



PRESSURE VESSEL & COLUMN INSPECTION REPORT

Plant	Galloway Gas Plant	Op Unit		System	
Asset #	052129	Equipment ID	66068048	Asset Type	
Description	V-200 Horiz. Inlet Separator	Prov. Insp. #	A0469196	Serial #	38047A
Manufacturer	RNG Pro-Tech	CRN	P-7239.2	Year Built	2001
MAWP	3448	KPag	@ 38 °C	MDMT	-46 °C
Code	RT-1	Fluid Service	Natural Gas	Sweet	PWHT Yes
Internal Access	Yes	Insulated	Yes	Internal Coating	
Operating Pressure	1800	KPag		Operating Temp	5 °C

PSV DATA

PSV ID #	Location	Size		Set Pressure	Capacity SCFM / Lbs/Hr / GPM	Manufacturer	Model	Last Service
		Inlet	Outlet					
	Piping	101.6 mm	152.4 mm	3448 kPa	28154 SCFM	Farris	26LA12 -120	May 30, 2011

INSPECTION SUMMARY

The manway davit arm is only single nutted.

The insulation along the bottom shell was very wet, but the paint appeared to be in good condition with no signs of external corrosion.

RECOMMENDATIONS

The manway davit arm should be double nutted.

NONCONFORMANCES / INSPECTION DEFICIENCIES

INSPECTION PLANNING

Inspection Strategy	_____	Availability	_____	Inspection Interval	_____
Inspection Date	_____	Date of Last Inspect	_____	Date of Next Inspect	_____

REPORT CERTIFICATION

The signatures below certify that inspections/tests have been completed in accordance with the identified inspection strategy and that the specified equipment is considered fit for service until the date of next inspection.

Inspected by	Adam Fitzgerald	Date	June 15/12
Reviewed and Approved by	_____	Date	_____
Criticality Assessment Rerun	_____	Inspection Planning Rerun	_____
Assessed Next Inspection Date	_____		

✓ jv

ID	General	Condition
V1	Other (please explain)	<input type="checkbox"/> Good <input type="checkbox"/> Fair <input type="checkbox"/> Poor <input checked="" type="checkbox"/> N/A
V2	General Corrosion	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
V3	General Leaks	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
V4	Vibration	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
V5	Dissimilar Flange Rating	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
V6	Ladder/Stairway	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
V7	Heads	<input checked="" type="checkbox"/> Good <input type="checkbox"/> Fair <input type="checkbox"/> Poor <input type="checkbox"/> N/A
V8	Guy Wires	<input type="checkbox"/> Good <input type="checkbox"/> Fair <input type="checkbox"/> Poor <input checked="" type="checkbox"/> N/A
V9	Electrical Ground	<input checked="" type="checkbox"/> Good <input type="checkbox"/> Fair <input type="checkbox"/> Poor <input type="checkbox"/> N/A
V10	Painted Inactive Corrosion	<input type="checkbox"/> Good <input type="checkbox"/> Fair <input type="checkbox"/> Poor <input checked="" type="checkbox"/> N/A
V11	Coating/Painting	<input checked="" type="checkbox"/> Good <input type="checkbox"/> Fair <input type="checkbox"/> Poor <input type="checkbox"/> N/A
V12	Expansion Joint or Bellows	<input type="checkbox"/> Good <input type="checkbox"/> Fair <input type="checkbox"/> Poor <input checked="" type="checkbox"/> N/A
V13	Gauge/Site Glass	<input checked="" type="checkbox"/> Good <input type="checkbox"/> Fair <input type="checkbox"/> Poor <input type="checkbox"/> N/A
V14	Shell	<input checked="" type="checkbox"/> Good <input type="checkbox"/> Fair <input type="checkbox"/> Poor <input type="checkbox"/> N/A
V15	Jacket	<input type="checkbox"/> Good <input type="checkbox"/> Fair <input type="checkbox"/> Poor <input checked="" type="checkbox"/> N/A
Supports		Condition
V21	Other (please explain)	<input type="checkbox"/> Good <input checked="" type="checkbox"/> Fair <input type="checkbox"/> Poor <input checked="" type="checkbox"/> N/A
V22	Foundation	<input checked="" type="checkbox"/> Good <input type="checkbox"/> Fair <input type="checkbox"/> Poor <input type="checkbox"/> N/A
V23	Anchor Bolts	<input checked="" type="checkbox"/> Good <input type="checkbox"/> Fair <input type="checkbox"/> Poor <input type="checkbox"/> N/A
V24	Saddle Skirt	<input checked="" type="checkbox"/> Good <input type="checkbox"/> Fair <input type="checkbox"/> Poor <input type="checkbox"/> N/A
V25	Davit	<input type="checkbox"/> Good <input checked="" type="checkbox"/> Fair <input type="checkbox"/> Poor <input type="checkbox"/> N/A
The manway davit arm is only single nutted.		
V26	Fireproofing	<input type="checkbox"/> Good <input type="checkbox"/> Fair <input type="checkbox"/> Poor <input checked="" type="checkbox"/> N/A
Connections		Condition
V31	Other (please explain)	<input type="checkbox"/> Good <input type="checkbox"/> Fair <input type="checkbox"/> Poor <input checked="" type="checkbox"/> N/A
V32	Small Branches	<input checked="" type="checkbox"/> Good <input type="checkbox"/> Fair <input type="checkbox"/> Poor <input type="checkbox"/> N/A
V33	Nozzles	<input checked="" type="checkbox"/> Good <input type="checkbox"/> Fair <input type="checkbox"/> Poor <input type="checkbox"/> N/A
V34	Manways	<input checked="" type="checkbox"/> Good <input type="checkbox"/> Fair <input type="checkbox"/> Poor <input type="checkbox"/> N/A

V35	Reinforcing Pads	<input checked="" type="checkbox"/> Good <input type="checkbox"/> Fair <input type="checkbox"/> Poor <input type="checkbox"/> N/A
V36	Inadequate Thread Engagement	<input type="checkbox"/> Good <input type="checkbox"/> Poor <input checked="" type="checkbox"/> N/A
V37	Bolting	<input checked="" type="checkbox"/> Good <input type="checkbox"/> Poor <input type="checkbox"/> N/A
V38	Flanges	<input checked="" type="checkbox"/> Good <input type="checkbox"/> Fair <input type="checkbox"/> Poor <input type="checkbox"/> N/A
V39	Leak Clamps	<input type="checkbox"/> Good <input type="checkbox"/> Poor <input checked="" type="checkbox"/> N/A
Insulation		Condition
V41	Other (please explain)	<input checked="" type="checkbox"/> Good <input type="checkbox"/> Fair <input type="checkbox"/> Poor <input type="checkbox"/> N/A
V42	Damage	<input type="checkbox"/> Good <input type="checkbox"/> Fair <input type="checkbox"/> Poor <input checked="" type="checkbox"/> N/A
V43	Penetrations	<input checked="" type="checkbox"/> Good <input type="checkbox"/> Fair <input type="checkbox"/> Poor <input type="checkbox"/> N/A
V44	Jacket	<input checked="" type="checkbox"/> Good <input type="checkbox"/> Fair <input type="checkbox"/> Poor <input type="checkbox"/> N/A
V45	Banding	<input checked="" type="checkbox"/> Good <input type="checkbox"/> Fair <input type="checkbox"/> Poor <input type="checkbox"/> N/A
V46	Seals/Joints	<input type="checkbox"/> Good <input checked="" type="checkbox"/> Fair <input type="checkbox"/> Poor <input type="checkbox"/> N/A
The edges appear to be sealed, but the insulation along the bottom shell was very wet.		
Relief Device		Condition
V51	Other (please explain)	<input checked="" type="checkbox"/> Good <input type="checkbox"/> Fair <input type="checkbox"/> Poor <input type="checkbox"/> N/A
V52	Corrosion	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
V53	Leaks	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
V54	Restricted Inlet/Outlet	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
V55	Manual Operation Lever	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No



PRESSURE VESSEL & COLUMN INSPECTION REPORT

DETAILED INSPECTION UT THICKNESS

CML	Nom. Thk	Current Reading	Short Term Corr Rate	Long Term Corr Rate	Remaining Life	Comments
100	32.33	36.29	0.00	0.00	100+	
105	34.92	35.45	0.00	0.00	100+	
110	34.92	35.45	0.00	0.00	100+	
115	34.92	36.11	0.00	0.00	100+	
120	34.92	35.09	0.00	0.00	100+	
125	34.92	35.95	0.00	0.00	100+	
130	34.92	36.06	0.00	0.00	100+	
135	34.92	35.67	0.00	0.00	100+	
140	32.33	36.08	0.00	0.00	100+	
150	12.70	12.83	0.00	0.00	100+	
155	7.82	8.73	0.00	0.00	100+	
160	6.02	6.14	0.00	0.00	100+	
165	6.02	6.42	0.00	0.00	100+	
170	8.18	9.19	0.00	0.00	100+	
180	8.18	8.38	0.00	0.00	100+	
185	8.18	8.91	0.00	0.00	100+	
187	5.49	5.45	0.00	0.00	100+	
190	5.54	4.91	0.05	0.05	30.6	
195	5.54	5.53	0.00	0.00	100+	

Chief Inspector Certification # _____

Assigned Interval _____

Chief Inspector Signature _____

Date _____



PSV Tag



General View of the PSV

Cover Page			
Client:	Husky Energy	Inspection Date:	June 15, 2012
Facility:	Galloway Gas Plant	LSD:	12-05-054-20W5M
Requested By:	Bob Marchak	Equipment #:	66068048
Equipment:	V-200 Horizontal Inlet Separator		

Status			
<input checked="" type="checkbox"/> In Service	<input type="checkbox"/> Not In Service	<input type="checkbox"/> Standby	<input type="checkbox"/> Not At location

Type of Inspection			SISL Technique
<input checked="" type="checkbox"/> Visual External	<input type="checkbox"/> Visual Internal	<input type="checkbox"/> Shearwave	SISL-24
<input type="checkbox"/> Firetubes	<input type="checkbox"/> Installation Inspection	<input checked="" type="checkbox"/> PSV	SISL-20
<input type="checkbox"/> Miscellaneous	<input checked="" type="checkbox"/> Corrosion Survey	<input type="checkbox"/> Compressor Cracking Survey	

Technicians/Inspectors	Certifications		
Adam Fitzgerald	API-510 #39616	IPVI #000583	CGSB II-UT #13474

Technique															
<input type="checkbox"/> BR	<input type="checkbox"/> CN	<input type="checkbox"/> CP	<input type="checkbox"/> ET	<input type="checkbox"/> MT	<input type="checkbox"/> PR	<input type="checkbox"/> PT	<input type="checkbox"/> RT	<input type="checkbox"/> TM	<input checked="" type="checkbox"/> UT	<input checked="" type="checkbox"/> VE	<input type="checkbox"/> VI	<input type="checkbox"/> Other			
<input checked="" type="checkbox"/> UT (thickness)	<input type="checkbox"/> Holiday Detection	<input type="checkbox"/> LPI (visible post emulsifiable)	<input checked="" type="checkbox"/> Visual (external)	<input type="checkbox"/> UT (shearwave)	<input type="checkbox"/> MPI (dry powder)	<input type="checkbox"/> LPI (visible solvent removable)	<input type="checkbox"/> Visual (internal)	<input type="checkbox"/> UT (c-scan)	<input type="checkbox"/> MPI (wet fluorescent)	<input type="checkbox"/> LPI (fluorescent water washable)	<input type="checkbox"/> RVT	<input type="checkbox"/> UT (TOFD)	<input type="checkbox"/> MPI (wet visible)	<input type="checkbox"/> LPI (fluorescent post emulsifiable)	<input type="checkbox"/> Hardness (microdur)
<input type="checkbox"/> UT (phased array)	<input type="checkbox"/> LPI (visible aqueous)	<input type="checkbox"/> LPI (fluorescent solvent removable)	<input type="checkbox"/> Chemical Etching												

Equipment	
Ultrasonic <input checked="" type="checkbox"/> DMS-2 <input type="checkbox"/> USN-52L <input type="checkbox"/> USN-58L <input type="checkbox"/> USN-Phaser <input type="checkbox"/> Westdyne Intraspec 4 <input type="checkbox"/> MFE 4020 MKII	Magnetic Particle <input type="checkbox"/> AC Yoke <input type="checkbox"/> DC Yoke <input type="checkbox"/> Permanent Yoke <input type="checkbox"/> Blacklight <input type="checkbox"/> Tinker & Razor M1 Other

Consumables	
Magnetic Particle <input type="checkbox"/> Magnaflux 7HF (black) <input type="checkbox"/> Magnaflux WCP-2 Contrast Paint <input type="checkbox"/> Magnaflux 14AM Fluorescent Bath <input type="checkbox"/> Red Oxide Powder <input type="checkbox"/> Grey Oxide Powder <input type="checkbox"/> Nital Chemical Solution	Liquid Penetrant <input type="checkbox"/> SKL-WP Penetrant <input type="checkbox"/> SKD-S2 Developer <input type="checkbox"/> SKC-S Cleaner <input type="checkbox"/> DP-51 Penetrant <input type="checkbox"/> DR-62 Developer

Ultrasonic Transducers				
Description	Type	Frequency	Diameter	Angle
D-790SM	Dual	5.0 MHz	.375"	0 degrees

Code	
Code:	ASME V
Acc. Criteria:	API-510
Calibration:	.250" - 1.000" Stepwedge
Sensitivity:	BWR @ 80% FSH

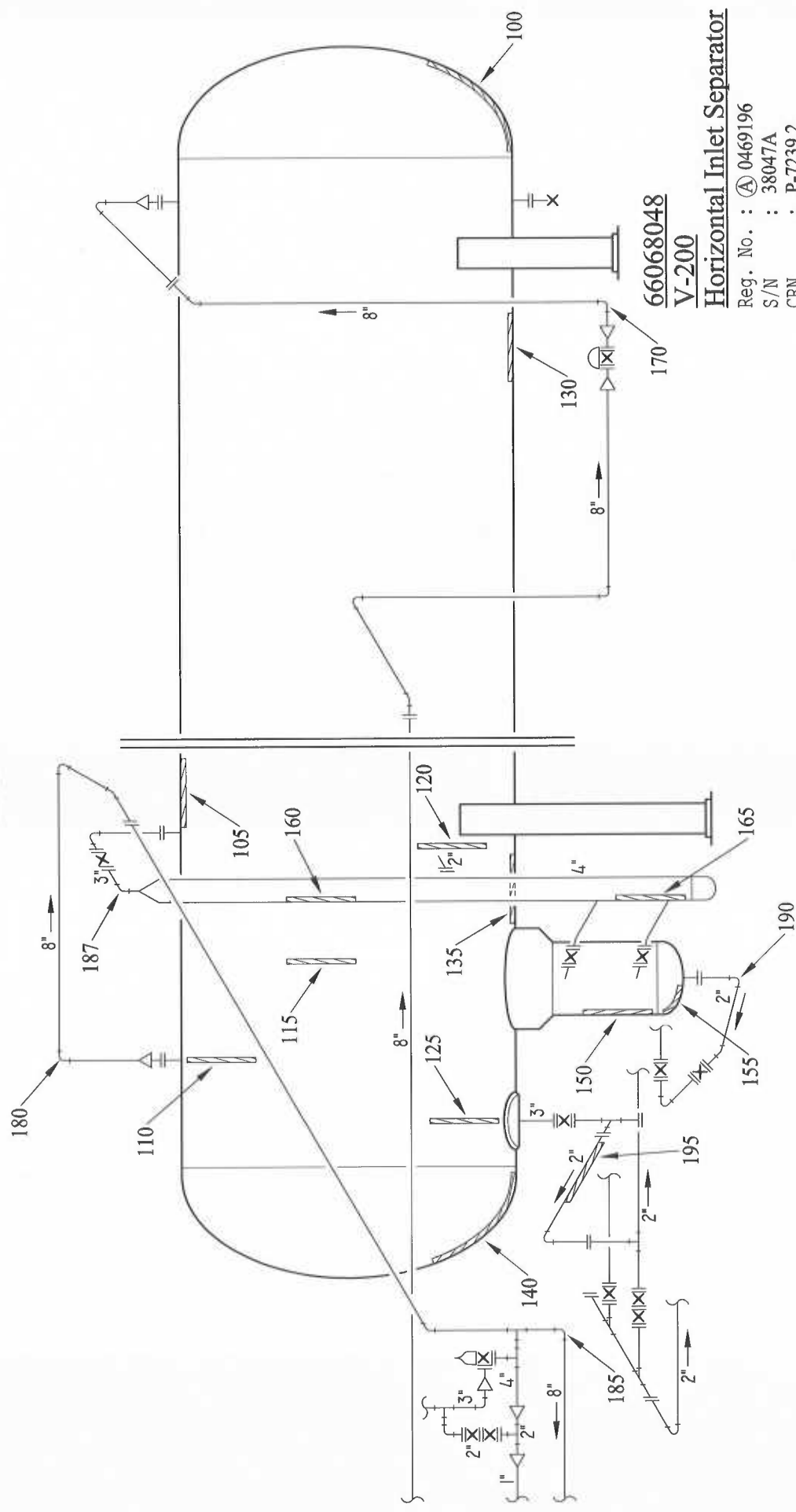
Magnetic Particle	
Material:	
Surface:	
Technique:	
Lighting:	

Code	
Code:	
Acc. Criteria:	
AC Yoke:	
Calibration:	

Comments:
An external visual inspection and UT corrosion survey were performed on the vessel. Please see report for further details.

Signature: Adam Fitzgerald
 Adam Fitzgerald

Date: August 24, 2012



66068048

V-200

Horizontal Inlet Separator

Reg. No. : A 0469196
 S/N : 38047A
 CRN : P-7239.2
 Built : 2001
 MWP : 500 PSI @ 100°F
 Dia. : 96" ID / 20"
 C.A. : 0.063"
 J.E. : RT-1 / 100%
 Shell : 1.375" SA 516-70N
 Head : 1.273" SA 516-70N
 Boot (S) : 0.500" SA 333-6
 Boot (H) : 0.3077" SA 516-70N
 Built By : RNG Pro-Tech Inc.

Sketched: AF	Date: 07/2012
AutoCad: DD/RR	Revised:
Dwg: 1	Items: 100 - 195

SUMMIT Inspection Services Ltd.

Husky Energy
 Galloway Gas Plant
 12-05-054-20 W5M

DATA PAGE

Index: 1	66068048	Horizontal Inlet Separator	Product:	JE: 100%
Component: (a)	V-200	Vessel	Drawing: 1	Dia: 2438 (mm) ID
Band: 100	Bottom North Head		MfgDate: Jan 2001	CA: 1.60 (mm)
Registration: A 0469196			Material: SA 516-70 N	Nominal: 32.33 (mm)
CRN: P-7239.2			MWP: 3447 kpa @	Critical: 30.73 (mm)
				38 °C

Inspection Dates	1	2	3	4	5	6	7	8	9	10	11	12	Total Loss (mm)	Loss Rate (mm/yr)	Condition Indicator
Temperature °C															
Top	1	36.59													
	2	36.29													
	3	36.39													
	4	36.51													
	5	36.67													
	6	36.36													
	7	36.59													
	8	36.79													
	9	36.95													
Bottom	10	37.02													

Comments:

Scan Minimum (mm)	36.29
Avg Thickness (mm)	36.62
Avg Loss	
Avg Loss Rate	
Max Loss Rate	
Avg Condition Indicator	
Min Condition Indicator	

DATA PAGE

Index: 1	66068048	Horizontal Inlet Separator	Product:	JE: 100%
Component: (a)	V-200	Vessel	Drawing: 1	Dia: 2438 (mm) ID
Band: 105	Top Shell (south of center)		MfgDate: Jan 2001	CA: 1.60 (mm)
Registration: A 0469196			Material: SA 516-70 N	Nominal: 34.92 (mm)
CRN: P-7239.2			MWP: 3447 kpa @	Critical: 33.32 (mm)
				38 °C

Inspection Dates	1	2	3	4	5	6	7	8	9	10	11	12	Total Loss (mm)	Loss Rate (mm/yr)	Condition Indicator
Temperature °C	Jun 2012														
	7														
North	1	36.16													
	2	36.03													
	3	36.08													
	4	36.11													
	5	36.08													
	6	36.08													
	7	36.16													
	8	36.18													
	9	36.21													
	10	36.23													
	11	36.21													
	12	35.45													

South
Comments:

Scan Minimum (mm) 35.45
Avg Thickness (mm) 36.08

Avg Loss
Avg Loss Rate
Max Loss Rate
Avg.Condition Indicator
Min.Condition Indicator

SUMMIT Inspection

Item: 105

Loss rate term: Mid Term 3
Data printed in: Metric units.
Material correction: ON
Minimum readings before ignoring nominal: 3
Critical thickness: Nominal less Corrosion Allowance
Calibration correction: ON
Temperature Correction: ON

DATA PAGE

Index: 1 **66068048** **Horizontal Inlet Separator**
Component: (a) V-200 Vessel
Band: 110 Upper East Shell (north end)
Registration: A 0469196
CRN: P-7239.2

Product:
Drawing: 1
MfgDate: Jan 2001
Material: SA 516-70 N
MWP: 3447 kpa @ 38 °C

JE: 100%
Dia: 2438 (mm) ID
CA: 1.60 (mm)
Nominal: 34.92 (mm)
Critical: 33.32 (mm)

Inspection Dates	1	2	3	4	5	6	7	8	9	10	11	12	Total Loss (mm)	Loss Rate (mm/yr)	Condition Indicator
Temperature °C	35.65	35.80	36.11	36.16	36.18	36.18	36.26	36.23	36.41	36.21	36.11	36.21			
Top	1	2	3	4	5	6	7	8	9	10	11	12			
Bottom															
Comments:															

Scan Minimum (mm) 35.45

Avg Thickness (mm) 36.13

Avg Loss

Avg Loss Rate

Max Loss Rate

Avg Condition Indicator

Min.Condition Indicator

DATA PAGE

Index: 1	66068048	Horizontal Inlet Separator	Product:	100%
Component: (a)	V-200	Vessel	Drawing: 1	2438 (mm) ID
Band: 115	Upper East Shell (south of center)		MfgDate: Jan 2001	1.60 (mm)
Registration: A 0469196			Material: SA 516-70 N	34.92 (mm)
CRN: P-7239.2			MWP: 3447 kpa @	33.32 (mm)
			38 °C	

	1	2	3	4	5	6	7	8	9	10	11	12	Total Loss (mm)	Loss Rate (mm/yr)	Condition Indicator
Inspection Dates															
Temperature °C															
Top															
	1	36.11													
	2	36.62													
	3	36.62													
	4	36.74													
	5	36.72													
	6	37.13													
	7	36.46													
	8	36.57													
	9	36.46													
	10	36.41													
	11	36.39													
	12	36.39													
Bottom															
Comments:															

Scan Minimum (mm)	36.11
Avg Thickness (mm)	36.55
Avg Loss	
Avg Loss Rate	
Max Loss Rate	
Avg.Condition Indicator	
Min.Condition Indicator	

Loss rate term:	Mid Term 3	Minimum readings before ignoring nominal	3	Item:	115
Data printed in:	Metric units.	Critical thickness:	Nominal less Corrosion Allowance		
Material correction:	ON	Calibration correction:	ON	Temperature Correction:	ON

DATA PAGE

Index: 1	66068048	Horizontal Inlet Separator	Product:	100%
Component: (a)	V-200	Vessel	Drawing: 1	2438 (mm) ID
Band: 120	Lower East Shell (south of center)		MfgDate: Jan 2001	1.60 (mm)
Registration: A 0469196			Material: SA 516-70 N	34.92 (mm)
CRN: P-7239.2			MWP: 3447 kpa @	33.32 (mm)
			38 °C	

Inspection Dates	1	2	3	4	5	6	7	8	9	10	11	12	Total Loss (mm)	Loss Rate (mm/yr)	Condition Indicator
Temperature °C															
Top	1	2	3	4	5	6	7	8	9	10	11	12			
	35.11	36.08	36.34	36.34	36.34	36.34	36.34	36.36	36.44	36.26	36.31	36.29			
Bottom															
Comments:															

Scan Minimum (mm) 35.09
 Avg Thickness (mm) 36.20
 Avg Loss
 Max Loss Rate
 Avg.Condition Indicator
 Min.Condition Indicator

DATA PAGE

Index: 1	66068048	Horizontal Inlet Separator	Product:	100%
Component: (a)	V-200	Vessel	Drawing: 1	2438 (mm) ID
Band: 125	Lower East Shell (south end)		MfgDate: Jan 2001	1.60 (mm)
Registration: A 0469196			Material: SA 516-70 N	Nominal: 34.92 (mm)
CRN: P-7239.2			MWP: 3447 kpa @ 38 °C	Critical: 33.32 (mm)

Inspection Dates	1	2	3	4	5	6	7	8	9	10	11	12	Total Loss (mm)	Loss Rate (mm/yr)	Condition Indicator
Temperature °C															
Top	Jun 2012	7													
	1	35.98													
	2	36.08													
	3	36.03													
	4	36.03													
	5	36.03													
	6	36.03													
	7	36.08													
	8	36.03													
	9	36.13													
	10	36.08													
	11	36.16													
	12	35.98													

Bottom
Comments:

Scan Minimum (mm)	35.95
Avg Thickness (mm)	36.05
Avg Loss	
Avg Loss Rate	
Max Loss Rate	
Avg.Condition Indicator	
Min.Condition Indicator	

SUMMIT Inspection

Loss rate term: **Mid Term 3**
 Data printed in: **Metric units.**
 Material correction: **ON**

Minimum readings before ignoring nominal **3**
 Critical thickness: **Nominal less Corrosion Allowance**
 Calibration correction: **ON**
 Temperature Correction: **ON**

Item: **125**

DATA PAGE

Index: 1	66068048	Horizontal Inlet Separator	Product:	100%
Component: (a)	V-200	Vessel	Drawing: 1	2438 (mm) ID
Band: 130	Bottom Shell	(north end)	MfgDate: Jan 2001	CA: 1.60 (mm)
Registration: A 0469196			Material: SA 516-70 N	Nominal: 34.92 (mm)
CRN: P-7239.2			MWP: 3447 kpa @	Critical: 33.32 (mm)
				38 °C

Inspection Dates	1	2	3	4	5	6	7	8	9	10	11	12	Total Loss (mm)	Loss Rate (mm/yr)	Condition Indicator
Temperature °C	36.11	36.11	36.11	36.11	36.13	36.13	36.08	36.16	36.11	36.11	36.11	36.16			
North	1	2	3	4	5	6	7	8	9	10	11	12			
South	10	36.16													

Comments:

Scan Minimum (mm) 36.06
 Avg Thickness (mm) 36.12
 Avg Loss
 Avg Loss Rate
 Max Loss Rate
 Avg.Condition Indicator
 Min.Condition Indicator

DATA PAGE

Index: 1	66068048	Horizontal Inlet Separator	Product:	100%
Component: (a)	V-200	Vessel	Drawing: 1	2438 (mm) ID
Band: 135	Bottom Shell (south end)		MfgDate: Jan 2001	1.60 (mm)
Registration: A 0469196			Material: SA 516-70 N	34.92 (mm)
CRN: P-7239.2			MWP: 3447 kpa @	33.32 (mm)
			38 °C	

Inspection Dates	1	2	3	4	5	6	7	8	9	10	11	12	Total Loss (mm)	Loss Rate (mm/yr)	Condition Indicator
Temperature °C	36.18	36.11	36.11	36.11	36.13	36.18	36.11	36.11	36.23	36.13	36.16	36.16			
North	1	2	3	4	5	6	7	8	9	10	11	12			
South	12	35.67													

Comments:

Scan Minimum (mm) 35.67
 Avg Thickness (mm) 36.11
 Avg Loss
 Avg Loss Rate
 Max Loss Rate
 Avg.Condition Indicator
 Min.Condition Indicator

Loss rate term:	Mid Term 3	Minimum readings before ignoring nominal 3	Item:
Data printed in:	Metric units.	Critical thickness: Nominal less Corrosion Allowance	135
Material correction:	ON	Calibration correction: ON	Temperature Correction: ON



DATA PAGE

Index: 1	66068048	Horizontal Inlet Separator	Product:	100%
Component: (a)	V-200	Vessel	Drawing: 1	2438 (mm) ID
Band: 140	Bottom South Head		MfgDate: Jan 2001	CA: 1.60 (mm)
Registration: A 0469196			Material: SA 516-70 N	Nominal: 32.33 (mm)
CRN: P-7239.2			MWP: 3447 kpa @	Critical: 30.73 (mm)
			38 °C	

Inspection Dates	1	2	3	4	5	6	7	8	9	10	11	12	Total Loss (mm)	Loss Rate (mm/yr)	Condition Indicator
Temperature °C	Jun 2012	7													
Top	1	36.08													
	2	36.18													
	3	36.23													
	4	36.44													
	5	36.54													
	6	36.59													
	7	36.29													
	8	36.29													
	9	36.54													
	10	37.15													
	11	37.61													
	12	38.48													

Bottom
Comments:

Scan Minimum (mm) 36.08
 Avg Thickness (mm) 36.70
 Avg Loss
 Avg Loss Rate
 Max Loss Rate
 Avg.Condition Indicator
 Min.Condition Indicator

DATA PAGE

Index: 1	66068048	Horizontal Inlet Separator	Product:	100%
Component: (b)		Drain Boot	Drawing: 1	Dia: 508 (mm)
Band: 150	Bottom South Shell of Boot		MfgDate: Jan 2001	CA: 1.60 (mm)
Registration:			Material: SA 333 Gr.6	Nominal: 12.70 (mm)
CRN:			MWP: 3447 kpa @ 38 °C	Critical: 11.10 (mm)

	1	2	3	4	5	6	7	8	9	10	11	12	Total Loss (mm)	Loss Rate (mm/yr)	Condition Indicator
Inspection Dates	Jun 2012														
Temperature °C	7														
Top	1 13.32														
	2 13.24														
	3 13.24														
	4 13.29														
	5 13.29														
	6 13.22														
	7 13.19														
	8 13.27														
	9 13.24														
	10 13.16														
	11 13.27														
Bottom	12 12.83														

Comments:

Scan Minimum (mm) 12.83
 Avg Thickness (mm) 13.21
 Avg Loss
 Avg Loss Rate
 Max Loss Rate
 Avg.Condition Indicator
 Min.Condition Indicator

Loss rate term:	Mid Term 3	Minimum readings before ignoring nominal 3	Item:	150
Data printed in:	Metric units.	Critical thickness: Nominal less Corrosion Allowance		
Material correction:	ON	Calibration correction: ON	Temperature Correction:	ON



DATA PAGE

Index: 1	66068048 Horizontal Inlet Separator	Product:	100%
Component: (b)	Drain Boot	Drawing: 1	Dia: 508 (mm)
Band: 155	Bottom South Shell of Boot	MfgDate: Jan 2001	CA: 1.60 (mm)
Registration:		Material: SA 516-70 N	Nominal: 7.82 (mm)
CRN:		MWP: 3447 kpa @ 38 °C	Critical: 6.22 (mm)

	1	2	3	4	5	6	7	8	9	10	11	12	
Inspection Dates													Total Loss (mm)
Temperature °C													Loss Rate (mm/yr)
Top	1	2	3	4	5	6	7	8	9	10	11	12	Condition Indicator
	9.73	9.57	9.52	9.55	9.42	9.47	9.45	8.86					
Bottom													

Comments:

Scan Minimum (mm)	8.73
Avg Thickness (mm)	9.45
Avg Loss	
Avg Loss Rate	
Max Loss Rate	
Avg.Condition Indicator	
Min.Condition Indicator	

DATA PAGE

Index: 1	66068048	Horizontal Inlet Separator	Product:	100%
Component: (c)		Liquid Level Bridle	Drawing: 1	Dia: 114 (mm) OD
Band: 160		Upper South Shell of Liquid Level Bridle	MfgDate: Jan 2001	CA: 1.60 (mm)
Registration:			Material: SA 106 B	Nominal: 6.02 (mm)
CRN:			MWP: 3447 kpa @	Critical: 3.67 (mm)
				38 °C

	1	2	3	4	5	6	7	8	9	10	11	12	Total Loss (mm)	Loss Rate (mm/yr)	Condition Indicator
Inspection Dates															
Temperature °C															
Top															
	1	6.39													
	2	6.37													
	3	6.29													
	4	6.31													
	5	6.21													
	6	6.19													
	7	6.21													
	8	6.14													
	9	6.26													
	10	6.26													
	11	6.14													
	12	6.16													
Bottom															
Comments:															

Scan Minimum (mm)	6.14
Avg Thickness (mm)	6.24
Avg Loss	
Avg Loss Rate	
Max Loss Rate	
Avg.Condition Indicator	
Min.Condition Indicator	

Loss rate term:	Mid Term 3	Minimum readings before ignoring nominal	3
Data printed in:	Metric units.	Critical thickness:	
Material correction:	ON	Calibration correction:	ON
Temperature correction:	ON	Item:	160

DATA PAGE

Index: 1	66068048	Horizontal Inlet Separator	Product:	JE: 100%
Component: (c)		Liquid Level Bridle	Drawing: 1	Dia: 114 (mm) OD
Band: 165		Bottom South Shell of Liquid Level Bridle	MfgDate: Jan 2001	CA: 1.60 (mm)
Registration:			Material: SA 106 B	Nominal: 6.02 (mm)
CRN:			MWP: 3447 kpa @	Critical: 3.67 (mm)
				38 °C

Inspection Dates	1	2	3	4	5	6	7	8	9	10	11	12	Total Loss (mm)	Loss Rate (mm/yr)	Condition Indicator
Temperature °C	7														
Top	1 6.54	2 6.47	3 6.49	4 6.54	5 6.60	6 6.60	7 6.70	8 6.54	9 6.52	10 6.60	11 6.49	12 6.44			

Bottom
Comments:

Scan Minimum (mm) 6.42
Avg Thickness (mm) 6.54

Avg Loss
Avg Loss Rate
Max Loss Rate
Avg Condition Indicator
Min Condition Indicator

DATA PAGE

Index: 1	66068048	Horizontal Inlet Separator	Product:	100%
Component: (d)	170	8" Inlet Elbow	Drawing: 1	219 (mm) OD
Registration:	CRN:		Mfg Date: Jan 2001	1.60 (mm)
			Material: SA 234 WPB	8.18 (mm)
			MWP: 3447 kpa @	5.56 (mm)
			38 °C	

Inspection Dates	1	2	3	4	5	6	7	8	9	10	11	12	Total Loss (mm)	Loss Rate (mm/yr)	Condition Indicator
Temperature °C	Jun 2012	7													
Top	1	9.19													
	2	9.19													
	3	9.32													
	4	9.24													
	5	9.37													
	6	9.29													
	7	9.27													
	8	9.29													
	9	9.24													
Bottom	10	9.40													
Comments:															

Scan Minimum (mm)	9.19
Avg Thickness (mm)	9.28
Avg Loss	
Avg Loss Rate	
Max Loss Rate	
Avg.Condition Indicator	
Min.Condition Indicator	

Loss rate term:	Mid Term	3	Minimum readings before ignoring nominal	3
Data printed in:	Metric	units.	Critical thickness:	Nominal less 12.5% - Corrosion Allowance
Material correction:	ON		Calibration correction:	ON
Temperature correction:	ON		Temperature correction:	ON
Item:	170			



DATA PAGE

Index: 1 **66068048** **Horizontal Inlet Separator**
Component: (e) **Outlet Piping**
Band: 180 **8" Outlet Elbow**
Registration:
CRN:

Product: **JE:** **100%**
Drawing: 1 **Dia:** **219 (mm) OD**
MfgDate: Jan 2001 **CA:** **1.60 (mm)**
Material: SA 234 WPB **Nominal:** **8.18 (mm)**
MWP: 3447 kpa @ 38 °C **Critical:** **5.56 (mm)**

Inspection Dates	1	2	3	4	5	6	7	8	9	10	11	12	Total Loss (mm)	Loss Rate (mm/yr)	Condition Indicator
Temperature °C	Jun 2012	7													
Top	1	9.04													
	2	8.81													
	3	8.76													
	4	8.66													
	5	8.63													
	6	8.61													
	7	8.58													
	8	8.50													
	9	8.38													
	10	8.43													
	11	8.43													
	12	8.45													
Bottom															

Comments:

Scan Minimum (mm) **8.38**
Avg Thickness (mm) **8.61**
Avg Loss
Avg Loss Rate
Max Loss Rate
Avg Condition Indicator
Min.Condition Indicator

Loss rate term: **Mid Term 3**
Data printed in: **Metric units.**
Material correction: **ON**
Minimum readings before ignoring nominal: **3**
Critical thickness: **Nominal less 12.5% - Corrosion Allowance**
Calibration correction: **ON**
Temperature correction: **ON**



DATA PAGE

Index: 1	66068048	Horizontal Inlet Separator	Product:	JE:	100%
Component: (e)		Outlet Piping	Drawing: 1	Dia:	219 (mm) OD
Band: 185	8" Outlet Elbow		MfgDate: Jan 2001	CA:	1.60 (mm)
Registration:			Material: SA 234 WPB	Nominal:	8.18 (mm)
CRN:			MWP: 3447 kpa @ 38 °C	Critical:	5.56 (mm)

Inspection Dates	1	2	3	4	5	6	7	8	9	10	11	12	Total Loss (mm)	Loss Rate (mm/yr)	Condition Indicator
Temperature °C	Jun 2012														
Top	7														
	1	2	3	4	5	6	7	8	9	10	11	12			
	9.04	9.09	9.29	9.24	9.19	9.22	9.22	9.37	9.17	9.32	9.22	9.37			
	1	2	3	4	5	6	7	8	9	10	11	12			
	9.04	9.09	9.29	9.24	9.19	9.22	9.22	9.37	9.17	9.32	9.22	9.37			
	1	2	3	4	5	6	7	8	9	10	11	12			
	9.04	9.09	9.29	9.24	9.19	9.22	9.22	9.37	9.17	9.32	9.22	9.37			
	1	2	3	4	5	6	7	8	9	10	11	12			
	9.04	9.09	9.29	9.24	9.19	9.22	9.22	9.37	9.17	9.32	9.22	9.37			
	1	2	3	4	5	6	7	8	9	10	11	12			
	9.04	9.09	9.29	9.24	9.19	9.22	9.22	9.37	9.17	9.32	9.22	9.37			
	1	2	3	4	5	6	7	8	9	10	11	12			
	9.04	9.09	9.29	9.24	9.19	9.22	9.22	9.37	9.17	9.32	9.22	9.37			
	1	2	3	4	5	6	7	8	9	10	11	12			
	9.04	9.09	9.29	9.24	9.19	9.22	9.22	9.37	9.17	9.32	9.22	9.37			
	1	2	3	4	5	6	7	8	9	10	11	12			
	9.04	9.09	9.29	9.24	9.19	9.22	9.22	9.37	9.17	9.32	9.22	9.37			
	1	2	3	4	5	6	7	8	9	10	11	12			
	9.04	9.09	9.29	9.24	9.19	9.22	9.22	9.37	9.17	9.32	9.22	9.37			
	1	2	3	4	5	6	7	8	9	10	11	12			
	9.04	9.09	9.29	9.24	9.19	9.22	9.22	9.37	9.17	9.32	9.22	9.37			
	1	2	3	4	5	6	7	8	9	10	11	12			
	9.04	9.09	9.29	9.24	9.19	9.22	9.22	9.37	9.17	9.32	9.22	9.37			
	1	2	3	4	5	6	7	8	9	10	11	12			
	9.04	9.09	9.29	9.24	9.19	9.22	9.22	9.37	9.17	9.32	9.22	9.37			
	1	2	3	4	5	6	7	8	9	10	11	12			
	9.04	9.09	9.29	9.24	9.19	9.22	9.22	9.37	9.17	9.32	9.22	9.37			
	1	2	3	4	5	6	7	8	9	10	11	12			
	9.04	9.09	9.29	9.24	9.19	9.22	9.22	9.37	9.17	9.32	9.22	9.37			
	1	2	3	4	5	6	7	8	9	10	11	12			
	9.04	9.09	9.29	9.24	9.19	9.22	9.22	9.37	9.17	9.32	9.22	9.37			
	1	2	3	4	5	6	7	8	9	10	11	12			
	9.04	9.09	9.29	9.24	9.19	9.22	9.22	9.37	9.17	9.32	9.22	9.37			
	1	2	3	4	5	6	7	8	9	10	11	12			
	9.04	9.09	9.29	9.24	9.19	9.22	9.22	9.37	9.17	9.32	9.22	9.37			
	1	2	3	4	5	6	7	8	9	10	11	12			
	9.04	9.09	9.29	9.24	9.19	9.22	9.22	9.37	9.17	9.32	9.22	9.37			
	1	2	3	4	5	6	7	8	9	10	11	12			
	9.04	9.09	9.29	9.24	9.19	9.22	9.22	9.37	9.17	9.32	9.22	9.37			
	1	2	3	4	5	6	7	8	9	10	11	12			
	9.04	9.09	9.29	9.24	9.19	9.22	9.22	9.37	9.17	9.32	9.22	9.37			
	1	2	3	4	5	6	7	8	9	10	11	12			
	9.04	9.09	9.29	9.24	9.19	9.22	9.22	9.37	9.17	9.32	9.22	9.37			
	1	2	3	4	5	6	7	8	9	10	11	12			
	9.04	9.09	9.29	9.24	9.19	9.22	9.22	9.37	9.17	9.32	9.22	9.37			
	1	2	3	4	5	6	7	8	9	10	11	12			
	9.04	9.09	9.29	9.24	9.19	9.22	9.22	9.37	9.17	9.32	9.22	9.37			
	1	2	3	4	5	6	7	8	9	10	11	12			
	9.04	9.09	9.29	9.24	9.19	9.22	9.22	9.37	9.17	9.32	9.22	9.37			
	1	2	3	4	5	6	7	8	9	10	11	12			
	9.04	9.09	9.29	9.24	9.19	9.22	9.22	9.37	9.17	9.32	9.22	9.37			
	1	2	3	4	5	6	7	8	9	10	11	12			
	9.04	9.09	9.29	9.24	9.19	9.22	9.22	9.37	9.17	9.32	9.22	9.37			
	1	2	3	4	5	6	7	8	9	10	11	12			
	9.04	9.09	9.29	9.24	9.19	9.22	9.22	9.37	9.17	9.32	9.22	9.37			
	1	2	3	4	5	6	7	8	9	10	11	12			
	9.04	9.09	9.29	9.24	9.19	9.22	9.22	9.37	9.17	9.32	9.22	9.37			
	1	2	3	4	5	6	7	8	9	10	11	12			
	9.04	9.09	9.29	9.24	9.19	9.22	9.22	9.37	9.17	9.32	9.22	9.37			
	1	2	3	4	5	6	7	8	9	10	11	12			
	9.04	9.09	9.29	9.24	9.19	9.22	9.22	9.37	9.17	9.32	9.22	9.37			
	1	2	3	4	5	6	7	8	9	10	11	12			
	9.04	9.09	9.29	9.24	9.19	9.22	9.22	9.37	9.17	9.32	9.22	9.37			
	1	2	3	4	5	6	7	8	9	10	11	12			
	9.04	9.09	9.29	9.24	9.19	9.22	9.22	9.37	9.17	9.32	9.22	9.37			
	1	2	3	4	5	6	7	8	9	10	11	12			
	9.04	9.09	9.29	9.24	9.19	9.22	9.22	9.37	9.17	9.32	9.22	9.37			
	1	2	3	4	5	6	7	8	9	10	11	12			
	9.04	9.09	9.29	9.24	9.19	9.22	9.22	9.37	9.17	9.32	9.22	9.37			
	1	2	3	4	5	6	7	8	9	10	11	12			
	9.04	9.09	9.29	9.24	9.19	9.22	9.22	9.37	9.17	9.32	9.22	9.37			
	1	2	3	4	5	6	7	8	9	10	11	12			
	9.04	9.09	9.29	9.24	9.19	9.22	9.22	9.37	9.17	9.32	9.22	9.37			
	1	2	3	4	5	6	7	8	9	10	11	12			
	9.04	9.09	9.29	9.24	9.19	9.22	9.22	9.37	9.17	9.32	9.22	9.37			
	1	2	3	4	5	6	7	8	9	10	11	12			
	9.04	9.09	9.29	9.24	9.19	9.22	9.22	9.37	9.17	9.32	9.22	9.37			
	1	2	3	4	5	6	7	8	9	10	11	12			
	9.04	9.09	9.29	9.24	9.19	9.22	9.22	9.37	9.17	9.32	9.22	9.37			
	1	2	3	4	5	6	7	8	9	10	11	12			
	9.04	9.09	9.29	9.24	9.19	9.22	9.22	9.37	9.17	9.32	9.22	9.37			
	1	2	3	4	5	6	7	8	9	10	11	12			
	9.04	9.09	9.29	9.24	9.19	9.22	9.22	9.37	9.17	9.32	9.22	9.37			
	1	2	3	4	5	6	7	8	9	10	11	12			
	9.04	9.09	9.29	9.24	9.19	9.22	9.22	9.37	9.17	9.32	9.22	9.37			
	1	2	3	4	5	6	7	8	9	10	11	12			
	9.04	9.09	9.29	9.24	9.19	9.22	9.22	9.37	9.17	9.32	9.22	9.37			
	1	2	3	4	5	6	7	8	9	10	11	12			
	9.04	9.09	9.29	9.24	9.19	9.22	9.22	9.37	9.17</						

DATA PAGE

Index: 1	66068048	Horizontal Inlet Separator	Product:	JE:	100%
Component: (h)	187	3" Elbow	Drawing: 1	Dia:	89 (mm) OD
Registration:	CRN:		MfgDate: Jan 2001	CA:	1.60 (mm)
			Material: SA 234 WPB	Nominal:	5.49 (mm)
			MWP: 3447 kpa @ 38 °C	Critical:	3.20 (mm)

Inspection Dates	1	2	3	4	5	6	7	8	9	10	11	12
Temperature °C	7											
Top	1 5.47	2 5.60	3 5.58	4 5.45	5 5.45	6 5.63	7 5.75					
Bottom												
Comments:												
Scan Minimum (mm)	5.45											
Avg Thickness (mm)	5.56											
Avg Loss												
Avg Loss Rate	0.00											
Max Loss Rate												
Avg Condition Indicator	0.01											
Min.Condition Indicator	0.01											
Total Loss (mm)	0.01											
Loss Rate (mm/yr)	0.00											
Condition Indicator	100+											
	0.04											
	0.04											
	0.00											
	0.00											
	100+											
	100+											

SUMMIT Inspection

Loss rate term: **Mid Term 3**
 Data printed in: **Metric units.**
 Material correction: **ON**

Minimum readings before ignoring nominal: **3**
 Critical thickness: **Nominal less 12.5% - Corrosion Allowance**
 Calibration correction: **ON** Temperature Correction: **ON**

Item: **187**

DATA PAGE

Index: 1	66068048	Horizontal Inlet Separator	Product:	JE: 100%
Component: (f)		Drain Piping	Drawing: 1	Dia: 60 (mm) OD
Band: 190	2" Drain Elbow		MfgDate: Jan 2001	CA: 1.60 (mm)
Registration:			Material: SA 234 WPB	Nominal: 5.54 (mm)
CRN:			MWP: 3447 kpa @ 38 °C	Critical: 3.24 (mm)

Inspection Dates	1	2	3	4	5	6	7	8	9	10	11	12	Total Loss (mm)	Loss Rate (mm/yr)	Condition Indicator
Temperature °C	Jun 2012	7											0.39	0.03	55.1
Top	1	5.14											0.34	0.03	64.9
	2	5.19											0.37	0.03	59.7
	3	5.17											0.50	0.04	41.4
	4	5.04											0.60	0.05	32.4
Bottom	5	4.94													

Comments:

Scan Minimum (mm)	4.91
Avg Thickness (mm)	5.10
Avg Loss	0.44
Avg Loss Rate	0.04
Max Loss Rate	0.05
Avg.Condition Indicator	43.4
Min.Condition Indicator	30.6

Client: Husky Energy

Facility: Galloway Gas Plant

DATA PAGE

Index: 1	66068048	Horizontal Inlet Separator	Product:	JE:	100%
Component: (g)	Drain Piping	Draw Date: Jan 2001	Dia:	60 (mm) OD	
Band: 195	Bottom of 2" Outlet Pipe	Mfg Date: SA 106 B	CA:	1.60 (mm)	
Registration:		MWP: 3447 kpa @ 38 °C	Nominal:	5.54 (mm)	
CRN:			Critical:	3.24 (mm)	

Inspection Dates	1	2	3	4	5	6	7	8	9	10	11	12	Total Loss (mm)	Loss Rate (mm/yr)	Condition Indicator
Temperature °C	5.58	5.65	5.63	5.60	5.55	5.58	5.63	5.58	5.60	5.58	5.58	5.58			
Northeast	1	2	3	4	5	6	7	8	9	10	11	12			
Southwest	11	12													

Comments:

Scan Minimum (mm) 5.53

Avg Thickness (mm) 5.59

Avg Loss

Avg Loss Rate

Max Loss Rate 0.00

Avg Condition Indicator

Min Condition Indicator

Loss rate term: **Mid Term 3**

Data printed in: **Metric units**

Material correction: **ON**

Minimum readings before ignoring nominal: **3**

Critical thickness: **Nominal less 12.5% - Corrosion Allowance**

Calibration correction: **ON**

Temperature correction: **ON**

Item: **195**