



Customer: CANADIAN NATURAL RES. Description: HORIZONTAL INLET SEPARATOR

Facility: KNOPCIK SOUR Location: 11-28-74-10 W6M (CENTRAL)

Reg A#: 433615 Serial #: V-2699A Drawing#: 1

CRN #: N-7408.2 Manufacturer: OPSCO 92' IND. Unit #: N/A Year Built: 1997

Shell MAWP: 9894 kPa Shell MAWT: 54°C Shell Material: SA 516 70 Nominal: 63.5mm CA: 3.2mm

Tube "A" MAWP: _____ Tube "A" MAWT: _____ Head Material: SA 516 70 Nominal: 61.6mm CA: 3.2mm

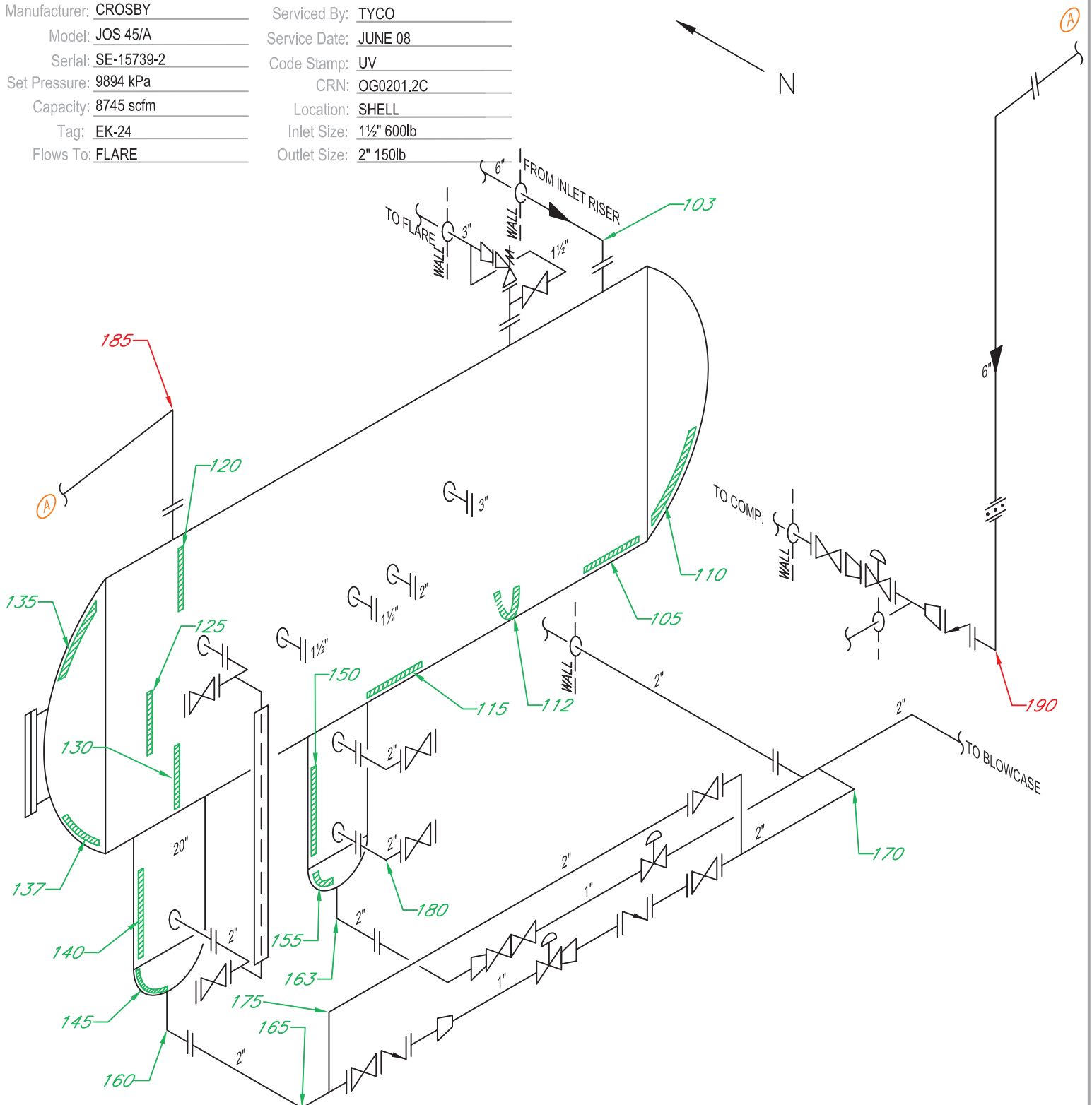
Tube "B" MAWP: _____ Tube "B" MAWT: _____ Tube Material: _____ Nominal: _____ CA: _____

Size: 48" x 18' Manway: YES MDMT: -29°C Boot Shell Mat: N/S Nominal: 20"/12" PIPE CA: 3.2mm

Insulated: NO C Stamp: U RT: 1 PWHT: YES Boot Head Mat: N/S Nominal: 20"/12" PIPE CA: 3.2mm

PSV DATA

Manufacturer: CROSBY Serviced By: TYCO
 Model: JOS 45/A Service Date: JUNE 08
 Serial: SE-15739-2 Code Stamp: UV
 Set Pressure: 9894 kPa CRN: OG0201.2C
 Capacity: 8745 scfm Location: SHELL
 Tag: EK-24 Inlet Size: 1½" 600lb
 Flows To: FLARE Outlet Size: 2" 150lb





UTS Data Sheet

Client: **Canadian Natural Resources**
 Facility: **Knopcik Sour**
 LSD: **11-28-74-10 w6m (Central)**
 Equip Description: **Horizontal Inlet Separator**
 Reg A#: **433615**
 Drawing #: **1**

				Nominal Thickness (mm)	Corrosion Allowance (mm)	Flag Thickness (mm)
103	Description: 6" 90° Elbow			11.0	1.4	9.6
	Date: Oct 2, 08	Jan 25, 10	Nov 15, 11			
	Minimum: 10.2	10.0	10.0			
	Average: 11.0	10.8	10.8			
	Comments:					
105	Description: Bottom Shell			63.5	3.2	60.3
	Date: Oct 2, 08	Jan 25, 10	Nov 15, 11			
	Minimum: 63.9	63.9	63.9			
	Average: 64.0	64.0	64.0			
	Comments:					
110	Description: Lower East Head			61.6	3.2	58.4
	Date: Oct 2, 08	Jan 25, 10	Nov 15, 11			
	Minimum: 62.2	62.2	62.2			
	Average: 63.3	63.3	63.3			
	Comments: <i>Min scan at top of band.</i>					
112	Description: Bottom Shell			63.5	3.2	60.3
	Date: Oct 2, 08	Jan 25, 10	Nov 15, 11			
	Minimum: 64.0	63.7	63.7			
	Average: 64.1	64.0	64.0			
	Comments:					
115	Description: Bottom Shell			63.5	3.2	60.3
	Date: Oct 2, 08	Jan 25, 10	Nov 15, 11			
	Minimum: 64.7	64.5	64.5			
	Average: 64.8	64.7	64.7			
	Comments:					
120	Description: Upper Shell			63.5	3.2	60.3
	Date: Oct 2, 08	Jan 25, 10	Nov 15, 11			
	Minimum: 64.7	64.7	64.7			
	Average: 64.9	64.9	64.9			
	Comments:					
125	Description: Mid Shell			63.5	3.2	60.3
	Date: Oct 2, 08	Jan 25, 10	Nov 15, 11			
	Minimum: 64.6	64.6	64.6			
	Average: 64.7	64.7	64.7			
	Comments:					
130	Description: Lower Shell			63.5	3.2	60.3
	Date: Oct 2, 08	Jan 25, 10	Nov 15, 11			
	Minimum: 64.4	64.4	64.4			
	Average: 64.6	64.6	64.6			
	Comments:					



UTS Data Sheet

Client: **Canadian Natural Resources**
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 LSD: **11-28-74-10 w6m (Central)**
 Equip Description: **Horizontal Inlet Separator**
 Reg A#: **433615**
 Drawing #: **1**

				Nominal Thickness (mm)	Corrosion Allowance (mm)	Flag Thickness (mm)
135	Description: Upper West Head			61.6	3.2	58.4
	Date: Oct 2, 08	Jan 25, 10	Nov 15, 11			
	Minimum: 62.4	62.4	62.4			
	Average: 64.5	64.5	64.5			
	Comments:					
137	Description: Lower West Head			61.6	3.2	58.4
	Date: Oct 2, 08	Jan 25, 10	Nov 15, 11			
	Minimum: 62.8	62.8	62.8			
	Average: 64.4	64.4	64.4			
	Comments: <i>Nov 2011_Min scan at top of band.</i>					
140	Description: Lower Boot Shell			38.1	3.2	34.9
	Date: Oct 2, 08	Jan 25, 10	Nov 15, 11			
	Minimum: 37.4	37.4	37.4			
	Average: 37.8	37.8	37.8			
	Comments: <i>Min scan at mid band.</i>					
145	Description: Boot Head			38.1	3.2	34.9
	Date: Oct 2, 08	Jan 25, 10	Nov 15, 11			
	Minimum: 37.0	37.0	36.8			
	Average: 38.9	38.9	38.9			
	Comments: <i>Min scan at knuckle.</i>					
150	Description: Lower Boot Shell			28.6	3.2	25.4
	Date: Oct 2, 08	Jan 25, 10	Nov 15, 11			
	Minimum: 31.8	31.8	31.7			
	Average: 32.4	32.4	32.4			
	Comments:					
155	Description: Boot Head			28.6	3.2	25.4
	Date: Oct 2, 08	Jan 25, 10	Nov 15, 11			
	Minimum: 29.7	29.7	29.7			
	Average: 32.5	32.5	32.5			
	Comments: <i>Nov 2011_Min scan at knuckle.</i>					
160	Description: 2" 90° Nozzle			8.7	3.2	5.5
	Date: Oct 2, 08	Jan 25, 10	Nov 15, 11			
	Minimum: 8.3	8.3	8.1			
	Average: 8.8	8.8	8.6			
	Comments:					
163	Description: 2" 90° Nozzle			8.7	3.2	5.5
	Date: Oct 2, 08	Jan 25, 10	Nov 15, 11			
	Minimum: 8.7	8.7	8.3			
	Average: 9.0	9.0	8.7			
	Comments:					



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				Nominal Thickness (mm)	Corrosion Allowance (mm)	Flag Thickness (mm)
165	Description: 2" 90° Elbow			8.7	1.1	7.6
	Date: Oct 2, 08	Jan 25, 10	Nov 15, 11			
	Minimum: 8.1	8.1	7.9			
	Average: 8.8	8.8	8.5			
	Comments:					
170	Description: 2" 90° Elbow			8.7	1.1	7.6
	Date: Oct 2, 08	Jan 25, 10	Nov 15, 11			
	Minimum: 8.5	8.5	8.3			
	Average: 9.0	9.0	8.7			
	Comments:					
175	Description: 2" 90° Elbow			8.7	1.1	7.6
	Date: Oct 2, 08	Jan 25, 10	Nov 15, 11			
	Minimum: 8.1	8.1	8.1			
	Average: 8.8	8.8	8.5			
	Comments:					
180	Description: 2" 90° Elbow			8.7	1.1	7.6
	Date: Oct 2, 08	Jan 25, 10	Nov 15, 11			
	Minimum: 8.4	8.4	8.3			
	Average: 8.9	8.9	8.7			
	Comments:					
185	Description: 6" 90° Elbow			11.0	1.4	9.6
	Date: Oct 2, 08	Jan 25, 10	Nov 15, 11			
	Minimum: 9.4	9.2	9.0			
	Average: 10.0	9.8	9.6			
	Comments:					
190	Description: 6" 90° Elbow			11.0	1.4	9.6
	Date: Oct 2, 08	Jan 25, 10	Nov 15, 11			
	Minimum: 9.4	9.4	9.4			
	Average: 10.2	10.2	9.9			
	Comments:					