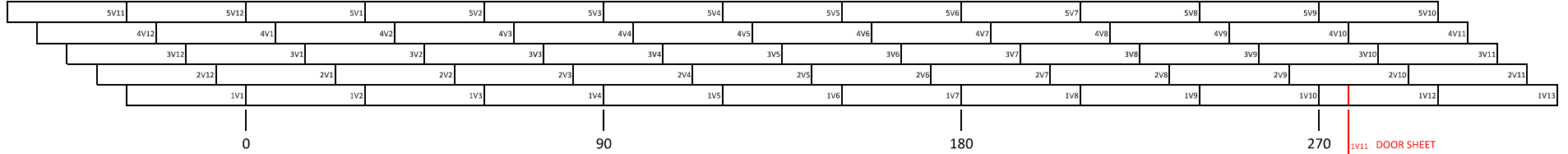


Tank #2 Rankin Inlet (AEM)**VERTS (Welder ID)**

	IN	OUT
1V1	MG	MG
1V2	MG	KW
1V3	KW	KW
1V4	KW	KW
1V5	DZ	DZ
1V6	DZ	DZ
1V7	DZ	MT
1V8	DZ	MT
1V9	DZ	MT
1V10	MT	MT
1V11 (DOOR SHEET)	MM	MM
1V12	KW	MT
1V13	MG	KW

	IN	OUT
2V1	MT	DZ
2V2	MT	DZ
2V3	DZ	DZ
2V4	DZ	MT
2V5	DZ	MT
2V6	MG	MT
2V7	MG	MG
2V8	KW	MG
2V9	KW	MG
2V10	KW	KW
2V11	KW	KW
2V12	KW	MT

	IN	OUT
3V1	JH	JN
3V2	JH	JN
3V3	JH	JH
3V4	JH	JH
3V5	JN	JH
3V6	JN	DZ
3V7	MG	DZ
3V8	DZ	MG
3V9	DZ	MG
3V10	DZ	MG
3V11	MG	DZ
3V12	JN	DZ

	IN	OUT
4V1	MT	MT
4V2	JO	KW
4V3	JO	JO
4V4	JH	JH
4V5	JN	JH
4V6	JH	JH
4V7	JH	JH
4V8	CJ	DZ
4V9	DZ	DZ
4V10	DZ	DZ
4V11	DZ	DZ
4V12	MT	DZ

	IN	OUT
5V1	DZ	MT
5V2	DZ	MT
5V3	KW	JH
5V4	KW	JO
5V5	JO	JO
5V6	JH	JO
5V7	JH	JN
5V8	JN	JN
5V9	JN	JH
5V10	DZ	DZ
5V11	KW	DZ
5V12	MT	DZ

HORIZONTAL (Welder ID)

	IN	OUT
H1	JO	MG
(DOOR SHEET)	MM/MT	MM/MT

	IN	OUT
H2	JO/MM	MG/KW

	IN	OUT
H3	JO/MM	MG/KW

	IN	OUT
H4	JO/MM	MG/KW

PLATES IDENTIFICATION (heat numbers)

	Heat Number
1V1	E7B111 B15
1V2	E7B111 B15
1V3	E7B111 B16
1V4	E7B111 B15
1V5	E7B111 B15
1V6	E7B111 B15
1V7	E7B111 B16
1V8	E7B111 B15
1V9	E7B111 B15
1V10	E7B111 B15
1V11	E7B111 B15
1V12	E7B111 B15
1V13	E7B111 B15

	Heat Number
2V1	W7B608 B11
2V2	E7B111 B14
2V3	W7B608 B11
2V4	E7B111 B14
2V5	E7B111 B14
2V6	W7B608 B11
2V7	W7B608 B11
2V8	W7B608 B11
2V9	W7B608 B11
2V10	W7B608 B11
2V11	W7B608 B11
2V12	W7B608 B11

	Heat Number
3V1	W7B608 B09
3V2	W7B608 B06
3V3	W7B608 B07
3V4	W7B608 B06
3V5	W7B608 B08
3V6	W7B608 B06
3V7	W7B608 B09
3V8	W7B608 B07
3V9	W7B608 B06
3V10	W7B608 B07
3V11	W7B608 B06
3V12	W7B608 B06

	Heat Number
4V1	W7B608 B07
4V2	W7B608 B08
4V3	W7B608 B07
4V4	W7B608 B07
4V5	W7B608 B09
4V6	W7B608 B06
4V7	W7B608 B08
4V8	W7B608 B09
4V9	W7B608 B07
4V10	W7B608 B08
4V11	W7B608 B09
4V12	W7B608 B08

	Heat Number
5V1	W7B608 B06
5V2	W7B608 B07
5V3	W7B608 B06
5V4	W7B608 B08
5V5	W7B608 B08
5V6	W7B608 B09
5V7	W7B608 B07
5V8	W7B608 B06
5V9	W7B608 B06
5V10	W7B608 B09
5V11	W7B608 B07
5V12	W7B608 B08

Sub-Arc Systems Inc.

4605-47 Street
Vermillion, AB, T9X 1L6
780-608-9589

QUALITY CONTROL MANUAL

Exhibit 17, Rev A

DIMENSIONAL CHECK REPORT - BANDING

Customer: AGNICO EAGLELocation: RANKIN INLET TANK #2Equipment Tag No.: N/AEquipment Type: N/AEquipment Description: N/ACode Requiring Test: API 650Reason for Test: New Construction

(Each circumferential seam will be checked for banding and max. banding dimension recorded for that seam. Circumferential seams will be checked at 45 degree intervals or less, max. 20' spacing)

Test Date(s): AUG 18/17Tested by: MATT TURMEL

Seam Test Results:

1ST HORIZONTAL BANDING CHECKS DONE EVERY 20FTMAX BANDING WAS 1/4" ON A 4FT LEVELALL CHECKS ACCEPTABLESub-Arc Representative Signature: M. Turmel Date: AUG 18/17

Client Representative Signature: _____ Date: _____

Client Signature: Cherise Clem Bonita Date: Aug 23/17

Sub-Arc Systems Inc.

4605-47 Street
Vermillion, AB, T9X 1L6
780-608-9589

QUALITY CONTROL MANUAL

Exhibit 17, Rev A

DIMENSIONAL CHECK REPORT - BANDING

Customer: AGNICO EAGLELocation: RANKIN INLET TANK #2.Equipment Tag No.: N/AEquipment Type: N/AEquipment Description: N/ACode Requiring Test: API 650Reason for Test: New Construction

(Each circumferential seam will be checked for banding and max. banding dimension recorded for that seam. Circumferential seams will be checked at 45 degree intervals or less, max. 20' spacing)

Test Date(s): AUG 19/17Tested by: MATT TURMEL

Seam Test Results:

2ND HORIZONTAL BANDING CHECKS DONE EVERY 20FTMAX BANDING WAS 5/16" ON A 4 FT LEVELALL CHECKS ACCEPTABLESub-Arc Representative Signature: M. Turmel Date: AUG 19/17

Client Representative Signature: _____ Date: _____

Client Signature: C. Bonin Chen Bonin Date: Aug 23/17

Sub-Arc Systems Inc.

4605-47 Street
Vermillion, AB, T9X 1L6
780-608-9589

QUALITY CONTROL MANUAL

Exhibit 17, Rev A

DIMENSIONAL CHECK REPORT - BANDING

Customer: AGNICO EAGLELocation: RANKIN INLET TANK #2.Equipment Tag No.: N/AEquipment Type: N/AEquipment Description: N/ACode Requiring Test: API 650Reason for Test: New Construction

(Each circumferential seam will be checked for banding and max. banding dimension recorded for that seam. Circumferential seams will be checked at 45 degree intervals or less, max. 20' spacing)

Test Date(s): AUG 19/17.Tested by: MATT TURMEL

Seam Test Results:

3RD HORIZONTAL BANDING CHECKS DONE EVERY 20FTMAX BANDING WAS 1/4" ON A HFT LEVELALL CHECKS ACCEPTABLESub-Arc Representative Signature: M. Turmel Date: AUG 19/17

Client Representative Signature: _____ Date: _____

Client Signature: Chonin Chen Borja Date: Aug 23/17

Sub-Arc Systems Inc.

4605-47 Street
Vermillion, AB, T9X 1L6
780-608-9589

QUALITY CONTROL MANUAL

Exhibit 17, Rev A

DIMENSIONAL CHECK REPORT - BANDING

Customer: AGNICO EAGLELocation: RANKIN INLET TANK #2.Equipment Tag No.: N/AEquipment Type: N/AEquipment Description: N/ACode Requiring Test: API 650Reason for Test: New Construction

(Each circumferential seam will be checked for banding and max. banding dimension recorded for that seam. Circumferential seams will be checked at 45 degree intervals or less, max. 20' spacing)

Test Date(s): AUG 19/17.Tested by: MATT TURMEL.

Seam Test Results:

4TH HORIZONTAL BANDING CHECKS DONE EVERY 20FT
MAX BANDING WAS 5/16" ON A 4FT LEVELALL CHECKS ACCEPTABLESub-Arc Representative Signature: M. Turmel Date: AUG 19/17.

Client Representative Signature: _____ Date: _____

Client Signature: Cherise CLEA BOYER Date: aug 23/17

Sub-Arc Systems Inc.

4605-47 Street
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780-608-9589

QUALITY CONTROL MANUAL

Exhibit 16, Rev A

DIMENSIONAL CHECK REPORT - PEAKING

Customer: AGNICO EAGLELocation: RANKIN INLET TANK #2Equipment Tag No.: N/AEquipment Type: N/AEquipment Description: N/ACode Requiring Test: API 650Reason for Test: New Construction

(Each vertical seam will be checked for peaking and max. peak dimension recorded for that seam.)

Test Date(s): AUG 18/17Tested by: MATT TURNER

Seam Test Results:

SRI - 1V1 1/8", 1V2 1/8", 1V3 1/4", 1V4 Ø, 1V5 1/16", 1V6 1/8",1V7 Ø, 1V8 1/16", 1V9 1/16", 1V10 (DOORSHEET), 1V11 (DOORSHEET),1V12 Ø, 1V13 1/8" ↓ 1/8" ↓ 1/4"ALL SRI VERTS ACCEPTABLE (1V10 + 1V11 WILL BE DONE WHEN DOORSHEET COMPLETE)Sub-Arc Representative Signature: M Turner Date: AUG 18/17

Client Representative Signature: _____ Date: _____

Client: Chorin Clem BOYD Date: Aug 23/17

QUALITY CONTROL MANUAL

Exhibit 16, Rev A

DIMENSIONAL CHECK REPORT – PEAKING

Customer: AGNICO EAGLELocation: RANKIN INLET TANK #2.Equipment Tag No.: N/AEquipment Type: N/AEquipment Description: N/ACode Requiring Test: API 650Reason for Test: New Construction

(Each vertical seam will be checked for peaking and max. peak dimension recorded for that seam.)

Test Date(s): Aug 18/17Tested by: MATT TURMEL

Seam Test Results:

SR2 - 2V1 1/16", 2V2 Ø, 2V3 1/16", 2V4 Ø, 2V5 Ø, 2V6 1/8"
2V7 1/8", 2V8 3/16", 2V9 1/16", 2V10 Ø, 2V11 1/8", 2V12 1/16"ALL SR2 VERTS ACCEPTABLESub-Arc Representative Signature: M. Turmel Date: Aug 18/17

Client Representative Signature: _____ Date: _____

Client: Clara Bonica Date: Sept 04/17

Sub-Arc Systems Inc.

4605-47 Street
Vermillion, AB, T9X 1L6
780-608-9589

QUALITY CONTROL MANUAL

Exhibit 16, Rev A

DIMENSIONAL CHECK REPORT - PEAKING

Customer: AGNICO EAGLELocation: RANKIN INLET TANK #2Equipment Tag No.: N/AEquipment Type: N/AEquipment Description: N/ACode Requiring Test: API 650Reason for Test: New Construction

(Each vertical seam will be checked for peaking and max. peak dimension recorded for that seam.)

Test Date(s): AUG 18/17Tested by: MATT TURMEL

Seam Test Results:

SR3 - 3V1 3/16", 3V2 1/8", 3V3 Ø, 3V4 1/8", 3V5 1/16",
3V6 3/16", 3V7 1/8", 3V8 Ø, 3V9 1/16", 3V10 1/4", 3V11 1/8",
3V12 Ø
ALL SR3 VERTS ACCEPTABLE

Sub-Arc Representative Signature: M. Turmel Date: AUG 18/17

Client Representative Signature: _____ Date: _____

Client: CBONIA CLERM BONIA Date: AUG 23/17

QUALITY CONTROL MANUAL

Exhibit 16, Rev A

DIMENSIONAL CHECK REPORT – PEAKING

Customer: AGNICO EAGLELocation: RANKIN INLET TANK #2Equipment Tag No.: N/AEquipment Type: N/AEquipment Description: N/ACode Requiring Test: API 650Reason for Test: New Construction

(Each vertical seam will be checked for peaking and max. peak dimension recorded for that seam.)

Test Date(s): AUG 18/17Tested by: MATT TURMEL

Seam Test Results:

SR4 - 4V1 Ø, 4V2 1/16", 4V3 1/4", 4V4 3/16", 4V5 1/8",
4V6 1/8, 4V7 Ø, 4V8 3/16", 4V9 1/16", 4V10 Ø, 4V11 1/16",
4V12 Ø
ALL SR4 VERTS ACCEPTABLE

Sub-Arc Representative Signature: M. Turmel Date: AUG 18/17

Client Representative Signature: _____ Date: _____

Client: CLONIA CLINT BONIA Date: Aug 23/17

QUALITY CONTROL MANUAL

Exhibit 16, Rev A

DIMENSIONAL CHECK REPORT - PEAKING

Customer: AGNICO EAGLELocation: RANKIN INLET TANK #2Equipment Tag No.: N/AEquipment Type: N/AEquipment Description: N/ACode Requiring Test: API 650Reason for Test: New Construction

(Each vertical seam will be checked for peaking and max. peak dimension recorded for that seam.)

Test Date(s): AUG 18/17Tested by: MATT TURNER

Seam Test Results:

SR5 - 5V1 1/16", 5V2 Ø, 5V3 1/16", 5V4 1/8", 5V5 1/8",
5V6 3/16", 5V7 1/8", 5V8 Ø, 5V9 1/16", 5V10 1/8", 5V11 Ø,
5V12 3/16"
ALL SR5 VERTS ACCEPTABLE

Sub-Arc Representative Signature: M Turner Date: AUG 18/17

Client Representative Signature: _____ Date: _____

Client: Chonin Clean Boy's Date: Aug 23/17

Sub-Arc Systems Inc.

4605-47 Street
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QUALITY CONTROL MANUAL

Exhibit 19, Rev A

DIMENSIONAL CHECK REPORT - PLUMBNESS

Customer: AGNICO EAGLE

Location: RANKIN INLET TANK #2

Equipment Tag No.: N/A

Equipment Type: N/A

Equipment Description: N/A

Code Requiring Test: API 650

Reason for Test: New Construction

(The tank shell will be checked for plumb at 12" below the tank roof. Plumb measurements will be checked at 45 degree intervals or less, max. 20' spacing)

Test Date(s): AUG 17/17

Tested by: MATT MACKENZIE

Seam Test Results:

Plumbness measurements were taken every
20'. All measurements were acceptable.

Sub-Arc Representative Signature: [Signature] Date: AUG 17/17

Client Representative Signature: _____ Date: _____

Client Signature: Stephane Girard Date: 21/08/17

Sub-Arc Systems Inc.

4605-47 Street
Vermillion, AB, T9X 1L6
780-608-9589

Exhibit 15b, Rev 1

QUALITY CONTROL MANUAL
DIESEL TEST REPORT (SHELL)

Customer: Agnico Eagle

Location: Rankin Inlet *Tank #2*

Equipment Tag No.: N/A

Equipment Type: N/A

Equipment Description: N/A

Code Requiring Test: API 650 (section 7.3.5)

Reason for Test: New Construction

(The shell shall be tested by painting all of the joints on the inside with a highly penetrating oil and carefully examining the outside of the joints for leakage.)

Surface Condition (As Welded)

Test Solution: Diesel

Test Date(s): *Aug 11/17*Tested by: *Chris Jacques.*Ambient Conditions: *9°C*

Items Tested:

2nd horizontal + 2nd Course Verts.

Results:

*No leaks were found at time of inspection.*Sub-Arc Representative Signature: *[Signature]*Date: *Aug 11/17*

Client Representative Signature: _____

Date: _____

Client Signature: *Stephane Gissant*Date: *Aug 11/17*

Exhibit 15b, Rev 1

QUALITY CONTROL MANUAL
DIESEL TEST REPORT (SHELL)

Customer: Agnico Eagle

Location: Rankin Inlet

TANK #2.

Equipment Tag No.: N/A

Equipment Type: N/A

Equipment Description: N/A

Code Requiring Test: API 650 (section 7.3.5)

Reason for Test: New Construction

(The shell shall be tested by painting all of the joints on the inside with a highly penetrating oil and carefully examining the outside of the joints for leakage.)

Surface Condition (As Welded)

Test Solution: Diesel

Test Date(s): Aug 13/17

Tested by: Matt Turner.

Ambient Conditions: 10°C

Items Tested:

3rd Horizontal + 8th Course Verts.

Results:

No leaks were found at time of inspection.

Sub-Arc Representative Signature:  Date: Aug. 14/17.

Client Representative Signature: _____ Date: _____

Client Signature:  Date: August 14/17

Stephane Gionet

QUALITY CONTROL MANUAL
DIESEL TEST REPORT (SHELL)

Exhibit 15b, Rev 1

Customer: Agnico Eagle

Location: Rankin Inlet

TANK #2

Equipment Tag No.: N/A

Equipment Type: N/A

Equipment Description: N/A

Code Requiring Test: API 650 (section 7.3.5)

Reason for Test: New Construction

(The shell shall be tested by painting all of the joints on the inside with a highly penetrating oil and carefully examining the outside of the joints for leakage.)

Surface Condition (As Welded)

Test Solution: Diesel

Test Date(s):

Aug 15/17

Tested by: NAT TURNER

Ambient Conditions:

10°C

Items Tested:

4th HORIZONTAL + 4th Course VERTS. + 5th Course VERTS.

Results:

No leaks were found at time of inspection.

Sub-Arc Representative Signature:

[Signature]

Date:

Aug 15/17

Client Representative Signature: _____

Date: _____

Client Signature:

[Signature]

Date:

Aug 15/17

Sub-Arc Systems Inc.

4605-47 Street
Vermillion, AB, T9X 1L6
780-608-9589**QUALITY CONTROL MANUAL**
DIESEL TEST REPORT (SHELL)

Exhibit 15b, Rev 1

Customer: Agnico Eagle

Location: Rankin Inlet

Equipment Tag No.: N/A

Equipment Type: N/A

Equipment Description: N/A

Code Requiring Test: API 650 (section 7.3.5)

Reason for Test: New Construction

(The shell shall be tested by painting all of the joints on the inside with a highly penetrating oil and carefully examining the outside of the joints for leakage.)

Surface Condition (As Welded)

Test Solution: Diesel

Test Date(s):

Aug 6/17.

Tested by:

Matt Mackenzie

Ambient Conditions:

10°C

Items Tested:

1st horizontal & 1st Course Verts.

Results:

No leaks were found at time of inspection.

Sub-Arc Representative Signature:

Matt Mackenzie

Date:

Aug 6/17

Client Representative Signature: _____

Date: _____

Client Signature:

Chaim Clem Borcia

Date:

Aug 23/17



Client :	Inukshuk Construction Ltd,	Date d'intervention : Intervention date :	2017-08-30
Adresse/Address :	PO Box 654 Rankin Inlet, Nunavut X0C 0G0	Date du rapport : Report date :	2017-09-08
Contact :	Marc Losier	N° dossier : File no :	INS-117107-01_R01
Entrepreneur : Contractor :	N/A	Commande : Order :	295-1046
Endroit du travail : Job location :	Rankin Inlet , Nunavut		

Page 1 de/ of 3

INSP. VISUELLE VISUAL INSP.	☐	MAGNÉTOSCOPIE MAGNETIC PARTICLES	☒	RESSUAGE LIQUID PENETRANT	☐	ULTRASONS ULTRASONIC	☒
DESCRIPTION :							
<u>Magnetic particles inspection and Ultrasonic inspection on tank 2</u>							
The client is opting to use an ultrasonic testing, instead of radiographic testing							
Remark : Visual testing was performed by client I							
INSP. VISUELLE / VISUAL INSP.		NORME : SPECIFICATION :		N° équip. : Equip. no : N/A			
MAGNÉTOSCOPIE MAGNETIC PARTICLES		NORME : SPECIFICATION : API 650		N° équip. : Equip. no : MP-Q-27			
Ampérage : Amperage :	Culasse/Yoke	Continue Continuous	☒	Résiduelle Residual	☐	Humide Wet	☐
Longitudinale Longitudinal	☐	Circulaire Circular	☐	C.A. A.C.	☒	Sèche Dry	☒
						Démagnétisée Demagnetized	☐
RESSUAGE LIQUID PENETRANT		NORME : SPECIFICATION :		N° équip. : Equip. no :			
Pénétrant/Penetrant :		Émulsifiant/Emulsifier :		Révélateur/Developer :			
Temps/Time :		Temps/Time :		Temps/Time :			
ULTRASONS / ULTRASONIC		NORME : SPECIFICATION : API 650					
ÉTALONNAGE/CALIBRATION :		Trou/Hole : N/A		C.A.D. /D.A.C. : ☒			
Bloc/Block : IIW Type 2							
APPAREIL/EQUIPMENT :		Couplant : Echogel		Échelle/Sweep length :			
Instrument : USM GO+		Palpeur/Transducer : 0° degré and 70° degré					
N° équip./Equip. no : UT-Q-34							
RÉSULTATS/RESULTS :							
For ultrasonic results: All spots are acceptable. See attached tables for locations.							
Magnetic particles inspection was performed on angle joint between the shell and nozzle, inside and outside the tank:							
-Inside tank, weld between shell/nozzle, with a 100%: magnetic particles inspection, is acceptable -Outside tank, weld between shell/pad & weld between pad/nozzle, with 100% (note 1): magnetic particles inspection, is acceptable.							
Note 1: Fourteen (14) nozzles including four (4) manholes and one nozzle outside, does not have pad . Please refer to drawing 295-M10; part section K-K item #10. This nozzle corresponds to a ¾" coupling for a water temperature gauge in the shell and the client has advised that no repad is needed for this specific coupling.							
Techniciens : Technicians :		Sylvain Germain CSA W178.2 level 2		Assistants:		Approuvé par : Approved by : Pierre Dostie Technical Supervisor CSA W178.2, niveau 3	

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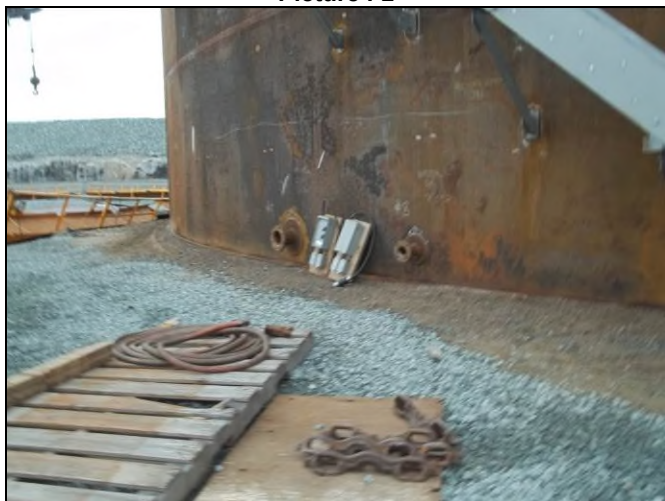
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Client :	Inukshuk Construction Ltd,	Date d'intervention :	2017-08-30
Adresse/Address :	PO Box 654 Rankin Inlet, Nunavut X0C 0G0	Intervention date :	
Contact :	Marc Losier	Date du rapport :	2017-09-08
Entrepreneur :	N/A	Report date :	
Contractor :		N° dossier :	INS-117107-01_R01
File no :		Commande :	295-1046
Endroit du travail :	Rankin Inlet , Nunavut	Order :	
Job location :			

Picture : 1



View of some nozzles

Picture : 2



View of tank 2

Techniciens :	Sylvain Germain	Assistants:		Approuvé par :	Pierre Dostie
Technicians :	CSA W178.2 level 2			Approved by :	Technical Supervisor
					CSA W178.2, niveau 3

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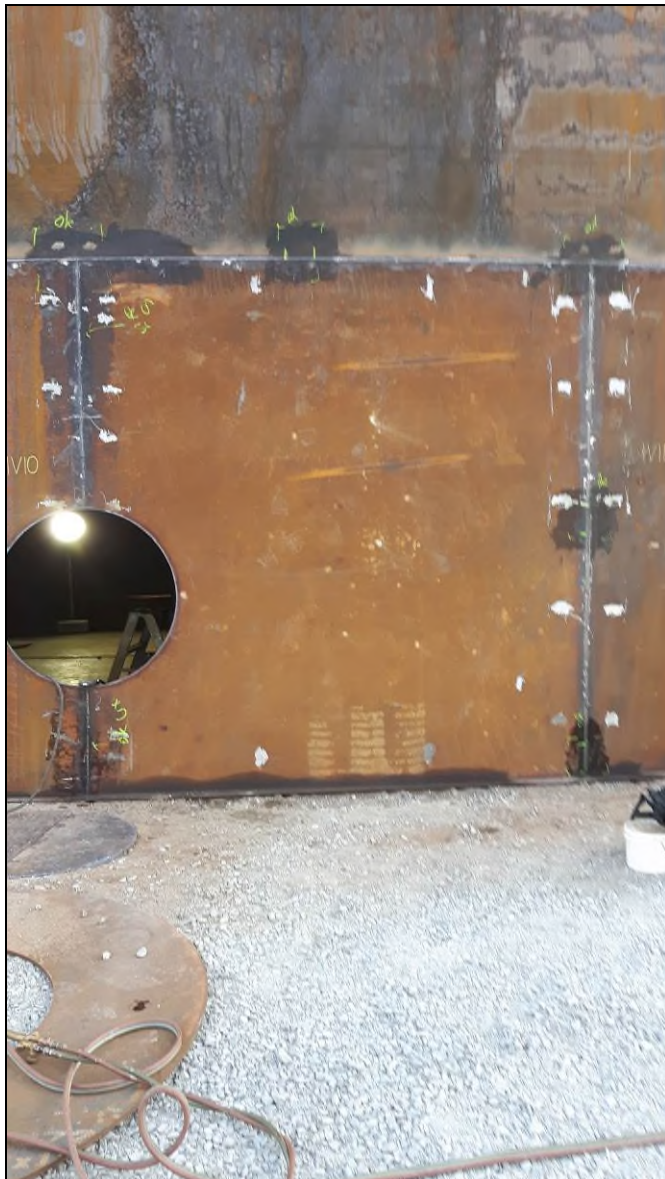
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Client : Inukshuk Construction Ltd, Adresse/Address : PO Box 654 Rankin Inlet, Nunavut X0C 0G0	Date d'intervention : 2017-08-30 Intervention date :
	Date du rapport : 2017-09-08 Report date :
Contact : Marc Losier	N° dossier : INS-117107-01_R01 File no :
Entrepreneur : N/A Contractor :	Commande : 295-1046 Order :
Endroit du travail : Rankin Inlet , Nunavut Job location :	

Picture :3

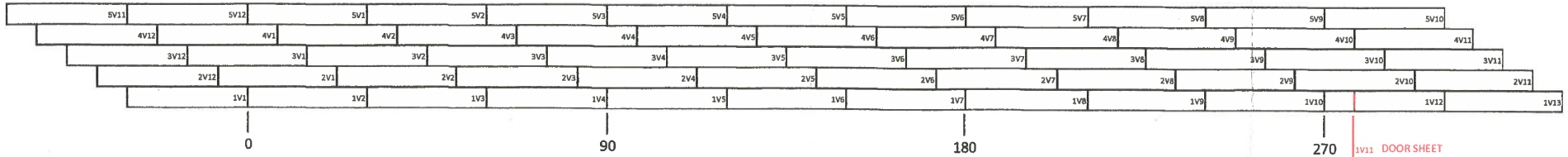


View of manhole before padding

Techniciens : Sylvain Germain Technicians : CSA W178.2 level 2	Assistants:	Approuvé par : Pierre Dostie Approved by : Technical Supervisor CSA W178.2, niveau 3
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Tank #2 Rankin Inlet (AEM)



NDT TECHNICIAN WILL INITIAL EACH BOX WHEN WELD IS ACCEPTABLE

B ----> BOTTOM OF THE VERT (0-6")

M ----> MIDDLE OF THE VERT (53"-59")

T ----> TOP OF THE VERT (104 3/16" - 110 3/16")

VERTICAL SEAMS MAPPING UT

	B	M	T	FULL
1V1	UT FULL BECAUSE NOZZLE INTO VERT			SC
1V2	SC	SC	SC	
1V3	SC	SC	SC	
1V4	UT FULL BECAUSE NOZZLE INTO VERT			SC
1V5	SC	SC	SC	
1V6	SC	SC	SC	
1V7	UT FULL BECAUSE NOZZLE INTO VERT			SC
1V8	SC	SC	SC	
1V9	SC	SC	SC	
1V10	UT FULL BECAUSE NOZZLE INTO VERT			SC
1V11 (DOOR SHEET)	SC	SC	SC	
1V12	SC	SC	SC	
1V13	SC	SC	SC	

	B	M	T
2V1	SC	SC	SC
2V2	SC	SC	SC
2V3	SC	SC	SC
2V4	SC	SC	SC
2V5	SC	SC	SC
2V6	SC	SC	SC
2V7	SC	SC	SC
2V8	SC	SC	SC
2V9	SC	SC	SC
2V10	SC	SC	SC
2V11	SC	SC	SC
2V12	SC	SC	SC

	B	T
3V1	SC	SC
3V2	SC	SC
3V3	SC	SC
3V4	SC	SC
3V5	SC	SC
3V6	SC	SC
3V7	SC	SC
3V8	SC	SC
3V9	SC	SC
3V10	SC	SC
3V11	SC	SC
3V12	SC	SC

	B	T
4V1	SC	SC
4V2	SC	SC
4V3	SC	SC
4V4	SC	SC
4V5	SC	SC
4V6	SC	SC
4V7	SC	SC
4V8	SC	SC
4V9	SC	SC
4V10	SC	SC
4V11	SC	SC
4V12	SC	SC

	B	T
5V1	SC	
5V2	SC	
5V3	SC	
5V4	SC	
5V5	SC	
5V6	SC	
5V7	SC	
5V8	SC	
5V9	SC	
5V10	SC	
5V11	SC	
5V12	SC	

HORIZONTAL SEAMS MAPPING UT

H1V2	48"-54"	SC
H1V8	60"-66"	SC
H1V10	42"-48"	SC

H2V3	48"-54"	SC
H2V9	72"-78"	SC

H3V1	60"-66"	SC
H3V7	42"-48"	SC

H4V5	30"-36"	SC
H4V11	72"-78"	SC

Sub-Arc Representative Signature: <i>[Signature]</i>	Date: <i>Aug 26/17</i>
Client Representative Signature: <i>[Signature]</i>	Date: <i>august 26 2017</i>
NDT Representative Signature: <i>[Signature]</i>	Date: <i>august 26 2017</i>

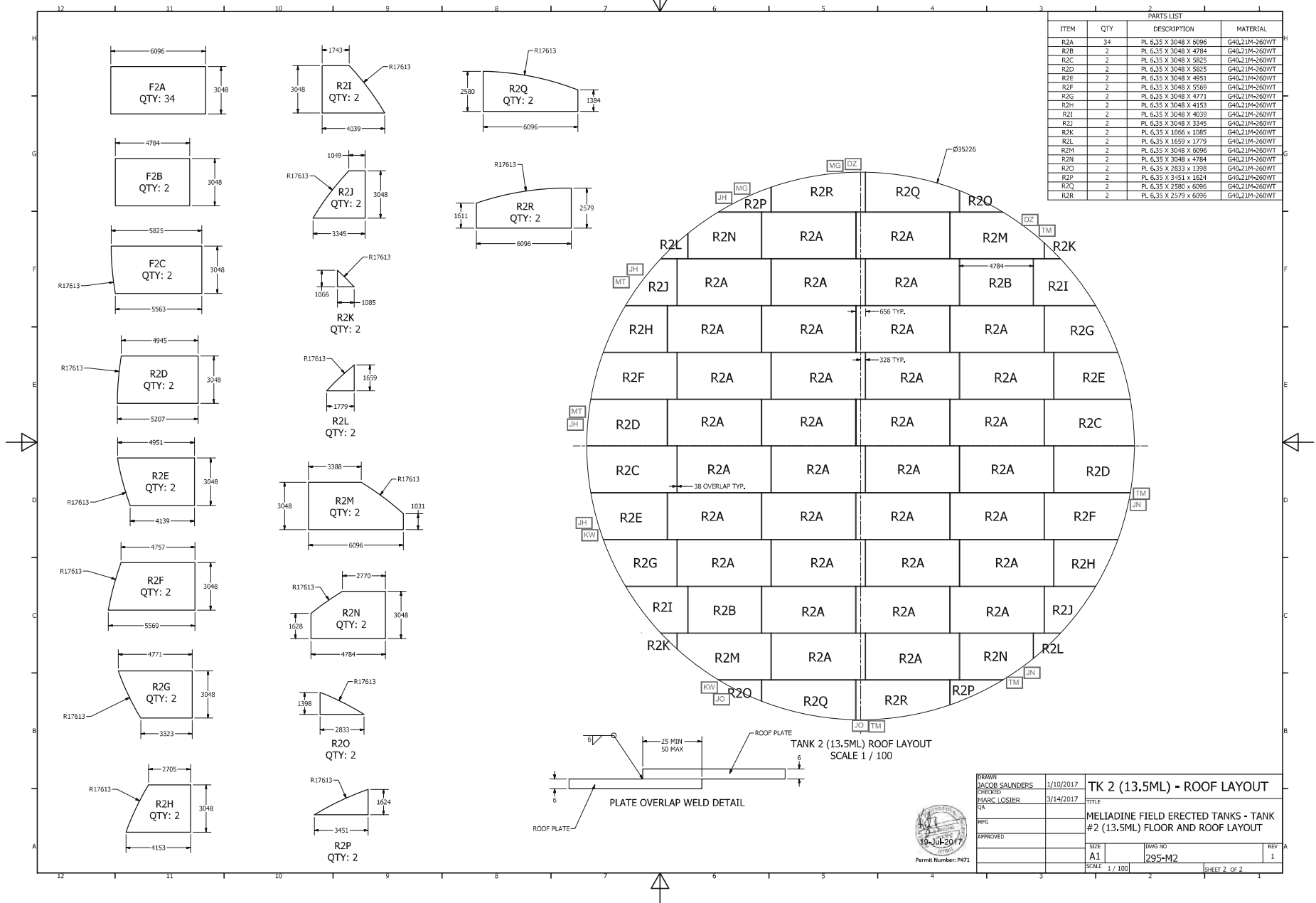
Item 11 – Compression Ring

Contents

1. Weld Maps
2. Visual Report



Item 11 - Compression Ring - Rim Angle to Shell Weld Map



Sub-Arc Systems Inc.

4605-47 Street
Vermillion, AB, T9X 1L6
780-608-9589

QUALITY CONTROL MANUAL

Exhibit 15c, Rev 1

VISUAL TEST REPORT

Customer: Agnico Eagle

Location: Rankin Inlet

Code Requiring Test: API 650 (section 8.5.2)

Reason for Test: New Construction

A weld shall be acceptable by visual examination if the inspection shows the following.

- There are no crater cracks, other surface cracks or arc strikes in or adjacent to the welded joints.
- Maximum permissible undercut is 0.4 mm (1/64 in.) in depth for vertical butt joints, vertically oriented permanent attachments, attachment welds for nozzles, manholes, flush-type openings, and the inside shell-to-bottom welds. For horizontal butt joints, horizontally oriented permanent attachments, and annular-ring butt joints, the maximum permissible undercut is 0.8 mm (1/32 in.) in depth.
- The frequency of surface porosity in the weld does not exceed one cluster (one or more pores) in any 100 mm (4 in.) of length, and the diameter of each cluster does not exceed 2.5 mm (3/32 in.).
- The reinforcement of the welds on all thicknesses:

Plate Thickness mm (in.)	Maximum Reinforcement Thickness mm (in.)	
	Vertical Joints	Horizontal Joints
≤ 13 (1/2)	2.5 (3/32)	3 (1/8)
> 13 (1/2) to 25 (1)	3 (1/8)	5 (3/16)
> 25 (1)	5 (3/16)	6 (1/4)

Surface Condition (As Welded)

Test Solution: N/A

Test Date(s): Aug 22/17Tested by: MAN MACKENZIE Ambient Conditions:

Items Tested:

COMPRESSION RING

Results:

NO DEFECTS WERE FOUND. ALL WELDING
ACCEPTABLE.Sub-Arc Representative Signature: [Signature]Date: Aug 22/17

Client Representative Signature: _____

Date: _____

Client Signature: Cherise Clem BonitaDate: Aug 23/17

Item 12 – Roof

Contents

1. Visual Report
2. MTR

Sub-Arc Systems Inc.

4605-47 Street
Vermillion, AB, T9X 1L6
780-608-9589

QUALITY CONTROL MANUAL

Exhibit 15c, Rev 1

VISUAL TEST REPORT

Customer: Agnico Eagle

Location: Rankin Inlet

Code Requiring Test: API 650 (section 8.5.2)

Reason for Test: New Construction

A weld shall be acceptable by visual examination if the inspection shows the following.

- There are no crater cracks, other surface cracks or arc strikes in or adjacent to the welded joints.
- Maximum permissible undercut is 0.4 mm (1/64 in.) in depth for vertical butt joints, vertically oriented permanent attachments, attachment welds for nozzles, manholes, flush-type openings, and the inside shell-to-bottom welds. For horizontal butt joints, horizontally oriented permanent attachments, and annular-ring butt joints, the maximum permissible undercut is 0.8 mm (1/32 in.) in depth.
- The frequency of surface porosity in the weld does not exceed one cluster (one or more pores) in any 100 mm (4 in.) of length, and the diameter of each cluster does not exceed 2.5 mm (3/32 in.).
- The reinforcement of the welds on all thicknesses:

Plate Thickness mm (in.)	Maximum Reinforcement Thickness mm (in.)	
	Vertical Joints	Horizontal Joints
≤ 13 (1/2)	2.5 (3/32)	3 (1/8)
> 13 (1/2) to 25 (1)	3 (1/8)	5 (3/16)
> 25 (1)	5 (3/16)	6 (1/4)

Surface Condition (As Welded)

Test Solution: N/A

Test Date(s): Aug 23/17Tested by: Mark Makowski Ambient Conditions: 17°

Items Tested:

TK-2 ROOF

Results:

VISUAL COMPLETED ON TK-2 ROOF. NO
DEFECTS WERE FOUND. ALL WELDING ACCEPTABLE.

Sub-Arc Representative Signature: [Signature] Date: Aug 23/17

Client Representative Signature: _____ Date: _____

Client Signature: Cherita Chern Bonina Date: Aug 23/17



Test Certificate

12400 Highway 43 North, Axis, Alabama 36505, US

Item 12 - Roof - MTR

Form TC1: Revision 2: Date 23 Apr 2014

Customer: SAMUEL, SON & CO. LTD 1250 APPLEBY LINE BURLINGTON ON L7L5G6	Customer P.O.No.: C41966 & 41-490196	Mill Order No. 41-491119-13	Shipping Manifest: AR240131
	Product Description: CSA G40.21(2013) 38WT/260WT - CAT 5;LCVN 15FT.LBS,TCVN13FT.LBS@-45F/A673-P ALLOYS API650(12TH ED) TABLE 4-1 GR.IIIA NORMALIZED		Ship Date: 21 Feb 17 Cert Date: 21 Feb 17
	Size: 0.250 X 120.0 X 480.0 (IN)		Cert No: 081597448 (Page 1 of 2)

Tested Pieces:				Tensiles:						Charpy Impact Tests											
Heat Id	Piece Id	Tested Thickness	Tst Loc	YS (KSI)	UTS (KSI)	%RA	Elong % 2in 8in	Tst Dir	Hardness	Abs. Energy(FTLB) 1 2 3 Avg				% Shear 1 2 3 Avg				Tst Tmp	Tst Dir	Tst Siz (mm)	BDWTT Tmp %Shr
E7B102	E11	0.256 (DISCRT)	C							33	44	37	38					-50F	L	5.0	
			C							35	27	34	32					-50F	T	5.0	
E7B102	E12	0.256 (DISCRT)	C							39	40	36	38					-50F	L	5.0	
			C							27	25	22	25					-50F	T	5.0	
E7B102	E13	0.255 (DISCRT)	C	55	76		26	T		35	34	30	33					-50F	L	5.0	
			C							27	44	41	37					-50F	T	5.0	
E7B102	E14	0.256 (DISCRT)	C	55	75		24	T		56	41	58	52					-50F	L	5.0	
			C							27	32	30	30					-50F	T	5.0	
W7B598	E06	0.256 (DISCRT)	C							30	30	30	30					-50F	L	5.0	
			C							37	27	23	29					-50F	T	5.0	
W7B598	E07	0.256 (DISCRT)	C	52	72		25	T													
W7B598	E08	0.256 (DISCRT)	C	51	71		25	T													
W7B598	E10	0.256 (DISCRT)	C							32	40	31	34					-50F	L	5.0	
			C							28	34	28	30					-50F	T	5.0	

Heat Id		Chemical Analysis																ORGN
		C	Mn	P	S	Si	Tot Al	Sol Al	Cu	Ni	Cr	Mo	Cb	V	Ti	B	N	
E7B102		.18	.94	.009	.001	.25	.027	.025	.26	.12	.11	.05	.002	.005	.011	.0002	.0076	USA
W7B598		.18	.92	.009	.001	.24	.028	.022	.26	.13	.08	.05	.001	.004	.011	.0002	.0078	USA

KILLED STEEL

MERCURY IS NOT A METALLURGICAL COMPONENT OF THE STEEL AND NO MERCURY WAS INTENTIONALLY ADDED DURING THE MANUFACTURE OF THIS PRODUCT.

KILLED STEEL, PRODUCED TO A FINE GRAIN PRACTICE

MTR EN 10204:2004 INSPECTION CERTIFICATE 3.1 COMPLIANT

CHARPY FULL SIZE EQUIVALENT = ABSORBED ENERGY AVG X 10 / TEST SIZE IN MM

NORMALIZED PLATES. HEATED AT 1665F FOR 14 MINUTES.

TEST COUPONS TAKEN FROM HEAT TREATED PLATE.

PRODUCTS SHIPPED:

W7B598 E06	6705201	PCES:	1, LBS:	4084	W7B598 E06	6705200	PCES:	1, LBS:	4084
E7B102 E14	6705250	PCES:	1, LBS:	4084	E7B102 E14	6705249	PCES:	1, LBS:	4084
E7B102 E13	6705243	PCES:	1, LBS:	4084	E7B102 E12	6705236	PCES:	1, LBS:	4084
E7B102 E13	6705244	PCES:	1, LBS:	4084	W7B598 E06	6705199	PCES:	1, LBS:	4084
E7B102 E12	6705235	PCES:	1, LBS:	4084	E7B102 E13	6705234	PCES:	1, LBS:	4084
E7B102 E11	6705193	PCES:	1, LBS:	4084	E7B102 E11	6705190	PCES:	1, LBS:	4084

(P)

Cust Part #:

WE HEREBY CERTIFY THAT THIS MATERIAL WAS
TESTED IN ACCORDANCE WITH, AND MEETS THE
REQUIREMENTS OF, THE APPROPRIATE SPECIFICATION

Justin Ward +1 251 662 4400
SENIOR METALLURGIST - PRODUCT



Test Certificate

12400 Highway 43 North, Axis, Alabama 36505, US

Item 12 - Roof - MTR

Form TC1: Revision 2: Date 23 Apr 2014

Customer: SAMUEL, SON & CO. LTD 1250 APPLEBY LINE BURLINGTON ON L7L5G6	Customer P.O.No.: C41966 & 41-490196	Mill Order No. 41-491119-13	Shipping Manifest: AR240131	
	Product Description: CSA G40.21(2013) 38WT/260WT - CAT 5;LCVN 15FT.LBS,TCVN13FT.LBS@-45F/A673-P ALLOYS API650(12TH ED) TABLE 4-1 GR.IIIA NORMALIZED	Ship Date: 21 Feb 17 Cert Date: 21 Feb 17		Cert No: 081597448 (Page 2 of 2)
	Size: 0.250 X 120.0 X 480.0 (IN)			

Tested Pieces:				Tensiles:						Charpy Impact Tests															
Heat Id	Piece Id	Tested Thickness	Tst Loc	YS (KSI)	UTS (KSI)	%RA	Elong % 2in 8in	Tst Dir	Hardness	Abs. Energy(FTLB) 1 2 3 Avg				% Shear 1 2 3 Avg				Tst Tmp	Tst Dir	Tst Siz (mm)	BDWTT Tmp %Shr				
W7B598	E10	6705178	PCES:	1, LBS:	4084				E7B102 E11	6705183	PCES:	1, LBS:	4084												
W7B598	E10	6705177	PCES:	1, LBS:	4084				W7B598 E10	6705181	PCES:	1, LBS:	4084												
W7B598	E10	6705179	PCES:	1, LBS:	4084				W7B598 E10	6705189	PCES:	1, LBS:	4084												
W7B598	E10	6705186	PCES:	1, LBS:	4084				E7B102 E11	6705172	PCES:	1, LBS:	4084												
E7B102	E11	6705176	PCES:	1, LBS:	4084				W7B598 E10	6705180	PCES:	1, LBS:	4084												
E7B102	E11	6705192	PCES:	1, LBS:	4084				E7B102 E11	6705194	PCES:	1, LBS:	4084												
E7B102	E11	6705184	PCES:	1, LBS:	4084				E7B102 E11	6705185	PCES:	1, LBS:	4084												
W7B598	E06	6705207	PCES:	1, LBS:	4084				W7B598 E06	6705206	PCES:	1, LBS:	4084												
E7B102	E12	6705239	PCES:	1, LBS:	4084				E7B102 E12	6705231	PCES:	1, LBS:	4084												
E7B102	E14	6705247	PCES:	1, LBS:	4084				E7B102 E13	6705242	PCES:	1, LBS:	4084												
E7B102	E14	6705248	PCES:	1, LBS:	4084				E7B102 E12	6705237	PCES:	1, LBS:	4084												
W7B598	E06	6705209	PCES:	1, LBS:	4084				E7B102 E13	6705240	PCES:	1, LBS:	4084												
E7B102	E12	6705238	PCES:	1, LBS:	4084				W7B598 E06	6705198	PCES:	1, LBS:	4084												
E7B102	E14	6705251	PCES:	1, LBS:	4084				W7B598 E06	6705197	PCES:	1, LBS:	4084												
E7B102	E13	6705241	PCES:	1, LBS:	4084				E7B102 E12	6705230	PCES:	1, LBS:	4084												

(P)

Cust Part #:

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TESTED IN ACCORDANCE WITH, AND MEETS THE
REQUIREMENTS OF, THE APPROPRIATE SPECIFICATION

Justin Ward +1 251 662 4400
SENIOR METALLURGIST - PRODUCT



Test Certificate

12400 Highway 43 North, Axis, Alabama 36505, US

Item 12 - Roof - MTR

Form TC1: Revision 2: Date 23 Apr 2014

Customer: SAMUEL, SON & CO. LTD 1250 APPLEBY LINE BURLINGTON ON L7L5G6	Customer P.O.No.: C41965 & 41-490195	Mill Order No. 41-491117-01	Shipping Manifest: AR240135
	Product Description: CSA G40.21(2013) 38WT/260WT - CAT 5;LCVN 15FT.LBS,TCVN13FT.LBS@-45F/A673-P ALLOYS API650(12TH ED) TABLE 4-1 GR.IIIA NORMALIZED		Ship Date: 21 Feb 17 Cert Date: 21 Feb 17
	Size: 0.250 X 120.0 X 480.0 (IN)		Cert No: 081597458 (Page 1 of 2)

Tested Pieces:				Tensiles:						Charpy Impact Tests											
Heat Id	Piece Id	Tested Thickness	Tst Loc	YS (KSI)	UTS (KSI)	%RA	Elong % 2in 8in	Tst Dir	Hardness	Abs. Energy(FTLB) 1 2 3 Avg				% Shear 1 2 3 Avg				Tst Tmp	Tst Dir	Tst Siz (mm)	BDWTT Tmp %Shr
E7B101	E01	0.256 (DISCRT)	C	53	75		25	T													
E7B101	E02	0.256 (DISCRT)	C							37	27	59	41					-50F	L	5.0	
			C							24	36	28	29					-50F	T	5.0	
E7B101	E03	0.256 (DISCRT)	C	54	75		27	T		51	62	61	58					-50F	L	5.0	
			C							37	30	27	31					-50F	T	5.0	
E7B101	E04	0.256 (DISCRT)	C							22	33	38	31					-50F	L	5.0	
			C							42	37	48	42					-50F	T	5.0	
E7B101	E05	0.256 (DISCRT)	C							61	49	61	57					-50F	L	5.0	
			C							32	41	32	35					-50F	T	5.0	
W7B598	E07	0.256 (DISCRT)	C	52	72		25	T													
W7B598	E08	0.256 (DISCRT)	C	51	71		25	T		33	31	37	34					-45F	L	5.0	
			C							30	28	31	30					-45F	T	5.0	
W7B598	E09	0.256 (DISCRT)	C							43	31	55	43					-50F	L	5.0	
			C							33	30	31	31					-50F	T	5.0	

Heat Id		Chemical Analysis																ORGN
		C	Mn	P	S	Si	Tot Al	Sol Al	Cu	Ni	Cr	Mo	Cb	V	Ti	B	N	
E7B101		.19	.92	.010	<.001	.24	.022	.020	.24	.13	.10	.04	.002	.005	.010	.0002	.0069	USA
W7B598		.18	.92	.009	.001	.24	.028	.022	.26	.13	.08	.05	.001	.004	.011	.0002	.0078	USA

KILLED STEEL

MERCURY IS NOT A METALLURGICAL COMPONENT OF THE STEEL AND NO MERCURY WAS INTENTIONALLY ADDED DURING THE MANUFACTURE OF THIS PRODUCT.

KILLED STEEL, PRODUCED TO A FINE GRAIN PRACTICE

MTR EN 10204:2004 INSPECTION CERTIFICATE 3.1 COMPLIANT

CHARPY FULL SIZE EQUIVALENT = ABSORBED ENERGY AVG X 10 / TEST SIZE IN MM

NORMALIZED PLATES. HEATED AT 1665F FOR 14 MINUTES.

TEST COUPONS TAKEN FROM HEAT TREATED PLATE.

PRODUCTS SHIPPED:

E7B101 E05	6705084	PCES:	1, LBS:	4084	E7B101 E02	6705125	PCES:	1, LBS:	4084
E7B101 E02	6705123	PCES:	1, LBS:	4084	E7B101 E05	6705086	PCES:	1, LBS:	4084
E7B101 E03	6705100	PCES:	1, LBS:	4084	E7B101 E05	6705085	PCES:	1, LBS:	4084
E7B101 E02	6705124	PCES:	1, LBS:	4084	W7B598 E08	6705042	PCES:	1, LBS:	4084
W7B598 E08	6705041	PCES:	1, LBS:	4084	W7B598 E08	6705040	PCES:	1, LBS:	4084
W7B598 E09	6705038	PCES:	1, LBS:	4084	W7B598 E08	6705043	PCES:	1, LBS:	4084

(P)

Cust Part #:

WE HEREBY CERTIFY THAT THIS MATERIAL WAS
TESTED IN ACCORDANCE WITH, AND MEETS THE
REQUIREMENTS OF, THE APPROPRIATE SPECIFICATION

Justin Ward +1 251 662 4400
SENIOR METALLURGIST - PRODUCT



12400 Highway 43 North, Axis, Alabama 36505, US

Test Certificate

Item 12 - Roof - MTR

Form TC1: Revision 2: Date 23 Apr 2014

Customer: SAMUEL, SON & CO. LTD 1250 APPLEBY LINE BURLINGTON ON L7L5G6	Customer P.O.No.: C41965 & 41-490195	Mill Order No. 41-491117-01	Shipping Manifest: AR240135	
	Product Description: CSA G40.21(2013) 38WT/260WT - CAT 5;LCVN 15FT.LBS,TCVN13FT.LBS@-45F/A673-P ALLOYS API650(12TH ED) TABLE 4-1 GR.IIIA NORMALIZED		Ship Date: 21 Feb 17 Cert Date: 21 Feb 17	Cert No: 081597458 (Page 2 of 2)
	Size: 0.250 X 120.0 X 480.0 (IN)			

Tested Pieces:				Tensiles:						Charpy Impact Tests											
Heat Id	Piece Id	Tested Thickness	Tst Loc	YS (KSI)	UTS (KSI)	%RA	Elong % 2in 8in	Tst Dir	Hardness	Abs. Energy(FTLB) 1 2 3 Avg				% Shear 1 2 3 Avg				Tst Tmp	Tst Dir	Tst Siz (mm)	BDWTT Tmp %Shr

W7B598 E08	6705039	PCES:	1, LBS:	4084	E7B101 E05	6705087	PCES:	1, LBS:	4084
W7B598 E08	6705052	PCES:	1, LBS:	4084	W7B598 E08	6705050	PCES:	1, LBS:	4084
W7B598 E08	6705049	PCES:	1, LBS:	4084	W7B598 E08	6705044	PCES:	1, LBS:	4084
W7B598 E08	6705045	PCES:	1, LBS:	4084	E7B101 E04	6705126	PCES:	1, LBS:	4084
E7B101 E02	6705151	PCES:	1, LBS:	4084	E7B101 E02	6705152	PCES:	1, LBS:	4084
E7B101 E02	6705150	PCES:	1, LBS:	4084	E7B101 E05	6705162	PCES:	1, LBS:	4084
E7B101 E05	6705160	PCES:	1, LBS:	4084	E7B101 E05	6705153	PCES:	1, LBS:	4084
E7B101 E05	6705161	PCES:	1, LBS:	4084	E7B101 E04	6705129	PCES:	1, LBS:	4084
E7B101 E04	6705127	PCES:	1, LBS:	4084	E7B101 E04	6705130	PCES:	1, LBS:	4084
E7B101 E04	6705128	PCES:	1, LBS:	4084	E7B101 E05	6705163	PCES:	1, LBS:	4084
E7B101 E02	6705149	PCES:	1, LBS:	4084	E7B101 E04	6705102	PCES:	1, LBS:	4084
W7B598 E08	6705046	PCES:	1, LBS:	4084					

(P)

Cust Part #:

WE HEREBY CERTIFY THAT THIS MATERIAL WAS
TESTED IN ACCORDANCE WITH, AND MEETS THE
REQUIREMENTS OF, THE APPROPRIATE SPECIFICATION

Justin Ward +1 251 662 4400
SENIOR METALLURGIST - PRODUCT



Test Certificate

12400 Highway 43 North, Axis, Alabama 36505, US

Item 12 - Roof - MTR

Form TC1: Revision 2: Date 23 Apr 2014

Customer: SAMUEL, SON & CO. LTD 1250 APPLEBY LINE BURLINGTON ON L7L5G6	Customer P.O.No.: C41965 & 41-496189	Mill Order No. 41-496191-01	Shipping Manifest: AR240215	
	Product Description: CSA G40.21(2013) 38WT/260WT - CAT 5;LCVN 15min LBS, 20min LBS, 45F/A673-P ALLOYS API650(12TH ED) TABLE 4-1 GR.IIIA NORMALIZED		Ship Date: 22 Feb 17 Cert Date: 22 Feb 17	Cert No: 081597726 (Page 1 of 2)
	Size: 0.250 X 120.0 X 480.0 (IN)			

Tested Pieces:				Tensiles:						Charpy Impact Tests											
Heat Id	Piece Id	Tested Thickness	Tst Loc	YS (KSI)	UTS (KSI)	%RA	Elong % 2in 8in	Tst Dir	Hardness	Abs. Energy(FTLB)				% Shear				Tst Tmp	Tst Dir	Tst Siz (mm)	BDWTT Tmp %Shr
				1	2	3	Avg			1	2	3	Avg	1	2	3	Avg				
E7B102	E13	0.255 (DISCRT)	C	55	76		26	T		35	34	30	33					-50F	L	5.0	
			C							27	44	41	37					-50F	T	5.0	
W7B598	E07	0.256 (DISCRT)	C	52	72		25	T		36	34	32	34					-45F	L	5.0	
			C							30	29	27	29					-45F	T	5.0	
W7B598	E08	0.256 (DISCRT)	C	51	71		25	T													
W7B598	E09	0.256 (DISCRT)	C							43	31	55	43					-50F	L	5.0	
			C							33	30	31	31					-50F	T	5.0	
W7B598	E10	0.256 (DISCRT)	C							32	40	31	34					-50F	L	5.0	
			C							28	34	28	30					-50F	T	5.0	

Heat Id		Chemical Analysis																ORGN
		C	Mn	P	S	Si	Tot Al	Sol Al	Cu	Ni	Cr	Mo	Cb	V	Ti	B	N	
E7B102		.18	.94	.009	.001	.25	.027	.025	.26	.12	.11	.05	.002	.005	.011	.0002	.0076	USA
W7B598		.18	.92	.009	.001	.24	.028	.022	.26	.13	.08	.05	.001	.004	.011	.0002	.0078	USA

KILLED STEEL

MERCURY IS NOT A METALLURGICAL COMPONENT OF THE STEEL AND NO MERCURY WAS INTENTIONALLY ADDED DURING THE MANUFACTURE OF THIS PRODUCT.

KILLED STEEL, PRODUCED TO A FINE GRAIN PRACTICE

MTR EN 10204:2004 INSPECTION CERTIFICATE 3.1 COMPLIANT

CHARPY FULL SIZE EQUIVALENT = ABSORBED ENERGY AVG X 10 / TEST SIZE IN MM

NORMALIZED PLATES. HEATED AT 1665F FOR 15 MINUTES.

TEST COUPONS TAKEN FROM HEAT TREATED PLATE.

PRODUCTS SHIPPED:

W7B598 E10	6705182	PCES:	1, LBS:	4084	W7B598 E07	6705202	PCES:	1, LBS:	4084
W7B598 E07	6705203	PCES:	1, LBS:	4084	W7B598 E07	6705204	PCES:	1, LBS:	4084
W7B598 E07	6705205	PCES:	1, LBS:	4084	W7B598 E09	6705210	PCES:	1, LBS:	4084
W7B598 E07	6705211	PCES:	1, LBS:	4084	W7B598 E07	6705212	PCES:	1, LBS:	4084
W7B598 E07	6705213	PCES:	1, LBS:	4084	W7B598 E07	6705214	PCES:	1, LBS:	4084
W7B598 E07	6705215	PCES:	1, LBS:	4084	W7B598 E10	6705216	PCES:	1, LBS:	4084
W7B598 E10	6705217	PCES:	1, LBS:	4084	W7B598 E10	6705218	PCES:	1, LBS:	4084
W7B598 E10	6705219	PCES:	1, LBS:	4084	W7B598 E09	6705220	PCES:	1, LBS:	4084
W7B598 E09	6705221	PCES:	1, LBS:	4084	W7B598 E09	6705222	PCES:	1, LBS:	4084
W7B598 E09	6705223	PCES:	1, LBS:	4084	E7B102 E13	6705232	PCES:	1, LBS:	4084
E7B102 E13	6705233	PCES:	1, LBS:	4084	E7B102 E13	6705245	PCES:	1, LBS:	4084

(P)

Cust Part #:

WE HEREBY CERTIFY THAT THIS MATERIAL WAS
TESTED IN ACCORDANCE WITH, AND MEETS THE
REQUIREMENTS OF, THE APPROPRIATE SPECIFICATION

Justin Ward +1 251 662 4400
SENIOR METALLURGIST - PRODUCT

Item 13 – Roof Structure

Contents

1. Column Plumbness Dimension Report
2. Visual Report

Sub-Arc Systems Inc.

4605-47 Street
Vermillion, AB, T9X 1L6
780-608-9589

QUALITY CONTROL MANUAL

Exhibit 19, Rev A

DIMENSIONAL CHECK REPORT - PLUMBNESS

Customer: AGNICO EAGLE

Location: BANKIN INLET. TK.02

Equipment Tag No.:

Equipment Type:

Equipment Description:

Code Requiring Test: API 650

Reason for Test: New Construction

(The tank shell will be checked for plumb at 12" below the tank roof. Plumb measurements will be checked at 45 degree intervals or less, max. 20' spacing)

Test Date(s): AUG 31/17

Tested by: MATT MACKENZIE

Seam Test Results:

ALL ROOF STRUCTURE COLUMNS ARE
PLUMB. + ACCEPTABLE AT TIME OF
INSPECTION.

Sub-Arc Representative Signature: [Signature] Date: AUG 31/17.

Client Representative Signature: _____ Date: _____

Client Signature: [Signature] Date: Sept 04/17

QUALITY CONTROL MANUAL

Exhibit 15c, Rev 1

VISUAL TEST REPORT

Customer: Agnico Eagle

Location: Rankin Inlet

Code Requiring Test: API 650 (section 8.5.2)

Reason for Test: New Construction

A weld shall be acceptable by visual examination if the inspection shows the following.

- There are no crater cracks, other surface cracks or arc strikes in or adjacent to the welded joints.
- Maximum permissible undercut is 0.4 mm (1/64 in.) in depth for vertical butt joints, vertically oriented permanent attachments, attachment welds for nozzles, manholes, flush-type openings, and the inside shell-to-bottom welds. For horizontal butt joints, horizontally oriented permanent attachments, and annular-ring butt joints, the maximum permissible undercut is 0.8 mm (1/32 in.) in depth.
- The frequency of surface porosity in the weld does not exceed one cluster (one or more pores) in any 100 mm (4 in.) of length, and the diameter of each cluster does not exceed 2.5 mm (3/32 in.).
- The reinforcement of the welds on all thicknesses:

Plate Thickness mm (in.)	Maximum Reinforcement thickness mm (in.)	
	Vertical Joints	Horizontal Joints
≤ 13 (1/2)	2.5 (3/32)	3 (1/8)
> 13 (1/2) to 25 (1)	3 (1/8)	5 (3/16)
> 25 (1)	5 (3/16)	6 (1/4)

Surface Condition (As Welded)

Test Solution: N/A

Test Date(s): AUG 23/17Tested by: MATT MACKENZIEAmbient Conditions: 17°

Items Tested:

ROOF STRUCTURE

Results:

ALL ROOF STRUCTURE WELDING + BOLT UP ACCEPTABLE.Sub-Arc Representative Signature: Matt Mackenzie Date: AUG 23/17

Client Representative Signature: _____ Date: _____

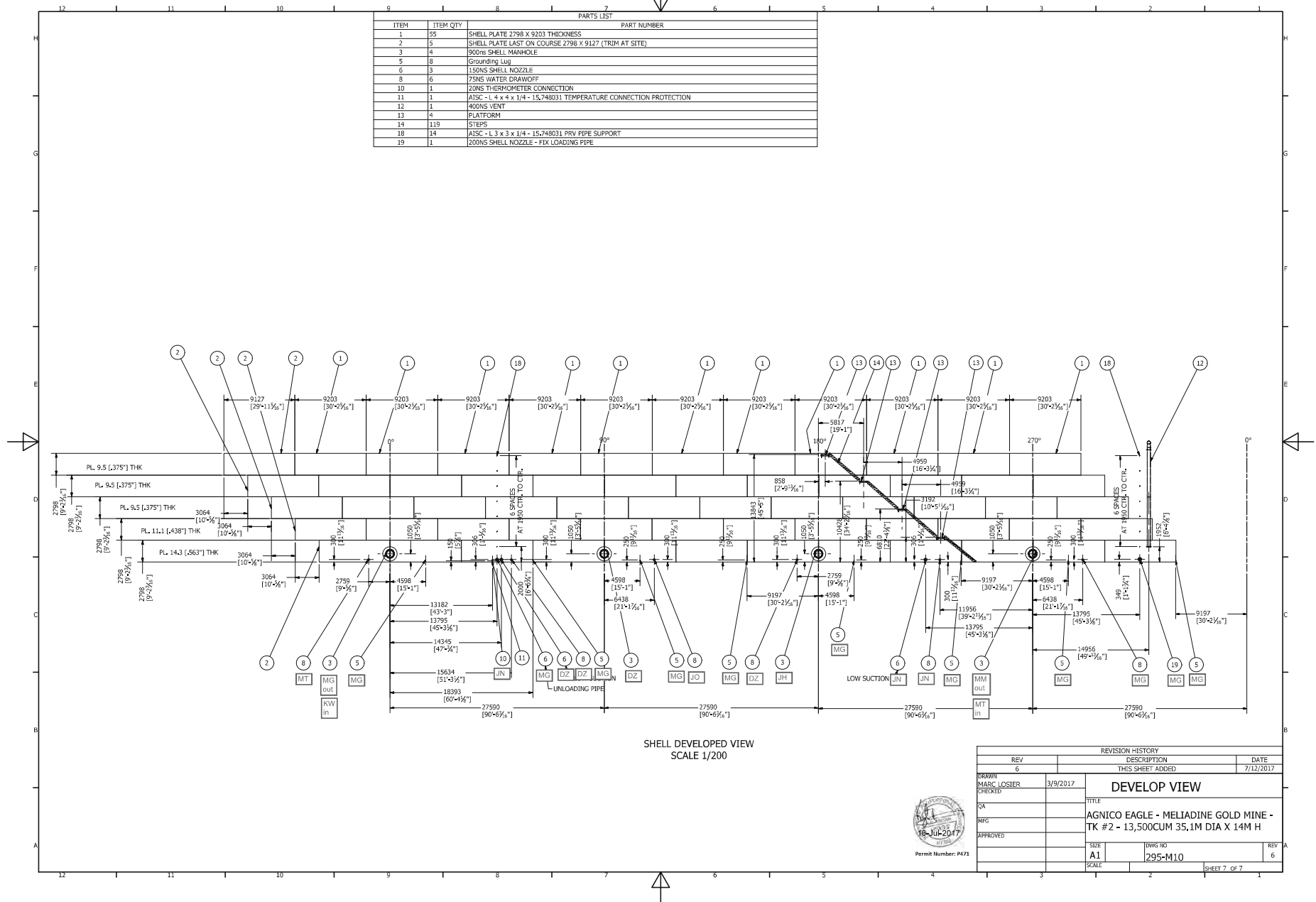
Client Signature: Clem Bonita Date: AUG 23/17

Item 14 - Nozzles

Contents

1. Weld Map
2. Plumbness Dimension Report
3. Visual Report
4. Air Test – Leak Test Report
5. MPI Report
6. PVRV Test Reports

Item 14 - Nozzles - Weld Map



Sub-Arc Systems Inc.

4605-47 Street
Vermillion, AB, T9X 1L6
780-608-9589

QUALITY CONTROL MANUAL

Exhibit 19, Rev A

DIMENSIONAL CHECK REPORT - PLUMBNESS

Customer: AGNICO EAGLE

Location: RANKIN INLET TK-02.

Equipment Tag No.:

Equipment Type:

Equipment Description:

Code Requiring Test: API 650

Reason for Test: New Construction

(The tank shell will be checked for plumb at 12" below the tank roof. Plumb measurements will be checked at 45 degree intervals or less, max. 20' spacing)

Test Date(s):

Tested by:

Seam Test Results:

TANK SHELL IS PLUMB IN ALL AREAS
THAT HAVE NOZZLES.

Sub-Arc Representative Signature: [Signature] Date: Aug 31/17

Client Representative Signature: _____ Date: _____

Client Signature: [Signature] Date: Sept 04/17

Item 14 - Nozzles - Dimension Report and Plumbness

External Nozzle Dimension Report

Submit sketch for unusual deadwood

External

[illegible]

Gls/8th

It is very important to note if tubular roof supports (pipes) are open (fills with product) or closed.

TANK No.: 2

**Enter SUMP details in
this first row ONLY**

op = Open Pipe
cp = Closed Pipe

ch = Channel

Height
FromOffice
Use[illegible]

QUALITY CONTROL MANUAL

Exhibit 15c, Rev 1

VISUAL TEST REPORT

Customer: Agnico Eagle

Location: Rankin Inlet

Code Requiring Test: API 650 (section 8.5.2)

Reason for Test: New Construction

A weld shall be acceptable by visual examination if the inspection shows the following.

- There are no crater cracks, other surface cracks or arc strikes in or adjacent to the welded joints.
- Maximum permissible undercut is 0.4 mm (1/64 in.) in depth for vertical butt joints, vertically oriented permanent attachments, attachment welds for nozzles, manholes, flush-type openings, and the inside shell-to-bottom welds. For horizontal butt joints, horizontally oriented permanent attachments, and annular-ring butt joints, the maximum permissible undercut is 0.8 mm (1/32 in.) in depth.
- The frequency of surface porosity in the weld does not exceed one cluster (one or more pores) in any 100 mm (4 in.) of length, and the diameter of each cluster does not exceed 2.5 mm (3/32 in.).
- The reinforcement of the welds on all thicknesses:

Plate Thickness mm (in.)	Maximum Reinforcement Thickness mm (in.)	
	Vertical Joints	Horizontal Joints
≤ 13 (1/2)	2.6 (3/32)	3 (1/8)
> 13 (1/2) to 25 (1)	3 (1/8)	5 (3/16)
> 25 (1)	5 (3/16)	6 (1/4)

Surface Condition (As Welded)

Test Solution: N/A

Test Date(s): Aug 31/17

Tested by: MATT MACKENZIE

Ambient Conditions: 10°

Items Tested:

SHELL NOZZLES.

Results:

ALL WELDING ACCEPTABLE ON SHELL NOZZLES.

Sub-Arc Representative Signature: Matt Mackenzie Date: Aug 31/17

Client Representative Signature: _____ Date: _____

Client Signature: Olson Bonica Date: Sept 04/17

Sub-Arc Systems Inc.

4605-47 Street
Vermillion, AB, T9X 1L6
780-608-9589

QUALITY CONTROL MANUAL

Exhibit 12, Rev 1

AIR TEST REPORT - NOZZLE REINFORCEMENT PLATE WELDS

Customer: AGNICO EAGLELocation: RANKIN INLET TK.02

Equipment Tag No.:

Equipment Type:

Equipment Description:

Code Requiring Test: API 650

Reason for Test: New Construction

(An air pressure/soap solution test for nozzle reinforcement plate weld seams is required for new construction or major alterations, no visible leaks should be observed)

Test Pressure: 100 kPa (15 psi) Surface Condition (As Welded, Painted, Blasted)

Test Solution: Water / Snoop:

Test Date(s): Aug 31/17Tested by: MATT TURMEZPressure Gauge: 15 Ambient Conditions: 10°

Items Tested:

NOZZLE REPAIRS.

Results:

ALL NOZZLE REPAIRS WERE AIR TESTED.NO LEAKS WERE FOUND AT TIME OF INSPECTION.Sub-Arc Representative Signature: [Signature] Date: Aug 31/17.

Client Representative Signature: _____ Date: _____

Client Signature: [Signature] Date: Sept 04/17



Client :	Inukshuk Construction Ltd,	Date d'intervention : Intervention date :	2017-08-30
Adresse/Address :	PO Box 654 Rankin Inlet, Nunavut X0C 0G0	Date du rapport : Report date :	2017-09-08
Contact :	Marc Losier	N° dossier : File no :	INS-117107-01_R01
Entrepreneur : Contractor :	N/A	Commande : Order :	295-1046
Endroit du travail : Job location :	Rankin Inlet , Nunavut		

Page 1 de/ of 3

INSP. VISUELLE VISUAL INSP.	☐	MAGNÉTOSCOPIE MAGNETIC PARTICLES	☒	RESSUAGE LIQUID PENETRANT	☐	ULTRASONS ULTRASONIC	☒
DESCRIPTION :							
<u>Magnetic particles inspection and Ultrasonic inspection on tank 2</u>							
The client is opting to use an ultrasonic testing, instead of radiographic testing							
Remark : Visual testing was performed by client I							
INSP. VISUELLE / VISUAL INSP.		NORME : SPECIFICATION :		N° équip. : Equip. no :		N/A	
MAGNÉTOSCOPIE MAGNETIC PARTICLES		NORME : SPECIFICATION : API 650		N° équip. : Equip. no :		MP-Q-27	
Ampérage : Amperage :	Culasse/Yoke	Continue Continuous	☒	Résiduelle Residual	☐	Humide Wet	☐
Longitudinale Longitudinal	☐	Circulaire Circular	☐	C.A. A.C.	☒	Sèche Dry	☒
RESSUAGE LIQUID PENETRANT		NORME : SPECIFICATION :		N° équip. : Equip. no :			
Pénétrant/Penetrant :		Émulsifiant/Emulsifier :		Révélateur/Developer :			
Temps/Time :		Temps/Time :		Temps/Time :			
ULTRASONS / ULTRASONIC		NORME : SPECIFICATION : API 650		N° équip. : Equip. no :			
ÉTALONNAGE/CALIBRATION :		Trou/Hole : N/A		C.A.D. /D.A.C. :		☒	
Bloc/Block : IIW Type 2							
APPAREIL/EQUIPMENT :		Couplant : Echogel		Échelle/Sweep length :			
Instrument : USM GO+		Palpeur/Transducer : 0° degré and 70° degré					
N° équip./Equip. no : UT-Q-34							
RÉSULTATS/RESULTS :							
For ultrasonic results: All spots are acceptable. See attached tables for locations.							
Magnetic particles inspection was performed on angle joint between the shell and nozzle, inside and outside the tank:							
-Inside tank, weld between shell/nozzle, with a 100%: magnetic particles inspection, is acceptable -Outside tank, weld between shell/pad & weld between pad/nozzle, with 100% (note 1): magnetic particles inspection, is acceptable.							
Note 1: Fourteen (14) nozzles including four (4) manholes and one nozzle outside, does not have pad . Please refer to drawing 295-M10; part section K-K item #10. This nozzle corresponds to a ¾" coupling for a water temperature gauge in the shell and the client has advised that no repad is needed for this specific coupling.							
Techniciens : Technicians :		Sylvain Germain CSA W178.2 level 2		Assistants:		Approuvé par : Approved by : Pierre Dostie Technical Supervisor CSA W178.2, niveau 3	

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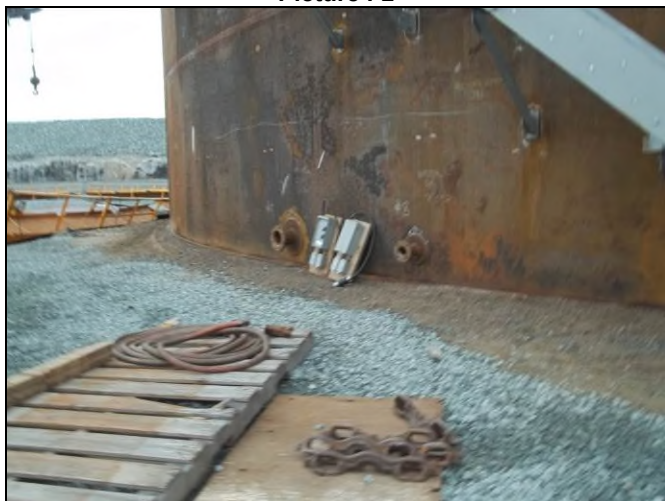
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Client :	Inukshuk Construction Ltd,	Date d'intervention :	2017-08-30
Adresse/Address :	PO Box 654 Rankin Inlet, Nunavut X0C 0G0	Intervention date :	
Contact :	Marc Losier	Date du rapport :	2017-09-08
Entrepreneur :	N/A	Report date :	
Contractor :		N° dossier :	INS-117107-01_R01
Endroit du travail :	Rankin Inlet , Nunavut	File no :	
Job location :		Commande :	295-1046
		Order :	

Picture : 1



View of some nozzles

Picture : 2



View of tank 2

Techniciens :	Sylvain Germain	Assistants:		Approuvé par :	Pierre Dostie
Technicians :				Approved by :	Technical Supervisor
	CSA W178.2 level 2				CSA W178.2, niveau 3

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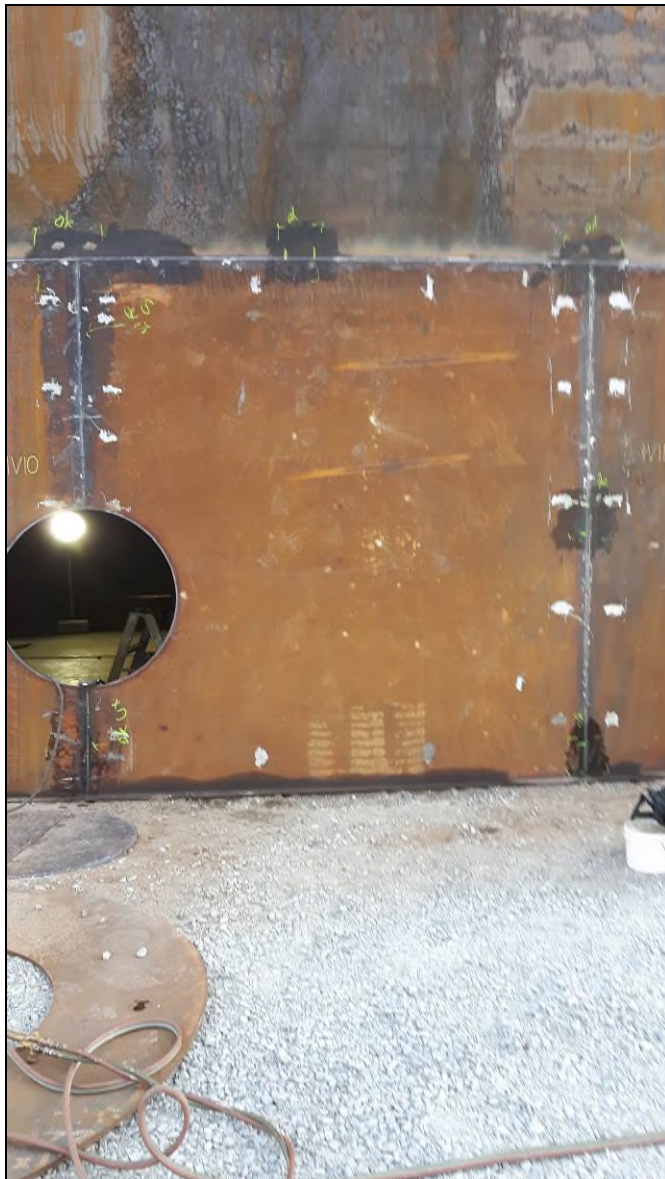
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Client : Inukshuk Construction Ltd, Adresse/Address : PO Box 654 Rankin Inlet, Nunavut X0C 0G0	Date d'intervention : 2017-08-30 Intervention date :
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Contact : Marc Losier	N° dossier : INS-117107-01_R01 File no :
Entrepreneur : N/A Contractor :	Commande : 295-1046 Order :
Endroit du travail : Rankin Inlet , Nunavut Job location :	

Picture :3



View of manhole before padding

Techniciens : Sylvain Germain Technicians : CSA W178.2 level 2	Assistants:	Approuvé par : Pierre Dostie Approved by : Technical Supervisor CSA W178.2, niveau 3
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