KINDER MORGAN

Pier IX/X Terminal

1900 Harbor Access Road Newport News, VA 23607

Telephone 757.928.1520 Facsimile 757.928.1560

Febuary 1, 2017

Mr. Carl Thomas
Tidewater Regional Office
5636 Southern Blvd.
Virginia Beach, VA 23562

Dear Mr. Thomas,

Enclosed is the Annual Storm Water Report for the year 2016, as required by VPDES Permit No. VA0057142.

Please feel free to contact Chris Hill (757) 928-1530 with any additional questions, comments or concerns.

Sincerely,

Bradley Gilliatt
Pier IX/X
Terminal Manager

Chris Hill
Environmental Coordinator

KINDER MORGAN
BULK TERMINALS, INC.

2016

Annual

Storm Water

Report

KINDER MORGAN

PIER IX/X

ANNUAL REPORT

INSPECTIONS

Pier IX's environmental coordinator performs visual inspections of the facility's controls Monday-Thursday. The results are documented and filed in the environmental coordinator/crew leader's office for future reference. The areas covered include pumps, valves, and outfalls, parking areas, pond water quality, fire systems, ditch lines, storage tanks, maintenance areas and the facilities commodity inventory. These inspections are in place to ensure Pier IX is following permitted guidelines and remaining environmentally compliant as well as to confirm the environmental controls are operating as designed. The Pier IX On-Shift supervisor is responsible for environmental compliance when the coordinator is absent.

TRAINING

Training is given to Kinder Morgan employees and contractors working at Pier IX on an annual basis. Environmental, Health, and Safety training is presented to personnel by the Environmental and EHS coordinators. Training topics include VPDES permit, Groundwater Withdrawal permit, Coal/Cement Air permit, SWPPP and the SPCC. Records of the training are filed per employee in the safety building. Kinder Morgan has implemented the use of a "training matrix" ensuring all employees receive training in an organized and timely manner. Kinder Morgan has also instituted a "You Can Stop" program giving ALL employees and contractors working on KM facilities the ability to STOP any job for concerns regarding safety, environmental impact or customer service. The program assures personnel that using their right to STOP can be done any time without fear of retribution.

REPORTING

Pier IX strictly adheres to all permit required reporting guidelines and deadlines. For 2016, issues at the terminal were reported in timely manner and all follow-up reporting was completed. All Discharge Monitoring Reports (DMR) have been submitted to the agency via the VA DEQ "E-DMR" system. Copies of all completed DMRs are filed on site in the Environmental Coordinator/Crew Lead office as required. Outfall inspections required by the permit for 2016 have been completed and included in this report. For the duration of 2016 all required sampling was conducted and analyzed by Universal Labs. Results of the

laboratory analysis are filed onsite in the Environmental Coordinators office as well as submitted with DMRs. Pier IX parameters remained well under required limits and it is the focus moving forward to bring TSS levels even further down.

MAINTENANCE

Pier IX continues the utilization of the 'Dossier' Computer Maintenance Management System (CMMS) program to complete and record maintenance activities at the facility. Preventative Maintenance (PM) tasks are automatically presented by the system in the form of work orders when due for completion. Competent personnel then carry out the repair/inspection and input any pertinent information into the system records. Dossier has proven a very effective tool in managing the environmental controls at Pier IX keeping the system in shape and helping to recognize trends in equipment behavior. With several upgrades that have been constructed at the terminal in recent years for environmental control, the primary goal is maintaining system continuity to further reduce TSS and remain compliant.

COMMENTS

The beginning of 2016 brought challenging times to Pier IX with the workforce being substantially reduced to near minimum personnel. Within the first few months the coal market spiked and the terminal struggled to keep up with the pace while remaining understaffed. With this in mind, environmental compliance and safety have remained the upmost primary goals at the facility. With the aforementioned upgrades in place and maintained Pier IX is assured to remain compliant throughout these challenging times.

The primary source for wet suppression at the terminal continues to be reclaimed storm-water. All rain water, with the exception of Pier X, is recycled through wet suppression and wash-down systems throughout the facility. Continuous upgrades to the water recycling system have reduced discharges via outfall 001 and groundwater withdrawal amounts.

With the challenges of a shifting coal market environmental compliance at Kinder Morgan Pier IX will remain at the forefront of the operational mindset. Opportunities to improve the system will be met with diligence and employees will continue to be engaged in bringing about a safe 2017 with a focus on environmental impact.

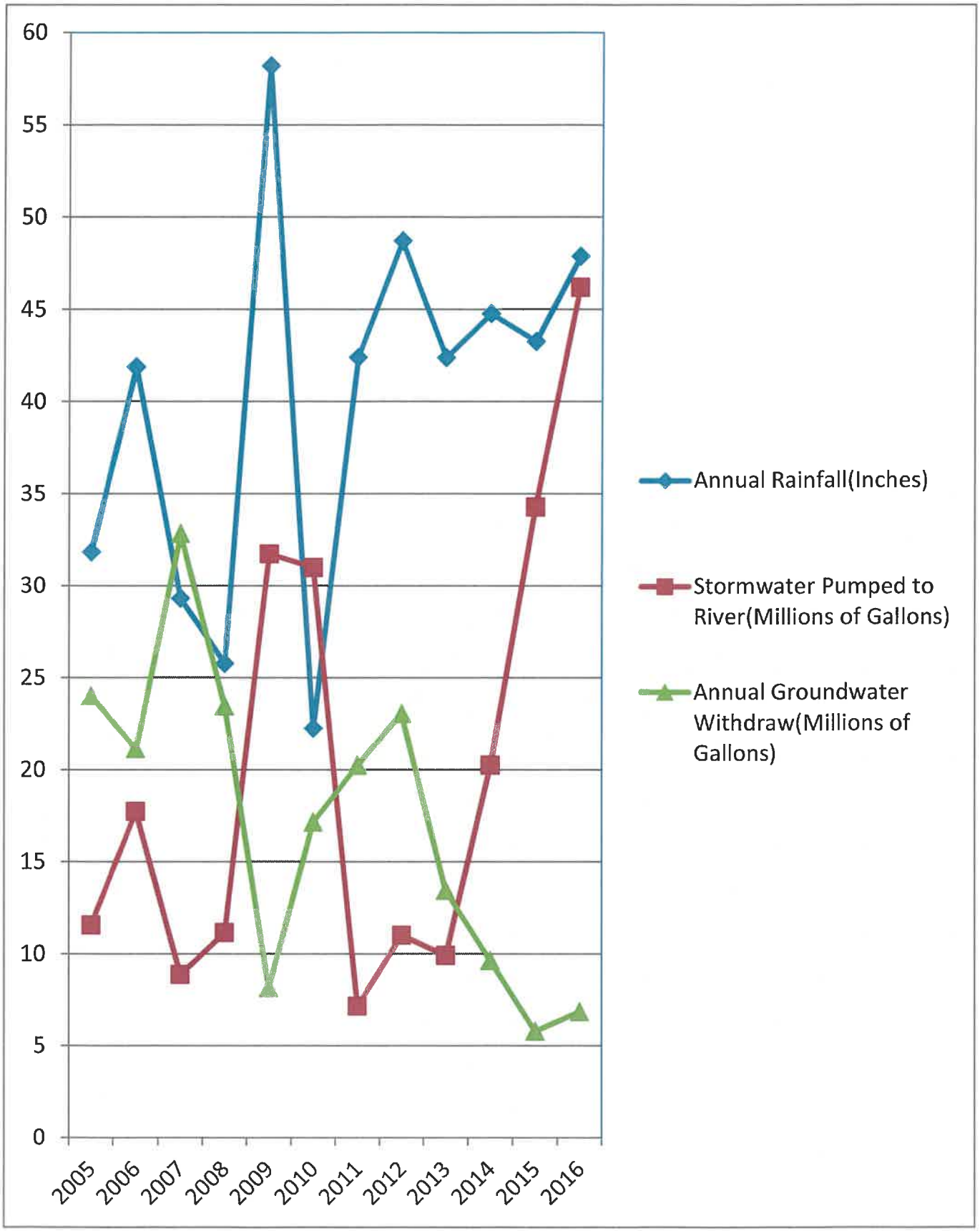
KINDER MORGAN
BULK TERMINALS, INC.

2016

Water

Usage

Trend


60
55
50
45
40
35
30
25
20
15
10
5
0
2005
2006
2007
2008
2009
2010
2011
2012
2013
2014
2015
2016
Annual Rainfall(Inches)
Stormwater Pumped to River(Millions of Gallons)
Annual Groundwater Withdraw(Millions of Gallons)

KINDER MORGAN
BULK TERMINALS, INC.

2016

Best

Management

Practices

Pier IX changes oil booms in the drainage ditch regularly to ensure any released oil is collected and disposed of properly. In the event of a spill these booms create a barrier to contain contaminants from reaching waters that would possibly be discharged to neighboring waterways.

Oil booms in place at the retention pond stopping oil/debris from reaching outfall 001.

Pier IX maintains cleaning of the perimeter ditch-line and retention pond via mobile equipment. By being diligent in cleaning operations the amount of coal fines entering the pond is greatly reduced. This reduction helps to maintain pH levels, bring TSS levels in outfall 001 discharges down substantially, increases pond holding capacity and ensures efficient operation of piping/pump systems.

Pier IX continues to implement caustic soda to correct storm water pH. Caustic is added to the perimeter ditch-line and pumps to the retention pond via the ditch pump located nearby. Spill kits and a safety wash shower are available for employees.

Pier IX continues to utilize a circulation line when pH corrections are needed to allow the circulation of pond water throughout the perimeter ditch-line.

Pier IX utilizes perimeter water cannons to supplement the upper structure system when winds are high.

Pier IX pulls water from underground conveyor tunnels via submersible pumps and drains the water to the perimeter ditch-line.

Pier IX utilizes parallel strainers so that system may be cleaned without taking the water supply out of service.

Pier IX has multiple in-line strainers in place throughout the system to ensure debris is kept from piping systems and to help filter out wet suppression water. These strainers are routinely cleaned and the debris disposed of properly.

Permitted outfalls with permit numbers and identification clearly marked.

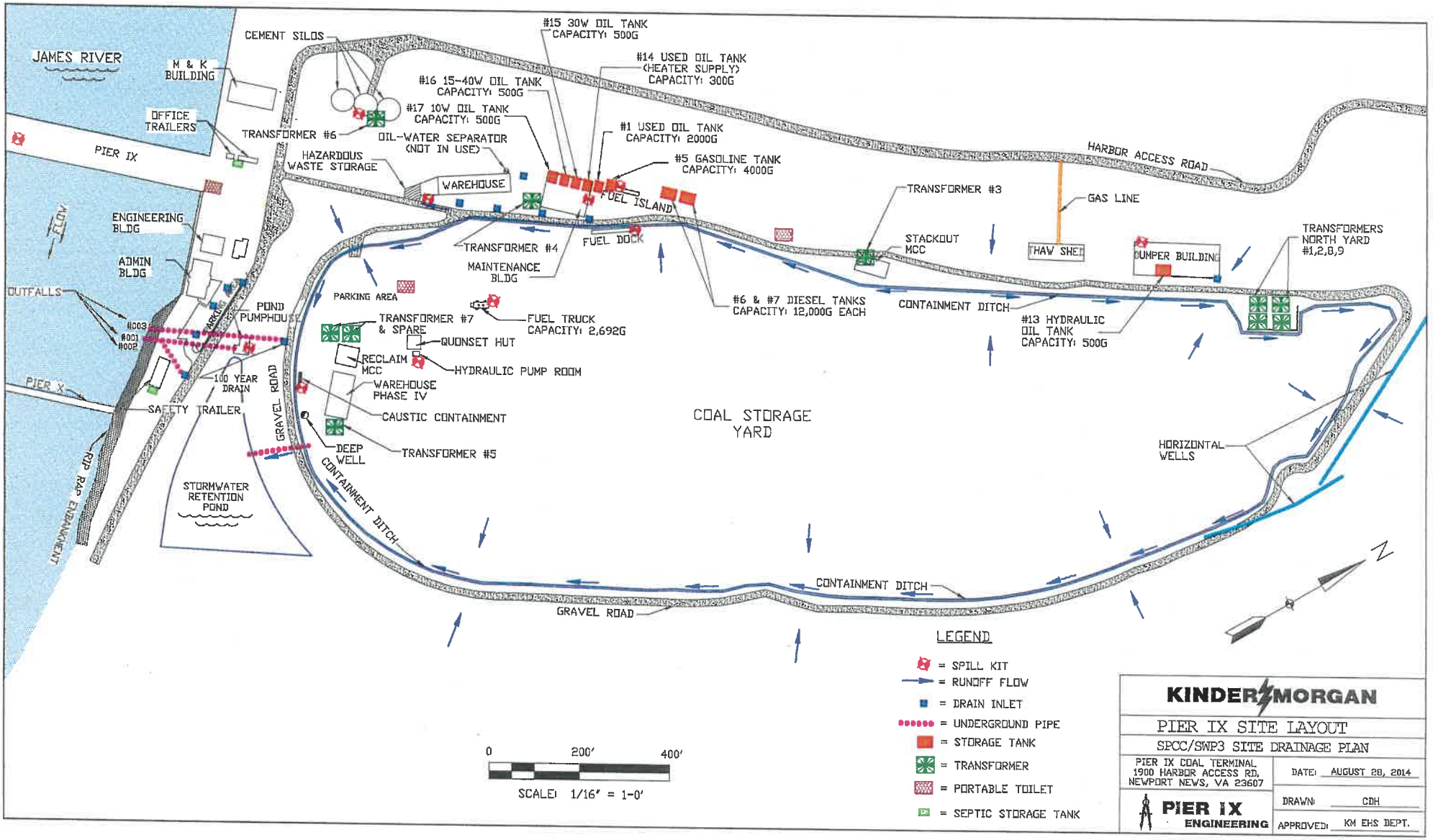
KINDER MORGAN
BULK TERMINALS, INC.

2016

Drainage Map

and

Tank Locations


JAMES RIVER
M & K BUILDING
CEMENT SILOS
#15 30W OIL TANK CAPACITY: 500G
#14 USED OIL TANK (HEATER SUPPLY) CAPACITY: 300G
#16 15-40W OIL TANK CAPACITY: 500G
#17 10W OIL TANK CAPACITY: 500G
OFFICE TRAILERS
TRANSFORMER #6
OIL-WATER SEPARATOR (NOT IN USE)
#1 USED OIL TANK CAPACITY: 2000G
HARBOR ACCESS ROAD
PIER IX
HAZARDOUS WASTE STORAGE
WAREHOUSE
#5 GASOLINE TANK CAPACITY: 4000G
FUEL ISLAND
TRANSFORMER #3
GAS LINE
ENGINEERING BLDG
FLOW
TRANSFORMER #4
FUEL DOCK
STACKOUT MCC
THAW SHED
DUMPER BUILDING
TRANSFORMERS NORTH YARD #1,2,8,9
ADMIN BLDG
MAINTENANCE BLDG
OUTFALLS
PARKING AREA
#6 & #7 DIESEL TANKS CAPACITY: 12,000G EACH
CONTAINMENT DITCH
#13 HYDRAULIC OIL TANK CAPACITY: 500G
POND PUMPHOUSE
TRANSFORMER #7 & SPARE
FUEL TRUCK CAPACITY: 2,692G
#003
#001
#002
QUONSET HUT
RECLAIM MCC
HYDRAULIC PUMP ROOM
PIER X
100 YEAR DRAIN
WAREHOUSE PHASE IV
SAFETY TRAILER
GRAVEL ROAD
CAUSTIC CONTAINMENT
COAL STORAGE YARD
HORIZONTAL WELLS
DEEP WELL
TRANSFORMER #5
RIP RAP EMBANKMENT
CONTAINMENT DITCH
STORMWATER RETENTION POND
CONTAINMENT DITCH
GRAVEL ROAD
N
0
200'
400'
SCALE: 1/16" = 1-0"
LEGEND
= SPILL KIT
= RUNOFF FLOW
= DRAIN INLET
= UNDERGROUND PIPE
= STORAGE TANK
= TRANSFORMER
= PORTABLE TOILET
= SEPTIC STORAGE TANK
KINDER MORGAN
PIER IX SITE LAYOUT
SPCC/SWP3 SITE DRAINAGE PLAN
PIER IX COAL TERMINAL
1900 HARBOR ACCESS RD,
NEWPORT NEWS, VA 23607
DATE: AUGUST 28, 2014
DRAWN: CDH
PIER IX ENGINEERING
APPROVED: KM EHS DEPT.

KINDER MORGAN
BULK TERMINALS, INC.

2016

Storage Tank

Inventory

Table 8-1: Facility Tank List

Storage Unit	Storage Unit Location	Contents	Maximum Capacity *(Gallons)*	Average Quantity Stored *(Gallons)*	Potential Failure *(Leak, rupture, overflow)*	Rate of Release *(Gallons per Hour)*	Direction of Flow	Containment Capacity *(Gallons)*
UNDERGROUND STORAGE TANKS								
#1 Used Oil Tank	North of Maintenance Shop	Used Oil	2,000	1,500	Leakage	50	Into ground	none
#2 Oil Tank (Removed Dec 2013)	North of Maintenance Shop	Removed	NA	NA	NA	NA	NA	NA
#3 Oil Tank (Removed Dec 2013)	North of Maintenance Shop	Removed	NA	NA	NA	NA	NA	NA
#4 Oil Tank (Removed Dec 2013)	North of Maintenance Shop	Removed	NA	NA	NA	NA	NA	NA
#5 Gasoline Tank	North of Maintenance Shop	Gasoline	4,000	2,000	Leakage	50	Into Ground	none
#6 Diesel Tank	North of Maintenance Shop	Diesel	12,000	6,000	Leakage	50	Into Ground	none
#7 Diesel Tank	North of Maintenance Shop	Diesel	12,000	6,000	Leakage	50	Into Ground	none
#8 Oil Tank	Maintenance Shop	Removed	NA	NA	NA	NA	NA	NA
#9 Tank	Maintenance Shop	Removed	NA	NA	NA	NA	NA	NA
ABOVE GROUND STORAGE TANKS								
#12 Tank (transformer 5)	Outside of Phase IV	Transformer Cooling Oil	150	100	Rupture, leak	20 gph to catastrophic	Within Containment	425
#13 Tank	Dumper Building	Hydraulic Oil	500	100	Rupture, leak	20 gph to catastrophic	Double Walled Tank	550
#14 Tank	Maintenance Shop	Used Oil "Heater Supply"	300	250	Rupture, leak	20 gph to catastrophic	Double Walled Tank	330

Storage Unit	Storage Unit Location	Contents	Maximum Capacity *(Gallons)*	Average Quantity Stored *(Gallons)*	Potential Failure *(Leak, rupture, overflow)*	Rate of Release *(Gallons per Hour)*	Direction of Flow	Containment Capacity *(Gallons)*
#15 Tank	Maintenance Shop	Motor Oil 30W	500	450	Rupture, leak	20 gph to catastrophic	Double Walled Tank	550
#16 Tank	Maintenance Shop	Motor Oil 15-40W	500	450	Rupture, leak	20 gph to catastrophic	Double Walled Tank	550
#17 Tank	Maintenance Shop	Motor Oil 10W	300	250	Rupture, leak	20 gph to catastrophic	Double Walled Tank	330
#18 Tank	Fuel Island	Diesel "Temporary"	1000	950	Rupture, leak	20 gph to catastrophic	Double Walled Tank	1,100
#19 Tank Removed March 2014	Fuel Dock	Diesel Removed	NA	NA	NA	NA	NA	NA
#20 Tank Removed April 2014	South of Dumper Building	Diesel Removed	NA	NA	NA	NA	NA	NA
EQUIPMENT								
Crane G1	Pier X	Hydraulic Oil	1246	1246	Rupture, leak	20 gph to catastrophic	Self-Contained	None
Crane G2	Pier X	Hydraulic Oil	1245	1245	Rupture, leak	20 gph to catastrophic	Self-Contained	None
Locomotive SL1	North of Dumper Building	Diesel, Lube Oil	600 Diesel 45 Lube Oil	600 Diesel 45 Lube Oil	Rupture, leak	20 gph to catastrophic	Drain toward perimeter ditch	None
Locomotive SL2	North of Dumper Building	Diesel, Lube Oil	600 Diesel 45 Lube Oil	600 Diesel 45 Lube Oil	Rupture, leak	20 gph to catastrophic	Drain toward perimeter ditch	None

Storage Unit	Storage Unit Location	Contents	Maximum Capacity *(Gallons)*	Average Quantity Stored *(Gallons)*	Potential Failure *(Leak, rupture, overflow)*	Rate of Release *(Gallons per Hour)*	Direction of Flow	Containment Capacity *(Gallons)*
Locomotive SL3	North of Dumper Building	Diesel, Lube Oil	600 Diesel 45 Lube Oil	600 Diesel 45 Lube Oil	Rupture, leak	20 gph to catastrophic	Drain toward perimeter ditch	None
Locomotive SL3.5	North of Dumper Building	Diesel, Lube Oil	200 Diesel 45 Lube Oil	250 Diesel 275 Lube Oil	Rupture, leak	20 gph to catastrophic	Drain toward perimeter ditch	None
Locomotive Black River 9581	North of Dumper Building	Diesel, Lube Oil	2200 Diesel 200 Lube Oil	2200 Diesel 200 Lube Oil	Rupture, leak	20 gph to catastrophic	Drain toward perimeter ditch	None
Locomotive "908" Hazelton Man	North of Dumper Building or Shop Area	Diesel, Lube Oil	1000 Diesel 125 Lube Oil	1000 Diesel 125 Lube Oil	Rupture, leak	20 gph to catastrophic	Drain toward perimeter ditch	None
Mag Separator Reservoir C2	C2 head end	SE7635 Dielectric Cooling Oil	776	776	Rupture, leak	20 gph to catastrophic	Drain toward perimeter ditch	None
Mag Separator Reservoir C7A	C7A head end	SE7635 Dielectric Cooling Oil	776	776	Rupture, leak	20 gph to catastrophic	Drain toward perimeter ditch	None
Mag Separator Reservoir C7B	C7B head end	SE7635 Dielectric Cooling Oil	776	776	Rupture, leak	20 gph to catastrophic	Drain toward perimeter ditch	None
Mobile Fuel Truck	Parked within Perimeter ditch line	Diesel Fuel, Lube Oil & Hydraulic Oil	2692	1870	Rupture, leak	20 gph to catastrophic	Into ground / toward perimeter ditch	None
Transformer #1	North Yard	Transformer Cooling Oil	1000	940	Rupture, leak	20 gph to catastrophic	Into Ground	None
Transformer #2	North Yard	Transformer Cooling Oil	1000	940	Rupture, leak	20 gph to catastrophic	Into Ground	None
Transformer #3	Stackout mcc	Transformer Cooling Oil	350	344	Rupture, leak	20 gph to	Into ground / toward	None

Storage Unit	Storage Unit Location	Contents	Maximum Capacity *(Gallons)*	Average Quantity Stored *(Gallons)*	Potential Failure *(Leak, rupture, overflow)*	Rate of Release *(Gallons per Hour)*	Direction of Flow	Containment Capacity *(Gallons)*
						catastrophic	perimeter ditch	
Transformer #4	Maintenance Shop	Transformer Cooling Oil	200	190	Rupture, leak	20 gph to catastrophic	Into ground / toward perimeter ditch	None
Transformer #5	Outside of Phase IV	Transformer Cooling Oil	150	100	Rupture, leak	20 gph to catastrophic	Into ground / toward perimeter ditch	None
Transformer #6	Cement Silos	Transformer Cooling Oil	290	270	Rupture, leak	20 gph to catastrophic	Into Ground	None
Transformer #7	Reclaim mcc	Transformer Cooling Oil	190	170	Rupture, leak	20 gph to catastrophic	Into Ground	None
Transformer # 8	North Yard	Transformer Cooling Oil	375	369	Rupture, leakage	20 gph to catastrophic	Into Ground	None
Transformer # 9	North Yard "Fire Pump"	Transformer Cooling Oil	220	206	Rupture, leakage	20 gph to catastrophic	Into Ground	None
Transformer #SPARE	Reclaimed MCC	Transformer Cooling Coil	190	170	Rupture, leakage	20 gph to catastrophic	Into Ground	None
Locomotive Black River Mid-River	North of Dumper Building	Diesel, Lube Oil	1700 diesel 200 lube	1700	Rupture, leakage	20 gph to catastrophic	Toward Perimeter Ditch	None

KINDER MORGAN
BULK TERMINALS, INC.

2016

Comprehensive Site Evaluation

DATE 10/28/2016 TIME 0945 EST

INSPECTION TEAM Rob Berry

Weather Conditions 59 F, Partly Cloudy, Winds N @ 11 mph, 5 mi Visibility

Areas Inspected	Comments
Retention Pond	One foot plus freeboard is maintained. pH is checked daily and adjustments are maded with caustic soda as needed.
Pond Pump House	Clean and well maintained, strainer baskets are cleaned often to inprove water quality.
Perimeter Ditch	Ditches are cleaned to reduce the amount of coal fines entering the pond.
Compund Grade	Adequate enough to maintain water flow from coal storage area to the perimeter ditch line.
7A & 7B Pump Discharges	All operational and discharge to the perimeter ditch.
Noth Yard	The North yard was converted to increase storage area in 2014.
Dumper	Daily shift logs are completed and all dust suppression equipment is in working condition to provide effective control of dust.
Car Puller Sump	In 2015, car postioner was replaced with an electric unit thus eliminating hydraulic spills at the dumper.
Fuel Dock	Fueling guidelines are posted and spill kits are adequate in this area.
Gasoline Pump Station	Fueling guidelines are posted and spill kits are adequate.
Diesel pump Station	Fueling guidelines are posted and spill kits are adequate. New fuel nozzle and hose installed for small equipment and cans to prevent spills. Great addition to the fuel island.
Storage Tanks	Underground storage tanks are monitored by the Veeder Root System at the warehouse.
Maintenance Shop	The shop is clean and well organized. All ASTs are spill free and double-walled as well as checked on a monthly basis.
Warehouse	Phase III drum storage is covered from rain/snow and the HAZ Waste Area has the drums inside of containment sheds awaiting pick-up.
Roadways and Parking	Roads are cleaned as needed and filter media changed as needed.
Pier Retention	Containment curbing is in good condition. Pier sumps are cleaned quarterly to minimize the amount of coal fines to the ditches and pond.
Pier Pumps	Pier X sump pumps are currently out of service. Pier IX pumps are maintained on a routine basis.
Bulkheads	The new steel bulkhead now has cathodic protection systems.
Outfall Discharge Pits	Discharge points are clear and clean. Clearly labeled by location and permit number.
Cement Silos	Spills are cleaned up immediately and transfer areas are maintained.

Signed Date 10/28/16

Signed Date

I certify under penalty of the 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.

KINDER MORGAN
BULK TERMINALS, INC.

2016

Acute Effluent

Toxicity

Test

Universal Laboratories
20 Research Drive
Hampton, VA 23666
Phone: 1-800-695-2162
Fax: 757-865-8014

Client Report For:	**Kinder Morgan Bulk Terminals- Pier IX Terminal Co.**
Attention:	Mr. Cory Steil
Client Address:	1900 Harbor Access Road Newport News, VA 23607
Project:	**VPDES Annual OF-001**
Order Number:	**1607131**
Report Date:	07/19/2016
Lab Receipt Date:	07/13/2016
Comment:	This report contains the analytical results for the indicated Project and Order. The results contained in this report relate only to the samples identified in this Order. The analytical results meet all requirements of NELAC unless specifically stated. This report shall not be reproduced except in full.

The data in this report has been reviewed and validated by: Carol K Zeno Signature

Carol K Zeno Name

Pres/Tech Director Title

Glossary of Terms and Abbreviations

ND	No analyte detected at or above the RL (Reporting Limit) listed
NR	No Results available, analyte not in instrument calibration
RL	(Reporting Limit) The minimum levels, concentrations, or quantities of a target analyte that can be reported within a specified degree of confidence. Generally, this number is equal to or just above the lowest calibration standard run with the analytical batch.
B	Analyte was found in the method blank
D	RPD outside acceptable limits
H	Holding time exceeeded
IS	Internal standard outside acceptable limits
J	Result above calibration curve - results are approximate
L	LCS Outside acceptable limits
MI	Matrix interence
MS	Matrix spike recovery outside acceptable limits
QC	Method QC criteria not met
S	Surrogate outside acceptable limits
V	ICV/CCV/FCV outside acceptable limits
LCS	(Laboratory Control Sample) A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
MDL	Method Detection Limitis is an estimate of the minimum amount of a substance that an analytical process can reliably detect
RPD	(Relative Percent Difference) The difference between a set of duplicates or sample spike duplicates.
MS/MSD	(Matrix Spike or Matrix Spike Duplicate) A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analytes concentration is available. Matrix Spikes are used, for example, to determine the effect of the matrix on a method's recovery efficiency.
Calibration Verfication	(Initial, Continuing, or Final) A standard analyzed at different times to verify that the initial calibration curve is still valid.
Holding Time	The maximum time that samples may be held prior to analysis and still be considered valid or not compromised.
Internal Standard	A known amount of standard added to a test portion of a sample as a reference for evaluating and controlling the precision and bias of the applied analytical method.
Method Blank	A sample of a matrix similar to the batch associated samples (when available) that is free from the analytes of interest and is processed simulatanously with and under the same conditions as samples.
Surrogate	A substance with properties that mimic the analyte of interest. It is unlikely to be found in environmental samples and is added to them for quality control purposes in Organics.
EPL	Exceeds Permit Limit. This is a qualifier to denote that the result exceeds the permit limit of the sample location.
Exceeds Benchmark Concentration	Result Exceeds Benchmark concentration listed in the General Permit. Benchmark Concentrations are primarily used to determine the overall effectivenss of the Stormwater pollution prevention plan. Excedence of Benchamrk concentrations does NOT constitute a violation of this permit and does NOT indicate that violation of a water quality standard has occured.

Client: Universal Laboratories, Inc.
Project ID: ULAB1617
Client Sample ID: Kinder-Morgan Pier IX outfall 001
Permit No.: not given
Sample Period: 7/13/16 #1607131-001A

Coastal Bioanalysts, Inc.

Report of Analysis: Whole Effluent Toxicity (WET)

Submitted To:	Prepared By:
Mr. Geof Hinshelwood Universal Laboratories, Inc. 20 Research Drive Hampton, VA 23666	Coastal Bioanalysts, Inc. 6400 Enterprise Court Gloucester, VA 23061 (804) 694-8285 www.coastalbio.com Contact: Peter F. De Lisle, Technical Director

Acute Test Results*				
Species-Test Method	**48-h LC50**	**95% C.L.**	**$T.U._{Ac}$**	**NOAEC**
M. bahia EPA 2007.0	>100	N/A	<1.00	N/A

*Note: Although the name of *Mysidopsis bahia* has officially been changed to *Americamysis bahia*, the former name is referenced because of its use in the EPA method manuals and most NPDES permits. Details regarding test conduct and data analysis provided in attached bench sheets and printouts as applicable.
For each test method record the $T.U._{Ac}$ value (bold) on the DMR.

Acute Test QA/QC	Reference Toxicant: KCl	Units: mg/l	Test Organism Source: CBI Stock Cultures		
Species-Method (Ref. Test Date)	**Data Source**	**% Control Survival**	**48-h LC50**	**95% C.L./A.L. for LC50**	**RTT in Control?**
M. bahia 2007.0	RTT	100	401	384-419	Yes
(7/9/16-7/11/16)	CC	100	482	388-576	

Note: RTT = Reference Toxicant Test, CC = Control Chart.

The results of analysis contained within this report relate only to the sample as received in the laboratory. This report shall not be reproduced except in full without written approval from the laboratory. Unless noted below, these test results meet all requirements of NELAP.

APPROVED:

Peter De Lisle

Digitally signed by Peter De Lisle
DN: cn=Peter De Lisle, o=Coastal Bioanalysts, ou, email=pfd@coastalbio.com, c=US
Date: 2016.07.18 18:32:03 -04'00'

Peter F. De Lisle, Ph.D.
Technical Director

Date

Deviations from, additions to, or exclusions from the test method, non-standard conditions or data qualifiers and, as appropriate, a statement of compliance/non-compliance: **NONE**

VELAP# 460030
EPA# VA01116

Client: Universal Laboratories, Inc.
Project ID: ULAB1617
Client Sample ID: Kinder-Morgan Pier IX outfall 001
Permit No.: not given
Sample Period: 7/13/16 #1607131-001A

Coastal Bioanalysts, Inc.

GLOSSARY OF TERMS AND ABBREVIATIONS

A.L. (Acceptance Limits): The results of a given reference toxicant test are compared to the control chart mean value ± 2 standard deviations. These limits approximate the 95% probability limits for the "true" reference toxicant value

Chronic Value (ChrV): The geometric mean of the NOEC and LOEC. Units are same as test concentration units.

C.L. (Confidence Limits): These are the probability limits, based on the data set and statistical model employed, that the "true value" lies within the limits specified. Typically limits are based on 95% or 99% probabilities.

Control chart: A cumulative summary chart of results from QC tests with reference toxicants. The results of a given reference toxicant test are compared to the control chart mean value and 95% Acceptance Limits (A.L.) (mean ± 2 standard deviations).

IC25: The concentration of sample or chemical, calculated from the data set using statistical models, causing a 25% reduction in test organism growth, reproduction, etc. The lower the IC25, the more toxic the chemical or sample. Units are same as test concentration units.

LC50: The concentration of sample or chemical, calculated from the data set using statistical models, causing a 50% reduction in test organism survival. The lower the LC50, the more toxic the chemical or sample Units are same as test concentration units. Note: The LC50 value must always be associated with the duration of exposure. Thus 48-h LC50, 96-h LC50, etc. are calculated.

LOEC: Lowest-observable-effect-concentration. The lowest concentration of sample or chemical in a chronic test dilution series in which the test organisms exhibit a statistically significant reduction in any of the test end points (e.g. growth, survival, reproduction) compared to control organisms. Units are same as test concentration units.

PMSD: Percent Minimum Significant Difference: The minimum difference which can exist between a test treatment and the controls in a particular test and be statistically significant; a measure of test sensitivity. The lower the PMSD the more sensitive the test.

N/A: Not applicable.

N/D: Not determined or measured.

NOAEC: No-observable-acute-effect-concentration. The highest concentration of sample or chemical in an acute test dilution series in which the test organisms exhibit no statistically significant reduction in the test end point (e.g. survival) compared to control organisms. Units are same as test concentration units.

NOEC: No-observable-effect-concentration. The highest concentration of sample or chemical in a chronic test dilution series in which the test organisms exhibit no statistically significant reduction in any of the test end points (e.g. growth, survival, reproduction) compared to control organisms. Some regulatory definitions also require that the NOEC be less than the LOEC. Units are same as test concentration units.

Q.L.: Quantitation Limit. Level, concentration, or quantity of a target variable (analyte) that can be reported at a specified degree of confidence.

T.U.: Toxic units. Expresses the relative toxicity of an effluent in such a manner that the larger the toxic unit value the more toxic the effluent. $T.U._{Ac} = 100/LC50$. $T.U._{Chr} = 100/NOEC$. A dimensionless unit.

VELAP# 460030
EPA# VA01116

M. bahia daily biological measurements (EPA 2007.0) Template version AMB-STAT-48h-5trt-061113

TRTMNT. (% Effl)	Rep	#Live Day 0	#Live Day 1	#Live Day 2	Final Mean % Live		
C	A	10	10	10	100.0		
Lab Control	B	10	10	10			
#1	A	10	10	10	100.0		
6.25	B	10	10	10			
# 2	A	10	10	10	100.0		
12.5	B	10	10	10			
# 3	A	10	10	10	100.0		
25.0	B	10	10	10			
# 4	A	10	10	10	100.0		
50.0	B	10	10	10			
# 5	A	10	10	10	100.0	Test Duration:	48h 1m
100	B	10	10	10			TAC 48+/-0.5h
INITIALS:		AG	RCD	RCD	% CONTROL SURVIVAL:		100.0
DATE & TIME:		7/14/16 14:48	7/15/16 9:30	7/16/16 14:49			TAC = 90%
CHANGES & NOTES (INITIALS, DATE, SPECIFIC CHANGE MADE							

SPECIES:	Mysidopsis (Americamysis) Bahia	
ACCLIMATION WATER:	ASW	
FEEDING PRIOR TO TEST:	Artemia nauplii ad libitum	
FEEDING DURING TEST:	Artemia nauplii (ca. 100/mysid/day)	
SOURCE:	CBI Stock cultures	
ACCLIMATION TEMP (o C):	25	
HARVEST START DATE & TIME:	7/11/16 14:00	
HARVEST END DATE & TIME:	7/12/16 13:30	
DATE/TIME WATER ADDED:	7/14/16 14:36	
DATE/TIME ANIMALS ADDED:	7/14/16 14:48	
ANIMAL AGE WINDOW:	23h 30m	TAC Max. 24 h
MAX AGE AT TEST START:	2d	TAC Max. 5 d
TEST SET UP BY:	AG	
SAMPLE COLLECTION DATE & TIME:	7/13/16 12:02	SAMPLE USED: A
SAMPLE AGE AT TEST START:	26h 46m	TAC Max 36 h
PEER REVIEW BY (INITIALS/DATE):	PB. GB	7/18/16 14:33

TEST ID: ULAB1617AMB

M. bahia daily water quality bench sheet (EPA METHOD 2007.0) Template version AMB-STAT-48h-5trt-061113

	TRTMNT	Day 0 initial	Day 1	Day 2 Final	SUMMARY WATER QUALITY DATA MEAN	S.D.	MIN.	MAX.
pH (S.U.)	C	7.87	7.66	7.71	7.75	0.11	7.66	7.87
	1	7.92	7.68	7.66	7.75	0.14	7.66	7.92
	2	7.96	7.77	7.73	7.82	0.12	7.73	7.96
	3	8.04	7.79	7.81	7.88	0.14	7.79	8.04
	4	8.15	7.79	7.79	7.91	0.21	7.79	8.15
	5	8.32	7.95	7.86	8.04	0.24	7.86	8.32
Temp. (o C)	C	26	25	25	25	0.6	25	26
	1	26	25	25	25	0.6	25	26
	2	26	25	25	25	0.6	25	26
	3	26	25	25	25	0.6	25	26
	4	26	25	25	25	0.6	25	26
	5	26	25	25	25	0.6	25	26
Diss. Oxygen (mg/l)	C	6.9	6.4	6.1	6.5	0.4	6.1	6.9
	1	6.9	6.2	6.0	6.4	0.5	6.0	6.9
	2	6.9	6.0	5.8	6.2	0.6	5.8	6.9
	3	7.0	5.9	5.8	6.2	0.7	5.8	7.0
	4	7.0	5.8	6.0	6.3	0.6	5.8	7.0
	5	7.1	5.8	6.0	6.3	0.7	5.8	7.1
Salinity (g/kg)	C	20		20	20	0.0	20	20
	1							
	2							
	3							
	4							
	5	20		20	20	0.0	20	20
Replicate measured		B	A	B				
Initials		AG	RCD	RCD				
		TRC (mg/l) in highest conc at end of test:		N/A				

Changes & Notes (Initials, date, specific change or notes)

Test chamber: 400 ml Tri-pour bkr:	✓
Other:	
Test solution vol. (200 ml min): 200 ml:	✓
Other (ml):	
Illumination & photoperiod:	50-100 ft-c 16L:8D
Number of replicates/treatment:	2
Initial number animals/replicate:	10
Test Aerated?	No

Date & Time Air Start:

DO Highest conc @ aeration:

Total live highest conc @ aeration

TEST ID	TRT ID:	1	2	3	4	5
ULAB1617AMB	CONC (%):	6.25	12.5	25.0	50.0	100

Effluent and Dilution Water Log (Saltwater Tests). SWEFFL061013

Initial sample charac-terization	Bottle(1):	A1								
	Arrival Temp. (oC, from CoC):	2								
	TRC (mg/l)(2):	<DL								
	TRC Corrected?(2):									
	Hardness (mg/l):	626								
	Alkalinity (mg/l):	23								
	NH3-N (mg/l):	<1.0								
	Color/Appearance(3):	C								
	Obvious odor?	NO								
	Date & Time:	7/14/16 11:45								
	Initials:	PB								
Sample prep measure-ments	Test Day:	Day 0	Day 1	Day 2	Day 3	Day 4	Day 5	Day 6		
	Bottle(s):	A1								
	Prep. Temp. (oC):	26								
	Initial Salinity (g/kg):	2								
	Use Salinity (g/kg):	20								
	D.O. (mg/l) After Warming:	7.6								
	Aeration Time (min):	2								
	Adjusted D.O. (mg/l):	7.1								
	Final pH (S.U.):	8.31								
	Final TRC (mg/l)(5):	N.D.								
	Sample Filtered (60 um)?									
	Date & Time:	7/14/16 14:29								
	Initials:	AG								
Dilution water	Test Day:	Day 0	Day 1	Day 2	Day 3	Day 4	Day 5	Day 6		
	Vat Letter:	C								
	Temperature (oC):	25								
	Salinity (g/kg):	20								
	D.O. (mg/l):	7.3								
	pH (S.U.):	7.99								
	Date & Time:	7/14/16 10:10								
	Initials:	RCD								
	Changes & Notes (initials, date, specific change or notes)									
	Peer review Initial/Date:	PB, GB	7/15/16 14:33	DILUTION WATER TYPE:	Crystal Sea ASW					
PROJECT ID:	ULAB1617	ADDITIONAL EFFLUENT TREATMENT:								

ND=Not Determined/Measured, NA=Not Applicable. 1) Ninth character of lab sample ID on chain of custody AND bottle number in collection areas. Together with Project ID constitutes entire sample bottle ID. 2) TRC MDL 0.02 mg/l; DL 0.22 mg/l. Corrected value if Ma, Cr potential possible interference. Corrected using KI and NaAsO2. 3) C-clear, O-opaque, T-turbid, S-solids (SI-slight, M-moderate, H-heavy), Y-yellow, B-brown, Bl-black, G-green, P-pink, Gr-grey, Or-orange. 4) Measured on first use of sample only. 5) Final TRC measured only if chlorine present in initial characterization.

SUMMARY WATER QUALITY DATA

MEAN	S.D.	MIN.	MAX.	PARAMETER
2		2	2	Arrival Temp.
626		626	626	Hardness (mg/l)
23		23	23	Alkalinity (mg/l)

MEAN	S.D.	MIN.	MAX.	
26		26	26	Temp. (oC)
20		20	20	Use Salin. (g/kg)
7.1		7.1	7.1	D.O. (mg/l)
8.31		8.31	8.31	pH (S.U.)

MEAN	S.D.	MIN.	MAX.	
25		25	25	Temp. (oC)
20		20	20	Salinity (g/kg)
7.3		7.3	7.3	D.O. (mg/l)
7.99		7.99	7.99	pH (S.U.)

WCAB1617-A

COI # 16-1243

Universal Laboratories
Subcontract Chain of Custody

20 Research Drive Hampton, VA 23666
Phone: 757-865-0880
Fax: 757-865-8014
UL Contact: Dan Thornton

To: Sample Receiving
CBI

SUB PO Number: 071416-005

Sample #	Sample Location	Test	Matrix	Sample Date/ Time
1607131-001A	OF-001 Grab	WET Acute M. bahia - SUB	Aqueous	07/13/2016 12:02PM

1607131-001A
Kinder Morgan Bulk Terminals- Pier IX Terminal Co
OF-001 Grab
Cubitainer
<6°C

Initials	Date	Time 1	Time 2

Comments:	Cooler Temp:	
	Preservation:	

Relinquish By	Date/Time	Receive By:	Date/Time
	7-14-16/1145		7/14/16/1145 @ 2°C

Universal Laboratories

CHAIN OF CUSTODY

Kinder Morgan Bulk Terminals- Pier IX Terminal Co.

1900 Harbor Access Road

Newport News,VA,23607

Contact:Cory Stell,757-928-1520, (c)757-544-

20 Research Drive

Hampton, VA 23666

1-800-695-2162

http://www.universallaboratories.net

ID: 1607131

VPDES Annual OF-001

Sample Name	UL_Sample ID	Matrix	Sample Date/Time/Initials	BottleID	Sample Container	Preservation	Testing
OF-001 Grab	1607131-001	AQUEOUS	7/13/16 1202 JM	001A	3.78/HDPE	<6°C	WETACUTEmb

NOTES:

Phenol Int check_____ CN Int check_____ BOD Int check_____ NH3 Int check_____ CoolerTemp 2° C

TRANSFER	SIGNATURE	DATE/TIME	TRANSFER	SIGNATURE	DATE/TIME
Relinquished by		7/13/16 1458	Received by		7-13-16/1458
Relinquished by			Received by		
Relinquished by			Received by		
Relinquished by			Received by		

KINDER MORGAN
BULK TERMINALS, INC.

2016

Laboratory Analysis

Of Outfall 003

Universal Laboratories
20 Research Drive
Hampton, VA 23666
Phone: 1-800-695-2162
Fax: 757-865-8014

Client Report For:	**Kinder Morgan Bulk Terminals- Pier IX Terminal Co.**
Attention:	Mr. Cory Steil
Client Address:	1900 Harbor Access Road Newport News, VA 23607
Project:	**VPDES Annual OF-003**
Order Number:	**1604122**
Report Date:	04/19/2016
Lab Receipt Date:	04/13/2016
Comment:	This report contains the analytical results for the indicated Project and Order. The results contained in this report relate only to the samples identified in this Order. The analytical results meet all requirements of NELAC unless specifically stated. This report shall not be reproduced except in full.

003 2016
ANNUAL

The data in this report has been reviewed and validated by: Carol K Zyko Signature

Carol K Zyko Name

Pres/Tech Director Title

Universal Laboratories

Client: Kinder Morgan Bulk Terminals-Pier IX Terminal Co.	**Client Sample ID:** OF-003 Grab
Lab ID: 1604122-001	**Collection Date:** 04/12/2016 10:56
Permit ID VA0057142	**Matrix:** AQUEOUS

Analyses

Gasoline Range Organics AQ ***EPA 8260B***

	Test Result	Unit	RL	Analysis Date	Analysis By	Qualifier	Cert #
Sufficient Sample Volume	Yes	Yes/No		4/15/2016 4:11	LS		
Sample Preservation pH	0	pH Units		4/15/2016 4:11	LS		
Holding Time Met	Yes	Yes/No		4/15/2016 4:11	LS		
Sample Receipt Temperature	1	C		4/15/2016 4:11	LS		
Gasoline Range Organics	ND	mg/L	0.5	4/15/2016 4:11	LS		460036
surrogate 1,2-Dichloroethane-d4 (% Recovery)	57	%	69.5-130.5	4/15/2016 4:11	LS	S	
surrogate 4-Bromofluorobenzene (% Recovery)	81	%	69.5-130.5	4/15/2016 4:11	LS		
surrogate Dibromofluoromethane (% Recovery)	76	%	69.5-130.5	4/15/2016 4:11	LS		
surrogate Toluene-d8 (% Recovery)	100	%	69.5-130.5	4/15/2016 4:11	LS		

Diesel Range Organics AQ ***EPA 8015B***

	Test Result	Unit	RL	Analysis Date	Analysis By	Qualifier	Cert #
Sample Preservation pH	1	pH Units		4/15/2016 20:15	AS		
Holding Time Met	Yes	Yes/No		4/15/2016 20:15	AS		
Sample Receipt Temperature	1	C		4/15/2016 20:15	AS		
Diesel Range Organics	ND	mg/L	0.5	4/15/2016 20:15	AS		460036
surrogate o-Terphenyl (% Recovery)	63	%	28.6-144.4	4/15/2016 20:15	AS		

Glossary of Terms and Abbreviations

ND	No Analyte Detected
NR	No Results available, analyte not in instrument calibration
RL	(Reporting Limit) The minimum levels, concentrations, or quantities of a target analyte that can be reported within a specified degree of confidence. Generally, this number is equal to or just above the lowest calibration standard run with the analytical batch.
B	Analyte was found in the method blank
D	RPD outside acceptable limits
H	Holding time exceeeded
IS	Internal standard outside acceptable limits
J	Result above calibration curve - results are approximate
L	LCS Outside acceptable limits
MI	Matrix interence
MS	Matrix spike recovery outside acceptable limits
QC	Method QC criteria not met
S	Surrogate outside acceptable limits
V	ICV/CCV/FCV outside acceptable limits
LCS	(Laboratory Control Sample) A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
MDL	Method Detection Limits is an estimate of the minimum amount of a substance that an analytical process can reliably detect
RPD	(Relative Percent Difference) The difference between a set of duplicates or sample spike duplicates.
MS/MSD	(Matrix Spike or Matrix Spike Duplicate) A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analytes concentration is available. Matrix Spikes are used, for example, to determine the effect of the matrix on a method's recovery efficiency.
Calibration Verification	(Initial, Continuing, or Final) A standard analyzed at different times to verify that the initial calibration curve is still valid.
Holding Time	The maximum time that samples may be held prior to analysis and still be considered valid or not compromised.
Internal Standard	A known amount of standard added to a test portion of a sample as a reference for evaluating and controlling the precision and bias of the applied analytical method.
Method Blank	A sample of a matrix similar to the batch associated samples (when available) that is free from the analytes of interest and is processed simulatanously with and under the same conditions as samples.
Surrogate	A substance with properties that mimic the analyte of interest. It is unlikely to be found in environmental samples and is added to them for quality control purposes in Organics.
EPL	Exceeds Permit Limit. This is a qualifier to denote that the result exceeds the permit limit of the sample location.
Exceeds Benchmark Concentration	Result Exceeds Benchmark concentration listed in the General Permit. Benchmark Concentrations are primarily used to determine the overall effectivenss of the Stormwater pollution prevention plan. Excedence of Benchamrk concentrations does NOT constitute a violation of this permit and does NOT indicate that violation of a water quality standard has occured.

CHAIN-OF-CUSTODY

UNIVERSAL LABORATORIES

Company	KINDER MORGAN, PIER IX
Street/Box	1900 HARBOR ACCESS RD
City/State	NEWPORT NEWS, VA
Phone	757 544-1746 Fax 757 928 1560
Contact:	CORY STEIL
Job No.	#003 / P.O. No.

20 Research Drive
Hampton, VA 23666

Phone: (757) 865-0880
Fax: (757) 865-8014

Sample ID	Date/Time	Sampled By	Matrix	Sample Type	Field Notes	Analysis Required: Preservative	Preservative	Preservative	Preservative	Preservative	Preservative	Preservative	Preservative	Log Number
#003 ANNUAL	4-12-2016 10:56	C		C (G)										1604122-0
#003 2016 D#2				C G										1604121-0
				C G										
				C G										
				C G										
				C G										
				C G										
				C G										
				C G										
				C G										
				C G										
				C G										
				C G										

Comments: PH WAS 7.28 @ 16.5°C PH TIME = 1105

Cooler Temp at LI _____ Pres √ _____

Possible Hazards:

Disposal: Lab ☐ Client ☐ Charge ☐

Due Date: _____

Express Service _____

Express Service Approval _____

Relinquished By	Signature	Company KM PIER IX	Date/Time 4-13-16 0850
Received By	Signature	Company UL	Date/Time 4-13-16 0850
Relinquished By	Signature	Company	Date/Time 4-15-16 1130
Received By	Signature	Company	Date/Time
Relinquished By	Signature	Company	Date/Time
Received By	Signature	Company	Date/Time

Work Order No. _____

Delivery Order _____

Trans☐ P.U.☐ Grab☐ Comp☐

Shipping/Delivery Charges _____

Composite Start _____ Composite Stop _____

Universal Laboratories
20 Research Drive
Hampton, VA 23666
Phone: 1-800-695-2162
Fax: 757-865-8014

Client Report For:	**Kinder Morgan Bulk Terminals- Pier IX**
Attention:	Mr. Dan Clememts
Client Address:	1900 Harbor Access Road Newport News, VA 23607
Project:	**VPDES Semi-Annual OF-003**
Order Number:	**1612210**
Report Date:	12/19/2016
Lab Receipt Date:	12/14/2016
Comment:	This report contains the analytical results for the indicated Project and Order. The results contained in this report relate only to the samples identified in this Order. The analytical results meet all requirements of NELAC unless specifically stated. This report shall not be reproduced except in full.

The data in this report has been reviewed and validated by: Carol K Zeno **Signature**

Carol K Zeno **Name**

Proj/Tech Director **Title**

Universal Laboratories

Client:	Kinder Morgan Bulk Terminals-Pier IX	**Client Sample ID:**	OF-003 Grab
Lab ID:	1612210-001	**Collection Date:**	12/12/2016 10:43
Permit ID	VA0057142	**Matrix:**	AQUEOUS

Analyses

pH (Client Provided) ***SM 4500-H B (2011)***

	Test Result	Unit	RL	Analysis Date	Analysis By	Qualifier	Cert #
pH	6.45	pH Units	0.1	12/12/2016 10:54	Client		

Solids, Total Suspended ***SM 2540D (2011)***

	Test Result	Unit	RL	Analysis Date	Analysis By	Qualifier	Cert #
Holding Time Met	Yes	Yes/No		12/15/2016 18:12	KS		
Sample Receipt Temperature	1	C		12/15/2016 18:12	KS		
Solids, Total Suspended	22.4	mg/L	1	12/15/2016 18:12	KS		460036

Phosphorus, Total ***EPA 365.1***

	Test Result	Unit	RL	Analysis Date	Analysis By	Qualifier	Cert #
Sample Preservation pH	1	pH Units		12/15/2016 21:32	EK.		
Holding Time Met	Yes	Yes/No		12/15/2016 21:32	EK.		
Sample Receipt Temperature	1	C		12/15/2016 21:32	EK.		
Phosphorus, Total	0.11	mg/L	0.02	12/15/2016 21:32	EK.		460036

Nitrogen, Total ***EPA 351.2/ EPA 353.2***

	Test Result	Unit	RL	Analysis Date	Analysis By	Qualifier	Cert #
Sample Preservation pH	1	pH Units		12/15/2016 22:05	LS		
Holding Time Met	Yes	Yes/No		12/15/2016 22:05	LS		
Sample Receipt Temperature	1	C		12/15/2016 22:05	LS		
Nitrate/Nitrite as N	0.61	mg/L	0.1	12/15/2016 22:05	LS		460036
Nitrogen, Total Kjeldahl	0.57	mg/L	0.2	12/15/2016 22:05	LS		460036
Nitrogen, Total	1.08	mg/L	0.2	12/15/2016 22:05	LS		

Metals by ICP ***EPA 200.7***

	Test Result	Unit	RL	Analysis Date	Analysis By	Qualifier	Cert #
Sample Preservation pH	1	pH Units		12/15/2016 14:33	EK		
Holding Time Met	Yes	Yes/No		12/15/2016 14:33	EK		
Iron, Total	0.61	mg/L	0.02	12/15/2016 14:33	EK		460036

Glossary of Terms and Abbreviations

ND	No analyte detected at or above the RL (Reporting Limit) listed
NR	No Results available, analyte not in instrument calibration
RL	(Reporting Limit) The minimum levels, concentrations, or quantities of a target analyte that can be reported within a specified degree of confidence. Generally, this number is equal to or just above the lowest calibration standard run with the analytical batch.
B	Analyte was found in the method blank
D	RPD outside acceptable limits
H	Holding time exceeeded
IS	Internal standard outside acceptable limits
J	Result above calibration curve - results are approximate
L	LCS Outside acceptable limits
MI	Matrix interence
MS	Matrix spike recovery outside acceptable limits
QC	Method QC criteria not met
S	Surrogate outside acceptable limits
V	ICV/CCV/FCV outside acceptable limits
LCS	(Laboratory Control Sample) A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
MDL	Method Detection Limits is an estimate of the minimum amount of a substance that an analytical process can reliably detect
RPD	(Relative Percent Difference) The difference between a set of duplicates or sample spike duplicates.
MS/MSD	(Matrix Spike or Matrix Spike Duplicate) A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analytes concentration is available. Matrix Spikes are used, for example, to determine the effect of the matrix on a method's recovery efficiency.
Calibration Verification	(Initial, Continuing, or Final) A standard analyzed at different times to verify that the initial calibration curve is still valid.
Holding Time	The maximum time that samples may be held prior to analysis and still be considered valid or not compromised.
Internal Standard	A known amount of standard added to a test portion of a sample as a reference for evaluating and controlling the precision and bias of the applied analytical method.
Method Blank	A sample of a matrix similar to the batch associated samples (when available) that is free from the analytes of interest and is processed simultaneously with and under the same conditions as samples.
Surrogate	A substance with properties that mimic the analyte of interest. It is unlikely to be found in environmental samples and is added to them for quality control purposes in Organics.
EPL	Exceeds Permit Limit. This is a qualifier to denote that the result exceeds the permit limit of the sample location.
Exceeds Benchmark Concentration	Result Exceeds Benchmark concentration listed in the General Permit. Benchmark Concentrations are primarily used to determine the overall effectiveness of the Stormwater pollution prevention plan. Excedence of Benchamrk concentrations does NOT constitute a violation of this permit and does NOT indicate that violation of a water quality standard has occured.

1612210

CHAIN-OF-CUSTODY

UNIVERSAL LABORATORIES

20 Research Drive
Hampton, VA 23666

Phone: (757) 865-0880
Fax: (757) 865-8014

Company	Kinder Morgan Pier IX
Street/Box	1900 Harbor Access Rd
City/State	Newport News / VA 23607
Phone	757-928-1530 Fax 757-928-1560
Contact:	Chris Hill
Job No.	P.O. No.

Sample ID	Date/Time	Sampled By	Matrix	Sample Type	Field Notes	Analysis Required: Preservative	Preservative	Preservative	Preservative	Preservative	Preservative	Preservative	Preservative	Log Number
#003 Semi Annual	12/12/16 1043	C		C (G)										1612210
#001 DEC. MONTHLY	12/14/16 0746	C		C (G)										1612211
				C G										
				C G										
				C G										
				C G										
				C G										
				C G										
				C G										
				C G										
				C G										
				C G										
				C G										

Comments: pH 6.45 pH Time 1054 for 003 / 6.9 time 0746

Cooler Temp at LI 1°C Pres √ CI

Possible Hazards:

Disposal: Lab ☐ Client ☐ Charge ☐

Due Date:

Express Service

Express Service Approval

Relinquished By	Signature	Company Kinder Morgan	Date/Time 12/14 0816
Received By	Signature	Company UL	Date/Time 12-14-16 0816
Relinquished By	Signature	Company	Date/Time
Received By	Signature	Company	Date/Time
Relinquished By	Signature	Company	Date/Time
Received By	Signature	Company UL	Date/Time 12-14-16/1530

Work Order No.

Delivery Order

Trans ☐ P.U. ☐ Grab ☐ Comp ☐

Shipping/Delivery Charges

Composite Start / Composite Stop

KINDER MORGAN
BULK TERMINALS, INC.

2016

Visual Inspections

Of Outfalls

001,002,&003

KINDER MORGAN

Outfall # #001

Visual Examination of Storm Water

*Examinations shall be made of samples collected within the first 30 minutes (or as soon thereafter as practical, but not to exceed 1 hour) of when the runoff or snowmelt begins discharging.

Examination Performed By: Cory Steil Date: 21-Jan-16

Nature of Discharge: 1900 #1 to the James River Time: Grab @ 16:37

*(runoff or snow melt)

Sample Temperature: 5.6 C

Ambient Temperature: 36.0 F

Observations:

Color	Clear
Odor	Zero
Clarity	Good Clarity
Floating Solids	Zero
Settled Solids	Very few
Foam	Zero
Oil Sheen	Zero
Comments	pH was 6.31 at 16:41

*Any other obvious Indicators of storm water pollution record in comments and notify DEQ.
"'This examination's) must be made at least once in each of the following three-month periods:
January through March, April through June, July through September, and October through December.

KINDER MORGAN

Outfall #: #001

Visual Examination of Storm Water

*Examinations shall be made of samples collected within the first 30 minutes (or as soon thereafter as practical, but not to exceed 1 hour) of when the runoff or snowmelt begins discharging.

Examination Performed By: Cory Steil Date: 9-Feb-16

Nature of Discharge: 1900 #2 to the James River Time: Grab @ 14:11

*(runoff or snow melt)

Sample Temperature: 5.6 C

Ambient Temperature: 46.0 F

Observations:

Color	Clear, while in white plastic bucket the water had a light brown tint.
Odor	Zero
Clarity	Great Clarity
Floating Solids	Zero
Settled Solids	Very few if any
Foam	Zero
Oil Sheen	Zero
Comments	pH was 8.26 at 14:15, Water was extremely clear!

*Any other obvious Indicators of storm water pollution record in comments and notify DEQ.
"This examination's) must be made at least once in each of the following three-month periods:
January through March, April through June, July through September, and October through December.

KINDER MORGAN

Outfall #: #001

Visual Examination of Storm Water

*Examinations shall be made of samples collected within the first 30 minutes (or as soon thereafter as practical, but not to exceed 1 hour) of when the runoff or snowmelt begins discharging.

Examination Performed By: Cory Steil

Date: 17-Mar-16

Nature of Discharge: Discharging to the James River (1900 #1)

Time: Grab @ 11:46

*(runoff or snow melt)

Sample Temperature: 22.6 C

Ambient Temperature: 68.0 F

Observations:

Color	Clear, while in white plastic bucket the water has a slight yellow tint. Light
Odor	Zero
Clarity	Great clarity while in graduated cylinder
Floating Solids	Zero
Settled Solids	No settled solids are visible
Foam	Zero
Oil Sheen	Zero
Comments	pH was 6.59 @ 11:51

*Any other obvious Indicators of storm water pollution record in comments and notify DEQ.
"'This examination's) must be made at least once in each of the following three-month periods:
January through March, April through June, July through September, and October through December.

KINDER MORGAN

Outfall #: #001

Visual Examination of Storm Water

*Examinations shall be made of samples collected within the first 30 minutes (or as soon thereafter as practical, but not to exceed 1 hour) of when the runoff or snowmelt begins discharging.

Examination Performed By: Cory Steil Date: 27-Apr-16

Nature of Discharge: 1900 #1 discharging to the James River Time: Grab @ 13:16

*(runoff or snow melt)

Sample Temperature: 23.1 C

Ambient Temperature: 66.0 F

Observations:

Color	Clear while in white plastic bucket.
Odor	Zero
Clarity	Great clarity
Floating Solids	Zero
Settled Solids	Very few if any
Foam	Zero
Oil Sheen	Zero
Comments	pH was 7.66 @ 13:20

*Any other obvious Indicators of storm water pollution record in comments and notify DEQ.
'"This examination's) must be made at least once in each of the following three-month periods:
January through March, April through June, July through September, and October through December.

KINDER MORGAN

Outfall # #001

Visual Examination of Storm Water

*Examinations shall be made of samples collected within the first 30 minutes (or as soon thereafter as practical, but not to exceed 1 hour) of when the runoff or snowmelt begins discharging.

Examination Performed By: Cory Steil Date: 5-May-16

Nature of Discharge: 1900 #1 discharging to the James River Time: Grab @ 14:17

*(runoff or snow melt)

Sample Temperature: 17.9 C

Ambient Temperature: 55.0 F

Observations:

Color	Clear while in white plastic bucket.
Odor	Zero
Clarity	Fair clarity
Floating Solids	Zero
Settled Solids	Very few
Foam	Zero
Oil Sheen	Zero
Comments	pH was 7.83 @ 14:23

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KINDER MORGAN

Outfall #: #001

Visual Examination of Storm Water

*Examinations shall be made of samples collected within the first 30 minutes (or as soon thereafter as practical, but not to exceed 1 hour) of when the runoff or snowmelt begins discharging.

Examination Performed By: Cory Steil

Date: 20-Jun-16

Nature of Discharge: 1900 #1 discharging to the James River

Time: Grab @ 15:06

*(runoff or snow melt)

Sample Temperature: 28.2 C

Ambient Temperature: 84.0 F

Observations:

Color	Extremely clear
Odor	Zero
Clarity	Great clarity
Floating Solids	Zero
Settled Solids	No settled solids present
Foam	Zero
Oil Sheen	Zero
Comments	pH was 8.25 @ 15:09

*Any other obvious Indicators of storm water pollution record in comments and notify DEQ.
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January through March, April through June, July through September, and October through December.

KINDER MORGAN

Outfall #: #001

Visual Examination of Storm Water

*Examinations shall be made of samples collected within the first 30 minutes (or as soon thereafter as practical, but not to exceed 1 hour) of when the runoff or snowmelt begins discharging.

Examination Performed By: Cory Steil

Date: 13-Jul-16

Nature of Discharge: 1900 #1 to the James River

Time: Grab @ 12:02

*(runoff or snow melt)

Sample Temperature: 30.4C

Ambient Temperature: 88.0F

Observations:

Color	Clear
Odor	No odor present
Clarity	Excellent clarity
Floating Solids	Zero
Settled Solids	Very few if any
Foam	Zero
Oil Sheen	No sheen present
Comments	pH time was 12:03 and the pH was 8.4 according to Universal Labs

*Any other obvious Indicators of storm water pollution record in comments and notify DEQ.
'"This examination's) must be made at least once in each of the following three-month periods:
January through March, April through June, July through September, and October through December.

KINDER MORGAN

Outfall #: #001

Visual Examination of Storm Water

*Examinations shall be made of samples collected within the first 30 minutes (or as soon thereafter as practical, but not to exceed 1 hour) of when the runoff or snowmelt begins discharging.

Examination Performed By: Cory Steil

Date: 25-Aug-16

Nature of Discharge: 1900 #1 to the James River

Time: Grab @ 13:37

*(runoff or snow melt)

Sample Temperature: 28.5C

Ambient Temperature: 85.0F

Observations:

Color	Clear with slight orange tint
Odor	No odor present
Clarity	Good clarity
Floating Solids	Zero
Settled Solids	Very few
Foam	Zero
Oil Sheen	No sheen present
Comments	pH time was 13:42 and the pH was 7.96, Winds 6 mph from the South.

*Any other obvious Indicators of storm water pollution record in comments and notify DEQ.
"'This examination's) must be made at least once in each of the following three-month periods:
January through March, April through June, July through September, and October through December.

KINDER MORGAN

Outfall #: #001

Visual Examination of Storm Water

*Examinations shall be made of samples collected within the first 30 minutes (or as soon thereafter as practical, but not to exceed 1 hour) of when the runoff or snowmelt begins discharging.

Examination Performed By: Cory Steil / Chris Hill

Date: 13-Sep-16

Nature of Discharge: 1900#2 To the river

Time: Grab @ 14:09

*(runoff or snow melt)

Sample Temperature: 27.8

Ambient Temperature: 79*F

Observations:

Color	Clear, slight brown tint in white bucket.
Odor	No odor present.
Clarity	Good.
Floating Solids	No floating solids.
Settled Solids	Very few.
Foam	No foam present.
Oil Sheen	No oil present.
Comments	pH 7.83 @ 14:15

*Any other obvious Indicators of storm water pollution record in comments and notify DEQ.
"'This examination's) must be made at least once in each of the following three-month periods:
January through March, April through June, July through September, and October through December.

KINDER MORGAN

Outfall # #001

Visual Examination of Storm Water

*Examinations shall be made of samples collected within the first 30 minutes (or as soon thereafter as practical, but not to exceed 1 hour) of when the runoff or snowmelt begins discharging.

Examination Performed By: Dan Clements Date: 4-Oct-16

Nature of Discharge: 1900 #2 to the James River Time: Grab @ 12:58

*(runoff or snow melt)

Sample Temperature: 23.3 C

Ambient Temperature: 75.0F

Observations:

Color	Clear.
Odor	No odor present
Clarity	Good clarity
Floating Solids	Zero
Settled Solids	Very few
Foam	Zero
Oil Sheen	No sheen present
Comments	pH time was 12:58 and the pH was 6.51, Winds 11 mph from the North.

*Any other obvious Indicators of storm water pollution record in comments and notify DEQ.
'"This examination's) must be made at least once in each of the following three-month periods:
January through March, April through June, July through September, and October through December.

KINDER MORGAN

Outfall # 1

Visual Examination of Storm Water

*Examinations shall be made of samples collected within the first 30 minutes (or as soon thereafter as practical, but not to exceed 1 hour) of when the runoff or snowmelt begins discharging.

Examination Performed By: Chris Hill Date: 23-Nov-16

Nature of Discharge: 1900 #2 Time: Grab at 1130

*(runoff or snow melt)

Sample Temperature: 9.9C

Ambient Temperature: 40C

Observations:

Color	Clear
Odor	No odor present
Clarity	Good
Floating Solids	Zero
Settled Solids	Very Few
Foam	Zero
Oil Sheen	No sheen present
Comments	pH Time was 1135 and ppH was 7.51

*Any other obvious Indicators of storm water pollution record in comments and notify DEQ.
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KINDER MORGAN

Outfall # #001

Visual Examination of Storm Water

*Examinations shall be made of samples collected within the first 30 minutes (or as soon thereafter as practical, but not to exceed 1 hour) of when the runoff or snowmelt begins discharging.

Examination Performed By: Chris Hill Date: 14-Dec-16

Nature of Discharge: 1900#2 to the James River Time: Grab @ 0746

*(runoff or snow melt)

Sample Temperature: 8.4 C

Ambient Temperature: 43 F

Observations:

Color	Clear
Odor	Zero
Clarity	Good Clarity
Floating Solids	Zero
Settled Solids	Very Few
Foam	Zero
Oil Sheen	Zero
Comments	pH was 6.9 at 7:51

*Any other obvious Indicators of storm water pollution record in comments and notify DEQ.
"'This examination's) must be made at least once in each of the following three-month periods:
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KINDER MORGAN

Outfall #: #002

Visual Examination of Storm Water

*Examinations shall be made of samples collected within the first 30 minutes (or as soon thereafter as practical, but not to exceed 1 hour) of when the runoff or snowmelt begins discharging.

Examination Performed By: Cory Steil Date: 28-Jun-16

Nature of Discharge: No Discharge Time: N/A

*(runoff or snow melt)

Sample Temperature: N/A

Ambient Temperature: 73.0 F

Observations:

Color	No Discharge
Odor	No Discharge
Clarity	No Discharge
Floating Solids	No Discharge
Settled Solids	No Discharge
Foam	No Discharge
Oil Sheen	No Discharge
Comments	Completed inspection on 002 sealed plate and outfall during rain event. Piping was dry and drain

*Any other obvious Indicators of storm water pollution record in comments and notify DEQ.
"'This examination's) must be made at least once in each of the following three-month periods:
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KINDER MORGAN

Outfall #: #003

Visual Examination of Storm Water

*Examinations shall be made of samples collected within the first 30 minutes (or as soon thereafter as practical, but not to exceed 1 hour) of when the runoff or snowmelt begins discharging.

Examination Performed By: Cory Steil

Date: 3-Mar-16

Nature of Discharge: Stormwater runoff

Time: Grab @ 23:08

*(runoff or snow melt)

Sample Temperature: 10.6 C

Ambient Temperature: 34.0 F

Observations:

Color	Clear, while in white plastic bucket the water has a dark grey tint.
Odor	Zero
Clarity	Fair clarity while in graduated cylinder
Floating Solids	Zero
Settled Solids	Medium to medium/heavy amounts
Foam	Zero
Oil Sheen	Zero
Comments	pH was 6.80 at 23.14, Filters were changed today & may have introduced coal fines to the piping

*Any other obvious Indicators of storm water pollution record in comments and notify DEQ.
"'This examination's) must be made at least once in each of the following three-month periods:
January through March, April through June, July through September, and October through December.

KINDER MORGAN

Outfall #: #003

Visual Examination of Storm Water

*Examinations shall be made of samples collected within the first 30 minutes (or as soon thereafter as practical, but not to exceed 1 hour) of when the runoff or snowmelt begins discharging.

Examination Performed By: Cory Steil Date: 12-Apr-16

Nature of Discharge: Stormwater Runoff Time: Grab @ 10:56

*(runoff or snow melt)

Sample Temperature: 16.5 C

Ambient Temperature: 60.0 F

Observations:

Color	Clear while in white plastic bucket, the water has a slight grey tint.
Odor	Zero
Clarity	Great clarity while in graduated cylinder
Floating Solids	Zero
Settled Solids	Very few
Foam	Zero
Oil Sheen	Zero
Comments	pH was 7.28 @ 11:05, winds were 1 mph out of the South Southeast.

*Any other obvious Indicators of storm water pollution record in comments and notify DEQ.
"'This examination's) must be made at least once in each of the following three-month periods:
January through March, April through June, July through September, and October through December.

KINDER MORGAN

Outfall # #003

Visual Examination of Storm Water

*Examinations shall be made of samples collected within the first 30 minutes (or as soon thereafter as practical, but not to exceed 1 hour) of when the runoff or snowmelt begins discharging.

Examination Performed By: Chris Hill

Date: 12-Dec-16

Nature of Discharge: Stormwater Runoff

Time: Grab @ 10:43

*(runoff or snow melt)

Sample Temperature: 13.1 C

Ambient Temperature: 46 F

Observations:

Color	Clear, dark grey tint while in white plastic bucket.
Odor	Zero
Clarity	Fair clarity in graduated cylinder.
Floating Solids	Zero
Settled Solids	Light to medium/light amounts.
Foam	Zero
Oil Sheen	Zero
Comments	pH was 6.45 at 10:54, filter were recently changed and may have introduced coal fines to the piping

*Any other obvious Indicators of storm water pollution record in comments and notify DEQ.
"'This examination's) must be made at least once in each of the following three-month periods:
January through March, April through June, July through September, and October through December.

KINDER MORGAN
BULK TERMINALS, INC.

2016

Environmental

Notes

JANUARY NOTES 2016

		IN RAIN	Pump 1900 #1	Pump 1900 #2	
1-Jan	Fri	0.01			The facility is currently unmanned for the weekend.
2-Jan	Sat				The facility is currently unmanned for the weekend.
3-Jan	Sun				The facility is currently unmanned for the weekend.
4-Jan	Mon				At 09:41 inspected perimeter ditches, containment areas, shop and parking lot. All is well.
					Recorded potable water readings and submitted to HRSD.
5-Jan	Tue				At 08:49 inspected perimeter ditches, containment areas, shop and parking lot. All is well.
					Cleaned the parallel strainers at the pond.
6-Jan	Wed				At 08:32 inspected perimeter ditches, containment areas, shop and parking lot. All is well.
					Hiller is currently working on issues in the North valve house.
7-Jan	Thu				At 08:19 inspected perimeter ditches, containment areas, shop and parking lot. All is well.
					Cleaned the parallel & 1900 1 & 2 strainers at the pond.
8-Jan	Fri				Operations supervisor is monitoring all areas of the facility.
					Operations crews are cleaning the Pier IX pump vaults and washing on Pier IX.
9-Jan	Sat	0.08			The facility is currently unmanned for the weekend.
10-Jan	Sun	0.07		1.25	Received pond high level text alert and reported to Pier IX.
					Discharging to the James River.
11-Jan	Mon				At 10:15 inspected perimeter ditches, containment areas, shop and parking lot. All is well.
					Adding caustic to the pond. Drained caustic containment area.
12-Jan	Tue				At 15:30 inspected perimeter ditches, containment areas, shop and parking lot. All is well.
					Cycled the water truck in the south yards for additional wet suppression.
13-Jan	Wed				At 08:04 inspected perimeter ditches, containment areas, shop and parking lot. All is well.
					Completed Pier IX plug pm, also completed the Pier X scupper and zinc pm.
14-Jan	Thu				At 10:45 inspected perimeter ditches, containment areas, shop and parking lot. All is well.
					Completed the deep well meter accuracy pm.
15-Jan	Fri	0.55			Operations supervisor is monitoring all areas of the facility.
					Operations is troubleshooting the C7A #2 sump pump.
16-Jan	Sat	0.01			Operations supervisor is monitoring all areas of the facility.
					Operations are working on the C7A #2 sump pump.
17-Jan	Sun	0.66		10.00	Operations supervisor is monitoring all areas of the facility.
					Discharging to the James River.
18-Jan	Mon	0.01			Operations supervisor is monitoring all areas of the facility.
19-Jan	Tue				At 08:40 inspected perimeter ditches, containment areas, shop and parking lot. All is well.
					Adding caustic to the pond to treat pH. Cleaned the parallel strainers.
20-Jan	Wed			1.75	At 15:12 inspected perimeter ditches, containment areas, shop and parking lot. All is well.
					Discharging to the James River.
21-Jan	Thu			0.50	Operations supervisor is monitoring all areas of the facility.
					Making repairs to the fire sprinkler system in C7A & C7B.
22-Jan	Fri	1.09			Operations supervisor is monitoring all areas of the facility.
23-Jan	Sat	0.85	11.25	11.25	Operations supervisor is monitoring all areas of the facility.
					Discharging to the Jams River.
24-Jan	Sun	0.14	7.25		Operations supervisor is monitoring all areas of the facility.
					Discharging to the Jams River.
25-Jan	Mon				At 10:53 inspected perimeter ditches, containment areas, shop and parking lot. All is well.
					Adding caustic to the pond. Cleaned the parallel strainers.
26-Jan	Tue			3.50	At 08:44 inspected perimeter ditches, containment areas, shop and parking lot. All is well.
					Discharging to the Jams River. Made notification to the VA DEQ concerning the weir overflow.
27-Jan	Wed	0.02			At 07:23 inspected perimeter ditches, containment areas, shop and parking lot. All is well.
					Operations crews are washing Pier IX.
28-Jan	Thu				Operations supervisor is monitoring all areas of the facility.
					Operations crews are cleaning the perimeter ditches.
29-Jan	Fri				At 07:45 inspected perimeter ditches, containment areas, shop and parking lot. All is well.
					Recorded monthly well readings.
30-Jan	Sat				The facility is currently unmanned for the weekend.
31-Jan	Sun				The facility is currently unmanned for the weekend.
	Total	3.49	[illegible]	28.25	

		IN RAIN	Pump 1900 #1	Pump 1900 #2	FEBRUARY 2016 NOTES
1-Feb	Mon	0.01			At 10:53 inspected perimeter ditches, containment areas, shop and parking lot. All is well.
					Adding caustic to the pond to increase pH.
2-Feb	Tue				At 10:21 inspected perimeter ditches, containment areas, shop and parking lot. All is well.
					Univar is cleaning the spill in the caustic containment area. Recorded potable water readings.
3-Feb	Wed	1.39	3.00	4.50	At 08:22 inspected perimeter ditches, containment areas, shop and parking lot. All is well.
					Cleaned the parallel strainers, working on the annual storm water report.
4-Feb	Thu	1.16		13.25	At 10:31 inspected perimeter ditches, containment areas, shop and parking lot. All is well.
					Added 1.5" to the pond high level probe to receive a high level alarm quicker.
5-Feb	Fri	0.65		7.00	Operations supervisor is monitoring all areas of the facility.
6-Feb	Sat				Operations supervisor is monitoring all areas of the facility.
7-Feb	Sun	0.01			Operations supervisor is monitoring all areas of the facility.
8-Feb	Mon	0.01			At 13:53 inspected perimeter ditches, containment areas, shop and parking lot. All is well.
					Drained caustic containment and recorded. Added caustic to the pond.
9-Feb	Tue	0.03		2.00	At 08:08 inspected perimeter ditches, containment areas, shop and parking lot. All is well.
					Pumped to the river and pulled sample from Outfall #001.
10-Feb	Wed				At 10:25 inspected perimeter ditches, containment areas, shop and parking lot. All is well.
					Completed the gate valve pm, Cleaned all non-potable strainer baskets.
11-Feb	Thu				At 11:12 inspected perimeter ditches, containment areas, shop and parking lot. All is well.
					Made repairs to the C7A fire sprinkler system.
12-Feb	Fri				Operations supervisor is monitoring all areas of the facility.
13-Feb	Sat				The facility is currently unmanned for the weekend.
14-Feb	Sun				The facility is currently unmanned for the weekend.
15-Feb	Mon	0.67		3.00	At 13:06 inspected perimeter ditches, containment areas, shop and parking lot. All is well.
					Discharged to the river. Attempting repairs in the North Valve House (bad air piping)
16-Feb	Tue	0.41		9.75	At 08:07 inspected perimeter ditches, containment areas, shop and parking lot. All is well.
					Primed the electric ditch pump and placed back in service.
17-Feb	Wed				Operations supervisor is monitoring all areas of the facility.
18-Feb	Thu			2.00	At 10:45 inspected perimeter ditches, containment areas, shop and parking lot. All is well.
					Replaced 8" flanged flex piping on the 1900 #2 discharge.
19-Feb	Fri				At 08:00 inspected perimeter ditches, containment areas, shop and parking lot. All is well.
					Completed the deep well accuracy pm. Added 100 gal of caustic to the pond for pH maintenance.
20-Feb	Sat				The facility is currently unmanned for the weekend.
21-Feb	Sun				The facility is currently unmanned for the weekend.
22-Feb	Mon				At 10:28 inspected perimeter ditches, containment areas, shop and parking lot. All is well.
					Changed filter media for Outfall #003. Adding caustic to the pond.
23-Feb	Tue	0.10			At 09:52 inspected perimeter ditches, containment areas, shop and parking lot. All is well.
					Placed the facility on city water due to a broken check valve in the pond pump house.
24-Feb	Wed	1.10		9.25	At 13:27 inspected perimeter ditches, containment areas, shop and parking lot. All is well.
					Installed new inline check valve at the pond pump house and placed the facility on pond water.
25-Feb	Thu			10.75	At 08:44 inspected perimeter ditches, containment areas, shop and parking lot. All is well.
					Discharging to the river, Drained caustic containment area.
26-Feb	Fri				Operations supervisor is monitoring all areas of the facility.
					Operations crews are cleaning the pond on February 29.
27-Feb	Sat				The facility is currently unmanned for the weekend.
28-Feb	Sun				The facility is currently unmanned for the weekend.
29-Feb	Mon				At 10:03 inspected perimeter ditches, containment areas, shop and parking lot. All is well.
					Cycled the C8 Rainbird system. Cleaned the parallel strainers.
	Total	5.54		61.50	

MARCH 2016 NOTES

		RAIN	1900 #1	1900 #2	
1-Mar	Tue				At 07:14 inspected perimeter ditches, containment areas, shop and parking lot. All is well.
					Cleaned up in the pond pump house after last weeks piping damage.
2-Mar	Wed	0.01			At 08:51 inspected perimeter ditches, containment areas, shop and parking lot. All is well.
					Cleaned all strainers at the pond. Completed the fire system pm.
3-Mar	Thu	0.07			At 07:51 inspected perimeter ditches, containment areas, shop and parking lot. All is well.
					Changed filters on Outfall #003. Adding caustic to the pond.
4-Mar	Fri	0.69			Operations supervisor is monitoring all areas of the facility.
					Operations crews are currently cleaning the perimeter ditches.
5-Mar	Sat				Operations supervisor is monitoring all areas of the facility.
6-Mar	Sun				The facility is currently unmanned for the weekend
7-Mar	Mon				At 10:26 inspected perimeter ditches, containment areas, shop and parking lot. All is well.
					Completed 2016 Q#1 "PARI" form for the skiff. Started fire hydrant pm.
8-Mar	Tue				At 07:32 inspected perimeter ditches, containment areas, shop and parking lot. All is well.
					Replaced the flex piping on the 1900 #1 discharge.
9-Mar	Wed				At 06:55 inspected perimeter ditches, containment areas, shop and parking lot. All is well.
					Completed the rainbird pm. Fixed bow/stem light on the Pier X skiff.
10-Mar	Thu				At 07:28 inspected perimeter ditches, containment areas, shop and parking lot. All is well.
					Repaired the two broken perimeter rainbirds on the west side of the facility.
11-Mar	Fri				Operations supervisor is monitoring all areas of the facility.
12-Mar	Sat				The facility is currently unmanned for the weekend
13-Mar	Sun	0.35			The facility is currently unmanned for the weekend
14-Mar	Mon	0.07			At 08:51 inspected perimeter ditches, containment areas, shop and parking lot. All is well.
					Cleaned the parallel strainers.
15-Mar	Tue	0.29		5.00	At 08:52 inspected perimeter ditches, containment areas, shop and parking lot. All is well.
					Recovered standing water in the AB parking lot w/ the vac truck. Discharged to the river.
16-Mar	Wed				At 07:17 inspected perimeter ditches, containment areas, shop and parking lot. All is well.
					Drained the caustic containment area. Repaired broken rainbird piping in the north yard.
17-Mar	Thu		0.50		At 10:13 inspected perimeter ditches, containment areas, shop and parking lot. All is well.
					Discharged to the river and pulled sample from #001. Changed filters in #003.
18-Mar	Fri				Operations supervisor is monitoring all areas of the facility.
					Operations crews cleaned C1 & C2.
19-Mar	Sat	0.04			The facility is currently unmanned.
20-Mar	Sun	0.22			Operations supervisor is monitoring all areas of the facility.
21-Mar	Mon	0.01			At 10:26 inspected perimeter ditches, containment areas, shop and parking lot. All is well.
					Completed pm's on: Deep well, Gate valves & the rainbird meter. Added caustic to the pond.
22-Mar	Tue				At 07:32 inspected perimeter ditches, containment areas, shop and parking lot. All is well.
					Working on the "rupture disc" project in the North Valve House.
23-Mar	Wed				At 07:21 inspected perimeter ditches, containment areas, shop and parking lot. All is well.
					Cycled the water truck several times. Working on the rupture disc project.
24-Mar	Thu				Operations supervisor is monitoring all areas of the facility.
					Operations Supervisor added 150 gallons of caustic to the ditch line for pond pH adjustments.
25-Mar	Fri	0.28			The facility is currently unmanned.
26-Mar	Sat				The facility is currently unmanned.
27-Mar	Sun	0.38			Operations supervisor is monitoring all areas of the facility.
					Operations Supervisor added 150 gallons of caustic to the ditch line for pond pH adjustments.
28-Mar	Mon	0.11			At 10:05 inspected perimeter ditches, containment areas, shop and parking lot. All is well.
					Drained caustic containment area. Completed the fire pump pm. Cleaned all strainers at the pond.
29-Mar	Tue				Operations supervisor is monitoring all areas of the facility.
					Nature Chen is currently on site spraying the facility for weed control.
30-Mar	Wed				Operations supervisor is monitoring all areas of the facility.
					Operations crews cleaned the underpass.
31-Mar	Thu				Operations supervisor is monitoring all areas of the facility.
	Total	2.62		5.00	
Quarter		11.55	22.00	94.75	
		IN	Pump	Pump	

APRIL 2016 NOTES

		RAIN	1900 #1	1900 #2	
1-Apr	Fri				Operations supervisor is monitoring all areas of the facility.
					Operations crews are currently cleaning Pier IX.
2-Apr	Sat	0.62			The facility is currently unmanned.
3-Apr	Sun				Operations supervisor is monitoring all areas of the facility.
4-Apr	Mon				At 13:32 inspected perimeter ditches, containment areas, shop and parking lot. All is well.
					Cleaned the parallel strainers.
5-Apr	Tue	0.08			At 10:33 inspected perimeter ditches, containment areas, shop and parking lot. All is well.
					Submitted 2016 Q#1 Groundwater Withdrawal Report to the DEQ.
6-Apr	Wed				At 07:10 inspected perimeter ditches, containment areas, shop and parking lot. All is well.
					Changed #003 filter media. Inspected plugs and scuppers on Pier IX & X.
7-Apr	Thu	0.05			At 08:29 inspected perimeter ditches, containment areas, shop and parking lot. All is well.
					Cleaned all non potable strainer baskets.
8-Apr	Fri				At 08:04 inspected perimeter ditches, containment areas, shop and parking lot. All is well.
					Submitted the March 2015 & 2016 Q#1 DMR's to the DEQ.
9-Apr	Sat				Operations supervisor is monitoring all areas of the facility.
					Operations crews are cleaning Pier IX.
10-Apr	Sun				Operations supervisor is monitoring all areas of the facility.
11-Apr	Mon				At 07:44 inspected perimeter ditches, containment areas, shop and parking lot. All is well.
					Running the ditch circulation piping to help with pond pH treatment.
12-Apr	Tue	0.52			At 10:14 inspected perimeter ditches, containment areas, shop and parking lot. All is well.
					Repaired the 1900 #1 coupling guard. Adding caustic to the pond.
13-Apr	Wed				At 08:27 inspected perimeter ditches, containment areas, shop and parking lot. All is well.
					Drained the caustic containment area. Completed the fire hydrant pm.
14-Apr	Thu				At 07:15 inspected perimeter ditches, containment areas, shop and parking lot. All is well.
					Changed to oil in the electric ditch pump. Changed #003 filters.
15-Apr	Fri				Operations supervisor is monitoring all areas of the facility.
					Operations crews are cleaning Pier IX.
16-Apr	Sat				Operations supervisor is monitoring all areas of the facility
17-Apr	Sun				Operations supervisor is monitoring all areas of the facility
18-Apr	Mon				At 10:15 inspected perimeter ditches, containment areas, shop and parking lot. All is well.
					Cleaned the parallel strainers, added 30 gallons of caustic to the ditches.
19-Apr	Tue				At 07:55 inspected perimeter ditches, containment areas, shop and parking lot. All is well.
					Replaced rainbird zone valve #2, Replacing seized rainbirds on the upper system.
20-Apr	Wed				Operations supervisor is monitoring all areas of the facility.
					Operations Crews cleaned the Pier IX sump vault.
21-Apr	Thu				Operations supervisor is monitoring all areas of the facility.
22-Apr	Fri	0.16			Operations supervisor is monitoring all areas of the facility.
23-Apr	Sat	0.34			The facility is currently unmanned.
24-Apr	Sun				The facility is currently unmanned.
25-Apr	Mon				At 11:12 inspected perimeter ditches, containment areas, shop and parking lot. All is well.
					Provided written notification the VA DEQ in regards to the Zone 2 valve/wire issue.
26-Apr	Tue				At 08:12 inspected perimeter ditches, containment areas, shop and parking lot. All is well.
					Installed new 1000 gpm rainbird pump #2. Added caustic to the pond.
27-Apr	Wed	0.01		0.50	At 11:31 inspected perimeter ditches, containment areas, shop and parking lot. All is well.
					Discharged to the river in order to sample prior to approaching rain.
28-Apr	Thu	0.11			At 08:45 inspected perimeter ditches, containment areas, shop and parking lot. All is well.
					Rebuilding rainbird guns. Universal Labs p/u #001 discharge sample.
29-Apr	Fri	0.10			At 08:21 inspected perimeter ditches, containment areas, shop and parking lot. All is well.
					Replacing seized rainbird guns on the upper system. Cleaned parallel strainers.
30-Apr	Sat	0.01			The facility is currently unmanned.
	Total	2.00		0.50	

MAY 2016 NOTES

		IN RAIN	Pump 1900 #1	Pump 1900 #2	
1-May	Sun				Operations supervisor is monitoring all areas of the facility.
2-May	Mon	0.08			At 10:32 inspected perimeter ditches, containment areas, shop and parking lot. All is well.
					Recorded April 2016 well readings, Recorded potable water readings and submitted HRSD.
3-May	Tue	0.31			At 7:52 inspected perimeter ditches, containment areas, shop and parking lot. All is well.
					Replaced the broken strainer assembly at the C-10 tail pulley.
4-May	Wed	0.11			At 10:30 inspected perimeter ditches, containment areas, shop and parking lot. All is well.
					Completed pm's on the fire pump and gate valves.
5-May	Thu	0.14	0.50		At 8:10 inspected perimeter ditches, containment areas, shop and parking lot. All is well.
					Sampled #001 for the month of May. Replaced heads on safety shower at the caustic area.
6-May	Fri	1.16		9.75	Operations supervisor is monitoring all areas of the facility.
					Discharging to the James River.
7-May	Sat			1.75	The facility is currently unmanned.
					Received "pond high level alert text" arrived to perform discharge operations.
8-May	Sun				Operations supervisor is monitoring all areas of the facility.
9-May	Mon				At 9:45 inspected perimeter ditches, containment areas, shop and parking lot. All is well.
					Changed #003 filter media, Drained the caustic containment area.
10-May	Tue	0.21			At 8:10 inspected perimeter ditches, containment areas, shop and parking lot. All is well.
					Inspected plugs/scuppers on piers. Cleaned all strainers at the pond pump house.
11-May	Wed				At 8:08 inspected perimeter ditches, containment areas, shop and parking lot. All is well.
					Changed valve at feeder 80 on the dry hose fire system.
12-May	Thu			1.25	At 7:45 inspected perimeter ditches, containment areas, shop and parking lot. All is well.
					SWA was onsite to perform calibrations on the weather equipment.
13-May	Fri			1.50	At 07:49 inspected perimeter ditches, containment areas, shop and parking lot. All is well.
					Replacing seized rainbird guns on the upper system and perimeter road.
14-May	Sat				The facility is currently unmanned.
15-May	Sun				The facility is currently unmanned.
16-May	Mon				At 8:08 inspected perimeter ditches, containment areas, shop and parking lot. All is well.
					Inspected the bumpers and "hot dogs" on Pier IX & Pier X.
17-May	Tue	0.54			At 7:45 inspected perimeter ditches, containment areas, shop and parking lot. All is well.
					Running the ditch circulation piping in efforts of moving water through the facilities ditches.
18-May	Wed	0.06			At 8:14 inspected perimeter ditches, containment areas, shop and parking lot. All is well.
					Completed preventive maintenance on the rainbird system.
19-May	Thu			4.00	At 8:37 inspected perimeter ditches, containment areas, shop and parking lot. All is well.
					Discharged to the river in preparation to approaching weather. Made repairs to Reclaim pump piping.
20-May	Fri				Operations supervisor is monitoring all areas of the facility.
21-May	Sat	0.18			Operations supervisor is monitoring all areas of the facility.
					Operations supervisor added 50 gallons of caustic to the ditch.
22-May	Sun	0.02			Operations supervisor is monitoring all areas of the facility.
23-May	Mon	0.56		2.75	At 9:27 inspected perimeter ditches, containment areas, shop and parking lot. All is well.
					Replaced "' butterfly valve in T2 pump house. Discharging to the James River.
24-May	Tue				At 6:58 inspected perimeter ditches, containment areas, shop and parking lot. All is well.
					Changed filters for Outfall 003. Removed old devices from the T3 weather tower.
25-May	Wed				At 6:51 inspected perimeter ditches, containment areas, shop and parking lot. All is well.
					Walked all tanks and transformers on the facility.
26-May	Thu				At 7:23 inspected perimeter ditches, containment areas, shop and parking lot. All is well.
					Changed the air compressor check valve in the North A Valve house.
27-May	Fri				At 13:06 inspected perimeter ditches, containment areas, shop and parking lot. All is well.
					Cycled the C8 rainbird system. Replacing rainbirds on the upper system.
28-May	Sat				Operations supervisor is monitoring all areas of the facility.
29-May	Sun	0.11			Operations supervisor is monitoring all areas of the facility.
					Operations cycled the water truck for additional wet suppression.
30-May	Mon	1.30		4.75	The facility is currently unmanned for observation of the Memorial Day holiday.
					Pond high level text alert was received and discharge operations to the James began.
31-May	Tue	0.01		4.50	At 7:03 inspected perimeter ditches, containment areas, shop and parking lot. All is well.
	Total	4.79	0.50	30.25	Recorded May groundwater readings. Cleaned the parallel strainers.

		IN RAIN	Pump 1900 #1	Pump 1900 #2	JUNE 2016 NOTES
1-Jun	Wed	0.51			At 6:54 inspected perimeter ditches, containment areas, shop and parking lot. All is well.
					Replaced the anemometer on T3. Recorded potable water readings and submitted to HRSD.
2-Jun	Thu	0.05			At 8:15 inspected perimeter ditches, containment areas, shop and parking lot. All is well.
					Replaced bolts and hardware that secure the weather tower to T3.
3-Jun	Fri	0.07			Operations supervisor is monitoring all areas of the facility.
4-Jun	Sat				Operations supervisor is monitoring all areas of the facility.
5-Jun	Sun	0.51			The facility is currently unmanned.
					Storms throughout the evening flooded the facility. High alert was sent and ditch pump was stopped.
6-Jun	Mon	0.09		4.25	At 6:14 inspected perimeter ditches, containment areas, shop and parking lot. All is well.
					Prepared and submitted the May 2016 DMR to the VA DEQ. Discharging to the river.
7-Jun	Tue	0.31		2.75	At 07:07 inspected perimeter ditches, containment areas, shop and parking lot. All is well.
					Cleaned non potable strainer baskets. Discharging to the James River.
8-Jun	Wed				At 06:53 inspected perimeter ditches, containment areas, shop and parking lot. All is well.
					Added caustic to the pond. Completed the Pier IX plug & Pier X scupper pm.
9-Jun	Thu				At 06:44 inspected perimeter ditches, containment areas, shop and parking lot. All is well.
					Cleaned all strainers at the pond. Cycled the skiff and completed the "PARI" form.
10-Jun	Fri				Operations supervisor is monitoring all areas of the facility.
11-Jun	Sat				Operations supervisor is monitoring all areas of the facility.
12-Jun	Sun	0.90			The facility is currently unmanned.
13-Jun	Mon				At 10:30 inspected perimeter ditches, containment areas, shop and parking lot. All is well.
					Added caustic to the pond. Drained caustic containment area.
14-Jun	Tue				At 06:45 inspected perimeter ditches, containment areas, shop and parking lot. All is well.
					Cycled all fire hydrants, flushed and lubricated.
15-Jun	Wed	0.04			At 07:14 inspected perimeter ditches, containment areas, shop and parking lot. All is well.
					Completed the rainbird pm. Changed filter media for outfall #003.
16-Jun	Thu	0.55			Operations supervisor is monitoring all areas of the facility.
17-Jun	Fri	1.07		8.00	At 07:17 inspected perimeter ditches, containment areas, shop and parking lot. All is well.
					Discharging to the river, drained the caustic containment area.
18-Jun	Sat			1.50	Operations supervisor is monitoring all areas of the facility.
					Discharging to the river.
19-Jun	Sun				Operations supervisor is monitoring all areas of the facility.
					Operations crews are cleaning the ditches.
20-Jun	Mon		0.50		At 10:20 inspected perimeter ditches, containment areas, shop and parking lot. All is well.
					Discharged to the river and pulled a sample from 001 for the month.
21-Jun	Tue				At 07:07 inspected perimeter ditches, containment areas, shop and parking lot. All is well.
					Cleaned the Administration Parking Lot and Outfall 003 piping. Changed #003 filters.
22-Jun	Wed				At 07:13 inspected perimeter ditches, containment areas, shop and parking lot. All is well.
					Made repairs to the leaking piping at the C10 spray bar.
23-Jun	Thu	0.24			At 08:02 inspected perimeter ditches, containment areas, shop and parking lot. All is well.
					Cleaned all strainer baskets in the pond pump house.
24-Jun	Fri				At 08:16 inspected perimeter ditches, containment areas, shop and parking lot. All is well.
					Made repairs to the T#3 sanitary line. Added caustic to the ditches.
25-Jun	Sat	0.01			Operations supervisor is monitoring all areas of the facility.
26-Jun	Sun				Operations supervisor is monitoring all areas of the facility.
27-Jun	Mon				At 09:49 inspected perimeter ditches, containment areas, shop and parking lot. All is well.
					Made additional repairs to C10 spray bar piping. Cleaned the parallel strainers.
28-Jun	Tue	0.45			At 08:04 inspected perimeter ditches, containment areas, shop and parking lot. All is well.
					Completed visual inspection of Outfall #002.
29-Jun	Wed			2.75	At 10:15 inspected perimeter ditches, containment areas, shop and parking lot. All is well.
					Completed the fire system pm. Added caustic to the ditches.
30-Jun	Thu	0.19			At 10:35 inspected perimeter ditches, containment areas, shop and parking lot. All is well.
					Recorded well readings, Cleaned all strainers at the pond.
	Total	4.99	0.50	19.25	
Quarter				50.00	

		IN RAIN	Pump 1900 #1	Pump 1900 #2	JULY 2016 NOTES
1-Jul	Fri	0.10			Operations supervisor is monitoring all areas of the facility.
2-Jul	Sat	0.05			Operations supervisor is monitoring all areas of the facility.
3-Jul	Sun	0.47			The facility is currently unmanned.
4-Jul	Mon	0.05		6.00	The facility is currently unmanned to observe Independence Day.
					Pond "high level alert" was activated. Crew Lead was called in for discharge operations.
5-Jul	Tue				At 09:59 inspected perimeter ditches, containment areas, shop and parking lot. All is well.
					Recorded potable water readings and submitted to HRSD. Drained caustic containment area.
6-Jul	Wed				At 07:45 inspected perimeter ditches, containment areas, shop and parking lot. All is well.
					Changed filter media for #003. Made repairs to the North Horizontal well.
7-Jul	Thu	0.30			At 07:11 inspected perimeter ditches, containment areas, shop and parking lot. All is well.
					Completed the rainbrid meter accuracy pm and the Pier X scupper pm.
8-Jul	Fri	0.35			Operations supervisor is monitoring all areas of the facility.
					Operations supervisor added 200 gallons of caustic to the ditch.
9-Jul	Sat				Operations supervisor is monitoring all areas of the facility.
10-Jul	Sun				Operations supervisor is monitoring all areas of the facility.
11-Jul	Mon				At 09:36 inspected perimeter ditches, containment areas, shop and parking lot. All is well.
					Completed preventive maintenance on the fire pump and ditch pump.
12-Jul	Tue				Operations supervisor is monitoring all areas of the facility.
13-Jul	Wed		0.75		At 07:30 inspected perimeter ditches, containment areas, shop and parking lot. All is well.
					Discharged to the river. Universal Labs pulled samples from outfall #001.
14-Jul	Thu				At 08:42 inspected perimeter ditches, containment areas, shop and parking lot. All is well.
					Made repairs to wash piping on C6D. Finished cleaning non potable strainers.
15-Jul	Fri	0.01			Operations supervisor is monitoring all areas of the facility.
16-Jul	Sat	0.08			Operations supervisor is monitoring all areas of the facility.
17-Jul	Sun	0.02			Operations supervisor is monitoring all areas of the facility.
18-Jul	Mon				At 10:48 inspected perimeter ditches, containment areas, shop and parking lot. All is well.
					Running the ditch circulation piping along with the North Horizontal well.
19-Jul	Tue	0.10			At 08:12 inspected perimeter ditches, containment areas, shop and parking lot. All is well.
					Completed the rainbird pm and Pier IX plug pm. Running well #1 to supplement the pond.
20-Jul	Wed	0.01			At 07:53 inspected perimeter ditches, containment areas, shop and parking lot. All is well.
					Setup temporary air compressor in the North Valve House. Running the deep well.
21-Jul	Thu				At 07:15 inspected perimeter ditches, containment areas, shop and parking lot. All is well.
					Pulled the South Horizontal well and made needed repairs. Well is now back in service.
22-Jul	Fri				Operations supervisor is monitoring all areas of the facility.
23-Jul	Sat				The facility is currently unmanned.
24-Jul	Sun				Operations supervisor is monitoring all areas of the facility.
25-Jul	Mon				At 10:34 inspected perimeter ditches, containment areas, shop and parking lot. All is well.
					Cleaned the parallel strainers and greased all wash pumps.
26-Jul	Tue				Operations supervisor is monitoring all areas of the facility.
					Working with operations loading a vessel.
27-Jul	Wed				At 07:38 inspected perimeter ditches, containment areas, shop and parking lot. All is well.
					Serviced air compressors on the fire systems.
28-Jul	Thu				At 13:27 inspected perimeter ditches, containment areas, shop and parking lot. All is well.
					Running the deep well and horizontal wells to supplement the pond.
29-Jul	Fri				Operations supervisor is monitoring all areas of the facility.
30-Jul	Sat	0.88		2.00	Operations supervisor is monitoring all areas of the facility.
					Discharging to the James River.
31-Jul	Sun	0.24		2.25	Operations supervisor is monitoring all areas of the facility.
	Total	2.66	0.75	10.25	Discharging to the James River.

		IN RAIN	Pump 1900 #1	Pump 1900 #2	AUGUST 2016 NOTES
1-Aug	Mon				Operations supervisor is monitoring all areas of the facility.
2-Aug	Tue	2.78	24.00	24.00	Operations supervisor is monitoring all areas of the facility.
					Discharging to the river.
3-Aug	Wed		11.50	8.00	Operations supervisor is monitoring all areas of the facility.
					Discharging to the river.
4-Aug	Thu				Operations supervisor is monitoring all areas of the facility.
					Operations crews are cleaning the ditches after the increased rainfall earlier in the week.
5-Aug	Fri			2.00	Operations supervisor is monitoring all areas of the facility.
					Discharging to the river. Operations supervisor added 25 gal of caustic.
6-Aug	Sat				Operations supervisor is monitoring all areas of the facility.
7-Aug	Sun				Operations supervisor is monitoring all areas of the facility.
					Operations crews are cleaning the ditches after the increased rainfall earlier in the week.
8-Aug	Mon	0.02			Operations supervisor is monitoring all areas of the facility.
					Prepared and submitted the July 2016 DMR. Drained caustic containment area.
9-Aug	Tue	0.48			Operations supervisor is monitoring all areas of the facility.
					Operations supervisor added 25 gal of caustic to the ditches.
10-Aug	Wed				Operations supervisor is monitoring all areas of the facility.
11-Aug	Thu				Operations supervisor is monitoring all areas of the facility.
					Operations crews are cleaning C1 C2 areas.
12-Aug	Fri				Operations supervisor is monitoring all areas of the facility.
13-Aug	Sat				The facility is currently unmanned.
14-Aug	Sun				The facility is currently unmanned.
15-Aug	Mon				At 10:24 inspected perimeter ditches, containment areas, shop and parking lot. All is well.
					Cleaned all strainers at the pond pump house. Completed the rainbird accuracy pm.
16-Aug	Tue				At 07:22 inspected perimeter ditches, containment areas, shop and parking lot. All is well.
					CHM2 Hill was out to pull well water samples for the HRSD Potomac Aquafer study.
17-Aug	Wed				At 07:40 inspected perimeter ditches, containment areas, shop and parking lot. All is well.
					Running all wells to supplement the pond.
18-Aug	Thu				At 10:30 inspected perimeter ditches, containment areas, shop and parking lot. All is well.
					Completed the preventive maintenance on the rainbird system.
19-Aug	Fri	0.17			Operations supervisor is monitoring all areas of the facility.
20-Aug	Sat				The facility is currently unmanned.
21-Aug	Sun	0.33			The facility is currently unmanned.
22-Aug	Mon				At 07:16 inspected perimeter ditches, containment areas, shop and parking lot. All is well.
					Installed coupling guards on the Pier X dust suppression pumps.
23-Aug	Tue				At 11:08 inspected perimeter ditches, containment areas, shop and parking lot. All is well.
					Running the deep well. Training employees on the skiff operation.
24-Aug	Wed				At 09:48 inspected perimeter ditches, containment areas, shop and parking lot. All is well.
					Operations crews are cleaning the south ditches.
25-Aug	Thu		0.50		At 11:14 inspected perimeter ditches, containment areas, shop and parking lot. All is well.
					Discharged to the river and sampled #001. Training employees on skiff operation.
26-Aug	Fri				At 09:15 inspected perimeter ditches, containment areas, shop and parking lot. All is well.
					Replaced the North Valve House air compressor. Cleaned the parallel strainers.
27-Aug	Sat				Operations supervisor is monitoring all areas of the facility.
28-Aug	Sun				Operations supervisor is monitoring all areas of the facility.
					Deep well is running.
29-Aug	Mon				Operations supervisor is monitoring all areas of the facility.
					Operations crews washed the T2 transfer area.
30-Aug	Tue				Operations supervisor is monitoring all areas of the facility.
					Unclogged the C2 pump and piping.
31-Aug	Wed				Operations supervisor is monitoring all areas of the facility.
	Total	3.78	[illegible]	34.00	Operations Crews are cleaning in C1/C2.

SEPTEMBER 2016 NOTES

		IN RAIN	Pump 1900 #1	Pump 1900 #2	
1-Sep	Thu	0.25			Operations supervisor monitoring all areas of facility.
2-Sep	Fri	0.19		3.00	Operations supervisor monitoring all areas of facility.
3-Sep	Sat	1.20	5.50	5.50	Facility unmanned.
4-Sep	Sun	0.01			Pier IX drainage plugs put back in after TS Hermine.
5-Sep	Mon				Operations supervisor monitoring all areas of facility.
6-Sep	Tue				At 07:40 inspected perimeter ditches, containment areas, shop and parking lot. All is well.
					Recorded potable water readings and submitted to HRSD.
7-Sep	Wed				At 08:00 inspected perimeter ditches, containment areas, shop and parking lot. All is well.
					Documentation submitted to DEQ in regards to TS Hermine.
8-Sep	Thu				At 11:08 inspected perimeter ditches, containment areas, shop and parking lot. All is well.
					Filter media replacd in 003, cleaned parallel and 1900 1&2 strainers, drained caustic containment.
9-Sep	Fri				At 07:30 inspected perimeter ditches, containment areas, shop and parking lot. All is well.
					Caustic tanks topped off.
10-Sep	Sat				Facility unmanned.
11-Sep	Sun				Facility unmanned.
12-Sep	Mon				At 07:30 inspected perimeter ditches, containment areas, shop and parking lot. All is well.
					Gave tour of facility with DEQ employees, cleaned parallel strainers, greased wash pumps
13-Sep	Tue			0.50	At 09:00 inspected perimeter ditches, containment areas, shop and parking lot. All is well.
					Discharged to the river and pulled 001 sample for the month.
14-Sep	Wed				At 11:00 inspected perimeter ditches, containment areas, shop and parking lot. All is well.
15-Sep	Thu				At 08:12 inspected perimeter ditches, containment areas, shop and parking lot. All is well.
16-Sep	Fri				At 07:00 inspected perimeter ditches, containment areas, shop and parking lot. All is well.
17-Sep	Sat				Facility unmanned.
18-Sep	Sun				Operations supervisor monitoring all areas of facility.
19-Sep	Mon	2.97	19.50	16.50	At 0827 inspected perimeter ditches, containment areas, shop and parking lot. All is well.
					Cleaned parellel strainers. Discharging to the river. Removed outfall #003 filter media for incoming rain event.
20-Sep	Tue	1.82	9.50	22.50	At 0945 inspected perimeter ditches, containment areas, shop and parking lot. All is well.
					Continuing to pump to the river for storm, added 100 gal. of caustic, ops cleaning ditches. Submitted documentation to DEQ for filter removal.
21-Sep	Wed	2.12		10.50	At 0833 inspected perimeter ditches, containment areas, shop and parking lot. All is well.
					Continuing to pump to river,drained caustic containment, cleaned 1900#1 strainer.
22-Sep	Thu	0.64			At 0855 inspected perimeter ditches, containment areas, shop and parking lot. All is well, OPS is cleaning ditches.
					Added 100 gal. of caustic , cleaned 1900#2 strainer,returned filter media to outfall #003, cleaaned parallel strainers
23-Sep	Fri				Operations supervisor monitoring all areas of facility.
24-Sep	Sat				Facility unmanned.
25-Sep	Sun				Facility unmanned.
26-Sep	Mon			1.50	At 1245 inspected perimeter ditches, containment area, shop and parking lot. All is well.
					Added 50 gal. caustic, opened circulation valve.
27-Sep	Tue				At 0737 inspected perimeter ditches, containment area, shop and parking lot. All is well. Cleaned the parallel strainers.
					Added 350 gal. caustic, closed circulation valve, opened perimeter gun drain valves near shop, replaced damaged outfall 003 filter
28-Sep	Wed	0.04			At 0711 insepected perimeter ditches, containment areas, shop and parking lots. All is well.
					Added 450 gal caustic,replaced 2 plugs on pier 9 stormwater drains.
29-Sep	Thu				At 0707 inspected perimeter ditches, containment areas, shop and parking lots. All is well.
					Running circulation valve and perimeter drain valves, took well readings, cleaned parallel strainers.
30-Sep	Fri				Operations supervisor monitoring all areas of facility.
	Total	9.24	[illegible]	60.00	
Quarter		15.68	71.25	104.25	

OCTOBER 2016 NOTES

		RAIN	1900 #1	1000 #2	
1-Oct	Sat	0.01			Facility unmanned.
2-Oct	Sun				Facility unmanned.
3-Oct	Mon	0.06			At 0821 inspected perimeter ditches, containment areas, shop and parking lots. All is well.
					Added 400 gal caustic, pH on the upswing, cleaned parallel strainers, greased wash pumps,
4-Oct	Tue			6.50	Operations supervisor monitoring all areas of facility.
					OPS cleaning ditches, discharging to the james river, started storm preperations.
5-Oct	Wed				AT 0945 inspected perimeter ditches, containment areas, shop and parking lots. All is well.
6-Oct	Thu	0.03			At 1600 inspected perimeter ditches, containment areas, shop and parking lots. All is well.
					Ditch pump work completed, cleaned parallel strainers.
7-Oct	Fri				Operations supervisor monitoring all areas of facility.
8-Oct	Sat	6.23			Operations supervisor monitoring all areas of facility.
					Power failure @2200.
9-Oct	Sun			12.00	Discharged to the James River.
10-Oct	Mon			13.00	Operations supervisor monitoring all areas of facility.
					Storm recovery, discharged to the James river until 1300, added 600 gal. caustic, OPS cleaning ditches.
11-Oct	Tue		6.00	6.00	Operations supervisor monitoring all areas of facility.
					Power returned @0700, dishcarged to the James River, added 300 gal. caustic, OPS cleaning ditches.
12-Oct	Wed			5.00	Operations supervisor monitoring all areas of facility. Drained caustic containment and documented.
					Discharged to the James river, OPScleaning ditches, cleaned parallel strainers, cleaned 1900 #1&#2 strainers.
13-Oct	Thu				At 0700 inspected perimeter ditches, containment areas, shop and parking lots. All is well.
					Repairs were made to yard wet suppression wiring.
14-Oct	Fri				Operations supervisor monitoring all areas of facility.
15-Oct	Sat				Operations supervisor monitoring all areas of facility.
16-Oct	Sun				Facility unmanned.
17-Oct	Mon				Operations supervisor monitoring all areas of facility.
					Caustic tanks topped off.
18-Oct	Tue				At 0950 inspected perimeter ditches, containment areas, shop and parking lots. All is well.
					Added 100 gal. caustic to pond,
19-Oct	Wed				At 0755 inspected perimeter ditches, containment areas, shop and parking lots. All is well.
					Added 100 gal. casutic, cleaned in-line strainers in the dumper and reclaim pump room.
20-Oct	Thu				At 0745 inspected perimeter ditches, containment areas, shop and parking lots. All is well.
					OPS cleaning ditches and T2 strainers, addded 150 gal caustic,
21-Oct	Fri				Operations supervisor monitoring all areas of facility.
22-Oct	Sat				Operations supervisor monitoring all areas of facility.
23-Oct	Sun				Operations supervisor monitoring all areas of facility.
24-Oct	Mon				At 1300 inspected perimeter ditches, containment areas, shop and parking lots. All is well.
					Contractors replacing ditch oil booms, added 75 gal. caustic.
25-Oct	Tue				At 0850 inspected perimeter ditches, containment areas, shop and parking lots. All is well.
					Added 50 gal. caustic, pulled deepwell Q4 sample, running deepwell to supplement pond.
26-Oct	Wed				At 0745 inspected perimeter ditches, containment areas, shop and parking lots. All is well.
					Cleaned parallel strainers, stopped deepwell at 1645.
27-Oct	Thu	0.02			At 0945 inspected perimeter ditches, containment areas, shop and parking lots. All is well.
28-Oct	Fri	0.01			Operations supervisor monitoring all areas of facility.
29-Oct	Sat				Operations supervisor monitoring all areas of facility.
30-Oct	Sun				Facility unmanned.
31-Oct	Mon				At 1315 inspected perimeter ditches, containment areas, shop and parking lots. All is well.
	Total	6.36	6.00	42.50	Cleaned parallel stainers, running deepwell to supplement the pond.

NOVEMBER 2016 NOTES

		IN RAIN	Pump 1900 #1	Pump 1900 #2	
1-Nov	Tue				At 0752 inspected perimeter ditches, containment areas, shop and parking lots. All is well.
					Stopped running well pump at 1540.
2-Nov	Wed				At 0745 inspected perimeter ditches, containment areas, shop and parking lots. All is well.
					Cleaned parallel strainers, installed 150 PSI burst disk in North 7A valve house.
3-Nov	Thu	0.13			At 0750 inspected perimeter ditches, containment areas, shop and parking lots. All is well.
4-Nov	Fri	0.38			Operations supervisor monitoring all areas of facility.
5-Nov	Sat				Operations supervisor monitoring all areas of facility.
6-Nov	Sun				Operations supervisor monitoring all areas of facility.
7-Nov	Mon				At 0940 inspected perimeter ditches, containment areas, shop and parking lots. All is well.
8-Nov	Tue				At 0740 inspected perimeter ditches, containment areas, shop and parking lots. All is well.
					Cleaned parallel strainers, greased wash pumps, added 50 gal. caustic.
9-Nov	Wed				At 0705 inspected perimeter ditches, conatinment areas, shop and parking lots. All is well.
					Added 75 gal. caustic,
10-Nov	Thu				At 1314 inspected perimeter ditches, containment areas, shop and parking lot. All is well.
11-Nov	Fri				At 1003 inspected perimeter ditches, containment areas, shop and parking lots. All is well.
					Added 75 gal caustic, drained caustic containment and documented,
12-Nov	Sat				Operations supervisor monitoring all areas of facility.
13-Nov	Sun				Operations supervisor monitoring all areas of facility.
14-Nov	Mon				At 1300 inspected perimeter ditches, containment areas, shop and parking lots. All is well.
					Running deepwell and horizontal wells to supplement pond.
15-Nov	Tue				Operations supervisor monitoring all areas of facility.
					Running deepwell to supplement pond.
16-Nov	Wed				At 0702 inspected perimeter ditches, containment areas, shop and parking lots. All is well.
					Stopped deepwell at 0700,
17-Nov	Thu				At 0740 inspected perimeter ditches, containment areas, shop and parking lots. All is well.
					Added 75 gal. caustic,
18-Nov	Fri				Operations supervisor monitoring all areas of facility.
19-Nov	Sat				Operations supervisor monitoring all areas of facility.
20-Nov	Sun				Operations supervisor monitoring all areas of facility.
21-Nov	Mon				At 1100 inspected perimeter ditches, containment areas, shop and parking lots. All is well.
					Running deepwell to supplement pond.
22-Nov	Tue				At 0900 inspected perimeter ditches, containment areas, shop and parking lots. All is well.
					Running deepwell until 1300.
23-Nov	Wed				At 0730 inspected perimeter ditches, containment areas, shop and parking lots. All is well.
24-Nov	Thu				Facility unmanned.
25-Nov	Fri				At 1000 inspected perimeter ditches, containment areas, shop and parking lots. All is well.
					Cleaned the parallel strainers.
26-Nov	Sat	0.02			Operations supervisor monitoring all areas of facility.
					Running deepwell to supplement pond.
27-Nov	Sun				Operations supervisor monitoring all areas of facility.
					Running deepwell.
28-Nov	Mon				At 0839 inspected perimeter ditches, containment areas, shop and parking lots. All is well.
					Stopped the deepwell at 0900.
29-Nov	Tue				At 0749 inspected perimeter ditches, containment areas, shop and parking lots. All is well.
					Replaced OF003 filter media,
30-Nov	Wed	0.02			Initiated spill respone and notifications for cement unloader hydraulic leak.
					Pulled well readings.
	Total	0.55	0.00	0.00	

DECEMBER 2016 NOTES

		RAIN	1900 #1	1900 #2	
1-Dec	Thu				At 0740 inspected perimeter ditches, containment areas, shop and parking lots. All is well.
					Cleaned parallel strainers, pulled potable water readings for HRSD, running the deepwell to supplement pond.
2-Dec	Fri				Hiller onsite for fire system annual inspections, stopped the deepwell withdrawal at 1520.
3-Dec	Sat				Operations supervisor monitoring all areas of facility.
4-Dec	Sun	0.02			Operations supervisor monitoring all areas of facility.
5-Dec	Mon	0.40		7.50	Operations supervisor monitoring all areas of facility.
					MER onsite to clean car puller sump pit, discharging to the James River.
6-Dec	Tue	0.92			At 0747 inspected perimeter ditches, containment areas, shop and parking lots. All is well.
					Cleaned the parallel strainers,
7-Dec	Wed			5.50	At 0745 inspected perimeter ditches, containment areas, shop and parking lots. All is well.
					Discharging to the James River, drained caustic containment and documented.
8-Dec	Thu				At 0836 inspected perimeter ditches, containment areas, shop and parking lots. All is well.
					Submitted november DMR to the VA DEQ, added 75 gal. caustic.
9-Dec	Fri				Operations supervisor monitoring all areas of facility.
10-Dec	Sat				Operations supervisor monitoring all areas of facility.
11-Dec	Sun				Operations supervisor monitoring all areas of facility.
12-Dec	Mon				At 0838 inspected perimeter ditches, containment areas, shop and parking lots. All is well.
					Cleaned parallel strainers, pulled semi annual outfall 003 sample,
13-Dec	Tue	0.07			At 0830 inspected perimeter ditches, containment areas, shop and parking lots. All is well.
					Added 75 gallons caustic.
14-Dec	Wed			0.50	At 0713 inspected perimeter ditches, containment areas, shop and parking lots. All is well.
					Discharged to pull OF 001 monthly sample, added 25 gal caustic,
15-Dec	Thu				Operations supervisor monitoring all areas of facility.
					Wet suppression systems drained due to oncomming freezing temperatures.
16-Dec	Fri				Operations supervisor monitoring all areas of facility.
17-Dec	Sat	0.05			Operations supervisor monitoring all areas of facility.
18-Dec	Sun	0.17			Operations supervisor monitoring all areas of facility.
					Drawing from the deepwell to supplement the pond.
19-Dec	Mon				At 0911 inspected perimeter ditches, containment areas, shop and parking lots. All is well.
					Wet suppression systems drained due to freezing temperatures.
20-Dec	Tue				Operations supervisor monitoring all areas of facility.
					Wet suppression systems drained due to freezing temperatures.
21-Dec	Wed				At 0905 inspected perimeter ditches, containment areas and parking lots. All is well.
					Cleaned the parallel strainers,
22-Dec	Thu				Operations supervisor monitoring all areas of facility.
					Caustic tanks were topped off, added 50 gal to ditchline.
23-Dec	Fri				At 1000 inspected perimeter ditches, containment areas, and parking lots. All is well.
					Running the horizontal wells, opened the North circulation valve.
24-Dec	Sat	0.14			Operations supervisor monitoring all areas of facility.
25-Dec	Sun				Facility Unmanned
26-Dec	Mon				Operations supervisor monitoring all areas of facility.
27-Dec	Tue				At 1245 inspected perimeter ditches, containment areas, shop and parking lots. All is well
					Running the deepwell to supplement the pond, added 100 gal. caustic to the ditchline.
28-Dec	Wed				At 0741 inspected perimeter ditches, containment areas, shop and parking lots. All is well.
					Closed the deepwell at 0920,
29-Dec	Thu	0.19			Operations supervisor monitoring all areas of facility.
					Ran the deepwell for a bit for universal labs conductivity test, contractors changed oil booms in ditches.
30-Dec	Fri				Operations supervisor monitoring all areas of facility.
					Cleaned parallel strainers, 1900 in-line strainers, dumper washdown in-line strainers, and rainbird pump in-line strainers.
31-Dec	Sat				Facility unmanned.
	Total	1.96	0.00	13.50	
Quarter		8.87	6.00	56.00	
Yearly		47.88	100.25	305.00	