	-136	3195	5.29	-3.21	0
113	SLU 60	-6	-135	3330	5.27	-5.18	0
113	SLU 61	-4	-150	3340	5.86	-4.02	0
113	SLU 62	-6	-135	3330	5.27	-5.18	0
113	SLU 63	-4	-150	3340	5.86	-4.02	0
113	SLU 64	-4	-108	3041	4.16	-3.43	0
113	SLU 65	-1	-133	3057	5.15	-1.5	0
113	SLU 66	-4	-108	3041	4.16	-3.43	0
113	SLU 67	-2	-123	3050	4.75	-2.27	0
113	SLU 68	-1	-133	3057	5.15	-1.5	0
113	SLU 69	-4	-108	3041	4.16	-3.43	0
113	SLU 70	-2	-123	3050	4.75	-2.27	0
113	SLU 71	-4	-108	3041	4.16	-3.43	0
113	SLU 72	-2	-123	3050	4.75	-2.27	0
113	SLU 73	-3	-165	3395	6.48	-3.4	0
113	SLU 74	-6	-141	3379	5.5	-5.33	0
113	SLU 75	-4	-156	3389	6.09	-4.18	0
113	SLU 76	-3	-165	3395	6.48	-3.4	0
113	SLU 77	-6	-141	3379	5.5	-5.33	0
113	SLU 78	-4	-156	3389	6.09	-4.18	0
113	SLU 79	-6	-141	3379	5.5	-5.33	0
113	SLU 80	-4	-156	3389	6.09	-4.18	0
113	SLU 81	-7	-155	3524	6.07	-6.15	0.01
113	SLU 82	-5	-170	3534	6.66	-4.99	0
113	SLU 83	-7	-155	3524	6.07	-6.15	0.01
113	SLU 84	-5	-170	3534	6.66	-4.99	0
113	SLE RA 1	-3	-79	2296	3.03	-2.43	0
113	SLE RA 2	-1	-95	2307	3.68	-1.14	0
113	SLE RA 3	-3	-79	2296	3.03	-2.43	0
113	SLE RA 4	-1	-89	2303	3.42	-1.65	0
113	SLE RA 5	-1	-95	2307	3.68	-1.14	0
113	SLE RA 6	-3	-79	2296	3.03	-2.43	0
113	SLE RA 7	-1	-89	2303	3.42	-1.65	0
113	SLE RA 8	-3	-79	2296	3.03	-2.43	0
113	SLE RA 9	-1	-89	2303	3.42	-1.65	0
113	SLE RA 10	-2	-117	2533	4.57	-2.41	0
113	SLE RA 11	-4	-101	2522	3.92	-3.69	0
113	SLE RA 12	-3	-110	2528	4.31	-2.92	0
113	SLE RA 13	-2	-117	2533	4.57	-2.41	0
113	SLE RA 14	-4	-101	2522	3.92	-3.69	0
113	SLE RA 15	-3	-110	2528	4.31	-2.92	0
113	SLE RA 16	-4	-101	2522	3.92	-3.69	0
113	SLE RA 17	-3	-110	2528	4.31	-2.92	0
113	SLE RA 18	-5	-110	2619	4.3	-4.24	0
113	SLE RA 19	-3	-120	2625	4.69	-3.47	0
113	SLE RA 20	-5	-110	2619	4.3	-4.24	0
113	SLE RA 21	-3	-120	2625	4.69	-3.47	0
113	SLE FR 1	-3	-79	2296	3.03	-2.43	0
113	SLE FR 2	-2	-82	2299	3.16	-2.17	0
113	SLE FR 3	-3	-79	2296	3.03	-2.43	0
113	SLE FR 4	-3	-92	2395	3.54	-2.71	0
113	SLE FR 5	-3	-88	2393	3.41	-2.97	0
113	SLE FR 6	-4	-94	2458	3.66	-3.33	0
113	SLE QP 1	-3	-79	2296	3.03	-2.43	0
113	SLE QP 2	-3	-88	2393	3.41	-2.97	0
113	SLD 1	-14	1	2268	-0.64	17.61	-0.02
113	SLD 2	-14	1	2268	-0.64	17.61	-0.02
113	SLD 3	-25	-143	2196	5.88	9.47	-0.02





Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
113	SLD 4	-25	-143	2196	5.88	9.47	-0.02
113	SLD 5	11	158	2465	-7.69	15.56	-0.01
113	SLD 6	11	158	2465	-7.69	15.56	-0.01
113	SLD 7	-27	-324	2225	14.04	-11.59	0
113	SLD 8	-27	-324	2225	14.04	-11.59	0
113	SLD 9	20	147	2562	-7.22	5.65	0
113	SLD 10	20	147	2562	-7.22	5.65	0
113	SLD 11	-17	-334	2322	14.51	-21.49	0.02
113	SLD 12	-17	-334	2322	14.51	-21.49	0.02
113	SLD 13	19	-33	2591	0.93	-15.4	0.02
113	SLD 14	19	-33	2591	0.93	-15.4	0.02
113	SLD 15	8	-178	2519	7.45	-23.55	0.03
113	SLD 16	8	-178	2519	7.45	-23.55	0.03
113	SLV 1	-28	126	2108	-6.24	47.58	-0.06
113	SLV 2	-28	126	2108	-6.24	47.58	-0.06
113	SLV 3	-56	-217	1922	9.21	26.64	-0.05
113	SLV 4	-56	-217	1922	9.21	26.64	-0.05
113	SLV 5	32	496	2590	-22.91	43.96	-0.04
113	SLV 6	32	496	2590	-22.91	43.96	-0.04
113	SLV 7	-62	-647	1969	28.57	-25.85	0.01
113	SLV 8	-62	-647	1969	28.57	-25.85	0.01
113	SLV 9	56	470	2817	-21.75	19.91	0
113	SLV 10	56	470	2817	-21.75	19.91	0
113	SLV 11	-39	-672	2196	29.72	-49.9	0.04
113	SLV 12	-39	-672	2196	29.72	-49.9	0.04
113	SLV 13	50	40	2864	-2.39	-32.57	0.05
113	SLV 14	50	40	2864	-2.39	-32.57	0.05
113	SLV 15	22	-303	2678	13.05	-53.52	0.07
113	SLV 16	22	-303	2678	13.05	-53.52	0.07
114	SLU 1	-8	-139	1407	5.13	-4.84	0.01
114	SLU 2	-10	-148	1414	5.37	-6.17	0.01
114	SLU 3	-8	-139	1407	5.13	-4.84	0.01
114	SLU 4	-9	-144	1411	5.27	-5.64	0.01
114	SLU 5	-10	-148	1414	5.37	-6.17	0.01
114	SLU 6	-8	-139	1407	5.13	-4.84	0.01
114	SLU 7	-9	-144	1411	5.27	-5.64	0.01
114	SLU 8	-8	-139	1407	5.13	-4.84	0.01
114	SLU 9	-9	-144	1411	5.27	-5.64	0.01
114	SLU 10	-11	-190	1598	6.95	-6.94	0.01
114	SLU 11	-10	-181	1591	6.7	-5.6	0.01
114	SLU 12	-11	-187	1595	6.85	-6.4	0.01
114	SLU 13	-11	-190	1598	6.95	-6.94	0.01
114	SLU 14	-10	-181	1591	6.7	-5.6	0.01
114	SLU 15	-11	-187	1595	6.85	-6.4	0.01
114	SLU 16	-10	-181	1591	6.7	-5.6	0.01
114	SLU 17	-11	-187	1595	6.85	-6.4	0.01
114	SLU 18	-10	-199	1669	7.38	-5.93	0.01
114	SLU 19	-11	-205	1674	7.53	-6.73	0.01
114	SLU 20	-10	-199	1669	7.38	-5.93	0.01
114	SLU 21	-11	-205	1674	7.53	-6.73	0.01
114	SLU 22	-9	-159	1495	5.87	-5.26	0.01
114	SLU 23	-11	-168	1502	6.12	-6.6	0.01
114	SLU 24	-9	-159	1495	5.87	-5.26	0.01
114	SLU 25	-10	-164	1499	6.02	-6.06	0.01
114	SLU 26	-11	-168	1502	6.12	-6.6	0.01
114	SLU 27	-9	-159	1495	5.87	-5.26	0.01
114	SLU 28	-10	-164	1499	6.02	-6.06	0.01
114	SLU 29	-9	-159	1495	5.87	-5.26	0.01
114	SLU 30	-10	-164	1499	6.02	-6.06	0.01
114	SLU 31	-12	-210	1686	7.7	-7.36	0.01
114	SLU 32	-11	-201	1679	7.45	-6.03	0.01
114	SLU 33	-12	-207	1683	7.6	-6.83	0.01
114	SLU 34	-12	-210	1686	7.7	-7.36	0.01
114	SLU 35	-11	-201	1679	7.45	-6.03	0.01
114	SLU 36	-12	-207	1683	7.6	-6.83	0.01
114	SLU 37	-11	-201	1679	7.45	-6.03	0.01
114	SLU 38	-12	-207	1683	7.6	-6.83	0.01
114	SLU 39	-11	-219	1757	8.12	-6.36	0.01
114	SLU 40	-12	-225	1761	8.27	-7.16	0.01
114	SLU 41	-11	-219	1757	8.12	-6.36	0.01
114	SLU 42	-12	-225	1761	8.27	-7.16	0.01
114	SLU 43	-11	-173	1799	6.41	-6.15	0.01
114	SLU 44	-12	-183	1806	6.66	-7.48	0.01
114	SLU 45	-11	-173	1799	6.41	-6.15	0.01
114	SLU 46	-12	-179	1804	6.56	-6.95	0.01
114	SLU 47	-12	-183	1806	6.66	-7.48	0.01
114	SLU 48	-11	-173	1799	6.41	-6.15	0.01
114	SLU 49	-12	-179	1804	6.56	-6.95	0.01
114	SLU 50	-11	-173	1799	6.41	-6.15	0.01
114	SLU 51	-12	-179	1804	6.56	-6.95	0.01
114	SLU 52	-14	-225	1990	8.23	-8.24	0.01
114	SLU 53	-12	-216	1983	7.98	-6.91	0.01
114	SLU 54	-13	-221	1987	8.13	-7.71	0.01
114	SLU 55	-14	-225	1990	8.23	-8.24	0.01
114	SLU 56	-12	-216	1983	7.98	-6.91	0.01
114	SLU 57	-13	-221	1987	8.13	-7.71	0.01
114	SLU 58	-12	-216	1983	7.98	-6.91	0.01
114	SLU 59	-13	-221	1987	8.13	-7.71	0.01
114	SLU 60	-13	-234	2061	8.66	-7.24	0.01
114	SLU 61	-14	-240	2066	8.81	-8.04	0.01



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
114	SLU 62	-13	-234	2061	8.66	-7.24	0.01
114	SLU 63	-14	-240	2066	8.81	-8.04	0.01
114	SLU 64	-11	-193	1887	7.15	-6.57	0.01
114	SLU 65	-13	-203	1894	7.4	-7.9	0.01
114	SLU 66	-11	-193	1887	7.15	-6.57	0.01
114	SLU 67	-12	-199	1891	7.3	-7.37	0.01
114	SLU 68	-13	-203	1894	7.4	-7.9	0.01
114	SLU 69	-11	-193	1887	7.15	-6.57	0.01
114	SLU 70	-12	-199	1891	7.3	-7.37	0.01
114	SLU 71	-11	-193	1887	7.15	-6.57	0.01
114	SLU 72	-12	-199	1891	7.3	-7.37	0.01
114	SLU 73	-14	-245	2078	8.98	-8.67	0.01
114	SLU 74	-13	-236	2071	8.73	-7.34	0.01
114	SLU 75	-14	-241	2075	8.88	-8.13	0.01
114	SLU 76	-14	-245	2078	8.98	-8.67	0.01
114	SLU 77	-13	-236	2071	8.73	-7.34	0.01
114	SLU 78	-14	-241	2075	8.88	-8.13	0.01
114	SLU 79	-13	-236	2071	8.73	-7.34	0.01
114	SLU 80	-14	-241	2075	8.88	-8.13	0.01
114	SLU 81	-13	-254	2149	9.41	-7.66	0.01
114	SLU 82	-14	-260	2154	9.55	-8.46	0.01
114	SLU 83	-13	-254	2149	9.41	-7.66	0.01
114	SLU 84	-14	-260	2154	9.55	-8.46	0.01
114	SLE RA 1	-9	-144	1432	5.34	-4.96	0.01
114	SLE RA 2	-10	-151	1437	5.5	-5.85	0.01
114	SLE RA 3	-9	-144	1432	5.34	-4.96	0.01
114	SLE RA 4	-9	-148	1435	5.44	-5.49	0.01
114	SLE RA 5	-10	-151	1437	5.5	-5.85	0.01
114	SLE RA 6	-9	-144	1432	5.34	-4.96	0.01
114	SLE RA 7	-9	-148	1435	5.44	-5.49	0.01
114	SLE RA 8	-9	-144	1432	5.34	-4.96	0.01
114	SLE RA 9	-9	-148	1435	5.44	-5.49	0.01
114	SLE RA 10	-11	-179	1559	6.56	-6.36	0.01
114	SLE RA 11	-10	-173	1555	6.39	-5.47	0.01
114	SLE RA 12	-10	-176	1558	6.49	-6	0.01
114	SLE RA 13	-11	-179	1559	6.56	-6.36	0.01
114	SLE RA 14	-10	-173	1555	6.39	-5.47	0.01
114	SLE RA 15	-10	-176	1558	6.49	-6	0.01
114	SLE RA 16	-10	-173	1555	6.39	-5.47	0.01
114	SLE RA 17	-10	-176	1558	6.49	-6	0.01
114	SLE RA 18	-10	-185	1607	6.84	-5.69	0.01
114	SLE RA 19	-11	-188	1610	6.94	-6.22	0.01
114	SLE RA 20	-10	-185	1607	6.84	-5.69	0.01
114	SLE RA 21	-11	-188	1610	6.94	-6.22	0.01
114	SLE FR 1	-9	-144	1432	5.34	-4.96	0.01
114	SLE FR 2	-9	-146	1433	5.37	-5.14	0.01
114	SLE FR 3	-9	-144	1432	5.34	-4.96	0.01
114	SLE FR 4	-9	-158	1486	5.82	-5.36	0.01
114	SLE FR 5	-9	-156	1485	5.79	-5.18	0.01
114	SLE FR 6	-9	-165	1520	6.09	-5.33	0.01
114	SLE QP 1	-9	-144	1432	5.34	-4.96	0.01
114	SLE QP 2	-9	-156	1485	5.79	-5.18	0.01
114	SLD 1	8	-148	1657	5.17	8.17	-0.02
114	SLD 2	8	-148	1657	5.17	8.17	-0.02
114	SLD 3	11	-286	1607	10.83	10.59	-0.02
114	SLD 4	11	-286	1607	10.83	10.59	-0.02
114	SLD 5	-9	55	1612	-2.98	-4.84	-0.01
114	SLD 6	-9	55	1612	-2.98	-4.84	-0.01
114	SLD 7	2	-404	1446	15.88	3.22	0
114	SLD 8	2	-404	1446	15.88	3.22	0
114	SLD 9	-20	91	1524	-4.3	-13.58	0.01
114	SLD 10	-20	91	1524	-4.3	-13.58	0.01
114	SLD 11	-9	-368	1357	14.55	-5.51	0.02
114	SLD 12	-9	-368	1357	14.55	-5.51	0.02
114	SLD 13	-29	-27	1363	0.75	-20.95	0.03
114	SLD 14	-29	-27	1363	0.75	-20.95	0.03
114	SLD 15	-26	-165	1313	6.41	-18.53	0.03
114	SLD 16	-26	-165	1313	6.41	-18.53	0.03
114	SLV 1	30	-134	1893	4.24	25.71	-0.06
114	SLV 2	30	-134	1893	4.24	25.71	-0.06
114	SLV 3	38	-462	1764	17.68	32.14	-0.05
114	SLV 4	38	-462	1764	17.68	32.14	-0.05
114	SLV 5	-10	347	1804	-15.06	-5.66	-0.02
114	SLV 6	-10	347	1804	-15.06	-5.66	-0.02
114	SLV 7	18	-745	1372	29.74	15.76	0
114	SLV 8	18	-745	1372	29.74	15.76	0
114	SLV 9	-36	432	1598	-18.16	-26.12	0.01
114	SLV 10	-36	432	1598	-18.16	-26.12	0.01
114	SLV 11	-8	-660	1166	26.64	-4.7	0.04
114	SLV 12	-8	-660	1166	26.64	-4.7	0.04
114	SLV 13	-56	149	1206	-6.1	-42.5	0.06
114	SLV 14	-56	149	1206	-6.1	-42.5	0.06
114	SLV 15	-48	-179	1076	7.34	-36.07	0.07
114	SLV 16	-48	-179	1076	7.34	-36.07	0.07
115	SLU 1	-3	-142	988	5.24	-2.12	0
115	SLU 2	-3	-185	1008	6.92	-2.14	0
115	SLU 3	-3	-142	988	5.24	-2.12	0
115	SLU 4	-3	-168	1000	6.25	-2.13	0
115	SLU 5	-3	-185	1008	6.92	-2.14	0
115	SLU 6	-3	-142	988	5.24	-2.12	0



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
Ind.	N.br.						
115	SLU 7	-3	-168	1000	6.25	-2.13	0
115	SLU 8	-3	-142	988	5.24	-2.12	0
115	SLU 9	-3	-168	1000	6.25	-2.13	0
115	SLU 10	-4	-248	1209	9.26	-2.85	0
115	SLU 11	-4	-205	1189	7.58	-2.83	0
115	SLU 12	-4	-230	1201	8.59	-2.84	0
115	SLU 13	-4	-248	1209	9.26	-2.85	0
115	SLU 14	-4	-205	1189	7.58	-2.83	0
115	SLU 15	-4	-230	1201	8.59	-2.84	0
115	SLU 16	-4	-205	1189	7.58	-2.83	0
115	SLU 17	-4	-230	1201	8.59	-2.84	0
115	SLU 18	-5	-232	1275	8.58	-3.13	0
115	SLU 19	-5	-257	1287	9.59	-3.15	0
115	SLU 20	-5	-232	1275	8.58	-3.13	0
115	SLU 21	-5	-257	1287	9.59	-3.15	0
115	SLU 22	-4	-173	1089	6.42	-2.46	0
115	SLU 23	-4	-216	1110	8.09	-2.49	0
115	SLU 24	-4	-173	1089	6.42	-2.46	0
115	SLU 25	-4	-199	1101	7.42	-2.48	0
115	SLU 26	-4	-216	1110	8.09	-2.49	0
115	SLU 27	-4	-173	1089	6.42	-2.46	0
115	SLU 28	-4	-199	1101	7.42	-2.48	0
115	SLU 29	-4	-173	1089	6.42	-2.46	0
115	SLU 30	-4	-199	1101	7.42	-2.48	0
115	SLU 31	-5	-279	1311	10.43	-3.2	0
115	SLU 32	-5	-236	1291	8.75	-3.18	0
115	SLU 33	-5	-262	1303	9.76	-3.19	0
115	SLU 34	-5	-279	1311	10.43	-3.2	0
115	SLU 35	-5	-236	1291	8.75	-3.18	0
115	SLU 36	-5	-262	1303	9.76	-3.19	0
115	SLU 37	-5	-236	1291	8.75	-3.18	0
115	SLU 38	-5	-262	1303	9.76	-3.19	0
115	SLU 39	-5	-263	1377	9.76	-3.48	0
115	SLU 40	-5	-289	1389	10.76	-3.49	0
115	SLU 41	-5	-263	1377	9.76	-3.48	0
115	SLU 42	-5	-289	1389	10.76	-3.49	0
115	SLU 43	-4	-174	1249	6.41	-2.63	0
115	SLU 44	-4	-217	1270	8.09	-2.66	0
115	SLU 45	-4	-174	1249	6.41	-2.63	0
115	SLU 46	-4	-200	1261	7.42	-2.65	0
115	SLU 47	-4	-217	1270	8.09	-2.66	0
115	SLU 48	-4	-174	1249	6.41	-2.63	0
115	SLU 49	-4	-200	1261	7.42	-2.65	0
115	SLU 50	-4	-174	1249	6.41	-2.63	0
115	SLU 51	-4	-200	1261	7.42	-2.65	0
115	SLU 52	-5	-279	1471	10.43	-3.37	0
115	SLU 53	-5	-236	1451	8.75	-3.34	0
115	SLU 54	-5	-262	1463	9.76	-3.36	0
115	SLU 55	-5	-279	1471	10.43	-3.37	0
115	SLU 56	-5	-236	1451	8.75	-3.34	0
115	SLU 57	-5	-262	1463	9.76	-3.36	0
115	SLU 58	-5	-236	1451	8.75	-3.34	0
115	SLU 59	-5	-262	1463	9.76	-3.36	0
115	SLU 60	-6	-263	1537	9.75	-3.65	0
115	SLU 61	-6	-289	1549	10.76	-3.66	0
115	SLU 62	-6	-263	1537	9.75	-3.65	0
115	SLU 63	-6	-289	1549	10.76	-3.66	0
115	SLU 64	-5	-205	1351	7.59	-2.98	0
115	SLU 65	-5	-248	1371	9.26	-3	0
115	SLU 66	-5	-205	1351	7.59	-2.98	0
115	SLU 67	-5	-231	1363	8.59	-2.99	0
115	SLU 68	-5	-248	1371	9.26	-3	0
115	SLU 69	-5	-205	1351	7.59	-2.98	0
115	SLU 70	-5	-231	1363	8.59	-2.99	0
115	SLU 71	-5	-205	1351	7.59	-2.98	0
115	SLU 72	-5	-231	1363	8.59	-2.99	0
115	SLU 73	-6	-311	1572	11.6	-3.71	0
115	SLU 74	-6	-268	1552	9.92	-3.69	0
115	SLU 75	-6	-294	1564	10.93	-3.7	0
115	SLU 76	-6	-311	1572	11.6	-3.71	0
115	SLU 77	-6	-268	1552	9.92	-3.69	0
115	SLU 78	-6	-294	1564	10.93	-3.7	0
115	SLU 79	-6	-268	1552	9.92	-3.69	0
115	SLU 80	-6	-294	1564	10.93	-3.7	0
115	SLU 81	-6	-295	1638	10.93	-3.99	0
115	SLU 82	-6	-321	1651	11.93	-4.01	0
115	SLU 83	-6	-295	1638	10.93	-3.99	0
115	SLU 84	-6	-321	1651	11.93	-4.01	0
115	SLE RA 1	-3	-151	1017	5.58	-2.22	0
115	SLE RA 2	-3	-180	1030	6.69	-2.23	0
115	SLE RA 3	-3	-151	1017	5.58	-2.22	0
115	SLE RA 4	-3	-168	1025	6.25	-2.23	0
115	SLE RA 5	-3	-180	1030	6.69	-2.23	0
115	SLE RA 6	-3	-151	1017	5.58	-2.22	0
115	SLE RA 7	-3	-168	1025	6.25	-2.23	0
115	SLE RA 8	-3	-151	1017	5.58	-2.22	0
115	SLE RA 9	-3	-168	1025	6.25	-2.23	0
115	SLE RA 10	-4	-221	1164	8.25	-2.71	0
115	SLE RA 11	-4	-193	1151	7.14	-2.69	0
115	SLE RA 12	-4	-210	1159	7.81	-2.7	0



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
115	SLE RA 13	-4	-221	1164	8.25	-2.71	0
115	SLE RA 14	-4	-193	1151	7.14	-2.69	0
115	SLE RA 15	-4	-210	1159	7.81	-2.7	0
115	SLE RA 16	-4	-193	1151	7.14	-2.69	0
115	SLE RA 17	-4	-210	1159	7.81	-2.7	0
115	SLE RA 18	-5	-211	1208	7.8	-2.89	0
115	SLE RA 19	-5	-228	1217	8.47	-2.9	0
115	SLE RA 20	-5	-211	1208	7.8	-2.89	0
115	SLE RA 21	-5	-228	1217	8.47	-2.9	0
115	SLE FR 1	-3	-151	1017	5.58	-2.22	0
115	SLE FR 2	-3	-157	1019	5.8	-2.22	0
115	SLE FR 3	-3	-151	1017	5.58	-2.22	0
115	SLE FR 4	-4	-175	1077	6.47	-2.42	0
115	SLE FR 5	-4	-169	1074	6.25	-2.42	0
115	SLE FR 6	-4	-181	1113	6.69	-2.55	0
115	SLE QP 1	-3	-151	1017	5.58	-2.22	0
115	SLE QP 2	-4	-169	1074	6.25	-2.42	0
115	SLD 1	7	-62	939	2.07	5.58	-0.01
115	SLD 2	7	-62	939	2.07	5.58	-0.01
115	SLD 3	9	-168	984	6.43	7.3	-0.01
115	SLD 4	9	-168	984	6.43	7.3	-0.01
115	SLD 5	-4	23	966	-1.62	-2.62	0
115	SLD 6	-4	23	966	-1.62	-2.62	0
115	SLD 7	4	-329	1115	12.92	3.09	0
115	SLD 8	4	-329	1115	12.92	3.09	0
115	SLD 9	-11	-9	1034	-0.43	-7.93	0
115	SLD 10	-11	-9	1034	-0.43	-7.93	0
115	SLD 11	-4	-361	1183	14.11	-2.22	0
115	SLD 12	-4	-361	1183	14.11	-2.22	0
115	SLD 13	-17	-170	1165	6.06	-12.13	0.01
115	SLD 14	-17	-170	1165	6.06	-12.13	0.01
115	SLD 15	-15	-276	1210	10.42	-10.42	0.01
115	SLD 16	-15	-276	1210	10.42	-10.42	0.01
115	SLV 1	22	87	751	-3.77	16.22	-0.02
115	SLV 2	22	87	751	-3.77	16.22	-0.02
115	SLV 3	27	-169	865	6.84	20.58	-0.01
115	SLV 4	27	-169	865	6.84	20.58	-0.01
115	SLV 5	-5	297	805	-12.85	-3.44	-0.01
115	SLV 6	-5	297	805	-12.85	-3.44	-0.01
115	SLV 7	14	-558	1184	22.51	11.09	0
115	SLV 8	14	-558	1184	22.51	11.09	0
115	SLV 9	-22	220	964	-10.02	-15.93	0
115	SLV 10	-22	220	964	-10.02	-15.93	0
115	SLV 11	-3	-634	1344	25.34	-1.4	0.01
115	SLV 12	-3	-634	1344	25.34	-1.4	0.01
115	SLV 13	-35	-168	1283	5.65	-25.42	0.01
115	SLV 14	-35	-168	1283	5.65	-25.42	0.01
115	SLV 15	-29	-424	1397	16.26	-21.06	0.02
115	SLV 16	-29	-424	1397	16.26	-21.06	0.02
116	SLU 1	-2	-78	2127	2.73	-1.95	0
116	SLU 2	1	-105	2142	4.02	-0.09	0
116	SLU 3	-2	-78	2127	2.73	-1.95	0
116	SLU 4	0	-94	2136	3.5	-0.83	0
116	SLU 5	1	-105	2142	4.02	-0.09	0
116	SLU 6	-2	-78	2127	2.73	-1.95	0
116	SLU 7	0	-94	2136	3.5	-0.83	0
116	SLU 8	-2	-78	2127	2.73	-1.95	0
116	SLU 9	0	-94	2136	3.5	-0.83	0
116	SLU 10	-1	-112	2424	3.9	-1.82	0
116	SLU 11	-4	-85	2409	2.61	-3.68	0
116	SLU 12	-2	-101	2418	3.38	-2.56	0
116	SLU 13	-1	-112	2424	3.9	-1.82	0
116	SLU 14	-4	-85	2409	2.61	-3.68	0
116	SLU 15	-2	-101	2418	3.38	-2.56	0
116	SLU 16	-4	-85	2409	2.61	-3.68	0
116	SLU 17	-2	-101	2418	3.38	-2.56	0
116	SLU 18	-4	-88	2530	2.56	-4.42	0
116	SLU 19	-3	-104	2539	3.33	-3.3	0
116	SLU 20	-4	-88	2530	2.56	-4.42	0
116	SLU 21	-3	-104	2539	3.33	-3.3	0
116	SLU 22	-3	-86	2291	2.86	-2.82	0
116	SLU 23	0	-113	2306	4.15	-0.96	0
116	SLU 24	-3	-86	2291	2.86	-2.82	0
116	SLU 25	-1	-102	2300	3.63	-1.71	0
116	SLU 26	0	-113	2306	4.15	-0.96	0
116	SLU 27	-3	-86	2291	2.86	-2.82	0
116	SLU 28	-1	-102	2300	3.63	-1.71	0
116	SLU 29	-3	-86	2291	2.86	-2.82	0
116	SLU 30	-1	-102	2300	3.63	-1.71	0
116	SLU 31	-2	-120	2587	4.03	-2.69	0
116	SLU 32	-5	-93	2573	2.74	-4.55	0
116	SLU 33	-3	-109	2582	3.51	-3.44	0
116	SLU 34	-2	-120	2587	4.03	-2.69	0
116	SLU 35	-5	-93	2573	2.74	-4.55	0
116	SLU 36	-3	-109	2582	3.51	-3.44	0
116	SLU 37	-5	-93	2573	2.74	-4.55	0
116	SLU 38	-3	-109	2582	3.51	-3.44	0
116	SLU 39	-5	-96	2693	2.69	-5.29	0
116	SLU 40	-4	-112	2702	3.46	-4.18	0
116	SLU 41	-5	-96	2693	2.69	-5.29	0



Nodo	Cont.	Reazione a traslazione				Reazione a rotazione			
		x	y	z		x	y	z	
116	SLU 42	-4	-112	2702		3.46	-4.18		0
116	SLU 43	-2	-98	2710		3.51	-2.23		0
116	SLU 44	1	-125	2724		4.79	-0.37		0
116	SLU 45	-2	-98	2710		3.51	-2.23		0
116	SLU 46	-1	-114	2718		4.28	-1.12		0
116	SLU 47	1	-125	2724		4.79	-0.37		0
116	SLU 48	-2	-98	2710		3.51	-2.23		0
116	SLU 49	-1	-114	2718		4.28	-1.12		0
116	SLU 50	-2	-98	2710		3.51	-2.23		0
116	SLU 51	-1	-114	2718		4.28	-1.12		0
116	SLU 52	-1	-133	3006		4.67	-2.1		0
116	SLU 53	-4	-105	2991		3.39	-3.96		0
116	SLU 54	-2	-122	3000		4.16	-2.85		0
116	SLU 55	-1	-133	3006		4.67	-2.1		0
116	SLU 56	-4	-105	2991		3.39	-3.96		0
116	SLU 57	-2	-122	3000		4.16	-2.85		0
116	SLU 58	-4	-105	2991		3.39	-3.96		0
116	SLU 59	-2	-122	3000		4.16	-2.85		0
116	SLU 60	-5	-109	3112		3.34	-4.71		0
116	SLU 61	-3	-125	3121		4.11	-3.59		0
116	SLU 62	-5	-109	3112		3.34	-4.71		0
116	SLU 63	-3	-125	3121		4.11	-3.59		0
116	SLU 64	-3	-106	2873		3.64	-3.11		0
116	SLU 65	0	-133	2888		4.92	-1.25		0
116	SLU 66	-3	-106	2873		3.64	-3.11		0
116	SLU 67	-1	-122	2882		4.41	-1.99		0
116	SLU 68	0	-133	2888		4.92	-1.25		0
116	SLU 69	-3	-106	2873		3.64	-3.11		0
116	SLU 70	-1	-122	2882		4.41	-1.99		0
116	SLU 71	-3	-106	2873		3.64	-3.11		0
116	SLU 72	-1	-122	2882		4.41	-1.99		0
116	SLU 73	-2	-141	3170		4.8	-2.98		0
116	SLU 74	-5	-113	3155		3.52	-4.84		0
116	SLU 75	-3	-130	3164		4.29	-3.72		0
116	SLU 76	-2	-141	3170		4.8	-2.98		0
116	SLU 77	-5	-113	3155		3.52	-4.84		0
116	SLU 78	-3	-130	3164		4.29	-3.72		0
116	SLU 79	-5	-113	3155		3.52	-4.84		0
116	SLU 80	-3	-130	3164		4.29	-3.72		0
116	SLU 81	-6	-117	3276		3.47	-5.58		0
116	SLU 82	-4	-133	3284		4.24	-4.46		0
116	SLU 83	-6	-117	3276		3.47	-5.58		0
116	SLU 84	-4	-133	3284		4.24	-4.46		0
116	SLE RA 1	-2	-80	2174		2.77	-2.2		0
116	SLE RA 2	0	-98	2184		3.63	-0.96		0
116	SLE RA 3	-2	-80	2174		2.77	-2.2		0
116	SLE RA 4	-1	-91	2180		3.28	-1.45		0
116	SLE RA 5	0	-98	2184		3.63	-0.96		0
116	SLE RA 6	-2	-80	2174		2.77	-2.2		0
116	SLE RA 7	-1	-91	2180		3.28	-1.45		0
116	SLE RA 8	-2	-80	2174		2.77	-2.2		0
116	SLE RA 9	-1	-91	2180		3.28	-1.45		0
116	SLE RA 10	-2	-103	2372		3.55	-2.11		0
116	SLE RA 11	-3	-85	2362		2.69	-3.35		0
116	SLE RA 12	-2	-96	2368		3.2	-2.61		0
116	SLE RA 13	-2	-103	2372		3.55	-2.11		0
116	SLE RA 14	-3	-85	2362		2.69	-3.35		0
116	SLE RA 15	-2	-96	2368		3.2	-2.61		0
116	SLE RA 16	-3	-85	2362		2.69	-3.35		0
116	SLE RA 17	-2	-96	2368		3.2	-2.61		0
116	SLE RA 18	-4	-87	2442		2.66	-3.85		0
116	SLE RA 19	-3	-98	2448		3.17	-3.1		0
116	SLE RA 20	-4	-87	2442		2.66	-3.85		0
116	SLE RA 21	-3	-98	2448		3.17	-3.1		0
116	SLE FR 1	-2	-80	2174		2.77	-2.2		0
116	SLE FR 2	-2	-83	2176		2.94	-1.95		0
116	SLE FR 3	-2	-80	2174		2.77	-2.2		0
116	SLE FR 4	-2	-86	2257		2.91	-2.44		0
116	SLE FR 5	-3	-82	2255		2.74	-2.69		0
116	SLE FR 6	-3	-83	2308		2.71	-3.02		0
116	SLE QP 1	-2	-80	2174		2.77	-2.2		0
116	SLE QP 2	-3	-82	2255		2.74	-2.69		0
116	SLD 1	27	13	2146		-1.58	24	-0.02	
116	SLD 2	27	13	2146		-1.58	24	-0.02	
116	SLD 3	17	-135	2094		5.07	15.53	-0.03	
116	SLD 4	17	-135	2094		5.07	15.53	-0.03	
116	SLD 5	21	172	2301		-8.65	18.15	0	
116	SLD 6	21	172	2301		-8.65	18.15	0	
116	SLD 7	-11	-323	2127		13.53	-10.06	-0.01	
116	SLD 8	-11	-323	2127		13.53	-10.06	-0.01	
116	SLD 9	6	160	2382		-8.05	4.68	0.02	
116	SLD 10	6	160	2382		-8.05	4.68	0.02	
116	SLD 11	-26	-336	2208		14.12	-23.54	0	
116	SLD 12	-26	-336	2208		14.12	-23.54	0	
116	SLD 13	-22	-28	2415		0.4	-20.92	0.03	
116	SLD 14	-22	-28	2415		0.4	-20.92	0.03	
116	SLD 15	-32	-177	2363		7.05	-29.38	0.02	
116	SLD 16	-32	-177	2363		7.05	-29.38	0.02	
116	SLV 1	68	146	2008		-7.57	63.19	-0.05	
116	SLV 2	68	146	2008		-7.57	63.19	-0.05	



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
116	SLV 3	44	-207	1873	8.23	41.21	-0.06
116	SLV 4	44	-207	1873	8.23	41.21	-0.06
116	SLV 5	55	522	2385	-24.33	50.4	0.01
116	SLV 6	55	522	2385	-24.33	50.4	0.01
116	SLV 7	-25	-655	1935	28.35	-22.85	-0.04
116	SLV 8	-25	-655	1935	28.35	-22.85	-0.04
116	SLV 9	20	491	2574	-22.88	17.47	0.04
116	SLV 10	20	491	2574	-22.88	17.47	0.04
116	SLV 11	-61	-685	2124	29.8	-55.78	0
116	SLV 12	-61	-685	2124	29.8	-55.78	0
116	SLV 13	-49	44	2637	-2.76	-46.6	0.07
116	SLV 14	-49	44	2637	-2.76	-46.6	0.07
116	SLV 15	-74	-309	2502	13.05	-68.57	0.05
116	SLV 16	-74	-309	2502	13.05	-68.57	0.05
117	SLU 1	-9	-133	1354	5.43	-5.42	0
117	SLU 2	-11	-145	1359	5.99	-6.71	0.01
117	SLU 3	-9	-133	1354	5.43	-5.42	0
117	SLU 4	-10	-140	1357	5.76	-6.19	0.01
117	SLU 5	-11	-145	1359	5.99	-6.71	0.01
117	SLU 6	-9	-133	1354	5.43	-5.42	0
117	SLU 7	-10	-140	1357	5.76	-6.19	0.01
117	SLU 8	-9	-133	1354	5.43	-5.42	0
117	SLU 9	-10	-140	1357	5.76	-6.19	0.01
117	SLU 10	-12	-181	1520	7.39	-7.69	0.01
117	SLU 11	-11	-169	1516	6.83	-6.4	0.01
117	SLU 12	-12	-176	1518	7.17	-7.18	0.01
117	SLU 13	-12	-181	1520	7.39	-7.69	0.01
117	SLU 14	-11	-169	1516	6.83	-6.4	0.01
117	SLU 15	-12	-176	1518	7.17	-7.18	0.01
117	SLU 16	-11	-169	1516	6.83	-6.4	0.01
117	SLU 17	-12	-176	1518	7.17	-7.18	0.01
117	SLU 18	-12	-184	1585	7.44	-6.83	0.01
117	SLU 19	-13	-191	1588	7.77	-7.6	0.01
117	SLU 20	-12	-184	1585	7.44	-6.83	0.01
117	SLU 21	-13	-191	1588	7.77	-7.6	0.01
117	SLU 22	-10	-151	1432	6.12	-5.94	0.01
117	SLU 23	-12	-162	1437	6.68	-7.23	0.01
117	SLU 24	-10	-151	1432	6.12	-5.94	0.01
117	SLU 25	-11	-157	1435	6.45	-6.71	0.01
117	SLU 26	-12	-162	1437	6.68	-7.23	0.01
117	SLU 27	-10	-151	1432	6.12	-5.94	0.01
117	SLU 28	-11	-157	1435	6.45	-6.71	0.01
117	SLU 29	-10	-151	1432	6.12	-5.94	0.01
117	SLU 30	-11	-157	1435	6.45	-6.71	0.01
117	SLU 31	-13	-198	1598	8.08	-8.22	0.01
117	SLU 32	-12	-186	1593	7.52	-6.93	0.01
117	SLU 33	-13	-193	1596	7.86	-7.7	0.01
117	SLU 34	-13	-198	1598	8.08	-8.22	0.01
117	SLU 35	-12	-186	1593	7.52	-6.93	0.01
117	SLU 36	-13	-193	1596	7.86	-7.7	0.01
117	SLU 37	-12	-186	1593	7.52	-6.93	0.01
117	SLU 38	-13	-193	1596	7.86	-7.7	0.01
117	SLU 39	-13	-202	1663	8.12	-7.35	0.01
117	SLU 40	-14	-209	1666	8.46	-8.12	0.01
117	SLU 41	-13	-202	1663	8.12	-7.35	0.01
117	SLU 42	-14	-209	1666	8.46	-8.12	0.01
117	SLU 43	-12	-167	1734	6.82	-6.86	0.01
117	SLU 44	-13	-179	1738	7.38	-8.15	0.01
117	SLU 45	-12	-167	1734	6.82	-6.86	0.01
117	SLU 46	-13	-174	1736	7.16	-7.64	0.01
117	SLU 47	-13	-179	1738	7.38	-8.15	0.01
117	SLU 48	-12	-167	1734	6.82	-6.86	0.01
117	SLU 49	-13	-174	1736	7.16	-7.64	0.01
117	SLU 50	-12	-167	1734	6.82	-6.86	0.01
117	SLU 51	-13	-174	1736	7.16	-7.64	0.01
117	SLU 52	-15	-214	1900	8.78	-9.14	0.01
117	SLU 53	-13	-203	1895	8.23	-7.85	0.01
117	SLU 54	-14	-210	1898	8.56	-8.62	0.01
117	SLU 55	-15	-214	1900	8.78	-9.14	0.01
117	SLU 56	-13	-203	1895	8.23	-7.85	0.01
117	SLU 57	-14	-210	1898	8.56	-8.62	0.01
117	SLU 58	-13	-203	1895	8.23	-7.85	0.01
117	SLU 59	-14	-210	1898	8.56	-8.62	0.01
117	SLU 60	-14	-218	1964	8.83	-8.27	0.01
117	SLU 61	-15	-225	1967	9.16	-9.05	0.01
117	SLU 62	-14	-218	1964	8.83	-8.27	0.01
117	SLU 63	-15	-225	1967	9.16	-9.05	0.01
117	SLU 64	-13	-184	1811	7.51	-7.39	0.01
117	SLU 65	-14	-196	1816	8.07	-8.68	0.01
117	SLU 66	-13	-184	1811	7.51	-7.39	0.01
117	SLU 67	-13	-191	1814	7.84	-8.16	0.01
117	SLU 68	-14	-196	1816	8.07	-8.68	0.01
117	SLU 69	-13	-184	1811	7.51	-7.39	0.01
117	SLU 70	-13	-191	1814	7.84	-8.16	0.01
117	SLU 71	-13	-184	1811	7.51	-7.39	0.01
117	SLU 72	-13	-191	1814	7.84	-8.16	0.01
117	SLU 73	-16	-232	1978	9.47	-9.66	0.01
117	SLU 74	-14	-220	1973	8.91	-8.37	0.01
117	SLU 75	-15	-227	1976	9.25	-9.15	0.01
117	SLU 76	-16	-232	1978	9.47	-9.66	0.01



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
117	SLU 77	-14	-220	1973	8.91	-8.37	0.01
117	SLU 78	-15	-227	1976	9.25	-9.15	0.01
117	SLU 79	-14	-220	1973	8.91	-8.37	0.01
117	SLU 80	-15	-227	1976	9.25	-9.15	0.01
117	SLU 81	-15	-236	2042	9.52	-8.8	0.01
117	SLU 82	-16	-243	2045	9.85	-9.57	0.01
117	SLU 83	-15	-236	2042	9.52	-8.8	0.01
117	SLU 84	-16	-243	2045	9.85	-9.57	0.01
117	SLE RA 1	-10	-138	1376	5.62	-5.57	0.01
117	SLE RA 2	-10	-146	1379	6	-6.43	0.01
117	SLE RA 3	-10	-138	1376	5.62	-5.57	0.01
117	SLE RA 4	-10	-143	1378	5.85	-6.08	0.01
117	SLE RA 5	-10	-146	1379	6	-6.43	0.01
117	SLE RA 6	-10	-138	1376	5.62	-5.57	0.01
117	SLE RA 7	-10	-143	1378	5.85	-6.08	0.01
117	SLE RA 8	-10	-138	1376	5.62	-5.57	0.01
117	SLE RA 9	-10	-143	1378	5.85	-6.08	0.01
117	SLE RA 10	-12	-170	1487	6.93	-7.08	0.01
117	SLE RA 11	-11	-162	1484	6.56	-6.23	0.01
117	SLE RA 12	-11	-167	1486	6.78	-6.74	0.01
117	SLE RA 13	-12	-170	1487	6.93	-7.08	0.01
117	SLE RA 14	-11	-162	1484	6.56	-6.23	0.01
117	SLE RA 15	-11	-167	1486	6.78	-6.74	0.01
117	SLE RA 16	-11	-162	1484	6.56	-6.23	0.01
117	SLE RA 17	-11	-167	1486	6.78	-6.74	0.01
117	SLE RA 18	-11	-172	1530	6.96	-6.51	0.01
117	SLE RA 19	-12	-177	1532	7.19	-7.02	0.01
117	SLE RA 20	-11	-172	1530	6.96	-6.51	0.01
117	SLE RA 21	-12	-177	1532	7.19	-7.02	0.01
117	SLE FR 1	-10	-138	1376	5.62	-5.57	0.01
117	SLE FR 2	-10	-140	1377	5.7	-5.74	0.01
117	SLE FR 3	-10	-138	1376	5.62	-5.57	0.01
117	SLE FR 4	-10	-150	1423	6.1	-6.02	0.01
117	SLE FR 5	-10	-148	1422	6.03	-5.85	0.01
117	SLE FR 6	-10	-155	1453	6.29	-6.04	0.01
117	SLE QP 1	-10	-138	1376	5.62	-5.57	0.01
117	SLE QP 2	-10	-148	1422	6.03	-5.85	0.01
117	SLD 1	13	-134	1603	5.3	13.69	-0.02
117	SLD 2	13	-134	1603	5.3	13.69	-0.02
117	SLD 3	16	-271	1561	10.91	11.19	-0.02
117	SLD 4	16	-271	1561	10.91	11.19	-0.02
117	SLD 5	-7	64	1540	-2.7	3.81	-0.01
117	SLD 6	-7	64	1540	-2.7	3.81	-0.01
117	SLD 7	2	-394	1400	16	-4.54	0
117	SLD 8	2	-394	1400	16	-4.54	0
117	SLD 9	-22	97	1445	-3.95	-7.16	0.01
117	SLD 10	-22	97	1445	-3.95	-7.16	0.01
117	SLD 11	-13	-361	1305	14.75	-15.51	0.02
117	SLD 12	-13	-361	1305	14.75	-15.51	0.02
117	SLD 13	-36	-25	1284	1.14	-22.89	0.03
117	SLD 14	-36	-25	1284	1.14	-22.89	0.03
117	SLD 15	-33	-163	1242	6.75	-25.39	0.03
117	SLD 16	-33	-163	1242	6.75	-25.39	0.03
117	SLV 1	44	-112	1849	4.24	40.39	-0.05
117	SLV 2	44	-112	1849	4.24	40.39	-0.05
117	SLV 3	51	-438	1740	17.55	33.63	-0.05
117	SLV 4	51	-438	1740	17.55	33.63	-0.05
117	SLV 5	-5	358	1714	-14.7	18.27	-0.02
117	SLV 6	-5	358	1714	-14.7	18.27	-0.02
117	SLV 7	19	-730	1354	29.67	-4.25	0
117	SLV 8	19	-730	1354	29.67	-4.25	0
117	SLV 9	-39	434	1491	-17.62	-7.45	0.01
117	SLV 10	-39	434	1491	-17.62	-7.45	0.01
117	SLV 11	-15	-654	1130	26.75	-29.97	0.04
117	SLV 12	-15	-654	1130	26.75	-29.97	0.04
117	SLV 13	-71	141	1105	-5.5	-45.33	0.06
117	SLV 14	-71	141	1105	-5.5	-45.33	0.06
117	SLV 15	-64	-185	996	7.81	-52.08	0.06
117	SLV 16	-64	-185	996	7.81	-52.08	0.06
118	SLU 1	-4	-135	928	5.48	-2.5	0
118	SLU 2	-4	-177	945	7.23	-2.53	0
118	SLU 3	-4	-135	928	5.48	-2.5	0
118	SLU 4	-4	-160	938	6.53	-2.52	0
118	SLU 5	-4	-177	945	7.23	-2.53	0
118	SLU 6	-4	-135	928	5.48	-2.5	0
118	SLU 7	-4	-160	938	6.53	-2.52	0
118	SLU 8	-4	-135	928	5.48	-2.5	0
118	SLU 9	-4	-160	938	6.53	-2.52	0
118	SLU 10	-5	-234	1117	9.51	-3.39	0
118	SLU 11	-5	-193	1100	7.77	-3.36	0
118	SLU 12	-5	-218	1110	8.81	-3.37	0
118	SLU 13	-5	-234	1117	9.51	-3.39	0
118	SLU 14	-5	-193	1100	7.77	-3.36	0
118	SLU 15	-5	-218	1110	8.81	-3.37	0
118	SLU 16	-5	-193	1100	7.77	-3.36	0
118	SLU 17	-5	-218	1110	8.81	-3.37	0
118	SLU 18	-6	-217	1174	8.75	-3.72	0
118	SLU 19	-6	-242	1184	9.79	-3.74	0
118	SLU 20	-6	-217	1174	8.75	-3.72	0
118	SLU 21	-6	-242	1184	9.79	-3.74	0



Nodo	Cont.	Reazione a traslazione				Reazione a rotazione			
		x	y	z		x	y	z	
118	SLU 22	-5	-164	1015	6.63	-2.92	0		
118	SLU 23	-5	-206	1032	8.37	-2.95	0		
118	SLU 24	-5	-164	1015	6.63	-2.92	0		
118	SLU 25	-5	-189	1025	7.68	-2.94	0		
118	SLU 26	-5	-206	1032	8.37	-2.95	0		
118	SLU 27	-5	-164	1015	6.63	-2.92	0		
118	SLU 28	-5	-189	1025	7.68	-2.94	0		
118	SLU 29	-5	-164	1015	6.63	-2.92	0		
118	SLU 30	-5	-189	1025	7.68	-2.94	0		
118	SLU 31	-6	-263	1204	10.66	-3.81	0		
118	SLU 32	-6	-221	1187	8.91	-3.78	0		
118	SLU 33	-6	-246	1197	9.96	-3.8	0		
118	SLU 34	-6	-263	1204	10.66	-3.81	0		
118	SLU 35	-6	-221	1187	8.91	-3.78	0		
118	SLU 36	-6	-246	1197	9.96	-3.8	0		
118	SLU 37	-6	-221	1187	8.91	-3.78	0		
118	SLU 38	-6	-246	1197	9.96	-3.8	0		
118	SLU 39	-7	-246	1261	9.89	-4.14	0		
118	SLU 40	-7	-271	1271	10.94	-4.16	0		
118	SLU 41	-7	-246	1261	9.89	-4.14	0		
118	SLU 42	-7	-271	1271	10.94	-4.16	0		
118	SLU 43	-5	-166	1176	6.74	-3.11	0		
118	SLU 44	-5	-208	1194	8.48	-3.14	0		
118	SLU 45	-5	-166	1176	6.74	-3.11	0		
118	SLU 46	-5	-191	1187	7.78	-3.13	0		
118	SLU 47	-5	-208	1194	8.48	-3.14	0		
118	SLU 48	-5	-166	1176	6.74	-3.11	0		
118	SLU 49	-5	-191	1187	7.78	-3.13	0		
118	SLU 50	-5	-166	1176	6.74	-3.11	0		
118	SLU 51	-5	-191	1187	7.78	-3.13	0		
118	SLU 52	-6	-265	1366	10.76	-3.99	0		
118	SLU 53	-6	-223	1348	9.02	-3.96	0		
118	SLU 54	-6	-248	1359	10.07	-3.98	0		
118	SLU 55	-6	-265	1366	10.76	-3.99	0		
118	SLU 56	-6	-223	1348	9.02	-3.96	0		
118	SLU 57	-6	-248	1359	10.07	-3.98	0		
118	SLU 58	-6	-223	1348	9.02	-3.96	0		
118	SLU 59	-6	-248	1359	10.07	-3.98	0		
118	SLU 60	-7	-248	1422	10	-4.33	0		
118	SLU 61	-7	-273	1433	11.05	-4.35	0		
118	SLU 62	-7	-248	1422	10	-4.33	0		
118	SLU 63	-7	-273	1433	11.05	-4.35	0		
118	SLU 64	-6	-195	1263	7.88	-3.53	0		
118	SLU 65	-6	-236	1281	9.63	-3.56	0		
118	SLU 66	-6	-195	1263	7.88	-3.53	0		
118	SLU 67	-6	-220	1274	8.93	-3.55	0		
118	SLU 68	-6	-236	1281	9.63	-3.56	0		
118	SLU 69	-6	-195	1263	7.88	-3.53	0		
118	SLU 70	-6	-220	1274	8.93	-3.55	0		
118	SLU 71	-6	-195	1263	7.88	-3.53	0		
118	SLU 72	-6	-220	1274	8.93	-3.55	0		
118	SLU 73	-7	-294	1453	11.91	-4.41	0		
118	SLU 74	-7	-252	1435	10.17	-4.38	0		
118	SLU 75	-7	-277	1446	11.21	-4.4	0		
118	SLU 76	-7	-294	1453	11.91	-4.41	0		
118	SLU 77	-7	-252	1435	10.17	-4.38	0		
118	SLU 78	-7	-277	1446	11.21	-4.4	0		
118	SLU 79	-7	-252	1435	10.17	-4.38	0		
118	SLU 80	-7	-277	1446	11.21	-4.4	0		
118	SLU 81	-8	-277	1509	11.14	-4.75	0		
118	SLU 82	-8	-302	1520	12.19	-4.77	0		
118	SLU 83	-8	-277	1509	11.14	-4.75	0		
118	SLU 84	-8	-302	1520	12.19	-4.77	0		
118	SLE RA 1	-4	-143	953	5.81	-2.62	0		
118	SLE RA 2	-4	-171	964	6.97	-2.64	0		
118	SLE RA 3	-4	-143	953	5.81	-2.62	0		
118	SLE RA 4	-4	-160	960	6.51	-2.64	0		
118	SLE RA 5	-4	-171	964	6.97	-2.64	0		
118	SLE RA 6	-4	-143	953	5.81	-2.62	0		
118	SLE RA 7	-4	-160	960	6.51	-2.64	0		
118	SLE RA 8	-4	-143	953	5.81	-2.62	0		
118	SLE RA 9	-4	-160	960	6.51	-2.64	0		
118	SLE RA 10	-5	-210	1079	8.5	-3.21	0		
118	SLE RA 11	-5	-182	1067	7.33	-3.19	0		
118	SLE RA 12	-5	-198	1074	8.03	-3.2	0		
118	SLE RA 13	-5	-210	1079	8.5	-3.21	0		
118	SLE RA 14	-5	-182	1067	7.33	-3.19	0		
118	SLE RA 15	-5	-198	1074	8.03	-3.2	0		
118	SLE RA 16	-5	-182	1067	7.33	-3.19	0		
118	SLE RA 17	-5	-198	1074	8.03	-3.2	0		
118	SLE RA 18	-5	-198	1117	7.99	-3.44	0		
118	SLE RA 19	-5	-215	1124	8.68	-3.45	0		
118	SLE RA 20	-5	-198	1117	7.99	-3.44	0		
118	SLE RA 21	-5	-215	1124	8.68	-3.45	0		
118	SLE FR 1	-4	-143	953	5.81	-2.62	0		
118	SLE FR 2	-4	-149	955	6.04	-2.63	0		
118	SLE FR 3	-4	-143	953	5.81	-2.62	0		
118	SLE FR 4	-5	-165	1004	6.7	-2.87	0		
118	SLE FR 5	-5	-160	1002	6.46	-2.87	0		
118	SLE FR 6	-5	-171	1035	6.9	-3.03	0		





Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
118	SLE QP 1	-4	-143	953	5.81	-2.62	0
118	SLE QP 2	-5	-160	1002	6.46	-2.87	0
118	SLD 1	10	-60	834	2.57	7.17	0
118	SLD 2	10	-60	834	2.57	7.17	0
118	SLD 3	12	-165	876	6.8	8.93	-0.01
118	SLD 4	12	-165	876	6.8	8.93	-0.01
118	SLD 5	-3	30	886	-1.11	-2.51	0
118	SLD 6	-3	30	886	-1.11	-2.51	0
118	SLD 7	4	-321	1029	12.97	3.33	0
118	SLD 8	4	-321	1029	12.97	3.33	0
118	SLD 9	-13	2	974	-0.04	-9.06	0
118	SLD 10	-13	2	974	-0.04	-9.06	0
118	SLD 11	-6	-350	1117	14.04	-3.22	0
118	SLD 12	-6	-350	1117	14.04	-3.22	0
118	SLD 13	-21	-155	1127	6.13	-14.66	0
118	SLD 14	-21	-155	1127	6.13	-14.66	0
118	SLD 15	-19	-260	1170	10.35	-12.91	0
118	SLD 16	-19	-260	1170	10.35	-12.91	0
118	SLV 1	30	81	602	-2.88	20.59	-0.01
118	SLV 2	30	81	602	-2.88	20.59	-0.01
118	SLV 3	35	-175	711	7.35	25.02	-0.01
118	SLV 4	35	-175	711	7.35	25.02	-0.01
118	SLV 5	-2	300	717	-11.85	-2.55	0
118	SLV 6	-2	300	717	-11.85	-2.55	0
118	SLV 7	15	-552	1080	22.24	12.22	-0.01
118	SLV 8	15	-552	1080	22.24	12.22	-0.01
118	SLV 9	-25	233	924	-9.31	-17.95	0.01
118	SLV 10	-25	233	924	-9.31	-17.95	0.01
118	SLV 11	-7	-620	1287	24.78	-3.19	0
118	SLV 12	-7	-620	1287	24.78	-3.19	0
118	SLV 13	-44	-145	1293	5.58	-30.76	0.01
118	SLV 14	-44	-145	1293	5.58	-30.76	0.01
118	SLV 15	-39	-401	1402	15.81	-26.33	0.01
118	SLV 16	-39	-401	1402	15.81	-26.33	0.01
119	SLU 1	-1	-86	2054	3.63	-1.67	0
119	SLU 2	1	-111	2065	4.6	-0.07	0
119	SLU 3	-1	-86	2054	3.63	-1.67	0
119	SLU 4	0	-101	2061	4.21	-0.71	0
119	SLU 5	1	-111	2065	4.6	-0.07	0
119	SLU 6	-1	-86	2054	3.63	-1.67	0
119	SLU 7	0	-101	2061	4.21	-0.71	0
119	SLU 8	-1	-86	2054	3.63	-1.67	0
119	SLU 9	0	-101	2061	4.21	-0.71	0
119	SLU 10	-1	-105	2317	4.44	-1.54	0
119	SLU 11	-3	-81	2306	3.48	-3.13	0
119	SLU 12	-1	-95	2313	4.06	-2.18	0
119	SLU 13	-1	-105	2317	4.44	-1.54	0
119	SLU 14	-3	-81	2306	3.48	-3.13	0
119	SLU 15	-1	-95	2313	4.06	-2.18	0
119	SLU 16	-3	-81	2306	3.48	-3.13	0
119	SLU 17	-1	-95	2313	4.06	-2.18	0
119	SLU 18	-3	-78	2414	3.41	-3.76	0
119	SLU 19	-2	-93	2421	3.99	-2.8	0
119	SLU 20	-3	-78	2414	3.41	-3.76	0
119	SLU 21	-2	-93	2421	3.99	-2.8	0
119	SLU 22	-2	-88	2201	3.73	-2.4	0
119	SLU 23	0	-113	2212	4.7	-0.81	0
119	SLU 24	-2	-88	2201	3.73	-2.4	0
119	SLU 25	-1	-103	2208	4.31	-1.45	0
119	SLU 26	0	-113	2212	4.7	-0.81	0
119	SLU 27	-2	-88	2201	3.73	-2.4	0
119	SLU 28	-1	-103	2208	4.31	-1.45	0
119	SLU 29	-2	-88	2201	3.73	-2.4	0
119	SLU 30	-1	-103	2208	4.31	-1.45	0
119	SLU 31	-1	-107	2465	4.54	-2.27	0
119	SLU 32	-3	-82	2454	3.58	-3.87	0
119	SLU 33	-2	-97	2460	4.16	-2.91	0
119	SLU 34	-1	-107	2465	4.54	-2.27	0
119	SLU 35	-3	-82	2454	3.58	-3.87	0
119	SLU 36	-2	-97	2460	4.16	-2.91	0
119	SLU 37	-3	-82	2454	3.58	-3.87	0
119	SLU 38	-2	-97	2460	4.16	-2.91	0
119	SLU 39	-4	-80	2562	3.51	-4.49	0
119	SLU 40	-3	-94	2568	4.09	-3.54	0
119	SLU 41	-4	-80	2562	3.51	-4.49	0
119	SLU 42	-3	-94	2568	4.09	-3.54	0
119	SLU 43	-2	-112	2619	4.69	-1.92	0
119	SLU 44	0	-137	2631	5.66	-0.32	0
119	SLU 45	-2	-112	2619	4.69	-1.92	0
119	SLU 46	0	-127	2626	5.27	-0.96	0
119	SLU 47	0	-137	2631	5.66	-0.32	0
119	SLU 48	-2	-112	2619	4.69	-1.92	0
119	SLU 49	0	-127	2626	5.27	-0.96	0
119	SLU 50	-2	-112	2619	4.69	-1.92	0
119	SLU 51	0	-127	2626	5.27	-0.96	0
119	SLU 52	-1	-131	2883	5.5	-1.79	0
119	SLU 53	-3	-106	2872	4.53	-3.38	0
119	SLU 54	-2	-121	2879	5.11	-2.43	0
119	SLU 55	-1	-131	2883	5.5	-1.79	0
119	SLU 56	-3	-106	2872	4.53	-3.38	0



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
119	SLU 57	-2	-121	2879	5.11	-2.43	0
119	SLU 58	-3	-106	2872	4.53	-3.38	0
119	SLU 59	-2	-121	2879	5.11	-2.43	0
119	SLU 60	-3	-103	2980	4.46	-4.01	0
119	SLU 61	-2	-118	2987	5.04	-3.05	0
119	SLU 62	-3	-103	2980	4.46	-4.01	0
119	SLU 63	-2	-118	2987	5.04	-3.05	0
119	SLU 64	-2	-113	2767	4.79	-2.65	0
119	SLU 65	0	-138	2778	5.76	-1.06	0
119	SLU 66	-2	-113	2767	4.79	-2.65	0
119	SLU 67	-1	-128	2774	5.37	-1.69	0
119	SLU 68	0	-138	2778	5.76	-1.06	0
119	SLU 69	-2	-113	2767	4.79	-2.65	0
119	SLU 70	-1	-128	2774	5.37	-1.69	0
119	SLU 71	-2	-113	2767	4.79	-2.65	0
119	SLU 72	-1	-128	2774	5.37	-1.69	0
119	SLU 73	-2	-132	3030	5.6	-2.52	0
119	SLU 74	-4	-108	3019	4.63	-4.12	0
119	SLU 75	-2	-122	3026	5.21	-3.16	0
119	SLU 76	-2	-132	3030	5.6	-2.52	0
119	SLU 77	-4	-108	3019	4.63	-4.12	0
119	SLU 78	-2	-122	3026	5.21	-3.16	0
119	SLU 79	-4	-108	3019	4.63	-4.12	0
119	SLU 80	-2	-122	3026	5.21	-3.16	0
119	SLU 81	-4	-105	3127	4.56	-4.74	0
119	SLU 82	-3	-120	3134	5.14	-3.79	0
119	SLU 83	-4	-105	3127	4.56	-4.74	0
119	SLU 84	-3	-120	3134	5.14	-3.79	0
119	SLE RA 1	-2	-87	2096	3.66	-1.88	0
119	SLE RA 2	0	-103	2103	4.31	-0.82	0
119	SLE RA 3	-2	-87	2096	3.66	-1.88	0
119	SLE RA 4	-1	-97	2100	4.05	-1.24	0
119	SLE RA 5	0	-103	2103	4.31	-0.82	0
119	SLE RA 6	-2	-87	2096	3.66	-1.88	0
119	SLE RA 7	-1	-97	2100	4.05	-1.24	0
119	SLE RA 8	-2	-87	2096	3.66	-1.88	0
119	SLE RA 9	-1	-97	2100	4.05	-1.24	0
119	SLE RA 10	-1	-99	2272	4.2	-1.79	0
119	SLE RA 11	-2	-83	2264	3.56	-2.86	0
119	SLE RA 12	-2	-93	2269	3.94	-2.22	0
119	SLE RA 13	-1	-99	2272	4.2	-1.79	0
119	SLE RA 14	-2	-83	2264	3.56	-2.86	0
119	SLE RA 15	-2	-93	2269	3.94	-2.22	0
119	SLE RA 16	-2	-83	2264	3.56	-2.86	0
119	SLE RA 17	-2	-93	2269	3.94	-2.22	0
119	SLE RA 18	-3	-81	2336	3.51	-3.27	0
119	SLE RA 19	-2	-91	2341	3.9	-2.63	0
119	SLE RA 20	-3	-81	2336	3.51	-3.27	0
119	SLE RA 21	-2	-91	2341	3.9	-2.63	0
119	SLE FR 1	-2	-87	2096	3.66	-1.88	0
119	SLE FR 2	-1	-90	2097	3.79	-1.67	0
119	SLE FR 3	-2	-87	2096	3.66	-1.88	0
119	SLE FR 4	-2	-89	2170	3.75	-2.08	0
119	SLE FR 5	-2	-85	2168	3.62	-2.3	0
119	SLE FR 6	-2	-84	2216	3.59	-2.58	0
119	SLE QP 1	-2	-87	2096	3.66	-1.88	0
119	SLE QP 2	-2	-85	2168	3.62	-2.3	0
119	SLD 1	33	-37	2067	1.51	28.66	-0.02
119	SLD 2	33	-37	2067	1.51	28.66	-0.02
119	SLD 3	24	-186	2024	8.03	20.03	-0.02
119	SLD 4	24	-186	2024	8.03	20.03	-0.02
119	SLD 5	21	155	2203	-6.91	20.09	0
119	SLD 6	21	155	2203	-6.91	20.09	0
119	SLD 7	-7	-341	2060	14.84	-8.7	-0.02
119	SLD 8	-7	-341	2060	14.84	-8.7	-0.02
119	SLD 9	3	171	2277	-7.6	4.1	0.02
119	SLD 10	3	171	2277	-7.6	4.1	0.02
119	SLD 11	-25	-325	2133	14.14	-24.68	0
119	SLD 12	-25	-325	2133	14.14	-24.68	0
119	SLD 13	-28	16	2312	-0.8	-24.62	0.03
119	SLD 14	-28	16	2312	-0.8	-24.62	0.03
119	SLD 15	-37	-133	2269	5.72	-33.26	0.02
119	SLD 16	-37	-133	2269	5.72	-33.26	0.02
119	SLV 1	83	28	1937	-1.34	74.49	-0.05
119	SLV 2	83	28	1937	-1.34	74.49	-0.05
119	SLV 3	61	-325	1827	14.12	51.86	-0.06
119	SLV 4	61	-325	1827	14.12	51.86	-0.06
119	SLV 5	57	484	2264	-21.32	55.07	0.01
119	SLV 6	57	484	2264	-21.32	55.07	0.01
119	SLV 7	-16	-692	1900	30.22	-20.39	-0.04
119	SLV 8	-16	-692	1900	30.22	-20.39	-0.04
119	SLV 9	12	522	2436	-22.98	15.79	0.04
119	SLV 10	12	522	2436	-22.98	15.79	0.04
119	SLV 11	-61	-654	2072	28.55	-59.67	-0.01
119	SLV 12	-61	-654	2072	28.55	-59.67	-0.01
119	SLV 13	-65	155	2509	-6.88	-56.45	0.06
119	SLV 14	-65	155	2509	-6.88	-56.45	0.06
119	SLV 15	-87	-198	2400	8.58	-79.09	0.05
119	SLV 16	-87	-198	2400	8.58	-79.09	0.05
120	SLU 1	-9	-114	1326	4.4	-5.46	0



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
Ind.	N.br.						
120	SLU 2	-10	-125	1328	4.74	-6.62	0
120	SLU 3	-9	-114	1326	4.4	-5.46	0
120	SLU 4	-10	-120	1328	4.6	-6.16	0
120	SLU 5	-10	-125	1328	4.74	-6.62	0
120	SLU 6	-9	-114	1326	4.4	-5.46	0
120	SLU 7	-10	-120	1328	4.6	-6.16	0
120	SLU 8	-9	-114	1326	4.4	-5.46	0
120	SLU 9	-10	-120	1328	4.6	-6.16	0
120	SLU 10	-12	-150	1477	5.73	-7.71	0.01
120	SLU 11	-11	-140	1475	5.38	-6.55	0.01
120	SLU 12	-12	-146	1476	5.59	-7.24	0.01
120	SLU 13	-12	-150	1477	5.73	-7.71	0.01
120	SLU 14	-11	-140	1475	5.38	-6.55	0.01
120	SLU 15	-12	-146	1476	5.59	-7.24	0.01
120	SLU 16	-11	-140	1475	5.38	-6.55	0.01
120	SLU 17	-12	-146	1476	5.59	-7.24	0.01
120	SLU 18	-12	-151	1539	5.8	-7.01	0.01
120	SLU 19	-13	-157	1540	6.01	-7.71	0.01
120	SLU 20	-12	-151	1539	5.8	-7.01	0.01
120	SLU 21	-13	-157	1540	6.01	-7.71	0.01
120	SLU 22	-10	-127	1398	4.9	-6.03	0.01
120	SLU 23	-11	-138	1401	5.24	-7.19	0.01
120	SLU 24	-10	-127	1398	4.9	-6.03	0.01
120	SLU 25	-11	-133	1400	5.11	-6.72	0.01
120	SLU 26	-11	-138	1401	5.24	-7.19	0.01
120	SLU 27	-10	-127	1398	4.9	-6.03	0.01
120	SLU 28	-11	-133	1400	5.11	-6.72	0.01
120	SLU 29	-10	-127	1398	4.9	-6.03	0.01
120	SLU 30	-11	-133	1400	5.11	-6.72	0.01
120	SLU 31	-13	-164	1550	6.23	-8.27	0.01
120	SLU 32	-12	-153	1547	5.88	-7.11	0.01
120	SLU 33	-13	-159	1549	6.09	-7.81	0.01
120	SLU 34	-13	-164	1550	6.23	-8.27	0.01
120	SLU 35	-12	-153	1547	5.88	-7.11	0.01
120	SLU 36	-13	-159	1549	6.09	-7.81	0.01
120	SLU 37	-12	-153	1547	5.88	-7.11	0.01
120	SLU 38	-13	-159	1549	6.09	-7.81	0.01
120	SLU 39	-13	-164	1611	6.31	-7.58	0.01
120	SLU 40	-14	-170	1613	6.51	-8.27	0.01
120	SLU 41	-13	-164	1611	6.31	-7.58	0.01
120	SLU 42	-14	-170	1613	6.51	-8.27	0.01
120	SLU 43	-12	-144	1699	5.54	-6.91	0.01
120	SLU 44	-13	-154	1702	5.89	-8.07	0.01
120	SLU 45	-12	-144	1699	5.54	-6.91	0.01
120	SLU 46	-12	-150	1701	5.75	-7.61	0.01
120	SLU 47	-13	-154	1702	5.89	-8.07	0.01
120	SLU 48	-12	-144	1699	5.54	-6.91	0.01
120	SLU 49	-12	-150	1701	5.75	-7.61	0.01
120	SLU 50	-12	-144	1699	5.54	-6.91	0.01
120	SLU 51	-12	-150	1701	5.75	-7.61	0.01
120	SLU 52	-15	-180	1850	6.87	-9.15	0.01
120	SLU 53	-14	-170	1848	6.53	-8	0.01
120	SLU 54	-14	-176	1849	6.74	-8.69	0.01
120	SLU 55	-15	-180	1850	6.87	-9.15	0.01
120	SLU 56	-14	-170	1848	6.53	-8	0.01
120	SLU 57	-14	-176	1849	6.74	-8.69	0.01
120	SLU 58	-14	-170	1848	6.53	-8	0.01
120	SLU 59	-14	-176	1849	6.74	-8.69	0.01
120	SLU 60	-14	-181	1912	6.95	-8.46	0.01
120	SLU 61	-15	-187	1913	7.16	-9.16	0.01
120	SLU 62	-14	-181	1912	6.95	-8.46	0.01
120	SLU 63	-15	-187	1913	7.16	-9.16	0.01
120	SLU 64	-13	-157	1772	6.05	-7.47	0.01
120	SLU 65	-14	-167	1774	6.39	-8.63	0.01
120	SLU 66	-13	-157	1772	6.05	-7.47	0.01
120	SLU 67	-13	-163	1773	6.25	-8.17	0.01
120	SLU 68	-14	-167	1774	6.39	-8.63	0.01
120	SLU 69	-13	-157	1772	6.05	-7.47	0.01
120	SLU 70	-13	-163	1773	6.25	-8.17	0.01
120	SLU 71	-13	-157	1772	6.05	-7.47	0.01
120	SLU 72	-13	-163	1773	6.25	-8.17	0.01
120	SLU 73	-16	-193	1923	7.38	-9.72	0.01
120	SLU 74	-15	-183	1920	7.03	-8.56	0.01
120	SLU 75	-15	-189	1922	7.24	-9.25	0.01
120	SLU 76	-16	-193	1923	7.38	-9.72	0.01
120	SLU 77	-15	-183	1920	7.03	-8.56	0.01
120	SLU 78	-15	-189	1922	7.24	-9.25	0.01
120	SLU 79	-15	-183	1920	7.03	-8.56	0.01
120	SLU 80	-15	-189	1922	7.24	-9.25	0.01
120	SLU 81	-15	-194	1984	7.45	-9.02	0.01
120	SLU 82	-16	-200	1986	7.66	-9.72	0.01
120	SLU 83	-15	-194	1984	7.45	-9.02	0.01
120	SLU 84	-16	-200	1986	7.66	-9.72	0.01
120	SLE RA 1	-9	-118	1347	4.54	-5.62	0
120	SLE RA 2	-10	-125	1348	4.77	-6.4	0
120	SLE RA 3	-9	-118	1347	4.54	-5.62	0
120	SLE RA 4	-10	-122	1348	4.68	-6.09	0
120	SLE RA 5	-10	-125	1348	4.77	-6.4	0
120	SLE RA 6	-9	-118	1347	4.54	-5.62	0
120	SLE RA 7	-10	-122	1348	4.68	-6.09	0



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
120	SLE RA 8	-9	-118	1347	4.54	-5.62	0
120	SLE RA 9	-10	-122	1348	4.68	-6.09	0
120	SLE RA 10	-12	-142	1448	5.43	-7.12	0.01
120	SLE RA 11	-11	-135	1446	5.2	-6.35	0.01
120	SLE RA 12	-11	-139	1447	5.34	-6.81	0.01
120	SLE RA 13	-12	-142	1448	5.43	-7.12	0.01
120	SLE RA 14	-11	-135	1446	5.2	-6.35	0.01
120	SLE RA 15	-11	-139	1447	5.34	-6.81	0.01
120	SLE RA 16	-11	-135	1446	5.2	-6.35	0.01
120	SLE RA 17	-11	-139	1447	5.34	-6.81	0.01
120	SLE RA 18	-11	-142	1489	5.48	-6.66	0.01
120	SLE RA 19	-12	-147	1490	5.62	-7.12	0.01
120	SLE RA 20	-11	-142	1489	5.48	-6.66	0.01
120	SLE RA 21	-12	-147	1490	5.62	-7.12	0.01
120	SLE FR 1	-9	-118	1347	4.54	-5.62	0
120	SLE FR 2	-10	-119	1347	4.59	-5.78	0
120	SLE FR 3	-9	-118	1347	4.54	-5.62	0
120	SLE FR 4	-10	-127	1390	4.87	-6.09	0.01
120	SLE FR 5	-10	-125	1389	4.82	-5.93	0
120	SLE FR 6	-10	-130	1418	5.01	-6.14	0.01
120	SLE QP 1	-9	-118	1347	4.54	-5.62	0
120	SLE QP 2	-10	-125	1389	4.82	-5.93	0
120	SLD 1	19	-17	1578	0.5	15.73	-0.02
120	SLD 2	19	-17	1578	0.5	15.73	-0.02
120	SLD 3	16	-154	1541	6.12	12.94	-0.01
120	SLD 4	16	-154	1541	6.12	12.94	-0.01
120	SLD 5	3	115	1502	-5	4.81	-0.01
120	SLD 6	3	115	1502	-5	4.81	-0.01
120	SLD 7	-7	-341	1379	13.74	-4.51	0
120	SLD 8	-7	-341	1379	13.74	-4.51	0
120	SLD 9	-13	91	1400	-4.1	-7.36	0.01
120	SLD 10	-13	91	1400	-4.1	-7.36	0.01
120	SLD 11	-24	-365	1276	14.65	-16.67	0.02
120	SLD 12	-24	-365	1276	14.65	-16.67	0.02
120	SLD 13	-36	-96	1237	3.52	-24.81	0.02
120	SLD 14	-36	-96	1237	3.52	-24.81	0.02
120	SLD 15	-39	-233	1200	9.14	-27.6	0.03
120	SLD 16	-39	-233	1200	9.14	-27.6	0.03
120	SLV 1	59	130	1835	-5.41	45.35	-0.04
120	SLV 2	59	130	1835	-5.41	45.35	-0.04
120	SLV 3	51	-195	1741	7.95	37.81	-0.04
120	SLV 4	51	-195	1741	7.95	37.81	-0.04
120	SLV 5	23	444	1666	-18.51	20.88	-0.02
120	SLV 6	23	444	1666	-18.51	20.88	-0.02
120	SLV 7	-4	-639	1352	26.02	-4.24	0
120	SLV 8	-4	-639	1352	26.02	-4.24	0
120	SLV 9	-16	389	1426	-16.38	-7.63	0.01
120	SLV 10	-16	389	1426	-16.38	-7.63	0.01
120	SLV 11	-43	-695	1113	28.15	-32.75	0.03
120	SLV 12	-43	-695	1113	28.15	-32.75	0.03
120	SLV 13	-71	-55	1038	1.69	-49.68	0.05
120	SLV 14	-71	-55	1038	1.69	-49.68	0.05
120	SLV 15	-79	-380	943	15.05	-57.22	0.05
120	SLV 16	-79	-380	943	15.05	-57.22	0.05
121	SLU 1	-4	-115	891	4.38	-2.62	0
121	SLU 2	-4	-153	906	5.88	-2.65	0
121	SLU 3	-4	-115	891	4.38	-2.62	0
121	SLU 4	-4	-138	900	5.28	-2.63	0
121	SLU 5	-4	-153	906	5.88	-2.65	0
121	SLU 6	-4	-115	891	4.38	-2.62	0
121	SLU 7	-4	-138	900	5.28	-2.63	0
121	SLU 8	-4	-115	891	4.38	-2.62	0
121	SLU 9	-4	-138	900	5.28	-2.63	0
121	SLU 10	-6	-200	1059	7.67	-3.54	0
121	SLU 11	-6	-162	1045	6.16	-3.51	0
121	SLU 12	-6	-185	1053	7.07	-3.53	0
121	SLU 13	-6	-200	1059	7.67	-3.54	0
121	SLU 14	-6	-162	1045	6.16	-3.51	0
121	SLU 15	-6	-185	1053	7.07	-3.53	0
121	SLU 16	-6	-162	1045	6.16	-3.51	0
121	SLU 17	-6	-185	1053	7.07	-3.53	0
121	SLU 18	-6	-182	1110	6.93	-3.9	0
121	SLU 19	-6	-205	1119	7.83	-3.92	0
121	SLU 20	-6	-182	1110	6.93	-3.9	0
121	SLU 21	-6	-205	1119	7.83	-3.92	0
121	SLU 22	-5	-138	969	5.27	-3.06	0
121	SLU 23	-5	-177	983	6.78	-3.09	0
121	SLU 24	-5	-138	969	5.27	-3.06	0
121	SLU 25	-5	-161	977	6.17	-3.08	0
121	SLU 26	-5	-177	983	6.78	-3.09	0
121	SLU 27	-5	-138	969	5.27	-3.06	0
121	SLU 28	-5	-161	977	6.17	-3.08	0
121	SLU 29	-5	-138	969	5.27	-3.06	0
121	SLU 30	-5	-161	977	6.17	-3.08	0
121	SLU 31	-6	-223	1137	8.56	-3.99	0
121	SLU 32	-6	-185	1122	7.06	-3.96	0
121	SLU 33	-6	-208	1131	7.96	-3.98	0
121	SLU 34	-6	-223	1137	8.56	-3.99	0
121	SLU 35	-6	-185	1122	7.06	-3.96	0
121	SLU 36	-6	-208	1131	7.96	-3.98	0



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
121	SLU 37	-6	-185	1122	7.06	-3.96	0
121	SLU 38	-6	-208	1131	7.96	-3.98	0
121	SLU 39	-7	-205	1188	7.82	-4.34	0
121	SLU 40	-7	-228	1197	8.73	-4.36	0
121	SLU 41	-7	-205	1188	7.82	-4.34	0
121	SLU 42	-7	-228	1197	8.73	-4.36	0
121	SLU 43	-5	-141	1132	5.38	-3.25	0
121	SLU 44	-5	-180	1146	6.89	-3.28	0
121	SLU 45	-5	-141	1132	5.38	-3.25	0
121	SLU 46	-5	-164	1140	6.29	-3.27	0
121	SLU 47	-5	-180	1146	6.89	-3.28	0
121	SLU 48	-5	-141	1132	5.38	-3.25	0
121	SLU 49	-5	-164	1140	6.29	-3.27	0
121	SLU 50	-5	-141	1132	5.38	-3.25	0
121	SLU 51	-5	-164	1140	6.29	-3.27	0
121	SLU 52	-7	-226	1300	8.67	-4.17	0
121	SLU 53	-7	-188	1285	7.17	-4.15	0
121	SLU 54	-7	-211	1294	8.07	-4.16	0
121	SLU 55	-7	-226	1300	8.67	-4.17	0
121	SLU 56	-7	-188	1285	7.17	-4.15	0
121	SLU 57	-7	-211	1294	8.07	-4.16	0
121	SLU 58	-7	-188	1285	7.17	-4.15	0
121	SLU 59	-7	-211	1294	8.07	-4.16	0
121	SLU 60	-7	-208	1351	7.93	-4.53	0
121	SLU 61	-7	-231	1360	8.84	-4.55	0
121	SLU 62	-7	-208	1351	7.93	-4.53	0
121	SLU 63	-7	-231	1360	8.84	-4.55	0
121	SLU 64	-6	-165	1209	6.28	-3.7	0
121	SLU 65	-6	-203	1224	7.78	-3.72	0
121	SLU 66	-6	-165	1209	6.28	-3.7	0
121	SLU 67	-6	-188	1218	7.18	-3.71	0
121	SLU 68	-6	-203	1224	7.78	-3.72	0
121	SLU 69	-6	-165	1209	6.28	-3.7	0
121	SLU 70	-6	-188	1218	7.18	-3.71	0
121	SLU 71	-6	-165	1209	6.28	-3.7	0
121	SLU 72	-6	-188	1218	7.18	-3.71	0
121	SLU 73	-7	-250	1377	9.57	-4.62	0
121	SLU 74	-7	-211	1363	8.06	-4.59	0
121	SLU 75	-7	-234	1372	8.97	-4.61	0
121	SLU 76	-7	-250	1377	9.57	-4.62	0
121	SLU 77	-7	-211	1363	8.06	-4.59	0
121	SLU 78	-7	-234	1372	8.97	-4.61	0
121	SLU 79	-7	-211	1363	8.06	-4.59	0
121	SLU 80	-7	-234	1372	8.97	-4.61	0
121	SLU 81	-8	-231	1429	8.83	-4.98	0
121	SLU 82	-8	-254	1437	9.73	-4.99	0
121	SLU 83	-8	-231	1429	8.83	-4.98	0
121	SLU 84	-8	-254	1437	9.73	-4.99	0
121	SLE RA 1	-4	-122	913	4.63	-2.74	0
121	SLE RA 2	-4	-147	923	5.64	-2.76	0
121	SLE RA 3	-4	-122	913	4.63	-2.74	0
121	SLE RA 4	-4	-137	919	5.23	-2.76	0
121	SLE RA 5	-4	-147	923	5.64	-2.76	0
121	SLE RA 6	-4	-122	913	4.63	-2.74	0
121	SLE RA 7	-4	-137	919	5.23	-2.76	0
121	SLE RA 8	-4	-122	913	4.63	-2.74	0
121	SLE RA 9	-4	-137	919	5.23	-2.76	0
121	SLE RA 10	-5	-178	1025	6.83	-3.36	0
121	SLE RA 11	-5	-153	1016	5.82	-3.34	0
121	SLE RA 12	-5	-168	1021	6.42	-3.35	0
121	SLE RA 13	-5	-178	1025	6.83	-3.36	0
121	SLE RA 14	-5	-153	1016	5.82	-3.34	0
121	SLE RA 15	-5	-168	1021	6.42	-3.35	0
121	SLE RA 16	-5	-153	1016	5.82	-3.34	0
121	SLE RA 17	-5	-168	1021	6.42	-3.35	0
121	SLE RA 18	-6	-166	1059	6.33	-3.6	0
121	SLE RA 19	-6	-181	1065	6.94	-3.61	0
121	SLE RA 20	-6	-166	1059	6.33	-3.6	0
121	SLE RA 21	-6	-181	1065	6.94	-3.61	0
121	SLE FR 1	-4	-122	913	4.63	-2.74	0
121	SLE FR 2	-4	-127	915	4.83	-2.75	0
121	SLE FR 3	-4	-122	913	4.63	-2.74	0
121	SLE FR 4	-5	-140	959	5.34	-3	0
121	SLE FR 5	-5	-135	957	5.14	-3	0
121	SLE FR 6	-5	-144	986	5.48	-3.17	0
121	SLE QP 1	-4	-122	913	4.63	-2.74	0
121	SLE QP 2	-5	-135	957	5.14	-3	0
121	SLD 1	11	-45	769	1.46	7.9	0
121	SLD 2	11	-45	769	1.46	7.9	0
121	SLD 3	14	-151	811	5.87	9.68	0
121	SLD 4	14	-151	811	5.87	9.68	0
121	SLD 5	-3	54	837	-2.65	-2.43	0
121	SLD 6	-3	54	837	-2.65	-2.43	0
121	SLD 7	4	-301	977	12.05	3.5	0
121	SLD 8	4	-301	977	12.05	3.5	0
121	SLD 9	-14	32	937	-1.77	-9.5	0
121	SLD 10	-14	32	937	-1.77	-9.5	0
121	SLD 11	-6	-324	1077	12.94	-3.57	0
121	SLD 12	-6	-324	1077	12.94	-3.57	0
121	SLD 13	-23	-119	1103	4.41	-15.68	0



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
121	SLD 14	-23	-119	1103	4.41	-15.68	0
121	SLD 15	-21	-225	1145	8.82	-13.9	0
121	SLD 16	-21	-225	1145	8.82	-13.9	0
121	SLV 1	33	84	511	-3.79	22.49	0
121	SLV 2	33	84	511	-3.79	22.49	0
121	SLV 3	39	-175	617	6.95	26.97	0
121	SLV 4	39	-175	617	6.95	26.97	0
121	SLV 5	-1	324	662	-13.82	-2.14	0
121	SLV 6	-1	324	662	-13.82	-2.14	0
121	SLV 7	16	-540	1016	21.97	12.77	0
121	SLV 8	16	-540	1016	21.97	12.77	0
121	SLV 9	-26	270	898	-11.69	-18.77	0
121	SLV 10	-26	270	898	-11.69	-18.77	0
121	SLV 11	-8	-594	1252	24.11	-3.86	0
121	SLV 12	-8	-594	1252	24.11	-3.86	0
121	SLV 13	-48	-95	1297	3.34	-32.97	0
121	SLV 14	-48	-95	1297	3.34	-32.97	0
121	SLV 15	-43	-354	1403	14.08	-28.49	0
121	SLV 16	-43	-354	1403	14.08	-28.49	0
122	SLU 1	-1	-92	2008	3.64	-1.36	0
122	SLU 2	0	-116	2016	4.73	-0.12	0
122	SLU 3	-1	-92	2008	3.64	-1.36	0
122	SLU 4	0	-106	2013	4.29	-0.62	0
122	SLU 5	0	-116	2016	4.73	-0.12	0
122	SLU 6	-1	-92	2008	3.64	-1.36	0
122	SLU 7	0	-106	2013	4.29	-0.62	0
122	SLU 8	-1	-92	2008	3.64	-1.36	0
122	SLU 9	0	-106	2013	4.29	-0.62	0
122	SLU 10	0	-93	2257	3.54	-1.28	0
122	SLU 11	-2	-68	2250	2.45	-2.52	0
122	SLU 12	-1	-83	2254	3.1	-1.78	0
122	SLU 13	0	-93	2257	3.54	-1.28	0
122	SLU 14	-2	-68	2250	2.45	-2.52	0
122	SLU 15	-1	-83	2254	3.1	-1.78	0
122	SLU 16	-2	-68	2250	2.45	-2.52	0
122	SLU 17	-1	-83	2254	3.1	-1.78	0
122	SLU 18	-2	-58	2353	1.94	-3.02	0
122	SLU 19	-1	-73	2358	2.59	-2.27	0
122	SLU 20	-2	-58	2353	1.94	-3.02	0
122	SLU 21	-1	-73	2358	2.59	-2.27	0
122	SLU 22	-1	-85	2149	3.26	-1.94	0
122	SLU 23	0	-109	2157	4.35	-0.7	0
122	SLU 24	-1	-85	2149	3.26	-1.94	0
122	SLU 25	-1	-100	2153	3.91	-1.2	0
122	SLU 26	0	-109	2157	4.35	-0.7	0
122	SLU 27	-1	-85	2149	3.26	-1.94	0
122	SLU 28	-1	-100	2153	3.91	-1.2	0
122	SLU 29	-1	-85	2149	3.26	-1.94	0
122	SLU 30	-1	-100	2153	3.91	-1.2	0
122	SLU 31	-1	-86	2398	3.16	-1.86	0
122	SLU 32	-2	-61	2390	2.07	-3.1	0
122	SLU 33	-1	-76	2395	2.72	-2.35	0
122	SLU 34	-1	-86	2398	3.16	-1.86	0
122	SLU 35	-2	-61	2390	2.07	-3.1	0
122	SLU 36	-1	-76	2395	2.72	-2.35	0
122	SLU 37	-2	-61	2390	2.07	-3.1	0
122	SLU 38	-1	-76	2395	2.72	-2.35	0
122	SLU 39	-3	-51	2493	1.56	-3.59	0
122	SLU 40	-2	-66	2498	2.21	-2.85	0
122	SLU 41	-3	-51	2493	1.56	-3.59	0
122	SLU 42	-2	-66	2498	2.21	-2.85	0
122	SLU 43	-1	-122	2563	4.86	-1.57	0
122	SLU 44	0	-146	2571	5.95	-0.33	0
122	SLU 45	-1	-122	2563	4.86	-1.57	0
122	SLU 46	0	-136	2567	5.52	-0.83	0
122	SLU 47	0	-146	2571	5.95	-0.33	0
122	SLU 48	-1	-122	2563	4.86	-1.57	0
122	SLU 49	0	-136	2567	5.52	-0.83	0
122	SLU 50	-1	-122	2563	4.86	-1.57	0
122	SLU 51	0	-136	2567	5.52	-0.83	0
122	SLU 52	-1	-122	2812	4.76	-1.49	0
122	SLU 53	-2	-98	2804	3.67	-2.73	0
122	SLU 54	-1	-113	2809	4.32	-1.99	0
122	SLU 55	-1	-122	2812	4.76	-1.49	0
122	SLU 56	-2	-98	2804	3.67	-2.73	0
122	SLU 57	-1	-113	2809	4.32	-1.99	0
122	SLU 58	-2	-98	2804	3.67	-2.73	0
122	SLU 59	-1	-113	2809	4.32	-1.99	0
122	SLU 60	-2	-88	2907	3.16	-3.23	0
122	SLU 61	-1	-103	2912	3.81	-2.48	0
122	SLU 62	-2	-88	2907	3.16	-3.23	0
122	SLU 63	-1	-103	2912	3.81	-2.48	0
122	SLU 64	-1	-115	2703	4.48	-2.15	0
122	SLU 65	0	-139	2711	5.57	-0.91	0
122	SLU 66	-1	-115	2703	4.48	-2.15	0
122	SLU 67	-1	-129	2708	5.14	-1.41	0
122	SLU 68	0	-139	2711	5.57	-0.91	0
122	SLU 69	-1	-115	2703	4.48	-2.15	0
122	SLU 70	-1	-129	2708	5.14	-1.41	0
122	SLU 71	-1	-115	2703	4.48	-2.15	0



Nodo	Cont.	Reazione a traslazione				Reazione a rotazione			
		x	y	z		x	y	z	
122	SLU 72	-1	-129	2708		5.14	-1.41		0
122	SLU 73	-1	-116	2952		4.38	-2.07		0
122	SLU 74	-2	-91	2944		3.29	-3.31		0
122	SLU 75	-2	-106	2949		3.94	-2.56		0
122	SLU 76	-1	-116	2952		4.38	-2.07		0
122	SLU 77	-2	-91	2944		3.29	-3.31		0
122	SLU 78	-2	-106	2949		3.94	-2.56		0
122	SLU 79	-2	-91	2944		3.29	-3.31		0
122	SLU 80	-2	-106	2949		3.94	-2.56		0
122	SLU 81	-3	-81	3048		2.78	-3.8		0
122	SLU 82	-2	-96	3052		3.43	-3.06		0
122	SLU 83	-3	-81	3048		2.78	-3.8		0
122	SLU 84	-2	-96	3052		3.43	-3.06		0
122	SLE RA 1	-1	-90	2049		3.53	-1.53		0
122	SLE RA 2	0	-106	2054		4.26	-0.7		0
122	SLE RA 3	-1	-90	2049		3.53	-1.53		0
122	SLE RA 4	0	-100	2052		3.97	-1.03		0
122	SLE RA 5	0	-106	2054		4.26	-0.7		0
122	SLE RA 6	-1	-90	2049		3.53	-1.53		0
122	SLE RA 7	0	-100	2052		3.97	-1.03		0
122	SLE RA 8	-1	-90	2049		3.53	-1.53		0
122	SLE RA 9	0	-100	2052		3.97	-1.03		0
122	SLE RA 10	-1	-90	2214		3.46	-1.47		0
122	SLE RA 11	-2	-74	2209		2.73	-2.3		0
122	SLE RA 12	-1	-84	2212		3.17	-1.8		0
122	SLE RA 13	-1	-90	2214		3.46	-1.47		0
122	SLE RA 14	-2	-74	2209		2.73	-2.3		0
122	SLE RA 15	-1	-84	2212		3.17	-1.8		0
122	SLE RA 16	-2	-74	2209		2.73	-2.3		0
122	SLE RA 17	-1	-84	2212		3.17	-1.8		0
122	SLE RA 18	-2	-67	2278		2.39	-2.63		0
122	SLE RA 19	-1	-77	2281		2.83	-2.13		0
122	SLE RA 20	-2	-67	2278		2.39	-2.63		0
122	SLE RA 21	-1	-77	2281		2.83	-2.13		0
122	SLE FR 1	-1	-90	2049		3.53	-1.53		0
122	SLE FR 2	-1	-93	2050		3.67	-1.36		0
122	SLE FR 3	-1	-90	2049		3.53	-1.53		0
122	SLE FR 4	-1	-86	2118		3.33	-1.69		0
122	SLE FR 5	-1	-83	2117		3.19	-1.86		0
122	SLE FR 6	-1	-79	2163		2.96	-2.08		0
122	SLE QP 1	-1	-90	2049		3.53	-1.53		0
122	SLE QP 2	-1	-83	2117		3.19	-1.86		0
122	SLD 1	27	-41	2020		1.37	21.69	-0.01	
122	SLD 2	27	-41	2020		1.37	21.69	-0.01	
122	SLD 3	36	-189	1975		7.79	30.59	-0.02	
122	SLD 4	36	-189	1975		7.79	30.59	-0.02	
122	SLD 5	-6	154	2155		-7.09	-8.3	0.01	
122	SLD 6	-6	154	2155		-7.09	-8.3	0.01	
122	SLD 7	23	-340	2008		14.3	21.38	-0.02	
122	SLD 8	23	-340	2008		14.3	21.38	-0.02	
122	SLD 9	-26	173	2227		-7.92	-25.1	0.02	
122	SLD 10	-26	173	2227		-7.92	-25.1	0.02	
122	SLD 11	4	-320	2080		13.47	4.58	-0.01	
122	SLD 12	4	-320	2080		13.47	4.58	-0.01	
122	SLD 13	-38	23	2259		-1.41	-34.31	0.02	
122	SLD 14	-38	23	2259		-1.41	-34.31	0.02	
122	SLD 15	-29	-125	2215		5.01	-25.4	0.02	
122	SLD 16	-29	-125	2215		5.01	-25.4	0.02	
122	SLV 1	67	16	1891		-1.12	55.55	-0.04	
122	SLV 2	67	16	1891		-1.12	55.55	-0.04	
122	SLV 3	90	-335	1783		14.1	79.01	-0.05	
122	SLV 4	90	-335	1783		14.1	79.01	-0.05	
122	SLV 5	-16	479	2214		-21.19	-20.22	0.02	
122	SLV 6	-16	479	2214		-21.19	-20.22	0.02	
122	SLV 7	61	-691	1852		29.54	57.99	-0.04	
122	SLV 8	61	-691	1852		29.54	57.99	-0.04	
122	SLV 9	-64	525	2383		-23.17	-61.7	0.04	
122	SLV 10	-64	525	2383		-23.17	-61.7	0.04	
122	SLV 11	13	-645	2020		27.56	16.5	-0.02	
122	SLV 12	13	-645	2020		27.56	16.5	-0.02	
122	SLV 13	-93	169	2452		-7.72	-82.72	0.05	
122	SLV 14	-93	169	2452		-7.72	-82.72	0.05	
122	SLV 15	-69	-182	2344		7.5	-59.26	0.04	
122	SLV 16	-69	-182	2344		7.5	-59.26	0.04	
123	SLU 1	-8	-102	1326		4.42	-5.09	0	
123	SLU 2	-9	-115	1326		5	-6.06	0	
123	SLU 3	-8	-102	1326		4.42	-5.09	0	
123	SLU 4	-9	-109	1326		4.77	-5.67	0	
123	SLU 5	-9	-115	1326		5	-6.06	0	
123	SLU 6	-8	-102	1326		4.42	-5.09	0	
123	SLU 7	-9	-109	1326		4.77	-5.67	0	
123	SLU 8	-8	-102	1326		4.42	-5.09	0	
123	SLU 9	-9	-109	1326		4.77	-5.67	0	
123	SLU 10	-11	-131	1473		5.71	-7.14	0	
123	SLU 11	-10	-118	1472		5.13	-6.16	0	
123	SLU 12	-11	-126	1473		5.48	-6.75	0	
123	SLU 13	-11	-131	1473		5.71	-7.14	0	
123	SLU 14	-10	-118	1472		5.13	-6.16	0	
123	SLU 15	-11	-126	1473		5.48	-6.75	0	
123	SLU 16	-10	-118	1472		5.13	-6.16	0	



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
123	SLU 17	-11	-126	1473	5.48	-6.75	0
123	SLU 18	-11	-125	1535	5.43	-6.62	0.01
123	SLU 19	-12	-133	1535	5.78	-7.21	0.01
123	SLU 20	-11	-125	1535	5.43	-6.62	0.01
123	SLU 21	-12	-133	1535	5.78	-7.21	0.01
123	SLU 22	-9	-111	1397	4.81	-5.63	0
123	SLU 23	-10	-124	1398	5.4	-6.61	0
123	SLU 24	-9	-111	1397	4.81	-5.63	0
123	SLU 25	-10	-119	1397	5.16	-6.22	0
123	SLU 26	-10	-124	1398	5.4	-6.61	0
123	SLU 27	-9	-111	1397	4.81	-5.63	0
123	SLU 28	-10	-119	1397	5.16	-6.22	0
123	SLU 29	-9	-111	1397	4.81	-5.63	0
123	SLU 30	-10	-119	1397	5.16	-6.22	0
123	SLU 31	-12	-140	1544	6.11	-7.69	0.01
123	SLU 32	-11	-127	1543	5.52	-6.71	0.01
123	SLU 33	-12	-135	1544	5.87	-7.3	0.01
123	SLU 34	-12	-140	1544	6.11	-7.69	0.01
123	SLU 35	-11	-127	1543	5.52	-6.71	0.01
123	SLU 36	-12	-135	1544	5.87	-7.3	0.01
123	SLU 37	-11	-127	1543	5.52	-6.71	0.01
123	SLU 38	-12	-135	1544	5.87	-7.3	0.01
123	SLU 39	-12	-134	1606	5.82	-7.17	0.01
123	SLU 40	-13	-142	1606	6.18	-7.76	0.01
123	SLU 41	-12	-134	1606	5.82	-7.17	0.01
123	SLU 42	-13	-142	1606	6.18	-7.76	0.01
123	SLU 43	-11	-129	1699	5.61	-6.42	0
123	SLU 44	-12	-142	1700	6.19	-7.4	0
123	SLU 45	-11	-129	1699	5.61	-6.42	0
123	SLU 46	-11	-137	1700	5.96	-7.01	0
123	SLU 47	-12	-142	1700	6.19	-7.4	0
123	SLU 48	-11	-129	1699	5.61	-6.42	0
123	SLU 49	-11	-137	1700	5.96	-7.01	0
123	SLU 50	-11	-129	1699	5.61	-6.42	0
123	SLU 51	-11	-137	1700	5.96	-7.01	0
123	SLU 52	-13	-158	1846	6.9	-8.48	0.01
123	SLU 53	-13	-145	1846	6.32	-7.5	0.01
123	SLU 54	-13	-153	1846	6.67	-8.09	0.01
123	SLU 55	-13	-158	1846	6.9	-8.48	0.01
123	SLU 56	-13	-145	1846	6.32	-7.5	0.01
123	SLU 57	-13	-153	1846	6.67	-8.09	0.01
123	SLU 58	-13	-145	1846	6.32	-7.5	0.01
123	SLU 59	-13	-153	1846	6.67	-8.09	0.01
123	SLU 60	-13	-152	1908	6.62	-7.96	0.01
123	SLU 61	-14	-160	1909	6.97	-8.55	0.01
123	SLU 62	-13	-152	1908	6.62	-7.96	0.01
123	SLU 63	-14	-160	1909	6.97	-8.55	0.01
123	SLU 64	-12	-138	1771	6	-6.97	0.01
123	SLU 65	-13	-151	1771	6.59	-7.95	0.01
123	SLU 66	-12	-138	1771	6	-6.97	0.01
123	SLU 67	-12	-146	1771	6.35	-7.56	0.01
123	SLU 68	-13	-151	1771	6.59	-7.95	0.01
123	SLU 69	-12	-138	1771	6	-6.97	0.01
123	SLU 70	-12	-146	1771	6.35	-7.56	0.01
123	SLU 71	-12	-138	1771	6	-6.97	0.01
123	SLU 72	-12	-146	1771	6.35	-7.56	0.01
123	SLU 73	-14	-167	1917	7.3	-9.03	0.01
123	SLU 74	-14	-154	1917	6.71	-8.05	0.01
123	SLU 75	-14	-162	1917	7.06	-8.63	0.01
123	SLU 76	-14	-167	1917	7.3	-9.03	0.01
123	SLU 77	-14	-154	1917	6.71	-8.05	0.01
123	SLU 78	-14	-162	1917	7.06	-8.63	0.01
123	SLU 79	-14	-154	1917	6.71	-8.05	0.01
123	SLU 80	-14	-162	1917	7.06	-8.63	0.01
123	SLU 81	-14	-161	1980	7.02	-8.51	0.01
123	SLU 82	-15	-169	1980	7.37	-9.1	0.01
123	SLU 83	-14	-161	1980	7.02	-8.51	0.01
123	SLU 84	-15	-169	1980	7.37	-9.1	0.01
123	SLE RA 1	-9	-104	1346	4.53	-5.24	0
123	SLE RA 2	-9	-113	1347	4.92	-5.9	0
123	SLE RA 3	-9	-104	1346	4.53	-5.24	0
123	SLE RA 4	-9	-109	1347	4.76	-5.63	0
123	SLE RA 5	-9	-113	1347	4.92	-5.9	0
123	SLE RA 6	-9	-104	1346	4.53	-5.24	0
123	SLE RA 7	-9	-109	1347	4.76	-5.63	0
123	SLE RA 8	-9	-104	1346	4.53	-5.24	0
123	SLE RA 9	-9	-109	1347	4.76	-5.63	0
123	SLE RA 10	-11	-124	1444	5.39	-6.61	0
123	SLE RA 11	-10	-115	1444	5	-5.96	0
123	SLE RA 12	-10	-120	1444	5.24	-6.35	0
123	SLE RA 13	-11	-124	1444	5.39	-6.61	0
123	SLE RA 14	-10	-115	1444	5	-5.96	0
123	SLE RA 15	-10	-120	1444	5.24	-6.35	0
123	SLE RA 16	-10	-115	1444	5	-5.96	0
123	SLE RA 17	-10	-120	1444	5.24	-6.35	0
123	SLE RA 18	-11	-120	1486	5.21	-6.27	0
123	SLE RA 19	-11	-125	1486	5.44	-6.66	0
123	SLE RA 20	-11	-120	1486	5.21	-6.27	0
123	SLE RA 21	-11	-125	1486	5.44	-6.66	0
123	SLE FR 1	-9	-104	1346	4.53	-5.24	0





Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
123	SLE FR 2	-9	-106	1346	4.61	-5.37	0
123	SLE FR 3	-9	-104	1346	4.53	-5.24	0
123	SLE FR 4	-9	-111	1388	4.81	-5.68	0
123	SLE FR 5	-9	-109	1388	4.73	-5.55	0
123	SLE FR 6	-10	-112	1416	4.87	-5.76	0
123	SLE QP 1	-9	-104	1346	4.53	-5.24	0
123	SLE QP 2	-9	-109	1388	4.73	-5.55	0
123	SLD 1	20	-18	1538	0.93	16.26	-0.01
123	SLD 2	20	-18	1538	0.93	16.26	-0.01
123	SLD 3	16	-152	1574	6.43	13.03	-0.01
123	SLD 4	16	-152	1574	6.43	13.03	-0.01
123	SLD 5	6	122	1379	-4.75	5.9	-0.01
123	SLD 6	6	122	1379	-4.75	5.9	-0.01
123	SLD 7	-8	-325	1499	13.58	-4.88	0.01
123	SLD 8	-8	-325	1499	13.58	-4.88	0.01
123	SLD 9	-11	107	1278	-4.12	-6.22	0
123	SLD 10	-11	107	1278	-4.12	-6.22	0
123	SLD 11	-24	-340	1398	14.21	-17	0.01
123	SLD 12	-24	-340	1398	14.21	-17	0.01
123	SLD 13	-35	-66	1202	3.04	-24.13	0.02
123	SLD 14	-35	-66	1202	3.04	-24.13	0.02
123	SLD 15	-39	-200	1238	8.54	-27.36	0.02
123	SLD 16	-39	-200	1238	8.54	-27.36	0.02
123	SLV 1	61	107	1737	-4.27	46.13	-0.03
123	SLV 2	61	107	1737	-4.27	46.13	-0.03
123	SLV 3	50	-210	1826	8.75	37.49	-0.02
123	SLV 4	50	-210	1826	8.75	37.49	-0.02
123	SLV 5	27	437	1357	-17.71	23.05	-0.02
123	SLV 6	27	437	1357	-17.71	23.05	-0.02
123	SLV 7	-7	-621	1655	25.68	-5.74	0.01
123	SLV 8	-7	-621	1655	25.68	-5.74	0.01
123	SLV 9	-12	403	1121	-16.22	-5.37	0
123	SLV 10	-12	403	1121	-16.22	-5.37	0
123	SLV 11	-46	-655	1419	27.18	-34.15	0.03
123	SLV 12	-46	-655	1419	27.18	-34.15	0.03
123	SLV 13	-69	-8	950	0.72	-48.59	0.03
123	SLV 14	-69	-8	950	0.72	-48.59	0.03
123	SLV 15	-79	-325	1039	13.73	-57.23	0.04
123	SLV 16	-79	-325	1039	13.73	-57.23	0.04
124	SLU 1	-4	-101	879	4.35	-2.47	0
124	SLU 2	-4	-138	892	5.88	-2.5	0
124	SLU 3	-4	-101	879	4.35	-2.47	0
124	SLU 4	-4	-123	887	5.27	-2.49	0
124	SLU 5	-4	-138	892	5.88	-2.5	0
124	SLU 6	-4	-101	879	4.35	-2.47	0
124	SLU 7	-4	-123	887	5.27	-2.49	0
124	SLU 8	-4	-101	879	4.35	-2.47	0
124	SLU 9	-4	-123	887	5.27	-2.49	0
124	SLU 10	-5	-176	1038	7.47	-3.35	0
124	SLU 11	-5	-139	1025	5.94	-3.32	0
124	SLU 12	-5	-161	1033	6.85	-3.34	0
124	SLU 13	-5	-176	1038	7.47	-3.35	0
124	SLU 14	-5	-139	1025	5.94	-3.32	0
124	SLU 15	-5	-161	1033	6.85	-3.34	0
124	SLU 16	-5	-139	1025	5.94	-3.32	0
124	SLU 17	-5	-161	1033	6.85	-3.34	0
124	SLU 18	-6	-155	1088	6.62	-3.69	0
124	SLU 19	-6	-177	1095	7.54	-3.7	0
124	SLU 20	-6	-155	1088	6.62	-3.69	0
124	SLU 21	-6	-177	1095	7.54	-3.7	0
124	SLU 22	-5	-120	953	5.14	-2.9	0
124	SLU 23	-5	-157	966	6.67	-2.92	0
124	SLU 24	-5	-120	953	5.14	-2.9	0
124	SLU 25	-5	-142	961	6.06	-2.91	0
124	SLU 26	-5	-157	966	6.67	-2.92	0
124	SLU 27	-5	-120	953	5.14	-2.9	0
124	SLU 28	-5	-142	961	6.06	-2.91	0
124	SLU 29	-5	-120	953	5.14	-2.9	0
124	SLU 30	-5	-142	961	6.06	-2.91	0
124	SLU 31	-6	-195	1111	8.26	-3.77	0
124	SLU 32	-6	-158	1099	6.73	-3.75	0
124	SLU 33	-6	-180	1107	7.65	-3.76	0
124	SLU 34	-6	-195	1111	8.26	-3.77	0
124	SLU 35	-6	-158	1099	6.73	-3.75	0
124	SLU 36	-6	-180	1107	7.65	-3.76	0
124	SLU 37	-6	-158	1099	6.73	-3.75	0
124	SLU 38	-6	-180	1107	7.65	-3.76	0
124	SLU 39	-6	-174	1162	7.41	-4.11	0
124	SLU 40	-6	-196	1169	8.33	-4.12	0
124	SLU 41	-6	-174	1162	7.41	-4.11	0
124	SLU 42	-6	-196	1169	8.33	-4.12	0
124	SLU 43	-5	-125	1118	5.38	-3.07	0
124	SLU 44	-5	-162	1130	6.91	-3.09	0
124	SLU 45	-5	-125	1118	5.38	-3.07	0
124	SLU 46	-5	-147	1125	6.3	-3.09	0
124	SLU 47	-5	-162	1130	6.91	-3.09	0
124	SLU 48	-5	-125	1118	5.38	-3.07	0
124	SLU 49	-5	-147	1125	6.3	-3.09	0
124	SLU 50	-5	-125	1118	5.38	-3.07	0
124	SLU 51	-5	-147	1125	6.3	-3.09	0



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
124	SLU 52	-6	-200	1276	8.5	-3.94	0
124	SLU 53	-6	-163	1264	6.97	-3.92	0
124	SLU 54	-6	-185	1271	7.89	-3.93	0
124	SLU 55	-6	-200	1276	8.5	-3.94	0
124	SLU 56	-6	-163	1264	6.97	-3.92	0
124	SLU 57	-6	-185	1271	7.89	-3.93	0
124	SLU 58	-6	-163	1264	6.97	-3.92	0
124	SLU 59	-6	-185	1271	7.89	-3.93	0
124	SLU 60	-7	-179	1326	7.65	-4.28	0
124	SLU 61	-7	-201	1334	8.57	-4.3	0
124	SLU 62	-7	-179	1326	7.65	-4.28	0
124	SLU 63	-7	-201	1334	8.57	-4.3	0
124	SLU 64	-5	-144	1192	6.17	-3.49	0
124	SLU 65	-5	-181	1204	7.71	-3.52	0
124	SLU 66	-5	-144	1192	6.17	-3.49	0
124	SLU 67	-5	-166	1199	7.09	-3.51	0
124	SLU 68	-5	-181	1204	7.71	-3.52	0
124	SLU 69	-5	-144	1192	6.17	-3.49	0
124	SLU 70	-5	-166	1199	7.09	-3.51	0
124	SLU 71	-5	-144	1192	6.17	-3.49	0
124	SLU 72	-5	-166	1199	7.09	-3.51	0
124	SLU 73	-7	-219	1350	9.29	-4.37	0
124	SLU 74	-7	-182	1338	7.76	-4.34	0
124	SLU 75	-7	-204	1345	8.68	-4.36	0
124	SLU 76	-7	-219	1350	9.29	-4.37	0
124	SLU 77	-7	-182	1338	7.76	-4.34	0
124	SLU 78	-7	-204	1345	8.68	-4.36	0
124	SLU 79	-7	-182	1338	7.76	-4.34	0
124	SLU 80	-7	-204	1345	8.68	-4.36	0
124	SLU 81	-7	-198	1400	8.44	-4.71	0
124	SLU 82	-7	-220	1408	9.36	-4.72	0
124	SLU 83	-7	-198	1400	8.44	-4.71	0
124	SLU 84	-7	-220	1408	9.36	-4.72	0
124	SLE RA 1	-4	-107	901	4.57	-2.6	0
124	SLE RA 2	-4	-131	909	5.6	-2.61	0
124	SLE RA 3	-4	-107	901	4.57	-2.6	0
124	SLE RA 4	-4	-121	905	5.19	-2.6	0
124	SLE RA 5	-4	-131	909	5.6	-2.61	0
124	SLE RA 6	-4	-107	901	4.57	-2.6	0
124	SLE RA 7	-4	-121	905	5.19	-2.6	0
124	SLE RA 8	-4	-107	901	4.57	-2.6	0
124	SLE RA 9	-4	-121	905	5.19	-2.6	0
124	SLE RA 10	-5	-156	1006	6.65	-3.18	0
124	SLE RA 11	-5	-132	998	5.63	-3.16	0
124	SLE RA 12	-5	-147	1003	6.25	-3.17	0
124	SLE RA 13	-5	-156	1006	6.65	-3.18	0
124	SLE RA 14	-5	-132	998	5.63	-3.16	0
124	SLE RA 15	-5	-147	1003	6.25	-3.17	0
124	SLE RA 16	-5	-132	998	5.63	-3.16	0
124	SLE RA 17	-5	-147	1003	6.25	-3.17	0
124	SLE RA 18	-5	-143	1039	6.09	-3.4	0
124	SLE RA 19	-5	-157	1044	6.7	-3.41	0
124	SLE RA 20	-5	-143	1039	6.09	-3.4	0
124	SLE RA 21	-5	-157	1044	6.7	-3.41	0
124	SLE FR 1	-4	-107	901	4.57	-2.6	0
124	SLE FR 2	-4	-112	902	4.78	-2.6	0
124	SLE FR 3	-4	-107	901	4.57	-2.6	0
124	SLE FR 4	-4	-122	944	5.23	-2.84	0
124	SLE FR 5	-4	-117	942	5.03	-2.84	0
124	SLE FR 6	-5	-125	970	5.33	-3	0
124	SLE QP 1	-4	-107	901	4.57	-2.6	0
124	SLE QP 2	-4	-117	942	5.03	-2.84	0
124	SLD 1	13	-37	753	1.8	7.56	0
124	SLD 2	13	-37	753	1.8	7.56	0
124	SLD 3	11	-141	796	6	9.35	0
124	SLD 4	11	-141	796	6	9.35	0
124	SLD 5	4	65	821	-2.3	-2.43	0
124	SLD 6	4	65	821	-2.3	-2.43	0
124	SLD 7	-3	-283	963	11.68	3.53	0
124	SLD 8	-3	-283	963	11.68	3.53	0
124	SLD 9	-6	48	921	-1.62	-9.21	0
124	SLD 10	-6	48	921	-1.62	-9.21	0
124	SLD 11	-13	-300	1064	12.35	-3.24	0
124	SLD 12	-13	-300	1064	12.35	-3.24	0
124	SLD 13	-20	-94	1088	4.06	-15.03	0
124	SLD 14	-20	-94	1088	4.06	-15.03	0
124	SLD 15	-22	-198	1131	8.25	-13.24	0
124	SLD 16	-22	-198	1131	8.25	-13.24	0
124	SLV 1	37	79	494	-2.84	21.51	0.01
124	SLV 2	37	79	494	-2.84	21.51	0.01
124	SLV 3	31	-174	602	7.3	26	0.01
124	SLV 4	31	-174	602	7.3	26	0.01
124	SLV 5	16	325	643	-12.71	-2.35	0.01
124	SLV 6	16	325	643	-12.71	-2.35	0.01
124	SLV 7	-2	-518	1005	21.08	12.63	0
124	SLV 8	-2	-518	1005	21.08	12.63	0
124	SLV 9	-7	283	880	-11.03	-18.3	0
124	SLV 10	-7	283	880	-11.03	-18.3	0
124	SLV 11	-25	-560	1241	22.76	-3.33	-0.01
124	SLV 12	-25	-560	1241	22.76	-3.33	-0.01



Nodo	Cont.	Reazione a traslazione				Reazione a rotazione		
		x	y	z		x	y	z
124	SLV 13	-40	-61	1282		2.76	-31.68	-0.01
124	SLV 14	-40	-61	1282		2.76	-31.68	-0.01
124	SLV 15	-46	-314	1390		12.89	-27.19	-0.01
124	SLV 16	-46	-314	1390		12.89	-27.19	-0.01
125	SLU 1	-1	-110	1987		4.69	-1.07	0
125	SLU 2	0	-131	1991		5.5	-0.2	0
125	SLU 3	-1	-110	1987		4.69	-1.07	0
125	SLU 4	0	-122	1989		5.17	-0.55	0
125	SLU 5	0	-131	1991		5.5	-0.2	0
125	SLU 6	-1	-110	1987		4.69	-1.07	0
125	SLU 7	0	-122	1989		5.17	-0.55	0
125	SLU 8	-1	-110	1987		4.69	-1.07	0
125	SLU 9	0	-122	1989		5.17	-0.55	0
125	SLU 10	0	-101	2236		4.42	-1.06	0
125	SLU 11	-1	-80	2231		3.61	-1.93	0
125	SLU 12	-1	-92	2234		4.09	-1.41	0
125	SLU 13	0	-101	2236		4.42	-1.06	0
125	SLU 14	-1	-80	2231		3.61	-1.93	0
125	SLU 15	-1	-92	2234		4.09	-1.41	0
125	SLU 16	-1	-80	2231		3.61	-1.93	0
125	SLU 17	-1	-92	2234		4.09	-1.41	0
125	SLU 18	-1	-67	2336		3.14	-2.3	0
125	SLU 19	-1	-79	2339		3.63	-1.78	0
125	SLU 20	-1	-67	2336		3.14	-2.3	0
125	SLU 21	-1	-79	2339		3.63	-1.78	0
125	SLU 22	-1	-100	2128		4.35	-1.5	0
125	SLU 23	0	-121	2132		5.15	-0.63	0
125	SLU 24	-1	-100	2128		4.35	-1.5	0
125	SLU 25	0	-112	2131		4.83	-0.98	0
125	SLU 26	0	-121	2132		5.15	-0.63	0
125	SLU 27	-1	-100	2128		4.35	-1.5	0
125	SLU 28	0	-112	2131		4.83	-0.98	0
125	SLU 29	-1	-100	2128		4.35	-1.5	0
125	SLU 30	0	-112	2131		4.83	-0.98	0
125	SLU 31	0	-90	2377		4.07	-1.49	0
125	SLU 32	-1	-70	2373		3.27	-2.36	0
125	SLU 33	-1	-82	2375		3.75	-1.84	0
125	SLU 34	0	-90	2377		4.07	-1.49	0
125	SLU 35	-1	-70	2373		3.27	-2.36	0
125	SLU 36	-1	-82	2375		3.75	-1.84	0
125	SLU 37	-1	-70	2373		3.27	-2.36	0
125	SLU 38	-1	-82	2375		3.75	-1.84	0
125	SLU 39	-2	-57	2477		2.8	-2.73	0
125	SLU 40	-1	-69	2480		3.29	-2.21	0
125	SLU 41	-2	-57	2477		2.8	-2.73	0
125	SLU 42	-1	-69	2480		3.29	-2.21	0
125	SLU 43	-1	-146	2534		6.21	-1.25	0
125	SLU 44	0	-167	2539		7.02	-0.38	0
125	SLU 45	-1	-146	2534		6.21	-1.25	0
125	SLU 46	0	-159	2537		6.7	-0.73	0
125	SLU 47	0	-167	2539		7.02	-0.38	0
125	SLU 48	-1	-146	2534		6.21	-1.25	0
125	SLU 49	0	-159	2537		6.7	-0.73	0
125	SLU 50	-1	-146	2534		6.21	-1.25	0
125	SLU 51	0	-159	2537		6.7	-0.73	0
125	SLU 52	0	-137	2783		5.94	-1.24	0
125	SLU 53	-1	-116	2779		5.13	-2.11	0
125	SLU 54	-1	-129	2782		5.62	-1.59	0
125	SLU 55	0	-137	2783		5.94	-1.24	0
125	SLU 56	-1	-116	2779		5.13	-2.11	0
125	SLU 57	-1	-129	2782		5.62	-1.59	0
125	SLU 58	-1	-116	2779		5.13	-2.11	0
125	SLU 59	-1	-129	2782		5.62	-1.59	0
125	SLU 60	-1	-103	2884		4.67	-2.48	0
125	SLU 61	-1	-116	2886		5.15	-1.96	0
125	SLU 62	-1	-103	2884		4.67	-2.48	0
125	SLU 63	-1	-116	2886		5.15	-1.96	0
125	SLU 64	-1	-136	2676		5.87	-1.68	0
125	SLU 65	0	-157	2680		6.68	-0.81	0
125	SLU 66	-1	-136	2676		5.87	-1.68	0
125	SLU 67	0	-149	2678		6.35	-1.15	0
125	SLU 68	0	-157	2680		6.68	-0.81	0
125	SLU 69	-1	-136	2676		5.87	-1.68	0
125	SLU 70	0	-149	2678		6.35	-1.15	0
125	SLU 71	-1	-136	2676		5.87	-1.68	0
125	SLU 72	0	-149	2678		6.35	-1.15	0
125	SLU 73	-1	-127	2925		5.6	-1.67	0
125	SLU 74	-1	-106	2920		4.79	-2.54	0
125	SLU 75	-1	-118	2923		5.27	-2.02	0
125	SLU 76	-1	-127	2925		5.6	-1.67	0
125	SLU 77	-1	-106	2920		4.79	-2.54	0
125	SLU 78	-1	-118	2923		5.27	-2.02	0
125	SLU 79	-1	-106	2920		4.79	-2.54	0
125	SLU 80	-1	-118	2923		5.27	-2.02	0
125	SLU 81	-2	-93	3025		4.33	-2.91	0
125	SLU 82	-1	-106	3028		4.81	-2.39	0
125	SLU 83	-2	-93	3025		4.33	-2.91	0
125	SLU 84	-1	-106	3028		4.81	-2.39	0
125	SLE RA 1	-1	-107	2027		4.59	-1.19	0
125	SLE RA 2	0	-121	2030		5.13	-0.62	0



Nodo	Cont.	Reazione a traslazione				Reazione a rotazione		
		x	y	z		x	y	z
Ind.	N.br.							
125	SLE RA 3	-1	-107	2027	4.59	-1.19	0	
125	SLE RA 4	0	-115	2029	4.91	-0.85	0	
125	SLE RA 5	0	-121	2030	5.13	-0.62	0	
125	SLE RA 6	-1	-107	2027	4.59	-1.19	0	
125	SLE RA 7	0	-115	2029	4.91	-0.85	0	
125	SLE RA 8	-1	-107	2027	4.59	-1.19	0	
125	SLE RA 9	0	-115	2029	4.91	-0.85	0	
125	SLE RA 10	0	-101	2193	4.41	-1.19	0	
125	SLE RA 11	-1	-87	2190	3.87	-1.77	0	
125	SLE RA 12	-1	-95	2192	4.19	-1.42	0	
125	SLE RA 13	0	-101	2193	4.41	-1.19	0	
125	SLE RA 14	-1	-87	2190	3.87	-1.77	0	
125	SLE RA 15	-1	-95	2192	4.19	-1.42	0	
125	SLE RA 16	-1	-87	2190	3.87	-1.77	0	
125	SLE RA 17	-1	-95	2192	4.19	-1.42	0	
125	SLE RA 18	-1	-78	2260	3.56	-2.02	0	
125	SLE RA 19	-1	-87	2262	3.88	-1.67	0	
125	SLE RA 20	-1	-78	2260	3.56	-2.02	0	
125	SLE RA 21	-1	-87	2262	3.88	-1.67	0	
125	SLE FR 1	-1	-107	2027	4.59	-1.19	0	
125	SLE FR 2	-1	-110	2028	4.7	-1.08	0	
125	SLE FR 3	-1	-107	2027	4.59	-1.19	0	
125	SLE FR 4	-1	-101	2098	4.39	-1.33	0	
125	SLE FR 5	-1	-98	2097	4.28	-1.44	0	
125	SLE FR 6	-1	-92	2144	4.08	-1.6	0	
125	SLE QP 1	-1	-107	2027	4.59	-1.19	0	
125	SLE QP 2	-1	-98	2097	4.28	-1.44	0	
125	SLD 1	24	-60	1946	2.63	20.17	-0.01	
125	SLD 2	24	-60	1946	2.63	20.17	-0.01	
125	SLD 3	35	-206	1999	8.84	29.33	-0.02	
125	SLD 4	35	-206	1999	8.84	29.33	-0.02	
125	SLD 5	-9	134	1971	-5.64	-8.85	0.01	
125	SLD 6	-9	134	1971	-5.64	-8.85	0.01	
125	SLD 7	26	-351	2149	15.08	21.68	-0.02	
125	SLD 8	26	-351	2149	15.08	21.68	-0.02	
125	SLD 9	-27	155	2045	-6.52	-24.56	0.02	
125	SLD 10	-27	155	2045	-6.52	-24.56	0.02	
125	SLD 11	8	-330	2223	14.21	5.97	-0.01	
125	SLD 12	8	-330	2223	14.21	5.97	-0.01	
125	SLD 13	-36	9	2195	-0.28	-32.21	0.02	
125	SLD 14	-36	9	2195	-0.28	-32.21	0.02	
125	SLD 15	-26	-136	2248	5.94	-23.05	0.01	
125	SLD 16	-26	-136	2248	5.94	-23.05	0.01	
125	SLV 1	60	-8	1741	0.37	51.49	-0.02	
125	SLV 2	60	-8	1741	0.37	51.49	-0.02	
125	SLV 3	87	-353	1869	15.1	75.62	-0.05	
125	SLV 4	87	-353	1869	15.1	75.62	-0.05	
125	SLV 5	-24	452	1796	-19.23	-22.15	0.03	
125	SLV 6	-24	452	1796	-19.23	-22.15	0.03	
125	SLV 7	67	-698	2223	29.87	58.27	-0.05	
125	SLV 8	67	-698	2223	29.87	58.27	-0.05	
125	SLV 9	-68	501	1971	-21.3	-61.15	0.05	
125	SLV 10	-68	501	1971	-21.3	-61.15	0.05	
125	SLV 11	22	-648	2398	27.8	19.27	-0.03	
125	SLV 12	22	-648	2398	27.8	19.27	-0.03	
125	SLV 13	-88	157	2325	-6.53	-78.5	0.05	
125	SLV 14	-88	157	2325	-6.53	-78.5	0.05	
125	SLV 15	-61	-188	2453	8.2	-54.37	0.02	
125	SLV 16	-61	-188	2453	8.2	-54.37	0.02	
126	SLU 1	-7	-86	1355	3.53	-4.36	0	
126	SLU 2	-8	-98	1353	3.97	-5.13	0	
126	SLU 3	-7	-86	1355	3.53	-4.36	0	
126	SLU 4	-8	-93	1354	3.79	-4.82	0	
126	SLU 5	-8	-98	1353	3.97	-5.13	0	
126	SLU 6	-7	-86	1355	3.53	-4.36	0	
126	SLU 7	-8	-93	1354	3.79	-4.82	0	
126	SLU 8	-7	-86	1355	3.53	-4.36	0	
126	SLU 9	-8	-93	1354	3.79	-4.82	0	
126	SLU 10	-10	-104	1507	4.24	-6.1	0	
126	SLU 11	-9	-92	1509	3.81	-5.33	0	
126	SLU 12	-9	-99	1508	4.07	-5.79	0	
126	SLU 13	-10	-104	1507	4.24	-6.1	0	
126	SLU 14	-9	-92	1509	3.81	-5.33	0	
126	SLU 15	-9	-99	1508	4.07	-5.79	0	
126	SLU 16	-9	-92	1509	3.81	-5.33	0	
126	SLU 17	-9	-99	1508	4.07	-5.79	0	
126	SLU 18	-10	-94	1575	3.93	-5.74	0	
126	SLU 19	-10	-102	1574	4.19	-6.21	0	
126	SLU 20	-10	-94	1575	3.93	-5.74	0	
126	SLU 21	-10	-102	1574	4.19	-6.21	0	
126	SLU 22	-8	-90	1430	3.73	-4.85	0	
126	SLU 23	-9	-102	1428	4.16	-5.62	0	
126	SLU 24	-8	-90	1430	3.73	-4.85	0	
126	SLU 25	-8	-98	1429	3.99	-5.31	0	
126	SLU 26	-9	-102	1428	4.16	-5.62	0	
126	SLU 27	-8	-90	1430	3.73	-4.85	0	
126	SLU 28	-8	-98	1429	3.99	-5.31	0	
126	SLU 29	-8	-90	1430	3.73	-4.85	0	
126	SLU 30	-8	-98	1429	3.99	-5.31	0	
126	SLU 31	-10	-109	1582	4.44	-6.58	0	



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
126	SLU 32	-10	-96	1584	4.01	-5.82	0
126	SLU 33	-10	-104	1583	4.27	-6.28	0
126	SLU 34	-10	-109	1582	4.44	-6.58	0
126	SLU 35	-10	-96	1584	4.01	-5.82	0
126	SLU 36	-10	-104	1583	4.27	-6.28	0
126	SLU 37	-10	-96	1584	4.01	-5.82	0
126	SLU 38	-10	-104	1583	4.27	-6.28	0
126	SLU 39	-11	-99	1650	4.12	-6.23	0
126	SLU 40	-11	-106	1648	4.39	-6.69	0
126	SLU 41	-11	-99	1650	4.12	-6.23	0
126	SLU 42	-11	-106	1648	4.39	-6.69	0
126	SLU 43	-9	-110	1736	4.52	-5.5	0
126	SLU 44	-10	-122	1734	4.96	-6.27	0
126	SLU 45	-9	-110	1736	4.52	-5.5	0
126	SLU 46	-10	-117	1735	4.79	-5.97	0
126	SLU 47	-10	-122	1734	4.96	-6.27	0
126	SLU 48	-9	-110	1736	4.52	-5.5	0
126	SLU 49	-10	-117	1735	4.79	-5.97	0
126	SLU 50	-9	-110	1736	4.52	-5.5	0
126	SLU 51	-10	-117	1735	4.79	-5.97	0
126	SLU 52	-11	-128	1888	5.24	-7.24	0
126	SLU 53	-11	-116	1890	4.8	-6.47	0
126	SLU 54	-11	-123	1889	5.06	-6.93	0
126	SLU 55	-11	-128	1888	5.24	-7.24	0
126	SLU 56	-11	-116	1890	4.8	-6.47	0
126	SLU 57	-11	-123	1889	5.06	-6.93	0
126	SLU 58	-11	-116	1890	4.8	-6.47	0
126	SLU 59	-11	-123	1889	5.06	-6.93	0
126	SLU 60	-12	-119	1956	4.92	-6.89	0
126	SLU 61	-12	-126	1955	5.18	-7.35	0
126	SLU 62	-12	-119	1956	4.92	-6.89	0
126	SLU 63	-12	-126	1955	5.18	-7.35	0
126	SLU 64	-10	-114	1811	4.72	-5.99	0
126	SLU 65	-11	-127	1809	5.16	-6.76	0
126	SLU 66	-10	-114	1811	4.72	-5.99	0
126	SLU 67	-10	-122	1810	4.98	-6.45	0
126	SLU 68	-11	-127	1809	5.16	-6.76	0
126	SLU 69	-10	-114	1811	4.72	-5.99	0
126	SLU 70	-10	-122	1810	4.98	-6.45	0
126	SLU 71	-10	-114	1811	4.72	-5.99	0
126	SLU 72	-10	-122	1810	4.98	-6.45	0
126	SLU 73	-12	-133	1963	5.43	-7.73	0
126	SLU 74	-12	-120	1965	5	-6.96	0
126	SLU 75	-12	-128	1963	5.26	-7.42	0
126	SLU 76	-12	-133	1963	5.43	-7.73	0
126	SLU 77	-12	-120	1965	5	-6.96	0
126	SLU 78	-12	-128	1963	5.26	-7.42	0
126	SLU 79	-12	-120	1965	5	-6.96	0
126	SLU 80	-12	-128	1963	5.26	-7.42	0
126	SLU 81	-12	-123	2030	5.12	-7.37	0
126	SLU 82	-13	-130	2029	5.38	-7.83	0
126	SLU 83	-12	-123	2030	5.12	-7.37	0
126	SLU 84	-13	-130	2029	5.38	-7.83	0
126	SLE RA 1	-8	-87	1376	3.59	-4.5	0
126	SLE RA 2	-8	-95	1375	3.88	-5.01	0
126	SLE RA 3	-8	-87	1376	3.59	-4.5	0
126	SLE RA 4	-8	-92	1376	3.76	-4.81	0
126	SLE RA 5	-8	-95	1375	3.88	-5.01	0
126	SLE RA 6	-8	-87	1376	3.59	-4.5	0
126	SLE RA 7	-8	-92	1376	3.76	-4.81	0
126	SLE RA 8	-8	-87	1376	3.59	-4.5	0
126	SLE RA 9	-8	-92	1376	3.76	-4.81	0
126	SLE RA 10	-9	-99	1478	4.06	-5.66	0
126	SLE RA 11	-9	-91	1479	3.77	-5.15	0
126	SLE RA 12	-9	-96	1478	3.95	-5.45	0
126	SLE RA 13	-9	-99	1478	4.06	-5.66	0
126	SLE RA 14	-9	-91	1479	3.77	-5.15	0
126	SLE RA 15	-9	-96	1478	3.95	-5.45	0
126	SLE RA 16	-9	-91	1479	3.77	-5.15	0
126	SLE RA 17	-9	-96	1478	3.95	-5.45	0
126	SLE RA 18	-9	-93	1523	3.85	-5.42	0
126	SLE RA 19	-9	-98	1522	4.03	-5.73	0
126	SLE RA 20	-9	-93	1523	3.85	-5.42	0
126	SLE RA 21	-9	-98	1522	4.03	-5.73	0
126	SLE FR 1	-8	-87	1376	3.59	-4.5	0
126	SLE FR 2	-8	-89	1376	3.65	-4.6	0
126	SLE FR 3	-8	-87	1376	3.59	-4.5	0
126	SLE FR 4	-8	-90	1420	3.73	-4.88	0
126	SLE FR 5	-8	-89	1420	3.67	-4.78	0
126	SLE FR 6	-8	-90	1450	3.72	-4.96	0
126	SLE QP 1	-8	-87	1376	3.59	-4.5	0
126	SLE QP 2	-8	-89	1420	3.67	-4.78	0
126	SLD 1	19	-1	1548	0.08	15.16	-0.01
126	SLD 2	19	-1	1548	0.08	15.16	-0.01
126	SLD 3	14	-132	1587	5.5	11.46	0
126	SLD 4	14	-132	1587	5.5	11.46	0
126	SLD 5	8	136	1400	-5.63	6.81	-0.01
126	SLD 6	8	136	1400	-5.63	6.81	-0.01
126	SLD 7	-9	-300	1529	12.44	-5.51	0.01
126	SLD 8	-9	-300	1529	12.44	-5.51	0.01



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
126	SLD 9	-7	123	1312	-5.1	-4.04	0
126	SLD 10	-7	123	1312	-5.1	-4.04	0
126	SLD 11	-24	-314	1440	12.97	-16.36	0.01
126	SLD 12	-24	-314	1440	12.97	-16.36	0.01
126	SLD 13	-30	-45	1254	1.83	-21.01	0.01
126	SLD 14	-30	-45	1254	1.83	-21.01	0.01
126	SLD 15	-35	-176	1293	7.25	-24.71	0.01
126	SLD 16	-35	-176	1293	7.25	-24.71	0.01
126	SLV 1	56	119	1717	-4.84	42.54	-0.02
126	SLV 2	56	119	1717	-4.84	42.54	-0.02
126	SLV 3	42	-191	1811	7.98	32.78	-0.01
126	SLV 4	42	-191	1811	7.98	32.78	-0.01
126	SLV 5	31	443	1367	-18.34	24.24	-0.02
126	SLV 6	31	443	1367	-18.34	24.24	-0.02
126	SLV 7	-13	-589	1680	24.41	-8.33	0.02
126	SLV 8	-13	-589	1680	24.41	-8.33	0.02
126	SLV 9	-3	411	1161	-17.08	-1.23	-0.01
126	SLV 10	-3	411	1161	-17.08	-1.23	-0.01
126	SLV 11	-47	-620	1473	25.67	-33.79	0.03
126	SLV 12	-47	-620	1473	25.67	-33.79	0.03
126	SLV 13	-58	13	1030	-0.65	-42.33	0.01
126	SLV 14	-58	13	1030	-0.65	-42.33	0.01
126	SLV 15	-72	-296	1123	12.18	-52.1	0.02
126	SLV 16	-72	-296	1123	12.18	-52.1	0.02
127	SLU 1	-3	-83	893	3.33	-2.09	0
127	SLU 2	-3	-117	904	4.68	-2.11	0
127	SLU 3	-3	-83	893	3.33	-2.09	0
127	SLU 4	-3	-104	899	4.14	-2.1	0
127	SLU 5	-3	-117	904	4.68	-2.11	0
127	SLU 6	-3	-83	893	3.33	-2.09	0
127	SLU 7	-3	-104	899	4.14	-2.1	0
127	SLU 8	-3	-83	893	3.33	-2.09	0
127	SLU 9	-3	-104	899	4.14	-2.1	0
127	SLU 10	-4	-144	1053	5.75	-2.82	0
127	SLU 11	-4	-110	1043	4.4	-2.81	0
127	SLU 12	-4	-130	1049	5.21	-2.82	0
127	SLU 13	-4	-144	1053	5.75	-2.82	0
127	SLU 14	-4	-110	1043	4.4	-2.81	0
127	SLU 15	-4	-130	1049	5.21	-2.82	0
127	SLU 16	-4	-110	1043	4.4	-2.81	0
127	SLU 17	-4	-130	1049	5.21	-2.82	0
127	SLU 18	-5	-121	1107	4.86	-3.12	0
127	SLU 19	-5	-142	1113	5.67	-3.12	0
127	SLU 20	-5	-121	1107	4.86	-3.12	0
127	SLU 21	-5	-142	1113	5.67	-3.12	0
127	SLU 22	-4	-96	969	3.86	-2.45	0
127	SLU 23	-4	-130	980	5.22	-2.46	0
127	SLU 24	-4	-96	969	3.86	-2.45	0
127	SLU 25	-4	-117	975	4.67	-2.46	0
127	SLU 26	-4	-130	980	5.22	-2.46	0
127	SLU 27	-4	-96	969	3.86	-2.45	0
127	SLU 28	-4	-117	975	4.67	-2.46	0
127	SLU 29	-4	-96	969	3.86	-2.45	0
127	SLU 30	-4	-117	975	4.67	-2.46	0
127	SLU 31	-5	-157	1129	6.29	-3.18	0
127	SLU 32	-5	-123	1119	4.93	-3.17	0
127	SLU 33	-5	-143	1125	5.74	-3.17	0
127	SLU 34	-5	-157	1129	6.29	-3.18	0
127	SLU 35	-5	-123	1119	4.93	-3.17	0
127	SLU 36	-5	-143	1125	5.74	-3.17	0
127	SLU 37	-5	-123	1119	4.93	-3.17	0
127	SLU 38	-5	-143	1125	5.74	-3.17	0
127	SLU 39	-5	-134	1183	5.39	-3.47	0
127	SLU 40	-5	-155	1189	6.2	-3.48	0
127	SLU 41	-5	-134	1183	5.39	-3.47	0
127	SLU 42	-5	-155	1189	6.2	-3.48	0
127	SLU 43	-4	-104	1135	4.14	-2.6	0
127	SLU 44	-4	-138	1145	5.5	-2.61	0
127	SLU 45	-4	-104	1135	4.14	-2.6	0
127	SLU 46	-4	-124	1141	4.96	-2.61	0
127	SLU 47	-4	-138	1145	5.5	-2.61	0
127	SLU 48	-4	-104	1135	4.14	-2.6	0
127	SLU 49	-4	-124	1141	4.96	-2.61	0
127	SLU 50	-4	-104	1135	4.14	-2.6	0
127	SLU 51	-4	-124	1141	4.96	-2.61	0
127	SLU 52	-5	-164	1295	6.57	-3.33	0
127	SLU 53	-5	-130	1285	5.21	-3.31	0
127	SLU 54	-5	-151	1291	6.03	-3.32	0
127	SLU 55	-5	-164	1295	6.57	-3.33	0
127	SLU 56	-5	-130	1285	5.21	-3.31	0
127	SLU 57	-5	-151	1291	6.03	-3.32	0
127	SLU 58	-5	-130	1285	5.21	-3.31	0
127	SLU 59	-5	-151	1291	6.03	-3.32	0
127	SLU 60	-6	-142	1349	5.67	-3.62	0
127	SLU 61	-6	-162	1355	6.49	-3.63	0
127	SLU 62	-6	-142	1349	5.67	-3.62	0
127	SLU 63	-6	-162	1355	6.49	-3.63	0
127	SLU 64	-5	-117	1211	4.68	-2.95	0
127	SLU 65	-5	-151	1222	6.03	-2.97	0
127	SLU 66	-5	-117	1211	4.68	-2.95	0



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
Ind.	N.br.						
127	SLU 67	-5	-137	1217	5.49	-2.96	0
127	SLU 68	-5	-151	1222	6.03	-2.97	0
127	SLU 69	-5	-117	1211	4.68	-2.95	0
127	SLU 70	-5	-137	1217	5.49	-2.96	0
127	SLU 71	-5	-117	1211	4.68	-2.95	0
127	SLU 72	-5	-137	1217	5.49	-2.96	0
127	SLU 73	-6	-178	1371	7.1	-3.69	0
127	SLU 74	-6	-143	1361	5.75	-3.67	0
127	SLU 75	-6	-164	1367	6.56	-3.68	0
127	SLU 76	-6	-178	1371	7.1	-3.69	0
127	SLU 77	-6	-143	1361	5.75	-3.67	0
127	SLU 78	-6	-164	1367	6.56	-3.68	0
127	SLU 79	-6	-143	1361	5.75	-3.67	0
127	SLU 80	-6	-164	1367	6.56	-3.68	0
127	SLU 81	-6	-155	1425	6.2	-3.98	0
127	SLU 82	-6	-175	1431	7.02	-3.99	0
127	SLU 83	-6	-155	1425	6.2	-3.98	0
127	SLU 84	-6	-175	1431	7.02	-3.99	0
127	SLE RA 1	-3	-87	915	3.48	-2.19	0
127	SLE RA 2	-3	-110	922	4.38	-2.2	0
127	SLE RA 3	-3	-87	915	3.48	-2.19	0
127	SLE RA 4	-3	-101	919	4.02	-2.2	0
127	SLE RA 5	-3	-110	922	4.38	-2.2	0
127	SLE RA 6	-3	-87	915	3.48	-2.19	0
127	SLE RA 7	-3	-101	919	4.02	-2.2	0
127	SLE RA 8	-3	-87	915	3.48	-2.19	0
127	SLE RA 9	-3	-101	919	4.02	-2.2	0
127	SLE RA 10	-4	-127	1022	5.1	-2.68	0
127	SLE RA 11	-4	-105	1015	4.19	-2.67	0
127	SLE RA 12	-4	-118	1019	4.74	-2.68	0
127	SLE RA 13	-4	-127	1022	5.1	-2.68	0
127	SLE RA 14	-4	-105	1015	4.19	-2.67	0
127	SLE RA 15	-4	-118	1019	4.74	-2.68	0
127	SLE RA 16	-4	-105	1015	4.19	-2.67	0
127	SLE RA 17	-4	-118	1019	4.74	-2.68	0
127	SLE RA 18	-4	-112	1057	4.5	-2.88	0
127	SLE RA 19	-4	-126	1062	5.04	-2.88	0
127	SLE RA 20	-4	-112	1057	4.5	-2.88	0
127	SLE RA 21	-4	-126	1062	5.04	-2.88	0
127	SLE FR 1	-3	-87	915	3.48	-2.19	0
127	SLE FR 2	-3	-91	916	3.66	-2.2	0
127	SLE FR 3	-3	-87	915	3.48	-2.19	0
127	SLE FR 4	-4	-99	959	3.97	-2.4	0
127	SLE FR 5	-4	-94	958	3.79	-2.4	0
127	SLE FR 6	-4	-100	986	3.99	-2.54	0
127	SLE QP 1	-3	-87	915	3.48	-2.19	0
127	SLE QP 2	-4	-94	958	3.79	-2.4	0
127	SLD 1	11	-13	788	0.36	6.26	0
127	SLD 2	11	-13	788	0.36	6.26	0
127	SLD 3	8	-116	832	4.67	8.02	0.01
127	SLD 4	8	-116	832	4.67	8.02	0.01
127	SLD 5	4	86	841	-3.77	-2.47	0
127	SLD 6	4	86	841	-3.77	-2.47	0
127	SLD 7	-4	-258	986	10.58	3.4	0
127	SLD 8	-4	-258	986	10.58	3.4	0
127	SLD 9	-4	69	930	-3.01	-8.19	0
127	SLD 10	-4	69	930	-3.01	-8.19	0
127	SLD 11	-12	-275	1075	11.35	-2.33	0
127	SLD 12	-12	-275	1075	11.35	-2.33	0
127	SLD 13	-16	-73	1084	2.9	-12.82	-0.01
127	SLD 14	-16	-73	1084	2.9	-12.82	-0.01
127	SLD 15	-18	-176	1127	7.21	-11.06	-0.01
127	SLD 16	-18	-176	1127	7.21	-11.06	-0.01
127	SLV 1	31	104	554	-4.61	17.86	0.01
127	SLV 2	31	104	554	-4.61	17.86	0.01
127	SLV 3	25	-146	664	5.85	22.29	0.01
127	SLV 4	25	-146	664	5.85	22.29	0.01
127	SLV 5	16	345	670	-14.6	-3.04	0
127	SLV 6	16	345	670	-14.6	-3.04	0
127	SLV 7	-4	-489	1036	20.27	11.73	0.01
127	SLV 8	-4	-489	1036	20.27	11.73	0.01
127	SLV 9	-3	300	879	-12.7	-16.53	-0.01
127	SLV 10	-3	300	879	-12.7	-16.53	-0.01
127	SLV 11	-23	-534	1246	22.17	-1.76	0
127	SLV 12	-23	-534	1246	22.17	-1.76	0
127	SLV 13	-32	-43	1252	1.72	-27.09	-0.02
127	SLV 14	-32	-43	1252	1.72	-27.09	-0.02
127	SLV 15	-38	-293	1361	12.18	-22.66	-0.01
127	SLV 16	-38	-293	1361	12.18	-22.66	-0.01
128	SLU 1	0	-135	1986	5.6	-0.85	0
128	SLU 2	0	-154	1989	6.47	-0.31	0
128	SLU 3	0	-135	1986	5.6	-0.85	0
128	SLU 4	0	-147	1988	6.12	-0.53	0
128	SLU 5	0	-154	1989	6.47	-0.31	0
128	SLU 6	0	-135	1986	5.6	-0.85	0
128	SLU 7	0	-147	1988	6.12	-0.53	0
128	SLU 8	0	-135	1986	5.6	-0.85	0
128	SLU 9	0	-147	1988	6.12	-0.53	0
128	SLU 10	0	-117	2247	4.89	-0.92	0
128	SLU 11	-1	-97	2245	4.02	-1.45	0



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
128	SLU 12	0	-109	2246	4.54	-1.13	0
128	SLU 13	0	-117	2247	4.89	-0.92	0
128	SLU 14	-1	-97	2245	4.02	-1.45	0
128	SLU 15	0	-109	2246	4.54	-1.13	0
128	SLU 16	-1	-97	2245	4.02	-1.45	0
128	SLU 17	0	-109	2246	4.54	-1.13	0
128	SLU 18	-1	-81	2356	3.34	-1.71	0
128	SLU 19	0	-93	2357	3.87	-1.39	0
128	SLU 20	-1	-81	2356	3.34	-1.71	0
128	SLU 21	0	-93	2357	3.87	-1.39	0
128	SLU 22	0	-121	2134	5.02	-1.15	0
128	SLU 23	0	-141	2137	5.89	-0.62	0
128	SLU 24	0	-121	2134	5.02	-1.15	0
128	SLU 25	0	-133	2136	5.54	-0.83	0
128	SLU 26	0	-141	2137	5.89	-0.62	0
128	SLU 27	0	-121	2134	5.02	-1.15	0
128	SLU 28	0	-133	2136	5.54	-0.83	0
128	SLU 29	0	-121	2134	5.02	-1.15	0
128	SLU 30	0	-133	2136	5.54	-0.83	0
128	SLU 31	0	-104	2395	4.32	-1.22	0
128	SLU 32	-1	-84	2393	3.44	-1.75	0
128	SLU 33	0	-96	2394	3.97	-1.43	0
128	SLU 34	0	-104	2395	4.32	-1.22	0
128	SLU 35	-1	-84	2393	3.44	-1.75	0
128	SLU 36	0	-96	2394	3.97	-1.43	0
128	SLU 37	-1	-84	2393	3.44	-1.75	0
128	SLU 38	0	-96	2394	3.97	-1.43	0
128	SLU 39	-1	-68	2504	2.77	-2.01	0
128	SLU 40	-1	-80	2505	3.29	-1.69	0
128	SLU 41	-1	-68	2504	2.77	-2.01	0
128	SLU 42	-1	-80	2505	3.29	-1.69	0
128	SLU 43	0	-180	2532	7.47	-1	0
128	SLU 44	0	-200	2534	8.34	-0.47	0
128	SLU 45	0	-180	2532	7.47	-1	0
128	SLU 46	0	-192	2533	7.99	-0.68	0
128	SLU 47	0	-200	2534	8.34	-0.47	0
128	SLU 48	0	-180	2532	7.47	-1	0
128	SLU 49	0	-192	2533	7.99	-0.68	0
128	SLU 50	0	-180	2532	7.47	-1	0
128	SLU 51	0	-192	2533	7.99	-0.68	0
128	SLU 52	0	-162	2792	6.77	-1.07	0
128	SLU 53	-1	-142	2790	5.89	-1.6	0
128	SLU 54	0	-154	2791	6.42	-1.28	0
128	SLU 55	0	-162	2792	6.77	-1.07	0
128	SLU 56	-1	-142	2790	5.89	-1.6	0
128	SLU 57	0	-154	2791	6.42	-1.28	0
128	SLU 58	-1	-142	2790	5.89	-1.6	0
128	SLU 59	0	-154	2791	6.42	-1.28	0
128	SLU 60	-1	-126	2901	5.22	-1.86	0
128	SLU 61	0	-138	2902	5.74	-1.54	0
128	SLU 62	-1	-126	2901	5.22	-1.86	0
128	SLU 63	0	-138	2902	5.74	-1.54	0
128	SLU 64	0	-166	2680	6.9	-1.3	0
128	SLU 65	0	-186	2682	7.77	-0.77	0
128	SLU 66	0	-166	2680	6.9	-1.3	0
128	SLU 67	0	-178	2681	7.42	-0.98	0
128	SLU 68	0	-186	2682	7.77	-0.77	0
128	SLU 69	0	-166	2680	6.9	-1.3	0
128	SLU 70	0	-178	2681	7.42	-0.98	0
128	SLU 71	0	-166	2680	6.9	-1.3	0
128	SLU 72	0	-178	2681	7.42	-0.98	0
128	SLU 73	0	-149	2940	6.19	-1.37	0
128	SLU 74	-1	-129	2938	5.32	-1.9	0
128	SLU 75	0	-141	2940	5.84	-1.58	0
128	SLU 76	0	-149	2940	6.19	-1.37	0
128	SLU 77	-1	-129	2938	5.32	-1.9	0
128	SLU 78	0	-141	2940	5.84	-1.58	0
128	SLU 79	-1	-129	2938	5.32	-1.9	0
128	SLU 80	0	-141	2940	5.84	-1.58	0
128	SLU 81	-1	-113	3049	4.64	-2.16	0
128	SLU 82	-1	-125	3050	5.17	-1.84	0
128	SLU 83	-1	-113	3049	4.64	-2.16	0
128	SLU 84	-1	-125	3050	5.17	-1.84	0
128	SLE RA 1	0	-131	2029	5.43	-0.93	0
128	SLE RA 2	0	-144	2030	6.01	-0.58	0
128	SLE RA 3	0	-131	2029	5.43	-0.93	0
128	SLE RA 4	0	-139	2030	5.78	-0.72	0
128	SLE RA 5	0	-144	2030	6.01	-0.58	0
128	SLE RA 6	0	-131	2029	5.43	-0.93	0
128	SLE RA 7	0	-139	2030	5.78	-0.72	0
128	SLE RA 8	0	-131	2029	5.43	-0.93	0
128	SLE RA 9	0	-139	2030	5.78	-0.72	0
128	SLE RA 10	0	-119	2203	4.96	-0.98	0
128	SLE RA 11	-1	-106	2201	4.38	-1.33	0
128	SLE RA 12	0	-114	2202	4.73	-1.12	0
128	SLE RA 13	0	-119	2203	4.96	-0.98	0
128	SLE RA 14	-1	-106	2201	4.38	-1.33	0
128	SLE RA 15	0	-114	2202	4.73	-1.12	0
128	SLE RA 16	-1	-106	2201	4.38	-1.33	0
128	SLE RA 17	0	-114	2202	4.73	-1.12	0





Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
128	SLE RA 18	-1	-95	2275	3.93	-1.51	0
128	SLE RA 19	0	-103	2276	4.28	-1.29	0
128	SLE RA 20	-1	-95	2275	3.93	-1.51	0
128	SLE RA 21	0	-103	2276	4.28	-1.29	0
128	SLE FR 1	0	-131	2029	5.43	-0.93	0
128	SLE FR 2	0	-133	2029	5.55	-0.86	0
128	SLE FR 3	0	-131	2029	5.43	-0.93	0
128	SLE FR 4	0	-123	2103	5.1	-1.03	0
128	SLE FR 5	0	-120	2103	4.98	-1.1	0
128	SLE FR 6	0	-113	2152	4.68	-1.22	0
128	SLE QP 1	0	-131	2029	5.43	-0.93	0
128	SLE QP 2	0	-120	2103	4.98	-1.1	0
128	SLD 1	18	-84	1933	3.39	15.99	-0.01
128	SLD 2	18	-84	1933	3.39	15.99	-0.01
128	SLD 3	30	-225	2003	9.4	25	-0.02
128	SLD 4	30	-225	2003	9.4	25	-0.02
128	SLD 5	-14	105	1945	-4.61	-9.63	0.01
128	SLD 6	-14	105	1945	-4.61	-9.63	0.01
128	SLD 7	27	-366	2179	15.42	20.38	-0.02
128	SLD 8	27	-366	2179	15.42	20.38	-0.02
128	SLD 9	-28	126	2026	-5.46	-22.59	0.02
128	SLD 10	-28	126	2026	-5.46	-22.59	0.02
128	SLD 11	13	-345	2260	14.57	7.43	-0.02
128	SLD 12	13	-345	2260	14.57	7.43	-0.02
128	SLD 13	-31	-15	2202	0.56	-27.2	0.02
128	SLD 14	-31	-15	2202	0.56	-27.2	0.02
128	SLD 15	-18	-156	2273	6.57	-18.2	0.01
128	SLD 16	-18	-156	2273	6.57	-18.2	0.01
128	SLV 1	44	-35	1703	1.21	40.99	-0.02
128	SLV 2	44	-35	1703	1.21	40.99	-0.02
128	SLV 3	76	-369	1870	15.44	64.63	-0.05
128	SLV 4	76	-369	1870	15.44	64.63	-0.05
128	SLV 5	-35	414	1729	-17.74	-24.33	0.04
128	SLV 6	-35	414	1729	-17.74	-24.33	0.04
128	SLV 7	71	-703	2286	29.71	54.47	-0.06
128	SLV 8	71	-703	2286	29.71	54.47	-0.06
128	SLV 9	-71	463	1919	-19.75	-56.68	0.06
128	SLV 10	-71	463	1919	-19.75	-56.68	0.06
128	SLV 11	34	-654	2476	27.7	22.12	-0.04
128	SLV 12	34	-654	2476	27.7	22.12	-0.04
128	SLV 13	-76	129	2335	-5.48	-66.84	0.05
128	SLV 14	-76	129	2335	-5.48	-66.84	0.05
128	SLV 15	-45	-206	2502	8.75	-43.2	0.02
128	SLV 16	-45	-206	2502	8.75	-43.2	0.02
129	SLU 1	-6	-87	1415	4.13	-3.37	0
129	SLU 2	-6	-100	1412	4.71	-3.92	0
129	SLU 3	-6	-87	1415	4.13	-3.37	0
129	SLU 4	-6	-95	1413	4.48	-3.7	0
129	SLU 5	-6	-100	1412	4.71	-3.92	0
129	SLU 6	-6	-87	1415	4.13	-3.37	0
129	SLU 7	-6	-95	1413	4.48	-3.7	0
129	SLU 8	-6	-87	1415	4.13	-3.37	0
129	SLU 9	-6	-95	1413	4.48	-3.7	0
129	SLU 10	-7	-100	1583	4.86	-4.7	0
129	SLU 11	-7	-87	1587	4.28	-4.14	0
129	SLU 12	-7	-95	1585	4.63	-4.47	0
129	SLU 13	-7	-100	1583	4.86	-4.7	0
129	SLU 14	-7	-87	1587	4.28	-4.14	0
129	SLU 15	-7	-95	1585	4.63	-4.47	0
129	SLU 16	-7	-87	1587	4.28	-4.14	0
129	SLU 17	-7	-95	1585	4.63	-4.47	0
129	SLU 18	-8	-87	1660	4.34	-4.48	0
129	SLU 19	-8	-95	1658	4.69	-4.81	0
129	SLU 20	-8	-87	1660	4.34	-4.48	0
129	SLU 21	-8	-95	1658	4.69	-4.81	0
129	SLU 22	-6	-89	1498	4.28	-3.75	0
129	SLU 23	-7	-102	1495	4.86	-4.3	0
129	SLU 24	-6	-89	1498	4.28	-3.75	0
129	SLU 25	-7	-97	1496	4.63	-4.08	0
129	SLU 26	-7	-102	1495	4.86	-4.3	0
129	SLU 27	-6	-89	1498	4.28	-3.75	0
129	SLU 28	-7	-97	1496	4.63	-4.08	0
129	SLU 29	-6	-89	1498	4.28	-3.75	0
129	SLU 30	-7	-97	1496	4.63	-4.08	0
129	SLU 31	-8	-102	1666	5.01	-5.08	0
129	SLU 32	-8	-89	1670	4.43	-4.53	0
129	SLU 33	-8	-97	1668	4.78	-4.86	0
129	SLU 34	-8	-102	1666	5.01	-5.08	0
129	SLU 35	-8	-89	1670	4.43	-4.53	0
129	SLU 36	-8	-97	1668	4.78	-4.86	0
129	SLU 37	-8	-89	1670	4.43	-4.53	0
129	SLU 38	-8	-97	1668	4.78	-4.86	0
129	SLU 39	-8	-89	1743	4.49	-4.86	0
129	SLU 40	-9	-97	1741	4.84	-5.19	0
129	SLU 41	-8	-89	1743	4.49	-4.86	0
129	SLU 42	-9	-97	1741	4.84	-5.19	0
129	SLU 43	-7	-113	1811	5.32	-4.24	0
129	SLU 44	-8	-126	1808	5.9	-4.79	0
129	SLU 45	-7	-113	1811	5.32	-4.24	0
129	SLU 46	-7	-121	1809	5.67	-4.57	0



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
129	SLU 47	-8	-126	1808	5.9	-4.79	0
129	SLU 48	-7	-113	1811	5.32	-4.24	0
129	SLU 49	-7	-121	1809	5.67	-4.57	0
129	SLU 50	-7	-113	1811	5.32	-4.24	0
129	SLU 51	-7	-121	1809	5.67	-4.57	0
129	SLU 52	-9	-126	1979	6.05	-5.57	0
129	SLU 53	-9	-113	1983	5.47	-5.02	0
129	SLU 54	-9	-120	1981	5.81	-5.35	0
129	SLU 55	-9	-126	1979	6.05	-5.57	0
129	SLU 56	-9	-113	1983	5.47	-5.02	0
129	SLU 57	-9	-120	1981	5.81	-5.35	0
129	SLU 58	-9	-113	1983	5.47	-5.02	0
129	SLU 59	-9	-120	1981	5.81	-5.35	0
129	SLU 60	-9	-112	2056	5.53	-5.35	0
129	SLU 61	-9	-120	2054	5.88	-5.69	0
129	SLU 62	-9	-112	2056	5.53	-5.35	0
129	SLU 63	-9	-120	2054	5.88	-5.69	0
129	SLU 64	-8	-115	1894	5.47	-4.63	0
129	SLU 65	-8	-128	1891	6.05	-5.18	0
129	SLU 66	-8	-115	1894	5.47	-4.63	0
129	SLU 67	-8	-123	1892	5.82	-4.96	0
129	SLU 68	-8	-128	1891	6.05	-5.18	0
129	SLU 69	-8	-115	1894	5.47	-4.63	0
129	SLU 70	-8	-123	1892	5.82	-4.96	0
129	SLU 71	-8	-115	1894	5.47	-4.63	0
129	SLU 72	-8	-123	1892	5.82	-4.96	0
129	SLU 73	-10	-128	2062	6.2	-5.96	0
129	SLU 74	-9	-114	2066	5.62	-5.41	0
129	SLU 75	-10	-122	2064	5.96	-5.74	0
129	SLU 76	-10	-128	2062	6.2	-5.96	0
129	SLU 77	-9	-114	2066	5.62	-5.41	0
129	SLU 78	-10	-122	2064	5.96	-5.74	0
129	SLU 79	-9	-114	2066	5.62	-5.41	0
129	SLU 80	-10	-122	2064	5.96	-5.74	0
129	SLU 81	-10	-114	2140	5.68	-5.74	0
129	SLU 82	-10	-122	2137	6.03	-6.07	0
129	SLU 83	-10	-114	2140	5.68	-5.74	0
129	SLU 84	-10	-122	2137	6.03	-6.07	0
129	SLE RA 1	-6	-88	1439	4.18	-3.48	0
129	SLE RA 2	-6	-97	1436	4.56	-3.84	0
129	SLE RA 3	-6	-88	1439	4.18	-3.48	0
129	SLE RA 4	-6	-93	1437	4.41	-3.7	0
129	SLE RA 5	-6	-97	1436	4.56	-3.84	0
129	SLE RA 6	-6	-88	1439	4.18	-3.48	0
129	SLE RA 7	-6	-93	1437	4.41	-3.7	0
129	SLE RA 8	-6	-88	1439	4.18	-3.48	0
129	SLE RA 9	-6	-93	1437	4.41	-3.7	0
129	SLE RA 10	-7	-96	1551	4.66	-4.36	0
129	SLE RA 11	-7	-88	1553	4.27	-3.99	0
129	SLE RA 12	-7	-93	1552	4.5	-4.22	0
129	SLE RA 13	-7	-96	1551	4.66	-4.36	0
129	SLE RA 14	-7	-88	1553	4.27	-3.99	0
129	SLE RA 15	-7	-93	1552	4.5	-4.22	0
129	SLE RA 16	-7	-88	1553	4.27	-3.99	0
129	SLE RA 17	-7	-93	1552	4.5	-4.22	0
129	SLE RA 18	-7	-88	1602	4.31	-4.22	0
129	SLE RA 19	-7	-93	1601	4.55	-4.44	0
129	SLE RA 20	-7	-88	1602	4.31	-4.22	0
129	SLE RA 21	-7	-93	1601	4.55	-4.44	0
129	SLE FR 1	-6	-88	1439	4.18	-3.48	0
129	SLE FR 2	-6	-89	1438	4.25	-3.55	0
129	SLE FR 3	-6	-88	1439	4.18	-3.48	0
129	SLE FR 4	-6	-89	1487	4.29	-3.77	0
129	SLE FR 5	-6	-88	1488	4.22	-3.7	0
129	SLE FR 6	-7	-88	1521	4.24	-3.85	0
129	SLE QP 1	-6	-88	1439	4.18	-3.48	0
129	SLE QP 2	-6	-88	1488	4.22	-3.7	0
129	SLD 1	15	18	1580	0.25	12.63	0.01
129	SLD 2	15	18	1580	0.25	12.63	0.01
129	SLD 3	9	-110	1631	5.54	8.62	0.01
129	SLD 4	9	-110	1631	5.54	8.62	0.01
129	SLD 5	10	137	1438	-4.99	7.28	0
129	SLD 6	10	137	1438	-4.99	7.28	0
129	SLD 7	-12	-288	1608	12.63	-6.08	0.01
129	SLD 8	-12	-288	1608	12.63	-6.08	0.01
129	SLD 9	-1	112	1367	-4.2	-1.32	-0.01
129	SLD 10	-1	112	1367	-4.2	-1.32	-0.01
129	SLD 11	-23	-313	1538	13.42	-14.67	0.01
129	SLD 12	-23	-313	1538	13.42	-14.67	0.01
129	SLD 13	-21	-66	1345	2.9	-16.01	-0.01
129	SLD 14	-21	-66	1345	2.9	-16.01	-0.01
129	SLD 15	-28	-193	1396	8.18	-20.02	0
129	SLD 16	-28	-193	1396	8.18	-20.02	0
129	SLV 1	45	160	1701	-5.14	35.18	0.01
129	SLV 2	45	160	1701	-5.14	35.18	0.01
129	SLV 3	28	-140	1826	7.33	24.68	0.02
129	SLV 4	28	-140	1826	7.33	24.68	0.02
129	SLV 5	35	443	1361	-17.5	23.88	-0.02
129	SLV 6	35	443	1361	-17.5	23.88	-0.02
129	SLV 7	-22	-560	1780	24.06	-11.1	0.03



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
Ind.	N.br.						
129	SLV 8	-22	-560	1780	24.06	-11.1	0.03
129	SLV 9	10	384	1195	-15.63	3.7	-0.03
129	SLV 10	10	384	1195	-15.63	3.7	-0.03
129	SLV 11	-48	-618	1615	25.93	-31.28	0.02
129	SLV 12	-48	-618	1615	25.93	-31.28	0.02
129	SLV 13	-41	-35	1149	1.11	-32.08	-0.02
129	SLV 14	-41	-35	1149	1.11	-32.08	-0.02
129	SLV 15	-58	-336	1275	13.57	-42.57	0
129	SLV 16	-58	-336	1275	13.57	-42.57	0
130	SLU 1	-2	-83	931	3.83	-1.5	0
130	SLU 2	-2	-116	940	5.2	-1.51	0
130	SLU 3	-2	-83	931	3.83	-1.5	0
130	SLU 4	-2	-102	937	4.66	-1.5	0
130	SLU 5	-2	-116	940	5.2	-1.51	0
130	SLU 6	-2	-83	931	3.83	-1.5	0
130	SLU 7	-2	-102	937	4.66	-1.5	0
130	SLU 8	-2	-83	931	3.83	-1.5	0
130	SLU 9	-2	-102	937	4.66	-1.5	0
130	SLU 10	-3	-137	1104	6.22	-2.02	0
130	SLU 11	-3	-104	1095	4.86	-2.01	0
130	SLU 12	-3	-123	1101	5.68	-2.02	0
130	SLU 13	-3	-137	1104	6.22	-2.02	0
130	SLU 14	-3	-104	1095	4.86	-2.01	0
130	SLU 15	-3	-123	1101	5.68	-2.02	0
130	SLU 16	-3	-104	1095	4.86	-2.01	0
130	SLU 17	-3	-123	1101	5.68	-2.02	0
130	SLU 18	-3	-113	1165	5.29	-2.23	0
130	SLU 19	-3	-133	1171	6.11	-2.24	0
130	SLU 20	-3	-113	1165	5.29	-2.23	0
130	SLU 21	-3	-133	1171	6.11	-2.24	0
130	SLU 22	-2	-93	1015	4.34	-1.76	0
130	SLU 23	-2	-126	1024	5.71	-1.76	0
130	SLU 24	-2	-93	1015	4.34	-1.76	0
130	SLU 25	-2	-113	1020	5.16	-1.76	0
130	SLU 26	-2	-126	1024	5.71	-1.76	0
130	SLU 27	-2	-93	1015	4.34	-1.76	0
130	SLU 28	-2	-113	1020	5.16	-1.76	0
130	SLU 29	-2	-93	1015	4.34	-1.76	0
130	SLU 30	-2	-113	1020	5.16	-1.76	0
130	SLU 31	-3	-147	1188	6.73	-2.28	0
130	SLU 32	-3	-114	1179	5.36	-2.27	0
130	SLU 33	-3	-134	1184	6.18	-2.27	0
130	SLU 34	-3	-147	1188	6.73	-2.28	0
130	SLU 35	-3	-114	1179	5.36	-2.27	0
130	SLU 36	-3	-134	1184	6.18	-2.27	0
130	SLU 37	-3	-114	1179	5.36	-2.27	0
130	SLU 38	-3	-134	1184	6.18	-2.27	0
130	SLU 39	-3	-123	1249	5.8	-2.49	0
130	SLU 40	-3	-143	1254	6.62	-2.49	0
130	SLU 41	-3	-123	1249	5.8	-2.49	0
130	SLU 42	-3	-143	1254	6.62	-2.49	0
130	SLU 43	-3	-104	1182	4.81	-1.86	0
130	SLU 44	-3	-137	1191	6.18	-1.87	0
130	SLU 45	-3	-104	1182	4.81	-1.86	0
130	SLU 46	-3	-124	1188	5.63	-1.87	0
130	SLU 47	-3	-137	1191	6.18	-1.87	0
130	SLU 48	-3	-104	1182	4.81	-1.86	0
130	SLU 49	-3	-124	1188	5.63	-1.87	0
130	SLU 50	-3	-104	1182	4.81	-1.86	0
130	SLU 51	-3	-124	1188	5.63	-1.87	0
130	SLU 52	-3	-158	1355	7.2	-2.38	0
130	SLU 53	-3	-125	1346	5.83	-2.38	0
130	SLU 54	-3	-145	1351	6.65	-2.38	0
130	SLU 55	-3	-158	1355	7.2	-2.38	0
130	SLU 56	-3	-125	1346	5.83	-2.38	0
130	SLU 57	-3	-145	1351	6.65	-2.38	0
130	SLU 58	-3	-125	1346	5.83	-2.38	0
130	SLU 59	-3	-145	1351	6.65	-2.38	0
130	SLU 60	-4	-134	1416	6.27	-2.6	0
130	SLU 61	-4	-154	1422	7.09	-2.6	0
130	SLU 62	-4	-134	1416	6.27	-2.6	0
130	SLU 63	-4	-154	1422	7.09	-2.6	0
130	SLU 64	-3	-114	1266	5.32	-2.12	0
130	SLU 65	-3	-147	1275	6.69	-2.13	0
130	SLU 66	-3	-114	1266	5.32	-2.12	0
130	SLU 67	-3	-134	1271	6.14	-2.12	0
130	SLU 68	-3	-147	1275	6.69	-2.13	0
130	SLU 69	-3	-114	1266	5.32	-2.12	0
130	SLU 70	-3	-134	1271	6.14	-2.12	0
130	SLU 71	-3	-114	1266	5.32	-2.12	0
130	SLU 72	-3	-134	1271	6.14	-2.12	0
130	SLU 73	-4	-168	1439	7.71	-2.64	0
130	SLU 74	-4	-135	1429	6.34	-2.63	0
130	SLU 75	-4	-155	1435	7.16	-2.64	0
130	SLU 76	-4	-168	1439	7.71	-2.64	0
130	SLU 77	-4	-135	1429	6.34	-2.63	0
130	SLU 78	-4	-155	1435	7.16	-2.64	0
130	SLU 79	-4	-135	1429	6.34	-2.63	0
130	SLU 80	-4	-155	1435	7.16	-2.64	0
130	SLU 81	-4	-144	1500	6.77	-2.85	0



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
130	SLU 82	-4	-164	1505	7.6	-2.86	0
130	SLU 83	-4	-144	1500	6.77	-2.85	0
130	SLU 84	-4	-164	1505	7.6	-2.86	0
130	SLE RA 1	-2	-86	955	3.98	-1.58	0
130	SLE RA 2	-2	-108	961	4.89	-1.58	0
130	SLE RA 3	-2	-86	955	3.98	-1.58	0
130	SLE RA 4	-2	-99	959	4.53	-1.58	0
130	SLE RA 5	-2	-108	961	4.89	-1.58	0
130	SLE RA 6	-2	-86	955	3.98	-1.58	0
130	SLE RA 7	-2	-99	959	4.53	-1.58	0
130	SLE RA 8	-2	-86	955	3.98	-1.58	0
130	SLE RA 9	-2	-99	959	4.53	-1.58	0
130	SLE RA 10	-3	-122	1070	5.57	-1.92	0
130	SLE RA 11	-3	-100	1064	4.66	-1.92	0
130	SLE RA 12	-3	-113	1068	5.21	-1.92	0
130	SLE RA 13	-3	-122	1070	5.57	-1.92	0
130	SLE RA 14	-3	-100	1064	4.66	-1.92	0
130	SLE RA 15	-3	-113	1068	5.21	-1.92	0
130	SLE RA 16	-3	-100	1064	4.66	-1.92	0
130	SLE RA 17	-3	-113	1068	5.21	-1.92	0
130	SLE RA 18	-3	-106	1111	4.95	-2.06	0
130	SLE RA 19	-3	-119	1115	5.5	-2.07	0
130	SLE RA 20	-3	-106	1111	4.95	-2.06	0
130	SLE RA 21	-3	-119	1115	5.5	-2.07	0
130	SLE FR 1	-2	-86	955	3.98	-1.58	0
130	SLE FR 2	-2	-90	956	4.16	-1.58	0
130	SLE FR 3	-2	-86	955	3.98	-1.58	0
130	SLE FR 4	-2	-96	1003	4.45	-1.72	0
130	SLE FR 5	-2	-92	1002	4.27	-1.72	0
130	SLE FR 6	-2	-96	1033	4.46	-1.82	0
130	SLE QP 1	-2	-86	955	3.98	-1.58	0
130	SLE QP 2	-2	-92	1002	4.27	-1.72	0
130	SLD 1	7	-7	870	0.94	5.94	0.01
130	SLD 2	7	-7	870	0.94	5.94	0.01
130	SLD 3	5	-106	910	4.96	4.29	0.01
130	SLD 4	5	-106	910	4.96	4.29	0.01
130	SLD 5	4	84	901	-2.83	3.08	0
130	SLD 6	4	84	901	-2.83	3.08	0
130	SLD 7	-4	-246	1036	10.58	-2.42	0
130	SLD 8	-4	-246	1036	10.58	-2.42	0
130	SLD 9	-1	63	968	-2.04	-1.02	-0.01
130	SLD 10	-1	63	968	-2.04	-1.02	-0.01
130	SLD 11	-9	-267	1103	11.37	-6.53	0
130	SLD 12	-9	-267	1103	11.37	-6.53	0
130	SLD 13	-9	-77	1094	3.58	-7.73	-0.01
130	SLD 14	-9	-77	1094	3.58	-7.73	-0.01
130	SLD 15	-12	-176	1134	7.6	-9.39	-0.01
130	SLD 16	-12	-176	1134	7.6	-9.39	-0.01
130	SLV 1	21	113	686	-3.81	16.51	0.02
130	SLV 2	21	113	686	-3.81	16.51	0.02
130	SLV 3	14	-126	788	5.88	12.33	0.02
130	SLV 4	14	-126	788	5.88	12.33	0.02
130	SLV 5	14	332	751	-12.84	10.09	0
130	SLV 6	14	332	751	-12.84	10.09	0
130	SLV 7	-7	-464	1094	19.44	-3.84	0.01
130	SLV 8	-7	-464	1094	19.44	-3.84	0.01
130	SLV 9	3	281	910	-10.9	0.4	-0.01
130	SLV 10	3	281	910	-10.9	0.4	-0.01
130	SLV 11	-19	-515	1253	21.38	-13.53	0
130	SLV 12	-19	-515	1253	21.38	-13.53	0
130	SLV 13	-19	-57	1216	2.66	-15.77	-0.02
130	SLV 14	-19	-57	1216	2.66	-15.77	-0.02
130	SLV 15	-25	-296	1318	12.35	-19.95	-0.02
130	SLV 16	-25	-296	1318	12.35	-19.95	-0.02
131	SLU 1	0	-185	2008	7.78	-0.78	0
131	SLU 2	0	-202	2009	8.42	-0.52	0
131	SLU 3	0	-185	2008	7.78	-0.78	0
131	SLU 4	0	-195	2009	8.16	-0.62	0
131	SLU 5	0	-202	2009	8.42	-0.52	0
131	SLU 6	0	-185	2008	7.78	-0.78	0
131	SLU 7	0	-195	2009	8.16	-0.62	0
131	SLU 8	0	-185	2008	7.78	-0.78	0
131	SLU 9	0	-195	2009	8.16	-0.62	0
131	SLU 10	0	-170	2290	7.33	-0.93	-0.01
131	SLU 11	0	-153	2290	6.69	-1.19	-0.01
131	SLU 12	0	-163	2290	7.07	-1.04	-0.01
131	SLU 13	0	-170	2290	7.33	-0.93	-0.01
131	SLU 14	0	-153	2290	6.69	-1.19	-0.01
131	SLU 15	0	-163	2290	7.07	-1.04	-0.01
131	SLU 16	0	-153	2290	6.69	-1.19	-0.01
131	SLU 17	0	-163	2290	7.07	-1.04	-0.01
131	SLU 18	0	-139	2410	6.23	-1.37	-0.01
131	SLU 19	0	-149	2411	6.61	-1.21	-0.01
131	SLU 20	0	-139	2410	6.23	-1.37	-0.01
131	SLU 21	0	-149	2411	6.61	-1.21	-0.01
131	SLU 22	0	-174	2169	7.42	-0.99	0
131	SLU 23	0	-190	2170	8.06	-0.73	0
131	SLU 24	0	-174	2169	7.42	-0.99	0
131	SLU 25	0	-184	2169	7.81	-0.83	0
131	SLU 26	0	-190	2170	8.06	-0.73	0



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
131	SLU 27	0	-174	2169	7.42	-0.99	0
131	SLU 28	0	-184	2169	7.81	-0.83	0
131	SLU 29	0	-174	2169	7.42	-0.99	0
131	SLU 30	0	-184	2169	7.81	-0.83	0
131	SLU 31	0	-158	2451	6.98	-1.14	-0.01
131	SLU 32	0	-142	2450	6.34	-1.4	-0.01
131	SLU 33	0	-152	2451	6.72	-1.25	-0.01
131	SLU 34	0	-158	2451	6.98	-1.14	-0.01
131	SLU 35	0	-142	2450	6.34	-1.4	-0.01
131	SLU 36	0	-152	2451	6.72	-1.25	-0.01
131	SLU 37	0	-142	2450	6.34	-1.4	-0.01
131	SLU 38	0	-152	2451	6.72	-1.25	-0.01
131	SLU 39	0	-128	2570	5.87	-1.58	-0.01
131	SLU 40	0	-138	2571	6.26	-1.42	-0.01
131	SLU 41	0	-128	2570	5.87	-1.58	-0.01
131	SLU 42	0	-138	2571	6.26	-1.42	-0.01
131	SLU 43	0	-244	2556	10.23	-0.94	-0.01
131	SLU 44	0	-261	2557	10.87	-0.68	-0.01
131	SLU 45	0	-244	2556	10.23	-0.94	-0.01
131	SLU 46	0	-254	2557	10.61	-0.78	-0.01
131	SLU 47	0	-261	2557	10.87	-0.68	-0.01
131	SLU 48	0	-244	2556	10.23	-0.94	-0.01
131	SLU 49	0	-254	2557	10.61	-0.78	-0.01
131	SLU 50	0	-244	2556	10.23	-0.94	-0.01
131	SLU 51	0	-254	2557	10.61	-0.78	-0.01
131	SLU 52	0	-229	2838	9.78	-1.09	-0.01
131	SLU 53	0	-213	2837	9.15	-1.35	-0.01
131	SLU 54	0	-223	2838	9.53	-1.2	-0.01
131	SLU 55	0	-229	2838	9.78	-1.09	-0.01
131	SLU 56	0	-213	2837	9.15	-1.35	-0.01
131	SLU 57	0	-223	2838	9.53	-1.2	-0.01
131	SLU 58	0	-213	2837	9.15	-1.35	-0.01
131	SLU 59	0	-223	2838	9.53	-1.2	-0.01
131	SLU 60	0	-199	2958	8.68	-1.53	-0.01
131	SLU 61	0	-209	2958	9.06	-1.37	-0.01
131	SLU 62	0	-199	2958	8.68	-1.53	-0.01
131	SLU 63	0	-209	2958	9.06	-1.37	-0.01
131	SLU 64	0	-233	2716	9.88	-1.15	-0.01
131	SLU 65	0	-250	2717	10.52	-0.89	-0.01
131	SLU 66	0	-233	2716	9.88	-1.15	-0.01
131	SLU 67	0	-243	2717	10.26	-1	-0.01
131	SLU 68	0	-250	2717	10.52	-0.89	-0.01
131	SLU 69	0	-233	2716	9.88	-1.15	-0.01
131	SLU 70	0	-243	2717	10.26	-1	-0.01
131	SLU 71	0	-233	2716	9.88	-1.15	-0.01
131	SLU 72	0	-243	2717	10.26	-1	-0.01
131	SLU 73	0	-218	2998	9.43	-1.3	-0.01
131	SLU 74	0	-201	2998	8.79	-1.56	-0.01
131	SLU 75	0	-211	2998	9.18	-1.41	-0.01
131	SLU 76	0	-218	2998	9.43	-1.3	-0.01
131	SLU 77	0	-201	2998	8.79	-1.56	-0.01
131	SLU 78	0	-211	2998	9.18	-1.41	-0.01
131	SLU 79	0	-201	2998	8.79	-1.56	-0.01
131	SLU 80	0	-211	2998	9.18	-1.41	-0.01
131	SLU 81	0	-187	3118	8.33	-1.74	-0.01
131	SLU 82	0	-197	3119	8.71	-1.59	-0.01
131	SLU 83	0	-187	3118	8.33	-1.74	-0.01
131	SLU 84	0	-197	3119	8.71	-1.59	-0.01
131	SLE RA 1	0	-182	2054	7.68	-0.84	0
131	SLE RA 2	0	-193	2055	8.1	-0.67	0
131	SLE RA 3	0	-182	2054	7.68	-0.84	0
131	SLE RA 4	0	-188	2055	7.93	-0.73	0
131	SLE RA 5	0	-193	2055	8.1	-0.67	0
131	SLE RA 6	0	-182	2054	7.68	-0.84	0
131	SLE RA 7	0	-188	2055	7.93	-0.73	0
131	SLE RA 8	0	-182	2054	7.68	-0.84	0
131	SLE RA 9	0	-188	2055	7.93	-0.73	0
131	SLE RA 10	0	-172	2242	7.38	-0.94	-0.01
131	SLE RA 11	0	-160	2242	6.95	-1.11	-0.01
131	SLE RA 12	0	-167	2242	7.21	-1.01	-0.01
131	SLE RA 13	0	-172	2242	7.38	-0.94	-0.01
131	SLE RA 14	0	-160	2242	6.95	-1.11	-0.01
131	SLE RA 15	0	-167	2242	7.21	-1.01	-0.01
131	SLE RA 16	0	-160	2242	6.95	-1.11	-0.01
131	SLE RA 17	0	-167	2242	7.21	-1.01	-0.01
131	SLE RA 18	0	-151	2322	6.64	-1.23	-0.01
131	SLE RA 19	0	-158	2322	6.9	-1.13	-0.01
131	SLE RA 20	0	-151	2322	6.64	-1.23	-0.01
131	SLE RA 21	0	-158	2322	6.9	-1.13	-0.01
131	SLE FR 1	0	-182	2054	7.68	-0.84	0
131	SLE FR 2	0	-184	2054	7.76	-0.8	0
131	SLE FR 3	0	-182	2054	7.68	-0.84	0
131	SLE FR 4	0	-175	2135	7.45	-0.92	0
131	SLE FR 5	0	-173	2135	7.37	-0.96	0
131	SLE FR 6	0	-167	2188	7.16	-1.04	-0.01
131	SLE QP 1	0	-182	2054	7.68	-0.84	0
131	SLE QP 2	0	-173	2135	7.37	-0.96	0
131	SLD 1	10	-136	1936	5.71	10.26	0.02
131	SLD 2	10	-136	1936	5.71	10.26	0.02
131	SLD 3	23	-271	2033	11.46	18.07	0



Nodo	Cont.	Reazione a traslazione				Reazione a rotazione			
Ind.	N.br.	x	y	z		x	y	z	
131	SLD 4	23	-271	2033		11.46	18.07	0	
131	SLD 5	-17	44	1928		-1.85	-9.43	0.02	
131	SLD 6	-17	44	1928		-1.85	-9.43	0.02	
131	SLD 7	27	-408	2252		17.31	16.59	-0.02	
131	SLD 8	27	-408	2252		17.31	16.59	-0.02	
131	SLD 9	-27	63	2017		-2.58	-18.5	0.01	
131	SLD 10	-27	63	2017		-2.58	-18.5	0.01	
131	SLD 11	17	-390	2342		16.58	7.51	-0.03	
131	SLD 12	17	-390	2342		16.58	7.51	-0.03	
131	SLD 13	-24	-74	2236		3.27	-19.98	-0.01	
131	SLD 14	-24	-74	2236		3.27	-19.98	-0.01	
131	SLD 15	-11	-210	2333		9.02	-12.18	-0.03	
131	SLD 16	-11	-210	2333		9.02	-12.18	-0.03	
131	SLV 1	26	-85	1668		3.45	26.86	0.05	
131	SLV 2	26	-85	1668		3.45	26.86	0.05	
131	SLV 3	60	-406	1899		17.06	47.25	0.02	
131	SLV 4	60	-406	1899		17.06	47.25	0.02	
131	SLV 5	-44	341	1644		-14.44	-23.55	0.06	
131	SLV 6	-44	341	1644		-14.44	-23.55	0.06	
131	SLV 7	69	-730	2414		30.91	44.44	-0.05	
131	SLV 8	69	-730	2414		30.91	44.44	-0.05	
131	SLV 9	-70	385	1855		-16.18	-46.36	0.04	
131	SLV 10	-70	385	1855		-16.18	-46.36	0.04	
131	SLV 11	43	-686	2625		29.18	21.64	-0.07	
131	SLV 12	43	-686	2625		29.18	21.64	-0.07	
131	SLV 13	-60	61	2371		-2.32	-49.17	-0.03	
131	SLV 14	-60	61	2371		-2.32	-49.17	-0.03	
131	SLV 15	-27	-260	2602		11.28	-28.77	-0.06	
131	SLV 16	-27	-260	2602		11.28	-28.77	-0.06	
132	SLU 1	-4	-103	1509		4.56	-2.01	0	
132	SLU 2	-4	-115	1504		5	-2.35	0	
132	SLU 3	-4	-103	1509		4.56	-2.01	0	
132	SLU 4	-4	-110	1506		4.83	-2.21	0	
132	SLU 5	-4	-115	1504		5	-2.35	0	
132	SLU 6	-4	-103	1509		4.56	-2.01	0	
132	SLU 7	-4	-110	1506		4.83	-2.21	0	
132	SLU 8	-4	-103	1509		4.56	-2.01	0	
132	SLU 9	-4	-110	1506		4.83	-2.21	0	
132	SLU 10	-5	-111	1704		5.01	-2.85	0	
132	SLU 11	-4	-100	1709		4.57	-2.51	0.01	
132	SLU 12	-5	-107	1706		4.83	-2.71	0.01	
132	SLU 13	-5	-111	1704		5.01	-2.85	0	
132	SLU 14	-4	-100	1709		4.57	-2.51	0.01	
132	SLU 15	-5	-107	1706		4.83	-2.71	0.01	
132	SLU 16	-4	-100	1709		4.57	-2.51	0.01	
132	SLU 17	-5	-107	1706		4.83	-2.71	0.01	
132	SLU 18	-5	-98	1794		4.57	-2.72	0.01	
132	SLU 19	-5	-105	1792		4.83	-2.93	0.01	
132	SLU 20	-5	-98	1794		4.57	-2.72	0.01	
132	SLU 21	-5	-105	1792		4.83	-2.93	0.01	
132	SLU 22	-4	-103	1605		4.65	-2.25	0	
132	SLU 23	-4	-115	1600		5.09	-2.59	0	
132	SLU 24	-4	-103	1605		4.65	-2.25	0	
132	SLU 25	-4	-110	1602		4.91	-2.45	0	
132	SLU 26	-4	-115	1600		5.09	-2.59	0	
132	SLU 27	-4	-103	1605		4.65	-2.25	0	
132	SLU 28	-4	-110	1602		4.91	-2.45	0	
132	SLU 29	-4	-103	1605		4.65	-2.25	0	
132	SLU 30	-4	-110	1602		4.91	-2.45	0	
132	SLU 31	-5	-112	1800		5.09	-3.09	0.01	
132	SLU 32	-5	-100	1805		4.65	-2.75	0.01	
132	SLU 33	-5	-107	1802		4.92	-2.96	0.01	
132	SLU 34	-5	-112	1800		5.09	-3.09	0.01	
132	SLU 35	-5	-100	1805		4.65	-2.75	0.01	
132	SLU 36	-5	-107	1802		4.92	-2.96	0.01	
132	SLU 37	-5	-100	1805		4.65	-2.75	0.01	
132	SLU 38	-5	-107	1802		4.92	-2.96	0.01	
132	SLU 39	-5	-99	1890		4.65	-2.97	0.01	
132	SLU 40	-5	-106	1888		4.92	-3.17	0.01	
132	SLU 41	-5	-99	1890		4.65	-2.97	0.01	
132	SLU 42	-5	-106	1888		4.92	-3.17	0.01	
132	SLU 43	-4	-133	1928		5.9	-2.52	0.01	
132	SLU 44	-5	-145	1924		6.34	-2.86	0.01	
132	SLU 45	-4	-133	1928		5.9	-2.52	0.01	
132	SLU 46	-5	-140	1925		6.17	-2.73	0.01	
132	SLU 47	-5	-145	1924		6.34	-2.86	0.01	
132	SLU 48	-4	-133	1928		5.9	-2.52	0.01	
132	SLU 49	-5	-140	1925		6.17	-2.73	0.01	
132	SLU 50	-4	-133	1928		5.9	-2.52	0.01	
132	SLU 51	-5	-140	1925		6.17	-2.73	0.01	
132	SLU 52	-6	-142	2124		6.35	-3.37	0.01	
132	SLU 53	-5	-130	2128		5.9	-3.03	0.01	
132	SLU 54	-5	-137	2125		6.17	-3.23	0.01	
132	SLU 55	-6	-142	2124		6.35	-3.37	0.01	
132	SLU 56	-5	-130	2128		5.9	-3.03	0.01	
132	SLU 57	-5	-137	2125		6.17	-3.23	0.01	
132	SLU 58	-5	-130	2128		5.9	-3.03	0.01	
132	SLU 59	-5	-137	2125		6.17	-3.23	0.01	
132	SLU 60	-6	-129	2214		5.91	-3.24	0.01	
132	SLU 61	-6	-136	2211		6.17	-3.45	0.01	



Nodo	Cont.	Reazione a traslazione				Reazione a rotazione			
		x	y	z		x	y	z	
132	SLU 62	-6	-129	2214		5.91	-3.24	0.01	
132	SLU 63	-6	-136	2211		6.17	-3.45	0.01	
132	SLU 64	-5	-134	2024		5.99	-2.77	0.01	
132	SLU 65	-5	-146	2020		6.43	-3.11	0.01	
132	SLU 66	-5	-134	2024		5.99	-2.77	0.01	
132	SLU 67	-5	-141	2021		6.25	-2.97	0.01	
132	SLU 68	-5	-146	2020		6.43	-3.11	0.01	
132	SLU 69	-5	-134	2024		5.99	-2.77	0.01	
132	SLU 70	-5	-141	2021		6.25	-2.97	0.01	
132	SLU 71	-5	-134	2024		5.99	-2.77	0.01	
132	SLU 72	-5	-141	2021		6.25	-2.97	0.01	
132	SLU 73	-6	-143	2220		6.43	-3.61	0.01	
132	SLU 74	-6	-131	2224		5.99	-3.27	0.01	
132	SLU 75	-6	-138	2222		6.26	-3.48	0.01	
132	SLU 76	-6	-143	2220		6.43	-3.61	0.01	
132	SLU 77	-6	-131	2224		5.99	-3.27	0.01	
132	SLU 78	-6	-138	2222		6.26	-3.48	0.01	
132	SLU 79	-6	-131	2224		5.99	-3.27	0.01	
132	SLU 80	-6	-138	2222		6.26	-3.48	0.01	
132	SLU 81	-6	-129	2310		5.99	-3.49	0.01	
132	SLU 82	-6	-137	2307		6.26	-3.69	0.01	
132	SLU 83	-6	-129	2310		5.99	-3.49	0.01	
132	SLU 84	-6	-137	2307		6.26	-3.69	0.01	
132	SLE RA 1	-4	-103	1536		4.59	-2.08	0	
132	SLE RA 2	-4	-111	1533		4.88	-2.3	0	
132	SLE RA 3	-4	-103	1536		4.59	-2.08	0	
132	SLE RA 4	-4	-108	1534		4.76	-2.21	0	
132	SLE RA 5	-4	-111	1533		4.88	-2.3	0	
132	SLE RA 6	-4	-103	1536		4.59	-2.08	0	
132	SLE RA 7	-4	-108	1534		4.76	-2.21	0	
132	SLE RA 8	-4	-103	1536		4.59	-2.08	0	
132	SLE RA 9	-4	-108	1534		4.76	-2.21	0	
132	SLE RA 10	-4	-109	1666		4.88	-2.64	0	
132	SLE RA 11	-4	-101	1669		4.59	-2.41	0	
132	SLE RA 12	-4	-106	1667		4.77	-2.55	0	
132	SLE RA 13	-4	-109	1666		4.88	-2.64	0	
132	SLE RA 14	-4	-101	1669		4.59	-2.41	0	
132	SLE RA 15	-4	-106	1667		4.77	-2.55	0	
132	SLE RA 16	-4	-101	1669		4.59	-2.41	0	
132	SLE RA 17	-4	-106	1667		4.77	-2.55	0	
132	SLE RA 18	-5	-100	1726		4.59	-2.55	0.01	
132	SLE RA 19	-5	-105	1725		4.77	-2.69	0.01	
132	SLE RA 20	-5	-100	1726		4.59	-2.55	0.01	
132	SLE RA 21	-5	-105	1725		4.77	-2.69	0.01	
132	SLE FR 1	-4	-103	1536		4.59	-2.08	0	
132	SLE FR 2	-4	-104	1535		4.65	-2.12	0	
132	SLE FR 3	-4	-103	1536		4.59	-2.08	0	
132	SLE FR 4	-4	-104	1593		4.65	-2.26	0	
132	SLE FR 5	-4	-102	1593		4.59	-2.22	0	
132	SLE FR 6	-4	-101	1631		4.59	-2.31	0	
132	SLE QP 1	-4	-103	1536		4.59	-2.08	0	
132	SLE QP 2	-4	-102	1593		4.59	-2.22	0	
132	SLD 1	11	18	1689		0.07	9.28	0.01	
132	SLD 2	11	18	1689		0.07	9.28	0.01	
132	SLD 3	3	-106	1775		5.26	5.45	0.02	
132	SLD 4	3	-106	1775		5.26	5.45	0.02	
132	SLD 5	13	121	1493		-4.65	7.05	0	
132	SLD 6	13	121	1493		-4.65	7.05	0	
132	SLD 7	-14	-290	1777		12.67	-5.73	0.02	
132	SLD 8	-14	-290	1777		12.67	-5.73	0.02	
132	SLD 9	6	87	1409		-3.49	1.29	-0.01	
132	SLD 10	6	87	1409		-3.49	1.29	-0.01	
132	SLD 11	-21	-325	1694		13.82	-11.48	0.01	
132	SLD 12	-21	-325	1694		13.82	-11.48	0.01	
132	SLD 13	-11	-98	1412		3.92	-9.89	-0.01	
132	SLD 14	-11	-98	1412		3.92	-9.89	-0.01	
132	SLD 15	-19	-222	1497		9.11	-13.72	0	
132	SLD 16	-19	-222	1497		9.11	-13.72	0	
132	SLV 1	33	180	1813		-6.07	25.3	0.02	
132	SLV 2	33	180	1813		-6.07	25.3	0.02	
132	SLV 3	12	-112	2027		6.19	15.34	0.04	
132	SLV 4	12	-112	2027		6.19	15.34	0.04	
132	SLV 5	39	425	1334		-17.2	21.14	-0.02	
132	SLV 6	39	425	1334		-17.2	21.14	-0.02	
132	SLV 7	-31	-547	2048		23.66	-12.05	0.04	
132	SLV 8	-31	-547	2048		23.66	-12.05	0.04	
132	SLV 9	23	343	1138		-14.48	7.61	-0.03	
132	SLV 10	23	343	1138		-14.48	7.61	-0.03	
132	SLV 11	-47	-629	1852		26.38	-25.58	0.03	
132	SLV 12	-47	-629	1852		26.38	-25.58	0.03	
132	SLV 13	-19	-92	1159		2.99	-19.78	-0.03	
132	SLV 14	-19	-92	1159		2.99	-19.78	-0.03	
132	SLV 15	-40	-384	1374		15.24	-29.74	-0.01	
132	SLV 16	-40	-384	1374		15.24	-29.74	-0.01	
133	SLU 1	-1	-94	988		3.92	-0.81	0	
133	SLU 2	-1	-125	997		5.17	-0.81	0	
133	SLU 3	-1	-94	988		3.92	-0.81	0	
133	SLU 4	-1	-113	993		4.67	-0.81	0	
133	SLU 5	-1	-125	997		5.17	-0.81	0	
133	SLU 6	-1	-94	988		3.92	-0.81	0	



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
133	SLU 7	-1	-113	993	4.67	-0.81	0
133	SLU 8	-1	-94	988	3.92	-0.81	0
133	SLU 9	-1	-113	993	4.67	-0.81	0
133	SLU 10	-1	-144	1183	5.98	-1.08	0
133	SLU 11	-1	-113	1175	4.74	-1.08	0
133	SLU 12	-1	-131	1180	5.49	-1.08	0
133	SLU 13	-1	-144	1183	5.98	-1.08	0
133	SLU 14	-1	-113	1175	4.74	-1.08	0
133	SLU 15	-1	-131	1180	5.49	-1.08	0
133	SLU 16	-1	-113	1175	4.74	-1.08	0
133	SLU 17	-1	-131	1180	5.49	-1.08	0
133	SLU 18	-1	-121	1255	5.09	-1.2	0
133	SLU 19	-1	-139	1260	5.84	-1.2	0
133	SLU 20	-1	-121	1255	5.09	-1.2	0
133	SLU 21	-1	-139	1260	5.84	-1.2	0
133	SLU 22	-1	-103	1083	4.33	-0.95	0
133	SLU 23	-1	-134	1092	5.57	-0.94	0
133	SLU 24	-1	-103	1083	4.33	-0.95	0
133	SLU 25	-1	-122	1089	5.07	-0.95	0
133	SLU 26	-1	-134	1092	5.57	-0.94	0
133	SLU 27	-1	-103	1083	4.33	-0.95	0
133	SLU 28	-1	-122	1089	5.07	-0.95	0
133	SLU 29	-1	-103	1083	4.33	-0.95	0
133	SLU 30	-1	-122	1089	5.07	-0.95	0
133	SLU 31	-1	-153	1279	6.39	-1.22	0
133	SLU 32	-1	-122	1270	5.15	-1.22	0
133	SLU 33	-1	-140	1275	5.89	-1.22	0
133	SLU 34	-1	-153	1279	6.39	-1.22	0
133	SLU 35	-1	-122	1270	5.15	-1.22	0
133	SLU 36	-1	-140	1275	5.89	-1.22	0
133	SLU 37	-1	-122	1270	5.15	-1.22	0
133	SLU 38	-1	-140	1275	5.89	-1.22	0
133	SLU 39	-1	-130	1350	5.5	-1.34	0
133	SLU 40	-1	-148	1355	6.24	-1.34	0
133	SLU 41	-1	-130	1350	5.5	-1.34	0
133	SLU 42	-1	-148	1355	6.24	-1.34	0
133	SLU 43	-1	-119	1251	4.96	-1.01	0
133	SLU 44	-1	-150	1260	6.2	-1	0
133	SLU 45	-1	-119	1251	4.96	-1.01	0
133	SLU 46	-1	-138	1257	5.7	-1	0
133	SLU 47	-1	-150	1260	6.2	-1	0
133	SLU 48	-1	-119	1251	4.96	-1.01	0
133	SLU 49	-1	-138	1257	5.7	-1	0
133	SLU 50	-1	-119	1251	4.96	-1.01	0
133	SLU 51	-1	-138	1257	5.7	-1	0
133	SLU 52	-1	-169	1447	7.02	-1.28	0
133	SLU 53	-1	-138	1438	5.78	-1.28	0
133	SLU 54	-1	-156	1444	6.52	-1.28	0
133	SLU 55	-1	-169	1447	7.02	-1.28	0
133	SLU 56	-1	-138	1438	5.78	-1.28	0
133	SLU 57	-1	-156	1444	6.52	-1.28	0
133	SLU 58	-1	-138	1438	5.78	-1.28	0
133	SLU 59	-1	-156	1444	6.52	-1.28	0
133	SLU 60	-1	-146	1518	6.13	-1.4	0
133	SLU 61	-1	-164	1524	6.87	-1.4	0
133	SLU 62	-1	-146	1518	6.13	-1.4	0
133	SLU 63	-1	-164	1524	6.87	-1.4	0
133	SLU 64	-1	-128	1347	5.37	-1.14	0
133	SLU 65	-1	-159	1356	6.61	-1.14	0
133	SLU 66	-1	-128	1347	5.37	-1.14	0
133	SLU 67	-1	-147	1352	6.11	-1.14	0
133	SLU 68	-1	-159	1356	6.61	-1.14	0
133	SLU 69	-1	-128	1347	5.37	-1.14	0
133	SLU 70	-1	-147	1352	6.11	-1.14	0
133	SLU 71	-1	-128	1347	5.37	-1.14	0
133	SLU 72	-1	-147	1352	6.11	-1.14	0
133	SLU 73	-1	-178	1542	7.43	-1.42	0
133	SLU 74	-1	-147	1534	6.18	-1.42	0
133	SLU 75	-1	-165	1539	6.93	-1.42	0
133	SLU 76	-1	-178	1542	7.43	-1.42	0
133	SLU 77	-1	-147	1534	6.18	-1.42	0
133	SLU 78	-1	-165	1539	6.93	-1.42	0
133	SLU 79	-1	-147	1534	6.18	-1.42	0
133	SLU 80	-1	-165	1539	6.93	-1.42	0
133	SLU 81	-1	-155	1614	6.53	-1.53	0
133	SLU 82	-1	-173	1619	7.28	-1.53	0
133	SLU 83	-1	-155	1614	6.53	-1.53	0
133	SLU 84	-1	-173	1619	7.28	-1.53	0
133	SLE RA 1	-1	-97	1015	4.04	-0.85	0
133	SLE RA 2	-1	-117	1021	4.87	-0.85	0
133	SLE RA 3	-1	-97	1015	4.04	-0.85	0
133	SLE RA 4	-1	-109	1019	4.54	-0.85	0
133	SLE RA 5	-1	-117	1021	4.87	-0.85	0
133	SLE RA 6	-1	-97	1015	4.04	-0.85	0
133	SLE RA 7	-1	-109	1019	4.54	-0.85	0
133	SLE RA 8	-1	-97	1015	4.04	-0.85	0
133	SLE RA 9	-1	-109	1019	4.54	-0.85	0
133	SLE RA 10	-1	-130	1145	5.41	-1.03	0
133	SLE RA 11	-1	-109	1140	4.58	-1.03	0
133	SLE RA 12	-1	-121	1143	5.08	-1.03	0





Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
133	SLE RA 13	-1	-130	1145	5.41	-1.03	0
133	SLE RA 14	-1	-109	1140	4.58	-1.03	0
133	SLE RA 15	-1	-121	1143	5.08	-1.03	0
133	SLE RA 16	-1	-109	1140	4.58	-1.03	0
133	SLE RA 17	-1	-121	1143	5.08	-1.03	0
133	SLE RA 18	-1	-114	1193	4.82	-1.11	0
133	SLE RA 19	-1	-127	1196	5.31	-1.11	0
133	SLE RA 20	-1	-114	1193	4.82	-1.11	0
133	SLE RA 21	-1	-127	1196	5.31	-1.11	0
133	SLE FR 1	-1	-97	1015	4.04	-0.85	0
133	SLE FR 2	-1	-101	1016	4.2	-0.85	0
133	SLE FR 3	-1	-97	1015	4.04	-0.85	0
133	SLE FR 4	-1	-106	1070	4.44	-0.93	0
133	SLE FR 5	-1	-102	1068	4.27	-0.93	0
133	SLE FR 6	-1	-105	1104	4.43	-0.98	0
133	SLE QP 1	-1	-97	1015	4.04	-0.85	0
133	SLE QP 2	-1	-102	1068	4.27	-0.93	0
133	SLD 1	4	-11	983	0.5	3.57	0.01
133	SLD 2	4	-11	983	0.5	3.57	0.01
133	SLD 3	1	-108	1020	4.6	2.19	0.01
133	SLD 4	1	-108	1020	4.6	2.19	0.01
133	SLD 5	5	72	987	-3.08	2.51	0
133	SLD 6	5	72	987	-3.08	2.51	0
133	SLD 7	-4	-251	1110	10.59	-2.08	0
133	SLD 8	-4	-251	1110	10.59	-2.08	0
133	SLD 9	3	47	1027	-2.04	0.23	0
133	SLD 10	3	47	1027	-2.04	0.23	0
133	SLD 11	-6	-276	1150	11.62	-4.37	-0.01
133	SLD 12	-6	-276	1150	11.62	-4.37	-0.01
133	SLD 13	-2	-96	1117	3.95	-4.05	-0.01
133	SLD 14	-2	-96	1117	3.95	-4.05	-0.01
133	SLD 15	-5	-192	1154	8.04	-5.43	-0.02
133	SLD 16	-5	-192	1154	8.04	-5.43	-0.02
133	SLV 1	10	117	863	-4.89	9.86	0.03
133	SLV 2	10	117	863	-4.89	9.86	0.03
133	SLV 3	3	-117	956	5.03	6.36	0.02
133	SLV 4	3	-117	956	5.03	6.36	0.02
133	SLV 5	13	318	867	-13.52	7.62	0.01
133	SLV 6	13	318	867	-13.52	7.62	0.01
133	SLV 7	-9	-461	1175	19.54	-4.05	0
133	SLV 8	-9	-461	1175	19.54	-4.05	0
133	SLV 9	8	257	962	-11	2.2	0
133	SLV 10	8	257	962	-11	2.2	0
133	SLV 11	-14	-522	1270	22.07	-9.47	-0.02
133	SLV 12	-14	-522	1270	22.07	-9.47	-0.02
133	SLV 13	-5	-87	1181	3.52	-8.21	-0.03
133	SLV 14	-5	-87	1181	3.52	-8.21	-0.03
133	SLV 15	-11	-321	1274	13.44	-11.71	-0.03
133	SLV 16	-11	-321	1274	13.44	-11.71	-0.03
134	SLU 1	-3	-250	2150	11.94	-1.13	0.01
134	SLU 2	-3	-265	2154	12.62	-1.04	0.01
134	SLU 3	-3	-250	2150	11.94	-1.13	0.01
134	SLU 4	-3	-259	2152	12.35	-1.08	0.01
134	SLU 5	-3	-265	2154	12.62	-1.04	0.01
134	SLU 6	-3	-250	2150	11.94	-1.13	0.01
134	SLU 7	-3	-259	2152	12.35	-1.08	0.01
134	SLU 8	-3	-250	2150	11.94	-1.13	0.01
134	SLU 9	-3	-259	2152	12.35	-1.08	0.01
134	SLU 10	-4	-240	2478	11.93	-1.42	0.02
134	SLU 11	-3	-225	2475	11.25	-1.5	0.02
134	SLU 12	-4	-234	2477	11.65	-1.45	0.02
134	SLU 13	-4	-240	2478	11.93	-1.42	0.02
134	SLU 14	-3	-225	2475	11.25	-1.5	0.02
134	SLU 15	-4	-234	2477	11.65	-1.45	0.02
134	SLU 16	-3	-225	2475	11.25	-1.5	0.02
134	SLU 17	-4	-234	2477	11.65	-1.45	0.02
134	SLU 18	-4	-215	2614	10.95	-1.66	0.02
134	SLU 19	-4	-224	2616	11.36	-1.61	0.02
134	SLU 20	-4	-215	2614	10.95	-1.66	0.02
134	SLU 21	-4	-224	2616	11.36	-1.61	0.02
134	SLU 22	-3	-242	2337	11.81	-1.33	0.02
134	SLU 23	-3	-257	2341	12.49	-1.24	0.02
134	SLU 24	-3	-242	2337	11.81	-1.33	0.02
134	SLU 25	-3	-251	2339	12.22	-1.28	0.02
134	SLU 26	-3	-257	2341	12.49	-1.24	0.02
134	SLU 27	-3	-242	2337	11.81	-1.33	0.02
134	SLU 28	-3	-251	2339	12.22	-1.28	0.02
134	SLU 29	-3	-242	2337	11.81	-1.33	0.02
134	SLU 30	-3	-251	2339	12.22	-1.28	0.02
134	SLU 31	-4	-232	2665	11.8	-1.62	0.02
134	SLU 32	-4	-217	2662	11.12	-1.7	0.02
134	SLU 33	-4	-226	2664	11.53	-1.65	0.02
134	SLU 34	-4	-232	2665	11.8	-1.62	0.02
134	SLU 35	-4	-217	2662	11.12	-1.7	0.02
134	SLU 36	-4	-226	2664	11.53	-1.65	0.02
134	SLU 37	-4	-217	2662	11.12	-1.7	0.02
134	SLU 38	-4	-226	2664	11.53	-1.65	0.02
134	SLU 39	-4	-207	2801	10.83	-1.86	0.02
134	SLU 40	-4	-215	2803	11.23	-1.81	0.02
134	SLU 41	-4	-207	2801	10.83	-1.86	0.02



Nodo	Cont.	Reazione a traslazione				Reazione a rotazione			
		x	y	z		x	y	z	
134	SLU 42	-4	-215	2803		11.23	-1.81	0.02	
134	SLU 43	-4	-328	2731		15.56	-1.39	0.02	
134	SLU 44	-4	-343	2735		16.24	-1.31	0.02	
134	SLU 45	-4	-328	2731		15.56	-1.39	0.02	
134	SLU 46	-4	-337	2733		15.97	-1.34	0.02	
134	SLU 47	-4	-343	2735		16.24	-1.31	0.02	
134	SLU 48	-4	-328	2731		15.56	-1.39	0.02	
134	SLU 49	-4	-337	2733		15.97	-1.34	0.02	
134	SLU 50	-4	-328	2731		15.56	-1.39	0.02	
134	SLU 51	-4	-337	2733		15.97	-1.34	0.02	
134	SLU 52	-4	-318	3059		15.55	-1.69	0.02	
134	SLU 53	-4	-303	3056		14.87	-1.77	0.02	
134	SLU 54	-4	-312	3058		15.28	-1.72	0.02	
134	SLU 55	-4	-318	3059		15.55	-1.69	0.02	
134	SLU 56	-4	-303	3056		14.87	-1.77	0.02	
134	SLU 57	-4	-312	3058		15.28	-1.72	0.02	
134	SLU 58	-4	-303	3056		14.87	-1.77	0.02	
134	SLU 59	-4	-312	3058		15.28	-1.72	0.02	
134	SLU 60	-4	-293	3195		14.57	-1.93	0.02	
134	SLU 61	-4	-301	3197		14.98	-1.88	0.02	
134	SLU 62	-4	-293	3195		14.57	-1.93	0.02	
134	SLU 63	-4	-301	3197		14.98	-1.88	0.02	
134	SLU 64	-4	-320	2918		15.44	-1.6	0.02	
134	SLU 65	-4	-335	2922		16.12	-1.51	0.02	
134	SLU 66	-4	-320	2918		15.44	-1.6	0.02	
134	SLU 67	-4	-329	2920		15.85	-1.55	0.02	
134	SLU 68	-4	-335	2922		16.12	-1.51	0.02	
134	SLU 69	-4	-320	2918		15.44	-1.6	0.02	
134	SLU 70	-4	-329	2920		15.85	-1.55	0.02	
134	SLU 71	-4	-320	2918		15.44	-1.6	0.02	
134	SLU 72	-4	-329	2920		15.85	-1.55	0.02	
134	SLU 73	-5	-310	3246		15.43	-1.89	0.02	
134	SLU 74	-4	-295	3243		14.75	-1.97	0.02	
134	SLU 75	-5	-304	3245		15.15	-1.92	0.02	
134	SLU 76	-5	-310	3246		15.43	-1.89	0.02	
134	SLU 77	-4	-295	3243		14.75	-1.97	0.02	
134	SLU 78	-5	-304	3245		15.15	-1.92	0.02	
134	SLU 79	-4	-295	3243		14.75	-1.97	0.02	
134	SLU 80	-5	-304	3245		15.15	-1.92	0.02	
134	SLU 81	-5	-284	3382		14.45	-2.13	0.02	
134	SLU 82	-5	-293	3384		14.86	-2.08	0.02	
134	SLU 83	-5	-284	3382		14.45	-2.13	0.02	
134	SLU 84	-5	-293	3384		14.86	-2.08	0.02	
134	SLE RA 1	-3	-248	2203		11.9	-1.18	0.02	
134	SLE RA 2	-3	-258	2206		12.36	-1.13	0.01	
134	SLE RA 3	-3	-248	2203		11.9	-1.18	0.02	
134	SLE RA 4	-3	-254	2205		12.17	-1.15	0.01	
134	SLE RA 5	-3	-258	2206		12.36	-1.13	0.01	
134	SLE RA 6	-3	-248	2203		11.9	-1.18	0.02	
134	SLE RA 7	-3	-254	2205		12.17	-1.15	0.01	
134	SLE RA 8	-3	-248	2203		11.9	-1.18	0.02	
134	SLE RA 9	-3	-254	2205		12.17	-1.15	0.01	
134	SLE RA 10	-3	-241	2422		11.89	-1.38	0.02	
134	SLE RA 11	-3	-231	2420		11.44	-1.43	0.02	
134	SLE RA 12	-3	-237	2421		11.71	-1.4	0.02	
134	SLE RA 13	-3	-241	2422		11.89	-1.38	0.02	
134	SLE RA 14	-3	-231	2420		11.44	-1.43	0.02	
134	SLE RA 15	-3	-237	2421		11.71	-1.4	0.02	
134	SLE RA 16	-3	-231	2420		11.44	-1.43	0.02	
134	SLE RA 17	-3	-237	2421		11.71	-1.4	0.02	
134	SLE RA 18	-3	-224	2513		11.24	-1.54	0.02	
134	SLE RA 19	-4	-230	2514		11.52	-1.51	0.02	
134	SLE RA 20	-3	-224	2513		11.24	-1.54	0.02	
134	SLE RA 21	-4	-230	2514		11.52	-1.51	0.02	
134	SLE FR 1	-3	-248	2203		11.9	-1.18	0.02	
134	SLE FR 2	-3	-250	2204		11.99	-1.17	0.02	
134	SLE FR 3	-3	-248	2203		11.9	-1.18	0.02	
134	SLE FR 4	-3	-243	2297		11.8	-1.28	0.02	
134	SLE FR 5	-3	-241	2296		11.71	-1.29	0.02	
134	SLE FR 6	-3	-236	2358		11.57	-1.36	0.02	
134	SLE QP 1	-3	-248	2203		11.9	-1.18	0.02	
134	SLE QP 2	-3	-241	2296		11.71	-1.29	0.02	
134	SLD 1	3	-208	2032		9.79	4.08	0.01	
134	SLD 2	3	-208	2032		9.79	4.08	0.01	
134	SLD 3	12	-333	2187		15.38	8.87	0.01	
134	SLD 4	12	-333	2187		15.38	8.87	0.01	
134	SLD 5	-16	-40	1982		2.65	-6.94	0	
134	SLD 6	-16	-40	1982		2.65	-6.94	0	
134	SLD 7	16	-459	2499		21.29	9.02	0.03	
134	SLD 8	16	-459	2499		21.29	9.02	0.03	
134	SLD 9	-23	-22	2094		2.12	-11.6	0	
134	SLD 10	-23	-22	2094		2.12	-11.6	0	
134	SLD 11	10	-441	2610		20.76	4.36	0.03	
134	SLD 12	10	-441	2610		20.76	4.36	0.03	
134	SLD 13	-19	-148	2405		8.03	-11.45	0.02	
134	SLD 14	-19	-148	2405		8.03	-11.45	0.02	
134	SLD 15	-9	-274	2560		13.62	-6.66	0.03	
134	SLD 16	-9	-274	2560		13.62	-6.66	0.03	
134	SLV 1	11	-163	1674		7.18	12.11	-0.01	
134	SLV 2	11	-163	1674		7.18	12.11	-0.01	



Nodo	Cont.	Reazione a traslazione				Reazione a rotazione			
		x	y	z		x	y	z	
134	SLV 3	36	-460	2042		20.41	24.58	0.01	
134	SLV 4	36	-460	2042		20.41	24.58	0.01	
134	SLV 5	-37	234	1551		-9.71	-16.18	-0.02	
134	SLV 6	-37	234	1551		-9.71	-16.18	-0.02	
134	SLV 7	46	-758	2779		34.37	25.38	0.04	
134	SLV 8	46	-758	2779		34.37	25.38	0.04	
134	SLV 9	-53	276	1814		-10.96	-27.96	-0.01	
134	SLV 10	-53	276	1814		-10.96	-27.96	-0.01	
134	SLV 11	31	-715	3042		33.12	13.6	0.05	
134	SLV 12	31	-715	3042		33.12	13.6	0.05	
134	SLV 13	-42	-21	2550		3	-27.16	0.02	
134	SLV 14	-42	-21	2550		3	-27.16	0.02	
134	SLV 15	-17	-318	2919		16.23	-14.69	0.04	
134	SLV 16	-17	-318	2919		16.23	-14.69	0.04	
135	SLU 1	-2	-178	1641		8.34	-1.32	0.27	
135	SLU 2	-2	-190	1634		8.85	-1.46	0.26	
135	SLU 3	-2	-178	1641		8.34	-1.32	0.27	
135	SLU 4	-2	-185	1637		8.64	-1.4	0.26	
135	SLU 5	-2	-190	1634		8.85	-1.46	0.26	
135	SLU 6	-2	-178	1641		8.34	-1.32	0.27	
135	SLU 7	-2	-185	1637		8.64	-1.4	0.26	
135	SLU 8	-2	-178	1641		8.34	-1.32	0.27	
135	SLU 9	-2	-185	1637		8.64	-1.4	0.26	
135	SLU 10	-3	-197	1871		9.36	-1.76	0.31	
135	SLU 11	-3	-185	1878		8.86	-1.63	0.32	
135	SLU 12	-3	-192	1874		9.16	-1.71	0.31	
135	SLU 13	-3	-197	1871		9.36	-1.76	0.31	
135	SLU 14	-3	-185	1878		8.86	-1.63	0.32	
135	SLU 15	-3	-192	1874		9.16	-1.71	0.31	
135	SLU 16	-3	-185	1878		8.86	-1.63	0.32	
135	SLU 17	-3	-192	1874		9.16	-1.71	0.31	
135	SLU 18	-3	-188	1979		9.08	-1.76	0.34	
135	SLU 19	-3	-195	1975		9.38	-1.84	0.33	
135	SLU 20	-3	-188	1979		9.08	-1.76	0.34	
135	SLU 21	-3	-195	1975		9.38	-1.84	0.33	
135	SLU 22	-2	-184	1754		8.68	-1.46	0.29	
135	SLU 23	-2	-196	1747		9.18	-1.6	0.28	
135	SLU 24	-2	-184	1754		8.68	-1.46	0.29	
135	SLU 25	-2	-191	1750		8.98	-1.55	0.29	
135	SLU 26	-2	-196	1747		9.18	-1.6	0.28	
135	SLU 27	-2	-184	1754		8.68	-1.46	0.29	
135	SLU 28	-2	-191	1750		8.98	-1.55	0.29	
135	SLU 29	-2	-184	1754		8.68	-1.46	0.29	
135	SLU 30	-2	-191	1750		8.98	-1.55	0.29	
135	SLU 31	-3	-202	1984		9.7	-1.91	0.33	
135	SLU 32	-3	-190	1991		9.2	-1.77	0.34	
135	SLU 33	-3	-198	1987		9.5	-1.85	0.33	
135	SLU 34	-3	-202	1984		9.7	-1.91	0.33	
135	SLU 35	-3	-190	1991		9.2	-1.77	0.34	
135	SLU 36	-3	-198	1987		9.5	-1.85	0.33	
135	SLU 37	-3	-190	1991		9.2	-1.77	0.34	
135	SLU 38	-3	-198	1987		9.5	-1.85	0.33	
135	SLU 39	-3	-193	2093		9.42	-1.9	0.36	
135	SLU 40	-3	-200	2088		9.72	-1.98	0.36	
135	SLU 41	-3	-193	2093		9.42	-1.9	0.36	
135	SLU 42	-3	-200	2088		9.72	-1.98	0.36	
135	SLU 43	-3	-230	2094		10.73	-1.67	0.34	
135	SLU 44	-2	-242	2087		11.23	-1.8	0.33	
135	SLU 45	-3	-230	2094		10.73	-1.67	0.34	
135	SLU 46	-3	-237	2090		11.03	-1.75	0.33	
135	SLU 47	-2	-242	2087		11.23	-1.8	0.33	
135	SLU 48	-3	-230	2094		10.73	-1.67	0.34	
135	SLU 49	-3	-237	2090		11.03	-1.75	0.33	
135	SLU 50	-3	-230	2094		10.73	-1.67	0.34	
135	SLU 51	-3	-237	2090		11.03	-1.75	0.33	
135	SLU 52	-3	-249	2324		11.75	-2.11	0.38	
135	SLU 53	-3	-236	2331		11.25	-1.97	0.39	
135	SLU 54	-3	-244	2327		11.55	-2.05	0.38	
135	SLU 55	-3	-249	2324		11.75	-2.11	0.38	
135	SLU 56	-3	-236	2331		11.25	-1.97	0.39	
135	SLU 57	-3	-244	2327		11.55	-2.05	0.38	
135	SLU 58	-3	-236	2331		11.25	-1.97	0.39	
135	SLU 59	-3	-244	2327		11.55	-2.05	0.38	
135	SLU 60	-4	-239	2433		11.47	-2.1	0.41	
135	SLU 61	-4	-247	2428		11.77	-2.18	0.41	
135	SLU 62	-4	-239	2433		11.47	-2.1	0.41	
135	SLU 63	-4	-247	2428		11.77	-2.18	0.41	
135	SLU 64	-3	-235	2207		11.07	-1.81	0.36	
135	SLU 65	-3	-247	2200		11.57	-1.95	0.35	
135	SLU 66	-3	-235	2207		11.07	-1.81	0.36	
135	SLU 67	-3	-242	2203		11.37	-1.89	0.36	
135	SLU 68	-3	-247	2200		11.57	-1.95	0.35	
135	SLU 69	-3	-235	2207		11.07	-1.81	0.36	
135	SLU 70	-3	-242	2203		11.37	-1.89	0.36	
135	SLU 71	-3	-235	2207		11.07	-1.81	0.36	
135	SLU 72	-3	-242	2203		11.37	-1.89	0.36	
135	SLU 73	-4	-254	2437		12.09	-2.25	0.4	
135	SLU 74	-4	-242	2444		11.58	-2.12	0.41	
135	SLU 75	-4	-249	2440		11.89	-2.2	0.41	
135	SLU 76	-4	-254	2437		12.09	-2.25	0.4	



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
135	SLU 77	-4	-242	2444	11.58	-2.12	0.41
135	SLU 78	-4	-249	2440	11.89	-2.2	0.41
135	SLU 79	-4	-242	2444	11.58	-2.12	0.41
135	SLU 80	-4	-249	2440	11.89	-2.2	0.41
135	SLU 81	-4	-245	2546	11.8	-2.25	0.43
135	SLU 82	-4	-252	2542	12.11	-2.33	0.43
135	SLU 83	-4	-245	2546	11.8	-2.25	0.43
135	SLU 84	-4	-252	2542	12.11	-2.33	0.43
135	SLE RA 1	-2	-180	1673	8.44	-1.36	0.27
135	SLE RA 2	-2	-188	1668	8.77	-1.45	0.27
135	SLE RA 3	-2	-180	1673	8.44	-1.36	0.27
135	SLE RA 4	-2	-185	1670	8.64	-1.42	0.27
135	SLE RA 5	-2	-188	1668	8.77	-1.45	0.27
135	SLE RA 6	-2	-180	1673	8.44	-1.36	0.27
135	SLE RA 7	-2	-185	1670	8.64	-1.42	0.27
135	SLE RA 8	-2	-180	1673	8.44	-1.36	0.27
135	SLE RA 9	-2	-185	1670	8.64	-1.42	0.27
135	SLE RA 10	-3	-192	1826	9.12	-1.66	0.3
135	SLE RA 11	-3	-184	1831	8.78	-1.57	0.31
135	SLE RA 12	-3	-189	1828	8.98	-1.62	0.3
135	SLE RA 13	-3	-192	1826	9.12	-1.66	0.3
135	SLE RA 14	-3	-184	1831	8.78	-1.57	0.31
135	SLE RA 15	-3	-189	1828	8.98	-1.62	0.3
135	SLE RA 16	-3	-184	1831	8.78	-1.57	0.31
135	SLE RA 17	-3	-189	1828	8.98	-1.62	0.3
135	SLE RA 18	-3	-186	1899	8.93	-1.65	0.32
135	SLE RA 19	-3	-191	1896	9.13	-1.71	0.32
135	SLE RA 20	-3	-186	1899	8.93	-1.65	0.32
135	SLE RA 21	-3	-191	1896	9.13	-1.71	0.32
135	SLE FR 1	-2	-180	1673	8.44	-1.36	0.27
135	SLE FR 2	-2	-181	1672	8.51	-1.38	0.27
135	SLE FR 3	-2	-180	1673	8.44	-1.36	0.27
135	SLE FR 4	-2	-183	1740	8.65	-1.47	0.29
135	SLE FR 5	-2	-182	1741	8.59	-1.45	0.29
135	SLE FR 6	-3	-183	1786	8.68	-1.51	0.3
135	SLE QP 1	-2	-180	1673	8.44	-1.36	0.27
135	SLE QP 2	-2	-182	1741	8.59	-1.45	0.29
135	SLD 1	8	-79	1864	4.03	4.7	0.32
135	SLD 2	8	-79	1864	4.03	4.7	0.32
135	SLD 3	-1	-196	1993	9.16	2.03	0.36
135	SLD 4	-1	-196	1993	9.16	2.03	0.36
135	SLD 5	13	28	1582	-0.56	4.43	0.25
135	SLD 6	13	28	1582	-0.56	4.43	0.25
135	SLD 7	-14	-364	2012	16.54	-4.44	0.36
135	SLD 8	-14	-364	2012	16.54	-4.44	0.36
135	SLD 9	9	1	1470	0.63	1.55	0.22
135	SLD 10	9	1	1470	0.63	1.55	0.22
135	SLD 11	-18	-391	1899	17.73	-7.33	0.32
135	SLD 12	-18	-391	1899	17.73	-7.33	0.32
135	SLD 13	-4	-167	1489	8.01	-4.93	0.22
135	SLD 14	-4	-167	1489	8.01	-4.93	0.22
135	SLD 15	-12	-284	1617	13.14	-7.59	0.25
135	SLD 16	-12	-284	1617	13.14	-7.59	0.25
135	SLV 1	22	61	2023	-2.15	13.32	0.37
135	SLV 2	22	61	2023	-2.15	13.32	0.37
135	SLV 3	1	-216	2341	9.96	6.45	0.45
135	SLV 4	1	-216	2341	9.96	6.45	0.45
135	SLV 5	36	312	1343	-13	13.39	0.2
135	SLV 6	36	312	1343	-13	13.39	0.2
135	SLV 7	-33	-613	2403	27.36	-9.49	0.45
135	SLV 8	-33	-613	2403	27.36	-9.49	0.45
135	SLV 9	28	250	1079	-10.19	6.59	0.12
135	SLV 10	28	250	1079	-10.19	6.59	0.12
135	SLV 11	-41	-675	2139	30.17	-16.29	0.38
135	SLV 12	-41	-675	2139	30.17	-16.29	0.38
135	SLV 13	-6	-147	1141	7.21	-9.35	0.12
135	SLV 14	-6	-147	1141	7.21	-9.35	0.12
135	SLV 15	-27	-424	1459	19.32	-16.21	0.2
135	SLV 16	-27	-424	1459	19.32	-16.21	0.2
136	SLU 1	1	-148	1065	6.87	-0.24	0
136	SLU 2	1	-178	1077	8.14	-0.24	0
136	SLU 3	1	-148	1065	6.87	-0.24	0
136	SLU 4	1	-166	1072	7.63	-0.24	0
136	SLU 5	1	-178	1077	8.14	-0.24	0
136	SLU 6	1	-148	1065	6.87	-0.24	0
136	SLU 7	1	-166	1072	7.63	-0.24	0
136	SLU 8	1	-148	1065	6.87	-0.24	0
136	SLU 9	1	-166	1072	7.63	-0.24	0
136	SLU 10	1	-206	1295	9.58	-0.32	0
136	SLU 11	1	-177	1283	8.31	-0.32	0
136	SLU 12	1	-195	1290	9.07	-0.32	0
136	SLU 13	1	-206	1295	9.58	-0.32	0
136	SLU 14	1	-177	1283	8.31	-0.32	0
136	SLU 15	1	-195	1290	9.07	-0.32	0
136	SLU 16	1	-177	1283	8.31	-0.32	0
136	SLU 17	1	-195	1290	9.07	-0.32	0
136	SLU 18	1	-189	1377	8.93	-0.36	0
136	SLU 19	1	-207	1384	9.69	-0.35	0
136	SLU 20	1	-189	1377	8.93	-0.36	0
136	SLU 21	1	-207	1384	9.69	-0.35	0



Nodo	Cont.	Reazione a traslazione				Reazione a rotazione		
		x	y	z		x	y	z
136	SLU 22	1	-163	1177	7.6	-0.28	0	
136	SLU 23	1	-192	1188	8.86	-0.28	0	
136	SLU 24	1	-163	1177	7.6	-0.28	0	
136	SLU 25	1	-180	1183	8.36	-0.28	0	
136	SLU 26	1	-192	1188	8.86	-0.28	0	
136	SLU 27	1	-163	1177	7.6	-0.28	0	
136	SLU 28	1	-180	1183	8.36	-0.28	0	
136	SLU 29	1	-163	1177	7.6	-0.28	0	
136	SLU 30	1	-180	1183	8.36	-0.28	0	
136	SLU 31	1	-221	1406	10.3	-0.36	0	
136	SLU 32	1	-191	1395	9.04	-0.36	0	
136	SLU 33	1	-209	1402	9.79	-0.36	0	
136	SLU 34	1	-221	1406	10.3	-0.36	0	
136	SLU 35	1	-191	1395	9.04	-0.36	0	
136	SLU 36	1	-209	1402	9.79	-0.36	0	
136	SLU 37	1	-191	1395	9.04	-0.36	0	
136	SLU 38	1	-209	1402	9.79	-0.36	0	
136	SLU 39	1	-203	1488	9.65	-0.39	0	
136	SLU 40	1	-221	1495	10.41	-0.39	0	
136	SLU 41	1	-203	1488	9.65	-0.39	0	
136	SLU 42	1	-221	1495	10.41	-0.39	0	
136	SLU 43	1	-188	1346	8.69	-0.3	0	
136	SLU 44	1	-218	1358	9.95	-0.3	0	
136	SLU 45	1	-188	1346	8.69	-0.3	0	
136	SLU 46	1	-206	1353	9.45	-0.3	0	
136	SLU 47	1	-218	1358	9.95	-0.3	0	
136	SLU 48	1	-188	1346	8.69	-0.3	0	
136	SLU 49	1	-206	1353	9.45	-0.3	0	
136	SLU 50	1	-188	1346	8.69	-0.3	0	
136	SLU 51	1	-206	1353	9.45	-0.3	0	
136	SLU 52	1	-246	1576	11.39	-0.38	0	
136	SLU 53	1	-217	1564	10.13	-0.38	0	
136	SLU 54	1	-234	1571	10.89	-0.38	0	
136	SLU 55	1	-246	1576	11.39	-0.38	0	
136	SLU 56	1	-217	1564	10.13	-0.38	0	
136	SLU 57	1	-234	1571	10.89	-0.38	0	
136	SLU 58	1	-217	1564	10.13	-0.38	0	
136	SLU 59	1	-234	1571	10.89	-0.38	0	
136	SLU 60	1	-229	1658	10.75	-0.42	0	
136	SLU 61	1	-246	1665	11.5	-0.41	0	
136	SLU 62	1	-229	1658	10.75	-0.42	0	
136	SLU 63	1	-246	1665	11.5	-0.41	0	
136	SLU 64	1	-202	1458	9.41	-0.34	0	
136	SLU 65	1	-232	1469	10.67	-0.34	0	
136	SLU 66	1	-202	1458	9.41	-0.34	0	
136	SLU 67	1	-220	1465	10.17	-0.34	0	
136	SLU 68	1	-232	1469	10.67	-0.34	0	
136	SLU 69	1	-202	1458	9.41	-0.34	0	
136	SLU 70	1	-220	1465	10.17	-0.34	0	
136	SLU 71	1	-202	1458	9.41	-0.34	0	
136	SLU 72	1	-220	1465	10.17	-0.34	0	
136	SLU 73	1	-260	1687	12.11	-0.42	0	
136	SLU 74	1	-231	1676	10.85	-0.42	0	
136	SLU 75	1	-249	1683	11.61	-0.42	0	
136	SLU 76	1	-260	1687	12.11	-0.42	0	
136	SLU 77	1	-231	1676	10.85	-0.42	0	
136	SLU 78	1	-249	1683	11.61	-0.42	0	
136	SLU 79	1	-231	1676	10.85	-0.42	0	
136	SLU 80	1	-249	1683	11.61	-0.42	0	
136	SLU 81	1	-243	1769	11.47	-0.45	0	
136	SLU 82	1	-261	1776	12.23	-0.45	0	
136	SLU 83	1	-243	1769	11.47	-0.45	0	
136	SLU 84	1	-261	1776	12.23	-0.45	0	
136	SLE RA 1	1	-153	1097	7.08	-0.25	0	
136	SLE RA 2	1	-172	1105	7.92	-0.25	0	
136	SLE RA 3	1	-153	1097	7.08	-0.25	0	
136	SLE RA 4	1	-164	1101	7.59	-0.25	0	
136	SLE RA 5	1	-172	1105	7.92	-0.25	0	
136	SLE RA 6	1	-153	1097	7.08	-0.25	0	
136	SLE RA 7	1	-164	1101	7.59	-0.25	0	
136	SLE RA 8	1	-153	1097	7.08	-0.25	0	
136	SLE RA 9	1	-164	1101	7.59	-0.25	0	
136	SLE RA 10	1	-191	1250	8.88	-0.3	0	
136	SLE RA 11	1	-172	1242	8.04	-0.31	0	
136	SLE RA 12	1	-183	1247	8.55	-0.31	0	
136	SLE RA 13	1	-191	1250	8.88	-0.3	0	
136	SLE RA 14	1	-172	1242	8.04	-0.31	0	
136	SLE RA 15	1	-183	1247	8.55	-0.31	0	
136	SLE RA 16	1	-172	1242	8.04	-0.31	0	
136	SLE RA 17	1	-183	1247	8.55	-0.31	0	
136	SLE RA 18	1	-180	1305	8.45	-0.33	0	
136	SLE RA 19	1	-191	1309	8.96	-0.33	0	
136	SLE RA 20	1	-180	1305	8.45	-0.33	0	
136	SLE RA 21	1	-191	1309	8.96	-0.33	0	
136	SLE FR 1	1	-153	1097	7.08	-0.25	0	
136	SLE FR 2	1	-156	1098	7.25	-0.25	0	
136	SLE FR 3	1	-153	1097	7.08	-0.25	0	
136	SLE FR 4	1	-165	1161	7.66	-0.28	0	
136	SLE FR 5	1	-161	1159	7.49	-0.28	0	
136	SLE FR 6	1	-166	1201	7.77	-0.29	0	



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
136	SLE QP 1	1	-153	1097	7.08	-0.25	0
136	SLE QP 2	1	-161	1159	7.49	-0.28	0
136	SLD 1	-1	-71	1101	3.83	1.51	0
136	SLD 2	-1	-71	1101	3.83	1.51	0
136	SLD 3	-3	-161	1149	7.65	0.69	-0.01
136	SLD 4	-3	-161	1149	7.65	0.69	-0.01
136	SLD 5	3	3	1069	0.61	1.51	0
136	SLD 6	3	3	1069	0.61	1.51	0
136	SLD 7	-3	-298	1229	13.33	-1.24	-0.01
136	SLD 8	-3	-298	1229	13.33	-1.24	-0.01
136	SLD 9	5	-23	1089	1.66	0.68	0.01
136	SLD 10	5	-23	1089	1.66	0.68	0.01
136	SLD 11	-1	-325	1250	14.38	-2.06	0
136	SLD 12	-1	-325	1250	14.38	-2.06	0
136	SLD 13	5	-160	1169	7.33	-1.24	0
136	SLD 14	5	-160	1169	7.33	-1.24	0
136	SLD 15	3	-250	1217	11.15	-2.06	0
136	SLD 16	3	-250	1217	11.15	-2.06	0
136	SLV 1	-4	56	1017	-1.32	4.07	-0.01
136	SLV 2	-4	56	1017	-1.32	4.07	-0.01
136	SLV 3	-9	-162	1137	7.85	1.98	-0.01
136	SLV 4	-9	-162	1137	7.85	1.98	-0.01
136	SLV 5	6	234	936	-9.06	4.21	0.01
136	SLV 6	6	234	936	-9.06	4.21	0.01
136	SLV 7	-9	-491	1333	21.51	-2.78	-0.01
136	SLV 8	-9	-491	1333	21.51	-2.78	-0.01
136	SLV 9	11	170	985	-6.52	2.23	0.01
136	SLV 10	11	170	985	-6.52	2.23	0.01
136	SLV 11	-5	-556	1383	24.05	-4.76	-0.01
136	SLV 12	-5	-556	1383	24.05	-4.76	-0.01
136	SLV 13	11	-159	1182	7.14	-2.53	0.01
136	SLV 14	11	-159	1182	7.14	-2.53	0.01
136	SLV 15	6	-377	1301	16.31	-4.62	0
136	SLV 16	6	-377	1301	16.31	-4.62	0
137	SLU 1	265	1	769	0.17	5.26	-0.03
137	SLU 2	263	1	762	0.14	5.21	-0.02
137	SLU 3	265	1	769	0.17	5.26	-0.03
137	SLU 4	264	1	765	0.15	5.23	-0.02
137	SLU 5	263	1	762	0.14	5.21	-0.02
137	SLU 6	265	1	769	0.17	5.26	-0.03
137	SLU 7	264	1	765	0.15	5.23	-0.02
137	SLU 8	265	1	769	0.17	5.26	-0.03
137	SLU 9	264	1	765	0.15	5.23	-0.02
137	SLU 10	312	2	895	0.13	6.3	-0.01
137	SLU 11	314	1	902	0.15	6.35	-0.02
137	SLU 12	313	1	898	0.14	6.32	-0.01
137	SLU 13	312	2	895	0.13	6.3	-0.01
137	SLU 14	314	1	902	0.15	6.35	-0.02
137	SLU 15	313	1	898	0.14	6.32	-0.01
137	SLU 16	314	1	902	0.15	6.35	-0.02
137	SLU 17	313	1	898	0.14	6.32	-0.01
137	SLU 18	335	1	959	0.14	6.81	-0.01
137	SLU 19	334	2	955	0.13	6.78	-0.01
137	SLU 20	335	1	959	0.14	6.81	-0.01
137	SLU 21	334	2	955	0.13	6.78	-0.01
137	SLU 22	288	1	831	0.17	5.75	-0.02
137	SLU 23	286	1	824	0.14	5.7	-0.01
137	SLU 24	288	1	831	0.17	5.75	-0.02
137	SLU 25	286	1	827	0.15	5.72	-0.02
137	SLU 26	286	1	824	0.14	5.7	-0.01
137	SLU 27	288	1	831	0.17	5.75	-0.02
137	SLU 28	286	1	827	0.15	5.72	-0.02
137	SLU 29	288	1	831	0.17	5.75	-0.02
137	SLU 30	286	1	827	0.15	5.72	-0.02
137	SLU 31	334	2	957	0.12	6.79	-0.01
137	SLU 32	337	1	964	0.15	6.84	-0.01
137	SLU 33	335	2	960	0.13	6.81	-0.01
137	SLU 34	334	2	957	0.12	6.79	-0.01
137	SLU 35	337	1	964	0.15	6.84	-0.01
137	SLU 36	335	2	960	0.13	6.81	-0.01
137	SLU 37	337	1	964	0.15	6.84	-0.01
137	SLU 38	335	2	960	0.13	6.81	-0.01
137	SLU 39	357	2	1021	0.14	7.3	-0.01
137	SLU 40	356	2	1017	0.12	7.27	-0.01
137	SLU 41	357	2	1021	0.14	7.3	-0.01
137	SLU 42	356	2	1017	0.12	7.27	-0.01
137	SLU 43	337	1	978	0.22	6.66	-0.03
137	SLU 44	335	1	971	0.2	6.61	-0.03
137	SLU 45	337	1	978	0.22	6.66	-0.03
137	SLU 46	336	1	974	0.21	6.63	-0.03
137	SLU 47	335	1	971	0.2	6.61	-0.03
137	SLU 48	337	1	978	0.22	6.66	-0.03
137	SLU 49	336	1	974	0.21	6.63	-0.03
137	SLU 50	337	1	978	0.22	6.66	-0.03
137	SLU 51	336	1	974	0.21	6.63	-0.03
137	SLU 52	384	2	1105	0.18	7.7	-0.02
137	SLU 53	386	1	1112	0.2	7.75	-0.03
137	SLU 54	385	1	1107	0.19	7.72	-0.02
137	SLU 55	384	2	1105	0.18	7.7	-0.02
137	SLU 56	386	1	1112	0.2	7.75	-0.03



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
137	SLU 57	385	1	1107	0.19	7.72	-0.02
137	SLU 58	386	1	1112	0.2	7.75	-0.03
137	SLU 59	385	1	1107	0.19	7.72	-0.02
137	SLU 60	407	1	1169	0.2	8.22	-0.02
137	SLU 61	406	2	1165	0.18	8.19	-0.02
137	SLU 62	407	1	1169	0.2	8.22	-0.02
137	SLU 63	406	2	1165	0.18	8.19	-0.02
137	SLU 64	360	1	1040	0.22	7.16	-0.03
137	SLU 65	358	1	1033	0.19	7.11	-0.02
137	SLU 66	360	1	1040	0.22	7.16	-0.03
137	SLU 67	358	1	1036	0.2	7.13	-0.03
137	SLU 68	358	1	1033	0.19	7.11	-0.02
137	SLU 69	360	1	1040	0.22	7.16	-0.03
137	SLU 70	358	1	1036	0.2	7.13	-0.03
137	SLU 71	360	1	1040	0.22	7.16	-0.03
137	SLU 72	358	1	1036	0.2	7.13	-0.03
137	SLU 73	406	2	1167	0.17	8.2	-0.02
137	SLU 74	409	1	1174	0.2	8.25	-0.02
137	SLU 75	407	2	1169	0.18	8.22	-0.02
137	SLU 76	406	2	1167	0.17	8.2	-0.02
137	SLU 77	409	1	1174	0.2	8.25	-0.02
137	SLU 78	407	2	1169	0.18	8.22	-0.02
137	SLU 79	409	1	1174	0.2	8.25	-0.02
137	SLU 80	407	2	1169	0.18	8.22	-0.02
137	SLU 81	429	2	1231	0.19	8.71	-0.02
137	SLU 82	428	2	1227	0.18	8.68	-0.01
137	SLU 83	429	2	1231	0.19	8.71	-0.02
137	SLU 84	428	2	1227	0.18	8.68	-0.01
137	SLE RA 1	272	1	786	0.17	5.4	-0.02
137	SLE RA 2	270	1	782	0.15	5.36	-0.02
137	SLE RA 3	272	1	786	0.17	5.4	-0.02
137	SLE RA 4	271	1	784	0.16	5.38	-0.02
137	SLE RA 5	270	1	782	0.15	5.36	-0.02
137	SLE RA 6	272	1	786	0.17	5.4	-0.02
137	SLE RA 7	271	1	784	0.16	5.38	-0.02
137	SLE RA 8	272	1	786	0.17	5.4	-0.02
137	SLE RA 9	271	1	784	0.16	5.38	-0.02
137	SLE RA 10	303	1	871	0.14	6.09	-0.01
137	SLE RA 11	304	1	875	0.16	6.12	-0.02
137	SLE RA 12	303	1	873	0.15	6.1	-0.02
137	SLE RA 13	303	1	871	0.14	6.09	-0.01
137	SLE RA 14	304	1	875	0.16	6.12	-0.02
137	SLE RA 15	303	1	873	0.15	6.1	-0.02
137	SLE RA 16	304	1	875	0.16	6.12	-0.02
137	SLE RA 17	303	1	873	0.15	6.1	-0.02
137	SLE RA 18	318	1	914	0.15	6.43	-0.02
137	SLE RA 19	317	1	911	0.14	6.41	-0.01
137	SLE RA 20	318	1	914	0.15	6.43	-0.02
137	SLE RA 21	317	1	911	0.14	6.41	-0.01
137	SLE FR 1	272	1	786	0.17	5.4	-0.02
137	SLE FR 2	272	1	786	0.16	5.39	-0.02
137	SLE FR 3	272	1	786	0.17	5.4	-0.02
137	SLE FR 4	285	1	824	0.16	5.7	-0.02
137	SLE FR 5	286	1	825	0.16	5.71	-0.02
137	SLE FR 6	295	1	850	0.16	5.92	-0.02
137	SLE QP 1	272	1	786	0.17	5.4	-0.02
137	SLE QP 2	286	1	825	0.16	5.71	-0.02
137	SLD 1	327	-15	925	1.47	6.82	-0.41
137	SLD 2	327	-15	925	1.47	6.82	-0.41
137	SLD 3	346	-7	985	0.77	7.1	-0.2
137	SLD 4	346	-7	985	0.77	7.1	-0.2
137	SLD 5	269	-16	763	1.61	5.63	-0.44
137	SLD 6	269	-16	763	1.61	5.63	-0.44
137	SLD 7	333	11	965	-0.71	6.54	0.23
137	SLD 8	333	11	965	-0.71	6.54	0.23
137	SLD 9	239	-9	685	1.04	4.88	-0.27
137	SLD 10	239	-9	685	1.04	4.88	-0.27
137	SLD 11	302	18	886	-1.29	5.78	0.4
137	SLD 12	302	18	886	-1.29	5.78	0.4
137	SLD 13	225	8	664	-0.45	4.32	0.16
137	SLD 14	225	8	664	-0.45	4.32	0.16
137	SLD 15	244	16	724	-1.14	4.59	0.36
137	SLD 16	244	16	724	-1.14	4.59	0.36
137	SLV 1	383	-36	1060	3.32	8.33	-0.95
137	SLV 2	383	-36	1060	3.32	8.33	-0.95
137	SLV 3	428	-16	1203	1.54	8.98	-0.43
137	SLV 4	428	-16	1203	1.54	8.98	-0.43
137	SLV 5	246	-42	677	3.8	5.51	-1.08
137	SLV 6	246	-42	677	3.8	5.51	-1.08
137	SLV 7	397	27	1156	-2.12	7.67	0.64
137	SLV 8	397	27	1156	-2.12	7.67	0.64
137	SLV 9	175	-26	493	2.45	3.74	-0.68
137	SLV 10	175	-26	493	2.45	3.74	-0.68
137	SLV 11	325	43	972	-3.48	5.9	1.04
137	SLV 12	325	43	972	-3.48	5.9	1.04
137	SLV 13	144	17	446	-1.21	2.44	0.39
137	SLV 14	144	17	446	-1.21	2.44	0.39
137	SLV 15	189	38	590	-2.99	3.08	0.9
137	SLV 16	189	38	590	-2.99	3.08	0.9
138	SLU 1	190	-262	2580	6.89	10.77	0.75



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
138	SLU 2	188	-266	2561	7.12	10.71	0.76
138	SLU 3	190	-262	2580	6.89	10.77	0.75
138	SLU 4	189	-265	2569	7.03	10.73	0.75
138	SLU 5	188	-266	2561	7.12	10.71	0.76
138	SLU 6	190	-262	2580	6.89	10.77	0.75
138	SLU 7	189	-265	2569	7.03	10.73	0.75
138	SLU 8	190	-262	2580	6.89	10.77	0.75
138	SLU 9	189	-265	2569	7.03	10.73	0.75
138	SLU 10	234	-297	2959	7.77	12.99	0.86
138	SLU 11	235	-292	2977	7.54	13.04	0.85
138	SLU 12	234	-295	2966	7.68	13.01	0.85
138	SLU 13	234	-297	2959	7.77	12.99	0.86
138	SLU 14	235	-292	2977	7.54	13.04	0.85
138	SLU 15	234	-295	2966	7.68	13.01	0.85
138	SLU 16	235	-292	2977	7.54	13.04	0.85
138	SLU 17	234	-295	2966	7.68	13.01	0.85
138	SLU 18	255	-305	3148	7.81	14.02	0.89
138	SLU 19	254	-308	3137	7.95	13.99	0.9
138	SLU 20	255	-305	3148	7.81	14.02	0.89
138	SLU 21	254	-308	3137	7.95	13.99	0.9
138	SLU 22	209	-277	2769	7.24	11.75	0.8
138	SLU 23	208	-282	2750	7.48	11.7	0.81
138	SLU 24	209	-277	2769	7.24	11.75	0.8
138	SLU 25	208	-280	2758	7.39	11.72	0.8
138	SLU 26	208	-282	2750	7.48	11.7	0.81
138	SLU 27	209	-277	2769	7.24	11.75	0.8
138	SLU 28	208	-280	2758	7.39	11.72	0.8
138	SLU 29	209	-277	2769	7.24	11.75	0.8
138	SLU 30	208	-280	2758	7.39	11.72	0.8
138	SLU 31	253	-312	3148	8.13	13.98	0.91
138	SLU 32	254	-307	3166	7.89	14.03	0.9
138	SLU 33	253	-310	3155	8.04	14	0.9
138	SLU 34	253	-312	3148	8.13	13.98	0.91
138	SLU 35	254	-307	3166	7.89	14.03	0.9
138	SLU 36	253	-310	3155	8.04	14	0.9
138	SLU 37	254	-307	3166	7.89	14.03	0.9
138	SLU 38	253	-310	3155	8.04	14	0.9
138	SLU 39	274	-320	3337	8.17	15	0.94
138	SLU 40	273	-323	3326	8.31	14.97	0.95
138	SLU 41	274	-320	3337	8.17	15	0.94
138	SLU 42	273	-323	3326	8.31	14.97	0.95
138	SLU 43	241	-335	3289	8.83	13.66	0.96
138	SLU 44	239	-340	3271	9.06	13.61	0.96
138	SLU 45	241	-335	3289	8.83	13.66	0.96
138	SLU 46	240	-338	3278	8.97	13.63	0.96
138	SLU 47	239	-340	3271	9.06	13.61	0.96
138	SLU 48	241	-335	3289	8.83	13.66	0.96
138	SLU 49	240	-338	3278	8.97	13.63	0.96
138	SLU 50	241	-335	3289	8.83	13.66	0.96
138	SLU 51	240	-338	3278	8.97	13.63	0.96
138	SLU 52	284	-370	3668	9.71	15.88	1.06
138	SLU 53	286	-365	3687	9.48	15.93	1.06
138	SLU 54	285	-368	3675	9.62	15.9	1.06
138	SLU 55	284	-370	3668	9.71	15.88	1.06
138	SLU 56	286	-365	3687	9.48	15.93	1.06
138	SLU 57	285	-368	3675	9.62	15.9	1.06
138	SLU 58	286	-365	3687	9.48	15.93	1.06
138	SLU 59	285	-368	3675	9.62	15.9	1.06
138	SLU 60	305	-378	3857	9.76	16.91	1.1
138	SLU 61	304	-381	3846	9.9	16.88	1.1
138	SLU 62	305	-378	3857	9.76	16.91	1.1
138	SLU 63	304	-381	3846	9.9	16.88	1.1
138	SLU 64	260	-350	3478	9.19	14.64	1.01
138	SLU 65	258	-355	3460	9.42	14.59	1.01
138	SLU 66	260	-350	3478	9.19	14.64	1.01
138	SLU 67	259	-353	3467	9.33	14.61	1.01
138	SLU 68	258	-355	3460	9.42	14.59	1.01
138	SLU 69	260	-350	3478	9.19	14.64	1.01
138	SLU 70	259	-353	3467	9.33	14.61	1.01
138	SLU 71	260	-350	3478	9.19	14.64	1.01
138	SLU 72	259	-353	3467	9.33	14.61	1.01
138	SLU 73	303	-385	3857	10.07	16.87	1.11
138	SLU 74	305	-380	3876	9.84	16.92	1.11
138	SLU 75	304	-383	3864	9.98	16.89	1.11
138	SLU 76	303	-385	3857	10.07	16.87	1.11
138	SLU 77	305	-380	3876	9.84	16.92	1.11
138	SLU 78	304	-383	3864	9.98	16.89	1.11
138	SLU 79	305	-380	3876	9.84	16.92	1.11
138	SLU 80	304	-383	3864	9.98	16.89	1.11
138	SLU 81	324	-393	4046	10.12	17.9	1.15
138	SLU 82	323	-396	4035	10.26	17.86	1.15
138	SLU 83	324	-393	4046	10.12	17.9	1.15
138	SLU 84	323	-396	4035	10.26	17.86	1.15
138	SLE RA 1	196	-266	2634	6.99	11.05	0.76
138	SLE RA 2	194	-269	2622	7.14	11.01	0.77
138	SLE RA 3	196	-266	2634	6.99	11.05	0.76
138	SLE RA 4	195	-268	2627	7.08	11.03	0.77
138	SLE RA 5	194	-269	2622	7.14	11.01	0.77
138	SLE RA 6	196	-266	2634	6.99	11.05	0.76
138	SLE RA 7	195	-268	2627	7.08	11.03	0.77





Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
138	SLE RA 8	196	-266	2634	6.99	11.05	0.76
138	SLE RA 9	195	-268	2627	7.08	11.03	0.77
138	SLE RA 10	225	-289	2887	7.58	12.53	0.83
138	SLE RA 11	226	-286	2899	7.42	12.57	0.83
138	SLE RA 12	225	-288	2891	7.52	12.54	0.83
138	SLE RA 13	225	-289	2887	7.58	12.53	0.83
138	SLE RA 14	226	-286	2899	7.42	12.57	0.83
138	SLE RA 15	225	-288	2891	7.52	12.54	0.83
138	SLE RA 16	226	-286	2899	7.42	12.57	0.83
138	SLE RA 17	225	-288	2891	7.52	12.54	0.83
138	SLE RA 18	239	-295	3012	7.61	13.22	0.86
138	SLE RA 19	238	-297	3005	7.7	13.2	0.86
138	SLE RA 20	239	-295	3012	7.61	13.22	0.86
138	SLE RA 21	238	-297	3005	7.7	13.2	0.86
138	SLE FR 1	196	-266	2634	6.99	11.05	0.76
138	SLE FR 2	195	-267	2631	7.02	11.04	0.76
138	SLE FR 3	196	-266	2634	6.99	11.05	0.76
138	SLE FR 4	208	-275	2745	7.21	11.69	0.79
138	SLE FR 5	208	-275	2748	7.17	11.7	0.79
138	SLE FR 6	217	-280	2823	7.3	12.13	0.81
138	SLE QP 1	196	-266	2634	6.99	11.05	0.76
138	SLE QP 2	208	-275	2748	7.17	11.7	0.79
138	SLD 1	271	-213	2925	4.8	15.35	0.79
138	SLD 2	271	-213	2925	4.8	15.35	0.79
138	SLD 3	283	-285	3169	7.76	15.7	0.95
138	SLD 4	283	-285	3169	7.76	15.7	0.95
138	SLD 5	208	-147	2430	1.98	12.25	0.55
138	SLD 6	208	-147	2430	1.98	12.25	0.55
138	SLD 7	250	-387	3245	11.84	13.44	1.09
138	SLD 8	250	-387	3245	11.84	13.44	1.09
138	SLD 9	167	-162	2250	2.51	9.95	0.5
138	SLD 10	167	-162	2250	2.51	9.95	0.5
138	SLD 11	209	-403	3065	12.37	11.15	1.04
138	SLD 12	209	-403	3065	12.37	11.15	1.04
138	SLD 13	134	-265	2326	6.59	7.69	0.63
138	SLD 14	134	-265	2326	6.59	7.69	0.63
138	SLD 15	146	-337	2570	9.54	8.05	0.79
138	SLD 16	146	-337	2570	9.54	8.05	0.79
138	SLV 1	354	-127	3159	1.53	20.28	0.79
138	SLV 2	354	-127	3159	1.53	20.28	0.79
138	SLV 3	385	-298	3740	8.52	21.14	1.18
138	SLV 4	385	-298	3740	8.52	21.14	1.18
138	SLV 5	206	29	1990	-5.13	12.96	0.21
138	SLV 6	206	29	1990	-5.13	12.96	0.21
138	SLV 7	308	-541	3926	18.19	15.85	1.49
138	SLV 8	308	-541	3926	18.19	15.85	1.49
138	SLV 9	109	-8	1569	-3.84	7.55	0.1
138	SLV 10	109	-8	1569	-3.84	7.55	0.1
138	SLV 11	211	-578	3505	19.48	10.44	1.37
138	SLV 12	211	-578	3505	19.48	10.44	1.37
138	SLV 13	32	-251	1755	5.83	2.25	0.41
138	SLV 14	32	-251	1755	5.83	2.25	0.41
138	SLV 15	63	-422	2336	12.82	3.12	0.79
138	SLV 16	63	-422	2336	12.82	3.12	0.79
139	SLU 1	240	-4	1788	0.99	11.93	0.03
139	SLU 2	237	-5	1766	1.17	11.77	0.03
139	SLU 3	240	-4	1788	0.99	11.93	0.03
139	SLU 4	238	-5	1775	1.1	11.83	0.03
139	SLU 5	237	-5	1766	1.17	11.77	0.03
139	SLU 6	240	-4	1788	0.99	11.93	0.03
139	SLU 7	238	-5	1775	1.1	11.83	0.03
139	SLU 8	240	-4	1788	0.99	11.93	0.03
139	SLU 9	238	-5	1775	1.1	11.83	0.03
139	SLU 10	306	-6	2033	1.36	15.11	0.04
139	SLU 11	309	-5	2055	1.18	15.28	0.04
139	SLU 12	307	-6	2042	1.29	15.18	0.04
139	SLU 13	306	-6	2033	1.36	15.11	0.04
139	SLU 14	309	-5	2055	1.18	15.28	0.04
139	SLU 15	307	-6	2042	1.29	15.18	0.04
139	SLU 16	309	-5	2055	1.18	15.28	0.04
139	SLU 17	307	-6	2042	1.29	15.18	0.04
139	SLU 18	339	-6	2169	1.27	16.71	0.04
139	SLU 19	337	-6	2156	1.37	16.61	0.04
139	SLU 20	339	-6	2169	1.27	16.71	0.04
139	SLU 21	337	-6	2156	1.37	16.61	0.04
139	SLU 22	268	-5	1915	1.08	13.35	0.03
139	SLU 23	265	-5	1893	1.26	13.19	0.03
139	SLU 24	268	-5	1915	1.08	13.35	0.03
139	SLU 25	267	-5	1902	1.19	13.26	0.03
139	SLU 26	265	-5	1893	1.26	13.19	0.03
139	SLU 27	268	-5	1915	1.08	13.35	0.03
139	SLU 28	267	-5	1902	1.19	13.26	0.03
139	SLU 29	268	-5	1915	1.08	13.35	0.03
139	SLU 30	267	-5	1902	1.19	13.26	0.03
139	SLU 31	335	-6	2160	1.45	16.54	0.04
139	SLU 32	338	-6	2181	1.27	16.7	0.04
139	SLU 33	336	-6	2168	1.38	16.6	0.04
139	SLU 34	335	-6	2160	1.45	16.54	0.04
139	SLU 35	338	-6	2181	1.27	16.7	0.04
139	SLU 36	336	-6	2168	1.38	16.6	0.04



Nodo	Cont.	Reazione a traslazione				Reazione a rotazione			
		x	y	z		x	y	z	
139	SLU 37	338	-6	2181	1.27	16.7	0.04		
139	SLU 38	336	-6	2168	1.38	16.6	0.04		
139	SLU 39	368	-6	2296	1.36	18.14	0.04		
139	SLU 40	366	-6	2283	1.47	18.04	0.04		
139	SLU 41	368	-6	2296	1.36	18.14	0.04		
139	SLU 42	366	-6	2283	1.47	18.04	0.04		
139	SLU 43	302	-6	2281	1.25	15.02	0.04		
139	SLU 44	298	-6	2259	1.43	14.86	0.04		
139	SLU 45	302	-6	2281	1.25	15.02	0.04		
139	SLU 46	300	-6	2268	1.36	14.92	0.04		
139	SLU 47	298	-6	2259	1.43	14.86	0.04		
139	SLU 48	302	-6	2281	1.25	15.02	0.04		
139	SLU 49	300	-6	2268	1.36	14.92	0.04		
139	SLU 50	302	-6	2281	1.25	15.02	0.04		
139	SLU 51	300	-6	2268	1.36	14.92	0.04		
139	SLU 52	368	-7	2526	1.63	18.2	0.05		
139	SLU 53	371	-7	2548	1.45	18.37	0.04		
139	SLU 54	369	-7	2535	1.56	18.27	0.04		
139	SLU 55	368	-7	2526	1.63	18.2	0.05		
139	SLU 56	371	-7	2548	1.45	18.37	0.04		
139	SLU 57	369	-7	2535	1.56	18.27	0.04		
139	SLU 58	371	-7	2548	1.45	18.37	0.04		
139	SLU 59	369	-7	2535	1.56	18.27	0.04		
139	SLU 60	401	-7	2662	1.53	19.8	0.05		
139	SLU 61	399	-7	2649	1.64	19.7	0.05		
139	SLU 62	401	-7	2662	1.53	19.8	0.05		
139	SLU 63	399	-7	2649	1.64	19.7	0.05		
139	SLU 64	330	-6	2408	1.34	16.44	0.04		
139	SLU 65	327	-6	2386	1.52	16.28	0.04		
139	SLU 66	330	-6	2408	1.34	16.44	0.04		
139	SLU 67	329	-6	2395	1.45	16.35	0.04		
139	SLU 68	327	-6	2386	1.52	16.28	0.04		
139	SLU 69	330	-6	2408	1.34	16.44	0.04		
139	SLU 70	329	-6	2395	1.45	16.35	0.04		
139	SLU 71	330	-6	2408	1.34	16.44	0.04		
139	SLU 72	329	-6	2395	1.45	16.35	0.04		
139	SLU 73	397	-7	2653	1.72	19.63	0.05		
139	SLU 74	400	-7	2674	1.54	19.79	0.05		
139	SLU 75	398	-7	2661	1.65	19.69	0.05		
139	SLU 76	397	-7	2653	1.72	19.63	0.05		
139	SLU 77	400	-7	2674	1.54	19.79	0.05		
139	SLU 78	398	-7	2661	1.65	19.69	0.05		
139	SLU 79	400	-7	2674	1.54	19.79	0.05		
139	SLU 80	398	-7	2661	1.65	19.69	0.05		
139	SLU 81	429	-7	2789	1.62	21.23	0.05		
139	SLU 82	428	-8	2776	1.73	21.13	0.05		
139	SLU 83	429	-7	2789	1.62	21.23	0.05		
139	SLU 84	428	-8	2776	1.73	21.13	0.05		
139	SLE RA 1	248	-5	1824	1.01	12.34	0.03		
139	SLE RA 2	246	-5	1810	1.13	12.23	0.03		
139	SLE RA 3	248	-5	1824	1.01	12.34	0.03		
139	SLE RA 4	247	-5	1816	1.09	12.27	0.03		
139	SLE RA 5	246	-5	1810	1.13	12.23	0.03		
139	SLE RA 6	248	-5	1824	1.01	12.34	0.03		
139	SLE RA 7	247	-5	1816	1.09	12.27	0.03		
139	SLE RA 8	248	-5	1824	1.01	12.34	0.03		
139	SLE RA 9	247	-5	1816	1.09	12.27	0.03		
139	SLE RA 10	292	-5	1988	1.26	14.46	0.04		
139	SLE RA 11	294	-5	2002	1.14	14.57	0.03		
139	SLE RA 12	293	-5	1993	1.22	14.5	0.04		
139	SLE RA 13	292	-5	1988	1.26	14.46	0.04		
139	SLE RA 14	294	-5	2002	1.14	14.57	0.03		
139	SLE RA 15	293	-5	1993	1.22	14.5	0.04		
139	SLE RA 16	294	-5	2002	1.14	14.57	0.03		
139	SLE RA 17	293	-5	1993	1.22	14.5	0.04		
139	SLE RA 18	314	-5	2078	1.2	15.52	0.04		
139	SLE RA 19	313	-6	2070	1.27	15.46	0.04		
139	SLE RA 20	314	-5	2078	1.2	15.52	0.04		
139	SLE RA 21	313	-6	2070	1.27	15.46	0.04		
139	SLE FR 1	248	-5	1824	1.01	12.34	0.03		
139	SLE FR 2	247	-5	1821	1.04	12.31	0.03		
139	SLE FR 3	248	-5	1824	1.01	12.34	0.03		
139	SLE FR 4	267	-5	1898	1.09	13.27	0.03		
139	SLE FR 5	268	-5	1900	1.07	13.29	0.03		
139	SLE FR 6	281	-5	1951	1.11	13.93	0.03		
139	SLE QP 1	248	-5	1824	1.01	12.34	0.03		
139	SLE QP 2	268	-5	1900	1.07	13.29	0.03		
139	SLD 1	399	5	2007	-4.33	18.2	-0.03		
139	SLD 2	399	5	2007	-4.33	18.2	-0.03		
139	SLD 3	373	7	2122	-0.97	19.01	-0.01		
139	SLD 4	373	7	2122	-0.97	19.01	-0.01		
139	SLD 5	347	-6	1757	-5.63	13.53	-0.01		
139	SLD 6	347	-6	1757	-5.63	13.53	-0.01		
139	SLD 7	260	3	2142	5.54	16.24	0.05		
139	SLD 8	260	3	2142	5.54	16.24	0.05		
139	SLD 9	276	-12	1659	-3.4	10.34	0.02		
139	SLD 10	276	-12	1659	-3.4	10.34	0.02		
139	SLD 11	188	-4	2043	7.77	13.06	0.08		
139	SLD 12	188	-4	2043	7.77	13.06	0.08		
139	SLD 13	162	-17	1679	3.11	7.57	0.07		



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
Ind.	N.br.						
139	SLD 14	162	-17	1679	3.11	7.57	0.07
139	SLD 15	136	-14	1794	6.47	8.39	0.09
139	SLD 16	136	-14	1794	6.47	8.39	0.09
139	SLV 1	579	18	2148	-11.98	24.86	-0.11
139	SLV 2	579	18	2148	-11.98	24.86	-0.11
139	SLV 3	517	24	2422	-3.52	26.79	-0.06
139	SLV 4	517	24	2422	-3.52	26.79	-0.06
139	SLV 5	455	-7	1558	-15.68	13.83	-0.07
139	SLV 6	455	-7	1558	-15.68	13.83	-0.07
139	SLV 7	249	13	2473	12.53	20.27	0.07
139	SLV 8	249	13	2473	12.53	20.27	0.07
139	SLV 9	287	-23	1327	-10.39	6.31	0
139	SLV 10	287	-23	1327	-10.39	6.31	0
139	SLV 11	81	-2	2243	17.82	12.76	0.14
139	SLV 12	81	-2	2243	17.82	12.76	0.14
139	SLV 13	18	-33	1378	5.66	-0.2	0.13
139	SLV 14	18	-33	1378	5.66	-0.2	0.13
139	SLV 15	-43	-27	1653	14.12	1.73	0.17
139	SLV 16	-43	-27	1653	14.12	1.73	0.17
140	SLU 1	172	-2	1687	0.45	6.12	0.01
140	SLU 2	172	-2	1664	0.73	6.19	0.01
140	SLU 3	172	-2	1687	0.45	6.12	0.01
140	SLU 4	172	-2	1673	0.62	6.16	0.01
140	SLU 5	172	-2	1664	0.73	6.19	0.01
140	SLU 6	172	-2	1687	0.45	6.12	0.01
140	SLU 7	172	-2	1673	0.62	6.16	0.01
140	SLU 8	172	-2	1687	0.45	6.12	0.01
140	SLU 9	172	-2	1673	0.62	6.16	0.01
140	SLU 10	235	-2	1909	0.85	8.47	0.01
140	SLU 11	234	-2	1931	0.57	8.4	0.01
140	SLU 12	235	-2	1918	0.74	8.44	0.01
140	SLU 13	235	-2	1909	0.85	8.47	0.01
140	SLU 14	234	-2	1931	0.57	8.4	0.01
140	SLU 15	235	-2	1918	0.74	8.44	0.01
140	SLU 16	234	-2	1931	0.57	8.4	0.01
140	SLU 17	235	-2	1918	0.74	8.44	0.01
140	SLU 18	261	-2	2036	0.62	9.38	0.01
140	SLU 19	261	-2	2023	0.79	9.42	0.01
140	SLU 20	261	-2	2036	0.62	9.38	0.01
140	SLU 21	261	-2	2023	0.79	9.42	0.01
140	SLU 22	197	-2	1802	0.5	7.02	0.01
140	SLU 23	197	-2	1779	0.78	7.09	0.01
140	SLU 24	197	-2	1802	0.5	7.02	0.01
140	SLU 25	197	-2	1789	0.67	7.06	0.01
140	SLU 26	197	-2	1779	0.78	7.09	0.01
140	SLU 27	197	-2	1802	0.5	7.02	0.01
140	SLU 28	197	-2	1789	0.67	7.06	0.01
140	SLU 29	197	-2	1802	0.5	7.02	0.01
140	SLU 30	197	-2	1789	0.67	7.06	0.01
140	SLU 31	260	-3	2024	0.9	9.36	0.02
140	SLU 32	259	-2	2047	0.62	9.3	0.01
140	SLU 33	260	-2	2033	0.79	9.34	0.01
140	SLU 34	260	-3	2024	0.9	9.36	0.02
140	SLU 35	259	-2	2047	0.62	9.3	0.01
140	SLU 36	260	-2	2033	0.79	9.34	0.01
140	SLU 37	259	-2	2047	0.62	9.3	0.01
140	SLU 38	260	-2	2033	0.79	9.34	0.01
140	SLU 39	286	-2	2152	0.67	10.27	0.01
140	SLU 40	286	-3	2138	0.84	10.31	0.02
140	SLU 41	286	-2	2152	0.67	10.27	0.01
140	SLU 42	286	-3	2138	0.84	10.31	0.02
140	SLU 43	215	-2	2153	0.57	7.65	0.01
140	SLU 44	215	-2	2130	0.85	7.72	0.01
140	SLU 45	215	-2	2153	0.57	7.65	0.01
140	SLU 46	215	-2	2139	0.74	7.69	0.01
140	SLU 47	215	-2	2130	0.85	7.72	0.01
140	SLU 48	215	-2	2153	0.57	7.65	0.01
140	SLU 49	215	-2	2139	0.74	7.69	0.01
140	SLU 50	215	-2	2153	0.57	7.65	0.01
140	SLU 51	215	-2	2139	0.74	7.69	0.01
140	SLU 52	278	-3	2375	0.97	10	0.02
140	SLU 53	277	-2	2398	0.69	9.93	0.01
140	SLU 54	278	-3	2384	0.86	9.97	0.02
140	SLU 55	278	-3	2375	0.97	10	0.02
140	SLU 56	277	-2	2398	0.69	9.93	0.01
140	SLU 57	278	-3	2384	0.86	9.97	0.02
140	SLU 58	277	-2	2398	0.69	9.93	0.01
140	SLU 59	278	-3	2384	0.86	9.97	0.02
140	SLU 60	304	-3	2503	0.74	10.9	0.02
140	SLU 61	304	-3	2489	0.91	10.95	0.02
140	SLU 62	304	-3	2503	0.74	10.9	0.02
140	SLU 63	304	-3	2489	0.91	10.95	0.02
140	SLU 64	240	-2	2269	0.62	8.55	0.01
140	SLU 65	240	-2	2246	0.9	8.62	0.02
140	SLU 66	240	-2	2269	0.62	8.55	0.01
140	SLU 67	240	-2	2255	0.79	8.59	0.01
140	SLU 68	240	-2	2246	0.9	8.62	0.02
140	SLU 69	240	-2	2269	0.62	8.55	0.01
140	SLU 70	240	-2	2255	0.79	8.59	0.01
140	SLU 71	240	-2	2269	0.62	8.55	0.01



Nodo	Cont.	Reazione a traslazione				Reazione a rotazione		
		x	y	z		x	y	z
140	SLU 72	240	-2	2255		0.79	8.59	0.01
140	SLU 73	303	-3	2491		1.02	10.89	0.02
140	SLU 74	302	-3	2513		0.74	10.83	0.02
140	SLU 75	303	-3	2500		0.91	10.87	0.02
140	SLU 76	303	-3	2491		1.02	10.89	0.02
140	SLU 77	302	-3	2513		0.74	10.83	0.02
140	SLU 78	303	-3	2500		0.91	10.87	0.02
140	SLU 79	302	-3	2513		0.74	10.83	0.02
140	SLU 80	303	-3	2500		0.91	10.87	0.02
140	SLU 81	329	-3	2618		0.79	11.8	0.02
140	SLU 82	329	-3	2604		0.96	11.84	0.02
140	SLU 83	329	-3	2618		0.79	11.8	0.02
140	SLU 84	329	-3	2604		0.96	11.84	0.02
140	SLE RA 1	179	-2	1720		0.46	6.38	0.01
140	SLE RA 2	179	-2	1705		0.65	6.42	0.01
140	SLE RA 3	179	-2	1720		0.46	6.38	0.01
140	SLE RA 4	179	-2	1711		0.58	6.41	0.01
140	SLE RA 5	179	-2	1705		0.65	6.42	0.01
140	SLE RA 6	179	-2	1720		0.46	6.38	0.01
140	SLE RA 7	179	-2	1711		0.58	6.41	0.01
140	SLE RA 8	179	-2	1720		0.46	6.38	0.01
140	SLE RA 9	179	-2	1711		0.58	6.41	0.01
140	SLE RA 10	221	-2	1868		0.73	7.94	0.01
140	SLE RA 11	221	-2	1883		0.54	7.9	0.01
140	SLE RA 12	221	-2	1874		0.66	7.92	0.01
140	SLE RA 13	221	-2	1868		0.73	7.94	0.01
140	SLE RA 14	221	-2	1883		0.54	7.9	0.01
140	SLE RA 15	221	-2	1874		0.66	7.92	0.01
140	SLE RA 16	221	-2	1883		0.54	7.9	0.01
140	SLE RA 17	221	-2	1874		0.66	7.92	0.01
140	SLE RA 18	238	-2	1953		0.58	8.55	0.01
140	SLE RA 19	239	-2	1944		0.69	8.57	0.01
140	SLE RA 20	238	-2	1953		0.58	8.55	0.01
140	SLE RA 21	239	-2	1944		0.69	8.57	0.01
140	SLE FR 1	179	-2	1720		0.46	6.38	0.01
140	SLE FR 2	179	-2	1717		0.5	6.39	0.01
140	SLE FR 3	179	-2	1720		0.46	6.38	0.01
140	SLE FR 4	197	-2	1787		0.54	7.04	0.01
140	SLE FR 5	197	-2	1790		0.5	7.03	0.01
140	SLE FR 6	209	-2	1836		0.52	7.46	0.01
140	SLE QP 1	179	-2	1720		0.46	6.38	0.01
140	SLE QP 2	197	-2	1790		0.5	7.03	0.01
140	SLD 1	339	6	1882		-9.07	12.68	-0.04
140	SLD 2	339	6	1882		-9.07	12.68	-0.04
140	SLD 3	320	11	1956		-1.47	12.08	-0.06
140	SLD 4	320	11	1956		-1.47	12.08	-0.06
140	SLD 5	268	-7	1705		-13.9	9.64	0.03
140	SLD 6	268	-7	1705		-13.9	9.64	0.03
140	SLD 7	206	9	1952		11.43	7.63	-0.04
140	SLD 8	206	9	1952		11.43	7.63	-0.04
140	SLD 9	188	-13	1627		-10.44	6.43	0.07
140	SLD 10	188	-13	1627		-10.44	6.43	0.07
140	SLD 11	126	3	1874		14.89	4.42	-0.01
140	SLD 12	126	3	1874		14.89	4.42	-0.01
140	SLD 13	73	-15	1623		2.46	1.98	0.08
140	SLD 14	73	-15	1623		2.46	1.98	0.08
140	SLD 15	55	-10	1697		10.06	1.38	0.06
140	SLD 16	55	-10	1697		10.06	1.38	0.06
140	SLV 1	532	17	2004		-22.83	20.35	-0.1
140	SLV 2	532	17	2004		-22.83	20.35	-0.1
140	SLV 3	488	29	2182		-3.65	18.92	-0.16
140	SLV 4	488	29	2182		-3.65	18.92	-0.16
140	SLV 5	364	-13	1585		-35.59	13.2	0.06
140	SLV 6	364	-13	1585		-35.59	13.2	0.06
140	SLV 7	217	25	2177		28.34	8.43	-0.12
140	SLV 8	217	25	2177		28.34	8.43	-0.12
140	SLV 9	176	-28	1403		-27.35	5.63	0.14
140	SLV 10	176	-28	1403		-27.35	5.63	0.14
140	SLV 11	29	10	1994		36.59	0.86	-0.03
140	SLV 12	29	10	1994		36.59	0.86	-0.03
140	SLV 13	-94	-32	1397		4.65	-4.87	0.18
140	SLV 14	-94	-32	1397		4.65	-4.87	0.18
140	SLV 15	-138	-21	1575		23.83	-6.3	0.13
140	SLV 16	-138	-21	1575		23.83	-6.3	0.13
141	SLU 1	172	0	1629		-0.03	7.99	0
141	SLU 2	174	-1	1608		0.31	8.01	0
141	SLU 3	172	0	1629		-0.03	7.99	0
141	SLU 4	173	0	1616		0.17	8	0
141	SLU 5	174	-1	1608		0.31	8.01	0
141	SLU 6	172	0	1629		-0.03	7.99	0
141	SLU 7	173	0	1616		0.17	8	0
141	SLU 8	172	0	1629		-0.03	7.99	0
141	SLU 9	173	0	1616		0.17	8	0
141	SLU 10	248	-1	1845		0.33	11.22	0.01
141	SLU 11	246	0	1866		-0.01	11.2	0
141	SLU 12	247	-1	1853		0.2	11.21	0
141	SLU 13	248	-1	1845		0.33	11.22	0.01
141	SLU 14	246	0	1866		-0.01	11.2	0
141	SLU 15	247	-1	1853		0.2	11.21	0
141	SLU 16	246	0	1866		-0.01	11.2	0



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
141	SLU 17	247	-1	1853	0.2	11.21	0
141	SLU 18	278	0	1968	0	12.58	0
141	SLU 19	279	-1	1955	0.21	12.59	0
141	SLU 20	278	0	1968	0	12.58	0
141	SLU 21	279	-1	1955	0.21	12.59	0
141	SLU 22	202	0	1739	-0.03	9.3	0
141	SLU 23	204	-1	1718	0.31	9.32	0
141	SLU 24	202	0	1739	-0.03	9.3	0
141	SLU 25	203	-1	1727	0.18	9.31	0
141	SLU 26	204	-1	1718	0.31	9.32	0
141	SLU 27	202	0	1739	-0.03	9.3	0
141	SLU 28	203	-1	1727	0.18	9.31	0
141	SLU 29	202	0	1739	-0.03	9.3	0
141	SLU 30	203	-1	1727	0.18	9.31	0
141	SLU 31	277	-1	1956	0.33	12.53	0.01
141	SLU 32	276	0	1977	-0.01	12.51	0
141	SLU 33	277	-1	1964	0.2	12.52	0
141	SLU 34	277	-1	1956	0.33	12.53	0.01
141	SLU 35	276	0	1977	-0.01	12.51	0
141	SLU 36	277	-1	1964	0.2	12.52	0
141	SLU 37	276	0	1977	-0.01	12.51	0
141	SLU 38	277	-1	1964	0.2	12.52	0
141	SLU 39	307	0	2078	0	13.88	0
141	SLU 40	308	-1	2066	0.21	13.9	0.01
141	SLU 41	307	0	2078	0	13.88	0
141	SLU 42	308	-1	2066	0.21	13.9	0.01
141	SLU 43	214	0	2080	-0.04	9.94	0
141	SLU 44	216	-1	2059	0.3	9.96	0.01
141	SLU 45	214	0	2080	-0.04	9.94	0
141	SLU 46	215	-1	2067	0.17	9.95	0
141	SLU 47	216	-1	2059	0.3	9.96	0.01
141	SLU 48	214	0	2080	-0.04	9.94	0
141	SLU 49	215	-1	2067	0.17	9.95	0
141	SLU 50	214	0	2080	-0.04	9.94	0
141	SLU 51	215	-1	2067	0.17	9.95	0
141	SLU 52	289	-1	2296	0.32	13.17	0.01
141	SLU 53	288	0	2317	-0.02	13.15	0
141	SLU 54	289	-1	2304	0.19	13.16	0.01
141	SLU 55	289	-1	2296	0.32	13.17	0.01
141	SLU 56	288	0	2317	-0.02	13.15	0
141	SLU 57	289	-1	2304	0.19	13.16	0.01
141	SLU 58	288	0	2317	-0.02	13.15	0
141	SLU 59	289	-1	2304	0.19	13.16	0.01
141	SLU 60	319	0	2418	-0.01	14.52	0
141	SLU 61	320	-1	2406	0.2	14.54	0.01
141	SLU 62	319	0	2418	-0.01	14.52	0
141	SLU 63	320	-1	2406	0.2	14.54	0.01
141	SLU 64	243	0	2190	-0.04	11.25	0
141	SLU 65	245	-1	2169	0.3	11.27	0.01
141	SLU 66	243	0	2190	-0.04	11.25	0
141	SLU 67	244	-1	2178	0.17	11.26	0
141	SLU 68	245	-1	2169	0.3	11.27	0.01
141	SLU 69	243	0	2190	-0.04	11.25	0
141	SLU 70	244	-1	2178	0.17	11.26	0
141	SLU 71	243	0	2190	-0.04	11.25	0
141	SLU 72	244	-1	2178	0.17	11.26	0
141	SLU 73	319	-1	2406	0.32	14.48	0.01
141	SLU 74	317	0	2427	-0.01	14.46	0
141	SLU 75	318	-1	2415	0.19	14.47	0.01
141	SLU 76	319	-1	2406	0.32	14.48	0.01
141	SLU 77	317	0	2427	-0.01	14.46	0
141	SLU 78	318	-1	2415	0.19	14.47	0.01
141	SLU 79	317	0	2427	-0.01	14.46	0
141	SLU 80	318	-1	2415	0.19	14.47	0.01
141	SLU 81	349	0	2529	-0.01	15.83	0
141	SLU 82	350	-1	2516	0.2	15.84	0.01
141	SLU 83	349	0	2529	-0.01	15.83	0
141	SLU 84	350	-1	2516	0.2	15.84	0.01
141	SLE RA 1	181	0	1660	-0.03	8.36	0
141	SLE RA 2	182	0	1647	0.2	8.38	0
141	SLE RA 3	181	0	1660	-0.03	8.36	0
141	SLE RA 4	181	0	1652	0.11	8.37	0
141	SLE RA 5	182	0	1647	0.2	8.38	0
141	SLE RA 6	181	0	1660	-0.03	8.36	0
141	SLE RA 7	181	0	1652	0.11	8.37	0
141	SLE RA 8	181	0	1660	-0.03	8.36	0
141	SLE RA 9	181	0	1652	0.11	8.37	0
141	SLE RA 10	231	-1	1805	0.21	10.52	0
141	SLE RA 11	230	0	1819	-0.01	10.5	0
141	SLE RA 12	231	0	1810	0.12	10.51	0
141	SLE RA 13	231	-1	1805	0.21	10.52	0
141	SLE RA 14	230	0	1819	-0.01	10.5	0
141	SLE RA 15	231	0	1810	0.12	10.51	0
141	SLE RA 16	230	0	1819	-0.01	10.5	0
141	SLE RA 17	231	0	1810	0.12	10.51	0
141	SLE RA 18	251	0	1886	-0.01	11.42	0
141	SLE RA 19	252	-1	1878	0.13	11.43	0
141	SLE RA 20	251	0	1886	-0.01	11.42	0
141	SLE RA 21	252	-1	1878	0.13	11.43	0
141	SLE FR 1	181	0	1660	-0.03	8.36	0



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
141	SLE FR 2	181	0	1658	0.02	8.37	0
141	SLE FR 3	181	0	1660	-0.03	8.36	0
141	SLE FR 4	202	0	1725	0.02	9.28	0
141	SLE FR 5	202	0	1728	-0.02	9.28	0
141	SLE FR 6	216	0	1773	-0.02	9.89	0
141	SLE QP 1	181	0	1660	-0.03	8.36	0
141	SLE QP 2	202	0	1728	-0.02	9.28	0
141	SLD 1	359	13	1819	-13.64	15.73	-0.07
141	SLD 2	359	13	1819	-13.64	15.73	-0.07
141	SLD 3	344	5	1871	-0.7	15.16	-0.03
141	SLD 4	344	5	1871	-0.7	15.16	-0.03
141	SLD 5	272	17	1676	-23.73	12.08	-0.09
141	SLD 6	272	17	1676	-23.73	12.08	-0.09
141	SLD 7	221	-12	1851	19.4	10.18	0.06
141	SLD 8	221	-12	1851	19.4	10.18	0.06
141	SLD 9	182	11	1606	-19.44	8.38	-0.06
141	SLD 10	182	11	1606	-19.44	8.38	-0.06
141	SLD 11	132	-17	1780	23.69	6.48	0.09
141	SLD 12	132	-17	1780	23.69	6.48	0.09
141	SLD 13	60	-5	1585	0.66	3.4	0.03
141	SLD 14	60	-5	1585	0.66	3.4	0.03
141	SLD 15	45	-14	1638	13.6	2.83	0.08
141	SLD 16	45	-14	1638	13.6	2.83	0.08
141	SLV 1	572	32	1940	-33.53	24.47	-0.18
141	SLV 2	572	32	1940	-33.53	24.47	-0.18
141	SLV 3	536	12	2066	-0.78	23.11	-0.07
141	SLV 4	536	12	2066	-0.78	23.11	-0.07
141	SLV 5	368	40	1600	-59.74	15.9	-0.21
141	SLV 6	368	40	1600	-59.74	15.9	-0.21
141	SLV 7	248	-27	2021	49.42	11.37	0.14
141	SLV 8	248	-27	2021	49.42	11.37	0.14
141	SLV 9	156	27	1435	-49.47	7.19	-0.14
141	SLV 10	156	27	1435	-49.47	7.19	-0.14
141	SLV 11	36	-41	1856	59.7	2.67	0.22
141	SLV 12	36	-41	1856	59.7	2.67	0.22
141	SLV 13	-132	-12	1390	0.73	-4.55	0.07
141	SLV 14	-132	-12	1390	0.73	-4.55	0.07
141	SLV 15	-168	-32	1517	33.48	-5.91	0.18
141	SLV 16	-168	-32	1517	33.48	-5.91	0.18
142	SLU 1	157	0	1600	-0.33	5.72	0
142	SLU 2	161	0	1582	0.03	5.87	0
142	SLU 3	157	0	1600	-0.33	5.72	0
142	SLU 4	159	0	1589	-0.11	5.81	0
142	SLU 5	161	0	1582	0.03	5.87	0
142	SLU 6	157	0	1600	-0.33	5.72	0
142	SLU 7	159	0	1589	-0.11	5.81	0
142	SLU 8	157	0	1600	-0.33	5.72	0
142	SLU 9	159	0	1589	-0.11	5.81	0
142	SLU 10	238	0	1827	-0.01	8.74	0
142	SLU 11	235	0	1845	-0.37	8.59	0
142	SLU 12	237	0	1834	-0.15	8.68	0
142	SLU 13	238	0	1827	-0.01	8.74	0
142	SLU 14	235	0	1845	-0.37	8.59	0
142	SLU 15	237	0	1834	-0.15	8.68	0
142	SLU 16	235	0	1845	-0.37	8.59	0
142	SLU 17	237	0	1834	-0.15	8.68	0
142	SLU 18	268	0	1949	-0.39	9.82	0
142	SLU 19	270	0	1939	-0.17	9.91	0
142	SLU 20	268	0	1949	-0.39	9.82	0
142	SLU 21	270	0	1939	-0.17	9.91	0
142	SLU 22	188	0	1712	-0.36	6.86	0
142	SLU 23	191	0	1694	0	7.01	0
142	SLU 24	188	0	1712	-0.36	6.86	0
142	SLU 25	190	0	1701	-0.14	6.95	0
142	SLU 26	191	0	1694	0	7.01	0
142	SLU 27	188	0	1712	-0.36	6.86	0
142	SLU 28	190	0	1701	-0.14	6.95	0
142	SLU 29	188	0	1712	-0.36	6.86	0
142	SLU 30	190	0	1701	-0.14	6.95	0
142	SLU 31	269	0	1938	-0.04	9.87	0
142	SLU 32	266	0	1956	-0.4	9.73	0
142	SLU 33	268	0	1946	-0.19	9.82	0
142	SLU 34	269	0	1938	-0.04	9.87	0
142	SLU 35	266	0	1956	-0.4	9.73	0
142	SLU 36	268	0	1946	-0.19	9.82	0
142	SLU 37	266	0	1956	-0.4	9.73	0
142	SLU 38	268	0	1946	-0.19	9.82	0
142	SLU 39	299	0	2061	-0.42	10.96	0
142	SLU 40	301	0	2050	-0.2	11.04	0
142	SLU 41	299	0	2061	-0.42	10.96	0
142	SLU 42	301	0	2050	-0.2	11.04	0
142	SLU 43	194	0	2042	-0.41	7.05	0
142	SLU 44	197	0	2024	-0.05	7.2	0
142	SLU 45	194	0	2042	-0.41	7.05	0
142	SLU 46	196	0	2031	-0.2	7.14	0
142	SLU 47	197	0	2024	-0.05	7.2	0
142	SLU 48	194	0	2042	-0.41	7.05	0
142	SLU 49	196	0	2031	-0.2	7.14	0
142	SLU 50	194	0	2042	-0.41	7.05	0
142	SLU 51	196	0	2031	-0.2	7.14	0



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
142	SLU 52	275	0	2268	-0.1	10.07	0
142	SLU 53	271	0	2287	-0.46	9.92	0
142	SLU 54	273	0	2276	-0.24	10.01	0
142	SLU 55	275	0	2268	-0.1	10.07	0
142	SLU 56	271	0	2287	-0.46	9.92	0
142	SLU 57	273	0	2276	-0.24	10.01	0
142	SLU 58	271	0	2287	-0.46	9.92	0
142	SLU 59	273	0	2276	-0.24	10.01	0
142	SLU 60	305	0	2391	-0.48	11.15	0
142	SLU 61	307	0	2380	-0.26	11.24	0
142	SLU 62	305	0	2391	-0.48	11.15	0
142	SLU 63	307	0	2380	-0.26	11.24	0
142	SLU 64	225	0	2154	-0.45	8.18	0
142	SLU 65	228	0	2136	-0.08	8.33	0
142	SLU 66	225	0	2154	-0.45	8.18	0
142	SLU 67	227	0	2143	-0.23	8.27	0
142	SLU 68	228	0	2136	-0.08	8.33	0
142	SLU 69	225	0	2154	-0.45	8.18	0
142	SLU 70	227	0	2143	-0.23	8.27	0
142	SLU 71	225	0	2154	-0.45	8.18	0
142	SLU 72	227	0	2143	-0.23	8.27	0
142	SLU 73	306	0	2380	-0.13	11.2	0
142	SLU 74	302	1	2398	-0.49	11.05	0
142	SLU 75	304	0	2387	-0.27	11.14	0
142	SLU 76	306	0	2380	-0.13	11.2	0
142	SLU 77	302	1	2398	-0.49	11.05	0
142	SLU 78	304	0	2387	-0.27	11.14	0
142	SLU 79	302	1	2398	-0.49	11.05	0
142	SLU 80	304	0	2387	-0.27	11.14	0
142	SLU 81	335	1	2503	-0.51	12.28	0
142	SLU 82	338	0	2492	-0.29	12.37	0
142	SLU 83	335	1	2503	-0.51	12.28	0
142	SLU 84	338	0	2492	-0.29	12.37	0
142	SLE RA 1	166	0	1632	-0.34	6.05	0
142	SLE RA 2	168	0	1620	-0.1	6.15	0
142	SLE RA 3	166	0	1632	-0.34	6.05	0
142	SLE RA 4	167	0	1625	-0.19	6.11	0
142	SLE RA 5	168	0	1620	-0.1	6.15	0
142	SLE RA 6	166	0	1632	-0.34	6.05	0
142	SLE RA 7	167	0	1625	-0.19	6.11	0
142	SLE RA 8	166	0	1632	-0.34	6.05	0
142	SLE RA 9	167	0	1625	-0.19	6.11	0
142	SLE RA 10	220	0	1783	-0.12	8.06	0
142	SLE RA 11	218	0	1795	-0.37	7.96	0
142	SLE RA 12	219	0	1788	-0.22	8.02	0
142	SLE RA 13	220	0	1783	-0.12	8.06	0
142	SLE RA 14	218	0	1795	-0.37	7.96	0
142	SLE RA 15	219	0	1788	-0.22	8.02	0
142	SLE RA 16	218	0	1795	-0.37	7.96	0
142	SLE RA 17	219	0	1788	-0.22	8.02	0
142	SLE RA 18	240	0	1865	-0.38	8.78	0
142	SLE RA 19	241	0	1858	-0.23	8.84	0
142	SLE RA 20	240	0	1865	-0.38	8.78	0
142	SLE RA 21	241	0	1858	-0.23	8.84	0
142	SLE FR 1	166	0	1632	-0.34	6.05	0
142	SLE FR 2	166	0	1630	-0.29	6.07	0
142	SLE FR 3	166	0	1632	-0.34	6.05	0
142	SLE FR 4	189	0	1700	-0.3	6.89	0
142	SLE FR 5	188	0	1702	-0.35	6.87	0
142	SLE FR 6	203	0	1749	-0.36	7.41	0
142	SLE QP 1	166	0	1632	-0.34	6.05	0
142	SLE QP 2	188	0	1702	-0.35	6.87	0
142	SLD 1	340	17	1804	-18.13	12.92	-0.08
142	SLD 2	340	17	1804	-18.13	12.92	-0.08
142	SLD 3	352	3	1841	0.58	13.33	-0.02
142	SLD 4	352	3	1841	0.58	13.33	-0.02
142	SLD 5	216	26	1676	-34.06	8.06	-0.13
142	SLD 6	216	26	1676	-34.06	8.06	-0.13
142	SLD 7	255	-20	1800	28.31	9.43	0.09
142	SLD 8	255	-20	1800	28.31	9.43	0.09
142	SLD 9	121	21	1604	-29	4.3	-0.1
142	SLD 10	121	21	1604	-29	4.3	-0.1
142	SLD 11	160	-26	1728	33.36	5.68	0.12
142	SLD 12	160	-26	1728	33.36	5.68	0.12
142	SLD 13	25	-2	1563	-1.28	0.4	0.01
142	SLD 14	25	-2	1563	-1.28	0.4	0.01
142	SLD 15	36	-16	1600	17.43	0.82	0.08
142	SLD 16	36	-16	1600	17.43	0.82	0.08
142	SLV 1	545	40	1940	-44.35	21.08	-0.19
142	SLV 2	545	40	1940	-44.35	21.08	-0.19
142	SLV 3	573	7	2031	3.14	22.09	-0.04
142	SLV 4	573	7	2031	3.14	22.09	-0.04
142	SLV 5	253	63	1636	-85.58	9.6	-0.3
142	SLV 6	253	63	1636	-85.58	9.6	-0.3
142	SLV 7	346	-49	1938	72.73	12.97	0.23
142	SLV 8	346	-49	1938	72.73	12.97	0.23
142	SLV 9	30	50	1466	-73.42	0.77	-0.23
142	SLV 10	30	50	1466	-73.42	0.77	-0.23
142	SLV 11	124	-63	1768	84.88	4.13	0.3
142	SLV 12	124	-63	1768	84.88	4.13	0.3



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
Ind.	N.br.						
142	SLV 13	-197	-6	1374	-3.84	-8.36	0.03
142	SLV 14	-197	-6	1374	-3.84	-8.36	0.03
142	SLV 15	-169	-40	1464	43.65	-7.35	0.19
142	SLV 16	-169	-40	1464	43.65	-7.35	0.19
143	SLU 1	180	1	1600	-0.45	7.7	0
143	SLU 2	183	0	1585	-0.09	7.79	0
143	SLU 3	180	1	1600	-0.45	7.7	0
143	SLU 4	182	0	1591	-0.24	7.76	0
143	SLU 5	183	0	1585	-0.09	7.79	0
143	SLU 6	180	1	1600	-0.45	7.7	0
143	SLU 7	182	0	1591	-0.24	7.76	0
143	SLU 8	180	1	1600	-0.45	7.7	0
143	SLU 9	182	0	1591	-0.24	7.76	0
143	SLU 10	271	0	1849	-0.17	11.36	0
143	SLU 11	268	1	1864	-0.52	11.27	0
143	SLU 12	270	0	1855	-0.31	11.33	0
143	SLU 13	271	0	1849	-0.17	11.36	0
143	SLU 14	268	1	1864	-0.52	11.27	0
143	SLU 15	270	0	1855	-0.31	11.33	0
143	SLU 16	268	1	1864	-0.52	11.27	0
143	SLU 17	270	0	1855	-0.31	11.33	0
143	SLU 18	306	1	1977	-0.56	12.81	0
143	SLU 19	308	0	1968	-0.34	12.86	0
143	SLU 20	306	1	1977	-0.56	12.81	0
143	SLU 21	308	0	1968	-0.34	12.86	0
143	SLU 22	216	1	1718	-0.5	9.17	0
143	SLU 23	219	0	1703	-0.14	9.26	0
143	SLU 24	216	1	1718	-0.5	9.17	0
143	SLU 25	218	0	1709	-0.28	9.23	0
143	SLU 26	219	0	1703	-0.14	9.26	0
143	SLU 27	216	1	1718	-0.5	9.17	0
143	SLU 28	218	0	1709	-0.28	9.23	0
143	SLU 29	216	1	1718	-0.5	9.17	0
143	SLU 30	218	0	1709	-0.28	9.23	0
143	SLU 31	307	0	1967	-0.21	12.83	0
143	SLU 32	304	1	1982	-0.57	12.74	0
143	SLU 33	306	0	1973	-0.35	12.8	0
143	SLU 34	307	0	1967	-0.21	12.83	0
143	SLU 35	304	1	1982	-0.57	12.74	0
143	SLU 36	306	0	1973	-0.35	12.8	0
143	SLU 37	304	1	1982	-0.57	12.74	0
143	SLU 38	306	0	1973	-0.35	12.8	0
143	SLU 39	342	1	2095	-0.6	14.27	0
143	SLU 40	344	1	2087	-0.38	14.33	0
143	SLU 41	342	1	2095	-0.6	14.27	0
143	SLU 42	344	1	2087	-0.38	14.33	0
143	SLU 43	222	1	2039	-0.57	9.51	0
143	SLU 44	225	0	2025	-0.21	9.6	0
143	SLU 45	222	1	2039	-0.57	9.51	0
143	SLU 46	224	0	2031	-0.36	9.56	0
143	SLU 47	225	0	2025	-0.21	9.6	0
143	SLU 48	222	1	2039	-0.57	9.51	0
143	SLU 49	224	0	2031	-0.36	9.56	0
143	SLU 50	222	1	2039	-0.57	9.51	0
143	SLU 51	224	0	2031	-0.36	9.56	0
143	SLU 52	313	0	2289	-0.29	13.17	0
143	SLU 53	310	1	2303	-0.64	13.08	0
143	SLU 54	312	1	2295	-0.43	13.14	0
143	SLU 55	313	0	2289	-0.29	13.17	0
143	SLU 56	310	1	2303	-0.64	13.08	0
143	SLU 57	312	1	2295	-0.43	13.14	0
143	SLU 58	310	1	2303	-0.64	13.08	0
143	SLU 59	312	1	2295	-0.43	13.14	0
143	SLU 60	348	1	2417	-0.68	14.61	0
143	SLU 61	349	1	2408	-0.46	14.67	0
143	SLU 62	348	1	2417	-0.68	14.61	0
143	SLU 63	349	1	2408	-0.46	14.67	0
143	SLU 64	258	1	2158	-0.62	10.98	0
143	SLU 65	261	0	2143	-0.26	11.07	0
143	SLU 66	258	1	2158	-0.62	10.98	0
143	SLU 67	260	1	2149	-0.4	11.03	0
143	SLU 68	261	0	2143	-0.26	11.07	0
143	SLU 69	258	1	2158	-0.62	10.98	0
143	SLU 70	260	1	2149	-0.4	11.03	0
143	SLU 71	258	1	2158	-0.62	10.98	0
143	SLU 72	260	1	2149	-0.4	11.03	0
143	SLU 73	349	1	2407	-0.33	14.64	0
143	SLU 74	346	1	2422	-0.69	14.55	0
143	SLU 75	348	1	2413	-0.47	14.6	0
143	SLU 76	349	1	2407	-0.33	14.64	0
143	SLU 77	346	1	2422	-0.69	14.55	0
143	SLU 78	348	1	2413	-0.47	14.6	0
143	SLU 79	346	1	2422	-0.69	14.55	0
143	SLU 80	348	1	2413	-0.47	14.6	0
143	SLU 81	383	1	2535	-0.72	16.08	0
143	SLU 82	385	1	2526	-0.5	16.14	0
143	SLU 83	383	1	2535	-0.72	16.08	0
143	SLU 84	385	1	2526	-0.5	16.14	0
143	SLE RA 1	190	1	1634	-0.46	8.12	0
143	SLE RA 2	192	0	1624	-0.22	8.18	0





Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
143	SLE RA 3	190	1	1634	-0.46	8.12	0
143	SLE RA 4	192	0	1628	-0.32	8.16	0
143	SLE RA 5	192	0	1624	-0.22	8.18	0
143	SLE RA 6	190	1	1634	-0.46	8.12	0
143	SLE RA 7	192	0	1628	-0.32	8.16	0
143	SLE RA 8	190	1	1634	-0.46	8.12	0
143	SLE RA 9	192	0	1628	-0.32	8.16	0
143	SLE RA 10	251	0	1800	-0.27	10.56	0
143	SLE RA 11	249	1	1810	-0.51	10.5	0
143	SLE RA 12	250	0	1804	-0.37	10.54	0
143	SLE RA 13	251	0	1800	-0.27	10.56	0
143	SLE RA 14	249	1	1810	-0.51	10.5	0
143	SLE RA 15	250	0	1804	-0.37	10.54	0
143	SLE RA 16	249	1	1810	-0.51	10.5	0
143	SLE RA 17	250	0	1804	-0.37	10.54	0
143	SLE RA 18	274	1	1885	-0.53	11.52	0
143	SLE RA 19	275	1	1879	-0.39	11.56	0
143	SLE RA 20	274	1	1885	-0.53	11.52	0
143	SLE RA 21	275	1	1879	-0.39	11.56	0
143	SLE FR 1	190	1	1634	-0.46	8.12	0
143	SLE FR 2	191	0	1632	-0.42	8.13	0
143	SLE FR 3	190	1	1634	-0.46	8.12	0
143	SLE FR 4	216	1	1707	-0.44	9.16	0
143	SLE FR 5	216	1	1709	-0.48	9.14	0
143	SLE FR 6	232	1	1760	-0.5	9.82	0
143	SLE QP 1	190	1	1634	-0.46	8.12	0
143	SLE QP 2	216	1	1709	-0.48	9.14	0
143	SLD 1	374	21	1829	-22.03	15.51	-0.08
143	SLD 2	374	21	1829	-22.03	15.51	-0.08
143	SLD 3	383	2	1855	2.19	15.86	-0.01
143	SLD 4	383	2	1855	2.19	15.86	-0.01
143	SLD 5	249	36	1705	-43.68	10.52	-0.13
143	SLD 6	249	36	1705	-43.68	10.52	-0.13
143	SLD 7	280	-28	1793	37.05	11.69	0.1
143	SLD 8	280	-28	1793	37.05	11.69	0.1
143	SLD 9	151	29	1625	-38.02	6.59	-0.1
143	SLD 10	151	29	1625	-38.02	6.59	-0.1
143	SLD 11	182	-35	1714	42.71	7.77	0.12
143	SLD 12	182	-35	1714	42.71	7.77	0.12
143	SLD 13	48	-1	1563	-3.16	2.42	0
143	SLD 14	48	-1	1563	-3.16	2.42	0
143	SLD 15	57	-20	1590	21.06	2.77	0.07
143	SLD 16	57	-20	1590	21.06	2.77	0.07
143	SLV 1	587	50	1988	-54.02	24.12	-0.18
143	SLV 2	587	50	1988	-54.02	24.12	-0.18
143	SLV 3	609	3	2054	7.58	24.96	-0.01
143	SLV 4	609	3	2054	7.58	24.96	-0.01
143	SLV 5	293	87	1693	-109.97	12.36	-0.31
143	SLV 6	293	87	1693	-109.97	12.36	-0.31
143	SLV 7	368	-71	1912	95.36	15.16	0.25
143	SLV 8	368	-71	1912	95.36	15.16	0.25
143	SLV 9	63	72	1506	-96.33	3.13	-0.25
143	SLV 10	63	72	1506	-96.33	3.13	-0.25
143	SLV 11	138	-86	1725	109	5.92	0.3
143	SLV 12	138	-86	1725	109	5.92	0.3
143	SLV 13	-178	-2	1365	-8.55	-6.67	0.01
143	SLV 14	-178	-2	1365	-8.55	-6.67	0.01
143	SLV 15	-156	-49	1430	53.05	-5.83	0.17
143	SLV 16	-156	-49	1430	53.05	-5.83	0.17
144	SLU 1	178	0	1629	-0.44	6.51	0
144	SLU 2	181	0	1617	-0.1	6.65	0
144	SLU 3	178	0	1629	-0.44	6.51	0
144	SLU 4	180	0	1622	-0.24	6.59	0
144	SLU 5	181	0	1617	-0.1	6.65	0
144	SLU 6	178	0	1629	-0.44	6.51	0
144	SLU 7	180	0	1622	-0.24	6.59	0
144	SLU 8	178	0	1629	-0.44	6.51	0
144	SLU 9	180	0	1622	-0.24	6.59	0
144	SLU 10	267	0	1910	-0.18	9.84	0
144	SLU 11	264	1	1922	-0.52	9.7	0
144	SLU 12	266	0	1915	-0.31	9.79	0
144	SLU 13	267	0	1910	-0.18	9.84	0
144	SLU 14	264	1	1922	-0.52	9.7	0
144	SLU 15	266	0	1915	-0.31	9.79	0
144	SLU 16	264	1	1922	-0.52	9.7	0
144	SLU 17	266	0	1915	-0.31	9.79	0
144	SLU 18	301	1	2047	-0.55	11.07	0
144	SLU 19	303	0	2040	-0.34	11.15	0
144	SLU 20	301	1	2047	-0.55	11.07	0
144	SLU 21	303	0	2040	-0.34	11.15	0
144	SLU 22	213	1	1758	-0.49	7.83	0
144	SLU 23	217	0	1746	-0.14	7.97	0
144	SLU 24	213	1	1758	-0.49	7.83	0
144	SLU 25	215	0	1751	-0.28	7.91	0
144	SLU 26	217	0	1746	-0.14	7.97	0
144	SLU 27	213	1	1758	-0.49	7.83	0
144	SLU 28	215	0	1751	-0.28	7.91	0
144	SLU 29	213	1	1758	-0.49	7.83	0
144	SLU 30	215	0	1751	-0.28	7.91	0
144	SLU 31	303	0	2039	-0.22	11.16	0



Nodo	Cont.	Reazione a traslazione				Reazione a rotazione			
		x	y	z		x	y	z	
144	SLU 32	300	1	2051	-0.56	11.02	0		
144	SLU 33	302	0	2044	-0.36	11.1	0		
144	SLU 34	303	0	2039	-0.22	11.16	0		
144	SLU 35	300	1	2051	-0.56	11.02	0		
144	SLU 36	302	0	2044	-0.36	11.1	0		
144	SLU 37	300	1	2051	-0.56	11.02	0		
144	SLU 38	302	0	2044	-0.36	11.1	0		
144	SLU 39	337	1	2177	-0.59	12.39	0		
144	SLU 40	339	1	2170	-0.39	12.47	0		
144	SLU 41	337	1	2177	-0.59	12.39	0		
144	SLU 42	339	1	2170	-0.39	12.47	0		
144	SLU 43	219	1	2073	-0.56	8.01	0		
144	SLU 44	222	0	2061	-0.22	8.15	0		
144	SLU 45	219	1	2073	-0.56	8.01	0		
144	SLU 46	221	0	2066	-0.36	8.1	0		
144	SLU 47	222	0	2061	-0.22	8.15	0		
144	SLU 48	219	1	2073	-0.56	8.01	0		
144	SLU 49	221	0	2066	-0.36	8.1	0		
144	SLU 50	219	1	2073	-0.56	8.01	0		
144	SLU 51	221	0	2066	-0.36	8.1	0		
144	SLU 52	308	0	2354	-0.29	11.34	0		
144	SLU 53	305	1	2366	-0.64	11.2	0		
144	SLU 54	307	1	2359	-0.43	11.29	0		
144	SLU 55	308	0	2354	-0.29	11.34	0		
144	SLU 56	305	1	2366	-0.64	11.2	0		
144	SLU 57	307	1	2359	-0.43	11.29	0		
144	SLU 58	305	1	2366	-0.64	11.2	0		
144	SLU 59	307	1	2359	-0.43	11.29	0		
144	SLU 60	342	1	2492	-0.67	12.57	0		
144	SLU 61	344	1	2485	-0.46	12.66	0		
144	SLU 62	342	1	2492	-0.67	12.57	0		
144	SLU 63	344	1	2485	-0.46	12.66	0		
144	SLU 64	254	1	2202	-0.61	9.33	0		
144	SLU 65	258	0	2190	-0.26	9.47	0		
144	SLU 66	254	1	2202	-0.61	9.33	0		
144	SLU 67	257	1	2195	-0.4	9.41	0		
144	SLU 68	258	0	2190	-0.26	9.47	0		
144	SLU 69	254	1	2202	-0.61	9.33	0		
144	SLU 70	257	1	2195	-0.4	9.41	0		
144	SLU 71	254	1	2202	-0.61	9.33	0		
144	SLU 72	257	1	2195	-0.4	9.41	0		
144	SLU 73	344	1	2484	-0.34	12.66	0		
144	SLU 74	341	1	2495	-0.68	12.52	0		
144	SLU 75	343	1	2488	-0.47	12.6	0		
144	SLU 76	344	1	2484	-0.34	12.66	0		
144	SLU 77	341	1	2495	-0.68	12.52	0		
144	SLU 78	343	1	2488	-0.47	12.6	0		
144	SLU 79	341	1	2495	-0.68	12.52	0		
144	SLU 80	343	1	2488	-0.47	12.6	0		
144	SLU 81	378	1	2621	-0.71	13.89	0		
144	SLU 82	380	1	2614	-0.51	13.97	0		
144	SLU 83	378	1	2621	-0.71	13.89	0		
144	SLU 84	380	1	2614	-0.51	13.97	0		
144	SLE RA 1	188	0	1666	-0.46	6.89	0		
144	SLE RA 2	190	0	1658	-0.23	6.98	0		
144	SLE RA 3	188	0	1666	-0.46	6.89	0		
144	SLE RA 4	189	0	1661	-0.32	6.94	0		
144	SLE RA 5	190	0	1658	-0.23	6.98	0		
144	SLE RA 6	188	0	1666	-0.46	6.89	0		
144	SLE RA 7	189	0	1661	-0.32	6.94	0		
144	SLE RA 8	188	0	1666	-0.46	6.89	0		
144	SLE RA 9	189	0	1661	-0.32	6.94	0		
144	SLE RA 10	248	0	1853	-0.28	9.11	0		
144	SLE RA 11	245	1	1861	-0.51	9.01	0		
144	SLE RA 12	247	0	1856	-0.37	9.07	0		
144	SLE RA 13	248	0	1853	-0.28	9.11	0		
144	SLE RA 14	245	1	1861	-0.51	9.01	0		
144	SLE RA 15	247	0	1856	-0.37	9.07	0		
144	SLE RA 16	245	1	1861	-0.51	9.01	0		
144	SLE RA 17	247	0	1856	-0.37	9.07	0		
144	SLE RA 18	270	1	1945	-0.53	9.93	0		
144	SLE RA 19	271	0	1940	-0.39	9.98	0		
144	SLE RA 20	270	1	1945	-0.53	9.93	0		
144	SLE RA 21	271	0	1940	-0.39	9.98	0		
144	SLE FR 1	188	0	1666	-0.46	6.89	0		
144	SLE FR 2	188	0	1664	-0.41	6.9	0		
144	SLE FR 3	188	0	1666	-0.46	6.89	0		
144	SLE FR 4	213	0	1748	-0.43	7.82	0		
144	SLE FR 5	213	1	1749	-0.48	7.8	0		
144	SLE FR 6	229	1	1805	-0.49	8.41	0		
144	SLE QP 1	188	0	1666	-0.46	6.89	0		
144	SLE QP 2	213	1	1749	-0.48	7.8	0		
144	SLD 1	369	24	1886	-24.84	14.03	-0.06		
144	SLD 2	369	24	1886	-24.84	14.03	-0.06		
144	SLD 3	377	0	1906	4.1	14.35	0		
144	SLD 4	377	0	1906	4.1	14.35	0		
144	SLD 5	248	44	1761	-51.68	9.19	-0.1		
144	SLD 6	248	44	1761	-51.68	9.19	-0.1		
144	SLD 7	274	-36	1826	44.79	10.24	0.08		
144	SLD 8	274	-36	1826	44.79	10.24	0.08		



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
144	SLD 9	151	37	1673	-45.75	5.36	-0.08
144	SLD 10	151	37	1673	-45.75	5.36	-0.08
144	SLD 11	177	-43	1738	50.73	6.4	0.09
144	SLD 12	177	-43	1738	50.73	6.4	0.09
144	SLD 13	48	1	1593	-5.06	1.25	0
144	SLD 14	48	1	1593	-5.06	1.25	0
144	SLD 15	56	-23	1613	23.88	1.56	0.05
144	SLD 16	56	-23	1613	23.88	1.56	0.05
144	SLV 1	580	58	2068	-61.21	22.42	-0.13
144	SLV 2	580	58	2068	-61.21	22.42	-0.13
144	SLV 3	600	-1	2117	12.47	23.25	0
144	SLV 4	600	-1	2117	12.47	23.25	0
144	SLV 5	292	108	1771	-130.45	10.92	-0.24
144	SLV 6	292	108	1771	-130.45	10.92	-0.24
144	SLV 7	359	-90	1934	115.16	13.7	0.2
144	SLV 8	359	-90	1934	115.16	13.7	0.2
144	SLV 9	66	91	1565	-116.11	1.9	-0.2
144	SLV 10	66	91	1565	-116.11	1.9	-0.2
144	SLV 11	133	-107	1728	129.49	4.68	0.24
144	SLV 12	133	-107	1728	129.49	4.68	0.24
144	SLV 13	-175	2	1381	-13.43	-7.66	0
144	SLV 14	-175	2	1381	-13.43	-7.66	0
144	SLV 15	-155	-57	1430	60.26	-6.82	0.13
144	SLV 16	-155	-57	1430	60.26	-6.82	0.13
145	SLU 1	186	0	1673	-0.35	7.63	0
145	SLU 2	189	0	1664	-0.04	7.71	0
145	SLU 3	186	0	1673	-0.35	7.63	0
145	SLU 4	188	0	1667	-0.16	7.68	0
145	SLU 5	189	0	1664	-0.04	7.71	0
145	SLU 6	186	0	1673	-0.35	7.63	0
145	SLU 7	188	0	1667	-0.16	7.68	0
145	SLU 8	186	0	1673	-0.35	7.63	0
145	SLU 9	188	0	1667	-0.16	7.68	0
145	SLU 10	273	0	1988	-0.09	11.05	0
145	SLU 11	270	0	1998	-0.41	10.97	0
145	SLU 12	272	0	1992	-0.22	11.02	0
145	SLU 13	273	0	1988	-0.09	11.05	0
145	SLU 14	270	0	1998	-0.41	10.97	0
145	SLU 15	272	0	1992	-0.22	11.02	0
145	SLU 16	270	0	1998	-0.41	10.97	0
145	SLU 17	272	0	1992	-0.22	11.02	0
145	SLU 18	306	0	2137	-0.43	12.4	0
145	SLU 19	308	0	2131	-0.24	12.45	0
145	SLU 20	306	0	2137	-0.43	12.4	0
145	SLU 21	308	0	2131	-0.24	12.45	0
145	SLU 22	222	0	1815	-0.38	9.07	0
145	SLU 23	225	0	1806	-0.07	9.14	0
145	SLU 24	222	0	1815	-0.38	9.07	0
145	SLU 25	224	0	1810	-0.19	9.11	0
145	SLU 26	225	0	1806	-0.07	9.14	0
145	SLU 27	222	0	1815	-0.38	9.07	0
145	SLU 28	224	0	1810	-0.19	9.11	0
145	SLU 29	222	0	1815	-0.38	9.07	0
145	SLU 30	224	0	1810	-0.19	9.11	0
145	SLU 31	308	0	2131	-0.12	12.48	0
145	SLU 32	306	0	2140	-0.44	12.4	0
145	SLU 33	307	0	2134	-0.25	12.45	0
145	SLU 34	308	0	2131	-0.12	12.48	0
145	SLU 35	306	0	2140	-0.44	12.4	0
145	SLU 36	307	0	2134	-0.25	12.45	0
145	SLU 37	306	0	2140	-0.44	12.4	0
145	SLU 38	307	0	2134	-0.25	12.45	0
145	SLU 39	342	0	2279	-0.46	13.83	0
145	SLU 40	343	0	2273	-0.27	13.88	0
145	SLU 41	342	0	2279	-0.46	13.83	0
145	SLU 42	343	0	2273	-0.27	13.88	0
145	SLU 43	230	0	2126	-0.45	9.43	0
145	SLU 44	232	0	2117	-0.13	9.51	0
145	SLU 45	230	0	2126	-0.45	9.43	0
145	SLU 46	231	0	2121	-0.26	9.48	0
145	SLU 47	232	0	2117	-0.13	9.51	0
145	SLU 48	230	0	2126	-0.45	9.43	0
145	SLU 49	231	0	2121	-0.26	9.48	0
145	SLU 50	230	0	2126	-0.45	9.43	0
145	SLU 51	231	0	2121	-0.26	9.48	0
145	SLU 52	316	0	2442	-0.19	12.85	0
145	SLU 53	314	1	2451	-0.5	12.77	0
145	SLU 54	315	0	2445	-0.31	12.82	0
145	SLU 55	316	0	2442	-0.19	12.85	0
145	SLU 56	314	1	2451	-0.5	12.77	0
145	SLU 57	315	0	2445	-0.31	12.82	0
145	SLU 58	314	1	2451	-0.5	12.77	0
145	SLU 59	315	0	2445	-0.31	12.82	0
145	SLU 60	350	1	2590	-0.53	14.2	0
145	SLU 61	351	0	2584	-0.34	14.25	0
145	SLU 62	350	1	2590	-0.53	14.2	0
145	SLU 63	351	0	2584	-0.34	14.25	0
145	SLU 64	266	0	2268	-0.48	10.86	0
145	SLU 65	268	0	2259	-0.16	10.94	0
145	SLU 66	266	0	2268	-0.48	10.86	0



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
145	SLU 67	267	0	2263	-0.29	10.91	0
145	SLU 68	268	0	2259	-0.16	10.94	0
145	SLU 69	266	0	2268	-0.48	10.86	0
145	SLU 70	267	0	2263	-0.29	10.91	0
145	SLU 71	266	0	2268	-0.48	10.86	0
145	SLU 72	267	0	2263	-0.29	10.91	0
145	SLU 73	352	0	2584	-0.22	14.28	0
145	SLU 74	350	1	2593	-0.53	14.2	0
145	SLU 75	351	0	2587	-0.34	14.25	0
145	SLU 76	352	0	2584	-0.22	14.28	0
145	SLU 77	350	1	2593	-0.53	14.2	0
145	SLU 78	351	0	2587	-0.34	14.25	0
145	SLU 79	350	1	2593	-0.53	14.2	0
145	SLU 80	351	0	2587	-0.34	14.25	0
145	SLU 81	385	1	2732	-0.56	15.63	0
145	SLU 82	387	0	2727	-0.37	15.68	0
145	SLU 83	385	1	2732	-0.56	15.63	0
145	SLU 84	387	0	2727	-0.37	15.68	0
145	SLE RA 1	196	0	1714	-0.36	8.04	0
145	SLE RA 2	198	0	1707	-0.15	8.09	0
145	SLE RA 3	196	0	1714	-0.36	8.04	0
145	SLE RA 4	197	0	1710	-0.24	8.07	0
145	SLE RA 5	198	0	1707	-0.15	8.09	0
145	SLE RA 6	196	0	1714	-0.36	8.04	0
145	SLE RA 7	197	0	1710	-0.24	8.07	0
145	SLE RA 8	196	0	1714	-0.36	8.04	0
145	SLE RA 9	197	0	1710	-0.24	8.07	0
145	SLE RA 10	254	0	1924	-0.19	10.32	0
145	SLE RA 11	252	0	1930	-0.4	10.27	0
145	SLE RA 12	253	0	1926	-0.27	10.3	0
145	SLE RA 13	254	0	1924	-0.19	10.32	0
145	SLE RA 14	252	0	1930	-0.4	10.27	0
145	SLE RA 15	253	0	1926	-0.27	10.3	0
145	SLE RA 16	252	0	1930	-0.4	10.27	0
145	SLE RA 17	253	0	1926	-0.27	10.3	0
145	SLE RA 18	276	0	2023	-0.41	11.22	0
145	SLE RA 19	277	0	2019	-0.29	11.25	0
145	SLE RA 20	276	0	2023	-0.41	11.22	0
145	SLE RA 21	277	0	2019	-0.29	11.25	0
145	SLE FR 1	196	0	1714	-0.36	8.04	0
145	SLE FR 2	197	0	1712	-0.32	8.05	0
145	SLE FR 3	196	0	1714	-0.36	8.04	0
145	SLE FR 4	221	0	1805	-0.34	9.01	0
145	SLE FR 5	220	0	1806	-0.38	9	0
145	SLE FR 6	236	0	1868	-0.39	9.63	0
145	SLE QP 1	196	0	1714	-0.36	8.04	0
145	SLE QP 2	220	0	1806	-0.38	9	0
145	SLD 1	372	25	1952	-26.24	15.11	-0.04
145	SLD 2	372	25	1952	-26.24	15.11	-0.04
145	SLD 3	379	-2	1966	6.25	15.4	0
145	SLD 4	379	-2	1966	6.25	15.4	0
145	SLD 5	255	49	1827	-57.4	10.4	-0.06
145	SLD 6	255	49	1827	-57.4	10.4	-0.06
145	SLD 7	279	-42	1877	50.87	11.35	0.05
145	SLD 8	279	-42	1877	50.87	11.35	0.05
145	SLD 9	162	43	1736	-51.63	6.65	-0.05
145	SLD 10	162	43	1736	-51.63	6.65	-0.05
145	SLD 11	186	-49	1785	56.64	7.59	0.06
145	SLD 12	186	-49	1785	56.64	7.59	0.06
145	SLD 13	61	3	1646	-7	2.6	0
145	SLD 14	61	3	1646	-7	2.6	0
145	SLD 15	69	-25	1661	25.48	2.88	0.04
145	SLD 16	69	-25	1661	25.48	2.88	0.04
145	SLV 1	577	61	2145	-65.07	23.37	-0.09
145	SLV 2	577	61	2145	-65.07	23.37	-0.09
145	SLV 3	595	-7	2183	17.64	24.08	-0.01
145	SLV 4	595	-7	2183	17.64	24.08	-0.01
145	SLV 5	299	122	1851	-145.24	12.23	-0.15
145	SLV 6	299	122	1851	-145.24	12.23	-0.15
145	SLV 7	362	-105	1977	130.48	14.6	0.12
145	SLV 8	362	-105	1977	130.48	14.6	0.12
145	SLV 9	79	106	1636	-131.23	3.39	-0.12
145	SLV 10	79	106	1636	-131.23	3.39	-0.12
145	SLV 11	142	-121	1762	144.48	5.76	0.15
145	SLV 12	142	-121	1762	144.48	5.76	0.15
145	SLV 13	-155	8	1430	-18.4	-6.09	0
145	SLV 14	-155	8	1430	-18.4	-6.09	0
145	SLV 15	-136	-60	1468	64.32	-5.38	0.09
145	SLV 16	-136	-60	1468	64.32	-5.38	0.09
146	SLU 1	169	0	1724	-0.22	6.22	0
146	SLU 2	171	0	1717	0.07	6.31	0
146	SLU 3	169	0	1724	-0.22	6.22	0
146	SLU 4	170	0	1720	-0.05	6.27	0
146	SLU 5	171	0	1717	0.07	6.31	0
146	SLU 6	169	0	1724	-0.22	6.22	0
146	SLU 7	170	0	1720	-0.05	6.27	0
146	SLU 8	169	0	1724	-0.22	6.22	0
146	SLU 9	170	0	1720	-0.05	6.27	0
146	SLU 10	242	0	2070	0.04	8.96	0
146	SLU 11	240	0	2077	-0.24	8.87	0



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
Ind.	N.br.						
146	SLU 12	241	0	2073	-0.07	8.93	0
146	SLU 13	242	0	2070	0.04	8.96	0
146	SLU 14	240	0	2077	-0.24	8.87	0
146	SLU 15	241	0	2073	-0.07	8.93	0
146	SLU 16	240	0	2077	-0.24	8.87	0
146	SLU 17	241	0	2073	-0.07	8.93	0
146	SLU 18	271	0	2229	-0.25	10.01	0
146	SLU 19	272	0	2225	-0.08	10.06	0
146	SLU 20	271	0	2229	-0.25	10.01	0
146	SLU 21	272	0	2225	-0.08	10.06	0
146	SLU 22	200	0	1878	-0.23	7.38	0
146	SLU 23	202	0	1871	0.06	7.47	0
146	SLU 24	200	0	1878	-0.23	7.38	0
146	SLU 25	201	0	1874	-0.06	7.44	0
146	SLU 26	202	0	1871	0.06	7.47	0
146	SLU 27	200	0	1878	-0.23	7.38	0
146	SLU 28	201	0	1874	-0.06	7.44	0
146	SLU 29	200	0	1878	-0.23	7.38	0
146	SLU 30	201	0	1874	-0.06	7.44	0
146	SLU 31	274	0	2225	0.03	10.13	0
146	SLU 32	272	0	2232	-0.26	10.04	0
146	SLU 33	273	0	2228	-0.08	10.09	0
146	SLU 34	274	0	2225	0.03	10.13	0
146	SLU 35	272	0	2232	-0.26	10.04	0
146	SLU 36	273	0	2228	-0.08	10.09	0
146	SLU 37	272	0	2232	-0.26	10.04	0
146	SLU 38	273	0	2228	-0.08	10.09	0
146	SLU 39	302	0	2383	-0.27	11.18	0
146	SLU 40	304	0	2379	-0.1	11.23	0
146	SLU 41	302	0	2383	-0.27	11.18	0
146	SLU 42	304	0	2379	-0.1	11.23	0
146	SLU 43	208	0	2188	-0.28	7.68	0
146	SLU 44	211	0	2181	0.01	7.77	0
146	SLU 45	208	0	2188	-0.28	7.68	0
146	SLU 46	210	0	2184	-0.11	7.73	0
146	SLU 47	211	0	2181	0.01	7.77	0
146	SLU 48	208	0	2188	-0.28	7.68	0
146	SLU 49	210	0	2184	-0.11	7.73	0
146	SLU 50	208	0	2188	-0.28	7.68	0
146	SLU 51	210	0	2184	-0.11	7.73	0
146	SLU 52	282	0	2535	-0.02	10.43	0
146	SLU 53	280	0	2542	-0.3	10.34	0
146	SLU 54	281	0	2538	-0.13	10.39	0
146	SLU 55	282	0	2535	-0.02	10.43	0
146	SLU 56	280	0	2542	-0.3	10.34	0
146	SLU 57	281	0	2538	-0.13	10.39	0
146	SLU 58	280	0	2542	-0.3	10.34	0
146	SLU 59	281	0	2538	-0.13	10.39	0
146	SLU 60	311	0	2693	-0.31	11.47	0
146	SLU 61	312	0	2689	-0.14	11.53	0
146	SLU 62	311	0	2693	-0.31	11.47	0
146	SLU 63	312	0	2689	-0.14	11.53	0
146	SLU 64	240	0	2343	-0.29	8.85	0
146	SLU 65	242	0	2336	-0.01	8.94	0
146	SLU 66	240	0	2343	-0.29	8.85	0
146	SLU 67	241	0	2339	-0.12	8.9	0
146	SLU 68	242	0	2336	-0.01	8.94	0
146	SLU 69	240	0	2343	-0.29	8.85	0
146	SLU 70	241	0	2339	-0.12	8.9	0
146	SLU 71	240	0	2343	-0.29	8.85	0
146	SLU 72	241	0	2339	-0.12	8.9	0
146	SLU 73	314	0	2689	-0.03	11.59	0
146	SLU 74	311	0	2696	-0.32	11.5	0
146	SLU 75	313	0	2692	-0.14	11.56	0
146	SLU 76	314	0	2689	-0.03	11.59	0
146	SLU 77	311	0	2696	-0.32	11.5	0
146	SLU 78	313	0	2692	-0.14	11.56	0
146	SLU 79	311	0	2696	-0.32	11.5	0
146	SLU 80	313	0	2692	-0.14	11.56	0
146	SLU 81	342	0	2848	-0.33	12.64	0
146	SLU 82	343	0	2843	-0.16	12.7	0
146	SLU 83	342	0	2848	-0.33	12.64	0
146	SLU 84	343	0	2843	-0.16	12.7	0
146	SLE RA 1	178	0	1768	-0.22	6.55	0
146	SLE RA 2	179	0	1764	-0.03	6.61	0
146	SLE RA 3	178	0	1768	-0.22	6.55	0
146	SLE RA 4	179	0	1765	-0.11	6.59	0
146	SLE RA 5	179	0	1764	-0.03	6.61	0
146	SLE RA 6	178	0	1768	-0.22	6.55	0
146	SLE RA 7	179	0	1765	-0.11	6.59	0
146	SLE RA 8	178	0	1768	-0.22	6.55	0
146	SLE RA 9	179	0	1765	-0.11	6.59	0
146	SLE RA 10	227	0	1999	-0.05	8.38	0
146	SLE RA 11	225	0	2004	-0.24	8.32	0
146	SLE RA 12	226	0	2001	-0.12	8.36	0
146	SLE RA 13	227	0	1999	-0.05	8.38	0
146	SLE RA 14	225	0	2004	-0.24	8.32	0
146	SLE RA 15	226	0	2001	-0.12	8.36	0
146	SLE RA 16	225	0	2004	-0.24	8.32	0
146	SLE RA 17	226	0	2001	-0.12	8.36	0



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
Ind.	N.br.						
146	SLE RA 18	246	0	2105	-0.25	9.08	0
146	SLE RA 19	247	0	2102	-0.13	9.11	0
146	SLE RA 20	246	0	2105	-0.25	9.08	0
146	SLE RA 21	247	0	2102	-0.13	9.11	0
146	SLE FR 1	178	0	1768	-0.22	6.55	0
146	SLE FR 2	178	0	1767	-0.18	6.56	0
146	SLE FR 3	178	0	1768	-0.22	6.55	0
146	SLE FR 4	198	0	1868	-0.19	7.32	0
146	SLE FR 5	198	0	1869	-0.23	7.31	0
146	SLE FR 6	212	0	1936	-0.23	7.81	0
146	SLE QP 1	178	0	1768	-0.22	6.55	0
146	SLE QP 2	198	0	1869	-0.23	7.31	0
146	SLD 1	344	25	2011	-26.22	13.19	-0.02
146	SLD 2	344	25	2011	-26.22	13.19	-0.02
146	SLD 3	352	-5	2024	8.36	13.52	0
146	SLD 4	352	-5	2024	8.36	13.52	0
146	SLD 5	230	52	1893	-60.48	8.58	-0.03
146	SLD 6	230	52	1893	-60.48	8.58	-0.03
146	SLD 7	256	-46	1935	54.8	9.66	0.03
146	SLD 8	256	-46	1935	54.8	9.66	0.03
146	SLD 9	140	46	1804	-55.26	4.95	-0.03
146	SLD 10	140	46	1804	-55.26	4.95	-0.03
146	SLD 11	166	-52	1846	60.03	6.03	0.03
146	SLD 12	166	-52	1846	60.03	6.03	0.03
146	SLD 13	45	5	1714	-8.82	1.1	0
146	SLD 14	45	5	1714	-8.82	1.1	0
146	SLD 15	52	-24	1727	25.77	1.42	0.02
146	SLD 16	52	-24	1727	25.77	1.42	0.02
146	SLV 1	540	60	2201	-65.53	21.12	-0.04
146	SLV 2	540	60	2201	-65.53	21.12	-0.04
146	SLV 3	561	-13	2233	22.51	21.98	0
146	SLV 4	561	-13	2233	22.51	21.98	0
146	SLV 5	269	129	1921	-153.34	10.13	-0.08
146	SLV 6	269	129	1921	-153.34	10.13	-0.08
146	SLV 7	339	-115	2026	140.12	13.03	0.07
146	SLV 8	339	-115	2026	140.12	13.03	0.07
146	SLV 9	58	115	1712	-140.57	1.59	-0.07
146	SLV 10	58	115	1712	-140.57	1.59	-0.07
146	SLV 11	127	-129	1818	152.89	4.48	0.08
146	SLV 12	127	-129	1818	152.89	4.48	0.08
146	SLV 13	-165	13	1505	-22.97	-7.37	0
146	SLV 14	-165	13	1505	-22.97	-7.37	0
146	SLV 15	-144	-60	1537	65.07	-6.5	0.04
146	SLV 16	-144	-60	1537	65.07	-6.5	0.04
147	SLU 1	159	0	1770	-0.06	6.48	0
147	SLU 2	160	0	1765	0.19	6.52	0
147	SLU 3	159	0	1770	-0.06	6.48	0
147	SLU 4	160	0	1767	0.09	6.51	0
147	SLU 5	160	0	1765	0.19	6.52	0
147	SLU 6	159	0	1770	-0.06	6.48	0
147	SLU 7	160	0	1767	0.09	6.51	0
147	SLU 8	159	0	1770	-0.06	6.48	0
147	SLU 9	160	0	1767	0.09	6.51	0
147	SLU 10	221	0	2140	0.2	8.97	0
147	SLU 11	220	0	2146	-0.05	8.93	0
147	SLU 12	221	0	2142	0.1	8.96	0
147	SLU 13	221	0	2140	0.2	8.97	0
147	SLU 14	220	0	2146	-0.05	8.93	0
147	SLU 15	221	0	2142	0.1	8.96	0
147	SLU 16	220	0	2146	-0.05	8.93	0
147	SLU 17	221	0	2142	0.1	8.96	0
147	SLU 18	246	0	2306	-0.05	9.98	0
147	SLU 19	247	0	2303	0.1	10.01	0
147	SLU 20	246	0	2306	-0.05	9.98	0
147	SLU 21	247	0	2303	0.1	10.01	0
147	SLU 22	187	0	1935	-0.06	7.62	0
147	SLU 23	189	0	1929	0.2	7.66	0
147	SLU 24	187	0	1935	-0.06	7.62	0
147	SLU 25	188	0	1932	0.09	7.64	0
147	SLU 26	189	0	1929	0.2	7.66	0
147	SLU 27	187	0	1935	-0.06	7.62	0
147	SLU 28	188	0	1932	0.09	7.64	0
147	SLU 29	187	0	1935	-0.06	7.62	0
147	SLU 30	188	0	1932	0.09	7.64	0
147	SLU 31	250	0	2305	0.21	10.11	0
147	SLU 32	248	0	2310	-0.05	10.07	0
147	SLU 33	249	0	2307	0.1	10.09	0
147	SLU 34	250	0	2305	0.21	10.11	0
147	SLU 35	248	0	2310	-0.05	10.07	0
147	SLU 36	249	0	2307	0.1	10.09	0
147	SLU 37	248	0	2310	-0.05	10.07	0
147	SLU 38	249	0	2307	0.1	10.09	0
147	SLU 39	274	0	2471	-0.04	11.12	0
147	SLU 40	275	0	2468	0.11	11.14	0
147	SLU 41	274	0	2471	-0.04	11.12	0
147	SLU 42	275	0	2468	0.11	11.14	0
147	SLU 43	197	0	2245	-0.09	8.04	0
147	SLU 44	198	0	2240	0.17	8.08	0
147	SLU 45	197	0	2245	-0.09	8.04	0
147	SLU 46	198	0	2242	0.07	8.06	0



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
147	SLU 47	198	0	2240	0.17	8.08	0
147	SLU 48	197	0	2245	-0.09	8.04	0
147	SLU 49	198	0	2242	0.07	8.06	0
147	SLU 50	197	0	2245	-0.09	8.04	0
147	SLU 51	198	0	2242	0.07	8.06	0
147	SLU 52	259	0	2615	0.18	10.53	0
147	SLU 53	258	0	2620	-0.08	10.49	0
147	SLU 54	259	0	2617	0.08	10.51	0
147	SLU 55	259	0	2615	0.18	10.53	0
147	SLU 56	258	0	2620	-0.08	10.49	0
147	SLU 57	259	0	2617	0.08	10.51	0
147	SLU 58	258	0	2620	-0.08	10.49	0
147	SLU 59	259	0	2617	0.08	10.51	0
147	SLU 60	284	0	2781	-0.07	11.54	0
147	SLU 61	285	0	2778	0.08	11.56	0
147	SLU 62	284	0	2781	-0.07	11.54	0
147	SLU 63	285	0	2778	0.08	11.56	0
147	SLU 64	225	0	2409	-0.08	9.18	0
147	SLU 65	227	0	2404	0.17	9.22	0
147	SLU 66	225	0	2409	-0.08	9.18	0
147	SLU 67	226	0	2406	0.07	9.2	0
147	SLU 68	227	0	2404	0.17	9.22	0
147	SLU 69	225	0	2409	-0.08	9.18	0
147	SLU 70	226	0	2406	0.07	9.2	0
147	SLU 71	225	0	2409	-0.08	9.18	0
147	SLU 72	226	0	2406	0.07	9.2	0
147	SLU 73	288	0	2779	0.18	11.66	0
147	SLU 74	286	0	2785	-0.07	11.63	0
147	SLU 75	287	0	2781	0.08	11.65	0
147	SLU 76	288	0	2779	0.18	11.66	0
147	SLU 77	286	0	2785	-0.07	11.63	0
147	SLU 78	287	0	2781	0.08	11.65	0
147	SLU 79	286	0	2785	-0.07	11.63	0
147	SLU 80	287	0	2781	0.08	11.65	0
147	SLU 81	312	0	2945	-0.07	12.67	0
147	SLU 82	313	0	2942	0.09	12.7	0
147	SLU 83	312	0	2945	-0.07	12.67	0
147	SLU 84	313	0	2942	0.09	12.7	0
147	SLE RA 1	167	0	1817	-0.06	6.81	0
147	SLE RA 2	168	0	1814	0.11	6.84	0
147	SLE RA 3	167	0	1817	-0.06	6.81	0
147	SLE RA 4	168	0	1815	0.04	6.82	0
147	SLE RA 5	168	0	1814	0.11	6.84	0
147	SLE RA 6	167	0	1817	-0.06	6.81	0
147	SLE RA 7	168	0	1815	0.04	6.82	0
147	SLE RA 8	167	0	1817	-0.06	6.81	0
147	SLE RA 9	168	0	1815	0.04	6.82	0
147	SLE RA 10	209	0	2064	0.11	8.47	0
147	SLE RA 11	208	0	2067	-0.06	8.44	0
147	SLE RA 12	208	0	2065	0.05	8.46	0
147	SLE RA 13	209	0	2064	0.11	8.47	0
147	SLE RA 14	208	0	2067	-0.06	8.44	0
147	SLE RA 15	208	0	2065	0.05	8.46	0
147	SLE RA 16	208	0	2067	-0.06	8.44	0
147	SLE RA 17	208	0	2065	0.05	8.46	0
147	SLE RA 18	225	0	2175	-0.05	9.14	0
147	SLE RA 19	226	0	2173	0.05	9.16	0
147	SLE RA 20	225	0	2175	-0.05	9.14	0
147	SLE RA 21	226	0	2173	0.05	9.16	0
147	SLE FR 1	167	0	1817	-0.06	6.81	0
147	SLE FR 2	167	0	1817	-0.03	6.81	0
147	SLE FR 3	167	0	1817	-0.06	6.81	0
147	SLE FR 4	185	0	1924	-0.03	7.51	0
147	SLE FR 5	184	0	1924	-0.06	7.51	0
147	SLE FR 6	196	0	1996	-0.06	7.97	0
147	SLE QP 1	167	0	1817	-0.06	6.81	0
147	SLE QP 2	184	0	1924	-0.06	7.51	0
147	SLD 1	326	23	2053	-25.05	13.27	-0.01
147	SLD 2	326	23	2053	-25.05	13.27	-0.01
147	SLD 3	335	-7	2065	10.07	13.6	0
147	SLD 4	335	-7	2065	10.07	13.6	0
147	SLD 5	214	52	1944	-60.82	8.73	-0.02
147	SLD 6	214	52	1944	-60.82	8.73	-0.02
147	SLD 7	243	-47	1985	56.24	9.85	0.02
147	SLD 8	243	-47	1985	56.24	9.85	0.02
147	SLD 9	126	47	1864	-56.36	5.17	-0.02
147	SLD 10	126	47	1864	-56.36	5.17	-0.02
147	SLD 11	155	-52	1904	60.7	6.29	0.02
147	SLD 12	155	-52	1904	60.7	6.29	0.02
147	SLD 13	34	7	1784	-10.19	1.41	0
147	SLD 14	34	7	1784	-10.19	1.41	0
147	SLD 15	43	-23	1796	24.93	1.75	0.01
147	SLD 16	43	-23	1796	24.93	1.75	0.01
147	SLV 1	518	56	2225	-63.11	21.05	-0.03
147	SLV 2	518	56	2225	-63.11	21.05	-0.03
147	SLV 3	540	-18	2255	26.2	21.89	0
147	SLV 4	540	-18	2255	26.2	21.89	0
147	SLV 5	251	129	1969	-154.44	10.29	-0.05
147	SLV 6	251	129	1969	-154.44	10.29	-0.05
147	SLV 7	324	-118	2069	143.28	13.1	0.04



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
147	SLV 8	324	-118	2069	143.28	13.1	0.04
147	SLV 9	44	118	1780	-143.4	1.91	-0.04
147	SLV 10	44	118	1780	-143.4	1.91	-0.04
147	SLV 11	118	-129	1880	154.32	4.73	0.05
147	SLV 12	118	-129	1880	154.32	4.73	0.05
147	SLV 13	-171	18	1594	-26.32	-6.88	0
147	SLV 14	-171	18	1594	-26.32	-6.88	0
147	SLV 15	-149	-56	1624	63	-6.03	0.03
147	SLV 16	-149	-56	1624	63	-6.03	0.03
148	SLU 1	136	0	1810	0.09	5.01	0
148	SLU 2	137	0	1806	0.31	5.06	0
148	SLU 3	136	0	1810	0.09	5.01	0
148	SLU 4	136	0	1807	0.22	5.04	0
148	SLU 5	137	0	1806	0.31	5.06	0
148	SLU 6	136	0	1810	0.09	5.01	0
148	SLU 7	136	0	1807	0.22	5.04	0
148	SLU 8	136	0	1810	0.09	5.01	0
148	SLU 9	136	0	1807	0.22	5.04	0
148	SLU 10	184	0	2196	0.35	6.81	0
148	SLU 11	183	0	2199	0.13	6.76	0
148	SLU 12	183	0	2197	0.26	6.79	0
148	SLU 13	184	0	2196	0.35	6.81	0
148	SLU 14	183	0	2199	0.13	6.76	0
148	SLU 15	183	0	2197	0.26	6.79	0
148	SLU 16	183	0	2199	0.13	6.76	0
148	SLU 17	183	0	2197	0.26	6.79	0
148	SLU 18	203	0	2366	0.15	7.52	0
148	SLU 19	204	0	2364	0.28	7.54	0
148	SLU 20	203	0	2366	0.15	7.52	0
148	SLU 21	204	0	2364	0.28	7.54	0
148	SLU 22	159	0	1981	0.11	5.88	0
148	SLU 23	160	0	1978	0.33	5.93	0
148	SLU 24	159	0	1981	0.11	5.88	0
148	SLU 25	160	0	1979	0.24	5.91	0
148	SLU 26	160	0	1978	0.33	5.93	0
148	SLU 27	159	0	1981	0.11	5.88	0
148	SLU 28	160	0	1979	0.24	5.91	0
148	SLU 29	159	0	1981	0.11	5.88	0
148	SLU 30	160	0	1979	0.24	5.91	0
148	SLU 31	207	0	2368	0.38	7.68	0
148	SLU 32	206	0	2371	0.15	7.64	0
148	SLU 33	207	0	2369	0.29	7.66	0
148	SLU 34	207	0	2368	0.38	7.68	0
148	SLU 35	206	0	2371	0.15	7.64	0
148	SLU 36	207	0	2369	0.29	7.66	0
148	SLU 37	206	0	2371	0.15	7.64	0
148	SLU 38	207	0	2369	0.29	7.66	0
148	SLU 39	226	0	2538	0.17	8.39	0
148	SLU 40	227	0	2536	0.31	8.42	0
148	SLU 41	226	0	2538	0.17	8.39	0
148	SLU 42	227	0	2536	0.31	8.42	0
148	SLU 43	168	0	2293	0.1	6.22	0
148	SLU 44	170	0	2290	0.33	6.26	0
148	SLU 45	168	0	2293	0.1	6.22	0
148	SLU 46	169	0	2291	0.24	6.25	0
148	SLU 47	170	0	2290	0.33	6.26	0
148	SLU 48	168	0	2293	0.1	6.22	0
148	SLU 49	169	0	2291	0.24	6.25	0
148	SLU 50	168	0	2293	0.1	6.22	0
148	SLU 51	169	0	2291	0.24	6.25	0
148	SLU 52	217	0	2679	0.37	8.02	0
148	SLU 53	215	0	2683	0.15	7.97	0
148	SLU 54	216	0	2681	0.28	8	0
148	SLU 55	217	0	2679	0.37	8.02	0
148	SLU 56	215	0	2683	0.15	7.97	0
148	SLU 57	216	0	2681	0.28	8	0
148	SLU 58	215	0	2683	0.15	7.97	0
148	SLU 59	216	0	2681	0.28	8	0
148	SLU 60	236	0	2850	0.17	8.72	0
148	SLU 61	236	0	2848	0.3	8.75	0
148	SLU 62	236	0	2850	0.17	8.72	0
148	SLU 63	236	0	2848	0.3	8.75	0
148	SLU 64	192	0	2465	0.13	7.09	0
148	SLU 65	193	0	2462	0.35	7.14	0
148	SLU 66	192	0	2465	0.13	7.09	0
148	SLU 67	193	0	2463	0.26	7.12	0
148	SLU 68	193	0	2462	0.35	7.14	0
148	SLU 69	192	0	2465	0.13	7.09	0
148	SLU 70	193	0	2463	0.26	7.12	0
148	SLU 71	192	0	2465	0.13	7.09	0
148	SLU 72	193	0	2463	0.26	7.12	0
148	SLU 73	240	0	2851	0.39	8.89	0
148	SLU 74	239	0	2855	0.17	8.84	0
148	SLU 75	240	0	2853	0.31	8.87	0
148	SLU 76	240	0	2851	0.39	8.89	0
148	SLU 77	239	0	2855	0.17	8.84	0
148	SLU 78	240	0	2853	0.31	8.87	0
148	SLU 79	239	0	2855	0.17	8.84	0
148	SLU 80	240	0	2853	0.31	8.87	0
148	SLU 81	259	0	3022	0.19	9.59	0





Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
148	SLU 82	260	0	3020	0.32	9.62	0
148	SLU 83	259	0	3022	0.19	9.59	0
148	SLU 84	260	0	3020	0.32	9.62	0
148	SLE RA 1	142	0	1859	0.09	5.26	0
148	SLE RA 2	143	0	1856	0.24	5.29	0
148	SLE RA 3	142	0	1859	0.09	5.26	0
148	SLE RA 4	143	0	1857	0.18	5.28	0
148	SLE RA 5	143	0	1856	0.24	5.29	0
148	SLE RA 6	142	0	1859	0.09	5.26	0
148	SLE RA 7	143	0	1857	0.18	5.28	0
148	SLE RA 8	142	0	1859	0.09	5.26	0
148	SLE RA 9	143	0	1857	0.18	5.28	0
148	SLE RA 10	175	0	2116	0.27	6.46	0
148	SLE RA 11	174	0	2119	0.12	6.43	0
148	SLE RA 12	174	0	2117	0.21	6.45	0
148	SLE RA 13	175	0	2116	0.27	6.46	0
148	SLE RA 14	174	0	2119	0.12	6.43	0
148	SLE RA 15	174	0	2117	0.21	6.45	0
148	SLE RA 16	174	0	2119	0.12	6.43	0
148	SLE RA 17	174	0	2117	0.21	6.45	0
148	SLE RA 18	187	0	2230	0.13	6.93	0
148	SLE RA 19	188	0	2228	0.22	6.95	0
148	SLE RA 20	187	0	2230	0.13	6.93	0
148	SLE RA 21	188	0	2228	0.22	6.95	0
148	SLE FR 1	142	0	1859	0.09	5.26	0
148	SLE FR 2	143	0	1858	0.12	5.27	0
148	SLE FR 3	142	0	1859	0.09	5.26	0
148	SLE FR 4	156	0	1970	0.13	5.77	0
148	SLE FR 5	156	0	1970	0.1	5.76	0
148	SLE FR 6	165	0	2044	0.11	6.09	0
148	SLE QP 1	142	0	1859	0.09	5.26	0
148	SLE QP 2	156	0	1970	0.1	5.76	0
148	SLD 1	297	8	2078	-23.27	11.49	-0.01
148	SLD 2	297	8	2078	-23.27	11.49	-0.01
148	SLD 3	306	-21	2092	10.8	11.86	0
148	SLD 4	306	-21	2092	10.8	11.86	0
148	SLD 5	183	46	1982	-58.58	6.91	-0.02
148	SLD 6	183	46	1982	-58.58	6.91	-0.02
148	SLD 7	216	-50	2027	54.99	8.16	0.01
148	SLD 8	216	-50	2027	54.99	8.16	0.01
148	SLD 9	96	50	1913	-54.78	3.36	-0.01
148	SLD 10	96	50	1913	-54.78	3.36	-0.01
148	SLD 11	128	-46	1958	58.79	4.61	0.02
148	SLD 12	128	-46	1958	58.79	4.61	0.02
148	SLD 13	6	20	1848	-10.59	-0.34	0
148	SLD 14	6	20	1848	-10.59	-0.34	0
148	SLD 15	15	-8	1862	23.48	0.03	0.01
148	SLD 16	15	-8	1862	23.48	0.03	0.01
148	SLV 1	486	21	2223	-59.11	19.21	-0.02
148	SLV 2	486	21	2223	-59.11	19.21	-0.02
148	SLV 3	511	-51	2256	27.43	20.17	0
148	SLV 4	511	-51	2256	27.43	20.17	0
148	SLV 5	218	115	1995	-148.91	8.34	-0.04
148	SLV 6	218	115	1995	-148.91	8.34	-0.04
148	SLV 7	300	-124	2107	139.55	11.55	0.03
148	SLV 8	300	-124	2107	139.55	11.55	0.03
148	SLV 9	12	124	1833	-139.34	-0.02	-0.03
148	SLV 10	12	124	1833	-139.34	-0.02	-0.03
148	SLV 11	94	-115	1945	149.12	3.19	0.04
148	SLV 12	94	-115	1945	149.12	3.19	0.04
148	SLV 13	-199	50	1684	-27.22	-8.65	0
148	SLV 14	-199	50	1684	-27.22	-8.65	0
148	SLV 15	-175	-21	1717	59.32	-7.69	0.02
148	SLV 16	-175	-21	1717	59.32	-7.69	0.02
149	SLU 1	127	0	1842	0.21	5.25	0
149	SLU 2	128	0	1839	0.41	5.27	0
149	SLU 3	127	0	1842	0.21	5.25	0
149	SLU 4	128	0	1840	0.33	5.26	0
149	SLU 5	128	0	1839	0.41	5.27	0
149	SLU 6	127	0	1842	0.21	5.25	0
149	SLU 7	128	0	1840	0.33	5.26	0
149	SLU 8	127	0	1842	0.21	5.25	0
149	SLU 9	128	0	1840	0.33	5.26	0
149	SLU 10	168	0	2238	0.48	6.91	0
149	SLU 11	167	0	2241	0.29	6.89	0
149	SLU 12	167	0	2239	0.4	6.9	0
149	SLU 13	168	0	2238	0.48	6.91	0
149	SLU 14	167	0	2241	0.29	6.89	0
149	SLU 15	167	0	2239	0.4	6.9	0
149	SLU 16	167	0	2241	0.29	6.89	0
149	SLU 17	167	0	2239	0.4	6.9	0
149	SLU 18	184	0	2412	0.32	7.6	0
149	SLU 19	184	0	2410	0.44	7.61	0
149	SLU 20	184	0	2412	0.32	7.6	0
149	SLU 21	184	0	2410	0.44	7.61	0
149	SLU 22	149	0	2020	0.25	6.13	0
149	SLU 23	150	0	2017	0.45	6.15	0
149	SLU 24	149	0	2020	0.25	6.13	0
149	SLU 25	149	0	2018	0.37	6.14	0
149	SLU 26	150	0	2017	0.45	6.15	0



Nodo	Cont.	Reazione a traslazione				Reazione a rotazione			
		x	y	z		x	y	z	
149	SLU 27	149	0	2020	0.25	6.13	0		
149	SLU 28	149	0	2018	0.37	6.14	0		
149	SLU 29	149	0	2020	0.25	6.13	0		
149	SLU 30	149	0	2018	0.37	6.14	0		
149	SLU 31	189	0	2416	0.52	7.79	0		
149	SLU 32	189	0	2419	0.33	7.78	0		
149	SLU 33	189	0	2417	0.44	7.79	0		
149	SLU 34	189	0	2416	0.52	7.79	0		
149	SLU 35	189	0	2419	0.33	7.78	0		
149	SLU 36	189	0	2417	0.44	7.79	0		
149	SLU 37	189	0	2419	0.33	7.78	0		
149	SLU 38	189	0	2417	0.44	7.79	0		
149	SLU 39	206	0	2589	0.36	8.48	0		
149	SLU 40	206	0	2588	0.48	8.49	0		
149	SLU 41	206	0	2589	0.36	8.48	0		
149	SLU 42	206	0	2588	0.48	8.49	0		
149	SLU 43	158	0	2334	0.27	6.52	0		
149	SLU 44	159	0	2331	0.46	6.54	0		
149	SLU 45	158	0	2334	0.27	6.52	0		
149	SLU 46	159	0	2332	0.38	6.53	0		
149	SLU 47	159	0	2331	0.46	6.54	0		
149	SLU 48	158	0	2334	0.27	6.52	0		
149	SLU 49	159	0	2332	0.38	6.53	0		
149	SLU 50	158	0	2334	0.27	6.52	0		
149	SLU 51	159	0	2332	0.38	6.53	0		
149	SLU 52	198	0	2730	0.53	8.18	0		
149	SLU 53	198	0	2732	0.34	8.17	0		
149	SLU 54	198	0	2731	0.45	8.18	0		
149	SLU 55	198	0	2730	0.53	8.18	0		
149	SLU 56	198	0	2732	0.34	8.17	0		
149	SLU 57	198	0	2731	0.45	8.18	0		
149	SLU 58	198	0	2732	0.34	8.17	0		
149	SLU 59	198	0	2731	0.45	8.18	0		
149	SLU 60	215	0	2903	0.37	8.87	0		
149	SLU 61	215	0	2902	0.49	8.88	0		
149	SLU 62	215	0	2903	0.37	8.87	0		
149	SLU 63	215	0	2902	0.49	8.88	0		
149	SLU 64	180	0	2511	0.31	7.41	0		
149	SLU 65	180	0	2509	0.5	7.42	0		
149	SLU 66	180	0	2511	0.31	7.41	0		
149	SLU 67	180	0	2510	0.42	7.42	0		
149	SLU 68	180	0	2509	0.5	7.42	0		
149	SLU 69	180	0	2511	0.31	7.41	0		
149	SLU 70	180	0	2510	0.42	7.42	0		
149	SLU 71	180	0	2511	0.31	7.41	0		
149	SLU 72	180	0	2510	0.42	7.42	0		
149	SLU 73	220	0	2908	0.57	9.07	0		
149	SLU 74	219	0	2910	0.38	9.05	0		
149	SLU 75	220	0	2909	0.49	9.06	0		
149	SLU 76	220	0	2908	0.57	9.07	0		
149	SLU 77	219	0	2910	0.38	9.05	0		
149	SLU 78	220	0	2909	0.49	9.06	0		
149	SLU 79	219	0	2910	0.38	9.05	0		
149	SLU 80	220	0	2909	0.49	9.06	0		
149	SLU 81	236	0	3081	0.41	9.76	0		
149	SLU 82	237	0	3080	0.53	9.76	0		
149	SLU 83	236	0	3081	0.41	9.76	0		
149	SLU 84	237	0	3080	0.53	9.76	0		
149	SLE RA 1	134	0	1893	0.23	5.5	0		
149	SLE RA 2	134	0	1891	0.36	5.51	0		
149	SLE RA 3	134	0	1893	0.23	5.5	0		
149	SLE RA 4	134	0	1892	0.3	5.51	0		
149	SLE RA 5	134	0	1891	0.36	5.51	0		
149	SLE RA 6	134	0	1893	0.23	5.5	0		
149	SLE RA 7	134	0	1892	0.3	5.51	0		
149	SLE RA 8	134	0	1893	0.23	5.5	0		
149	SLE RA 9	134	0	1892	0.3	5.51	0		
149	SLE RA 10	160	0	2157	0.4	6.61	0		
149	SLE RA 11	160	0	2159	0.27	6.6	0		
149	SLE RA 12	160	0	2158	0.35	6.61	0		
149	SLE RA 13	160	0	2157	0.4	6.61	0		
149	SLE RA 14	160	0	2159	0.27	6.6	0		
149	SLE RA 15	160	0	2158	0.35	6.61	0		
149	SLE RA 16	160	0	2159	0.27	6.6	0		
149	SLE RA 17	160	0	2158	0.35	6.61	0		
149	SLE RA 18	171	0	2273	0.3	7.07	0		
149	SLE RA 19	172	0	2272	0.37	7.08	0		
149	SLE RA 20	171	0	2273	0.3	7.07	0		
149	SLE RA 21	172	0	2272	0.37	7.08	0		
149	SLE FR 1	134	0	1893	0.23	5.5	0		
149	SLE FR 2	134	0	1892	0.25	5.51	0		
149	SLE FR 3	134	0	1893	0.23	5.5	0		
149	SLE FR 4	145	0	2006	0.27	5.98	0		
149	SLE FR 5	145	0	2007	0.25	5.97	0		
149	SLE FR 6	152	0	2083	0.26	6.29	0		
149	SLE QP 1	134	0	1893	0.23	5.5	0		
149	SLE QP 2	145	0	2007	0.25	5.97	0		
149	SLD 1	287	7	2093	-9.55	11.77	-0.01		
149	SLD 2	287	7	2093	-9.55	11.77	-0.01		
149	SLD 3	298	-19	2110	22.01	12.21	0		



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
Ind.	N.br.						
149	SLD 4	298	-19	2110	22.01	12.21	0
149	SLD 5	171	42	2007	-50.55	7.05	-0.01
149	SLD 6	171	42	2007	-50.55	7.05	-0.01
149	SLD 7	208	-46	2064	54.64	8.5	0.01
149	SLD 8	208	-46	2064	54.64	8.5	0.01
149	SLD 9	82	46	1950	-54.14	3.44	-0.01
149	SLD 10	82	46	1950	-54.14	3.44	-0.01
149	SLD 11	119	-43	2007	51.05	4.89	0.01
149	SLD 12	119	-43	2007	51.05	4.89	0.01
149	SLD 13	-9	19	1903	-21.52	-0.26	0
149	SLD 14	-9	19	1903	-21.52	-0.26	0
149	SLD 15	2	-8	1920	10.04	0.17	0.01
149	SLD 16	2	-8	1920	10.04	0.17	0.01
149	SLV 1	480	18	2208	-24.6	19.61	-0.02
149	SLV 2	480	18	2208	-24.6	19.61	-0.02
149	SLV 3	507	-48	2250	55.4	20.69	0
149	SLV 4	507	-48	2250	55.4	20.69	0
149	SLV 5	204	105	2004	-128.55	8.42	-0.04
149	SLV 6	204	105	2004	-128.55	8.42	-0.04
149	SLV 7	295	-114	2143	138.13	12.03	0.03
149	SLV 8	295	-114	2143	138.13	12.03	0.03
149	SLV 9	-5	113	1870	-137.64	-0.09	-0.03
149	SLV 10	-5	113	1870	-137.64	-0.09	-0.03
149	SLV 11	86	-105	2010	129.04	3.53	0.04
149	SLV 12	86	-105	2010	129.04	3.53	0.04
149	SLV 13	-217	47	1764	-54.91	-8.74	0
149	SLV 14	-217	47	1764	-54.91	-8.74	0
149	SLV 15	-190	-19	1806	25.1	-7.66	0.02
149	SLV 16	-190	-19	1806	25.1	-7.66	0.02
150	SLU 1	112	0	1872	0.31	4.08	0
150	SLU 2	113	0	1870	0.47	4.1	0
150	SLU 3	112	0	1872	0.31	4.08	0
150	SLU 4	113	0	1871	0.41	4.09	0
150	SLU 5	113	0	1870	0.47	4.1	0
150	SLU 6	112	0	1872	0.31	4.08	0
150	SLU 7	113	0	1871	0.41	4.09	0
150	SLU 8	112	0	1872	0.31	4.08	0
150	SLU 9	113	0	1871	0.41	4.09	0
150	SLU 10	145	0	2275	0.56	5.28	0
150	SLU 11	144	0	2276	0.4	5.25	0
150	SLU 12	145	0	2276	0.5	5.27	0
150	SLU 13	145	0	2275	0.56	5.28	0
150	SLU 14	144	0	2276	0.4	5.25	0
150	SLU 15	145	0	2276	0.5	5.27	0
150	SLU 16	144	0	2276	0.4	5.25	0
150	SLU 17	145	0	2276	0.5	5.27	0
150	SLU 18	158	0	2450	0.44	5.76	0
150	SLU 19	159	0	2449	0.54	5.78	0
150	SLU 20	158	0	2450	0.44	5.76	0
150	SLU 21	159	0	2449	0.54	5.78	0
150	SLU 22	132	0	2055	0.36	4.79	0
150	SLU 23	132	0	2054	0.52	4.82	0
150	SLU 24	132	0	2055	0.36	4.79	0
150	SLU 25	132	0	2054	0.46	4.81	0
150	SLU 26	132	0	2054	0.52	4.82	0
150	SLU 27	132	0	2055	0.36	4.79	0
150	SLU 28	132	0	2054	0.46	4.81	0
150	SLU 29	132	0	2055	0.36	4.79	0
150	SLU 30	132	0	2054	0.46	4.81	0
150	SLU 31	165	0	2458	0.61	6	0
150	SLU 32	164	0	2459	0.45	5.97	0
150	SLU 33	164	0	2459	0.55	5.99	0
150	SLU 34	165	0	2458	0.61	6	0
150	SLU 35	164	0	2459	0.45	5.97	0
150	SLU 36	164	0	2459	0.55	5.99	0
150	SLU 37	164	0	2459	0.45	5.97	0
150	SLU 38	164	0	2459	0.55	5.99	0
150	SLU 39	178	0	2633	0.49	6.47	0
150	SLU 40	178	-1	2632	0.59	6.49	0
150	SLU 41	178	0	2633	0.49	6.47	0
150	SLU 42	178	-1	2632	0.59	6.49	0
150	SLU 43	139	0	2371	0.38	5.06	0
150	SLU 44	140	0	2369	0.55	5.08	0
150	SLU 45	139	0	2371	0.38	5.06	0
150	SLU 46	140	0	2370	0.48	5.07	0
150	SLU 47	140	0	2369	0.55	5.08	0
150	SLU 48	139	0	2371	0.38	5.06	0
150	SLU 49	140	0	2370	0.48	5.07	0
150	SLU 50	139	0	2371	0.38	5.06	0
150	SLU 51	140	0	2370	0.48	5.07	0
150	SLU 52	172	-1	2774	0.64	6.26	0
150	SLU 53	171	0	2775	0.47	6.23	0
150	SLU 54	172	-1	2774	0.57	6.25	0
150	SLU 55	172	-1	2774	0.64	6.26	0
150	SLU 56	171	0	2775	0.47	6.23	0
150	SLU 57	172	-1	2774	0.57	6.25	0
150	SLU 58	171	0	2775	0.47	6.23	0
150	SLU 59	172	-1	2774	0.57	6.25	0
150	SLU 60	185	-1	2949	0.51	6.74	0
150	SLU 61	185	-1	2948	0.61	6.75	0



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
150	SLU 62	185	-1	2949	0.51	6.74	0
150	SLU 63	185	-1	2948	0.61	6.75	0
150	SLU 64	159	0	2554	0.43	5.77	0
150	SLU 65	159	0	2552	0.6	5.8	0
150	SLU 66	159	0	2554	0.43	5.77	0
150	SLU 67	159	0	2553	0.53	5.79	0
150	SLU 68	159	0	2552	0.6	5.8	0
150	SLU 69	159	0	2554	0.43	5.77	0
150	SLU 70	159	0	2553	0.53	5.79	0
150	SLU 71	159	0	2554	0.43	5.77	0
150	SLU 72	159	0	2553	0.53	5.79	0
150	SLU 73	191	-1	2957	0.69	6.97	0
150	SLU 74	191	-1	2958	0.52	6.95	0
150	SLU 75	191	-1	2957	0.62	6.96	0
150	SLU 76	191	-1	2957	0.69	6.97	0
150	SLU 77	191	-1	2958	0.52	6.95	0
150	SLU 78	191	-1	2957	0.62	6.96	0
150	SLU 79	191	-1	2958	0.52	6.95	0
150	SLU 80	191	-1	2957	0.62	6.96	0
150	SLU 81	205	-1	3132	0.56	7.45	0
150	SLU 82	205	-1	3131	0.66	7.47	0
150	SLU 83	205	-1	3132	0.56	7.45	0
150	SLU 84	205	-1	3131	0.66	7.47	0
150	SLE RA 1	118	0	1924	0.32	4.28	0
150	SLE RA 2	118	0	1923	0.43	4.3	0
150	SLE RA 3	118	0	1924	0.32	4.28	0
150	SLE RA 4	118	0	1924	0.39	4.29	0
150	SLE RA 5	118	0	1923	0.43	4.3	0
150	SLE RA 6	118	0	1924	0.32	4.28	0
150	SLE RA 7	118	0	1924	0.39	4.29	0
150	SLE RA 8	118	0	1924	0.32	4.28	0
150	SLE RA 9	118	0	1924	0.39	4.29	0
150	SLE RA 10	140	0	2193	0.49	5.08	0
150	SLE RA 11	139	0	2194	0.38	5.07	0
150	SLE RA 12	139	0	2193	0.45	5.08	0
150	SLE RA 13	140	0	2193	0.49	5.08	0
150	SLE RA 14	139	0	2194	0.38	5.07	0
150	SLE RA 15	139	0	2193	0.45	5.08	0
150	SLE RA 16	139	0	2194	0.38	5.07	0
150	SLE RA 17	139	0	2193	0.45	5.08	0
150	SLE RA 18	148	0	2309	0.41	5.4	0
150	SLE RA 19	149	0	2309	0.47	5.41	0
150	SLE RA 20	148	0	2309	0.41	5.4	0
150	SLE RA 21	149	0	2309	0.47	5.41	0
150	SLE FR 1	118	0	1924	0.32	4.28	0
150	SLE FR 2	118	0	1924	0.34	4.29	0
150	SLE FR 3	118	0	1924	0.32	4.28	0
150	SLE FR 4	127	0	2040	0.37	4.62	0
150	SLE FR 5	127	0	2040	0.35	4.62	0
150	SLE FR 6	133	0	2117	0.37	4.84	0
150	SLE QP 1	118	0	1924	0.32	4.28	0
150	SLE QP 2	127	0	2040	0.35	4.62	0
150	SLD 1	272	4	2106	-7.14	10.52	-0.01
150	SLD 2	272	4	2106	-7.14	10.52	-0.01
150	SLD 3	284	-19	2128	20.64	10.97	0
150	SLD 4	284	-19	2128	20.64	10.97	0
150	SLD 5	152	36	2026	-44.03	5.71	-0.01
150	SLD 6	152	36	2026	-44.03	5.71	-0.01
150	SLD 7	193	-41	2100	48.57	7.2	0.01
150	SLD 8	193	-41	2100	48.57	7.2	0.01
150	SLD 9	61	40	1980	-47.87	2.03	-0.01
150	SLD 10	61	40	1980	-47.87	2.03	-0.01
150	SLD 11	102	-36	2053	44.73	3.53	0.01
150	SLD 12	102	-36	2053	44.73	3.53	0.01
150	SLD 13	-31	18	1952	-19.94	-1.73	0
150	SLD 14	-31	18	1952	-19.94	-1.73	0
150	SLD 15	-18	-5	1974	7.84	-1.28	0.01
150	SLD 16	-18	-5	1974	7.84	-1.28	0.01
150	SLV 1	468	10	2193	-18.69	18.48	-0.02
150	SLV 2	468	10	2193	-18.69	18.48	-0.02
150	SLV 3	499	-46	2247	51.56	19.61	-0.01
150	SLV 4	499	-46	2247	51.56	19.61	-0.01
150	SLV 5	183	89	2004	-111.92	7.07	-0.03
150	SLV 6	183	89	2004	-111.92	7.07	-0.03
150	SLV 7	285	-100	2184	122.27	10.82	0.02
150	SLV 8	285	-100	2184	122.27	10.82	0.02
150	SLV 9	-31	99	1895	-121.57	-1.59	-0.02
150	SLV 10	-31	99	1895	-121.57	-1.59	-0.02
150	SLV 11	71	-89	2076	112.61	2.17	0.03
150	SLV 12	71	-89	2076	112.61	2.17	0.03
150	SLV 13	-245	46	1832	-50.87	-10.37	0
150	SLV 14	-245	46	1832	-50.87	-10.37	0
150	SLV 15	-215	-11	1886	19.39	-9.25	0.02
150	SLV 16	-215	-11	1886	19.39	-9.25	0.02
151	SLU 1	113	0	1904	0.35	4.7	0
151	SLU 2	114	0	1904	0.49	4.71	0
151	SLU 3	113	0	1904	0.35	4.7	0
151	SLU 4	113	0	1904	0.43	4.71	0
151	SLU 5	114	0	1904	0.49	4.71	0
151	SLU 6	113	0	1904	0.35	4.7	0



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
151	SLU 7	113	0	1904	0.43	4.71	0
151	SLU 8	113	0	1904	0.35	4.7	0
151	SLU 9	113	0	1904	0.43	4.71	0
151	SLU 10	145	0	2314	0.58	6.06	0
151	SLU 11	145	0	2315	0.44	6.05	0
151	SLU 12	145	0	2314	0.52	6.05	0
151	SLU 13	145	0	2314	0.58	6.06	0
151	SLU 14	145	0	2315	0.44	6.05	0
151	SLU 15	145	0	2314	0.52	6.05	0
151	SLU 16	145	0	2315	0.44	6.05	0
151	SLU 17	145	0	2314	0.52	6.05	0
151	SLU 18	158	0	2490	0.48	6.63	0
151	SLU 19	159	0	2490	0.56	6.63	0
151	SLU 20	158	0	2490	0.48	6.63	0
151	SLU 21	159	0	2490	0.56	6.63	0
151	SLU 22	134	0	2093	0.4	5.55	0
151	SLU 23	134	0	2093	0.54	5.56	0
151	SLU 24	134	0	2093	0.4	5.55	0
151	SLU 25	134	0	2093	0.48	5.55	0
151	SLU 26	134	0	2093	0.54	5.56	0
151	SLU 27	134	0	2093	0.4	5.55	0
151	SLU 28	134	0	2093	0.48	5.55	0
151	SLU 29	134	0	2093	0.4	5.55	0
151	SLU 30	134	0	2093	0.48	5.55	0
151	SLU 31	166	0	2503	0.63	6.91	0
151	SLU 32	165	0	2504	0.49	6.9	0
151	SLU 33	166	0	2504	0.58	6.9	0
151	SLU 34	166	0	2503	0.63	6.91	0
151	SLU 35	165	0	2504	0.49	6.9	0
151	SLU 36	166	0	2504	0.58	6.9	0
151	SLU 37	165	0	2504	0.49	6.9	0
151	SLU 38	166	0	2504	0.58	6.9	0
151	SLU 39	179	0	2680	0.53	7.47	0
151	SLU 40	179	-1	2679	0.62	7.48	0
151	SLU 41	179	0	2680	0.53	7.47	0
151	SLU 42	179	-1	2679	0.62	7.48	0
151	SLU 43	140	0	2410	0.43	5.82	0
151	SLU 44	140	0	2410	0.57	5.83	0
151	SLU 45	140	0	2410	0.43	5.82	0
151	SLU 46	140	0	2410	0.52	5.83	0
151	SLU 47	140	0	2410	0.57	5.83	0
151	SLU 48	140	0	2410	0.43	5.82	0
151	SLU 49	140	0	2410	0.52	5.83	0
151	SLU 50	140	0	2410	0.43	5.82	0
151	SLU 51	140	0	2410	0.52	5.83	0
151	SLU 52	172	-1	2821	0.67	7.18	0
151	SLU 53	172	0	2821	0.53	7.17	0
151	SLU 54	172	-1	2821	0.61	7.17	0
151	SLU 55	172	-1	2821	0.67	7.18	0
151	SLU 56	172	0	2821	0.53	7.17	0
151	SLU 57	172	-1	2821	0.61	7.17	0
151	SLU 58	172	0	2821	0.53	7.17	0
151	SLU 59	172	-1	2821	0.61	7.17	0
151	SLU 60	185	-1	2997	0.57	7.74	0
151	SLU 61	186	-1	2997	0.65	7.75	0
151	SLU 62	185	-1	2997	0.57	7.74	0
151	SLU 63	186	-1	2997	0.65	7.75	0
151	SLU 64	160	0	2599	0.48	6.67	0
151	SLU 65	161	0	2599	0.62	6.68	0
151	SLU 66	160	0	2599	0.48	6.67	0
151	SLU 67	161	0	2599	0.57	6.67	0
151	SLU 68	161	0	2599	0.62	6.68	0
151	SLU 69	160	0	2599	0.48	6.67	0
151	SLU 70	161	0	2599	0.57	6.67	0
151	SLU 71	160	0	2599	0.48	6.67	0
151	SLU 72	161	0	2599	0.57	6.67	0
151	SLU 73	193	-1	3010	0.72	8.03	0
151	SLU 74	192	-1	3010	0.58	8.01	0
151	SLU 75	193	-1	3010	0.66	8.02	0
151	SLU 76	193	-1	3010	0.72	8.03	0
151	SLU 77	192	-1	3010	0.58	8.01	0
151	SLU 78	193	-1	3010	0.66	8.02	0
151	SLU 79	192	-1	3010	0.58	8.01	0
151	SLU 80	193	-1	3010	0.66	8.02	0
151	SLU 81	206	-1	3186	0.62	8.59	0
151	SLU 82	206	-1	3186	0.7	8.6	0
151	SLU 83	206	-1	3186	0.62	8.59	0
151	SLU 84	206	-1	3186	0.7	8.6	0
151	SLE RA 1	119	0	1958	0.36	4.94	0
151	SLE RA 2	119	0	1958	0.45	4.95	0
151	SLE RA 3	119	0	1958	0.36	4.94	0
151	SLE RA 4	119	0	1958	0.42	4.95	0
151	SLE RA 5	119	0	1958	0.45	4.95	0
151	SLE RA 6	119	0	1958	0.36	4.94	0
151	SLE RA 7	119	0	1958	0.42	4.95	0
151	SLE RA 8	119	0	1958	0.36	4.94	0
151	SLE RA 9	119	0	1958	0.42	4.95	0
151	SLE RA 10	140	0	2232	0.52	5.85	0
151	SLE RA 11	140	0	2232	0.42	5.84	0
151	SLE RA 12	140	0	2232	0.48	5.85	0



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
151	SLE RA 13	140	0	2232	0.52	5.85	0
151	SLE RA 14	140	0	2232	0.42	5.84	0
151	SLE RA 15	140	0	2232	0.48	5.85	0
151	SLE RA 16	140	0	2232	0.42	5.84	0
151	SLE RA 17	140	0	2232	0.48	5.85	0
151	SLE RA 18	149	0	2349	0.45	6.23	0
151	SLE RA 19	149	0	2349	0.51	6.23	0
151	SLE RA 20	149	0	2349	0.45	6.23	0
151	SLE RA 21	149	0	2349	0.51	6.23	0
151	SLE FR 1	119	0	1958	0.36	4.94	0
151	SLE FR 2	119	0	1958	0.38	4.94	0
151	SLE FR 3	119	0	1958	0.36	4.94	0
151	SLE FR 4	128	0	2075	0.41	5.33	0
151	SLE FR 5	128	0	2075	0.39	5.33	0
151	SLE FR 6	134	0	2154	0.41	5.58	0
151	SLE QP 1	119	0	1958	0.36	4.94	0
151	SLE QP 2	128	0	2075	0.39	5.33	0
151	SLD 1	277	0	2125	-4.11	11.39	-0.01
151	SLD 2	277	0	2125	-4.11	11.39	-0.01
151	SLD 3	291	-18	2154	18.94	11.95	0
151	SLD 4	291	-18	2154	18.94	11.95	0
151	SLD 5	151	28	2046	-35.92	6.29	-0.01
151	SLD 6	151	28	2046	-35.92	6.29	-0.01
151	SLD 7	198	-34	2143	40.91	8.17	0.01
151	SLD 8	198	-34	2143	40.91	8.17	0.01
151	SLD 9	58	33	2008	-40.13	2.49	-0.01
151	SLD 10	58	33	2008	-40.13	2.49	-0.01
151	SLD 11	105	-29	2104	36.69	4.36	0.01
151	SLD 12	105	-29	2104	36.69	4.36	0.01
151	SLD 13	-35	18	1997	-18.16	-1.29	0
151	SLD 14	-35	18	1997	-18.16	-1.29	0
151	SLD 15	-21	-1	2026	4.89	-0.73	0.01
151	SLD 16	-21	-1	2026	4.89	-0.73	0.01
151	SLV 1	477	1	2190	-11.15	19.56	-0.02
151	SLV 2	477	1	2190	-11.15	19.56	-0.02
151	SLV 3	512	-45	2261	46.96	20.95	0
151	SLV 4	512	-45	2261	46.96	20.95	0
151	SLV 5	180	69	2001	-91.21	7.48	-0.03
151	SLV 6	180	69	2001	-91.21	7.48	-0.03
151	SLV 7	296	-83	2239	102.49	12.13	0.03
151	SLV 8	296	-83	2239	102.49	12.13	0.03
151	SLV 9	-40	82	1911	-101.71	-1.47	-0.03
151	SLV 10	-40	82	1911	-101.71	-1.47	-0.03
151	SLV 11	76	-70	2149	91.98	3.17	0.03
151	SLV 12	76	-70	2149	91.98	3.17	0.03
151	SLV 13	-256	44	1889	-46.18	-10.3	0
151	SLV 14	-256	44	1889	-46.18	-10.3	0
151	SLV 15	-221	-2	1961	11.93	-8.9	0.02
151	SLV 16	-221	-2	1961	11.93	-8.9	0.02
152	SLU 1	101	0	1939	0.32	3.51	0
152	SLU 2	102	0	1940	0.44	3.55	0
152	SLU 3	101	0	1939	0.32	3.51	0
152	SLU 4	101	0	1940	0.39	3.53	0
152	SLU 5	102	0	1940	0.44	3.55	0
152	SLU 6	101	0	1939	0.32	3.51	0
152	SLU 7	101	0	1940	0.39	3.53	0
152	SLU 8	101	0	1939	0.32	3.51	0
152	SLU 9	101	0	1940	0.39	3.53	0
152	SLU 10	131	0	2358	0.51	4.56	0
152	SLU 11	130	0	2357	0.4	4.53	0
152	SLU 12	131	0	2358	0.47	4.55	0
152	SLU 13	131	0	2358	0.51	4.56	0
152	SLU 14	130	0	2357	0.4	4.53	0
152	SLU 15	131	0	2358	0.47	4.55	0
152	SLU 16	130	0	2357	0.4	4.53	0
152	SLU 17	131	0	2358	0.47	4.55	0
152	SLU 18	143	0	2536	0.43	4.96	0
152	SLU 19	143	0	2537	0.5	4.98	0
152	SLU 20	143	0	2536	0.43	4.96	0
152	SLU 21	143	0	2537	0.5	4.98	0
152	SLU 22	121	0	2136	0.36	4.24	0
152	SLU 23	122	0	2137	0.48	4.27	0
152	SLU 24	121	0	2136	0.36	4.24	0
152	SLU 25	122	0	2136	0.43	4.26	0
152	SLU 26	122	0	2137	0.48	4.27	0
152	SLU 27	121	0	2136	0.36	4.24	0
152	SLU 28	122	0	2136	0.43	4.26	0
152	SLU 29	121	0	2136	0.36	4.24	0
152	SLU 30	122	0	2136	0.43	4.26	0
152	SLU 31	151	0	2555	0.56	5.29	0
152	SLU 32	150	0	2553	0.44	5.25	0
152	SLU 33	151	0	2554	0.51	5.27	0
152	SLU 34	151	0	2555	0.56	5.29	0
152	SLU 35	150	0	2553	0.44	5.25	0
152	SLU 36	151	0	2554	0.51	5.27	0
152	SLU 37	150	0	2553	0.44	5.25	0
152	SLU 38	151	0	2554	0.51	5.27	0
152	SLU 39	163	0	2733	0.47	5.69	0
152	SLU 40	163	0	2733	0.54	5.71	0
152	SLU 41	163	0	2733	0.47	5.69	0



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
Ind.	N.br.						
152	SLU 42	163	0	2733	0.54	5.71	0
152	SLU 43	124	0	2454	0.4	4.32	0
152	SLU 44	125	0	2455	0.52	4.35	0
152	SLU 45	124	0	2454	0.4	4.32	0
152	SLU 46	125	0	2454	0.47	4.34	0
152	SLU 47	125	0	2455	0.52	4.35	0
152	SLU 48	124	0	2454	0.4	4.32	0
152	SLU 49	125	0	2454	0.47	4.34	0
152	SLU 50	124	0	2454	0.4	4.32	0
152	SLU 51	125	0	2454	0.47	4.34	0
152	SLU 52	154	0	2873	0.59	5.37	0
152	SLU 53	153	0	2871	0.48	5.33	0
152	SLU 54	154	0	2872	0.55	5.35	0
152	SLU 55	154	0	2873	0.59	5.37	0
152	SLU 56	153	0	2871	0.48	5.33	0
152	SLU 57	154	0	2872	0.55	5.35	0
152	SLU 58	153	0	2871	0.48	5.33	0
152	SLU 59	154	0	2872	0.55	5.35	0
152	SLU 60	166	0	3051	0.51	5.77	0
152	SLU 61	166	0	3051	0.58	5.79	0
152	SLU 62	166	0	3051	0.51	5.77	0
152	SLU 63	166	0	3051	0.58	5.79	0
152	SLU 64	145	0	2650	0.44	5.04	0
152	SLU 65	146	0	2651	0.56	5.08	0
152	SLU 66	145	0	2650	0.44	5.04	0
152	SLU 67	145	0	2651	0.51	5.06	0
152	SLU 68	146	0	2651	0.56	5.08	0
152	SLU 69	145	0	2650	0.44	5.04	0
152	SLU 70	145	0	2651	0.51	5.06	0
152	SLU 71	145	0	2650	0.44	5.04	0
152	SLU 72	145	0	2651	0.51	5.06	0
152	SLU 73	175	0	3069	0.64	6.09	0
152	SLU 74	174	0	3068	0.52	6.06	0
152	SLU 75	174	0	3069	0.59	6.08	0
152	SLU 76	175	0	3069	0.64	6.09	0
152	SLU 77	174	0	3068	0.52	6.06	0
152	SLU 78	174	0	3069	0.59	6.08	0
152	SLU 79	174	0	3068	0.52	6.06	0
152	SLU 80	174	0	3069	0.59	6.08	0
152	SLU 81	186	0	3247	0.55	6.49	0
152	SLU 82	187	0	3248	0.62	6.51	0
152	SLU 83	186	0	3247	0.55	6.49	0
152	SLU 84	187	0	3248	0.62	6.51	0
152	SLE RA 1	107	0	1995	0.33	3.72	0
152	SLE RA 2	107	0	1996	0.41	3.74	0
152	SLE RA 3	107	0	1995	0.33	3.72	0
152	SLE RA 4	107	0	1996	0.38	3.73	0
152	SLE RA 5	107	0	1996	0.41	3.74	0
152	SLE RA 6	107	0	1995	0.33	3.72	0
152	SLE RA 7	107	0	1996	0.38	3.73	0
152	SLE RA 8	107	0	1995	0.33	3.72	0
152	SLE RA 9	107	0	1996	0.38	3.73	0
152	SLE RA 10	127	0	2275	0.46	4.42	0
152	SLE RA 11	126	0	2274	0.38	4.4	0
152	SLE RA 12	127	0	2274	0.43	4.41	0
152	SLE RA 13	127	0	2275	0.46	4.42	0
152	SLE RA 14	126	0	2274	0.38	4.4	0
152	SLE RA 15	127	0	2274	0.43	4.41	0
152	SLE RA 16	126	0	2274	0.38	4.4	0
152	SLE RA 17	127	0	2274	0.43	4.41	0
152	SLE RA 18	134	0	2393	0.41	4.69	0
152	SLE RA 19	135	0	2394	0.45	4.7	0
152	SLE RA 20	134	0	2393	0.41	4.69	0
152	SLE RA 21	135	0	2394	0.45	4.7	0
152	SLE FR 1	107	0	1995	0.33	3.72	0
152	SLE FR 2	107	0	1995	0.35	3.73	0
152	SLE FR 3	107	0	1995	0.33	3.72	0
152	SLE FR 4	115	0	2115	0.37	4.02	0
152	SLE FR 5	115	0	2115	0.35	4.01	0
152	SLE FR 6	121	0	2194	0.37	4.2	0
152	SLE QP 1	107	0	1995	0.33	3.72	0
152	SLE QP 2	115	0	2115	0.35	4.01	0
152	SLD 1	265	-17	2151	-1.21	10.09	-0.01
152	SLD 2	265	-17	2151	-1.21	10.09	-0.01
152	SLD 3	280	-3	2189	16.57	10.62	0
152	SLD 4	280	-3	2189	16.57	10.62	0
152	SLD 5	138	-27	2068	-27.07	5.04	-0.01
152	SLD 6	138	-27	2068	-27.07	5.04	-0.01
152	SLD 7	187	20	2194	32.17	6.8	0.01
152	SLD 8	187	20	2194	32.17	6.8	0.01
152	SLD 9	43	-21	2035	-31.46	1.23	-0.01
152	SLD 10	43	-21	2035	-31.46	1.23	-0.01
152	SLD 11	93	26	2161	27.78	2.99	0.01
152	SLD 12	93	26	2161	27.78	2.99	0.01
152	SLD 13	-50	3	2040	-15.86	-2.6	0
152	SLD 14	-50	3	2040	-15.86	-2.6	0
152	SLD 15	-35	17	2078	1.92	-2.07	0.01
152	SLD 16	-35	17	2078	1.92	-2.07	0.01
152	SLV 1	468	-42	2198	-3.77	18.3	-0.02
152	SLV 2	468	-42	2198	-3.77	18.3	-0.02



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
152	SLV 3	504	-7	2292	40.9	19.61	-0.01
152	SLV 4	504	-7	2292	40.9	19.61	-0.01
152	SLV 5	165	-65	1998	-68.64	6.31	-0.03
152	SLV 6	165	-65	1998	-68.64	6.31	-0.03
152	SLV 7	288	50	2309	80.28	10.68	0.03
152	SLV 8	288	50	2309	80.28	10.68	0.03
152	SLV 9	-58	-50	1920	-79.57	-2.66	-0.03
152	SLV 10	-58	-50	1920	-79.57	-2.66	-0.03
152	SLV 11	65	64	2231	69.35	1.71	0.03
152	SLV 12	65	64	2231	69.35	1.71	0.03
152	SLV 13	-274	7	1938	-40.19	-11.59	0.01
152	SLV 14	-274	7	1938	-40.19	-11.59	0.01
152	SLV 15	-237	41	2031	4.48	-10.28	0.02
152	SLV 16	-237	41	2031	4.48	-10.28	0.02
153	SLU 1	102	0	1979	0.24	4.32	0
153	SLU 2	103	0	1983	0.34	4.36	0
153	SLU 3	102	0	1979	0.24	4.32	0
153	SLU 4	102	0	1981	0.3	4.34	0
153	SLU 5	103	0	1983	0.34	4.36	0
153	SLU 6	102	0	1979	0.24	4.32	0
153	SLU 7	102	0	1981	0.3	4.34	0
153	SLU 8	102	0	1979	0.24	4.32	0
153	SLU 9	102	0	1981	0.3	4.34	0
153	SLU 10	135	0	2411	0.39	5.71	0
153	SLU 11	133	0	2408	0.29	5.67	0
153	SLU 12	134	0	2410	0.35	5.7	0
153	SLU 13	135	0	2411	0.39	5.71	0
153	SLU 14	133	0	2408	0.29	5.67	0
153	SLU 15	134	0	2410	0.35	5.7	0
153	SLU 16	133	0	2408	0.29	5.67	0
153	SLU 17	134	0	2410	0.35	5.7	0
153	SLU 18	147	0	2591	0.31	6.25	0
153	SLU 19	148	0	2593	0.37	6.28	0
153	SLU 20	147	0	2591	0.31	6.25	0
153	SLU 21	148	0	2593	0.37	6.28	0
153	SLU 22	124	0	2185	0.27	5.24	0
153	SLU 23	125	0	2189	0.37	5.28	0
153	SLU 24	124	0	2185	0.27	5.24	0
153	SLU 25	125	0	2187	0.33	5.26	0
153	SLU 26	125	0	2189	0.37	5.28	0
153	SLU 27	124	0	2185	0.27	5.24	0
153	SLU 28	125	0	2187	0.33	5.26	0
153	SLU 29	124	0	2185	0.27	5.24	0
153	SLU 30	125	0	2187	0.33	5.26	0
153	SLU 31	157	0	2617	0.41	6.63	0
153	SLU 32	156	0	2613	0.31	6.59	0
153	SLU 33	156	0	2615	0.37	6.61	0
153	SLU 34	157	0	2617	0.41	6.63	0
153	SLU 35	156	0	2613	0.31	6.59	0
153	SLU 36	156	0	2615	0.37	6.61	0
153	SLU 37	156	0	2613	0.31	6.59	0
153	SLU 38	156	0	2615	0.37	6.61	0
153	SLU 39	169	0	2797	0.33	7.17	0
153	SLU 40	170	0	2799	0.39	7.19	0
153	SLU 41	169	0	2797	0.33	7.17	0
153	SLU 42	170	0	2799	0.39	7.19	0
153	SLU 43	124	0	2503	0.31	5.3	0
153	SLU 44	126	0	2506	0.41	5.34	0
153	SLU 45	124	0	2503	0.31	5.3	0
153	SLU 46	125	0	2505	0.37	5.32	0
153	SLU 47	126	0	2506	0.41	5.34	0
153	SLU 48	124	0	2503	0.31	5.3	0
153	SLU 49	125	0	2505	0.37	5.32	0
153	SLU 50	124	0	2503	0.31	5.3	0
153	SLU 51	125	0	2505	0.37	5.32	0
153	SLU 52	157	0	2934	0.45	6.69	0
153	SLU 53	156	0	2931	0.35	6.65	0
153	SLU 54	157	0	2933	0.41	6.68	0
153	SLU 55	157	0	2934	0.45	6.69	0
153	SLU 56	156	0	2931	0.35	6.65	0
153	SLU 57	157	0	2933	0.41	6.68	0
153	SLU 58	156	0	2931	0.35	6.65	0
153	SLU 59	157	0	2933	0.41	6.68	0
153	SLU 60	170	0	3114	0.37	7.23	0
153	SLU 61	170	0	3117	0.43	7.26	0
153	SLU 62	170	0	3114	0.37	7.23	0
153	SLU 63	170	0	3117	0.43	7.26	0
153	SLU 64	147	0	2708	0.33	6.22	0
153	SLU 65	148	0	2712	0.43	6.26	0
153	SLU 66	147	0	2708	0.33	6.22	0
153	SLU 67	148	0	2710	0.39	6.24	0
153	SLU 68	148	0	2712	0.43	6.26	0
153	SLU 69	147	0	2708	0.33	6.22	0
153	SLU 70	148	0	2710	0.39	6.24	0
153	SLU 71	147	0	2708	0.33	6.22	0
153	SLU 72	148	0	2710	0.39	6.24	0
153	SLU 73	180	0	3140	0.48	7.61	0
153	SLU 74	178	0	3137	0.38	7.57	0
153	SLU 75	179	0	3139	0.44	7.59	0
153	SLU 76	180	0	3140	0.48	7.61	0





Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
Ind.	N.br.						
153	SLU 77	178	0	3137	0.38	7.57	0
153	SLU 78	179	0	3139	0.44	7.59	0
153	SLU 79	178	0	3137	0.38	7.57	0
153	SLU 80	179	0	3139	0.44	7.59	0
153	SLU 81	192	0	3320	0.4	8.15	0
153	SLU 82	193	0	3322	0.46	8.17	0
153	SLU 83	192	0	3320	0.4	8.15	0
153	SLU 84	193	0	3322	0.46	8.17	0
153	SLE RA 1	108	0	2038	0.25	4.58	0
153	SLE RA 2	109	0	2040	0.32	4.61	0
153	SLE RA 3	108	0	2038	0.25	4.58	0
153	SLE RA 4	109	0	2039	0.29	4.6	0
153	SLE RA 5	109	0	2040	0.32	4.61	0
153	SLE RA 6	108	0	2038	0.25	4.58	0
153	SLE RA 7	109	0	2039	0.29	4.6	0
153	SLE RA 8	108	0	2038	0.25	4.58	0
153	SLE RA 9	109	0	2039	0.29	4.6	0
153	SLE RA 10	130	0	2326	0.35	5.51	0
153	SLE RA 11	129	0	2324	0.28	5.48	0
153	SLE RA 12	130	0	2325	0.32	5.5	0
153	SLE RA 13	130	0	2326	0.35	5.51	0
153	SLE RA 14	129	0	2324	0.28	5.48	0
153	SLE RA 15	130	0	2325	0.32	5.5	0
153	SLE RA 16	129	0	2324	0.28	5.48	0
153	SLE RA 17	130	0	2325	0.32	5.5	0
153	SLE RA 18	138	0	2446	0.29	5.87	0
153	SLE RA 19	139	0	2447	0.33	5.89	0
153	SLE RA 20	138	0	2446	0.29	5.87	0
153	SLE RA 21	139	0	2447	0.33	5.89	0
153	SLE FR 1	108	0	2038	0.25	4.58	0
153	SLE FR 2	108	0	2039	0.26	4.59	0
153	SLE FR 3	108	0	2038	0.25	4.58	0
153	SLE FR 4	117	0	2161	0.28	4.97	0
153	SLE FR 5	117	0	2160	0.26	4.97	0
153	SLE FR 6	123	0	2242	0.27	5.23	0
153	SLE QP 1	108	0	2038	0.25	4.58	0
153	SLE QP 2	117	0	2160	0.26	4.97	0
153	SLD 1	268	-16	2189	1	11.14	-0.01
153	SLD 2	268	-16	2189	1	11.14	-0.01
153	SLD 3	285	-5	2239	13.51	11.8	0
153	SLD 4	285	-5	2239	13.51	11.8	0
153	SLD 5	137	-21	2094	-18.5	5.82	-0.01
153	SLD 6	137	-21	2094	-18.5	5.82	-0.01
153	SLD 7	193	15	2259	23.22	8.02	0.01
153	SLD 8	193	15	2259	23.22	8.02	0.01
153	SLD 9	41	-15	2062	-22.69	1.92	-0.01
153	SLD 10	41	-15	2062	-22.69	1.92	-0.01
153	SLD 11	97	21	2227	19.03	4.12	0.02
153	SLD 12	97	21	2227	19.03	4.12	0.02
153	SLD 13	-50	5	2082	-12.98	-1.86	0
153	SLD 14	-50	5	2082	-12.98	-1.86	0
153	SLD 15	-34	16	2132	-0.47	-1.2	0.01
153	SLD 16	-34	16	2132	-0.47	-1.2	0.01
153	SLV 1	471	-39	2225	1.95	19.45	-0.02
153	SLV 2	471	-39	2225	1.95	19.45	-0.02
153	SLV 3	512	-12	2347	33.36	21.09	0
153	SLV 4	512	-12	2347	33.36	21.09	0
153	SLV 5	160	-53	1995	-46.87	6.83	-0.04
153	SLV 6	160	-53	1995	-46.87	6.83	-0.04
153	SLV 7	298	37	2402	57.83	12.29	0.03
153	SLV 8	298	37	2402	57.83	12.29	0.03
153	SLV 9	-64	-37	1919	-57.3	-2.35	-0.03
153	SLV 10	-64	-37	1919	-57.3	-2.35	-0.03
153	SLV 11	74	53	2326	47.4	3.11	0.04
153	SLV 12	74	53	2326	47.4	3.11	0.04
153	SLV 13	-278	12	1973	-32.83	-11.15	0
153	SLV 14	-278	12	1973	-32.83	-11.15	0
153	SLV 15	-237	39	2095	-1.42	-9.51	0.02
153	SLV 16	-237	39	2095	-1.42	-9.51	0.02
154	SLU 1	78	0	2017	0.23	2.46	0.01
154	SLU 2	80	0	2024	0.32	2.53	0.01
154	SLU 3	78	0	2017	0.23	2.46	0.01
154	SLU 4	79	0	2022	0.28	2.5	0.01
154	SLU 5	80	0	2024	0.32	2.53	0.01
154	SLU 6	78	0	2017	0.23	2.46	0.01
154	SLU 7	79	0	2022	0.28	2.5	0.01
154	SLU 8	78	0	2017	0.23	2.46	0.01
154	SLU 9	79	0	2022	0.28	2.5	0.01
154	SLU 10	107	1	2464	0.35	3.4	0.01
154	SLU 11	105	1	2457	0.26	3.34	0.01
154	SLU 12	106	1	2461	0.31	3.38	0.01
154	SLU 13	107	1	2464	0.35	3.4	0.01
154	SLU 14	105	1	2457	0.26	3.34	0.01
154	SLU 15	106	1	2461	0.31	3.38	0.01
154	SLU 16	105	1	2457	0.26	3.34	0.01
154	SLU 17	106	1	2461	0.31	3.38	0.01
154	SLU 18	117	1	2646	0.27	3.71	0.01
154	SLU 19	118	1	2650	0.32	3.75	0.01
154	SLU 20	117	1	2646	0.27	3.71	0.01
154	SLU 21	118	1	2650	0.32	3.75	0.01



Nodo	Cont.	Reazione a traslazione				Reazione a rotazione			
		x	y	z		x	y	z	
154	SLU 22	98	1	2233	0.24	3.16	0.01		
154	SLU 23	101	0	2240	0.34	3.23	0.01		
154	SLU 24	98	1	2233	0.24	3.16	0.01		
154	SLU 25	100	0	2237	0.3	3.2	0.01		
154	SLU 26	101	0	2240	0.34	3.23	0.01		
154	SLU 27	98	1	2233	0.24	3.16	0.01		
154	SLU 28	100	0	2237	0.3	3.2	0.01		
154	SLU 29	98	1	2233	0.24	3.16	0.01		
154	SLU 30	100	0	2237	0.3	3.2	0.01		
154	SLU 31	128	1	2680	0.36	4.11	0.01		
154	SLU 32	125	1	2673	0.27	4.04	0.01		
154	SLU 33	127	1	2677	0.33	4.08	0.01		
154	SLU 34	128	1	2680	0.36	4.11	0.01		
154	SLU 35	125	1	2673	0.27	4.04	0.01		
154	SLU 36	127	1	2677	0.33	4.08	0.01		
154	SLU 37	125	1	2673	0.27	4.04	0.01		
154	SLU 38	127	1	2677	0.33	4.08	0.01		
154	SLU 39	137	1	2861	0.28	4.42	0.01		
154	SLU 40	138	1	2866	0.34	4.46	0.01		
154	SLU 41	137	1	2861	0.28	4.42	0.01		
154	SLU 42	138	1	2866	0.34	4.46	0.01		
154	SLU 43	94	0	2549	0.29	2.95	0.01		
154	SLU 44	96	0	2556	0.38	3.02	0.01		
154	SLU 45	94	0	2549	0.29	2.95	0.01		
154	SLU 46	95	0	2553	0.35	3	0.01		
154	SLU 47	96	0	2556	0.38	3.02	0.01		
154	SLU 48	94	0	2549	0.29	2.95	0.01		
154	SLU 49	95	0	2553	0.35	3	0.01		
154	SLU 50	94	0	2549	0.29	2.95	0.01		
154	SLU 51	95	0	2553	0.35	3	0.01		
154	SLU 52	123	1	2996	0.41	3.9	0.01		
154	SLU 53	121	1	2988	0.32	3.83	0.01		
154	SLU 54	123	1	2993	0.37	3.87	0.01		
154	SLU 55	123	1	2996	0.41	3.9	0.01		
154	SLU 56	121	1	2988	0.32	3.83	0.01		
154	SLU 57	123	1	2993	0.37	3.87	0.01		
154	SLU 58	121	1	2988	0.32	3.83	0.01		
154	SLU 59	123	1	2993	0.37	3.87	0.01		
154	SLU 60	133	1	3177	0.33	4.21	0.01		
154	SLU 61	134	1	3181	0.38	4.25	0.01		
154	SLU 62	133	1	3177	0.33	4.21	0.01		
154	SLU 63	134	1	3181	0.38	4.25	0.01		
154	SLU 64	115	1	2764	0.31	3.66	0.01		
154	SLU 65	117	1	2772	0.4	3.73	0.01		
154	SLU 66	115	1	2764	0.31	3.66	0.01		
154	SLU 67	116	1	2769	0.36	3.7	0.01		
154	SLU 68	117	1	2772	0.4	3.73	0.01		
154	SLU 69	115	1	2764	0.31	3.66	0.01		
154	SLU 70	116	1	2769	0.36	3.7	0.01		
154	SLU 71	115	1	2764	0.31	3.66	0.01		
154	SLU 72	116	1	2769	0.36	3.7	0.01		
154	SLU 73	144	1	3211	0.43	4.6	0.01		
154	SLU 74	142	1	3204	0.33	4.54	0.01		
154	SLU 75	143	1	3208	0.39	4.58	0.01		
154	SLU 76	144	1	3211	0.43	4.6	0.01		
154	SLU 77	142	1	3204	0.33	4.54	0.01		
154	SLU 78	143	1	3208	0.39	4.58	0.01		
154	SLU 79	142	1	3204	0.33	4.54	0.01		
154	SLU 80	143	1	3208	0.39	4.58	0.01		
154	SLU 81	153	1	3393	0.35	4.91	0.01		
154	SLU 82	155	1	3397	0.4	4.95	0.01		
154	SLU 83	153	1	3393	0.35	4.91	0.01		
154	SLU 84	155	1	3397	0.4	4.95	0.01		
154	SLE RA 1	84	0	2079	0.23	2.66	0.01		
154	SLE RA 2	85	0	2084	0.29	2.7	0.01		
154	SLE RA 3	84	0	2079	0.23	2.66	0.01		
154	SLE RA 4	85	0	2082	0.27	2.69	0.01		
154	SLE RA 5	85	0	2084	0.29	2.7	0.01		
154	SLE RA 6	84	0	2079	0.23	2.66	0.01		
154	SLE RA 7	85	0	2082	0.27	2.69	0.01		
154	SLE RA 8	84	0	2079	0.23	2.66	0.01		
154	SLE RA 9	85	0	2082	0.27	2.69	0.01		
154	SLE RA 10	103	1	2377	0.31	3.29	0.01		
154	SLE RA 11	102	1	2372	0.25	3.25	0.01		
154	SLE RA 12	103	1	2375	0.29	3.27	0.01		
154	SLE RA 13	103	1	2377	0.31	3.29	0.01		
154	SLE RA 14	102	1	2372	0.25	3.25	0.01		
154	SLE RA 15	103	1	2375	0.29	3.27	0.01		
154	SLE RA 16	102	1	2372	0.25	3.25	0.01		
154	SLE RA 17	103	1	2375	0.29	3.27	0.01		
154	SLE RA 18	109	1	2498	0.26	3.5	0.01		
154	SLE RA 19	110	1	2501	0.29	3.52	0.01		
154	SLE RA 20	109	1	2498	0.26	3.5	0.01		
154	SLE RA 21	110	1	2501	0.29	3.52	0.01		
154	SLE FR 1	84	0	2079	0.23	2.66	0.01		
154	SLE FR 2	84	0	2080	0.25	2.67	0.01		
154	SLE FR 3	84	0	2079	0.23	2.66	0.01		
154	SLE FR 4	92	0	2206	0.25	2.92	0.01		
154	SLE FR 5	91	0	2205	0.24	2.91	0.01		
154	SLE FR 6	97	1	2288	0.25	3.08	0.01		



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
154	SLE QP 1	84	0	2079	0.23	2.66	0.01
154	SLE QP 2	91	0	2205	0.24	2.91	0.01
154	SLD 1	240	-15	2112	2.12	8.97	-0.01
154	SLD 2	240	-15	2112	2.12	8.97	-0.01
154	SLD 3	257	-5	2177	9.98	9.53	0
154	SLD 4	257	-5	2177	9.98	9.53	0
154	SLD 5	110	-19	2079	-11.12	3.88	-0.01
154	SLD 6	110	-19	2079	-11.12	3.88	-0.01
154	SLD 7	167	14	2294	15.09	5.74	0.02
154	SLD 8	167	14	2294	15.09	5.74	0.02
154	SLD 9	16	-13	2115	-14.6	0.08	-0.01
154	SLD 10	16	-13	2115	-14.6	0.08	-0.01
154	SLD 11	73	20	2330	11.6	1.94	0.03
154	SLD 12	73	20	2330	11.6	1.94	0.03
154	SLD 13	-74	6	2233	-9.5	-3.71	0.01
154	SLD 14	-74	6	2233	-9.5	-3.71	0.01
154	SLD 15	-57	16	2297	-1.64	-3.15	0.02
154	SLD 16	-57	16	2297	-1.64	-3.15	0.02
154	SLV 1	440	-38	1982	4.82	17.15	-0.02
154	SLV 2	440	-38	1982	4.82	17.15	-0.02
154	SLV 3	482	-12	2142	24.61	18.52	0
154	SLV 4	482	-12	2142	24.61	18.52	0
154	SLV 5	133	-51	1896	-28.39	5.09	-0.04
154	SLV 6	133	-51	1896	-28.39	5.09	-0.04
154	SLV 7	272	37	2428	37.55	9.68	0.05
154	SLV 8	272	37	2428	37.55	9.68	0.05
154	SLV 9	-89	-36	1981	-37.07	-3.86	-0.03
154	SLV 10	-89	-36	1981	-37.07	-3.86	-0.03
154	SLV 11	50	52	2514	28.87	0.73	0.06
154	SLV 12	50	52	2514	28.87	0.73	0.06
154	SLV 13	-299	13	2268	-24.12	-12.7	0.01
154	SLV 14	-299	13	2268	-24.12	-12.7	0.01
154	SLV 15	-257	39	2428	-4.34	-11.33	0.04
154	SLV 16	-257	39	2428	-4.34	-11.33	0.04
155	SLU 1	73	-2	2066	0.6	3.17	-0.01
155	SLU 2	77	-2	2082	0.71	3.27	-0.01
155	SLU 3	73	-2	2066	0.6	3.17	-0.01
155	SLU 4	76	-2	2075	0.66	3.23	-0.01
155	SLU 5	77	-2	2082	0.71	3.27	-0.01
155	SLU 6	73	-2	2066	0.6	3.17	-0.01
155	SLU 7	76	-2	2075	0.66	3.23	-0.01
155	SLU 8	73	-2	2066	0.6	3.17	-0.01
155	SLU 9	76	-2	2075	0.66	3.23	-0.01
155	SLU 10	105	-2	2536	0.81	4.48	-0.01
155	SLU 11	101	-2	2520	0.7	4.39	-0.01
155	SLU 12	104	-2	2530	0.77	4.45	-0.01
155	SLU 13	105	-2	2536	0.81	4.48	-0.01
155	SLU 14	101	-2	2520	0.7	4.39	-0.01
155	SLU 15	104	-2	2530	0.77	4.45	-0.01
155	SLU 16	101	-2	2520	0.7	4.39	-0.01
155	SLU 17	104	-2	2530	0.77	4.45	-0.01
155	SLU 18	114	-2	2715	0.74	4.91	-0.01
155	SLU 19	116	-2	2724	0.81	4.97	-0.01
155	SLU 20	114	-2	2715	0.74	4.91	-0.01
155	SLU 21	116	-2	2724	0.81	4.97	-0.01
155	SLU 22	94	-2	2293	0.65	4.03	-0.01
155	SLU 23	98	-2	2309	0.76	4.13	-0.01
155	SLU 24	94	-2	2293	0.65	4.03	-0.01
155	SLU 25	97	-2	2303	0.72	4.09	-0.01
155	SLU 26	98	-2	2309	0.76	4.13	-0.01
155	SLU 27	94	-2	2293	0.65	4.03	-0.01
155	SLU 28	97	-2	2303	0.72	4.09	-0.01
155	SLU 29	94	-2	2293	0.65	4.03	-0.01
155	SLU 30	97	-2	2303	0.72	4.09	-0.01
155	SLU 31	126	-2	2763	0.87	5.34	-0.01
155	SLU 32	122	-2	2748	0.75	5.25	-0.01
155	SLU 33	125	-2	2757	0.82	5.3	-0.01
155	SLU 34	126	-2	2763	0.87	5.34	-0.01
155	SLU 35	122	-2	2748	0.75	5.25	-0.01
155	SLU 36	125	-2	2757	0.82	5.3	-0.01
155	SLU 37	122	-2	2748	0.75	5.25	-0.01
155	SLU 38	125	-2	2757	0.82	5.3	-0.01
155	SLU 39	135	-2	2942	0.8	5.77	-0.01
155	SLU 40	137	-2	2952	0.87	5.82	-0.01
155	SLU 41	135	-2	2942	0.8	5.77	-0.01
155	SLU 42	137	-2	2952	0.87	5.82	-0.01
155	SLU 43	88	-2	2608	0.76	3.83	-0.01
155	SLU 44	92	-2	2623	0.87	3.93	-0.01
155	SLU 45	88	-2	2608	0.76	3.83	-0.01
155	SLU 46	90	-2	2617	0.82	3.89	-0.01
155	SLU 47	92	-2	2623	0.87	3.93	-0.01
155	SLU 48	88	-2	2608	0.76	3.83	-0.01
155	SLU 49	90	-2	2617	0.82	3.89	-0.01
155	SLU 50	88	-2	2608	0.76	3.83	-0.01
155	SLU 51	90	-2	2617	0.82	3.89	-0.01
155	SLU 52	120	-2	3078	0.97	5.14	-0.02
155	SLU 53	116	-2	3062	0.86	5.05	-0.01
155	SLU 54	119	-2	3071	0.93	5.1	-0.02
155	SLU 55	120	-2	3078	0.97	5.14	-0.02
155	SLU 56	116	-2	3062	0.86	5.05	-0.01



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
155	SLU 57	119	-2	3071	0.93	5.1	-0.02
155	SLU 58	116	-2	3062	0.86	5.05	-0.01
155	SLU 59	119	-2	3071	0.93	5.1	-0.02
155	SLU 60	128	-2	3257	0.9	5.57	-0.02
155	SLU 61	131	-2	3266	0.97	5.62	-0.02
155	SLU 62	128	-2	3257	0.9	5.57	-0.02
155	SLU 63	131	-2	3266	0.97	5.62	-0.02
155	SLU 64	109	-2	2835	0.81	4.69	-0.01
155	SLU 65	113	-2	2851	0.92	4.79	-0.01
155	SLU 66	109	-2	2835	0.81	4.69	-0.01
155	SLU 67	111	-2	2845	0.88	4.75	-0.01
155	SLU 68	113	-2	2851	0.92	4.79	-0.01
155	SLU 69	109	-2	2835	0.81	4.69	-0.01
155	SLU 70	111	-2	2845	0.88	4.75	-0.01
155	SLU 71	109	-2	2835	0.81	4.69	-0.01
155	SLU 72	111	-2	2845	0.88	4.75	-0.01
155	SLU 73	141	-2	3305	1.03	6	-0.02
155	SLU 74	137	-2	3289	0.91	5.9	-0.02
155	SLU 75	140	-2	3299	0.98	5.96	-0.02
155	SLU 76	141	-2	3305	1.03	6	-0.02
155	SLU 77	137	-2	3289	0.91	5.9	-0.02
155	SLU 78	140	-2	3299	0.98	5.96	-0.02
155	SLU 79	137	-2	3289	0.91	5.9	-0.02
155	SLU 80	140	-2	3299	0.98	5.96	-0.02
155	SLU 81	149	-2	3484	0.96	6.43	-0.02
155	SLU 82	152	-2	3494	1.03	6.48	-0.02
155	SLU 83	149	-2	3484	0.96	6.43	-0.02
155	SLU 84	152	-2	3494	1.03	6.48	-0.02
155	SLE RA 1	79	-2	2131	0.61	3.42	-0.01
155	SLE RA 2	82	-2	2141	0.69	3.48	-0.01
155	SLE RA 3	79	-2	2131	0.61	3.42	-0.01
155	SLE RA 4	81	-2	2137	0.66	3.46	-0.01
155	SLE RA 5	82	-2	2141	0.69	3.48	-0.01
155	SLE RA 6	79	-2	2131	0.61	3.42	-0.01
155	SLE RA 7	81	-2	2137	0.66	3.46	-0.01
155	SLE RA 8	79	-2	2131	0.61	3.42	-0.01
155	SLE RA 9	81	-2	2137	0.66	3.46	-0.01
155	SLE RA 10	101	-2	2444	0.76	4.29	-0.01
155	SLE RA 11	98	-2	2434	0.68	4.23	-0.01
155	SLE RA 12	100	-2	2440	0.73	4.27	-0.01
155	SLE RA 13	101	-2	2444	0.76	4.29	-0.01
155	SLE RA 14	98	-2	2434	0.68	4.23	-0.01
155	SLE RA 15	100	-2	2440	0.73	4.27	-0.01
155	SLE RA 16	98	-2	2434	0.68	4.23	-0.01
155	SLE RA 17	100	-2	2440	0.73	4.27	-0.01
155	SLE RA 18	106	-2	2563	0.71	4.58	-0.01
155	SLE RA 19	108	-2	2570	0.76	4.61	-0.01
155	SLE RA 20	106	-2	2563	0.71	4.58	-0.01
155	SLE RA 21	108	-2	2570	0.76	4.61	-0.01
155	SLE FR 1	79	-2	2131	0.61	3.42	-0.01
155	SLE FR 2	80	-2	2133	0.63	3.43	-0.01
155	SLE FR 3	79	-2	2131	0.61	3.42	-0.01
155	SLE FR 4	88	-2	2263	0.66	3.78	-0.01
155	SLE FR 5	87	-2	2261	0.64	3.77	-0.01
155	SLE FR 6	93	-2	2347	0.66	4	-0.01
155	SLE QP 1	79	-2	2131	0.61	3.42	-0.01
155	SLE QP 2	87	-2	2261	0.64	3.77	-0.01
155	SLD 1	234	-13	2135	6.07	9.88	0
155	SLD 2	234	-13	2135	6.07	9.88	0
155	SLD 3	254	-5	2229	2.16	10.52	-0.01
155	SLD 4	254	-5	2229	2.16	10.52	-0.01
155	SLD 5	101	-17	2080	8.21	4.62	0.01
155	SLD 6	101	-17	2080	8.21	4.62	0.01
155	SLD 7	167	9	2394	-4.85	6.77	-0.03
155	SLD 8	167	9	2394	-4.85	6.77	-0.03
155	SLD 9	7	-13	2128	6.13	0.76	0.01
155	SLD 10	7	-13	2128	6.13	0.76	0.01
155	SLD 11	73	14	2441	-6.93	2.91	-0.04
155	SLD 12	73	14	2441	-6.93	2.91	-0.04
155	SLD 13	-79	2	2292	-0.87	-2.99	-0.01
155	SLD 14	-79	2	2292	-0.87	-2.99	-0.01
155	SLD 15	-59	10	2386	-4.79	-2.35	-0.02
155	SLD 16	-59	10	2386	-4.79	-2.35	-0.02
155	SLV 1	432	-31	1957	14.26	18.13	0.02
155	SLV 2	432	-31	1957	14.26	18.13	0.02
155	SLV 3	480	-10	2188	4.35	19.71	-0.01
155	SLV 4	480	-10	2188	4.35	19.71	-0.01
155	SLV 5	118	-41	1819	19.75	5.67	0.06
155	SLV 6	118	-41	1819	19.75	5.67	0.06
155	SLV 7	278	27	2589	-13.28	10.95	-0.07
155	SLV 8	278	27	2589	-13.28	10.95	-0.07
155	SLV 9	-104	-30	1932	14.56	-3.42	0.05
155	SLV 10	-104	-30	1932	14.56	-3.42	0.05
155	SLV 11	57	38	2702	-18.47	1.86	-0.08
155	SLV 12	57	38	2702	-18.47	1.86	-0.08
155	SLV 13	-306	7	2333	-3.06	-12.18	-0.01
155	SLV 14	-306	7	2333	-3.06	-12.18	-0.01
155	SLV 15	-257	28	2564	-12.97	-10.59	-0.05
155	SLV 16	-257	28	2564	-12.97	-10.59	-0.05
156	SLU 1	20	-189	2686	5.62	0.26	0



Nodo	Cont.	Reazione a traslazione				Reazione a rotazione			
		x	y	z		x	y	z	
Ind.	N.br.								
156	SLU 2	19	-205	2726		6.34	0.23		0
156	SLU 3	20	-189	2686		5.62	0.26		0
156	SLU 4	19	-199	2710		6.06	0.24		0
156	SLU 5	19	-205	2726		6.34	0.23		0
156	SLU 6	20	-189	2686		5.62	0.26		0
156	SLU 7	19	-199	2710		6.06	0.24		0
156	SLU 8	20	-189	2686		5.62	0.26		0
156	SLU 9	19	-199	2710		6.06	0.24		0
156	SLU 10	35	-244	3317		7.51	0.69		0
156	SLU 11	36	-228	3277		6.79	0.72		0
156	SLU 12	35	-238	3301		7.22	0.7		0
156	SLU 13	35	-244	3317		7.51	0.69		0
156	SLU 14	36	-228	3277		6.79	0.72		0
156	SLU 15	35	-238	3301		7.22	0.7		0
156	SLU 16	36	-228	3277		6.79	0.72		0
156	SLU 17	35	-238	3301		7.22	0.7		0
156	SLU 18	43	-245	3530		7.29	0.92		0
156	SLU 19	42	-255	3554		7.73	0.9		0
156	SLU 20	43	-245	3530		7.29	0.92		0
156	SLU 21	42	-255	3554		7.73	0.9		0
156	SLU 22	34	-209	2987		6.22	0.73		0
156	SLU 23	33	-225	3027		6.94	0.7		0
156	SLU 24	34	-209	2987		6.22	0.73		0
156	SLU 25	34	-219	3011		6.65	0.71		0
156	SLU 26	33	-225	3027		6.94	0.7		0
156	SLU 27	34	-209	2987		6.22	0.73		0
156	SLU 28	34	-219	3011		6.65	0.71		0
156	SLU 29	34	-209	2987		6.22	0.73		0
156	SLU 30	34	-219	3011		6.65	0.71		0
156	SLU 31	49	-264	3618		8.11	1.16		0.01
156	SLU 32	50	-248	3579		7.39	1.2		0.01
156	SLU 33	50	-258	3602		7.82	1.18		0.01
156	SLU 34	49	-264	3618		8.11	1.16		0.01
156	SLU 35	50	-248	3579		7.39	1.2		0.01
156	SLU 36	50	-258	3602		7.82	1.18		0.01
156	SLU 37	50	-248	3579		7.39	1.2		0.01
156	SLU 38	50	-258	3602		7.82	1.18		0.01
156	SLU 39	57	-265	3832		7.89	1.39		0.01
156	SLU 40	57	-275	3856		8.32	1.37		0.01
156	SLU 41	57	-265	3832		7.89	1.39		0.01
156	SLU 42	57	-275	3856		8.32	1.37		0.01
156	SLU 43	21	-239	3388		7.11	0.18		0
156	SLU 44	20	-255	3428		7.83	0.15		0
156	SLU 45	21	-239	3388		7.11	0.18		0
156	SLU 46	20	-248	3412		7.54	0.16		0
156	SLU 47	20	-255	3428		7.83	0.15		0
156	SLU 48	21	-239	3388		7.11	0.18		0
156	SLU 49	20	-248	3412		7.54	0.16		0
156	SLU 50	21	-239	3388		7.11	0.18		0
156	SLU 51	20	-248	3412		7.54	0.16		0
156	SLU 52	36	-294	4019		9	0.61		0
156	SLU 53	37	-278	3979		8.28	0.64		0
156	SLU 54	36	-288	4003		8.71	0.62		0
156	SLU 55	36	-294	4019		9	0.61		0
156	SLU 56	37	-278	3979		8.28	0.64		0
156	SLU 57	36	-288	4003		8.71	0.62		0
156	SLU 58	37	-278	3979		8.28	0.64		0
156	SLU 59	36	-288	4003		8.71	0.62		0
156	SLU 60	44	-295	4233		8.78	0.84		0.01
156	SLU 61	43	-304	4257		9.21	0.82		0.01
156	SLU 62	44	-295	4233		8.78	0.84		0.01
156	SLU 63	43	-304	4257		9.21	0.82		0.01
156	SLU 64	35	-259	3689		7.7	0.65		0
156	SLU 65	34	-275	3729		8.42	0.62		0
156	SLU 66	35	-259	3689		7.7	0.65		0
156	SLU 67	34	-268	3713		8.13	0.63		0
156	SLU 68	34	-275	3729		8.42	0.62		0
156	SLU 69	35	-259	3689		7.7	0.65		0
156	SLU 70	34	-268	3713		8.13	0.63		0
156	SLU 71	35	-259	3689		7.7	0.65		0
156	SLU 72	34	-268	3713		8.13	0.63		0
156	SLU 73	50	-314	4321		9.59	1.08		0.01
156	SLU 74	51	-298	4281		8.87	1.11		0.01
156	SLU 75	51	-308	4305		9.3	1.09		0.01
156	SLU 76	50	-314	4321		9.59	1.08		0.01
156	SLU 77	51	-298	4281		8.87	1.11		0.01
156	SLU 78	51	-308	4305		9.3	1.09		0.01
156	SLU 79	51	-298	4281		8.87	1.11		0.01
156	SLU 80	51	-308	4305		9.3	1.09		0.01
156	SLU 81	58	-315	4534		9.37	1.31		0.01
156	SLU 82	58	-324	4558		9.8	1.29		0.01
156	SLU 83	58	-315	4534		9.37	1.31		0.01
156	SLU 84	58	-324	4558		9.8	1.29		0.01
156	SLE RA 1	24	-195	2772		5.79	0.4		0
156	SLE RA 2	23	-205	2798		6.27	0.37		0
156	SLE RA 3	24	-195	2772		5.79	0.4		0
156	SLE RA 4	23	-201	2788		6.08	0.38		0
156	SLE RA 5	23	-205	2798		6.27	0.37		0
156	SLE RA 6	24	-195	2772		5.79	0.4		0
156	SLE RA 7	23	-201	2788		6.08	0.38		0



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
156	SLE RA 8	24	-195	2772	5.79	0.4	0
156	SLE RA 9	23	-201	2788	6.08	0.38	0
156	SLE RA 10	34	-232	3193	7.05	0.68	0
156	SLE RA 11	35	-221	3166	6.57	0.7	0
156	SLE RA 12	34	-227	3182	6.86	0.69	0
156	SLE RA 13	34	-232	3193	7.05	0.68	0
156	SLE RA 14	35	-221	3166	6.57	0.7	0
156	SLE RA 15	34	-227	3182	6.86	0.69	0
156	SLE RA 16	35	-221	3166	6.57	0.7	0
156	SLE RA 17	34	-227	3182	6.86	0.69	0
156	SLE RA 18	39	-232	3335	6.91	0.84	0
156	SLE RA 19	39	-238	3351	7.19	0.82	0
156	SLE RA 20	39	-232	3335	6.91	0.84	0
156	SLE RA 21	39	-238	3351	7.19	0.82	0
156	SLE FR 1	24	-195	2772	5.79	0.4	0
156	SLE FR 2	24	-197	2777	5.89	0.39	0
156	SLE FR 3	24	-195	2772	5.79	0.4	0
156	SLE FR 4	28	-208	2946	6.22	0.52	0
156	SLE FR 5	28	-206	2941	6.13	0.53	0
156	SLE FR 6	31	-213	3053	6.35	0.62	0
156	SLE QP 1	24	-195	2772	5.79	0.4	0
156	SLE QP 2	28	-206	2941	6.13	0.53	0
156	SLD 1	183	-152	2725	3.75	6.95	0.02
156	SLD 2	183	-152	2725	3.75	6.95	0.02
156	SLD 3	179	-204	2904	6.18	6.67	0.01
156	SLD 4	179	-204	2904	6.18	6.67	0.01
156	SLD 5	80	-110	2605	1.74	2.87	0.02
156	SLD 6	80	-110	2605	1.74	2.87	0.02
156	SLD 7	68	-285	3201	9.82	1.96	0
156	SLD 8	68	-285	3201	9.82	1.96	0
156	SLD 9	-11	-127	2681	2.44	-0.9	0.01
156	SLD 10	-11	-127	2681	2.44	-0.9	0.01
156	SLD 11	-24	-301	3276	10.52	-1.82	-0.01
156	SLD 12	-24	-301	3276	10.52	-1.82	-0.01
156	SLD 13	-123	-207	2978	6.08	-5.62	-0.01
156	SLD 14	-123	-207	2978	6.08	-5.62	-0.01
156	SLD 15	-126	-259	3156	8.5	-5.89	-0.01
156	SLD 16	-126	-259	3156	8.5	-5.89	-0.01
156	SLV 1	393	-76	2419	0.39	15.67	0.04
156	SLV 2	393	-76	2419	0.39	15.67	0.04
156	SLV 3	384	-202	2855	6.22	14.99	0.02
156	SLV 4	384	-202	2855	6.22	14.99	0.02
156	SLV 5	152	25	2122	-4.45	6.11	0.04
156	SLV 6	152	25	2122	-4.45	6.11	0.04
156	SLV 7	121	-396	3577	15.01	3.83	-0.01
156	SLV 8	121	-396	3577	15.01	3.83	-0.01
156	SLV 9	-64	-15	2304	-2.75	-2.77	0.02
156	SLV 10	-64	-15	2304	-2.75	-2.77	0.02
156	SLV 11	-95	-437	3759	16.7	-5.06	-0.03
156	SLV 12	-95	-437	3759	16.7	-5.06	-0.03
156	SLV 13	-327	-209	3026	6.03	-13.93	-0.02
156	SLV 14	-327	-209	3026	6.03	-13.93	-0.02
156	SLV 15	-336	-336	3463	11.87	-14.62	-0.03
156	SLV 16	-336	-336	3463	11.87	-14.62	-0.03
157	SLU 1	-14	-3	1956	0.85	0.21	0.01
157	SLU 2	-19	-3	1972	0.92	0.03	0.01
157	SLU 3	-14	-3	1956	0.85	0.21	0.01
157	SLU 4	-17	-3	1966	0.89	0.1	0.01
157	SLU 5	-19	-3	1972	0.92	0.03	0.01
157	SLU 6	-14	-3	1956	0.85	0.21	0.01
157	SLU 7	-17	-3	1966	0.89	0.1	0.01
157	SLU 8	-14	-3	1956	0.85	0.21	0.01
157	SLU 9	-17	-3	1966	0.89	0.1	0.01
157	SLU 10	-9	-4	2413	1.14	0.64	0.01
157	SLU 11	-3	-4	2397	1.06	0.83	0.01
157	SLU 12	-6	-4	2407	1.11	0.72	0.01
157	SLU 13	-9	-4	2413	1.14	0.64	0.01
157	SLU 14	-3	-4	2397	1.06	0.83	0.01
157	SLU 15	-6	-4	2407	1.11	0.72	0.01
157	SLU 16	-3	-4	2397	1.06	0.83	0.01
157	SLU 17	-6	-4	2407	1.11	0.72	0.01
157	SLU 18	1	-4	2586	1.15	1.09	0.01
157	SLU 19	-2	-5	2596	1.2	0.98	0.01
157	SLU 20	1	-4	2586	1.15	1.09	0.01
157	SLU 21	-2	-5	2596	1.2	0.98	0.01
157	SLU 22	-3	-4	2184	0.95	0.71	0.01
157	SLU 23	-9	-4	2200	1.03	0.53	0.01
157	SLU 24	-3	-4	2184	0.95	0.71	0.01
157	SLU 25	-7	-4	2194	1	0.6	0.01
157	SLU 26	-9	-4	2200	1.03	0.53	0.01
157	SLU 27	-3	-4	2184	0.95	0.71	0.01
157	SLU 28	-7	-4	2194	1	0.6	0.01
157	SLU 29	-3	-4	2184	0.95	0.71	0.01
157	SLU 30	-7	-4	2194	1	0.6	0.01
157	SLU 31	2	-5	2641	1.24	1.15	0.01
157	SLU 32	7	-4	2625	1.17	1.33	0.01
157	SLU 33	4	-5	2635	1.21	1.22	0.01
157	SLU 34	2	-5	2641	1.24	1.15	0.01
157	SLU 35	7	-4	2625	1.17	1.33	0.01
157	SLU 36	4	-5	2635	1.21	1.22	0.01



Nodo	Cont.	Reazione a traslazione				Reazione a rotazione			
		x	y	z		x	y	z	
157	SLU 37	7	-4	2625		1.17	1.33	0.01	
157	SLU 38	4	-5	2635		1.21	1.22	0.01	
157	SLU 39	12	-5	2814		1.26	1.59	0.01	
157	SLU 40	8	-5	2824		1.31	1.48	0.01	
157	SLU 41	12	-5	2814		1.26	1.59	0.01	
157	SLU 42	8	-5	2824		1.31	1.48	0.01	
157	SLU 43	-21	-4	2465		1.06	0.1	0.01	
157	SLU 44	-27	-4	2481		1.14	-0.08	0.01	
157	SLU 45	-21	-4	2465		1.06	0.1	0.01	
157	SLU 46	-24	-4	2475		1.11	-0.01	0.01	
157	SLU 47	-27	-4	2481		1.14	-0.08	0.01	
157	SLU 48	-21	-4	2465		1.06	0.1	0.01	
157	SLU 49	-24	-4	2475		1.11	-0.01	0.01	
157	SLU 50	-21	-4	2465		1.06	0.1	0.01	
157	SLU 51	-24	-4	2475		1.11	-0.01	0.01	
157	SLU 52	-16	-5	2922		1.35	0.54	0.01	
157	SLU 53	-11	-5	2906		1.28	0.72	0.01	
157	SLU 54	-14	-5	2916		1.32	0.61	0.01	
157	SLU 55	-16	-5	2922		1.35	0.54	0.01	
157	SLU 56	-11	-5	2906		1.28	0.72	0.01	
157	SLU 57	-14	-5	2916		1.32	0.61	0.01	
157	SLU 58	-11	-5	2906		1.28	0.72	0.01	
157	SLU 59	-14	-5	2916		1.32	0.61	0.01	
157	SLU 60	-6	-5	3095		1.37	0.98	0.01	
157	SLU 61	-10	-5	3105		1.42	0.87	0.01	
157	SLU 62	-6	-5	3095		1.37	0.98	0.01	
157	SLU 63	-10	-5	3105		1.42	0.87	0.01	
157	SLU 64	-11	-4	2693		1.17	0.6	0.01	
157	SLU 65	-16	-5	2709		1.25	0.42	0.01	
157	SLU 66	-11	-4	2693		1.17	0.6	0.01	
157	SLU 67	-14	-5	2702		1.22	0.49	0.01	
157	SLU 68	-16	-5	2709		1.25	0.42	0.01	
157	SLU 69	-11	-4	2693		1.17	0.6	0.01	
157	SLU 70	-14	-5	2702		1.22	0.49	0.01	
157	SLU 71	-11	-4	2693		1.17	0.6	0.01	
157	SLU 72	-14	-5	2702		1.22	0.49	0.01	
157	SLU 73	-6	-6	3150		1.46	1.04	0.02	
157	SLU 74	0	-5	3134		1.39	1.22	0.01	
157	SLU 75	-4	-5	3144		1.43	1.11	0.02	
157	SLU 76	-6	-6	3150		1.46	1.04	0.02	
157	SLU 77	0	-5	3134		1.39	1.22	0.01	
157	SLU 78	-4	-5	3144		1.43	1.11	0.02	
157	SLU 79	0	-5	3134		1.39	1.22	0.01	
157	SLU 80	-4	-5	3144		1.43	1.11	0.02	
157	SLU 81	4	-6	3323		1.48	1.48	0.02	
157	SLU 82	1	-6	3333		1.52	1.37	0.02	
157	SLU 83	4	-6	3323		1.48	1.48	0.02	
157	SLU 84	1	-6	3333		1.52	1.37	0.02	
157	SLE RA 1	-11	-3	2021		0.88	0.35	0.01	
157	SLE RA 2	-14	-4	2032		0.93	0.23	0.01	
157	SLE RA 3	-11	-3	2021		0.88	0.35	0.01	
157	SLE RA 4	-13	-3	2028		0.91	0.28	0.01	
157	SLE RA 5	-14	-4	2032		0.93	0.23	0.01	
157	SLE RA 6	-11	-3	2021		0.88	0.35	0.01	
157	SLE RA 7	-13	-3	2028		0.91	0.28	0.01	
157	SLE RA 8	-11	-3	2021		0.88	0.35	0.01	
157	SLE RA 9	-13	-3	2028		0.91	0.28	0.01	
157	SLE RA 10	-7	-4	2326		1.07	0.64	0.01	
157	SLE RA 11	-4	-4	2315		1.02	0.76	0.01	
157	SLE RA 12	-6	-4	2322		1.05	0.69	0.01	
157	SLE RA 13	-7	-4	2326		1.07	0.64	0.01	
157	SLE RA 14	-4	-4	2315		1.02	0.76	0.01	
157	SLE RA 15	-6	-4	2322		1.05	0.69	0.01	
157	SLE RA 16	-4	-4	2315		1.02	0.76	0.01	
157	SLE RA 17	-6	-4	2322		1.05	0.69	0.01	
157	SLE RA 18	-1	-4	2441		1.08	0.94	0.01	
157	SLE RA 19	-3	-4	2448		1.11	0.87	0.01	
157	SLE RA 20	-1	-4	2441		1.08	0.94	0.01	
157	SLE RA 21	-3	-4	2448		1.11	0.87	0.01	
157	SLE FR 1	-11	-3	2021		0.88	0.35	0.01	
157	SLE FR 2	-11	-3	2023		0.89	0.33	0.01	
157	SLE FR 3	-11	-3	2021		0.88	0.35	0.01	
157	SLE FR 4	-8	-4	2150		0.95	0.51	0.01	
157	SLE FR 5	-8	-4	2147		0.94	0.53	0.01	
157	SLE FR 6	-6	-4	2231		0.98	0.65	0.01	
157	SLE QP 1	-11	-3	2021		0.88	0.35	0.01	
157	SLE QP 2	-8	-4	2147		0.94	0.53	0.01	
157	SLD 1	157	0	2014		-4.41	7.4	0.01	
157	SLD 2	157	0	2014		-4.41	7.4	0.01	
157	SLD 3	138	6	2104		-0.71	6.79	0.02	
157	SLD 4	138	6	2104		-0.71	6.79	0.02	
157	SLD 5	70	-12	1970		-6.28	3.51	-0.01	
157	SLD 6	70	-12	1970		-6.28	3.51	-0.01	
157	SLD 7	8	8	2271		6.06	1.49	0.03	
157	SLD 8	8	8	2271		6.06	1.49	0.03	
157	SLD 9	-23	-15	2023		-4.18	-0.43	-0.01	
157	SLD 10	-23	-15	2023		-4.18	-0.43	-0.01	
157	SLD 11	-86	4	2325		8.16	-2.45	0.03	
157	SLD 12	-86	4	2325		8.16	-2.45	0.03	
157	SLD 13	-154	-13	2191		2.59	-5.74	0	



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
157	SLD 14	-154	-13	2191	2.59	-5.74	0
157	SLD 15	-172	-7	2281	6.29	-6.34	0.01
157	SLD 16	-172	-7	2281	6.29	-6.34	0.01
157	SLV 1	381	4	1825	-12.56	16.74	0
157	SLV 2	381	4	1825	-12.56	16.74	0
157	SLV 3	335	19	2048	-3.15	15.26	0.04
157	SLV 4	335	19	2048	-3.15	15.26	0.04
157	SLV 5	179	-24	1714	-17.37	7.64	-0.05
157	SLV 6	179	-24	1714	-17.37	7.64	-0.05
157	SLV 7	26	26	2454	13.98	2.71	0.07
157	SLV 8	26	26	2454	13.98	2.71	0.07
157	SLV 9	-41	-33	1840	-12.1	-1.65	-0.05
157	SLV 10	-41	-33	1840	-12.1	-1.65	-0.05
157	SLV 11	-194	17	2581	19.25	-6.58	0.07
157	SLV 12	-194	17	2581	19.25	-6.58	0.07
157	SLV 13	-351	-26	2247	5.03	-14.21	-0.02
157	SLV 14	-351	-26	2247	5.03	-14.21	-0.02
157	SLV 15	-397	-11	2469	14.43	-15.69	0.02
157	SLV 16	-397	-11	2469	14.43	-15.69	0.02
158	SLU 1	-35	-1	1908	0.38	-1.71	0
158	SLU 2	-39	-1	1916	0.4	-1.85	0
158	SLU 3	-35	-1	1908	0.38	-1.71	0
158	SLU 4	-38	-1	1913	0.39	-1.79	0
158	SLU 5	-39	-1	1916	0.4	-1.85	0
158	SLU 6	-35	-1	1908	0.38	-1.71	0
158	SLU 7	-38	-1	1913	0.39	-1.79	0
158	SLU 8	-35	-1	1908	0.38	-1.71	0
158	SLU 9	-38	-1	1913	0.39	-1.79	0
158	SLU 10	-34	-1	2354	0.52	-1.77	0
158	SLU 11	-30	-1	2346	0.51	-1.63	0
158	SLU 12	-32	-1	2351	0.51	-1.71	0
158	SLU 13	-34	-1	2354	0.52	-1.77	0
158	SLU 14	-30	-1	2346	0.51	-1.63	0
158	SLU 15	-32	-1	2351	0.51	-1.71	0
158	SLU 16	-30	-1	2346	0.51	-1.63	0
158	SLU 17	-32	-1	2351	0.51	-1.71	0
158	SLU 18	-28	-1	2533	0.56	-1.6	0
158	SLU 19	-30	-1	2538	0.57	-1.68	0
158	SLU 20	-28	-1	2533	0.56	-1.6	0
158	SLU 21	-30	-1	2538	0.57	-1.68	0
158	SLU 22	-28	-1	2137	0.44	-1.5	0
158	SLU 23	-32	-1	2145	0.46	-1.64	0
158	SLU 24	-28	-1	2137	0.44	-1.5	0
158	SLU 25	-31	-1	2141	0.45	-1.58	0
158	SLU 26	-32	-1	2145	0.46	-1.64	0
158	SLU 27	-28	-1	2137	0.44	-1.5	0
158	SLU 28	-31	-1	2141	0.45	-1.58	0
158	SLU 29	-28	-1	2137	0.44	-1.5	0
158	SLU 30	-31	-1	2141	0.45	-1.58	0
158	SLU 31	-27	-1	2582	0.58	-1.56	0
158	SLU 32	-23	-1	2574	0.56	-1.42	0
158	SLU 33	-26	-1	2579	0.57	-1.5	0
158	SLU 34	-27	-1	2582	0.58	-1.56	0
158	SLU 35	-23	-1	2574	0.56	-1.42	0
158	SLU 36	-26	-1	2579	0.57	-1.5	0
158	SLU 37	-23	-1	2574	0.56	-1.42	0
158	SLU 38	-26	-1	2579	0.57	-1.5	0
158	SLU 39	-21	-2	2762	0.62	-1.39	0
158	SLU 40	-24	-2	2767	0.62	-1.47	0
158	SLU 41	-21	-2	2762	0.62	-1.39	0
158	SLU 42	-24	-2	2767	0.62	-1.47	0
158	SLU 43	-48	-1	2402	0.48	-2.3	0
158	SLU 44	-52	-1	2410	0.49	-2.43	0
158	SLU 45	-48	-1	2402	0.48	-2.3	0
158	SLU 46	-50	-1	2407	0.49	-2.38	0
158	SLU 47	-52	-1	2410	0.49	-2.43	0
158	SLU 48	-48	-1	2402	0.48	-2.3	0
158	SLU 49	-50	-1	2407	0.49	-2.38	0
158	SLU 50	-48	-1	2402	0.48	-2.3	0
158	SLU 51	-50	-1	2407	0.49	-2.38	0
158	SLU 52	-47	-2	2848	0.61	-2.36	-0.01
158	SLU 53	-43	-1	2840	0.6	-2.22	0
158	SLU 54	-45	-1	2845	0.61	-2.3	-0.01
158	SLU 55	-47	-2	2848	0.61	-2.36	-0.01
158	SLU 56	-43	-1	2840	0.6	-2.22	0
158	SLU 57	-45	-1	2845	0.61	-2.3	-0.01
158	SLU 58	-43	-1	2840	0.6	-2.22	0
158	SLU 59	-45	-1	2845	0.61	-2.3	-0.01
158	SLU 60	-41	-2	3027	0.65	-2.19	-0.01
158	SLU 61	-43	-2	3032	0.66	-2.27	-0.01
158	SLU 62	-41	-2	3027	0.65	-2.19	-0.01
158	SLU 63	-43	-2	3032	0.66	-2.27	-0.01
158	SLU 64	-41	-1	2631	0.54	-2.09	0
158	SLU 65	-45	-1	2639	0.55	-2.22	0
158	SLU 66	-41	-1	2631	0.54	-2.09	0
158	SLU 67	-44	-1	2636	0.55	-2.17	0
158	SLU 68	-45	-1	2639	0.55	-2.22	0
158	SLU 69	-41	-1	2631	0.54	-2.09	0
158	SLU 70	-44	-1	2636	0.55	-2.17	0
158	SLU 71	-41	-1	2631	0.54	-2.09	0





Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
158	SLU 72	-44	-1	2636	0.55	-2.17	0
158	SLU 73	-40	-2	3076	0.67	-2.14	-0.01
158	SLU 74	-36	-2	3068	0.66	-2.01	-0.01
158	SLU 75	-39	-2	3073	0.67	-2.09	-0.01
158	SLU 76	-40	-2	3076	0.67	-2.14	-0.01
158	SLU 77	-36	-2	3068	0.66	-2.01	-0.01
158	SLU 78	-39	-2	3073	0.67	-2.09	-0.01
158	SLU 79	-36	-2	3068	0.66	-2.01	-0.01
158	SLU 80	-39	-2	3073	0.67	-2.09	-0.01
158	SLU 81	-34	-2	3256	0.71	-1.97	-0.01
158	SLU 82	-36	-2	3261	0.72	-2.06	-0.01
158	SLU 83	-34	-2	3256	0.71	-1.97	-0.01
158	SLU 84	-36	-2	3261	0.72	-2.06	-0.01
158	SLE RA 1	-33	-1	1973	0.4	-1.65	0
158	SLE RA 2	-36	-1	1979	0.41	-1.74	0
158	SLE RA 3	-33	-1	1973	0.4	-1.65	0
158	SLE RA 4	-35	-1	1977	0.41	-1.71	0
158	SLE RA 5	-36	-1	1979	0.41	-1.74	0
158	SLE RA 6	-33	-1	1973	0.4	-1.65	0
158	SLE RA 7	-35	-1	1977	0.41	-1.71	0
158	SLE RA 8	-33	-1	1973	0.4	-1.65	0
158	SLE RA 9	-35	-1	1977	0.41	-1.71	0
158	SLE RA 10	-33	-1	2271	0.49	-1.69	0
158	SLE RA 11	-30	-1	2265	0.48	-1.6	0
158	SLE RA 12	-31	-1	2268	0.49	-1.65	0
158	SLE RA 13	-33	-1	2271	0.49	-1.69	0
158	SLE RA 14	-30	-1	2265	0.48	-1.6	0
158	SLE RA 15	-31	-1	2268	0.49	-1.65	0
158	SLE RA 16	-30	-1	2265	0.48	-1.6	0
158	SLE RA 17	-31	-1	2268	0.49	-1.65	0
158	SLE RA 18	-28	-1	2390	0.52	-1.58	0
158	SLE RA 19	-30	-1	2393	0.52	-1.63	0
158	SLE RA 20	-28	-1	2390	0.52	-1.58	0
158	SLE RA 21	-30	-1	2393	0.52	-1.63	0
158	SLE FR 1	-33	-1	1973	0.4	-1.65	0
158	SLE FR 2	-34	-1	1974	0.4	-1.67	0
158	SLE FR 3	-33	-1	1973	0.4	-1.65	0
158	SLE FR 4	-32	-1	2100	0.44	-1.65	0
158	SLE FR 5	-32	-1	2098	0.44	-1.63	0
158	SLE FR 6	-31	-1	2182	0.46	-1.61	0
158	SLE QP 1	-33	-1	1973	0.4	-1.65	0
158	SLE QP 2	-32	-1	2098	0.44	-1.63	0
158	SLD 1	139	3	1989	-10.56	5.52	0.01
158	SLD 2	139	3	1989	-10.56	5.52	0.01
158	SLD 3	121	11	2051	-2.43	4.83	0.02
158	SLD 4	121	11	2051	-2.43	4.83	0.02
158	SLD 5	47	-11	1971	-15.21	1.56	-0.02
158	SLD 6	47	-11	1971	-15.21	1.56	-0.02
158	SLD 7	-13	14	2179	11.92	-0.73	0.02
158	SLD 8	-13	14	2179	11.92	-0.73	0.02
158	SLD 9	-50	-16	2018	-11.05	-2.53	-0.03
158	SLD 10	-50	-16	2018	-11.05	-2.53	-0.03
158	SLD 11	-110	9	2226	16.08	-4.81	0.01
158	SLD 12	-110	9	2226	16.08	-4.81	0.01
158	SLD 13	-185	-13	2146	3.3	-8.09	-0.02
158	SLD 14	-185	-13	2146	3.3	-8.09	-0.02
158	SLD 15	-203	-6	2208	11.44	-8.78	-0.01
158	SLD 16	-203	-6	2208	11.44	-8.78	-0.01
158	SLV 1	372	10	1835	-27.42	15.25	0.02
158	SLV 2	372	10	1835	-27.42	15.25	0.02
158	SLV 3	327	28	1989	-6.73	13.56	0.05
158	SLV 4	327	28	1989	-6.73	13.56	0.05
158	SLV 5	156	-26	1786	-39.29	5.99	-0.04
158	SLV 6	156	-26	1786	-39.29	5.99	-0.04
158	SLV 7	9	36	2299	29.66	0.37	0.05
158	SLV 8	9	36	2299	29.66	0.37	0.05
158	SLV 9	-72	-38	1898	-28.78	-3.63	-0.06
158	SLV 10	-72	-38	1898	-28.78	-3.63	-0.06
158	SLV 11	-220	24	2411	40.16	-9.25	0.03
158	SLV 12	-220	24	2411	40.16	-9.25	0.03
158	SLV 13	-391	-30	2208	7.61	-16.82	-0.05
158	SLV 14	-391	-30	2208	7.61	-16.82	-0.05
158	SLV 15	-435	-12	2361	28.29	-18.51	-0.03
158	SLV 16	-435	-12	2361	28.29	-18.51	-0.03
159	SLU 1	-29	0	1874	0.08	-0.61	0
159	SLU 2	-32	0	1879	0.05	-0.75	0
159	SLU 3	-29	0	1874	0.08	-0.61	0
159	SLU 4	-31	0	1877	0.06	-0.69	0
159	SLU 5	-32	0	1879	0.05	-0.75	0
159	SLU 6	-29	0	1874	0.08	-0.61	0
159	SLU 7	-31	0	1877	0.06	-0.69	0
159	SLU 8	-29	0	1874	0.08	-0.61	0
159	SLU 9	-31	0	1877	0.06	-0.69	0
159	SLU 10	-23	-1	2317	0.09	-0.23	0
159	SLU 11	-20	0	2312	0.12	-0.09	0
159	SLU 12	-22	0	2315	0.1	-0.17	0
159	SLU 13	-23	-1	2317	0.09	-0.23	0
159	SLU 14	-20	0	2312	0.12	-0.09	0
159	SLU 15	-22	0	2315	0.1	-0.17	0
159	SLU 16	-20	0	2312	0.12	-0.09	0



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
159	SLU 17	-22	0	2315	0.1	-0.17	0
159	SLU 18	-16	-1	2500	0.13	0.13	0
159	SLU 19	-18	-1	2503	0.12	0.05	0
159	SLU 20	-16	-1	2500	0.13	0.13	0
159	SLU 21	-18	-1	2503	0.12	0.05	0
159	SLU 22	-21	0	2104	0.09	-0.22	0
159	SLU 23	-24	0	2109	0.06	-0.35	0
159	SLU 24	-21	0	2104	0.09	-0.22	0
159	SLU 25	-23	0	2107	0.07	-0.3	0
159	SLU 26	-24	0	2109	0.06	-0.35	0
159	SLU 27	-21	0	2104	0.09	-0.22	0
159	SLU 28	-23	0	2107	0.07	-0.3	0
159	SLU 29	-21	0	2104	0.09	-0.22	0
159	SLU 30	-23	0	2107	0.07	-0.3	0
159	SLU 31	-15	-1	2547	0.1	0.16	0
159	SLU 32	-12	-1	2542	0.13	0.3	0
159	SLU 33	-14	-1	2545	0.12	0.22	0
159	SLU 34	-15	-1	2547	0.1	0.16	0
159	SLU 35	-12	-1	2542	0.13	0.3	0
159	SLU 36	-14	-1	2545	0.12	0.22	0
159	SLU 37	-12	-1	2542	0.13	0.3	0
159	SLU 38	-14	-1	2545	0.12	0.22	0
159	SLU 39	-8	-1	2730	0.15	0.52	0
159	SLU 40	-10	-1	2733	0.13	0.44	0
159	SLU 41	-8	-1	2730	0.15	0.52	0
159	SLU 42	-10	-1	2733	0.13	0.44	0
159	SLU 43	-40	0	2357	0.09	-0.93	0
159	SLU 44	-43	0	2362	0.06	-1.06	0
159	SLU 45	-40	0	2357	0.09	-0.93	0
159	SLU 46	-42	0	2360	0.07	-1.01	0
159	SLU 47	-43	0	2362	0.06	-1.06	0
159	SLU 48	-40	0	2357	0.09	-0.93	0
159	SLU 49	-42	0	2360	0.07	-1.01	0
159	SLU 50	-40	0	2357	0.09	-0.93	0
159	SLU 51	-42	0	2360	0.07	-1.01	0
159	SLU 52	-34	-1	2800	0.1	-0.54	0
159	SLU 53	-31	-1	2796	0.13	-0.41	0
159	SLU 54	-33	-1	2798	0.11	-0.49	0
159	SLU 55	-34	-1	2800	0.1	-0.54	0
159	SLU 56	-31	-1	2796	0.13	-0.41	0
159	SLU 57	-33	-1	2798	0.11	-0.49	0
159	SLU 58	-31	-1	2796	0.13	-0.41	0
159	SLU 59	-33	-1	2798	0.11	-0.49	0
159	SLU 60	-27	-1	2983	0.15	-0.19	0
159	SLU 61	-29	-1	2986	0.13	-0.27	0
159	SLU 62	-27	-1	2983	0.15	-0.19	0
159	SLU 63	-29	-1	2986	0.13	-0.27	0
159	SLU 64	-32	0	2588	0.11	-0.54	0
159	SLU 65	-36	0	2593	0.08	-0.67	0
159	SLU 66	-32	0	2588	0.11	-0.54	0
159	SLU 67	-34	0	2591	0.09	-0.62	0
159	SLU 68	-36	0	2593	0.08	-0.67	0
159	SLU 69	-32	0	2588	0.11	-0.54	0
159	SLU 70	-34	0	2591	0.09	-0.62	0
159	SLU 71	-32	0	2588	0.11	-0.54	0
159	SLU 72	-34	0	2591	0.09	-0.62	0
159	SLU 73	-27	-1	3031	0.12	-0.15	0
159	SLU 74	-23	-1	3026	0.15	-0.02	0
159	SLU 75	-25	-1	3029	0.13	-0.1	0
159	SLU 76	-27	-1	3031	0.12	-0.15	0
159	SLU 77	-23	-1	3026	0.15	-0.02	0
159	SLU 78	-25	-1	3029	0.13	-0.1	0
159	SLU 79	-23	-1	3026	0.15	-0.02	0
159	SLU 80	-25	-1	3029	0.13	-0.1	0
159	SLU 81	-20	-1	3213	0.17	0.2	0
159	SLU 82	-21	-1	3216	0.15	0.12	0
159	SLU 83	-20	-1	3213	0.17	0.2	0
159	SLU 84	-21	-1	3216	0.15	0.12	0
159	SLE RA 1	-27	0	1940	0.08	-0.5	0
159	SLE RA 2	-29	0	1943	0.06	-0.59	0
159	SLE RA 3	-27	0	1940	0.08	-0.5	0
159	SLE RA 4	-28	0	1942	0.07	-0.55	0
159	SLE RA 5	-29	0	1943	0.06	-0.59	0
159	SLE RA 6	-27	0	1940	0.08	-0.5	0
159	SLE RA 7	-28	0	1942	0.07	-0.55	0
159	SLE RA 8	-27	0	1940	0.08	-0.5	0
159	SLE RA 9	-28	0	1942	0.07	-0.55	0
159	SLE RA 10	-23	0	2235	0.09	-0.24	0
159	SLE RA 11	-21	0	2232	0.11	-0.15	0
159	SLE RA 12	-22	0	2234	0.1	-0.21	0
159	SLE RA 13	-23	0	2235	0.09	-0.24	0
159	SLE RA 14	-21	0	2232	0.11	-0.15	0
159	SLE RA 15	-22	0	2234	0.1	-0.21	0
159	SLE RA 16	-21	0	2232	0.11	-0.15	0
159	SLE RA 17	-22	0	2234	0.1	-0.21	0
159	SLE RA 18	-18	0	2357	0.12	-0.01	0
159	SLE RA 19	-19	0	2359	0.11	-0.06	0
159	SLE RA 20	-18	0	2357	0.12	-0.01	0
159	SLE RA 21	-19	0	2359	0.11	-0.06	0
159	SLE FR 1	-27	0	1940	0.08	-0.5	0



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
159	SLE FR 2	-27	0	1941	0.08	-0.52	0
159	SLE FR 3	-27	0	1940	0.08	-0.5	0
159	SLE FR 4	-24	0	2066	0.09	-0.37	0
159	SLE FR 5	-24	0	2065	0.09	-0.35	0
159	SLE FR 6	-22	0	2149	0.1	-0.25	0
159	SLE QP 1	-27	0	1940	0.08	-0.5	0
159	SLE QP 2	-24	0	2065	0.09	-0.35	0
159	SLD 1	154	7	1975	-16.98	7.23	0.02
159	SLD 2	154	7	1975	-16.98	7.23	0.02
159	SLD 3	136	16	2022	-3.41	6.57	0.05
159	SLD 4	136	16	2022	-3.41	6.57	0.05
159	SLD 5	56	-12	1968	-25.6	2.93	-0.04
159	SLD 6	56	-12	1968	-25.6	2.93	-0.04
159	SLD 7	-2	18	2123	19.61	0.72	0.05
159	SLD 8	-2	18	2123	19.61	0.72	0.05
159	SLD 9	-46	-19	2008	-19.42	-1.42	-0.06
159	SLD 10	-46	-19	2008	-19.42	-1.42	-0.06
159	SLD 11	-104	11	2162	25.78	-3.64	0.03
159	SLD 12	-104	11	2162	25.78	-3.64	0.03
159	SLD 13	-184	-16	2108	3.6	-7.27	-0.05
159	SLD 14	-184	-16	2108	3.6	-7.27	-0.05
159	SLD 15	-202	-7	2155	17.16	-7.94	-0.02
159	SLD 16	-202	-7	2155	17.16	-7.94	-0.02
159	SLV 1	395	17	1851	-43.18	17.55	0.05
159	SLV 2	395	17	1851	-43.18	17.55	0.05
159	SLV 3	352	40	1966	-8.65	15.92	0.11
159	SLV 4	352	40	1966	-8.65	15.92	0.11
159	SLV 5	167	-30	1826	-65.26	7.49	-0.09
159	SLV 6	167	-30	1826	-65.26	7.49	-0.09
159	SLV 7	24	46	2210	49.84	2.06	0.13
159	SLV 8	24	46	2210	49.84	2.06	0.13
159	SLV 9	-72	-47	1920	-49.66	-2.76	-0.14
159	SLV 10	-72	-47	1920	-49.66	-2.76	-0.14
159	SLV 11	-215	29	2304	65.45	-8.19	0.08
159	SLV 12	-215	29	2304	65.45	-8.19	0.08
159	SLV 13	-400	-41	2164	8.83	-16.62	-0.12
159	SLV 14	-400	-41	2164	8.83	-16.62	-0.12
159	SLV 15	-443	-18	2280	43.36	-18.25	-0.05
159	SLV 16	-443	-18	2280	43.36	-18.25	-0.05
160	SLU 1	-24	0	1861	-0.15	-1.32	0
160	SLU 2	-26	0	1864	-0.22	-1.43	0
160	SLU 3	-24	0	1861	-0.15	-1.32	0
160	SLU 4	-25	0	1863	-0.19	-1.39	0
160	SLU 5	-26	0	1864	-0.22	-1.43	0
160	SLU 6	-24	0	1861	-0.15	-1.32	0
160	SLU 7	-25	0	1863	-0.19	-1.39	0
160	SLU 8	-24	0	1861	-0.15	-1.32	0
160	SLU 9	-25	0	1863	-0.19	-1.39	0
160	SLU 10	-14	0	2311	-0.24	-1.08	0
160	SLU 11	-12	0	2308	-0.18	-0.98	0
160	SLU 12	-13	0	2309	-0.22	-1.04	0
160	SLU 13	-14	0	2311	-0.24	-1.08	0
160	SLU 14	-12	0	2308	-0.18	-0.98	0
160	SLU 15	-13	0	2309	-0.22	-1.04	0
160	SLU 16	-12	0	2308	-0.18	-0.98	0
160	SLU 17	-13	0	2309	-0.22	-1.04	0
160	SLU 18	-7	0	2499	-0.19	-0.83	0
160	SLU 19	-8	0	2501	-0.23	-0.89	0
160	SLU 20	-7	0	2499	-0.19	-0.83	0
160	SLU 21	-8	0	2501	-0.23	-0.89	0
160	SLU 22	-15	0	2097	-0.17	-1.03	0
160	SLU 23	-17	0	2100	-0.23	-1.13	0
160	SLU 24	-15	0	2097	-0.17	-1.03	0
160	SLU 25	-16	0	2098	-0.21	-1.09	0
160	SLU 26	-17	0	2100	-0.23	-1.13	0
160	SLU 27	-15	0	2097	-0.17	-1.03	0
160	SLU 28	-16	0	2098	-0.21	-1.09	0
160	SLU 29	-15	0	2097	-0.17	-1.03	0
160	SLU 30	-16	0	2098	-0.21	-1.09	0
160	SLU 31	-6	0	2546	-0.26	-0.79	0
160	SLU 32	-3	0	2543	-0.19	-0.69	0
160	SLU 33	-5	0	2545	-0.23	-0.75	0
160	SLU 34	-6	0	2546	-0.26	-0.79	0
160	SLU 35	-3	0	2543	-0.19	-0.69	0
160	SLU 36	-5	0	2545	-0.23	-0.75	0
160	SLU 37	-3	0	2543	-0.19	-0.69	0
160	SLU 38	-5	0	2545	-0.23	-0.75	0
160	SLU 39	2	0	2735	-0.21	-0.54	0
160	SLU 40	1	0	2736	-0.25	-0.6	0
160	SLU 41	2	0	2735	-0.21	-0.54	0
160	SLU 42	1	0	2736	-0.25	-0.6	0
160	SLU 43	-34	0	2338	-0.19	-1.82	0
160	SLU 44	-36	0	2341	-0.25	-1.92	0
160	SLU 45	-34	0	2338	-0.19	-1.82	0
160	SLU 46	-35	0	2340	-0.23	-1.88	0
160	SLU 47	-36	0	2341	-0.25	-1.92	0
160	SLU 48	-34	0	2338	-0.19	-1.82	0
160	SLU 49	-35	0	2340	-0.23	-1.88	0
160	SLU 50	-34	0	2338	-0.19	-1.82	0
160	SLU 51	-35	0	2340	-0.23	-1.88	0



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
160	SLU 52	-24	0	2788	-0.28	-1.58	0
160	SLU 53	-22	0	2785	-0.21	-1.48	0
160	SLU 54	-23	0	2787	-0.25	-1.54	0
160	SLU 55	-24	0	2788	-0.28	-1.58	0
160	SLU 56	-22	0	2785	-0.21	-1.48	0
160	SLU 57	-23	0	2787	-0.25	-1.54	0
160	SLU 58	-22	0	2785	-0.21	-1.48	0
160	SLU 59	-23	0	2787	-0.25	-1.54	0
160	SLU 60	-17	0	2976	-0.23	-1.33	0
160	SLU 61	-18	0	2978	-0.27	-1.39	0
160	SLU 62	-17	0	2976	-0.23	-1.33	0
160	SLU 63	-18	0	2978	-0.27	-1.39	0
160	SLU 64	-25	0	2574	-0.2	-1.53	0
160	SLU 65	-28	0	2577	-0.27	-1.63	0
160	SLU 66	-25	0	2574	-0.2	-1.53	0
160	SLU 67	-26	0	2576	-0.24	-1.59	0
160	SLU 68	-28	0	2577	-0.27	-1.63	0
160	SLU 69	-25	0	2574	-0.2	-1.53	0
160	SLU 70	-26	0	2576	-0.24	-1.59	0
160	SLU 71	-25	0	2574	-0.2	-1.53	0
160	SLU 72	-26	0	2576	-0.24	-1.59	0
160	SLU 73	-16	0	3024	-0.3	-1.29	0
160	SLU 74	-13	0	3021	-0.23	-1.19	0
160	SLU 75	-15	0	3022	-0.27	-1.25	0
160	SLU 76	-16	0	3024	-0.3	-1.29	0
160	SLU 77	-13	0	3021	-0.23	-1.19	0
160	SLU 78	-15	0	3022	-0.27	-1.25	0
160	SLU 79	-13	0	3021	-0.23	-1.19	0
160	SLU 80	-15	0	3022	-0.27	-1.25	0
160	SLU 81	-8	0	3212	-0.24	-1.04	0
160	SLU 82	-10	0	3214	-0.28	-1.1	0
160	SLU 83	-8	0	3212	-0.24	-1.04	0
160	SLU 84	-10	0	3214	-0.28	-1.1	0
160	SLE RA 1	-21	0	1928	-0.15	-1.24	0
160	SLE RA 2	-23	0	1930	-0.2	-1.31	0
160	SLE RA 3	-21	0	1928	-0.15	-1.24	0
160	SLE RA 4	-22	0	1929	-0.18	-1.28	0
160	SLE RA 5	-23	0	1930	-0.2	-1.31	0
160	SLE RA 6	-21	0	1928	-0.15	-1.24	0
160	SLE RA 7	-22	0	1929	-0.18	-1.28	0
160	SLE RA 8	-21	0	1928	-0.15	-1.24	0
160	SLE RA 9	-22	0	1929	-0.18	-1.28	0
160	SLE RA 10	-15	0	2228	-0.22	-1.08	0
160	SLE RA 11	-13	0	2226	-0.17	-1.01	0
160	SLE RA 12	-14	0	2227	-0.2	-1.05	0
160	SLE RA 13	-15	0	2228	-0.22	-1.08	0
160	SLE RA 14	-13	0	2226	-0.17	-1.01	0
160	SLE RA 15	-14	0	2227	-0.2	-1.05	0
160	SLE RA 16	-13	0	2226	-0.17	-1.01	0
160	SLE RA 17	-14	0	2227	-0.2	-1.05	0
160	SLE RA 18	-10	0	2354	-0.18	-0.91	0
160	SLE RA 19	-11	0	2355	-0.21	-0.95	0
160	SLE RA 20	-10	0	2354	-0.18	-0.91	0
160	SLE RA 21	-11	0	2355	-0.21	-0.95	0
160	SLE FR 1	-21	0	1928	-0.15	-1.24	0
160	SLE FR 2	-21	0	1929	-0.16	-1.25	0
160	SLE FR 3	-21	0	1928	-0.15	-1.24	0
160	SLE FR 4	-18	0	2056	-0.17	-1.16	0
160	SLE FR 5	-18	0	2056	-0.16	-1.14	0
160	SLE FR 6	-15	0	2141	-0.17	-1.08	0
160	SLE QP 1	-21	0	1928	-0.15	-1.24	0
160	SLE QP 2	-18	0	2056	-0.16	-1.14	0
160	SLD 1	161	9	1987	-22.84	6.44	0.11
160	SLD 2	161	9	1987	-22.84	6.44	0.11
160	SLD 3	144	22	2022	-3.4	5.72	0.04
160	SLD 4	144	22	2022	-3.4	5.72	0.04
160	SLD 5	62	-18	1983	-36.44	2.22	0.14
160	SLD 6	62	-18	1983	-36.44	2.22	0.14
160	SLD 7	5	27	2098	28.35	-0.17	-0.09
160	SLD 8	5	27	2098	28.35	-0.17	-0.09
160	SLD 9	-40	-27	2014	-28.67	-2.12	0.09
160	SLD 10	-40	-27	2014	-28.67	-2.12	0.09
160	SLD 11	-97	18	2129	36.12	-4.5	-0.14
160	SLD 12	-97	18	2129	36.12	-4.5	-0.14
160	SLD 13	-179	-22	2090	3.08	-8.01	-0.04
160	SLD 14	-179	-22	2090	3.08	-8.01	-0.04
160	SLD 15	-196	-9	2125	22.52	-8.72	-0.11
160	SLD 16	-196	-9	2125	22.52	-8.72	-0.11
160	SLV 1	404	22	1892	-57.67	16.74	0.28
160	SLV 2	404	22	1892	-57.67	16.74	0.28
160	SLV 3	362	56	1977	-8.04	14.98	0.11
160	SLV 4	362	56	1977	-8.04	14.98	0.11
160	SLV 5	173	-45	1877	-92.69	6.89	0.34
160	SLV 6	173	-45	1877	-92.69	6.89	0.34
160	SLV 7	32	68	2162	72.75	1.03	-0.23
160	SLV 8	32	68	2162	72.75	1.03	-0.23
160	SLV 9	-67	-68	1950	-73.08	-3.31	0.23
160	SLV 10	-67	-68	1950	-73.08	-3.31	0.23
160	SLV 11	-209	45	2235	92.37	-9.18	-0.34
160	SLV 12	-209	45	2235	92.37	-9.18	-0.34



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
160	SLV 13	-397	-56	2135	7.72	-17.27	-0.11
160	SLV 14	-397	-56	2135	7.72	-17.27	-0.11
160	SLV 15	-440	-22	2220	57.35	-19.03	-0.28
160	SLV 16	-440	-22	2220	57.35	-19.03	-0.28
161	SLU 1	-2	0	1876	-0.3	-0.06	0
161	SLU 2	-4	0	1878	-0.4	-0.15	0
161	SLU 3	-2	0	1876	-0.3	-0.06	0
161	SLU 4	-3	0	1877	-0.36	-0.11	0
161	SLU 5	-4	0	1878	-0.4	-0.15	0
161	SLU 6	-2	0	1876	-0.3	-0.06	0
161	SLU 7	-3	0	1877	-0.36	-0.11	0
161	SLU 8	-2	0	1876	-0.3	-0.06	0
161	SLU 9	-3	0	1877	-0.36	-0.11	0
161	SLU 10	14	0	2343	-0.48	0.56	0
161	SLU 11	16	0	2341	-0.38	0.65	0
161	SLU 12	15	0	2342	-0.44	0.6	0
161	SLU 13	14	0	2343	-0.48	0.56	0
161	SLU 14	16	0	2341	-0.38	0.65	0
161	SLU 15	15	0	2342	-0.44	0.6	0
161	SLU 16	16	0	2341	-0.38	0.65	0
161	SLU 17	15	0	2342	-0.44	0.6	0
161	SLU 18	24	0	2540	-0.42	0.96	0
161	SLU 19	23	0	2541	-0.48	0.91	0
161	SLU 20	24	0	2540	-0.42	0.96	0
161	SLU 21	23	0	2541	-0.48	0.91	0
161	SLU 22	10	0	2122	-0.34	0.4	0
161	SLU 23	7	0	2124	-0.45	0.31	0
161	SLU 24	10	0	2122	-0.34	0.4	0
161	SLU 25	8	0	2123	-0.41	0.35	0
161	SLU 26	7	0	2124	-0.45	0.31	0
161	SLU 27	10	0	2122	-0.34	0.4	0
161	SLU 28	8	0	2123	-0.41	0.35	0
161	SLU 29	10	0	2122	-0.34	0.4	0
161	SLU 30	8	0	2123	-0.41	0.35	0
161	SLU 31	26	0	2589	-0.53	1.02	0
161	SLU 32	28	0	2587	-0.43	1.11	0
161	SLU 33	27	0	2588	-0.49	1.06	0
161	SLU 34	26	0	2589	-0.53	1.02	0
161	SLU 35	28	0	2587	-0.43	1.11	0
161	SLU 36	27	0	2588	-0.49	1.06	0
161	SLU 37	28	0	2587	-0.43	1.11	0
161	SLU 38	27	0	2588	-0.49	1.06	0
161	SLU 39	36	0	2786	-0.46	1.42	0
161	SLU 40	34	0	2787	-0.52	1.37	0
161	SLU 41	36	0	2786	-0.46	1.42	0
161	SLU 42	34	0	2787	-0.52	1.37	0
161	SLU 43	-7	0	2354	-0.38	-0.23	0
161	SLU 44	-9	0	2356	-0.48	-0.33	0
161	SLU 45	-7	0	2354	-0.38	-0.23	0
161	SLU 46	-8	0	2356	-0.44	-0.29	0
161	SLU 47	-9	0	2356	-0.48	-0.33	0
161	SLU 48	-7	0	2354	-0.38	-0.23	0
161	SLU 49	-8	0	2356	-0.44	-0.29	0
161	SLU 50	-7	0	2354	-0.38	-0.23	0
161	SLU 51	-8	0	2356	-0.44	-0.29	0
161	SLU 52	9	0	2821	-0.56	0.39	0
161	SLU 53	12	0	2819	-0.46	0.48	0
161	SLU 54	10	0	2821	-0.52	0.42	0
161	SLU 55	9	0	2821	-0.56	0.39	0
161	SLU 56	12	0	2819	-0.46	0.48	0
161	SLU 57	10	0	2821	-0.52	0.42	0
161	SLU 58	12	0	2819	-0.46	0.48	0
161	SLU 59	10	0	2821	-0.52	0.42	0
161	SLU 60	19	0	3019	-0.49	0.78	0
161	SLU 61	18	0	3020	-0.55	0.73	0
161	SLU 62	19	0	3019	-0.49	0.78	0
161	SLU 63	18	0	3020	-0.55	0.73	0
161	SLU 64	5	0	2600	-0.42	0.23	0
161	SLU 65	3	0	2602	-0.52	0.13	0
161	SLU 66	5	0	2600	-0.42	0.23	0
161	SLU 67	4	0	2601	-0.48	0.17	0
161	SLU 68	3	0	2602	-0.52	0.13	0
161	SLU 69	5	0	2600	-0.42	0.23	0
161	SLU 70	4	0	2601	-0.48	0.17	0
161	SLU 71	5	0	2600	-0.42	0.23	0
161	SLU 72	4	0	2601	-0.48	0.17	0
161	SLU 73	21	0	3067	-0.6	0.85	0
161	SLU 74	23	0	3065	-0.5	0.94	0
161	SLU 75	22	0	3067	-0.56	0.88	0
161	SLU 76	21	0	3067	-0.6	0.85	0
161	SLU 77	23	0	3065	-0.5	0.94	0
161	SLU 78	22	0	3067	-0.56	0.88	0
161	SLU 79	23	0	3065	-0.5	0.94	0
161	SLU 80	22	0	3067	-0.56	0.88	0
161	SLU 81	31	0	3265	-0.54	1.24	0
161	SLU 82	30	0	3266	-0.6	1.19	0
161	SLU 83	31	0	3265	-0.54	1.24	0
161	SLU 84	30	0	3266	-0.6	1.19	0
161	SLE RA 1	1	0	1946	-0.31	0.07	0
161	SLE RA 2	0	0	1947	-0.38	0.01	0



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
161	SLE RA 3	1	0	1946	-0.31	0.07	0
161	SLE RA 4	0	0	1947	-0.35	0.04	0
161	SLE RA 5	0	0	1947	-0.38	0.01	0
161	SLE RA 6	1	0	1946	-0.31	0.07	0
161	SLE RA 7	0	0	1947	-0.35	0.04	0
161	SLE RA 8	1	0	1946	-0.31	0.07	0
161	SLE RA 9	0	0	1947	-0.35	0.04	0
161	SLE RA 10	12	0	2257	-0.44	0.49	0
161	SLE RA 11	13	0	2256	-0.37	0.55	0
161	SLE RA 12	13	0	2257	-0.41	0.51	0
161	SLE RA 13	12	0	2257	-0.44	0.49	0
161	SLE RA 14	13	0	2256	-0.37	0.55	0
161	SLE RA 15	13	0	2257	-0.41	0.51	0
161	SLE RA 16	13	0	2256	-0.37	0.55	0
161	SLE RA 17	13	0	2257	-0.41	0.51	0
161	SLE RA 18	19	0	2389	-0.39	0.75	0
161	SLE RA 19	18	0	2390	-0.43	0.72	0
161	SLE RA 20	19	0	2389	-0.39	0.75	0
161	SLE RA 21	18	0	2390	-0.43	0.72	0
161	SLE FR 1	1	0	1946	-0.31	0.07	0
161	SLE FR 2	1	0	1946	-0.33	0.06	0
161	SLE FR 3	1	0	1946	-0.31	0.07	0
161	SLE FR 4	6	0	2079	-0.35	0.26	0
161	SLE FR 5	7	0	2079	-0.34	0.28	0
161	SLE FR 6	10	0	2168	-0.35	0.41	0
161	SLE QP 1	1	0	1946	-0.31	0.07	0
161	SLE QP 2	7	0	2079	-0.34	0.28	0
161	SLD 1	180	27	2027	1.38	7.75	0.19
161	SLD 2	180	27	2027	1.38	7.75	0.19
161	SLD 3	165	9	2052	26.59	7.14	0.06
161	SLD 4	165	9	2052	26.59	7.14	0.06
161	SLD 5	82	36	2025	-38.07	3.45	0.25
161	SLD 6	82	36	2025	-38.07	3.45	0.25
161	SLD 7	31	-25	2109	45.99	1.41	-0.18
161	SLD 8	31	-25	2109	45.99	1.41	-0.18
161	SLD 9	-17	25	2049	-46.66	-0.85	0.18
161	SLD 10	-17	25	2049	-46.66	-0.85	0.18
161	SLD 11	-69	-36	2133	37.4	-2.9	-0.25
161	SLD 12	-69	-36	2133	37.4	-2.9	-0.25
161	SLD 13	-152	-9	2107	-27.27	-6.59	-0.06
161	SLD 14	-152	-9	2107	-27.27	-6.59	-0.06
161	SLD 15	-167	-27	2132	-2.05	-7.2	-0.19
161	SLD 16	-167	-27	2132	-2.05	-7.2	-0.19
161	SLV 1	416	68	1954	3.38	17.92	0.47
161	SLV 2	416	68	1954	3.38	17.92	0.47
161	SLV 3	378	22	2016	67.98	16.42	0.15
161	SLV 4	378	22	2016	67.98	16.42	0.15
161	SLV 5	187	90	1947	-97.2	7.83	0.63
161	SLV 6	187	90	1947	-97.2	7.83	0.63
161	SLV 7	61	-63	2154	118.14	2.85	-0.44
161	SLV 8	61	-63	2154	118.14	2.85	-0.44
161	SLV 9	-48	63	2004	-118.81	-2.3	0.45
161	SLV 10	-48	63	2004	-118.81	-2.3	0.45
161	SLV 11	-174	-90	2211	96.52	-7.28	-0.63
161	SLV 12	-174	-90	2211	96.52	-7.28	-0.63
161	SLV 13	-365	-22	2142	-68.66	-15.87	-0.15
161	SLV 14	-365	-22	2142	-68.66	-15.87	-0.15
161	SLV 15	-403	-68	2204	-4.06	-17.37	-0.47
161	SLV 16	-403	-68	2204	-4.06	-17.37	-0.47
162	SLU 1	-2	0	1921	-0.39	-0.57	0
162	SLU 2	-3	0	1922	-0.53	-0.64	0
162	SLU 3	-2	0	1921	-0.39	-0.57	0
162	SLU 4	-3	0	1922	-0.47	-0.61	0
162	SLU 5	-3	0	1922	-0.53	-0.64	0
162	SLU 6	-2	0	1921	-0.39	-0.57	0
162	SLU 7	-3	0	1922	-0.47	-0.61	0
162	SLU 8	-2	0	1921	-0.39	-0.57	0
162	SLU 9	-3	0	1922	-0.47	-0.61	0
162	SLU 10	13	0	2415	-0.65	-0.13	0
162	SLU 11	15	0	2414	-0.51	-0.06	0
162	SLU 12	14	0	2415	-0.59	-0.1	0
162	SLU 13	13	0	2415	-0.65	-0.13	0
162	SLU 14	15	0	2414	-0.51	-0.06	0
162	SLU 15	14	0	2415	-0.59	-0.1	0
162	SLU 16	15	0	2414	-0.51	-0.06	0
162	SLU 17	14	0	2415	-0.59	-0.1	0
162	SLU 18	22	0	2626	-0.56	0.16	0
162	SLU 19	21	0	2626	-0.64	0.11	0
162	SLU 20	22	0	2626	-0.56	0.16	0
162	SLU 21	21	0	2626	-0.64	0.11	0
162	SLU 22	9	0	2182	-0.45	-0.22	0
162	SLU 23	7	0	2183	-0.59	-0.29	0
162	SLU 24	9	0	2182	-0.45	-0.22	0
162	SLU 25	8	0	2183	-0.54	-0.26	0
162	SLU 26	7	0	2183	-0.59	-0.29	0
162	SLU 27	9	0	2182	-0.45	-0.22	0
162	SLU 28	8	0	2183	-0.54	-0.26	0
162	SLU 29	9	0	2182	-0.45	-0.22	0
162	SLU 30	8	0	2183	-0.54	-0.26	0
162	SLU 31	24	0	2677	-0.71	0.22	0



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
162	SLU 32	26	0	2676	-0.57	0.29	0
162	SLU 33	25	0	2676	-0.65	0.25	0
162	SLU 34	24	0	2677	-0.71	0.22	0
162	SLU 35	26	0	2676	-0.57	0.29	0
162	SLU 36	25	0	2676	-0.65	0.25	0
162	SLU 37	26	0	2676	-0.57	0.29	0
162	SLU 38	25	0	2676	-0.65	0.25	0
162	SLU 39	33	0	2887	-0.62	0.51	0
162	SLU 40	32	0	2888	-0.7	0.47	0
162	SLU 41	33	0	2887	-0.62	0.51	0
162	SLU 42	32	0	2888	-0.7	0.47	0
162	SLU 43	-6	0	2408	-0.49	-0.86	0
162	SLU 44	-7	0	2409	-0.63	-0.93	0
162	SLU 45	-6	0	2408	-0.49	-0.86	0
162	SLU 46	-7	0	2409	-0.57	-0.9	0
162	SLU 47	-7	0	2409	-0.63	-0.93	0
162	SLU 48	-6	0	2408	-0.49	-0.86	0
162	SLU 49	-7	0	2409	-0.57	-0.9	0
162	SLU 50	-6	0	2408	-0.49	-0.86	0
162	SLU 51	-7	0	2409	-0.57	-0.9	0
162	SLU 52	9	0	2902	-0.74	-0.42	0
162	SLU 53	11	0	2901	-0.6	-0.35	0
162	SLU 54	10	0	2902	-0.69	-0.39	0
162	SLU 55	9	0	2902	-0.74	-0.42	0
162	SLU 56	11	0	2901	-0.6	-0.35	0
162	SLU 57	10	0	2902	-0.69	-0.39	0
162	SLU 58	11	0	2901	-0.6	-0.35	0
162	SLU 59	10	0	2902	-0.69	-0.39	0
162	SLU 60	18	0	3113	-0.65	-0.14	0
162	SLU 61	17	0	3113	-0.74	-0.18	0
162	SLU 62	18	0	3113	-0.65	-0.14	0
162	SLU 63	17	0	3113	-0.74	-0.18	0
162	SLU 64	5	0	2669	-0.55	-0.51	0
162	SLU 65	3	0	2670	-0.69	-0.58	0
162	SLU 66	5	0	2669	-0.55	-0.51	0
162	SLU 67	4	0	2670	-0.63	-0.55	0
162	SLU 68	3	0	2670	-0.69	-0.58	0
162	SLU 69	5	0	2669	-0.55	-0.51	0
162	SLU 70	4	0	2670	-0.63	-0.55	0
162	SLU 71	5	0	2669	-0.55	-0.51	0
162	SLU 72	4	0	2670	-0.63	-0.55	0
162	SLU 73	20	0	3163	-0.81	-0.07	0
162	SLU 74	22	0	3162	-0.67	0	0
162	SLU 75	21	0	3163	-0.75	-0.04	0
162	SLU 76	20	0	3163	-0.81	-0.07	0
162	SLU 77	22	0	3162	-0.67	0	0
162	SLU 78	21	0	3163	-0.75	-0.04	0
162	SLU 79	22	0	3162	-0.67	0	0
162	SLU 80	21	0	3163	-0.75	-0.04	0
162	SLU 81	29	0	3374	-0.72	0.22	0
162	SLU 82	28	0	3374	-0.8	0.17	0
162	SLU 83	29	0	3374	-0.72	0.22	0
162	SLU 84	28	0	3374	-0.8	0.17	0
162	SLE RA 1	2	0	1996	-0.41	-0.47	0
162	SLE RA 2	0	0	1996	-0.5	-0.51	0
162	SLE RA 3	2	0	1996	-0.41	-0.47	0
162	SLE RA 4	1	0	1996	-0.46	-0.5	0
162	SLE RA 5	0	0	1996	-0.5	-0.51	0
162	SLE RA 6	2	0	1996	-0.41	-0.47	0
162	SLE RA 7	1	0	1996	-0.46	-0.5	0
162	SLE RA 8	2	0	1996	-0.41	-0.47	0
162	SLE RA 9	1	0	1996	-0.46	-0.5	0
162	SLE RA 10	11	0	2325	-0.58	-0.18	0
162	SLE RA 11	13	0	2325	-0.49	-0.13	0
162	SLE RA 12	12	0	2325	-0.54	-0.16	0
162	SLE RA 13	11	0	2325	-0.58	-0.18	0
162	SLE RA 14	13	0	2325	-0.49	-0.13	0
162	SLE RA 15	12	0	2325	-0.54	-0.16	0
162	SLE RA 16	13	0	2325	-0.49	-0.13	0
162	SLE RA 17	12	0	2325	-0.54	-0.16	0
162	SLE RA 18	17	0	2466	-0.52	0.01	0
162	SLE RA 19	17	0	2466	-0.58	-0.01	0
162	SLE RA 20	17	0	2466	-0.52	0.01	0
162	SLE RA 21	17	0	2466	-0.58	-0.01	0
162	SLE FR 1	2	0	1996	-0.41	-0.47	0
162	SLE FR 2	1	0	1996	-0.43	-0.48	0
162	SLE FR 3	2	0	1996	-0.41	-0.47	0
162	SLE FR 4	6	0	2137	-0.46	-0.33	0
162	SLE FR 5	6	0	2137	-0.44	-0.32	0
162	SLE FR 6	9	0	2231	-0.46	-0.23	0
162	SLE QP 1	2	0	1996	-0.41	-0.47	0
162	SLE QP 2	6	0	2137	-0.44	-0.32	0
162	SLD 1	170	30	2090	-1.7	6.71	0.23
162	SLD 2	170	30	2090	-1.7	6.71	0.23
162	SLD 3	155	7	2108	28.85	6.11	0.05
162	SLD 4	155	7	2108	28.85	6.11	0.05
162	SLD 5	77	44	2095	-47.16	2.7	0.34
162	SLD 6	77	44	2095	-47.16	2.7	0.34
162	SLD 7	30	-32	2156	54.68	0.69	-0.26
162	SLD 8	30	-32	2156	54.68	0.69	-0.26



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
162	SLD 9	-17	33	2117	-55.57	-1.34	0.26
162	SLD 10	-17	33	2117	-55.57	-1.34	0.26
162	SLD 11	-64	-43	2178	46.27	-3.35	-0.34
162	SLD 12	-64	-43	2178	46.27	-3.35	-0.34
162	SLD 13	-143	-6	2165	-29.74	-6.76	-0.04
162	SLD 14	-143	-6	2165	-29.74	-6.76	-0.04
162	SLD 15	-157	-29	2183	0.81	-7.36	-0.22
162	SLD 16	-157	-29	2183	0.81	-7.36	-0.22
162	SLV 1	392	74	2026	-4.53	16.29	0.56
162	SLV 2	392	74	2026	-4.53	16.29	0.56
162	SLV 3	357	17	2072	73.95	14.82	0.11
162	SLV 4	357	17	2072	73.95	14.82	0.11
162	SLV 5	174	110	2034	-120.7	6.89	0.86
162	SLV 6	174	110	2034	-120.7	6.89	0.86
162	SLV 7	59	-82	2186	140.91	1.99	-0.65
162	SLV 8	59	-82	2186	140.91	1.99	-0.65
162	SLV 9	-47	83	2087	-141.79	-2.64	0.66
162	SLV 10	-47	83	2087	-141.79	-2.64	0.66
162	SLV 11	-162	-109	2239	119.82	-7.54	-0.85
162	SLV 12	-162	-109	2239	119.82	-7.54	-0.85
162	SLV 13	-345	-16	2202	-74.83	-15.47	-0.11
162	SLV 14	-345	-16	2202	-74.83	-15.47	-0.11
162	SLV 15	-379	-74	2247	3.65	-16.94	-0.56
162	SLV 16	-379	-74	2247	3.65	-16.94	-0.56
163	SLU 1	-16	0	1976	-0.43	-0.73	0
163	SLU 2	-17	0	1977	-0.61	-0.78	0
163	SLU 3	-16	0	1976	-0.43	-0.73	0
163	SLU 4	-16	0	1976	-0.54	-0.76	0
163	SLU 5	-17	0	1977	-0.61	-0.78	0
163	SLU 6	-16	0	1976	-0.43	-0.73	0
163	SLU 7	-16	0	1976	-0.54	-0.76	0
163	SLU 8	-16	0	1976	-0.43	-0.73	0
163	SLU 9	-16	0	1976	-0.54	-0.76	0
163	SLU 10	-10	0	2499	-0.75	-0.56	0
163	SLU 11	-8	0	2499	-0.57	-0.5	0
163	SLU 12	-9	0	2499	-0.68	-0.54	0
163	SLU 13	-10	0	2499	-0.75	-0.56	0
163	SLU 14	-8	0	2499	-0.57	-0.5	0
163	SLU 15	-9	0	2499	-0.68	-0.54	0
163	SLU 16	-8	0	2499	-0.57	-0.5	0
163	SLU 17	-9	0	2499	-0.68	-0.54	0
163	SLU 18	-5	0	2723	-0.64	-0.4	0
163	SLU 19	-6	0	2723	-0.74	-0.44	0
163	SLU 20	-5	0	2723	-0.64	-0.4	0
163	SLU 21	-6	0	2723	-0.74	-0.44	0
163	SLU 22	-9	0	2253	-0.51	-0.51	0
163	SLU 23	-11	0	2254	-0.68	-0.57	0
163	SLU 24	-9	0	2253	-0.51	-0.51	0
163	SLU 25	-10	0	2254	-0.61	-0.55	0
163	SLU 26	-11	0	2254	-0.68	-0.57	0
163	SLU 27	-9	0	2253	-0.51	-0.51	0
163	SLU 28	-10	0	2254	-0.61	-0.55	0
163	SLU 29	-9	0	2253	-0.51	-0.51	0
163	SLU 30	-10	0	2254	-0.61	-0.55	0
163	SLU 31	-3	0	2777	-0.82	-0.35	0
163	SLU 32	-2	0	2776	-0.65	-0.29	0
163	SLU 33	-3	0	2776	-0.75	-0.32	0
163	SLU 34	-3	0	2777	-0.82	-0.35	0
163	SLU 35	-2	0	2776	-0.65	-0.29	0
163	SLU 36	-3	0	2776	-0.75	-0.32	0
163	SLU 37	-2	0	2776	-0.65	-0.29	0
163	SLU 38	-3	0	2776	-0.75	-0.32	0
163	SLU 39	1	0	3000	-0.71	-0.19	0
163	SLU 40	0	0	3001	-0.81	-0.23	0
163	SLU 41	1	0	3000	-0.71	-0.19	0
163	SLU 42	0	0	3001	-0.81	-0.23	0
163	SLU 43	-22	0	2474	-0.54	-1.02	0
163	SLU 44	-24	0	2474	-0.71	-1.08	0
163	SLU 45	-22	0	2474	-0.54	-1.02	0
163	SLU 46	-23	0	2474	-0.64	-1.05	0
163	SLU 47	-24	0	2474	-0.71	-1.08	0
163	SLU 48	-22	0	2474	-0.54	-1.02	0
163	SLU 49	-23	0	2474	-0.64	-1.05	0
163	SLU 50	-22	0	2474	-0.54	-1.02	0
163	SLU 51	-23	0	2474	-0.64	-1.05	0
163	SLU 52	-16	0	2997	-0.85	-0.85	0
163	SLU 53	-15	0	2996	-0.68	-0.79	0
163	SLU 54	-16	0	2997	-0.78	-0.83	0
163	SLU 55	-16	0	2997	-0.85	-0.85	0
163	SLU 56	-15	0	2996	-0.68	-0.79	0
163	SLU 57	-16	0	2997	-0.78	-0.83	0
163	SLU 58	-15	0	2996	-0.68	-0.79	0
163	SLU 59	-16	0	2997	-0.78	-0.83	0
163	SLU 60	-12	0	3220	-0.74	-0.7	0
163	SLU 61	-13	0	3221	-0.84	-0.73	0
163	SLU 62	-12	0	3220	-0.74	-0.7	0
163	SLU 63	-13	0	3221	-0.84	-0.73	0
163	SLU 64	-16	0	2751	-0.61	-0.8	0
163	SLU 65	-17	0	2752	-0.79	-0.86	0
163	SLU 66	-16	0	2751	-0.61	-0.8	0





Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
163	SLU 67	-17	0	2751	-0.72	-0.84	0
163	SLU 68	-17	0	2752	-0.79	-0.86	0
163	SLU 69	-16	0	2751	-0.61	-0.8	0
163	SLU 70	-17	0	2751	-0.72	-0.84	0
163	SLU 71	-16	0	2751	-0.61	-0.8	0
163	SLU 72	-17	0	2751	-0.72	-0.84	0
163	SLU 73	-10	0	3274	-0.93	-0.64	0
163	SLU 74	-9	0	3274	-0.75	-0.58	0
163	SLU 75	-10	0	3274	-0.86	-0.61	0
163	SLU 76	-10	0	3274	-0.93	-0.64	0
163	SLU 77	-9	0	3274	-0.75	-0.58	0
163	SLU 78	-10	0	3274	-0.86	-0.61	0
163	SLU 79	-9	0	3274	-0.75	-0.58	0
163	SLU 80	-10	0	3274	-0.86	-0.61	0
163	SLU 81	-6	0	3498	-0.81	-0.48	0
163	SLU 82	-6	0	3498	-0.92	-0.52	0
163	SLU 83	-6	0	3498	-0.81	-0.48	0
163	SLU 84	-6	0	3498	-0.92	-0.52	0
163	SLE RA 1	-14	0	2055	-0.45	-0.66	0
163	SLE RA 2	-15	0	2056	-0.57	-0.7	0
163	SLE RA 3	-14	0	2055	-0.45	-0.66	0
163	SLE RA 4	-14	0	2055	-0.52	-0.69	0
163	SLE RA 5	-15	0	2056	-0.57	-0.7	0
163	SLE RA 6	-14	0	2055	-0.45	-0.66	0
163	SLE RA 7	-14	0	2055	-0.52	-0.69	0
163	SLE RA 8	-14	0	2055	-0.45	-0.66	0
163	SLE RA 9	-14	0	2055	-0.52	-0.69	0
163	SLE RA 10	-10	0	2404	-0.66	-0.55	0
163	SLE RA 11	-9	0	2404	-0.55	-0.51	0
163	SLE RA 12	-9	0	2404	-0.62	-0.54	0
163	SLE RA 13	-10	0	2404	-0.66	-0.55	0
163	SLE RA 14	-9	0	2404	-0.55	-0.51	0
163	SLE RA 15	-9	0	2404	-0.62	-0.54	0
163	SLE RA 16	-9	0	2404	-0.55	-0.51	0
163	SLE RA 17	-9	0	2404	-0.62	-0.54	0
163	SLE RA 18	-7	0	2553	-0.59	-0.45	0
163	SLE RA 19	-7	0	2553	-0.66	-0.47	0
163	SLE RA 20	-7	0	2553	-0.59	-0.45	0
163	SLE RA 21	-7	0	2553	-0.66	-0.47	0
163	SLE FR 1	-14	0	2055	-0.45	-0.66	0
163	SLE FR 2	-14	0	2055	-0.48	-0.67	0
163	SLE FR 3	-14	0	2055	-0.45	-0.66	0
163	SLE FR 4	-12	0	2205	-0.52	-0.61	0
163	SLE FR 5	-12	0	2205	-0.49	-0.6	0
163	SLE FR 6	-10	0	2304	-0.52	-0.56	0
163	SLE QP 1	-14	0	2055	-0.45	-0.66	0
163	SLE QP 2	-12	0	2205	-0.49	-0.6	0
163	SLD 1	140	30	2150	-5.97	6.01	0.23
163	SLD 2	140	30	2150	-5.97	6.01	0.23
163	SLD 3	128	3	2164	29.18	5.51	0.01
163	SLD 4	128	3	2164	29.18	5.51	0.01
163	SLD 5	53	50	2167	-55.45	2.15	0.4
163	SLD 6	53	50	2167	-55.45	2.15	0.4
163	SLD 7	12	-40	2213	61.72	0.47	-0.33
163	SLD 8	12	-40	2213	61.72	0.47	-0.33
163	SLD 9	-35	40	2196	-62.71	-1.67	0.33
163	SLD 10	-35	40	2196	-62.71	-1.67	0.33
163	SLD 11	-76	-49	2242	54.46	-3.35	-0.4
163	SLD 12	-76	-49	2242	54.46	-3.35	-0.4
163	SLD 13	-151	-2	2246	-30.17	-6.71	-0.01
163	SLD 14	-151	-2	2246	-30.17	-6.71	-0.01
163	SLD 15	-164	-29	2259	4.98	-7.21	-0.23
163	SLD 16	-164	-29	2259	4.98	-7.21	-0.23
163	SLV 1	347	74	2075	-15.49	15.01	0.58
163	SLV 2	347	74	2075	-15.49	15.01	0.58
163	SLV 3	317	6	2109	75.01	13.79	0.02
163	SLV 4	317	6	2109	75.01	13.79	0.02
163	SLV 5	142	126	2114	-142.25	5.93	1.02
163	SLV 6	142	126	2114	-142.25	5.93	1.02
163	SLV 7	42	-102	2228	159.42	1.87	-0.84
163	SLV 8	42	-102	2228	159.42	1.87	-0.84
163	SLV 9	-65	102	2181	-160.41	-3.07	0.84
163	SLV 10	-65	102	2181	-160.41	-3.07	0.84
163	SLV 11	-165	-125	2296	141.26	-7.13	-1.01
163	SLV 12	-165	-125	2296	141.26	-7.13	-1.01
163	SLV 13	-341	-5	2300	-76	-14.99	-0.01
163	SLV 14	-341	-5	2300	-76	-14.99	-0.01
163	SLV 15	-371	-74	2334	14.5	-16.21	-0.57
163	SLV 16	-371	-74	2334	14.5	-16.21	-0.57
164	SLU 1	-61	0	2019	-0.44	-2.91	0
164	SLU 2	-62	0	2019	-0.65	-2.96	0
164	SLU 3	-61	0	2019	-0.44	-2.91	0
164	SLU 4	-62	0	2019	-0.57	-2.94	0
164	SLU 5	-62	0	2019	-0.65	-2.96	0
164	SLU 6	-61	0	2019	-0.44	-2.91	0
164	SLU 7	-62	0	2019	-0.57	-2.94	0
164	SLU 8	-61	0	2019	-0.44	-2.91	0
164	SLU 9	-62	0	2019	-0.57	-2.94	0
164	SLU 10	-75	0	2564	-0.81	-3.61	0
164	SLU 11	-74	0	2564	-0.6	-3.56	0



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
164	SLU 12	-75	0	2564	-0.73	-3.59	0
164	SLU 13	-75	0	2564	-0.81	-3.61	0
164	SLU 14	-74	0	2564	-0.6	-3.56	0
164	SLU 15	-75	0	2564	-0.73	-3.59	0
164	SLU 16	-74	0	2564	-0.6	-3.56	0
164	SLU 17	-75	0	2564	-0.73	-3.59	0
164	SLU 18	-80	0	2797	-0.67	-3.84	0
164	SLU 19	-80	0	2797	-0.79	-3.87	0
164	SLU 20	-80	0	2797	-0.67	-3.84	0
164	SLU 21	-80	0	2797	-0.79	-3.87	0
164	SLU 22	-65	0	2308	-0.53	-3.15	0
164	SLU 23	-66	0	2309	-0.73	-3.2	0
164	SLU 24	-65	0	2308	-0.53	-3.15	0
164	SLU 25	-66	0	2309	-0.65	-3.18	0
164	SLU 26	-66	0	2309	-0.73	-3.2	0
164	SLU 27	-65	0	2308	-0.53	-3.15	0
164	SLU 28	-66	0	2309	-0.65	-3.18	0
164	SLU 29	-65	0	2308	-0.53	-3.15	0
164	SLU 30	-66	0	2309	-0.65	-3.18	0
164	SLU 31	-79	0	2854	-0.89	-3.85	0
164	SLU 32	-78	0	2853	-0.68	-3.8	0
164	SLU 33	-79	0	2854	-0.81	-3.83	0
164	SLU 34	-79	0	2854	-0.89	-3.85	0
164	SLU 35	-78	0	2853	-0.68	-3.8	0
164	SLU 36	-79	0	2854	-0.81	-3.83	0
164	SLU 37	-78	0	2853	-0.68	-3.8	0
164	SLU 38	-79	0	2854	-0.81	-3.83	0
164	SLU 39	-84	0	3087	-0.75	-4.09	0
164	SLU 40	-85	0	3087	-0.87	-4.11	0
164	SLU 41	-84	0	3087	-0.75	-4.09	0
164	SLU 42	-85	0	3087	-0.87	-4.11	0
164	SLU 43	-78	0	2525	-0.55	-3.7	0
164	SLU 44	-79	0	2525	-0.76	-3.75	0
164	SLU 45	-78	0	2525	-0.55	-3.7	0
164	SLU 46	-79	0	2525	-0.67	-3.73	0
164	SLU 47	-79	0	2525	-0.76	-3.75	0
164	SLU 48	-78	0	2525	-0.55	-3.7	0
164	SLU 49	-79	0	2525	-0.67	-3.73	0
164	SLU 50	-78	0	2525	-0.55	-3.7	0
164	SLU 51	-79	0	2525	-0.67	-3.73	0
164	SLU 52	-92	0	3070	-0.91	-4.4	0
164	SLU 53	-91	0	3070	-0.71	-4.35	0
164	SLU 54	-92	0	3070	-0.83	-4.38	0
164	SLU 55	-92	0	3070	-0.91	-4.4	0
164	SLU 56	-91	0	3070	-0.71	-4.35	0
164	SLU 57	-92	0	3070	-0.83	-4.38	0
164	SLU 58	-91	0	3070	-0.71	-4.35	0
164	SLU 59	-92	0	3070	-0.83	-4.38	0
164	SLU 60	-97	0	3303	-0.77	-4.63	0
164	SLU 61	-97	0	3304	-0.9	-4.66	0
164	SLU 62	-97	0	3303	-0.77	-4.63	0
164	SLU 63	-97	0	3304	-0.9	-4.66	0
164	SLU 64	-82	0	2815	-0.63	-3.94	0
164	SLU 65	-83	0	2815	-0.84	-3.99	0
164	SLU 66	-82	0	2815	-0.63	-3.94	0
164	SLU 67	-83	0	2815	-0.76	-3.97	0
164	SLU 68	-83	0	2815	-0.84	-3.99	0
164	SLU 69	-82	0	2815	-0.63	-3.94	0
164	SLU 70	-83	0	2815	-0.76	-3.97	0
164	SLU 71	-82	0	2815	-0.63	-3.94	0
164	SLU 72	-83	0	2815	-0.76	-3.97	0
164	SLU 73	-96	0	3360	-1	-4.64	0
164	SLU 74	-95	0	3360	-0.79	-4.59	0
164	SLU 75	-96	0	3360	-0.91	-4.62	0
164	SLU 76	-96	0	3360	-1	-4.64	0
164	SLU 77	-95	0	3360	-0.79	-4.59	0
164	SLU 78	-96	0	3360	-0.91	-4.62	0
164	SLU 79	-95	0	3360	-0.79	-4.59	0
164	SLU 80	-96	0	3360	-0.91	-4.62	0
164	SLU 81	-101	0	3593	-0.86	-4.88	0
164	SLU 82	-101	0	3594	-0.98	-4.9	0
164	SLU 83	-101	0	3593	-0.86	-4.88	0
164	SLU 84	-101	0	3594	-0.98	-4.9	0
164	SLE RA 1	-62	0	2101	-0.47	-2.98	0
164	SLE RA 2	-63	0	2102	-0.61	-3.01	0
164	SLE RA 3	-62	0	2101	-0.47	-2.98	0
164	SLE RA 4	-63	0	2102	-0.55	-3	0
164	SLE RA 5	-63	0	2102	-0.61	-3.01	0
164	SLE RA 6	-62	0	2101	-0.47	-2.98	0
164	SLE RA 7	-63	0	2102	-0.55	-3	0
164	SLE RA 8	-62	0	2101	-0.47	-2.98	0
164	SLE RA 9	-63	0	2102	-0.55	-3	0
164	SLE RA 10	-72	0	2465	-0.71	-3.45	0
164	SLE RA 11	-71	0	2465	-0.57	-3.41	0
164	SLE RA 12	-71	0	2465	-0.66	-3.43	0
164	SLE RA 13	-72	0	2465	-0.71	-3.45	0
164	SLE RA 14	-71	0	2465	-0.57	-3.41	0
164	SLE RA 15	-71	0	2465	-0.66	-3.43	0
164	SLE RA 16	-71	0	2465	-0.57	-3.41	0
164	SLE RA 17	-71	0	2465	-0.66	-3.43	0



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
164	SLE RA 18	-75	0	2620	-0.62	-3.6	0
164	SLE RA 19	-75	0	2621	-0.7	-3.62	0
164	SLE RA 20	-75	0	2620	-0.62	-3.6	0
164	SLE RA 21	-75	0	2621	-0.7	-3.62	0
164	SLE FR 1	-62	0	2101	-0.47	-2.98	0
164	SLE FR 2	-62	0	2101	-0.5	-2.98	0
164	SLE FR 3	-62	0	2101	-0.47	-2.98	0
164	SLE FR 4	-66	0	2257	-0.54	-3.17	0
164	SLE FR 5	-66	0	2257	-0.51	-3.16	0
164	SLE FR 6	-69	0	2361	-0.54	-3.29	0
164	SLE QP 1	-62	0	2101	-0.47	-2.98	0
164	SLE QP 2	-66	0	2257	-0.51	-3.16	0
164	SLD 1	78	3	2178	-10.62	3.03	0.03
164	SLD 2	78	3	2178	-10.62	3.03	0.03
164	SLD 3	66	-27	2189	28.09	2.53	-0.21
164	SLD 4	66	-27	2189	28.09	2.53	-0.21
164	SLD 5	-5	47	2216	-62.27	-0.55	0.38
164	SLD 6	-5	47	2216	-62.27	-0.55	0.38
164	SLD 7	-44	-54	2254	66.79	-2.21	-0.43
164	SLD 8	-44	-54	2254	66.79	-2.21	-0.43
164	SLD 9	-88	55	2260	-67.82	-4.12	0.43
164	SLD 10	-88	55	2260	-67.82	-4.12	0.43
164	SLD 11	-127	-47	2298	61.24	-5.77	-0.37
164	SLD 12	-127	-47	2298	61.24	-5.77	-0.37
164	SLD 13	-198	28	2325	-29.12	-8.86	0.21
164	SLD 14	-198	28	2325	-29.12	-8.86	0.21
164	SLD 15	-210	-3	2336	9.6	-9.36	-0.03
164	SLD 16	-210	-3	2336	9.6	-9.36	-0.03
164	SLV 1	273	9	2072	-27.29	11.48	0.09
164	SLV 2	273	9	2072	-27.29	11.48	0.09
164	SLV 3	245	-69	2100	72.55	10.28	-0.52
164	SLV 4	245	-69	2100	72.55	10.28	-0.52
164	SLV 5	78	120	2159	-159.97	3.05	0.96
164	SLV 6	78	120	2159	-159.97	3.05	0.96
164	SLV 7	-15	-138	2252	172.83	-0.95	-1.09
164	SLV 8	-15	-138	2252	172.83	-0.95	-1.09
164	SLV 9	-117	138	2262	-173.85	-5.38	1.09
164	SLV 10	-117	138	2262	-173.85	-5.38	1.09
164	SLV 11	-210	-119	2355	158.94	-9.38	-0.96
164	SLV 12	-210	-119	2355	158.94	-9.38	-0.96
164	SLV 13	-377	69	2415	-73.58	-16.6	0.53
164	SLV 14	-377	69	2415	-73.58	-16.6	0.53
164	SLV 15	-405	-8	2443	26.26	-17.8	-0.09
164	SLV 16	-405	-8	2443	26.26	-17.8	-0.09
165	SLU 1	-115	0	2026	-0.44	-4.75	0
165	SLU 2	-116	0	2027	-0.67	-4.8	0
165	SLU 3	-115	0	2026	-0.44	-4.75	0
165	SLU 4	-116	0	2027	-0.58	-4.78	0
165	SLU 5	-116	0	2027	-0.67	-4.8	0
165	SLU 6	-115	0	2026	-0.44	-4.75	0
165	SLU 7	-116	0	2027	-0.58	-4.78	0
165	SLU 8	-115	0	2026	-0.44	-4.75	0
165	SLU 9	-116	0	2027	-0.58	-4.78	0
165	SLU 10	-155	0	2579	-0.84	-6.44	0
165	SLU 11	-154	0	2578	-0.61	-6.39	0
165	SLU 12	-155	0	2578	-0.75	-6.42	0
165	SLU 13	-155	0	2579	-0.84	-6.44	0
165	SLU 14	-154	0	2578	-0.61	-6.39	0
165	SLU 15	-155	0	2578	-0.75	-6.42	0
165	SLU 16	-154	0	2578	-0.61	-6.39	0
165	SLU 17	-155	0	2578	-0.75	-6.42	0
165	SLU 18	-171	0	2815	-0.68	-7.09	0
165	SLU 19	-171	0	2815	-0.82	-7.12	0
165	SLU 20	-171	0	2815	-0.68	-7.09	0
165	SLU 21	-171	0	2815	-0.82	-7.12	0
165	SLU 22	-132	0	2321	-0.52	-5.48	0
165	SLU 23	-134	0	2321	-0.76	-5.52	0
165	SLU 24	-132	0	2321	-0.52	-5.48	0
165	SLU 25	-133	0	2321	-0.66	-5.5	0
165	SLU 26	-134	0	2321	-0.76	-5.52	0
165	SLU 27	-132	0	2321	-0.52	-5.48	0
165	SLU 28	-133	0	2321	-0.66	-5.5	0
165	SLU 29	-132	0	2321	-0.52	-5.48	0
165	SLU 30	-133	0	2321	-0.66	-5.5	0
165	SLU 31	-172	0	2873	-0.93	-7.16	0
165	SLU 32	-171	0	2873	-0.69	-7.11	0
165	SLU 33	-172	0	2873	-0.83	-7.14	0
165	SLU 34	-172	0	2873	-0.93	-7.16	0
165	SLU 35	-171	0	2873	-0.69	-7.11	0
165	SLU 36	-172	0	2873	-0.83	-7.14	0
165	SLU 37	-171	0	2873	-0.69	-7.11	0
165	SLU 38	-172	0	2873	-0.83	-7.14	0
165	SLU 39	-188	0	3109	-0.76	-7.82	0
165	SLU 40	-188	0	3109	-0.91	-7.84	0
165	SLU 41	-188	0	3109	-0.76	-7.82	0
165	SLU 42	-188	0	3109	-0.91	-7.84	0
165	SLU 43	-144	0	2533	-0.54	-5.93	0
165	SLU 44	-145	0	2534	-0.77	-5.97	0
165	SLU 45	-144	0	2533	-0.54	-5.93	0
165	SLU 46	-145	0	2534	-0.68	-5.96	0



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
165	SLU 47	-145	0	2534	-0.77	-5.97	0
165	SLU 48	-144	0	2533	-0.54	-5.93	0
165	SLU 49	-145	0	2534	-0.68	-5.96	0
165	SLU 50	-144	0	2533	-0.54	-5.93	0
165	SLU 51	-145	0	2534	-0.68	-5.96	0
165	SLU 52	-184	0	3086	-0.94	-7.61	0
165	SLU 53	-183	0	3085	-0.71	-7.57	0
165	SLU 54	-183	0	3085	-0.85	-7.59	0
165	SLU 55	-184	0	3086	-0.94	-7.61	0
165	SLU 56	-183	0	3085	-0.71	-7.57	0
165	SLU 57	-183	0	3085	-0.85	-7.59	0
165	SLU 58	-183	0	3085	-0.71	-7.57	0
165	SLU 59	-183	0	3085	-0.85	-7.59	0
165	SLU 60	-199	0	3322	-0.78	-8.27	0
165	SLU 61	-200	0	3322	-0.92	-8.3	0
165	SLU 62	-199	0	3322	-0.78	-8.27	0
165	SLU 63	-200	0	3322	-0.92	-8.3	0
165	SLU 64	-161	0	2828	-0.62	-6.65	0
165	SLU 65	-162	0	2828	-0.86	-6.7	0
165	SLU 66	-161	0	2828	-0.62	-6.65	0
165	SLU 67	-162	0	2828	-0.76	-6.68	0
165	SLU 68	-162	0	2828	-0.86	-6.7	0
165	SLU 69	-161	0	2828	-0.62	-6.65	0
165	SLU 70	-162	0	2828	-0.76	-6.68	0
165	SLU 71	-161	0	2828	-0.62	-6.65	0
165	SLU 72	-162	0	2828	-0.76	-6.68	0
165	SLU 73	-201	0	3380	-1.03	-8.34	0
165	SLU 74	-200	0	3380	-0.79	-8.29	0
165	SLU 75	-201	0	3380	-0.93	-8.32	0
165	SLU 76	-201	0	3380	-1.03	-8.34	0
165	SLU 77	-200	0	3380	-0.79	-8.29	0
165	SLU 78	-201	0	3380	-0.93	-8.32	0
165	SLU 79	-200	0	3380	-0.79	-8.29	0
165	SLU 80	-201	0	3380	-0.93	-8.32	0
165	SLU 81	-217	0	3616	-0.87	-8.99	0
165	SLU 82	-217	0	3616	-1.01	-9.02	0
165	SLU 83	-217	0	3616	-0.87	-8.99	0
165	SLU 84	-217	0	3616	-1.01	-9.02	0
165	SLE RA 1	-120	0	2111	-0.46	-4.96	0
165	SLE RA 2	-121	0	2111	-0.62	-4.99	0
165	SLE RA 3	-120	0	2111	-0.46	-4.96	0
165	SLE RA 4	-121	0	2111	-0.55	-4.98	0
165	SLE RA 5	-121	0	2111	-0.62	-4.99	0
165	SLE RA 6	-120	0	2111	-0.46	-4.96	0
165	SLE RA 7	-121	0	2111	-0.55	-4.98	0
165	SLE RA 8	-120	0	2111	-0.46	-4.96	0
165	SLE RA 9	-121	0	2111	-0.55	-4.98	0
165	SLE RA 10	-147	0	2479	-0.73	-6.08	0
165	SLE RA 11	-146	0	2478	-0.57	-6.05	0
165	SLE RA 12	-146	0	2479	-0.67	-6.07	0
165	SLE RA 13	-147	0	2479	-0.73	-6.08	0
165	SLE RA 14	-146	0	2478	-0.57	-6.05	0
165	SLE RA 15	-146	0	2479	-0.67	-6.07	0
165	SLE RA 16	-146	0	2478	-0.57	-6.05	0
165	SLE RA 17	-146	0	2479	-0.67	-6.07	0
165	SLE RA 18	-157	0	2636	-0.62	-6.52	0
165	SLE RA 19	-158	0	2636	-0.72	-6.54	0
165	SLE RA 20	-157	0	2636	-0.62	-6.52	0
165	SLE RA 21	-158	0	2636	-0.72	-6.54	0
165	SLE FR 1	-120	0	2111	-0.46	-4.96	0
165	SLE FR 2	-120	0	2111	-0.49	-4.97	0
165	SLE FR 3	-120	0	2111	-0.46	-4.96	0
165	SLE FR 4	-131	0	2268	-0.54	-5.43	0
165	SLE FR 5	-131	0	2268	-0.51	-5.43	0
165	SLE FR 6	-139	0	2373	-0.54	-5.74	0
165	SLE QP 1	-120	0	2111	-0.46	-4.96	0
165	SLE QP 2	-131	0	2268	-0.51	-5.43	0
165	SLD 1	12	8	2157	-13.44	0.86	0.06
165	SLD 2	12	8	2157	-13.44	0.86	0.06
165	SLD 3	0	-25	2167	27.48	0.39	-0.18
165	SLD 4	0	-25	2167	27.48	0.39	-0.18
165	SLD 5	-71	52	2220	-66.46	-2.83	0.39
165	SLD 6	-71	52	2220	-66.46	-2.83	0.39
165	SLD 7	-109	-57	2253	69.96	-4.39	-0.42
165	SLD 8	-109	-57	2253	69.96	-4.39	-0.42
165	SLD 9	-154	57	2284	-70.98	-6.46	0.43
165	SLD 10	-154	57	2284	-70.98	-6.46	0.43
165	SLD 11	-191	-52	2316	65.44	-8.02	-0.39
165	SLD 12	-191	-52	2316	65.44	-8.02	-0.39
165	SLD 13	-263	26	2369	-28.5	-11.24	0.19
165	SLD 14	-263	26	2369	-28.5	-11.24	0.19
165	SLD 15	-274	-7	2379	12.42	-11.71	-0.06
165	SLD 16	-274	-7	2379	12.42	-11.71	-0.06
165	SLV 1	206	20	2008	-34.14	9.42	0.16
165	SLV 2	206	20	2008	-34.14	9.42	0.16
165	SLV 3	179	-63	2033	71.51	8.29	-0.46
165	SLV 4	179	-63	2033	71.51	8.29	-0.46
165	SLV 5	11	132	2154	-170.84	0.73	0.99
165	SLV 6	11	132	2154	-170.84	0.73	0.99
165	SLV 7	-79	-145	2234	181.34	-3.02	-1.08



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
165	SLV 8	-79	-145	2234	181.34	-3.02	-1.08
165	SLV 9	-184	145	2302	-182.35	-7.83	1.08
165	SLV 10	-184	145	2302	-182.35	-7.83	1.08
165	SLV 11	-273	-132	2383	169.82	-11.59	-0.99
165	SLV 12	-273	-132	2383	169.82	-11.59	-0.99
165	SLV 13	-442	64	2504	-72.53	-19.14	0.47
165	SLV 14	-442	64	2504	-72.53	-19.14	0.47
165	SLV 15	-469	-19	2528	33.12	-20.27	-0.15
165	SLV 16	-469	-19	2528	33.12	-20.27	-0.15
166	SLU 1	-176	0	1996	-0.42	-7.27	0
166	SLU 2	-177	0	1997	-0.67	-7.31	0
166	SLU 3	-176	0	1996	-0.42	-7.27	0
166	SLU 4	-177	0	1996	-0.57	-7.29	0
166	SLU 5	-177	0	1997	-0.67	-7.31	0
166	SLU 6	-176	0	1996	-0.42	-7.27	0
166	SLU 7	-177	0	1996	-0.57	-7.29	0
166	SLU 8	-176	0	1996	-0.42	-7.27	0
166	SLU 9	-177	0	1996	-0.57	-7.29	0
166	SLU 10	-244	0	2537	-0.85	-10.01	0
166	SLU 11	-243	0	2537	-0.6	-9.97	0
166	SLU 12	-244	0	2537	-0.75	-10	0
166	SLU 13	-244	0	2537	-0.85	-10.01	0
166	SLU 14	-243	0	2537	-0.6	-9.97	0
166	SLU 15	-244	0	2537	-0.75	-10	0
166	SLU 16	-243	0	2537	-0.6	-9.97	0
166	SLU 17	-244	0	2537	-0.75	-10	0
166	SLU 18	-272	0	2768	-0.67	-11.13	0
166	SLU 19	-272	0	2769	-0.83	-11.15	0
166	SLU 20	-272	0	2768	-0.67	-11.13	0
166	SLU 21	-272	0	2769	-0.83	-11.15	0
166	SLU 22	-208	0	2286	-0.51	-8.55	0
166	SLU 23	-209	0	2287	-0.76	-8.59	0
166	SLU 24	-208	0	2286	-0.51	-8.55	0
166	SLU 25	-208	0	2287	-0.66	-8.57	0
166	SLU 26	-209	0	2287	-0.76	-8.59	0
166	SLU 27	-208	0	2286	-0.51	-8.55	0
166	SLU 28	-208	0	2287	-0.66	-8.57	0
166	SLU 29	-208	0	2286	-0.51	-8.55	0
166	SLU 30	-208	0	2287	-0.66	-8.57	0
166	SLU 31	-276	0	2827	-0.94	-11.29	0
166	SLU 32	-275	0	2827	-0.69	-11.25	0
166	SLU 33	-275	0	2827	-0.84	-11.27	0
166	SLU 34	-276	0	2827	-0.94	-11.29	0
166	SLU 35	-275	0	2827	-0.69	-11.25	0
166	SLU 36	-275	0	2827	-0.84	-11.27	0
166	SLU 37	-275	0	2827	-0.69	-11.25	0
166	SLU 38	-275	0	2827	-0.84	-11.27	0
166	SLU 39	-303	0	3058	-0.76	-12.41	0
166	SLU 40	-304	0	3059	-0.92	-12.43	0
166	SLU 41	-303	0	3058	-0.76	-12.41	0
166	SLU 42	-304	0	3059	-0.92	-12.43	0
166	SLU 43	-218	0	2496	-0.51	-9.01	0
166	SLU 44	-219	0	2496	-0.76	-9.05	0
166	SLU 45	-218	0	2496	-0.51	-9.01	0
166	SLU 46	-219	0	2496	-0.66	-9.03	0
166	SLU 47	-219	0	2496	-0.76	-9.05	0
166	SLU 48	-218	0	2496	-0.51	-9.01	0
166	SLU 49	-219	0	2496	-0.66	-9.03	0
166	SLU 50	-218	0	2496	-0.51	-9.01	0
166	SLU 51	-219	0	2496	-0.66	-9.03	0
166	SLU 52	-286	0	3037	-0.94	-11.75	0
166	SLU 53	-285	0	3036	-0.69	-11.71	0
166	SLU 54	-286	0	3036	-0.84	-11.74	0
166	SLU 55	-286	0	3037	-0.94	-11.75	0
166	SLU 56	-285	0	3036	-0.69	-11.71	0
166	SLU 57	-286	0	3036	-0.84	-11.74	0
166	SLU 58	-285	0	3036	-0.69	-11.71	0
166	SLU 59	-286	0	3036	-0.84	-11.74	0
166	SLU 60	-314	0	3268	-0.77	-12.87	0
166	SLU 61	-314	0	3268	-0.92	-12.9	0
166	SLU 62	-314	0	3268	-0.77	-12.87	0
166	SLU 63	-314	0	3268	-0.92	-12.9	0
166	SLU 64	-250	0	2786	-0.6	-10.29	0
166	SLU 65	-251	0	2786	-0.86	-10.33	0
166	SLU 66	-250	0	2786	-0.6	-10.29	0
166	SLU 67	-250	0	2786	-0.75	-10.31	0
166	SLU 68	-251	0	2786	-0.86	-10.33	0
166	SLU 69	-250	0	2786	-0.6	-10.29	0
166	SLU 70	-250	0	2786	-0.75	-10.31	0
166	SLU 71	-250	0	2786	-0.6	-10.29	0
166	SLU 72	-250	0	2786	-0.75	-10.31	0
166	SLU 73	-318	0	3327	-1.04	-13.03	0
166	SLU 74	-317	0	3326	-0.78	-12.99	0
166	SLU 75	-317	0	3326	-0.93	-13.02	0
166	SLU 76	-318	0	3327	-1.04	-13.03	0
166	SLU 77	-317	0	3326	-0.78	-12.99	0
166	SLU 78	-317	0	3326	-0.93	-13.02	0
166	SLU 79	-317	0	3326	-0.78	-12.99	0
166	SLU 80	-317	0	3326	-0.93	-13.02	0
166	SLU 81	-345	0	3558	-0.86	-14.15	0



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
166	SLU 82	-346	0	3558	-1.01	-14.17	0
166	SLU 83	-345	0	3558	-0.86	-14.15	0
166	SLU 84	-346	0	3558	-1.01	-14.17	0
166	SLE RA 1	-185	0	2079	-0.44	-7.63	0
166	SLE RA 2	-186	0	2079	-0.61	-7.66	0
166	SLE RA 3	-185	0	2079	-0.44	-7.63	0
166	SLE RA 4	-186	0	2079	-0.54	-7.65	0
166	SLE RA 5	-186	0	2079	-0.61	-7.66	0
166	SLE RA 6	-185	0	2079	-0.44	-7.63	0
166	SLE RA 7	-186	0	2079	-0.54	-7.65	0
166	SLE RA 8	-185	0	2079	-0.44	-7.63	0
166	SLE RA 9	-186	0	2079	-0.54	-7.65	0
166	SLE RA 10	-230	0	2440	-0.73	-9.46	0
166	SLE RA 11	-230	0	2439	-0.56	-9.43	0
166	SLE RA 12	-230	0	2440	-0.66	-9.45	0
166	SLE RA 13	-230	0	2440	-0.73	-9.46	0
166	SLE RA 14	-230	0	2439	-0.56	-9.43	0
166	SLE RA 15	-230	0	2440	-0.66	-9.45	0
166	SLE RA 16	-230	0	2439	-0.56	-9.43	0
166	SLE RA 17	-230	0	2440	-0.66	-9.45	0
166	SLE RA 18	-249	0	2594	-0.61	-10.21	0
166	SLE RA 19	-249	0	2594	-0.72	-10.22	0
166	SLE RA 20	-249	0	2594	-0.61	-10.21	0
166	SLE RA 21	-249	0	2594	-0.72	-10.22	0
166	SLE FR 1	-185	0	2079	-0.44	-7.63	0
166	SLE FR 2	-185	0	2079	-0.48	-7.64	0
166	SLE FR 3	-185	0	2079	-0.44	-7.63	0
166	SLE FR 4	-204	0	2234	-0.53	-8.41	0
166	SLE FR 5	-204	0	2234	-0.49	-8.4	0
166	SLE FR 6	-217	0	2336	-0.53	-8.92	0
166	SLE QP 1	-185	0	2079	-0.44	-7.63	0
166	SLE QP 2	-204	0	2234	-0.49	-8.4	0
166	SLD 1	-59	7	2092	-11.56	-2.18	0.04
166	SLD 2	-59	7	2092	-11.56	-2.18	0.04
166	SLD 3	-70	-27	2101	29.96	-2.66	-0.19
166	SLD 4	-70	-27	2101	29.96	-2.66	-0.19
166	SLD 5	-144	53	2177	-66.79	-5.81	0.36
166	SLD 6	-144	53	2177	-66.79	-5.81	0.36
166	SLD 7	-181	-58	2208	71.62	-7.4	-0.4
166	SLD 8	-181	-58	2208	71.62	-7.4	-0.4
166	SLD 9	-228	59	2259	-72.61	-9.41	0.4
166	SLD 10	-228	59	2259	-72.61	-9.41	0.4
166	SLD 11	-265	-52	2290	65.8	-11	-0.36
166	SLD 12	-265	-52	2290	65.8	-11	-0.36
166	SLD 13	-339	27	2366	-30.95	-14.15	0.19
166	SLD 14	-339	27	2366	-30.95	-14.15	0.19
166	SLD 15	-350	-6	2375	10.57	-14.63	-0.04
166	SLD 16	-350	-6	2375	10.57	-14.63	-0.04
166	SLV 1	140	16	1902	-29.14	6.3	0.1
166	SLV 2	140	16	1902	-29.14	6.3	0.1
166	SLV 3	113	-68	1925	78.17	5.16	-0.48
166	SLV 4	113	-68	1925	78.17	5.16	-0.48
166	SLV 5	-60	134	2099	-171.84	-2.26	0.91
166	SLV 6	-60	134	2099	-171.84	-2.26	0.91
166	SLV 7	-150	-149	2176	185.86	-6.07	-1.02
166	SLV 8	-150	-149	2176	185.86	-6.07	-1.02
166	SLV 9	-259	149	2291	-186.85	-10.74	1.02
166	SLV 10	-259	149	2291	-186.85	-10.74	1.02
166	SLV 11	-349	-133	2368	170.85	-14.55	-0.91
166	SLV 12	-349	-133	2368	170.85	-14.55	-0.91
166	SLV 13	-522	69	2542	-79.16	-21.97	0.48
166	SLV 14	-522	69	2542	-79.16	-21.97	0.48
166	SLV 15	-549	-16	2565	28.15	-23.11	-0.1
166	SLV 16	-549	-16	2565	28.15	-23.11	-0.1
167	SLU 1	-230	0	1926	-0.39	-9.42	0
167	SLU 2	-231	0	1927	-0.65	-9.48	0
167	SLU 3	-230	0	1926	-0.39	-9.42	0
167	SLU 4	-230	0	1927	-0.55	-9.46	0
167	SLU 5	-231	0	1927	-0.65	-9.48	0
167	SLU 6	-230	0	1926	-0.39	-9.42	0
167	SLU 7	-230	0	1927	-0.55	-9.46	0
167	SLU 8	-230	0	1926	-0.39	-9.42	0
167	SLU 9	-230	0	1927	-0.55	-9.46	0
167	SLU 10	-326	0	2436	-0.84	-13.41	0
167	SLU 11	-325	0	2436	-0.58	-13.36	0
167	SLU 12	-326	0	2436	-0.74	-13.39	0
167	SLU 13	-326	0	2436	-0.84	-13.41	0
167	SLU 14	-325	0	2436	-0.58	-13.36	0
167	SLU 15	-326	0	2436	-0.74	-13.39	0
167	SLU 16	-325	0	2436	-0.58	-13.36	0
167	SLU 17	-326	0	2436	-0.74	-13.39	0
167	SLU 18	-366	0	2654	-0.66	-15.04	0
167	SLU 19	-366	0	2654	-0.82	-15.07	0
167	SLU 20	-366	0	2654	-0.66	-15.04	0
167	SLU 21	-366	0	2654	-0.82	-15.07	0
167	SLU 22	-275	0	2202	-0.49	-11.31	0
167	SLU 23	-277	0	2202	-0.75	-11.36	0
167	SLU 24	-275	0	2202	-0.49	-11.31	0
167	SLU 25	-276	0	2202	-0.64	-11.34	0
167	SLU 26	-277	0	2202	-0.75	-11.36	0



Nodo	Cont.	Reazione a traslazione				Reazione a rotazione			
		x	y	z		x	y	z	
167	SLU 27	-275	0	2202		-0.49	-11.31	0	
167	SLU 28	-276	0	2202		-0.64	-11.34	0	
167	SLU 29	-275	0	2202		-0.49	-11.31	0	
167	SLU 30	-276	0	2202		-0.64	-11.34	0	
167	SLU 31	-372	0	2712		-0.94	-15.29	0	
167	SLU 32	-371	0	2711		-0.68	-15.24	0	
167	SLU 33	-371	0	2712		-0.83	-15.27	0	
167	SLU 34	-372	0	2712		-0.94	-15.29	0	
167	SLU 35	-371	0	2711		-0.68	-15.24	0	
167	SLU 36	-371	0	2712		-0.83	-15.27	0	
167	SLU 37	-371	0	2711		-0.68	-15.24	0	
167	SLU 38	-371	0	2712		-0.83	-15.27	0	
167	SLU 39	-412	0	2930		-0.76	-16.93	0	
167	SLU 40	-412	0	2930		-0.92	-16.96	0	
167	SLU 41	-412	0	2930		-0.76	-16.93	0	
167	SLU 42	-412	0	2930		-0.92	-16.96	0	
167	SLU 43	-283	0	2410		-0.48	-11.61	0	
167	SLU 44	-284	0	2410		-0.74	-11.66	0	
167	SLU 45	-283	0	2410		-0.48	-11.61	0	
167	SLU 46	-284	0	2410		-0.63	-11.64	0	
167	SLU 47	-284	0	2410		-0.74	-11.66	0	
167	SLU 48	-283	0	2410		-0.48	-11.61	0	
167	SLU 49	-284	0	2410		-0.63	-11.64	0	
167	SLU 50	-283	0	2410		-0.48	-11.61	0	
167	SLU 51	-284	0	2410		-0.63	-11.64	0	
167	SLU 52	-379	0	2920		-0.93	-15.59	0	
167	SLU 53	-378	0	2919		-0.67	-15.54	0	
167	SLU 54	-379	0	2920		-0.82	-15.57	0	
167	SLU 55	-379	0	2920		-0.93	-15.59	0	
167	SLU 56	-378	0	2919		-0.67	-15.54	0	
167	SLU 57	-379	0	2920		-0.82	-15.57	0	
167	SLU 58	-378	0	2919		-0.67	-15.54	0	
167	SLU 59	-379	0	2920		-0.82	-15.57	0	
167	SLU 60	-419	0	3138		-0.75	-17.22	0	
167	SLU 61	-420	0	3138		-0.91	-17.25	0	
167	SLU 62	-419	0	3138		-0.75	-17.22	0	
167	SLU 63	-420	0	3138		-0.91	-17.25	0	
167	SLU 64	-329	0	2685		-0.57	-13.49	0	
167	SLU 65	-330	0	2686		-0.83	-13.54	0	
167	SLU 66	-329	0	2685		-0.57	-13.49	0	
167	SLU 67	-329	0	2686		-0.73	-13.52	0	
167	SLU 68	-330	0	2686		-0.83	-13.54	0	
167	SLU 69	-329	0	2685		-0.57	-13.49	0	
167	SLU 70	-329	0	2686		-0.73	-13.52	0	
167	SLU 71	-329	0	2685		-0.57	-13.49	0	
167	SLU 72	-329	0	2686		-0.73	-13.52	0	
167	SLU 73	-425	0	3195		-1.02	-17.47	0	
167	SLU 74	-424	0	3195		-0.76	-17.42	0	
167	SLU 75	-425	0	3195		-0.92	-17.45	0	
167	SLU 76	-425	0	3195		-1.02	-17.47	0	
167	SLU 77	-424	0	3195		-0.76	-17.42	0	
167	SLU 78	-425	0	3195		-0.92	-17.45	0	
167	SLU 79	-424	0	3195		-0.76	-17.42	0	
167	SLU 80	-425	0	3195		-0.92	-17.45	0	
167	SLU 81	-465	0	3413		-0.84	-19.11	0	
167	SLU 82	-465	0	3413		-1	-19.14	0	
167	SLU 83	-465	0	3413		-0.84	-19.11	0	
167	SLU 84	-465	0	3413		-1	-19.14	0	
167	SLE RA 1	-243	0	2005		-0.42	-9.96	0	
167	SLE RA 2	-244	0	2005		-0.59	-10	0	
167	SLE RA 3	-243	0	2005		-0.42	-9.96	0	
167	SLE RA 4	-243	0	2005		-0.52	-9.98	0	
167	SLE RA 5	-244	0	2005		-0.59	-10	0	
167	SLE RA 6	-243	0	2005		-0.42	-9.96	0	
167	SLE RA 7	-243	0	2005		-0.52	-9.98	0	
167	SLE RA 8	-243	0	2005		-0.42	-9.96	0	
167	SLE RA 9	-243	0	2005		-0.52	-9.98	0	
167	SLE RA 10	-307	0	2345		-0.72	-12.62	0	
167	SLE RA 11	-306	0	2345		-0.55	-12.58	0	
167	SLE RA 12	-307	0	2345		-0.65	-12.6	0	
167	SLE RA 13	-307	0	2345		-0.72	-12.62	0	
167	SLE RA 14	-306	0	2345		-0.55	-12.58	0	
167	SLE RA 15	-307	0	2345		-0.65	-12.6	0	
167	SLE RA 16	-306	0	2345		-0.55	-12.58	0	
167	SLE RA 17	-307	0	2345		-0.65	-12.6	0	
167	SLE RA 18	-333	0	2490		-0.6	-13.71	0	
167	SLE RA 19	-334	0	2490		-0.71	-13.73	0	
167	SLE RA 20	-333	0	2490		-0.6	-13.71	0	
167	SLE RA 21	-334	0	2490		-0.71	-13.73	0	
167	SLE FR 1	-243	0	2005		-0.42	-9.96	0	
167	SLE FR 2	-243	0	2005		-0.45	-9.97	0	
167	SLE FR 3	-243	0	2005		-0.42	-9.96	0	
167	SLE FR 4	-270	0	2151		-0.51	-11.09	0	
167	SLE FR 5	-270	0	2151		-0.47	-11.09	0	
167	SLE FR 6	-288	0	2248		-0.51	-11.84	0	
167	SLE QP 1	-243	0	2005		-0.42	-9.96	0	
167	SLE QP 2	-270	0	2151		-0.47	-11.09	0	
167	SLD 1	-111	0	1991		-6.46	-4.1	0	
167	SLD 2	-111	0	1991		-6.46	-4.1	0	
167	SLD 3	-123	-32	2000		33.96	-4.61	-0.21	



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
167	SLD 4	-123	-32	2000	33.96	-4.61	-0.21
167	SLD 5	-204	49	2088	-63.59	-8.21	0.31
167	SLD 6	-204	49	2088	-63.59	-8.21	0.31
167	SLD 7	-244	-58	2120	71.17	-9.92	-0.37
167	SLD 8	-244	-58	2120	71.17	-9.92	-0.37
167	SLD 9	-296	58	2181	-72.12	-12.25	0.37
167	SLD 10	-296	58	2181	-72.12	-12.25	0.37
167	SLD 11	-336	-48	2213	62.64	-13.96	-0.3
167	SLD 12	-336	-48	2213	62.64	-13.96	-0.3
167	SLD 13	-417	32	2301	-34.91	-17.56	0.21
167	SLD 14	-417	32	2301	-34.91	-17.56	0.21
167	SLD 15	-429	0	2311	5.52	-18.07	0.01
167	SLD 16	-429	0	2311	5.52	-18.07	0.01
167	SLV 1	105	1	1776	-16.27	5.4	-0.01
167	SLV 2	105	1	1776	-16.27	5.4	-0.01
167	SLV 3	77	-81	1800	88.33	4.17	-0.53
167	SLV 4	77	-81	1800	88.33	4.17	-0.53
167	SLV 5	-114	124	2002	-163.86	-4.27	0.78
167	SLV 6	-114	124	2002	-163.86	-4.27	0.78
167	SLV 7	-209	-148	2081	184.82	-8.38	-0.94
167	SLV 8	-209	-148	2081	184.82	-8.38	-0.94
167	SLV 9	-331	148	2220	-185.76	-13.79	0.94
167	SLV 10	-331	148	2220	-185.76	-13.79	0.94
167	SLV 11	-426	-124	2299	162.91	-17.9	-0.78
167	SLV 12	-426	-124	2299	162.91	-17.9	-0.78
167	SLV 13	-617	82	2501	-89.28	-26.34	0.53
167	SLV 14	-617	82	2501	-89.28	-26.34	0.53
167	SLV 15	-645	0	2525	15.32	-27.57	0.01
167	SLV 16	-645	0	2525	15.32	-27.57	0.01
168	SLU 1	-263	0	1832	-0.36	-10.73	0
168	SLU 2	-265	0	1833	-0.62	-10.78	0
168	SLU 3	-263	0	1832	-0.36	-10.73	0
168	SLU 4	-264	0	1832	-0.52	-10.76	0
168	SLU 5	-265	0	1833	-0.62	-10.78	0
168	SLU 6	-263	0	1832	-0.36	-10.73	0
168	SLU 7	-264	0	1832	-0.52	-10.76	0
168	SLU 8	-263	0	1832	-0.36	-10.73	0
168	SLU 9	-264	0	1832	-0.52	-10.76	0
168	SLU 10	-380	0	2295	-0.82	-15.38	0
168	SLU 11	-379	0	2295	-0.57	-15.32	0
168	SLU 12	-380	0	2295	-0.72	-15.36	0
168	SLU 13	-380	0	2295	-0.82	-15.38	0
168	SLU 14	-379	0	2295	-0.57	-15.32	0
168	SLU 15	-380	0	2295	-0.72	-15.36	0
168	SLU 16	-379	0	2295	-0.57	-15.32	0
168	SLU 17	-380	0	2295	-0.72	-15.36	0
168	SLU 18	-428	0	2494	-0.65	-17.29	0
168	SLU 19	-429	0	2494	-0.81	-17.33	0
168	SLU 20	-428	0	2494	-0.65	-17.29	0
168	SLU 21	-429	0	2494	-0.81	-17.33	0
168	SLU 22	-320	0	2086	-0.46	-12.97	0
168	SLU 23	-321	0	2086	-0.72	-13.02	0
168	SLU 24	-320	0	2086	-0.46	-12.97	0
168	SLU 25	-320	0	2086	-0.62	-13	0
168	SLU 26	-321	0	2086	-0.72	-13.02	0
168	SLU 27	-320	0	2086	-0.46	-12.97	0
168	SLU 28	-320	0	2086	-0.62	-13	0
168	SLU 29	-320	0	2086	-0.46	-12.97	0
168	SLU 30	-320	0	2086	-0.62	-13	0
168	SLU 31	-436	0	2548	-0.92	-17.62	0
168	SLU 32	-435	0	2548	-0.66	-17.56	0
168	SLU 33	-436	0	2548	-0.82	-17.6	0
168	SLU 34	-436	0	2548	-0.92	-17.62	0
168	SLU 35	-435	0	2548	-0.66	-17.56	0
168	SLU 36	-436	0	2548	-0.82	-17.6	0
168	SLU 37	-435	0	2548	-0.66	-17.56	0
168	SLU 38	-436	0	2548	-0.82	-17.6	0
168	SLU 39	-484	0	2747	-0.75	-19.53	0
168	SLU 40	-485	0	2747	-0.9	-19.57	0
168	SLU 41	-484	0	2747	-0.75	-19.53	0
168	SLU 42	-485	0	2747	-0.9	-19.57	0
168	SLU 43	-323	0	2295	-0.44	-13.18	0
168	SLU 44	-325	0	2295	-0.7	-13.23	0
168	SLU 45	-323	0	2295	-0.44	-13.18	0
168	SLU 46	-324	0	2295	-0.59	-13.21	0
168	SLU 47	-325	0	2295	-0.7	-13.23	0
168	SLU 48	-323	0	2295	-0.44	-13.18	0
168	SLU 49	-324	0	2295	-0.59	-13.21	0
168	SLU 50	-323	0	2295	-0.44	-13.18	0
168	SLU 51	-324	0	2295	-0.59	-13.21	0
168	SLU 52	-440	0	2758	-0.9	-17.83	0
168	SLU 53	-439	0	2758	-0.64	-17.77	0
168	SLU 54	-439	0	2758	-0.79	-17.8	0
168	SLU 55	-440	0	2758	-0.9	-17.83	0
168	SLU 56	-439	0	2758	-0.64	-17.77	0
168	SLU 57	-439	0	2758	-0.79	-17.8	0
168	SLU 58	-439	0	2758	-0.64	-17.77	0
168	SLU 59	-439	0	2758	-0.79	-17.8	0
168	SLU 60	-488	0	2957	-0.73	-19.74	0
168	SLU 61	-489	0	2957	-0.88	-19.77	0





Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
168	SLU 62	-488	0	2957	-0.73	-19.74	0
168	SLU 63	-489	0	2957	-0.88	-19.77	0
168	SLU 64	-379	0	2549	-0.54	-15.42	0
168	SLU 65	-381	0	2549	-0.8	-15.47	0
168	SLU 66	-379	0	2549	-0.54	-15.42	0
168	SLU 67	-380	0	2549	-0.69	-15.45	0
168	SLU 68	-381	0	2549	-0.8	-15.47	0
168	SLU 69	-379	0	2549	-0.54	-15.42	0
168	SLU 70	-380	0	2549	-0.69	-15.45	0
168	SLU 71	-379	0	2549	-0.54	-15.42	0
168	SLU 72	-380	0	2549	-0.69	-15.45	0
168	SLU 73	-496	1	3011	-1	-20.07	0
168	SLU 74	-495	0	3011	-0.74	-20.01	0
168	SLU 75	-495	0	3011	-0.89	-20.05	0
168	SLU 76	-496	1	3011	-1	-20.07	0
168	SLU 77	-495	0	3011	-0.74	-20.01	0
168	SLU 78	-495	0	3011	-0.89	-20.05	0
168	SLU 79	-495	0	3011	-0.74	-20.01	0
168	SLU 80	-495	0	3011	-0.89	-20.05	0
168	SLU 81	-544	0	3210	-0.83	-21.98	0
168	SLU 82	-545	0	3210	-0.98	-22.02	0
168	SLU 83	-544	0	3210	-0.83	-21.98	0
168	SLU 84	-545	0	3210	-0.98	-22.02	0
168	SLE RA 1	-279	0	1905	-0.39	-11.37	0
168	SLE RA 2	-280	0	1905	-0.56	-11.4	0
168	SLE RA 3	-279	0	1905	-0.39	-11.37	0
168	SLE RA 4	-280	0	1905	-0.5	-11.39	0
168	SLE RA 5	-280	0	1905	-0.56	-11.4	0
168	SLE RA 6	-279	0	1905	-0.39	-11.37	0
168	SLE RA 7	-280	0	1905	-0.5	-11.39	0
168	SLE RA 8	-279	0	1905	-0.39	-11.37	0
168	SLE RA 9	-280	0	1905	-0.5	-11.39	0
168	SLE RA 10	-357	0	2213	-0.7	-14.47	0
168	SLE RA 11	-356	0	2213	-0.53	-14.43	0
168	SLE RA 12	-357	0	2213	-0.63	-14.45	0
168	SLE RA 13	-357	0	2213	-0.7	-14.47	0
168	SLE RA 14	-356	0	2213	-0.53	-14.43	0
168	SLE RA 15	-357	0	2213	-0.63	-14.45	0
168	SLE RA 16	-356	0	2213	-0.53	-14.43	0
168	SLE RA 17	-357	0	2213	-0.63	-14.45	0
168	SLE RA 18	-389	0	2346	-0.58	-15.74	0
168	SLE RA 19	-390	0	2346	-0.69	-15.77	0
168	SLE RA 20	-389	0	2346	-0.58	-15.74	0
168	SLE RA 21	-390	0	2346	-0.69	-15.77	0
168	SLE FR 1	-279	0	1905	-0.39	-11.37	0
168	SLE FR 2	-280	0	1905	-0.43	-11.37	0
168	SLE FR 3	-279	0	1905	-0.39	-11.37	0
168	SLE FR 4	-313	0	2037	-0.48	-12.69	0
168	SLE FR 5	-312	0	2037	-0.45	-12.68	0
168	SLE FR 6	-334	0	2125	-0.49	-13.56	0
168	SLE QP 1	-279	0	1905	-0.39	-11.37	0
168	SLE QP 2	-312	0	2037	-0.45	-12.68	0
168	SLD 1	-141	-7	1877	-0.67	-5.46	-0.04
168	SLD 2	-141	-7	1877	-0.67	-5.46	-0.04
168	SLD 3	-153	-36	1889	37.09	-5.98	-0.22
168	SLD 4	-153	-36	1889	37.09	-5.98	-0.22
168	SLD 5	-242	42	1971	-57.77	-9.73	0.26
168	SLD 6	-242	42	1971	-57.77	-9.73	0.26
168	SLD 7	-284	-55	2011	68.07	-11.46	-0.33
168	SLD 8	-284	-55	2011	68.07	-11.46	-0.33
168	SLD 9	-341	55	2064	-68.97	-13.9	0.34
168	SLD 10	-341	55	2064	-68.97	-13.9	0.34
168	SLD 11	-383	-42	2103	56.87	-15.63	-0.25
168	SLD 12	-383	-42	2103	56.87	-15.63	-0.25
168	SLD 13	-471	37	2185	-37.99	-19.38	0.22
168	SLD 14	-471	37	2185	-37.99	-19.38	0.22
168	SLD 15	-484	7	2197	-0.23	-19.9	0.05
168	SLD 16	-484	7	2197	-0.23	-19.9	0.05
168	SLV 1	92	-18	1663	-1.68	4.33	-0.11
168	SLV 2	92	-18	1663	-1.68	4.33	-0.11
168	SLV 3	62	-92	1692	96.13	3.09	-0.56
168	SLV 4	62	-92	1692	96.13	3.09	-0.56
168	SLV 5	-146	108	1881	-149.16	-5.7	0.65
168	SLV 6	-146	108	1881	-149.16	-5.7	0.65
168	SLV 7	-245	-140	1977	176.86	-9.83	-0.85
168	SLV 8	-245	-140	1977	176.86	-9.83	-0.85
168	SLV 9	-380	141	2097	-177.76	-15.53	0.86
168	SLV 10	-380	141	2097	-177.76	-15.53	0.86
168	SLV 11	-479	-107	2193	148.26	-19.66	-0.65
168	SLV 12	-479	-107	2193	148.26	-19.66	-0.65
168	SLV 13	-687	93	2382	-97.03	-28.45	0.57
168	SLV 14	-687	93	2382	-97.03	-28.45	0.57
168	SLV 15	-717	18	2411	0.78	-29.69	0.11
168	SLV 16	-717	18	2411	0.78	-29.69	0.11
169	SLU 1	-279	0	1734	-0.33	-11.69	0
169	SLU 2	-280	0	1733	-0.57	-11.76	0
169	SLU 3	-279	0	1734	-0.33	-11.69	0
169	SLU 4	-280	0	1733	-0.47	-11.73	0
169	SLU 5	-280	0	1733	-0.57	-11.76	0
169	SLU 6	-279	0	1734	-0.33	-11.69	0



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
169	SLU 7	-280	0	1733	-0.47	-11.73	0
169	SLU 8	-279	0	1734	-0.33	-11.69	0
169	SLU 9	-280	0	1733	-0.47	-11.73	0
169	SLU 10	-410	0	2140	-0.78	-17.19	0
169	SLU 11	-409	0	2140	-0.54	-17.13	0
169	SLU 12	-410	0	2140	-0.68	-17.17	0
169	SLU 13	-410	0	2140	-0.78	-17.19	0
169	SLU 14	-409	0	2140	-0.54	-17.13	0
169	SLU 15	-410	0	2140	-0.68	-17.17	0
169	SLU 16	-409	0	2140	-0.54	-17.13	0
169	SLU 17	-410	0	2140	-0.68	-17.17	0
169	SLU 18	-464	0	2314	-0.63	-19.46	0
169	SLU 19	-465	0	2314	-0.77	-19.5	0
169	SLU 20	-464	0	2314	-0.63	-19.46	0
169	SLU 21	-465	0	2314	-0.77	-19.5	0
169	SLU 22	-342	0	1960	-0.44	-14.35	0
169	SLU 23	-344	0	1959	-0.67	-14.42	0
169	SLU 24	-342	0	1960	-0.44	-14.35	0
169	SLU 25	-343	0	1959	-0.58	-14.39	0
169	SLU 26	-344	0	1959	-0.67	-14.42	0
169	SLU 27	-342	0	1960	-0.44	-14.35	0
169	SLU 28	-343	0	1959	-0.58	-14.39	0
169	SLU 29	-342	0	1960	-0.44	-14.35	0
169	SLU 30	-343	0	1959	-0.58	-14.39	0
169	SLU 31	-474	1	2365	-0.88	-19.85	0
169	SLU 32	-472	0	2366	-0.65	-19.79	0
169	SLU 33	-473	0	2366	-0.79	-19.83	0
169	SLU 34	-474	1	2365	-0.88	-19.85	0
169	SLU 35	-472	0	2366	-0.65	-19.79	0
169	SLU 36	-473	0	2366	-0.79	-19.83	0
169	SLU 37	-472	0	2366	-0.65	-19.79	0
169	SLU 38	-473	0	2366	-0.79	-19.83	0
169	SLU 39	-528	0	2540	-0.74	-22.12	0
169	SLU 40	-529	1	2540	-0.88	-22.16	0
169	SLU 41	-528	0	2540	-0.74	-22.12	0
169	SLU 42	-529	1	2540	-0.88	-22.16	0
169	SLU 43	-341	0	2176	-0.4	-14.29	0
169	SLU 44	-342	0	2176	-0.63	-14.35	0
169	SLU 45	-341	0	2176	-0.4	-14.29	0
169	SLU 46	-342	0	2176	-0.54	-14.33	0
169	SLU 47	-342	0	2176	-0.63	-14.35	0
169	SLU 48	-341	0	2176	-0.4	-14.29	0
169	SLU 49	-342	0	2176	-0.54	-14.33	0
169	SLU 50	-341	0	2176	-0.4	-14.29	0
169	SLU 51	-342	0	2176	-0.54	-14.33	0
169	SLU 52	-472	0	2582	-0.84	-19.79	0
169	SLU 53	-471	0	2583	-0.61	-19.72	0
169	SLU 54	-471	0	2582	-0.75	-19.76	0
169	SLU 55	-472	0	2582	-0.84	-19.79	0
169	SLU 56	-471	0	2583	-0.61	-19.72	0
169	SLU 57	-471	0	2582	-0.75	-19.76	0
169	SLU 58	-471	0	2583	-0.61	-19.72	0
169	SLU 59	-471	0	2582	-0.75	-19.76	0
169	SLU 60	-526	0	2757	-0.7	-22.05	0
169	SLU 61	-527	0	2757	-0.84	-22.09	0
169	SLU 62	-526	0	2757	-0.7	-22.05	0
169	SLU 63	-527	0	2757	-0.84	-22.09	0
169	SLU 64	-404	0	2402	-0.5	-16.95	0
169	SLU 65	-406	0	2402	-0.73	-17.01	0
169	SLU 66	-404	0	2402	-0.5	-16.95	0
169	SLU 67	-405	0	2402	-0.64	-16.99	0
169	SLU 68	-406	0	2402	-0.73	-17.01	0
169	SLU 69	-404	0	2402	-0.5	-16.95	0
169	SLU 70	-405	0	2402	-0.64	-16.99	0
169	SLU 71	-404	0	2402	-0.5	-16.95	0
169	SLU 72	-405	0	2402	-0.64	-16.99	0
169	SLU 73	-536	1	2808	-0.94	-22.45	0
169	SLU 74	-534	0	2809	-0.71	-22.38	0
169	SLU 75	-535	0	2808	-0.85	-22.42	0
169	SLU 76	-536	1	2808	-0.94	-22.45	0
169	SLU 77	-534	0	2809	-0.71	-22.38	0
169	SLU 78	-535	0	2808	-0.85	-22.42	0
169	SLU 79	-534	0	2809	-0.71	-22.38	0
169	SLU 80	-535	0	2808	-0.85	-22.42	0
169	SLU 81	-590	0	2983	-0.8	-24.71	0
169	SLU 82	-591	1	2982	-0.94	-24.75	0
169	SLU 83	-590	0	2983	-0.8	-24.71	0
169	SLU 84	-591	1	2982	-0.94	-24.75	0
169	SLE RA 1	-297	0	1798	-0.36	-12.45	0
169	SLE RA 2	-298	0	1798	-0.52	-12.49	0
169	SLE RA 3	-297	0	1798	-0.36	-12.45	0
169	SLE RA 4	-298	0	1798	-0.46	-12.48	0
169	SLE RA 5	-298	0	1798	-0.52	-12.49	0
169	SLE RA 6	-297	0	1798	-0.36	-12.45	0
169	SLE RA 7	-298	0	1798	-0.46	-12.48	0
169	SLE RA 8	-297	0	1798	-0.36	-12.45	0
169	SLE RA 9	-298	0	1798	-0.46	-12.48	0
169	SLE RA 10	-385	0	2069	-0.66	-16.12	0
169	SLE RA 11	-384	0	2069	-0.5	-16.07	0
169	SLE RA 12	-384	0	2069	-0.6	-16.1	0



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
169	SLE RA 13	-385	0	2069	-0.66	-16.12	0
169	SLE RA 14	-384	0	2069	-0.5	-16.07	0
169	SLE RA 15	-384	0	2069	-0.6	-16.1	0
169	SLE RA 16	-384	0	2069	-0.5	-16.07	0
169	SLE RA 17	-384	0	2069	-0.6	-16.1	0
169	SLE RA 18	-421	0	2185	-0.56	-17.63	0
169	SLE RA 19	-421	0	2185	-0.66	-17.65	0
169	SLE RA 20	-421	0	2185	-0.56	-17.63	0
169	SLE RA 21	-421	0	2185	-0.66	-17.65	0
169	SLE FR 1	-297	0	1798	-0.36	-12.45	0
169	SLE FR 2	-297	0	1798	-0.39	-12.46	0
169	SLE FR 3	-297	0	1798	-0.36	-12.45	0
169	SLE FR 4	-334	0	1914	-0.45	-14.01	0
169	SLE FR 5	-334	0	1914	-0.42	-14	0
169	SLE FR 6	-359	0	1992	-0.46	-15.04	0
169	SLE QP 1	-297	0	1798	-0.36	-12.45	0
169	SLE QP 2	-334	0	1914	-0.42	-14	0
169	SLD 1	-146	-13	1774	4.39	-5.77	-0.07
169	SLD 2	-146	-13	1774	4.39	-5.77	-0.07
169	SLD 3	-160	-38	1791	38.14	-6.38	-0.22
169	SLD 4	-160	-38	1791	38.14	-6.38	-0.22
169	SLD 5	-257	35	1847	-50.15	-10.61	0.21
169	SLD 6	-257	35	1847	-50.15	-10.61	0.21
169	SLD 7	-303	-50	1903	62.32	-12.64	-0.3
169	SLD 8	-303	-50	1903	62.32	-12.64	-0.3
169	SLD 9	-365	50	1926	-63.17	-15.37	0.3
169	SLD 10	-365	50	1926	-63.17	-15.37	0.3
169	SLD 11	-412	-34	1982	49.31	-17.4	-0.21
169	SLD 12	-412	-34	1982	49.31	-17.4	-0.21
169	SLD 13	-508	39	2037	-38.98	-21.63	0.23
169	SLD 14	-508	39	2037	-38.98	-21.63	0.23
169	SLD 15	-522	13	2054	-5.24	-22.24	0.07
169	SLD 16	-522	13	2054	-5.24	-22.24	0.07
169	SLV 1	109	-33	1586	11.11	5.39	-0.18
169	SLV 2	109	-33	1586	11.11	5.39	-0.18
169	SLV 3	76	-98	1627	98.62	3.94	-0.57
169	SLV 4	76	-98	1627	98.62	3.94	-0.57
169	SLV 5	-151	88	1755	-129.69	-5.98	0.54
169	SLV 6	-151	88	1755	-129.69	-5.98	0.54
169	SLV 7	-261	-127	1889	162.02	-10.82	-0.76
169	SLV 8	-261	-127	1889	162.02	-10.82	-0.76
169	SLV 9	-407	128	1939	-162.87	-17.18	0.77
169	SLV 10	-407	128	1939	-162.87	-17.18	0.77
169	SLV 11	-517	-88	2074	128.85	-22.03	-0.54
169	SLV 12	-517	-88	2074	128.85	-22.03	-0.54
169	SLV 13	-744	98	2202	-99.47	-31.94	0.57
169	SLV 14	-744	98	2202	-99.47	-31.94	0.57
169	SLV 15	-777	34	2242	-11.96	-33.4	0.18
169	SLV 16	-777	34	2242	-11.96	-33.4	0.18
170	SLU 1	-266	0	1657	-0.29	-10.94	0
170	SLU 2	-267	0	1656	-0.48	-11	0
170	SLU 3	-266	0	1657	-0.29	-10.94	0
170	SLU 4	-267	0	1656	-0.41	-10.98	0
170	SLU 5	-267	0	1656	-0.48	-11	0
170	SLU 6	-266	0	1657	-0.29	-10.94	0
170	SLU 7	-267	0	1656	-0.41	-10.98	0
170	SLU 8	-266	0	1657	-0.29	-10.94	0
170	SLU 9	-267	0	1656	-0.41	-10.98	0
170	SLU 10	-395	0	2008	-0.7	-16.09	0
170	SLU 11	-394	0	2009	-0.51	-16.02	0
170	SLU 12	-395	0	2008	-0.62	-16.06	0
170	SLU 13	-395	0	2008	-0.7	-16.09	0
170	SLU 14	-394	0	2009	-0.51	-16.02	0
170	SLU 15	-395	0	2008	-0.62	-16.06	0
170	SLU 16	-394	0	2009	-0.51	-16.02	0
170	SLU 17	-395	0	2008	-0.62	-16.06	0
170	SLU 18	-449	0	2160	-0.6	-18.2	0
170	SLU 19	-450	0	2159	-0.72	-18.24	0
170	SLU 20	-449	0	2160	-0.6	-18.2	0
170	SLU 21	-450	0	2159	-0.72	-18.24	0
170	SLU 22	-329	0	1857	-0.4	-13.46	0
170	SLU 23	-331	0	1856	-0.59	-13.52	0
170	SLU 24	-329	0	1857	-0.4	-13.46	0
170	SLU 25	-330	0	1856	-0.51	-13.49	0
170	SLU 26	-331	0	1856	-0.59	-13.52	0
170	SLU 27	-329	0	1857	-0.4	-13.46	0
170	SLU 28	-330	0	1856	-0.51	-13.49	0
170	SLU 29	-329	0	1857	-0.4	-13.46	0
170	SLU 30	-330	0	1856	-0.51	-13.49	0
170	SLU 31	-459	1	2207	-0.81	-18.6	0
170	SLU 32	-457	0	2209	-0.62	-18.54	0
170	SLU 33	-458	1	2208	-0.73	-18.58	0
170	SLU 34	-459	1	2207	-0.81	-18.6	0
170	SLU 35	-457	0	2209	-0.62	-18.54	0
170	SLU 36	-458	1	2208	-0.73	-18.58	0
170	SLU 37	-457	0	2209	-0.62	-18.54	0
170	SLU 38	-458	1	2208	-0.73	-18.58	0
170	SLU 39	-512	1	2359	-0.71	-20.72	0
170	SLU 40	-513	1	2359	-0.82	-20.76	0
170	SLU 41	-512	1	2359	-0.71	-20.72	0



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
170	SLU 42	-513	1	2359	-0.82	-20.76	0
170	SLU 43	-324	0	2086	-0.34	-13.36	0
170	SLU 44	-325	0	2084	-0.53	-13.42	0
170	SLU 45	-324	0	2086	-0.34	-13.36	0
170	SLU 46	-325	0	2085	-0.46	-13.39	0
170	SLU 47	-325	0	2084	-0.53	-13.42	0
170	SLU 48	-324	0	2086	-0.34	-13.36	0
170	SLU 49	-325	0	2085	-0.46	-13.39	0
170	SLU 50	-324	0	2086	-0.34	-13.36	0
170	SLU 51	-325	0	2085	-0.46	-13.39	0
170	SLU 52	-453	0	2436	-0.75	-18.5	0
170	SLU 53	-452	0	2437	-0.56	-18.44	0
170	SLU 54	-453	0	2437	-0.68	-18.48	0
170	SLU 55	-453	0	2436	-0.75	-18.5	0
170	SLU 56	-452	0	2437	-0.56	-18.44	0
170	SLU 57	-453	0	2437	-0.68	-18.48	0
170	SLU 58	-452	0	2437	-0.56	-18.44	0
170	SLU 59	-453	0	2437	-0.68	-18.48	0
170	SLU 60	-507	0	2588	-0.65	-20.62	0
170	SLU 61	-508	1	2587	-0.77	-20.66	0
170	SLU 62	-507	0	2588	-0.65	-20.62	0
170	SLU 63	-508	1	2587	-0.77	-20.66	0
170	SLU 64	-387	0	2285	-0.45	-15.88	0
170	SLU 65	-389	0	2284	-0.64	-15.94	0
170	SLU 66	-387	0	2285	-0.45	-15.88	0
170	SLU 67	-388	0	2285	-0.56	-15.91	0
170	SLU 68	-389	0	2284	-0.64	-15.94	0
170	SLU 69	-387	0	2285	-0.45	-15.88	0
170	SLU 70	-388	0	2285	-0.56	-15.91	0
170	SLU 71	-387	0	2285	-0.45	-15.88	0
170	SLU 72	-388	0	2285	-0.56	-15.91	0
170	SLU 73	-517	1	2636	-0.86	-21.02	0
170	SLU 74	-515	0	2637	-0.67	-20.96	0
170	SLU 75	-516	1	2636	-0.78	-21	0
170	SLU 76	-517	1	2636	-0.86	-21.02	0
170	SLU 77	-515	0	2637	-0.67	-20.96	0
170	SLU 78	-516	1	2636	-0.78	-21	0
170	SLU 79	-515	0	2637	-0.67	-20.96	0
170	SLU 80	-516	1	2636	-0.78	-21	0
170	SLU 81	-570	1	2788	-0.76	-23.14	0
170	SLU 82	-571	1	2787	-0.88	-23.18	0
170	SLU 83	-570	1	2788	-0.76	-23.14	0
170	SLU 84	-571	1	2787	-0.88	-23.18	0
170	SLE RA 1	-284	0	1714	-0.32	-11.66	0
170	SLE RA 2	-285	0	1713	-0.45	-11.7	0
170	SLE RA 3	-284	0	1714	-0.32	-11.66	0
170	SLE RA 4	-284	0	1714	-0.4	-11.68	0
170	SLE RA 5	-285	0	1713	-0.45	-11.7	0
170	SLE RA 6	-284	0	1714	-0.32	-11.66	0
170	SLE RA 7	-284	0	1714	-0.4	-11.68	0
170	SLE RA 8	-284	0	1714	-0.32	-11.66	0
170	SLE RA 9	-284	0	1714	-0.4	-11.68	0
170	SLE RA 10	-370	0	1948	-0.59	-15.09	0
170	SLE RA 11	-369	0	1949	-0.47	-15.05	0
170	SLE RA 12	-370	0	1948	-0.54	-15.07	0
170	SLE RA 13	-370	0	1948	-0.59	-15.09	0
170	SLE RA 14	-369	0	1949	-0.47	-15.05	0
170	SLE RA 15	-370	0	1948	-0.54	-15.07	0
170	SLE RA 16	-369	0	1949	-0.47	-15.05	0
170	SLE RA 17	-370	0	1948	-0.54	-15.07	0
170	SLE RA 18	-406	0	2049	-0.53	-16.5	0
170	SLE RA 19	-406	0	2049	-0.61	-16.53	0
170	SLE RA 20	-406	0	2049	-0.53	-16.5	0
170	SLE RA 21	-406	0	2049	-0.61	-16.53	0
170	SLE FR 1	-284	0	1714	-0.32	-11.66	0
170	SLE FR 2	-284	0	1714	-0.35	-11.67	0
170	SLE FR 3	-284	0	1714	-0.32	-11.66	0
170	SLE FR 4	-321	0	1814	-0.41	-13.12	0
170	SLE FR 5	-320	0	1815	-0.38	-13.11	0
170	SLE FR 6	-345	0	1882	-0.43	-14.08	0
170	SLE QP 1	-284	0	1714	-0.32	-11.66	0
170	SLE QP 2	-320	0	1815	-0.38	-13.11	0
170	SLD 1	-132	-16	1705	7.88	-5.34	-0.1
170	SLD 2	-132	-16	1705	7.88	-5.34	-0.1
170	SLD 3	-147	-37	1731	36.56	-5.93	-0.24
170	SLD 4	-147	-37	1731	36.56	-5.93	-0.24
170	SLD 5	-241	27	1742	-41.39	-9.89	0.18
170	SLD 6	-241	27	1742	-41.39	-9.89	0.18
170	SLD 7	-291	-43	1829	54.18	-11.85	-0.28
170	SLD 8	-291	-43	1829	54.18	-11.85	-0.28
170	SLD 9	-350	43	1800	-54.95	-14.37	0.29
170	SLD 10	-350	43	1800	-54.95	-14.37	0.29
170	SLD 11	-400	-26	1887	40.62	-16.34	-0.18
170	SLD 12	-400	-26	1887	40.62	-16.34	-0.18
170	SLD 13	-494	38	1898	-37.32	-20.29	0.25
170	SLD 14	-494	38	1898	-37.32	-20.29	0.25
170	SLD 15	-509	17	1924	-8.65	-20.88	0.11
170	SLD 16	-509	17	1924	-8.65	-20.88	0.11
170	SLV 1	124	-42	1557	20	5.18	-0.26
170	SLV 2	124	-42	1557	20	5.18	-0.26



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
170	SLV 3	89	-95	1619	94.41	3.78	-0.62
170	SLV 4	89	-95	1619	94.41	3.78	-0.62
170	SLV 5	-133	68	1643	-107.12	-5.5	0.46
170	SLV 6	-133	68	1643	-107.12	-5.5	0.46
170	SLV 7	-251	-109	1850	140.91	-10.16	-0.72
170	SLV 8	-251	-109	1850	140.91	-10.16	-0.72
170	SLV 9	-389	110	1779	-141.68	-16.06	0.73
170	SLV 10	-389	110	1779	-141.68	-16.06	0.73
170	SLV 11	-507	-68	1986	106.35	-20.72	-0.46
170	SLV 12	-507	-68	1986	106.35	-20.72	-0.46
170	SLV 13	-729	96	2010	-95.18	-30.01	0.62
170	SLV 14	-729	96	2010	-95.18	-30.01	0.62
170	SLV 15	-765	42	2072	-20.77	-31.41	0.27
170	SLV 16	-765	42	2072	-20.77	-31.41	0.27
171	SLU 1	-251	0	1624	-0.23	-11.06	0
171	SLU 2	-252	0	1622	-0.36	-11.12	0
171	SLU 3	-251	0	1624	-0.23	-11.06	0
171	SLU 4	-252	0	1622	-0.31	-11.1	0
171	SLU 5	-252	0	1622	-0.36	-11.12	0
171	SLU 6	-251	0	1624	-0.23	-11.06	0
171	SLU 7	-252	0	1622	-0.31	-11.1	0
171	SLU 8	-251	0	1624	-0.23	-11.06	0
171	SLU 9	-252	0	1622	-0.31	-11.1	0
171	SLU 10	-376	0	1931	-0.58	-16.45	0
171	SLU 11	-374	0	1933	-0.45	-16.38	0
171	SLU 12	-375	0	1932	-0.52	-16.42	0
171	SLU 13	-376	0	1931	-0.58	-16.45	0
171	SLU 14	-374	0	1933	-0.45	-16.38	0
171	SLU 15	-375	0	1932	-0.52	-16.42	0
171	SLU 16	-374	0	1933	-0.45	-16.38	0
171	SLU 17	-375	0	1932	-0.52	-16.42	0
171	SLU 18	-427	1	2066	-0.54	-18.67	0
171	SLU 19	-428	1	2065	-0.62	-18.7	0
171	SLU 20	-427	1	2066	-0.54	-18.67	0
171	SLU 21	-428	1	2065	-0.62	-18.7	0
171	SLU 22	-313	0	1804	-0.33	-13.73	0
171	SLU 23	-314	0	1802	-0.46	-13.79	0
171	SLU 24	-313	0	1804	-0.33	-13.73	0
171	SLU 25	-314	0	1802	-0.41	-13.77	0
171	SLU 26	-314	0	1802	-0.46	-13.79	0
171	SLU 27	-313	0	1804	-0.33	-13.73	0
171	SLU 28	-314	0	1802	-0.41	-13.77	0
171	SLU 29	-313	0	1804	-0.33	-13.73	0
171	SLU 30	-314	0	1802	-0.41	-13.77	0
171	SLU 31	-438	1	2111	-0.68	-19.12	0
171	SLU 32	-436	1	2113	-0.55	-19.06	0
171	SLU 33	-437	1	2112	-0.63	-19.1	0
171	SLU 34	-438	1	2111	-0.68	-19.12	0
171	SLU 35	-436	1	2113	-0.55	-19.06	0
171	SLU 36	-437	1	2112	-0.63	-19.1	0
171	SLU 37	-436	1	2113	-0.55	-19.06	0
171	SLU 38	-437	1	2112	-0.63	-19.1	0
171	SLU 39	-489	1	2246	-0.65	-21.34	0
171	SLU 40	-490	1	2245	-0.72	-21.38	0
171	SLU 41	-489	1	2246	-0.65	-21.34	0
171	SLU 42	-490	1	2245	-0.72	-21.38	0
171	SLU 43	-305	0	2049	-0.26	-13.46	0
171	SLU 44	-307	0	2047	-0.39	-13.52	0
171	SLU 45	-305	0	2049	-0.26	-13.46	0
171	SLU 46	-306	0	2048	-0.34	-13.5	0
171	SLU 47	-307	0	2047	-0.39	-13.52	0
171	SLU 48	-305	0	2049	-0.26	-13.46	0
171	SLU 49	-306	0	2048	-0.34	-13.5	0
171	SLU 50	-305	0	2049	-0.26	-13.46	0
171	SLU 51	-306	0	2048	-0.34	-13.5	0
171	SLU 52	-430	0	2357	-0.61	-18.85	0
171	SLU 53	-429	0	2358	-0.48	-18.79	0
171	SLU 54	-429	0	2357	-0.56	-18.82	0
171	SLU 55	-430	0	2357	-0.61	-18.85	0
171	SLU 56	-429	0	2358	-0.48	-18.79	0
171	SLU 57	-429	0	2357	-0.56	-18.82	0
171	SLU 58	-429	0	2358	-0.48	-18.79	0
171	SLU 59	-429	0	2357	-0.56	-18.82	0
171	SLU 60	-481	1	2491	-0.57	-21.07	0
171	SLU 61	-482	1	2490	-0.65	-21.1	0
171	SLU 62	-481	1	2491	-0.57	-21.07	0
171	SLU 63	-482	1	2490	-0.65	-21.1	0
171	SLU 64	-367	0	2229	-0.37	-16.13	0
171	SLU 65	-368	0	2227	-0.49	-16.2	0
171	SLU 66	-367	0	2229	-0.37	-16.13	0
171	SLU 67	-368	0	2228	-0.44	-16.17	0
171	SLU 68	-368	0	2227	-0.49	-16.2	0
171	SLU 69	-367	0	2229	-0.37	-16.13	0
171	SLU 70	-368	0	2228	-0.44	-16.17	0
171	SLU 71	-367	0	2229	-0.37	-16.13	0
171	SLU 72	-368	0	2228	-0.44	-16.17	0
171	SLU 73	-492	1	2537	-0.71	-21.52	0
171	SLU 74	-490	1	2538	-0.59	-21.46	0
171	SLU 75	-491	1	2537	-0.66	-21.5	0
171	SLU 76	-492	1	2537	-0.71	-21.52	0



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
171	SLU 77	-490	1	2538	-0.59	-21.46	0
171	SLU 78	-491	1	2537	-0.66	-21.5	0
171	SLU 79	-490	1	2538	-0.59	-21.46	0
171	SLU 80	-491	1	2537	-0.66	-21.5	0
171	SLU 81	-543	1	2671	-0.68	-23.74	0
171	SLU 82	-544	1	2670	-0.76	-23.78	0
171	SLU 83	-543	1	2671	-0.68	-23.74	0
171	SLU 84	-544	1	2670	-0.76	-23.78	0
171	SLE RA 1	-269	0	1675	-0.26	-11.82	0
171	SLE RA 2	-270	0	1674	-0.34	-11.86	0
171	SLE RA 3	-269	0	1675	-0.26	-11.82	0
171	SLE RA 4	-269	0	1674	-0.31	-11.85	0
171	SLE RA 5	-270	0	1674	-0.34	-11.86	0
171	SLE RA 6	-269	0	1675	-0.26	-11.82	0
171	SLE RA 7	-269	0	1674	-0.31	-11.85	0
171	SLE RA 8	-269	0	1675	-0.26	-11.82	0
171	SLE RA 9	-269	0	1674	-0.31	-11.85	0
171	SLE RA 10	-352	0	1880	-0.49	-15.41	0
171	SLE RA 11	-351	0	1881	-0.4	-15.37	0
171	SLE RA 12	-352	0	1881	-0.46	-15.4	0
171	SLE RA 13	-352	0	1880	-0.49	-15.41	0
171	SLE RA 14	-351	0	1881	-0.4	-15.37	0
171	SLE RA 15	-352	0	1881	-0.46	-15.4	0
171	SLE RA 16	-351	0	1881	-0.4	-15.37	0
171	SLE RA 17	-352	0	1881	-0.46	-15.4	0
171	SLE RA 18	-386	0	1970	-0.47	-16.89	0
171	SLE RA 19	-387	0	1969	-0.52	-16.92	0
171	SLE RA 20	-386	0	1970	-0.47	-16.89	0
171	SLE RA 21	-387	0	1969	-0.52	-16.92	0
171	SLE FR 1	-269	0	1675	-0.26	-11.82	0
171	SLE FR 2	-269	0	1675	-0.28	-11.83	0
171	SLE FR 3	-269	0	1675	-0.26	-11.82	0
171	SLE FR 4	-304	0	1763	-0.34	-13.35	0
171	SLE FR 5	-304	0	1763	-0.32	-13.34	0
171	SLE FR 6	-327	0	1822	-0.36	-14.36	0
171	SLE QP 1	-269	0	1675	-0.26	-11.82	0
171	SLE QP 2	-304	0	1763	-0.32	-13.34	0
171	SLD 1	-119	-17	1679	9.45	-5.24	-0.12
171	SLD 2	-119	-17	1679	9.45	-5.24	-0.12
171	SLD 3	-136	-33	1719	32.24	-5.96	-0.23
171	SLD 4	-136	-33	1719	32.24	-5.96	-0.23
171	SLD 5	-222	19	1678	-31.97	-9.83	0.14
171	SLD 6	-222	19	1678	-31.97	-9.83	0.14
171	SLD 7	-280	-34	1811	44.02	-12.21	-0.24
171	SLD 8	-280	-34	1811	44.02	-12.21	-0.24
171	SLD 9	-328	34	1716	-44.67	-14.48	0.24
171	SLD 10	-328	34	1716	-44.67	-14.48	0.24
171	SLD 11	-386	-19	1849	31.32	-16.86	-0.13
171	SLD 12	-386	-19	1849	31.32	-16.86	-0.13
171	SLD 13	-472	33	1807	-32.89	-20.73	0.23
171	SLD 14	-472	33	1807	-32.89	-20.73	0.23
171	SLD 15	-489	17	1847	-10.09	-21.45	0.12
171	SLD 16	-489	17	1847	-10.09	-21.45	0.12
171	SLV 1	132	-43	1566	24.06	5.73	-0.3
171	SLV 2	132	-43	1566	24.06	5.73	-0.3
171	SLV 3	91	-83	1661	83.22	4.03	-0.58
171	SLV 4	91	-83	1661	83.22	4.03	-0.58
171	SLV 5	-111	48	1560	-82.73	-5.04	0.34
171	SLV 6	-111	48	1560	-82.73	-5.04	0.34
171	SLV 7	-247	-85	1877	114.47	-10.72	-0.6
171	SLV 8	-247	-85	1877	114.47	-10.72	-0.6
171	SLV 9	-361	86	1650	-115.11	-15.97	0.61
171	SLV 10	-361	86	1650	-115.11	-15.97	0.61
171	SLV 11	-496	-47	1967	82.09	-21.65	-0.33
171	SLV 12	-496	-47	1967	82.09	-21.65	-0.33
171	SLV 13	-699	84	1866	-83.87	-30.72	0.59
171	SLV 14	-699	84	1866	-83.87	-30.72	0.59
171	SLV 15	-740	44	1961	-24.71	-32.42	0.31
171	SLV 16	-740	44	1961	-24.71	-32.42	0.31
172	SLU 1	-236	0	1643	-0.12	-10.18	0
172	SLU 2	-237	0	1641	-0.17	-10.22	0
172	SLU 3	-236	0	1643	-0.12	-10.18	0
172	SLU 4	-237	0	1642	-0.15	-10.2	0
172	SLU 5	-237	0	1641	-0.17	-10.22	0
172	SLU 6	-236	0	1643	-0.12	-10.18	0
172	SLU 7	-237	0	1642	-0.15	-10.2	0
172	SLU 8	-236	0	1643	-0.12	-10.18	0
172	SLU 9	-237	0	1642	-0.15	-10.2	0
172	SLU 10	-347	0	1926	-0.37	-14.73	0
172	SLU 11	-346	0	1929	-0.32	-14.7	0
172	SLU 12	-347	0	1927	-0.35	-14.72	0
172	SLU 13	-347	0	1926	-0.37	-14.73	0
172	SLU 14	-346	0	1929	-0.32	-14.7	0
172	SLU 15	-347	0	1927	-0.35	-14.72	0
172	SLU 16	-346	0	1929	-0.32	-14.7	0
172	SLU 17	-347	0	1927	-0.35	-14.72	0
172	SLU 18	-394	1	2051	-0.41	-16.63	0
172	SLU 19	-394	0	2050	-0.44	-16.65	0
172	SLU 20	-394	1	2051	-0.41	-16.63	0
172	SLU 21	-394	0	2050	-0.44	-16.65	0



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
172	SLU 22	-293	0	1812	-0.22	-12.52	0
172	SLU 23	-294	0	1810	-0.27	-12.56	0
172	SLU 24	-293	0	1812	-0.22	-12.52	0
172	SLU 25	-294	0	1811	-0.25	-12.54	0
172	SLU 26	-294	0	1810	-0.27	-12.56	0
172	SLU 27	-293	0	1812	-0.22	-12.52	0
172	SLU 28	-294	0	1811	-0.25	-12.54	0
172	SLU 29	-293	0	1812	-0.22	-12.52	0
172	SLU 30	-294	0	1811	-0.25	-12.54	0
172	SLU 31	-404	0	2095	-0.47	-17.07	0
172	SLU 32	-403	1	2098	-0.42	-17.04	0
172	SLU 33	-404	0	2096	-0.45	-17.06	0
172	SLU 34	-404	0	2095	-0.47	-17.07	0
172	SLU 35	-403	1	2098	-0.42	-17.04	0
172	SLU 36	-404	0	2096	-0.45	-17.06	0
172	SLU 37	-403	1	2098	-0.42	-17.04	0
172	SLU 38	-404	0	2096	-0.45	-17.06	0
172	SLU 39	-451	1	2220	-0.5	-18.97	0
172	SLU 40	-451	1	2219	-0.53	-18.99	0
172	SLU 41	-451	1	2220	-0.5	-18.97	0
172	SLU 42	-451	1	2219	-0.53	-18.99	0
172	SLU 43	-287	0	2078	-0.13	-12.44	0
172	SLU 44	-288	0	2076	-0.18	-12.47	0
172	SLU 45	-287	0	2078	-0.13	-12.44	0
172	SLU 46	-288	0	2077	-0.16	-12.46	0
172	SLU 47	-288	0	2076	-0.18	-12.47	0
172	SLU 48	-287	0	2078	-0.13	-12.44	0
172	SLU 49	-288	0	2077	-0.16	-12.46	0
172	SLU 50	-287	0	2078	-0.13	-12.44	0
172	SLU 51	-288	0	2077	-0.16	-12.46	0
172	SLU 52	-399	0	2361	-0.38	-16.98	0
172	SLU 53	-398	0	2364	-0.33	-16.95	0
172	SLU 54	-398	0	2362	-0.36	-16.97	0
172	SLU 55	-399	0	2361	-0.38	-16.98	0
172	SLU 56	-398	0	2364	-0.33	-16.95	0
172	SLU 57	-398	0	2362	-0.36	-16.97	0
172	SLU 58	-398	0	2364	-0.33	-16.95	0
172	SLU 59	-398	0	2362	-0.36	-16.97	0
172	SLU 60	-445	1	2486	-0.41	-18.88	0
172	SLU 61	-445	0	2485	-0.44	-18.9	0
172	SLU 62	-445	1	2486	-0.41	-18.88	0
172	SLU 63	-445	0	2485	-0.44	-18.9	0
172	SLU 64	-344	0	2247	-0.22	-14.78	0
172	SLU 65	-345	0	2245	-0.27	-14.81	0
172	SLU 66	-344	0	2247	-0.22	-14.78	0
172	SLU 67	-345	0	2246	-0.25	-14.8	0
172	SLU 68	-345	0	2245	-0.27	-14.81	0
172	SLU 69	-344	0	2247	-0.22	-14.78	0
172	SLU 70	-345	0	2246	-0.25	-14.8	0
172	SLU 71	-344	0	2247	-0.22	-14.78	0
172	SLU 72	-345	0	2246	-0.25	-14.8	0
172	SLU 73	-455	0	2530	-0.47	-19.32	0
172	SLU 74	-455	1	2533	-0.42	-19.29	0
172	SLU 75	-455	0	2531	-0.45	-19.31	0
172	SLU 76	-455	0	2530	-0.47	-19.32	0
172	SLU 77	-455	1	2533	-0.42	-19.29	0
172	SLU 78	-455	0	2531	-0.45	-19.31	0
172	SLU 79	-455	1	2533	-0.42	-19.29	0
172	SLU 80	-455	0	2531	-0.45	-19.31	0
172	SLU 81	-502	1	2655	-0.51	-21.22	0
172	SLU 82	-502	1	2654	-0.54	-21.24	0
172	SLU 83	-502	1	2655	-0.51	-21.22	0
172	SLU 84	-502	1	2654	-0.54	-21.24	0
172	SLE RA 1	-252	0	1691	-0.15	-10.85	0
172	SLE RA 2	-253	0	1690	-0.18	-10.87	0
172	SLE RA 3	-252	0	1691	-0.15	-10.85	0
172	SLE RA 4	-253	0	1690	-0.17	-10.86	0
172	SLE RA 5	-253	0	1690	-0.18	-10.87	0
172	SLE RA 6	-252	0	1691	-0.15	-10.85	0
172	SLE RA 7	-253	0	1690	-0.17	-10.86	0
172	SLE RA 8	-252	0	1691	-0.15	-10.85	0
172	SLE RA 9	-253	0	1690	-0.17	-10.86	0
172	SLE RA 10	-326	0	1880	-0.32	-13.88	0
172	SLE RA 11	-326	0	1882	-0.28	-13.86	0
172	SLE RA 12	-326	0	1881	-0.3	-13.87	0
172	SLE RA 13	-326	0	1880	-0.32	-13.88	0
172	SLE RA 14	-326	0	1882	-0.28	-13.86	0
172	SLE RA 15	-326	0	1881	-0.3	-13.87	0
172	SLE RA 16	-326	0	1882	-0.28	-13.86	0
172	SLE RA 17	-326	0	1881	-0.3	-13.87	0
172	SLE RA 18	-357	0	1963	-0.34	-15.15	0
172	SLE RA 19	-358	0	1962	-0.36	-15.16	0
172	SLE RA 20	-357	0	1963	-0.34	-15.15	0
172	SLE RA 21	-358	0	1962	-0.36	-15.16	0
172	SLE FR 1	-252	0	1691	-0.15	-10.85	0
172	SLE FR 2	-252	0	1691	-0.16	-10.86	0
172	SLE FR 3	-252	0	1691	-0.15	-10.85	0
172	SLE FR 4	-284	0	1773	-0.21	-12.15	0
172	SLE FR 5	-284	0	1773	-0.21	-12.14	0
172	SLE FR 6	-305	0	1827	-0.24	-13	0



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
172	SLE QP 1	-252	0	1691	-0.15	-10.85	0
172	SLE QP 2	-284	0	1773	-0.21	-12.14	0
172	SLD 1	-139	-15	1694	9.17	-6.02	-0.09
172	SLD 2	-139	-15	1694	9.17	-6.02	-0.09
172	SLD 3	-120	-25	1754	25.6	-5.31	-0.15
172	SLD 4	-120	-25	1754	25.6	-5.31	-0.15
172	SLD 5	-270	11	1658	-22.32	-11.39	0.07
172	SLD 6	-270	11	1658	-22.32	-11.39	0.07
172	SLD 7	-206	-23	1859	32.46	-9.01	-0.14
172	SLD 8	-206	-23	1859	32.46	-9.01	-0.14
172	SLD 9	-362	23	1687	-32.87	-15.28	0.14
172	SLD 10	-362	23	1687	-32.87	-15.28	0.14
172	SLD 11	-298	-11	1888	21.91	-12.89	-0.06
172	SLD 12	-298	-11	1888	21.91	-12.89	-0.06
172	SLD 13	-448	26	1792	-26.01	-18.98	0.15
172	SLD 14	-448	26	1792	-26.01	-18.98	0.15
172	SLD 15	-428	16	1852	-9.58	-18.26	0.09
172	SLD 16	-428	16	1852	-9.58	-18.26	0.09
172	SLV 1	57	-39	1587	23.38	2.27	-0.23
172	SLV 2	57	-39	1587	23.38	2.27	-0.23
172	SLV 3	102	-64	1730	66	3.97	-0.38
172	SLV 4	102	-64	1730	66	3.97	-0.38
172	SLV 5	-251	27	1500	-57.77	-10.38	0.16
172	SLV 6	-251	27	1500	-57.77	-10.38	0.16
172	SLV 7	-99	-58	1977	84.3	-4.75	-0.34
172	SLV 8	-99	-58	1977	84.3	-4.75	-0.34
172	SLV 9	-469	58	1569	-84.71	-19.54	0.35
172	SLV 10	-469	58	1569	-84.71	-19.54	0.35
172	SLV 11	-317	-27	2046	57.36	-13.9	-0.16
172	SLV 12	-317	-27	2046	57.36	-13.9	-0.16
172	SLV 13	-670	65	1816	-66.41	-28.25	0.39
172	SLV 14	-670	65	1816	-66.41	-28.25	0.39
172	SLV 15	-624	39	1959	-23.79	-26.56	0.23
172	SLV 16	-624	39	1959	-23.79	-26.56	0.23
173	SLU 1	-256	0	1717	0.12	-11.3	0
173	SLU 2	-256	0	1715	0.13	-11.3	0
173	SLU 3	-256	0	1717	0.12	-11.3	0
173	SLU 4	-256	0	1716	0.12	-11.3	0
173	SLU 5	-256	0	1715	0.13	-11.3	0
173	SLU 6	-256	0	1717	0.12	-11.3	0
173	SLU 7	-256	0	1716	0.12	-11.3	0
173	SLU 8	-256	0	1717	0.12	-11.3	0
173	SLU 9	-256	0	1716	0.12	-11.3	0
173	SLU 10	-362	0	1998	-0.02	-15.91	0
173	SLU 11	-362	0	2000	-0.03	-15.9	0
173	SLU 12	-362	0	1999	-0.02	-15.9	0
173	SLU 13	-362	0	1998	-0.02	-15.91	0
173	SLU 14	-362	0	2000	-0.03	-15.9	0
173	SLU 15	-362	0	1999	-0.02	-15.9	0
173	SLU 16	-362	0	2000	-0.03	-15.9	0
173	SLU 17	-362	0	1999	-0.02	-15.9	0
173	SLU 18	-408	0	2121	-0.1	-17.88	0
173	SLU 19	-408	0	2120	-0.09	-17.88	0
173	SLU 20	-408	0	2121	-0.1	-17.88	0
173	SLU 21	-408	0	2120	-0.09	-17.88	0
173	SLU 22	-313	0	1884	0.05	-13.76	0
173	SLU 23	-313	0	1883	0.07	-13.76	0
173	SLU 24	-313	0	1884	0.05	-13.76	0
173	SLU 25	-313	0	1883	0.06	-13.76	0
173	SLU 26	-313	0	1883	0.07	-13.76	0
173	SLU 27	-313	0	1884	0.05	-13.76	0
173	SLU 28	-313	0	1883	0.06	-13.76	0
173	SLU 29	-313	0	1884	0.05	-13.76	0
173	SLU 30	-313	0	1883	0.06	-13.76	0
173	SLU 31	-419	0	2166	-0.08	-18.37	0
173	SLU 32	-420	0	2167	-0.1	-18.36	0
173	SLU 33	-419	0	2167	-0.09	-18.37	0
173	SLU 34	-419	0	2166	-0.08	-18.37	0
173	SLU 35	-420	0	2167	-0.1	-18.36	0
173	SLU 36	-419	0	2167	-0.09	-18.37	0
173	SLU 37	-420	0	2167	-0.1	-18.36	0
173	SLU 38	-419	0	2167	-0.09	-18.37	0
173	SLU 39	-465	0	2289	-0.16	-20.34	0
173	SLU 40	-465	0	2288	-0.15	-20.34	0
173	SLU 41	-465	0	2289	-0.16	-20.34	0
173	SLU 42	-465	0	2288	-0.15	-20.34	0
173	SLU 43	-313	0	2174	0.17	-13.84	0
173	SLU 44	-313	0	2172	0.19	-13.85	0
173	SLU 45	-313	0	2174	0.17	-13.84	0
173	SLU 46	-313	0	2173	0.18	-13.84	0
173	SLU 47	-313	0	2172	0.19	-13.85	0
173	SLU 48	-313	0	2174	0.17	-13.84	0
173	SLU 49	-313	0	2173	0.18	-13.84	0
173	SLU 50	-313	0	2174	0.17	-13.84	0
173	SLU 51	-313	0	2173	0.18	-13.84	0
173	SLU 52	-419	0	2455	0.04	-18.45	0
173	SLU 53	-419	0	2457	0.02	-18.45	0
173	SLU 54	-419	0	2456	0.03	-18.45	0
173	SLU 55	-419	0	2455	0.04	-18.45	0
173	SLU 56	-419	0	2457	0.02	-18.45	0





Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
173	SLU 57	-419	0	2456	0.03	-18.45	0
173	SLU 58	-419	0	2457	0.02	-18.45	0
173	SLU 59	-419	0	2456	0.03	-18.45	0
173	SLU 60	-465	0	2578	-0.04	-20.42	0
173	SLU 61	-465	0	2577	-0.03	-20.42	0
173	SLU 62	-465	0	2578	-0.04	-20.42	0
173	SLU 63	-465	0	2577	-0.03	-20.42	0
173	SLU 64	-370	0	2342	0.11	-16.3	0
173	SLU 65	-370	0	2340	0.12	-16.31	0
173	SLU 66	-370	0	2342	0.11	-16.3	0
173	SLU 67	-370	0	2341	0.12	-16.3	0
173	SLU 68	-370	0	2340	0.12	-16.31	0
173	SLU 69	-370	0	2342	0.11	-16.3	0
173	SLU 70	-370	0	2341	0.12	-16.3	0
173	SLU 71	-370	0	2342	0.11	-16.3	0
173	SLU 72	-370	0	2341	0.12	-16.3	0
173	SLU 73	-477	0	2623	-0.03	-20.91	0
173	SLU 74	-477	0	2625	-0.04	-20.91	0
173	SLU 75	-477	0	2624	-0.03	-20.91	0
173	SLU 76	-477	0	2623	-0.03	-20.91	0
173	SLU 77	-477	0	2625	-0.04	-20.91	0
173	SLU 78	-477	0	2624	-0.03	-20.91	0
173	SLU 79	-477	0	2625	-0.04	-20.91	0
173	SLU 80	-477	0	2624	-0.03	-20.91	0
173	SLU 81	-522	0	2746	-0.11	-22.88	0
173	SLU 82	-522	0	2745	-0.1	-22.88	0
173	SLU 83	-522	0	2746	-0.11	-22.88	0
173	SLU 84	-522	0	2745	-0.1	-22.88	0
173	SLE RA 1	-272	0	1765	0.1	-12	0
173	SLE RA 2	-272	0	1763	0.11	-12	0
173	SLE RA 3	-272	0	1765	0.1	-12	0
173	SLE RA 4	-272	0	1764	0.1	-12	0
173	SLE RA 5	-272	0	1763	0.11	-12	0
173	SLE RA 6	-272	0	1765	0.1	-12	0
173	SLE RA 7	-272	0	1764	0.1	-12	0
173	SLE RA 8	-272	0	1765	0.1	-12	0
173	SLE RA 9	-272	0	1764	0.1	-12	0
173	SLE RA 10	-343	0	1952	0.01	-15.07	0
173	SLE RA 11	-343	0	1953	0	-15.07	0
173	SLE RA 12	-343	0	1953	0	-15.07	0
173	SLE RA 13	-343	0	1952	0.01	-15.07	0
173	SLE RA 14	-343	0	1953	0	-15.07	0
173	SLE RA 15	-343	0	1953	0	-15.07	0
173	SLE RA 16	-343	0	1953	0	-15.07	0
173	SLE RA 17	-343	0	1953	0	-15.07	0
173	SLE RA 18	-374	0	2034	-0.05	-16.39	0
173	SLE RA 19	-374	0	2033	-0.04	-16.39	0
173	SLE RA 20	-374	0	2034	-0.05	-16.39	0
173	SLE RA 21	-374	0	2033	-0.04	-16.39	0
173	SLE FR 1	-272	0	1765	0.1	-12	0
173	SLE FR 2	-272	0	1764	0.1	-12	0
173	SLE FR 3	-272	0	1765	0.1	-12	0
173	SLE FR 4	-302	0	1845	0.06	-13.32	0
173	SLE FR 5	-303	0	1845	0.05	-13.31	0
173	SLE FR 6	-323	0	1899	0.03	-14.19	0
173	SLE QP 1	-272	0	1765	0.1	-12	0
173	SLE QP 2	-303	0	1845	0.05	-13.31	0
173	SLD 1	-179	-12	1733	7.46	-6.88	-0.05
173	SLD 2	-179	-12	1733	7.46	-6.88	-0.05
173	SLD 3	-156	-18	1823	17.59	-7.73	-0.07
173	SLD 4	-156	-18	1823	17.59	-7.73	-0.07
173	SLD 5	-300	4	1676	-13.09	-10.09	0.02
173	SLD 6	-300	4	1676	-13.09	-10.09	0.02
173	SLD 7	-224	-13	1975	20.68	-12.93	-0.05
173	SLD 8	-224	-13	1975	20.68	-12.93	-0.05
173	SLD 9	-381	13	1716	-20.57	-13.7	0.06
173	SLD 10	-381	13	1716	-20.57	-13.7	0.06
173	SLD 11	-305	-4	2015	13.2	-16.53	-0.01
173	SLD 12	-305	-4	2015	13.2	-16.53	-0.01
173	SLD 13	-449	18	1868	-17.48	-18.89	0.08
173	SLD 14	-449	18	1868	-17.48	-18.89	0.08
173	SLD 15	-426	13	1958	-7.35	-19.75	0.06
173	SLD 16	-426	13	1958	-7.35	-19.75	0.06
173	SLV 1	-12	-32	1580	18.78	1.85	-0.14
173	SLV 2	-12	-32	1580	18.78	1.85	-0.14
173	SLV 3	43	-45	1793	45.02	-0.17	-0.19
173	SLV 4	43	-45	1793	45.02	-0.17	-0.19
173	SLV 5	-298	10	1443	-34.13	-5.69	0.04
173	SLV 6	-298	10	1443	-34.13	-5.69	0.04
173	SLV 7	-116	-33	2153	53.35	-12.45	-0.13
173	SLV 8	-116	-33	2153	53.35	-12.45	-0.13
173	SLV 9	-489	33	1538	-53.24	-14.18	0.14
173	SLV 10	-489	33	1538	-53.24	-14.18	0.14
173	SLV 11	-307	-10	2248	34.24	-20.94	-0.03
173	SLV 12	-307	-10	2248	34.24	-20.94	-0.03
173	SLV 13	-648	45	1898	-44.92	-26.45	0.2
173	SLV 14	-648	45	1898	-44.92	-26.45	0.2
173	SLV 15	-593	32	2111	-18.67	-28.48	0.15
173	SLV 16	-593	32	2111	-18.67	-28.48	0.15
174	SLU 1	-299	-3	1916	0.68	-14.48	-0.02



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
174	SLU 2	-297	-3	1918	0.73	-14.43	-0.02
174	SLU 3	-299	-3	1916	0.68	-14.48	-0.02
174	SLU 4	-298	-3	1917	0.71	-14.45	-0.02
174	SLU 5	-297	-3	1918	0.73	-14.43	-0.02
174	SLU 6	-299	-3	1916	0.68	-14.48	-0.02
174	SLU 7	-298	-3	1917	0.71	-14.45	-0.02
174	SLU 8	-299	-3	1916	0.68	-14.48	-0.02
174	SLU 9	-298	-3	1917	0.71	-14.45	-0.02
174	SLU 10	-405	-3	2227	0.68	-19.14	-0.02
174	SLU 11	-407	-3	2225	0.63	-19.18	-0.02
174	SLU 12	-405	-3	2226	0.66	-19.15	-0.02
174	SLU 13	-405	-3	2227	0.68	-19.14	-0.02
174	SLU 14	-407	-3	2225	0.63	-19.18	-0.02
174	SLU 15	-405	-3	2226	0.66	-19.15	-0.02
174	SLU 16	-407	-3	2225	0.63	-19.18	-0.02
174	SLU 17	-405	-3	2226	0.66	-19.15	-0.02
174	SLU 18	-453	-3	2358	0.61	-21.2	-0.02
174	SLU 19	-451	-3	2359	0.64	-21.17	-0.02
174	SLU 20	-453	-3	2358	0.61	-21.2	-0.02
174	SLU 21	-451	-3	2359	0.64	-21.17	-0.02
174	SLU 22	-358	-3	2098	0.67	-17.08	-0.02
174	SLU 23	-356	-3	2100	0.72	-17.03	-0.02
174	SLU 24	-358	-3	2098	0.67	-17.08	-0.02
174	SLU 25	-357	-3	2099	0.7	-17.05	-0.02
174	SLU 26	-356	-3	2100	0.72	-17.03	-0.02
174	SLU 27	-358	-3	2098	0.67	-17.08	-0.02
174	SLU 28	-357	-3	2099	0.7	-17.05	-0.02
174	SLU 29	-358	-3	2098	0.67	-17.08	-0.02
174	SLU 30	-357	-3	2099	0.7	-17.05	-0.02
174	SLU 31	-464	-3	2410	0.67	-21.74	-0.02
174	SLU 32	-466	-3	2407	0.62	-21.78	-0.02
174	SLU 33	-464	-3	2409	0.65	-21.75	-0.02
174	SLU 34	-464	-3	2410	0.67	-21.74	-0.02
174	SLU 35	-466	-3	2407	0.62	-21.78	-0.02
174	SLU 36	-464	-3	2409	0.65	-21.75	-0.02
174	SLU 37	-466	-3	2407	0.62	-21.78	-0.02
174	SLU 38	-464	-3	2409	0.65	-21.75	-0.02
174	SLU 39	-512	-3	2540	0.6	-23.79	-0.02
174	SLU 40	-510	-3	2541	0.63	-23.77	-0.02
174	SLU 41	-512	-3	2540	0.6	-23.79	-0.02
174	SLU 42	-510	-3	2541	0.63	-23.77	-0.02
174	SLU 43	-369	-3	2428	0.88	-17.93	-0.02
174	SLU 44	-367	-4	2430	0.93	-17.89	-0.02
174	SLU 45	-369	-3	2428	0.88	-17.93	-0.02
174	SLU 46	-368	-3	2429	0.91	-17.9	-0.02
174	SLU 47	-367	-4	2430	0.93	-17.89	-0.02
174	SLU 48	-369	-3	2428	0.88	-17.93	-0.02
174	SLU 49	-368	-3	2429	0.91	-17.9	-0.02
174	SLU 50	-369	-3	2428	0.88	-17.93	-0.02
174	SLU 51	-368	-3	2429	0.91	-17.9	-0.02
174	SLU 52	-474	-4	2739	0.89	-22.59	-0.02
174	SLU 53	-476	-3	2737	0.84	-22.63	-0.02
174	SLU 54	-475	-4	2739	0.87	-22.61	-0.02
174	SLU 55	-474	-4	2739	0.89	-22.59	-0.02
174	SLU 56	-476	-3	2737	0.84	-22.63	-0.02
174	SLU 57	-475	-4	2739	0.87	-22.61	-0.02
174	SLU 58	-476	-3	2737	0.84	-22.63	-0.02
174	SLU 59	-475	-4	2739	0.87	-22.61	-0.02
174	SLU 60	-522	-4	2870	0.82	-24.65	-0.03
174	SLU 61	-521	-4	2871	0.85	-24.62	-0.03
174	SLU 62	-522	-4	2870	0.82	-24.65	-0.03
174	SLU 63	-521	-4	2871	0.85	-24.62	-0.03
174	SLU 64	-428	-3	2610	0.87	-20.53	-0.02
174	SLU 65	-426	-4	2613	0.92	-20.49	-0.02
174	SLU 66	-428	-3	2610	0.87	-20.53	-0.02
174	SLU 67	-427	-4	2612	0.9	-20.5	-0.02
174	SLU 68	-426	-4	2613	0.92	-20.49	-0.02
174	SLU 69	-428	-3	2610	0.87	-20.53	-0.02
174	SLU 70	-427	-4	2612	0.9	-20.5	-0.02
174	SLU 71	-428	-3	2610	0.87	-20.53	-0.02
174	SLU 72	-427	-4	2612	0.9	-20.5	-0.02
174	SLU 73	-533	-4	2922	0.88	-25.19	-0.03
174	SLU 74	-535	-4	2920	0.83	-25.23	-0.03
174	SLU 75	-534	-4	2921	0.86	-25.21	-0.03
174	SLU 76	-533	-4	2922	0.88	-25.19	-0.03
174	SLU 77	-535	-4	2920	0.83	-25.23	-0.03
174	SLU 78	-534	-4	2921	0.86	-25.21	-0.03
174	SLU 79	-535	-4	2920	0.83	-25.23	-0.03
174	SLU 80	-534	-4	2921	0.86	-25.21	-0.03
174	SLU 81	-581	-4	3052	0.81	-27.25	-0.03
174	SLU 82	-580	-4	3053	0.84	-27.22	-0.03
174	SLU 83	-581	-4	3052	0.81	-27.25	-0.03
174	SLU 84	-580	-4	3053	0.84	-27.22	-0.03
174	SLE RA 1	-316	-3	1968	0.67	-15.22	-0.02
174	SLE RA 2	-315	-3	1969	0.71	-15.19	-0.02
174	SLE RA 3	-316	-3	1968	0.67	-15.22	-0.02
174	SLE RA 4	-315	-3	1969	0.69	-15.2	-0.02
174	SLE RA 5	-315	-3	1969	0.71	-15.19	-0.02
174	SLE RA 6	-316	-3	1968	0.67	-15.22	-0.02
174	SLE RA 7	-315	-3	1969	0.69	-15.2	-0.02



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
174	SLE RA 8	-316	-3	1968	0.67	-15.22	-0.02
174	SLE RA 9	-315	-3	1969	0.69	-15.2	-0.02
174	SLE RA 10	-386	-3	2176	0.68	-18.33	-0.02
174	SLE RA 11	-388	-3	2174	0.64	-18.36	-0.02
174	SLE RA 12	-387	-3	2175	0.66	-18.34	-0.02
174	SLE RA 13	-386	-3	2176	0.68	-18.33	-0.02
174	SLE RA 14	-388	-3	2174	0.64	-18.36	-0.02
174	SLE RA 15	-387	-3	2175	0.66	-18.34	-0.02
174	SLE RA 16	-388	-3	2174	0.64	-18.36	-0.02
174	SLE RA 17	-387	-3	2175	0.66	-18.34	-0.02
174	SLE RA 18	-418	-3	2262	0.63	-19.7	-0.02
174	SLE RA 19	-418	-3	2263	0.65	-19.68	-0.02
174	SLE RA 20	-418	-3	2262	0.63	-19.7	-0.02
174	SLE RA 21	-418	-3	2263	0.65	-19.68	-0.02
174	SLE FR 1	-316	-3	1968	0.67	-15.22	-0.02
174	SLE FR 2	-316	-3	1968	0.68	-15.22	-0.02
174	SLE FR 3	-316	-3	1968	0.67	-15.22	-0.02
174	SLE FR 4	-346	-3	2056	0.67	-16.56	-0.02
174	SLE FR 5	-347	-3	2056	0.66	-16.56	-0.02
174	SLE FR 6	-367	-3	2115	0.65	-17.46	-0.02
174	SLE QP 1	-316	-3	1968	0.67	-15.22	-0.02
174	SLE QP 2	-347	-3	2056	0.66	-16.56	-0.02
174	SLD 1	-247	-14	1850	4.84	-11.79	-0.03
174	SLD 2	-247	-14	1850	4.84	-11.79	-0.03
174	SLD 3	-218	-11	1995	9.45	-10.96	-0.04
174	SLD 4	-218	-11	1995	9.45	-10.96	-0.04
174	SLD 5	-362	-11	1774	-5.08	-16.39	-0.01
174	SLD 6	-362	-11	1774	-5.08	-16.39	-0.01
174	SLD 7	-263	0	2258	10.29	-13.63	-0.04
174	SLD 8	-263	0	2258	10.29	-13.63	-0.04
174	SLD 9	-430	-5	1854	-8.97	-19.5	0
174	SLD 10	-430	-5	1854	-8.97	-19.5	0
174	SLD 11	-332	5	2338	6.4	-16.74	-0.03
174	SLD 12	-332	5	2338	6.4	-16.74	-0.03
174	SLD 13	-476	6	2117	-8.13	-22.17	0.01
174	SLD 14	-476	6	2117	-8.13	-22.17	0.01
174	SLD 15	-446	9	2262	-3.52	-21.34	0
174	SLD 16	-446	9	2262	-3.52	-21.34	0
174	SLV 1	-112	-31	1569	11.23	-5.3	-0.05
174	SLV 2	-112	-31	1569	11.23	-5.3	-0.05
174	SLV 3	-42	-23	1914	23.17	-3.34	-0.08
174	SLV 4	-42	-23	1914	23.17	-3.34	-0.08
174	SLV 5	-383	-23	1387	-14.27	-16.16	0.01
174	SLV 6	-383	-23	1387	-14.27	-16.16	0.01
174	SLV 7	-149	3	2536	25.52	-9.62	-0.07
174	SLV 8	-149	3	2536	25.52	-9.62	-0.07
174	SLV 9	-544	-8	1576	-24.2	-23.51	0.03
174	SLV 10	-544	-8	1576	-24.2	-23.51	0.03
174	SLV 11	-311	17	2725	15.6	-16.97	-0.04
174	SLV 12	-311	17	2725	15.6	-16.97	-0.04
174	SLV 13	-651	18	2198	-21.85	-29.79	0.04
174	SLV 14	-651	18	2198	-21.85	-29.79	0.04
174	SLV 15	-581	25	2543	-9.91	-27.83	0.02
174	SLV 16	-581	25	2543	-9.91	-27.83	0.02
175	SLU 1	-351	-334	2541	9	-9.78	-0.02
175	SLU 2	-351	-342	2552	9.28	-9.75	-0.01
175	SLU 3	-351	-334	2541	9	-9.78	-0.02
175	SLU 4	-351	-339	2547	9.17	-9.76	-0.02
175	SLU 5	-351	-342	2552	9.28	-9.75	-0.01
175	SLU 6	-351	-334	2541	9	-9.78	-0.02
175	SLU 7	-351	-339	2547	9.17	-9.76	-0.02
175	SLU 8	-351	-334	2541	9	-9.78	-0.02
175	SLU 9	-351	-339	2547	9.17	-9.76	-0.02
175	SLU 10	-437	-364	2958	9.49	-12.64	-0.04
175	SLU 11	-438	-357	2947	9.21	-12.68	-0.04
175	SLU 12	-438	-361	2953	9.38	-12.66	-0.04
175	SLU 13	-437	-364	2958	9.49	-12.64	-0.04
175	SLU 14	-438	-357	2947	9.21	-12.68	-0.04
175	SLU 15	-438	-361	2953	9.38	-12.66	-0.04
175	SLU 16	-438	-357	2947	9.21	-12.68	-0.04
175	SLU 17	-438	-361	2953	9.38	-12.66	-0.04
175	SLU 18	-475	-366	3120	9.3	-13.92	-0.06
175	SLU 19	-475	-371	3127	9.47	-13.9	-0.05
175	SLU 20	-475	-366	3120	9.3	-13.92	-0.06
175	SLU 21	-475	-371	3127	9.47	-13.9	-0.05
175	SLU 22	-400	-350	2779	9.24	-11.4	-0.03
175	SLU 23	-400	-357	2790	9.52	-11.36	-0.03
175	SLU 24	-400	-350	2779	9.24	-11.4	-0.03
175	SLU 25	-400	-354	2785	9.41	-11.37	-0.03
175	SLU 26	-400	-357	2790	9.52	-11.36	-0.03
175	SLU 27	-400	-350	2779	9.24	-11.4	-0.03
175	SLU 28	-400	-354	2785	9.41	-11.37	-0.03
175	SLU 29	-400	-350	2779	9.24	-11.4	-0.03
175	SLU 30	-400	-354	2785	9.41	-11.37	-0.03
175	SLU 31	-486	-380	3196	9.73	-14.25	-0.05
175	SLU 32	-487	-373	3185	9.45	-14.29	-0.06
175	SLU 33	-487	-377	3191	9.62	-14.27	-0.06
175	SLU 34	-486	-380	3196	9.73	-14.25	-0.05
175	SLU 35	-487	-373	3185	9.45	-14.29	-0.06
175	SLU 36	-487	-377	3191	9.62	-14.27	-0.06



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
Ind.	N.br.						
175	SLU 37	-487	-373	3185	9.45	-14.29	-0.06
175	SLU 38	-487	-377	3191	9.62	-14.27	-0.06
175	SLU 39	-524	-382	3358	9.54	-15.53	-0.07
175	SLU 40	-524	-386	3365	9.71	-15.51	-0.07
175	SLU 41	-524	-382	3358	9.54	-15.53	-0.07
175	SLU 42	-524	-386	3365	9.71	-15.51	-0.07
175	SLU 43	-440	-429	3221	11.61	-12.17	-0.02
175	SLU 44	-439	-436	3233	11.9	-12.13	-0.02
175	SLU 45	-440	-429	3221	11.61	-12.17	-0.02
175	SLU 46	-439	-433	3228	11.78	-12.14	-0.02
175	SLU 47	-439	-436	3233	11.9	-12.13	-0.02
175	SLU 48	-440	-429	3221	11.61	-12.17	-0.02
175	SLU 49	-439	-433	3228	11.78	-12.14	-0.02
175	SLU 50	-440	-429	3221	11.61	-12.17	-0.02
175	SLU 51	-439	-433	3228	11.78	-12.14	-0.02
175	SLU 52	-526	-459	3638	12.11	-15.02	-0.04
175	SLU 53	-526	-452	3627	11.82	-15.06	-0.04
175	SLU 54	-526	-456	3634	11.99	-15.04	-0.04
175	SLU 55	-526	-459	3638	12.11	-15.02	-0.04
175	SLU 56	-526	-452	3627	11.82	-15.06	-0.04
175	SLU 57	-526	-456	3634	11.99	-15.04	-0.04
175	SLU 58	-526	-452	3627	11.82	-15.06	-0.04
175	SLU 59	-526	-456	3634	11.99	-15.04	-0.04
175	SLU 60	-564	-461	3801	11.91	-16.3	-0.06
175	SLU 61	-563	-465	3808	12.08	-16.28	-0.05
175	SLU 62	-564	-461	3801	11.91	-16.3	-0.06
175	SLU 63	-563	-465	3808	12.08	-16.28	-0.05
175	SLU 64	-489	-445	3459	11.85	-13.78	-0.03
175	SLU 65	-488	-452	3471	12.14	-13.74	-0.03
175	SLU 66	-489	-445	3459	11.85	-13.78	-0.03
175	SLU 67	-488	-449	3466	12.02	-13.76	-0.03
175	SLU 68	-488	-452	3471	12.14	-13.74	-0.03
175	SLU 69	-489	-445	3459	11.85	-13.78	-0.03
175	SLU 70	-488	-449	3466	12.02	-13.76	-0.03
175	SLU 71	-489	-445	3459	11.85	-13.78	-0.03
175	SLU 72	-488	-449	3466	12.02	-13.76	-0.03
175	SLU 73	-575	-475	3876	12.35	-16.64	-0.06
175	SLU 74	-576	-467	3865	12.06	-16.67	-0.06
175	SLU 75	-575	-472	3872	12.23	-16.65	-0.06
175	SLU 76	-575	-475	3876	12.35	-16.64	-0.06
175	SLU 77	-576	-467	3865	12.06	-16.67	-0.06
175	SLU 78	-575	-472	3872	12.23	-16.65	-0.06
175	SLU 79	-576	-467	3865	12.06	-16.67	-0.06
175	SLU 80	-575	-472	3872	12.23	-16.65	-0.06
175	SLU 81	-613	-477	4039	12.15	-17.92	-0.07
175	SLU 82	-612	-481	4046	12.32	-17.89	-0.07
175	SLU 83	-613	-477	4039	12.15	-17.92	-0.07
175	SLU 84	-612	-481	4046	12.32	-17.89	-0.07
175	SLE RA 1	-365	-339	2609	9.06	-10.25	-0.02
175	SLE RA 2	-365	-344	2616	9.25	-10.22	-0.02
175	SLE RA 3	-365	-339	2609	9.06	-10.25	-0.02
175	SLE RA 4	-365	-342	2613	9.18	-10.23	-0.02
175	SLE RA 5	-365	-344	2616	9.25	-10.22	-0.02
175	SLE RA 6	-365	-339	2609	9.06	-10.25	-0.02
175	SLE RA 7	-365	-342	2613	9.18	-10.23	-0.02
175	SLE RA 8	-365	-339	2609	9.06	-10.25	-0.02
175	SLE RA 9	-365	-342	2613	9.18	-10.23	-0.02
175	SLE RA 10	-423	-359	2887	9.39	-12.15	-0.04
175	SLE RA 11	-423	-354	2879	9.2	-12.18	-0.04
175	SLE RA 12	-423	-357	2884	9.32	-12.16	-0.04
175	SLE RA 13	-423	-359	2887	9.39	-12.15	-0.04
175	SLE RA 14	-423	-354	2879	9.2	-12.18	-0.04
175	SLE RA 15	-423	-357	2884	9.32	-12.16	-0.04
175	SLE RA 16	-423	-354	2879	9.2	-12.18	-0.04
175	SLE RA 17	-423	-357	2884	9.32	-12.16	-0.04
175	SLE RA 18	-448	-360	2995	9.26	-13	-0.05
175	SLE RA 19	-448	-363	3000	9.38	-12.99	-0.05
175	SLE RA 20	-448	-360	2995	9.26	-13	-0.05
175	SLE RA 21	-448	-363	3000	9.38	-12.99	-0.05
175	SLE FR 1	-365	-339	2609	9.06	-10.25	-0.02
175	SLE FR 2	-365	-340	2610	9.1	-10.24	-0.02
175	SLE FR 3	-365	-339	2609	9.06	-10.25	-0.02
175	SLE FR 4	-390	-346	2726	9.16	-11.07	-0.03
175	SLE FR 5	-390	-345	2725	9.12	-11.07	-0.03
175	SLE FR 6	-406	-349	2802	9.16	-11.62	-0.03
175	SLE QP 1	-365	-339	2609	9.06	-10.25	-0.02
175	SLE QP 2	-390	-345	2725	9.12	-11.07	-0.03
175	SLD 1	-308	-289	2344	8.33	-8.28	-0.01
175	SLD 2	-308	-289	2344	8.33	-8.28	-0.01
175	SLD 3	-322	-369	2592	11.47	-7.63	0.02
175	SLD 4	-322	-369	2592	11.47	-7.63	0.02
175	SLD 5	-343	-207	2234	4.13	-11.22	-0.07
175	SLD 6	-343	-207	2234	4.13	-11.22	-0.07
175	SLD 7	-392	-474	3061	14.59	-9.06	0.03
175	SLD 8	-392	-474	3061	14.59	-9.06	0.03
175	SLD 9	-388	-216	2388	3.66	-13.09	-0.09
175	SLD 10	-388	-216	2388	3.66	-13.09	-0.09
175	SLD 11	-437	-483	3215	14.12	-10.93	0.01
175	SLD 12	-437	-483	3215	14.12	-10.93	0.01
175	SLD 13	-458	-321	2857	6.78	-14.51	-0.08



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
175	SLD 14	-458	-321	2857	6.78	-14.51	-0.08
175	SLD 15	-472	-401	3105	9.92	-13.87	-0.05
175	SLD 16	-472	-401	3105	9.92	-13.87	-0.05
175	SLV 1	-194	-210	1825	7.36	-4.48	0.01
175	SLV 2	-194	-210	1825	7.36	-4.48	0.01
175	SLV 3	-231	-400	2414	14.82	-2.87	0.08
175	SLV 4	-231	-400	2414	14.82	-2.87	0.08
175	SLV 5	-275	-17	1561	-2.72	-11.53	-0.13
175	SLV 6	-275	-17	1561	-2.72	-11.53	-0.13
175	SLV 7	-399	-649	3525	22.15	-6.18	0.12
175	SLV 8	-399	-649	3525	22.15	-6.18	0.12
175	SLV 9	-381	-41	1924	-3.9	-15.97	-0.18
175	SLV 10	-381	-41	1924	-3.9	-15.97	-0.18
175	SLV 11	-505	-673	3888	20.97	-10.62	0.07
175	SLV 12	-505	-673	3888	20.97	-10.62	0.07
175	SLV 13	-549	-290	3035	3.43	-19.27	-0.14
175	SLV 14	-549	-290	3035	3.43	-19.27	-0.14
175	SLV 15	-586	-480	3625	10.89	-17.67	-0.07
175	SLV 16	-586	-480	3625	10.89	-17.67	-0.07

### 1.3 Risposta modale

**Modo:** identificativo del modo di vibrare.

**Periodo:** periodo. [s]

**Massa X:** massa partecipante in direzione globale X. Il valore è adimensionale.

**Massa Y:** massa partecipante in direzione globale Y. Il valore è adimensionale.

**Massa Z:** massa partecipante in direzione globale Z. Il valore è adimensionale.

**Massa rot. X:** massa rotazionale partecipante attorno la direzione globale X. Il valore è adimensionale.

**Massa rot. Y:** massa rotazionale partecipante attorno la direzione globale Y. Il valore è adimensionale.

**Massa rot. Z:** massa rotazionale partecipante attorno la direzione globale Z. Il valore è adimensionale.

**Massa sX:** massa partecipante in direzione Sisma X. Il valore è adimensionale.

**Massa sY:** massa partecipante in direzione Sisma Y. Il valore è adimensionale.

**Totale masse partecipanti:**

Traslazione X: 0.925464

Traslazione Y: 0.958928

Traslazione Z: 0

Rotazione X: 0.93838

Rotazione Y: 0.950704

Rotazione Z: 0.930834

Modo	Periodo	Massa X	Massa Y	Massa Z	Massa rot. X	Massa rot. Y	Massa rot. Z	Massa sX	Massa sY
1	5.330021125	0.00000148	0.050002868	0	0.101593314	0.000000341	0.026274659	0.000000148	0.050002868
2	2.861917852	0.000047832	0.029702849	0	0.064580226	0.000068297	0.024591117	0.000047832	0.029702849
3	2.738579984	0.000863449	0.004841633	0	0.01294522	0.001259554	0.006401105	0.000863449	0.004841633
4	2.590378927	0.000613049	0.002542588	0	0.007235344	0.000880327	0.009933715	0.000613049	0.002542588
5	2.311067489	0.001265365	0.048763664	0	0.091831024	0.001822185	0.044820684	0.001265365	0.048763664
6	2.199488075	0.000779273	0.107424989	0	0.20931381	0.00113441	0.079199043	0.000779273	0.107424989
7	2.072703291	0.000001335	0.036467669	0	0.062490127	0.000001475	0.030384497	0.000001335	0.036467669
8	1.666042263	0.033776668	0.000035884	0	0.00012806	0.049718494	0.006999613	0.033776668	0.000035884
9	1.225691271	0.000000285	0.000007946	0	0.000300665	0.000000008	0.000007271	0.000000285	0.000007946
10	1.159586081	0.000000096	0.041920071	0	0.005666099	0	0.024761623	0.000000096	0.041920071
11	1.103917103	0.000291379	0.000005468	0	0.000109757	0.000353807	0.000416795	0.000291379	0.000005468
12	1.065526876	0.002188121	0.000410934	0	0.000005166	0.003042338	0.000350419	0.002188121	0.000410934
13	1.008598446	0.000027012	0.025216607	0	0.001696519	0.000007641	0.015186387	0.000027012	0.025216607
14	0.995558577	0.000002185	0.00622962	0	0.005967429	0.000004024	0.00371979	0.000002185	0.00622962
15	0.963965936	0.000011184	0.003538741	0	0.004155793	0.000009881	0.002365228	0.000011184	0.003538741
16	0.910892376	0.001479949	0.000209789	0	0.000017653	0.002436239	0.000713776	0.001479949	0.000209789
17	0.870192512	0.000001767	0.025622312	0	0.006688121	0.000014864	0.013809862	0.000001767	0.025622312
18	0.823204885	0.000003016	0.004832321	0	0.000003012	0.000000525	0.003045989	0.000003016	0.004832321
19	0.800135217	0.000203483	0.01283139	0	0.001836217	0.000189238	0.0013946985	0.000203483	0.01283139
20	0.78362252	0.000235601	0.005530348	0	0.001606459	0.000390325	0.006661443	0.000235601	0.005530348
21	0.752392713	0.006240861	0.00320969	0	0.000800954	0.008814388	0.000142256	0.006240861	0.00320969
22	0.748835552	0.008160567	0.000529942	0	0.00004968	0.011254095	0.000138732	0.008160567	0.000529942
23	0.727846788	0.000006355	0.014284556	0	0.001159486	0.000004671	0.014112211	0.000006355	0.014284556
24	0.694101399	0.00657538	0.027833746	0	0.005704197	0.009465599	0.037664945	0.00657538	0.027833746
25	0.668835536	0.028377053	0.004771339	0	0.001276338	0.039967729	0.00002594	0.028377053	0.004771339
26	0.631695336	0.000028838	0.00525974	0	0.011102751	0.000026099	0.005860762	0.000028838	0.00525974
27	0.622884957	0.000008168	0.004082793	0	0.001198371	0.000009583	0.005267842	0.000008168	0.004082793
28	0.582474942	0.000003465	0.007938353	0	0.013245635	0.000000005	0.007302728	0.000003465	0.007938353
29	0.553567102	0.002246332	0.000629644	0	0.000359431	0.000601877	0.001456767	0.002246332	0.000629644
30	0.54484576	0.003288476	0.000186286	0	0.000096036	0.000917561	0.000268777	0.003288476	0.000186286
31	0.535644649	0.003049033	0.000867869	0	0.002248319	0.000887953	0.001841474	0.003049033	0.000867869
32	0.531475873	0.005703148	0.000018304	0	0.000815544	0.001962204	0.000325371	0.005703148	0.000018304
33	0.502253441	0.00613437	0.004655808	0	0.006599844	0.004887943	0.011233111	0.00613437	0.004655808
34	0.49728113	0.00608124	0.016015266	0	0.020486727	0.001837883	0.004992755	0.00608124	0.016015266
35	0.492835743	0.001609775	0.012171142	0	0.016817835	0.000024211	0.014638403	0.001609775	0.012171142
36	0.468988542	0.000429505	0.000484491	0	0.000086164	0.000117304	0.000093911	0.000429505	0.000484491
37	0.457125949	0.00206423	0.000937536	0	0.000000768	0.000269357	0.000027419	0.00206423	0.000937536
38	0.439274834	0.009689359	0.000552829	0	0.000031878	0.001915651	0.003273952	0.009689359	0.000552829
39	0.436366955	0.000008409	0.000056904	0	0.001274685	0.000249827	0.000035523	0.000008409	0.000056904
40	0.424689606	0.000004074	0.004930275	0	0.00000757	0.000106682	0.003148661	0.000004074	0.004930275



Modo	Periodo	Massa X	Massa Y	Massa Z	Massa rot. X	Massa rot. Y	Massa rot. Z	Massa sX	Massa sY
41	0.406373773	0.000314554	0.000413297	0	0.000270025	0.000924175	0.00001521	0.000314554	0.000413297
42	0.394855304	0.000282132	0.001722243	0	0.000656873	0.00017014	0.001198225	0.000282132	0.001722243
43	0.378365004	0.005146316	0.004003263	0	0.000110984	0.001238416	0.001341798	0.005146316	0.004003263
44	0.373734417	0.001794774	0.009450434	0	0.000096829	0.000438218	0.015077729	0.001794774	0.009450434
45	0.359167419	0.005200412	0.000180498	0	0.000014127	0.001609441	0.001693197	0.005200412	0.000180498
46	0.350978322	0.00023204	0.010056006	0	0.000063181	0.000108658	0.007822471	0.00023204	0.010056006
47	0.326143856	0.003054611	0.000009393	0	0.000000349	0.000327986	0.000342609	0.003054611	0.000009393
48	0.324757574	0.000016341	0.009938308	0	0.004603111	0.000052275	0.006393552	0.000016341	0.009938308
49	0.301091576	0.013573686	0.00058926	0	0.000421814	0.000669827	0.005617395	0.013573686	0.00058926
50	0.295028079	0.002896075	0.00673919	0	0.004372121	0.000159407	0.002366762	0.002896075	0.00673919
51	0.26862297	0.000514363	0.002485146	0	0.000565386	0.000018633	0.000999044	0.000514363	0.002485146
52	0.260776424	0.001789743	0.000684688	0	0.000310387	0.000197825	0.001486501	0.001789743	0.000684688
53	0.230681413	0.017408721	0.000501754	0	0.000565212	0.001401072	0.006154503	0.017408721	0.000501754
54	0.224520455	0.001100404	0.018674109	0	0.018929684	0.000103382	0.012197554	0.001100404	0.018674109
55	0.204267223	0.006577351	0.000412246	0	0.000431176	0.000863201	0.002742711	0.006577351	0.000412246
56	0.199806684	0.00004082	0.01642756	0	0.00493392	0.000004357	0.013979013	0.00004082	0.01642756
57	0.16733075	0.000065636	0.014662561	0	0.002921489	0.000000336	0.012642324	0.000065636	0.014662561
58	0.15889303	0.009903077	0.000119451	0	0.000121389	0.003391561	0.001082909	0.009903077	0.000119451
59	0.131250844	0.000179807	0.026644123	0	0.00749391	0.000200365	0.022359879	0.000179807	0.026644123
60	0.129072524	0.016190322	0.000247211	0	0.000034699	0.015039826	0.001645057	0.016190322	0.000247211
61	0.098405907	0.000036371	0.022280831	0	0.004881972	0.000050957	0.018346164	0.000036371	0.022280831
62	0.08655554	0.024478414	0.000021438	0	0.000003893	0.013690582	0.004373695	0.024478414	0.000021438
63	0.057836531	0.030576584	0.057665279	0	0.052064334	0.046562093	0.081067765	0.030576584	0.057665279
64	0.057011926	0.454419112	0.003589579	0	0.003352198	0.688050079	0.05449169	0.454419112	0.003589579
65	0.034576838	0.000008132	0.228499513	0	0.164875706	0.000003643	0.182221052	0.000008132	0.228499513
66	0.033710748	0.000344275	0.006885884	0	0.003958662	0.000234178	0.003612654	0.000344275	0.006885884
67	0.026898668	0.054149915	0.000024658	0	0.00001032	0.010209892	0.01100905	0.054149915	0.000024658
68	0.02648457	0.138681796	0.000000481	0	0.000000114	0.019928921	0.031262415	0.138681796	0.000000481
69	0.023338228	0.000718756	0.000062369	0	0.00001243	0.000002359	0.000409717	0.000718756	0.000062369
70	0.022509515	0.000922083	0.000000136	0	0.000019877	0.000003291	0.000393424	0.000922083	0.000000136
71	0.021838192	0.001085098	0.000066528	0	0.000451854	0.000000002	0.000035921	0.001085098	0.000066528
72	0.020025267	0.000124289	0.00000102	0	0.000003914	0.000000014	0.000037581	0.000124289	0.00000102
73	0.019942006	0.000343876	0.000009319	0	0.000015351	0.000008224	0.000008378	0.000343876	0.000009319
74	0.018464796	0.000000433	0.000098756	0	0.000001544	0.000008574	0.000056117	0.000000433	0.000098756
75	0.017606799	0.000005227	0.000004297	0	0.000011065	0.000066619	0.000009672	0.000005227	0.000004297
76	0.015501617	0.00009134	0.000000394	0	0.000016408	0.000015983	0.000014873	0.00009134	0.000000394
77	0.013160277	0.000000049	0.000002891	0	0.000027007	0.000000056	0.000001274	0.000000049	0.000002891
78	0.011616543	0.000064505	0.000022488	0	0.00005915	0.000026926	0.00002945	0.000064505	0.000022488
79	0.009309943	0.000388495	0.000098662	0	0.00008413	0.000093927	0.000302891	0.000388495	0.000098662
80	0.008067104	0.001280731	0.000079005	0	0.000081558	0.000173413	0.000549765	0.001280731	0.000079005

## 1.4 Equilibrio globale forze

**Contributo:** Nome attribuito al sistema risultante.

**Fx:** Componente X di forza del sistema risultante. [daN]

**Fy:** Componente Y di forza del sistema risultante. [daN]

**Fz:** Componente Z di forza del sistema risultante. [daN]

**Mx:** Componente di momento attorno l'asse X del sistema risultante. [daN\*m]

**My:** Componente di momento attorno l'asse Y del sistema risultante. [daN\*m]

**Mz:** Componente di momento attorno l'asse Z del sistema risultante. [daN\*m]

**Bilancio in condizione di carico: Pesi strutturali**

Contributo	Fx	Fy	Fz	Mx	My	Mz
Forze applicate	-0.209	-182.303	-284924.36	3863236.18	-7975966.99	5131.36
Reazioni	0.209	182.303	284924.36	-3863236.18	7975966.99	-5131.36
P-Delta	0	0	0	0	0	0
Totale	0	0	0	0	0	0

**Bilancio in condizione di carico: Permanenti portati**

Contributo	Fx	Fy	Fz	Mx	My	Mz
Forze applicate	0	0	-51347.943	694533.98	-1394740.46	0
Reazioni	0	0	51347.943	-694533.98	1394740.46	0
P-Delta	0	0	0	0	0	0
Totale	0	0	0	0	0	0

**Bilancio in condizione di carico: Variabile A**

Contributo	Fx	Fy	Fz	Mx	My	Mz
Forze applicate	0	0	-66575.189	900007.52	-1828908.56	0
Reazioni	0	0	66575.189	-900007.52	1828908.56	0
P-Delta	0	0	0	0	0	0
Totale	0	0	0	0	0	0

**Bilancio in condizione di carico: Vento**

Contributo	Fx	Fy	Fz	Mx	My	Mz
Forze applicate	0	1495.418	0	-5469.19	0	-42104.89
Reazioni	0	-1495.418	0	5469.19	0	42104.89
P-Delta	0	0	0	0	0	0
Totale	0	0	0	0	0	0

**Bilancio in condizione di carico: Sisma X SLV**

Contributo	Fx	Fy	Fz	Mx	My	Mz
Forze applicate	90900.54	0	0	0	381857.22	1232208.95
Reazioni	-90900.54	0	0	0	-381857.22	-1232208.95
P-Delta	0	0	0	0	0	0
Totale	0	0	0	0	0	0



#### Bilancio in condizione di carico: Sisma Y SLV

Contributo	Fx	Fy	Fz	Mx	My	Mz
Forze applicate	0	84610.623	0	-355434.38	0	-2359306.69
Reazioni	0	-84610.623	0	355434.38	0	2359306.69
P-Delta	0	0	0	0	0	0
Totale	0	0	0	0	0	0

#### Bilancio in condizione di carico: Sisma X SLD

Contributo	Fx	Fy	Fz	Mx	My	Mz
Forze applicate	38902.168	0	0	0	163421.18	527341.19
Reazioni	-38902.168	0	0	0	-163421.18	-527341.19
P-Delta	0	0	0	0	0	0
Totale	0	0	0	0	0	0

#### Bilancio in condizione di carico: Sisma Y SLD

Contributo	Fx	Fy	Fz	Mx	My	Mz
Forze applicate	0	35792.469	0	-150357.88	0	-998047.4
Reazioni	0	-35792.469	0	150357.88	0	998047.4
P-Delta	0	0	0	0	0	0
Totale	0	0	0	0	0	0

#### Bilancio in condizione di carico: Rig Ux

Contributo	Fx	Fy	Fz	Mx	My	Mz
Forze applicate	0	0	0	0	0	0
Reazioni	0	0	0	0	0	0
P-Delta	0	0	0	0	0	0
Totale	0	0	0	0	0	0

#### Bilancio in condizione di carico: Rig Uy

Contributo	Fx	Fy	Fz	Mx	My	Mz
Forze applicate	0	0	0	0	0	0
Reazioni	0	0	0	0	0	0
P-Delta	0	0	0	0	0	0
Totale	0	0	0	0	0	0

#### Bilancio in condizione di carico: Rig Rz

Contributo	Fx	Fy	Fz	Mx	My	Mz
Forze applicate	0	0	0	0	0	0
Reazioni	0	0	0	0	0	0
P-Delta	0	0	0	0	0	0
Totale	0	0	0	0	0	0

## 1.5 Risposta di spettro

**Spettro:** condizione elementare corrispondente allo spettro.

**N.b.:** nome breve della condizione elementare.

**Fx:** componente della forza lungo l'asse X. [daN]

**Fy:** componente della forza lungo l'asse Y. [daN]

**Fz:** componente della forza lungo l'asse Z. [daN]

**Mx:** componente della coppia attorno all'asse X. [daN\*m]

**My:** componente della coppia attorno all'asse Y. [daN\*m]

**Mz:** componente della coppia attorno all'asse Z. [daN\*m]

**Max X:** massima reazione lungo l'asse X.

**Valore:** valore massimo della reazione. [daN]

**Angolo:** angolo d'ingresso del sisma che provoca il valore massimo della reazione. [deg]

**Max Y:** massima reazione lungo l'asse Y.

**Valore:** valore massimo della reazione. [daN]

**Angolo:** angolo d'ingresso del sisma che provoca il valore massimo della reazione. [deg]

**Max Z:** massima reazione lungo l'asse Z.

**Valore:** valore massimo della reazione. [daN]

**Angolo:** angolo d'ingresso del sisma che provoca il valore massimo della reazione. [deg]

Spettro	Fx	Fy	Fz	Mx	My	Mz	Max X		Max Y		Max Z	
N.b.							Valore	Angolo	Valore	Angolo	Valore	Angolo
SLV X	47932.41	1007.68	0	3045.0647	1.964E05	6.498E05	47932.41	0	24723.18	90	0	0
SLV Y	1007.68	24723.18	0	7.354E04	4068.0594	6.925E05	47932.41	0	24723.18	90	0	0
X SLD	20456.25	420.96	0	1279.7783	8.399E04	2.772E05	20456.25	0	10298.49	90	0	0
Y SLD	420.96	10298.49	0	3.031E04	1698.6014	2.884E05	20456.25	0	10298.49	90	0	0

## 1.6 Annotazioni solutore

**Informazioni:** informazioni fornite dal solutore al termine del calcolo del modello.

Informazioni



## 1.7 Statistiche soluzione

Tipo di equazioni	Lineari
Tecnica di soluzione	Intel MKL PARDISO
Numero equazioni	17424
Elemento min. diagonale	2905.27982961
Elemento max diagonale	381371903.546395
Rapporto max/min	131268.56134826
Elementi non nulli	639772



TABULATI DI CALCOLO – VERIFICHE  
CIVICI 29-31  
STATO DI FATTO



## **Sommario**

<i>1 Verifiche .....</i>	<i>3</i>
<i>1.1 Verifica regolarità strutturale .....</i>	<i>3</i>
<i>1.2 Verifica sismica globale .....</i>	<i>4</i>
<i>1.3 Verifiche maschi in muratura .....</i>	<i>11</i>
<i>1.4 Verifiche travi di accoppiamento in muratura .....</i>	<i>62</i>



# 1 Verifiche

## 1.1 Verifica regolarità strutturale

Le unità di misura elencate nel capitolo sono in [m, daN] ove non espressamente specificato.

**Livello:**

**Descr:** descrizione livello.

**Quota:** quota livello. [m]

**Q:** quota livello. [m]

**Qinf:** quota livello precedente. [m]

**Comb:** combinazione.

**A1:** a1 (Distribuzione masse).

**A1n:** a1 numeratore (distanza tra centro massa vs. centro rigidezza [se presente] o centro dell'ingombro del piano). [m]

**A1d:** a1 denominatore (ingombro del piano nella medesima direzione [x o y globale]). [m]

**A1r:** a1 rapporto (distanza centro massa/rigidezza su ingombro del piano).

**A2:** a2 (Distribuzione rigidezze).

**A2n:** a2 numeratore (rigidezza max [x o y globale]).

**A2d:** a2 denominatore (rigidezza min [x o y globale]).

**A2r:** a2 rapporto (rigidezza max/min).

**A3:** a3 (Forma compatta).

**A3n:** a3 numeratore (area convessa). [m<sup>2</sup>]

**A3d:** a3 denominatore (area piano). [m<sup>2</sup>]

**A3r:** a3 rapporto (area convessa/area piano).

**B:** b (Rapporto lati).

**Bn:** b numeratore (lato max [x o y globale]). [m]

**Bd:** b denominatore (lato min [x o y globale]). [m]

**Br:** b rapporto (lato max/min).

**C:** c (Rapporto rigidezze piano).

**Cn:** c numeratore (rigidezza elementi verticali).

**Cd:** c denominatore (rigidezza piano).

**Cr:** c rapporto (rigidezza elementi verticali/rigidezza piano).

**E1:** e1 (Variazione masse).

**E1n:** e1 numeratore (massa max). [daN]

**E1d:** e1 denominatore (massa min). [daN]

**E1r:** e1 rapporto (massa max/min).

**E2:** e2 (Riduzione rigidezze).

**E2n:** e2 numeratore (rigidezza relativa alla traslazione KUmax). [daN/m]

**E2d:** e2 denominatore (rigidezza relativa alla traslazione KUmin). [daN/m]

**E2r:** e2 rapporto (variazione massima in decremento Kmax/Kmin).

**E3:** e3 (Incremento rigidezze).

**E3n:** e3 numeratore (rigidezza relativa alla traslazione KUmax). [daN/m]

**E3d:** e3 denominatore (rigidezza relativa alla traslazione KUmin). [daN/m]

**E3r:** e3 rapporto (variazione massima in incremento Kmax/Kmin).

**F:** f (Rapporto Capacità/Domanda).

**Fn:** f numeratore (rapporto capacità/domanda massimo [c/d max]). [daN]

**Fd:** f denominatore (rapporto capacità/domanda minimo [c/d min]). [daN]

**Fr:** f rapporto (variazione massima [rapporto (c/d max)/(c/d min)]).

**G1:** g1 (Rastremazione di piano).

**G1n:** g1 numeratore (L1). [m]

**G1d:** g1 denominatore (L2). [m]

**G1r:** g1 rapporto (L1/L2).

**G2:** g2 (Rastremazione totale).

**G2n:** g2 numeratore (L0). [m]

**G2d:** g2 denominatore (Li). [m]

**G2r:** g2 rapporto (L0/Li).

**Capacità/Domanda in X:**

**VrdX:** taglio resistente complessivo in direzione X. [daN]

**VedX:** taglio agente complessivo in direzione X. [daN]

**|Rd/Ed|:** |Rd/Ed| (rapporto capacità/domanda in termini di resistenza a taglio).

**Capacità/Domanda in Y:**

**VrdY:** taglio resistente complessivo in direzione Y. [daN]

**VedY:** taglio agente complessivo in direzione Y. [daN]

### Verifica regolarità strutturale

Controllo regolarità edificio secondo D.M. 17-01-18 (N.T.C.) §7.2.1 - §C7.2.1

#### Avvertenze

La seguente procedura valuta la regolarità della costruzione secondo quanto indicato nelle NTC 2018 §7.2.1.

Tali valutazioni sono a carattere puramente informativo e vengono condotte sulla base del modello e delle verifiche presenti alla sua generazione, con le limitazioni



indicate nella manualistica.

In ogni caso l'impostazione di regolarità della costruzione, in pianta ed elevazione, va indicata nelle preferenze di analisi dall'utente utilizzatore del software.

#### Sintesi dei risultati

Orizzontamenti considerati nella valutazione

Nessun livello di fondazione trovato

Livelli di elevazione considerati: Rialzato(L2), Primo(L3),

Regolarità in pianta - NO

L'edificio risulta NON regolare in pianta, in base alle condizioni indicate in NTC 2018 §7.2.1

Ok - Criterio A1 (Distribuzione masse) rispettato, con rapporto massimo 0 (limite=0,2) al livello Rialzato

N.V. - Criterio A2 (Distribuzione rigidezze) non valutabile al livello Rialzato

Ok - Criterio A3 (Forma compatta) rispettato, con rapporto massimo 1 (limite=1,05) al livello Primo

Ok - Criterio B (Rapporto lati) rispettato, con rapporto massimo 1,57 (limite=4) al livello Primo

No - Criterio C (Rapporto rigidezze piano) NON rispettato, con rapporto massimo > 999 (limite=0) al livello Rialzato

Regolarità in altezza - NO

L'edificio risulta NON regolare in altezza, in base alle condizioni indicate in NTC 2018 §7.2.1

Ok - Criterio D (Altezza elementi sismoresistenti) rispettato, con rapporto massimo 1 (limite=1,01)

No - Criterio E1 (Variazione masse) NON rispettato, con rapporto massimo 94582.6/47110.7=2 (limite=1,25) tra il livello Primo ed il precedente

N.V. - Criterio E2 (Riduzione rigidezze) non valutabile tra il livello Primo ed il precedente

N.V. - Criterio E3 (Incremento rigidezze) non valutabile tra il livello Primo ed il precedente

No - Criterio F (Rapporto Capacità/Domanda) NON rispettato, con rapporto massimo 44.5/7.2=6.2 (limite=1,3) tra il livello Primo ed il precedente

No - Criterio G1 (Rastremazione di piano) NON rispettato, con rapporto massimo 715.5/747=1 (limite=0,1) tra il livello Primo ed il precedente

No - Criterio G2 (Rastremazione totale) NON rispettato, con rapporto massimo 723/747=1 (limite=0,3) tra il livello Primo ed il precedente

#### Valori per piano

##### Verifiche di regolarità in pianta

Livello		A1			A2			A3			B			C		
Descr	Quota	A1n	A1d	A1r	A2n	A2d	A2r	A3n	A3d	A3r	Bn	Bd	Br	Cn	Cd	Cr
Rialzato	1.69	0	9.46	0				70.6307	79.9345	0.88	9.46	7.47	1.27	9999	1	9999
Primo	5.62	0	9.26	0				134.733	134.733	1	14.55	9.26	1.57	9999	1	9999

##### Verifiche di regolarità in elevazione

Rapporto di regolarità per la condizione D (Altezza elementi sismoresistenti): 3.93/3.93=0.01.

Livello			E1			E2			E3			F			G1			G2		
Descr	Q	Qinf	E1n	E1d	E1r	E2n	E2d	E2r	E3n	E3d	E3r	Fn	Fd	Fr	G1n	G1d	G1r	G2n	G2d	G2r
Primo	5.62	1.69	94583	47111	2.01							44.5	7.2	6.19	7.16	7.47	0.96	7.23	7.47	0.97

##### Dettaglio delle resistenze di piano a taglio (per valutazione punto F)

Livello			Capacità/Domanda in X			Capacità/Domanda in Y		
Descr	Q	Comb	VrdX	VedX	Rd/Ed	VrdY	VedY	Rd/Ed
Rialzato	1.69	SLV 1	178991	-52962	3.4	57164	-4893	11.7
Rialzato	1.69	SLV 2	178991	-52962	3.4	57164	-4893	11.7
Rialzato	1.69	SLV 3	176960	-49522	3.6	58106	8089	7.2
Rialzato	1.69	SLV 4	176960	-49522	3.6	58106	8089	7.2
Rialzato	1.69	SLV 5	180285	-21106	8.5	49198	-21242	2.3
Rialzato	1.69	SLV 6	180285	-21106	8.5	49198	-21242	2.3
Rialzato	1.69	SLV 7	173694	-9639	18	60940	22032	2.8
Rialzato	1.69	SLV 8	173694	-9639	18	60940	22032	2.8
Rialzato	1.69	SLV 9	179304	9639	18.6	59288	-22273	2.7
Rialzato	1.69	SLV 10	179304	9639	18.6	59288	-22273	2.7
Rialzato	1.69	SLV 11	171629	21106	8.1	62428	21000	3
Rialzato	1.69	SLV 12	171629	21106	8.1	62428	21000	3
Rialzato	1.69	SLV 13	176275	49522	3.6	62123	-8331	7.5
Rialzato	1.69	SLV 14	176275	49522	3.6	62123	-8331	7.5
Rialzato	1.69	SLV 15	174371	52962	3.3	63064	4651	13.6
Rialzato	1.69	SLV 16	174371	52962	3.3	63064	4651	13.6
Primo	5.62	SLV 1	84861	-23996	3.5	54494	-1728	31.5
Primo	5.62	SLV 2	84861	-23996	3.5	54494	-1728	31.5
Primo	5.62	SLV 3	75616	-23949	3.2	55949	1258	44.5
Primo	5.62	SLV 4	75616	-23949	3.2	55949	1258	44.5
Primo	5.62	SLV 5	83906	-7269	11.5	17450	-5047	3.5
Primo	5.62	SLV 6	83906	-7269	11.5	17450	-5047	3.5
Primo	5.62	SLV 7	72122	-7115	10.1	33465	4907	6.8
Primo	5.62	SLV 8	72122	-7115	10.1	33465	4907	6.8
Primo	5.62	SLV 9	80385	7115	11.3	40177	-4907	8.2
Primo	5.62	SLV 10	80385	7115	11.3	40177	-4907	8.2
Primo	5.62	SLV 11	73582	7269	10.1	41404	5047	8.2
Primo	5.62	SLV 12	73582	7269	10.1	41404	5047	8.2
Primo	5.62	SLV 13	80791	23949	3.4	57156	-1258	45.4
Primo	5.62	SLV 14	80791	23949	3.4	57156	-1258	45.4
Primo	5.62	SLV 15	71987	23996	3	57215	1728	33.1
Primo	5.62	SLV 16	71987	23996	3	57215	1728	33.1

## 1.2 Verifica sismica globale

**Desc.:** descrizione.

**Stato limite:** (muratura) V=Taglio; PF=Pressoflessione; PFFP=Pressoflessione fuori piano; R=Ribaltamento.



**Molt.:** moltiplicatore minimo della azione sismica che produce lo stato limite.

**Comb.:** combinazione.

**PGA:** accelerazione al suolo.

**iPGA (ZE):** indicatore di rischio sismico in termini di PGA ovvero rapporto tra l'azione sismica massima sopportabile dall'elemento e l'azione sismica massima che si utilizzerebbe nel progetto nuovo (§C8.3).

**TR:** tempo di ritorno.

**(TR/TRrif)^.41:** indicatore di rischio sismico in termini di periodo di ritorno.

**fa:** fattore di accelerazione.

**Stato limite:** (muratura) V=Taglio; PF=Presso flessione; PFFP=Pressoflessione fuori piano; R=Ribaltamento.

**Coeff.s.:** coefficiente minimo prodotto dallo stato limite.

**Verifica:** stato di verifica.

**Maschio:** maschio.

**Stato limite:** (maschio muratura) V=Taglio; PF=Presso flessione; PFFP=Presso flessione fuori piano; R=Ribaltamento.

**Trave:** trave di collegamento in muratura.

**Stato limite:** (trave muratura) V=Taglio; F=Flessione.

**S. L.:** stato limite di riferimento.

**TR,C:** periodo di ritorno di capacità.

**PGA,C:** accelerazione di aggancio di capacità.

**TR,Rif:** periodo di ritorno di riferimento.

**PGA,Rif:** accelerazione di aggancio di riferimento.

**Tipo rottura:** tipo di rottura che fornisce il valore minimo degli elementi considerati.

**PAM:** perdita media annua attesa.

**Classe PAM:** classe di rischio PAM.

**IS-V:** indice di sicurezza.

**Classe IS-V:** classe di rischio IS-V.

## Verifica di elementi dotati di indicatori di rischio sismico mediante analisi con fattore q

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.) § C8.7.1

### Accelerazioni e tempi di ritorno

Accelerazione di aggancio SLO (ag/g\_SLO\*S\*ST) PGA,SLOrif = 0.081

Accelerazione di aggancio SLD (ag/g\_SLD\*S\*ST) PGA,SLDrif = 0.101

Accelerazione di aggancio SLV (ag/g\_SLV\*S\*ST) PGA,SLVrif = 0.244

Tr,SLOrif = 30 anni

Tr,SLDrif = 50 anni

Tr,SLVrif = 475 anni

### Moltiplicatori minimi delle condizioni sismiche

(Il valore di ZE corrisponde al valore di I.R. PGA secondo quanto riportato nella Circolare 7 21-01-19 §C8.3)

#### Rottura a taglio

Moltiplicatore: 0

Trave di accoppiamento 1

Lunghezza: 1; altezza: 2; spessore: 0.45; distanza: 0

Combinazione SLV 1 V= -2024 V orto= 8 Vp= 6554 Vt= 7500

Tempo di ritorno 0 anni

Indicatore iTr=(Tr/Tr,SLVrif)^.41 = 0

PGA 0

Indicatore iPGA=PGA/PGA,SLVrif = 0

Fattore di accelerazione fa = 0

#### Rottura a flessione

Moltiplicatore: 0.005

Trave di accoppiamento 2

Lunghezza: 1; altezza: 0.2; spessore: 0.45; distanza: 1

Combinazione SLV 11 M= -136.94 M orto= 1.89 Mu= 136.99

Tempo di ritorno 0 anni

Indicatore iTr=(Tr/Tr,SLVrif)^.41 = 0

PGA 0

Indicatore iPGA=PGA/PGA,SLVrif = 0

Fattore di accelerazione fa = 0

#### Rottura a pressoflessione nel piano ortogonale

Moltiplicatore: 0.508

Maschio 29

Lunghezza: 8.96; altezza: 3.93; spessore: 0.21; sezione a quota: 3.655

Combinazione SLV 1 fd= 143750 Ta= 0.12 Wa= 378 N= -5552 M= 568.21 Mc= 568.86

Tempo di ritorno 82 anni

Indicatore iTr=(Tr/Tr,SLVrif)^.41 = 0.487

PGA 0.12

Indicatore iPGA=PGA/PGA,SLVrif = 0.493

Fattore di accelerazione fa = 0.4919



### Rottura per meccanismi locali di collasso

Moltiplicatore: 0.042

Maschio 15

Lunghezza: 0.32; altezza: 3.93; spessore: 0.3 f.agg.= 0 a.lim.= 4.848724

Combinazione SLV 1 N top= -623 N base= -2460 T orto= 0  $\alpha_0 = 0.051$   $M^* = 119.1$   $e^* = 0.898$   $a_0^* = 0.414$

Tempo di ritorno 0 anni

Indicatore  $iTr = (Tr/Tr,SLVrif)^{.41} = 0$

PGA 0

Indicatore  $iPGA = PGA/PGA,SLVrif = 0$

Fattore di accelerazione  $fa = 0$

### Indicatori minimi riferiti al solo materiale muratura

Desc.	Stato limite	Molt.	Comb.	PGA	IPGA (ZE)	TR	$(TR/TRrif)^{.41}$	fa
Maschio 20	PF	0.185	SLV 11	0.0414	0.1693	6	0.1666	0.1647
Maschio 20	V	0.104	SLV 11	0.0195	0.0798	1	0.0799	0.0777
Maschio 29	PFFP	0.508	SLV 1	0.1204	0.4927	82	0.4867	0.4919
Maschio 15	R	0.042	SLV 1	0	0	0	0	0
Trave di accoppiamento 2	PF	0.005	SLV 11	0	0	0	0	0
Trave di accoppiamento 1	V	0	SLV 1	0	0	0	0	0

### Coefficienti di sicurezza riferiti al solo materiale muratura

Desc.	Stato limite	Coeff.s.	Comb.	Verifica
Maschio 2	PF SLU	4.259	SLU 31	Si
Maschio 2	V SLU	9.116	SLU 82	Si
Maschio 2	PF	2.343	SLV 11	Si
Maschio 2	V	2.846	SLV 1	Si
Maschio 2	PFFP	10.467	SLV 11	Si
Maschio 2	R	0.105	SLV 5	No
Maschio 3	PF SLU	5.421	SLU 2	Si
Maschio 3	V SLU	5.933	SLU 73	Si
Maschio 3	PF	1.629	SLV 5	Si
Maschio 3	V	1.642	SLV 5	Si
Maschio 3	PFFP	5.73	SLV 1	Si
Maschio 3	R	0.051	SLV 7	No
Maschio 4	PF SLU	4.294	SLU 39	Si
Maschio 4	V SLU	31.364	SLU 82	Si
Maschio 4	PF	3.858	SLV 15	Si
Maschio 4	V	2.862	SLV 1	Si
Maschio 4	PFFP	18.341	SLV 9	Si
Maschio 4	R	0.081	SLV 9	No
Maschio 5	PF SLU	5.575	SLU 40	Si
Maschio 5	V SLU	11.269	SLU 82	Si
Maschio 5	PF	4.011	SLV 13	Si
Maschio 5	V	4.063	SLV 1	Si
Maschio 5	PFFP	12.602	SLV 9	Si
Maschio 5	R	0.126	SLV 7	No
Maschio 6	PF SLU	11.168	SLU 2	Si
Maschio 6	V SLU	2.524	SLU 73	Si
Maschio 6	PF	4.665	SLV 11	Si
Maschio 6	V	1.323	SLV 15	Si
Maschio 6	PFFP	12.243	SLV 7	Si
Maschio 6	R	0.104	SLV 5	No
Maschio 7	PF SLU	4.662	SLU 39	Si
Maschio 7	V SLU	2.45	SLU 2	Si
Maschio 7	PF	2.523	SLV 1	Si
Maschio 7	V	0.905	SLV 11	No
Maschio 7	PFFP	11.505	SLV 7	Si
Maschio 7	R	0.076	SLV 9	No
Maschio 8	PF SLU	0	SLU 39	No
Maschio 8	V SLU	0	SLU 39	No
Maschio 8	PF	0	SLV 5	No
Maschio 8	V	0	SLV 5	No
Maschio 8	PFFP	18.799	SLV 3	Si
Maschio 8	R	0	SLV 7	No
Maschio 9	PF SLU	15.443	SLU 43	Si
Maschio 9	V SLU	7.506	SLU 82	Si
Maschio 9	PF	4.255	SLV 1	Si
Maschio 9	V	3.047	SLV 15	Si
Maschio 9	PFFP	15.414	SLV 1	Si
Maschio 9	R	0.117	SLV 9	No
Maschio 10	PF SLU	8.055	SLU 40	Si
Maschio 10	V SLU	5.253	SLU 40	Si
Maschio 10	PF	3.011	SLV 1	Si
Maschio 10	V	3.572	SLV 15	Si
Maschio 10	PFFP	11.167	SLV 9	Si
Maschio 10	R	0.074	SLV 9	No
Maschio 11	PF SLU	16.228	SLU 39	Si
Maschio 11	V SLU	10.64	SLU 43	Si
Maschio 11	PF	4.148	SLV 9	Si
Maschio 11	V	3.179	SLV 5	Si
Maschio 11	PFFP	13.133	SLV 3	Si
Maschio 11	R	0.12	SLV 11	No
Maschio 12	PF SLU	7.741	SLU 39	Si
Maschio 12	V SLU	10.417	SLU 44	Si
Maschio 12	PF	4.086	SLV 9	Si
Maschio 12	V	4.378	SLV 7	Si
Maschio 12	PFFP	12.749	SLV 3	Si
Maschio 12	R	0.122	SLV 9	No



Desc.	Stato limite	Coeff.s.	Comb.	Verifica
Maschio 13	PF SLU	23.695	SLU 43	Si
Maschio 13	V SLU	23.784	SLU 73	Si
Maschio 13	PF	1.985	SLV 5	Si
Maschio 13	V	6.849	SLV 7	Si
Maschio 13	PFFP	0	SLV 1	No
Maschio 13	R	0.056	SLV 13	No
Maschio 14	PF SLU	4.146	SLU 39	Si
Maschio 14	V SLU	3.915	SLU 39	Si
Maschio 14	PF	2.733	SLV 3	Si
Maschio 14	V	2.619	SLV 1	Si
Maschio 14	PFFP	1.725	SLV 15	Si
Maschio 14	R	0.034	SLV 3	No
Maschio 15	PF SLU	17.438	SLU 81	Si
Maschio 15	V SLU	75.528	SLU 81	Si
Maschio 15	PF	2.264	SLV 15	Si
Maschio 15	V	8.635	SLV 15	Si
Maschio 15	PFFP	1.695	SLV 11	Si
Maschio 15	R	0.035	SLV 1	No
Maschio 16	PF SLU	1.544	SLU 2	Si
Maschio 16	V SLU	1.266	SLU 31	Si
Maschio 16	PF	0	SLV 10	No
Maschio 16	V	0	SLV 5	No
Maschio 16	PFFP	0	SLV 9	No
Maschio 16	R	0	SLV 1	No
Maschio 17	PF SLU	3.744	SLU 2	Si
Maschio 17	V SLU	5.575	SLU 44	Si
Maschio 17	PF	0	SLV 12	No
Maschio 17	V	0	SLV 7	No
Maschio 17	PFFP	0	SLV 12	No
Maschio 17	R	0	SLV 12	No
Maschio 18	PF SLU	9.129	SLU 73	Si
Maschio 18	V SLU	5.258	SLU 73	Si
Maschio 18	PF	1.634	SLV 9	Si
Maschio 18	V	1.454	SLV 1	Si
Maschio 18	PFFP	1.397	SLV 9	Si
Maschio 18	R	0	SLV 7	No
Maschio 19	PF SLU	1.525	SLU 2	Si
Maschio 19	V SLU	2.379	SLU 2	Si
Maschio 19	PF	0	SLV 12	No
Maschio 19	V	0	SLV 3	No
Maschio 19	PFFP	0	SLV 12	No
Maschio 19	R	0	SLV 12	No
Maschio 20	PF SLU	0	SLU 2	No
Maschio 20	V SLU	0	SLU 2	No
Maschio 20	PF	0	SLV 5	No
Maschio 20	V	0	SLV 5	No
Maschio 20	PFFP	1.398	SLV 9	Si
Maschio 20	R	0.031	SLV 15	No
Maschio 21	PF SLU	2.595	SLU 40	Si
Maschio 21	V SLU	7.958	SLU 40	Si
Maschio 21	PF	2.211	SLV 1	Si
Maschio 21	V	3.662	SLV 3	Si
Maschio 21	PFFP	1.332	SLV 15	Si
Maschio 21	R	0	SLV 1	No
Maschio 22	PF SLU	2.717	SLU 81	Si
Maschio 22	V SLU	2.837	SLU 82	Si
Maschio 22	PF	1.515	SLV 13	Si
Maschio 22	V	1.478	SLV 13	Si
Maschio 22	PFFP	2.425	SLV 13	Si
Maschio 22	R	0.044	SLV 13	No
Maschio 23	PF SLU	4.499	SLU 81	Si
Maschio 23	V SLU	4.295	SLU 81	Si
Maschio 23	PF	1.707	SLV 13	Si
Maschio 23	V	1.877	SLV 3	Si
Maschio 23	PFFP	2.262	SLV 13	Si
Maschio 23	R	0.041	SLV 3	No
Maschio 24	PF SLU	9.547	SLU 81	Si
Maschio 24	V SLU	6.589	SLU 81	Si
Maschio 24	PF	1.619	SLV 13	Si
Maschio 24	V	1.545	SLV 1	Si
Maschio 24	PFFP	1.827	SLV 9	Si
Maschio 24	R	0	SLV 1	No
Maschio 25	PF SLU	5.08	SLU 82	Si
Maschio 25	V SLU	4.502	SLU 82	Si
Maschio 25	PF	1.271	SLV 1	Si
Maschio 25	V	1.622	SLV 1	Si
Maschio 25	PFFP	1.955	SLV 1	Si
Maschio 25	R	0.039	SLV 13	No
Maschio 26	PF SLU	3.436	SLU 81	Si
Maschio 26	V SLU	3.359	SLU 81	Si
Maschio 26	PF	1.601	SLV 1	Si
Maschio 26	V	1.634	SLV 1	Si
Maschio 26	PFFP	2.357	SLV 5	Si
Maschio 26	R	0.045	SLV 3	No
Maschio 27	PF SLU	2.18	SLU 40	Si
Maschio 27	V SLU	2.621	SLU 82	Si
Maschio 27	PF	1.302	SLV 13	Si
Maschio 27	V	1.041	SLV 13	Si
Maschio 27	PFFP	1.329	SLV 1	Si
Maschio 27	R	0.003	SLV 1	No
Maschio 28	PF SLU	66.571	SLU 39	Si



Desc.	Stato limite	Coeff.s.	Comb.	Verifica
Maschio 28	V SLU	20.776	SLU 39	Si
Maschio 28	PF	4.156	SLV 15	Si
Maschio 28	V	1.605	SLV 15	Si
Maschio 28	PFFP	2.541	SLV 9	Si
Maschio 28	R	0.035	SLV 15	No
Maschio 29	PF SLU	7.562	SLU 2	Si
Maschio 29	V SLU	6.382	SLU 73	Si
Maschio 29	PF	1.059	SLV 5	Si
Maschio 29	V	1.35	SLV 5	Si
Maschio 29	PFFP	0	SLV 1	No
Maschio 29	R	0.083	SLV 15	No
Maschio 30	PF SLU	9.799	SLU 82	Si
Maschio 30	V SLU	36.271	SLU 82	Si
Maschio 30	PF	0	SLV 10	No
Maschio 30	V	0	SLV 5	No
Maschio 30	PFFP	0	SLV 10	No
Maschio 30	R	0	SLV 10	No
Maschio 31	PF SLU	17.335	SLU 39	Si
Maschio 31	V SLU	10.235	SLU 39	Si
Maschio 31	PF	1.02	SLV 7	Si
Maschio 31	V	0.374	SLV 7	No
Maschio 31	PFFP	1.813	SLV 3	Si
Maschio 31	R	0.039	SLV 15	No
Maschio 32	PF SLU	7.494	SLU 10	Si
Maschio 32	V SLU	43.668	SLU 31	Si
Maschio 32	PF	1.065	SLV 5	Si
Maschio 32	V	2.741	SLV 5	Si
Maschio 32	PFFP	0	SLV 1	No
Maschio 32	R	0.055	SLV 3	No

#### Verifica maschi in muratura

Maschio	Stato limite	Molt.	Comb.	PGA	IPGA (ZE)	TR	(TR/TRrif)^.41	Verifica
2	PF	1.977	SLV 11	0.362	1.483	1618	1.653	Si
	V	1.887	SLV 11	0.362	1.483	1618	1.653	Si
	PFFP	2.71	SLV 11	0.362	1.483	1618	1.653	Si
	R	0.107	SLV 5	0.02	0.08	1	0.08	No
3	PF	1.11	SLV 5	0.271	1.108	646	1.134	Si
	V	1.05	SLV 5	0.256	1.049	548	1.06	Si
	PFFP	2.225	SLV 1	0.362	1.483	1618	1.653	Si
	R	0.064	SLV 7	0	0	0	0	No
4	PF	1000	SLV 1	0.362	1.483	1618	1.653	Si
	V	2.795	SLV 15	0.362	1.483	1618	1.653	Si
	PFFP	1000	SLV 1	0.362	1.483	1618	1.653	Si
	R	0.113	SLV 5	0.026	0.107	2	0.106	No
5	PF	1000	SLV 1	0.362	1.483	1618	1.653	Si
	V	3.017	SLV 13	0.362	1.483	1618	1.653	Si
	PFFP	1000	SLV 1	0.362	1.483	1618	1.653	Si
	R	0.134	SLV 7	0.031	0.127	3	0.125	No
6	PF	1.893	SLV 11	0.362	1.483	1618	1.653	Si
	V	1.356	SLV 15	0.329	1.348	1180	1.452	Si
	PFFP	2.842	SLV 7	0.362	1.483	1618	1.653	Si
	R	0.112	SLV 5	0.026	0.107	2	0.106	No
7	PF	1.855	SLV 11	0.362	1.483	1618	1.653	Si
	V	0.912	SLV 11	0.222	0.909	369	0.902	No
	PFFP	2.959	SLV 7	0.362	1.483	1618	1.653	Si
	R	0.108	SLV 5	0.02	0.08	1	0.08	No
8	PF	0.28	SLV 9	0.066	0.269	19	0.267	No
	V	0.223	SLV 9	0.051	0.21	10	0.205	No
	PFFP	2.249	SLV 3	0.362	1.483	1618	1.653	Si
	R	0.059	SLV 11	0	0	0	0	No
9	PF	3.062	SLV 1	0.362	1.483	1618	1.653	Si
	V	2.366	SLV 1	0.362	1.483	1618	1.653	Si
	PFFP	1000	SLV 1	0.362	1.483	1618	1.653	Si
	R	0.126	SLV 9	0.026	0.107	2	0.106	No
10	PF	2.087	SLV 13	0.362	1.483	1618	1.653	Si
	V	1.839	SLV 13	0.362	1.483	1618	1.653	Si
	PFFP	3.503	SLV 9	0.362	1.483	1618	1.653	Si
	R	0.129	SLV 7	0.026	0.107	2	0.106	No
11	PF	3.387	SLV 3	0.362	1.483	1618	1.653	Si
	V	2.538	SLV 7	0.362	1.483	1618	1.653	Si
	PFFP	3.461	SLV 3	0.362	1.483	1618	1.653	Si
	R	0.132	SLV 5	0.031	0.127	3	0.125	No
12	PF	3.326	SLV 7	0.362	1.483	1618	1.653	Si
	V	2.753	SLV 7	0.362	1.483	1618	1.653	Si
	PFFP	4.078	SLV 3	0.362	1.483	1618	1.653	Si
	R	0.137	SLV 7	0.031	0.127	3	0.125	No
13	PF	1.543	SLV 1	0.362	1.483	1618	1.653	Si
	V	1.492	SLV 5	0.362	1.483	1618	1.653	Si
	PFFP	0.656	SLV 1	0.157	0.642	153	0.628	No
	R	0.061	SLV 1	0	0	0	0	No
14	PF	1.754	SLV 15	0.362	1.483	1618	1.653	Si
	V	1.576	SLV 15	0.362	1.483	1618	1.653	Si
	PFFP	1.363	SLV 15	0.331	1.355	1200	1.462	Si
	R	0.043	SLV 1	0	0	0	0	No
15	PF	1.248	SLV 11	0.304	1.244	911	1.306	Si
	V	1.251	SLV 11	0.305	1.247	918	1.31	Si
	PFFP	1.159	SLV 11	0.282	1.156	733	1.195	Si
	R	0.042	SLV 1	0	0	0	0	No
16	PF	0.611	SLV 9	0.147	0.602	132	0.592	No
	V	0.585	SLV 9	0.14	0.574	118	0.565	No
	PFFP	0.865	SLV 9	0.21	0.86	318	0.848	No





Maschio	Stato limite	Molt.	Comb.	PGA	IPGA (ZE)	TR	(TR/TRrif)^.41	Verifica
17	R	0.046	SLV 1	0	0	0	0	No
	PF	0.662	SLV 11	0.159	0.652	158	0.637	No
	V	0.648	SLV 11	0.156	0.639	151	0.625	No
	PFFP	0.646	SLV 11	0.156	0.637	150	0.623	No
18	R	0.048	SLV 1	0	0	0	0	No
	PF	1.073	SLV 9	0.262	1.072	584	1.088	Si
	V	1.067	SLV 9	0.26	1.066	574	1.081	Si
	PFFP	1.191	SLV 9	0.29	1.187	794	1.234	Si
19	R	0.046	SLV 3	0	0	0	0	No
	PF	0.558	SLV 7	0.134	0.548	106	0.541	No
	V	0.551	SLV 7	0.132	0.542	103	0.534	No
	PFFP	0.525	SLV 11	0.126	0.516	91	0.508	No
20	R	0.047	SLV 1	0	0	0	0	No
	PF	0.185	SLV 11	0.041	0.169	6	0.167	No
	V	0.104	SLV 11	0.02	0.08	1	0.08	No
	PFFP	1.253	SLV 9	0.305	1.249	922	1.312	Si
21	R	0.047	SLV 15	0	0	0	0	No
	PF	1.378	SLV 15	0.335	1.369	1243	1.484	Si
	V	1.376	SLV 15	0.334	1.367	1237	1.481	Si
	PFFP	1.153	SLV 15	0.281	1.149	719	1.185	Si
22	R	0.044	SLV 3	0	0	0	0	No
	PF	1.776	SLV 1	0.362	1.483	1618	1.653	Si
	V	1.395	SLV 13	0.339	1.386	1294	1.508	Si
	PFFP	2.233	SLV 13	0.362	1.483	1618	1.653	Si
23	R	0.048	SLV 1	0	0	0	0	No
	PF	1.246	SLV 13	0.303	1.239	902	1.301	Si
	V	1.161	SLV 13	0.283	1.157	733	1.195	Si
	PFFP	2.13	SLV 13	0.362	1.483	1618	1.653	Si
24	R	0.048	SLV 1	0	0	0	0	No
	PF	1.478	SLV 13	0.359	1.467	1562	1.629	Si
	V	1.199	SLV 13	0.292	1.193	806	1.242	Si
	PFFP	1.608	SLV 9	0.362	1.483	1618	1.653	Si
25	R	0.046	SLV 1	0	0	0	0	No
	PF	1.102	SLV 1	0.269	1.099	630	1.123	Si
	V	1.051	SLV 1	0.256	1.05	549	1.061	Si
	PFFP	1.815	SLV 1	0.362	1.483	1618	1.653	Si
26	R	0.048	SLV 1	0	0	0	0	No
	PF	1.608	SLV 13	0.362	1.483	1618	1.653	Si
	V	1.461	SLV 13	0.354	1.451	1504	1.604	Si
	PFFP	2.206	SLV 5	0.362	1.483	1618	1.653	Si
27	R	0.048	SLV 1	0	0	0	0	No
	PF	1.194	SLV 13	0.29	1.189	796	1.236	Si
	V	1.01	SLV 13	0.247	1.01	488	1.011	Si
	PFFP	1.186	SLV 1	0.289	1.181	781	1.226	Si
28	R	0.047	SLV 1	0	0	0	0	No
	PF	3.827	SLV 15	0.362	1.483	1618	1.653	Si
	V	1.614	SLV 15	0.362	1.483	1618	1.653	Si
	PFFP	2.378	SLV 9	0.362	1.483	1618	1.653	Si
29	R	0.042	SLV 3	0	0	0	0	No
	PF	1.015	SLV 5	0.248	1.015	496	1.018	Si
	V	1.004	SLV 5	0.245	1.004	480	1.004	Si
	PFFP	0.508	SLV 1	0.12	0.493	82	0.487	No
30	R	0.083	SLV 1	0	0	0	0	No
	PF	0.612	SLV 5	0.147	0.602	132	0.592	No
	V	0.612	SLV 5	0.147	0.602	132	0.592	No
	PFFP	0.591	SLV 5	0.142	0.58	121	0.571	No
31	R	0.043	SLV 1	0	0	0	0	No
	PF	1.012	SLV 7	0.247	1.012	492	1.015	Si
	V	0.869	SLV 7	0.211	0.864	322	0.853	No
	PFFP	1.41	SLV 3	0.342	1.401	1340	1.53	Si
32	R	0.042	SLV 1	0	0	0	0	No
	PF	1.053	SLV 5	0.257	1.052	553	1.064	Si
	V	1.034	SLV 5	0.253	1.034	524	1.041	Si
	PFFP	0.906	SLV 5	0.22	0.902	361	0.894	No
	R	0.057	SLV 1	0	0	0	0	No

#### Verifica travi di collegamento in muratura

Trave	Stato limite	Molt.	Comb.	PGA	IPGA (ZE)	TR	(TR/TRrif)^.41	Verifica
1	F	1.627	SLV 15	0.362	1.483	1618	1.653	Si
	V	0	SLV 1	0	0	0	0	No
2	F	0.005	SLV 11	0	0	0	0	No
	V	0	SLV 1	0	0	0	0	No
3	F	0.753	SLV 5	0.182	0.746	218	0.727	No
	V	0	SLV 1	0	0	0	0	No
4	F	0.161	SLV 7	0.035	0.143	4	0.141	No
	V	0	SLV 1	0	0	0	0	No
5	F	1.619	SLV 13	0.362	1.483	1618	1.653	Si
	V	0	SLV 1	0	0	0	0	No
6	F	1000	SLV 1	0.362	1.483	1618	1.653	Si
	V	0	SLV 1	0	0	0	0	No
7	F	0.711	SLV 1	0.171	0.699	186	0.681	No
	V	0	SLV 1	0	0	0	0	No
8	F	2.635	SLV 15	0.362	1.483	1618	1.653	Si
	V	0	SLV 1	0	0	0	0	No
9	F	1.319	SLV 15	0.32	1.311	1078	1.399	Si
	V	0	SLV 1	0	0	0	0	No
10	F	2.293	SLV 9	0.362	1.483	1618	1.653	Si
	V	0	SLV 1	0	0	0	0	No
11	F	0.601	SLV 11	0.144	0.591	126	0.58	No
	V	0	SLV 1	0	0	0	0	No
12	F	0.725	SLV 5	0.175	0.716	197	0.697	No



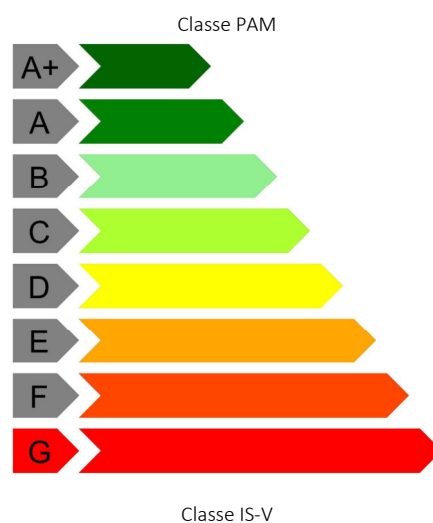
Trave	Stato limite	Molt.	Comb.	PGA	IPGA (ZE)	TR	(TR/TRrif)^.41	Verifica
13	V	0	SLV 1	0	0	0	0	No
	F	0.531	SLV 7	0.127	0.52	94	0.515	No
	V	0	SLV 1	0	0	0	0	No
14	F	0.648	SLV 7	0.156	0.639	151	0.625	No
	V	0	SLV 1	0	0	0	0	No
15	F	0.326	SLV 11	0.077	0.313	27	0.309	No
	V	0	SLV 1	0	0	0	0	No
16	F	0.585	SLV 11	0.14	0.574	118	0.565	No
	V	0	SLV 1	0	0	0	0	No
17	F	0.349	SLV 7	0.082	0.337	33	0.335	No
	V	0	SLV 1	0	0	0	0	No
18	F	0.491	SLV 7	0.117	0.479	77	0.474	No
	V	0	SLV 1	0	0	0	0	No
19	F	0.54	SLV 11	0.129	0.53	98	0.524	No
	V	0	SLV 1	0	0	0	0	No
20	F	0.541	SLV 11	0.129	0.53	98	0.524	No
	V	0	SLV 1	0	0	0	0	No
21	F	1.901	SLV 15	0.362	1.483	1618	1.653	Si
	V	0	SLV 1	0	0	0	0	No
22	F	3.544	SLV 13	0.362	1.483	1618	1.653	Si
	V	0.307	SLV 13	0.071	0.292	23	0.289	No
23	F	1000	SLV 1	0.362	1.483	1618	1.653	Si
	V	0.532	SLV 13	0.127	0.518	93	0.512	No
24	F	2.09	SLV 3	0.362	1.483	1618	1.653	Si
	V	0	SLV 1	0	0	0	0	No
25	F	1.923	SLV 3	0.362	1.483	1618	1.653	Si
	V	0	SLV 1	0	0	0	0	No
26	F	1.953	SLV 15	0.362	1.483	1618	1.653	Si
	V	0.027	SLV 15	0	0	0	0	No
27	F	2.03	SLV 1	0.362	1.483	1618	1.653	Si
	V	0	SLV 1	0	0	0	0	No
28	F	1000	SLV 1	0.362	1.483	1618	1.653	Si
	V	0.061	SLV 15	0	0	0	0	No
29	F	1000	SLV 1	0.362	1.483	1618	1.653	Si
	V	0.531	SLV 15	0.126	0.516	91	0.508	No
30	F	2.023	SLV 1	0.362	1.483	1618	1.653	Si
	V	0	SLV 1	0	0	0	0	No
31	F	0.449	SLV 11	0.107	0.436	61	0.431	No
	V	0	SLV 1	0	0	0	0	No
32	F	0.293	SLV 7	0.069	0.281	21	0.278	No
	V	0	SLV 1	0	0	0	0	No

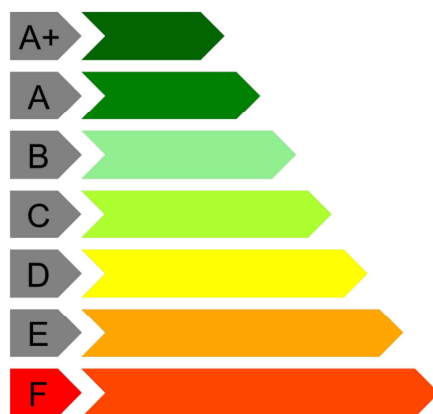
#### Periodi di ritorno e accelerazioni di aggancio per gli Stati Limite

S. L.	TR,C	PGA,C	TR,Rif	PGA,Rif	Tipo rottura
Stato limite di salvaguardia della vita	0	0	475	0.244	ribaltamento maschio muratura

#### Coefficienti relativi alle Linee guida per la classificazione del rischio sismico delle costruzioni secondo il D.M. 24 09/01/2020

TR,C	TR,Rif	PAM	Classe PAM	IS-V	Classe IS-V	Tipo rottura
0	475	8.22	G	0	F	ribaltamento maschio muratura





## 1.3 Verifiche maschi in muratura

Le unità di misura elencate nel capitolo sono in [m, daN, s] ove non espressamente specificato.

**X<sub>ini.</sub>**: coordinate del punto iniziale del maschio. [m]

**Y<sub>ini.</sub>**: coordinate del punto iniziale del maschio. [m]

**X<sub>fin.</sub>**: coordinate del punto finale del maschio. [m]

**Y<sub>fin.</sub>**: coordinate del punto finale del maschio. [m]

**Quota i.**: livello o falda inferiore.

**Quota s.**: livello o falda superiore.

**l**: lunghezza del maschio. [m]

**Sp.**: spessore. [m]

**h<sub>netta</sub>**: altezza netta (a filo solai). [m]

**h<sub>ini.</sub>**: altezza nel modello al punto iniziale. [m]

**h<sub>fin.</sub>**: altezza nel modello al punto finale. [m]

**a**: distanza tra irrigidimenti laterali. [m]

**a.s.,sx**: lunghezza di appoggio del solaio di sinistra. [m]

**a.s.,dx**: lunghezza di appoggio del solaio di destra. [m]

**fb**: resistenza normalizzata a compressione verticale dei blocchi. [daN/m<sup>2</sup>]

**fk**: resistenza caratteristica a compressione della muratura utilizzata. [daN/m<sup>2</sup>]

**fvk0**: resistenza caratteristica a taglio in assenza di carichi verticali. [daN/m<sup>2</sup>]

**fmedio**: resistenza media a compressione della muratura utilizzata. [daN/m<sup>2</sup>]

**τ0**: resistenza media a taglio in assenza di azioni normali [C8.7.1.16]. [daN/m<sup>2</sup>]

**fv0**: resistenza media a taglio in assenza di azioni normali [C8.7.1.17]. [daN/m<sup>2</sup>]

**μ**: coefficiente di attrito [C8.7.1.17].

**φ**: coefficiente di ammortamento o ingranamento secondo Circolare 7 21-01-19 §C8.7.1.3.1.1.

**fv,lim**: valore massimo della resistenza a taglio che può essere impiegata nel calcolo. [daN/m<sup>2</sup>]

**E**: modulo di elasticità longitudinale della muratura utilizzato. [daN/m<sup>2</sup>]

**G**: modulo di elasticità tangenziale della muratura utilizzato. [daN/m<sup>2</sup>]

**FC**: fattore di confidenza della muratura.

**Comb.**: combinazione.

**Quota**: quota della sezione di verifica. [m]

**N**: sforzo normale. [daN]

**M**: momento flettente nel piano. [daN\*m]

**σ0**: tensione media di compressione. [daN/m<sup>2</sup>]

**Mu**: momento flettente ultimo. [daN\*m]

**c.s.**: coefficiente di sicurezza.

**Verifica**: stato di verifica.

**V<sub>par</sub>**: taglio nel piano. [daN]

**σN**: tensione media di compressione sulla parte reagente. [daN/m<sup>2</sup>]

**l'**: lunghezza della parte compressa della parete. [m]

**fvd**: resistenza a taglio di calcolo. [daN/m<sup>2</sup>]

**Vt scorr.**: taglio ultimo per verifica a scorrimento. [daN]

**Vt fess.diag.**: taglio ultimo per verifica a fessurazione diagonale regolare [C8.7.1.17]. [daN]

**Vt,lim**: taglio limite [C8.7.1.18]. [daN]

**c.s.**: coefficiente di sicurezza a taglio.

**fd**: resistenza a compressione di calcolo. [daN/m<sup>2</sup>]

**Sa**: accelerazione massima, adimensionalizzata rispetto a g, che l'elemento strutturale subisce durante il sisma.

**M**: momento flettente fuori piano. [daN\*m]

**Mc**: momento di collasso per azioni perpendicolari al piano. [daN\*m]

**Coeff.s.**: coefficiente di sicurezza.

**N<sub>top</sub>**: sforzo normale in sommità. [daN]

**N<sub>base</sub>**: sforzo normale al piede. [daN]

**V<sub>orto</sub>**: taglio fuori piano. [daN]

**α0**: moltiplicatore secondo [C8.7.1.1].



**M\***: massa partecipante al cinematicismo. [daN/(m/s<sup>2</sup>)]

**e\***: frazione di massa partecipante della muratura [C8.7.1.5].

**a0\***: accelerazione spettrale di attivazione del meccanismo [C8.7.1.8]. [m/s<sup>2</sup>]

**aLim**: accelerazione limite [C7.2.11]. [m/s<sup>2</sup>]

**Stato limite**: pF\_SLU=Presso flessione per azioni non sismiche; V\_SLU=Taglio per azioni non sismiche; PF\_SLV=Presso flessione per azioni sismiche; V\_SLV=Taglio per azioni sismiche; PFFP\_SLV=Presso flessione fuori piano per azioni sismiche; R\_SLV=Ribaltamento per azioni sismiche.

## Maschio 2

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

### Dati geometrici

X ini.	Y ini.	X fin.	Y fin.	Quota i.	Quota s	l	Sp.	h netta	h ini.	h fin.	a	a.s.,sx	a.s.,dx
-35.267	-18.044	-26.847	-18.044	L1	L2	8.42	0.45	2.6	2.6	2.6			

### Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2\_Corti

fb	fk	fvk0	fmedio	t0	fv0	μ	φ	fv,lim	E	G	FC
600000			345000	9000	20000	0.58	0.77	32500	320000000	128000000	1.2

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni non sismiche, γM = 3

Comb.	Quota	N	M	σ0	Mu	c.s.	Verifica
SLU 23	1.09	-32939	26327.58	8693	123869.1	4.705	Si
SLU 23	1.49	-30238	26132.2	7981	114828.77	4.394	Si
SLU 42	1.09	-45704	34213.6	12062	163915.78	4.791	Si
SLU 42	1.49	-43077	34280.36	11369	156038.79	4.552	Si
SLU 73	1.09	-49126	36956.96	12966	173895.38	4.705	Si
SLU 73	1.49	-45665	36850.55	12052	163801.12	4.445	Si
SLU 13	1.09	-37417	29546.72	9875	138423.88	4.685	Si
SLU 13	1.49	-34729	29375.74	9166	129754.99	4.417	Si
SLU 34	1.09	-41545	33681.57	10965	151356.19	4.494	Si
SLU 34	1.49	-38864	33576.78	10257	143010.42	4.259	Si
SLU 31	1.09	-41545	33681.57	10965	151356.19	4.494	Si
SLU 31	1.49	-38864	33576.78	10257	143010.42	4.259	Si
SLU 40	1.09	-45704	34213.6	12062	163915.78	4.791	Si
SLU 40	1.49	-43077	34280.36	11369	156038.79	4.552	Si
SLU 10	1.09	-37417	29546.72	9875	138423.88	4.685	Si
SLU 10	1.49	-34729	29375.74	9166	129754.99	4.417	Si
SLU 76	1.09	-49126	36956.96	12966	173895.38	4.705	Si
SLU 76	1.49	-45665	36850.55	12052	163801.12	4.445	Si
SLU 26	1.09	-32939	26327.58	8693	123869.1	4.705	Si
SLU 26	1.49	-30238	26132.2	7981	114828.77	4.394	Si

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni sismiche, γM = 2

Comb.	Quota	N	M	σ0	Mu	c.s.	Verifica
SLV 3	1.09	-33796	14313.75	8920	131892.92	9.214	Si
SLV 3	1.49	-33244	15208.94	8774	129903.16	8.541	Si
SLV 15	1.09	-28525	35410.34	7529	112689.44	3.182	Si
SLV 15	1.49	-25680	32379.56	6778	102113.68	3.154	Si
SLV 4	1.09	-33796	14313.75	8920	131892.92	9.214	Si
SLV 4	1.49	-33244	15208.94	8774	129903.16	8.541	Si
SLV 7	1.09	-26200	35548.21	6915	104057.47	2.927	Si
SLV 7	1.49	-26911	32309.36	7103	106706.17	3.303	Si
SLV 11	1.09	-24619	41877.19	6498	98131.01	2.343	Si
SLV 11	1.49	-24642	37460.55	6504	98217.22	2.622	Si
SLV 16	1.09	-28525	35410.34	7529	112689.44	3.182	Si
SLV 16	1.49	-25680	32379.56	6778	102113.68	3.154	Si
SLV 8	1.09	-26200	35548.21	6915	104057.47	2.927	Si
SLV 8	1.49	-26911	32309.36	7103	106706.17	3.303	Si
SLV 12	1.09	-24619	41877.19	6498	98131.01	2.343	Si
SLV 12	1.49	-24642	37460.55	6504	98217.22	2.622	Si
SLV 13	1.09	-33455	23538.35	8830	130664.98	5.551	Si
SLV 13	1.49	-28839	22873.25	7611	113847.25	4.977	Si
SLV 14	1.09	-33455	23538.35	8830	130664.98	5.551	Si
SLV 14	1.49	-28839	22873.25	7611	113847.25	4.977	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni non sismiche, γM = 3

Comb.	Quota	N	V par	M	σ0	σN	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLU 41	1.09	-46410	-2584	30284.08		12249	8.4198	7189	27237			10.54	Si
SLU 41	1.49	-43852	-2758	30549.93		11574	8.4198	7099	26896			9.75	Si
SLU 81	1.09	-53991	-2813	33559.47		14250	8.4198	7456	28248			10.04	Si
SLU 81	1.49	-50653	-3016	33823.7		13369	8.4198	7338	27803			9.22	Si
SLU 40	1.09	-45704	-2579	34213.6		12062	8.4198	7164	27143			10.52	Si
SLU 40	1.49	-43077	-2780	34280.36		11369	8.4198	7071	26793			9.64	Si
SLU 83	1.09	-53991	-2813	33559.47		14250	8.4198	7456	28248			10.04	Si
SLU 83	1.49	-50653	-3016	33823.7		13369	8.4198	7338	27803			9.22	Si
SLU 84	1.09	-53285	-2809	37488.99		14063	8.4198	7431	28154			10.02	Si
SLU 84	1.49	-49878	-3039	37554.13		13164	8.4198	7311	27700			9.12	Si
SLU 39	1.09	-46410	-2584	30284.08		12249	8.4198	7189	27237			10.54	Si
SLU 39	1.49	-43852	-2758	30549.93		11574	8.4198	7099	26896			9.75	Si
SLU 73	1.09	-49126	-2484	36956.96		12966	8.4198	7284	27600			11.11	Si
SLU 73	1.49	-45665	-2718	36850.55		12052	8.4198	7163	27138			9.98	Si
SLU 76	1.09	-49126	-2484	36956.96		12966	8.4198	7284	27600			11.11	Si
SLU 76	1.49	-45665	-2718	36850.55		12052	8.4198	7163	27138			9.98	Si
SLU 82	1.09	-53285	-2809	37488.99		14063	8.4198	7431	28154			10.02	Si
SLU 82	1.49	-49878	-3039	37554.13		13164	8.4198	7311	27700			9.12	Si
SLU 42	1.09	-45704	-2579	34213.6		12062	8.4198	7164	27143			10.52	Si



Comb.	Quota	N	V par	M	$\sigma_0$	$\sigma_N$	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLU 42	1.49	-43077	-2780	34280.36		11369	8.4198	7071	26793			9.64	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni sismiche,  $\gamma_M = 2$

Comb.	Quota	N	V par	M	$\sigma_0$	$\sigma_N$	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLV 16	1.09	-28525	10861	35410.34		7529	8.4198	9839	37279			3.43	Si
SLV 16	1.49	-25680	8842	32379.56		6778	8.4198	9689	36710			4.15	Si
SLV 6	1.09	-42633	-6808	-4025.09		11252	8.4198	10584	40101			5.89	Si
SLV 6	1.49	-37441	-5271	621.64		9882	8.4198	10310	39063			7.41	Si
SLV 4	1.09	-33796	-12740	14313.75		8920	8.4198	10117	38334			3.01	Si
SLV 4	1.49	-33244	-11697	15208.94		8774	8.4198	10088	38223			3.27	Si
SLV 15	1.09	-28525	10861	35410.34		7529	8.4198	9839	37279			3.43	Si
SLV 15	1.49	-25680	8842	32379.56		6778	8.4198	9689	36710			4.15	Si
SLV 5	1.09	-42633	-6808	-4025.09		11252	8.4198	10584	40101			5.89	Si
SLV 5	1.49	-37441	-5271	621.64		9882	8.4198	10310	39063			7.41	Si
SLV 1	1.09	-38726	-13815	2441.76		10221	8.4198	10378	39319			2.85	Si
SLV 1	1.49	-36403	-12049	5702.63		9608	8.4198	10255	38855			3.22	Si
SLV 2	1.09	-38726	-13815	2441.76		10221	8.4198	10378	39319			2.85	Si
SLV 2	1.49	-36403	-12049	5702.63		9608	8.4198	10255	38855			3.22	Si
SLV 14	1.09	-33455	9786	23538.35		8830	8.4198	10099	38265			3.91	Si
SLV 14	1.49	-28839	8489	22873.25		7611	8.4198	9856	37342			4.4	Si
SLV 3	1.09	-33796	-12740	14313.75		8920	8.4198	10117	38334			3.01	Si
SLV 3	1.49	-33244	-11697	15208.94		8774	8.4198	10088	38223			3.27	Si
SLV 13	1.09	-33455	9786	23538.35		8830	8.4198	10099	38265			3.91	Si
SLV 13	1.49	-28839	8489	22873.25		7611	8.4198	9856	37342			4.4	Si

Verifica a pressoflessione fuori piano D.M. 17-01-18 (N.T.C.)

quota 0.39 Wa 0.08 denominatore 8  $\gamma_M = 2$

Comb.	fd	Sa	$\sigma_0$	N	M	Mc	Coeff.s.	Verifica
SLV 11	143750	0.27	6733	-25510	518.18	5423.56	10.47	Si
SLV 12	143750	0.27	6733	-25510	518.18	5423.56	10.47	Si
SLV 7	143750	0.27	7205	-27298	518.18	5779.95	11.15	Si
SLV 8	143750	0.27	7205	-27298	518.18	5779.95	11.15	Si
SLV 15	143750	0.27	8088	-30646	518.18	6438.9	12.43	Si
SLV 16	143750	0.27	8088	-30646	518.18	6438.9	12.43	Si
SLV 4	143750	0.27	9661	-36606	518.18	7585.02	14.64	Si
SLV 3	143750	0.27	9661	-36606	518.18	7585.02	14.64	Si
SLV 13	143750	0.27	9722	-36836	518.18	7628.6	14.72	Si
SLV 14	143750	0.27	9722	-36836	518.18	7628.6	14.72	Si

Verifica dei meccanismi locali di collasso con analisi cinematica lineare

forza di aggancio al piano = 0 quota mezzeria = 0.39 Wa = 0.08 Ta = 0.0251

Comb.	N top	N base	V orto	$\alpha_0$	M*	e*	a0*	aLim	Verifica
SLV 6	-33725	-55814	-946	0.082	4846	0.924	1.29514	12.38582	No
SLV 5	-33725	-55814	-946	0.082	4846	0.924	1.29514	12.38582	No
SLV 9	-30903	-53622	-899	0.083	4562.5	0.92	1.3143	12.38582	No
SLV 10	-30903	-53622	-899	0.083	4562.5	0.92	1.3143	12.38582	No
SLV 8	-24803	-34279	-807	0.085	3952.6	0.912	1.36072	12.38582	No
SLV 7	-24803	-34279	-807	0.085	3952.6	0.912	1.36072	12.38582	No
SLV 11	-21981	-32087	-760	0.087	3672.2	0.907	1.39033	12.38582	No
SLV 12	-21981	-32087	-760	0.087	3672.2	0.907	1.39033	12.38582	No
SLV 1	-33895	-50835	-953	0.082	4863.1	0.924	1.29267	7.08051	No
SLV 2	-33895	-50835	-953	0.082	4863.1	0.924	1.29267	7.08051	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLU	4.259	SLU 31	Si
V_SLU	9.116	SLU 82	Si
PF_SLV	2.343	SLV 11	Si
V_SLV	2.846	SLV 1	Si
PFFP_SLV	10.467	SLV 11	Si
R_SLV	0.105	SLV 5	No

## Maschio 3

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati geometrici

X ini.	Y ini.	X fin.	Y fin.	Quota i.	Quota.s	I	Sp.	h netta	h ini.	h fin.	a	a.s.,sx	a.s.,dx
-28.162	-18.044	-28.162	-9.039	L1	L2	9.005	0.28	2.6	2.6	2.6			

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2\_Corti

fb	fk	fvk0	fmedio	$\tau_0$	fv0	$\mu$	$\phi$	fv,lim	E	G	FC
600000			345000	9000	20000	0.58	0.77	32500	320000000	128000000	1.2

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni non sismiche,  $\gamma_M = 3$

Comb.	Quota	N	M	$\sigma_0$	Mu	c.s.	Verifica
SLU 2	-0.91	-26204	-2317.95	10392	102938.38	44.409	Si
SLU 2	1.69	-12633	-9847.68	5010	53384.44	5.421	Si
SLU 13	-0.91	-31555	-2902.92	12514	120254.67	41.425	Si
SLU 13	1.69	-16740	-11886.05	6639	69231.5	5.825	Si
SLU 68	-0.91	-35624	-3061.15	14128	132585.02	43.312	Si
SLU 68	1.69	-17429	-12167.42	6912	71820.46	5.903	Si
SLU 26	-0.91	-28895	-2561.69	11459	111804.76	43.645	Si
SLU 26	1.69	-14680	-10757.24	5822	61374.74	5.705	Si



Comb.	Quota	N	M	$\sigma_0$	Mu	c.s.	Verifica
SLU 5	-0.91	-26204	-2317.95	10392	102938.38	44.409	Si
SLU 5	1.69	-12633	-9847.68	5010	53384.44	5.421	Si
SLU 47	-0.91	-32933	-2817.41	13061	124512.5	44.194	Si
SLU 47	1.69	-15383	-11257.86	6101	64076.9	5.692	Si
SLU 44	-0.91	-32933	-2817.41	13061	124512.5	44.194	Si
SLU 44	1.69	-15383	-11257.86	6101	64076.9	5.692	Si
SLU 23	-0.91	-28895	-2561.69	11459	111804.76	43.645	Si
SLU 23	1.69	-14680	-10757.24	5822	61374.74	5.705	Si
SLU 10	-0.91	-31555	-2902.92	12514	120254.67	41.425	Si
SLU 10	1.69	-16740	-11886.05	6639	69231.5	5.825	Si
SLU 65	-0.91	-35624	-3061.15	14128	132585.02	43.312	Si
SLU 65	1.69	-17429	-12167.42	6912	71820.46	5.903	Si

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni sismiche,  $\gamma_M = 2$

Comb.	Quota	N	M	$\sigma_0$	Mu	c.s.	Verifica
SLV 6	-0.91	-24650	-8089.92	9776	102113.5	12.622	Si
SLV 6	1.69	-3773	10299.07	1496	16778.96	1.629	Si
SLV 3	-0.91	-24044	3781.49	9535	99813.3	26.395	Si
SLV 3	1.69	-8600	-11349.47	3411	37644.25	3.317	Si
SLV 9	-0.91	-27239	-10395.67	10803	111807.66	10.755	Si
SLV 9	1.69	-7906	10135.4	3136	34686.51	3.422	Si
SLV 5	-0.91	-24650	-8089.92	9776	102113.5	12.622	Si
SLV 5	1.69	-3773	10299.07	1496	16778.96	1.629	Si
SLV 8	-0.91	-28364	6035.26	11249	115957.09	19.213	Si
SLV 8	1.69	-18619	-23300.14	7384	78771.96	3.381	Si
SLV 4	-0.91	-24044	3781.49	9535	99813.3	26.395	Si
SLV 4	1.69	-8600	-11349.47	3411	37644.25	3.317	Si
SLV 12	-0.91	-30953	3729.51	12275	125370.24	33.616	Si
SLV 12	1.69	-22753	-23463.81	9024	94885.63	4.044	Si
SLV 7	-0.91	-28364	6035.26	11249	115957.09	19.213	Si
SLV 7	1.69	-18619	-23300.14	7384	78771.96	3.381	Si
SLV 11	-0.91	-30953	3729.51	12275	125370.24	33.616	Si
SLV 11	1.69	-22753	-23463.81	9024	94885.63	4.044	Si
SLV 10	-0.91	-27239	-10395.67	10803	111807.66	10.755	Si
SLV 10	1.69	-7906	10135.4	3136	34686.51	3.422	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni non sismiche,  $\gamma_M = 3$

Comb.	Quota	N	V par	M	$\sigma_0$	$\sigma_N$	I'	fvd	Vt scorr.	Vt fess.diag.	Vt <sub>lim</sub>	c.s.	Verifica
SLU 76	-0.91	-40974	1581	-3646.12		16250	9.0055	7722	19472			12.32	Si
SLU 76	1.69	-21536	2845	-14205.8		8541	9.0055	6694	16880			5.93	Si
SLU 55	-0.91	-38283	1530	-3402.38		15183	9.0055	7580	19113			12.49	Si
SLU 55	1.69	-19489	2683	-13296.23		7729	9.0055	6586	16607			6.19	Si
SLU 10	-0.91	-31555	1486	-2902.92		12514	9.0055	7224	18216			12.26	Si
SLU 10	1.69	-16740	2480	-11886.05		6639	9.0055	6441	16240			6.55	Si
SLU 68	-0.91	-35624	1468	-3061.15		14128	9.0055	7439	18758			12.78	Si
SLU 68	1.69	-17429	2487	-12167.42		6912	9.0055	6477	16332			6.57	Si
SLU 52	-0.91	-38283	1530	-3402.38		15183	9.0055	7580	19113			12.49	Si
SLU 52	1.69	-19489	2683	-13296.23		7729	9.0055	6586	16607			6.19	Si
SLU 73	-0.91	-40974	1581	-3646.12		16250	9.0055	7722	19472			12.32	Si
SLU 73	1.69	-21536	2845	-14205.8		8541	9.0055	6694	16880			5.93	Si
SLU 13	-0.91	-31555	1486	-2902.92		12514	9.0055	7224	18216			12.26	Si
SLU 13	1.69	-16740	2480	-11886.05		6639	9.0055	6441	16240			6.55	Si
SLU 34	-0.91	-34246	1537	-3146.66		13581	9.0055	7366	18575			12.09	Si
SLU 34	1.69	-18786	2642	-12795.62		7450	9.0055	6549	16513			6.25	Si
SLU 65	-0.91	-35624	1468	-3061.15		14128	9.0055	7439	18758			12.78	Si
SLU 65	1.69	-17429	2487	-12167.42		6912	9.0055	6477	16332			6.57	Si
SLU 31	-0.91	-34246	1537	-3146.66		13581	9.0055	7366	18575			12.09	Si
SLU 31	1.69	-18786	2642	-12795.62		7450	9.0055	6549	16513			6.25	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni sismiche,  $\gamma_M = 2$

Comb.	Quota	N	V par	M	$\sigma_0$	$\sigma_N$	I'	fvd	Vt scorr.	Vt fess.diag.	Vt <sub>lim</sub>	c.s.	Verifica
SLV 7	-0.91	-28364	10105	6035.26		11249	9.0055	10583	26686			2.64	Si
SLV 7	1.69	-18619	10019	-23300.14		7384	9.0055	9810	24737			2.47	Si
SLV 4	-0.91	-24044	3082	3781.49		9535	9.0055	10240	25821			8.38	Si
SLV 4	1.69	-8600	3682	-11349.47		3411	9.0055	9015	22733			6.17	Si
SLV 11	-0.91	-30953	10188	3729.51		12275	9.0055	10788	27203			2.67	Si
SLV 11	1.69	-22753	10041	-23463.81		9024	9.0055	10138	25563			2.55	Si
SLV 9	-0.91	-27239	-9600	-10395.67		10803	9.0055	10494	26461			2.76	Si
SLV 9	1.69	-7906	-7995	10135.4		3136	9.0055	8960	22594			2.83	Si
SLV 12	-0.91	-30953	10188	3729.51		12275	9.0055	10788	27203			2.67	Si
SLV 12	1.69	-22753	10041	-23463.81		9024	9.0055	10138	25563			2.55	Si
SLV 8	-0.91	-28364	10105	6035.26		11249	9.0055	10583	26686			2.64	Si
SLV 8	1.69	-18619	10019	-23300.14		7384	9.0055	9810	24737			2.47	Si
SLV 6	-0.91	-24650	-9684	-8089.92		9776	9.0055	10289	25943			2.68	Si
SLV 6	1.69	-3773	-8016	10299.07		2533	5.3183	8840	13164			1.64	Si
SLV 10	-0.91	-27239	-9600	-10395.67		10803	9.0055	10494	26461			2.76	Si
SLV 10	1.69	-7906	-7995	10135.4		3136	9.0055	8960	22594			2.83	Si
SLV 5	-0.91	-24650	-9684	-8089.92		9776	9.0055	10289	25943			2.68	Si
SLV 5	1.69	-3773	-8016	10299.07		2533	5.3183	8840	13164			1.64	Si
SLV 3	-0.91	-24044	3082	3781.49		9535	9.0055	10240	25821			8.38	Si
SLV 3	1.69	-8600	3682	-11349.47		3411	9.0055	9015	22733			6.17	Si

Verifica a pressoflessione fuori piano D.M. 17-01-18 (N.T.C.)

quota 0.39  $W_a$  0.05 denominatore 8  $\gamma_M = 2$

Quota 0.35 tra 0.05 denominatore e vmi = 2									
Comb.	fd	Sa	$\sigma_0$	N	M	Mc	Coeff.s.	Verifica	
SLV 2	143750	0.27	5881	-14829	344.85	1976.12	5.73	Si	
SLV 1	143750	0.27	5881	-14829	344.85	1976.12	5.73	Si	
SLV 4	143750	0.27	6300	-15886	344.85	2109.35	6.12	Si	
SLV 3	143750	0.27	6300	-15886	344.85	2109.35	6.12	Si	



Comb.	fd	Sa	$\sigma_0$	N	M	Mc	Coeff.s.	Verifica
SLV 6	143750	0.27	7339	-18505	344.85	2435.12	7.06	Si
SLV 5	143750	0.27	7339	-18505	344.85	2435.12	7.06	Si
SLV 7	143750	0.27	8736	-22029	344.85	2863.5	8.3	Si
SLV 8	143750	0.27	8736	-22029	344.85	2863.5	8.3	Si
SLV 9	143750	0.27	9008	-22713	344.85	2945.44	8.54	Si
SLV 10	143750	0.27	9008	-22713	344.85	2945.44	8.54	Si

#### Verifica dei meccanismi locali di collasso con analisi cinematica lineare

forza di aggancio al piano = 0 quota mezzera = 0.39  $W_a = 0.05$   $T_a = 0.0403$

Comb.	N top	N base	V orto	$\alpha_0$	M*	e*	a0*	aLim	Verifica
SLV 7	-18619	-28364	-625	0.041	2841.3	0.916	0.65508	12.81529	No
SLV 8	-18619	-28364	-625	0.041	2841.3	0.916	0.65508	12.81529	No
SLV 11	-22753	-30953	-591	0.044	3256.1	0.924	0.69669	12.81529	No
SLV 12	-22753	-30953	-591	0.044	3256.1	0.924	0.69669	12.81529	No
SLV 3	-8600	-24044	-483	0.042	1855.7	0.892	0.6915	12.16028	No
SLV 4	-8600	-24044	-483	0.042	1855.7	0.892	0.6915	12.16028	No
SLV 15	-22380	-32674	-368	0.052	3218.5	0.924	0.81924	12.16028	No
SLV 16	-22380	-32674	-368	0.052	3218.5	0.924	0.81924	12.16028	No
SLV 2	-4146	-22930	-326	0.053	1449.9	0.892	0.86352	12.16028	No
SLV 1	-4146	-22930	-326	0.053	1449.9	0.892	0.86352	12.16028	No

#### Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLU	5.421	SLU 2	Si
V_SLU	5.933	SLU 73	Si
PF_SLV	1.629	SLV 5	Si
V_SLV	1.642	SLV 5	Si
PFFP_SLV	5.73	SLV 1	Si
R_SLV	0.051	SLV 7	No

## Maschio 4

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

#### Dati geometrici

X ini.	Y ini.	X fin.	Y fin.	Quota i.	Quota s.	l	Sp.	h netta	h ini.	h fin.	a	a.s.sx	a.s.dx
-35.267	-13.519	-22.432	-13.519	L1	L2	12.835	0.45	2.6	2.6	2.6			

#### Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2\_Corti

fb	fk	fvk0	fmedio	$\tau_0$	fv0	$\mu$	$\phi$	fv,lim	E	G	FC
600000			345000	9000	20000	0.58	0.77	32500	320000000	128000000	1.2

#### Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni non sismiche, $\gamma_M = 3$

Comb.	Quota	N	M	$\sigma_0$	Mu	c.s.	Verifica
SLU 37	-0.91	-112085	115908.52	19407	547932.52	4.727	Si
SLU 37	1.19	-94335	107050.36	16333	484001.33	4.521	Si
SLU 83	-0.91	-141024	141586.9	24417	633734.7	4.476	Si
SLU 83	1.19	-117699	130476.58	20378	566361.6	4.341	Si
SLU 82	-0.91	-141430	140324.73	24487	634774.18	4.524	Si
SLU 82	1.19	-118113	128923.57	20450	567687.53	4.403	Si
SLU 42	-0.91	-122455	130829.76	21202	581302.72	4.443	Si
SLU 42	1.19	-105335	120275.29	18238	524631.83	4.362	Si
SLU 39	-0.91	-122049	132091.93	21132	580053.42	4.391	Si
SLU 39	1.19	-104921	121828.3	18166	523161.5	4.294	Si
SLU 40	-0.91	-122455	130829.76	21202	581302.72	4.443	Si
SLU 40	1.19	-105335	120275.29	18238	524631.83	4.362	Si
SLU 81	-0.91	-141024	141586.9	24417	633734.7	4.476	Si
SLU 81	1.19	-117699	130476.58	20378	566361.6	4.341	Si
SLU 41	-0.91	-122049	132091.93	21132	580053.42	4.391	Si
SLU 41	1.19	-104921	121828.3	18166	523161.5	4.294	Si
SLU 84	-0.91	-141430	140324.73	24487	634774.18	4.524	Si
SLU 84	1.19	-118113	128923.57	20450	567687.53	4.403	Si
SLU 35	-0.91	-112085	115908.52	19407	547932.52	4.727	Si
SLU 35	1.19	-94335	107050.36	16333	484001.33	4.521	Si

#### Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni sismiche, $\gamma_M = 2$

Comb.	Quota	N	M	$\sigma_0$	Mu	c.s.	Verifica
SLV 10	-0.91	-86759	57206.46	15022	488321.57	8.536	Si
SLV 10	1.19	-74733	64279.13	12939	428801.71	6.671	Si
SLV 7	-0.91	-87141	89667.67	15088	490168.98	5.467	Si
SLV 7	1.19	-60625	71401.22	10497	355634.69	4.981	Si
SLV 12	-0.91	-87617	117004.81	15170	492464.2	4.209	Si
SLV 12	1.19	-59772	83554.4	10349	351093.46	4.202	Si
SLV 9	-0.91	-86759	57206.46	15022	488321.57	8.536	Si
SLV 9	1.19	-74733	64279.13	12939	428801.71	6.671	Si
SLV 11	-0.91	-87617	117004.81	15170	492464.2	4.209	Si
SLV 11	1.19	-59772	83554.4	10349	351093.46	4.202	Si
SLV 8	-0.91	-87141	89667.67	15088	490168.98	5.467	Si
SLV 8	1.19	-60625	71401.22	10497	355634.69	4.981	Si
SLV 16	-0.91	-87871	127968.71	15214	493691.38	3.858	Si
SLV 16	1.19	-64013	90986.77	11083	373534.32	4.105	Si
SLV 13	-0.91	-87614	110029.21	15170	492451.19	4.476	Si
SLV 13	1.19	-68501	85204.19	11860	396928.04	4.659	Si
SLV 15	-0.91	-87871	127968.71	15214	493691.38	3.858	Si
SLV 15	1.19	-64013	90986.77	11083	373534.32	4.105	Si



Comb.	Quota	N	M	$\sigma_0$	Mu	c.s.	Verifica
SLV 14	-0.91	-87614	110029.21	15170	492451.19	4.476	Si
SLV 14	1.19	-68501	85204.19	11860	396928.04	4.659	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni non sismiche,  $\gamma_M = 3$

Comb.	Quota	N	V par	M	$\sigma_0$	$\sigma_N$	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLU 42	-0.91	-122455	-1075	130829.76		21202	12.8348	8382	48414			45.04	Si
SLU 42	1.19	-105335	-1374	120275.29		18238	12.8348	7987	46132			33.58	Si
SLU 83	-0.91	-141024	-1176	141586.9		24417	12.8348	8811	50890			43.26	Si
SLU 83	1.19	-117699	-1518	130476.58		20378	12.8348	8273	47780			31.47	Si
SLU 73	-0.91	-131736	-1053	123299.88		22809	12.8348	8597	49652			47.17	Si
SLU 73	1.19	-107804	-1384	113110.3		18665	12.8348	8044	46461			33.58	Si
SLU 84	-0.91	-141430	-1177	140324.73		24487	12.8348	8821	50944			43.29	Si
SLU 84	1.19	-118113	-1525	128923.57		20450	12.8348	8282	47835			31.36	Si
SLU 40	-0.91	-122455	-1075	130829.76		21202	12.8348	8382	48414			45.04	Si
SLU 40	1.19	-105335	-1374	120275.29		18238	12.8348	7987	46132			33.58	Si
SLU 76	-0.91	-131736	-1053	123299.88		22809	12.8348	8597	49652			47.17	Si
SLU 76	1.19	-107804	-1384	113110.3		18665	12.8348	8044	46461			33.58	Si
SLU 80	-0.91	-131466	-1052	124141.33		22762	12.8348	8590	49616			47.14	Si
SLU 80	1.19	-107528	-1379	114145.64		18617	12.8348	8038	46424			33.66	Si
SLU 82	-0.91	-141430	-1177	140324.73		24487	12.8348	8821	50944			43.29	Si
SLU 82	1.19	-118113	-1525	128923.57		20450	12.8348	8282	47835			31.36	Si
SLU 75	-0.91	-131466	-1052	124141.33		22762	12.8348	8590	49616			47.14	Si
SLU 75	1.19	-107528	-1379	114145.64		18617	12.8348	8038	46424			33.66	Si
SLU 81	-0.91	-141024	-1176	141586.9		24417	12.8348	8811	50890			43.26	Si
SLU 81	1.19	-117699	-1518	130476.58		20378	12.8348	8273	47780			31.47	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni sismiche,  $\gamma_M = 2$

Comb.	Quota	N	V par	M	$\sigma_0$	$\sigma_N$	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLV 16	-0.91	-87871	18760	127968.71		15214	12.8348	11376	65705			3.5	Si
SLV 16	1.19	-64013	20097	90986.77		11083	12.8348	10550	60933			3.03	Si
SLV 13	-0.91	-87614	18993	110029.21		15170	12.8348	11367	65653			3.46	Si
SLV 13	1.19	-68501	18236	85204.19		11860	12.8348	10705	61831			3.39	Si
SLV 4	-0.91	-86287	-20265	36844.92		14940	12.8348	11321	65388			3.23	Si
SLV 4	1.19	-66857	-19940	50476.16		11576	12.8348	10648	61502			3.08	Si
SLV 14	-0.91	-87614	18993	110029.21		15170	12.8348	11367	65653			3.46	Si
SLV 14	1.19	-68501	18236	85204.19		11860	12.8348	10705	61831			3.39	Si
SLV 5	-0.91	-86284	-6101	29869.32		14939	12.8348	11321	65387			10.72	Si
SLV 5	1.19	-75586	-9960	52125.95		13087	12.8348	10951	63248			6.35	Si
SLV 3	-0.91	-86287	-20265	36844.92		14940	12.8348	11321	65388			3.23	Si
SLV 3	1.19	-66857	-19940	50476.16		11576	12.8348	10648	61502			3.08	Si
SLV 2	-0.91	-86030	-20032	18905.42		14895	12.8348	11312	65336			3.26	Si
SLV 2	1.19	-71345	-21802	44693.58		12353	12.8348	10804	62399			2.86	Si
SLV 15	-0.91	-87871	18760	127968.71		15214	12.8348	11376	65705			3.5	Si
SLV 15	1.19	-64013	20097	90986.77		11083	12.8348	10550	60933			3.03	Si
SLV 6	-0.91	-86284	-6101	29869.32		14939	12.8348	11321	65387			10.72	Si
SLV 6	1.19	-75586	-9960	52125.95		13087	12.8348	10951	63248			6.35	Si
SLV 1	-0.91	-86030	-20032	18905.42		14895	12.8348	11312	65336			3.26	Si
SLV 1	1.19	-71345	-21802	44693.58		12353	12.8348	10804	62399			2.86	Si

Verifica a pressoflessione fuori piano D.M. 17-01-18 (N.T.C.)

quota 0.39 Wa 0.08 denominatore 8  $\gamma_M = 2$

Comb.	fd	Sa	$\sigma_0$	N	M	Mc	Coeff.s.	Verifica
SLV 10	143750	0.27	12409	-71668	789.89	14487.74	18.34	Si
SLV 9	143750	0.27	12409	-71668	789.89	14487.74	18.34	Si
SLV 5	143750	0.27	12465	-71991	789.89	14545.56	18.41	Si
SLV 6	143750	0.27	12465	-71991	789.89	14545.56	18.41	Si
SLV 14	143750	0.27	12710	-73410	789.89	14799.17	18.74	Si
SLV 13	143750	0.27	12710	-73410	789.89	14799.17	18.74	Si
SLV 1	143750	0.27	12897	-74486	789.89	14990.45	18.98	Si
SLV 2	143750	0.27	12897	-74486	789.89	14990.45	18.98	Si
SLV 15	143750	0.27	13025	-75227	789.89	15121.72	19.14	Si
SLV 16	143750	0.27	13025	-75227	789.89	15121.72	19.14	Si

Verifica dei meccanismi locali di collasso con analisi cinematica lineare

forza di aggancio al piano = 0 quota mezzeria = 0.39 Wa = 0.08 Ta = 0.0251

Comb.	N top	N base	V orto	$\alpha_0$	M*	e*	$\alpha_0^*$	aLim	Verifica
SLV 10	-71456	-86759	-3018	0.065	9410	0.937	1.00459	12.38582	No
SLV 9	-71456	-86759	-3018	0.065	9410	0.937	1.00459	12.38582	No
SLV 6	-72552	-86284	-3020	0.065	9520.9	0.938	1.00776	12.38582	No
SLV 5	-72552	-86284	-3020	0.065	9520.9	0.938	1.00776	12.38582	No
SLV 12	-53729	-87617	1810	0.077	7620.4	0.926	1.20923	12.38582	No
SLV 11	-53729	-87617	1810	0.077	7620.4	0.926	1.20923	12.38582	No
SLV 8	-54824	-87141	1807	0.077	7730.7	0.927	1.21115	12.38582	No
SLV 7	-54824	-87141	1807	0.077	7730.7	0.927	1.21115	12.38582	No
SLV 1	-67626	-86030	-1334	0.085	9022.6	0.935	1.31355	7.08051	No
SLV 2	-67626	-86030	-1334	0.085	9022.6	0.935	1.31355	7.08051	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLU	4.294	SLU 39	Si
V_SLU	31.364	SLU 82	Si
PF_SLV	3.858	SLV 15	Si
V_SLV	2.862	SLV 1	Si
PFFP_SLV	18.341	SLV 9	Si
R_SLV	0.081	SLV 9	No





## Maschio 5

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

### Dati geometrici

X ini.	Y ini.	X fin.	Y fin.	Quota i.	Quota s.	l	Sp.	h netta	h ini.	h fin.	a	a.s.,sx	a.s.,dx
-35.497	-9.039	-27.067	-9.039	L1	L2	8.43	0.45	2.6	2.6	2.6			

### Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2\_Corti

fb	fk	fvk0	fmedio	$\tau_0$	fv0	$\mu$	$\phi$	fv,lim	E	G	FC
600000			345000	9000	20000	0.58	0.77	32500	320000000	128000000	1.2

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni non sismiche,  $\gamma_M = 3$

Comb.	Quota	N	M	$\sigma_0$	Mu	c.s.	Verifica
SLU 34	1.09	-41701	26587.71	10993	152052.93	5.719	Si
SLU 34	1.49	-39982	25593.79	10539	146720.52	5.733	Si
SLU 84	1.09	-52840	32565.01	13929	184638.43	5.67	Si
SLU 84	1.49	-50600	31231.44	13338	178358.16	5.711	Si
SLU 42	1.09	-45506	29338.19	11996	163565.63	5.575	Si
SLU 42	1.49	-43891	28245.37	11570	158727.83	5.62	Si
SLU 40	1.09	-45506	29338.19	11996	163565.63	5.575	Si
SLU 40	1.49	-43891	28245.37	11570	158727.83	5.62	Si
SLU 31	1.09	-41701	26587.71	10993	152052.93	5.719	Si
SLU 31	1.49	-39982	25593.79	10539	146720.52	5.733	Si
SLU 83	1.09	-52975	32208.86	13964	185012.91	5.744	Si
SLU 83	1.49	-50761	30827.62	13381	178815.31	5.8	Si
SLU 39	1.09	-45642	28982.04	12031	163967.14	5.658	Si
SLU 39	1.49	-44053	27841.55	11613	159214.51	5.719	Si
SLU 41	1.09	-45642	28982.04	12031	163967.14	5.658	Si
SLU 41	1.49	-44053	27841.55	11613	159214.51	5.719	Si
SLU 82	1.09	-52840	32565.01	13929	184638.43	5.67	Si
SLU 82	1.49	-50600	31231.44	13338	178358.16	5.711	Si
SLU 81	1.09	-52975	32208.86	13964	185012.91	5.744	Si
SLU 81	1.49	-50761	30827.62	13381	178815.31	5.8	Si

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni sismiche,  $\gamma_M = 2$

Comb.	Quota	N	M	$\sigma_0$	Mu	c.s.	Verifica
SLV 13	1.09	-28346	27963.4	7472	112174.26	4.011	Si
SLV 13	1.49	-26509	22680.91	6988	105345.92	4.645	Si
SLV 6	1.09	-29970	15036.43	7900	118157.14	7.858	Si
SLV 6	1.49	-28678	15036.03	7560	113400.23	7.542	Si
SLV 9	1.09	-27987	20910.53	7377	110843.81	5.301	Si
SLV 9	1.49	-26625	18358.21	7018	105778.21	5.762	Si
SLV 16	1.09	-30637	28134.62	8076	120602.05	4.287	Si
SLV 16	1.49	-28463	23063.9	7503	112605.23	4.882	Si
SLV 5	1.09	-29970	15036.43	7900	118157.14	7.858	Si
SLV 5	1.49	-28678	15036.03	7560	113400.23	7.542	Si
SLV 14	1.09	-28346	27963.4	7472	112174.26	4.011	Si
SLV 14	1.49	-26509	22680.91	6988	105345.92	4.645	Si
SLV 10	1.09	-27987	20910.53	7377	110843.81	5.301	Si
SLV 10	1.49	-26625	18358.21	7018	105778.21	5.762	Si
SLV 12	1.09	-35623	21481.25	9391	138615.11	6.453	Si
SLV 12	1.49	-33138	19634.85	8735	129692.18	6.605	Si
SLV 15	1.09	-30637	28134.62	8076	120602.05	4.287	Si
SLV 15	1.49	-28463	23063.9	7503	112605.23	4.882	Si
SLV 11	1.09	-35623	21481.25	9391	138615.11	6.453	Si
SLV 11	1.49	-33138	19634.85	8735	129692.18	6.605	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni non sismiche,  $\gamma_M = 3$

Comb.	Quota	N	V par	M	$\sigma_0$	$\sigma_N$	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLU 81	1.09	-52975	-2324	32208.86		13964	8.4301	7417	28139			12.11	Si
SLU 81	1.49	-50761	-2469	30827.62		13381	8.4301	7340	27843			11.28	Si
SLU 41	1.09	-45642	-2112	28982.04		12031	8.4301	7160	27161			12.86	Si
SLU 41	1.49	-44053	-2237	27841.55		11613	8.4301	7104	26949			12.05	Si
SLU 82	1.09	-52840	-2324	32565.01		13929	8.4301	7413	28121			12.1	Si
SLU 82	1.49	-50600	-2469	31231.44		13338	8.4301	7334	27822			11.27	Si
SLU 83	1.09	-52975	-2324	32208.86		13964	8.4301	7417	28139			12.11	Si
SLU 83	1.49	-50761	-2469	30827.62		13381	8.4301	7340	27843			11.28	Si
SLU 84	1.09	-52840	-2324	32565.01		13929	8.4301	7413	28121			12.1	Si
SLU 84	1.49	-50600	-2469	31231.44		13338	8.4301	7334	27822			11.27	Si
SLU 39	1.09	-45642	-2112	28982.04		12031	8.4301	7160	27161			12.86	Si
SLU 39	1.49	-44053	-2237	27841.55		11613	8.4301	7104	26949			12.05	Si
SLU 76	1.09	-49034	-2079	29814.53		12926	8.4301	7279	27613			13.28	Si
SLU 76	1.49	-46690	-2214	28579.86		12308	8.4301	7197	27301			12.33	Si
SLU 40	1.09	-45506	-2112	29338.19		11996	8.4301	7155	27143			12.85	Si
SLU 40	1.49	-43891	-2237	28245.37		11570	8.4301	7098	26927			12.04	Si
SLU 42	1.09	-45506	-2112	29338.19		11996	8.4301	7155	27143			12.85	Si
SLU 42	1.49	-43891	-2237	28245.37		11570	8.4301	7098	26927			12.04	Si
SLU 73	1.09	-49034	-2079	29814.53		12926	8.4301	7279	27613			13.28	Si
SLU 73	1.49	-46690	-2214	28579.86		12308	8.4301	7197	27301			12.33	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni sismiche,  $\gamma_M = 2$

Comb.	Quota	N	V par	M	$\sigma_0$	$\sigma_N$	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLV 2	1.09	-34956	-9462	8383.06		9215	8.4301	10176	38604			4.08	Si
SLV 2	1.49	-33353	-9423	11606.98		8792	8.4301	10092	38284			4.06	Si
SLV 13	1.09	-28346	7006	27963.4		7472	8.4301	9828	37282			5.32	Si
SLV 13	1.49	-26509	6743	22680.91		6988	8.4301	9731	36915			5.47	Si
SLV 1	1.09	-34956	-9462	8383.06		9215	8.4301	10176	38604			4.08	Si



Comb.	Quota	N	V par	M	$\sigma_0$	$\sigma_N$	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLV 1	1.49	-33353	-9423	11606.98		8792	8.4301	10092	38284			4.06	Si
SLV 6	1.09	-29970	-3617	15036.43		7900	8.4301	9913	37607			10.4	Si
SLV 6	1.49	-28678	-3736	15036.03		7560	8.4301	9845	37349			10	Si
SLV 15	1.09	-30637	6938	28134.62		8076	8.4301	9949	37740			5.44	Si
SLV 15	1.49	-28463	6718	23063.9		7503	8.4301	9834	37305			5.55	Si
SLV 5	1.09	-29970	-3617	15036.43		7900	8.4301	9913	37607			10.4	Si
SLV 5	1.49	-28678	-3736	15036.03		7560	8.4301	9845	37349			10	Si
SLV 16	1.09	-30637	6938	28134.62		8076	8.4301	9949	37740			5.44	Si
SLV 16	1.49	-28463	6718	23063.9		7503	8.4301	9834	37305			5.55	Si
SLV 14	1.09	-28346	7006	27963.4		7472	8.4301	9828	37282			5.32	Si
SLV 14	1.49	-26509	6743	22680.91		6988	8.4301	9731	36915			5.47	Si
SLV 4	1.09	-37247	-9531	8554.27		9819	8.4301	10297	39062			4.1	Si
SLV 4	1.49	-35307	-9448	11989.97		9307	8.4301	10195	38674			4.09	Si
SLV 3	1.09	-37247	-9531	8554.27		9819	8.4301	10297	39062			4.1	Si
SLV 3	1.49	-35307	-9448	11989.97		9307	8.4301	10195	38674			4.09	Si

Verifica a pressoflessione fuori piano D.M. 17-01-18 (N.T.C.)

quota 0.39 Wa 0.08 denominatore 8  $\gamma_M = 2$

Comb.	fd	Sa	$\sigma_0$	N	M	Mc	Coeff.s.	Verifica
SLV 9	143750	0.27	8211	-31151	518.81	6537.86	12.6	Si
SLV 10	143750	0.27	8211	-31151	518.81	6537.86	12.6	Si
SLV 14	143750	0.27	8245	-31279	518.81	6562.89	12.65	Si
SLV 13	143750	0.27	8245	-31279	518.81	6562.89	12.65	Si
SLV 5	143750	0.27	8747	-33182	518.81	6931.54	13.36	Si
SLV 6	143750	0.27	8747	-33182	518.81	6931.54	13.36	Si
SLV 16	143750	0.27	8810	-33421	518.81	6977.55	13.45	Si
SLV 15	143750	0.27	8810	-33421	518.81	6977.55	13.45	Si
SLV 11	143750	0.27	10031	-38051	518.81	7858.74	15.15	Si
SLV 2	143750	0.27	10031	-38051	518.81	7858.74	15.15	Si

Verifica dei meccanismi locali di collasso con analisi cinematica lineare

forza di aggancio al piano = 0 quota mezzeria = 0.39 Wa = 0.08 Ta = 0.0251

Comb.	N top	N base	V orto	$\alpha_0$	M*	e*	a0*	aLim	Verifica
SLV 8	-31321	-49164	274	0.099	4606.3	0.921	1.56001	12.38582	No
SLV 7	-31321	-49164	274	0.099	4606.3	0.921	1.56001	12.38582	No
SLV 12	-29455	-46328	261	0.1	4419.1	0.918	1.57884	12.38582	No
SLV 11	-29455	-46328	261	0.1	4419.1	0.918	1.57884	12.38582	No
SLV 6	-25654	-39577	-194	0.103	4039.2	0.913	1.64269	12.38582	No
SLV 5	-25654	-39577	-194	0.103	4039.2	0.913	1.64269	12.38582	No
SLV 10	-23788	-36740	-206	0.104	3853.3	0.91	1.657	12.38582	No
SLV 9	-23788	-36740	-206	0.104	3853.3	0.91	1.657	12.38582	No
SLV 3	-31515	-49118	125	0.102	4625.8	0.921	1.61692	7.08051	No
SLV 4	-31515	-49118	125	0.102	4625.8	0.921	1.61692	7.08051	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLU	5.575	SLU 40	Si
V_SLU	11.269	SLU 82	Si
PF_SLV	4.011	SLV 13	Si
V_SLV	4.063	SLV 1	Si
PFFP_SLV	12.602	SLV 9	Si
R_SLV	0.126	SLV 7	No

## Maschio 6

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati geometrici

X ini.	Y ini.	X fin.	Y fin.	Quota i.	Quota.s	I	Sp.	h netta	h ini.	h fin.	a	a.s.,sx	a.s.,dx
-25.847	-18.044	-23.332	-18.044	L1	L2	2.515	0.45	2.6	2.6	2.6			

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2\_Corti

fb	fk	fvk0	fmedio	$\tau_0$	fv0	$\mu$	$\phi$	fv,lim	E	G	FC
600000			345000	9000	20000	0.58	0.77	32500	320000000	128000000	1.2

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni non sismiche,  $\gamma_M = 3$

Comb.	Quota	N	M	$\sigma_0$	Mu	c.s.	Verifica
SLU 44	1.09	-12518	146.12	11061	13604	93.104	Si
SLU 44	1.49	-11556	-973.29	10211	12709.94	13.059	Si
SLU 10	1.09	-14071	177.56	12433	14993.95	84.447	Si
SLU 10	1.49	-13331	-1038.51	11779	14339.82	13.808	Si
SLU 23	1.09	-12135	147.1	10723	13251.35	90.082	Si
SLU 23	1.49	-11395	-965.2	10069	12558.13	13.011	Si
SLU 13	1.09	-14071	177.56	12433	14993.95	84.447	Si
SLU 13	1.49	-13331	-1038.51	11779	14339.82	13.808	Si
SLU 68	1.09	-14935	173.49	13196	15737.98	90.715	Si
SLU 68	1.49	-13972	-1026.02	12346	14907.36	14.529	Si
SLU 47	1.09	-12518	146.12	11061	13604	93.104	Si
SLU 47	1.49	-11556	-973.29	10211	12709.94	13.059	Si
SLU 26	1.09	-12135	147.1	10723	13251.35	90.082	Si
SLU 26	1.49	-11395	-965.2	10069	12558.13	13.011	Si
SLU 65	1.09	-14935	173.49	13196	15737.98	90.715	Si
SLU 65	1.49	-13972	-1026.02	12346	14907.36	14.529	Si
SLU 5	1.09	-9719	119.73	8587	10932.82	91.312	Si
SLU 5	1.49	-8978	-912.47	7933	10190.8	11.168	Si



Comb.	Quota	N	M	$\sigma_0$	Mu	c.s.	Verifica
SLU 2	1.09	-9719	119.73	8587	10932.82	91.312	Si
SLU 2	1.49	-8978	-912.47	7933	10190.8	11.168	Si

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni sismiche,  $\gamma_M = 2$

Comb.	Quota	N	M	$\sigma_0$	Mu	c.s.	Verifica
SLV 12	1.09	-7840	1076.2	6927	9299.99	8.641	Si
SLV 12	1.49	-7750	-1972.15	6848	9199.49	4.665	Si
SLV 7	1.09	-7682	-129.28	6787	9123.16	70.568	Si
SLV 7	1.49	-7674	-1220.66	6781	9114.92	7.467	Si
SLV 4	1.09	-11883	-1766.6	10500	13659.31	7.732	Si
SLV 4	1.49	-11489	553.69	10151	13246.64	23.924	Si
SLV 11	1.09	-7840	1076.2	6927	9299.99	8.641	Si
SLV 11	1.49	-7750	-1972.15	6848	9199.49	4.665	Si
SLV 14	1.09	-16171	2053.75	14289	17957.43	8.744	Si
SLV 14	1.49	-15086	-1181.86	13330	16900.97	14.3	Si
SLV 16	1.09	-12411	2251.68	10967	14206.62	6.309	Si
SLV 16	1.49	-11741	-1951.26	10374	13510.62	6.924	Si
SLV 3	1.09	-11883	-1766.6	10500	13659.31	7.732	Si
SLV 3	1.49	-11489	553.69	10151	13246.64	23.924	Si
SLV 15	1.09	-12411	2251.68	10967	14206.62	6.309	Si
SLV 15	1.49	-11741	-1951.26	10374	13510.62	6.924	Si
SLV 8	1.09	-7682	-129.28	6787	9123.16	70.568	Si
SLV 8	1.49	-7674	-1220.66	6781	9114.92	7.467	Si
SLV 13	1.09	-16171	2053.75	14289	17957.43	8.744	Si
SLV 13	1.49	-15086	-1181.86	13330	16900.97	14.3	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni non sismiche,  $\gamma_M = 3$

Comb.	Quota	N	V par	M	$\sigma_0$	$\sigma_N$	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLU 10	1.09	-14071	3040	177.56		12433	2.515	7213	8164			2.69	Si
SLU 10	1.49	-13331	3040	-1038.51		11779	2.515	7126	8065			2.65	Si
SLU 73	1.09	-19287	3459	231.31		17042	2.515	7828	8859			2.56	Si
SLU 73	1.49	-18325	3459	-1152.07		16192	2.515	7714	8731			2.52	Si
SLU 76	1.09	-19287	3459	231.31		17042	2.515	7828	8859			2.56	Si
SLU 76	1.49	-18325	3459	-1152.07		16192	2.515	7714	8731			2.52	Si
SLU 13	1.09	-14071	3040	177.56		12433	2.515	7213	8164			2.69	Si
SLU 13	1.49	-13331	3040	-1038.51		11779	2.515	7126	8065			2.65	Si
SLU 34	1.09	-16488	3241	204.93		14569	2.515	7498	8486			2.62	Si
SLU 34	1.49	-15748	3241	-1091.25		13915	2.515	7411	8387			2.59	Si
SLU 68	1.09	-14935	2999	173.49		13196	2.515	7315	8279			2.76	Si
SLU 68	1.49	-13972	2999	-1026.02		12346	2.515	7202	8150			2.72	Si
SLU 65	1.09	-14935	2999	173.49		13196	2.515	7315	8279			2.76	Si
SLU 65	1.49	-13972	2999	-1026.02		12346	2.515	7202	8150			2.72	Si
SLU 52	1.09	-16871	3258	203.94		14907	2.515	7543	8537			2.62	Si
SLU 52	1.49	-15909	3258	-1099.34		14057	2.515	7430	8409			2.58	Si
SLU 31	1.09	-16488	3241	204.93		14569	2.515	7498	8486			2.62	Si
SLU 31	1.49	-15748	3241	-1091.25		13915	2.515	7411	8387			2.59	Si
SLU 55	1.09	-16871	3258	203.94		14907	2.515	7543	8537			2.62	Si
SLU 55	1.49	-15909	3258	-1099.34		14057	2.515	7430	8409			2.58	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni sismiche,  $\gamma_M = 2$

Comb.	Quota	N	V par	M	$\sigma_0$	$\sigma_N$	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLV 1	1.09	-15643	-5790	-1964.53		13822	2.515	11098	12560			2.17	Si
SLV 1	1.49	-14834	-6618	1323.09		13107	2.515	10955	12398			1.87	Si
SLV 13	1.09	-16171	5702	2053.75		14289	2.515	11191	12666			2.22	Si
SLV 13	1.49	-15086	7197	-1181.86		13330	2.515	10999	12448			1.73	Si
SLV 15	1.09	-12411	8079	2251.68		10967	2.515	10527	11914			1.47	Si
SLV 15	1.49	-11741	8906	-1951.26		10374	2.515	10408	11779			1.32	Si
SLV 12	1.09	-7840	6830	1076.2		6927	2.515	9719	10999			1.61	Si
SLV 12	1.49	-7750	6065	-1972.15		6848	2.515	9703	10981			1.81	Si
SLV 3	1.09	-11883	-3413	-1766.6		10500	2.515	10433	11808			3.46	Si
SLV 3	1.49	-11489	-4908	553.69		10151	2.515	10364	11729			2.39	Si
SLV 16	1.09	-12411	8079	2251.68		10967	2.515	10527	11914			1.47	Si
SLV 16	1.49	-11741	8906	-1951.26		10374	2.515	10408	11779			1.32	Si
SLV 14	1.09	-16171	5702	2053.75		14289	2.515	11191	12666			2.22	Si
SLV 14	1.49	-15086	7197	-1181.86		13330	2.515	10999	12448			1.73	Si
SLV 2	1.09	-15643	-5790	-1964.53		13822	2.515	11098	12560			2.17	Si
SLV 2	1.49	-14834	-6618	1323.09		13107	2.515	10955	12398			1.87	Si
SLV 11	1.09	-7840	6830	1076.2		6927	2.515	9719	10999			1.61	Si
SLV 11	1.49	-7750	6065	-1972.15		6848	2.515	9703	10981			1.81	Si
SLV 4	1.09	-11883	-3413	-1766.6		10500	2.515	10433	11808			3.46	Si
SLV 4	1.49	-11489	-4908	553.69		10151	2.515	10364	11729			2.39	Si

Verifica a pressoflessione fuori piano D.M. 17-01-18 (N.T.C.)

quota 0.39  $W_a$  0.08 denominatore 8  $\gamma_M = 2$

Comb.	fd	Sa	$\sigma_0$	N	M	Mc	Coeff.s.	Verifica
SLV 8	143750	0.27	7961	-9009	154.78	1895.04	12.24	Si
SLV 7	143750	0.27	7961	-9009	154.78	1895.04	12.24	Si
SLV 11	143750	0.27	8046	-9106	154.78	1913.98	12.37	Si
SLV 12	143750	0.27	8046	-9106	154.78	1913.98	12.37	Si
SLV 3	143750	0.27	10189	-11532	154.78	2378.28	15.37	Si
SLV 4	143750	0.27	10189	-11532	154.78	2378.28	15.37	Si
SLV 16	143750	0.27	10475	-11855	154.78	2438.64	15.76	Si
SLV 15	143750	0.27	10475	-11855	154.78	2438.64	15.76	Si
SLV 2	143750	0.27	12185	-13791	154.78	2793.47	18.05	Si
SLV 1	143750	0.27	12185	-13791	154.78	2793.47	18.05	Si

Verifica dei meccanismi locali di collasso con analisi cinematica lineare

forza di aggancio al piano = 0 quota mezzzeria = 0.39  $W_a$  = 0.08  $T_a$  = 0.0251



Comb.	N top	N base	V orto	$\alpha 0$	M*	e*	a0*	aLim	Verifica
SLV 6	-16621	-16793	-280	0.084	2109.2	0.944	1.29157	12.38582	No
SLV 5	-16621	-16793	-280	0.084	2109.2	0.944	1.29157	12.38582	No
SLV 9	-16776	-16957	-278	0.084	2124.9	0.944	1.29321	12.38582	No
SLV 10	-16776	-16957	-278	0.084	2124.9	0.944	1.29321	12.38582	No
SLV 11	-5172	-11070	-91	0.104	959.7	0.899	1.68386	12.38582	No
SLV 12	-5172	-11070	-91	0.104	959.7	0.899	1.68386	12.38582	No
SLV 8	-5017	-10907	-93	0.104	944.6	0.898	1.68645	12.38582	No
SLV 7	-5017	-10907	-93	0.104	944.6	0.898	1.68645	12.38582	No
SLV 2	-12379	-14542	-217	0.087	1679.9	0.932	1.3612	7.08051	No
SLV 1	-12379	-14542	-217	0.087	1679.9	0.932	1.3612	7.08051	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLU	11.168	SLU 2	Si
V_SLU	2.524	SLU 73	Si
PF_SLV	4.665	SLV 11	Si
V_SLV	1.323	SLV 15	Si
PFFP_SLV	12.243	SLV 7	Si
R_SLV	0.104	SLV 5	No

## Maschio 7

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

### Dati geometrici

X ini.	Y ini.	X fin.	Y fin.	Quota i.	Quota.s	I	Sp.	h netta	h ini.	h fin.	a	a.s,sx	a.s,dx
-22.332	-18.044	-21.057	-18.044	L1	L2	1.275	0.45	2.6	2.6	2.6			

### Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2\_Corti

fb	fk	fvk0	fmedio	$\tau 0$	fv0	$\mu$	$\phi$	fv,lim	E	G	FC
600000			345000	9000	20000	0.58	0.77	32500	320000000	128000000	1.2

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni non sismiche,  $\gamma M = 3$

Comb.	Quota	N	M	$\sigma 0$	Mu	c.s.	Verifica
SLU 74	1.09	-9035	-716.01	15749	4645.26	6.488	Si
SLU 74	1.49	-8520	-913.38	14851	4440.35	4.861	Si
SLU 83	1.09	-9681	-774.27	16876	4892.35	6.319	Si
SLU 83	1.49	-9187	-1003.44	16015	4704.61	4.688	Si
SLU 35	1.09	-7742	-633.47	13496	4117.24	6.499	Si
SLU 35	1.49	-7371	-819.96	12850	3957.39	4.826	Si
SLU 77	1.09	-9035	-716.01	15749	4645.26	6.488	Si
SLU 77	1.49	-8520	-913.38	14851	4440.35	4.861	Si
SLU 37	1.09	-7742	-633.47	13496	4117.24	6.499	Si
SLU 37	1.49	-7371	-819.96	12850	3957.39	4.826	Si
SLU 79	1.09	-9035	-716.01	15749	4645.26	6.488	Si
SLU 79	1.49	-8520	-913.38	14851	4440.35	4.861	Si
SLU 32	1.09	-7742	-633.47	13496	4117.24	6.499	Si
SLU 32	1.49	-7371	-819.96	12850	3957.39	4.826	Si
SLU 39	1.09	-8389	-691.74	14623	4387.13	6.342	Si
SLU 39	1.49	-8039	-910.02	14014	4242.56	4.662	Si
SLU 81	1.09	-9681	-774.27	16876	4892.35	6.319	Si
SLU 81	1.49	-9187	-1003.44	16015	4704.61	4.688	Si
SLU 41	1.09	-8389	-691.74	14623	4387.13	6.342	Si
SLU 41	1.49	-8039	-910.02	14014	4242.56	4.662	Si

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni sismiche,  $\gamma M = 2$

Comb.	Quota	N	M	$\sigma 0$	Mu	c.s.	Verifica
SLV 13	1.09	-7373	159.28	12853	4205.35	26.402	Si
SLV 13	1.49	-5208	-765.24	9078	3072.7	4.015	Si
SLV 9	1.09	-8693	-786.72	15154	4853.82	6.17	Si
SLV 9	1.49	-6905	-1549.32	12036	3967.6	2.561	Si
SLV 6	1.09	-8331	-1260.69	14522	4678.97	3.711	Si
SLV 6	1.49	-7420	-1614.48	12935	4228.93	2.619	Si
SLV 14	1.09	-7373	159.28	12853	4205.35	26.402	Si
SLV 14	1.49	-5208	-765.24	9078	3072.7	4.015	Si
SLV 4	1.09	-4672	-1083.75	8144	2779.43	2.565	Si
SLV 4	1.49	-5986	-375.54	10434	3489.52	9.292	Si
SLV 5	1.09	-8331	-1260.69	14522	4678.97	3.711	Si
SLV 5	1.49	-7420	-1614.48	12935	4228.93	2.619	Si
SLV 10	1.09	-8693	-786.72	15154	4853.82	6.17	Si
SLV 10	1.49	-6905	-1549.32	12036	3967.6	2.561	Si
SLV 1	1.09	-6166	-1420.63	10748	3584.27	2.523	Si
SLV 1	1.49	-6925	-982.45	12072	3978.05	4.049	Si
SLV 2	1.09	-6166	-1420.63	10748	3584.27	2.523	Si
SLV 2	1.49	-6925	-982.45	12072	3978.05	4.049	Si
SLV 3	1.09	-4672	-1083.75	8144	2779.43	2.565	Si
SLV 3	1.49	-5986	-375.54	10434	3489.52	9.292	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni non sismiche,  $\gamma M = 3$

Comb.	Quota	N	V par	M	$\sigma 0$	$\sigma N$	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLU 26	1.09	-5841	-1394	-459.56		10182	1.2748	6913	3966			2.85	Si
SLU 26	1.49	-5120	-1395	-113.26		8926	1.2748	6746	3870			2.77	Si
SLU 23	1.09	-5841	-1394	-459.56		10182	1.2748	6913	3966			2.85	Si
SLU 23	1.49	-5120	-1395	-113.26		8926	1.2748	6746	3870			2.77	Si
SLU 2	1.09	-4942	-1528	-355.77		8615	1.2748	6704	3846			2.52	Si



Comb.	Quota	N	V par	M	$\sigma_0$	$\sigma_N$	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLU 2	1.49	-4193	-1529	26		7310	1.2748	6530	3746			2.45	Si
SLU 13	1.09	-6451	-1264	-491.72		11246	1.2748	7055	4047			3.2	Si
SLU 13	1.49	-5751	-1268	-184.14		10025	1.2748	6892	3954			3.12	Si
SLU 65	1.09	-7133	-1410	-542.1		12434	1.2748	7213	4138			2.93	Si
SLU 65	1.49	-6269	-1414	-206.68		10927	1.2748	7013	4023			2.84	Si
SLU 44	1.09	-6235	-1545	-438.31		10868	1.2748	7005	4018			2.6	Si
SLU 44	1.49	-5341	-1548	-67.42		9311	1.2748	6797	3899			2.52	Si
SLU 5	1.09	-4942	-1528	-355.77		8615	1.2748	6704	3846			2.52	Si
SLU 5	1.49	-4193	-1529	26		7310	1.2748	6530	3746			2.45	Si
SLU 68	1.09	-7133	-1410	-542.1		12434	1.2748	7213	4138			2.93	Si
SLU 68	1.49	-6269	-1414	-206.68		10927	1.2748	7013	4023			2.84	Si
SLU 47	1.09	-6235	-1545	-438.31		10868	1.2748	7005	4018			2.6	Si
SLU 47	1.49	-5341	-1548	-67.42		9311	1.2748	6797	3899			2.52	Si
SLU 10	1.09	-6451	-1264	-491.72		11246	1.2748	7055	4047			3.2	Si
SLU 10	1.49	-5751	-1268	-184.14		10025	1.2748	6892	3954			3.12	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni sismiche,  $\gamma_M = 2$

Comb.	Quota	N	V par	M	$\sigma_0$	$\sigma_N$	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLV 1	1.09	-6166	3865	-1420.63		11222	1.221	10578	5812			1.5	Si
SLV 1	1.49	-6925	3019	-982.45		12072	1.2748	10748	6166			2.04	Si
SLV 2	1.09	-6166	3865	-1420.63		11222	1.221	10578	5812			1.5	Si
SLV 2	1.49	-6925	3019	-982.45		12072	1.2748	10748	6166			2.04	Si
SLV 11	1.09	-3714	-5776	336.22		6475	1.2748	9628	5523			0.96	No, Vu<V
SLV 11	1.49	-3773	-6114	473.71		6577	1.2748	9649	5535			0.91	No, Vu<V
SLV 5	1.09	-8331	6203	-1260.69		14522	1.2748	11238	6447			1.04	Si
SLV 5	1.49	-7420	6518	-1614.48		13092	1.2595	10952	6207			0.95	No, Vu<V
SLV 8	1.09	-3352	-4553	-137.76		5843	1.2748	9502	5451			1.2	Si
SLV 8	1.49	-4289	-5506	408.55		7476	1.2748	9828	5638			1.02	Si
SLV 12	1.09	-3714	-5776	336.22		6475	1.2748	9628	5523			0.96	No, Vu<V
SLV 12	1.49	-3773	-6114	473.71		6577	1.2748	9649	5535			0.91	No, Vu<V
SLV 9	1.09	-8693	4980	-786.72		15154	1.2748	11364	6519			1.31	Si
SLV 9	1.49	-6905	5910	-1549.32		12384	1.2391	10810	6027			1.02	Si
SLV 10	1.09	-8693	4980	-786.72		15154	1.2748	11364	6519			1.31	Si
SLV 10	1.49	-6905	5910	-1549.32		12384	1.2391	10810	6027			1.02	Si
SLV 7	1.09	-3352	-4553	-137.76		5843	1.2748	9502	5451			1.2	Si
SLV 7	1.49	-4289	-5506	408.55		7476	1.2748	9828	5638			1.02	Si
SLV 6	1.09	-8331	6203	-1260.69		14522	1.2748	11238	6447			1.04	Si
SLV 6	1.49	-7420	6518	-1614.48		13092	1.2595	10952	6207			0.95	No, Vu<V

Verifica a pressoflessione fuori piano D.M. 17-01-18 (N.T.C.)

quota 0.39 Wa 0.08 denominatore 8  $\gamma_M = 2$

Comb.	fd	Sa	$\sigma_0$	N	M	Mc	Coeff.s.	Verifica
SLV 7	143750	0.27	7447	-4272	78.45	902.63	11.51	Si
SLV 8	143750	0.27	7447	-4272	78.45	902.63	11.51	Si
SLV 3	143750	0.27	7773	-4459	78.45	939.43	11.97	Si
SLV 4	143750	0.27	7773	-4459	78.45	939.43	11.97	Si
SLV 12	143750	0.27	8556	-4908	78.45	1027.05	13.09	Si
SLV 11	143750	0.27	8556	-4908	78.45	1027.05	13.09	Si
SLV 2	143750	0.27	9161	-5255	78.45	1093.79	13.94	Si
SLV 1	143750	0.27	9161	-5255	78.45	1093.79	13.94	Si
SLV 16	143750	0.27	11470	-6580	78.45	1341.49	17.1	Si
SLV 15	143750	0.27	11470	-6580	78.45	1341.49	17.1	Si

Verifica dei meccanismi locali di collasso con analisi cinematica lineare

forza di aggancio al piano = 0 quota mezzeria = 0.39 Wa = 0.08 Ta = 0.0251

Comb.	N top	N base	V orto	$\alpha_0$	M*	e*	a0*	aLim	Verifica
SLV 9	-4561	-10185	-277	0.059	678.9	0.919	0.93622	12.38582	No
SLV 10	-4561	-10185	-277	0.059	678.9	0.919	0.93622	12.38582	No
SLV 5	-4988	-9056	-280	0.061	721.8	0.923	0.95563	12.38582	No
SLV 6	-4988	-9056	-280	0.061	721.8	0.923	0.95563	12.38582	No
SLV 7	-4490	-4730	68	0.095	671.8	0.919	1.49933	12.38582	No
SLV 8	-4490	-4730	68	0.095	671.8	0.919	1.49933	12.38582	No
SLV 12	-4063	-5859	71	0.095	629.1	0.915	1.5092	12.38582	No
SLV 11	-4063	-5859	71	0.095	629.1	0.915	1.5092	12.38582	No
SLV 2	-5312	-6224	-161	0.08	754.4	0.925	1.25361	7.08051	No
SLV 1	-5312	-6224	-161	0.08	754.4	0.925	1.25361	7.08051	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLU	4.662	SLU 39	Si
V_SLU	2.45	SLU 2	Si
PF_SLV	2.523	SLV 1	Si
V_SLV	0.905	SLV 11	No
PFFP_SLV	11.505	SLV 7	Si
R_SLV	0.076	SLV 9	No

## Maschio 8

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati geometrici

X ini.	Y ini.	X fin.	Y fin.	Quota i.	Quota.s	I	Sp.	h netta	h ini.	h fin.	a	a.s.,sx	a.s.,dx
-21.432	-13.519	-21.057	-13.519	L1	L2	0.375	0.45	2.6	2.6	2.6			

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2\_Corti

Sismicad 12.19 - Licenza assegnata a Sidel ingegneria Srl - Via Isonzo, 13 - Villanova di Castenaso (BO)



fb	fk	fvk0	fmedio	$\tau 0$	fv0	$\mu$	$\phi$	fv,lim	E	G	FC
600000			345000	9000	20000	0.58	0.77	32500	320000000	128000000	1.2

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni non sismiche,  $\gamma_M = 3$

Comb.	Quota	N	M	$\sigma 0$	Mu	c.s.	Verifica
SLU 40	-0.91	-1916	358.25	11361	309.01	0.863	No, M>Mu
SLU 40	1.19	-6586	-496.61	39048	642.56	1.294	Si
SLU 37	-0.91	-1880	316.4	11146	304.09	0.961	No, M>Mu
SLU 37	1.19	-5918	-438.39	35089	631.32	1.44	Si
SLU 42	-0.91	-1916	358.25	11361	309.01	0.863	No, M>Mu
SLU 42	1.19	-6586	-496.61	39048	642.56	1.294	Si
SLU 41	-0.91	-1907	360.84	0	0	0	No, e>l/2
SLU 41	1.19	-6603	-499.18	39147	642.69	1.287	Si
SLU 32	-0.91	-1880	316.4	11146	304.09	0.961	No, M>Mu
SLU 32	1.19	-5918	-438.39	35089	631.32	1.44	Si
SLU 81	-0.91	-2417	390.46	14328	373.21	0.956	No, M>Mu
SLU 81	1.19	-7356	-541.08	43616	640.43	1.184	Si
SLU 39	-0.91	-1907	360.84	0	0	0	No, e>l/2
SLU 39	1.19	-6603	-499.18	39147	642.69	1.287	Si
SLU 35	-0.91	-1880	316.4	11146	304.09	0.961	No, M>Mu
SLU 35	1.19	-5918	-438.39	35089	631.32	1.44	Si
SLU 83	-0.91	-2417	390.46	14328	373.21	0.956	No, M>Mu
SLU 83	1.19	-7356	-541.08	43616	640.43	1.184	Si
SLU 82	-0.91	-2426	387.87	14381	374.3	0.965	No, M>Mu
SLU 82	1.19	-7339	-538.5	43516	640.65	1.19	Si

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni sismiche,  $\gamma_M = 2$

Comb.	Quota	N	M	$\sigma 0$	Mu	c.s.	Verifica
SLV 6	-0.91	-1459	388.21	0	0	0	No, e>l/2
SLV 6	1.19	-5442	-430.11	32264	750.5	1.745	Si
SLV 16	-0.91	-1531	288.01	0	0	0	No, e>l/2
SLV 16	1.19	-5253	-370.67	31143	733.45	1.979	Si
SLV 2	-0.91	-2059	120.69	12206	347.26	2.877	Si
SLV 2	1.19	-3096	-198.87	18359	493.07	2.479	Si
SLV 13	-0.91	-1258	425.79	0	0	0	No, e>l/2
SLV 13	1.19	-6301	-483.49	37361	819.8	1.696	Si
SLV 15	-0.91	-1531	288.01	0	0	0	No, e>l/2
SLV 15	1.19	-5253	-370.67	31143	733.45	1.979	Si
SLV 1	-0.91	-2059	120.69	12206	347.26	2.877	Si
SLV 1	1.19	-3096	-198.87	18359	493.07	2.479	Si
SLV 5	-0.91	-1459	388.21	0	0	0	No, e>l/2
SLV 5	1.19	-5442	-430.11	32264	750.5	1.745	Si
SLV 14	-0.91	-1258	425.79	0	0	0	No, e>l/2
SLV 14	1.19	-6301	-483.49	37361	819.8	1.696	Si
SLV 10	-0.91	-1219	479.74	0	0	0	No, e>l/2
SLV 10	1.19	-6403	-515.5	37965	827.12	1.605	Si
SLV 9	-0.91	-1219	479.74	0	0	0	No, e>l/2
SLV 9	1.19	-6403	-515.5	37965	827.12	1.605	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni non sismiche,  $\gamma_M = 3$

Comb.	Quota	N	V par	M	$\sigma 0$	$\sigma N$	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLU 40	-0.91	-1916	861	358.25	0	0	0	5556	0			0	No, Vu<V
SLU 40	1.19	-6586	903	-496.61	43559	0.336	10833	1638				1.81	Si
SLU 35	-0.91	-1880	760	316.4	72925	0.0573	10833	279				0.37	No, Vu<V
SLU 35	1.19	-5918	789	-438.39	38684	0.34	10713	1639				2.08	Si
SLU 83	-0.91	-2417	938	390.46	69322	0.0775	10833	378				0.4	No, Vu<V
SLU 83	1.19	-7356	974	-541.08	47863	0.3415	10833	1665				1.71	Si
SLU 32	-0.91	-1880	760	316.4	72925	0.0573	10833	279				0.37	No, Vu<V
SLU 32	1.19	-5918	789	-438.39	38684	0.34	10713	1639				2.08	Si
SLU 39	-0.91	-1907	867	360.84	0	0	0	5556	0			0	No, Vu<V
SLU 39	1.19	-6603	900	-499.18	43748	0.3354	10833	1635				1.82	Si
SLU 38	-0.91	-1889	755	313.82	65790	0.0638	10833	311				0.41	No, Vu<V
SLU 38	1.19	-5901	792	-435.81	38497	0.3407	10688	1638				2.07	Si
SLU 41	-0.91	-1907	867	360.84	0	0	0	5556	0			0	No, Vu<V
SLU 41	1.19	-6603	900	-499.18	43748	0.3354	10833	1635				1.82	Si
SLU 42	-0.91	-1916	861	358.25	0	0	0	5556	0			0	No, Vu<V
SLU 42	1.19	-6586	903	-496.61	43559	0.336	10833	1638				1.81	Si
SLU 37	-0.91	-1880	760	316.4	72925	0.0573	10833	279				0.37	No, Vu<V
SLU 37	1.19	-5918	789	-438.39	38684	0.34	10713	1639				2.08	Si
SLU 81	-0.91	-2417	938	390.46	69322	0.0775	10833	378				0.4	No, Vu<V
SLU 81	1.19	-7356	974	-541.08	47863	0.3415	10833	1665				1.71	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni sismiche,  $\gamma_M = 2$

Comb.	Quota	N	V par	M	$\sigma 0$	$\sigma N$	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLV 15	-0.91	-1531	736	288.01	0	0	0	8333	0			0	No, Vu<V
SLV 15	1.19	-5253	458	-370.67	33303	0.3505	14994	2365				5.17	Si
SLV 16	-0.91	-1531	736	288.01	0	0	0	8333	0			0	No, Vu<V
SLV 16	1.19	-5253	458	-370.67	33303	0.3505	14994	2365				5.17	Si
SLV 14	-0.91	-1258	988	425.79	0	0	0	8333	0			0	No, Vu<V
SLV 14	1.19	-6301	770	-483.49	42176	0.332	16250	2428				3.15	Si
SLV 9	-0.91	-1219	1021	479.74	0	0	0	8333	0			0	No, Vu<V
SLV 9	1.19	-6403	1062	-515.5	44372	0.3207	16250	2345				2.21	Si
SLV 13	-0.91	-1258	988	425.79	0	0	0	8333	0			0	No, Vu<V
SLV 13	1.19	-6301	770	-483.49	42176	0.332	16250	2428				3.15	Si
SLV 5	-0.91	-1459	799	388.21	0	0	0	8333	0			0	No, Vu<V
SLV 5	1.19	-5442	1000	-430.11	37199	0.3251	15773	2307				2.31	Si
SLV 1	-0.91	-2059	246	120.69	12206	0.3748	10775	1817				7.38	Si
SLV 1	1.19	-3096	563	-198.87	18621	0.3695	12057	2005				3.56	Si
SLV 6	-0.91	-1459	799	388.21	0	0	0	8333	0			0	No, Vu<V
SLV 6	1.19	-5442	1000	-430.11	37199	0.3251	15773	2307				2.31	Si



Comb.	Quota	N	V par	M	$\sigma_0$	$\sigma_N$	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLV 2	-0.91	-2059	246	120.69		12206	0.3748	10775	1817			7.38	Si
SLV 2	1.19	-3096	563	-198.87		18621	0.3695	12057	2005			3.56	Si
SLV 10	-0.91	-1219	1021	479.74		0	0	8333	0			0	No, Vu<V
SLV 10	1.19	-6403	1062	-515.5		44372	0.3207	16250	2345			2.21	Si

Verifica a pressoflessione fuori piano D.M. 17-01-18 (N.T.C.)

quota 0.39 Wa 0.08 denominatore 8  $\gamma_M = 2$

Comb.	fd	Sa	$\sigma_0$	N	M	Mc	Coeff.s.	Verifica
SLV 3	143750	0.27	12759	-2152	23.07	433.62	18.8	Si
SLV 4	143750	0.27	12759	-2152	23.07	433.62	18.8	Si
SLV 8	143750	0.27	12859	-2169	23.07	436.64	18.93	Si
SLV 7	143750	0.27	12859	-2169	23.07	436.64	18.93	Si
SLV 1	143750	0.27	16895	-2849	23.07	552.48	23.95	Si
SLV 2	143750	0.27	16895	-2849	23.07	552.48	23.95	Si
SLV 11	143750	0.27	17081	-2881	23.07	557.6	24.17	Si
SLV 12	143750	0.27	17081	-2881	23.07	557.6	24.17	Si
SLV 6	143750	0.27	26645	-4494	23.07	790.65	34.28	Si
SLV 5	143750	0.27	26645	-4494	23.07	790.65	34.28	Si

Verifica dei meccanismi locali di collasso con analisi cinematica lineare

forza di aggancio al piano = 0 quota mezzera = 0.39 Wa = 0.08 Ta = 0.0251

Comb.	N top	N base	V orto	$\alpha_0$	M*	e*	a0*	aLim	Verifica
SLV 15	-2350	-1531	-334	0	301.4	0.942	0	7.08051	No
SLV 12	-1411	-2131	-473	0	206.7	0.921	0	12.38582	No
SLV 7	-1204	-2371	-400	0	185.9	0.915	0	12.38582	No
SLV 11	-1411	-2131	-473	0	206.7	0.921	0	12.38582	No
SLV 8	-1204	-2371	-400	0	185.9	0.915	0	12.38582	No
SLV 16	-2350	-1531	-334	0	301.4	0.942	0	7.08051	No
SLV 6	-3193	-1459	240	0.029	387	0.953	0.44455	12.38582	No
SLV 5	-3193	-1459	240	0.029	387	0.953	0.44455	12.38582	No
SLV 10	-3401	-1219	167	0.051	408.1	0.955	0.78291	12.38582	No
SLV 9	-3401	-1219	167	0.051	408.1	0.955	0.78291	12.38582	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLU	0	SLU 39	No
V_SLU	0	SLU 39	No
PF_SLV	0	SLV 5	No
V_SLV	0	SLV 5	No
PFFP_SLV	18.799	SLV 3	Si
R_SLV	0	SLV 7	No

## Maschio 9

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati geometrici

X ini.	Y ini.	X fin.	Y fin.	Quota i.	Quota.s	I	Sp.	h netta	h ini.	h fin.	a	a.s.,sx	a.s.,dx
-26.067	-9.039	-23.277	-9.039	L1	L2	2.79	0.45	2.6	2.6	2.6			

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2\_Corti

fb	fk	fvk0	fmedio	$\tau_0$	fv0	$\mu$	$\phi$	fv,lim	E	G	FC
600000			345000	9000	20000	0.58	0.77	32500	320000000	128000000	1.2

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni non sismiche,  $\gamma_M = 3$

Comb.	Quota	N	M	$\sigma_0$	Mu	c.s.	Verifica
SLU 45	1.09	-17545	-879.45	13974	20276.39	23.056	Si
SLU 45	1.49	-16477	-1248.59	13124	19282.06	15.443	Si
SLU 50	1.09	-17545	-879.45	13974	20276.39	23.056	Si
SLU 50	1.49	-16477	-1248.59	13124	19282.06	15.443	Si
SLU 51	1.09	-17547	-874.57	13976	20278.47	23.187	Si
SLU 51	1.49	-16479	-1245.81	13126	19284.21	15.479	Si
SLU 48	1.09	-17545	-879.45	13974	20276.39	23.056	Si
SLU 48	1.49	-16477	-1248.59	13124	19282.06	15.443	Si
SLU 44	1.09	-17549	-871.32	13977	20279.85	23.275	Si
SLU 44	1.49	-16481	-1243.96	13127	19285.64	15.503	Si
SLU 47	1.09	-17549	-871.32	13977	20279.85	23.275	Si
SLU 47	1.49	-16481	-1243.96	13127	19285.64	15.503	Si
SLU 46	1.09	-17547	-874.57	13976	20278.47	23.187	Si
SLU 46	1.49	-16479	-1245.81	13126	19284.21	15.479	Si
SLU 49	1.09	-17547	-874.57	13976	20278.47	23.187	Si
SLU 49	1.49	-16479	-1245.81	13126	19284.21	15.479	Si
SLU 43	1.09	-17545	-879.45	13974	20276.39	23.056	Si
SLU 43	1.49	-16477	-1248.59	13124	19282.06	15.443	Si
SLU 53	1.09	-23140	-983.18	18431	24976.53	25.404	Si
SLU 53	1.49	-22072	-1455.09	17580	24145.23	16.594	Si

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni sismiche,  $\gamma_M = 2$

Comb.	Quota	N	M	$\sigma_0$	Mu	c.s.	Verifica
SLV 16	1.09	-19372	2757.57	15429	23611.02	8.562	Si
SLV 16	1.49	-18641	983.95	14847	22844.32	23.217	Si
SLV 13	1.09	-19068	2768.97	15188	23293.9	8.412	Si
SLV 13	1.49	-18363	1052.31	14626	22550.46	21.429	Si
SLV 1	1.09	-14084	-4193.12	11218	17842.96	4.255	Si



Comb.	Quota	N	M	$\sigma_0$	Mu	c.s.	Verifica
SLV 1	1.49	-13171	-3093.71	10491	16796.1	5.429	Si
SLV 14	1.09	-19068	2768.97	15188	23293.9	8.412	Si
SLV 14	1.49	-18363	1052.31	14626	22550.46	21.429	Si
SLV 4	1.09	-14387	-4204.53	11459	18187.58	4.326	Si
SLV 4	1.49	-13449	-3162.07	10712	17116.18	5.413	Si
SLV 7	1.09	-16485	-1781.1	13131	20525.9	11.524	Si
SLV 7	1.49	-15590	-1790.71	12417	19537.75	10.911	Si
SLV 2	1.09	-14084	-4193.12	11218	17842.96	4.255	Si
SLV 2	1.49	-13171	-3093.71	10491	16796.1	5.429	Si
SLV 15	1.09	-19372	2757.57	15429	23611.02	8.562	Si
SLV 15	1.49	-18641	983.95	14847	22844.32	23.217	Si
SLV 8	1.09	-16485	-1781.1	13131	20525.9	11.524	Si
SLV 8	1.49	-15590	-1790.71	12417	19537.75	10.911	Si
SLV 3	1.09	-14387	-4204.53	11459	18187.58	4.326	Si
SLV 3	1.49	-13449	-3162.07	10712	17116.18	5.413	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni non sismiche,  $\gamma_M = 3$

Comb.	Quota	N	V par	M	$\sigma_0$	$\sigma_N$	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLU 83	1.09	-28510	1412	-1048.82	22708	2.79	8583	10776				7.63	Si
SLU 83	1.49	-27442	1412	-1608.07	21857	2.79	8470	10634				7.53	Si
SLU 60	1.09	-25538	1303	-1027.63	20341	2.79	8268	10380				7.96	Si
SLU 60	1.49	-24470	1303	-1543.59	19490	2.79	8154	10238				7.86	Si
SLU 61	1.09	-25540	1309	-1022.76	20343	2.79	8268	10380				7.93	Si
SLU 61	1.49	-24472	1309	-1540.82	19492	2.79	8154	10238				7.82	Si
SLU 62	1.09	-25538	1303	-1027.63	20341	2.79	8268	10380				7.96	Si
SLU 62	1.49	-24470	1303	-1543.59	19490	2.79	8154	10238				7.86	Si
SLU 82	1.09	-28512	1417	-1043.95	22710	2.79	8584	10777				7.61	Si
SLU 82	1.49	-27444	1417	-1605.29	21859	2.79	8470	10634				7.51	Si
SLU 81	1.09	-28510	1412	-1048.82	22708	2.79	8583	10776				7.63	Si
SLU 81	1.49	-27442	1412	-1608.07	21857	2.79	8470	10634				7.53	Si
SLU 84	1.09	-28512	1417	-1043.95	22710	2.79	8584	10777				7.61	Si
SLU 84	1.49	-27444	1417	-1605.29	21859	2.79	8470	10634				7.51	Si
SLU 63	1.09	-25540	1309	-1022.76	20343	2.79	8268	10380				7.93	Si
SLU 63	1.49	-24472	1309	-1540.82	19492	2.79	8154	10238				7.82	Si
SLU 73	1.09	-26116	1310	-996.24	20801	2.79	8329	10457				7.98	Si
SLU 73	1.49	-25048	1310	-1514.94	19950	2.79	8216	10315				7.87	Si
SLU 76	1.09	-26116	1310	-996.24	20801	2.79	8329	10457				7.98	Si
SLU 76	1.49	-25048	1310	-1514.94	19950	2.79	8216	10315				7.87	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni sismiche,  $\gamma_M = 2$

Comb.	Quota	N	V par	M	$\sigma_0$	$\sigma_N$	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLV 1	1.09	-14084	-2965	-4193.12	11218	2.79	10577	13279				4.48	Si
SLV 1	1.49	-13171	-2951	-3093.71	10491	2.79	10431	13097				4.44	Si
SLV 4	1.09	-14387	-2689	-4204.53	11459	2.79	10625	13340				4.96	Si
SLV 4	1.49	-13449	-2732	-3162.07	10712	2.79	10476	13152				4.81	Si
SLV 12	1.09	-17981	2417	307.53	14322	2.79	11198	14059				5.82	Si
SLV 12	1.49	-17148	2327	-546.9	13658	2.79	11065	13892				5.97	Si
SLV 14	1.09	-19068	4395	2768.97	15188	2.79	11371	14276				3.25	Si
SLV 14	1.49	-18363	4438	1052.31	14626	2.79	11259	14135				3.19	Si
SLV 11	1.09	-17981	2417	307.53	14322	2.79	11198	14059				5.82	Si
SLV 11	1.49	-17148	2327	-546.9	13658	2.79	11065	13892				5.97	Si
SLV 15	1.09	-19372	4671	2757.57	15429	2.79	11419	14337				3.07	Si
SLV 15	1.49	-18641	4657	983.95	14847	2.79	11303	14191				3.05	Si
SLV 16	1.09	-19372	4671	2757.57	15429	2.79	11419	14337				3.07	Si
SLV 16	1.49	-18641	4657	983.95	14847	2.79	11303	14191				3.05	Si
SLV 2	1.09	-14084	-2965	-4193.12	11218	2.79	10577	13279				4.48	Si
SLV 2	1.49	-13171	-2951	-3093.71	10491	2.79	10431	13097				4.44	Si
SLV 3	1.09	-14387	-2689	-4204.53	11459	2.79	10625	13340				4.96	Si
SLV 3	1.49	-13449	-2732	-3162.07	10712	2.79	10476	13152				4.81	Si
SLV 13	1.09	-19068	4395	2768.97	15188	2.79	11371	14276				3.25	Si
SLV 13	1.49	-18363	4438	1052.31	14626	2.79	11259	14135				3.19	Si

Verifica a pressoflessione fuori piano D.M. 17-01-18 (N.T.C.)

quota 0.39 Wa 0.08 denominatore 8  $\gamma_M = 2$

Comb.	fd	Sa	$\sigma_0$	N	M	Mc	Coeff.s.	Verifica
SLV 1	143750	0.27	10224	-12837	171.7	2646.6	15.41	Si
SLV 2	143750	0.27	10224	-12837	171.7	2646.6	15.41	Si
SLV 4	143750	0.27	10410	-13070	171.7	2690.19	15.67	Si
SLV 3	143750	0.27	10410	-13070	171.7	2690.19	15.67	Si
SLV 5	143750	0.27	11250	-14124	171.7	2885.36	16.8	Si
SLV 6	143750	0.27	11250	-14124	171.7	2885.36	16.8	Si
SLV 7	143750	0.27	11869	-14901	171.7	3027.1	17.63	Si
SLV 8	143750	0.27	11869	-14901	171.7	3027.1	17.63	Si
SLV 10	143750	0.27	12314	-15461	171.7	3128.09	18.22	Si
SLV 9	143750	0.27	12314	-15461	171.7	3128.09	18.22	Si

Verifica dei meccanismi locali di collasso con analisi cinematica lineare

forza di aggancio al piano = 0 quota mezzeria = 0.39 Wa = 0.08 Ta = 0.0251

Comb.	N top	N base	V orto	$\alpha_0$	M*	e*	$\alpha_0^*$	aLim	Verifica
SLV 9	-14087	-16269	-142	0.093	1899.4	0.933	1.45034	12.38582	No
SLV 10	-14087	-16269	-142	0.093	1899.4	0.933	1.45034	12.38582	No
SLV 8	-13282	-16312	138	0.094	1818.1	0.931	1.46285	12.38582	No
SLV 7	-13282	-16312	138	0.094	1818.1	0.931	1.46285	12.38582	No
SLV 12	-14851	-17151	-106	0.095	1976.6	0.936	1.47346	12.38582	No
SLV 11	-14851	-17151	-106	0.095	1976.6	0.936	1.47346	12.38582	No
SLV 5	-12519	-15430	103	0.096	1741	0.929	1.508	12.38582	No
SLV 6	-12519	-15430	103	0.096	1741	0.929	1.508	12.38582	No
SLV 3	-11185	-15025	411	0.075	1606.8	0.924	1.18693	7.08051	No
SLV 4	-11185	-15025	411	0.075	1606.8	0.924	1.18693	7.08051	No





Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLU	15.443	SLU 43	Si
V_SLU	7.506	SLU 82	Si
PF_SLV	4.255	SLV 1	Si
V_SLV	3.047	SLV 15	Si
PFFP_SLV	15.414	SLV 1	Si
R_SLV	0.117	SLV 9	No

## Maschio 10

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

## Dati geometrici

X ini.	Y ini.	X fin.	Y fin.	Quota i.	Quota.s	l	Sp.	h netta	h ini.	h fin.	a	a.s.,sx	a.s.,dx
-22.277	-9.039	-21.057	-9.039	L1	L2	1.22	0.45	2.6	2.6	2.6			

## Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2\_Corti

fb	fk	fvk0	fmedio	$\tau_0$	fv0	$\mu$	$\phi$	fv,lim	E	G	FC
600000			345000	9000	20000	0.58	0.77	32500	320000000	128000000	1.2

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni non sismiche,  $\gamma_M = 3$ 

Comb.	Quota	N	M	$\sigma_0$	Mu	c.s.	Verifica
SLU 82	1.09	-8474	-427.94	15437	4188.67	9.788	Si
SLU 82	1.49	-8370	-509.99	15248	4149.17	8.136	Si
SLU 33	1.09	-6767	-355.81	12327	3502.41	9.844	Si
SLU 33	1.49	-6703	-428.63	12211	3475.1	8.108	Si
SLU 36	1.09	-6767	-355.81	12327	3502.41	9.844	Si
SLU 36	1.49	-6703	-428.63	12211	3475.1	8.108	Si
SLU 42	1.09	-7272	-365.86	13248	3713.79	10.151	Si
SLU 42	1.49	-7255	-460.19	13217	3706.77	8.055	Si
SLU 38	1.09	-6767	-355.81	12327	3502.41	9.844	Si
SLU 38	1.49	-6703	-428.63	12211	3475.1	8.108	Si
SLU 39	1.09	-7294	-365.61	13288	3722.84	10.183	Si
SLU 39	1.49	-7277	-458.92	13258	3716.03	8.097	Si
SLU 31	1.09	-6752	-355.98	12301	3496.16	9.821	Si
SLU 31	1.49	-6688	-429.48	12183	3468.69	8.077	Si
SLU 40	1.09	-7272	-365.86	13248	3713.79	10.151	Si
SLU 40	1.49	-7255	-460.19	13217	3706.77	8.055	Si
SLU 34	1.09	-6752	-355.98	12301	3496.16	9.821	Si
SLU 34	1.49	-6688	-429.48	12183	3468.69	8.077	Si
SLU 41	1.09	-7294	-365.61	13288	3722.84	10.183	Si
SLU 41	1.49	-7277	-458.92	13258	3716.03	8.097	Si

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni sismiche,  $\gamma_M = 2$ 

Comb.	Quota	N	M	$\sigma_0$	Mu	c.s.	Verifica
SLV 16	1.09	-4614	547.37	8406	2620.68	4.788	Si
SLV 16	1.49	-4394	220.77	8004	2504.15	11.343	Si
SLV 13	1.09	-4032	556.89	7345	2311.18	4.15	Si
SLV 13	1.49	-3897	186.43	7100	2238.87	12.009	Si
SLV 15	1.09	-4614	547.37	8406	2620.68	4.788	Si
SLV 15	1.49	-4394	220.77	8004	2504.15	11.343	Si
SLV 5	1.09	-4768	-535.97	8686	2701.17	5.04	Si
SLV 5	1.49	-4730	-524.14	8617	2681.32	5.116	Si
SLV 14	1.09	-4032	556.89	7345	2311.18	4.15	Si
SLV 14	1.49	-3897	186.43	7100	2238.87	12.009	Si
SLV 3	1.09	-6792	-1151.04	12374	3723.09	3.235	Si
SLV 3	1.49	-6565	-810.77	11961	3612.21	4.455	Si
SLV 4	1.09	-6792	-1151.04	12374	3723.09	3.235	Si
SLV 4	1.49	-6565	-810.77	11961	3612.21	4.455	Si
SLV 1	1.09	-6210	-1141.52	11313	3436.66	3.011	Si
SLV 1	1.49	-6069	-845.12	11056	3366.54	3.984	Si
SLV 6	1.09	-4768	-535.97	8686	2701.17	5.04	Si
SLV 6	1.49	-4730	-524.14	8617	2681.32	5.116	Si
SLV 2	1.09	-6210	-1141.52	11313	3436.66	3.011	Si
SLV 2	1.49	-6069	-845.12	11056	3366.54	3.984	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni non sismiche,  $\gamma_M = 3$ 

Comb.	Quota	N	V par	M	$\sigma_0$	$\sigma_N$	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLU 34	1.09	-6752	641	-355.98		12301	1.2198	7196	3950			6.17	Si
SLU 34	1.49	-6688	641	-429.48		12183	1.2198	7180	3941			6.15	Si
SLU 41	1.09	-7294	764	-365.61		13288	1.2198	7327	4022			5.27	Si
SLU 41	1.49	-7277	762	-458.92		13258	1.2198	7323	4020			5.27	Si
SLU 40	1.09	-7272	765	-365.86		13248	1.2198	7322	4019			5.25	Si
SLU 40	1.49	-7255	765	-460.19		13217	1.2198	7318	4017			5.25	Si
SLU 42	1.09	-7272	765	-365.86		13248	1.2198	7322	4019			5.25	Si
SLU 42	1.49	-7255	765	-460.19		13217	1.2198	7318	4017			5.25	Si
SLU 83	1.09	-8496	767	-427.69		15477	1.2198	7619	4182			5.45	Si
SLU 83	1.49	-8392	766	-508.71		15289	1.2198	7594	4168			5.44	Si
SLU 81	1.09	-8496	767	-427.69		15477	1.2198	7619	4182			5.45	Si
SLU 81	1.49	-8392	766	-508.71		15289	1.2198	7594	4168			5.44	Si
SLU 31	1.09	-6752	641	-355.98		12301	1.2198	7196	3950			6.17	Si
SLU 31	1.49	-6688	641	-429.48		12183	1.2198	7180	3941			6.15	Si
SLU 84	1.09	-8474	769	-427.94		15437	1.2198	7614	4179			5.44	Si
SLU 84	1.49	-8370	768	-509.99		15248	1.2198	7589	4165			5.42	Si
SLU 39	1.09	-7294	764	-365.61		13288	1.2198	7327	4022			5.27	Si



Comb.	Quota	N	V par	M	$\sigma_0$	$\sigma_N$	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLU 39	1.49	-7277	762	-458.92		13258	1.2198	7323	4020			5.27	Si
SLU 82	1.09	-8474	769	-427.94		15437	1.2198	7614	4179			5.44	Si
SLU 82	1.49	-8370	768	-509.99		15248	1.2198	7589	4165			5.42	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni sismiche,  $\gamma_M = 2$

Comb.	Quota	N	V par	M	$\sigma_0$	$\sigma_N$	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLV 10	1.09	-4114	569	-26.44		7496	1.2198	9832	5397			9.49	Si
SLV 10	1.49	-4078	842	-214.68		7430	1.2198	9819	5390			6.4	Si
SLV 1	1.09	-6210	-903	-1141.52		11313	1.2198	10596	5816			6.44	Si
SLV 1	1.49	-6069	-715	-845.12		11056	1.2198	10545	5788			8.1	Si
SLV 9	1.09	-4114	569	-26.44		7496	1.2198	9832	5397			9.49	Si
SLV 9	1.49	-4078	842	-214.68		7430	1.2198	9819	5390			6.4	Si
SLV 3	1.09	-6792	-839	-1151.04		12374	1.2198	10808	5933			7.07	Si
SLV 3	1.49	-6565	-833	-810.77		11961	1.2198	10725	5887			7.07	Si
SLV 14	1.09	-4032	1475	556.89		7345	1.2198	9802	5381			3.65	Si
SLV 14	1.49	-3897	1468	186.43		7100	1.2198	9753	5354			3.65	Si
SLV 16	1.09	-4614	1539	547.37		8406	1.2198	10015	5497			3.57	Si
SLV 16	1.49	-4394	1350	220.77		8004	1.2198	9934	5453			4.04	Si
SLV 2	1.09	-6210	-903	-1141.52		11313	1.2198	10596	5816			6.44	Si
SLV 2	1.49	-6069	-715	-845.12		11056	1.2198	10545	5788			8.1	Si
SLV 13	1.09	-4032	1475	556.89		7345	1.2198	9802	5381			3.65	Si
SLV 13	1.49	-3897	1468	186.43		7100	1.2198	9753	5354			3.65	Si
SLV 15	1.09	-4614	1539	547.37		8406	1.2198	10015	5497			3.57	Si
SLV 15	1.49	-4394	1350	220.77		8004	1.2198	9934	5453			4.04	Si
SLV 4	1.09	-6792	-839	-1151.04		12374	1.2198	10808	5933			7.07	Si
SLV 4	1.49	-6565	-833	-810.77		11961	1.2198	10725	5887			7.07	Si

Verifica a pressoflessione fuori piano D.M. 17-01-18 (N.T.C.)

quota 0.39 Wa 0.08 denominatore 8  $\gamma_M = 2$

Comb.	fd	Sa	$\sigma_0$	N	M	Mc	Coeff.s.	Verifica
SLV 10	143750	0.27	7213	-3959	75.07	838.28	11.17	Si
SLV 9	143750	0.27	7213	-3959	75.07	838.28	11.17	Si
SLV 5	143750	0.27	7486	-4109	75.07	867.92	11.56	Si
SLV 6	143750	0.27	7486	-4109	75.07	867.92	11.56	Si
SLV 13	143750	0.27	8210	-4507	75.07	945.85	12.6	Si
SLV 14	143750	0.27	8210	-4507	75.07	945.85	12.6	Si
SLV 1	143750	0.27	9119	-5006	75.07	1042.23	13.88	Si
SLV 2	143750	0.27	9119	-5006	75.07	1042.23	13.88	Si
SLV 15	143750	0.27	9337	-5125	75.07	1065.07	14.19	Si
SLV 16	143750	0.27	9337	-5125	75.07	1065.07	14.19	Si

Verifica dei meccanismi locali di collasso con analisi cinematica lineare

forza di aggancio al piano = 0 quota mezzera = 0.39 Wa = 0.08 Ta = 0.0251

Comb.	N top	N base	V orto	$\alpha_0$	M*	e*	a0*	aLim	Verifica
SLV 10	-3085	-5130	-240	0.057	522.2	0.906	0.91517	12.38582	No
SLV 9	-3085	-5130	-240	0.057	522.2	0.906	0.91517	12.38582	No
SLV 5	-3683	-4691	-236	0.061	581.5	0.913	0.97717	12.38582	No
SLV 6	-3683	-4691	-236	0.061	581.5	0.913	0.97717	12.38582	No
SLV 12	-4655	-8151	235	0.066	678.9	0.922	1.03529	12.38582	No
SLV 11	-4655	-8151	235	0.066	678.9	0.922	1.03529	12.38582	No
SLV 8	-5252	-7712	239	0.067	738.9	0.927	1.05061	12.38582	No
SLV 7	-5252	-7712	239	0.067	738.9	0.927	1.05061	12.38582	No
SLV 4	-5400	-6142	77	0.092	753.8	0.928	1.4354	7.08051	No
SLV 3	-5400	-6142	77	0.092	753.8	0.928	1.4354	7.08051	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLU	8.055	SLU 40	Si
V_SLU	5.253	SLU 40	Si
PF_SLV	3.011	SLV 1	Si
V_SLV	3.572	SLV 15	Si
PFFP_SLV	11.167	SLV 9	Si
R_SLV	0.074	SLV 9	No

## Maschio 11

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati geometrici

X ini.	Y ini.	X fin.	Y fin.	Quota i.	Quota.s	I	Sp.	h netta	h ini.	h fin.	a	a.s.,sx	a.s.,dx
-21.057	-18.044	-21.057	-14.744	L1	L2	3.3	0.45	2.6	2.6	2.6			

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2\_Corti

fb	fk	fvk0	fmedio	$\tau_0$	fv0	$\mu$	$\phi$	fv,lim	E	G	FC
600000			345000	9000	20000	0.58	0.77	32500	320000000	128000000	1.2

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni non sismiche,  $\gamma_M = 3$

Comb.	Quota	N	M	$\sigma_0$	Mu	c.s.	Verifica
SLU 81	-0.91	-28940	-2111.43	19486	36333.75	17.208	Si
SLU 81	1.19	-21068	609.7	14185	28712.35	47.093	Si
SLU 39	-0.91	-23829	-1945.93	16044	31578.08	16.228	Si
SLU 39	1.19	-17621	304.99	11864	24843.67	81.458	Si
SLU 20	-0.91	-22381	-1654	15069	30101.07	18.199	Si
SLU 20	1.19	-16312	398.78	10983	23288.68	58.399	Si



Comb.	Quota	N	M	$\sigma_0$	Mu	c.s.	Verifica
SLU 41	-0.91	-23829	-1945.93	16044	31578.08	16.228	Si
SLU 41	1.19	-17621	304.99	11864	24843.67	81.458	Si
SLU 35	-0.91	-22722	-1715.32	15299	30454.63	17.754	Si
SLU 35	1.19	-16623	457.9	11192	23662.9	51.677	Si
SLU 32	-0.91	-22722	-1715.32	15299	30454.63	17.754	Si
SLU 32	1.19	-16623	457.9	11192	23662.9	51.677	Si
SLU 18	-0.91	-22381	-1654	15069	30101.07	18.199	Si
SLU 18	1.19	-16312	398.78	10983	23288.68	58.399	Si
SLU 83	-0.91	-28940	-2111.43	19486	36333.75	17.208	Si
SLU 83	1.19	-21068	609.7	14185	28712.35	47.093	Si
SLU 79	-0.91	-27834	-1880.82	18740	35364.59	18.803	Si
SLU 79	1.19	-20070	762.61	13513	27625.41	36.225	Si
SLU 37	-0.91	-22722	-1715.32	15299	30454.63	17.754	Si
SLU 37	1.19	-16623	457.9	11192	23662.9	51.677	Si

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni sismiche,  $\gamma_M = 2$

Comb.	Quota	N	M	$\sigma_0$	Mu	c.s.	Verifica
SLV 5	-0.91	-19381	-6719.49	13050	28567.96	4.252	Si
SLV 5	1.19	-12421	4115.2	8363	19094.58	4.64	Si
SLV 6	-0.91	-19381	-6719.49	13050	28567.96	4.252	Si
SLV 6	1.19	-12421	4115.2	8363	19094.58	4.64	Si
SLV 13	-0.91	-23860	-4385.87	16065	34198.21	7.797	Si
SLV 13	1.19	-15979	2665.33	10758	24046.71	9.022	Si
SLV 14	-0.91	-23860	-4385.87	16065	34198.21	7.797	Si
SLV 14	1.19	-15979	2665.33	10758	24046.71	9.022	Si
SLV 10	-0.91	-21669	-7591.58	14590	31488.87	4.148	Si
SLV 10	1.19	-13761	4602.32	9266	20987.55	4.56	Si
SLV 8	-0.91	-18019	5346.67	12132	26782.38	5.009	Si
SLV 8	1.19	-14287	-3042.8	9620	21721.16	7.139	Si
SLV 12	-0.91	-20306	4474.57	13672	29759.98	6.651	Si
SLV 12	1.19	-15628	-2555.68	10522	23568.62	9.222	Si
SLV 11	-0.91	-20306	4474.57	13672	29759.98	6.651	Si
SLV 11	1.19	-15628	-2555.68	10522	23568.62	9.222	Si
SLV 9	-0.91	-21669	-7591.58	14590	31488.87	4.148	Si
SLV 9	1.19	-13761	4602.32	9266	20987.55	4.56	Si
SLV 7	-0.91	-18019	5346.67	12132	26782.38	5.009	Si
SLV 7	1.19	-14287	-3042.8	9620	21721.16	7.139	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni non sismiche,  $\gamma_M = 3$

Comb.	Quota	N	V par	M	$\sigma_0$	$\sigma_N$	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLU 69	-0.91	-25252	-1018	-1342.74		17002	3.3005	7822	11618			11.42	Si
SLU 69	1.19	-17741	-963	1119.42		11945	3.3005	7148	10617			11.02	Si
SLU 43	-0.91	-23803	-1031	-1050.81		16027	3.3005	7692	11425			11.08	Si
SLU 43	1.19	-16431	-981	1213.21		11063	3.3005	7031	10442			10.64	Si
SLU 71	-0.91	-25252	-1018	-1342.74		17002	3.3005	7822	11618			11.42	Si
SLU 71	1.19	-17741	-963	1119.42		11945	3.3005	7148	10617			11.02	Si
SLU 50	-0.91	-23803	-1031	-1050.81		16027	3.3005	7692	11425			11.08	Si
SLU 50	1.19	-16431	-981	1213.21		11063	3.3005	7031	10442			10.64	Si
SLU 64	-0.91	-25252	-1018	-1342.74		17002	3.3005	7822	11618			11.42	Si
SLU 64	1.19	-17741	-963	1119.42		11945	3.3005	7148	10617			11.02	Si
SLU 66	-0.91	-25252	-1018	-1342.74		17002	3.3005	7822	11618			11.42	Si
SLU 66	1.19	-17741	-963	1119.42		11945	3.3005	7148	10617			11.02	Si
SLU 51	-0.91	-24178	-926	-443.35		16280	3.3005	7726	11475			12.39	Si
SLU 51	1.19	-17265	-845	800.81		11625	3.3005	7106	10553			12.49	Si
SLU 48	-0.91	-23803	-1031	-1050.81		16027	3.3005	7692	11425			11.08	Si
SLU 48	1.19	-16431	-981	1213.21		11063	3.3005	7031	10442			10.64	Si
SLU 49	-0.91	-24178	-926	-443.35		16280	3.3005	7726	11475			12.39	Si
SLU 49	1.19	-17265	-845	800.81		11625	3.3005	7106	10553			12.49	Si
SLU 45	-0.91	-23803	-1031	-1050.81		16027	3.3005	7692	11425			11.08	Si
SLU 45	1.19	-16431	-981	1213.21		11063	3.3005	7031	10442			10.64	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni sismiche,  $\gamma_M = 2$

Comb.	Quota	N	V par	M	$\sigma_0$	$\sigma_N$	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLV 5	-0.91	-19381	-5113	-6719.49		13050	3.3005	10943	16253			3.18	Si
SLV 5	1.19	-12421	-2885	4115.2		8363	3.3005	10006	14861			5.15	Si
SLV 10	-0.91	-21669	-5107	-7591.58		14590	3.3005	11251	16711			3.27	Si
SLV 10	1.19	-13761	-3103	4602.32		9266	3.3005	10186	15129			4.88	Si
SLV 7	-0.91	-18019	3598	5346.67		12132	3.3005	10760	15980			4.44	Si
SLV 7	1.19	-14287	1683	-3042.8		9620	3.3005	10257	15234			9.05	Si
SLV 9	-0.91	-21669	-5107	-7591.58		14590	3.3005	11251	16711			3.27	Si
SLV 9	1.19	-13761	-3103	4602.32		9266	3.3005	10186	15129			4.88	Si
SLV 2	-0.91	-16236	-2072	-1478.89		10932	3.3005	10520	15624			7.54	Si
SLV 2	1.19	-11510	-1032	1041.59		7750	3.3005	9883	14679			14.22	Si
SLV 8	-0.91	-18019	3598	5346.67		12132	3.3005	10760	15980			4.44	Si
SLV 8	1.19	-14287	1683	-3042.8		9620	3.3005	10257	15234			9.05	Si
SLV 6	-0.91	-19381	-5113	-6719.49		13050	3.3005	10943	16253			3.18	Si
SLV 6	1.19	-12421	-2885	4115.2		8363	3.3005	10006	14861			5.15	Si
SLV 12	-0.91	-20306	3604	4474.57		13672	3.3005	11068	16438			4.56	Si
SLV 12	1.19	-15628	1465	-2555.68		10522	3.3005	10438	15502			10.58	Si
SLV 1	-0.91	-16236	-2072	-1478.89		10932	3.3005	10520	15624			7.54	Si
SLV 1	1.19	-11510	-1032	1041.59		7750	3.3005	9883	14679			14.22	Si
SLV 11	-0.91	-20306	3604	4474.57		13672	3.3005	11068	16438			4.56	Si
SLV 11	1.19	-15628	1465	-2555.68		10522	3.3005	10438	15502			10.58	Si

Verifica a pressoflessione fuori piano D.M. 17-01-18 (N.T.C.)

quota 0.39 Wa 0.08 denominatore 8  $\gamma_M = 2$

Comb.	fd	Sa	$\sigma_0$	N	M	Mc	Coeff.s.	Verifica
SLV 4	143750	0.27	8586	-12752	203.12	2667.59	13.13	Si
SLV 3	143750	0.27	8586	-12752	203.12	2667.59	13.13	Si



Comb.	fd	Sa	$\sigma_0$	N	M	Mc	Coeff.s.	Verifica
SLV 1	143750	0.27	9102	-13519	203.12	2815.12	13.86	Si
SLV 2	143750	0.27	9102	-13519	203.12	2815.12	13.86	Si
SLV 8	143750	0.27	9635	-14311	203.12	2965.97	14.6	Si
SLV 7	143750	0.27	9635	-14311	203.12	2965.97	14.6	Si
SLV 12	143750	0.27	11051	-16413	203.12	3358.97	16.54	Si
SLV 11	143750	0.27	11051	-16413	203.12	3358.97	16.54	Si
SLV 6	143750	0.27	11356	-16866	203.12	3442.22	16.95	Si
SLV 5	143750	0.27	11356	-16866	203.12	3442.22	16.95	Si

#### Verifica dei meccanismi locali di collasso con analisi cinematica lineare

forza di aggancio al piano = 0 quota mezzera = 0.39  $W_a = 0.08$   $T_a = 0.0251$

Comb.	N top	N base	V orto	$\alpha_0$	M*	e*	a0*	aLim	Verifica
SLV 12	-15118	-20306	149	0.095	2090.8	0.929	1.48049	12.38582	No
SLV 11	-15118	-20306	149	0.095	2090.8	0.929	1.48049	12.38582	No
SLV 8	-13321	-18019	125	0.097	1909.8	0.924	1.52537	12.38582	No
SLV 7	-13321	-18019	125	0.097	1909.8	0.924	1.52537	12.38582	No
SLV 10	-10253	-21669	-157	0.097	1602.3	0.914	1.5431	12.38582	No
SLV 9	-10253	-21669	-157	0.097	1602.3	0.914	1.5431	12.38582	No
SLV 6	-8456	-19381	-181	0.097	1423.6	0.906	1.54781	12.38582	No
SLV 5	-8456	-19381	-181	0.097	1423.6	0.906	1.54781	12.38582	No
SLV 15	-15512	-23452	71	0.099	2130.5	0.93	1.541	7.08051	No
SLV 16	-15512	-23452	71	0.099	2130.5	0.93	1.541	7.08051	No

#### Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLU	16.228	SLU 39	Si
V_SLU	10.64	SLU 43	Si
PF_SLV	4.148	SLV 9	Si
V_SLV	3.179	SLV 5	Si
PFFP_SLV	13.133	SLV 3	Si
R_SLV	0.12	SLV 11	No

## Maschio 12

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

#### Dati geometrici

X ini.	Y ini.	X fin.	Y fin.	Quota i.	Quota.s	l	Sp.	h netta	h ini.	h fin.	a	a.s.,sx	a.s.,dx
-21.057	-13.794	-21.057	-9.039	L1	L2	4.755	0.45	2.6	2.6	2.6			

#### Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.) Muratura in mattoni pieni e malta di calce LC2\_Corti

fb	fk	fvk0	fmedio	t0	fv0	$\mu$	$\phi$	fv,lim	E	G	FC
600000			345000	9000	20000	0.58	0.77	32500	320000000	128000000	1.2

#### Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni non sismiche, $\gamma_M = 3$

Comb.	Quota	N	M	$\sigma_0$	Mu	c.s.	Verifica
SLU 83	-0.91	-43050	-9641.38	20119	77071.9	7.994	Si
SLU 83	1.19	-25552	-2945.46	11942	51844.2	17.601	Si
SLU 40	-0.91	-35882	-8685.91	16769	67747.02	7.8	Si
SLU 40	1.19	-21357	-2430.75	9981	44554.68	18.33	Si
SLU 82	-0.91	-43075	-9580.01	20131	77101.52	8.048	Si
SLU 82	1.19	-25618	-3201.8	11972	51954.88	16.227	Si
SLU 32	-0.91	-33926	-7775.7	15855	64959.16	8.354	Si
SLU 32	1.19	-20168	-2286.54	9425	42400.51	18.544	Si
SLU 35	-0.91	-33926	-7775.7	15855	64959.16	8.354	Si
SLU 35	1.19	-20168	-2286.54	9425	42400.51	18.544	Si
SLU 39	-0.91	-35857	-8747.29	16758	67712.56	7.741	Si
SLU 39	1.19	-21291	-2174.41	9950	44436.34	20.436	Si
SLU 42	-0.91	-35882	-8685.91	16769	67747.02	7.8	Si
SLU 42	1.19	-21357	-2430.75	9981	44554.68	18.33	Si
SLU 84	-0.91	-43075	-9580.01	20131	77101.52	8.048	Si
SLU 84	1.19	-25618	-3201.8	11972	51954.88	16.227	Si
SLU 81	-0.91	-43050	-9641.38	20119	77071.9	7.994	Si
SLU 81	1.19	-25552	-2945.46	11942	51844.2	17.601	Si
SLU 41	-0.91	-35857	-8747.29	16758	67712.56	7.741	Si
SLU 41	1.19	-21291	-2174.41	9950	44436.34	20.436	Si

#### Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni sismiche, $\gamma_M = 2$

Comb.	Quota	N	M	$\sigma_0$	Mu	c.s.	Verifica
SLV 8	-0.91	-24636	6217.28	11513	53052.57	8.533	Si
SLV 8	1.19	-15691	-1290.3	7333	35065.56	27.176	Si
SLV 10	-0.91	-33149	-16844.5	15492	68819.86	4.086	Si
SLV 10	1.19	-18671	-3671.2	8726	41220.11	11.228	Si
SLV 5	-0.91	-29859	-15309.12	13955	62882.99	4.108	Si
SLV 5	1.19	-16708	-4249.94	7808	37183.92	8.749	Si
SLV 2	-0.91	-24193	-5983.6	11306	52196	8.723	Si
SLV 2	1.19	-14061	-3889.26	6571	31632.32	8.133	Si
SLV 13	-0.91	-35159	-11101.54	16432	72350.24	6.517	Si
SLV 13	1.19	-20606	-1960.14	9630	45128.65	23.023	Si
SLV 9	-0.91	-33149	-16844.5	15492	68819.86	4.086	Si
SLV 9	1.19	-18671	-3671.2	8726	41220.11	11.228	Si
SLV 1	-0.91	-24193	-5983.6	11306	52196	8.723	Si
SLV 1	1.19	-14061	-3889.26	6571	31632.32	8.133	Si
SLV 6	-0.91	-29859	-15309.12	13955	62882.99	4.108	Si
SLV 6	1.19	-16708	-4249.94	7808	37183.92	8.749	Si



Comb.	Quota	N	M	$\sigma_0$	Mu	c.s.	Verifica
SLV 7	-0.91	-24636	6217.28	11513	53052.57	8.533	Si
SLV 7	1.19	-15691	-1290.3	7333	35065.56	27.176	Si
SLV 14	-0.91	-35159	-11101.54	16432	72350.24	6.517	Si
SLV 14	1.19	-20606	-1960.14	9630	45128.65	23.023	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni non sismiche,  $\gamma_M = 3$

Comb.	Quota	N	V par	M	$\sigma_0$	$\sigma_N$	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLU 55	-0.91	-38620	1268	-7387.62		18049	4.755	7962	17037			13.44	Si
SLU 55	1.19	-22978	1361	-3495.09		10739	4.755	6987	14951			10.98	Si
SLU 52	-0.91	-38620	1268	-7387.62		18049	4.755	7962	17037			13.44	Si
SLU 52	1.19	-22978	1361	-3495.09		10739	4.755	6987	14951			10.98	Si
SLU 70	-0.91	-36637	1249	-6341.4		17122	4.755	7838	16772			13.43	Si
SLU 70	1.19	-21873	1325	-3575.57		10222	4.755	6919	14804			11.17	Si
SLU 76	-0.91	-41160	1271	-8567.51		19236	4.755	8120	17375			13.67	Si
SLU 76	1.19	-24538	1380	-3484.83		11468	4.755	7085	15159			10.99	Si
SLU 68	-0.91	-36653	1345	-6300.48		17130	4.755	7840	16775			12.47	Si
SLU 68	1.19	-21917	1420	-3746.46		10243	4.755	6921	14810			10.43	Si
SLU 47	-0.91	-34113	1341	-5120.59		15943	4.755	7681	16436			12.26	Si
SLU 47	1.19	-20357	1402	-3756.73		9514	4.755	6824	14602			10.42	Si
SLU 73	-0.91	-41160	1271	-8567.51		19236	4.755	8120	17375			13.67	Si
SLU 73	1.19	-24538	1380	-3484.83		11468	4.755	7085	15159			10.99	Si
SLU 65	-0.91	-36653	1345	-6300.48		17130	4.755	7840	16775			12.47	Si
SLU 65	1.19	-21917	1420	-3746.46		10243	4.755	6921	14810			10.43	Si
SLU 72	-0.91	-36637	1249	-6341.4		17122	4.755	7838	16772			13.43	Si
SLU 72	1.19	-21873	1325	-3575.57		10222	4.755	6919	14804			11.17	Si
SLU 44	-0.91	-34113	1341	-5120.59		15943	4.755	7681	16436			12.26	Si
SLU 44	1.19	-20357	1402	-3756.73		9514	4.755	6824	14602			10.42	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni sismiche,  $\gamma_M = 2$

Comb.	Quota	N	V par	M	$\sigma_0$	$\sigma_N$	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLV 6	-0.91	-29859	-3331	-15309.12		13955	4.755	11124	23803			7.15	Si
SLV 6	1.19	-16708	-1459	-4249.94		7808	4.755	9895	21173			14.51	Si
SLV 7	-0.91	-24636	5199	6217.28		11513	4.755	10636	22758			4.38	Si
SLV 7	1.19	-15691	3633	-1290.3		7333	4.755	9800	20969			5.77	Si
SLV 10	-0.91	-33149	-3541	-16844.5		15492	4.755	11432	24461			6.91	Si
SLV 10	1.19	-18671	-1846	-3671.2		8726	4.755	10078	21565			11.68	Si
SLV 4	-0.91	-22626	2459	474.32		10574	4.755	10448	22356			9.09	Si
SLV 4	1.19	-13756	2303	-3001.36		6429	4.755	9619	20582			8.94	Si
SLV 12	-0.91	-27926	4988	4681.89		13051	4.755	10944	23416			4.69	Si
SLV 12	1.19	-17654	3245	-711.57		8250	4.755	9983	21362			6.58	Si
SLV 5	-0.91	-29859	-3331	-15309.12		13955	4.755	11124	23803			7.15	Si
SLV 5	1.19	-16708	-1459	-4249.94		7808	4.755	9895	21173			14.51	Si
SLV 9	-0.91	-33149	-3541	-16844.5		15492	4.755	11432	24461			6.91	Si
SLV 9	1.19	-18671	-1846	-3671.2		8726	4.755	10078	21565			11.68	Si
SLV 8	-0.91	-24636	5199	6217.28		11513	4.755	10636	22758			4.38	Si
SLV 8	1.19	-15691	3633	-1290.3		7333	4.755	9800	20969			5.77	Si
SLV 3	-0.91	-22626	2459	474.32		10574	4.755	10448	22356			9.09	Si
SLV 3	1.19	-13756	2303	-3001.36		6429	4.755	9619	20582			8.94	Si
SLV 11	-0.91	-27926	4988	4681.89		13051	4.755	10944	23416			4.69	Si
SLV 11	1.19	-17654	3245	-711.57		8250	4.755	9983	21362			6.58	Si

Verifica a pressoflessione fuori piano D.M. 17-01-18 (N.T.C.)

quota 0.39  $W_a$  0.08 denominatore 8  $\gamma_M = 2$

Comb.	fd	Sa	$\sigma_0$	N	M	Mc	Coeff.s.	Verifica
SLV 4	143750	0.27	8315	-17793	292.64	3730.9	12.75	Si
SLV 3	143750	0.27	8315	-17793	292.64	3730.9	12.75	Si
SLV 2	143750	0.27	8542	-18278	292.64	3825.05	13.07	Si
SLV 1	143750	0.27	8542	-18278	292.64	3825.05	13.07	Si
SLV 8	143750	0.27	9286	-19870	292.64	4130.99	14.12	Si
SLV 7	143750	0.27	9286	-19870	292.64	4130.99	14.12	Si
SLV 5	143750	0.27	10042	-21488	292.64	4437.45	15.16	Si
SLV 6	143750	0.27	10042	-21488	292.64	4437.45	15.16	Si
SLV 11	143750	0.27	10345	-22136	292.64	4558.93	15.58	Si
SLV 12	143750	0.27	10345	-22136	292.64	4558.93	15.58	Si

Verifica dei meccanismi locali di collasso con analisi cinematica lineare

forza di aggancio al piano = 0 quota mezzzeria = 0.39  $W_a$  = 0.08  $T_a$  = 0.0251

Comb.	N top	N base	V orto	$\alpha_0$	M*	e*	$\alpha_0^*$	aLim	Verifica
SLV 9	-14729	-33149	263	0.095	2304.1	0.914	1.51403	12.38582	No
SLV 10	-14729	-33149	263	0.095	2304.1	0.914	1.51403	12.38582	No
SLV 8	-13458	-24636	-275	0.095	2177.5	0.91	1.51886	12.38582	No
SLV 7	-13458	-24636	-275	0.095	2177.5	0.91	1.51886	12.38582	No
SLV 11	-15113	-27926	92	0.103	2342.4	0.915	1.64449	12.38582	No
SLV 12	-15113	-27926	92	0.103	2342.4	0.915	1.64449	12.38582	No
SLV 5	-13074	-29859	-104	0.105	2139.3	0.909	1.67442	12.38582	No
SLV 6	-13074	-29859	-104	0.105	2139.3	0.909	1.67442	12.38582	No
SLV 3	-11393	-22626	-644	0.074	1972.9	0.904	1.18455	7.08051	No
SLV 4	-11393	-22626	-644	0.074	1972.9	0.904	1.18455	7.08051	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLU	7.741	SLU 39	Si
V_SLU	10.417	SLU 44	Si
PF_SLV	4.086	SLV 9	Si
V_SLV	4.378	SLV 7	Si
PFFP_SLV	12.749	SLV 3	Si
R_SLV	0.122	SLV 9	No



## Maschio 13

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

### Dati geometrici

X ini.	Y ini.	X fin.	Y fin.	Quota i.	Quota.s	l	Sp.	h netta	h ini.	h fin.	a	a.s.,sx	a.s.,dx
-35.332	-17.999	-35.332	-9.039	L2	L3	8.96	0.25	3.93	3.93	3.93			

### Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2\_Corti

fb	fk	fvk0	fmedio	τ0	fν0	μ	φ	fv,lim	E	G	FC
600000			345000	9000	20000	0.58	0.77	32500	320000000	128000000	1.2

### Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni non sismiche, γM = 3

Comb.	Quota	N	M	σ0	Mu	c.s.	Verifica
SLU 64	1.69	-18867	-3195.06	8423	75783.17	23.719	Si
SLU 64	5.62	-468	-62.35	209	2092.68	33.561	Si
SLU 69	1.69	-18867	-3195.06	8423	75783.17	23.719	Si
SLU 69	5.62	-468	-62.35	209	2092.68	33.561	Si
SLU 81	1.69	-23194	-3819.69	10355	90701.42	23.746	Si
SLU 81	5.62	-1139	-177.1	509	5072.33	28.641	Si
SLU 50	1.69	-17335	-2966.1	7739	70281.22	23.695	Si
SLU 50	5.62	-255	-31.18	114	1141.87	36.623	Si
SLU 48	1.69	-17335	-2966.1	7739	70281.22	23.695	Si
SLU 48	5.62	-255	-31.18	114	1141.87	36.623	Si
SLU 45	1.69	-17335	-2966.1	7739	70281.22	23.695	Si
SLU 45	5.62	-255	-31.18	114	1141.87	36.623	Si
SLU 71	1.69	-18867	-3195.06	8423	75783.17	23.719	Si
SLU 71	5.62	-468	-62.35	209	2092.68	33.561	Si
SLU 43	1.69	-17335	-2966.1	7739	70281.22	23.695	Si
SLU 43	5.62	-255	-31.18	114	1141.87	36.623	Si
SLU 66	1.69	-18867	-3195.06	8423	75783.17	23.719	Si
SLU 66	5.62	-468	-62.35	209	2092.68	33.561	Si
SLU 83	1.69	-23194	-3819.69	10355	90701.42	23.746	Si
SLU 83	5.62	-1139	-177.1	509	5072.33	28.641	Si

### Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni sismiche, γM = 2

Comb.	Quota	N	M	σ0	Mu	c.s.	Verifica
SLV 3	1.69	-10974	-2822.95	4899	47191.71	16.717	Si
SLV 3	5.62	-235	-280	105	1052.54	3.759	Si
SLV 10	1.69	-15691	-11711.08	7005	66266.55	5.658	Si
SLV 10	5.62	-472	742.74	211	2112.58	2.844	Si
SLV 8	1.69	-14392	6646.4	6425	61085.69	9.191	Si
SLV 8	5.62	-423	-870.87	189	1891.48	2.172	Si
SLV 12	1.69	-16946	8653.58	7565	71215.69	8.23	Si
SLV 12	5.62	-558	-888.08	249	2494.98	2.809	Si
SLV 7	1.69	-14392	6646.4	6425	61085.69	9.191	Si
SLV 7	5.62	-423	-870.87	189	1891.48	2.172	Si
SLV 9	1.69	-15691	-11711.08	7005	66266.55	5.658	Si
SLV 9	5.62	-472	742.74	211	2112.58	2.844	Si
SLV 4	1.69	-10974	-2822.95	4899	47191.71	16.717	Si
SLV 4	5.62	-235	-280	105	1052.54	3.759	Si
SLV 5	1.69	-13138	-13718.27	5865	56031.7	4.084	Si
SLV 5	5.62	-337	759.95	151	1508.7	1.985	Si
SLV 6	1.69	-13138	-13718.27	5865	56031.7	4.084	Si
SLV 6	5.62	-337	759.95	151	1508.7	1.985	Si
SLV 11	1.69	-16946	8653.58	7565	71215.69	8.23	Si
SLV 11	5.62	-558	-888.08	249	2494.98	2.809	Si

### Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni non sismiche, γM = 3

Comb.	Quota	N	V par	M	σ0	σN	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLU 65	1.69	-18876	582	-2517.58		8427	8.96	6679	14961			25.72	Si
SLU 65	5.62	-448	33	-53.85		200	8.96	5582	12504			380.33	Si
SLU 31	1.69	-18309	592	-2330.72		8174	8.96	6645	14886			25.14	Si
SLU 31	5.62	-915	31	-135.2		409	8.96	5610	12566			406.12	Si
SLU 13	1.69	-16777	561	-2101.76		7490	8.96	6554	14681			26.16	Si
SLU 13	5.62	-702	32	-104.02		314	8.96	5597	12538			388.77	Si
SLU 10	1.69	-16777	561	-2101.76		7490	8.96	6554	14681			26.16	Si
SLU 10	5.62	-702	32	-104.02		314	8.96	5597	12538			388.77	Si
SLU 55	1.69	-20373	615	-2725.86		9095	8.96	6768	15161			24.65	Si
SLU 55	5.62	-705	31	-102.99		315	8.96	5598	12538			402.3	Si
SLU 34	1.69	-18309	592	-2330.72		8174	8.96	6645	14886			25.14	Si
SLU 34	5.62	-915	31	-135.2		409	8.96	5610	12566			406.12	Si
SLU 76	1.69	-21905	646	-2954.82		9779	8.96	6859	15365			23.78	Si
SLU 76	5.62	-918	30	-134.17		410	8.96	5610	12567			420.87	Si
SLU 52	1.69	-20373	615	-2725.86		9095	8.96	6768	15161			24.65	Si
SLU 52	5.62	-705	31	-102.99		315	8.96	5598	12538			402.3	Si
SLU 68	1.69	-18876	582	-2517.58		8427	8.96	6679	14961			25.72	Si
SLU 68	5.62	-448	33	-53.85		200	8.96	5582	12504			380.33	Si
SLU 73	1.69	-21905	646	-2954.82		9779	8.96	6859	15365			23.78	Si
SLU 73	5.62	-918	30	-134.17		410	8.96	5610	12567			420.87	Si

### Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni sismiche, γM = 2

Comb.	Quota	N	V par	M	σ0	σN	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLV 11	1.69	-16946	3050	8653.58		7565	8.96	9846	22056			7.23	Si
SLV 11	5.62	-558	1543	-888.08		258	8.6659	8385	18165			11.77	Si
SLV 12	1.69	-16946	3050	8653.58		7565	8.96	9846	22056			7.23	Si
SLV 12	5.62	-558	1543	-888.08		258	8.6659	8385	18165			11.77	Si
SLV 5	1.69	-13138	-2565	-13718.27		5865	8.96	9506	21294			8.3	Si



Comb.	Quota	N	V par	M	$\sigma_0$	$\sigma_N$	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLV 5	5.62	-337	-1556	759.95		202	6.6784	8374	13981			8.99	Si
SLV 4	1.69	-10974	1259	-2822.95		4899	8.96	9313	20861			16.57	Si
SLV 4	5.62	-235	414	-280		105	8.96	8354	18714			45.22	Si
SLV 6	1.69	-13138	-2565	-13718.27		5865	8.96	9506	21294			8.3	Si
SLV 6	5.62	-337	-1556	759.95		202	6.6784	8374	13981			8.99	Si
SLV 7	1.69	-14392	3146	6646.4		6425	8.96	9618	21545			6.85	Si
SLV 7	5.62	-423	1518	-870.87		233	7.2616	8380	15213			10.02	Si
SLV 3	1.69	-10974	1259	-2822.95		4899	8.96	9313	20861			16.57	Si
SLV 3	5.62	-235	414	-280		105	8.96	8354	18714			45.22	Si
SLV 8	1.69	-14392	3146	6646.4		6425	8.96	9618	21545			6.85	Si
SLV 8	5.62	-423	1518	-870.87		233	7.2616	8380	15213			10.02	Si
SLV 9	1.69	-15691	-2661	-11711.08		7005	8.96	9734	21805			8.19	Si
SLV 9	5.62	-472	-1531	742.74		217	8.7229	8377	18267			11.93	Si
SLV 10	1.69	-15691	-2661	-11711.08		7005	8.96	9734	21805			8.19	Si
SLV 10	5.62	-472	-1531	742.74		217	8.7229	8377	18267			11.93	Si

#### Verifica a pressoflessione fuori piano D.M. 17-01-18 (N.T.C.)

quota 3.655 Wa 0.05 denominatore 8  $\gamma_M = 2$

Comb.	fd	Sa	$\sigma_0$	N	M	Mc	Coeff.s.	Verifica
SLV 4	143750	0.48	0	-7385	1319.16	0	0	No, $e > t/2$
SLV 6	143750	0.48	0	-6243	1319.16	0	0	No, $e > t/2$
SLV 7	143750	0.48	0	-10237	1319.16	0	0	No, $e > t/2$
SLV 5	143750	0.48	0	-6243	1319.16	0	0	No, $e > t/2$
SLV 9	143750	0.48	0	-7489	1319.16	0	0	No, $e > t/2$
SLV 10	143750	0.48	0	-7489	1319.16	0	0	No, $e > t/2$
SLV 1	143750	0.48	0	-6187	1319.16	0	0	No, $e > t/2$
SLV 8	143750	0.48	0	-10237	1319.16	0	0	No, $e > t/2$
SLV 2	143750	0.48	0	-6187	1319.16	0	0	No, $e > t/2$
SLV 3	143750	0.48	0	-7385	1319.16	0	0	No, $e > t/2$

#### Verifica dei meccanismi locali di collasso con analisi cinematica lineare

forza di aggancio al piano = 0 quota mezzeria = 3.655 Wa = 0.05 Ta = 0.1032

Comb.	N top	N base	V orto	$\alpha_0$	M*	e*	a0*	aLim	Verifica
SLV 14	-660	-19109	53	0.055	1624.9	0.966	0.82745	14.73335	No
SLV 13	-660	-19109	53	0.055	1624.9	0.966	0.82745	14.73335	No
SLV 15	-686	-19486	51	0.055	1625.6	0.965	0.83045	14.73335	No
SLV 16	-686	-19486	51	0.055	1625.6	0.965	0.83045	14.73335	No
SLV 4	-235	-10974	-50	0.057	1616.6	0.986	0.83282	14.73335	No
SLV 3	-235	-10974	-50	0.057	1616.6	0.986	0.83282	14.73335	No
SLV 1	-209	-10598	-49	0.057	1616.3	0.988	0.836	14.73335	No
SLV 2	-209	-10598	-49	0.057	1616.3	0.988	0.836	14.73335	No
SLV 9	-472	-15691	20	0.059	1620.4	0.974	0.88762	3.23229	No
SLV 10	-472	-15691	20	0.059	1620.4	0.974	0.88762	3.23229	No

#### Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLU	23.695	SLU 43	Si
V_SLU	23.784	SLU 73	Si
PF_SLV	1.985	SLV 5	Si
V_SLV	6.849	SLV 7	Si
PFFP_SLV	0	SLV 1	No
R_SLV	0.056	SLV 13	No

## Maschio 14

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

#### Dati geometrici

X ini.	Y ini.	X fin.	Y fin.	Quota i.	Quota.s	I	Sp.	h netta	h ini.	h fin.	a	a.s.,sx	a.s.,dx
-35.332	-13.489	-33.207	-13.489	L2	L3	2.125	0.3	3.93	3.93	3.93			

#### Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2\_Corti

fb	fk	fvk0	fmedio	t0	fv0	$\mu$	$\phi$	fv,lim	E	G	FC
600000			345000	9000	20000	0.58	0.77	32500	320000000	128000000	1.2

#### Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni non sismiche, $\gamma_M = 3$

Comb.	Quota	N	M	$\sigma_0$	Mu	c.s.	Verifica
SLU 20	1.69	-14169	-617.97	22226	10946.99	17.714	Si
SLU 20	3.79	-11299	2108.86	17724	9393.27	4.454	Si
SLU 40	1.69	-16016	-645.75	25123	11768.58	18.225	Si
SLU 40	3.79	-13095	2500.94	20541	10404.82	4.16	Si
SLU 83	1.69	-18010	-801.36	28250	12498.97	15.597	Si
SLU 83	3.79	-14088	2571.43	22099	10907.63	4.242	Si
SLU 81	1.69	-18010	-801.36	28250	12498.97	15.597	Si
SLU 81	3.79	-14088	2571.43	22099	10907.63	4.242	Si
SLU 42	1.69	-16016	-645.75	25123	11768.58	18.225	Si
SLU 42	3.79	-13095	2500.94	20541	10404.82	4.16	Si
SLU 39	1.69	-15727	-630.26	24670	11649.47	18.484	Si
SLU 39	3.79	-12943	2490.27	20303	10324.41	4.146	Si
SLU 84	1.69	-18298	-816.84	28703	12591.15	15.414	Si
SLU 84	3.79	-14240	2582.1	22337	10980.93	4.253	Si
SLU 18	1.69	-14169	-617.97	22226	10946.99	17.714	Si
SLU 18	3.79	-11299	2108.86	17724	9393.27	4.454	Si
SLU 82	1.69	-18298	-816.84	28703	12591.15	15.414	Si
SLU 82	3.79	-14240	2582.1	22337	10980.93	4.253	Si



Comb.	Quota	N	M	$\sigma_0$	Mu	c.s.	Verifica
SLU 41	1.69	-15727	-630.26	24670	11649.47	18.484	Si
SLU 41	3.79	-12943	2490.27	20303	10324.41	4.146	Si

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni sismiche,  $\gamma_M = 2$

Comb.	Quota	N	M	$\sigma_0$	Mu	c.s.	Verifica
SLV 9	1.69	-10390	1229.16	16299	9567.23	7.784	Si
SLV 9	3.79	-7625	2513.44	11961	7308.87	2.908	Si
SLV 13	1.69	-9742	2713.24	15282	9056.63	3.338	Si
SLV 13	3.79	-4761	568.93	7468	4749.16	8.348	Si
SLV 2	1.69	-11781	-3354.26	18480	10624.01	3.167	Si
SLV 2	3.79	-10533	2661.74	16523	9678.22	3.636	Si
SLV 1	1.69	-11781	-3354.26	18480	10624.01	3.167	Si
SLV 1	3.79	-10533	2661.74	16523	9678.22	3.636	Si
SLV 10	1.69	-10390	1229.16	16299	9567.23	7.784	Si
SLV 10	3.79	-7625	2513.44	11961	7308.87	2.908	Si
SLV 6	1.69	-11002	-591.09	17258	10038.54	16.983	Si
SLV 6	3.79	-9357	3141.28	14678	8747.7	2.785	Si
SLV 3	1.69	-11837	-3902.44	18568	10665.5	2.733	Si
SLV 3	3.79	-9810	1622.86	15388	9110.12	5.614	Si
SLV 14	1.69	-9742	2713.24	15282	9056.63	3.338	Si
SLV 14	3.79	-4761	568.93	7468	4749.16	8.348	Si
SLV 4	1.69	-11837	-3902.44	18568	10665.5	2.733	Si
SLV 4	3.79	-9810	1622.86	15388	9110.12	5.614	Si
SLV 5	1.69	-11002	-591.09	17258	10038.54	16.983	Si
SLV 5	3.79	-9357	3141.28	14678	8747.7	2.785	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni non sismiche,  $\gamma_M = 3$

Comb.	Quota	N	V par	M	$\sigma_0$	$\sigma_N$	I'	fvd	Vt scorr.	Vt fess.diag.	Vt <sub>lim</sub>	c.s.	Verifica
SLU 20	1.69	-14169	-1166	-617.97		22226	2.125	8519	5431			4.66	Si
SLU 20	3.79	-11299	-1020	2108.86		17724	2.125	7919	5048			4.95	Si
SLU 18	1.69	-14169	-1166	-617.97		22226	2.125	8519	5431			4.66	Si
SLU 18	3.79	-11299	-1020	2108.86		17724	2.125	7919	5048			4.95	Si
SLU 84	1.69	-18298	-1307	-816.84		28703	2.125	9383	5981			4.58	Si
SLU 84	3.79	-14240	-1110	2582.1		22337	2.125	8534	5440			4.9	Si
SLU 82	1.69	-18298	-1307	-816.84		28703	2.125	9383	5981			4.58	Si
SLU 82	3.79	-14240	-1110	2582.1		22337	2.125	8534	5440			4.9	Si
SLU 81	1.69	-18010	-1359	-801.36		28250	2.125	9322	5943			4.37	Si
SLU 81	3.79	-14088	-1171	2571.43		22099	2.125	8502	5420			4.63	Si
SLU 39	1.69	-15727	-1440	-630.26		24670	2.125	8845	5639			3.91	Si
SLU 39	3.79	-12943	-1281	2490.27		20303	2.125	8263	5267			4.11	Si
SLU 41	1.69	-15727	-1440	-630.26		24670	2.125	8845	5639			3.91	Si
SLU 41	3.79	-12943	-1281	2490.27		20303	2.125	8263	5267			4.11	Si
SLU 83	1.69	-18010	-1359	-801.36		28250	2.125	9322	5943			4.37	Si
SLU 83	3.79	-14088	-1171	2571.43		22099	2.125	8502	5420			4.63	Si
SLU 42	1.69	-16016	-1388	-645.75		25123	2.125	8905	5677			4.09	Si
SLU 42	3.79	-13095	-1220	2500.94		20541	2.125	8294	5288			4.33	Si
SLU 40	1.69	-16016	-1388	-645.75		25123	2.125	8905	5677			4.09	Si
SLU 40	3.79	-13095	-1220	2500.94		20541	2.125	8294	5288			4.33	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni sismiche,  $\gamma_M = 2$

Comb.	Quota	N	V par	M	$\sigma_0$	$\sigma_N$	I'	fvd	Vt scorr.	Vt fess.diag.	Vt <sub>lim</sub>	c.s.	Verifica
SLV 6	1.69	-11002	-1379	-591.09		17258	2.125	11785	7513			5.45	Si
SLV 6	3.79	-9357	-1549	3141.28		14678	2.125	11269	7184			4.64	Si
SLV 13	1.69	-9742	2066	2713.24		15282	2.125	11390	7261			3.51	Si
SLV 13	3.79	-4761	1835	568.93		7468	2.125	9827	6265			3.41	Si
SLV 4	1.69	-11837	-2758	-3902.44		18568	2.125	12047	7680			2.78	Si
SLV 4	3.79	-9810	-2282	1622.86		15388	2.125	11411	7274			3.19	Si
SLV 5	1.69	-11002	-1379	-591.09		17258	2.125	11785	7513			5.45	Si
SLV 5	3.79	-9357	-1549	3141.28		14678	2.125	11269	7184			4.64	Si
SLV 16	1.69	-9798	2236	2165.06		15370	2.125	11407	7272			3.25	Si
SLV 16	3.79	-4037	2225	-469.95		6333	2.125	9600	6120			2.75	Si
SLV 3	1.69	-11837	-2758	-3902.44		18568	2.125	12047	7680			2.78	Si
SLV 3	3.79	-9810	-2282	1622.86		15388	2.125	11411	7274			3.19	Si
SLV 14	1.69	-9742	2066	2713.24		15282	2.125	11390	7261			3.51	Si
SLV 14	3.79	-4761	1835	568.93		7468	2.125	9827	6265			3.41	Si
SLV 2	1.69	-11781	-2928	-3354.26		18480	2.125	12029	7669			2.62	Si
SLV 2	3.79	-10533	-2672	2661.74		16523	2.125	11638	7419			2.78	Si
SLV 1	1.69	-11781	-2928	-3354.26		18480	2.125	12029	7669			2.62	Si
SLV 1	3.79	-10533	-2672	2661.74		16523	2.125	11638	7419			2.78	Si
SLV 15	1.69	-9798	2236	2165.06		15370	2.125	11407	7272			3.25	Si
SLV 15	3.79	-4037	2225	-469.95		6333	2.125	9600	6120			2.75	Si

Verifica a pressoflessione fuori piano D.M. 17-01-18 (N.T.C.)

quota 3.655 Wa 0.05 denominatore 8  $\gamma_M = 2$

Comb.	fd	Sa	$\sigma_0$	N	M	Mc	Coeff.s.	Verifica
SLV 16	143750	0.48	7132	-4547	372.26	642.19	1.73	Si
SLV 15	143750	0.48	7132	-4547	372.26	642.19	1.73	Si
SLV 14	143750	0.48	8264	-5268	372.26	736.77	1.98	Si
SLV 13	143750	0.48	8264	-5268	372.26	736.77	1.98	Si
SLV 12	143750	0.48	8440	-5381	372.26	751.33	2.02	Si
SLV 11	143750	0.48	8440	-5381	372.26	751.33	2.02	Si
SLV 7	143750	0.48	10693	-6817	372.26	933.02	2.51	Si
SLV 8	143750	0.48	10693	-6817	372.26	933.02	2.51	Si
SLV 9	143750	0.48	12212	-7785	372.26	1051.08	2.82	Si
SLV 10	143750	0.48	12212	-7785	372.26	1051.08	2.82	Si

Verifica dei meccanismi locali di collasso con analisi cinematica lineare

forza di aggancio al piano = 0 quota mezzeria = 3.655 Wa = 0.05 Ta = 0.086





Comb.	N top	N base	V orto	$\alpha 0$	M*	e*	a0*	aLim	Verifica
SLV 3	-4114	-11837	67	0.041	788.8	0.897	0.66607	19.31768	No
SLV 4	-4114	-11837	67	0.041	788.8	0.897	0.66607	19.31768	No
SLV 14	-3578	-9742	-61	0.042	737.1	0.894	0.68984	19.31768	No
SLV 13	-3578	-9742	-61	0.042	737.1	0.894	0.68984	19.31768	No
SLV 1	-4139	-11781	-11	0.05	791.3	0.898	0.8081	19.31768	No
SLV 2	-4139	-11781	-11	0.05	791.3	0.898	0.8081	19.31768	No
SLV 15	-3553	-9798	17	0.05	734.7	0.894	0.81377	19.31768	No
SLV 16	-3553	-9798	17	0.05	734.7	0.894	0.81377	19.31768	No
SLV 8	-3889	-11189	141	0.029	767	0.896	0.4743	5.80179	No
SLV 7	-3889	-11189	141	0.029	767	0.896	0.4743	5.80179	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLU	4.146	SLU 39	Si
V_SLU	3.915	SLU 39	Si
PF_SLV	2.733	SLV 3	Si
V_SLV	2.619	SLV 1	Si
PFFP_SLV	1.725	SLV 15	Si
R_SLV	0.034	SLV 3	No

## Maschio 15

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

### Dati geometrici

X ini.	Y ini.	X fin.	Y fin.	Quota i.	Quota.s	l	Sp.	h netta	h ini.	h fin.	a	a.s.,sx	a.s.,dx
-32.407	-13.489	-32.087	-13.489	L2	L3	0.32	0.3	3.93	3.93	3.93			

### Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2\_Corti

fb	fk	fvk0	fmedio	$\tau 0$	fv0	$\mu$	$\phi$	fv,lim	E	G	FC
600000			345000	9000	20000	0.58	0.77	32500	320000000	128000000	1.2

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni non sismiche,  $\gamma_M = 3$

Comb.	Quota	N	M	$\sigma 0$	Mu	c.s.	Verifica
SLU 39	1.69	-4052	16.05	42213	312.38	19.469	Si
SLU 39	3.79	-3670	-10.34	38232	311.62	30.13	Si
SLU 77	1.69	-4005	15.78	41717	312.62	19.807	Si
SLU 77	3.79	-3514	-10.35	36602	309.59	29.917	Si
SLU 41	1.69	-4052	16.05	42213	312.38	19.469	Si
SLU 41	3.79	-3670	-10.34	38232	311.62	30.13	Si
SLU 40	1.69	-4068	15.54	42372	312.29	20.1	Si
SLU 40	3.79	-3685	-9.91	38390	311.77	31.463	Si
SLU 74	1.69	-4005	15.78	41717	312.62	19.807	Si
SLU 74	3.79	-3514	-10.35	36602	309.59	29.917	Si
SLU 83	1.69	-4482	17.55	46689	306.1	17.438	Si
SLU 83	3.79	-3991	-11.36	41573	312.67	27.516	Si
SLU 79	1.69	-4005	15.78	41717	312.62	19.807	Si
SLU 79	3.79	-3514	-10.35	36602	309.59	29.917	Si
SLU 82	1.69	-4497	17.04	46847	305.74	17.938	Si
SLU 82	3.79	-4006	-10.93	41731	312.61	28.602	Si
SLU 84	1.69	-4497	17.04	46847	305.74	17.938	Si
SLU 84	3.79	-4006	-10.93	41731	312.61	28.602	Si
SLU 81	1.69	-4482	17.55	46689	306.1	17.438	Si
SLU 81	3.79	-3991	-11.36	41573	312.67	27.516	Si

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni sismiche,  $\gamma_M = 2$

Comb.	Quota	N	M	$\sigma 0$	Mu	c.s.	Verifica
SLV 1	1.69	-2987	-86.78	31117	356.24	4.105	Si
SLV 1	3.79	-2608	80.26	27167	324.51	4.043	Si
SLV 12	1.69	-1048	45.75	10920	152.75	3.339	Si
SLV 12	3.79	-672	-41.96	6998	101.33	2.415	Si
SLV 15	1.69	-1886	106.01	19646	253.24	2.389	Si
SLV 15	3.79	-1514	-93.16	15767	210.93	2.264	Si
SLV 3	1.69	-2181	-82.02	22716	284.05	3.463	Si
SLV 3	3.79	-1800	74	18755	243.86	3.295	Si
SLV 11	1.69	-1048	45.75	10920	152.75	3.339	Si
SLV 11	3.79	-672	-41.96	6998	101.33	2.415	Si
SLV 14	1.69	-2692	101.26	28046	331.91	3.278	Si
SLV 14	3.79	-2321	-86.9	24179	297.9	3.428	Si
SLV 13	1.69	-2692	101.26	28046	331.91	3.278	Si
SLV 13	3.79	-2321	-86.9	24179	297.9	3.428	Si
SLV 16	1.69	-1886	106.01	19646	253.24	2.389	Si
SLV 16	3.79	-1514	-93.16	15767	210.93	2.264	Si
SLV 4	1.69	-2181	-82.02	22716	284.05	3.463	Si
SLV 4	3.79	-1800	74	18755	243.86	3.295	Si
SLV 2	1.69	-2987	-86.78	31117	356.24	4.105	Si
SLV 2	3.79	-2608	80.26	27167	324.51	4.043	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni non sismiche,  $\gamma_M = 3$

Comb.	Quota	N	V par	M	$\sigma 0$	$\sigma N$	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLU 83	1.69	-4482	14	17.55		46689	0.32	10833	1040			75.53	Si
SLU 83	3.79	-3991	14	-11.36		41573	0.32	10833	1040			75.53	Si
SLU 81	1.69	-4482	14	17.55		46689	0.32	10833	1040			75.53	Si
SLU 81	3.79	-3991	14	-11.36		41573	0.32	10833	1040			75.53	Si
SLU 39	1.69	-4052	13	16.05		42213	0.32	10833	1040			82.76	Si



Comb.	Quota	N	V par	M	$\sigma_0$	$\sigma_N$	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLU 39	3.79	-3670	13	-10.34		38232	0.32	10653	1023			81.39	Si
SLU 80	1.69	-4020	12	15.27		41876	0.32	10833	1040			86.71	Si
SLU 80	3.79	-3529	12	-9.91		36760	0.32	10457	1004			83.69	Si
SLU 74	1.69	-4005	12	15.78		41717	0.32	10833	1040			83.58	Si
SLU 74	3.79	-3514	12	-10.35		36602	0.32	10436	1002			80.51	Si
SLU 79	1.69	-4005	12	15.78		41717	0.32	10833	1040			83.58	Si
SLU 79	3.79	-3514	12	-10.35		36602	0.32	10436	1002			80.51	Si
SLU 41	1.69	-4052	13	16.05		42213	0.32	10833	1040			82.76	Si
SLU 41	3.79	-3670	13	-10.34		38232	0.32	10653	1023			81.39	Si
SLU 77	1.69	-4005	12	15.78		41717	0.32	10833	1040			83.58	Si
SLU 77	3.79	-3514	12	-10.35		36602	0.32	10436	1002			80.51	Si
SLU 82	1.69	-4497	13	17.04		46847	0.32	10833	1040			78.07	Si
SLU 82	3.79	-4006	13	-10.93		41731	0.32	10833	1040			78.07	Si
SLU 84	1.69	-4497	13	17.04		46847	0.32	10833	1040			78.07	Si
SLU 84	3.79	-4006	13	-10.93		41731	0.32	10833	1040			78.07	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni sismiche,  $\gamma_M = 2$

Comb.	Quota	N	V par	M	$\sigma_0$	$\sigma_N$	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLV 12	1.69	-1048	43	45.75		10920	0.32	10517	1010			23.58	Si
SLV 12	3.79	-672	27	-41.96		7653	0.2926	9864	866			31.64	Si
SLV 4	1.69	-2181	-120	-82.02		22716	0.32	12877	1236			10.28	Si
SLV 4	3.79	-1800	-62	74		18755	0.32	12084	1160			18.79	Si
SLV 11	1.69	-1048	43	45.75		10920	0.32	10517	1010			23.58	Si
SLV 11	3.79	-672	27	-41.96		7653	0.2926	9864	866			31.64	Si
SLV 16	1.69	-1886	134	106.01		20191	0.3114	12371	1156			8.64	Si
SLV 16	3.79	-1514	76	-93.16		17083	0.2953	11750	1041			13.62	Si
SLV 14	1.69	-2692	136	101.26		28046	0.32	13943	1338			9.87	Si
SLV 14	3.79	-2321	77	-86.9		24179	0.32	13169	1264			16.41	Si
SLV 2	1.69	-2987	-119	-86.78		31117	0.32	14557	1397			11.79	Si
SLV 2	3.79	-2608	-61	80.26		27167	0.32	13767	1322			21.62	Si
SLV 13	1.69	-2692	136	101.26		28046	0.32	13943	1338			9.87	Si
SLV 13	3.79	-2321	77	-86.9		24179	0.32	13169	1264			16.41	Si
SLV 1	1.69	-2987	-119	-86.78		31117	0.32	14557	1397			11.79	Si
SLV 1	3.79	-2608	-61	80.26		27167	0.32	13767	1322			21.62	Si
SLV 15	1.69	-1886	134	106.01		20191	0.3114	12371	1156			8.64	Si
SLV 15	3.79	-1514	76	-93.16		17083	0.2953	11750	1041			13.62	Si
SLV 3	1.69	-2181	-120	-82.02		22716	0.32	12877	1236			10.28	Si
SLV 3	3.79	-1800	-62	74		18755	0.32	12084	1160			18.79	Si

Verifica a pressoflessione fuori piano D.M. 17-01-18 (N.T.C.)

quota 3.655 Wa 0.05 denominatore 8  $\gamma_M = 2$

Comb.	fd	Sa	$\sigma_0$	N	M	Mc	Coeff.s.	Verifica
SLV 11	143750	0.48	6998	-672	56.06	95	1.69	Si
SLV 12	143750	0.48	6998	-672	56.06	95	1.69	Si
SLV 7	143750	0.48	7894	-758	56.06	106.33	1.9	Si
SLV 8	143750	0.48	7894	-758	56.06	106.33	1.9	Si
SLV 16	143750	0.48	15767	-1514	56.06	197.74	3.53	Si
SLV 15	143750	0.48	15767	-1514	56.06	197.74	3.53	Si
SLV 3	143750	0.48	18755	-1800	56.06	228.61	4.08	Si
SLV 4	143750	0.48	18755	-1800	56.06	228.61	4.08	Si
SLV 14	143750	0.48	24179	-2321	56.06	279.28	4.98	Si
SLV 13	143750	0.48	24179	-2321	56.06	279.28	4.98	Si

Verifica dei meccanismi locali di collasso con analisi cinematica lineare

forza di aggancio al piano = 0 quota mezzeria = 3.655 Wa = 0.05 Ta = 0.086

Comb.	N top	N base	V orto	$\alpha_0$	M*	e*	a0*	aLim	Verifica
SLV 2	-622	-2987	-9	0.042	119	0.897	0.6842	19.31768	No
SLV 1	-622	-2987	-9	0.042	119	0.897	0.6842	19.31768	No
SLV 15	-625	-1886	9	0.042	119.3	0.898	0.68727	19.31768	No
SLV 16	-625	-1886	9	0.042	119.3	0.898	0.68727	19.31768	No
SLV 4	-626	-2181	-6	0.046	119.4	0.898	0.73934	19.31768	No
SLV 3	-626	-2181	-6	0.046	119.4	0.898	0.73934	19.31768	No
SLV 13	-620	-2692	6	0.046	118.9	0.897	0.74364	19.31768	No
SLV 14	-620	-2692	6	0.046	118.9	0.897	0.74364	19.31768	No
SLV 6	-616	-3825	-8	0.044	118.5	0.897	0.70557	5.80179	No
SLV 5	-616	-3825	-8	0.044	118.5	0.897	0.70557	5.80179	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLU	17.438	SLU 81	Si
V_SLU	75.528	SLU 81	Si
PF_SLV	2.264	SLV 15	Si
V_SLV	8.635	SLV 15	Si
PFFP_SLV	1.695	SLV 11	Si
R_SLV	0.035	SLV 1	No

## Maschio 16

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati geometrici

X ini.	Y ini.	X fin.	Y fin.	Quota i.	Quota.s	I	Sp.	h netta	h ini.	h fin.	a	a.s.,sx	a.s.,dx
-35.267	-17.999	-34.232	-17.999	L2	L3	1.035	0.3	3.93	3.93	3.93			

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2\_Corti

Sismicad 12.19 - Licenza assegnata a Sidel ingegneria Srl - Via Isonzo, 13 - Villanova di Castenaso (BO)



fb	fk	fvk0	fmedio	$\tau 0$	fv0	$\mu$	$\phi$	fv,lim	E	G	FC
600000			345000	9000	20000	0.58	0.77	32500	320000000	128000000	1.2

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni non sismiche,  $\gamma_M = 3$

Comb.	Quota	N	M	$\sigma 0$	Mu	c.s.	Verifica
SLU 44	2.69	-4528	-1127.7	14589	1922.87	1.705	Si
SLU 44	4.59	-3646	874.26	11748	1614.24	1.846	Si
SLU 47	2.69	-4528	-1127.7	14589	1922.87	1.705	Si
SLU 47	4.59	-3646	874.26	11748	1614.24	1.846	Si
SLU 13	2.69	-4709	-1173.81	15172	1982.29	1.689	Si
SLU 13	4.59	-4728	1093.26	15231	1988.26	1.819	Si
SLU 10	2.69	-4709	-1173.81	15172	1982.29	1.689	Si
SLU 10	4.59	-4728	1093.26	15231	1988.26	1.819	Si
SLU 26	2.69	-4167	-1105.64	13425	1800.25	1.628	Si
SLU 26	4.59	-3828	920.3	12332	1680.24	1.826	Si
SLU 34	2.69	-5180	-1222.24	16690	2130.64	1.743	Si
SLU 34	4.59	-5352	1207.87	17242	2182.4	1.807	Si
SLU 23	2.69	-4167	-1105.64	13425	1800.25	1.628	Si
SLU 23	4.59	-3828	920.3	12332	1680.24	1.826	Si
SLU 5	2.69	-3696	-1057.21	11907	1632.37	1.544	Si
SLU 5	4.59	-3203	805.7	10321	1447.19	1.796	Si
SLU 31	2.69	-5180	-1222.24	16690	2130.64	1.743	Si
SLU 31	4.59	-5352	1207.87	17242	2182.4	1.807	Si
SLU 2	2.69	-3696	-1057.21	11907	1632.37	1.544	Si
SLU 2	4.59	-3203	805.7	10321	1447.19	1.796	Si

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni sismiche,  $\gamma_M = 2$

Comb.	Quota	N	M	$\sigma 0$	Mu	c.s.	Verifica
SLV 6	2.69	-2767	1400.99	8916	1327.12	0.947	No, M>Mu
SLV 6	4.59	-192	-643.44	0	0	0	No, e>l/2
SLV 14	2.69	-2970	995.05	9569	1416.11	1.423	Si
SLV 14	4.59	-797	-438.46	0	0	0	No, e>l/2
SLV 9	2.69	-2505	1847.4	0	0	0	No, e>l/2
SLV 9	4.59	481	-961.34	0	0	0	No, Trazione
SLV 12	2.69	-4706	-2075.94	15162	2132.35	1.027	Si
SLV 12	4.59	-5415	1592.28	17446	2401.16	1.508	Si
SLV 7	2.69	-4968	-2522.36	16006	2233.28	0.885	No, M>Mu
SLV 7	4.59	-6088	1910.19	19615	2643.76	1.384	Si
SLV 10	2.69	-2505	1847.4	0	0	0	No, e>l/2
SLV 10	4.59	481	-961.34	0	0	0	No, Trazione
SLV 5	2.69	-2767	1400.99	8916	1327.12	0.947	No, M>Mu
SLV 5	4.59	-192	-643.44	0	0	0	No, e>l/2
SLV 11	2.69	-4706	-2075.94	15162	2132.35	1.027	Si
SLV 11	4.59	-5415	1592.28	17446	2401.16	1.508	Si
SLV 13	2.69	-2970	995.05	9569	1416.11	1.423	Si
SLV 13	4.59	-797	-438.46	0	0	0	No, e>l/2
SLV 8	2.69	-4968	-2522.36	16006	2233.28	0.885	No, M>Mu
SLV 8	4.59	-6088	1910.19	19615	2643.76	1.384	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni non sismiche,  $\gamma_M = 3$

Comb.	Quota	N	V par	M	$\sigma 0$	$\sigma N$	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLU 55	2.69	-5541	-1573	-1244.3	21032	0.8783	8360	2203				1.4	Si
SLU 55	4.59	-5170	-1611	1161.82	19634	0.8778	8173	2152				1.34	Si
SLU 76	2.69	-6012	-1710	-1292.74	22100	0.9069	8502	2313				1.35	Si
SLU 76	4.59	-5795	-1749	1276.43	21677	0.8911	8446	2258				1.29	Si
SLU 26	2.69	-4167	-1288	-1105.64	18375	0.7559	8006	1815				1.41	Si
SLU 26	4.59	-3828	-1326	920.3	15361	0.8306	7604	1895				1.43	Si
SLU 31	2.69	-5180	-1656	-1222.24	20457	0.8441	8283	2097				1.27	Si
SLU 31	4.59	-5352	-1696	1207.87	20392	0.8748	8274	2172				1.28	Si
SLU 52	2.69	-5541	-1573	-1244.3	21032	0.8783	8360	2203				1.4	Si
SLU 52	4.59	-5170	-1611	1161.82	19634	0.8778	8173	2152				1.34	Si
SLU 73	2.69	-6012	-1710	-1292.74	22100	0.9069	8502	2313				1.35	Si
SLU 73	4.59	-5795	-1749	1276.43	21677	0.8911	8446	2258				1.29	Si
SLU 10	2.69	-4709	-1519	-1173.81	19521	0.8041	8158	1968				1.3	Si
SLU 10	4.59	-4728	-1558	1093.26	18364	0.8581	8004	2061				1.32	Si
SLU 23	2.69	-4167	-1288	-1105.64	18375	0.7559	8006	1815				1.41	Si
SLU 23	4.59	-3828	-1326	920.3	15361	0.8306	7604	1895				1.43	Si
SLU 13	2.69	-4709	-1519	-1173.81	19521	0.8041	8158	1968				1.3	Si
SLU 13	4.59	-4728	-1558	1093.26	18364	0.8581	8004	2061				1.32	Si
SLU 34	2.69	-5180	-1656	-1222.24	20457	0.8441	8283	2097				1.27	Si
SLU 34	4.59	-5352	-1696	1207.87	20392	0.8748	8274	2172				1.28	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni sismiche,  $\gamma_M = 2$

Comb.	Quota	N	V par	M	$\sigma 0$	$\sigma N$	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLV 11	2.69	-4706	-2103	-2075.94	68642	0.2285	16250	1114				0.53	No, Vu<V
SLV 11	4.59	-5415	-2477	1592.28	26951	0.6697	13723	2757				1.11	Si
SLV 14	2.69	-2970	1392	995.05	18105	0.5468	11954	1961				1.41	Si
SLV 14	4.59	-797	909	-438.46	0	0	8333	0				0	No, Vu<V
SLV 6	2.69	-2767	1139	1400.99	278075	0.0332	16250	162				0.14	No, Vu<V
SLV 6	4.59	-192	1516	-643.44	0	0	8333	0				0	No, Vu<V
SLV 8	2.69	-4968	-2866	-2522.36	576512	0.0287	16250	140				0.05	No, Vu<V
SLV 8	4.59	-6088	-2912	1910.19	33234	0.6106	14980	2744				0.94	No, Vu<V
SLV 13	2.69	-2970	1392	995.05	18105	0.5468	11954	1961				1.41	Si
SLV 13	4.59	-797	909	-438.46	0	0	8333	0				0	No, Vu<V
SLV 5	2.69	-2767	1139	1400.99	278075	0.0332	16250	162				0.14	No, Vu<V
SLV 5	4.59	-192	1516	-643.44	0	0	8333	0				0	No, Vu<V
SLV 12	2.69	-4706	-2103	-2075.94	68642	0.2285	16250	1114				0.53	No, Vu<V
SLV 12	4.59	-5415	-2477	1592.28	26951	0.6697	13723	2757				1.11	Si
SLV 10	2.69	-2505	1903	1847.4	0	0	8333	0				0	No, Vu<V
SLV 10	4.59	481	1951	-961.34	0	0	8333	0				0	No, Vu<V



Comb.	Quota	N	V par	M	$\sigma_0$	$\sigma_N$	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLV 7	2.69	-4968	-2866	-2522.36		576512	0.0287	16250	140			0.05	No, Vu<V
SLV 7	4.59	-6088	-2912	1910.19		33234	0.6106	14980	2744			0.94	No, Vu<V
SLV 9	2.69	-2505	1903	1847.4		0	0	8333	0			0	No, Vu<V
SLV 9	4.59	481	1951	-961.34		0	0	8333	0			0	No, Vu<V

Verifica a pressoflessione fuori piano D.M. 17-01-18 (N.T.C.)

quota 3.655 Wa 0.05 denominatore 8  $\gamma_M = 2$

Comb.	fd	Sa	$\sigma_0$	N	M	Mc	Coeff.s.	Verifica
SLV 10	143750	0.48	0	-726	177.39	0	0	No, e>t/2
SLV 9	143750	0.48	0	-726	177.39	0	0	No, e>t/2
SLV 6	143750	0.48	3915	-1215	177.39	176.45	0.99	No, M>Mu
SLV 5	143750	0.48	3915	-1215	177.39	176.45	0.99	No, M>Mu
SLV 13	143750	0.48	5408	-1679	177.39	240.65	1.36	Si
SLV 14	143750	0.48	5408	-1679	177.39	240.65	1.36	Si
SLV 16	143750	0.48	9615	-2984	177.39	412.44	2.33	Si
SLV 15	143750	0.48	9615	-2984	177.39	412.44	2.33	Si
SLV 2	143750	0.48	10663	-3309	177.39	453.1	2.55	Si
SLV 1	143750	0.48	10663	-3309	177.39	453.1	2.55	Si

Verifica dei meccanismi locali di collasso con analisi cinematica lineare

forza di aggancio al piano = 0 quota mezzeria = 3.655 Wa = 0.05 Ta = 0.086

Comb.	N top	N base	V orto	$\alpha_0$	M*	e*	$\alpha_0^*$	aLim	Verifica
SLV 1	-1177	-5207	-133	0	305.6	0.889	0	19.31768	No
SLV 12	-1026	-6611	193	0	292	0.889	0	5.80179	No
SLV 10	-928	-970	-143	0	283.2	0.89	0	5.80179	No
SLV 7	-1125	-7656	143	0	300.9	0.889	0	5.80179	No
SLV 11	-1026	-6611	193	0	292	0.889	0	5.80179	No
SLV 8	-1125	-7656	143	0	300.9	0.889	0	5.80179	No
SLV 5	-1027	-2014	-192	0	292	0.889	0	5.80179	No
SLV 9	-928	-970	-143	0	283.2	0.89	0	5.80179	No
SLV 6	-1027	-2014	-192	0	292	0.889	0	5.80179	No
SLV 2	-1177	-5207	-133	0	305.6	0.889	0	19.31768	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLU	1.544	SLU 2	Si
V_SLU	1.266	SLU 31	Si
PF_SLV	0	SLV 10	No
V_SLV	0	SLV 5	No
PFFP_SLV	0	SLV 9	No
R_SLV	0	SLV 1	No

## Maschio 17

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati geometrici

X ini.	Y ini.	X fin.	Y fin.	Quota i.	Quota.s	I	Sp.	h netta	h ini.	h fin.	a	a.s.,sx	a.s.,dx
-33.232	-17.999	-30.572	-17.999	L2	L3	2.66	0.3	3.93	3.93	3.93			

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2\_Corti

fb	fk	fvk0	fmedio	$\tau_0$	fv0	$\mu$	$\phi$	fv,lim	E	G	FC
600000			345000	9000	20000	0.58	0.77	32500	320000000	128000000	1.2

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni non sismiche,  $\gamma_M = 3$

Comb.	Quota	N	M	$\sigma_0$	Mu	c.s.	Verifica
SLU 47	2.69	-5608	1112.72	7027	6814.96	6.125	Si
SLU 47	4.59	-1942	-487.93	2434	2505.87	5.136	Si
SLU 10	2.69	-7431	1045.52	9312	8753.58	8.372	Si
SLU 10	4.59	-4600	-477.97	5765	5685.5	11.895	Si
SLU 13	2.69	-7431	1045.52	9312	8753.58	8.372	Si
SLU 13	4.59	-4600	-477.97	5765	5685.5	11.895	Si
SLU 5	2.69	-4137	1049.92	5184	5152.07	4.907	Si
SLU 5	4.59	-1306	-454.76	1637	1702.4	3.744	Si
SLU 23	2.69	-5520	1055	6918	6718.36	6.368	Si
SLU 23	4.59	-2648	-461.94	3318	3377.88	7.312	Si
SLU 2	2.69	-4137	1049.92	5184	5152.07	4.907	Si
SLU 2	4.59	-1306	-454.76	1637	1702.4	3.744	Si
SLU 68	2.69	-6991	1117.8	8761	8298.01	7.424	Si
SLU 68	4.59	-3283	-495.1	4115	4146.45	8.375	Si
SLU 26	2.69	-5520	1055	6918	6718.36	6.368	Si
SLU 26	4.59	-2648	-461.94	3318	3377.88	7.312	Si
SLU 44	2.69	-5608	1112.72	7027	6814.96	6.125	Si
SLU 44	4.59	-1942	-487.93	2434	2505.87	5.136	Si
SLU 65	2.69	-6991	1117.8	8761	8298.01	7.424	Si
SLU 65	4.59	-3283	-495.1	4115	4146.45	8.375	Si

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni sismiche,  $\gamma_M = 2$

Comb.	Quota	N	M	$\sigma_0$	Mu	c.s.	Verifica
SLV 16	2.69	-5856	4421.12	7338	7320.75	1.656	Si
SLV 16	4.59	-2810	-3268.31	3522	3629.95	1.111	Si
SLV 8	2.69	-1960	-254.84	2457	2554.8	10.025	Si
SLV 8	4.59	1206	341.92	0	0	0	No, Trazione
SLV 7	2.69	-1960	-254.84	2457	2554.8	10.025	Si



Comb.	Quota	N	M	$\sigma_0$	Mu	c.s.	Verifica
SLV 7	4.59	1206	341.92	0	0	0	No, Trazione
SLV 13	2.69	-9406	3985.39	11787	11302.85	2.836	Si
SLV 13	4.59	-6572	-3008.01	8235	8151.31	2.71	Si
SLV 11	2.69	-1847	2137.92	2315	2409.96	1.127	Si
SLV 11	4.59	1378	-1464.51	0	0	0	No, Trazione
SLV 4	2.69	-6234	-3554.74	7812	7760.88	2.183	Si
SLV 4	4.59	-3382	2753.12	4238	4342.42	1.577	Si
SLV 3	2.69	-6234	-3554.74	7812	7760.88	2.183	Si
SLV 3	4.59	-3382	2753.12	4238	4342.42	1.577	Si
SLV 14	2.69	-9406	3985.39	11787	11302.85	2.836	Si
SLV 14	4.59	-6572	-3008.01	8235	8151.31	2.71	Si
SLV 12	2.69	-1847	2137.92	2315	2409.96	1.127	Si
SLV 12	4.59	1378	-1464.51	0	0	0	No, Trazione
SLV 15	2.69	-5856	4421.12	7338	7320.75	1.656	Si
SLV 15	4.59	-2810	-3268.31	3522	3629.95	1.111	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni non sismiche,  $\gamma_M = 3$

Comb.	Quota	N	V par	M	$\sigma_0$	$\sigma_N$	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLU 65	2.69	-6991	848	1117.8		8761	2.66	6724	5365			6.33	Si
SLU 65	4.59	-3283	848	-495.1		4115	2.66	6104	4871			5.74	Si
SLU 23	2.69	-5520	798	1055		6918	2.66	6478	5169			6.48	Si
SLU 23	4.59	-2648	798	-461.94		3318	2.66	5998	4786			6	Si
SLU 47	2.69	-5608	842	1112.72		7027	2.66	6493	5181			6.16	Si
SLU 47	4.59	-1942	842	-487.93		2434	2.66	5880	4692			5.58	Si
SLU 26	2.69	-5520	798	1055		6918	2.66	6478	5169			6.48	Si
SLU 26	4.59	-2648	798	-461.94		3318	2.66	5998	4786			6	Si
SLU 68	2.69	-6991	848	1117.8		8761	2.66	6724	5365			6.33	Si
SLU 68	4.59	-3283	848	-495.1		4115	2.66	6104	4871			5.74	Si
SLU 5	2.69	-4137	791	1049.92		5184	2.66	6247	4985			6.3	Si
SLU 5	4.59	-1306	791	-454.76		1637	2.66	5774	4608			5.82	Si
SLU 2	2.69	-4137	791	1049.92		5184	2.66	6247	4985			6.3	Si
SLU 2	4.59	-1306	791	-454.76		1637	2.66	5774	4608			5.82	Si
SLU 52	2.69	-8902	852	1108.32		11155	2.66	7043	5620			6.6	Si
SLU 52	4.59	-5236	852	-511.14		6562	2.66	6430	5132			6.03	Si
SLU 55	2.69	-8902	852	1108.32		11155	2.66	7043	5620			6.6	Si
SLU 55	4.59	-5236	852	-511.14		6562	2.66	6430	5132			6.03	Si
SLU 44	2.69	-5608	842	1112.72		7027	2.66	6493	5181			6.16	Si
SLU 44	4.59	-1942	842	-487.93		2434	2.66	5880	4692			5.58	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni sismiche,  $\gamma_M = 2$

Comb.	Quota	N	V par	M	$\sigma_0$	$\sigma_N$	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLV 8	2.69	-1960	889	-254.84		2457	2.66	8825	7042			7.92	Si
SLV 8	4.59	1206	431	341.92		0	0	8333	0			0	No, Vu<V
SLV 15	2.69	-5856	4696	4421.12		11315	1.7251	10596	5484			1.17	Si
SLV 15	4.59	-2810	3262	-3268.31		18696	0.501	12073	1815			0.56	No, Vu<V
SLV 1	2.69	-9783	-4337	-3990.47		12260	2.66	10785	8607			1.98	Si
SLV 1	4.59	-7144	-2903	3013.43		8952	2.66	10124	8079			2.78	Si
SLV 2	2.69	-9783	-4337	-3990.47		12260	2.66	10785	8607			1.98	Si
SLV 2	4.59	-7144	-2903	3013.43		8952	2.66	10124	8079			2.78	Si
SLV 11	2.69	-1847	3258	2137.92		11898	0.5175	10713	1663			0.51	No, Vu<V
SLV 11	4.59	1378	2086	-1464.51		0	0	8333	0			0	No, Vu<V
SLV 12	2.69	-1847	3258	2137.92		11898	0.5175	10713	1663			0.51	No, Vu<V
SLV 12	4.59	1378	2086	-1464.51		0	0	8333	0			0	No, Vu<V
SLV 4	2.69	-6234	-3200	-3554.74		9117	2.2793	10157	6945			2.17	Si
SLV 4	4.59	-3382	-2255	2753.12		7283	1.5481	9790	4547			2.02	Si
SLV 7	2.69	-1960	889	-254.84		2457	2.66	8825	7042			7.92	Si
SLV 7	4.59	1206	431	341.92		0	0	8333	0			0	No, Vu<V
SLV 16	2.69	-5856	4696	4421.12		11315	1.7251	10596	5484			1.17	Si
SLV 16	4.59	-2810	3262	-3268.31		18696	0.501	12073	1815			0.56	No, Vu<V
SLV 3	2.69	-6234	-3200	-3554.74		9117	2.2793	10157	6945			2.17	Si
SLV 3	4.59	-3382	-2255	2753.12		7283	1.5481	9790	4547			2.02	Si

Verifica a pressoflessione fuori piano D.M. 17-01-18 (N.T.C.)

quota 3.655 Wa 0.05 denominatore 8  $\gamma_M = 2$

Comb.	fd	Sa	$\sigma_0$	N	M	Mc	Coeff.s.	Verifica
SLV 7	143750	0.48	0	-199	456.07	0	0	No, $e>t/2$
SLV 8	143750	0.48	0	-199	456.07	0	0	No, $e>t/2$
SLV 11	143750	0.48	0	229	456.07	0	0	No, Trazione
SLV 12	143750	0.48	0	229	456.07	0	0	No, Trazione
SLV 16	143750	0.48	4458	-3557	456.07	514.14	1.13	Si
SLV 15	143750	0.48	4458	-3557	456.07	514.14	1.13	Si
SLV 3	143750	0.48	6247	-4985	456.07	709.54	1.56	Si
SLV 4	143750	0.48	6247	-4985	456.07	709.54	1.56	Si
SLV 14	143750	0.48	9062	-7231	456.07	1004.27	2.2	Si
SLV 13	143750	0.48	9062	-7231	456.07	1004.27	2.2	Si

Verifica dei meccanismi locali di collasso con analisi cinematica lineare

forza di aggancio al piano = 0 quota mezzera = 3.655 Wa = 0.05 Ta = 0.086

Comb.	N top	N base	V orto	$\alpha_0$	M*	e*	a0*	aLim	Verifica
SLV 7	-2323	196	60	0	0	0	0	5.80179	No, Trazione
SLV 11	-2323	358	62	0	0	0	0	5.80179	No, Trazione
SLV 12	-2323	358	62	0	0	0	0	5.80179	No, Trazione
SLV 8	-2323	196	60	0	0	0	0	5.80179	No, Trazione
SLV 1	-2850	-9461	-21	0.053	769.8	0.889	0.8744	19.31768	No
SLV 2	-2850	-9461	-21	0.053	769.8	0.889	0.8744	19.31768	No
SLV 15	-2606	-4552	22	0.054	747.8	0.889	0.88164	19.31768	No
SLV 16	-2606	-4552	22	0.054	747.8	0.889	0.88164	19.31768	No
SLV 14	-2849	-8923	-14	0.055	769.7	0.889	0.89375	19.31768	No
SLV 13	-2849	-8923	-14	0.055	769.7	0.889	0.89375	19.31768	No



Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLU	3.744	SLU 2	Si
V_SLU	5.575	SLU 44	Si
PF_SLV	0	SLV 12	No
V_SLV	0	SLV 7	No
PFFP_SLV	0	SLV 12	No
R_SLV	0	SLV 12	No

## Maschio 18

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

## Dati geometrici

X ini.	Y ini.	X fin.	Y fin.	Quota i.	Quota.s	I	Sp.	h netta	h ini.	h fin.	a	a.s.,sx	a.s.,dx
-29.572	-17.999	-26.842	-17.999	L2	L3	2.73	0.3	3.93	3.93	3.93			

## Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2\_Corti

fb	fk	fvk0	fmedio	$\tau_0$	fv0	$\mu$	$\phi$	fv,lim	E	G	FC
600000			345000	9000	20000	0.58	0.77	32500	320000000	128000000	1.2

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni non sismiche,  $\gamma_M = 3$ 

Comb.	Quota	N	M	$\sigma_0$	Mu	c.s.	Verifica
SLU 65	2.69	-13759	-1582.5	16799	14907.48	9.42	Si
SLU 65	4.59	-10974	431.18	13399	12515.45	29.026	Si
SLU 34	2.69	-15299	-1698.06	18680	16093.9	9.478	Si
SLU 34	4.59	-13811	456.31	16863	14949.35	32.762	Si
SLU 82	2.69	-18205	-1969.42	22228	18068.73	9.175	Si
SLU 82	4.59	-15572	468.04	19013	16294.42	34.814	Si
SLU 75	2.69	-16675	-1825.63	20360	17072.29	9.351	Si
SLU 75	4.59	-13876	437.91	16942	15000.91	34.256	Si
SLU 84	2.69	-18205	-1969.42	22228	18068.73	9.175	Si
SLU 84	4.59	-15572	468.04	19013	16294.42	34.814	Si
SLU 68	2.69	-13759	-1582.5	16799	14907.48	9.42	Si
SLU 68	4.59	-10974	431.18	13399	12515.45	29.026	Si
SLU 80	2.69	-16675	-1825.63	20360	17072.29	9.351	Si
SLU 80	4.59	-13876	437.91	16942	15000.91	34.256	Si
SLU 78	2.69	-16675	-1825.63	20360	17072.29	9.351	Si
SLU 78	4.59	-13876	437.91	16942	15000.91	34.256	Si
SLU 73	2.69	-17328	-1918.01	21158	17509.53	9.129	Si
SLU 73	4.59	-14932	501.49	18232	15820.46	31.547	Si
SLU 76	2.69	-17328	-1918.01	21158	17509.53	9.129	Si
SLU 76	4.59	-14932	501.49	18232	15820.46	31.547	Si

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni sismiche,  $\gamma_M = 2$ 

Comb.	Quota	N	M	$\sigma_0$	Mu	c.s.	Verifica
SLV 14	2.69	-9396	3891.89	11472	11621.11	2.986	Si
SLV 14	4.59	-5292	-2646.45	6462	6841.83	2.585	Si
SLV 3	2.69	-10616	-6081.21	12962	12953.07	2.13	Si
SLV 3	4.59	-9076	3089.75	11082	11265.14	3.646	Si
SLV 10	2.69	-7468	284.2	9118	9432.9	33.191	Si
SLV 10	4.59	-1293	-1066.48	1579	1742.1	1.634	Si
SLV 6	2.69	-7368	-2730.89	8996	9316.76	3.412	Si
SLV 6	4.59	-1375	569.78	1679	1851.22	3.249	Si
SLV 4	2.69	-10616	-6081.21	12962	12953.07	2.13	Si
SLV 4	4.59	-9076	3089.75	11082	11265.14	3.646	Si
SLV 5	2.69	-7368	-2730.89	8996	9316.76	3.412	Si
SLV 5	4.59	-1375	569.78	1679	1851.22	3.249	Si
SLV 2	2.69	-9063	-6158.42	11066	11250.45	1.827	Si
SLV 2	4.59	-5566	2807.75	6796	7174.96	2.555	Si
SLV 13	2.69	-9396	3891.89	11472	11621.11	2.986	Si
SLV 13	4.59	-5292	-2646.45	6462	6841.83	2.585	Si
SLV 1	2.69	-9063	-6158.42	11066	11250.45	1.827	Si
SLV 1	4.59	-5566	2807.75	6796	7174.96	2.555	Si
SLV 9	2.69	-7468	284.2	9118	9432.9	33.191	Si
SLV 9	4.59	-1293	-1066.48	1579	1742.1	1.634	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni non sismiche,  $\gamma_M = 3$ 

Comb.	Quota	N	V par	M	$\sigma_0$	$\sigma_N$	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLU 76	2.69	-17328	-1288	-1918.01		21158	2.73	8377	6860			5.33	Si
SLU 76	4.59	-14932	-1244	501.49		18232	2.73	7987	6541			5.26	Si
SLU 52	2.69	-15774	-1170	-1732.05		19261	2.73	8124	6653			5.69	Si
SLU 52	4.59	-13311	-1130	465.82		16253	2.73	7723	6325			5.6	Si
SLU 73	2.69	-17328	-1288	-1918.01		21158	2.73	8377	6860			5.33	Si
SLU 73	4.59	-14932	-1244	501.49		18232	2.73	7987	6541			5.26	Si
SLU 75	2.69	-16675	-1209	-1825.63		20360	2.73	8270	6773			5.6	Si
SLU 75	4.59	-13876	-1166	437.91		16942	2.73	7815	6400			5.49	Si
SLU 55	2.69	-15774	-1170	-1732.05		19261	2.73	8124	6653			5.69	Si
SLU 55	4.59	-13311	-1130	465.82		16253	2.73	7723	6325			5.6	Si
SLU 80	2.69	-16675	-1209	-1825.63		20360	2.73	8270	6773			5.6	Si
SLU 80	4.59	-13876	-1166	437.91		16942	2.73	7815	6400			5.49	Si
SLU 78	2.69	-16675	-1209	-1825.63		20360	2.73	8270	6773			5.6	Si
SLU 78	4.59	-13876	-1166	437.91		16942	2.73	7815	6400			5.49	Si
SLU 84	2.69	-18205	-1301	-1969.42		22228	2.73	8519	6977			5.36	Si
SLU 84	4.59	-15572	-1255	468.04		19013	2.73	8091	6626			5.28	Si
SLU 82	2.69	-18205	-1301	-1969.42		22228	2.73	8519	6977			5.36	Si



Comb.	Quota	N	V par	M	$\sigma_0$	$\sigma_N$	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLU 82	4.59	-15572	-1255	468.04		19013	2.73	8091	6626			5.28	Si
SLU 63	2.69	-16651	-1183	-1783.47		20331	2.73	8266	6770			5.72	Si
SLU 63	4.59	-13951	-1140	432.36		17034	2.73	7827	6410			5.62	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni sismiche,  $\gamma_M = 2$

Comb.	Quota	N	V par	M	$\sigma_0$	$\sigma_N$	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLV 13	2.69	-9396	3647	3891.89		11472	2.73	10628	8704			2.39	Si
SLV 13	4.59	-5292	3044	-2646.45		6798	2.5948	9693	7545			2.48	Si
SLV 2	2.69	-9063	-4781	-6158.42		14690	2.0564	11271	6954			1.45	Si
SLV 2	4.59	-5566	-4259	2807.75		7187	2.5816	9771	7567			1.78	Si
SLV 8	2.69	-12543	-2449	-2473.52		15316	2.73	11396	9334			3.81	Si
SLV 8	4.59	-13075	-2022	1509.79		15965	2.73	11526	9440			4.67	Si
SLV 15	2.69	-10948	3361	3969.1		13368	2.73	11007	9015			2.68	Si
SLV 15	4.59	-8802	2897	-2364.44		10748	2.73	10483	8585			2.96	Si
SLV 14	2.69	-9396	3647	3891.89		11472	2.73	10628	8704			2.39	Si
SLV 14	4.59	-5292	3044	-2646.45		6798	2.5948	9693	7545			2.48	Si
SLV 7	2.69	-12543	-2449	-2473.52		15316	2.73	11396	9334			3.81	Si
SLV 7	4.59	-13075	-2022	1509.79		15965	2.73	11526	9440			4.67	Si
SLV 4	2.69	-10616	-5066	-6081.21		14890	2.3764	11311	8064			1.59	Si
SLV 4	4.59	-9076	-4406	3089.75		11082	2.73	10550	8640			1.96	Si
SLV 3	2.69	-10616	-5066	-6081.21		14890	2.3764	11311	8064			1.59	Si
SLV 3	4.59	-9076	-4406	3089.75		11082	2.73	10550	8640			1.96	Si
SLV 1	2.69	-9063	-4781	-6158.42		14690	2.0564	11271	6954			1.45	Si
SLV 1	4.59	-5566	-4259	2807.75		7187	2.5816	9771	7567			1.78	Si
SLV 16	2.69	-10948	3361	3969.1		13368	2.73	11007	9015			2.68	Si
SLV 16	4.59	-8802	2897	-2364.44		10748	2.73	10483	8585			2.96	Si

Verifica a pressoflessione fuori piano D.M. 17-01-18 (N.T.C.)

quota 3.655 Wa 0.05 denominatore 8  $\gamma_M = 2$

Comb.	fd	Sa	$\sigma_0$	N	M	Mc	Coeff.s.	Verifica
SLV 10	143750	0.48	5577	-4568	468.07	653.89	1.4	Si
SLV 9	143750	0.48	5577	-4568	468.07	653.89	1.4	Si
SLV 6	143750	0.48	5749	-4708	468.07	673.03	1.44	Si
SLV 5	143750	0.48	5749	-4708	468.07	673.03	1.44	Si
SLV 14	143750	0.48	8433	-6907	468.07	964.53	2.06	Si
SLV 13	143750	0.48	8433	-6907	468.07	964.53	2.06	Si
SLV 2	143750	0.48	9006	-7376	468.07	1024.8	2.19	Si
SLV 1	143750	0.48	9006	-7376	468.07	1024.8	2.19	Si
SLV 15	143750	0.48	11053	-9053	468.07	1235.04	2.64	Si
SLV 16	143750	0.48	11053	-9053	468.07	1235.04	2.64	Si

Verifica dei meccanismi locali di collasso con analisi cinematica lineare

forza di aggancio al piano = 0 quota mezzera = 3.655 Wa = 0.05 Ta = 0.086

Comb.	N top	N base	V orto	$\alpha_0$	M*	e*	a0*	aLim	Verifica
SLV 10	-2417	-6676	-329	0	744.6	0.89	0	5.80179	No
SLV 8	-3146	-16453	346	0	810.2	0.889	0	5.80179	No
SLV 9	-2417	-6676	-329	0	744.6	0.89	0	5.80179	No
SLV 7	-3146	-16453	346	0	810.2	0.889	0	5.80179	No
SLV 4	-3016	-12135	196	0.024	798.3	0.889	0.38895	19.31768	No
SLV 3	-3016	-12135	196	0.024	798.3	0.889	0.38895	19.31768	No
SLV 14	-2547	-10994	-179	0.026	756.1	0.889	0.41825	19.31768	No
SLV 13	-2547	-10994	-179	0.026	756.1	0.889	0.41825	19.31768	No
SLV 6	-2499	-6086	-273	0.008	751.9	0.889	0.13245	5.80179	No
SLV 5	-2499	-6086	-273	0.008	751.9	0.889	0.13245	5.80179	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLU	9.129	SLU 73	Si
V_SLU	5.258	SLU 73	Si
PF_SLV	1.634	SLV 9	Si
V_SLV	1.454	SLV 1	Si
PFFP_SLV	1.397	SLV 9	Si
R_SLV	0	SLV 7	No

## Maschio 19

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati geometrici

X ini.	Y ini.	X fin.	Y fin.	Quota i.	Quota.s	I	Sp.	h netta	h ini.	h fin.	a	a.s.,sx	a.s.,dx
-25.842	-17.999	-23.182	-17.999	L2	L3	2.66	0.3	3.93	3.93	3.93			

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.) Muratura in mattoni pieni e malta di calce LC2\_Corti

fb	fk	fvk0	fmedio	$\tau_0$	fv0	$\mu$	$\phi$	fv,lim	E	G	FC
600000			345000	9000	20000	0.58	0.77	32500	320000000	128000000	1.2

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni non sismiche,  $\gamma_M = 3$

Comb.	Quota	N	M	$\sigma_0$	Mu	c.s.	Verifica
SLU 65	2.69	-5977	-1583.37	7490	7218.21	4.559	Si
SLU 65	4.59	-2247	467.5	2816	2885.22	6.172	Si
SLU 5	2.69	-3361	-1463.25	4212	4238.76	2.897	Si
SLU 5	4.59	-513	443.91	643	676.86	1.525	Si
SLU 47	2.69	-4698	-1563.49	5887	5796.99	3.708	Si
SLU 47	4.59	-1010	470.67	1266	1322.95	2.811	Si



Comb.	Quota	N	M	$\sigma_0$	Mu	c.s.	Verifica
SLU 26	2.69	-4639	-1483.12	5814	5729.96	3.863	Si
SLU 26	4.59	-1750	440.74	2192	2264.29	5.137	Si
SLU 44	2.69	-4698	-1563.49	5887	5796.99	3.708	Si
SLU 44	4.59	-1010	470.67	1266	1322.95	2.811	Si
SLU 13	2.69	-6461	-1501.88	8096	7738.73	5.153	Si
SLU 13	4.59	-3613	448.31	4527	4538.08	10.123	Si
SLU 23	2.69	-4639	-1483.12	5814	5729.96	3.863	Si
SLU 23	4.59	-1750	440.74	2192	2264.29	5.137	Si
SLU 10	2.69	-6461	-1501.88	8096	7738.73	5.153	Si
SLU 10	4.59	-3613	448.31	4527	4538.08	10.123	Si
SLU 2	2.69	-3361	-1463.25	4212	4238.76	2.897	Si
SLU 2	4.59	-513	443.91	643	676.86	1.525	Si
SLU 68	2.69	-5977	-1583.37	7490	7218.21	4.559	Si
SLU 68	4.59	-2247	467.5	2816	2885.22	6.172	Si

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni sismiche,  $\gamma_M = 2$

Comb.	Quota	N	M	$\sigma_0$	Mu	c.s.	Verifica
SLV 13	2.69	-6909	1851.83	8658	8538.41	4.611	Si
SLV 13	4.59	-6308	-3453.88	7905	7847.18	2.272	Si
SLV 7	2.69	-1622	-2421.26	0	0	0	No, $e \geq l/2$
SLV 7	4.59	2241	1473.86	0	0	0	No, Trazione
SLV 15	2.69	-3200	941.9	4010	4116.16	4.37	Si
SLV 15	4.59	-2384	-3238.95	0	0	0	No, $e \geq l/2$
SLV 14	2.69	-6909	1851.83	8658	8538.41	4.611	Si
SLV 14	4.59	-6308	-3453.88	7905	7847.18	2.272	Si
SLV 11	2.69	-353	-1358.99	0	0	0	No, $e \geq l/2$
SLV 11	4.59	2219	-585.55	0	0	0	No, Trazione
SLV 3	2.69	-7431	-2598.98	9312	9129.99	3.513	Si
SLV 3	4.59	-2313	3625.75	0	0	0	No, $e \geq l/2$
SLV 4	2.69	-7431	-2598.98	9312	9129.99	3.513	Si
SLV 4	4.59	-2313	3625.75	0	0	0	No, $e \geq l/2$
SLV 8	2.69	-1622	-2421.26	0	0	0	No, $e \geq l/2$
SLV 8	4.59	2241	1473.86	0	0	0	No, Trazione
SLV 12	2.69	-353	-1358.99	0	0	0	No, $e \geq l/2$
SLV 12	4.59	2219	-585.55	0	0	0	No, Trazione
SLV 16	2.69	-3200	941.9	4010	4116.16	4.37	Si
SLV 16	4.59	-2384	-3238.95	0	0	0	No, $e \geq l/2$

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni non sismiche,  $\gamma_M = 3$

Comb.	Quota	N	V par	M	$\sigma_0$	$\sigma_N$	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLU 68	2.69	-5977	-1082	-1583.37		7490	2.66	6554	5230			4.84	Si
SLU 68	4.59	-2247	-1082	467.5		2816	2.66	5931	4733			4.38	Si
SLU 55	2.69	-7798	-1095	-1602.12		9772	2.66	6859	5473			5	Si
SLU 55	4.59	-4110	-1095	475.07		5151	2.66	6242	4981			4.55	Si
SLU 47	2.69	-4698	-1073	-1563.49		5887	2.66	6341	5060			4.72	Si
SLU 47	4.59	-1010	-1073	470.67		1299	2.5925	5729	4456			4.15	Si
SLU 44	2.69	-4698	-1073	-1563.49		5887	2.66	6341	5060			4.72	Si
SLU 44	4.59	-1010	-1073	470.67		1299	2.5925	5729	4456			4.15	Si
SLU 5	2.69	-3361	-1005	-1463.25		4212	2.66	6117	4881			4.85	Si
SLU 5	4.59	-513	-1005	443.91		1227	1.3939	5719	2392			2.38	Si
SLU 52	2.69	-7798	-1095	-1602.12		9772	2.66	6859	5473			5	Si
SLU 52	4.59	-4110	-1095	475.07		5151	2.66	6242	4981			4.55	Si
SLU 65	2.69	-5977	-1082	-1583.37		7490	2.66	6554	5230			4.84	Si
SLU 65	4.59	-2247	-1082	467.5		2816	2.66	5931	4733			4.38	Si
SLU 26	2.69	-4639	-1014	-1483.12		5814	2.66	6331	5052			4.98	Si
SLU 26	4.59	-1750	-1014	440.74		2192	2.66	5848	4667			4.6	Si
SLU 2	2.69	-3361	-1005	-1463.25		4212	2.66	6117	4881			4.85	Si
SLU 2	4.59	-513	-1005	443.91		1227	1.3939	5719	2392			2.38	Si
SLU 23	2.69	-4639	-1014	-1483.12		5814	2.66	6331	5052			4.98	Si
SLU 23	4.59	-1750	-1014	440.74		2192	2.66	5848	4667			4.6	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni sismiche,  $\gamma_M = 2$

Comb.	Quota	N	V par	M	$\sigma_0$	$\sigma_N$	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLV 11	2.69	-353	-1420	-1358.99		0	0	8333	0			0	No, $V_u < V$
SLV 11	4.59	2219	-1037	-585.55		0	0	8333	0			0	No, $V_u < V$
SLV 12	2.69	-353	-1420	-1358.99		0	0	8333	0			0	No, $V_u < V$
SLV 12	4.59	2219	-1037	-585.55		0	0	8333	0			0	No, $V_u < V$
SLV 15	2.69	-3200	979	941.9		4010	2.66	9135	7290			7.44	Si
SLV 15	4.59	-2384	507	-3238.95		0	0	8333	0			0	No, $V_u < V$
SLV 3	2.69	-7431	-2484	-2598.98		9312	2.66	10196	8136			3.28	Si
SLV 3	4.59	-2313	-1665	3625.75		0	0	8333	0			0	No, $V_u < V$
SLV 13	2.69	-6909	1997	1851.83		8658	2.66	10065	8032			4.02	Si
SLV 13	4.59	-6308	1178	-3453.88		8958	2.3474	10125	7130			6.05	Si
SLV 4	2.69	-7431	-2484	-2598.98		9312	2.66	10196	8136			3.28	Si
SLV 4	4.59	-2313	-1665	3625.75		0	0	8333	0			0	No, $V_u < V$
SLV 16	2.69	-3200	979	941.9		4010	2.66	9135	7290			7.44	Si
SLV 16	4.59	-2384	507	-3238.95		0	0	8333	0			0	No, $V_u < V$
SLV 8	2.69	-1622	-2459	-2421.26		0	0	8333	0			0	No, $V_u < V$
SLV 8	4.59	2241	-1689	1473.86		0	0	8333	0			0	No, $V_u < V$
SLV 7	2.69	-1622	-2459	-2421.26		0	0	8333	0			0	No, $V_u < V$
SLV 7	4.59	2241	-1689	1473.86		0	0	8333	0			0	No, $V_u < V$
SLV 14	2.69	-6909	1997	1851.83		8658	2.66	10065	8032			4.02	Si
SLV 14	4.59	-6308	1178	-3453.88		8958	2.3474	10125	7130			6.05	Si

Verifica a pressoflessione fuori piano D.M. 17-01-18 (N.T.C.)

quota 3.655 Wa 0.05 denominatore 8  $\gamma_M = 2$

Comb.	fd	Sa	$\sigma_0$	N	M	Mc	Coeff.s.	Verifica
SLV 12	143750	0.48	0	1805	456.07	0	0	No, Trazione
SLV 7	143750	0.48	0	1018	456.07	0	0	No, Trazione





Comb.	fd	Sa	$\sigma_0$	N	M	Mc	Coeff.s.	Verifica
SLV 11	143750	0.48	0	1805	456.07	0	0	No, Trazione
SLV 16	143750	0.48	0	-2067	456.07	0	0	No, $e>t/2$
SLV 15	143750	0.48	0	-2067	456.07	0	0	No, $e>t/2$
SLV 8	143750	0.48	0	1018	456.07	0	0	No, Trazione
SLV 3	143750	0.48	5880	-4692	456.07	669.93	1.47	Si
SLV 4	143750	0.48	5880	-4692	456.07	669.93	1.47	Si
SLV 13	143750	0.48	7737	-6174	456.07	867.44	1.9	Si
SLV 14	143750	0.48	7737	-6174	456.07	867.44	1.9	Si

#### Verifica dei meccanismi locali di collasso con analisi cinematica lineare

forza di aggancio al piano = 0 quota mezzeraia = 3.655  $W_a = 0.05$   $T_a = 0.086$

Comb.	N top	N base	V orto	$\alpha_0$	M*	e*	a0*	aLim	Verifica
SLV 12	-2286	76	-68	0	0	0	0	5.80179	No, Trazione
SLV 11	-2286	76	-68	0	0	0	0	5.80179	No, Trazione
SLV 1	-2784	-9938	138	0.033	763.7	0.889	0.53655	19.31768	No
SLV 2	-2784	-9938	138	0.033	763.7	0.889	0.53655	19.31768	No
SLV 15	-2565	-4584	-136	0.033	744.1	0.889	0.53767	19.31768	No
SLV 16	-2565	-4584	-136	0.033	744.1	0.889	0.53767	19.31768	No
SLV 3	-2550	-5630	119	0.036	742.7	0.889	0.58852	19.31768	No
SLV 4	-2550	-5630	119	0.036	742.7	0.889	0.58852	19.31768	No
SLV 14	-2799	-8892	-118	0.036	765.1	0.889	0.59487	19.31768	No
SLV 13	-2799	-8892	-118	0.036	765.1	0.889	0.59487	19.31768	No

#### Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLU	1.525	SLU 2	Si
V_SLU	2.379	SLU 2	Si
PF_SLV	0	SLV 12	No
V_SLV	0	SLV 3	No
PFFP_SLV	0	SLV 12	No
R_SLV	0	SLV 12	No

## Maschio 20

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

#### Dati geometrici

X ini.	Y ini.	X fin.	Y fin.	Quota i.	Quota.s	l	Sp.	h netta	h ini.	h fin.	a	a.s.,sx	a.s.,dx
-22.182	-17.999	-21.057	-17.999	L2	L3	1.125	0.3	3.93	3.93	3.93			

#### Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2\_Corti

fb	fk	fvk0	fmedio	t0	fv0	$\mu$	$\phi$	fv,lim	E	G	FC
600000			345000	9000	20000	0.58	0.77	32500	320000000	128000000	1.2

#### Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni non sismiche, $\gamma_M = 3$

Comb.	Quota	N	M	$\sigma_0$	Mu	c.s.	Verifica
SLU 47	2.69	-1585	1434.01	0	0	0	No, $e>l/2$
SLU 47	4.59	-3616	-1088.09	10714	1766.46	1.623	Si
SLU 31	2.69	-1968	1604.38	0	0	0	No, $e>l/2$
SLU 31	4.59	-5448	-1508.78	16143	2457.27	1.629	Si
SLU 26	2.69	-1364	1415.68	0	0	0	No, $e>l/2$
SLU 26	4.59	-3829	-1141.38	11345	1853.88	1.624	Si
SLU 25	2.69	-1661	1067.62	0	0	0	No, $e>l/2$
SLU 25	4.59	-3475	-949.21	10295	1707.45	1.799	Si
SLU 68	2.69	-1835	1522.47	0	0	0	No, $e>l/2$
SLU 68	4.59	-4283	-1241.22	12691	2033.9	1.639	Si
SLU 28	2.69	-1661	1067.62	0	0	0	No, $e>l/2$
SLU 28	4.59	-3475	-949.21	10295	1707.45	1.799	Si
SLU 23	2.69	-1364	1415.68	0	0	0	No, $e>l/2$
SLU 23	4.59	-3829	-1141.38	11345	1853.88	1.624	Si
SLU 30	2.69	-1661	1067.62	0	0	0	No, $e>l/2$
SLU 30	4.59	-3475	-949.21	10295	1707.45	1.799	Si
SLU 46	2.69	-1882	1085.95	0	0	0	No, $e>l/2$
SLU 46	4.59	-3261	-895.92	9664	1616.94	1.805	Si
SLU 65	2.69	-1835	1522.47	0	0	0	No, $e>l/2$
SLU 65	4.59	-4283	-1241.22	12691	2033.9	1.639	Si

#### Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni sismiche, $\gamma_M = 2$

Comb.	Quota	N	M	$\sigma_0$	Mu	c.s.	Verifica
SLV 6	2.69	-3705	-1798.84	10978	1896.86	1.054	Si
SLV 6	4.59	-158	754.76	0	0	0	No, $e>l/2$
SLV 14	2.69	-1093	832.68	0	0	0	No, $e>l/2$
SLV 14	4.59	-3127	-734.65	9264	1625.34	2.212	Si
SLV 11	2.69	-497	2871.34	0	0	0	No, $e>l/2$
SLV 11	4.59	-5700	-2067.84	16889	2763.14	1.336	Si
SLV 10	2.69	-2885	-1250.06	8549	1509.48	1.208	Si
SLV 10	4.59	-724	478.71	0	0	0	No, $e>l/2$
SLV 12	2.69	-497	2871.34	0	0	0	No, $e>l/2$
SLV 12	4.59	-5700	-2067.84	16889	2763.14	1.336	Si
SLV 5	2.69	-3705	-1798.84	10978	1896.86	1.054	Si
SLV 5	4.59	-158	754.76	0	0	0	No, $e>l/2$
SLV 7	2.69	-1317	2322.56	0	0	0	No, $e>l/2$
SLV 7	4.59	-5134	-1791.79	15211	2528.24	1.411	Si
SLV 8	2.69	-1317	2322.56	0	0	0	No, $e>l/2$
SLV 8	4.59	-5134	-1791.79	15211	2528.24	1.411	Si



Comb.	Quota	N	M	$\sigma_0$	Mu	c.s.	Verifica
SLV 13	2.69	-1093	832.68	0	0	0	No, $e \geq l/2$
SLV 13	4.59	-3127	-734.65	9264	1625.34	2.212	Si
SLV 9	2.69	-2885	-1250.06	8549	1509.48	1.208	Si
SLV 9	4.59	-724	478.71	0	0	0	No, $e \geq l/2$

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni non sismiche,  $\gamma_M = 3$

Comb.	Quota	N	V par	M	$\sigma_0$	$\sigma_N$	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLU 26	2.69	-1364	2411	1415.68	0	0	0	5556	0			0	No, $V_u < V$
SLU 26	4.59	-3829	2460	-1141.38		16090	0.7933	7701	1833			0.74	No, $V_u < V$
SLU 30	2.69	-1661	1941	1067.62	0	0	0	5556	0			0	No, $V_u < V$
SLU 30	4.59	-3475	1974	-949.21		13344	0.8679	7335	1910			0.97	No, $V_u < V$
SLU 31	2.69	-1968	3002	1604.38	0	0	0	5556	0			0	No, $V_u < V$
SLU 31	4.59	-5448	3055	-1508.78		21198	0.8567	8382	2154			0.71	No, $V_u < V$
SLU 28	2.69	-1661	1941	1067.62	0	0	0	5556	0			0	No, $V_u < V$
SLU 28	4.59	-3475	1974	-949.21		13344	0.8679	7335	1910			0.97	No, $V_u < V$
SLU 46	2.69	-1882	1893	1085.95	0	0	0	5556	0			0	No, $V_u < V$
SLU 46	4.59	-3261	1927	-895.92		12592	0.8634	7234	1874			0.97	No, $V_u < V$
SLU 65	2.69	-1835	2618	1522.47	0	0	0	5556	0			0	No, $V_u < V$
SLU 65	4.59	-4283	2669	-1241.22		17451	0.8181	7882	1935			0.72	No, $V_u < V$
SLU 47	2.69	-1585	2363	1434.01	0	0	0	5556	0			0	No, $V_u < V$
SLU 47	4.59	-3616	2413	-1088.09		15359	0.7848	7603	1790			0.74	No, $V_u < V$
SLU 25	2.69	-1661	1941	1067.62	0	0	0	5556	0			0	No, $V_u < V$
SLU 25	4.59	-3475	1974	-949.21		13344	0.8679	7335	1910			0.97	No, $V_u < V$
SLU 23	2.69	-1364	2411	1415.68	0	0	0	5556	0			0	No, $V_u < V$
SLU 23	4.59	-3829	2460	-1141.38		16090	0.7933	7701	1833			0.74	No, $V_u < V$
SLU 68	2.69	-1835	2618	1522.47	0	0	0	5556	0			0	No, $V_u < V$
SLU 68	4.59	-4283	2669	-1241.22		17451	0.8181	7882	1935			0.72	No, $V_u < V$

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni sismiche,  $\gamma_M = 2$

Comb.	Quota	N	V par	M	$\sigma_0$	$\sigma_N$	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLV 9	2.69	-2885	-1170	-1250.06		24802	0.3878	13294	1547			1.32	Si
SLV 9	4.59	-724	-1331	478.71		0	0	8333	0			0	No, $V_u < V$
SLV 13	2.69	-1093	1897	832.68		0	0	8333	0			0	No, $V_u < V$
SLV 13	4.59	-3127	1329	-734.65		10606	0.9826	10455	3082			2.32	Si
SLV 8	2.69	-1317	3616	2322.56	0	0	0	8333	0			0	No, $V_u < V$
SLV 8	4.59	-5134	3793	-1791.79		26720	0.6404	13677	2628			0.69	No, $V_u < V$
SLV 14	2.69	-1093	1897	832.68	0	0	0	8333	0			0	No, $V_u < V$
SLV 14	4.59	-3127	1329	-734.65		10606	0.9826	10455	3082			2.32	Si
SLV 6	2.69	-3705	-2088	-1798.84		53469	0.231	16250	1126			0.54	No, $V_u < V$
SLV 6	4.59	-158	-1901	754.76	0	0	0	8333	0			0	No, $V_u < V$
SLV 5	2.69	-3705	-2088	-1798.84		53469	0.231	16250	1126			0.54	No, $V_u < V$
SLV 5	4.59	-158	-1901	754.76	0	0	0	8333	0			0	No, $V_u < V$
SLV 11	2.69	-497	4534	2871.34	0	0	0	8333	0			0	No, $V_u < V$
SLV 11	4.59	-5700	4364	-2067.84		31710	0.5992	14675	2638			0.6	No, $V_u < V$
SLV 12	2.69	-497	4534	2871.34	0	0	0	8333	0			0	No, $V_u < V$
SLV 12	4.59	-5700	4364	-2067.84		31710	0.5992	14675	2638			0.6	No, $V_u < V$
SLV 7	2.69	-1317	3616	2322.56	0	0	0	8333	0			0	No, $V_u < V$
SLV 7	4.59	-5134	3793	-1791.79		26720	0.6404	13677	2628			0.69	No, $V_u < V$
SLV 10	2.69	-2885	-1170	-1250.06		24802	0.3878	13294	1547			1.32	Si
SLV 10	4.59	-724	-1331	478.71		0	0	8333	0			0	No, $V_u < V$

Verifica a pressoflessione fuori piano D.M. 17-01-18 (N.T.C.)

quota 3.655  $W_a$  0.05 denominatore 8  $\gamma_M = 2$

Comb.	fd	Sa	$\sigma_0$	N	M	Mc	Coeff.s.	Verifica
SLV 9	143750	0.48	5581	-1883	192.89	269.61	1.4	Si
SLV 10	143750	0.48	5581	-1883	192.89	269.61	1.4	Si
SLV 5	143750	0.48	5988	-2021	192.89	288.29	1.49	Si
SLV 6	143750	0.48	5988	-2021	192.89	288.29	1.49	Si
SLV 13	143750	0.48	6626	-2236	192.89	317.23	1.64	Si
SLV 14	143750	0.48	6626	-2236	192.89	317.23	1.64	Si
SLV 15	143750	0.48	7929	-2676	192.89	375.35	1.95	Si
SLV 16	143750	0.48	7929	-2676	192.89	375.35	1.95	Si
SLV 1	143750	0.48	7984	-2694	192.89	377.76	1.96	Si
SLV 2	143750	0.48	7984	-2694	192.89	377.76	1.96	Si

Verifica dei meccanismi locali di collasso con analisi cinematica lineare

forza di aggancio al piano = 0 quota mezzzeria = 3.655  $W_a = 0.05$   $T_a = 0.086$

Comb.	N top	N base	V orto	$\alpha_0$	M*	e*	$\alpha_0^*$	aLim	Verifica
SLV 15	-1235	-1945	49	0.037	328.2	0.889	0.60137	19.31768	No
SLV 16	-1235	-1945	49	0.037	328.2	0.889	0.60137	19.31768	No
SLV 1	-1017	-3339	-47	0.037	308.7	0.89	0.61258	19.31768	No
SLV 2	-1017	-3339	-47	0.037	308.7	0.89	0.61258	19.31768	No
SLV 14	-1191	-2101	4	0.056	324.2	0.889	0.91183	19.31768	No
SLV 13	-1191	-2101	4	0.056	324.2	0.889	0.91183	19.31768	No
SLV 3	-1062	-3183	-2	0.058	312.7	0.889	0.94147	19.31768	No
SLV 4	-1062	-3183	-2	0.058	312.7	0.889	0.94147	19.31768	No
SLV 6	-1026	-3089	-82	0.022	309.5	0.889	0.35387	5.80179	No
SLV 5	-1026	-3089	-82	0.022	309.5	0.889	0.35387	5.80179	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLU	0	SLU 2	No
V_SLU	0	SLU 2	No
PF_SLV	0	SLV 5	No
V_SLV	0	SLV 5	No
PFFP_SLV	1.398	SLV 9	Si
R_SLV	0.031	SLV 15	No



## Maschio 21

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

### Dati geometrici

X ini.	Y ini.	X fin.	Y fin.	Quota i.	Quota.s	l	Sp.	h netta	h ini.	h fin.	a	a.s.,sx	a.s.,dx
-35.332	-9.039	-34.307	-9.039	L2	L3	1.025	0.3	3.93	3.93	3.93			

### Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2\_Corti

fb	fk	fvk0	fmedio	τ0	fv0	μ	φ	fv,lim	E	G	FC
600000			345000	9000	20000	0.58	0.77	32500	320000000	128000000	1.2

### Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni non sismiche, γM = 3

Comb.	Quota	N	M	σ0	Mu	c.s.	Verifica
SLU 19	1.69	-5954	-206.26	19362	2326.07	11.277	Si
SLU 19	4.69	-3964	630.5	12892	1710.16	2.712	Si
SLU 84	1.69	-7657	-246.74	24901	2724.66	11.043	Si
SLU 84	4.69	-4914	769.31	15981	2024.39	2.631	Si
SLU 83	1.69	-7780	-245.58	25302	2748.88	11.193	Si
SLU 83	4.69	-4930	766.32	16033	2029.34	2.648	Si
SLU 41	1.69	-6620	-245.77	21530	2496.2	10.157	Si
SLU 41	4.69	-4595	736.17	14943	1922.96	2.612	Si
SLU 40	1.69	-6497	-246.92	21129	2466.13	9.987	Si
SLU 40	4.69	-4579	739.15	14892	1917.79	2.595	Si
SLU 81	1.69	-7780	-245.58	25302	2748.88	11.193	Si
SLU 81	4.69	-4930	766.32	16033	2029.34	2.648	Si
SLU 82	1.69	-7657	-246.74	24901	2724.66	11.043	Si
SLU 82	4.69	-4914	769.31	15981	2024.39	2.631	Si
SLU 21	1.69	-5954	-206.26	19362	2326.07	11.277	Si
SLU 21	4.69	-3964	630.5	12892	1710.16	2.712	Si
SLU 42	1.69	-6497	-246.92	21129	2466.13	9.987	Si
SLU 42	4.69	-4579	739.15	14892	1917.79	2.595	Si
SLU 39	1.69	-6620	-245.77	21530	2496.2	10.157	Si
SLU 39	4.69	-4595	736.17	14943	1922.96	2.612	Si

### Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni sismiche, γM = 2

Comb.	Quota	N	M	σ0	Mu	c.s.	Verifica
SLV 16	1.69	-4163	749.2	13537	1896.95	2.532	Si
SLV 16	4.69	-1077	-114.96	3501	535.96	4.662	Si
SLV 6	1.69	-6013	-376.41	19555	2588.54	6.877	Si
SLV 6	4.69	-2718	565.27	8841	1292.42	2.286	Si
SLV 15	1.69	-4163	749.2	13537	1896.95	2.532	Si
SLV 15	4.69	-1077	-114.96	3501	535.96	4.662	Si
SLV 5	1.69	-6013	-376.41	19555	2588.54	6.877	Si
SLV 5	4.69	-2718	565.27	8841	1292.42	2.286	Si
SLV 3	1.69	-5222	-904.44	16983	2304.39	2.548	Si
SLV 3	4.69	-3852	725.86	12528	1771.95	2.441	Si
SLV 2	1.69	-5758	-927.86	18727	2498.9	2.693	Si
SLV 2	4.69	-3777	787.57	12285	1741.33	2.211	Si
SLV 4	1.69	-5222	-904.44	16983	2304.39	2.548	Si
SLV 4	4.69	-3852	725.86	12528	1771.95	2.441	Si
SLV 14	1.69	-4699	725.78	15280	2106.95	2.903	Si
SLV 14	4.69	-1002	-53.26	3257	499.66	9.382	Si
SLV 13	1.69	-4699	725.78	15280	2106.95	2.903	Si
SLV 13	4.69	-1002	-53.26	3257	499.66	9.382	Si
SLV 1	1.69	-5758	-927.86	18727	2498.9	2.693	Si
SLV 1	4.69	-3777	787.57	12285	1741.33	2.211	Si

### Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni non sismiche, γM = 3

Comb.	Quota	N	V par	M	σ0	σN	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLU 40	1.69	-6497	-324	-246.92		21129	1.025	8373	2575			7.96	Si
SLU 40	4.69	-4579	-276	739.15		14892	1.025	7541	2319			8.41	Si
SLU 34	1.69	-5938	-248	-199.93		19311	1.025	8130	2500			10.06	Si
SLU 34	4.69	-3920	-205	620.29		12749	1.025	7255	2231			10.9	Si
SLU 42	1.69	-6497	-324	-246.92		21129	1.025	8373	2575			7.96	Si
SLU 42	4.69	-4579	-276	739.15		14892	1.025	7541	2319			8.41	Si
SLU 41	1.69	-6620	-304	-245.77		21530	1.025	8426	2591			8.52	Si
SLU 41	4.69	-4595	-256	736.17		14943	1.025	7548	2321			9.08	Si
SLU 19	1.69	-5954	-255	-206.26		19362	1.025	8137	2502			9.83	Si
SLU 19	4.69	-3964	-211	630.5		12892	1.025	7274	2237			10.61	Si
SLU 31	1.69	-5938	-248	-199.93		19311	1.025	8130	2500			10.06	Si
SLU 31	4.69	-3920	-205	620.29		12749	1.025	7255	2231			10.9	Si
SLU 39	1.69	-6620	-304	-245.77		21530	1.025	8426	2591			8.52	Si
SLU 39	4.69	-4595	-256	736.17		14943	1.025	7548	2321			9.08	Si
SLU 82	1.69	-7657	-283	-246.74		24901	1.025	8876	2729			9.66	Si
SLU 82	4.69	-4914	-226	769.31		15981	1.025	7686	2364			10.46	Si
SLU 21	1.69	-5954	-255	-206.26		19362	1.025	8137	2502			9.83	Si
SLU 21	4.69	-3964	-211	630.5		12892	1.025	7274	2237			10.61	Si
SLU 84	1.69	-7657	-283	-246.74		24901	1.025	8876	2729			9.66	Si
SLU 84	4.69	-4914	-226	769.31		15981	1.025	7686	2364			10.46	Si

### Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni sismiche, γM = 2

Comb.	Quota	N	V par	M	σ0	σN	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLV 15	1.69	-4163	829	749.2		13909	0.9975	11115	3326			4.01	Si
SLV 15	4.69	-1077	120	-114.96		3501	1.025	9034	2778			23.17	Si
SLV 3	1.69	-5222	-980	-904.44		17101	1.0179	11753	3589			3.66	Si
SLV 3	4.69	-3852	15	725.86		13208	0.9723	10975	3201			210.37	Si
SLV 2	1.69	-5758	-870	-927.86		18727	1.025	12079	3714			4.27	Si



Comb.	Quota	N	V par	M	$\sigma_0$	$\sigma_N$	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLV 2	4.69	-3777	-87	787.57		13806	0.912	11095	3036			34.98	Si
SLV 4	1.69	-5222	-980	-904.44		17101	1.0179	11753	3589			3.66	Si
SLV 4	4.69	-3852	15	725.86		13208	0.9723	10975	3201			210.37	Si
SLV 14	1.69	-4699	939	725.78		15280	1.025	11389	3502			3.73	Si
SLV 14	4.69	-1002	18	-53.26		3257	1.025	8985	2763			154.46	Si
SLV 13	1.69	-4699	939	725.78		15280	1.025	11389	3502			3.73	Si
SLV 13	4.69	-1002	18	-53.26		3257	1.025	8985	2763			154.46	Si
SLV 8	1.69	-4226	-475	-298.34		13742	1.025	11082	3408			7.17	Si
SLV 8	4.69	-2968	171	359.59		9653	1.025	10264	3156			18.47	Si
SLV 16	1.69	-4163	829	749.2		13909	0.9975	11115	3326			4.01	Si
SLV 16	4.69	-1077	120	-114.96		3501	1.025	9034	2778			23.17	Si
SLV 1	1.69	-5758	-870	-927.86		18727	1.025	12079	3714			4.27	Si
SLV 1	4.69	-3777	-87	787.57		13806	0.912	11095	3036			34.98	Si
SLV 7	1.69	-4226	-475	-298.34		13742	1.025	11082	3408			7.17	Si
SLV 7	4.69	-2968	171	359.59		9653	1.025	10264	3156			18.47	Si

#### Verifica a pressoflessione fuori piano D.M. 17-01-18 (N.T.C.)

quota 3.655 Wa 0.05 denominatore 8  $\gamma_M = 2$

Comb.	fd	Sa	$\sigma_0$	N	M	Mc	Coeff.s.	Verifica
SLV 16	143750	0.48	5304	-1631	175.74	234.04	1.33	Si
SLV 15	143750	0.48	5304	-1631	175.74	234.04	1.33	Si
SLV 14	143750	0.48	5682	-1747	175.74	249.91	1.42	Si
SLV 13	143750	0.48	5682	-1747	175.74	249.91	1.42	Si
SLV 12	143750	0.48	8106	-2493	175.74	349.09	1.99	Si
SLV 11	143750	0.48	8106	-2493	175.74	349.09	1.99	Si
SLV 9	143750	0.48	9366	-2880	175.74	398.9	2.27	Si
SLV 10	143750	0.48	9366	-2880	175.74	398.9	2.27	Si
SLV 8	143750	0.48	10886	-3347	175.74	457.37	2.6	Si
SLV 7	143750	0.48	10886	-3347	175.74	457.37	2.6	Si

#### Verifica dei meccanismi locali di collasso con analisi cinematica lineare

forza di aggancio al piano = 0 quota mezzeria = 3.655 Wa = 0.05 Ta = 0.086

Comb.	N top	N base	V orto	$\alpha_0$	M*	e*	a0*	aLim	Verifica
SLV 3	-1155	-5222	222	0	301.8	0.889	0	19.31768	No
SLV 4	-1155	-5222	222	0	301.8	0.889	0	19.31768	No
SLV 15	-902	-4163	-193	0	279.1	0.89	0	19.31768	No
SLV 16	-902	-4163	-193	0	279.1	0.89	0	19.31768	No
SLV 14	-868	-4699	-222	0	276.1	0.89	0	19.31768	No
SLV 13	-868	-4699	-222	0	276.1	0.89	0	19.31768	No
SLV 2	-1120	-5758	194	0	298.6	0.889	0	19.31768	No
SLV 1	-1120	-5758	194	0	298.6	0.889	0	19.31768	No
SLV 10	-916	-5695	-110	0.004	280.3	0.89	0.06743	5.80179	No
SLV 9	-916	-5695	-110	0.004	280.3	0.89	0.06743	5.80179	No

#### Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLU	2.595	SLU 40	Si
V_SLU	7.958	SLU 40	Si
PF_SLV	2.211	SLV 1	Si
V_SLV	3.662	SLV 3	Si
PFFP_SLV	1.332	SLV 15	Si
R_SLV	0	SLV 1	No

## Maschio 22

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

#### Dati geometrici

X ini.	Y ini.	X fin.	Y fin.	Quota i.	Quota.s	I	Sp.	h netta	h ini.	h fin.	a	a.s.,sx	a.s.,dx
-32.907	-9.039	-31.937	-9.039	L2	L3	0.97	0.3	3.93	3.93	3.93			

#### Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2\_Corti

fb	fk	fk0	fmedio	t0	fv0	$\mu$	$\phi$	fv,lim	E	G	FC
600000			345000	9000	20000	0.58	0.77	32500	320000000	128000000	1.2

#### Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni non sismiche, $\gamma_M = 3$

Comb.	Quota	N	M	$\sigma_0$	Mu	c.s.	Verifica
SLU 40	3.69	-6291	285.72	21619	2241.41	7.845	Si
SLU 40	4.69	-5143	-698.2	17674	1953.17	2.797	Si
SLU 81	3.69	-6866	307.98	23595	2365.51	7.681	Si
SLU 81	4.69	-5538	-757.61	19030	2058.37	2.717	Si
SLU 39	3.69	-6299	283.99	21645	2243.16	7.899	Si
SLU 39	4.69	-5150	-699.96	17697	1955.02	2.793	Si
SLU 82	3.69	-6859	309.71	23569	2363.94	7.633	Si
SLU 82	4.69	-5531	-755.85	19007	2056.63	2.721	Si
SLU 83	3.69	-6866	307.98	23595	2365.51	7.681	Si
SLU 83	4.69	-5538	-757.61	19030	2058.37	2.717	Si
SLU 74	3.69	-6050	269.98	20789	2185.26	8.094	Si
SLU 74	4.69	-4821	-664.31	16566	1862.6	2.804	Si
SLU 41	3.69	-6299	283.99	21645	2243.16	7.899	Si
SLU 41	4.69	-5150	-699.96	17697	1955.02	2.793	Si
SLU 84	3.69	-6859	309.71	23569	2363.94	7.633	Si
SLU 84	4.69	-5531	-755.85	19007	2056.63	2.721	Si
SLU 42	3.69	-6291	285.72	21619	2241.41	7.845	Si
SLU 42	4.69	-5143	-698.2	17674	1953.17	2.797	Si



Comb.	Quota	N	M	$\sigma_0$	Mu	c.s.	Verifica
SLU 77	3.69	-6050	269.98	20789	2185.26	8.094	Si
SLU 77	4.69	-4821	-664.31	16566	1862.6	2.804	Si

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni sismiche,  $\gamma_M = 2$

Comb.	Quota	N	M	$\sigma_0$	Mu	c.s.	Verifica
SLV 1	3.69	-3279	-205.94	11269	1443.8	7.011	Si
SLV 1	4.69	-2039	220.35	7006	932.06	4.23	Si
SLV 2	3.69	-3279	-205.94	11269	1443.8	7.011	Si
SLV 2	4.69	-2039	220.35	7006	932.06	4.23	Si
SLV 15	3.69	-3839	519.68	13194	1661.07	3.196	Si
SLV 15	4.69	-3459	-991.47	11888	1514.58	1.528	Si
SLV 13	3.69	-3801	548.6	13062	1646.44	3.001	Si
SLV 13	4.69	-3374	-977.63	11596	1481.25	1.515	Si
SLV 11	3.69	-3702	221.85	12721	1608.41	7.25	Si
SLV 11	4.69	-3091	-588.31	10623	1368.88	2.327	Si
SLV 14	3.69	-3801	548.6	13062	1646.44	3.001	Si
SLV 14	4.69	-3374	-977.63	11596	1481.25	1.515	Si
SLV 16	3.69	-3839	519.68	13194	1661.07	3.196	Si
SLV 16	4.69	-3459	-991.47	11888	1514.58	1.528	Si
SLV 12	3.69	-3702	221.85	12721	1608.41	7.25	Si
SLV 12	4.69	-3091	-588.31	10623	1368.88	2.327	Si
SLV 10	3.69	-3574	318.25	12281	1559.03	4.899	Si
SLV 10	4.69	-2808	-542.2	9648	1254.17	2.313	Si
SLV 9	3.69	-3574	318.25	12281	1559.03	4.899	Si
SLV 9	4.69	-2808	-542.2	9648	1254.17	2.313	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni non sismiche,  $\gamma_M = 3$

Comb.	Quota	N	V par	M	$\sigma_0$	$\sigma_N$	I'	fvd	Vt scorr.	Vt fess.diag.	Vt <sub>lim</sub>	c.s.	Verifica
SLU 81	3.69	-6866	731	307.98		23595	0.97	8702	2532			3.46	Si
SLU 81	4.69	-5538	829	-757.61		19030	0.97	8093	2355			2.84	Si
SLU 39	3.69	-6299	672	283.99		21645	0.97	8442	2457			3.66	Si
SLU 39	4.69	-5150	766	-699.96		17697	0.97	7915	2303			3.01	Si
SLU 42	3.69	-6291	672	285.72		21619	0.97	8438	2455			3.65	Si
SLU 42	4.69	-5143	766	-698.2		17674	0.97	7912	2302			3.01	Si
SLU 82	3.69	-6859	732	309.71		23569	0.97	8698	2531			3.46	Si
SLU 82	4.69	-5531	830	-755.85		19007	0.97	8090	2354			2.84	Si
SLU 84	3.69	-6859	732	309.71		23569	0.97	8698	2531			3.46	Si
SLU 84	4.69	-5531	830	-755.85		19007	0.97	8090	2354			2.84	Si
SLU 73	3.69	-6037	645	272.86		20745	0.97	8322	2422			3.75	Si
SLU 73	4.69	-4810	729	-661.37		16528	0.97	7759	2258			3.1	Si
SLU 76	3.69	-6037	645	272.86		20745	0.97	8322	2422			3.75	Si
SLU 76	4.69	-4810	729	-661.37		16528	0.97	7759	2258			3.1	Si
SLU 40	3.69	-6291	672	285.72		21619	0.97	8438	2455			3.65	Si
SLU 40	4.69	-5143	766	-698.2		17674	0.97	7912	2302			3.01	Si
SLU 83	3.69	-6866	731	307.98		23595	0.97	8702	2532			3.46	Si
SLU 83	4.69	-5538	829	-757.61		19030	0.97	8093	2355			2.84	Si
SLU 41	3.69	-6299	672	283.99		21645	0.97	8442	2457			3.66	Si
SLU 41	4.69	-5150	766	-699.96		17697	0.97	7915	2303			3.01	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni sismiche,  $\gamma_M = 2$

Comb.	Quota	N	V par	M	$\sigma_0$	$\sigma_N$	I'	fvd	Vt scorr.	Vt fess.diag.	Vt <sub>lim</sub>	c.s.	Verifica
SLV 10	3.69	-3574	811	318.25		12281	0.97	10789	3140			3.87	Si
SLV 10	4.69	-2808	823	-542.2		10688	0.8756	10471	2751			3.34	Si
SLV 16	3.69	-3839	1611	519.68		13194	0.97	10972	3193			1.98	Si
SLV 16	4.69	-3459	1386	-991.47		19374	0.5952	12208	2180			1.57	Si
SLV 1	3.69	-3279	-853	-205.94		11269	0.97	10587	3081			3.61	Si
SLV 1	4.69	-2039	-540	220.35		7006	0.97	9734	2833			5.24	Si
SLV 3	3.69	-3318	-888	-234.87		11401	0.97	10614	3089			3.48	Si
SLV 3	4.69	-2124	-601	206.51		7298	0.97	9793	2850			4.74	Si
SLV 9	3.69	-3574	811	318.25		12281	0.97	10789	3140			3.87	Si
SLV 9	4.69	-2808	823	-542.2		10688	0.8756	10471	2751			3.34	Si
SLV 15	3.69	-3839	1611	519.68		13194	0.97	10972	3193			1.98	Si
SLV 15	4.69	-3459	1386	-991.47		19374	0.5952	12208	2180			1.57	Si
SLV 13	3.69	-3801	1646	548.6		13062	0.97	10946	3185			1.94	Si
SLV 13	4.69	-3374	1447	-977.63		19200	0.5858	12173	2139			1.48	Si
SLV 4	3.69	-3318	-888	-234.87		11401	0.97	10614	3089			3.48	Si
SLV 4	4.69	-2124	-601	206.51		7298	0.97	9793	2850			4.74	Si
SLV 14	3.69	-3801	1646	548.6		13062	0.97	10946	3185			1.94	Si
SLV 14	4.69	-3374	1447	-977.63		19200	0.5858	12173	2139			1.48	Si
SLV 2	3.69	-3279	-853	-205.94		11269	0.97	10587	3081			3.61	Si
SLV 2	4.69	-2039	-540	220.35		7006	0.97	9734	2833			5.24	Si

Verifica a pressoflessione fuori piano D.M. 17-01-18 (N.T.C.)

quota 3.655 Wa 0.05 denominatore 8  $\gamma_M = 2$

Comb.	fd	Sa	$\sigma_0$	N	M	Mc	Coeff.s.	Verifica
SLV 13	143750	0.48	10069	-2930	166.31	403.3	2.43	Si
SLV 14	143750	0.48	10069	-2930	166.31	403.3	2.43	Si
SLV 9	143750	0.48	10221	-2974	166.31	408.81	2.46	Si
SLV 10	143750	0.48	10221	-2974	166.31	408.81	2.46	Si
SLV 16	143750	0.48	10294	-2996	166.31	411.48	2.47	Si
SLV 15	143750	0.48	10294	-2996	166.31	411.48	2.47	Si
SLV 6	143750	0.48	10575	-3077	166.31	421.64	2.54	Si
SLV 5	143750	0.48	10575	-3077	166.31	421.64	2.54	Si
SLV 12	143750	0.48	10969	-3192	166.31	435.82	2.62	Si
SLV 11	143750	0.48	10969	-3192	166.31	435.82	2.62	Si

Verifica dei meccanismi locali di collasso con analisi cinematica lineare

forza di aggancio al piano = 0 quota mezzeria = 3.655 Wa = 0.05 Ta = 0.086



Comb.	N top	N base	V orto	$\alpha 0$	M*	e*	a0*	aLim	Verifica
SLV 13	-1069	-1673	10	0.052	283.4	0.889	0.84959	19.31768	No
SLV 14	-1069	-1673	10	0.052	283.4	0.889	0.84959	19.31768	No
SLV 4	-1028	-6441	-10	0.053	279.7	0.889	0.85857	19.31768	No
SLV 3	-1028	-6441	-10	0.053	279.7	0.889	0.85857	19.31768	No
SLV 16	-1077	-1781	5	0.055	284.1	0.889	0.89145	19.31768	No
SLV 15	-1077	-1781	5	0.055	284.1	0.889	0.89145	19.31768	No
SLV 1	-1020	-6333	-4	0.055	278.9	0.889	0.90337	19.31768	No
SLV 2	-1020	-6333	-4	0.055	278.9	0.889	0.90337	19.31768	No
SLV 10	-1043	-3179	12	0.052	281	0.889	0.84218	5.80179	No
SLV 9	-1043	-3179	12	0.052	281	0.889	0.84218	5.80179	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLU	2.717	SLU 81	Si
V_SLU	2.837	SLU 82	Si
PF_SLV	1.515	SLV 13	Si
V_SLV	1.478	SLV 13	Si
PFFP_SLV	2.425	SLV 13	Si
R_SLV	0.044	SLV 13	No

## Maschio 23

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

### Dati geometrici

X ini.	Y ini.	X fin.	Y fin.	Quota i.	Quota.s	l	Sp.	h netta	h ini.	h fin.	a	a.s.,sx	a.s.,dx
-31.437	-9.039	-30.367	-9.039	L2	L3	1.07	0.3	3.93	3.93	3.93			

### Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2\_Corti

fb	fk	fvk0	fmedio	$\tau 0$	fv0	$\mu$	$\phi$	fv,lim	E	G	FC
600000			345000	9000	20000	0.58	0.77	32500	320000000	128000000	1.2

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni non sismiche,  $\gamma_M = 3$

Comb.	Quota	N	M	$\sigma 0$	Mu	c.s.	Verifica
SLU 79	3.69	-6091	-222.33	18976	2499.72	11.243	Si
SLU 79	4.59	-4837	461.65	15068	2109.08	4.569	Si
SLU 84	3.69	-6895	-251.34	21481	2716.2	10.807	Si
SLU 84	4.59	-5537	516.61	17249	2334.97	4.52	Si
SLU 43	3.69	-3431	-125.36	10687	1594.57	12.72	Si
SLU 43	4.59	-2519	267.58	7847	1217.8	4.551	Si
SLU 77	3.69	-6091	-222.33	18976	2499.72	11.243	Si
SLU 77	4.59	-4837	461.65	15068	2109.08	4.569	Si
SLU 81	3.69	-6897	-252.29	21485	2716.54	10.767	Si
SLU 81	4.59	-5540	519.2	17259	2336	4.499	Si
SLU 48	3.69	-3431	-125.36	10687	1594.57	12.72	Si
SLU 48	4.59	-2519	267.58	7847	1217.8	4.551	Si
SLU 82	3.69	-6895	-251.34	21481	2716.2	10.807	Si
SLU 82	4.59	-5537	516.61	17249	2334.97	4.52	Si
SLU 45	3.69	-3431	-125.36	10687	1594.57	12.72	Si
SLU 45	4.59	-2519	267.58	7847	1217.8	4.551	Si
SLU 50	3.69	-3431	-125.36	10687	1594.57	12.72	Si
SLU 50	4.59	-2519	267.58	7847	1217.8	4.551	Si
SLU 83	3.69	-6897	-252.29	21485	2716.54	10.767	Si
SLU 83	4.59	-5540	519.2	17259	2336	4.499	Si

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni sismiche,  $\gamma_M = 2$

Comb.	Quota	N	M	$\sigma 0$	Mu	c.s.	Verifica
SLV 16	3.69	-2841	288.38	8851	1409.98	4.889	Si
SLV 16	4.59	-1640	-432.28	5110	840.81	1.945	Si
SLV 15	3.69	-2841	288.38	8851	1409.98	4.889	Si
SLV 15	4.59	-1640	-432.28	5110	840.81	1.945	Si
SLV 4	3.69	-4438	-555.5	13824	2105.5	3.79	Si
SLV 4	4.59	-3993	1024.92	12439	1918.68	1.872	Si
SLV 1	3.69	-4369	-550.93	13612	2077.23	3.77	Si
SLV 1	4.59	-3917	986.37	12202	1886.25	1.912	Si
SLV 3	3.69	-4438	-555.5	13824	2105.5	3.79	Si
SLV 3	4.59	-3993	1024.92	12439	1918.68	1.872	Si
SLV 13	3.69	-2773	292.96	8639	1378.74	4.706	Si
SLV 13	4.59	-1564	-470.82	4873	803.51	1.707	Si
SLV 14	3.69	-2773	292.96	8639	1378.74	4.706	Si
SLV 14	4.59	-1564	-470.82	4873	803.51	1.707	Si
SLV 8	3.69	-3958	-265.48	12331	1904.01	7.172	Si
SLV 8	4.59	-3258	559.87	10149	1598.22	2.855	Si
SLV 2	3.69	-4369	-550.93	13612	2077.23	3.77	Si
SLV 2	4.59	-3917	986.37	12202	1886.25	1.912	Si
SLV 7	3.69	-3958	-265.48	12331	1904.01	7.172	Si
SLV 7	4.59	-3258	559.87	10149	1598.22	2.855	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni non sismiche,  $\gamma_M = 3$

Comb.	Quota	N	V par	M	$\sigma 0$	$\sigma N$	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLU 81	3.69	-6897	-401	-252.29		21485	1.07	8420	2703			6.74	Si
SLU 81	4.59	-5540	-587	519.2		17259	1.07	7857	2522			4.3	Si
SLU 82	3.69	-6895	-396	-251.34		21481	1.07	8420	2703			6.83	Si
SLU 82	4.59	-5537	-584	516.61		17249	1.07	7855	2522			4.32	Si
SLU 77	3.69	-6091	-366	-222.33		18976	1.07	8086	2596			7.1	Si



Comb.	Quota	N	V par	M	$\sigma_0$	$\sigma_N$	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLU 77	4.59	-4837	-523	461.65		15068	1.07	7565	2428			4.64	Si
SLU 41	3.69	-6311	-355	-230.5		19661	1.07	8177	2625			7.39	Si
SLU 41	4.59	-5138	-533	473.22		16005	1.07	7690	2468			4.63	Si
SLU 83	3.69	-6897	-401	-252.29		21485	1.07	8420	2703			6.74	Si
SLU 83	4.59	-5540	-587	519.2		17259	1.07	7857	2522			4.3	Si
SLU 79	3.69	-6091	-366	-222.33		18976	1.07	8086	2596			7.1	Si
SLU 79	4.59	-4837	-523	461.65		15068	1.07	7565	2428			4.64	Si
SLU 39	3.69	-6311	-355	-230.5		19661	1.07	8177	2625			7.39	Si
SLU 39	4.59	-5138	-533	473.22		16005	1.07	7690	2468			4.63	Si
SLU 84	3.69	-6895	-396	-251.34		21481	1.07	8420	2703			6.83	Si
SLU 84	4.59	-5537	-584	516.61		17249	1.07	7855	2522			4.32	Si
SLU 74	3.69	-6091	-366	-222.33		18976	1.07	8086	2596			7.1	Si
SLU 74	4.59	-4837	-523	461.65		15068	1.07	7565	2428			4.64	Si
SLU 40	3.69	-6310	-350	-229.55		19657	1.07	8176	2625			7.5	Si
SLU 40	4.59	-5134	-530	470.63		15994	1.07	7688	2468			4.65	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni sismiche,  $\gamma_M = 2$

Comb.	Quota	N	V par	M	$\sigma_0$	$\sigma_N$	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLV 2	3.69	-4369	-1833	-550.93		13612	1.07	11056	3549			1.94	Si
SLV 2	4.59	-3917	-1444	986.37		15369	0.8495	11407	2907			2.01	Si
SLV 13	3.69	-2773	1433	292.96		8639	1.07	10061	3230			2.25	Si
SLV 13	4.59	-1564	853	-470.82		7427	0.7021	9819	2068			2.42	Si
SLV 8	3.69	-3958	-830	-265.48		12331	1.07	10800	3467			4.17	Si
SLV 8	4.59	-3258	-729	559.87		10149	1.07	10363	3327			4.56	Si
SLV 4	3.69	-4438	-1898	-555.5		13824	1.07	11098	3563			1.88	Si
SLV 4	4.59	-3993	-1485	1024.92		15941	0.8349	11521	2886			1.94	Si
SLV 1	3.69	-4369	-1833	-550.93		13612	1.07	11056	3549			1.94	Si
SLV 1	4.59	-3917	-1444	986.37		15369	0.8495	11407	2907			2.01	Si
SLV 15	3.69	-2841	1369	288.38		8851	1.07	10104	3243			2.37	Si
SLV 15	4.59	-1640	812	-432.28		6714	0.8143	9676	2364			2.91	Si
SLV 7	3.69	-3958	-830	-265.48		12331	1.07	10800	3467			4.17	Si
SLV 7	4.59	-3258	-729	559.87		10149	1.07	10363	3327			4.56	Si
SLV 16	3.69	-2841	1369	288.38		8851	1.07	10104	3243			2.37	Si
SLV 16	4.59	-1640	812	-432.28		6714	0.8143	9676	2364			2.91	Si
SLV 3	3.69	-4438	-1898	-555.5		13824	1.07	11098	3563			1.88	Si
SLV 3	4.59	-3993	-1485	1024.92		15941	0.8349	11521	2886			1.94	Si
SLV 14	3.69	-2773	1433	292.96		8639	1.07	10061	3230			2.25	Si
SLV 14	4.59	-1564	853	-470.82		7427	0.7021	9819	2068			2.42	Si

Verifica a pressoflessione fuori piano D.M. 17-01-18 (N.T.C.)

quota 3.655 Wa 0.05 denominatore 8  $\gamma_M = 2$

Comb.	fd	Sa	$\sigma_0$	N	M	Mc	Coeff.s.	Verifica
SLV 13	143750	0.48	9329	-2995	183.46	414.89	2.26	Si
SLV 14	143750	0.48	9329	-2995	183.46	414.89	2.26	Si
SLV 9	143750	0.48	9424	-3025	183.46	418.77	2.28	Si
SLV 10	143750	0.48	9424	-3025	183.46	418.77	2.28	Si
SLV 16	143750	0.48	9505	-3051	183.46	422.07	2.3	Si
SLV 15	143750	0.48	9505	-3051	183.46	422.07	2.3	Si
SLV 5	143750	0.48	9682	-3108	183.46	429.25	2.34	Si
SLV 6	143750	0.48	9682	-3108	183.46	429.25	2.34	Si
SLV 12	143750	0.48	10012	-3214	183.46	442.56	2.41	Si
SLV 11	143750	0.48	10012	-3214	183.46	442.56	2.41	Si

Verifica dei meccanismi locali di collasso con analisi cinematica lineare

forza di aggancio al piano = 0 quota mezzeria = 3.655 Wa = 0.05 Ta = 0.086

Comb.	N top	N base	V orto	$\alpha_0$	M*	e*	a0*	aLim	Verifica
SLV 3	-1198	-2822	20	0.048	314.3	0.889	0.78826	19.31768	No
SLV 4	-1198	-2822	20	0.048	314.3	0.889	0.78826	19.31768	No
SLV 14	-1053	-4055	-20	0.049	301.2	0.889	0.79798	19.31768	No
SLV 13	-1053	-4055	-20	0.049	301.2	0.889	0.79798	19.31768	No
SLV 1	-1191	-2771	13	0.051	313.7	0.889	0.8399	19.31768	No
SLV 2	-1191	-2771	13	0.051	313.7	0.889	0.8399	19.31768	No
SLV 15	-1059	-4106	-13	0.052	301.8	0.889	0.85174	19.31768	No
SLV 16	-1059	-4106	-13	0.052	301.8	0.889	0.85174	19.31768	No
SLV 8	-1157	-3331	17	0.05	310.6	0.889	0.81215	5.80179	No
SLV 7	-1157	-3331	17	0.05	310.6	0.889	0.81215	5.80179	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLU	4.499	SLU 81	Si
V_SLU	4.295	SLU 81	Si
PF_SLV	1.707	SLV 13	Si
V_SLV	1.877	SLV 3	Si
PFFP_SLV	2.262	SLV 13	Si
R_SLV	0.041	SLV 3	No

## Maschio 24

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati geometrici

X ini.	Y ini.	X fin.	Y fin.	Quota i.	Quota.s	I	Sp.	h netta	h ini.	h fin.	a	a.s.,sx	a.s.,dx
-29.367	-9.039	-27.097	-9.039	L2	L3	2.27	0.3	3.93	3.93	3.93			

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2\_Corti

Sismicad 12.19 - Licenza assegnata a Sidel ingegneria Srl - Via Isonzo, 13 - Villanova di Castenaso (BO)



fb	fk	fvk0	fmedio	$\tau 0$	fv0	$\mu$	$\phi$	fv,lim	E	G	FC
600000			345000	9000	20000	0.58	0.77	32500	320000000	128000000	1.2

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni non sismiche,  $\gamma_M = 3$

Comb.	Quota	N	M	$\sigma 0$	Mu	c.s.	Verifica
SLU 81	2.69	-14142	-1252.68	20766	11959.02	9.547	Si
SLU 81	4.59	-9923	207.81	14571	9247.87	44.502	Si
SLU 83	2.69	-14142	-1252.68	20766	11959.02	9.547	Si
SLU 83	4.59	-9923	207.81	14571	9247.87	44.502	Si
SLU 77	2.69	-12905	-1144.6	18950	11239.85	9.82	Si
SLU 77	4.59	-8640	191.47	12687	8279.13	43.241	Si
SLU 39	2.69	-12456	-1122.61	18291	10963.18	9.766	Si
SLU 39	4.59	-9223	183.89	13543	8727.59	47.462	Si
SLU 82	2.69	-14114	-1244.65	20726	11943.81	9.596	Si
SLU 82	4.59	-9920	200.63	14567	9246.11	46.086	Si
SLU 74	2.69	-12905	-1144.6	18950	11239.85	9.82	Si
SLU 74	4.59	-8640	191.47	12687	8279.13	43.241	Si
SLU 41	2.69	-12456	-1122.61	18291	10963.18	9.766	Si
SLU 41	4.59	-9223	183.89	13543	8727.59	47.462	Si
SLU 40	2.69	-12429	-1114.58	18251	10946.09	9.821	Si
SLU 40	4.59	-9220	176.71	13540	8725.76	49.38	Si
SLU 84	2.69	-14114	-1244.65	20726	11943.81	9.596	Si
SLU 84	4.59	-9920	200.63	14567	9246.11	46.086	Si
SLU 79	2.69	-12905	-1144.6	18950	11239.85	9.82	Si
SLU 79	4.59	-8640	191.47	12687	8279.13	43.241	Si

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni sismiche,  $\gamma_M = 2$

Comb.	Quota	N	M	$\sigma 0$	Mu	c.s.	Verifica
SLV 16	2.69	-8183	2967.91	12016	8374.03	2.822	Si
SLV 16	4.59	-4303	-2815.48	6319	4631.47	1.645	Si
SLV 15	2.69	-8183	2967.91	12016	8374.03	2.822	Si
SLV 15	4.59	-4303	-2815.48	6319	4631.47	1.645	Si
SLV 4	2.69	-9194	-4402.19	13501	9282.53	2.109	Si
SLV 4	4.59	-5625	3065.7	8260	5952.99	1.942	Si
SLV 5	2.69	-6955	-1855.85	10213	7234.29	3.898	Si
SLV 5	4.59	-5019	1001.41	7369	5352.49	5.345	Si
SLV 13	2.69	-7313	2952.59	10738	7570.41	2.564	Si
SLV 13	4.59	-4237	-2818.19	6221	4563.8	1.619	Si
SLV 6	2.69	-6955	-1855.85	10213	7234.29	3.898	Si
SLV 6	4.59	-5019	1001.41	7369	5352.49	5.345	Si
SLV 2	2.69	-8324	-4417.51	12224	8502.93	1.925	Si
SLV 2	4.59	-5559	3062.99	8163	5887.72	1.922	Si
SLV 1	2.69	-8324	-4417.51	12224	8502.93	1.925	Si
SLV 1	4.59	-5559	3062.99	8163	5887.72	1.922	Si
SLV 14	2.69	-7313	2952.59	10738	7570.41	2.564	Si
SLV 14	4.59	-4237	-2818.19	6221	4563.8	1.619	Si
SLV 3	2.69	-9194	-4402.19	13501	9282.53	2.109	Si
SLV 3	4.59	-5625	3065.7	8260	5952.99	1.942	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni non sismiche,  $\gamma_M = 3$

Comb.	Quota	N	V par	M	$\sigma 0$	$\sigma N$	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLU 77	2.69	-12905	-755	-1144.6	18950	2.27	8082	5504				7.29	Si
SLU 77	4.59	-8640	-712	191.47	12687	2.27	7247	4935				6.93	Si
SLU 78	2.69	-12878	-747	-1136.57	18910	2.27	8077	5500				7.37	Si
SLU 78	4.59	-8638	-703	184.29	12684	2.27	7247	4935				7.02	Si
SLU 83	2.69	-14142	-822	-1252.68	20766	2.27	8324	5669				6.9	Si
SLU 83	4.59	-9923	-775	207.81	14571	2.27	7498	5106				6.59	Si
SLU 84	2.69	-14114	-813	-1244.65	20726	2.27	8319	5665				6.97	Si
SLU 84	4.59	-9920	-767	200.63	14567	2.27	7498	5106				6.66	Si
SLU 75	2.69	-12878	-747	-1136.57	18910	2.27	8077	5500				7.37	Si
SLU 75	4.59	-8638	-703	184.29	12684	2.27	7247	4935				7.02	Si
SLU 74	2.69	-12905	-755	-1144.6	18950	2.27	8082	5504				7.29	Si
SLU 74	4.59	-8640	-712	191.47	12687	2.27	7247	4935				6.93	Si
SLU 79	2.69	-12905	-755	-1144.6	18950	2.27	8082	5504				7.29	Si
SLU 79	4.59	-8640	-712	191.47	12687	2.27	7247	4935				6.93	Si
SLU 80	2.69	-12878	-747	-1136.57	18910	2.27	8077	5500				7.37	Si
SLU 80	4.59	-8638	-703	184.29	12684	2.27	7247	4935				7.02	Si
SLU 81	2.69	-14142	-822	-1252.68	20766	2.27	8324	5669				6.9	Si
SLU 81	4.59	-9923	-775	207.81	14571	2.27	7498	5106				6.59	Si
SLU 82	2.69	-14114	-813	-1244.65	20726	2.27	8319	5665				6.97	Si
SLU 82	4.59	-9920	-767	200.63	14567	2.27	7498	5106				6.66	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni sismiche,  $\gamma_M = 2$

Comb.	Quota	N	V par	M	$\sigma 0$	$\sigma N$	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLV 6	2.69	-6955	-1526	-1855.85	10213	2.27	10376	7066				4.63	Si
SLV 6	4.59	-5019	-1317	1001.41	7369	2.27	9807	6679				5.07	Si
SLV 13	2.69	-7313	3052	2952.59	11112	2.1937	10556	6947				2.28	Si
SLV 13	4.59	-4237	2510	-2818.19	10020	1.4094	10337	4371				1.74	Si
SLV 16	2.69	-8183	3041	2967.91	12016	2.27	10736	7312				2.4	Si
SLV 16	4.59	-4303	2494	-2815.48	9946	1.4421	10323	4466				1.79	Si
SLV 2	2.69	-8324	-4012	-4417.51	15305	1.813	11394	6197				1.54	Si
SLV 2	4.59	-5559	-3407	3062.99	10576	1.7519	10449	5492				1.61	Si
SLV 3	2.69	-9194	-4022	-4402.19	15568	1.9686	11447	6760				1.68	Si
SLV 3	4.59	-5625	-3423	3065.7	10593	1.77	10452	5550				1.62	Si
SLV 5	2.69	-6955	-1526	-1855.85	10213	2.27	10376	7066				4.63	Si
SLV 5	4.59	-5019	-1317	1001.41	7369	2.27	9807	6679				5.07	Si
SLV 14	2.69	-7313	3052	2952.59	11112	2.1937	10556	6947				2.28	Si
SLV 14	4.59	-4237	2510	-2818.19	10020	1.4094	10337	4371				1.74	Si
SLV 1	2.69	-8324	-4012	-4417.51	15305	1.813	11394	6197				1.54	Si
SLV 1	4.59	-5559	-3407	3062.99	10576	1.7519	10449	5492				1.61	Si





Comb.	Quota	N	V par	M	$\sigma_0$	$\sigma_N$	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLV 4	2.69	-9194	-4022	-4402.19		15568	1.9686	11447	6760			1.68	Si
SLV 4	4.59	-5625	-3423	3065.7		10593	1.77	10452	5550			1.62	Si
SLV 15	2.69	-8183	3041	2967.91		12016	2.27	10736	7312			2.4	Si
SLV 15	4.59	-4303	2494	-2815.48		9946	1.4421	10323	4466			1.79	Si

Verifica a pressoflessione fuori piano D.M. 17-01-18 (N.T.C.)

quota 3.655 Wa 0.05 denominatore 8  $\gamma_M = 2$

Comb.	fd	Sa	$\sigma_0$	N	M	Mc	Coeff.s.	Verifica
SLV 9	143750	0.48	7410	-5046	389.2	711.06	1.83	Si
SLV 10	143750	0.48	7410	-5046	389.2	711.06	1.83	Si
SLV 5	143750	0.48	7692	-5238	389.2	736.27	1.89	Si
SLV 6	143750	0.48	7692	-5238	389.2	736.27	1.89	Si
SLV 13	143750	0.48	8060	-5489	389.2	769.05	1.98	Si
SLV 14	143750	0.48	8060	-5489	389.2	769.05	1.98	Si
SLV 15	143750	0.48	8899	-6060	389.2	842.83	2.17	Si
SLV 16	143750	0.48	8899	-6060	389.2	842.83	2.17	Si
SLV 2	143750	0.48	8999	-6128	389.2	851.54	2.19	Si
SLV 1	143750	0.48	8999	-6128	389.2	851.54	2.19	Si

Verifica dei meccanismi locali di collasso con analisi cinematica lineare

forza di aggancio al piano = 0 quota mezzeria = 3.655 Wa = 0.05 Ta = 0.086

Comb.	N top	N base	V orto	$\alpha_0$	M*	e*	$\alpha_0^*$	aLim	Verifica
SLV 16	-2143	-8711	326	0	631	0.889	0	19.31768	No
SLV 2	-2312	-8445	-327	0	646.1	0.889	0	19.31768	No
SLV 15	-2143	-8711	326	0	631	0.889	0	19.31768	No
SLV 11	-2282	-10045	328	0	643.3	0.889	0	5.80179	No
SLV 6	-2174	-7111	-329	0	633.7	0.889	0	5.80179	No
SLV 12	-2282	-10045	328	0	643.3	0.889	0	5.80179	No
SLV 5	-2174	-7111	-329	0	633.7	0.889	0	5.80179	No
SLV 1	-2312	-8445	-327	0	646.1	0.889	0	19.31768	No
SLV 13	-2091	-7770	174	0.02	626.3	0.889	0.32414	19.31768	No
SLV 14	-2091	-7770	174	0.02	626.3	0.889	0.32414	19.31768	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLU	9.547	SLU 81	Si
V_SLU	6.589	SLU 81	Si
PF_SLV	1.619	SLV 13	Si
V_SLV	1.545	SLV 1	Si
PFFP_SLV	1.827	SLV 9	Si
R_SLV	0	SLV 1	No

## Maschio 25

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati geometrici

X ini.	Y ini.	X fin.	Y fin.	Quota i.	Quota.s	I	Sp.	h netta	h ini.	h fin.	a	a.s.,sx	a.s.,dx
-26.097	-9.039	-24.997	-9.039	L2	L3	1.1	0.3	3.93	3.93	3.93			

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2\_Corti

fb	fk	fvk0	fmedio	$\tau_0$	fv0	$\mu$	$\phi$	fv,lim	E	G	FC
600000			345000	9000	20000	0.58	0.77	32500	320000000	128000000	1.2

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni non sismiche,  $\gamma_M = 3$

Comb.	Quota	N	M	$\sigma_0$	Mu	c.s.	Verifica
SLU 83	3.69	-6615	344.92	20045	2742.93	7.952	Si
SLU 83	4.59	-5180	-451.86	15697	2300.04	5.09	Si
SLU 82	3.69	-6616	345.91	20048	2743.15	7.93	Si
SLU 82	4.59	-5181	-452.87	15701	2300.47	5.08	Si
SLU 73	3.69	-5833	308.1	17676	2512.08	8.153	Si
SLU 73	4.59	-4509	-398.6	13663	2063.88	5.178	Si
SLU 80	3.69	-5833	307.45	17675	2511.92	8.17	Si
SLU 80	4.59	-4508	-397.92	13660	2063.57	5.186	Si
SLU 76	3.69	-5833	308.1	17676	2512.08	8.153	Si
SLU 76	4.59	-4509	-398.6	13663	2063.88	5.178	Si
SLU 78	3.69	-5833	307.45	17675	2511.92	8.17	Si
SLU 78	4.59	-4508	-397.92	13660	2063.57	5.186	Si
SLU 84	3.69	-6616	345.91	20048	2743.15	7.93	Si
SLU 84	4.59	-5181	-452.87	15701	2300.47	5.08	Si
SLU 75	3.69	-5833	307.45	17675	2511.92	8.17	Si
SLU 75	4.59	-4508	-397.92	13660	2063.57	5.186	Si
SLU 81	3.69	-6615	344.92	20045	2742.93	7.952	Si
SLU 81	4.59	-5180	-451.86	15697	2300.04	5.09	Si
SLU 63	3.69	-5871	306.54	17790	2523.75	8.233	Si
SLU 63	4.59	-4548	-400.31	13781	2078.07	5.191	Si

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni sismiche,  $\gamma_M = 2$

Comb.	Quota	N	M	$\sigma_0$	Mu	c.s.	Verifica
SLV 3	3.69	-2597	-196.32	7871	1336.5	6.808	Si
SLV 3	4.59	-1370	498.23	4151	727.84	1.461	Si
SLV 15	3.69	-4352	570.85	13187	2135.15	3.74	Si
SLV 15	4.59	-3837	-1006.95	11628	1909.61	1.896	Si
SLV 14	3.69	-4281	563.69	12971	2104.38	3.733	Si



Comb.	Quota	N	M	$\sigma_0$	Mu	c.s.	Verifica
SLV 14	4.59	-3765	-961.76	11410	1877.52	1.952	Si
SLV 13	3.69	-4281	563.69	12971	2104.38	3.733	Si
SLV 13	4.59	-3765	-961.76	11410	1877.52	1.952	Si
SLV 4	3.69	-2597	-196.32	7871	1336.5	6.808	Si
SLV 4	4.59	-1370	498.23	4151	727.84	1.461	Si
SLV 12	3.69	-3821	310.7	11578	1902.29	6.123	Si
SLV 12	4.59	-3058	-532.86	9265	1554.13	2.917	Si
SLV 1	3.69	-2526	-203.48	7655	1302.33	6.4	Si
SLV 1	4.59	-1298	543.42	3933	690.9	1.271	Si
SLV 2	3.69	-2526	-203.48	7655	1302.33	6.4	Si
SLV 2	4.59	-1298	543.42	3933	690.9	1.271	Si
SLV 16	3.69	-4352	570.85	13187	2135.15	3.74	Si
SLV 16	4.59	-3837	-1006.95	11628	1909.61	1.896	Si
SLV 11	3.69	-3821	310.7	11578	1902.29	6.123	Si
SLV 11	4.59	-3058	-532.86	9265	1554.13	2.917	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni non sismiche,  $\gamma_M = 3$

Comb.	Quota	N	V par	M	$\sigma_0$	$\sigma_N$	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLU 40	3.69	-6060	326	315.37		18363	1.1	8004	2641			8.09	Si
SLU 40	4.59	-4817	511	-416.86		14598	1.1	7502	2476			4.84	Si
SLU 83	3.69	-6615	363	344.92		20045	1.1	8228	2715			7.48	Si
SLU 83	4.59	-5180	558	-451.86		15697	1.1	7649	2524			4.52	Si
SLU 84	3.69	-6616	366	345.91		20048	1.1	8229	2715			7.42	Si
SLU 84	4.59	-5181	561	-452.87		15701	1.1	7649	2524			4.5	Si
SLU 41	3.69	-6059	324	314.38		18361	1.1	8004	2641			8.16	Si
SLU 41	4.59	-4816	509	-415.85		14594	1.1	7501	2475			4.86	Si
SLU 73	3.69	-5833	333	308.1		17676	1.1	7912	2611			7.83	Si
SLU 73	4.59	-4509	500	-398.6		13663	1.1	7377	2435			4.87	Si
SLU 76	3.69	-5833	333	308.1		17676	1.1	7912	2611			7.83	Si
SLU 76	4.59	-4509	500	-398.6		13663	1.1	7377	2435			4.87	Si
SLU 42	3.69	-6060	326	315.37		18363	1.1	8004	2641			8.09	Si
SLU 42	4.59	-4817	511	-416.86		14598	1.1	7502	2476			4.84	Si
SLU 39	3.69	-6059	324	314.38		18361	1.1	8004	2641			8.16	Si
SLU 39	4.59	-4816	509	-415.85		14594	1.1	7501	2475			4.86	Si
SLU 82	3.69	-6616	366	345.91		20048	1.1	8229	2715			7.42	Si
SLU 82	4.59	-5181	561	-452.87		15701	1.1	7649	2524			4.5	Si
SLU 81	3.69	-6615	363	344.92		20045	1.1	8228	2715			7.48	Si
SLU 81	4.59	-5180	558	-451.86		15697	1.1	7649	2524			4.52	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni sismiche,  $\gamma_M = 2$

Comb.	Quota	N	V par	M	$\sigma_0$	$\sigma_N$	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLV 12	3.69	-3821	820	310.7		11578	1.1	10649	3514			4.28	Si
SLV 12	4.59	-3058	688	-532.86		9265	1.1	10186	3362			4.89	Si
SLV 11	3.69	-3821	820	310.7		11578	1.1	10649	3514			4.28	Si
SLV 11	4.59	-3058	688	-532.86		9265	1.1	10186	3362			4.89	Si
SLV 13	3.69	-4281	1804	563.69		12971	1.1	10928	3606			2	Si
SLV 13	4.59	-3765	1314	-961.76		14202	0.8837	11174	2962			2.25	Si
SLV 14	3.69	-4281	1804	563.69		12971	1.1	10928	3606			2	Si
SLV 14	4.59	-3765	1314	-961.76		14202	0.8837	11174	2962			2.25	Si
SLV 15	3.69	-4352	1878	570.85		13187	1.1	10971	3620			1.93	Si
SLV 15	4.59	-3837	1361	-1006.95		14826	0.8627	11298	2924			2.15	Si
SLV 3	3.69	-2597	-1390	-196.32		7871	1.1	9907	3269			2.35	Si
SLV 3	4.59	-1370	-720	498.23		8170	0.5589	9967	1671			2.32	Si
SLV 16	3.69	-4352	1878	570.85		13187	1.1	10971	3620			1.93	Si
SLV 16	4.59	-3837	1361	-1006.95		14826	0.8627	11298	2924			2.15	Si
SLV 2	3.69	-2526	-1464	-203.48		7655	1.1	9864	3255			2.22	Si
SLV 2	4.59	-1298	-767	543.42		10981	0.394	10530	1245			1.62	Si
SLV 1	3.69	-2526	-1464	-203.48		7655	1.1	9864	3255			2.22	Si
SLV 1	4.59	-1298	-767	543.42		10981	0.394	10530	1245			1.62	Si
SLV 4	3.69	-2597	-1390	-196.32		7871	1.1	9907	3269			2.35	Si
SLV 4	4.59	-1370	-720	498.23		8170	0.5589	9967	1671			2.32	Si

Verifica a pressoflessione fuori piano D.M. 17-01-18 (N.T.C.)

quota 3.655 Wa 0.05 denominatore 8  $\gamma_M = 2$

Comb.	fd	Sa	$\sigma_0$	N	M	Mc	Coeff.s.	Verifica
SLV 1	143750	0.48	7968	-2629	188.6	368.68	1.95	Si
SLV 2	143750	0.48	7968	-2629	188.6	368.68	1.95	Si
SLV 4	143750	0.48	8129	-2682	188.6	375.6	1.99	Si
SLV 3	143750	0.48	8129	-2682	188.6	375.6	1.99	Si
SLV 6	143750	0.48	8245	-2721	188.6	380.61	2.02	Si
SLV 5	143750	0.48	8245	-2721	188.6	380.61	2.02	Si
SLV 9	143750	0.48	8645	-2853	188.6	397.64	2.11	Si
SLV 10	143750	0.48	8645	-2853	188.6	397.64	2.11	Si
SLV 8	143750	0.48	8783	-2898	188.6	403.49	2.14	Si
SLV 7	143750	0.48	8783	-2898	188.6	403.49	2.14	Si

Verifica dei meccanismi locali di collasso con analisi cinematica lineare

forza di aggancio al piano = 0 quota mezzera = 3.655 Wa = 0.05 Ta = 0.086

Comb.	N top	N base	V orto	$\alpha_0$	M*	e*	$\alpha_0^*$	aLim	Verifica
SLV 13	-1239	-3320	25	0.046	323.8	0.889	0.75351	19.31768	No
SLV 14	-1239	-3320	25	0.046	323.8	0.889	0.75351	19.31768	No
SLV 3	-1090	-4461	-25	0.047	310.3	0.889	0.76461	19.31768	No
SLV 4	-1090	-4461	-25	0.047	310.3	0.889	0.76461	19.31768	No
SLV 15	-1247	-3395	10	0.052	324.5	0.889	0.85593	19.31768	No
SLV 16	-1247	-3395	10	0.052	324.5	0.889	0.85593	19.31768	No
SLV 1	-1082	-4387	-10	0.054	309.6	0.889	0.87548	19.31768	No
SLV 2	-1082	-4387	-10	0.054	309.6	0.889	0.87548	19.31768	No
SLV 9	-1175	-3607	31	0.044	318	0.889	0.72001	5.80179	No
SLV 10	-1175	-3607	31	0.044	318	0.889	0.72001	5.80179	No



Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLU	5.08	SLU 82	Si
V_SLU	4.502	SLU 82	Si
PF_SLV	1.271	SLV 1	Si
V_SLV	1.622	SLV 1	Si
PFFP_SLV	1.955	SLV 1	Si
R_SLV	0.039	SLV 13	No

## Maschio 26

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

## Dati geometrici

X ini.	Y ini.	X fin.	Y fin.	Quota i.	Quota.s	I	Sp.	h netta	h ini.	h fin.	a	a.s.,sx	a.s.,dx
-24.497	-9.039	-23.507	-9.039	L2	L3	0.99	0.3	3.93	3.93	3.93			

## Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2\_Corti

fb	fk	fvk0	fmedio	$\tau_0$	fv0	$\mu$	$\phi$	fv,lim	E	G	FC
600000			345000	9000	20000	0.58	0.77	32500	320000000	128000000	1.2

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni non sismiche,  $\gamma_M = 3$ 

Comb.	Quota	N	M	$\sigma_0$	Mu	c.s.	Verifica
SLU 41	3.69	-6185	-281.4	20825	2278.88	8.098	Si
SLU 41	4.69	-5098	565.66	17163	1991.63	3.521	Si
SLU 81	3.69	-6738	-306.56	22688	2406.47	7.85	Si
SLU 81	4.69	-5473	610.09	18429	2096.38	3.436	Si
SLU 83	3.69	-6738	-306.56	22688	2406.47	7.85	Si
SLU 83	4.69	-5473	610.09	18429	2096.38	3.436	Si
SLU 60	3.69	-5969	-272.17	20097	2225.65	8.177	Si
SLU 60	4.69	-4798	538.01	16155	1904.01	3.539	Si
SLU 42	3.69	-6182	-280.9	20816	2278.21	8.11	Si
SLU 42	4.69	-5094	563.63	17152	1990.62	3.532	Si
SLU 82	3.69	-6736	-306.07	22679	2405.85	7.861	Si
SLU 82	4.69	-5470	608.07	18417	2095.43	3.446	Si
SLU 39	3.69	-6185	-281.4	20825	2278.88	8.098	Si
SLU 39	4.69	-5098	565.66	17163	1991.63	3.521	Si
SLU 40	3.69	-6182	-280.9	20816	2278.21	8.11	Si
SLU 40	4.69	-5094	563.63	17152	1990.62	3.532	Si
SLU 84	3.69	-6736	-306.07	22679	2405.85	7.861	Si
SLU 84	4.69	-5470	608.07	18417	2095.43	3.446	Si
SLU 62	3.69	-5969	-272.17	20097	2225.65	8.177	Si
SLU 62	4.69	-4798	538.01	16155	1904.01	3.539	Si

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni sismiche,  $\gamma_M = 2$ 

Comb.	Quota	N	M	$\sigma_0$	Mu	c.s.	Verifica
SLV 6	3.69	-3485	-305.23	11733	1559.33	5.109	Si
SLV 6	4.69	-2755	470.45	9277	1260.27	2.679	Si
SLV 1	3.69	-3793	-531.13	12772	1681.42	3.166	Si
SLV 1	4.69	-3325	933.87	11195	1495.08	1.601	Si
SLV 4	3.69	-3853	-507.75	12973	1704.74	3.357	Si
SLV 4	4.69	-3411	948.59	11485	1529.72	1.613	Si
SLV 3	3.69	-3853	-507.75	12973	1704.74	3.357	Si
SLV 3	4.69	-3411	948.59	11485	1529.72	1.613	Si
SLV 8	3.69	-3684	-227.31	12403	1638.36	7.208	Si
SLV 8	4.69	-3042	519.5	10241	1379.4	2.655	Si
SLV 5	3.69	-3485	-305.23	11733	1559.33	5.109	Si
SLV 5	4.69	-2755	470.45	9277	1260.27	2.679	Si
SLV 7	3.69	-3684	-227.31	12403	1638.36	7.208	Si
SLV 7	4.69	-3042	519.5	10241	1379.4	2.655	Si
SLV 14	3.69	-3111	192.21	10474	1407.86	7.324	Si
SLV 14	4.69	-1983	-341.15	6678	928.08	2.72	Si
SLV 2	3.69	-3793	-531.13	12772	1681.42	3.166	Si
SLV 2	4.69	-3325	933.87	11195	1495.08	1.601	Si
SLV 13	3.69	-3111	192.21	10474	1407.86	7.324	Si
SLV 13	4.69	-1983	-341.15	6678	928.08	2.72	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni non sismiche,  $\gamma_M = 3$ 

Comb.	Quota	N	V par	M	$\sigma_0$	$\sigma_N$	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLU 62	3.69	-5969	-524	-272.17		20097	0.99	8235	2446			4.67	Si
SLU 62	4.69	-4798	-627	538.01		16155	0.99	7710	2290			3.65	Si
SLU 40	3.69	-6182	-538	-280.9		20816	0.99	8331	2474			4.6	Si
SLU 40	4.69	-5094	-652	563.63		17152	0.99	7842	2329			3.57	Si
SLU 60	3.69	-5969	-524	-272.17		20097	0.99	8235	2446			4.67	Si
SLU 60	4.69	-4798	-627	538.01		16155	0.99	7710	2290			3.65	Si
SLU 83	3.69	-6738	-589	-306.56		22688	0.99	8581	2548			4.33	Si
SLU 83	4.69	-5473	-708	610.09		18429	0.99	8013	2380			3.36	Si
SLU 41	3.69	-6185	-541	-281.4		20825	0.99	8332	2475			4.57	Si
SLU 41	4.69	-5098	-654	565.66		17163	0.99	7844	2330			3.56	Si
SLU 81	3.69	-6738	-589	-306.56		22688	0.99	8581	2548			4.33	Si
SLU 81	4.69	-5473	-708	610.09		18429	0.99	8013	2380			3.36	Si
SLU 82	3.69	-6736	-586	-306.07		22679	0.99	8579	2548			4.35	Si
SLU 82	4.69	-5470	-706	608.07		18417	0.99	8011	2379			3.37	Si
SLU 84	3.69	-6736	-586	-306.07		22679	0.99	8579	2548			4.35	Si
SLU 84	4.69	-5470	-706	608.07		18417	0.99	8011	2379			3.37	Si
SLU 42	3.69	-6182	-538	-280.9		20816	0.99	8331	2474			4.6	Si



Comb.	Quota	N	V par	M	$\sigma_0$	$\sigma_N$	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLU 42	4.69	-5094	-652	563.63		17152	0.99	7842	2329			3.57	Si
SLU 39	3.69	-6185	-541	-281.4		20825	0.99	8332	2475			4.57	Si
SLU 39	4.69	-5098	-654	565.66		17163	0.99	7844	2330			3.56	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni sismiche,  $\gamma_M = 2$

Comb.	Quota	N	V par	M	$\sigma_0$	$\sigma_N$	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLV 3	3.69	-3853	-1531	-507.75		12973	0.99	10928	3246			2.12	Si
SLV 3	4.69	-3411	-1387	948.59		17473	0.6507	11828	2309			1.66	Si
SLV 16	3.69	-3171	964	215.59		10675	0.99	10468	3109			3.22	Si
SLV 16	4.69	-2069	675	-326.43		6967	0.99	9727	2889			4.28	Si
SLV 5	3.69	-3485	-728	-305.23		11733	0.99	10680	3172			4.36	Si
SLV 5	4.69	-2755	-672	470.45		9441	0.9727	10222	2983			4.44	Si
SLV 6	3.69	-3485	-728	-305.23		11733	0.99	10680	3172			4.36	Si
SLV 6	4.69	-2755	-672	470.45		9441	0.9727	10222	2983			4.44	Si
SLV 1	3.69	-3793	-1563	-531.13		12772	0.99	10888	3234			2.07	Si
SLV 1	4.69	-3325	-1390	933.87		17253	0.6424	11784	2271			1.63	Si
SLV 4	3.69	-3853	-1531	-507.75		12973	0.99	10928	3246			2.12	Si
SLV 4	4.69	-3411	-1387	948.59		17473	0.6507	11828	2309			1.66	Si
SLV 2	3.69	-3793	-1563	-531.13		12772	0.99	10888	3234			2.07	Si
SLV 2	4.69	-3325	-1390	933.87		17253	0.6424	11784	2271			1.63	Si
SLV 14	3.69	-3111	932	192.21		10474	0.99	10428	3097			3.32	Si
SLV 14	4.69	-1983	672	-341.15		6823	0.969	9698	2819			4.19	Si
SLV 15	3.69	-3171	964	215.59		10675	0.99	10468	3109			3.22	Si
SLV 15	4.69	-2069	675	-326.43		6967	0.99	9727	2889			4.28	Si
SLV 13	3.69	-3111	932	192.21		10474	0.99	10428	3097			3.32	Si
SLV 13	4.69	-1983	672	-341.15		6823	0.969	9698	2819			4.19	Si

Verifica a pressoflessione fuori piano D.M. 17-01-18 (N.T.C.)

quota 3.655 Wa 0.05 denominatore 8  $\gamma_M = 2$

Comb.	fd	Sa	$\sigma_0$	N	M	Mc	Coeff.s.	Verifica
SLV 6	143750	0.48	9759	-2898	169.74	400.03	2.36	Si
SLV 5	143750	0.48	9759	-2898	169.74	400.03	2.36	Si
SLV 2	143750	0.48	9887	-2936	169.74	404.83	2.38	Si
SLV 1	143750	0.48	9887	-2936	169.74	404.83	2.38	Si
SLV 10	143750	0.48	9933	-2950	169.74	406.52	2.39	Si
SLV 9	143750	0.48	9933	-2950	169.74	406.52	2.39	Si
SLV 4	143750	0.48	10171	-3021	169.74	415.39	2.45	Si
SLV 3	143750	0.48	10171	-3021	169.74	415.39	2.45	Si
SLV 13	143750	0.48	10466	-3108	169.74	426.32	2.51	Si
SLV 14	143750	0.48	10466	-3108	169.74	426.32	2.51	Si

Verifica dei meccanismi locali di collasso con analisi cinematica lineare

forza di aggancio al piano = 0 quota mezzera = 3.655 Wa = 0.05 Ta = 0.086

Comb.	N top	N base	V orto	$\alpha_0$	M*	e*	$\alpha_0^*$	aLim	Verifica
SLV 3	-1093	-1867	-9	0.053	289.4	0.889	0.86335	19.31768	No
SLV 4	-1093	-1867	-9	0.053	289.4	0.889	0.86335	19.31768	No
SLV 14	-1023	-6183	9	0.053	283	0.889	0.86814	19.31768	No
SLV 13	-1023	-6183	9	0.053	283	0.889	0.86814	19.31768	No
SLV 1	-1087	-1767	4	0.055	288.8	0.889	0.89755	19.31768	No
SLV 2	-1087	-1767	4	0.055	288.8	0.889	0.89755	19.31768	No
SLV 16	-1029	-6284	-4	0.056	283.6	0.889	0.90847	19.31768	No
SLV 15	-1029	-6284	-4	0.056	283.6	0.889	0.90847	19.31768	No
SLV 10	-1038	-4519	23	0.046	284.4	0.889	0.76025	5.80179	No
SLV 9	-1038	-4519	23	0.046	284.4	0.889	0.76025	5.80179	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLU	3.436	SLU 81	Si
V_SLU	3.359	SLU 81	Si
PF_SLV	1.601	SLV 1	Si
V_SLV	1.634	SLV 1	Si
PFFP_SLV	2.357	SLV 5	Si
R_SLV	0.045	SLV 3	No

## Maschio 27

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati geometrici

X ini.	Y ini.	X fin.	Y fin.	Quota i.	Quota.s	I	Sp.	h netta	h ini.	h fin.	a	a.s.,sx	a.s.,dx
-22.107	-9.039	-21.057	-9.039	L2	L3	1.05	0.3	3.93	3.93	3.93			

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.) Muratura in mattoni pieni e malta di calce LC2\_Corti

fb	fk	fvk0	fmedio	$\tau_0$	fv0	$\mu$	$\phi$	fv,lim	E	G	FC
600000			345000	9000	20000	0.58	0.77	32500	320000000	128000000	1.2

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni non sismiche,  $\gamma_M = 3$

Comb.	Quota	N	M	$\sigma_0$	Mu	c.s.	Verifica
SLU 84	1.69	-4332	210.65	13753	1890.44	8.974	Si
SLU 84	4.69	-4920	-955.67	15620	2087.85	2.185	Si
SLU 31	1.69	-3370	177.68	10700	1537.07	8.651	Si
SLU 31	4.69	-3944	-771.12	12520	1752.22	2.272	Si
SLU 39	1.69	-3643	223.74	11565	1640.98	7.334	Si
SLU 39	4.69	-4605	-907.9	14619	1983.73	2.185	Si



Comb.	Quota	N	M	$\sigma_0$	Mu	c.s.	Verifica
SLU 81	1.69	-4354	209.99	13823	1898.02	9.039	Si
SLU 81	4.69	-4921	-953.73	15622	2088.03	2.189	Si
SLU 42	1.69	-3621	224.41	11495	1632.76	7.276	Si
SLU 42	4.69	-4604	-909.83	14617	1983.53	2.18	Si
SLU 82	1.69	-4332	210.65	13753	1890.44	8.974	Si
SLU 82	4.69	-4920	-955.67	15620	2087.85	2.185	Si
SLU 40	1.69	-3621	224.41	11495	1632.76	7.276	Si
SLU 40	4.69	-4604	-909.83	14617	1983.53	2.18	Si
SLU 83	1.69	-4354	209.99	13823	1898.02	9.039	Si
SLU 83	4.69	-4921	-953.73	15622	2088.03	2.189	Si
SLU 34	1.69	-3370	177.68	10700	1537.07	8.651	Si
SLU 34	4.69	-3944	-771.12	12520	1752.22	2.272	Si
SLU 41	1.69	-3643	223.74	11565	1640.98	7.334	Si
SLU 41	4.69	-4605	-907.9	14619	1983.73	2.185	Si

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni sismiche,  $\gamma_M = 2$

Comb.	Quota	N	M	$\sigma_0$	Mu	c.s.	Verifica
SLV 13	1.69	-1889	724.41	5997	943.13	1.302	Si
SLV 13	4.69	-3531	-1027.21	11210	1683.77	1.639	Si
SLV 14	1.69	-1889	724.41	5997	943.13	1.302	Si
SLV 14	4.69	-3531	-1027.21	11210	1683.77	1.639	Si
SLV 12	1.69	-3297	224.1	10467	1582.7	7.063	Si
SLV 12	4.69	-2801	-519.16	8891	1363.31	2.626	Si
SLV 9	1.69	-1950	289.37	6191	971.96	3.359	Si
SLV 9	4.69	-2680	-695.11	8509	1309.23	1.883	Si
SLV 6	1.69	-2407	-103.1	7640	1184.44	11.488	Si
SLV 6	4.69	-1987	-357.66	6309	989.45	2.766	Si
SLV 16	1.69	-2293	704.83	7280	1132.22	1.606	Si
SLV 16	4.69	-3567	-974.43	11324	1699.2	1.744	Si
SLV 10	1.69	-1950	289.37	6191	971.96	3.359	Si
SLV 10	4.69	-2680	-695.11	8509	1309.23	1.883	Si
SLV 11	1.69	-3297	224.1	10467	1582.7	7.063	Si
SLV 11	4.69	-2801	-519.16	8891	1363.31	2.626	Si
SLV 15	1.69	-2293	704.83	7280	1132.22	1.606	Si
SLV 15	4.69	-3567	-974.43	11324	1699.2	1.744	Si
SLV 5	1.69	-2407	-103.1	7640	1184.44	11.488	Si
SLV 5	4.69	-1987	-357.66	6309	989.45	2.766	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni non sismiche,  $\gamma_M = 3$

Comb.	Quota	N	V par	M	$\sigma_0$	$\sigma_N$	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLU 81	1.69	-4354	876	209.99		13823	1.05	7399	2331			2.66	Si
SLU 81	4.69	-4921	875	-953.73		16509	0.9936	7757	2312			2.64	Si
SLU 84	1.69	-4332	878	210.65		13753	1.05	7389	2328			2.65	Si
SLU 84	4.69	-4920	881	-955.67		16528	0.9923	7759	2310			2.62	Si
SLU 83	1.69	-4354	876	209.99		13823	1.05	7399	2331			2.66	Si
SLU 83	4.69	-4921	875	-953.73		16509	0.9936	7757	2312			2.64	Si
SLU 39	1.69	-3643	847	223.74		11565	1.05	7098	2236			2.64	Si
SLU 39	4.69	-4605	846	-907.9		15607	0.9835	7636	2253			2.66	Si
SLU 41	1.69	-3643	847	223.74		11565	1.05	7098	2236			2.64	Si
SLU 41	4.69	-4605	846	-907.9		15607	0.9835	7636	2253			2.66	Si
SLU 76	1.69	-4082	742	163.93		12958	1.05	7283	2294			3.09	Si
SLU 76	4.69	-4260	749	-816.95		14204	0.9996	7449	2234			2.98	Si
SLU 42	1.69	-3621	849	224.41		11495	1.05	7088	2233			2.63	Si
SLU 42	4.69	-4604	852	-909.83		15626	0.9822	7639	2251			2.64	Si
SLU 82	1.69	-4332	878	210.65		13753	1.05	7389	2328			2.65	Si
SLU 82	4.69	-4920	881	-955.67		16528	0.9923	7759	2310			2.62	Si
SLU 73	1.69	-4082	742	163.93		12958	1.05	7283	2294			3.09	Si
SLU 73	4.69	-4260	749	-816.95		14204	0.9996	7449	2234			2.98	Si
SLU 40	1.69	-3621	849	224.41		11495	1.05	7088	2233			2.63	Si
SLU 40	4.69	-4604	852	-909.83		15626	0.9822	7639	2251			2.64	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni sismiche,  $\gamma_M = 2$

Comb.	Quota	N	V par	M	$\sigma_0$	$\sigma_N$	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLV 2	1.69	-3410	-631	-583.83		10827	1.05	10499	3307			5.24	Si
SLV 2	4.69	-1221	-11	97.61		3875	1.05	9108	2869			249.74	Si
SLV 14	1.69	-1889	1383	724.41		14830	0.4246	11299	1439			1.04	Si
SLV 14	4.69	-3531	885	-1027.21		16760	0.7023	11685	2462			2.78	Si
SLV 11	1.69	-3297	713	224.1		10467	1.05	10427	3284			4.61	Si
SLV 11	4.69	-2801	341	-519.16		9162	1.0189	10166	3107			9.11	Si
SLV 1	1.69	-3410	-631	-583.83		10827	1.05	10499	3307			5.24	Si
SLV 1	4.69	-1221	-11	97.61		3875	1.05	9108	2869			249.74	Si
SLV 16	1.69	-2293	1399	704.83		11707	0.653	10675	2091			1.49	Si
SLV 16	4.69	-3567	779	-974.43		15739	0.7555	11481	2602			3.34	Si
SLV 15	1.69	-2293	1399	704.83		11707	0.653	10675	2091			1.49	Si
SLV 15	4.69	-3567	779	-974.43		15739	0.7555	11481	2602			3.34	Si
SLV 10	1.69	-1950	660	289.37		6191	1.05	9572	3015			4.57	Si
SLV 10	4.69	-2680	695	-695.11		11210	0.797	10575	2529			3.64	Si
SLV 9	1.69	-1950	660	289.37		6191	1.05	9572	3015			4.57	Si
SLV 9	4.69	-2680	695	-695.11		11210	0.797	10575	2529			3.64	Si
SLV 12	1.69	-3297	713	224.1		10467	1.05	10427	3284			4.61	Si
SLV 12	4.69	-2801	341	-519.16		9162	1.0189	10166	3107			9.11	Si
SLV 13	1.69	-1889	1383	724.41		14830	0.4246	11299	1439			1.04	Si
SLV 13	4.69	-3531	885	-1027.21		16760	0.7023	11685	2462			2.78	Si

Verifica a pressoflessione fuori piano D.M. 17-01-18 (N.T.C.)

quota 3.655 Wa 0.05 denominatore 8  $\gamma_M = 2$

Comb.	fd	Sa	$\sigma_0$	N	M	Mc	Coeff.s.	Verifica
SLV 1	143750	0.48	5292	-1667	180.03	239.24	1.33	Si
SLV 2	143750	0.48	5292	-1667	180.03	239.24	1.33	Si



Comb.	fd	Sa	$\sigma_0$	N	M	Mc	Coeff.s.	Verifica
SLV 4	143750	0.48	5627	-1772	180.03	253.63	1.41	Si
SLV 3	143750	0.48	5627	-1772	180.03	253.63	1.41	Si
SLV 6	143750	0.48	7000	-2205	180.03	311.81	1.73	Si
SLV 5	143750	0.48	7000	-2205	180.03	311.81	1.73	Si
SLV 8	143750	0.48	8115	-2556	180.03	357.98	1.99	Si
SLV 7	143750	0.48	8115	-2556	180.03	357.98	1.99	Si
SLV 10	143750	0.48	8799	-2772	180.03	385.8	2.14	Si
SLV 9	143750	0.48	8799	-2772	180.03	385.8	2.14	Si

#### Verifica dei meccanismi locali di collasso con analisi cinematica lineare

forza di aggancio al piano = 0 quota mezzeria = 3.655  $W_a = 0.05$   $T_a = 0.086$

Comb.	N top	N base	V orto	$\alpha_0$	M*	e*	a0*	aLim	Verifica
SLV 2	-950	-3410	-114	0.004	288.2	0.89	0.06161	19.31768	No
SLV 1	-950	-3410	-114	0.004	288.2	0.89	0.06161	19.31768	No
SLV 16	-1093	-2293	114	0.006	301	0.889	0.09612	19.31768	No
SLV 15	-1093	-2293	114	0.006	301	0.889	0.09612	19.31768	No
SLV 3	-992	-3814	-71	0.025	291.9	0.889	0.40187	19.31768	No
SLV 4	-992	-3814	-71	0.025	291.9	0.889	0.40187	19.31768	No
SLV 13	-1051	-1889	71	0.025	297.2	0.889	0.406	19.31768	No
SLV 14	-1051	-1889	71	0.025	297.2	0.889	0.406	19.31768	No
SLV 5	-936	-2407	-98	0.011	287	0.89	0.17938	5.80179	No
SLV 6	-936	-2407	-98	0.011	287	0.89	0.17938	5.80179	No

#### Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLU	2.18	SLU 40	Si
V_SLU	2.621	SLU 82	Si
PF_SLV	1.302	SLV 13	Si
V_SLV	1.041	SLV 13	Si
PFFP_SLV	1.329	SLV 1	Si
R_SLV	0.003	SLV 1	No

## Maschio 28

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

#### Dati geometrici

X ini.	Y ini.	X fin.	Y fin.	Quota i.	Quota.s	l	Sp.	h netta	h ini.	h fin.	a	a.s.,sx	a.s.,dx
-31.287	-13.489	-25.157	-13.489	L2	L3	6.13	0.3	3.93	3.93	3.93			

#### Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2\_Corti

fb	fk	fvk0	fmedio	t0	fv0	$\mu$	$\phi$	fv,lim	E	G	FC
600000			345000	9000	20000	0.58	0.77	32500	320000000	128000000	1.2

#### Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni non sismiche, $\gamma_M = 3$

Comb.	Quota	N	M	$\sigma_0$	Mu	c.s.	Verifica
SLU 81	1.69	-51761	1407.18	28146	103829.63	73.785	Si
SLU 81	3.79	-41468	71.84	22549	91916.11	1000	Si
SLU 19	1.69	-41185	1140.65	22395	91527.51	80.242	Si
SLU 19	3.79	-33346	102.12	18133	79454.48	778.06	Si
SLU 40	1.69	-46304	1328.17	25179	98053.88	73.827	Si
SLU 40	3.79	-38422	33.88	20893	87558.64	1000	Si
SLU 39	1.69	-46152	1470.23	25096	97875.59	66.571	Si
SLU 39	3.79	-38395	9.64	20878	87518.19	1000	Si
SLU 42	1.69	-46304	1328.17	25179	98053.88	73.827	Si
SLU 42	3.79	-38422	33.88	20893	87558.64	1000	Si
SLU 18	1.69	-41033	1282.71	22313	91317.39	71.191	Si
SLU 18	3.79	-33319	77.88	18118	79408.4	1000	Si
SLU 21	1.69	-41185	1140.65	22395	91527.51	80.242	Si
SLU 21	3.79	-33346	102.12	18133	79454.48	778.06	Si
SLU 20	1.69	-41033	1282.71	22313	91317.39	71.191	Si
SLU 20	3.79	-33319	77.88	18118	79408.4	1000	Si
SLU 83	1.69	-51761	1407.18	28146	103829.63	73.785	Si
SLU 83	3.79	-41468	71.84	22549	91916.11	1000	Si
SLU 41	1.69	-46152	1470.23	25096	97875.59	66.571	Si
SLU 41	3.79	-38395	9.64	20878	87518.19	1000	Si

#### Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni sismiche, $\gamma_M = 2$

Comb.	Quota	N	M	$\sigma_0$	Mu	c.s.	Verifica
SLV 3	1.69	-28945	-16947.39	15740	77289.01	4.561	Si
SLV 3	3.79	-21358	3128.35	11614	59241.17	18.937	Si
SLV 5	1.69	-31743	-6040.94	17261	83549.08	13.83	Si
SLV 5	3.79	-19786	9310.11	10759	55304.39	5.94	Si
SLV 13	1.69	-29664	17574.26	16131	78917.63	4.491	Si
SLV 13	3.79	-20543	-2929.22	11170	57206.75	19.53	Si
SLV 14	1.69	-29664	17574.26	16131	78917.63	4.491	Si
SLV 14	3.79	-20543	-2929.22	11170	57206.75	19.53	Si
SLV 1	1.69	-30347	-17594.8	16502	80451.78	4.572	Si
SLV 1	3.79	-20650	7698.21	11229	57476.06	7.466	Si
SLV 6	1.69	-31743	-6040.94	17261	83549.08	13.83	Si
SLV 6	3.79	-19786	9310.11	10759	55304.39	5.94	Si
SLV 2	1.69	-30347	-17594.8	16502	80451.78	4.572	Si
SLV 2	3.79	-20650	7698.21	11229	57476.06	7.466	Si
SLV 16	1.69	-28262	18221.67	15368	75728.75	4.156	Si
SLV 16	3.79	-21251	-7499.08	11556	58973.94	7.864	Si



Comb.	Quota	N	M	$\sigma_0$	Mu	c.s.	Verifica
SLV 15	1.69	-28262	18221.67	15368	75728.75	4.156	Si
SLV 15	3.79	-21251	-7499.08	11556	58973.94	7.864	Si
SLV 4	1.69	-28945	-16947.39	15740	77289.01	4.561	Si
SLV 4	3.79	-21358	3128.35	11614	59241.17	18.937	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni non sismiche,  $\gamma_M = 3$

Comb.	Quota	N	V par	M	$\sigma_0$	$\sigma_N$	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLU 41	1.69	-46152	592	1470.23		25096	6.13	8902	16370			27.67	Si
SLU 41	3.79	-38395	738	9.64		20878	6.13	8339	15336			20.78	Si
SLU 81	1.69	-51761	514	1407.18		28146	6.13	9308	17118			33.28	Si
SLU 81	3.79	-41468	682	71.84		22549	6.13	8562	15746			23.1	Si
SLU 83	1.69	-51761	514	1407.18		28146	6.13	9308	17118			33.28	Si
SLU 83	3.79	-41468	682	71.84		22549	6.13	8562	15746			23.1	Si
SLU 18	1.69	-41033	479	1282.71		22313	6.13	8531	15688			32.74	Si
SLU 18	3.79	-33319	610	77.88		18118	6.13	7971	14659			24.02	Si
SLU 42	1.69	-46304	511	1328.17		25179	6.13	8913	16391			32.1	Si
SLU 42	3.79	-38422	659	33.88		20893	6.13	8341	15340			23.28	Si
SLU 39	1.69	-46152	592	1470.23		25096	6.13	8902	16370			27.67	Si
SLU 39	3.79	-38395	738	9.64		20878	6.13	8339	15336			20.78	Si
SLU 82	1.69	-51913	433	1265.12		28229	6.13	9319	17138			39.55	Si
SLU 82	3.79	-41495	602	96.08		22564	6.13	8564	15749			26.15	Si
SLU 84	1.69	-51913	433	1265.12		28229	6.13	9319	17138			39.55	Si
SLU 84	3.79	-41495	602	96.08		22564	6.13	8564	15749			26.15	Si
SLU 20	1.69	-41033	479	1282.71		22313	6.13	8531	15688			32.74	Si
SLU 20	3.79	-33319	610	77.88		18118	6.13	7971	14659			24.02	Si
SLU 40	1.69	-46304	511	1328.17		25179	6.13	8913	16391			32.1	Si
SLU 40	3.79	-38422	659	33.88		20893	6.13	8341	15340			23.28	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni sismiche,  $\gamma_M = 2$

Comb.	Quota	N	V par	M	$\sigma_0$	$\sigma_N$	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLV 1	1.69	-30347	-12349	-17594.8		16502	6.13	11634	21394			1.73	Si
SLV 1	3.79	-20650	-11944	7698.21		11229	6.13	10579	19455			1.63	Si
SLV 13	1.69	-29664	11014	17574.26		16131	6.13	11559	21258			1.93	Si
SLV 13	3.79	-20543	9112	-2929.22		11170	6.13	10567	19434			2.13	Si
SLV 14	1.69	-29664	11014	17574.26		16131	6.13	11559	21258			1.93	Si
SLV 14	3.79	-20543	9112	-2929.22		11170	6.13	10567	19434			2.13	Si
SLV 2	1.69	-30347	-12349	-17594.8		16502	6.13	11634	21394			1.73	Si
SLV 2	3.79	-20650	-11944	7698.21		11229	6.13	10579	19455			1.63	Si
SLV 15	1.69	-28262	12398	18221.67		15368	6.13	11407	20977			1.69	Si
SLV 15	3.79	-21251	12193	-7499.08		11556	6.13	10644	19575			1.61	Si
SLV 12	1.69	-26866	5836	6667.81		14609	6.13	11255	20698			3.55	Si
SLV 12	3.79	-22115	8418	-9110.98		12025	6.13	10738	19748			2.35	Si
SLV 4	1.69	-28945	-10965	-16947.39		15740	6.13	11481	21114			1.93	Si
SLV 4	3.79	-21358	-8863	3128.35		11614	6.13	10656	19597			2.21	Si
SLV 11	1.69	-26866	5836	6667.81		14609	6.13	11255	20698			3.55	Si
SLV 11	3.79	-22115	8418	-9110.98		12025	6.13	10738	19748			2.35	Si
SLV 3	1.69	-28945	-10965	-16947.39		15740	6.13	11481	21114			1.93	Si
SLV 3	3.79	-21358	-8863	3128.35		11614	6.13	10656	19597			2.21	Si
SLV 16	1.69	-28262	12398	18221.67		15368	6.13	11407	20977			1.69	Si
SLV 16	3.79	-21251	12193	-7499.08		11556	6.13	10644	19575			1.61	Si

Verifica a pressoflessione fuori piano D.M. 17-01-18 (N.T.C.)

quota 3.655 Wa 0.05 denominatore 8  $\gamma_M = 2$

Comb.	fd	Sa	$\sigma_0$	N	M	Mc	Coeff.s.	Verifica
SLV 9	143750	0.48	10858	-19969	1073.86	2729.11	2.54	Si
SLV 10	143750	0.48	10858	-19969	1073.86	2729.11	2.54	Si
SLV 6	143750	0.48	10879	-20006	1073.86	2733.72	2.55	Si
SLV 5	143750	0.48	10879	-20006	1073.86	2733.72	2.55	Si
SLV 13	143750	0.48	11217	-20628	1073.86	2810.13	2.62	Si
SLV 14	143750	0.48	11217	-20628	1073.86	2810.13	2.62	Si
SLV 1	143750	0.48	11285	-20752	1073.86	2825.36	2.63	Si
SLV 2	143750	0.48	11285	-20752	1073.86	2825.36	2.63	Si
SLV 16	143750	0.48	11544	-21230	1073.86	2883.65	2.69	Si
SLV 15	143750	0.48	11544	-21230	1073.86	2883.65	2.69	Si

Verifica dei meccanismi locali di collasso con analisi cinematica lineare

forza di aggancio al piano = 0 quota mezzzeria = 3.655 Wa = 0.05 Ta = 0.086

Comb.	N top	N base	V orto	$\alpha_0$	M*	e*	a0*	aLim	Verifica
SLV 15	-11034	-28262	186	0.042	2194.8	0.896	0.67665	19.31768	No
SLV 16	-11034	-28262	186	0.042	2194.8	0.896	0.67665	19.31768	No
SLV 2	-11277	-30347	-144	0.044	2218.3	0.896	0.71435	19.31768	No
SLV 1	-11277	-30347	-144	0.044	2218.3	0.896	0.71435	19.31768	No
SLV 3	-11051	-28945	120	0.045	2196.4	0.896	0.73757	19.31768	No
SLV 4	-11051	-28945	120	0.045	2196.4	0.896	0.73757	19.31768	No
SLV 14	-11260	-29664	-78	0.048	2216.7	0.896	0.77473	19.31768	No
SLV 13	-11260	-29664	-78	0.048	2216.7	0.896	0.77473	19.31768	No
SLV 11	-10776	-26866	472	0.025	2169.9	0.895	0.40996	5.80179	No
SLV 12	-10776	-26866	472	0.025	2169.9	0.895	0.40996	5.80179	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLU	66.571	SLU 39	Si
V_SLU	20.776	SLU 39	Si
PF_SLV	4.156	SLV 15	Si
V_SLV	1.605	SLV 15	Si
PFFP_SLV	2.541	SLV 9	Si
R_SLV	0.035	SLV 15	No



## Maschio 29

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

### Dati geometrici

X ini.	Y ini.	X fin.	Y fin.	Quota i.	Quota.s	l	Sp.	h netta	h ini.	h fin.	a	a.s.,sx	a.s.,dx
-28.207	-17.999	-28.207	-9.039	L2	L3	8.96	0.21	3.93	3.93	3.93			

### Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2\_Corti

fb	fk	fvk0	fmedio	τ0	fv0	μ	φ	fv,lim	E	G	FC
600000			345000	9000	20000	0.58	0.77	32500	320000000	128000000	1.2

### Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni non sismiche, γM = 3

Comb.	Quota	N	M	σ0	Mu	c.s.	Verifica
SLU 23	1.69	-13768	-7096.46	7317	56141.11	7.911	Si
SLU 23	5.62	-830	-201.91	441	3698.24	18.316	Si
SLU 2	1.69	-11959	-6532.57	6356	49396.65	7.562	Si
SLU 2	5.62	-482	-196.13	256	2154.04	10.983	Si
SLU 26	1.69	-13768	-7096.46	7317	56141.11	7.911	Si
SLU 26	5.62	-830	-201.91	441	3698.24	18.316	Si
SLU 13	1.69	-15708	-7822.33	8348	63158.36	8.074	Si
SLU 13	5.62	-1290	-206.12	686	5730.43	27.802	Si
SLU 5	1.69	-11959	-6532.57	6356	49396.65	7.562	Si
SLU 5	5.62	-482	-196.13	256	2154.04	10.983	Si
SLU 65	1.69	-16476	-8037.48	8756	65877.7	8.196	Si
SLU 65	5.62	-854	-222.37	454	3805.03	17.111	Si
SLU 44	1.69	-14667	-7473.59	7795	59419.6	7.951	Si
SLU 44	5.62	-506	-216.59	269	2261.32	10.441	Si
SLU 68	1.69	-16476	-8037.48	8756	65877.7	8.196	Si
SLU 68	5.62	-854	-222.37	454	3805.03	17.111	Si
SLU 47	1.69	-14667	-7473.59	7795	59419.6	7.951	Si
SLU 47	5.62	-506	-216.59	269	2261.32	10.441	Si
SLU 10	1.69	-15708	-7822.33	8348	63158.36	8.074	Si
SLU 10	5.62	-1290	-206.12	686	5730.43	27.802	Si

### Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni sismiche, γM = 2

Comb.	Quota	N	M	σ0	Mu	c.s.	Verifica
SLV 8	1.69	-18522	-13578.25	9844	76292.74	5.619	Si
SLV 8	5.62	-1126	-1151.43	598	5019.26	4.359	Si
SLV 9	1.69	-6840	4956.68	3635	29731.39	5.998	Si
SLV 9	5.62	-490	992.82	260	2188.89	2.205	Si
SLV 2	1.69	-2950	-2998.59	1568	13047.66	4.351	Si
SLV 2	5.62	-242	210.83	129	1083.4	5.139	Si
SLV 7	1.69	-18522	-13578.25	9844	76292.74	5.619	Si
SLV 7	5.62	-1126	-1151.43	598	5019.26	4.359	Si
SLV 3	1.69	-7772	-8316.64	4131	33642.97	4.045	Si
SLV 3	5.62	-511	-427.25	271	2282.47	5.342	Si
SLV 5	1.69	-2448	4148.58	1301	10851.29	2.616	Si
SLV 5	5.62	-231	975.48	123	1032.89	1.059	Si
SLV 1	1.69	-2950	-2998.59	1568	13047.66	4.351	Si
SLV 1	5.62	-242	210.83	129	1083.4	5.139	Si
SLV 6	1.69	-2448	4148.58	1301	10851.29	2.616	Si
SLV 6	5.62	-231	975.48	123	1032.89	1.059	Si
SLV 10	1.69	-6840	4956.68	3635	29731.39	5.998	Si
SLV 10	5.62	-490	992.82	260	2188.89	2.205	Si
SLV 4	1.69	-7772	-8316.64	4131	33642.97	4.045	Si
SLV 4	5.62	-511	-427.25	271	2282.47	5.342	Si

### Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni non sismiche, γM = 3

Comb.	Quota	N	V par	M	σ0	σN	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLU 65	1.69	-16476	1791	-8037.48		8756	8.96	6723	12650			7.06	Si
SLU 65	5.62	-854	35	-222.37		454	8.96	5616	10567			301.43	Si
SLU 10	1.69	-15708	1794	-7822.33		8348	8.96	6669	12548			6.99	Si
SLU 10	5.62	-1290	35	-206.12		686	8.96	5647	10625			304.93	Si
SLU 52	1.69	-18415	1939	-8763.35		9787	8.96	6860	12909			6.66	Si
SLU 52	5.62	-1314	31	-226.57		698	8.96	5649	10629			344.12	Si
SLU 13	1.69	-15708	1794	-7822.33		8348	8.96	6669	12548			6.99	Si
SLU 13	5.62	-1290	35	-206.12		686	8.96	5647	10625			304.93	Si
SLU 31	1.69	-17517	1916	-8386.21		9309	8.96	6797	12789			6.67	Si
SLU 31	5.62	-1638	31	-211.9		870	8.96	5672	10672			341.05	Si
SLU 73	1.69	-20224	2060	-9327.23		10748	8.96	6989	13150			6.38	Si
SLU 73	5.62	-1662	27	-232.36		883	8.96	5673	10675			390.57	Si
SLU 34	1.69	-17517	1916	-8386.21		9309	8.96	6797	12789			6.67	Si
SLU 34	5.62	-1638	31	-211.9		870	8.96	5672	10672			341.05	Si
SLU 55	1.69	-18415	1939	-8763.35		9787	8.96	6860	12909			6.66	Si
SLU 55	5.62	-1314	31	-226.57		698	8.96	5649	10629			344.12	Si
SLU 76	1.69	-20224	2060	-9327.23		10748	8.96	6989	13150			6.38	Si
SLU 76	5.62	-1662	27	-232.36		883	8.96	5673	10675			390.57	Si
SLU 68	1.69	-16476	1791	-8037.48		8756	8.96	6723	12650			7.06	Si
SLU 68	5.62	-854	35	-222.37		454	8.96	5616	10567			301.43	Si

### Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni sismiche, γM = 2

Comb.	Quota	N	V par	M	σ0	σN	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLV 6	1.69	-2448	-9395	4148.58		1395	8.3564	8612	15113			1.61	Si
SLV 6	5.62	-231	-1019	975.48		1446	0.7598	8623	1376			1.35	Si
SLV 5	1.69	-2448	-9395	4148.58		1395	8.3564	8612	15113			1.61	Si
SLV 5	5.62	-231	-1019	975.48		1446	0.7598	8623	1376			1.35	Si
SLV 4	1.69	-7772	3550	-8316.64		4131	8.96	9159	17234			4.85	Si





Comb.	Quota	N	V par	M	$\sigma_0$	$\sigma_N$	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLV 4	5.62	-511	269	-427.25		271	8.96	8388	15782			58.74	Si
SLV 12	1.69	-22914	10858	-12770.15		12178	8.96	10769	20263			1.87	Si
SLV 12	5.62	-1385	978	-1134.09		736	8.96	8481	15957			16.31	Si
SLV 10	1.69	-6840	-9275	4956.68		3635	8.96	9060	17048			1.84	Si
SLV 10	5.62	-490	-1014	992.82		317	7.357	8397	12973			12.8	Si
SLV 11	1.69	-22914	10858	-12770.15		12178	8.96	10769	20263			1.87	Si
SLV 11	5.62	-1385	978	-1134.09		736	8.96	8481	15957			16.31	Si
SLV 9	1.69	-6840	-9275	4956.68		3635	8.96	9060	17048			1.84	Si
SLV 9	5.62	-490	-1014	992.82		317	7.357	8397	12973			12.8	Si
SLV 7	1.69	-18522	10738	-13578.25		9844	8.96	10302	19384			1.81	Si
SLV 7	5.62	-1126	973	-1151.43		598	8.96	8453	15905			16.35	Si
SLV 8	1.69	-18522	10738	-13578.25		9844	8.96	10302	19384			1.81	Si
SLV 8	5.62	-1126	973	-1151.43		598	8.96	8453	15905			16.35	Si
SLV 3	1.69	-7772	3550	-8316.64		4131	8.96	9159	17234			4.85	Si
SLV 3	5.62	-511	269	-427.25		271	8.96	8388	15782			58.74	Si

#### Verifica a pressoflessione fuori piano D.M. 17-01-18 (N.T.C.)

quota 3.655 Wa 0.04 denominatore 8  $\gamma_M = 2$

Comb.	fd	Sa	$\sigma_0$	N	M	Mc	Coeff.s.	Verifica
SLV 10	143750	0.48	0	-7756	1118.78	0	0	No, $e > t/2$
SLV 8	143750	0.48	0	-10056	1118.78	0	0	No, $e > t/2$
SLV 4	143750	0.48	0	-4025	1118.78	0	0	No, $e > t/2$
SLV 9	143750	0.48	0	-7756	1118.78	0	0	No, $e > t/2$
SLV 3	143750	0.48	0	-4025	1118.78	0	0	No, $e > t/2$
SLV 7	143750	0.48	0	-10056	1118.78	0	0	No, $e > t/2$
SLV 1	143750	0.48	0	-2302	1118.78	0	0	No, $e > t/2$
SLV 6	143750	0.48	0	-4311	1118.78	0	0	No, $e > t/2$
SLV 2	143750	0.48	0	-2302	1118.78	0	0	No, $e > t/2$
SLV 5	143750	0.48	0	-4311	1118.78	0	0	No, $e > t/2$

#### Verifica dei meccanismi locali di collasso con analisi cinematica lineare

forza di aggancio al piano = 0 quota mezzeria = 3.655 Wa = 0.04 Ta = 0.1228

Comb.	N top	N base	V orto	$\alpha_0$	M*	e*	a0*	aLim	Verifica
SLV 16	-1373	-22411	1	0.049	1397.7	0.934	0.75907	9.15182	No
SLV 15	-1373	-22411	1	0.049	1397.7	0.934	0.75907	9.15182	No
SLV 4	-511	-7772	7	0.051	1363.7	0.968	0.75938	9.15182	No
SLV 3	-511	-7772	7	0.051	1363.7	0.968	0.75938	9.15182	No
SLV 1	-242	-2950	7	0.051	1358.5	0.983	0.761	9.15182	No
SLV 2	-242	-2950	7	0.051	1358.5	0.983	0.761	9.15182	No
SLV 14	-1105	-17589	1	0.05	1384.9	0.942	0.76364	9.15182	No
SLV 13	-1105	-17589	1	0.05	1384.9	0.942	0.76364	9.15182	No
SLV 12	-1385	-22914	3	0.048	1398.3	0.933	0.75497	2.39674	No
SLV 11	-1385	-22914	3	0.048	1398.3	0.933	0.75497	2.39674	No

#### Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLU	7.562	SLU 2	Si
V_SLU	6.382	SLU 73	Si
PF_SLV	1.059	SLV 5	Si
V_SLV	1.35	SLV 5	Si
PFFP_SLV	0	SLV 1	No
R_SLV	0.083	SLV 15	No

## Maschio 30

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

#### Dati geometrici

X ini.	Y ini.	X fin.	Y fin.	Quota i.	Quota.s	I	Sp.	h netta	h ini.	h fin.	a	a.s.,sx	a.s.,dx
-24.357	-13.489	-24.007	-13.489	L2	L3	0.35	0.3	3.93	3.93	3.93			

#### Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2\_Corti

fb	fk	fk0	fmedio	t0	fv0	$\mu$	$\phi$	fv,lim	E	G	FC
600000			345000	9000	20000	0.58	0.77	32500	320000000	128000000	1.2

#### Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni non sismiche, $\gamma_M = 3$

Comb.	Quota	N	M	$\sigma_0$	Mu	c.s.	Verifica
SLU 83	1.69	-5174	-27.58	49279	357.71	12.972	Si
SLU 83	3.79	-4637	37.55	44164	371.54	9.895	Si
SLU 79	1.69	-4590	-25.46	43714	372.19	14.62	Si
SLU 79	3.79	-4053	34.14	38599	373.18	10.931	Si
SLU 81	1.69	-5174	-27.58	49279	357.71	12.972	Si
SLU 81	3.79	-4637	37.55	44164	371.54	9.895	Si
SLU 82	1.69	-5178	-27.95	49312	357.58	12.794	Si
SLU 82	3.79	-4641	37.91	44197	371.49	9.799	Si
SLU 73	1.69	-4596	-26.08	43770	372.11	14.268	Si
SLU 73	3.79	-4059	34.74	38654	373.23	10.744	Si
SLU 75	1.69	-4594	-25.83	43748	372.14	14.407	Si
SLU 75	3.79	-4056	34.5	38632	373.21	10.818	Si
SLU 78	1.69	-4594	-25.83	43748	372.14	14.407	Si
SLU 78	3.79	-4056	34.5	38632	373.21	10.818	Si
SLU 76	1.69	-4596	-26.08	43770	372.11	14.268	Si
SLU 76	3.79	-4059	34.74	38654	373.23	10.744	Si
SLU 80	1.69	-4594	-25.83	43748	372.14	14.407	Si
SLU 80	3.79	-4056	34.5	38632	373.21	10.818	Si



Comb.	Quota	N	M	$\sigma_0$	Mu	c.s.	Verifica
SLU 84	1.69	-5178	-27.95	49312	357.58	12.794	Si
SLU 84	3.79	-4641	37.91	44197	371.49	9.799	Si

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni sismiche,  $\gamma_M = 2$

Comb.	Quota	N	M	$\sigma_0$	Mu	c.s.	Verifica
SLV 4	1.69	-3484	-139.07	33178	444.11	3.193	Si
SLV 4	3.79	-3109	126.78	29611	412.25	3.252	Si
SLV 10	1.69	618	32.03	0	0	0	No, Trazione
SLV 10	3.79	1039	-25.41	0	0	0	No, Trazione
SLV 6	1.69	801	-39.09	0	0	0	No, Trazione
SLV 6	3.79	1200	34.69	0	0	0	No, Trazione
SLV 13	1.69	-2017	105.84	19206	297.44	2.81	Si
SLV 13	3.79	-1569	-83.68	14944	241.01	2.88	Si
SLV 1	1.69	-1408	-131.22	13410	219.36	1.672	Si
SLV 1	3.79	-1034	116.64	9848	166.38	1.426	Si
SLV 3	1.69	-3484	-139.07	33178	444.11	3.193	Si
SLV 3	3.79	-3109	126.78	29611	412.25	3.252	Si
SLV 5	1.69	801	-39.09	0	0	0	No, Trazione
SLV 5	3.79	1200	34.69	0	0	0	No, Trazione
SLV 9	1.69	618	32.03	0	0	0	No, Trazione
SLV 9	3.79	1039	-25.41	0	0	0	No, Trazione
SLV 14	1.69	-2017	105.84	19206	297.44	2.81	Si
SLV 14	3.79	-1569	-83.68	14944	241.01	2.88	Si
SLV 2	1.69	-1408	-131.22	13410	219.36	1.672	Si
SLV 2	3.79	-1034	116.64	9848	166.38	1.426	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni non sismiche,  $\gamma_M = 3$

Comb.	Quota	N	V par	M	$\sigma_0$	$\sigma_N$	I'	fvd	Vt scorr.	Vt fess.diag.	Vt <sub>lim</sub>	c.s.	Verifica
SLU 76	1.69	-4596	-29	-26.08		43770	0.35	10833	1137			39.28	Si
SLU 76	3.79	-4059	-29	34.74		38654	0.35	10709	1124			38.83	Si
SLU 82	1.69	-5178	-31	-27.95		49312	0.35	10833	1137			36.27	Si
SLU 82	3.79	-4641	-31	37.91		44197	0.35	10833	1137			36.27	Si
SLU 78	1.69	-4594	-29	-25.83		43748	0.35	10833	1137			39.59	Si
SLU 78	3.79	-4056	-29	34.5		38632	0.35	10706	1124			39.13	Si
SLU 80	1.69	-4594	-29	-25.83		43748	0.35	10833	1137			39.59	Si
SLU 80	3.79	-4056	-29	34.5		38632	0.35	10706	1124			39.13	Si
SLU 74	1.69	-4590	-28	-25.46		43714	0.35	10833	1137			40.08	Si
SLU 74	3.79	-4053	-28	34.14		38599	0.35	10702	1124			39.6	Si
SLU 81	1.69	-5174	-31	-27.58		49279	0.35	10833	1137			36.68	Si
SLU 81	3.79	-4637	-31	37.55		44164	0.35	10833	1137			36.68	Si
SLU 75	1.69	-4594	-29	-25.83		43748	0.35	10833	1137			39.59	Si
SLU 75	3.79	-4056	-29	34.5		38632	0.35	10706	1124			39.13	Si
SLU 84	1.69	-5178	-31	-27.95		49312	0.35	10833	1137			36.27	Si
SLU 84	3.79	-4641	-31	37.91		44197	0.35	10833	1137			36.27	Si
SLU 73	1.69	-4596	-29	-26.08		43770	0.35	10833	1137			39.28	Si
SLU 73	3.79	-4059	-29	34.74		38654	0.35	10709	1124			38.83	Si
SLU 83	1.69	-5174	-31	-27.58		49279	0.35	10833	1137			36.68	Si
SLU 83	3.79	-4637	-31	37.55		44164	0.35	10833	1137			36.68	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni sismiche,  $\gamma_M = 2$

Comb.	Quota	N	V par	M	$\sigma_0$	$\sigma_N$	I'	fvd	Vt scorr.	Vt fess.diag.	Vt <sub>lim</sub>	c.s.	Verifica
SLV 10	1.69	618	0	32.03		0	0	8333	0			0	No, Vu<V
SLV 10	3.79	1039	4	-25.41		0	0	8333	0			0	No, Vu<V
SLV 1	1.69	-1408	-84	-131.22		19125	0.2454	12158	895			10.62	Si
SLV 1	3.79	-1034	-105	116.64		18470	0.1866	12027	673			6.4	Si
SLV 6	1.69	801	-40	-39.09		0	0	8333	0			0	No, Vu<V
SLV 6	3.79	1200	-47	34.69		0	0	8333	0			0	No, Vu<V
SLV 4	1.69	-3484	-83	-139.07		33178	0.35	14969	1572			18.88	Si
SLV 4	3.79	-3109	-103	126.78		29611	0.35	14256	1497			14.52	Si
SLV 14	1.69	-2017	47	105.84		19206	0.35	12175	1278			27.25	Si
SLV 14	3.79	-1569	67	-83.68		14944	0.35	11322	1189			17.81	Si
SLV 2	1.69	-1408	-84	-131.22		19125	0.2454	12158	895			10.62	Si
SLV 2	3.79	-1034	-105	116.64		18470	0.1866	12027	673			6.4	Si
SLV 13	1.69	-2017	47	105.84		19206	0.35	12175	1278			27.25	Si
SLV 13	3.79	-1569	67	-83.68		14944	0.35	11322	1189			17.81	Si
SLV 3	1.69	-3484	-83	-139.07		33178	0.35	14969	1572			18.88	Si
SLV 3	3.79	-3109	-103	126.78		29611	0.35	14256	1497			14.52	Si
SLV 5	1.69	801	-40	-39.09		0	0	8333	0			0	No, Vu<V
SLV 5	3.79	1200	-47	34.69		0	0	8333	0			0	No, Vu<V
SLV 9	1.69	618	0	32.03		0	0	8333	0			0	No, Vu<V
SLV 9	3.79	1039	4	-25.41		0	0	8333	0			0	No, Vu<V

Verifica a pressoflessione fuori piano D.M. 17-01-18 (N.T.C.)

quota 3.655 Wa 0.05 denominatore 8  $\gamma_M = 2$

Comb.	fd	Sa	$\sigma_0$	N	M	Mc	Coeff.s.	Verifica
SLV 6	143750	0.48	0	1200	61.31	0	0	No, Trazione
SLV 10	143750	0.48	0	1039	61.31	0	0	No, Trazione
SLV 9	143750	0.48	0	1039	61.31	0	0	No, Trazione
SLV 5	143750	0.48	0	1200	61.31	0	0	No, Trazione
SLV 1	143750	0.48	9848	-1034	61.31	142.61	2.33	Si
SLV 2	143750	0.48	9848	-1034	61.31	142.61	2.33	Si
SLV 13	143750	0.48	14944	-1569	61.31	206.58	3.37	Si
SLV 14	143750	0.48	14944	-1569	61.31	206.58	3.37	Si
SLV 4	143750	0.48	29611	-3109	61.31	353.36	5.76	Si
SLV 3	143750	0.48	29611	-3109	61.31	353.36	5.76	Si

Verifica dei meccanismi locali di collasso con analisi cinematica lineare

forza di aggancio al piano = 0 quota mezzeria = 3.655 Wa = 0.05 Ta = 0.086



Comb.	N top	N base	V orto	$\alpha 0$	M*	e*	a0*	aLim	Verifica
SLV 9	-642	618	-4	0	0	0	0	5.80179	No, Trazione
SLV 6	-642	801	-4	0	0	0	0	5.80179	No, Trazione
SLV 10	-642	618	-4	0	0	0	0	5.80179	No, Trazione
SLV 5	-642	801	-4	0	0	0	0	5.80179	No, Trazione
SLV 1	-641	-1408	-2	0.05	126.4	0.896	0.81838	19.31768	No
SLV 2	-641	-1408	-2	0.05	126.4	0.896	0.81838	19.31768	No
SLV 14	-644	-2017	-1	0.051	126.7	0.896	0.82333	19.31768	No
SLV 13	-644	-2017	-1	0.051	126.7	0.896	0.82333	19.31768	No
SLV 16	-645	-4092	1	0.051	126.7	0.896	0.82924	19.31768	No
SLV 15	-645	-4092	1	0.051	126.7	0.896	0.82924	19.31768	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLU	9.799	SLU 82	Si
V_SLU	36.271	SLU 82	Si
PF_SLV	0	SLV 10	No
V_SLV	0	SLV 5	No
PFFP_SLV	0	SLV 10	No
R_SLV	0	SLV 10	No

## Maschio 31

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

### Dati geometrici

X ini.	Y ini.	X fin.	Y fin.	Quota i.	Quota.s	l	Sp.	h netta	h ini.	h fin.	a	a.s.,sx	a.s.,dx
-23.207	-13.489	-21.057	-13.489	L2	L3	2.15	0.3	3.93	3.93	3.93			

### Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2\_Corti

fb	fk	fvk0	fmedio	$\tau 0$	fv0	$\mu$	$\phi$	fv,lim	E	G	FC
600000			345000	9000	20000	0.58	0.77	32500	320000000	128000000	1.2

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni non sismiche,  $\gamma M = 3$

Comb.	Quota	N	M	$\sigma 0$	Mu	c.s.	Verifica
SLU 83	1.69	-19000	611.78	29458	13038.91	21.313	Si
SLU 83	3.79	-15810	-384.68	24511	11881.38	30.886	Si
SLU 35	1.69	-15180	542.27	23535	11603.77	21.398	Si
SLU 35	3.79	-12691	-299.93	19675	10347.2	34.498	Si
SLU 40	1.69	-17340	710.57	26884	12488.61	17.575	Si
SLU 40	3.79	-14851	-402.06	23024	11452.09	28.483	Si
SLU 32	1.69	-15180	542.27	23535	11603.77	21.398	Si
SLU 32	3.79	-12691	-299.93	19675	10347.2	34.498	Si
SLU 39	1.69	-17340	720.44	26884	12488.57	17.335	Si
SLU 39	3.79	-14851	-397.06	23024	11452.05	28.842	Si
SLU 82	1.69	-19000	601.92	29458	13038.94	21.662	Si
SLU 82	3.79	-15810	-389.68	24511	11881.43	30.49	Si
SLU 42	1.69	-17340	710.57	26884	12488.61	17.575	Si
SLU 42	3.79	-14851	-402.06	23024	11452.09	28.483	Si
SLU 81	1.69	-19000	611.78	29458	13038.91	21.313	Si
SLU 81	3.79	-15810	-384.68	24511	11881.38	30.886	Si
SLU 41	1.69	-17340	720.44	26884	12488.57	17.335	Si
SLU 41	3.79	-14851	-397.06	23024	11452.05	28.842	Si
SLU 37	1.69	-15180	542.27	23535	11603.77	21.398	Si
SLU 37	3.79	-12691	-299.93	19675	10347.2	34.498	Si

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni sismiche,  $\gamma M = 2$

Comb.	Quota	N	M	$\sigma 0$	Mu	c.s.	Verifica
SLV 6	1.69	-12406	4317.41	19235	11237.46	2.603	Si
SLV 6	3.79	-8662	-4045.04	13429	8288.13	2.049	Si
SLV 8	1.69	-6270	-6080.4	9722	6204.39	1.02	Si
SLV 8	3.79	-5225	4444.24	8100	5244.3	1.18	Si
SLV 4	1.69	-6770	-4690.3	10496	6652.57	1.418	Si
SLV 4	3.79	-4882	2171.75	7569	4922.82	2.267	Si
SLV 9	1.69	-13819	6245.24	21425	12250.69	1.962	Si
SLV 9	3.79	-9987	-4643.97	15484	9375.59	2.019	Si
SLV 10	1.69	-13819	6245.24	21425	12250.69	1.962	Si
SLV 10	3.79	-9987	-4643.97	15484	9375.59	2.019	Si
SLV 7	1.69	-6270	-6080.4	9722	6204.39	1.02	Si
SLV 7	3.79	-5225	4444.24	8100	5244.3	1.18	Si
SLV 5	1.69	-12406	4317.41	19235	11237.46	2.603	Si
SLV 5	3.79	-8662	-4045.04	13429	8288.13	2.049	Si
SLV 12	1.69	-7683	-4152.58	11912	7454.09	1.795	Si
SLV 12	3.79	-6550	3845.31	10155	6456.01	1.679	Si
SLV 3	1.69	-6770	-4690.3	10496	6652.57	1.418	Si
SLV 3	3.79	-4882	2171.75	7569	4922.82	2.267	Si
SLV 11	1.69	-7683	-4152.58	11912	7454.09	1.795	Si
SLV 11	3.79	-6550	3845.31	10155	6456.01	1.679	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni non sismiche,  $\gamma M = 3$

Comb.	Quota	N	V par	M	$\sigma 0$	$\sigma N$	l'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLU 42	1.69	-17340	541	710.57		26884	2.15	9140	5895			10.89	Si
SLU 42	3.79	-14851	541	-402.06		23024	2.15	8625	5563			10.28	Si
SLU 84	1.69	-19000	487	601.92		29458	2.15	9483	6117			12.55	Si
SLU 84	3.79	-15810	487	-389.68		24511	2.15	8824	5691			11.68	Si
SLU 41	1.69	-17340	543	720.44		26884	2.15	9140	5895			10.85	Si



Comb.	Quota	N	V par	M	$\sigma_0$	$\sigma_N$	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLU 41	3.79	-14851	544	-397.06		23024	2.15	8625	5563			10.23	Si
SLU 40	1.69	-17340	541	710.57		26884	2.15	9140	5895			10.89	Si
SLU 40	3.79	-14851	541	-402.06		23024	2.15	8625	5563			10.28	Si
SLU 83	1.69	-19000	490	611.78		29458	2.15	9483	6117			12.49	Si
SLU 83	3.79	-15810	490	-384.68		24511	2.15	8824	5691			11.62	Si
SLU 82	1.69	-19000	487	601.92		29458	2.15	9483	6117			12.55	Si
SLU 82	3.79	-15810	487	-389.68		24511	2.15	8824	5691			11.68	Si
SLU 35	1.69	-15180	412	542.27		23535	2.15	8694	5607			13.6	Si
SLU 35	3.79	-12691	412	-299.93		19675	2.15	8179	5275			12.79	Si
SLU 81	1.69	-19000	490	611.78		29458	2.15	9483	6117			12.49	Si
SLU 81	3.79	-15810	490	-384.68		24511	2.15	8824	5691			11.62	Si
SLU 37	1.69	-15180	412	542.27		23535	2.15	8694	5607			13.6	Si
SLU 37	3.79	-12691	412	-299.93		19675	2.15	8179	5275			12.79	Si
SLU 39	1.69	-17340	543	720.44		26884	2.15	9140	5895			10.85	Si
SLU 39	3.79	-14851	544	-397.06		23024	2.15	8625	5563			10.23	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni sismiche,  $\gamma_M = 2$

Comb.	Quota	N	V par	M	$\sigma_0$	$\sigma_N$	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLV 12	1.69	-7683	-3558	-4152.58		15971	1.6035	11528	5545			1.56	Si
SLV 12	3.79	-6550	-1601	3845.31		14916	1.4638	11316	4969			3.1	Si
SLV 9	1.69	-13819	4316	6245.24		24643	1.8692	13262	7437			1.72	Si
SLV 9	3.79	-9987	2767	-4643.97		18191	1.83	11972	6572			2.38	Si
SLV 10	1.69	-13819	4316	6245.24		24643	1.8692	13262	7437			1.72	Si
SLV 10	3.79	-9987	2767	-4643.97		18191	1.83	11972	6572			2.38	Si
SLV 11	1.69	-7683	-3558	-4152.58		15971	1.6035	11528	5545			1.56	Si
SLV 11	3.79	-6550	-1601	3845.31		14916	1.4638	11316	4969			3.1	Si
SLV 3	1.69	-6770	-2019	-4690.3		19682	1.1466	12270	4220			2.09	Si
SLV 3	3.79	-4882	-2172	2171.75		8608	1.8904	10055	5702			2.62	Si
SLV 4	1.69	-6770	-2019	-4690.3		19682	1.1466	12270	4220			2.09	Si
SLV 4	3.79	-4882	-2172	2171.75		8608	1.8904	10055	5702			2.62	Si
SLV 8	1.69	-6270	-4120	-6080.4		66163	0.3159	16250	1540			0.37	No, Vu<V
SLV 8	3.79	-5225	-2570	4444.24		25871	0.6732	13508	2728			1.06	Si
SLV 5	1.69	-12406	3754	4317.41		19235	2.15	12180	7856			2.09	Si
SLV 5	3.79	-8662	1798	-4045.04		15829	1.824	11499	6292			3.5	Si
SLV 7	1.69	-6270	-4120	-6080.4		66163	0.3159	16250	1540			0.37	No, Vu<V
SLV 7	3.79	-5225	-2570	4444.24		25871	0.6732	13508	2728			1.06	Si
SLV 6	1.69	-12406	3754	4317.41		19235	2.15	12180	7856			2.09	Si
SLV 6	3.79	-8662	1798	-4045.04		15829	1.824	11499	6292			3.5	Si

Verifica a pressoflessione fuori piano D.M. 17-01-18 (N.T.C.)

quota 3.655 Wa 0.05 denominatore 8  $\gamma_M = 2$

Comb.	fd	Sa	$\sigma_0$	N	M	Mc	Coeff.s.	Verifica
SLV 4	143750	0.48	7521	-4851	376.64	682.85	1.81	Si
SLV 3	143750	0.48	7521	-4851	376.64	682.85	1.81	Si
SLV 8	143750	0.48	7833	-5052	376.64	709.22	1.88	Si
SLV 7	143750	0.48	7833	-5052	376.64	709.22	1.88	Si
SLV 1	143750	0.48	9298	-5997	376.64	831.12	2.21	Si
SLV 2	143750	0.48	9298	-5997	376.64	831.12	2.21	Si
SLV 12	143750	0.48	9877	-6371	376.64	878.36	2.33	Si
SLV 11	143750	0.48	9877	-6371	376.64	878.36	2.33	Si
SLV 5	143750	0.48	13757	-8873	376.64	1181.11	3.14	Si
SLV 6	143750	0.48	13757	-8873	376.64	1181.11	3.14	Si

Verifica dei meccanismi locali di collasso con analisi cinematica lineare

forza di aggancio al piano = 0 quota mezzzeria = 3.655 Wa = 0.05 Ta = 0.086

Comb.	N top	N base	V orto	$\alpha_0$	M*	e*	a0*	aLim	Verifica
SLV 15	-4268	-11479	-31	0.047	808.4	0.898	0.75701	19.31768	No
SLV 16	-4268	-11479	-31	0.047	808.4	0.898	0.75701	19.31768	No
SLV 14	-4250	-13320	-18	0.049	806.7	0.898	0.78855	19.31768	No
SLV 13	-4250	-13320	-18	0.049	806.7	0.898	0.78855	19.31768	No
SLV 1	-3953	-8611	16	0.05	777.8	0.896	0.80492	19.31768	No
SLV 2	-3953	-8611	16	0.05	777.8	0.896	0.80492	19.31768	No
SLV 4	-3971	-6770	3	0.052	779.5	0.896	0.83682	19.31768	No
SLV 3	-3971	-6770	3	0.052	779.5	0.896	0.83682	19.31768	No
SLV 11	-4184	-7683	-33	0.046	800.3	0.898	0.75224	5.80179	No
SLV 12	-4184	-7683	-33	0.046	800.3	0.898	0.75224	5.80179	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLU	17.335	SLU 39	Si
V_SLU	10.235	SLU 39	Si
PF_SLV	1.02	SLV 7	Si
V_SLV	0.374	SLV 7	No
PFFP_SLV	1.813	SLV 3	Si
R_SLV	0.039	SLV 15	No

## Maschio 32

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati geometrici

X ini.	Y ini.	X fin.	Y fin.	Quota i.	Quota.s	I	Sp.	h netta	h ini.	h fin.	a	a.s.,sx	a.s.,dx
-21.057	-17.999	-21.057	-9.039	L2	L3	8.96	0.3	3.93	3.93	3.93			

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2\_Corti

Sismicad 12.19 - Licenza assegnata a Sidel ingegneria Srl - Via Isonzo, 13 - Villanova di Castenaso (BO)



fb	fk	fvk0	fmedio	$\tau 0$	fv0	$\mu$	$\phi$	fv,lim	E	G	FC
600000			345000	9000	20000	0.58	0.77	32500	320000000	128000000	1.2

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni non sismiche,  $\gamma_M = 3$

Comb.	Quota	N	M	$\sigma 0$	Mu	c.s.	Verifica
SLU 76	1.69	-35638	-16644.35	13258	133670.85	8.031	Si
SLU 76	5.62	-420	-108.96	156	1877.43	17.231	Si
SLU 13	1.69	-27591	-14416.46	10265	108032.75	7.494	Si
SLU 13	5.62	-316	-94.64	118	1415.31	14.954	Si
SLU 73	1.69	-35638	-16644.35	13258	133670.85	8.031	Si
SLU 73	5.62	-420	-108.96	156	1877.43	17.231	Si
SLU 34	1.69	-29339	-15112.84	10915	113825.43	7.532	Si
SLU 34	5.62	-413	-108.42	154	1846.25	17.029	Si
SLU 26	1.69	-26557	-13487.82	9880	104545.14	7.751	Si
SLU 26	5.62	-242	-75.21	90	1084.64	14.422	Si
SLU 23	1.69	-26557	-13487.82	9880	104545.14	7.751	Si
SLU 23	5.62	-242	-75.21	90	1084.64	14.422	Si
SLU 10	1.69	-27591	-14416.46	10265	108032.75	7.494	Si
SLU 10	5.62	-316	-94.64	118	1415.31	14.954	Si
SLU 2	1.69	-24810	-12791.44	9230	98553.58	7.705	Si
SLU 2	5.62	-146	-61.43	54	653.03	10.63	Si
SLU 31	1.69	-29339	-15112.84	10915	113825.43	7.532	Si
SLU 31	5.62	-413	-108.42	154	1846.25	17.029	Si
SLU 5	1.69	-24810	-12791.44	9230	98553.58	7.705	Si
SLU 5	5.62	-146	-61.43	54	653.03	10.63	Si

Verifica a pressoflessione nel piano secondo D.M. 17-01-18 NTC §7.8.2.2.1 in combinazioni sismiche,  $\gamma_M = 2$

Comb.	Quota	N	M	$\sigma 0$	Mu	c.s.	Verifica
SLV 11	1.69	-29528	-18688.41	10985	120392.37	6.442	Si
SLV 11	5.62	-237	-831.98	88	1059.48	1.273	Si
SLV 6	1.69	-19047	5560.14	7086	80382.62	14.457	Si
SLV 6	5.62	-183	770.07	68	819.84	1.065	Si
SLV 12	1.69	-29528	-18688.41	10985	120392.37	6.442	Si
SLV 12	5.62	-237	-831.98	88	1059.48	1.273	Si
SLV 9	1.69	-21683	3057.99	8066	90725.28	29.668	Si
SLV 9	5.62	-226	745.41	84	1012.98	1.359	Si
SLV 10	1.69	-21683	3057.99	8066	90725.28	29.668	Si
SLV 10	5.62	-226	745.41	84	1012.98	1.359	Si
SLV 5	1.69	-19047	5560.14	7086	80382.62	14.457	Si
SLV 5	5.62	-183	770.07	68	819.84	1.065	Si
SLV 7	1.69	-26893	-16186.26	10005	110613.77	6.834	Si
SLV 7	5.62	-193	-807.31	72	866.35	1.073	Si
SLV 1	1.69	-18718	868.07	6964	79078.93	91.097	Si
SLV 1	5.62	-136	246.77	51	610.73	2.475	Si
SLV 2	1.69	-18718	868.07	6964	79078.93	91.097	Si
SLV 2	5.62	-136	246.77	51	610.73	2.475	Si
SLV 8	1.69	-26893	-16186.26	10005	110613.77	6.834	Si
SLV 8	5.62	-193	-807.31	72	866.35	1.073	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni non sismiche,  $\gamma_M = 3$

Comb.	Quota	N	V par	M	$\sigma 0$	$\sigma N$	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLU 76	1.69	-35638	449	-16644.35	13258	8.96	7323	19685				43.81	Si
SLU 76	5.62	-420	54	-108.96	156	8.96	5576	14989				277.77	Si
SLU 23	1.69	-26557	410	-13487.82	9880	8.96	6873	18474				45.08	Si
SLU 23	5.62	-242	56	-75.21	90	8.96	5568	14966				268.98	Si
SLU 52	1.69	-33890	440	-15947.97	12608	8.96	7237	19452				44.2	Si
SLU 52	5.62	-323	54	-95.18	120	8.96	5572	14976				275.23	Si
SLU 34	1.69	-29339	432	-15112.84	10915	8.96	7011	18845				43.67	Si
SLU 34	5.62	-413	55	-108.42	154	8.96	5576	14988				274.52	Si
SLU 13	1.69	-27591	422	-14416.46	10265	8.96	6924	18612				44.07	Si
SLU 13	5.62	-316	55	-94.64	118	8.96	5571	14976				272.04	Si
SLU 10	1.69	-27591	422	-14416.46	10265	8.96	6924	18612				44.07	Si
SLU 10	5.62	-316	55	-94.64	118	8.96	5571	14976				272.04	Si
SLU 55	1.69	-33890	440	-15947.97	12608	8.96	7237	19452				44.2	Si
SLU 55	5.62	-323	54	-95.18	120	8.96	5572	14976				275.23	Si
SLU 26	1.69	-26557	410	-13487.82	9880	8.96	6873	18474				45.08	Si
SLU 26	5.62	-242	56	-75.21	90	8.96	5568	14966				268.98	Si
SLU 31	1.69	-29339	432	-15112.84	10915	8.96	7011	18845				43.67	Si
SLU 31	5.62	-413	55	-108.42	154	8.96	5576	14988				274.52	Si
SLU 73	1.69	-35638	449	-16644.35	13258	8.96	7323	19685				43.81	Si
SLU 73	5.62	-420	54	-108.96	156	8.96	5576	14989				277.77	Si

Verifica a taglio nel piano secondo D.M. 17-01-18 (N.T.C.) §7.8.2.2.2 con rottura per scorrimento in combinazioni sismiche,  $\gamma_M = 2$

Comb.	Quota	N	V par	M	$\sigma 0$	$\sigma N$	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLV 11	1.69	-29528	3485	-18688.41	10985	8.96	10530	28306				8.12	Si
SLV 11	5.62	-237	758	-831.98	273	2.8936	8388	7281				9.61	Si
SLV 8	1.69	-26893	3947	-16186.26	10005	8.96	10334	27779				7.04	Si
SLV 8	5.62	-193	755	-807.31	699	0.9233	8473	2347				3.11	Si
SLV 4	1.69	-21072	1939	-5655.85	7839	8.96	9901	26614				13.73	Si
SLV 4	5.62	-139	221	-226.45	54	8.5701	8344	21453				97.28	Si
SLV 10	1.69	-21683	-3790	3057.99	8066	8.96	9947	26737				7.05	Si
SLV 10	5.62	-226	-761	745.41	212	3.5569	8376	8938				11.74	Si
SLV 12	1.69	-29528	3485	-18688.41	10985	8.96	10530	28306				8.12	Si
SLV 12	5.62	-237	758	-831.98	273	2.8936	8388	7281				9.61	Si
SLV 6	1.69	-19047	-3328	5560.14	7086	8.96	9751	26209				7.87	Si
SLV 6	5.62	-183	-764	770.07	742	0.8228	8482	2094				2.74	Si
SLV 3	1.69	-21072	1939	-5655.85	7839	8.96	9901	26614				13.73	Si
SLV 3	5.62	-139	221	-226.45	54	8.5701	8344	21453				97.28	Si
SLV 5	1.69	-19047	-3328	5560.14	7086	8.96	9751	26209				7.87	Si
SLV 5	5.62	-183	-764	770.07	742	0.8228	8482	2094				2.74	Si



Comb.	Quota	N	V par	M	$\sigma_0$	$\sigma_N$	I'	fvd	Vt scorr.	Vt fess.diag.	Vt,lim	c.s.	Verifica
SLV 7	1.69	-26893	3947	-16186.26		10005	8.96	10334	27779			7.04	Si
SLV 7	5.62	-193	755	-807.31		699	0.9233	8473	2347			3.11	Si
SLV 9	1.69	-21683	-3790	3057.99		8066	8.96	9947	26737			7.05	Si
SLV 9	5.62	-226	-761	745.41		212	3.5569	8376	8938			11.74	Si

Verifica a pressoflessione fuori piano D.M. 17-01-18 (N.T.C.)

quota 3.655 Wa 0.05 denominatore 8  $\gamma_M = 2$

Comb.	fd	Sa	$\sigma_0$	N	M	Mc	Coeff.s.	Verifica
SLV 2	143750	0.48	0	-10034	1569.63	0	0	No, $e > t/2$
SLV 10	143750	0.48	0	-10176	1569.63	0	0	No, $e > t/2$
SLV 5	143750	0.48	0	-9590	1569.63	0	0	No, $e > t/2$
SLV 1	143750	0.48	0	-10034	1569.63	0	0	No, $e > t/2$
SLV 9	143750	0.48	0	-10176	1569.63	0	0	No, $e > t/2$
SLV 6	143750	0.48	0	-9590	1569.63	0	0	No, $e > t/2$
SLV 3	143750	0.48	4092	-10999	1569.63	1594.63	1.02	Si
SLV 4	143750	0.48	4092	-10999	1569.63	1594.63	1.02	Si
SLV 13	143750	0.48	4459	-11985	1569.63	1732.15	1.1	Si
SLV 14	143750	0.48	4459	-11985	1569.63	1732.15	1.1	Si

Verifica dei meccanismi locali di collasso con analisi cinematica lineare

forza di aggancio al piano = 0 quota mezzeria = 3.655 Wa = 0.05 Ta = 0.086

Comb.	N top	N base	V orto	$\alpha_0$	M*	e*	$\alpha_0^*$	aLim	Verifica
SLV 3	-139	-21072	34	0.072	1938.7	0.993	1.0582	19.31768	No
SLV 4	-139	-21072	34	0.072	1938.7	0.993	1.0582	19.31768	No
SLV 1	-136	-18718	26	0.073	1938.7	0.993	1.06961	19.31768	No
SLV 2	-136	-18718	26	0.073	1938.7	0.993	1.06961	19.31768	No
SLV 14	-280	-27503	-24	0.073	1939.9	0.986	1.0724	19.31768	No
SLV 13	-280	-27503	-24	0.073	1939.9	0.986	1.0724	19.31768	No
SLV 16	-283	-29857	-17	0.074	1939.9	0.986	1.08371	19.31768	No
SLV 15	-283	-29857	-17	0.074	1939.9	0.986	1.08371	19.31768	No
SLV 7	-193	-26893	25	0.073	1939.1	0.99	1.07154	5.80179	No
SLV 8	-193	-26893	25	0.073	1939.1	0.99	1.07154	5.80179	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLU	7.494	SLU 10	Si
V_SLU	43.668	SLU 31	Si
PF_SLV	1.065	SLV 5	Si
V_SLV	2.741	SLV 5	Si
PFFP_SLV	0	SLV 1	No
R_SLV	0.055	SLV 3	No

## 1.4 Verifiche travi di accoppiamento in muratura

Le unità di misura elencate nel capitolo sono in [m, daN] ove non espressamente specificato.

**X ini.:** coordinata punto iniziale. [m]

**Y ini.:** coordinata punto iniziale. [m]

**Z ini.inf.:** coordinata punto iniziale. [m]

**Z ini.sup.:** coordinata punto iniziale. [m]

**H ini.:** altezza della sezione iniziale. [m]

**X fin.:** coordinata punto finale. [m]

**Y fin.:** coordinata punto finale. [m]

**Z fin.inf.:** coordinata punto finale. [m]

**Z fin.sup.:** coordinata punto finale. [m]

**H fin.:** altezza della sezione finale. [m]

**Luce:** lunghezza della trave. [m]

**Spessore:** spessore. [m]

**R. Trazione:** resistenza a trazione dell'elemento teso disposto orizzontalmente. [daN]

**fb<sub>-</sub>:** resistenza normalizzata a compressione in direzione orizzontale dei blocchi. [daN/m<sup>2</sup>]

**f<sub>hk</sub>:** resistenza caratteristica a compressione della muratura utilizzata in direzione orizzontale. [daN/m<sup>2</sup>]

**f<sub>vk0</sub>:** resistenza caratteristica a taglio in assenza di carichi verticali. [daN/m<sup>2</sup>]

**f<sub>hmedio</sub>:** resistenza media a compressione della muratura utilizzata in direzione orizzontale. [daN/m<sup>2</sup>]

**$\tau_0$ :** resistenza media a taglio in assenza di azioni normali [C8.7.1.16]. [daN/m<sup>2</sup>]

**f<sub>vo</sub>:** resistenza media a taglio in assenza di azioni normali [C8.7.1.17]. [daN/m<sup>2</sup>]

**$\mu$ :** coefficiente di attrito [C8.7.1.17].

**$\phi$ :** coefficiente di ammortamento o ingranamento secondo Circolare 7 21-01-19 §C8.7.1.3.1.1.

**f<sub>vk,lim</sub>:** valore caratteristico massimo della resistenza a taglio che può essere impiegata nel calcolo (§11.10.3.3). [daN/m<sup>2</sup>]

**E:** modulo di elasticità longitudinale della muratura utilizzato. [daN/m<sup>2</sup>]

**G:** modulo di elasticità tangenziale della muratura utilizzato. [daN/m<sup>2</sup>]

**FC:** fattore di confidenza della muratura.

**Sezione:** sezione di verifica.

**$\gamma_M$ :** fattore parziale di sicurezza del materiale.

**N:** sforzo normale. [daN]

**M:** momento flettente nel piano. [daN\*m]

**Mu:** momento ultimo. [daN\*m]



**Comb.:** combinazione.

**c.s.:** coefficiente di sicurezza.

**Verifica:** stato di verifica.

**M:** momento flettente. [daN\*m]

**V:** taglio nel piano. [daN]

**Vt:** resistenza a taglio secondo [7.8.4]. [daN]

**Vp:** resistenza a taglio secondo [7.8.6]. [daN]

**Vt fess. diag.:** resistenza a taglio per fessurazione diagonale secondo §C8.7.1.3.1.1 formule [C8.7.1.16] ovvero [C8.7.1.17]. [daN]

**Vt,lim:** taglio limite [C8.1.7.18]. [daN]

**Stato limite:** pF\_SLV=Presso flessione per azioni sismiche; V\_SLV=Taglio per azioni sismiche.

**Coeff.s.:** coefficiente di sicurezza.

## Trave di accoppiamento 1

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

### Dati geometrici

X ini.	Y ini.	Z ini.inf.	Z ini.sup.	H ini.	X fin.	Y fin.	Z fin.inf.	Z fin.sup.	H fin.	Luce	Spessore	R. Trazione
-26.847	-18.044	-0.91	1.09	2	-25.847	-18.044	-0.91	1.09	2	1	0.45	3500

### Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2\_Corti

fb	fhk	fvk0	fhmmedio	t0	fv0	μ	φ	fvk,lim	E	G	FC
120000			172500	9000	20000	0.577	0.767	6500	320000000	128000000	1.2

### Verifiche a pressoflessione delle travi in muratura in combinazioni non sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	3	-2834	534.94	3165.81	SLU 73	5.92	Si
fin.	3	-2320	-1109.05	3165.81	SLU 73	2.85	Si
ini.	3	-2399	497.41	3165.81	SLU 68	6.36	Si
fin.	3	-1940	-1004.1	3165.81	SLU 68	3.15	Si
ini.	3	-2834	534.94	3165.81	SLU 76	5.92	Si
fin.	3	-2320	-1109.05	3165.81	SLU 76	2.85	Si
ini.	3	-2123	502.76	3165.81	SLU 10	6.3	Si
fin.	3	-1679	-967.13	3165.81	SLU 10	3.27	Si
ini.	3	-2602	517.67	3165.81	SLU 55	6.12	Si
fin.	3	-2104	-1063.46	3165.81	SLU 55	2.98	Si
ini.	3	-2399	497.41	3165.81	SLU 65	6.36	Si
fin.	3	-1940	-1004.1	3165.81	SLU 65	3.15	Si
ini.	3	-2356	520.03	3165.81	SLU 34	6.09	Si
fin.	3	-1895	-1012.72	3165.81	SLU 34	3.13	Si
ini.	3	-2602	517.67	3165.81	SLU 52	6.12	Si
fin.	3	-2104	-1063.46	3165.81	SLU 52	2.98	Si
ini.	3	-2123	502.76	3165.81	SLU 13	6.3	Si
fin.	3	-1679	-967.13	3165.81	SLU 13	3.27	Si
ini.	3	-2356	520.03	3165.81	SLU 31	6.09	Si
fin.	3	-1895	-1012.72	3165.81	SLU 31	3.13	Si

### Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni non sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	3	0	517.67	-3768			3466	1304	SLU 52	0.35	No
fin.	3	0	-1063.46	-689			3466	1304	SLU 52	1.89	Si
ini.	3	0	534.94	-4104			3466	1304	SLU 76	0.32	No
fin.	3	0	-1109.05	-546			3466	1304	SLU 76	2.39	Si
ini.	3	0	376.61	-3721			3466	1304	SLU 80	0.35	No
fin.	3	0	-913.46	-80			3466	1304	SLU 80	16.38	Si
ini.	3	0	376.61	-3721			3466	1304	SLU 78	0.35	No
fin.	3	0	-913.46	-80			3466	1304	SLU 78	16.38	Si
ini.	3	0	517.67	-3768			3466	1304	SLU 55	0.35	No
fin.	3	0	-1063.46	-689			3466	1304	SLU 55	1.89	Si
ini.	3	0	376.61	-3721			3466	1304	SLU 75	0.35	No
fin.	3	0	-913.46	-80			3466	1304	SLU 75	16.38	Si
ini.	3	0	392.69	-4006			3466	1304	SLU 82	0.33	No
fin.	3	0	-958.44	9			3466	1304	SLU 82	147.62	Si
ini.	3	0	534.94	-4104			3466	1304	SLU 73	0.32	No
fin.	3	0	-1109.05	-546			3466	1304	SLU 73	2.39	Si
ini.	3	0	520.03	-3698			3466	1304	SLU 34	0.35	No
fin.	3	0	-1012.72	-572			3466	1304	SLU 34	2.28	Si
ini.	3	0	392.69	-4006			3466	1304	SLU 84	0.33	No
fin.	3	0	-958.44	9			3466	1304	SLU 84	147.62	Si

### Verifiche a pressoflessione delle travi in muratura in combinazioni sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	2	-1772	-1127.43	3277.21	SLV 1	2.91	Si
fin.	2	-3013	1341.75	3277.21	SLV 1	2.44	Si
ini.	2	-2736	586.65	3277.21	SLV 14	5.59	Si
fin.	2	-646	-1422.32	3277.21	SLV 14	2.3	Si
ini.	2	-1527	1527.04	3277.21	SLV 12	2.15	Si
fin.	2	-1495	-2083.95	3277.21	SLV 12	1.57	Si
ini.	2	-2579	-1356.9	3277.21	SLV 5	2.42	Si
fin.	2	-2173	1251.51	3277.21	SLV 5	2.62	Si
ini.	2	-2334	1297.57	3277.21	SLV 16	2.53	Si
fin.	2	-656	-2174.19	3277.21	SLV 16	1.51	Si
ini.	2	-2579	-1356.9	3277.21	SLV 6	2.42	Si
fin.	2	-2173	1251.51	3277.21	SLV 6	2.62	Si



Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	2	-1772	-1127.43	3277.21	SLV 2	2.91	Si
fin.	2	-3013	1341.75	3277.21	SLV 2	2.44	Si
ini.	2	-2736	586.65	3277.21	SLV 13	5.59	Si
fin.	2	-646	-1422.32	3277.21	SLV 13	2.3	Si
ini.	2	-2334	1297.57	3277.21	SLV 15	2.53	Si
fin.	2	-656	-2174.19	3277.21	SLV 15	1.51	Si
ini.	2	-1527	1527.04	3277.21	SLV 11	2.15	Si
fin.	2	-1495	-2083.95	3277.21	SLV 11	1.57	Si

Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	2	0	1527.04	-6060			5199	1957	SLV 11	0.32	No
fin.	2	0	-2083.95	-2744			5199	1957	SLV 11	0.71	No
ini.	2	0	1527.04	-6060			5199	1957	SLV 12	0.32	No
fin.	2	0	-2083.95	-2744			5199	1957	SLV 12	0.71	No
ini.	2	0	1297.57	-5904			5199	1957	SLV 16	0.33	No
fin.	2	0	-2174.19	-3256			5199	1957	SLV 16	0.6	No
ini.	2	0	586.65	-4010			5199	1957	SLV 13	0.49	No
fin.	2	0	-1422.32	-1931			5199	1957	SLV 13	1.01	Si
ini.	2	0	1297.57	-5904			5199	1957	SLV 15	0.33	No
fin.	2	0	-2174.19	-3256			5199	1957	SLV 15	0.6	No
ini.	2	0	586.65	-4010			5199	1957	SLV 14	0.49	No
fin.	2	0	-1422.32	-1931			5199	1957	SLV 14	1.01	Si
ini.	2	0	-1127.43	1856			5199	1957	SLV 1	1.05	Si
fin.	2	0	1341.75	3949			5199	1957	SLV 1	0.5	No
ini.	2	0	1012.81	-4300			5199	1957	SLV 8	0.45	No
fin.	2	0	-1254.73	-980			5199	1957	SLV 8	2	Si
ini.	2	0	-1127.43	1856			5199	1957	SLV 2	1.05	Si
fin.	2	0	1341.75	3949			5199	1957	SLV 2	0.5	No
ini.	2	0	1012.81	-4300			5199	1957	SLV 7	0.45	No
fin.	2	0	-1254.73	-980			5199	1957	SLV 7	2	Si

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLV	1.507	SLV 15	Si
V_SLV	0.323	SLV 11	No
PF_SLU	2.855	SLU 73	Si
V_SLU	0.318	SLU 73	No

## Trave di accoppiamento 2

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati geometrici

X ini.	Y ini.	Z ini.inf.	Z ini.sup.	H ini.	X fin.	Y fin.	Z fin.inf.	Z fin.sup.	H fin.	Luce	Spessore	R. Trazione
-26.847	-18.044	1.49	1.69	0.2	-25.847	-18.044	1.49	1.69	0.2	1	0.45	3500

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2\_Corti

f <sub>b</sub>	f <sub>hk</sub>	f <sub>vk0</sub>	f <sub>hmedio</sub>	τ <sub>0</sub>	f <sub>v0</sub>	μ	φ	f <sub>vk,lim</sub>	E	G	FC
120000			172500	9000	20000	0.577	0.767	6500	320000000	128000000	1.2

Verifiche a pressoflessione delle travi in muratura in combinazioni non sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	3	590	-10.63	91.32	SLU 80	8.59	Si
fin.	3	-1087	-262.17	91.32	SLU 80	0.35	No
ini.	3	887	54.42	91.32	SLU 34	1.68	Si
fin.	3	-1329	-270.31	91.32	SLU 34	0.34	No
ini.	3	590	-10.63	91.32	SLU 78	8.59	Si
fin.	3	-1087	-262.17	91.32	SLU 78	0.35	No
ini.	3	912	44.62	91.32	SLU 73	2.05	Si
fin.	3	-1404	-296.29	91.32	SLU 73	0.31	No
ini.	3	598	-19.2	91.32	SLU 84	4.76	Si
fin.	3	-1141	-281.31	91.32	SLU 84	0.32	No
ini.	3	924	59.11	91.32	SLU 55	1.54	Si
fin.	3	-1330	-271.19	91.32	SLU 55	0.34	No
ini.	3	912	44.62	91.32	SLU 76	2.05	Si
fin.	3	-1404	-296.29	91.32	SLU 76	0.31	No
ini.	3	887	54.42	91.32	SLU 31	1.68	Si
fin.	3	-1329	-270.31	91.32	SLU 31	0.34	No
ini.	3	598	-19.2	91.32	SLU 82	4.76	Si
fin.	3	-1141	-281.31	91.32	SLU 82	0.32	No
ini.	3	924	59.11	91.32	SLU 52	1.54	Si
fin.	3	-1330	-271.19	91.32	SLU 52	0.34	No

Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni non sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	3	0	59.11	-174			231	87	SLU 52	0.5	No
fin.	3	0	-271.19	-1397			231	87	SLU 52	0.06	No
ini.	3	0	-19.2	223			231	87	SLU 82	0.39	No
fin.	3	0	-281.31	-1478			231	87	SLU 82	0.06	No
ini.	3	0	-10.63	174			231	87	SLU 78	0.5	No
fin.	3	0	-262.17	-1377			231	87	SLU 78	0.06	No
ini.	3	0	44.62	-92			231	87	SLU 73	0.94	No
fin.	3	0	-296.29	-1531			231	87	SLU 73	0.06	No
ini.	3	0	-10.63	174			231	87	SLU 80	0.5	No





Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
fin.	3	0	-262.17	-1377			231	87	SLU 80	0.06	No
ini.	3	0	44.62	-92			231	87	SLU 76	0.94	No
fin.	3	0	-296.29	-1531			231	87	SLU 76	0.06	No
ini.	3	0	54.42	-158			231	87	SLU 34	0.55	No
fin.	3	0	-270.31	-1387			231	87	SLU 34	0.06	No
ini.	3	0	-19.2	223			231	87	SLU 84	0.39	No
fin.	3	0	-281.31	-1478			231	87	SLU 84	0.06	No
ini.	3	0	54.42	-158			231	87	SLU 31	0.55	No
fin.	3	0	-270.31	-1387			231	87	SLU 31	0.06	No
ini.	3	0	59.11	-174			231	87	SLU 55	0.5	No
fin.	3	0	-271.19	-1397			231	87	SLU 55	0.06	No

#### Verifiche a pressoflessione delle travi in muratura in combinazioni sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	2	1916	103.82	136.99	SLV 15	1.32	Si
fin.	2	-1785	-399.1	136.99	SLV 15	0.34	No
ini.	2	2112	381	136.99	SLV 12	0.36	No
fin.	2	-4183	-478.94	136.99	SLV 12	0.29	No
ini.	2	-1151	-478.78	136.99	SLV 10	0.29	No
fin.	2	3230	102.54	136.99	SLV 10	1.34	Si
ini.	2	1916	103.82	136.99	SLV 16	1.32	Si
fin.	2	-1785	-399.1	136.99	SLV 16	0.34	No
ini.	2	2112	381	136.99	SLV 11	0.36	No
fin.	2	-4183	-478.94	136.99	SLV 11	0.29	No
ini.	2	-1962	-499.14	136.99	SLV 6	0.27	No
fin.	2	3399	208.55	136.99	SLV 6	0.66	No
ini.	2	-1962	-499.14	136.99	SLV 5	0.27	No
fin.	2	3399	208.55	136.99	SLV 5	0.66	No
ini.	2	1301	360.64	136.99	SLV 8	0.38	No
fin.	2	-4014	-372.94	136.99	SLV 8	0.37	No
ini.	2	1301	360.64	136.99	SLV 7	0.38	No
fin.	2	-4014	-372.94	136.99	SLV 7	0.37	No
ini.	2	-1151	-478.78	136.99	SLV 9	0.29	No
fin.	2	3230	102.54	136.99	SLV 9	1.34	Si

#### Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	2	0	-478.78	1963			347	130	SLV 10	0.07	No
fin.	2	0	102.54	710			347	130	SLV 10	0.18	No
ini.	2	0	360.64	-1227			347	130	SLV 8	0.11	No
fin.	2	0	-372.94	-2187			347	130	SLV 8	0.06	No
ini.	2	0	103.82	-631			347	130	SLV 16	0.21	No
fin.	2	0	-399.1	-1633			347	130	SLV 16	0.08	No
ini.	2	0	-478.78	1963			347	130	SLV 9	0.07	No
fin.	2	0	102.54	710			347	130	SLV 9	0.18	No
ini.	2	0	-499.14	2249			347	130	SLV 6	0.06	No
fin.	2	0	208.55	963			347	130	SLV 6	0.14	No
ini.	2	0	103.82	-631			347	130	SLV 15	0.21	No
fin.	2	0	-399.1	-1633			347	130	SLV 15	0.08	No
ini.	2	0	360.64	-1227			347	130	SLV 7	0.11	No
fin.	2	0	-372.94	-2187			347	130	SLV 7	0.06	No
ini.	2	0	-499.14	2249			347	130	SLV 5	0.06	No
fin.	2	0	208.55	963			347	130	SLV 5	0.14	No
ini.	2	0	381	-1513			347	130	SLV 12	0.09	No
fin.	2	0	-478.94	-2440			347	130	SLV 12	0.05	No
ini.	2	0	381	-1513			347	130	SLV 11	0.09	No
fin.	2	0	-478.94	-2440			347	130	SLV 11	0.05	No

#### Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLV	0.274	SLV 5	No
V_SLV	0.053	SLV 11	No
PF_SLU	0.308	SLU 73	No
V_SLU	0.057	SLU 73	No

### Trave di accoppiamento 3

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

#### Dati geometrici

X ini.	Y ini.	Z ini.inf.	Z ini.sup.	H ini.	X fin.	Y fin.	Z fin.inf.	Z fin.sup.	H fin.	Luce	Spessore	R. Trazione
-23.332	-18.044	-0.91	1.09	2	-22.332	-18.044	-0.91	1.09	2	1	0.45	3500

#### Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2\_Corti

fb	f <sub>hk</sub>	f <sub>vk0</sub>	f <sub>hmedio</sub>	t0	f <sub>v0</sub>	μ	φ	f <sub>vk,lim</sub>	E	G	FC
120000			172500	9000	20000	0.577	0.767	6500	320000000	128000000	1.2

#### Verifiche a pressoflessione delle travi in muratura in combinazioni non sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	3	-2294	37.69	3165.81	SLU 56	83.99	Si
fin.	3	-1465	-975.92	3165.81	SLU 56	3.24	Si
ini.	3	-2668	106.48	3165.81	SLU 81	29.73	Si
fin.	3	-1623	-1181.38	3165.81	SLU 81	2.68	Si
ini.	3	-2668	106.48	3165.81	SLU 83	29.73	Si
fin.	3	-1623	-1181.38	3165.81	SLU 83	2.68	Si



Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	3	-2282	125.79	3165.81	SLU 39	25.17	Si
fin.	3	-1345	-1036.73	3165.81	SLU 39	3.05	Si
ini.	3	-2460	73.6	3165.81	SLU 60	43.01	Si
fin.	3	-1532	-1071.92	3165.81	SLU 60	2.95	Si
ini.	3	-2501	70.57	3165.81	SLU 77	44.86	Si
fin.	3	-1556	-1085.38	3165.81	SLU 77	2.92	Si
ini.	3	-2501	70.57	3165.81	SLU 74	44.86	Si
fin.	3	-1556	-1085.38	3165.81	SLU 74	2.92	Si
ini.	3	-2282	125.79	3165.81	SLU 41	25.17	Si
fin.	3	-1345	-1036.73	3165.81	SLU 41	3.05	Si
ini.	3	-2460	73.6	3165.81	SLU 62	43.01	Si
fin.	3	-1532	-1071.92	3165.81	SLU 62	2.95	Si
ini.	3	-2501	70.57	3165.81	SLU 79	44.86	Si
fin.	3	-1556	-1085.38	3165.81	SLU 79	2.92	Si

Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni non sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	3	0	70.57	-3709			3466	1304	SLU 79	0.35	No
fin.	3	0	-1085.38	-448			3466	1304	SLU 79	2.91	Si
ini.	3	0	73.6	-3630			3466	1304	SLU 62	0.36	No
fin.	3	0	-1071.92	-473			3466	1304	SLU 62	2.76	Si
ini.	3	0	106.48	-4095			3466	1304	SLU 81	0.32	No
fin.	3	0	-1181.38	-520			3466	1304	SLU 81	2.51	Si
ini.	3	0	106.48	-4095			3466	1304	SLU 83	0.32	No
fin.	3	0	-1181.38	-520			3466	1304	SLU 83	2.51	Si
ini.	3	0	322.96	-3700			3466	1304	SLU 84	0.35	No
fin.	3	0	-658.71	-98			3466	1304	SLU 84	13.35	Si
ini.	3	0	70.57	-3709			3466	1304	SLU 77	0.35	No
fin.	3	0	-1085.38	-448			3466	1304	SLU 77	2.91	Si
ini.	3	0	125.79	-3678			3466	1304	SLU 41	0.35	No
fin.	3	0	-1036.73	-479			3466	1304	SLU 41	2.72	Si
ini.	3	0	322.96	-3700			3466	1304	SLU 82	0.35	No
fin.	3	0	-658.71	-98			3466	1304	SLU 82	13.35	Si
ini.	3	0	70.57	-3709			3466	1304	SLU 74	0.35	No
fin.	3	0	-1085.38	-448			3466	1304	SLU 74	2.91	Si
ini.	3	0	125.79	-3678			3466	1304	SLU 39	0.35	No
fin.	3	0	-1036.73	-479			3466	1304	SLU 39	2.72	Si

Verifiche a pressoflessione delle travi in muratura in combinazioni sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	2	1648	-1956.3	3277.21	SLV 2	1.68	Si
fin.	2	2910	-2939.71	3277.21	SLV 2	1.11	Si
ini.	2	1648	-1956.3	3277.21	SLV 1	1.68	Si
fin.	2	2910	-2939.71	3277.21	SLV 1	1.11	Si
ini.	2	1692	-671.49	3277.21	SLV 9	4.88	Si
fin.	2	2477	-3321.64	3277.21	SLV 9	0.99	No
ini.	2	-5030	1969.39	3277.21	SLV 16	1.66	Si
fin.	2	-5111	1534.62	3277.21	SLV 16	2.14	Si
ini.	2	2971	-1639.98	3277.21	SLV 6	2	Si
fin.	2	4094	-4120.6	3277.21	SLV 6	0.8	No
ini.	2	-6353	1653.07	3277.21	SLV 12	1.98	Si
fin.	2	-6295	2715.51	3277.21	SLV 12	1.21	Si
ini.	2	-6353	1653.07	3277.21	SLV 11	1.98	Si
fin.	2	-6295	2715.51	3277.21	SLV 11	1.21	Si
ini.	2	2971	-1639.98	3277.21	SLV 5	2	Si
fin.	2	4094	-4120.6	3277.21	SLV 5	0.8	No
ini.	2	1692	-671.49	3277.21	SLV 10	4.88	Si
fin.	2	2477	-3321.64	3277.21	SLV 10	0.99	No
ini.	2	-5030	1969.39	3277.21	SLV 15	1.66	Si
fin.	2	-5111	1534.62	3277.21	SLV 15	2.14	Si

Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	2	0	684.58	1247			5199	1957	SLV 8	1.57	Si
fin.	2	0	1916.55	4111			5199	1957	SLV 8	0.48	No
ini.	2	0	-671.49	-5877			5199	1957	SLV 10	0.33	No
fin.	2	0	-3321.64	-4617			5199	1957	SLV 10	0.42	No
ini.	2	0	684.58	1247			5199	1957	SLV 7	1.57	Si
fin.	2	0	1916.55	4111			5199	1957	SLV 7	0.48	No
ini.	2	0	1272.02	-6064			5199	1957	SLV 13	0.32	No
fin.	2	0	-276.52	-3614			5199	1957	SLV 13	0.54	No
ini.	2	0	1969.39	-4457			5199	1957	SLV 15	0.44	No
fin.	2	0	1534.62	-1402			5199	1957	SLV 15	1.4	Si
ini.	2	0	-1639.98	-4109			5199	1957	SLV 6	0.48	No
fin.	2	0	-4120.6	-3264			5199	1957	SLV 6	0.6	No
ini.	2	0	1272.02	-6064			5199	1957	SLV 14	0.32	No
fin.	2	0	-276.52	-3614			5199	1957	SLV 14	0.54	No
ini.	2	0	1969.39	-4457			5199	1957	SLV 16	0.44	No
fin.	2	0	1534.62	-1402			5199	1957	SLV 16	1.4	Si
ini.	2	0	-1639.98	-4109			5199	1957	SLV 5	0.48	No
fin.	2	0	-4120.6	-3264			5199	1957	SLV 5	0.6	No
ini.	2	0	-671.49	-5877			5199	1957	SLV 9	0.33	No
fin.	2	0	-3321.64	-4617			5199	1957	SLV 9	0.42	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLV	0.795	SLV 5	No
V_SLV	0.323	SLV 13	No
PF_SLU	2.68	SLU 81	Si



Stato limite	Coeff.s.	Comb.	Verifica
V SLU	0.319	SLU 81	No

## Trave di accoppiamento 4

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

### Dati geometrici

X ini.	Y ini.	Z ini.inf.	Z ini.sup.	H ini.	X fin.	Y fin.	Z fin.inf.	Z fin.sup.	H fin.	Luce	Spessore	R. Trazione
-23.332	-18.044	1.49	1.69	0.2	-22.332	-18.044	1.49	1.69	0.2	1	0.45	3500

### Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2\_Corti

fb	f <sub>hk</sub>	f <sub>vk0</sub>	f <sub>hmedio</sub>	τ <sub>0</sub>	f <sub>v0</sub>	μ	φ	f <sub>vk,lim</sub>	E	G	FC
120000			172500	9000	20000	0.577	0.767	6500	320000000	128000000	1.2

### Verifiche a pressoflessione delle travi in muratura in combinazioni non sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	3	-903	-174.9	91.32	SLU 73	0.52	No
fin.	3	-71	-16.66	91.32	SLU 73	5.48	Si
ini.	3	-19	-162.05	91.32	SLU 81	0.56	No
fin.	3	-28	-137.68	91.32	SLU 81	0.66	No
ini.	3	-548	-177.09	91.32	SLU 82	0.52	No
fin.	3	-64	-72.49	91.32	SLU 82	1.26	Si
ini.	3	-903	-174.9	91.32	SLU 76	0.52	No
fin.	3	-71	-16.66	91.32	SLU 76	5.48	Si
ini.	3	-548	-177.09	91.32	SLU 84	0.52	No
fin.	3	-64	-72.49	91.32	SLU 84	1.26	Si
ini.	3	-551	-164.87	91.32	SLU 75	0.55	No
fin.	3	-47	-60.12	91.32	SLU 75	1.52	Si
ini.	3	-19	-162.05	91.32	SLU 83	0.56	No
fin.	3	-28	-137.68	91.32	SLU 83	0.66	No
ini.	3	-551	-164.87	91.32	SLU 80	0.55	No
fin.	3	-47	-60.12	91.32	SLU 80	1.52	Si
ini.	3	-535	-158.89	91.32	SLU 63	0.57	No
fin.	3	-33	-54.31	91.32	SLU 63	1.68	Si
ini.	3	-551	-164.87	91.32	SLU 78	0.55	No
fin.	3	-47	-60.12	91.32	SLU 78	1.52	Si

### Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni non sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	3	0	-177.09	1015			231	87	SLU 82	0.09	No
fin.	3	0	-72.49	-415			231	87	SLU 82	0.21	No
ini.	3	0	-164.87	943			231	87	SLU 75	0.09	No
fin.	3	0	-60.12	-352			231	87	SLU 75	0.25	No
ini.	3	0	-177.09	1015			231	87	SLU 84	0.09	No
fin.	3	0	-72.49	-415			231	87	SLU 84	0.21	No
ini.	3	0	-164.87	943			231	87	SLU 80	0.09	No
fin.	3	0	-60.12	-352			231	87	SLU 80	0.25	No
ini.	3	0	-158.89	910			231	87	SLU 63	0.1	No
fin.	3	0	-54.31	-320			231	87	SLU 63	0.27	No
ini.	3	0	-162.05	962			231	87	SLU 83	0.09	No
fin.	3	0	-137.68	-750			231	87	SLU 83	0.12	No
ini.	3	0	-164.87	943			231	87	SLU 78	0.09	No
fin.	3	0	-60.12	-352			231	87	SLU 78	0.25	No
ini.	3	0	-174.9	977			231	87	SLU 76	0.09	No
fin.	3	0	-16.66	-129			231	87	SLU 76	0.67	No
ini.	3	0	-162.05	962			231	87	SLU 81	0.09	No
fin.	3	0	-137.68	-750			231	87	SLU 81	0.12	No
ini.	3	0	-174.9	977			231	87	SLU 73	0.09	No
fin.	3	0	-16.66	-129			231	87	SLU 73	0.67	No

### Verifiche a pressoflessione delle travi in muratura in combinazioni sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	2	3863	147.2	136.99	SLV 10	0.93	No
fin.	2	-663	-421.84	136.99	SLV 10	0.32	No
ini.	2	-3898	-342.13	136.99	SLV 8	0.4	No
fin.	2	700	264.94	136.99	SLV 8	0.52	No
ini.	2	3863	41.84	136.99	SLV 5	3.27	Si
fin.	2	542	-411.3	136.99	SLV 5	0.33	No
ini.	2	-1182	-330.66	136.99	SLV 3	0.41	No
fin.	2	2050	40.55	136.99	SLV 3	3.38	Si
ini.	2	-3898	-236.77	136.99	SLV 11	0.58	No
fin.	2	-505	254.4	136.99	SLV 11	0.54	No
ini.	2	-3898	-236.77	136.99	SLV 12	0.58	No
fin.	2	-505	254.4	136.99	SLV 12	0.54	No
ini.	2	-3898	-342.13	136.99	SLV 7	0.4	No
fin.	2	700	264.94	136.99	SLV 7	0.52	No
ini.	2	3863	147.2	136.99	SLV 9	0.93	No
fin.	2	-663	-421.84	136.99	SLV 9	0.32	No
ini.	2	-1182	-330.66	136.99	SLV 4	0.41	No
fin.	2	2050	40.55	136.99	SLV 4	3.38	Si
ini.	2	3863	41.84	136.99	SLV 6	3.27	Si
fin.	2	542	-411.3	136.99	SLV 6	0.33	No



#### Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	2	0	-342.13	370			347	130	SLV 8	0.35	No
fin.	2	0	264.94	912			347	130	SLV 8	0.14	No
ini.	2	0	147.2	791			347	130	SLV 10	0.16	No
fin.	2	0	-421.84	-1786			347	130	SLV 10	0.07	No
ini.	2	0	-215.47	885			347	130	SLV 1	0.15	No
fin.	2	0	-162.32	-1093			347	130	SLV 1	0.12	No
ini.	2	0	-342.13	370			347	130	SLV 7	0.35	No
fin.	2	0	264.94	912			347	130	SLV 7	0.14	No
ini.	2	0	147.2	791			347	130	SLV 9	0.16	No
fin.	2	0	-421.84	-1786			347	130	SLV 9	0.07	No
ini.	2	0	41.84	924			347	130	SLV 5	0.14	No
fin.	2	0	-411.3	-1925			347	130	SLV 5	0.07	No
ini.	2	0	41.84	924			347	130	SLV 6	0.14	No
fin.	2	0	-411.3	-1925			347	130	SLV 6	0.07	No
ini.	2	0	-236.77	238			347	130	SLV 12	0.55	No
fin.	2	0	254.4	1050			347	130	SLV 12	0.12	No
ini.	2	0	-215.47	885			347	130	SLV 2	0.15	No
fin.	2	0	-162.32	-1093			347	130	SLV 2	0.12	No
ini.	2	0	-236.77	238			347	130	SLV 11	0.55	No
fin.	2	0	254.4	1050			347	130	SLV 11	0.12	No

#### Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLV	0.325	SLV 9	No
V_SLV	0.068	SLV 5	No
PF_SLU	0.516	SLU 82	No
V_SLU	0.086	SLU 82	No

#### Trave di accoppiamento 5

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

#### Dati geometrici

X ini.	Y ini.	Z ini.inf.	Z ini.sup.	H ini.	X fin.	Y fin.	Z fin.inf.	Z fin.sup.	H fin.	Luce	Spessore	R. Trazione
-22.432	-13.519	1.19	1.69	0.5	-21.432	-13.519	1.19	1.69	0.5	1	0.45	3500

#### Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2\_Corti

f <sub>b</sub>	f <sub>hk</sub>	f <sub>vk0</sub>	f <sub>hmedio</sub>	τ <sub>0</sub>	f <sub>v0</sub>	μ	φ	f <sub>vk,lim</sub>	E	G	FC
120000			172500	9000	20000	0.577	0.767	6500	320000000	128000000	1.2

#### Verifiche a pressoflessione delle travi in muratura in combinazioni non sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	3	1587	-90.77	540.81	SLU 82	5.96	Si
fin.	3	1661	-101.99	540.81	SLU 82	5.3	Si
ini.	3	1203	-82.8	540.81	SLU 55	6.53	Si
fin.	3	1262	-99.14	540.81	SLU 55	5.46	Si
ini.	3	1335	-65.58	540.81	SLU 31	8.25	Si
fin.	3	1382	-98.78	540.81	SLU 31	5.48	Si
ini.	3	1203	-82.8	540.81	SLU 52	6.53	Si
fin.	3	1262	-99.14	540.81	SLU 52	5.46	Si
ini.	3	1335	-65.58	540.81	SLU 34	8.25	Si
fin.	3	1382	-98.78	540.81	SLU 34	5.48	Si
ini.	3	1426	-86.37	540.81	SLU 76	6.26	Si
fin.	3	1491	-107.91	540.81	SLU 76	5.01	Si
ini.	3	1587	-90.77	540.81	SLU 84	5.96	Si
fin.	3	1661	-101.99	540.81	SLU 84	5.3	Si
ini.	3	1426	-86.37	540.81	SLU 73	6.26	Si
fin.	3	1491	-107.91	540.81	SLU 73	5.01	Si
ini.	3	868	-97.76	540.81	SLU 71	5.53	Si
fin.	3	960	-58.35	540.81	SLU 71	9.27	Si
ini.	3	868	-97.76	540.81	SLU 69	5.53	Si
fin.	3	960	-58.35	540.81	SLU 69	9.27	Si

#### Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni non sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	3	0	-90.77	2113			578	217	SLU 84	0.1	No
fin.	3	0	-101.99	-2091			578	217	SLU 84	0.1	No
ini.	3	0	-97.48	2144			578	217	SLU 83	0.1	No
fin.	3	0	-82.32	-2062			578	217	SLU 83	0.11	No
ini.	3	0	-97.48	2144			578	217	SLU 81	0.1	No
fin.	3	0	-82.32	-2062			578	217	SLU 81	0.11	No
ini.	3	0	-97.57	1953			578	217	SLU 79	0.11	No
fin.	3	0	-75.13	-1857			578	217	SLU 79	0.12	No
ini.	3	0	-90.85	1922			578	217	SLU 80	0.11	No
fin.	3	0	-94.8	-1886			578	217	SLU 80	0.12	No
ini.	3	0	-90.77	2113			578	217	SLU 82	0.1	No
fin.	3	0	-101.99	-2091			578	217	SLU 82	0.1	No
ini.	3	0	-97.57	1953			578	217	SLU 74	0.11	No
fin.	3	0	-75.13	-1857			578	217	SLU 74	0.12	No
ini.	3	0	-90.85	1922			578	217	SLU 78	0.11	No
fin.	3	0	-94.8	-1886			578	217	SLU 78	0.12	No
ini.	3	0	-97.57	1953			578	217	SLU 77	0.11	No
fin.	3	0	-75.13	-1857			578	217	SLU 77	0.12	No
ini.	3	0	-90.85	1922			578	217	SLU 75	0.11	No



Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
fin.	3	0	-94.8	-1886			578	217	SLU 75	0.12	No

#### Verifiche a pressoflessione delle travi in muratura in combinazioni sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	2	4056	281.63	652.21	SLV 14	2.32	Si
fin.	2	2509	-420.88	652.21	SLV 14	1.55	Si
ini.	2	127	-335.97	652.21	SLV 2	1.94	Si
fin.	2	634	194.2	652.21	SLV 2	3.36	Si
ini.	2	5807	175.59	652.21	SLV 10	3.71	Si
fin.	2	3607	-358.64	652.21	SLV 10	1.82	Si
ini.	2	-4304	-324.3	652.21	SLV 8	2.01	Si
fin.	2	-1967	263.13	652.21	SLV 8	2.48	Si
ini.	2	5807	175.59	652.21	SLV 9	3.71	Si
fin.	2	3607	-358.64	652.21	SLV 9	1.82	Si
ini.	2	-4304	-324.3	652.21	SLV 7	2.01	Si
fin.	2	-1967	263.13	652.21	SLV 7	2.48	Si
ini.	2	4056	281.63	652.21	SLV 13	2.32	Si
fin.	2	2509	-420.88	652.21	SLV 13	1.55	Si
ini.	2	-2553	-430.35	652.21	SLV 4	1.52	Si
fin.	2	-869	325.37	652.21	SLV 4	2	Si
ini.	2	-2553	-430.35	652.21	SLV 3	1.52	Si
fin.	2	-869	325.37	652.21	SLV 3	2	Si
ini.	2	127	-335.97	652.21	SLV 1	1.94	Si
fin.	2	634	194.2	652.21	SLV 1	3.36	Si

#### Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	2	0	-139.02	4764			867	326	SLV 11	0.07	No
fin.	2	0	78.61	-1085			867	326	SLV 11	0.3	No
ini.	2	0	175.59	-2666			867	326	SLV 10	0.12	No
fin.	2	0	-358.64	-2130			867	326	SLV 10	0.15	No
ini.	2	0	281.63	-500			867	326	SLV 13	0.65	No
fin.	2	0	-420.88	-2845			867	326	SLV 13	0.11	No
ini.	2	0	-430.35	2969			867	326	SLV 4	0.11	No
fin.	2	0	325.37	558			867	326	SLV 4	0.58	No
ini.	2	0	-324.3	5136			867	326	SLV 7	0.06	No
fin.	2	0	263.13	-158			867	326	SLV 7	2.07	Si
ini.	2	0	281.63	-500			867	326	SLV 14	0.65	No
fin.	2	0	-420.88	-2845			867	326	SLV 14	0.11	No
ini.	2	0	175.59	-2666			867	326	SLV 9	0.12	No
fin.	2	0	-358.64	-2130			867	326	SLV 9	0.15	No
ini.	2	0	-324.3	5136			867	326	SLV 8	0.06	No
fin.	2	0	263.13	-158			867	326	SLV 8	2.07	Si
ini.	2	0	-430.35	2969			867	326	SLV 3	0.11	No
fin.	2	0	325.37	558			867	326	SLV 3	0.58	No
ini.	2	0	-139.02	4764			867	326	SLV 12	0.07	No
fin.	2	0	78.61	-1085			867	326	SLV 12	0.3	No

#### Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLV	1.516	SLV 3	Si
V_SLV	0.063	SLV 7	No
PF_SLU	5.012	SLU 73	Si
V_SLU	0.101	SLU 81	No

#### Trave di accoppiamento 6

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

#### Dati geometrici

X ini.	Y ini.	Z ini.inf.	Z ini.sup.	H ini.	X fin.	Y fin.	Z fin.inf.	Z fin.sup.	H fin.	Luce	Spessore	R. Trazione
-27.067	-9.039	-0.91	1.09	2	-26.067	-9.039	-0.91	1.09	2	1	0.45	3500

#### Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2\_Corti

fb	fhk	fvk0	fthmedio	t0	fv0	μ	φ	fvk,lim	E	G	FC
120000			172500	9000	20000	0.577	0.767	6500	320000000	128000000	1.2

#### Verifiche a pressoflessione delle travi in muratura in combinazioni non sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	3	-3138	-191.5	3165.81	SLU 62	16.53	Si
fin.	3	-3113	-93.08	3165.81	SLU 62	34.01	Si
ini.	3	-3395	-198.37	3165.81	SLU 81	15.96	Si
fin.	3	-3399	-83.77	3165.81	SLU 81	37.79	Si
ini.	3	-3186	-191.55	3165.81	SLU 73	16.53	Si
fin.	3	-3165	-97.83	3165.81	SLU 73	32.36	Si
ini.	3	-3401	-198.52	3165.81	SLU 82	15.95	Si
fin.	3	-3400	-85.61	3165.81	SLU 82	36.98	Si
ini.	3	-3395	-198.37	3165.81	SLU 83	15.96	Si
fin.	3	-3399	-83.77	3165.81	SLU 83	37.79	Si
ini.	3	-3186	-191.55	3165.81	SLU 76	16.53	Si
fin.	3	-3165	-97.83	3165.81	SLU 76	32.36	Si
ini.	3	-3138	-191.5	3165.81	SLU 60	16.53	Si
fin.	3	-3113	-93.08	3165.81	SLU 60	34.01	Si
ini.	3	-3144	-191.65	3165.81	SLU 61	16.52	Si
fin.	3	-3114	-94.93	3165.81	SLU 61	33.35	Si



Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	3	-3144	-191.65	3165.81	SLU 63	16.52	Si
fin.	3	-3114	-94.93	3165.81	SLU 63	33.35	Si
ini.	3	-3401	-198.52	3165.81	SLU 84	15.95	Si
fin.	3	-3400	-85.61	3165.81	SLU 84	36.98	Si

Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni non sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	3	0	-191.45	-4423			3466	1304	SLU 80	0.29	No
fin.	3	0	-96.6	2670			3466	1304	SLU 80	0.49	No
ini.	3	0	-198.52	-4731			3466	1304	SLU 82	0.28	No
fin.	3	0	-85.61	2940			3466	1304	SLU 82	0.44	No
ini.	3	0	-191.29	-4413			3466	1304	SLU 79	0.3	No
fin.	3	0	-94.76	2675			3466	1304	SLU 79	0.49	No
ini.	3	0	-191.55	-4430			3466	1304	SLU 73	0.29	No
fin.	3	0	-97.83	2667			3466	1304	SLU 73	0.49	No
ini.	3	0	-191.45	-4423			3466	1304	SLU 75	0.29	No
fin.	3	0	-96.6	2670			3466	1304	SLU 75	0.49	No
ini.	3	0	-198.37	-4721			3466	1304	SLU 83	0.28	No
fin.	3	0	-83.77	2945			3466	1304	SLU 83	0.44	No
ini.	3	0	-198.37	-4721			3466	1304	SLU 81	0.28	No
fin.	3	0	-83.77	2945			3466	1304	SLU 81	0.44	No
ini.	3	0	-198.52	-4731			3466	1304	SLU 84	0.28	No
fin.	3	0	-85.61	2940			3466	1304	SLU 84	0.44	No
ini.	3	0	-191.55	-4430			3466	1304	SLU 76	0.29	No
fin.	3	0	-97.83	2667			3466	1304	SLU 76	0.49	No
ini.	3	0	-191.45	-4423			3466	1304	SLU 78	0.29	No
fin.	3	0	-96.6	2670			3466	1304	SLU 78	0.49	No

Verifiche a pressoflessione delle travi in muratura in combinazioni sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	2	-1200	-649.35	3277.21	SLV 1	5.05	Si
fin.	2	-2435	602.08	3277.21	SLV 1	5.44	Si
ini.	2	-1349	-633.41	3277.21	SLV 3	5.17	Si
fin.	2	-2464	535.43	3277.21	SLV 3	6.12	Si
ini.	2	-3080	374.04	3277.21	SLV 15	8.76	Si
fin.	2	-1775	-776.75	3277.21	SLV 15	4.22	Si
ini.	2	-1349	-633.41	3277.21	SLV 4	5.17	Si
fin.	2	-2464	535.43	3277.21	SLV 4	6.12	Si
ini.	2	-2648	40.02	3277.21	SLV 11	81.9	Si
fin.	2	-2049	-395.25	3277.21	SLV 11	8.29	Si
ini.	2	-3080	374.04	3277.21	SLV 16	8.76	Si
fin.	2	-1775	-776.75	3277.21	SLV 16	4.22	Si
ini.	2	-2931	358.1	3277.21	SLV 13	9.15	Si
fin.	2	-1746	-710.1	3277.21	SLV 13	4.62	Si
ini.	2	-2648	40.02	3277.21	SLV 12	81.9	Si
fin.	2	-2049	-395.25	3277.21	SLV 12	8.29	Si
ini.	2	-2931	358.1	3277.21	SLV 14	9.15	Si
fin.	2	-1746	-710.1	3277.21	SLV 14	4.62	Si
ini.	2	-1200	-649.35	3277.21	SLV 2	5.05	Si
fin.	2	-2435	602.08	3277.21	SLV 2	5.44	Si

Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	2	0	40.02	-4354			5199	1957	SLV 12	0.45	No
fin.	2	0	-395.25	915			5199	1957	SLV 12	2.14	Si
ini.	2	0	-649.35	-144			5199	1957	SLV 2	13.61	Si
fin.	2	0	602.08	3990			5199	1957	SLV 2	0.49	No
ini.	2	0	-649.35	-144			5199	1957	SLV 1	13.61	Si
fin.	2	0	602.08	3990			5199	1957	SLV 1	0.49	No
ini.	2	0	40.02	-4354			5199	1957	SLV 11	0.45	No
fin.	2	0	-395.25	915			5199	1957	SLV 11	2.14	Si
ini.	2	0	358.1	-5425			5199	1957	SLV 13	0.36	No
fin.	2	0	-710.1	-585			5199	1957	SLV 13	3.35	Si
ini.	2	0	374.04	-5784			5199	1957	SLV 16	0.34	No
fin.	2	0	-776.75	-632			5199	1957	SLV 16	3.1	Si
ini.	2	0	358.1	-5425			5199	1957	SLV 14	0.36	No
fin.	2	0	-710.1	-585			5199	1957	SLV 14	3.35	Si
ini.	2	0	-633.41	-503			5199	1957	SLV 4	3.89	Si
fin.	2	0	535.43	3943			5199	1957	SLV 4	0.5	No
ini.	2	0	-633.41	-503			5199	1957	SLV 3	3.89	Si
fin.	2	0	535.43	3943			5199	1957	SLV 3	0.5	No
ini.	2	0	374.04	-5784			5199	1957	SLV 15	0.34	No
fin.	2	0	-776.75	-632			5199	1957	SLV 15	3.1	Si

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLV	4.219	SLV 15	Si
V_SLV	0.338	SLV 15	No
PF_SLU	15.947	SLU 82	Si
V_SLU	0.276	SLU 82	No

## Trave di accoppiamento 7

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)



## Dati geometrici

X ini.	Y ini.	Z ini.inf.	Z ini.sup.	H ini.	X fin.	Y fin.	Z fin.inf.	Z fin.sup.	H fin.	Luce	Spessore	R. Trazione
-27.067	-9.039	1.49	1.69	0.2	-26.067	-9.039	1.49	1.69	0.2	1	0.45	3500

## Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2\_Corti

f <sub>b</sub>	f <sub>hk</sub>	f <sub>vk0</sub>	f <sub>hmedio</sub>	τ <sub>0</sub>	f <sub>v0</sub>	μ	φ	f <sub>vk,lim</sub>	E	G	FC
120000			172500	9000	20000	0.577	0.767	6500	320000000	128000000	1.2

## Verifiche a pressoflessione delle travi in muratura in combinazioni non sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	3	-110	-133.55	91.32	SLU 84	0.68	No
fin.	3	-35	-127.97	91.32	SLU 84	0.71	No
ini.	3	-93	-121.91	91.32	SLU 79	0.75	No
fin.	3	-35	-118.31	91.32	SLU 79	0.77	No
ini.	3	-93	-121.91	91.32	SLU 77	0.75	No
fin.	3	-35	-118.31	91.32	SLU 77	0.77	No
ini.	3	-111	-133.75	91.32	SLU 83	0.68	No
fin.	3	-34	-127.84	91.32	SLU 83	0.71	No
ini.	3	-92	-121.71	91.32	SLU 75	0.75	No
fin.	3	-36	-118.44	91.32	SLU 75	0.77	No
ini.	3	-92	-121.71	91.32	SLU 78	0.75	No
fin.	3	-36	-118.44	91.32	SLU 78	0.77	No
ini.	3	-92	-121.71	91.32	SLU 80	0.75	No
fin.	3	-36	-118.44	91.32	SLU 80	0.77	No
ini.	3	-110	-133.55	91.32	SLU 82	0.68	No
fin.	3	-35	-127.97	91.32	SLU 82	0.71	No
ini.	3	-111	-133.75	91.32	SLU 81	0.68	No
fin.	3	-34	-127.84	91.32	SLU 81	0.71	No
ini.	3	-93	-121.91	91.32	SLU 74	0.75	No
fin.	3	-35	-118.31	91.32	SLU 74	0.77	No

## Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni non sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	3	0	-121.71	585			231	87	SLU 75	0.15	No
fin.	3	0	-118.44	-562			231	87	SLU 75	0.15	No
ini.	3	0	-121.91	585			231	87	SLU 77	0.15	No
fin.	3	0	-118.31	-562			231	87	SLU 77	0.15	No
ini.	3	0	-133.55	635			231	87	SLU 82	0.14	No
fin.	3	0	-127.97	-604			231	87	SLU 82	0.14	No
ini.	3	0	-121.71	585			231	87	SLU 78	0.15	No
fin.	3	0	-118.44	-562			231	87	SLU 78	0.15	No
ini.	3	0	-121.71	585			231	87	SLU 80	0.15	No
fin.	3	0	-118.44	-562			231	87	SLU 80	0.15	No
ini.	3	0	-133.55	635			231	87	SLU 84	0.14	No
fin.	3	0	-127.97	-604			231	87	SLU 84	0.14	No
ini.	3	0	-133.75	636			231	87	SLU 81	0.14	No
fin.	3	0	-127.84	-604			231	87	SLU 81	0.14	No
ini.	3	0	-121.91	585			231	87	SLU 79	0.15	No
fin.	3	0	-118.31	-562			231	87	SLU 79	0.15	No
ini.	3	0	-133.75	636			231	87	SLU 83	0.14	No
fin.	3	0	-127.84	-604			231	87	SLU 83	0.14	No
ini.	3	0	-121.91	585			231	87	SLU 74	0.15	No
fin.	3	0	-118.31	-562			231	87	SLU 74	0.15	No

## Verifiche a pressoflessione delle travi in muratura in combinazioni sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	2	452	7.03	136.99	SLV 15	19.48	Si
fin.	2	-526	-152.78	136.99	SLV 15	0.9	No
ini.	2	404	3.4	136.99	SLV 13	40.31	Si
fin.	2	-504	-146.75	136.99	SLV 13	0.93	No
ini.	2	-548	-161.28	136.99	SLV 1	0.85	No
fin.	2	472	-1.98	136.99	SLV 1	69.35	Si
ini.	2	452	7.03	136.99	SLV 16	19.48	Si
fin.	2	-526	-152.78	136.99	SLV 16	0.9	No
ini.	2	-500	-157.64	136.99	SLV 4	0.87	No
fin.	2	450	-8.01	136.99	SLV 4	17.11	Si
ini.	2	-500	-157.64	136.99	SLV 3	0.87	No
fin.	2	450	-8.01	136.99	SLV 3	17.11	Si
ini.	2	174	-46.36	136.99	SLV 12	2.95	Si
fin.	2	-210	-109.14	136.99	SLV 12	1.26	Si
ini.	2	-548	-161.28	136.99	SLV 2	0.85	No
fin.	2	472	-1.98	136.99	SLV 2	69.35	Si
ini.	2	174	-46.36	136.99	SLV 11	2.95	Si
fin.	2	-210	-109.14	136.99	SLV 11	1.26	Si
ini.	2	404	3.4	136.99	SLV 14	40.31	Si
fin.	2	-504	-146.75	136.99	SLV 14	0.93	No

## Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	2	0	3.4	135			347	130	SLV 14	0.96	No
fin.	2	0	-146.75	-585			347	130	SLV 14	0.22	No
ini.	2	0	7.03	133			347	130	SLV 15	0.98	No
fin.	2	0	-152.78	-606			347	130	SLV 15	0.22	No
ini.	2	0	-46.36	302			347	130	SLV 11	0.43	No
fin.	2	0	-109.14	-474			347	130	SLV 11	0.28	No
ini.	2	0	-161.28	624			347	130	SLV 2	0.21	No
fin.	2	0	-1.98	-138			347	130	SLV 2	0.94	No
ini.	2	0	-157.64	622			347	130	SLV 4	0.21	No



Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
fin.	2	0	-8.01	-159			347	130	SLV 4	0.82	No
ini.	2	0	7.03	133			347	130	SLV 16	0.98	No
fin.	2	0	-152.78	-606			347	130	SLV 16	0.22	No
ini.	2	0	-157.64	622			347	130	SLV 3	0.21	No
fin.	2	0	-8.01	-159			347	130	SLV 3	0.82	No
ini.	2	0	3.4	135			347	130	SLV 13	0.96	No
fin.	2	0	-146.75	-585			347	130	SLV 13	0.22	No
ini.	2	0	-161.28	624			347	130	SLV 1	0.21	No
fin.	2	0	-1.98	-138			347	130	SLV 1	0.94	No
ini.	2	0	-46.36	302			347	130	SLV 12	0.43	No
fin.	2	0	-109.14	-474			347	130	SLV 12	0.28	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLV	0.849	SLV 1	No
V_SLV	0.209	SLV 1	No
PF_SLU	0.683	SLU 81	No
V_SLU	0.137	SLU 81	No

## Trave di accoppiamento 8

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

### Dati geometrici

X ini.	Y ini.	Z ini.inf.	Z ini.sup.	H ini.	X fin.	Y fin.	Z fin.inf.	Z fin.sup.	H fin.	Luce	Spessore	R. Trazione
-23.277	-9.039	-0.91	1.09	2	-22.277	-9.039	-0.91	1.09	2	1	0.45	3500

### Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2\_Corti

fb	fhk	fvk0	fhmmedio	t0	fv0	μ	φ	fvk,lim	E	G	FC
120000			172500	9000	20000	0.577	0.767	6500	320000000	128000000	1.2

### Verifiche a pressoflessione delle travi in muratura in combinazioni non sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	3	-2413	135.48	3165.81	SLU 76	23.37	Si
fin.	3	-1405	-1090.53	3165.81	SLU 76	2.9	Si
ini.	3	-2413	134.16	3165.81	SLU 80	23.6	Si
fin.	3	-1406	-1089	3165.81	SLU 80	2.91	Si
ini.	3	-2572	181.27	3165.81	SLU 83	17.46	Si
fin.	3	-1459	-1199.37	3165.81	SLU 83	2.64	Si
ini.	3	-2413	134.16	3165.81	SLU 78	23.6	Si
fin.	3	-1406	-1089	3165.81	SLU 78	2.91	Si
ini.	3	-2413	135.48	3165.81	SLU 73	23.37	Si
fin.	3	-1405	-1090.53	3165.81	SLU 73	2.9	Si
ini.	3	-2572	183.25	3165.81	SLU 82	17.28	Si
fin.	3	-1457	-1201.66	3165.81	SLU 82	2.63	Si
ini.	3	-2413	132.18	3165.81	SLU 79	23.95	Si
fin.	3	-1408	-1086.71	3165.81	SLU 79	2.91	Si
ini.	3	-2413	134.16	3165.81	SLU 75	23.6	Si
fin.	3	-1406	-1089	3165.81	SLU 75	2.91	Si
ini.	3	-2572	183.25	3165.81	SLU 84	17.28	Si
fin.	3	-1457	-1201.66	3165.81	SLU 84	2.63	Si
ini.	3	-2572	181.27	3165.81	SLU 81	17.46	Si
fin.	3	-1459	-1199.37	3165.81	SLU 81	2.64	Si

### Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni non sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	3	0	183.25	-4003			3466	1304	SLU 84	0.33	No
fin.	3	0	-1201.66	-676			3466	1304	SLU 84	1.93	Si
ini.	3	0	200.21	-3620			3466	1304	SLU 42	0.36	No
fin.	3	0	-1074.83	-656			3466	1304	SLU 42	1.99	Si
ini.	3	0	198.23	-3615			3466	1304	SLU 41	0.36	No
fin.	3	0	-1072.54	-649			3466	1304	SLU 41	2.01	Si
ini.	3	0	135.48	-3607			3466	1304	SLU 76	0.36	No
fin.	3	0	-1090.53	-565			3466	1304	SLU 76	2.31	Si
ini.	3	0	183.25	-4003			3466	1304	SLU 82	0.33	No
fin.	3	0	-1201.66	-676			3466	1304	SLU 82	1.93	Si
ini.	3	0	181.27	-3997			3466	1304	SLU 83	0.33	No
fin.	3	0	-1199.37	-669			3466	1304	SLU 83	1.95	Si
ini.	3	0	198.23	-3615			3466	1304	SLU 39	0.36	No
fin.	3	0	-1072.54	-649			3466	1304	SLU 39	2.01	Si
ini.	3	0	200.21	-3620			3466	1304	SLU 40	0.36	No
fin.	3	0	-1074.83	-656			3466	1304	SLU 40	1.99	Si
ini.	3	0	181.27	-3997			3466	1304	SLU 81	0.33	No
fin.	3	0	-1199.37	-669			3466	1304	SLU 81	1.95	Si
ini.	3	0	135.48	-3607			3466	1304	SLU 73	0.36	No
fin.	3	0	-1090.53	-565			3466	1304	SLU 73	2.31	Si

### Verifiche a pressoflessione delle travi in muratura in combinazioni sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	2		-2307	990.78	3277.21	3.31	Si
fin.	2		-733	-1494.27	3277.21	2.19	Si
ini.	2		-2254	938.44	3277.21	3.49	Si
fin.	2		-699	-1665.91	3277.21	1.97	Si
ini.	2		-1741	228.01	3277.21	14.37	Si
fin.	2		-866	-1236.58	3277.21	2.65	Si





Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	2	-1741	228.01	3277.21	SLV 12	14.37	Si
fin.	2	-866	-1236.58	3277.21	SLV 12	2.65	Si
ini.	2	-1015	-864.55	3277.21	SLV 2	3.79	Si
fin.	2	-1321	304.51	3277.21	SLV 2	10.76	Si
ini.	2	-2254	938.44	3277.21	SLV 16	3.49	Si
fin.	2	-699	-1665.91	3277.21	SLV 16	1.97	Si
ini.	2	-962	-916.89	3277.21	SLV 4	3.57	Si
fin.	2	-1288	132.87	3277.21	SLV 4	24.66	Si
ini.	2	-2307	990.78	3277.21	SLV 14	3.31	Si
fin.	2	-733	-1494.27	3277.21	SLV 14	2.19	Si
ini.	2	-1015	-864.55	3277.21	SLV 1	3.79	Si
fin.	2	-1321	304.51	3277.21	SLV 1	10.76	Si
ini.	2	-962	-916.89	3277.21	SLV 3	3.57	Si
fin.	2	-1288	132.87	3277.21	SLV 3	24.66	Si

#### Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	2	0	938.44	-5311			5199	1957	SLV 16	0.37	No
fin.	2	0	-1665.91	-2590			5199	1957	SLV 16	0.76	No
ini.	2	0	402.49	-2982			5199	1957	SLV 10	0.66	No
fin.	2	0	-664.45	-1329			5199	1957	SLV 10	1.47	Si
ini.	2	0	-916.89	796			5199	1957	SLV 3	2.46	Si
fin.	2	0	132.87	2239			5199	1957	SLV 3	0.87	No
ini.	2	0	402.49	-2982			5199	1957	SLV 9	0.66	No
fin.	2	0	-664.45	-1329			5199	1957	SLV 9	1.47	Si
ini.	2	0	228.01	-3277			5199	1957	SLV 11	0.6	No
fin.	2	0	-1236.58	-668			5199	1957	SLV 11	2.93	Si
ini.	2	0	938.44	-5311			5199	1957	SLV 15	0.37	No
fin.	2	0	-1665.91	-2590			5199	1957	SLV 15	0.76	No
ini.	2	0	990.78	-5223			5199	1957	SLV 13	0.37	No
fin.	2	0	-1494.27	-2788			5199	1957	SLV 13	0.7	No
ini.	2	0	228.01	-3277			5199	1957	SLV 12	0.6	No
fin.	2	0	-1236.58	-668			5199	1957	SLV 12	2.93	Si
ini.	2	0	-916.89	796			5199	1957	SLV 4	2.46	Si
fin.	2	0	132.87	2239			5199	1957	SLV 4	0.87	No
ini.	2	0	990.78	-5223			5199	1957	SLV 14	0.37	No
fin.	2	0	-1494.27	-2788			5199	1957	SLV 14	0.7	No

#### Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLV	1.967	SLV 15	Si
V_SLV	0.368	SLV 15	No
PF_SLU	2.635	SLU 82	Si
V_SLU	0.326	SLU 82	No

## Trave di accoppiamento 9

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

#### Dati geometrici

X ini.	Y ini.	Z ini.inf.	Z ini.sup.	H ini.	X fin.	Y fin.	Z fin.inf.	Z fin.sup.	H fin.	Luce	Spessore	R. Trazione
-23.277	-9.039	1.49	1.69	0.2	-22.277	-9.039	1.49	1.69	0.2	1	0.45	3500

#### Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2\_Corti

fb	f <sub>nk</sub>	f <sub>vk0</sub>	f <sub>hmedio</sub>	τ <sub>0</sub>	f <sub>v0</sub>	μ	φ	f <sub>vk,lim</sub>	E	G	FC
120000			172500	9000	20000	0.577	0.767	6500	320000000	128000000	1.2

#### Verifiche a pressoflessione delle travi in muratura in combinazioni non sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	3	100	-113.98	91.32	SLU 76	0.8	No
fin.	3	100	-132.86	91.32	SLU 76	0.69	No
ini.	3	87	-112.05	91.32	SLU 40	0.82	No
fin.	3	87	-133.38	91.32	SLU 40	0.68	No
ini.	3	112	-123.99	91.32	SLU 82	0.74	No
fin.	3	112	-146.25	91.32	SLU 82	0.62	No
ini.	3	113	-124.05	91.32	SLU 83	0.74	No
fin.	3	113	-146.21	91.32	SLU 83	0.62	No
ini.	3	87	-112.1	91.32	SLU 39	0.81	No
fin.	3	87	-133.33	91.32	SLU 39	0.68	No
ini.	3	113	-124.05	91.32	SLU 81	0.74	No
fin.	3	113	-146.21	91.32	SLU 81	0.62	No
ini.	3	87	-112.05	91.32	SLU 42	0.82	No
fin.	3	87	-133.38	91.32	SLU 42	0.68	No
ini.	3	87	-112.1	91.32	SLU 41	0.81	No
fin.	3	87	-133.33	91.32	SLU 41	0.68	No
ini.	3	100	-113.98	91.32	SLU 73	0.8	No
fin.	3	100	-132.86	91.32	SLU 73	0.69	No
ini.	3	112	-123.99	91.32	SLU 84	0.74	No
fin.	3	112	-146.25	91.32	SLU 84	0.62	No

#### Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni non sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	3	0	-123.99	669			231	87	SLU 84	0.13	No
fin.	3	0	-146.25	-714			231	87	SLU 84	0.12	No
ini.	3	0	-123.99	669			231	87	SLU 82	0.13	No



Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
fin.	3	0	-146.25	-714			231	87	SLU 82	0.12	No
ini.	3	0	-114.02	617			231	87	SLU 78	0.14	No
fin.	3	0	-132.83	-655			231	87	SLU 78	0.13	No
ini.	3	0	-114.02	617			231	87	SLU 75	0.14	No
fin.	3	0	-132.83	-655			231	87	SLU 75	0.13	No
ini.	3	0	-114.07	617			231	87	SLU 79	0.14	No
fin.	3	0	-132.79	-655			231	87	SLU 79	0.13	No
ini.	3	0	-113.98	617			231	87	SLU 73	0.14	No
fin.	3	0	-132.86	-655			231	87	SLU 73	0.13	No
ini.	3	0	-124.05	669			231	87	SLU 81	0.13	No
fin.	3	0	-146.21	-714			231	87	SLU 81	0.12	No
ini.	3	0	-113.98	617			231	87	SLU 76	0.14	No
fin.	3	0	-132.86	-655			231	87	SLU 76	0.13	No
ini.	3	0	-124.05	669			231	87	SLU 83	0.13	No
fin.	3	0	-146.21	-714			231	87	SLU 83	0.12	No
ini.	3	0	-114.02	617			231	87	SLU 80	0.14	No
fin.	3	0	-132.83	-655			231	87	SLU 80	0.13	No

#### Verifiche a pressoflessione delle travi in muratura in combinazioni sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	2	-188	-110.38	136.99	SLV 2	1.24	Si
fin.	2	-86	-40.9	136.99	SLV 2	3.35	Si
ini.	2	324	-34.59	136.99	SLV 15	3.96	Si
fin.	2	222	-123.75	136.99	SLV 15	1.11	Si
ini.	2	324	-34.59	136.99	SLV 16	3.96	Si
fin.	2	222	-123.75	136.99	SLV 16	1.11	Si
ini.	2	205	-37.08	136.99	SLV 13	3.69	Si
fin.	2	116	-121.78	136.99	SLV 13	1.12	Si
ini.	2	-188	-110.38	136.99	SLV 1	1.24	Si
fin.	2	-86	-40.9	136.99	SLV 1	3.35	Si
ini.	2	325	-57.34	136.99	SLV 11	2.39	Si
fin.	2	275	-97.73	136.99	SLV 11	1.4	Si
ini.	2	-69	-107.89	136.99	SLV 4	1.27	Si
fin.	2	20	-42.87	136.99	SLV 4	3.2	Si
ini.	2	205	-37.08	136.99	SLV 14	3.69	Si
fin.	2	116	-121.78	136.99	SLV 14	1.12	Si
ini.	2	325	-57.34	136.99	SLV 12	2.39	Si
fin.	2	275	-97.73	136.99	SLV 12	1.4	Si
ini.	2	-69	-107.89	136.99	SLV 3	1.27	Si
fin.	2	20	-42.87	136.99	SLV 3	3.2	Si

#### Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	2	0	-34.59	347			347	130	SLV 15	0.38	No
fin.	2	0	-123.75	-478			347	130	SLV 15	0.27	No
ini.	2	0	-34.59	347			347	130	SLV 16	0.38	No
fin.	2	0	-123.75	-478			347	130	SLV 16	0.27	No
ini.	2	0	-57.34	392			347	130	SLV 11	0.33	No
fin.	2	0	-97.73	-449			347	130	SLV 11	0.29	No
ini.	2	0	-110.38	444			347	130	SLV 1	0.29	No
fin.	2	0	-40.9	-353			347	130	SLV 1	0.37	No
ini.	2	0	-37.08	340			347	130	SLV 14	0.38	No
fin.	2	0	-121.78	-468			347	130	SLV 14	0.28	No
ini.	2	0	-57.34	392			347	130	SLV 12	0.33	No
fin.	2	0	-97.73	-449			347	130	SLV 12	0.29	No
ini.	2	0	-110.38	444			347	130	SLV 2	0.29	No
fin.	2	0	-40.9	-353			347	130	SLV 2	0.37	No
ini.	2	0	-107.89	452			347	130	SLV 4	0.29	No
fin.	2	0	-42.87	-363			347	130	SLV 4	0.36	No
ini.	2	0	-107.89	452			347	130	SLV 3	0.29	No
fin.	2	0	-42.87	-363			347	130	SLV 3	0.36	No
ini.	2	0	-37.08	340			347	130	SLV 13	0.38	No
fin.	2	0	-121.78	-468			347	130	SLV 13	0.28	No

#### Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLV	1.107	SLV 15	Si
V_SLV	0.273	SLV 15	No
PF_SLU	0.624	SLU 82	No
V_SLU	0.122	SLU 82	No

### Trave di accoppiamento 10

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

#### Dati geometrici

X ini.	Y ini.	Z ini.inf.	Z ini.sup.	H ini.	X fin.	Y fin.	Z fin.inf.	Z fin.sup.	H fin.	Luce	Spessore	R. Trazione
-21.057	-14.744	1.19	1.69	0.5	-21.057	-13.794	1.19	1.69	0.5	0.95	0.45	3500

#### Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2\_Corti

fb	f <sub>hk</sub>	f <sub>vk0</sub>	f <sub>hmedio</sub>	τ <sub>0</sub>	f <sub>v0</sub>	μ	φ	f <sub>vk,lim</sub>	E	G	FC
120000			172500	9000	20000	0.577	0.767	6500	320000000	128000000	1.2



#### Verifiche a pressoflessione delle travi in muratura in combinazioni non sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	3	-1183	-275.72	540.81	SLU 82	1.96	Si
fin.	3	-812	4.08	540.81	SLU 82	132.67	Si
ini.	3	-1006	-262.23	540.81	SLU 74	2.06	Si
fin.	3	-652	4.17	540.81	SLU 74	129.62	Si
ini.	3	-1081	-254.38	540.81	SLU 75	2.13	Si
fin.	3	-756	-9.1	540.81	SLU 75	59.41	Si
ini.	3	-1108	-283.57	540.81	SLU 83	1.91	Si
fin.	3	-707	17.35	540.81	SLU 83	31.17	Si
ini.	3	-992	-256.1	540.81	SLU 62	2.11	Si
fin.	3	-650	1.71	540.81	SLU 62	316.57	Si
ini.	3	-1006	-262.23	540.81	SLU 79	2.06	Si
fin.	3	-652	4.17	540.81	SLU 79	129.62	Si
ini.	3	-1183	-275.72	540.81	SLU 84	1.96	Si
fin.	3	-812	4.08	540.81	SLU 84	132.67	Si
ini.	3	-1006	-262.23	540.81	SLU 77	2.06	Si
fin.	3	-652	4.17	540.81	SLU 77	129.62	Si
ini.	3	-992	-256.1	540.81	SLU 60	2.11	Si
fin.	3	-650	1.71	540.81	SLU 60	316.57	Si
ini.	3	-1108	-283.57	540.81	SLU 81	1.91	Si
fin.	3	-707	17.35	540.81	SLU 81	31.17	Si

#### Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni non sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	3	0	-283.57	1111			578	217	SLU 83	0.2	No
fin.	3	0	17.35	-261			578	217	SLU 83	0.83	No
ini.	3	0	-262.23	1058			578	217	SLU 74	0.21	No
fin.	3	0	4.17	-306			578	217	SLU 74	0.71	No
ini.	3	0	-275.72	1087			578	217	SLU 84	0.2	No
fin.	3	0	4.08	-297			578	217	SLU 84	0.73	No
ini.	3	0	-256.1	1036			578	217	SLU 62	0.21	No
fin.	3	0	1.71	-308			578	217	SLU 62	0.71	No
ini.	3	0	-262.23	1058			578	217	SLU 77	0.21	No
fin.	3	0	4.17	-306			578	217	SLU 77	0.71	No
ini.	3	0	-262.23	1058			578	217	SLU 79	0.21	No
fin.	3	0	4.17	-306			578	217	SLU 79	0.71	No
ini.	3	0	-256.1	1036			578	217	SLU 60	0.21	No
fin.	3	0	1.71	-308			578	217	SLU 60	0.71	No
ini.	3	0	-254.38	1034			578	217	SLU 80	0.21	No
fin.	3	0	-9.1	-342			578	217	SLU 80	0.64	No
ini.	3	0	-275.72	1087			578	217	SLU 82	0.2	No
fin.	3	0	4.08	-297			578	217	SLU 82	0.73	No
ini.	3	0	-283.57	1111			578	217	SLU 81	0.2	No
fin.	3	0	17.35	-261			578	217	SLU 81	0.83	No

#### Verifiche a pressoflessione delle travi in muratura in combinazioni sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	2	-451	15.15	652.21	SLV 11	43.05	Si
fin.	2	-686	-236.42	652.21	SLV 11	2.76	Si
ini.	2	-451	15.15	652.21	SLV 12	43.05	Si
fin.	2	-686	-236.42	652.21	SLV 12	2.76	Si
ini.	2	-1169	-269.07	652.21	SLV 13	2.42	Si
fin.	2	-808	50.4	652.21	SLV 13	12.94	Si
ini.	2	-816	-358.36	652.21	SLV 6	1.82	Si
fin.	2	-166	206.23	652.21	SLV 6	3.16	Si
ini.	2	-187	37.96	652.21	SLV 8	17.18	Si
fin.	2	-433	-235.93	652.21	SLV 8	2.76	Si
ini.	2	-1080	-381.17	652.21	SLV 9	1.71	Si
fin.	2	-419	205.73	652.21	SLV 9	3.17	Si
ini.	2	-816	-358.36	652.21	SLV 5	1.82	Si
fin.	2	-166	206.23	652.21	SLV 5	3.16	Si
ini.	2	-1080	-381.17	652.21	SLV 10	1.71	Si
fin.	2	-419	205.73	652.21	SLV 10	3.17	Si
ini.	2	-1169	-269.07	652.21	SLV 14	2.42	Si
fin.	2	-808	50.4	652.21	SLV 14	12.94	Si
ini.	2	-187	37.96	652.21	SLV 7	17.18	Si
fin.	2	-433	-235.93	652.21	SLV 7	2.76	Si

#### Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	2	0	-269.07	1070			867	326	SLV 14	0.3	No
fin.	2	0	50.4	5			867	326	SLV 14	64.09	Si
ini.	2	0	-358.36	1217			867	326	SLV 5	0.27	No
fin.	2	0	206.23	164			867	326	SLV 5	1.99	Si
ini.	2	0	-358.36	1217			867	326	SLV 6	0.27	No
fin.	2	0	206.23	164			867	326	SLV 6	1.99	Si
ini.	2	0	-381.17	1321			867	326	SLV 10	0.25	No
fin.	2	0	205.73	253			867	326	SLV 10	1.29	Si
ini.	2	0	-381.17	1321			867	326	SLV 9	0.25	No
fin.	2	0	205.73	253			867	326	SLV 9	1.29	Si
ini.	2	0	-269.07	1070			867	326	SLV 13	0.3	No
fin.	2	0	50.4	5			867	326	SLV 13	64.09	Si
ini.	2	0	15.15	258			867	326	SLV 11	1.27	Si
fin.	2	0	-236.42	-754			867	326	SLV 11	0.43	No
ini.	2	0	37.96	154			867	326	SLV 8	2.12	Si
fin.	2	0	-235.93	-844			867	326	SLV 8	0.39	No
ini.	2	0	37.96	154			867	326	SLV 7	2.12	Si
fin.	2	0	-235.93	-844			867	326	SLV 7	0.39	No
ini.	2	0	15.15	258			867	326	SLV 12	1.27	Si



Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
fin.	2	0	-236.42	-754			867	326	SLV 12	0.43	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLV	1.711	SLV 9	Si
V_SLV	0.247	SLV 9	No
PF_SLU	1.907	SLU 81	Si
V_SLU	0.196	SLU 81	No

Trave di accoppiamento 11

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati geometrici

X ini.	Y ini.	Z ini.inf.	Z ini.sup.	H ini.	X fin.	Y fin.	Z fin.inf.	Z fin.sup.	H fin.	Luce	Spessore	R. Trazione
-33.207	-13.489	3.79	5.62	1.83	-32.407	-13.489	3.79	5.62	1.83	0.8	0.3	3500

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2\_Corti

fb	fhk	fvk0	fhhmedio	t0	fv0	μ	φ	fvk,lim	E	G	FC
120000			172500	9000	20000	0.577	0.767	6500	320000000	128000000	1.2

Verifiche a pressoflessione delle travi in muratura in combinazioni non sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	3	-1189	1504.61	2701.22	SLU 40	1.8	Si
fin.	3	-1189	2086.39	2701.22	SLU 40	1.29	Si
ini.	3	-1189	1504.61	2701.22	SLU 42	1.8	Si
fin.	3	-1189	2086.39	2701.22	SLU 42	1.29	Si
ini.	3	-898	1374.62	2701.22	SLU 62	1.97	Si
fin.	3	-898	1869.03	2701.22	SLU 62	1.45	Si
ini.	3	-898	1374.62	2701.22	SLU 60	1.97	Si
fin.	3	-898	1869.03	2701.22	SLU 60	1.45	Si
ini.	3	-1271	1574.32	2701.22	SLU 41	1.72	Si
fin.	3	-1271	2137.25	2701.22	SLU 41	1.26	Si
ini.	3	-1271	1574.32	2701.22	SLU 39	1.72	Si
fin.	3	-1271	2137.25	2701.22	SLU 39	1.26	Si
ini.	3	-1077	1556.93	2701.22	SLU 84	1.73	Si
fin.	3	-1077	2152.42	2701.22	SLU 84	1.25	Si
ini.	3	-1159	1626.64	2701.22	SLU 83	1.66	Si
fin.	3	-1159	2203.28	2701.22	SLU 83	1.23	Si
ini.	3	-1159	1626.64	2701.22	SLU 81	1.66	Si
fin.	3	-1159	2203.28	2701.22	SLU 81	1.23	Si
ini.	3	-1077	1556.93	2701.22	SLU 82	1.73	Si
fin.	3	-1077	2152.42	2701.22	SLU 82	1.25	Si

Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni non sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	3	0	1556.93	3053			2114	796	SLU 84	0.26	No
fin.	3	0	2152.42	-1850			2114	796	SLU 84	0.43	No
ini.	3	0	1626.64	3029			2114	796	SLU 83	0.26	No
fin.	3	0	2203.28	-1873			2114	796	SLU 83	0.42	No
ini.	3	0	1556.93	3053			2114	796	SLU 82	0.26	No
fin.	3	0	2152.42	-1850			2114	796	SLU 82	0.43	No
ini.	3	0	1574.32	2829			2114	796	SLU 39	0.28	No
fin.	3	0	2137.25	-1736			2114	796	SLU 39	0.46	No
ini.	3	0	1504.61	2853			2114	796	SLU 42	0.28	No
fin.	3	0	2086.39	-1712			2114	796	SLU 42	0.46	No
ini.	3	0	1304.91	2679			2114	796	SLU 61	0.3	No
fin.	3	0	1818.17	-1610			2114	796	SLU 61	0.49	No
ini.	3	0	1304.91	2679			2114	796	SLU 63	0.3	No
fin.	3	0	1818.17	-1610			2114	796	SLU 63	0.49	No
ini.	3	0	1574.32	2829			2114	796	SLU 41	0.28	No
fin.	3	0	2137.25	-1736			2114	796	SLU 41	0.46	No
ini.	3	0	1626.64	3029			2114	796	SLU 81	0.26	No
fin.	3	0	2203.28	-1873			2114	796	SLU 81	0.42	No
ini.	3	0	1504.61	2853			2114	796	SLU 40	0.28	No
fin.	3	0	2086.39	-1712			2114	796	SLU 40	0.46	No

Verifiche a pressoflessione delle travi in muratura in combinazioni sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	2	-51	-2141.93	2868.31	SLV 1	1.34	Si
fin.	2	401	-511.26	2868.31	SLV 1	5.61	Si
ini.	2	-138	3920.56	2868.31	SLV 12	0.73	No
fin.	2	468	4143.49	2868.31	SLV 12	0.69	No
ini.	2	-14	2678.31	2868.31	SLV 8	1.07	Si
fin.	2	1009	3822.17	2868.31	SLV 8	0.75	No
ini.	2	-380	3554.74	2868.31	SLV 16	0.81	No
fin.	2	-832	2386.83	2868.31	SLV 16	1.2	Si
ini.	2	-293	-2507.76	2868.31	SLV 5	1.14	Si
fin.	2	-899	-2267.92	2868.31	SLV 5	1.26	Si
ini.	2	-14	2678.31	2868.31	SLV 7	1.07	Si
fin.	2	1009	3822.17	2868.31	SLV 7	0.75	No
ini.	2	-51	-2141.93	2868.31	SLV 2	1.34	Si
fin.	2	401	-511.26	2868.31	SLV 2	5.61	Si
ini.	2	-138	3920.56	2868.31	SLV 11	0.73	No
fin.	2	468	4143.49	2868.31	SLV 11	0.69	No



Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	2	-293	-2507.76	2868.31	SLV 6	1.14	Si
fin.	2	-899	-2267.92	2868.31	SLV 6	1.26	Si
ini.	2	-380	3554.74	2868.31	SLV 15	0.81	No
fin.	2	-832	2386.83	2868.31	SLV 15	1.2	Si

Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	2	0	3920.56	79			3171	1193	SLV 11	15.03	Si
fin.	2	0	4143.49	-3930			3171	1193	SLV 11	0.3	No
ini.	2	0	-586.11	3692			3171	1193	SLV 4	0.32	No
fin.	2	0	1315.77	807			3171	1193	SLV 4	1.48	Si
ini.	2	0	-2141.93	4093			3171	1193	SLV 1	0.29	No
fin.	2	0	-511.26	2156			3171	1193	SLV 1	0.55	No
ini.	2	0	-2507.76	2865			3171	1193	SLV 5	0.42	No
fin.	2	0	-2267.92	2024			3171	1193	SLV 5	0.59	No
ini.	2	0	-586.11	3692			3171	1193	SLV 3	0.32	No
fin.	2	0	1315.77	807			3171	1193	SLV 3	1.48	Si
ini.	2	0	-2141.93	4093			3171	1193	SLV 2	0.29	No
fin.	2	0	-511.26	2156			3171	1193	SLV 2	0.55	No
ini.	2	0	3554.74	-1148			3171	1193	SLV 16	1.04	Si
fin.	2	0	2386.83	-4061			3171	1193	SLV 16	0.29	No
ini.	2	0	3554.74	-1148			3171	1193	SLV 15	1.04	Si
fin.	2	0	2386.83	-4061			3171	1193	SLV 15	0.29	No
ini.	2	0	-2507.76	2865			3171	1193	SLV 6	0.42	No
fin.	2	0	-2267.92	2024			3171	1193	SLV 6	0.59	No
ini.	2	0	3920.56	79			3171	1193	SLV 12	15.03	Si
fin.	2	0	4143.49	-3930			3171	1193	SLV 12	0.3	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLV	0.692	SLV 11	No
V_SLV	0.292	SLV 1	No
PF_SLU	1.226	SLU 81	Si
V_SLU	0.261	SLU 82	No

## Trave di accoppiamento 12

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati geometrici

X ini.	Y ini.	Z ini.inf.	Z ini.sup.	H ini.	X fin.	Y fin.	Z fin.inf.	Z fin.sup.	H fin.	Luce	Spessore	R. Trazione
-32.087	-13.489	3.79	5.62	1.83	-31.287	-13.489	3.79	5.62	1.83	0.8	0.3	3500

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2\_Corti

fb <sub>m</sub>	f <sub>hk</sub>	f <sub>vk0</sub>	f <sub>hmedio</sub>	τ <sub>0</sub>	f <sub>t0</sub>	μ	φ	f <sub>vk,lim</sub>	E	G	FC
120000			172500	9000	20000	0.577	0.767	6500	320000000	128000000	1.2

Verifiche a pressoflessione delle travi in muratura in combinazioni non sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	3	-1145	2044.41	2701.22	SLU 83	1.32	Si
fin.	3	-1145	422.78	2701.22	SLU 83	6.39	Si
ini.	3	-1177	1946.66	2701.22	SLU 42	1.39	Si
fin.	3	-1177	428.64	2701.22	SLU 42	6.3	Si
ini.	3	-1258	1988.39	2701.22	SLU 39	1.36	Si
fin.	3	-1258	439.34	2701.22	SLU 39	6.15	Si
ini.	3	-1258	1988.39	2701.22	SLU 41	1.36	Si
fin.	3	-1258	439.34	2701.22	SLU 41	6.15	Si
ini.	3	-886	1733.13	2701.22	SLU 60	1.56	Si
fin.	3	-886	349.91	2701.22	SLU 60	7.72	Si
ini.	3	-1177	1946.66	2701.22	SLU 40	1.39	Si
fin.	3	-1177	428.64	2701.22	SLU 40	6.3	Si
ini.	3	-1145	2044.41	2701.22	SLU 81	1.32	Si
fin.	3	-1145	422.78	2701.22	SLU 81	6.39	Si
ini.	3	-1063	2002.68	2701.22	SLU 84	1.35	Si
fin.	3	-1063	412.08	2701.22	SLU 84	6.56	Si
ini.	3	-1063	2002.68	2701.22	SLU 82	1.35	Si
fin.	3	-1063	412.08	2701.22	SLU 82	6.56	Si
ini.	3	-886	1733.13	2701.22	SLU 62	1.56	Si
fin.	3	-886	349.91	2701.22	SLU 62	7.72	Si

Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni non sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	3	0	1988.39	-194			2114	796	SLU 39	4.11	Si
fin.	3	0	439.34	-4714			2114	796	SLU 39	0.17	No
ini.	3	0	1946.66	-155			2114	796	SLU 42	5.13	Si
fin.	3	0	428.64	-4675			2114	796	SLU 42	0.17	No
ini.	3	0	1733.13	-54			2114	796	SLU 60	14.68	Si
fin.	3	0	349.91	-4284			2114	796	SLU 60	0.19	No
ini.	3	0	1988.39	-194			2114	796	SLU 41	4.11	Si
fin.	3	0	439.34	-4714			2114	796	SLU 41	0.17	No
ini.	3	0	1946.66	-155			2114	796	SLU 40	5.13	Si
fin.	3	0	428.64	-4675			2114	796	SLU 40	0.17	No
ini.	3	0	1733.13	-54			2114	796	SLU 62	14.68	Si
fin.	3	0	349.91	-4284			2114	796	SLU 62	0.19	No
ini.	3	0	2044.41	-131			2114	796	SLU 81	6.07	Si



Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
fin.	3	0	422.78	-4974			2114	796	SLU 81	0.16	No
ini.	3	0	2002.68	-92			2114	796	SLU 82	8.63	Si
fin.	3	0	412.08	-4935			2114	796	SLU 82	0.16	No
ini.	3	0	2044.41	-131			2114	796	SLU 83	6.07	Si
fin.	3	0	422.78	-4974			2114	796	SLU 83	0.16	No
ini.	3	0	2002.68	-92			2114	796	SLU 84	8.63	Si
fin.	3	0	412.08	-4935			2114	796	SLU 84	0.16	No

#### Verifiche a pressoflessione delle travi in muratura in combinazioni sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	2	-2178	-871.94	2868.31	SLV 10	3.29	Si
fin.	2	-3456	3013.79	2868.31	SLV 10	0.95	No
ini.	2	-2178	-871.94	2868.31	SLV 9	3.29	Si
fin.	2	-3456	3013.79	2868.31	SLV 9	0.95	No
ini.	2	1762	2588.6	2868.31	SLV 8	1.11	Si
fin.	2	3040	-2780.63	2868.31	SLV 8	1.03	Si
ini.	2	1170	2566.51	2868.31	SLV 11	1.12	Si
fin.	2	1967	-3679.67	2868.31	SLV 11	0.78	No
ini.	2	1170	2566.51	2868.31	SLV 12	1.12	Si
fin.	2	1967	-3679.67	2868.31	SLV 12	0.78	No
ini.	2	-1586	-849.85	2868.31	SLV 6	3.38	Si
fin.	2	-2383	3912.82	2868.31	SLV 6	0.73	No
ini.	2	277	379.38	2868.31	SLV 1	7.56	Si
fin.	2	767	2618.99	2868.31	SLV 1	1.1	Si
ini.	2	277	379.38	2868.31	SLV 2	7.56	Si
fin.	2	767	2618.99	2868.31	SLV 2	1.1	Si
ini.	2	1762	2588.6	2868.31	SLV 7	1.11	Si
fin.	2	3040	-2780.63	2868.31	SLV 7	1.03	Si
ini.	2	-1586	-849.85	2868.31	SLV 5	3.38	Si
fin.	2	-2383	3912.82	2868.31	SLV 5	0.73	No

#### Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	2	0	379.38	3314			3171	1193	SLV 2	0.36	No
fin.	2	0	2618.99	1241			3171	1193	SLV 2	0.96	No
ini.	2	0	305.75	-1857			3171	1193	SLV 14	0.64	No
fin.	2	0	-377.8	-3937			3171	1193	SLV 14	0.3	No
ini.	2	0	1337.29	-3211			3171	1193	SLV 15	0.37	No
fin.	2	0	-2385.83	-5896			3171	1193	SLV 15	0.2	No
ini.	2	0	2588.6	-1429			3171	1193	SLV 7	0.84	No
fin.	2	0	-2780.63	-4816			3171	1193	SLV 7	0.25	No
ini.	2	0	2566.51	-2980			3171	1193	SLV 12	0.4	No
fin.	2	0	-3679.67	-6370			3171	1193	SLV 12	0.19	No
ini.	2	0	2588.6	-1429			3171	1193	SLV 8	0.84	No
fin.	2	0	-2780.63	-4816			3171	1193	SLV 8	0.25	No
ini.	2	0	1337.29	-3211			3171	1193	SLV 16	0.37	No
fin.	2	0	-2385.83	-5896			3171	1193	SLV 16	0.2	No
ini.	2	0	379.38	3314			3171	1193	SLV 1	0.36	No
fin.	2	0	2618.99	1241			3171	1193	SLV 1	0.96	No
ini.	2	0	305.75	-1857			3171	1193	SLV 13	0.64	No
fin.	2	0	-377.8	-3937			3171	1193	SLV 13	0.3	No
ini.	2	0	2566.51	-2980			3171	1193	SLV 11	0.4	No
fin.	2	0	-3679.67	-6370			3171	1193	SLV 11	0.19	No

#### Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLV	0.733	SLV 5	No
V_SLV	0.187	SLV 11	No
PF_SLU	1.321	SLU 81	Si
V_SLU	0.16	SLU 81	No

### Trave di accoppiamento 13

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

#### Dati geometrici

X ini.	Y ini.	Z ini.inf.	Z ini.sup.	H ini.	X fin.	Y fin.	Z fin.inf.	Z fin.sup.	H fin.	Luce	Spessore	R. Trazione
-34.232	-17.999	1.69	2.69	1	-33.232	-17.999	1.69	2.69	1	1	0.3	3500

#### Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2\_Corti

fb	f <sub>hk</sub>	f <sub>vk0</sub>	f <sub>hmedio</sub>	t <sub>0</sub>	f <sub>v0</sub>	μ	φ	f <sub>vk,lim</sub>	E	G	FC
120000			172500	9000	20000	0.577	0.767	6500	320000000	128000000	1.2

#### Verifiche a pressoflessione delle travi in muratura in combinazioni non sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	3	2924	-459.98	1248.72	SLU 73	2.71	Si
fin.	3	4939	1205.35	1248.72	SLU 73	1.04	Si
ini.	3	2605	-421.84	1248.72	SLU 13	2.96	Si
fin.	3	4561	1085.54	1248.72	SLU 13	1.15	Si
ini.	3	2924	-459.98	1248.72	SLU 76	2.71	Si
fin.	3	4939	1205.35	1248.72	SLU 76	1.04	Si
ini.	3	2605	-421.84	1248.72	SLU 10	2.96	Si
fin.	3	4561	1085.54	1248.72	SLU 10	1.15	Si
ini.	3	2748	-463.75	1248.72	SLU 34	2.69	Si
fin.	3	4700	1143	1248.72	SLU 34	1.09	Si



Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	3	2748	-463.75	1248.72	SLU 31	2.69	Si
fin.	3	4700	1143	1248.72	SLU 31	1.09	Si
ini.	3	2781	-418.06	1248.72	SLU 55	2.99	Si
fin.	3	4800	1147.89	1248.72	SLU 55	1.09	Si
ini.	3	2588	-344.87	1248.72	SLU 68	3.62	Si
fin.	3	4633	1062.21	1248.72	SLU 68	1.18	Si
ini.	3	2781	-418.06	1248.72	SLU 52	2.99	Si
fin.	3	4800	1147.89	1248.72	SLU 52	1.09	Si
ini.	3	2588	-344.87	1248.72	SLU 65	3.62	Si
fin.	3	4633	1062.21	1248.72	SLU 65	1.18	Si

Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni non sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	3	0	-237.89	-534			1155	435	SLU 83	0.81	No
fin.	3	0	597.8	2890			1155	435	SLU 83	0.15	No
ini.	3	0	-188.56	-549			1155	435	SLU 77	0.79	No
fin.	3	0	536.45	2582			1155	435	SLU 77	0.17	No
ini.	3	0	-241.67	-403			1155	435	SLU 39	1.08	Si
fin.	3	0	535.45	2605			1155	435	SLU 39	0.17	No
ini.	3	0	-195.98	-528			1155	435	SLU 62	0.82	No
fin.	3	0	540.34	2596			1155	435	SLU 62	0.17	No
ini.	3	0	-400.74	-144			1155	435	SLU 82	3.01	Si
fin.	3	0	999.14	2762			1155	435	SLU 82	0.16	No
ini.	3	0	-188.56	-549			1155	435	SLU 79	0.79	No
fin.	3	0	536.45	2582			1155	435	SLU 79	0.17	No
ini.	3	0	-241.67	-403			1155	435	SLU 41	1.08	Si
fin.	3	0	535.45	2605			1155	435	SLU 41	0.17	No
ini.	3	0	-400.74	-144			1155	435	SLU 84	3.01	Si
fin.	3	0	999.14	2762			1155	435	SLU 84	0.16	No
ini.	3	0	-237.89	-534			1155	435	SLU 81	0.81	No
fin.	3	0	597.8	2890			1155	435	SLU 81	0.15	No
ini.	3	0	-195.98	-528			1155	435	SLU 60	0.82	No
fin.	3	0	540.34	2596			1155	435	SLU 60	0.17	No

Verifiche a pressoflessione delle travi in muratura in combinazioni sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	2	-4436	576.03	1415.81	SLV 9	2.46	Si
fin.	2	-9269	-1710.73	1415.81	SLV 9	0.83	No
ini.	2	6212	-736.39	1415.81	SLV 8	1.92	Si
fin.	2	11431	2372.36	1415.81	SLV 8	0.6	No
ini.	2	-3277	8.46	1415.81	SLV 13	167.28	Si
fin.	2	-3553	-1226.13	1415.81	SLV 13	1.15	Si
ini.	2	4518	-807.74	1415.81	SLV 11	1.75	Si
fin.	2	10423	1749.63	1415.81	SLV 11	0.81	No
ini.	2	-4436	576.03	1415.81	SLV 10	2.46	Si
fin.	2	-9269	-1710.73	1415.81	SLV 10	0.83	No
ini.	2	6212	-736.39	1415.81	SLV 7	1.92	Si
fin.	2	11431	2372.36	1415.81	SLV 7	0.6	No
ini.	2	5053	-168.82	1415.81	SLV 3	8.39	Si
fin.	2	5715	1887.76	1415.81	SLV 3	0.75	No
ini.	2	-3277	8.46	1415.81	SLV 14	167.28	Si
fin.	2	-3553	-1226.13	1415.81	SLV 14	1.15	Si
ini.	2	4518	-807.74	1415.81	SLV 12	1.75	Si
fin.	2	10423	1749.63	1415.81	SLV 12	0.81	No
ini.	2	5053	-168.82	1415.81	SLV 4	8.39	Si
fin.	2	5715	1887.76	1415.81	SLV 4	0.75	No

Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	2	0	246.31	-103			1733	652	SLV 2	6.31	Si
fin.	2	0	849.66	3552			1733	652	SLV 2	0.18	No
ini.	2	0	-168.82	758			1733	652	SLV 3	0.86	No
fin.	2	0	1887.76	3549			1733	652	SLV 3	0.18	No
ini.	2	0	246.31	-103			1733	652	SLV 1	6.31	Si
fin.	2	0	849.66	3552			1733	652	SLV 1	0.18	No
ini.	2	0	647.38	-1644			1733	652	SLV 5	0.4	No
fin.	2	0	-1087.99	2173			1733	652	SLV 5	0.3	No
ini.	2	0	-736.39	1228			1733	652	SLV 7	0.53	No
fin.	2	0	2372.36	2161			1733	652	SLV 7	0.3	No
ini.	2	0	647.38	-1644			1733	652	SLV 6	0.4	No
fin.	2	0	-1087.99	2173			1733	652	SLV 6	0.3	No
ini.	2	0	-168.82	758			1733	652	SLV 4	0.86	No
fin.	2	0	1887.76	3549			1733	652	SLV 4	0.18	No
ini.	2	0	576.03	-2103			1733	652	SLV 10	0.31	No
fin.	2	0	-1710.73	988			1733	652	SLV 10	0.66	No
ini.	2	0	576.03	-2103			1733	652	SLV 9	0.31	No
fin.	2	0	-1710.73	988			1733	652	SLV 9	0.66	No
ini.	2	0	-736.39	1228			1733	652	SLV 8	0.53	No
fin.	2	0	2372.36	2161			1733	652	SLV 8	0.3	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLV	0.597	SLV 7	No
V_SLV	0.184	SLV 1	No
PF_SLU	1.036	SLU 73	Si
V_SLU	0.15	SLU 81	No



## Trave di accoppiamento 14

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

### Dati geometrici

X ini.	Y ini.	Z ini.inf.	Z ini.sup.	H ini.	X fin.	Y fin.	Z fin.inf.	Z fin.sup.	H fin.	Luce	Spessore	R. Trazione
-34.232	-17.999	4.59	5.62	1.03	-33.232	-17.999	4.59	5.62	1.03	1	0.3	3500

### Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2\_Corti

fb <sub>m</sub>	f <sub>hk</sub>	f <sub>vk0</sub>	f <sub>hmedio</sub>	τ <sub>0</sub>	f <sub>v0</sub>	μ	φ	f <sub>vk,lim</sub>	E	G	FC
120000			172500	9000	20000	0.577	0.767	6500	320000000	128000000	1.2

### Verifiche a pressoflessione delle travi in muratura in combinazioni non sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	3	-1582	-534.73	1301.22	SLU 13	2.43	Si
fin.	3	-1582	936.16	1301.22	SLU 13	1.39	Si
ini.	3	-1720	-545.11	1301.22	SLU 31	2.39	Si
fin.	3	-1720	995.09	1301.22	SLU 31	1.31	Si
ini.	3	-1403	-540.23	1301.22	SLU 65	2.41	Si
fin.	3	-1403	892.24	1301.22	SLU 65	1.46	Si
ini.	3	-1720	-545.11	1301.22	SLU 34	2.39	Si
fin.	3	-1720	995.09	1301.22	SLU 34	1.31	Si
ini.	3	-1774	-568.08	1301.22	SLU 73	2.29	Si
fin.	3	-1774	1043.26	1301.22	SLU 73	1.25	Si
ini.	3	-1403	-540.23	1301.22	SLU 68	2.41	Si
fin.	3	-1403	892.24	1301.22	SLU 68	1.46	Si
ini.	3	-1774	-568.08	1301.22	SLU 76	2.29	Si
fin.	3	-1774	1043.26	1301.22	SLU 76	1.25	Si
ini.	3	-1635	-557.69	1301.22	SLU 52	2.33	Si
fin.	3	-1635	984.34	1301.22	SLU 52	1.32	Si
ini.	3	-1582	-534.73	1301.22	SLU 10	2.43	Si
fin.	3	-1582	936.16	1301.22	SLU 10	1.39	Si
ini.	3	-1635	-557.69	1301.22	SLU 55	2.33	Si
fin.	3	-1635	984.34	1301.22	SLU 55	1.32	Si

### Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni non sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	3	0	-568.08	3049			1190	448	SLU 73	0.15	No
fin.	3	0	1043.26	-19			1190	448	SLU 73	23.31	Si
ini.	3	0	-545.11	2884			1190	448	SLU 34	0.16	No
fin.	3	0	995.09	12			1190	448	SLU 34	36.13	Si
ini.	3	0	-412.62	2972			1190	448	SLU 82	0.15	No
fin.	3	0	885.09	-605			1190	448	SLU 82	0.74	No
ini.	3	0	-412.62	2972			1190	448	SLU 84	0.15	No
fin.	3	0	885.09	-605			1190	448	SLU 84	0.74	No
ini.	3	0	-568.08	3049			1190	448	SLU 76	0.15	No
fin.	3	0	1043.26	-19			1190	448	SLU 76	23.31	Si
ini.	3	0	-545.11	2884			1190	448	SLU 31	0.16	No
fin.	3	0	995.09	12			1190	448	SLU 31	36.13	Si
ini.	3	0	-557.69	2755			1190	448	SLU 52	0.16	No
fin.	3	0	984.34	168			1190	448	SLU 52	2.66	Si
ini.	3	0	-389.66	2808			1190	448	SLU 42	0.16	No
fin.	3	0	836.92	-573			1190	448	SLU 42	0.78	No
ini.	3	0	-557.69	2755			1190	448	SLU 55	0.16	No
fin.	3	0	984.34	168			1190	448	SLU 55	2.66	Si
ini.	3	0	-389.66	2808			1190	448	SLU 40	0.16	No
fin.	3	0	836.92	-573			1190	448	SLU 40	0.78	No

### Verifiche a pressoflessione delle travi in muratura in combinazioni sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	2	1921	1106.26	1468.31	SLV 10	1.33	Si
fin.	2	1413	-1532.86	1468.31	SLV 10	0.96	No
ini.	2	-1229	-877.2	1468.31	SLV 4	1.67	Si
fin.	2	-644	1365.92	1468.31	SLV 4	1.07	Si
ini.	2	1904	831.85	1468.31	SLV 5	1.77	Si
fin.	2	1682	-1182.23	1468.31	SLV 5	1.24	Si
ini.	2	-2868	-1030.54	1468.31	SLV 12	1.42	Si
fin.	2	-2647	1758.04	1468.31	SLV 12	0.84	No
ini.	2	1921	1106.26	1468.31	SLV 9	1.33	Si
fin.	2	1413	-1532.86	1468.31	SLV 9	0.96	No
ini.	2	-2868	-1030.54	1468.31	SLV 11	1.42	Si
fin.	2	-2647	1758.04	1468.31	SLV 11	0.84	No
ini.	2	1904	831.85	1468.31	SLV 6	1.77	Si
fin.	2	1682	-1182.23	1468.31	SLV 6	1.24	Si
ini.	2	-2885	-1304.94	1468.31	SLV 8	1.13	Si
fin.	2	-2378	2108.67	1468.31	SLV 8	0.7	No
ini.	2	-1229	-877.2	1468.31	SLV 3	1.67	Si
fin.	2	-644	1365.92	1468.31	SLV 3	1.07	Si
ini.	2	-2885	-1304.94	1468.31	SLV 7	1.13	Si
fin.	2	-2378	2108.67	1468.31	SLV 7	0.7	No

### Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	2	0	-1030.54	3528			1785	672	SLV 12	0.19	No
fin.	2	0	1758.04	1847			1785	672	SLV 12	0.36	No
ini.	2	0	-1030.54	3528			1785	672	SLV 11	0.19	No
fin.	2	0	1758.04	1847			1785	672	SLV 11	0.36	No
ini.	2	0	1106.26	-1896			1785	672	SLV 9	0.35	No





Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
fin.	2	0	-1532.86	-3573			1785	672	SLV 9	0.19	No
ini.	2	0	1106.26	-1896			1785	672	SLV 10	0.35	No
fin.	2	0	-1532.86	-3573			1785	672	SLV 10	0.19	No
ini.	2	0	831.85	-1176			1785	672	SLV 5	0.57	No
fin.	2	0	-1182.23	-2855			1785	672	SLV 5	0.24	No
ini.	2	0	-1304.94	4247			1785	672	SLV 8	0.16	No
fin.	2	0	2108.67	2566			1785	672	SLV 8	0.26	No
ini.	2	0	831.85	-1176			1785	672	SLV 6	0.57	No
fin.	2	0	-1182.23	-2855			1785	672	SLV 6	0.24	No
ini.	2	0	-877.2	3189			1785	672	SLV 3	0.21	No
fin.	2	0	1365.92	1507			1785	672	SLV 3	0.45	No
ini.	2	0	-877.2	3189			1785	672	SLV 4	0.21	No
fin.	2	0	1365.92	1507			1785	672	SLV 4	0.45	No
ini.	2	0	-1304.94	4247			1785	672	SLV 7	0.16	No
fin.	2	0	2108.67	2566			1785	672	SLV 7	0.26	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLV	0.696	SLV 7	No
V_SLV	0.158	SLV 7	No
PF_SLU	1.247	SLU 73	Si
V_SLU	0.147	SLU 73	No

## Trave di accoppiamento 15

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

### Dati geometrici

X ini.	Y ini.	Z ini.inf.	Z ini.sup.	H ini.	X fin.	Y fin.	Z fin.inf.	Z fin.sup.	H fin.	Luce	Spessore	R. Trazione
-30.572	-17.999	1.69	2.69	1	-29.572	-17.999	1.69	2.69	1	1	0.3	3500

### Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2\_Corti

f <sub>b</sub>	f <sub>hk</sub>	f <sub>vk0</sub>	f <sub>hmedio</sub>	τ <sub>0</sub>	f <sub>v0</sub>	μ	φ	f <sub>vk,lim</sub>	E	G	FC
120000			172500	9000	20000	0.577	0.767	6500	320000000	128000000	1.2

### Verifiche a pressoflessione delle travi in muratura in combinazioni non sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	3	2091	1297.62	1248.72	SLU 34	0.96	No
fin.	3	-1564	-724.33	1248.72	SLU 34	1.72	Si
ini.	3	2111	1312.59	1248.72	SLU 55	0.95	No
fin.	3	-1621	-727.93	1248.72	SLU 55	1.72	Si
ini.	3	2140	1371.37	1248.72	SLU 73	0.91	No
fin.	3	-1716	-748.87	1248.72	SLU 73	1.67	Si
ini.	3	2061	1238.84	1248.72	SLU 13	1.01	Si
fin.	3	-1469	-703.39	1248.72	SLU 13	1.78	Si
ini.	3	2140	1371.37	1248.72	SLU 76	0.91	No
fin.	3	-1716	-748.87	1248.72	SLU 76	1.67	Si
ini.	3	2090	1224.27	1248.72	SLU 68	1.02	Si
fin.	3	-1495	-693.89	1248.72	SLU 68	1.8	Si
ini.	3	2090	1224.27	1248.72	SLU 65	1.02	Si
fin.	3	-1495	-693.89	1248.72	SLU 65	1.8	Si
ini.	3	2061	1238.84	1248.72	SLU 10	1.01	Si
fin.	3	-1469	-703.39	1248.72	SLU 10	1.78	Si
ini.	3	2091	1297.62	1248.72	SLU 31	0.96	No
fin.	3	-1564	-724.33	1248.72	SLU 31	1.72	Si
ini.	3	2111	1312.59	1248.72	SLU 52	0.95	No
fin.	3	-1621	-727.93	1248.72	SLU 52	1.72	Si

### Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni non sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	3	0	1059.88	-2472			1155	435	SLU 80	0.18	No
fin.	3	0	-531.8	1015			1155	435	SLU 80	0.43	No
ini.	3	0	1059.88	-2472			1155	435	SLU 78	0.18	No
fin.	3	0	-531.8	1015			1155	435	SLU 78	0.43	No
ini.	3	0	1064.15	-2479			1155	435	SLU 63	0.18	No
fin.	3	0	-534.42	999			1155	435	SLU 63	0.44	No
ini.	3	0	1371.37	-2516			1155	435	SLU 76	0.17	No
fin.	3	0	-748.87	821			1155	435	SLU 76	0.53	No
ini.	3	0	655.68	-2666			1155	435	SLU 81	0.16	No
fin.	3	0	-229.76	1422			1155	435	SLU 81	0.31	No
ini.	3	0	1122.92	-2733			1155	435	SLU 82	0.16	No
fin.	3	0	-555.36	1130			1155	435	SLU 82	0.38	No
ini.	3	0	1371.37	-2516			1155	435	SLU 73	0.17	No
fin.	3	0	-748.87	821			1155	435	SLU 73	0.53	No
ini.	3	0	1064.15	-2479			1155	435	SLU 61	0.18	No
fin.	3	0	-534.42	999			1155	435	SLU 61	0.44	No
ini.	3	0	1122.92	-2733			1155	435	SLU 84	0.16	No
fin.	3	0	-555.36	1130			1155	435	SLU 84	0.38	No
ini.	3	0	655.68	-2666			1155	435	SLU 83	0.16	No
fin.	3	0	-229.76	1422			1155	435	SLU 83	0.31	No

### Verifiche a pressoflessione delle travi in muratura in combinazioni sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	2	-7051	-2827.23	1415.81	SLV 5	0.5	No
fin.	2	1597	2162.33	1415.81	SLV 5	0.65	No



Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	2	7495	3570.89	1415.81	SLV 12	0.4	No
fin.	2	-3007	-2417.17	1415.81	SLV 12	0.59	No
ini.	2	7361	2971.67	1415.81	SLV 7	0.48	No
fin.	2	-4043	-2252.38	1415.81	SLV 7	0.63	No
ini.	2	2607	2240.37	1415.81	SLV 16	0.63	No
fin.	2	175	-1064.28	1415.81	SLV 16	1.33	Si
ini.	2	7361	2971.67	1415.81	SLV 8	0.48	No
fin.	2	-4043	-2252.38	1415.81	SLV 8	0.63	No
ini.	2	-6917	-2228.01	1415.81	SLV 10	0.64	No
fin.	2	2632	1997.53	1415.81	SLV 10	0.71	No
ini.	2	7495	3570.89	1415.81	SLV 11	0.4	No
fin.	2	-3007	-2417.17	1415.81	SLV 11	0.59	No
ini.	2	-7051	-2827.23	1415.81	SLV 6	0.5	No
fin.	2	1597	2162.33	1415.81	SLV 6	0.65	No
ini.	2	-6917	-2228.01	1415.81	SLV 9	0.64	No
fin.	2	2632	1997.53	1415.81	SLV 9	0.71	No
ini.	2	2607	2240.37	1415.81	SLV 15	0.63	No
fin.	2	175	-1064.28	1415.81	SLV 15	1.33	Si

Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	2	0	242.96	511			1733	652	SLV 4	1.28	Si
fin.	2	0	-514.98	2540			1733	652	SLV 4	0.26	No
ini.	2	0	-1496.7	656			1733	652	SLV 2	0.99	No
fin.	2	0	809.44	3487			1733	652	SLV 2	0.19	No
ini.	2	0	2240.37	-3657			1733	652	SLV 15	0.18	No
fin.	2	0	-1064.28	-1792			1733	652	SLV 15	0.36	No
ini.	2	0	2240.37	-3657			1733	652	SLV 16	0.18	No
fin.	2	0	-1064.28	-1792			1733	652	SLV 16	0.36	No
ini.	2	0	-1496.7	656			1733	652	SLV 1	0.99	No
fin.	2	0	809.44	3487			1733	652	SLV 1	0.19	No
ini.	2	0	500.7	-3512			1733	652	SLV 13	0.19	No
fin.	2	0	260.13	-845			1733	652	SLV 13	0.77	No
ini.	2	0	500.7	-3512			1733	652	SLV 14	0.19	No
fin.	2	0	260.13	-845			1733	652	SLV 14	0.77	No
ini.	2	0	-2827.23	-633			1733	652	SLV 6	1.03	Si
fin.	2	0	2162.33	3075			1733	652	SLV 6	0.21	No
ini.	2	0	242.96	511			1733	652	SLV 3	1.28	Si
fin.	2	0	-514.98	2540			1733	652	SLV 3	0.26	No
ini.	2	0	-2827.23	-633			1733	652	SLV 5	1.03	Si
fin.	2	0	2162.33	3075			1733	652	SLV 5	0.21	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLV	0.396	SLV 11	No
V_SLV	0.178	SLV 15	No
PF_SLU	0.911	SLU 73	No
V_SLU	0.159	SLU 82	No

## Trave di accoppiamento 16

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati geometrici

X ini.	Y ini.	Z ini.inf.	Z ini.sup.	H ini.	X fin.	Y fin.	Z fin.inf.	Z fin.sup.	H fin.	Luce	Spessore	R. Trazione
-30.572	-17.999	4.59	5.62	1.03	-29.572	-17.999	4.59	5.62	1.03	1	0.3	3500

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2\_Corti

f <sub>b</sub>	f <sub>tk</sub>	f <sub>vk0</sub>	f <sub>hmedio</sub>	t <sub>0</sub>	f <sub>v0</sub>	μ	φ	f <sub>vk,lim</sub>	E	G	FC
120000			172500	9000	20000	0.577	0.767	6500	320000000	128000000	1.2

Verifiche a pressoflessione delle travi in muratura in combinazioni non sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	3	-555	1009.87	1301.22	SLU 68	1.29	Si
fin.	3	-555	-1047.19	1301.22	SLU 68	1.24	Si
ini.	3	-784	1078.76	1301.22	SLU 55	1.21	Si
fin.	3	-784	-1129.6	1301.22	SLU 55	1.15	Si
ini.	3	-916	1122.56	1301.22	SLU 73	1.16	Si
fin.	3	-916	-1181.7	1301.22	SLU 73	1.1	Si
ini.	3	-555	1009.87	1301.22	SLU 65	1.29	Si
fin.	3	-555	-1047.19	1301.22	SLU 65	1.24	Si
ini.	3	-916	1122.56	1301.22	SLU 76	1.16	Si
fin.	3	-916	-1181.7	1301.22	SLU 76	1.1	Si
ini.	3	-912	1069.3	1301.22	SLU 31	1.22	Si
fin.	3	-912	-1123.97	1301.22	SLU 31	1.16	Si
ini.	3	-912	1069.3	1301.22	SLU 34	1.22	Si
fin.	3	-912	-1123.97	1301.22	SLU 34	1.16	Si
ini.	3	-784	1078.76	1301.22	SLU 52	1.21	Si
fin.	3	-784	-1129.6	1301.22	SLU 52	1.15	Si
ini.	3	-781	1025.51	1301.22	SLU 10	1.27	Si
fin.	3	-781	-1071.87	1301.22	SLU 10	1.21	Si
ini.	3	-781	1025.51	1301.22	SLU 13	1.27	Si
fin.	3	-781	-1071.87	1301.22	SLU 13	1.21	Si



#### Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni non sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	3	0	1078.76	-691			1190	448	SLU 52	0.65	No
fin.	3	0	-1129.6	-3278			1190	448	SLU 52	0.14	No
ini.	3	0	1078.76	-691			1190	448	SLU 55	0.65	No
fin.	3	0	-1129.6	-3278			1190	448	SLU 55	0.14	No
ini.	3	0	843.49	245			1190	448	SLU 42	1.83	Si
fin.	3	0	-907.47	-3136			1190	448	SLU 42	0.14	No
ini.	3	0	1069.3	-501			1190	448	SLU 34	0.89	No
fin.	3	0	-1123.97	-3373			1190	448	SLU 34	0.13	No
ini.	3	0	1122.56	-500			1190	448	SLU 73	0.9	No
fin.	3	0	-1181.7	-3568			1190	448	SLU 73	0.13	No
ini.	3	0	1069.3	-501			1190	448	SLU 31	0.89	No
fin.	3	0	-1123.97	-3373			1190	448	SLU 31	0.13	No
ini.	3	0	896.74	246			1190	448	SLU 82	1.82	Si
fin.	3	0	-965.2	-3332			1190	448	SLU 82	0.13	No
ini.	3	0	843.49	245			1190	448	SLU 40	1.83	Si
fin.	3	0	-907.47	-3136			1190	448	SLU 40	0.14	No
ini.	3	0	1122.56	-500			1190	448	SLU 76	0.9	No
fin.	3	0	-1181.7	-3568			1190	448	SLU 76	0.13	No
ini.	3	0	896.74	246			1190	448	SLU 84	1.82	Si
fin.	3	0	-965.2	-3332			1190	448	SLU 84	0.13	No

#### Verifiche a pressoflessione delle travi in muratura in combinazioni sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	2	1291	-1381	1468.31	SLV 9	1.06	Si
fin.	2	562	1183.96	1468.31	SLV 9	1.24	Si
ini.	2	-1819	2317.66	1468.31	SLV 11	0.63	No
fin.	2	-1430	-2193.34	1468.31	SLV 11	0.67	No
ini.	2	1214	-1773.12	1468.31	SLV 5	0.83	No
fin.	2	825	1582.76	1468.31	SLV 5	0.93	No
ini.	2	1291	-1381	1468.31	SLV 10	1.06	Si
fin.	2	562	1183.96	1468.31	SLV 10	1.24	Si
ini.	2	-641	1480.61	1468.31	SLV 15	0.99	No
fin.	2	-1040	-1476.54	1468.31	SLV 15	0.99	No
ini.	2	-1896	1925.53	1468.31	SLV 7	0.76	No
fin.	2	-1167	-1794.54	1468.31	SLV 7	0.82	No
ini.	2	1214	-1773.12	1468.31	SLV 6	0.83	No
fin.	2	825	1582.76	1468.31	SLV 6	0.93	No
ini.	2	-1819	2317.66	1468.31	SLV 12	0.63	No
fin.	2	-1430	-2193.34	1468.31	SLV 12	0.67	No
ini.	2	-1896	1925.53	1468.31	SLV 8	0.76	No
fin.	2	-1167	-1794.54	1468.31	SLV 8	0.82	No
ini.	2	-641	1480.61	1468.31	SLV 16	0.99	No
fin.	2	-1040	-1476.54	1468.31	SLV 16	0.99	No

#### Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	2	0	-1381	3321			1785	672	SLV 10	0.2	No
fin.	2	0	1183.96	1640			1785	672	SLV 10	0.41	No
ini.	2	0	-1381	3321			1785	672	SLV 9	0.2	No
fin.	2	0	1183.96	1640			1785	672	SLV 9	0.41	No
ini.	2	0	1480.61	-2089			1785	672	SLV 15	0.32	No
fin.	2	0	-1476.54	-3764			1785	672	SLV 15	0.18	No
ini.	2	0	1925.53	-2512			1785	672	SLV 7	0.27	No
fin.	2	0	-1794.54	-4189			1785	672	SLV 7	0.16	No
ini.	2	0	-1773.12	4212			1785	672	SLV 6	0.16	No
fin.	2	0	1582.76	2528			1785	672	SLV 6	0.27	No
ini.	2	0	1480.61	-2089			1785	672	SLV 16	0.32	No
fin.	2	0	-1476.54	-3764			1785	672	SLV 16	0.18	No
ini.	2	0	1925.53	-2512			1785	672	SLV 8	0.27	No
fin.	2	0	-1794.54	-4189			1785	672	SLV 8	0.16	No
ini.	2	0	2317.66	-3403			1785	672	SLV 12	0.2	No
fin.	2	0	-2193.34	-5078			1785	672	SLV 12	0.13	No
ini.	2	0	-1773.12	4212			1785	672	SLV 5	0.16	No
fin.	2	0	1582.76	2528			1785	672	SLV 5	0.27	No
ini.	2	0	2317.66	-3403			1785	672	SLV 11	0.2	No
fin.	2	0	-2193.34	-5078			1785	672	SLV 11	0.13	No

#### Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLV	0.634	SLV 11	No
V_SLV	0.132	SLV 11	No
PF_SLU	1.101	SLU 73	Si
V_SLU	0.126	SLU 73	No

#### Trave di accoppiamento 17

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

#### Dati geometrici

X ini.	Y ini.	Z ini.inf.	Z ini.sup.	H ini.	X fin.	Y fin.	Z fin.inf.	Z fin.sup.	H fin.	Luce	Spessore	R. Trazione
-26.842	-17.999	1.69	2.69	1	-25.842	-17.999	1.69	2.69	1	1	0.3	3500

#### Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2\_Corti



fb	fhk	fvk0	fhmedio	$\tau 0$	fv0	$\mu$	$\phi$	fvk,lim	E	G	FC
120000			172500	9000	20000	0.577	0.767	6500	320000000	128000000	1.2

#### Verifiche a pressoflessione delle travi in muratura in combinazioni non sismiche

Sezione	$\gamma M$	N	M	$\mu$	Comb.	c.s.	Verifica
ini.	3	-976	-674.72	1248.72	SLU 10	1.85	Si
fin.	3	1178	1130.58	1248.72	SLU 10	1.1	Si
ini.	3	-1066	-712.02	1248.72	SLU 55	1.75	Si
fin.	3	1188	1211.73	1248.72	SLU 55	1.03	Si
ini.	3	-966	-666.68	1248.72	SLU 68	1.87	Si
fin.	3	1204	1118.57	1248.72	SLU 68	1.12	Si
ini.	3	-976	-674.72	1248.72	SLU 13	1.85	Si
fin.	3	1178	1130.58	1248.72	SLU 13	1.1	Si
ini.	3	-1066	-712.02	1248.72	SLU 52	1.75	Si
fin.	3	1188	1211.73	1248.72	SLU 52	1.03	Si
ini.	3	-1056	-706.18	1248.72	SLU 34	1.77	Si
fin.	3	1160	1199.5	1248.72	SLU 34	1.04	Si
ini.	3	-966	-666.68	1248.72	SLU 65	1.87	Si
fin.	3	1204	1118.57	1248.72	SLU 65	1.12	Si
ini.	3	-1146	-743.48	1248.72	SLU 76	1.68	Si
fin.	3	1171	1280.66	1248.72	SLU 76	0.98	No
ini.	3	-1056	-706.18	1248.72	SLU 31	1.77	Si
fin.	3	1160	1199.5	1248.72	SLU 31	1.04	Si
ini.	3	-1146	-743.48	1248.72	SLU 73	1.68	Si
fin.	3	1171	1280.66	1248.72	SLU 73	0.98	No

#### Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni non sismiche

Sezione	$\gamma M$	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	3	0	-743.48	1671			1155	435	SLU 76	0.26	No
fin.	3	0	1280.66	659			1155	435	SLU 76	0.66	No
ini.	3	0	-666.68	1485			1155	435	SLU 65	0.29	No
fin.	3	0	1118.57	471			1155	435	SLU 65	0.92	No
ini.	3	0	-706.18	1503			1155	435	SLU 31	0.29	No
fin.	3	0	1199.5	638			1155	435	SLU 31	0.68	No
ini.	3	0	-712.02	1569			1155	435	SLU 52	0.28	No
fin.	3	0	1211.73	604			1155	435	SLU 52	0.72	No
ini.	3	0	-712.02	1569			1155	435	SLU 55	0.28	No
fin.	3	0	1211.73	604			1155	435	SLU 55	0.72	No
ini.	3	0	-706.18	1503			1155	435	SLU 34	0.29	No
fin.	3	0	1199.5	638			1155	435	SLU 34	0.68	No
ini.	3	0	-601.34	1534			1155	435	SLU 82	0.28	No
fin.	3	0	1102.45	636			1155	435	SLU 82	0.68	No
ini.	3	0	-743.48	1671			1155	435	SLU 73	0.26	No
fin.	3	0	1280.66	659			1155	435	SLU 73	0.66	No
ini.	3	0	-601.34	1534			1155	435	SLU 84	0.28	No
fin.	3	0	1102.45	636			1155	435	SLU 84	0.68	No
ini.	3	0	-666.68	1485			1155	435	SLU 68	0.29	No
fin.	3	0	1118.57	471			1155	435	SLU 68	0.92	No

#### Verifiche a pressoflessione delle travi in muratura in combinazioni sismiche

Sezione	$\gamma M$	N	M	$\mu$	Comb.	c.s.	Verifica
ini.	2	-647	2788.01	1415.81	SLV 10	0.51	No
fin.	2	-6320	-2442.42	1415.81	SLV 10	0.58	No
ini.	2	3225	-728.1	1415.81	SLV 4	1.94	Si
fin.	2	1832	2498.78	1415.81	SLV 4	0.57	No
ini.	2	-2685	-3405.75	1415.81	SLV 11	0.42	No
fin.	2	6363	2464.56	1415.81	SLV 11	0.57	No
ini.	2	1751	3023.32	1415.81	SLV 6	0.47	No
fin.	2	-6363	-1633.96	1415.81	SLV 6	0.87	No
ini.	2	-2685	-3405.75	1415.81	SLV 12	0.42	No
fin.	2	6363	2464.56	1415.81	SLV 12	0.57	No
ini.	2	-286	-3170.44	1415.81	SLV 7	0.45	No
fin.	2	6321	3273.02	1415.81	SLV 7	0.43	No
ini.	2	-286	-3170.44	1415.81	SLV 8	0.45	No
fin.	2	6321	3273.02	1415.81	SLV 8	0.43	No
ini.	2	-647	2788.01	1415.81	SLV 9	0.51	No
fin.	2	-6320	-2442.42	1415.81	SLV 9	0.58	No
ini.	2	3225	-728.1	1415.81	SLV 3	1.94	Si
fin.	2	1832	2498.78	1415.81	SLV 3	0.57	No
ini.	2	1751	3023.32	1415.81	SLV 5	0.47	No
fin.	2	-6363	-1633.96	1415.81	SLV 5	0.87	No

#### Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni sismiche

Sezione	$\gamma M$	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	2	0	-1512.46	-966			1733	652	SLV 15	0.68	No
fin.	2	0	-196.09	-1813			1733	652	SLV 15	0.36	No
ini.	2	0	345.67	-1579			1733	652	SLV 13	0.41	No
fin.	2	0	-1668.18	-1657			1733	652	SLV 13	0.39	No
ini.	2	0	-3170.44	2388			1733	652	SLV 8	0.27	No
fin.	2	0	3273.02	526			1733	652	SLV 8	1.24	Si
ini.	2	0	-3170.44	2388			1733	652	SLV 7	0.27	No
fin.	2	0	3273.02	526			1733	652	SLV 7	1.24	Si
ini.	2	0	-1512.46	-966			1733	652	SLV 16	0.68	No
fin.	2	0	-196.09	-1813			1733	652	SLV 16	0.36	No
ini.	2	0	345.67	-1579			1733	652	SLV 14	0.41	No
fin.	2	0	-1668.18	-1657			1733	652	SLV 14	0.39	No
ini.	2	0	1130.03	2479			1733	652	SLV 1	0.26	No
fin.	2	0	1026.68	2222			1733	652	SLV 1	0.29	No
ini.	2	0	1130.03	2479			1733	652	SLV 2	0.26	No
fin.	2	0	1026.68	2222			1733	652	SLV 2	0.29	No



Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	2	0	-728.1	3093			1733	652	SLV 4	0.21	No
fin.	2	0	2498.78	2066			1733	652	SLV 4	0.32	No
ini.	2	0	-728.1	3093			1733	652	SLV 3	0.21	No
fin.	2	0	2498.78	2066			1733	652	SLV 3	0.32	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF SLV	0.416	SLV 11	No
V SLV	0.211	SLV 3	No
PF SLU	0.975	SLU 73	No
V SLU	0.26	SLU 73	No

## Trave di accoppiamento 18

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

### Dati geometrici

X ini.	Y ini.	Z ini.inf.	Z ini.sup.	H ini.	X fin.	Y fin.	Z fin.inf.	Z fin.sup.	H fin.	Luce	Spessore	R. Trazione
-26.842	-17.999	4.59	5.62	1.03	-25.842	-17.999	4.59	5.62	1.03	1	0.3	3500

### Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2\_Corti

fb	f <sub>hk</sub>	f <sub>vk0</sub>	f <sub>hmedio</sub>	t0	f <sub>v0</sub>	μ	φ	f <sub>vk,lim</sub>	E	G	FC
120000			172500	9000	20000	0.577	0.767	6500	320000000	128000000	1.2

### Verifiche a pressoflessione delle travi in muratura in combinazioni non sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	3	-2029	-1423.16	1301.22	SLU 31	0.91	No
fin.	3	-2029	1309.5	1301.22	SLU 31	0.99	No
ini.	3	-1599	-1327.5	1301.22	SLU 65	0.98	No
fin.	3	-1599	1238.58	1301.22	SLU 65	1.05	Si
ini.	3	-1782	-1342.8	1301.22	SLU 13	0.97	No
fin.	3	-1782	1245.05	1301.22	SLU 13	1.05	Si
ini.	3	-2170	-1514.53	1301.22	SLU 76	0.86	No
fin.	3	-2170	1390.63	1301.22	SLU 76	0.94	No
ini.	3	-2029	-1423.16	1301.22	SLU 34	0.91	No
fin.	3	-2029	1309.5	1301.22	SLU 34	0.99	No
ini.	3	-2170	-1514.53	1301.22	SLU 73	0.86	No
fin.	3	-2170	1390.63	1301.22	SLU 73	0.94	No
ini.	3	-1599	-1327.5	1301.22	SLU 68	0.98	No
fin.	3	-1599	1238.58	1301.22	SLU 68	1.05	Si
ini.	3	-1782	-1342.8	1301.22	SLU 10	0.97	No
fin.	3	-1782	1245.05	1301.22	SLU 10	1.05	Si
ini.	3	-1923	-1434.17	1301.22	SLU 52	0.91	No
fin.	3	-1923	1326.19	1301.22	SLU 52	0.98	No
ini.	3	-1923	-1434.17	1301.22	SLU 55	0.91	No
fin.	3	-1923	1326.19	1301.22	SLU 55	0.98	No

### Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni non sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	3	0	-1514.53	4231			1190	448	SLU 76	0.11	No
fin.	3	0	1390.63	1850			1190	448	SLU 76	0.24	No
ini.	3	0	-1423.16	3952			1190	448	SLU 34	0.11	No
fin.	3	0	1309.5	1775			1190	448	SLU 34	0.25	No
ini.	3	0	-1290.96	3972			1190	448	SLU 84	0.11	No
fin.	3	0	1156.22	1247			1190	448	SLU 84	0.36	No
ini.	3	0	-1290.96	3972			1190	448	SLU 82	0.11	No
fin.	3	0	1156.22	1247			1190	448	SLU 82	0.36	No
ini.	3	0	-1199.58	3693			1190	448	SLU 40	0.12	No
fin.	3	0	1075.09	1171			1190	448	SLU 40	0.38	No
ini.	3	0	-1423.16	3952			1190	448	SLU 31	0.11	No
fin.	3	0	1309.5	1775			1190	448	SLU 31	0.25	No
ini.	3	0	-1434.17	3898			1190	448	SLU 52	0.11	No
fin.	3	0	1326.19	1844			1190	448	SLU 52	0.24	No
ini.	3	0	-1199.58	3693			1190	448	SLU 42	0.12	No
fin.	3	0	1075.09	1171			1190	448	SLU 42	0.38	No
ini.	3	0	-1514.53	4231			1190	448	SLU 73	0.11	No
fin.	3	0	1390.63	1850			1190	448	SLU 73	0.24	No
ini.	3	0	-1434.17	3898			1190	448	SLU 55	0.11	No
fin.	3	0	1326.19	1844			1190	448	SLU 55	0.24	No

### Verifiche a pressoflessione delle travi in muratura in combinazioni sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	2	-2706	-1717.43	1468.31	SLV 4	0.85	No
fin.	2	-1654	1654.63	1468.31	SLV 4	0.89	No
ini.	2	-1784	-2017.62	1468.31	SLV 12	0.73	No
fin.	2	-2794	2171.04	1468.31	SLV 12	0.68	No
ini.	2	-2598	-2447.62	1468.31	SLV 8	0.6	No
fin.	2	-2863	2566.91	1468.31	SLV 8	0.57	No
ini.	2	-190	1071.98	1468.31	SLV 6	1.37	Si
fin.	2	820	-1359.16	1468.31	SLV 6	1.08	Si
ini.	2	-1784	-2017.62	1468.31	SLV 11	0.73	No
fin.	2	-2794	2171.04	1468.31	SLV 11	0.68	No
ini.	2	625	1501.98	1468.31	SLV 10	0.98	No
fin.	2	889	-1755.03	1468.31	SLV 10	0.84	No
ini.	2	625	1501.98	1468.31	SLV 9	0.98	No



Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
fin.	2	889	-1755.03	1468.31	SLV 9	0.84	No
ini.	2	-190	1071.98	1468.31	SLV 5	1.37	Si
fin.	2	820	-1359.16	1468.31	SLV 5	1.08	Si
ini.	2	-2706	-1717.43	1468.31	SLV 3	0.85	No
fin.	2	-1654	1654.63	1468.31	SLV 3	0.89	No
ini.	2	-2598	-2447.62	1468.31	SLV 7	0.6	No
fin.	2	-2863	2566.91	1468.31	SLV 7	0.57	No

Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	2	0	-1717.43	4150			1785	672	SLV 4	0.16	No
fin.	2	0	1654.63	2769			1785	672	SLV 4	0.24	No
ini.	2	0	-2017.62	4763			1785	672	SLV 12	0.14	No
fin.	2	0	2171.04	3392			1785	672	SLV 12	0.2	No
ini.	2	0	1501.98	-2364			1785	672	SLV 9	0.28	No
fin.	2	0	-1755.03	-3732			1785	672	SLV 9	0.18	No
ini.	2	0	1071.98	-1496			1785	672	SLV 5	0.45	No
fin.	2	0	-1359.16	-2869			1785	672	SLV 5	0.23	No
ini.	2	0	-2447.62	5631			1785	672	SLV 7	0.12	No
fin.	2	0	2566.91	4255			1785	672	SLV 7	0.16	No
ini.	2	0	1501.98	-2364			1785	672	SLV 10	0.28	No
fin.	2	0	-1755.03	-3732			1785	672	SLV 10	0.18	No
ini.	2	0	-1717.43	4150			1785	672	SLV 3	0.16	No
fin.	2	0	1654.63	2769			1785	672	SLV 3	0.24	No
ini.	2	0	-2447.62	5631			1785	672	SLV 8	0.12	No
fin.	2	0	2566.91	4255			1785	672	SLV 8	0.16	No
ini.	2	0	-2017.62	4763			1785	672	SLV 11	0.14	No
fin.	2	0	2171.04	3392			1785	672	SLV 11	0.2	No
ini.	2	0	1071.98	-1496			1785	672	SLV 6	0.45	No
fin.	2	0	-1359.16	-2869			1785	672	SLV 6	0.23	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLV	0.572	SLV 7	No
V_SLV	0.119	SLV 7	No
PF_SLU	0.859	SLU 73	No
V_SLU	0.106	SLU 73	No

## Trave di accoppiamento 19

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati geometrici

X ini.	Y ini.	Z ini.inf.	Z ini.sup.	H ini.	X fin.	Y fin.	Z fin.inf.	Z fin.sup.	H fin.	Luce	Spessore	R. Trazione
-23.182	-17.999	1.69	2.69	1	-22.182	-17.999	1.69	2.69	1		0.3	3500

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2\_Corti

f <sub>b</sub>	f <sub>hk</sub>	f <sub>vk0</sub>	f <sub>hmedio</sub>	τ <sub>0</sub>	f <sub>v0</sub>	μ	φ	f <sub>vk,lim</sub>	E	G	FC
120000			172500	9000	20000	0.577	0.767	6500	320000000	128000000	1.2

Verifiche a pressoflessione delle travi in muratura in combinazioni non sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	3	5103	1391.27	1248.72	SLU 55	0.9	No
fin.	3	3908	-611.25	1248.72	SLU 55	2.04	Si
ini.	3	5103	1391.27	1248.72	SLU 52	0.9	No
fin.	3	3908	-611.25	1248.72	SLU 52	2.04	Si
ini.	3	5233	1488.36	1248.72	SLU 73	0.84	No
fin.	3	4094	-671.71	1248.72	SLU 73	1.86	Si
ini.	3	4881	1289.41	1248.72	SLU 10	0.97	No
fin.	3	3690	-585.19	1248.72	SLU 10	2.13	Si
ini.	3	5011	1386.49	1248.72	SLU 31	0.9	No
fin.	3	3877	-645.65	1248.72	SLU 31	1.93	Si
ini.	3	3896	1334.59	1248.72	SLU 84	0.94	No
fin.	3	3354	-624.24	1248.72	SLU 84	2	Si
ini.	3	5011	1386.49	1248.72	SLU 34	0.9	No
fin.	3	3877	-645.65	1248.72	SLU 34	1.93	Si
ini.	3	3896	1334.59	1248.72	SLU 82	0.94	No
fin.	3	3354	-624.24	1248.72	SLU 82	2	Si
ini.	3	4881	1289.41	1248.72	SLU 13	0.97	No
fin.	3	3690	-585.19	1248.72	SLU 13	2.13	Si
ini.	3	5233	1488.36	1248.72	SLU 76	0.84	No
fin.	3	4094	-671.71	1248.72	SLU 76	1.86	Si

Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni non sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	3	0	1391.27	-1136			1155	435	SLU 52	0.38	No
fin.	3	0	-611.25	-1875			1155	435	SLU 52	0.23	No
ini.	3	0	1334.59	-1480			1155	435	SLU 84	0.29	No
fin.	3	0	-624.24	-1789			1155	435	SLU 84	0.24	No
ini.	3	0	1386.49	-1190			1155	435	SLU 34	0.37	No
fin.	3	0	-645.65	-1946			1155	435	SLU 34	0.22	No
ini.	3	0	1488.36	-1298			1155	435	SLU 76	0.33	No
fin.	3	0	-671.71	-2034			1155	435	SLU 76	0.21	No
ini.	3	0	1391.27	-1136			1155	435	SLU 55	0.38	No
fin.	3	0	-611.25	-1875			1155	435	SLU 55	0.23	No



Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	3	0	1386.49	-1190			1155	435	SLU 31	0.37	No
fin.	3	0	-645.65	-1946			1155	435	SLU 31	0.22	No
ini.	3	0	1289.41	-1027			1155	435	SLU 13	0.42	No
fin.	3	0	-585.19	-1786			1155	435	SLU 13	0.24	No
ini.	3	0	1488.36	-1298			1155	435	SLU 73	0.33	No
fin.	3	0	-671.71	-2034			1155	435	SLU 73	0.21	No
ini.	3	0	1289.41	-1027			1155	435	SLU 10	0.42	No
fin.	3	0	-585.19	-1786			1155	435	SLU 10	0.24	No
ini.	3	0	1334.59	-1480			1155	435	SLU 82	0.29	No
fin.	3	0	-624.24	-1789			1155	435	SLU 82	0.24	No

#### Verifiche a pressoflessione delle travi in muratura in combinazioni sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	2	384	615.25	1415.81	SLV 4	2.3	Si
fin.	2	-1617	-891.72	1415.81	SLV 4	1.59	Si
ini.	2	8651	1370.71	1415.81	SLV 16	1.03	Si
fin.	2	8077	23.08	1415.81	SLV 16	61.34	Si
ini.	2	11452	1934.46	1415.81	SLV 7	0.73	No
fin.	2	6709	-1080.78	1415.81	SLV 7	1.31	Si
ini.	2	8651	1370.71	1415.81	SLV 15	1.03	Si
fin.	2	8077	23.08	1415.81	SLV 15	61.34	Si
ini.	2	-11905	-1079.23	1415.81	SLV 6	1.31	Si
fin.	2	-7386	374.18	1415.81	SLV 6	3.78	Si
ini.	2	13933	2161.09	1415.81	SLV 12	0.66	No
fin.	2	9617	-806.34	1415.81	SLV 12	1.76	Si
ini.	2	11452	1934.46	1415.81	SLV 8	0.73	No
fin.	2	6709	-1080.78	1415.81	SLV 8	1.31	Si
ini.	2	13933	2161.09	1415.81	SLV 11	0.66	No
fin.	2	9617	-806.34	1415.81	SLV 11	1.76	Si
ini.	2	384	615.25	1415.81	SLV 3	2.3	Si
fin.	2	-1617	-891.72	1415.81	SLV 3	1.59	Si
ini.	2	-11905	-1079.23	1415.81	SLV 5	1.31	Si
fin.	2	-7386	374.18	1415.81	SLV 5	3.78	Si

#### Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	2	0	-288.85	1458			1733	652	SLV 2	0.45	No
fin.	2	0	-455.23	855			1733	652	SLV 2	0.76	No
ini.	2	0	1370.71	-2904			1733	652	SLV 16	0.22	No
fin.	2	0	23.08	-2093			1733	652	SLV 16	0.31	No
ini.	2	0	-288.85	1458			1733	652	SLV 1	0.45	No
fin.	2	0	-455.23	855			1733	652	SLV 1	0.76	No
ini.	2	0	1370.71	-2904			1733	652	SLV 15	0.22	No
fin.	2	0	23.08	-2093			1733	652	SLV 15	0.31	No
ini.	2	0	2161.09	-1813			1733	652	SLV 11	0.36	No
fin.	2	0	-806.34	-2642			1733	652	SLV 11	0.25	No
ini.	2	0	466.61	-2617			1733	652	SLV 13	0.25	No
fin.	2	0	459.57	-1051			1733	652	SLV 13	0.62	No
ini.	2	0	2161.09	-1813			1733	652	SLV 12	0.36	No
fin.	2	0	-806.34	-2642			1733	652	SLV 12	0.25	No
ini.	2	0	1934.46	-590			1733	652	SLV 8	1.11	Si
fin.	2	0	-1080.78	-2071			1733	652	SLV 8	0.31	No
ini.	2	0	466.61	-2617			1733	652	SLV 14	0.25	No
fin.	2	0	459.57	-1051			1733	652	SLV 14	0.62	No
ini.	2	0	1934.46	-590			1733	652	SLV 7	1.11	Si
fin.	2	0	-1080.78	-2071			1733	652	SLV 7	0.31	No

#### Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLV	0.655	SLV 11	No
V_SLV	0.225	SLV 15	No
PF_SLU	0.839	SLU 73	No
V_SLU	0.214	SLU 73	No

#### Trave di accoppiamento 20

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

#### Dati geometrici

X ini.	Y ini.	Z ini.inf.	Z ini.sup.	H ini.	X fin.	Y fin.	Z fin.inf.	Z fin.sup.	H fin.	Luce	Spessore	R. Trazione
-23.182	-17.999	4.59	5.62	1.03	-22.182	-17.999	4.59	5.62	1.03	1	0.3	3500

#### Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2\_Corti

f <sub>b</sub>	f <sub>tk</sub>	f <sub>vk0</sub>	f <sub>hmedio</sub>	t <sub>0</sub>	f <sub>v0</sub>	μ	φ	f <sub>vk,lim</sub>	E	G	FC
120000			172500	9000	20000	0.577	0.767	6500	320000000	128000000	1.2

#### Verifiche a pressoflessione delle travi in muratura in combinazioni non sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	3	-3275	1290.76	1301.22	SLU 76	1.01	Si
fin.	3	-3275	-851.01	1301.22	SLU 76	1.53	Si
ini.	3	-2810	1134.9	1301.22	SLU 13	1.15	Si
fin.	3	-2810	-756.62	1301.22	SLU 13	1.72	Si
ini.	3	-3038	1129.53	1301.22	SLU 82	1.15	Si
fin.	3	-3038	-706.62	1301.22	SLU 82	1.84	Si
ini.	3	-3038	1129.53	1301.22	SLU 84	1.15	Si



Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
fin.	3	-3038	-706.62	1301.22	SLU 84	1.84	Si
ini.	3	-3275	1290.76	1301.22	SLU 73	1.01	Si
fin.	3	-3275	-851.01	1301.22	SLU 73	1.53	Si
ini.	3	-3066	1214.31	1301.22	SLU 34	1.07	Si
fin.	3	-3066	-795.85	1301.22	SLU 34	1.64	Si
ini.	3	-3066	1214.31	1301.22	SLU 31	1.07	Si
fin.	3	-3066	-795.85	1301.22	SLU 31	1.64	Si
ini.	3	-2810	1134.9	1301.22	SLU 10	1.15	Si
fin.	3	-2810	-756.62	1301.22	SLU 10	1.72	Si
ini.	3	-3019	1211.35	1301.22	SLU 52	1.07	Si
fin.	3	-3019	-811.78	1301.22	SLU 52	1.6	Si
ini.	3	-3019	1211.35	1301.22	SLU 55	1.07	Si
fin.	3	-3019	-811.78	1301.22	SLU 55	1.6	Si

#### Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni non sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	3	0	1211.35	-797			1190	448	SLU 55	0.56	No
fin.	3	0	-811.78	-3418			1190	448	SLU 55	0.13	No
ini.	3	0	1214.31	-652			1190	448	SLU 34	0.69	No
fin.	3	0	-795.85	-3562			1190	448	SLU 34	0.13	No
ini.	3	0	1214.31	-652			1190	448	SLU 31	0.69	No
fin.	3	0	-795.85	-3562			1190	448	SLU 31	0.13	No
ini.	3	0	1290.76	-689			1190	448	SLU 76	0.65	No
fin.	3	0	-851.01	-3797			1190	448	SLU 76	0.12	No
ini.	3	0	1290.76	-689			1190	448	SLU 73	0.65	No
fin.	3	0	-851.01	-3797			1190	448	SLU 73	0.12	No
ini.	3	0	1129.53	-144			1190	448	SLU 82	3.11	Si
fin.	3	0	-706.62	-3768			1190	448	SLU 82	0.12	No
ini.	3	0	1211.35	-797			1190	448	SLU 52	0.56	No
fin.	3	0	-811.78	-3418			1190	448	SLU 52	0.13	No
ini.	3	0	1053.08	-107			1190	448	SLU 42	4.18	Si
fin.	3	0	-651.46	-3533			1190	448	SLU 42	0.13	No
ini.	3	0	1053.08	-107			1190	448	SLU 40	4.18	Si
fin.	3	0	-651.46	-3533			1190	448	SLU 40	0.13	No
ini.	3	0	1129.53	-144			1190	448	SLU 84	3.11	Si
fin.	3	0	-706.62	-3768			1190	448	SLU 84	0.12	No

#### Verifiche a pressoflessione delle travi in muratura in combinazioni sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	2	-3933	2356.49	1468.31	SLV 12	0.62	No
fin.	2	-4164	-1467.42	1468.31	SLV 12	1	Si
ini.	2	-4044	1974.37	1468.31	SLV 7	0.74	No
fin.	2	-4117	-1198.97	1468.31	SLV 7	1.22	Si
ini.	2	1584	-1131.26	1468.31	SLV 9	1.3	Si
fin.	2	1657	673.09	1468.31	SLV 9	2.18	Si
ini.	2	-1872	1581.59	1468.31	SLV 16	0.93	No
fin.	2	-2180	-1031.43	1468.31	SLV 16	1.42	Si
ini.	2	1472	-1513.38	1468.31	SLV 5	0.97	No
fin.	2	1703	941.53	1468.31	SLV 5	1.56	Si
ini.	2	-4044	1974.37	1468.31	SLV 8	0.74	No
fin.	2	-4117	-1198.97	1468.31	SLV 8	1.22	Si
ini.	2	-1872	1581.59	1468.31	SLV 15	0.93	No
fin.	2	-2180	-1031.43	1468.31	SLV 15	1.42	Si
ini.	2	1472	-1513.38	1468.31	SLV 6	0.97	No
fin.	2	1703	941.53	1468.31	SLV 6	1.56	Si
ini.	2	-3933	2356.49	1468.31	SLV 11	0.62	No
fin.	2	-4164	-1467.42	1468.31	SLV 11	1	Si
ini.	2	1584	-1131.26	1468.31	SLV 10	1.3	Si
fin.	2	1657	673.09	1468.31	SLV 10	2.18	Si

#### Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	2	0	2356.49	-3055			1785	672	SLV 11	0.22	No
fin.	2	0	-1467.42	-4760			1785	672	SLV 11	0.14	No
ini.	2	0	1974.37	-2329			1785	672	SLV 7	0.29	No
fin.	2	0	-1198.97	-4030			1785	672	SLV 7	0.17	No
ini.	2	0	-1131.26	2556			1785	672	SLV 10	0.26	No
fin.	2	0	673.09	853			1785	672	SLV 10	0.79	No
ini.	2	0	1974.37	-2329			1785	672	SLV 8	0.29	No
fin.	2	0	-1198.97	-4030			1785	672	SLV 8	0.17	No
ini.	2	0	-1131.26	2556			1785	672	SLV 9	0.26	No
fin.	2	0	673.09	853			1785	672	SLV 9	0.79	No
ini.	2	0	-1513.38	3282			1785	672	SLV 5	0.2	No
fin.	2	0	941.53	1583			1785	672	SLV 5	0.42	No
ini.	2	0	1581.59	-1939			1785	672	SLV 15	0.35	No
fin.	2	0	-1031.43	-3647			1785	672	SLV 15	0.18	No
ini.	2	0	-1513.38	3282			1785	672	SLV 6	0.2	No
fin.	2	0	941.53	1583			1785	672	SLV 6	0.42	No
ini.	2	0	2356.49	-3055			1785	672	SLV 12	0.22	No
fin.	2	0	-1467.42	-4760			1785	672	SLV 12	0.14	No
ini.	2	0	1581.59	-1939			1785	672	SLV 16	0.35	No
fin.	2	0	-1031.43	-3647			1785	672	SLV 16	0.18	No

#### Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLV	0.623	SLV 11	No
V_SLV	0.141	SLV 11	No
PF_SLU	1.008	SLU 73	Si
V_SLU	0.118	SLU 73	No





## Trave di accoppiamento 21

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

### Dati geometrici

X ini.	Y ini.	Z ini.inf.	Z ini.sup.	H ini.	X fin.	Y fin.	Z fin.inf.	Z fin.sup.	H fin.	Luce	Spessore	R. Trazione
-34.307	-9.039	4.69	5.62	0.93	-32.907	-9.039	4.69	5.62	0.93	1.4	0.3	3500

### Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2\_Corti

fb	f <sub>hk</sub>	f <sub>vk0</sub>	f <sub>hmedio</sub>	τ <sub>0</sub>	f <sub>v0</sub>	μ	φ	f <sub>vk,lim</sub>	E	G	FC
120000			172500	9000	20000	0.577	0.767	6500	320000000	128000000	1.2

### Verifiche a pressoflessione delle travi in muratura in combinazioni non sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	3	-204	201.24	1126.22	SLU 81	5.6	Si
fin.	3	-204	-176.37	1126.22	SLU 81	6.39	Si
ini.	3	-120	188.22	1126.22	SLU 77	5.98	Si
fin.	3	-120	-169.59	1126.22	SLU 77	6.64	Si
ini.	3	-142	187.61	1126.22	SLU 75	6	Si
fin.	3	-142	-165.47	1126.22	SLU 75	6.81	Si
ini.	3	-120	188.22	1126.22	SLU 74	5.98	Si
fin.	3	-120	-169.59	1126.22	SLU 74	6.64	Si
ini.	3	-142	187.61	1126.22	SLU 80	6	Si
fin.	3	-142	-165.47	1126.22	SLU 80	6.81	Si
ini.	3	-142	187.61	1126.22	SLU 78	6	Si
fin.	3	-142	-165.47	1126.22	SLU 78	6.81	Si
ini.	3	-226	200.63	1126.22	SLU 84	5.61	Si
fin.	3	-226	-172.25	1126.22	SLU 84	6.54	Si
ini.	3	-204	201.24	1126.22	SLU 83	5.6	Si
fin.	3	-204	-176.37	1126.22	SLU 83	6.39	Si
ini.	3	-120	188.22	1126.22	SLU 79	5.98	Si
fin.	3	-120	-169.59	1126.22	SLU 79	6.64	Si
ini.	3	-226	200.63	1126.22	SLU 82	5.61	Si
fin.	3	-226	-172.25	1126.22	SLU 82	6.54	Si

### Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni non sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt <sub>lim</sub>	Comb.	c.s.	Verifica
ini.	3	0	184.88	1660			716	270	SLU 60	0.16	No
fin.	3	0	-164.34	-2457			716	270	SLU 60	0.11	No
ini.	3	0	200.63	1937			716	270	SLU 84	0.14	No
fin.	3	0	-172.25	-2819			716	270	SLU 84	0.1	No
ini.	3	0	172.29	1854			716	270	SLU 42	0.15	No
fin.	3	0	-142.71	-2640			716	270	SLU 42	0.1	No
ini.	3	0	184.88	1660			716	270	SLU 62	0.16	No
fin.	3	0	-164.34	-2457			716	270	SLU 62	0.11	No
ini.	3	0	172.91	1851			716	270	SLU 41	0.15	No
fin.	3	0	-146.83	-2643			716	270	SLU 41	0.1	No
ini.	3	0	200.63	1937			716	270	SLU 82	0.14	No
fin.	3	0	-172.25	-2819			716	270	SLU 82	0.1	No
ini.	3	0	172.91	1851			716	270	SLU 39	0.15	No
fin.	3	0	-146.83	-2643			716	270	SLU 39	0.1	No
ini.	3	0	172.29	1854			716	270	SLU 40	0.15	No
fin.	3	0	-142.71	-2640			716	270	SLU 40	0.1	No
ini.	3	0	201.24	1933			716	270	SLU 83	0.14	No
fin.	3	0	-176.37	-2822			716	270	SLU 83	0.1	No
ini.	3	0	201.24	1933			716	270	SLU 81	0.14	No
fin.	3	0	-176.37	-2822			716	270	SLU 81	0.1	No

### Verifiche a pressoflessione delle travi in muratura in combinazioni sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	2	224	382.61	1293.31	SLV 12	3.38	Si
fin.	2	193	-308.42	1293.31	SLV 12	4.19	Si
ini.	2	314	-414.52	1293.31	SLV 2	3.12	Si
fin.	2	1052	496.71	1293.31	SLV 2	2.6	Si
ini.	2	-279	667.52	1293.31	SLV 15	1.94	Si
fin.	2	-1018	-737.04	1293.31	SLV 15	1.75	Si
ini.	2	224	382.61	1293.31	SLV 11	3.38	Si
fin.	2	193	-308.42	1293.31	SLV 11	4.19	Si
ini.	2	-474	605.67	1293.31	SLV 14	2.14	Si
fin.	2	-1338	-734.93	1293.31	SLV 14	1.76	Si
ini.	2	508	-352.67	1293.31	SLV 4	3.67	Si
fin.	2	1373	494.61	1293.31	SLV 4	2.61	Si
ini.	2	-279	667.52	1293.31	SLV 16	1.94	Si
fin.	2	-1018	-737.04	1293.31	SLV 16	1.75	Si
ini.	2	314	-414.52	1293.31	SLV 1	3.12	Si
fin.	2	1052	496.71	1293.31	SLV 1	2.6	Si
ini.	2	-474	605.67	1293.31	SLV 13	2.14	Si
fin.	2	-1338	-734.93	1293.31	SLV 13	1.76	Si
ini.	2	508	-352.67	1293.31	SLV 3	3.67	Si
fin.	2	1373	494.61	1293.31	SLV 3	2.61	Si

### Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt <sub>lim</sub>	Comb.	c.s.	Verifica
ini.	2	0	667.52	-140			1074	404	SLV 15	2.88	Si
fin.	2	0	-737.04	-2377			1074	404	SLV 15	0.17	No



Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	2	0	-414.52	1867			1074	404	SLV 1	0.22	No
fin.	2	0	496.71	-363			1074	404	SLV 1	1.11	Si
ini.	2	0	605.67	-86			1074	404	SLV 14	4.68	Si
fin.	2	0	-734.93	-2299			1074	404	SLV 14	0.18	No
ini.	2	0	-352.67	1813			1074	404	SLV 4	0.22	No
fin.	2	0	494.61	-441			1074	404	SLV 4	0.92	No
ini.	2	0	-414.52	1867			1074	404	SLV 2	0.22	No
fin.	2	0	496.71	-363			1074	404	SLV 2	1.11	Si
ini.	2	0	382.61	480			1074	404	SLV 11	0.84	No
fin.	2	0	-308.42	-1791			1074	404	SLV 11	0.23	No
ini.	2	0	382.61	480			1074	404	SLV 12	0.84	No
fin.	2	0	-308.42	-1791			1074	404	SLV 12	0.23	No
ini.	2	0	605.67	-86			1074	404	SLV 13	4.68	Si
fin.	2	0	-734.93	-2299			1074	404	SLV 13	0.18	No
ini.	2	0	-352.67	1813			1074	404	SLV 3	0.22	No
fin.	2	0	494.61	-441			1074	404	SLV 3	0.92	No
ini.	2	0	667.52	-140			1074	404	SLV 16	2.88	Si
fin.	2	0	-737.04	-2377			1074	404	SLV 16	0.17	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLV	1.755	SLV 15	Si
V_SLV	0.17	SLV 15	No
PF_SLU	5.596	SLU 81	Si
V_SLU	0.096	SLU 81	No

## Trave di accoppiamento 22

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

### Dati geometrici

X ini.	Y ini.	Z ini.inf.	Z ini.sup.	H ini.	X fin.	Y fin.	Z fin.inf.	Z fin.sup.	H fin.	Luce	Spessore	R. Trazione
-31.937	-9.039	1.69	3.69	2	-31.437	-9.039	1.69	3.69	2	0.5	0.3	3500

### Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2\_Corti

f <sub>b</sub>	f <sub>tk</sub>	f <sub>vk0</sub>	f <sub>hmedio</sub>	τ <sub>0</sub>	f <sub>v0</sub>	μ	φ	f <sub>vk,lim</sub>	E	G	FC
120000			172500	9000	20000	0.577	0.767	6500	320000000	128000000	1.2

### Verifiche a pressoflessione delle travi in muratura in combinazioni non sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	3	-1643	113.65	2998.72	SLU 81	26.39	Si
fin.	3	-1655	53.31	2998.72	SLU 81	56.25	Si
ini.	3	-1643	113.65	2998.72	SLU 83	26.39	Si
fin.	3	-1655	53.31	2998.72	SLU 83	56.25	Si
ini.	3	-1641	114.35	2998.72	SLU 82	26.22	Si
fin.	3	-1654	51.86	2998.72	SLU 82	57.83	Si
ini.	3	-1483	107.67	2998.72	SLU 41	27.85	Si
fin.	3	-1491	48.16	2998.72	SLU 41	62.26	Si
ini.	3	-1483	107.67	2998.72	SLU 39	27.85	Si
fin.	3	-1491	48.16	2998.72	SLU 39	62.26	Si
ini.	3	-1481	108.37	2998.72	SLU 42	27.67	Si
fin.	3	-1489	46.71	2998.72	SLU 42	64.2	Si
ini.	3	-1481	108.37	2998.72	SLU 40	27.67	Si
fin.	3	-1489	46.71	2998.72	SLU 40	64.2	Si
ini.	3	-1465	99.25	2998.72	SLU 76	30.21	Si
fin.	3	-1478	45.75	2998.72	SLU 76	65.54	Si
ini.	3	-1641	114.35	2998.72	SLU 84	26.22	Si
fin.	3	-1654	51.86	2998.72	SLU 84	57.83	Si
ini.	3	-1465	99.25	2998.72	SLU 73	30.21	Si
fin.	3	-1478	45.75	2998.72	SLU 73	65.54	Si

### Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni non sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	3	0	107.67	-927			2311	870	SLU 39	0.94	No
fin.	3	0	48.16	437			2311	870	SLU 39	1.99	Si
ini.	3	0	97.62	-831			2311	870	SLU 63	1.05	Si
fin.	3	0	45.37	380			2311	870	SLU 63	2.29	Si
ini.	3	0	97.62	-831			2311	870	SLU 61	1.05	Si
fin.	3	0	45.37	380			2311	870	SLU 61	2.29	Si
ini.	3	0	114.35	-973			2311	870	SLU 84	0.89	No
fin.	3	0	51.86	448			2311	870	SLU 84	1.94	Si
ini.	3	0	114.35	-973			2311	870	SLU 82	0.89	No
fin.	3	0	51.86	448			2311	870	SLU 82	1.94	Si
ini.	3	0	108.37	-931			2311	870	SLU 40	0.93	No
fin.	3	0	46.71	432			2311	870	SLU 40	2.01	Si
ini.	3	0	107.67	-927			2311	870	SLU 41	0.94	No
fin.	3	0	48.16	437			2311	870	SLU 41	1.99	Si
ini.	3	0	113.65	-969			2311	870	SLU 83	0.9	No
fin.	3	0	53.31	454			2311	870	SLU 83	1.92	Si
ini.	3	0	108.37	-931			2311	870	SLU 42	0.93	No
fin.	3	0	46.71	432			2311	870	SLU 42	2.01	Si
ini.	3	0	113.65	-969			2311	870	SLU 81	0.9	No
fin.	3	0	53.31	454			2311	870	SLU 81	1.92	Si



## Verifiche a pressoflessione delle travi in muratura in combinazioni sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	2	-700	-817.17	3165.81	SLV 2	3.87	Si
fin.	2	-943	359.26	3165.81	SLV 2	8.81	Si
ini.	2	-636	-823.61	3165.81	SLV 4	3.84	Si
fin.	2	-900	395.43	3165.81	SLV 4	8.01	Si
ini.	2	-1150	932.02	3165.81	SLV 14	3.4	Si
fin.	2	-909	-335.74	3165.81	SLV 14	9.43	Si
ini.	2	-1067	327.32	3165.81	SLV 9	9.67	Si
fin.	2	-971	-134.69	3165.81	SLV 9	23.51	Si
ini.	2	-636	-823.61	3165.81	SLV 3	3.84	Si
fin.	2	-900	395.43	3165.81	SLV 3	8.01	Si
ini.	2	-700	-817.17	3165.81	SLV 1	3.87	Si
fin.	2	-943	359.26	3165.81	SLV 1	8.81	Si
ini.	2	-1067	327.32	3165.81	SLV 10	9.67	Si
fin.	2	-971	-134.69	3165.81	SLV 10	23.51	Si
ini.	2	-1086	925.58	3165.81	SLV 15	3.42	Si
fin.	2	-866	-299.57	3165.81	SLV 15	10.57	Si
ini.	2	-1150	932.02	3165.81	SLV 13	3.4	Si
fin.	2	-909	-335.74	3165.81	SLV 13	9.43	Si
ini.	2	-1086	925.58	3165.81	SLV 16	3.42	Si
fin.	2	-866	-299.57	3165.81	SLV 16	10.57	Si

## Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	2	0	-823.61	2376			3466	1304	SLV 4	0.55	No
fin.	2	0	395.43	3250			3466	1304	SLV 4	0.4	No
ini.	2	0	-823.61	2376			3466	1304	SLV 3	0.55	No
fin.	2	0	395.43	3250			3466	1304	SLV 3	0.4	No
ini.	2	0	925.58	-3214			3466	1304	SLV 15	0.41	No
fin.	2	0	-299.57	-2827			3466	1304	SLV 15	0.46	No
ini.	2	0	327.32	-1345			3466	1304	SLV 10	0.97	No
fin.	2	0	-134.69	-752			3466	1304	SLV 10	1.73	Si
ini.	2	0	-817.17	2336			3466	1304	SLV 2	0.56	No
fin.	2	0	359.26	3226			3466	1304	SLV 2	0.4	No
ini.	2	0	932.02	-3254			3466	1304	SLV 14	0.4	No
fin.	2	0	-335.74	-2851			3466	1304	SLV 14	0.46	No
ini.	2	0	327.32	-1345			3466	1304	SLV 9	0.97	No
fin.	2	0	-134.69	-752			3466	1304	SLV 9	1.73	Si
ini.	2	0	932.02	-3254			3466	1304	SLV 13	0.4	No
fin.	2	0	-335.74	-2851			3466	1304	SLV 13	0.46	No
ini.	2	0	-817.17	2336			3466	1304	SLV 1	0.56	No
fin.	2	0	359.26	3226			3466	1304	SLV 1	0.4	No
ini.	2	0	925.58	-3214			3466	1304	SLV 16	0.41	No
fin.	2	0	-299.57	-2827			3466	1304	SLV 16	0.46	No

## Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLV	3.397	SLV 13	Si
V_SLV	0.401	SLV 13	No
PF_SLU	26.225	SLU 82	Si
V_SLU	0.894	SLU 82	No

## Trave di accoppiamento 23

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

### Dati geometrici

X ini.	Y ini.	Z ini.inf.	Z ini.sup.	H ini.	X fin.	Y fin.	Z fin.inf.	Z fin.sup.	H fin.	Luce	Spessore	R. Trazione
-31.937	-9.039	4.49	5.62	1.13	-31.437	-9.039	4.49	5.62	1.13	0.5	0.3	3500

### Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2\_Corti

fb	f <sub>hk</sub>	f <sub>vk0</sub>	f <sub>hmedio</sub>	t <sub>0</sub>	f <sub>v0</sub>	μ	φ	f <sub>vk,lim</sub>	E	G	FC
120000			172500	9000	20000	0.577	0.767	6500	320000000	128000000	1.2

## Verifiche a pressoflessione delle travi in muratura in combinazioni non sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	3	527	-350.31	1476.22	SLU 81	4.21	Si
fin.	3	527	-400.31	1476.22	SLU 81	3.69	Si
ini.	3	418	-314.53	1476.22	SLU 41	4.69	Si
fin.	3	418	-361.8	1476.22	SLU 41	4.08	Si
ini.	3	525	-315.83	1476.22	SLU 74	4.67	Si
fin.	3	525	-358.76	1476.22	SLU 74	4.11	Si
ini.	3	397	-309.93	1476.22	SLU 42	4.76	Si
fin.	3	397	-359.36	1476.22	SLU 42	4.11	Si
ini.	3	506	-345.71	1476.22	SLU 82	4.27	Si
fin.	3	506	-397.88	1476.22	SLU 82	3.71	Si
ini.	3	506	-345.71	1476.22	SLU 84	4.27	Si
fin.	3	506	-397.88	1476.22	SLU 84	3.71	Si
ini.	3	418	-314.53	1476.22	SLU 39	4.69	Si
fin.	3	418	-361.8	1476.22	SLU 39	4.08	Si
ini.	3	527	-350.31	1476.22	SLU 83	4.21	Si
fin.	3	527	-400.31	1476.22	SLU 83	3.69	Si
ini.	3	397	-309.93	1476.22	SLU 40	4.76	Si
fin.	3	397	-359.36	1476.22	SLU 40	4.11	Si
ini.	3	525	-315.83	1476.22	SLU 77	4.67	Si



Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
fin.	3	525	-358.76	1476.22	SLU 77	4.11	Si

Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni non sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	3	0	-314.53	642			1306	491	SLU 39	0.77	No
fin.	3	0	-361.8	-588			1306	491	SLU 39	0.83	No
ini.	3	0	-308.22	579			1306	491	SLU 63	0.85	No
fin.	3	0	-353.59	-589			1306	491	SLU 63	0.83	No
ini.	3	0	-314.53	642			1306	491	SLU 41	0.77	No
fin.	3	0	-361.8	-588			1306	491	SLU 41	0.83	No
ini.	3	0	-345.71	672			1306	491	SLU 82	0.73	No
fin.	3	0	-397.88	-655			1306	491	SLU 82	0.75	No
ini.	3	0	-350.31	677			1306	491	SLU 81	0.73	No
fin.	3	0	-400.31	-651			1306	491	SLU 81	0.75	No
ini.	3	0	-309.93	638			1306	491	SLU 40	0.77	No
fin.	3	0	-359.36	-593			1306	491	SLU 40	0.83	No
ini.	3	0	-308.22	579			1306	491	SLU 61	0.85	No
fin.	3	0	-353.59	-589			1306	491	SLU 61	0.83	No
ini.	3	0	-350.31	677			1306	491	SLU 83	0.73	No
fin.	3	0	-400.31	-651			1306	491	SLU 83	0.75	No
ini.	3	0	-309.93	638			1306	491	SLU 42	0.77	No
fin.	3	0	-359.36	-593			1306	491	SLU 42	0.83	No
ini.	3	0	-345.71	672			1306	491	SLU 84	0.73	No
fin.	3	0	-397.88	-655			1306	491	SLU 84	0.75	No

Verifiche a pressoflessione delle travi in muratura in combinazioni sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	2	1028	-354.95	1643.31	SLV 8	4.63	Si
fin.	2	1092	-236.74	1643.31	SLV 8	6.94	Si
ini.	2	-481	8.77	1643.31	SLV 14	187.39	Si
fin.	2	-691	-306.59	1643.31	SLV 14	5.36	Si
ini.	2	1030	-335.94	1643.31	SLV 2	4.89	Si
fin.	2	1240	-103.4	1643.31	SLV 2	15.89	Si
ini.	2	-238	-55.68	1643.31	SLV 15	29.51	Si
fin.	2	-448	-335.31	1643.31	SLV 15	4.9	Si
ini.	2	-238	-55.68	1643.31	SLV 16	29.51	Si
fin.	2	-448	-335.31	1643.31	SLV 16	4.9	Si
ini.	2	1273	-400.4	1643.31	SLV 4	4.1	Si
fin.	2	1483	-132.12	1643.31	SLV 4	12.44	Si
ini.	2	-481	8.77	1643.31	SLV 13	187.39	Si
fin.	2	-691	-306.59	1643.31	SLV 13	5.36	Si
ini.	2	1028	-354.95	1643.31	SLV 7	4.63	Si
fin.	2	1092	-236.74	1643.31	SLV 7	6.94	Si
ini.	2	1273	-400.4	1643.31	SLV 3	4.1	Si
fin.	2	1483	-132.12	1643.31	SLV 3	12.44	Si
ini.	2	1030	-335.94	1643.31	SLV 1	4.89	Si
fin.	2	1240	-103.4	1643.31	SLV 1	15.89	Si

Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	2	0	-400.4	1031			1958	737	SLV 4	0.71	No
fin.	2	0	-132.12	371			1958	737	SLV 4	1.99	Si
ini.	2	0	-335.94	1010			1958	737	SLV 2	0.73	No
fin.	2	0	-103.4	349			1958	737	SLV 2	2.11	Si
ini.	2	0	-36.68	66			1958	737	SLV 10	11.11	Si
fin.	2	0	-201.97	-602			1958	737	SLV 10	1.22	Si
ini.	2	0	-55.68	-383			1958	737	SLV 15	1.92	Si
fin.	2	0	-335.31	-1053			1958	737	SLV 15	0.7	No
ini.	2	0	-335.94	1010			1958	737	SLV 1	0.73	No
fin.	2	0	-103.4	349			1958	737	SLV 1	2.11	Si
ini.	2	0	-36.68	66			1958	737	SLV 9	11.11	Si
fin.	2	0	-201.97	-602			1958	737	SLV 9	1.22	Si
ini.	2	0	-400.4	1031			1958	737	SLV 3	0.71	No
fin.	2	0	-132.12	371			1958	737	SLV 3	1.99	Si
ini.	2	0	-55.68	-383			1958	737	SLV 16	1.92	Si
fin.	2	0	-335.31	-1053			1958	737	SLV 16	0.7	No
ini.	2	0	8.77	-404			1958	737	SLV 14	1.82	Si
fin.	2	0	-306.59	-1075			1958	737	SLV 14	0.69	No
ini.	2	0	8.77	-404			1958	737	SLV 13	1.82	Si
fin.	2	0	-306.59	-1075			1958	737	SLV 13	0.69	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLV	4.104	SLV 3	Si
V_SLV	0.686	SLV 13	No
PF_SLU	3.688	SLU 81	Si
V_SLU	0.726	SLU 81	No

## Trave di accoppiamento 24

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati geometrici

X ini.	Y ini.	Z ini.inf.	Z ini.sup.	H ini.	X fin.	Y fin.	Z fin.inf.	Z fin.sup.	H fin.	Luce	Spessore	R. Trazione
-30.367	-9.039	1.69	2.69	1	-29.367	-9.039	1.69	2.69	1	1	0.3	3500



## Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2\_Corti

fb <sub>u</sub>	f <sub>hk</sub>	f <sub>vk0</sub>	f <sub>hmedio</sub>	τ <sub>0</sub>	f <sub>v0</sub>	μ	φ	f <sub>vk,lim</sub>	E	G	FC
120000			172500	9000	20000	0.577	0.767	6500	320000000	128000000	1.2

## Verifiche a pressoflessione delle travi in muratura in combinazioni non sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	3	-787	112.23	1248.72	SLU 84	11.13	Si
fin.	3	-851	199.36	1248.72	SLU 84	6.26	Si
ini.	3	-785	110.6	1248.72	SLU 83	11.29	Si
fin.	3	-853	200.83	1248.72	SLU 83	6.22	Si
ini.	3	-785	110.6	1248.72	SLU 81	11.29	Si
fin.	3	-853	200.83	1248.72	SLU 81	6.22	Si
ini.	3	-703	94.58	1248.72	SLU 79	13.2	Si
fin.	3	-783	187.32	1248.72	SLU 79	6.67	Si
ini.	3	-705	96.21	1248.72	SLU 80	12.98	Si
fin.	3	-781	185.85	1248.72	SLU 80	6.72	Si
ini.	3	-703	94.58	1248.72	SLU 77	13.2	Si
fin.	3	-783	187.32	1248.72	SLU 77	6.67	Si
ini.	3	-703	94.58	1248.72	SLU 74	13.2	Si
fin.	3	-783	187.32	1248.72	SLU 74	6.67	Si
ini.	3	-787	112.23	1248.72	SLU 82	11.13	Si
fin.	3	-851	199.36	1248.72	SLU 82	6.26	Si
ini.	3	-705	96.21	1248.72	SLU 75	12.98	Si
fin.	3	-781	185.85	1248.72	SLU 75	6.72	Si
ini.	3	-705	96.21	1248.72	SLU 78	12.98	Si
fin.	3	-781	185.85	1248.72	SLU 78	6.72	Si

## Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni non sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	3	0	103.51	-1330			1155	435	SLU 41	0.33	No
fin.	3	0	172.41	1108			1155	435	SLU 41	0.39	No
ini.	3	0	105.14	-1335			1155	435	SLU 42	0.33	No
fin.	3	0	170.94	1102			1155	435	SLU 42	0.39	No
ini.	3	0	112.23	-1456			1155	435	SLU 82	0.3	No
fin.	3	0	199.36	1245			1155	435	SLU 82	0.35	No
ini.	3	0	103.51	-1330			1155	435	SLU 39	0.33	No
fin.	3	0	172.41	1108			1155	435	SLU 39	0.39	No
ini.	3	0	110.6	-1451			1155	435	SLU 81	0.3	No
fin.	3	0	200.83	1250			1155	435	SLU 81	0.35	No
ini.	3	0	105.14	-1335			1155	435	SLU 40	0.33	No
fin.	3	0	170.94	1102			1155	435	SLU 40	0.39	No
ini.	3	0	112.23	-1456			1155	435	SLU 84	0.3	No
fin.	3	0	199.36	1245			1155	435	SLU 84	0.35	No
ini.	3	0	99.88	-1289			1155	435	SLU 63	0.34	No
fin.	3	0	184.12	1121			1155	435	SLU 63	0.39	No
ini.	3	0	110.6	-1451			1155	435	SLU 83	0.3	No
fin.	3	0	200.83	1250			1155	435	SLU 83	0.35	No
ini.	3	0	99.88	-1289			1155	435	SLU 61	0.34	No
fin.	3	0	184.12	1121			1155	435	SLU 61	0.39	No

## Verifiche a pressoflessione delle travi in muratura in combinazioni sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	2	-966	510.52	1415.81	SLV 15	2.77	Si
fin.	2	235	-456.82	1415.81	SLV 15	3.1	Si
ini.	2	100	-406.6	1415.81	SLV 2	3.48	Si
fin.	2	-1253	707.83	1415.81	SLV 2	2	Si
ini.	2	-128	-139.56	1415.81	SLV 8	10.15	Si
fin.	2	-740	363.86	1415.81	SLV 8	3.89	Si
ini.	2	-1046	540.22	1415.81	SLV 13	2.62	Si
fin.	2	240	-491.86	1415.81	SLV 13	2.88	Si
ini.	2	-128	-139.56	1415.81	SLV 7	10.15	Si
fin.	2	-740	363.86	1415.81	SLV 7	3.89	Si
ini.	2	100	-406.6	1415.81	SLV 1	3.48	Si
fin.	2	-1253	707.83	1415.81	SLV 1	2	Si
ini.	2	-1046	540.22	1415.81	SLV 14	2.62	Si
fin.	2	240	-491.86	1415.81	SLV 14	2.88	Si
ini.	2	180	-436.29	1415.81	SLV 4	3.25	Si
fin.	2	-1257	742.87	1415.81	SLV 4	1.91	Si
ini.	2	180	-436.29	1415.81	SLV 3	3.25	Si
fin.	2	-1257	742.87	1415.81	SLV 3	1.91	Si
ini.	2	-966	510.52	1415.81	SLV 16	2.77	Si
fin.	2	235	-456.82	1415.81	SLV 16	3.1	Si

## Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	2	0	-406.6	976			1733	652	SLV 2	0.67	No
fin.	2	0	707.83	2459			1733	652	SLV 2	0.27	No
ini.	2	0	510.52	-2485			1733	652	SLV 15	0.26	No
fin.	2	0	-456.82	-1010			1733	652	SLV 15	0.65	No
ini.	2	0	-139.56	-97			1733	652	SLV 7	6.7	Si
fin.	2	0	363.86	1435			1733	652	SLV 7	0.45	No
ini.	2	0	-436.29	1052			1733	652	SLV 3	0.62	No
fin.	2	0	742.87	2563			1733	652	SLV 3	0.25	No
ini.	2	0	510.52	-2485			1733	652	SLV 16	0.26	No
fin.	2	0	-456.82	-1010			1733	652	SLV 16	0.65	No
ini.	2	0	-406.6	976			1733	652	SLV 1	0.67	No
fin.	2	0	707.83	2459			1733	652	SLV 1	0.27	No
ini.	2	0	-436.29	1052			1733	652	SLV 4	0.62	No



Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
fin.	2	0	742.87	2563			1733	652	SLV 4	0.25	No
ini.	2	0	540.22	-2561			1733	652	SLV 14	0.25	No
fin.	2	0	-491.86	-1115			1733	652	SLV 14	0.58	No
ini.	2	0	-139.56	-97			1733	652	SLV 8	6.7	Si
fin.	2	0	363.86	1435			1733	652	SLV 8	0.45	No
ini.	2	0	540.22	-2561			1733	652	SLV 13	0.25	No
fin.	2	0	-491.86	-1115			1733	652	SLV 13	0.58	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLV	1.906	SLV 3	Si
V_SLV	0.254	SLV 3	No
PF_SLU	6.218	SLU 81	Si
V_SLU	0.299	SLU 82	No

## Trave di accoppiamento 25

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

### Dati geometrici

X ini.	Y ini.	Z ini.inf.	Z ini.sup.	H ini.	X fin.	Y fin.	Z fin.inf.	Z fin.sup.	H fin.	Luce	Spessore	R. Trazione
-30.367	-9.039	4.59	5.62	1.03	-29.367	-9.039	4.59	5.62	1.03	1	0.3	3500

### Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2\_Corti

fb	f <sub>hk</sub>	f <sub>vk0</sub>	f <sub>hmedio</sub>	t <sub>0</sub>	f <sub>v0</sub>	μ	φ	f <sub>vk,lim</sub>	E	G	FC
120000			172500	9000	20000	0.577	0.767	6500	320000000	128000000	1.2

### Verifiche a pressoflessione delle travi in muratura in combinazioni non sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	3	126	-225.05	1301.22	SLU 81	5.78	Si
fin.	3	126	62.86	1301.22	SLU 81	20.7	Si
ini.	3	126	-225.05	1301.22	SLU 83	5.78	Si
fin.	3	126	62.86	1301.22	SLU 83	20.7	Si
ini.	3	143	-205.05	1301.22	SLU 80	6.35	Si
fin.	3	143	65.38	1301.22	SLU 80	19.9	Si
ini.	3	143	-205.05	1301.22	SLU 75	6.35	Si
fin.	3	143	65.38	1301.22	SLU 75	19.9	Si
ini.	3	143	-205.05	1301.22	SLU 78	6.35	Si
fin.	3	143	65.38	1301.22	SLU 78	19.9	Si
ini.	3	110	-222.23	1301.22	SLU 82	5.86	Si
fin.	3	110	60.04	1301.22	SLU 82	21.67	Si
ini.	3	159	-207.87	1301.22	SLU 74	6.26	Si
fin.	3	159	68.2	1301.22	SLU 74	19.08	Si
ini.	3	159	-207.87	1301.22	SLU 79	6.26	Si
fin.	3	159	68.2	1301.22	SLU 79	19.08	Si
ini.	3	159	-207.87	1301.22	SLU 77	6.26	Si
fin.	3	159	68.2	1301.22	SLU 77	19.08	Si
ini.	3	110	-222.23	1301.22	SLU 84	5.86	Si
fin.	3	110	60.04	1301.22	SLU 84	21.67	Si

### Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni non sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	3	0	-194.16	1824			1190	448	SLU 42	0.25	No
fin.	3	0	42.14	-1699			1190	448	SLU 42	0.26	No
ini.	3	0	-225.05	2006			1190	448	SLU 83	0.22	No
fin.	3	0	62.86	-1760			1190	448	SLU 83	0.25	No
ini.	3	0	-225.05	2006			1190	448	SLU 81	0.22	No
fin.	3	0	62.86	-1760			1190	448	SLU 81	0.25	No
ini.	3	0	-222.23	2001			1190	448	SLU 82	0.22	No
fin.	3	0	60.04	-1765			1190	448	SLU 82	0.25	No
ini.	3	0	-222.23	2001			1190	448	SLU 84	0.22	No
fin.	3	0	60.04	-1765			1190	448	SLU 84	0.25	No
ini.	3	0	-196.98	1829			1190	448	SLU 39	0.24	No
fin.	3	0	44.96	-1694			1190	448	SLU 39	0.26	No
ini.	3	0	-194.16	1824			1190	448	SLU 40	0.25	No
fin.	3	0	42.14	-1699			1190	448	SLU 40	0.26	No
ini.	3	0	-203.49	1781			1190	448	SLU 62	0.25	No
fin.	3	0	61.41	-1508			1190	448	SLU 62	0.3	No
ini.	3	0	-203.49	1781			1190	448	SLU 60	0.25	No
fin.	3	0	61.41	-1508			1190	448	SLU 60	0.3	No
ini.	3	0	-196.98	1829			1190	448	SLU 41	0.24	No
fin.	3	0	44.96	-1694			1190	448	SLU 41	0.26	No

### Verifiche a pressoflessione delle travi in muratura in combinazioni sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	2	-68	557.2	1468.31	SLV 14	2.64	Si
fin.	2	-547	-572.37	1468.31	SLV 14	2.57	Si
ini.	2	68	490.84	1468.31	SLV 16	2.99	Si
fin.	2	-481	-512.21	1468.31	SLV 16	2.87	Si
ini.	2	-68	557.2	1468.31	SLV 13	2.64	Si
fin.	2	-547	-572.37	1468.31	SLV 13	2.57	Si
ini.	2	396	-828.77	1468.31	SLV 4	1.77	Si
fin.	2	875	688.72	1468.31	SLV 4	2.13	Si
ini.	2	396	-828.77	1468.31	SLV 3	1.77	Si
fin.	2	875	688.72	1468.31	SLV 3	2.13	Si



Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	2	260	-762.41	1468.31	SLV 1	1.93	Si
fin.	2	809	628.55	1468.31	SLV 1	2.34	Si
ini.	2	68	490.84	1468.31	SLV 15	2.99	Si
fin.	2	-481	-512.21	1468.31	SLV 15	2.87	Si
ini.	2	260	-762.41	1468.31	SLV 2	1.93	Si
fin.	2	809	628.55	1468.31	SLV 2	2.34	Si
ini.	2	439	-444.32	1468.31	SLV 7	3.3	Si
fin.	2	477	338.59	1468.31	SLV 7	4.34	Si
ini.	2	439	-444.32	1468.31	SLV 8	3.3	Si
fin.	2	477	338.59	1468.31	SLV 8	4.34	Si

#### Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	2	0	-762.41	2523			1785	672	SLV 2	0.27	No
fin.	2	0	628.55	693			1785	672	SLV 2	0.97	No
ini.	2	0	557.2	-470			1785	672	SLV 14	1.43	Si
fin.	2	0	-572.37	-2307			1785	672	SLV 14	0.29	No
ini.	2	0	-444.32	1635			1785	672	SLV 8	0.41	No
fin.	2	0	338.59	-175			1785	672	SLV 8	3.83	Si
ini.	2	0	-828.77	2597			1785	672	SLV 3	0.26	No
fin.	2	0	688.72	777			1785	672	SLV 3	0.86	No
ini.	2	0	490.84	-396			1785	672	SLV 16	1.69	Si
fin.	2	0	-512.21	-2223			1785	672	SLV 16	0.3	No
ini.	2	0	-828.77	2597			1785	672	SLV 4	0.26	No
fin.	2	0	688.72	777			1785	672	SLV 4	0.86	No
ini.	2	0	557.2	-470			1785	672	SLV 13	1.43	Si
fin.	2	0	-572.37	-2307			1785	672	SLV 13	0.29	No
ini.	2	0	490.84	-396			1785	672	SLV 15	1.69	Si
fin.	2	0	-512.21	-2223			1785	672	SLV 15	0.3	No
ini.	2	0	-444.32	1635			1785	672	SLV 7	0.41	No
fin.	2	0	338.59	-175			1785	672	SLV 7	3.83	Si
ini.	2	0	-762.41	2523			1785	672	SLV 1	0.27	No
fin.	2	0	628.55	693			1785	672	SLV 1	0.97	No

#### Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLV	1.772	SLV 3	Si
V_SLV	0.259	SLV 3	No
PF_SLU	5.782	SLU 81	Si
V_SLU	0.223	SLU 81	No

## Trave di accoppiamento 26

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

#### Dati geometrici

X ini.	Y ini.	Z ini.inf.	Z ini.sup.	H ini.	X fin.	Y fin.	Z fin.inf.	Z fin.sup.	H fin.	Luce	Spessore	R. Trazione
-27.097	-9.039	1.69	2.69	1	-26.097	-9.039	1.69	2.69	1	1	0.3	3500

#### Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2\_Corti

f <sub>b</sub>	f <sub>tk</sub>	f <sub>vk0</sub>	f <sub>hmedio</sub>	τ <sub>0</sub>	f <sub>v0</sub>	μ	φ	f <sub>vk,lim</sub>	E	G	FC
120000			172500	9000	20000	0.577	0.767	6500	320000000	128000000	1.2

#### Verifiche a pressoflessione delle travi in muratura in combinazioni non sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	3	-654	264.93	1248.72	SLU 76	4.71	Si
fin.	3	-1350	-44.68	1248.72	SLU 76	27.95	Si
ini.	3	-650	263.31	1248.72	SLU 79	4.74	Si
fin.	3	-1352	-42.76	1248.72	SLU 79	29.21	Si
ini.	3	-654	264.93	1248.72	SLU 73	4.71	Si
fin.	3	-1350	-44.68	1248.72	SLU 73	27.95	Si
ini.	3	-653	264.28	1248.72	SLU 78	4.72	Si
fin.	3	-1351	-43.91	1248.72	SLU 78	28.44	Si
ini.	3	-653	264.28	1248.72	SLU 80	4.72	Si
fin.	3	-1351	-43.91	1248.72	SLU 80	28.44	Si
ini.	3	-708	284.63	1248.72	SLU 83	4.39	Si
fin.	3	-1490	-37.44	1248.72	SLU 83	33.35	Si
ini.	3	-653	264.28	1248.72	SLU 75	4.72	Si
fin.	3	-1351	-43.91	1248.72	SLU 75	28.44	Si
ini.	3	-708	284.63	1248.72	SLU 81	4.39	Si
fin.	3	-1490	-37.44	1248.72	SLU 81	33.35	Si
ini.	3	-711	285.6	1248.72	SLU 84	4.37	Si
fin.	3	-1489	-38.6	1248.72	SLU 84	32.35	Si
ini.	3	-711	285.6	1248.72	SLU 82	4.37	Si
fin.	3	-1489	-38.6	1248.72	SLU 82	32.35	Si

#### Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni non sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	3	0	285.6	-987			1155	435	SLU 84	0.44	No
fin.	3	0	-38.6	-357			1155	435	SLU 84	1.22	Si
ini.	3	0	257.4	-940			1155	435	SLU 60	0.46	No
fin.	3	0	-37.7	-337			1155	435	SLU 60	1.29	Si
ini.	3	0	257.4	-940			1155	435	SLU 62	0.46	No
fin.	3	0	-37.7	-337			1155	435	SLU 62	1.29	Si
ini.	3	0	258.38	-942			1155	435	SLU 63	0.46	No



Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
fin.	3	0	-38.86	-341			1155	435	SLU 63	1.28	Si
ini.	3	0	285.6	-987			1155	435	SLU 82	0.44	No
fin.	3	0	-38.6	-357			1155	435	SLU 82	1.22	Si
ini.	3	0	284.63	-985			1155	435	SLU 83	0.44	No
fin.	3	0	-37.44	-353			1155	435	SLU 83	1.23	Si
ini.	3	0	258.38	-942			1155	435	SLU 61	0.46	No
fin.	3	0	-38.86	-341			1155	435	SLU 61	1.28	Si
ini.	3	0	264.93	-910			1155	435	SLU 76	0.48	No
fin.	3	0	-44.68	-376			1155	435	SLU 76	1.15	Si
ini.	3	0	284.63	-985			1155	435	SLU 81	0.44	No
fin.	3	0	-37.44	-353			1155	435	SLU 81	1.23	Si
ini.	3	0	264.93	-910			1155	435	SLU 73	0.48	No
fin.	3	0	-44.68	-376			1155	435	SLU 73	1.15	Si

#### Verifiche a pressoflessione delle travi in muratura in combinazioni sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	2	-1175	667.48	1415.81	SLV 16	2.12	Si
fin.	2	-157	-743.99	1415.81	SLV 16	1.9	Si
ini.	2	330	-322.47	1415.81	SLV 1	4.39	Si
fin.	2	-1544	666.1	1415.81	SLV 1	2.13	Si
ini.	2	-1115	643.4	1415.81	SLV 14	2.2	Si
fin.	2	-213	-697.65	1415.81	SLV 14	2.03	Si
ini.	2	271	-298.39	1415.81	SLV 3	4.74	Si
fin.	2	-1488	619.77	1415.81	SLV 3	2.28	Si
ini.	2	-1175	667.48	1415.81	SLV 15	2.12	Si
fin.	2	-157	-743.99	1415.81	SLV 15	1.9	Si
ini.	2	-738	357.52	1415.81	SLV 11	3.96	Si
fin.	2	-557	-320.73	1415.81	SLV 11	4.41	Si
ini.	2	-1115	643.4	1415.81	SLV 13	2.2	Si
fin.	2	-213	-697.65	1415.81	SLV 13	2.03	Si
ini.	2	271	-298.39	1415.81	SLV 4	4.74	Si
fin.	2	-1488	619.77	1415.81	SLV 4	2.28	Si
ini.	2	-738	357.52	1415.81	SLV 12	3.96	Si
fin.	2	-557	-320.73	1415.81	SLV 12	4.41	Si
ini.	2	330	-322.47	1415.81	SLV 2	4.39	Si
fin.	2	-1544	666.1	1415.81	SLV 2	2.13	Si

#### Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	2	0	667.48	-2528			1733	652	SLV 15	0.26	No
fin.	2	0	-743.99	-2231			1733	652	SLV 15	0.29	No
ini.	2	0	357.52	-1403			1733	652	SLV 12	0.46	No
fin.	2	0	-320.73	-1049			1733	652	SLV 12	0.62	No
ini.	2	0	-298.39	1181			1733	652	SLV 4	0.55	No
fin.	2	0	619.77	1520			1733	652	SLV 4	0.43	No
ini.	2	0	-322.47	1329			1733	652	SLV 1	0.49	No
fin.	2	0	666.1	1632			1733	652	SLV 1	0.4	No
ini.	2	0	-298.39	1181			1733	652	SLV 3	0.55	No
fin.	2	0	619.77	1520			1733	652	SLV 3	0.43	No
ini.	2	0	-322.47	1329			1733	652	SLV 2	0.49	No
fin.	2	0	666.1	1632			1733	652	SLV 2	0.4	No
ini.	2	0	643.4	-2379			1733	652	SLV 14	0.27	No
fin.	2	0	-697.65	-2119			1733	652	SLV 14	0.31	No
ini.	2	0	357.52	-1403			1733	652	SLV 11	0.46	No
fin.	2	0	-320.73	-1049			1733	652	SLV 11	0.62	No
ini.	2	0	667.48	-2528			1733	652	SLV 16	0.26	No
fin.	2	0	-743.99	-2231			1733	652	SLV 16	0.29	No
ini.	2	0	643.4	-2379			1733	652	SLV 13	0.27	No
fin.	2	0	-697.65	-2119			1733	652	SLV 13	0.31	No

#### Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLV	1.903	SLV 15	Si
V_SLV	0.258	SLV 15	No
PF_SLU	4.372	SLU 82	Si
V_SLU	0.441	SLU 82	No

## Trave di accoppiamento 27

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

#### Dati geometrici

X ini.	Y ini.	Z ini.inf.	Z ini.sup.	H ini.	X fin.	Y fin.	Z fin.inf.	Z fin.sup.	H fin.	Luce	Spessore	R. Trazione
-27.097	-9.039	4.59	5.62	1.03	-26.097	-9.039	4.59	5.62	1.03	1	0.3	3500

#### Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2\_Corti

fb <sub>d</sub>	f <sub>hk</sub>	f <sub>vk0</sub>	f <sub>hmedio</sub>	τ <sub>0</sub>	f <sub>v0</sub>	μ	φ	f <sub>vk,lim</sub>	E	G	FC
120000			172500	9000	20000	0.577	0.767	6500	320000000	128000000	1.2

#### Verifiche a pressoflessione delle travi in muratura in combinazioni non sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	3	-656	-173.28	1301.22	SLU 84	7.51	Si
fin.	3	-656	-82.52	1301.22	SLU 84	15.77	Si
ini.	3	-648	-173.83	1301.22	SLU 81	7.49	Si
fin.	3	-648	-81.75	1301.22	SLU 81	15.92	Si





Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	3	-648	-173.83	1301.22	SLU 83	7.49	Si
fin.	3	-648	-81.75	1301.22	SLU 83	15.92	Si
ini.	3	-551	-146.5	1301.22	SLU 79	8.88	Si
fin.	3	-551	-77.23	1301.22	SLU 79	16.85	Si
ini.	3	-656	-173.28	1301.22	SLU 82	7.51	Si
fin.	3	-656	-82.52	1301.22	SLU 82	15.77	Si
ini.	3	-634	-167.96	1301.22	SLU 40	7.75	Si
fin.	3	-634	-69.49	1301.22	SLU 40	18.73	Si
ini.	3	-627	-168.5	1301.22	SLU 41	7.72	Si
fin.	3	-627	-68.72	1301.22	SLU 41	18.94	Si
ini.	3	-551	-146.5	1301.22	SLU 77	8.88	Si
fin.	3	-551	-77.23	1301.22	SLU 77	16.85	Si
ini.	3	-634	-167.96	1301.22	SLU 42	7.75	Si
fin.	3	-634	-69.49	1301.22	SLU 42	18.73	Si
ini.	3	-627	-168.5	1301.22	SLU 39	7.72	Si
fin.	3	-627	-68.72	1301.22	SLU 39	18.94	Si

#### Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni non sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	3	0	-167.96	1867			1190	448	SLU 40	0.24	No
fin.	3	0	-69.49	-1596			1190	448	SLU 40	0.28	No
ini.	3	0	-167.96	1867			1190	448	SLU 42	0.24	No
fin.	3	0	-69.49	-1596			1190	448	SLU 42	0.28	No
ini.	3	0	-173.28	1963			1190	448	SLU 82	0.23	No
fin.	3	0	-82.52	-1721			1190	448	SLU 82	0.26	No
ini.	3	0	-168.5	1868			1190	448	SLU 39	0.24	No
fin.	3	0	-68.72	-1595			1190	448	SLU 39	0.28	No
ini.	3	0	-145.97	1690			1190	448	SLU 60	0.27	No
fin.	3	0	-76.98	-1512			1190	448	SLU 60	0.3	No
ini.	3	0	-145.97	1690			1190	448	SLU 62	0.27	No
fin.	3	0	-76.98	-1512			1190	448	SLU 62	0.3	No
ini.	3	0	-168.5	1868			1190	448	SLU 41	0.24	No
fin.	3	0	-68.72	-1595			1190	448	SLU 41	0.28	No
ini.	3	0	-173.28	1963			1190	448	SLU 84	0.23	No
fin.	3	0	-82.52	-1721			1190	448	SLU 84	0.26	No
ini.	3	0	-173.83	1964			1190	448	SLU 83	0.23	No
fin.	3	0	-81.75	-1719			1190	448	SLU 83	0.26	No
ini.	3	0	-173.83	1964			1190	448	SLU 81	0.23	No
fin.	3	0	-81.75	-1719			1190	448	SLU 81	0.26	No

#### Verifiche a pressoflessione delle travi in muratura in combinazioni sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	2	107	219.42	1468.31	SLV 11	6.69	Si
fin.	2	-112	-376.83	1468.31	SLV 11	3.9	Si
ini.	2	615	551.39	1468.31	SLV 14	2.66	Si
fin.	2	12	-651.55	1468.31	SLV 14	2.25	Si
ini.	2	615	551.39	1468.31	SLV 13	2.66	Si
fin.	2	12	-651.55	1468.31	SLV 13	2.25	Si
ini.	2	-1265	-761.79	1468.31	SLV 2	1.93	Si
fin.	2	-641	624.35	1468.31	SLV 2	2.35	Si
ini.	2	-1265	-761.79	1468.31	SLV 1	1.93	Si
fin.	2	-641	624.35	1468.31	SLV 1	2.35	Si
ini.	2	684	610.3	1468.31	SLV 16	2.41	Si
fin.	2	60	-730.87	1468.31	SLV 16	2.01	Si
ini.	2	-1196	-702.88	1468.31	SLV 4	2.09	Si
fin.	2	-592	545.03	1468.31	SLV 4	2.69	Si
ini.	2	684	610.3	1468.31	SLV 15	2.41	Si
fin.	2	60	-730.87	1468.31	SLV 15	2.01	Si
ini.	2	-1196	-702.88	1468.31	SLV 3	2.09	Si
fin.	2	-592	545.03	1468.31	SLV 3	2.69	Si
ini.	2	107	219.42	1468.31	SLV 12	6.69	Si
fin.	2	-112	-376.83	1468.31	SLV 12	3.9	Si

#### Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	2	0	551.39	-568			1785	672	SLV 13	1.18	Si
fin.	2	0	-651.55	-2337			1785	672	SLV 13	0.29	No
ini.	2	0	-370.91	1522			1785	672	SLV 5	0.44	No
fin.	2	0	270.32	-263			1785	672	SLV 5	2.55	Si
ini.	2	0	-702.88	2375			1785	672	SLV 4	0.28	No
fin.	2	0	545.03	622			1785	672	SLV 4	1.08	Si
ini.	2	0	-702.88	2375			1785	672	SLV 3	0.28	No
fin.	2	0	545.03	622			1785	672	SLV 3	1.08	Si
ini.	2	0	-370.91	1522			1785	672	SLV 6	0.44	No
fin.	2	0	270.32	-263			1785	672	SLV 6	2.55	Si
ini.	2	0	551.39	-568			1785	672	SLV 14	1.18	Si
fin.	2	0	-651.55	-2337			1785	672	SLV 14	0.29	No
ini.	2	0	610.3	-665			1785	672	SLV 15	1.01	Si
fin.	2	0	-730.87	-2419			1785	672	SLV 15	0.28	No
ini.	2	0	-761.79	2472			1785	672	SLV 2	0.27	No
fin.	2	0	624.35	705			1785	672	SLV 2	0.95	No
ini.	2	0	-761.79	2472			1785	672	SLV 1	0.27	No
fin.	2	0	624.35	705			1785	672	SLV 1	0.95	No
ini.	2	0	610.3	-665			1785	672	SLV 16	1.01	Si
fin.	2	0	-730.87	-2419			1785	672	SLV 16	0.28	No

#### Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLV	1.927	SLV 1	Si



Stato limite	Coeff.s.	Comb.	Verifica
V_SLV	0.272	SLV 1	No
PF_SLV	7.486	SLU 81	Si
V_SLV	0.228	SLU 81	No

## Trave di accoppiamento 28

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

### Dati geometrici

X ini.	Y ini.	Z ini.inf.	Z ini.sup.	H ini.	X fin.	Y fin.	Z fin.inf.	Z fin.sup.	H fin.	Luce	Spessore	R. Trazione
-24.997	-9.039	1.69	3.69	2	-24.497	-9.039	1.69	3.69	2	0.5	0.3	3500

### Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2\_Corti

fb	f <sub>hk</sub>	f <sub>vk0</sub>	f <sub>hmedio</sub>	t <sub>0</sub>	f <sub>v0</sub>	μ	φ	f <sub>vk,lim</sub>	E	G	FC
120000			172500	9000	20000	0.577	0.767	6500	320000000	128000000	1.2

### Verifiche a pressoflessione delle travi in muratura in combinazioni non sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	3	-1105	-105.14	2998.72	SLU 75	28.52	Si
fin.	3	-1059	7.6	2998.72	SLU 75	394.68	Si
ini.	3	-1239	-109.83	2998.72	SLU 81	27.3	Si
fin.	3	-1192	18.65	2998.72	SLU 81	160.76	Si
ini.	3	-1106	-105.17	2998.72	SLU 74	28.51	Si
fin.	3	-1060	9.27	2998.72	SLU 74	323.42	Si
ini.	3	-1239	-109.8	2998.72	SLU 82	27.31	Si
fin.	3	-1190	16.98	2998.72	SLU 82	176.61	Si
ini.	3	-1105	-105.14	2998.72	SLU 78	28.52	Si
fin.	3	-1059	7.6	2998.72	SLU 78	394.68	Si
ini.	3	-1106	-105.17	2998.72	SLU 79	28.51	Si
fin.	3	-1060	9.27	2998.72	SLU 79	323.42	Si
ini.	3	-1106	-105.17	2998.72	SLU 77	28.51	Si
fin.	3	-1060	9.27	2998.72	SLU 77	323.42	Si
ini.	3	-1105	-105.14	2998.72	SLU 80	28.52	Si
fin.	3	-1059	7.6	2998.72	SLU 80	394.68	Si
ini.	3	-1239	-109.83	2998.72	SLU 83	27.3	Si
fin.	3	-1192	18.65	2998.72	SLU 83	160.76	Si
ini.	3	-1239	-109.8	2998.72	SLU 84	27.31	Si
fin.	3	-1190	16.98	2998.72	SLU 84	176.61	Si

### Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni non sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	3	0	-91.68	-1839			2311	870	SLU 39	0.47	No
fin.	3	0	24.78	1684			2311	870	SLU 39	0.52	No
ini.	3	0	-105.12	-1835			2311	870	SLU 76	0.47	No
fin.	3	0	6.48	1666			2311	870	SLU 76	0.52	No
ini.	3	0	-109.8	-2043			2311	870	SLU 84	0.43	No
fin.	3	0	16.98	1867			2311	870	SLU 84	0.47	No
ini.	3	0	-105.12	-1835			2311	870	SLU 73	0.47	No
fin.	3	0	6.48	1666			2311	870	SLU 73	0.52	No
ini.	3	0	-91.65	-1844			2311	870	SLU 42	0.47	No
fin.	3	0	23.11	1679			2311	870	SLU 42	0.52	No
ini.	3	0	-109.83	-2038			2311	870	SLU 81	0.43	No
fin.	3	0	18.65	1873			2311	870	SLU 81	0.46	No
ini.	3	0	-109.83	-2038			2311	870	SLU 83	0.43	No
fin.	3	0	18.65	1873			2311	870	SLU 83	0.46	No
ini.	3	0	-109.8	-2043			2311	870	SLU 82	0.43	No
fin.	3	0	16.98	1867			2311	870	SLU 82	0.47	No
ini.	3	0	-91.65	-1844			2311	870	SLU 40	0.47	No
fin.	3	0	23.11	1679			2311	870	SLU 40	0.52	No
ini.	3	0	-91.68	-1839			2311	870	SLU 41	0.47	No
fin.	3	0	24.78	1684			2311	870	SLU 41	0.52	No

### Verifiche a pressoflessione delle travi in muratura in combinazioni sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	2	-592	-180.22	3165.81	SLV 4	17.57	Si
fin.	2	-1097	741.21	3165.81	SLV 4	4.27	Si
ini.	2	-754	32.15	3165.81	SLV 13	98.48	Si
fin.	2	-187	-750.97	3165.81	SLV 13	4.22	Si
ini.	2	-719	51.34	3165.81	SLV 16	61.66	Si
fin.	2	-121	-754.3	3165.81	SLV 16	4.2	Si
ini.	2	-634	-7.31	3165.81	SLV 11	433.06	Si
fin.	2	-386	-234.76	3165.81	SLV 11	13.49	Si
ini.	2	-634	-7.31	3165.81	SLV 12	433.06	Si
fin.	2	-386	-234.76	3165.81	SLV 12	13.49	Si
ini.	2	-592	-180.22	3165.81	SLV 3	17.57	Si
fin.	2	-1097	741.21	3165.81	SLV 3	4.27	Si
ini.	2	-754	32.15	3165.81	SLV 14	98.48	Si
fin.	2	-187	-750.97	3165.81	SLV 14	4.22	Si
ini.	2	-627	-199.42	3165.81	SLV 2	15.88	Si
fin.	2	-1163	744.54	3165.81	SLV 2	4.25	Si
ini.	2	-627	-199.42	3165.81	SLV 1	15.88	Si
fin.	2	-1163	744.54	3165.81	SLV 1	4.25	Si
ini.	2	-719	51.34	3165.81	SLV 15	61.66	Si
fin.	2	-121	-754.3	3165.81	SLV 15	4.2	Si



#### Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	2	0	51.34	-4141			3466	1304	SLV 16	0.31	No
fin.	2	0	-754.3	-1721			3466	1304	SLV 16	0.76	No
ini.	2	0	51.34	-4141			3466	1304	SLV 15	0.31	No
fin.	2	0	-754.3	-1721			3466	1304	SLV 15	0.76	No
ini.	2	0	-180.22	1855			3466	1304	SLV 4	0.7	No
fin.	2	0	741.21	3737			3466	1304	SLV 4	0.35	No
ini.	2	0	-199.42	1907			3466	1304	SLV 1	0.68	No
fin.	2	0	744.54	3771			3466	1304	SLV 1	0.35	No
ini.	2	0	-199.42	1907			3466	1304	SLV 2	0.68	No
fin.	2	0	744.54	3771			3466	1304	SLV 2	0.35	No
ini.	2	0	-7.31	-2103			3466	1304	SLV 12	0.62	No
fin.	2	0	-234.76	149			3466	1304	SLV 12	8.75	Si
ini.	2	0	-7.31	-2103			3466	1304	SLV 11	0.62	No
fin.	2	0	-234.76	149			3466	1304	SLV 11	8.75	Si
ini.	2	0	32.15	-4090			3466	1304	SLV 13	0.32	No
fin.	2	0	-750.97	-1686			3466	1304	SLV 13	0.77	No
ini.	2	0	32.15	-4090			3466	1304	SLV 14	0.32	No
fin.	2	0	-750.97	-1686			3466	1304	SLV 14	0.77	No
ini.	2	0	-180.22	1855			3466	1304	SLV 3	0.7	No
fin.	2	0	741.21	3737			3466	1304	SLV 3	0.35	No

#### Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLV	4.197	SLV 15	Si
V_SLV	0.315	SLV 15	No
PF_SLU	27.303	SLU 81	Si
V_SLU	0.426	SLU 82	No

#### Trave di accoppiamento 29

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

#### Dati geometrici

X ini.	Y ini.	Z ini.inf.	Z ini.sup.	H ini.	X fin.	Y fin.	Z fin.inf.	Z fin.sup.	H fin.	Luce	Spessore	R. Trazione
-24.997	-9.039	4.49	5.62	1.13	-24.497	-9.039	4.49	5.62	1.13	0.5	0.3	3500

#### Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2\_Corti

fb	f <sub>hk</sub>	f <sub>vk0</sub>	f <sub>hmedio</sub>	τ <sub>0</sub>	f <sub>v0</sub>	μ	φ	f <sub>vk,lim</sub>	E	G	FC
120000			172500	9000	20000	0.577	0.767	6500	320000000	128000000	1.2

#### Verifiche a pressoflessione delle travi in muratura in combinazioni non sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	3	-285	-197.82	1476.22	SLU 81	7.46	Si
fin.	3	-285	-177.28	1476.22	SLU 81	8.33	Si
ini.	3	-213	-178.93	1476.22	SLU 60	8.25	Si
fin.	3	-213	-160.16	1476.22	SLU 60	9.22	Si
ini.	3	-285	-197.82	1476.22	SLU 83	7.46	Si
fin.	3	-285	-177.28	1476.22	SLU 83	8.33	Si
ini.	3	-308	-178.18	1476.22	SLU 42	8.28	Si
fin.	3	-308	-159.25	1476.22	SLU 42	9.27	Si
ini.	3	-213	-178.93	1476.22	SLU 62	8.25	Si
fin.	3	-213	-160.16	1476.22	SLU 62	9.22	Si
ini.	3	-303	-179.28	1476.22	SLU 41	8.23	Si
fin.	3	-303	-160.08	1476.22	SLU 41	9.22	Si
ini.	3	-290	-196.72	1476.22	SLU 84	7.5	Si
fin.	3	-290	-176.45	1476.22	SLU 84	8.37	Si
ini.	3	-290	-196.72	1476.22	SLU 82	7.5	Si
fin.	3	-290	-176.45	1476.22	SLU 82	8.37	Si
ini.	3	-308	-178.18	1476.22	SLU 40	8.28	Si
fin.	3	-308	-159.25	1476.22	SLU 40	9.27	Si
ini.	3	-303	-179.28	1476.22	SLU 39	8.23	Si
fin.	3	-303	-160.08	1476.22	SLU 39	9.22	Si

#### Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni non sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	3	0	-178.18	463			1306	491	SLU 42	1.06	Si
fin.	3	0	-159.25	-772			1306	491	SLU 42	0.64	No
ini.	3	0	-197.82	520			1306	491	SLU 81	0.94	No
fin.	3	0	-177.28	-813			1306	491	SLU 81	0.6	No
ini.	3	0	-177.83	473			1306	491	SLU 63	1.04	Si
fin.	3	0	-159.33	-700			1306	491	SLU 63	0.7	No
ini.	3	0	-196.72	520			1306	491	SLU 82	0.95	No
fin.	3	0	-176.45	-814			1306	491	SLU 82	0.6	No
ini.	3	0	-177.83	473			1306	491	SLU 61	1.04	Si
fin.	3	0	-159.33	-700			1306	491	SLU 61	0.7	No
ini.	3	0	-179.28	464			1306	491	SLU 39	1.06	Si
fin.	3	0	-160.08	-772			1306	491	SLU 39	0.64	No
ini.	3	0	-197.82	520			1306	491	SLU 83	0.94	No
fin.	3	0	-177.28	-813			1306	491	SLU 83	0.6	No
ini.	3	0	-178.18	463			1306	491	SLU 40	1.06	Si
fin.	3	0	-159.25	-772			1306	491	SLU 40	0.64	No
ini.	3	0	-196.72	520			1306	491	SLU 84	0.95	No
fin.	3	0	-176.45	-814			1306	491	SLU 84	0.6	No
ini.	3	0	-179.28	464			1306	491	SLU 41	1.06	Si



Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
fin.	3	0	-160.08	-772			1306	491	SLU 41	0.64	No

#### Verifiche a pressoflessione delle travi in muratura in combinazioni sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	2	-994	-235.98	1643.31	SLV 3	6.96	Si
fin.	2	-838	-54.15	1643.31	SLV 3	30.35	Si
ini.	2	1056	-2.78	1643.31	SLV 15	590.43	Si
fin.	2	888	-196.89	1643.31	SLV 15	8.35	Si
ini.	2	606	-119.88	1643.31	SLV 11	13.71	Si
fin.	2	538	-218.09	1643.31	SLV 11	7.54	Si
ini.	2	606	-119.88	1643.31	SLV 12	13.71	Si
fin.	2	538	-218.09	1643.31	SLV 12	7.54	Si
ini.	2	-9	-189.84	1643.31	SLV 7	8.66	Si
fin.	2	21	-175.27	1643.31	SLV 7	9.38	Si
ini.	2	-9	-189.84	1643.31	SLV 8	8.66	Si
fin.	2	21	-175.27	1643.31	SLV 8	9.38	Si
ini.	2	-994	-235.98	1643.31	SLV 4	6.96	Si
fin.	2	-838	-54.15	1643.31	SLV 4	30.35	Si
ini.	2	1056	-2.78	1643.31	SLV 16	590.43	Si
fin.	2	888	-196.89	1643.31	SLV 16	8.35	Si
ini.	2	-1223	-205.57	1643.31	SLV 2	7.99	Si
fin.	2	-1056	6.85	1643.31	SLV 2	239.89	Si
ini.	2	-1223	-205.57	1643.31	SLV 1	7.99	Si
fin.	2	-1056	6.85	1643.31	SLV 1	239.89	Si

#### Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	2	0	-119.88	58			1958	737	SLV 11	12.6	Si
fin.	2	0	-218.09	-627			1958	737	SLV 11	1.17	Si
ini.	2	0	-235.98	941			1958	737	SLV 3	0.78	No
fin.	2	0	-54.15	267			1958	737	SLV 3	2.76	Si
ini.	2	0	27.63	-360			1958	737	SLV 14	2.05	Si
fin.	2	0	-135.89	-1022			1958	737	SLV 14	0.72	No
ini.	2	0	-205.57	961			1958	737	SLV 2	0.77	No
fin.	2	0	6.85	298			1958	737	SLV 2	2.47	Si
ini.	2	0	-119.88	58			1958	737	SLV 12	12.6	Si
fin.	2	0	-218.09	-627			1958	737	SLV 12	1.17	Si
ini.	2	0	-205.57	961			1958	737	SLV 1	0.77	No
fin.	2	0	6.85	298			1958	737	SLV 1	2.47	Si
ini.	2	0	-2.78	-380			1958	737	SLV 16	1.94	Si
fin.	2	0	-196.89	-1053			1958	737	SLV 16	0.7	No
ini.	2	0	27.63	-360			1958	737	SLV 13	2.05	Si
fin.	2	0	-135.89	-1022			1958	737	SLV 13	0.72	No
ini.	2	0	-2.78	-380			1958	737	SLV 15	1.94	Si
fin.	2	0	-196.89	-1053			1958	737	SLV 15	0.7	No
ini.	2	0	-235.98	941			1958	737	SLV 4	0.78	No
fin.	2	0	-54.15	267			1958	737	SLV 4	2.76	Si

#### Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLV	6.964	SLV 3	Si
V_SLV	0.7	SLV 15	No
PF_SLU	7.463	SLU 81	Si
V_SLU	0.604	SLU 82	No

### Trave di accoppiamento 30

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

#### Dati geometrici

X ini.	Y ini.	Z ini.inf.	Z ini.sup.	H ini.	X fin.	Y fin.	Z fin.inf.	Z fin.sup.	H fin.	Luce	Spessore	R. Trazione
-23.507	-9.039	4.69	5.62	0.93	-22.107	-9.039	4.69	5.62	0.93	1.4	0.3	3500

#### Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2\_Corti

fb	fhk	fvk0	fthmedio	t0	fv0	μ	φ	fvk,lim	E	G	FC
120000			172500	9000	20000	0.577	0.767	6500	320000000	128000000	1.2

#### Verifiche a pressoflessione delle travi in muratura in combinazioni non sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	3	-282	-41.74	1126.22	SLU 50	26.98	Si
fin.	3	-282	49.78	1126.22	SLU 50	22.62	Si
ini.	3	-600	-24.58	1126.22	SLU 58	45.82	Si
fin.	3	-600	43.28	1126.22	SLU 58	26.02	Si
ini.	3	-284	-39.47	1126.22	SLU 46	28.53	Si
fin.	3	-284	47.37	1126.22	SLU 46	23.77	Si
ini.	3	-282	-41.74	1126.22	SLU 45	26.98	Si
fin.	3	-282	49.78	1126.22	SLU 45	22.62	Si
ini.	3	-285	-37.96	1126.22	SLU 47	29.67	Si
fin.	3	-285	45.77	1126.22	SLU 47	24.61	Si
ini.	3	-284	-39.47	1126.22	SLU 51	28.53	Si
fin.	3	-284	47.37	1126.22	SLU 51	23.77	Si
ini.	3	-282	-41.74	1126.22	SLU 43	26.98	Si
fin.	3	-282	49.78	1126.22	SLU 43	22.62	Si
ini.	3	-285	-37.96	1126.22	SLU 44	29.67	Si
fin.	3	-285	45.77	1126.22	SLU 44	24.61	Si



Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	3	-282	-41.74	1126.22	SLU 48	26.98	Si
fin.	3	-282	49.78	1126.22	SLU 48	22.62	Si
ini.	3	-284	-39.47	1126.22	SLU 49	28.53	Si
fin.	3	-284	47.37	1126.22	SLU 49	23.77	Si

Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni non sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	3	0	3.89	2379			716	270	SLU 39	0.11	No
fin.	3	0	19.81	-2132			716	270	SLU 39	0.13	No
ini.	3	0	-17.22	2207			716	270	SLU 62	0.12	No
fin.	3	0	40.49	-1925			716	270	SLU 62	0.14	No
ini.	3	0	6.15	2375			716	270	SLU 42	0.11	No
fin.	3	0	17.4	-2135			716	270	SLU 42	0.13	No
ini.	3	0	-8.14	2532			716	270	SLU 83	0.11	No
fin.	3	0	33.22	-2240			716	270	SLU 83	0.12	No
ini.	3	0	6.15	2375			716	270	SLU 40	0.11	No
fin.	3	0	17.4	-2135			716	270	SLU 40	0.13	No
ini.	3	0	-8.14	2532			716	270	SLU 81	0.11	No
fin.	3	0	33.22	-2240			716	270	SLU 81	0.12	No
ini.	3	0	-17.22	2207			716	270	SLU 60	0.12	No
fin.	3	0	40.49	-1925			716	270	SLU 60	0.14	No
ini.	3	0	-5.88	2529			716	270	SLU 84	0.11	No
fin.	3	0	30.81	-2243			716	270	SLU 84	0.12	No
ini.	3	0	3.89	2379			716	270	SLU 41	0.11	No
fin.	3	0	19.81	-2132			716	270	SLU 41	0.13	No
ini.	3	0	-5.88	2529			716	270	SLU 82	0.11	No
fin.	3	0	30.81	-2243			716	270	SLU 82	0.12	No

Verifiche a pressoflessione delle travi in muratura in combinazioni sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	2	-288	-206.47	1293.31	SLV 7	6.26	Si
fin.	2	-190	268.2	1293.31	SLV 7	4.82	Si
ini.	2	1077	605.98	1293.31	SLV 16	2.13	Si
fin.	2	62	-428.47	1293.31	SLV 16	3.02	Si
ini.	2	-1842	-650.41	1293.31	SLV 1	1.99	Si
fin.	2	-827	493.35	1293.31	SLV 1	2.62	Si
ini.	2	-1549	-648.1	1293.31	SLV 4	2	Si
fin.	2	-648	547.02	1293.31	SLV 4	2.36	Si
ini.	2	783	603.67	1293.31	SLV 14	2.14	Si
fin.	2	-118	-482.13	1293.31	SLV 14	2.68	Si
ini.	2	-1549	-648.1	1293.31	SLV 3	2	Si
fin.	2	-648	547.02	1293.31	SLV 3	2.36	Si
ini.	2	1077	605.98	1293.31	SLV 15	2.13	Si
fin.	2	62	-428.47	1293.31	SLV 15	3.02	Si
ini.	2	-1842	-650.41	1293.31	SLV 2	1.99	Si
fin.	2	-827	493.35	1293.31	SLV 2	2.62	Si
ini.	2	-288	-206.47	1293.31	SLV 8	6.26	Si
fin.	2	-190	268.2	1293.31	SLV 8	4.82	Si
ini.	2	783	603.67	1293.31	SLV 13	2.14	Si
fin.	2	-118	-482.13	1293.31	SLV 13	2.68	Si

Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	2	0	-648.1	2241			1074	404	SLV 3	0.18	No
fin.	2	0	547.02	5			1074	404	SLV 3	78.28	Si
ini.	2	0	-648.1	2241			1074	404	SLV 4	0.18	No
fin.	2	0	547.02	5			1074	404	SLV 4	78.28	Si
ini.	2	0	605.98	243			1074	404	SLV 16	1.67	Si
fin.	2	0	-428.47	-2004			1074	404	SLV 16	0.2	No
ini.	2	0	605.98	243			1074	404	SLV 15	1.67	Si
fin.	2	0	-428.47	-2004			1074	404	SLV 15	0.2	No
ini.	2	0	-206.47	1614			1074	404	SLV 8	0.25	No
fin.	2	0	268.2	-626			1074	404	SLV 8	0.65	No
ini.	2	0	-650.41	2180			1074	404	SLV 2	0.19	No
fin.	2	0	493.35	-56			1074	404	SLV 2	7.17	Si
ini.	2	0	603.67	181			1074	404	SLV 13	2.23	Si
fin.	2	0	-482.13	-2065			1074	404	SLV 13	0.2	No
ini.	2	0	-650.41	2180			1074	404	SLV 1	0.19	No
fin.	2	0	493.35	-56			1074	404	SLV 1	7.17	Si
ini.	2	0	603.67	181			1074	404	SLV 14	2.23	Si
fin.	2	0	-482.13	-2065			1074	404	SLV 14	0.2	No
ini.	2	0	-206.47	1614			1074	404	SLV 7	0.25	No
fin.	2	0	268.2	-626			1074	404	SLV 7	0.65	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLV	1.988	SLV 1	Si
V_SLV	0.18	SLV 3	No
PF_SLU	22.623	SLU 43	Si
V_SLU	0.106	SLU 81	No

## Trave di accoppiamento 31

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)



## Dati geometrici

X ini.	Y ini.	Z ini.inf.	Z ini.sup.	H ini.	X fin.	Y fin.	Z fin.inf.	Z fin.sup.	H fin.	Luce	Spessore	R. Trazione
-25.157	-13.489	3.79	5.62	1.83	-24.357	-13.489	3.79	5.62	1.83	0.8	0.3	3500

## Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2\_Corti

f <sub>b</sub>	f <sub>hk</sub>	f <sub>vk0</sub>	f <sub>hmedio</sub>	τ <sub>0</sub>	f <sub>vd</sub>	μ	φ	f <sub>vk,lim</sub>	E	G	FC
120000			172500	9000	20000	0.577	0.767	6500	320000000	128000000	1.2

## Verifiche a pressoflessione delle travi in muratura in combinazioni non sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	3	-516	576.58	2701.22	SLU 39	4.68	Si
fin.	3	-516	2002.29	2701.22	SLU 39	1.35	Si
ini.	3	-513	578.1	2701.22	SLU 42	4.67	Si
fin.	3	-513	2000.93	2701.22	SLU 42	1.35	Si
ini.	3	-330	477.8	2701.22	SLU 77	5.65	Si
fin.	3	-330	1817.03	2701.22	SLU 77	1.49	Si
ini.	3	-459	578.61	2701.22	SLU 83	4.67	Si
fin.	3	-459	2109.67	2701.22	SLU 83	1.28	Si
ini.	3	-330	477.8	2701.22	SLU 74	5.65	Si
fin.	3	-330	1817.03	2701.22	SLU 74	1.49	Si
ini.	3	-513	578.1	2701.22	SLU 40	4.67	Si
fin.	3	-513	2000.93	2701.22	SLU 40	1.35	Si
ini.	3	-459	578.61	2701.22	SLU 81	4.67	Si
fin.	3	-459	2109.67	2701.22	SLU 81	1.28	Si
ini.	3	-456	580.12	2701.22	SLU 84	4.66	Si
fin.	3	-456	2108.31	2701.22	SLU 84	1.28	Si
ini.	3	-456	580.12	2701.22	SLU 82	4.66	Si
fin.	3	-456	2108.31	2701.22	SLU 82	1.28	Si
ini.	3	-516	576.58	2701.22	SLU 41	4.68	Si
fin.	3	-516	2002.29	2701.22	SLU 41	1.35	Si

## Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni non sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	3	0	469.51	3978			2114	796	SLU 62	0.2	No
fin.	3	0	1797.51	-236			2114	796	SLU 62	3.37	Si
ini.	3	0	580.12	4591			2114	796	SLU 82	0.17	No
fin.	3	0	2108.31	-237			2114	796	SLU 82	3.36	Si
ini.	3	0	578.61	4595			2114	796	SLU 81	0.17	No
fin.	3	0	2109.67	-234			2114	796	SLU 81	3.41	Si
ini.	3	0	580.12	4591			2114	796	SLU 84	0.17	No
fin.	3	0	2108.31	-237			2114	796	SLU 84	3.36	Si
ini.	3	0	576.58	4316			2114	796	SLU 41	0.18	No
fin.	3	0	2002.29	-195			2114	796	SLU 41	4.08	Si
ini.	3	0	578.1	4312			2114	796	SLU 40	0.18	No
fin.	3	0	2000.93	-199			2114	796	SLU 40	4	Si
ini.	3	0	578.61	4595			2114	796	SLU 83	0.17	No
fin.	3	0	2109.67	-234			2114	796	SLU 83	3.41	Si
ini.	3	0	578.1	4312			2114	796	SLU 42	0.18	No
fin.	3	0	2000.93	-199			2114	796	SLU 42	4	Si
ini.	3	0	469.51	3978			2114	796	SLU 60	0.2	No
fin.	3	0	1797.51	-236			2114	796	SLU 60	3.37	Si
ini.	3	0	576.58	4316			2114	796	SLU 39	0.18	No
fin.	3	0	2002.29	-195			2114	796	SLU 39	4.08	Si

## Verifiche a pressoflessione delle travi in muratura in combinazioni sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	2	-7961	440.52	2868.31	SLV 10	6.51	Si
fin.	2	-4601	-3139.34	2868.31	SLV 10	0.91	No
ini.	2	-9547	-437.52	2868.31	SLV 5	6.56	Si
fin.	2	-5763	-3164.95	2868.31	SLV 5	0.91	No
ini.	2	7800	19.12	2868.31	SLV 8	150.02	Si
fin.	2	4440	5137.25	2868.31	SLV 8	0.56	No
ini.	2	-9547	-437.52	2868.31	SLV 6	6.56	Si
fin.	2	-5763	-3164.95	2868.31	SLV 6	0.91	No
ini.	2	-7961	440.52	2868.31	SLV 9	6.51	Si
fin.	2	-4601	-3139.34	2868.31	SLV 9	0.91	No
ini.	2	7800	19.12	2868.31	SLV 7	150.02	Si
fin.	2	4440	5137.25	2868.31	SLV 7	0.56	No
ini.	2	9387	897.15	2868.31	SLV 12	3.2	Si
fin.	2	5602	5162.86	2868.31	SLV 12	0.56	No
ini.	2	5165	1761.71	2868.31	SLV 15	1.63	Si
fin.	2	3387	2286.97	2868.31	SLV 15	1.25	Si
ini.	2	5165	1761.71	2868.31	SLV 16	1.63	Si
fin.	2	3387	2286.97	2868.31	SLV 16	1.25	Si
ini.	2	9387	897.15	2868.31	SLV 11	3.2	Si
fin.	2	5602	5162.86	2868.31	SLV 11	0.56	No

## Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	2	0	19.12	6641			3171	1193	SLV 7	0.18	No
fin.	2	0	5137.25	968			3171	1193	SLV 7	1.23	Si
ini.	2	0	1624.71	-1375			3171	1193	SLV 14	0.87	No
fin.	2	0	-203.69	-2743			3171	1193	SLV 14	0.44	No
ini.	2	0	-1302.07	3624			3171	1193	SLV 2	0.33	No
fin.	2	0	-289.06	2249			3171	1193	SLV 2	0.53	No
ini.	2	0	897.15	5141			3171	1193	SLV 12	0.23	No
fin.	2	0	5162.86	-529			3171	1193	SLV 12	2.25	Si
ini.	2	0	-1165.08	5824			3171	1193	SLV 4	0.2	No



Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
fin.	2	0	2201.6	2464			3171	1193	SLV 4	0.48	No
ini.	2	0	19.12	6641			3171	1193	SLV 8	0.18	No
fin.	2	0	5137.25	968			3171	1193	SLV 8	1.23	Si
ini.	2	0	-1302.07	3624			3171	1193	SLV 1	0.33	No
fin.	2	0	-289.06	2249			3171	1193	SLV 1	0.53	No
ini.	2	0	1624.71	-1375			3171	1193	SLV 13	0.87	No
fin.	2	0	-203.69	-2743			3171	1193	SLV 13	0.44	No
ini.	2	0	-1165.08	5824			3171	1193	SLV 3	0.2	No
fin.	2	0	2201.6	2464			3171	1193	SLV 3	0.48	No
ini.	2	0	897.15	5141			3171	1193	SLV 11	0.23	No
fin.	2	0	5162.86	-529			3171	1193	SLV 11	2.25	Si

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLV	0.556	SLV 11	No
V_SLV	0.18	SLV 7	No
PF_SLU	1.28	SLU 81	Si
V_SLU	0.173	SLU 81	No

## Trave di accoppiamento 32

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

### Dati geometrici

X ini.	Y ini.	Z ini.inf.	Z ini.sup.	H ini.	X fin.	Y fin.	Z fin.inf.	Z fin.sup.	H fin.	Luce	Spessore	R. Trazione
-24.007	-13.489	3.79	5.62	1.83	-23.207	-13.489	3.79	5.62	1.83	0.8	0.3	3500

### Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2\_Corti

fb	fhk	fvk0	fkhmedio	t0	fv0	μ	φ	fvk,lim	E	G	FC
120000			172500	9000	20000	0.577	0.767	6500	320000000	128000000	1.2

### Verifiche a pressoflessione delle travi in muratura in combinazioni non sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	3	-544	2177.08	2701.22	SLU 41	1.24	Si
fin.	3	-544	1853.51	2701.22	SLU 41	1.46	Si
ini.	3	-490	2309.24	2701.22	SLU 83	1.17	Si
fin.	3	-490	2022.34	2701.22	SLU 83	1.34	Si
ini.	3	-544	2177.08	2701.22	SLU 39	1.24	Si
fin.	3	-544	1853.51	2701.22	SLU 39	1.46	Si
ini.	3	-541	2174.39	2701.22	SLU 42	1.24	Si
fin.	3	-541	1850.74	2701.22	SLU 42	1.46	Si
ini.	3	-359	2000.69	2701.22	SLU 77	1.35	Si
fin.	3	-359	1796.61	2701.22	SLU 77	1.5	Si
ini.	3	-359	2000.69	2701.22	SLU 74	1.35	Si
fin.	3	-359	1796.61	2701.22	SLU 74	1.5	Si
ini.	3	-487	2306.56	2701.22	SLU 82	1.17	Si
fin.	3	-487	2019.57	2701.22	SLU 82	1.34	Si
ini.	3	-541	2174.39	2701.22	SLU 40	1.24	Si
fin.	3	-541	1850.74	2701.22	SLU 40	1.46	Si
ini.	3	-487	2306.56	2701.22	SLU 84	1.17	Si
fin.	3	-487	2019.57	2701.22	SLU 84	1.34	Si
ini.	3	-490	2309.24	2701.22	SLU 81	1.17	Si
fin.	3	-490	2022.34	2701.22	SLU 81	1.34	Si

### Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni non sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	3	0	1976.15	1807			2114	796	SLU 61	0.44	No
fin.	3	0	1768.36	-2342			2114	796	SLU 61	0.34	No
ini.	3	0	2177.08	1873			2114	796	SLU 41	0.42	No
fin.	3	0	1853.51	-2589			2114	796	SLU 41	0.31	No
ini.	3	0	2306.56	2042			2114	796	SLU 82	0.39	No
fin.	3	0	2019.57	-2723			2114	796	SLU 82	0.29	No
ini.	3	0	2177.08	1873			2114	796	SLU 39	0.42	No
fin.	3	0	1853.51	-2589			2114	796	SLU 39	0.31	No
ini.	3	0	2174.39	1873			2114	796	SLU 40	0.42	No
fin.	3	0	1850.74	-2589			2114	796	SLU 40	0.31	No
ini.	3	0	1976.15	1807			2114	796	SLU 63	0.44	No
fin.	3	0	1768.36	-2342			2114	796	SLU 63	0.34	No
ini.	3	0	2309.24	2042			2114	796	SLU 83	0.39	No
fin.	3	0	2022.34	-2723			2114	796	SLU 83	0.29	No
ini.	3	0	2174.39	1873			2114	796	SLU 42	0.42	No
fin.	3	0	1850.74	-2589			2114	796	SLU 42	0.31	No
ini.	3	0	2306.56	2042			2114	796	SLU 84	0.39	No
fin.	3	0	2019.57	-2723			2114	796	SLU 84	0.29	No
ini.	3	0	2309.24	2042			2114	796	SLU 81	0.39	No
fin.	3	0	2022.34	-2723			2114	796	SLU 81	0.29	No

### Verifiche a pressoflessione delle travi in muratura in combinazioni sismiche

Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	2	-674	3095.31	2868.31	SLV 3	0.93	No
fin.	2	-194	4439.27	2868.31	SLV 3	0.65	No
ini.	2	2445	6574.47	2868.31	SLV 8	0.44	No
fin.	2	1517	7195.54	2868.31	SLV 8	0.4	No
ini.	2	-3525	-4113.63	2868.31	SLV 6	0.7	No
fin.	2	-2096	-4042.43	2868.31	SLV 6	0.71	No



Sezione	yM	N	M	Mu	Comb.	c.s.	Verifica
ini.	2	-2642	-4337.93	2868.31	SLV 9	0.66	No
fin.	2	-1714	-5051.3	2868.31	SLV 9	0.57	No
ini.	2	-2642	-4337.93	2868.31	SLV 10	0.66	No
fin.	2	-1714	-5051.3	2868.31	SLV 10	0.57	No
ini.	2	3328	6350.18	2868.31	SLV 11	0.45	No
fin.	2	1899	6186.67	2868.31	SLV 11	0.46	No
ini.	2	-3525	-4113.63	2868.31	SLV 5	0.7	No
fin.	2	-2096	-4042.43	2868.31	SLV 5	0.71	No
ini.	2	-674	3095.31	2868.31	SLV 4	0.93	No
fin.	2	-194	4439.27	2868.31	SLV 4	0.65	No
ini.	2	2445	6574.47	2868.31	SLV 7	0.44	No
fin.	2	1517	7195.54	2868.31	SLV 7	0.4	No
ini.	2	3328	6350.18	2868.31	SLV 12	0.45	No
fin.	2	1899	6186.67	2868.31	SLV 12	0.46	No

Verifiche a taglio delle travi in muratura secondo §C8.7.1.3.1 in combinazioni sismiche

Sezione	yM	N	M	V	Vt	Vp	Vt fess. diag.	Vt,lim	Comb.	c.s.	Verifica
ini.	2	0	6350.18	4461			3171	1193	SLV 11	0.27	No
fin.	2	0	6186.67	-758			3171	1193	SLV 11	1.58	Si
ini.	2	0	6574.47	5773			3171	1193	SLV 7	0.21	No
fin.	2	0	7195.54	552			3171	1193	SLV 7	2.16	Si
ini.	2	0	-4337.93	-3655			3171	1193	SLV 9	0.33	No
fin.	2	0	-5051.3	-3062			3171	1193	SLV 9	0.39	No
ini.	2	0	3095.31	4463			3171	1193	SLV 3	0.27	No
fin.	2	0	4439.27	1273			3171	1193	SLV 3	0.94	No
ini.	2	0	6350.18	4461			3171	1193	SLV 12	0.27	No
fin.	2	0	6186.67	-758			3171	1193	SLV 12	1.58	Si
ini.	2	0	3095.31	4463			3171	1193	SLV 4	0.27	No
fin.	2	0	4439.27	1273			3171	1193	SLV 4	0.94	No
ini.	2	0	-4337.93	-3655			3171	1193	SLV 10	0.33	No
fin.	2	0	-5051.3	-3062			3171	1193	SLV 10	0.39	No
ini.	2	0	6574.47	5773			3171	1193	SLV 8	0.21	No
fin.	2	0	7195.54	552			3171	1193	SLV 8	2.16	Si
ini.	2	0	-858.77	-2345			3171	1193	SLV 14	0.51	No
fin.	2	0	-2295.02	-3783			3171	1193	SLV 14	0.32	No
ini.	2	0	-858.77	-2345			3171	1193	SLV 13	0.51	No
fin.	2	0	-2295.02	-3783			3171	1193	SLV 13	0.32	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLV	0.399	SLV 7	No
V_SLV	0.207	SLV 7	No
PF_SLU	1.17	SLU 81	Si
V_SLU	0.292	SLU 82	No