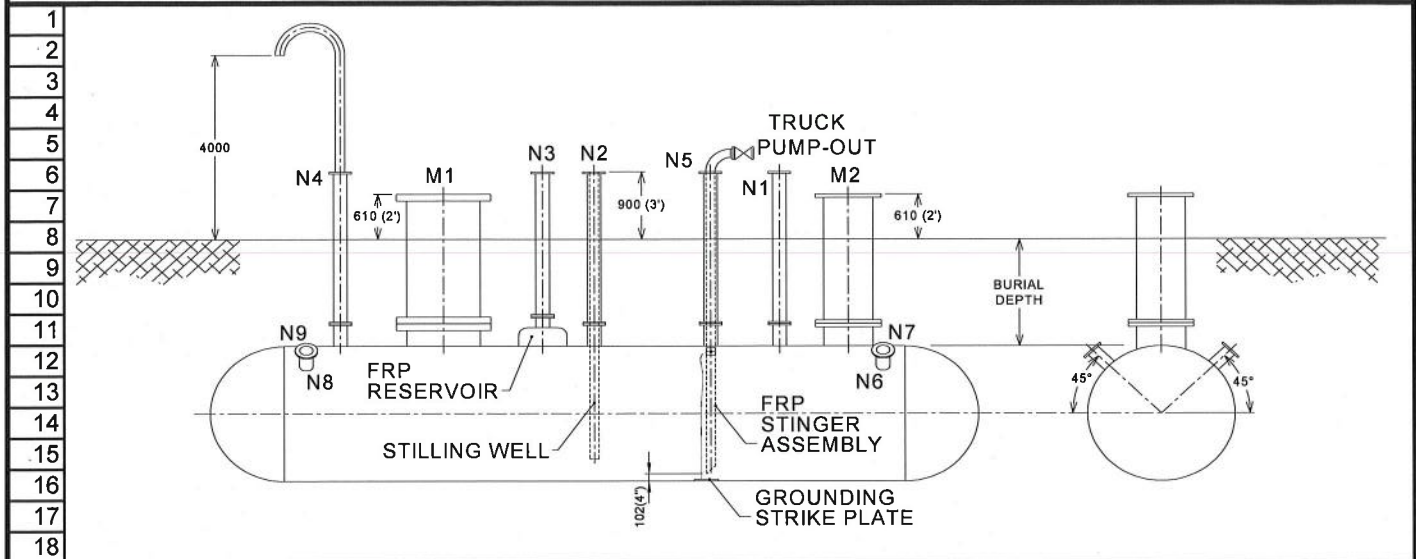




Project: Keystone XL Oil Pipeline Project	Project No.: 08E4490
Client: TransCanada Keystone Pipeline, LP	Datasheet No.: 25472-100-MTD-MTNF-W0001 Rev: 02
Tank Type: Fiberglass Reinforced Plastic Sump Tank	Tank Tags: See Sheet 2 of 2
Location: <input checked="" type="radio"/> U.S. <input type="radio"/> Canada	Quantity: 30
Sheet: 1 Of 2	

SCHEMATIC



Operating Conditions:			Testing:		
20	Design Capacity:	10,000 USG	Air Leak Test:	<input checked="" type="radio"/> Yes <input type="radio"/> No	
21	Tank Size: Int. Diameter:	(Note 3) ft	HydroTest:	<input type="radio"/> Yes <input checked="" type="radio"/> No	
22	Length:	30.75 ft			
23	Tank Weight: Empty:	Approx. 5000 lbs			
24	Operating Pressure:	ATM psig @ ambient	Externals:		
25	Internal Design Pressure:	1 psig @ ambient	Insulation:	<input checked="" type="radio"/> No <input type="radio"/> Yes <input type="radio"/> By Tank Vendor	
26	Design Temp: MAX: 158 °F MIN: 23 °F		Bolts/Nuts:	SA 193 Gr. B7/SA 194 Gr. 2H Cadmium Plated	
27	Product Temperature: MAX: 158 °F MIN: 32 °F		Painting/Coating:		
28	Product Stored: Synthetic Crude Oil (SCO) / Diluted Bitumen (Dilbit)		Risers:	<input type="radio"/> No <input checked="" type="radio"/> Yes <input checked="" type="radio"/> By Tank Vendor	
29			Int. Coating/Lining:	<input type="radio"/> Yes <input checked="" type="radio"/> No	
30	Product Design Specific Gravity:	0.94 MAX	Site Conditions:		
31	Design & Construction:		Ambient Temperature:	Min: -40 °F Max: 104 °F	
32	Design Code: <input type="radio"/> ULC-CAN4-S615 <input checked="" type="radio"/> UL-1316		Electrical Rack Support:	<input type="radio"/> Yes <input checked="" type="radio"/> No	
33			Leak Detection Type:	<input checked="" type="radio"/> Wet <input type="radio"/> Dry	
34	Type of Tank: <input type="radio"/> Single Wall <input checked="" type="radio"/> Double Wall				
35	Materials: Fiberglass Reinforced Plastic				
36	Anchor Design: <input type="radio"/> By Owner <input checked="" type="radio"/> By Tank Vendor				
37	Anchor Block: <input type="radio"/> By Owner <input checked="" type="radio"/> By Tank Vendor				
38	Ladder/Platforms: None				
39	Gaskets: Neoprene				
40	Lifting Lugs: <input checked="" type="radio"/> Yes <input type="radio"/> No				
41	Corrosion Allowance: N/A in				
42	Anti Static Device: <input checked="" type="radio"/> Yes <input type="radio"/> No				
43					
44	Maximum Burial Depth: 7'				
45					
46					

Rev	Description	Originator	Reviewer	WP Approval	Date
00	Issued For Design	Brad Kooy	Troy Smereka		15-Jun-09
01	Issued For Purchase	Brad Kooy	Troy Smereka	Troy Smereka	26-Oct-09
02	Re-issue for purchase Tanks retagging (PS-22 to PS-25)	Nick Ivankiv	Chunlin Du	Chunlin Du	26-Mar-13







Project: Keystone XL Oil Pipeline Project	Project No.: 08E4490
Client: TransCanada Keystone Pipeline, LP	Datasheet No.: 25472-100-MTD-MTNF-W0001 Rev:
Tank Type: Fiberglass Reinforced Plastic Sump Tank	Tank Tags: See Below. Quantity: 30
Location: ● U.S. ○ Canada	Sheet: 2 Of 2

Nozzle Schedule:

1	Mark:	Size:	Quantity:	Rating:	Type:	Service:	Remarks:
2	N1	NPS 6	1	50 PSI (Note 4)	F.F.	Liquid Level Transmitter	
3	N2	NPS 6	1	50 PSI (Note 4)	F.F.	Liquid Level Transmitter	On 4" ID Stilling Well
4	N3	NPS 6	1	50 PSI (Note 4)	F.F.	Liquid Level Transmitter	Liquid Level Monitoring Type Leak Detection
5	N4	NPS 6	1	50 PSI (Note 4)	F.F.	Tank Vent	Gooseneck vent c/w bird screen 4 m above grade
6	N5	NPS 6	1	50 PSI (Note 4)	F.F.	Pump Out	c/w 3" stinger tube, 3" camlock, 3" ball valve, and anti-static device.
7	N6	NPS 6	1	50 PSI (Note 4)	F.F.	Side Tie-In	
8	N7	NPS 6	1	50 PSI (Note 4)	F.F.	Side Tie-In	
9	N8	NPS 6	1	50 PSI (Note 4)	F.F.	Side Tie-In	
10	N9	NPS 6	1	50 PSI (Note 4)	F.F.	Side Tie-In	
11	M1	NPS 36	1	50 PSI (Note 5)	F.F.	Manway c/w 8" 4310 Varc Dumping Hatch	For design and sizing, ASME B16.47 Series A bolt pattern shall be followed
12	M2	NPS 24	1	50 PSI (Note 5)	F.F.	Pump Mount	For design and sizing, ASME B16.5 bolt pattern shall be followed
13							
14							

Tank Tagging:

16	Functional Tags:	Burial Depth:	Functional Tags:	Burial Depth:
17	150-PHLPS-B0-OST-01	6' 10 5/8"	165-FLRTN-B0-OST-01 ¹ 	6' 10 5/8"
18	151-VLLEY-B0-OST-01	6' 10 5/8"	166-FMONT-B0-OST-01 ¹ 	6' 10 5/8"
19	152-FTPCK-B0-OST-01	6' 10 5/8"	167-STLCB-B0-OST-01	6' 10 5/8"
20	153-CRCLE-B0-OST-01	6' 10 5/8"	169-RILEY-B0-OST-01	6' 10 5/8"
21	154-PRAIR-B0-OST-01	6' 10 5/8"	171-BURNS-B0-OST-01	6' 10 5/8"
22	155-FALLN-B0-OST-01	6' 10 5/8"	200-CSHSP-B0-OST-01	6' 10 5/8"
23	156-HRDNG-B0-OST-01	6' 10 5/8"	201-CRMWL-B0-OST-01	6' 10 5/8"
24	157-BFLPS-B0-OST-01	6' 10 5/8"	202-TPELO-B0-OST-01	6' 10 5/8"
25	158-FAITH-B0-OST-01	6' 10 5/8"	203-BRYAN-B0-OST-01	6' 10 5/8"
26	159-HAKON-B0-OST-01	6' 10 5/8"	204-DELTA-B0-OST-01	6' 10 5/8"
27	160-MURDO-B0-OST-01	6' 10 5/8"	205-WNSBR-B0-OST-01	6' 10 5/8"
28	161-WINNR-B0-OST-01	6' 10 5/8"	206-LKTLR-B0-OST-01	6' 10 5/8"
29	162-COLOM-B0-OST-01	6' 10 5/8"	207-LUFKN-B0-OST-01	6' 10 5/8"
30	163-ONEIL-B0-OST-01 ¹ 	6' 10 5/8"	208-CORGN-B0-OST-01	6' 10 5/8"
31	164-OKDLE-B0-OST-01 ¹ 	6' 10 5/8"	209-LIBRT-B0-OST-01	6' 10 5/8"
32				
33				
34				

35 ¹ Retagged Tanks (PS-22R to PS-25R)

Notes:

- 37 1) Ground plate to be installed for the length of the tank and grounded to tank grounding system.
- 38 2) All risers shall be tinted white as per the tank manufacturer's standard procedures.
- 39 3) Outer diameter of the Tank as measured from the outside of the stiffening ribs is 8' 6". Outer diameter of the tank walls is approximately 8'2", while the inner diameter of the tank is approximately 8'1".
- 40
- 41 4) All nozzle flanges shall be rated for 50 PSI and are in dimensional compliance with ASME B16.5 Class 150 flanges.
- 42 5) All manway connections shall conform to ASME B16.5 and B16.47 Series A dimensions with the exception of
- 43 smaller bolts and bolt holes. Deviations are as noted: Bolts - 5/8" dia, Bolt Holes - 3/4" dia.
- 44 6) Burial depth indicated is from the surface to the top of the tank wall, not the ribs.
- 45
- 46