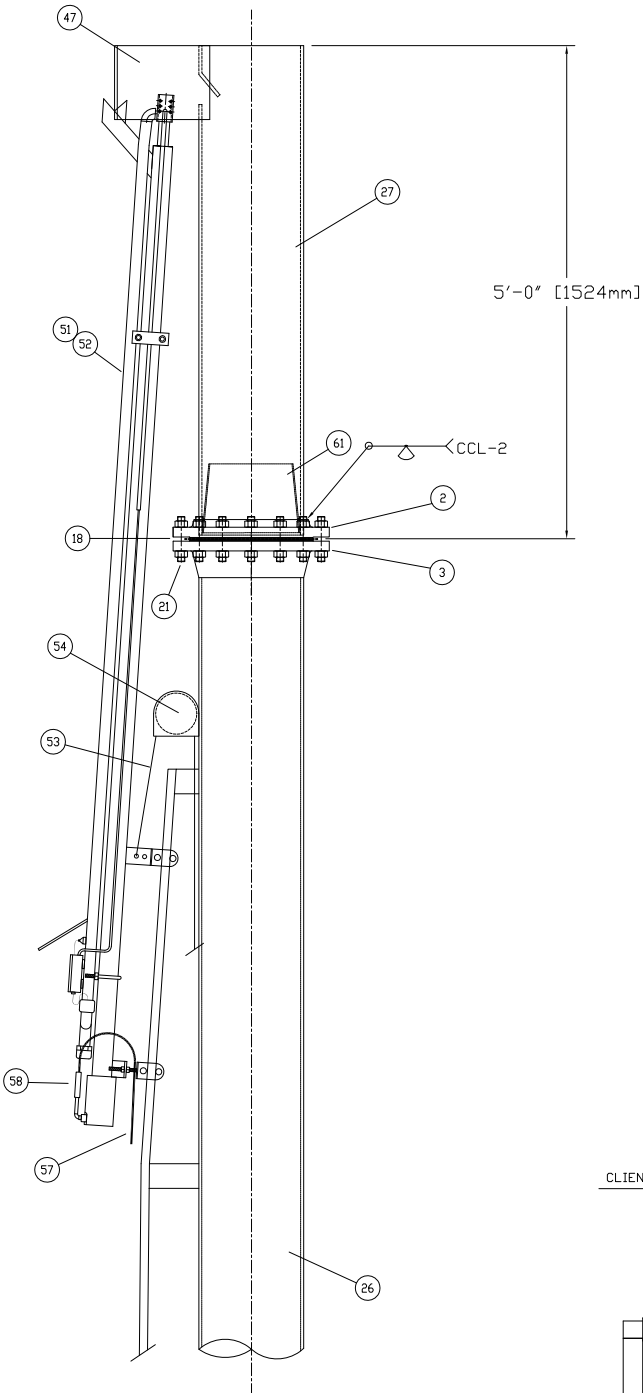
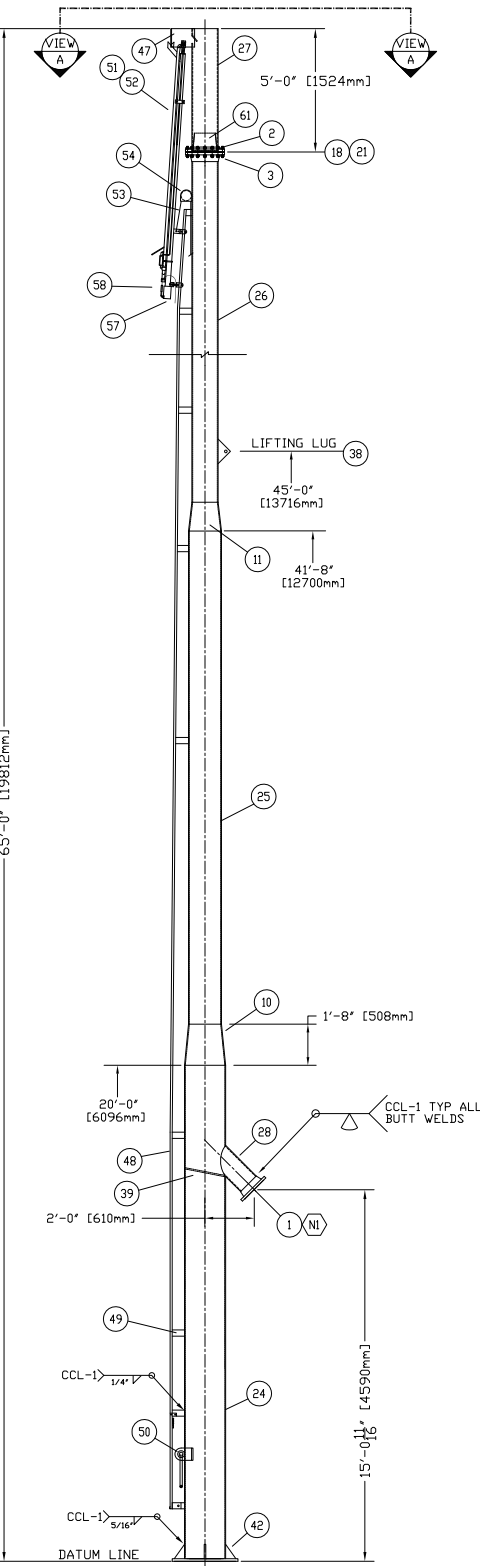
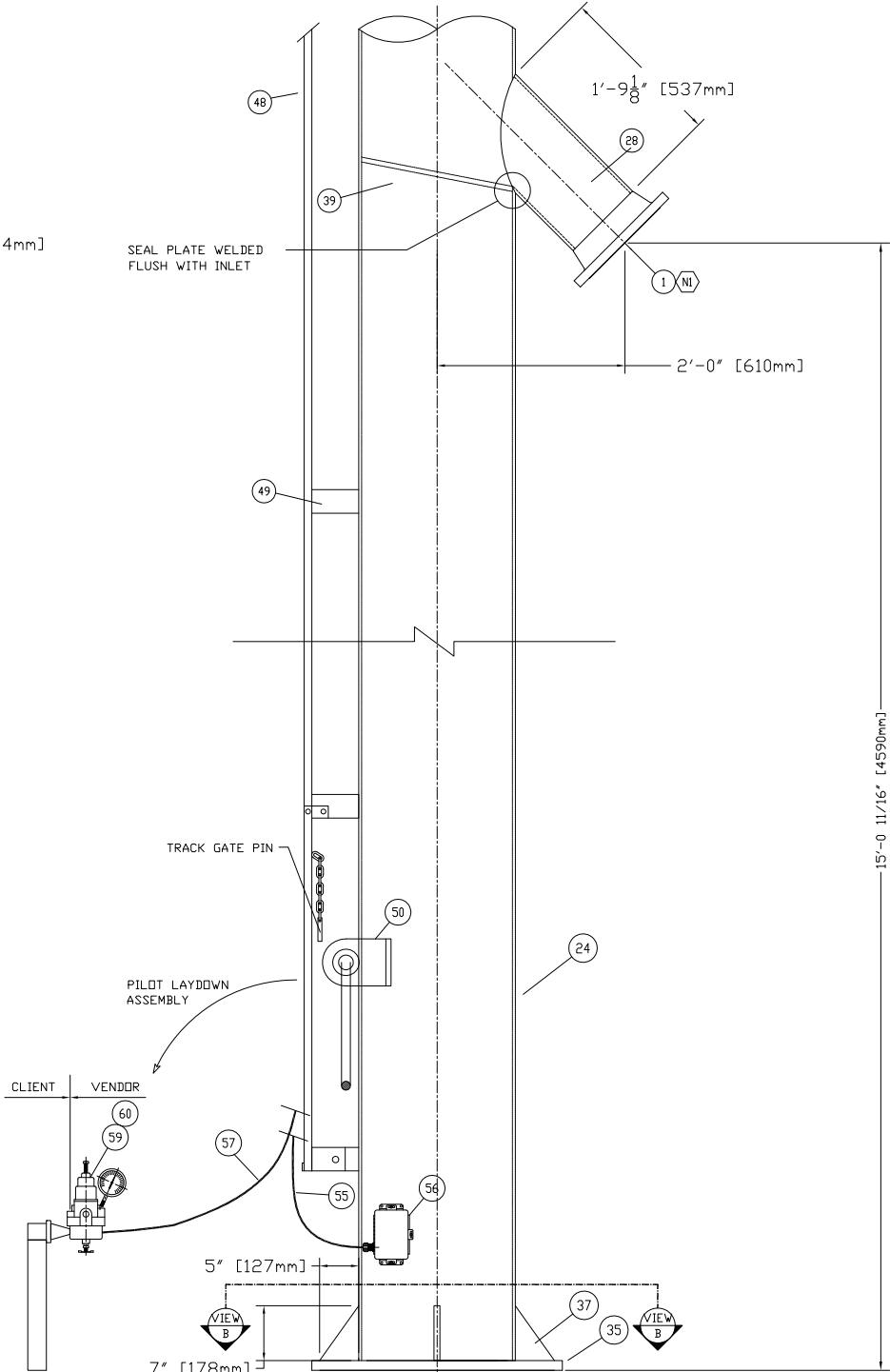




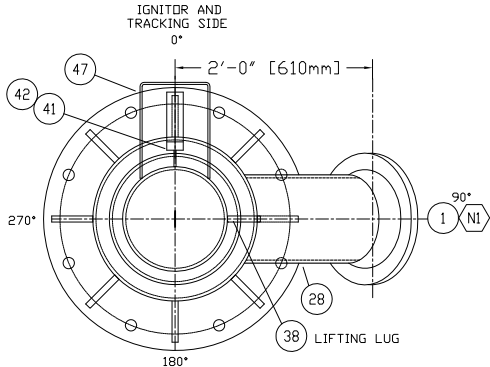
PILOT & TIP DETAIL



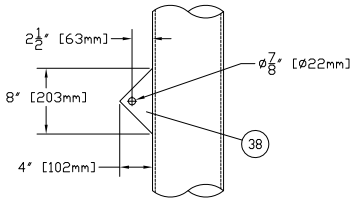
INLET & BASE DETAIL

NOTE: REFER TO 'INLET & PILOT ORIENTATION' DETAIL FOR TRUE ORIENTATION

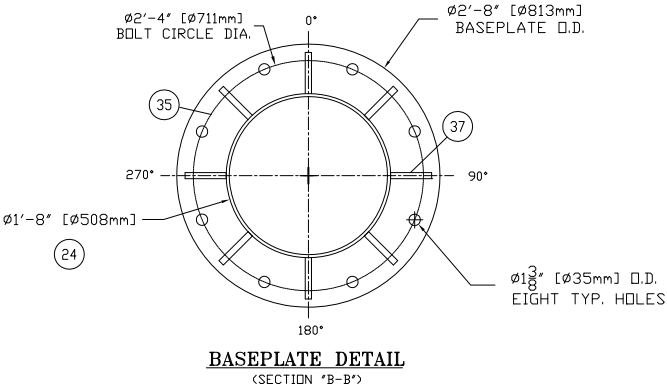
NOZZLE AND COUPLING SCHEDULE																
Mark No.	Qty.	Size	ANSI Rating And Facing	Service	O.D. of Nozzle Neck	Projection	Welding Detail Number	Fillet Weld Size				Bill of Mat'l Item No.	Remarks	Elevation	Orientation Angle	
						Inside		Outside	A	B	C					D
N1	1	ø10"[273mm]	150 ANSI R.F.	HP FLARE GAS INLET CONN.	10.75"[273]		14"	3/8"				1,28	WELD NECK	[4590mm]	0°	



INLET & PILOT ORIENTATION
(VIEW 'A-A')



LIFTING LUG DETAIL



BASEPLATE DETAIL
(SECTION 'B-B')

Rev.	Description	By	Y	M	D
1	"AS BUILT DRAWING"	JC	11	08	19
0	ISSUED FOR APPROVAL	JC	11	07	04

General Notes:	Tag #:	UNIT #5
1. PAINT FINISH COLOR HI-GLOSS BLACK 2. DYE PENETRANT ON STAINLESS TO CARBON FILLET WELDS ON TIP SLIP-ON FLANGE		
Approx. Weight:	4273 LBS.	
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Paint:	Ignition System
SANDBLAST SSPC-SP6 ENDURA 521 3-5 mils DFT ENDURA EX-2C 1.5-2.5 MILS DFT	FLARETECH RETRACTABLE PILOT MODEL: FT-RP1 c/w PILOT MONITORING & IGNITION FT-PMI-24
Moment At Foundation Base:	49493 FT-LBS
Mag Particle Procedure:	LOAD BEARING FILLET WELDS
Radiography / Xray:	100% BUTT WELDS IN CONTACT WITH WASTE GAS
Coolant Tracing:	NO
Aluminum Cladding:	NO
Corrosion Allowance:	3.2mm
Weld Procedure #:	CCL-1, CCL-2, CCL-3
Q.C. Program #:	

Dwg. By:	DWG#:	Title:
JC	11-1020GA	3 - ø12" x 65'-0" TALL SELF SUPPORTED UTILITY FLARE STACK c/w ø10" INLET CONN.
Date:	2011 07 04 Y M D	Customer:
Salesperson:	JOHN CASSIDY	MURPHY OIL COMPANY LTD. c/o EQUINOX ENGINEERING
JOB#:	QUOTE#:	P.O.#
11-1020	JC10-ST234-2	54116047-S203
Sheet 1 of 2		REV.
		VARIES TUPPER WEST EAST BLOCK 2011

FLARETECH INC.
PHONE: (403) 742-2212
FAX: (403) 742-2214

1	"AS BUILT DRAWING"	JC	11	08	19
0	ISSUED FOR APPROVAL	JC	11	07	04
Rev.	Description	By	Y	M	D

General Notes:	Tag #:	UNIT #5
1. PAINT FINISH COLOR HI-GLDSS BLACK 2. DYE PENETRANT DN STAINLESS TD CARBON FILLET DN TIP FLANGE		
Approx. Weight:	4273 LBS.	

Paint:	Ignition System
SANDBLAST SSPC-SP6 ENDURA 521 3-5 mils DFT ENDURA EX-2C 1.5-2.5 mils DFT	FLARETECH RETRACTABLE PILOT MODEL: FT-RP1 c/w PILOT MONITORING & IGNITION FT-PMI-24
Moment At Foundation Base: 49493 FT-LBS	
Mag Particle Procedure: LOAD BEARING FILLET WELDS	
Radiography / Xray: 100% BUTT WELDS IN CONTACT WITH WASTE GAS	
Coolant Tracing:	NO
Aluminum Cladding:	NO
Corrosion Allowance:	3.2 mm
Weld Procedure #:	CCL-1, CCL-2, CCL-3
Q.C. Program #:	

Dwg. By:	DWG#:
JC	11-1020BDM
Date:	2011 07 04 Y M D
Salesperson:	
JOHN CASSIDY	
JOB#:	QUOTE#:
11-1020	JC10-ST234-2
Sheet__2__of__2__	

Title:	3 - ø12" x 65'-0" TALL SELF SUPPORTED UTILITY FLARE STACK c/w ø10" INLET CONN.	
Customer:	MURPHY OIL COMPANY LTD. c/o EQUINOX ENGINEERING	
P.O.#	54116047-S203	
LSD	VARIES TUPPER WEST EAST BLOCK 2011	REV. ⚠

FLARETECH INC.	
PHONE: (403) 742-2212	
FAX: (403) 742-2214	

Bill of Materials

FLANGES												
No	Qty	Size	Sch.	Rating	Face	Type	Material Specification		Remarks		Heat#	
1	1	ø10"[273]	STD.	150#	R.F.	W.N.	ANSI SA105N		N1 – HP FLARE GAS INLET CONN.		11/34158	
2	1	ø12"[324]		150#	R.F.	S.O.	ANSI SA105N		TIP BREAK FLANGE		992T1	
3	1	ø12"[324]	STD.	150#	R.F.	W.N.	ANSI SA105N		RISER BREAK FLANGE		652AO	
4												
5												
6												
7												
8												
9												
WELD FITTINGS												
No	Qty	Size	Sch.	Description		Material Specification		Remarks		Heat#		
10	1	ø20"xø16"	STD.	REDUCER		SA 234 WPB		CONCENTRIC REDUCER		AY874C		
11	1	ø16"xø12"	STD.	REDUCER		SA 234 WPB		CONCENTRIC REDUCER		71271		
12												
13												
14												
COUPLINGS												
No	Qty	Size	Description	Rating	Ends	Material Specification		Remarks		Heat#		
15												
16												
17												
GASKETS												
No	Qty	Size	Thickness	Rating	Description		Specification/Material		Remarks			
18	1	ø12"[324]	1/8"	150#	SPIRAL WOUND		316L S.S./ GRAFOIL		TIP BREAK FLANGES			
19												
20												
STUD BOLTS C/W 2 HEX NUTS/EA.												
No	Qty	NO/SET	Sets	Diameter	Length	Bolt Spec.	Nut Spec.	Match Item	Remarks			
21	12	12	1	7/8"[22]	4.75"[121]	SA193 B7M	SA194 2HM	2,3,18	TIP BREAK FLANGES			
22												
23												
PIPE												
No	Qty	Size	Type	Sch.	Material Specification		Remarks		Heat#			
24	1	ø20"[508]	SMLS	STD.	SA106B x 20'-0"[6096mm] LG.		LOWER SECTION WASTE GAS RISER		U02130			
25	1	ø16"[406]	SMLS	STD.	SA106B x 20'-0"[6096mm] LG.		MIDDLE SECTION WASTE GAS RISER		310518			
26	1	ø12"[324]	SMLS	STD.	SA106B. x 16'-8 1/4"[5086mm] LG.		UPPER SECTION WASTE GAS RISER		113098			
27	1	ø12"[324]	Tp 312	STD.	316L S.S. x 4'-11 1/2"[1511mm] LG.		HP WASTE GAS TIP		UBB040640			
28	1	ø10"[273]	SMLS	STD.	SA106B x 1'-9 1/8"[537mm] LG.		N1 – WASTE GAS INLET NOZZLE EXT.		006105			
29												
30												
31												
32												
33												
34												
PLATE												
No	Qty	Size		Material Specification		Remarks		Heat#				
35	1	ø32"[813mm] O.D.		1 1/4" THK. SA36 CS PLATE		BASEPLATE						
36												
37	8	5" x 7"[127 x 178]		3/4" THK. SA36 CS PLATE		BASEPLATE GUSSETS						
38	1	8" x 4"[203 x 102]		3/4" THK. SA36 CS PLATE		LIFTING LUG						
39	1	ø19"[483mm]		3/8" THK. SA36 CS PLATE		SEAL PLATE						
40												
41												
42												
43												
44												
45												
46												
47	1	8" x 9"[203 x 229]		1/4" THK. 316L S.S. PLATE		PILOT WIND SHROUD						
48	LOT	2" x 1"[51 x 25]		1/8" THK. HSS TUBING		PILOT TRACKING						
49	LOT	3"[76mm] FLAT		1/4" THK. SA 36 CS PLATE		TRACKING SUPPORTS						
50	1	PILOT RETRACTING WINCH		(MANUAL)		PILOT WINCH						
IGNITION SYSTEM / MISC. PARTS												
No	Qty	Description				Remarks		Heat#				
51	1	FLARETECH RETRACTABLE FUEL GAS PILOT FT-RP1				FUEL GAS PILOT						
52	1	FLARETECH PILOT MONITORING & IGNITION SYSTEM FT-PMI-24				RELIGHT SYSTEM						
53	1	ø3/16" S.S. IGNITOR RETRACTING PULLEY CABLE X 125' LG.				PULLEY CABLE						
54	1	IGNITOR RETRACTING ENCLOSED SS PULLEY				PILOT PULLEY						
55	1	#16-4 S.O.O.W. ELECTRICAL CABLE X 60' LG.				ELECTRICAL CABLE						
56	1	NEMA 4 STEEL ELECTRICAL JUNCTION BOX				JUNCTION BOX						
57	1	ø1/4" NPT FLEXIBLE FUEL SUPPLY HOSE X 62' LG.				FUEL HOSE						
58	1	ø1/4" NPT INLINE HIGH PRESSURE FUEL FILTER				FUEL FILTER						
59	1	ø1/4" NPT BELOFRAM T50 REGULATOR				REGULATOR						
60	1	ø1/4" NPT, 2" DIAL FACE, 0-200 kPa (0-30 PSI) CS LIQUID FILL GAUGE				GAUGE						
61	1	FLARETECH 12" WELD-IN DYNAMIC SEAL (304 S.S.)				PURGE REDUCER						
62												
63												