

Location Name:	ANSELL/MINEHEAD	LSD:	10-12-50-20W5M SUR 08-12 DH
A#:	A0612540	Equipment/Tag No.	
Equipment Description:	SEPARATOR		
Manufacturer:	RJV GASFIELD SERVICES		
Serial Number:	12346	CRN:	P7217.231
Shell MAWP:	1480	PSI Shell Design Temp:	100 °F
Tube MAWP:		PSI Tube Design Temp:	°F
Shell Material:	SA-106-B	Head Material:	SA-516-70
Shell Thickness:	21.44	mm Head Thickness:	20.63 mm
Corrosion Allowance:	1.6000	mm Date Built:	2011
Size:	406	mm Pipe / Rolled Plate:	PIPE
RT:	2		
NOTES:	SAP66182207		





Ultrasonic Corrosion Survey

*All values are in millimeters unless otherwise stated.

Survey Name: Husky Energy

Date: May 13, 2015

Inspector: D. Skeard

10-12-50-20W5M SUR 08-12

LSD: DH	Area: ANSELL/MINEHEAD	Location: FIELD
A #: A0612540	Tag Number:	Vessel Name: SEPARATOR
CRN: P7217.231	Year Built: 2011	Serial Number: 12346
RT: 2	Vessel CA: 1.600 mm	Manufacturer: RJV GASFIELD SERVICES
	Shell MAWP: 1480 PSI	Tube MAWP: PSI
	MAWTF: 100 °F	MAWTF: °F
		Pipe/Plate PIPE

TML Description	Baseline	Material: SA-516-70
00 HEAD	2015	Flag CA Nominal T Min STCR mm/yr LTCR mm/yr
Shape: Ellipsoidal	Min 21.44	19.030 1.600 20.630 0.000 0.000
OD: 406.4	Avg 21.62	Remaining Life:
Spec: ASME VIII Div.1	Comments:	Retirement Date:

TML Description	Baseline	Material: SA-106-B
05 SHELL	2015	Flag CA Nominal T Min STCR mm/yr LTCR mm/yr
Shape: Cylindrical	Min 21.39	19.840 1.600 21.440 0.000 0.013
OD: 406.4	Avg 21.74	Remaining Life:
Spec: ASME VIII Div.1	Comments:	Retirement Date:

TML Description	Baseline	Material: SA-106-B
10 SHELL	2015	Flag CA Nominal T Min STCR mm/yr LTCR mm/yr
Shape: Cylindrical	Min 21.18	19.840 1.600 21.440 0.000 0.064
OD: 406.4	Avg 21.64	Remaining Life:
Spec: ASME VIII Div.1	Comments:	Retirement Date:

TML Description	Baseline	Material: SA-106-B
15 SHELL	2015	Flag CA Nominal T Min STCR mm/yr LTCR mm/yr
Shape: Cylindrical	Min 20.85	19.840 1.600 21.440 0.000 0.147
OD: 406.4	Avg 21.16	Remaining Life:
Spec: ASME VIII Div.1	Comments:	Retirement Date:



Ultrasonic Corrosion Survey

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10-12-50-20W5M SUR 08-12

LSD: DH	Area: ANSELL/MINEHEAD	Location: FIELD
A #: A0612540	Tag Number:	Vessel Name: SEPARATOR
CRN: P7217.231	Year Built: 2011	Serial Number: 12346
RT: 2	Vessel CA: 1.600 mm	Manufacturer: RJV GASFIELD SERVICES
	Shell MAWP: 1480 PSI	Tube MAWP: PSI
	MAWTF: 100 °F	MAWTF: °F
		Pipe/Plate PIPE

TML Description	Baseline	Material: SA-106-B
20 SHELL	2015	Flag CA Nominal T Min STCR mm/yr LTCR mm/yr
Shape: Cylindrical	Min 20.96	19.840 1.600 21.440 0.000 0.121
OD: 406.4	Avg 21.87	Remaining Life:
Spec: ASME VIII Div.1	Comments: THICK PAINT	Retirement Date:

TML Description	Baseline	Material: SA-516-70
25 HEAD	2015	Flag CA Nominal T Min STCR mm/yr LTCR mm/yr
Shape: Ellipsoidal	Min 21.18	19.030 1.600 20.630 0.000 0.000
OD: 406.4	Avg 21.23	Remaining Life:
Spec: ASME VIII Div.1	Comments:	Retirement Date:

TML Description	Baseline	Material: A-234-WPB
30 NOZZLE	2015	Flag CA Nominal T Min STCR mm/yr LTCR mm/yr
Shape: 90° Elbow	Min 10.64	9.690 1.384 11.074 0.000 0.108
OD: 60.325	Avg 10.87	Remaining Life:
Spec: ASME VIII Div.1	Comments: ASSUMED NOMINAL	Retirement Date:

TML Description	Baseline	Material: A-234-WPB
35 PIPING	2015	Flag CA Nominal T Min STCR mm/yr LTCR mm/yr
Shape: 90° Elbow	Min 6.25	4.845 0.692 5.537 0.000 0.000
OD: 60.325	Avg 6.50	Remaining Life:
Spec: ASME B31.3	Comments: ASSUMED NOMINAL	Retirement Date:



Ultrasonic Corrosion Survey

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Date: May 13, 2015

Inspector: D. Skeard

10-12-50-20W5M SUR 08-12

LSD: DH	Area: ANSELL/MINEHEAD	Location: FIELD
A #: A0612540	Tag Number:	Vessel Name: SEPARATOR
CRN: P7217.231	Year Built: 2011	Serial Number: 12346
RT: 2	Vessel CA: 1.600 mm	Manufacturer: RJV GASFIELD SERVICES
	Shell MAWP: 1480 PSI	Tube MAWP: PSI
	MAWTF: 100 °F	MAWTF: °F
		Pipe/Plate PIPE

TML Description	Baseline	Material: A-234-WPB
40 PIPING	2015	Flag CA Nominal T Min STCR mm/yr LTCR mm/yr
Shape: 90° Elbow	Min 6.30	4.845 0.692 5.537 0.000 0.000
OD: 60.325	Avg 6.43	Remaining Life:
Spec: ASME B31.3	Comments: ASSUMED NOMINAL	Retirement Date:

TML Description	Baseline	Material: A-234-WPB
45 PIPING	2015	Flag CA Nominal T Min STCR mm/yr LTCR mm/yr
Shape: 90° Elbow	Min 5.59	4.845 0.692 5.537 0.000 0.000
OD: 60.325	Avg 5.97	Remaining Life:
Spec: ASME B31.3	Comments: ASSUMED NOMINAL	Retirement Date:

TML Description	Baseline	Material: A-234-WPB
50 PIPING	2015	Flag CA Nominal T Min STCR mm/yr LTCR mm/yr
Shape: 90° Elbow	Min 8.76	7.623 1.089 8.712 0.000 0.000
OD: 60.325	Avg 8.92	Remaining Life:
Spec: ASME B31.3	Comments: ASSUMED NOMINAL	Retirement Date:

TML Description	Baseline	Material: A-234-WPB
55 NOZZLE	2015	Flag CA Nominal T Min STCR mm/yr LTCR mm/yr
Shape: 90° Elbow	Min 11.28	9.690 1.384 11.074 0.000 0.000
OD: 60.325	Avg 11.53	Remaining Life:
Spec: ASME VIII Div.1	Comments: ASSUMED NOMINAL	Retirement Date:



Ultrasonic Corrosion Survey

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Survey Name: Husky Energy

Date: May 13, 2015

Inspector: D. Skeard

10-12-50-20W5M SUR 08-12

LSD: DH	Area: ANSELL/MINEHEAD	Location: FIELD
A #: A0612540	Tag Number:	Vessel Name: SEPARATOR
CRN: P7217.231	Year Built: 2011	Serial Number: 12346
RT: 2	Vessel CA: 1.600 mm	Manufacturer: RJV GASFIELD SERVICES
	Shell MAWP: 1480 PSI	Tube MAWP: PSI
	MAWTF: 100 °F	MAWTF: °F
		Pipe/Plate PIPE

TML Description	Baseline	Material: SA-106-B
60 PIPING	2015	Flag CA Nominal T Min STCR mm/yr LTCR mm/yr
Shape: 360° Circ	Min 6.86	5.556 0.794 6.350 0.000 0.000
OD: 33.401	Avg 7.24	Remaining Life:
Spec: ASME B31.3	Comments: ASSUMED NOMINAL	Retirement Date:

TML Description	Baseline	Material: SA-106-B
65 PIPING	2015	Flag CA Nominal T Min STCR mm/yr LTCR mm/yr
Shape: 360° Circ	Min 6.65	5.556 0.794 6.350 0.000 0.000
OD: 33.401	Avg 7.01	Remaining Life:
Spec: ASME B31.3	Comments: ASSUMED NOMINAL	Retirement Date:

ALBERTA MUNICIPAL AFFAIRS

ABSA, the pressure equipment safety authority

9410 – 20th Avenue

Edmonton, AB T6N 0A4

Partial/ Partiel ☐

A612540

MANUFACTURER'S DATA REPORT

FOR PRESSURE VESSEL

DÉCLARATION DE CONFORMITÉ DU CONSTRUCTEUR

D'APPAREILS SOUS PRESSION

Upon shipment of a pressure vessel, this form fully and correctly filled in must be mailed to the office of the Chief Inspector in the province of installation in accordance with the regulations under the Act, governing the construction and installation of pressure vessels.

Au moment de l'expédition d'un appareil sous pression, ce formulaire complété correctement, doit être envoyé au bureau de l'inspecteur en chef de la province d'installation tel que prévu dans les règlements de la loi sur les appareils sous pression.

Manufactured by Construit par	Name and address of Manufacturer/ Nom et adresse du constructeur RJV Gasfield Services 4901 Bruce Road, Vegreville, Alberta T9C 1C3
Manufactured for Construit pour	Name and address of Purchaser or Consignee/ Nom et adresse du client ou de son représentant RJV Gasfield Services 4901 Bruce Road, Vegreville, Alberta T9C 1C3
Ultimate owner Utilisateur	Name and address/ Nom et adresse Stock
Location of installation Lieu d'installation	Address/ Adresse Stock

Pressure vessel/ Appareil

Type/ Genre Vertical 3 Phase Separator	Overall Length/Longueur totale 2285mm sm/sm	Serial No./ N° de série 12346	Year built/Année de fabrication 2011
Provincial Registration No. -- C.R.N./N° d'enregistrement provincial - N.E.C. P7217.231	National Board No./ N° National Board N/A	Drawing No./ N° de dessin V01-381-R1	

The chemical and physical properties of all parts meet the requirements of material specifications of the A.S.M.E. Code.

Les propriétés chimiques et physiques de toutes les composantes respectent les exigences des spécifications de matériaux de code ASME.

The design, construction and workmanship conform to CSA B51. La conception, la construction et la façon sont conformes à ACNOR B51.	ASME Section VIII	Division 1	Addenda/Supplément 2010	Code case No. N° de cas N/A
Manufacturer's partial data reports properly identified and signed by authorized inspectors have been furnished for the following items of the report, and attached to this report: Les rapports partiels du constructeur adéquatement identifiés et signés par les inspecteurs autorisés ont été produits pour les items suivants du rapport, et attachés à ce rapport:				
Names of parts/ Nom de la composante	Item No./ N° d'item	Manufacturer's Name/ Nom du constructeur	Identifying Stamp/ Estampe d'identification	

Shell/ Virole

Description	Material Matériau	Thickness Épaisseur	Corr. Allow. Surépais. de corr.	Diameter Diamètre	Longitudinal Joints Joints longitudinaux			P.W.H.T. Traitement therm		Girth Joints Joints de circonférence		Number of courses Nombre de sections
					Type	R.T. Radiog.	Efficiency Efficacité	Temp.	Time Durée	Type	R.T. Radiog.	
Shell	SA-106-B	21.44 mm	1.6mm	406mm	Sml's	N/A	N/A	N/A	N/A	1	Spot	1
											70%	

Heads/ Tetes

Description	Material Matériau	Min. Thickn. Épais min.	Corr. Allow Surép. Corr.	Crown. Radius Rayon couron.	Knuckle Radius Petit rayon	Ellipse Ratio Rapp. ellipse	Conical Apex Angle Angle conique	Hemisph. Radius Ray. Hémisph	Flat Diameter Diam. plat	Side to pressure Côte sous pression
Top	SA-516-70	20.63mm	1.6mm	-----	-----	2.1	-----	-----	-----	Concave
Bottom	SA-516-70	20.63mm	1.6mm	-----	-----	2.1	-----	-----	-----	Concave
Removable bolts used (describe other fastenings) Boulons amovibles utilisés (décrire tout autre attache)					Mat'l Spec./ Spéc. du mat.			Grade		Size/ Dimension

Pressure - Temperature/ Pression - température

Pressure Vessel Part Partie de l'appareil	Constructed for max. allowable working pressure Construit pour une pression maximale de marche permise	At max. temp. A une temp. max.	Min. Temp. (when less than -29°C) Temp. min. (inférieure à -29°C)	Test pressure (hydro-pneumatic or combination) Pression d'épreuve (hydro-pneumatique ou combinaison)
Vessel	10,205 Kpa.	38°C	-29°C	15,307 Kpa.

Tube Section/ Faisceau tubulaire

Tube sheet/ Plaque tubulaire	Material/ Matériau	Diameter/ Diamètre	Nominal Thickness Épaisseur nominale	Corr. Allow. Surépais. corrosion	Attachment Mode d'attachement
Tube material/ Matériau des tubes	Diameter/ Diamètre	Nominal Thickness (gauge) Épaisseur nominale (calibre)	Number/ Nbre	Type (Straight or U) Type (Droit ou U)	Heating Surface Surface de chauffe

Jacket/ Chemise

Type of jacket/ Genre de chemise	Jacket closure Fermeture de chemise	Proof Test Pression d'épreuve	Heating Surface Surface de chauffe	Sketch/ Schéma
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Safety Valve Outlets/ Soupapes de sûreté

Number/ Nombre 1	Dimension 33.4mm	Location/ Endroit Shell
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Nozzles and Openings/ Tubulures et ouvertures

Purpose/ But	Number Nombre	Dimension	Type	Material Matériau	Nominal Thickness Épaisseur nominale	Reinforcement matériau de renfort	How attached Genre d'attaches	Location/ Endroit
Inlet/Outlet	2	60.3mm	CL600RFWN	SA-105/SA-105-B	8.74mm	N/A	UW16.1{c}	Top Head/Shell
L.L.C./H.L.S.D./L.L.S.D.	5	60.3mm	Coupling	SA-105	CL6000	N/A	UW16.1{c}	Shell/Bottom Head
P.S.V.	1	33.4mm	Coupling	SA-105	CL6000	N/A	UW16.1{c}	Shell
Sight Glass/Temp. Ind.	5	26.7mm	Coupling	SA-105	CL6000	N/A	UW16.1{c}	Shell
Pressure Indicator	1	21.4mm	Coupling	SA-105	CL6000	N/A	UW16.1{c}	Shell
Liquid out	2	60.3mm	Coupling	SA-105	CL6000	N/A	UW16.1{c}	Shell

Supports/ Supports

Skirt/ Jupe Yes/ Oui No/ Non ☒ ☐	Lugs/ Orelles No./ Nbre No	Legs/ Pieds No./ Nbre No	Other/ Autres (Description) N/A	Attached/ Attaches (Where and How/ Méthode et endroit) Welded to bottom head
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Remarks/ Observations (Cubical capacity/ Volume)

Volume=262 Cubic Meters Exempt from impact test requirements as per UG20(f) 1 to 5 Hydrostatically tested in the vertical position Nozzle to shell weld full penetration

Certificate of Compliance/ Certificat de conformité

We certify that the statements made in this data report are correct and that the said vessel has been constructed in accordance with the Provincial Registered design below and the requirements of standard CSA B51.

Nous certifions que les données de la déclaration de conformité sont correctes et que l'appareil a été construit en accord avec l'enregistrement provincial ci-dessous et les exigences de la norme ACNOR B51.

Provincial Registered Design
Enregistrement provincial P7217.231

Manufacturer
Constructeur RJV Gasfield Services

Signature [Signature] Date NOV 08 2011

Certificate of Shop Inspection/ Certificat d'inspection en usine

I, the undersigned, a duly authorized boiler and pressure vessel inspector
Je, soussigné, inspecteur autorisé de chaudières et appareil sous pression
employed by (employé par) ABSA
of (de) Alberta

have inspected the above vessel and state that to the best of my knowledge and belief the manufacturer has constructed the vessel in accordance with Canadian Registration No. P7217.231 and the requirements of CSA Standard B51. By signing this certificate, neither the inspector nor his or her employer makes any warranty, expressed or implied, concerning the vessel described in this manufacturer's data report. Furthermore, neither the inspector nor his or her employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection.

ai inspecté l'appareil précité et, autant que je sache, le constructeur a construit l'appareil en accord avec le numéro d'enregistrement canadien P7217.231 et les exigences de la norme CSA B51. En signant ce certificat, ni l'inspecteur ni son employeur ne donnent de garantie explicite ou implicite relativement à l'appareil décrit dans la présente déclaration. De plus, ni l'inspecteur ni son employeur ne doivent être tenus responsables de quelque manière que ce soit des dommages, matériels ou corporels, ou des pertes de quelque nature que ce soit pouvant résulter de cette inspection.

Inspector's Name
Nom de l'inspecteur Jason Reinhart AB 248 NB 12899 A

Signature [Signature] Date NOV 10 2011

Certificate of Compliance - Field Work/ Certificat de conformité - Installation au chantier

We certify that the field installation of all parts of the vessel conforms with the requirements of Provincial Regulations.

Nous certifions que l'installation au chantier de toutes les composantes de l'appareil est conforme aux règlements provinciaux.

Installer's Name
Nom de l'installateur _____

Signature _____

Date _____

Certificate of Field Inspection/ Certificat d'inspection - Installation au chantier

I, the undersigned, a duly authorized boiler and pressure vessel inspector
Je, soussigné, inspecteur autorisé de chaudières et appareil sous pression
employed by (employé par) ABSA

have inspected the items not covered by the Certificate of Shop inspection and the installation of the items and state that to the best of my knowledge and belief the construction and assembly of the items are in accordance with the provincial regulations. By signing this certificate, neither the inspector nor his or her employer makes any warranty, expressed or implied, concerning the vessel described in this manufacturer's data report. Furthermore, neither the inspector nor his or her employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection.

ai inspecté les composantes non couvertes par le certificat d'inspection en usine et l'installation de l'appareil et, autant que je sache, la construction et l'assemblage de l'appareil sont en accord avec les règlements provinciaux. En signant ce certificat, ni l'inspecteur ni son employeur ne donnent de garantie explicite ou implicite relativement à l'appareil décrit dans la présente déclaration. De plus, ni l'inspecteur ni son employeur ne doivent être tenus responsables de quelque manière que ce soit des dommages, matériels ou corporels, ou des pertes de quelque nature que ce soit pouvant résulter de cette inspection.

Inspector's Name
Nom de l'inspecteur _____
Signature _____ Date _____