No.: LFM017-01
TITLE: Inspection & Repair Report
1/24/11 *REV. No.: 5*

Project Name/Number: MP 561.813					
Inspected/Report By: Yantzee Everett				Date Report Completed: 10/24/2013	
Company: Tesoro Logistics					
Pipeline Segment Name: South Line, # 2 Line – Adams to Pasco					
Location: ☐Alaska ☐Hawaii ☐North Dakota/Montana ☐N. California ☐S. California ☐Utah ☒Other - Washington					
This Report is ☒New ☐Revised	Line Diameter: 6"	☒ Trunk ☐ Gathering	State Washington	County Walla Walla	
Mile Post: 561.813	☐NW ☐NE ☐SW ☐SE	☐NW ☐NE ☐SW ☐SE	Section - 27	Township 8 ☒N ☐S	Range 31 ☒E ☐W
Site Description: East of Hwy 12 and Ivarson Rd. approximately 2930 feet between orchard to the north and crop circle to the south.					

INSPECTION DATA

Exposure Date: 10/21/2013	Inspection Start Date: 10/22/2013	Inspection End Date:10/23/2014
Excavating Contractor: Randy Buchanan		
Begin Engineering Station Number (ESN): 29663+76	Latitude (decimal degrees) : N 46.1458546	Longitude (decimal degrees): W -118.9242839
Length of Pipe (ft.): 2	Min. Depth of Cover (ft.): 3'-11"	P/S Potential (V): ☐By Pipe ☐Ground Level
End Engineering Station Number (ESN): 29663+78	Latitude (decimal degrees) : N 46.1458546	Longitude (decimal degrees): W -118.9242839
Actual Average Measured Wall Thickness: 6 5/8"	Actual Nominal Diameter: .250"	

Pipe Excavated (Looking D/S): ☒ Top ☐ Left ☐ Right ☐ Bottom

Reason for Exposing: ☐ ILI Dig ☐ Coating ☐ Inspection/Recoating ☒ Encroachment ☐ Construction ☐ Maintenance ☐ Leak Repair ☒ Foreign Line Crossing ☐ Other: _____

Coating Type: ☐ Bare ☐ FBE ☐ TGF Coal Tar ☐ Asphalt Mastic ☐ Hot Tape ☐ Cold Tape ☐ Brush Epoxy ☐ Spray Epoxy ☐ Other: Modified P2_____

Application: ☐ Mill Coated ☒ Field Coated ☐ Other: _____

Coating Condition (Bonded): ☐ Good ☐ Fair ☐ Poor

Cause of Coating Failure: ☐ Damage ☐ Decomposition ☐ Disbondment ☐ Defective ☐ Application ☐ Other: _____

Recoating Type: ☒ No Coating Required ☐ Hot Tape ☐ Mastic ☐ FBE ☐ Cold Tape ☐ Other: _____

Soil Condition: ☐ Crumbly ☒ Sandy ☐ Rocky ☐ Clay ☐ Dry ☐ Wet ☐ Frozen

Pipe Condition (External): ☒ Pipe was not exposed ☐ Minor Pits (_____ Mils) ☐ Slight Rust Film ☐ Thick Rust Film ☐ No External Corrosion ☐ Deep Pits (_____ Mils) ☐ Random Pits (_____ Mils)

Pipe Condition (External) – General Corrosion: ☐ MOP NOT Affected from General Corrosion ☐ MOP IS Affected from General Corrosion (Repair or replacement of pipe is required)

Pipe Condition (External) – Localized Pitting: ☐ MOP NOT Affected from Localized Pitting ☐ MOP IS Affected from Localized Pitting (Repair or replacement of pipe is required)

Pipe Condition (External) – Other than Corrosion: ☐ Gouge ☐ Groove or other Stress Riser ☐ Plain Dent ☐ Dent w/ Metal Loss ☐ Dent w/ Gouge ☐ Lamination Open to Surface ☐ Arc Burn ☐ Other_____

Pipe Condition (Internal): ☐ No Internal Corrosion ☐ Minor Pits ☐ Random Pits ☐ Deep Pits (_____ Mils) ☒ No Internal inspection made – pipe was not removed

Clock Position on Pipe:

Test Station Installed? ☐Yes ☒No If Yes, fill out and submit form ***LFM028-04 Test Station Datasheet***

Other Inspection Findings, Remarks: Inspected approx. 2 feet of pipe directly below area that trencher had encroached right of way.

REPAIR DATA **Check box if Not Applicable ☒** **(Note: M/L = Mainline)**

Dent/Ding?	☐Yes	☐No	If Yes, attach form ***LFM017-06 Dent Anomaly Datasheet***
Metal Loss?	☐Yes	☐No	If Yes, attach form ***LFM017-05 Metal Loss Anomaly Datasheet***
Repair (of above)?	☐Yes	☐No	If Yes, attach form ***LFM017-04 Repair Location Datasheet***

Any New Pipe Installed in M/L Piping? ☐Yes ☐No
If Yes, attach form ***LFM017-02 Construction Record Datasheet*** and form ***LFM017-03 Replacement Pipe Datasheet***

Installation of Stopple, TOR, or any type of Branch Connection to M/L Pipe?	☐Yes	☐No
Underground or Aboveground Valve Addition or Removal on the M/L?	☐Yes	☐No
Line Lowering?	☐Yes	☐No
Installation of Anodes or other CP Facilities?	☐Yes	☐No
Casing Additions, Modifications, or Removal?	☐Yes	☐No
Any Cutting or Welding on M/L Piping or Appurtenances Not Covered Above?	☐Yes	☐No

If Yes to ANY of the above, fill out and submit form ***LFM017-02 Construction Record Datasheet.***

Prepared by (Signature)	Date
Yantzee Everett	**10/24/2013**

Copies to: Preparer, Regional Logistics Office, Logistics Environmental Compliance Manager, Logistics Engineering Department

Procedure For Handling And Filling Out The Pipe Inspection Datasheet:

1 Fill out this datasheet to document the condition of exposed pipeline.
2 When all necessary documentation is complete, keep the original for the field records and send a copy to the attention of the Pipeline Integrity Engineer within 3 weeks of the inspection end date.
3 Datasheet field instructions:

3.1 Inspected/Reported By – Enter the name of the person that made the inspection.
3.2 Date Report Completed – Enter the date the report was completed.
3.3 Pipeline Segment Name – Enter the name of the Pipeline Section as defined on the Pipeline Section Drawings.
3.4 State – Enter the state in which the inspection was performed.
3.5 County – Enter the county in which the inspection was performed.
3.6 Mile Post – Enter the mile reading taken from the closest mile marker
3.7 Section/Township/Range – Enter the Section, township and range from the line maps.
3.8 Site Description – Enter an optional description of the site.
3.9 Exposure Date – Enter the date of the pipe exposure.
3.10 Inspection Start Date – Enter the date of the start of the inspection. The Inspection Start Date is the date the data collection begins. It may be the same as the Exposure Date.
3.11 Inspection End Date – Enter the date of the end of the inspection. This will be the date the pipeline is backfilled.
3.12 Excavation Contractor – Enter the name of the excavation contractor.
3.13 Beginning Eng Stat # of Exposed Pipe – Enter the beginning pipeline Engineering Station Number (ESN) of the exposed pipe. The ESN has to be calculated from a known reference feature found on the alignment sheets. ESN is not the ILI vendor footage.
3.13.1 Lat – Enter the latitude of the beginning ESN of the exposed pipe recorded using a handheld GPS unit with nominal +/- 10 meter accuracy. NOTE: The Lat. and the Long. of the exposed pipe are used as a cross check of the ESN calculation. It is not to be used in lieu of calculating the ESN of the exposed pipe.
3.13.2 Long – Enter the longitude of the beginning ESN of the exposed pipe recorded using a handheld GPS unit with nominal +/- 10 meter accuracy.
3.14 Length of Pipe Inspected (Ft) – Enter the length of pipe inspected in feet.
3.15 Min. Depth of Cover (Ft) – Enter the minimum depth of cover in feet.
3.16 P/S Potential (V) – Enter the pipe/soil potential. Indicate the polarity (+/-) on the form.
3.17 Ending Eng Stat # of Exposed Pipe – Enter the ending pipeline Engineering Station Number (ESN) of the exposed pipe. The ESN has to be calculated from a known reference feature found on the alignment sheets. ESN is not the ILI vendor footage.
3.17.1 Lat – Enter the latitude of the ending ESN of the exposed pipe recorded using a handheld GPS unit with nominal +/- 10 meter accuracy. NOTE: The Lat. and the Long. of the exposed pipe are used as a cross check of the ESN calculation. It is not to be used in lieu of calculating the ESN of the exposed pipe.
3.17.2 Long – Enter the longitude of the ending ESN of the exposed pipe recorded using a handheld GPS unit with nominal +/- 10 meter accuracy.
3.18 Actual Average Measured Wall Thickness – Enter the actual average measured wall thickness in inches. If the pipe wall is exposed, measure at four places and record the average. If the pipe wall is not exposed or the measurement is not made, indicate NA.
3.19 Actual Nominal Diameter (In) – Enter the actual nominal diameter of the pipe inspected in inches.
3.20 Pipe Excavated (looking D/S) – Looking downstream, check all that apply indicating where the pipe was excavated (i.e., Top, Left, Right or Bottom).
3.21 Reason for Exposing – Check the reason for the pipe exposure (i.e., ILI Dig, Coating Inspection/Recoating, Encroachment, Construction, Maintenance, Leak Repair, Foreign Crossing, or Other (Describe Other)).
Coating Type – Check the type of coating (i.e., Bare, FBE, TGF Coal Tar, Asphalt Mastic, Hot Tape, Cold Tape, Brush Epoxy, Spray Epoxy, or Other (Describe Other)).
NOTE:
-TGF is a designation by the National Association of Pipe Coating Applicators and refers to a coating system consisting of a primer, Coal Tar Enamel, Fiberglass inner wrap, Felt wrapper, and Kraft paper outer wrapper.
-FBE means Fusion Bonded Epoxy
-Hot Tape is a hot applied tape system
-Cold Tape is a cold applied tape system
-Brush and Spray Epoxy refer to 100% solids epoxy coatings applied by brush or spray.
3.22 Application – Check the type of application (i.e., Mill Coated, Field Coated, or Other (Describe Other)).
3.23 Coating Condition – Check the type of application (i.e., Good, Fair or Poor).
3.24 Cause of Coating Failure – Check the cause of any coating failure (i.e., Damage, Decomposition, Disbondment, Defective Application, or Other (Describe Other)).
3.25 Recoating Type – Check the type of recoating applied (i.e., No coating required, Hot Tape, Mastic, FBE, Cold Tape, or Other (Describe Other)). Include a ***Construction Record Datasheet form LFM017-02*** if recoating limits are different than limits of exposed pipe or indicate in the Comments section the limits of re-coated pipe.
3.26 Soil Conditions – Describe the soil around the pipe (crumbly, sandy, rocky, clay, dry, wet frozen, etc.). Check all that apply.
3.27 External Pipe Condition – Check "Pipe metal surface not exposed" if the pipe metal surface was not exposed as would be the case if the coating was 100% intact. Check "No external corrosion" if no external corrosion was observed in the pipe being exposed. Check if there were pits (minor, deep or random) or a rust film (slight or thick).
3.28 External Pipe Surface General Corrosion (Distributed more or less uniformly over the surface):
3.28.1 Check "MOP NOT affected" if there is general corrosion on the external pipe surface but the maximum operating pressure is not affected.
3.28.2 Check "MOP IS affected" if there is general corrosion on the external pipe surface that affects the maximum operating pressure. In this case, repair or replacement of the pipe is required.

NOTE: Any indication of general corrosion requires further investigation to determine the extent and cause. Notify the appropriate level of management and the corrosion tech.
3.29 External Pipe Surface Localized Pitting (Occurs on small or isolated areas of the surface):
3.29.1 Check "Pit depth LESS THAN 80% and MOP NOT affected" if there is localized pitting on the external pipe but not to degree that maximum operating pressure is affected or leakage might result.
3.29.2 Check "Pit depth 80% OR GREATER and/or MOP IS affected" if there is localized pitting on the external pipe to the degree that MOP is affected or leakage might result. In this case, repair or replacement of the pipe is required.

3.30 External Pipe Condition – Other Than Corrosion – Check the condition of the external pipe in regards to defect types other than corrosion. Check all that apply. (i.e., Gouge, Groove or other Stress Riser, Plain Dent, Dent with Metal Loss, Dent with Gouge, Lamination Open to Surface, Arc Burn, or Other (Describe Other)). NOTE: Any of these conditions may require repair. Make proper determination before backfilling.

3.31 Test Station Installed? – Check "Yes" if a test station is installed. Check "No" if a test station is not installed. (If "Yes," fill out and submit a ***Test Station Datasheet form LFM028-04***.)

3.32 Comments – Add any additional descriptions or explanations.