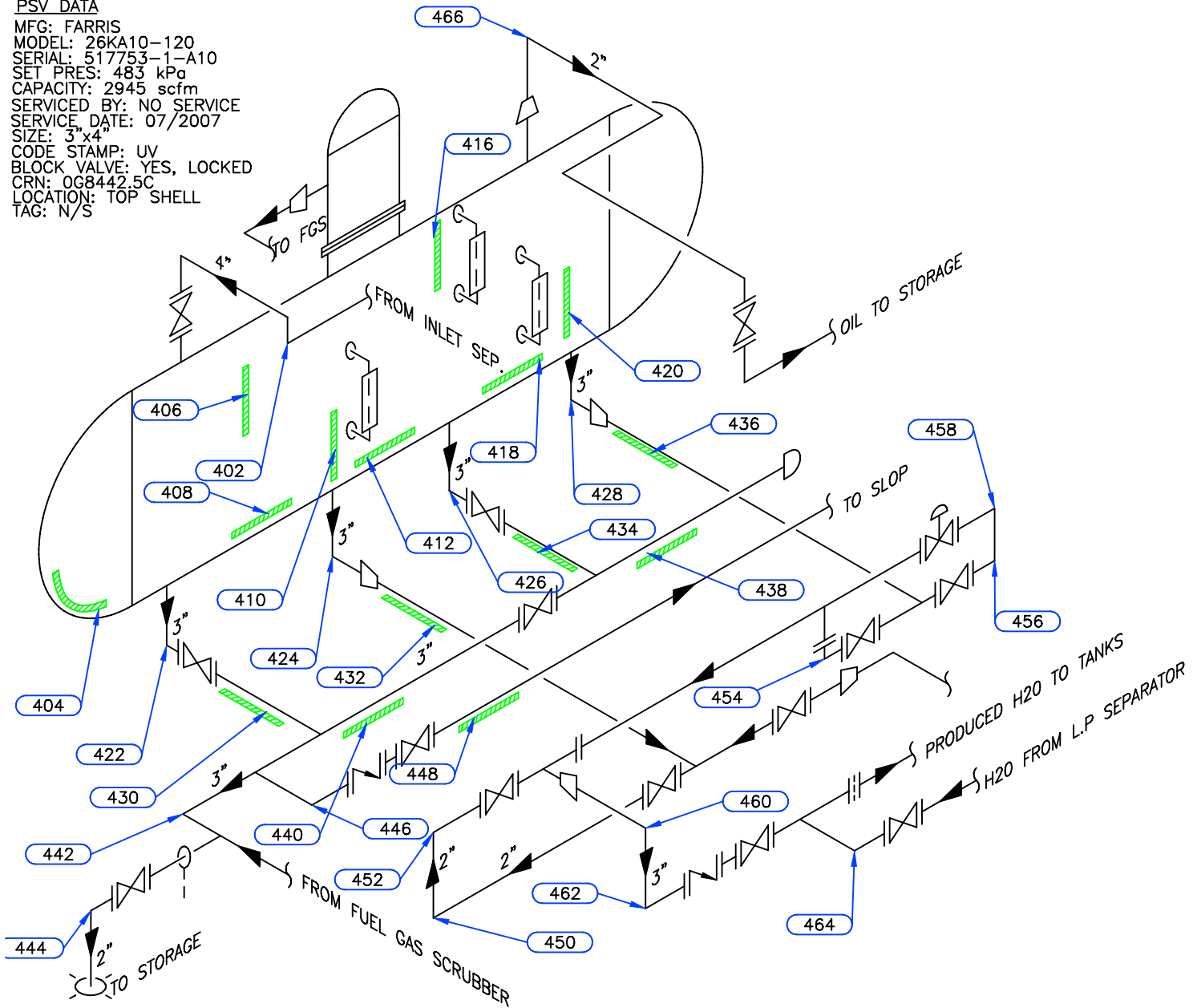


PSV DATA

MFG: FARRIS
 MODEL: 26KA10-120
 SERIAL: 517753-1-A10
 SET PRES: 483 kPa
 CAPACITY: 2945 scfm
 SERVICED BY: NO SERVICE
 SERVICE DATE: 07/2007
 SIZE: 3"x4"
 CODE STAMP: UV
 BLOCK VALVE: YES, LOCKED
 CRN: 0G8442.5C
 LOCATION: TOP SHELL
 TAG: N/S



Equip. No. _____ Prov. Reg. No. **2518844** C.R.N. **H-8265.2** Serial No. **L-8-296** Yr. Inst. _____
 Code/Div. **ASME VIII, Div 1** Size: **96in x 20ft** Manufacturer: **NATCO CANADA** Yr. Blt. **1989**
 C. Stamp: **U** Service: **SOUR** PWHT: **NIL** Radiography: **RT4** Insulated: **PART.**

Design & Materials Data

HEAD:
 Top Mat'l. SA 516 70 Top Nom. 16.4mm Top C.A. _____
 Btm. Mat'l. SA 516 70 Btm. Nom. 10.8mm Btm. C.A. _____
CHANNEL:
 Material: _____ Nominal: _____ C.A. _____
BOOT
 Head Mat'l. _____ Head Nom. _____ Head C.A. _____
 Shell Mat'l. _____ Shell Nom. _____ Shell C.A. _____
SHELL
 Material: SA 516 70 Nominal: 7.9mm C.A. _____
 MAWP Shell Side: 483 kPa @ Temp. 93°C
 MAWP Tube Side: _____ @ Temp. _____

CLIENT	CANADIAN NATURAL RESOURCES LTD		
FACILITY	WORSLEY BATTERY		
	LSD 14-28-87-07 W6M		
ITEM	TREATER		
BY: CM	DATE: 04/2010	DWG.# 4	

UTS DATA

CLIENT: CANADIAN NATURAL RESOURCES LTD
EQUIPMENT: TREATER
CRN#: H-8265.2
PROV REG: A 2518844
TESTED ON STREAM

FACILITY: WORSLEY BATTERY
SERVICE: SOUR
LOCATION: 14-28-87-07 W6M
RTD JOB #: 105.00150
REFER TO DRAWING: 4

Test Point	THICKNESS DATA				Flag	Crit	C.A.	Nom.	Short Term	Long Term	Ave. mm/py	Flag Date
404												
Description: LOWER HEAD												
2010 3												
Min. Thick.	16.3	16.4	6.9	16.4							L	2010
Average:	16.5				0	0					L	
Analysis:												
406												
Description: UPPER SHELL												
2010 3												
Min. Thick.	8.5	7.9		7.9							L	
Average:	8.6				0	0					L	
Analysis:												
408												
Description: BOTTOM SHELL												
2010 3												
Min. Thick.	8.2	7.9		7.9							L	
Average:	8.3				0	0					L	
Analysis:												
410												
Description: LOWER SHELL												
2010 3												
Min. Thick.	8.4	7.9		7.9							L	
Average:	8.5				0	0					L	
Analysis:												
412												
Description: BOTTOM SHELL												
2010 3												
Min. Thick.	8.4	7.9		7.9							L	
Average:	8.5				0	0					L	
Analysis:												
416												
Description: UPPER SHELL												
2010 3												
Min. Thick.	8.5	7.9		7.9							L	
Average:	8.6				0	0					L	
Analysis:												

UTS DATA

CLIENT: CANADIAN NATURAL RESOURCES LTD
EQUIPMENT: TREATER
CRN#: H-8265.2
PROV REG: A 2518844
TESTED ON STREAM

FACILITY: WORSLEY BATTERY
SERVICE: SOUR
LOCATION: 14-28-87-07 W6M
RTD JOB #: 105.00150
REFER TO DRAWING: 4

Test Point	THICKNESS DATA				Flag	Crit	C.A.	Nom.	Short Term	Long Term	Ave. mm/py	Flag Date
418												
Description:	BOTTOM SHELL											
	2010 3											
Min. Thick.	8.2	7.9		7.9								L
Average:	8.3							0	0			L
Analysis:												
420												
Description:	LOWER SHELL											
	2010 3											
Min. Thick.	8.3	7.9		7.9								L
Average:	8.4							0	0			L
Analysis:												
422												
Description:	3" 90° NOZZLE											
	2010 3											
Min. Thick.	6.8	6.6	1	7.6								L
Average:	7							0	0			L
Analysis:												
424												
Description:	3" 90° NOZZLE											
	2010 3											
Min. Thick.	6.7	6.6	1	7.6								L
Average:	7							0	0			L
Analysis:												
426												
Description:	3" 90° NOZZLE											
	2010 3											
Min. Thick.	7	6.6	1	7.6								L
Average:	7.3							0	0			L
Analysis:												
428												
Description:	3" 90° NOZZLE											
	2010 3											
Min. Thick.	4.6	4.8	1.6	.7	5.5							L 2010
Average:	4.9							0	0			L
Analysis:	2010/03 CRITICAL THICKNESS CALCULATIONS CARRIED OUT TO 0.2mm BUT CODE MINIMUM IS MAINTAINED AT 1.6MM.											

UTS DATA

CLIENT: CANADIAN NATURAL RESOURCES LTD
EQUIPMENT: TREATER PIPING
CRN#:
PROV REG:
TESTED ON STREAM

FACILITY: WORSLEY BATTERY
SERVICE: SOUR
LOCATION: 14-28-87-07 W6M
RTD JOB #: 105.00150
REFER TO DRAWING: 4

Test Point	THICKNESS DATA				Flag	Crit	C.A.	Nom.	Short Term	Long Term	Ave. mm/py	Flag Date
402												
Description: 4" 90° ELBOW												
2010 3												
Min. Thick.	5.4	5.25	.8	6					0	0		L
Average:	5.6											L
Analysis:												
430												
Description: 3" BOTTOM BAND												
2010 3												
Min. Thick.	5.5	4.81	.7	5.5					0	0		L
Average:	5.6											L
Analysis:												
432												
Description: 3" BOTTOM BAND												
2010 3												
Min. Thick.	5.5	4.81	.7	5.5					0	0		L
Average:	5.7											L
Analysis:												
434												
Description: 3" BOTTOM BAND												
2010 3												
Min. Thick.	5.4	4.81	.7	5.5					0	0		L
Average:	5.6											L
Analysis:												
436												
Description: 3" BOTTOM BAND												
2010 3												
Min. Thick.	5.5	4.81	.7	5.5					0	0		L
Average:	5.6											L
Analysis:												
438												
Description: 3" BOTTOM BAND												
2010 3												
Min. Thick.	5.7	4.81	.7	5.5					0	0		L
Average:	6											L
Analysis:												

UTS DATA

CLIENT: CANADIAN NATURAL RESOURCES LTD
EQUIPMENT: TREATER PIPING
CRN#:
PROV REG:
TESTED ON STREAM

FACILITY: WORSLEY BATTERY
SERVICE: SOUR
LOCATION: 14-28-87-07 W6M
RTD JOB #: 105.00150
REFER TO DRAWING: 4

Test Point	THICKNESS DATA				Flag	Crit	C.A.	Nom.	Short Term	Long Term	Ave. mm/yr	Flag Date
440	Description: 3" BOTTOM BAND											
	2010 3											
Min. Thick.	5.3	4.81	.7	5.5								L
Average:	5.6				0	0						L
Analysis:												
442	Description: 3" 90° ELBOW											
	2010 3											
Min. Thick.	4.8	4.81	1.6	.7	5.5							L 2010
Average:	5					0	0					L
Analysis:	2010/03 CRITICAL THICKNESS CALCULATIONS CARRIED OUT TO 0.2mm BUT CODE MINIMUM IS MAINTAINED AT 1.6MM.											
444	Description: 2" 90° ELBOW											
	2010 3											
Min. Thick.	3.7	3.41		.5	3.9							L
Average:	4					0	0					L
Analysis:												
446	Description: 3" 90° ELBOW											
	2010 3											
Min. Thick.	4.9	4.81		.7	5.5							L
Average:	5.2					0	0					L
Analysis:												
448	Description: 3" BOTTOM BAND											
	2010 3											
Min. Thick.	5.4	4.81		.7	5.5							L
Average:	5.6					0	0					L
Analysis:												
450	Description: 2" 90° ELBOW											
	2010 3											
Min. Thick.	5.3	4.81		.7	5.5							L
Average:	5.5					0	0					L
Analysis:												

UTS DATA

CLIENT: CANADIAN NATURAL RESOURCES LTD
EQUIPMENT: TREATER PIPING
CRN#:
PROV REG:
TESTED ON STREAM

FACILITY: WORSLEY BATTERY
SERVICE: SOUR
LOCATION: 14-28-87-07 W6M
RTD JOB #: 105.00150
REFER TO DRAWING: 4

Test Point	THICKNESS DATA				Flag	Crit	C.A.	Nom.	Short Term	Long Term	Ave. mm/py	Flag Date
452												
Description: 2" 90° ELBOW												
2010 3												
Min. Thick.	4.9	4.81	.7	5.5							L	
Average:	5.1				0	0					L	
Analysis:												
454												
Description: 2" 90° ELBOW												
2010 3												
Min. Thick.	4.9	4.81	.7	5.5							L	
Average:	5				0	0					L	
Analysis:												
456												
Description: 2" 90° ELBOW												
2010 3												
Min. Thick.	5.2	4.81	.7	5.5							L	
Average:	5.4				0	0					L	
Analysis:												
458												
Description: 2" 90° ELBOW												
2010 3												
Min. Thick.	5.4	4.81	.7	5.5							L	
Average:	5.7				0	0					L	
Analysis:												
460												
Description: 3" 90° ELBOW												
2010 3												
Min. Thick.	7.4	6.65	1	7.6							L	
Average:	7.7				0	0					L	
Analysis:												
462												
Description: 3" 90° ELBOW												
2010 3												
Min. Thick.	7	6.65	1	7.6							L	
Average:	7.4				0	0					L	
Analysis:												

UTS DATA

CLIENT: CANADIAN NATURAL RESOURCES LTD
EQUIPMENT: TREATER PIPING
CRN#:
PROV REG:
TESTED ON STREAM

FACILITY: WORSLEY BATTERY
SERVICE: SOUR
LOCATION: 14-28-87-07 W6M
RTD JOB #: 105.00150
REFER TO DRAWING: 4

Test Point	THICKNESS DATA				Flag	Crit	C.A.	Nom.	Short Term	Long Term	Ave. mm/py	Flag Date
464												
Description:	3" 90° ELBOW											
	2010 3											
Min. Thick.	5	4.81		.7	5.5							L
Average:	5.3							0	0			L
Analysis:												
466												
Description:	2" 90° ELBOW											
	2010 3											
Min. Thick.	4.8	4.81	1.6	.7	5.5							L 2010
Average:	5							0	0			L
Analysis:	2010/03 CRITICAL THICKNESS CALCULATIONS CARRIED OUT TO 0.1mm BUT CODE MINIMUM IS MAINTAINED AT 1.6MM.											