NOTES:

1. QUANTITIES IN B.O.M. ARE FOR ONE (1) UNIT.
2. ALL PIPING TO BE IN ACCORDANCE WITH THE LATEST EDITION OF ASME B31.3 PRESSURE PIPING CODE.
3. VESSEL TO BE FABRICATED TO THE LATEST EDITION OF ASME SECTION VIII, DIVISION 1 PRESSURE VESSELS.
4. ALL THREADED PIPING TO BE: SA-106B SMLS, SCH.160 (min)
   WELDED PIPING TO BE SCH.80 (min)
5. TUBING DETAILS: 3/8" 316 S.S. TUBING c/w 316 S.S. FITTINGS AND FERRULES.
6. PAINTING: PACKAGE TO BE CLEANED TO (SSPC-SP-6)
   1st COAT PRIMER: DEVOE FAST DRY PRIMER
   FINISH COAT: DEVOE GREY ENAMEL
7. PROTECT ALL OPENINGS FOR SHIPMENT
8. BUILDING: 13'-0" WIDE x 24'-0" LONG x 14'-0" HIGH GABLE STYLE x 11'-8" LOW WALL
   22 GAUGE GALVANIZED
   24 GAUGE FLUTED ALUMINUM INTERIOR c/w R-12 INSULATION IN WALLS & ROOF
   VENTILATION: TWO (2) 12" x 12" ALUMINUM LOUVERS c/w SCREENS AND CLOSURES
   DOORS: TWO (2) 3'-0" WIDE x 7'-0" HIGH STEEL DOOR c/w IWG WINDOW, CHECK CHAIN,
   PANIC-LOCK, WEATHER-STRIPPING AND CANOPIES ABOVE DOORS.
   WINDOWS: TWO (2) 36" x 38" SLIDING WINDOWS c/w SCREENS
   PANIC-LOCK, WEATHER-STRIPPING AND CANOPIES ABOVE DOORS.
   WINDOWS: TWO (2) 36" x 38" SLIDING WINDOWS c/w SCREENS
   FLASHING REQUIRED OVER 3" CONTAINMENT DYKE AT BOTH DOORS
   EXHAUST FANS: TWO(2) 1/4 H.P. EXPLOSION PROOF EXHAUST FANS c/w BUILDING, 6 A.C.P.H. EACH
   1/4" HP 120V SINGLE PHASE, EXPLOSION PROOF
9. CUSTOMER SUPPLIED:
   EXHAUST FAN THERMOSTAT: ONE(1) CONNECTED TO THE 24 VDC SYSTEM
   LIGHTS: TWO(2) CEILING MOUNTED 250 WATT HPS INT. LIGHTS
   LIGHTS: TWO(2) WALL MOUNTED 150 WATT HPS EXT. LIGHTS
   RECEPTACLE: ONE(1)
10. HYDROTEST TO 1.5x MAWP.
11. ALL BUTT WELDED PIPING TO BE 15% X-RAY WITH NO PWHT.
12. ALL STUDS ARE SA-193-B7M, NUTS ARE SA-193-2HM, GASKETS 316 S.S.
13. SKID TO HAVE A 3" CONTAINMENT DYKE ALL THE WAY AROUND
14. 2" SPRAY FOAM INSULATION UNDER SKID.
15. SKID TO HAVE TWO 12ø STD. FLOOR DRAINS.
16. MAWP 2" Sch.80 BUTTWELDED c/w 300# FLANGES @ 100°F IS 740 PSIg c/w 1/8" C.A.
    MAWP 3" Sch.80 BUTTWELDED c/w 300# FLANGES @ 100°F IS 740 PSIg c/w 1/8" C.A.
    MAWP 4" Sch.80 BUTTWELDED c/w 300# FLANGES @ 100°F IS 740 PSIg c/w 1/8" C.A.
    MAWP 6" Sch.80 BUTTWELDED c/w 300# FLANGES @ 100°F IS 740 PSIg c/w 1/8" C.A.

VALVE LISTING

TAG	QTY.	MAKE	DESCRIPTION
2"BA1B1	10	NUTRON	2" 300# RF BALL VALVE R.P. STD SERVICE,
1/4"NE4P1	6	CENTURY	1/4" NPT 6000# MxF NEEDLE VALVE C.S. STD SERVICE
1/2"NE4P1	6	CENTURY	1/2" NPT 6000# MxF NEEDLE VALVE C.S., STD SERVICE
1/2"BA4M1	9	BALON	1/2" NPT 2000# R.P. BALL VALVE, STD SERVICE,
1"BA4M1	3	BALON	1" NPT 2000# R.P. BALL VALVE, STD. SERVICE,
3"BA1B1	4	NUTRON	3" 300# RF BALL VALVE R.P. STD SERVICE,
2"BA4M1	2	BALON	2" NPT 2000# R.P. BALL VALVE, STD. SERVICE,
3/4"BA4M1	4	BALON	3/4" NPT 2000# R.P. BALL VALVE, STD SERVICE,
2"C1B1	1	STREAMFLO	2" 300# RF WAFER CHECK VALVE STD SERVICE
3"C1B1	2	STREAMFLO	3" 300# RF WAFER CHECK VALVE STD SERVICE
2"Y1B1	2	ALTA	2" 300# RF Y-STRAINER STD SERVICE

BILL OF MATERIALS

TAG	QTY.	MAKE	DESCRIPTION
FE-100	1	NORTHSTAR REMAN.	DUAL CHAMBER METER RUN 3" 300#, SCH 80 BUILT TO AGA fig. 3C c/w A TEFLON SEAL RING & 316 SS ORIFICE PLATE, ONE (1) - 1" 3000# TOL AND ONE (1) - 3/4" 3000# TOL, 10% X-RAY STD SERV.c/w STRAIGHTENING VANES, 62" F/F
LC-100/101	2	FISHER	2" NPT MODEL L2 LEVEL CONTROLLER STD SERVICE SNAP ACTING, SEALED CASE c/w VENT PORT 6-30 PSIg OUTPUT 1 7/8"ø x 12" LONG VERTICAL PVC ARTICULATING FLOAT c/w 9" LEVEL ARM
BPCV-100	1	FISHER	2" 300# RF MODEL 667-'D' VALVE, STD SERVICE 1" TRIM, c/w SIZE 40 ACT., FAIL CLOSED, 10 1/2" F/F
FQI-100/101 SHIPPED LOOSE	2	HALIBURTON	2" x 1-1/2" 300# RF EZ-IN TURBINE METER c/w MCII PLUS BATTERY OPERATED DIGITAL TOTALIZER c/w MAG PICK-UP & HARDWARE 10ø UP & 5ø DOWN, STD, 2 1/2" F/F, 4-20 mA OUTPUT
HLSD-100	1	MURPHY	2" NPT, MODEL L1200SS SF ELECTRIC LEVEL SWITCH, 24 VDC, 316 S.S. FLOAT, 303 SS BODY, SNAP DIRECT ACTING, c/w 6" FLOAT ARM EXT. ,1500 PSIg MAWP, STD SERVICE
FT-100	1	ROSEMOUNT	MODEL 3051TG4A2B21AC6 TRANSMITTER, c/w MOUNTING BRACKET, STD. SERVICE
DPT-100	1	ROSEMOUNT	MODEL 3051CD3A02A1AH2C6 TRANSMITTER, c/w MOUNTING BRACKET, STD. SERVICE
TT-100	1	ROSEMOUNT	MODEL 3144D1C6 TRANSMITTER, c/w MOUNTING BRACKET, STD. SERVICE
LCV-100/101	2	FISHER	2" 300# WAFER STYLE CONN, MODEL V200 CONTROL VALVE, NACE, 0-30 PSIg INPUT, FAIL CLOSE c/w 1052 SIZE 20 ACT. STD SERVICE, 4 7/8" F/F
PRV-200/201 202	3	FISHER	1/4" FNPT MODEL 67 CFR PRESSURE REGULATOR 0-35 PSIg RANGE, STD. SERV. 250 PSIg MAWP
PI-100	1	WIKA	PRESSURE INDICATOR LIQUID FILLED, 4" DIA. FACE x 1/2"NPT END CONNECTION, 0 TO 600 PSIg DUAL, S.S.
PI-200	1	WIKA	PRESSURE INDICATOR 2 1/2" DIA FACE x 1/4" NPT BOTTOM MOUNT END CONN. CS CASE & INTERNALS 0 TO 300 PSIg DUAL SCALE
PSV-100	1	MERCER	1 1/2" 300# RF x 2" 150# RF RELIEF VALVE WCB BODY, MODEL 9100 'F' ORIFICE SET @ 740 PSIg, STD SERVICE
TI-100	1	TREND	TEMPERATURE INDICATOR, 3" DIAL, 6" STEM 1/2" NPT -40°F TO 160°F RANGE, DUAL SCALE, c/w 1/2"x 3/4"x 6" 316 SST. THERMOWELL
LG-100	1	PENBERTHY	3/4" NPT MODEL 1RM5 REFLEX SITE GLASS c/w 330J VALVES, STD SERVICE (7 7/8" VISIBLE SITE)
LG-101	1	PENBERTHY	3/4" NPT MODEL 1TM5 TRANSPARENT SITE GLASS c/w 330J VALVES, STD SERVICE (7 7/8" VISIBLE SITE)
PC-100	1	FISHER REMAN.	MODEL 4150K PRESSURE CONTROLLER 6-30 PSIg OUTPUT, STD SERVICE CONSTRUCTION 316 S.S. BOURDON TUBE, 0-500 PSIg BOURDON TUBE c/w YOKE MOUNTING PARTS
PSH-100 PSL-100	2	TELEMATIC CCS	MODEL 6900CZE18 HI-LO PRESSURE SWITCH, 1/2" NPT 45-375 PSI INCREASING, 15-345 PSI DECREASING SPDT RELAY, XP, CSA APROVED
LAL-101	1	MURPHY	2" NPT MODEL L1200E 24 VOLT ELECTRIC LOW LEVEL ALARM, EXPL. PROOF, STD. SERVICE c/w 1"NPT LEVEL SWITCH BOTTLE MODEL 15050697, MAWP 2000 PSIg

VALVE LEGEND

END CONNECTION:
FLANGED RF= 1
FLANGED RTJ=2
BUTTWELDED= 3
THREADED= 4
SOCKETWELD= 5
SW/SCRD= 6
TUBING= 7

VALVE SERVICE:
NORMAL TEMP, SWEET PROCESS=1
NORMAL TEMP, SOUR PROCESS=1S
LOW TEMP, SWEET PROCESS=2
LOW TEMP, SOUR PROCESS=2S

2" BA 1 D 1S

VALVE SIZE

VALVE TYPE:
BALL(R.P.)=BA
BALL (F.P.)=BAF
NEEDLE=NE
FULL BODY CHECK=C
GATE=GA
GLOBE=GL
PISTON CHECK=CP
Y-STRAINER=Y

ANSI CLASS:
150#=A
300#=B
400#=C
600#=D
900#=E
1500#=F
2500#=G

THREADED/SOCKET WELDED CLASS:
API 602
CLASS 800=H
CLASS 1500=J
CLASS 2500=K

WOG
1000 WOG=L
2000 WOG=M
3600 WOG=N
6000 WOG=P
10000 WOG=Q
TUBING RATING=R
250 WOG=S

3

NO.	REVISIONS	DWN	APPR	DATE
3	FINAL AS BUILT – REV. AS PER CUSTOMER	PP		02-10-28
2	AS BUILT	PP		02-07-12
1	REVISED PER CHANGE ORDER	CP		02-05-31
0	ISSUED FOR CONSTRUCTION	BB		02-05-14
C	REV. AS PER CUSTOMER	PP		02-05-07
B	REV. AS PER CUSTOMER	PP		02-04-29
A	ISSUED FOR APPROVAL	PP		02-04-25

DELANEY ENERGY MANUFACTURING LTD.
HALKIRK ALBERTA

DATE: 02-04-25
DESIGNED BY: DELANEY
DRAWN BY: P. PIOT
CHECKED BY:
APPROVED BY:
SCALE: N.T.S.

CLIENT: CONOCO CANADA LTD. c/o VECO ALLIANCE GROUP

TITLE: BILL OF MATERIALS & NOTES FOR 64"ID x 18'-0" S/S 740 PSIg 3 PHASE HORIZONTAL SEPARATOR PACKAGE

PROJECT NO.: 1300-001
FILENAME: 1091-001BOM
REFERENCE NO.:
SHEET NO.: 1 OF 1
DRAWING NO.: CCL-1091-001BOM
REV. NO.: 3