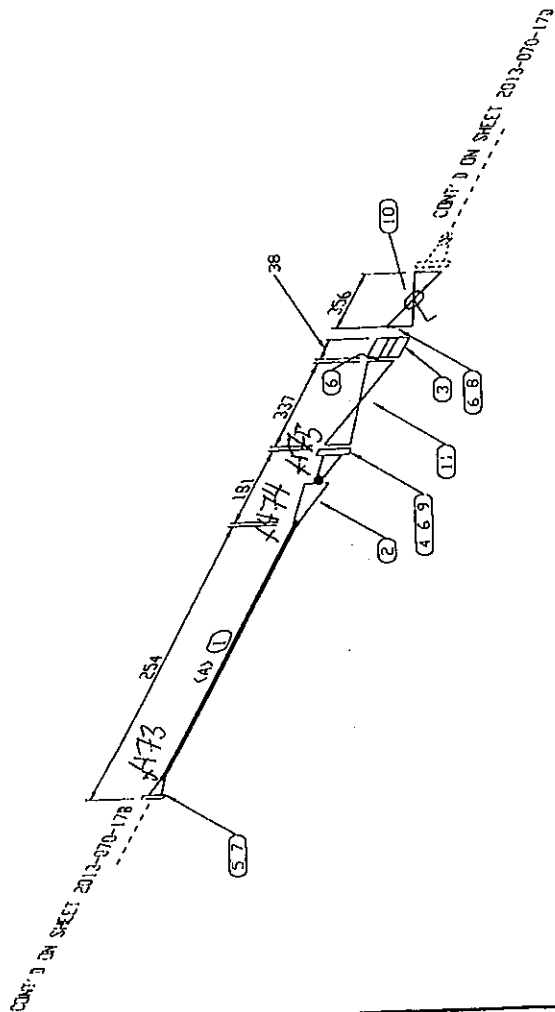


BILL OF MATERIAL

MARK	SIZE	DESCRIPTION	QTY	WEIGHT
1	2	PIPE, SMLS, BV, SCH. 80, A106 GR B	171 MM	1.3
2	3X2	REDUCER, CONC, BV, SCH. 80, A234 GR WP3	1	0.9
3	3	BLEED RING, RF, 630H, RF, 21MM HOLE	1	1.0
4	3	FLANGE, RFWN, CL600, SCH. 80 BORE, A105N	1	10.3
5	2	FLANGE, RFWN, CL600, SCH. 80 BORE, A105N	1	5.5
6	3	GASKET, CL600 SPIRAL WOUND, 316 SS / FLEXIBLE GRAPHITE	3	3.0
7	2	GASKET, CL600 SPIRAL WOUND, 316 SS / FLEXIBLE GRAPHITE	1	1.0
8	3/4X171	(8) STUD BOLTS W/ NUTS, A193 GR B7M / A194 GR 2HM	1	1.0
9	3/4X127	(8) STUD BOLTS W/ NUTS, A193 GR B7M / A194 GR 2HM	1	1.0
10	3	VALVE, BALL, RP, RF, NACE, CLASS 600	1	38.6
11	3	CONTROL VALVE, FISHER ET, 600LB FLG, RF ASME, A105N	1	1.0
TOTAL FABRICATION WEIGHT				64.5

CUT PIPE LENGTH

PIECE NUM	LENGTH (MM)	SIZE (INCH)
(A)	171	2



CADO INDUSTRIES INC.

7491 - 110 AVE SE, CALGARY, ALBERTA T2C 3B8
 TEL: (403) 279-6662; FAX: (403) 279-6607

CUSTOMER: PENNWEST EXPLORATION

UNIT NO.: 2013-070-601

MODEL: 4-WELL SEPARATOR SKID (BU-2000)

LOCATION:

LINE TAG: V-2400 WATER OUTLET

DRAWING NO.: 370-17C

REV: 0

PIPE SPEC:	CS	WELD PROC:	CADO-S
DESIGN PRESS:	9376 KPA	RADIOGRAPHY:	100%
DESIGN TEMP:	90 DEG. C	PHWT:	N/A
MDMT:	-29 DEG. C	PICKLE & OIL:	N/A
CAL:	1.5 mm	SANDBLAST:	SP-6
TEST PRESS:	14554 KPA	PAINT:	WARM GREY
TEST MEDIA:	WATER	INSULATION:	N/A

ISSUED FOR CONSTRUCTION

DATE: 11/03/2013

BY: [Signature]

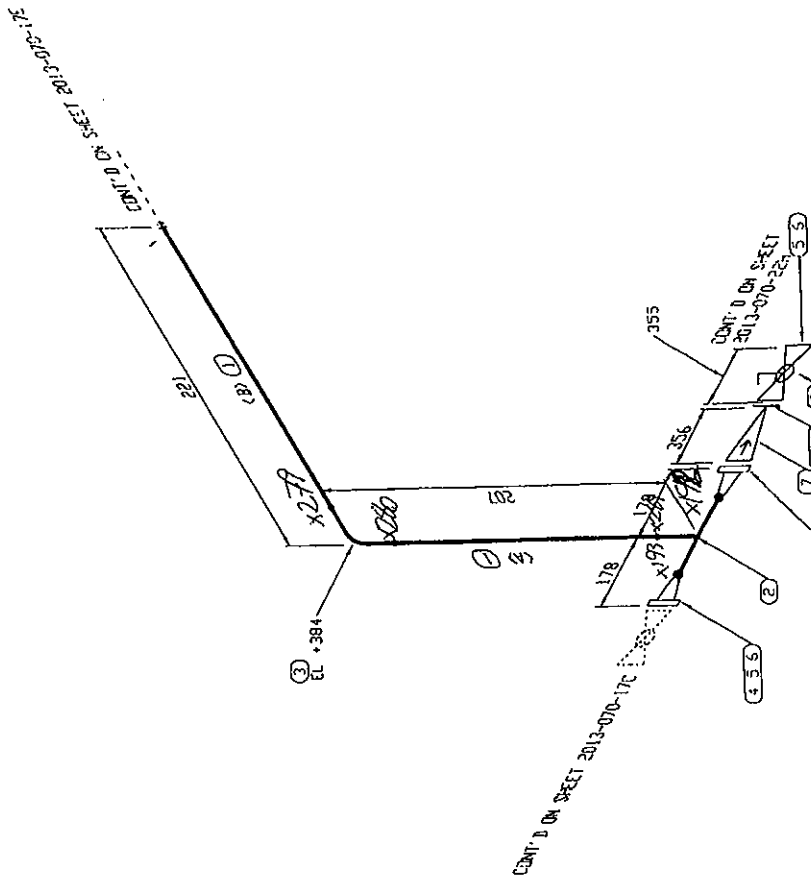
CHK: [Signature]

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BILL OF MATERIAL

MARK	SIZE	DESCRIPTION	QTY	WEIGHT
1	2	PIPE, SMLS, BW, SCH 80, A106 GR B	189 MM	1.5
2	3x2	TEE, RED, BW, SCH 80, A234 GR WPB	1	2.2
3	2	ELBOW, 90 DEG, LR, BW, SCH 80, A234 GR	1	0.9
4	3	WPB	2	20.9
5	3	FLANGE, RFWN, CL600, SCH 80 BORE, A105N	4	4.0
6	3/4X127	GASKET, CL600 SPIRAL WOUND, 316 SS / FLEXIBLE GRAPHITE	4	4.0
7	3	(8) STUD BOLTS W/ NUTS, A193 GR B7M / A194 GR 2HM	1	61.3
8	3	VALVE, SVING CHECK, RF, NACE, CLASS 600 ASME, A105N	1	38.6
		VALVE, BALL, RP, RF, NACE, CLASS 600 ASME, A105N	1	38.6
TOTAL FABRICATION WEIGHT				133.2

CUT PIPE LENGTH		SIZE
PIECE NUM	LENGTH (MM)	(INCH)
<A>	48	2
	141	2



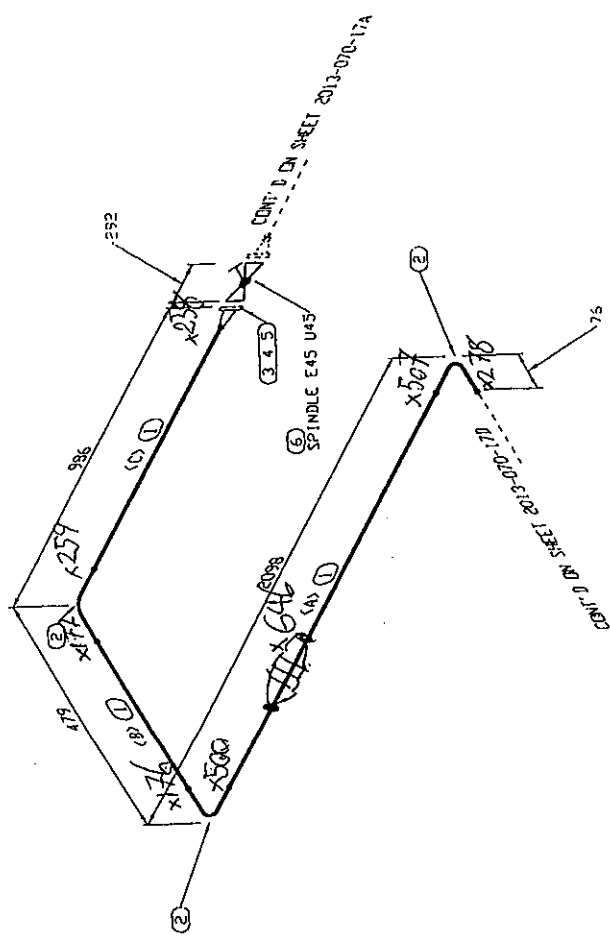
CADO INDUSTRIES INC. 7491 - 110 AVE SE, CALGARY, ALBERTA T2C 3B8 TEL: (403) 279-6662; FAX: (403) 279-6687		CUSTOMER: PENNWEST EXPLORATION UNIT NO.: 2013-070-601 MODEL: 4-WELL SEPARATOR SKID (BU-2000) LOCATION: USE TAG: V-2400 WATER OUTLET DRAWING NO.: 070-170	
PIPING DESIGNED IN ACCORDANCE WITH ASME SB.3.1 2010 EDITION. PIPE SPEC.: CS WELD PROC.: CADO-5 DESIGN PRESS.: 9376 KPA RADIOGRAPHY: 100% DESIGN TEMP.: 90 DEG. C PWRT: N/A PICKLE & OIL: N/A WDMT: -29 DEG. C SANDBLAST: SP-6 CAL: 1.8 mm PAINT: WASH GREY TEST PRESS: 14364 KPA TEST MEDIA: WATER	INSULATION: N/A	NO. 221.300	DATE: 5/1/2013 BY: [Signature] CHECKED: [Signature]

BILL OF MATERIAL

MARK	SIZE	DESCRIPTION	QTY	WEIGHT
1	2	PIPE, SMLS, BV, SCH 80, A106 GR B	3385 MM	22.8
2	2	ELBOW, 90 DEG, LR, B7, SCH 80, A234 GR	3	2.7
3	2	WPS RFWD, CL600, SCH 80 SDR, A105N	1	5.5
4	2	FLANGE, CL600 SPIRAL WOUND, 316 SS /	1	1.0
5	5/8X106	GASKET, CL600 SPIRAL WOUND, 316 SS /	1	1.0
6	2	FLEXIBLE GRAPHITE	1	40.9
		(B) STUD BOLTS W/ NUTS, A193 GR B7M /	1	
		A194 GR 2HM	1	
		VALVE, GLOBE, RF, NACE, CLASS 600, ASME,	1	
		A105N		

TOTAL FABRICATION WEIGHT 73.7

CUT PIPE LENGTH	SIZE
PIECE LENGTH	(INCH)
NUM	(MM)
<A>	1939
	320
<C>	826



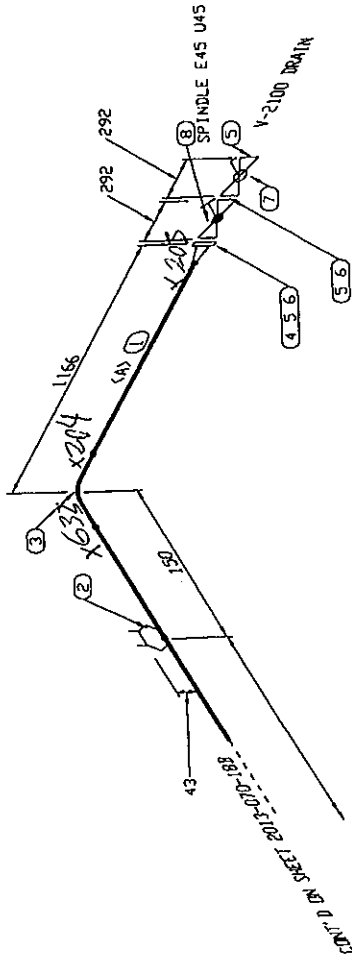
CADO INDUSTRIES INC.		PENNWEST EXPLORATION	
7491 - 110 AVE SE, CALGARY, ALBERTA T2C 3B8		2013-070-601	
TEL: (403) 279-6662; FAX: (403) 279-6687		4-WELL SEPARATOR SKID (BU-2000)	
CUST: PENNWEST EXPLORATION		UNIT NO: 2013-070-601	
MODEL: 4-WELL SEPARATOR SKID (BU-2000)		LOCATION: V-2400 WATER OUTLET	
LINE TAG: V-2400 WATER OUTLET		DRAWING NO: DTC-17E	
REV: 0			

PIPE SPEC:	CS	WELD PROC:	CAD0-5
DESIGN PRESS:	9375 KPAC	RADIOGRAPHY:	100%
DESIGN TEMP:	90 DEG. C	PHWT:	N/A
DMT:	-29 DEG. C	PICKLE & OIL:	N/A
C.A.:	1.6 mm	SANDBLAST:	SP-6
TEST PRESS:	14094 KPAC	PAINT:	WARM GREY
TEST MEDIA:	WATER	INSULATION:	N/A

BILL OF MATERIAL

MARK	SIZE	DESCRIPTION	QTY	HEIGHT
1	2	PIPE, SMLS, BW, SCH 80, A106 GR B	1125 MM	8.5
2	2X1/2	THREDDLET, CL3000, A105N	1	0.2
3	2	ELBOW, 90 DEG, LR, BW, SCH 80, A234 GR	1	0.9
4	2	VPB	1	5.5
5	2	RFWN, CL600, SCH 80 BORE, A105N	3	3.0
6	5/8X108	FLANGE, CL600 SPIRAL WOUND, 316 SS / FLEXIBLE GRAPHITE	2	2.0
7	2	(8) STUD BOLTS V/ NUTS, A193 GR B7M / A194 GR 2HM	1	20.0
8	2	VALVE, BALL, RF, NACE, CLASS 600, ASME, A105N	1	40.9
		VALVE, GLOBE, RF, NACE, CLASS 600, ASME, A105N		
TOTAL FABRICATION WEIGHT				80.7

CUT PIPE LENGTH	PIECE LENGTH	SIZE
NUM	(MM)	(INCH)
(A)	1004	2



CADO INDUSTRIES INC.

7491 - 110 AVE SE, CALGARY, ALBERTA T2C 3B8
 TEL: (403) 279-6862; FAX: (403) 279-6887

CUSTOMER: PENNWEST EXPLORATION

UNIT NO.: 2013-070-601

MODEL: 4-WELL SEPARATOR SKID (BU-2000)

LOCATION:

LINE TAG: V-2100 DRAIN

DRAWING NO.: 070-18A

REV. 0

PIPING DESIGNED IN ACCORDANCE WITH ASME B31.3 2010 EDITION.

PIPE SPEC.: CS WELD PROC.: CADO-5

DESIGN PRESS.: 9376 KPAG RADIOGRAPHY: 100%

DESIGN TEMP.: 90 DEG. C PWHT: N/A

WDMT: -29 DEG. C PICKLE & OIL: N/A

C.A.: 1.6 mm SANDBLAST: SP-6

TEST PRESS.: 14064 KPAG PAINT: WARM GREY

TEST MEDIA: WATER INSULATION: N/A

ISSUED FOR CONSTRUCTION

NO. 0

REVISION

DATE 11/10/2013

BY AP

CHK WC

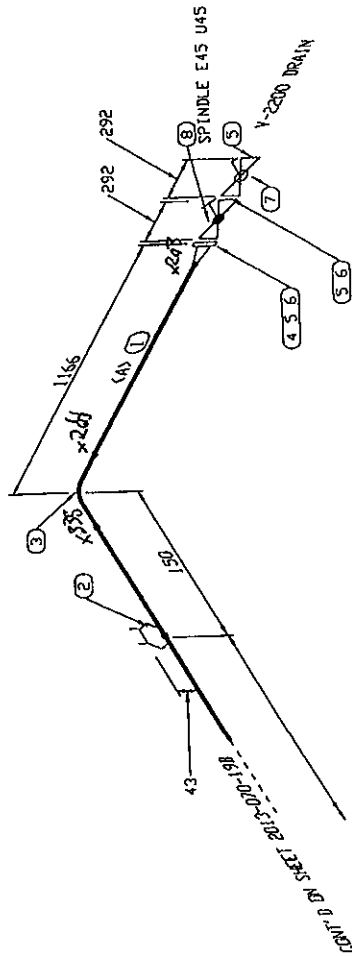
APR WC

BILL OF MATERIAL

MARK	SIZE	DESCRIPTION	QTY	WEIGHT
1	2	PIPE, SMLS. BW, SCH. 80, A106 GR. B	1125 MM	8.5
2	2x1/2	THREDDLET. CL3000, A105N	1	0.2
3	2	ELBOW, 90 DEG. LR, BW, SCH. 80, A234 GR. WPB	1	0.9
4	2	FLANGE, RFWN, CL600, SCH. 80 BORE, A105N	1	5.5
5	2	GASKET, CL600 SPIRAL WOUND, 316 SS / FLEXIBLE GRAPHITE	3	3.0
6	5/8x108	(8) STUD BOLTS 1/2 NUTS, A193 GR. B7M / A194 GR. 2HM	2	2.0
7	2	VALVE, BALL, RP, RF, NACE, CLASS 600	1	20.0
8	2	VALVE, GLOBE, RF, NACE, CLASS 600, ASME, A105N	1	40.9

TOTAL FABRICATION WEIGHT 80.7

CUT PIPE LENGTH	
PIECE NUM	SIZE (INCH)
(A)	1004
	2

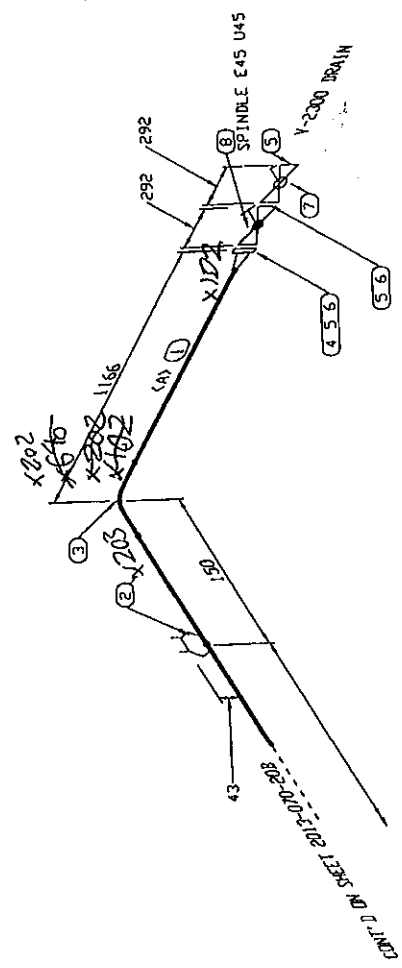


CADO INDUSTRIES INC.		PENNWEST EXPLORATION	
7491 - 110 AVE SE, CALGARY, ALBERTA T2C 3B8		2013-070-601	
TEL: (403) 279-6682; FAX: (403) 279-6687		4-WELL SEPARATOR SKID (BU-2000)	
DATE: 11/10/2013		LOCATION: V-2200 DRAIN	
SY	CHK	WC	APR
0	0	0	0
ISSUED FOR CONSTRUCTION		DRAWING NO.: 070-19A	
NO. 0		REV. 0	
REVISION			
INSULATION: N/A			
PAINT: WARM GREY			
SANDBLAST: SP-6			
PICKLE & OIL: N/A			
PWHT: N/A			
RADIOGRAPHY: 100%			
WELD PROC.: CADO-5			
CS			
DESIGN PRESS.: 9376 KPAG			
DESIGN TEMP.: 90 DEG. C			
MONT: -29 DEG. C			
C.A.: 1.6 mm			
TEST PRESS.: 14064 KPAG			
TEST MEDIA: WATER			
DRAWING DESIGNED IN ACCORDANCE WITH ASME B31.3 2010 EDITION.			

BILL OF MATERIAL

MARK	SIZE	DESCRIPTION	QTY	WEIGHT
1	2	PIPE SWLS. BV, SCH. 80, A106 GR B	1125 MH	8.5
2	2X1/2	THREDDOLET, CL3000, A105N	1	0.2
3	2	ELBOW, 90 DEG. LR. BV, SCH. 80, A234 GR	1	0.9
4	2	WPB	1	5.5
5	2	FLANGE, RFWN, CL600, SCH. 80 BORE, A105N	3	3.0
6	5/8X108	GASKET, CL600 SPIRAL WOUND, 316 SS / FLEXIBLE GRAPHITE	2	2.0
7	2	{8} STUD BOLTS V/ NUTS, A193 GR B7M / A194 GR 2HM	1	20.0
8	2	VALVE, BALL, RP, RF, NACE, CLASS 600 ASME, A105N	1	40.9
		VALVE, GLOBE, RF, NACE, CLASS 600, ASME, A105N	1	
TOTAL FABRICATION WEIGHT				80.7

CUT PIPE LENGTH	SIZE
PIECE LENGTH (MM)	< INCH
NUM	2
<A>	1004

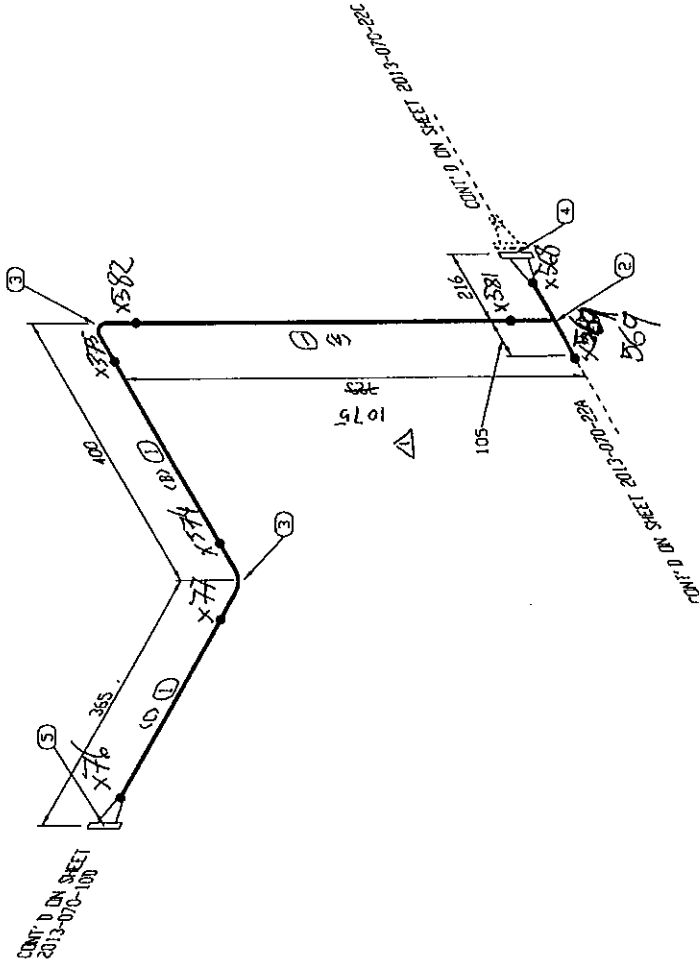


CADO INDUSTRIES INC.		PENNWEST EXPLORATION	
7491 - 110 AVE SE, CALGARY, ALBERTA T2C 3B8		CUSTOMER:	
TEL: (403) 279-6662; FAX: (403) 279-6667		UNIT NO.: 2013-070-601	
		MODEL: 4-WELL SEPARATOR SKID (BU-2000)	
		LOCATION:	
		LINE TAG: V-2300 DRAIN	
		DRAWING NO.: 070-20A	
		REV: 0	
DATE	BY	WC	APR
11/10/2013	AP	WC	APR
ISSUED FOR CONSTRUCTION		REVISION	
0	NO.		
PIPING DESIGNED IN ACCORDANCE WITH ASME B31.3 2010 EDITION.		WELD PROC.: CADO-5	
PIPE SPEC.: CS		RADIOGRAPHY: 100%	
DESIGN PRESS.: 9376 KPAC		PWHT: N/A	
DESIGN TEMP.: 90 DEG. C		PICKLE & OIL: N/A	
MOMT: -29 DEG. C		SANDBLAST: SP-6	
C.A.: 1.6 mm		PAINT: WARM GREY	
TEST PRESS.: 14064 KPAC		INSULATION: N/A	
TEST MEDIA: WATER			

BILL OF MATERIAL

MARK	SIZE	DESCRIPTION	QTY	WEIGHT
1	3	PIPE, SMLS, BV, SCH. 80, A106 GR B	992 MM	11.2
2	4X3	TEE, RED, BV, SCH. 80, A234 GR WPB	1	4.9
3	3	ELBOW, 90 DEG, LR, BV, SCH. 80, A234 GR WPB	2	4.1
4	4	FLANGE, RFVN, CL600, SCH. 80 BURE, A105N	1	19.1
5	3	FLANGE, RFVN, CL600, SCH. 80 BURE, A105N	1	10.5
TOTAL FABRICATION WEIGHT				49.6

PIECE NUM	CUT PIPE LENGTH (MM)	SIZE (INCH)
<A>	567	3
	165	3
<C>	155	3



PIPING DESIGNED IN ACCORDANCE WITH ASME B31.3, 2010 EDITION. WELD PROC.: CADO-5 RADIOGRAPHY: 100% PWRT: N/A PICKLE & OIL: N/A SANDBLAST: SP-6 PAINT: WARM GREY INSULATION: N/A		CAD INDUSTRIES INC. 7491 - 110 AVE SE, CALGARY, ALBERTA T2C 9B8 TEL: (403) 279-6682; FAX: (403) 279-6887		CUSTOMER: PENNWEST EXPLORATION UNIT NO.: 2013-070-601 MODEL: 4-WELL SEPARATOR SKID (BU-2000) LOCATION: LINE TAG: WATER OUTLET HEADER DRAWING NO.: 070-223	
DESIGN PRESS.: 9376 KPA DESIGN TEMP.: 90 DEG. C MONT.: -29 DEG. C C.A.: 1.5 mm TEST PRESS.: 14054 KPA TEST MEDIA: WATER	NO. 0 DATE 11/17/2011 BY [signature] CHECKED [signature]	NO. 0 DATE 11/17/2011 BY [signature] CHECKED [signature]	NO. 0 DATE 11/17/2011 BY [signature] CHECKED [signature]	NO. 0 DATE 11/17/2011 BY [signature] CHECKED [signature]	NO. 0 DATE 11/17/2011 BY [signature] CHECKED [signature]

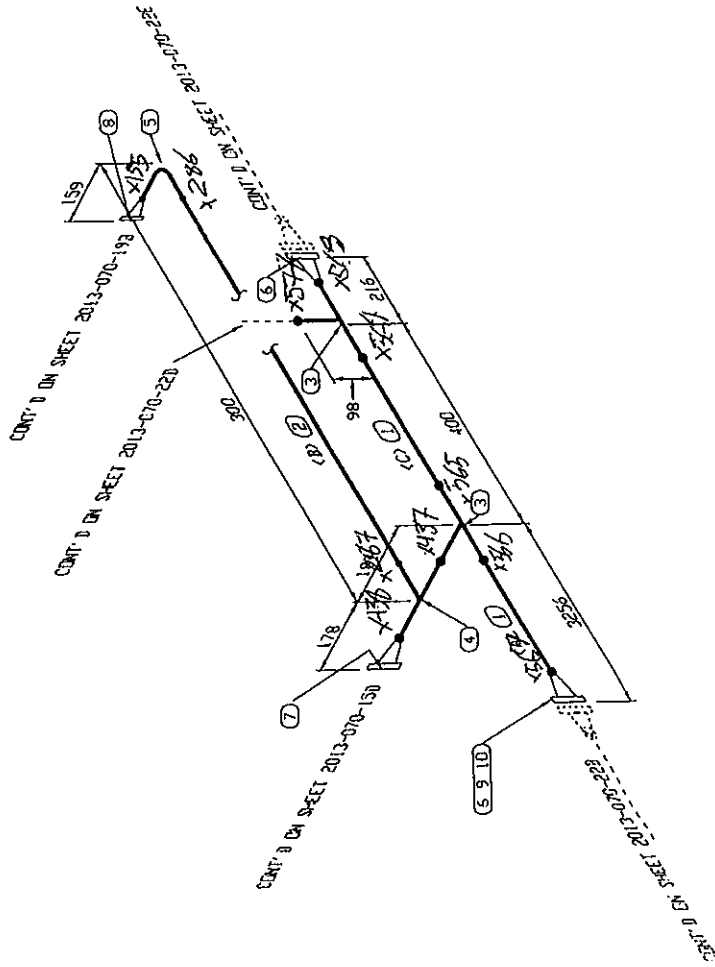
BILL OF MATERIAL

MARK	SIZE	DESCRIPTION	QTY	WEIGHT
1	4	PIPE, SMLS, BV, SCH. 80, A106 GR B	3221 MM	71.9
2	4	PIPE, SMLS, BV, SCH. 80, A106 GR B	141 MM	1.1
3	4X3	TEE, RED, BV, SCH. 80, A234 GR WPB	2	9.8
4	3X2	TEE, RED, BV, SCH. 80, A234 GR WPB	1	2.2
5	2	ELBOW, 90 DEG, LR, BV, SCH. 80, A234 GR WPB	1	0.9
6	4	FLANGE, RFVN, CL600, SCH. 80 BORE, A105N	2	38.1
7	3	FLANGE, RFVN, CL600, SCH. 80 BORE, A105N	1	10.5
8	2	FLANGE, RFVN, CL600, SCH. 80 BORE, A105N	1	5.5
9	4	GASKET, CL600, SPIRAL WOUND, 316 SS / FLEXIBLE GRAPHITE	1	1.0
10	7/8X145	(B) STUD BOLTS V/ NUTS, A193 GR B7N / A194 GR 2HM	1	1.0

TOTAL FABRICATION WEIGHT

141.6

CUT PIPE LENGTH	PIECE LENGTH (MM)	SIZE (INCH)
(A)	3037	4
(B)	141	2
(C)	184	4



CADO INDUSTRIES INC.

7491 - 110 AVE SE, CALGARY, ALBERTA T2C 3B8
 TEL: (403) 279-6662; FAX: (403) 279-6687

CUSTOMER: PENNWEST EXPLORATION

UNIT NO.: 2013-070-601

MODEL: 4-WELL SEPARATOR SKID (BU-2000)

LOCATION:

LINE TAG: WATER OUTLET HEADER

DRAWING NO.: 273-22C

REV: 0

PPRNG DESIGNED IN ACCORDANCE WITH ASME B31.3 2010 EDITION.

PPE SPEC.: CS WELD PROC.: CADO-5

DESIGN PRESS.: 9376 KPAC RADIOGRAPHY: 100%

DESIGN TEMP.: 90 DEG. C PHWT: N/A

ADMT: -29 DEG. C PICKLE & OIL: N/A

C.A.: 1.6 mm SAWBLAST: SP-6

TEST PRESS.: 14054 KPAC PAINT: WARM GREY

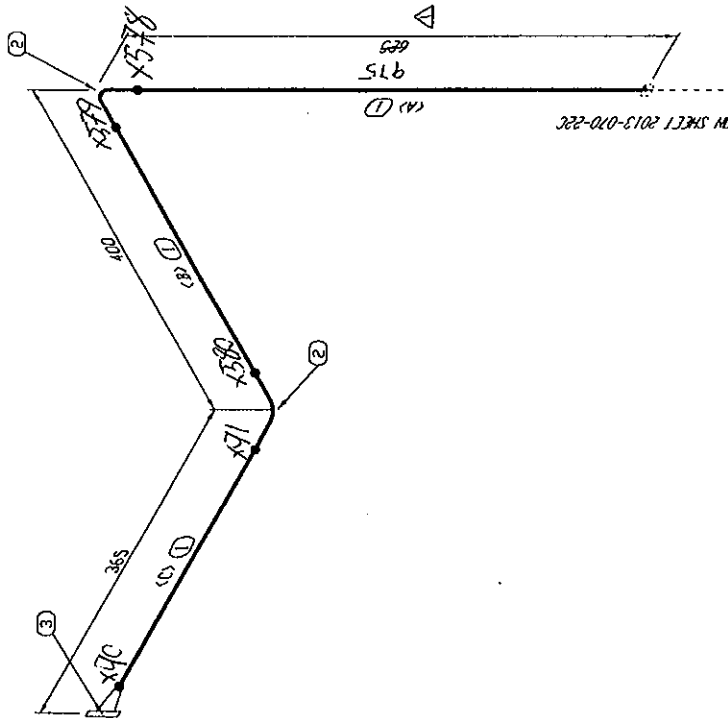
TEST MEDIA: WATER INSULATION: N/A

BILL OF MATERIAL

MARK	SIZE	DESCRIPTION	QTY	WEIGHT
1	3	PIPE, SMLS., BW, SCH. 80, A106 GR B	992	11.2
2	3	ELBOW, 90 DEG, LR, BW, SCH. 80, A234 GR	2	4.1
3	3	FLANGE, RFWN, CL600, SCH. 80 BORE, A105N	1	10.5
TOTAL FABRICATION WEIGHT				25.7

CUT PIPE LENGTH

PIECE LENGTH (INCH)	SIZE (INCH)	QTY	WEIGHT
507	Ø 57	3	Δ
165	3	3	
155	3	3	



CONT'D ON SHEET
2013-070-11D

PIPING DESIGNED IN ACCORDANCE WITH ASME B31.3 2010 EDITION.	
PIPE SPEC.: CS	WELD PROC.: CADD-5
DESIGN PRESS.: 3376 KPAG	RADIOGRAPHY: 100%
DESIGN TEMP.: 90 DEG. C	PWHT: N/A
MDMT: -29 DEG. C	PICKLE & OIL: N/A
C.A.: 1.5 mm	SANDBLAST: SP-6
TEST PRESS.: 14064 KPAG	PAINT: WARM GREY
TEST MEDIA: WATER	INSULATION: N/A

CADO INDUSTRIES INC.
7491 - 110 AVE SE, CALGARY, ALBERTA T2C 3B6
TEL: (403) 279-6662; FAX: (403) 279-6687

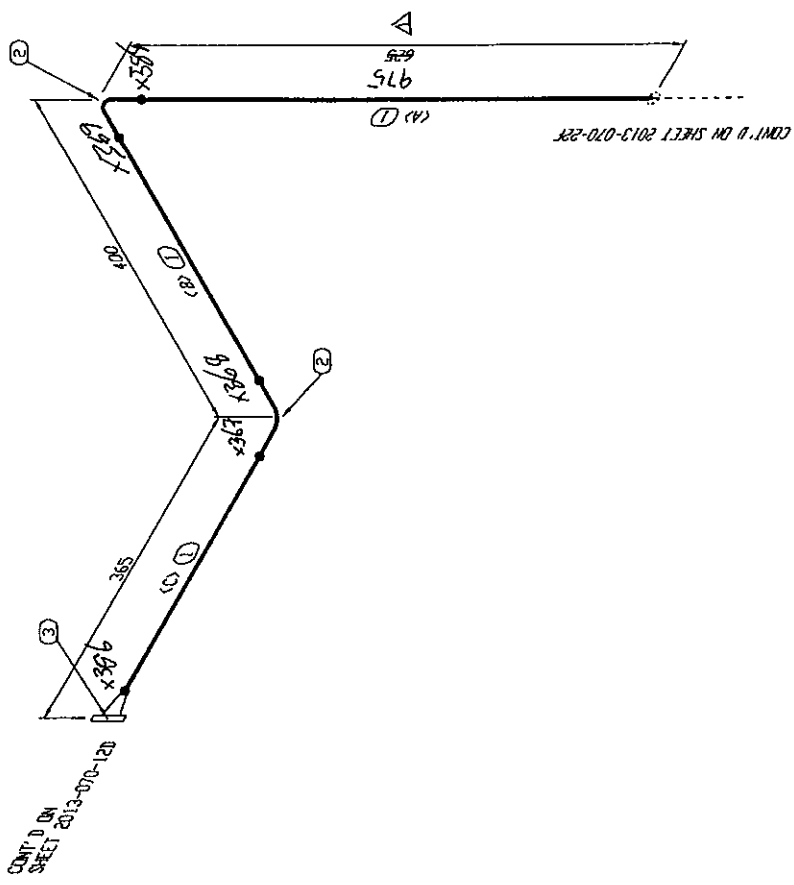
CUSTOMER:	PENNWEST EXPLORATION
UNIT NO.:	2013-070-601
MODEL:	4-WELL SEPARATOR SKID (BU-2000)
LOCATION:	
LINE TAG:	WATER OUTLET HEADER
DRAWING NO.:	070-220
REV.:	0

DATE	BY	CHK	APP
11/12/2013	AP	WC	WC

NO.	REVISION
0	ISSUED FOR CONSTRUCTION

BILL OF MATERIAL				
MARK	SIZE	DESCRIPTION	QTY	WEIGHT
1	3	PIPE, SMLS, BV, SCH. 40, A106 GR. B	992 MM	11.2
2	3	ELBOW, 90 DEG, LR, BV, SCH. 40, A234 GR	2	4.1
3	3	FLANGE, RF, AN, CL600, SCH. 40 BORE, A105N	1	10.5
TOTAL FABRICATION WEIGHT				25.7

CUT PIPE LENGTH	
PIECE NUM	SIZE < (INCH)
(A)	827 857
(B)	165
(C)	155

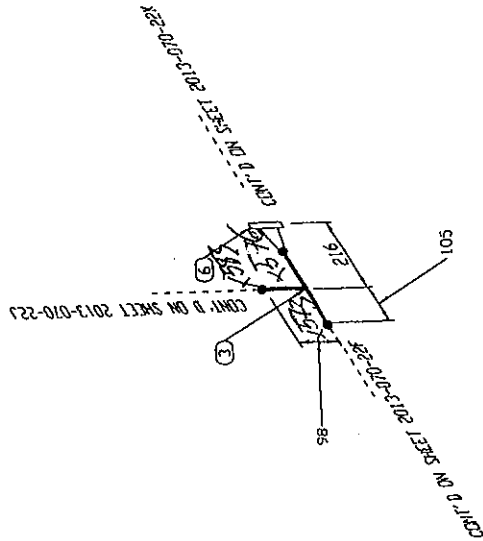


CADO INDUSTRIES INC.		CUSTOMER: PENNVEST EXPLORATION	
7491 - 110 AVE SE, CALGARY, ALBERTA T2C 3B8		UNIT NO.: 2013-070-601	
TEL: (403) 279-6662; FAX: (403) 279-6687		MODEL: 4-WELL SEPARATOR SKID (BU-2000)	
PIPING DESIGNED IN ACCORDANCE WITH ASME B31.3 2010 EDITION.		LOCATION:	
PIPE SPEC.: CS	WELD PROC.: CADO-5	LINE TAG: WATER OUTLET HEADER	
DESIGN PRESS.: 9376 KPAC	RADIOGRAPHY: 100%	DRAWING NO.: 070-22G	
DESIGN TEMP.: 90 DEG. C	PHWT: N/A	REV. 0	
MDMT: -29 DEG. C	PICKLE & OIL: N/A		
CAL: 1.6 mm	SANDBLAST: SP-6		
TEST PRESS.: 14084 KPAC	PAINT: WARM GREY		
TEST MEDIA: WATER	INSULATION: N/A		

BILL OF MATERIAL

<u>MARK</u>	<u>SIZE</u>	<u>DESCRIPTION</u>	<u>QTY</u>	<u>WEIGHT</u>
3	4X3	TEE, RED. BW, SCH. 80, A234 GR WPB	1	9.8
6	4	FLANGE, RFWN, CL600, SCH. 80 BORE, A105N	1	38.1

TOTAL FABRICATION WEIGHT 141.6



PIPEING DESIGNED IN ACCORDANCE WITH ASME B31.3 2010 EDITION.

PIPE SPEC:	CS	WELD PROC:	CAD-5
DESIGN PRESS:	9376 KPA	RADIOGRAPHY:	100%
DESIGN TEMP:	90 DEG. C	PAINT:	N/A
DMT:	-29 DEG. C	PICKLE & OIL:	N/A
CAL:	1.5 mm	SANDBLAST:	SP-5
TEST PRESS:	14054 KPA	PAINT:	WATER GREEN
TEST MEDIA:	WATER	INSULATION:	N/A

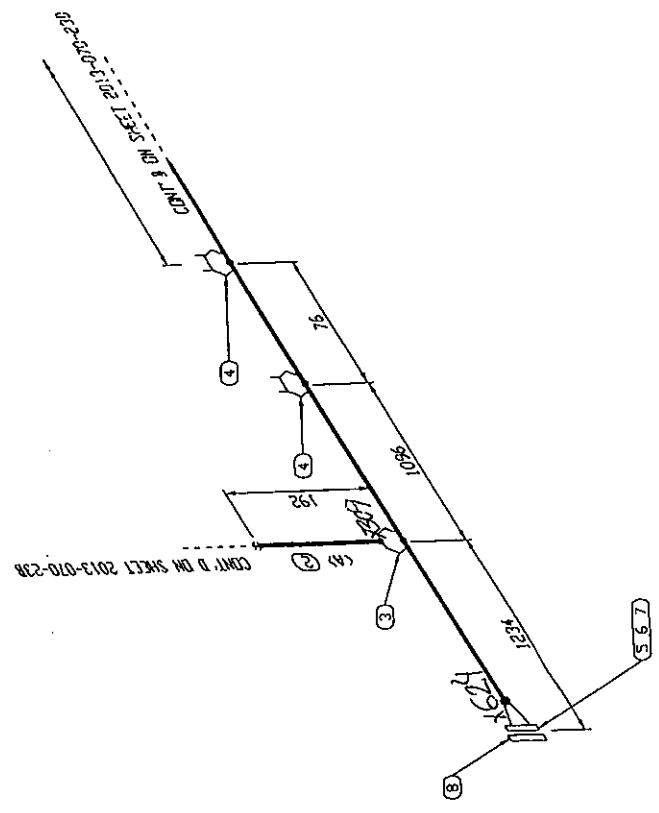
CADO INDUSTRIES INC.
 7491 - 110 AVE SE, CALGARY, ALBERTA T2C 3B8
 TEL: (403) 279-6662; FAX: (403) 279-6887

CUSTOMER:	PENNWEST EXPLORATION
UNIT NO.:	2013-070-601
MODEL:	4-WELL SEPARATOR SKID (8U-2000)
LOCATION:	
LINE TAG:	WATER OUTLET HEADER
ISSUED BY:	070-224
REV:	0

BILL OF MATERIAL

MARK	SIZE	DESCRIPTION	QTY	WEIGHT
1	6	PIPE, SMLS, BW, SCH STD, A106 GR B	2351 MM	66.4
2	2	PIPE, SMLS, BW, SCH STD, A106 GR B	64 MM	0.4
3	6x2	WELDBOLT, SCH STD FS, A106	1	0.7
4	6x1/2	THREDBOLT, 3000# FS, A106	2	0.3
5	6	FLANGE, RFMN, CLASS 150, SCH STD BORE, A106	1	10.9
6	6	GASKET, 3mm, FLEX CG, RF, CLASS 150, 316SS GRAPHITE FILLED, CS CENTERING RING	1	1.0
7	3/4x102	(8) STUD BOLTS W/ NUTS, A193 OR B7M/A194	1	1.0
8	6	FLANGE, RF, BLIND, CLASS 150, A106	1	11.8
TOTAL FABRICATION WEIGHT				92.3

CUT PIPE LENGTH	
PIECE LENGTH (MM)	SIZE (INCH)
(A) 64	2

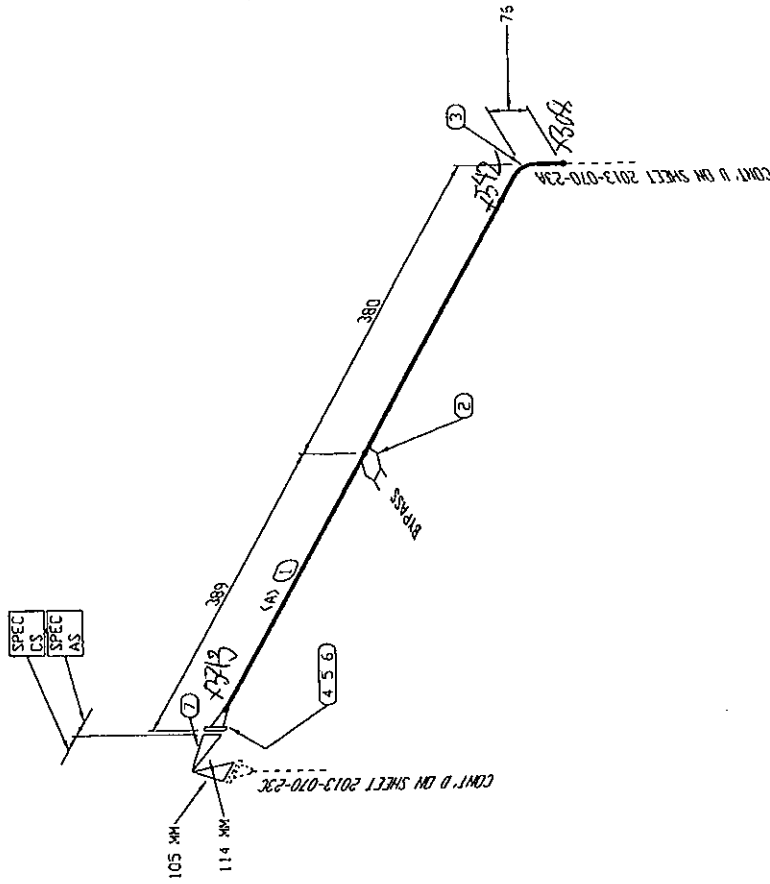


CADO INDUSTRIES INC.		PENNWEST EXPLORATION	
7491 - 110 AVE SE, CALGARY, ALBERTA T2C 3B8		CUSTOMER:	PENNWEST EXPLORATION
TEL: (403) 279-6682; FAX: (403) 279-6687		UNIT NO.:	2013-070-601
		MODEL:	4-WELL SEPARATOR SKID (BU-2000)
		LOCATION:	
		LINE TAG:	H.P. FLARE HEADER
		DRAWING NO.:	070-23A
		DATE:	BY: CHK: APP: REV: 0
		ISSUED FOR CONSTRUCTION	
		INSULATION:	N/A
		TEST MEDIA:	NR
		DESIGN PRESS:	N/A
		WELD PROC.:	CADO-5
		RADIOGRAPHY:	100%
		PWHT:	N/A
		PICKLE & OIL:	N/A
		SANDBLAST:	SP-6
		PAINT:	WARM GREY
		DESIGN TEMP.:	90 DEG. C
		ATMOS.:	ATMOS.
		ADMT.:	-29 DEG. C
		C.A.:	1.5 mm
		PIPE SPEC.:	AS
		DESIGN SPEC.:	IN ACCORDANCE WITH ASME B31.3 2010 EDITION.

BILL OF MATERIAL

MARK	SIZE	DESCRIPTION	QTY	WEIGHT
1	2	PIPE, SMLS. BV, SCH. STD. A106 GR B	523 MM	3.4
2	2X1	THREDDLET, 3000# FS, A105N	1	0.3
3	2	ELBOW, 90 DEG, LR, BV, SCH. STD. A234 GR	1	0.7
4	2	FLANGE, RFWN, CLASS 150, SCH. STD B06E.	1	2.8
5	2	GASKET, 3/4", FLEX CG. RF, CLASS 150, 316SS GRAPHITE FILLED, CS CENTERING RING	1	1.0
6	5/8X83	(4) STUD BOLTS W/ NUTS, A193 GR B7M/A194 GR 2HM	1	1.0
7	2X1	VALVE, RELIEF, RF, NACE 2002, 600# X 150#, A352 GR LCC	1	12.7
TOTAL FABRICATION WEIGHT				21.7

CUT PIPE LENGTH	PIECE LENGTH (MM)	SIZE (INCH)
(A)	623	2

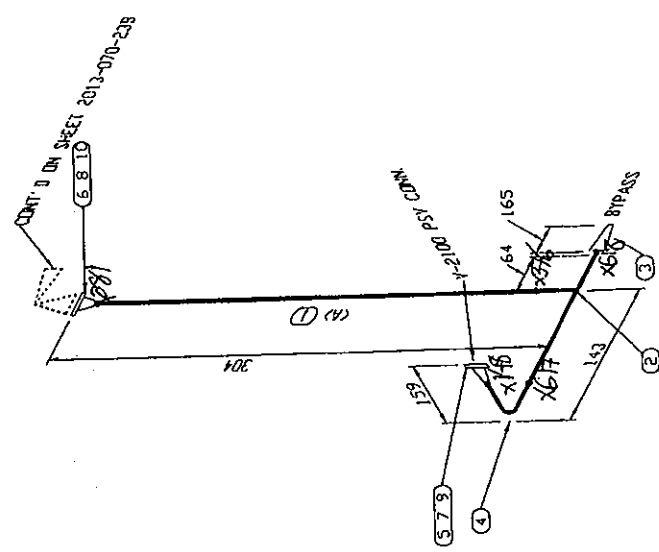


CADO INDUSTRIES INC.		CUSTOMER: PENNWEST EXPLORATION	
7401 - 110 AVE SE, CALGARY, ALBERTA T2C 3B8		UNIT NO.: 2013-070-601	
TEL: (403) 279-6682; FAX: (403) 279-6687		MODEL: 4-WELL SEPARATOR SKID (BU-2000)	
		LOCATION:	
		LINE TAG: H.P. FLARE HEADER	
		DRAWING NO.: 070-23B	
		REV:)	
7401 - 110 AVE SE, CALGARY, ALBERTA T2C 3B8		DATE: 07/02/2013	
TEL: (403) 279-6682; FAX: (403) 279-6687		BY: JMK	
ISSUED FOR CONSTRUCTION		CHK: JMK	
REVISION		APP: JMK	
NO.		NO.	
PIPE DESIGNED IN ACCORDANCE WITH ASME B31.3 2010 EDITION.		WELD PROC.: CADO-5	
PIPE SPEC.: AS		RADIOGRAPHY: 100%	
DESIGN PRESS.: ATMOS.		PAINT: N/A	
DESIGN TEMP.: 90 DEG. C		PICKLE & OIL: N/A	
WDMT: -29 DEG. C		SANDBLAST: SP-6	
C.A.: 1.6 mm		PAINT: WARM GREY	
TEST PRESS.: N/A		INSULATION: N/A	
TEST MEDIA: AIR			

BILL OF MATERIAL

MARK	SIZE	DESCRIPTION	QTY	WEIGHT
1	1	PIPE, SMLS, BV, SCH 80, A106 GR B	179 MM	0.6
2	2X1	TEE, RED, BV, SCH 80, A234 GR WPB	1	1.0
3	2X1	SWAGE, CONG, SCH80/SCH. 160, LBE/TSE A105N	1	0.9
4	2	ELBOW, 90 DEG, LR, BV, SCH 80, A234 GR	1	0.9
5	2	VPB	1	5.5
6	1	FLANGE, RFVN, CL600, SCH 80 BORE, A105N	1	1.9
7	2	FLANGE, RFVN, CL600, SCH 80 BORE, A105N	1	1.0
8	1	GASKET, CL600 SPIRAL WOUND, 316 SS / FLEXIBLE GRAPHITE	1	1.0
9	5/8X108	GASKET, CL600 SPIRAL WOUND, 316 SS / FLEXIBLE GRAPHITE	1	1.0
10	5/8X102	(8) STUD BOLTS W/ NUTS, A193 GR B7M / (4) STUD BOLTS W/ NUTS, A193 GR B7M / A194 GR 2HM	1	1.0
TOTAL FABRICATION WEIGHT				13.6

CUT PIPE LENGTH	SIZE
PIECE LENGTH (MM)	(INCH)
(4) 179	1

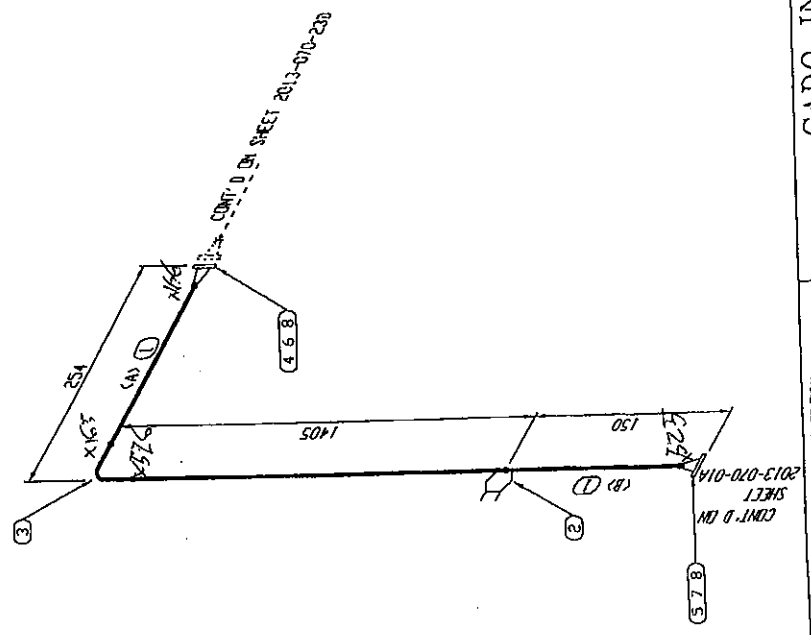


CADO INDUSTRIES INC.		CUSTOMER: PENNWEST EXPLORATION	
7491 - 110 AVE SE, CALGARY, ALBERTA T2C 3B8		UNIT NO.: 2013-070-501	
TEL: (403) 279-8662; FAX: (403) 279-8687		MODEL: 4-WELL SEPARATOR SKID (9U-2000)	
ISSUED FOR CONSTRUCTION		LOCATION:	
DATE: 11/11/2013	BY: AP	LINE TAG: H.P. FLARE HEADER	REV: 0
REVISION:	NO.	DRAWING NO.: 070-238	
PIPE SPEC.: CS	WELD PROC.: CADO-5		
DESIGN PRESS.: 9376 KPAC	RADIOGRAPHY: 100%		
DESIGN TEMP.: 90 DEG. C	PWHT: N/A		
LNDF: -29 DEG. C	PICKLE & OIL: N/A		
CAL: 1.6 mm	SANDBLAST: SP-6		
TEST PRESS.: 1454 KPAC	PAINT: WARM GREY		
TEST MEDIA: WATER	INSULATION: N/A		

BILL OF MATERIAL

MARK	SIZE	DESCRIPTION	QTY	WEIGHT
1	2	PIPE, SMLS. BW, SCH. STD. A106 GR. B	1501 MM	8.2
2	2X1/2	THREDDLET, 2000H FS, A105N	1	0.2
3	2	ELBOW, 90 DEG. LR, BW, SCH. STD. A234 GR. WPB	1	0.7
4	2	FLANGE, RFWN, CLASS 150, SCH. STD. BORG.	1	2.8
5	2	FLANGE, RFWN, CLASS 600, SCH. STD. BORG.	1	5.5
6	2	GASKET, 3mm, FLEX CG. RF, CLASS 150, A105N	1	1.0
7	2	GASKET, 3mm, FLEX CG. RF, CLASS 600, 316SS GRAPHITE FILLED, CS CENTERING RING	1	1.0
8	5/8X33	(4) STUD BOLTS W/ NUTS. A193 GR. B7M/A194 GR. 2HM	2	2.0
TOTAL FABRICATION WEIGHT				21.1

CUT PIPE LENGTH		SIZE
PIECE NUM	LENGTH (MM)	(INCH)
(A)	108	2
(B)	1393	2

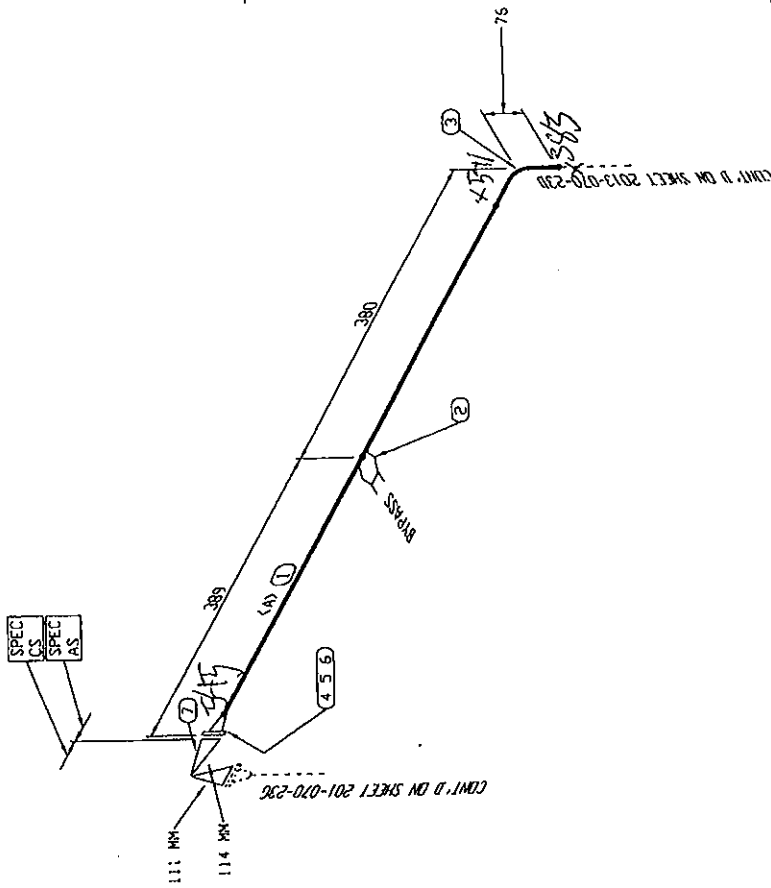


CADO INDUSTRIES INC.		PENNWEST EXPLORATION	
7491 - 110 AVE SE, CALGARY, ALBERTA T2C 3B8		2013-070-601	
TEL: (403) 279-6662; FAX: (403) 279-6887		4-WELL SEPARATOR SKID (BU-2000)	
RADIOGRAPHY: 100%		LOCATION:	
PWHT: N/A		LINE TAG: H.P. FLARE HEADER	
PICKLE & OIL: N/A		DRAWING NO.: 070-235	
DESIGN TEMP.: -29 DEG. C		REV. 0	
MOUNT: SANDBLAST: SP-6			
C.A.: 1.6 mm			
PAINT: WARM GREY			
TEST PRESS.: N/A			
INSULATION: N/A			
DESIGNED IN ACCORDANCE WITH ASME B31.3 2010 EDITION.			
PIPE SPEC.: AS			
WELD PROC.: CADO-5			

BILL OF MATERIAL

MARK	SIZE	DESCRIPTION	QTY	WEIGHT
1	2	PIPE, SMLS, BV, SCH. STD, A106 GR B	623	3.4
2	2X1	THREDDLET, 3000# FS, A105N	1	0.3
3	2	ELBOW, 90 DEG, LR, BV, SCH. STD, A234 GR	1	0.7
4	2	FLANGE, RFVN, CLASS 150, SCH. STD BORE, WPB	1	2.8
5	2	GASKET, 3mm, FLEX CG, RF, CLASS 150, 316SS GRAPHITE FILLED, CS CENTERING RING	1	1.0
6	5/8X83	(4) STUD BOLTS V/ NUTS, A193 GR B7H/A194 GR 2HM	1	1.0
7	2X1	VALVE, RELIEF, RF, NACE 2002, 600# X 150#, A352 GR LCC	1	12.7
TOTAL FABRICATION WEIGHT				21.7

CUT PIPE LENGTH	SIZE (INCH)
PIECE LENGTH (MM)	
(4) 623	2



PIPING DESIGNED IN ACCORDANCE WITH ASME B31.3, 2010 EDITION.	
PIPE SPEC.: AS	WELD PROC.: CADO-5
DESIGN PRESS.: ATMOS.	RADIOGRAPHY: 100%
DESIGN TEMP.: 90 DEG. C	PHWT: N/A
DMDT: -29 DEG. C	PICKLE & OIL: N/A
C.A.: 1.6 mm	SANDBLAST: SP-5
TEST PRESS.: N/A	PAINT: WARM OCEY
TEST MEDIA: AR	INSULATION: N/A

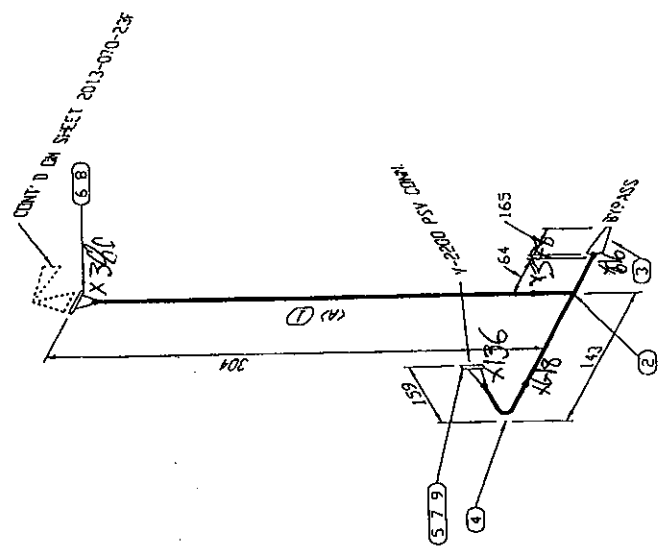
CADO INDUSTRIES INC.			
7491 - 110 AVE SE, CALGARY, ALBERTA T2C 3B8			
TEL: (403) 279-6662; FAX: (403) 279-6687			
DATE	BY	CHK	APP
11/10/2013	AP	WC	WC
ISSUED FOR CONSTRUCTION		REVISION	
0	NO		

CUSTOMER:	PENNWEST EXPLORATION
UNIT NO.:	2013-070-601
MODEL:	4-WELL SEPARATOR SKID (BU-2000)
LOCATION:	
LINE TAG:	H.P. FLARE HEADER
DRAWING NO.:	070-230
REV:	0

BILL OF MATERIAL

MARK	SIZE	DESCRIPTION	QTY	WEIGHT
1	1	PIPE, SMLS, BW, SCH 80, A106 GR B	179 MM	0.6
2	2X1	TEE, RED, BW, SCH 80, A234 GR WPB	1	1.0
3	2X1	SWAGE, CONC, SCH80/SCH 160, BLE/1/5E A105N	-	0.9
4	2	ELBOW, 90 DEG, LR, BW, SCH 80, A234 GR WPB	1	0.9
5	2	FLANGE, RFVN, CL600, SCH 80 BORE, A105N	1	5.5
6	2	FLANGE, RFVN, CL600, SCH 80 BORE, A105N	1	1.9
7	2	GASKET, CL600 SPIRAL WOUND, 316 SS / FLEXIBLE GRAPHITE	1	1.0
8	1	GASKET, CL600 SPIRAL WOUND, 316 SS / FLEXIBLE GRAPHITE	1	1.0
9	5/8X108	(B) STUD BOLTS W/ NUTS, A193 GR B7M / A194 GR 2HM	1	1.0
10	5/8X102	(4) STUD BOLTS W/ NUTS, A193 GR B7M / A194 GR 2HM	1	1.0
TOTAL FABRICATION WEIGHT				13.6

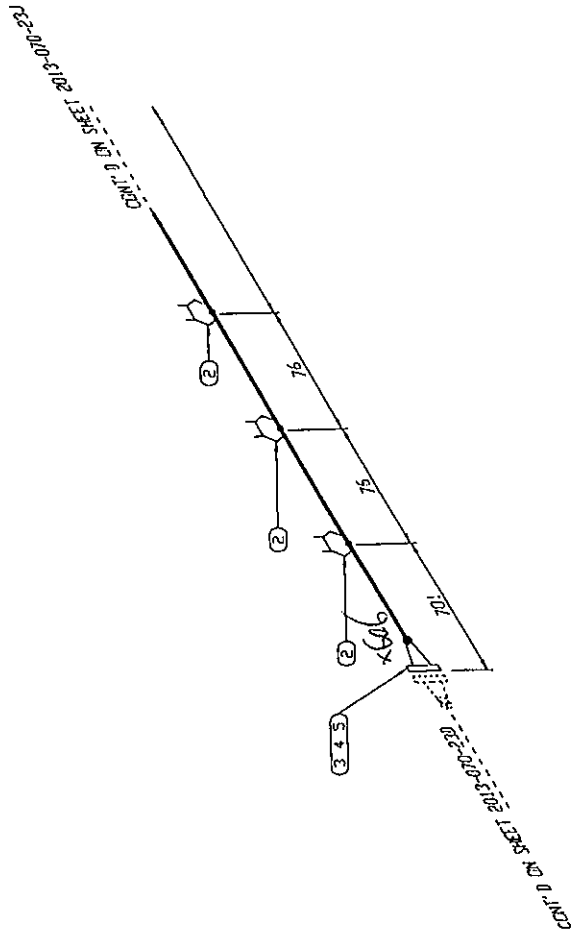
CUT PIPE LENGTH	
PIECE LENGTH (MM)	SIZE (INCH)
(A) 179	1



CADO INDUSTRIES INC.		CUSTOMER: PENNWEST EXPLORATION	
7491 - 110 AVE SE, CALGARY, ALBERTA T2C 3B8		UNIT NO: 2013-070-601	
TEL: (403) 278-6662; FAX: (403) 279-6687		MODEL: 4-WELL SEPARATOR SKID (BU-2000)	
ISSUED FOR CONSTRUCTION		LOCATION:	
DATE: 11/20/13	BY: WC	LINE TAG: H.P. FLARE HEADER	
NO. 9	REV. 0	DRAWING NO.: 070-230	
INSULATION: N/A	TEST MEDIA: WATER	TEST PRESS.: 14054 KPA	
PAINT: WASH GRAY	SANDBLAST: SP-6	PICKLE & OIL: N/A	
PHWT: N/A	RADIOGRAPHY: 100%	WELD PROC.: CADO-5	
DESIGN TEMP.: -29 DEG. C	DESIGN PRESS.: 9376 KPA	PIPE SPEC.: CS	
PIPING DESIGNED IN ACCORDANCE WITH ASME B31.3 2010 EDITION.			

BILL OF MATERIAL

MARK	SIZE	DESCRIPTION	QTY	WEIGHT
1	6	PIPE, SMLS., 3/4", SCH. STD., A106 GR B	1492 MH	42.2
2	6x1/2	THREDLET, 3000# FS, A105N	3	0.4
3	6	FLANGE, RFWN, CLASS 150, SCH. STD BORE, A105N	1	10.9
4	6	GASKET, 3mm, FLEX CG, RF, CLASS 150, 316SS GRAPHITE FILLED, CS CENTERING RING	1	1.0
5	3/4x102	(8) STUD BOLTS V/ NUTS, A193 GR B7M/A194 GR 2HH	1	1.0
TOTAL FABRICATION WEIGHT				55.4

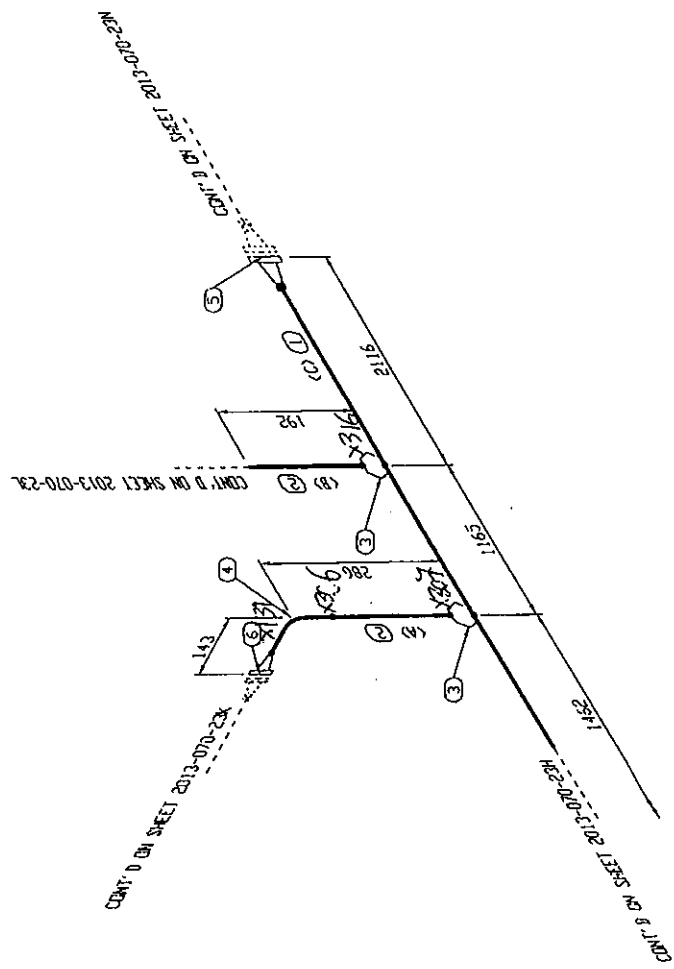


BILL OF MATERIAL

MARK	SIZE	DESCRIPTION	QTY	WEIGHT
1	6	PIPE, SMLS, BW, SCH. STD, A106 GR B	3921 MM	110.7
2	6	PIPE, SMLS, BW, SCH. STD, A106 GR B	154 MM	0.9
3	6x2	WELDRLET, SCH. STD FS, A105N	2	1.3
4	2	ELBOW, 90 DEG, LR, BW, SCH. STD, A234 GR	1	0.7
5	6	FLANGE, RFWN, CLASS 150, SCH. STD BORE, A105N	1	10.9
6	2	FLANGE, RFWN, CLASS 150, SCH. STD BORE, A105N	1	2.8

TOTAL FABRICATION WEIGHT 127.1

CUT PIPE LENGTH		SIZE
PIECE NUM	LENGTH (MM)	(INCH)
<A>	78	2
	64	2
<C>	5413	6



PIPING DESIGNED IN ACCORDANCE WITH ASME B31.3 2010 EDITION,	
PIPE SPEC.: AS	WELD PROC.: CADO-5
DESIGN PRESS.: ATMOS.	RADIOGRAPHY: 100%
DESIGN TEMP.: 90 DEG. C	PWHT: N/A
NDMT: -29 DEG. C	PICKLE & OIL: N/A
C.A.: 1.6 mm	SANDBLAST: SP-5
TEST PRESS.: N/A	PAUSE: ARM GREY
TEST MEDIA: NR	INSULATION: N/A

CADO INDUSTRIES INC.
 7491 - 110 AVE SE, CALGARY, ALBERTA T2C 3B8
 TEL: (403) 279-6882; FAX: (403) 279-6887

CUSTOMER:	PENNWEST EXPLORATION
UNIT NO.:	2013-070-601
MODEL:	4-WELL SEPARATOR SKID (BU-2000)
LOCATION:	
LINE TAG:	H.P. FLARE HEADER
DRAWING NO.:	070-231

DATE	BY	CHK	APP

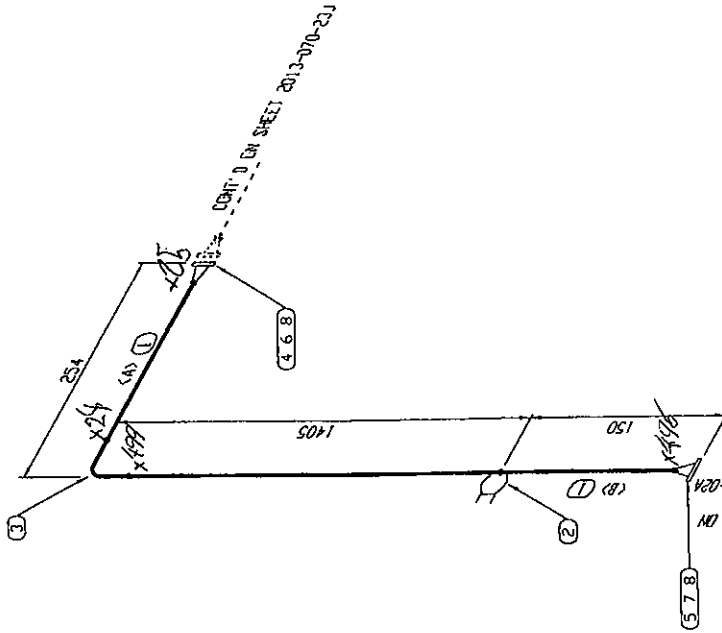
BILL OF MATERIAL

MARK	SIZE	DESCRIPTION	QTY	WEIGHT
1	2	PIPE, SPLS, BV, SCH STD, A106 GR B	1501 MM	8.2
2	2X1/2	THREDDLET, 3000# FS, A105N	1	0.2
3	2	ELBOW, 90 DEG, LR, BV, SCH STD, A234 GR WPB	1	0.7
4	2	FLANGE, RFVN, CLASS 150, SCH STD BORE, A105N	1	2.8
5	2	FLANGE, RFVN, CLASS 600, SCH STD BORE, A105N	1	5.5
6	2	GASKET, 3mm, FLEX CG, RF, CLASS 150, 316SS GRAPHITE FILLED, CS CENTERING	1	1.0
7	2	GASKET, 3mm, FLEX CG, RF, CLASS 600, 316SS GRAPHITE FILLED, CS CENTERING	1	1.0
8	5/8X83	(4) STUD BOLTS W/ NUTS, A193 GR B7M/A194 GR 2HM	2	2.0

TOTAL FABRICATION WEIGHT 21.1

CUT PIPE LENGTH

PIECE NUM	LENGTH (MM)	SIZE (INCH)
(A)	108	2
(B)	1393	2



PIPING DESIGNED IN ACCORDANCE WITH ASME B31.3 2010 EDITION.	
PIPE SPEC:	AS WELD PROC: CADO-5
DESIGN PRESS:	ADJOS: RADIOGRAPHY: 100%
DESIGN TEMP:	90 DEG C PWHT: N/A
NOTE:	-29 DEG C PICKLE & OIL: N/A
CA:	1.6 mm SANDBLAST: SP-6
TEST PRESS:	N/A PAINT: WARM GREY
TEST MEDIA:	AP INSULATION: N/A

CADO INDUSTRIES INC.

7491 - 110 AVE SE, CALGARY, ALBERTA T2C 3B8
TEL: (403) 279-6662; FAX: (403) 279-6687

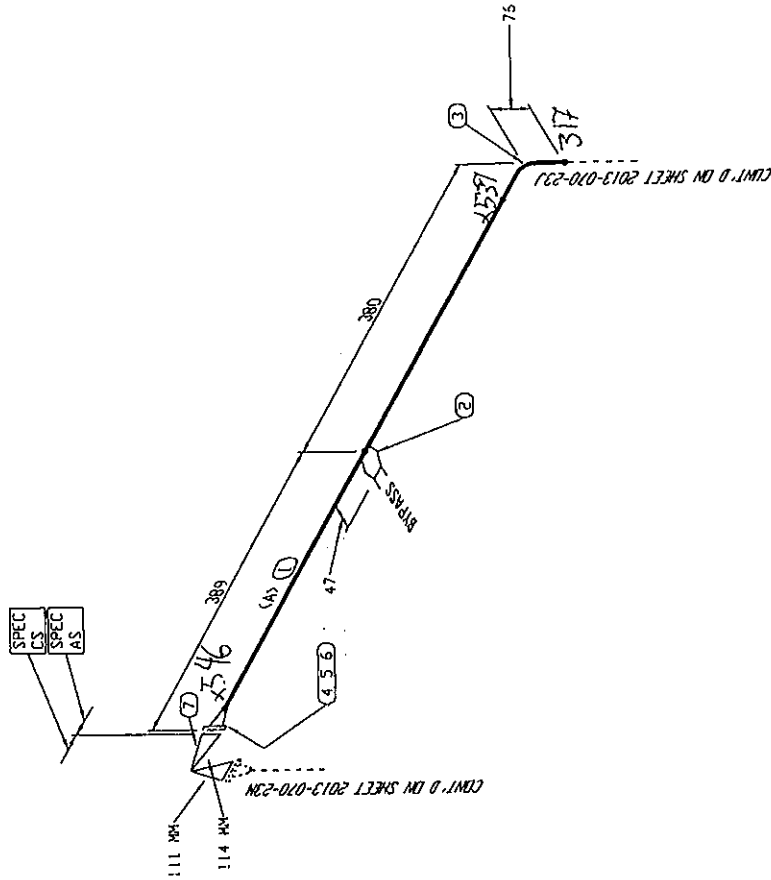
CUSTOMER:	PENNWEST EXPLORATION
UNIT NO.:	2013-070-601
MODEL:	4-WELL SEPARATOR SKID (8U-2000)
LOCATION:	
LINE TAG:	H.P. FLARE HEADER
DRAWING NO.:	070-23X

AP	WC	WC	WC
AP	WC	WC	WC

BILL OF MATERIAL

MARK	SIZE	DESCRIPTION	QTY	WEIGHT
1	2	PIPE, SMLS, BV, SCH. STD, A106 GR B	623 MM	3.4
2	2X1	THREDDLET, 3000# FS, A105N	1	0.3
3	2	ELBOW, 90 DEG, LR, BV, SCH. STD, A234 GR WPB	1	0.7
4	2	FLANGE, RFWN, CLASS 150, SCH. STD BORE, A105N	1	2.8
5	2	GASKET, 3mm, FLEX CG, RF, CLASS 150, 316SS GRAPHITE FILLED, CS CENTERING RING	1	1.0
6	5/8X83	(4) STUD BOLTS V/ NUTS, A193 GR B7M/A194 GR 2PH RELIEF, RF, NACE 2002, 600# X 150#, A352 GR LCC	1	1.0
7	2X1	VALVE, RELIEF, RF, NACE 2002, 600# X 150#, A352 GR LCC	1	12.7
TOTAL FABRICATION WEIGHT				21.7

CUT PIPE LENGTH	SIZE
PIECE LENGTH (MM)	(INCH)
(A) 623	2



PIPEING DESIGNED IN ACCORDANCE WITH ASME B31.3 2010 EDITION.	
PIPE SPEC: AS	WELD PROC: CADO-5
DESIGN PRESS: ATMOS	RADIOGRAPHY: 100%
DESIGN TEMP: 90 DEG. C	PHWT: N/A
WDMT: -29 DEG. C	PICKLE & OIL: N/A
CAL: 1.6 mm	SANDBLAST: SP-6
TEST PRESS: N/A	PAINT: WARM GREY
TEST MEDIA: A3	INSULATION: N/A

CADO INDUSTRIES INC.
 7491 - 110 AVE SE, CALGARY, ALBERTA T2C 3B8
 TEL: (403) 279-6662; FAX: (403) 279-6687

CUSTOMER:	PENNYWEST EXPLORATION
UNIT NO.:	2013-070-601
MODEL:	4-WELL SEPARATOR SKID (BU-2000)
LOCATION:	
LINE TAG:	H.P. FLARE HEADER
DRAWING NO.:	270-231
REV:	0

DATE	BY	CHK	APP
11/20/2013	AP	WC	WC

ISSUED FOR CONSTRUCTION
 2013-070-231

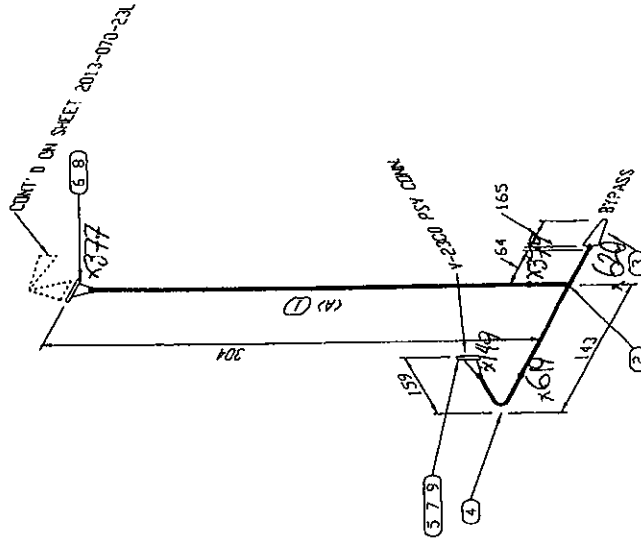
BILL OF MATERIAL

MARK	SIZE	DESCRIPTION	QTY	WEIGHT
1	1	PIPE, SMLS, BV, SCH. 80, A106 GR B	179 MM	0.6
2	2X1	TEE, RED, BV, SCH. 80, A234 GR WPB	1	1.0
3	2X1	SWAGE, CONC, SCH80/SCH. 160, BLE/TISE A105N	-	0.9
4	2	ELBOW, 90 DEG, LR, BV, SCH. 80, A234 GR WPB	1	0.9
5	2	FLANGE, RFVN, CL600, SCH. 80 BORE, A105N	1	5.5
6	2	GASKET, CL600 SPIRAL WOUND, 316 SS / FLEXIBLE GRAPHITE	1	1.9
7	2	GASKET, CL600 SPIRAL WOUND, 316 SS / FLEXIBLE GRAPHITE	1	1.0
8	1	GASKET, CL600 SPIRAL WOUND, 316 SS / FLEXIBLE GRAPHITE	1	1.0
9	5/8X108	(8) STUD BOLTS W/ NUTS, A193 GR 87H / A194 GR 2HM	1	1.0
10	5/8X102	(4) STUD BOLTS W/ NUTS, A193 GR 87H / A194 GR 2HM	1	1.0
TOTAL FABRICATION WEIGHT				13.6

CUT PIPE LENGTH

PIECE LENGTH
NUM (MM) SIZE (INCH)

(A) 179 1



PPING DESIGNED IN ACCORDANCE WITH ASME B31.3 2010 EDITION.	WELD PROC.: CADO-5
CS	RADIOGRAPHY: 100%
DESIGN PRESS: 9376 KPAC	PHIT: N/A
DESIGN TEMP: 90 DEG. C	PICKLE & OIL: N/A
MONIT: -29 DEG. C	SANDBLAST: SP-6
C.A.: 1.5 mm	PAINT: WARM GREY
TEST PRESS: 14254 KPAC	INSULATION: N/A
TEST MEDIA: WATER	

CADO INDUSTRIES INC.
7491 - 110 AVE SE, CALGARY, ALBERTA T2C 3B8
TEL: (403) 279-6662; FAX: (403) 279-6687

CUSTOMER:	PENNWEST EXPLORATION
UNIT NO.:	2013-070-601
MODEL:	4-WELL SEPARATOR SKID (30-2000)
LOCATION:	
LINE TAG:	H.P. FLARE HEADER
DRAWING NO.:	070-23M

DATE	BY	CHK	APP
11/13/2013	AP	WC	WC

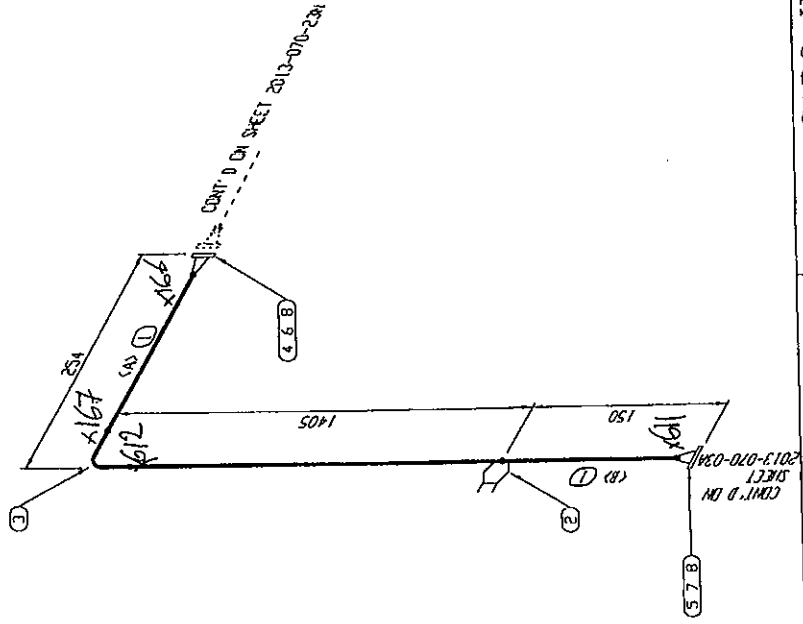
ISSUED FOR CONSTRUCTION
REVISION

NO.

BILL OF MATERIAL

MARK	SIZE	DESCRIPTION	QTY	WEIGHT
1	2	PIPE, SHLS., BW, SCH. STD, A106 GR B	1501 MM	6.2
2	2x1/2	THREDDLET, 3000# F.S., A105N	1	0.2
3	2	ELBOW, 90 DEG, LR, BW, SCH. STD, A234 GR 4B	1	0.7
4	2	FLANGE, RFWN, CLASS 150, SCH. STD BORE.	1	2.8
5	2	FLANGE, RFWN, CLASS 600, SCH. STD BORE.	1	5.5
6	2	GASKET, 3mm, FLEX CG, RF, CLASS 150, 316SS GRAPHITE FILLED, CS CENTERING RING	1	1.0
7	2	GASKET, 3mm, FLEX CG, RF, CLASS 600, 316SS GRAPHITE FILLED, CS CENTERING RING	1	1.0
8	5/8x83	(4) STUD BOLTS V/ NUTS, A193 GR B7M/A194 GR 2HM	2	2.0
TOTAL FABRICATION WEIGHT				21.1

CUT PIPE LENGTH	PIECE LENGTH (MM)	SIZE (INCH)
(A)	108	2
(B)	1393	2



PIPE SPEC:	AS	WELD PROC:	CAD-5
DESIGN PRESS:	ATMOS.	RADIOGRAPHY:	100%
DESIGN TEMP.:	90 DEG. C	PWHT:	N/A
ADMT:	-29 DEG. C	PICKLE & OIL:	N/A
C.A.I.:	1.6 mm	SANDBLAST:	SP-5
TEST PRESS:	N/A	PAINT:	WARM DRY
TEST MEDIA:	AR	INSULATION:	N/A

7491 - 110 AVE SE, CALGARY, ALBERTA T2C 3B8
 TEL: (403) 279-6682; FAX: (403) 279-6687

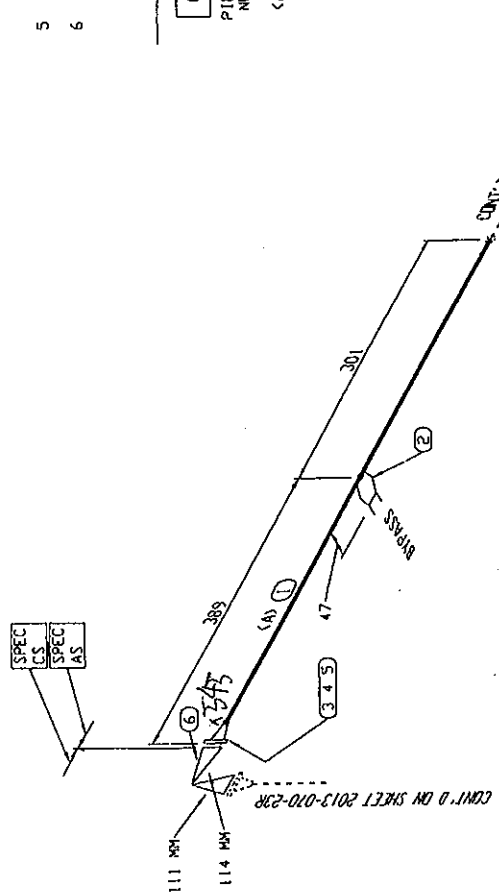
CUSTOMER:	PENNWEST EXPLORATION
UNIT NO.:	2013-070-601
MODEL:	4-WELL SEPARATOR SKID (BU-2000)
LOCATION:	
LINE TAG:	H.P. FLARE HEADER
DRAWING NO.:	279-23P

CADO INDUSTRIES INC.	
DATE:	2013-07-23
BY:	DKK
APR:	DKK
ISSUED FOR CONSTRUCTION	
NO.	0

BILL OF MATERIAL

MARK	SIZE	DESCRIPTION	QTY	WEIGHT
1	2	PIPE, SHLS. BV, SCH. STD, A106 GR B	623 MM	3.4
2	2X1	THREDDLET, 3000# FS, A105N	1	0.3
3	2	FLANGE, RFVN, CLASS 150, SCH. STD BDRG. A105N	1	2.8
4	2	GASKET, 3mm, FLEX CG, RF, CLASS 150, 316SS GRAPHITE FILLED, CS CENTERING RING	1	1.0
5	5/8X83	(4) STUD BOLTS V/ NUTS, A193 GR B7M/A194 GR 2HM	1	1.0
6	2X1	VALVE RELIEF, RF, NACE 2002, 600# X 150#, A352 GR LCC	1	12.7
TOTAL FABRICATION WEIGHT				21.1

CUT PIPE LENGTH	PIECE LENGTH (MM)	SIZE (INCH)
(A)	623	2



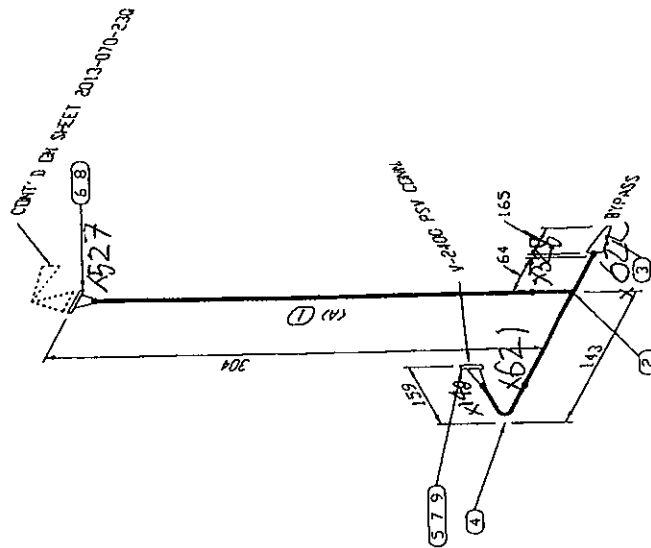
PIPING DESIGNED IN ACCORDANCE WITH ASME B31.3 2010 EDITION. WELD PROC.: CADO-5 RADIOGRAPHY: I00X PWHT: N/A PICKLE & OIL: N/A SANDBLAST: SP-6 PAINT: WARM ZINC INS. ADJ: N/A		CADO INDUSTRIES INC. 7491 - 110 AVE SE, CALGARY, ALBERTA T2C 3B8 TEL: (403) 279-6662; FAX: (403) 279-6667		CUSTOMER: PENNWEST EXPLORATION UNIT NO.: 2013-070-601 MODEL: 4-WELL SEPARATOR SKID (BU-2000) LOCATION: LINE TAG: H.P. FLARE HEADER DRAWING NO.: 073-230	
PIPE SPEC.: AS	DESIGN PRESS.: ATMOS.	DESIGN TEMP.: 90 DEG. C	TEST PRESS.: N/A	TEST MEDIA: AIR	DATE: BY: 2013-07-23
ISSUED FOR CONSTRUCTION	NO	NO	NO	NO	NO

BILL OF MATERIAL

MARK	SIZE	DESCRIPTION	QTY	WEIGHT
1	1	PIPE, SMLS, BV, SCH 80, A106 GR B	179 MM	0.6
2	2X1	TEEL, RED, BV, SCH 80, A234 GR WPB	1	1.0
3	2X1	SWAGE, CONCL, SCH80/SCH.160, BLE/TSE, A105N	-	0.9
4	2	EL.BDV, 90 DEG, LR, BV, SCH. 80, A234 GR	1	0.9
5	2	MPB	1	5.5
6	1	FLANGE, RFVN, CL600, SCH. 80 BDRE, A105N	1	1.9
7	2	FLANGE, RFVN, CL600, SCH. 80 BDRE, A105N	1	1.0
8	1	GASKET, CL600 SPIRAL WOUND, 316 SS / FLEXIBLE GRAPHITE	1	1.0
9	5/8X108	GASKET, CL600 SPIRAL WOUND, 316 SS / FLEXIBLE GRAPHITE	1	1.0
10	5/8X102	 STUD BOLTS V/ NUTS, A193 GR B7M / A194 GR 2HM	1	1.0
		<4> STUD BOLTS V/ NUTS, A193 GR B7M / A194 GR 2HM	1	1.0

TOTAL FABRICATION WEIGHT 13.6

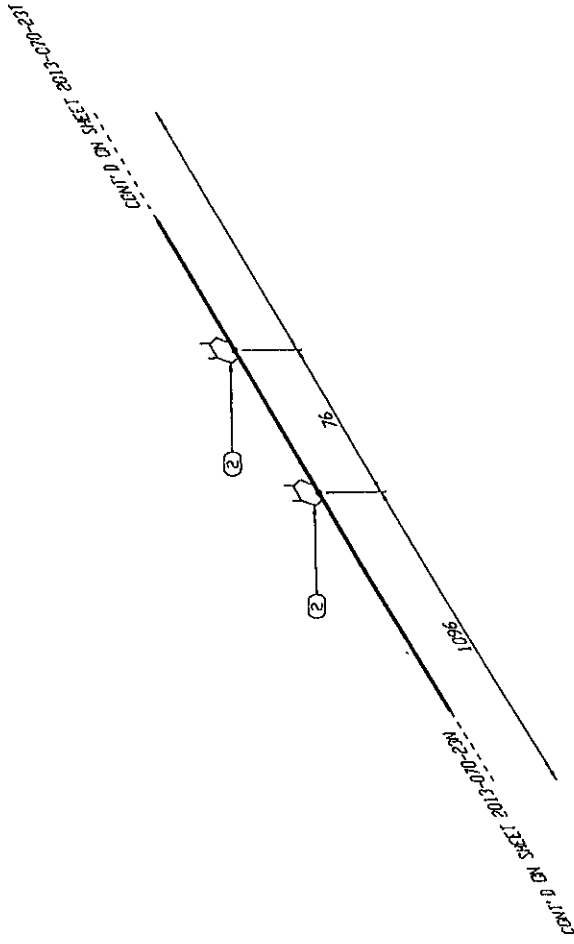
CUT PIPE LENGTH	PIECE LENGTH (MM)	SIZE (INCH)
<4>	179	1



PIPING DESIGNED IN ACCORDANCE WITH ASME B31.3 2010 EDITION. PIPE SPEC.: CS WELD PROC.: CADO-5 RADIOGRAPHY: 100% PHRT: N/A PICKLE & OIL: N/A SANDBLAST: SP-6 PAINT: WARM GREY INSULATION: N/A		CAD INDUSTRIES INC. 7491 - 110 AVE SE, CALGARY, ALBERTA T2C 3B8 TEL: (403) 279-6662; FAX: (403) 279-6687		CUSTOMER: PENNWEST EXPLORATION UNIT NO.: 2013-070-501 MODEL: 4-WELL SEPARATOR SKID (BU-2000) LOCATION: LINE TAG: H.P. FLARE HEADER DRAWING NO.: 070-23R
DESIGN PRESS.: 9376 KPAG DESIGN TEMP.: -29 DEG. C MONT: 1.6 mm TEST PRESS.: 14284 KPAG TEST MEDIA: WATER	DATE: 11/10/2013 BY: JCK CHK: JRR DATE: 07/01/2013 BY: JCK CHK: JRR	ISSUE FOR CONSTRUCTION NO REVISION	0 NO REVISION	0 NO REVISION

BILL OF MATERIAL

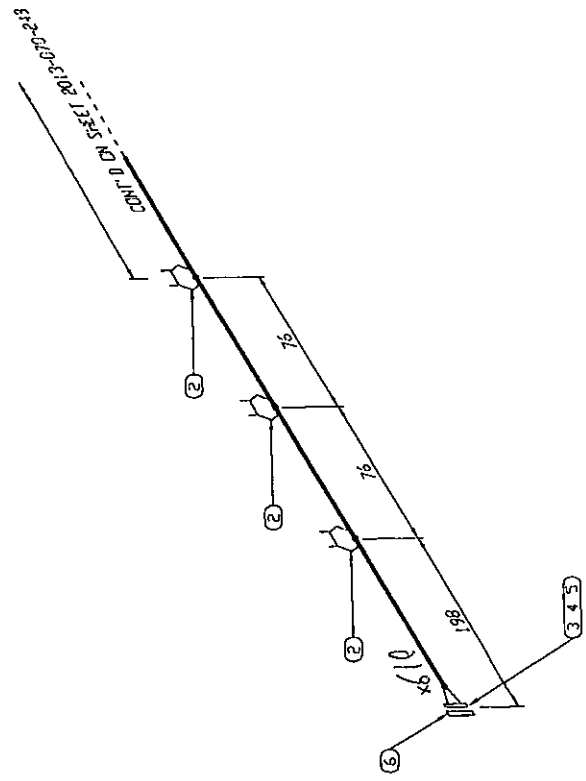
MARK	SIZE	DESCRIPTION	QTY	WEIGHT
1	6	PIPE, SMLS, BK, SCH. STD, A106 GR B	662 MM	18.7
2	6x1/2	THREDDLET, 3000# FS, A105N	2	0.3
TOTAL FABRICATION WEIGHT				18.9



PIPING DESIGNED IN ACCORDANCE WITH ASME B31.3 2010 EDITION. WELD PROC.: CADO-5 RADIOGRAPHY: 100% PHWT: N/A PICKLE & OIL: N/A SANDBLAST: SP-6 PAINT: WARM GREY INSULATION: N/A		CADO INDUSTRIES INC. 7491 - 110 AVE SE, CALGARY, ALBERTA T2C 3B8 TEL: (403) 279-6662; FAX: (403) 279-6687		CUSTOMER: PENNWES: EXPLORATION UNIT NO.: 2013-070-601 MODEL: 4-WELL SEPARATOR SKID (BU-2000) LOCATION: LINE TAG: H.P. FLARE HEADER DRAWING NO.: 070-235	
AS	ATMOS.	90 DEG. C	1.5 mm	N/A	AP
TEST PRESS:	N/A	TEST MEDIA:	AP	NO.	REV. 0

BILL OF MATERIAL

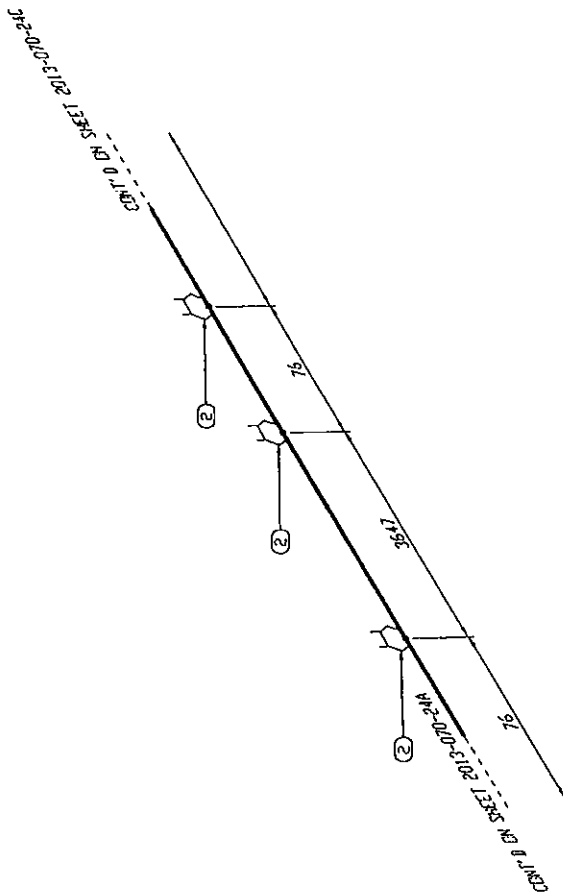
MARK	SIZE	DESCRIPTION	QTY	WEIGHT
1	2	PIPE, SMLS., BV, SCH. STD., A106, GR. B	321 MM	1.8
2	2X1/2	THREADED, 3000# F.S. A105N	3	0.4
3	2	FLANGE, RF, WN., CLASS 150, SCH. STD. BORE, A105N	1	2.8
4	2	GASKET, 3mm, FLEX CG, RF, CLASS 150, 316SS GRAPHITE FILLED, CS CENTERING RING	1	1.0
5	5/8X83	(4) STUD BOLTS V/ NUTS, A193 GR B7M/A194 GR 2HM	1	1.0
6	2	FLANGE, RF, BLIND, CLASS 150, A105N	1	1.9
TOTAL FABRICATION WEIGHT				8.6



PIPING DESIGNED IN ACCORDANCE WITH ASME B31.3 2010 EDITION. WELD PROC.: CADO-5 RADIOGRAPHY: 100% PWHT: N/A PICKLE & OIL: N/A SANDBLAST: SP-6 PAINT: WARM GREY INSULATION: N/A		CAD O INDUSTRIES INC. 7491 - 110 AVE SE, CALGARY, ALBERTA T2C 3B8 TEL: (403) 279-6662; FAX: (403) 279-6667		CUSTOMER: PENNWEST EXPLORATION UNIT NO.: 2013-070-601 MODEL: 4-WELL SEPARATOR SKID (BU-2000) LOCATION: URE TAG: L.P. FLARE HEADER DRAWING NO.: 070-24A	
TEST PRESS: N/A TEST MEDIA: AIR	DATE: 11/11/2013 BY: JRC CHECK: JRC APPROVE: JRC	DATE: 11/11/2013 BY: JRC CHECK: JRC APPROVE: JRC	DATE: 11/11/2013 BY: JRC CHECK: JRC APPROVE: JRC	DATE: 11/11/2013 BY: JRC CHECK: JRC APPROVE: JRC	REV: 0

BILL OF MATERIAL

MARK	SIZE	DESCRIPTION	QTY	WEIGHT
1	2	PIPE, SMLS. BV, SCH. STD, A106 GR B	3799 MM	20.7
2	2x1/2	THREDDLET, 3000# FS, A109N	3	0.4
TOTAL FABRICATION WEIGHT				21.0



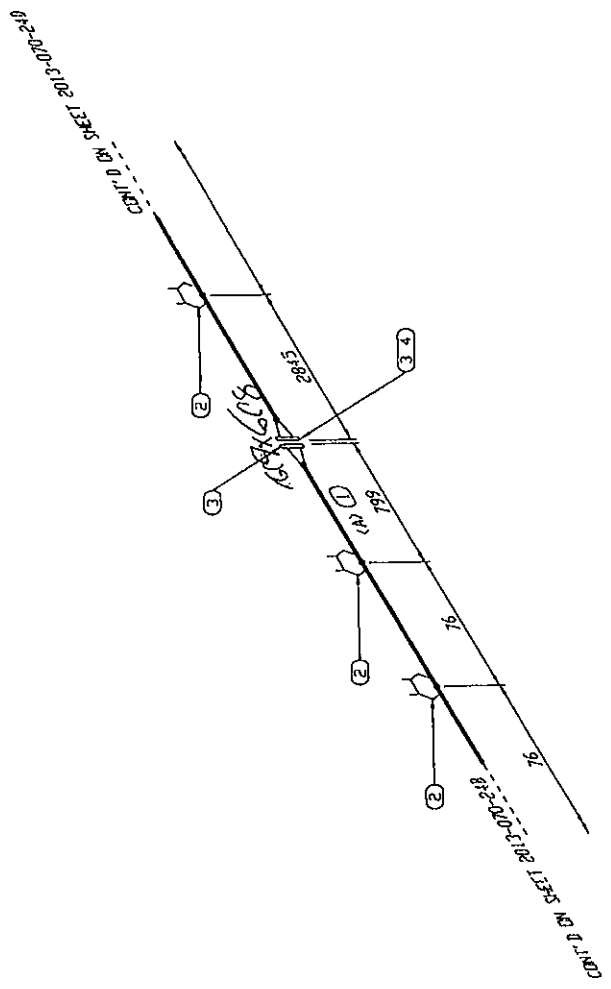
PIPING DESIGNED IN ACCORDANCE WITH ASME B31.3 2010 EDITION. WELD PROC: CADO-5 RADIOGRAPHY: 100% PART: N/A PICKLE & OIL: N/A SANDBLAST: SP-6 PAINT: WARM GREY INSULATION: N/A		CADO INDUSTRIES INC. 7491 - 110 AVE SE, CALGARY, ALBERTA T2C 3B8 TEL: (403) 279-6662; FAX: (403) 279-6687		CUSTOMER: PENNWEST EXPLORATION UNIT NO: 2013-070-601 MODEL: 4-WELL SEPARATOR SKID (BU-2000) LOCATION: LINE TAG: L.P. FLARE HEADER DRAWING NO: 370-248	
ASME B31.3 90 DEG. C -23 DEG. C 1.5 mm N/A AIR	N/A N/A SP-6 WARM GREY N/A	N/A N/A SP-6 WARM GREY N/A	N/A N/A SP-6 WARM GREY N/A	N/A N/A SP-6 WARM GREY N/A	N/A N/A SP-6 WARM GREY N/A

REV 0

BILL OF MATERIAL

MARK	SIZE	DESCRIPTION	QTY	WEIGHT
1	2	PIPE, SMLS., BK, SCH. STD., A106 GR B	3663 MM	20.0
2	2X1/2	THRODLET, 3000# FS, A105N	3	0.4
3	2	FLANGE, RFVN, CLASS 150, SCH. STD BORE, A105N	2	5.5
4	2	GASKET, 3mm, FLEX CG, RF, CLASS 150, 316SS GRAPHITE FILLED, CS CENTERING RING	1	1.0
TOTAL FABRICATION WEIGHT:				26.7

CUT PIPE LENGTH	PIECE LENGTH	SIZE
NUM	(MM)	(INCH)
4	4967	2

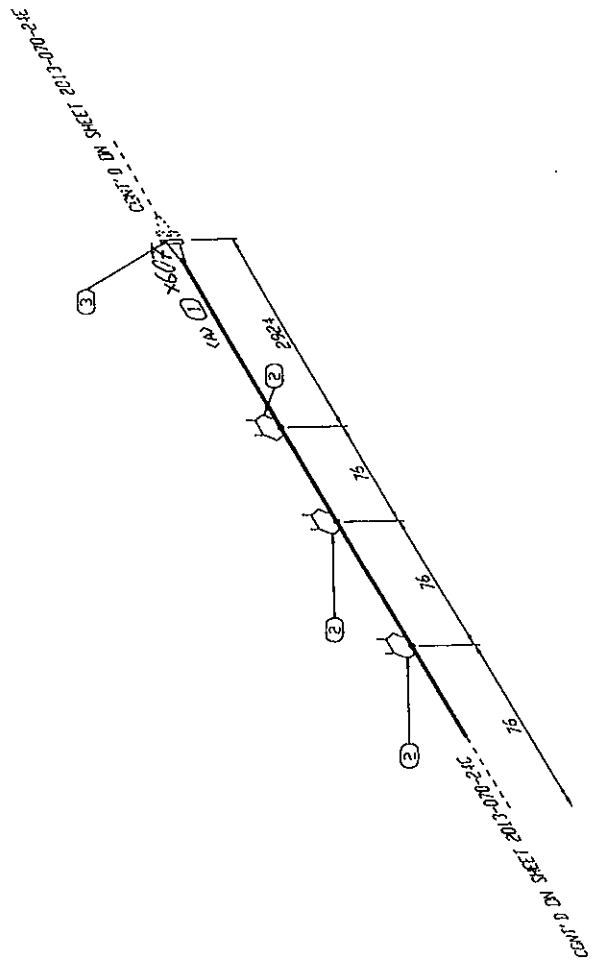


PIPING DESIGNED IN ACCORDANCE WITH ASME B31.3 2010 EDITION. PIPE SPEC.: AS WELD PROC.: C400-5 DESIGN PRESS.: ATMOS. RADIOGRAPHY: 100% DESIGN TEMP.: -29 DEG. C PWHT: N/A MDMT: -29 DEG. C PICKLE & OIL: N/A C.A.: 1.6 mm SANDBLAST: SP-6 TEST PRESS.: N/A PAINT: WASH GREY TEST MEDIA: AIR INSULATION: N/A		CADDO INDUSTRIES INC. 7491 - 110 AVE SE, CALGARY, ALBERTA T2C 3B8 TEL: (403) 279-6662; FAX: (403) 279-6687		CUSTOMER: PENNWEST EXPLORATION UNIT NO.: 2013-070-601 MODEL: 4-WELL SEPARATOR SKID (BU-2000) LOCATION: LINE TAG: L.P. FLARE HEADER DRAWING NO.: 070-24C REV: 0	
DATE	BY	CHK	APP	DATE	BY

BILL OF MATERIAL

MARK	SIZE	DESCRIPTION	QTY	WEIGHT
1	2	PIPE, SMLS., BV, SCH. STD, A106 GR B	3048 MM	16.6
2	2X1/2	THROBLET, 3000# FS, A105N	3	0.4
3	2	FLANGE, RFWN, CLASS 150, SCH. STD BDR, A105N	1	2.8
TOTAL FABRICATION WEIGHT				19.6

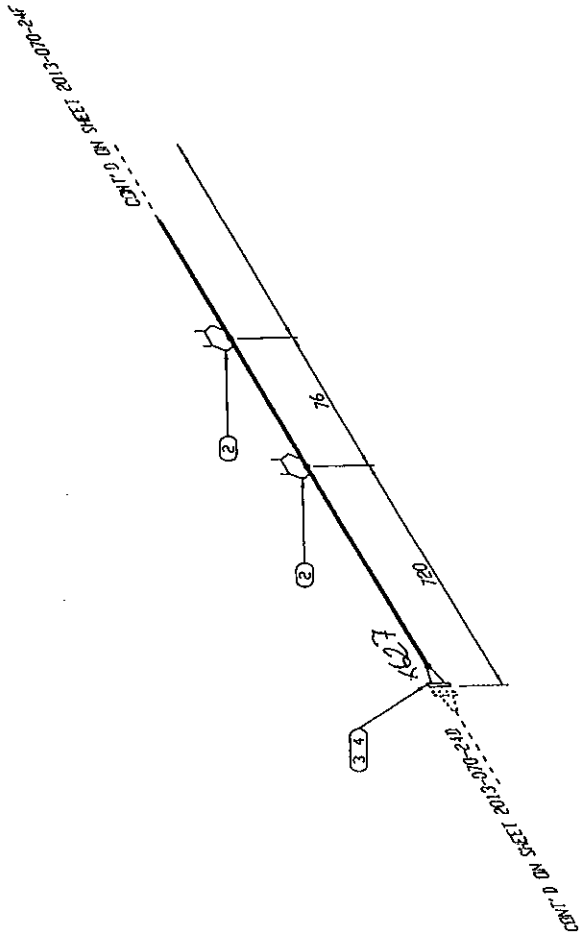
CUT PIPE LENGTH	
PIECE NUM	SIZE (INCH)
(A)	5864 2



PIPING DESIGNED IN ACCORDANCE WITH ASME B31.3 2010 EDITION. PIPE SPEC.: AS WELD PROC.: CADO-5 DESIGN PRESS.: ATMOS. RADIOGRAPHY: 100% DESIGN TEMP.: 90 DEG. C PWHT: N/A MDMT: -29 DEG. C PROXLE & OIL: N/A C.A.: 1.6 mm SANDBLAST: SP-6 TEST PRESS.: N/A PAINT: WARM GREY TEST MEDIA: AIR INSULATION: N/A		CADO INDUSTRIES INC. 7491 - 110 AVE SE, CALGARY, ALBERTA T2C 3B8 TEL: (403) 279-6662; FAX: (403) 279-6687		CUSTOMER: PENNWEST EXPLORATION UNIT NO.: 2013-070-601 MODEL: 4-WELL SEPARATOR SKID (8U-2000) LOCATION: LINE TAG: L.P. FLARE HEADER DRAWING NO.: 07J-24C	
DATE	BY	CHK	APP	REV.	C

BILL OF MATERIAL

MARK	SIZE	DESCRIPTION	QTY	WEIGHT
1	2	PIPE, SKLS. BV, SCH STD, A106 GR B	767 MH	4.2
2	2X1/2	THREDDLET, 3000# CS, A105N	2	0.3
3	2	FLANGE, RF, FN, CLASS 150, SCH, STD BORE, A105N	1	2.8
4	2	GASKET, 3mm, FLEX CG, RF, CLASS 150, 316SS GRAPHITE FILLED, CS CENTERING RING	1	1.0
TOTAL FABRICATION WEIGHT				<u>B.1</u>



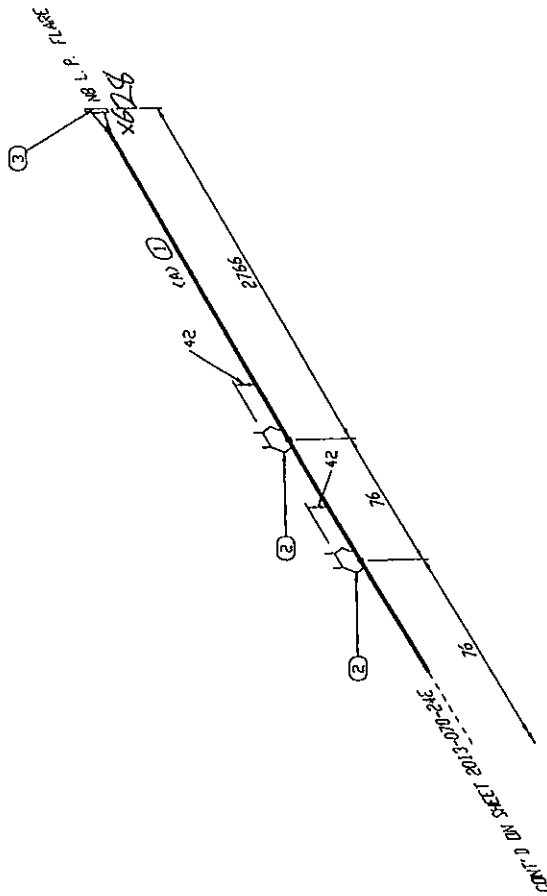
CADO INDUSTRIES INC.		PENNYWEST EXPLORATION	
7491 - 110 AVE SE, CALGARY, ALBERTA T2C 3B9		2013-070-601	
TEL: (403) 279-6668; FAX: (403) 279-6687		4-WELL SEPARATOR SKID (BU-2000)	
PIPING DESIGNED IN ACCORDANCE WITH ASME B31.3 2010 EDITION.		LOCATION:	
PIPE SPEC.: AS	WELD PROC.: CADO-5	LINE TAG: L.P. FLARE HEADER	
DESIGN PRESS.: ATMOS.	RADIOGRAPHY: 100%	DRAWING NO.: 070-24E	
DESIGN TEMP.: 90 DEC. C	PAINT: N/A	REV: 0	
DMNT: -29 DEC. C	PICKLE & OIL: N/A		
C.A.: 1.5 mm	SANDBLAST: SP-6		
TEST PRESS.: N/A	PAINT: WARM GREY		
TEST MEDIA: NR	INSULATION: N/A		
ISSUED FOR CONSTRUCTION			
REVISION			

BILL OF MATERIAL

MARK	SIZE	DESCRIPTION	QTY	WEIGHT
1	2	PIPE, SMLS. BV, SCH. STD, A106 GR B	2813 MM	15.3
2	2X1/2	THREDLET, 3000H F.S. A105N	2	0.3
3	2	FLANGE, RF/WN, CLASS 150, SCH. STD BDR. A105N	1	2.8
TOTAL FABRICATION WEIGHT				18.2

CUT PIPE LENGTH

PIECE NUM	LENGTH (MM)	SIZE (INCH)
1	3580	2



PIPE SPEC:	AS	WELD PROC:	CAD-5
DESIGN PRESS:	ATMOS.	RADIOGRAPHY:	100%
DESIGN TEMP:	90 DEG. C	PMHT:	N/A
WDMT:	-29 DEG. C	PICKLE & OIL:	N/A
C.A.:	1.6 mm	SANDBLAST:	SP-6
TEST PRESS:	N/A	PAINT:	WARM ZPZY
TEST MEDIA:	AR	INSULATION:	N/A

CADO INDUSTRIES INC.
 7491 - 110 AVE SE, CALGARY, ALBERTA T2C 3B8
 TEL: (403) 279-6662; FAX: (403) 279-6667

CUSTOMER:	PENNWEST EXPLORATION
UNIT NO.:	2013-070-601
MODEL:	4-WELL SEPARATOR SKID (BU-2000)
LOCATION:	
LINE TAG:	L.P. FLARE HEADER
DRAWING NO.:	070-245
REV.:	0

DATE	BY	CHK	APP
11/01/2013	AP	WC	WC

ISSUED FOR CONSTRUCTION



Gamma-Tech Inspection Ltd.
3080 - 49th Avenue SE
Calgary, Alberta T2B 2X4
Phone: 403-235-2454
Fax: 403-207-4451

RADIOGRAPHIC REPORT

R - 62615

CLIENT: <u>Cado</u>	MATERIAL TYPE: <u>CS</u>	THICKNESS RANGE: <u>0.337"</u>
LOCATION: <u>Calgary</u>	SOURCE OF RADIATION: <u>IR192</u>	WELDERS SYMBOL: <u>1</u> OF <u>1</u>
GTL JOB No. <u>13-01-0068</u>	CONTRACTOR: _____	BORDERLINE REJECT: <u>C</u>
CLIENT'S P.O. _____	TECHNIQUE: SWE <input type="checkbox"/> DWE <input checked="" type="checkbox"/> SWV <input checked="" type="checkbox"/> DWV <input type="checkbox"/>	PROCEDURE: <u>C</u>
CLIENT JOB No. <u>2013-070</u>	FILM TYPE: AGFA <input type="checkbox"/> D4 <input type="checkbox"/> D5 <input type="checkbox"/> D7 <input type="checkbox"/> OTHER _____	CODE: <u>ASME B31.3</u>
* 1 WELDERS SYMBOL ACCEPTABLE * 2 BORDERLINE REJECT * 3 See back for other legends.		

IDENTIFICATION	PIPE SIZE	PIPE SCHEDULE	t	# OF EXP	CRK	LF	IP	P	S	UC	CR	EP	%	*	IQI	DEFECT LOCATION AND REMARKS	ACCEPT	REJECT
X1	4"	XH	337	3									100	Y	B		✓	
X2														U			✓	
X3														U			✓	
X4														U			✓	
X5	4"	XH	337	3									100	U	B		✓	
X6														U			✓	

FINAL FILM INTERPRETATION IS THE RESPONSIBILITY OF THE CLIENT. I AM IN FULL AGREEMENT WITH THE ABOVE DETAILS AND ACKNOWLEDGE RECEIPT OF FILM.

CLIENT REPRESENTATIVE: _____

TECHNICIAN (SIGN): D. Boyley

TECHNICIAN (PRINT): D. Boyley CGSB LEVEL II ASNT LEVEL II

ASSISTANT (PRINT): Sophia

FILM USED: 18 PCS. FILM SIZE: 8 1/2 PCS.

Nominal Plus Maximum Reinforcement: 4.163

SSOFD: Source Side of Object to Film Distance: _____

SOD: Source to Object Distance: _____

Curies: 100

CGSB Reg. # 2390

LEAD SCREENS: 1R192 .005 FRONT .010 BACK

LEAD SCREENS: C060 .010 FRONT .010 BACK

FILM DENSITY: ✓ MIN 2.0 MAX 4.0

RADIOGRAPHIC REPORT

R - 62566

CLIENT CADO	MATERIAL TYPE: CS	THICKNESS RANGE: 0.337"
LOCATION CALGARY	SOURCE OF RADIATION: IR192	
GTIL JOB No. 13-01-0068	CONTRACTOR: CADO	FOCAL SPOT (F): 3.5mm
CLIENT'S P.O. 2013-070	TECHNIQUE: SWE <input type="checkbox"/> DWE <input checked="" type="checkbox"/> SWW <input type="checkbox"/> DWV <input type="checkbox"/>	
	FILM TYPE: AGFA <input type="checkbox"/> D4 <input type="checkbox"/> D5 <input type="checkbox"/> D7 <input type="checkbox"/> OTHER <input type="checkbox"/>	

DATE: Dec 12/13
PAGE: 1 OF 1
PROCEDURE: C
CODE: ASME B31.3S

LEGEND
WELDERS SYMBOL
ACCEPTABLE
BORDERLINE
REJECT
See back for other legends.

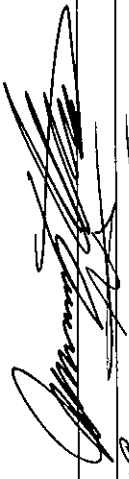
IDENTIFICATION UNIT #	PIPE SIZE	PIPE SCHEDULE	# OF EXP	CRK	LF	IP	P	S	UC	CR	EP	%	*	IQI	DEFECT LOCATION AND REMARKS	ACCEPT	REJECT
1. X7	4"	XH	3									100	Y	B		✓	
2.																✓	
3.																✓	
4.																✓	
5.																✓	
6.																✓	
7.																✓	
8.																✓	
9.																✓	
10.																✓	
11.																✓	
12.																✓	
13.																✓	
14.																✓	
15.																✓	
16.																✓	
17.	4"	XH	3									100	Y	B		✓	
18.																	
19.																	
20.																	

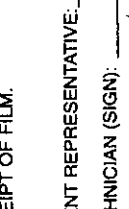
CGSB Reg. #	805
Lead Screens	1R192
Lead Screens	C060
Film Density	MIN 2.0 MAX 4.0

SOD: Source to Object Distance	4.163
Nominal Plus Maximum Reinforcement	
Curies	99

FILM USED	51
FILM SIZE	8 1/2" X 70mm
PCS.	
PCS.	
PCS.	
PCS.	

FINAL FILM INTERPRETATION IS THE RESPONSIBILITY OF THE CLIENT. I AM IN FULL AGREEMENT WITH THE ABOVE DETAILS AND ACKNOWLEDGE RECEIPT OF FILM.

CLIENT REPRESENTATIVE: 

TECHNICIAN (SIGN): 

TECHNICIAN (PRINT): **W. L. BARRY** CGSB LEVEL **A** ASNT LEVEL **2A**

ASSISTANT (PRINT): **STEPHEN**

RADIOGRAPHIC REPORT

R - 64268

CLIENT: CAPCO	MATERIAL TYPE: CS	THICKNESS RANGE: 0.218" to 0.337"	LEGEND: WELDERS SYMBOL ACCEPTABLE BORDERLINE REJECT	DATE: Dec 16/13
LOCATION: CANARY	SOURCE OF RADIATION: IR192	FOCAL SPOT (F): 3.5mm	WELDERS SYMBOL: 1 OF 1	PAGE: 1 OF 1
GTEL JOB No. 13-01-0068	CONTRACTOR: CAPCO	TECHNIQUE: SWE <input type="checkbox"/> DWE <input checked="" type="checkbox"/> SWV <input checked="" type="checkbox"/> DWV <input type="checkbox"/>	PROCEDURE: C	PROCEDURE: C
CLIENT'S P.O.	FILM TYPE: AGFA <input type="checkbox"/> D4 <input type="checkbox"/> D5 <input type="checkbox"/> D7 <input type="checkbox"/> OTHER _____		CODE: ASME B31.3SC	
CLIENT JOB No. 9013-070			See back for other legends.	

IDENTIFICATION	PIPE SIZE	PIPE SCHEDULE	# OF EXP	CRK	LF	IP	P	S	UC	CR	EP	%	*	IQI	DEFECT LOCATION AND REMARKS	ACCEPT	REJECT
1. X36	3"	X1H	3									100	P	B		<input checked="" type="checkbox"/>	
2. 37	3"	X1H	3										P			<input checked="" type="checkbox"/>	
3. 38	2"	X1H	3										Y			<input checked="" type="checkbox"/>	
4. 39							3			*NOT			P	2 1/2 - 3 1/2" P	(Rox)	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
5. 40													P			<input checked="" type="checkbox"/>	
6. 41													Y			<input checked="" type="checkbox"/>	
7. 42													Y			<input checked="" type="checkbox"/>	
8. 43													Y			<input checked="" type="checkbox"/>	
9. 44													Y			<input checked="" type="checkbox"/>	
10. 45													Y			<input checked="" type="checkbox"/>	
11. 46													Y			<input checked="" type="checkbox"/>	
12. 47													Y			<input checked="" type="checkbox"/>	
13. 48													Y			<input checked="" type="checkbox"/>	
14. 49	2"												Y			<input checked="" type="checkbox"/>	
15. 50	4"												Y			<input checked="" type="checkbox"/>	
16. 51													Y			<input checked="" type="checkbox"/>	
17. 52													G			<input checked="" type="checkbox"/>	
18. 53													G			<input checked="" type="checkbox"/>	
19. 54													G			<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
20.													B			<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

FINAL FILM INTERPRETATION IS THE RESPONSIBILITY OF THE CLIENT. I AM IN FULL AGREEMENT WITH THE ABOVE DETAILS AND ACKNOWLEDGE RECEIPT OF FILM.

CLIENT REPRESENTATIVE: _____

TECHNICIAN (SIGN): _____

TECHNICIAN (PRINT): **WILLIAM CGSB LEVEL 4 ASNT LEVEL 4**

ASSISTANT (PRINT): **STEPHEN**

FILM USED: **45** PCS. **5 3/8" X 70MM**

FILM SIZE: **8 1/2" X 70MM**

CGSB Reg.#: **805**

1 Film Per Holder

SOFFD: Source to Object Distance	3.200
SOFFD: Source to Object Distance	2.157
SOFFD: Source to Object Distance	4.163
Curies	96

LEAD SCREENS	IR192	.005 FRONT
LEAD SCREENS	C060	.010 BACK
FILM DENSITY		MIN 2.0
		MAX 4.0



Gamma-Tech Inspection Ltd.
3080 - 49th Avenue SE
Calgary, Alberta T2B 2X4
Phone: 403-235-2454
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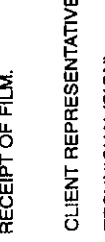
RADIOGRAPHIC REPORT

R - 64271

CLIENT CADO	MATERIAL TYPE: CS	THICKNESS RANGE: 0.837"	LEGEND WELDERS SYMBOL ACCEPTABLE BORDERLINE REJECT See back for other legends.	DATE: Dec 16/13
LOCATION CALGARY	SOURCE OF RADIATION: IR192	FOCAL SPOT (F): 3.5mm	* 1 2 3	PAGE: 1 OF 1
GTEL JOB No. 13-01-0068	CONTRACTOR: CADO	TECHNIQUE: SWE <input type="checkbox"/> DWE <input type="checkbox"/> SWV <input checked="" type="checkbox"/> DWV <input type="checkbox"/>	PROCEDURE: C	CODE: ASME B31.3SC
CLIENT'S P.O. 2013-070	FILM TYPE: AGFA <input type="checkbox"/> D4 <input type="checkbox"/> D5 <input type="checkbox"/> D7 <input type="checkbox"/> OTHER <input type="checkbox"/>			

IDENTIFICATION	PIPE SIZE	PIPE SCHEDULE	# OF EXP	CRK	LF	IP	P	S	UC	CR	EP	%	*	IQI	DEFECT LOCATION AND REMARKS	ACCEPT	REJECT
W11 #1	4"	X14	3									100	C			<input checked="" type="checkbox"/>	
55													G			<input checked="" type="checkbox"/>	
56													G			<input checked="" type="checkbox"/>	
57													Y			<input checked="" type="checkbox"/>	
58													Y			<input checked="" type="checkbox"/>	
59													Y			<input checked="" type="checkbox"/>	
60													P			<input checked="" type="checkbox"/>	
61													P			<input checked="" type="checkbox"/>	
62													P			<input checked="" type="checkbox"/>	
63													P			<input checked="" type="checkbox"/>	
64													P			<input checked="" type="checkbox"/>	
65													P			<input checked="" type="checkbox"/>	
66													P			<input checked="" type="checkbox"/>	
67													P			<input checked="" type="checkbox"/>	
68													P			<input checked="" type="checkbox"/>	
69													P			<input checked="" type="checkbox"/>	
70													P			<input checked="" type="checkbox"/>	
71													P			<input checked="" type="checkbox"/>	
72													Y			<input checked="" type="checkbox"/>	
73	4"	X14	3										Y			<input checked="" type="checkbox"/>	
74													Y			<input checked="" type="checkbox"/>	

FINAL FILM INTERPRETATION IS THE RESPONSIBILITY OF THE CLIENT.
I AM IN FULL AGREEMENT WITH THE ABOVE DETAILS AND ACKNOWLEDGE
RECEIPT OF FILM.

CLIENT REPRESENTATIVE: 
TECHNICIAN (SIGN): 
TECHNICIAN (PRINT): **WILLIAM CGSB LEVEL 4 ASNT LEVEL 4**
ASSISTANT (PRINT): **STEPHEN**

FILM USED: **60** PCS.
FILM SIZE: **8 1/2" x 17"** PCS.
SOD: _____ PCS.
Source to Object Distance: _____ PCS.
Curies: _____ PCS.

SSOFD: Source Side of Object to Film Distance	Nominal Plus Maximum Reinforcement
SOD: Source to Object Distance	4.163
Curies	96

CGSB Reg.# **805**
1 Film Per Header

LEAD SCREENS	IR192	.005 FRONT
LEAD SCREENS	C060	.010 BACK
FILM DENSITY		MIN 2.0
		MAX 4.0



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RADIOGRAPHIC REPORT


R - 64272

CLIENT CADO	MATERIAL TYPE: CS	THICKNESS RANGE: 0.300" to 0.337"	LEGEND WELDERS SYMBOL ACCEPTABLE BORDERLINE REJECT See back for other legends.	DATE: Dec 16/13
LOCATION CANARY	SOURCE OF RADIATION: IR192	CONTRACTOR: CADO	WELDERS SYMBOL 1 ACCEPTABLE 2 BORDERLINE 3 REJECT	PAGE: 1 OF 1
GTL JOB No. 13-01-0068	TECHNIQUE: SWE	FILM TYPE: D4 D5 D7	PROCEDURE: C	CODE: AS ME B31.38
CLIENT'S P.O.	PIPE SIZE	PIPE SCHEDULE	PIPE SCHEDULE	
CLIENT JOB No. 2013-070	PIPE SIZE 4"	PIPE SCHEDULE XH	PIPE SCHEDULE XH	

IDENTIFICATION	PIPE SIZE	PIPE SCHEDULE	# OF EXP	CRK	LF	IP	P	S	UC	CR	EP	%	*	IQI	DEFECT LOCATION AND REMARKS	ACCEPT	REJECT
75	4"	XH	3									100	P	B		<input checked="" type="checkbox"/>	
76	3"												Y	B		<input checked="" type="checkbox"/>	
77													Y			<input checked="" type="checkbox"/>	
78													Y			<input checked="" type="checkbox"/>	
79													Y			<input checked="" type="checkbox"/>	
80													Y			<input checked="" type="checkbox"/>	
81													Y			<input checked="" type="checkbox"/>	
82													Y			<input checked="" type="checkbox"/>	
83													Y			<input checked="" type="checkbox"/>	
84													Y			<input checked="" type="checkbox"/>	
85													Y			<input checked="" type="checkbox"/>	
86													Y			<input checked="" type="checkbox"/>	
87													Y			<input checked="" type="checkbox"/>	
88	4"	XH	3										P	B		<input checked="" type="checkbox"/>	
89	3"												P	B		<input checked="" type="checkbox"/>	
90																	
91																	
92																	
93																	
94																	
95																	
96																	
97																	
98																	
99																	
100																	

FINAL FILM INTERPRETATION IS THE RESPONSIBILITY OF THE CLIENT. I AM IN FULL AGREEMENT WITH THE ABOVE DETAILS AND ACKNOWLEDGE RECEIPT OF FILM.

CLIENT REPRESENTATIVE: 

TECHNICIAN (SIGN): 

TECHNICIAN (PRINT): **W. B. SAUNDERS** CGSB LEVEL **SA** ASNT LEVEL **SA**

ASSISTANT (PRINT): **STEPHEN**

FILM USED: **3** PCS. **42** PCS.

FILM SIZE: **8 1/2" x 10mm** PCS. **5 1/2" x 70mm** PCS.

CGSB Reg.#: **805**

1 Film Profiled

LEAD SCREENS	IR192	.005 FRONT
LEAD SCREENS	C060	.010 BACK
FILM DENSITY	96	MIN 2.0 MAX 4.0

RADIOGRAPHIC REPORT

R - 62642

CLIENT: Cado	MATERIAL TYPE: CS	THICKNESS RANGE:
LOCATION: Calgary	SOURCE OF RADIATION: IRAD 0.300" - 0.337"	
GTIL JOB No: B-01-0068	CONTRACTOR:	FOCAL SPOT (F): 3.5mm
CLIENT'S P.O.	TECHNIQUE: SWE <input type="checkbox"/> DWE <input checked="" type="checkbox"/> SWV <input type="checkbox"/> DWV <input type="checkbox"/>	
CLIENT JOB No: 2013-070	FILM TYPE: AGFA <input checked="" type="checkbox"/> D64 <input type="checkbox"/> D7 <input type="checkbox"/> OTHER _____	

DATE: Dec 17, 2013
PAGE: 1 OF 1
PROCEDURE: C
CODE: ASME
B31.3 severe

IDENTIFICATION	PIPE SIZE	PIPE SCHEDULE	t	# OF EXP	CRK	LF	IP	P	S	UC	CR	EP	%	*	IQI	DEFECT LOCATION AND REMARKS	ACCEPT	REJECT
UNIT # 1																		
1. X90	3"	XH	300	3									100	P	B		<input checked="" type="checkbox"/>	
2. X91																	<input checked="" type="checkbox"/>	
3. X92																	<input checked="" type="checkbox"/>	
4. X93																	<input checked="" type="checkbox"/>	
5. X94																	<input checked="" type="checkbox"/>	
6. X95																	<input checked="" type="checkbox"/>	
7. X96																	<input checked="" type="checkbox"/>	
8. X97																	<input checked="" type="checkbox"/>	
9. X98																	<input checked="" type="checkbox"/>	
10. X99																	<input checked="" type="checkbox"/>	
11. X100																	<input checked="" type="checkbox"/>	
12. X101																	<input checked="" type="checkbox"/>	
13. X102																	<input checked="" type="checkbox"/>	
14. X103	3"	XH	300	3													<input checked="" type="checkbox"/>	
15. X104	4"	XH	337	3													<input checked="" type="checkbox"/>	
16. X105																	<input checked="" type="checkbox"/>	
17. X106																	<input checked="" type="checkbox"/>	
18. X107																	<input checked="" type="checkbox"/>	
19. X108	4"	XH	337	3													<input checked="" type="checkbox"/>	
20. X109																	<input checked="" type="checkbox"/>	

FINAL FILM INTERPRETATION IS THE RESPONSIBILITY OF THE CLIENT.
 I AM IN FULL AGREEMENT WITH THE ABOVE DETAILS AND ACKNOWLEDGE RECEIPT OF FILM.

CLIENT REPRESENTATIVE: _____
 TECHNICIAN (SIGN): _____
 TECHNICIAN (PRINT): **D. Bailey** CGSB LEVEL **II** ASNT LEVEL **II**
 ASSISTANT (PRINT): **Sophia**

FILM USED: **42** PCS. **42** PCS. **18** PCS. **18** PCS.

FILM SIZE: **5 1/2** PCS. **8 1/2** PCS.

SSOFD: Source Side of Object to Film Distance: **95**
 Nominal Plus Maximum Reinforcement: **3.200**
 Source to Object Distance: **4.163**

CGSB Reg.#: **2390**
1 FILM PER HOLDER

LEAD SCREENS	RT92	.005 FRONT
LEAD SCREENS	C060	.010 BACK
FILM DENSITY	<input checked="" type="checkbox"/>	MIN 2.0
		MAX 4.0



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RADIOGRAPHIC REPORT

R - 62643

CLIENT	Caddo	MATERIAL TYPE:	CS	THICKNESS RANGE:	0.218
LOCATION	Calgary	SOURCE OF RADIATION:	IR192	WELDERS SYMBOL	ACCEPTABLE
GTIL JOB No.	13-01-0068	CONTRACTOR:	CADD	BORDERLINE	REJECT
CLIENTS P.O.		TECHNIQUE:	SWE <input type="checkbox"/> DWE <input type="checkbox"/> SWV <input type="checkbox"/> DWV <input type="checkbox"/>	PROCEDURE:	C
CLIENT JOB No.	2013-070	FILM TYPE:	AGFA <input type="checkbox"/> D4 <input type="checkbox"/> D5 <input type="checkbox"/> D7 <input type="checkbox"/> OTHER <input type="checkbox"/>	CODE:	ASME
				DATE:	Dec 17, 2013
				PAGE:	2 OF 2
				PROCEDURE:	C
				CODE:	ASME
					R31.3 severe

IDENTIFICATION	PIPE SIZE	PIPE SCHEDULE	I	# OF EXP	CRK	LF	IP	P	S	UC	CR	EP	%	*	IQI	DEFECT LOCATION AND REMARKS	ACCEPT	REJECT
1. X39R1	2"	X14	0218	1				3					100		B	2 1/2 - 3 1/2" P		X
2. X110	4"	XH	337.3										100	W	B			✓
3. X111														W				✓
4. X112														W				✓
5. X113														Y				✓
6. 114														Y				✓
7. 115														Y				✓
8. 116														Y				✓
9. 117														Y				✓
10. 118														Y				✓
11. 119														Y				✓
12. 120														Y				✓
13. 121														Y				✓
14. 122														Y				✓
15. 123														Y				✓
16. 124														Y				✓
17. 125														W				✓
18. 126	4"	XH	0237	3										W				✓
19. 127	5"	XH	0300	3										W				✓
20. 128	3"	XH	0300	3										W				✓

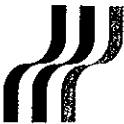
FINAL FILM INTERPRETATION IS THE RESPONSIBILITY OF THE CLIENT.
I AM IN FULL AGREEMENT WITH THE ABOVE DETAILS AND ACKNOWLEDGE RECEIPT OF FILM.

CLIENT REPRESENTATIVE: _____
TECHNICIAN (SIGN): _____
TECHNICIAN (PRINT): D. Bailey
ASSISTANT (PRINT): SOPHIE, STEPHEN, WA

FILM USED: _____
FILM SIZE: _____
PCS: _____
PCS: _____
PCS: 8 1/2"
PCS: 5 7/8" X 70mm

SSOFD: Source Side of Object to Film Distance	Nominal Plus Maximum Reinforcement	CGSB Reg.#	2390 & 805
SOD: Source to Object Distance	2.157	LEAD SCREENS	R192
	4.103	LEAD SCREENS	C060
	3.200	FILM DENSITY	✓
Curies	95	MIN 2.0	MAX 4.0

1 FILM PER HOLDEN



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RADIOGRAPHIC REPORT

R - 62652

CLIENT: <u>Coco</u>	MATERIAL TYPE: <u>CS</u>	THICKNESS RANGE: _____
LOCATION: <u>Calgary</u>	SOURCE OF RADIATION: <u>IR192</u>	0.154" - 0.218"
GTL JOB No. <u>B3-01-0068</u>	CONTRACTOR: _____	FOCAL SPOT (F): <u>3.5mm</u>
CLIENT'S P.O. _____	TECHNIQUE: SWE <input type="checkbox"/> DWE <input checked="" type="checkbox"/>	SWV <input checked="" type="checkbox"/> DWV <input type="checkbox"/>
CLIENT JOB No. <u>2013-070</u>	FILM TYPE: AGFA <input checked="" type="checkbox"/> D4 <input type="checkbox"/> D5 <input type="checkbox"/> D7 <input type="checkbox"/> OTHER _____	

IDENTIFICATION	PIPE SIZE	PIPE SCHEDULE	t	# OF EXP	CRK	LF	IP	P	S	UC	CR	EP	%	* IQI	DEFECT LOCATION AND REMARKS	ACCEPT	REJECT
<u>UNIT # 1</u>																	
1. <u>X139</u>	<u>2"</u>	<u>STD</u>	<u>.154</u>	<u>3</u>									<u>100</u>	<u>P A</u>		<input checked="" type="checkbox"/>	
2. <u>X130</u>	<u>↓</u>	<u>↓</u>	<u>↓</u>	<u>↓</u>												<input checked="" type="checkbox"/>	
3. <u>X131</u>	<u>↓</u>	<u>↓</u>	<u>↓</u>	<u>↓</u>												<input checked="" type="checkbox"/>	
4. <u>X132</u>	<u>2"</u>	<u>XH</u>	<u>218</u>	<u>3</u>												<input checked="" type="checkbox"/>	
5. <u>X133</u>																<input checked="" type="checkbox"/>	
6. <u>X134</u>																<input checked="" type="checkbox"/>	
7. <u>X135</u>																<input checked="" type="checkbox"/>	
8. <u>X136</u>																<input checked="" type="checkbox"/>	
9. <u>X137</u>																<input checked="" type="checkbox"/>	
10. <u>X138</u>																<input checked="" type="checkbox"/>	
11. <u>X139</u>																<input checked="" type="checkbox"/>	
12. <u>X140</u>																<input checked="" type="checkbox"/>	
13. <u>X141</u>																<input checked="" type="checkbox"/>	
14. <u>X142</u>																<input checked="" type="checkbox"/>	
15. <u>X143</u>																<input checked="" type="checkbox"/>	
16. <u>X144</u>																<input checked="" type="checkbox"/>	
17. <u>X145</u>																<input checked="" type="checkbox"/>	
18. <u>X146</u>																<input checked="" type="checkbox"/>	
19. <u>X147</u>	<u>↓</u>	<u>XH</u>	<u>218</u>	<u>3</u>												<input checked="" type="checkbox"/>	
20. <u>X148</u>	<u>2"</u>	<u>XH</u>	<u>218</u>	<u>3</u>									<u>100</u>	<u>P B</u>		<input checked="" type="checkbox"/>	

LEGEND
WELDERS SYMBOL ACCEPTABLE
BORDERLINE REJECT
CODE: ASME
See back for other legends.
B31.3 severe

FINAL FILM INTERPRETATION IS THE RESPONSIBILITY OF THE CLIENT. I AM IN FULL AGREEMENT WITH THE ABOVE DETAILS AND ACKNOWLEDGE RECEIPT OF FILM.

CLIENT REPRESENTATIVE: [Signature]

TECHNICIAN (SIGN): [Signature]

TECHNICIAN (PRINT): D. Bailey CGSB LEVEL II ASNT LEVEL II

ASSISTANT (PRINT): Sophia

CGSB Reg.# 2390

FILM PER HOLDER

SSOFD: Source Side of Object to Film Distance

Nominal Plus Maximum Reinforcement

SOD: Source to Object Distance

Curies 95

FILM USED: 60 PCS.

FILM SIZE: 573 PCS.

LEAD SCREENS: IR192 .005 FRONT .010 BACK

LEAD SCREENS: C060 .010 FRONT .010 BACK

FILM DENSITY: ✓ MIN 2.0 MAX 4.0


RADIOGRAPHIC REPORT


R - 62653

CLIENT: Coco	MATERIAL TYPE: CS	THICKNESS RANGE: 0.154" - 0.218"	LEGEND	DATE: Dec 18, 2013
LOCATION: Calgary	SOURCE OF RADIATION: IR1912	FOCAL SPOT (F): 3.5mm	* WELDERS SYMBOL ACCEPTABLE	PAGE: 2 OF 2
GTIL JOB No. 13-01-0068	CONTRACTOR:	TECHNIQUE: SWE <input type="checkbox"/> DWE <input checked="" type="checkbox"/> D4 <input type="checkbox"/> D5 <input type="checkbox"/> D7 <input type="checkbox"/> OTHER <input type="checkbox"/>	1 BORDERLINE	PROCEDURE: C
CLIENT'S P.O.	FILM TYPE: AGFA <input checked="" type="checkbox"/> D4 <input type="checkbox"/> D5 <input type="checkbox"/> D7 <input type="checkbox"/> OTHER <input type="checkbox"/>	SWV <input checked="" type="checkbox"/> DWV <input type="checkbox"/>	2 REJECT	CODE: ASME
CLIENT JOB No. 2013-070			3 See back for other legends.	R31.35enrc

IDENTIFICATION UNIT #1	PIPE SIZE	PIPE SCHEDULE	t	# OF EXP	CRK	LF	IP	P	S	UC	CR	EP	%	*	IQI	DEFECT LOCATION AND REMARKS	ACCEPT	REJECT
2. X 149	2"	XH	28	3									100	P	B		✓	
3. X 150																	✓	
4. X 151																	✓	
5. X 152																	✓	
6. X 153																	✓	
7. X 154																	✓	
8. X 155																	✓	
9. X 156	2"	XH	28	3													✓	
10. X 157	2"	STD	154	3													✓	
11. X 158																	✓	
12. X 159																		
13. X 160																		
14.																		
15.																		
16.																		
17.																		
18.																		
19.																		
20.																		

FINAL FILM INTERPRETATION IS THE RESPONSIBILITY OF THE CLIENT. I AM IN FULL AGREEMENT WITH THE ABOVE DETAILS AND ACKNOWLEDGE RECEIPT OF FILM.

CLIENT REPRESENTATIVE: 

TECHNICIAN (SIGN): 

TECHNICIAN (PRINT): **D. Boyley** CGSB LEVEL II ASNT LEVEL II

ASSISTANT (PRINT): **Sopnia**

CGSB Reg.# **2390**

17 FILM REEL HOLDER

SSOFD: Source Side of Object to Film Distance	Nominal Plus Maximum Reinforcement
SOD: Source to Object Distance	LEAD SCREENS
Curies 95	LEAD SCREENS
	LEAD SCREENS
	FILM DENSITY
	MIN 2.0
	MAX 4.0

FILM SIZE: **543** PCS.

FILM USED: **30** PCS.



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RADIOGRAPHIC REPORT

R - 64290

CLIENT: CARDU	MATERIAL TYPE: CS	THICKNESS RANGE:
LOCATION: CANBARY	SOURCE OF RADIATION: IR192	0.154" to 0.300
GTEL JOB No. 13-01-0068	CONTRACTOR: CARDU	FOCAL SPOT (F): 3.5mm
CLIENT'S P.O.	TECHNIQUE: <input checked="" type="checkbox"/> SWE <input type="checkbox"/> DWED <input type="checkbox"/> DWV <input type="checkbox"/>	
CLIENT JOB No. 2013-070	FILM TYPE: <input checked="" type="checkbox"/> AGFA <input type="checkbox"/> D4 <input type="checkbox"/> D5 <input type="checkbox"/> D7 <input type="checkbox"/> OTHER	

DATE: Dec 19/13
PAGE: 1 OF 1
PROCEDURE: C
CODE: ASME B31.3SC

LEGEND
 * WELDERS SYMBOL ACCEPTABLE
 1 BORDERLINE
 2 REJECT
 3
 See back for other legends.

IDENTIFICATION	PIPE SIZE	PIPE SCHEDULE	t	# OF EXP	CRK	LF	IP	P	S	UC	CR	EP	%	*	IQI	DEFECT LOCATION AND REMARKS	ACCEPT	REJECT
UNIT #1																		
X159	2"	XH	0228	3									100	Y	B			✓
160	↓	↓	↓											Y				✓
161	↓	↓	↓											Y				✓
162	2"	STD	0254											G	A			✓
163																		✓
164																		✓
165																		✓
166																		✓
167																		✓
168																		✓
169	↓	↓	↓											↓				✓
170	3"	XH	0300											X	A			✓
171																		✓
172	↓	↓	↓											↓				✓
173	3"	XH	0300	3									100	Y	B			✓

FINAL FILM INTERPRETATION IS THE RESPONSIBILITY OF THE CLIENT
 I AM IN FULL AGREEMENT WITH THE ABOVE DETAILS AND ACKNOWLEDGE RECEIPT OF FILM.

CLIENT REPRESENTATIVE: **STEPHEN**

TECHNICIAN (SIGN):

TECHNICIAN (PRINT): **W. PATRICK** CGSB LEVEL: **A** ASNT LEVEL: **A**

ASSISTANT (PRINT): **STEPHEN**

FILM USED: **45** PCS. **5 3/8" X 7 1/2" MM**

FILM SIZE: **5 3/8" X 7 1/2" MM**

CGSB Reg.# **805**

1 Film Per Holder

SSOFT: Source Side of Object to Film Distance	Nominal Plus Maximum Reinforcement	LEAD SCREENS	CGSB Reg.#
SOD: Source to Object Distance	2.157	LEAD SCREENS	805
Curies	2.221	LEAD SCREENS	1 Film Per Holder
	3.200	FILM DENSITY	
	94	MIN 2.0	
		MAX 4.0	



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RADIOGRAPHIC REPORT

R - 62665

CLIENT Coda	MATERIAL TYPE: CS	THICKNESS RANGE: 0.218"
LOCATION Calgary	SOURCE OF RADIATION: R100	DATE: DEC 19, 2013
GITL JOB No. B-01-0068	CONTRACTOR:	PAGE: 1 OF 2
CLIENT'S P.O.	TECHNIQUE: SWE <input type="checkbox"/> DWE <input type="checkbox"/> D5 <input type="checkbox"/> D7 <input type="checkbox"/> OTHER <input type="checkbox"/>	PROCEDURE: C
CLIENT JOB No. 2013-070	FILM TYPE: AGFA <input type="checkbox"/> 304 <input type="checkbox"/> D5 <input type="checkbox"/> D7 <input type="checkbox"/> OTHER <input type="checkbox"/>	CODE: ASME
See back for other legends.		

IDENTIFICATION UNIT #1	PIPE SIZE	PIPE SCHEDULE	t	# OF EXP	CRK	LF	IP	P	S	UC	CR	EP	%	*	IQI	DEFECT LOCATION AND REMARKS	ACCEPT	REJECT
1. X174	2"	X71		218 3									100 P B				✓	
2. X175																	✓	
3. X176																	✓	
4. X177																	✓	
5. X178																	✓	
6. X179																	✓	
7. X180																	✓	
8. X181																	✓	
9. X182																	✓	
10. X183																	✓	
11. X184																	✓	
12. X185																	✓	
13. X186																	✓	
14. X187																	✓	
15. X188																	✓	
16. X189																	✓	
17. X190																	✓	
18. X191																	✓	
19. X192																	✓	
20. X193																	✓	

FINAL FILM INTERPRETATION IS THE RESPONSIBILITY OF THE CLIENT.
I AM IN FULL AGREEMENT WITH THE ABOVE DETAILS AND ACKNOWLEDGE RECEIPT OF FILM.

CLIENT REPRESENTATIVE: _____

TECHNICIAN (SIGN): *[Signature]*

TECHNICIAN (PRINT): *R. Bailey* CGSB LEVEL *II* ASNT LEVEL *II*

ASSISTANT (PRINT): *Sophia*

FILM USED: **60** PCS.

FILM SIZE: **5x7** PCS.

CGSB Reg.#: **2390**

SSOFD: Source Side of Object to Film Distance	Nominal Plus Maximum Reinforcement
SOD: Source to Object Distance	2.157
Curies 95	

LEAD SCREENS	0.05 FRONT
LEAD SCREENS	0.10 BACK
LEAD SCREENS	0.10 FRONT
LEAD SCREENS	0.10 BACK
FILM DENSITY	MIN 2.0
	MAX 4.0



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3080 - 49th Avenue SE
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Phone: 403-235-2454
Fax: 403-207-4451

RADIOGRAPHIC REPORT

R - 64304

CLIENT: CADD	MATERIAL TYPE: CS	THICKNESS RANGE: _____
LOCATION: CAN-GMA	SOURCE OF RADIATION: IR192	0.218" TO 0.337"
GTIL JOB No. 13-01-0068	CONTRACTOR: CADD	FOCAL-SPOT (F): 3.25 mm
CLIENT'S P.O. _____	TECHNIQUE: <input checked="" type="checkbox"/> SWE <input type="checkbox"/> DWE <input type="checkbox"/> SWV <input type="checkbox"/> DWV <input type="checkbox"/>	
CLIENT JOB No. 2013-070	FILM TYPE: <input checked="" type="checkbox"/> AGFA <input type="checkbox"/> D5 <input type="checkbox"/> D7 <input type="checkbox"/> OTHER _____	

DATE: Dec 13
PAGE: 1 OF 2
PROCEDURE: C
CODE: ASME B31.3SC

LEGEND
WELDERS SYMBOL ACCEPTABLE
BORDERLINE REJECT
See back for other legends.

IDENTIFICATION	PIPE SIZE	PIPE SCHEDULE	# OF EXP	CRK	LF	IP	P	S	UC	CR	EP	%	*	IQI	DEFECT LOCATION AND REMARKS	ACCEPT	REJECT
X199	2"	XH	0.218 3									100	Y	B		<input checked="" type="checkbox"/>	
200													Y			<input checked="" type="checkbox"/>	
201													Y			<input checked="" type="checkbox"/>	
202													Y			<input checked="" type="checkbox"/>	
203													Y			<input checked="" type="checkbox"/>	
204													Y			<input checked="" type="checkbox"/>	
205													Y			<input checked="" type="checkbox"/>	
206													Y			<input checked="" type="checkbox"/>	
207													Y			<input checked="" type="checkbox"/>	
208													Y			<input checked="" type="checkbox"/>	
209													Y			<input checked="" type="checkbox"/>	
210													Y			<input checked="" type="checkbox"/>	
211													Y			<input checked="" type="checkbox"/>	
212													Y			<input checked="" type="checkbox"/>	
213													Y			<input checked="" type="checkbox"/>	
214													Y			<input checked="" type="checkbox"/>	
215													Y			<input checked="" type="checkbox"/>	
216													W			<input checked="" type="checkbox"/>	
217	4"	XH	0.18 3										W			<input checked="" type="checkbox"/>	
218													W	B		<input checked="" type="checkbox"/>	

FINAL FILM INTERPRETATION IS THE RESPONSIBILITY OF THE CLIENT. I AM IN FULL AGREEMENT WITH THE ABOVE DETAILS AND ACKNOWLEDGE RECEIPT OF FILM.

CLIENT REPRESENTATIVE: _____

TECHNICIAN (SIGN): _____

TECHNICIAN (PRINT): **WILSON** CGSB LEVEL **SA** ASNT LEVEL **SA**

ASSISTANT (PRINT): **STEPHEN**

FILM USED: **47** PCS. **5 3/8" X 70 MM**

FILM SIZE: **8 1/2" X 70 MM**

CGSB Reg.# **805**

Nominal Plus Maximum Reinforcement: **2.157**

SOFFD: Source to Object to Film Distance: **4.163**

SOFFD: Source to Object to Distance: **92**

LEAD SCREENS: **IR192**

LEAD SCREENS: **C060**

FILM DENSITY: MIN 2.0 MAX 4.0

CGSB Reg.# **805**

1 Film Per Holder



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RADIOGRAPHIC REPORT

R - 64305

CLIENT CADO	MATERIAL TYPE: CS	THICKNESS RANGE: 0.337"	LEGEND WELDERS SYMBOL ACCEPTABLE BORDERLINE REJECT See back for other legends.	DATE: Dec 19/13
LOCATION CARGART	SOURCE OF RADIATION: IR192	FOCAL SPOT (F): 3.5MM	* 1 2 3	PAGE: 2 OF 2
GTIL JOB No. 13-01-0068	CONTRACTOR: CADO	TECHNIQUE: SWE <input type="checkbox"/> DWE <input type="checkbox"/> SW/B <input type="checkbox"/> DWV <input type="checkbox"/> OTHER <input type="checkbox"/>		PROCEDURE: C
CLIENT'S P.O. 2013-070	FILM TYPE: AGFA <input type="checkbox"/> D4 <input type="checkbox"/> D5 <input type="checkbox"/> D7 <input type="checkbox"/>			CODE: ASMC B31.3SC

IDENTIFICATION	PIPE SIZE	PIPE SCHEDULE	# OF EXP	CRK	LF	IP	P	S	UC	CR	EP	%	*	IQI	DEFECT LOCATION AND REMARKS	ACCEPT	REJECT
X219	4"	XH	3									100	W	B			
X220	4"	XH	3									100	W	B			

FINAL FILM INTERPRETATION IS THE RESPONSIBILITY OF THE CLIENT.
I AM IN FULL AGREEMENT WITH THE ABOVE DETAILS AND ACKNOWLEDGE RECEIPT OF FILM.

CLIENT REPRESENTATIVE: _____
TECHNICIAN (SIGN): _____
TECHNICIAN (PRINT): **W. L. SAULT** CGSB LEVEL **SA** ASNT LEVEL **SA**
ASSISTANT (PRINT): **STEPHEN**

FILM USED: **6** PCS. FILM SIZE: **8 1/2" X 70MM**

SSOFT: Source Side of Object to Film Distance
SOD: Source to Object Distance
Curtes

Nominal Plus Maximum Reinforcement: **4.163**

CGSB Reg.# **805**
1 Film Per Holder

LEAD SCREENS	(R192)	.005 FRONT
LEAD SCREENS	C060	.010 FRONT
FILM DENSITY		.010 BACK
		MIN 2.0
		MAX 4.0

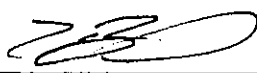
Exposure Device #: D9341 **Source #:** 98009B **Job / P.O. #:** 2013-070 **IRISNDT #:** 261644 **Date:** 19-Dec-13
Cobalt 60 **IR 192** **X-Ray** **EFSS:** .163 **Client:** CADO INDUSTRIES
Film Brand: AGFA **#Film/cassette:** 1 **Location:** Calgary, Alberta
Code: ASME B31.3 SCS **Item Inspected:** Piping **Material:** CS

Film #	Size, Location, Thickness	Welder ID	IRISNDT Proc.	S.O.D. Inches	O.F.D. Inches	# of Exp.	Work Loc.	Film Type	Type and Location of Discontinuities (rejectable discontinuities in square brackets [])	(A)cept (R)eject
X-185 233	4"S80	W	RT 3	4.1	.337	3	4	D4	P	A
X-186 234	4"S80	W	RT 3	4.1	.337	3	4	D4		A
X-187 235	4"S80	Y	RT 3	4.1	.337	3	4	D4		A
X-188 236	4"S80	W	RT 3	4.1	.337	3	4	D4	S	A
X-189 237	4"S80	W	RT 3	4.1	.337	3	4	D4		A
X-190 238	4"S80	Y	RT 3	4.1	.337	3	4	D4		A
X-191 237	3"S80	Y	RT 3	3.1	0.3	3	4	D4	FM	A
X-192 240	3"S80	Y	RT 3	3.1	0.3	3	4	D4		A
X-193 241	3"S80	Y	RT 3	3.1	0.3	3	4	D4		A
X-194 042	3"S80	Y	RT 3	3.1	0.3	3	4	D4		A
X-195 243	4"S80	W	RT 3	3.1	0.3	3	4	D4		A
X-196 244	4"S80	W	RT 3	3.1	0.3	3	4	D4		A
X-197 245	4"S80	W	RT 3	3.1	0.3	3	4	D4		A
									9 - 4"S80	
									3 - 3"S80	

Number of Radiation Barrier Warning Signs Erected: 2 **Number of Radiation Barrier Warning Signs Returned:** 2

Work Location Legend: [1] Inside Fab. Shop [2] Yard/Lay-down Area [3] Piping/Modular Fab. Area [4] N/A (Other)

IRIS Procedure:
 Single Wall Exposure: RT 1, 2, 2A, 6, 7
 Double Wall Exposure: RT 3, 3A, 4, 5, 8
S.O.D. = Source-to-object distance (D)
O.F.D. = Distance from source side of object to film (d)
AB - Arc Burns **EUC -** External Undercut **IC -** Internal Concavity
BT - Burn Through **IUC -** Internal Undercut **LF -** Lack of Fusion
CK - Crack **HB -** Hollow Bead **LC -** Low Cover
EP - Excessive Penetration **IP -** Incomplete Penetration **MA -** Misalignment
P - Porosity **S -** Slag

Unit#: 599 Kilometers: NA In: _____ Out: _____ Hrs: 2.0 In: _____ Out: _____ Hrs: _____ Personnel: J. BRUCKSHAW A. PASIC	Film Quantity: <table border="1"> <tr><td>27</td><td>(2 ¼ x 8 ½)</td><td>D4</td></tr> <tr><td>9</td><td>(2 ¼ x 5 ½)</td><td>D4</td></tr> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> </table>	27	(2 ¼ x 8 ½)	D4	9	(2 ¼ x 5 ½)	D4																			Interpretation by: JEFF BRUCKSHAW (Print)  (Signature) Client Representative: (Print) _____ I am in full agreement with report contents (Sign) _____	SNT-TC-1A 2 C.G.S.B. 2 (Level) C.G.S.B. # 12007
27	(2 ¼ x 8 ½)	D4																									
9	(2 ¼ x 5 ½)	D4																									



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RADIOGRAPHIC REPORT

R - 62677

CLIENT: Cado	MATERIAL TYPE: CS	THICKNESS RANGE: 0.218"	LEGEND	DATE: Dec 20, 2013
LOCATION: Calgary	SOURCE OF RADIATION: IR192	FOCAL SPOT (F): 3.5mm	WELDERS SYMBOL ACCEPTABLE	PAGE: 1 OF 5
GTIL JOB No. 13-01-0028	CONTRACTOR:	TECHNIQUE: SWE <input type="checkbox"/> DWE <input checked="" type="checkbox"/> D5 <input type="checkbox"/> D7 <input type="checkbox"/> OTHER <input type="checkbox"/>	BORDERLINE REJECT	PROCEDURE: C
CLIENT'S P.O.	FILM TYPE: AGFA <input checked="" type="checkbox"/> D04 <input type="checkbox"/> D5 <input type="checkbox"/> D7 <input type="checkbox"/> OTHER <input type="checkbox"/>		See back for other legends.	CODE: ASUE
CLIENT JOB No. 2013-070				B31.3 severe

IDENTIFICATION	PIPE SIZE	PIPE SCHEDULE	# OF EXP	CRK	LF	IP	P	S	UC	CR	EP	%	*	IQI	DEFECT LOCATION AND REMARKS	ACCEPT	REJECT
Unit 1	2"	XH	3									100%					
X246																	✓
X247																	✓
X248																	✓
X249								3							1"		X
X250																	✓
X251																	✓
X252																	✓
X253																	✓
X254							3								2"		X
X255																	✓
X256																	✓
X257																	✓
X258																	✓
X259																	✓
X260																	✓
X261																	✓
X262																	✓
X263																	✓
X264																	✓
X265																	✓

FINAL FILM INTERPRETATION IS THE RESPONSIBILITY OF THE CLIENT. I AM IN FULL AGREEMENT WITH THE ABOVE DETAILS AND ACKNOWLEDGE RECEIPT OF FILM.

CLIENT REPRESENTATIVE: _____

TECHNICIAN (SIGN): *[Signature]*

TECHNICIAN (PRINT): **D. Pailley** CGSB LEVEL **II** ASNT LEVEL **II**

ASSISTANT (PRINT): **Sopha**

FILM USED: **60** PCS. FILM SIZE: **543** PCS.

CGSB Reg.# **2390**

1 FILM PER HOLDER

SOD: Source to Object Distance	Curies 90
SOD: Source to Object Distance	2.157
Nominal Plus Maximum Reinforcement	(R192)
LEAD SCREENS	C060
LEAD SCREENS	
FILM DENSITY	✓
.005 FRONT	
.010 BACK	
.010 FRONT	
.010 BACK	
MIN 2.0	
MAX 4.0	



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RADIOGRAPHIC REPORT

R - 62678

CLIENT: <u>Coop</u>	MATERIAL TYPE: <u>C5</u>	THICKNESS RANGE: <u>0.218"</u>	LEGEND	DATE: <u>Dec 22, 2013</u>
LOCATION: <u>Calgary</u>	SOURCE OF RADIATION: <u>IR90</u>	FOCAL SPOT (F): <u>3.5mm</u>	WELDERS SYMBOL	PAGE: <u>2</u> OF <u>C</u>
GTIL JOB No. <u>13-01-0068</u>	CONTRACTOR:	TECHNIQUE: <input checked="" type="checkbox"/> SWE <input type="checkbox"/> DWE <input type="checkbox"/> DWV <input type="checkbox"/>	BORDERLINE	PROCEDURE: <u>C</u>
CLIENT'S P.O.:	FILM TYPE: <u>AGFA</u> <input type="checkbox"/> D4 <input type="checkbox"/> D5 <input type="checkbox"/> D7 <input type="checkbox"/> OTHER _____		REJECT	CODE: <u>ASME</u>
CLIENT JOB No. <u>2013-070</u>			See back for other legends.	

IDENTIFICATION	PIPE SIZE	PIPE SCHEDULE	# OF EXP	CRK	LF	IP	P	S	UC	CR	EP	%	* IQI	DEFECT LOCATION AND REMARKS	ACCEPT	REJECT
UNKF #1	2"	XH	3									100 G B			✓	
X266							1								✓	
X267															✓	
X268															✓	
X269															✓	
X270															✓	
X271															✓	
X272							3							6 1/2 - 7		X
X273															✓	
X274															✓	
X275															✓	
X276															✓	
X277															✓	
X278															✓	
X279															✓	
X280															✓	
X281															✓	
X282															✓	
X283															✓	
X284															✓	
X285															✓	

FINAL FILM INTERPRETATION IS THE RESPONSIBILITY OF THE CLIENT. I AM IN FULL AGREEMENT WITH THE ABOVE DETAILS AND ACKNOWLEDGE RECEIPT OF FILM.

CLIENT REPRESENTATIVE: _____

TECHNICIAN (SIGN): [Signature]

TECHNICIAN (PRINT): D. Ballew CGSB LEVEL III

ASSISTANT (PRINT): Sophia

FILM USED: 60 PCS. 543

FILM SIZE: _____

SSOFD: Source of Object to Film Distance: _____

SOD: Source to Object Distance: Curtes 90

Normal Plus Maximum Reinforcement: 2.157

LEAD SCREENS: 1R192

LEAD SCREENS: C060

FILM DENSITY: MIN 2.0 MAX 4.0

CGSB Reg # 1390

17 FILM PER HOLDER



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RADIOGRAPHIC REPORT

R - 62679

CLIENT: <u>Coco</u>	MATERIAL TYPE: <u>CS</u>	THICKNESS RANGE: <u>0.218"</u>	LEGEND: WELDERS SYMBOL ACCEPTABLE 1, BORDERLINE 2, REJECT 3	DATE: <u>Dec 22, 2013</u>
LOCATION: <u>Calgary</u>	SOURCE OF RADIATION: <u>IRa2</u>	FOCAL SPOT (F): <u>3.5mm</u>	WELDERS SYMBOL ACCEPTABLE 1, BORDERLINE 2, REJECT 3	PAGE: <u>3</u> OF <u>3</u>
GTIL JOB No. <u>B-01-0068</u>	CONTRACTOR: <u>[Signature]</u>	TECHNIQUE: SWE <input type="checkbox"/> DWED <input checked="" type="checkbox"/> SWVD <input type="checkbox"/> DWVD <input type="checkbox"/> OTHER <input type="checkbox"/>	WELDERS SYMBOL ACCEPTABLE 1, BORDERLINE 2, REJECT 3	PROCEDURE: <u>C</u>
CLIENT'S P.O. <u>2013-070</u>	FILM TYPE: AGFA <input checked="" type="checkbox"/> D4 <input type="checkbox"/> D5 <input type="checkbox"/> D7 <input type="checkbox"/> OTHER <input type="checkbox"/>		See back for other legends.	CODE: <u>ASME</u>
CLIENT JOB No. <u>2013-070</u>				<u>B31.3 severe</u>

IDENTIFICATION	PIPE SIZE	PIPE SCHEDULE	t	# OF EXP	CRK	LF	IP	P	S	UC	CR	EP	%	*	IQI	DEFECT LOCATION AND REMARKS	ACCEPT	REJECT
1. X286	2"	4A	2183										100	Y	B		✓	
2. X287																	✓	
3. X288																	✓	
4. X289																	✓	
5. X290																	✓	
6. X291																	✓	
7. X292																	✓	
8. X293								3										X
9. X294																	✓	
10. X295																	✓	
11. X296																	✓	
12. X297																	✓	
13. X298																	✓	
14. X299																	✓	
15. X300																	✓	
16. X301																	✓	
17. X302																	✓	
18. X303																	✓	
19. X304																	✓	
20. X305																	✓	

FINAL FILM INTERPRETATION IS THE RESPONSIBILITY OF THE CLIENT. I AM IN FULL AGREEMENT WITH THE ABOVE DETAILS AND ACKNOWLEDGE RECEIPT OF FILM.

CLIENT REPRESENTATIVE: [Signature] TECHNICIAN (SIGN): [Signature] ASSISTANT (PRINT): [Signature]

TECHNICIAN (PRINT): D. Ballou CGSB LEVEL: II ASNT LEVEL: II

FILM USED: 60 PCS. 573 FILM SIZE: 573

SSOFD: Source Side of Object to Film Distance: 2.157 Reinforcement: 1R192

CGSB Reg.#: 2390 1 FILM PER FRAME

LEAD SCREENS	LEAD SCREENS	FILM DENSITY
(1R192)	C060	MIN 2.0 MAX 4.0

SOD: Source to Object Distance: Curies 90



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RADIOGRAPHIC REPORT

R - 62680

CLIENT: <u>Coco</u>	MATERIAL TYPE: <u>CS</u>	THICKNESS RANGE: <u>0.218"</u>
LOCATION: <u>Calgary</u>	SOURCE OF RADIATION: <u>IRK</u>	
GTEL JOB No: <u>301-0008</u>	CONTRACTOR: <u>DWE</u>	FOCAL SPOT (F): <u>3.5mm</u>
CLIENT'S P.O.:	TECHNIQUE: <u>SWE</u> <input type="checkbox"/> <u>DWE</u> <input checked="" type="checkbox"/> <u>D5</u> <input type="checkbox"/> <u>D7</u> <input type="checkbox"/> <u>OTHER</u> <input type="checkbox"/>	
CLIENT JOB No. <u>2013-070</u>	FILM TYPE: <u>AGFA</u> <input checked="" type="checkbox"/> <u>D4</u> <input type="checkbox"/> <u>D5</u> <input type="checkbox"/> <u>D7</u> <input type="checkbox"/> <u>OTHER</u> <input type="checkbox"/>	

IDENTIFICATION	PIPE SIZE	PIPE SCHEDULE	t	# OF EXP	CRK	LF	IP	P	S	UC	CR	EP	%	*	IQI	DEFECT LOCATION AND REMARKS	ACCEPT	REJECT
Unit 1	2"	X44	.218	3									100	Y	B		✓	
X306																	✓	
X307																	✓	
X308																	✓	
X309																	✓	
X310																	✓	
X311																	✓	
X312																	✓	
X313																	✓	
X314								3								5/2-6	✓	Y
X315																	✓	
X316																	✓	
X317																	✓	
X318																	✓	
X319																	✓	
X320																	✓	
X321																	✓	
X322																	✓	
X323																	✓	
X324																	✓	
X325																	✓	

FINAL FILM INTERPRETATION IS THE RESPONSIBILITY OF THE CLIENT. I AM IN FULL AGREEMENT WITH THE ABOVE DETAILS AND ACKNOWLEDGE RECEIPT OF FILM.

CLIENT REPRESENTATIVE: _____

TECHNICIAN (SIGN): [Signature]

TECHNICIAN (PRINT): D. Balle CGSB LEVEL II ASNT LEVEL II

ASSISTANT (PRINT): [Signature]

FILM USED: 600 PCS. 575

FILM SIZE: _____

CGSB Reg.# 2 390

IF FILM IS REWORKED: _____

LEAD SCREENS	16192	.005 FRONT
LEAD SCREENS	C060	.010 BACK
FILM DENSITY	✓	MIN 2.0
		MAX 4.0

SSOFD: Source Side of Object to Film Distance: _____

Nominal Plus Maximum Reinforcement: 2.157

SOD: Source to Object Distance: _____

Curies: 90



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RADIOGRAPHIC REPORT

R - 62681

CLIENT: <u>Condo</u>	MATERIAL TYPE: <u>CS</u>	THICKNESS RANGE: _____
LOCATION: <u>Calgary</u>	SOURCE OF RADIATION: <u>IRF</u>	<u>0.218" - 0.337"</u>
GTIL JOB No. <u>B-01-0068</u>	CONTRACTOR: _____	FOCAL SPOT (F): _____
CLIENT'S P.O. _____	TECHNIQUE: <input type="checkbox"/> SWE <input type="checkbox"/> DWELT <input checked="" type="checkbox"/> SWW <input type="checkbox"/> DWV <input type="checkbox"/> D	OTHER: _____
CLIENT JOB No. <u>2013-070</u>	FILM TYPE: <input type="checkbox"/> AGFA <input checked="" type="checkbox"/> D4 <input type="checkbox"/> D5 <input type="checkbox"/> D7 <input type="checkbox"/> OTHER _____	

DATE: <u>Dec 22, 2013</u>
PAGE: <u>5</u> OF <u>5</u>
PROCEDURE: <u>C</u>
CODE: <u>ASME</u>
<u>B31.3 Sever</u>

IDENTIFICATION	PIPE SIZE	PIPE SCHEDULE	I	# OF EXP	CRK	LF	IP	P	S	UC	CR	EP	%	*	IQI	DEFECT LOCATION AND REMARKS	ACCEPT	REJECT
1. X326	2"	X4	28	3													✓	
2. X327																	✓	
3. X328																	✓	
4. X329																	✓	
5. X330																	✓	
6. X331																	✓	
7. X332																	✓	
8. X333																	✓	
9. X334																	✓	
10. X335	4"	X4	33	3													✓	
11. X336																	✓	
12. X337																	✓	
13. X338																	✓	
14. X339																	✓	
15. X340																	✓	
16. X341																	✓	
17. X342																	✓	
18. X343																6-7	✓	X
19. X344																R	✓	
20. X345																R	✓	

FINAL FILM INTERPRETATION IS THE RESPONSIBILITY OF THE CLIENT. I AM IN FULL AGREEMENT WITH THE ABOVE DETAILS AND ACKNOWLEDGE RECEIPT OF FILM.

CLIENT REPRESENTATIVE: _____

TECHNICIAN (SIGN): [Signature]

TECHNICIAN (PRINT): D. GILLEY CGSB LEVEL II ASNT LEVEL II

ASSISTANT (PRINT): SOPHIA

FILM USED: 27 PCS.

FILM SIZE: 573 PCS.

8 1/2 PCS.

3 PCS.

SSOFD: Source Side of Object to Film Distance

Nominal Plus Maximum Reinforcement

SOD: Source to Object Distance

Curies 90

LEAD SCREENS: 2.15T

LEAD SCREENS: 4.16S

FILM DENSITY: R192

CGSB Reg.# 2390

1 FILM PER HOLDER

LEAD SCREENS: 0.05 FRONT

LEAD SCREENS: 0.10 BACK

FILM DENSITY: 0.060

FILM DENSITY: 0.10 FRONT

FILM DENSITY: 0.10 BACK

FILM DENSITY: MIN 2.0

FILM DENSITY: MAX 4.0



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RADIOGRAPHIC REPORT

R - 64311

CLIENT: <u>CARDO</u>	MATERIAL TYPE: <u>CS</u>	THICKNESS RANGE: <u>0.337"</u>	LEGEND: <u>ASME B31.3 SC</u>
LOCATION: <u>CANARY</u>	SOURCE OF RADIATION: <u>IRIS 2</u>	WELDERS SYMBOL: <u>1</u>	DATE: <u>Dec 22/13</u>
GTL JOB No. <u>13-01-0068</u>	CONTRACTOR: <u>CARDO</u>	BORDERLINE: <u>C</u>	PAGE: <u>1</u> OF <u>1</u>
CLIENT'S P.O.	TECHNIQUE: <u>SWE</u> <input type="checkbox"/> <u>DWE</u> <input type="checkbox"/> <u>D4</u> <input type="checkbox"/> <u>D5</u> <input type="checkbox"/> <u>D7</u> <input type="checkbox"/> <u>OTHER</u> <input type="checkbox"/>	REJECT: <u>C</u>	PROCEDURE: <u>C</u>
CLIENT JOB No. <u>2013-070</u>	FILM TYPE: <u>AGFA</u> <input type="checkbox"/> <u>D4</u> <input type="checkbox"/> <u>D5</u> <input type="checkbox"/> <u>D7</u> <input type="checkbox"/> <u>OTHER</u> <input type="checkbox"/>	See back for other legends.	CODE: <u>ASME B31.3 SC</u>

IDENTIFICATION#	PIPE SIZE	PIPE SCHEDULE	PIPE	t	# OF EXP	CRK	LF	IP	P	S	UC	CR	EP	%	*	IQI	DEFECT LOCATION AND REMARKS	ACCEPT	REJECT
<u>3346</u>	<u>4"</u>	<u>XH</u>	<u>8.07</u>	<u>3</u>										<u>100</u>	<u>R</u>	<u>I</u>		<u>✓</u>	
<u>347</u>															<u>R</u>			<u>✓</u>	
<u>348</u>															<u>R</u>			<u>✓</u>	
<u>349</u>															<u>C</u>		<u>12-0-1" P (Revt)</u>	<u>✓</u>	<u>X</u>
<u>350</u>															<u>C</u>			<u>✓</u>	
<u>351</u>															<u>C</u>			<u>✓</u>	
<u>352</u>															<u>C</u>			<u>✓</u>	
<u>353</u>															<u>C</u>			<u>✓</u>	
<u>354</u>															<u>W</u>			<u>✓</u>	
<u>355</u>															<u>Y</u>			<u>✓</u>	
<u>356</u>															<u>W</u>			<u>✓</u>	
<u>357</u>															<u>W</u>			<u>✓</u>	
<u>358</u>															<u>Y</u>			<u>✓</u>	
<u>359</u>															<u>W</u>			<u>✓</u>	
<u>360</u>															<u>W</u>			<u>✓</u>	
<u>361</u>															<u>Y</u>			<u>✓</u>	
<u>362</u>															<u>W</u>			<u>✓</u>	
<u>363</u>															<u>Y</u>			<u>✓</u>	
<u>364</u>															<u>Y</u>			<u>✓</u>	
<u>365</u>															<u>W</u>			<u>✓</u>	

FINAL FILM INTERPRETATION IS THE RESPONSIBILITY OF THE CLIENT. I AM IN FULL AGREEMENT WITH THE ABOVE DETAILS AND ACKNOWLEDGE RECEIPT OF FILM.

CLIENT REPRESENTATIVE: _____

TECHNICIAN (SIGN): _____

TECHNICIAN (PRINT): W.K. BRYCE CGSB LEVEL SA ASNT LEVEL SA

ASSISTANT (PRINT): SOPIE, CARL & DAVID

FILM USED: 60 PCS. FILM SIZE: 8 1/2" X 10 1/2" PCS.

Nominal Plus Maximum Reinforcement: 4.163

SOD: Source to Object Distance: _____ Curies: 90

LEAD SCREENS: 1R192 .005 FRONT .010 BACK

LEAD SCREENS: C080 .010 FRONT .010 BACK

FILM DENSITY: ✓ MIN 2.0 MAX 4.0

CGSB Reg.#: 805

1 Film Per Holder



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RADIOGRAPHIC REPORT

R - 64312

CLIENT CADO	MATERIAL TYPE: CS	THICKNESS RANGE: 0.218"	LEGEND WELDERS SYMBOL ACCEPTABLE BORDERLINE REJECT See back for other legends.	DATE: Dec 22/13
LOCATION CARGARY	SOURCE OF RADIATION: IR192	FOCAL SPOT (F): 3.5mm	* 1 2 3	PAGE: 1 OF 1
GTIL JOB No. 13-01-0068	CONTRACTOR: CADO	TECHNIQUE: SWE <input type="checkbox"/> DWE <input checked="" type="checkbox"/> SWW <input type="checkbox"/> DWV <input type="checkbox"/>	PROCEDURE: C	CODE: ASME B31.3/SC
CLIENT'S P.O.	FILM TYPE: AGFA <input checked="" type="checkbox"/> D5 <input type="checkbox"/> D7 <input type="checkbox"/> OTHER			
CLIENT JOB No. 2013-070				

IDENTIFICATION	PIPE SIZE	PIPE SCHEDULE	# OF EXP	CRK	LF	IP	P	S	UC	CR	EP	%	*	IQI	DEFECT LOCATION AND REMARKS	ACCEPT	REJECT
WIT 41																	
X 366	3"	XH	0218 3									100	P B			<input checked="" type="checkbox"/>	
367																<input checked="" type="checkbox"/>	
368																<input checked="" type="checkbox"/>	
369																<input checked="" type="checkbox"/>	
370																<input checked="" type="checkbox"/>	
371																<input checked="" type="checkbox"/>	
372																<input checked="" type="checkbox"/>	
373																<input checked="" type="checkbox"/>	
374	3"	XH	0218 3										√	√		<input checked="" type="checkbox"/>	
375													100 P B			<input checked="" type="checkbox"/>	

FINAL FILM INTERPRETATION IS THE RESPONSIBILITY OF THE CLIENT.
I AM IN FULL AGREEMENT WITH THE ABOVE DETAILS AND ACKNOWLEDGE RECEIPT OF FILM.

CLIENT REPRESENTATIVE: [Signature] TECHNICAL SIGN: [Signature]

TECHNICIAN (PRINT): W.L. PULLY CGSB LEVEL SA ASMT LEVEL SA

ASSISTANT (PRINT): DAVID, SOPHIE, CML

FILM USED: 30 PCS. FILM SIZE: 5 2/3 x 7 1/2 mm PCS.

SSOFD: Source Side of Object to Film Distance: 3.200 Normal Plus Maximum Reinforcement

SOD: Source to Object Distance: 90

CGSB Reg.#: 805 LEAD SCREENS: CR192 .005 FRONT .010 BACK

1 Film Per Holder LEAD SCREENS: C060 .010 FRONT .010 BACK

FILM DENSITY: ✓ MIN 2.0 MAX 4.0

RADIOGRAPHIC REPORT

R - 62692

CLIENT: <u>Coco</u>	MATERIAL TYPE: <u>CS</u>	THICKNESS RANGE: _____
LOCATION: <u>Calgary</u>	SOURCE OF RADIATION: <u>IR92</u>	WELDERS SYMBOL: _____
GTIL JOB No. <u>B-01-0068</u>	CONTRACTOR: _____	BORDERLINE REJECT: _____
CLIENT'S P.O. _____	TECHNIQUE: <u>SWE</u> <input type="checkbox"/> <u>DWE</u> <input checked="" type="checkbox"/> <u>SW</u> <input checked="" type="checkbox"/> <u>DWV</u> <input checked="" type="checkbox"/>	PROCEDURE: <u>EC</u>
CLIENT JOB No. <u>2012-070</u>	FILM TYPE: <u>AGFA</u> <input checked="" type="checkbox"/> <u>D4</u> <input type="checkbox"/> <u>D5</u> <input type="checkbox"/> <u>D7</u> <input type="checkbox"/> OTHER _____	CODE: <u>ASME</u>
DATE: <u>Dec 23, 2013</u>		
PAGE: <u>1</u> OF <u>4</u>		
See back for other legends.		

IDENTIFICATION	PIPE SIZE	PIPE SCHEDULE	# OF EXP	CRK	LF	IP	P	S	UC	CR	EP	%	* IQI	DEFECT LOCATION AND REMARKS	ACCEPT	REJECT
Unit #1												100	P B		✓	
X376	1"	XH	.179	3											✓	
X377							2								✓	
X378															✓	
X379															✓	
X380															✓	
X381															✓	
X382	2"	XH	.218	3			2								✓	
X383															✓	
X384															✓	
X385															✓	
X386															✓	
X387															✓	
X388															✓	
X389															✓	
X390															✓	
X391															✓	
X392															✓	
X393															✓	
X394															✓	
X395															✓	

FINAL FILM INTERPRETATION IS THE RESPONSIBILITY OF THE CLIENT. I AM IN FULL AGREEMENT WITH THE ABOVE DETAILS AND ACKNOWLEDGE RECEIPT OF FILM.

CLIENT REPRESENTATIVE: _____

TECHNICIAN (SIGN): _____

TECHNICIAN (PRINT): D. BAIN CGSB LEVEL II ASNT LEVEL II

ASSISTANT (PRINT): Sophie

FILM USED: 42 PCS.

FILM SIZE: 543 PCS.

SSOD: Source to Object Distance _____

Curies 88

Nominal Plus Maximum Reinforcement: 15"

LEAD SCREENS: fr92 .005 FRONT .010 BACK

LEAD SCREENS: C060 .010 FRONT .010 BACK

FILM DENSITY: 2.157 MIN 2.0 MAX 4.0

CGSB Reg.# 2-390

FILM PER HOLDER



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RADIOGRAPHIC REPORT

R - 62690

CLIENT: <u>Coco</u>	MATERIAL TYPE: <u>CS</u>	THICKNESS RANGE: <u>0.218" - 0.300"</u>
LOCATION: <u>Calgary</u>	SOURCE OF RADIATION: <u>R191</u>	CONTRACTOR: <u>DW155</u>
GTIL JOB No. <u>B-01-0068</u>	TECHNIQUE: <u>SWE</u> <input type="checkbox"/> <u>DW</u> <input checked="" type="checkbox"/> <u>D5</u> <input type="checkbox"/> <u>D7</u> <input type="checkbox"/> <u>OTHER</u> <input type="checkbox"/>	FOCAL SPOT (F): <u>3.5mm</u>
CLIENT'S P.O. <u>2013-070</u>	FILM TYPE: <u>AGFA</u> <input checked="" type="checkbox"/> <u>D4</u> <input type="checkbox"/> <u>D5</u> <input type="checkbox"/> <u>D7</u> <input type="checkbox"/> <u>OTHER</u> <input type="checkbox"/>	DWY <input type="checkbox"/>

IDENTIFICATION UNIT	PIPE SIZE	PIPE SCHEDULE	I	# OF EXP	CRK	LF	IP	P	S	UC	CR	EP	%	*	IQI	DEFECT LOCATION AND REMARKS	ACCEPT	REJECT
1. X396	2"	XH	.218	3									100	C	B		✓	
2. X397	2"		.218											C			✓	
3. X398	3"		.300											C			✓	
4. X399														P			✓	
5. X400														Y			✓	
6. X401																	✓	
7. X402																	✓	
8. X403																	✓	
9. X404																	✓	
10. X405																	✓	
11. X406																	✓	
12. X407														P			✓	
13.																		
14.																		
15.																		
16.																		
17.																		
18.																		
19.																		
20.																		

DATE: Dec 23, 2013
PAGE: 2 OF 4
PROCEDURE: C
CODE: ASME
B31.3 Genex

LEGEND
WELDERS SYMBOL ACCEPTABLE
BORDERLINE REJECT
See back for other legends.

FINAL FILM INTERPRETATION IS THE RESPONSIBILITY OF THE CLIENT.
I AM IN FULL AGREEMENT WITH THE ABOVE DETAILS AND ACKNOWLEDGE RECEIPT OF FILM.

CLIENT REPRESENTATIVE: _____
TECHNICIAN (SIGN): [Signature]
TECHNICIAN (PRINT): D. Bailey CGSB LEVEL II ASNT LEVEL II
ASSISTANT (PRINT): Sopha

FILM USED: 36 PCS.
FILM SIZE: 5 7/8 PCS.

SSOFD: Source Side of Object to Film Distance
Nominal Plus Maximum Reinforcement
SOD: Source to Object Distance
Curres 88

CGSB Reg.# 2390
1 FILM PER HOLDER

LEAD SCREENS	(R19)	.005 FRONT
LEAD SCREENS	C060	.010 BACK
FILM DENSITY	✓	.010 FRONT
		.010 BACK
		MIN 2.0
		MAX 4.0



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RADIOGRAPHIC REPORT

R - 64317

CLIENT CADO	MATERIAL TYPE: CS	THICKNESS RANGE: 0.218" to 0.300"
LOCATION CANARY	SOURCE OF RADIATION: IR192	
GTIL JOB No. 13-01-0068	CONTRACTOR: CADO	FOCAL SPOT (F): 3.5mm
CLIENT'S P.O.	TECHNIQUE: SWE <input type="checkbox"/> DWE <input type="checkbox"/> SWV <input type="checkbox"/> DWV <input type="checkbox"/>	
CLIENT JOB No. 2013-070	FILM TYPE: AGFA <input type="checkbox"/> D4 <input type="checkbox"/> D5 <input type="checkbox"/> D6 <input type="checkbox"/> D7 <input type="checkbox"/> OTHER <input type="checkbox"/>	

LEGEND	DATE: Dec 23/13
WELDERS SYMBOL	PAGE: 1 OF 1
BORDERLINE	PROCEDURE: C
REJECT	CODE: ASME B31.3C

See back for other legends.

IDENTIFICATION	PIPE SIZE	PIPE SCHEDULE	# OF EXP	CRK	LF	IP	P	S	UC	CR	EP	%	*	IQI	DEFECT LOCATION AND REMARKS	ACCEPT	REJECT
1. X408	3"	XH	3									100	G	B		✓	
2. 409													G			✓	
3. 410													G			✓	
4. 411	↓												G			✓	
5. 412	2"												W			✓	
6. 413													W			✓	
7. 414													C			✓	
8. 415													C			✓	
9. 416													C			✓	
10. 417													C			✓	
11. 418													C			✓	
12. 419													C			✓	
13. 420													C			✓	
14. 421													C			✓	
15. 422													C			✓	
16. 423													W			✓	
17. 424													W			✓	
18. 425													W			✓	
19. 426	↓												W			✓	
20. 427	2"	XH	3									100	W	B		✓	

FINAL FILM INTERPRETATION IS THE RESPONSIBILITY OF THE CLIENT. I AM IN FULL AGREEMENT WITH THE ABOVE DETAILS AND ACKNOWLEDGE RECEIPT OF FILM.

CLIENT REPRESENTATIVE: _____

TECHNICIAN (SIGN): _____

TECHNICIAN (PRINT): **W. B. BARRY** CGSB LEVEL **3** ASNT LEVEL **3**

ASSISTANT (PRINT): **Carl**

FILM USED: **60** PCS. FILM SIZE: **5 7/8" X 70mm** PCS.

SSOFD: Source Side of Object to Film Distance: _____

Nominal Plus Maximum Reinforcement: **3.200**

SOD: Source to Object Distance: **2.157**

Curies: **90**

CGSB Reg.#: **805**

1 Film Per Holder

LEAD SCREENS	1R192	.005 FRONT
LEAD SCREENS	C060	.010 BACK
FILM DENSITY		MIN 2.0
		MAX 4.0



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RADIOGRAPHIC REPORT

R - 64320

CLIENT CADD	MATERIAL TYPE: CS	THICKNESS RANGE: 0.218" TO 0.300"	LEGEND WELDERS SYMBOL ACCEPTABLE BORDERLINE REJECT See back for other legends.	DATE: Dec 23/13
LOCATION CANBARY	SOURCE OF RADIATION: IR192	FOCAL SPOT (F): 3.5mm	* 1 2 3	PAGE: 1 OF 1
GTL JOB No. 13-01-0068	CONTRACTOR: CADD	TECHNIQUE: SWE <input type="checkbox"/> DWED <input checked="" type="checkbox"/> SWW <input type="checkbox"/> DWV <input type="checkbox"/>	PROCEDURE: C	PROCEDURE: C
CLIENT'S P.O.	FILM TYPE: AGFA <input type="checkbox"/> D4 <input type="checkbox"/> D5 <input type="checkbox"/> D7 <input type="checkbox"/> OTHER <input type="checkbox"/>		CODE: ASME B31.3C	
CLIENT JOB No. 2013-070				

IDENTIFICATION	PIPE SIZE	PIPE SCHEDULE	t	# OF EXP	CRK	LF	IP	P	S	UC	CR	EP	%	*	IQI	DEFECT LOCATION AND REMARKS	ACCEPT	REJECT
428	2"	X14	0.218	3									100	W B				
429	2"	X14	0.218											W				
430	3"	XH	0.300											W				
431														C				
432														C				
433														W				
434														C				
435														C				
436														C				
437	3"	XH	0.300	3										G				
438	3"	XH	0.300	3										G B				

FINAL FILM INTERPRETATION IS THE RESPONSIBILITY OF THE CLIENT. I AM IN FULL AGREEMENT WITH THE ABOVE DETAILS AND ACKNOWLEDGE RECEIPT OF FILM.

CLIENT REPRESENTATIVE: _____

TECHNICIAN (SIGN): _____

TECHNICIAN (PRINT): **WILLIAM** CGSB LEVEL **SA** ASNT LEVEL **SA**

ASSISTANT (PRINT): **SARL**

FILM USED: **23**

FILM SIZE: **5 1/2 X 7 1/4**

PCS: _____

PCS: _____

PCS: _____

PCS: _____

Nominal Plus Maximum Reinforcement: **2.157**

SOD: Source to Object Distance: **3.200**

Curies: **90**

CGSB Reg. # **805**

1 Film Per Holder

LEAD SCREENS: **1R192**

LEAD SCREENS: **C060**

FILM DENSITY: **MIN 2.0 MAX 4.0**

RADIOGRAPHIC REPORT

R - 62685

CLIENT: Cado	MATERIAL TYPE: CS	THICKNESS RANGE: 0.218" - 0.500"
LOCATION: Calgary	SOURCE OF RADIATION: R192	WELDERS SYMBOL: 3 OF 4
GTEL JOB No: B-01-0068	CONTRACTOR: SWE	BORDERLINE REJECT: C, B
CLIENT'S P.O.:	TECHNIQUE: SWE	CODE: ASME
CLIENT JOB No: 2013-070	FILM TYPE: AGFA	See back for other legends.
	<input checked="" type="checkbox"/> D4 <input checked="" type="checkbox"/> D5 <input type="checkbox"/> D7 <input type="checkbox"/> OTHER	

IDENTIFICATION	PIPE SIZE	PIPE SCHEDULE	PIPE	# OF EXP	CRK	LF	IP	P	S	UC	CR	EP	%	*	IQI	DEFECT LOCATION AND REMARKS	ACCEPT	REJECT
Unit 1	8"	XH		500									100	RB				
X439																		
X440																		
X441																		
X442																		
X443								1										
X444																		
X445																		
X446																		
X447	2"	XH		283														
X448																		
X449								3								3 1/2		X
X450																		
X451																		
X452																		
X453																		
X454								3								5-5 1/2		X
X455																		
X456								2										
X457																		
X458																		

FINAL FILM INTERPRETATION IS THE RESPONSIBILITY OF THE CLIENT.
I AM IN FULL AGREEMENT WITH THE ABOVE DETAILS AND ACKNOWLEDGE RECEIPT OF FILM.

CLIENT REPRESENTATIVE: _____

TECHNICIAN (SIGN): *[Signature]*

TECHNICIAN (PRINT): **D. Bailey** CGSB LEVEL: **II** ASNT LEVEL: **IF**

ASSISTANT (PRINT): **Sophie**

FILM USED: **36** PCS. **B73** PCS. **17X2mm** PCS.

FILM SIZE: _____

CGSB Reg # **2390**

SODFD: Source of Object to Film Distance	Nominal Plus Maximum Reinforcement	LEAD SCREENS	.005 FRONT .010 BACK
	3.81	16192	
SOD: Source to Object Distance	2.157	LEAD SCREENS	.010 FRONT .010 BACK
Curies 88		FILM DENSITY	MIN 2.0 MAX 4.0



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RADIOGRAPHIC REPORT

R - 64318

CLIENT: CADO	MATERIAL TYPE: CS	THICKNESS RANGE: 0.218" TO 0.317"	LEGEND: WELDERS SYMBOL ACCEPTABLE	DATE: Dec 23/13
LOCATION: CALGARY	SOURCE OF RADIATION: IR192	FOCAL SPOT (F): 3.5mm	WELDERS SYMBOL BORDERLINE REJECT	PAGE: 1 OF 1
GTEL JOB No. 13-01-0068	CONTRACTOR: CADO	SWW <input checked="" type="checkbox"/> DWY <input type="checkbox"/>	PROCEDURE: C	PROCEDURE: C
CLIENT'S P.O.	TECHNIQUE: SWE <input type="checkbox"/> DWE <input checked="" type="checkbox"/>	AGFA 304 <input type="checkbox"/> 305 <input type="checkbox"/> D7 <input type="checkbox"/> OTHER <input type="checkbox"/>	CODE: ASME B31.7SC	See back for other legends.
CLIENT JOB No. 2017-070				

IDENTIFICATION	PIPE SIZE	PIPE SCHEDULE	t	# OF EXP	CRK	LF	IP	P	S	UC	CR	EP	%	*	IQI	DEFECT LOCATION AND REMARKS	ACCEPT	REJECT
UNIT #1																		
X293R1	2"	XH	0218	1				1					100		B		<input checked="" type="checkbox"/>	
C1"																		
X314R1	2"	XH	0218	1									100		B		<input checked="" type="checkbox"/>	
5-6"																		
X353R1	4"	XH	0337	1				3					100		B	6-7" P		<input checked="" type="checkbox"/>
6-7"																		
X349R1	4"	XH	0337	1				1					100		B		<input checked="" type="checkbox"/>	
12-0-1"																		

FINAL FILM INTERPRETATION IS THE RESPONSIBILITY OF THE CLIENT. I AM IN FULL AGREEMENT WITH THE ABOVE DETAILS AND ACKNOWLEDGE RECEIPT OF FILM.

CLIENT REPRESENTATIVE: [Signature] FILM USED: **2** FILM SIZE: **5 7/8" X 70mm**

TECHNICIAN (SIGN): [Signature] PCS: **8 1/2" X 70mm**

TECHNICIAN (PRINT): W. B. [Signature] CGSB LEVEL **2** ASNT LEVEL **2**

ASSISTANT (PRINT): [Signature] PCS: _____

CGSB Reg. # **805** **1 Film Per Holder**

LEAD SCREENS	1	LEAD SCREENS	1
LEAD SCREENS	060	LEAD SCREENS	060
FILM DENSITY	90	FILM DENSITY	90

SOD: Source to Object Distance **2.157** SOD: Source to Object Distance **4.168**

Curies **90** Curies **90**

MIN 2.0 MAX 4.0



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RADIOGRAPHIC REPORT

R - 64329

CLIENT: CADO	MATERIAL TYPE: CS	THICKNESS RANGE:
LOCATION: CALGARY	SOURCE OF RADIATION: IR192	0.218" TO 0.337"
GTIL JOB No. 14-01-0068	CONTRACTOR: CADO	FOCAL SPOT (F): 3.5mm
CLIENT'S P.O.	TECHNIQUE: SWE <input type="checkbox"/> DWE <input type="checkbox"/> SWVD <input checked="" type="checkbox"/> DWV <input type="checkbox"/>	
CLIENT JOB No. 2013-070	FILM TYPE: AGFA <input type="checkbox"/> D4 <input type="checkbox"/> D5 <input type="checkbox"/> D7 <input type="checkbox"/> OTHER _____	

LEGEND
WELDERS SYMBOL
ACCEPTABLE
BORDERLINE
REJECT
See back for other legends.

* 1
2
3

DATE: **JAN 02/14**
PAGE: **1** OF **1**
PROCEDURE: **C**
CODE: **ASME B31.3SC**

IDENTIFICATION	PIPE SIZE	PIPE SCHEDULE	t	# OF EXP	CRK	LF	IP	P	S	UC	CR	EP	%	*	IQI	DEFECT LOCATION AND REMARKS	ACCEPT	REJECT
1. X39R2	2"	XH	0.218	1									100	?	A	(SHOT WOUND AREA)		
2. C1"													100	Y	A			✓
3. X194R1	2"	XH	0.218	1									100	Y	A			✓
4. 7-5"													100	Y	A			✓
5. X249R1	2"	XH	0.218	1									100	Y	A			✓
6. C1"													100	G	A			✓
7. X254R1	2"	XH	0.218	1				2					100	G	A			✓
8. C2"													100	G	A			✓
9. X272R1	2"	XH	0.218	1									100	G	A			✓
10. 6-7"													100	?	B			✓
11. X343R2	4"	XH	0.337	1				2					100	?	B			✓
12. 6-7"													100	W	B			✓
13. X492R1	4"	XH	0.337	3									100	W	B			✓
14. 0-0													100	W	B			✓
15. X449C0	2"	XH	0.218	3									100	Y	A			✓
16. X457C0	2"	XH	0.218	3									100	Y	A			✓
17. X460C0	2"	XH	0.218	3									100	Y	A			✓
18.																		
19.																		
20.																		

FINAL FILM INTERPRETATION IS THE RESPONSIBILITY OF THE CLIENT.
I AM IN FULL AGREEMENT WITH THE ABOVE DETAILS AND ACKNOWLEDGE RECEIPT OF FILM.

CLIENT REPRESENTATIVE: _____
TECHNICIAN (SIGN): _____
TECHNICIAN (PRINT): **W.L. BAILEY** CGSB LEVEL **A** ASNT LEVEL **2**
ASSISTANT (PRINT): **STEPHEN**

FILM USED: **14** PCS. **5 7/8" X 70mm**
4 PCS. **8 1/2" X 70mm**

CGSB Reg.# **805**
1 Film Per Header

SSO: Source of Object to Film Distance	Nominal Plus Maximum Reinforcement
SOD: Source to Object Distance	2.157
Curies	4.163
	81

LEAD SCREENS	005 FRONT
LEAD SCREENS	.010 BACK
FILM DENSITY	.010 FRONT
	.010 BACK
	MIN 2.0
	MAX 4.0

Exposure Device #: D9350	Source #: 93788B	Job / P.O. #: 2013-070	IRISNDT #: 261700
Cobalt 60 <input type="checkbox"/> IR 192 <input checked="" type="checkbox"/> X-Ray <input type="checkbox"/>	EFSS: 0.163	Client: Cado Industries Inc.	Date: 27-Dec-13
Film Brand: AGFA	#Film/cassette: 1	Location: CA-Calgary Alberta	
Code: ASME B 31.3 (S)		Item Inspected: Piping Butt Welds	Material: P1

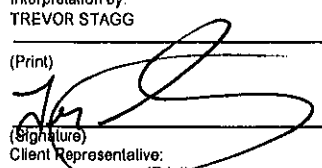
Film #	Size, Location, Thickness	Welder ID	IRISNDT Proc.	S.O.D. Inches	O.F.D. Inches	# of Exp.	Work Location	Film Type	Type and Location of Discontinuities (rejectable discontinuities in square brackets [])	(A)cept (R)ject
X459	2" XS	Y	RT 3	2.1	.218	3	4	D4		A
X460		Y							IC	A
X461		Y								A
X462		Y								A
X463		Y								A
X464		Y							IC	A
X465		Y								A
X466		Y								A
X467		C								A
X468		C								A
X469		C								A
X470		C								A
X471		P								A
X472		P								A
X473		P								A
X474		P							IC	A
X475	3"XS	P	RT 3	3.2	.300	3	4	D4		A
X476		P								A
X477		C								A
X478		C							P @ 5.5"	R
X479		W								A
16 - 2" XS , 5 - 3" XS										

Number of Radiation Barrier Warning Signs Erected: 4

Number of Radiation Barrier Warning Signs Returned: 4

Work Location Legend: [1] Inside Fab. Shop [2] Yard/Lay-down Area [3] Piping/Modular Fab. Area [4] N/A (Other)

IRIS Procedure: Single Wall Exposure: RT 1, 2, 2A, 6, 7 Double Wall Exposure: RT 3, 3A, 4, 5, 8	S.O.D. = Source-to-object distance (D) O.F.D. = Source-object-distance (D in T-274.1)	AB - Arc Burns BT - Burn Through CK - Crack EP - Excessive Penetration P - Porosity	EUC - External Undercut IUC - Internal Undercut HB - Hollow Bead IP - Incomplete Penetration S - Slag	IC - Internal Concavity LF - Lack of Fusion LC - Low Cover MA - Misalignment
---	--	---	---	---

Unit#: <u>Shop</u> Kilometers: <u>/</u> In: _____ Out: _____ Hrs: <u>2.5</u> In: _____ Out: _____ Hrs: _____ Personnel: T.STAGG D.CLAYTON	Film Quantity: <table border="1" style="width:100%; border-collapse: collapse;"> <tr> <td style="width:33%;">63</td> <td style="width:33%;">(2 ¼ x 5 ½)</td> <td style="width:33%;">D4</td> </tr> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> </table>	63	(2 ¼ x 5 ½)	D4																			Interpretation by: TREVOR STAGG (Print)  (Signature) Client Representative: (Print) I am in full agreement with report contents (Sign) _____
63	(2 ¼ x 5 ½)	D4																					
		SNT-TC-1A <u>II</u> C.G.S.B. _____ C.G.S.B. # <u>11291</u> (Level)																					

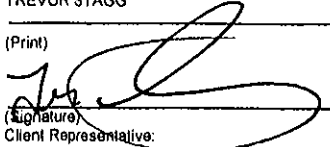
Exposure Device #: D9350	Source #: 93788B	Job / P.O. #: 2013-070	IRISNDT #: 261700	Date: 27-Dec-13
Cobalt 60 <input type="checkbox"/> IR 192 <input checked="" type="checkbox"/> X-Ray <input type="checkbox"/>	EFSS: 0.163	Client: Cado Industries Inc.		
Film Brand: AGFA	#Film/cassette: 1	Location: CA-Calgary Alberta		
Code: ASME B 31.3 (S)		Item Inspected: Piping Butt Welds	Material: P1	

Film #	Size, Location, Thickness	Welder ID	IRISNDT Proc.	S.O.D. Inches	O.F.D. Inches	# of Exp.	Work Location	Film Type	Type and Location of Discontinuities (rejectable discontinuities in square brackets [])	(A)cept (R)ect
X480	3"XS	W	RT 3	3.2	.300	3	4	D4		A
X481	↓	W	↓	↓	↓	↓	↓	↓		A
X482	↓	W	↓	↓	↓	↓	↓	↓		A
X483	↓	W	↓	↓	↓	↓	↓	↓		A
X484	↓	W	↓	↓	↓	↓	↓	↓	P	A
X485	↓	W	↓	↓	↓	↓	↓	↓		A
X486	↓	W	↓	↓	↓	↓	↓	↓		A
X487	↓	W	↓	↓	↓	↓	↓	↓		A
X488	4"XS	W	RT 3	4.2	.337	3	4	D4		A
X489	↓	Y	↓	↓	↓	↓	↓	↓		A
X490	↓	P	↓	↓	↓	↓	↓	↓		A
X491	↓	P	↓	↓	↓	↓	↓	↓		A
X492	↓	W	↓	↓	↓	↓	↓	↓	P @ 5.5"	R
X493	↓	P	↓	↓	↓	↓	↓	↓		A
X494	↓	P	↓	↓	↓	↓	↓	↓		A
X495	↓	P	↓	↓	↓	↓	↓	↓		A
X496	↓	C	↓	↓	↓	↓	↓	↓		A
X497	↓	C	↓	↓	↓	↓	↓	↓	IC	A
X498	↓	C	↓	↓	↓	↓	↓	↓		A
X499	↓	C	↓	↓	↓	↓	↓	↓		A
8-3"XS , 12 - 4" XS										

Number of Radiation Barrier Warning Signs Erected: 4 Number of Radiation Barrier Warning Signs Returned: 4

Work Location Legend: [1] Inside Fab. Shop [2] Yard/Lay-down Area [3] Piping/Modular Fab. Area [4] N/A (Other)

IRIS Procedure: Single Wall Exposure: RT 1, 2, 2A, 6, 7 Double Wall Exposure: RT 3, 3A, 4, 5, 8	S.O.D. = Source-to-object distance (D) O.F.D. = Source-object-distance (D in T-274.1)	AB - Arc Burns BT - Burn Through CK - Crack EP - Excessive Penetration P - Porosity	EUC - External Undercut IUC - Internal Undercut HB - Hollow Bead IP - Incomplete Penetration S - Slag	IC - Internal Concavity LF - Lack of Fusion LC - Low Cover MA - Misalignment
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Unit#: Shop _____ Kilometers: / _____ In: _____ Out: _____ Hrs: 2.5 In: _____ Out: _____ Hrs: _____ Personnel: T.STAGG D.CLAYTON	Film Quantity: <table border="1" style="width:100%; border-collapse: collapse;"> <tr><td>24</td><td>(2 3/4 x 5 1/2)</td><td>D4</td></tr> <tr><td>36</td><td>(2 3/4 x 8 1/2)</td><td>D4</td></tr> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> </table>	24	(2 3/4 x 5 1/2)	D4	36	(2 3/4 x 8 1/2)	D4													Interpretation by: TREVOR STAGG (Print) _____  (Signature) Client Representative: _____ (Print) I am in full agreement with report contents _____ (Sign)
24	(2 3/4 x 5 1/2)	D4																		
36	(2 3/4 x 8 1/2)	D4																		

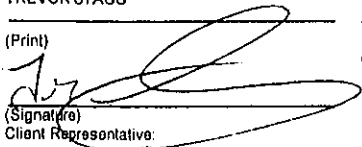
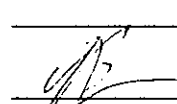
Exposure Device #: D9350	Source #: 93788B	Job / P.O. #: 2013-070	IRISNDT #: 261713
Cobalt 60 <input type="checkbox"/> IR 192 <input checked="" type="checkbox"/> X-Ray <input type="checkbox"/>	EFSS: 0.163	Client: Cado Industries Inc.	Date: 30-Dec-13
Film Brand: AGFA	#Film/cassette: 1	Location: CA-Calgary Alberta	
Code: ASME B 31.3 (S)		Item Inspected: Piping Butt Welds	Material: P1

Film #	Size, Location, Thickness	Welder ID	IRISNDT Proc.	S.O.D. Inches	O.F.D. Inches	# of Exp.	Work Location	Film Type	Type and Location of Discontinuities (rejectable discontinuities in square brackets [])	(A)cept (R)ect
X500	2" XS	C	RT 3	2.1	.218	3	4	D4	P	A
X501	2" XS	C	RT 3	2.1	.218	3	4	D4		A
X502	2" XS	C	RT 3	2.1	.218	3	4	D4		A
X503	2" XS	C	RT 3	2.1	.218	3	4	D4	IC	A
X504	2" XS	C	RT 3	2.1	.218	3	4	D4		A
X505	2" XS	C	RT 3	2.1	.218	3	4	D4	IC	A
X506	2" XS	C	RT 3	2.1	.218	3	4	D4		A
X507	2" XS	C	RT 3	2.1	.218	3	4	D4	P	A
X508	2" XS	C	RT 3	2.1	.218	3	4	D4	IC	A
X509	2" XS	C	RT 3	2.1	.218	3	4	D4		A
X510	3" XS	W	RT 3	3.2	.300	3	4	D4		A
X511	3" XS	W	RT 3	3.2	.300	3	4	D4		A
X512	3" XS		RT 3	3.2	.300	3	4	D4		A
X513	3" XS		RT 3	3.2	.300	3	4	D4		A
X514	3" XS		RT 3	3.2	.300	3	4	D4		A
X515	4"XS	P	RT 3	4.2	.337	3	4	D4		A
X516	4"XS	P	RT 3	4.2	.337	3	4	D4		A
X517	4"XS	P	RT 3	4.2	.337	3	4	D4	IC	A
X518	4"XS	P	RT 3	4.2	.337	3	4	D4		A
10 - 2" XS, 6 - 3" XS, 5 - 4" XS										
X471 R1	3"XS	C	RT 3	3.2	.300	3	4	D4		A
X492 R1	4"XS	P	RT 3	4.2	.337	3	4	D4		A

Number of Radiation Barrier Warning Signs Erected: 4 Number of Radiation Barrier Warning Signs Returned: 4

Work Location Legend: [1] Inside Fab. Shop [2] Yard/Lay-down Area [3] Piping/Modular Fab. Area [4] N/A (Other)

IRIS Procedure: Single Wall Exposure: RT 1, 2, 2A, 6, 7 Double Wall Exposure: RT 3, 3A, 4, 5, 8	S.O.D. = Source-to-object distance (D) O.F.D. = Source-object-distance (D in T-274.1)	AB - Arc Burns BT - Burn Through CK - Crack EP - Excessive Penetration P - Porosity	EUC - External Undercut IUC - Internal Undercut HB - Hollow Bead IP - Incomplete Penetration S - Slag	IC - Internal Concavity LF - Lack of Fusion LC - Low Cover MA - Misalignment
---	--	---	---	---

Unit#: Shop _____ Kilometers: / _____ In: _____ Out: _____ Hrs: 3.0 In: _____ Out: _____ Hrs: _____ Personnel: T. STAGG D. CLAYTON	Film Quantity: <table border="1" style="width:100%; border-collapse: collapse;"> <tr> <td style="width:33%">48</td> <td style="width:33%">(2 3/4 x 5 1/2)</td> <td style="width:33%">D4</td> </tr> <tr> <td>15</td> <td>(2 3/4 x 8 1/2)</td> <td>D4</td> </tr> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> </table>	48	(2 3/4 x 5 1/2)	D4	15	(2 3/4 x 8 1/2)	D4																			Interpretation by: TREVOR STAGG (Print) _____ (Signature)  Client Representative: _____ (Print) I am in full agreement with report contents (Sign) 
48	(2 3/4 x 5 1/2)	D4																								
15	(2 3/4 x 8 1/2)	D4																								



Gamma-Tech Inspection Ltd.
3080 - 49th Avenue SE
Calgary, Alberta T2B 2X4
Phone: 403-235-2454
Fax: 403-207-4451

Gamma-Tech
Inspection Ltd.

RADIOGRAPHIC REPORT

R - 64327

CLIENT CADD	MATERIAL TYPE: CS	THICKNESS RANGE: 0.154" to 0.500"	LEGEND WELDERS SYMBOL ACCEPTABLE BORDERLINE REJECT See back for other legends.	DATE: JAN 02/14
LOCATION CARGARY	SOURCE OF RADIATION: IR192	FOCAL SPOT (F): 3.5mm	* 1 2 3	PAGE: 1 OF 1
GTIL JOB No. 14-01-0068	CONTRACTOR: CADD	SWR <input type="checkbox"/> DWV <input checked="" type="checkbox"/>	PROCEDURE: C/B/E	PROCEDURE: C/B/E
CLIENT'S P.O.	TECHNIQUE: SWE <input type="checkbox"/> DWE <input type="checkbox"/> D4 <input type="checkbox"/> D5 <input type="checkbox"/> D7 <input type="checkbox"/> OTHER		CODE: ASME B31.3SC	
CLIENT JOB No. 2013-070	FILM TYPE: AGFA D4 D5 D7			

IDENTIFICATION	PIPE SIZE	PIPE SCHEDULE	t	# OF EXP	CRK	LF	IP	P	S	UC	CR	EP	%	*	IQI	DEFECT LOCATION AND REMARKS	ACCEPT	REJECT
1. X519	8"	XH	0.50	3					2				100	G	B		✓	
2. 520				3										G			✓	
3. 521				1										G			✓	
4. 522				1										G	V		✓	
5. 523	2"	STD	0.154	3										P	A		✓	
6. 524														P			✓	
7. 525														P			✓	
8. 526														P			✓	
9. 527	1"	XH	0.179					1						P			✓	
10. 528	1"		0.179											P			✓	
11. 529	2"		0.218					2						Y			✓	
12. 530	2"		0.218											Y			✓	
13. 531														W			✓	
14. 532														W			✓	
15. 533														G			✓	
16. 534														G			✓	
17. 535														C			✓	
18. 536														C			✓	
19. 537	3"		0.300											✓	G	B	✓	
20. 538	3"	XH	0.300	3									100	C	B		✓	

FINAL FILM INTERPRETATION IS THE RESPONSIBILITY OF THE CLIENT. I AM IN FULL AGREEMENT WITH THE ABOVE DETAILS AND ACKNOWLEDGE RECEIPT OF FILM.

CLIENT REPRESENTATIVE: _____

TECHNICIAN (SIGN): _____

TECHNICIAN (PRINT): **W.L. BAILEY** CGSB LEVEL **2** ASNT LEVEL **2**

ASSISTANT (PRINT): **STEPHEN**

FILM USED: **10** / **45**

FILM SIZE: **17" X 170mm** / **5 1/2" X 70mm**

PCS: _____

SSOFD: Source Side of Object to Film Distance: _____

Nominal Plus Maximum Reinforcement: **8.125**

SOD: Source to Object Distance: **3.81**

Curies: **81**

CGSB Reg.#: **805**

1 Film Per Howler

LEAD SCREENS	1R192	.005 FRONT
LEAD SCREENS	C080	.010 BACK
FILM DENSITY		MIN 2.0
		MAX 4.0



Gamma-Tech Inspection Ltd.
3060 - 49th Avenue SE
Calgary, Alberta T2B 2X4
Phone: 403-235-2454
Fax: 403-207-4451

RADIOGRAPHIC REPORT

R - 62704

CLIENT: Cado	MATERIAL TYPE: CS	THICKNESS RANGE:
LOCATION: Calgary	SOURCE OF RADIATION: IR92	0.154" - 0.218"
GTEL JOB No. 13-01-0068	CONTRACTOR:	FOCAL SPOT (F): 3.5mm
CLIENT'S P.O.	TECHNIQUE: SWE <input type="checkbox"/> DWE <input checked="" type="checkbox"/> D5 <input type="checkbox"/> D7 <input type="checkbox"/> OTHER <input type="checkbox"/>	DWV <input type="checkbox"/>
CLIENT JOB No. 2013-070	FILM TYPE: AGFA <input checked="" type="checkbox"/> D4 <input type="checkbox"/> D5 <input type="checkbox"/> D7 <input type="checkbox"/> OTHER <input type="checkbox"/>	

IDENTIFICATION UNIT #	PIPE SIZE	PIPE SCHEDULE	# OF EXP	CRK	LF	IP	P	S	UC	CR	EP	%	*	IQI	DEFECT LOCATION AND REMARKS	ACCEPT	REJECT
1. X539	2"	STD	154	3								100	W	A		✓	
2. X540																✓	
3. X541																✓	
4. X542																✓	
5. X543																✓	
6. X544																✓	
7. X545																✓	
8. X546																✓	
9. X547																✓	
10. X548																✓	
11. X549	2"	XH	218													✓	
12. X550																✓	
13. X551																✓	
14. X552																✓	
15. X553																✓	
16. X554																✓	
17. X555																✓	
18. X556																✓	
19. X557																✓	
20. X558	2"	XH	218	3								100	P	A	2-212	✓	X

DATE: **Jan 2, 2014**
 PAGE: **2** OF **2**
 PROCEDURE: **C**
 CODE: **ASME B31.3 severe**

LEGEND
 * WELDERS SYMBOL ACCEPTABLE
 1 BORDERLINE
 2 REJECT
 3
 See back for other legends.

FINAL FILM INTERPRETATION IS THE RESPONSIBILITY OF THE CLIENT. I AM IN FULL AGREEMENT WITH THE ABOVE DETAILS AND ACKNOWLEDGE RECEIPT OF FILM.

CLIENT REPRESENTATIVE:

TECHNICIAN (SIGN):

TECHNICIAN (PRINT): **D. Bailey** CGSB LEVEL **II** ASNT LEVEL **II**

ASSISTANT (PRINT): **Sophia**

FILM USED: **60** PCS.

FILM SIZE: **5x3** PCS.

CGSB Reg.# **2390**

1-FILM PER HOLDER

SSOFT: Source Side of Object to Film Distance	Nominal Plus Maximum Reinforcement
SOD: Source to Object Distance	2.221
Curies 80	2.157
LEAD SCREENS	(R192)
LEAD SCREENS	C060
FILM DENSITY	MIN 2.0 MAX 4.0



Gamma-Tech
Inspection Ltd.

Gamma-Tech Inspection Ltd.
3080 - 49th Avenue SE
Calgary, Alberta T2B 2X4
Phone: 403-235-2454
Fax: 403-207-4451

RADIOGRAPHIC REPORT

R - 62705

CLIENT: <u>Cado</u>	MATERIAL TYPE: <u>CS</u>	THICKNESS RANGE: <u>0.218"</u>
LOCATION: <u>Calgary</u>	SOURCE OF RADIATION: <u>IR192</u>	
GTEL JOB No. <u>13-01-0668</u>	CONTRACTOR: <u>DWE</u>	FOCAL SPOT (F): <u>3.5 mm</u>
CLIENT'S P.O.	TECHNIQUE: <u>SWE</u> <input type="checkbox"/> <u>DWE</u> <input checked="" type="checkbox"/> <u>D5</u> <input type="checkbox"/> <u>D7</u> <input type="checkbox"/> <u>OTHER</u> <input type="checkbox"/>	
CLIENT JOB No. <u>2013-076</u>	FILM TYPE: <u>AGFA</u> <input checked="" type="checkbox"/> <u>D4</u> <input type="checkbox"/> <u>D5</u> <input type="checkbox"/> <u>D7</u> <input type="checkbox"/> <u>OTHER</u> <input type="checkbox"/>	

IDENTIFICATION	PIPE SIZE	PIPE SCHEDULE	# OF EXP	CRK	LF	IP	P	S	UC	CR	EP	%	*	IQI	DEFECT LOCATION AND REMARKS	ACCEPT	REJECT
1. X559	2"	XH	283									100	W	A		✓	
2. X560	↓	↓	↓									↓	↓	↓		✓	
3. X561	↓	↓	↓									↓	↓	↓		✓	
4. X562	↓	↓	↓									↓	↓	↓		✓	
5.																	
6.																	
7.																	
8.																	
9.																	
10.																	
11.																	
12.																	
13.																	
14.																	
15.																	
16.																	
17.																	
18.																	
19.																	
20.																	

DATE: <u>JAN 2, 2014</u>
PAGE: <u>3</u> OF <u>3</u>
PROCEDURE: <u>C</u>
CODE: <u>ASME</u>
<u>B31.3 severe</u>

LEGEND
 * WELDERS SYMBOL ACCEPTABLE
 1 BORDERLINE
 2 REJECT
 3
 See back for other legends.

FINAL FILM INTERPRETATION IS THE RESPONSIBILITY OF THE CLIENT. I AM IN FULL AGREEMENT WITH THE ABOVE DETAILS AND ACKNOWLEDGE RECEIPT OF FILM.

CLIENT REPRESENTATIVE: [Signature] FILM USED: 17 FILM SIZE: 533

TECHNICIAN (SIGN): [Signature] PCS. 17

TECHNICIAN (PRINT): D. Bailey CGSB LEVEL II ASNT LEVEL II PCS. 17

ASSISTANT (PRINT): Sonia PCS. 17

SSOFD: Source Side of Object to Film Distance

SOD: Source to Object Distance

Curies 82

Nominal Plus Maximum Reinforcement: 2.157

LEAD SCREENS: (ARTS) .005 FRONT .010 BACK

LEAD SCREENS: C060 .010 FRONT .010 BACK

FILM DENSITY: ✓ MIN 2.0 MAX 4.0

CGSB Reg.# 2390

1 FILM PER HOLDER



Gamma-Tech Inspection Ltd.
3080 - 49th Avenue SE
Calgary, Alberta T2B 2X4
Phone: 403-235-2454
Fax: 403-207-4451

RADIOGRAPHIC REPORT

R - 64338

CLIENT: <u>Cardo</u>	MATERIAL TYPE: <u>CS</u>	THICKNESS RANGE: <u>0.718" - 0.337"</u>
LOCATION: <u>Calgary</u>	SOURCE OF RADIATION: <u>IR192</u>	WELDERS SYMBOL: <u>ACCEPTABLE</u>
GITL JOB No. <u>14-01-0068</u>	CONTRACTOR: _____	BORDERLINE: <u>C</u>
CLIENT'S P.O. _____	TECHNIQUE: <u>SWE</u> <input type="checkbox"/> <u>DWE</u> <input checked="" type="checkbox"/> <u>D5</u> <input type="checkbox"/> <u>D7</u> <input type="checkbox"/> <u>OTHER</u> _____	PROCEDURE: <u>C</u>
CLIENT JOB No. <u>203-070</u>	FILM TYPE: <u>AGFA</u> <input type="checkbox"/> <u>D4</u> <input checked="" type="checkbox"/> <u>D5</u> <input type="checkbox"/> <u>D7</u> <input type="checkbox"/> <u>OTHER</u> _____	CODE: <u>ASME</u>
See back for other legends.		

IDENTIFICATION UNIT #	PIPE SIZE	PIPE SCHEDULE	# OF EXP	CRK	LF	IP	P	S	UC	CR	EP	%	*	IQI	DEFECT LOCATION AND REMARKS	ACCEPT	REJECT
1. X 3902	2"	XH	218 1				3					100	Y	A			
2. @ 2 1/2 - 3 1/2															2 1/2 - 3 1/2		Y
3. X 55821	2"	XH	218 1									100	P	A			
4. @ 2 - 2 1/2																	✓
5.																	
6. X 5663	4"	XH	337 3				3					100	G	B	S - 6 1/2		Y
7. X 5664																	✓
8. X 5665																	✓
9. X 5666																	✓
10. X 5667							3						Y		11 - 12 1/2		Y
11. X 5668																	✓
12. X 5669																	✓
13. X 570																	✓
14. X 571																	✓
15. X 572							3						W		14 - 0		Y
16. X 573													W				✓
17. X 574													P				✓
18. X 575													Y	P			✓
19. X 576	4"	XH	337 3									100	P	B			✓
20.																	

FINAL FILM INTERPRETATION IS THE RESPONSIBILITY OF THE CLIENT. I AM IN FULL AGREEMENT WITH THE ABOVE DETAILS AND ACKNOWLEDGE RECEIPT OF FILM.

CLIENT REPRESENTATIVE: _____

TECHNICIAN (SIGN): _____

TECHNICIAN (PRINT): W.L. Bailey ACGSB LEVEL II ASNT LEVEL _____

ASSISTANT (PRINT): Stephen, Sophia

FILM USED: 42 PCS. 8 1/2 FILM SIZE

FILM USED: 2 PCS. 5 1/3 FILM SIZE

CGSB Reg. # 805

Nominal Plus Maximum Reinforcement: 7.157

SOD: Source to Object Film Distance: 4.103

LEAD SCREENS: 14192 .005 FRONT .010 BACK

LEAD SCREENS: C060 .010 FRONT .010 BACK

FILM DENSITY: ✓ MIN 2.0 MAX 4.0

1 FILM PER HEADER



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Fax: 403-207-4451

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RADIOGRAPHIC REPORT

R - 64339

CLIENT: <u>Cado</u>	MATERIAL TYPE: <u>CS</u>	THICKNESS RANGE: <u>0.718" - 0.300"</u>
LOCATION: <u>Calgary</u>	SOURCE OF RADIATION: <u>IR192</u>	WELDERS SYMBOL: <u>2 OF 3</u>
GTIL JOB No. <u>14-01-0068</u>	CONTRACTOR: _____	BORDERLINE REJECT: <u>C</u>
CLIENT'S P.O. _____	TECHNIQUE: <input checked="" type="checkbox"/> SWE <input type="checkbox"/> DWE <input type="checkbox"/> SWW <input type="checkbox"/> DWV <input type="checkbox"/> OTHER _____	CODE: <u>ARME</u>
CLIENT JOB No. <u>2013-070</u>	FILM TYPE: <input checked="" type="checkbox"/> AGFA <input type="checkbox"/> D4 <input type="checkbox"/> D5 <input type="checkbox"/> D7 <input type="checkbox"/> OTHER _____	PROCEDURE: <u>C</u>
* 1 WELDERS SYMBOL ACCEPTABLE * 2 BORDERLINE REJECT * 3 REJECT		
See back for other legends.		

IDENTIFICATION UNIT #	PIPE SIZE	PIPE SCHEDULE	t	# OF EXP	CRK	LF	IP	P	S	UC	CR	EP	%	*	IQI	DEFECT LOCATION AND REMARKS	ACCEPT	REJECT
1. X577	3"	XH	300	3									100	W	B		✓	
2. X578														W			✓	
3. X579														P			✓	
4. X580														P			✓	
5. X581														W			✓	
6. X582														W			✓	
7. X583														P			✓	
8. X584														P			✓	
9. X585														G			✓	
10. X586														W			✓	
11. X587														W			✓	
12. X588														G			✓	
13. X589														W			✓	
14. X590														W			✓	
15. X591														?			✓	
16. X592														?			✓	
17. X593														G			✓	
18. X594	3"													W	W		✓	
19. X595	2"													W	P		✓	
20. X596	2"	XH	218	3										W	G A		✓	

FINAL FILM INTERPRETATION IS THE RESPONSIBILITY OF THE CLIENT.
I AM IN FULL AGREEMENT WITH THE ABOVE DETAILS AND ACKNOWLEDGE RECEIPT OF FILM.

CLIENT REPRESENTATIVE: _____
TECHNICIAN (SIGN): _____
TECHNICIAN (PRINT): W.L. Bailey CGSB LEVEL II ASNT LEVEL II
ASSISTANT (PRINT): Stephanie Sophie

SSOFD: Source of Object to Film Distance	Nominal Plus Maximum Reinforcement
SOD: Source to Object Distance	LEAD SCREENS 11092
Curies	LEAD SCREENS C060
	FILM DENSITY MIN 2.0 MAX 4.0

CGSB Reg.# 805
1 FILM PER HOLDER



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RADIOGRAPHIC REPORT

R - 64343

CLIENT: <u>Cadco</u>	MATERIAL TYPE: <u>CS</u>	THICKNESS RANGE: _____
LOCATION: <u>Calgary</u>	SOURCE OF RADIATION: <u>IRIG</u>	<u>0.218" - 0.337"</u>
GTIL JOB No. <u>14-01-0068</u>	CONTRACTOR: _____	FOCAL SPOT (F): <u>3.5mm</u>
CLIENT'S P.O. _____	TECHNIQUE: SWE <input type="checkbox"/> DWE <input checked="" type="checkbox"/> DWV <input type="checkbox"/>	SW <input checked="" type="checkbox"/> D7 <input type="checkbox"/> OTHER _____
CLIENT JOB No. <u>2013-070</u>	FILM TYPE: AGFA <input type="checkbox"/> D4 <input type="checkbox"/> D5 <input type="checkbox"/> D6 <input type="checkbox"/> D7 <input type="checkbox"/> OTHER _____	

LEGEND	DATE: <u>Jan 5, 2014</u>
WELDERS SYMBOL	PAGE: <u>3 OF 3</u>
ACCEPTABLE	PROCEDURE: <u>C</u>
BORDERLINE	CODE: <u>ASME</u>
REJECT	<u>B31.3 severe</u>

See back for other legends.

IDENTIFICATION	PIPE SIZE	PIPE SCHEDULE	# OF EXP	CRK	LF	IP	P	S	UC	OR	EP	%	* IQI	DEFECT LOCATION AND REMARKS	ACCEPT	REJECT
1. <u>Unit #1</u>																
2. <u>X597</u>	<u>4"</u>	<u>XH</u>	<u>337</u>	<u>3</u>						<u>1</u>		<u>100</u>	<u>W</u>	<u>9-10 LF EXT.</u>	<input checked="" type="checkbox"/>	
3. <u>X598</u>																
4. <u>X599</u>																
5. <u>X600</u>																
6. <u>X601</u>	<u>4"</u>	<u>XH</u>	<u>218</u>													
7. <u>X602</u>																
8. <u>X603</u>																
9. <u>X604</u>																
10.																
11.																
12.																
13.																
14.																
15.																
16.																
17.																
18.																
19.																
20.																

FINAL FILM INTERPRETATION IS THE RESPONSIBILITY OF THE CLIENT.
I AM IN FULL AGREEMENT WITH THE ABOVE DETAILS AND ACKNOWLEDGE
RECEIPT OF FILM.

CLIENT REPRESENTATIVE: _____
TECHNICIAN (SIGN): _____
TECHNICIAN (PRINT): W.L. Ball
ASSISTANT (PRINT): Stephen Sophia

FILM USED: _____
FILM SIZE: _____
PCS: _____

SSOFD: Source Side of Object to Film Distance	Nominal Plus Maximum Reinforcement
SOD: Source to Object Distance	4.163
Curies <u>78</u>	2.157
LEAD SCREENS	R192
LEAD SCREENS	C060
FILM DENSITY	MIN 2.0 MAX 4.0

CGSB Reg.# 805
FILM PERHARDER



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Fax: 403-207-4451

RADIOGRAPHIC REPORT

R - 64358

CLIENT: <u>Cado</u>	MATERIAL TYPE: <u>CS</u>	THICKNESS RANGE: _____
LOCATION: <u>Calgary</u>	SOURCE OF RADIATION: <u>IR192</u>	<u>0.154" - 0.337"</u>
GTEL JOB No. <u>13-01-0068</u>	CONTRACTOR: _____	FOCAL SPOT (F): <u>3.5mm</u>
CLIENT'S P.O. _____	TECHNIQUE: <u>DWE</u> <input checked="" type="checkbox"/> <u>SW</u> <input checked="" type="checkbox"/> <u>DW</u> <input type="checkbox"/> <u>W</u> <input type="checkbox"/>	
CLIENT JOB No. <u>2013-070</u>	FILM TYPE: <u>AGFA</u> <u>704</u> <u>105</u> <input type="checkbox"/> <u>D7</u> <input type="checkbox"/> <u>OTHER</u> _____	

IDENTIFICATION	PIPE SIZE	PIPE SCHEDULE	I	# OF EXP	CRK	LF	IP	P	S	UC	CR	EP	%	*	IQI	DEFECT LOCATION AND REMARKS	ACCEPT	REJECT
UNLT #1																		
X563R1@5'6"	4"	XH	387	3				3					100	W	B	5-6		X
X567R1@11'-12"														G				
X572R1@14'-0"														W				
X598R1@8'-0"																9-10" EXLP		X
X605	6"	STD	280	1				1					100	W	B			
X606	6"	STD	280	1										W	B			
X607	2"	STD	154	3										P	A			
X608														P				
X609														P		2-4, 5-7" P Ruvs		X
X610														P				
X611														W				
X612																		
X613	2"	XH	218															
X614																		
X615																		
X616																		
X617																		
X618																		
X619																		

FINAL FILM INTERPRETATION IS THE RESPONSIBILITY OF THE CLIENT. I AM IN FULL AGREEMENT WITH THE ABOVE DETAILS AND ACKNOWLEDGE RECEIPT OF FILM.

CLIENT REPRESENTATIVE: _____

TECHNICIAN (SIGN): _____

TECHNICIAN (PRINT): W. L. Bailey CGSB LEVEL IF ASNT LEVEL IF

ASSISTANT (PRINT): Stefan, Sophia

FILM USED: 4 PCS. 12 PCS. 39 PCS.

FILM SIZE: 17" PCS. 8 1/2" PCS. 5 1/4" PCS.

Nominal Plus Maximum Reinforcement: 3.03

SSOD: Source to Object Film Distance: 2.221

SOD: Source to Object Distance: 2.157

Curies: 5

CGSB Reg. # 805

1 FILM PER HOLDK

LEAD SCREENS: RT92 .005 FRONT .010 BACK

LEAD SCREENS: C060 .010 FRONT .010 BACK

FILM DENSITY: ✓ MIN 2.0 MAX 4.0



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RADIOGRAPHIC REPORT

R - 64362

CLIENT: <u>Cado</u>	MATERIAL TYPE: <u>CS</u>	THICKNESS RANGE: _____
LOCATION: <u>Calgary</u>	SOURCE OF RADIATION: <u>R192</u>	<u>0.218"</u>
GTEL JOB No. <u>14-01-0081</u>	CONTRACTOR: _____	FOCAL SPOT (F): <u>35mm</u>
CLIENT'S P.O. _____	TECHNIQUE: SWE <input type="checkbox"/> DWE <input checked="" type="checkbox"/> SWW <input checked="" type="checkbox"/> DWV <input type="checkbox"/>	
CLIENT JOB No. <u>2013-070</u>	FILM TYPE: AGFA <input checked="" type="checkbox"/> D4 <input type="checkbox"/> D5 <input type="checkbox"/> D7 <input type="checkbox"/> OTHER _____	

IDENTIFICATION	PIPE SIZE	PIPE SCHEDULE	t	# OF EXP	CRK	LF	IP	P	S	UC	CR	EP	%	*	IQI	DEFECT LOCATION AND REMARKS	ACCEPT	REJECT
<u>UNIT #1</u>																		
<u>X620</u>	<u>2"</u>	<u>XH</u>	<u>218</u>	<u>3</u>				<u>1</u>					<u>100</u>	<u>Y</u>	<u>A</u>			
<u>X621</u>	<u>↓</u>	<u>↓</u>	<u>↓</u>	<u>↓</u>										<u>↓</u>	<u>↓</u>			
<u>X622</u>	<u>↓</u>	<u>↓</u>	<u>↓</u>	<u>↓</u>										<u>↓</u>	<u>↓</u>			

LEGEND

* WELDERS SYMBOL ACCEPTABLE

1 BORDERLINE

2 REJECT

3

See back for other legends.

DATE: Jan 6, 2014

PAGE: 2 OF 2

PROCEDURE: C

CODE: ASME B31.3/Genere

FINAL FILM INTERPRETATION IS THE RESPONSIBILITY OF THE CLIENT. I AM IN FULL AGREEMENT WITH THE ABOVE DETAILS AND ACKNOWLEDGE RECEIPT OF FILM.

CLIENT REPRESENTATIVE: _____

TECHNICIAN (SIGN): [Signature]

TECHNICIAN (PRINT): W. i. Bauler CGSB LEVEL II ASNT LEVEL II

ASSISTANT (PRINT): Stavren, Sophia

FILM USED: 9 PCS.

FILM SIZE: 573 PCS.

SSOFD: Source of Object to Film Distance: _____

SOD: Source to Object Distance: 2.157

Curies: 75

Nominal Plus Maximum Reinforcement: _____

CGSB Reg. # 805

1 FILM PER HOLDER

LEAD SCREENS	<u>1R192</u>	.005 FRONT
LEAD SCREENS	<u>C060</u>	.010 BACK
FILM DENSITY	<u>✓</u>	MIN 2.0
		MAX 4.0

RADIOGRAPHIC REPORT

R - 62878

CLIENT	CARDO	MATERIAL TYPE:	CS	THICKNESS RANGE:	0.154" to 0.337"
LOCATION	CARGARY	SOURCE OF RADIATION:	IR192	FOCAL SPOT (F):	3.5mm
GTIL JOB No.	14-01-0068	CONTRACTOR:	CARDO	SWW <input type="checkbox"/>	DWV <input type="checkbox"/>
CLIENT'S P.O.		TECHNIQUE:	SWE <input type="checkbox"/>	DWE <input type="checkbox"/>	D05 <input type="checkbox"/>
CLIENT JOB No.	2013-070	FILM TYPE:	AGFA <input type="checkbox"/>	D04 <input type="checkbox"/>	D07 <input type="checkbox"/>

DATE:	JAN 07 14
PAGE:	1 OF 1
PROCEDURE:	B/C
CODE:	ASME B31.3C

LEGEND
 * WELDERS SYMBOL ACCEPTABLE
 1 BORDERLINE
 2 REJECT
 3 See back for other legends.

IDENTIFICATION	PIPE SIZE	PIPE SCHEDULE	# OF EXP	CRK	LF	IP	P	S	UC	CR	EP	%	*	IQI	DEFECT LOCATION AND REMARKS	ACCEPT	REJECT
X625	6"	STD 0.280	1									100	W B	B		✓	
624	6"	STD 0.280	1									100	W B	B		✓	
625	6"	STD 0.280	1				2					100	? B	B		✓	
626	6"	STD 0.280	3									100	? B	B		✓	
627	2"	STD 0.154	3									100	G A	A		✓	
628	2"	STD 0.154	3									100	G A	A		✓	
X563R2	4"	X14 0.337	2									100	W B	B		✓	
X578R2	4"	X14 0.337	2									100	B	B		✓	

FINAL FILM INTERPRETATION IS THE RESPONSIBILITY OF THE CLIENT.
 I AM IN FULL AGREEMENT WITH THE ABOVE DETAILS AND ACKNOWLEDGE RECEIPT OF FILM.

CLIENT REPRESENTATIVE: [Signature]
 TECHNICIAN (SIGN): [Signature]
 TECHNICIAN (PRINT): W. DANLEY CGSB LEVEL 4 ASNT LEVEL 4
 ASSISTANT (PRINT): SARL

FILM USED: 7 PCS. 17" X 70mm
6 PCS. 8 1/2" X 70mm
6 PCS. 5 1/2" X 70mm
6 PCS. _____

CGSB Reg.# 805
1 Film Per Holder

LEAD SCREENS	1R192	.005 FRONT
LEAD SCREENS	C060	.010 FRONT
FILM DENSITY		.010 BACK
		MIN 2.0
		MAX 4.0

Nominal Plus Maximum Reinforcement
 SOD: Source to Object Distance
3.03
6.345
2.1221
4.163
78



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RADIOGRAPHIC REPORT

R - 62767

CLIENT CADO	MATERIAL TYPE: CS	THICKNESS RANGE: 0.154" To 0.218"	LEGEND WELDERS SYMBOL ACCEPTABLE BORDERLINE REJECT See back for other legends.	DATE: JAN 08/14
LOCATION CANARY	SOURCE OF RADIATION: IR192	FOCAL SPOT (F): 3.5mm	* 1 2 3	PAGE: 1 OF 1
GTEL JOB No. 14-01-0068	CONTRACTOR: CADO	TECHNIQUE: SWE <input type="checkbox"/> DWE <input type="checkbox"/> SWW <input type="checkbox"/> DWV <input type="checkbox"/>	PROCEDURE: C	PROCEDURE: C
CLIENT'S P.O.	FILM TYPE: AGFA <input checked="" type="checkbox"/> D4 <input type="checkbox"/> D5 <input type="checkbox"/> D7 <input type="checkbox"/> OTHER		CODE: ASME B31.3SC	
CLIENT JOB No. 2013-070				

IDENTIFICATION	PIPE SIZE	PIPE SCHEDULE	t	# OF EXP	CRK	LF	IP	P	S	UC	CR	EP	%	*	IQI	DEFECT LOCATION AND REMARKS	ACCEPT	REJECT
UNY #1																		
X609R1	2"	STD	0.154	2		3							100	Y A		2-4" LF		X
2-4157"																		
X629	2"	XH	0.218	3									100	P A			✓	
630	2"	XH	0.218	3									100	W A			✓	

FINAL FILM INTERPRETATION IS THE RESPONSIBILITY OF THE CLIENT. I AM IN FULL AGREEMENT WITH THE ABOVE DETAILS AND ACKNOWLEDGE RECEIPT OF FILM.

CLIENT REPRESENTATIVE: _____

TECHNICIAN (SIGN): *[Signature]*

TECHNICIAN (PRINT): **W. P. M. B. CARL** CGSB LEVEL **SA** ASNT LEVEL **SA**

ASSISTANT (PRINT): _____

FILM USED: **8** FILM SIZE: **5 7/8" X 7 1/2" MM**

SSOFD: Source Side of Object to Film Distance

SOD: Source to Object Distance

Curies

Nominal Plus Maximum Reinforcement

CGSB Reg.# **805**

1 Film Per Holder

LEAD	SCREENS	LEAD	SCREENS	FILM DENSITY
0.05 FRONT	0.010 BACK	0.05 FRONT	0.010 BACK	MIN 2.0
				MAX 4.0



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RADIOGRAPHIC REPORT

R - 64399

CLIENT Caddo	MATERIAL TYPE: CS	THICKNESS RANGE: 0.218" - 0.300"	LEGEND WELDERS SYMBOL ACCEPTABLE BORDERLINE REJECT See back for other legends.
LOCATION Calgary	SOURCE OF RADIATION: IRIG	0.218" - 0.300"	* 1 2 3
GTEL JOB No. 14-01-0068	CONTRACTOR:	FOCAL SPOT (F): 3.5mm	PROCEDURE: C
CLIENT'S P.O.	TECHNIQUE: SWE <input type="checkbox"/> DWV <input type="checkbox"/> SWW <input type="checkbox"/> DWV <input type="checkbox"/>		CODE: ASME
CLIENT JOB No. 2013-070	FILM TYPE: AGFA <input checked="" type="checkbox"/> D4 <input type="checkbox"/> D5 <input type="checkbox"/> D7 <input type="checkbox"/> OTHER		B31.3 severe

IDENTIFICATION	PIPE SIZE	PIPE SCHEDULE	t	# OF EXP	CRK	LF	IP	P	S	UC	CR	EP	%	*	IQI	DEFECT LOCATION AND REMARKS	ACCEPT	REJECT
Unit #1																		
X639R1 @ 4 1/2" 5 1/2"	2"	XH	.218	1									100	Y	A		✓	
Unit #2																		
V28	3"	XH	.300	3						2			100	W	B	HL ILL	✓	
X29																	✓	
X30																	✓	
X31																	✓	
X32								3								8-9" LPS	✓	X
X33								2									✓	
X34																	✓	
X35	3"	XH	.300	3						1			100	W	B	HL ILL	✓	

FINAL FILM INTERPRETATION IS THE RESPONSIBILITY OF THE CLIENT. I AM IN FULL AGREEMENT WITH THE ABOVE DETAILS AND ACKNOWLEDGE RECEIPT OF FILM.

CLIENT REPRESENTATIVE: _____

TECHNICIAN (SIGN): _____

TECHNICIAN (PRINT): **W. Bailey** CGSB LEVEL **IV** ASNT LEVEL **IV**

ASSISTANT (PRINT): **Stephen, Soane**

FILM USED: **75** PCS. **543** PCS.

FILM SIZE: **543** PCS.

CGSB Reg.#: **85**

1 FILM PER HEADER

SSOFD: Source Side of Object to Film Distance	Nominal Plus Maximum Reinforcement
SOD: Source to Object Distance	2.157
Curies	3.200
LEAD SCREENS	16192
LEAD SCREENS	C060
FILM DENSITY	✓
.005 FRONT	
.010 BACK	
.010 FRONT	
.010 BACK	
MIN 2.0	
MAX 4.0	

Procedures: MT-2V IRIS 5.0 EDITION 5 REV 0 Code: CSA W59	Job / P.O. #: 2013-070 Client: CADDO INDUSTRIES LTD Location: Calgary, Alberta Item Inspected: SEE BELOW	IRISNDT #: 261449	Date: 06-Dec-13
---	---	-------------------	-----------------

Surface Condition: Painted <input type="checkbox"/> Sandblasted <input type="checkbox"/> Machined <input type="checkbox"/> As Cast <input type="checkbox"/> As Forged <input type="checkbox"/> Weldment <input checked="" type="checkbox"/> Other <input type="checkbox"/>
Material: Carbon Steel Thickness: Heat Treatment: N/A
Magnetizing Equipment: Yoke <input checked="" type="checkbox"/> Coil <input type="checkbox"/> Prod <input type="checkbox"/> Bench: Headshot <input type="checkbox"/> Central Conductor <input type="checkbox"/> Coil <input type="checkbox"/> IRISNDT #: 40207 Mfg: Contour Probe Calibration Date: 08-Nov-13
Blacklight: <input type="checkbox"/> IRISNDT #: Mfg: Calibration Date: --11 <input type="checkbox"/> Verification per ASME V Art 7 T.777.2
Whitelight: Battery Powered Min. 3V <input checked="" type="checkbox"/> } Held within 30 cm (12in) of the inspection surface 110V Power Min. 60W Bulb <input checked="" type="checkbox"/> } provides minimum 1000 Lx (100fc)
Method of Magnetization: AC <input checked="" type="checkbox"/> DC <input type="checkbox"/> Continuous <input checked="" type="checkbox"/> Residual <input type="checkbox"/>
Magnetic Particles: Dry <input type="checkbox"/> Wet <input checked="" type="checkbox"/> Red <input type="checkbox"/> Grey <input type="checkbox"/> Black <input checked="" type="checkbox"/> Fluorescent <input type="checkbox"/> Batch #: 1285-215 Mfg: Magnaflux Type: 7C
Background: <input checked="" type="checkbox"/> Batch #: 1323 Mfg: Ardrex Type: 8901W

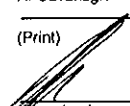
SCOPE: Black on White Wet Magnetic Particle Examination was done on 100% of the following:

JOB#: 2013-070

ITEMS: Eight (8) Lift-Lugs.

No indication of defects at time of inspection. Acceptable to code.

Inspection Limitation(s):

Unit#: 487 Kilometers: N/A In: _____ Out: _____ Hrs: 2.5 In: _____ Out: _____ Hrs: _____ Personnel: AC	Consumables: MT min	Interpretation by: A. Cavanagh _____ (Print)  (Signature) Client Representative: _____ (Print) I am in full agreement with report contents _____ (Sign)	SNT-TC-1A II C.G.S.B. II (Level) C.G.S.B. # 16273
--	------------------------	--	--

CADO INDUSTRIES INC
Quality Control Manual

Revision Number: 4.0

Revision Date: November 30, 2012

Section: 16 Page: 3 of 3

EXHIBIT 16.2 PRESSURE TEST REPORT

PRESSURE TEST REPORT

TYPE OF TEST: Hydrostatic Pneumatic Other

EQUIPMENT DESCRIPTION: 4 Separator Skid JOB NUMBER: 2013-070 unit # 1

SERIAL NO: _____ SHELL SIDE TEST PRESSURE 315 PSI / KPA

_____ TUBE SIDE TEST PRESSURE _____ PSI / KPA

LINE NO: _____ CONSTRUCTION DRAWING NUMBER _____ REV NO _____

070-24A, 070-24B, 070-24C, 070-24D, 070-24E, 070-24F

GAUGE IDENTIFICATION	CALIBRATION DATE	GAUGE RANGE	GAUGE PRESSURE
GAUGE # 1 <u>04</u>	<u>24 May</u>	<u>0-1000</u>	<u>315</u>
GAUGE # 2 <u>03B</u>	<u>24 May 13</u>	<u>0-600</u>	<u>315</u>
CHART RECORDER #1			

MANUFACTURERS' REPRESENTATIVE: [Signature] DATE: MAR 21 2014

OWNERS INSPECTOR: [Signature] DATE: Mar 21, 2014

AUTHORIZED INSPECTOR: _____ DATE: _____

CADO INDUSTRIES INC
Quality Control Manual

Revision Number: 4.0

Revision Date: November 30, 2012

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EXHIBIT 16.2 PRESSURE TEST REPORT

PRESSURE TEST REPORT

TYPE OF TEST: Hydrostatic Pneumatic Other

EQUIPMENT DESCRIPTION: PROCESS TUBING JOB NUMBER: 2013-070

SERIAL NO: _____ SHELL SIDE TEST PRESSURE 2040 PSI / KPA

_____ TUBE SIDE TEST PRESSURE _____ PSI / KPA

LINE NO: _____ CONSTRUCTION DRAWING NUMBER _____ REV NO _____

GAUGE IDENTIFICATION	CALIBRATION DATE	GAUGE RANGE	GAUGE PRESSURE
GAUGE #1 <u>08B</u>	<u>06 FEB 14</u>	<u>0-5000</u>	<u>2040</u>
GAUGE #2 <u>08D</u>	<u>06 FEB 14</u>	<u>0-5000</u>	<u>2040</u>
CHART RECORDER #1			

MANUFACTURERS' REPRESENTATIVE: [Signature] DATE: MAR 21 2014

OWNERS INSPECTOR: [Signature] DATE: Nov 21/14

AUTHORIZED INSPECTOR: _____ DATE: _____

CADO INDUSTRIES INC
Quality Control Manual

Revision Number: 4.0

Revision Date: November 30, 2012

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EXHIBIT 16.2 PRESSURE TEST REPORT

PRESSURE TEST REPORT			
TYPE OF TEST: Hydrostatic <input type="checkbox"/> Pneumatic <input type="checkbox"/> Other <input checked="" type="checkbox"/> <i>Function</i>			
EQUIPMENT DESCRIPTION: <i>4 separator skid</i> JOB NUMBER: <i>2013-070</i>			
SERIAL NO: _____		SHELL SIDE TEST PRESSURE _____ PSI / KPA	
_____		TUBE SIDE TEST PRESSURE _____ PSI / KPA	
LINE NO: _____		CONSTRUCTION DRAWING NUMBER _____ REV NO _____	
<i>Function of: LVC2101, LVC2102, PY2101, PY2201, LVC2201, LVC2202, PY2301, LVC2301, LVC2302</i>			
GAUGE IDENTIFICATION	CALIBRATION DATE	GAUGE RANGE	GAUGE PRESSURE
GAUGE # 1			
GAUGE # 2			
CHART RECORDER #1			
MANUFACTURERS' REPRESENTATIVE: <i>[Signature]</i>		DATE: <i>Mar 21 2014</i>	
OWNERS INSPECTOR: _____		DATE: <i>Mar 21, 2014</i>	
AUTHORIZED INSPECTOR: _____		DATE: _____	
<i>Air Line Leak Test <input checked="" type="checkbox"/></i>			



19A, 3515 - 27th St. N.E., Calgary, Alberta T1Y 5E4
Ph: (403) 275-7090 • Fax: (403) 291-7001

CERTIFICATE OF CALIBRATION

Description:	PRESSURE GAUGE	ID #:	PG-03B
Make:	WGI	Issue Date:	24MAY13
Model:	4"	Expiry Date:	24MAY14
Serial #:	NIL	Work order #:	4254
Temp (°C):	20	RH:	25%
Comments:	NIL		

THE CALIBRATION CENTRE CERTIFIES THAT THE ABOVE LISTED INSTRUMENT HEREIN MEETS OR EXCEEDS ALL PUBLISHED SPECIFICATIONS.

THE CALIBRATION HAS BEEN PERFORMED BY COMPARISON TO STANDARDS THAT ARE TRACEABLE TO NATIONAL STANDARDS.

(1. NRC / 2. NIST)

EQUIPMENT USED:

<u>MFG:</u>	<u>MODEL</u>	<u>SERIAL NUMBER</u>
SI	PC-6	2743

CALIBRATION DATA:

ACCURACY: 1.0 % FS

PRESSURE (PSI)		
APPLIED	BEFORE	AFTER
100	200	100
200	300	201
300	400	301
400	500	401
500	600	500
600	N/A	600

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CERTIFICATE OF CALIBRATION

Description: PRESSURE GAUGE
Make: WGI
Model: 4"
Serial #: NIL
Temp (°C): 20
Comments: NIL

ID #: PG-04
Issue Date: 24MAY13
Expiry Date: 24MAY14
Work order #: 4254
RH: 25%

THE CALIBRATION CENTRE CERTIFIES THAT THE ABOVE LISTED INSTRUMENT
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THAT ARE TRACEABLE TO NATIONAL STANDARDS.

(1. NRC / 2. NIST)

EQUIPMENT USED:

<u>MFG:</u>	<u>MODEL</u>	<u>SERIAL NUMBER</u>
SI	PC-6	2743

CALIBRATION DATA:

ACCURACY: 1.0 % FS

PRESSURE (PSI)		
APPLIED	BEFORE	AFTER
200	200	200
400	400	400
600	600	600
800	800	800
1000	1004	1004

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CERTIFICATE OF CALIBRATION

Description: PRESSURE GAUGE
Make: WGI
Model: 4"
Serial #: NIL
Temp (°C): 20
Comments: NIL

ID #: PG-08B
Issue Date: 06FEB14
Expiry Date: 06FEB15
Work order #: 4604
RH: 25%

THE CALIBRATION CENTRE CERTIFIES THAT THE ABOVE LISTED INSTRUMENT
HEREIN MEETS OR EXCEEDS ALL PUBLISHED SPECIFICATIONS.

THE CALIBRATION HAS BEEN PERFORMED BY COMPARISON TO STANDARDS
THAT ARE TRACEABLE TO NATIONAL STANDARDS.
(1. NRC / 2. NIST)

EQUIPMENT USED:

MFG: SI MODEL PC-6 SERIAL NUMBER 2743

CALIBRATION DATA:

ACCURACY: 1.0 % FS

PRESSURE (PSI)		
APPLIED	BEFORE	AFTER
1000	1005	1005
2000	1995	1995
3000	3000	3000
4000	4005	4005
5000	5005	5005

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CERTIFICATE OF CALIBRATION

Description:	PRESSURE GAUGE	ID #:	PG-08D
Make:	WGI	Issue Date:	06FEB14
Model:	4 1/2"	Expiry Date:	06FEB15
Serial #:	NIL	Work order #:	4604
Temp (°C):	20	RH:	25%
Comments:	NIL		

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THE CALIBRATION HAS BEEN PERFORMED BY COMPARISON TO STANDARDS THAT ARE TRACEABLE TO NATIONAL STANDARDS.
(1. NRC / 2. NIST)

EQUIPMENT USED:

<u>MFG:</u>	<u>MODEL</u>	<u>SERIAL NUMBER</u>
SI	PC-6	2743

CALIBRATION DATA:

ACCURACY: 1.0 % FS

PRESSURE (PSI)		
APPLIED	BEFORE	AFTER
1000	800	1000
2000	1800	2000
3000	2790	2990
4000	3780	3980
5000	4765	4970

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