



CODE SHEET

VISTA Projects Limited VENDOR DRAWING/DOCUMENT SQUAD CHECK			
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SDR CODE	EQUIPMENT TAG	REVIEWED BY	DATE
DM01	V-4630		2012-07-05

PROJECT NAME: Murphy Cardotte CSS / 1780

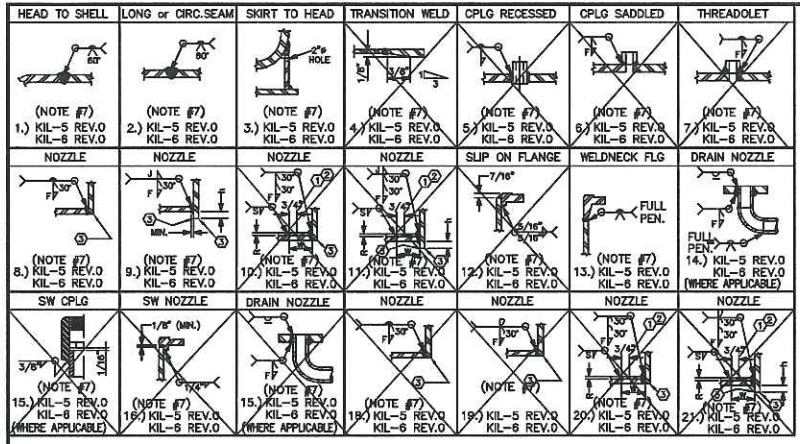
VENDOR NAME: Koderney / 1780-012

DOCUMENT NUMBER: 12-061-1A

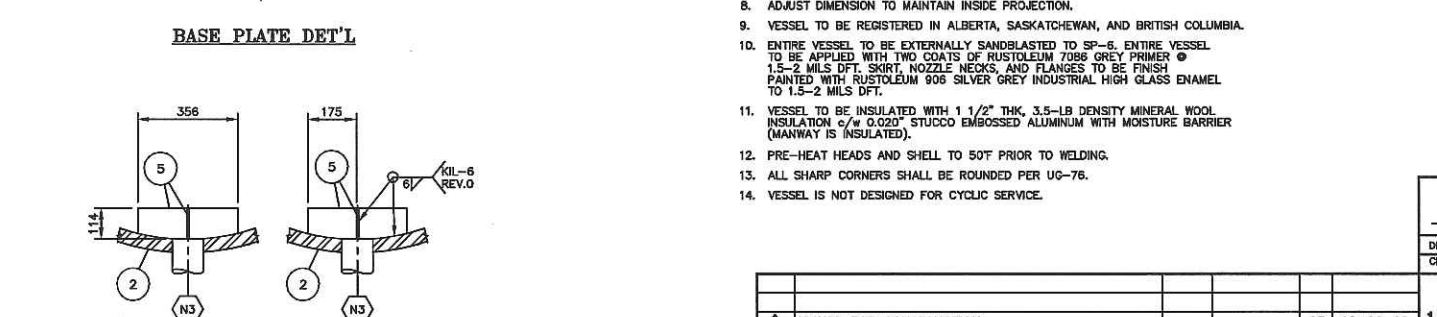
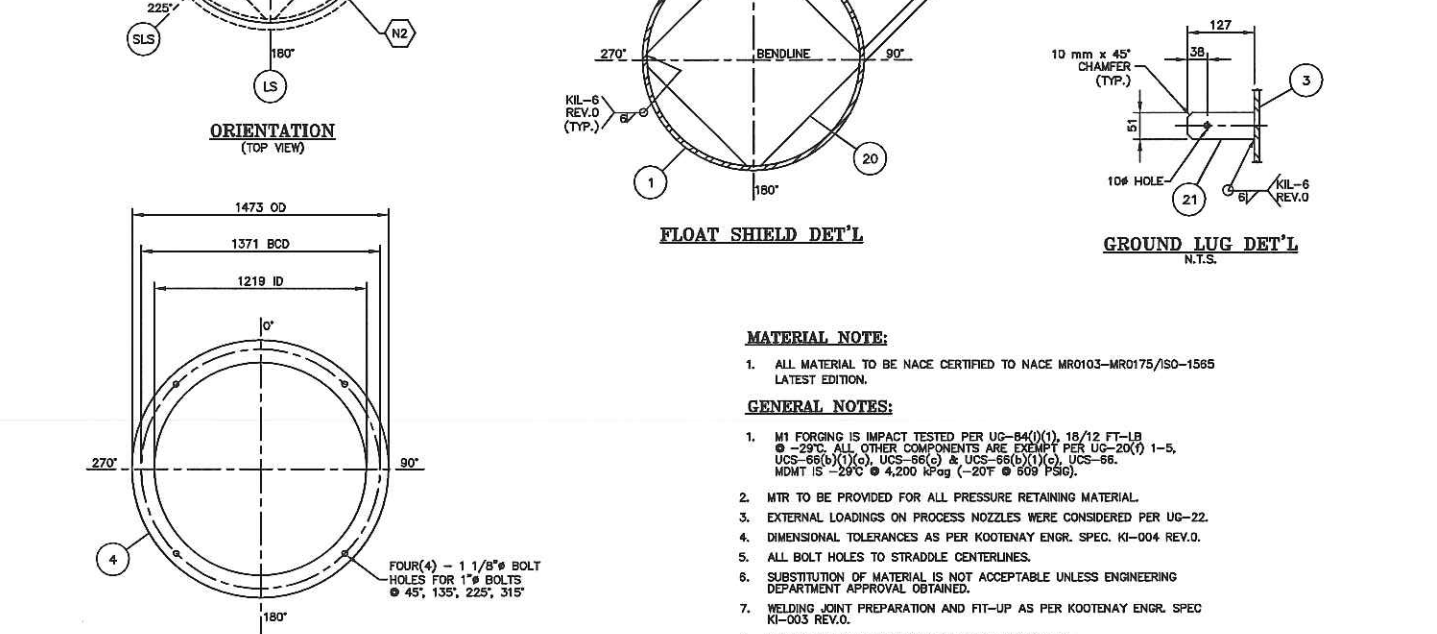
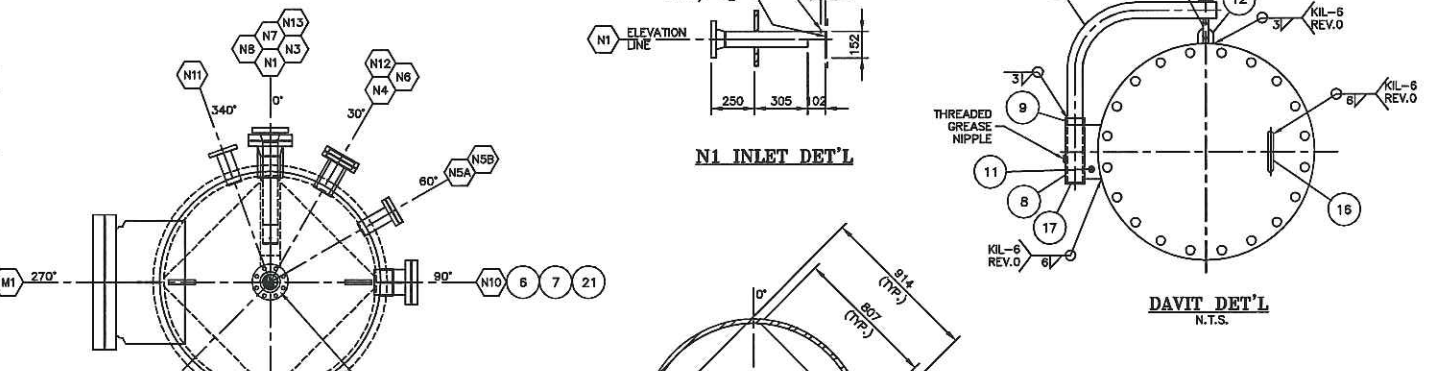
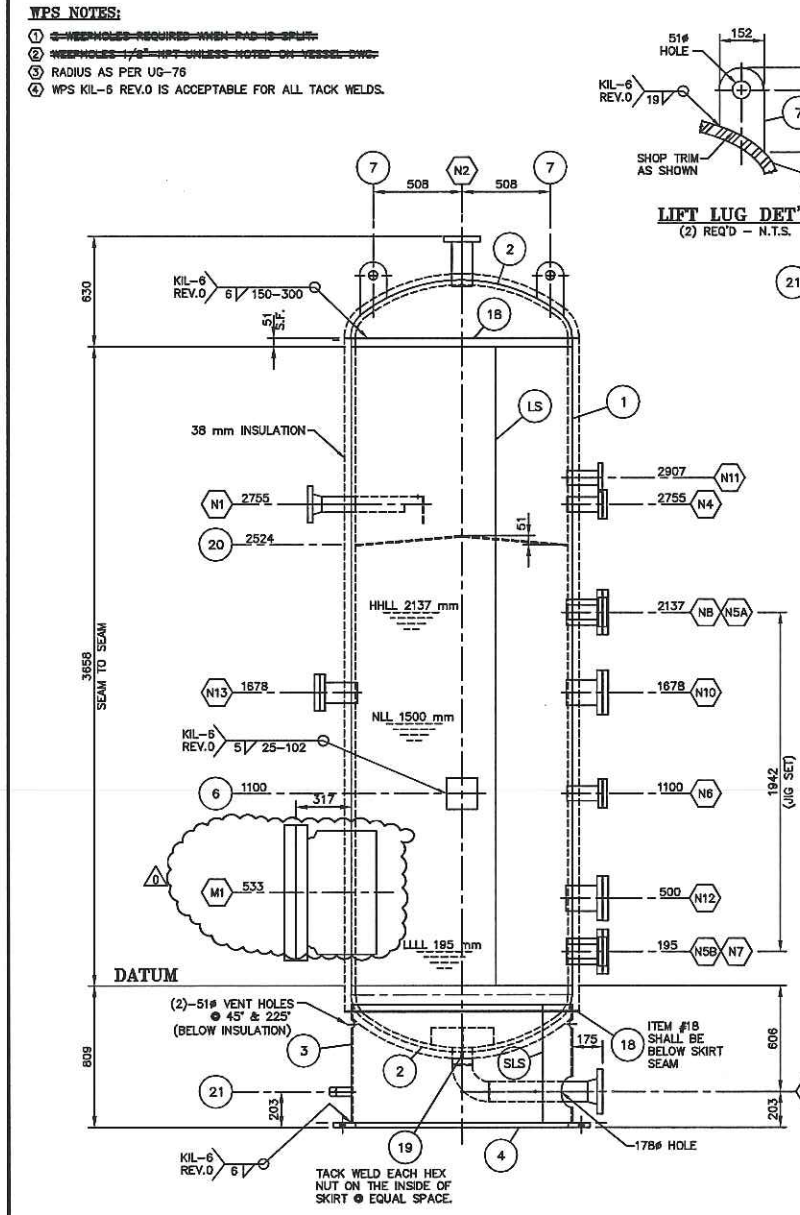
VENDOR REVISION: 0

DOCUMENT DESCRIPTION: Vertical Gas Separator

VENDOR TRANSMITTAL NUMBER: Transmittal #17



DESIGN DATA
 20.10 ASME CODE SEC. VIII DIV. 1. ADD.: 2011.
 PARA: LW-11(a)
 HEAD MATERIAL: SA-516-70N 25mm (1.00") NOM WALL (0.9375" MIN)
 SHELL MATERIAL: SA-516-70N 25mm (1.00") NOM WALL
 MDMT: -29°C @ 4,200 kPa (-20°F @ 609 PSIG) TEMP.: 245°C (473°F)
 NOZZLE: SA-108-B SMLS / SA-108N FLANGES: SA-108N
 MAWP (INTERNAL): 4,200 kPa (609 PSIG) (-29/245°C (-20/473°F))
 FULL VACUUM
 HYDROTEST: 5,480 kPa (792 PSIG) RADIOGRAPHY: RT-1 (FULL INCLUDING NOZZ. BW)
 STRESS RELIEVE: 80 MINUTES @ 807°C ±4°C (1150°F ±25°F)
 CORR. ALLOW.: 3.2mm (0.125") JOINT EFF.: LS-100% / CS-100%
 VOLUME: 4.80 CU. M (171.70 CU. FT.)
 EMPTY WT: 5,227 Kg (11,500 LBS) FULL WT: 10,105 Kg (22,231 LBS)
 YEAR BUILT: 2012 SERIAL NO.: 12-061.VS1
 CRN No.: CRN REFERENCE DRAWING NO.:
 W.P.R. No.: WP-2840.2 AGP No.: 1479
 SURFACE PREP.: SSPC-SP6
 PRIME: SEE GENERAL NOTE 10 TAG No.: V-4930
 PAINT: SEE GENERAL NOTE 10
 INSULATION: SEE GENERAL NOTE 11 LOCATION: SEE TITLE BLOCK



BILL OF MATERIAL

ITEM	QTY	DESCRIPTION	MAT'L
1	1	SHELL - 48" ID x 12'-0" S/S x 1" THK.	SA-516-70N
2	2	HEADS - 48" ID 2:1 S.E. x 1" NOM. (0.9375" MIN.) W/ 2" SF	SA-516-70N
3	1 PC	SKIRT - 3/8" THK. ROLLED TO 50" OD x 30" LG (CTS)	SA-516-70N
4	1 PC	BASE PLATE - 58" OD x 48" ID x 1" THK.	SA-36
5	3 PCS	VORTEX BREAKER - 3/8" PL (CUT PER DWG. DET'L)	SA-516-70N
6	1	NAME PLATE C/W MOUNTING BRACKET	SS/SA-516-70N
7	2	LIFT LUG - 1" THK x 6" WD x 12 1/4" HT (CTS)	SA-516-70N
8	1	DAVIT SLEEVE - 2 1/2" SCH. STD SMLS PIPE x CTS	SA-108-B
9	1	RING - 2 1/2" SCH. STD. SMLS PIPE x 1" LG	SA-108-B
10	1	DAVIT ARM - 2" SCH. XXH SMLS PIPE x CTS	SA-108-B
11	1	PLATE - 3/4" THK. x 2" WD x 8" LG	SA-36
12	1	U BAR - 3/4" FBND BAR (BEND AS SHOWN)	SA-36
13	1	EYE BOLT - 3/4" RB X 9 1/2" CLOSED EYE 7" NC	SA-36
14	1	WASHER - 3/4"	S.S.
15	2	NUTS - 3/4"	2H
16	1	HANDLE - 3/4" ROUND BAR (BEND AS SHOWN)	SA-36
17	1	BLIND END - 1/4" PL x 2 7/8" OD	SA-36
18	2 PCS	INSULATION RING - 1/4" PL X 53 1/8" OD X 50 1/8" ID	SA-516-70N
19	12	HEX NUT - 1/2"	SA-194-2H
20	1 PC	FLOAT HOOD - 3/8" PL. (CUT PER DWG DET'L)	SA-516-70N
21	2 PCS	GROUND LUG - 1/4" PL. (CUT PER DWG DET'L)	SA-36

N1	1	FLANGE - 3" CL300 RFLWN SCH. XXH BORE	SA-105N
1 PC		NECK - 3" SCH. XXH SMLS PIPE x 22 5/8" LG	SA-108-B
1 PC		INLET DIVERTER - 3/8" PLATE x 3 1/2" W x 6" LG (ROUNDED TOP SIDE)	SA-36
N2	1	FLG - 3" CL300 RFLWN x 12" LG (0.81" WT)	SA-105N
N3	1	FLANGE - 4" CL300 RFLWN SCH. XXH. BORE	SA-105N-B
1 PC		NECK - 4" SCH. XXH SMLS PIPE x 3 7/8" LG	SA-108-B
1		ELBOW - 4" SCH. XXH x 90° LR	SA-234-WPB
1 PC		NECK - 4" SCH. XXH SMLS PIPE x 22 1/4" LG	SA-108-B
N4	1	FLG - 2" CL300 RFLWN x 9" LG (0.66" WT)	SA-105N
1		BLIND FLANGE - 2" CL300 RF c/w 3/4" NPT TAP	SA-105N
1		GASKET - 2" CL300 RF, 1/8" THK, GRAPHITE FILLED	316 SS
8		STUD - 5/8" x 3 1/2" LG C/W 2 HEX. NUTS EA.	B7M/2HM
N5A/B	2	FLG - 2" CL300 RFLWN x 9" LG (0.66" WT)	SA-105N
2		BLIND FLANGE - 2" CL300 RF c/w 3/4" NPT TAP	SA-105N
2		GASKET - 2" CL300 RF, 1/8" THK, GRAPHITE FILLED	316 SS
16		STUD - 5/8" x 3 1/2" LG C/W 2 HEX. NUTS EA.	B7M/2HM
N6	1	FLG - 2" CL300 RFLWN x 9" LG (0.66" WT)	SA-105N
1		BLIND FLANGE - 2" CL300 RF c/w 3/4" NPT TAP	SA-105N
1		GASKET - 2" CL300 RF, 1/8" THK, GRAPHITE FILLED	316 SS
8		STUD - 5/8" x 3 1/2" LG C/W 2 HEX. NUTS EA.	B7M/2HM
N7,N8	2	FLG - 4" CL300 RFLWN x 9" LG (0.88" WT)	SA-105N
1		HUB FLANGE - 4" CL300 RF	SA-105N
2		GASKET - 4" CL300 RF, 1/8" THK, GRAPHITE FILLED	316 SS
16		STUD - 3/4" x 4 1/2" LG C/W 2 HEX. NUTS EA.	B7M/2HM
N10	1	FLG - 4" CL300 RFLWN x 9" LG (0.88" WT)	SA-105N
1		BLIND FLANGE - 4" CL300 RF	SA-105N
2		GASKET - 4" CL300 RF, 1/8" THK, GRAPHITE FILLED	316 SS
8		STUD - 3/4" x 4 1/2" LG C/W 2 HEX. NUTS EA.	B7M/2HM
N11	1	FLG - 2" CL300 RFLWN x 9" LG (0.66" WT)	SA-105N
N12	1	FLG - 4" CL300 RFLWN x 9" LG (0.88" WT)	SA-105N
1		BLIND FLANGE - 4" CL300 RF	SA-105N
1		GASKET - 4" CL300 RF, 1/8" THK, GRAPHITE FILLED	316 SS
8		STUD - 3/4" x 4 1/2" LG C/W 2 HEX. NUTS EA.	B7M/2HM
N13	1	FLG - 3" CL300 RFLWN x 9" LG (0.81" WT)	SA-105N
1		BLIND FLANGE - 3" CL300 RF	SA-105N
1		GASKET - 3" CL300 RF, 1/8" THK, GRAPHITE FILLED	316 SS
8		STUD - 3/4" x 4 1/4" LG C/W 2 HEX. NUTS EA.	B7M/2HM
M1	1	FLANGE - 20" CL300 RFLWN x 18" LG (3.88" WT)	SA-105N
1		BLIND FLANGE - 20" CL300 RF	SA-105N
1		GASKET - 20" CL300 RF, 1/8" THK, GRAPHITE FILLED	316 SS
24		STUD - 1 1/4" x 8 1/4" LG C/W 2 HEX. NUTS EA.	B7M/2HM

(1) REQ'D

TIME CARD
12-061-VS1

KOOTENAY INDUSTRIES LTD.
 CALGARY, ALBERTA

DRAWN BY: KS
 CHECKED BY: KT

S/N: 12-061.VS1

DATE: 12-02-15
 SCALE: 1:20

CADOTTE CSS PILOT 13-09-085-17 W5M
 1219mm ID x 3658mm S/S x 4,200 KPAG x 245°C x 3mm CA
 VERTICAL GAS SEPARATOR - V-4030
 PKG-4000 (SOUR SERVICE)

MURPHY OIL CORP.
 o/o VISTA PROJECTS LTD. 12-061-A

REV.	DESCRIPTION	APP'D	DATE	BY	DATE
1	ISSUED FOR CONSTRUCTION	CF	12-06-18		
2	REVISED AND REISSUED FOR APPROVAL	KT	11-05-01	CF	12-05-01
3	REVISED AND REISSUED FOR APPROVAL	KT	11-03-02	CF	12-03-20
4	ISSUED FOR APPROVAL	KT	11-03-02	KS	11-03-02



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SDR CODE	EQUIPMENT TAG	REVIEWED BY	DATE
DM01	V-4040		2012-07-05

PROJECT NAME: Murphy Cadotte CSS/1780

VENDOR NAME: Kootenay/1780-012

DOCUMENT NUMBER: 12-061-B

VENDOR REVISION: 0

DOCUMENT DESCRIPTION: Vertical Gas Separator

VENDOR TRANSMITTAL NUMBER: Trans # 17



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SDR CODE	EQUIPMENT TAG	REVIEWED BY	DATE
DM61	V-5020		AUG 15 2012

PROJECT NAME: Murphy Cadotte

VENDOR NAME: Kootenay Industries / 1780-012

DOCUMENT
NUMBER: 12-061-C

VENDOR
REVISION: 1

DOCUMENT
DESCRIPTION: 36" ID x 9'-0" S/S x 229 PSIG x 473 F x 1/8" CA Vertical Gas Separator - V-5020 (Sour Service)

VENDOR
TRANSMITTAL
NUMBER: 21



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SDR CODE	EQUIPMENT TAG	REVIEWED BY	DATE
DPO2	PKG-4000	<i>[Signature]</i>	2012-08-27

PROJECT NAME: Murphy Cadotte

VENDOR NAME: Kootenay / 1780-012

DOCUMENT NUMBER: 12-061-D

VENDOR REVISION: 4

DOCUMENT DESCRIPTION: Process building, Skid PKG-4000 (Sour Service)

VENDOR TRANSMITTAL NUMBER: #22

**EF-4000A/B
EXHAUST FANS**

MAKE: 12" VENTURI
MOTOR: 1/4 HP, 120V/1PH/60HZ
EXPLSION PROOF
CAP: 12 ACPHR
c/w: (2) MANUAL MOTOR
START, THERMOSTATE H/A.

**Y-4030
GROUP SEPARATOR**

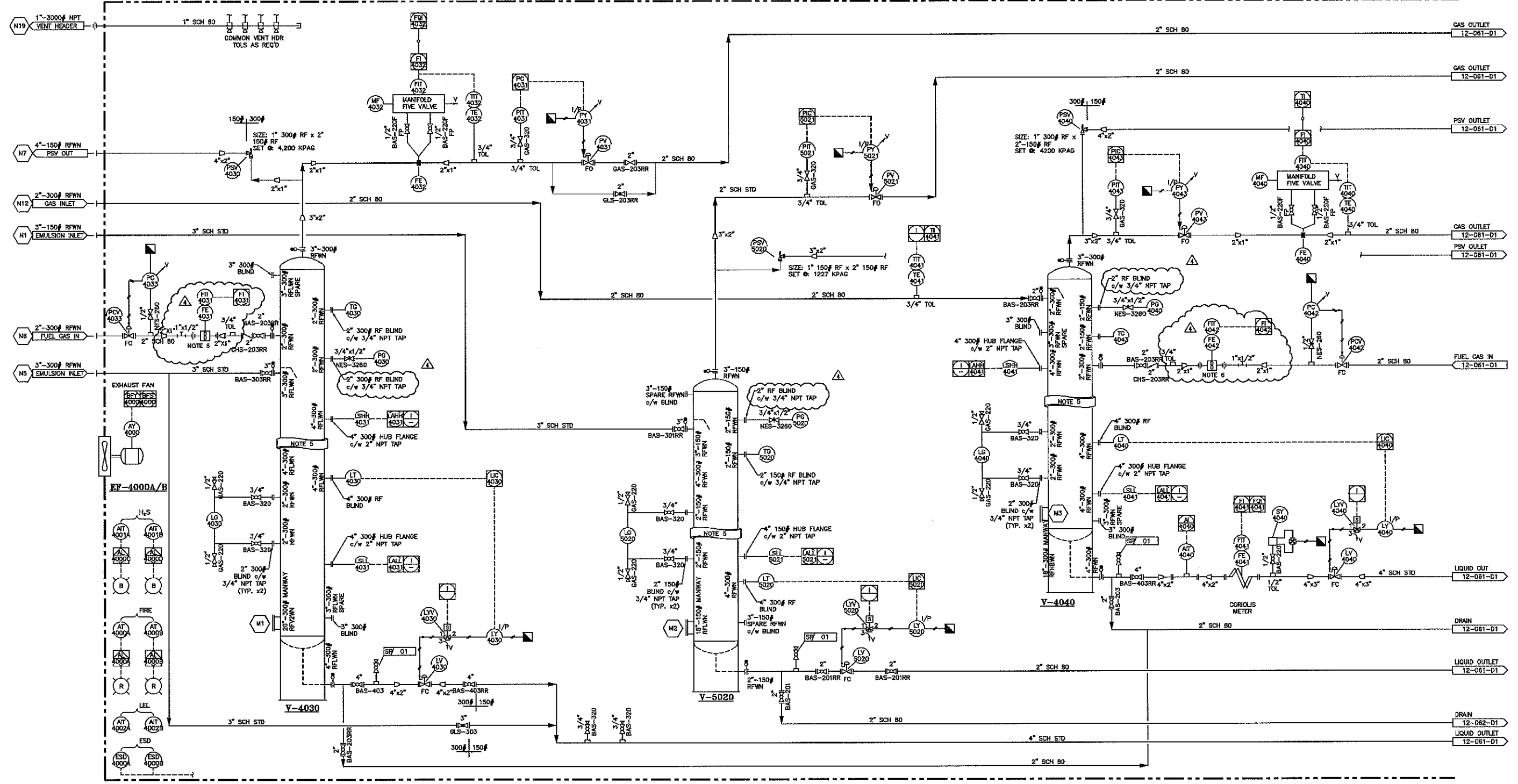
SIZE: 48"ID x 12'-0" S-S
DESIGN: 2 PHASE VERTICAL
DESIGN PRESSURE: 609 PSIG
DESIGN TEMP: 473°F
M.D.M.T. -20°F
CA: 1/8"
SERVICE: SOUR

**Y-5020
PRODUCED GAS SEPARATOR**

SIZE: 36"ID x 9'-0" S-S
DESIGN: 2 PHASE VERTICAL
DESIGN PRESSURE: 323 PSIG
DESIGN TEMP: 302°F
M.D.M.T. -20°F
CA: 1/8"
SERVICE: SOUR

**Y-4040
TEST SEPARATOR**

SIZE: 36"ID x 10'-0" S-S
DESIGN: 2 PHASE VERTICAL
DESIGN PRESSURE: 609 PSIG
DESIGN TEMP: 473°F
M.D.M.T. -20°F
CA: 1/8"
SERVICE: SOUR



(1) REQ'D
JOB No.
12-061-PPS

△	REVISED AS NOTED			CF	12-08-20
△	REVISED AS NOTED	KT	12-08-01	CF	12-08-01
△	REVISED AS PER CUSTOMER MARKUP	KT	12-03-27	CF	12-05-01
△	REVISED AS PER CUSTOMER MARKUP	KT	12-03-27	CF	12-03-27
△	ISSUED FOR APPROVAL	KT	12-02-13	CF	12-02-13
REV.	DESCRIPTION	APP'D	DATE	BY	DATE
PROJECT CO-ORDINATOR CHECKED: DATE:		BY:			

KOOTENAY INDUSTRIES LTD.
CALGARY, ALBERTA

DRAWN BY: CF
CHECKED BY: KT

DATE: 12-02-13
SCALE: N.T.S.

CADOTTE CSS PILOT 13-09-085-17 W5M
P&ID FOR
PROCESS BUILDING SKID PKG-4000
(SOUR SERVICE)

MURPHY OIL CANADA
c/o VISTA PROJECTS LTD.

12-061-D



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SDR CODE	EQUIPMENT TAG	REVIEWED BY	DATE
DP02	PKG-4000	RZ	2012-08-27

PROJECT NAME: Murphy Cadotte

VENDOR NAME: Kooterany / 1780-012

DOCUMENT NUMBER: 12-061-D1

VENDOR REVISION: 4

DOCUMENT DESCRIPTION: Process building skid PKG-4000 (Sour Service)

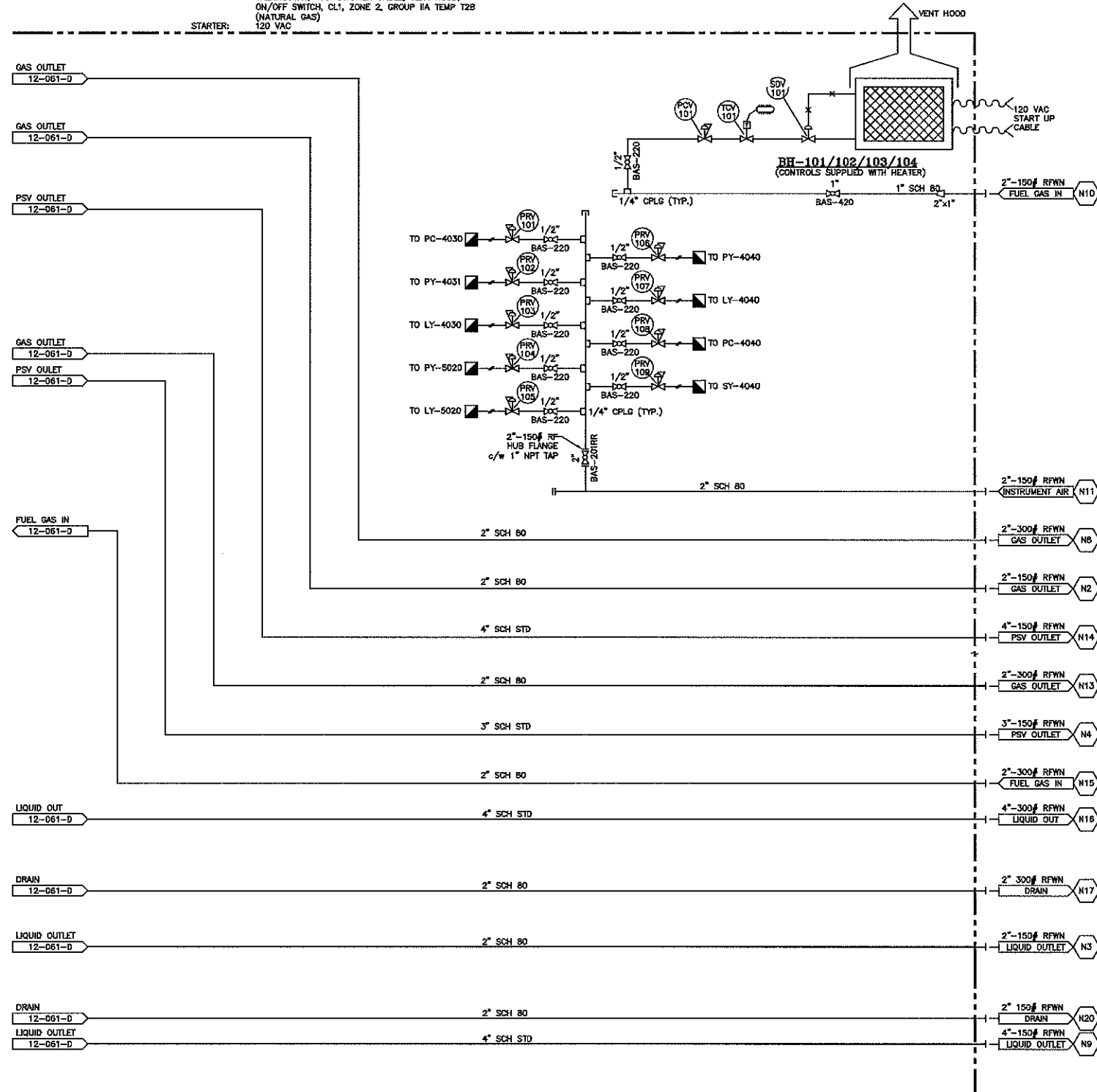
VENDOR TRANSMITTAL NUMBER: # 22

BH-101/102/103/104

BUILDING HEATERS

MAKE: BRUEST CATADYNE
MODEL: B24-24CS
DUTY: 24,000 BTU/HR
ACCESSORIES: GRILL GUARD, SAFETY SHUT-OFF, PILOT, REGULATOR, THERMOSTAT, 30' STARTER CABLE, VENT HOOD, ON/OFF SWITCH, CL1, ZONE 2, GROUP IIA TEMP T2B (NATURAL GAS)

STARTER: 120 VAC



BILL OF MATERIAL

Table with columns TAG#, QTY, DESCRIPTION listing various valves, gauges, and instruments.

BILL OF MATERIAL

Table with columns TAG#, QTY, DESCRIPTION listing various gauges, transmitters, and control valves.

NOZZLE SCHEDULE table with columns NOZZLE NUMBER, SIZE, RATING, SERVICE, ELEVATION.

NOTES:

- List of notes detailing installation and material requirements for the piping system.

(1) REQ'D
JOB No.
12-061-PPS

Revision table with columns REV., DESCRIPTION, APP'D, DATE, BY, DATE.

KOOTENAY INDUSTRIES LTD. CADOTTE CSS PILOT 13-09-085-17 W5M P&ID FOR PROCESS BUILDING SKID PKG-4000 (SOOR SERVICE) MURPHY OIL CANADA c/o VISTA PROJECTS LTD.



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SDR CODE	EQUIPMENT TAG	REVIEWED BY	DATE
DM01	PKG-4600		2012-08-27

PROJECT NAME: Murphy Cadotte

VENDOR NAME: Kootenay / 1780-012

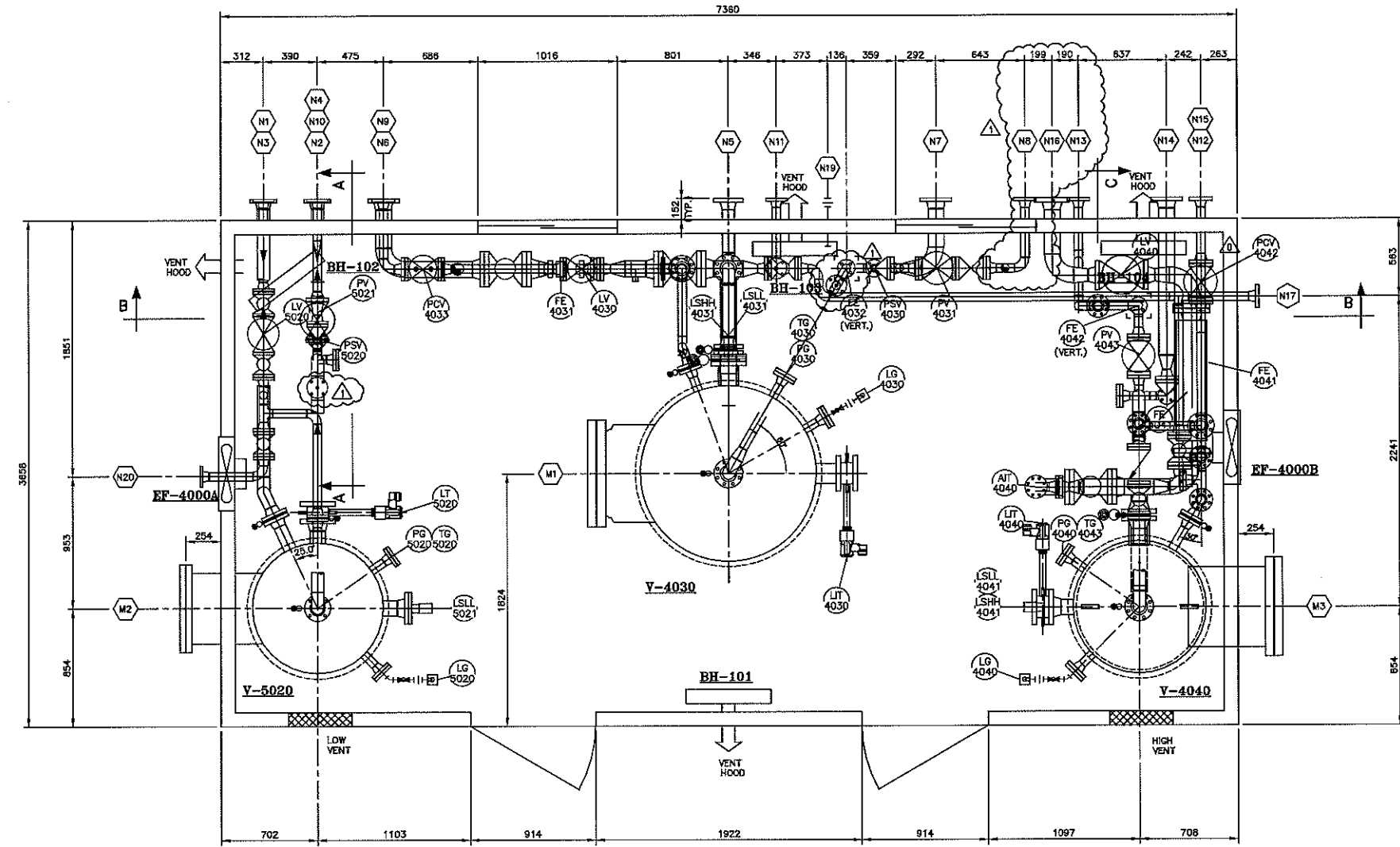
DOCUMENT NUMBER: 12-061-E

VENDOR REVISION: 1

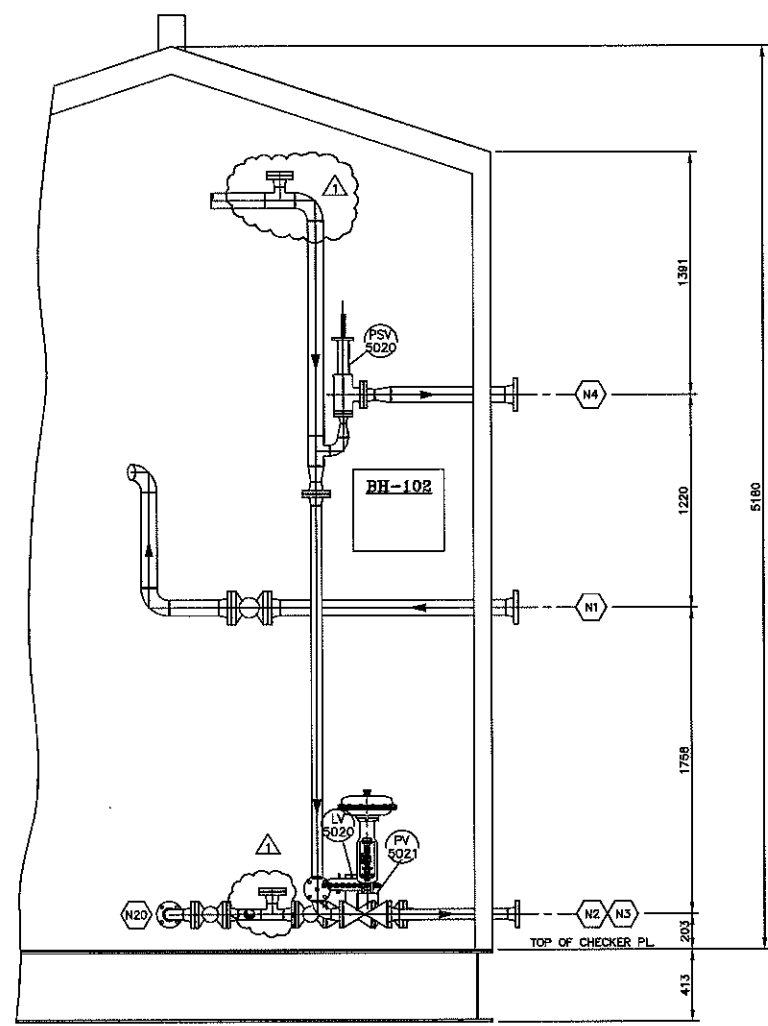
DOCUMENT DESCRIPTION: Process building Skid PKG-4000
(Sour Service) Sheet 1 of 2

VENDOR TRANSMITTAL NUMBER: # 22

NOZZLE SCHEDULE			
NOZZLE NUMBER	SIZE	RATING	SERVICE
N1	3"	150# RFWN	Y-5020 INLET
N2	2"	150# RFWN	Y-5020 GAS OULET
N3	2"	150# RFWN	Y-5020 LIQUID OULET
N4	3"	150# RFWN	Y-5020 PSV OUT
N5	3"	300# RFWN	Y-4030 EMULSION INLET
N6	2"	300# RFWN	Y-4030 FUEL GAS INLET
N7	4"	150# RFWN	Y-4030 PSV OUT
N8	2"	300# RFWN	Y-4030 GAS OULET
N9	4"	150# RFWN	Y-4030 LIQUID OULET
N10	2"	150# RFWN	BUILDING HEATERS FUEL GAS INLET
N11	2"	150# RFWN	INSTRUMENT AIR INLET
N12	2"	300# RFWN	Y-4040 EMULSION INLET
N13	2"	300# RFWN	Y-4040 GAS OULET
N14	4"	150# RFWN	Y-4040 PSV OULET
N15	2"	300# RFWN	Y-4040 FUEL GAS INLET
N16	4"	300# RFWN	Y-4040 LIQUID OULET
N17	2"	300# RFWN	Y-4040, Y-4030 DRAIN
N18	-	-	-
N19	1"	3000# NPT	VENT HEADER
N20	1"	150# RFWN	Y-5020 DRAIN
M1	2"	300# RFWN	Y-4030 MAINWAY
M2	18"	150# RFWN	Y-5020 MAINWAY
M3	18"	300# RFWN	Y-4040 MAINWAY



PLAN VIEW



SECTION VIEW 'A-A'

GENERAL NOTES:

- THIS DRAWING TO BE READ IN CONJUNCTION WITH THE MECHANICAL FLOW DIAGRAM.
- ALL ELEVATIONS ARE REF. FROM TOP OF CHECKERED PLATE.
- ALL PIPING TO BE HELD TO DIMENSIONS & ELEVATIONS SHOWN FOR CUSTOMER TIE-INS.
- MAIN PIPING TO BE BUILT IN ACCORDANCE WITH THE LATEST EDITION OF B31.3.
- ALL BUTTWELDED 0.125 C.A. PIPING TO BE:
 150 ANS: 2" - SCH 80; 2-1/2" & UP - SCH STD
 300 ANS: 2" - SCH 80; 2-1/2" & UP - SCH STD
 MATERIALS: PIPING - SA-106-B SMLS
 FLANGES - SA-105N
 FITTINGS - SA-234-NPB
 BOLTS - SA-193-B7M
 NUTS - SA-194-2HM
 GASKETS - 316 SS FLEXITALLIC
- ALL THREADED PIPING TO BE 3/4" AND SMALLER AND TO BE SCH 160 SA-106-B SMLS PIPE C/W 3000# SA-105N SCREWED FITTINGS.
- BUILDING:
 DIM: 12'-0" W x 24'-2" LG x 15'-0" EAVE, GABLE STYLE WITH 4:12 SLOPE
 22 GAUGE GALVALUME EXTERIOR WALLS AND ROOF
 R-12 BATT INSULATION IN WALLS; R-20 IN ROOF
 24 GAUGE WHITE ALUMINUM INTERIOR LINER
 6mm VAPOR BARRIER
 (2) 3'-0" x 7'-0" STEEL MANDOR (18 GAUGE DOOR, 20 GAUGE FRAME, R-4 INSULATED)
 WITH LOCKING PANIC HARDWARE, LOCKSET, 24" x 24", 1WG WINDOW, CHECK-CHAIN,
 WEATHER STRIPPING, ALUMINUM THRESHOLD, AND CANOPY.
 (2) 40" x 40" 1WG DOUBLE GLAZED SLIDING WINDOWS c/w 1/2 SCREEN AND LATCH
 (2) 18" x 32" MANUALLY ADJUSTABLE LOUVER c/w SCREENS AND MANUAL WING NUT CONTROL
 ICE RAKES AT LOWER EAVES.
 EAVES TROUGH
 DOWNSPOUTS
- UNIT TO BE COMMERCIALY SANDBLASTED TO SSPC-SP8 PRIOR TO:
 ONE(1) COAT OF RUST-OLEUM 7086 (GREY) PRIMER
 ONE(1) COAT OF RUST-OLEUM 906 (SILVER GREY) INDUSTRIAL HIGH GLOSS ENAMEL
 PIPING: AS PER ABOVE
 SKID FLOOR: AS PER ABOVE
 PIPE SUPPORTS: AS PER ABOVE
- ALL WELDED BUTTWELD PIPING SHALL BE 100% RADIOGRAPHICALLY INSPECTED (NORMAL SERVICE) BUT NOT PWHT. PIPING TO BE HARDNESS TESTED, THREE (3) READINGS ON ALL WELDS. ONE (1) IN CENTER OF WELD, ONE (1) EACH SIDE OF WELD IN HAZ SHALL BE DONE. BHN 200 MAXIMUM
- ALL PIPING SHALL BE HYDROTESTED TO 1.5 TIMES THE DESIGN PRESSURE.
- ALL PIPE SUPPORT LOCATIONS TO BE DETERMINED BY SHOP.
- ALL UNION LOCATIONS TO BE DETERMINED BY SHOP.
- UNIT IS REGISTERED FOR ALBERTA, BRITISH COLUMBIA, AND SASKATCHEWAN SERVICE.
- SHIPPING DIMENSION: 28'-4" LG x 13'-8" W x 19'-6" H TBC
- SHIPPING WEIGHT: 60,000 LBS

(1) REQ'D
 TIME CARD
 12-061-PPW

REV.	DESCRIPTION	APP'D	DATE	BY	DATE
△	REVISED AS NOTED			CF	12-08-15
△	ISSUED FOR CONSTRUCTION	KT	12-08-01	CF	12-08-01
△	REVISED AS NOTED	KT	12-05-01	CF	12-05-01
△	REVISED AS NOTED	KT	12-04-04	CF	12-04-04
△	ISSUED FOR APPROVAL	KT	12-02-21	KS	12-02-21
REV.	DESCRIPTION	APP'D	DATE	BY	DATE
PROJECT CO-ORDINATOR	CHECKED:	DATE:			

KOOTENAY INDUSTRIES LTD.
 CALGARY, ALBERTA

CADOTTE CSS PILOT 13-09-085-17 W5M
 PIPING PLAN FOR
 PROCESS BUILDING SKID PACKAGE (PKG-4000)
 (SOUR SERVICE) SHEET 1 OF 2

MURPHY OIL CANADA
 c/o VISTA PROJECTS LTD.

DATE: 12-02-06
 SCALE: 1:20

12-061-E



CODE SHEET

VISTA Projects Limited VENDOR DRAWING/DOCUMENT SQUAD CHECK			
A	Reviewed without exception. Proceed with fabrication. Issue final drawings/documents.		
B	Reviewed except as marked and/or noted. Proceed with fabrication and resubmit drawing/document. Shipment will not be released, if any drawings/documents requiring approval, as per purchase order conditions, are at this code.		
C	Not accepted. Revise as marked and resubmit drawing/document for review. Shipment will not be released, if any drawings/documents requiring approval, as per purchase order conditions, are at this code.		
D	Not required for review. Received for information.		
Reviewed only as to general conformity with the design concept and specifications provided. The engineer does not warrant or represent that the information contained on this drawing/document is either accurate or complete. Sole responsibility for correct design, detail and dimensions shall remain with the party submitting the drawing/document.			
SDR CODE	EQUIPMENT TAG	REVIEWED BY	DATE
Dm01	PKG-4000	De	2012-08-27

PROJECT NAME: Murphy Cadotte

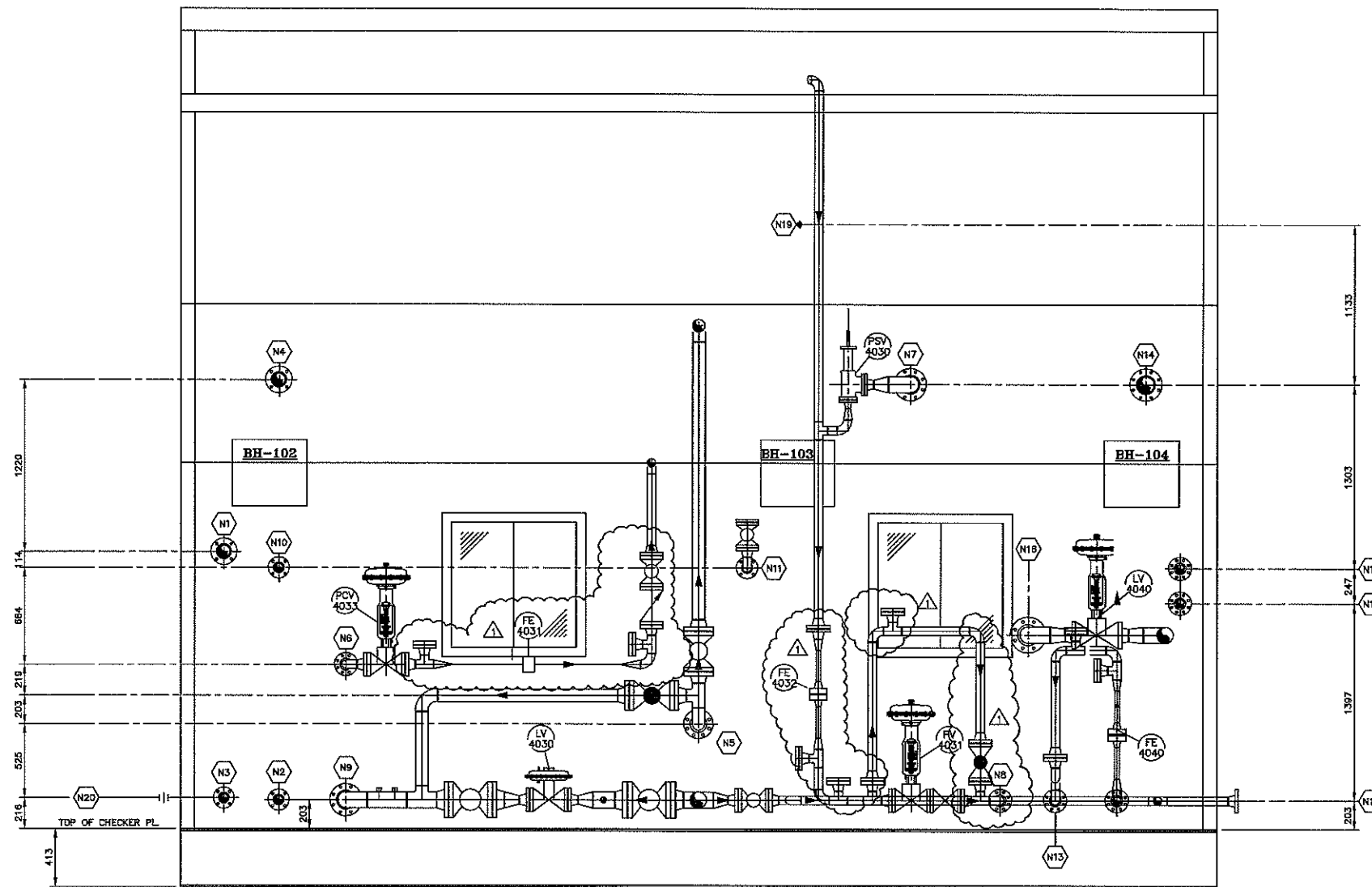
VENDOR NAME: Kootenay / 1780-012

DOCUMENT NUMBER: 12-061-E1

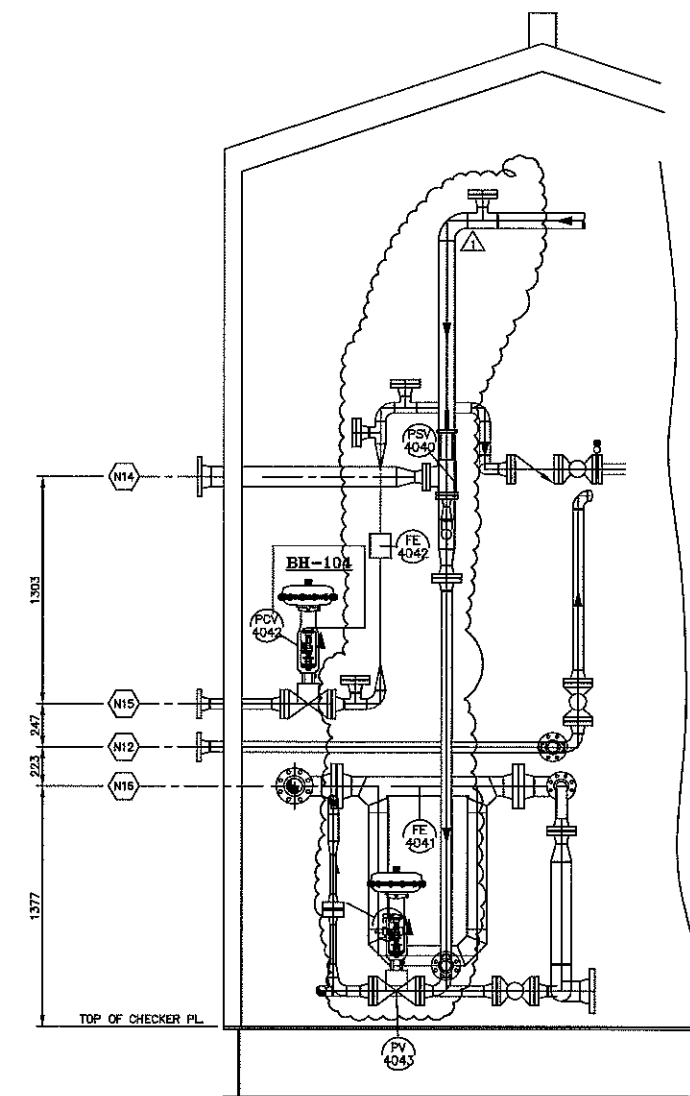
VENDOR REVISION: 1

DOCUMENT DESCRIPTION: Process building Skid PKG-4000 (Sour Service) Sheet dof 2

VENDOR TRANSMITTAL NUMBER: # 22



SECTION VIEW 'B-B'



SECTION VIEW 'C-C'

(1) REQ'D
TIME CARD
12-061-PPW

△	REVISED AS NOTED			CF	12-08-15
△	ISSUED FOR CONSTRUCTION	KT	12-08-01	CF	12-08-01
△	REVISED AS NOTED	KT	12-05-01	CF	12-05-01
△	REVISED AS NOTED	KT	12-04-04	CF	12-04-04
△	ISSUED FOR APPROVAL	KT	12-02-21	KS	12-02-21
REV.	DESCRIPTION	APP'D	DATE	BY	DATE
PROJECT CO-ORDINATOR CHECKED: DATE:		BY:			

KOOTENAY INDUSTRIES LTD.
CALGARY, ALBERTA

DATE: 12-02-06
SCALE: 1:20

CADOTTE CSS PILOT 13-09-085-17 W5M
PIPING PLAN FOR
PROCESS BUILDING SKID PACKAGE (PKG-4000)
(SOUR SERVICE) SHEET 2 OF 2

MURPHY OIL CANADA
c/o VISTA PROJECTS LTD.

12-061-E1

CODE SHEET

VISTA Projects Limited VENDOR DRAWING/DOCUMENT SQUAD CHECK			
A	Reviewed without exception. Proceed with fabrication. Issue final drawings/ documents.		
B	Reviewed except as marked and/or noted. Proceed with fabrication and resubmit drawing/document. Shipment will not be released, if any drawings/documents requiring approval, as per purchase order conditions, are at this code.		
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Reviewed only as to general conformity with the design concept and specifications provided. The engineer does not warrant or represent that the information contained on this drawing/document is either accurate or complete. Sole responsibility for correct design, detail and dimensions shall remain with the party submitting the drawing/document.			
SDR CODE	EQUIPMENT TAG	REVIEWED BY	DATE
DC 03	PKG-4000	<i>[Signature]</i>	2012-07-16

PROJECT NAME: Murphy Grotto / 1780-012

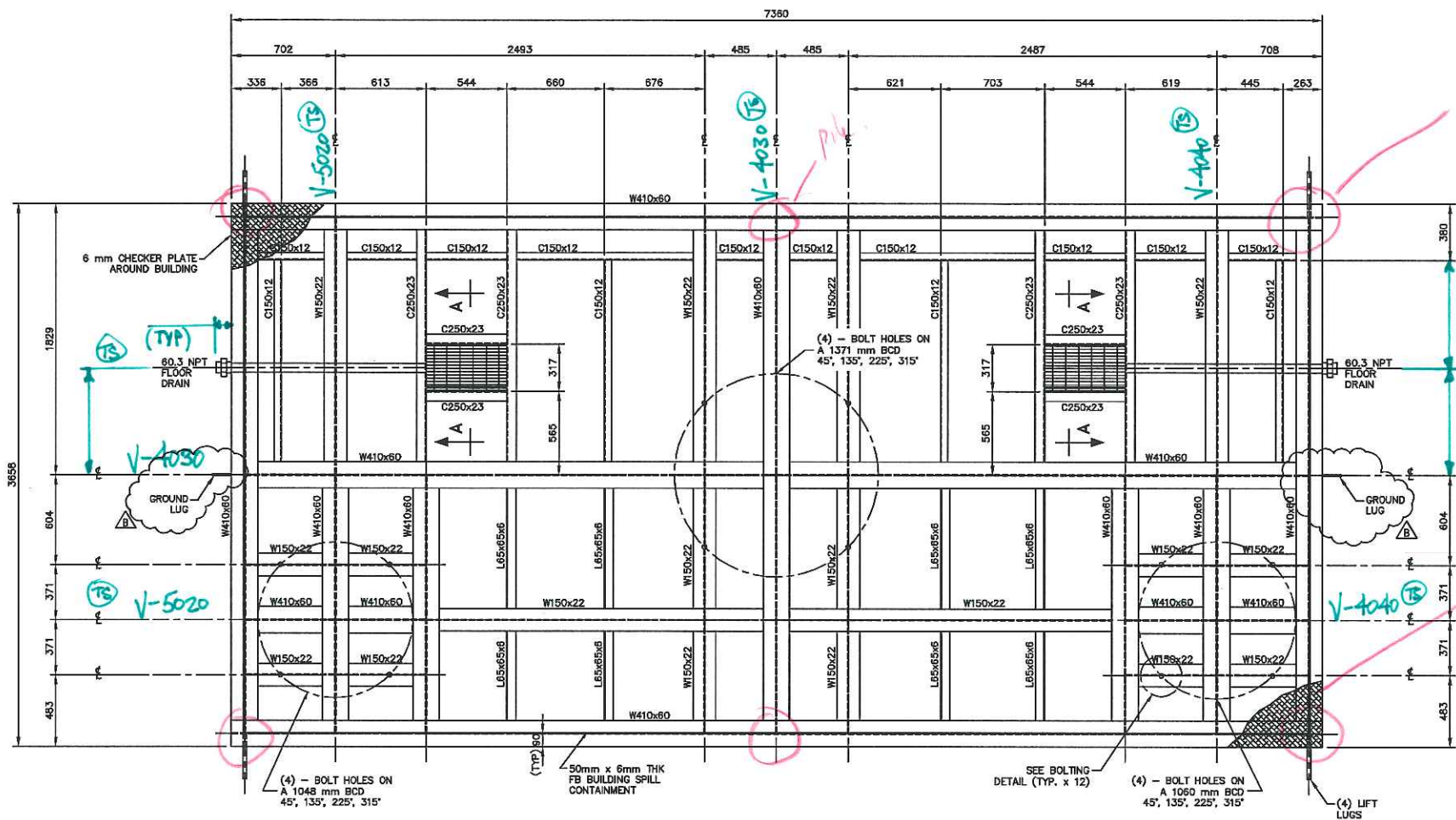
VENDOR NAME: Kootenay Industries Ltd.

DOCUMENT NUMBER: 12-061-F

VENDOR REVISION: B

DOCUMENT DESCRIPTION: Structural Steel Skid for Process Building Skid Package

VENDOR TRANSMITTAL NUMBER: #18

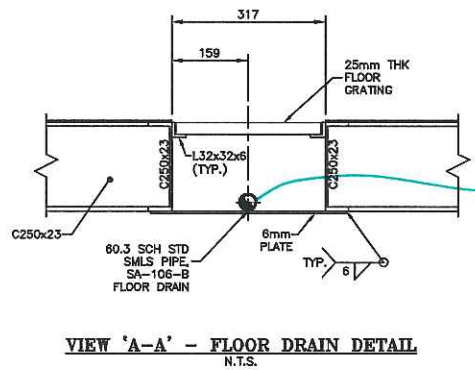
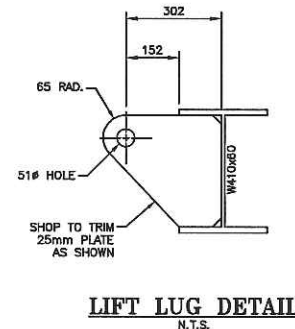
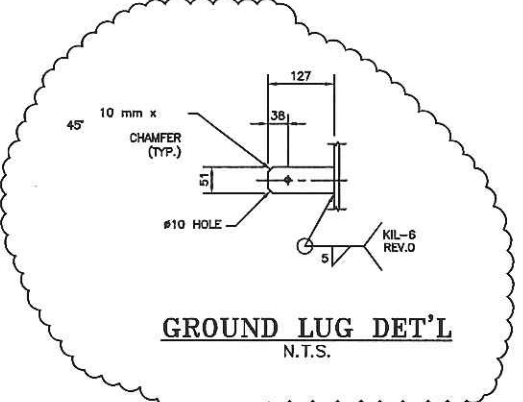
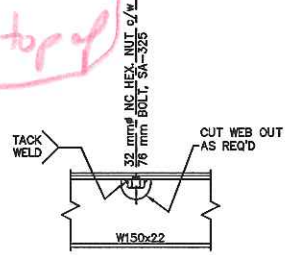


6 pile locations

Building wall shall connect to beam not on top of checker plate

GENERAL STRUCTURAL STEEL NOTES:

1. ALL DIMENSIONS ARE IN MILLIMETERS UNLESS NOTED. ALL ELEVATIONS ARE REFERRED FROM TOP OF CHECKERED PLATE.
2. ALL WORK SHALL GENERALLY CONFORM TO THE LATEST EDITIONS OF THE FOLLOWING CODES AND STANDARDS:
CSA W47.1-92
CISC HANDBOOK OF STEEL CONSTRUCTION
3. ALL STEEL SHALL BE OF NEW STOCK AND SHALL BE IN ACCORDANCE WITH CSA G40.21-M. STRUCTURAL STEEL SHALL BE GRADE 350W. PLATE MATERIAL SHALL BE 44W, EXCEPT CHECKERED PLATE TO BE A-36.
4. WELDING SHALL BE IN GENERAL CONFORMANCE WITH CSA W59-1989. FILLER METAL SHALL CONFORM TO CSA STD. W48.5-M - E4802C-6-CH. WELDS TO BE 6mm CONTINUOUS FILLET WELD UNLESS NOTED. USE ORBAN WELDING PROCEDURE AS SHOWN IN WELDING DETAILS.
5. CHECKERED PLATED SEAMS TO BE CONTINUOUSLY ON ONE SIDE. STITCH WELD TO SKID USING 5mm FILLETS 50mm AT 300mm INTERVALS.
6. CLEAN ALL STEEL SURFACES PRIOR TO PAINTING TO SSPC-SP8 COMMERCIAL SANDBLASTED.
7. ONE(1) COAT OF RUST-OLEUM 7088 (GREY) PRIMER TO A DFT OF 1.5 TO 2.0 MLS.
8. ONE(1) COAT OF RUST-OLEUM 906 (SILVER GREY) INDUSTRIAL HIGH GLOSS ENAMEL TO A DFT OF 1.5 TO 2.0 MLS.
9. STRUCTURAL STEEL SKID IS DESIGNED TO 4-POINT LIFT.
10. UNDERSIDE OF SKID SHALL BE INSULATED WITH 4" THK URETHANE C/W FIRE RETARDANT
11. WEIGHT OF STRUCTURAL STEEL SKID = 13,000 LBS (INCLUDING URETHANE SPRAY); 11,500 LBS (EXCLUDING URETHANE SPRAY)



Grind flush at 6 pile locations

IS DRAIN PIPE SLOPED AT ALL? 1:100

WELD DETAILS				
1. EXTERIOR BEAM CONN. WPDS - B-LIB-FC/F2	2. INTERIOR BEAM CONN. WPDS - B-LIB-FC/F2	3. WF/CHANNEL CONN. WPDS - F1/F2	4. ANGLE CONN. WPDS - F1/F2	5. LIFT LUG CONN. WPDS - F2

(1) REQ'D
PROJECT No. 12-061-SK

REV.	DESCRIPTION	APP'D	DATE	BY	DATE
▲	REVISED AS NOTED.			CF	12-04-05
▲	ISSUED FOR APPROVAL			KS	12-02-23

PROJECT CO-ORDINATOR CHECKED: DATE: BY:

KOOTENAY INDUSTRIES LTD.
CALGARY, ALBERTA

DATE: 12-02-23
SCALE: 1:20

CADOTTE CSS PILOT 13-09-085-17 W5M
STRUCTURAL STEEL SKID FOR
PROCESS BUILDING SKID PACKAGE (PKG-1000)

MURPHY OIL CANADA
c/o VISTA PROJECTS LTD.

12-061-F