

REBIS
AutoPIPE 6.20 RESULT PAGE 1

[illegible]

Version: 6.20.09

Edition: Win

Developed and Maintained by

REBIS Industrial Workgroup Software
1600 Riviera Ave., Suite 300
Walnut Creek, CA 94596

79319814
07/18/2005 ASU KOSICE
09:42 AM

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**
** AUTOPIPE SYSTEM INFORMATION **
**

SYSTEM NAME : 79319814

PROJECT ID : ASU KOSICE

DESCRIPTION :

PREPARED BY : _____
WEGSTEIN

CHECKED BY : _____
FRICKHOEFER

PIPING CODE : B31.3
VERTICAL AXIS : Z
AMBIENT TEMPERATURE : 20.0 deg C
COMPONENT LIBRARY : HANAU_AL
MATERIAL LIBRARY : AUTOB313
MODEL REVISION NUMBER : 2

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Point name	Load combination	TRANSLATIONS (mm)			ROTATIONS (deg)		
		X	Y	Z	X	Y	Z
*** Segment A begin *** Line # 79319814							
A00	T1	0.000	0.000	0.000	0.000	0.000	0.000
A01	T1	-0.113	0.148	-1.952	-0.030	-0.027	-0.006
A02 N	T1	-0.113	0.148	-1.952	-0.030	-0.027	-0.006
A02 F	T1	-8.521	6.445	-23.854	-1.456	-1.152	0.154
A03 N	T1	-8.600	5.985	-27.041	-1.454	-1.157	0.153
A03 F	T1	6.199	-4.707	-43.400	0.231	-0.952	-0.198
A04 N	T1	55.631	14.085	-31.962	0.461	-0.916	-0.201
A04 F	T1	63.104	23.092	-34.483	1.058	-0.666	-0.422
A05 N	T1	65.604	29.852	-38.792	1.070	-0.647	-0.418
A05 F	T1	66.855	41.730	-40.505	1.001	0.298	-0.614
A06 N	T1	32.225	111.090	-24.823	0.881	0.669	-0.593
A06 F	T1	13.061	108.191	-45.395	-0.199	2.581	-0.593
A07 N	T1	13.061	108.191	-45.395	-0.199	2.581	-0.593
A07 F	T1	12.667	103.765	-63.351	-0.225	2.592	-0.629
A08 N	T1	12.667	103.765	-63.351	-0.225	2.592	-0.629
A08 F	T1	-9.520	89.938	-87.803	-0.443	0.464	-0.824
A09 N	T1	-26.910	40.252	-67.408	-0.669	-0.079	-0.925
A09 F	T1	-10.342	32.102	-86.654	-1.735	-1.846	-0.573
A10 N	T1	-10.338	32.110	-86.685	-1.735	-1.846	-0.573
A10 F	T1	-6.563	35.517	-106.725	-1.786	-1.885	-0.606
A11 N	T1	-4.856	36.316	-114.347	-1.793	-1.875	-0.606
A11 F	T1	11.335	20.926	-138.869	-0.987	0.296	-0.036
A12	T1	8.483	12.382	-136.978	-0.975	0.358	-0.031
A13	T1	5.015	3.770	-135.049	-0.965	0.422	-0.025

*** Segment A end *** Line # 79319814

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D I S P L A C E M E N T S

Point name	Load combination	TRANSLATIONS (mm)			ROTATIONS (deg)		
		X	Y	Z	X	Y	Z
*** Segment B begin ***							
Line # 79319814							
B00	T1	3.800	-3.800	-166.200	0.000	0.000	0.000
B01 N	T1	3.800	-3.800	-166.200	0.000	0.000	0.000
B01 F	T1	6.800	-4.423	-165.453	-0.331	0.251	0.055
B02 N	T1	6.800	-4.423	-165.453	-0.331	0.251	0.055
B02 F	T1	7.644	-3.098	-160.515	-0.875	0.443	0.016
B03	T1	7.739	-1.667	-154.694	-0.903	0.436	0.013
B04	T1	7.844	0.253	-146.709	-0.916	0.431	0.011
B05 N	T1	7.844	0.253	-146.708	-0.916	0.431	0.011
B05 F	T1	6.914	2.267	-139.323	-0.970	0.419	-0.025
A13	T1	5.015	3.770	-135.049	-0.965	0.422	-0.025
B06 N	T1	3.147	5.308	-131.361	-0.969	0.505	-0.020
B06 F	T1	1.097	6.329	-136.469	-0.711	1.199	0.042
B07	T1	1.086	6.331	-136.534	-0.711	1.199	0.042
B08	T1	-0.824	6.714	-147.196	-0.745	1.217	0.044
B09 N	T1	-2.256	7.009	-155.208	-0.791	1.197	0.044
B09 F	T1	-3.791	6.648	-162.869	-0.575	0.490	0.022
B10 N	T1	-3.791	6.648	-162.870	-0.575	0.490	0.022
B10 F	T1	-3.800	3.800	-166.200	0.000	0.000	0.000
B11	T1	-3.800	3.800	-166.200	0.000	0.000	0.000

*** Segment B end *** Line # 79319814

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R E S T R A I N T R E A C T I O N S

Point name	Load combination	FORCES (N)				MOMENTS (Nm)			
		X	Y	Z	Result	X	Y	Z	Result
A00	Anchor T1	1094	3933	-41682	41881	-29981	-25435	-4540	39577
B01 N	Anchor T1	197	-2443	8348	8700	-13984	5909	1407	15246
B10 F	Anchor T1	-1291	-1490	33334	33392	-18889	25263	-436	31547

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G L O B A L F O R C E S & M O M E N T S

Point name	Load combination	FORCES (N)				MOMENTS (Nm)			
		X	Y	Z	Result	X	Y	Z	Result
*** Segment A begin *** Line # 79319814									
A00	T1	-1094	-3933	41682	41881	29981	25435	4540	39577
A01	T1	-1094	-3933	41682	41881	28014	25981	4540	38477
A02 N	T1	-1094	-3933	41682	41881	28014	25981	4540	38476
A02 F	T1	-1094	-3933	41682	41881	-3768	13392	2518	14138
A03 N	T1	-1094	-3933	41682	41881	-7546	11630	2253	14046
A03 F	T1	-1094	-3933	41682	41881	-33335	-2626	231	33439
A04 N	T1	-1094	-3933	41682	41881	-21441	-5934	231	22248
A04 F	T1	-1094	-3933	41682	41881	-13415	-13709	-292	19183
A05 N	T1	-1094	-3933	41682	41881	-5758	-22093	-882	22848
A05 F	T1	-1094	-3933	41682	41881	2268	-29869	-1405	29988
A06 N	T1	-1094	-3933	41682	41881	18575	-34404	-1405	39123
A06 F	T1	-1094	-3933	41682	41881	5692	-7731	773	9631
A07 N	T1	-1094	-3933	41682	41881	5691	-7731	773	9631
A07 F	T1	-1094	-3933	41682	41881	1436	8150	2160	8553
A08 N	T1	-1094	-3933	41682	41881	1436	8151	2160	8554
A08 F	T1	-1094	-3933	41682	41881	4433	39079	5157	39666
A09 N	T1	-1094	-3933	41682	41881	25641	33181	5157	42250
A09 F	T1	-1094	-3933	41682	41881	23123	1069	2061	23239
A10 N	T1	-1094	-3933	41682	41881	23117	1034	2058	23231
A10 F	T1	-1094	-3933	41682	41881	14297	-15909	227	21391
A11 N	T1	-1094	-3933	41682	41881	9373	-20834	-366	22848
A11 F	T1	-1094	-3933	41682	41881	-10089	-44126	-3075	45369
A12	T1	-1094	-3933	41682	41881	-8123	-44673	-3075	45509
A13	T1	-1094	-3933	41682	41881	-6117	-45230	-3075	45746

*** Segment A end *** Line # 79319814

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G L O B A L F O R C E S & M O M E N T S

Point name	Load combination	FORCES (N)				MOMENTS (Nm)			
		X	Y	Z	Result	X	Y	Z	Result
*** Segment B begin *** Line # 79319814									
B00	T1	0	0	0	0	0	0	0	0
B01 N-	T1	0	0	0	0	0	0	0	0
B01 N+	T1	-197	2443	-8348	8700	13984	-5909	-1407	15246
B01 F	T1	-197	2443	-8348	8700	13984	384	435	13996
B02 N	T1	-197	2443	-8348	8700	13984	384	435	13996
B02 F	T1	-197	2443	-8348	8700	10838	1687	890	11004
B03	T1	-197	2443	-8348	8700	7728	1687	964	7969
B04	T1	-197	2443	-8348	8700	3554	1687	1063	4075
B05 N	T1	-197	2443	-8348	8700	3554	1687	1063	4075
B05 F	T1	-197	2443	-8348	8700	-944	-176	624	1145
A13 -	T1	-197	2443	-8348	8700	-4640	-3872	-370	6055
A13 +	T1	-1291	-1490	33334	33392	-10757	-49102	-3445	50385
B06 N	T1	-1291	-1490	33334	33392	4002	-34343	-2214	34647
B06 F	T1	-1291	-1490	33334	33392	11441	-16383	-1122	20014
B07	T1	-1291	-1490	33334	33392	11441	-16281	-1118	19931
B08	T1	-1291	-1490	33334	33392	11441	284	-377	11451
B09 N	T1	-1291	-1490	33334	33392	11441	12700	178	17094
B09 F	T1	-1291	-1490	33334	33392	6237	25263	538	26027
B10 N	T1	-1291	-1490	33334	33392	6237	25263	538	26027
B10 F-	T1	-1291	-1490	33334	33392	-18889	25263	-436	31547
B10 F+	T1	0	0	0	0	0	0	0	0
B11	T1	0	0	0	0	0	0	0	0

*** Segment B end *** Line # 79319814

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ASME B31.3b (2001) CODE COMPLIANCE									
			(Moments in Nm)			(Stress in N/mm2)			
Point	Load	In-Pl.	Out-Pl.	Torsion	S.I.F	Eq. Load	Code	Code	
name	combination	Moment	Moment	Moment	In Out	no. type	Stress	Allow.	
*** Segment A begin *** Line # 79319814									
A00	Max P					(3a) HOOP	0	71	
	Max P	0	0		1.00 1.00	(18) SUST	0	71	
	Cold to T1	25435	29981	4540	1.00 1.00	(17) DISP	23	147	
A01	Max P					(3a) HOOP	0	71	
	Max P	0	0		1.00 1.00	(18) SUST	0	71	
	Cold to T1	25981	28014	4540	1.00 1.00	(17) DISP	33	147	
A02 N-	Max P					(3a) HOOP	0	71	
	Max P	0	0		1.00 1.00	(18) SUST	0	71	
	Cold to T1	25981	28014	4540	1.00 1.00	(17) DISP	33	147	
A02 N+	Max P					(3a) HOOP	0	71	
	Max P	0	0		5.17 4.31	(18) SUST	0	71	
	Cold to T1	36370	11708	4540	5.17 4.31	(17) DISP	166	147**	
	with Sus. load margin					(17)	166	218	
A02 F-	Max P					(3a) HOOP	0	71	
	Max P	0	0		5.17 4.31	(18) SUST	0	71	
	Cold to T1	2245	2518	13730	5.17 4.31	(17) DISP	18	147	
A02 F+	Max P					(3a) HOOP	0	71	
	Max P	0	0		1.00 1.00	(18) SUST	0	71	
	Cold to T1	2245	2518	13730	1.00 1.00	(17) DISP	12	147	
A03 N-	Max P					(3a) HOOP	0	71	
	Max P	0	0		1.00 1.00	(18) SUST	0	71	
	Cold to T1	1924	2253	13730	1.00 1.00	(17) DISP	12	147	
A03 N+	Max P					(3a) HOOP	0	71	
	Max P	0	0		5.17 4.31	(18) SUST	0	71	
	Cold to T1	1924	2253	13730	5.17 4.31	(17) DISP	17	147	
A03 F-	Max P					(3a) HOOP	0	71	
	Max P	0	0		5.17 4.31	(18) SUST	0	71	
	Cold to T1	31322	11708	231	5.17 4.31	(17) DISP	145	147	
A03 F+	Max P					(3a) HOOP	0	71	
	Max P	0	0		1.00 1.00	(18) SUST	0	71	
	Cold to T1	2626	33335	231	1.00 1.00	(17) DISP	28	147	
A04 N-	Max P					(3a) HOOP	0	71	
	Max P	0	0		1.00 1.00	(18) SUST	0	71	
	Cold to T1	5934	21441	231	1.00 1.00	(17) DISP	19	147	
A04 N+	Max P					(3a) HOOP	0	71	
	Max P	0	0		5.17 4.31	(18) SUST	0	71	
	Cold to T1	9032	20331	231	5.17 4.31	(17) DISP	85	147	

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ASME B31.3b (2001) CODE COMPLIANCE									
		(Moments in Nm)					(Stress in N/mm2)		
Point	Load	In-Pl.	Out-Pl.	Torsion	S.I.F		Eq. Load	Code	Code
name	combination	Moment	Moment	Moment	In	Out	no. type	Stress	Allow.
A04 F-	Max P						(3a) HOOP	0	71
	Max P	0	0		5.17	4.31	(18) SUST	0	71
	Cold to T1	2071	13277	13690	5.17	4.31	(17) DISP	51	147
A04 F+	Max P						(3a) HOOP	0	71
	Max P	0	0		1.00	1.00	(18) SUST	0	71
	Cold to T1	2071	13277	13690	1.00	1.00	(17) DISP	16	147
A05 N-	Max P						(3a) HOOP	0	71
	Max P	0	0		1.00	1.00	(18) SUST	0	71
	Cold to T1	13410	12442	13690	1.00	1.00	(17) DISP	19	147
A05 N+	Max P						(3a) HOOP	0	71
	Max P	0	0		5.17	4.31	(18) SUST	0	71
	Cold to T1	13410	12442	13690	5.17	4.31	(17) DISP	76	147
A05 F-	Max P						(3a) HOOP	0	71
	Max P	0	0		5.17	4.31	(18) SUST	0	71
	Cold to T1	24513	17216	1405	5.17	4.31	(17) DISP	125	147
A05 F+	Max P						(3a) HOOP	0	71
	Max P	0	0		1.00	1.00	(18) SUST	0	71
	Cold to T1	29869	2268	1405	1.00	1.00	(17) DISP	26	147
A06 N-	Max P						(3a) HOOP	0	71
	Max P	0	0		1.00	1.00	(18) SUST	0	71
	Cold to T1	34404	18575	1405	1.00	1.00	(17) DISP	33	147
A06 N+	Max P						(3a) HOOP	0	71
	Max P	0	0		5.17	4.31	(18) SUST	0	71
	Cold to T1	39082	1115	1405	5.17	4.31	(17) DISP	172	147**
	with Sus. load margin						(17)	172	218
A06 F-	Max P						(3a) HOOP	0	71
	Max P	0	0		5.17	4.31	(18) SUST	0	71
	Cold to T1	9541	773	1064	5.17	4.31	(17) DISP	42	147
A06 F+	Max P						(3a) HOOP	0	71
	Max P	0	0		1.00	1.00	(18) SUST	0	71
	Cold to T1	9536	773	1106	1.00	1.00	(17) DISP	8	147
A07 N-	Max P						(3a) HOOP	0	71
	Max P	0	0		1.00	1.00	(18) SUST	0	71
	Cold to T1	9536	773	1106	1.00	1.00	(17) DISP	8	147
A07 N+	Max P						(3a) HOOP	0	71
	Max P	0	0		5.17	4.31	(18) SUST	0	71
	Cold to T1	773	9541	1064	5.17	4.31	(17) DISP	35	147
A07 F-	Max P						(3a) HOOP	0	71
	Max P	0	0		5.17	4.31	(18) SUST	0	71
	Cold to T1	2160	8150	1436	5.17	4.31	(17) DISP	31	147

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ASME B31.3b (2001) CODE COMPLIANCE										
		(Moments in Nm)					(Stress in N/mm2)			
Point	Load	In-Pl.	Out-Pl.	Torsion	S.I.F	Eq. Load	Code	Code		
name	combination	Moment	Moment	Moment	In	Out	no.	type	Stress	Allow.
A07 F+	Max P						(3a)	HOOP	0	71
	Max P	0	0		1.00	1.00	(18)	SUST	0	71
	Cold to T1	8150	2160	1436	1.00	1.00	(17)	DISP	7	147
A08 N-	Max P						(3a)	HOOP	0	71
	Max P	0	0		1.00	1.00	(18)	SUST	0	71
	Cold to T1	8151	2160	1436	1.00	1.00	(17)	DISP	7	147
A08 N+	Max P						(3a)	HOOP	0	71
	Max P	0	0		5.17	4.31	(18)	SUST	0	71
	Cold to T1	8151	2160	1436	5.17	4.31	(17)	DISP	37	147
A08 F-	Max P						(3a)	HOOP	0	71
	Max P	0	0		5.17	4.31	(18)	SUST	0	71
	Cold to T1	39079	4433	5157	5.17	4.31	(17)	DISP	173	147**
	with Sus. load margin						(17)		173	218
A08 F+	Max P						(3a)	HOOP	0	71
	Max P	0	0		1.00	1.00	(18)	SUST	0	71
	Cold to T1	39079	4433	5157	1.00	1.00	(17)	DISP	34	147
A09 N-	Max P						(3a)	HOOP	0	71
	Max P	0	0		1.00	1.00	(18)	SUST	0	71
	Cold to T1	33181	25641	5157	1.00	1.00	(17)	DISP	36	147
A09 N+	Max P						(3a)	HOOP	0	71
	Max P	0	0		5.17	4.31	(18)	SUST	0	71
	Cold to T1	37129	19490	5157	5.17	4.31	(17)	DISP	179	147**
	with Sus. load margin						(17)		179	218
A09 F-	Max P						(3a)	HOOP	0	71
	Max P	0	0		5.17	4.31	(18)	SUST	0	71
	Cold to T1	5067	2061	22586	5.17	4.31	(17)	DISP	30	147
A09 F+	Max P						(3a)	HOOP	0	71
	Max P	0	0		1.00	1.00	(18)	SUST	0	71
	Cold to T1	5065	2061	22587	1.00	1.00	(17)	DISP	20	147
A10 N-	Max P						(3a)	HOOP	0	71
	Max P	0	0		1.00	1.00	(18)	SUST	0	71
	Cold to T1	5030	2058	22587	1.00	1.00	(17)	DISP	20	147
A10 N+	Max P						(3a)	HOOP	0	71
	Max P	0	0		5.17	4.31	(18)	SUST	0	71
	Cold to T1	2058	5032	22586	5.17	4.31	(17)	DISP	28	147
A10 F-	Max P						(3a)	HOOP	0	71
	Max P	0	0		5.17	4.31	(18)	SUST	0	71
	Cold to T1	227	1140	21359	5.17	4.31	(17)	DISP	19	147

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ASME B31.3b (2001) CODE COMPLIANCE										
		(Moments in Nm)						(Stress in N/mm2)		
Point	Load	In-Pl.	Out-Pl.	Torsion	S.I.F		Eq. Load	Code	Code	
name	combination	Moment	Moment	Moment	In	Out	no. type	Stress	Allow.	
A10 F+	Max P						(3a) HOOP	0	71	
	Max P	0	0		1.00	1.00	(18) SUST	0	71	
	Cold to T1	1140	227	21359	1.00	1.00	(17) DISP	18	147	
A11 N-	Max P						(3a) HOOP	0	71	
	Max P	0	0		1.00	1.00	(18) SUST	0	71	
	Cold to T1	8104	366	21359	1.00	1.00	(17) DISP	19	147	
A11 N+	Max P						(3a) HOOP	0	71	
	Max P	0	0		5.17	4.31	(18) SUST	0	71	
	Cold to T1	8104	366	21359	5.17	4.31	(17) DISP	40	147	
A11 F-	Max P						(3a) HOOP	0	71	
	Max P	0	0		5.17	4.31	(18) SUST	0	71	
	Cold to T1	38336	24067	3075	5.17	4.31	(17) DISP	191	147**	
	with Sus. load margin						(17)	191	218	
A11 F+	Max P						(3a) HOOP	0	71	
	Max P	0	0		1.00	1.00	(18) SUST	0	71	
	Cold to T1	44126	10089	3075	1.00	1.00	(17) DISP	39	147	
A12	Max P						(3a) HOOP	0	71	
	Max P	0	0		1.00	1.00	(18) SUST	0	71	
	Cold to T1	44673	8123	3075	1.00	1.00	(17) DISP	39	147	
A13	Max P						(3a) HOOP	0	71	
	Max P	0	0		4.08	5.10	(18) SUST	0	71	
	Cold to T1	36308	27657	3075	4.08	5.10	(17) DISP	174	147**	
	with Sus. load margin						(17)	174	218	
*** Segment A end *** Line # 79319814										
*** Segment B begin *** Line # 79319814										
B00	Max P						(3a) HOOP	0	71	
	Max P	0	0		1.00	1.00	(18) SUST	0	71	
	Cold to T1	0	0	0	1.00	1.00	(17) DISP	0	147	
B01 N-	Max P						(3a) HOOP	0	71	
	Max P	0	0		1.00	1.00	(18) SUST	0	71	
	Cold to T1	0	0	0	1.00	1.00	(17) DISP	0	147	
B01 N+	Max P						(3a) HOOP	0	71	
	Max P	0	0		4.04	3.37	(18) SUST	0	71	
	Cold to T1	1407	5710	14066	4.04	3.37	(17) DISP	43	147	
B01 F-	Max P						(3a) HOOP	0	71	
	Max P	0	0		4.04	3.37	(18) SUST	0	71	
	Cold to T1	435	9617	10160	4.04	3.37	(17) DISP	60	147	

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ASME B31.3b (2001) CODE COMPLIANCE									
Point name	Load combination	(Moments in Nm)			S.I.F		(Stress in N/mm2)		
		In-Pl. Moment	Out-Pl. Moment	Torsion Moment	In	Out	Eq. Load no. type	Code Stress	Code Allow.
B01 F+	Max P						(3a) HOOP	0	71
	Max P	0	0		1.00	1.00	(18) SUST	0	71
	Cold to T1	9617	435	10160	1.00	1.00	(17) DISP	25	147
B02 N-	Max P						(3a) HOOP	0	71
	Max P	0	0		1.00	1.00	(18) SUST	0	71
	Cold to T1	9616	435	10160	1.00	1.00	(17) DISP	25	147
B02 N+	Max P						(3a) HOOP	0	71
	Max P	0	0		4.04	3.37	(18) SUST	0	71
	Cold to T1	435	9617	10160	4.04	3.37	(17) DISP	60	147
B02 F-	Max P						(3a) HOOP	0	71
	Max P	0	0		4.04	3.37	(18) SUST	0	71
	Cold to T1	890	10838	1687	4.04	3.37	(17) DISP	65	147
B02 F+	Max P						(3a) HOOP	0	71
	Max P	0	0		1.00	1.00	(18) SUST	0	71
	Cold to T1	10838	890	1687	1.00	1.00	(17) DISP	19	147
B03	Max P						(3a) HOOP	0	71
	Max P	0	0		1.00	1.00	(18) SUST	0	71
	Cold to T1	7728	964	1687	1.00	1.00	(17) DISP	14	147
B04	Max P						(3a) HOOP	0	71
	Max P	0	0		1.00	1.00	(18) SUST	0	71
	Cold to T1	3554	1063	1687	1.00	1.00	(17) DISP	3	147
B05 N-	Max P						(3a) HOOP	0	71
	Max P	0	0		1.00	1.00	(18) SUST	0	71
	Cold to T1	3554	1063	1687	1.00	1.00	(17) DISP	3	147
B05 N+	Max P						(3a) HOOP	0	71
	Max P	0	0		5.17	4.31	(18) SUST	0	71
	Cold to T1	1063	3554	1687	5.17	4.31	(17) DISP	14	147
B05 F-	Max P						(3a) HOOP	0	71
	Max P	0	0		5.17	4.31	(18) SUST	0	71
	Cold to T1	624	792	543	5.17	4.31	(17) DISP	4	147
B05 F+	Max P						(3a) HOOP	0	71
	Max P	0	0		1.00	1.00	(18) SUST	0	71
	Cold to T1	792	624	543	1.00	1.00	(17) DISP	1	147
A13 -	Max P						(3a) HOOP	0	71
	Max P	0	0		4.08	5.10	(18) SUST	0	71
	Cold to T1	6019	370	543	4.08	5.10	(17) DISP	21	147
A13 +	Max P						(3a) HOOP	0	71
	Max P	0	0		4.08	5.10	(18) SUST	0	71
	Cold to T1	42327	3445	27114	4.08	5.10	(17) DISP	150	147**
	with Sus. load margin						(17)	150	218

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ASME B31.3b (2001) CODE COMPLIANCE										
Point name	Load combination	(Moments in Nm)			(Stress in N/mm2)					
		In-Pl. Moment	Out-Pl. Moment	Torsion Moment	S.I.F In Out		Eq. Load no. type	Code Stress	Code Allow.	
B06 N-	Max P						(3a)	HOOP	0	71
	Max P	0	0		1.00	1.00	(18)	SUST	0	71
	Cold to T1	21455	2214	27114	1.00	1.00	(17)	DISP	30	147
B06 N+	Max P						(3a)	HOOP	0	71
	Max P	0	0		5.17	4.31	(18)	SUST	0	71
	Cold to T1	2214	21455	27114	5.17	4.31	(17)	DISP	83	147
B06 F-	Max P						(3a)	HOOP	0	71
	Max P	0	0		5.17	4.31	(18)	SUST	0	71
	Cold to T1	1122	16383	11441	5.17	4.31	(17)	DISP	61	147
B06 F+	Max P						(3a)	HOOP	0	71
	Max P	0	0		1.00	1.00	(18)	SUST	0	71
	Cold to T1	16383	1122	11441	1.00	1.00	(17)	DISP	17	147
B07	Max P						(3a)	HOOP	0	71
	Max P	0	0		1.00	1.00	(18)	SUST	0	71
	Cold to T1	16281	1118	11441	1.00	1.00	(17)	DISP	17	147
B08	Max P						(3a)	HOOP	0	71
	Max P	0	0		1.00	1.00	(18)	SUST	0	71
	Cold to T1	284	377	11441	1.00	1.00	(17)	DISP	20	147
B09 N-	Max P						(3a)	HOOP	0	71
	Max P	0	0		1.00	1.00	(18)	SUST	0	71
	Cold to T1	12700	178	11441	1.00	1.00	(17)	DISP	30	147
B09 N+	Max P						(3a)	HOOP	0	71
	Max P	0	0		4.04	3.37	(18)	SUST	0	71
	Cold to T1	178	12700	11441	4.04	3.37	(17)	DISP	78	147
B09 F-	Max P						(3a)	HOOP	0	71
	Max P	0	0		4.04	3.37	(18)	SUST	0	71
	Cold to T1	538	13453	22274	4.04	3.37	(17)	DISP	90	147
B09 F+	Max P						(3a)	HOOP	0	71
	Max P	0	0		1.00	1.00	(18)	SUST	0	71
	Cold to T1	13453	538	22274	1.00	1.00	(17)	DISP	46	147
B10 N-	Max P						(3a)	HOOP	0	71
	Max P	0	0		1.00	1.00	(18)	SUST	0	71
	Cold to T1	13453	538	22274	1.00	1.00	(17)	DISP	46	147
B10 N+	Max P						(3a)	HOOP	0	71
	Max P	0	0		4.04	3.37	(18)	SUST	0	71
	Cold to T1	538	13453	22274	4.04	3.37	(17)	DISP	90	147
B10 F-	Max P						(3a)	HOOP	0	71
	Max P	0	0		4.04	3.37	(18)	SUST	0	71
	Cold to T1	436	4507	31220	4.04	3.37	(17)	DISP	62	147

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ASME B31.3b (2001) CODE COMPLIANCE									
		(Moments in Nm)			(Stress in N/mm2)				
Point	Load	In-Pl.	Out-Pl.	Torsion	S.I.F		Eq. Load	Code	Code
name	combination	Moment	Moment	Moment	In	Out	no. type	Stress	Allow.
B10 F+	Max P						(3a) HOOP	0	71
	Max P	0	0		1.00	1.00	(18) SUST	0	71
	Cold to T1	0	0	0	1.00	1.00	(17) DISP	0	147
B11	Max P						(3a) HOOP	0	71
	Max P	0	0		1.00	1.00	(18) SUST	0	71
	Cold to T1	0	0	0	1.00	1.00	(17) DISP	0	147

*** Segment B end *** Line # 79319814

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S Y S T E M S U M M A R Y

Maximum displacements (mm)

Maximum X :	66.855	Point : A05 F	Load Comb.: T1
Maximum Y :	111.090	Point : A06 N	Load Comb.: T1
Maximum Z :	-166.200	Point : B00	Load Comb.: T1
Max. total:	166.287	Point : B00	Load Comb.: T1

Maximum rotations (deg)

Maximum X :	-1.793	Point : A11 N	Load Comb.: T1
Maximum Y :	2.592	Point : A07 F	Load Comb.: T1
Maximum Z :	-0.925	Point : A09 N	Load Comb.: T1
Max. total:	2.677	Point : A07 F	Load Comb.: T1

Maximum restraint forces (N)

Maximum X :	-1291	Point : B10 F	Load Comb.: T1
Maximum Y :	3933	Point : A00	Load Comb.: T1
Maximum Z :	-41682	Point : A00	Load Comb.: T1
Max. total:	41881	Point : A00	Load Comb.: T1

Maximum restraint moments (Nm)

Maximum X :	-29981	Point : A00	Load Comb.: T1
Maximum Y :	-25435	Point : A00	Load Comb.: T1
Maximum Z :	-4540	Point : A00	Load Comb.: T1
Max. total:	39577	Point : A00	Load Comb.: T1

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S Y S T E M S U M M A R Y

Maximum pipe forces (N)

Maximum X :	-1291	Point : A13	Load Comb.: T1
Maximum Y :	-3933	Point : A04 F	Load Comb.: T1
Maximum Z :	41682	Point : A02 N	Load Comb.: T1
Max. total:	41881	Point : A02 N	Load Comb.: T1

Maximum pipe moments (Nm)

Maximum X :	-33335	Point : A03 F	Load Comb.: T1
Maximum Y :	-49102	Point : A13	Load Comb.: T1
Maximum Z :	5157	Point : A08 F	Load Comb.: T1
Max. total:	50385	Point : A13	Load Comb.: T1

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REBIS
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S Y S T E M S U M M A R Y

Maximum displacement stress

Point	:	A11 F
Stress	N/mm2	: 191
Allowable	N/mm2	: 218
Ratio	:	0.87
Load combination	:	Cold to T1

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S Y S T E M S U M M A R Y

Maximum displacement stress ratio

Point : A03 F
Stress N/mm2 : 145
Allowable N/mm2 : 147
Ratio : 0.98
Load combination : Cold to T1

* * * The system satisfies ASME B31.3 code requirements * * *
* * * for the selected options * * *