



Client: CNRL

PRESSURE VESSEL INSPECTION REPORT

District:	GRANDE PRAIRIE	Facility	Spirit River South	Location/LSD	08-09-077-07W6
Equipment Name	FLARE KNOCKOUT DRUM			Prov Reg No.:	0462576
Serial No.:	11796	Equip No.:		National Board No.	

UT SURVEY	Accept
PSV INSP	N/A
VTE INSP	Accept
VTI INSP	N/A

FIT FOR SERVICE

INSPECTOR: Isaac Ekpo

VITUS INTERNAL REVIEW BY: Kevin Billesberger

DATE: 27 June 2022

CLIENT SIGNOFF

DATE:

PRESSURE VESSEL DEFICIENCY SUMMARY

UT SURVEY		LATEST UT DATE USED IN SUMMARY		June 22, 2022	
LOCATION	Nom - CA	Low RDG	Avg RD	TMin	UT Flag
N/A					No TMLs Flagged for This
RECOMMENDATION	N/A		QUALITY ACTION	N/A	
RESULT	Accept				
PSV INSPECTION		LATEST PSV INSP DATE USED IN SUMMARY			
DEFICIENCY	RECOMMENDATION	QUALITY ACTION	RESULT		
VISUAL EXTERNAL INSPECTION		LATEST VTE DATE USED IN SUMMARY		June 22, 2022	
DEFICIENCY	RECOMMENDATION	QUALITY ACTION	RESULT		
No Deficiencies Found	N/A	N/A	Accept		
VISUAL INTERNAL INSPECTION		LATEST VTI DATE USED IN SUMMARY			
DEFICIENCY	RECOMMENDATION	QUALITY ACTION	RESULT		
N/A	N/A	N/A	N/A		

PRESSURE VESSEL STATIC DATA

Equipment Status:	Operating		Orientation:	Horizontal		
Skid No.:			Unit:			
EQUIPMENT STATIC DATA						
AB Registration No.:	0462576		Serial No.:	11796		
Registration No./Other:			Equipment No.:			
CRN NO.:	P6520.2		Unique ID No.:			
National Board No.:			Oncor ID No.:	182689		
Manufacturer:	E & D PIPE AND PROCESS EQUIPM		Year Built:	2001		
MAWP:	50.00	(psi)	344.74	(Kpa)	Temperature:	300.00 (F) 148.89 (C)
Diameter.:	36.000	(In)	914.400	(mm)	Length:	120.00 (In) 3048.00 (mm)
Radiography:	RT1		Heat Treatment:	No		
Corrosion allowance:	0.063	(In)	1.588	(mm)	MDMT:	-20.00
Lining Or Coated:	No		Painted:	Yes		
Insulated:	Yes		Internally Clad:	No		
Hand Hole:	No		Support Type:			
Manway:	Yes		Manway Size(In):			
Capacity/Volume(m3):			Nozzle Rating:			

MATERIALS/COMPONENTS

Name	Joint Efficiency	Outside Diameter(in.)	Head Type	Material Type	Stress Value (PSI)	Nominal Thickness(In.)
SHELL	1.00	36.000		SA-516 70	20000	0.38
HEAD	1.00	36.000	Ellipsoidal	SA-516 70	20000	0.31

PIPING STATIC DATA

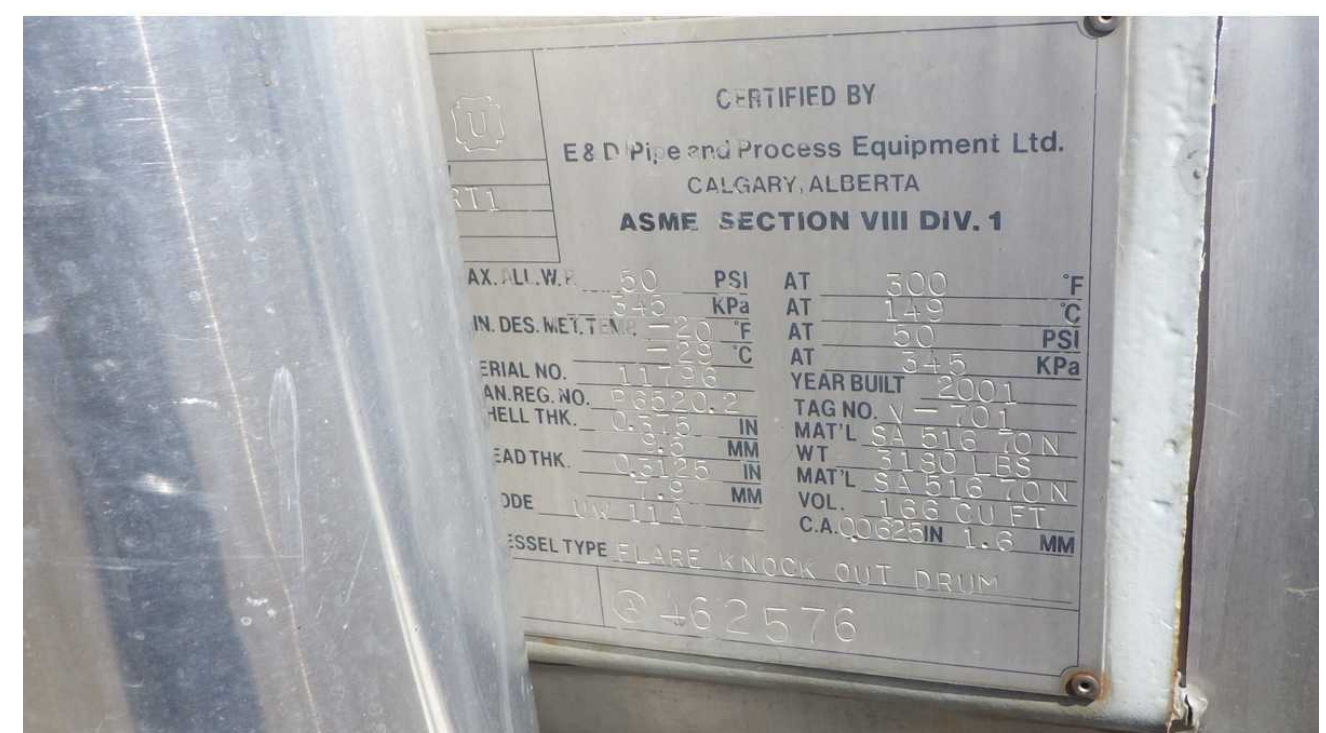
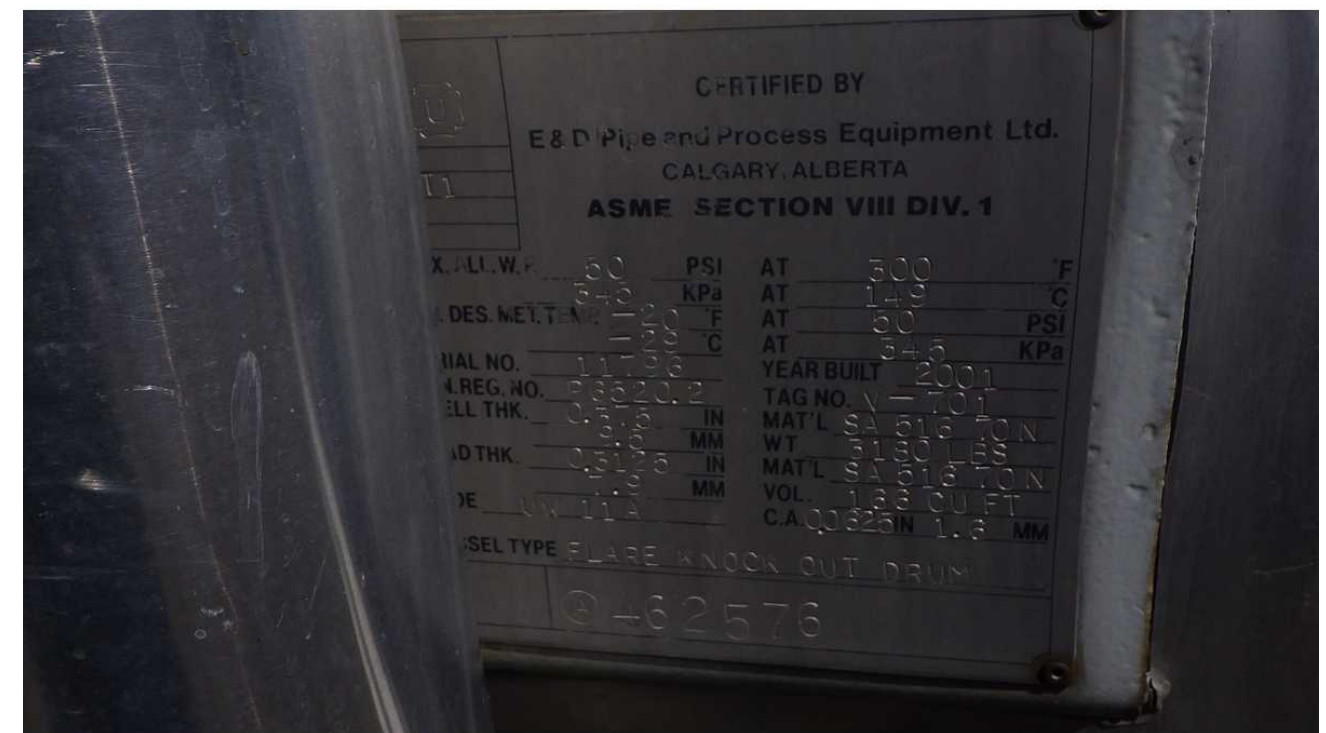
Primary Flange Rating:	150	ASME B16.5 - Table 2-1.1 @ 150F:	285 (psi)
Pressure Use For TMin:	Vess Design Press	Piping Operating Press:	50 (psi)
Stress Value:	20000 (psi)	E Value:	1.00 Joint:

SERVICE CONDITIONS

Sweet ✓	Sour	Oil	Gas ✓	Water
Amine	LPG	Condensate	Air	Glycol

COMMENTS

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ULTRASONIC CORROSION SURVEY REPORT

UT SURVEY	Accept
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District:	GRANDE PRAIRIE	Facility:	Spirit River South	Location/LSD:	08-09-077-07W6
Equipment Name:	FLARE KNOCKOUT DRUM			Prov Reg No.:	0462576
Serial No.:	11796	Equip No.:		National Board No.:	

SUMMARY

TYPE	LAST INSPECTIONS	INSPECTION INTERVAL (YEARS)	CORROSION RATE (IN/YR)		REMAINING LIFE (YEARS)	NEXT INSPECTION DATE
			SHORT TERM	LONG TERM		
VESSEL	Jun 22, 2022	5.0	0.0000	0.0000	198.0	Jun 22, 2027
PIPING	Jun 22, 2022	5.0	0.0003	0.0003	396.2	

VESSEL SURVEY READINGS

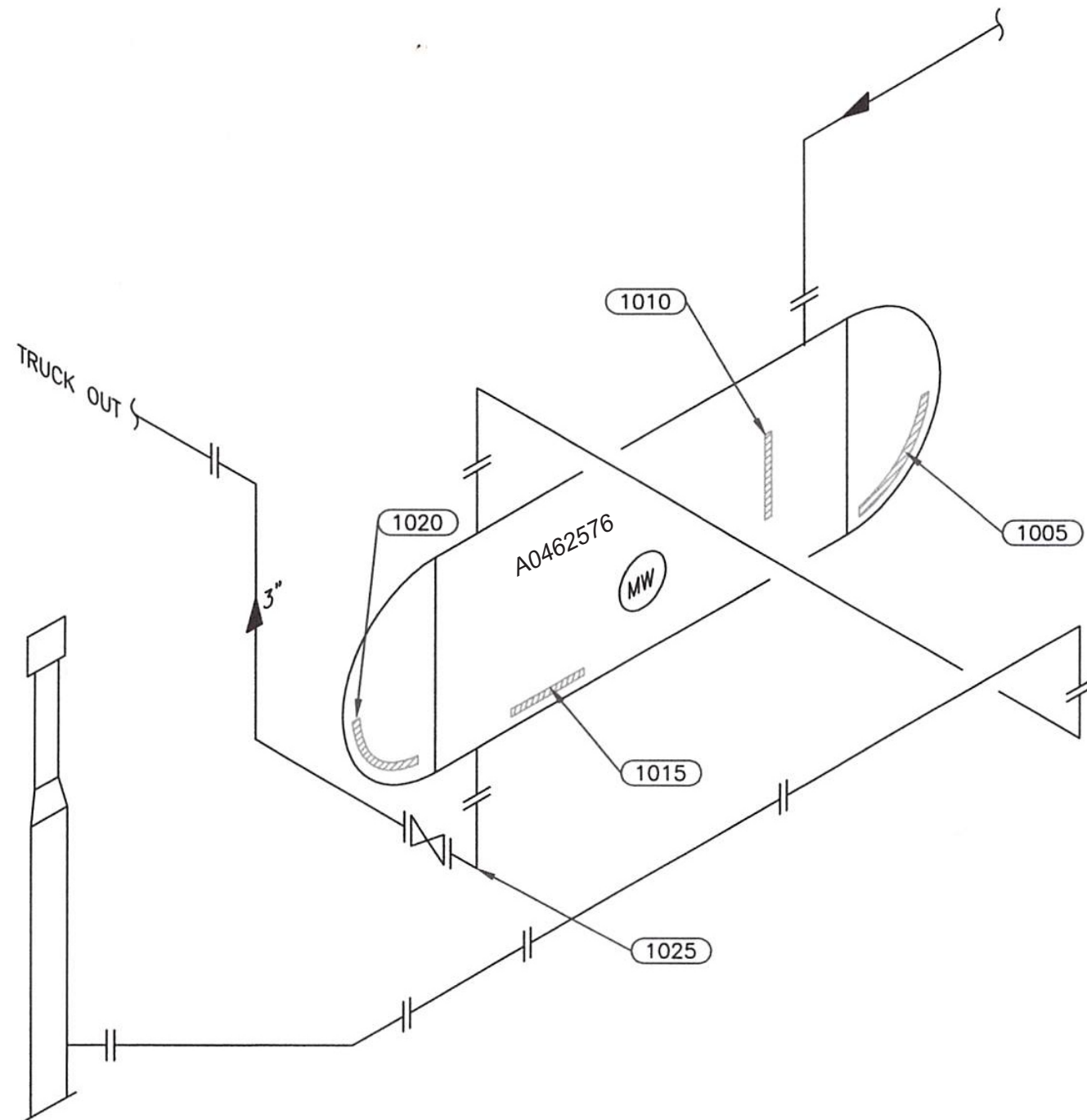
POINT NUMBER	TYPE	Point Data (INCH)			DATE	SURVEY READINGS			CALCULATIONS			
		NOM.	C.A.	NOM-CA		LOW	AVG	T Req (inch)	short term corr rate	long term corr rate	remaining life	Flag
1005	HEAD	0.3125	0.0625	0.2500	Jun 22/22	0.386	0.410	0.045	0.0000	0.0000	198.0	NO COMMENTS
1010	SHELL	0.3750	0.0625	0.3125	Jun 22/22	0.390	0.410	0.045	0.0000	0.0000	198.0	NO COMMENTS
1015	SHELL	0.3750	0.0625	0.3125	Jun 22/22	0.386	0.410	0.045	0.0000	0.0000	198.0	NO COMMENTS
1020	HEAD	0.3125	0.0625	0.2500	Jun 22/22	0.379	0.390	0.045	0.0000	0.0000	198.0	NO COMMENTS

PIPING SURVEY READINGS

POINT NUMBER	TYPE	SIZE	SCH	POINT DATA (INCH)			DATE	SURVEY READINGS			CALCULATIONS			
				NOM.	Mill Tol./CA	NOM-CA		LOW	AVG	T Req (inch)	short term corr rate	long term corr rate	remaining life	Flag
1025	90L 3 STD	3.00	STD	0.2160	0.0900	0.1270	Jun 22/22	0.209	0.220	0.080	0.0003	0.0003	396.2	NO COMMENTS

INSPECTOR-EQUIPMENT DATA

Inspected By	Signature	CGSB Level	CGSB No.	Survey Date	UT Equipment	Due Date OF Calibration	NDE Procedure #
Isaac Ekpo		1	24468	06/22/2022	106_61457706_EPOCH 4	01/03/2023	WQS UT-001





VISUAL INSPECTION REPORT - PRESSURE VESSEL

District:	GRANDE PRAIRIE	Facility	Spirit River South	Location/LSD	08-09-077-07W6
Equipment Name	FLARE KNOCKOUT DRUM			Prov Reg No.:	0462576
Serial No.:	11796	Equip No.:		National Board No.	

VTE INSP	Accept
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External Inspection

Inspector:	Isaac Ekpo	ABSA PESL #:	001302	Signature:		Date:	06/22/2022
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External Corrosion

There was no significant external corrosion found on the vessel/piping **Accept**

External Damage

There was no external corrosion found on the vessel/piping **Accept**

Leakage

No Leaks were found on the vessel or piping connections **Accept**

Vessel and Piping Supports

Vessel support is Saddle and is acceptable **Accept**

Vessel support anchor bolts are in place and acceptable **Accept**

Vessel Foundation is Ground and is acceptable **Accept**

Piping does not have additional supports but is supported by connected piping and is acceptable **Accept**

Insulation/Paint

	Type	Findings	
Vessel	Insulated	None Tearing, None Denting, Accept Banding, Accept Seals/Joints	Accept
Inlet Piping	Insulated	None Tearing, None Denting, Accept Banding, Accept Seals/Joints	Accept
Outlet Piping	Insulated	None Tearing, None Denting, Accept Banding, Accept Seals/Joints	Accept

Pressure Envelope Flanging

	Bolting	Thread engagement	Gaskets	Flange Rating	
Manway	Accept	Accept	Accept	Accept	Accept
Vessel	Accept	Accept	Accept	Accept	Accept
Inlet Piping	Accept	Accept	Accept	Accept	Accept
Outlet Piping	Accept	Accept	Accept	Accept	Accept
Other Piping	NA				Accept

General

Pressure Gauge is acceptable, Level Gauge is acceptable, Grounding is acceptable, PSV NOT REQUIRED. **Accept**

Comment