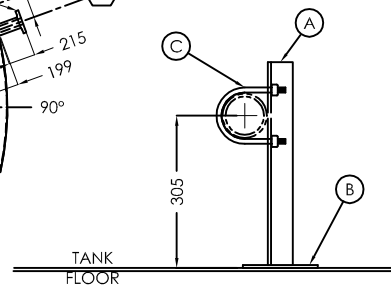
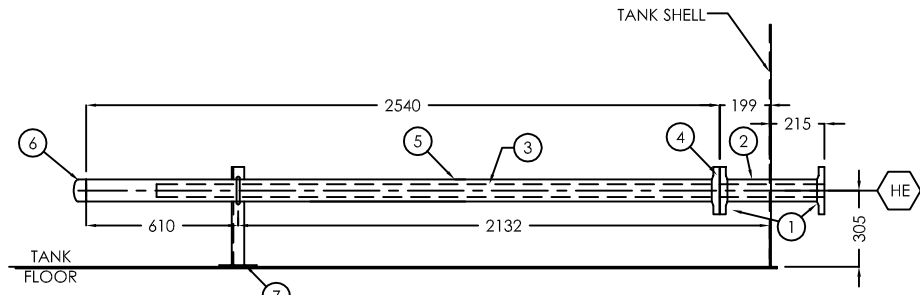


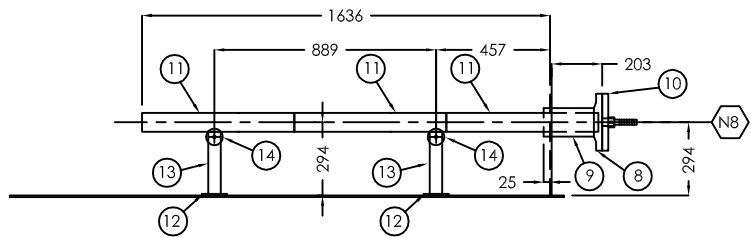
IMMERSION HEATER WELL ORIENTATION



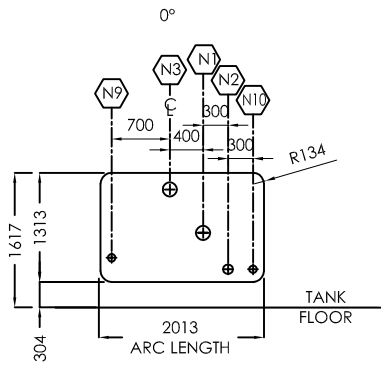
SUPPORT BRACKET DETAIL



IMMERSION HEATER WELL ELEVATION



N8 - ANODE



COMMON REPAD
ROLL TO TANK O.D. - INCLUDE WEEP HOLES

BILL OF MATERIALS				
MARK	QTY	MAT'L	DESCRIPTION	SERVICE
HE - IMMERSION HEATER WELL				
1	4	316SS	89 DIA. (3") 150# RF50 FLANGE	
2	2	316SS	89 DIA. (3") STD. SM1S x 355 LG.	
3	2		2667 T.G. (105") PIPE-INSERT (SEE DESIGN NOTE #2 & 3)	
4	2	316SS	89 DIA. (3") 150# RF50 FLANGE	
5	2	316SS	89 DIA. (3") STD. SM1S x 2525 LG.	
6	2	316SS	89 DIA. (3") STD. SCH. 40 WELD CAP	
7	2		SUPPORT BRACKET (SEE DETAIL THIS SHT.)	
HEATER WELL SUPPORT BRACKET				
A	2	316SS	6.4 x 51 x 51 ANGLE x SHOP TO DETERMINE LENGTH	
B	2	316SS	6.4 x 100 x 100 BASEPLATE	
C	2	316SS	89 DIA. (3") II-BOLT c/w NUTS	
N8 - ANODE				
8	1	A105	114 DIA. (4") 150# RF50 FLANGE	
9	1	A106	114 DIA. (4") STD. SM1S x 220 LG.	
10	1	A105	114 DIA. (4") 150# BLIND FLANGE	
11	3		76 x 610 ALUM. ANODE MOUNTED ON 114 DIA. (4") BLIND FLG. c/w 114 DIA. FLG. INSULATION KIT	
12	2	A36	6.4 PL x 100 x 178 BASE PLATE	BASE PL SIDE
13	4	316SS	6.4 PL x 50 x 245 LG.	
14	2		76 DIA. (3") WOODEN ANODE WHEEL	

NOZZLES				
MARK	PROJECTIONS	ELEV.	ORIE.	NOTES
	EXT.	INT.		
HE1	215mm	152mm	305mm	250° ELEC. HEATER 1
HE2	215mm	152mm	305mm	70° ELEC. HEATER 2
N8	203mm	75mm	294mm	315° ANODE

DESIGN NOTES

- ALL DIMENSIONS ARE IN mm.
- PIPE INSERT IMMERSION HEATER 1:
-MODEL # MX1305F3105TX 480V 3 Φ 5KW
-3" 150 # FLANGE
-105" INSERT LENGTH
-EXPLOSION PROOF TERMINAL BOX
-3" HEATER WELL (316SS SCH. 40) c/w FLOOR SUPPORTS
- PIPE INSERT IMMERSION HEATER 2:
-MODEL # MX1305F3105TX 480V 3 Φ 5KW
-3" 150 # FLANGE
-105" INSERT LENGTH
-EXPLOSION PROOF TERMINAL BOX
-300°F TO 700°F PILOT DUTY CYCLING HIGH LIMIT
-3" HEATER WELL (316SS SCH. 40) c/w FLOOR SUPPORTS

INTERNAL & EXTERNAL FINISH			
3	ISSUED FOR FABRICATION	RR	07.25.05
2	ISSUED FOR PARTS AND ORDERING ONLY	RR	07.12.05
1	ISSUED FOR APPROVAL	RR	06.10.05
0	ISSUED FOR REVIEW / APPROVAL	RR	06.06.05
NO.	DESCRIPTION	BY	DATE

CUSTOMER: FORT ENERGY CORPORATION c/o BDR ENGINEERING LTD.
R.P.O.# 43874-27 REV. 0
LOCATION: LSD 11-17-63-06-W5M (CLEARWATER GAS PLANT)

TITLE: ELECTRIC HEATERS, ANODE AND COMMON REPAD DETAIL

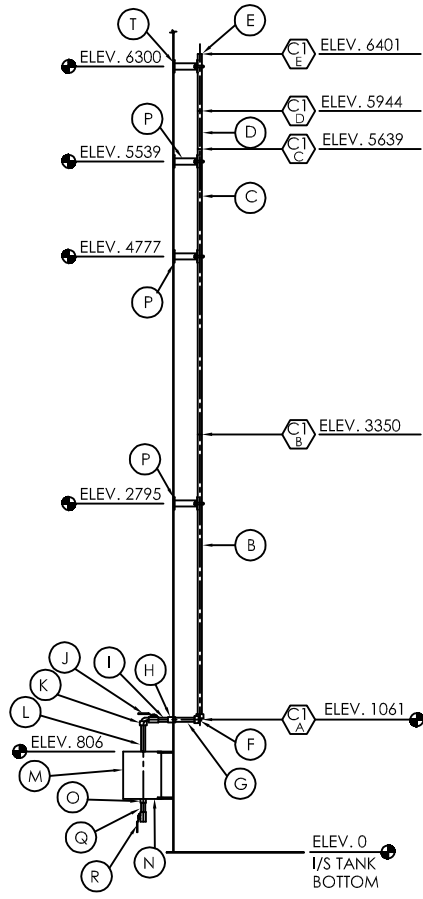
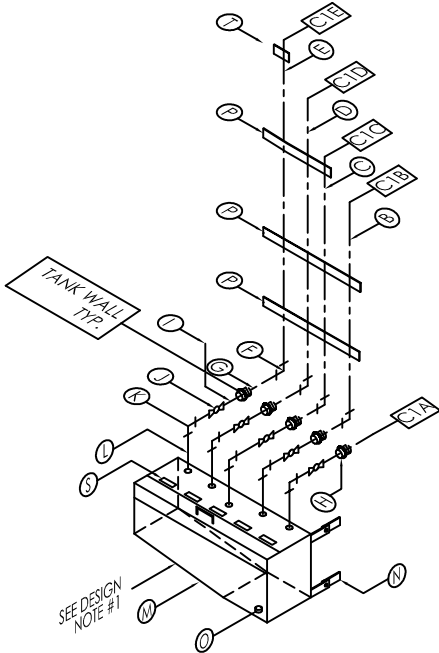
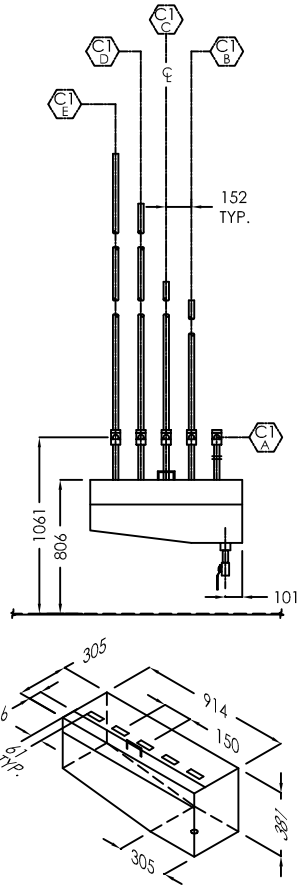
	APPROVED BY:	CHECKED BY:	DRAWN BY:	RR
	DATE:	05/31/05	TAG #:	F-700
	SHEET:	3 OF 6	SCALE:	NTS
	DRAWING #:	B-7370_D2	REV.	
	SERIAL #:	7370		

FORT ENERGY c/o BDR ENGINEERING

CUSTOMER

NOZZLE DETAILS

TITLE: TQ05-234E_R1



BILL OF MATERIALS

MARK	QTY	MATL	DESCRIPTION	SERVICE
A			NOT REQUIRED	
B	1	316SS	33 DIA. (1") THRD PIPE x 2258 LONG	
C	1	316SS	33 DIA. (1") THRD PIPE x 4547 LONG	
D	1	316SS	33 DIA. (1") THRD PIPE x 4852 LONG	
E	1	316SS	33 DIA. (1") THRD PIPE x 5309 LONG	
F	4	316SS	33 DIA. (1") 150# 90° THRD ELBOW	
G	4	316SS	33 DIA. (1") THRD PIPE x 185 LONG	
H	5	316SS	33 DIA. (1") 3000# FULL CPLG. x 89 LG.	
I	6	316SS	33 DIA. (1") SCH. 80S THRD NIPPLE x 76 LONG	
J	6		33 DIA. (1") NAVCO-NUTRON ECONOMY BAR STOCK	
K	5	A105	2000# THRD BALL VALVE, NACE SPEC. c/w 316SS TRIM	
L	5	A106	33 DIA. (1") 3000# 90° STREET ELBOW	
M	1	A36	SAMPLE BOX (RIGHT HAND) - SEE DETAILS THIS SHEET	
N	3	A36	SAMPLE BOX CLIP c/w BOLT	
O	1	A105	60 DIA. 12" COUPLING	
P	6	A36	6.4 THK. x 100 x 100 LONG FLAT BAR	TAB BASEPLATE
Q	6	316SS	6.4 THK. x 50 FLAT BAR (LENGTH TO BE SHOP DETERMINED)	TABS
R	3	316SS	6.4 THK. x 50 FLAT BAR (LENGTH TO BE SHOP DETERMINED)	PIPE SUPPORTS
S	11	304SS	U-BOLTS c/w NUTS	
T	1	A106	60 DIA. 12" THRD NIPPLE x 76 LONG	
U	1		60 DIA. 12" NAVCO-NUTRON ECONOMY BAR STOCK	
V	1		2000# THRD BALL VALVE NACE SPEC. c/w 316SS TRIM	
W	5	316SS	4.8 THK. x 25 x 76 LG. ELEVATION TAGS (MAX. ELEVATION OF INTERNAL PIPING TO BE STAMPED ON TAGS)	
X	1	A36	6.4 THK. x 100 x 100 LONG FLAT BAR	
Y	1	316SS	6.4 THK. x 50 x 50 ANGLE (LENGTH TO BE SHOP DETERMINED)	
Z	1	304SS	U-BOLT c/w NUT	

NOZZLES			
MARK	PROJ.	ELEV.	NOTES
C1A	N/A	1061mm	
C1B	N/A	1061mm	
C1C	N/A	1061mm	
C1D	N/A	1061mm	
C1E	N/A	1061mm	

DESIGN NOTES

- ALL DIMENSIONS ARE IN mm.
- ALL ELEVATIONS TAKEN FROM TOP OF TANK FLOOR.
- SAMPLE BOX TO BE REMOVABLE.

INTERNAL & EXTERNAL FINISH

SAMPLE BOX FINISH:
 BLAST: SSPC-SP6 COMMERCIAL BLAST USING SIL 7 SAND
 PRIME: 1.5 - 2.0 mils DFT CLOVERDALE TOWER OR RUSTEX #71029
 PAINT: 1.5 - 2.0 mils DFT CLOVERDALE MARINE ENAMEL. COLOR-STONE GRAY

REVISIONS			
NO.	DESCRIPTION	BY	DATE
2	ISSUED FOR FABRICATION	RR	07.25.05
1	ISSUED FOR PARTS AND ORDERING ONLY	RR	07.12.05
0	ISSUED FOR REVIEW/MARKUP	RR	06.06.05

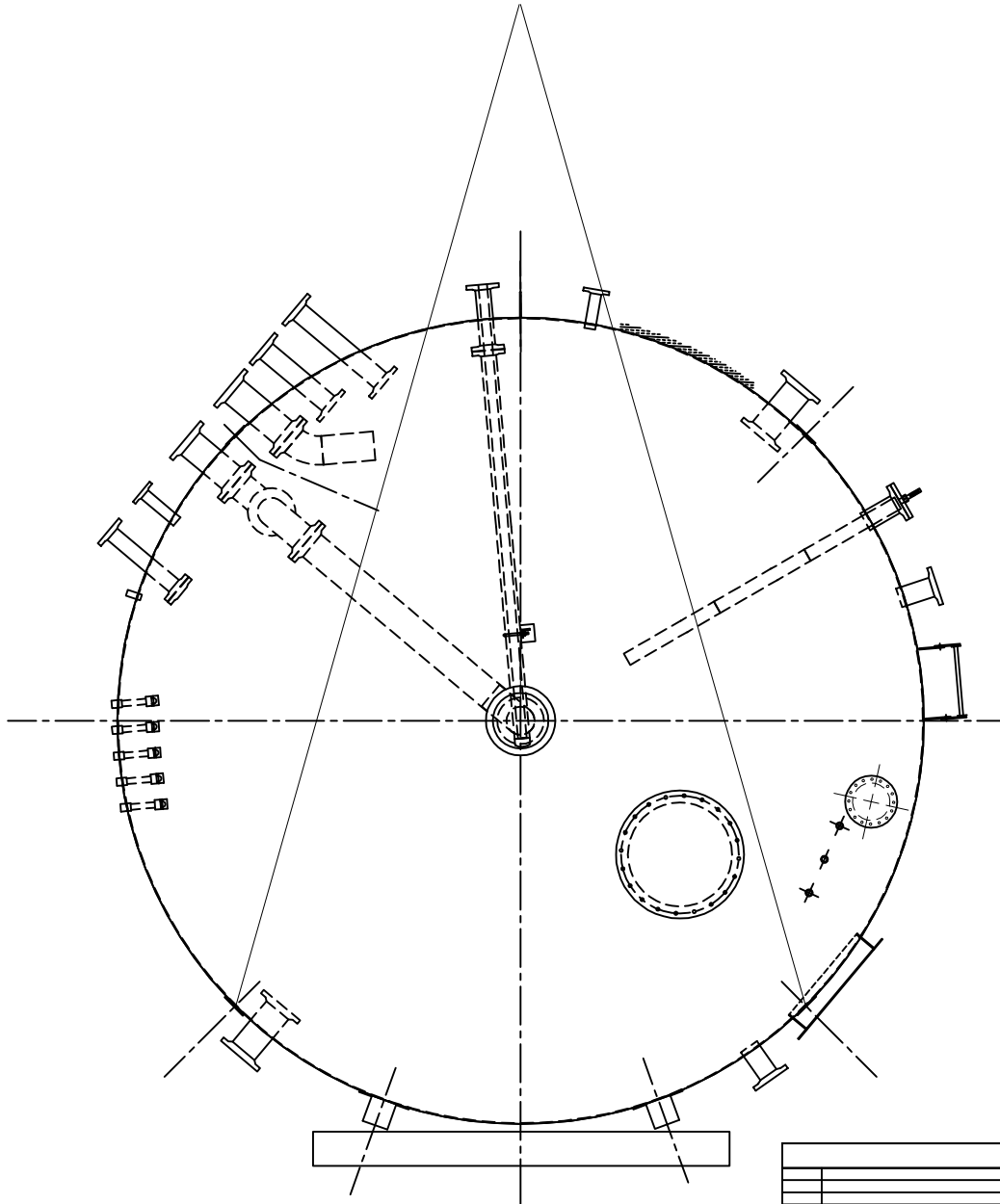
CUSTOMER: FORT ENERGY CORPORATION c/o BDR ENGINEERING LTD.
 R.P.O.# 43874-27 REV. 0
 LOCATION: LSD 11-17-63-06-W5M (CLEAR WATER GAS PLANT)

TITLE: - SAMPLE BOX AND PIPING DETAILS - (RIGHT HAND)



APPROVED BY:	CHECKED BY:	DRAWN BY: RR
DATE: 05/27/05	TAG #: T-700	DRAWING #: B-7370_SB
SHEET: 6 OF 6	SCALE: NTS	SERIAL #: 7370

ARGO TRAILER LTD.

FORT ENERGY c/o BDR ENGINEERING
 CUSTOMER:
 - SAMPLE BOX AND PIPING DETAILS (RIGHT HAND) -
 TITLE:
 QUOTE #: TQ05-234E-R1



REVISIONS			
NO.	DESCRIPTION	BY	DATE

TITLE: LIFT LUG LAYOUT				
	APPROVED BY:	CHECKED BY:	DRAWN BY:	RR
	DATE: 05/27/05	TAG #:	DRAWING #:	8-7370
	SHEET: OF	SCALE: NTS	SERIAL #:	7370
				

CUSTOMER: FORT ENERGY c/o BDR ENGINEERING

TITLE: LIFT LUG LAYOUT

QUOTE #: TQ05-234E_R1