



10-32BRA-1401

CERTIFIED BY

MINUSCO NISKU, ALBERTA, CANADA

SERIAL NO.	YEAR BUILT	MODEL
	2007	

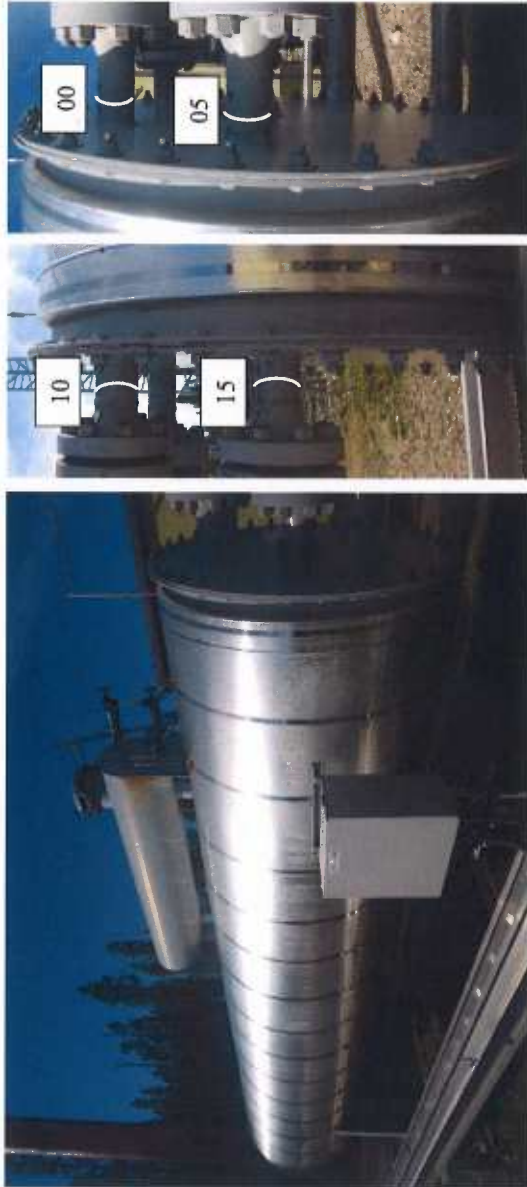
COIL #1		
NAME	PSIG	TEMP °F °C
		AT 200 °F 93 °C
DEPTH	°F AT	C.A. 1.17 mm
THICK.	IN	EL. 1.27

COIL #2		
NAME	PSIG	TEMP °F °C
		AT 200 °F 93 °C
DEPTH	°F AT	C.A. 1.17 mm
THICK.	IN	EL. 1.27



Vessel Static Data:

Name:	Line Heater
A#:	539409
Serial Number:	01289-210
CRN:	T 3040.231
LSD:	10-32-046-16 W5M
Location:	North Blackstone
CA:	0.125"
Size:	N/A
MAWP:	5031 psi/2025psi
Temp:	200°F
Head Material:	N/A
Head Nominal:	N/A
Shell Material:	N/A
Shell Nominal:	N/A
Year Built:	2005
Manufacturer:	Nusco
Tag #	10-32BRA-1401



Notes: *Piping and Nozzles only.



ULTRASONIC CORROSION SURVEY

Survey Name: HUSKY

Report Number: 900
Survey Date: 22/08/2013

LSD: 10-32-046-16W5 Dwg: 38 Vessel Number: 539409 Manufacturer: NUSCO Inspector: D. TUCKER
District Unit: BLACKSTONE NORTH Vessel Name: LINE HEATER Serial Number: 010289-210 Process:
Location: FIELD Year Built: 2005 Shell MAWP PSI: 5031 MAWT F: 200
Skid: Tag Number: 10-32BRA-1401 Tube MAWP PSI: 2025 MAWT F: 0
CRN: T 3040.231 Vessel CA: 0.1250

Band Description	Baseline	Previous	Current	Next Inspection Material	Nominal CA	TMIN	ST Loss MPY	LT Loss MPY	Recommended Retirement Date
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00 - Nozzle	Ref	2013	0.5880	2013	0.5880	2014	0.6000	0.4109	
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Shape 360° Circ	Min		0.5810	SA 106 - B	0.2000				
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OD 3.5	Avg		0.6000						
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Spec. VIII Div 1

Comments:

05 - Nozzle	Ref	2013	0.6530	2013	0.6530	2014	0.6000	0.4109	
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Shape 360° Circ	Min		0.5930	SA 106 - B	0.2000				
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OD 3.5	Avg		0.6110						
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Spec. VIII Div 1

Comments:

10 - Nozzle	Ref	2013	0.4470	2013	0.4470	2014	0.4380	0.1673	
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Shape 360° Circ	Min		0.4390	SA 106 - B	0.1797				
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OD 3.5	Avg		0.4520						
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Spec. VIII Div 1

Comments:

15 - Nozzle	Ref	2013	0.4430	2013	0.4430	2014	0.4380	0.1673	
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Shape 360° Circ	Min		0.4380	SA 106 - B	0.1797				
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OD 3.5	Avg		0.4550						
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Spec. VIII Div 1

Comments:



ULTRASONIC CORROSION SURVEY

Survey Name: HUSKY

Report Number: 900
Survey Date: 22/08/2013

LSD: 10-32-046-16W5 Dwg: 38 Vessel Number: 539409 Inspector: D. TUCKER
District Unit: BLACKSTONE NORTH Vessel Name: LINE HEATER Process:
Location: FIELD Year Built: 2005 Shell MAWP PSI: 5031 MAWT F: 200
Skid: Tag Number: 10-32BRA-1401 Tube MAWP PSI: 2025 MAWT F: 0
CRN: T 3040.231 Vessel CA: 0.1250

Band Description	Baseline		Previous		Current		Next Inspection		Nominal	TMIN	ST Loss MPY	LT Loss MPY	Recommended Retirement Date
	Ref	2013	0.3060	0.3060	2013	0.3060	2014	0.3000	CA				
20 - Piping													
Shape 90° Elbow	Min	0.2960		0.2960		A 234 - WPB		0.0375					
OD 3.5	Avg	0.3110		0.3110									
Spec. B31.3													
Comments:													

DATE: Aug 22/13

TECHNICIAN: DT

ASSISTANT: CS

Client		LSD		10-32-46-16WS		Item Band Location		00		05		10		15		20	
Equipment		Serial # / Manufacturer		C10289-210		Material		C/S									
GRN		AS		Year Built		OUTSIDE Diameter		3.5"									
T3040-231		5394109		10-3288H-Mol		Type		N02									
OWD		Survey		Plant or Field (Circle)		Comment		302.10									
38		North Black Store		8081 / 2005		Nominal Thickness		.600"		.438"		.438"		.300"			

Prs Husco

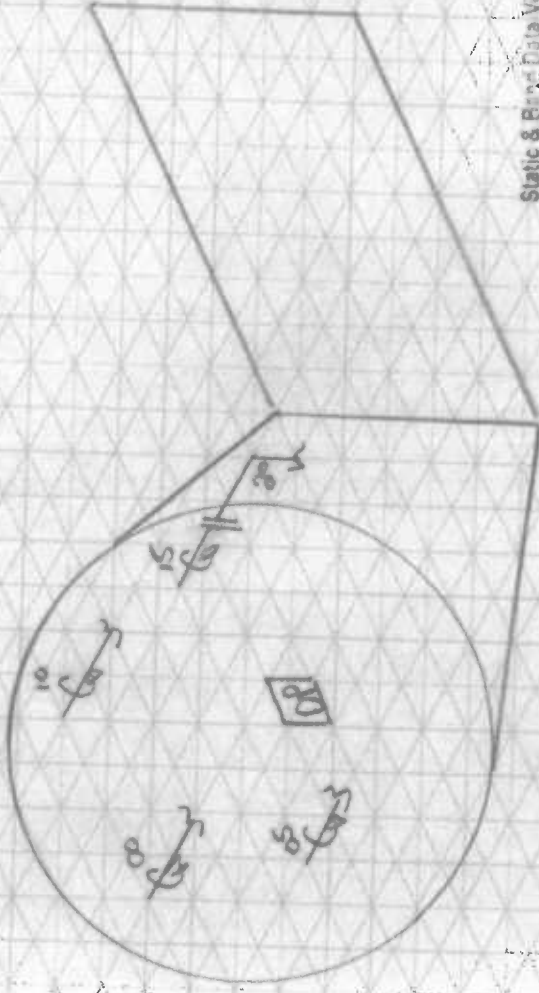
DB 3034-3039

* Piping to N02 only

N

COMMENTS

- 1) Cryogenic Service
- 2) Insulated
- 3) No Name Plate
- 4) Name Plate Illegible
- 5) No Access
- 6) Too Hot
- 7) Rough Surface
- 8) O.D. Pitting
- 9) L.D. Pitting
- 10) I.D. Pit
- 11) Pile / Plate (Circle One)



Static & Bldg Data Verified by:
Dwg. v. 1.0 Data Reviewed by:

Piping Types	
1. 90° Nozzle	6. 360° Circ Pipe
2. 90° Tee	7. Tee Nozzle
3. 45° Nozzle	8. Tee Pipe
4. 45° Tee	9. Straight Nozzle
5. 360° Circ Nozzle	10. Straight Pipe

Head Types	
1. ellipsoidal	5. torispherical
2. torispherical	6. flat
3. spherical	7. hemispherical
4. conical	

Common Materials	
A 53-B	C 516-70
B 106-B	D 234-WPB

Ensure all information is recorded for vessel boots, when applicable.

FIRED HEATER INSPECTION REPORT

Date: Aug 22/13

Equipment ID: 10-328RA-1401

DWG 38

Plant Asset #	/	Op Unit Equipment ID	/	System Asset Type	/
Description	Line Heater	Prov. Insp. #	10-328RA-1401	Serial #	010289-219
Manufacturer	NUSCO	CRN	T3040.231	Year Built	2005
Internal Access	yes	Insulated	yes	Internal Coating	/
COIL #1 / RADIANT DATA					
MAWP	34689	KPag	@ 93	MDMT	-50 °F
Code	/	Fluid Service	/	PWHT	/
Operating Pressure	/	KPag	/	Operating Temp	/ °C
COIL #2 / CONVECTION DATA					
MAWP	13862	KPag	@ 93	MDMT	-50 °F
Code	/	Fluid Service	/	PWHT	/
Operating Pressure	/	KPag	/	Operating Temp	/ °C

PSV DATA								
PSV ID #	Location	Inlet	Size Outlet	Set Pressure	Capacity SCFM / Lbs/Hr / GPM	Manufacturer	Model	Last Service
/	/	/	/	/	/	/	/	/

INSPECTION SUMMARY

Vessel in good condition

RECOMMENDATIONS

None

NONCONFORMANCES / INSPECTION DEFICIENCIES

No NCRs @ time of inspection

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	_____	Date	_____
Reviewed and Approved by	_____	Date	_____
Criticality Assessment Rerun	_____	Inspection Planning Rerun	_____
Assessed Next Inspection Date	_____		_____


KEITH WILSON
02023430

UT data reviewed and plan updated
VI-Ext report entered and plan updated