

Consent Decree (90-5-2-1-10811) – 1:15-cv-00841 RBJ

End of Phase Report for Tank Systems in Group II

February 23, 2018

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Appendices

Appendix A – Summary of Reliable Information for PG2 Certified Locations

3. Noble's operations also include the use of produced water storage tanks that may also produce vapors from flashing and working and breathing losses such that the associated emissions are considered by the Engineering Evaluations when they are connected to a Tank System's Vapor Control System;
4. Vapor Control Systems are installed on Noble Tank Systems to route vapors from a Tank System to an emission control device; and
5. Where flashing, breathing, and/or working emissions have the potential to exceed Vapor Control System capacity, Vapor Control System modifications are necessary to ensure proper capture and control of emissions.

For purposes of the Tank Systems covered by this Fourth End of Phase Report, Noble did not create a general Engineering Design Standard for use at multiple Tank Systems. Rather, Noble used a site-specific Engineering Design Standard to ensure a Vapor Control System was designed and adequately sized for the PPIVFR of the Tank System.

This Fourth End of Phase Report covers the Vapor Control Systems for 213 Group II Tank Systems⁸.

As was the case with the First, Second and Third Reports, this Fourth End of Phase Report is also divided into five (5) sections that, based on the best currently available information, address the following:

- Section 1: An overview of the Engineering Design Standard considerations identified in Paragraph 9 of the CD;
- Section 2: A discussion of requirements, constraints, and limitations of operation and/or design parameters for the Tank Systems and Vapor Control Systems;
- Section 3: A summary of design and implementation challenges;
- Section 4: A summary of Vapor Control Systems operations; and
- Section 5: A discussion of any other significant observations associated with the Tank Systems and Vapor Control Systems.

1. Engineering Design Standard Overview

During this reporting period, Noble did not develop a Three Line Pressure Grouping or subset grouping Engineering Design Standard for the Tank Systems. Instead, Noble developed

⁸ Of the 736 Tank Systems that were included in the January 26th, 2017 Certification of Completion Report that were not previously certified for Group II Tank Systems, 213 were certified as complete and 523 were certified as shut in.

In some instances, information provided by Noble in its First, Second and Third Reports remains applicable to this Fourth Report. This is due to no material changes to the design and selection of equipment to control Tank System vapors since the previous reporting periods. Where appropriate, Noble has included notations directing the reader to the First, Second or Third Report instead of including identical details in this Fourth Report.

As noted in the First, Second and Third Reports:

1. An Engineering Evaluation is the process of applying an appropriate Engineering Design Standard² to determine if the existing Vapor Control System³ at each Tank System is adequately designed and sized to handle the Potential Peak Instantaneous Vapor Flow Rate (“PPIVFR”);⁴
2. Noble’s oil and natural gas production operations in the Denver-Julesburg (“D-J”) Basin include the use of Condensate⁵ tanks, which have the potential to produce vapors from flashing⁶ and working and breathing⁷ losses;

² Pursuant to Section III of the CD, “Engineering Design Standard” shall mean an engineering standard developed by Noble pursuant to Paragraph 9 (Engineering Design Standard).

³ Pursuant to Section III of the CD, “Vapor Control System” shall mean the system used to contain, convey, and control vapors from Condensate (including flashing, working, breathing, and standing losses, as well as any unintentional gas carry-through to Condensate tanks) at a Tank System. A Vapor Control System includes a Tank System, piping to convey vapors from a Tank System to a combustion device and/or vapor recovery unit, fittings, connectors, liquid knockout vessels or vapor control piping, openings on Condensate tanks (such as pressure relief valves (“PRVs”) and thief hatches), and emission control devices.

⁴ Pursuant to Section III of the CD, “Potential Peak Instantaneous Vapor Flow Rate” shall mean the maximum instantaneous amount of vapors routed to a Vapor Control System during Normal Operations (defined as all periods of operation, excluding Malfunctions, and explicitly including, for storage tanks at well production facilities, liquid dumps from the Separator), including flashing, working, breathing, and standing losses, as determined using the Modeling Guideline (defined as the modeling guideline developed by Noble pursuant to Paragraph 8 (Development of a Modeling Guideline)).

⁵ Pursuant to Section III of the CD, “Condensate” shall mean hydrocarbon liquids that remain liquid at standard conditions (68 degrees Fahrenheit and 29.92 inches mercury) and are formed by condensation from, or produced with, natural gas, and which have an American Petroleum Institute gravity (“API gravity”) of 40 degrees or greater.

⁶ Flashing occurs when Condensate or produced water is dumped from pressurized two-phase and three-phase Separators (Pursuant to Section III of the CD, a “Separator” is a pressurized vessel used for separating a well stream into gaseous and liquid components) into storage tanks, at or near atmospheric pressure, causing vapors to be released or “flashed” into a gaseous state as a result of the pressure drop.

⁷ Working and breathing losses are vapors that may be released from Condensate due to liquid level changes and temperature fluctuations.

3. Noble's operations also include the use of produced water storage tanks that may also produce vapors from flashing and working and breathing losses such that the associated emissions are considered by the Engineering Evaluations when they are connected to a Tank System's Vapor Control System;
4. Vapor Control Systems are installed on Noble Tank Systems to route vapors from a Tank System to an emission control device; and
5. Where flashing, breathing, and/or working emissions have the potential to exceed Vapor Control System capacity, Vapor Control System modifications are necessary to ensure proper capture and control of emissions.

For purposes of the Tank Systems covered by this Fourth End of Phase Report, Noble did not create a general Engineering Design Standard for use at multiple Tank Systems. Rather, Noble used a site-specific Engineering Design Standard to ensure a Vapor Control System was designed and adequately sized for the PPIVFR of the Tank System.

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1. Engineering Design Standard Overview

During this reporting period, Noble did not develop a Three Line Pressure Grouping or subset grouping Engineering Design Standard for the Tank Systems. Instead, Noble developed

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individual site-specific Engineering Design Standards for those Tank Systems covered during this reporting period.

1.1 Vapor Control Technologies

As these considerations did not change, please refer to the First Report.

1.2 Site-specific Construction Constraints

As these considerations did not change, please refer to the First Report.

1.3 Tank-to-combustor piping system design considerations

As these considerations did not change, please refer to the First Report.

1.4 Separator liquid dump characteristics

As these considerations did not change, please refer to the First Report.

1.5 Storage tank headspace

As these considerations did not change, please refer to the First Report.

1.6 Other Vapor Control System design considerations

As these considerations did not change, please refer to the First Report.

2. Requirements, Constraints, and Limitations of Operation and/or Design Parameters

As these considerations did not change, please refer to the First Report.

3. Summary of Design or Implementation Challenges Encountered

One new implementation challenge of note was encountered for Group 2 Tank Systems and Vapor Control Systems modified during this reporting period.

Implementation Challenge:

Unloading of Produced Water into Tank Truck Loadout Control Systems

As discussed in the Fourth and Fifth semi-annual reports, as a result of reviewing tank pressure monitoring (TPM) data and conducting site investigations, Noble determined that its current operational procedure for unloading produced water had the potential to create TPM trigger point exceedances (greater than 14oz headspace pressure). Specifically, the produced water

unloading is accomplished by routing the water vapors through the VCS of Tank Systems to minimize exposure to the potential presence of hydrogen sulfide. Preliminary information suggested that the trigger point exceedances for these instances were associated with inert gases and not VOCs.

During the first and second quarter of 2017, Noble conducted an internal study with the assistance of third party contractors to determine the root cause of the overpressure. The testing found that the overpressure events are due to the nature of operation of the vacuum trucks used by the water haulers. Tank truck loadout control systems are installed at 168 Tank Systems in the DJ basin as required by the CD. Although this implementation challenge is not limited to Group 2 Tank Systems and does not appear to be associated with a specific line pressure grouping, this challenge was discovered and researched thoroughly within the time period of developing this Fourth Report. Only three (3) of the 168 Tank Systems equipped with tank pressure monitors are Group 2 Tank Systems with tank truck loadout controls, the rest of the tank truck loadout controls are a part of Pressure Group I and III. The results of the testing summarized the following as the root cause for these over pressuring events:

- Water hauls differ from oil hauls in that they are completed with vacuum suction methods;
- Observation of the typical tank pressure profile suggested that the over pressure events are initiated by the exhaust flow rate after the hook-up of the vapor recovery line to the tanker vacuum pump when the vacuum pump is turned on;
- Over pressure events occur at the onset of vacuum pump activation to evacuate the tanker; prior to any water flow; and
- The over pressure events that occurred at the study locations indicate that a root cause of the over-pressure events during water hauling is due to the initial exhaust flow from the vacuum pump upon onset of pump down.

Using these testing results, Noble is moving forward with developing an alternative approach to produced water unloading that will still provide for safety considerations and minimize the likelihood of any TPM trigger point exceedances. These internal discussions include review of the following alternatives aimed at slowing down the initial rate of exhaust from the vacuum pump as seen by the vapor return line:

- Potential control strategy may include a focus on slowing down the initial rate of exhaust from the vacuum pump as seen by the vapor return line;
- Potential control strategy may include the disuse of the vapor return line for water hauling. By mechanical or visual means, prevent the use of the vapor return line during water hauling;

- Potential control strategy may include using a smaller vacuum pump. It is unlikely the haulers would adopt a smaller pump, although 170 standard cubic feet (scf) pumps are readily available;
- Potential control strategy may include pre-evacuating the tanker; and
- Potential control strategy may include reducing the rotation rate of the vacuum pump. Currently, pumps are operated at revolutions per minute (RPM) that are consistent with truck idle, so reducing rotation rate would require mechanical modification of the truck to reduce gear ratio.

Now that the root cause has been identified, Noble is moving forward with assessing the alternatives to produced water unloading.

4. Summary of Vapor Control System Operations

Pursuant to Paragraph 12.a. of the CD, Noble was required to conduct an IR camera inspection of each Tank System before, during and immediately after a dump event to confirm the Vapor Control System is adequately designed and associated tanks were not emitting VOCs. Vapor Control System Verifications for the modified Tank Systems covered by this reporting period did not observe VOC emissions from storage tank PRVs or thief hatches.

Pursuant to Paragraph 59.iv. of the CD, a summary of Reliable Information⁹ Noble obtained for the 213 Tank Systems covered in this report can be found in Appendix A. The data set is reflective of the period beginning with each Vapor Control System modification date and ending June 30, 2017 (the end of the reporting period for the most recently submitted semi-annual report). This document provides instances of VOC emissions after modifications and a description of any associated corrective actions.

5. Summary of Other Significant Observations

For this reporting period, there were no other significant observations associated with the Tank Systems and Vapor Control Systems.

⁹ Pursuant to Paragraph III of the CD, "Reliable Information" shall mean any observance or detection of VOC emissions from a Tank System using an optical gas imaging infrared camera, EPA Method 21 monitoring, CDPHE Approved Instrument Monitoring Method ("AIMM"), or audio, visual, olfactory ("AVO") inspections by EPA, CDPHE, or local government inspectors trained by CDPHE, Noble employees or Noble contractors trained to conduct inspections for emissions, or, in the case of the consultant selected by Noble to perform a third party audit, VOC emissions detected or observed using an optical gas imaging infrared camera. For purposes of this Decree only, evidence of past surface staining alone shall not be considered Reliable Information.

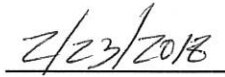
6. Certification

Pursuant to Paragraph 63 of the Noble Energy Consent Decree, I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.



Mark Patteson

Vice President, DJ Basin Business Unit



Date

APPENDIX A

SUMMARY OF RELIABLE INFORMATION FOR PG2 LOCATIONS CERTIFIED ON JANUARY 24, 2017

DATA REPORTED IS FROM DATE OF VAPOR RECOVERY SYSTEM VERIFICATION TO JUNE 30, 2017

Vapor Control System (LOD)	Tank System Number	VCS Verification Date (w/ IR Camera)	Leak Reported Date (Leak Reported Timestamp)	AIRS ID	Date of Corrective Action	TANK NUMBER	Description of Corrective Action	Source of VOC Emissions
ADLER LOCKMAN T4N-R64W-S10 L01	634	7/21/2016	6/14/2017	123-1762,123-7131,123-7508,123-7565,123-8529	6/14/2017	97948	Cleaned thief hatch center assembly. Replaced thief hatch envelope gasket.	Thief Hatch
ADLER LOCKMAN T4N-R64W-S10 L01	634	7/21/2016	6/14/2017	123-1762,123-7131,123-7508,123-7565,123-8529	6/14/2017	98689	Cleaned thief hatch center assembly. Replaced thief hatch envelope gasket.	Thief Hatch
ADLER LOCKMAN T4N-R64W-S10 L01	634	7/21/2016	6/14/2017	123-1762,123-7131,123-7508,123-7565,123-8529	6/14/2017	94287	Cleaned thief hatch center assembly. Replaced thief hatch envelope gasket.	Thief Hatch
ADLER LOCKMAN T4N-R64W-S10 L01	634	7/21/2016	6/14/2017	123-1762,123-7131,123-7508,123-7565,123-8529	6/14/2017	98230	Cleaned thief hatch center assembly. Replaced thief hatch envelope gasket.	Thief Hatch
ALEXANDER T5N-R65W-S33 L01	264	4/5/2016	8/18/2016	123-2751,123-7111,123-7115,123-7116	8/18/2016		Retaped tank connection threads	VOC Above Ground Line
ANDERSON BOHLENDER OSTER T4N-R65W-S27 L01	2207	11/1/2016	6/14/2017	123-3825	6/15/2017	6735916	Performed maintenance on the PRV, thief hatch center assembly, and thief hatch envelope gasket.	PRV & Thief Hatch
ANDERSON-COOMBS CURTIS WASS T5N-R66W-S25 L01	2174	4/5/2016	4/5/2016	123-4170	4/6/2016	6748819	Taped PRV threads	PRV
ANDERSON-COOMBS CURTIS WASS T5N-R66W-S25 L01	2174	4/5/2016	5/8/2017	123-4170	5/8/2017	8805	Cleaned thief hatch center assembly, seal surface, and vacuum gasket. Replaced thief hatch envelope gasket.	Thief Hatch
ARD COBB T4N-R64W-S6 L01	613	5/19/2016	7/7/2016	123-8595,123-999B	7/7/2016	4298	Cleaned thief hatch envelope gasket	Thief Hatch
ASHTON LINHART T5N-R66W-S33 L01	59	3/30/2016	2/22/2017	123-8803,123-8804,123-8805,123-8806,123-8807,123-9076	2/22/2017	169775	Cleaned thief hatch center assembly.	Thief Hatch
ASHTON LINHART T5N-R66W-S33 L01	59	3/30/2016	2/22/2017	123-8803,123-8804,123-8805,123-8806,123-8807,123-9076	2/22/2017	169772	Cleaned thief hatch center assembly.	Thief Hatch
ASHTON LINHART T5N-R66W-S33 L01	59	3/30/2016	5/15/2017	123-8803,123-8804,123-8805,123-8806,123-8807,123-9076	5/15/2017	165775	Cleaned thief hatch gaskets and sealing surfaces. Replaced thief hatch envelope gasket.	Thief Hatch
ASHTON LINHART T5N-R66W-S33 L01	59	3/30/2016	5/15/2017	123-8803,123-8804,123-8805,123-8806,123-8807,123-9076	5/15/2017	169774	Cleaned thief hatch gaskets and sealing surfaces. Replaced thief hatch envelope gasket.	Thief Hatch
AUFRECHT T5N-R67W-S2 L02	716/1399	6/14/2016	10/18/2016	123-4626,123-6289	10/18/2016	97359	Replaced PRV	PRV
AUFRECHT T5N-R67W-S2 L02	716/1399	6/14/2016	10/18/2016	123-4626,123-6289	10/18/2016	9650	Replaced PRV	PRV
AUFRECHT T5N-R67W-S2 L03	1518	3/3/2016	10/18/2016	123-7176	10/19/2016		Repaired elbow on vapor line	VOC Line
BALBOA C T4N-R64W-S20 L01	671	10/1/2015	6/8/2016	123-5337,123-6263	6/9/2016		Tightened threads on tank connection	Automation
BECCA CODY T3N-R64W-S3 L01	516-b	8/31/2015	6/18/2017	123-9439,123-9456	6/18/2017	360810	Blew down tank. Cleaned PRV and thief hatch.	PRV & Thief Hatch
BECCA CODY T3N-R64W-S3 L01	516-b	8/31/2015	6/18/2017	123-9439,123-9456	6/18/2017	360809	Blew down tank. Cleaned PRV and thief hatch.	PRV & Thief Hatch

Vapor Control System (LOD)	Tank System Number	VCS Verification Date (w/ IR Camera)	Leak Reported Date (Leak Reported Timestamp)	AIRS ID	Date of Corrective Action	TANK NUMBER	Description of Corrective Action	Source of VOC Emissions
BERNHARDT KAMMERZELL GREENHEAD T4N-R66W-S7 L01	175	5/31/2016	8/9/2016	123-2976,123-5218	8/9/2016	12133	Replaced thief hatch envelope gasket, cleaned center assembly and seal	Thief Hatch
BETZ ST T4N-R65W-S9 L01	271	10/13/2015	4/26/2017	123-9159	4/26/2017	F1403	Replaced thief hatch envelope gasket.	Thief Hatch
BIRD ZABKA T4N-R66W-S20 L01	173	6/3/2016	7/12/2016	123-2670,123-7600,123-8219	7/12/2016	98287	Tightened PRV	PRV
BOOTH T4N-R63W-S31 L01	501	9/22/2016	12/14/2016	123-5769,123-5772	12/14/2016	10334	Cleaned thief hatch components and replaced envelope gasket	Thief Hatch
BOOTH T4N-R63W-S31 L01	501	9/22/2016	5/2/2017	123-5769,123-5772	5/2/2017	10335	Cleaned thief hatch center assembly. Replaced thief hatch envelope gasket.	Thief Hatch
BOOTH T5N-R67W-S25 L02	18	12/6/2016	2/22/2017	123-2760,123-9209,123-9210	2/22/2017	36057	Cleaned thief hatch envelope gasket. Replaced thief hatch envelope gasket and 12 oz. spring with 16 oz. spring.	Thief Hatch
BOSTRON STROHAUER T5N-R65W-S32 L01	263	12/29/2015	5/13/2016	123-2191,123-4956,123-6439,123-8548,123-9028,123-9030,123-9033,123-9035	5/13/2016		Tightened tank automation component	Automation
BOSTRON STROHAUER T5N-R65W-S32 L01	263	12/29/2015	5/13/2016	123-2191,123-4956,123-6439,123-8548,123-9028,123-9030,123-9033,123-9035	5/13/2016		Cleaned PRV	PRV
BOULTER T4N-R65W-S14 L03	142	4/4/2016	4/4/2016	123-3706,123-9544,123-9939	4/5/2016	68312	Replaced thief hatch, installed Viton base gaskets and new bolts, flat washers, nuts and Viton washers	Thief Hatch
BOULTER T4N-R65W-S14 L03	142	4/4/2016	4/4/2016	123-3706,123-9544,123-9939	4/5/2016	3132993	Replaced thief hatch, installed Viton base gaskets and new bolts, flat washers, nuts and Viton washers	Thief Hatch
BOULTER T4N-R65W-S14 L03	142	4/4/2016	4/4/2016	123-3706,123-9544,123-9939	4/5/2016	68312	Relocated PRV.	PRV
BOULTER T4N-R65W-S14 L03	142	4/4/2016	7/7/2016	123-3706,123-9544,123-9939	7/7/2016	3132993	Cleaned PRV	PRV
BOULTER T4N-R65W-S14 L03	142	4/4/2016	7/7/2016	123-3706,123-9544,123-9939	7/7/2016	361062	Cleaned PRV	PRV
BOULTER T4N-R65W-S14 L03	142	4/4/2016	12/6/2016	123-3706,123-9544,123-9939	12/6/2016	3132993	Cleaned thief hatch center assembly	Thief Hatch
BOULTER T4N-R65W-S14 L03	142	4/4/2016	6/1/2017	123-3706,123-9544,123-9939	6/1/2017	68312	Replaced thief hatch envelope gasket.	Thief Hatch
CALLY BLUE DUFF GUTTERSEN T3N-R64W-S15 L01	523	7/26/2016	6/12/2017	123-1790,123-8245,123-8711,123-8712,123-9459	6/12/2017	360813	Cleaned PRV.	PRV
CHENOWETH JOHNSON BALBOA T4N-R64W-S20 L01	670	11/21/2016	1/24/2017	123-5786,123-6864,123-9983	1/24/2017	378775	Cleaned thief hatch center assembly.	Thief Hatch
CHENOWETH LEONARD HANDSCOME T4N-R64W-S21 L01	657	4/26/2016	6/8/2017	123-2664,123-4843,123-7563	6/8/2017	94309	Cleaned thief hatch. Replaced thief hatch envelope gasket.	Thief Hatch
CONAGRA T5N-R64W-S30 L03	321	4/13/2016	4/21/2016	123-7386,123-8032,123-8035,123-8160	4/22/2016		Closed blowdown valve	Blowdown
CONAGRA T5N-R64W-S30 L03	321	4/13/2016	9/19/2016	123-7386,123-8032,123-8035,123-8160	9/19/2016	98137	Cleaned PRV cap and O ring	PRV

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CONAGRA T5N-R64W-S30 L03	321	4/13/2016	9/19/2016	123-7386,123-8032,123-8035,123-8160	9/19/2016	98411	Cleaned thief hatch center assembly and added washer and O ring	PRV & Thief Hatch
CONAGRA T5N-R64W-S30 L03	321	4/13/2016	9/19/2016	123-7386,123-8032,123-8035,123-8160	9/19/2016	98411	Taped and doped bushing threads	Tank
CONAGRA T5N-R64W-S30 L03	321	4/13/2016	11/10/2016	123-7386,123-8032,123-8035,123-8160	11/10/2016	98137	Reseated PRV O ring and cleaned PRV cap and base	PRV
CONAGRA T5N-R64W-S30 L03	321	4/13/2016	11/10/2016	123-7386,123-8032,123-8035,123-8160	11/10/2016	98137	Cleaned thief hatch center assembly, added a center bolt washer and O ring and replaced envelope gasket	PRV & Thief Hatch
CONRAD HERBST BORYS T4N-R64W-S22 L01	478	4/27/2016	9/22/2016	123-4832,123-7243	9/22/2016	South Tank	Replaced thief hatch center assembly	Thief Hatch
CONRAD HERBST BORYS T4N-R64W-S22 L01	478	4/27/2016	9/22/2016	123-4832,123-7243	9/22/2016	North Tank	Tightened PRV	PRV
CONRAD HERBST BORYS T4N-R64W-S22 L01	478	4/27/2016	9/22/2016	123-4832,123-7243	9/22/2016	North Tank	Replaced thief hatch center assembly	Thief Hatch
DABNEY SHELTON T4N-R65W-S23 L01	2201	10/8/2015	11/23/2015	123-3859	11/23/2015		Replaced thief hatch envelope gasket, cleaned thief hatch center assembly and thief hatch rim.	Thief Hatch
DABNEY SHELTON T4N-R65W-S23 L01	2201	10/8/2015	5/5/2017	123-3859	5/5/2017	6735842	Cleaned thief hatch center assembly and vacuum gasket. Replaced thief hatch envelope gasket.	Thief Hatch
DIETRICH T4N-R64W-S7 L01	623	4/26/2016	4/26/2017	123-3610,123-4963,123-5215,123-7440,123-8692,123-9721	4/26/2017	98186	Tightened Morrison PRV threads.	PRV
DIETRICH T4N-R64W-S7 L01	623	4/26/2016	4/26/2017	123-3610,123-4963,123-5215,123-7440,123-8692,123-9721	4/26/2017	98097	Tightened Morrison PRV threads.	PRV
DIETRICH T4N-R64W-S7 L01	623	4/26/2016	4/26/2017	123-3610,123-4963,123-5215,123-7440,123-8692,123-9721	4/26/2017	98097	Removed Hawkeye thief hatch. Tightened thief hatch base bolts. Reinstalled Hawkeye thief hatch.	Thief Hatch
DR JOE T4N-R63W-S6 L02	1486	1/6/2016	10/10/2016	123-5673	10/10/2016	94558	Replaced thief hatch envelope gasket and cleaned center assembly	Thief Hatch
DRAKE T7N-R67W-S14 L01	5	2/20/2016	2/14/2017	123-9674,123-9675	2/15/2017	361187	Tightened automation connection.	Automation
EHRlich CONNELL T4N-R64W-S4 L01	620	7/21/2016	12/10/2016	123-4998,123-6664	12/10/2016	97412	Cleaned thief hatch center assembly, replaced envelope gasket and cleaned vacuum gasket	Thief Hatch
EMC ST BERNHARDT T5N-R67W-S36 L01	43	8/9/2016	5/16/2017	123-3061,123-3062,123-9376,123-9377	5/16/2017	360781	Cleaned thief hatch center assembly, seal surface, and vacuum gasket. Replaced thief hatch envelope gasket.	Thief Hatch
EMC ST BERNHARDT T5N-R67W-S36 L01	43	8/9/2016	5/16/2017	123-3061,123-3062,123-9376,123-9377	5/16/2017	360782	Cleaned thief hatch center assembly, seal surface, and vacuum gasket. Replaced thief hatch envelope gasket.	Thief Hatch
FARAMIR FARMS SMITH AMEN HOFF SHELTON T3N-R64W-S6 L01	704	4/5/2016	8/5/2016	123-2906,123-9215,123-9217,123-9226	8/5/2016	360916	Cleaned thief hatch envelope gasket	Thief Hatch
FARAMIR FARMS SMITH AMEN HOFF SHELTON T3N-R64W-S6 L01	704	4/5/2016	6/6/2017	123-2906,123-9215,123-9217,123-9226	6/6/2017	360594	Cleaned thief hatch center assembly.	Thief Hatch
FARAMIR FARMS SMITH AMEN HOFF SHELTON T3N-R64W-S6 L01	704	4/5/2016	6/6/2017	123-2906,123-9215,123-9217,123-9226	6/6/2017	360593	Cleaned thief hatch center assembly.	Thief Hatch

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FEIT MARLEY T4N-R64W-S1 L01	448	6/13/2016	12/10/2016	123-4856,123-9438,123-9442,123-9444,123-9447	12/10/2016	360715	Replaced thief hatch center assembly	Thief Hatch
FEIT MARLEY T4N-R64W-S1 L01	448	6/13/2016	4/11/2017	123-4856,123-9438,123-9442,123-9444,123-9447	4/11/2017	360714	Cleaned thief hatch center assembly. Replaced thief hatch envelope gasket.	Thief Hatch
FEIT MARLEY T4N-R64W-S1 L01	448	6/13/2016	4/11/2017	123-4856,123-9438,123-9442,123-9444,123-9447	4/11/2017	360715	Cleaned thief hatch center assembly. Replaced thief hatch envelope gasket. Tightened thief hatch nuts and bolts.	Thief Hatch
FIVE RIVERS T4N-R66W-S4 L01	58	6/22/2016	2/27/2017	123-9676,123-9678,123-9680,123-9681,123-9683,123-9684	2/28/2017	1049	Repaired nut on tank automation.	Automation
FRITZLER T4N-R66W-S22 L01	2200	12/8/2016	6/26/2017	123-3904	6/26/2017	10875707	Removed and retaped 2" bull plug on VOC line.	VOC Line
GEMINI FED T4N-R66W-S1 L01	104	11/10/2016	5/15/2017	123-1725,123-8500,123-8539	5/15/2017	169631	Cleaned thief hatch center assembly. Replaced thief hatch envelope gasket.	Thief Hatch
GEMINI FED T4N-R66W-S1 L01	104	11/10/2016	5/15/2017	123-1725,123-8500,123-8539	5/15/2017	169651	Cleaned thief hatch center assembly. Replaced thief hatch center assembly and envelope gasket.	Thief Hatch
GEMINI FED T4N-R66W-S1 L01	104	11/10/2016	5/15/2017	123-1725,123-8500,123-8539	5/15/2017	8019	Cleaned thief hatch center assembly. Replaced thief hatch center assembly and envelope gasket.	Thief Hatch
GEMINI FED T4N-R66W-S1 L01	104	11/10/2016	5/15/2017	123-1725,123-8500,123-8539	5/15/2017	169652	Cleaned thief hatch center assembly. Replaced thief hatch center assembly and envelope gasket.	Thief Hatch
GEMINI T5N-R64W-S31 L01	1084	2/11/2016	4/28/2016	123-2735	4/28/2016		Inspected with IR camera, no visible gas detected, unable to duplicate leak.	
GEMINI WRIGHT GOIN T4N-R64W-S7 L01	610	11/10/2015	3/16/2017	123-3543,123-7494,123-7495	3/16/2017	9823	Tightened tank 2" bushing.	Tank
GEMINI WRIGHT GOIN T4N-R64W-S7 L01	610	11/10/2015	6/1/2017	123-3543,123-7494,123-7495	6/1/2017	98204	Cleaned thief hatch. Replaced thief hatch envelope gasket.	Thief Hatch
GERRITY ST T4N-R65W-S36 L03	690-a	10/28/2015	3/8/2016	123-5499	3/8/2016		Cleaned thief hatch envelope gasket	Thief Hatch
GRAY O T4N-R67W-S26 L01	204	4/6/2016	6/8/2017	123-3518,123-6264	6/8/2017	90815	Cleaned PRV O-ring and seal.	PRV
GWAA T5N-R65W-S2 L02	219	8/18/2016	10/18/2016	123-7606,123-8873	10/18/2016	12255	Replaced thief hatch	Thief Hatch
GWAA T5N-R65W-S2 L02	219	8/18/2016	5/30/2017	123-7606,123-8873	5/30/2017	12408	Tightened access hatch bolts.	Access Hatch
GWAA T5N-R65W-S2 L02	219	8/18/2016	5/30/2017	123-7606,123-8873	5/30/2017	12410	Replaced thief hatch envelope gasket.	Thief Hatch
HANSCOME T4N-R64W-S28 L03	675/666	6/7/2016	6/8/2016	123-4888,123-7186,123-8030,123-8033	6/8/2016	98413	Replaced PRV	PRV
HANSCOME T4N-R64W-S28 L03	675/666	6/7/2016	6/8/2016	123-4888,123-7186,123-8030,123-8033	6/8/2016	98412	Replaced PRV	PRV
HANSCOME T4N-R64W-S28 L03	675/666	6/7/2016	12/14/2016	123-4888,123-7186,123-8030,123-8033	12/14/2016	98412	Replaced thief hatch envelope gasket and cleaned center assembly	Thief Hatch
HANSCOME T4N-R64W-S28 L03	675/666	6/7/2016	7/21/2016	123-4888,123-7186,123-8030,123-8033	7/21/2016	98413	Replaced thief hatch envelope gasket	Thief Hatch
HERBST DARLENE DINNEL T4N-R64W-S22 L01	479	3/9/2016	8/17/2016	123-8328,123-8617,123-9025,123-9026	8/17/2016	2367	Replaced thief hatch center assembly	Thief Hatch

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HERBST DARLENE DINNEL T4N-R64W-S22 L01	479	3/9/2016	8/17/2016	123-8328,123-8617,123-9025,123-9026	8/17/2016	1266	Replaced thief hatch center assembly	Thief Hatch
HSR KRAUSE T4N-R65W-S28 L01	368	11/19/2015	3/21/2016	123-4023	3/21/2016	347250	Replaced thief hatch envelope gasket	Thief Hatch
HSR KRAUSE T4N-R65W-S28 L01	368	11/19/2015	4/18/2016	123-4023	4/18/2016	347250	Replaced thief hatch envelope gasket	Thief Hatch
HSR KRAUSE T4N-R65W-S28 L01	368	11/19/2015	8/23/2016	123-4023	8/23/2016	623059	Tightened PRV	PRV
HSR KRAUSE T4N-R65W-S28 L01	368	11/19/2015	2/16/2017	123-4023	2/16/2017	347250	Cleaned PRV.	PRV
JEPSEN T3N-R65W-S2 L02	376	6/8/2016	10/11/2016	123-4004	10/11/2016	347908	Tightened thief hatch bolts	Thief Hatch
JOHNSON RUDOLPH T5N-R67W-S2 L01	14	3/30/2016	10/18/2016	123-4429,123-9276	10/19/2016	11825	Repaired tank reducer	Tank Reducer
JOHNSON RUDOLPH T5N-R67W-S2 L01	14	3/30/2016	10/27/2016	123-4429,123-9276	10/27/2016	11825	Replaced PRV	PRV
JOHNSON RUDOLPH T5N-R67W-S2 L01	14	3/30/2016	10/27/2016	123-4429,123-9276	10/27/2016	11826	Replaced thief hatch	Thief Hatch
JOHNSON RUDOLPH T5N-R67W-S2 L01	14	3/30/2016	10/27/2016	123-4429,123-9276	10/27/2016	11826	Replaced thief hatch	Thief Hatch
KARCH BLUE GUTTERSEN T3N-R64W-S12 L01	541	6/7/2016	6/6/2017	123-2854,123-8193,123-9149	6/6/2017	90891	Cleaned thief hatch center assembly. Replaced thief hatch envelope gasket.	Thief Hatch
KLEIN HANSCOME T4N-R65W-S12 L01	244	4/4/2016	4/4/2016	123-2822,123-8980,123-9036	4/5/2016	360522	Replaced PRV	PRV
LOFLAND BILLY T5N-R65W-S22 L01	1758	8/25/2016	6/8/2017	123-3021	6/8/2017	11970	Replaced thief hatch envelope gasket.	Thief Hatch
LORENZ FMS T5N-R65W-S22 L01	887	3/28/2016	10/11/2016	123-4475	10/11/2016	80181	Cleaned PRV	PRV
LORENZ FMS T5N-R65W-S22 L01	887	3/28/2016	10/11/2016	123-4475	10/11/2016	80182	Replaced thief hatch envelope gasket	Thief Hatch
LOUSTALET JOHNSON T4N-R64W-S30 L01	1759	2/19/2016	6/8/2016	123-2926	6/8/2016		Tightened reducer on tank connector	Tank
LOUSTALET JOHNSON T4N-R64W-S30 L01	1759	2/19/2016	2/16/2017	123-2926	2/16/2017	12105	Replaced thief hatch envelope gasket.	Thief Hatch
LUNDVALL T5N-R66W-S18 L02	1312	3/3/2016	5/17/2017	123-4627	5/17/2017	9616	Cleaned and reset PRV.	PRV
LUNDVALL T5N-R66W-S18 L02	1312	3/3/2016	5/17/2017	123-4627	5/17/2017	9616	Cleaned thief hatch. Replaced thief hatch center assembly.	Thief Hatch
MONFORT GILCREST 5RIVERS T4N-R66W-S8 L01	186	4/27/2016	9/13/2016	123-7993,123-9271,123-9272,123-9275,123-9299,123-9552,123-9553,123-9557	9/13/2016	361055	Replaced thief hatch envelope gasket, cleaned and rebuilt center assembly and cleaned seat	Thief Hatch
MONFORT GILCREST 5RIVERS T4N-R66W-S8 L01	186	4/27/2016	1/17/2017	123-7993,123-9271,123-9272,123-9275,123-9299,123-9552,123-9553,123-9557	1/17/2017	361055	Cleaned thief hatch center assembly, seal surface, and vacuum gasket. Replaced thief hatch envelope gasket.	Thief Hatch
NORRIS PIONEER T2N-R64W-S8 L01	1159	11/10/2016	3/15/2017	123-8833	3/15/2017	360313	Replaced thief hatch envelope gasket.	Thief Hatch

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NORRIS PIONEER T2N-R64W-S8 L01	1159	11/10/2016	3/15/2017	123-8833	3/15/2017	360313	Reseated PRV O-ring.	PRV
OCOMA T4N-R64W-S31 L02	678	2/19/2016	12/6/2016	123-3648,123-9869	12/6/2016	80668	Cleaned thief hatch center assembly	Thief Hatch
OREDIGGER WILMOTH MCCLINTOCK T4N-R64W-S4 L01	627	4/27/2016	5/5/2016	123-4348,123-6889,123-9728	5/6/2016	97405	Repaired PRV	PRV
OREDIGGER WILMOTH MCCLINTOCK T4N-R64W-S4 L01	627	4/27/2016	8/3/2016	123-4348,123-6889,123-9728	8/3/2016		Replaced thief hatch envelope gasket and cleaned thief hatch	Thief Hatch
OREDIGGER WILMOTH MCCLINTOCK T4N-R64W-S4 L01	627	4/27/2016	11/14/2016	123-4348,123-6889,123-9728	11/14/2016	South East Tank	Repaired leaking tank union	Tank
OREDIGGER WILMOTH MCCLINTOCK T4N-R64W-S4 L01	627	4/27/2016	6/14/2017	123-4348,123-6889,123-9728	6/14/2017	97405	Cleaned thief hatch center assembly. Replaced thief hatch envelope gasket.	Thief Hatch
OREDIGGER WILMOTH MCCLINTOCK T4N-R64W-S4 L01	627	4/27/2016	6/14/2017	123-4348,123-6889,123-9728	6/14/2017	34	Cleaned thief hatch center assembly. Replaced thief hatch envelope gasket.	Thief Hatch
OREDIGGER WILMOTH MCCLINTOCK T4N-R64W-S4 L01	627	4/27/2016	6/14/2017	123-4348,123-6889,123-9728	6/14/2017	97805	Cleaned thief hatch center assembly. Replaced thief hatch envelope gasket.	Thief Hatch
OREDIGGER WILMOTH MCCLINTOCK T4N-R64W-S4 L01	627	4/27/2016	6/14/2017	123-4348,123-6889,123-9728	6/14/2017	32	Cleaned thief hatch center assembly. Replaced thief hatch envelope gasket.	Thief Hatch
PEAKS PEPPLER UPRC T4N-R66W-S35 L01	102	2/17/2016	5/5/2016	123-9D17	5/5/2016	1096631	Replaced thief hatch envelope gasket	Thief Hatch
PHILLIPS T5N-R67W-S23 L01	29	5/31/2016	4/12/2017	123-3053,123-9453,123-9508,123-9509	4/12/2017	360887	Replaced thief hatch center assembly.	Thief Hatch
PHILLIPS T5N-R67W-S23 L01	29	5/31/2016	4/12/2017	123-3053,123-9453,123-9508,123-9509	4/12/2017	360900	Replaced thief hatch center assembly.	Thief Hatch
RAGAN ROACH T5N-R67W-S1 L01	21	9/8/2016	3/10/2017	123-2640,123-5639,123-7996	3/10/2017	67460	Tightened inspection plate bolts.	Inspection Plate
REBA T6N-R64W-S31 L01	1320	12/5/2016	12/29/2016	123-5407	12/29/2016	67090	Repaired VOC pilot.	VOC Pilot
REISTAD T4N-R64W-S5 L01	795	2/11/2016	4/12/2017	123-4350	4/13/2017	997	Cleaned, retaped, and tightened Morrison PRV.	PRV
REYNOLDS T5N-R65W-S28 L01	261	8/31/2015	8/31/2015	123-2743,123-8925	8/31/2015		Replaced ball valve on Vapor Control Line.	VOC Line
REYNOLDS T5N-R65W-S28 L01	261	8/31/2015	8/31/2015	123-2743,123-8925	8/31/2015		Tightened hammer union.	VOC Line
RIVA BLUE DECHANT T3N-R64W-S31 L01	419	3/10/2016	4/27/2016	123-1772,123-9476,123-9499	4/27/2016		Cleaned thief hatch envelope gasket	Thief Hatch
RIVA BLUE DECHANT T3N-R64W-S31 L01	419	3/10/2016	10/5/2016	123-1772,123-9476,123-9499	10/5/2016	300843	Flipped thief hatch envelope gasket	Thief Hatch
ROACH T5N-R67W-S14 L01	2056	12/28/2015	4/26/2016	123-9BF6	4/26/2016	6141436	Repaired PRV	PRV
ROACH T5N-R67W-S14 L01	2056	12/28/2015	7/18/2016	123-9BF6	7/18/2016	98373	Rebuilt thief hatch center assembly	Thief Hatch
ROACH T5N-R67W-S14 L01	2056	12/28/2015	7/18/2016	123-9BF6	7/18/2016	98361	Rebuilt thief hatch center assembly	Thief Hatch
ROHR T4N-R64W-S2 L01	630-b	10/1/2015	8/16/2016	123-2181,123-6566	8/16/2016	West Tank	Taped and doped nipple threads	Tank

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ROHR T4N-R64W-S2 L01	630-b	10/1/2015	8/16/2016	123-2181,123-6566	8/16/2016	East Tank	Taped and doped PRV threads	PRV
ROHR T4N-R64W-S2 L01	630-b	10/1/2015	8/16/2016	123-2181,123-6566	8/16/2016	West Tank	Replaced thief hatch envelope gasket and cleaned center assembly	Thief Hatch
ROHR T4N-R64W-S2 L01	630-b	10/1/2015	8/16/2016	123-2181,123-6566	8/16/2016	East Tank	Replaced thief hatch envelope gasket, cleaned thief hatch and installed center bolt washer and O ring	Thief Hatch
ROHR T4N-R64W-S2 L01	630-b	10/1/2015	9/15/2016	123-2181,123-6566	9/16/2016	1945	Replaced thief hatch center assembly	Thief Hatch
RUFF NORTHRUP T4N-R64W-S8 L01	628	9/1/2015	9/1/2015	123-3582,123-9714,123-9718,123-9786	9/1/2015		Cleaned and retaped supply line nipple.	VOC Supply Line
RUFF NORTHRUP T4N-R64W-S8 L01	628	9/1/2015	9/1/2015	123-3582,123-9714,123-9718,123-9786	9/2/2015	361283	Replaced PRV.	PRV
RUFF NORTHRUP T4N-R64W-S8 L01	628	9/1/2015	3/16/2017	123-3582,123-9714,123-9718,123-9786	3/16/2017	361284	Cleaned thief hatch center assembly.	Thief Hatch
RUFF NORTHRUP T4N-R64W-S8 L01	628	9/1/2015	4/24/2017	123-3582,123-9714,123-9718,123-9786	4/24/2017	284	Tightened adapter plate base gasket nut.	Adapter Plate
SCHANK T5N-R66W-S35 L03	110	7/7/2016	9/30/2016	123-1853,123-7072	9/30/2016		Cleaned PRV base and O ring	PRV
SCHANK T5N-R66W-S35 L03	110	7/7/2016	9/30/2016	123-1853,123-7072	9/30/2016	97914	Taped, doped and tightened PRV threads	PRV
SCHANK T5N-R66W-S35 L03	110	7/7/2016	9/30/2016	123-1853,123-7072	9/30/2016	97912	Replaced tank plug	Tank
SCHMIER THOR T5N-R64W-S32 L01	323	8/10/2016	10/5/2016	123-4864,123-8006,123-8020,123-8024	10/5/2016	98400	Taped and doped PRV threads	PRV
SCHMIER THOR T5N-R64W-S32 L01	323	8/10/2016	10/5/2016	123-4864,123-8006,123-8020,123-8024	10/5/2016	98400	Replaced thief hatch envelope gasket	Thief Hatch
SCHMIER THOR T5N-R64W-S32 L01	323	8/10/2016	10/5/2016	123-4864,123-8006,123-8020,123-8024	10/5/2016	57898	Taped and doped bull plug threads	Thief Hatch
SCHMIER THOR T5N-R64W-S32 L01	323	8/10/2016	5/4/2017	123-4864,123-8006,123-8020,123-8024	5/4/2017	98392	Cleaned thief hatch center assembly. Replaced thief hatch envelope gasket.	Thief Hatch
SCOOTER T3N-R64W-S18 L02	1202	2/17/2016	9/12/2016	123-4966	9/12/2016		Cleaned thief hatch	Thief Hatch
SCOOTER T3N-R64W-S18 L02	1202	2/17/2016	1/23/2017	123-4966	1/23/2017	34400	Cleaned thief hatch center assembly. Replaced thief hatch envelope gasket.	Thief Hatch
SCOOTER T3N-R64W-S18 L02	1202	2/17/2016	1/23/2017	123-4966	1/23/2017	34427	Cleaned thief hatch center assembly.	Thief Hatch
SCOOTER T3N-R64W-S18 L02	1202	2/17/2016	1/23/2017	123-4966	1/23/2017	34543	Cleaned thief hatch center assembly. Replaced thief hatch envelope gasket.	Thief Hatch
SCOOTER T3N-R64W-S18 L02	1202	2/17/2016	1/23/2017	123-4966	1/23/2017	34042	Cleaned thief hatch center assembly. Replaced thief hatch envelope gasket.	Thief Hatch
SCOOTER T3N-R64W-S18 L02	1202	2/17/2016	1/23/2017	123-4966	1/23/2017	34542	Cleaned thief hatch center assembly. Replaced thief hatch envelope gasket.	Thief Hatch
SCOOTER T3N-R64W-S18 L02	1202	2/17/2016	1/23/2017	123-4966	1/23/2017	34428	Cleaned thief hatch center assembly. Replaced thief hatch envelope gasket.	Thief Hatch

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SH FARMS SANDY HILLS PLUSS T4N-R64W-S17 L01	629	4/26/2016	12/13/2016	123-3562,123-9890,123-9990	12/13/2016	91111	Cleaned thief hatch vacuum gasket	Thief Hatch
SHABLE T4N-R66W-S17 L01	130	5/12/2016	9/8/2016	123-3747	9/8/2016	98585	Replaced thief hatch envelope gasket and cleaned center assembly	Thief Hatch
SHABLE T4N-R66W-S17 L01	130	5/12/2016	9/8/2016	123-3747	9/8/2016	98586	Replaced thief hatch envelope gasket and cleaned center assembly	Thief Hatch
SHELTON ALLISON T4N-R65W-S24 L01	662	6/13/2016	8/5/2016	123-2967,123-9A3C	8/5/2016	378890	Replaced thief hatch center assembly	Thief Hatch
SHELTON ARENS T4N-R65W-S23 L01	152	7/6/2016	9/7/2016	123-2150,123-7120	9/7/2016	97926	Replaced thief hatch envelope gasket and cleaned center assembly	Thief Hatch
SHELTON ARENS T4N-R65W-S23 L01	152	7/6/2016	9/7/2016	123-2150,123-7120	9/8/2016	97926	Replaced tank bull plug	Tank
SHELTON ARENS T4N-R65W-S23 L01	152	7/6/2016	9/7/2016	123-2150,123-7120	9/7/2016	97926	Tightened thief hatch bolts	Thief Hatch
SINJIN LDS T6N-R65W-S36 L01	80	3/21/2016	8/8/2016	123-3616,123-8493	8/8/2016	94597	Replaced thief hatch envelope gasket, cleaned center assembly and seal	Thief Hatch
IKENOUYE T5N-R65W-S29 L03	2007/922	1/4/2016	10/27/2016	123-2649,123-9ADE	10/27/2016	6137353	Cleaned and rebuilt thief hatch center assembly and replaced envelope gasket	Thief Hatch
STEVE T5N-R66W-S18 L01	33	4/21/2016	5/4/2016	123-6095,123-6102,123-6104	5/5/2016	97311	Replaced PRV	PRV
STEVE T5N-R66W-S18 L01	33	4/21/2016	5/4/2016	123-6095,123-6102,123-6104	5/4/2016	97311	Tightened PRV components	PRV
STEVE T5N-R66W-S18 L01	33	4/21/2016	9/14/2016	123-6095,123-6102,123-6104	9/14/2016	97329	Replaced thief hatch envelope gasket, cleaned and rebuilt center assembly and cleaned seat	Thief Hatch
STEVE T5N-R66W-S18 L01	33	4/21/2016	9/14/2016	123-6095,123-6102,123-6104	9/14/2016	97330	Replaced thief hatch envelope gasket, cleaned and rebuilt center assembly and cleaned seat	Thief Hatch
STEVE T5N-R66W-S18 L01	33	4/21/2016	9/14/2016	123-6095,123-6102,123-6104	9/14/2016	97311	Replaced thief hatch envelope gasket, cleaned and rebuilt center assembly and cleaned seat	Thief Hatch
STOCKLEY T4N-R64W-S15 L01	663/727	5/5/2016	6/6/2017	123-9685,123-9686,123-5273	6/6/2017	1105	Replaced thief hatch envelope gasket.	Thief Hatch
STOCKLEY T4N-R64W-S15 L01	663/727	5/5/2016	6/6/2017	123-9685,123-9686,123-5273	6/6/2017	94244	Replaced thief hatch envelope gasket.	Thief Hatch
STOCKLEY T4N-R64W-S15 L01	663/727	5/5/2016	6/6/2017	123-9685,123-9686,123-5273	6/6/2017	1106	Replaced thief hatch envelope gasket.	Thief Hatch
STOCKLEY T4N-R64W-S15 L01	663/727	5/5/2016	6/6/2017	123-9685,123-9686,123-5273	6/6/2017	1104	Replaced thief hatch envelope gasket.	Thief Hatch
STOCKLEY T4N-R64W-S15 L01	663/727	5/5/2016	6/6/2017	123-9685,123-9686,123-5273	6/6/2017	1105	Cleaned and reset PRV O-ring.	PRV
SYLVESTER T5N-R66W-S36 L01	109	5/17/2016	6/15/2016	123-1852,123-2702,123-2734,123-9993,123-9997,123-9999,123-999A	6/15/2016	94326	Tightened thief hatch base gasket bolts	Thief Hatch
SYLVESTER T5N-R66W-S36 L01	109	5/17/2016	6/15/2016	123-1852,123-2702,123-2734,123-9993,123-9997,123-9999,123-999A	6/15/2016	378785	Cleaned thief hatch	PRV
SYLVESTER T5N-R66W-S36 L01	109	5/17/2016	8/2/2016	123-1852,123-2702,123-2734,123-9993,123-9997,123-9999,123-999A	8/2/2016	94450	Cleaned PRV base and top	PRV
SYLVESTER T5N-R66W-S36 L01	109	5/17/2016	8/2/2016	123-1852,123-2702,123-2734,123-9993,123-9997,123-9999,123-999A	8/2/2016	378785	Taped and tightened PRV threads	PRV

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SYLVESTER T5N-R66W-S36 L01	109	5/17/2016	8/2/2016	123-1852,123-2702,123-2734,123-9993,123-9997,123-9999,123-999A	8/2/2016	6136340	Cleaned and tightened PRV	PRV
SYLVESTER T5N-R66W-S36 L01	109	5/17/2016	8/2/2016	123-1852,123-2702,123-2734,123-9993,123-9997,123-9999,123-999A	8/2/2016	94326	Tightened thief hatch bolts	Thief Hatch
SYLVESTER T5N-R66W-S36 L01	109	5/17/2016	8/2/2016	123-1852,123-2702,123-2734,123-9993,123-9997,123-9999,123-999A	8/2/2016	6136340	Replaced thief hatch envelope gasket and cleaned center assembly	Thief Hatch
SYLVESTER T5N-R66W-S36 L01	109	5/17/2016	8/2/2016	123-1852,123-2702,123-2734,123-9993,123-9997,123-9999,123-999A	8/2/2016	378785	Cleaned PRV base and top	PRV
SYLVESTER T5N-R66W-S36 L01	109	5/17/2016	8/2/2016	123-1852,123-2702,123-2734,123-9993,123-9997,123-9999,123-999A	8/2/2016	94450	Replaced thief hatch	Thief Hatch
SYLVESTER T5N-R66W-S36 L01	109	5/17/2016	10/13/2016	123-1852,123-2702,123-2734,123-9993,123-9997,123-9999,123-999A	10/13/2016	94450	Tightened thief hatch bolts	Thief Hatch
SYLVESTER T5N-R66W-S36 L01	109	5/17/2016	10/13/2016	123-1852,123-2702,123-2734,123-9993,123-9997,123-9999,123-999A	10/13/2016	6136340	Tightened thief hatch bolts	Thief Hatch
SYLVESTER T5N-R66W-S36 L01	109	5/17/2016	10/13/2016	123-1852,123-2702,123-2734,123-9993,123-9997,123-9999,123-999A	10/13/2016	94326	Replaced thief hatch center assembly and envelope gasket	Thief Hatch
THISTLE DOWN ST T5N-R65W-S36 L01	273	1/14/2016	10/5/2016	123-9091,123-9BB7	10/5/2016	201615277	Cleaned thief hatch center assembly and envelope gasket	Thief Hatch
THISTLE DOWN ST T5N-R65W-S36 L01	273	1/14/2016	10/5/2016	123-9091,123-9BB7	10/5/2016	2308	Cleaned thief hatch center assembly and envelope gasket	Thief Hatch
THISTLE DOWN ST T5N-R65W-S36 L01	273	1/14/2016	1/10/2017	123-9091,123-9BB7	1/10/2017	2301	Replaced thief hatch envelope gasket.	Thief Hatch
UNI UPR BOOTH T4N-R64W-S25 L01	496	1/26/2016	7/14/2016	123-2857,123-7651	7/14/2016		Tightened PRV	PRV
UNI UPR BOOTH T4N-R64W-S25 L01	496	1/26/2016	7/14/2016	123-2857,123-7651	7/14/2016	North Tank	Cleaned thief hatch envelope gasket	Thief Hatch
UPRC CHWY FERGUSON MONFORT T5N-R64W-S23 L01	310/1016	8/11/2016	4/13/2017	123-2849,123-2888,123-4760	4/13/2017	48611	Cleaned thief hatch center assembly. Replaced thief hatch envelope gasket.	Thief Hatch
UPRC CHWY FERGUSON MONFORT T5N-R64W-S23 L01	310/1016	8/11/2016	4/13/2017	123-2849,123-2888,123-4760	4/13/2017	80539	Cleaned thief hatch center assembly. Replaced thief hatch envelope gasket.	Thief Hatch
MONFORT T4N-R66W-S9 L01	2345/179	5/11/2016	8/16/2016	123-5062,123-3644	8/16/2016	73572	Replaced thief hatch envelope gasket, cleaned center assembly and seat	Thief Hatch
UPRC NELSON T4N-R66W-S27 L01	103	2/17/2016	6/23/2016	123-3697,123-9478	6/23/2016	360941	Replaced thief hatch envelope gasket	Thief Hatch
UPRC NELSON T4N-R66W-S27 L01	103	2/17/2016	6/23/2016	123-3697,123-9478	6/23/2016	360940	Replaced PRV	PRV
UPRC NELSON T4N-R66W-S27 L01	103	2/17/2016	6/23/2016	123-3697,123-9478	6/23/2016	360941	Taped collar on tank	Tank
UPRC NELSON T4N-R66W-S27 L01	103	2/17/2016	6/23/2016	123-3697,123-9478	6/23/2016	360940	Replaced thief hatch envelope gasket	Thief Hatch
UPRC NELSON T4N-R66W-S27 L01	103	2/17/2016	6/23/2016	123-3697,123-9478	6/23/2016	360942	Replaced thief hatch envelope gasket	Thief Hatch
UPRC NELSON T4N-R66W-S27 L01	103	2/17/2016	6/23/2016	123-3697,123-9478	6/23/2016	360941	Taped connection on tank	Tank
UPRC NELSON T4N-R66W-S27 L01	103	2/17/2016	6/23/2016	123-3697,123-9478	6/23/2016		Taped collar on PRV	PRV

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UPRC NELSON T4N-R66W-S27 L01	103	2/17/2016	3/8/2017	123-3697,123-9478	3/9/2017	360941	Tank permanently taken out of service.	Tank
UPRC SHELTON T3N-R65W-S1 L04	708	12/22/2016	6/20/2017	123-4971,123-4989,123-8428	6/21/2017	68338	Cleaned and replaced thief hatch envelope gasket.	Thief Hatch
UPRC SHELTON T3N-R65W-S1 L04	708	12/22/2016	6/20/2017	123-4971,123-4989,123-8428	6/21/2017	89592	Cleaned and replaced thief hatch envelope gasket.	Thief Hatch
UPRC T4N-R66W-S33 L01	857	12/14/2016	5/8/2017	123-1721	5/8/2017	68380	Cleaned thief hatch center assembly. Replaced thief hatch envelope gasket.	Thief Hatch
WATKINS BARNETT T4N-R64W-S12 L01	446	5/25/2016	8/9/2016	123-2145,123-6452,123-9769	8/9/2016		Cleaned thief hatch center assembly	Thief Hatch
WATKINS BARNETT T4N-R64W-S12 L01	446	5/25/2016	8/9/2016	123-2145,123-6452,123-9769	8/9/2016	East Tank	Added thief hatch center assembly center washer and cleaned center assembly	Thief Hatch
WATKINS BARNETT T4N-R64W-S12 L01	446	5/25/2016	6/8/2017	123-2145,123-6452,123-9769	6/8/2017	94299	Cleaned thief hatch center assembly.	Thief Hatch
WATKINS SATER T4N-R64W-S12 L01	449	7/21/2016	9/14/2016	123-2087,123-9541	9/14/2016	South Tank	Cleaned thief hatch center base	Thief Hatch
WATKINS SATER UPV T4N-R64W-S14 L01	469	11/30/2016	5/4/2017	123-1739,123-9723	5/4/2017	1165	Cleaned thief hatch center assembly. Replaced thief hatch envelope gasket.	Thief Hatch
WEBER SCHAEFER T4N-R66W-S16 L01	169	7/30/2015	2/27/2017	123-8545,123-9CF7	2/27/2017	66386	Tightened thief hatch bolts.	Thief Hatch
WERNING T4N-R66W-S3 L01	196	7/20/2016	4/19/2017	123-2502,123-2505,123-6697,123-7099,123-7100,123-7101	4/19/2017	360870	Replaced thief hatch envelope gasket.	Thief Hatch
WERNING T4N-R66W-S3 L01	196	7/20/2016	4/19/2017	123-2502,123-2505,123-6697,123-7099,123-7100,123-7101	4/19/2017	360876	Cleaned and reset PRV O-ring.	PRV
WERNING T4N-R88W-S2 L01	197	8/3/2016	1/12/2017	123-5994,123-5995,123-7684	1/12/2017	360873	Cleaned Morrison PRV. Reseated Morrison PRV O-ring.	PRV
WERNING T4N-R88W-S2 L01	197	8/3/2016	4/19/2017	123-5994,123-5995,123-7684	4/19/2017	360874	Cleaned and adjusted PRV O-ring.	PRV