

PRESSURE VESSEL & COLUMN INSPECTION REPORT

LSD:07-27-051-19W5

Date: 2014-06-04

SAP Equipment ID: 66128609

VESSEL STATIC DATA															
Plant			ANSEL GAS PLANT			Op Unit		N/A		System		N/A			
Prov. Insp. #			A0571608			CRN		U0192.213		Equip Tag #		20-V-001			
Equipment Description						INLET SEPARATOR				Serial #		12306200			
Manufacturer						TOROMONT PROCESS SYSTEMS				Vessel Class		PRESSURE VESSEL			
Internal Access: X YES						NO Description: 20" OD MANWAY						Year Built		2007	
MAWP		390		kPa / PSI		@		150		°C / °F		MDMT		-20 °C / °F	
CODE : UM				U U2		RT : 4 2 3 4				PWHT : N/A					
Diameter			48" OD			Length (T/T)		N/A mm/in		OAL		192 mm / in		Vertical Horizontal	
Shell		Mat'l		N/A		Thickness		N/A mm / in		Corr Allowance		N/A mm / in			
Head		Mat'l		N/A		Thickness		N/A mm / in		Corr Allowance		N/A mm / in			
Nozzle		Mat'l		N/A		Thickness		N/A mm / in		Corr Allowance		N/A mm / in			
Internal Coating: YES NO				Internal Clad : YES NO				Capacity				N/A m ³			
Manway : YES NO				Inspection Port : YES NO				Skirt Legs Saddle							
Nozzle Rating		600		lb ANSI		Painted :		YES NO		Insulated		YES NO			
PROCESS DATA															
Product Description						GAS				Sweet		Sour			
Operating Pressure						N/A kPa / PSI				Operating Temperature		N/A °C / °F			
PSV STATIC DATA															
Serial No.		Location		Set Pressure		Capacity SCFM / Lbs/Hr / GPM		Manufacturer		Model / Type		Service Date / Company			
484642-18-A10		INLET PIPING		390 PSI		9980 SCFM		FARRIS		26JA12A-120		WIZARD VALVE			
PSV DETAILS															
		Type (Thread/Flange)				ANSI Rating				Size (mm)					
PRD Inlet		FLANGE				300				76.2					
PRD Outlet		FLANGE				150				101.6					
NDE Equipment records															
Procedure#		Description		Manufacturer		Model#		Serial#		Due Date					
MT-1		WFMT		CONTOUR PROBES		B-300		20832		03-SEPT-14					

INSPECTION SUMMARY

EXTERNAL INSPECTION:

- 1) DATA PLATE IS SECURED IN PLACE AND IS LEGIBLE
- 2) SADDLE IS SECURED TO FOUNDATION AND DIRECTLY GROUNDED.
- 3) PSV IS LOCATED ON THE INLET PIPING AND HAS AN ISOLATION VALVE THAT IS CARSEALED IN THE OPEN POSITION.
- 4) ATTACHED PIPING HAS SOME MINOR COATING DAMAGE, NO CORROSION IS PRESENT.
- 5) PRESSURE GAUGE, TEMPERATURE GAUGE AND SIGHT GLASS ARE CLEAN, CLEAR AND VISIBLE.
- 6) ALL PIPING CONNECTIONS ARE PROPERLY FASTENED; NO EVIDENCE OF LEAKS.
- 7) NO DEFORMATION OR CORROSION FOUND ON THE SHELL OR HEADS.

INTERNAL INSPECTION:

- 1) 20" MANWAY UTILIZED FOR THE INTERNAL INSPECTION.
- 2) ALL ACCESSIBLE SHELL AND HEAD WELDS ARE TO IN GOOD CONDITION, WITH NO RELEVANT SIGNS OF DETERIORATION. WET FLUORESCENT MAGNETIC PARTICLE INSPECTION (MPI) COMPLETED ON 24" OF THE CIRC AND LONG SEAMS AT THE "T" INTERSECTIONS. REFER TO ATTACHED MPI REPORT #66128609 – EQ – INSPECTION REPORT – 2014-06-04 – MT – A0571608 INLET SEPARATOR.
- 3) NO BLOCKAGES FOUND IN THE ACCESSIBLE NOZZLES.
- 4) NO EVIDENCE OF CORROSION OR EROSION FOUND ON THE SHELL AND HEADS.
- 5) INTERNAL COMPONENTS ARE IN GOOD VISUAL CONDITION.

SEPARATOR IS FIT FOR CONTINUED SERVICE.

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RECOMMENDATIONS

N/A

NONCONFORMANCES / INSPECTION DEFICIENCIES


N/A

INSPECTION PLANNING

Inspection Strategy _____	Availability _____	Inspection Interval _____
Inspection Date _____	Date of Last Inspect _____	Date of Next Inspect _____

REPORT CERTIFICATION

The signatures below certify that inspections/tests have been completed in accordance with the identified inspection strategy and that the specified equipment is considered fit for service until the date of next inspection.

Inspected by	CURTIS SINCLAIR		Date	2014-06-04
Company	STREAMLINE INSPECTION	PESL #	00541	API #
Reviewed and Approved by	_____	PESL #	_____	API #
Criticality Assessment Rerun	_____	Inspection Planning Rerun	_____	
Assessed Next Inspection Date				

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DETAILED INSPECTION VISUAL EXTERNAL

ID	Description	Condition	Location	NCR	Comments
V1	General Other (Please Explain)	GOOD			IN GOOD OVERALL CONDITION
V2	General Corrosion	GOOD			NONE PRESENT
V3	General Leaks	GOOD			NO EVIDENCE OF LEAKS NOTED
V4	Vibration	GOOD			NO VIBRATION ISSUES FOUND
V5	Dissimilar Flange Rating	GOOD			NO DISSIMILAR FLANGE RATING
V6	Ladder/Stairway	N/A			N/A
V7	Heads	GOOD			NO DEFORMATION OR CORROSION
V8	Guy Wires	N/A			N/A
V9	Electrical Ground	GOOD			DIRECT GROUNDING
V10	Painted Inactive Corrosion	GOOD			NONE
V11	Coating/Painting	GOOD			NO RELEVANT DAMAGE
V112	Expansion Joint or Bellows	N/A			N/A
V13	Gauge/Site Glass	GOOD			CLEAN, CLEAR AND VISIBLE
V14	Shell	GOOD			NO DEFORMATION OR CORROSION
V15	Jacket	N/A			N/A
V21	Support Other (Please explain)	GOOD			SECURED IN PLACE
V22	Foundation	GOOD			INTACT
V23	Anchor Bolts	GOOD			PROPERLY FASTENED
V24	Saddle/Skirt	GOOD			NO DEFORMATION
V25	Davit	N/A			N/A
V26	Fireproofing	N/A			N/A
V31	Connections Other (Please explain)	GOOD			PIPING CONNECTIONS ARE PROPERLY FASTENED TOGETHER
V32	Small Branches	GOOD			NO EVIDENCE OF LEAKS FOUND
V33	Nozzles	GOOD			PROPERLY FASTENED
V34	Manways	GOOD			NO CORROSION OR WEAR PRESENT
V35	Reinforcing Pads	GOOD			WEEPING HOLES PRESENT
V36	Inadequate Thread Engagement	GOOD			ALL THREADS ADEQUATELY ENGAGED
V37	Bolting	GOOD			NO CORROSION OR WEAR
V38	Flanges	GOOD			NO CORROSION OR WEAR PRESENT
V39	Leak Clamps	N/A			N/A
V41	Insulation Other (Please explain)	N/A			N/A
V42	Damage	N/A			N/A
V43	Penetrations	N/A			N/A
V44	Insulation Jacket	N/A			N/A
V45	Banding	N/A			N/A
V46	Seals/Joints	N/A			N/A
V51	Relief Devices Other (Please explain)	GOOD			LAST SERVICED IN 2011 BY WIZARD VALVE
V52	Corrosion	GOOD			NONE
V53	Leaks	GOOD			NONE
V54	Restricted Inlet/Outlet	GOOD			ISOLATION VALVE CARSEALED IN THE OPEN POSTION
V55	Manual Operation Lever	N/A			N/A

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DETAILED INSPECTION VISUAL INTERNAL

ID	Description	Condition	Location	NCR	Comments
V1	General Other (Please Explain)	GOOD			NO CORROSION PRESENT
V2	Corrosion (depth, length, width)	GOOD			NONE
V3	Erosion	GOOD			NONE
V4	Distortion	GOOD			NO DISTORTION FOUND
V5	Blisters	GOOD			NONE
V6	Deposits	GOOD			NONE
V7	Heads	GOOD			NO CORROSION OR DEFORMATION
V8	Welds	GOOD			WET FLUORESCENT MPI COMPLETED ON WELDS. REFER TO ATTACHED REPORT
V9	Nozzles	GOOD			NO BLOCKAGES FOUND
V10	Shell	GOOD			NO CORROSION OR DEFORMATION
V11	Gasket Surfaces	GOOD			NO WEAR OR CORROSION PRESENT
V21	Internals Other (Please explain)	GOOD			
V22	Demister	N/A			N/A
V23	Baffle/Wier	GOOD			NO DAMAGE
V24	Sparger	N/A			N/A
V25	Thermowells	N/A			N/A
V26	Metallic Linings	N/A			N/A
V27	Nonmetallic Linings	N/A			N/A
V28	Trays	N/A			N/A
V29	Tray Rings	N/A			N/A
V30	Other Welded Attachments	GOOD			NO DAMAGE

DETAILED INSPECTION OTHER TECHNIQUES

ID	Location	Observation/Measurement	Acceptance Criteria	NCR	Comments
1					
2					
3					
4					
5					
6					
7					
8					
9					
10					

DETAILED INSPECTION UT THICKNESS

CML	Nom. Thk	Current Reading	Short Term Corr Rate	Long Term Corr Rate	Remaining Life	Comments

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PHOTOS



FACILITY SIGN



DATA PLATE



VESSEL OVERVIEW



VESSEL OVERVIEW



VESSEL BOOT



ATTACHED PROCESS PIPING AND VALVES

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SEPARATOR PSV



PSV DATA PLATE



PSV SERVICE TAGE (1)



PSV SERVICE TAG (2)



20" MANWAY



20" MANWAY FLANGE SEALING SURFACE

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MANWAY NOZZLE TUBE



INTERNAL OVERVIEW (1)



INTERNAL OVERVIEW (2)



14" BOOT



14" BOOT SHELL



14" BOOT HEAD

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INLET NOZZLE END OF SEPARATOR



INLET NOZZLE



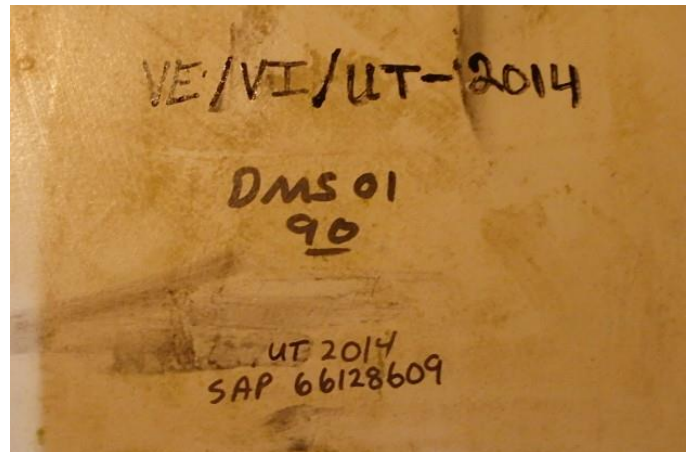
INLET NOZZLE TUBE



SHELL TO HEAD WELD



MIDDLE SHELL CIRC-WELD AND LONG SEAM

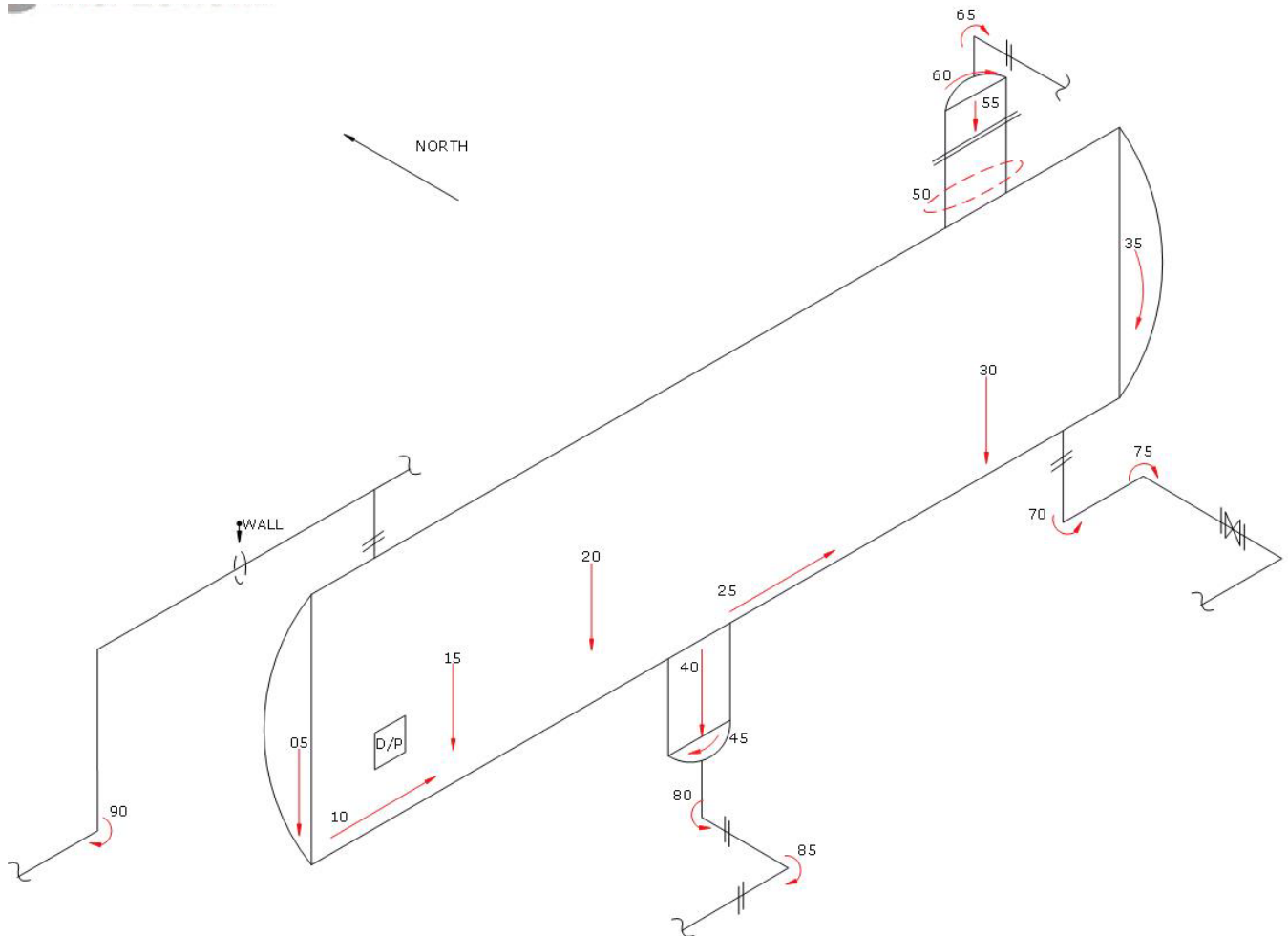




Location Name:	ANSELL GAS PLANT	LSD:	7-27-51-19W5
A#:	A0571608	Equipment/Tag No.	V101
Equipment Description:	INLET SEPARATOR	Serial Number:	12306200
		CRN: (or other ID#)	U0192.213
MAWP:	390 PSI	Design Temp:	150°F
Shell Material:	SA-516-70N	Head Material:	SA-516-70N
Shell Thickness:	0.625"	Head Thickness:	0.5625"
Corrosion Allowance:	0.0625"	Date Built:	2007
Size:	44"	Manufacturer:	TOROMONT PROCESS SYSTEMS
RT:		Pipe / Rolled Plate:	ROLLED PLATE

Notes:









Ultrasonic Corrosion Survey

Survey Name: Husky Energy

Date: Jun 3, 2014

Inspector: W. Gill

LSD: 07-27-051-19W5M Area: Ansell Location: Gas Plant
A #: A0571608 Tag Number: V101 Vessel Name: Inlet Separator
CRN: U0192.213 Year Built: 2007 Serial Number: 12306200
Vessel CA: 1.5875 mm Manufacturer: Toromont Process Systems
Shell MAWP: 390psi MAWTF: 150°F Tube MAWP: MAWTF:

TML Description		Baseline				Material:	SA-516-70N
05	Head	2014	Flag	CA	Nominal	T Min	Corr. Rate
Shape:	Ellipsoidal	Min	16.180	12.700	1.588	14.288	
OD:	44"	Avg	16.280				Remaining Life:
Spec:	ASME VIII Div.1	Comments:					Retirement Date:

TML Description		Baseline				Material:	SA-516-70N
10	Shell	2014	Flag	CA	Nominal	T Min	Corr. Rate
Shape:	Cylindrical	Min	16.150	14.288	1.588	15.875	
OD:	44"	Avg	16.330				Remaining Life:
Spec:	ASME VIII Div.1	Comments:					Retirement Date:

TML Description		Baseline				Material:	SA-516-70N
15	Shell	2014	Flag	CA	Nominal	T Min	Corr. Rate
Shape:	Cylindrical	Min	16.310	14.288	1.588	15.875	
OD:	44"	Avg	16.590				Remaining Life:
Spec:	ASME VIII Div.1	Comments:					Retirement Date:

TML Description		Baseline				Material:	SA-516-70N
20	Shell	2014	Flag	CA	Nominal	T Min	Corr. Rate
Shape:	Cylindrical	Min	16.640	14.288	1.588	15.875	
OD:	44"	Avg	16.870				Remaining Life:
Spec:	ASME VIII Div.1	Comments:					Retirement Date:



Ultrasonic Corrosion Survey

Survey Name: Husky Energy

Date: Jun 3, 2014

Inspector: W. Gill

LSD: 07-27-051-19W5M Area: Ansell Location: Gas Plant
A #: A0571608 Tag Number: V101 Vessel Name: Inlet Separator
CRN: U0192.213 Year Built: 2007 Serial Number: 12306200
Vessel CA: 1.5875 mm Manufacturer: Toromont Process Systems
Shell MAWP: 390psi MAWTF: 150°F Tube MAWP: MAWTF:

TML Description		Baseline				Material:	SA-516-70N
25	Shell	2014	Flag	CA	Nominal	T Min	Corr. Rate
Shape:	Cylindrical	Min	16.150	14.288	1.588	15.875	
OD:	44"	Avg	16.460				Remaining Life:
Spec:	ASME VIII Div.1	Comments:					Retirement Date:

TML Description		Baseline				Material:	SA-516-70N
30	Shell	2014	Flag	CA	Nominal	T Min	Corr. Rate
Shape:	Cylindrical	Min	16.100	14.288	1.588	15.875	
OD:	44"	Avg	16.330				Remaining Life:
Spec:	ASME VIII Div.1	Comments:					Retirement Date:

TML Description		Baseline				Material:	SA-516-70N
35	Head	2014	Flag	CA	Nominal	T Min	Corr. Rate
Shape:	Ellipsoidal	Min	15.950	12.701	1.588	14.288	
OD:	44"	Avg	16.180				Remaining Life:
Spec:	ASME VIII Div.1	Comments:					Retirement Date:

TML Description		Baseline				Material:	A-234-WPB
40	Shell	2014	Flag	CA	Nominal	T Min	Corr. Rate
Shape:	Gas Boot	Min	12.400	11.113	1.588	12.700	
OD:	12.75"	Avg	12.950			Assumed	Remaining Life:
Spec:	ASME B31.3	Comments:					Retirement Date:



Ultrasonic Corrosion Survey

Survey Name: Husky Energy

Date: Jun 3, 2014

Inspector: W. Gill

LSD: 07-27-051-19W5M Area: Ansell Location: Gas Plant
A #: A0571608 Tag Number: V101 Vessel Name: Inlet Separator
CRN: U0192.213 Year Built: 2007 Serial Number: 12306200
Vessel CA: 1.5875 mm Manufacturer: Toromont Process Systems
Shell MAWP: 390psi MAWTF: 150°F Tube MAWP: MAWTF:

TML Description		Baseline				Material:	A-234-WPB
45	Head	2014	Flag	CA	Nominal	T Min	Corr. Rate
Shape:	Gas Boot	Min	11.113	1.588	12.700	4.572	0.257
OD:	12.75"	Avg	11.480		Assumed		Remaining Life: 26.02 Years
Spec:	ASME B31.3	Comments:	No Corrosion Found				Retirement Date: 6/10/2040

TML Description		Baseline				Material:	A-234-WPB
50	Nozzle	2014	Flag	CA	Nominal	T Min	Corr. Rate
Shape:	Cylindrical	Min	11.113	1.588	12.700		
OD:	22"	Avg	16.330				Remaining Life:
Spec:	ASME VIII Div.1	Comments:					Retirement Date:

TML Description		Baseline				Material:	SA-516-70N
55	Shell	2014	Flag	CA	Nominal	T Min	Corr. Rate
Shape:	Cylindrical	Min	11.113	1.588	12.700		
OD:	22"	Avg	16.180		Assumed		Remaining Life:
Spec:	ASME VIII Div.1	Comments:					Retirement Date:

TML Description		Baseline				Material:	SA-516-70N
60	Head	2014	Flag	CA	Nominal	T Min	Corr. Rate
Shape:	Ellipsoidal	Min	11.113	1.588	12.700		
OD:	22"	Avg	12.950		Assumed		Remaining Life:
Spec:	ASME VIII Div.1	Comments:					Retirement Date:



Ultrasonic Corrosion Survey

Survey Name: Husky Energy

Date: Jun 3, 2014

Inspector: W. Gill

LSD: 07-27-051-19W5M	Area: Ansell	Location: Gas Plant
A #: A0571608	Tag Number: V101	Vessel Name: Inlet Separator
CRN: U0192.213	Year Built: 2007	Serial Number: 12306200
	Vessel CA: 1.5875 mm	Manufacturer: Toromont Process Systems
	Shell MAWP: 390psi	Tube MAWP: MAWTF: 150°F

TML Description	Baseline	Material: A-234-WPB
65 Nozzle	2014	Corr. Rate
Shape: 90° Elbow	Min 10.720	Flag 9.601
OD: 6.625"	Avg 11.400	CA 1.372
Spec: ASME B31.3	Comments:	Nominal 10.973
		T Min Assumed
		Remaining Life:
		Retirement Date:

TML Description	Baseline	Material: A-234-WPB
70 Piping	2014	Corr. Rate
Shape: 90° Elbow	Min 3.710	Flag 3.423
OD: 2.375"	Avg 4.110	CA 0.489
Spec: ASME B31.3	Comments:	Nominal 3.912
		T Min Assumed
		Remaining Life:
		Retirement Date:

TML Description	Baseline	Material: SA-516-70N
75 Piping	2014	Corr. Rate
Shape: 90° Elbow	Min 3.990	Flag 3.423
OD: 2.375"	Avg 4.290	CA 0.489
Spec: ASME B31.3	Comments:	Nominal 3.912
		T Min Assumed
		Remaining Life:
		Retirement Date:

TML Description	Baseline	Material: A-234-WPB
80 Piping	2014	Corr. Rate
Shape: 90° Elbow	Min 8.280	Flag 7.623
OD: 2.375"	Avg 8.740	CA 1.089
Spec: ASME B31.3	Comments:	Nominal 8.712
		T Min Assumed
		Remaining Life:
		Retirement Date:



Ultrasonic Corrosion Survey

Survey Name: Husky Energy

Date: Jun 3, 2014

Inspector: W. Gill

LSD: 07-27-051-19W5M	Area: Ansell	Location: Gas Plant
A #: A0571608	Tag Number: V101	Vessel Name: Inlet Separator
CRN: U0192.213	Year Built: 2007	Serial Number: 12306200
	Vessel CA: 1.5875 mm	Manufacturer: Toromont Process Systems
	Shell MAWP: 390psi	Tube MAWP: MAWTF:
	MAWTF: 150°F	

TML Description	Baseline	Material: A-234-WPB
85 Piping	2014	Corr. Rate
Shape: 90° Elbow	Min 3.580	Flag 3.423
OD: 2.375"	Avg 3.990	CA 0.489
Spec: ASME B31.3	Comments:	Nominal 3.912
		T Min Assumed
		Remaining Life:
		Retirement Date:

TML Description	Baseline	Material: A-234-WPB
90 Piping	2014	Corr. Rate
Shape: 90° Elbow	Min 8.150	Flag 7.156
OD: 8.625"	Avg 8.530	CA 1.022
Spec: ASME B31.3	Comments:	Nominal 8.179
		T Min
		Remaining Life:
		Retirement Date:

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 Code Rules, Section VIII, Division 1

1. Manufactured and certified by Toromont Process Systems, 10121 Barlow Trail NE, Calgary, Alberta, Canada, T3J 3C6 0571408
(Name and address of manufacturer)
Manufactured for Husky Energy Inc. 707 - 8th Avenue S.W. Calgary, Alberta T2P 3G7
(Name and address of purchaser)
3. Location of installation Site: Ansell Gas Plant
(Name and address)
4. Type Horizontal 12306200 U0192.213 12306-401 Rev0 - 2007
(Horiz. or vert., tank) (Mfr's serial No.) (CRN) (Drawing No.) (Natl. Bd. No.) (Year built)
5. 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 2004
to 2006
Addenda (Date) Code Case Nos. Special Service per UG-120(d)
6. Shell: SA516-70N .625" 0.0625" 3' 10.75" 16' -0"
Matl. (Spec. No., Grade) Nom. Thk. (in.) Corr. Allow. (in.) Diam. I.D. (ft. & in.) Length (overall) (ft. & in.)
7. Seams: Type 1 Full 1.0 --- --- Type 1 Spot .70 2
Long. (Welded, Dbl., Sngl., Lap, Butt) R.T. (Spot or Full) Eff. (%) H.T. Temp. (°F) Time (hr) Girth, (Welded, Dbl., Sngl., Lap, Butt) R.T. (Spot or Full) Eff. (%) No. of Courses
8. Heads: (a) Matl. SA516-70N (b) Matl. SA516-70N
(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)	<u>End</u>	<u>0.5625"</u>	<u>0.0625"</u>	<u>-</u>	<u>-</u>	<u>SE 2:1</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>Concave</u>
(b)	<u>Datum End</u>	<u>0.5625"</u>	<u>0.0625"</u>	<u>-</u>	<u>-</u>	<u>SE 2:1</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>Concave</u>

If removable, bolts used (describe other fastenings) -

9. MAWP 390 - psi at max. temp. 150 - °F.
(internal) (external) (internal) (external)
Min. design metal temp. -20 °F at 390 Psi. Hydro., pneu., or comb. test pressure 507 psi.

10. Nozzles, inspection and safety valve openings:

Purpose (Inlet, Outlet, Drain)	No.	Diam. or Size	Type	Matl.	Nom. Thk.	Reinforcement Matl.	How Attached	Location
			<u>SEE</u>	<u>ATTACHED</u>	<u>U4</u>	<u>FORM</u>		

11. Supports: Skirt No Lugs No Legs No Other Saddle Attached Shell & Welded
(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 the report: -

(Name of part, item number, Mfr's. name and identifying stamp)

Item: V101 Volume: 228 Cubic Feet Vessel Type: Inlet Separator Construction Drawing: 12306-401 Rev.1B
Impact Testing: Exempt, per UG-20(f)

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. 33,658
expires November 26, 2008

Date 22 Mar 07 Co. name Toromont Process Systems Signed [Signature]
(Manufacturer) (Representative)

CERTIFICATE OF SHOP/FIELD INSPECTION

Vessel constructed by Toromont Process Systems at Calgary, Alberta, 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 Alberta and employed by ABSA

have inspected the component described in this Manufacturer's Data Report on March 22/07 and state that, to the best of my knowledge and belief, the 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.

Date 7/3/22 Signed [Signature] Commissions altis
(Authorized Inspector) (Natl' Board (incl. endorsements), State, Prov. and No.)

1. Manufactured and certified by Toromont Process Systems, 10121 Barlow Trail NE, Calgary, Alberta, Canada, T3J 3C6
(Name and address of manufacturer)

2. Manufactured for Husky Energy Inc. 707 - 8th Avenue S.W. Calgary, Alberta T2P 3G7
(Name and address of purchaser)

Location of Installation Site: Ansell Gas Plant

U0192.213 (CRN)	12306-401 Rev0 (Drawing No.)	- (Nat'l. Bd. No.)	2007 (Year built)
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[illegible]

Name *M. Simpson* Commissions *AKA5-*
(Authorized Inspector) (Nat'l Board (incl. endorsements), State, Prov. and No.)

Bay 5, 240040 Frontier Place SE
Rocky View, Alberta T1X 0N2



DATE: 04-Jun-14
PAGE: 1 OF 2

MAGNETIC PARTICLE EXAMINATION REPORT

CLIENT:	HUSKY ENERGY	CONTRACTOR:	N/A
LOCATION NAME:	ANSEL GAS PLANT	STREAMLINE JOB#	14-226
LOCATION:	07-27-051-19W5	CLIENT PO#:	N/A
ITEMS EXAMINED:	INTERNAL WELDS OF INLET SEPARATOR, A0571608, SAP #66128609, EQ# 20-V-001		
PROCEDURE:	MT-3A	ACCEPTANCE CRITERIA:	ASME VIII DIV. 1 APP. 6
		SPECIFICATION:	ASME V ART. 7

EQUIPMENT

<input checked="" type="checkbox"/> YOKE	<input checked="" type="checkbox"/> AC	<input type="checkbox"/> DC	<input checked="" type="checkbox"/> CONTINUOUS	<input type="checkbox"/> RESIDUAL	<input checked="" type="checkbox"/> 120Volt	<input type="checkbox"/> 12Volt	Serial #: 20832	Last Cal. Date: 03-Sep-13 Prod Spacing 3" - 8"
<input type="checkbox"/> 100 W TROUBLE LIGHT*	<input type="checkbox"/> 10 W YOKE LIGHT*	<input type="checkbox"/> HALOGEN LIGHT	<input type="checkbox"/> OTHER:	*Light Source Intensity Demonstrated: $\geq 100\text{fc}$				
<input checked="" type="checkbox"/> BLACKLIGHT	Serial #: 1Z11	Last Performance Check: 04-May-14			Minimum Black Light Intensity: $\geq 1000\mu\text{W}/\text{cm}^2$			
<input type="checkbox"/> LIGHT METER	Serial #: 4484/7968	Last Calibration Date:			Excess Particles Removed via Flow or Exhalation			

TEST MEDIUM MANUFACTURER:	Magnaflux	MEDIUM TYPE / SIZE:	Supramor 4 Black ($<0.5\mu$) / WCP712
<input type="checkbox"/> DRY	COLOR:	<input checked="" type="checkbox"/> FLUORESCENT	<input type="checkbox"/> BLACK ON CONTRAST WHITE
		APPLICATION METHOD:	<input checked="" type="checkbox"/> SPRAY <input type="checkbox"/> POWDER PUFFER

SURFACE CONDITION: ☐ CLEAN BASE METAL ☐ AS GROUND ☒ WIRE WHEEL BUFFED ☐ AS WELDED ☐ PAINTED ☐ SAND BLAST ☐ Other: Material: C/S

EXAMINATION DETAILS AND RESULTS

SCOPE: WET FLUORESCENT MAGNETIC PARTICLE INSPECTION WAS COMPLETED ON THE FOLLOWING WELDS LOCATED INSIDE OF THE INLET SEPARATOR, A0571608, SAP #66128609, EQ# 20-V-001:

-24" IN ALL DIRECTIONS ON THE T INTERSECTIONS OF THE CIRCULAR WELD SEAM AND LONGITUDINAL WELD SEAM OF BOTH HEAD TO CAN WELDS, AND THE MIDDLE SECTION CAN TO CAN WELD

RESULTS NO RELEVANT INDICATIONS WERE FOUND ON THE WELDS INSPECTED AS LISTED ABOVE. ALL WELDS ARE ACCEPTABLE TO CODE.

REFER TO THE IMAGES ON PAGE 2 OF THIS REPORT

TECHNICIAN/CERTIFICATION:	CURTIS SINCLAIR - CGSB/SNT-TC-1A UT I / MT II / PT II #12425, API 510 #35229, API 653 #29348, IPV #541	CLIENT:	GREG GUENETTE
SIGNATURE:		CHARGES REF.	APPROVAL:
ASSISTANT:	N/A	JOB#14-226	

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PAGE: 2 OF 2

MAGNETIC PARTICLE EXAMINATION REPORT

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LOCATION NAME:	ANSEL GAS PLANT	STREAMLINE JOB#	14-226
LOCATION:	07-27-051-19W5	CLIENT PO#:	N/A
ITEMS EXAMINED:	INTERNAL WELDS OF INLET SEPARATOR, A0571608, SAP #66128609, EQ# 20-V-001		

EXAMINATION DETAILS AND RESULTS



INLET SEPARATOR DATA PLATE



EAST HEAD CIRC WELD T INTERSECTION



CAN TO CAN CIRC WELD T INTERSECTIONS



WEST HEAD CIRC WELD T INTERSECTION