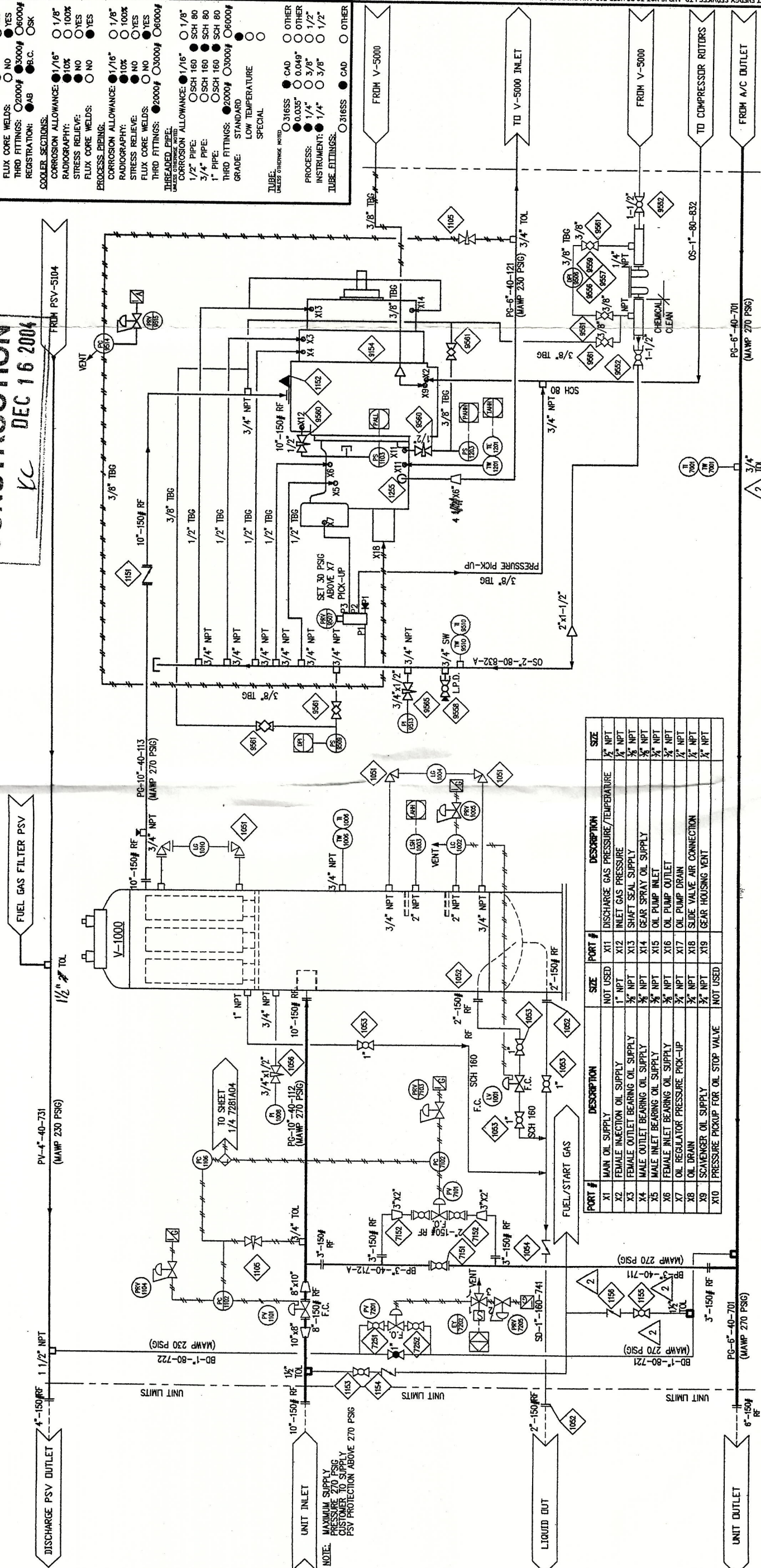


**ISSUED FOR CONSTRUCTION**  
 VC  
 DEC 16 2004

**V-1000**  
 SUCTION FILTER/SEPARATOR  
 30" OD x 90" S/S  
 270 PSIG MAMP @ 150T  
 S/N: V7000-04-0011  
 CRN: R8080.2

**DRIVER**  
 MODEL: MAUKESHA F18GL  
 GAS ENGINE  
 OPERATING SPEED: 1000-1800 RPM  
 RATING: 392 HP @ 1800 RPM  
 S/N:

**COMPRESSOR**  
 MODEL: SULLAIR PDR 25X  
 ROTARY COMPRESSOR  
 VOLUME RATIO: 3.0  
 S/N:



PORT #	DESCRIPTION	SIZE	PORT #	DESCRIPTION	SIZE
X1	MAIN OIL SUPPLY	1" NPT	X11	DISCHARGE GAS PRESSURE/TEMPERATURE	3/8" NPT
X2	FEMALE INJECTION OIL SUPPLY	3/8" NPT	X12	INLET GAS PRESSURE	3/8" NPT
X3	FEMALE OIL BEARING OIL SUPPLY	3/8" NPT	X13	SHAFT SEAL SUPPLY	3/8" NPT
X4	MALE OIL BEARING OIL SUPPLY	3/8" NPT	X14	GEAR SPRAY OIL SUPPLY	3/8" NPT
X5	MALE INLET BEARING OIL SUPPLY	3/8" NPT	X15	OIL PUMP INLET	3/8" NPT
X6	FEMALE INLET BEARING OIL SUPPLY	3/8" NPT	X16	OIL PUMP OUTLET	3/8" NPT
X7	OIL DRAIN	3/8" NPT	X17	OIL PUMP DRAIN	3/8" NPT
X8	OIL REGULATOR PRESSURE PICK-UP	3/8" NPT	X18	SLIDE VALVE AIR CONNECTION	3/8" NPT
X9	SCAVENGER OIL SUPPLY	3/8" NPT	X19	GEAR HOUSING VENT	3/8" NPT
X10	PRESSURE PICKUP FOR OIL STOP VALVE	NOT USED			

**DESIGN DATA**  
 ALL PIPING DESIGN IN ACCORDANCE WITH B31.3  
 ALL STUDS TO BE B7M, WITH 2HM NUTS  
 ALL GASKETS TO BE 316SS

**VESSELS**  
 CORROSION ALLOWANCE: 1/16"  1/8"  100%  
 RADIOGRAPHY: 10%  NO  YES  
 STRESS RELIEF: 10%  NO  YES  
 FLUX CORE WELDS: 100%  NO  YES  
 THRD FITTINGS: 2000#  3000#  6000#  
 REGISTRATION: AB  B.C.  OSK

**COOLER SECTIONS**  
 CORROSION ALLOWANCE: 1/16"  1/8"  100%  
 RADIOGRAPHY: 10%  NO  YES  
 STRESS RELIEF: 10%  NO  YES  
 FLUX CORE WELDS: 100%  NO  YES

**PROCESS BEINGS**  
 CORROSION ALLOWANCE: 1/16"  1/8"  100%  
 RADIOGRAPHY: 10%  NO  YES  
 STRESS RELIEF: 10%  NO  YES  
 FLUX CORE WELDS: 100%  NO  YES

**THRD FITTINGS**  
 2000#  3000#  6000#  
 REGISTRATION: AB  B.C.  OSK

**THREADS**  
 CORROSION ALLOWANCE: 1/16"  1/8"  100%  
 RADIOGRAPHY: 10%  NO  YES  
 STRESS RELIEF: 10%  NO  YES  
 FLUX CORE WELDS: 100%  NO  YES

**PIPE**  
 1/2" PIPE: SCH 160  SCH 80  OTHER  
 3/4" PIPE: SCH 160  SCH 80  OTHER  
 1" PIPE: SCH 160  SCH 80  OTHER  
 THRD FITTINGS: 2000#  3000#  6000#  
 GRADE: STANDARD  SPECIAL

**TUBE**  
 UNLESS OTHERWISE NOTED  
 316SS  CAD  OTHER  
 PROCESS: 0.035"  0.049"  OTHER  
 INSTRUMENT: 1/4"  3/8"  1/2"  
 TUBE FITTINGS: 1/4"  3/8"  1/2"

**PROCESS P&ID**  
 STAGES: 1 SERVICE SHEET  
 COMPRESSOR: PDR25X ENGINE: WALK F18GL  
 DISTANCE PIECE: NA COMPLINE: ARJISAFLEY  
 COLOR: ACE-84 PANEL: MURPHY TTD  
 JOB: FH411  
 DWG: 7280A04 REV: 2 1/2

**Collicutt Energy Services Ltd.**  
 CORPORATE OFFICE  
 7550 EDGAR INDUSTRIAL DRIVE  
 RED DEER, AB CANADA T4P 3K2  
 PHONE (403) 358-3200  
 FAX (403) 358-3210

**PIONEER NATURAL RESOURCES CANADA INC.**  
 CUSTOMER  
 LOCATION: C-25-A/94-11-8

**REVISIONS**

REV	DESCRIPTION	DATE	DWN BY	CHK BY	APR BY
2	GENERAL REVISIONS, IFC	12.16.04	VCM		
1	ISSUED FOR CONSTRUCTION	12.09.04	VCM		
0	ISSUED FOR APPROVAL	11.16.04	VCM		

**LEGEND**  
 XX-XX-XX-XXX-X- LINE CLASS  
 --- LINE NUMBER  
 --- LINE SCHEDULE  
 --- LINE SIZE  
 --- LINE SERVICE  
 LOCAL MOUNTED  
 LOCAL MOUNTED (HUMAN MACHINE INTERFACE)  
 PANEL MOUNTED  
 PANEL INPUT (ELECTRICAL)

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**DESIGN DATA**  
 ALL PIPING DESIGN IN ACCORDANCE WITH B31.3  
 ALL STUDS TO BE B7M WITH ZHM NUTS  
 ALL GASKETS TO BE 316SS

**VESSELS**  
 CORROSION ALLOWANCE: ● 1/16" ○ 1/8"  
 RADIOGRAPHY: ● 10% ○ 100%  
 STRESS RELIEVE: ● NO ○ YES  
 FLUX CORE WELDS: ● NO ○ YES  
 THRD FITTINGS: ● 2000# ○ 3000# ○ 6000#  
 REGISTRATION: ● AB ● B.C. ○ SK

**COOLER SECTIONS**  
 CORROSION ALLOWANCE: ● 1/16" ○ 1/8"  
 RADIOGRAPHY: ● 10% ○ 100%  
 STRESS RELIEVE: ● NO ○ YES  
 FLUX CORE WELDS: ● NO ○ YES

**PROCESS PIPING**  
 CORROSION ALLOWANCE: ● 1/16" ○ 1/8"  
 RADIOGRAPHY: ● 10% ○ 100%  
 STRESS RELIEVE: ● NO ○ YES  
 FLUX CORE WELDS: ● NO ○ YES  
 THRD FITTINGS: ● 2000# ○ 3000# ○ 6000#

**TUBELAND PIPING**  
 CORROSION ALLOWANCE: ● 1/16" ○ 1/8"  
 RADIOGRAPHY: ● 10% ○ 100%  
 STRESS RELIEVE: ● NO ○ YES  
 FLUX CORE WELDS: ● NO ○ YES

**TABLED PIPE**  
 CORROSION ALLOWANCE: ● 1/16" ○ 1/8"  
 RADIOGRAPHY: ● 10% ○ 100%  
 STRESS RELIEVE: ● NO ○ YES  
 FLUX CORE WELDS: ● NO ○ YES

**GRADE:** STANDARD ○ LOW TEMPERATURE ○ SPECIAL

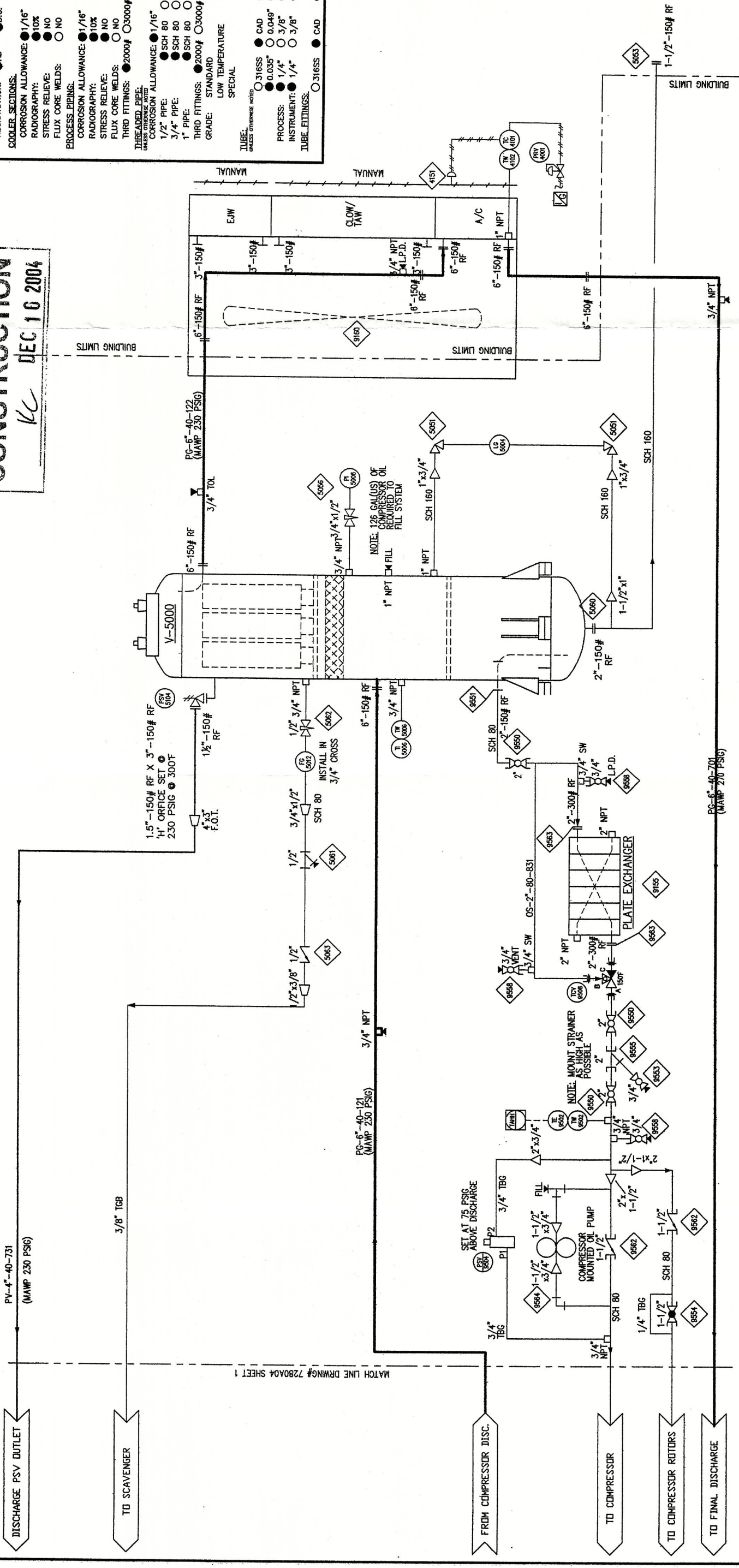
**TUBE:** UNLESS OTHERWISE NOTED  
 ○ 316SS ○ CAD ○ OTHER  
 ○ 316SS ○ 0.035" ○ 0.049" ○ OTHER  
 PROCESS: ● 1/4" ○ 3/8" ○ 1/2"  
 INSTRUMENT: ● 1/4" ○ 3/8" ○ 1/2"  
 TUBE FITTINGS: ○ 316SS ○ CAD ○ OTHER

**ISSUED FOR CONSTRUCTION**  
 KC DEC 16 2004

**SEPARATOR/COALESCE**  
 V-5000  
 30" OD x 96" S/S  
 230 PSIG MAMP @ 300T  
 S/N: V7000-04-0012  
 CRN: R8909.2

**PLATE EXCHANGER**  
 MODEL: WEP/PLATE  
 VNI-20-SS-FN-2-100  
 PLATE/FRAHE HEAT EXCHANGER  
 DUTY: 586,200 BTU/Hr  
 MAMP: 400 PSIG @ 250T  
 S/N: R8909.2

**COOLER**  
 MODEL: ACE J84  
 VERTICAL FORCED DRAFT HEAT EXCHANGER  
 AC: 230 PSIG MAMP @ -20/300T  
 EWR: 14 PSIG MAMP @ -20/300T  
 CLOW/TAK: 14 PSIG MAMP @ -20/300T



<b>LINE DESIGNATION</b> XX-XX-XX-XXX-X- LINE CLASS LINE NUMBER LINE SCHEDULE LINE SIZE LINE SERVICE		<b>LEGEND</b> ○ LOCAL MOUNTED ○ LOCAL (HUMAN MACHINE INTERFACE) ⊕ LOCAL PANEL MOUNTED ⊖ PANEL MOUNTED ⊗ PANEL INPUT (ELECTRICAL)	
<b>DESCRIPTION</b> FROM COMPRESSOR DISC. TO SCAVENGER TO COMPRESSOR TO COMPRESSOR ROTORS TO FINAL DISCHARGE		<b>REFERENCE DRAWINGS</b>	
<b>DESCRIPTION</b> GENERAL REVISIONS, IFC ISSUED FOR CONSTRUCTION ISSUED FOR APPROVAL		<b>REVISIONS</b>	
2	GENERAL REVISIONS, IFC	12.16.04	VCM
1	ISSUED FOR CONSTRUCTION	12.09.04	VCM
0	ISSUED FOR APPROVAL	11.16.04	VCM
REV	DESCRIPTION	DATE	DWN BY
CHK BY	APR BY	LOCATION C-25-A/94-H-8	
<b>CUSTOMER</b> <b>PIONEER NATURAL RESOURCES CANADA INC.</b>			
<b>Energy Services Ltd.</b> CORPORATE OFFICE 7650 EDGAR INDUSTRIAL DRIVE RED DEER, AB CANADA T4P 3R2 PHONE (403) 368-3200 FAX (403) 368-3210			
<b>PROCESS P&amp;ID</b> STAGES: 1 SERVICE: SHEET COMPRESSOR: PDR-25X ENGINE: WALK F183L DISTANCE PCE: N/A COUPLING: ARCUS/FLEX COOLER: ACE-84 PANEL: MURPHY/TDU FWH411			
DRAWING NO: 7280A04		REV: 2 2/2	

# 778.13 DEC 20 2004





T-9371 SURGE TANK  
 12" HSS X 31" LG S/S  
 EJV: 9.14 IMP GALS  
 TAW: 4.56 IMP GALS

9300 SERIES COOLANT UTILITIES

ISSUED FOR CONSTRUCTION  
 Ke DEC 16 2004

SHOP NOTES

- LOCAL MOUNTED DEVICES
- ⊖ PANEL MOUNTED DEVICES

LINE DESIGNATION	
XX-XX-XX-XXX	
---	LINE NUMBER
---	LINE SCHEDULE
---	LINE SIZE
---	LINE SERVICE

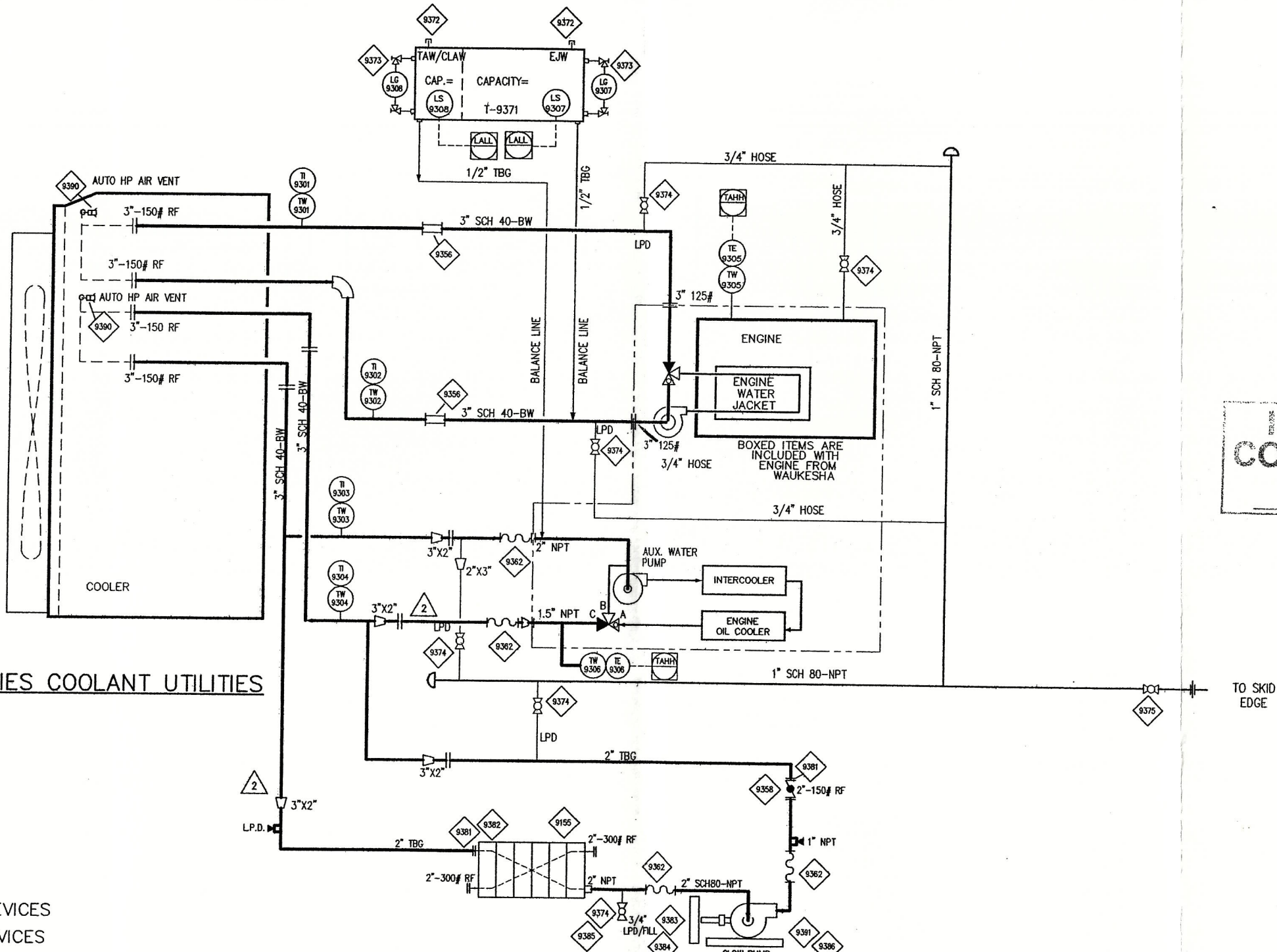
LEGEND	
○	LOCAL MOUNTED
⊖	PANEL MOUNTED
⊞	HMI (HUMAN MACHINE) INTERFACE
◇	PANEL INPUT (ELECTRICAL)

DESCRIPTION	DRAWING	REV	REV	DESCRIPTION	DATE	DWN BY	CHK BY	APR BY
			2	GENERAL REVISIONS, IFC	12.16.04	VCM		
			1	ISSUED FOR CONSTRUCTION	12.09.04	VCM		
			0	ISSUED FOR APPROVAL	11.16.04	VCM		

CUSTOMER	
<b>PIONEER NATURAL RESOURCES CANADA INC.</b>	
LOCATION C-25-A/94-H-8	

**Collicutt Energy Services Ltd.**  
 CORPORATE OFFICE  
 7550 EDGAR INDUSTRIAL DRIVE  
 RED DEER, AB CANADA T4P 3R2  
 PHONE (403) 358-3200  
 FAX (403) 358-3210

COOLANT UTILITY P&ID	
STAGES: 1	SERVICE: SWEET
COMPRESSOR: PDR-25X	ENGINE: WALK F18GL
DISTANCE PRICE: N/A	COUPLING: ARCUSAFLEX
COOLER: ACE J84	PANEL: MURPHY TTDJ
REV: FH411	DWG: 7281A04
REV: 2	SH: 3/4



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