

PRESSURE VESSEL INSPECTION REPORT

FACILITY	Ansell Field	DATE	February 25, 2009	REPORT #	IR090225JNC
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VESSEL STATIC DATA

Prov. Insp. #	A#584723	CRN	P7217.2	Equip Tag #	-										
Equipment Location (LSD)	04-08-050-18 w5m			Serial #	11377										
Equipment Description	Vertical Separator			Vessel Class	-										
Manufacturer	RJV Gas Field Services			Year Built	2008										
MAWP	1480 PSI	KPag / psig	@ 100°F	MDMT	-20°F										
CODE : UM	<input type="checkbox"/>	U	<input checked="" type="checkbox"/>	U2	<input type="checkbox"/>										
RT :	1	<input type="checkbox"/>	2	<input checked="" type="checkbox"/>	3	<input type="checkbox"/>	4	<input type="checkbox"/>	PWHT :	YES	<input type="checkbox"/>	NO	<input checked="" type="checkbox"/>		
Diameter	406mm (NPS)	Length	2285mm (S/S)	OAL	mm/in	Vertical	<input checked="" type="checkbox"/>	Horizontal	<input type="checkbox"/>						
Shell Mat'l	SA 106 B	Thickness	21.44mm	mm	Corr Allowance	1.6mm	mm/in								
Head Mat'l	SA 516-70	Thickness	20.63mm	mm	Corr Allowance	1.6mm	mm/in								
Nozzle Mat'l		Thickness		mm/in	Corr Allowance		mm/in								
Internal Coating :	YES	<input type="checkbox"/>	NO	<input checked="" type="checkbox"/>	Internal Clad :	YES	<input type="checkbox"/>	NO	<input checked="" type="checkbox"/>	Capacity	N/A	m ³			
Manway :	YES	<input type="checkbox"/>	NO	<input checked="" type="checkbox"/>	Inspection Port :	YES	<input type="checkbox"/>	NO	<input checked="" type="checkbox"/>	Skirt	<input checked="" type="checkbox"/>	Legs	<input type="checkbox"/>	Saddle	<input type="checkbox"/>
Nozzle Rating	600	lb ANSI	Painted :	YES	<input checked="" type="checkbox"/>	NO	<input type="checkbox"/>	Insulated :	YES	<input type="checkbox"/>	NO	<input checked="" type="checkbox"/>			

PROCESS DATA

Product Description	Sweet Gas	Sweet	<input checked="" type="checkbox"/>	Sour	<input type="checkbox"/>	PPM:
Operating Pressure	440 PSI	KPag / psig	Operating Temperature	50 °F	°C / °F	

PSV STATIC DATA

Tag / Serial No.	Location	Size		Set Pressure	Capacity	Manufacturer	Model / Type	Service Date
		Inlet	Outlet		SCFM / Lbs/Hr / GPM			
37979-588	Vessel	1"	1"	1440 PSI	5180 SCFM	Taylor	82E8351 311	11/07

INSPECTION HISTORY

RBI Category	A <input type="checkbox"/> B <input type="checkbox"/> C <input type="checkbox"/> D <input type="checkbox"/>	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	PT	TT	Outstanding Repairs

INSPECTION SUMMARY

An external inspection was performed to verify the vessels integrity.
 The vessel is in-service and fully utilized.
 No concerns were found and the vessel is considered acceptable for continued service.
 A level 3 IDR090304JNa was issued for mica-graphite gaskets found in piping connections.

RECOMMENDATIONS

Replace the mica-graphite gaskets in piping connections with approved flexible graphite-gaskets at the next available service interval.
 Repaint the inlet and outlet piping inside the building.

REPAIRS COMPLETED

Object Name	Cause	Damage	Repair Activity
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None

VESSEL STATUS

Integrity Status	<input checked="" type="checkbox"/> Suitable for Continued Service	<input type="checkbox"/> Immediate Repairs Required	<input type="checkbox"/> Replace
		<input type="checkbox"/> Future Repairs Required	
Inventory Status	<input checked="" type="checkbox"/> In service Fully Utilized	<input type="checkbox"/> Idle	<input type="checkbox"/> Surplus
			<input type="checkbox"/> Scrap
This IR completes a thorough inspection. Reschedule as indicated		<input checked="" type="checkbox"/>	Partial IR only. Do not reschedule <input type="checkbox"/>

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INSPECTION OBSERVATIONS
NONCOMPLIANCES OR INSPECTION DEFICIENCIES ISSUED

A level 3 IDR090304JNa was issued for mica-graphite gaskets found in piping connections.

EXTERNAL VISUAL INSPECTION

The overall condition of this vessel is good.

The vessel dataplate is legible and has the required information. / *Data Plate Condition - Good*

The vessel is protected with a PSV. The PSV is attached to the vessel, has a set pressure at or under MAWP and a current service date. / *PSV Condition - Good*

The gauges are clearly legible and appear to be functioning properly. / *Gauges Condition - Good*

The vessel appears to be properly secured and level. / *Vessel Secure - Yes*

The vessel is indirectly grounded. / *Vessel Grounded - Yes*

The piping, bolting, tubing and external attachments are secure with no active leaks. / *Piping & Bolting Condition - Good*

Mica-graphite gaskets were found in piping connections.

The vessel paint is good but the piping paint is in poor condition, the paint on the inlet piping has numerous blisters and flaking with areas of oxidation. / *Vessel Paint Condition - Good / Piping Paint Condition - Poor*

The floor is painted with no notable corrosion found. / *Floor Condition - Good*

The exterior piping is insulated and clad. / *Insulation Condition - Good*

EXTERNAL NDE EXAMINATION

An external ultrasonic corrosion survey was completed as requested.

No relevant indications were noted at the time of inspection.

For more details see formal UT report by Hunt Inspection - Project C2946

INTERNAL VISUAL INSPECTION

There was no internal Visual at time of inspection.

INTERNAL NDE EXAMINATION

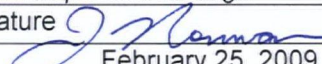
There was no internal NDE at time of inspection.

PRESSURE TEST

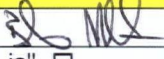
Test Completed Yes No Test Acceptable Yes No Test Report #

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	February 25, 2009

LEAD INSPECTOR'S ACCEPTANCE & SCHEDULE CONFIRMATION

Lead Inspector	Bob Marchak	Signature		Date	Feb. 27, 2009
Vessel Inspection Interval	5 Years	Leave "as-is"	<input type="checkbox"/>	Change to	
PSV Inspection Interval	5 Years	Leave "as-is"	<input type="checkbox"/>	Change to	

Office Use Only Report Entered to SEQA Database by

Date
Date

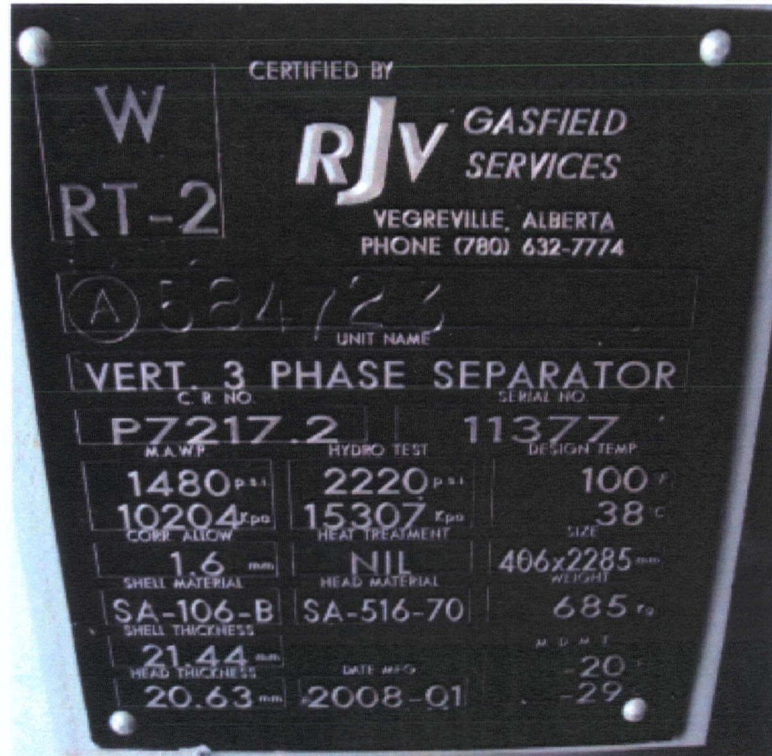
Static Data Verified by
Orientation - Vertical

SEIM changes
Eq Text: Tech Desk - 1480psi
LSD - 12-08-050-18WS
X-Ray - RT2
Stress Relief - No
MAWP - 1480psi

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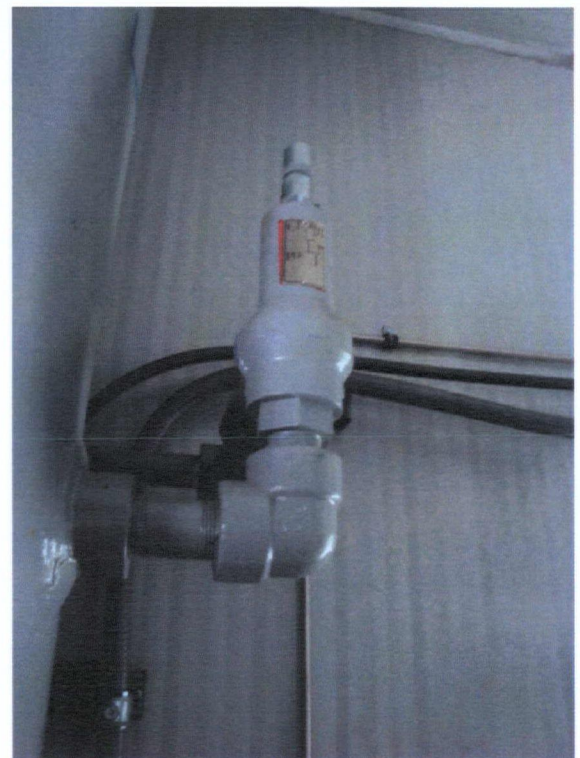
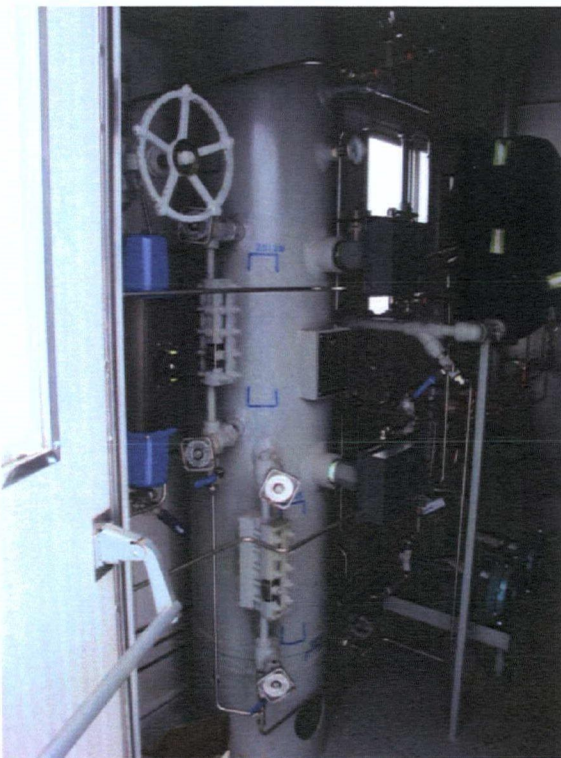
Photos

Data Plate



Vessel

PSV



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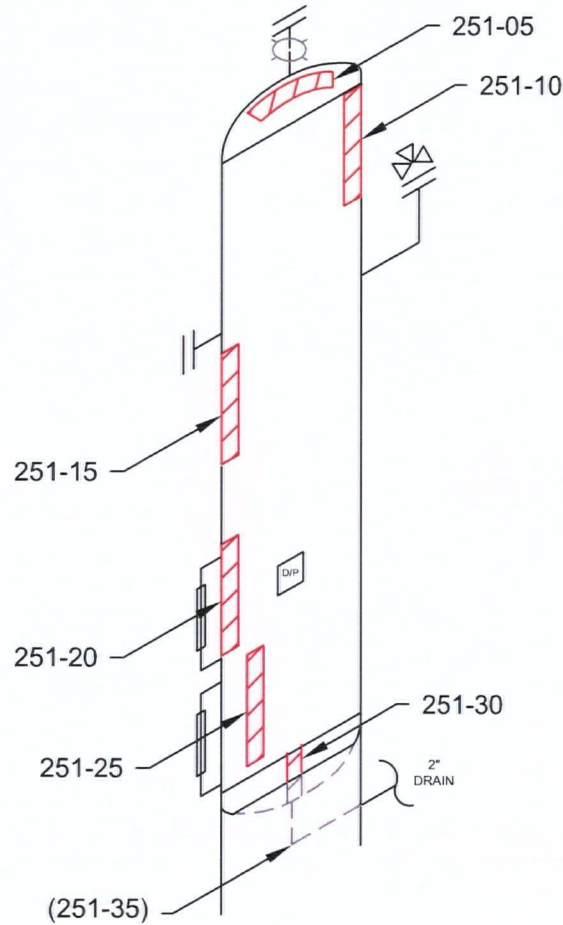
Photos

Building	LSD Sign
	

ITEM:

SEPARATOR

A 0584723



②



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: **02/25/09** DWG # **251**

CLIENT: **HUSKY ENERGY**

LSD: *BY 06-12* **04-08-050-18-W5M**

INSPECTOR: BOB MARCHAK

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 0584723**

CRN #: P7217.2

SERIAL #: 11377

MANUFACTURER: RJV

DATE BUILT: 2008-01

CLIENT ID / TAG: -

M.A.W.P.: 1480 PSI

M.A.W.T.: 100 °F

JOINT EFFICIENCY/RT: RT 2

STRESS RELIEVED: NO

INSULATED: NO

MANWAY: NO

VESSEL SPECIFICATIONS

	OD	NOMINAL	MATERIAL	CA
VESSEL HEAD	16"	.812"	SA-516-70	.063"
VESSEL SHELL	16"	.844"	SA-106-B	.063"
BOOT HEAD	-	-	-	-
BOOT SHELL	-	-	-	-

COMMENTS:

PROJECT:

C2946



ULTRASONIC CORROSION SURVEY

Survey Name: HUSKY ENERGY

LSD: ⁰⁶ 04-08-050-18W5	Dwg: 251	Vessel Number: A0584723	Manufacturer: RJV	Survey Date: 2/25/09
District Unit: FH-FW		Vessel Name: SEPARATOR	Serial Number: 11377	Inspector: BOB MARCHAK
Location: ANSELL FIELD		Year Built: 2008	Shell MAWP PSI: 1480	MAWT F: 100
Skid: -		Tag Number: -	Tube MAWP PSI: 0	MAWT F: 0
		CRN: P7217.2	Vessel CA: 0.0630	Project #: C2946

Band	Description			Readings						Year	Avg Inches	Min Inches	Nominal	CA	TMIN	Recommended Next Inspection	Recommended Retirement Date	
				1	2	3	4	5	6									
251-05	Top	Head	Baseline	0.852	0.861	0.862	0.860	0.859	0.848	2009	0.857	0.848	0.8120	0.0630	0.5359	2010	2029	
Shape	Ellipsoidal	Shell Side	Previous	Comments-->														
OD	16		Current	0.852	0.861	0.862	0.860	0.859	0.848	2009	0.857	0.848						
Spec.	VIII Div 1			ST Loss MPY						OK								
Material	SA 516 - 70			LT Loss MPY						0.000								
251-10	Upper	Shell	Baseline	0.882	0.875	0.879	0.878	0.884	0.885	2009	0.881	0.875	0.8440	0.0630	0.6533	2010	2029	
Shape	Cylindrical	Shell Side	Previous	Comments-->														
OD	16		Current	0.882	0.875	0.879	0.878	0.884	0.885	2009	0.881	0.875						
Spec.	VIII Div 1			ST Loss MPY						OK								
Material	SA 106 - B			LT Loss MPY						0.000								
251-15	Mid	Shell	Baseline	0.895	0.871	0.892	0.879	0.876	0.889	2009	0.884	0.871	0.8440	0.0630	0.6533	2010	2029	
Shape	Cylindrical	Shell Side	Previous	Comments-->														
OD	16		Current	0.895	0.871	0.892	0.879	0.876	0.889	2009	0.884	0.871						
Spec.	VIII Div 1			ST Loss MPY						OK								
Material	SA 106 - B			LT Loss MPY						0.000								
251-20	Mid	Shell	Baseline	0.878	0.879	0.865	0.878	0.881	0.878	2009	0.877	0.865	0.8440	0.0630	0.6533	2010	2029	
Shape	Cylindrical	Shell Side	Previous	Comments-->														
OD	16		Current	0.878	0.879	0.865	0.878	0.881	0.878	2009	0.877	0.865						
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: ⁰⁶ 04-08-050-18W5	Dwg: 251	Vessel Number: A0584723	Manufacturer: RJV	Survey Date: 2/25/09
District Unit: FH-FW		Vessel Name: SEPARATOR	Serial Number: 11377	Inspector: BOB MARCHAK
Location: ANSELL FIELD		Year Built: 2008	Shell MAWP PSI: 1480	MAWT F: 100
Skid: -		Tag Number: -	Tube MAWP PSI: 0	MAWT F: 0
		CRN: P7217.2	Vessel CA: 0.0630	Project #: C2946

Band	Description			Readings						Year	Avg Inches	Min Inches	Nominal	CA	TMIN	Recommended Next Inspection	Recommended Retirement Date	
				1	2	3	4	5	6									
251-25	Lower	Shell	Baseline	0.889	0.899	0.901	0.904	0.906	0.905	2009	0.901	0.889	0.8440	0.0630	0.6533	2010	2029	
Shape	Cylindrical	Shell Side	Previous														Comments-->	
OD	16		Current	0.889	0.899	0.901	0.904	0.906	0.905	2009	0.901	0.889						
Spec.	VIII Div 1									ST Loss MPY								
Material	SA 106 - B									LT Loss MPY	0.000							
251-30	Bottom	Head	Baseline	0.867	0.855	0.853	0.857	0.862	0.858	2009	0.859	0.853	0.8120	0.0630	0.5359	2010	2029	
Shape	Ellipsoidal	Shell Side	Previous														Comments-->	
OD	16		Current	0.867	0.855	0.853	0.857	0.862	0.858	2009	0.859	0.853						
Spec.	VIII Div 1									ST Loss MPY								
Material	SA 516 - 70									LT Loss MPY	0.000							
251-35	Drain	Nozzle	Baseline	0.333	0.304	0.310	0.319	0.330	0.337	2009	0.322	0.304	0.3430	0.0630	0.0771	2010	2029	
Shape	90° Elbow	Shell Side	Previous														Comments-->	
OD	2.375		Current	0.333	0.304	0.310	0.319	0.330	0.337	2009	0.322	0.304						
Spec.	VIII Div 1									ST Loss MPY								
Material	SA 234 - WPB									LT Loss MPY	0.000							
251-40		Piping	Baseline	0.336	0.323	0.316	0.329	0.324	0.329	2009	0.326	0.316	0.3430	0.0429	0.0847	2010	2029	
Shape	90° Elbow	Shell Side	Previous														Comments-->	
OD	2.375		Current	0.336	0.323	0.316	0.329	0.324	0.329	2009	0.326	0.316						
Spec.	B31.3									ST Loss MPY								
Material	A 234 - WPB									LT Loss MPY	0.000							



ULTRASONIC CORROSION SURVEY

Survey Name: HUSKY ENERGY

LSD: ⁰⁶ 04-08-050-18W5	Dwg: 251	Vessel Number: A0584723	Manufacturer: RJV	Survey Date: 2/25/09
District Unit: FH-FW		Vessel Name: SEPARATOR	Serial Number: 11377	Inspector: BOB MARCHAK
Location: ANSELL FIELD		Year Built: 2008	Shell MAWP PSI: 1480	MAWT F: 100
Skid: -		Tag Number: -	Tube MAWP PSI: 0	MAWT F: 0
		CRN: P7217.2	Vessel CA: 0.0630	Project #: C2946

Band	Description	Readings						Year	Avg Inches	Min Inches	Nominal	CA	TMIN	Recommended Next Inspection	Recommended Retirement Date	
		1	2	3	4	5	6									
251-45	Piping	Baseline	0.202	0.202	0.204	0.194	0.198	0.198	2009	0.200	0.194	0.2160	0.0270	0.1249	2010	2029
Shape	90° Elbow	Shell Side	Previous	Comments-->												
OD	3.5	Current	0.202	0.202	0.204	0.194	0.198	0.198	2009	0.200	0.194					
Spec.	B31.3			ST Loss MPY						OK						
Material	A 234 - WPB			LT Loss MPY						0.000						
251-50	Piping	Baseline	0.314	0.311	0.302	0.300	0.308	0.309	2009	0.307	0.300	0.3000	0.0375	0.1249	2010	2029
Shape	90° Elbow	Shell Side	Previous	Comments-->												
OD	3.5	Current	0.314	0.311	0.302	0.300	0.308	0.309	2009	0.307	0.300					
Spec.	B31.3			ST Loss MPY						OK						
Material	A 234 - WPB			LT Loss MPY						0.000						

