(Alternative Form for Single Chamber, Completely Shop or Field Fabricated Vessels Only) As Required by the Provisions of the ASME Code Rules, Section VIII, Division 1 1. Manufactured and certified by Alco Gas & Oil Production Equipment LTD. 5203 75th St., Edmonton, Alberta T6E 5S5 Canada (Name and address of manufacturer) Husky Oil Operations Ltd c/o Excelsior Engineering Ltd. - 400, 1110 Centre Street NE Calgary AB T2E 2R2 (Name and address of purchaser) 2. Manufactured for MINEHEAD COMPRESSOR STATION (LSD: 03-06-049-18 W5M) 3. Location of installation (Name and address) 4. Type: <u>VERTICAL</u> 2011-8169-04 V-4002.2 D-2011-8169-04-001/1R0 N/A 2011 (CRN) (Nat'l, Bd, No.) (Year built) (Horiz. or vert., tank) (Mfgrs serial No.) (Drawing No.) The chemical and physical properties of all parts meet the requirements of material specifications of the ASME BOILER AND PRESSURE VESSEL CODE. The design, construction, and workmanship conform to ASME Rules, Section VIII, Division 1 2010 EDITION N/A N/A Special Service per UG-120(d) Addenda (Date) Code Case Nos. 3/8" 34'-0"SM/SM 6. Shell: 1/16" 15 1/4" SA-106Gr.B (Material spec. number, grade) (Nominal thickness) (Corr. allow.) (Inner diameter) [Length (overall)] 7. Seams: **SEAMLESS** NONE 100% N/A TYPE I SPOT 70% N/A Long. (Welded, Dbl., Girth (Welded, Dbl., R.T. [Spot, R.T. (Spot or Full) Eff. (%) H.T. Temp. (°F) Time (hr) No. of Courses Sngl., Lap. Butt) (%) Sngl., Lap, Butt) or Full] 8. Heads: (a) Matl. (b) Matl. SA-516Gr.70MT SA-516Gr.70MT (Spec. No., Grade) (Spec. No., Grade) Hemispherical Flat Side to Pressure Location (Top. Minimum Corrosion Crown Knuckle Elliptical Conical Apex Angle Radius Diamete (Convex or Concave) Allowance Radius Radius Ratio Thickness Bottom, Ends) (a) TOP 0.280" N/A N/A 1/16" N/A N/A N/A Concave 2:1 N/A N/A Concave BOTTOM | 0.280" 1/16" N/A N/A N/A If removable, bolts used (describe other fastenings) N/A (Matl., Spec. No., Gr., Size, No.) at max, temp. 500°F 9. MAWP: 400 PSI 0 PSI 500°F (external) (internal) -20°F Min. design metal temp. . Hydro., pneu., or comb. test pressure at 400 PSI **Hydrostatic** 520 PSI 10. Nozzles, inspection and safety valve openings: Nom Reinforcement Diam Purpose (Inlet, Outlet, Drain) Attached Matl. No. Type Thk. Matl. Location or Size COND INLET 3" 0.300" UW 16.1(c) SHELL CL300RFWN SA106B/105N N/A TOP HEAD **GAS OUTLET** 1 2" CL300RFWN SA106B/105N 0.344" N/A UW16.1(c) COND OUT 4" CL300RFWN SA106B/105N 0.337" N/A UW16.1(c) SHELL INLET 6" CL300RFWN SA106B/105N 0.432" N/A UW16.1(c) SHELL OUT / DRAIN 2" CL300RFWN SA106B/234WPB 0.344" N/A UW16.1(c) BOTTOM HD UW16.1(c) 0.344" N/A SHELL **PSV** 2" CL300RFWN SA106B/234WPB* SHELL LC CAGE 1 1/2" COUPLING SA105N CL3000 N/A UW16.1(c) UW16.1(c) SHELL **TEMP IND** 3/4" COUPLING SA105N CL3000 N/A 11. Supports: Skirt NO NO Attached Welded To Bottom Head Yes Luas Leas (Yes or no) (No.) (No.) (Describe) (Where and how 12. Remarks: Manufacturer's Partial Data Reports properly identified and signed by Commissioned Inspectors have been furnished for the following items of (Where and how) the report: N/A (Name of part, item number, Mfgr's, name and identifying stamp) IMPACT TEST EXEMPT PER UG 20 (f), FLANGES PER UCS-66(c), STUDS & NUTS EXEMPT PER UCS-66 NOTE(c) STABILIZER COLUMN CAP 44 FT³ / AS BUILT DRAWING D-2011-8169-04-001/001 R1 / RT PER UW-11(a)5(b) PSV ON VESSEL / SEE ATTACHED U4 DATA REPORT / HYDROTESTED IN HORIZONTAL POSITION CERTIFICATE OF SHOP/FIELD COMPLIANCE We certify that the statements made in this report are correct and that all details of design, material, construction, and workmanship of this vessel conform to the ASME Code for Pressure Vessels, Section VIII, Division 1. "U" Certificate of Authorization No. expires October 7 14259 Co. name Alco Gas & Oil Production Equipment LTD. Signed (Manufacturer CERTIFICATE OF SHOP/FIELD INSPECTION Vessel constructed by Alco Gas & Oil Production Equipment LTD. at 5203 75th St., Edmonton, Alberta T6E 5S5 Canada I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and/or the State or Province of ABSA and employed by , 2011 , and state that, to the best of my knowledge and belief, the the component described in this Manufacturer's Data Report on APRIL | Manufacturer has constructed this pressure vessel in accordance with ASME Code, Section VIII, Division 1. By signing this certificate neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the pressure vessel described in this Manufacturer's Data Report. Furthermore, neither the Inspector nor his 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. NB12897 AB Signed [Nat'l Board (incl. endorsements) State, Prov. and No.] (Authorized Inspector)

FORM U-1A MANUFACTURER'S DATA REPORT FOR PRESSURE VESSELS

FORM U-4 MANUFACTURER'S DATA REPORT SUPPLEMENTARY SHEET



As Required by the Provisions of the ASME Code Rules, Section VIII, Division 1

Manufactured a	and certi	 fied by	Alco Gas & Oil	Production Equip	ment LTD.	5203 75th S	St., Edmo					
2. Manufactured f	or <u>I</u>	Husky	Oil Operations Ltd	l c/o Excesior Eng	gineering Ltd.		0 Centre	Street NE Cal	gary AB T2E	2R2		
3. Location of inst	allation	Δ	MINEHEAD COM	PRESSOR STAT	ION (LSD: 0	me and addres 3-06-049-1 Name and add	8 W5M				·	
, T. VER	TICA	ĭ						2011-8169-04 (Mtg's serial No.) N/A 2011				
4. Type: VERTICAL (Horiz., vert., or sphere)					or, heat exh., etc.							
V-4002.2					69-04-001/1F							
V -100 60 5 60		CRN)			Wing No.)	<u> </u>		ional Board Numbe		¥ Year b)		
. Nozzles, in	·	•	afety valve openings:	(3.3	g,		(ivai	onal boald (Admine	••	(real D	unty	
Purpose (Inlet,	Purpose (Inlet, Diamete		Flange	Mate	Nozzle Thickness		Reinforcement	How Attached		Location		
Outlet, Drain, etc.)	No.: or	Size	Type	Nozzle	Flange	Nom.	Corr.	Material	Nozzle	Flange	(Insp. Open)	
PRESS IND		1/2"	COUPLING	SA105N	N/A	CL3000	1/16"	N/A	UW16.1(c)	N/A	SHELL	
INSPECTION		900"	COUPLING	SA105N	N/A	CL3000		N/A	UW16.1(c)	N/A	TOP HD	
INSPECTION	3	900"	COUPLING	SA105N	N/A	CL3000	1 1	N/A	UW16.1(c)	N/A	SHELL	
LSHH	1 1	2"	COUPLING	SA105N	N/A	CL3000	1 1	N/A	UW16.1(c)	N/A	SHELL	
			COOLINIC		1.37.2.5	00000	17.10	4.364.b	C TT I V. I (C)		June	
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Data Rep Item Num BREAK FLAN BOLTIN	ber GES		•	CL300 RFWN SA IA X 7 1/2"LG 8		TD	DS c/w	2 SA-194-2H I	IEX NUTS F	EACH		
			* FLANGES N	IATERIAL ARE	SA105N							
Certificate of Authori	zation:		Туре U	No. [4259	<u> </u>	Expires	Oct <u>obe</u> r	:7. f f A	, 2013			
			eme Alco Gas & C	Alco Gas & Oil Production Equipment LTD. (manufacturer) Signed (representative)								
ate O'I-	<u> </u>	11 .	Nam		zed Inspector)	Com	mission	NB 12897 (Nat'l. Board incl. 6	-	A.A.	2.45 and no.)	