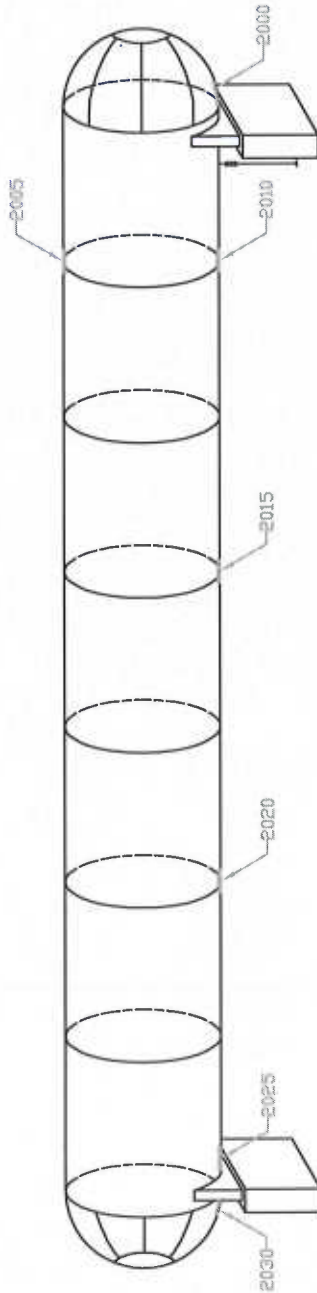


(S)



6605063



S2A

Butane Storage Bullet

Reg. No.: A 84682

Built : 1968

Design : 92 PSI @ 150 F

Size : 120" ID x 70'

J.E. : 85 %

C.A. : 0

Shell : .375 SA 515.70

Head : .250 SA 515.70

Husky Energy Inc.
Sylvan Lake Gas Plant
1-21-38-2W5

Locations: 2000 - 2030

ULTRATEST NDT Services Inc.

By: ML Date: 9/01 Dwg: 20

Index : 20 S2A Butane Storage Bullet
 Item : 2000 V-BAND ON BOTTOM SOUTH HEAD
 Service : 6 Butane

Reg. # : A 84682

Dwg. # : 20

MWP : 92 PSI @ 150 F'

Nominal thickness : .250

Critical : .186

Material : SA 515.70

INSPECTION DATES

Temperatures F'
 Probe selection

Jul 1990	Jun 1993	Oct 1996	Sep 2001
60	50	50	50
1	1	1	1

Top

1	.343*	.352	.349*	.350*
2	.343*	.350*	.349*	.350*
3	.343*	.350*	.349*	.350*
4	.343*	.350*	.349*	.350*
5	.343*	.350*	.349*	.350*
6	.343*	.350*	.349*	.350*
7	.346	.352	.352	.350*
8	.348	.352	.354	.352
9	.351	.352	.354	.352
10	.356	.357	.357	.357
11	.353	.359	.354	.359
12	.356	.357	.357	.357

Before weld

7+	.6+	.6+	.2+
7+	.6+	.6+	.2+
7+	.6+	.6+	.2+
7+	.6+	.6+	.2+
7+	.6+	.6+	.2+
7+	.6+	.6+	.2+
4+	.4+	.4+	.4*
4+	.4+	.4+	.4*
1+	.1+	.1+	.4*
1+	.1+	.1+	
6+	.5+	.5+	1.0+
1+	.1+	.1+	

Average Reading

Period Average Loss MPY

Period Maximum Loss MPY

Life Expectancy (Years)

.347	.353	.352	.352
1.8+	.2	.1+	.4
	1.5		

Index : 20 SZA Butane Storage Bullet Reg. # : A 84682

Item : 2005 H-BAND ON TOP SHELL (circ. weld 2) Dwg. # : 20

Service : 6 Butane MMP : 92 PSI @ 150 F'

Nominal thickness : .375

Critical : .372

Material : SA 515.70

INSPECTION

DATES

Jul 1990 Oct 1996 Sep 2001

Temperatures F'

Probe selection

North

1	.396*	.397*	.397
2	.406	.397*	.397
3	.409	.399	.393*
4	.404	.397*	.395
5	.398	.399	.399
6	.406	.402	.400
7	.416	.414	.414
8	.409	.412	.412
9	.411	.412	.410
10	.414	.409	.408
11	.421	.420	.410
12	.416	.415	.415

After support

After weld

South

Total Loss (Mils)	Total Loss %	Avg. Loss MPY	Period Loss MPY
1+		.1+	
9		.8	
16*		1.4*	1.2
9		.8	.4
1+		.1+	
6		.5	.4
2		.2	
3+		.3+	
1		.1	.4
6		.5	.2
11		1.0	2.0*
1		.1	

Average Reading

Period Average Loss MPY

Period Maximum Loss MPY

Life Expectancy (Years)

.409	.406	.404
.4	.4	.4
1.6	1.6	2.0
16.9	16.9	19.0

Index : 20 S2A Butane Storage Bullet Reg. # : A 84682
 Item : 2010 H-BAND ON BOTTOM SHELL (circ. weld 2) Dwg. # : 20
 Service : 6 Butane MWP : 92 PSI @ 150 F'

Nominal thickness : .375
 Critical : .372
 Material : SA 515.70

INSPECTION
DATES

	Jul 1990	Jun 1993	Oct 1996	Sep 2001
Temperatures F'	60	50	50	50
Probe selection	1	1	1	1

Total Loss (Mils)	Total Loss %	Avg. Loss MPY	Period Loss MPY
-------------------------	--------------------	---------------------	-----------------------

North

After support

After weld

South

1	.396	.394	.394	.394
2	.401	.392	.392	.392
3	.388	.389*	.392	.390
4	.393	.394	.392	.392
5	.388	.392	.392	.390
6	.383*	.389*	.390*	.387*
7	.401	.402	.397	.397
8	.401	.400	.399	.399
9	.398	.402	.402	.397
10	.401	.402	.402	.400
11	.404	.402	.405	.400
12	.406	.402	.405	.402

2	.2	.2	.2	.2
9*	.8*	.8*	.8*	.8*
2+	.2+	.2+	.2+	.2+
1	.1	.1	.1	.1
2+	.2+	.2+	.2+	.2+
4+	.4+	.4+	.4+	.4+
4	.4	.4	.4	.4
2	.2	.2	.2	.2
1	.1	.1	.1	.1
1	.1	.1	.1	.1
4	.4	.4	.4	.4
4	.4	.4	.4	.4

Average Reading

Period Average Loss MPY	.397	.397	.397	.395
Period Maximum Loss MPY	3.1	6.5	16.7	28.0
Life Expectancy (Years)	16.7	16.7	16.7	16.7

Index : 20 S2A Butane Storage Bullet Reg. # : A 84682

Item : 2015 H-BAND ON BOTTOM SHELL (circ. weld 4) Dwg. # : 20

Service : 6 Butane MMP : 92 PSI @ 150 F°

INSPECTION

DATES

Temperatures F°

Probe selection

Jul 1990 Jun 1993 Oct 1996 Sep 2001

60 50 50 50

1 1 1 1

North

1	.396	.394	.397	.393
2	.396	.400	.397	.397
3	.401	.394	.397	.393
4	.396	.397	.397	.395
5	.396	.397	.397	.395
6	.398	.397	.397	.397
7	.383*	.387*	.394	.394
8	.383*	.387*	.390*	.387*
9	.388	.389	.390*	.390
10	.393	.392	.397	.393
11	.388	.389	.390*	.390
12	.386	.389	.390*	.390

After weld

After support

South

Nominal thickness : .375

Critical : .372

Material : SA 515.70

Total Loss (Mils)	Total Loss %	Avg. Loss MPY	Period Loss MPY
3		.3	.8*
1+		.1+	
8*		.7*	.8*
1		.1	.4
1		.1	.4
1		.1	
11+		1.0+	
4+		.4+	.6
2+		.2+	
2+		.2+	.8*
4+		.4+	

Average Reading

Period Average Loss MPY

Period Maximum Loss MPY

Life Expectancy (Years)

.392	.393	.394	.393
.2+	.5+	.3	.3
2.4	.9	.8	.8
9.2	27.8	26.3	

Index : 20 S2A Butane Storage Bullet Reg. # : A 84682

Item : 2020 H-BAND ON BOTTOM SHELL (circ. weld 6) Dwg. # : 20

Service : 6 Butane MMP : 92 PSI @ 150 F°

INSPECTION

DATES

Temperatures F°

Probe selection

North

1	.386	.392	.390	.387	.387
2	.386	.387	.387	.387	.387
3	.388	.394	.394	.387	.387
4	.388	.392	.390	.390	.390
5	.383	.387	.390	.387	.387
6	.391	.389	.390	.387	.387
7	.381	.384	.377*	.377	.377
8	.381	.384	.379	.375*	.375*
9	.383	.384	.379	.379	.379
10	.378*	.382*	.379	.379	.379
11	.381	.384	.382	.380	.380
12	.378*	.382*	.382	.382	.382

After weld

South

Average Reading

Period Average Loss MPY

Period Maximum Loss MPY

Life Expectancy (Years)

.384	.387	.385	.383
1.1+	.6	.4	.4
.7	2.1	1.4	1.4
24.3	2.4	10.7	10.7

Nominal thickness : .375

Critical : .372

Material : SA 515.70

Total Loss (Mils)	Total Loss %	Avg. Loss MPY	Period Loss MPY
-------------------	--------------	---------------	-----------------

1+	.1+	.1+	.6
1+	.1+	.1+	.6
1	.1	.1	1.4*
2+	.2+	.2+	.6
4+	.4+	.4+	.6
4	.4	.4	.6
4	.4	.4	.6
6*	.5*	.5*	.8
4	.4	.4	.8
1+	.1+	.1+	.4
1	.1	.1	.4
4+	.4+	.4+	.4

Index : 20 SZA Butane Storage Bullet Reg. # : A 84682

Item : 2025 H-BAND ON BOTTOM NORTH SHELL Dwg. # : 20

Service : 6 Butane MWP : 92 PSI @ 150 F°

Nominal thickness : .375

Critical : .372

Material : SA 515.70

INSPECTION

DATES

Temperatures F°

Probe selection

Jul 1990 Jun 1993 Oct 1996 Sep 2001

60 50 50 50

1 1 1 1

After weld

1	.391	.397	.390*	.390*
2	.398	.392	.392	.392
3	.391	.394	.390*	.390*
4	.388*	.389*	.390*	.390*
5	.391	.392	.390*	.390*
6	.391	.392	.390*	.390*
7	.388*	.392	.390*	.390*
8	.391	.392	.390*	.390*
9	.393	.392	.390*	.390*
10	.391	.392	.390*	.390*
11	.391	.394	.390*	.390*
12	.388*	.389*	.390*	.390*

South

Average Reading

Period Average Loss MPY

Period Maximum Loss MPY

Life Expectancy (Years)

.391

.392

.4+

2.1

9.5

.390

.390

.6

2.1

8.6

Total Loss (Mils)	Total Loss %	Avg. Loss MPY	Period Loss MPY
-------------------	--------------	---------------	-----------------

1		.1	
6*		.5*	
1		.1	
2+		.2+	
1		.1	
1		.1	
2+		.2+	
1		.1	
3		.3	
1		.1	
1		.1	
2+		.2+	

Index : 20 S2A Butane Storage Bullet
 Item : 2030 V-BAND ON BOTTOM NORTH HEAD
 Service : 6 Butane

Reg. # : A 84682

Dwg. # : 20

MWP : 92 PSI @ 150 F'

Nominal thickness : .250

Critical : .186

Material : SA 515.70

INSPECTION
DATES

INSPECTION DATES	Jul 1990	Jun 1993	Oct 1996	Sep 2001
Temperatures F'	60	50	50	50
Probe selection	1	1	1	1

Top

1	.338	.345	.342	.342
2	.336	.342	.342	.342
3	.336	.345	.342	.342
4	.336	.340	.342	.342
5	.336	.342	.339	.339
6	.336	.342	.339	.337
7	.336	.342	.337	.337
8	.336	.340	.337	.337
9	.331	.335*	.334*	.334
10	.328*	.335*	.334*	.334
11	.328*	.335*	.334*	.334
12	.333	.335*	.334*	.333*

Before weld

Total Loss (Mils)	Total Loss %	Avg. Loss MPY	Period Loss MPY
4+		.4+	
6+		.5+	
6+		.5+	
6+		.5+	
3+		.3+	
1+		.1+	.4*
1+		.1+	
1+		.1+	
3+		.3+	
6+		.5+	
6+		.5+	.2

Average Reading

Period Average Loss MPY
 Period Maximum Loss MPY
 Life Expectancy (Years)

.334	.340	.338	.338
2.0+	.6	.1	.4
	1.5		

2245 Laboratory Road
 Suite 100
 Denver, CO 80202

2000

15

15	1324	1326	1328	1330
14	1322	1324	1326	1328
13	1320	1322	1324	1326
12	1318	1320	1322	1324
11	1316	1318	1320	1322
10	1314	1316	1318	1320
9	1312	1314	1316	1318
8	1310	1312	1314	1316
7	1308	1310	1312	1314
6	1306	1308	1310	1312
5	1304	1306	1308	1310
4	1302	1304	1306	1308
3	1300	1302	1304	1306
2	1298	1300	1302	1304
1	1296	1298	1300	1302

10000 W. 10TH AVE. SUITE 1000 DENVER, CO 80202

2000

15

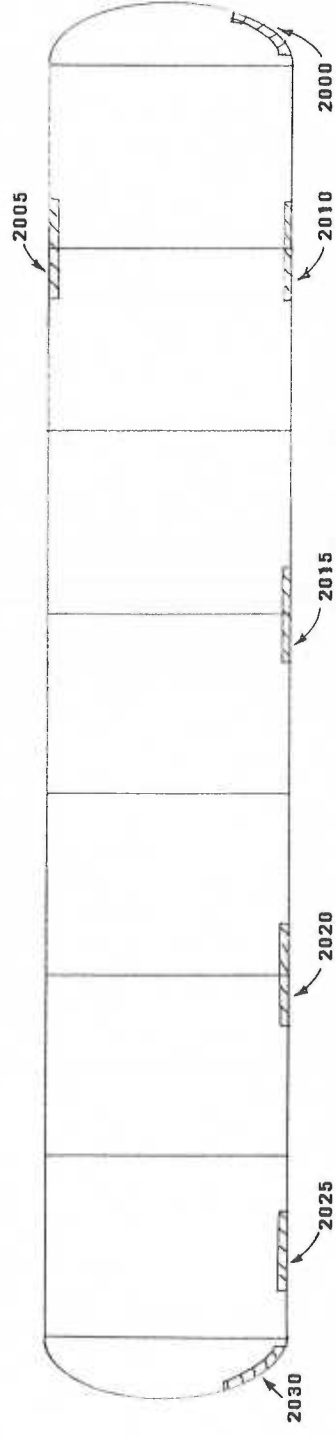
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14	1322	1324	1326	1328
13	1320	1322	1324	1326
12	1318	1320	1322	1324
11	1316	1318	1320	1322
10	1314	1316	1318	1320
9	1312	1314	1316	1318
8	1310	1312	1314	1316
7	1308	1310	1312	1314
6	1306	1308	1310	1312
5	1304	1306	1308	1310
4	1302	1304	1306	1308
3	1300	1302	1304	1306
2	1298	1300	1302	1304
1	1296	1298	1300	1302

10000 W. 10TH AVE. SUITE 1000 DENVER, CO 80202

2000

15

15	1324	1326	1328	1330
14	1322	1324	1326	1328
13	1320	1322	1324	1326
12	1318	1320	1322	1324
11	1316	1318	1320	1322
10	1314	1316	1318	1320
9	1312	1314	1316	1318
8	1310	1312	1314	1316
7	1308	1310	1312	1314
6	1306	1308	1310	1312
5	1304	1306	1308	1310
4	1302	1304	1306	1308
3	1300	1302	1304	1306
2	1298	1300	1302	1304
1	1296	1298	1300	1302



No. 1 Butane Storage Tank
Reg. No.: A 84882
Built : 1968
Design : 92 PSI @ 150 F
Dia. : 120" OD
J.E. : 85 %
C.A. :
Shell : .375 SA 515.70
Head : .250 SA 515.70

Chevron Canada Resources
Sylvan Lake Gas Plant
1-21-38-2W5

Locations: 2000 - 2030
ULTRA TEST
By: KWK Date: 7/90 Dwg: 20

Index : 20 No.1 Butane Storage Tank
 Item : 2000 V-BAND ON BOTTOM SOUTH HEAD
 Service : 6 Butane

Reg. # : A 84682

Dwg. # : 20

MWP : 92 PSI @ 150 F'

Nominal thickness : .250

Critical : .137

Material : SA 515.70

INSPECTION
 DATES

 Temperatures F' 60 50 50
 Probe selection 1 1 1

Total Loss (Mils)
 Total Loss %
 Avg. Loss MPY
 Period Loss MPY

Top
 1 .343* .352 .349*
 2 .343* .350* .349*
 3 .343* .350* .349*
 4 .343* .350* .349*
 5 .343* .350* .349*
 6 .343* .350* .349*
 7 .346 .352 .352
 8 .348 .352 .354
 9 .351 .352 .354
 10 .356 .357 .357
 11 .353 .359 .354
 12 .356 .357 .357

6+ 1.0+ .9
 6+ 1.0+ .3
 6+ 1.0+ .3
 6+ 1.0+ .3
 6+ 1.0+ .3
 6+ 1.0+ .3
 6+ 1.0+ .3
 6+ 1.0+ .6+
 3+ .5+ .6+
 1+ .2+
 1+ .2+ 1.5*
 1+ .2+

Average Reading
 Period Average Loss MPY
 Period Maximum Loss MPY
 Life Expectancy (Years)

.347 .353 .352
 1.8+ .2
 1.5

Index : 20 No.1 Butane Storage Tank Reg. # : A 84882

Item : 2005 H-BAND ON TOP SHELL (circ. weld 2) Dwg. # : 20

Service : 6 Butane MWP : 92 PSI @ 150 F'

Nominal thickness : .375

Critical : .370

Material : SA 515.70

INSPECTION DATES

Jul 1990	Oct 1996								
-----	-----	-----	-----	-----	-----	-----	-----	-----	-----

Temperatures F' 60 50

Probe selection 1 1

North

1	.396*	.397*
2	.406	.397*
3	.409	.399
4	.404	.397*
5	.398	.399
6	.406	.402
7	.416	.414
8	.409	.412
9	.411	.412
10	.414	.409
11	.421	.420
12	.416	.415

After support

After weld

South

Total Loss (Mils)	Total Loss %	Avg. Loss MPY	Period Loss MPY
-------------------	--------------	---------------	-----------------

1+	.2+	.2+	.2+
9	1.4	1.4	1.4
10*	1.6*	1.6*	1.6*
7	1.1	1.1	1.1
1+	.2+	.2+	.2+
4	.6	.6	.6
2	.3	.3	.3
3+	.5+	.5+	.5+
1+	.2+	.2+	.2+
5	.8	.8	.8
1	.2	.2	.2
1	.2	.2	.2

Average Reading	.409	.406
Period Average Loss MPY	.4	
Period Maximum Loss MPY	1.6	
Life Expectancy (Years)	18.1	

Index : 20 No.1 Butane Storage Tank

Reg. # : A 84682

Item : 2010 H-BAND ON BOTTOM SHELL (circ. weld 2)

Dwg. # : 20

Service : 6 Butane

MWP : 92 PSI @ 150 F'

Nominal thickness : .375

Critical : .370

Material : SA 515.70

INSPECTION

DATES

	Jul 1990	Jun 1993	Oct 1996
Temperatures F'	60	50	50
Probe selection	1	1	1

North

1	.396	.394	.394
2	.401	.392	.392
3	.388	.389*	.392
4	.393	.394	.392
5	.388	.392	.392
6	.383*	.389*	.390*
7	.401	.402	.397
8	.401	.400	.399
9	.398	.402	.402
10	.401	.402	.402
11	.404	.402	.405
12	.406	.402	.405

After support

After weld

South

Total Loss (Mils)	Total Loss %	Avg. Loss MPY	Period Loss MPY
2		.3	
9*		1.4*	
4+		.6+	.9+
1		.2	.6
4+		.6+	
7+		1.1+	.3+
4		.6	1.5*
2		.3	.3
4+		.6+	
1+		.2+	
1+		.2+	.9+
1		.2	.9+

Average Reading

Period Average Loss MPY	.397	.397	.397
Period Maximum Loss MPY		3.1	1.5
Life Expectancy (Years)		7.1	18.0

Index : 20 No.1 Butane Storage Tank Reg. # : A 84682

Item : 2015 H-BAND ON BOTTOM SHELL (circ. weld 4) Dwg. # : 20

Service : 6 Butane MWP : 92 PSI @ 150 F'

Nominal thickness : .375

Critical : .370

Material : SA 515.70

INSPECTION

DATES

Temperatures F'

Probe selection

Jul 1990

Jun 1993

Oct 1996

60 50 50

1 1 1

North

1 .396 .394 .397

2 .396 .400 .397

3 .401 .394 .397

4 .396 .397 .397

5 .396 .397 .397

6 .398 .397 .397

7 .383* .387* .394

8 .383* .387* .390*

9 .388 .389 .390*

10 .393 .392 .397

11 .388 .389 .390*

12 .386 .389 .390*

After weld

After support

South

Total Loss (Mils)

Total Loss %

Avg. Loss MPY

Period Loss MPY

1+ .2+ .9+

1+ .2+ .9*

4* .6* .9+

1+ .2+ .9+

1+ .2+ .9+

1 .2

11+ 1.8+ 2.1+

7+ 1.1+ .9+

2+ .3+ .3+

4+ .6+ 1.5+

2+ .3+ .3+

4+ .6+ .3+

Average Reading

Period Average Loss MPY

Period Maximum Loss MPY

Life Expectancy (Years)

.392 .393 .394

.2+ .5+

2.4 .9

10.0 30.0

Index : 20 No.1 Butane Storage Tank Reg. # : A 84682

Item : 2020 H-BAND ON BOTTOM SHELL (circ. weld 6) Dwg. # : 20

Service : 6 Butane MWP : 92 PSI @ 150 F'

Nominal thickness : .375

Critical : .370

Material : SA 515.70

INSPECTION DATES

	Jul 1990	Jun 1993	Oct 1996
Temperatures F'	60	50	50
Probe selection	1	1	1

North

1	.386	.392	.390
2	.386	.387	.387
3	.388	.394	.394
4	.388	.392	.390
5	.383	.387	.390
6	.391	.389	.390
7	.381	.384	.377*
8	.381	.384	.379
9	.383	.384	.379
10	.378*	.382*	.379
11	.381	.384	.382
12	.378*	.382*	.382

After weld

4+	.6+	.6
1+	.2+	
6+	1.0+	
2+	.3+	.6
7+	1.1+	.9+
1	.2	.3+
4*	.6*	2.1*
2	.3	1.5
4*	.6*	1.5
1+	.2+	.9
1+	.2+	.6
4+	.6+	

Average Reading .384 .387 .385

Period Average Loss MPY 1.1+ .6

Period Maximum Loss MPY .7 2.1

Life Expectancy (Years) 27.1 3.3

Index :	20	Butane Storage Tank
Item :	2025	H-BAND ON BOTTOM NORTH SHELL
Service :	6	Butane

Reg. # : A 84682
Dwg. # : 20
MWP : 92 PS

Nominal thickness : .375
Critical : .370
Material : SA 515.70

INSPECTION DATES	Jul 1990	Jun 1993	Oct 1996
Temperatures F ¹	60	50	50
Probe selection	1	1	1

	After weld	1	.391	.397	.390*
		2	.398	.392	.392
		3	.391	.394	.390*
		4	.388*	.389*	.390*
		5	.391	.392	.390*
		6	.391	.392	.390*
		7	.388*	.392	.390*
		8	.391	.392	.390*
		9	.393	.392	.390*
		10	.391	.392	.390*
		11	.391	.394	.390*
	South	12	.388*	.389*	.390*

1	.2	2.1*
6*	1.0*	
1	.2	1.2
2+	.3+	.3+
1	.2	.6
1	.2	.6
2+	.3+	.6
1	.2	.6
3	.5	.6
1	.2	.6
1	.2	1.2
2+	.3+	.3+

Average Reading	.391	.392	.390
Period Average Loss MPY		.4+	.6
Period Maximum Loss MPY		2.1	2.1
Life Expectancy (Years)		10.5	9.5

Index : 20 No.1 Butane Storage Tank
 Item : 2030 V-BAND ON BOTTOM NORTH HEAD
 Service : 6 Butane

Reg. # : A 84682

Dwg. # : 20

MWP : 92 PSI @ 150 F'

Nominal thickness : .250

Critical : .137

Material : SA 515.70

INSPECTION
 DATES

 Temperatures F' 60 50 50
 Probe selection 1 1 1

Total Loss (Mils)
 Total Loss %
 Avg. Loss MPY
 Period Loss MPY

Top
 1 .338 .345 .342
 2 .336 .342 .342
 3 .336 .345 .342
 4 .336 .340 .342
 5 .336 .342 .339
 6 .336 .342 .339
 7 .336 .342 .337
 8 .336 .340 .337
 9 .331 .335* .334*
 10 .328* .335* .334*
 11 .328* .335* .334*
 12 .333 .335* .334*

4+ .6+ .9
 6+ 1.0+
 6+ 1.0+ .9
 6+ 1.0+ .6+
 3+ .5+ .9
 3+ .5+ .9
 1+ .2+ 1.5*
 1+ .2+ .9
 3+ .5+ .3
 6+ 1.0+ .3
 6+ 1.0+ .3
 1+ .2+ .3

Before weld

Average Reading .334 .340 .338
 Period Average Loss MPY 2.0+ .6
 Period Maximum Loss MPY 1.5
 Life Expectancy (Years)

