T I D E W A T E R

Certified Mail 7003 1010 0002 1344 0297

November 8, 2011

Mr. David D. Lykken
Pipeline Safety Director
Washington Utilities and Transportation Commission
1300 S. Evergreen Park Dr. S.W.
P.O. Box 47250
Olympia, Washington 98504-7250

RE: Summary of Completed Corrective Actions
2011 Intrastate Hazardous Liquid Standard Inspection Report
Tidewater Terminal Company
Snake River Terminal
671 Tank Farm Road
Pasco, Washington 99301
Ref. No. Docket PL-110008

Dear Mr. Lykken,

The Washington Utilities and Transportation Commission (UTC) conducted a standard hazardous liquid inspection of Tidewater Terminal Company's pipeline at the Snake River Terminal on July 13-15, 2011. The inspection identified ten probable violations and one area of concern. The probable violations and area of concern were described in an inspection report (Docket No. PL-110008) which was attached to UTC's letter dated August 23, 2011.

UTC's letter requested Tidewater review the inspection report and respond in writing by with a description of how and when Tidewater plans to bring the probable violations into full compliance. Tidewater responded in writing in a letter dated September 17, 2011 in which corrective actions were proposed for each of the probable violations and the area of concern. UTC accepted Tidewater's proposed corrective actions in a letter dated October 10, 2011 and closed Docket No. PL-110008.

This letter summarizes the corrective actions that were completed before or by October 31, 2011. A spreadsheet is attached to this letter reiterates the probable violation/area of concern and the corrective action(s) taken by Tidewater to bring the violations into full compliance. A number of attachments are also provided with supporting documentation.

Tidewater appreciates UTC's assistance relative to pipeline compliance. Please contact the undersigned at 360-693-1491 if you have any questions concerning the attached spreadsheet or if you require additional information concerning how Tidewater addressed the issues identified during the July 2011 standard hazardous liquid inspection.

Sincerely,

William H. Collins
Environmental Manager

cc: Joe Subsits – Washington Utilities and Transportation Commission
Pat Jensen – Snake River Terminal

	Regulation	Finding	Corrective Action	Completion Date/Description
1	**49 U.S.C 60132, Subsection (b) Submission of Data to the National Pipeline Mapping System Under the Pipeline Safety Improvement Act of 2002** *Subsection (b): Updates--Once a submission is made to comply with the June 17, 2003, statutory deadline, operators are required to make update submissions every twelve (12) months if any system modifications have occurred. If no modifications have occurred since the last complete operator contact information), send an email to opsgis@rspa.dot.gov stating that fact. Include operator contact information with all updates. Pipeline operators may update previous NPMS submissions in one of two ways. For digital data, submit replacement data for an entire system. For paper maps, submit replacement maps for those portions of pipeline systems that have changed. This option is available only for those pipeline operators who have to submit paper maps.*	Tidewater Terminal could not demonstrate that they had sent the required information or notification of no changes to the NPMS within the required time frame.	Tidewater Terminal Company (Tidewater) received a letter from the U.S. Department of Transportation, Pipeline and Hazardous Materials Safety Administration (PHMSA) dated August 19, 2011 requesting geospatial data appropriate for use in National Pipeline Mapping System (NPMS), along with metadata/attributes, operator contact information to be made available to the public, and a transmittal form. Submission of the data or a notice of no changes from Tidewater was required by September 2, 2011 to avoid referral to the enforcement office. The required NPMS submission was provided to PHMSA on September 2, 2011. A task will be created in Tidewater's compliance management tasking system as a reminder to either complete the update submissions or report no modifications on an annual frequency.	September 2, 2011 • The required NPMS submission was provided to PHMSA. A copy of PHMSA's August 19, 2011 letter and email correspondence from PHMSA documenting submittal of the required information is provided Attachment A to this letter. October 31, 2011 • A task titled "Annual NPMS Pipeline Data Update" was added to our compliance management tasking system. • Additionally, tasks to address the 1) annual submittal of DOT Form PHMSA 7000.1-1 to DOT and UTC and 2) annual Hazardous Liquid Report submittal to UTC were also added.
2	**49 CFR §195.204 Inspection-General.** *Inspection must be provided to ensure the installation of pipe or pipeline systems in accordance with the requirements of this subpart. No person may be used to perform inspections unless that person has been trained and is qualified in the phase of construction to be inspected.*	No records were available to demonstrate breakout tank piping welds were inspected by a qualified welding inspector.	Tidewater will evaluate and determine the training requirements necessary for designation as a "qualified welding inspector". If a Tidewater employee is to be used to inspect future welds, the employee will be trained as required, and documentation will be maintained onsite to demonstrate training completion. If an outside contractor is to be used to inspect future welds, the contractor will supply necessary documentation indicating sufficient training prior to inspecting welds. Tidewater's Welding Procedure Specifications and Testing Selection Manual will be modified to include a check to document the welding inspector has completed the necessary training and that training records were reviewed and are on file. A task will be created in Tidewater's compliance management tasking system to periodically review training record documentation for qualified welding inspectors. Additionally, the welds identified as needing to be inspected by a qualified welding inspector were inspected after the July 2011 audit. The results of the welding inspection will be provided to the Washington Utilities and Transportation Commission (UTC) on or before October 31, 2011 in conjunction with follow up correspondence to UTC to document completion of corrective actions necessary to bring the probable violations identified during the audit into compliance.	October 31, 2011 • A task titled "Periodic Verification of Welding Inspector Qualifications" as added to our compliance management tasking system to verify welding inspector(s) training records are complete on a semiannual frequency. • A task titled "Semiannual Verification of Welder Qualifications" was added to our compliance management tasking system to verify and document the following for each qualified welder relative to the procedure being used: 1) The welder has engaged in welding with that procedure, 2) The welder has had one weld tested for the procedure and found acceptable under section 9 of API 1104, and 3) Update the welder log book(s) to reflect the procedures conducted and tested over the preceding six-month period. • Tim Berry, a Leadman with Tidewater's maintenance department, will be the welding inspector for future DOT/UTC regulated welding. Records of training forms to document Mr. Berry's completion of training related to 1) 49 CFR 195-200 and 2) Welding of Pipelines and Related Facilities – API Standard 1104, along with an examination completed for API Standard 1104, are provided in Attachment B to this letter. • Tidewater's Welding Procedure Specifications and Testing Selection Manual was modified to include a check to document the welding inspector has completed the necessary training and that training records were reviewed and are on file. A copy of the revised procedure is also provided in Attachment B. • Records related to the welds identified during the July 2011 audit and the inspection conducted by a qualified welding inspector after the July 2011 audit are also provided in Attachment B. These records include the; 1) Tidewater's General Inspection Report, 2) NorthWest Inspection's Procedure Specification No. TW-01 for manual shielded

				metal arc welding, 3) NorthWest Inspection's Coupon Test Report, 4) NorthWest Inspection's Radiographic Examination Report API 1104, and 5) NorthWest Inpsection's Radiographic Technique Sheet. The welds are acceptable based on results of the inspection.
3	**49 CFR §195.222 Welders: Qualification of welders.** *(b)No welder may weld with a welding process unless, within the preceding 6 calendar months, the welder has--* *(1)Engaged in welding with that process; and* *(2)Had one welded tested and found acceptable under section 9 of API 1104 (ibr, see §195.3).*	Records were not available or not provided that demonstrated welders performing repairs had welded with that process within the preceding 6 calendar months and had one weld tested and found acceptable under section 9 of API 1104.	Tidewater's Welding Specifications and Testing Selection Manual will be modified to include a check to document welders performing repairs have welded the process within the preceding six calendar months and have documentation to confirm that at least one weld of the same procedure was tested and found acceptable under American Petroleum Institute (API) Standard 1104, Section 9. Individual welder's log books will be also populated with weld procedures conducted within the last six calendar months. A task will be created in Tidewater's compliance management tasking system for purposes of periodically updating welder's log books for welding procedures.	October 31, 2011 • Tidewater's Welding Procedure Specifications and Testing Selection Manual was modified to include a check to document the welding inspector has completed the necessary training and that training records were reviewed and are on file. A copy of the revised procedure is also provided in Attachment B. • A task titled "Semiannual Verification of Welder Qualifications" was added to our compliance management tasking system to verify and document the following for each qualified welder relative to the procedure being used: 1) The welder has engaged in welding with that procedure, 2) The welder has had one weld tested for the procedure and found acceptable under section 9 of API 1104, and 3) Update the welder log book(s) to reflect the procedures conducted and tested over the preceding six-month period. • The Welder Qualification Test Log was updated to include weld procedures conducted within the last six months. A copy of the updated log is also provided in Attachment B.
4	**49 CFR §195.310 Records** **(a)** *A record must be made of each pressure test required by this subpart, and the record of the latest test must be retained as long as the facility tested is in use.* *(b) The record required by paragraph (a) of this section must include:* *(1) The pressure recording charts;* *(2) Test instrument calibration data;* *(3) The name of the operator, the name of the person responsible for making the test, and the name of the test company used, if any;* *(4) The date and time of the test;* *(5) The minimum test pressure;* *(6) The test medium;* *(7) A description of the facility tested and the test apparatus;* *(8) An explanation of any pressure discontinuities, including test failures, that appear on the pressure recording charts; and,* *(9) Where elevation differences in the section under test exceed 100 feet (30 meters), a profile of the pipeline that shows the elevation and test sites over the entire length of the test section.* *(10) Temperature of the test medium or pipe during the test period.*	The operator provided documentation of a pressure test conducted on 7-19-2011. The record provided did not include: 1.The pressure recording charts. 2.Test instrument calibration data. 3.The test medium. 4.The test apparatus.	Tidewater's DOT Pipeline Hydrotest Procedure will be modified to include a check for all required records (i.e., those specified in 49 CFR 195.310(b)). A task will be created in Tidewater's compliance management tasking system for purposes of periodically reviewing hydrotest records to ensure documentation of all of the required records is present and maintained on site. Regarding the hydrotest conducted on July 19, 2011, recordings of the pressure charts were not made, and therefore, cannot be supplied to UTC. However, Tidewater will re-test and record the pressure charts for submittal if instructed to do so by UTC. Other records for the July 19, 2011 test will be updated to include the test instrument calibration data, test medium, and test apparatus and submitted to UTC on or before October 31, 2011 in conjunction with follow up correspondence to UTC to document completion of corrective actions necessary to bring the probable violations identified during the audit into compliance. Lastly, Tidewater will purchase a pressure chart recorder for use in future pressure tests.	October 31, 2011 • A task titled "Annual Hydrotest Records Review" was added to our compliance management tasking system to verify and document all of the required records are present and on site. • Records for the July 19, 2011 hydrotest were updated to include the instrument calibration data, test medium (water), and test apparatus description. Information added to the test records are described in Attachment C to this letter. • Tidewater did not purchase a new pressure test chart recorder, but instead had an existing one repaired for use in future tests. A description of the repaired chart recorder is provided in Attachment C. • Tidewater's DOT Pipeline Hydrotest Procedure was modified to include a check for all required records (i.e., those specified in 49 CFR 195-310(b). A copy of the modified procedure is provided in Attachment C.

5	**49 CFR §195.402 Procedural manual for operations, maintenance, and emergencies** *(c)Maintenance and normal operations. The manual required by paragraph (a) of this section must include procedures for the following to provide safety during maintenance and normal operations:* *(13)Periodically reviewing the work done by operator to determine the effectiveness of the procedures used in normal operation and maintenance and taking corrective action where deficiencies are found.*	The operator could not provide records that demonstrated that they periodically reviewed personnel work to determine the effectiveness of normal O&M procedures.	Tidewater will annually review the effectiveness of covered procedures with operations personnel during Lock Closure Training (i.e., the time each year during which the river system is closed to traffic because of routine lock maintenance). The training will allow for the operators to offer comments regarding the effectiveness of each procedure. A task will be created in Tidewater's compliance management tasking system to notify operations management of the training date and the documentation necessary to demonstrate that the training was conducted and that the effectiveness of the procedures was reviewed. Additionally, once per quarter, the procedure for one covered task will be reviewed with an operator while conducting or simulating the task to further evaluate the effectiveness of the procedure. A task will also be added to Tidewater's compliance management system to notify operations management of the quarterly procedure review and the documentation necessary to demonstrate the review was conducted and the effectiveness of the procedure was evaluated.	October 31, 2011 • A task titled "Annual Review of Personnel Work" was added to our compliance management tasking system to determine the effectiveness of procedures. Procedures to be reviewed include those used in normal operations and maintenance as well as those associated with abnormal operations and corrective actions. The review will be documented using a Record of Training form that 1) identifies the procedures that were reviewed, 2) summarizes the discussion of the effectiveness of the procedures, and 3) records any recommended changes. • A task titled "Quarterly O&M Procedure Review" was added our compliance management tracking system to review a procedure for one of the identified covered tasks with the operator while the operator is either conducting the task or simulating the task. The review will evaluate the effectiveness of the procedure and invite employee participation and feedback. • Completion of both tasks are documented using a Record of Training form that describes what was discussed, employee contribution, procedure effectiveness, recommended changes, etc.
6	**49 CFR §195.428 Overpressure safety devices and overfill protection systems.** *(a)Except as provided in paragraph (b) of this section, each operator shall, at intervals not exceeding 15 months, but at least once each calendar year, or in the case of pipelines used to carry highly volatile liquids, at intervals not to exceed 7 months, but at least twice each calendar year, inspect and test each pressure limiting device, relief valve, pressure regulator, or other item of pressure control equipment to determine that it is functioning properly, is in good mechanical condition, and is adequate from the standpoint of capacity and reliability of operation for the service in which it is used.*	Alarm logs were provided, but did not contain records for tanks 2, 4, 14, or 34. These tanks may have been taken out of or brought into service, but clarification is requested. Additionally, at least two years of records (three preferred) is necessary in order to ensure that the overfill system was inspected at least once each calendar year - not to exceed 15 months.	High level alarms for tanks involved in transfers are routinely checked by Tidewater operators prior to conducting the transfers. To better document these tests, Tidewater's transfer procedure and Pre- and Post-Transfer Checklist will be modified to include a check of the high level alarm prior to conducting a transfer. Additionally, a task will be added to Tidewater's compliance management tasking system for an annual high-level alarm test for all affected tanks. After the July 2011 audit, Tidewater's maintenance lead tested the high level alarms for all tanks, including the alarms for Tanks 2, 4, 14, and 34. Alarm logs for these tests (2011) and for the preceding two years (2010 and 2009) will be provided to UTC on or before October 31, 2011 in conjunction with follow up correspondence to UTC to document completion of corrective actions necessary to bring the probable violations identified during the audit into compliance.	October 31, 2011 • Tidewater's Normal Pipeline Operation – Outbound Pipeline Startup was modified to include a check to test the high level alarms on all tanks involved in a transfer and log the results on the Pipeline Transfer Checklist form. Copies of the revised procedure and checklist are provided in Attachment D to this letter. • A task titled " Monthly Overfill Protection Systems Inspection and Test" was added to our compliance management tasking system to inspect and test the overfill protection equipment to determine that it is functioning properly, is in good mechanical condition, and is adequate from the standpoint of capacity and reliability of operation for the service in which it is used. • Alarm logs and/or inspection test forms for high level alarms tested during July 2011 and during 2008, 2009, and 2010 are also provided in Attachment D.
7	**49 CFR §195.440 Public awareness.** *(i) The operator's program documentation and evaluation results must be available for periodic review by appropriate regulatory agencies.*	The operator could not locate or provide records that demonstrated they reviewed their program for effectiveness within the required time frame.	Tidewater's public education program currently involves annual placement of advertisements in the local newspapers (both Spanish and English newspapers), letters to excavators, and discussions with neighboring businesses (i.e., with Chevron and Tri-Cities Grain) regarding the attributes and characteristics of Tidewater's pipeline. This program will be expanded to include communications with the local emergency planning commission (LEPC) and the City Council so as to invite more public participation. Tidewater's communications manager will develop a program to evaluate the effectiveness of the public education program. Given the size of our pipeline, we envision a simple evaluation consisting of	October 31, 2011 • Tidewater's public education program was evaluated and expanded as necessary to include distribution of awareness documentation to neighboring businesses, excavators, utility companies, emergency officials, public officials, the one-call center, and local newspapers. There are no residences along the pipeline right of way. The distribution list for Tidewater's public awareness program is provided in Attachment E to this letter. • Additionally, Tidewater's compliance management tasking system was modified to include tasks to send out the public awareness documents to the entities listed above on an

9	**49 CFR §195.583 What must I do to monitor atmospheric corrosion control?** *(a)You must inspect each pipeline or portion of pipeline that is exposed to the atmosphere for evidence of atmospheric corrosion, as follows* *If the pipeline is* / *Then the frequency of* *Onshore ……* / *At least once every 3 calendar years, but with intervals not exceeding 39 months*	Atmospheric inspections need to include plant piping that connects the breakout tanks to the transfer piping. The operator could not provide records demonstrating the atmospheric monitoring task was completed within the required time frame.	Tidewater conducted annual atmospheric corrosion inspections during 2006 and 2007, but failed to conduct the inspection as required during 2010. Since the July 2011 audit, Tidewater has conducted an annual corrosion inspection (i.e., a 2011 inspection). Results of the 2006, 2007, and recently conducted 2011 will be provided to UTC on or before October 31, 2011 in conjunction with follow up correspondence to UTC to document completion of corrective actions necessary to bring the probable violations identified during the audit into compliance. Moving forward, Tidewater will conduct atmospheric corrosion inspections on an annual frequency. A task will also be created in Tidewater's compliance management tasking system for an annual atmospheric corrosion inspection.	October 31, 2011 • Copies of atmospheric corrosion inspections conducted during 2005, 2006, 2007, and during October 2011 (i.e., after the audit) are provided in Attachment G to this letter. • A task titled "Annual Atmospheric Corrosion Inspection" " was added to our compliance management tasking system as a reminder to conduct the inspection on an annual basis in the future.
10	**49 CFR §195.507 Recordkeeping.** *Each operator shall maintain records that demonstrate compliance with this subpart. (a)Qualification records shall include:* *(2)Identification of the covered tasks the individual is qualified to perform;*	Relief valve testing was not listed as a covered task. It is not clear if all key covered tasks are identified. Please describe the process used to identify covered tasks and describe how Tidewater will ensure that the covered task list is complete.	Tidewater uses the Operator Qualifications Management System by Concord Associates, Inc. to manage its Operators Qualification (OQ) program. Review of the program confirms that relief valve testing is a qualified task. To ensure the covered task list is complete, a task will be included in Tidewater's compliance management tasking system for an annual review of the OQ program, during which a review of covered tasks will be conducted.	October 15, 2011 • A task titled "Annual Review of Operator Qualification Program" was added to our compliance management tasking system to ensure all covered tasks are included on the Covered Task List, update the program as determined during the review, and document completion of the review using the revision log found in the Operator Qualification program manual. • Review of our OQ program confirmed relief valve testing is a covered task. Job Performance Measures completed for Tim Berry, Maintenance Leadman, for testing the Sun Relief Valve and the Full-Flow Pressure Relief Valve are provided in Attachment H to this letter.
1	**<u>49 CFR §195.583 What must I do to monitor atmospheric corrosion control?</u>** *(b)During inspections you must give particular attention to pipe at soil-to-air interfaces, under thermal insulation, under disbanded coatings, at pipe supports, in splash zones, at deck penetrations, and in spans over water.*	There were several non-removable supports on Tidewater Terminal's above ground piping at the Chevron delivery facility. Several supports had some corrosion product present weeping out between the supports and the carrier pipe. Steps should be taken to ensure that the carrier pipe wall under the supports also is subject to atmospheric corrosion monitoring and appropriate steps taken if corrosion is found.	The angle iron that cradled the pipe observed during the July 2011 audit will be removed, and the dielectric material between the pipe and the support(s) will either be repositioned or replaced with new material. Photographs documenting the repairs will be provided to UTC on or before October 31, 2011 in conjunction with follow up correspondence to UTC to document completion of corrective actions necessary to bring the probable violations identified during the audit into compliance.	October 31, 2011 • The cradle was left in place, however; the dielectric material was secured so that it cannot move out of place in the future and will instead move with the pipe. Pictures of the dielectric material are provided in Attachment I to this letter.

Attachment A

U.S. Department
of Transportation
Pipeline and Hazardous Materials Safety Administration

1200 New Jersey Ave., S.E.
Washington, DC 20590

CERTIFIED MAIL -RETURN RECEIPT REQUESTED

August 19, 2011

TIDEWATER, INC OPID #31051
MARK L. DAVIS
671 TANK FARM ROAD
PASCO, WA 99301

Dear Pipeline Operator:

The Pipeline Safety Improvement Act (PSIA) of 2002 requires the operator of a pipeline facility, except for distribution lines and gathering lines, to submit pipeline data to the National Pipeline Mapping System (NPMS) each year. Pipeline facility operators are required to submit geospatial data appropriate for use in the NPMS, along with metadata/attributes, operator contact information that is made available to the public, and a transmittal form.

You are receiving this letter because according to U.S. Department of Transportation Pipeline and Hazardous Materials Safety Administration (US DOT PHMSA) records, your company submitted hazardous liquid or gas transmission pipeline mileage on the Calendar Year 2009 Annual Report to PHMSA, but has never made an NPMS submission. PHMSA sent an email to your Annual Report contact on 7/13/2011 stating that your company was out of compliance. The email requested that you submit your NPMS data within fourteen calendar days. This is your second notice. If we do not receive your submission or notice of no changes within **fourteen calendar days** of the receipt date of this letter, your case will be referred to our Enforcement Office for further action.

A summary of required elements for NPMS submissions can be found at the "Making A Submission" link on www.npms.phmsa.dot.gov. The manual below gives detailed instructions on submitting.
http://www.npms.phmsa.dot.gov/Documents/Operator_Standards.pdf

If you filed gas transmission miles by mistake on your Annual Report, you will need to amend it. Log into ODES (http://opsweb.phmsa.dot.gov) using your OPID and PIN. Select the appropriate link for older annual reports. Once in the system, select the report number for the CY2009 report. Amend the fields that need to be changed and re-submit. Send an email to npms-nr@mbakercorp.com stating that you have amended your annual report; otherwise, you will remain on the noncompliant list.

PHMSA appreciates your expeditious attention and cooperation in this matter. If you have questions, please contact the NPMS processing department at npms-nr@mbakercorp.com or 703-317-6294.

Sincerely,

Amy Nelson
GIS Manager, US DOT PHMSA

From: Joshua Jarman
Sent: Tuesday, September 06, 2011 2:18 PM
To: Bill Collins
Subject: FW: OPID 31051 NPMS SUBMISSION RECEIVED

Here is the email verifying NPMS submission

From: NPMS-NR, NPMS-NR [mailto:npms-nr@mbakercorp.com]
Sent: Tuesday, September 06, 2011 2:07 PM
To: Joshua Jarman
Subject: OPID 31051 NPMS SUBMISSION RECEIVED

Dear Pipeline Operator,

Your file has been received by the National Repository on 9/2/11.

Your submittal tracking number (NPMS ID) is: NR31051-0001

Thank you for your recent NPMS pipeline data submission. We will now begin to process your submittal. If we have any questions or concerns we will contact you. When your submittal is complete, you will receive access to review the submission data in our NPMS Submission Reviewer map application. You will be notified of your access, along with your temporary login and username, via the e-mail address supplied to us in your cover letter or metadata file.

Please note that the preferred submission dates are January 1st to March 15th for operators with gas transmission pipelines and January 1st to June 15th for hazardous liquid pipelines only. Operators with both gas and liquid pipelines should submit by March 15th. As well, a submission during the current calendar year should reflect conditions in the field as of December 31st of the previous year. However, in future, if no changes have occurred within the OPID, a No Change Notification may be submitted (via email) in place of a full replacement submission.

If you have any questions feel free to contact me.

Thank you,

National Pipeline Mapping System
http://www.npms.phmsa.dot.gov/
Tel: (703) 317-6294
Fax: (703) 960-9125
Email: npms-nr@mbakercorp.com

From: Joshua Jarman [mailto:joshua.jarman@tidewater.com]
Sent: Tuesday, September 06, 2011 4:15 PM
To: NPMS-NR, NPMS-NR
Subject: Submission Status

I submitted our pipeline information for NPMS on Friday September 2nd. There was no confirmation page or anything like that to let me know that it had been received. Can you verify that it was?

OPID# 31051
Tidewater, Inc

Josh Jarman
EHS&S Specialist

Tidewater Terminal Company
671 Tank Farm Rd.
Pasco, WA 99301
(509) 380-1109 - cell
joshua.jarman@tidewater.com

Attachment B

TIDEWATER BARGE LINES
TIDEWATER TERMINAL COMPANY, INC.

RECORD OF TRAINING

INSPECTION OF PIPELINES FACILITIES

PROCEDURE(s)/COURSE(s) NAME: REVIEW OF CFR 49 - 195-200

PROCEDURE(s)/COURSE(s) OUTLINE:

REVIEW OF CODE OF FEDERAL REGULATIONS 49

195-200 SUBPART D - CONSTRUCTION

195 - 300 SUBPART E - PRESSURE TESTING

195 - 400 SUBPART F OPERATION AND MAINTENANCE

(Please print information requested below)

EMPLOYEE: TIM BERRY INSTRUCTOR: RON McCLANEY

POSITION: LEADMAN DEPT: MAINT. COURSE LENGTH (Hrs): 4

I verify that I have received training on and understand the procedure(s) or function(s) above.

EMPLOYEE SIGNATURE: Tim Berry DATE: 10-13-2011

Do you feel that the frequency of refresher training on this course is adequate?
Yes ☑ No ☐ Comments: _____

I certify that the above named employee received the training specified above.

INSTRUCTOR(S): (Signature required) _____ DATE: 10-13-2011

COMMENTS / REMARKS: _____

TIDEWATER BARGE LINES
TIDEWATER TERMINAL COMPANY, INC.

RECORD OF TRAINING

INSPECTION OF PIPELINE FACILITIES

PROCEDURE(s)/COURSE(s) NAME: WELDING OF PIPELINES AND RELATED FACILITIES API STANDARD 1104

PROCEDURE(s)/COURSE(s) OUTLINE:

REVIEW OF API STANDARD 1104

EXAMINATION OF API STANDARD 1104

(Please print information requested below)

EMPLOYEE: Tim Berry INSTRUCTOR: Ron McClary

POSITION: LEADMAN DEPT: MAIN COURSE LENGTH (Hrs): 4

I verify that I have received training on and understand the procedure(s) or function(s) above.

EMPLOYEE SIGNATURE: Tim Berry DATE: 10-13-2011

Do you feel that the frequency of refresher training on this course is adequate?
Yes [✓] No [ ] Comments: _____

I certify that the above named employee received the training specified above.

INSTRUCTOR(S): (Signature required) _____ DATE: 9-20-2011

COMMENTS / REMARKS: _____

Tim Berry
9-20-2011

Examination for API Standard 1104 Welding of Pipelines & Related Facilities -19th Edition-

American Welding Society

August 10, 2001 Revision

Tim Berry
9-20-2011

API 1104 Examination
(Nineteenth Edition)

Read each question carefully, and select the one best answer. It is very helpful for you to write down the Section number(s) and page number(s) where you found the answer.

1. Automatic welding without filler metal additions shall be done using:
   a. GTAW
   b. OFW
   (c) the flash butt welding process
   d. SMAW
   e. none of the above

2. Atmospheres for shielding an arc may consist of:
   (a) inert gases, active gases, or mixtures of inert and active gases
   b. only inert gases are permitted
   c. only active gases are permitted
   d. no gases are permitted for welding
   e. none of the above

3. For welder qualification, the specimens shall be prepared for tensile-strength, nick-break, and bend tests. When tensile-strength tests are omitted:
   a. the welder is not qualified
   b. the weld must be redone
   c. this is not covered in API 1104
   (d) tensile-strength specimens shall be subject to the nick-break test
   e. extra face bends must be tested

4. For pipe ends of the same nominal wall thickness, the alignment offset requirement is:
   a. not more than 1/4 inch
   (b) not more than 1/8 inch
   c. not more than 1/32 inch
   d. if misalignment is larger than 1/16 inch due to dimensional variations, it shall be equally distributed around the circumference of the pipe.
   e. none of the above

5. For procedure qualification, the exposed surfaces of each nick-break specimen shall show:
   a. no slag inclusions over 1/4 inch
   b. at least 3/4 inches of sound weld metal between inclusions
   (c) complete penetration and fusion
   d. the tensile strength of the sample
   e. none of the above

6. Lineup clamps shall be used for butt welds in accordance with the procedure specification. When it is permissible to remove the lineup clamp before the root bead is completed,:
   (a) the completed part of the bead shall be in approximately equal segments spaced approximately equally around the circumference of the joint.
   b. the completed part of the bead shall be removed and rewelded after removing the clamp.
   c. the completed part of the bead shall be peened before removing the clamp.
   d. the completed part of the bead shall be at least 4 inches long for all pipe sizes
   e. none of the above

7. During welder qualification, when destructively testing pipe with a diameter less than or equal to 33.4 mm:
   a. radiography must be used
   b. the entire pipe must be used for bend testing
   c. one full-section tensile specimen may be substituted for the root-bend and nick-break specimens.
   d. pipe of this diameter may not be destructively tested
   e. none of the above

8. When pipe is welded above ground, the working clearance around the pipe at the weld should be at least:
   a. 12 inches
   b. 16 inches
   c. 20 inches
   d. 24 inches
   e. 30 inches

9. The exposed surfaces of each fillet-weld-break specimen shall show:
   a. no slag inclusions greater than 1/4 inch
   b. at least 3/4 inches sound metal between adjacent inclusions
   c. complete penetration and fusion
   d. the tensile strength of the specimen
   e. none of the above

10. When automatic or semiautomatic welding is used, which of the following shall be removed by grinding before welding over them?
   a. surface porosity clusters
   b. bead starts
   c. high points
   d. all of the above
   e. none of the above

11. Undercutting adjacent to the final bead on the outside of production pipe welds shall:
   a. not be permitted
   b. not be more than 1/32 inch or 12.5% of the pipe wall thickness, whichever is smaller
   c. not be more than 1/8 inch or 6% of the pipe wall thickness, whichever is smaller
   d. always be acceptable if the inspector does not see it
   e. none of the above

12. Welding inspection personnel shall be qualified by:
   a. American Welding Society
   b. American Society for Nondestructive Testing
   c. American Petroleum Institute
   d. American Society of Mechanical Engineers
   e. experience and training for the specified inspection task they perform

13 Welding may be done by which of the following processes:
   a. SAW
   b. SMAW
   c. GTAW
   d. GMAW
   e. all of the above

14. Inadequate penetration without high-low (IP) found by NDT shall be unacceptable when:
    a. the aggregate length of IP indications exceeds 3 inches in any continuous 12 inch length of weld
    b. the aggregate length of IP indications exceeds 2 inches in any continuous 12 inch length of weld
    c. the aggregate length of IP indications exceeds 1 inch in any continuous 12 inch length of weld
    d. the aggregate length of IP indications exceeds 1/2 inch in any continuous 12 inch length of weld
    e. the aggregate length of IP indications exceeds 1/4 inch in any continuous 12 inch length of weld

15. Incomplete fusion due to cold lap (IFD) is defined as:
    a. weld metal not melted in the joint root
    b. weld metal not melted on the joint face
    c. a discontinuity between two adjacent weld beads or between the weld metal and base metal that is not open to the surface
    d. a discontinuity along the weld toe
    e. none of the above

16. Field beveling of pipe ends by manual oxygen cutting is acceptable if authorized by the company.
    a. true
    b. false
    c. this statement is true only if the cutting operator is certified by API
    d. this statement is true only if the cutting operator is a certified welder
    e. none of the above

17. Any length of internal concavity (IC) found by NDT is acceptable provided:
    a. the density of the radiographic image of the IC does not exceed that of the thinnest adjacent base metal
    b. the density of the radiographic image of the IC must exceed that of the thinnest adjacent base metal
    c. IC is never acceptable
    d. ultrasonic inspection does not reveal the IC
    e. none of the above

18. Parallel elongated slag inclusion (ESI) indications separated by approximately the width of the root bead shall be considered a single indication unless the width of either of the indications exceeds 1/16 inch.
    a. true
    b. false
    c. true if no other indications exist
    d. true if SMAW was used for the welding
    e. none of the above

19. A welding procedure test is being performed on 3 inch schedule 80 pipe (0.300" wall). What is the total number of specimens required for testing?
    a. 4
    b. 6
    c. 8
    d. 12
    e. 16

20. Hollow-bead porosity (HB) found by NDT shall be unacceptable when:
    a. the length of an individual indication of HB exceeds 1 inch
    b. the length of an individual indication of HB exceeds 7/8 inch
    c. the length of an individual indication of HB exceeds 3/4 inch
    d. the length of an individual indication of HB exceeds 1/2 inch
    e. the length of an individual indication of HB exceeds 1/4 inch

21. NDT operators may, by API 1104, be required to:
   a. pass the AWS CWI exam
   b. only pass the ASNT Level I exam for all test method interpretations
   c. be recertified if any question arises about their ability
   d. demonstrate at least two different methods of NDT
   e. demonstrate at least three different methods of NDT

22. Which of the following types of defects other than cracks may be repaired with prior company authorization?
   a. cracks in the root
   b. cracks in the filler beads
   c. excessive undercut
   d. root bead porosity
   e. c & d

23. To test fillet-welded joints for qualification of a welding procedure,:
   a. at least 4 specimens shall be prepared
   b. the specimens may be machine cut or oxygen cut
   c. the specimens shall be air cooled to ambient temperature before testing
   d. the specimens should be at least 1 inch wide
   e. all of the above

24. Testing of weld repairs requires:
   a. all repairs be reradiographed
   b. all repairs be ultrasonically tested
   c. all repairs be magnetic particle inspected
   d. the repaired areas to be reradiographed or inspected by the same means previously used
   e. none of the above

25. When found by NDT, inadequate penetration due to high-low (IPD) shall be unacceptable when:
   a. the length of an individual IPD indication exceeds 1 inch
   b. the length of an individual IPD indication exceeds 2 inches
   c. the aggregate length of IPD indications exceeds 3 inches in any continuous 12 inch weld length
   d. a and c above
   e. b and c above

26. Cracks in welds may be repaired provided the following criteria are met:
   a. the length of the crack is less than 8% of the weld length
   b. the crater crack must be ground smooth
   c. a qualified welding procedure is used
   d. a & c
   e. b & c

27. For pipe with an outside diameter greater than or equal to 2 3/8 inches, isolated slag inclusions (ISI) found by NDT shall be unacceptable when:
   a. the aggregate length of ISI indications exceeds 4 inches in any continuous 12 inch weld length
   b. the aggregate length of ISI indications exceeds 3 inches in any continuous 12 inch weld length
   c. the aggregate length of ISI indications exceeds 2 inches in any continuous 12 inch weld length
   d. the aggregate length of ISI indications exceeds 1 inch in any continuous 12 inch weld length
   e. the aggregate length of ISI indications exceeds 1/2 inch in any continuous 12 inch weld length

28. SWE/SWV is the abbreviation for:
   a. swage welded and extruded/swage welded and visually inspected
   b. side wall examined/side wall visually inspected
   c. single wall extruded/single wall visually inspected
   d. single-wall exposure/single-wall viewing
   e. none of the above

29 The maximum thickness of the penetrameter to be used in radiographic inspection is based on:
   a. the thickness of the pipe wall or the weld
   b. the flange rating of the piping system
   c. the type of radiographic film used
   d. the curie strength of the radiographic source used
   e. none of the above

30 The essential hole for API 1104 'Figure 21' standard penetrameters is:
   a. 1T
   b. 2T
   c. 3T
   d. 4T
   e. none of the above

31. When selecting butt-weld specimens for a welder qualification test, the specimen locations may be rotated, provided they are equally spaced around the pipe; however, specimens shall not include the longitudinal weld.
   a. true
   b. false
   c. the welder may select any location for the samples
   d. the inspector may select any location for the samples
   e. none of the above

32. API 1104 applies to the welding of pipe and fittings that conform to:
   a. API Specification 5L
   b. API Specification 620
   c. AWS Specification 5.19
   d. Applicable ASTM specifications
   e. a and d above

33. The 2T hole diameter in the API 1104 'Figure 21' penetrameter need not be less than:
   a. 1/32 inch
   b. 1/16 inch
   c. 3/32 inch
   d. 1/8 inch
   e. 5/32 inch

34. Pipe shall be welded by:
   a. qualified welders
   b. pipeline welders
   c. using qualified procedures
   d. a and c above
   e. none of the above

35. When a weld is radiographed using a DWE/DWV procedure and hole type penetrameters:
   a. one penetrameter is placed on the source side
   b. the penetrameter image must not be superimposed on the weld image
   c. hole type penetrameters cannot be used for DWE/DWV radiography
   d. two penetrameters must be used, one on the source side and one on the film side
   (e) a and b above

36. The only API-approved method for testing a nick-break specimen is breaking it in a tensile machine.
   a. true
   (b) false
   c. true, but the exposed area of the fracture must be at least 3/4 inch
   d. true, but the exposed area of the fracture must be no more than 3/4 inch
   e. none of the above

37. If the pipe wall thickness range radiographed is greater than 3/8 inch through 1/2 inch, what is the maximum thickness in inches of the required API 'Figure 21' penetrameter?
   a. 0.005
   b. 0.0075
   (c) 0.010
   d. 0.0125
   e. 0.0150

38. The bend test shall be considered acceptable if:
   a. there are no cracks or other defects
   b. the bend sample does not break into several pieces
   c. the defects in the weld or fusion zone do not exceed 1/16 inch in any direction
   d. the defects in the weld or fusion zone do not exceed 3/32 inch in any direction
   (e) the defects in the weld or fusion zone do not exceed 1/8 inch or one-half the nominal wall thickness, whichever is smaller, in any direction

39. Film or other imaging media shall be processed, handled, and stored so that the images are interpretable for at least 3 years after they are produced:
   a. is required by API 1104
   b. generally accepted as the best thing to do
   c. a very good thing to do
   (d) only when requested by the company
   e. none of the above

40. A record of certified nondestructive testing personnel shall be kept by the company. Level I and Level II NDT personnel shall be recertified at least every:
   a. year
   b. 2 years
   (c) 3 years
   d. 4 years
   e. 5 years

41. Automatic welding shall be done using which of the following processes?
   a. SAW
   b. GMAW
   c. GTAW
   d. FCAW with or without external shielding
   (e) all of the above

42. When a radiographic source is centered inside the pipe for exposing a butt weld:
   a. three exposures are adequate for the radiographic inspection of the completed weld.
   b. two exposures are adequate for the radiographic inspection of the completed weld.
   c. one exposure is adequate for the radiographic inspection of the completed weld (SWE/SWV).
   d. double film must be loaded in the film cassette
   e. none of the above

43. Each automatic welding unit and each operator shall be qualified by producing an acceptable weld using the qualified welding procedure.
   a. true
   b. false
   c. automatic welding is not permitted in API 1104
   d. b and c above
   e. none of the above

44. A welder who successfully completes the qualification in Section 6.2.1 on 8 inch, schedule 40 pipe (0.322" wall) must be requalified if:
   a. the welding process is changed from SMAW to GMAW
   b. the welder changes the welding direction from horizontal left to horizontal right
   c. there is a change in filler metal classification from Group 1 or 2 to Group 3
   d. the welder welds on 6 inch, schedule 40 (0.280" wall) pipe
   e. a and c above

45. For automatic welding, which of the following statements are true?
   a. flux cored arc welding without external shielding may not be used in automatic welding
   b. qualified procedures for automatic welding need not be recorded
   c. the welding position need not be specified as to roll or position welding for automatic welding
   d. all of the above are false
   e. none of the above

46. Which of the following represent changes in essential variables for a manual welding procedure?
   a. a change in the pipe material group
   b. a change of welding position
   c. a change in the vertical direction of welding
   d. a change in the shielding gas or a major change in shielding gas flow rate
   e. all of the above

Title: Welding Specification & Testing Procedure

No:	**Document Owner:**
Version: 1	**Approved By:**
Date Approved: 10/26/2011	**Ref No: 1160**

Purpose/Scope

The Welding Specification & Testing Procedure was created to provide a source for the selection of qualified and approved Welding Procedures Specification (WPS) that can be used by Tidewater. This procedure was created to assist with the selection of the appropriate specific welding procedures to ensure Tidewater is in compliance with the various codes, standards, and specifications. The procedures are grouped into two sections. A section for procedures qualified under API 1104 "WELDING OF PIPELINES AND RELATED FACILITIES," and a section for procedures qualified under ASME SEC. IX "BOILER AND PRESSURE VESSEL CODE, WELDING AND BRAZING QUALIFICATIONS." Before a WPS is selected, the following items should be reviewed to ensure the appropriate WPS is selected.

1. Determine the codes and/or standards that are applicable to the welding application (DOT PART 192, API 1104, ANSI B31.3, ANSI B31.8 & ASME SEC. IX etc.).

2. Identify the materials to be joined (SA 106 Grade B, API 5L X65, etc.).

3. Determine which welding process will be used (SMAW, GTAW, etc.).

4. Identify the type of joint (fillet, groove, groove with backing, etc.) to be welded.

5. Determine if the welding application has requirements such as low temperature service, pre heat or post weld heat treatment.

If there is doubt as to the codes, standards, specifications or WPS that is required for the welding application, contact the project engineer for the required information.

Before welding has commenced, ensure that the welder has been tested and is qualified to make the weldment.

Roles and Responsibilities

Terminal Maintenance Supervisor is responsible for ensuring that this procedure is followed, personnel receive the appropriate training, and all documentation and training records are maintained.

Requirements

WELDER QUALIFICATION

This work activity instruction establishes the administrative process or requirements for welder performance qualification testing of Welders. It is applicable to qualification of Tidewater Terminal Company personnel or contact employee's for performing welding.

1. Maintenance Supervisor is responsible for:

   a. Determining the need for new qualifications or for requalification.

   b. Administering the operation of the Welder Performance Qualification Program in accordance with the requirements of American Society of Mechanical Engineers (ASME), Section IX, API 1104, and other national welding codes, when applicable.

   c. Establishing a records storage system for the original Welding Performance Qualification Records.

   d. Scheduling appropriate qualification tests.

   e. Entering Welder's name and Lab Test Numbers in the Welder Qualification Test Log (Attachment 1).

   f. Provide the Welder with the necessary weld coupons.

   g. Ensuring all weld coupons, except practice coupons, are identified with the assigned Lab Test Number.

   h. Administering qualification tests as required.

   i. Visually inspecting weld coupons during welding and upon completion of welding, to ensure they meet the minimum visual examination requirements of the applicable code.

   j. Terminating any test when it is evident that the Welder lacks the expertise to satisfactorily complete the test.

k. Upon visual acceptance of the completed test coupon, subjecting each coupon to destructive testing in accordance with the requirements of ASME, Section IX, Article III Welding Performance Qualifications or API 1104 Section 3. In lieu of destructive tests, weld coupon may be Radiographic Tested (RT) in accordance with the requirements of ASME, Section IX, or API 1104.

l. Submitting to the NDE technician the test coupons identified with the Welder's name, test coupon number, and assigned laboratory test number when RT examination is used.

m. Documenting test results in the Welder Qualification Test Log.

n. Preparing and signing a Record of Welder Performance Qualification Test Report.

o. Distributing the Welder Qualification Report to those individuals involved in assigning work requiring welding.

p. Ensure that the welder being used has engaged in that welding process and has had one weld tested and found acceptable under section 9 of API 1104 within the last six months.

2. Instructions

a. Welded test pipe coupons are assembled with a minimum of three tack welds, to maintain alignment during welding. Pipe sizes 118 inch through 1/2 inch are assembled with two tacks, approximately 180 degrees apart. Tacks are feathered at both ends by grinding or filing.

b. The following test conditions are in effect during welding of test coupons:

i. The test jig is set by the Welding Inspector and remains at the set height throughout the remainder of the test.

ii. After feathering of tacks, grinders are used only if approved by the Welding Inspector.

iii. Test coupons are welded in the test jig provided.

iv. Test coupons are not rotated on the test jig during welding of the test coupon.

v. Horizontal weld layers, which require more than one weld pass, shall be stacked from the bottom up.

vi. Slag hammers, wire brushes or files are used to remove slag and other contaminants from each successive bead prior to depositing the next bead.

vii. Direction of welding is specified by the WPS.

WELD INSPECTOR QUALIFICATION

API 1104 Section 8.3 Qualification of Inspection Personnel

Welding inspection personnel shall be qualified by experience and training for the specified inspection task they perform. These requirements apply to both Tidewater Weld Inspectors and 3rd party weld inspectors. Their qualifications shall be acceptable to the company.

Documentation of these qualifications shall be retained by the company and shall include but is not limited to the following:

a. Education and experience.
b. Training.
c. Results of any qualification examinations.

The maintenance supervisor will periodically review and update documentation and training records for each inspector used to ensure they are in compliance with the qualification requirements of API 1104 Section 8.3

WELDING DEFECT REPAIR PROCEDURE

1. Repair of Defects

a. Each weld that does not meet the acceptance criteria of the appropriate Code or Specification shall be repaired or removed.

b. All weld repairs must meet the acceptance criteria of the appropriate Code or Specification, when re-inspected after the repair.

c. If repair is found unacceptable, further repairs are authorized using approved procedures for multiple repairs up to three (3) repair attempts. If the third repair attempt is found unacceptable, the complete weld shall be removed.

d. A weld must be removed if it has a crack that is more than 8 percent of the weld length. Cracks less than 8 percent of the weld length may be repaired if a specific crack repair procedure is prepared.

e. Other defects may be repaired with approved welding procedures.

f. Defect Repair Procedure

i. Defects shall be examined and analyzed to ascertain the extent of the defect by Non Destructive Testing. The rejectable defect shall be entirely removed by grinding or arc-gouging to sound metal. The repair groove shall be examined by Non Destructive Testing to assure complete removal of injurious defect. Re-welding shall be done in accordance with the repair procedure. All primary repaired areas shall be inspected by the same means previously used after the initial weld.

g. Arc burns shall be either repaired by grinding or cut out. If a repair is made by grinding, the remaining wall thickness must at least be equal to either:

i. The nominal wall thickness required for the design pressure or,

ii. The minimum wall thickness required by the tolerances in the specification to which the pipe was manufactured. The remaining wall thickness must not be less than the specified wall thickness reduced by the following:

12-112% for ASTM A-106 pipe
8% for API-5LX pipe
0.010" for ASTM A-381 pipe

Reference Materials and Records

API 1104 Sections 8 & 9
40 CFR 195.200

ATTACHMENTS

- Welder Qualification Test Log
- Groove Welds
- Fillet Welds
- Material Groups
- API Groove Welding Procedures
- API Fillet Welding Procedures
- ASME Welding Procedures
- ASME Section IX, Article III – Welding Performance Qualifications
- API 1104 Section 6 – Acceptance Standards

Tidewater Terminal Company

General Inspection Report

Facility: Snake River Terminal Pasco WA.	Date:	Page: 1 of 1
Project: New Pipe Installed	Procedure No: TW-01	
Inspection Type(s): X Continuous ☐ Periodic	Location: ☐ Shop X Field	

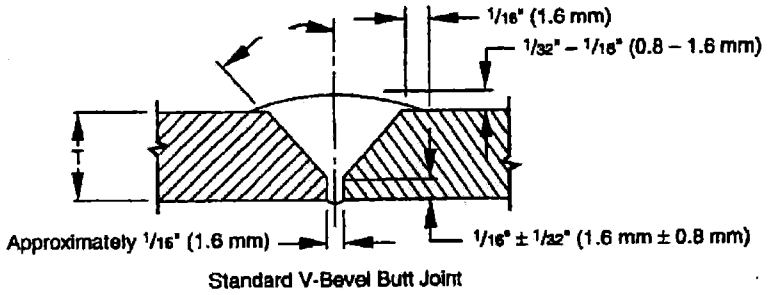
Inspections Made:
A Visual inspection, which includes 100% of the Weld process on 4 - 6 inch butt welds and
All weld processes and welds were found to meet API 1104 as Acceptable.
Welding conducted by Allen Gross
With T.J. Construction
Codes, Plans, and Specification References:
To the best of my knowledge, work inspected was in accordance with approved design drawings, specifications and applicable codes as noted below.
Print Name: Tim Berry Date: 7/14/2011
Signature: Tim Berry

NorthWest Inspection

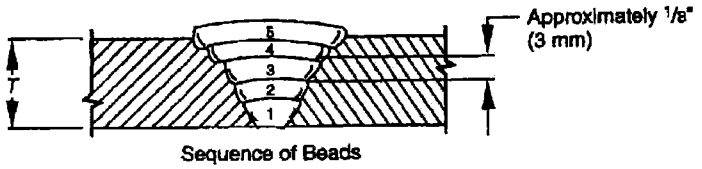
PROCEDURE SPECIFICATION NO. TW-01

For Tidewater Welding of API-5L, Grade X42 and below, ASTM-A-53 Grade B Pipe and fittings
Process Manual Shielded Metal Arc Welding (SMAW)
Material API-5L, Group A,Grade X42 and below
Diameter and wall thickness Diameters 2.375" thru 12.75"wall thickness .188" thru .500"
Joint design See sketch below
Filler metal and no. of beads AWS A5.1, E6010 and 4 passes
Electrical or flame characteristics Electrical DC Reverse Polarity
Position Fixed (45°)
Direction of welding Downhill
No. of welders 1
Time lapse between passes Ten minutes max after completion of root pass and beginning of hot pass. 72 hour time limit between remaining passes.
Type and removal of lineup clamp External and 50% or more of root pass before removal of lineup clamp
Cleaning and/or grinding Power grinding and power brushing
Preheat 200° F when ambient temperature is 50° or less and when pipe is wet for any reason
Shielding gas and flow rate N/A
Shielding flux N/A
Speed of travel 6 to 16 inches per minute
Plasma gas composition N/A Plasma gas flow rate N/A
Plasma gas orifice size N/A

Tested 8/21/00 Welder Allen Gross 519-94-9578
Approved Welding supervisor
Adopted Chief engineer



Standard V-Bevel Butt Joint



Sequence of Beads

ELECTRODE SIZE AND NUMBER OF BEADS

Bead Number	Electrode Size and Type	Current Type	Voltage	Amperage	Speed
1	1/8 E6010	DCRP	22-29	65-130	8-16 IPM
2	1/8 E6010	DCRP	22-29	75-130	8-16 IPM
3	5/32 E6010	DCRP	23-29	90-175	6-15 IPM
4	5/32 E6010	DCRP	23-29	90-175	6-15 IPM

NorthWest Inspection

COUPON TEST REPORT

Date 8/21/00 Test No. 16 (TW-01)
Location Tidewater Terminal Pasco
State Washington Weld Position: Fixed (45°)
Welder Allen Gross 519-94-9578 Mark N/A
Welding Time 14 minutes 35 seconds Time of Day 1:00 PM
Mean Temperature 85° F Wind Break Used None
Weather Conditions Sunny
Voltage 22-29 Amperage 65-175
Welding Machine Type Lincoln Welding Machine Size SA 200
Filler Metal AWS A5.1, E6010
Reinforcement Size Less than 1/16"
Pipe Type and Grade API-5L Grade X42
Wall Thickness .280" Outside Diameter 6.625"

	1	2	3	4	5	6	7
Coupon Stenciled	T-1	T-2					
Original Specimen Dimensions	.289x.995	.289x1.02					
Original Specimen Area	.288	.294					
Maximum Load	19,476	22,073					
Tensile Strength per Square inch of Plate Area	67,625	75,077					
Fracture Location	Base Metal	Base Metal					

☒ Procedure ☐ Welder
☒ Qualifying Test ☐ Line Test
☒ Qualified ☐ Disqualified

Maximum Tensile 75,077 Minimum Tensile 67,625 Average Tensile 71,351
Remarks on tensile-strength tests
1. Acceptable
2. Acceptable
3.
Remarks on bend tests
1. Root Acceptable
2. Root Acceptable
3. Face Acceptable
4. Face Acceptable
Remarks on nick break test
1. Acceptable
2. Acceptable
3.
Test made at Tidewater Terminal Date 8/21/00
Tested by Tony Martin AWS CWI# 95100121 Supervised by Tony Martin

JUL 25 REC'D

NORTHWEST inspection
615 N. Kellogg St. Kennewick, WA 99336
509 783-2308 Fax 509 783-2307

Radiographic Examination Report API 1104

DATE 07-14-11 PAGE 1 OF 2
CLIENT: TIDEWATER
LOCATION: PASCO, WA
PROCEDURE: RT-API 1104 REV: 0

DISCONTINUITY LEGEND													
IP	INADEQUATE PENETRATION	IPD	INADEQUATE PEN. DUE TO HIGH / LOW	IF	INCOMPLETE FUSION	IFD	INCOMP. FUSION DUE TO HIGH-LOW	IC	INTERNAL CONCAVITY	BT	BURN THROUGH	ESI	ELONGATED SLAG INCLUSION
ISI	ISOLATED SLAG INCLUSION	P	INDIVIDUAL OR SCATTERED	CP	CLUSTER POROSITY	HB	HOLLOW BEAD POROSITY	C	CRACKS	IU	INTERNAL (ROOT) UNDERCUT	EU	EXTERNAL (COVER) UNDERCUT

# OF FILM PER WELD	PIPE DIAMETER & WALL THICKNESS	WELD #	ACC	REJ	DEFECT LOCATION AND REMARKS
					TANK# 4
3	6"x .280"	Weld# 1	√		Welder: Alan Gross
3	6"x .280"	Weld# 2	√		Welder: Alan Gross
3	6"x .280"	Weld# 3	√		Welder: Alan Gross
3	6"x .280"	Weld# 4	√		Welder: Alan Gross

Radiographer BRIAN MARTIN Level II Interpreter BRIAN MARTIN Level II

Customer _____

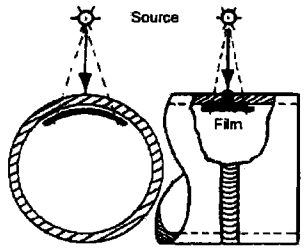
NORTHWEST inspection
615 N. Kellogg St. Kennewick, WA 99336
509 783-2308 Fax 509 783-2307

RADIOGRAPHIC TECHNIQUE SHEET

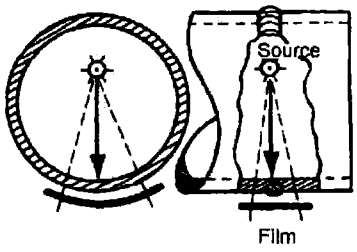
Date: 07-14-11

Number of Exposures	3				
Isotope Type	IR-192				
Source Size	.111"				
Material Type/Thickness	CS/.280"				
Shim/Weld Thickness	.125"/.405"				
Weld Reinforcement Thickness	.125"				
Source-to-Object Distance	6.345"				
Distance from Source Side of Object to Film	.405"				
Manufacturer/Film Type	AGFA D4				
Number of Film/Cassette	1				
Penetrameter	ASME B set				
Technique Number	D				
Film meets Code req. Density & Ug.	YES				

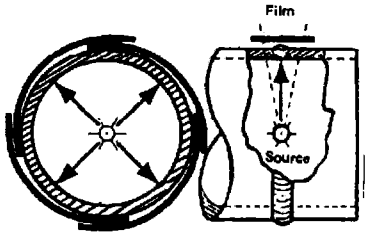
Cal. Step Tablet Serial No.: 9517252 Cal. Date: 02-28-12



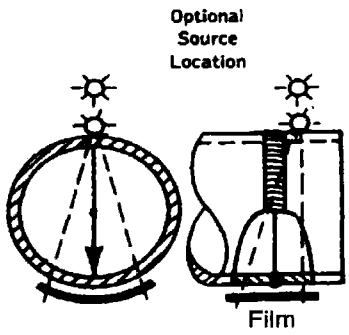
View A *Single-Wall Exposure & Single-Wall Viewing*



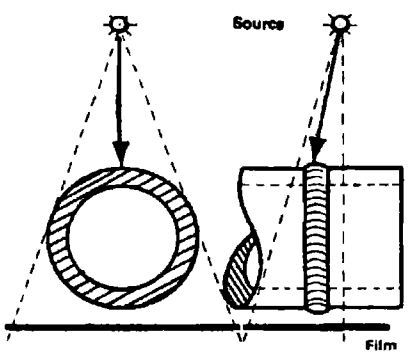
View B *Single-Wall Exposure & Single-Wall Viewing*



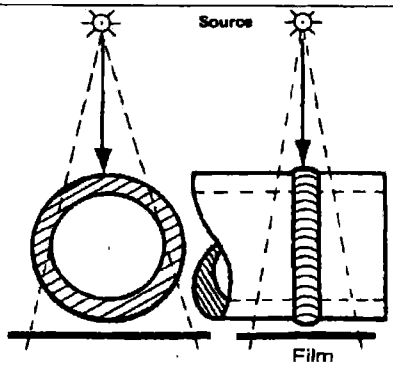
View C *Single-Wall Exposure & Single-Wall Viewing*



View D *Double-Wall Exposure & Single-Wall Viewing*



View E *Double-Wall Exposure & Double-Wall Viewing*



View F *Double-Wall Exposure & Double-Wall Viewing*

ATTACHMENT 1

WELDER QUALIFICATION TEST LOG

Test No.	Welder's Name	Sch/Thk Size	Procedure No.	Position	Date Passed	Date Failed	NDE
16	Allen Gross	.280 6.625	TW-01	Fixed (45°)	8/21/00		
18	Allen Gross	.140 6.625	TW-02A	Fixed (45°)	8/21/00		
20	Allen Gross	.280 6.625	TW-03	Fixed (45°)	8/22/00		
	Allen Gross	.280 6"	RT-01	6G	1/30/01		
17	Allen Gross	.140 6.625	TW-02	Fixed (45°)	8/21/00		
	Dwight Betker		AWS B21.1-1-203-96	6G	10/23/01		
	Tom Sizemore	.280 6.625	TW-03	Fixed (45°)	11/24/04		
	Oak Coffey	.280 6.625	TW-03	Fixed (45°)	11/24/04		
	Todd Davis	.280	TW-01	Fixed (45°)	6/12/06		
	Todd Davis	.280 6.625	TW-03	Fixed (45°)	6/12/06		
	Robert Baker	.280 6.625	TW-01	Fixed (45°)	5/9/07		
	Tommy Sizemore	.188 6.625	TW-04	Fixed (45°)	7/25/08		
	Tommy Sizemore	.237 4.5	TW-01	Field Weld	3/16/10		Anvil Accept
	Tommy Sizemore	.237 4.5	TW-01	Field Weld	6/11/10		Northwest Accept
	Tommy Sizemore	.322 8.625	TW-01	Field Weld	9/23/10		Northwest Accept
	Tommy Sizemore	.188 6.625	TW-01	Field Weld	5/25/11		Northwest Accept
	Tommy Sizemore	.237 4.5	TW-01	Field Weld	8/30/11		Northwest Accept
	Allen Gross	.280	TW-01	Field Weld	7/14/2011		Northwest Accept

Attachment C

Tidewater Terminal Company

Test Apparatus:

barbee

Engineered Testing System

Model S216J10 Date A2Q06

P/N 79293-11 S/N 15253

Max Drive Pressure 100 psi

Max Outlet Pressure 1000 psi

This is the Hydro Test pump used on all Hydro test conducted at Tidewater Terminal facilities.

Tidewater will use a Dickson chart recorder on all future Hydro tests to record Pressure and Temperature throughout each test. In conjunction with these tests Tidewater uses an annually certified pressure gauge.

All tests are conducted with Water as the test medium.

Dickson

Chart Recorded

Model PW 459

Serial No. 01020502

Chart C028 4" (0-500 24 HR)

TIDEWATER BARGE

TECHNICAL CONTROLS
Authorized
ASHCROFT DISTRIBUTOR
12119 NE 99TH ST.
Suite 2000
VANCOUVER, WA 98682
PH. (360) 253-6333 FAX (360)253-9120
ORDER# **RO254513**

CERTIFICATE OF CALIBRATION

THIS CERTIFICATION IS HEREBY ISSUED THAT:

MANUFACTURER: **DWYER**
MODEL: **DPG-010**
FULL SCALE: **0-3000 PSI**
SERIAL NUMBER: **050411T1**
PART NUMBER:

INSTRUMENT WAS TESTED FOR ACCURACY AND CALIBRATED ON THE STANDARD INDICATED BELOW TRACEABLE TO THE NATIONAL INSTITUTE OF STANDARDS AND TECHNOLOGY AND IN ACCORDANCE WITH ISO/IEC GUIDE 25 1990 (E), ANSI/NCSL Z540-1-1994 AND MIL-STD-45662A.

MERIAM INSTRUMENTS 30-EB25-TM WATER MANOMETER PRIMARY STANDARD NATURAL PHYSICAL
MERIAM INSTRUMENTS 30-EBX25-TM MERCURY MANOMETER PRIMARY STANDARD NATURAL PHYSICAL

ASHCROFT 30 2089SD 02L 1000 SN# 1200368 DUE: 02/03/2013

TQ-150 MANSFIELD & GREEN DDWT TESTER SN# 11175 DUE: 01/19/2013
SAMA PRECISION LAB TEST THERMOMETER(S) NATURAL PHYSICAL CONSTANTS

BASED ON THE AFOREMENTIONED TEST, THE ABOVE INSTRUMENT IS CERTIFIED TO BE WITHIN THE MANUFACTURER'S SPECIFIED TOLERANCE *(UNLESS OTHERWISE STATED BELOW) OF ±1/2 % OF FULL SCALE

CERTIFIED THE **4** DAY OF **MAY** **2011**
DUE THE **4** DAY OF **MAY** **2012**

BY:

TRENT O'DOHERTY
INSTRUMENT TECHNICIAN
TECHNICAL CONTROLS

INSTRUMENT WAS CALIBRATED UNDER THE FOLLOWING ENVIRONMENTAL CONDITIONS:
TEMPERATURE: 22° ± 3° CELCIUS
RELATIVE HUMIDITY: 50% ± 30%

NOTE: weather: Cool, Light Wind Cloudy, Spotty Rain with Some Sun Peaking Through.

NOTE: New 6" Pipe From Tank #4 to Barge Line.

TIDEWATER TERMINAL
PIPELINE TEST REPORT

DATE 7-19-11 TERMINAL SNAKE RIVER

PIPELINE SIZE 6" PRODUCT 2015

M.A.W.P. 150# TEST PRESSURE 356

TEST MEDIUM WATER

PRESSURE READING AND TEMPERATURE READING MUST BE RECORDED AT 5 min. INTERVALS FOR THE DURATION OF TEST.

TEST PERIOD 4 HRS

TIME	TEMPERATURE	PRESSURE	
0945	74	358	START TEST
0950	74	358	
0955	74	358	
10:00	73.5	358	
10:05	73	357	
10:10	74	357	
10:15	74	357	
10:20	74	358	
10:25	75	358	
10:30	75	358	
10:35	75	359	
10:40	75	359	
10:45	75	360	
10:50	75	360	
10:55	75	360	
11:00	76	360	

TEST PERFORMED BY: Tim Berry

CERTIFIED GAUGE - MANUF DWYER MODEL DPG-010 SERIAL NO 050411T1

PG #1

TIDEWATER TERMINAL
PIPELINE TEST REPORT

DATE 7-19-11 TERMINAL SRT

PIPELINE SIZE 6" PRODUCT 2D LS

M.A.W.P. 150 # TEST PRESSURE 356

PRESSURE READING AND TEMPERATURE READING MUST BE RECORDED AT 5 min. INTERVALS FOR THE DURATION OF TEST.

TEST PERIOD 4 HRS

TIME	TEMPERATURE	PRESSURE
11:05	76	360
11:10	76	360
11:15	76	361
11:20	76.5	361
11:25	77	361
11:30	77	361
11:35	77	362
11:40	77	362
11:45	78	363
11:50	78	363
11:55	78	364
12:00	78	364
12:05	78	364
12:10	79	364
12:15	79	364
12:20	79	365

TEST PERFORMED BY: Tim Berry

PG # 2

TIDEWATER TERMINAL
PIPELINE TEST REPORT

DATE 7-19-11 TERMINAL SRT

PIPELINE SIZE 6" PRODUCT 2D15

M.A.W.P. 150# TEST PRESSURE 356

PRESSURE READING AND TEMPERATURE READING MUST BE RECORDED AT 5 min. INTERVALS FOR THE DURATION OF TEST.

TEST PERIOD 4 HRS

TIME	TEMPERATURE	PRESSURE	
12:25	79	365	
12:30	80	367	
12:35	80	367	
12:40	80	368	
12:45	80	368	
12:50	81	369	
12:55	81	369	
13:00	80	369	
13:05	81	370	
13:10	81	370	
13:15	81	370	
13:20	81	371	
13:25	81	371	
13:30	81	371	
13:35	81	371	
13:40	81	371	
13:45	81	371	END of TEST

TEST PERFORMED BY: Tim Berry

PG#3

Tidewater Terminal Company
Hydrostatic Test - D.O.T. Piping Systems (TM-SRT-005) Procedure

Purpose/Scope

To outline the process for hydrostatic testing of transfer pipelines between Tidewater Terminal Company and Chevron's Northwest Terminal Company.

Action

1. Prepare system to be tested by disconnecting, isolating with blank flanges or other means, all connected systems or equipment, which is not to be tested.

2. Fill pipe section to be tested with water. Test fluid shall be water unless otherwise specified by the Terminal Maintenance Manager.

3. Set up temperature and pressure recording equipment to monitor and record test fluid temperature and pressure during test. Precautions shall be taken to avoid excessive pressure buildup when pressure is to be maintained for a period of time.

4. Install the appropriate test pump and certified test gauge to reach the desired test pressure.

5. Calculated minimum hydrostatic design pressure based on 49 CFR Part 192, Subpart C.

   P = (2St/D) x E x T, where

   S = Minimum Specified Tensile Strength (49 CFR 192.107) = 35,000
   t = Nominal Wall Thickness = 0.188
   D = Nominal Outside Diameter = 6.625
   F = Design Factor (49 CFR 192.11) = 0.72
   E = Longitudinal Joint Factor (49 CFR 192.113) = 1.0
   T = Temperature Factor (49 CFR 192.115) = 1.0

   Example, based on actual tensile strength and thickness measured on piping samples:

   S = 35,000 **t** = 0.188 **D** = 6.625
   F = 0.72 **E** = 1.0 **T** = 1.0

   P = (2)(35,000)(0.188)/(6.625) x 0.72 x 1.0 x 1.0
   = 1986 x 0.72
   = 1430 psi

6. Maximum Allowable Working Pressure (MAWP) for the pipeline is 285 psi. (See Operations & Maintenance Manual, Section 218). The required hydrostatic test pressure for the pipeline is 125% of the MAWP = 356 psi.

7. Gradually increase the pressure until a gauge pressure of one half the MAWP (142psi) is attained.

8. Perform preliminary inspection of the pipe section being tested to assure that all fittings and connections are leak free.

9. Increase pressure to the normal operating pressure (195 psi) and hold for 1 hour. Once again, perform preliminary inspection of the pipe section being tested to assure that all fittings and connections are leak free.

10. Gradually increase the pressure until the test pressure of 125% of the MAWP (356 psi) is reached. Hold the pressure at each step long enough to equalize piping strains. This test pressure shall be maintained without the aid of the pump. It may be necessary to draw liquid from the pipeline to avoid over pressuring. If liquid is removed from the line, record the exact amount withdrawn, the time, temperature and pressure.

11. Monitor and record in the data-logger the test pressure for a period of four (4) hours.

12. Periodically check the system being tested for leaks.

13. At the end of the four-hour test period, reduce the test pressure to 110% of the MAWP (314 psi). Continue to monitor and record this pressure for an additional four (4) hour period.

14. If the test pressures are maintained throughout the test periods, except for small variations, and no leaks are found or leaks are found from fittings or attachments external to the system being tested, the test may be accepted as satisfactory.

15. The following information shall be documented for each Hydrostatic Test performed on the pipeline per 49 CFR 195.310(b):

    a) The pressure recording charts;
    b) Test instrumentation calibration data;
    c) The name of the operator, the name of the person responsible for making the test, and the name of the test company used, if any;
    d) The date and time of the test;
    e) The minimum test pressure;
    f) The test medium;
    g) A description of the facility tested and the test apparatus;
    h) An explanation of any pressure discontinuities, including test failures, that appear on

the pressure recording charts; and,

i) Where elevation differences in the section under test exceed 100 feet (30 meters), a profile of the pipeline that shows the elevation and test sites over the entire length of the test section.

j) Temperature of the test medium or pipe during the test period.

Applicable Policy, Law, Regulation

Tidewater Barge Lines Operational Procedures and Policies Manual
Tidewater Barge Lines Safety Manual
ASME B31.3, Chemical Plant and Petroleum Refinery Piping
49 CFR, Part 192, Sub-part C
API 570, Piping Inspection Code

Responsibility

Training
Terminals Manager, Terminal Maintenance Supervisor

Supervision
Terminals Manager, Terminal Maintenance Supervisor

Compliance

Terminal Operators
Third-party pipeline testing contractor

Attachment D

TIDEWATER

Normal Pipeline Operation

PO – SRT – 014

Outbound Pipeline Startup

COVERED TASKS:

PREPARE TO RECEIVE PRODUCT
RECEIVE PRODUCT
STARTUP PIPELINE
START PUMPS LOCALLY

Outbound Pipeline Startup

Table of Contents

Purpose

Deliver petroleum products through the pipeline at the Snake River Terminal.

Safety and Precautions

1. Failure to provide proper relief path could result in pipeline rupture.
2. Failure to provide proper bypass will result in pressure surges.

References

1. Pipeline Information Board
2. Operator's Log
3. Previous Batch Receiving/Delivery Report

Special Equipment

1. None

Prerequisites

1. None

Procedure

1. Pre-Startup Requirements

1.1. **VERIFY** prior Pipeline Batch Reconciliation is within +/- ½ of one percent.(.005) or Stand up test has been performed.

1.2. **IF** batch not reconciled, or Successful Standup test performed,
STOP!
NOTIFY Terminal Manager, Designee.

1.3. **IF** Abnormal/Alarm condition exists,
NOTIFY Terminal Manager, Designee.

1.4. **INVESTIGATE**, **RESOLVE**, **RECORD** any Abnormal/Alarm conditions before pipeline startup.

1.5. **DETERMINE** following using "Tank Assignments & Pipeline Transfers" Form:

- Product
- Batch Number
- Amount
- Tank Number
- Next product to follow
- Customer
- E.T.A.

1.6. **VERIFY** outbound line lay using "Pipeline Info" board.

1.7. **CONTACT** NWTC to confirm schedule.

ⓘ **NOTE**: Notification from NWTC must occur at least 1 hour before transfer.

1.8. **CHECK** Monitoring System for abnormal temperature/pressure trend.

⚠ WARNING!
DO NOT operate pipeline if pressure has exceeded MAOP (285 psig), or previous batch reconciliation exceeds +/- ½ (.005) of one percent.

2. Gauge Tanks

2.1. **CHECK** tank deliveries completed; driver carded out; BOL(s) printed, gauging time coincides with Diamond System clock.

2.2. **GAUGE** tank(s):

2.2.1. **PLACE** water cut on plumb bob.

2.2.2. **PLACE** color cut on tape at approximate level expected.

2.2.3. **LOWER** thermometer to approximate product midpoint.

ⓘ **NOTE:**
Gauging will continue until two consistent readings are obtained.

⊘ **CAUTION:**
Failure to use index mark can result in inaccurate gauge reading.

2.2.4. Using index mark, **GAUGE** tank.

2.2.5. **PULL** thermometer.

2.2.6. **LOWER** sample thief to get composite sample.

2.2.7. **PLACE** sample in clean container.

2.2.8. **CHECK** sight gauge.

2.2.9. **IF** hand line differs from sight gauge by more than ¼",
ADJUST sight gauge.

2.2.10. **High Level Alarm (s)** will be tested on all tanks involved with pipeline transfer and logged on the Pipeline Transfer Checklist - (form) .

ⓘ **NOTE:** Multiple transfers may be occurring.

2.3. **WALK DOWN** tank farm,
ENSURE all valves NOT involved in transfer **CLOSED**.

2.4. **IF** using tank 84 **OR** 85,
CHAIN OPEN check valve.

2.5. LOCK **OPEN** tank suction valve.

2.6. **ALIGN,** LOCK valves to center suction line **OPEN**.

⚠ WARNING!

Failure to provide proper relief path could result in pipeline rupture!

2.7. **VERIFY** full-flow relief valve on product NOT being transferred **CLOSED**.

2.8. **VERIFY** full-flow relief valve on product being transferred LOCKED **OPEN**.

2.9. **OPEN** main line block valve

3. Sample Analysis

Jet A/Stove Oil	Gasoline	High Sulfur	Low Sulfur
Flash		Flash	Flash
	RVP (Seasonal)	Dye (PPM)	
Gravity	Gravity	Gravity	Gravity
Color	Color	Color	Color
Clarity	Clarity	Clarity	Clarity
		Cloud Pt. (Seasonal)	Cloud Pt. (Seasonal)

3.1. **TURN ON** sample hood ventilation.

3.2. **PERFORM** required analysis.

3.3. **RECORD** values in:

- Sample Log.
- Product Analysis Report.
- Sample Label.

3.4. **PLACE** sample in cabinet.

4. Outbound Pipeline Startup

4.1. **VERIFY** Pump Suction Valve for product **NOT** being pumped **CLOSED**.

4.2. **OPEN** Pump Manifold Suction Valve.

4.3. **VERIFY** Pump Suction Valve for product being pumped **OPEN**.

4.4. **VERIFY** Product Indication Sign correct.

> **WARNING! - Failure to provide proper bypass will result in pressure surges!**

4.5. **WHEN** scheduled transfer is within two minutes **OR** when notified by NWTC operator that they are ready to receive product:

4.5.1. **OPEN** BOTH Pump Circulation Valves.

4.5.2. **IF CLOSED, OPEN** Pump Discharge Valve.

> **NOTE:** Pressure must be above 50 psig within 30 seconds to prevent a low-pressure shutdown.

4.5.3. **START** pump,
USE Circulation Valve to maintain approximately 150 psig.

4.6. **IF** pump shutdown occurs,

4.6.1. **SILENCE** alarm.

4.7. **IF** High-Pressure Shutdown occurs,
REFER to APO-SRT-104 – Abnormal Pressure/Flow Response.

> **NOTE**: If no explanation for Low-Pressure Shutdown, other than Low-Pressure Timeout, Notify Terminal Manager, Designee.

4.8. **IF** Low-Pressure Shutdown occurs:

4.8.1. **RESET** Low Pressure Outbound Alarm.

4.8.2. **ENSURE** proper valve alignment.

4.8.3. **RESTART** pump.

4.9. **WHEN** discharge pressure begins to drop,
CLOSE circulation valve.

4.10. **WALK DOWN** tank farm to ensure conditions normal.

4.11. **READ** sight gauge to verify product movement.

4.12. **UPDATE** "Pipeline Info" board.

4.13. **RECORD** information on "Receiving and Delivery Report"- SRT-001.

4.14. Hourly **CHECK** Sight Gauge, Chart Recorder to ensure conditions normal.

END

TIDEWATER TERMINAL CO., INC.

Snake River Terminal

Pipeline Transfer Checklist

Date: _____

Outbound: _____ or Inbound: _____

Customer: _____ Product: _____ Batch#: _____

Number of Barrels: _____ Pipeline Information Board Checked? _____

Line Lay: Before Transfer: _____ After Transfer: _____

High Level Alarms Tested on Affected Tanks? _____

Opening Gauges:

Tank#: _____ Gauge: _____ Gravity: _____ Flash: _____

Tank#: _____ Gauge: _____ Gravity: _____ Flash: _____

Tank#: _____ Gauge: _____ Gravity: _____ Flash: _____

Start or Switch Time: _____ NWT Operator: _____

Shutdown Time: _____ Product to Follow: _____

Closing Gauges:

Tank#: _____ Gauge: _____ Gravity: _____ Flash: _____

Tank#: _____ Gauge: _____ Gravity: _____ Flash: _____

Tank#: _____ Gauge: _____ Gravity: _____ Flash: _____

Has the Pipeline Information Board Been Updated? _____

Terminal Operators: _____ _____

Comments:

_____

_____

_____

TANK LEVEL SWITCHES AND ALARMS TESTING

ITEM	TANK NAME	PRODUCT	HIGH ALARM	HIGH ALARM	DATE
1	1	1D15	PASS	PASS	7/26/2011
2	2	2D15	PASS	PASS	7/26/2011
3	4	2D15	PASS	PASS	7/26/2011
4	14	2D15	PASS	PASS	7/26/2011
5	22	UNLEAD	PASS	CHANGE ALARM TAG COMPLETED AND PASSED	7/26/2011
6	23	UNLEAD	PASS	PASS	7/26/2011
7	24	ETHANOL	PASS	PASS	7/26/2011
8	25	2D15	PASS	PASS	7/26/2011
9	26	2D15	PASS	PASS	7/26/2011
10	27	1D15	PASS	PASS	7/26/2011
11	28	UNLEAD	PASS	PASS	7/26/2011
12	29	UNLEAD	PASS	PASS	7/26/2011
13	30	UNLEAD	PASS	PASS	7/26/2011
14	31	2D15	PASS	PASS	7/26/2011
15	32	HSD	PASS LUBRICATE AND EXERCISED	PASS	7/26/2011
16	33	HSD	PASSED	PASS LUBRICATE AND EXERCISED	7/26/2011
17	34	HSD	PASS	PASSED	7/26/2011
18	35	HSD	PASS	PASS	7/26/2011
19	84	UNLEAD	PASS	PASS	7/26/2011
20	85	PREMIUM	PASS	PASS	7/26/2011

Took all alarm caps off and lube with Blaster graphite dry lube and also lube all cables and test arm's on all tank's done by Tim Berry 7/26/11

ANNUAL HIGH LEVEL ALARM MAINT.
ALL TANK'S LUBed with Blaster Graphite
DRY Lube AND CABLE'S AND PULLY'S

Alarm Log: 20110726AL.DAT			
	Date	Time	Description
1	7/26/2011	00:56:57	TANK 32 HIGH ALARM
2	7/26/2011	00:56:59	TANK 32 OUT OF HIGH ALARM
3	7/26/2011	01:00:50	TANK 35 HIGH ALARM
4	7/26/2011	01:00:50	TANK 35 HIGH HIGH ALARM
5	7/26/2011	01:00:51	TANK 35 OUT HIGH HIGH ALARM
6	7/26/2011	01:00:52	TANK 35 OUT OF HIGH ALARM
7	7/26/2011	01:01:46	TANK_34\T_34_HIGH
8	7/26/2011	01:01:48	TANK_34\T_34_HIGH
9	7/26/2011	01:06:24	BARGE PIT ALARM
10	7/26/2011	01:06:28	BARGE PIT ALARM OFF
11	7/26/2011	02:18:29	TANK 35 HIGH ALARM ACKED
12	7/26/2011	02:18:29	TANK 35 HIGH HIGH ALARM ACKED
13	7/26/2011	02:18:29	TANK_34\T_34_HIGH
14	7/26/2011	02:18:29	TANK 32 HIGH ALARM ACKED
15	7/26/2011	02:18:29	BARGE PIT ALARM OFF
16	7/26/2011	07:55:03	TANK 24 HIGH ALARM
17	7/26/2011	07:55:03	TANK 24 HIGH HIGH ALARM
18	7/26/2011	07:55:04	TANK 24 OUT OF HIGH ALARM
19	7/26/2011	07:55:04	TANK 24 OUT OF HIGH HIGH ALARM
20	7/26/2011	08:06:42	TANK 24 HIGH ALARM
21	7/26/2011	08:06:42	TANK 24 HIGH HIGH ALARM
22	7/26/2011	08:06:43	TANK 24 OUT OF HIGH ALARM
23	7/26/2011	08:06:43	TANK 24 OUT OF HIGH HIGH ALARM
24	7/26/2011	08:07:30	TANK 4 HIGH HIGH ALARM
25	7/26/2011	08:07:40	TANK 4 OUT OF HIGH HIGH ALARM
26	7/26/2011	08:10:14	TANK 4 HIGH ALARM
27	7/26/2011	08:10:23	TANK 4 OUT OF HIGH ALARM
28	7/26/2011	08:12:03	TANK 24 HIGH ALARM ACKED
29	7/26/2011	08:12:03	TANK 24 OUT OF HIGH HIGH ALARM
30	7/26/2011	08:12:03	TANK 4 HIGH ALARM ACKED
31	7/26/2011	08:12:03	TANK 4 HIGH HIGH ALARM ACKED
32	7/26/2011	08:15:07	TANK 14 HIGH ALARM
33	7/26/2011	08:15:10	TANK 14 OUT OF HIGH ALARM
34	7/26/2011	08:15:27	TANK 14 HIGH ALARM
35	7/26/2011	08:15:27	TANK 14 HIGH HIGH ALARM
36	7/26/2011	08:15:34	TANK 14 OUT OF HIGH ALARM
37	7/26/2011	08:15:34	TANK 14 OUT OF HIGH HIGH ALARM
38	7/26/2011	08:15:41	TANK 14 HIGH ALARM ACKED
39	7/26/2011	08:15:41	TANK 14 HIGH HIGH ALARM ACKED
40	7/26/2011	08:23:59	TANK 84 HIGH ALARM
41	7/26/2011	08:24:09	TANK 84 HIGH HIGH ALARM

7/26/11 Tom H Bent

Alarm		
	Tag Name	Tag Value
1	TANK_32\T_32_HIGH	1
2	TANK_32\T_32_HIGH	0
3	TANK_35\T_35_HIGH	1
4	TANK_35\T_35_HIGH_HIG	1
5	TANK_35\T_35_HIGH_HIG	0
6	TANK_35\T_35_HIGH	0
7	TANK_34\T_34_HIGH	1
8	TANK_34\T_34_HIGH	0
9	ALARMS\A_101_3_2_BAR	1
10	ALARMS\A_101_3_2_BAR	0
11	TANK_35\T_35_HIGH	0
12	TANK_35\T_35_HIGH_HIG	0
13	TANK_34\T_34_HIGH	0
14	TANK_32\T_32_HIGH	0
15	ALARMS\A_101_3_2_BAR	0
16	TANK_24\T_24_HIGH	1
17	TANK_24\T_24_HIGH_HIG	1
18	TANK_24\T_24_HIGH	0
19	TANK_24\T_24_HIGH_HIG	0
20	TANK_24\T_24_HIGH	1
21	TANK_24\T_24_HIGH_HIG	1
22	TANK_24\T_24_HIGH	0
23	TANK_24\T_24_HIGH_HIG	0
24	TANK_4\T_4_HIGH_HIGH	1
25	TANK_4\T_4_HIGH_HIGH	0
26	TANK_4\T_4_HIGH	1
27	TANK_4\T_4_HIGH	0
28	TANK_24\T_24_HIGH	0
29	TANK_24\T_24_HIGH_HIG	0
30	TANK_4\T_4_HIGH	0
31	TANK_4\T_4_HIGH_HIGH	0
32	TANK_14\T_14_HIGH	1
33	TANK_14\T_14_HIGH	0
34	TANK_14\T_14_HIGH	1
35	TANK_14\T_14_HIGH_HIG	1
36	TANK_14\T_14_HIGH	0
37	TANK_14\T_14_HIGH_HIG	0
38	TANK_14\T_14_HIGH	0
39	TANK_14\T_14_HIGH_HIG	0
40	TANK_84\T_84_HIGH	1
41	TANK_84\T_84_HIGH_HIG	1

Alarm Log: 20110726AL.DAT			
	Date	Time	Description
42	7/26/2011	08:24:11	TANK 84 OUT OF HIGH HIGH ALARM
43	7/26/2011	08:24:13	TANK 84 OUT OF HIGH ALARM
44	7/26/2011	08:24:39	TANK 84 HIGH ALARM ACKED
45	7/26/2011	08:24:39	TANK 84 HIGH HIGH ALARM ACKED
46	7/26/2011	08:24:53	TANK 84 HIGH ALARM
47	7/26/2011	08:24:55	TANK 84 OUT OF HIGH ALARM
48	7/26/2011	08:27:19	TANK 85 HIGH ALARM
49	7/26/2011	08:27:26	TANK 85 HIGH HIGH
50	7/26/2011	08:27:29	TANK 85 OUT OF HIGH ALARM
51	7/26/2011	08:27:29	7/26/2011 8:27:29 OutAl Tag TANK_8
52	7/26/2011	08:27:50	TANK 85 HIGH ALARM ACKED
53	7/26/2011	08:27:50	7/26/2011 8:27:50 Acked Tag TANK_8
54	7/26/2011	08:27:50	TANK 84 HIGH ALARM ACKED
55	7/26/2011	08:34:12	TANK 2 IN HIGH LEVEL
56	7/26/2011	08:34:26	TANK 2 OUT HIGH LEVEL
57	7/26/2011	08:35:25	TANK 2 ACK HIGH LEVEL
58	7/26/2011	08:39:59	TANK 1 IN HIGH LEVEL ALARM
59	7/26/2011	08:40:12	TANK 1 HH LEVEL ALARM
60	7/26/2011	08:40:18	TANK 1 OUT OF HIGH ALARM
61	7/26/2011	08:40:18	T1 HIGH HIGH OUT OF ALARM
62	7/26/2011	08:40:45	TANK 1 IN HIGH LEVEL ALARM
63	7/26/2011	08:40:45	TANK 1 HH LEVEL ALARM
64	7/26/2011	08:40:47	TANK 1 OUT OF HIGH ALARM
65	7/26/2011	08:40:47	T1 HIGH HIGH OUT OF ALARM
66	7/26/2011	08:43:28	TANK 1 IN HIGH LEVEL ACKED
67	7/26/2011	08:43:28	TANK 1 HH LEVEL ALARM ACKED
68	7/26/2011	08:44:40	TANK_34\T_34_HIGH
69	7/26/2011	08:44:49	TANK_34\T_34_HIGH
70	7/26/2011	08:44:54	TANK_34\T_34_HIGH
71	7/26/2011	08:44:56	TANK_34\T_34_HIGH
72	7/26/2011	08:45:26	TANK_34\T_34_HIGH
73	7/26/2011	08:45:27	TANK_34\T_34_HIGH_HIGH
74	7/26/2011	08:45:31	TANK_34\T_34_HIGH_HIGH
75	7/26/2011	08:45:32	TANK_34\T_34_HIGH
76	7/26/2011	08:45:42	TANK_34\T_34_HIGH
77	7/26/2011	08:45:44	TANK_34\T_34_HIGH_HIGH
78	7/26/2011	08:45:47	TANK_34\T_34_HIGH_HIGH
79	7/26/2011	08:45:47	TANK_34\T_34_HIGH
80	7/26/2011	08:47:57	TANK_34\T_34_HIGH
81	7/26/2011	08:47:57	TANK_34\T_34_HIGH_HIGH
82	7/26/2011	08:49:09	TANK 35 HIGH ALARM

Alarm		
	Tag Name	Tag Value
42	TANK_84\T_84_HIGH_HIG	0
43	TANK_84\T_84_HIGH	0
44	TANK_84\T_84_HIGH	0
45	TANK_84\T_84_HIGH_HIG	0
46	TANK_84\T_84_HIGH	1
47	TANK_84\T_84_HIGH	0
48	TANK_85\T_85_HIGH	1
49	TANK_85\T_85_HIGH_HIG	1
50	TANK_85\T_85_HIGH	0
51	TANK_85\T_85_HIGH_HIG	0
52	TANK_85\T_85_HIGH	0
53	TANK_85\T_85_HIGH_HIG	0
54	TANK_84\T_84_HIGH	0
55	TANK_2\T_2_HIGH	1
56	TANK_2\T_2_HIGH	0
57	TANK_2\T_2_HIGH	0
58	TANK_1\HIGH_ALARM	1
59	TANK_1\T_1_HIGH_HIGH	1
60	TANK_1\HIGH_ALARM	0
61	TANK_1\T_1_HIGH_HIGH	0
62	TANK_1\HIGH_ALARM	1
63	TANK_1\T_1_HIGH_HIGH	1
64	TANK_1\HIGH_ALARM	0
65	TANK_1\T_1_HIGH_HIGH	0
66	TANK_1\HIGH_ALARM	0
67	TANK_1\T_1_HIGH_HIGH	0
68	TANK_34\T_34_HIGH	1
69	TANK_34\T_34_HIGH	0
70	TANK_34\T_34_HIGH	1
71	TANK_34\T_34_HIGH	0
72	TANK_34\T_34_HIGH	1
73	TANK_34\T_34_HIGH_HIG	1
74	TANK_34\T_34_HIGH_HIG	0
75	TANK_34\T_34_HIGH	0
76	TANK_34\T_34_HIGH	1
77	TANK_34\T_34_HIGH_HIG	1
78	TANK_34\T_34_HIGH_HIG	0
79	TANK_34\T_34_HIGH	0
80	TANK_34\T_34_HIGH	0
81	TANK_34\T_34_HIGH_HIG	0
82	TANK_35\T_35_HIGH	1

Alarm Log: 20110726AL.DAT			
	Date	Time	Description
83	7/26/2011	08:49:20	TANK 35 HIGH HIGH ALARM
84	7/26/2011	08:49:27	TANK 35 OUT HIGH HIGH ALARM
85	7/26/2011	08:49:29	TANK 35 OUT OF HIGH ALARM
86	7/26/2011	08:49:33	TANK 35 HIGH ALARM ACKED
87	7/26/2011	08:49:33	TANK 35 HIGH HIGH ALARM ACKED
88	7/26/2011	08:53:07	TANK 28 HIGH ALARM
89	7/26/2011	08:53:18	TANK 28 HIGH HIGH ALARM
90	7/26/2011	08:53:25	TANK 28 OUT OF HIGH ALARM
91	7/26/2011	08:53:25	TANK 28 OUT OF HIGH HIGH ALARM
92	7/26/2011	08:53:36	TANK 28 HIGH ALARM ACKED
93	7/26/2011	08:53:36	TANK 28 HIGH HIGH ALARM ACKED
94	7/26/2011	08:56:03	TANK 29 HIGH ALARM
95	7/26/2011	08:56:11	TANK 29 HIGH HIGH ALARM
96	7/26/2011	08:56:17	TANK 29 OUT OF HIGH ALARM
97	7/26/2011	08:56:17	TANK 29 OUT OF HIGH HIGH ALARM
98	7/26/2011	08:56:22	TANK 29 HIGH ALARM ACKED
99	7/26/2011	08:56:22	TANK 29 HIGH HIGH ALARM ACKED
100	7/26/2011	08:59:11	TANK 30 HIGH ALARM
101	7/26/2011	08:59:22	TANK 30 HIGH HIGH ALARM
102	7/26/2011	08:59:28	TANK 30 OUT OF HIGH ALARM
103	7/26/2011	08:59:28	TANK 30 OUT OF HIGH HIGH ALARM
104	7/26/2011	08:59:56	TANK 30 HIGH ALARM ACKED
105	7/26/2011	08:59:56	TANK 30 HIGH HIGH ALARM ACKED
106	7/26/2011	09:01:30	TANK 31 HIGH ALARM
107	7/26/2011	09:01:36	TANK 31 HIGH HIGH ALARM
108	7/26/2011	09:01:42	TANK 31 OUT OF HIGH ALARM
109	7/26/2011	09:01:42	TANK 31 OUT OF HIGH HIGH ALARM
110	7/26/2011	09:02:07	TANK 31 HIGH ALARM ACKED
111	7/26/2011	09:02:07	TANK 31 HIGH HIGH ALARM ACKED
112	7/26/2011	09:03:52	TANK 32 HIGH ALARM
113	7/26/2011	09:04:04	TANK 32 OUT OF HIGH ALARM
114	7/26/2011	09:04:09	TANK 32 HIGH ALARM
115	7/26/2011	09:04:09	TANK 32 HIGH HIGH ALARM
116	7/26/2011	09:04:17	TANK 32 OUT OF HIGH ALARM
117	7/26/2011	09:04:17	TANK 32 OUT OF HIGH HIGH ALARM
118	7/26/2011	09:04:22	TANK 32 HIGH ALARM ACKED
119	7/26/2011	09:04:22	TANK 32 HIGH HIGH ALARM ACKED
120	7/26/2011	09:06:33	TANK 33 HIGH HIGH ALARM
121	7/26/2011	09:06:37	TANK 33 OUT OF HIGH HIGH ALARM
122	7/26/2011	09:07:01	TANK 33 HIGH ALARM
123	7/26/2011	09:07:05	TANK 33 OUT OF HIGH ALARM

Alarm		
	Tag Name	Tag Value
83	TANK_35\T_35_HIGH_HIG	1
84	TANK_35\T_35_HIGH_HIG	0
85	TANK_35\T_35_HIGH	0
86	TANK_35\T_35_HIGH	0
87	TANK_35\T_35_HIGH_HIG	0
88	TANK_28\T_28_HIGH	1
89	TANK_28\T_28_HIGH_HIG	1
90	TANK_28\T_28_HIGH	0
91	TANK_28\T_28_HIGH_HIG	0
92	TANK_28\T_28_HIGH	0
93	TANK_28\T_28_HIGH_HIG	0
94	TANK_29\T_29_HIGH	1
95	TANK_29\T_29_HIGH_HIG	1
96	TANK_29\T_29_HIGH	0
97	TANK_29\T_29_HIGH_HIG	0
98	TANK_29\T_29_HIGH	0
99	TANK_29\T_29_HIGH_HIG	0
100	TANK_30\T_30_HIGH	1
101	TANK_30\T_30_HIGH_HIG	1
102	TANK_30\T_30_HIGH	0
103	TANK_30\T_30_HIGH_HIG	0
104	TANK_30\T_30_HIGH	0
105	TANK_30\T_30_HIGH_HIG	0
106	TANK_31\T_31_HIGH	1
107	TANK_31\T_31_HIGH_HIG	1
108	TANK_31\T_31_HIGH	0
109	TANK_31\T_31_HIGH_HIG	0
110	TANK_31\T_31_HIGH	0
111	TANK_31\T_31_HIGH_HIG	0
112	TANK_32\T_32_HIGH	1
113	TANK_32\T_32_HIGH	0
114	TANK_32\T_32_HIGH	1
115	TANK_32\T_32_HIGH_HIG	1
116	TANK_32\T_32_HIGH	0
117	TANK_32\T_32_HIGH_HIG	0
118	TANK_32\T_32_HIGH	0
119	TANK_32\T_32_HIGH_HIG	0
120	TANK_33\T_33_HIGH_HIG	1
121	TANK_33\T_33_HIGH_HIG	0
122	TANK_33\T_33_HIGH	1
123	TANK_33\T_33_HIGH	0

Alarm Log: 20110726AL.DAT			
	Date	Time	Description
124	7/26/2011	09:07:07	TANK 33 HIGH ALARM ACKED
125	7/26/2011	09:07:07	TANK 33 HIGH HIGH ALARM ACKED
126	7/26/2011	09:07:19	TANK 33 HIGH ALARM
127	7/26/2011	09:07:30	TANK 33 HIGH HIGH ALARM
128	7/26/2011	09:07:37	TANK 33 OUT OF HIGH ALARM
129	7/26/2011	09:07:37	TANK 33 OUT OF HIGH HIGH ALARM
130	7/26/2011	09:10:29	TANK 33 HIGH ALARM ACKED
131	7/26/2011	09:10:29	TANK 33 HIGH HIGH ALARM ACKED
132	7/26/2011	09:10:52	TANK 27 HIGH ALARM
133	7/26/2011	09:11:06	TANK 27 HIGH HIGH ALARM
134	7/26/2011	09:11:12	TANK 27 OUT OF HIGH ALARM
135	7/26/2011	09:11:12	TANK 27 OUT OF HIGH HIGH ALARM
136	7/26/2011	09:11:22	TANK 27 HIGH ALARM ACKED
137	7/26/2011	09:11:22	TANK 27 HIGH HIGH ALARM ACKED
138	7/26/2011	09:13:11	TANK 26 HIGH ALARM
139	7/26/2011	09:13:26	TANK 26 HIGH HIGH ALARM
140	7/26/2011	09:13:34	TANK 26 OUT OF HIGH ALARM
141	7/26/2011	09:13:34	TANK 26 OUT OF HIGH HIGH ALARM
142	7/26/2011	09:13:42	TANK 26 HIGH ALARM ACKED
143	7/26/2011	09:13:42	TANK 26 ACKED HIGH HIGH ALARM
144	7/26/2011	09:15:25	TANK 25 HIGH ALARM
145	7/26/2011	09:15:41	TANK 25 HIGH HIGH ALARM
146	7/26/2011	09:15:50	TANK 25 NORMAL LEVEL
147	7/26/2011	09:15:52	TANK 25 OUT OF HIGH ALARM
148	7/26/2011	09:16:22	TANK 25 HIGH ALARM ACKED
149	7/26/2011	09:16:22	TANK 25 HIGH HIGH ALARM ACKED
150	7/26/2011	09:17:46	TANK 24 HIGH ALARM
151	7/26/2011	09:17:57	TANK 24 HIGH HIGH ALARM
152	7/26/2011	09:18:07	TANK 24 OUT OF HIGH ALARM
153	7/26/2011	09:18:07	TANK 24 OUT OF HIGH HIGH ALARM
154	7/26/2011	09:18:45	TANK 24 HIGH ALARM ACKED
155	7/26/2011	09:18:45	TANK 24 OUT OF HIGH HIGH ALARM
156	7/26/2011	09:20:59	TANK 23 HIGH ALARM
157	7/26/2011	09:21:10	TANK 22 IN HIGH ALARM
158	7/26/2011	09:21:10	TANK 23 HIGH HIGH ALARM
159	7/26/2011	09:21:17	TANK 23 OUT HIGH ALARM
160	7/26/2011	09:21:17	TANK 22 OUT HIGH ALARM
161	7/26/2011	09:21:17	TANK 23 OUT H H ALARM
162	7/26/2011	09:22:09	TANK 23 HIGH ALARM ACKED
163	7/26/2011	09:22:09	TANK 22 ACKED HIGH ALARM
164	7/26/2011	09:22:09	TANK 23 HIGH HIGH ALARM ACKED

Alarm		
	Tag Name	Tag Value
124	TANK_33\T_33_HIGH	0
125	TANK_33\T_33_HIGH_HIG	0
126	TANK_33\T_33_HIGH	1
127	TANK_33\T_33_HIGH_HIG	1
128	TANK_33\T_33_HIGH	0
129	TANK_33\T_33_HIGH_HIG	0
130	TANK_33\T_33_HIGH	0
131	TANK_33\T_33_HIGH_HIG	0
132	TANK_27\T_27_HIGH	1
133	TANK_27\T_27_HIGH_HIG	1
134	TANK_27\T_27_HIGH	0
135	TANK_27\T_27_HIGH_HIG	0
136	TANK_27\T_27_HIGH	0
137	TANK_27\T_27_HIGH_HIG	0
138	TANK_26\T_26_HIGH	1
139	TANK_26\T_26_HIGH_HIG	1
140	TANK_26\T_26_HIGH	0
141	TANK_26\T_26_HIGH_HIG	0
142	TANK_26\T_26_HIGH	0
143	TANK_26\T_26_HIGH_HIG	0
144	TANK_25\T_25_HIGH	1
145	TANK_25\T_25_HIGH_HIG	1
146	TANK_25\T_25_HIGH_HIG	0
147	TANK_25\T_25_HIGH	0
148	TANK_25\T_25_HIGH	0
149	TANK_25\T_25_HIGH_HIG	0
150	TANK_24\T_24_HIGH	1
151	TANK_24\T_24_HIGH_HIG	1
152	TANK_24\T_24_HIGH	0
153	TANK_24\T_24_HIGH_HIG	0
154	TANK_24\T_24_HIGH	0
155	TANK_24\T_24_HIGH_HIG	0
156	TANK_23\T_23_HIGH	1
157	TANK_22\T_22_HIGH_HIG	1
158	TANK_23\T_23_HIGH_HIG	1
159	TANK_23\T_23_HIGH	0
160	TANK_22\T_22_HIGH_HIG	0
161	TANK_23\T_23_HIGH_HIG	0
162	TANK_23\T_23_HIGH	0
163	TANK_22\T_22_HIGH_HIG	0
164	TANK_23\T_23_HIGH_HIG	0

Alarm Log: 20110726AL.DAT			
	Date	Time	Description
165	7/26/2011	09:23:32	TANK 22 IN HIGH ALARM
166	7/26/2011	09:24:27	TANK 22 OUT HIGH ALARM
167	7/26/2011	09:24:40	TANK 22 IN HIGH ALARM
168	7/26/2011	09:24:55	TANK 22 OUT HIGH ALARM
169	7/26/2011	09:28:44	TANK 22 IN HIGH ALARM
170	7/26/2011	09:31:51	TANK 22 OUT HIGH ALARM
171	7/26/2011	09:32:06	TANK 22 IN HIGH ALARM
172	7/26/2011	09:32:19	TANK 22 ACKED HIGH ALARM
173	7/26/2011	09:32:23	TANK 22 OUT HIGH ALARM
174	7/26/2011	09:32:56	TANK 22 IN HIGH ALARM
175	7/26/2011	09:33:47	TANK 22 OUT HIGH ALARM
176	7/26/2011	09:33:57	TANK 22 ACKED HIGH ALARM
177	7/26/2011	09:43:12	TANK 22 IN HIGH ALARM
178	7/26/2011	09:43:25	TANK 22 IN HIGH ALARM
179	7/26/2011	09:43:36	TANK 22 OUT HIGH ALARM
180	7/26/2011	09:43:36	TANK 22 OUT HIGH ALARM
181	7/26/2011	09:44:00	TANK 22 ACKED HIGH ALARM
182	7/26/2011	09:44:00	TANK 22 ACKED HIGH ALARM

Alarm		
	Tag Name	Tag Value
165	TANK_22\T_22_HIGH	1
166	TANK_22\T_22_HIGH	0
167	TANK_22\T_22_HIGH	1
168	TANK_22\T_22_HIGH	0
169	TANK_22\T_22_HIGH	1
170	TANK_22\T_22_HIGH	0
171	TANK_22\T_22_HIGH	1
172	TANK_22\T_22_HIGH	0
173	TANK_22\T_22_HIGH	0
174	TANK_22\T_22_HIGH	1
175	TANK_22\T_22_HIGH	0
176	TANK_22\T_22_HIGH	0
177	TANK_22\T_22_HIGH	1
178	TANK_22\T_22_HIGH_HIG	1
179	TANK_22\T_22_HIGH_HIG	0
180	TANK_22\T_22_HIGH	0
181	TANK_22\T_22_HIGH_HIG	0
182	TANK_22\T_22_HIGH	0

Alarm Log: 20110714AL.DAT					
	Date	Time	Description	Tag Name	Tag Value
1	7/14/2011	01:01:14	TANK 85 HIGH ALARM ACKED	TANK_85\T_85_HIGH	0
2	7/14/2011	01:01:14	7/14/2011 1:01:14 Acked Tag TANK_8	TANK_85\T_85_HIGH_HIG	0
3	7/14/2011	01:01:14	TANK 84 HIGH ALARM ACKED	TANK_84\T_84_HIGH	0
4	7/14/2011	01:01:14	TANK 84 HIGH HIGH ALARM ACKED	TANK_84\T_84_HIGH_HIG	0
5	7/14/2011	01:01:14	TANK 35 HIGH ALARM ACKED	TANK_35\T_35_HIGH	0
6	7/14/2011	01:01:14	TANK_34\T_34_HIGH	TANK_34\T_34_HIGH	0
7	7/14/2011	01:01:14	TANK 33 HIGH HIGH ALARM ACKED	TANK_33\T_33_HIGH_HIG	0
8	7/14/2011	01:01:14	TANK 32 HIGH ALARM ACKED	TANK_32\T_32_HIGH	0
9	7/14/2011	01:01:14	TANK 31 HIGH ALARM ACKED	TANK_31\T_31_HIGH	0
10	7/14/2011	01:01:14	TANK 30 HIGH ALARM ACKED	TANK_30\T_30_HIGH	0
11	7/14/2011	01:01:14	TANK 30 HIGH HIGH ALARM ACKED	TANK_30\T_30_HIGH_HIG	0
12	7/14/2011	01:01:14	TANK 2 ACK HIGH LEVEL	TANK_2\T_2_HIGH	0
13	7/14/2011	01:01:14	TANK 29 HIGH ALARM ACKED	TANK_29\T_29_HIGH	0
14	7/14/2011	01:01:14	TANK 29 HIGH HIGH ALARM ACKED	TANK_29\T_29_HIGH_HIG	0
15	7/14/2011	01:01:14	TANK 28 HIGH ALARM ACKED	TANK_28\T_28_HIGH	0
16	7/14/2011	01:01:14	TANK 27 HIGH ALARM ACKED	TANK_27\T_27_HIGH	0
17	7/14/2011	01:01:14	TANK 27 HIGH HIGH ALARM ACKED	TANK_27\T_27_HIGH_HIG	0
18	7/14/2011	01:01:14	TANK 26 HIGH ALARM ACKED	TANK_26\T_26_HIGH	0
19	7/14/2011	01:01:14	TANK 25 HIGH ALARM ACKED	TANK_25\T_25_HIGH	0
20	7/14/2011	01:01:14	TANK 25 HIGH HIGH ALARM ACKED	TANK_25\T_25_HIGH_HIG	0
21	7/14/2011	01:01:14	TANK 24 HIGH ALARM ACKED	TANK_24\T_24_HIGH	0
22	7/14/2011	01:01:14	TANK 24 OUT OF HIGH HIGH ALARM	TANK_24\T_24_HIGH_HIG	0
23	7/14/2011	01:01:14	TANK 23 HIGH ALARM ACKED	TANK_23\T_23_HIGH	0
24	7/14/2011	01:01:14	TANK 22 ACKED HIGH ALARM	TANK_22\T_22_HIGH	0
25	7/14/2011	01:01:14	TANK 1 IN HIGH LEVEL ACKED	TANK_1\HIGH_ALARM	0
26	7/14/2011	01:01:14	TANK 4 HIGH HIGH ALARM ACKED	TANK_4\T_4_HIGH_HIGH	0
27	7/14/2011	09:37:17	TANK 1 IN HIGH LEVEL ALARM	TANK_1\HIGH_ALARM	1

Alarm Log: 20110714AL.DAT					
	Date	Time	Description	Tag Name	Tag Value
28	7/14/2011	09:37:18	TANK 1 HH LEVEL ALARM	TANK_1\T_1_HIGH_HIGH	1
29	7/14/2011	09:37:19	TANK 1 OUT OF HIGH ALARM	TANK_1\HIGH_ALARM	0
30	7/14/2011	09:37:19	T1 HIGH HIGH OUT OF ALARM	TANK_1\T_1_HIGH_HIGH	0
31	7/14/2011	09:54:51	TANK 30 HIGH ALARM	TANK_30\T_30_HIGH	1
32	7/14/2011	09:54:51	TANK 30 HIGH HIGH ALARM	TANK_30\T_30_HIGH_HIG	1
33	7/14/2011	09:54:53	TANK 30 OUT OF HIGH ALARM	TANK_30\T_30_HIGH	0
34	7/14/2011	09:54:53	TANK 30 OUT OF HIGH HIGH ALARM	TANK_30\T_30_HIGH_HIG	0
35	7/14/2011	10:25:26	TANK 84 HIGH ALARM	TANK_84\T_84_HIGH	1
36	7/14/2011	10:25:26	TANK 84 HIGH HIGH ALARM	TANK_84\T_84_HIGH_HIG	1
37	7/14/2011	10:25:29	TANK 84 OUT OF HIGH HIGH ALARM	TANK_84\T_84_HIGH_HIG	0
38	7/14/2011	10:25:34	TANK 84 OUT OF HIGH ALARM	TANK_84\T_84_HIGH	0
39	7/14/2011	17:05:13	TANK 84 HIGH ALARM ACKED	TANK_84\T_84_HIGH	0
40	7/14/2011	17:05:13	TANK 84 HIGH HIGH ALARM ACKED	TANK_84\T_84_HIGH_HIG	0
41	7/14/2011	17:05:13	TANK 30 HIGH ALARM ACKED	TANK_30\T_30_HIGH	0
42	7/14/2011	17:05:13	TANK 30 HIGH HIGH ALARM ACKED	TANK_30\T_30_HIGH_HIG	0
43	7/14/2011	17:05:13	TANK 1 IN HIGH LEVEL ACKED	TANK_1\HIGH_ALARM	0
44	7/14/2011	17:05:13	TANK 1 HH LEVEL ALARM ACKED	TANK_1\T_1_HIGH_HIGH	0

Alarm Log: 20110713AL.DAT					
	Date	Time	Description	Tag Name	Tag Value
1	7/13/2011	10:11:07	BARGE PIT ALARM	ALARMS\A_101_3_2_BAR	1
2	7/13/2011	10:11:11	BARGE PIT ALARM OFF	ALARMS\A_101_3_2_BAR	0
3	7/13/2011	10:15:43	TANK 23 HIGH ALARM	TANK_23\T_23_HIGH	1
4	7/13/2011	10:15:43	TANK 22 IN HIGH ALARM	TANK_22\T_22_HIGH_HIG	1
5	7/13/2011	10:15:43	TANK 23 HIGH HIGH ALARM	TANK_23\T_23_HIGH_HIG	1
6	7/13/2011	10:15:44	TANK 23 OUT HIGH ALARM	TANK_23\T_23_HIGH	0
7	7/13/2011	10:15:44	TANK 22 OUT HIGH ALARM	TANK_22\T_22_HIGH_HIG	0
8	7/13/2011	10:15:44	TANK 23 OUT H H ALARM	TANK_23\T_23_HIGH_HIG	0
9	7/13/2011	10:16:56	TANK 84 HIGH ALARM	TANK_84\T_84_HIGH	1
10	7/13/2011	10:16:56	TANK 84 HIGH HIGH ALARM	TANK_84\T_84_HIGH_HIG	1
11	7/13/2011	10:16:57	TANK 84 OUT OF HIGH HIGH ALARM	TANK_84\T_84_HIGH_HIG	0
12	7/13/2011	10:17:06	TANK 84 OUT OF HIGH ALARM	TANK_84\T_84_HIGH	0
13	7/13/2011	10:20:24	TANK 28 HIGH ALARM	TANK_28\T_28_HIGH	1
14	7/13/2011	10:20:25	TANK 28 OUT OF HIGH ALARM	TANK_28\T_28_HIGH	0
15	7/13/2011	10:22:44	TANK 29 HIGH ALARM	TANK_29\T_29_HIGH	1
16	7/13/2011	10:22:44	TANK 29 HIGH HIGH ALARM	TANK_29\T_29_HIGH_HIG	1
17	7/13/2011	10:22:45	TANK 29 OUT OF HIGH HIGH ALARM	TANK_29\T_29_HIGH_HIG	0
18	7/13/2011	10:22:48	TANK 29 OUT OF HIGH ALARM	TANK_29\T_29_HIGH	0
19	7/13/2011	10:23:33	TANK 30 HIGH ALARM	TANK_30\T_30_HIGH	1
20	7/13/2011	10:23:33	TANK 30 HIGH HIGH ALARM	TANK_30\T_30_HIGH_HIG	1
21	7/13/2011	10:23:34	TANK 30 OUT OF HIGH ALARM	TANK_30\T_30_HIGH	0
22	7/13/2011	10:23:34	TANK 30 OUT OF HIGH HIGH ALARM	TANK_30\T_30_HIGH_HIG	0
23	7/13/2011	10:28:57	TANK 84 HIGH ALARM ACKED	TANK_84\T_84_HIGH	0
24	7/13/2011	10:28:57	TANK 84 HIGH HIGH ALARM ACKED	TANK_84\T_84_HIGH_HIG	0
25	7/13/2011	10:28:57	TANK 30 HIGH ALARM ACKED	TANK_30\T_30_HIGH	0
26	7/13/2011	10:28:57	TANK 30 HIGH HIGH ALARM ACKED	TANK_30\T_30_HIGH_HIG	0
27	7/13/2011	10:28:57	TANK 29 HIGH ALARM ACKED	TANK_29\T_29_HIGH	0

Alarm Log: 20110713AL.DAT					
	Date	Time	Description	Tag Name	Tag Value
28	7/13/2011	10:28:57	TANK 29 HIGH HIGH ALARM ACKED	TANK_29\T_29_HIGH_HIG	0
29	7/13/2011	10:28:57	TANK 28 HIGH ALARM ACKED	TANK_28\T_28_HIGH	0
30	7/13/2011	10:28:57	TANK 23 HIGH ALARM ACKED	TANK_23\T_23_HIGH	0
31	7/13/2011	10:28:57	TANK 22 ACKED HIGH ALARM	TANK_22\T_22_HIGH_HIG	0
32	7/13/2011	10:28:57	TANK 23 HIGH HIGH ALARM ACKED	TANK_23\T_23_HIGH_HIG	0
33	7/13/2011	10:28:57	BARGE PIT ALARM OFF	ALARMS\A_101_3_2_BAR	0
34	7/13/2011	22:12:38	TANK 4 HIGH HIGH ALARM	TANK_4\T_4_HIGH_HIGH	1
35	7/13/2011	22:12:40	TANK 4 OUT OF HIGH HIGH ALARM	TANK_4\T_4_HIGH_HIGH	0
36	7/13/2011	22:15:34	TANK 33 HIGH HIGH ALARM	TANK_33\T_33_HIGH_HIG	1
37	7/13/2011	22:15:35	TANK 33 OUT OF HIGH HIGH ALARM	TANK_33\T_33_HIGH_HIG	0
38	7/13/2011	22:16:22	TANK 32 HIGH ALARM	TANK_32\T_32_HIGH	1
39	7/13/2011	22:16:24	TANK 32 OUT OF HIGH ALARM	TANK_32\T_32_HIGH	0
40	7/13/2011	22:17:00	TANK 31 HIGH ALARM	TANK_31\T_31_HIGH	1
41	7/13/2011	22:17:01	TANK 31 OUT OF HIGH ALARM	TANK_31\T_31_HIGH	0
42	7/13/2011	22:17:48	TANK 30 HIGH ALARM	TANK_30\T_30_HIGH	1
43	7/13/2011	22:17:48	TANK 30 HIGH HIGH ALARM	TANK_30\T_30_HIGH_HIG	1
44	7/13/2011	22:17:49	TANK 30 OUT OF HIGH ALARM	TANK_30\T_30_HIGH	0
45	7/13/2011	22:17:49	TANK 30 OUT OF HIGH HIGH ALARM	TANK_30\T_30_HIGH_HIG	0
46	7/13/2011	22:18:25	TANK 29 HIGH ALARM	TANK_29\T_29_HIGH	1
47	7/13/2011	22:18:25	TANK 29 HIGH HIGH ALARM	TANK_29\T_29_HIGH_HIG	1
48	7/13/2011	22:18:26	TANK 29 OUT OF HIGH HIGH ALARM	TANK_29\T_29_HIGH_HIG	0
49	7/13/2011	22:18:28	TANK 29 OUT OF HIGH ALARM	TANK_29\T_29_HIGH	0
50	7/13/2011	22:19:27	TANK 28 HIGH ALARM	TANK_28\T_28_HIGH	1
51	7/13/2011	22:19:30	TANK 28 OUT OF HIGH ALARM	TANK_28\T_28_HIGH	0
52	7/13/2011	22:20:07	TANK_34\T_34_HIGH	TANK_34\T_34_HIGH	1
53	7/13/2011	22:20:12	TANK_34\T_34_HIGH	TANK_34\T_34_HIGH	0
54	7/13/2011	22:20:49	TANK 35 HIGH ALARM	TANK_35\T_35_HIGH	1

Alarm Log: 20110713AL.DAT					
	Date	Time	Description	Tag Name	Tag Value
55	7/13/2011	22:20:52	TANK 35 OUT OF HIGH ALARM	TANK_35\T_35_HIGH	0
56	7/13/2011	22:22:25	TANK 1 IN HIGH LEVEL ALARM	TANK_1\HIGH_ALARM	1
57	7/13/2011	22:22:26	TANK 1 OUT OF HIGH ALARM	TANK_1\HIGH_ALARM	0
58	7/13/2011	22:23:26	TANK 2 IN HIGH LEVEL	TANK_2\T_2_HIGH	1
59	7/13/2011	22:23:27	TANK 2 OUT HIGH LEVEL	TANK_2\T_2_HIGH	0
60	7/13/2011	22:24:57	TANK 22 IN HIGH ALARM	TANK_22\T_22_HIGH	1
61	7/13/2011	22:24:59	TANK 22 OUT HIGH ALARM	TANK_22\T_22_HIGH	0
62	7/13/2011	22:25:46	TANK 23 HIGH ALARM	TANK_23\T_23_HIGH	1
63	7/13/2011	22:25:47	TANK 23 OUT HIGH ALARM	TANK_23\T_23_HIGH	0
64	7/13/2011	22:26:41	TANK 24 HIGH ALARM	TANK_24\T_24_HIGH	1
65	7/13/2011	22:26:41	TANK 24 HIGH HIGH ALARM	TANK_24\T_24_HIGH_HIG	1
66	7/13/2011	22:26:42	TANK 24 OUT OF HIGH ALARM	TANK_24\T_24_HIGH	0
67	7/13/2011	22:26:42	TANK 24 OUT OF HIGH HIGH ALARM	TANK_24\T_24_HIGH_HIG	0
68	7/13/2011	22:27:31	TANK 25 HIGH ALARM	TANK_25\T_25_HIGH	1
69	7/13/2011	22:27:32	TANK 25 HIGH HIGH ALARM	TANK_25\T_25_HIGH_HIG	1
70	7/13/2011	22:27:34	TANK 25 NORMAL LEVEL	TANK_25\T_25_HIGH_HIG	0
71	7/13/2011	22:27:35	TANK 25 OUT OF HIGH ALARM	TANK_25\T_25_HIGH	0
72	7/13/2011	22:27:42	TANK 25 HIGH ALARM	TANK_25\T_25_HIGH	1
73	7/13/2011	22:27:42	TANK 25 HIGH HIGH ALARM	TANK_25\T_25_HIGH_HIG	1
74	7/13/2011	22:27:46	TANK 25 NORMAL LEVEL	TANK_25\T_25_HIGH_HIG	0
75	7/13/2011	22:27:49	TANK 25 OUT OF HIGH ALARM	TANK_25\T_25_HIGH	0
76	7/13/2011	22:28:54	TANK 26 HIGH ALARM	TANK_26\T_26_HIGH	1
77	7/13/2011	22:28:55	TANK 26 OUT OF HIGH ALARM	TANK_26\T_26_HIGH	0
78	7/13/2011	22:29:45	TANK 27 HIGH ALARM	TANK_27\T_27_HIGH	1
79	7/13/2011	22:29:46	TANK 27 HIGH HIGH ALARM	TANK_27\T_27_HIGH_HIG	1
80	7/13/2011	22:29:51	TANK 27 OUT OF HIGH ALARM	TANK_27\T_27_HIGH	0
81	7/13/2011	22:29:51	TANK 27 OUT OF HIGH HIGH ALARM	TANK_27\T_27_HIGH_HIG	0

Alarm Log: 20110713AL.DAT					
	Date	Time	Description	Tag Name	Tag Value
82	7/13/2011	22:32:16	TANK 84 HIGH ALARM	TANK_84\T_84_HIGH	1
83	7/13/2011	22:32:41	TANK 85 HIGH ALARM	TANK_85\T_85_HIGH	1
84	7/13/2011	22:32:41	TANK 85 HIGH HIGH	TANK_85\T_85_HIGH_HIG	1
85	7/13/2011	22:32:42	7/13/2011 10:32:42 OutAl Tag TANK_8	TANK_85\T_85_HIGH_HIG	0
86	7/13/2011	22:33:44	TANK 84 OUT OF HIGH ALARM	TANK_84\T_84_HIGH	0
87	7/13/2011	22:34:01	TANK 85 OUT OF HIGH ALARM	TANK_85\T_85_HIGH	0
88	7/13/2011	22:34:07	TANK 85 HIGH ALARM	TANK_85\T_85_HIGH	1
89	7/13/2011	22:34:09	TANK 85 OUT OF HIGH ALARM	TANK_85\T_85_HIGH	0
90	7/13/2011	22:34:36	TANK 85 HIGH ALARM	TANK_85\T_85_HIGH	1
91	7/13/2011	22:34:36	TANK 85 HIGH HIGH	TANK_85\T_85_HIGH_HIG	1
92	7/13/2011	22:34:37	TANK 85 OUT OF HIGH ALARM	TANK_85\T_85_HIGH	0
93	7/13/2011	22:34:37	7/13/2011 10:34:37 OutAl Tag TANK_8	TANK_85\T_85_HIGH_HIG	0
94	7/13/2011	22:35:14	TANK 85 HIGH ALARM	TANK_85\T_85_HIGH	1
95	7/13/2011	22:35:14	TANK 85 HIGH HIGH	TANK_85\T_85_HIGH_HIG	1
96	7/13/2011	22:35:15	7/13/2011 10:35:15 OutAl Tag TANK_8	TANK_85\T_85_HIGH_HIG	0
97	7/13/2011	22:35:16	TANK 85 OUT OF HIGH ALARM	TANK_85\T_85_HIGH	0
98	7/13/2011	22:35:41	TANK 84 HIGH ALARM	TANK_84\T_84_HIGH	1
99	7/13/2011	22:35:41	TANK 84 HIGH HIGH ALARM	TANK_84\T_84_HIGH_HIG	1
100	7/13/2011	22:35:42	TANK 84 OUT OF HIGH ALARM	TANK_84\T_84_HIGH	0
101	7/13/2011	22:35:42	TANK 84 OUT OF HIGH HIGH ALARM	TANK_84\T_84_HIGH_HIG	0
102	7/13/2011	22:35:57	TANK 84 HIGH ALARM	TANK_84\T_84_HIGH	1
103	7/13/2011	22:35:58	TANK 84 OUT OF HIGH ALARM	TANK_84\T_84_HIGH	0
104	7/13/2011	22:36:02	TANK 84 HIGH ALARM	TANK_84\T_84_HIGH	1
105	7/13/2011	22:36:02	TANK 84 HIGH HIGH ALARM	TANK_84\T_84_HIGH_HIG	1
106	7/13/2011	22:36:03	TANK 84 OUT OF HIGH ALARM	TANK_84\T_84_HIGH	0
107	7/13/2011	22:36:03	TANK 84 OUT OF HIGH HIGH ALARM	TANK_84\T_84_HIGH_HIG	0

Alarm Log: 20110421AL.DAT					
	Date	Time	Description	Tag Name	Tag Value
1	4/21/2011	15:05:22	TANK 29 HIGH ALARM	TANK_29\T_29_HIGH	1
2	4/21/2011	15:05:22	TANK 29 HIGH HIGH ALARM	TANK_29\T_29_HIGH_HIG	1
3	4/21/2011	15:05:23	TANK 29 OUT OF HIGH ALARM	TANK_29\T_29_HIGH	0
4	4/21/2011	15:05:23	TANK 29 OUT OF HIGH HIGH ALARM	TANK_29\T_29_HIGH_HIG	0
5	4/21/2011	15:06:47	TANK 30 HIGH ALARM	TANK_30\T_30_HIGH	1
6	4/21/2011	15:06:47	TANK 30 HIGH HIGH ALARM	TANK_30\T_30_HIGH_HIG	1
7	4/21/2011	15:06:48	TANK 30 OUT OF HIGH ALARM	TANK_30\T_30_HIGH	0
8	4/21/2011	15:06:48	TANK 30 OUT OF HIGH HIGH ALARM	TANK_30\T_30_HIGH_HIG	0
9	4/21/2011	16:09:31	TANK 30 HIGH ALARM ACKED	TANK_30\T_30_HIGH	0
10	4/21/2011	16:09:31	TANK 30 HIGH HIGH ALARM ACKED	TANK_30\T_30_HIGH_HIG	0
11	4/21/2011	16:09:31	TANK 29 HIGH ALARM ACKED	TANK_29\T_29_HIGH	0
12	4/21/2011	16:09:31	TANK 29 HIGH HIGH ALARM ACKED	TANK_29\T_29_HIGH_HIG	0
13	4/21/2011	16:25:33	BARGE PIT ALARM	ALARMS\A_101_3_2_BAR	1
14	4/21/2011	16:25:37	BARGE PIT ALARM OFF	ALARMS\A_101_3_2_BAR	0
15	4/21/2011	20:31:29	UNLEAD FLOW MISMATCH	BARGE_FLOW\FIT102_FA	1
16	4/21/2011	20:31:29	UNL 102 FLOW ALARM	BARGE_FLOW\FLOW_102	1
17	4/21/2011	20:31:36	UNL 102 FLOW NORMAL	BARGE_FLOW\FLOW_102	0
18	4/21/2011	20:31:41	BARGE FLOW ALARM UNLEAD	BARGE_FLOW\FIT102_FA	0
19	4/21/2011	20:31:41	BARGE UNLEAD FLOW ALARM ACKE	BARGE_FLOW\FIT102_FA	0
20	4/21/2011	20:31:41	UNL 102 FLOW ALARM ACKED	BARGE_FLOW\FLOW_102	0
21	4/21/2011	20:31:41	BARGE PIT ALARM OFF	ALARMS\A_101_3_2_BAR	0

Alarm Log: 20110525AL.DAT					
	Date	Time	Description	Tag Name	Tag Value
1	5/25/2011	16:42:38	TANK 32 HIGH ALARM	TANK_32\T_32_HIGH	1
2	5/25/2011	16:42:40	TANK 32 OUT OF HIGH ALARM	TANK_32\T_32_HIGH	0
3	5/25/2011	16:44:51	TANK 35 HIGH ALARM	TANK_35\T_35_HIGH	1
4	5/25/2011	16:44:53	TANK 35 OUT OF HIGH ALARM	TANK_35\T_35_HIGH	0
5	5/25/2011	17:10:33	BARGE PIT ALARM	ALARMS\A_101_3_2_BAR	1
6	5/25/2011	17:10:39	BARGE PIT ALARM OFF	ALARMS\A_101_3_2_BAR	0
7	5/25/2011	18:22:44	TANK 35 HIGH ALARM ACKED	TANK_35\T_35_HIGH	0
8	5/25/2011	18:22:44	TANK 32 HIGH ALARM ACKED	TANK_32\T_32_HIGH	0
9	5/25/2011	18:22:44	BARGE PIT ALARM OFF	ALARMS\A_101_3_2_BAR	0

Alarm Log: 20101206AL.DAT					
	Date	Time	Description	Tag Name	Tag Value
1	12/6/2010	11:04:15	TANK_34\T_34_HIGH	TANK_34\T_34_HIGH	1
2	12/6/2010	11:04:16	TANK_34\T_34_HIGH	TANK_34\T_34_HIGH	0
3	12/6/2010	11:05:49	TANK 31 HIGH ALARM	TANK_31\T_31_HIGH	1
4	12/6/2010	11:05:50	TANK 31 HIGH HIGH ALARM	TANK_31\T_31_HIGH_HIG	1
5	12/6/2010	11:05:52	TANK 31 OUT OF HIGH HIGH ALARM	TANK_31\T_31_HIGH_HIG	0
6	12/6/2010	11:05:53	TANK 31 OUT OF HIGH ALARM	TANK_31\T_31_HIGH	0
7	12/6/2010	11:06:46	TANK 26 HIGH ALARM	TANK_26\T_26_HIGH	1
8	12/6/2010	11:06:46	TANK 26 HIGH HIGH ALARM	TANK_26\T_26_HIGH_HIG	1
9	12/6/2010	11:06:47	TANK 26 OUT OF HIGH ALARM	TANK_26\T_26_HIGH	0
10	12/6/2010	11:06:47	TANK 26 OUT OF HIGH HIGH ALARM	TANK_26\T_26_HIGH_HIG	0
11	12/6/2010	11:07:51	TANK 25 HIGH ALARM	TANK_25\T_25_HIGH	1
12	12/6/2010	11:07:51	TANK 25 HIGH HIGH ALARM	TANK_25\T_25_HIGH_HIG	1
13	12/6/2010	11:07:53	TANK 25 OUT OF HIGH ALARM	TANK_25\T_25_HIGH	0
14	12/6/2010	11:07:53	TANK 25 NORMAL LEVEL	TANK_25\T_25_HIGH_HIG	0
15	12/6/2010	11:11:01	TANK 1 IN HIGH LEVEL ALARM	TANK_1\HIGH_ALARM	1
16	12/6/2010	11:11:01	TANK 1 HH LEVEL ALARM	TANK_1\T_1_HIGH_HIGH	1
17	12/6/2010	11:11:02	TANK 1 OUT OF HIGH ALARM	TANK_1\HIGH_ALARM	0
18	12/6/2010	11:11:02	T1 HIGH HIGH OUT OF ALARM	TANK_1\T_1_HIGH_HIGH	0
19	12/6/2010	16:15:33	TANK_34\T_34_HIGH	TANK_34\T_34_HIGH	0
20	12/6/2010	16:15:33	TANK 31 HIGH ALARM ACKED	TANK_31\T_31_HIGH	0
21	12/6/2010	16:15:33	TANK 31 HIGH HIGH ALARM ACKED	TANK_31\T_31_HIGH_HIG	0
22	12/6/2010	16:15:33	TANK 26 HIGH ALARM ACKED	TANK_26\T_26_HIGH	0
23	12/6/2010	16:15:33	TANK 26 ACKED HIGH HIGH ALARM	TANK_26\T_26_HIGH_HIG	0
24	12/6/2010	16:15:33	TANK 25 HIGH ALARM ACKED	TANK_25\T_25_HIGH	0
25	12/6/2010	16:15:33	TANK 25 HIGH HIGH ALARM ACKED	TANK_25\T_25_HIGH_HIG	0
26	12/6/2010	16:15:33	TANK 1 IN HIGH LEVEL ACKED	TANK_1\HIGH_ALARM	0
27	12/6/2010	16:15:33	TANK 1 HH LEVEL ALARM ACKED	TANK_1\T_1_HIGH_HIGH	0

Alarm Log: 20101204AL.DAT					
	Date	Time	Description	Tag Name	Tag Value
1	12/4/2010	22:46:24	BARGE PIT ALARM	ALARMS\A_101_3_2_BAR	1
2	12/4/2010	22:46:27	BARGE PIT ALARM OFF	ALARMS\A_101_3_2_BAR	0
3	12/4/2010	22:55:14	TANK 33 HIGH ALARM	TANK_33\T_33_HIGH	1
4	12/4/2010	22:55:14	TANK 33 HIGH HIGH ALARM	TANK_33\T_33_HIGH_HIG	1
5	12/4/2010	22:55:16	TANK 33 OUT OF HIGH ALARM	TANK_33\T_33_HIGH	0
6	12/4/2010	22:55:16	TANK 33 OUT OF HIGH HIGH ALARM	TANK_33\T_33_HIGH_HIG	0
7	12/4/2010	23:07:35	TANK 35 HIGH ALARM	TANK_35\T_35_HIGH	1
8	12/4/2010	23:07:35	TANK 35 HIGH HIGH ALARM	TANK_35\T_35_HIGH_HIG	1
9	12/4/2010	23:07:38	TANK 35 OUT HIGH HIGH ALARM	TANK_35\T_35_HIGH_HIG	0
10	12/4/2010	23:07:39	TANK 35 OUT OF HIGH ALARM	TANK_35\T_35_HIGH	0

Alarm Log: 20101203AL.DAT					
	Date	Time	Description	Tag Name	Tag Value
1	12/3/2010	11:09:35	TANK 30 HIGH ALARM	TANK_30\T_30_HIGH	1
2	12/3/2010	11:09:36	TANK 30 OUT OF HIGH ALARM	TANK_30\T_30_HIGH	0
3	12/3/2010	11:11:31	TANK 28 HIGH ALARM	TANK_28\T_28_HIGH	1
4	12/3/2010	11:11:32	TANK 28 OUT OF HIGH ALARM	TANK_28\T_28_HIGH	0
5	12/3/2010	11:12:16	TANK 22 IN HIGH ALARM	TANK_22\T_22_HIGH	1
6	12/3/2010	11:12:17	TANK 22 OUT HIGH ALARM	TANK_22\T_22_HIGH	0
7	12/3/2010	11:14:25	TANK 23 HIGH ALARM	TANK_23\T_23_HIGH	1
8	12/3/2010	11:14:25	TANK 22 IN HIGH ALARM	TANK_22\T_22_HIGH_HIG	1
9	12/3/2010	11:14:25	TANK 23 HIGH HIGH ALARM	TANK_23\T_23_HIGH_HIG	1
10	12/3/2010	11:14:26	TANK 23 OUT HIGH ALARM	TANK_23\T_23_HIGH	0
11	12/3/2010	11:14:26	TANK 22 OUT HIGH ALARM	TANK_22\T_22_HIGH_HIG	0
12	12/3/2010	11:14:26	TANK 23 OUT H H ALARM	TANK_23\T_23_HIGH_HIG	0
13	12/3/2010	13:30:22	TANK 84 HIGH ALARM	TANK_84\T_84_HIGH	1
14	12/3/2010	13:30:25	TANK 84 OUT OF HIGH ALARM	TANK_84\T_84_HIGH	0
15	12/3/2010	14:53:29	TANK 84 HIGH ALARM ACKED	TANK_84\T_84_HIGH	0
16	12/3/2010	14:53:29	TANK 30 HIGH ALARM ACKED	TANK_30\T_30_HIGH	0
17	12/3/2010	14:53:29	TANK 28 HIGH ALARM ACKED	TANK_28\T_28_HIGH	0
18	12/3/2010	14:53:29	TANK 23 HIGH ALARM ACKED	TANK_23\T_23_HIGH	0
19	12/3/2010	14:53:29	TANK 22 ACKED HIGH ALARM	TANK_22\T_22_HIGH_HIG	0
20	12/3/2010	14:53:29	TANK 23 HIGH HIGH ALARM ACKED	TANK_23\T_23_HIGH_HIG	0
21	12/3/2010	14:53:29	TANK 22 ACKED HIGH ALARM	TANK_22\T_22_HIGH	0

Alarm Log: 20101202AL.DAT					
	Date	Time	Description	Tag Name	Tag Value
1	12/2/2010	02:46:40	HSD 103 FLOW ALARM ACKED	BARGE_FLOW\FLOW_103	0
2	12/2/2010	03:55:28	HSD 103 FLOW ALARM	BARGE_FLOW\FLOW_103	1
3	12/2/2010	03:55:37	HSD 103 FLOW NORMAL	BARGE_FLOW\FLOW_103	0
4	12/2/2010	03:55:44	HSD 103 FLOW ALARM ACKED	BARGE_FLOW\FLOW_103	0
5	12/2/2010	10:41:56	TANK 31 HIGH ALARM	TANK_31\T_31_HIGH	1
6	12/2/2010	10:41:56	TANK 31 HIGH HIGH ALARM	TANK_31\T_31_HIGH_HIG	1
7	12/2/2010	10:41:57	TANK 31 OUT OF HIGH ALARM	TANK_31\T_31_HIGH	0
8	12/2/2010	10:41:57	TANK 31 OUT OF HIGH HIGH ALARM	TANK_31\T_31_HIGH_HIG	0
9	12/2/2010	10:42:04	TANK 26 HIGH ALARM	TANK_26\T_26_HIGH	1
10	12/2/2010	10:42:05	TANK 26 HIGH HIGH ALARM	TANK_26\T_26_HIGH_HIG	1
11	12/2/2010	10:42:06	TANK 26 OUT OF HIGH ALARM	TANK_26\T_26_HIGH	0
12	12/2/2010	10:42:06	TANK 26 OUT OF HIGH HIGH ALARM	TANK_26\T_26_HIGH_HIG	0
13	12/2/2010	10:45:16	BARGE PIT ALARM	ALARMS\A_101_3_2_BAR	1
14	12/2/2010	10:45:23	BARGE PIT ALARM OFF	ALARMS\A_101_3_2_BAR	0
15	12/2/2010	12:14:18	TANK 31 HIGH ALARM ACKED	TANK_31\T_31_HIGH	0
16	12/2/2010	12:14:18	TANK 31 HIGH HIGH ALARM ACKED	TANK_31\T_31_HIGH_HIG	0
17	12/2/2010	12:14:18	TANK 26 HIGH ALARM ACKED	TANK_26\T_26_HIGH	0
18	12/2/2010	12:14:18	TANK 26 ACKED HIGH HIGH ALARM	TANK_26\T_26_HIGH_HIG	0
19	12/2/2010	12:14:18	BARGE PIT ALARM OFF	ALARMS\A_101_3_2_BAR	0

Alarm Log: 20101216AL.DAT					
	Date	Time	Description	Tag Name	Tag Value
1	12/16/201	17:56:54	TANK 27 HIGH ALARM ACKED	TANK_27\T_27_HIGH	0
2	12/16/201	17:56:54	TANK 27 HIGH HIGH ALARM ACKED	TANK_27\T_27_HIGH_HIG	0
3	12/16/201	20:36:51	TANK 27 HIGH ALARM	TANK_27\T_27_HIGH	1
4	12/16/201	20:36:51	TANK 27 HIGH HIGH ALARM	TANK_27\T_27_HIGH_HIG	1
5	12/16/201	20:36:53	TANK 27 OUT OF HIGH ALARM	TANK_27\T_27_HIGH	0
6	12/16/201	20:36:53	TANK 27 OUT OF HIGH HIGH ALARM	TANK_27\T_27_HIGH_HIG	0
7	12/16/201	20:41:39	TANK 27 HIGH ALARM ACKED	TANK_27\T_27_HIGH	0
8	12/16/201	20:41:39	TANK 27 HIGH HIGH ALARM ACKED	TANK_27\T_27_HIGH_HIG	0

Alarm Log: 20110118AL.DAT					
	Date	Time	Description	Tag Name	Tag Value
1	1/18/2011	07:52:03	TANK 23 HIGH ALARM	TANK_23\T_23_HIGH	1
2	1/18/2011	07:52:03	TANK 22 IN HIGH ALARM	TANK_22\T_22_HIGH_HIG	1
3	1/18/2011	07:52:03	TANK 23 HIGH HIGH ALARM	TANK_23\T_23_HIGH_HIG	1
4	1/18/2011	07:52:04	TANK 23 OUT HIGH ALARM	TANK_23\T_23_HIGH	0
5	1/18/2011	07:52:04	TANK 22 OUT HIGH ALARM	TANK_22\T_22_HIGH_HIG	0
6	1/18/2011	07:52:04	TANK 23 OUT H H ALARM	TANK_23\T_23_HIGH_HIG	0
7	1/18/2011	07:55:20	TANK 85 HIGH ALARM	TANK_85\T_85_HIGH	1
8	1/18/2011	07:55:20	TANK 85 HIGH HIGH	TANK_85\T_85_HIGH_HIG	1
9	1/18/2011	07:55:21	TANK 85 OUT OF HIGH ALARM	TANK_85\T_85_HIGH	0
10	1/18/2011	07:55:21	1/18/2011 7:55:21 OutAl Tag TANK_8	TANK_85\T_85_HIGH_HIG	0
11	1/18/2011	08:00:33	TANK 85 HIGH ALARM ACKED	TANK_85\T_85_HIGH	0
12	1/18/2011	08:00:33	1/18/2011 8:00:33 Acked Tag TANK_8	TANK_85\T_85_HIGH_HIG	0
13	1/18/2011	08:00:33	TANK 23 HIGH ALARM ACKED	TANK_23\T_23_HIGH	0
14	1/18/2011	08:00:33	TANK 22 ACKED HIGH ALARM	TANK_22\T_22_HIGH_HIG	0
15	1/18/2011	08:00:33	TANK 23 HIGH HIGH ALARM ACKED	TANK_23\T_23_HIGH_HIG	0
16	1/18/2011	08:00:33	BARGE LSD FLOW ALARM	BARGE_FLOW\FIT101_FA	0
17	1/18/2011	08:00:33	LSD 101 FLOW ALARM ACKED	BARGE_FLOW\FLOW_101	0
18	1/18/2011	08:29:24	BARGE PIT ALARM	ALARMS\A_101_3_2_BAR	1
19	1/18/2011	08:29:29	BARGE PIT ALARM OFF	ALARMS\A_101_3_2_BAR	0
20	1/18/2011	08:35:01	TANK 22 IN HIGH ALARM	TANK_22\T_22_HIGH	1
21	1/18/2011	08:35:02	TANK 22 OUT HIGH ALARM	TANK_22\T_22_HIGH	0
22	1/18/2011	08:35:32	TANK 28 HIGH ALARM	TANK_28\T_28_HIGH	1
23	1/18/2011	08:35:32	TANK 28 HIGH HIGH ALARM	TANK_28\T_28_HIGH_HIG	1
24	1/18/2011	08:35:33	TANK 28 OUT OF HIGH ALARM	TANK_28\T_28_HIGH	0
25	1/18/2011	08:35:33	TANK 28 OUT OF HIGH HIGH ALARM	TANK_28\T_28_HIGH_HIG	0
26	1/18/2011	09:11:41	BARGE PIT ALARM	ALARMS\A_101_3_2_BAR	1
27	1/18/2011	09:11:44	BARGE PIT ALARM OFF	ALARMS\A_101_3_2_BAR	0

Tidewater Terminal Company
Annual High Level Alarm Inspection

Date	Tank	Visual Alarm	Audio Alarm	Employee (Print)	Employee (Signature)
1/14/2010	1	Ok	Ok	Nick Farr	
4/3/2010	2	Ok	ok	Nick Farr	
12/28/2010	4	ok	ok	John Hinz	
9/5/2010	14	OK	OK	Billy Thomas	
4/19/2010	22	OK	OK	Billy Thomas	
7/13/2010	23	ok	ok	John Hinz	
4/30/2010	24	OK	OK	Doug Milton	
2/17/2010	25	Ok	Ok	Nick Farr	
1/18/2010	26	OK	ok	John Hinz	
1/14/2010	27	Ok	Ok	Nick Farr	
4/30/2010	28	Ok	Ok	Nick Farr	
4/28/2010	29	OK	OK	Dustin Hawley	
4/18/2010	30	OK	OK	Billy Thomas	
1/18/2010	31	Ok	Ok	Nick Farr	
1/23/2010	32	ok	ok	John Hinz	
1/16/2010	33	OK	OK	Dustin Hawley	
1/16/2010	34	OK	OK	Dustin Hawley	
1/18/2010	35	Ok	Ok	Nick Farr	
4/28/2010	84	Ok	OK	Dustin Hawley	
4/7/2010	85	Ok	Ok	George Robinson	

Tidewater Terminal Company
Annual High Level Alarm Inspection

Date	Tank	Visual Alarm	Audio Alarm	Employee (Print)	Employee (Signature)
1/17/2009	1	OK	OK	Damon Remus	
1/10/2009	2	OK	OK	George Robinson	
4/19/2009	22	OK	OK	Billy Thomas	
5/17/2009	23	OK	OK	Dustin Hawley	
9/23/2009	24	OK	OK	John A Hinz	
1/1/2009	25	OK	OK	Damon Remus	
3/5/2009	26	OK	OK	Billy Thomas	
2/19/2009	27	OK	OK	Nick Farr	
4/19/2009	28	OK	OK	Billy Thomas	
4/11/2009	29	OK	OK	Doug Milton	BEST OF MY MEMORY
4/11/2009	30	OK	OK	Doug Milton	
1/3/2009	31	OK	OK	George Robinson	
1/6/2009	32	OK	OK	Karen Scott	
1/14/2009	33	OK	OK	Dustin Hawley	
1/6/2009	34	OK	OK	Karen Scott	
1/19/2009	35	OK	OK	Billy Thomas	
5/8/2009	84	OK	OK	Dustin Hawley	
4/11/2009	85	OK	OK	Damon Remus	

Tidewater Terminal Company
Annual High Level Alarm Inspection

Date	Tank	Visual Alarm	Audio Alarm	Employee (Print)	Employee (Signature)
1/22/2008	1	OK	OK	Damon Remus	
1/16/2008	2	Ok	Ok	Nick Farr	
5/10/2008	22	OK	OK	Karen Scott	
5/30/2008	23	OK	OK	Doug Milton	
6-11-2008	24	ok	ok	John A Hinz	
1/23/2008	25	OK	OK	Damon Remus	
1/22/2008	26	OK	OK	Damon Remus	
4/29/2008	27	OK	OK	Karen Scott	
6/14/2008	28	OK	OK	Karen Scott	
6/14/2008	29	OK	OK	Karen Scott	
5/30/2008	30	OK	OK	Doug Milton	
1/31/2008	31	OK	OK	Karen Scott	
1/12/2008	32	OK	OK	Karen Scott	
1/11/2008	33	OK	OK	Karen Scott	
3/3/2008	34	Ok	Ok	Nick Farr	
1/8/2008	35	OK	OK	Billy Thomas	
5/30/2008	84	OK	OK	Doug Milton	
5/30/2008	85	OK	OK	Doug Milton	

Attachment E

Distribution of Public Awareness materials (letter, brochure, One-Call info, pipeline map):

1. PUBLIC / RESIDENTS ALONG PIPELINE None.	N/A
2. NEIGHBORING BUSINESSES a) Chevron b) Tri-Cities Grain	ANNUALLY
3. EXCAVATORS	ANNUALLY
4. UTILITY COMPANIES	ANNUALLY
5. EMERGENCY OFFICIALS a) LEPC b) fire dept b) police/sheriff	ANNUALLY
6. PUBLIC OFFICIALS a) mayor b) city manager c) city council d) county commissioners e) planning boards	ANNUALLY
7. ONE-CALL CENTER	ANNUALLY
8. NOTICE IN NEWSPAPERS a) Tri-City Herald b) Tu Decides	ANNUALLY

DISTRIBUTION LIST:

1. PUBLIC / RESIDENTS ALONG PIPELINE
   None.

2. NEIGHBORING BUSINESSES
   a) Chevron Pipeline, Sacajawea Rd, Pasco, WA 99301
   b) Tri-Cities Grain

3. EXCAVATORS

Agri-Service Northwest, 12731 Glade North Rd., Eltophia, WA 99330
Allstar Inc, 2546 Van Giesen, Richland, WA 99352
Andrist Enterprises, PO Box 7121, Kennewick, WA 99336
Apex Contracting, 1006 W. Bruneau Pl., Suite B, Kennewick, WA 99336
Big D's Construction, 3902 N. Swallow Ave., Pasco, WA 99301
BK Construction & Excavation, 3609 S. Cascade St., Kennewick, WA 99337
C&E Trenching, LLC, 8210 Selph Landing Rd., Pasco, WA 99301
C&S Construction, 2004 N. Road, Pasco, WA 99301
Canyon View Excavating, 5105 N. Canyon View NE, Benton City, WA 99320
Carl Kinion Excavation, 1207 Bridle Dr, Richland, WA 99352
Cliff's Septic Tank & Sewer, 15 S. Benton, Kennewick, WA 99336
Columbia Excavation, 605 W. 41st Ave., W. Richland, WA 99353
Contractors Equipment Maint Co., PO Box 7117, Kennewick, WA 99336
Cope Housemoving, 20621 S. Haney Rd., Kennewick, WA 99337
Cox Excavating, 8800 Selph Landing Rd., Pasco, WA 99301
Culburt Construction, 2210-B W. 13th Ave, Kennewick, WA 99336
Cuthbert Construction, 4908 Sonora Dr., Pasco, WA 99301
D&D Excavating, 303 Bradley Blvd, #107, Richland, WA 99352
D Bishop Construction Services, 8382 W. Gage Blvd, Kennewick, WA 99336
Dennis Myers Construction, 962 Court St., Prosser, WA 99350
Desmarais Service & Supply, 222 W. Hatton Rd., Connell, WA 99326
Donald L. Bevier, 1105 W. 10th Ave., Kennewick, WA 99336
Early Dawn Construction Services, 50412 W. 2299 PRSE, Kennewick, WA 99337
Earthworks, Plus, 29404 S. 1005 PRSE, Kennewick, WA 99338
Gibbs Construction, 2807 S> Rainier Pl., Kennewick, WA 99337
Inland Asphalt Co., 955 Lacey St., Richland, WA 99352
Ivey Troy Excavating, 219706 E. Cochran Rd., Kennewick, WA 99337
J.F. Schwartz Construction, 2004 N. Road 32, Pasco, WA 99301
Jenkins Excavating, 9703 W. Court St., Pasco, WA 99301
Joe Rada Excavating, 440 Merry Lane, Burbank, WA 99323
John Rada Excavating, 2501 E. Lewis St., Pasco, WA 99301
K. Kaser Company Inc., 229 N. Fruitland, Kennewick, WA 99336
KSC Inc., 1115 Coldfelter, Kennewick, WA 99337
Kaneb Pipeline Co., 7340 W. 21st St. N., Suite 200, Wichita, KS 67205
Loftus Inc., PO Box 6028, Kennewick, WA 99336
LP Construction, PO Box 4309, West Richland, WA 99353
Mahaffey Enterprises, Inc., 1213 S. Clodfelter Rd., Kennewick, WA 99336

Matthews Excavation, 911 E. Branch Rd., Kennewick, WA 99336
McDonald's Excavating, 371 Keene Ct., Richland, WA 99352
Onsite, 107104 E. 245 PRSE, Kennewick, WA 99338
Parker Excavating, 3005 S. Gum, Kennewick, WA 99337
Premier Excavation, 721 S. Road 28, Pasco, WA 99301
Quality Backhoe SErvice, 105 E. 15th Ave., Kennewick, WA 99337
R-2 Construction, 18621 Haney Rd, Kennewick, WA 99337
Rada & Sons, 2707 E. Lewis St., Pasco, WA 99301
Randolph Construction Services, Inc., 116 W. Bonneville St., Pasco, WA 99301
Ray Poland & Sons Const, 525 W. Grande Ronde Ave., Kennewick, WA 99336
Red D. Backhoe Services, 716 W. Margaret St., Pasco, WA 99301
Romm Construction, 731 S. Oregon Ave., Pasco, WA 99301
Shoemaker Excavation, Inc., 3004 S. Gerards Rd., Kennewick, WA 99337
Sojourn Excavating Inc., 8340 Selph Landing Rd, Pasco, WA 99301
Uribe Inc., 1124 E. Columbia St., Pasco, WA 99301
Vincent Construction, 2205 W. Frontage Rd., Pasco, WA 99301
Virgil Renicker Excavating, PO Box 4509, Pasco, WA 99301
Watts Construction, 5321 W. 10th, Pasco, WA 99301
Wubben Brothers, Inc., 721-A S. 28th Ave., Pasco, WA 99301
Precision Leasing & Sales, 500 S. Main Ave., Pasco, WA 99301

4. UTILITY COMPANIES

Franklin PUD, 1411 W. Clark St., Pasco, WA 99301
City of Pasco Water & Sewer Service, 525 N. Third Ave., Pasco, WA 99301
Qwest Communications, Pasco, WA 99301
Verizon, PO Box 1003, Everett, WA 98206
Charter Communications, 639 N. Kellogg St., Kennewick, WA 99336
Cascade Natural Gas, 222 Fairview Ave. N., Seattle, WA 89109

5. EMERGENCY OFFICIALS

a) LEPC
Franklin County Emergency Mgmt, 502 Boeing St., Pasco, WA 99301
b) fire dept
Pasco Fire Department, Fire Administration, 310 N. Oregon St., Pasco, WA 99301
Franklin Co. Fire Marshall, PO Box 293, Pasco, WA 99301
Franklin Co. Fire Dist. 3, 2108 Road 84, Pasco, WA 99301
b) police/sheriff
Pasco Police Department, 525 N. Third, Pasco, WA 99301
Franklin Co. Sherriff Dept., 1016 N. 4th, Pasco, WA 99301
WA State Patrol, 133302 E. Law Lane, Kennewick, WA 99337

6. PUBLIC OFFICIALS

a) mayor
Mayor Matt Watkins, 525 N. Third Ave., Pasco, WA 99302
Mayor Pro-Tem Rebecca Francik, 525 N. Third Ave., Pasco, WA 99302
b) city manager
Gary Crutchfield, Pasco City Manager, 525 N. Third Ave., Pasco, WA 99302
d) city council and commissioners
Councilman Mike Garrison, 525 N. Third Ave., Pasco, WA 99302

Councilman Bob Hoffmann, 525 N. Third Ave., Pasco, WA 99302
Councilman Tom Larsen, 525 N. Third Ave., Pasco, WA 99302
Councilman Saul Martinez, 525 N. Third Ave., Pasco, WA 99302
Councilman Al Yenney, 525 N. Third Ave., Pasco, WA 99302
Franklin County Commissioner Robert E. Koch, 1016 N. 4th Ave., Pasco, WA 99301
Franklin County Commissioner Rick Miller, 1016 N. 4th Ave., Pasco, WA 99301
Franklin County Commissioner Brad Peck, 1016 N. 4th Ave., Pasco, WA 99301
e) planning boards
City of Pasco Planning Dept., 525 N. Third Ave., Pasco, WA 99301
Franklin County Engineer, 3416 Stearman Ave., Pasco, WA 99301
Franklin County Planning & Building Dept., 1016 N. 4th Ave., Pasco, WA 99301
City of Pasco Public Works Dept., 525 N. Third, Pasco, WA 99301
Franklin County Public Workds Dept., 1016 N. 4th Ave., Pasco, WA 99301
WA DOT, Maint. Office, 1816 N. 4th Ave., Pasco, WA 99301
Franklin County, 1016 N. Fourth Avenue, Pasco, WA 99301

7. ONE-CALL CENTER
Call Before You Dig, P.O. Box 4796, S. Colby, WA 98384

Attachment F

5.3.6 Technical staff personnel will perform the necessary pipe defect calculations and will submit recommendations for continued or altered operation, repair alternatives, and/or replacement of the damaged or defective pipe to the Facility Manager or Maintenance Manager.

5.4 Inspection of Pipe Removed from Service

5.4.1 Before removing any pipe, mark the exposed pipe to be removed to identify it's orientation with respect to the o'clock position (looking downstream).

5.4.2 Inspect the removed pipe as described in sections 5.2 and 5.3 of this procedure.

5.4.3 Observe the internal condition of the removed pipe. Clean random areas of the internal pipe surface of any deposits or scale to bare metal, especially at the 6 o'clock position. Measure and record the nominal outside diameter and wall thickness.

- If there is no indication of internal damage or defect, then document and record *"no internal damage or defect exists"*
- If evidence of internal damage or defect is found, record the wall thickness measurements at 2 foot intervals along the pipe and at the 12, 2, 4, 6, 8, and 10 o'clock orientation (looking downstream) until the internal damage or defect is no longer evident

5.4.4 Record the findings and measurements.

5.4.5 Consult with technical staff personnel as necessary to ensure that findings are thoroughly reviewed and remedial actions and alternatives are developed.

5.4.6 In cases where a more definitive analysis is required, the section of pipe may be sent to a research lab for further testing.

Tidewater Terminal Company

General Inspection Report

Facility: Snake River Terminal Pasco WA.	Date: 5/25/2011	Page: 1 of 1
Project: Removal of Area of Corrosion	Procedure No: TW-01	
Inspection Type(s): X Continuous ☐ Periodic	Location: ☐ Shop X Field	

Inspections Made:

After removing corroded pipe spools on the Inbound Gas Line and the Outbound Gas Line, pipe ends were inspected for internal corrosion along with the spools that were removed no internal corrosion was found. See attached pictures

A visual weld inspection was done, which includes Fit Up and 100% of Weld process. All four weld's processes that were completed. Were found to be Acceptable.

Welding was performed by Tommy Sizemore per Tidewater Terminal Company Weld Procedure TW-01

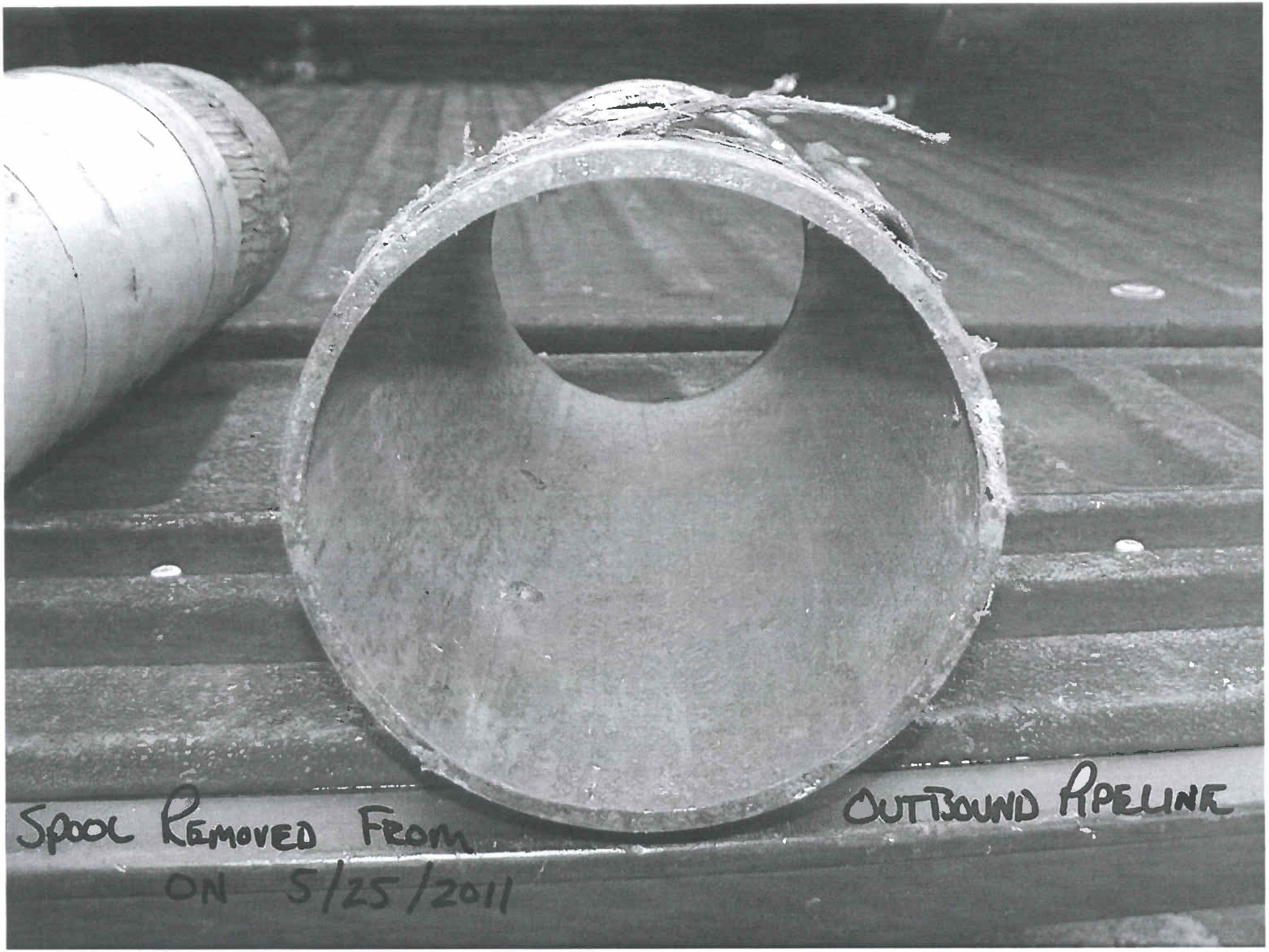
These were also Radiograph By Northwest Inspection and Found Acceptable with API 1104

Codes, Plans, and Specification References:

To the best of my knowledge, work inspected was in accordance with approved design drawings, specifications and applicable codes as noted below.

Print Name: Tim Berry Date: 10/17/2011

Signature: Tim Berry


SPOOL REMOVED FROM OUTBOUND RPELINE
ON 5/25/2011


SPOOL REMOVED FROM INBOUND GAS PIPELINE
ON 5/25/2011


TOP OF PIPE
5-23-2011
CHEVRON OUTBOUND


Top of Rock
5-25-2011
CHEVRON
NBOUND
GAS

Attachment G

TIDEWATER

Atmospheric Corrosion Inspection

	Coating Condition	Pipe Stand	Dielectric Material
8" Gasoline Barge/Pipeline Line	Good ☐ Fair ☑ Poor ☐ Comments: Needs PAINT ALOT OF Chipping	Good ☑ Fair ☐ Poor ☐	Need Repositioning IN SPOTS In Place ☑ Needs Replaced ☐
8" Diesel Barge/Pipeline Line	Good ☐ Fair ☑ Poor ☐ Comments: Needs PAINT ALOT OF Chipping	Good ☑ Fair ☐ Poor ☐	Needs Repositioning In Place ☑ Needs Replaced ☐
6" Pipeline Suction Line	Good ☑ Fair ☐ Poor ☐ Comments:	Good ☑ Fair ☐ Poor ☐	Needs Repositioning In Place ☑ Needs Replaced ☐
6" Pipeline Discharge Line	Good ☑ Fair ☐ Poor ☐ Comments:	Good ☑ Fair ☐ Poor ☐	Needs Repositioning In Place ☐ Needs Replaced ☑
Pump Station No. 1	Good ☑ Fair ☐ Poor ☐ Comments:	Good ☑ Fair ☐ Poor ☐	In Place ☑ Needs Replaced ☐
Pump Station No. 2	Good ☑ Fair ☐ Poor ☐ Comments:	Good ☑ Fair ☐ Poor ☐	In Place ☑ Needs Replaced ☐

TIDEWATER TERMINAL COMPANY
P.O. Box 806 • Pasco, WA 99301-0806 • (509) 547-7701 • Fax: (509) 545-5042

TIDEWATER

		Pipestand	Dielectric
6" Inbound Gasoline line at Chevron	Good ☐ Comments: Fair ☑ Poor ☐	Good ☑ Fair ☐ Poor ☐	In Place ☑ Needs Replaced ☐
6" Inbound Oil Line at Chevron	Good ☑ Comments: Fair ☐ Poor ☐	Good ☑ Fair ☐ Poor ☐	In Place ☑ Needs Replaced ☐
6" Outbound Line at Chevron	Good ☑ Comments: Fair ☐ Poor ☐	Good ☑ Fair ☐ Poor ☐	In Place ☑ Needs Replaced ☐

Comments Paint on 8" Lines on Rack side of Tank Farm is Good, The Riverside has alot of chipping and is in need of Paint

Inspected By: Joseph Gilbert Date: 10-6-11

TIDEWATER TERMINAL COMPANY
P.O. Box 806 • Pasco, WA 99301-0806 • (509) 547-7701 • Fax: (509) 545-5042

TIDEWATER

Atmospheric Corrosion Inspection

	Coating Condition	Pipe Stand	Dielectric Material
8" Gasoline Barge/Pipeline Line	Good ☒ Comments: could use some PAINT Fair ☐ Poor ☐	Good ☒ Fair ☐ Poor ☐	Repositioned some Dielectric Pads In Place ☒ Needs Replaced ☐
8" Diesel Barge/Pipeline Line	Good ☒ Comments: doing some PAINTING Fair ☐ on this Line now Poor ☐	Good ☒ Fair ☐ Poor ☐	In Place ☒ Needs Replaced ☐
6" Pipeline Suction Line	Good ☐ Comments: could use some PAINT Fair ☒ Poor ☐	Good ☒ Fair ☐ Poor ☐	Repositioned some Pad's In Place ☒ Needs Replaced ☐
6" Pipeline Discharge Line	Good ☒ Comments: Fair ☐ Poor ☐	Good ☒ Fair ☐ Poor ☐	In Place ☒ Needs Replaced ☐
Pump Station No. 1	Good ☐ Comments: Fair ☒ could use some PAINT Poor ☐	Good ☒ Fair ☐ Poor ☐	In Place ☒ Needs Replaced ☐
Pump Station No. 2	Good ☒ Comments: Fair ☐ Poor ☐	Good ☒ Fair ☐ Poor ☐	In Place ☒ Needs Replaced ☐

TIDEWATER TERMINAL COMPANY
P.O. Box 806 • Pasco, WA 99301-0806 • (509) 547-7701 • Fax: (509) 545-5042

TIDEWATER

6" Inbound Gasoline line at Chevron	Good ☒ Comments: Fair ☐ Poor ☐	Good ☒ Fair ☐ Poor ☐	In Place ☒ Needs Replaced ☐
6" Inbound Oil Line at Chevron	Good ☒ Comments: Fair ☐ Poor ☐	Good ☒ Fair ☐ Poor ☐	In Place ☒ Needs Replaced ☐
6" Outbound Line at Chevron	Good ☒ Comments: Fair ☐ Poor ☐	Good ☒ Fair ☐ Poor ☐	In Place ☒ Needs Replaced ☐

Comments MOST Piping Look's Good. Some Lines Need Paint, We are working on this as Time permits.

Inspected By: Tim **Date:** 7-20-07

TIDEWATER TERMINAL COMPANY
P.O. Box 806 • Pasco, WA 99301-0806 • (509) 547-7701 • Fax: (509) 545-5042

TIDEWATER

Atmospheric Corrosion Inspection

	Coating Condition	Pipe Stand	Dielectric Material
8" Gasoline Barge/Pipeline Line	Good ☐ Fair ☒ Poor ☐ Comments: RUST NEAR TK27 SOME CRACKED PAINT. RUST where UN32 LINE CROSSES. (BACK SIDE OF FARM HAS BEEN REPAINTED)	Good ☒ Fair ☐ Poor ☐	Needs Replaced By TOP of HILL. In Place ☒ Needs Replaced ☒
8" Diesel Barge/Pipeline Line	Good ☒ Fair ☐ Poor ☐ Comments: NOT ON STAND BY TK24 (BACKSIDE OF FARM HAS BEEN REPAINTED)	Good ☒ Fair ☐ Poor ☐	TOP of HILL UNLVE BY TK#27. In Place ☒ Needs Replaced ☒
6" Pipeline Suction Line	Good ☐ Fair ☒ Poor ☐ Comments: COULD USE SOME PAINT NEAR TK27	Good ☒ Fair ☐ Poor ☐	In Place ☒ Needs Replaced ☐
6" Pipeline Discharge Line	Good ☐ Fair ☒ Poor ☐ Comments: COULD USE SOME PAINT	Good ☒ Fair ☐ Poor ☐	In Place ☒ Needs Replaced ☐
Pump Station No. 1	Good ☒ Fair ☐ Poor ☐ Comments: COULD USE SOME PAINT	Good ☐ Fair ☐ Poor ☐	In Place ☐ Needs Replaced ☐
Pump Station No. 2	Good ☐ Fair ☒ Poor ☐ Comments: NEW PIPING HAS BEEN PRIMERED BUT NOT PAINTED.	STILL HAVE 3 TO PUT IN AND PAINT. Good ☐ Fair ☒ Poor ☐	In Place ☒ Needs Replaced ☐

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6" Inbound Gasoline line at Chevron	Good ☒ Fair ☐ Poor ☐ Comments: Need some PAINT on new Flanges And threaded Let's	Good ☒ Fair ☐ Poor ☐	In Place ☒ Needs Replaced ☐
6" Inbound Oil Line at Chevron	Good ☒ Fair ☐ Poor ☐ Comments: Need some PAINT on new Flanges and Thread-o-Let's	Good ☒ Fair ☐ Poor ☐	In Place ☒ Needs Replaced ☐
6" Outbound Line at Chevron	Good ☒ Fair ☐ Poor ☐ Comments: Need some PAINT on new Flanges and thread-o-Let's	Good ☒ Fair ☐ Poor ☐	In Place ☒ Needs Replaced ☐

Comments All Piping throughout Terminal is in Good shape, But could use some PAINT, we are working on this as weather and Time permits. New Flanges That were installed at chevron are and our WORK LIST to be PAINTed.

Inspected By: JW, Tim Bourf **Date:** 7-27-06

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Annual Above-Ground Pipe Coating Inspection

	Coating Condition	Pipe Stand	Dielectric Material
10" Gasoline Barge Line to Dock	Good [X] Fair [ ] Poor [ ] Comments: PAINT LOOKS GOOD FROM DOCK TO CASING	Good [X] Fair [ ] Poor [ ]	NO D/M on 10" SEGMENTS In Place [ ] Needs Replaced [X]
10" LSDF Barge Line to Dock	Good [X] Fair [ ] Poor [ ] Comments: PAINT LOOKS GOOD FROM DOCK TO CASING	Good [X] Fair [ ] Poor [ ]	NO D/M on 10" SEGMENTS In Place [ ] Needs Replaced [X]
10" HSDF Barge Line to Dock	Good [X] Fair [ ] Poor [ ] Comments: FROM DOCK TO CASING PAINT LOOKS GOOD	Good [X] Fair [ ] Poor [ ]	NO D/M on 10" SEGMENTS In Place [ ] Needs Replaced [X]
8" Gasoline Barge Line	Good [X] RUST NEAR TK 29 CRACKED PAINT Fair [X] Comments: RUST WHERE VAPOR LINE CROSSES Poor [ ] RACK SIDE OF FARM REPAINTED	Good [X] Fair [ ] Poor [ ]	NEAR TOP OF HILL VALVE In Place [X] Needs Replaced [X]
8" Diesel Barge Line	Good [X] NOT ON STAND NEAR TK 24 Fair [ ] Comments: Poor [ ] RACK SIDE OF FARM REPAINTED	Good [X] Fair [ ] Poor [ ]	NEAR TOP OF HILL PLC / VALVE In Place [X] Needs Replaced [X] NEAR INV. SIDE OF 29
6" Pipeline Suction Line	Good [ ] Fair [X] Comments: COULD USE SOME PAINT NEAR TK 27 Poor [ ]	Good [X] Fair [ ] Poor [ ]	In Place [X] Needs Replaced [ ]
6" Pipeline Discharge Line	Good [ ] Fair [ ] Comments: Poor [ ]	Good [ ] Fair [ ] Poor [ ]	In Place [ ] Needs Replaced [ ]
10" Unleaded Load Rack Line (Suction)	Good [X] Fair [ ] Comments: Poor [ ]	Good [X] Fair [ ] Poor [ ]	NONE In Place [X] Needs Replaced [ ]

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TIDEWATER

	Coating Condition	Pipe Stand	Dielectric Material
10" Premium Load Rack Line (Suction)	Good ☒ Fair ☐ Poor ☐ Comments:	Good ☒ Fair ☐ Poor ☐	In Place ☒ Needs Replaced ☐
10" LSDF Load Rack Line (Suction)	Good ☐ Fair ☐ Poor ☐ Comments:	Good ☐ Fair ☐ Poor ☐	In Place ☐ Needs Replaced ☐
10" HSDF Load Rack Line (Suction)	Good ☐ Fair ☐ Poor ☐ Comments:	Good ☐ Fair ☐ Poor ☐	In Place ☐ Needs Replaced ☐
10" Stove Oil Load Rack Line (Suction)	Good ☒ Fair ☐ Poor ☐ Comments:	Good ☒ Fair ☐ Poor ☐	In Place ☐ Needs Replaced ☐
8" Unleaded Load Rack Line (Discharge)	Good ☒ Fair ☐ Poor ☐ Comments:	Good ☒ Fair ☐ Poor ☐	In Place ☒ Needs Replaced ☐
8" Premium Load Rack Line (Discharge)	Good ☒ Fair ☐ Poor ☐ Comments:	Good ☒ Fair ☐ Poor ☐	In Place ☒ Needs Replaced ☐
8" LSDF Load Rack Line (Discharge)	Good ☒ Fair ☐ Poor ☐ Comments:	Good ☒ Fair ☐ Poor ☐	In Place ☒ Needs Replaced ☐
8" HSDF Load Rack Line (Discharge)	Good ☒ Fair ☐ Poor ☐ Comments:	Good ☒ Fair ☐ Poor ☐	In Place ☒ Needs Replaced ☐
8" Stove Oil Load Rack Line (Discharge)	Good ☒ Fair ☐ Poor ☐ Comments:	Good ☒ Fair ☐ Poor ☐	In Place ☒ Needs Replaced ☐

NOTES: FORM NEEDS REVISED TO PROVIDE MORE DETAILED INSPECTION - NEED TO IDENTIFY STATIONS ALONG PIPELINES THAT NEED ATTENTION. TOO MANY PIPE STANDS & AREAS OF PIPELINES - MORE THAN SPACE ON FORM ALLOWS - ☺

Inspected By: JN **Date:** 7-27-05

SRT-006

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Rev. 00

Attachment H

TIDEWATER	JPM-PM-SRT-131 Rev. 00 08/22/02 JOB PERFORMANCE MEASURE

TASK: Test Sun Relief Valve

Performance Objective: Prevent pipeline from over-pressurizing due to thermal expansion.

METHOD OF ACCOMPLISHMENT: Perform __X__ Simulate __X__

DUTY AREA: Operations

ASSOCIATED TASK ID: N/A

TASK PERFORMANCE STANDARD: Sun Relief valve tested, operates properly.

APPROVED FOR INDEPENDENT PERFORMANCE: No

SPECIAL EQUIPMENT: None

REFERENCE: PM-SRT-131

ASSOCIATED TASKS: None

APPROVED: _____ **DATE:** 9-30-11
Operations or Maintenance Supervisor

APPROVED: _____ **DATE:** 9-30-11
Terminals Manager

CAUTION

No facility equipment shall be operated during the performance of this JPM without the following:

1. Permission from the Terminals Manager
2. Direct oversight by a qualified individual (determined by the individual granting permission based on facility conditions).

EVALUATORS INSTRUCTIONS

NOTE
Questions asked by the evaluator will be limited to the information contained in the objectives.

1. Use the Objectives to develop questions to be discussed prior to performance of this JPM.
2. Knowledge Questions will be documented in the appropriate section of this JPM.
3. Attach any supporting documentation used during the performance of this JPM.
4. Sign the appropriate section of the JPM.
5. If the evaluation is **SAT**, Initial & Date the applicable items in the Trainees' Progression Guide.
6. Forward JPM evaluation to the Manager for review.

THE EVALUATOR SHALL REVIEW THE FOLLOWING WITH THE TRAINEE:

1. The evaluator shall explain the JPM initial conditions and clarify as required.
2. The trainee may use any references that are normally available.
3. The trainee shall indicate all required log entries, status board updates, chart recorder annotations, and communications.
4. The trainee shall make oral reports for annunciators and any abnormal indications observed. The examiner will act as the Controller or other individuals for communications purposes if the JPM is to be simulated.
5. The trainee shall verbally inform the evaluator of all actions performed during the performance of this JPM to ensure knowledge and understanding.
6. Symbols for answers on following page:

   ↑ (Alt+g) = Good Answer

   →(Alt+s) = Acceptable Answer

   ↓ (Alt+b) = Bad, Wrong Answer

EVALUATION QUESTIONS AND RESPONSE

Evaluator Instructions: Prior to starting the skills portion of the JPM, the evaluator shall ask questions based on the Objectives that are specific to the tasks being performed. The evaluator will document the questions and answers below.

Question 1: What action should be completed prior to testing sun relief valves?

Response: Talk with Operator and Verify line not in use.

Question 2: What are you looking for when you open the ½ inch ball valve.

Response: Looking for Relief Valve to open.

Question 3: What actions should be taken if pressure relief fails.

Response: Repair or replace.

INITIAL CONDITIONS

1. Pipeline being tested not scheduled for use

INITIATING CUE

The Terminal Manager has directed you to test the sun relief valves on the pipeline.

SYSTEM: Valve

TASK: Test Sun Relief Valve

NOTE: All step numbers in this JPM reflect the corresponding step numbers in the associated procedure.

SUBTASK #1.0: Test Sun Relief Valve

NOTE 1: If the JPM is being performed, some JPM steps may not be performed. The steps not performed should be noted with an N/A in the COMMENTS Column.
NOTE 2: If the evaluation is simulated, the evaluator should provide the trainee with simulation cues provided in the JPM.

Step	Critical?	Element	Action	Weight	SAT / UNSAT	COMMENTS (Required for UNSAT)
1.1	NO	**NOTE** number of sun relief valve on Relief Valve Inspection Report.	P, S	3	SAT / UNSAT	
Standard: Valve number noted in Inspection report.						
1.2	YES	**CLOSE** block valve.	P, S	N/A	SAT / UNSAT	
Standard: Block valve closed						
1.3	YES	**UNLOCK, CLOSE** ½" ball valve.	P, S	N/A	SAT / UNSAT	
Standard: ½" ball valve unlocked, closed.						
1.4	YES	**TURN ON** Spokane pump.	P, S	N/A	SAT / UNSAT	
Standard: Spokane pump turned on.						

Step	Critical?	Element	Action	Weight	SAT / UNSAT	COMMENTS (Required for UNSAT)
1.5	NO	**PINCH DOWN** Recirculation Valve, UNTIL pressure reaches approximately 125 p.s.i..	P, S	3	SAT / UNSAT	
Standard: Recirculation valve pinched down, until pressure reaches approximately 125 psi.						
1.6	NO	**OPEN** ½" ball valve.	P, S	3	SAT / UNSAT	
Standard: ½" ball valve opened.						
ⓘ **Note:** There should be audible evidence of product relieving through valve.						
1.7	NO	WITH ½" ball valve **OPEN**, **CHECK** pressure gauge for slight drop.	P, S	3	SAT / UNSAT	
Standard: Pressure gauge checked for slight drop with ball valve open.						
ⓘ **Note:** Pressure drop should be around 3 p.s.i. when Sun Relief Valve operates.						
1.8	NO	**IF** pressure drops 3 p.s.i., TEST SUCCESSFUL; **CONCLUDE** test.	P, S	3	SAT / UNSAT	
Standard: Test considered sucessful if pressure drops 3 psi.						
1.9	NO	IF pressure HOLDS, BUILDS, TEST FAILED – **REPLACE, REPAIR** Sun Relief valve.	P, S	3	SAT / UNSAT	
Standard: Valve replaced if pressure builds, holds.						
1.10	NO	**DOCUMENT** actions on Form SRT-009.	P, S	3	SAT / UNSAT	
Standard: Actions documented.						

TIDEWATER	JPM-PM-SRT-131 Rev. 00 (DRAFT A) 08/22/02 JOB PERFORMANCE MEASURE

Task: Test Sun Relief Valve

Method of Accomplishment: Perform or simulate

Associated Task ID: N/A

Approved for Independent Performance? No

Trainee Name: Tim Berry **Employee ID:** _____

Knowledge check complete: Mark L Davis (Trainer Name) 9-30-11 (Date)

SAT / UNSAT

Training complete: Mark L. Davis (Trainer Name) 9-30-11 (Date)

Successful Completion of this JPM Evaluation consists of
Satisfactory Performance of ALL Critical Step Items defined within, and 80% of Non-Critical Steps.

Evaluation complete: _____ (Evaluator Name) 9-30-11 (Date)

SAT / UNSAT

Comments: _____

Concurrence: _____ (Trainee Signature) 9/30/11 (Date)

TIDEWATER	JPM-TM-SRT-102 Rev. 00 08/20/02 JOB PERFORMANCE MEASURE

TASK: Test Pressure Relief Valve

Performance Objective: Ensure Proper Operation of Full-Flow Pres. Relief Valve, Outline Test Procedure

METHOD OF ACCOMPLISHMENT: Perform __X__ Simulate __X__

DUTY AREA: Operations

ASSOCIATED TASK ID: N/A

TASK PERFORMANCE STANDARD: Full-Flow Relief Valve properly tested, passed test.

APPROVED FOR INDEPENDENT PERFORMANCE: Yes

SPECIAL EQUIPMENT: Nitrogen bottle, regulator, Certified pressure gauge.

REFERENCE: Tidewater Terminal Policies/Procedures Manual TM-SRT-004

ASSOCIATED TASKS: None

APPROVED: _____ **DATE:** 9-30-11
Operations or Maintenance Supervisor

APPROVED: _____ **DATE:** 9-30-11
Terminals Manager

CAUTION

No facility equipment shall be operated during the performance of this JPM without the following:

1. Permission from the Terminals Manager
2. Direct oversight by a qualified individual (determined by the individual granting permission based on facility conditions).

EVALUATORS INSTRUCTIONS

NOTE
Questions asked by the evaluator will be limited to the information contained in the objectives.

1. Use the Objectives to develop questions to be discussed prior to performance of this JPM.
2. Knowledge Questions will be documented in the appropriate section of this JPM.
3. Attach any supporting documentation used during the performance of this JPM.
4. Sign the appropriate section of the JPM.
5. If the evaluation is **SAT**, Initial & Date the applicable items in the Trainees' Progression Guide.
6. Forward JPM evaluation to the Manager for review.

THE EVALUATOR SHALL REVIEW THE FOLLOWING WITH THE TRAINEE:

1. The evaluator shall explain the JPM initial conditions and clarify as required.
2. The trainee may use any references that are normally available.
3. The trainee shall indicate all required log entries, status board updates, chart recorder annotations, and communications.
4. The trainee shall make oral reports for annunciators and any abnormal indications observed. The examiner will act as the Controller or other individuals for communications purposes if the JPM is to be simulated.
5. The trainee shall verbally inform the evaluator of all actions performed during the performance of this JPM to ensure knowledge and understanding.
6. Symbols for answers on following page:

   ↑ (Alt+g) = Good Answer

   →(Alt+s) = Acceptable Answer

   ↓ (Alt+b) = Bad, Wrong Answer

EVALUATION QUESTIONS AND RESPONSE

Evaluator Instructions: Prior to starting the skills portion of the JPM, the evaluator shall ask questions based on the Objectives that are specific to the tasks being performed. The evaluator will document the questions and answers below.

Question 1: What action should be taken prior to testing the pressure relief valve?

Response: Notify Terminal Operator and verify Line not in use.

Question 2: What is used to pressure test a pressure relief valve?

Response: Nitrogen

Question 3: At what increment do you increase the pressure when testing the pressure relief?

Response: 50 LB. increments

INITIAL CONDITIONS

1. Outbound pipeline idled.

INITIATING CUE

The Terminal Manager has directed you to test the Full-Flow Relief Valve.

SYSTEM: Pipe

TASK: Test Pressure Relief Valve

NOTE: All step numbers in this JPM reflect the corresponding step numbers in the associated procedure.

SUBTASK #1.0: Test Pressure Relief Valve

NOTE 1: If the JPM is being performed, some JPM steps may not be performed. The steps not performed should be noted with an N/A in the COMMENTS Column.
NOTE 2: If the evaluation is simulated, the evaluator should provide the trainee with simulation cues provided in the JPM.

Step	Critical?	Element	Action	Weight	SAT / UNSAT	COMMENTS (Required for UNSAT)
1.1	YES	DOWNSTREAM from Full-Flow Pressure Relief Valve, **ALIGN** block valves.	P, (S)	N/A	(SAT) / UNSAT	
Standard: Block valves aligned downstream from full-flow relief valve.						
1.2	YES	**SECURE** nitrogen bottle.	P, (S)	N/A	(SAT) / UNSAT	
Standard: Nitrogen bottle secured.						
1.3	YES	**CLOSE** 3-inch valve, **LOCK, TAG OUT.**	P, (S)	N/A	(SAT) / UNSAT	
Standard: 3-inch valve closed, locked, tagged out.						
1.4	NO	**CHECK** ½" valve **CLOSED**.	P, (S)	4	(SAT) / UNSAT	
Standard: ½ " valve checked, closed.						

Step	Critical?	Element	Action	Weight	SAT / UNSAT	COMMENTS (Required for UNSAT)
1.5	NO	**REMOVE** ½" valve plug.	P, S	3	SAT / UNSAT	
Standard: ½" valve plug removed.						
1.6	NO	**INSTALL** pressure gauge on manifold.	P, S	4	SAT / UNSAT	
Standard: Pressure gauge installed on manifold.						
1.7	YES	**INSTALL** hose, regulator on nitrogen bottle.	P, S	N/A	SAT / UNSAT	
Standard: Hose, regulator installed on nitrogen bottle.						
1.8	YES	**INSTALL** hose fitting on pressure gauge manifold.	P, S	N/A	SAT / UNSAT	
Standard: Hose fitting installed on pressure gauge manifold.						
ⓘ **NOTE:** Ensure nitrogen bottle is OFF before attaching regulator and hose. After opening bottle, one pressure gauge should read 2000 p.s.i., the other 0.						
1.9	NO	**OPEN** test port valve.	P, S	4	SAT / UNSAT	
Standard: Test port valve opened.						
1.10	NO	**OPEN** regulator, **INCREASE** pressure TO 50 p.s.i.	P, S	4	SAT / UNSAT	
Standard: Regulator opened, pressure increased to 50 psi.						
1.11	NO	**CHECK** pressure relief valve for leaks.	P, S	4	SAT / UNSAT	
Standard: Pressure relief valve checked for leaks.						
1.12	NO	**INCREASE** pressure at 50 p.s.i. increments	P, S	4	SAT / UNSAT	
Standard: Pressure increased at 50 psi increments.						

Step	Critical?	Element	Action	Weight	SAT / UNSAT	COMMENTS (Required for UNSAT)
1.13	NO	IF pressure relieves at 270 p.s.i., TEST COMPLETE.	P, S	4	SAT / UNSAT	
Standard: Test complete, if pressure relieves at 270 psi.						
1.14	YES	IF valve relieves before 270 p.s.i., STOP TEST, **CLOSE** regulator, 1/2" valve.	P, S	N/A	SAT / UNSAT	
Standard: If pressure relieves before 270 psi, test stopped, regulator closed, ½" valve closed.						
1.15	NO	**NOTIFY** Terminal Maintenance Supervisor, valve FAILED TEST.	P, S	4	SAT / UNSAT	
Standard: Terminal Maintenance Supervisor notified, test failed.						
1.16	NO	**NOTIFY** Terminal Operator of pipeline status.	P, S	4	SAT / UNSAT	
Standard: Terminal Operator notified of pipeline status.						
1.17	YES	**LOCK, TAG** out Main Line Block valve, 3 inch, 300-pound inlet to Full-Flow Relief Valve.	P, S	N/A	SAT / UNSAT	
Standard: Main Line Block Valve, 3-inch, 300-pound inlet to Full-Flow Relief Valve locked, tagged out.						

⊘CAUTION:
Pipeline CANNOT operate without Full-Flow Relief Valve protection.

ⓘ NOTE:
Repair of Full-Flow Relief Valve to be performed by trained personnel only.

1.18	NO	**REFER** to Manufacturer's Installation/Repair Manual to repair Full-Flow Relief Valve, **REPAIR, REPLACE** valve.	P, S	4	SAT / UNSAT	
Standard: Manufacturer's manual referred to when repairing valve.						

1.19	NO	**REPEAT** test.	P, S	4	SAT / UNSAT	
Standard: Test repeated.						
1.20	NO	**WHEN** test completed, **CLOSE** nitrogen bottle.	P, S	4	SAT / UNSAT	
Standard: Nitrogen bottle closed when test completed.						

⚠WARNING!
Use extreme caution when connecting, or disconnecting nitrogen bottle, regulator, or hose.

SUBTASK #2.0: When Test Completed:

Step	Critical?	Element	Action	Weight	SAT / UNSAT	COMMENTS (Required for UNSAT)
2.1	NO	**REMOVE** hose.	P, S	3	SAT / UNSAT	
Standard: Hose removed.						
2.2	NO	**REMOVE** regulator.	P, S	3	SAT / UNSAT	
Standard: Regulator removed.						
2.3	NO	**REPLACE** valve plug.	P, S	3	SAT / UNSAT	
Standard: Valve plug replaced.						
2.4	NO	**REMOVE** lock, tag, **OPEN** valve.	P, S	4	SAT / UNSAT	
Standard: Lock, tag removed, valve opened.						
2.5	NO	**DOCUMENT** test results.	P, S	4	SAT / UNSAT	
Standard: Test results documented.						
2.6	NO	**NOTIFY** Terminal Maintenance Supervisor of test results.	P, S	3	SAT / UNSAT	
Standard: Terminal Maintenance Supervisor notified of test results.						

TIDEWATER	JPM-TM-SRT-102 Rev. 00 (DRAFT A) 08/20/02 JOB PERFORMANCE MEASURE

Task: Test Pressure Relief Valve

Method of Accomplishment: Perform or simulate

Associated Task ID: N/A

Approved for Independent Performance? Yes

Trainee Name: Tim Berry **Employee ID:** _____

Knowledge check complete: Mark L. Davis (Trainer Name) 9-30-11 (Date)

SAT / UNSAT

Training complete: Mark L. Davis (Trainer Name) 9-30-11 (Date)

Successful Completion of this JPM Evaluation consists of
Satisfactory Performance of ALL Critical Step Items defined within, and 80% of Non-Critical Steps.

Evaluation complete: _____ (Evaluator Name) 9-30-11 (Date)

SAT / UNSAT

Comments: _____

Concurrence: _____ (Trainee Signature) 9-30-11 (Date)

Attachment I