| | | | | |
|---|---|---|---|---|
| 57 | 2 | HEX PLUG 1 1/4" 150# | M.I. | 2 |
| 58 | 1 | HEX PLUG 2" 150# | M.I. | 2 |
| 59 | 10 | BLIND FLANGE 4" CLASS 150 RF (SEE NOTE 9) | SA-105 | 170 |

## MATERIAL LIST

| MK | QTY | DESCRIPTION | MATERIAL | WT |
|---|---|---|---|---|
| 1 | 1 | FLANGE 10" CLASS 150 RFSO | SA-105 | 37 |
| 2 | 38 | FLANGE 4" CLASS 150 RFSO | SA-105 | 456 |
| 3 | 1 | PIPE 10" SCH STD x 9 11/16" LG. SMLS POE x ROE | SA-106-B | 33 |
| 4 | 5 | PIPE 4" SCH STD x 1'-4 3/4" LG. SMLS PBE | SA-106-B | 90 |
| 5 | 7 | PIPE 4" SCH STD x 1'-4" LG. SMLS PBE | SA-106-B | 105 |
| 6 | 1 | PIPE 4" SCH STD x 1'-7 3/16" LG. SMLS PBE | SA-106-B | 17 |
| 7 | 1 | PIPE 4" SCH STD x 8 7/8" LG. SMLS POE x ROE | SA-106-B | 8 |
| 8 | 1 | PIPE 4" SCH XS x 1'-6 7/8" LG. SMLS POE x ROE | SA-106-B | 17 |
| 9 | 1 | PIPE 4" SCH XS x 1'-3 3/4" LG. SMLS POE x ROE | SA-106-B | 15 |
| 10 | 1 | PIPE 4" SCH STD x 6 13/16" LG. SMLS POE x ROE | SA-106-B | 6 |
| 11 | 2 | PIPE 4" SCH STD x 19'-6 3/16" LG. SMLS POE x BOE | SA-106-B | 211 |
| 12 | 1 | PIPE 1" SCH XS x 3 1/4" LG. SMLS POE x ROE | SA-106-B | 1 |
| 13 | 1 | PIPE 4" SCH STD x 10'-0" LG. SMLS POE x BOE | SA-106-B | 108 |
| 14 | 1 | PIPE 4" SCH STD x 10'-7" LG. SMLS POE x BOE | SA-106-B | 114 |
| 15 | 1 | PIPE 4" SCH STD x 2'-3 5/8" LG. SMLS POE x BOE | SA-106-B | 25 |
| 16 | 1 | PIPE 4" SCH STD x 1'-5 7/16" LG. SMLS POE x BOE | SA-106-B | 17 |
| 17 | 1 | PIPE 4" SCH STD x 7'-6 7/16" LG. SMLS BBE | SA-106-B | 81 |
| 18 | 9 | ELBOW 4" SCH STD x 90° L.R. | SA-234-WPB | 135 |
| 19 | 1 | ENVIRO-VAULT 6" x 6" | REF. DWG. T-024893-A105 | – |
| 20 | 5 | PIPE 1" SCH XS x 4 1/4" LG. SMLS PBE | SA-106-B | 3 |
| 21 | 23 | NIPPLE 1" SCH XS x 3" LG. SMLS TBE | SA-106-B | 11 |
| 22 | 21 | ELBOW 1" 3000# F.S. SCR'D x 90° L.R. | SA-105 | 10 |
| 23 | 1 | PIPE 3/4" SCH XS x 3 1/4" LG. SMLS POE x ROE | SA-106-B | 1 |
| 24 | 12 | HALF CPLG. 1" 3000# F.S. SCR'D | SA-105 | 10 |
| 25 | 5 | BALL VALVE 1" SPRING LOADED | – | 10 |
| 26 | 5 | HEX PLUG 1" 150# | M.I. | 2 |
| 27 | 1 | PIPE 1" SCH XS x 3'-2 1/16" LG. SMLS TOE x POE | SA-106-B | 5 |
| 28 | 1 | PIPE 1" SCH XS x 8 3/8" LG. SMLS TOE x POE | SA-106-B | 3 |
| 29 | 1 | PIPE 1" SCH XS x 2'-8 3/4" LG. SMLS TOE x POE | SA-106-B | 6 |
| 30 | 1 | PIPE 1" SCH XS x 4'-8 11/16" LG. SMLS TOE x POE | SA-106-B | 9 |
| 31 | 4 | PIPE 1 1/4" SCH STD x 2" LG. ERW PBE | SA312-TP316 S.S. | 2 |
| 32 | 2 | HALF CPLG. 2" 3000# F.S. SCR'D | SA-105 | 2 |
| 33 | 2 | HALF CPLG. 1 1/4" 3000# F.S. SCR'D | SA-105 | 1 |
| 34 | 2 | PIPE 2" SCH XS x 3 7/16" LG. SMLS POE x ROE | SA-106-B | 2 |
| 35 | 2 | PIPE 1 1/4" SCH XS x 3 7/16" LG. SMLS POE x ROE | SA-106-B | 3 |
| 36 | 2 | FLATBAR 1/4" x 1" x 5 7/8" LG. | SA479-316L S.S. | 2 |
| 37 | 1 | FLATBAR 1/4" x 1" x 1'-4" LG. | SA479-316L S.S. | 1 |
| 38 | 1 | FLATBAR 1/4" x 1" x 7 13/16" LG. | SA479-316L S.S. | 1 |
| 39 | 8 | ANGLE 2" x 2" x 1/4" x 1'-6" LG. | SA479-316L S.S. | 38 |
| 40 | 1 | ANGLE 2" x 2" x 1/4" x 1'-6 9/16" LG. | SA479-316L S.S. | 14 |
| 41 | 1 | ANGLE 2" x 2" x 1/4" x 4'-1 9/16" LG. | SA479-316L S.S. | 13 |
| 42 | 10 | U-BOLT 1/2" x 4" NPS C/W 4 NUTS | S.S. | 10 |
| 43 | 1 | REPAD PLATE 3/16" THK. x 4 5/8" I.D. x 1'-0" O.D. (*) | PRT-4266 | 5 |
| 44 | 1 | REPAD PLATE 3/16" THK. x 10 7/8" I.D. x 1'-10" O.D. (*) | G40.21-44W | 15 |
| 45 | 2 | COMMON REPAD 1/4" THK. – 1'-0" x 3'-0 1/16" LG(*) | G40.21-44W | 27 |
| 46 | 1 | COMMON REPAD 1/4" THK. – 1'-0" x 4'-0 5/16" LG(*) | G40.21-44W | 35 |
| 47 | 9 | PLATE 1/4" x 6" DIA. | G40.21-44W | 20 |
| 48 | 1 | HALF CPLG. 3/4" 3000# F.S. SCR'D | SA-105 | 1 |
| 49 | 6 | NIPPLE 1/4" SCH XS x 3" LG. SMLS TBE | SA-106-B | 2 |
| 50 | 6 | HALF CPLG. 1/4" 3000# F.S. SCR'D | SA-105 | 2 |
| 51 | 304 | HEX NUT 5/8" NOM. | SA-194-2H | 20 |
| 52 | 19 | GASKET 4" CLASS 150 x 1/8" THK. | GARLOC | 19 |
| 53 | 152 | STUD 5/8" DIA. x 3 1/2" LG | SA-193-B7 | 10 |
| 54 | 1 | PIPE 1" SCH XS x 1'-2 1/16" LG. SMLS TOE x POE | SA-106-B | 2 |
| 55 | 1 | T.I. 2 1/2" FACE, 1/2" NPT x 6" STEM, -20° TO 120°C C/W THERMOWELL 3/4" x 1/2" x 6" LG. S.S. | – | 4 |
| 56 | 1 | GATE VALVE 4" 150# | – | 75 |

QTY'S ARE FOR ONE UNIT – 3 REQ'D AS FOLLOWS:
– 0100-T-001A
– 0100-T-002A
– 0400-T-001

SUB-TOTAL 2036
x 1.06
TOTAL 2158

| NO | DATE(d/m/y) | REVISIONS | BY | APPD |
|---|---|---|---|---|
| 4 | 11/12/12 | AS-BUILT, DELETED GOOSENECKS ON N6, N7, N15 | RG | |
| 3 | 22/05/12 | DELETED BLIND, GASKET & BOLTING ON N6 & N7 FROM TANK 0100-T-002A & 0100-T-001A | DB | JK |
| 2 | 23/04/12 | DELETED PLUG ON C3 FROM TANK 0400-T-001 | TH | JK |
| 1 | 26/03/12 | REVISED AS PER WORLEY PARSONS MARKUP | TH | JK |
| 0 | 14/03/12 | ISSUED FOR CONSTRUCTION | DB | JK |

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PEACELAND FABRICATING

CLIENT
PENNWEST PETROLEUM LTD.
C/O WORLEYPARSONS
HARMON VALLEY SOUTH PILOT PLANT, PEACE RIVER, ALBERTA

DWG TITLE
1000 BBL PRODUCTION TANK
NOZZLE DETAILS

| SCALE | DWN BY | DWG NO. | SHEET NO. | REV. NO. |
|---|---|---|---|---|
| 1:15 | D. BENKO | T-024893-D102 | 1 OF 1 | 4 |
| DATE (d/m/y) 07/03/12 | CHKD / APPD | | | |

DB# 87888 \DWG\WO-024893\102024893

COUPLING DETAIL N.T.S.

ENVIRO-VAULT PLAN VIEW

MK. #39, #40 & #41 DETAIL

*BLIND FLANGE FOR N2 ONLY ON TANK T-024893-201 (TAG#0100-T-002A)

N1 N2 N3 NOZZLE DETAIL

N22 NOZZLE DETAIL

*NO PLUG ON C3 ON TANK# 0400-T-001

COUPLING DETAIL N.T.S.

ENVIRO-VAULT ELEVATION VIEW

N14 – 305 (1'-0")
N15 – 3350 (10'-11 7/8")
C1a – 610 (2'-0")
C1b – 1219 (4'-0")
C1c – 1829 (6'-0")
C1d – 2438 (8'-0")
C1e – 3048 (10'-0")

DETAIL "A" SCALE 1:5

N13 NOZZLE DETAIL

C.S. WASHERS ON THIS SIDE ONLY TO PROTECT COATING

TANK SHELL

N21 NOZZLE DETAIL

*NO BLIND FLANGE AND BOLTING ON N6 & N7 ON TANK# 0100-T-001A & 0100-T-002A

N5 N6 N7 N8 NOZZLE DETAIL

MK. #46 DETAIL

N9 N10 N11 NOZZLE DETAIL

MK. #45 DETAIL

SLIP-ON FLANGE WELD DETAIL N.T.S.

TYP. COUPLING TO PIPE DETAIL N.T.S.

NOZZLE SPOOL DETAIL

NOTES:
1. ALL DIMENSIONS ARE IN SI & IMPERIAL UNITS. DIMENSIONS IN BRACKETS ARE IMPERIAL HARD CONVERSIONS FOR SHOP REFERENCE ONLY.
2. ALL NOZZLE PROJECTIONS GIVEN ARE ALONG THE NOZZLE ℄.
3. ALL FLANGE RATINGS TO BE ASME B16.5 – 2003.
4. FLANGE AND BOLT HOLES TO STRADDLE PRINCIPAL ℄'S OF TANK.
5. PEACELAND IS NOT RESPONSIBLE FOR ENVIRO-VAULT DESIGN, BUT ARE RESPONSIBLE FOR ITS INTEGRATION INTO THE TANK.
6. DRILL 1/4" TELLTALE HOLE IN SHELL REINFORCING PADS AND WELD ON HALF COUPLING (MK.#50) AND ADD NIPPLE (MK#49) TO EXTEND BEYOND INSULATION.
7. ITEMS IDENTIFIED WITH AN (*) ARE ATTACHED TO THE CONTAINMENT ENVELOPE & REQUIRE A HEAT NUMBER TO BE RECORDED BY Q.C..
8. INTERNALS ARE UN-COATED C.S.
9. INSIDE FACE OF BLINDS TO BE COATED

* CLEARLY MARK RISER HEIGHTS ON VAULT WALL BY WELDING WRITING IN IMPERIAL UNITS TO THE VAULT WALL IN CLOSE PROXIMITY TO EACH NOZZLE