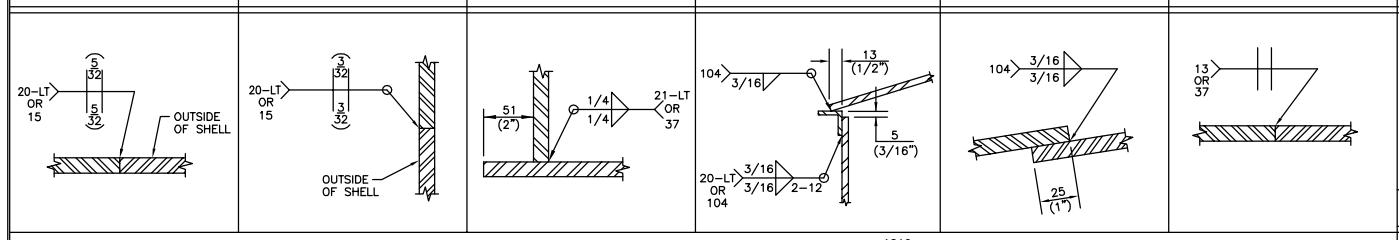
U.I.C. STANDARD WELD DETAILS (N.T.S.)

SHELL JOINT – VERTICAL	SHELL JOINT – HORIZONTAL	SHELL TO FLOOR	SHELL TO ROOF	ROOF JOINT	FLOOR JOINT



CUSTOMER SPECIFICATIONS

DESIGN CODE: API–12F MODIFIED
SERIAL NO: 017517–1 TO 25
DESIGN PRESSURE: 4 oz. PRESS. / 0.4 oz. VAC.
DESIGN TEMPERATURE: –13°C(8.6°F) TO 93°C(200°F)
OPERATING TEMPERATURE:
SERVICE: SWEET
OPERATING LEVEL:
CORROSION ALLOWANCE: NONE
OTHER:

FINISHING

INTERNAL: NONE

EXTERNAL: NONE

TESTING: LIMITED TO AIR TEST AS PER API–12F TO 6.0 oz., (SPOT X–RAY, BY OTHERS) FLOOR TO SHELL JOINT TESTED WITH DIESEL PENETRANT BEFORE WELDING EXTERNAL FLOOR TO SHELL JOINT. X–RAY ON TANK SEAMS AT DISCRETION OF HUSKY. FLOOR SEAMS TO BE VACUUM TESTED.

INSULATION: APPLY MINIMUM 51(2") URETHANE FOAM SPRAY, SEAL WITH 20–25 MILS DFT BLACK ELASTOMERIC SEALER.

NOZZLE SCHEDULE

MK	NO	SIZE	SCH	RATE	TYPE	PROJECTION INT.	PROJECTION EXT.	REPAD YES	REPAD NO	DESCRIPTION
N2	1	89 / 3"	STD	ANSI 300	RFWN	AS SHOWN	203 / 8"	✓		OIL INLET C/W INTERNAL PIPE & DEFOAMER
N3	1	60 / 2"	XS	–	PIPE	FLUSH	127 / 5"		✓	TANK LEVEL
N4 a	1	114 / 4"	XS	ANSI 150	RFSO	25 / 1"	356 / 1'–2"		✓	DRAIN C/W GATE VALVE (IN VAULT)
N4 b	1	114 / 4"	XS	ANSI 150	RFSO	25 / 1"	203 / 8"	✓		STINGER
N5	1	89 / 3"	STD	ANSI 150	RFSO	AS SHOWN	242 / 9 1/2"		✓	WATER OUTLET C/W BALL VALVE BY OTHERS & RISER (IN VAULT)
N6	1	114 / 4"	STD	ANSI 150	RFSO	AS SHOWN	166 / 6 9/16"		✓	OIL UNLOADING C/W BALL VALVE BY OTHERS, RISER & VORTEX BREAKER (IN VAULT)
N7	1	114 / 4"	STD	ANSI 150	RFSO	AS SHOWN	318 / 1'–0 1/2"		✓	WATER OUTLET C/W RISER (IN VAULT)
C3 a–e	5	25 / 1"	–	3000#	FULL CPLG	HALF	HALF		✓	SAMPLE CONNECTIONS C/W SPRING LOADED BALL VALVES (IN VAULT)
C4	1	102 / 4"	–	3000#	FULL CPLG	HALF	HALF		✓	VENT C/W GOOSENECK (NO BIRDSCREEN)
C5	1	51 / 2"	–	3000#	FULL CPLG	HALF	HALF		✓	LEVEL INDICATOR GAUGE BOARD CABLE ACCESS
C6 a,b	2	19 / 3/4"	–	3000#	FULL CPLG	HALF	HALF		✓	TI (0°C – 100°C)
C7	1	25 / 1"	–	3000#	FULL CPLG	HALF	HALF		✓	TC C/W PLUG (FUTURE)
C8	1	19 / 3/4"	–	3000#	FULL CPLG	HALF	HALF		✓	TI (200°F – 1000°F) STACK
C10	1	19 / 3/4"	–	3000#	FULL CPLG	HALF	HALF		✓	STACK SPARE C/W PLUG
C11	1	19 / 3/4"	–	3000#	FULL CPLG	HALF	HALF		✓	BURNER MAINTENANCE C/W PLUG
T1	1	219 / 8"	THIN WALL	–	FAB'D	25 / 1"	152 / 6"		✓	THIEF HATCH NOZZLE C/W RAIN CAP
M1	1	610x1219 / 2'x4'	–	–	FAB'D	25 / 1"	102 / 4"		✓	SHELL MANWAY
F1	1	254 / 10"	–	–	FAB'D	AS–SHOWN	152 / 6"	✓		THROAT NOZZLE FOR 10" REMOVABLE FIRETUBE

MATERIAL LIST

MK	QTY	DESCRIPTION	MATERIAL	WT
1	2	FLOOR PLATE (HALF) 1/4" THK. x 15'–7 1/2" DIA. (G40.21–38W)	PRT–2425	1956
2	2	ROOF PLATE (HALF) 3/16" THK. x 15'–5 13/16" FLAT DIA. (G40.21–38W)	PRT–2426	1452
3	1	SHELL PLATE 1/4" THK. x 8'–0" x 23'–11 11/16" LG.	G40.21–38W	1959
4	1	SHELL PLATE 1/4" THK. x 8'–0" x 24'–0" LG.	G40.21–38W	1960
5	3	SHELL PLATE 3/16" THK. x 8'–0" x 23'–11 1/2" LG.	G40.21–38W	4404
6	3	SHELL PLATE 3/16" THK. x 8'–0" x 24'–0" LG.	G40.21–38W	4412
7	1	RUNAROUND ANGLE 2" x 2" x 3/16" x 48'–6 3/8" LG.	G40.21–44W	118
8	1	STACK 8" THIN WALL (NO DAMPER)	REF. DWG. T–017517–B106	–
9	1	UPPER & LOWER LADDER	REF. DWG. T–017517–D103	404
10	1	BURNER PLATFORM – 1257(4'–1 1/2") x 1720(5'–7 11/16")	REF. DWG. T–017517–B104	280
11	1	BURNER CONTROL BOX (2'–0" HIGH x 2'–6" LG. x 8" DEEP)	ALUMINUM	–
12	1	3W–ARM LEVEL INDICATOR ASSEMBLY HUSKY STYLE C/W METRIC BOARD, PVC FLOAT, S.S. GUIDE WIRES, FLOOR CLIPS, SPREADER BAR & MISC. HARDWARE	REF. DWG. EDS–2720	111
13	4	LIFTING LUG	PRT–4274	30
14	1	TAILING LUG C/W REPAD	PRT–4276	10
15	1	SHELL MANWAY 2'–0" x 4'–0" C/W 1/4" COVER	PRT–1221 PRT–1673	191
16	1	NAMEPLATE BRACKET C/W NAMEPLATE	PRT–2896	5
17	6	TANK HAULING PAD	PRT–1494	180
18	1	ENVIRO–VAULT (5' x 5' DBL DOOR) & NOZZLE DETAIL	REF. DWG. T–017517–D102	613
19	1	FIRETUBE REMOVABLE U–TUBE 10" SCH STD. (EXTENDED LENGTH) 750,000 BTU/HR.	REF. DWG. T–017517–B106	2156
20	1	CHANNEL C4 x 5.4# x 7'–6 11/16" LG.	G40.21–44W	41
21	1	THIEF HATCH NOZZLE C/W RAIN CAP	REF. DWG. T–017517–A110	21
22	1	FIRETUBE BRACE FOR 10" U–TUBE	PRT–2903	6
23	1	CHANNEL C4 x 5.4# x 15'–2 5/8" LG.	G40.21–44W	82
24	4	REPAD PLATE 1/4" THK. x 6" DIA.	G40.21–38W	4
25	1	PIPE 1" SCH STD x 4'–0" LG. ERW PBE (TRIM TO SUIT)	SA–53–B	6
26	2	FLATBAR 1/4" THK. x 2" x 5" LG. (STOCK LADDER CLIP)	PRT–4283	1
27	1	INTERMEDIATE PLATFORM	REF. DWG. T–017517–C107	217
28	3	HALF COUPLING 1/4" 3000# F.S. SCR'D	SA–105	1
29				
30				
31				
32				
33				
34				
35	1	FLANGE 3" ANSI 300 RFWN x SCH STD BORE	SA–105	15
36	2	FULL COUPLING 3/4" 3000# F.S. SCR'D	SA–105	1
37	1	FULL COUPLING 1" 3000# F.S. SCR'D	SA–105	1
38	1	FULL COUPLING 2" 3000# F.S. SCR'D	SA–105	3
39	1	FULL COUPLING 4" 3000# F.S. SCR'D	SA–105	8
40	1	PIPE 3" SCH STD x 6'–4 5/8" LG. SMLS POE x BOE	SA–106–B	64
41	1	DEFOAMER 1'–10" WIDE x 3'–0" LG. (SUPPLIED BY STRONGHOLD WELDING)	C.S.	149
42	1	GROUNDING LUG	REF. DWG. EDS–2409(017517)	2
43	1	ENVIRO–VAULT WALL/ROOF DETAILS	PRT–4335	765
44	1	HEX PLUG 1" NPT	SA–105	1
45	1	BUSHING 2" x 1 1/2" 150#	M.I.	1
46	1	4" GOOSENECK VENT THR'D	PRT–2899	24
47	1	REPAD PLATE 1/4" THK. – 3" SHELL NOZZLE	PRT–1586	6
48	1	DOGHOUSE REPAD 1/4" THK. – 1'–0" x 1'–0"	PRT–4393	8
49	1	FLANGE 4" ANSI 150 RFSO	SA–105	12
50	1	PIPE 4" SCH XS x 8 7/8" LG. SMLS PBE	SA–106–B	11
51	1	CLIP GATE VALVE 2"	–	–
52	1	PIPE 2" SCH XS x 6" LG. SMLS TOE x 45° MITER	SA–106–B	2
53	2	TEMPERATURE GAUGE 4" FACE x 1'–0" LG. STEM x 1/2" NPT CONN. (–20°C – 120°C) RANGE	–	1
54	1	SAFETY GATE	REF. DWG. EDS–4105(017517)	24
55	3	TANK ROOF SAFETY HARNESS LUG	PRT–2533	1

*QTY'S ARE FOR ONE TANK – 25 REQ'D SUBTOTAL 21719 x 1.06 = 23022 lbs. TOTAL

NO	DATE (d/m/y)	REVISIONS	BY	APPD
0	03/11/08	ISSUED FOR CONSTRUCTION	JKK	

REVISIONS

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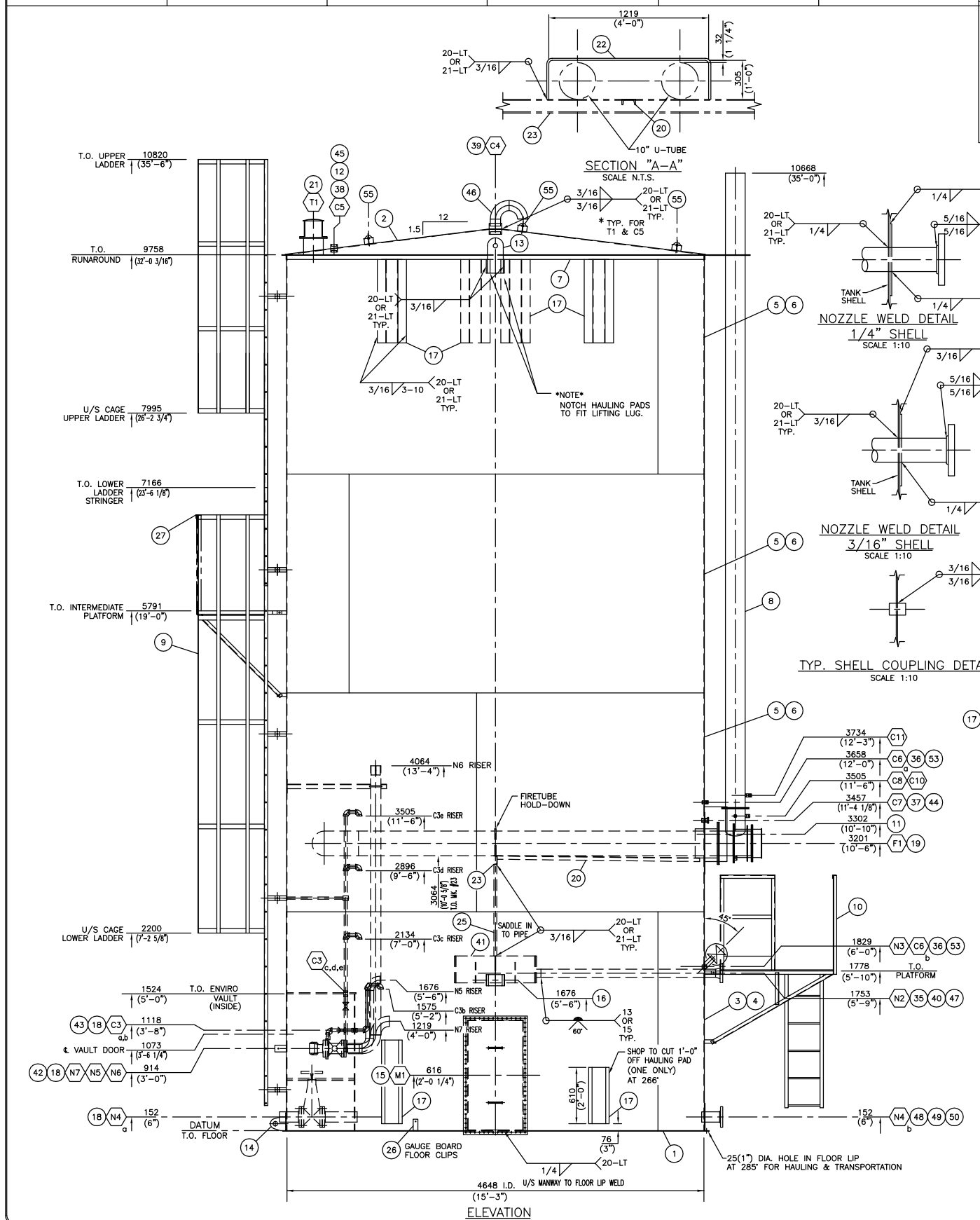
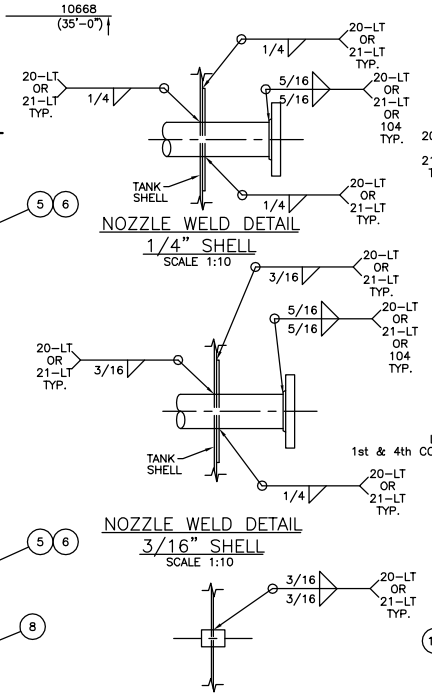
CORLAC INDUSTRIES

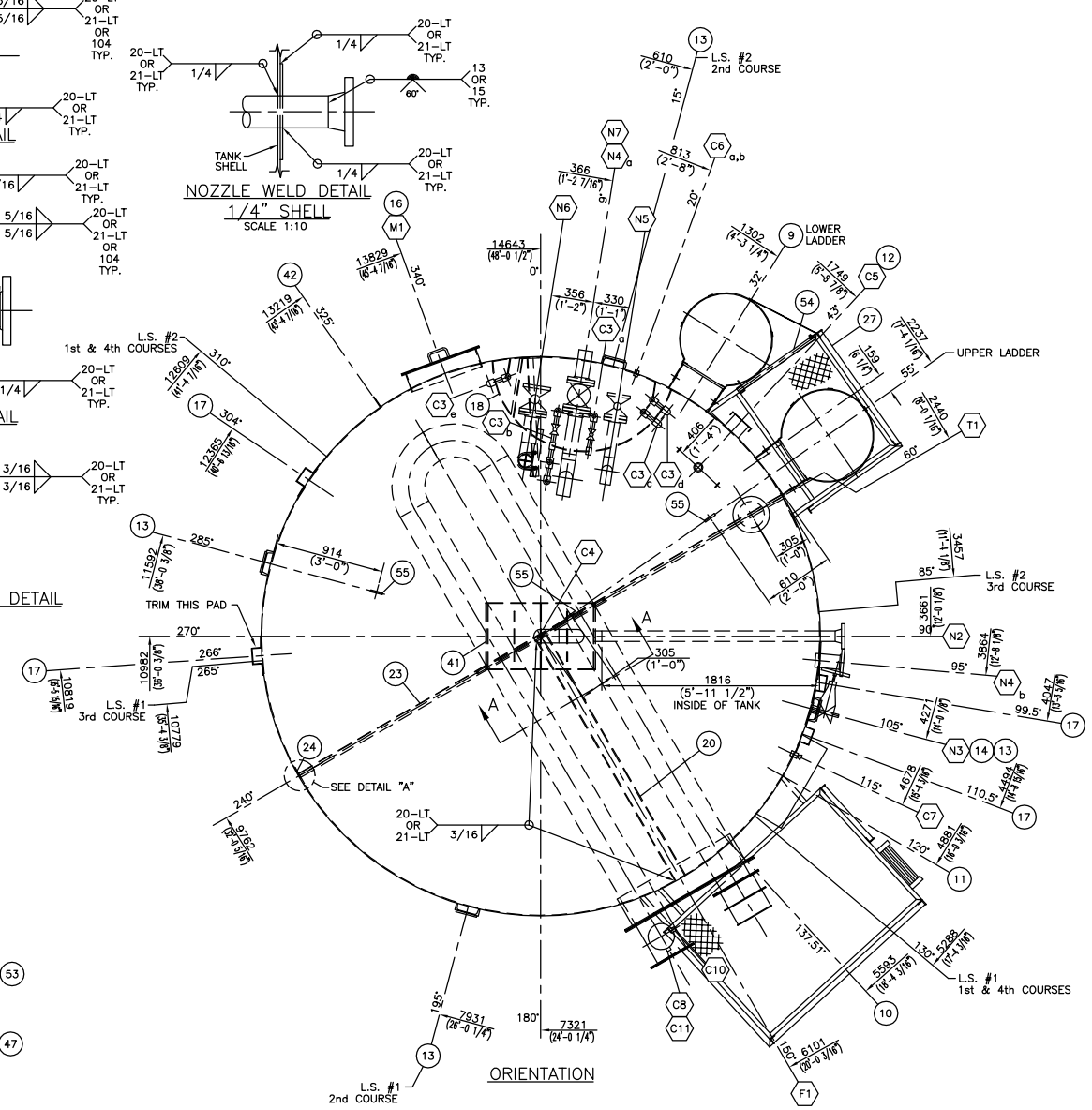
CLIENT: HUSKY OIL OPERATIONS LTD. LLOYDMINSTER, SK.

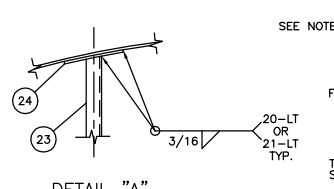
DWG TITLE: 1000 BBL PRODUCTION TANK – 2008 VERSION GENERAL ARRANGEMENT

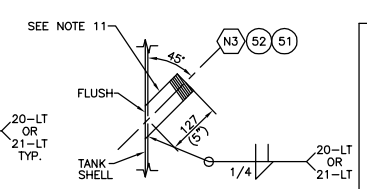
SIZE	VOLUME		
4648mm I.D. x 9758mm HIGH (15'–3" I.D. x 32'–0 3/16" HIGH)	159 CU. METERS (1000 Bbl)		
SCALE 1:30	DWN BY J. KELLY	DWG NO. T–017517–D101	SHEET NO. 1 OF 1
DATE (d/m/y) 03/11/08	CHKD / APPD		REV. NO. 0











NOTES:
1. ALL DIMENSIONS ARE IN S.I. & IMPERIAL UNITS. DIMENSIONS IN BRACKETS ARE IMPERIAL HARD CONVERSIONS FOR SHOP REFERENCE ONLY.
2. ALL FLANGE RATINGS TO BE ASME B16.5 – 2003.
3. DRILL 6(1/4") TELLTALE HOLE IN SHELL REINFORCING PADS & WELD ON HALF COUPLING (MK# 28).
4. FLANGE AND BOLT HOLES TO STRADDLE PRINCIPAL CENTERLINES OF TANK.
5. ALL NOZZLE PROJECTIONS GIVEN ARE ALONG THE NOZZLE CENTERLINE.
6. UNIVERSAL INDUSTRIES INSPECTION LEVEL 3.
7. SHIP BURNER PLATFORM LOOSE.
8. DELETED.
9. FOR INSTALLATION OF FIRETUBE, SEE DWG. T–017517–B106.
10. GAUGEBOARD C/W RED LINE WARNING FROM THE RANGE OF 0–64.5 CUBIC METERS.
11. INSTALL VALVE BEFORE WELDING IN NIPPLE.
12. UNIVERSAL INDUSTRIES IS NOT RESPONSIBLE FOR ENVIRO–VAULT DESIGN, BUT ARE RESPONSIBLE FOR ITS INTEGRATION INTO THE TANK. THE ENTIRE TANK, INCLUDING THE ENVIRO–VAULT, IS TO MEET THE DESIGN PRESSURE/VACUUM CONDITIONS SPECIFIED ABOVE.

\DWG\WO–017517\101017517