

**V-100**  
VERTICAL SEPARATOR  
20" OD x 6'-5" S/S x 1/16" CA  
DP/DT: 1440 PSIG @ -20°F/100°F

**H-410**  
INDIRECT FIRED HEATER  
1,000,000 BTU/HR, NOMINAL DUTY  
48" OD x 12'-4" LG

**V-110**  
FUEL GAS SCRUBBER  
8 5/8" OD x 36" HIGH  
DP/DT: 150 PSIG @ -20°F/200°F

**P-510**  
METHANOL INJECTION PUMP  
TEXSTEAM MODEL MX3-3  
3/8" PLUNGER

**P-520**  
HYDRAULIC PUMP  
BARBER  
REMOTE HYDRAULIC PUMP  
(SUPPLIED BY CUSTOMER)

**T-300**  
METHANOL TANK  
WESTSTEEL  
500 GALLON CAPACITY

TAG	QTY	DESCRIPTION
BL-100	1	BS & B WEL-LITE IGNITOR
CV-110	1	2"-1500# RTJ WELLS W10 CHOKE VALVE c/w FISHER SIZE 40 ACTUATOR, FAIL CLOSE, 0-30# ATO, (2) 1/2" HOLES, BENCH SET TO 30 PSIG
DP-410	1	KIMRAY DP 30 DRIP POT
F-100	1	WATER GUARD W2-40S-05P FILTER
F-300	1	BLOWN FF10 FILTER
FE-100	1	3"-600# RF NORTH STAR DUAL CHAMBER METER RUN, SCH 40 BORE, REVELLED OUTER ENDS, ADA 30, STD SERVICE c/w (1) 3/4"-3000# NPT & (1) 1"-3000# NPT CONNECTIONS
FR-100	1	BARTON 250 2 PEN FLOW RECORDER 0-100" WC, 0-1500 PSIG, 24 HR
PR-100	1	RECORDER, CS, STANDARD TRIM c/w 3" PPE SADDLE, 2" 316 SS THERMOWELL AND (1) "AD" 5 VALVE MANIFOLD, SS TUBE & TUBE FITTINGS (SWAGelok) (RECONDITIONED)
FTSD-410	1	KIMRAY HT-12-PG FLAME FAILURE SHUTDOWN
LC-100/101	2	2" NPT FISHER 2600A PNEUMATIC LEVEL CONTROLLER c/w VERTICAL 1 7/8" x 12" LG PVC DISPLACER
LCV-100	1	1" NPT FISHER 128 POC CONTROL VALVE, 3/8" TAPER TRIM, 0-20 PSI
LCV-101	1	1" NPT FISHER 128 POC CONTROL VALVE, 3/8" TAPER TRIM, 0-20 PSI
LG-100	1	PEMBERTHY TR4 LEVEL GAUGE c/w 3/4" 330J GAUGE VALVES
LG-101	1	PEMBERTHY TR4 LEVEL GAUGE c/w 3/4" 330J GAUGE VALVES
LG-300	1	KENDO 5700-CVR-52 TANK GAUGE
LG-410	1	DANIEL OT TUBULAR GAUGE GLASS
LLSD-410	1	2" NPT WELLMARK ST21P LEVEL SWITCH
M-100/101	2	1" NPT HALLIBURTON TURBINE FLOW METER c/w MC-8 FLOW ANALYZER
MLS-110	1	AND MAGNETIC PICK-UP FISHER 670 FDV-X9 MANUAL LOADING STATION
P-510	1	TEXSTEAM MODEL MX3-3, 3/8" PLUNGER METHANOL PUMP
P-520	1	BARBER REMOTE HYDRAULIC PUMP
PCV-100	1	2"-800# RF FISHER 6570 CONTROL VALVE, 3/4" TRIM c/w SIZE 40 ACTUATOR 0-30# ATO
PC-100	1	FC 4150 PRESSURE CONTROLLER, SHEET, 0-1500 PSI, REVERSE ACTING, 0-30 PSI
PC-110	1	FC 4150 PRESSURE CONTROLLER, SHEET, 0-1500 PSI, REVERSE ACTING, 0-30 PSI
PI-100	1	0-2000 PSIG, 4 1/2" FACE, 1/2" BOTTOM MOUNT, DUAL SCALE, U.S. GAUGE MODEL 542L PRESSURE INDICATOR
PI-110	1	0-3000 PSIG, 4 1/2" FACE, 1/2" BOTTOM MOUNT, DUAL SCALE, U.S. GAUGE MODEL 542L PRESSURE INDICATOR
PI-111	1	0-100 PSIG, 2 1/2" FACE, 1/4" BOTTOM MOUNT, DUAL SCALE, U.S. GAUGE MODEL 1550L PRESSURE INDICATOR
PI-410	1	0-30 PSIG, 2 1/2" FACE, 1/4" BOTTOM MOUNT, DUAL SCALE, U.S. GAUGE MODEL 1550L PRESSURE INDICATOR
PI-411	1	0-15 PSIG, 2 1/2" FACE, 1/4" BOTTOM MOUNT, DUAL SCALE, U.S. GAUGE MODEL 1550L PRESSURE INDICATOR
PI-510	1	0-3000 PSIG, 4 1/2" FACE, 1/2" BOTTOM MOUNT, DUAL SCALE, PRESSURE INDICATOR
PRV-1	4	FISHER 674R PRESSURE REGULATOR, ALUMINUM BODY, 0-35# SPRING
PRV-2	1	FISHER 674R PRESSURE REGULATOR, ALUMINUM BODY, 0-125# SPRING
PRV-200	1	1" NPT FISHER 630 REGULATOR, CI BODY, BRASS TRIM, 40-95# SPRING, 1/8" ORIFICE
PRV-410	1	1" NPT FISHER 627 REGULATOR, CI BODY, ALUM TRIM, 1/4" ORIFICE, 5-20# SPRING
PRV-411	1	1/4" NPT FISHER 912 REGULATOR, 0.5-2.7# SPRING
PSV-100	1	CONSOLIDATED 19357C 1 1/2" NPT x 2" NPT RELIEF VALVE SET @ 1440 PSIG
PSV-110	1	CONSOLIDATED 19357C 1 1/2" NPT x 2" NPT RELIEF VALVE SET @ 150 PSIG
PSV-310	1	HAPRO 1/4" NPT x 1/4" TUBE SS-HVPS-EP c/w 1/2"-834-K1-E SPRING 2250-3000 PSI RANGE
PSR-100	1	BARBER S-HL-P HIGH/LOW PILOT SET AT 100 PSIG LOW/ 1000 PSIG HIGH c/w BARBER ISOLATING VALVE
SV-410	1	AMOT 40570025H2 3-WAY SWITCHING VALVE c/w MANUAL RESET
T-300	1	WESTSTEEL 500 GALLON METHANOL TANK c/w CHOCKS AND VENT CAP
TCV-410	1	KIMRAY HT-12 THERMOSTAT c/w 1" NPT C.S. SEPARABLE SOCKET
TCV/SDV-410	2	1" NPT FISHER 119 CONTROL VALVE, CI BODY, 9/16" ORIFICE, 3-15# SPRING
TI-100	1	0-250°F 3" DIA, DUAL SCALE, TEL-THRU TEMPERATURE INDICATOR c/w 6" STEM TW (304SS)
TI-110/111/112	3	0-250°F 3" DIA, DUAL SCALE, TEL-THRU TEMPERATURE INDICATOR c/w 6" STEM TW (304SS)
TI-410	1	0-250°F 3" DIA, DUAL SCALE, TEL-THRU TEMPERATURE INDICATOR c/w 6" STEM TW (304SS)
TSOH-410	1	KIMRAY HT-12 HIGH TEMPERATURE SHUTDOWN c/w 1" NPT C.S. SEPARABLE SOCKET
V-110	1	8 5/8" OD x 36" HIGH x 150 PSIG x 1/16" CA LAD STANDARD FUEL GAS SCRUBBER
STR-1	3	1" NPT ALTA "Y" STRAINER, CI BODY, HIGH PRESSURE, YS-800
STR-2	1	1/2" NPT ALTA "Y" STRAINER, CI BODY, HIGH PRESSURE, YS-800
BA-1	1	2" NPT 2000# "NUTRON" BALL VALVE
BA-2	21	1" NPT 2000# "NUTRON" BALL VALVE
BA-3	7	1/2" NPT 2000# "NUTRON" BALL VALVE
CH-1	1	3"-600# RF "WHEATLEY" CHECK VALVE
CH-2	1	1" NPT "WHECO" CLASS 800 CHECK VALVE
CH-3	3	1/4" NPT "NULINE" CHECK VALVE
NE-1	11	1/2" NPT "MARSH" NEEDLE VALVE
NE-2	14	1/4" NPT "MARSH" NEEDLE VALVE

NOTES:  
1. FOR DESIGN NOTES SEE PIPING LAYOUT.

**LARSEN & D'AMICO MFG. LTD.** EDMONTON, ALBERTA, CANADA

CUSTOMER: **BURLINGTON RESOURCES CANADA ENERGY LTD.**  
LOCATION: **BRAZEAU (SWEET)**

DESCRIPTION: **FLOW DIAGRAM FOR HEATER/SEPARATOR PACKAGE**

DWN: D. UONG  
DATE: 02/01/09  
SCALE: NTS  
SHOP ORDER No.: 4221

CUSTOMER REVISION "A"  
DRAWING No.: **LD-4515-A1**  
REV.  $\Delta$

REQ'D (1)  
TIME CARD#  
**4221-PP**

CHK'D: \_\_\_\_\_ DATE: \_\_\_\_\_ BY: \_\_\_\_\_  
PROJECT CO-ORDINATOR CHK'D: \_\_\_\_\_ DATE: \_\_\_\_\_ BY: \_\_\_\_\_  
**DO NOT SCALE FROM THIS DRAWING**

REV.	DESCRIPTION	DATE	BY
1	REVISED AS NOTED	02/01/09	TCU
0	ISSUE FOR CONSTRUCTION	01/06/28	TCU

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