



PRESSURE VESSEL & COLUMN INSPECTION REPORT

No MDR

Plant	Ansell Field		Op Unit	System	
Asset #	Equipment ID		66113422	Asset Type	
Description	Inlet Separator		Prov. Insp. #	A0568928	Serial # 10777
Manufacturer	RJU		CRN	P-7217.2	Year Built 2006
MAWP	10204	KPag	@ 38	°C	MDMT -29 °C
Code	RT-2	Fluid Service	Natural Gas	Sweet	PWHT NIL
Internal Access	No	Insulated	No	Internal Coating	
Operating Pressure	N/A	KPag	Operating Temp		N/A °C

PSV DATA

PSV ID #	Location	Size		Set Pressure	Capacity SCFM / Lbs/Hr / GPM	Manufacturer	Model	Last Service
		Inlet	Outlet					
	Vessel	25.4 mm	25.4 mm	9929 kPa	5180 SCFM	Taylor	82E8351311	April 2, 2012

INSPECTION SUMMARY

The well was shut-in at the time of inspection.

There were areas of paint deterioration and minor external corrosion on the inlet and outlet piping. Maximum depth estimated to be approximately 0.005"-0.010".

RECOMMENDATIONS

NONCONFORMANCES / INSPECTION DEFICIENCIES

INSPECTION PLANNING

Inspection Strategy	Availability	Inspection Interval	5 yrs
Inspection Date	Sept. 12, 2012	Date of Last Inspect	Date of Next Inspect 9/2017

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	Oct. 30, 2012
Reviewed and Approved by	<i>[Signature]</i>	Date	11/28/2012
Criticality Assessment Rerun	Inspection Planning Rerun		
Assessed Next Inspection Date			

PRESSURE VESSEL & COLUMN INSPECTION REPORT

ID	General	Condition									
V1	Other (please explain)	☒ Good ☐ Fair ☐ Poor ☐ N/A									
The well was shut-in at the time of inspection.											
V2	General Corrosion	☒ Yes ☐ No									
Minor external corrosion on the inlet and outlet piping. Maximum depth estimated to be approximately 0.005"-0.010".											
V3	General Leaks	☐ Yes ☒ No									
V4	Vibration	☐ Yes ☒ No									
V5	Dissimilar Flange Rating	☐ Yes ☒ No									
V6	Ladder/Stairway	☐ Yes ☒ No									
V7	Heads	☒ Good ☐ Fair ☐ Poor ☐ N/A									
V8	Guy Wires	☐ Good ☐ Fair ☐ Poor ☒ N/A									
V9	Electrical Ground	☒ Good ☐ Fair ☐ Poor ☐ N/A									
V10	Painted Inactive Corrosion	☐ Good ☐ Fair ☐ Poor ☒ N/A									
V11	Coating/Painting	☐ Good ☒ Fair ☐ Poor ☐ N/A									
Paint deterioration on the inlet and outlet piping and isolated minor deterioration on the shell.											
V12	Expansion Joint or Bellows	☐ Good ☐ Fair ☐ Poor ☒ N/A									
V13	Gauge/Site Glass	☒ Good ☐ Fair ☐ Poor ☐ N/A									
V14	Shell	☒ Good ☐ Fair ☐ Poor ☐ N/A									
V15	Jacket	☐ Good ☐ Fair ☐ Poor ☒ N/A									
	Supports	Condition									
V21	Other (please explain)	☒ Good ☐ Fair ☐ Poor ☐ N/A									
The skirt is welded											
V22	Foundation	☐ Good ☐ Fair ☐ Poor ☒ N/A									
V23	Anchor Bolts	☐ Good ☐ Fair ☐ Poor ☒ N/A									
V24	Saddle Skirt	☒ Good ☐ Fair ☐ Poor ☐ N/A									
V25	Davit	☐ Good ☐ Fair ☐ Poor ☒ N/A									
V26	Fireproofing	☐ Good ☐ Fair ☐ Poor ☒ N/A		Connections	Condition	V31	Other (please explain)	☐ Good ☐ Fair ☐ Poor ☒ N/A	V32	Small Branches	☒ Good ☐ Fair ☐ Poor ☐ N/A
	Connections	Condition									
V31	Other (please explain)	☐ Good ☐ Fair ☐ Poor ☒ N/A									
V32	Small Branches	☒ Good ☐ Fair ☐ Poor ☐ N/A									

PRESSURE VESSEL & COLUMN INSPECTION REPORT

V33	Nozzles	☒ Good ☐ Fair ☐ Poor ☐ N/A
V34	Manways	☐ Good ☐ Fair ☐ Poor ☒ N/A
V35	Reinforcing Pads	☐ Good ☐ Fair ☐ Poor ☒ N/A
V36	Inadequate Thread Engagement	☐ Good ☐ Poor ☒ N/A
V37	Bolting	☒ Good ☐ Poor ☐ N/A
V38	Flanges	☒ Good ☐ Fair ☐ Poor ☐ N/A
V39	Leak Clamps	☐ Good ☐ Poor ☒ N/A
	Insulation	Condition
V41	Other (please explain)	☐ Good ☐ Fair ☐ Poor ☒ N/A
V42	Damage	☐ Good ☐ Fair ☐ Poor ☒ N/A
V43	Penetrations	☐ Good ☐ Fair ☐ Poor ☒ N/A
V44	Jacket	☐ Good ☐ Fair ☐ Poor ☒ N/A
V45	Banding	☐ Good ☐ Fair ☐ Poor ☒ N/A
V46	Seals/Joints	☐ Good ☐ Fair ☐ Poor ☒ N/A
	Relief Device	Condition
V51	Other (please explain)	☒ Good ☐ Fair ☐ Poor ☐ N/A
V52	Corrosion	☐ Yes ☒ No
V53	Leaks	☐ Yes ☒ No
V54	Restricted Inlet/Outlet	☐ Yes ☒ No
V55	Manual Operation Lever	☐ Yes ☒ 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
17500	20.62	21.18	0.00	0.00	100+	
17505	21.44	22.25	0.00	0.00	100+	
17510	21.44	21.87	0.00	0.00	100+	
17515	21.44	21.59	0.00	0.00	100+	
17520	21.44	22.20	0.00	0.00	100+	
17525	20.62	21.38	0.00	0.00	100+	
17530	15.24	14.67	0.09	0.09	34.2	
17535	15.24	14.52	0.11	0.11	25.6	
17540	8.71	7.98	0.00	0.00	17.8	
17550	5.49	4.91	0.09	0.09	19.5	
17560	7.62	7.65	0.00	0.00	100+	

The internal condition of the vessel was assessed via an ultrasonic corrosion survey on a representative sample of the vessel and the associated piping. Results of the corrosion survey found no indications of internal corrosion and all areas appear to be in good condition.

Please refer to the attached corrosion survey report for further details of the inspection results.

Chief Inspector Certification # _____

Chief Inspector Signature _____

Assigned Interval _____

Date _____

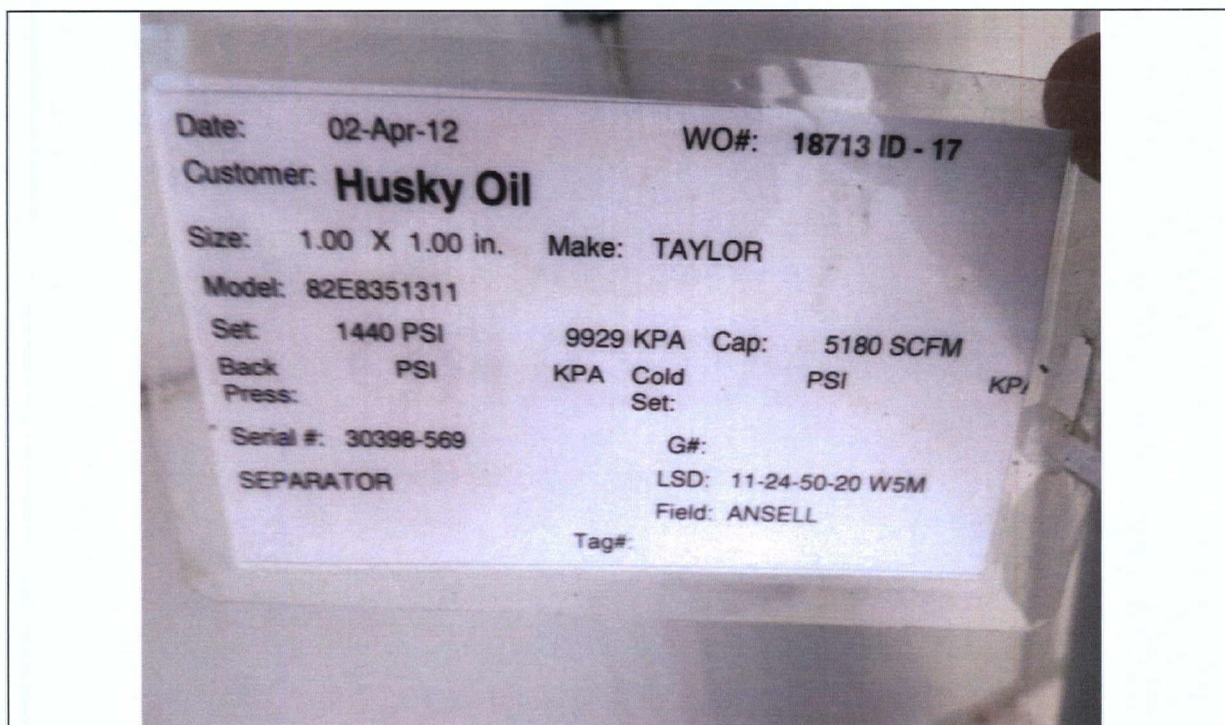
Pictures

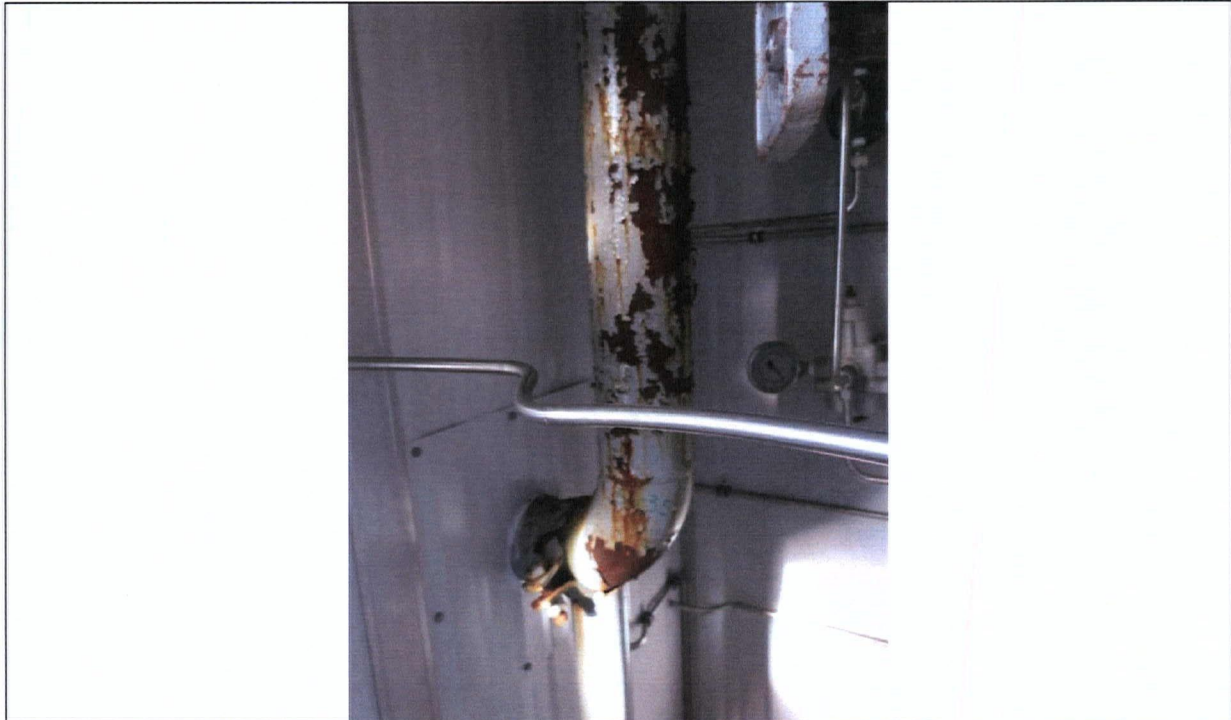


Nameplate



General View of the Vessel

*PSV Tag**General View of the PSV*



Paint deterioration and minor external corrosion on inlet piping

Cover Page			
Client:	Husky Energy	Inspection Date:	September 12, 2012
Facility:	Ansall Field	LSD:	11-24-050-20W5M
Requested By:	Bob Marchak	Equipment #:	66113422
Equipment:	Inlet Separator		

Status			
☐ In Service	☐ Not In Service	☒ Standby	☐ Not At location

Type of Inspection			SISL Technique
☒ Visual External	☐ Visual Internal	☐ Shearwave	SISL-20
☐ Firetubes	☐ Installation Inspection	☒ PSV	SISL-24
☐ Miscellaneous	☒ Corrosion Survey	☐ Compressor Cracking Survey	

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

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

Equipment		Consumables	
Ultrasonic ☒ DMS-2 ☐ USN-52L ☐ USN-58L ☐ USN-Phaser ☐ Westdyne Intraspac 4 ☐ MFE 4020 MKII	Magnetic Particle ☐ AC Yoke ☐ DC Yoke ☐ Permanent Yoke ☐ Blacklight ☐ Tinker & Razor M1 Other	Magnetic Particle ☐ Magnaflux 7HF (black) ☐ Magnaflux WCP-2 Contrast Paint ☐ Magnaflux 14AM Fluorescent Bath ☐ Red Oxide Powder ☐ Grey Oxide Powder ☐ Nital Chemical Solution	Liquid Penetrant ☐ SKL-WP Penetrant ☐ SKD-S2 Developer ☐ SKC-S Cleaner ☐ DP-51 Penetrant ☐ DR-62 Developer

Ultrasonic Transducers				
Description	Type	Frequency	Diameter	Angle
FH2E	Dual	7.5 MHz	.380"	0 degrees

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

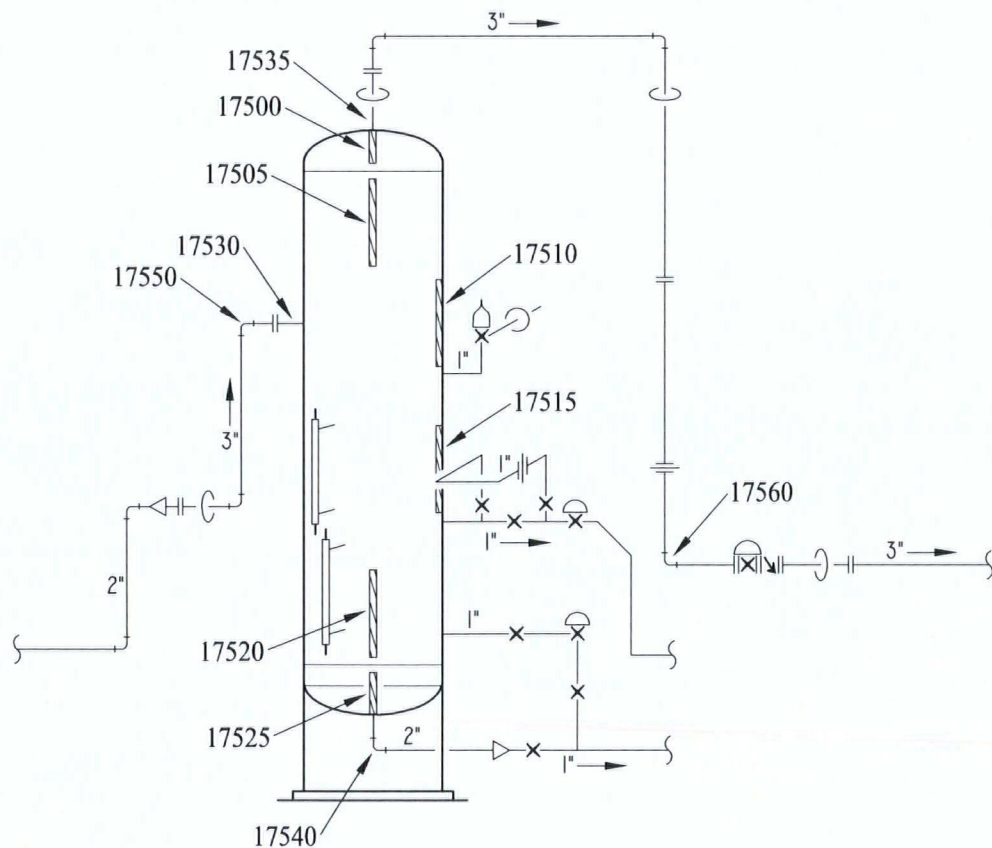
Magnetic Particle	
Material:	
Surface:	
Technique:	
Lighting:	

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 detail.

Signature: 
Adam Fitzgerald

Date: October 30, 2012



66113422
Inlet Separator

Reg. No. : (A) 0568928
S/N : 10777
CRN : P-7217.2
Built : 2006
MWP : 1480 PSI @ 100°F
Dia. : 16" OD
C.A. : 0.063"
J.E. : RT-2 / 100%
Shell : 0.844" SA 106-B
Head : 0.812" SA 516-70
Built By : RJV Gas Services Ltd.

Husky Energy
Ansell Field
11-24-050-20 W5M

SUMMIT Inspection Services Ltd.

Sketched: AF	Date: 08/2012
AutoCad: DD/MN	Revised:
Dwg: 175	Items: 17500 - 17560

Client: Husky Energy

Facility: Ansell Field

DATA PAGE

Index: 175	Inlet Separator	Product:	JE: 100%
Component: (a) 66113422 Vessel		Drawing: 175	Dia: 406 (mm) OD
Band: 17500 Top South Head		MfgDate: Jan 2006	CA: 1.59 (mm)
Registration: A 0568928		Material: SA 516 70	Nominal: 20.62 (mm)
CRN: P-7217.2		MWP: 10204 kpa @ 38 °C	Critical: 19.04 (mm)

	1	2	3	4	5	6	7	8	9	10	11	12	Total Loss (mm)	Loss Rate (mm/yr)	Condition Indicator
Inspection Dates	Sep 2012														
Temperature °C	16														
Top	1	21.69													
	2	21.61													
	3	21.87													
	4	22.02													
	5	21.36													
	6	21.81													
Bottom	7	22.22													
Comments:															
Scan Minimum (mm)	21.18														
Avg Thickness (mm)	21.80														
Avg Loss															
Avg Loss Rate															
Max Loss Rate															
Avg.Condition Indicator															
Min.Condition Indicator															

Client: Husky Energy

Facility: Ansell Field

DATA PAGE

Index: 175	Inlet Separator	Product:	JE: 100%
Component: (a) 66113422 Vessel		Drawing: 175	Dia: 406 (mm) OD
Band: 17505 Top South Shell		MfgDate: Jan 2006	CA: 1.59 (mm)
Registration: A 0568928		Material: SA 106 B	Nominal: 21.44 (mm)
CRN: P-7217.2		MWP: 10204 kpa @ 38 °C	Critical: 19.85 (mm)

	1	2	3	4	5	6	7	8	9	10	11	12	Total Loss (mm)	Loss Rate (mm/yr)	Condition Indicator
Inspection Dates	Sep 2012														
Temperature °C	16														
Top	1	22.70													
	2	22.70													
	3	22.63													
	4	22.48													
	5	22.55													
	6	22.45													
	7	22.43													
	8	22.25													
	9	22.50													
	10	22.40													
	11	22.30													
Bottom	12	22.35													

Comments:

Scan Minimum (mm)	22.25
Avg Thickness (mm)	22.48
Avg Loss	
Avg Loss Rate	
Max Loss Rate	
Avg.Condition Indicator	
Min.Condition Indicator	

Client: Husky Energy

Facility: Ansell Field

DATA PAGE

Index: 175	Inlet Separator	Product:	JE: 100%
Component: (a) 66113422 Vessel		Drawing: 175	Dia: 406 (mm) OD
Band: 17510 Upper East Shell (across inlet)		MfgDate: Jan 2006	CA: 1.59 (mm)
Registration: A 0568928		Material: SA 106 B	Nominal: 21.44 (mm)
CRN: P-7217.2		MWP: 10204 kpa @ 38 °C	Critical: 19.85 (mm)

	1	2	3	4	5	6	7	8	9	10	11	12	Total Loss (mm)	Loss Rate (mm/yr)	Condition Indicator
Inspection Dates	Sep 2012														
Temperature °C	16														
Top	1	22.50													
	2	22.53													
	3	22.48													
	4	22.53													
	5	22.32													
	6	22.27													
After Nozzle	7	21.94													
	8	22.12													
	9	21.97													
	10	22.04													
	11	22.04													
Bottom	12	21.99													
Comments:															
Scan Minimum (mm)	21.87														
Avg Thickness (mm)	22.23														
Avg Loss															
Avg Loss Rate															
Max Loss Rate															
Avg.Condition Indicator															
Min.Condition Indicator															

Client: Husky Energy

Facility: Ansell Field

DATA PAGE

Index: 175	Inlet Separator	Product:	JE: 100%
Component: (a) 66113422 Vessel		Drawing: 175	Dia: 406 (mm) OD
Band: 17515 Lower East Shell		MfgDate: Jan 2006	CA: 1.59 (mm)
Registration: A 0568928		Material: SA 106 B	Nominal: 21.44 (mm)
CRN: P-7217.2		MWP: 10204 kpa @ 38 °C	Critical: 19.85 (mm)

	1	2	3	4	5	6	7	8	9	10	11	12	Total Loss (mm)	Loss Rate (mm/yr)	Condition Indicator
Inspection Dates	Sep														
	2012														
Temperature °C	16														
Top	1 22.09														
	2 22.07														
	3 22.04														
	4 21.94														
	5 21.94														
	6 21.94														
	7 21.79														
	8 21.76														
	9 21.76														
	10 21.81														
	11 21.81														
Bottom	12 21.59														

Comments:

Scan Minimum (mm)	21.59
Avg Thickness (mm)	21.88
Avg Loss	
Avg Loss Rate	
Max Loss Rate	
Avg.Condition Indicator	
Min.Condition Indicator	

Client: Husky Energy

Facility: Ansell Field

DATA PAGE

Index: 175	Inlet Separator	Product:	JE: 100%
Component: (a) 66113422 Vessel		Drawing: 175	Dia: 406 (mm) OD
Band: 17520 Bottom South Shell		MfgDate: Jan 2006	CA: 1.59 (mm)
Registration: A 0568928		Material: SA 106 B	Nominal: 21.44 (mm)
CRN: P-7217.2		MWP: 10204 kpa @ 38 °C	Critical: 19.85 (mm)

	1	2	3	4	5	6	7	8	9	10	11	12	Total Loss (mm)	Loss Rate (mm/yr)	Condition Indicator
Inspection Dates	Sep 2012														
Temperature °C	16														
Top	1	22.22													
	2	22.70													
	3	22.63													
	4	22.50													
	5	22.78													
	6	22.86													
	7	22.88													
	8	23.06													
	9	23.14													
	10	23.26													
	11	23.24													
Bottom	12	23.16													
Comments:															
Scan Minimum (mm)	22.20														
Avg Thickness (mm)	22.87														
Avg Loss															
Avg Loss Rate															
Max Loss Rate															
Avg.Condition Indicator															
Min.Condition Indicator															

Client: Husky Energy

Facility: Ansell Field

DATA PAGE

Index: 175	Inlet Separator	Product:	JE: 100%
Component: (a) 66113422 Vessel		Drawing: 175	Dia: 406 (mm) OD
Band: 17525 Bottom South Head		MfgDate: Jan 2006	CA: 1.59 (mm)
Registration: A 0568928		Material: SA 516 70	Nominal: 20.62 (mm)
CRN: P-7217.2		MWP: 10204 kpa @ 38 °C	Critical: 19.04 (mm)

	1	2	3	4	5	6	7	8	9	10	11	12	Total Loss (mm)	Loss Rate (mm/yr)	Condition Indicator
Inspection Dates	Sep 2012														
Temperature °C	16														
Top	1	22.48													
	2	22.12													
Inside Skirt	3	21.46													
	4	21.38													
	5	21.41													
	6	21.46													
Bottom	7	21.54													
Comments:															
Scan Minimum (mm)	21.38														
Avg Thickness (mm)	21.69														
Avg Loss															
Avg Loss Rate															
Max Loss Rate															
Avg.Condition Indicator															
Min.Condition Indicator															

Client: Husky Energy

Facility: Ansell Field

DATA PAGE

Index: 175	Inlet Separator	Product:	JE: 100%
Component: (b)	Nozzles	Drawing: 175	Dia: 89 (mm) OD
Band: 17530 3" Inlet Nozzle		MfgDate: Jan 2006	CA: 1.59 (mm)
Registration:		Material: SA 106 B	Nominal: 15.24 (mm)
CRN:		MWP: 10204 kpa @ 38 °C	Critical: 11.75 (mm)

	1	2	3	4	5	6	7	8	9	10	11	12	Total Loss (mm)	Loss Rate (mm/yr)	Condition Indicator
Inspection Dates	Sep														
	2012														
Temperature °C	16														
Top	1	15.69													
North	2	14.80											0.44	0.07	46.0
Bottom	3	15.74													
West	4	15.20											0.04	0.01	100+
Comments:															

Scan Minimum (mm)	14.67
Avg Thickness (mm)	15.36
Avg Loss	
Avg Loss Rate	
Max Loss Rate	0.09
Avg.Condition Indicator	
Min.Condition Indicator	34.2

Client: Husky Energy

Facility: Ansell Field

DATA PAGE

Index: 175	Inlet Separator	Product:	JE: 100%
Component: (b)	Nozzles	Drawing: 175	Dia: 89 (mm) OD
Band: 17535 3" Outlet Nozzle		MfgDate: Jan 2006	CA: 1.59 (mm)
Registration:		Material: SA 106 B	Nominal: 15.24 (mm)
CRN:		MWP: 10204 kpa @ 38 °C	Critical: 11.75 (mm)

	1	2	3	4	5	6	7	8	9	10	11	12	Total Loss (mm)	Loss Rate (mm/yr)	Condition Indicator
Inspection Dates	Sep 2012														
Temperature °C	16														
North	1	14.77											0.47	0.07	43.1
East	2	14.95											0.29	0.04	73.7
South	3	14.98											0.26	0.04	81.4
West	4	15.23											0.01	0.00	100+

Comments:

Scan Minimum (mm)	14.52
Avg Thickness (mm)	14.98
Avg Loss	0.26
Avg Loss Rate	0.04
Max Loss Rate	0.11
Avg.Condition Indicator	71.6
Min.Condition Indicator	25.6

Client: Husky Energy

Facility: Ansell Field

DATA PAGE

Index: 175	Inlet Separator	Product:	JE: 100%
Component: (b)	Nozzles	Drawing: 175	Dia: 60 (mm) OD
Band: 17540 2" Drain Elbow		MfgDate: Jan 2006	CA: 1.59 (mm)
Registration:		Material: SA 234 WPB	Nominal: 8.71 (mm)
CRN:		MWP: 10204 kpa @ 38 °C	Critical: 6.04 (mm)

	1	2	3	4	5	6	7	8	9	10	11	12	Total Loss (mm)	Loss Rate (mm/yr)	Condition Indicator
Inspection Dates	Sep 2012														
Temperature °C	16														
Top	1	8.19											0.53	0.08	27.3
	2	7.98											0.73	0.11	17.8
	3	8.11											0.60	0.09	23.0
	4	8.21											0.50	0.07	29.0
Bottom	5	8.14											0.58	0.09	24.3
Comments:															
Scan Minimum (mm)	7.98														
Avg Thickness (mm)	8.13														
Avg Loss	0.59														
Avg Loss Rate	0.09														
Max Loss Rate	0.11														
Avg.Condition Indicator	22.2														
Min.Condition Indicator	17.8														

Client: Husky Energy

Facility: Ansell Field

DATA PAGE

Index: 175	Inlet Separator	Product:	JE: 100%
Component: (c)	Inlet Piping	Drawing: 175	Dia: 89 (mm) OD
Band: 17550 3" Inlet Elbow		MfgDate: Jan 2006	CA: 1.59 (mm)
Registration:		Material: SA 234 WPB	Nominal: 5.49 (mm)
CRN:		MWP: 10204 kpa @ 38 °C	Critical: 3.21 (mm)

	1	2	3	4	5	6	7	8	9	10	11	12	Total Loss (mm)	Loss Rate (mm/yr)	Condition Indicator
Inspection Dates	Sep 2012														
Temperature °C	16														
Top	1 5.54														
	2 5.29												0.20	0.03	69.9
	3 5.14												0.35	0.05	36.6
	4 4.91												0.58	0.09	19.5
	5 5.16												0.33	0.05	40.0
	6 5.06												0.43	0.06	28.8
Bottom	7 5.01												0.48	0.07	25.1
Comments:															
Scan Minimum (mm)	4.91														
Avg Thickness (mm)	5.16														
Avg Loss	0.33														
Avg Loss Rate	0.05														
Max Loss Rate	0.09														
Avg.Condition Indicator	34.4														
Min.Condition Indicator	19.5														

Client: Husky Energy

Facility: Ansell Field

DATA PAGE

Index: 175	Inlet Separator	Product:	JE: 100%
Component: (d)	Outlet Piping	Drawing: 175	Dia: 89 (mm) OD
Band: 17560 3" Outlet Elbow		MfgDate: Jan 2006	CA: 1.59 (mm)
Registration:		Material: SA 234 WPB	Nominal: 7.62 (mm)
CRN:		MWP: 10204 kpa @ 38 °C	Critical: 5.08 (mm)

	1	2	3	4	5	6	7	8	9	10	11	12	Total Loss (mm)	Loss Rate (mm/yr)	Condition Indicator
Inspection Dates	Sep 2012														
Temperature °C	16														
Top	1	7.78													
	2	7.88													
	3	7.78													
	4	7.73													
	5	7.65													
Bottom	6	8.03													
Comments:															
Scan Minimum (mm)	7.65														
Avg Thickness (mm)	7.81														
Avg Loss															
Avg Loss Rate															
Max Loss Rate															
Avg.Condition Indicator															
Min.Condition Indicator															

PRESSURE VESSEL INSPECTION REPORT

PAGE : 1 of 3

FACILITY Ansel Field	DATE July 15, 2007	REPORT # IR070715JNL
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VESSEL STATIC DATA

Prov. Insp. # A 0568928	CRN P7217.2	Equip Tag #
Equipment Location (LSD) 11-24-050-20 W5M	Serial # 10777	
Equipment Description 3 Phase Vertical Separator	Vessel Class -	
Manufacturer RJV Gas Field Services	Year Built 2006	
MAWP 1480 psig kPag / psig @ 100 °F °C / °F	MDMT -20 °F °C / °F	
CODE : UM ☐ U ☐ U2 ☐ RT: 1 ☐ 2 ☒ 3 ☐ 4 ☐	PWHT : YES ☐ NO ☒	
Diameter 406 mm Length (S/S) 2285 mm OAL mm/in	Vertical ☒ Horizontal ☐	
Shell Mat'l SA106B Thickness 21.4 mm mm/in	Corr Allowance 1.6 mm mm/in	
Head Mat'l SA516-70 Thickness 20.63 mm mm/in	Corr Allowance 1.6 mm mm/in	
Nozzle Mat'l Thickness mm/in	Corr Allowance mm/in	
Internal Coating : YES ☐ NO ☒	Internal Clad : YES ☐ NO ☒	Capacity N/A m ³
Manway : YES ☐ NO ☒	Inspection Port : YES ☐ NO ☒	Skirt ☒ Legs ☐ Saddle ☐
Nozzle Rating 600 lb ANSI Painted : YES ☒ NO ☐	Insulated : YES ☐ NO ☒	

PROCESS DATA

Product Description Sweet Gas	Sweet ☒ Sour ☐ PPM :
Operating Pressure kPag / psig	Operating Temperature °C / °F

PSV STATIC DATA

Tag / Serial No.	Location	Inlet Size	Outlet Size	Set Pressure	Capacity SCFM / Lbs/Hr / GPM	Manufacturer	Model / Type	Service Date
30391-569	Vessel	1"	1"	1440 PSI	5180 SCFM	Taylor	82E8351 311	08/06

INSPECTION HISTORY

RBI Category A ☐ B ☐ C ☐ D ☐	Last Inspection Date	W.O. #
Inspection Task List #	Inspection Type	Inspection Reason
Inspection Techniques Required	Next Inspection Type	Due Date
VE ☐ VI ☐ RT ☐ UT ☐ MT ☐ PT ☐ TT ☐	Outstanding Repairs	

INSPECTION SUMMARY

An external inspection was performed to verify the vessels integrity.
No concerns were found and the vessel is considered acceptable for continued service.

RECOMMENDATIONS

-Repaint the inlet piping.

REPAIRS COMPLETED

Object Name	Cause	Damage	Repair Activity
None			

VESSEL STATUS

Integrity Status ☒ Suitable for Continued Service	☐ Immediate Repairs Required	☐ Replace
	☐ Future Repairs Required	
Inventory Status ☒ In service Fully Utilized	☐ Idle	☐ Surplus
		☐ Scrap
This IR completes a thorough inspection. Reschedule as indicated ☒		Partial IR only. Do not reschedule ☐

PRESSURE VESSEL INSPECTION REPORT

PAGE : 2 of 3

FACILITY	Ansel Field	DATE	July 15, 2007	REPORT #	IR070715JNL
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INSPECTION OBSERVATIONS**NONCOMPLIANCES OR INSPECTION DEFICIENCIES ISSUED**

-None at time of inspection.

EXTERNAL VISUAL INSPECTION

The vessel is painted and is in fair condition, the paint on the inlet piping is flaking.
The nameplate, piping, bolting and external attachments are in good condition.
The vessel is protected with a PSV that is attached and in good condition.
The gauges are clear and in good condition.
The vessel appears to be secure and level.
The overall condition of this vessel is good.

EXTERNAL NDE EXAMINATION

-An external ultrasonic corrosion survey was completed. No relevant indications were noted at the time of inspection. For more details see formal UT report by Hunt Inspection - Project C2621

INTERNAL VISUAL INSPECTION

-There was no internal Visual at time of inspection.

INTERNAL NDE EXAMINATION

-There was no internal NDE at time of inspection.

PRESSURE TEST

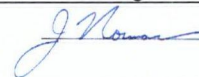
Test Completed	☐ Yes ☐ No	Test Acceptable	☐ Yes ☐ No	Test Report #
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INSPECTOR CERTIFICATION

I, the undersigned certify that the above equipment has been inspected in accordance with the assigned task list and that statements within this report are correct and represent inspection findings

Inspectors Name Joel Norman

Inspector's Signature



Inspection Company Hunt Inspection Ltd.

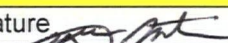
Date

July 15, 2007

LEAD INSPECTOR'S ACCEPTANCE & SCHEDULE CONFIRMATION

Lead Inspector Dale Martin

Signature



Date 09.13.07

Vessel Inspection Interval 5 Years

Leave "as-is" ☐

Change to

PSV Inspection Interval 5 Years

Leave "as-is" ☐

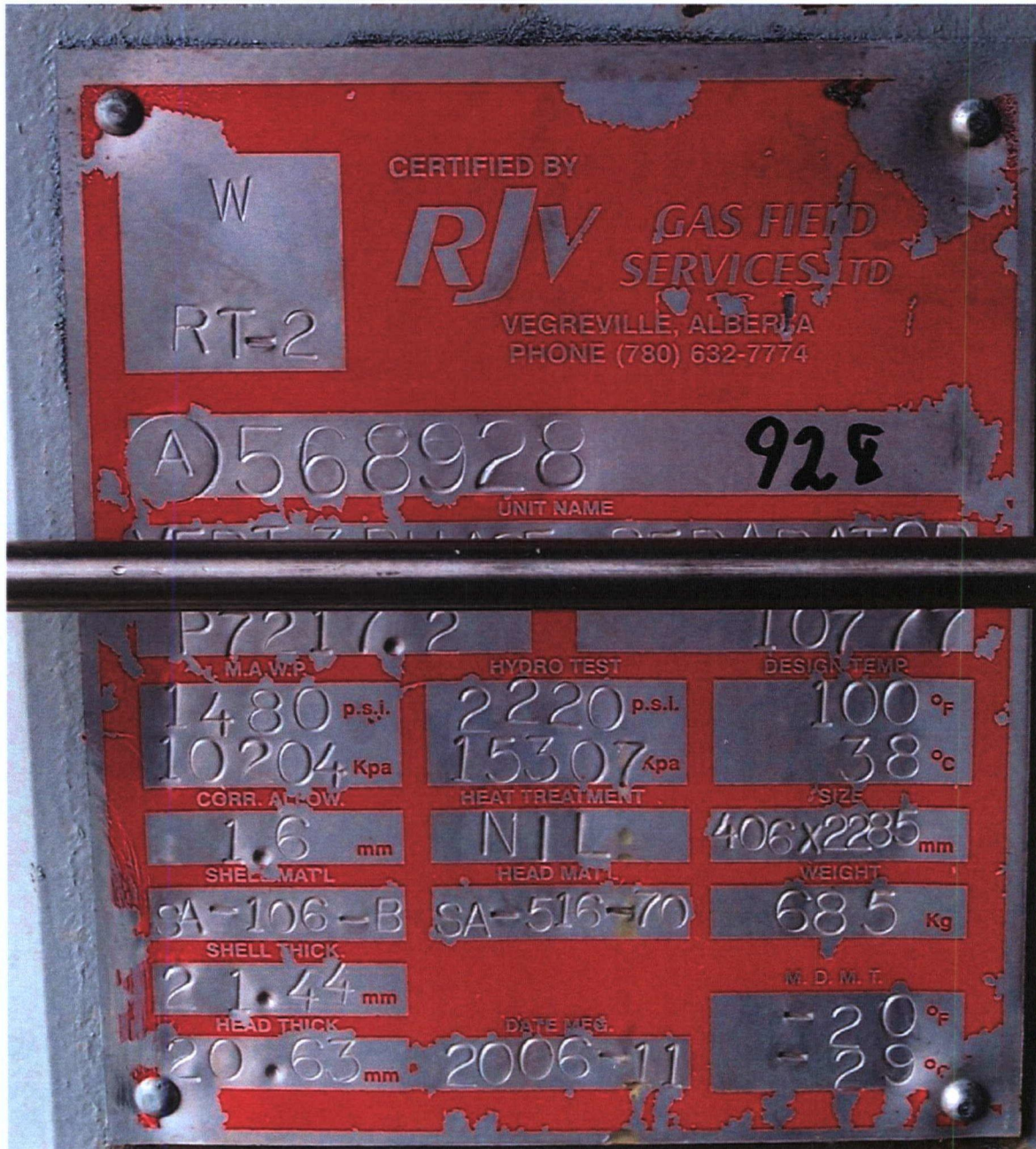
Change to

Office Use Only Report Entered to SEQA Database by
Static Data Verified by

Date
Date

FACILITY	Ansel Field	DATE	July 15, 2007	REPORT #	IR070715JNL
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Data Plate Photo

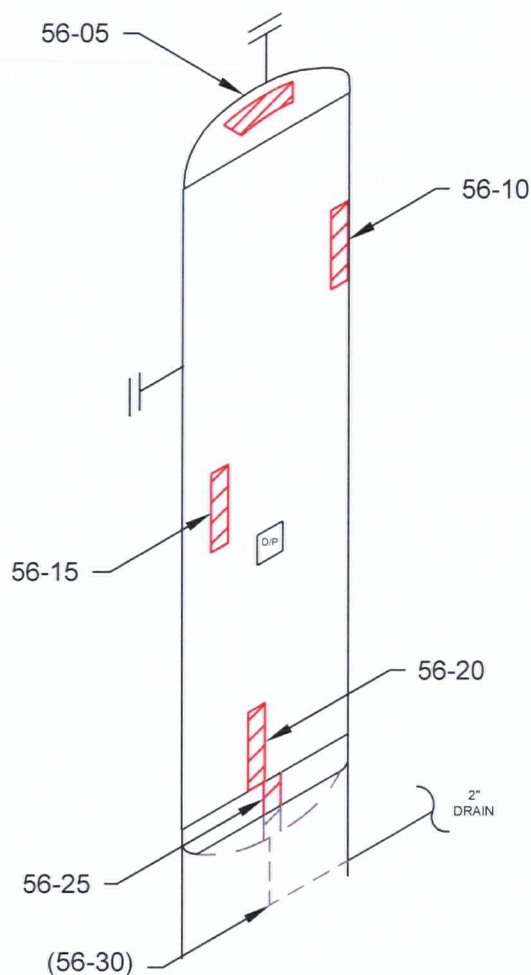
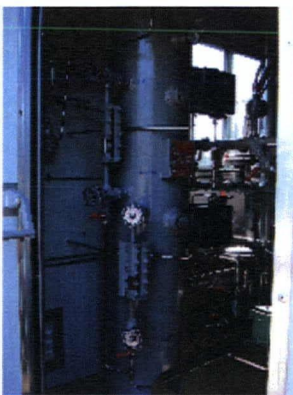


66113422

ITEM:

3 PHASE VERTICAL SEPARATOR

A 0568928



STETTLER, AB (403) 742-4868
 LACOMBE, AB (403) 782-7855
 BROOKS, AB (403) 501-8029
 GRANDE PRAIRIE, AB (866) 422-9732

TECHNICIAN:

JOEL NORMAN
 SNT LEVEL III
 CGSB 48.9712
 LEVEL III # 6951

DATE: 07/15/07

DWG # 56

CLIENT: HUSKY ENERGY

LSD: 11-24-050-20-W5M

INSPECTOR: JEFF CRABBE

LOCATION: ANSELL FIELD

DISTRICT UNIT: FH-FW

BLDG/SKID: -

PROCESS: SWEET

CODE: ASME SEC VIII DIV 1

SPECIFICATION: AS PER ASME SE 797

TECHNIQUE: UT-1-1, REV. 1

METHOD: UT CONTINUOUS / A SCAN

SURFACE COND: PAINTED

SURFACE TEMP: AMBIENT

VESSEL INFORMATION

VESSEL #: A 0568928

CRN #: P7217.2

SERIAL #: 10777

MANUFACTURER: RJV

DATE BUILT: 2006

CLIENT ID / TAG: -

M.A.W.P.: 1440 PSI

M.A.W.T.: 100 °F

JOINT EFFICIENCY/RT: RT 2

STRESS RELIEVED: N/A

INSULATED: NO

MANWAY: NO

VESSEL SPECIFICATIONS

	OD	NOMINAL	MATERIAL	CA
VESSEL HEAD	16"	.812"	SA-516-70	.0625"
VESSEL SHELL	16"	.844"	SA-106-B	.0625"
BOOT HEAD	-	-	-	-
BOOT SHELL	-	-	-	-

COMMENTS:

PROJECT:

C2621



ULTRASONIC CORROSION SURVEY

Survey Name: HUSKY ENERGY

LSD: 11-24-050-20W5 Dwg: 56

Vessel Number: A0568928

Manufacturer: RJV

Survey Date: 7/15/07

District Unit: FH-FW

Vessel Name: 3 PHASE VERTICAL
SEPARATOR

Serial Number: 10777

Inspector: JEFF CRABBE

Process: SWEET

Location: ANSELL FIELD

Year Built: 2006

Shell MAWP PSI: 1440 MAWT F: 100

Project #: C2621

Skid: -

Tag Number: -

Tube MAWP PSI: 0 MAWT F: 0

CRN: P7217.2

Vessel CA: 0.0625

			Readings								Year	Avg Inches	Min Inches	Nominal	CA	TMIN	Recommended Next Inspection	Recommended Retirement Date
Band	Description		1	2	3	4	5	6										
56-05	Top	Head	Baseline	0.855	0.855	0.855	0.849	0.853	0.837	2007	0.851	0.837	0.8120	0.0625	0.5213	2008	2027	
Shape	Ellipsoidal	Shell Side	Previous										Comments-->					
OD	16		Current	0.855	0.855	0.855	0.849	0.853	0.837	2007	0.851	0.837						
Spec.	VIII Div 1								ST Loss MPY				OK					
Material	SA 516 - 70								LT Loss MPY			0.000						
56-10	Upper	Shell	Baseline	0.884	0.882	0.873	0.888	0.882	0.890	2007	0.883	0.873	0.8440	0.0625	0.6347	2008	2027	
Shape	Cylindrical	Shell Side	Previous										Comments-->					
OD	16		Current	0.884	0.882	0.873	0.888	0.882	0.890	2007	0.883	0.873						
Spec.	VIII Div 1								ST Loss MPY				OK					
Material	SA 106 - B								LT Loss MPY			0.000						
56-15	Mid	Shell	Baseline	0.879	0.874	0.882	0.887	0.894	0.889	2007	0.884	0.874	0.8440	0.0625	0.6347	2008	2027	
Shape	Cylindrical	Shell Side	Previous										Comments-->					
OD	16		Current	0.879	0.874	0.882	0.887	0.894	0.889	2007	0.884	0.874						
Spec.	VIII Div 1								ST Loss MPY				OK					
Material	SA 106 - B								LT Loss MPY			0.000						
56-20	Lower	Shell	Baseline	0.904	0.902	0.895	0.911	0.917	0.927	2007	0.909	0.895	0.8440	0.0625	0.6347	2008	2027	
Shape	Cylindrical	Shell Side	Previous										Comments-->					
OD	16		Current	0.904	0.902	0.895	0.911	0.917	0.927	2007	0.909	0.895						
Spec.	VIII Div 1								ST Loss MPY				OK					
Material	SA 106 - B								LT Loss MPY			0.000						



ULTRASONIC CORROSION SURVEY

Survey Name: HUSKY ENERGY

LSD: 11-24-050-20W5 Dwg: 56

Vessel Number: A0568928

Manufacturer: RJV

Survey Date: 7/15/07

District Unit: FH-FW

Vessel Name: 3 PHASE VERTICAL
SEPARATOR

Serial Number: 10777

Inspector: JEFF CRABBE

Process: SWEET

Location: ANSELL FIELD

Year Built: 2006

Shell MAWP PSI: 1440 MAWT F: 100

Project #: C2621

Skid: -

Tag Number: -

Tube MAWP PSI: 0 MAWT F: 0

CRN: P7217.2

Vessel CA: 0.0625

Band	Description			Readings						Year	Avg Inches	Min Inches	Nominal	CA	TMIN	Recommended Next Inspection	Recommended Retirement Date
				1	2	3	4	5	6								
56-25	Bottom	Head	Baseline	0.891	0.855	0.856	0.854	0.855	0.854	2007	0.861	0.854	0.8120	0.0625	0.5213	2008	2027
Shape	Ellipsoidal	Shell Side	Previous										Comments-->				
OD	16		Current	0.891	0.855	0.856	0.854	0.855	0.854	2007	0.861	0.854					
Spec.	VIII Div 1								ST Loss MPY				OK				
Material	SA 516 - 70								LT Loss MPY			0.000					
56-30	Drain	Nozzle	Baseline	0.317	0.316	0.315	0.317	0.317	0.324	2007	0.318	0.315	0.3430	0.0625	0.0749	2008	2027
Shape	90° Elbow	Shell Side	Previous										Comments-->				
OD	2.375		Current	0.317	0.316	0.315	0.317	0.317	0.324	2007	0.318	0.315					
Spec.	VIII Div 1								ST Loss MPY				OK				
Material	SA 234 - WPB								LT Loss MPY			0.000					
56-35		Piping	Baseline	0.217	0.216	0.216	0.213	0.210	0.206	2007	0.213	0.206	0.2160	0.0270	0.1216	2008	2027
Shape	90° Elbow	Shell Side	Previous										Comments-->				
OD	3.5		Current	0.217	0.216	0.216	0.213	0.210	0.206	2007	0.213	0.206					
Spec.	B31.3								ST Loss MPY				OK				
Material	A 234 - WPB								LT Loss MPY			0.000					
56-40		Piping	Baseline	0.207	0.207	0.207	0.213	0.217	0.221	2007	0.212	0.207	0.2160	0.0270	0.1216	2008	2027
Shape	90° Elbow	Shell Side	Previous										Comments-->				
OD	3.5		Current	0.207	0.207	0.207	0.213	0.217	0.221	2007	0.212	0.207					
Spec.	B31.3								ST Loss MPY				OK				
Material	A 234 - WPB								LT Loss MPY			0.000					



ULTRASONIC CORROSION SURVEY

Survey Name: HUSKY ENERGY

LSD: 11-24-050-20W5 Dwg: 56

Vessel Number: A0568928

Manufacturer: RJV

Survey Date: 7/15/07

District Unit: FH-FW

Vessel Name: 3 PHASE VERTICAL
SEPARATOR

Serial Number: 10777

Inspector: JEFF CRABBE

Process: SWEET

Location: ANSELL FIELD

Year Built: 2006

Shell MAWP PSI: 1440 MAWT F: 100

Project #: C2621

Skid: -

Tag Number: -

Tube MAWP PSI: 0 MAWT F: 0

CRN: P7217.2

Vessel CA: 0.0625

Band	Description		Readings						Year	Avg Inches	Min Inches	Nominal	CA	TMIN	Recommended Next Inspection	Recommended Retirement Date
			1	2	3	4	5	6								
56-45	Piping	Baseline	0.311	0.310	0.310	0.303	0.308	0.305	2007	0.308	0.303	0.3000	0.0375	0.1216	2008	2027
Shape	90° Elbow	Shell Side	Previous													
OD	3.5	Current	0.311	0.310	0.310	0.303	0.308	0.305	2007	0.308	0.303	Comments-->				
Spec.	B31.3	ST Loss MPY										OK				
Material	A 234 - WPB	LT Loss MPY										0.000				

56-40

56-35

3" INLET

D/P

2" DRAIN

ORIFICE PLATE

3" OUTLET

56-45



TECHNICIAN:

JOEL NORMAN
SNT LEVEL III
CGSB 48.9712
LEVEL III # 6951

DWG # 56A

LSD : 11-24-050-20-W5M

INSPECTOR : JEFF CRABBE

LOCATION :	ANSELL FIELD
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DISTRICT UNIT :	FH-FW
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BLDG/SKID :

PROCESS :	SWEET
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CODE :	ASME B31.3
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SPECIFICATION : AS PER ASME SE 797

TECHNIQUE : UT-1-1, REV.1

METHOD : UT CONTINUOUS / A SCAN

SURFACE COND :	PAINTED
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SURFACE TEMP :	AMBIENT
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PIPING INFORMATION

[illegible]

COMMENTS:

PROJECT:

C2621