

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

(Alternative Form for Single Chamber, Completely Shop or Field Fabricated Vessels Only)  
As Required by the Provisions of the ASME Boiler and Pressure Vessel Code Rules, Section VIII, Division 1

669163

A#  
4570-01  
S/N#

1. Manufactured and certified by **Coral Oilfield Services Inc., 15303-94st, Grande Prairie, Alberta, T8X 0L2, CANADA**  
(Name and address of Manufacturer)

2. Manufactured for **Haltec Testing Inc., Box 92, Baytree, Alberta, T0H0A0, Canada**  
(Name and address of Purchaser)

3. Location of Installation **stock, Baytree, Alberta**  
(Name and address)

4. Type **Horizontal Separator** **4570-01** **V9366.213** **3968 Rev.3** **59** **2017**  
(Horizontal or vertical, tank) (Manufacturer's serial number) (CRN) (Drawing number) (National Board number) (Year built)

5. ASME Code, Section VIII, Division 1 **2015/ N/A** **N/A** **N/A**  
[Edition and Addenda, if applicable (date)] (Code Case numbers) (Special service per UG-120(d))

6. Shell: **SA-516-70N** **0.5"** **0.125"** **108" (ID)** **30'**  
(Material spec. number, grade) (Nominal thickness) (Corr. allow.) (Inner diameter) [Length (overall)]

Body Flanges on Shells

No.	Type	ID	OD	Flange Thk	Min Hub Thk	Material	How Attached	Location	Bolting				
									Num & Size	Bolting Material	Washer (OD, ID, thk)	Washer Material	
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

7. Seams: **Type 1** **Full** **1.00** **1125 °F** **1.0 Hour** **Type 1** **Full** **1.00** **3**  
[Long. (welded, dbl., snlg., lap, butt)] [R.T. (spot or full)] [Eff., %] (H.T. temp) (Time, hr) [Girth. (welded, dbl., snlg., lap, butt)] [R.T. (spot or full)] [Eff., %] (No. of courses)

8. Heads: (a) Material **SA-516-70N** (b) Material **SA-516-70N**  
(Spec. no., grade) (Spec. no., grade)

	Location (Top, Bottom, Ends)	Minimum Thickness	Corrosion Allowance	Crown Radius	Knuckle Radius	Elliptical Ratio	Conical Apex Angle	Hemispherical Radius	Flat Diameter	Side to Pressure (Convex or Concave)
(a)	END	0.5"	0.125"	N/A	N/A	2:1	N/A	N/A	N/A	Concave
(b)	END	0.5"	0.125"	N/A	N/A	2:1	N/A	N/A	N/A	Concave

Body Flanges on Heads

	Location	Type	ID	OD	Flange Thk	Min Hub Thk	Material	How Attached	Bolting			
									Num & Size	Bolting Material	Washer (OD, ID, thk)	Washer Material
(a)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

9. Internal pressure **125 psi** at max. temp. **300 °F**  
(Internal) (External) (Internal) (External)

Min. design metal temp. **-50 °F** at **125 psi** Hydro, pneu., or comb. test pressure **HYDRO at 163 psi**

Proof test **N/A**

10. Nozzles, inspection and safety valve openings:

Purpose (Inlet, Outlet, Drain, etc.)	No.	Diameter or Size	Type	Material		Nozzle Thickness		Reinforcement Material	Attachment Details		Location (Insp. Open.)
				Nozzle	Flange	Nom.	Corr.		Nozzle	Flange	
Gas Inlet/Outlet	5	4"	RFWN	SA-106Gr.B	SA-105N	0.674"	0.125"	N/A	UW16.1(D)	Type 1	Shell
PSV, Water/Oil Outlet	4	3"	RFWN	SA-106Gr.B	SA-105N	0.600"	0.125"	N/A	UW16.1(D)	Type 1	Shell/Head
Sparge, Heater Coil	8	2"	RFWN	SA-106Gr.B	SA-105N	0.436"	0.125"	N/A	UW16.1(D)	Type 1	Head

Additional Nozzles - See Attached U-4...

11. Supports: Skirt **No** Lugs **2** Legs **No** Other **Saddles (2)** Attached **Shell, Welded**  
(Yes or no) (Number) (Number) (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 the report:

**N/A**  
(Name of part, item number, Manufacturer's name and identifying stamp)

- Impact Test exempt SA105N and SA106-B exempt as per UCS 66 (b) (1) (b)
- All other material are exempt per UCS-66a, UCS-67a(3) for the filler metal, and Fig UCS-66, Note C for stud and nuts
- Heater coil: MAWP 150PSI @ 350F, MAEWP 125PSI, MDMT -50F @ 150PSI, C.A 1/16, 2" 150 RFSO SA-105n Flange
- 2" NPS XH SA-106B Pipe
- Vessel Capacity 2122FT3 (60M3)
- Construction DWG NO. 3968-01 Rev.5
- 1 1/8" X 6 1/4" Studs SA-193-B7M c/w 2 Nuts Each SA194-2HM for both M1A M1B

Additional Remarks - See Attached U-4...

669163

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 BOILER AND PRESSURE VESSEL CODE, Section VIII, Division 1. "U" Certificate of Authorization Number 45860 expires September 17, 2019

Date 09/25/2017 Co. name Coral Oilfield Services Inc. (Manufacturer) Signed [Signature] (Representative)

CERTIFICATE OF SHOP/FIELD INSPECTION

Vessel constructed by Coral Oilfield Services Inc. at 15303-94st, Grande Prairie, Alberta, T8X 0L2, CANADA I, the undersigned, holding a valid commission issued by The National Board of Boiler and Pressure Vessel Inspectors and employed by Alberta Boilers Safety Association (ABSA), of Edmonton, AB

have inspected the component described in this Manufacturer's Data Report on September 21, 2017 and state that, to the best of my knowledge and belief, the Manufacturer has constructed this pressure vessel in accordance with ASME BOILER AND PRESSURE VESSEL CODE, Section VIII, Division 1. By signing this certificate neither the Inspector nor his/her employer makes any warranty, expressed or implied, concerning the pressure vessel described in this Manufacturer's Data Report. Furthermore, neither the Inspector nor his/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.

Date 09/25/2017 Signed [Signature] (Authorized Inspector) Commissions 15266, AB439-A (National Board (incl. endorsements))

0669163

FORM U-1A (Back)

NB Number 59

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 BOILER AND PRESSURE VESSEL CODE, Section VIII, Division 1. "U" Certificate of Authorization Number 45860 expires September 17, 2019

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Date 09/25/2017 Signed [Signature] (Authorized Inspector) Commissions 15266, AB439-A [National Board (incl. endorsements)]

FORM U-4 MANUFACTURER'S DATA REPORT SUPPLEMENTARY SHEET

As Required by the Provisions of the ASME Boiler and Pressure Vessel Code Rules, Section VIII, Division 1

669163

4570-01  
S/N#

1. Manufactured and certified by Coral Oilfield Services Inc., 15303-94st, Grande Prairie, Alberta, T8X 0L2, CANADA  
(Name and address of Manufacturer)

2. Manufactured for Haltec Testing Inc., Box 92, Baytree, Alberta, T0H0A0, Canada  
(Name and address of Purchaser)

3. Location of installation stock, Baytree, Alberta  
(Name and address)

4. Type Horizontal Separator N/A 4570-01  
(Horizontal, vertical, or sphere) (Tank, separator, heat exch., etc.) (Manufacturer's serial number)

V9366.213 3968 Rev.3 59 2017  
(CRN) (Drawing number) (National Board number) (Year built)

Data Report  
Item Number \_\_\_\_\_ Remarks \_\_\_\_\_

Additional Remarks:

- 2-20" Class 150 Blinds SA-105N

Purpose (Inlet, Outlet, Drain, etc.)	No.	Diameter or Size	Type	Material		Nozzle Thickness		Reinforcement Material	Attachment Details		Location (Insp. Open.)
				Nozzle	Flange	Nom.	Corr.		Nozzle	Flange	
Sight Glasses, PI, Spare	12	1"	RFWN	SA-106Gr.B	SA-105N	0.358"	0.125"	N/A	UW16.1(D)	Type 1	Head
Manway	2	20"	RFWN	SA-106Gr.B	SA-105N	0.375"	0.125"	SA-516-70N	UW16.1(D)	Type 1	Shell

Certificate of Authorization: Type "U" No. 45860

Expires September 17, 2019

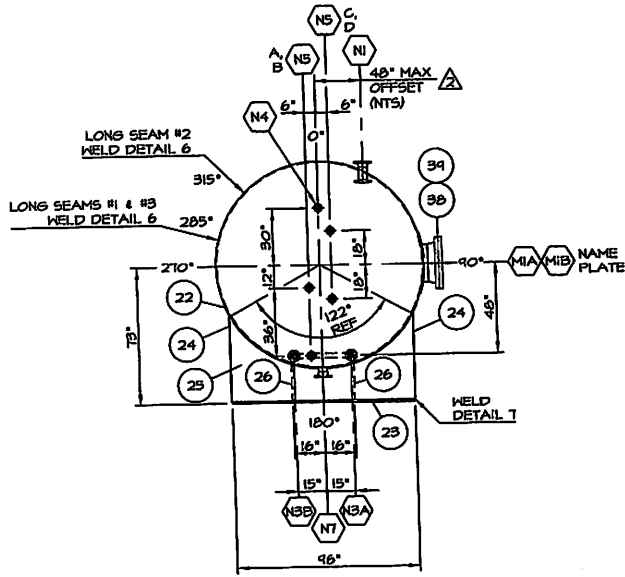
Date 09/25/2017 Name Coral Oilfield Services Inc.  
(Manufacturer)

Signed [Signature]  
(Representative)

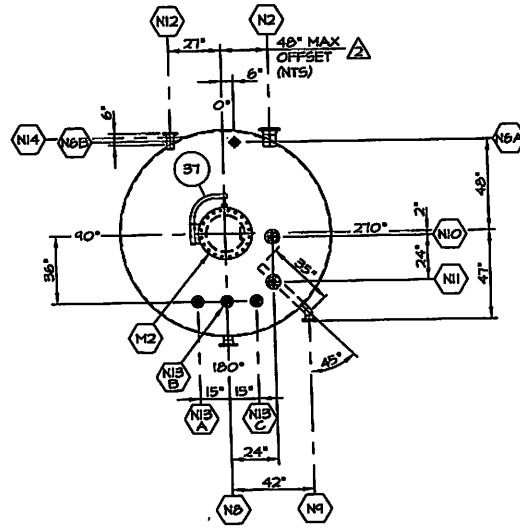
Date 09/25/2017 Name [Signature]  
(Authorized Inspector)

Commissions: 15266, AB439-A  
(National Board (incl. endorsements))

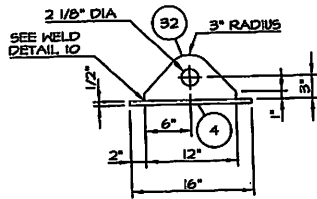




ORIENTATION VIEW A-A



ORIENTATION VIEW B-B



LIFT LUG DETAIL

V 9 3 6 6 . 2

**FABRICATION NOTES**

- A. THE SHELL LENGTH MAY BE LESS THAN 30'-0", PROVIDED THE SPACING OF NOZZLES MEET CODE.
- B. MATERIAL SPECIFICATIONS MAY BE UPGRADED AS FOLLOWS:  
 PLATE: SA-36 TO 64021-44W TO SA-516-70 TO SA-516-70N  
 WELD FITTING (B16.9), SA-234-WPB TO SA-420-WPL6  
 PIPE (B36.10), SA-53-B, ERW TO SA-106-B TO SA-333-6R 6  
 FORGING (B16.5/B16.11), SA-105 TO SA-105N TO SA-350-LF2 CLASS 1
- C. ANY CONNECTION MAY BE DELETED EXCEPT A DRAIN (1" NPS MIN), LOCATED AT THE LOWEST POINT PRACTICABLE IN THE VESSEL PER US-23F AND ONE INSPECTION MANWAY.
- D. MANWAYS M1A & M1B MAY ONLY BE LOCATED RADIALLY ON THE SHELL AND M2 MAY ONLY BE LOCATED ON THE CENTERLINE OF THE HEADS.
- E. RADIOGRAPHY ON THE CIRCUMFERENTIAL SEAMS MAY BE INCREASED TO FULL PER U4-11a.
- F. POST WELD HEAT TREATMENT MAY BE ADDED PROVIDED A FINIT WELDING PROCEDURE IS USED (TBA).  
 TEMPERATURE AND TIME: 1125° F 425° F FOR 44 MINUTES (MINIMUM).

ITEM	QTY	DESCRIPTION	MATERIAL
1	2	HEADS - 108" ID x 5/8" THK (300" MIN) 2:1 SE, 2" SF	SA-516-70N
2	3	PLATE - 108" ID x 1/2" THK x 10'-0" LG SHELL #1, #	SA-516-70N
3	2	PLATE - 1/2" THK x 32" OD x 20 1/8" ID M1A, M1B REPAD, NOTE 4	SA-516-70N
4	2	PLATE - 1/2" THK x 10" x 16" LG LIFT LUG PAD, NOTE 9	SA-516-70N
5	1	STANDARD NAME PLATE AND BRACKET	304 SS/SA-36
6	6	FLANGE - 1" CLASS 150 RFWN c/w SCH XXH BORE N4, NSAD, N6AB	SA-105N
7	6	FLANGE - 2" CLASS 150 RFWN c/w SCH XXH BORE N3AB, 13ABC, 14	SA-105N
8	4	FLANGE - 3" CLASS 150 RFWN c/w SCH XXH BORE N4, N10, N11, N12	SA-105N
9	3	FLANGE - 4" CLASS 150 RFWN c/w SCH XXH BORE N1, N1, N8	SA-105N
10	1	FLANGE - 4" CLASS 150 RFSO N1 (INTERNAL)	SA-105N
11	2	FLANGE - 20" CLASS 150 RFWN c/w SCH STD BORE M1A, M1B	SA-105N
12	3	FLANGE - 20" CLASS 150 RF BLIND M1A, M1B, M2	SA-105N
13	1	FLANGE - 6" CLASS 150 RFWN c/w SCH 160 BORE N2	SA-105N
14	1	PIPE - 6" SCH 160 (218") x CUT TO SUIT N2	SA-106-B
15	1	FLANGE - 20" CLASS 150 RF HB x 12" LG M2	SA-105N
16	6	PIPE - 1" SCH XXH (338") x CUT TO SUIT N4, NSAD, N6AB	SA-106-B
17	6	PIPE - 2" SCH XXH (438") x CUT TO SUIT N3AB, N13ABC, N14	SA-106-B
18	4	PIPE - 3" SCH XXH (600") x CUT TO SUIT N9, N10, N11, N12	SA-106-B
19	3	PIPE - 4" SCH XXH (874") x CUT TO SUIT N1, N1, N8	SA-106-B
20	2	PIPE - 20" SCH STD (375") x CUT TO SUIT M1A, M1B	SA-106-B
21	1	ELBOW - 3" SCH XXH (600") LR 45° WELD N4	SA-234-WPB
22	2	PLATE - 3/8" THK x 16" x 12B" LG WEAR PL, ROLL-104" ID, NOTE 9	SA-516-70N
23	2	PLATE - 1" THK x 12" x 46" LG BASE PLATE	SA-36
24	4	PLATE - 3/8" THK x 12" x 45 3/8" LG SIDE PLATE	SA-36
25	2	PLATE - 3/8" THK x 45 3/8" x 46" LG FACE PLATE, TRIM TO FIT	SA-36
26	4	PLATE - 3/8" THK x 12" x 14 1/2" LG RIB PLATE	SA-36
27	27	FLANGE - 2" CLASS 150 RFSO COIL, N13ABC	SA-105N
28	1	PIPE - 2" SCH XH (218") x CUT TO SUIT COIL	SA-53-B, ERW
29	2	ELBOW - 2" SCH XH (218") LR 90° WELD COIL	SA-234-WPB
30	12	GASKET - 2" CLASS 150 SPIRAL WOUND x 1/8" THK COIL	304 SS
31	48	STUDS - 5/8" DIA x 3 1/4" LG c/w 2 NUTS EACH (SA-194-2H) COIL	SA-193-BT
32	2	PLATE - 1" THK x 6" x 12" LG SEE LIFT LUG DETAIL	SA-36
33	1	PLATE - 3/8" THK x 107 1/8" OD x 94" HIGH WIER PLATE	SA-36
34	1	PIPE - 16" SCH STD (375") x 10" LG MIST PAD HOUSING	SA-106-B
35	1	MIST PAD - 15 1/4" OD x 6" THK x 9/FT3 MIST PAD	316 SS
36	2	FLAT BAR - 1/2" SQUARE x 46 1/4" LG MIST PAD, ROLL-15 1/8" OD	SA-36
37	3	STANDARD 20" CLASS 150 MANWAY DAVIT M1A, M1B, M2	SA-36
38	3	GASKET - 20" CLASS 150 SPIRAL WOUND x 1/8" THK M1A, M1B, M2	304 SS
39	60	STUDS-1 1/8" DIA x 6 1/4" LG c/w 2 NUTS EACH (SA-194-2H) M1AB, M2	SA-193-BT

NO.	DATE	REVISION	BY	APP
3	12-10-10	ADD NOTES E, F	PJD...	RJ
2	12-09-21	ADD N1, N2 SHELL OFFSET DISTANCE	PJD...	RJ
1	12-08-31	REVISED, ISSUED FOR REGISTRATION	PJD...	RJ
0	12-08-21	ISSUED FOR APPROVAL	PJD...	RJ

**CORAL OILFIELD SERVICES INC.**  
 BOX 21160, 15303 - 44 STREET  
 GRANDE PRAIRIE, AB T8X 0L2  
 TELEPHONE: (780) 882-9800 FAX: (780) 882-6868

REF DWG:	DATE:	BDD NO.:	JOB NO.:	SCALE:	DRAWN BY:	CHECKED BY:	APP BY:
	12-08-13	3468		NTS	PJD...	RJ	PJD...

SEPARATOR	
108" ID x 30'-0" S/S	
BOM, END VIEWS, DETAILS	
DWG NO.:	SHEET 2 OF 2
3468	3

October 22, 2012

**Attention:** Riley Johnson  
CORAL OILFIELD SERVICES INC  
BOX 21160  
GRANDE PRAIRIE, AB

The design submission, tracking number 2012-07082, originally received on October 15, 2012 was surveyed and accepted for registration as follows:

**CRN :** V9366.2

**Accepted on:** October 22, 2012

**Reg Type:** Revision To accepted Design

**Drawing No. :** 3968 SHTS 1, 2 Rev 3 As Noted

Design registered in the name of : CORAL OILFIELD SERVICES INC

Description	MAWP	Design Temperature	MDMT
Internal Pressure	862 kPa	149°C	-46°C
COIL MAWP	1034 kPa	177°C	-46°C
COIL EXTERNAL PRESS.	862 kPa	177°C	-46°C

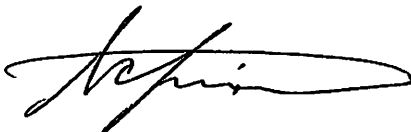
**The registration is conditional on your compliance with the following notes:**

*WPS # to be indicated on the construction drawing for each applicable weld detail prior to start fabrication.*

An invoice covering survey and registration fees will be forwarded from our Revenue Accounts.

If you have any question don't hesitate to contact me by phone at (403) 291-7071 ext 2219 or fax (403) 291-4545 or e-mail [scherpenisse@absa.ca](mailto:scherpenisse@absa.ca).

Sincerely,



SCHERPENISSE, FERNANDO



505 - 6th Street, Suite 200  
New Westminster, BC V3L 0E1

Toll Free: 1-866-566-SAFE

Fax: (778) 396 - 2064

www.safetyauthority.ca

CORAL OILFIELD SERVICES INC.  
BOX 21160  
GRAND PRAIRIE AB T8V 6W7

**Date:** November 21, 2012  
**Account #:** 52081  
**Journal #:** 55964  
**Our File #:** 5298193

**Attn:** RILEY JOHNSON

**Re:** Application for Design Registration

The design, as detailed in your, Ref: 4014, for a Pressure Vessel is accepted for registration as follows:

**Registered To:** CORAL OILFIELD SERVICES INC. **CRN:** V9366.21

**MDMT:** -50 deg F

**MAWT:** 300 deg F

**MAWP:** 125 psig

**Drawing #:** 3968 Shts 1, 2

**Drawing Revision:** 3

**Conditions Of Registration:**

1- Coil design condition: 150 psig (internal) & 125 psig (external) @ -50/+350 deg F.

	<u>Amount</u>	<u>HST</u>	<u>Total</u>
Fee for reviewing your design:	\$222.00	\$26.64	\$248.64
<b>Total:</b>	\$222.00	\$26.64	\$248.64
Less amount received with submission:			\$0.00
			\$248.64

An invoice for \$248.64 will follow.

Contact me if you have any questions.

ALIREZA BONAKDAR  
(778) 396-2032  
Alireza.Bonakdar@safetyauthority.ca  
Design Engineer

cc:





**Technical  
Safety Authority  
of Saskatchewan**

330 - 1855 Victoria Avenue  
Regina, SK S4P 3T2  
Canada

306-787-1443  
info@tsask.ca  
www.tsask.ca

**REGISTRATION APPROVAL**

04-Dec-12

Coral Oilfield Services Inc.  
Box 21160  
Grande Prairie, AB  
T8V 6W7

**Our File** 46728 [ 0V]

**ATTENTION :** Riley Johnson

With reference to your submission respecting the registration of the item below, for legal use in the province, please note we have surveyed, approved and registered this design as noted.

<b>MANUFACTURER :</b>	<b>Coral Oilfield Services Inc.</b>	
<b>ITEM :</b>	<b>DRAWING NUMBER :</b>	<b>CRN:</b>
<b>Separator</b>	<b>3968 SHTS 1&amp;2 Rev. 3 As Noted</b>	<b>V9366.23</b>

We wish to point out that every vessel must be constructed strictly in accordance with the registered design.

In addition to stamping every vessel with the registration number given above and as required in CSA Code B51, a Manufacturer's Data Report must be forwarded to this office immediately at the time a vessel is shipped. Such forms may be obtained upon request.

Sincerely,

Steven Court  
Codes and Standards Compliance

**REMARKS:** CRN registered under reciprocal agreement and conditional upon compliance with the notes on the original ABSA registration.

WELDING PROCEDURE SPECIFICATION NO.: COS-2 (Rev. 2)

WELDING PROCEDURE QUALIFICATION RECORD NO.(S): COS-2-1, COS-2-2, COS-7-2

QUALIFIED IN ACCORDANCE WITH ASME SECTION IX FOR

Base Metal (Typical): Std. Appl.: P1 to P1  
(SA 36, SA 106 Gr. B, SA 105, SA 516 Gr. 70, etc.)  
Notch Appl.: P1 Groups 1 & 2 to P1 Groups 1 & 2  
(SA 333 Gr. 6, SA 350 Gr. LF2, SA 420 WPL6, SA 516 Gr. 70, etc.)  
CSA grades are restricted to Gr. 386 and lower, API grades  
restricted to Gr. X56 and lower.

Process(es): SMAW  
Weld Types: GROOVE & FILLET  
Position: ALL POSITIONS  
Diameter: ALL DIAMETERS  
Filler Metal: Std. Appl.: E6010, E7018, E7018-1 Notch Appl.: E6010, E7018-1

BASE METAL CONDITIONS & GROOVE THICKNESS RANGE QUALIFIED:

STANDARD APPLICATIONS WITH POSTWELD HEAT TREATMENT  
BASE METAL THICKNESS RANGE 0.062 to 8.00 in. inclusive

NOTCH TOUGHNESS APPLICATIONS TO -50 °F WITH POSTWELD HEAT TREATMENT  
BASE METAL THICKNESS RANGE 0.125 to 8.00 in. inclusive

COMBINED DEPOSITED WELD METAL THICKNESS  
ASME B31.1 8.00 in. maximum  
ASME B31.3 8.00 in. maximum  
ASME SECTION VIII, DIVISION 1 8.00 in. maximum  
CSA Z662 Clause 7.2.5 8.00 in. maximum

**ABCA**  
**SAFETY CODES ACT - PROVINCE OF ALBERTA**  
**WELDING PROCEDURE**

Reg. No. WP 3150.2  
Spec No. COS-2 (Rev 2)  
Weld Process SMAW  
Mati. Gr. P No. 1Gr 1+2 to P No. 1Gr 1+2  
Elect Gr. F No. 3+4 A No. 1  
Th. Qual For 203mm P.W.H.T. YES  
MIN TH QUAL 3.2mm CWI -46°C

Yr. 15 Mo. 3 Day 4 Signed JRH  
**JASON REINHART, P.ENG.**  
**WELDING SPECIALIST**

**PROVINCIAL REGISTRATION**

This WPS was prepared to the requirements of ASME IX 2013 and includes some of the additional requirements of the construction codes listed. The application of this WPS is outside the work scope of SGS Canada Inc.

Prepared By: Tyler Perrier  
Signed: [Signature]  
Date: February 25, 2015

Reviewed By: Darren McLean  
Signed: [Signature]  
Date: FEB. 25/2015

(File C15-131)

WELDING PROCEDURE SPECIFICATION NO.: COS-9 (Rev. 1)

WELDING PROCEDURE QUALIFICATION RECORD NO.(S):  
COS-7-1, COS-7-2,  
COS-CVN-PWHT-1 (Rev. 0)

QUALIFIED IN ACCORDANCE WITH ASME SECTION IX FOR

Base Metal (Typical): Std. Appl.: P1 to P1  
(SA 36, SA 106 Gr. B, SA 105, SA 516 Gr. 70, etc.)  
Notch Appl.: P1 Groups 1 & 2 to P1 Groups 1 & 2  
(SA 333 Gr. 6, SA 350 Gr. LF2, SA 420 WPL6, SA 516 Gr. 70, etc.)  
CSA grades are restricted to Gr. 386 and lower, API grades  
restricted to Gr. X56 and lower.

Process(es): GMAW / FCAW

Weld Types: GROOVE & FILLET Position: ALL POSITIONS

Diameter: ALL DIAMETERS Filler Metal: ER70S-6, E71T-12M-J

BASE METAL CONDITIONS & GROOVE THICKNESS RANGE QUALIFIED:

STANDARD APPLICATIONS WITH POSTWELD HEAT TREATMENT  
BASE METAL THICKNESS RANGE 0.188 to 8.00 in. inclusive

NOTCH TOUGHNESS APPLICATIONS TO -50 °F WITH POSTWELD HEAT TREATMENT  
BASE METAL THICKNESS RANGE 0.188 to 8.00 in. inclusive

COMBINED DEPOSITED WELD METAL THICKNESS

ASME B31.1	<u>8.00 in. maximum</u>
ASME B31.3	<u>8.00 in. maximum</u>
ASME SECTION VIII, DIVISION 1	<u>8.00 in. maximum</u>
CSA Z662 Clause 7.2.5	<u>8.00 in. maximum</u>

<b>ABSA</b>	
<b>SAFETY CODES ACT - PROVINCE OF ALBERTA</b>	
<b>WELDING PROCEDURE</b>	
Reg. No. WP	<u>3150.2</u>
Spec No.	<u>COS-9 (Rev. 1)</u>
Weld Process	<u>GMAW / FCAW</u>
Matl. Gr. P No.	<u>Gr. 1+2</u> to P No. <u>Gr. 1+2</u>
Elect. Gr. F No.	<u>6</u> A No. <u>8±1</u>
Th. Qual For	<u>203mm</u> P.W.H.T. <u>YES</u>
	<u>MIN TH QUAL 4.8mm, CVN -46°C</u>
	<u>ER70S-6</u>
Yr. <u>15</u> Mo. <u>3</u> Day <u>2</u> Signed	<u>J. P. H.</u>
	<b>JASON REINHART, P.ENG.</b>
	<b>WELDING SPECIALIST</b>
<b>PROVINCIAL REGISTRATION</b>	

This WPS was prepared to the requirements of ASME IX 2013 and includes some of the additional requirements of the construction codes listed. The application of this WPS is outside the work scope of SGS Canada Inc.

Prepared By: Timothy Colpitts

Signed: Timothy A. Colpitts

Date: February 11, 2015

Reviewed By: Darren McLean

Signed: [Signature]

Date: FEBRUARY 11/2015

(File C15-002)

WELDING PROCEDURE SPECIFICATION NO.: COS-11 (Rev.1)

WELDING PROCEDURE QUALIFICATION RECORD NO.(S):  
COS-2-2, COS-7-1,  
COS-7-2, COS-11-1,  
COS-CVN-PWHT-2 (Rev. 0)

QUALIFIED IN ACCORDANCE WITH ASME SECTION IX FOR

Base Metal (Typical): Std. Appl.: P1 to P1  
(SA 36, SA 106 Gr. B, SA 105, SA 516 Gr. 70, etc.)  
Notch Appl.: P1 Groups 1 & 2 to P1 Groups 1 & 2  
(SA 333 Gr. 6, SA 350 Gr. LF2, SA 420 WPL6, SA 516 Gr. 70, etc.)  
CSA grades are restricted to Gr. 386 and lower, API grades  
restricted to Gr. X56 and lower.

Process(es): GMAW / SMAW / SAW  
Weld Types: GROOVE & FILLET  
Position: GMAW & SMAW: ALL SAW: FLAT & HORIZONTAL  
Diameter: ALL DIAMETERS  
Filler Metal: Std. Appl.: ER70S-6, E7018, E7018-1, F7PX-EM14K  
Notch Appl.: ER70S-6, E7018-1, F7P6/8-EM14K

BASE METAL CONDITIONS & GROOVE THICKNESS RANGE QUALIFIED:

STANDARD APPLICATIONS WITH POSTWELD HEAT TREATMENT  
BASE METAL THICKNESS RANGE 0.188 to 8.00 in. inclusive

NOTCH TOUGHNESS APPLICATIONS TO -50 °F WITH POSTWELD HEAT TREATMENT  
BASE METAL THICKNESS RANGE 0.625 to 8.00 in. inclusive

COMBINED DEPOSITED WELD METAL THICKNESS  
ASME B31.1 8.00 in. maximum  
ASME B31.3 8.00 in. maximum  
ASME SECT. VIII, DIV.1 8.00 in. maximum  
CSA Z662 FABRICATION 8.00 in. maximum

**ABCA**

**SAFETY CODES ACT - PROVINCE OF ALBERTA**  
**WELDING PROCEDURE**

Reg. No. WP 3150-2  
Spec No. COS-11 (Rev.1)  
Weld Process GMAW/SMAW/SAW  
Matl. Gr. P No. 16r142 to P No. 16r142  
Elect Gr. F No. 6t4t6 A No. \_\_\_\_\_  
Th. Qual For. 203mm P.W.H.T. YES  
MIN. TH. QUAL 15.9mm CVN -46°C

Yr. 15 Mo. 3 Day 3 Signed [Signature]  
**ASON REINHART, PENG.**  
**WELDING SPECIALIST**

**PROVINCIAL REGISTRATION**

This WPS was prepared to the requirements of ASME IX 2013 and includes some of the additional requirements of the construction codes listed. The application of this WPS is outside the work scope of SGS Canada Inc.

Prepared By: Tyler Perrier  
Signed: [Signature]  
Date: February 25, 2015

Reviewed By: Darren McLean  
Signed: [Signature]  
Date: Feb. 25/2015

(File C15-131)



# PRESSURE PIPING CONSTRUCTION AND TEST DATA REPORT

In accordance with the provisions of the PESR Section 31(1)

Shop Construction ; Field Construction   
 Final Data Report ; Partial Data Report  (from one ABSA- authorized Contractor to another ABSA- authorized Contractor).

Complete both sides of this Form

1. Constructed By: Coral Oilfield Services Inc. Owner's Job No: 4570  
(Name of ABSA authorized primary contractor or subcontractor)  
15303 94 St. Grande Prairie AB T8X 0L2  
(Address)

Certificate of Authorization Permit No. AQP-1522 Expiry Date: September 6<sup>th</sup> 2019

2. Constructed For: \_\_\_\_\_  
(Name of primary contractor if different from above)

\_\_\_\_\_  
(Address)

Certificate of Authorization Permit No. AQP-N/A Expiry Date: N/A  
(Required when the primary contractor undertakes some/all of the quality functions, e.g., NDE, PWHT, Tie-in, fabrication, hydro test, final assembly etc.)

3. Owner: Haltec Testing Inc Box 92 Baytree Alberta T0H 0A0  
(Name and address)

Portable  
(Location of installation)

Certificate of Authorization Permit No. AQP-1522 Expiry Date: September 6th 2019  
(Required when the owner undertakes some/all of the quality functions, e.g., NDE, PWHT, Tie-in, fabrication, hydro test, final assembly etc.)

4. Piping Design Alberta Registration No.: PP-N/A  
(Required if aggregate piping volume is over 0.5m<sup>3</sup>)

5. Design Responsibility: Owner ; Contractor

6. WP No.: WP-3150.2; Company: Coral Oilfield Services Inc. Owner's WP No. (If used): WP-N/A  
(Alberta Registration No.) (Alberta Registration No.)  
 WPS No(s). used: COS-1 (Rev2); Owner's WPS No(s). (If used): N/A

7. Code: ASME B31.1 Non Boiler External Piping ; ASME B31.1 Boiler External Piping ;  
 B31.5 ; B31.9 ; CSA Z662 Steam Pipelines ;  
 ASME B31.3  - Service Category: Normal , D , M , High Pressure ; Severe Cyclic Condition   
 High Purity

Drawing No. Rev. No. Line No.	Fluid (Air/Stm. Etc.)	Des. Press. PSI	Des. Temp. °F (Max. & Min.)	Pressure Test PSI	Test Medium	Pipe Mat'l Spec. & Grade	C.A. inches	Pipe NPS & Schedule	Flange Material & Rating	PWHT/ Preheat Temp. °F	NDE
Control Number 1	W.O.G	125	-50/300	188	Water	A333-GR6	0.125"	4" SCH80	A350-LF2 CL150	n/a /50	100% RT 100% MT 100% VT
Control Number 2	W.O.G	125	-50/300	188	Water	A333-GR6	0.125"	4" SCH80 3" SCH80	A350-LF2 CL150	n/a/50	100% RT 100% MT 100% VT
Control Number 3	W.O.G	125	-50/300	188	Water	A333-GR6	0.125"	3" & 4" SCH80	A350-LF2 CL150	n/a/50	100% RT 100% MT 100% VT
Control Number 4	W.O.G	125	-50/300	188	Water	A333-GR6	0.125"	3" SCH40	A350-LF2 CL150 A105 Fig 206 h/u	n/a/50	100% RT 100% MT 100% VT
Control Number 5	W.O.G	125	-50/300	188	Water	A333-GR6	0.125"	4" SCH80 ½" NPT	A350-LF2 3M	n/a/50	100% RT 100% MT 100% VT
Control Number 6	W.O.G	125	-50/300	188	Water	A333-GR6	0.125"	3" SCH80	A350-LF2 CL150	n/a/50	100% RT 100% MT 100% VT

Control Number 7	W.O.G	125	-50/300	188	Water	A420WPL6	0.125"	3"SCH80	A350 LF2 CL150	n/a/50	100% RT 100% MT 100% VT
Control Number 8	W.O.G	125	-50/300	188	Water	A333-GR6	0.125"	3"SCH80	A350 LF2 CL150	n/a/50	100% RT 100% MT 100% VT
Control Number 9	W.O.G	125	-50/300	188	Water	A333-GR6	0.125"	4"SCH80 3"SCH80	A350-LF2 CL150 A105 4"FIG206	n/a/50	100% RT 100% MT 100% VT
Control Number 10	W.O.G	125	-50/300	188	Water	A333-GR6	0.125"	4"SCH80 3"SCH80	A350-LF2 CL150 A105 4"FIG206	n/a /50	100% RT 100% MT 100% VT
Control Number 11	W.O.G	125	-50/300	188	Water	A333-GR6	0.125"	4"SCH80	A350-LF2 CL150	n/a /50	100% RT 100% MT 100% VT
Control Number 12	W.O.G	125	-50/300	188	Water	A333-GR6	0.125"	4"SCH80	A350-LF2 CL150	n/a /50	100% RT 100% MT 100% VT
Control Number 13	W.O.G	125	-50/300	188	Water	A333-GR6	0.125"	4"SCH160	A350-LF2 CL150 A105 4"206HU	n/a /50	100% RT 100% MT 100% VT
Control Number 14	W.O.G	125	-50/300	188	Water	A333-GR6	0.125"	4"SCH160	A350-LF2 CL150 A105 4"206HU	n/a /50	100% RT 100% MT 100% VT
Control Number 15	W.O.G	125	-50/300	188	Water	A333-GR6	0.125"	4"SCH160	A105 4"Fig 206 H/U	n/a /50	100% RT 100% MT 100% VT
Control Number 16	W.O.G	125	-50/300	188	Water	A333-GR6	0.125"	4"SCH160	A105 4"Fig 206 H/U	n/a /50	100% RT 100% MT 100% VT
Control Number 17	W.O.G	125	-50/300	188	Water	A333-GR6	0.125"	4"SCH160	A105 4"Fig 206 H/U	n/a /50	100% RT 100% MT 100% VT
Control Number 18	W.O.G	125	-50/300	188	Water	A333-GR6	0.125"	4"SCH160	A105 4"Fig 206 H/U	n/a /50	100% RT 100% MT 100% VT
Control Number 19	W.O.G	125	-50/300	188	Water	A333-GR.6	0.125"	4"SCH160	A105 4"Fig 206 H/U	n/a /50	100% RT 100% MT 100% VT
Control Number 20	W.O.G	125	-50/300	188	Water	A333-GR6	0.125"	4"SCH160	A105 4"Fig 206 H/U	n/a /50	100% RT 100% MT 100% VT
Control Number 21	W.O.G	125	-50/300	188	Water	A333-GR6	0.125"	4"SCH160	A105 4"Fig 206 H/U	n/a /50	100% RT 100% MT 100% VT
Control Number 22	W.O.G	125	-50/300	188	Water	A333-GR6	0.125"	4"SCH160	A105 4"Fig 206 H/U	n/a /50	100% RT 100% MT 100% VT
Control Number 24	W.O.G	125	-50/300	188	Water	A333-GR6	0.125"	4"SCH160	A105 4"Fig 206 H/U	n/a /50	100% RT 100% MT 100% VT
Control Number 25	W.O.G	125	-50/300	188	Water	A420WPL6	0.125"	4"SCH80	A105 4"Fig 206 H/U	n/a /50	100% RT 100% MT 100% VT
Control Number 26	W.O.G	125	-50/300	188	Water	A420WPL6	0.125"	4"SCH80	A105 4"Fig 206 H/U	n/a /50	100% RT 100% MT 100% VT
Control Number 29	W.O.G	125	-50/300	188	Water	A333-GR6	0.125"	2"SCH80	A105 Fig 206 H/U A350-LF2 CL150	n/a /50	100% RT 100% MT 100% VT
Control Number30	W.O.G	125	-50/300	188	Water	A333-GR6	0.125"	2"SCH80	A350-LF2 CL150	n/a /50	100% RT 100% MT 100% VT
Control Number 31	W.O.G	125	-50/300	188	Water	A333-GR6	0.125"	2"SCH80	A350-LF2 CL150	n/a /50	100% RT 100% MT 100% VT
Control Number 32	W.O.G	125	-50/300	188	Water	A333-GR6	0.125"	2"SCH80	A350-LF2 CL150	n/a /50	100% RT 100% MT 100% VT

Control Number 33	W.O.G	125	-50/300	188	Water	A333-GR6	0.125"	2"SCH80	A105 Fig 206 H/U A350-LF2 CL150	n/a /50	100% RT 100% MT 100% VT
Control Number 34	W.O.G	125	-50/300	188	Water	A333-GR6	0.125"	2"SCH80	A350-LF2 CL150	n/a /50	100% RT 100% MT 100% VT
Control Number 35	W.O.G	125	-50/300	188	Water	A333-GR6	0.125"	2"SCH80	A350-LF2 CL150	n/a /50	100% RT 100% MT 100% VT
Control Number 36	W.O.G	125	-50/300	188	Water	A333-GR6	0.125"	2"SCH80	A350-LF2 CL150	n/a /50	100% RT 100% MT 100% VT
Control Number 37	W.O.G	125	-50/300	188	Water	A420WPL6	0.125"	2"SCH80	A105 Fig 206 H/U	n/a /50	100% RT 100% MT 100% VT
Control Number 38	W.O.G	125	-50/300	188	Water	A420WPL6	0.125"	2"SCH80	A105 2"Fig 206 H/U	n/a /50	100% RT 100% MT 100% VT
Control Number 56	W.O.G	125	-50/300	188	Water	A420WPL6	0.125"	3"SCH80	A105 Fig 206 H/U	n/a /50	100% RT 100% MT 100% VT
Control Number 57	W.O.G	125	-50/300	188	Water	A420WPL6	0.125"	3"SCH80	A105 Fig 206 H/U	n/a /50	100% RT 100% MT 100% VT
Control Number 58	W.O.G	125	-50/300	188	Water	A420WPL6	0.125"	3"SCH80	A105 Fig 206 H/U	n/a /50	100% RT 100% MT 100% VT
Control Number 59	W.O.G	125	-50/300	188	Water	A420WPL6	0.125"	3"SCH80	A105 Fig 206 H/U	n/a /50	100% RT 100% MT 100% VT
Control Number 60	W.O.G	125	-50/300	188	Water	A420WPL6	0.125"	3"SCH80	A105 Fig 206 H/U	n/a /50	100% RT 100% MT 100% VT
Control Number 61	W.O.G	125	-50/300	188	Water	A420WPL6	0.125"	3"SCH80	A105 Fig 206 H/U	n/a/50	100% RT 100% MT 100% VT
Control Number 62	W.O.G	125	-50/300	188	Water	A420WPL6	0.125"	3"SCH80	A105 Fig 206 H/U	n/a/50	100% RT 100% MT 100% VT
Control Number 63	W.O.G	125	-50/300	188	Water	A420WPL6	0.125"	3"SCH80	A105 Fig 206 H/U	n/a/50	100% RT 100% MT 100% VT
Control Number 64	W.O.G	125	-50/300	188	Water	A420WPL6	0.125"	3"&4" SCH80	A105 Fig 206 H/U	n/a/50	100% RT 100% MT 100% VT
Control Number 65	W.O.G	125	-50/300	188	Water	A420WPL6	0.125"	3"&4" SCH80	A105 Fig 206 H/U	n/a/50	100% RT 100% MT 100% VT
Control Number 66	W.O.G	125	-50/300	188	Water	A333-GR6	0.125"	3"&4" SCH80	A105 Fig 206 H/U	n/a/50	100% RT 100% MT 100% VT
Control Number 67	W.O.G	125	-50/300	188	Water	A333-GR6	0.125"	3"&4" SCH80	A105 Fig 206 H/U	n/a/50	100% RT 100% MT 100% VT
Control Number 68	W.O.G	125	-50/300	188	Water	A333-GR6	0.125"	3"&4" SCH80	A105 Fig 206 H/U	n/a/50	100% RT 100% MT 100% VT
Control Number 69	W.O.G	125	-50/300	188	Water	A333-GR6	0.125"	3"SCH40	A105 Fig 206 H/U	n/a/50	100% RT 100% MT 100% VT
Control Number 70	W.O.G	125	-50/300	188	Water	A333-GR6	0.125"	3"SCH40	A105 Fig 206 H/U	n/a/50	100% RT 100% MT 100% VT
Control Number 71	W.O.G	125	-50/300	188	Water	A333-GR6	0.125"	3"SCH40	A105 Fig 206 H/U	n/a/50	100% RT 100% MT 100% VT
Control Number 72	W.O.G	125	-50/300	188	Water	A333-GR6	0.125"	3"SCH40	A105 Fig 206 H/U	n/a/50	100% RT 100% MT 100% VT
Control Number 73	W.O.G	125	-50/300	188	Water	A333-GR6	0.125"	3"SCH40	A105 Fig 206 H/U	n/a/50	100% RT 100% MT 100% VT

Control Number 74	W.O.G	125	-50/300	188	Water	A333-GR6	0.125"	3"SCH40	A105 Fig 206 H/U	n/a/50	100% RT 100% MT 100% VT
Control Number 75	W.O.G	125	-50/300	188	Water	A333-GR6	0.125"	3"SCH40	A105 Fig 206 H/U	n/a/50	100% RT 100% MT 100% VT
Control Number 76	W.O.G	125	-50/300	188	Water	A333-GR6	0.125"	3"SCH40	A105 Fig 206 H/U	n/a/50	100% RT 100% MT 100% VT
Control Number 77	W.O.G	125	-50/300	188	Water	A333-GR6	0.125"	3"SCH40	A105 Fig 206 H/U	n/a/50	100% RT 100% MT 100% VT
Control Number 78	W.O.G	125	-50/300	188	Water	A333-GR6	0.125"	3"SCH40	A105 Fig 206 H/U	n/a/50	100% RT 100% MT 100% VT
Control Number 79	W.O.G	125	-50/300	188	Water	A333-GR6	0.125"	3"SCH40	A105 Fig 206 H/U	n/a/50	100% RT 100% MT 100% VT
Control Number 80	W.O.G	125	-50/300	188	Water	A333-GR6	0.125"	3"SCH40	A105 Fig 206 H/U	n/a/50	100% RT 100% MT 100% VT
Control Number 81	W.O.G	125	-50/300	188	Water	A333-GR6	0.125"	3"SCH40	A105 Fig 206 H/U	n/a/50	100% RT 100% MT 100% VT
Control Number 82	W.O.G	125	-50/300	188	Water	A333-GR6	0.125"	3"SCH40	A105 Fig 206 H/U	n/a/50	100% RT 100% MT 100% VT
Control Number 83	W.O.G	125	-50/300	188	Water	A333-GR6	0.125"	3"SCH40	A105 Fig 206 H/U	n/a/50	100% RT 100% MT 100% VT
Control Number 84	W.O.G	125	-50/300	188	Water	A333-GR6	0.125"	3"SCH40	A105 Fig 206 H/U	n/a/50	100% RT 100% MT 100% VT
Control Number 85	W.O.G	125	-50/300	188	Water	A333-GR6	0.125"	3"SCH40	A105 Fig 206 H/U	n/a/50	100% RT 100% MT 100% VT
Control Number 86	W.O.G	125	-50/300	188	Water	A333-GR6	0.125"	3"SCH40	A105 Fig 206 H/U	n/a/50	100% RT 100% MT 100% VT
Control Number 87	W.O.G	125	-50/300	188	Water	A333-GR6	0.125"	3"SCH40	A105 Fig 206 H/U	n/a/50	100% RT 100% MT 100% VT
Control Number 88	W.O.G	125	-50/300	188	Water	A333-GR6	0.125"	3"SCH40	A105 Fig 206 H/U	n/a/50	100% RT 100% MT 100% VT
Control Number 84	W.O.G	125	-50/300	188	Water	A420 WPL6	0.125"	3"&4" SCH80	A105 FIG 206 H/U	n/a/50	100% RT 100% MT 100% VT
Control Number 88	W.O.G	125	-50/300	188	Water	A420 WPL6	0.125"	4"SCH80	A105 FIG 206 H/U	n/a/50	100% RT 100% MT 100% VT





# PRESSURE PIPING SPECIFICATION SHEET

## PRESSURE PIPING SPECIFICATION SHEET

(For Construction/Repair/Alteration of Pressure Piping Systems Less Than or Equal to 500 Litres, Aggregate Internal Volume)

Owner: Haltec Testing Contractor Coral Oilfield Services Inc. AQP: 1522  
 Plant Location: Not Known Job# 4570

Material List				Piping Sketch (Reference attached drawings if appropriate)					
Item No.	Description	Mat'l Spec. & Grade	Sch./ Rating	(use for recording RT No's. & Welder Symbols)					
				SEE AS BUILT DRAWINGS					
Line No.	Design Pressure	Design Temp. Min. / Max.	Corr. All.	Code ASME B31.1/B31.3	Service (e.g., Normal, Cat. D, M, K)	Severe Cyclic Yes/No	Test Pressure	Test Medium	
Control#1-88	125PSI	-50F/300F	1/8"	B31.3	normal	yes	188 PSI	H2O	

(Note: Pneumatic tests must have prior acceptance from ABSA.)


Welding Procedure Specification No's: COS-2 (REV.2)  
 Numbers: \_\_\_\_\_

Line No.	MT / PT Extent %	Radiography Extent %	Hardness Testing	Ultrasonic - Other NDE Description / Extent %	Other Requirements
Control#1-88	100%MT	100%RT	N/A	100% VISUAL	

Inspectrum Testing Inc. n/a

NDE Contractor: \_\_\_\_\_ Post Weld Heat Treatment Yes/N.A.: \_\_\_\_\_  
 Post Weld Heat Treatment Time/Temp.: \_\_\_\_\_ PWHT Contractor: \_\_\_\_\_  
 Approved by Owner: \_\_\_\_\_ Date: \_\_\_\_\_  
 Approved by Contractor: \_\_\_\_\_ Date: \_\_\_\_\_  
 Comments: \_\_\_\_\_

**WORK COMPLETED AND ACCEPTED (AB-83 COMPLETED)**

Contractor Signature:  Date: OCT 3 2017

## PRESSURE PIPING EXAMINATION CHECKLIST

NO.	FUNCTION	SIGNATURE OR INITIAL AND DATE	
		Q.C. INSPECTOR	OWNER'S INSPECTOR
	4570		
1	DRAWINGS: ABSA registration over 0.5 Cu. M. Approved by Owner. Approved for Construction (signed & dated).	N/A	
2	ABSA Safety Codes Officer and Owner's Inspector notified.	N/A	
3	Registered Welding Procedure Specifications, Q.C. Manual and Forms available at site, Job File started.	OCT 0 29 2017	
4	Welders qualified for WPS's and have valid Performance Qualification cards. Welders Log completed. WPS reviewed with Welders.	OCT 0 29 2017	
5	Material checked against P.O., drawings, and specifications. Identification confirmed. Colour coding applied.	OCT 0 29 2017	
6	Sample of each Welder's work examined, including root spacing, alignment, cleaning, joint preparation, preheat and electrode control.	OCT 0 29 2017	
7	Nondestructive Examination completed. Reports and radiographs reviewed, signed by Level II or III, Radiograph I.D. detailed on drawings.	OCT 0 29 2017	
8	Visual Examination of all completed welds. Welders I.D. stamped and recorded on drawings.	OCT 0 1 29 2017	
9	Heat Treatment verified and recorded on drawings.	OCT 0 1 29 2017	
10	Each system checked against specifications and drawings before test, using Exhibit 20.3 and Exhibit 20.4.	OCT 0 1 29 2017	
11	All deficiencies recorded and signed off by Q.C.I. and Owner's Inspector before test.	OCT 0 1 29 2017	
12	Pressure Test checked. Gauge calibration verified, gauge #'s recorded.	OCT 0 1 29 2017	
13	System checked after test. Deficiencies recorded and corrected. (Exhibit 20.4)	OCT 0 1 29 2017	
14	Pressure Piping Construction and Test Data Report (AB-83) prepared and signed by QCI and Owner's Inspector.	OCT 0 1 29 2017	
15	Completion of Construction Declaration form (AB-81) submitted to ABSA	N/A	
16	As built drawings accepted by Owner.	OCT 0 1 29 2017	