

NOZZLES					
MARK	PROJECTIONS		ELEV.	ORIE.	NOTES
	EXT.	INT.			
CTA-E	44mm	--	1041mm	45°	SAMPLE POINTS
C2	76mm	--	ROOF	180°	RADAR TRANS.
LT	76mm	--	ROOF	265°	LEVEL TRANS.
N1	247mm	152mm	894mm	--	INLET
N2	342mm	152mm	437mm	--	PUMP SUCTION
N3	203mm	152mm	1365mm	50°	VAPOR OUT
N4	203mm	25mm	127mm	160°	DRAIN
N5	203mm	25mm	ROOF	--	VENT
N6	342mm	152mm	591mm	--	BLANKET GAS
N7	247mm	152mm	894mm	--	TRUCK OUT
N8	203mm	25mm	294mm	115°	ANODE
N9	203mm	25mm	5484mm	205°	HLSD
N10	203mm	25mm	610mm	205°	LLSD
N11	203mm	25mm	305mm	300°	TI
HE	203mm	25mm	305mm	315°	ELECTRIC HEATER
EPRV	203mm	25mm	ROOF	135°	EPRV

DESIGN NOTES	
1.	TANK TO BE BUILT AND TESTED TO API-12F SPEC. MODIFIED (NON-LABELED)
2.	TANK TO BE AIR/SOAP LEAK TESTED TO 12 OZ. / SQ. IN.
3.	ROOF/SHELL JOINTS NOT TO BE BACKWELDED
4.	ESTIMATED SHIPPING WEIGHT = 4990 KG. (11000#)
5.	REFER TO ORIENTATION DRAWING FOR PROPER LOCATION OF ALL NOZZLES, COUPLINGS, ETC.
6.	ALL DIMENSIONS ARE IN mm.
7.	CAGE LADDER/ ROOF PLATFORM AND SAMPLE BOX TO BE SHIPPED LOOSE.
8.	ALUMINUM ANODE TO BE SHIPPED LOOSE.
9.	BEAT NUMBERS AND MITS TO BE RECORDED.
10.	BOLT HOLES TO STRADDLE PRIMARY CENTER LINES.
11.	IMMERSION HEATER TO BE SHIPPED LOOSE.

INTERNAL & EXTERNAL FINISH			
1. INTERNAL FINISH			
BLAST:	SSPC-SP5 WHITE METAL BLAST USING SIL 7 SAND		
COATING:	20.0- 40.0 MILS DFT OF ENVIROLINE EC-376 EPOXY COATING		
2. EXTERNAL FINISH			
BLAST:	SSPC-SP6 COMMERCIAL BLAST USING SIL 7 SAND		
PRIMER:	1.5 - 2.0 MILS DFT OF CLOVERDALE TOWER OR RUSTEX #71024 GRAY		
INSULATION:	2" MINERAL WOOL INSULATION & 0.20" SMOOTH CORRUGATED ALUMINUM CLADDING c/w 2" STAINLESS STEEL BANDING. COLOR: STONE GRAY		
PAINT:	ALL PROJECTIONS, 1.5 - 2.0 MILS DFT OF CLOVERDALE MARINE ENAMEL - COLOR STONE GRAY		
3. BOTTOM FINISH			
BLAST:	SSPC-SP4 COMMERCIAL BLAST		
COATING:	15 - 20 MILS DFT OF COAL TAR EPOXY		
REVISIONS			
3	ISSUED FOR FABRICATION	RR	07.25.05
2	ISSUED FOR PART AND ORDERING	RR	07.12.05
1	ISSUED FOR APPROVAL	RR	06.13.05
0	ISSUED FOR REVIEW/MARKUP	RR	06.06.05
NO.	DESCRIPTION	BY	DATE

BILL OF MATERIALS				
MARK	QTY	MAT'L	DESCRIPTION	SERVICE
1	1	A36	6.4 PL. x 3710 DIA. FLAT BOTTOM	
2	4	A36	4.8 PL. x 1524 x 11477 LG. SHELLS	
3	1	A36	4.8 PL. x 3740 DIA. CONED ROOF (2:12 SLOPE)	
4	1	A36	NAMEPLATE & BRACKET	
5	2	A36	LARGE LIFT LUGS	
6	1	A36	TAIL LUG c/w REPAD	
7	4	A36	INSULATION STAND OFFS	
8	1	A36	CAGED LADDER c/w 405 EXT. (SEE SHT. B-16349-CL FOR DETAILS)	
9	1	A36	ROOF PLATFORM (SEE SHT. B-16349-B FOR DETAILS)	
10	1	A36	SAMPLE BOX (SEE SHT. B-16349-SB FOR DETAILS)	
M1	1	A36	610 x 914 (24" x 36") RECT. MANWAY	
	1	A36	762 x 1066 RECT. SPLIT MANWAY COVER (MOUNT FLUSH WITH FLOOR)	
AH	1	A36	219 DIA. (8") ENARDO 1000 SERIES LOCK DOWN HATCH	
	1	A36	219 DIA. (8") ARGON FABRICATED THIEF HATCH EXTENSION	
EPRV	1	A105	610 DIA. (24") x 9.5 THK. API ROOF FLANGE	EPRV
	1	A106	610 DIA. (24") STD. SMLS PIPE x 273 LG.	
	1	A106	610 DIA. (24") ENARDO 2524-111V-2-238/20.5	
LT	1	316SS	60 DIA. (2") 3000# NPT FULL COUPLING	LEVEL TRANS.
	2	316SS	60 DIA. (2") 3000# NPT FULL COUPLING	
	1	316SS	REDTAL MODEL GAUGE BOARD/ FLOAT SYSTEM c/w GAUGE BOARD BRACKET (ARGON TO INSTALL BRACKETS & ANCHORS ONLY. GAUGE SYSTEM SUPPLIED & INSTALLED BY OTHERS)	
CTA-E	5	316SS	33 DIA. (1 1/4") 3000# NPT FULL COUPLING x 89 LG.	SAMPLE POINTS
C2	1	316SS	48 DIA. (1 1/2") 3000# NPT FULL COUPLING x 102 LG.	RADAR TRANS.
N1	2	A105	60 DIA. (2") 150# RFSG FLG.	INLET
	1	A106	60 DIA. (2") STD. SMLS PIPE x 418 LG.	
	1	316SS	27 DIA. (3/4") 3000# FULL CPLG w/ PLUG ON U/S OF NOZZLE (SEE SHT. B-16349-D1 FOR PIPING DETAILS)	
N2	2	A105	89 DIA. (3") 150# RFSG FLG.	PUMP SUCTION
	1	A106	89 DIA. (3") STD. SMLS PIPE x 555 LG.	
	1	316SS	27 DIA. (3/4") 3000# FULL CPLG w/ PLUG ON U/S OF NOZZLE (SEE SHT. B-16349-D1 FOR PIPING DETAILS)	
N3	2	316SS	148 DIA. (6") 150# RFSG FLG.	VAPOR OUT
	1	316SS	148 DIA. (6") SCH. 40 SMLS PIPE x 361 LG.	
	1	316SS	27 DIA. (3/4") 3000# FULL CPLG w/ PLUG ON U/S OF NOZZLE (SEE SHT. B-16349-D1 FOR PIPING DETAILS)	
N4	1	A105	89 DIA. (3") 150# RFSG FLG.	DRAIN
	1	A106	89 DIA. (3") STD. SMLS PIPE x 218 LG.	
N5	1	A105	273 DIA. (10 1/2") 150# RFSG FLG.	VENT
	1	A106	273 DIA. (10 1/2") STD. SMLS PIPE x 240 LG.	
	1	A106	273 DIA. (10 1/2") 150# RF BLIND FLG.	BLIND
N6	2	A105	60 DIA. (2") 150# RFSG FLG.	BLANKET GAS
	1	A106	60 DIA. (2") STD. SMLS PIPE x 540 LG.	
N7	2	A105	60 DIA. (2") 150# RFSG FLG.	TRUCK OUT
	1	A106	60 DIA. (2") STD. SMLS PIPE x 418 LG.	
N8	1	A105	114 DIA. (4 1/2") 150# RFSG FLG.	ANODE
	1	A106	114 DIA. (4 1/2") STD. SMLS PIPE x 220 LG.	
	1	A106	114 DIA. (4 1/2") STD. SMLS PIPE x 219 LG.	
N9	1	A105	114 DIA. (4 1/2") 150# RFSG FLG.	HLSD
	1	A106	114 DIA. (4 1/2") STD. SMLS PIPE x 219 LG.	
N10	1	A105	114 DIA. (4 1/2") 150# RFSG FLG.	LLSD
	1	A106	114 DIA. (4 1/2") STD. SMLS PIPE x 219 LG.	
N11	1	A105	60 DIA. (2") 150# RFSG FLG.	TI
	1	A106	60 DIA. (2") STD. SMLS PIPE x 218 LG.	
HE	2	316SS	89 DIA. (3") 150# RFSG FLG.	ELECTRIC HEATER 1
	1	316SS	89 DIA. (3") STD. SMLS PIPE x 355 LG. (SEE SHT. B-16349-D2 FOR PIPING DETAILS)	

CUSTOMER: FORT ENERGY CORPORATION c/o BDR ENGINEERING LTD. RPO# 43874 -29 Rev. 0 CLEARWATER GAS PLANT L.S.D. 11-17-63-06-W5M			
TITLE:		ONE (1) 64 CU. M. (400 BBL) 3658 x 6096 HIGH NON-SKIDDED SKIM TANK	
APPROVED BY:	CHECKED BY:	DRAWN BY:	RR
DATE: 05.31.05	TAG #:	T-702	B-16349 REV.
SHEET: 1 OF 6	SCALE:	NTS	SERIAL#: 16349

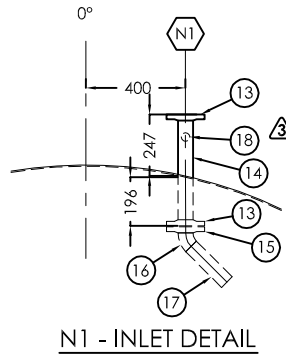
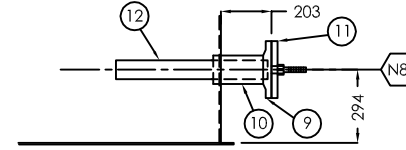
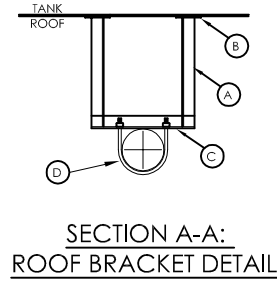
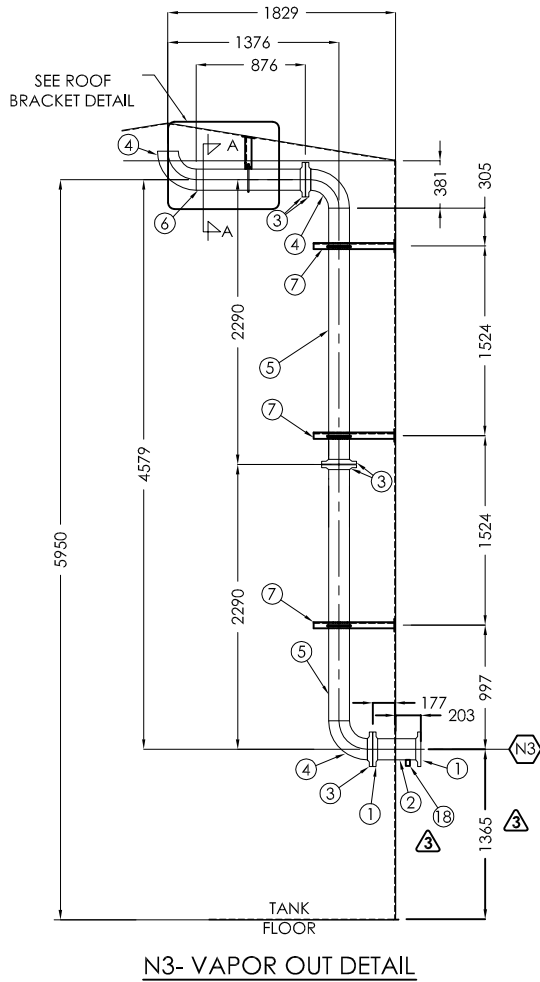


FORT ENERGY CORPORATION c/o BDR ENGINEERING LTD.

CUSTOMER:

400 BBL NON-SKIDDED STORAGE TANK

TITLE: 1005-234D-R1 QUOTE #:



N8 - ANODE

N1 - INLET DETAIL

BILL OF MATERIALS				
MARK	QTY	MAT'L	DESCRIPTION	SERVICE
N3 - VAPOR OUT				
1	2	316SS	168 DIA. (6") 150# RFSO FLG.	
2	1	316SS	168 DIA. (6") SCH. 40S ERW SMLS PIPE x 361 LG.	
3	5	316SS	168 DIA. (6") 150# RFSO FLG.	
4	3	316SS	168 DIA. (6") 10S 90° ELVE	
5	2	316SS	168 DIA. (6") SCH. 10S ERW SMLS PIPE x 2044 LG.	
6	1	316SS	168 DIA. (6") SCH. 10S ERW SMLS PIPE x 861 LG.	
7	3	316SS	50 x 50 x 6 ANGLE x TO BE SHOP DETERMINED	
8	3	316SS	6 THK. x 100 SQ. BASE PLATE	
	3	316SS	168 DIA. (6") U-BOLT c/w NUTS	
	3	316SS	ROOF SUPPORT BRACKET (SEE DETAIL THIS SHY.)	
ROOF SUPPORT BRACKET				
A	1	316SS	50 x 50 x 4 ANGLE x TO BE SHOP DETERMINED	
B	1	316SS	6 THK. x 100 SQ. BASE PLATE	
C	1	316SS	50 x 50 x 6 ANGLE x TO BE SHOP DETERMINED	
D	1	316SS	168 DIA. (6") U-BOLT c/w NUTS	
N8 - ANODE				
9	1	A105	114 DIA. (4") 150# RFSO FLANGE	
10	1	A106	114 DIA. (4") STD. SMLS x 220 LG.	
11	1	A105	114 DIA. (4") 150# BLIND FLANGE	
12	1		76 x 610 ALUM. ANODE MOUNTED ON 114 DIA. (4") BLIND FLG. c/w 114 DIA. FLG INSULATION KIT	
N1 - INLET				
13	2	A105	60 DIA. (2") 150# RFSO FLANGE	
14	1	A106	60 DIA. (2") STD. SMLS x 418 LG.	
15	1	316SS	60 DIA. (2") 150# RFSO FLANGE	
16	1	316SS	60 DIA. (2") 10S 45° ELL.	
17	1	316SS	60 DIA. (2") STD. SMLS x 203 LG.	
DRAIN POINTS ON N1 AND N3				
18	2	316SS	27 DIA. (3/4") 3000# FULL CPFG w/ PLUG ON LHS OF NOZZLE	

CUSTOMER: FORT ENERGY CORPORATION c/o BDR ENGINEERING LTD.
R.P.O # 43874-29 REV. 0
LOCATION: LSD 11-17-63-06-W5M (CLEAR WATER GAS PLANT)

TITLE: NOZZLE DETAILS

NOZZLES				
MARK	PROJ.	ELEV.	ORIE.	NOTES
N1	EXT.	INT.		
N1	247mm	152mm	894mm	INLET
N3	203mm	152mm	1365mm	0° VAPOR OUT
N8	203mm	25mm	294mm	115° ANODE

DESIGN NOTES	
1.	ALL DIMENSIONS ARE IN mm.

INTERNAL & EXTERNAL FINISH			
REVISIONS			
3	ISSUED FOR FABRICATION	RR	07.25.05
2	ISSUED FOR PARTS AND ORDERING	RR	07.12.05
1	ISSUED FOR APPROVAL	RR	06.13.05
0	ISSUED FOR REVIEW/APPROVAL	RR	06.06.05
NO.	DESCRIPTION	BY	DATE

	APPROVED BY:	CHECKED BY:	DRAWN BY:	RR
	DATE:	05/27/05	TAG #:	T-702
	SHEET:	2 OF 6	SCALE:	NTS
DRAWING #:			B-16349_D1	REV.
SERIAL #:			16349	3

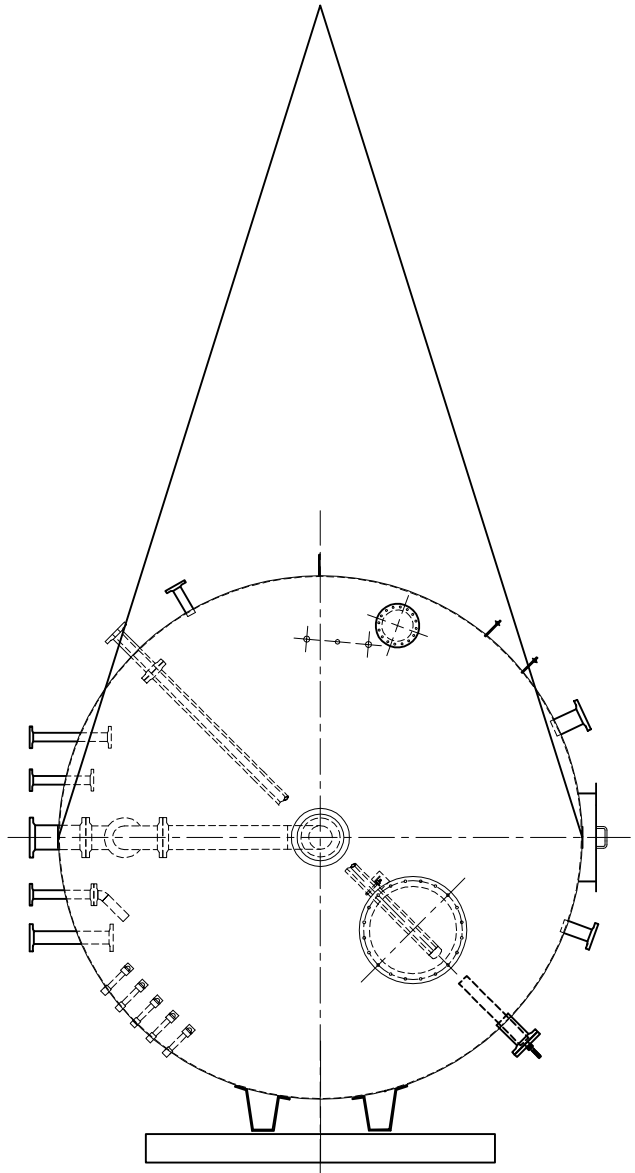
FORT ENERGY c/o BDR ENGINEERING

CUSTOMER

NOZZLE DETAILS

TITLE

QUOTE # : 1005-234D_R1



REVISIONS			
NO.	DESCRIPTION	BY	DATE
0			

TITLE:		LIFT LUG LAYOUT			
APPROVED BY:		CHECKED BY:	DRAWN BY:	RR	
DATE:	05/27/05	TAG #:	-	DRAWING #:	B-16349
SHEET:	OF	SCALE:	NTS	SERIAL #:	16349
				REV.	



CUSTOMER: FORT ENERGY c/o BDR ENGINEERING

TITLE: LIFT LUG LAYOUT

QUOTE #:

TQ05-234D_R1