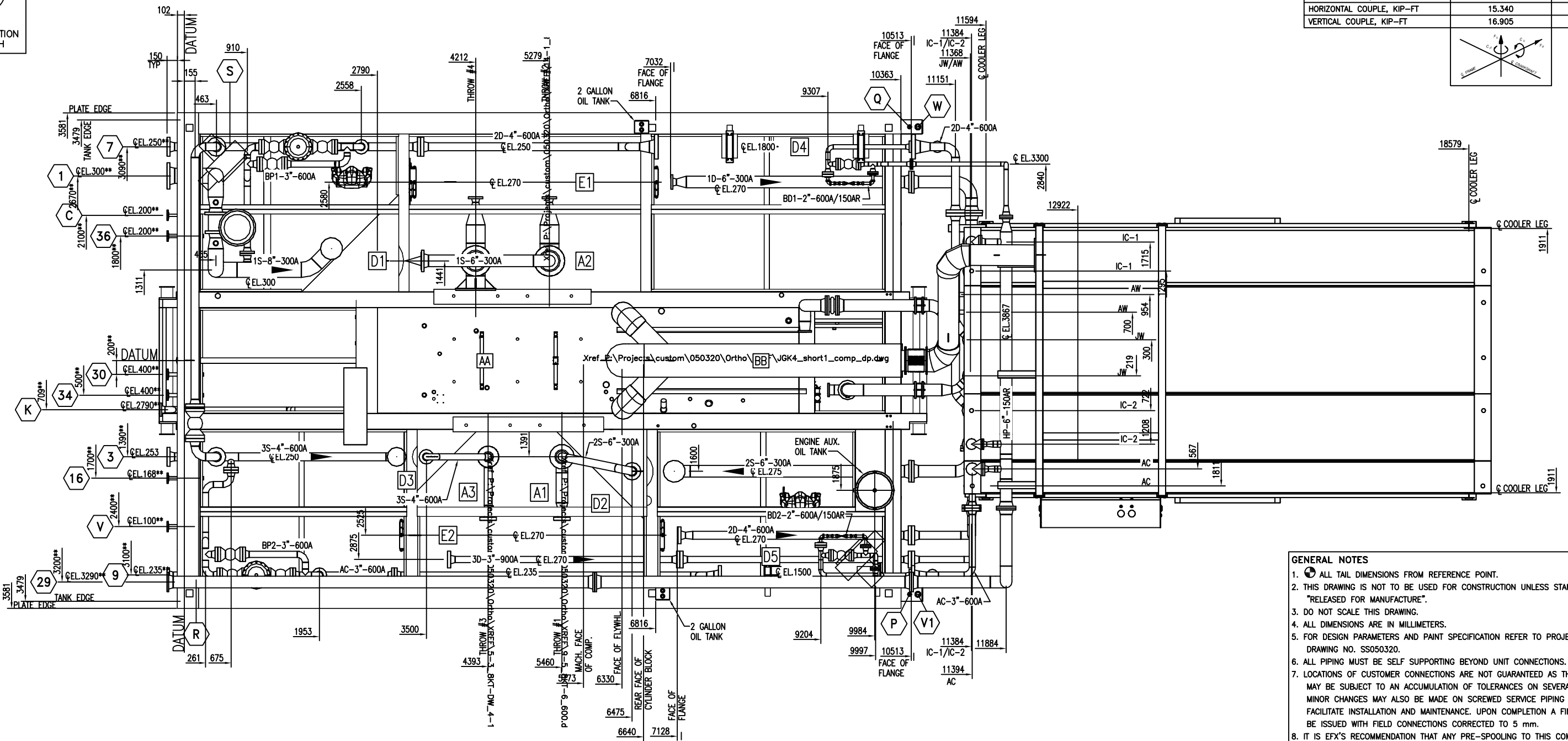
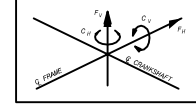


ENERFLEX

DRAWINGS



COMPRESSOR UNBALANCED FORCES @ 1200 RPM		
	PRIMARY	SECONDARY
HORIZONTAL FORCE, KIP	0.398	0.112
VERTICAL FORCE, KIP	0.00	0.00
HORIZONTAL COUPLE, KIP-FT	15.340	1.672
VERTICAL COUPLE, KIP-FT	16.905	0.00



PLAN VIEW

- GENERAL NOTES**
- ALL TAIL DIMENSIONS FROM REFERENCE POINT.
 - THIS DRAWING IS NOT TO BE USED FOR CONSTRUCTION UNLESS STAMPED "RELEASED FOR MANUFACTURE".
 - DO NOT SCALE THIS DRAWING.
 - ALL DIMENSIONS ARE IN MILLIMETERS.
 - FOR DESIGN PARAMETERS AND PAINT SPECIFICATION REFER TO PROJECT SCOPE SUMMARY DRAWING NO. S050320.
 - ALL PIPING MUST BE SELF SUPPORTING BEYOND UNIT CONNECTIONS.
 - LOCATIONS OF CUSTOMER CONNECTIONS ARE NOT GUARANTEED AS THESE DIMENSIONS MAY BE SUBJECT TO AN ACCUMULATION OF TOLERANCES ON SEVERAL COMPONENTS. MINOR CHANGES MAY ALSO BE MADE ON SCREWED SERVICE PIPING IN ORDER TO FACILITATE INSTALLATION AND MAINTENANCE. UPON COMPLETION A FINAL DRAWING WILL BE ISSUED WITH FIELD CONNECTIONS CORRECTED TO 5 mm.
 - IT IS EFX'S RECOMMENDATION THAT ANY PRE-SPOOLING TO THIS COMPRESSOR PACKAGE CONTAIN FIELD WELDS AT ALL CUSTOMER CONNECTIONS.
 - DIMENSIONS INDICATED (**) SHALL BE CERTIFIED CORRECT ON FINAL REVISION.

CUSTOMER CONNECTIONS			OTHER CUSTOMER LOCAL CONNECTIONS & VENTS		
NO.	DESCRIPTION	SIZE	NO.	DESCRIPTION	SIZE
1	STAGE ONE INLET	8"-300#RF	C	COMPRESSOR/ENGINE OIL TANKS INLET	2"-150#RF
3	STAGE THREE INLET	4"-600#RF	K	START/FUEL GAS VENT	3"-150#RF
7	STAGE TWO DISCHARGE	4"-600#RF	P	WASTE OIL TANK VENT	2" NPT
9	FINAL DISCHARGE	3"-600#RF	Q	GLYCOL TANK VENT	1" PIPE
16	SCRUBBER DRAIN HEADER	2"-150#RF	R	COMPRESSOR LUBE OIL TANK VENT	3/4" TUBE
29	PSV VENT HEADER	6"-150#RF	S	ENGINE LUBE OIL TANK VENT	3/4" TUBE
30	FUEL GAS SUPPLY	2"-150#RF	V	WASTE OIL TANK PUMP OUT	2"-150#RF
34	START GAS SUPPLY	2"-150#RF	V1	WASTE OIL TANK PUMP OUT (LOCAL)	2" NPT
36	INSTRUMENT AIR	2"-150#RF	W	GLYCOL TANK PUMP-OUT	2" NPT

UNIT DIMENSIONS (APPROX.)

OVERALL w/ALL EQUIP MOUNTED	
LENGTH	19260 mm 63'-3"
WIDTH	7162 mm 23'-6"
HEIGHT	5160 mm 17'-0"
SHIPPING DIMENSIONS-MAIN SKID	
LENGTH	11042 mm 36'-6"
WIDTH	7162 mm 23'-6"
HEIGHT	4126 mm 13'-7"
COOLER DIMENSIONS c/w MUFFLER	
LENGTH	7955 mm 26'-2"
WIDTH	4545 mm 15'-0"
HEIGHT	5160 mm 17'-0"

SHIPPING WEIGHTS-MAIN SKID	KGS.	SHIPPING WEIGHTS W/ COOLER	KGS.
AA COMPRESSOR: ARIEL JGK/4	4850	CC COOLER: AIR-X-HEMPHILL 144ZF	8665
A1 9-1/8" "K" CYLINDER	1115	C1/C2 : JW & AW 14 PSIG @ 300°F	
A2 13-5/8" "K" CYLINDER	1615	C3 : IC-1 1292 PSIG @ 350°F	
A3 5" "K-DW" CYLINDER	960	C4 : IC-2 1850 PSIG @ 350°F	
BB ENGINE: CATERPILLAR G3516TALE	8755	C5 : AC 1850 PSIG @ 350°F	
D1 : 30"O.D.x80"S/S	1235	MUFFLER	900
D2 : 24"O.D.x66"S/S	705	MUFFLER SUPPORT	690
D3 : 16"O.D.x64"S/S	615	PIPING	985
D4 : 12-3/4"O.D. x 144" LONG	775	SURGE TANK	140
D5 : 8-5/8"O.D. x 108" LONG	260	TOTAL WEIGHT COOLER	(B) 11380
E1 : 14"O.D.x153.5"S/S	505	SHIP LOOSE WEIGHTS	
E2 : 14"O.D.x153.5"S/S	795	PIPING	715
GG CONTROL PANEL	200	EXHAUST TUBING	300
SKID STEEL ONLY	12000	TOTAL SHIP LOOSE WEIGHT	(C) 1015
CONCRETE (7.3 cubic metre)	17050		
CRANE	3000		
CRANE	3000		
PIPING & MISC.	4600		
TOTAL WEIGHT MAIN SKID	(A) 59035	TOTAL WEIGHT	(A+B+C) 71430

REV	DESCRIPTION	DATE	DRAWN BY	CHECKED BY
2	AS-BUILT	05/07/29	DH	JLE
1	FOR CONSTRUCTION	05/05/16	DRO	DRO

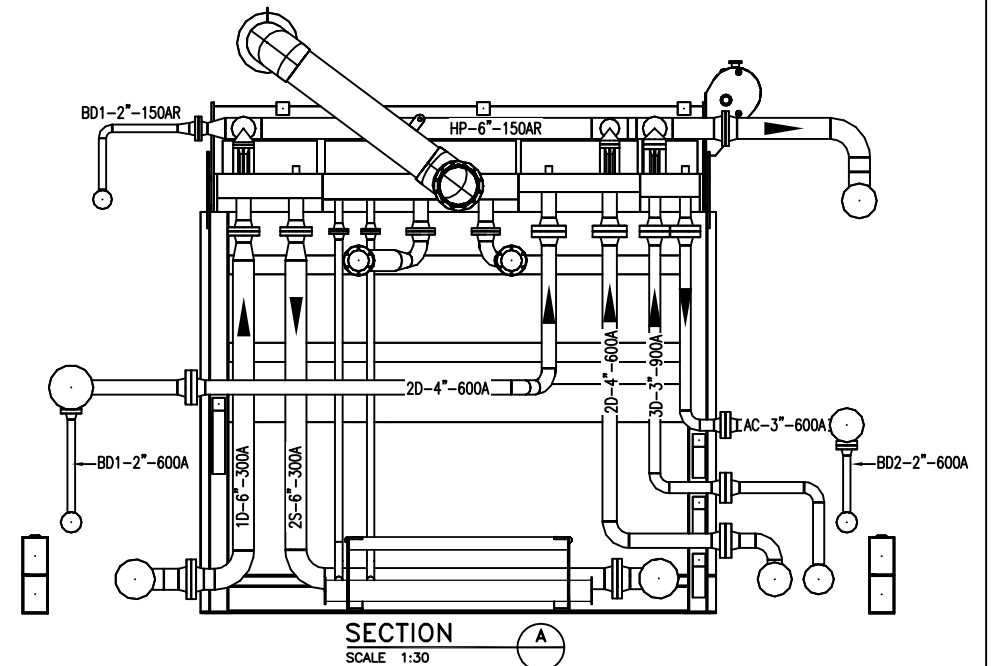
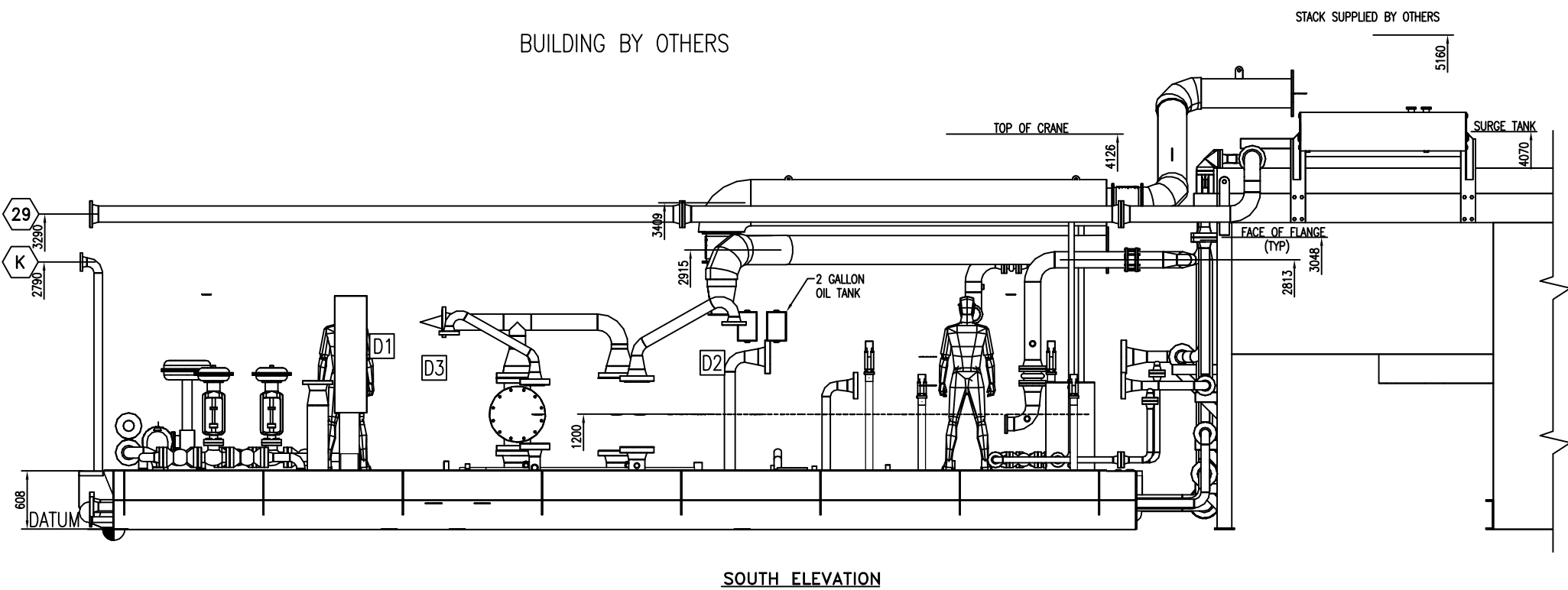
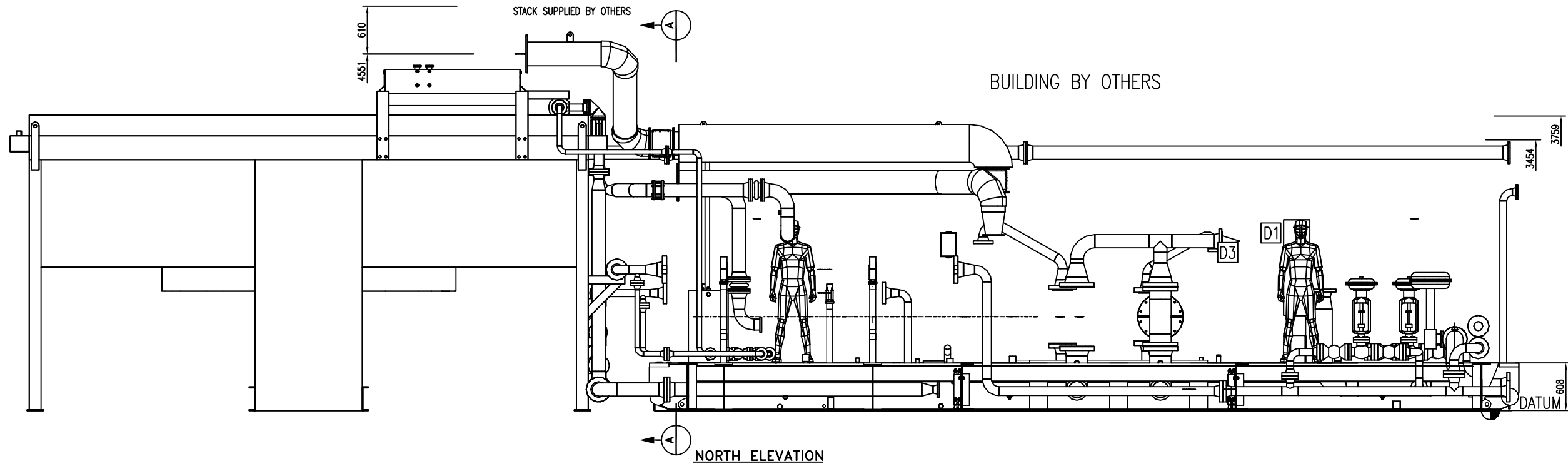
EFX Compression

4700 47 Street SE Calgary AB Canada T2B 3R1 Canada Tel. +1.403.238.8800 Fax +1.403.279.0387
www.enerflex.com

TITLE: GENERAL ARRANGEMENT (K-603)
ARIEL JGK/4, CATERPILLAR 3516TALE, AIR-X-HEMPHILL 144ZF
COMPRESSOR PACKAGE

FOR: FORT ENERGY CORPORATION
(CLEARWATER GAS PLANT)

CONSULTANT: BDR ENGINEERING LTD. LSD: 11-17-83-06 WSM
P.O.: DATE: 05/04/06 CHKD BY: DATE: 05/04/06 DWG. No. OP#
SCALE: 1:30 APPVD BY: DATE: GA050320 PG1/3 10



REV	DESCRIPTION	DATE	DRAWN BY	CHECKED BY
2	AS BUILT	05/09/14	DH	JLE
1	FOR CONSTRUCTION	05/05/16	DRO	DRO

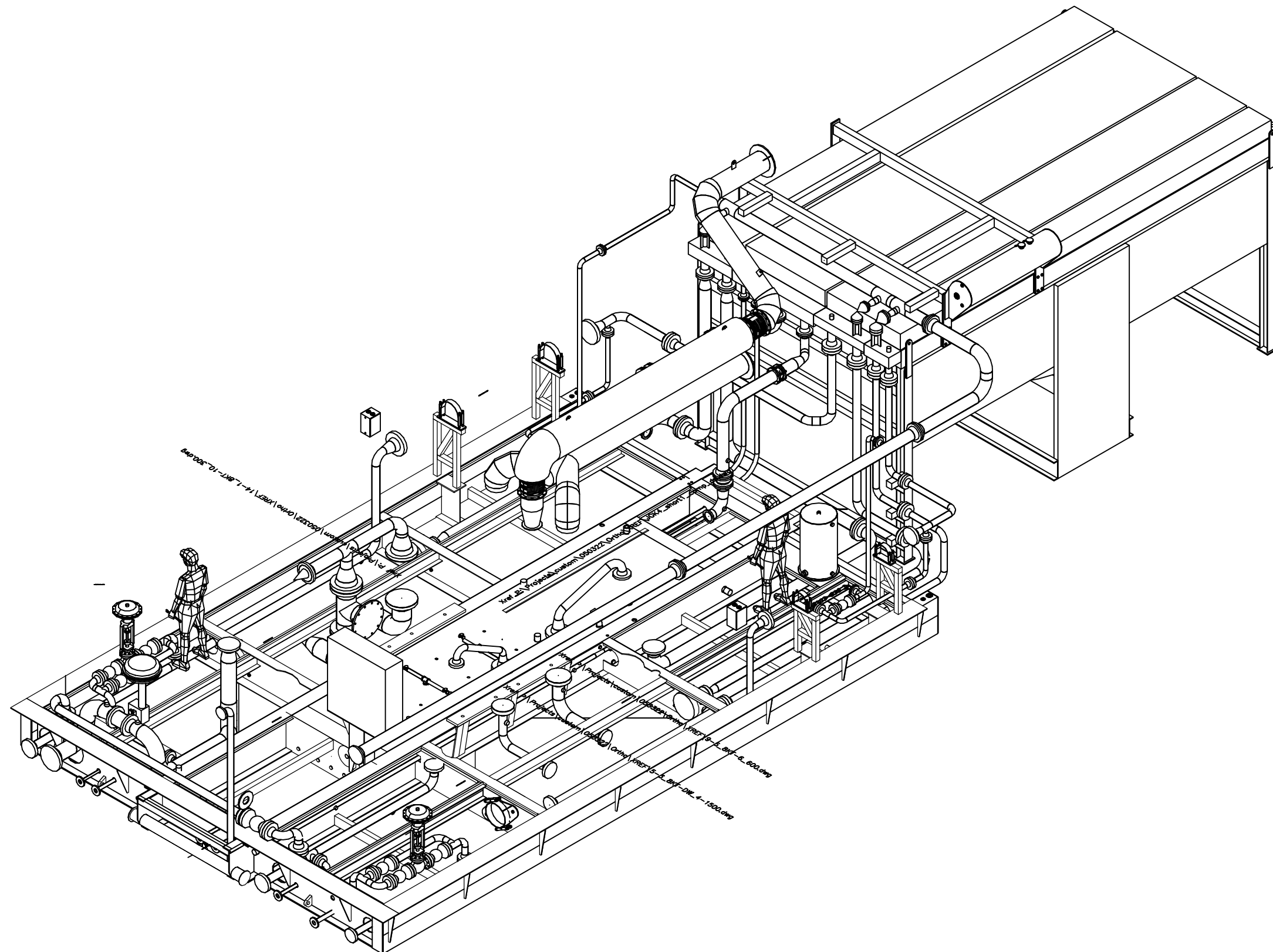
EPX Compression
4700 47 Street SE Calgary AB Canada T2B 3R1 Canada Tel: +1.403.238.8800 Fax: +1.403.279.0387 www.epx.com

TITLE: ELEVATION VIEWS (K-605)
 ARIEL JGK/4, CATERPILLAR 3516TALE, AIR-X-HEMPHILL 144ZF COMPRESSOR PACKAGE

FOR: FORT ENERGY CORPORATION (CORBET GAS PLANT)

CONSULTANT: BDR ENGINEERING LTD. LSD: 15-10-82-06 WSM JOB No.: 050322

DRWN BY: DRO DATE: 05/04/06 DESIGN BY: DRO DATE: 05/04/06 DWG. No. OP#
 DATE: 05/04/06 CHKD BY: DATE: GA050322 PG2/3 10
 SCALE: 1:30 APPVD BY: DATE:



3D VIEW

REV	DESCRIPTION	DATE	DRAWN BY	CHECKED BY
2	AS BUILT	05/09/14	DH	JLE
1	FOR CONSTRUCTION	05/05/16	DRO	DRO

EPX Compression

4700 47 Street SE Calgary AB Canada T2B 3R1 Canada Tel: +1.403.238.8800 Fax: +1.403.279.0387
www.epx.com

TITLE: 3D VIEW (K-605)
ARIEL JGK/4, CATERPILLAR 3516TALE, AIR-X-HEMPHILL 144ZF
COMPRESSOR PACKAGE

FOR: FORT ENERGY CORPORATION
(CORBET GAS PLANT)
CONSULTANT: BDR ENGINEERING LTD. LSD: 15-10-82-06 WSM
JOB No.: 050322

DRWN BY: DRO	DESIGN BY: DRO	DATE: 05/04/06	DWG. No.	OP#
DATE: 05/04/06	CHKD BY:	DATE:	GA050322 PG3/3	10
SCALE: 1:30	APPVD BY:	DATE:		

STAGE 1 ST. GLM VORTEX CLUSTER D1 (V-101)
 30" OD x 84" SS
 650 PSIG MAMP @ 300°F/-20°F
 SN: PE05-107-6
 CRN: T2508.213
 PART#:

STAGE 2 SUCTION SCRUBBER D2 (V-102)
 24" OD x 66" SS
 855 PSIG MAMP @ 300°F/-20°F
 SN: 050322-02
 CRN: R8989.231
 PART#:

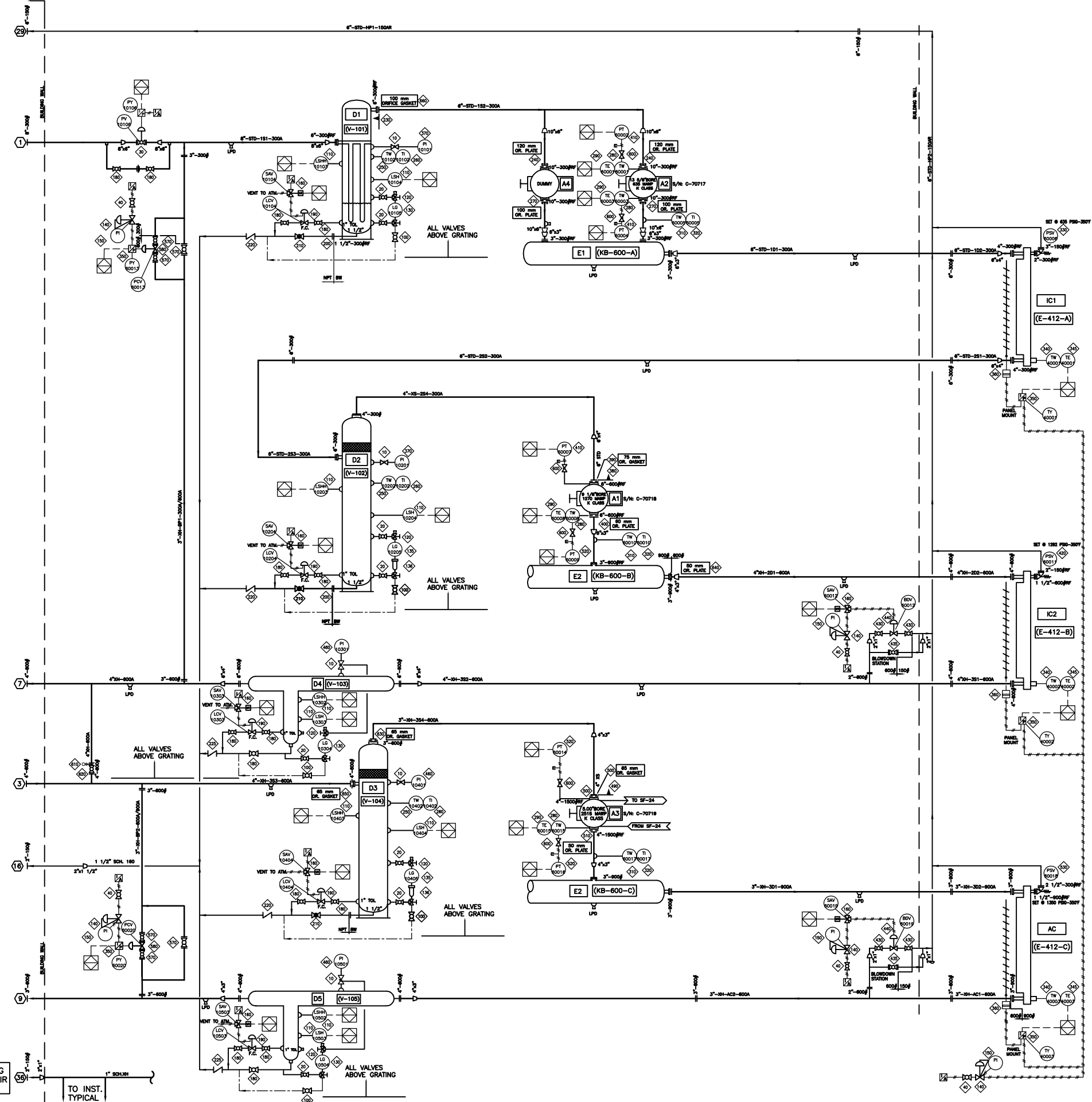
STAGE 3 SUCTION SCRUBBER D3 (V-104)
 16" OD x 64" SS
 1315 PSIG MAMP 300°F/-20°F
 SN: 050322-04
 CRN: T2420.213
 PART#:

STAGE 4 DISCHARGE SCRUBBER D4 (V-103)
 12.75" OD x 62" SS
 1350 PSIG MAMP @ 200°F/-20°F
 SN: 3569-4
 CRN: T2348.2
 PART#:

FINAL DISCHARGE SCRUBBER D5 (V-105)
 8" OD x 108" SS
 1350 PSIG MAMP @ 200°F/-20°F
 SN: 3569-4
 CRN: T2421.213
 PART#:

STAGE 1 DISCHARGE BOTTLE E1 (KB-600-A)
 14" OD x 153 1/2" SS
 645 PSIG MAMP @ 350°F/-20°F
 SN: 050322-06
 CRN: T2421.213
 PART#:

STAGE 2/3 DISCHARGE BOTTLE E2 (KB-600-B)/KB-600-C
 14" OD x 153 1/2" SS
 1350 PSIG MAMP @ 350°F/-20°F
 SN: 050322-07
 CRN: T2421.213
 PART#:



IC1 (E-400-A)
 IC SECTION
 645 PSIG MAMP @ 350°F
 SN:
 CRN:
 PART#:

IC2 (E-400-B)
 IC SECTION
 1292 PSIG MAMP @ 350°F
 SN:
 CRN:
 PART#:

AC (E-400-C)
 AC SECTION
 1935 PSIG MAMP @ 350°F
 SN:
 CRN:
 PART#:

BILL OF MATERIAL

ITEM	QTY	EFX CODE	DESCRIPTION
10	5	108004	VALVE, NEEDLE, 3/4" MNPT X 1/2" FNPT, CS, [CENTURY, CM11L-3-M64T-CN-T-SP100]
20	8	124360	VALVE, BALL, 1/2" NPT, 2000# WOG, FP, CS C/W LOCKING HANDLE [NUTRON, T3-F05530BL]
30	1	NPN-REQ	VALVE, CONTROL, 6" 300#RF, FISHER V200 WITH DVC620 C/W FIELD VIEW POSITIONER AND ACTUATOR.
40	5	102950	VALVE, BALL, 1/4" NPT, 2000# WOG, RP, 316SS, NACE C/W [NAVCO, C1-R02520A]
100	5	102920	VALVE, BALL, 1/2" NPT, 2000# WOG, FP, CS C/W LOCKING HANDLE [NUTRON, T3-F05520B]
110	10	101205	SWITCH, LEVEL, 2" NPT, 303SS BODY, CSA C/W FLOAT [SOR, 1510B-G2A-C-WB-ES-CS]
120	5	103693	VALVE, SET GAUGE, SWEET, 1/2" FNPT X 3/4" MNPT, CS, 3470# [DANIEL, 15]
130	3	103659	GAUGE, LEVEL, CS WITH REFLEX FLAT GLASS, 1820# [DANIEL, 71RL]
135	2	NPN-REQ	MAGNETIC LEVEL GAUGES
136	2	NPN-REQ	LEVEL GAUGE TANKS WITH 4" FLANGE CONNECTION
140	5	104872	REGULATOR, 1/4" NPT, ALUM., 0-125#, TAPPED (W/O PI) [FISHER, 67CFR-601/SPEC]
150	5	107925	GAUGE, PRESSURE, CBM, 2" DRY, 0-60 PSI DUAL, 1/4" NPT [WKA, 111.10]
160	7	NPN-REQ	ASCO SOLENOID, 3-WAY, 24VDC, CSA, XP, EFB320202-24, SUPPLIED BY CONTROL PANEL
180	12	112801	VALVE, BALL, 1" NPT, 3000# WOG, RP, CS C/W LOCKING HANDLE [NUTRON, T3-R10S30B]
190	5	104854	VALVE, CONTROL, 1" NPT, LCC, FLOW ADJ. FC, NACE, 0-35# [FISHER/FLOPRO, D2-X1]
200	2	106465	FLANGE, RF SCRD, 1-1/2" 300# S4105N
210	3	102866	VALVE, GLOBE, 1-1/2" NPT, 800# WOG, CS [NEWCO, 28T-F52]
220	3	109946	VALVE, CHECK, PISTON, 1-1/2" NPT, 800# WOG, CS [NAVCO, CP-R10S08A8]
225	2	109945	VALVE, CHECK, PISTON, 1" NPT, 800# WOG, CS [NAVCO, CP-R10S08A8]
230	1	104260	STRAINER, CONE, 6" 300# CS, 40 MESH, 100% FLOW AREA
240	2	105728	***ORIFICE PLATE, TYPE 520, 316LSS, 1/8" THK, 10" 300#
250	3	116790	THERMOWELL, 316SS, 1/2" X 1/2" NPTM X 2-1/2" LONG, U=1", .260" BORE, STEPPED
260	3	118225	GAUGE, TEMP, 5" DIAL LF, 6" STEM, 0-250 DEGF DUAL ADJUSTABLE [TRENID, SFS2060]
270	2	105728	***ORIFICE PLATE, TYPE 520, 316LSS, 1/8" THK, 10" 300#
280	4	114196C	TWELL, 316LSS, 1/8" X 1/2" MNPT, 1/4" FNPT PRESSURE PORT, U=2.625", 1650 MWHP
290	4	117910B	T-COUPLE, K TYPE, 316SS, 7.5" [THERMOKINETICS, K125-316S0007.5882X000-0048-99]
310	3	107976	THERMOWELL, 316SS, 1/2" X 3/4" NPTM X 2-1/2" LONG, U=1", .260" BORE, STEPPED
320	3	116705	GAUGE, TEMP, 5" DIAL LF, 2-1/2" STEM, 50-500DEGF DUAL ADJUSTABLE [TRENID, SFS2025]
330	1	NPN-REQ	STAGE 1 DISCHARGE PSV VALVE, 2"-300#RF X 3"-150#RF SET @ 635psig (FARRIS, 26FA12-120/00)
340	3	123380	THERMOCOUPLE, K TYPE 316SS, 1/4" [THERMOKINETICS, K250-316-S-010.0-B-82X-YM-72]
345	3	124346	THERMOWELL, 304SS, 1/2" X 3/4" NPTM X 9" LONG, U=7.5", .260" BORE, STEPPED
350	5	NPN-REQ	TRANSDUCER, I/P, 4-20MA INPUT, 6-30PSIG OUTPUT, XP, [PANEL SUPPLIED]
360	3	100315	>>ACTUATOR, 6-30 PSIG, SUPPLIED WITH COOLER [GARZO, 501-12]
370	2	107929	GAUGE, PRESSURE, BM, 4" LF, 0-600 PSI DUAL, 1/2" NPT [WKA, 233.54]
380	1	104262	STRAINER, CONE, 6" 600# CS, 40 MESH, 100% FLOW AREA
390	1	113543	***ORIFICE GASKET, TYPE CGL, 316LSS, 1/8" THK, 6" 800# C/W STAMPED HANDLE
400	1	105504	***ORIFICE PLATE, TYPE 520, 316LSS, 1/8" THK, 6" 800#
410	3	114016	TRANSMITTER, GAUGE PRESSURE, 0-800 PSIG, CSA, [ROSEMOUNT, 2088G322A1B4C8]
420	1	NPN-REQ	STAGE 2 DISCHARGE PSV VALVE, 1.5"-600#RF X 2"-150#RF SET @ 1270psig (FARRIS, 26FA13-120/00)
430	4	112801	VALVE, BALL, 1" NPT, 3000# WOG, RP, CS C/W LOCKING HANDLE [NUTRON, T3-R10S30B]
435	2	102957	VALVE, BALL, 2" 600# RF, RP, CS C/W HANDLE [NUTRON, T3-R20R06B]
440	2	122843	VALVE, CONTROL, 1" NPT, LCC, 1/2" OR, FD, 0-33 PSI [FISHER, D4]
460	3	107884	GAUGE, PRESSURE, BM, 4" LF, 0-1000 PSI DUAL, 1/2" NPT [WKA, 233.54]
490	1	104246	STRAINER, CONE, 4" 900# RF, CS, 40 MESH, 100% FLOW AREA
500	1	113534	***ORIFICE GASKET, TYPE CGL, 316LSS, 1/8" THK, 4" 1500# RF C/W STAMPED HANDLE
510	1	105383	***ORIFICE PLATE, TYPE 520, 316LSS, 1/8" THK, 4" 1500# RF
520	3	114015	TRANSMITTER, GAUGE PRESSURE, 0-4000 PSIG, NACE, CSA [ROSEMOUNT, 2088G4S22A1B4C8]
530	1	NPN-REQ	STAGE 3 DISCHARGE PSV VALVE, 1 1/2"-900#RF X 2 1/2"-300#RF SET @ 1350 psig (FARRIS, 26FA14-120/00)
570	6	102966	VALVE, BALL, 3" 600# RF, RP, CS C/W HANDLE [NUTRON, T3-R30R06B]
580	2	123562	VALVE, CONTROL, 3" 600# RF, WCC, 3 7/16, 6-30 PSI [FISHER, 657-ET-45]
600	5	102808	VALVE, NEEDLE, 1/4" TUBE, 316SS [WHITEY, SS-1VS4]
610	1	109128	SPECTACLE BLIND, 4" 600# RF, S4516-70N, 5/8" THK
620	1	102977	VALVE, BALL, 4" 600# RF, RP, CS, BOLTED BODY C/W HANDLE [NUTRON, B3-R40R06B]
630	1	113527	***ORIFICE GASKET, TYPE CGL, 316LSS, 1/8" THK, 3" 3/4/600# C/W STAMPED HANDLE
640	1	105266	***ORIFICE PLATE, TYPE 520, 316LSS, 1/8" THK, 3" 900# RF
650	5	113532	***ORIFICE GASKET, TYPE CGL, 316LSS, 1/8" THK, 4" 800# RF C/W STAMPED HANDLE
660	1	113785	***ORIFICE GASKET, TYPE CGL, 316LSS, 1/8" THK, 6" 300# RF C/W STAMPED HANDLE

NOTE:
 1. ALL VALVES ARE TO BE ABOVE GRATING.

 BILL OF MATERIAL: W 050319-50 : Discharge-Stage 2
 DATE-TIME EXPORTED: 2005-04-12-10.32

REV	DESCRIPTION	DATE	DRAWN BY	CHECKED BY
4	AS BUILT	05/09/02	MGN	EM
3	GENERAL REVISION	05/06/01	MGN	DB
2	UPDATE AS PER SHOP REMARKS	05/05/25	MGN	DB
1	ISSUE FOR CONSTRUCTION	05/05/03	MGN	DB
0	ISSUE FOR APPROVAL	05/04/11	MGN	DB

ENRFLX Compression

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 www.enrflx.com

TITLE: PROCESS & INSTRUMENTATION DIAGRAM
 ARIEL JGK/4, CAT.3516 TALE, AIR-X-1442F
 UNIT K-600

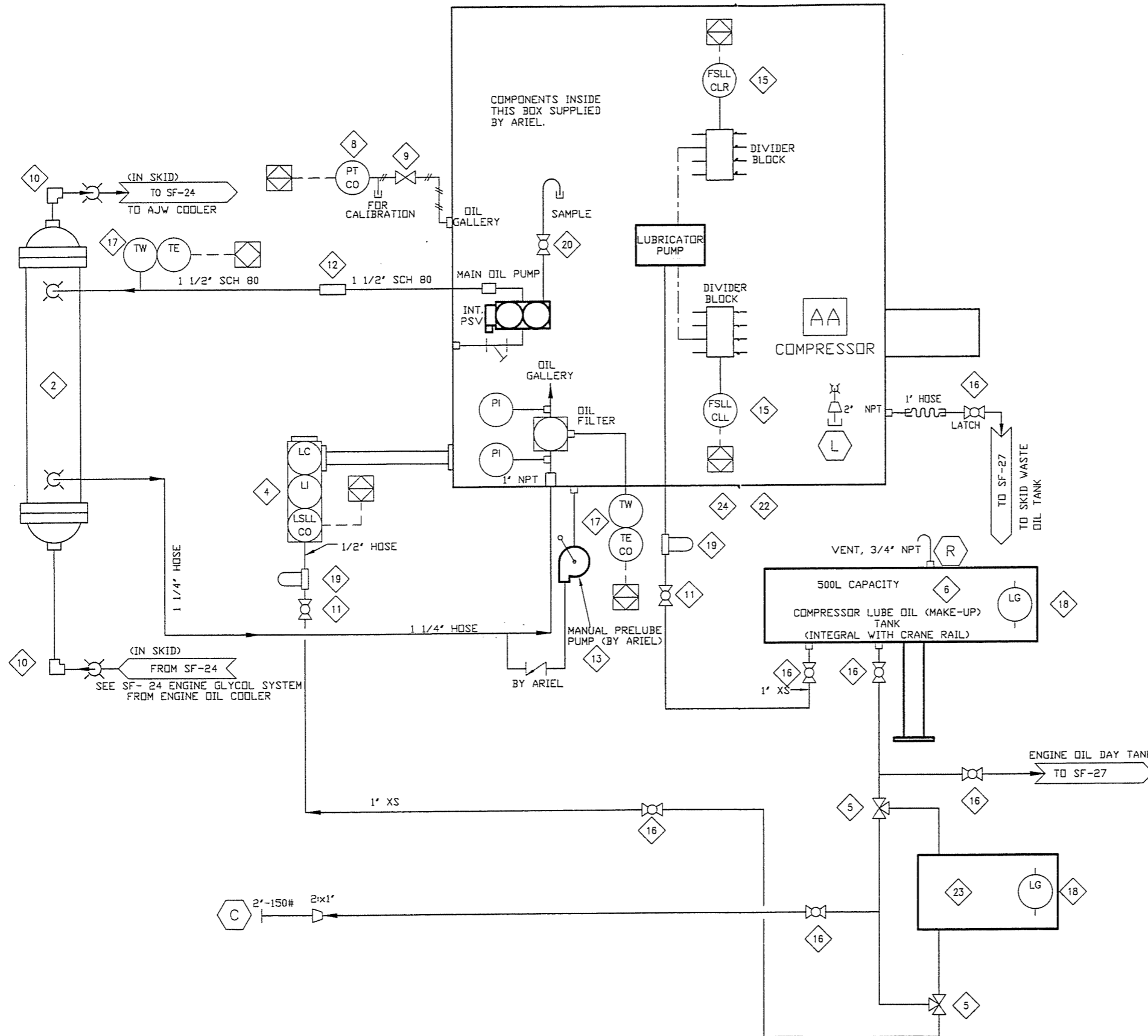
FOR: FORT ENERGY CORPORATION
 CORBET GAS PLANT

CONSULTANT: BDR ENGINEERING
 P.O.: LSD: 15-10-62-06-W5M
 JOB No.: 050322

DRWN BY: MGN	DESIGN BY: DB	DATE: 05/04/29	DWG. No.	OP#
DATE: 05/05/03	CHKD BY: DB	DATE:	PF-050322-50	50
SCALE: NTS	APPVD BY:	DATE:		

MAX. 120 PSIG INSTRUMENT AIR PRESSURE
 TO INST. TYPICAL

P:\Projects\custom\050322\Pid\SF-050322-20.dwg Sep 02, 2005 - 9:53am



BILL OF MATERIAL

ITEM	QTY	EFX CODE	DESCRIPTION
2	1	104966	COOLER, LUBE OIL (THERMAL TRANSFER, EK-1024-01)
4	1	107966	CONTROLLER, OIL LEVEL C/W ELECTRIC SWITCH, XP, CSA & BRACKET (KENDO, LCE-24)
5	2	121893	VALVE, BALL, 3-WAY, 1" NPT, FULL SS, 800 PSI C/W LOCKING HANDLE (MAS, G4)
6	1	110094	>>>TANK, LUBE OIL MAKEUP, COMPRESSOR, INTEGRAL WITH CRANE RAIL PER EFX CRANE DWG
8	1	107987	TRANSMITTER, PRESSURE, 0-100 PSIG, SWEET, 1/4" NPT (WIKA, 89213.500)
9	1	102802	VALVE, PLUG, 1/4" TUBE, 316SS (NUPRO, SS-4P4T)
10	2	101244	COUPLING, ELBOW, 90 DEG, 2", STYLE 90 (DRESSER, 0090-0245-082)
11	2	102949	VALVE, BALL, 1/2" NPT, 2000# VDG, RP, 316SS, NACE C/W (NAVCO, C1-R05S20A)
12	1	101240	COUPLING, ELBOW, 90 DEG, 1-1/2", STYLE 90 (DRESSER, 0090-0244-082)
13	1	115371	PUMP, MANUAL LUBE OIL PRIMING (MOUNTED) (ARIEL)
15	2	112860	SWITCH, DIGITAL NO-FLOW, PROGRAMMABLE, WHITLOCK (NFT-LED-PRG (ARIEL, A-10754)
16	5	102937	VALVE, BALL, 1" NPT, 2000# VDG, RP, 316SS, NACE C/W LOCKING (NAVCO, C1-R10S20A)
17	2	112330	***T*COUPLE ASSY C/W T*WELL, 304SS, 3/4" NPT, 60" (WIKA, A18113-T02-U-14-60"-K-)
18	2	115052	INDICATOR, LEVEL, SIGHT GLASS WINDOW, 10" BOLT CENTERS, (MP FILTRI, LVA 30 TA)
19	2	121735	FILTER, ASSEMBLY, OIL, 1/2" NPT, 25 MICRON C/W SF-6510 (KINECOR, SAF-05-00-0)
20	1	102950	VALVE, BALL, 1/4" NPT, 2000# VDG, RP, 316SS, NACE C/W (NAVCO, C1-R02S20A)
21	1	117547	WIRE SUPPORT, COMPRESSOR VIBRATION SENSOR (AGS, W13750153492001)
22	1	117546	WIRE SUPPORT, COMPRESSOR SIDE DOOR (AGS, W11350346452001)
23	1	NPN-REQ	2 GALLON OIL TANK, PER EFX DRAWING

AS-BUILT
DATE SEP 08 2005

REV	DESCRIPTION	DATE	DRAWN BY	CHECKED BY
3	AS BUILT	05/09/02	MGN	EM
2	ADD OIL TANK	05/05/25	MGN	DB
1	ISSUE FOR CONSTRUCTION	05/05/03	MGN	DB
0	ISSUE FOR APPROVAL	05/04/11	MGN	DB

BFX Compression
ENERFLEX

4700 47 Street SE Calgary AB Canada T2B 3R1 Canada Tel. +1.403.236.6800 Fax +1.403.279.0367
www.enerflex.com

TITLE: **SERVICE FLOW**
COMPRESSOR OIL SYSTEM-JGK/4 FRAME
K-600

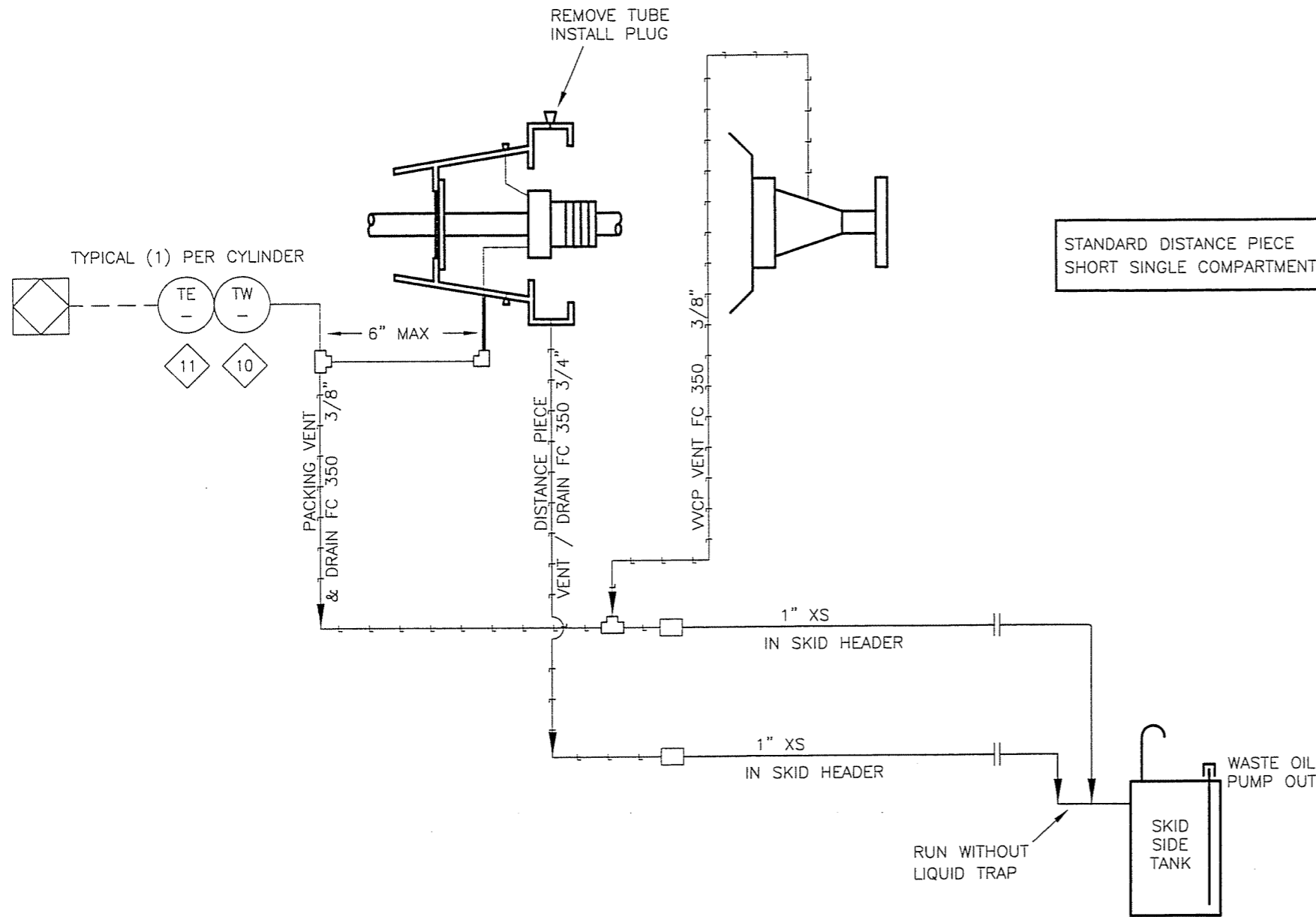
FOR: **FORT ENERGY CORPORATION**
CORBET GAS PLANT

CONSULTANT: BDR ENGINEERING
P.O.: -

LSL: 15-10-62-06-W5M
JOB No.: 050322

DRWN BY: MGN	DESIGN BY: DB	DATE: 05/04/29	DWG. No.	OP#
DATE: 05/05/03	CHKD BY: DB	DATE: -	SF-050322-20	20
SCALE: NTS	APPVD BY: <i>EM</i>	DATE: 05/09/07		

P:\Projects\custom\050322\Pid\SF-050322-21.dwg Sep 02, 2005 - 8:07am



MATERIAL LIST			
ITEM	QTY	EFX CODE	DESCRIPTION
10	3	116701	THERMOWELL, 316SS, 1/2" X 1/2" NPTM X 2-1/2" LONG, U=1", .260" BORE, STEPPED
11	3	114007	THERMOCOUPLE, K TYPE, 316SS, (THERMOKINETICS, K125-316S-004.0B-B2SYT2)

- NOTE**
- PACKING FAILURE SENSOR(S), SHOULD BE SET TO 200°F SHUTDOWN FOR NEW PACKING. AFTER PACKING IS BROKEN IN, SHUTDOWN TEMPERATURE IS TO BE ADJUSTED TO 150% (OR 200°F MAX) OF NORMAL OPERATING TEMPERATURE. (ONE PER CYLINDER)
 - OIL SEAL POT AND VACUUM PUMP ASS'Y REQUIRED WHEN CUSTOMER CONNECTING TO FLARE SYSTEM

AS-BUILT
DATE SEP 08 2005

REV	DESCRIPTION	DATE	DRAWN BY	CHECKED BY
2	AS BUILT	05/09/02	MGN	EM
1	ISSUE FOR CONSTRUCTION	05/05/03	MGN	DB
0	ISSUE FOR APPROVAL	05/04/11	MGN	DB

EFX Compression
ENERFLEX

4700 47 Street SE Calgary AB Canada T2B 3R1 Canada Tel. +1.403.236.6800 Fax +1.403.279.0367
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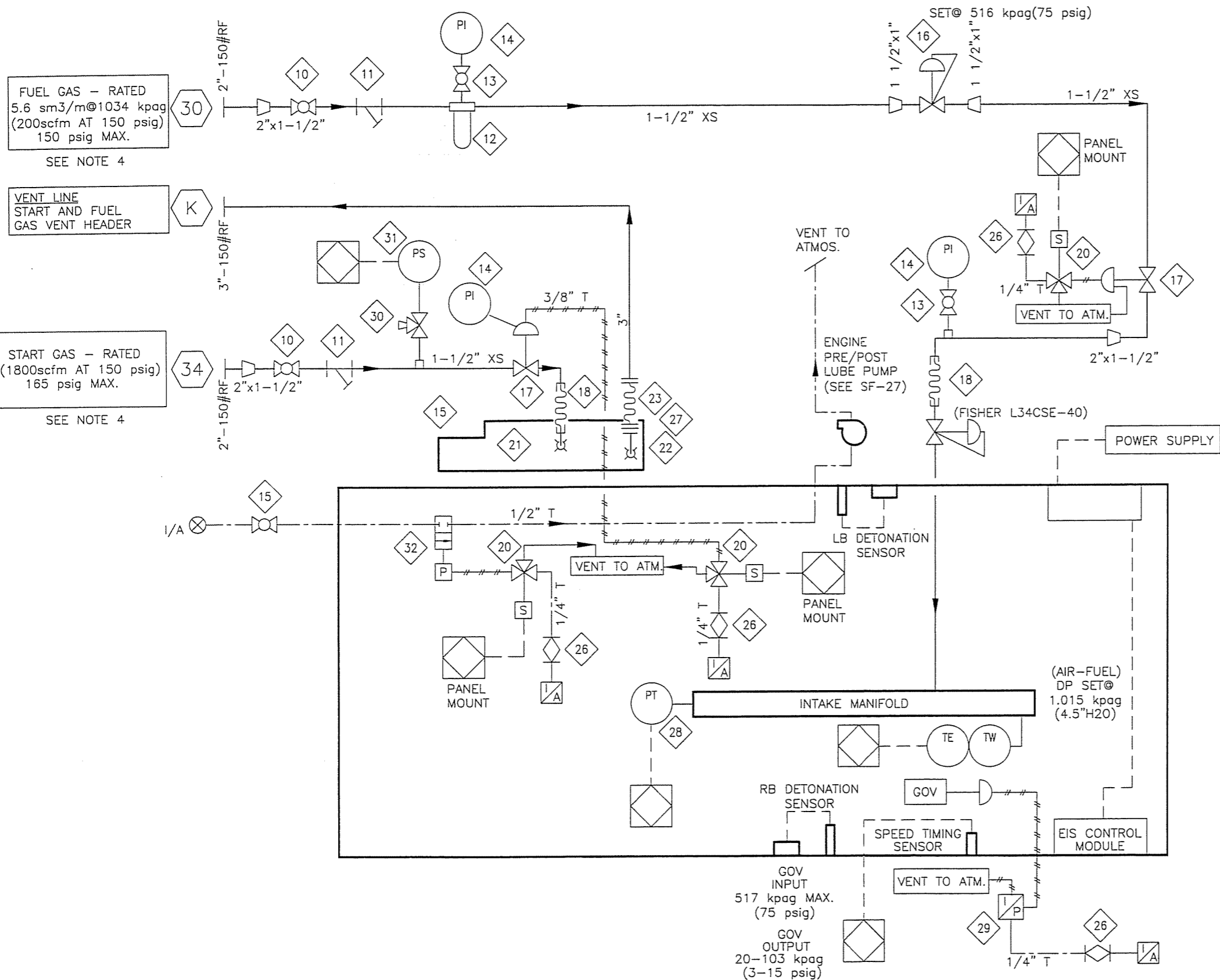
TITLE: **SERVICE FLOW
PACKING VENT & DRAIN SYSTEM 0<H2S<100 PPM
K-600**

FOR: **FORT ENERGY CORPORATION
CORBET GAS PLANT**

CONSULTANT: BDR ENGINEERING LSD: 15-10-62-06-W5M
P.O.: JOB No.: 050322

DRWN BY: MGN	DESIGN BY: DB	DATE: 05/04/29	DWG. No.	OP#
DATE: 05/05/03	CHKD BY: DB	DATE:	SF-050322-21	21
SCALE: NTS	APPVD BY: <i>[Signature]</i>	DATE: 05/09/05		

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BILL OF MATERIAL

ITEM	QTY	EFX CODE	DESCRIPTION
10	2	102933	VALVE, BALL, 1-1/2" NPT, 2000# WOG, RP, 316SS, NACE C/W [NAVCO C1-R15S20A]
11	2	102830	STRAINER, Y, 1-1/2" NPT, 1480 PSIG MAWP, CS, 1/32" SS SCREEN [ALTA, YS-600]
12	1	115569	FILTER, 1-1/2" FNPT C/W 200-35-DX ELEMENT &SS PLUG [PARKER, CB312N-040-DX-3453]
13	2	102950	VALVE, BALL, 1/4" NPT, 2000# WOG, RP, 316SS NACE, C/W [NAVCO C1-RO2S20A]
14	3	107911	GAUGE, PRESSURE, BM, 2-1/2" LF, 0-300 PSI DUAL, 1/4" NPT [WIKA, 233.53]
15	1	102949	VALVE, BALL, 1/2" NPT, 2000# WOG, RP, 316SS, NACE C/W [NAVCO C1-RO5S20A]
16	1	104863	REGULATOR, 1" NPT, DI, 3/8" OR, 35-80# SPR RNG, SET @ 75 PSIG [FISHER, 627-494]
17	2	103762	VALVE, RELAY, GAS, 1-1/2" NPT, MAWP 450 PSI [TDI, RLVA25683001201]
18	2	104695	HOSE, BRAIDED STEEL, 2" MNPT X MALE NPT UNION X 12" LONG
20	3	104769	VALVE, SOLENOID, 3-WAY, 24VDC, CSA, XP, EPNC 115PSI, NC SS [ASCO, EFB320G202-24]
BY PANEL SUPPLIER			
21	1	103758	STARTER, AIR/GAS, STD 150-60 PSIG, INERTIA DUAL [TDI TURBOSTART, T112-60001-31R]
22	1	103741	ELBOW, STARTER EXHAUST, 90 DEG, SR, 3" MNPT, CS [TDI, T100-27900]
23	1	120174	HOSE, STEEL BRAIDED, 3"- #150 RF x 3"- #150 RF, 10" LONG
26	4	102802	VALVE, PLUG, 1/4" TUBE, 316SS [NUPRO SS-4P4T]
27	1	106497	FLANGE, RF, SCREWED, 3"- #150, SA-105N
28	1	107994	TRANSMITTER, PRESSURE, -30 HG/30 PSIG, SWEET, 1/4" (WIKA 892.13.500)
29	1	120478	TRANSDUCER, I/P, 4-20MA INPUT, 3-15 PSIG OUTPUT, XP [FAIRCHILD TXI-7800-401E-2]
BY PANEL SUPPLIER			
30	1	116812	VALVE, BALL, 3-WAY, 1/4" TUBE, 316SS, .125" ORIFICE [WHITEY, SS-42XS4]
31	1	118790	SWITCH, PRESSURE, 1500 WHP, 18-150R, 6-138F, XP, [CCS, 6900GE16]
32	1	116700	VALVE, SWITCHING, 3-WAY, 1/2" NPT, 40-100 PSI [FISHER, 164A-81]

NOTES:

1. VENT START AND FUEL TO SEPARATE VENT HEADER.
2. ALL SERVICE LINES OPERATING ABOVE 103KPA(15 PSI) MUST BE PRESSURE TESTED PER THE PROCEDURE IN THE QC MANUAL.
3. INSTRUMENT REGULATORS C/W VENTED BONNETS ARE NOT REQUIRED ON INSTRUMENT AIR SERVICE.
4. SWEET CLEAN DRY GAS REQUIRED FOR BOTH FUEL AND START GAS.

AS-BUILT
DATE SEP 08 2005

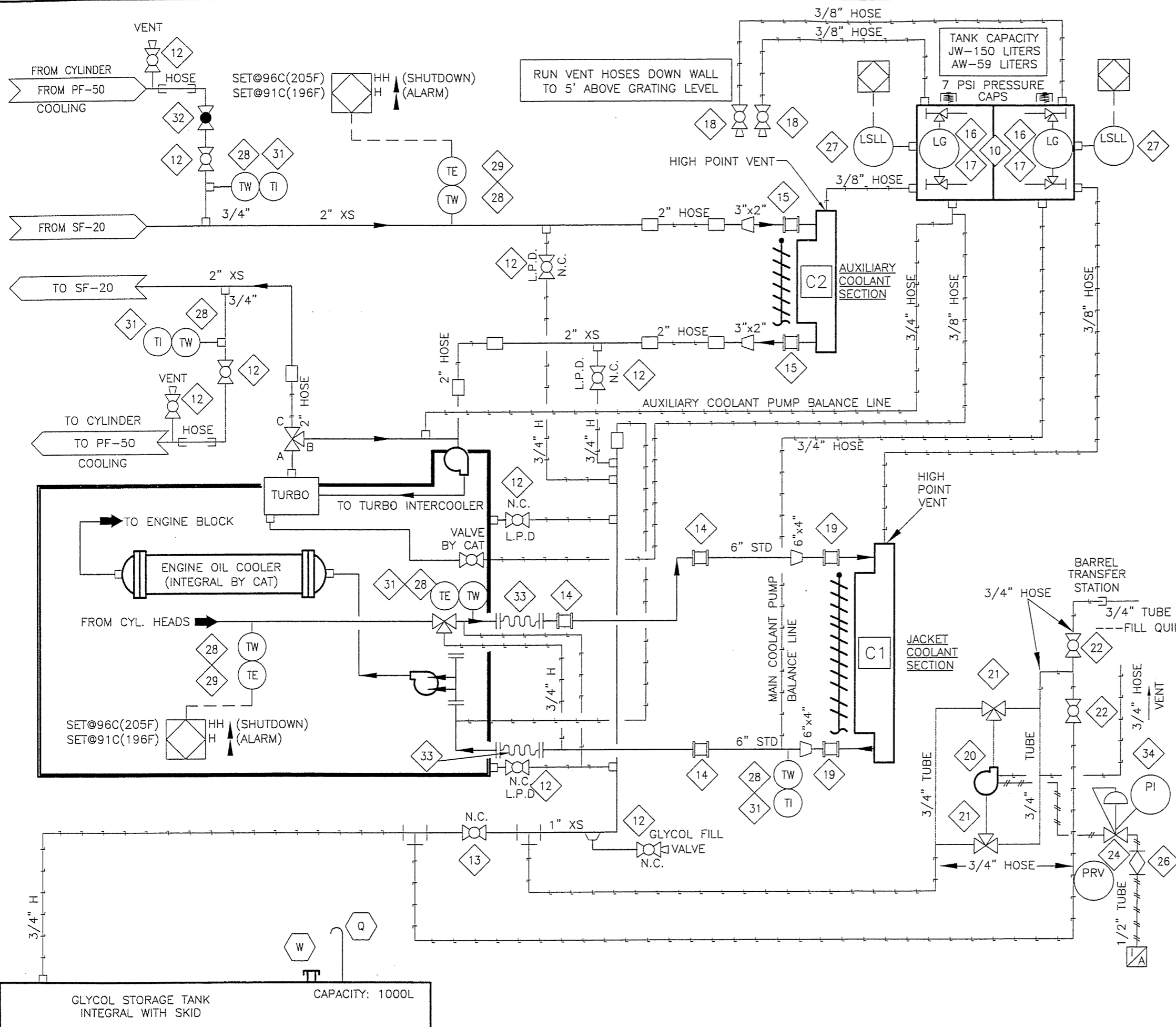
REV	DESCRIPTION	DATE	DRAWN BY	CHECKED BY
4	AS BUILT	05/09/02	MGN	EM
3	ADDED ITEM 32	05/07/20	MGN	JLE
2	UPDATE BOM	05/05/25	MGN	DB
1	ISSUE FOR CONSTRUCTION	05/05/03	MGN	DB
0	ISSUE FOR APPROVAL	05/04/11	MGN	DB

EFX Compression
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TITLE:	SERVICE FLOW FUEL AND START GAS SYSTEM CATERPILLAR G3516-TALE			
FOR:	FORT ENERGY CORPORATION CORBET GAS PLANT (K-600)			
CONSULTANT:	BDR ENGINEERING	LSD:	15-10-62-06-W5M	
P.O.:		JOB No.:	050322	
DRWN BY:	MGN	DESIGN BY:	DB	DATE: 05/04/29
DATE:	05/05/03	CHKD BY:	DB	DATE:
SCALE:	NTS	APPVD BY:	EM	DATE: 05/05/03
		DWG. No.	SF-050322-22	OP#
				22

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BILL OF MATERIAL

ITEM	QTY	EFX CODE	DESCRIPTION
10	1	113683B	TANK, SURGE, 2-COMPARTMENT, 150/59L, A1445/A1478 AS PER DRAWING
12	9	102926	VALVE, BALL, 3/4" NPT, 2000# WDG, RP, CS, NACE C/V LOCKING (NUTRON, T3-R07S20S)
13	1	102928	VALVE, BALL, 1" NPT, 2000# WDG, RP, CS, NACE C/V LOCKING (NUTRON, T3-R10S20SL)
14	3	101238	COUPLING, STRAIGHT, 6", STYLE 38 (DRESSER, 0038-0057-011)
15	2	101235	COUPLING, STRAIGHT, 3", STYLE 38 (DRESSER, 0038-0187-011)
16	2	103698	VALVE, SET GAUGE, SWEET, 5/8"OD TUBULAR x 1/2"MNPT, CS, 500# (DANIEL ITC)
17	2	101257	5/8"OD TUBULAR GAUGE GLASS (CUT TO SUIT)
18	2	102904	VALVE, BALL, 3/8" NPT, 2000# WDG, FP, CS C/V LOCKING HANDLE (NUTRON, T3-F03S20B)
19	2	101236	COUPLING, STRAIGHT, 4", STYLE 38 (DRESSER, 0038-0036-011)
20	1	107477	PUMP, DIAPHRAGM, 1/2" NPT, ALUMINUM, BUNA, #01-10001 (WILDEN, TI/AYYB/BN/ABN)
21	2	121379	VALVE, BALL, 3-WAY, 3/4" NPT, FULL SS, 800 PSI C/V LOCKING HANDLE (MAS, G4)
22	2	102973	VALVE, BALL, 3/4" NPT, 2000# WDG, RP, 316SS, NACE C/V (NAVCO, CI-R07S20A)
24	1	104872	REGULATOR, 1/4" NPT, ALUM, 0-125#, TAPPED (V/O P) (FISHER, 67CFR-601/SPEC)
26	1	102801	VALVE, PLUG, 3/8" TUBE, 316SS (NUPRO, SS-6P4T)
27	2	104507	SWITCH, LEVEL, 1-1/2" NPT, XP, CSA, 316SS BODY, SEQR C/V SS (MURPHY, L1100SSSF)
28	6	115504	THERMOWELL, 316SS, BTB STYLE 5B, 1/2" X 3/4" NPTM, U=2.5", .203" BORE
29	2	117910B	T-COUPLE, K TYPE, 316SS, 7.5" (THERMOKINETICS, K125-31630007.5B02X000-0048-99)
31	4	107940	GAUGE, TEMP, 3" DIAL, 4" STEM, 0-250 DEGF DUAL, 1/2" NPT (TREND, 33040)
32	1	113263	VALVE, GLOBE, 1" 300# RF, CS, SWEET (NAVCO, GL-R10R03A8)
33	2	121261	EXPANSION, JOINT, RUBBER, 6" X 150# RF (RAILMEX, R-711)
34	1	107894	GAUGE, PRESSURE, CSM, 2" DRY, 0-200 PSI DUAL, 1/4" NPT (WIKA, 11110)

ENGINE WATER CAPACITY
205 LITRES (54 GAL)

AS-BUILT

DATE SEP 08 2005

REV	DESCRIPTION	DATE	DRAWN BY	CHECKED BY
2	AS BUILT	05/09/02	MGN	EM
1	ISSUE FOR CONSTRUCTION	05/05/03	MGN	DB
0	ISSUE FOR APPROVAL	05/04/11	MGN	DB

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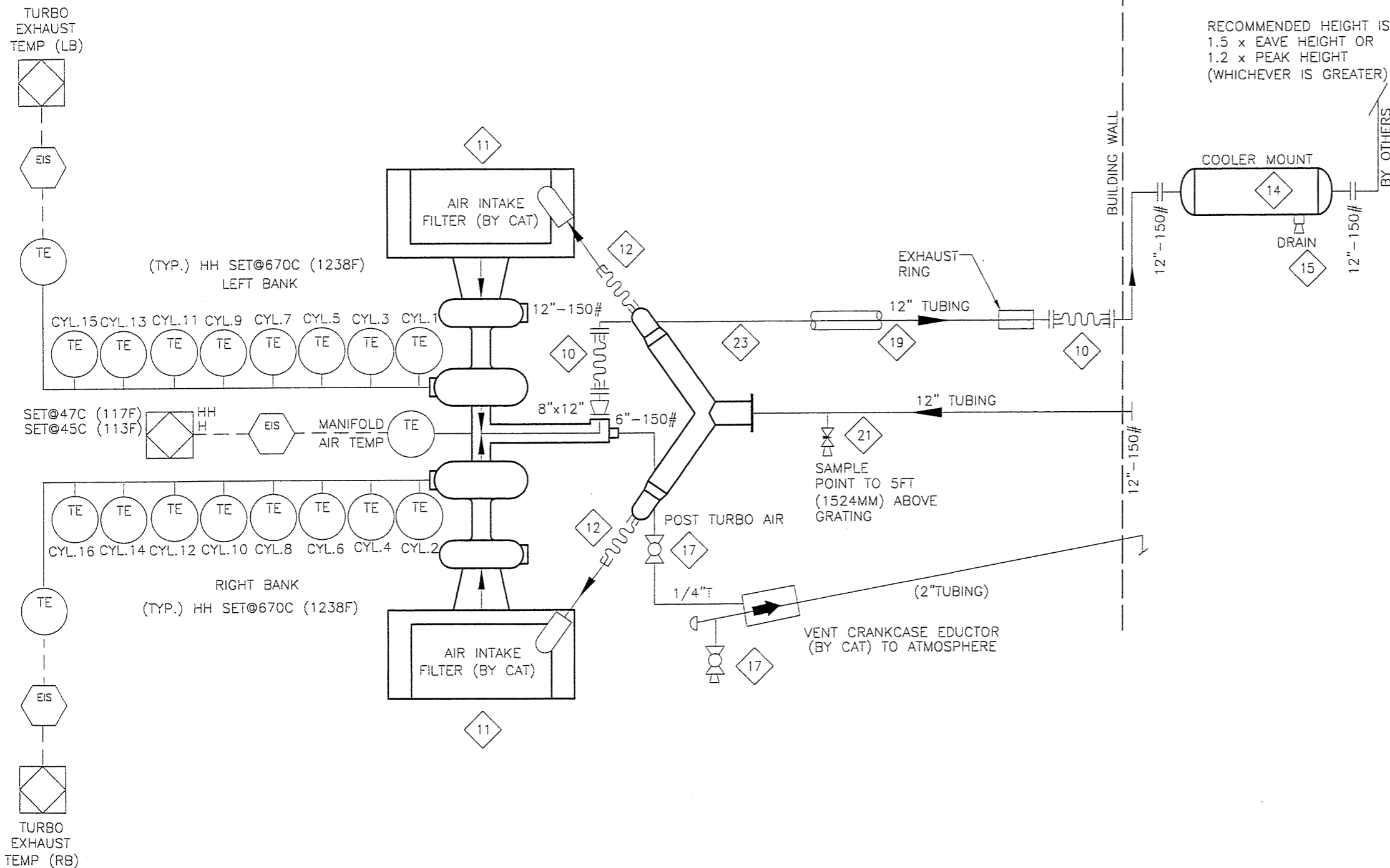
TITLE: **SERVICE FLOW ENGINE GLYCOL SYSTEM**
ARIEL JGK/4, CAT. G3516TALE, AXC 144ZF

FOR: **FORT ENERGY CORPORATION**
CORBET GAS PLANT (K-600)

CONSULTANT: BDR ENGINEERING
LSD: 15-10-62-06-W5M
JOB No.: 050322

DRWN BY: MGN	DESIGN BY: DB	DATE: 05/04/29	DWG. No.	OP#
DATE: 05/05/03	CHKD BY: DB	DATE:	SF-050322-24	24
SCALE: NTS	APPVD BY: <i>em</i>	DATE: 05/05/04		

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BUILDING SUPPLIED BY OTHERS

RECOMMENDED HEIGHT IS
1.5 x EAVE HEIGHT OR
1.2 x PEAK HEIGHT
(WHICHEVER IS GREATER)

BY OTHERS

BILL OF MATERIAL				
ITEM	QTY	EFX CODE	DESCRIPTION	
10	2	104682	"EXPANSION BELLOW, 12" 150# INTERNAL FLANGES C/W 2" COLLAR & SS LINER X 12" LONG"	
11	2	NPN-REQ	AIR FILTER BOX SUPPLIED BY CAT	
12	2	112314	"HOSE, STRAIGHT, RUBBER, 12" ID [GOODYEAR, WD75-192]"	
13	30	104562	EXHAUST TUBING, MECHANICAL, 12" OD X 10 GAUGE (.134" WALL), ERW	
14	1	NPN-REQ	"JE12-SISO - REACTIVE, SUPER HOSPITAL PLUS (40-55gBA)12.0", SIDE IN/SIDE OUT (SILEX)	
15	1	NPN-REQ	MUFFLER SUPPORT BUILT BY ENERFLEX	
17	2	102950	"VALVE, BALL, 1/4" NPT, 2000# WOG, RP, 316SS, NACE C/W [NAVCO, C1-R02S20A]"	
19	20	122061	"***INSULATION, FOR 12" 150# SS EXHAUST LINE, NO AIR SPACE, CUSTOM"	
20	1	NPN-REQ	"EXPANSION BELLOW, 8"-150#, SUPPLIED BY CAT"	
21	1	102807	"VALVE, NEEDLE, 3/8" TUBE, CS [WHITEY, S-1VS6]"	
23	20	104561	"EXHAUST TUBING, MECHANICAL, 12" ID X 11 GAUGE (.125" WALL), 316LSS"	
42	2	112185	"ELBOW, EXHAUST, 90 DEG, SR, 12" OD, 10 GAUGE, CS"	
.....				
Exhaust (B25)				
DATE-TIME EXPORTED: 2005-05-18-13.34				

NOTE:
1. MAXIMUM PERMISSIBLE BACK PRESSURE
(1775 BHP @1000 RPM IS 12".00 INCHES
H2O)

AS-BUILT
DATE SEP 08 2005

REV	DESCRIPTION	DATE	DRAWN BY	CHECKED BY
4	AS BUILT	05/09/02	MGN	EM
3	ADD ONE ITEM #10/UPDATED DRAWING	05/06/22	DRO	
2	UPDATE BOM	05/05/19	MGN	DB
1	ISSUED FOR CONSTRUCTION	05/04/27	MGN	DB
0	ISSUED FOR APPROVAL	05/04/13	MGN	DB

EFX Compression
ENERFLEX

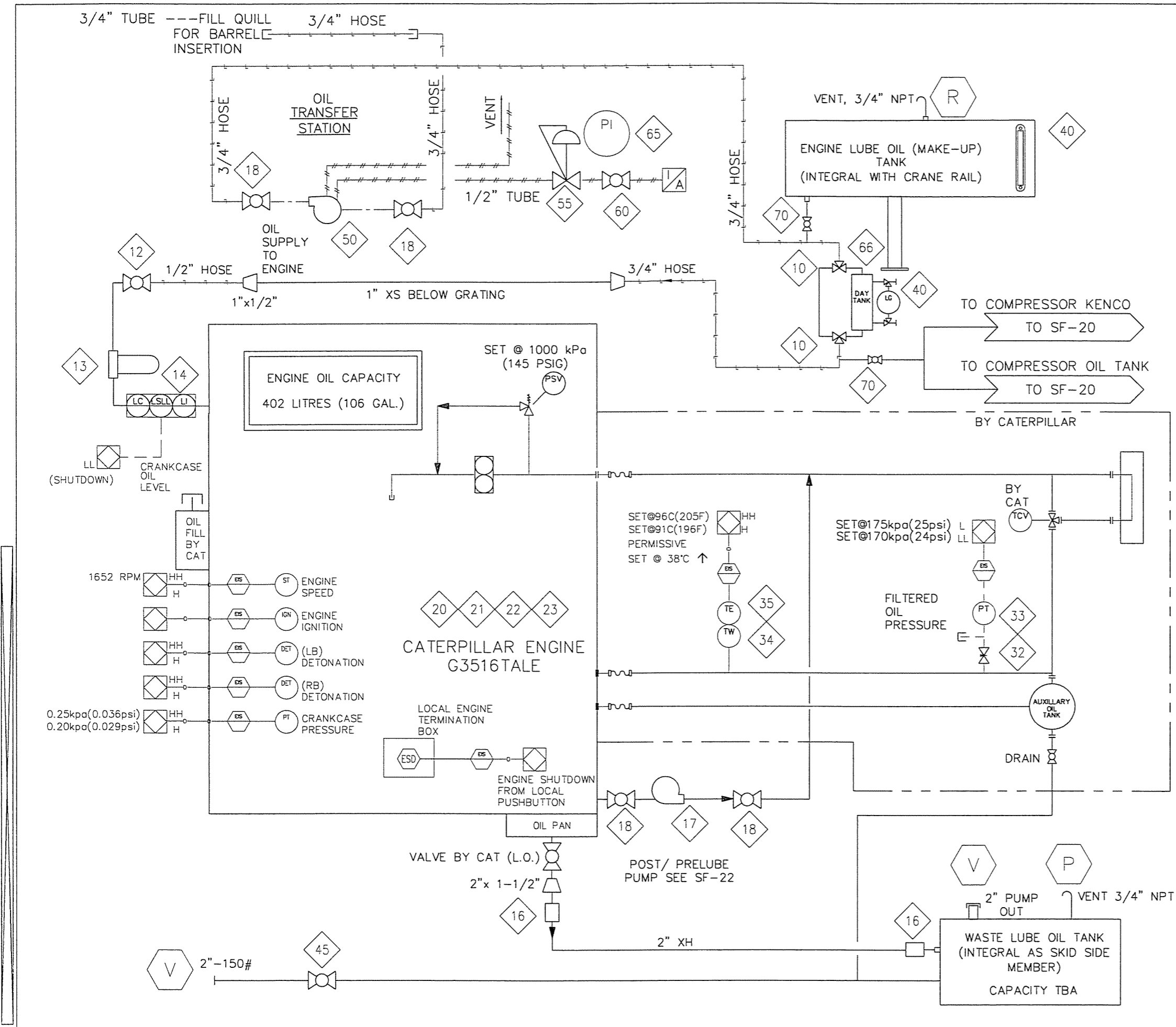
4700 47 Street SE Calgary AB Canada T2B 3R1 Canada Tel. +1.403.236.6800 Fax +1.403.279.0367
www.enerflex.com

TITLE: SERVICE FLOW
AIR & EXHAUST SYSTEMS
ARIEL JGK/4, CAT. G3516 TALE, AXC 144ZF

FOR: FORT ENERGY CORPORATION
CLEAR WATER GAS PLANT (K-605)

CONSULTANT: BDR ENGINEERING
LSD: 11-17-63-06-W5M
JOB No.: 050322

DRWN BY: MGN	DESIGN BY: DB	DATE: 05/04/11	DWG. No.	OP#
DATE: 05/04/13	CHKD BY: DB	DATE:	SF-050322-26	26
SCALE: NTS	APPVD BY: E77	DATE: 05/09/07		



BILL OF MATERIAL

ITEM	QTY	EFX CODE	DESCRIPTION
10	2	121893	VALVE, BALL, 3-WAY, 1" NPT, FULL SS, 800 PSIG (MAS G-4)
12	1	102949	VALVE, BALL, 1/2" NPT, 2000# WOG, RP, 316SS, NACE C/W [NAVCO, C1-R05S20A]
13	1	121735	FILTER, ASSEMBLY, OIL, 1/2" NPT, 25 MICRON, C/W SF6310 [KINECOR, SAF-05-00-0]
14	1	107968	CONTROLLER, OIL LEVEL C/W ELECTRIC SWITCH, XP, CSA C/W DOOR MT [KENCO, LCE-17]
16	2	101245	COUPLING, STRAIGHT, 2", STYLE 90 [DRESSER, D090-0005-082]
17	1	107478	PUMP, DIAPHRAM, 1" NPT, ALUMINUM, BUNA, #02-10001 (WILDEN T2A)
18	4	102926	VALVE, BALL, 3/4" NPT, 2000# WOG, RP, CS, NACE C/W LOCKING [NUTRON, T3-R07S20S]
20	1	NPN-REQ	>>IGNITION SYSTEM, BY CAT, CSA CLASS1, DIV2
21	1	NPN-REQ	>>HARNES, IGNITION SYSTEM, CSA CLASS1, DIV2, BY CAT
22	1	NPN-REQ	>>THERMOCOUPLE ASS'Y, TYPE K, 3/4" NPT, 2-1/2" INSERTION, BY CAT
23	1	NPN-REQ	>>HARNES, K TYPE THERMOCOUPLE, BY CAT
32	1	102808	VALVE, NEEDLE, 1/4" TUBE, 316SS [WHITEY, SS-1VS4]
33	1	112325	TRANSMITTER, PRESSURE, 0-160 PSIG, SWEET, 1/4" NPT [WKA, 892.13.500]
34	1	115504	THERMOWELL, 316SS, BTB STYLE 5B, 1/2" x 3/4" NPTM, U=2.5", .203" BORE
35	1	1179108	X-THERMOCOUPLE, K TYPE, 316SS [THERMOKINETICS, K125-316-S-007.5-B-B2X000-0048]
40	1	115052	INDICATOR, LEVEL, SIGHT GLASS WINDOW, 10" BOLT CENTERS, [MP FILTRI, LVA 30 TA]
45	1	102951	VALVE, BALL, 2" NPT, 2000# WOG, RP, 316SS, NACE C/W LOCKING [NAVCO, C1-R20S20A]
50	1	107477	PUMP, DIAPHRAM, 1/2" NPT, ALUMINUM, BUNA, #01-10001 [WILDEN, T1/AYYB/BN/BN/ABN]
55	1	104872	REGULATOR, 1/4" NPT, ALUM., 0-125#, TAPPED (W/O PI) [FISHER, 67CFR-601/SPEC]
60	1	102949	VALVE, BALL, 1/2" NPT, 2000# WOG, RP, 316SS, NACE C/W [NAVCO, C1-R05S20A]
65	1	107897	GAUGE, PRESSURE, BM, 4" LF, 0-2000 PSI DUAL, 1/2" NPT [WKA, 233.54]
66	1	NPN-REQ	20 GALLON OIL TANK, AS PER EFX DRAWING
70	2	102937	VALVE, BALL, 1" NPT, 2000# WOG, RP, 316SS, NACE C/W LOCKING [NAVCO, C1-R10S20A]

NOTE:
1. 1/2" PLUGGED SAMPLE POINTS TO BE PROVIDED.

AS-BUILT
DATE SEP 2 1 2005

REV	DESCRIPTION	DATE	DRAWN BY	CHECKED BY
3	AS-BUILT	05/09/07	DH	EAM
2	ADD OIL TANK	05/05/24	MGN	DB
1	ISSUED FOR CONSTRUCTION	05/05/03	MGN	DB
0	ISSUED FOR APPROVAL	05/04/29	MGN	DB

EFX Compression
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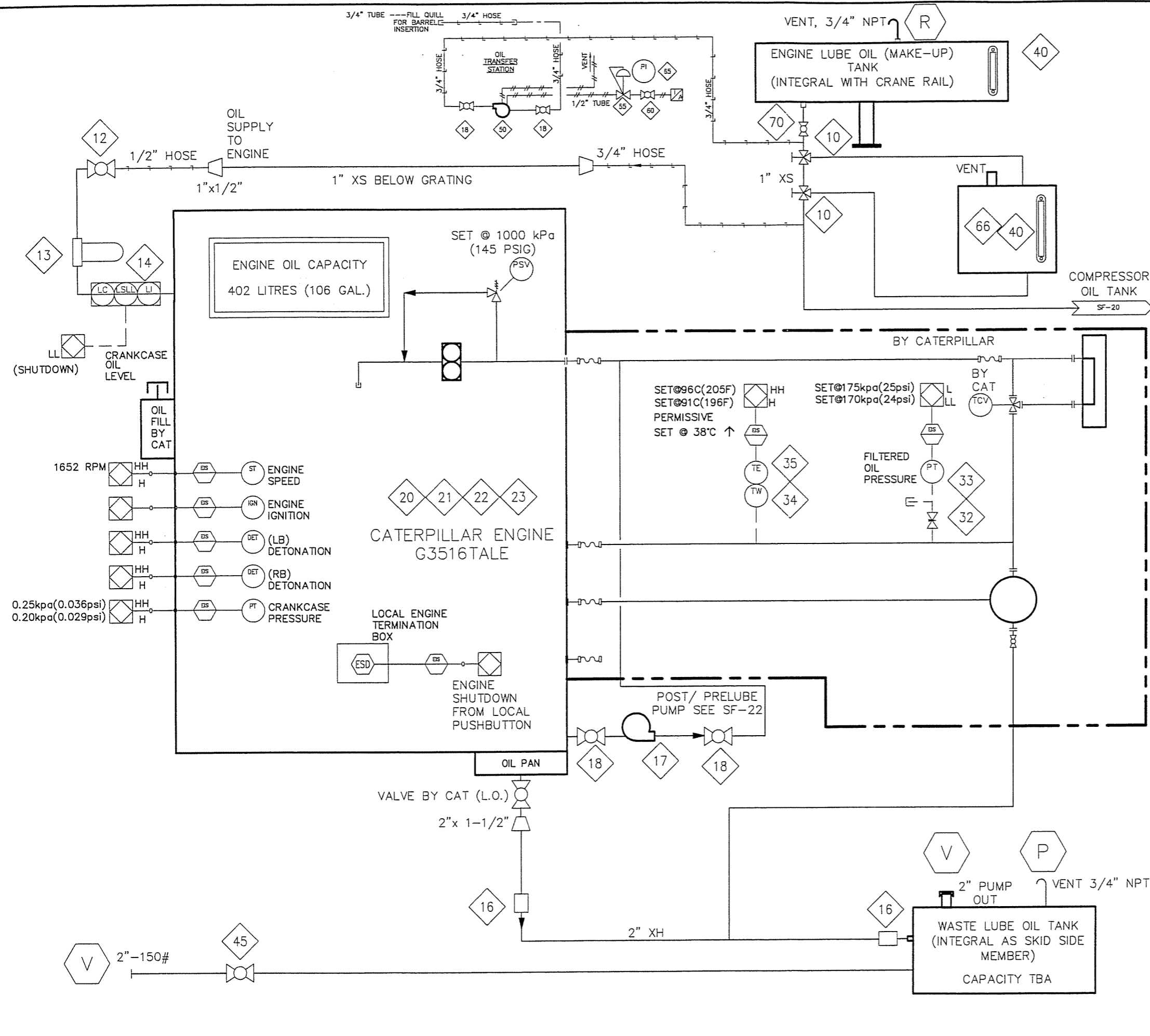
TITLE: SERVICE FLOW ENGINE OIL
ARIEL JGK/4, CAT. G3516 TALE, AXC 144ZF

FOR: FORT ENERGY CORPORATION
CLEAR WATER GAS PLANT (K-601)

CONSULTANT: BDR ENGINEERING LSD: 11-17-63-06-W5M
P.O.: JOB No.: 050322

DRWN BY: MGN	DESIGN BY: DE	DATE: 05/04/28	DWG. No.	OP#
DATE: 05/04/29	CHKD BY: DE	DATE:	SF-050322-27	27
SCALE: NTS	APPVD BY: [Signature]	DATE:		

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BILL OF MATERIAL				
ITEM	QTY	EFX CODE	DESCRIPTION	
10	2	121893	VALVE, BALL, 3-WAY, 1" NPT, FULL SS, 800 PSIG (MAS G-4)	
12	1	102949	VALVE, BALL, 1/2" NPT, 2000# WOG, RP, 316SS, NACE C/W [NAVCO, C1-R05S20A]	
13	1	121735	FILTER, ASSEMBLY, OIL, 1/2" NPT, 25 MICRON, C/W SF6310 [KINECOR, SAF-05-00-0]	
14	1	107968	CONTROLLER, OIL LEVEL C/W ELECTRIC SWITCH, XP, CSA C/W DOOR WT [KENCO, LCE-17]	
16	2	101245	COUPLING, STRAIGHT, 2", STYLE 90 [DRESSER, 0090-0005-082]	
17	1	107478	PUMP, DIAPHRAM, 1" NPT, ALUMINUM, BUNA, #02-10001 (WLDEN TZA)	
18	4	102926	VALVE, BALL, 3/4" NPT, 2000# WOG, RP, CS, NACE C/W LOCKING [NUTRON, T3-R07S20S]	
20	1	NPN-REQ	>>IGNITION SYSTEM, BY CAT, CSA CLASSI, DIV2	
21	1	NPN-REQ	>>HARNNESS, IGNITION SYSTEM, CSA CLASSI, DIV2, BY CAT	
22	1	NPN-REQ	>>THERMOCOUPLE ASS'Y, TYPE K, 3/4" NPT, 2-1/2" INSERTION, BY CAT	
23	1	NPN-REQ	>>HARNNESS, K TYPE THERMOCOUPLE, BY CAT	
32	1	102808	VALVE, NEEDLE, 1/4" TUBE, 316SS [WHITEY, SS-1VS4]	
33	1	112325	TRANSMITTER, PRESSURE, 0-160 PSIG, SWEET, 1/4" NPT [WKA, 892.13.500]	
34	1	115504	THERMOWELL, 316SS, 8TB STYLE 5B, 1/2" X 3/4" NPTM, U=2.5", .203" BORE	
35	1	1179108	X-THERMOCOUPLE, K TYPE, 316SS [THERMOKINETICS, K125-316-S-007.5-B-82X000-0048]	
40	2	115052	INDICATOR, LEVEL, SIGHT GLASS WINDOW, 10" BOLT CENTERS, [MP FILTRI, LVA 30 TA]	
45	1	102951	VALVE, BALL, 2" NPT, 2000# WOG, RP, 316SS, NACE C/W LOCKING [NAVCO, C1-R20S20A]	
50	1	107477	PUMP, DIAPHRAM, 1/2" NPT, ALUMINUM, BUNA, #01-10001 (WLDEN, TI/AYYB/BN/ABN)	
55	1	104872	REGULATOR, 1/4" NPT, ALUM., 0-125#, TAPPED (W/O PI) [FISHER, 67CFR-601/SPEC]	
60	1	102949	VALVE, BALL, 1/2" NPT, 2000# WOG, RP, 316SS, NACE C/W [NAVCO, C1-R05S20A]	
65	1	107897	GAUGE, PRESSURE, BM, 4" LF, 0-2000 PS DUAL, 1/2" NPT [WKA, 233.54]	
66	1	NPN-REQ	20 GALLON OIL TANK, AS PER EFX DRAWING	
70	1	102937	VALVE, BALL, 1" NPT, 2000# WOG, RP, 316SS, NACE C/W LOCKING [NAVCO, C1-R10S20A]	

NOTE:
1. 1/2" PLUGGED SAMPLE POINTS TO BE PROVIDED.

AS-BUILT
DATE SEP 08 2005

REV	DESCRIPTION	DATE	DRAWN BY	CHECKED BY
2	ADD OIL TANK	05/05/25	MGN	DB
1	ISSUE FOR CONSTRUCTION	05/05/03	MGN	DB
0	ISSUE FOR APPROVAL	05/04/11	MGN	DB

EFX Compression
ENERFLEX

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www.enerflex.com

TITLE: **SERVICE FLOW ENGINE OIL**
ARIEL JGK/4, CAT. G3516 TALE, AXC 144ZF

FOR: **FORT ENERGY CORPORATION**
CORBET GAS PLANT (K-600)

CONSULTANT: BDR ENGINEERING
LSD: 15-10-62-06-W5M
P.O.: JOB No.: 050322

DRWN BY: MGN	DESIGN BY: DB	DATE: 05/04/29	DWG. No.	OP#
DATE: 05/05/03	CHKD BY: DB	DATE:	SF-050322-27	27
SCALE: NTS	APPVD BY: <i>Em</i>	DATE: <i>05/09/05</i>		

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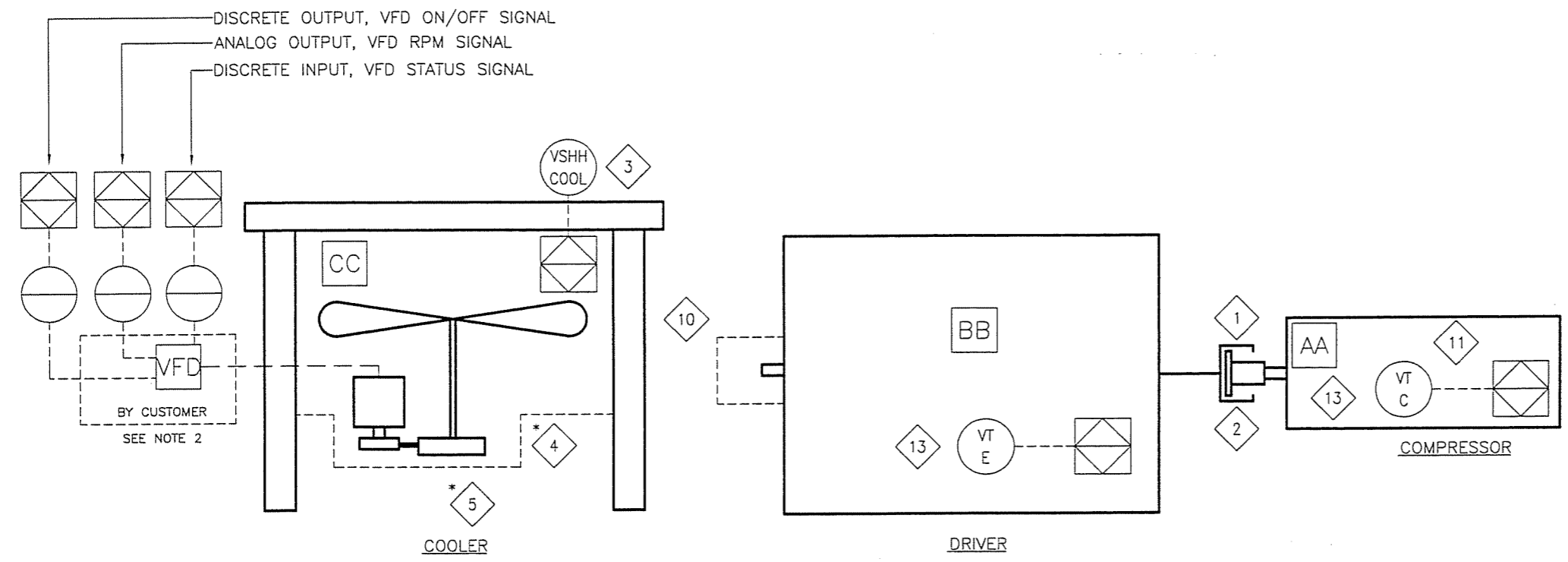
DESCRIPTION	SHEAVE PICTH Ø	RPM
ENGINE SHAFT	TBD	TBD
JACK SHAFT	N/A	N/A
ENGINE END	N/A	N/A
COOLER END	N/A	N/A
IDLER	N/A	N/A
COOLER END	N/A	N/A
COOLER SHAFT	TBD	TBD
MOTOR SHAFT	TBD	TBD

BILL OF MATERIAL

ITEM	QTY	EFX CODE	DESCRIPTION
1	1	118598	COUPLING, ADAPTER PLATE 26.5" OD HD/SAE C/W STEEL HUB [FORMFLEX, FSH70-26B-GK]
2	1	115047	GUARD, COUPLING, FIBERGLASS, ENERFLEX RED, PMS 188 AS PER QUOTE #01-143
3	1	104524	SWITCH, VIBRATION, ELECTRIC C/W MANUAL RESET [MURPHY, VS2]
4	1	NPN	COOLER DRIVE BELT GUARD
5	1	NPN	BUSHINGS AND BELTS SUPPLIED BY COOLER MANUFACTURER, INFORMATION IN MANUAL
10	1	NPN	ENGINE DRIVE BELT GUARD
13	2	104786	TRANSMITTER, VIBRATION, 4-20MA 24VDC CSA IS CENELEC [METRIX, ST5484E-121-320-01]

.....

BILL OF MATERIAL: M 124585 : SERVICE FLOW, DRIVE TRAIN, A1478, 4STG
 DATE-TIME EXPORTED: 2005-01-24-15,25



AS-BUILT
 DATE SEP 08 2005

- NOTE:
 1. * SUPPLIED BY VENDOR
 2. WIRING FROM PANEL TO CUSTOMER VFD BY CUSTOMER.

REV	DESCRIPTION	DATE	DRAWN BY	CHECKED BY
3	AS BUILT	05/09/02	MGN	EM
2	REVISED COUPLING	05/06/17	DRO	
1	ISSUED FOR CONSTRUCTION	05/04/27	MGN	DB
0	FOR APPROVAL	05/04/13	MGN	DB

EFX Compression
ENERFLEX

4700 47 Street SE Calgary AB Canada T2B 3R1 Canada Tel. +1.403.236.6800 Fax +1.403.279.0367
 www.enerflex.com

TITLE: **SERVICE FLOW DRIVE TRAIN
 ARIEL JGK/4, CAT. 3516 TALE AIR X 144ZF
 A1478 4STG (OP 28)**

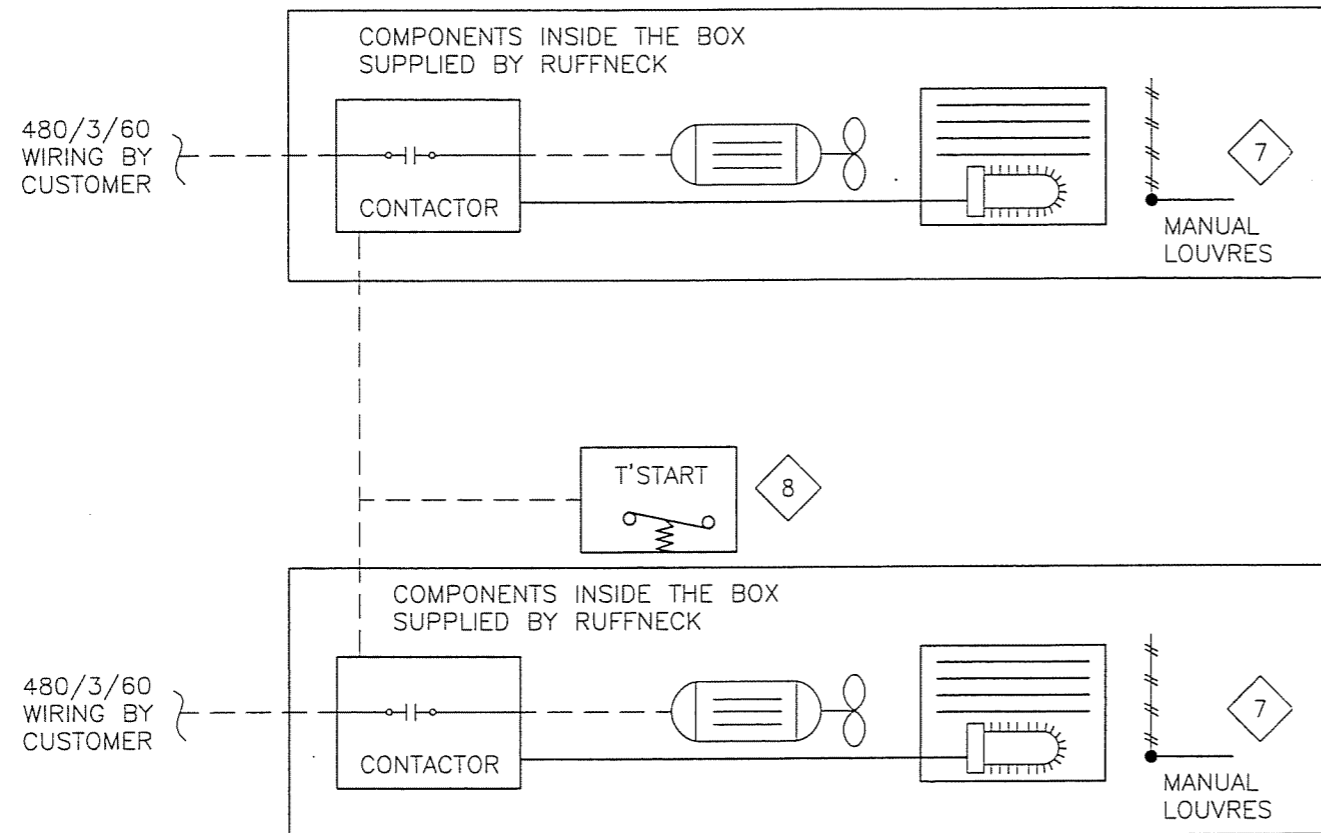
FOR: **FORT ENERGY CORPORATION
 CLEAR WATER GAS PLANT (K-605)**

CONSULTANT: BDR ENGINEERING
 P.O.: -

LSJ: 11-17-63-06-W5M
 JOB No.: 050322

DRWN BY: MGN	DESIGN BY: -	DATE: -	DWG. No.	REV
DATE: 05/04/13	CHKD BY: DB	DATE: -	SF-050322-28	28
SCALE: NTS	APPVD BY: EM	DATE: 05/09/05		

P:\Projects\custom\050322\Plid\SF-050322-72.dwg Sep 02, 2005 - 11:09am



BUILDING EQUIPMENT AND CONTROLS

BILL OF MATERIAL			
ITEM	QTY	EFX CODE	DESCRIPTION
7	2	104647	HEATER, ELECTRIC, 20 KW, 480V/3/60HZ, XP, CSA, [RUFFNECK, FX416-480360-20]
8	1	104651	THERMOSTAT, 5-25 DEG.C RANGE, 120/240V, XP, CSA, WALL MOUNT, [DEFENDER, XT-311]
			BILL OF MATERIAL: H BASE TEMPLATE + ASSEMBLY, HEATERS, A1478

AS-BUILT
DATE SEP 08 2005

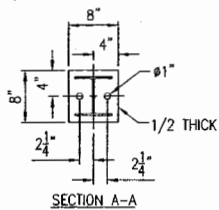
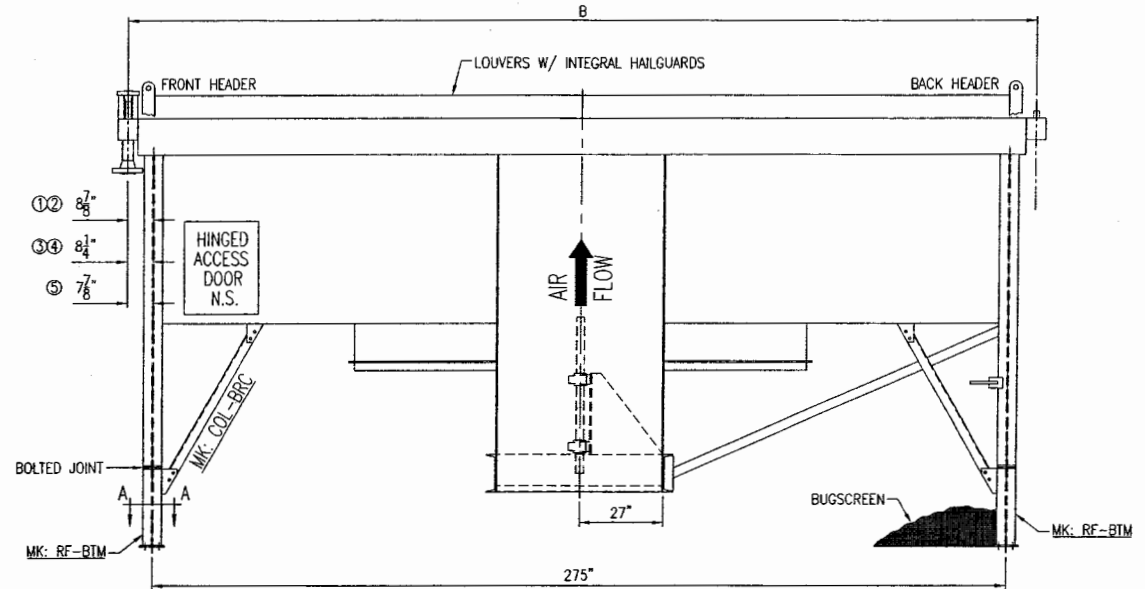
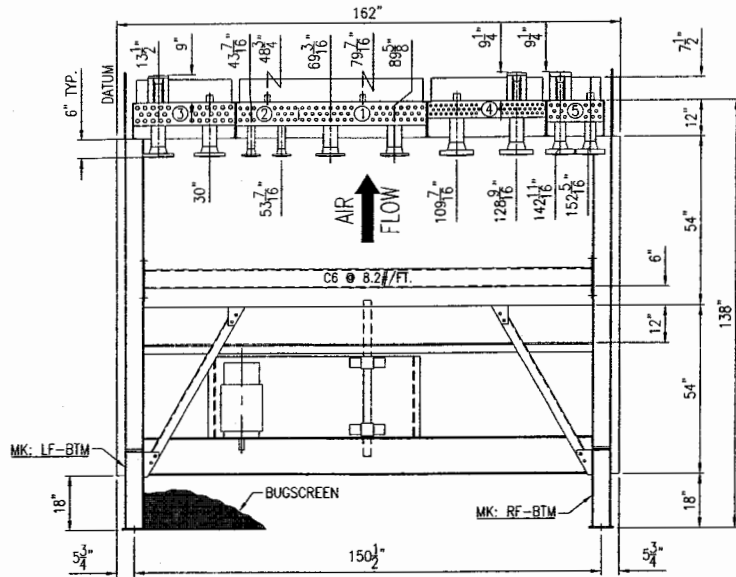
REV	DESCRIPTION	DATE	DRAWN BY	CHECKED BY
2	AS BUILT	05/09/02	MGN	EM
1	ISSUED FOR CONSTRUCTION	05/05/03	MGN	DB
0	ISSUED FOR APPROVAL	05/04/11	MGN	DB

EFX Compression
ENERFLEX


4700 47 Street SE Calgary AB Canada T2B 3R1 Canada Tel: +1.403.236.6800 Fax: +1.403.279.0367
www.enerflex.com

TITLE: SERVICE FLOW BUILDING EQUIPMENT AND CONTROL A1478-4 STG (OP 72)				
FOR: FORT ENERGY CORPORATION CORBET GAS PLANT (K-600)				
CONSULTANT: BDR ENGINEERING			LSD: 15-10-62-06-W5M JOB No.: 050322	
DRWN BY: MGN	DESIGN BY: DB	DATE: 05/04/29	DWG. No.	OP#
DATE: 05/05/03	CHKD BY: DB	DATE: -	SF-050322-72	72
SCALE: NTS	APPVD BY: <i>EM</i>	DATE: 05/11/02		

ITEM	SERVICE	MAWP	CODE	NOZZLES		COUPLING	REF. DIMENSION		LOUVERS	BUG SCREEN	DRIVE	FAN	FINISH
				INLET	OUTLET		VENT/TEMP	B					
1	EJW (COMBINED) 52 GALS	14 PSI @ 300/-20°F	NONE	4-150# RFWN	4-150# RFWN	1-3000#	292.75	-	MANUAL	YES	ELECTRIC MOTOR DRIVE SHEAVES, BELTS, AND GUARDS BY AIR-X-HEMPHILL 50 HP, 1800 RPM, 3P, 60 HZ, 460V, TEFC, VFD, CSA ELECTRIC MOTOR	144# MOORE 10K, 60 HD, VT 11-BLADE 12" PA, LH ROTATION 244 RPM @ 43 HP REQ'D	STRUCTURE STD. PRIMER W/ WARM GRAY ENAMEL TOP COAT
2	AUX-W (COMBINED) 26 GALS	14 PSI @ 300/-20°F	NONE	2-150# RFWN	2-150# RFWN	1-3000#	292.75	-					
3	IC-1	645 PSI @ 350/-40°F	ASME	4-300# RFWN	4-300# RFWN	2-300# RFWN 1-6000#	291.50	-					
4	IC-2	1292 PSI @ 350/-40°F	ASME	4-600# RFWN	4-600# RFWN	1.5-600# RFWN 1-6000#	291.50	-					
5	AC	1935 PSI @ 350/-40°F	ASME	3-900# RFWN	3-900# RFWN	1.5-900# RFWN 1-6000#	290.75	-					

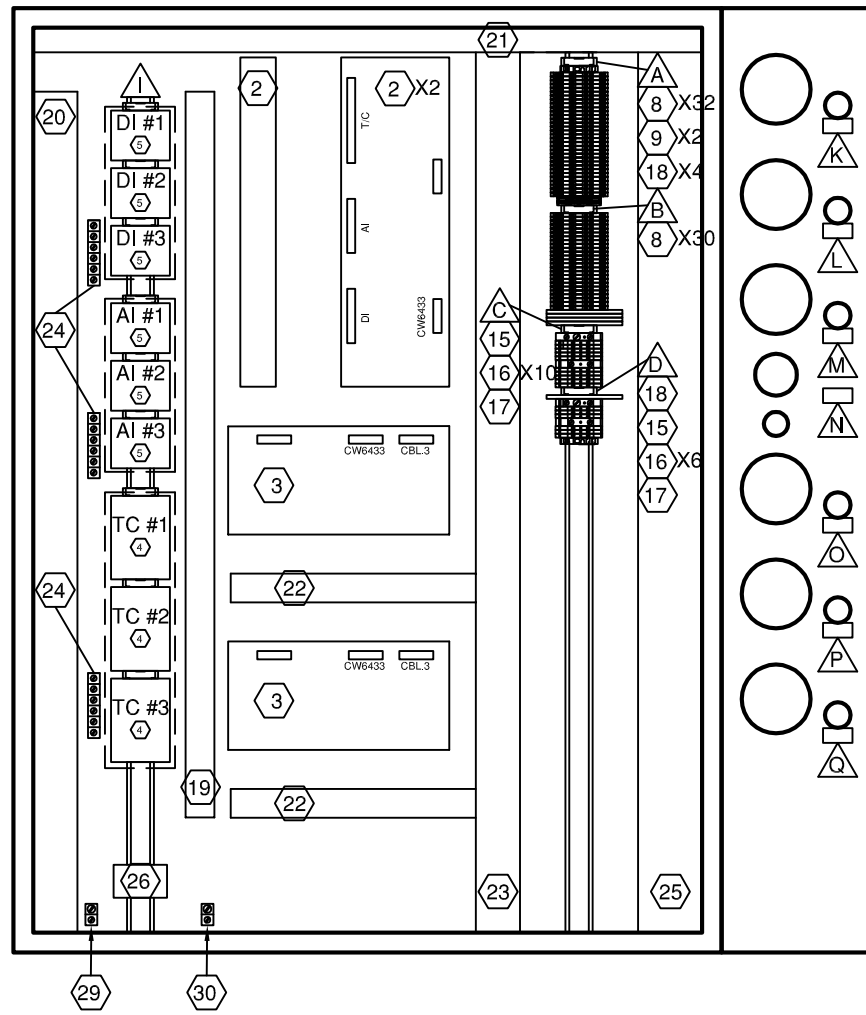
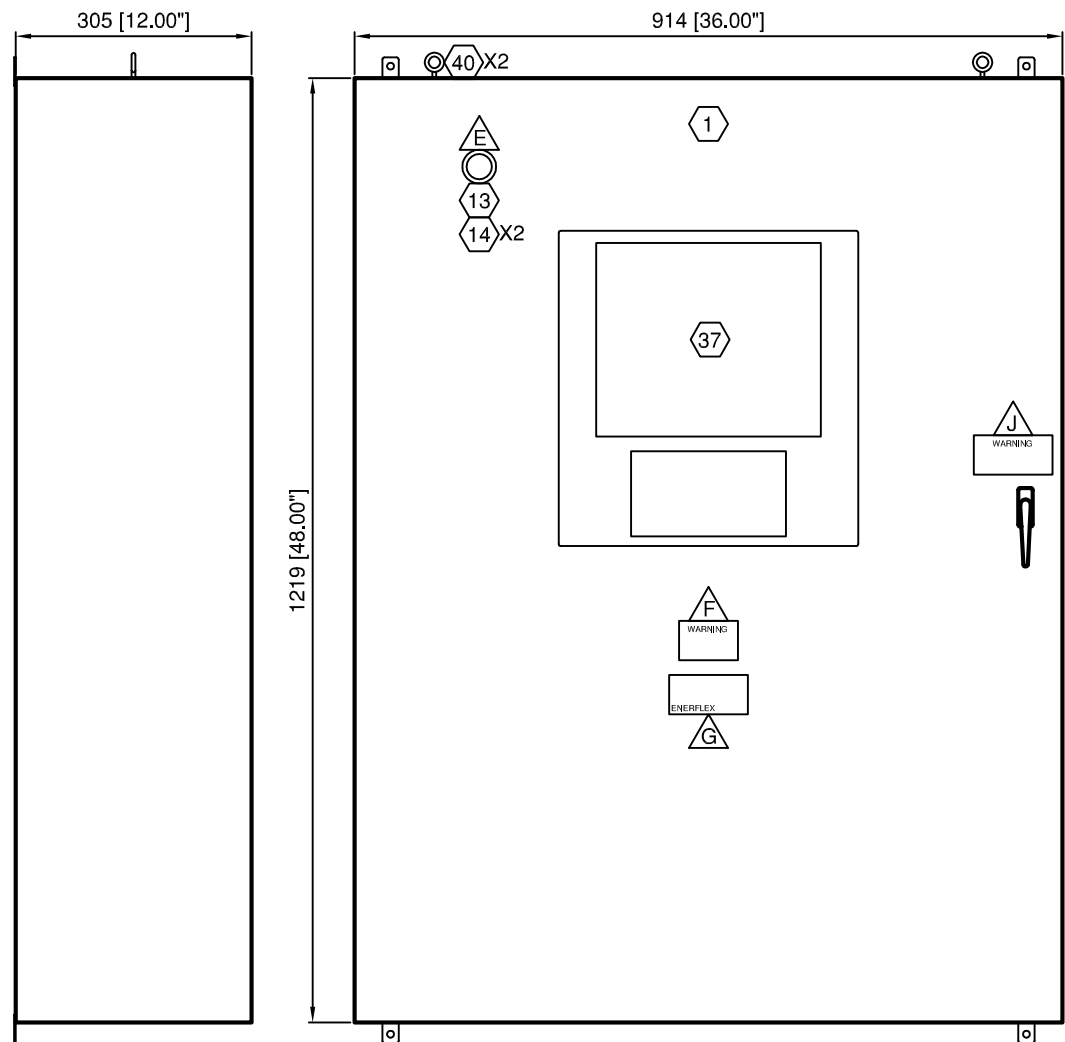


RELEASED
FABRICATION OF THIS
ORDER HAS BEGUN

						FOR: ENERFLEX	ESTIMATED DRY WEIGHT 19,100#					
						P.O. NO: 0540424 - 429	 air-x-hemphill AXH air-coolers					
						CUST. TAG: 050317 - 322						
						USER: TRIDENT EXP.						
						JOB NO: 54034						
4	FAN INFORMATION					LES	M.B.	05/05/05	JOB SITE: AB, CANADA			
3	CHG'D WATER NOZZLES & AC PSV					M.B.	L.W.	04/27/05	WORK ORDER NO: -			
2	CHG'D EJW NOZZLE					M.B.	L.W.	04/14/05	CERTIFIED DRAWING FOR: MODEL 144 ZF QUANTITY: 6			
1	PER CUSTOMER COMMENTS AND RELEASE					JJ	MB	04/13/05	DR: JJ DATE: 04/08/05			
REV	REVISION DESCRIPTION					BY	CK	APP	DATE	CK: M.B. DATE: 04/08/05	DWG. NO. 54034-CRT	
										SCALE: FULL	DATE: 04/08/05	REV 4

Visual = OK 7-12-05
Dim'l = OK 7-11-05

Paint Touch-up/Clean up



BILL OF MATERIALS ⬡

ITEM	QTY	DESCRIPTION	MODEL #
1	1	ACE 48"x36"x12" ENCLOSURE c/w FEET	ACE483612
2	3	RC 2000 INPUT MODULE	CW4769-1
3	2	RC 2000 OUTPUT MODULE	CW5218-2
4	3	WIELAND. 40 PIN TERMINATION BLOCK	87.210.2208.3 (ENERFLEX SUPPLY)
5	6	WIELAND. 26 PIN TERMINATION BLOCK	87.210.2005.3 (ENERFLEX SUPPLY)
6	-	-	-
7	-	-	-
8	62	WDK 2.5 STACKED FEED THROUGH TERM.	102150
9	2	WEID. WPE 4 GROUND TERMINAL	101010
10	-	-	-
11	-	-	-
12	-	-	-
13	1	AB RED PUSH BUTTON	800T-FX6
14	2	N/C CONTACT BLOCK	800T-XD2P
15	2	WEID SAKS 1/35 FUSED TERMINAL	50162
16	16	WEID WDU 2.5 FEED THROUGH TERMINAL	102000
17	3	WEID WDU 10 FEED THROUGH TERMINAL	102030
18	5	WEIL. SLIM LINE RELAY	80.010.4000.0
19	LOT	1X2 GRAY PANDUIT	F1X2LG6
20	LOT	2X4 GRAY PANDUIT	F2X4LG6
21	LOT	1X2 WHITE PANDUIT	F1X2WH6
22	LOT	1X3 WHITE PANDUIT	F1X3WH6
23	LOT	2X3 WHITE PANDUIT	F2X3WH6
24	LOT	GROUND BAR	-
25	LOT	3X3 WHITE PANDUIT	F3X3WH6
26	1	WEID. SPARE FUSE HOLDER	7914760001
27	-	-	-
28	-	-	-
29	1	ILSCO ISOLATED GROUND LUG	-
30	1	ILSCO PANEL GROUND LUG	-
31	-	-	-
32	-	-	-
33	LOT	TS-35 MOUNTING RAIL	38340
34	LOT	EW 35 END STOPS	38356
35	LOT	SCHT5s TERMINAL STRIP MARKERS	163193
36	-	-	-
37	1	CIMREX 10" TOUCH SCREEN c/w KEYPAD	RC2000-10T
38	-	-	-
39	-	-	-
40	2	LIFTING EYE HOOKS	BS12/312A
41	-	-	-

LAMACOID SCHEDULE ⬠

ITEM	QTY	TEXT	SIZE
A	1	INCENDIVE I/O BOARD #1	SCHT5s
B	1	INCENDIVE I/O BOARD #2	SCHT5s
C	1	24 VDC DISTRIBUTION	SCHT5s
D	1	IGNITION DISTRIBUTION	SCHT5s
E	1	PANEL SHUTDOWN	1" X 3"
F	1	WARNING EXPLOSION HAZARD DO NOT REPLACE FUSES OR WIRES UNLESS POWER HAS BEEN SWITCHED OFF OR THE AREA IS KNOWN TO BE NON-HAZARDOUS	2" x 3" WHT/RED
G	1	ENERFLEX CSA LAMACOID	2" X 4"
H	-	-	-
I	1	NON-INCENDIVE I/O	SCHT5s
J	1	WARNING : DISCONNECT CABLE CONNECTION TO INPUT / OUTPUT BOARDS BEFORE WELDING	2" x 4" WHT/RED

LAMACOID SCHEDULE ⬠

ITEM	QTY	TEXT	SIZE
K	1	GOVERNOR	3/4" X 1.5"
L	1	BYPASS VALVE #1	3/4" X 1.5"
M	1	BYPASS VALVE #2	3/4" X 1.5"
N	1	FIRELOOP	3/4" X 1.5"
O	1	LOUVER 1 CONTROL VALVE	3/4" X 1.5"
P	1	LOUVER 2 CONTROL VALVE	3/4" X 1.5"
Q	1	LOUVER 3 CONTROL VALVE	3/4" X 1.5"

LEGEND

- 1. PANEL WIRING
- 2. FIELD WIRING
- 3. UNFUSED TERMINAL
- 4. FUSED TERMINAL
- 5. FEED THROUGH TERMINAL
- 6. DISCONNECT TERMINAL

WIRE COLOR LEGEND

- 1. +24VDC: RED
- 2. -24VDC: YELLOW
- 3. SWITCHED: ORANGE
- 4. ANALOG INPUT/OUTPUT - : BLACK
- 5. ANALOG INPUT/OUTPUT + : WHITE
- 6. ANALOG LOOP: PURPLE

Rev.	Soft Rev.	Revision Description	By	Date	Checked	Aprvd
2		SHOP AS BUILT	AK	06.09.2005	SC	
1		PANEL SHOP AS BUILT	AK	19.07.2005	SC	
0		ISSUED FOR APPROVAL	AK	17.05.2005	SC	

Project Title
**FORT ENERGY C/O TRIDENT
RC10323**

Drawing Title
**CONTROL PANEL
PANEL LAYOUT**

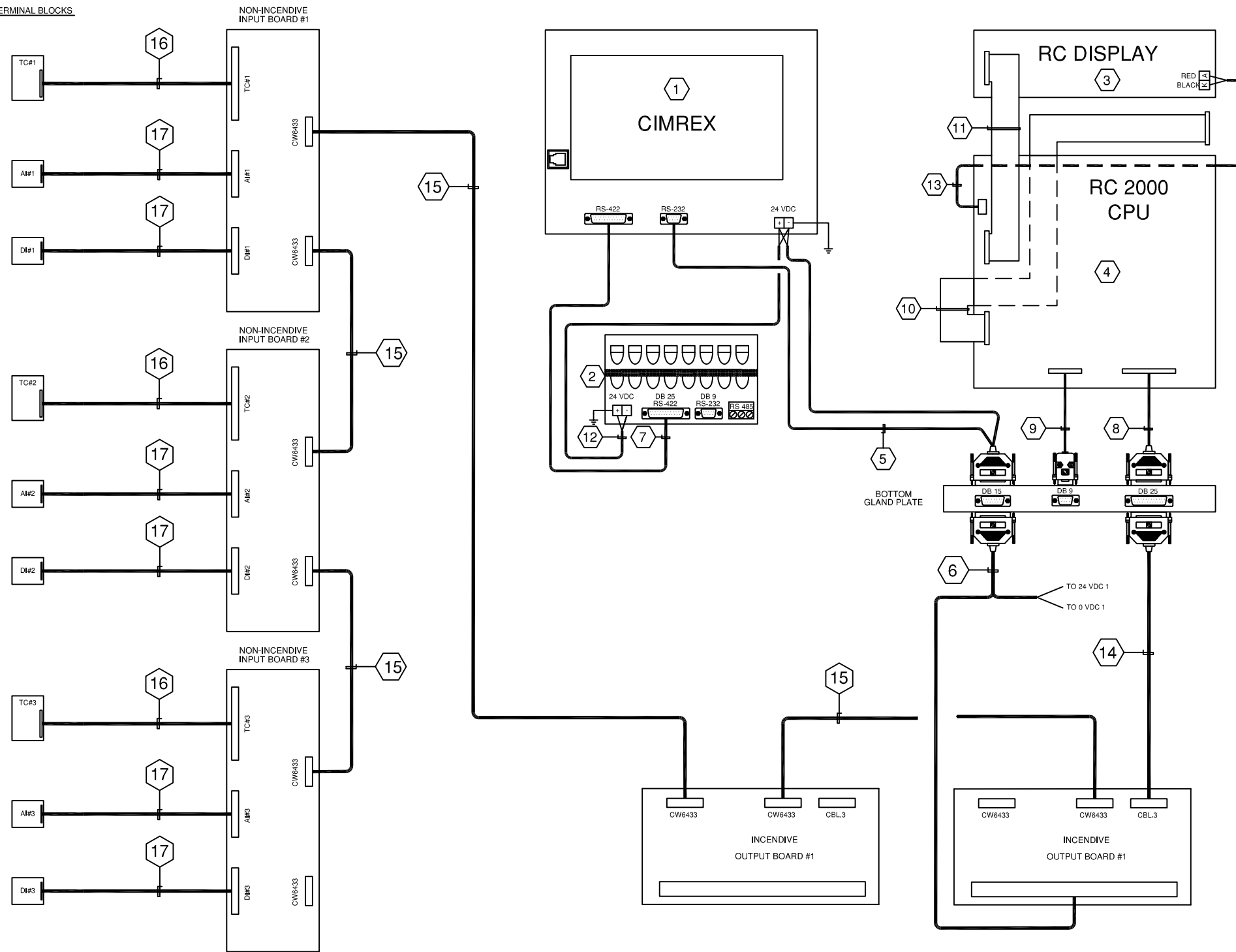
Syntech

Syntech Drawing Number	5190111-01	1 of 1
Customer Drawing Number	050322	NTS

BILL OF MATERIALS 

ITEM	QTY	DESCRIPTION	MODEL #
1	1	CIMREX 10" TOUCH SCREEN	CIMREX 91D
2	1	KEYPAD	CKEY16
3	1	RC DISPLAY MODULE	CW-2873
4	1	RC 2000 CPU MODULE	CW-5157-2
5	1	CIMREX POWER AND DATA CABLE	CA-2503
6	1	PANEL POWER AND DATA CABLE	CA-2501
7	1	KEYPAD CABLE	CA-2502
8	1	CBL-2 MODBUS 16 CABLE	CA-2500
9	1	CBL-1 MODBUS 22 CABLE	CA-2504
10	1	KEYPAD EXTENSION RIBBON CABLE	A9BAG-1508F-ND
11	1	CUSTOM DISPLAY DATA RIBBON CABLE 9"	SYNTECH
12	1	TWO WIRE BELDON CABLE 12"	SYNTECH
13	1	TWO WIRE BELDON CABLE 16"	SYNTECH
14	1	CABLE COMM 144" RC2000	CW6926/144
15	4	CABLE 9 PIN MODBUS	CW6433/14
16	3	CABLE 40 PIN 43" THERMOCOUPLE	CW6453/43
17	6	CABLE 26 PIN 10"	CW6449/10
18	-	-	-

I/O TERMINAL BLOCKS



LEGEND

- 1. PANEL WIRING
- 2. FIELD WIRING
- 3. UNFUSED TERMINAL
- 4. FUSED TERMINAL
- 5. FEED THROUGH TERMINAL
- 6. DISCONNECT TERMINAL

WIRE COLOR LEGEND

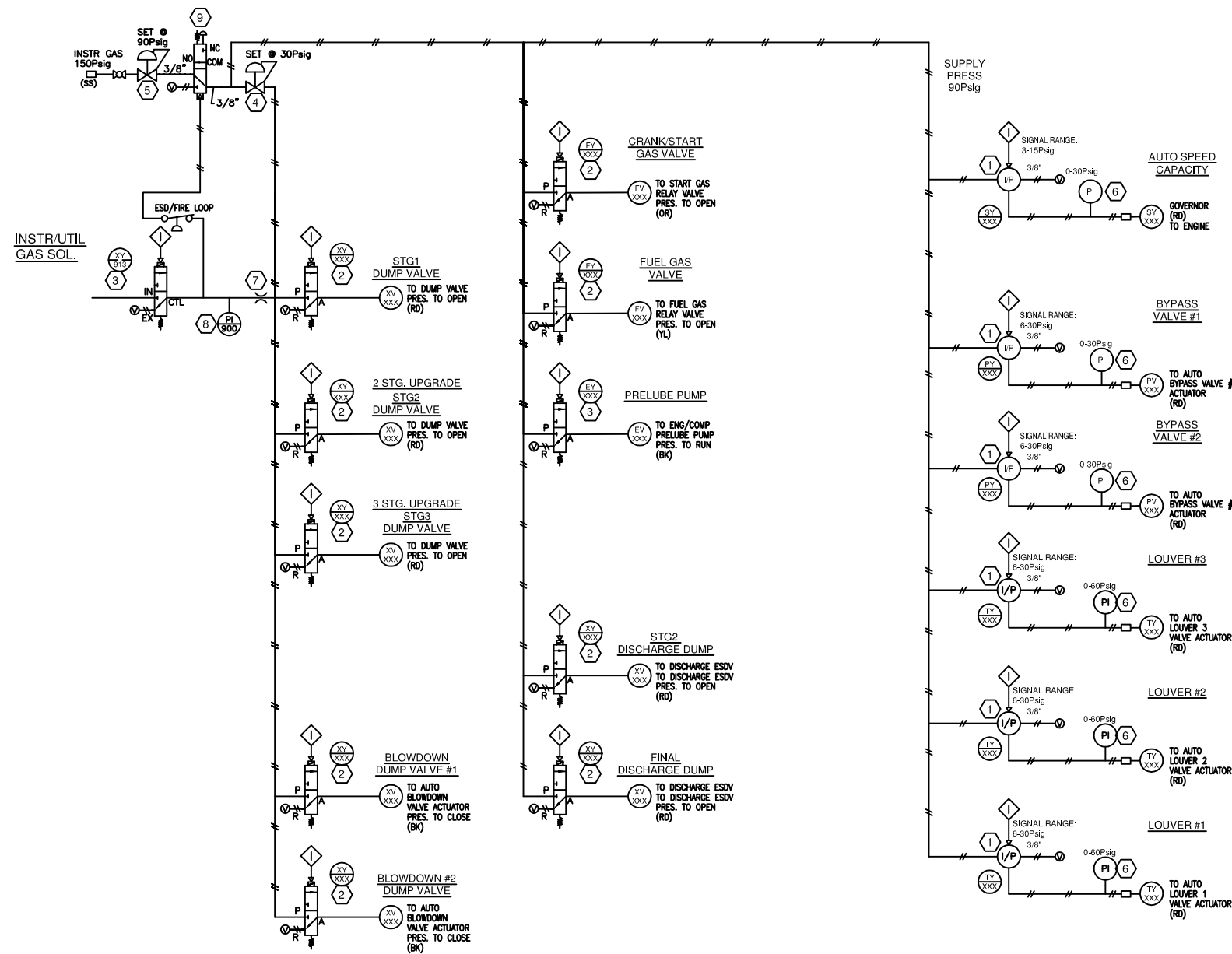
- 1. +24VDC: RED
- 2. -24VDC: YELLOW
- 3. SWITCHED: ORANGE
- 4. ANALOG INPUT/OUTPUT -: BLACK
- 5. ANALOG INPUT/OUTPUT +: WHITE
- 6. ANALOG LOOP: PURPLE

Rev.	Soft Rev.	Revision Description	By	Date	Checked	Aprvd
2		SHOP AS BUILT	AK	06.09.2005	SC	
1		PANEL SHOP AS BUILT	AK	19.07.2005	SC	
0		ISSUED FOR APPROVAL	AK	17.05.2005	SC	

Project Title	FORT ENERGY C/O TRIDENT RC10323
Drawing Title	RC2000-10T COMMUNICATION LAYOUT DRAWING

Syntech

Syntech Drawing Number	5190111-03	1 of 1
Customer Drawing Number	050322	NTS



BILL OF MATERIALS

ITEM	QTY	DESCRIPTION	MODEL #
1	6	FAIRCHILD I/P	TCX117800-401E2
2	9	BURKERT SOLENOID	428871Y
3	2	SNAPTITE SOLENOID	3013Z-ZNT-V6F6
4	1	FISHER TYPE 67 REGULATOR 30 psi	67-CFR-362-SPEC
5	1	FISHER TYPE 64 REGULATOR 90 psi	64-29
6	6	WIKA PRESSURE GAUGE 0-30 PSI	9603021
7	1	AMOT 2185 ORFICE	2185L011
8	1	MURPHY PRESSURE GAUGE 0-100psi	45A 25PEF100
9	1	AMOT 3-WAY ESD SWITCH	4057DO23H2
10	-	-	-
11	-	-	-
12	-	-	-
13	-	-	-
14	-	-	-
15	-	-	-
16	-	-	-
17	-	-	-
18	-	-	-

LAMACOID SCHEDULE

ITEM	QTY	TEXT	COLOR: TEXT/BACKGROUND	SIZE
A	-	-	-	-
B	-	-	-	-
C	-	-	-	-
D	-	-	-	-
E	-	-	-	-
F	-	-	-	-
G	-	-	-	-
H	-	-	-	-
I	-	-	-	-
J	-	-	-	-
K	-	-	-	-
L	-	-	-	-
M	-	-	-	-

LEGEND

- PROCESS PIPING
- UTILITY PIPING
- TUBING - STAINLESS STEEL
- TUBING - NYLON
- HOSE (PRE-LUBE OIL, DRAIN)
- ELECTRICAL SIGNAL

TUBING COLOR CODE

- BK (BLACK) VENTS
- BL (BLUE) ESD, FIRE LOOP SIGNAL
- RD (RED/TAG #) CONTROL VALVE
- OR (ORANGE) INSTR GAS OVER 35psi
- YL (YELLOW) INSTR GAS BELOW 35psi
- OR (START) ENGINE START GAS
- YL (FUEL) ENGINE FUEL GAS
- BK (BLACK) ENGINE OIL
- BR (BROWN) COMPRESSOR OIL
- GR/WH (GREEN) MANIFOLD
- SS STAINLESS STEEL TUBING

LEGEND

- 1. — PANEL WIRING
- 2. — FIELD WIRING
- 3. — UNFUSED TERMINAL
- 4. — FUSED TERMINAL
- 5. — FEED THROUGH TERMINAL
- 6. — DISCONNECT TERMINAL

WIRE COLOR LEGEND

- 1. +24VDC: RED
- 2. -24VDC: YELLOW
- 3. SWITCHED: ORANGE
- 4. ANALOG INPUT/OUTPUT -: BLACK
- 5. ANALOG INPUT/OUTPUT +: WHITE
- 6. ANALOG LOOP: PURPLE

Rev.	Soft Rev.	Revision Description	By	Date	Checked	Aprvd
2		SHOP AS BUILT	AK	06.09.2005	SC	
1		PANEL SHOP AS BUILT	AK	19.07.2005	SC	
0		ISSUED FOR APPROVAL	AK	17.05.2005	SC	

Project Title
**FORT ENERGY C/O TRIDENT
RC10323**

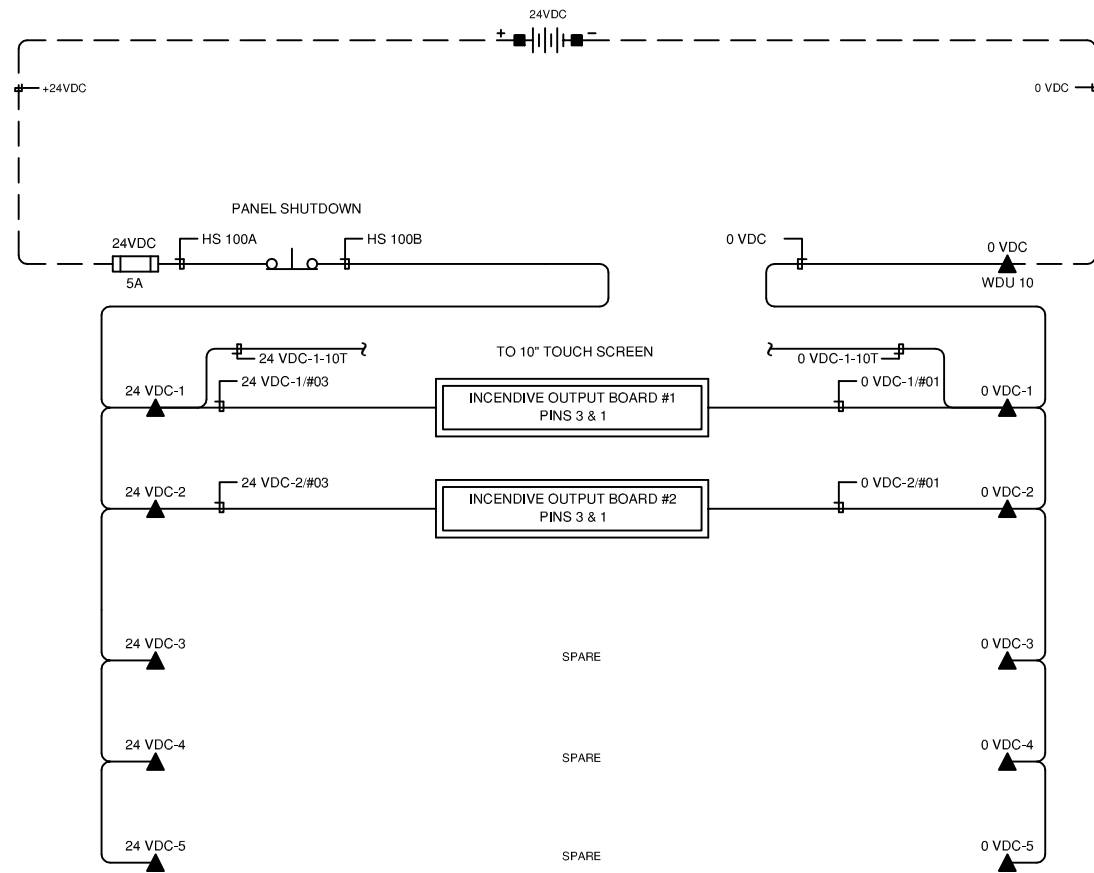
Drawing Title
**PNEUMATIC
LAYOUT DRAWING**

Syntech

Syntech Drawing Number: **5190111-04**
Customer Drawing Number: **050322**

1 of 1
NTS

24VDC POWER DISTRIBUTION



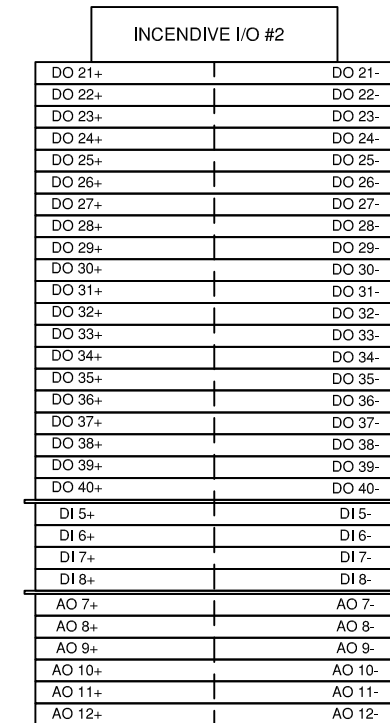
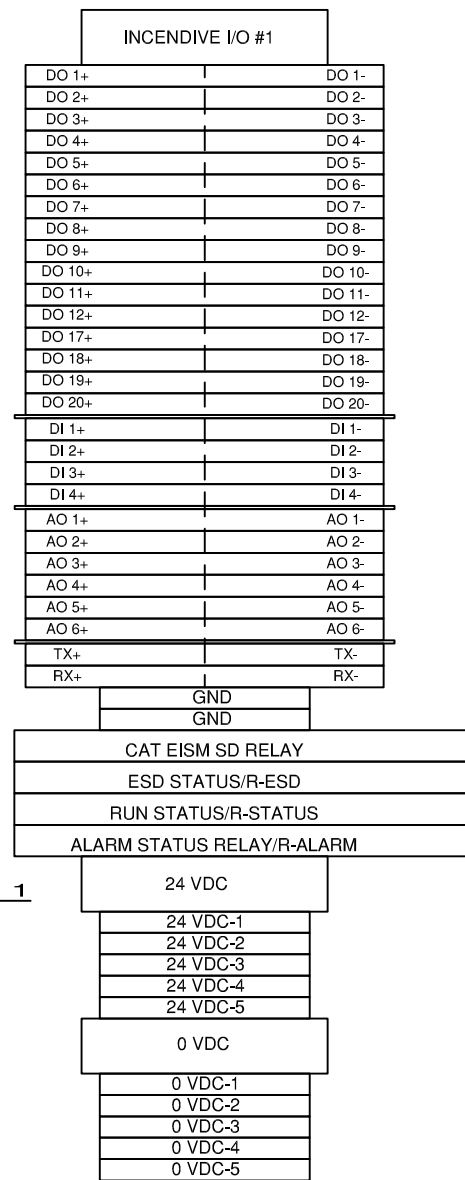
24VDC TERMINAL LAYOUT

TOP LEVEL

BOTTOM LEVEL

TOP LEVEL

BOTTOM LEVEL



NOTE 1

NOTES: 1. SEPARATE 24 VDC POWER PROVIDED FOR PANEL.

LEGEND

1. PANEL WIRING
2. FIELD WIRING
3. UNFUSED TERMINAL
4. FUSED TERMINAL
5. FEED THROUGH TERMINAL
6. DISCONNECT TERMINAL

WIRE COLOR LEGEND

1. +24VDC: RED
2. -24VDC: YELLOW
3. SWITCHED: ORANGE
4. ANALOG INPUT/OUTPUT -: BLACK
5. ANALOG INPUT/OUTPUT +: WHITE
6. ANALOG LOOP: PURPLE

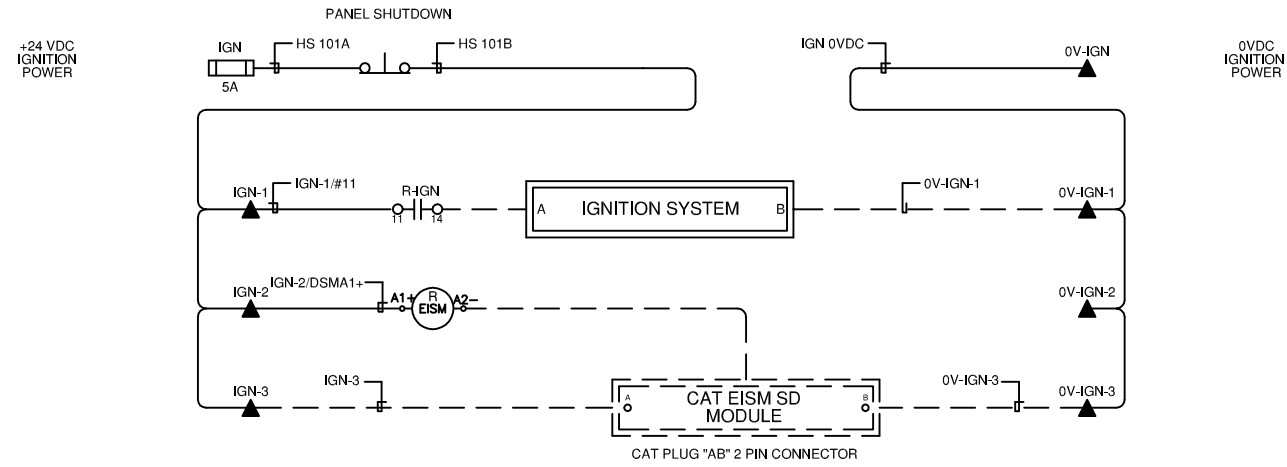
Rev.	Soft Rev.	Revision Description	By	Date	Checked	Aprvd
2		SHOP AS BUILT	AK	06.09.2005	SC	
1		PANEL SHOP AS BUILT	AK	19.07.2005	SC	
0		ISSUED FOR APPROVAL	AK	17.05.2005	SC	

Project Title	FORT ENERGY C/O TRIDENT RC10323
Drawing Title	24 VDC POWER DISTRIBUTION LAYOUT DRAWING

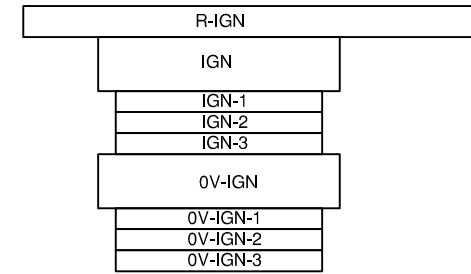
Syntech

Syntech Drawing Number	5190111-05	1 of 1
Customer Drawing Number	050322	NTS

IGNITION DISTRIBUTION



IGNITION TERMINAL LAYOUT



LEGEND

- 1. PANEL WIRING
- 2. FIELD WIRING
- 3. UNFUSED TERMINAL
- 4. FUSED TERMINAL
- 5. FEED THROUGH TERMINAL
- 6. DISCONNECT TERMINAL

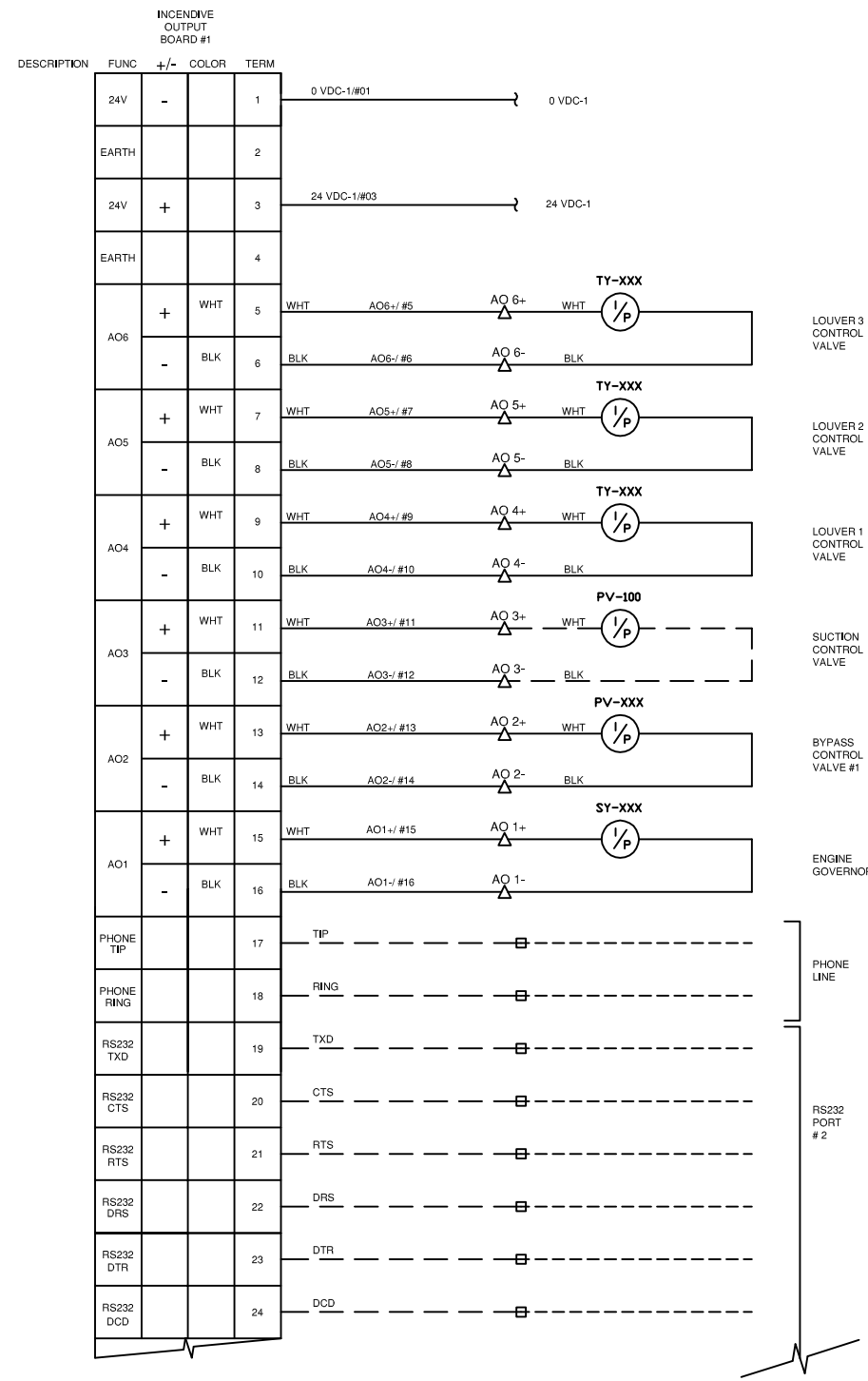
WIRE COLOR LEGEND

- 1. +24VDC: RED
- 2. -24VDC: YELLOW
- 3. SWITCHED: ORANGE
- 4. ANALOG INPUT/OUTPUT -: BLACK
- 5. ANALOG INPUT/OUTPUT +: WHITE
- 6. ANALOG LOOP: PURPLE

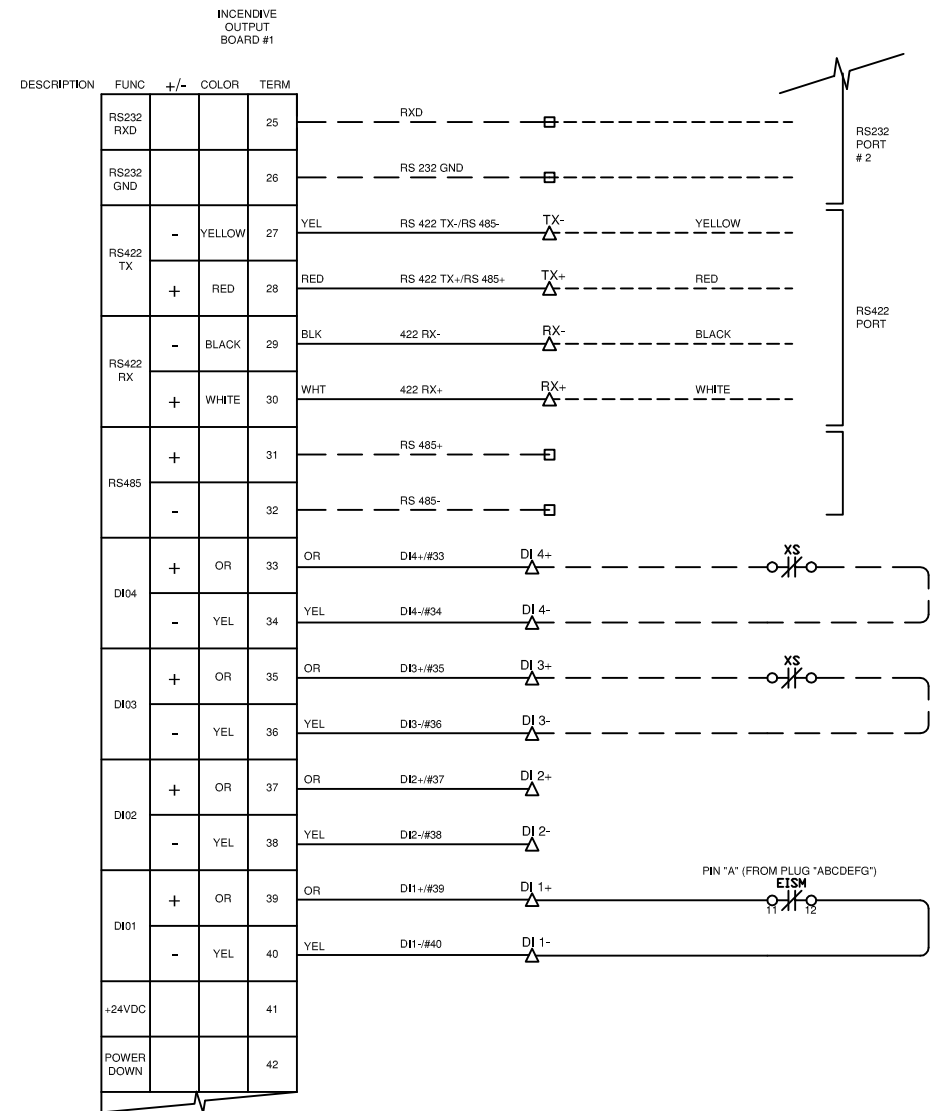
Rev.	Soft Rev.	Revision Description	By	Date	Checked	Aprvd
2		SHOP AS BUILT	AK	06.09.2005	SC	
1		PANEL SHOP AS BUILT	AK	19.07.2005	SC	
0		ISSUED FOR APPROVAL	AK	17.05.2005	SC	

Project Title <p style="text-align: center;">FORT ENERGY C/O TRIDENT RC10323</p>	Drawing Title <p style="text-align: center;">IGNITION POWER DISTRIBUTION LAYOUT DRAWING</p>
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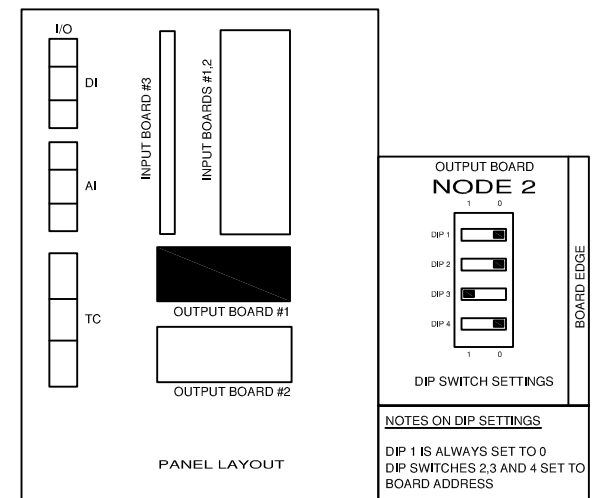
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Syntech Drawing Number	5190111-06	Customer Drawing Number	050322
1 of 1		NTS	



NOTE 2



NOTE 1



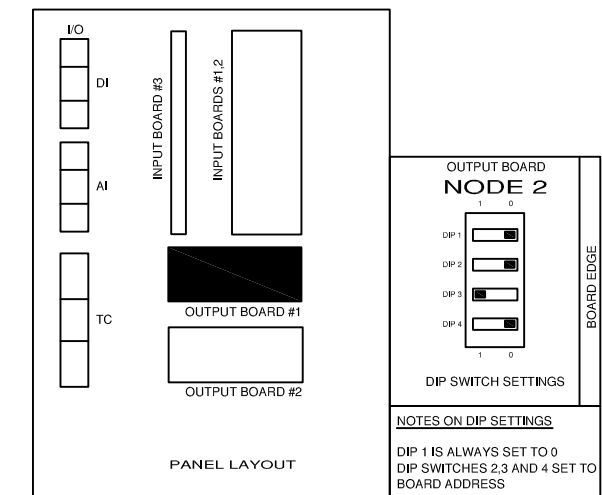
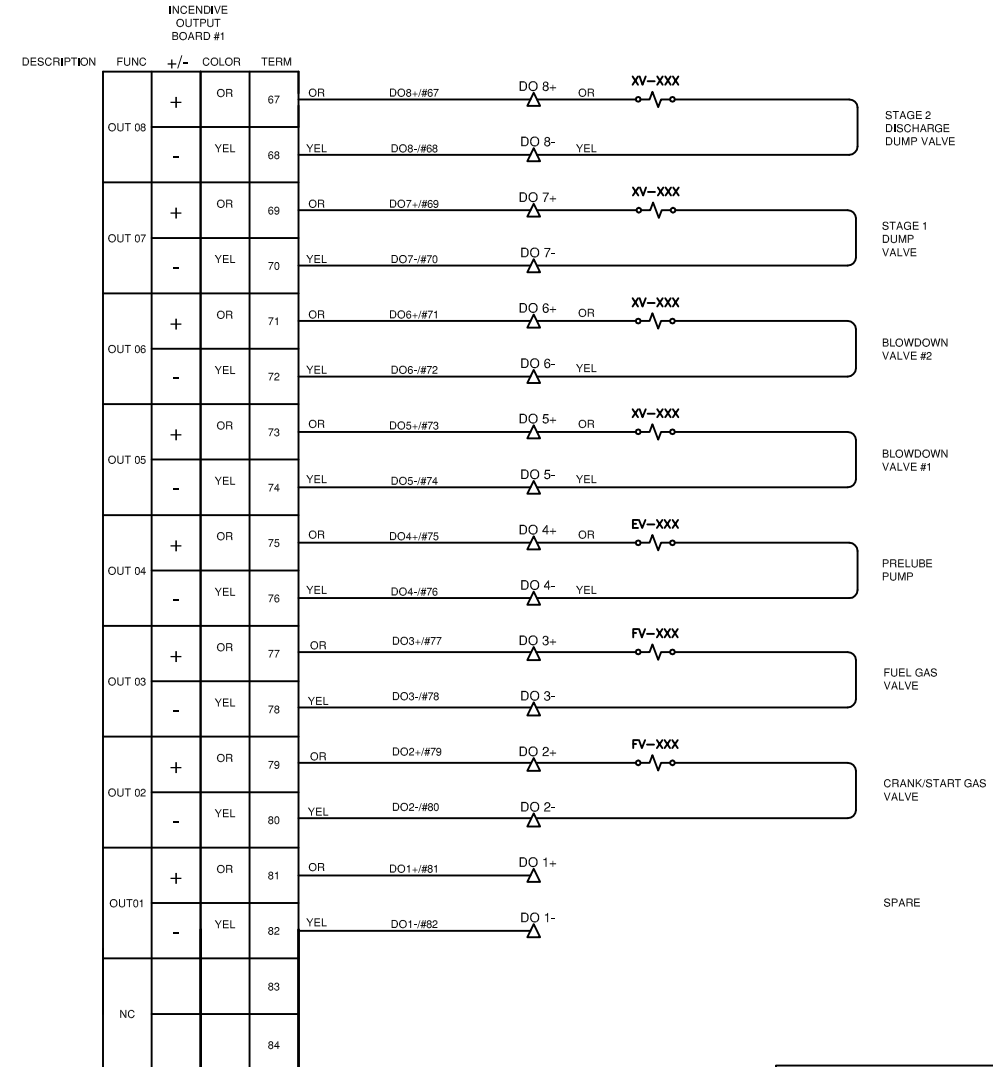
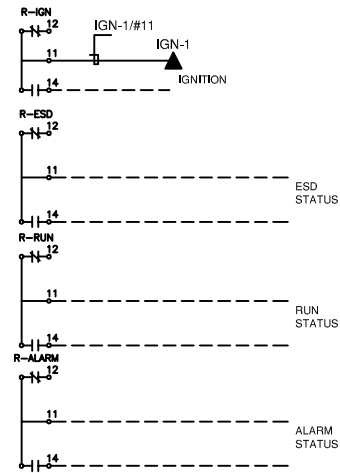
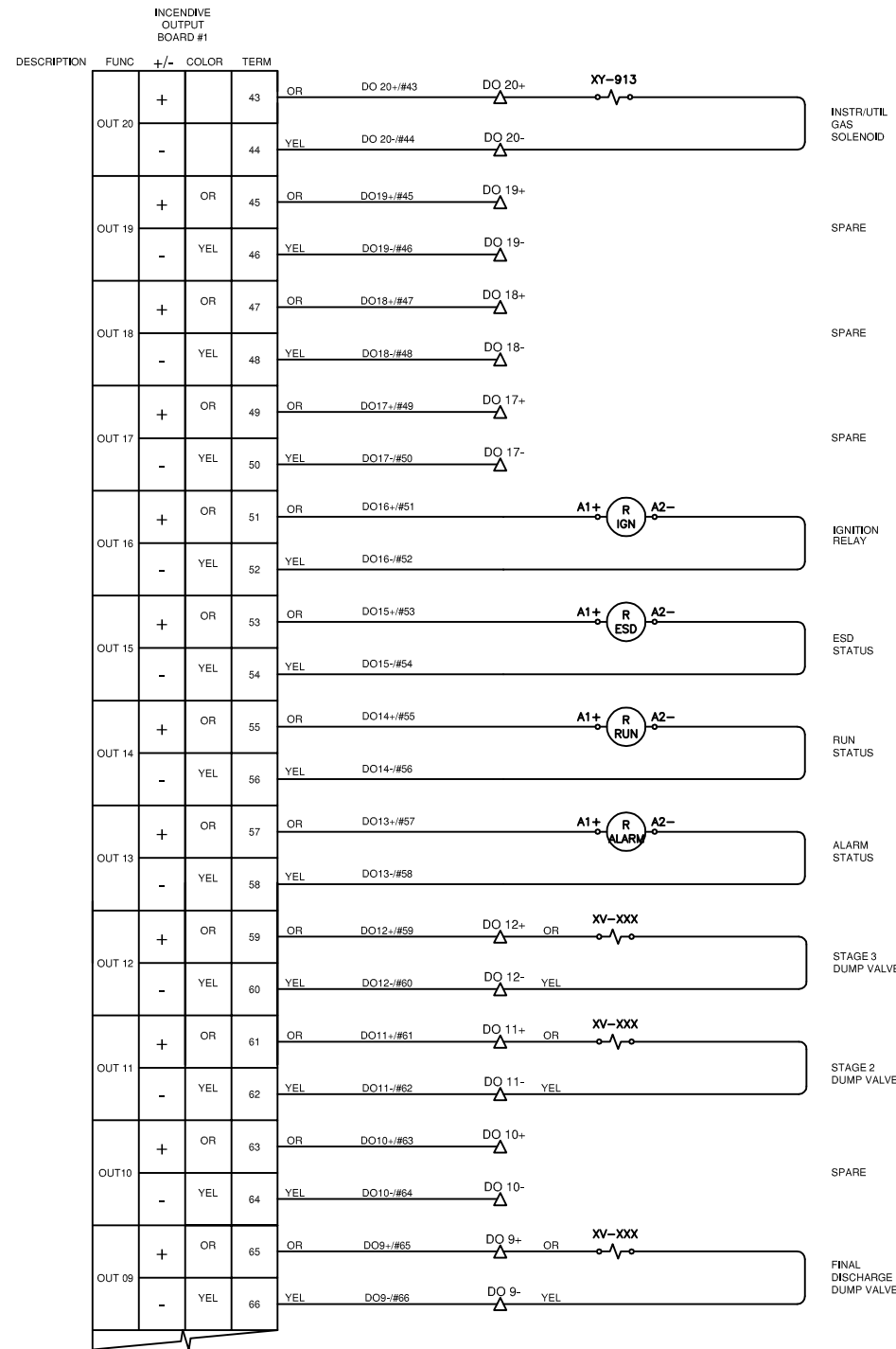
NOTES: 1. NOT FOR CUSTOMER USE.
2. COMPLETE WITH POSITIONER.

LEGEND		WIRE COLOR LEGEND	
1. —	PANEL WIRING	1. +24VDC: RED	
2. —	FIELD WIRING	2. -24VDC: YELLOW	
3. ▲	UNFUSED TERMINAL	3. SWITCHED: ORANGE	
4. □	FUSED TERMINAL	4. ANALOG INPUT/OUTPUT - : BLACK	
5. ▲	FEED THROUGH TERMINAL	5. ANALOG INPUT/OUTPUT + : WHITE	
6. ▲	DISCONNECT TERMINAL	6. ANALOG LOOP: PURPLE	

Rev.	Soft Rev.	Revision Description	By	Date	Checked	Aprvd
2		SHOP AS BUILT	AK	06.09.2005	SC	
1		PANEL SHOP AS BUILT	AK	19.07.2005	SC	
0		ISSUED FOR APPROVAL	AK	17.05.2005	SC	

Project Title	FORT ENERGY C/O TRIDENT RC10323
Drawing Title	INCENDIVE OUTPUT BOARD #1 LAYOUT DRAWING

Syntech Drawing Number	5190111-10	1 of 1
Customer Drawing Number	050322	NTS

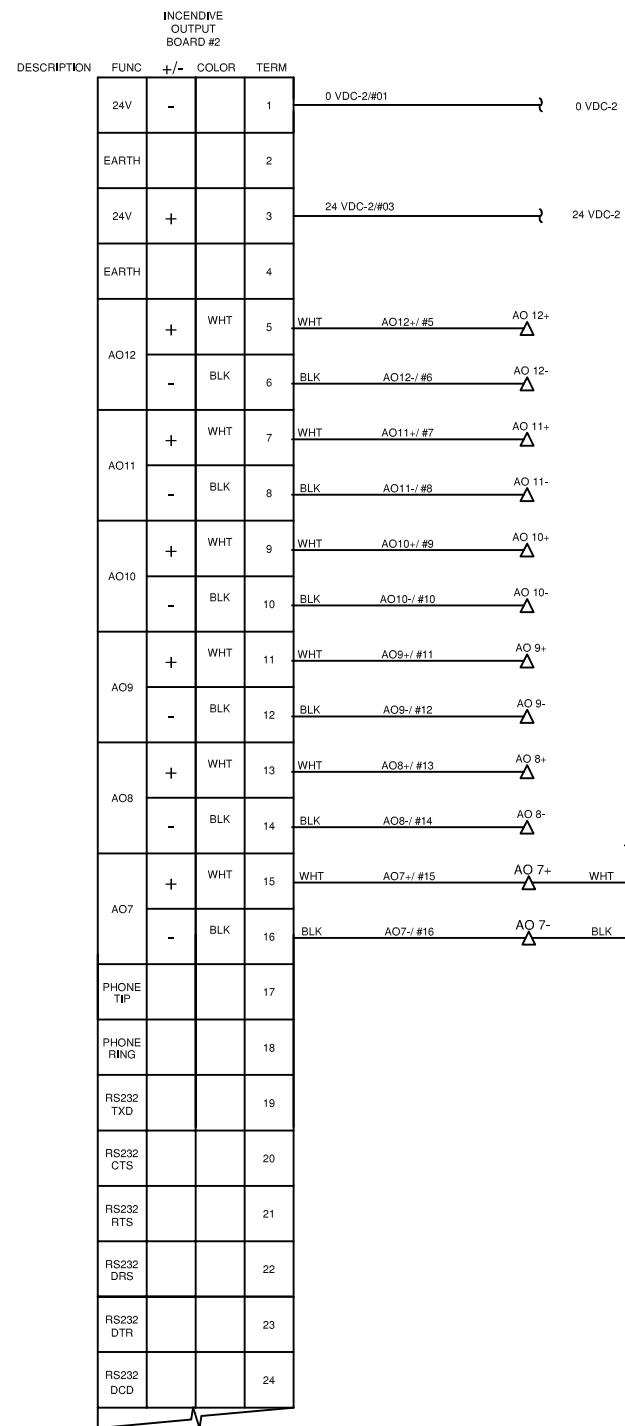


- LEGEND**
- PANEL WIRING
 - FIELD WIRING
 - UNFUSED TERMINAL
 - FUSED TERMINAL
 - FEED THROUGH TERMINAL
 - DISCONNECT TERMINAL
- WIRE COLOR LEGEND**
- +24VDC: RED
 - 24VDC: YELLOW
 - SWITCHED: ORANGE
 - ANALOG INPUT/OUTPUT -: BLACK
 - ANALOG INPUT/OUTPUT +: WHITE
 - ANALOG LOOP: PURPLE

Rev.	Soft Rev.	Revision Description	By	Date	Checked	Aprvd
2		SHOP AS BUILT	AK	06.09.2005	SC	
1		PANEL SHOP AS BUILT	AK	19.07.2005	SC	
0		ISSUED FOR APPROVAL	AK	17.05.2005	SC	

Project Title	FORT ENERGY C/O TRIDENT RC10323
Drawing Title	INCENDIVE OUTPUT BOARD #1 con't LAYOUT DRAWING

Syntech Drawing Number	5190111-11	1 of 1
Customer Drawing Number	050322	NTS



SPARE

SPARE

SPARE

SPARE

SPARE

BYPASS CONTROL VALVE #2

TV-XXX



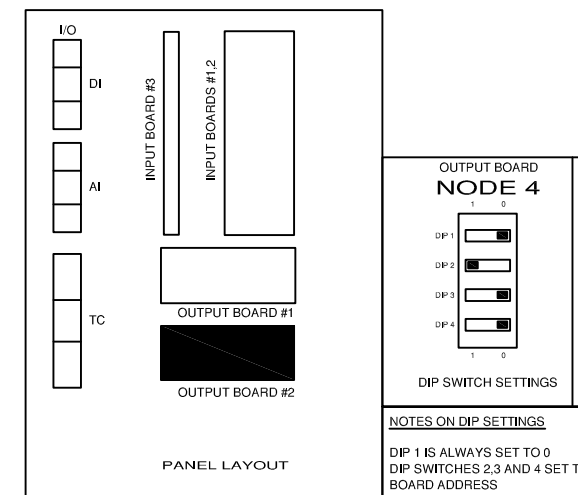
SPARE

SPARE

SPARE

SPARE

SPARE



LEGEND

- PANEL WIRING
- FIELD WIRING
- UNFUSED TERMINAL
- FUSED TERMINAL
- FEED THROUGH TERMINAL
- DISCONNECT TERMINAL

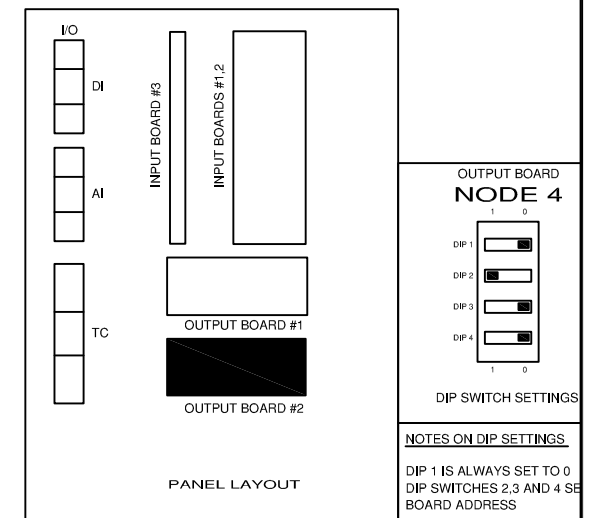
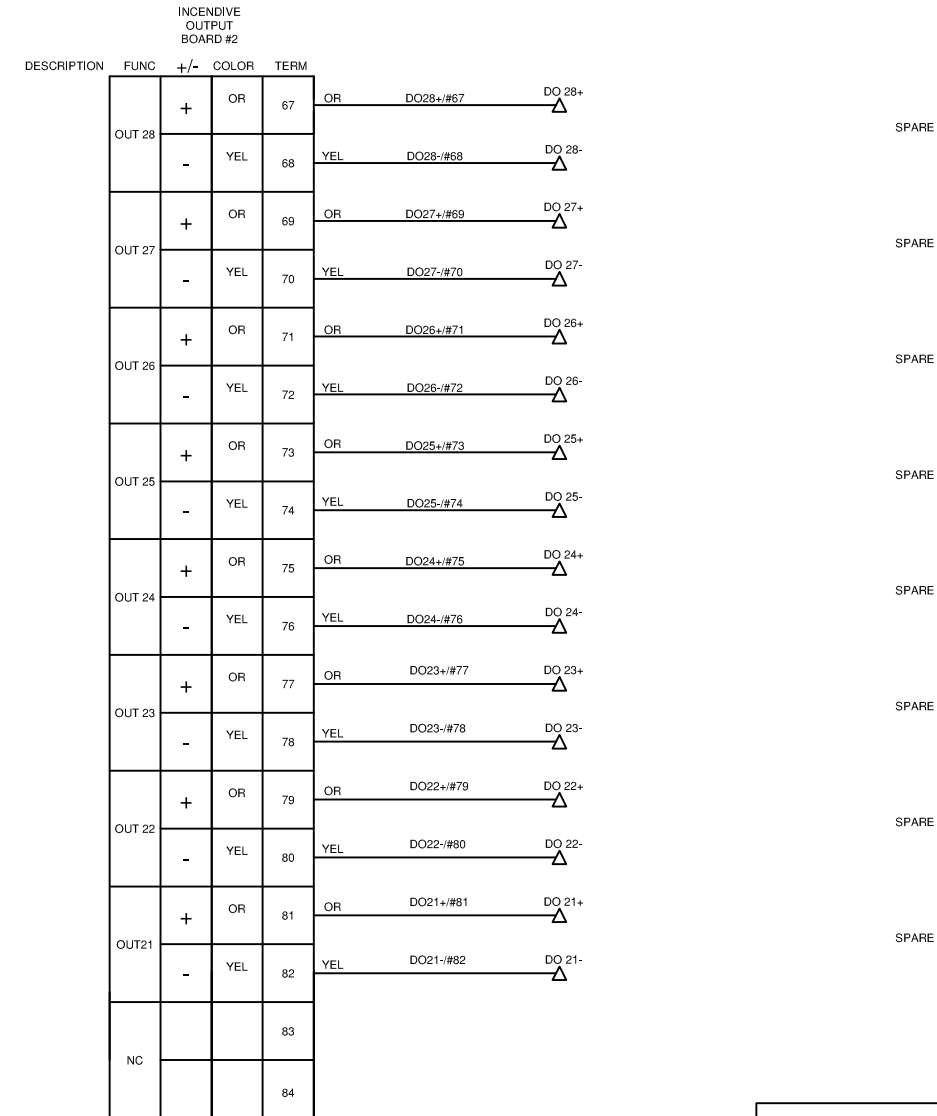
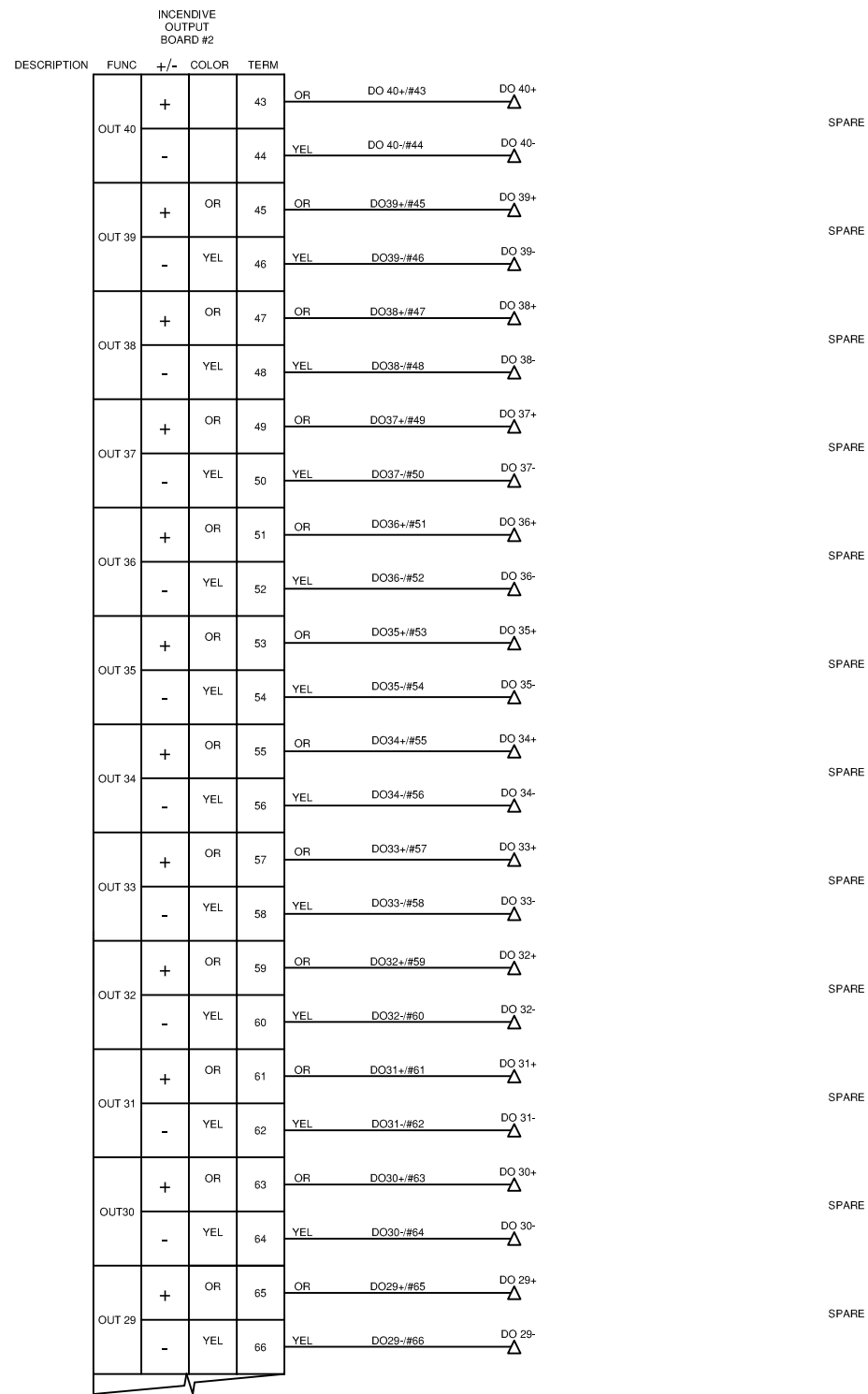
WIRE COLOR LEGEND

- +24VDC: RED
- 24VDC: YELLOW
- SWITCHED: ORANGE
- ANALOG INPUT/OUTPUT -: BLACK
- ANALOG INPUT/OUTPUT +: WHITE
- ANALOG LOOP: PURPLE

Rev.	Soft Rev.	Revision Description	By	Date	Checked	Aprvd
2		SHOP AS BUILT	AK	06.09.2005	SC	
1		PANEL SHOP AS BUILT	AK	19.07.2005	SC	
0		ISSUED FOR APPROVAL	AK	17.05.2005	SC	

Project Title	FORT ENERGY C/O TRIDENT RC10323
Drawing Title	INCENDIVE OUTPUT BOARD #2 LAYOUT DRAWING

Syntech Drawing Number	5190111-12	1 of 1
Customer Drawing Number	050322	NTS

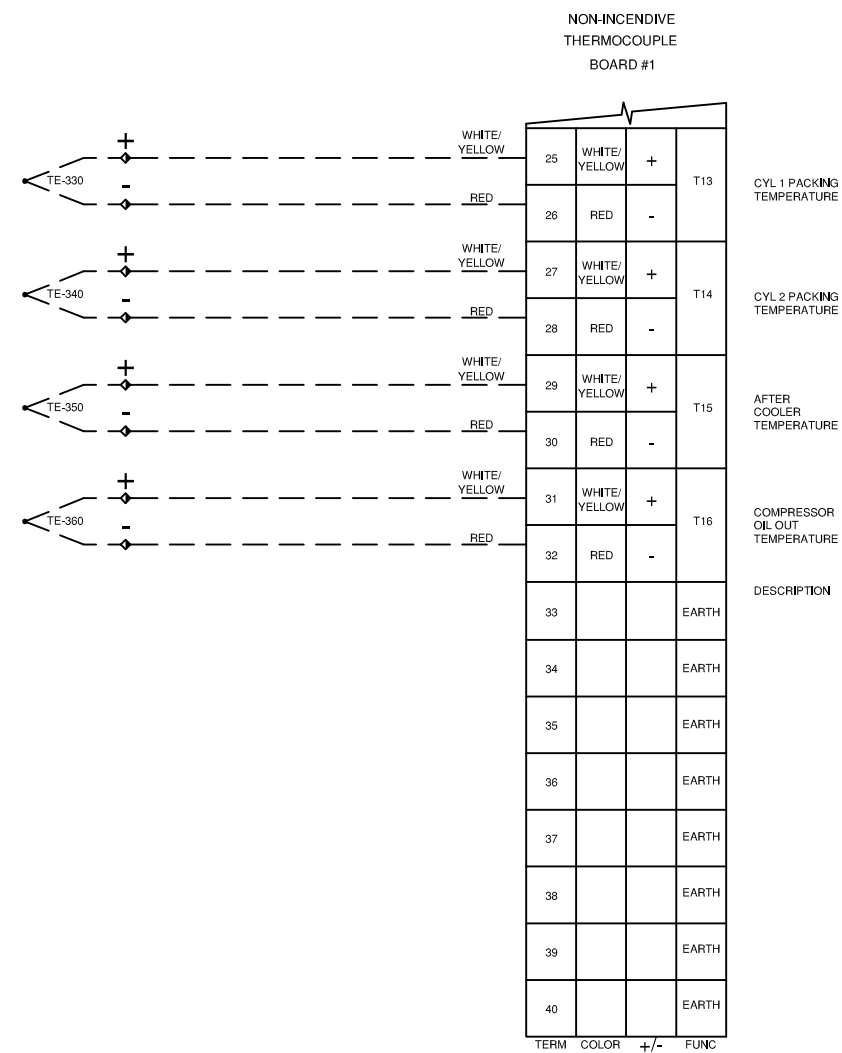
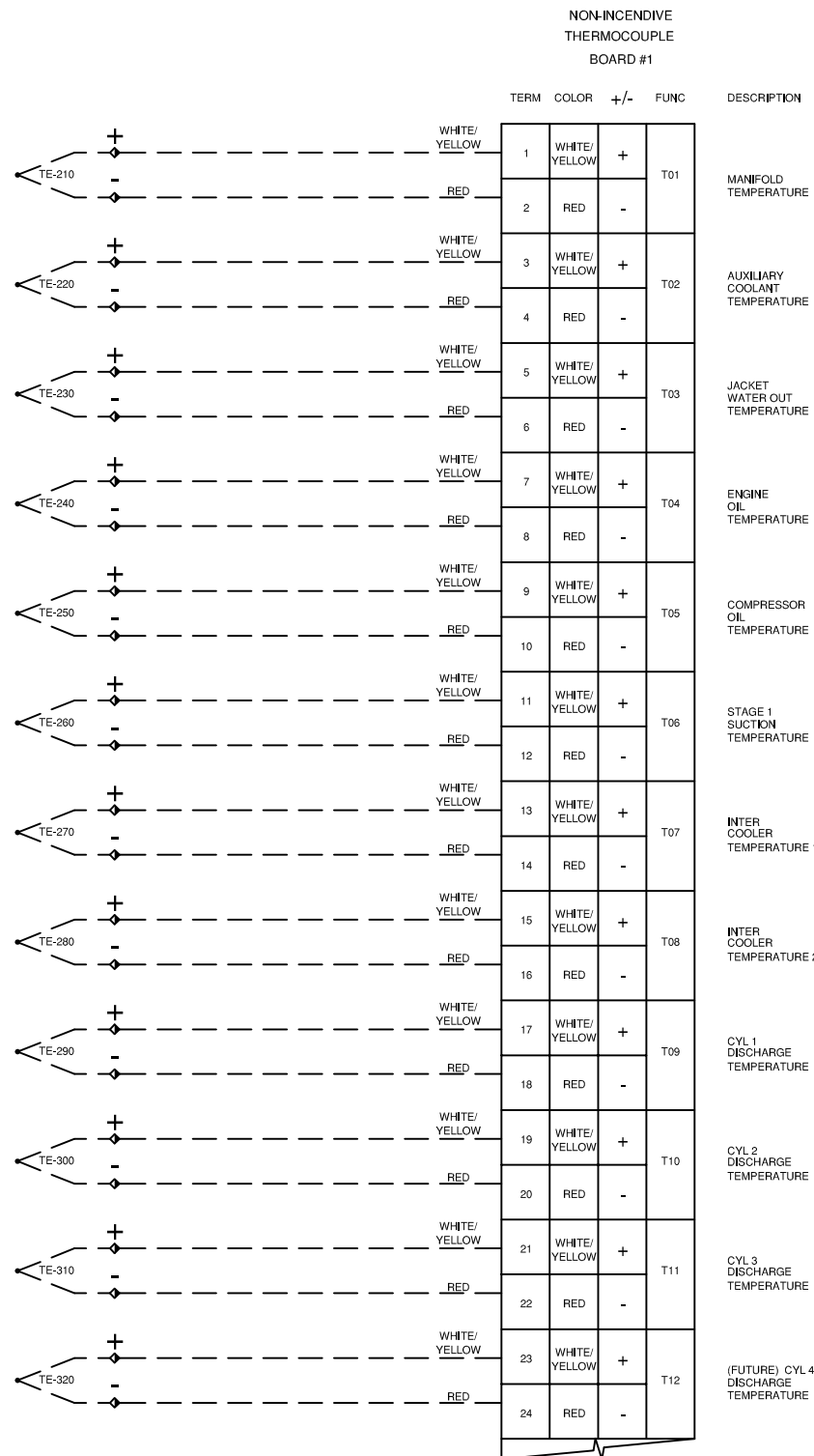


Rev.	Soft Rev.	Revision Description	By	Date	Checked	Aprvd
2		SHOP AS BUILT	AK	06.09.2005	SC	
1		PANEL SHOP AS BUILT	AK	19.07.2005	SC	
0		ISSUED FOR APPROVAL	AK	17.05.2005	SC	

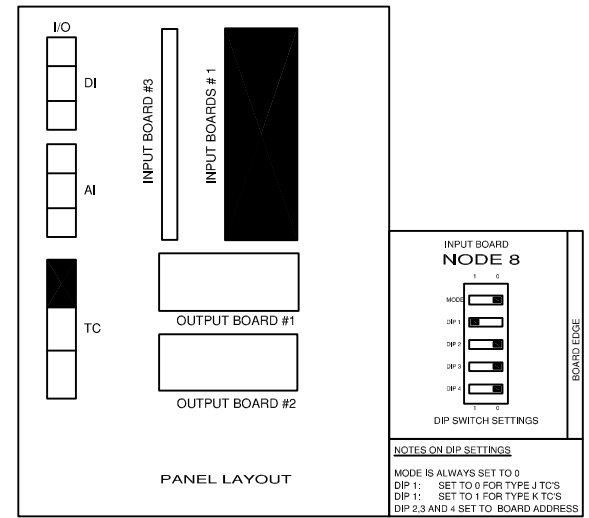
Project Title						
FORT ENERGY C/O TRIDENT RC10323						
Drawing Title						
INCENDIVE OUTPUT BOARD #2 con't LAYOUT DRAWING						

Syntech Drawing Number		5190111-14		1 of 1	
Customer Drawing Number		050322		NTS	

Syntech



THERMOCOUPLE FIELD WIRING
 K-TYPE: + = YELLOW
 - = RED
 J-TYPE: + = WHITE
 - = RED



- LEGEND**
- 1. PANEL WIRING
 - 2. FIELD WIRING
 - 3. UNFUSED TERMINAL
 - 4. FUSED TERMINAL
 - 5. FEED THROUGH TERMINAL
 - 6. DISCONNECT TERMINAL
- WIRE COLOR LEGEND**
- 1. +24VDC: RED
 - 2. -24VDC: YELLOW
 - 3. SWITCHED: ORANGE
 - 4. ANALOG INPUT/OUTPUT -: BLACK
 - 5. ANALOG INPUT/OUTPUT +: WHITE
 - 6. ANALOG LOOP: PURPLE

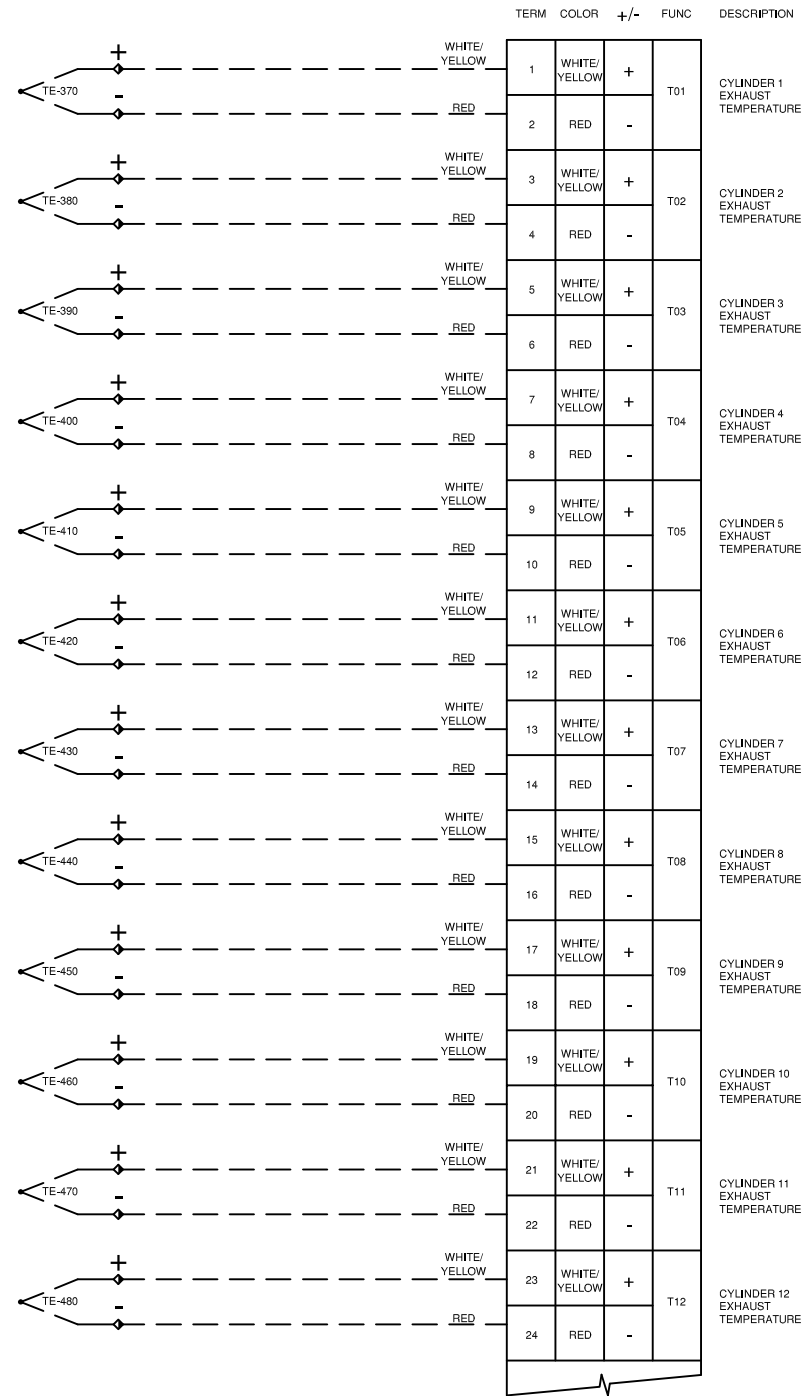
Rev.	Soft Rev.	Revision Description	By	Date	Checked	Aprvd
2		SHOP AS BUILT	AK	06.09.2005	SC	
1		PANEL SHOP AS BUILT	AK	19.07.2005	SC	
0		ISSUED FOR APPROVAL	AK	17.05.2005	SC	

Project Title	FORT ENERGY C/O TRIDENT RC10323
Drawing Title	NON-INCENDIVE INPUT BOARD #1 THERMOCOUPLE LAYOUT DRAWING

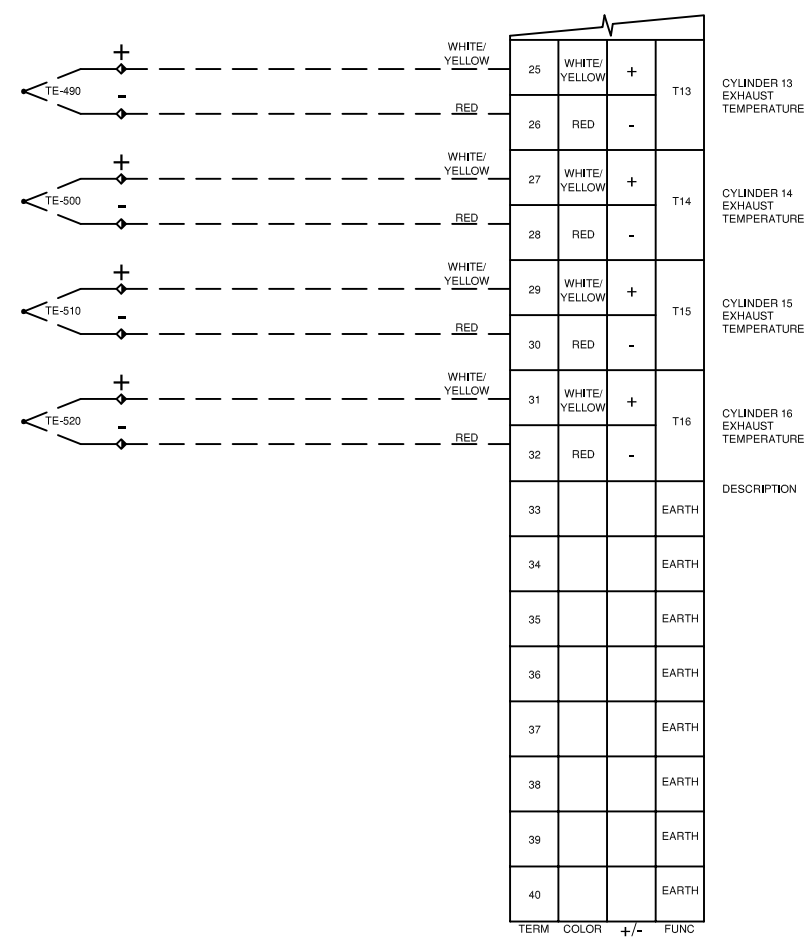
Syntech

Syntech Drawing Number	5190111-15	1 of 1
Customer Drawing Number	050322	NTS

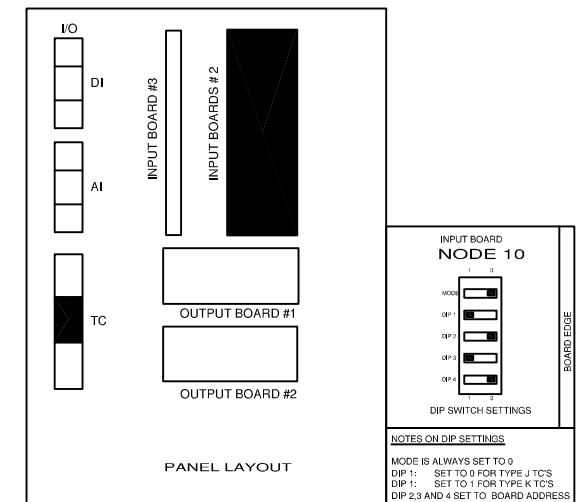
NON-INCENDIVE
THERMOCOUPLE
BOARD #2



NON-INCENDIVE
THERMOCOUPLE
BOARD #2



THERMOCOUPLE FIELD WIRING
K-TYPE: += YELLOW
 -= RED
J-TYPE: += WHITE
 -= RED



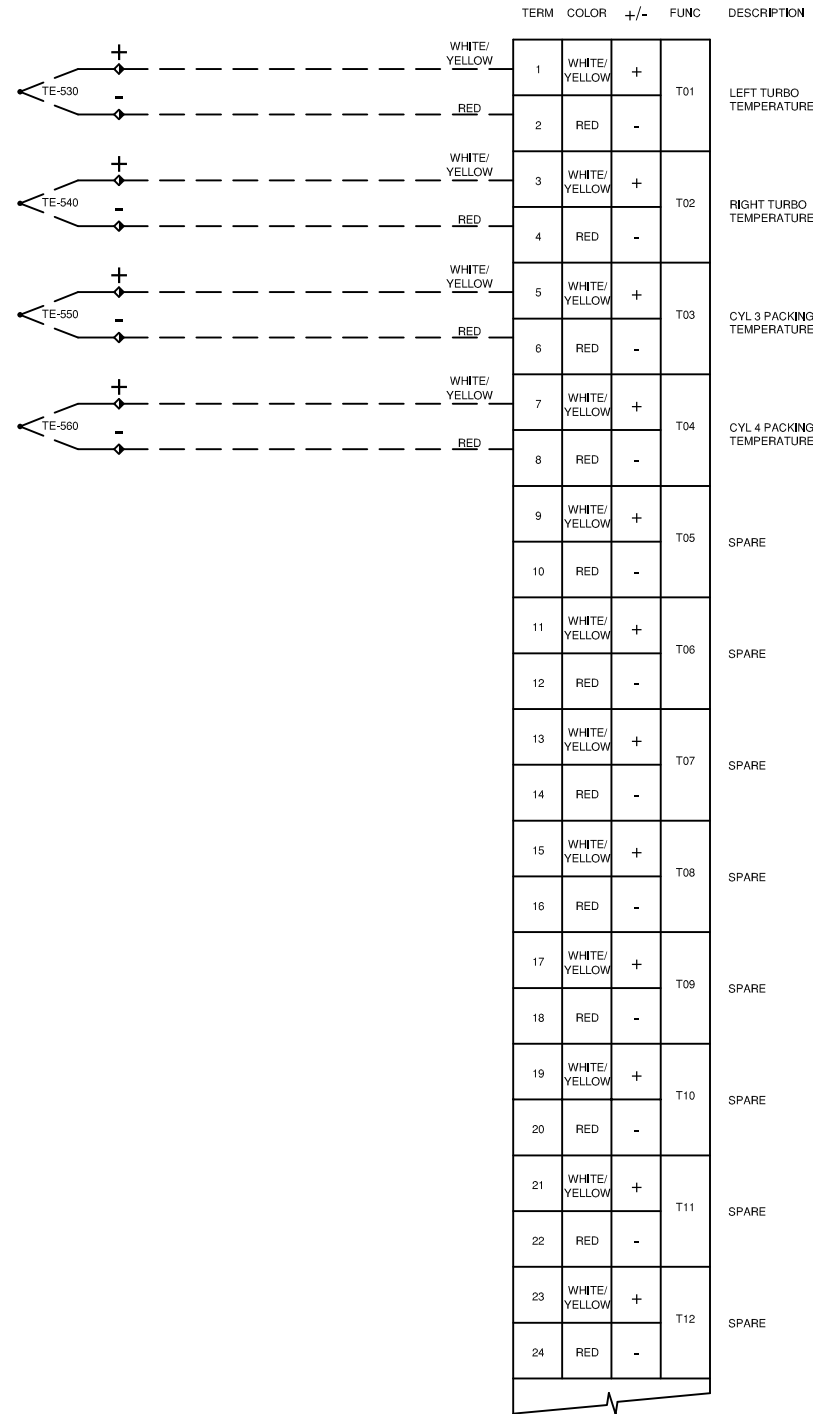
- LEGEND**
- 1. PANEL WIRING
 - 2. FIELD WIRING
 - 3. UNFUSED TERMINAL
 - 4. FUSED TERMINAL
 - 5. FEED THROUGH TERMINAL
 - 6. DISCONNECT TERMINAL
- WIRE COLOR LEGEND**
- 1. +24VDC: RED
 - 2. -24VDC: YELLOW
 - 3. SWITCHED: ORANGE
 - 4. ANALOG INPUT/OUTPUT -: BLACK
 - 5. ANALOG INPUT/OUTPUT +: WHITE
 - 6. ANALOG LOOP: PURPLE

Rev.	Soft Rev.	Revision Description	By	Date	Checked	Aprvd
2		SHOP AS BUILT	AK	06.09.2005	SC	
1		PANEL SHOP AS BUILT	AK	19.07.2005	SC	
0		ISSUED FOR APPROVAL	AK	17.05.2005	SC	

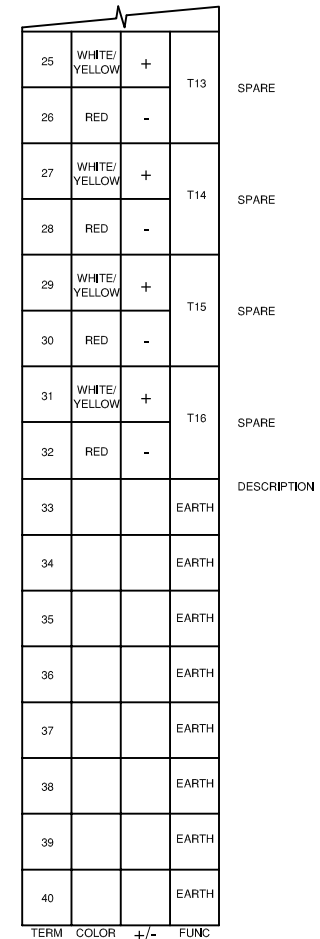
Project Title	FORT ENERGY C/O TRIDENT RC10323
Drawing Title	NON-INCENDIVE INPUT BOARD #2 THERMOCOUPLE LAYOUT DRAWING

Syntech Drawing Number	5190111-16	1 of 1
	Customer Drawing Number	

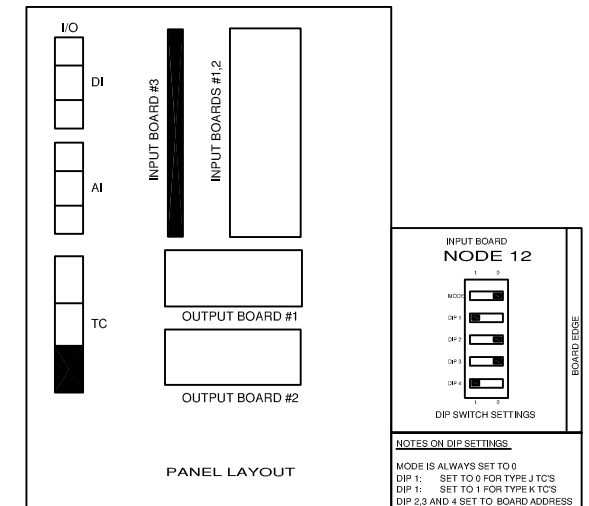
NON-INCENDIVE
THERMOCOUPLE
BOARD #3



NON-INCENDIVE
THERMOCOUPLE
BOARD #3



THERMOCOUPLE FIELD WIRING
 K-TYPE: + = YELLOW
 - = RED
 J-TYPE: + = WHITE
 - = RED



LEGEND

- 1. PANEL WIRING
- 2. FIELD WIRING
- 3. UNFUSED TERMINAL
- 4. FUSED TERMINAL
- 5. FEED THROUGH TERMINAL
- 6. DISCONNECT TERMINAL

WIRE COLOR LEGEND

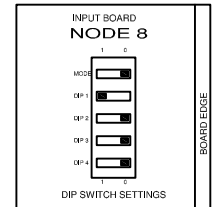
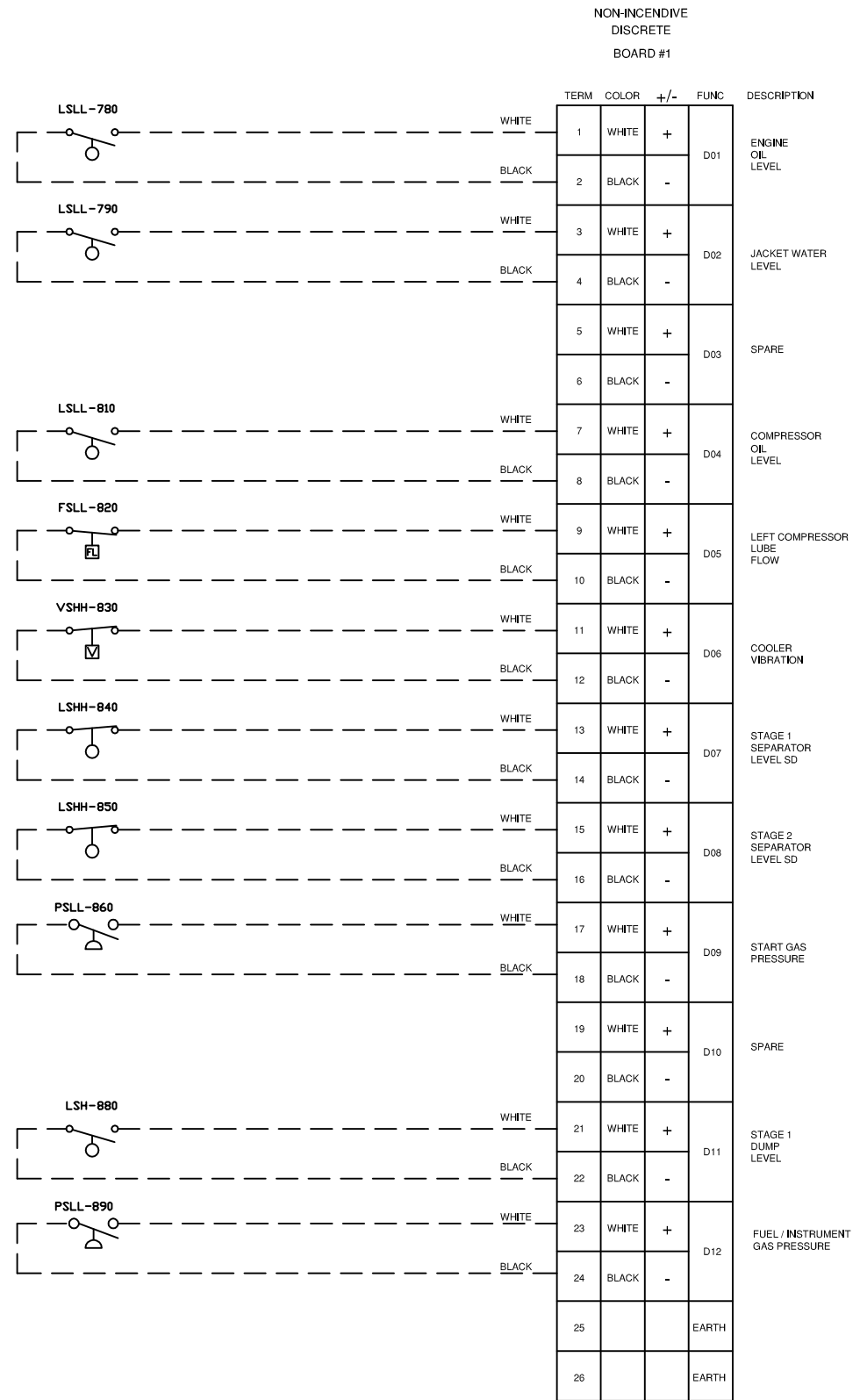
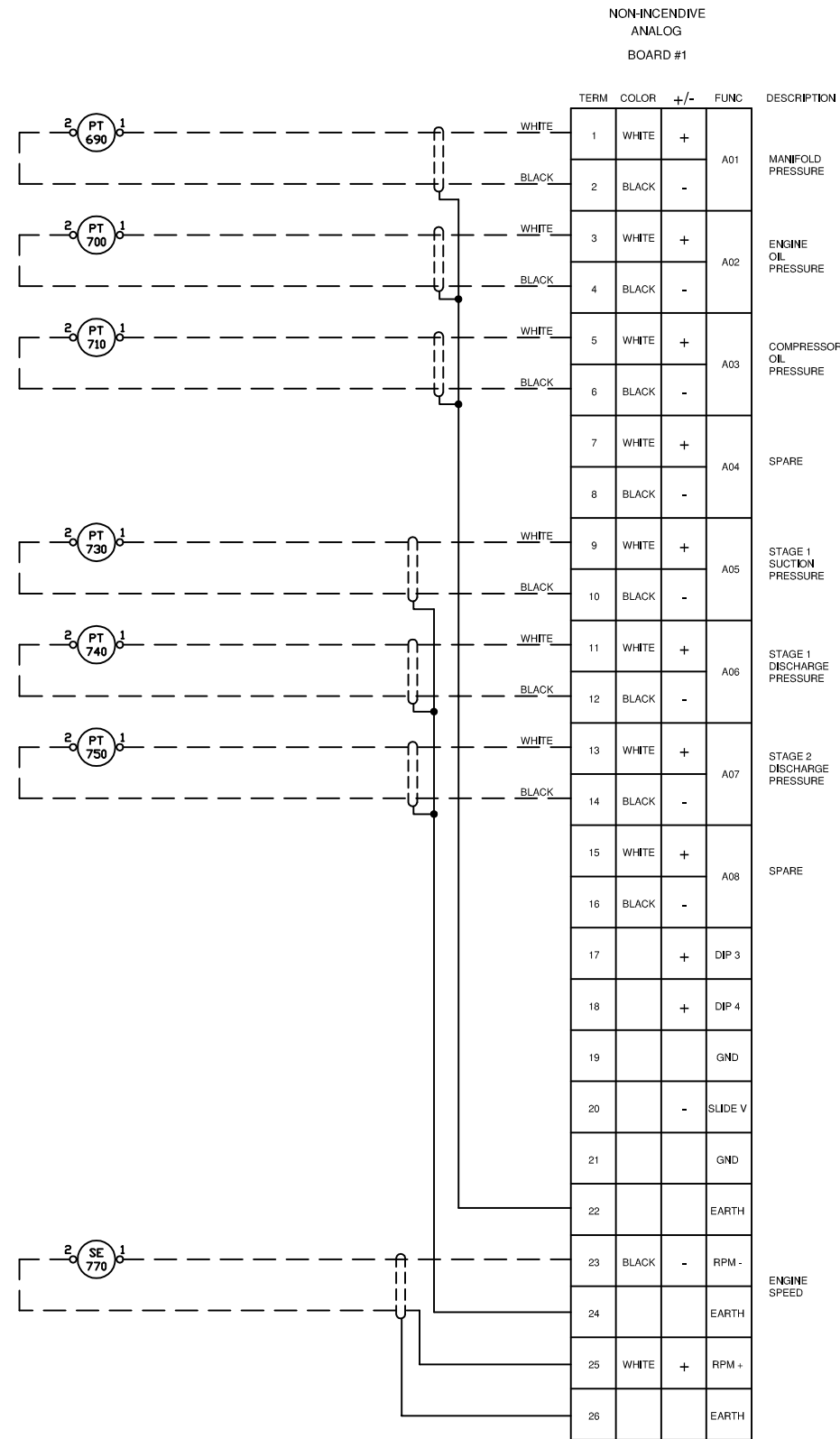
- 1. +24VDC: RED
- 2. -24VDC: YELLOW
- 3. SWITCHED: ORANGE
- 4. ANALOG INPUT/OUTPUT -: BLACK
- 5. ANALOG INPUT/OUTPUT +: WHITE
- 6. ANALOG LOOP: PURPLE

Rev.	Soft Rev.	Revision Description	By	Date	Checked	Aprvd
2		SHOP AS BUILT	AK	06.09.2005	SC	
1		PANEL SHOP AS BUILT	AK	19.07.2005	SC	
0		ISSUED FOR APPROVAL	AK	17.05.2005	SC	

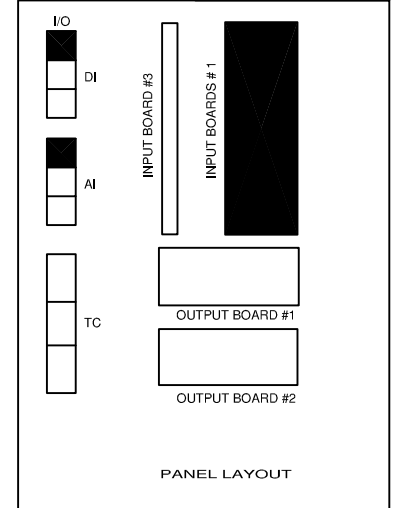
Project Title	FORT ENERGY C/O TRIDENT RC10323
Drawing Title	NON-INCENDIVE INPUT BOARD #3 THERMOCOUPLE LAYOUT DRAWING

Syntech

Syntech Drawing Number	5190111-17	1 of 1
Customer Drawing Number	050322	NTS



NOTES ON DIP SETTINGS
 MODE IS ALWAYS SET TO 0
 DIP 1: SET TO 0 FOR TYPE J TC'S
 DIP 1: SET TO 1 FOR TYPE K TC'S
 DIP 2,3 AND 4 SET TO BOARD ADDRESS



- LEGEND**
- 1. PANEL WIRING
 - 2. FIELD WIRING
 - 3. UNFUSED TERMINAL
 - 4. FUSED TERMINAL
 - 5. FEED THROUGH TERMINAL
 - 6. DISCONNECT TERMINAL
- WIRE COLOR LEGEND**
- 1. +24VDC: RED
 - 2. -24VDC: YELLOW
 - 3. SWITCHED: ORANGE
 - 4. ANALOG INPUT/OUTPUT -: BLACK
 - 5. ANALOG INPUT/OUTPUT +: WHITE
 - 6. ANALOG LOOP: PURPLE

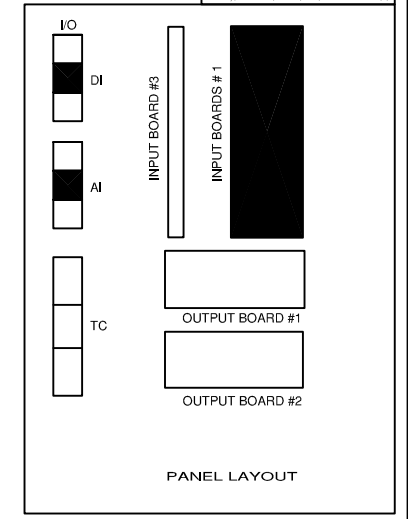
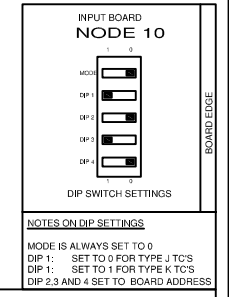
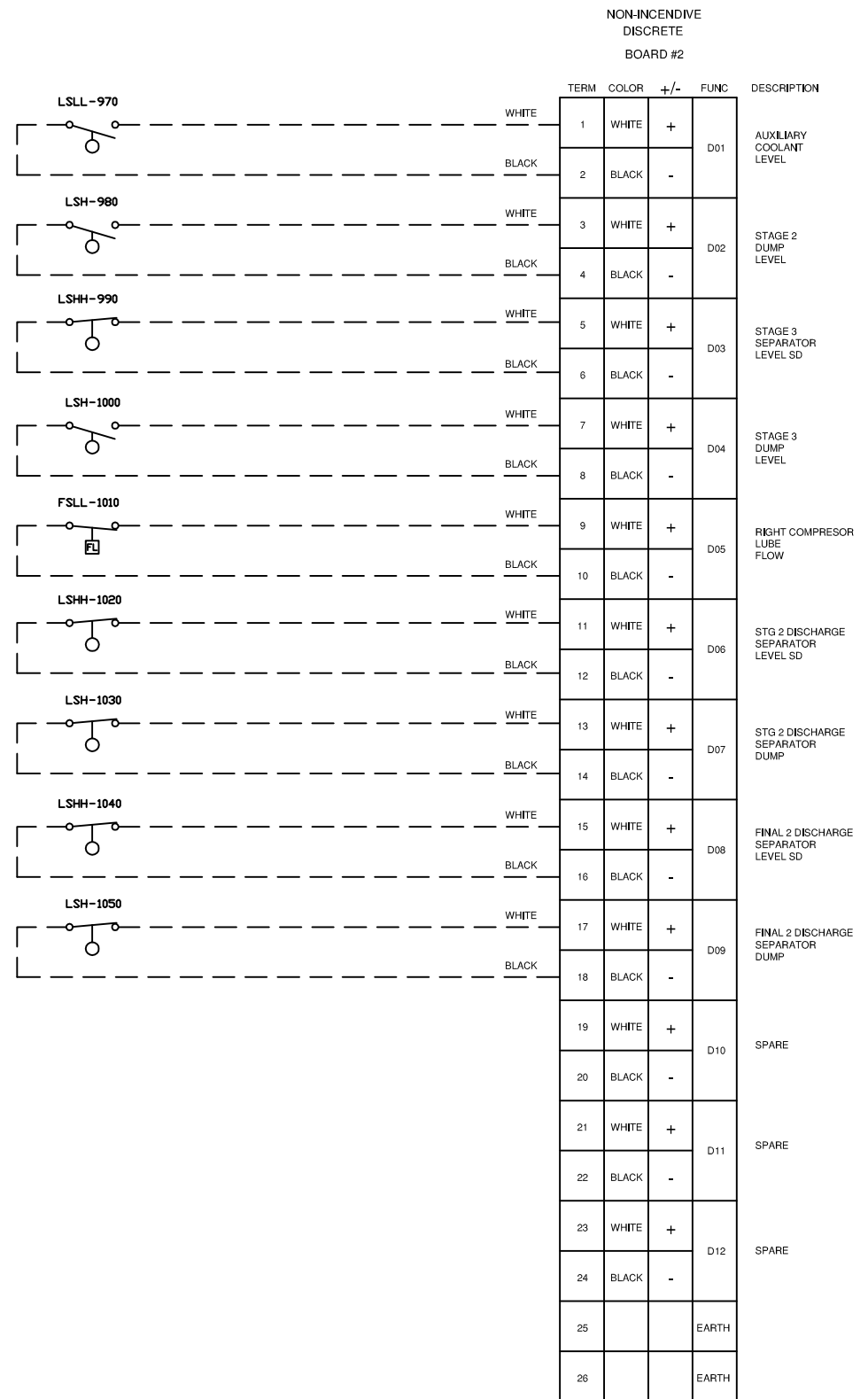
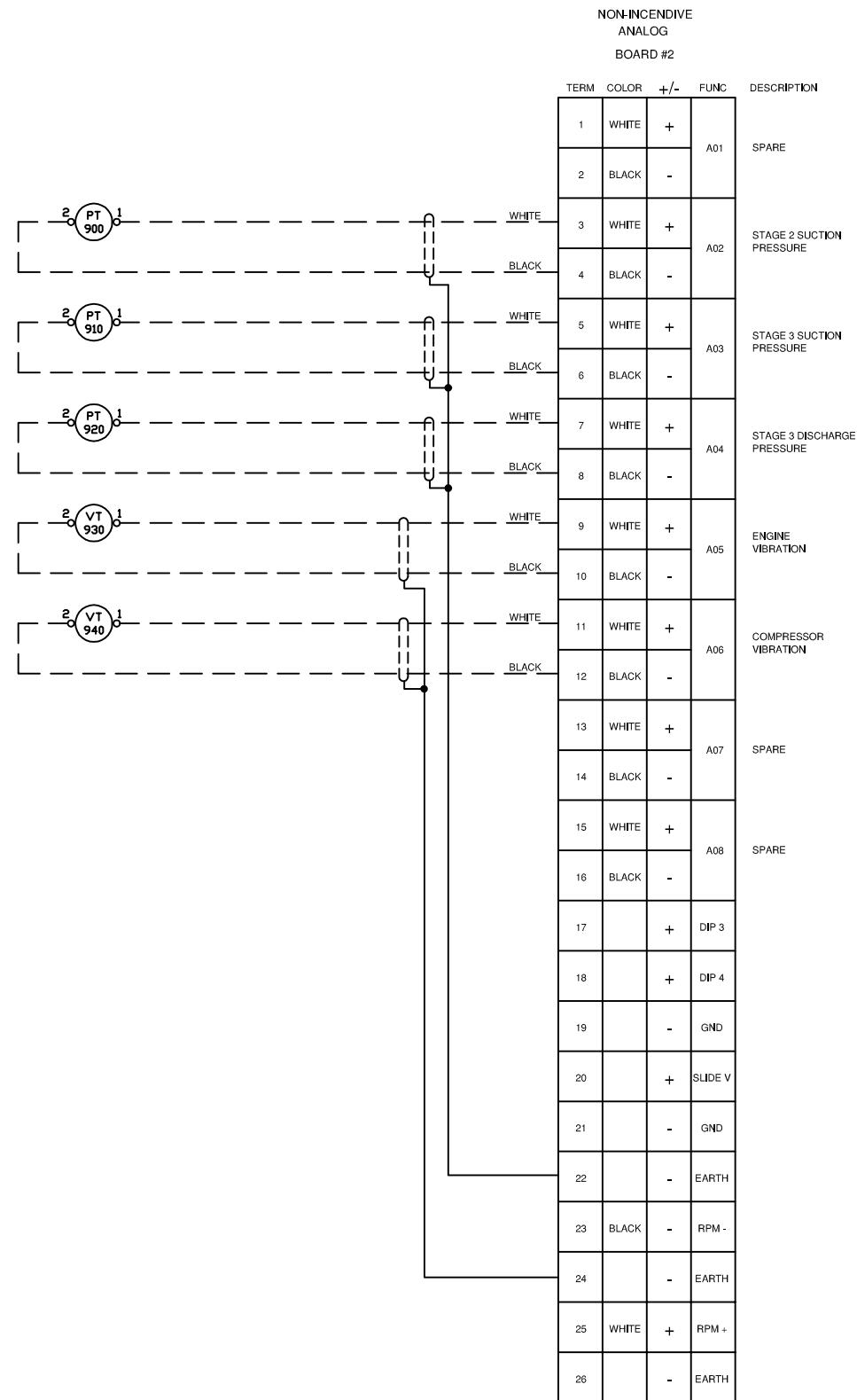
Rev.	Soft Rev.	Revision Description	By	Date	Checked	Aprvd
2		SHOP AS BUILT	AK	06.09.2005	SC	
1		PANEL SHOP AS BUILT	AK	19.07.2005	SC	
0		ISSUED FOR APPROVAL	AK	17.05.2005	SC	

Project Title
FORT ENERGY C/O TRIDENT RC10323

Drawing Title
NON-INCENDIVE INPUT BOARD #1 ANALOG / DISCRETE LAYOUT DRAWING

Syntech

Syntech Drawing Number	5190111-18	1 of 1
Customer Drawing Number	050322	NTS



Rev.	Soft Rev.	Revision Description	By	Date	Checked	Aprvd
2		SHOP AS BUILT	AK	06.09.2005	SC	
1		PANEL SHOP AS BUILT	AK	19.07.2005	SC	
0		ISSUED FOR APPROVAL	AK	17.05.2005	SC	

LEGEND

- 1. PANEL WIRING
- 2. FIELD WIRING
- 3. UNFUSED TERMINAL
- 4. FUSED TERMINAL
- 5. FEED THROUGH TERMINAL
- 6. DISCONNECT TERMINAL

WIRE COLOR LEGEND

- 1. +24VDC: RED
- 2. -24VDC: YELLOW
- 3. SWITCHED: ORANGE
- 4. ANALOG INPUT/OUTPUT -: BLACK
- 5. ANALOG INPUT/OUTPUT +: WHITE
- 6. ANALOG LOOP: PURPLE

THIS DRAWING IS DESIGNED ENTIRELY FOR USE BY SYNTECH AND IS SOLE PROPERTY OF SYNTECH WHICH ASSUMES NO LIABILITY FOR REPRODUCTION OF THE DRAWING CONTENTS.

Project Title	FORT ENERGY C/O TRIDENT RC10323
Drawing Title	NON-INCENDIVE INPUT BOARD #2 ANALOG / DISCRETE LAYOUT DRAWING

Syntech

Syntech Drawing Number **5190111-19** 1 of 1

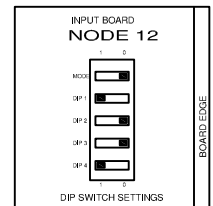
Customer Drawing Number **050322** NTS

NON-INCENDIVE
ANALOG
BOARD #3

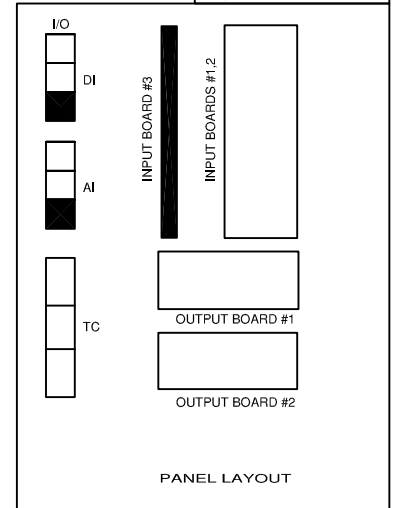
TERM	COLOR	+/-	FUNC	DESCRIPTION
1	WHITE	+	A01	SPARE
2	BLACK	-	A01	SPARE
3	WHITE	+	A02	SPARE
4	BLACK	-	A02	SPARE
5	WHITE	+	A03	SPARE
6	BLACK	-	A03	SPARE
7	WHITE	+	A04	SPARE
8	BLACK	-	A04	SPARE
9	WHITE	+	A05	SPARE
10	BLACK	-	A05	SPARE
11	WHITE	+	A06	SPARE
12	BLACK	-	A06	SPARE
13	WHITE	+	A07	SPARE
14	BLACK	-	A07	SPARE
15	WHITE	+	A08	SPARE
16	BLACK	-	A08	SPARE
17		+	DIP 3	
18		+	DIP 4	
19		-	GND	
20		+	SLIDE V	
21		-	GND	
22		-	EARTH	
23	BLACK	-	RPM -	
24		-	EARTH	
25	WHITE	+	RPM +	
26		-	EARTH	

NON-INCENDIVE
DISCRETE
BOARD #3

TERM	COLOR	+/-	FUNC	DESCRIPTION
1	WHITE	+	D01	SPARE
2	BLACK	-	D01	SPARE
3	WHITE	+	D02	SPARE
4	BLACK	-	D02	SPARE
5	WHITE	+	D03	SPARE
6	BLACK	-	D03	SPARE
7	WHITE	+	D04	SPARE
8	BLACK	-	D04	SPARE
9	WHITE	+	D05	SPARE
10	BLACK	-	D05	SPARE
11	WHITE	+	D06	SPARE
12	BLACK	-	D06	SPARE
13	WHITE	+	D07	SPARE
14	BLACK	-	D07	SPARE
15	WHITE	+	D08	SPARE
16	BLACK	-	D08	SPARE
17	WHITE	+	D09	SPARE
18	BLACK	-	D09	SPARE
19	WHITE	+	D10	SPARE
20	BLACK	-	D10	SPARE
21	WHITE	+	D11	SPARE
22	BLACK	-	D11	SPARE
23	WHITE	+	D12	SPARE
24	BLACK	-	D12	SPARE
25			EARTH	
26			EARTH	



NOTES ON DIP SETTINGS
MODE IS ALWAYS SET TO 0
DIP 1: SET TO 0 FOR TYPE J TC'S
DIP 1: SET TO 1 FOR TYPE K TC'S
DIP 2,3 AND 4 SET TO BOARD ADDRESS



LEGEND	WIRE COLOR LEGEND
1. PANEL WIRING	1. +24VDC: RED
2. FIELD WIRING	2. -24VDC: YELLOW
3. UNFUSED TERMINAL	3. SWITCHED: ORANGE
4. FUSED TERMINAL	4. ANALOG INPUT/OUTPUT - : BLACK
5. FEED THROUGH TERMINAL	5. ANALOG INPUT/OUTPUT + : WHITE
6. DISCONNECT TERMINAL	6. ANALOG LOOP: PURPLE

Rev.	Soft Rev.	Revision Description	By	Date	Checked	Aprvd
2		SHOP AS BUILT	AK	06.09.2005	SC	
1		PANEL SHOP AS BUILT	AK	19.07.2005	SC	
0		ISSUED FOR APPROVAL	AK	17.05.2005	SC	

Project Title	FORT ENERGY C/O TRIDENT RC10323
Drawing Title	NON-INCENDIVE INPUT BOARD #3 ANALOG / DISCRETE LAYOUT DRAWING

Syntech	Syntech Drawing Number	5190111-20
	Customer Drawing Number	050322
		NTS