GW – 028

PERMITS, RENEWALS, & MODS

2016

Cash Remittance Report (CRR)

Appendix 8-14 revised 11/27/01

Energy, Minerals & Natural Resources Department
CASH REMITTANCE REPORT (CRR)

CRR00074

Location Name ① OCD - Environment

Location Code ② 0740

Today's Date: 08 (MONTH) 02 (DAY) ③ 20 17 (YEAR)

Collection Period: ___ / ___ / ___ (MM / DD / YYYY) through ___ / ___ / ___ (MM / DD / YYYY) ④

Cost Center ⑤	Revenue Code ⑤	Receipt Amount ⑦	Collected Amount ⑧
0740		8400.00	

Total ========→	$ 8400.00 ⑨	$ ⑩

Over/Short Amount	$ ⑪

CRR Deposit Amount	$ ⑫

Print Name: Lorraine DeVargas ⑬ Signature: Lorraine DeVargas ⑬

Print Name: ___ ⑬ Signature: ___ ⑬

Distribution: White and Yellow copy to Accounts Receivable-ASD.
Pink copy retained at CRR submitting location.

Official Use Only

Completed by the Accounts Receivable

Date Received: ___ ❶

Notes: ___ ❷

Amount Received: ___ ❸

State Treasurer Deposit Number: ___ ❹

Verified by: ___ ❻

Deposit Date: ___ ❺

EMNRDCRR Revised 4/01

HollyFrontier Navajo Refining LLC
2828 N. Harwood St., Suite 1300
Dallas TX 75201-1507

WATER QUALITY MANAGEMENT FUND
OIL CONSERVATION DIV
1220 S SAINT FRANCIS DR
SANTA FE NM 87505-4225

Check Date		07/24/2017
Check Amount	$	8,400.00
Vendor No		5111809
Payment Document		2000084743
Company Code		1020

Invoice Date	Invoice Number	Description	Invoice Amount	Discount Amount	Net Amount
07/20/2017	072017	RENEWAL FOR FINAL DISCHARGE PERMIT	8,400.00	0.00	8,400.00

Payment document	Check number	Date	Currency	Payment amount
2000084743	1000350061	07/24/2017	USD	*********8,400.00*

! PLEASE FOLD ON PERFORATION AND DETACH HERE !

VERIFY THE AUTHENTICITY OF THIS MULTI-TONE SECURITY DOCUMENT. CHECK BACKGROUND AREA CHANGES COLOR GRADUALLY FROM TOP TO BOTTOM.

HollyFrontier Navajo Refining LLC
2828 N. Harwood St., Suite 1300
Dallas TX 75201-1507

64-1278/611

1000350061
07/24/2017

PAY EXACTLY
*********8,400.00*USD

VOID AFTER 180 DAYS

PAY *** EIGHT THOUSAND FOUR HUNDRED and 00 /100 USD***

TO THE
ORDER OF WATER QUALITY MANAGEMENT FUND
OIL CONSERVATION DIV
1220 S SAINT FRANCIS DR
SANTA FE NM 87505-4225

AUTHORIZED SIGNATURE

Bank of America N.A.

HOLLYFRONTIER.

July 31, 2017

Director, Oil Conservation Division
NM Energy, Minerals & Natural Resources Dept.
1220 S. St. Francis Drive
Santa Fe, NM 87505

Certified Mail-Return Receipt
7014 3490 0000 6269 6809

Re: Discharge Permit GW-028 – Permit Fee
Discharge Permit Renewal Fee
Hollyfrontier Navajo Refining Company LLC
Artesia Refinery

Dear Director:

Enclosed please find a check in the amount of $8,400.00 in payment of the permit fee pursuant to 20.6.2.3114 NMAC for the Permit Modification Application to GW-028 dated May 25, 2017. If you have any questions, please do not hesitate to contact me at (575) 746-5487.

Sincerely,

Scott M. Denton
Environmental Manager

Enclosure

Electronic cc: OCD: Bill Brancard, Allison Marks, Jim Griswold, Carl Chavez
HFC Bob O'Brien, Mike Holder, Denise McWatters

Environmental File: OCD.RO Reject Flow Data.Permit Mod

ACKNOWLEDGEMENT OF RECEIPT
OF CHECK/CASH

I hereby acknowledge receipt of Check No. 1000350061 dated 07/24/2017

or cash received on 08-02-2017 in the amount of $ 8400.00

from Holly Frontier Navajo Refining

for WQF - permit Modification GW-028

Submitted by: Carl Chavez Date: 08/02/2017

Submitted to ASD by: Lorraine DeVargas Date: 08/02/2017

Received in ASD by: _____ Date: _____

Filing Fee _____ New Facility: _____ Renewal: _____

Modification X Other _____

Organization Code 521.07 Applicable FY 118

To be deposited in the Water Quality Management Fund.

Full Payment _____ or Annual Increment _____

NEW MEXICO ENVIRONMENT DEPARTMENT - ALBUQUERQUE FIELD OFFICE DAILY CHECK RECEIPT LOG

DATE RECEIVED	WALK-IN	MAIL	NAME ON CHECK	DATE OF CHECK	CHECK/MONEY ORDER#	PROGRAM ACCOUNT CODE	AMOUNT OF CHECK	DATE DEPOSITED	DEPOSITED BY:
8/2/17		X	Holly Frontier	07/24/17	1000350061		8400.00		
TOTAL							8400.00		

REVENUE TRANSMITTAL SHEET

Description	Fund	Dept.	Share Acct	Sub Acct	Amount
Liquid Waste	34000	Z3200	496402		
Water Recreation Facilities	40000	Z8501	496402		
Food Permit Fees	99100	Z2600	496402		
OTHER	34100	232900		2329029000	

HOLLYFRONTIER

July 31, 2017

Director, Oil Conservation Division
NM Energy, Minerals & Natural Resources Dept.
1220 S. St. Francis Drive
Santa Fe, NM 87505

Certified Mail/Return Receipt
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HollyFrontier Navajo Refining LLC
2828 N. Harwood St., Suite 1300
Dallas TX 75201-1507

WATER QUALITY MANAGEMENT FUND
OIL CONSERVATION DIV
1220 S SAINT FRANCIS DR
SANTA FE NM 87505-4225

Check Date		07/24/2017
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Payment document	Check number	Date	Currency	Payment amount
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HollyFrontier Navajo Refining LLC
2828 N. Harwood St., Suite 1300
Dallas TX 75201-1507

64-1278/611

1000350061
07/24/2017

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*********8,400.00*USD

VOID AFTER 180 DAYS

PAY *** EIGHT THOUSAND FOUR HUNDRED and 00 /100 USD***

TO THE
ORDER OF WATER QUALITY MANAGEMENT FUND
OIL CONSERVATION DIV
1220 S SAINT FRANCIS DR
SANTA FE NM 87505-4225

AUTHORIZED SIGNATURE

Bank of America N.A.

Chavez, Carl J, EMNRD

From: Chavez, Carl J, EMNRD
Sent: Thursday, June 29, 2017 2:20 PM
To: 'Denton, Scott'; Griswold, Jim, EMNRD
Cc: Holder, Mike; McWatters, Denise; Griswold, Jim, EMNRD; Brancard, Bill, EMNRD; Bada, Cheryl, EMNRD
Subject: RE: Navajo - GW-028 Permit
Attachments: OCD DP GW-28 Modification 6-29-2017.pdf

Scott, et al.:

Please find attached the New Mexico Oil Conservation Division (OCD) Modification to the above subject discharge permit.

A hardcopy has been sent via U.S. Mail.

Please contact me if you have questions.

Thank you.

Mr. Carl J. Chavez, CHMM (#13099)
New Mexico Oil Conservation Division
Energy Minerals and Natural Resources Department
1220 South St Francis Drive
Santa Fe, New Mexico 87505
Ph. (505) 476-3490
E-mail: CarlJ.Chavez@state.nm.us
"Why not prevent pollution, minimize waste to reduce operating costs, reuse or recycle, and move forward with the rest of the Nation?" (To see how, go to: http://www.emnrd.state.nm.us/OCD **and see "Publications")**

From: Denton, Scott [mailto:Scott.Denton@HollyFrontier.com]
Sent: Tuesday, June 27, 2017 9:52 AM
To: Griswold, Jim, EMNRD <Jim.Griswold@state.nm.us>; Chavez, Carl J, EMNRD <CarlJ.Chavez@state.nm.us>
Cc: Denton, Scott <Scott.Denton@HollyFrontier.com>; Holder, Mike <Michael.Holder@hollyfrontier.com>; McWatters, Denise <Denise.McWatters@HollyFrontier.com>
Subject: Navajo - GW-028 Permit

Jim & Carl,

Thank you both for taking time to meet with us last week to discuss the GW-028 permit.

Below are the changes we discussed and on the 1st and 3rd items and the suggested language for the 2nd.

Let me know if you have any questions.

Thanks,

SMD

Page 5 of 8

2. E. 5. A summary of all ~~waste and~~ wastewater volumes disposed of, sold, or treated on-site., ~~including a refinery wastewater balance sheet and mass balance of the waste effluents;~~

Page 7 of 8

4. the 4th bullet of the section

• The Permittee shall obtain necessary permits and land-owner approvals for the start of well construction and
initiate right-of-way work for the pipeline ~~begin construction of pipeline~~ no later than October 31, 2017.

Page 8 of 8

6. second paragraph

…60 days of the cessation of discharge of reverse osmosis reject fluids to the ground surface at the
facility~~. issuance of this permit~~.

Scott M. Denton
Environmental Manager

The HollyFrontier Companies
P.O. Box 159
Artesia, NM 88211-0159
575-746-5487 (o)
970-581-7268 (c)

Scott.Denton@HollyFrontier.com

State of New Mexico
Energy, Minerals and Natural Resources Department

Susana Martinez
Governor

Ken McQueen
Cabinet Secretary

Matthias Sayer
Deputy Cabinet Secretary

David R. Catanach, Division Director
Oil Conservation Division

JUNE 29, 2017

Mr. Scott M. Denton
Environmental Manager
The HollyFrontier Companies
P.O. Box 159
Artesia, NM 88211-0159

Re: HollyFrontier Navajo Refining Company, LLC, Artesia Refinery (GW-028) Discharge Permit Modification, Eddy County, New Mexico

Dear Mr. Denton:

The New Mexico Oil Conservation Division (OCD) is responding based on our meeting in Santa Fe on Tuesday, June 20, 2017, to discuss provisions of the recently issued discharge permit (permit) dated May 25, 2017. The Permittee suggested changes to the permit to better clarify its obligations.

Effective immediately, OCD hereby issues the following permit modifications to read as follows:

Page 5 of 8
2. E. 5. A summary of all wastewater volumes disposed of, sold, or treated on-site.

Page 7 of 8
4. 4th bullet of the section
• The Permittee shall obtain necessary permits and land-owner approvals for the start of well construction and initiate right-of-way work for the pipeline no later than October 31, 2017.

Page 8 of 8
6. 2nd paragraph
…60 days of the cessation of discharge of reverse osmosis reject fluids to the ground surface at the facility.

Please contact me at (505)-476-3490 or E-mail CarlJ.Chavez@state.nm.us if you have any questions. Thank you.

Respectfully,

Carl J. Chavez

CC: File

State of New Mexico
Energy, Minerals and Natural Resources Department

Susana Martinez
Governor

Ken McQueen
Cabinet Secretary

Matthias Sayer
Deputy Cabinet Secretary

David R. Catanach, Division Director
Oil Conservation Division

MAY 25, 2017

CERTIFIED MAIL
RETURN RECEIPT NO: 7913 8145

Mr. Scott Denton
Environmental Manager
HollyFrontier Navajo Refining LLC
501 East Main
Artesia, NM 88210

RE: RENEWAL OF FINAL DISCHARGE PERMIT FOR DISCHARGE OF REVERSE OSMOSIS REJECT FLUID AT THE NAVAJO ARTESIA REFINERY (GW-028) SE/4 OF SECTION 1, E/2 OF SECTION 8, W/2 OF SECTION 9, N/2 OF SECTION 12, TOWNSHIP 17 SOUTH, RANGE 26 EAST, NMPM, EDDY COUNTY, NEW MEXICO

Dear Mr. Denton:

The discharge permit renewal (GW-028) regarding the HollyFrontier Navajo Refining, LLC. (Navajo) Artesia Refinery located in the SE/4 of Section 1, E/2 of Section 8, W/2 of Section 9, N/2 of Section 12, Township 17 South, Range 26 East, NMPM, Eddy County, New Mexico, is hereby approved under the terms and conditions specified in the attached Discharge Permit.

Navajo's discharge permit was originally issued on October 21, 1991 and has been on several occasions since renewed. Navajo's discharge permit renewal application was submitted pursuant to 20.6.2.3106 NMAC. OCD approves this discharge permit renewal pursuant to 20.6.2.3109A NMAC. 20.6.2.3109G NMAC provides for possible future amendment of the permit. Be advised that approval of this discharge permit does not relieve Navajo of liability of operations result in pollution of surface water, ground water, or the environment.

20.6.2.3104 NMAC specifies "*When a permit has been issued, discharges must be consistent with the terms and conditions of the permit.*" Pursuant to 20.6.2.3107C NMAC, Navajo is required to notify the Director of any facility expansion, production increase, or process modification that would result in any change in the water quality or volume of the discharge.

This discharge permit will expire on April 21, 2022, and Navajo should submit a discharge permit renewal application in ample time before this date. Under 20.6.2.3106F NMAC, if a discharger submits a discharge permit renewal application at least 120 days before the discharge permit expires and is in compliance with the approved discharge permit, then the existing discharge permit will not expire until the application for renewal has been approved or disapproved.

The discharge permit renewal application is subject to 20.6.2.3114 NMAC. Every facility submitting a discharge permit renewal application is assessed a non-refundable filing fee of $100.00. OCD has already received this filing fee. The permit fee for discharging at a refinery is $8,400.00. The Permittee shall

submit this amount by check payable to the "New Mexico Water Quality Management Fund." This renewal does not take effect until the fees are paid in full.

Please make all checks payable to:

WATER QUALITY MANAGEMENT FUND
C/O: OIL CONSERVATION DIVISION
1220 SOUTH ST. FRANCIS DRIVE
SANTA FE, NEW MEXICO 87505

If you have any questions regarding this matter, please contact Jim Griswold at 505-476-3465. On behalf of the staff of OCD, I wish to thank you and your staff for your cooperation during this discharge permit renewal process.

Sincerely,

David R. Catanach
Director

DRC/jg

Enclosure: Discharge Permit

RENEWAL OF DISCHARGE PERMIT GW-28

1. GENERAL PROVISIONS

1. A. Permittee and Permitted Facility: The Director of the Oil Conservation Division (OCD) within the Energy, Minerals and Natural Resources Department issues Discharge Permit GW-28 (Permit) to HollyFrontier Navajo Refining LLC (Permittee) with an address of 501 East Main in Artesia, New Mexico 88210, regarding the Artesia Refinery (Facility) located northeast of the intersection of Highway 285 and Highway 82, in Artesia, New Mexico (SE/4 of Section 1, E/2 of Section 8, W/2 of Section 9, and the N/2 of Section 12; all within Township 17 South, Range 26 East, NMPM, Eddy County).

The Permittee refines up to 115,000 barrels per day of crude oil and other feedstocks at the Facility into asphalt, fuel oil, gasoline, diesel, jet fuel, and liquefied petroleum gas. Reverse osmosis reject fluids are generated at the Facility from the pre-treatment of fresh groundwater. These reject fluids have been historically discharged onto the ground surface within the Facility boundary under conditions of a Discharge Permit originally issued by the OCD in 1991. The Permittee is also abating groundwater and vadose zone contamination at the Facility. Groundwater that may be affected by a spill, leak, or accidental discharge occurs at a depth of approximately 15 feet below ground surface with a total dissolved solids concentration of approximately 2,500 milligrams per liter (mg/l).

The issuance of this Discharge Permit does not relieve the Permittee from the responsibility of complying with the provisions of the Water Quality Act, any applicable regulations or water quality standards of the WQCC, or any applicable federal laws, regulations or standards.

1. B. Scope of Permit: OCD has been granted authority to administer the Water Quality Act (Chapter 74, Article 6 NMSA 1978) as it applies to refineries by statute and by delegation from the Water Quality Control Commission pursuant to Section 74-6-4(E) NMSA 1978.

The Water Quality Act and the rules issued under the Act protect groundwater and surface water of the State of New Mexico by providing that unless otherwise allowed by rule, no person shall cause or allow effluent or leachate to discharge so that it may move directly or indirectly into groundwater unless such a discharge is pursuant to an approved discharge permit (20.6.2.3104 and 3106 NMAC).

This renewed Permit authorizes the Permittee to continue discharging a maximum of 15,000 barrels per day of reverse osmosis reject fluids to the ground surface at the Facility until such time as injection capacity into a permitted Class I disposal well becomes available, but no later than October 31, 2018. This Permit renewal includes requirements for facility-wide groundwater monitoring and for the abatement of vadose zone and groundwater contamination resulting from the discharge of reverse osmosis reject fluids along with any other releases of potential groundwater contaminants.

This Permit does not authorize on-site disposal of any materials, product, by-product, or oil field waste. This Permit does not convey any property rights of any sort nor any exclusive privilege,

and does not authorize any injury to persons or property, any invasion of other private rights, or any infringement of state, federal, or local laws, rules or regulations.

The Permittee shall operate in accordance with the Permit conditions to comply with the Water Quality Act and the rules issued pursuant to the Act, so neither a hazard to public health nor undue risk to property will result (20.6.2.3109 C NMAC); so no discharge will cause or may cause any stream standard to be violated (20.6.2.3109 H (2) NMAC); so no discharge of any water contaminant will result in a hazard to public health (20.6.2.3109 H (3) NMAC); and so the numerical standards specified of 20.6.2.3103 NMAC are not exceeded.

1. C. Discharge Permit Renewal: This is a Permit renewal which replaces the permit being renewed. Replacement of a prior permit does not relieve the Permittee of its responsibility to comply with the terms of the prior permit while that permit was in effect.

1. D. Definitions: Terms not specifically defined in this Permit shall have the same meanings as those in the Water Quality Act or the rules adopted pursuant to the Act, as the context requires.

1. E. Fees: Every facility that submits a discharge permit application for initial approval or renewal must pay the permit fees specified in Table 1 and the filing fee specified in Table 2 of 20.6.2.3114 NMAC. OCD has received the required $100.00 filing fee. The permit fee of $8,400.00 is now due for this renewal to take effect. There is also a fee under 20.6.2.3114 NMAC associated with approval of financial assurance (Table 2) of the greater of $250.00 or 0.01% of the financial assurance amount. Checks must be payable to the "Water Quality Management Fund" and not the OCD.

1. F. Effective Date, Expiration, Renewal Conditions, and Penalties for Operating Without a Permit: This Permit is effective immediately from the date the Permittee receives this discharge permit and all fees are paid, or until the permit is terminated. This Permit renewal **will expire on April 21, 2022,** which is beyond the cessation of the surface discharge described in Section 1. B as abatement of vadose zone and groundwater contamination resulting from the discharge may continue under provisions of this Permit. The Permittee shall submit an application for subsequent renewal no later than 120 days before the expiration date (20.6.2.3106 F NMAC). If a Permittee submits a renewal application at least 120 calendar days before the Permit expires and complies with the approved Permit, then the existing Permit will not expire until OCD has approved or disapproved the renewal application. A discharge permit continued under this provision remains fully effective and enforceable. Operating with an expired Permit may subject the Permittee to civil and/or criminal penalties (74-6-10.1 and 10.2 NMSA 1978).

1. G. Modifications: The Permittee shall notify the OCD of any facility expansion, production increase, or process modification that would result in any significant modification in the discharge of water contaminants (20.6.2.3107 C NMAC). OCD may require the Permittee to submit a permit modification pursuant to 20.6.2.3109E NMAC and may modify or terminate a permit pursuant to Section 74-6-5(M) through (N) NMSA 1978.

1. H. Transfer of Permit: Prior to any transfer of ownership, control, or possession of the Facility (whether by lease, conveyance or otherwise), the transferor shall notify the transferee in writing of the existence of this Permit, and shall deliver to OCD a copy of such notification, together with a certification or other proof that such notification has been received by the transferee pursuant to 20.6.2.3111 NMAC. Upon receipt of such notification, the transferee shall inquire into all the provisions and requirements contained in the Permit, and the transferee shall be charged with notice of all such provisions and requirements as they appear of record in the OCD's file or files concerning the Permit. Upon assuming either ownership or possession of the Facility the transferee shall have the same rights and responsibilities under the Permit as were applicable to the transferor (20.6.2.3111 NMAC).

Transfer of the ownership, control, or possession of the Facility does not relieve the transferor of responsibility or liability for any act or omission which occurred while the transferor owned, controlled, or was in possession of the Facility (20.6.2.3111E NMAC).

1. I. Closure Plan and Financial Assurance: A closure plan is hereby required within 60 days under 20.6.2.3107 A. (11) NMAC along with financial assurance to implement such a plan. The plan shall provide, at a minimum, for the removal or plugging of all lines leading to the discharge locations so that a discharge could no longer occur. As abatement of vadose zone and groundwater contamination resulting from the discharge progresses, modification of the closure plan and financial assurance will be required to incorporate the abatement effort including possibly post-closure monitoring.

1. J. Compliance and Enforcement: If the Permittee violates or is violating a condition of this Permit, OCD may issue a compliance order requiring compliance immediately or within a specified period, suspending or terminating this Permit, and/or assessing a civil penalty (74-6-10 NMSA 1978). OCD may also commence a civil action in district court for appropriate relief, including injunctive relief (74-6-10 (A) (2) and 11 NMSA 1978). The Permittee may be subject to criminal penalties for discharging a water contaminant without a discharge permit or in violation of a condition of a permit; making any false material statement, representation, certification or omission of material fact in an application, record, report, plan or other document filed, submitted or required to be maintained under the Water Quality Act; falsifying, tampering with or rendering inaccurate any monitoring device, method or record required to be maintained under the Water Quality Act; or failing to monitor, sample or report as required by a permit issued pursuant to a state or federal law or regulation (74-6-10.2 NMSA 1978).

2. GENERAL FACILITY OPERATIONS

2. A. Contingency Plan: The Permittee shall implement its contingency plan to cope with failure of the Permit or system.

2. B. Record Keeping: The Permittee shall maintain records of all inspections required by this Permit at its Facility office for a minimum of five years and shall make those records available for inspection by OCD.

2. C. Release Reporting: The Permittee shall comply with the following permit conditions, pursuant to 20.6.2.1203 NMAC, and may report a release using an OCD form C-141, if it determines that a release of oil or other water contaminant, in such quantity as may with reasonable probability injure or be detrimental to human health, animal or plant life, or property, or unreasonably interfere with the public welfare or the use of property, has occurred. The Permittee shall report unauthorized releases of water contaminants in accordance with any additional commitments made in its approved Contingency Plan. If the Permittee determines that any constituent exceeds the standards specified at 20.6.2.3103 NMAC, then it shall report a release to OCD.

1. **Oral Notification:** As soon as possible after learning of such a release, but in no event, more than twenty-four (24) hours thereafter, the Permittee shall notify OCD of a release. The Permittee shall provide the following:

    - the name, address, and telephone number of the person or persons in charge of the facility, as well as of the Permittee;
    - the name and location of the facility;
    - the date, time, location, and duration of the release;
    - the source and cause of release;
    - a description of the release, including its chemical composition;
    - the estimated volume of the release; and,
    - any corrective or abatement actions taken to mitigate immediate environmental damage from the release.

2. **Written Notification:** Within one week after the Permittee has discovered a release, the Permittee shall send initial written notification (may use an OCD form C-141 with attachments) to OCD verifying the prior oral notification as to each of the foregoing items and providing any appropriate additions or corrections to the information contained in the prior oral notification.

3. **Corrective Action:** The Permittee shall undertake such corrective actions as are necessary and appropriate to contain and remove or mitigate the damage caused by the release along with the filing of subsequent corrective action reports with the OCD.

2 D. Other Requirements:

1. **Inspection and Entry:** Pursuant to 20.6.2.4107A NMAC, the Permittee shall allow any authorized representative of the OCD Director, upon the presentation of proper credentials, to:

    - enter the facility at reasonable times;
    - inspect and copy records required by this Permit;
    - inspect any treatment works, monitoring, and analytical equipment;
    - sample any wastes, discharge, groundwater, surface water, stream sediment, plants, animals, or vadose-zone material including vadose-zone vapor;

- use the Permittee's monitoring systems and wells to collect samples; and,
- gain access to off-site property not owned or controlled by the Permittee but accessible to the Permittee through an access agreement if allowed by the agreement.

2. **Advance Notice:** Pursuant to 20.6.2.4107B NMAC, the Permittee shall provide OCD with at least four working days advance notice of any environmental sampling to be performed pursuant to this Permit, or of any monitoring well plugging or abandonment.

3. **Plugging and Abandonment:** Pursuant to 20.6.2.4107C NMAC, the Permittee shall propose to plug and abandon a monitoring well to the OCD for approval. The proposed action shall be designed to prevent water pollution that could result from water contaminants migrating through the well or borehole. The proposed action shall not take place without written approval from both OCD and the Office of the State Engineer.

2. E. Reporting: In prior years, the Permitee had been required to submit two reports; an annual permit report along with an annual facility-wide groundwater monitoring report. For the sake of efficiency, the Permittee shall hereafter only submit a single report to the OCD on or before June 15th of each year pursuant to both 20.6.2.3107 NMAC and the existing facility-wide groundwater monitoring plan. The single annual report shall include the following:

1. A summary of all major refinery activities or events;

2. A summary of the discharge activities, including the quality and volume of the discharge;

3. A summary of all leaks, spills, and releases and corrective actions taken;

4. A summary of the discovery of any new vadose zone or groundwater contamination;

5. A summary of all waste and wastewater disposed of, sold, or treated on-site, including a refinery wastewater balance sheet and mass balance of the waste effluents;

6. Documentation regarding the closure of any UIC Class V wells, if any, used for the disposal of industrial wastes or a mixture of industrial wastes and domestic wastes other than contaminated groundwater (see Section 3 below);

7. A description of ground water monitoring and remediation activities conducted throughout the year, including sample collection procedures, decontamination procedures, sample handling procedures, and management of associated wastes;

8. Summary tables of groundwater data including water quality, purging parameters, groundwater elevation, and thickness of any non-aqueous phase liquid;

9. Copies of laboratory analytical data sheets with quality assurance/quality control information;

10. Contour maps for each aquifer depicting the potentiometric gradient for each monitoring event;

11. Isoconcentration maps of major constituents of concern for each monitoring event (minimally benzene, toluene, ethylbenzene, total xylenes, naphthalenes, phenol, chloride, fluoride, sulfate, nitrate and total dissolved solids);

12. Non-aqueous phase liquid thickness isopleth maps for each monitoring event;

13. Plots of static water elevation versus time in key wells, specifically those that contain non-aqueous phase liquid;

14. Tabulation of the volumes of non-aqueous phase liquid removed from recovery wells or monitoring wells throughout the year;

15. Conclusions and recommendations.

3. CLASS V WELLS

Pursuant to 20.6.2.5002 B NMAC, leach fields and other wastewater disposal systems at OCD regulated facilities injecting non-hazardous fluid into or above an underground source of drinking water are Underground Injection Control (UIC) Class V injection wells. This Permit does not authorize the Permittee to use a UIC Class V injection well for the disposal of industrial waste at the Facility. Pursuant to 20.6.2.5005 NMAC, the Permittee shall close any UIC Class V industrial waste injection wells at its Facility that inject non-hazardous industrial wastes or a mixture of industrial wastes and domestic wastes (*e.g.,* septic systems, leach fields, dry wells, *etc.*) other than contaminated groundwater within 90 calendar days of the issuance of this Permit. The Permittee shall document the closure of any UIC Class V wells used for the disposal of non-hazardous industrial wastes or a mixture of industrial wastes and domestic wastes other than contaminated groundwater in its annual report (see Section 2. E. 6 above).

The Permittee must obtain a permit from the New Mexico Environment Department for other Class V wells, including wells used only for the injection of domestic wastes.

4. DISCHARGE OF REVERSE OSMOSIS REJECT FLUIDS

The Permittee began discharging reverse osmosis reject fluids to the surface in accordance with a permit modification approved on April 17, 1993. The discharge contained constituents present at concentrations that exceeded the standards of 20.6.2.3103 NMAC including but not limited to chloride, fluoride, nitrate, nitrite, sulfate, and total dissolved solids. This discharge has continued at two locations within the Facility:

- The "North Field" comprised of 25.8 acres with a discharge end-of-pipe at approximate latitude 32.85389 degrees, longitude -104.39345 degrees (NAD 83).

- The "South Field" comprised of 29.2 acres with a discharge end-of-pipe at approximate latitude 32.85038, longitude -104.39092 degrees.

The Permittee is allowed to continue discharging onto the land surface at those locations, but shall terminate upon operational completion of a Class I disposal well. The deadlines for disposal well and associated pipeline construction shall be as follows:

- The Permittee shall apply for permit to drill well, make application for a Class I permit, and begin pipeline due diligence no later than April 30, 2017.
- The Permittee shall begin construction of pipeline no later than October 31, 2017.
- The Permittee shall begin well installation no later than April 30, 2018.
- The Permittee shall complete the well and pipeline no later than October 31, 2018.

The well shall be designed, constructed and operated to contain liquids and solids in a manner that will protect fresh water, public health, safety and the environment for the foreseeable future. The Permittee shall operate that well in accordance with the terms and conditions specified by its separate UIC permit.

4.A. Discharge Rate and Location: The Permittee is authorized to discharge no more than 15,000 barrels per day of reverse osmosis reject fluids to the surface within the Facility at the two locations cited above. Discharge at any other locations is expressly prohibited.

4.B. Sampling and Analysis: The Permittee shall characterize the discharge fluids as follows:

1. The Permittee shall sample and analyze the reverse osmosis reject fluids for all constituents listed in 20.6.2.3103A, B, and C NMAC at least semi-annually by collecting grab samples at the points of discharge.
2. The Permittee shall sample and analyze using the methods specified in the Permittee's facility-wide groundwater monitoring plan.
3. The Permittee shall retain all sampling and analytical quality assurance/quality control documentation for at least four years.
4. The Permittee shall monitor and record the discharge flow(s) daily.
5. The Permittee shall ensure the sampling and flow measurements are representative of the volume and nature of the discharge.
6. The Permittee shall submit all sample data, analytical results, and flow measurements in the annual report required under Section 2.E.

5. GROUNDWATER MONITORING

The Permittee shall continue to monitor groundwater quality in accordance with its approved facility-wide groundwater monitoring plan. Permittee shall report the results of groundwater monitoring in the annual report required under Section 2.E.

6. ABATEMENT

There are indications that abatement of vadose zone and groundwater contamination is required due to the historic discharge of reverse osmosis reject fluids. Typically, persons responsible for abatement must do so in accordance with 20.6.2.4104 and 4106 NMAC. However, pursuant to 20.6.2.4105 A (6) NMAC, abatement can proceed as part of a discharge plan.

The Permittee shall submit a plan for characterization and abatement of vadose zone and groundwater contamination associated with the discharge of reverse osmosis reject fluids within 60 days of the issuance of this permit. The OCD will review that plan and upon its approval, the Permittee shall proceed with the characterization and abatement effort including regular reporting to the OCD of the results. Failure to submit such a plan, or to fulfill OCD requirements associated with the characterization and/or abatement, will be deemed by the OCD as non-compliance with provisions of this discharge permit possibly resulting in its termination along with other enforcement actions including penalties (Section 1. J).

State of New Mexico
Energy, Minerals and Natural Resources Department

Susana Martinez
Governor

Ken McQueen
Cabinet Secretary

Matthias Sayer
Deputy Cabinet Secretary

David R. Catanach, Division Director
Oil Conservation Division

MAY 25, 2017

CERTIFIED MAIL
RETURN RECEIPT NO: 7913 8145

Mr. Scott Denton
Environmental Manager
HollyFrontier Navajo Refining LLC
501 East Main
Artesia, NM 88210

RE: RENEWAL OF FINAL DISCHARGE PERMIT FOR DISCHARGE OF REVERSE OSMOSIS REJECT FLUID AT THE NAVAJO ARTESIA REFINERY (GW-028) SE/4 OF SECTION 1, E/2 OF SECTION 8, W/2 OF SECTION 9, N/2 OF SECTION 12, TOWNSHIP 17 SOUTH, RANGE 26 EAST, NMPM, EDDY COUNTY, NEW MEXICO

Dear Mr. Denton:

The discharge permit renewal (GW-028) regarding the HollyFrontier Navajo Refining, LLC. (Navajo) Artesia Refinery located in the SE/4 of Section 1, E/2 of Section 8, W/2 of Section 9, N/2 of Section 12, Township 17 South, Range 26 East, NMPM, Eddy County, New Mexico, is hereby approved under the terms and conditions specified in the attached Discharge Permit.

Navajo's discharge permit was originally issued on October 21, 1991 and has been on several occasions since renewed. Navajo's discharge permit renewal application was submitted pursuant to 20.6.2.3106 NMAC. OCD approves this discharge permit renewal pursuant to 20.6.2.3109A NMAC. 20.6.2.3109G NMAC provides for possible future amendment of the permit. Be advised that approval of this discharge permit does not relieve Navajo of liability of operations result in pollution of surface water, ground water, or the environment.

20.6.2.3104 NMAC specifies "*When a permit has been issued, discharges must be consistent with the terms and conditions of the permit.*" Pursuant to 20.6.2.3107C NMAC, Navajo is required to notify the Director of any facility expansion, production increase, or process modification that would result in any change in the water quality or volume of the discharge.

This discharge permit will expire on April 21, 2022, and Navajo should submit a discharge permit renewal application in ample time before this date. Under 20.6.2.3106F NMAC, if a discharger submits a discharge permit renewal application at least 120 days before the discharge permit expires and is in compliance with the approved discharge permit, then the existing discharge permit will not expire until the application for renewal has been approved or disapproved.

The discharge permit renewal application is subject to 20.6.2.3114 NMAC. Every facility submitting a discharge permit renewal application is assessed a non-refundable filing fee of $100.00. OCD has already received this filing fee. The permit fee for discharging at a refinery is $8,400.00. The Permittee shall

submit this amount by check payable to the "New Mexico Water Quality Management Fund." This renewal does not take effect until the fees are paid in full.

Please make all checks payable to:

WATER QUALITY MANAGEMENT FUND
C/O: OIL CONSERVATION DIVISION
1220 SOUTH ST. FRANCIS DRIVE
SANTA FE, NEW MEXICO 87505

If you have any questions regarding this matter, please contact Jim Griswold at 505-476-3465. On behalf of the staff of OCD, I wish to thank you and your staff for your cooperation during this discharge permit renewal process.

Sincerely,

David R. Catanach
Director

DRC/jg

Enclosure: Discharge Permit

RENEWAL OF DISCHARGE PERMIT GW-28

1. GENERAL PROVISIONS

1. A. Permittee and Permitted Facility: The Director of the Oil Conservation Division (OCD) within the Energy, Minerals and Natural Resources Department issues Discharge Permit GW-28 (Permit) to HollyFrontier Navajo Refining LLC (Permittee) with an address of 501 East Main in Artesia, New Mexico 88210, regarding the Artesia Refinery (Facility) located northeast of the intersection of Highway 285 and Highway 82, in Artesia, New Mexico (SE/4 of Section 1, E/2 of Section 8, W/2 of Section 9, and the N/2 of Section 12; all within Township 17 South, Range 26 East, NMPM, Eddy County).

The Permittee refines up to 115,000 barrels per day of crude oil and other feedstocks at the Facility into asphalt, fuel oil, gasoline, diesel, jet fuel, and liquefied petroleum gas. Reverse osmosis reject fluids are generated at the Facility from the pre-treatment of fresh groundwater. These reject fluids have been historically discharged onto the ground surface within the Facility boundary under conditions of a Discharge Permit originally issued by the OCD in 1991. The Permittee is also abating groundwater and vadose zone contamination at the Facility. Groundwater that may be affected by a spill, leak, or accidental discharge occurs at a depth of approximately 15 feet below ground surface with a total dissolved solids concentration of approximately 2,500 milligrams per liter (mg/l).

The issuance of this Discharge Permit does not relieve the Permittee from the responsibility of complying with the provisions of the Water Quality Act, any applicable regulations or water quality standards of the WQCC, or any applicable federal laws, regulations or standards.

1. B. Scope of Permit: OCD has been granted authority to administer the Water Quality Act (Chapter 74, Article 6 NMSA 1978) as it applies to refineries by statute and by delegation from the Water Quality Control Commission pursuant to Section 74-6-4(E) NMSA 1978.

The Water Quality Act and the rules issued under the Act protect groundwater and surface water of the State of New Mexico by providing that unless otherwise allowed by rule, no person shall cause or allow effluent or leachate to discharge so that it may move directly or indirectly into groundwater unless such a discharge is pursuant to an approved discharge permit (20.6.2.3104 and 3106 NMAC).

This renewed Permit authorizes the Permittee to continue discharging a maximum of 15,000 barrels per day of reverse osmosis reject fluids to the ground surface at the Facility until such time as injection capacity into a permitted Class I disposal well becomes available, but no later than October 31, 2018. This Permit renewal includes requirements for facility-wide groundwater monitoring and for the abatement of vadose zone and groundwater contamination resulting from the discharge of reverse osmosis reject fluids along with any other releases of potential groundwater contaminants.

This Permit does not authorize on-site disposal of any materials, product, by-product, or oil field waste. This Permit does not convey any property rights of any sort nor any exclusive privilege,

and does not authorize any injury to persons or property, any invasion of other private rights, or any infringement of state, federal, or local laws, rules or regulations.

The Permittee shall operate in accordance with the Permit conditions to comply with the Water Quality Act and the rules issued pursuant to the Act, so neither a hazard to public health nor undue risk to property will result (20.6.2.3109 C NMAC); so no discharge will cause or may cause any stream standard to be violated (20.6.2.3109 H (2) NMAC); so no discharge of any water contaminant will result in a hazard to public health (20.6.2.3109 H (3) NMAC); and so the numerical standards specified of 20.6.2.3103 NMAC are not exceeded.

1. C. Discharge Permit Renewal: This is a Permit renewal which replaces the permit being renewed. Replacement of a prior permit does not relieve the Permittee of its responsibility to comply with the terms of the prior permit while that permit was in effect.

1. D. Definitions: Terms not specifically defined in this Permit shall have the same meanings as those in the Water Quality Act or the rules adopted pursuant to the Act, as the context requires.

1. E. Fees: Every facility that submits a discharge permit application for initial approval or renewal must pay the permit fees specified in Table 1 and the filing fee specified in Table 2 of 20.6.2.3114 NMAC. OCD has received the required $100.00 filing fee. The permit fee of $8,400.00 is now due for this renewal to take effect. There is also a fee under 20.6.2.3114 NMAC associated with approval of financial assurance (Table 2) of the greater of $250.00 or 0.01% of the financial assurance amount. Checks must be payable to the "Water Quality Management Fund" and not the OCD.

1. F. Effective Date, Expiration, Renewal Conditions, and Penalties for Operating Without a Permit: This Permit is effective immediately from the date the Permittee receives this discharge permit and all fees are paid, or until the permit is terminated. This Permit renewal **will expire on April 21, 2022,** which is beyond the cessation of the surface discharge described in Section 1. B as abatement of vadose zone and groundwater contamination resulting from the discharge may continue under provisions of this Permit. The Permittee shall submit an application for subsequent renewal no later than 120 days before the expiration date (20.6.2.3106 F NMAC). If a Permittee submits a renewal application at least 120 calendar days before the Permit expires and complies with the approved Permit, then the existing Permit will not expire until OCD has approved or disapproved the renewal application. A discharge permit continued under this provision remains fully effective and enforceable. Operating with an expired Permit may subject the Permittee to civil and/or criminal penalties (74-6-10.1 and 10.2 NMSA 1978).

1. G. Modifications: The Permittee shall notify the OCD of any facility expansion, production increase, or process modification that would result in any significant modification in the discharge of water contaminants (20.6.2.3107 C NMAC). OCD may require the Permittee to submit a permit modification pursuant to 20.6.2.3109E NMAC and may modify or terminate a permit pursuant to Section 74-6-5(M) through (N) NMSA 1978.

1. H. Transfer of Permit: Prior to any transfer of ownership, control, or possession of the Facility (whether by lease, conveyance or otherwise), the transferor shall notify the transferee in writing of the existence of this Permit, and shall deliver to OCD a copy of such notification, together with a certification or other proof that such notification has been received by the transferee pursuant to 20.6.2.3111 NMAC. Upon receipt of such notification, the transferee shall inquire into all the provisions and requirements contained in the Permit, and the transferee shall be charged with notice of all such provisions and requirements as they appear of record in the OCD's file or files concerning the Permit. Upon assuming either ownership or possession of the Facility the transferee shall have the same rights and responsibilities under the Permit as were applicable to the transferor (20.6.2.3111 NMAC).

Transfer of the ownership, control, or possession of the Facility does not relieve the transferor of responsibility or liability for any act or omission which occurred while the transferor owned, controlled, or was in possession of the Facility (20.6.2.3111E NMAC).

1. I. Closure Plan and Financial Assurance: A closure plan is hereby required within 60 days under 20.6.2.3107 A. (11) NMAC along with financial assurance to implement such a plan. The plan shall provide, at a minimum, for the removal or plugging of all lines leading to the discharge locations so that a discharge could no longer occur. As abatement of vadose zone and groundwater contamination resulting from the discharge progresses, modification of the closure plan and financial assurance will be required to incorporate the abatement effort including possibly post-closure monitoring.

1. J. Compliance and Enforcement: If the Permittee violates or is violating a condition of this Permit, OCD may issue a compliance order requiring compliance immediately or within a specified period, suspending or terminating this Permit, and/or assessing a civil penalty (74-6-10 NMSA 1978). OCD may also commence a civil action in district court for appropriate relief, including injunctive relief (74-6-10 (A) (2) and 11 NMSA 1978). The Permittee may be subject to criminal penalties for discharging a water contaminant without a discharge permit or in violation of a condition of a permit; making any false material statement, representation, certification or omission of material fact in an application, record, report, plan or other document filed, submitted or required to be maintained under the Water Quality Act; falsifying, tampering with or rendering inaccurate any monitoring device, method or record required to be maintained under the Water Quality Act; or failing to monitor, sample or report as required by a permit issued pursuant to a state or federal law or regulation (74-6-10.2 NMSA 1978).

2. GENERAL FACILITY OPERATIONS

2. A. Contingency Plan: The Permittee shall implement its contingency plan to cope with failure of the Permit or system.

2. B. Record Keeping: The Permittee shall maintain records of all inspections required by this Permit at its Facility office for a minimum of five years and shall make those records available for inspection by OCD.

2. C. Release Reporting: The Permittee shall comply with the following permit conditions, pursuant to 20.6.2.1203 NMAC, and may report a release using an OCD form C-141, if it determines that a release of oil or other water contaminant, in such quantity as may with reasonable probability injure or be detrimental to human health, animal or plant life, or property, or unreasonably interfere with the public welfare or the use of property, has occurred. The Permittee shall report unauthorized releases of water contaminants in accordance with any additional commitments made in its approved Contingency Plan. If the Permittee determines that any constituent exceeds the standards specified at 20.6.2.3103 NMAC, then it shall report a release to OCD.

1. **Oral Notification:** As soon as possible after learning of such a release, but in no event, more than twenty-four (24) hours thereafter, the Permittee shall notify OCD of a release. The Permittee shall provide the following:

    - the name, address, and telephone number of the person or persons in charge of the facility, as well as of the Permittee;
    - the name and location of the facility;
    - the date, time, location, and duration of the release;
    - the source and cause of release;
    - a description of the release, including its chemical composition;
    - the estimated volume of the release; and,
    - any corrective or abatement actions taken to mitigate immediate environmental damage from the release.

2. **Written Notification:** Within one week after the Permittee has discovered a release, the Permittee shall send initial written notification (may use an OCD form C-141 with attachments) to OCD verifying the prior oral notification as to each of the foregoing items and providing any appropriate additions or corrections to the information contained in the prior oral notification.

3. **Corrective Action:** The Permittee shall undertake such corrective actions as are necessary and appropriate to contain and remove or mitigate the damage caused by the release along with the filing of subsequent corrective action reports with the OCD.

2 D. Other Requirements:

1. **Inspection and Entry:** Pursuant to 20.6.2.4107A NMAC, the Permittee shall allow any authorized representative of the OCD Director, upon the presentation of proper credentials, to:

    - enter the facility at reasonable times;
    - inspect and copy records required by this Permit;
    - inspect any treatment works, monitoring, and analytical equipment;
    - sample any wastes, discharge, groundwater, surface water, stream sediment, plants, animals, or vadose-zone material including vadose-zone vapor;

- use the Permittee's monitoring systems and wells to collect samples; and,
- gain access to off-site property not owned or controlled by the Permittee but accessible to the Permittee through an access agreement if allowed by the agreement.

2. **Advance Notice:** Pursuant to 20.6.2.4107B NMAC, the Permittee shall provide OCD with at least four working days advance notice of any environmental sampling to be performed pursuant to this Permit, or of any monitoring well plugging or abandonment.

3. **Plugging and Abandonment:** Pursuant to 20.6.2.4107C NMAC, the Permittee shall propose to plug and abandon a monitoring well to the OCD for approval. The proposed action shall be designed to prevent water pollution that could result from water contaminants migrating through the well or borehole. The proposed action shall not take place without written approval from both OCD and the Office of the State Engineer.

2. E. Reporting: In prior years, the Permitee had been required to submit two reports; an annual permit report along with an annual facility-wide groundwater monitoring report. For the sake of efficiency, the Permittee shall hereafter only submit a single report to the OCD on or before June 15th of each year pursuant to both 20.6.2.3107 NMAC and the existing facility-wide groundwater monitoring plan. The single annual report shall include the following:

1. A summary of all major refinery activities or events;

2. A summary of the discharge activities, including the quality and volume of the discharge;

3. A summary of all leaks, spills, and releases and corrective actions taken;

4. A summary of the discovery of any new vadose zone or groundwater contamination;

5. A summary of all waste and wastewater disposed of, sold, or treated on-site, including a refinery wastewater balance sheet and mass balance of the waste effluents;

6. Documentation regarding the closure of any UIC Class V wells, if any, used for the disposal of industrial wastes or a mixture of industrial wastes and domestic wastes other than contaminated groundwater (see Section 3 below);

7. A description of ground water monitoring and remediation activities conducted throughout the year, including sample collection procedures, decontamination procedures, sample handling procedures, and management of associated wastes;

8. Summary tables of groundwater data including water quality, purging parameters, groundwater elevation, and thickness of any non-aqueous phase liquid;

9. Copies of laboratory analytical data sheets with quality assurance/quality control information;

10. Contour maps for each aquifer depicting the potentiometric gradient for each monitoring event;

11. Isoconcentration maps of major constituents of concern for each monitoring event (minimally benzene, toluene, ethylbenzene, total xylenes, naphthalenes, phenol, chloride, fluoride, sulfate, nitrate and total dissolved solids);

12. Non-aqueous phase liquid thickness isopleth maps for each monitoring event;

13. Plots of static water elevation versus time in key wells, specifically those that contain non-aqueous phase liquid;

14. Tabulation of the volumes of non-aqueous phase liquid removed from recovery wells or monitoring wells throughout the year;

15. Conclusions and recommendations.

3. CLASS V WELLS

Pursuant to 20.6.2.5002 B NMAC, leach fields and other wastewater disposal systems at OCD regulated facilities injecting non-hazardous fluid into or above an underground source of drinking water are Underground Injection Control (UIC) Class V injection wells. This Permit does not authorize the Permittee to use a UIC Class V injection well for the disposal of industrial waste at the Facility. Pursuant to 20.6.2.5005 NMAC, the Permittee shall close any UIC Class V industrial waste injection wells at its Facility that inject non-hazardous industrial wastes or a mixture of industrial wastes and domestic wastes (*e.g.,* septic systems, leach fields, dry wells, *etc.*) other than contaminated groundwater within 90 calendar days of the issuance of this Permit. The Permittee shall document the closure of any UIC Class V wells used for the disposal of non-hazardous industrial wastes or a mixture of industrial wastes and domestic wastes other than contaminated groundwater in its annual report (see Section 2. E. 6 above).

The Permittee must obtain a permit from the New Mexico Environment Department for other Class V wells, including wells used only for the injection of domestic wastes.

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The Permittee began discharging reverse osmosis reject fluids to the surface in accordance with a permit modification approved on April 17, 1993. The discharge contained constituents present at concentrations that exceeded the standards of 20.6.2.3103 NMAC including but not limited to chloride, fluoride, nitrate, nitrite, sulfate, and total dissolved solids. This discharge has continued at two locations within the Facility:

- The "North Field" comprised of 25.8 acres with a discharge end-of-pipe at approximate latitude 32.85389 degrees, longitude -104.39345 degrees (NAD 83).

- The "South Field" comprised of 29.2 acres with a discharge end-of-pipe at approximate latitude 32.85038, longitude -104.39092 degrees.

The Permittee is allowed to continue discharging onto the land surface at those locations, but shall terminate upon operational completion of a Class I disposal well. The deadlines for disposal well and associated pipeline construction shall be as follows:

- The Permittee shall apply for permit to drill well, make application for a Class I permit, and begin pipeline due diligence no later than April 30, 2017.
- The Permittee shall begin construction of pipeline no later than October 31, 2017.
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The well shall be designed, constructed and operated to contain liquids and solids in a manner that will protect fresh water, public health, safety and the environment for the foreseeable future. The Permittee shall operate that well in accordance with the terms and conditions specified by its separate UIC permit.

4.A. Discharge Rate and Location: The Permittee is authorized to discharge no more than 15,000 barrels per day of reverse osmosis reject fluids to the surface within the Facility at the two locations cited above. Discharge at any other locations is expressly prohibited.

4.B. Sampling and Analysis: The Permittee shall characterize the discharge fluids as follows:

1. The Permittee shall sample and analyze the reverse osmosis reject fluids for all constituents listed in 20.6.2.3103A, B, and C NMAC at least semi-annually by collecting grab samples at the points of discharge.
2. The Permittee shall sample and analyze using the methods specified in the Permittee's facility-wide groundwater monitoring plan.
3. The Permittee shall retain all sampling and analytical quality assurance/quality control documentation for at least four years.
4. The Permittee shall monitor and record the discharge flow(s) daily.
5. The Permittee shall ensure the sampling and flow measurements are representative of the volume and nature of the discharge.
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The Permittee shall continue to monitor groundwater quality in accordance with its approved facility-wide groundwater monitoring plan. Permittee shall report the results of groundwater monitoring in the annual report required under Section 2.E.

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The Permittee shall submit a plan for characterization and abatement of vadose zone and groundwater contamination associated with the discharge of reverse osmosis reject fluids within 60 days of the issuance of this permit. The OCD will review that plan and upon its approval, the Permittee shall proceed with the characterization and abatement effort including regular reporting to the OCD of the results. Failure to submit such a plan, or to fulfill OCD requirements associated with the characterization and/or abatement, will be deemed by the OCD as non-compliance with provisions of this discharge permit possibly resulting in its termination along with other enforcement actions including penalties (Section 1. J).

Chavez, Carl J, EMNRD

From: Chavez, Carl J, EMNRD
Sent: Thursday, February 4, 2016 11:02 AM
To: 'james.lane@state.nm.us'; Wunder, Matthew, DGF; 'arthur.allison@state.nm.us'; 'ddapr@nmda.nmsu.edu'; 'jjuen@blm.gov'; 'psisneros@nmag.gov'; 'r@rthicksconsult.com'; 'sric.chris@earthlink.net'; 'nmparks@state.nm.us'; Verhines, Scott, OSE; 'peggy@nmbg.nmt.edu'; 'marieg@nmoga.org'; Fetner, William, NMENV; 'lazarus@glorietageo.com'; 'cnewman02@fs.fed.us'; Kieling, John, NMENV; 'bsg@garbhall.com'; 'Jerry.Schoeppner@state.nm.us'; 'claudette.horn@pnm.com'; 'ekendrick@montand.com'; 'staff@ipanm.org'; Dade, Randy, EMNRD; Bratcher, Mike, EMNRD; Perrin, Charlie, EMNRD; Jones, William V, EMNRD; Kelly, Jonathan, EMNRD; Powell, Brandon, EMNRD; Jones, William V, EMNRD; Wojahn, Beth, EMNRD; Brown, Maxey G, EMNRD; 'tiarmc@suddenlink.net'; 'servantcode@gmail.com'
Cc: Denton, Scott (Scott.Denton@HollyFrontier.com)
Subject: New Mexico Oil Conservation Division HollyFrontier Navajo Refining LLC Artesia Refinery (GW-028) Reverse Osmosis Discharge Permit Modification- OCD FINAL DETERMINATION (Eddy County)
Attachments: OCD RO Modification Final Determination 2-4-2016.pdf

Dear Sir or Madam:

Today the New Mexico Oil Conservation (OCD) issued a final determination on the Reverse Osmosis Discharge Permit Modification request received from HollyFrontier Navajo Refining LLC (Permittee) Artesia Refinery located in Artesia, New Mexico on May 22, 2015.

Please find attached the "OCD Final Determination" and/or Web links (http://www.emnrd.state.nm.us/OCD/env-draftpublicetc.html) with complete information provided below.

Discharge Permit (GW-028) HollyFrontier Navajo Refining LLC Artesia Refinery (2/4/16) located at 501 East Main, Artesia, NM, 88210 in the SE/4 of Section 1, E/2 of Section 8, W/2 of Section 9, N/2 of Section 12, Township 17 South, Range 26 East, NMPM, Eddy County.

Administrative Completeness
Discharge Permit Modification to Increase the Reverse Osmosis Reject Water Discharge Volume
Description
Public Notice
OCD Final Determination (2/4/2016)

OCD allows for a 30-day appeal process beginning today in accordance with 20.6.2.3112 NMAC (Appeals of Secretary's Decisions).

Please contact me if you have questions. Thank you.

Carl J. Chavez, CHMM
Environmental Engineer
Oil Conservation Division- Environmental Bureau
1220 South St. Francis Drive
Santa Fe, New Mexico 87505
Phone: (505) 476-3490
Main Phone: (505) 476-3440

Fax: (505) 476-3462
E-mail: CarlJ.Chavez@state.nm.us
Website: www.emnrd.state.nm.us/ocd
Why not prevent pollution, minimize waste, reduce operation costs, and move forward with the rest of the Nation? To see how, go to “Publications” and “Pollution Prevention” on the OCD Website.

ENERGY, MINERALS and NATURAL RESOURCES DEPARTMENT
OIL CONSERVATION DIVISION
REVERSE OSMOSIS DISCHARGE PERMIT MODIFICATION
Artesia Refinery (GW-028)

I. INTRODUCTION

The New Mexico Energy, Minerals and Natural Resources Department Oil Conservation Division (OCD) issues this Modification of Discharge Permit GW-028 (GW-028) to HollyFrontier Navajo Refining LLC (Permittee) pursuant to the New Mexico Water Quality Act (WQA), NMSA 1978 §§74-6-1 through 74-6-17, and the New Mexico Water Quality Control Commission (WQCC) Regulations, 20.6.2 NMAC.

GW-028 governs, among other things, the discharge of reverse osmosis (RO) reject fluids into "farm fields" (FFs) at the Artesia Refinery (Refinery). The Refinery is located at 501 East Main, Artesia, NM, 88210 in the SE/4 of Section 1, E/2 of Section 8, W/2 of Section 9, N/2 of Section 12, Township 17 South, Range 26 East, NMPM, Eddy County.

Due to the increased processing capacity of the Refinery and the corresponding increased demand for water at the Refinery, use of the portable RO unit has increased over time. GW-028 currently allows a total of 10,000 barrels per day of combined RO reject water to be discharged via pipeline into the two FFs. The authorization for the disposal of RO reject water into the FFs will cease on or before October 21, 2016.

Groundwater potentially affected by the discharge occurs at a depth of approximately 25 feet below ground surface with a total dissolved solids (TDS) concentration of approximately 2,500 mg/L. Based on analysis of the RO reject fluids to date, Boron, Chloride, Fluoride, Manganese, Sulfate, Nitrate, Selenium, TDS, and Uranium are potential contaminants of concern. Under GW-028, the Permittee is required to investigate the ground water beneath the FFs to determine what impact to ground water quality has occurred as a result of the discharge of RO fluid.

On May 22, 2015, the Permittee submitted a modification application to increase the maximum RO reject fluids discharge in the FFs from 10,000 barrels per day to 20,000 barrels per day; 2) to operate a third RO unit at the Refinery; and 3) to update the refinery crude oil processing capacity to 105,000 barrels/day. On July 1, 2015, OCD determined the application to be administratively complete. Pursuant to 20.6.2.3108 NMAC, the Permittee provided public notice of the application. After a technical review of the application, OCD prepared a proposed decision and provided public notice. OCD proposed to approve an increase to the discharge to the FFs from 10,000 barrels per day to 15,000 barrels per day and proposed other conditions for GW-028. The only comments submitted to OCD on the proposed decision were from the Permittee.

Based on OCD's review of the application, the comments received, and the technical information submitted pursuant to GW-028, OCD enters the following findings and approves the following modifications to GW-028.

II. FINDINGS.

OCD has reviewed the application along with additional technical information in the permit file. In issuing this Modification, OCD finds:

1. The Permittee has requested to increase the maximum discharge of RO reject fluids to the FFs allowed under GW-028. GW-028 currently allows a discharge of RO reject fluids to the FFs but requires the Permittee to cease the discharge on or before October 21, 2016. GW-028 also requires the Permittee to conduct a site investigation to determine the impact to soils and ground water quality within and beneath the FFs.

2. The Permittee has increased and may increase further the capacity of the Refinery. As a result, the total wastewater volume generated at the Refinery has and may continue to increase. The Permittee has added a third RO unit at the Refinery and is reviewing options to more efficiently manage, treat, store, and/or dispose the Refinery wastewater and to replace the current discharge into the FFs with other disposition options.

3. An increase in the maximum RO reject fluid discharge volume allowed under GW-028 will be approved due to the increased production of wastewater at the Refinery and due to the controls on the discharges under GW-028. The discharge will be into the FFs where the current permitted discharge is located and where the Permittee is undertaking an investigation into the potential impacts of the discharges on soil and groundwater. Based on historic discharge amounts, the new discharge limit will be a maximum of 15,000 barrels per day.

4. Based on the increase in the discharge limit, and on enforcement actions for the failure to report exceedances of the discharge limit, GW-028 will be modified to increase the frequency of water quality sampling for the discharges and increase the frequency of reporting both the sampling results and the daily discharge flow measurements.

5. Pursuant to the requirements of GW-028, the Permittee has completed (a) the RO Reject Fields Hydrogeologic and Water Quality Evaluation Memo, (b) the Reverse Osmosis Reject Water Discharge Fields Investigation Final Report, and (c) the Background Groundwater Investigation Report (collectively, "site investigation reports"). Based upon OCD's preliminary review of the site investigation reports, OCD has determined that soils and groundwater within and below the FFs have potentially been affected by the historic discharge of RO reject fluids. The Permittee is required to complete the delineation of any potential vadose zone and groundwater contamination associated with the FFs.

6. Proper public notice of the Modification has been given, the permit modification fee has been paid and all other requirements necessary for the issuance of the Modification have been met.

III. PERMIT MODIFICATION

The following changes to Permit Conditions 1.A, 1.B, 4.A, 4.B and 6.C of GW-028 and new Permit Condition 4.C are approved:

1.A PERMITTEE AND PERMITTED FACILITY: The Director of the Oil Conservation Division (OCD) of the Energy, Minerals and Natural Resources Department issues Discharge Permit GW-028 (Discharge Permit) to HollyFrontier Navajo Refining LLC (Permittee) located at 501 E. Main, Artesia, New Mexico 88210, to operate the Artesia Refinery (Facility) located in the SE/4 of Section 1, E/2 of Section 8, W/2 of Section 9, N/2 of Section 12, Township 17 South, Range 26 East, NMPM, Eddy County. The refinery is located northeast of the intersection of Highway 285 and Highway 82, in Artesia, New Mexico.

The Permittee refines crude oil and processes natural gas at its Facility. The Facility refines and processes up to 115,000 barrels per day of crude oil and other feed stocks. The Permittee's Facility discharges a maximum of 15,000 barrels per day of reverse osmosis reject fluids to the surface at the Facility's two farms. The Permittee is abating ground water and vadose zone contamination at the Facility. Ground water that may be affected by a spill, leak, or accidental discharge occurs at a depth of approximately 25 feet below ground surface with a total dissolved solids concentration of approximately 2,500 mg/L.

1.B SCOPE OF PERMIT: OCD has been granted authority to administer the Water Quality Act (Chapter 74, Article 6 NMSA 1978) as it applies to refineries by statute and by delegation from the Water Quality Control Commission pursuant to Section 74-6-4(E) NMSA 1978.

The Water Quality Act and the rules issued under that Act protect ground water and surface water of the State of New Mexico by providing that, unless otherwise allowed by rule, no person shall cause or allow effluent or leachate to discharge so that it may move directly or indirectly into ground water unless such discharge is pursuant to an approved discharge permit (See WQCC Regulations: 20.6.2.3104 NMAC and 20.6.2.3106 NMAC).

This Discharge Permit authorizes the Permittee to discharge a maximum of 15.000 barrels per day of reverse osmosis reject fluids at the Permittee's two farms. This Discharge Permit does not authorize any treatment of, or on-site disposal of, any materials, product, by-product, or oil field waste including, but not limited to, the on-site disposal of lube oil, glycol, antifreeze, filters, elemental sulfur, washdown water, contaminated soil, and cooling tower blowdown water.

This Discharge Permit does not convey any property rights of any sort nor any exclusive privilege, and does not authorize any injury to persons or property, any invasion of other private rights, or any infringement of state, federal, or local laws, rules or regulations.

The Permittee shall operate in accordance with the Discharge Permit conditions to comply with the Water Quality Act and the rules issued pursuant to that Act, so that neither a hazard to public health nor undue risk to property will result (See 20.6.2.3109C NMAC); so that no discharge will cause or may cause any stream standard to be violated (See 20.6.2.3109H(2) NMAC); so that no discharge of any water contaminant will result in a hazard to public health (See 20.6.2.3109H(3) NMAC); and, so that the numerical standards specified in ~~of~~ 20.6.2.3103 NMAC are not exceeded.

4.A Discharge Volume: The Permittee is authorized to discharge a maximum of 15,000 barrels per day of reverse osmosis reject fluids to the surface at the Permittee's two farms. Discharge to Eagle Draw is prohibited. This authorization will expire no later than October 21, 2016, or when the proposed new Class I injection well is operationally capable of

accepting this waste stream, whichever occurs first.

4.B **Sampling and Analysis:** The Permittee shall collect and analyze samples of the discharge as follows:

1. The Permittee shall sample and analyze for all constituents listed in 20.6.2.3103A, B, and C NMAC at least quarterly by collecting grab samples at the points of discharge for both the permanent reverse osmosis units, the portable reverse osmosis unit, and any other installed RO units with discharges into the farm fields.

2. The Permittee shall sample and analyze using the methods specified in the Permittee's FWGWMP.

3. The Permittee shall retain all sampling and analytical QA/QC for four years.

4. On a daily basis, the Permittee shall monitor and record the discharge locations and flow rate and volumes from each reverse osmosis unit that produces a reject fluid that is discharged into the farm fields.

5. The Permittee shall report the analytical results for all discharge samples collected in a monitoring period.

6. The Permittee shall ensure the sampling and flow measurements are representative of the volume and nature of each discharge.

7. The Permittee shall submit all sample data, analytical results, and flow measurements in its annual report. In addition, the Permittee shall submit a monthly report, due on the fifteenth day of the following month, which includes the daily discharge flow measurements in that month and any sample results received that month.

4.C **Reporting of Discharge Limit Violation:** The Permittee shall report to OCD by electronic mail, on the first business day of each week, any exceedance of the daily discharge limit provided in Permit Condition 4.A, that occurred during the prior calendar week.

6.C **REQUIREMENT TO CEASE ALL DISCHARGE OF REVERSE OSMOSIS REJECT FLUIDS TO THE SURFACE AT THE TWO FARMS.** The Permittee shall cease all discharges of reverse osmosis reject fluids (a maximum of 15,000 barrels per day) and/or any other waste discharges to the surface on or before October 21, 2016, or when the proposed new Class I injection well is operationally capable of accepting this waste stream, whichever occurs first.

EFFECTIVE DATE:

David R. Catanach
Division Director,
New Mexico Oil Conservation Division

Affidavit of Publication

No. 24275

State of New Mexico

County of Eddy:

Danny Scott

being duly sworn says that she is the **Publisher**

of the Artesia Daily Press, a daily newspaper of General circulation, published in English at Artesia, said county and state, and that the hereto attached

Legal Ad

was published in a regular and entire issue of the said Artesia Daily Press, a daily newspaper duly qualified for that purpose within the meaning of Chapter 167 of the 1937 Session Laws of the state of New Mexico for

1 Consecutive weeks/day on the same day as follows:

First Publication April 23, 2017

Second Publication

Third Publication

Fourth Publication

Fifth Publication

Sixth Publication

Subscribed and sworn before me this

24th day of April 2017

OFFICIAL SEAL
Latisha Romine
NOTARY PUBLIC-STATE OF NEW MEXICO
My commission expires: 5/12/2019

Latisha Romine

Latisha Romine

Notary Public, Eddy County, New Mexico

Copy of Publication:

Legal Notice

NOTICE OF PUBLICATION

STATE OF NEW MEXICO
ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT
OIL CONSERVATION DIVISION

Notice is hereby given that pursuant to New Mexico Water Quality Control Commission Regulations (20.6.2.3106 NMAC), the following discharge permit application has been submitted to the Director of the New Mexico Oil Conservation Division ("OCD"), 1220 S. Saint Francis Drive, Santa Fe, New Mexico 87505, Telephone (505) 476-3441:

(GW-028) HollyFrontier Navajo Refining Company- Artesia Refinery, Scott Denton, Environmental Manager, P.O. Box 159, Artesia, New Mexico 88211, has submitted a renewal application for a previously approved discharge permit (5-year period) at the Artesia Refinery located in the SE/4 of Section 1, E/2 of Section 8, W/2 of Section 9, N/2 of Section 12, Township 17 South, Range 26 East, NMPM, Eddy County, just northeast of the intersection of Hwy. 285 and Hwy. 82, in Artesia New Mexico. The refinery discharges a maximum of 15,000 bbls/day of Reverse Osmosis (RO) Reject Water effluent into the two farm fields east of US-285 and south of East Richey Avenue until all RO Reject Water in accordance with the OCD work schedule incorporated into the Discharge Permit is disposed down a fourth UIC Class I (non-hazardous) Disposal Well (UICI-8-4) to be constructed by the end of October 2018 east of the refinery into an OCD approved subsurface geologic injection zone. The northern RO reject water discharge point is currently located 1,255 feet south of East Richey Avenue and 1,569 feet east of US-285. The southern RO reject water discharge point is currently located 2,532 feet south of East Richey Avenue and 2,208 feet east of US-285. The final abatement of the two farm fields will occur during the permit period.

All other wastes generated will be temporarily stored in tanks or containers and shipped off site for proper disposal or recycling at an OCD permitted or approved facility. The renewal application consists of methods and procedures for handling crude oil transmission, storage, waste water management, site abatement of groundwater and soil contamination, contingency measures for releases, closure plan, and financial assurance. Groundwater most likely to be affected by a spill, leak or accidental discharge is at a depth of approximately 15 feet below the ground surface, with a total dissolved solids (TDS) concentration of approximately 2,500 ppm. The discharge permit addresses how oilfield exempt and non-exempt wastes will be properly handled, stored, and/or disposed of, including spills, leaks, and other accidental discharges to the surface to protect fresh water.

The OCD has determined the applications listed above are administratively complete and has prepared draft permits. The OCD will accept comments and statements of interest regarding this renewal application and will create a facility-specific mailing list for persons who wish to receive future notices. Persons interested in obtaining further information, submitting comments or requesting to be on a facility-specific mailing list may contact the Environmental Bureau Chief of the OCD at the address given above. The permit may be viewed at the above address between 8:00 a.m. and 4:00 p.m., Monday through Friday, or may also be viewed at the OCD web site http://www.emnrd.state.nm.us/ocd/. Persons interested in obtaining a copy of the renewal application and draft

permit may contact the OCD at the address given above. Prior to ruling on any proposed permit, the Director shall allow a period of at least thirty (30) days after the date of publication of this notice, during which interested persons may submit comments or request that OCD hold a public hearing. Requests for a hearing shall set forth the reasons why a hearing should be held. A hearing will be held if the Director determines there is significant public interest.

If no hearing is held, the Director will approve the proposed renewal permit based on information available, including all comments received. If a public hearing is held, the director will approve or disapprove the proposed renewal permit based on information in the permit application and information submitted at the hearing.

Para obtener más información sobre esta solicitud en español, sirvase comunicarse por favor: New Mexico Energy, Minerals and Natural Resources Department (Depto. Del Energia, Minerals y Recursos Naturales de Nuevo México), Oil Conservation Division (Depto. Conservacio´n Del Petróleo), 1220 South St. Francis Drive, Santa Fe, New México (Contacto: Laura Tulk, 575-748-1283)

GIVEN under the Seal of New Mexico Oil Conservation Commission at Santa Fe, New Mexico, on this 23rd day of April 2017.

STATE OF NEW MEXICO
OIL CONSERVATION DIVISION

S E A L
David R. Catanach, Director

Published in the Artesia Daily Press, Artesia, N.M., April 23, 2017 Legal No. 24275.

Chavez, Carl J, EMNRD

From: Estes, Bob, DCA
Sent: Tuesday, May 9, 2017 9:19 AM
To: Chavez, Carl J, EMNRD
Subject: Holly frontier Artesia refiniery (GW-028) HPD log 105660

OFFICIAL RESPONSE OF THE NEW MEXICO STATE HISTORIC PRESERVATION OFFICER (SHPO)

Dear Mr. Chavez,

On behalf of the SHPO, I want to thank for providing the Historic Preservation Division the opportunity to review the public notification of the Holly Frontier/ Navajo Refining's renewal application for a discharge permit at the Artesia Refinery.

SHPO has no concerns or comments on the renewal application.

If you have any questions or comments, please feel free to call me directly at 505-827-4225 or email me.

Sincerely,

Bob Estes Ph.D.
HPD staff archaeologist

HPD log 105660

AFFIDAVIT OF PUBLICATION

STATE OF NEW MEXICO

County of Bernalillo SS

Bernadette Gonzales , the undersigned, on oath states that she is an authorized Representative of The Albuquerque Journal, and that this newspaper is duly qualified to publish legal notices or advertisements within the meaning of Section 3, Chapter 167, Session Laws of 1937, and that payment therefore has been made of assessed as court cost; that the notice, copy of which hereto attached, was published in said paper in the regular daily edition, for 1 time(s) on the following date(s):

04/23/2017

Sworn and subscribed before me, a Notary Public, in and for the County of Bernalillo and State of New Mexico this 23 day of April of 2017

PRICE $119.66

Statement to come at the end of month.

ACCOUNT NUMBER 1009556

OFFICIAL SEAL
Sandra B. Gutierrez
NOTARY PUBLIC
STATE OF NEW MEXICO
My Commission Expires: 2-28-21

Sandra B. Gutierrez

emnrd

NOTICE OF PUBLICATION

STATE OF NEW MEXICO ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT OIL CONSERVATION DIVISION

Notice is hereby given that pursuant to New Mexico Water Quality Control Commission Regulations (20.6.2.3106 NMAC), the following discharge permit application has been submitted to the Director of the New Mexico Oil Conservation Division ("OCD"), 1220 S. Saint Francis Drive, Santa Fe, New Mexico 87505, Telephone (505) 476-3441:

(GW-028) HollyFrontier Navajo Refining Company- Artesia Refinery, Scott Denton, Environmental Manager, P.O. Box 159, Artesia, New Mexico 88211, has submitted a renewal application for a previously approved discharge permit (5-year period) at the Artesia Refinery located in the S E/4 of Section 1, E/2 of Section 8, W/2 of Section 9, N/2 of Section 12, Township 17 South, Range 26 East, NMPM, Eddy County, just northeast of the intersection of Hwy. 285 and Hwy. 82, in Artesia New Mexico. The refinery discharges a maximum of 15,000 bbls/day of Reverse Osmosis (RO) Reject Water effluent into the two farm fields east of US-285 and south of East Richey Avenue until all RO Reject Water in accordance with the OCD work schedule incorporated into the Discharge Permit is disposed down a fourth UIC Class I (non-hazardous) Disposal Well (UICI-8-4) to be constructed by the end of October 2018 east of the refinery into an OCD approved subsurface geologic injection zone. The northern RO reject water discharge point is currently located 1,255 feet south of East Richey Avenue and 1,569 feet east of US-285. The southern RO reject water discharge point is currently located 2,532 feet south of East Richey Avenue and 2,208 feet east of US-285. The final abatement of the two farm fields will occur during the permit period.

All other wastes generated will be temporarily stored in tanks or containers and shipped off site for proper disposal or recycling at an OCD permitted or approved facility. The renewal application consists of methods and procedures for handling crude oil transmission, storage, waste water management, site abatement of groundwater and soil contamination, contingency measures for releases, closure plan, and financial assurance. Groundwater most likely to be affected by a spill, leak or accidental discharge is at a depth of approximately 15 feet below the ground surface, with a total dissolved solids (TDS) concentration of approximately 2,500 ppm. The discharge permit addresses how oilfield exempt and non-exempt wastes will be property handled, stored, and/or disposed of, including spills, leaks, and other accidental discharges to the surface to protect fresh water.

The OCD has determined the applications listed above are administratively complete and has prepared draft permits. The OCD will accept comments and statements of interest regarding this

All other wastes generated will be temporarily stored in tanks or containers and shipped off site for proper disposal or recycling at an OCD permitted or approved facility. The renewal application consists of methods and procedures for handling crude oil transmission, storage, waste water management, site abatement of groundwater and soil contamination, contingency measures for releases, closure plan, and financial assurance. Groundwater most likely to be affected by a spill, leak or accidental discharge is at a depth of approximately 15 feet below the ground surface, with a total dissolved solids (TDS) concentration of approximately 2,500 ppm. The discharge permit addresses how oilfield exempt and non-exempt wastes will be properly handled, stored, and/or disposed of, including spills, leaks, and other accidental discharges to the surface to protect fresh water.

The OCD has determined the applications listed above are administratively complete and has prepared draft permits. The OCD will accept comments and statements of interest regarding this renewal application and will create a facility-specific mailing list for persons who wish to receive future notices. Persons interested in obtaining further information, submitting comments or requesting to be on a facility-specific mailing list may contact the Environmental Bureau Chief of the OCD at the address given above. The permit may be viewed at the above address between 8:00 a.m. and 4:00 p.m., Monday through Friday, or may also be viewed at the OCD web site http://www.emnrd.state.nm.us/ocd/. Persons interested in obtaining a copy of the renewal application and draft permit may contact the OCD at the address given above. Prior to ruling on any proposed permit, the Director shall allow a period of at least thirty (30) days after the date of publication of this notice, during which interested persons may submit comments or request that OCD hold a public hearing. Requests for a hearing shall set forth the reasons why a hearing should be held. A hearing will be held if the Director determines there is significant public interest.

If no hearing is held, the Director will approve the proposed renewal permit based on information available, including all comments received. If a public hearing is held, the director will approve or disapprove the proposed renewal permit based on information in the permit application and information submitted at the hearing.

Para obtener más información sobre esta solicitud en español, sírvase comunicarse por favor: New Mexico Energy, Minerals and Natural Resources Department (Depto. Del Energia, Minerals y Recursos Naturales de Nuevo México), Oil Conservation Division (Depto. Conservacio´n Del Petróleo), 1220 South St. Francis Drive, Santa Fe, New México (Contacto: Laura Tulk, 575-748-1283)

GIVEN under the Seal of New Mexico Oil Conservation Commission at Santa Fe, New Mexico, on this 23rd day of April 2017.

STATE OF NEW MEXICO
OIL CONSERVATION DIVISION

SEAL

David R. Catanach,
Director
Journal: April 23, 2017

Affidavit of Publication

No. 24275

State of New Mexico

County of Eddy:

Danny Scott

being duly sworn says that she is the **Publisher**

of the Artesia Daily Press, a daily newspaper of General circulation, published in English at Artesia, said county and state, and that the hereto attached

Legal Ad

was published in a regular and entire issue of the said Artesia Daily Press, a daily newspaper duly qualified for that purpose within the meaning of Chapter 167 of the 1937 Session Laws of the state of New Mexico for

1 Consecutive weeks/day on the same day as follows:

First Publication	April 23, 2017
Second Publication	
Third Publication	
Fourth Publication	
Fifth Publication	
Sixth Publication	

Subscribed and sworn before me this

24th day of April 2017

OFFICIAL SEAL
Latisha Romine
NOTARY PUBLIC-STATE OF NEW MEXICO
My commission expires: 5/12/2019

Latisha Romine

Latisha Romine

Notary Public, Eddy County, New Mexico

Copy of Publication:

Legal Notice

NOTICE OF PUBLICATION

STATE OF NEW MEXICO
ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT
OIL CONSERVATION DIVISION

Notice is hereby given that pursuant to New Mexico Water Quality Control Commission Regulations (20.6.2.3106 NMAC), the following discharge permit application has been submitted to the Director of the New Mexico Oil Conservation Division ("OCD"), 1220 S. Saint Francis Drive, Santa Fe, New Mexico 87505, Telephone (505) 476-3441:

(GW-028) HollyFrontier Navajo Refining Company- Artesia Refinery, Scott Denton, Environmental Manager, P.O. Box 159, Artesia, New Mexico 88211, has submitted a renewal application for a previously approved discharge permit (5-year period) at the Artesia Refinery located in the SE/4 of Section 1, E/2 of Section 8, W/2 of Section 9, N/2 of Section 12, Township 17 South, Range 26 East, NMPM, Eddy County, just northeast of the intersection of Hwy. 285 and Hwy. 82, in Artesia New Mexico. The refinery discharges a maximum of 15,000 bbls/day of Reverse Osmosis (RO) Reject Water effluent into the two farm fields east of US-285 and south of East Richey Avenue until all RO Reject Water in accordance with the OCD work schedule incorporated into the Discharge Permit is disposed down a fourth UIC Class I (non-hazardous) Disposal Well (UICI-8-4) to be constructed by the end of October 2018 east of the refinery into an OCD approved subsurface geologic injection zone. The northern RO reject water discharge point is currently located 1,255 feet south of East Richey Avenue and 1,569 feet east of US-285. The southern RO reject water discharge point is currently located 2,532 feet south of East Richey Avenue and 2,208 feet east of US-285. The final abatement of the two farm fields will occur during the permit period.

All other wastes generated will be temporarily stored in tanks or containers and shipped off site for proper disposal or recycling at an OCD permitted or approved facility. The renewal application consists of methods and procedures for handling crude oil transmission, storage, waste water management, site abatement of groundwater and soil contamination, contingency measures for releases, closure plan, and financial assurance. Groundwater most likely to be affected by a spill, leak or accidental discharge is at a depth of approximately 15 feet below the ground surface, with a total dissolved solids (TDS) concentration of approximately 2,500 ppm. The discharge permit addresses how oilfield exempt and non-exempt wastes will be properly handled, stored, and/or disposed of, including spills, leaks, and other accidental discharges to the surface to protect fresh water.

The OCD has determined the applications listed above are administratively complete and has prepared draft permits. The OCD will accept comments and statements of interest regarding this renewal application and will create a facility-specific mailing list for persons who wish to receive future notices. Persons interested in obtaining further information, submitting comments or requesting to be on a facility-specific mailing list may contact the Environmental Bureau Chief of the OCD at the address given above. The permit may be viewed at the above address between 8:00 a.m. and 4:00 p.m., Monday through Friday, or may also be viewed at the OCD web site http://www.emnrd.state.nm.us/ocd/. Persons interested in obtaining a copy of the renewal application and draft

period of at least thirty (30) days after the date of publication of this notice, during which interested persons may submit comments or request that OCD hold a public hearing. Requests for a hearing shall set forth the reasons why a hearing should be held. A hearing will be held if the Director determines there is significant public interest.

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GIVEN under the Seal of New Mexico Oil Conservation Commission at Santa Fe, New Mexico, on this 23rd day of April 2017.

STATE OF NEW MEXICO
OIL CONSERVATION DIVISION

S E A L
David R. Catanach, Director

Published in the Artesia Daily Press, Artesia, N.M., April 23, 2017 Legal No. 24275.

Chavez, Carl J, EMNRD

From: Dade, Lewis (Randy) <Lewis.Dade@HollyFrontier.com>
Sent: Monday, November 14, 2016 9:05 AM
To: Griswold, Jim, EMNRD; Chavez, Carl J, EMNRD
Cc: Dade, Lewis (Randy); Combs, Robert
Subject: Emailing: RENEWAL APPLICATION DISCHARGE PERMIT GW-028 11142016
Attachments: RENEWAL APPLICATION DISCHARGE PERMIT GW-028 11142016.pdf

Please find the Renewal Application; Proof of Notice Discharge Permit GW-028 dated 11/14/2016. If there are any questions, please contact me at 575-746-5281. Thanks. Randy.

RENEWAL APPLICATION DISCHARGE PERMIT GW-028 11142016

HOLLYFRONTIER.

November 14, 2016

Submitted electronically via email to jim.griswold@state.nm.us and carlj.chavez@state.nm.us

Oil Conservation Division
New Mexico Energy, Minerals & Natural Resources Department
1220 South St. Francis Drive
Santa Fe, NM 87505

RE: Renewal Application; Proof of Notice
Discharge Permit GW-028
HollyFrontier Navajo Refining LLC

Dear Sirs:

HollyFrontier Navajo Refining LLC (Navajo), Artesia Refinery, hereby submits the following and enclosed proof of notice for the application to renew Discharge Permit GW-028, in accordance 20.6.2.3108.B New Mexico Administrative Code (NMAC) and 20.6.2.3108.D NMAC:

(1) Attachment 1: Affidavit of Postings with Exhibits "A" and "B" (20.6.2.3108.B(1) NMAC);

(2) Attachment 2: Affidavit of Mailings and List of Property Owners with Exhibits "A" and "B" (20.6.2.3108.B(2) NMAC); and

(3) Attachment 3: Publisher's Affidavit of Publication of a synopsis of the public notice in the *Artesia Daily Press.*

If you have any questions or comments, please do not hesitate to contact me at 575-746-5487 or Robert A. Combs at 575-746-5382.

Sincerely,

Scott M. Denton
Environmental Manager

Enclosures

cc. HFC: D. McWatters, R. O'Brien, M. Holder, R. Combs
OCD: B. Brancard, A. Marks, J. Griswold

STATE OF NEW MEXICO)
)
COUNTY OF EDDY)

Groundwater Discharge Permit GW-028

AFFIDAVIT OF MAILINGS AND PROPERTY OWNERS

In accordance with WQCC Rule 3108.B (20.6.2.3108.B NMAC) and WQCC Rule 3108.D. (20.6.2.3108.D NMAC), I hereby certify that a copy of the attached notice ("Exhibit A") of the application by HollyFrontier Navajo Refining LLC for the renewal of Groundwater Discharge Permit GW-028 was deposited with the United States Postal Service on Thursday, October 6, 2016. Each notice was mailed, postage pre-paid, to the mailing addresses of the owners of record ("Exhibit B") of all properties within a 1/3 mile distance from the property boundary of the HollyFrontier Navajo Refining LLC, Artesia Refinery, where the discharge site is located.

Date: Nov 14, 2016

Lewis R. Dade

Lewis R. Dade
Environmental Specialist
The HollyFrontier Companies
P.O. Box 159
Artesia, NM 88211-0159

Attachments

SUBSCRIBED AND SWORN to before me on this 14th day of November 2016.

Notary Public

My Commission Expires:

1/5/2020

RICHARD P & DEBORAH D ZUNIGA
116 W GRAND AVENUE
ARTESIA NM 88210

ABO PETROLEUM
PO BOX 900
ARTESIA NM 88211

JESSE P & EMMA ACOSTA
702 N FOURTH STREET
ARTESIA NM 88210

JESUS M SR & JESUS M JR ACOSTA
804 N 4TH ST
ARTESIA NM 88210

AGAVE ENERGY CO
PO BOX 158
ARTESIA NM 88211

ROBERT M JR AGUILAR
37 CHIMESO RD
ARTESIA NM 88210

CELINA B & DOMINGO H AGUIRRE
811 N ROSELAWN AVENUE
ARTESIA NM 88210

AIRGAS USA LLC
PO BOX 1152
TULSA OK 74101

JOE G ALVARADO
211 W GAGE AVE
ARTESIA NM 88210

PAUL M & JUDY M ALVAREZ
PO BOX 1171
ARTESIA NM 88211

AMY'S FIREWORKS INC
PO BOX 2343
ROSWELL NM 88202

RAYMOND H ANAYA
115 CLEVELAND
ARTESIA NM 88210

STEVE A & CYNTHIA A ANDERSON
1012 W CASTLEBERRY
ARTESIA NM 88210

G G & SON ARMSTRONG
PO BOX 1973
ROSWELL NM 88202

ELIZABETH ARREDONDO
1712 N OAK AVENUE
ARTESIA NM 88210

ARTESIA ALFALFA GROWERS ASSOC
PO BOX 930
ARTESIA NM 88211

ARTESIA ARTS COUNCIL INC
PO BOX 782
ARTESIA NM 88211

ARTESIA CREDIT UNION INC
PO BOX 406
ARTESIA NM 88211

ARTESIA GENERAL HOSPITAL AUXILLARY
THRIFT SHOP
PO BOX 1007
ARTESIA NM 88211

ARTESIA ELKS LODGE NO 1717
PO BOX 1271
ARTESIA NM 88211

ARTESIA LUMBER COMPANY
PO BOX 5564
MIDLAND TX 79701

ARTESIA NM INVESTMENT CO
1631 W BEVERLY BLVD SECOND FLOOR
LOS ANGELES CA 90026

ARTESIA PUBLIC SCHOOLS DIST 16
1106 W QUAY AVE
ARTESIA NM 88210

ARTESIA VETERINARY ASSOCIATES LLC
110 W MAHONE
ARTESIA NM 88210

BOB W ATOLE
1707 N OAK ST
ARTESIA NM 88210

BAAR LLC
410 E MAIN STREET
ARTESIA NM 88210

JOE B BACA
PO BOX 984
ARTESIA NM 88211

BOBBY & HILDA BAEZA
6396 SEVEN RIVERS HWY
ARTESIA NM 88210

BRIAN BAILEY
1114 S UNION AVE
ROSWELL NM 88202

MANUEL L & RAMONA A BARRAGAN
1103 W CHISUM AVE
ARTESIA NM 88210

JOSE R & TOMASA N CABEZUELA
1712 PINE STREET
ARTESIA NM 88210

TOMMY P & PETRA CADENA
801 N FIFTH STREET
ARTESIA NM 88210

ERVEY R & BIANCA CANO
710 N ROSELAWN AVENUE
ARTESIA NM 88210

EZEQUIEL R & CONCEPCION V CANO
114 W CLEVELAND AVENUE
ARTESIA NM 88210

JACOBO CARBAJAL
1206 N ROSELAWN AVE
ARTESIA NM 88210

AUSBERTO CARDONA
113 CLEVELAND AVE
ARTESIA NM 88210

HORTENCIA & ISMAEL CARDOZA
1610 N OAK
ARTESIA NM 88210

CRYSTAL CARRALES
302 W CHISUM AVE
ARTESIA NM 88210

RUBEN S JR & BRENDA F CARRASCO
2007 MANN
ARTESIA NM 88210

CLEVELAND CASTEAL
C/O FRED CASTEAL
241 MOON LANE DRIVE
SPRING CITY TN 37381

MARGIE V CATANO
AKA MARGIE V HARPER
13596 E EVANS AVE
AURORA CO 80014

CYNTHIA E CHAPMAN
1714 MAPLE ST
ARTESIA NM 88210

CHASE FARMS
RICHARD L CHASE
PO BOX 658
ARTESIA NM 88211

GEORGE A SR & NEVA CHASE
306 LAWERENCE RANCH RD
LAKE ARTHUR NM 88253

RICHARD CHASE & KARLA CHASE
PO BOX 359
ARTESIA NM 88211

RAUL V CHAVARRIA
PO BOX 1507
ARTESIA NM 88211

ROLANDO P SR CHAVARRIA
421 E QUAIL STREET
ARTESIA NM 88210

DOLORES CHAVEZ
PO BOX 1707
ARTESIA NM 88211

ROSA S CHAVEZ
PO BOX 886
ARTESIA NM 88211

ROGELIO CHAVIRA
3109 W MISSOURI
ARTESIA NM 88210

RYAN & NANA CHENG
2913 SUDDERTH DRIVE
RUIDOSO NM 88345

CHARLOTTE & LISS TERRI CHILSON
3475 MCCORMICK BLVD APT 125
BULLHEAD CITY AZ 86429

CITY OF ARTESIA
511 W TEXAS AVE
ARTESIA NM 88210

JOHN C & MARIA G CLOSE
801 N 6TH STREET
ARTESIA NM 88210

TIMOTHY W & RETHA K COCHRAN
PO BOX 266
ARTESIA NM 88211

JESUS & ESTHER COLLAZO
2555 OGDEN STREET
SAN BERNADINO CA 92407

IDA GRACE CORDOVA
AURELIO & AMAVILIA GONZALES
208 KEMP
ARTESIA NM 88210

AGUSTIN SR CORONA
RACHEL BUSTOS
410 JJ CLARKE
ARTESIA NM 88210

JOSEPHINE CORTEZ
DOMINGO PEREZ
2010 MAPLE ST
ARTESIA NM 88210

ROBERT G & OLGA P CORTEZ
2010 MAPLE STREET
ARTESIA NM 88210

MANUEL & CLOTILDE FUENTES
MANUEL D FUENTES
410 S FREEMAN AVENUE
ARTESIA NM 88210

MANUEL JR & JERRY FUENTEZ
2010 OAK STREET
ARTESIA NM 88210

CORINA V GALLEGOS
PO BOX 867
ARTESIA NM 88210

PEDRO G GALVAN
9259 E MONTE AVE
MESA AZ 85209

ANTONIO & CARMEN B GARCIA
906 LEWIS RD
ARTESIA NM 88210

ANTONIO J & EVA GARCIA
709 N FOURTH STREET
ARTESIA NM 88210

BILLIE JEAN GARCIA
GREGORIO RAUL JUAREZ
1204 YUCCA
ARTESIA NM 88210

FRED & BILLIE GARCIA
1204 YUCCA
ARTESIA NM 88210

LOUIS H GARCIA
1805 E MILL ROAD
ARTESIA NM 88210

MARIANO & MARIA GARCIA
2001 FERNDALE SE
ALBUQUERQUE NM 87123

GAS WELL SERVICES INC
C/O JACK C MATTHEWS
26 E COMPRESS RD
ATRESIA NM 88210

J D GILBERT, JR
RC HOELSCHER & KAREN SCHROEDER
JOHNNY DOYAL GILBERT
2139 SPRING CREEK RD
LEBANON TN 37087

THOMAS N GILES
GILES CONSTRUCTION COMPANY
1012 CALLE DEL SOL
ARTESIA NM 88210

DONALD R & DAVID GOLEMON
STEVE D MUNOZ
602 E RICHEY AVE
ARTESIA NM 88210

ANITA GOMEZ
C/O PEGGY GOMEZ
PO BOX 21673
DENVER CO 80221

JOE G GOMEZ
1901 N FREEMAN
ARTESIA NM 88210

ALICE L GONZALES
1204 N ROSELAWN
ARTESIA NM 88210

CORINNE B GRACE TRUST
WESTERN COMMERCE BANK TRUSTEES
PO BOX 1358
CARLSBAD NM 88221

ANTONIO JR & LUPE GRANADOS
108 CLEVELAND
ARTESIA NM 88210

YVONNE M GRANADOS
JESUS M & ABIGAIL M ACOSTA
804 N FOURTH ST
ARTESIA NM 88210

W L GRAY
115 CRYSTAL SPRINGS DR
GEORGETOWN TX 78628

GROWING INVESTMENT PROPERTIES
LLC
13170 CENTRAL AVENUE SE #8819
ALBUQUERQUE NM 87123

MARY GRZEGORSKI
WILLIAM CHEUNG
502 W MAIN ST
ARTESIA NM 88210

S L GURLEY
401 BOLTON ROAD
ARTESIA NM 88210

ANA S GUTIERREZ
R276 N 13TH STREET SP# 39
ARTESIA NM 88210

RICARDO GUTIERREZ
276 N 13TH SP 39
ARTESIA NM 88210

CLYDE GUY & SONS INC
GUY CHEVROLET
101 MAIN STREET
ARTESIA NM 88210

BENNY D & CORINNE GUZMAN
76 ROULETTE RD
ARTESIA NM 88210

DAVID & ESTEFANI HAMMOND
2508 W RUNYAN AVE
ARTESIA NM 88210

DAVID G HAMMOND
PO BOX 1522
ARTESIA NM 88210

JUANA & CECILIA JIMENEZ
107 GAGE AVE
ARTESIA NM 88210

SILVIA N JIMENEZ
JOSE AMAYA
105 W GAGE
ARTESIA NM 88210

BILLY A JOHNSON
C/O B & B NEWSTAND GAYLA
309 W MAIN ST
ARTESIA NM 88210

LYNN & WANDA JOHNSON
412 S SECOND STREET
ARTESIA NM 88210

DENNIS G JONES
PO BOX 773
ARTESIA NM 88211

JACKIE L & DIANA JOY
603 VOGEL RD
ARTESIA NM 88210

JRH LLC
1001 CAMINO DEL LLANO
ARTESIA NM 88210

CHRISTINA Y JUAREZ
805 N FIFTH STREET
ARTESIA NM 88210

RICHARD J & KIMBERLY J KAFTON
PO BOX 1586
ARTESIA NM 88211

VELMA L KARR
212 N ROSELAWN
ARTESIA NM 88210

DANIEL K & VICTORIA A KIDD
2216 W GRAND AVE
ARTESIA NM 88210

HUGH DONALD & CAROLYN A KIDDY
7366 S PLATTE CANYON DRIVE
LITTLETON CO 80128

NORMA SUE KIZER
DEAN & CHERYL STOVALL
PO BOX 1556
ARTESIA NM 88211

L T L COMPANY
BRYAN'S OFFICE SUPPLY
PO BOX 1810
ARTESIA NM 88211

C E & WANDA LA RUE
PO BOX 206
ARTESIA NM 88211

ROGUE N LAGUANAS
305 W KEMP AVENUE
ARTESIA NM 88210

CHRISTOPHER C & ERIKA LARA
113 GAGE AVENUE
ARTESIA NM 88210

CRUZ L & DIANE R LARA
801 N ROSELAWN
ARTESIA NM 88210

DIANA L LARA
808 N SIXTH ST
ARTESIA NM 88210

ISHMAEL & ELVA LARA
2605 N WINCHESTER
ARLINGTON VA 22213

JOSE T LARA
11516 APPIAN WAY
ALBUQUERQUE NM 87111

RICHARD B LARA
JOSE R & MANUELA RAMOS
22 ROULETTE RD
ARTESIA NM 88210

C E & WANDA LARUE
TIMMY K & THERESA L BAIZE
210 S ROSELAWN
ARTESIA NM 88210

EDDIE C & BECKY L LARUE
307 S BOLTON ROAD
ARTESIA NM 88210

WILLIAM E & RUBY N LEAMON
205 W GRAND AVE
ARTESIA NM 88210

ADOLFO & LINDA LEYBA
107 W CLEVELAND AVE
ARTESIA NM 88210

ADOLFO J LEYBA
105 W CLEVELAND AVE
ARTESIA NM 88210

LOCAL UNION 351 INTERNATIONAL
UNION OPERATING ENGINEEERS AFL-
CIO
111 E COOLIDGE STREET
BORGER TX 79007

ALFREDO LOPEZ
2111 N ROSELAWN AVE
ARTESIA NM 88210

ALFREDO C & CONSUELO A LOPEZ
212 GAGE AVE
ARTESIA NM 88210

METTSCO LLC
2407 SIERRA VISTA
ARTESIA NM 88210

FRED & ARIZONA MILES
604 N 6TH STREET
ARTESIA NM 88210

LOIS H MITCHELL REVOCABLE TRUST
LOIS H MITCHELL TRUSTEE
49 VAN BRUNT MANOR ROAD
EAST SETAUKET NY 11733

JAIME G MOLINAR
707 N 4TH
ARTESIA NM 88210

JOSE LUIS MONTES
201 CLEVELAND
ARTESIA NM 88210

SILBESTRE JIMENEZ MONTES
CARMEN VALLES DE MONTES
106 CLEVELAND AVENUE
ARTESIA NM 88210

PAULETTE MONTGOMERY & S RAGLIN
C/O NORA RAGLIN
8471 DANBURY CIR
HUNTINGTON BEACH CA 92646

MANUEL & DELMA MORENO
901 W MAHONE DRIVE
ARTESIA NM 88210

SYLVIA M MORENO
PO BOX 1662
ARTESIA NM 88211

ARMANDO MORILLON
37 WINDY RIDGE RD
ARTESIA NM 88210

NORMA MORILLON
1617 N OAK STREET
ARTESIA NM 88210

MORTON FAMILY TRUST
1904 VILLA DR
ARTESIA NM 88210

MULCOCK PROPERTIES LLC
5299 RIO PENASCO
MAYHILL NM 88339

AMANDE ROSE MUNOZ
604 E RICHEY
ARTESIA NM 88210

GREGORIA MUNOZ
1811 OAK STREET
ARTESIA NM 88210

MARIA MUNOZ
1703 N FREEMAN AVE
ARTESIA NM 88210

MIKE D & MONSE B MUNOZ
1713 N FREEMAN
ARTESIA NM 88210

OFELIA J MUNOZ
ELVA J PONCE
105 W GAGE
ARTESIA NM 88210

MURDOCK MACHINE SHOP INC
PO BOX 1438
ARTESIA NM 88211

MYCO INDUSTRIES, INC
PO BOX 840
ARTESIA NM 88211

NAN DAD INC
PO BOX 233
ARTESIA NM 88211

CRUZ M & ERMA N NATIVIDAD
104 CLEVELAND AVENUE
ARTESIA NM 88210

SABAS & HECTOR NATIVIDAD
VERONICA MARTINEZ
MONICA R FRANCO
207 KEMP AVENUE
ARTESIA NM 88210

ERNESTO J NAVARRETTE
LARAMIE & ROSEMARIE ROLLINS
312 W CLEVELAND
ARTESIA NM 88210

JOSE & SOCORRO NAVARRETTE
12241 DECK BLVD
GEISMAR LA 70734

ROSA NAVARRETTE
402 CLEVELAND
ARTESIA NM 88210

VICTORIA NAVARRETTE
ANNA DOMINGUEZ
8 STUART DRIVE
LOS LUNES NM 87031

ARMANDO F & ANDREA P NAYARES
1808 OAK
ARTESIA NM 88210

NEW MEXICO CONSOLIDATED
INVESTMENT
PO DRAWER 500
ARTESIA NM 88211

WAYLAND NEWBERRY
252 N HALDERMAN RD
ARTESIA NM 88210

LARRY D RAGA, II
404 S 2ND STREET
ARTESIA NM 88210

RANCHERO NO DINERO LLC
PO BOX 1176
ARTESIA NM 88211

ODELIA C & JAPHETH RASCON
1106 N ROSELAWN
ARTESIA NM 88210

AUBREY & JODIE RAWLS
RANDY & ROBIN RAWLS
312 W RICHEY
ARTESIA NM 88210

STEVEN L & PATRICIA M RAWSON
1002 S ROSELAWN AVE
ARTESIA NM 88210

ED RAZO/ BANKERS INSURANCE CO
1309 NORMANDY
CARLSBAD NM 88220

RED SHAMROCK 8 LLC
8220 SAN PEDRO NE STE 500
ALBUQUERQUE NM 87113

DANIEL D & JOSEPHINE C REYES
408 W MAIN STREET
ARTESIA NM 88210

RUBEN E & LISA G RICCI
410 W CHISUM
ARTESIA NM 88210

ANTHONY RICKER
812 N FOURTH STREET
ARTESIA NM 88210

ELIN M RITCHIE
410 SOUTH 2ND ST
ARTESIA NM 88210

ADELAIDA RODRIGUEZ
210 W KEMP AVE
ARTESIA NM 88211

BASCILIO RODRIGUEZ
1101 CANNON CTS
ARTESIA NM 88210

EBER & GRISELDA RODRIGUEZ
PABLO P MUNIO & MARIA T MOLINA
11 W GAGE AVE
ARTESIA NM 88210

EMILY RODRIGUEZ
1706 N OAK STREET
ARTESIA NM 88210

LIONEL R & AMELIA F RODRIGUEZ
201 E RICHEY AVE
ARTESIA NM 88210

MARISELA RUIZ RODRIGUEZ
MIGUEL A RUIZ
810 S 2ND ST
ARTESIA NM 88210

MARY RODRIGUEZ
1013 A S PENNSYLVANIA
ROSWELL NM 88203

JOSE A & HECTOR M RODRIQUEZ
DIMAS, AARON DEAN DIMAS
3880 E POPPY
GARDENDALE TX 79758

CECILIA V ROJAS
1718 N OAK
ARTESIA NM 88210

IRINEO & ATANACIA ROJAS
112 GAGE
ARTESIA NM 88210

KRYSTEL R ROJAS
ROSA O VALENZUELA
802 N 5TH STREET
ARTESIA NM 88210

LUPE ROJO
FLORES, ALICIA FLORES
806 ALVARADO
ARTESIA NM 88210

CHARMA MAE ROLAN
SONDRA STOCKTON
5401 W RICHARDSON AVE
ARTESIA NM 88210

JO ANNE & GILBERT ROMO
1702 N PINE
ARTESIA NM 88210

RONALD J & BARBARA K ROSS
MICHAEL & VALERIE BISHOP
112 W GRAND AVE
ARTESIA NM 88210

RR & D LLC
24 W COMPRESS RD
ARTESIA NM 88210

EDWARD & TERESA RUBIO
PO BOX 13
LAKE ARTHUR NM 88253

JUAN R & LORENA R RUIZ
610 N SIXTH STREET
ARTESIA NM 88210

LEO D & SEVERA U RUIZ
1613 N FREEMAN AVE
ARTESIA NM 88210

BEVERLY J STILL
PG 1
805 W MISSOURI
ARTESIA NM 88210

DARRELL G STOVALL
PO BOX 640
KINGSTON OK 73439

BEVERLY SWEATT
MIGUEL O JR & VANESSA G MADRID
PO BOX 673
ARTESIA NM 88211

JOSEFA H THORSON
811 N 6TH ST
ARTESIA NM 88210

T-KNOX PROPERTIES, LLC
PO BOX 660
ARTESIA NM 88211

TOOLPUSHERS SUPPLY CO
PO DRAWER 2360
CASPER WY 82602

TRACY TORRES
1103 W MERCHANT
ARTESIA NM 88210

ANTONIO RODRIGUEZ TORREZ
REBECCA CARRASCO TORREZ
708 N 4TH STREET
ARTESIA NM 88210

MA ISAURA TOVAR
RT 276 N 13TH SP 79
ARTESIA NM 88210

TOWN & COUNTRY FOOD DBA STRIPES
C/O KE ANDREWS
1900 DALROCK RD
ROWLETT TX 75088

TRESCAZA LLC
PO BOX 359
ARTESIA NM 88211

RAQUEL TREVIZO
ROSA ESTHER T SEGURA
902 CLEVELAND AVE
ARTESIA NM 88210

TURNAROUND PROPERTIES LLC
C/O TODD SEINDENSCHWARZ
445 GEORGIA SE
ALBUQUERQUE NM 87108

TX STR STORAGE LLC
PO BOX 1382
CARLSBAD NM 88221

UNITED STATES OF AMERICA ACT THRU
FARMERS HOME ADMINISTRATION
C/O USDA-RURAL DEVELOPMENT
4300 GOODFELLOW BLDG 105 FC-215
ST LOUIS MO 63120

ESPERANZA VALDEZ
209 CLEVELAND AVE
ARTESIA NM 88210

ALONZO & OMAR VALENCIA
210 CLEVELAND AVE
ARTESIA NM 88210

ISRAEL JR VALENCIA
SUSAN R VALENCIA-RODRIGUEZ
808 N 5TH ST
ARTESIA NM 88210

OMAR & ISRAEL VALENCIA
210 CLEVELAND AVE
ARTESIA NM 88210

AMADOR & RAMONA VALENZUELA
306 CLEVELAND AVE
ARTESIA NM 88210

EDMUNDO VALENZUELA
1207 N 4TH ST
ARTESIA NM 88210

GILBERT VALENZUELA
ROSA ROMERO
308 W LOGAN AVE
ARTESIA NM 88210

JAVIER Y VALENZUELA
PO BOX 812
ARTESIA NM 88211

MARY ANN VALENZUELA
1208 N 4TH ST
ARTESIA NM 88210

ALEJANDRO H & ESPERANZA VASQUEZ
1802 MAPLE
ARTESIA NM 88210

MARIA F VASQUEZ
ARTURO F & ANNETTE V VAZQUEZ
1103 MAHONE
ARTESIA NM 88210

TONY & SYLVIA VASQUEZ
806 N ROSELAWN AVE
ARTESIA NM 88210

OLGA I VEGA
710 N 4TH ST
ARTESIA NM 88210

LUIS VELOZ
296 EAST MORGAN
HAGERMAN NM 88232

VICTORY LIFE FELLOWSHIP OF ARTESIA
PO BOX 1087
ARTESIA NM 88211

JESUS R & ALEXANDRA R VELO
1003 N ROSELAWN
ARTESIA NM 88210

DOMINGO & FELICITAS ACOSTA
C/O DANIEL BOONE
1111 CANNON PLACE
ARTESIA NM 88210

ISAAC, TOM & STEVEN AGUILAR
LOUISE BALDONADO & GENEVA
HUERTAZ
902 N FIFTH STREET
ARTESIA NM 88210

MYRA KARINA (GUZMAN) AGUIRRE
410 CLEVELAND
ARTESIA NM 88210

TITO MEZA & LAURA L AGUIRRE
PO BOX 1506
ARTESIA NM 88211-1506

JUAN P ALVARADO
NORMA I LOPEZ DE-ALVARADO
906 N FIFTH STREET
ARTESIA NM 88210

SONIA LOUISE DELGADO ARIAS
VALERIE DELGADO
1101 N SIXTH ST
ARTESIA NM 88210

ROY R & NORMA M ARMENDAREZ
1003 N FOURTH STREET
ARTESIA NM 88210-1415

JACINTO V ARREDONDO
1009 N FOURTH STREET
ARTESIA NM 88210

GUADALUPE & MARGARITA ARROYO
904 N FIFTH STREET
ARTESIA NM 88210

RAMON H BALENCIA
LUPE B MARTINEZ
912 N SIXTH ST
ARTESIA NM 88210

OMAR & DOLORES BARRAGAN
MARISA BARRAGAN
8 SWAYBACK RD
ARTESIA NM 88210

PEDRO P & GUADALUPE BARRERA
1701 N OAK ST
ARTESIA NM 88210

GUADALUPE G & LUCINDA L BEJARANO
907 N ROSELAWN AVENUE
ARTESIA NM 88210

IDA G BEJARANO
1003 N 5TH
ARTESIA NM 88210

LEON H BUSTAMANTE
408 W LOGAN AVENUE
ARTESIA NM 88210

MICHAEL CALDERON
456 EULITA AVE
LA PUENTE CA 91744

MARIA ELENA CAMPBELL
1009 N 6TH ST
ARTESIA NM 88210

LUPE CAMPOS
PO BOX 1128
ARTESIA NM 88211-1128

NICOLOSA M CARBAJAL
C/O VIRGINIA M NUFFER
108 E HIGH
WATSONVILLE CA 95076

MARTIN & PRISTINIA CATANO
VIRGINIA ARAUJO & NAOMI RAYOS
1012 N SIXTH STREET
ARTESIA NM 88210

OLIVIA CHAVARRIA
903 N FIFTH STREET
ARTESIA NM 88210

HENRIETTA C CHAVEZ
2515 W IOWA
CARLSBAD NM 88220

JENNIFER LYNN CHAVEZ
434 RICHMOND NE
ALBUQUERQUE NM 87106

LEROY M & DIANA M CORONADO
1007 N 4TH ST
ARTESIA NM 88210-1415

DANIEL O CORTEZ
ROSEMARY CORTEZ CARDENAS
8109 HARTFORD AVE
LUBBOCK TX 79423

SALVADOR & YOLANDA CUETO
208 E FAIRGROUND RD
ARTESIA NM 88210-9764

ISMAEL DELGADO, JR
PO BOX 1193
ARTESIA NM 88211-1193

JESUS N DELGADO
JOHNNY N DELGADO
407 GAGE AVENUE
ARTESIA NM 88210

PATRICIA DURAN
PO BOX 408
ARTESIA NM 88211-0408

CARMEN MORALES
1006 W GRAND AVE
ARTESIA NM 88210-1841

FRANCISCO M OLIVAS
C/O ERNESTINA RAMIREZ
102 CAMPBELL AVE
HEREFORD TX 79045

JANE D ORNELAS
909 N 4TH ST
ARTESIA NM 88210

RAYMOND S ORTEGA ESTATE
MICHAEL BODGE
1005 N SIXTH ST
ARTESIA NM 88210

OUR LADY OF GRACE PARISH ARTESIA
C/O PASTORAL CENTER
1280 MED PARK DR
LAS CRUCES NM 88005

EDWARD PACHECO
606 MISSION ARCH
ROSWELL NM 88201

NANCY S PADILLA
GLORIA C RUIZ
909 N ROSELAWN AVENUE
ARTESIA NM 88210

VIRGINIA HUERTAZ PALOMIN
CATHERINE HUERTAZ GONZALEZ
1012 N FIFTH ST
ARTESIA NM 88210

FLORINDA PANDO
JOEL & VERONICA HERNANDEZ
1002 N FIFTH
ARTESIA NM 88210

SARAH E PERCHES
323 MOUNTAIN RD NE
ALBUQUERQUE NM 87102

SANTIAGO & EVA L PEREZ
403 W GAGE AVENUE
ARTESIA NM 88210

ADOLFO L RAMIREZ
PEDRO BARRERA
PO BOX 1073
ARTESIA NM 88211-1073

FRANKIE L RAMIREZ
905 N 4TH ST
ARTESIA NM 88210-1413

GUADALUPE M RAMIREZ
1006 N 6TH ST
ARTESIA NM 88210

MARY D & SAMUEL D RAMOS
902 N 4TH STREET
ARTESIA NM 88210

AURORA REYES
1006 N 4TH ST
ARTESIA NM 88210

J M RODRIQUEZ
C/O KATHERINE FIERRO
6600 E 60TH PL APT 209
COMMERCE CITY CO 80022-5900

JOSE ROJO
NORMA I OROZCO-ROJO
904 N SIXTH STREET
ARTESIA NM 88210

LINDA RUBI ROMERO
1011 N 6TH ST
ARTESIA NM 88210

DANIEL RUIZ
MARIA PATRICIA BALDERRAMA
910 N FOURTH STREET
ARTESIA NM 88210

RAFAEL & MARIA RUIZ
1009 N ROSELAWN AVENUE
ARTESIA NM 88210

BELEN C SAMORA & KENT D CHANEY
1011 N ROSELAWN
ARTESIA NM 88210

ANITA S SANCHEZ
909 N ROSELAWN
ARTESIA NM 88210

ELMA M SANCHEZ
MARQUEZ, MANUEL S MARQUEZ
702 CLEVELAND AVENUE
ARTESIA NM 88210

JUAN SEGURA
911 N 4TH ST
ARTESIA NM 88210

MELISSA SOLARES
1004 N 4TH
ARTESIA NM 88210

LEODEGARIO & MARIA VASQUEZ
802 CARPER DR
ARTESIA NM 88210

MARIA L VEGA
408 CLEVELAND AVENUE
ARTESIA NM 88210

NELLIE VELASQUEZ & NANCY AGUILAR
CYNTHIA MARTINEZ
7322 N VALDEZ ST
HOBBS NM 88242-9602

STATE OF NEW MEXICO)

) Groundwater Discharge Permit GW-028

COUNTY OF EDDY)

AFFIDAVIT OF POSTINGS

In accordance with WQCC Rule 3108.B (20.6.2.3108.B NMAC) and WQCC Rule 3108.D. (20.6.2.3108.D NMAC), I hereby certify that a synopsis of the public notice of the application by HollyFrontier Navajo Refining LLC for the renewal of Groundwater Discharge Permit GW-028 was posted on September 28, 2016. The synopsis was posted in both English and Spanish on signage each at least two feet by three feet in size in two locations: 1) on the Artesia Refinery fence near the northwest corner of the North Reverse Osmosis reject fluids discharge field, facing W. Richey Avenue; and 2) outside the Artesia Refinery's main administrative offices at 501 East Main, Artesia, NM 88210. The postings were maintained at the noted locations for 30 days. The language of the synopsis, as posted in English and Spanish, is provided in "Exhibit A," and photographs of the two postings are provided in "Exhibit B."

Date: Nov 14, 2016

Lewis R. Dade
Environmental Specialist
The HollyFrontier Companies
P.O. Box 159
Artesia, NM 88211-0159

Attachments

SUBSCRIBED AND SWORN to before me on this 14th day of November 2016.

Notary Public

My Commission Expires:

1/5/2020

GW-028 Discharge Permit Renewal

On June 23, 2016, the HollyFrontier Navajo Refining LLC (Navajo), Artesia, New Mexico (NM), 88210 Refinery (the Refinery), applied to the New Mexico Energy, Minerals & Natural Resources Department Oil Conservation Division (OCD) for a renewal and modification of Groundwater Discharge Permit GW-028. The Renewal Application provides information on current Refinery operations and discharges currently authorized by OCD. As specified in 20.6.2.3108B New Mexico Administrative Code (NMAC), the Refinery is posting this public notice of discharge permit renewal in a newspaper to inform the general public. This public notice includes the information required by 20.6.2.3108F NMAC.

The Refinery is located at 501 East Main Street, Artesia, NM, 88210 in the SE/4 Section 1, E/2 of Section 8, W/2 of Section 9, N/2 of section 12, Township 17 South, Range 26 East, NMPM, Eddy County. The Refinery operates three reverse osmosis (RO) units to treat raw water from the City of Artesia or water pumped from the ground for use as boiler feed water or cooling tower makeup water in the Refinery process. The RO reject fluid that is produced during the process, is discharged at the permittee's two fields (also referred to as farms). Ground water that may be affected by the discharge occurs at a depth of approximately 15 feet below ground surface with a total dissolved solids concentration of approximately 2,500 milligrams per liter (mg/L). Based on analysis of the RO reject fluids to date, OCD has identified chloride, fluoride, sulfate, and total dissolved solids as potential constituents of concern. The northern RO Reject Water discharge point is located 1255 feet south of East Richey Avenue and 1569 feet east of US-285. The southern RO Reject Water discharge point is located 2532 feet south of East Richey Avenue and 2208 feet east of US-285.

The Permittee is currently authorized to discharge 15,000 barrels per day of RO reject fluids to the surface at the Permittee's two fields. Under the Renewal Application, the RO reject fluid discharge will continue to be applied to the fields until construction is completed on either evaporation ponds, which would be located on the northern part of the Refinery east of US-285 and south of East Richey Avenue; and/or construction of a fourth UIC Class I (Non-hazardous) Disposal Well to handle all RO reject fluid discharge at the refinery. No increase to the currently permitted discharge volume to the fields is requested at this time.

Comments, questions, and requests for a copy of the application (either a paper copy or an electronic copy via the internet) should be sent to the following OCD contact:

Mr. Carl Chavez
Oil Conservation Division
New Mexico Energy, Minerals & Natural Resources Department
1220 South St. Francis Drive
Santa Fe, NM 87505
(505) 476-3490
carlj.chavez@state.nm.us

Para obtener más información sobre esta solicitud en español, sirvase comunicarse por favor: New Mexico Energy, Minerals and Natural Resources Department (Depto. Del Energia,

AVISO DE RENOVACIÓN DE PERMISO
GW-028

El día 23 de junio del 2016, la Refinería HollyFrontier Navajo Refining LLC (Navajo), Artesia, Nuevo México (NM), 88210 (La Refinería), solicitó a la División de Conservación de Petróleo (Oil Conservation Division [OCD]) del Departamento de Energía, Minerales y Recursos Naturales la renovación del Permiso de Descarga de Aguas Subterráneas GW-028. La Solicitud de Renovación provee información sobre las operaciones actuales en la Refinería y las descargas actualmente autorizadas por la OCD. Tal como está especificado en el Código Administrativo de Nuevo México (New Mexico Administrative Code [NMAC]) 20.6.2.3108B, la Refinería está publicando este aviso público de renovación del permiso de descarga en un periódico para informar al público en general. Esta notificación pública incluye la información requerida por NMAC 20.6.2.3108F.

La Refinería está ubicada en 501 East Main Street, Artesia, NM, 88210 en SE/4 de sección 1, E/2 de sección 8, W/2 de sección 9, N/2 de sección 12, Township 17 South, Range 26 East, NMPM, Condado de Eddy. La Refinería opera tres unidades de tipo ósmosis inversa (OI) para tratar agua virgen de la Ciudad de Artesia o agua subterránea bombeada para el suministro de calderas o reabastecimiento de agua para torres de refrigeración en el proceso de refinación. El fluido de rechazo de la OI que es producido durante el proceso, es descargado en los dos campos ya permitidos. Aguas subterráneas que podrían ser afectadas por la descarga ocurren a una profundidad de aproximadamente 15 pies (4.6 metros) debajo de la superficie del suelo con concentración de sólidos disueltos total (TDS) de aproximadamente 2500 miligramos por litro (mg/L). Basado en los análisis de aguas de rechazo de la OI realizadas hasta el día de hoy, la OCD ha identificado al cloruro, fluoruro, sulfato, y TDS como los componentes de riesgo potenciales. El punto de descarga del norte está ubicado a 1255 pies (383 metros) hacia el sur de East Richey Avenue y a 1569 pies (478 metros) al este de US-285. El punto de descarga del sur está ubicado a 2532 pies (772 metros) al sur de East Richey Avenue y a 2208 pies (673 metros) al este de US-285.

La Refinería está actualmente autorizada para descargar aproximadamente 15,000 barriles por día de fluidos de rechazo de la OI a la cubierta de los dos campos que están habilitados. Por medio de la Solicitud de Renovación del Permiso, la descarga de fluido de rechazo de la OI continuará siendo aplicada a la superficie de los campos hasta que se completa la construcción de las lagunas de evaporación, las cuales serán ubicadas en la parte norte de la Refinería al este de la carretera US-285 y al sur de East Richey Avenue; y/o la construcción de un cuarto pozo de disposición de tipo Underground Injection Control (UIC) Clase I (No-peligroso) para manejar todo fluido de rechazo de la OI descargado en la refinería. Ningún incremento a la descarga actualmente permitida a estos campos está solicitado con esta solicitud.

Exhibit B – Posting Outside of the Main Refinery Offices at
501 East Main, Artesia, NM 88210

Affidavit of Publication

No.

State of New Mexico

County of Eddy:

Danny Scott Danny Scott

being duly s sworn sayes th that she is the **Publisher**

of the Artesia Daily Press, a daily newspaper of General circulation, published in English at Artesia, said county and state, and that the hereto attached

Display Ad

was published in a regular and entire issue of the said Artesia Daily Press, a daily newspaper duly qualified for that purpose within the meaning of Chapter 167 of the 1937 Session Laws of the state of New Mexico for

1 Consecutive weeks/day on the same day as follows:

First Publication	September 18, 2016
Second Publication	
Third Publication	
Fourth Publication	
Fifth Publication	
Sixth Publication	

Subscribed and sworn before me this 3rd day of October 2016

OFFICIAL SEAL
Latisha Romine
NOTARY PUBLIC-STATE OF NEW MEXICO
My commission expires: 9/12/2019

Latisha Romine

Latisha Romine

Notary Public, Eddy County, New Mexico

Copy of Publication:

GW-028 Discharge Permit Renewal

On June 23, 2016, the HollyFrontier Navajo Refining LLC (Navajo), Artesia, New Mexico (NM), 88210 Refinery (the Refinery), applied to the New Mexico Energy, Minerals & Natural Resources Department Oil Conservation Division (OCD) for a renewal and modification of Groundwater Discharge Permit GW-028. The Renewal Application provides information on current Refinery operations and discharges currently authorized by OCD . As specified in 20.6.2.3108B New Mexico Administrative Code (NMAC), the Refinery is posting this public notice of discharge permit renewal in a newspaper to inform the general public. This public notice includes the information required by 20.6.2.3108F NMAC.

The Refinery is located at 501 East Main Street, Artesia, NM, 88210 in the SE/4 Section 1, E/2 of Section 8, W/2 of Section 9, N/2 of section 12, Township 17 South, Range 26 East, NMPM, Eddy County.

The Refinery operates three reverse osmosis (RO) units to treat raw water from the City of Artesia or water pumped from the ground for use as boiler feed water or cooling tower makeup water in the Refinery process. The RO reject fluid that is produced during the process, is discharged at the permittee's two fields (also referred to as farms). Ground water that may be affected by the discharge occurs at a depth of approximately 15 feet below ground surface with a total dissolved solids concentration of approximately 2,500 milligrams per liter (mg/L). Based on analysis of the RO reject fluids to date, OCD has identified chloride, fluoride, sulfate, and total dissolved solids as potential constituents of concern. The northern RO Reject Water discharge point is located 1255 feet south of East Richey Avenue and 1569 feet east of US-285. The southern RO Reject Water discharge point is located 2532 feet south of East Richey Avenue and 2208 feet east of US-285.

The Permittee is currently authorized to discharge 15,000 barrels per day of RO reject fluids to the surface at the Permittee's two fields. Under the Renewal Application, the RO reject fluid discharge will continue to be applied to the fields until construction is completed on either evaporation ponds, which would be located on the northern part of the Refinery east of US-285 and south of East Richey Avenue; and/or construction of a fourth UIC Class I (Non-hazardous) Disposal Well to handle all RO reject fluid discharge at the refinery. No increase to the currently permitted discharge volume to the fields is requested at this time.

Comments, questions, and requests for a copy of the application (either a paper copy or an electronic copy via the internet) should be sent to the following OCD contact:

Mr. Carl Chavez
Oil Conservation Division
New Mexico Energy, Minerals & Natural Resources Department
1220 South St. Francis Drive
Santa Fe, NM 87505
(505) 476-3490
carlj.chavez@state.nm.us

Para obtener más información sobre esta solicitud en español, sirvase comunicarse por favor: New Mexico Energy, Minerals and Natural Resources Department (Depto. Del Energia, Minerals y Recursos Naturales de Nuevo México), Oil Conservation Division (Depto. Conservacio´n Del Petróleo), 1220 South St. Francis Drive, Santa Fe, New México (Contacto: Laura Tulk, 575-748-1283)

The OCD will accept comments and statements of interest regarding this application and will create a facility-specific mailing list for persons wishing to receive future notices.

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OFFICIAL SEAL
Latisha Romine
NOTARY PUBLIC-STATE OF NEW MEXICO
My commission expires: 5/12/2019

Latisha Romine

Latisha Romine

Notary Public, Eddy County, New Mexico

Copy of Publication:

AVISO DE RENOVACIÓN DE PERMISO
GW-028

El día 23 de junio del 2016, la Refinería HollyFrontier Navajo Refining LLC (Navajo), Artesia, Nuevo México (NM), 88210 (La Refinería), solicitó a la División de Conservación de Petróleo (Oil Conservation Division [OCD]) del Departamento de Energía, Minerales y Recursos Naturales la renovación del Permiso de Descarga de Aguas Subterráneas GW-028. La Solicitud de Renovación provee información sobre las operaciones actuales en la Refinería y las descargas actualmente autorizadas por la QCD. Tal como está especificado en el Código Administrativo de Nuevo México (New Mexico Administrative Code [NMAC]) 20.6.2.3108B, la Refinería está publicando este aviso público de renovación del permiso de descarga en un periódico para informar al público en general. Esta notificación pública incluye la información requerida por NMAC 20.6.2.3108F.

La Refinería está ubicada en 501 East Main Street, Artesia, NM, 88210 en SE/4 de sección 1, E/2 de sección 8, W/2 de sección 9, N/2 de sección 12, Township 17 South, Range 26 East, NMPM, Condado de Eddy. La Refinería opera tres unidades de tipo ósmosis inversa (OI) para tratar agua virgen de la Ciudad de Artesia o agua subterránea bombeada para el suministro de calderas o reabastecimiento de agua para torres de refrigeración en el proceso de refinación. El fluido de rechazo de la OI que es producido durante el proceso, es descargado en los dos campos ya permitidos. Aguas subterráneas que podrían ser afectadas por la descarga ocurren a una profundidad de aproximadamente 15 pies (4.6 metros) debajo de la superficie del suelo con concentración de sólidos disueltos total (TDS) de aproximadamente 2500 miligramos por litro (mg/L). Basado en los análisis de aguas de rechazo de la OI realizadas hasta el día de hoy, la OCD ha identificado al cloruro, fluoruro, sulfato, y TDS como los componentes de riesgo potenciales. El punto de descarga del norte está ubicado a 1255 pies (383 metros) hacia el sur de East Richey Avenue y a 1569 pies (478 metros) al este de US-285. El punto de descarga del sur está ubicado a 2532 pies (772 metros) al sur de East Richey Avenue y a 2208 pies (673 metros) al este de US-285. La Refinería está actualmente autorizada para descargar aproximadamente 15,000 barriles por día de fluidos de rechazo de la OI a la cubierta de los dos campos que están habilitados. Por medio de la Solicitud de Renovación del Permiso, la descarga de fluido de rechazo de la OI continuará siendo aplicada a la superficie de los campos hasta que se completa la construcción de las lagunas de evaporación, las cuales serán ubicadas en la parte norte de la Refinería al este de la carretera US-285 y al sur de East Richey Avenue; y/o la construcción de un cuarto pozo de disposición de tipo Underground Injection Control (UIC) Clase I (No-peligroso) para manejar todo fluido de rechazo de la OI descargado en la refinería. Ningún incremento a la descarga actualmente permitida a estos campos está solicitado con esta solicitud.

Para enviar comentarios, preguntas, y ordenar una copia de la solicitud (ambos en papel o copia electrónica vía internet), favor mandarlos al siguiente contacto de la OCD:

Sr. Carl Chávez
Oil Conservation Division
New Mexico Energy, Minerals & Natural Resources Department
1220 South St. Francis Drive
Santa Fe, NM 87505
(505) 476-3490
carlj.chavez@state.nm.us

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La OCD aceptará comentarios y declaraciónes de interés en relación con esta solicitud y preparará una lista de correo específica de esta instalación para personas que desean recibir avisos futuros.

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Notary Public, Eddy County, New Mexico

Copy of Publication:

GW-028 Discharge Permit Renewal

On June 23, 2016, the HollyFrontier Navajo Refining LLC (Navajo), Artesia, New Mexico (NM), 88210 Refinery (the Refinery), applied to the New Mexico Energy, Minerals & Natural Resources Department Oil Conservation Division (OCD) for a renewal and modification of Groundwater Discharge Permit GW-028. The Renewal Application provides information on current Refinery operations and discharges currently authorized by OCD . As specified in 20.6.2.3108B New Mexico Administrative Code (NMAC), the Refinery is posting this public notice of discharge permit renewal in a newspaper to inform the general public. This public notice includes the information required by 20.6.2.3108F NMAC.

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AVISO DE RENOVACIÓN DE PERMISO
GW-028

El día 23 de junio del 2016, la Refinería HollyFrontier Navajo Refining LLC (Navajo), Artesia, Nuevo México (NM), 88210 (La Refinería), solicitó a la División de Conservación de Petróleo (Oil Conservation Division [OCD]) del Departamento de Energía, Minerales y Recursos Naturales la renovación del Permiso de Descarga de Aguas Subterráneas GW-028. La Solicitud de Renovación provee información sobre las operaciones actuales en la Refinería y las descargas actualmente autorizadas por la OCD. Tal como está especificado en el Código Administrativo de Nuevo México (New Mexico Administrative Code [NMAC]) 20.6.2.3108B, la Refinería está publicando este aviso público de renovación del permiso de descarga en un periódico para informar al público en general. Esta notificación pública incluye la información requerida por NMAC 20.6.2.3108F.

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La OCD aceptará comentarios y declaraciónes de interés en relación con esta solicitud y preparará una lista de correo específica de esta instalación para personas que desean recibir avisos futuros.

Chavez, Carl J, EMNRD

From: Denton, Scott <Scott.Denton@HollyFrontier.com>
Sent: Friday, October 21, 2016 7:45 AM
To: Griswold, Jim, EMNRD; Chavez, Carl J, EMNRD
Cc: Marks, Allison, EMNRD; Brancard, Bill, EMNRD; Billings, Bradford, EMNRD; McWatters, Denise; O'Brien, Robert (Bob) K.; Holder, Mike; Roger Martella (rmartella@sidley.com); Joel Visser (jvisser@sidley.com); Denton, Scott
Subject: Navajo RO Reject Disposal Method Notification
Attachments: 161021 RO Reject Disposal Method Notification to OCD.pdf

Jim & Carl,

Good morning & Happy Friday to you all! The short answer…we have selected a disposal well (see attached letter).

Let me know if you have any questions or concerns.

Thanks,

SMD

Scott M. Denton
Environmental Manager

The HollyFrontier Companies
P.O. Box 159
Artesia, NM 88211-0159
575-746-5487 (o)
970-581-7268 (c)

Scott.Denton@HollyFrontier.com

HOLLYFRONTIER.

October 21, 2016

Submitted electronically via email to jim.griswold@state.nm.us and carlj.chavez@state.nm.us

Oil Conservation Division
New Mexico Energy, Minerals & Natural Resources Department
1220 South St. Francis Drive
Santa Fe, NM 87505

RE: WQA-OCD-CO-2016-001
RO Reject Disposal Method Selection

Dear Jim & Carl:

In accordance with Agreed Compliance Order in WQA-OCD-CO-2016-001 (dated September 23, 2016) (the ACO), the HollyFrontier Navajo Refining LLC (Navajo), Artesia, New Mexico, Refinery (the Refinery) hereby submits this required notice to the New Mexico Energy, Minerals, and Natural Resources Department, Oil Conservation Division (OCD) regarding Navajo's selection of an alternative disposal method for the reverse osmosis (RO) reject fluid stream currently permitted under Discharge Permit GW-028. Based on seismic and scaling studies conducted by Navajo and its consultants, we have selected underground injection in a Class I disposal well as an alternative disposal method for the RO reject fluid stream. In accordance with the terms of the ACO, Navajo will promptly revise the pending permit renewal application for Discharge Permit GW-028 to incorporate a description of our plans for the underground injection of the RO reject fluid stream in a Class I disposal well and a schedule for the installation and commencement of operation of the Class I disposal well. Pursuant to the ACO, Navajo intends to continue land application of the RO reject fluid stream until a permit renewal application for Discharge Permit GW-028 is approved by OCD.

In addition, Navajo appreciates the recent opportunity to discuss with OCD the potential use of plant absorption to remove or degrade constituents of concern from the soil and groundwater at the RO reject fluid land application sites. We look forward to continuing that discussion and intend to follow up on the preliminary proposal that our consultant, Geolex, discussed with OCD technical staff on October 18, 2016, about plant absorption options for the RO reject land application areas. We look forward to evaluating opportunities to partner with OCD to develop a pilot-scale program to evaluate the potential benefits of implementing a plant absorption program at the site.

HollyFrontier Navajo Refining LLC
501 East Main • Artesia, NM 88210
(575) 748-3311 • http://www.hollyfrontier.com

Navajo is committed to proactively meeting the requirements of the ACO and Discharge Permit GW-028 and working cooperatively with OCD. If you have any questions or comments, please contact me at 575-746-5487.

Sincerely,

Scott M. Denton
Environmental Manager

cc. HFC: D. McWatters, R. O'Brien, M. Holder
OCD: A. Marks, B. Brancard, B. Billings
Geolex: A.Gutierrez

Chavez, Carl J, EMNRD

From: Griswold, Jim, EMNRD
Sent: Friday, September 9, 2016 11:42 AM
To: scott.denton@hollyfrontier.com
Cc: Chavez, Carl J, EMNRD; Brancard, Bill, EMNRD
Subject: Discharge permit renewal application
Attachments: Technical incompleteness letter of 9-9-16.pdf

Scott,

See attached. Hardcopy was put in the mail today. Call if you have any questions.

Jim Griswold
Environmental Bureau Chief
Oil Conservation Division
1220 South St. Francis Drive
Santa Fe, New Mexico 87505
505.476.3465
email: jim.griswold@state.nm.us

State of New Mexico
Energy, Minerals and Natural Resources Department

Susana Martinez
Governor

Tony Delfin
Acting Cabinet Secretary

David R. Catanach
Director, Oil Conservation Division

September 9, 2016

Scott Denton
HollyFrontier Navajo Refining LLC
P.O. Box 159
Artesia, NM 88211-0159

Re: Application for Renewal of Discharge Permit GW-28

Scott,

The Oil Conservation Division (OCD) received HollyFrontier Navajo Refining LLC's (Navajo's) application dated June 23, 2016 for renewal of discharge permit GW-28 associated with the historic land application of reject water from the reverse osmosis treatment system at the refinery in Artesia. The OCD deemed that renewal application administratively complete on July 28, 2016. The next step in the process is OCD's technical review of the renewal application.

Navajo is considering options to replace land application including underground injection and/or lined evaporation ponds. Water Quality Control Commission Regulations (20.6.2.3106 NMAC) state "*A proposed discharge plan shall set forth in detail the methods or techniques the discharger proposes to use*…". The application does not provide a definitive option, nor the information required to evaluate any option. Therefore, OCD cannot issue a proposed approval or disapproval of the application until the required technical information is provided (20.6.2.3108(H) NMAC).

Until such time as Navajo can provide the necessary information, continued operations and progress with the application will be subject to the provisions of the pending agreed compliance order with schedules and deadlines.

Respectfully,

Jim Griswold
Environmental Bureau Chief

State of New Mexico
Energy, Minerals and Natural Resources Department

Susana Martinez
Governor

Tony Delfin
Acting Cabinet Secretary

David R. Catanach, Division Director
Oil Conservation Division

JULY 28, 2016

CERTIFIED MAIL
RETURN RECEIPT NO: 3771 5930

Re: HollyFrontier Navajo Refining Company, L.L.C., Artesia Refinery (GW-028)
Application for Discharge Permit Renewal dated June 23, 2016, Eddy County, New Mexico

Mr. Scott M. Denton
Environmental Manager
The HollyFrontier Companies
P.O. Box 159
Artesia, NM 88211-0159

Mr. Denton,

The New Mexico Oil Conservation Division (OCD) or department has received Navajo Refining Company L.L.C.'s application for renewal of the discharge permit and initial fee, dated June 23, 2016 for the Artesia Refinery located in the SE/4 of Section 1, E/2 of Section 8, and W/2 of Section 9. N/2 of Section 12, Township 17 South. Range 26 East. NMPM, Eddy County, New Mexico. The application for renewal submittal provided the required information in order to deem the application "**administratively complete**."

Therefore, the New Mexico Water Quality Control Commission regulations (WQCC) notice requirements of 20.6.2.3108 NMAC must be satisfied and demonstrated to the OCD. OCD will provide public notice pursuant to the WQCC notice requirements of 20.6.2.3108 NMAC to determine if there is any public interest.

Please contact me at (505) 476-3490 or carlj.chavez@state.nm.us if you have questions. Thank you for your cooperation throughout the discharge permit renewal process.

Respectfully,

Carl J. Chávez
Environmental Engineer

xc: Artesia District Office

Chavez, Carl J, EMNRD

From: Chavez, Carl J, EMNRD
Sent: Thursday, July 28, 2016 3:02 PM
To: Wunder, Matthew, DGF; 'Verhines, Scott, OSE'; Bratcher, Mike, EMNRD; Perrin, Charlie, EMNRD; Jones, William V, EMNRD; Powell, Brandon, EMNRD; Wojahn, Beth, EMNRD; Griswold, Jim, EMNRD; Bayliss, Randolph, EMNRD; Brown, Maxey G, EMNRD; 'james.lane@state.nm.us'; Wunder, Matthew, DGF; 'arthur.allison@state.nm.us'; 'ddapr@nmda.nmsu.edu'; 'jjuen@blm.gov'; 'psisneros@nmag.gov'; 'r@rthicksconsult.com'; 'sric.chris@earthlink.net'; 'nmparks@state.nm.us'; 'scott.verhines@state.nm.us'; 'peggy@nmbg.nmt.edu'; 'marieg@nmoga.org'; Fetner, William, NMENV; 'lazarus@glorietageo.com'; 'newman02@fs.fed.us'; Kieling, John, NMENV; 'bsg@garbhall.com'; 'Jerry.Schoeppner@state.nm.us'; 'claudette.horn@pnm.com'; 'ekendrick@montand.com'; 'staff@ipanm.org'; Wojahn, Beth, EMNRD
Cc: Denton, Scott (Scott.Denton@HollyFrontier.com); Combs, Robert (Robert.Combs@hollyfrontier.com)
Subject: HollyFrontier Navajo Refining Company, LLC Artesia Refinery (GW-028) Discharge Permit Renewal (Eddy County)

Ladies and Gentlemen:

Please find below the New Mexico Oil Conservation Division (OCD) **initial** Public Notice for the above subject refinery.

Discharge Permit Renewal (GW-028) HollyFrontier Navajo Refining LLC Artesia Refinery (7/28/16) located at 501 East Main, Artesia, NM, 88210 in the SE/4 of Section 1, E/2 of Section 8, W/2 of Section 9, N/2 of Section 12, Township 17 South, Range 26 East, NMPM, Eddy County.

Administrative Completeness (7/28/2016)
Description
Application

The OCD Website for public notices is at http://www.emnrd.state.nm.us/OCD/env-draftpublicetc.html (see "Draft Permits and Public Notices" section).

Please contact me if you have questions. Thank you.

Carl J. Chavez, CHMM
Environmental Engineer
Oil Conservation Division- Environmental Bureau
1220 South St. Francis Drive
Santa Fe, New Mexico 87505
Phone: (505) 476-3490
Main Phone: (505) 476-3440
Fax: (505) 476-3462
E-mail: CarlJ.Chavez@state.nm.us
Website: www.emnrd.state.nm.us/ocd
Why not prevent pollution, minimize waste, reduce operation costs, and move forward with the rest of the Nation? To see how, go to "Publications" and "Pollution Prevention" on the OCD Website.

Chavez, Carl J, EMNRD

From: Denton, Scott <Scott.Denton@HollyFrontier.com>
Sent: Thursday, June 23, 2016 12:52 PM
To: Catanach, David, EMNRD; Chavez, Carl J, EMNRD
Cc: Brancard, Bill, EMNRD; Marks, Allison, EMNRD; Griswold, Jim, EMNRD; McWatters, Denise; O'Brien, Robert (Bob) K.; Holder, Mike; Combs, Robert; Denton, Scott; Aguilar, Susie
Subject: Navajo GW-28 Renewal Application
Attachments: 160623 GW-028 Renewal App_RO to Fields.pdf; GW-28 Application Check.pdf

David & Carl,

Attached is a pdf of the Renewal Application and Check that are being mailed today.

Let me know if you have any questions.

Regards,

SMD

Scott M. Denton
Environmental Manager

The HollyFrontier Companies
P.O. Box 159
Artesia, NM 88211-0159
575-746-5487 (o)
970-581-7268 (c)

Scott.Denton@HollyFrontier.com

HollyFrontier Navajo Refining LLC
2828 N. Harwood St., Suite 1300
Dallas TX 75201-1507

WATER QUALITY MANAGEMENT FUND
OIL CONSERVATION DIV
1220 N SAINT FRANCIS DR
SANTA FE NM 87505-4225

Check Date		06/20/2016
Check Amount	$	100.00
Vendor No		5111809
Payment Document		2000088694
Company Code		1020

Invoice Date	Invoice Number	Description	Invoice Amount	Discount Amount	Net Amount
06/16/2016	061616	PERMIT FILLING FEE-PERMIT MOD APPL	100.00	0.00	100.00

Payment document	Check number	Date	Currency	Payment amount
	1000329088	06/20/2016	USD	**********100.00*

⬇ PLEASE FOLD ON PERFORATION AND DETACH HERE ⬇

VERIFY THE AUTHENTICITY OF THIS MULTI-TONE SECURITY DOCUMENT. CHECK BACKGROUND AREA CHANGES COLOR GRADUALLY FROM TOP TO BOTTOM.

HollyFrontier Navajo Refining LLC
2828 N. Harwood St., Suite 1300
Dallas TX 75201-1507

64-1278/611

1000329088
06/20/2016

PAY EXACTLY
**********100.00*USD
VOID AFTER 180 DAYS

PAY *** ONE HUNDRED and 00 /100 USD***

TO THE
ORDER OF WATER QUALITY MANAGEMENT FUND
OIL CONSERVATION DIV
1220 N SAINT FRANCIS DR
SANTA FE NM 87505-4225

Stephen D Wise
AUTHORIZED SIGNATURE

Bank of America N.A.

HOLLYFRONTIER.

June 23, 2016

Certified Mail Receipt
7014 3490 0000 6269 5895

Mr. David Catanach, Division Director
Mr. Carl Chavez, Environmental Engineer, Environmental Bureau
Oil Conservation Division
New Mexico Energy, Minerals & Natural Resources Department
1220 South St. Francis Drive
Santa Fe, NM 87505

RE: Discharge Permit GW-028, Permit Renewal and Modification Application

Dear Sirs:

HollyFrontier Navajo Refining LLC (Navajo) hereby submits an application to renew and modify Discharge Permit GW-028 for the Artesia, New Mexico, Refinery (the Refinery). The current permit expires on October 21, 2016, per Condition 1F of the permit. This application is submitted prior to 120 days before the expiration date, and includes the initial fee of $100.

Navajo appreciates OCD's attention to this application. Should you have any questions, please do not hesitate to contact me at (575) 746-5487 or scott.denton@hollyfrontier.com. Thank you for your assistance in this matter.

Sincerely,

Scott M. Denton
Environmental Manager

Enclosure

cc: HFC: D. McWatters, R. O'Brien, M. Holder, R. Combs
OCD: B. Brancard, A. Marks, J. Griswold

Facility Certification

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision according to 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.

Scott M. Denton
Environmental Manager

HollyFrontier Navajo Refining LLC

Date: June 23, 2016

OCD Form (Unnumbered)
Discharge Plan Application for Service Companies, Gas Plants, Refineries, Compressor, Geothermal Facilities and Crude Oil Pump Stations

District I
1625 N. French Dr., Hobbs, NM 88240
District II
811 S. First St., Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy Minerals and Natural Resources

Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

Revised August 1, 2011

Submit Original
Plus 1 Copy
to Santa Fe
1 Copy to Appropriate
District Office

DISCHARGE PLAN APPLICATION FOR SERVICE COMPANIES,GAS PLANTS, REFINERIES, COMPRESSOR, GEOTHERMAL FACILITES AND CRUDE OIL PUMP STATIONS

(Refer to the OCD Guidelines for assistance in completing the application)

☐ New ☒ Renewal ☒ Modification

1. Type: Permit Renewal Application

2. Operator: HollyFrontier Navajo Refining LLC

   Address: 501 East Main, Artesia, New Mexico

   Contact Person: Scott M. Denton Phone: (575) 746-5487

3. Location: SE/4 of Section 1, E/2 of Section 8, W/2 of Section 9, N/2 of Section 12 Township 17 South Range 26 East, NMPM, Eddy County
   Submit large scale topographic map showing exact location.

4. Attach the name, telephone number and address of the landowner of the facility site.

5. Attach the description of the facility with a diagram indicating location of fences, pits, dikes and tanks on the facility.

6. Attach a description of all materials stored or used at the facility.

7. Attach a description of present sources of effluent and waste solids. Average quality and daily volume of waste water must be included.

8. Attach a description of current liquid and solid waste collection/treatment/disposal procedures.

9. Attach a description of proposed modifications to existing collection/treatment/disposal systems.

10. Attach a routine inspection and maintenance plan to ensure permit compliance.

11. Attach a contingency plan for reporting and clean-up of spills or releases.

12. Attach geological/hydrological information for the facility. Depth to and quality of ground water must be included.

13. Attach a facility closure plan, and other information as is necessary to demonstrate compliance with any other OCD rules, regulations and/or orders.

14. CERTIFICATIONI hereby certify that the information submitted with this application is true and correct to the best of my knowledge and belief.

Name: Scott M. Denton Title: Environmental Manager

Signature: Date: 06/23/16

E-mail Address: Scott.Denton@hollyfrontier.com

Checklist for Administrative Completeness and Regulatory Cross-References to Renewal Application Contents OCD Discharge Permit Application Form

OCD Discharge Plan Application Form Item Number	Information Requirement	Location in Discharge Permit GW-028 Renewal Application
1	Application Type	Discharge Plan Application Form
2	Facility Operator	Discharge Plan Application Form, Section 3
3	Facility Location Information	Discharge Plan Application Form, Section 3, Figures 3-1 and 3-2
4	Name and contact information for operator	Section 3
5	Facility Description	Section 3, Figure 3-1 and 3-2
6	Description of Materials at Site	Section 4
7	Description of Effluent	Section 4.1, Section 4.2
8	Description of Disposal Procedures	Section 4.3
9	Description of Proposed Modifications	Section 4.4
10	Inspection and Maintenance	Section 8
11	Contingency Plan	Section 9
12	Geological/Hydrological Information	Sections 5.3, Section 5.4
13	Closure Plan; Any Other Relevant Information to Demonstrate Compliance	Section 4, Section 5, and Section 10
14	Certification	Discharge Plan Application Form

Checklist for Administrative Completeness and Regulatory Cross-References to Renewal Application Contents New Mexico Administrative Code

Applicable New Mexico Administrative Code (NMAC) Section	Information Requirement	Location in Discharge Permit GW-028 Renewal Application
20.6.2.3106C(1)	Quantity, quality, and flow characteristics of the discharge	Section 4
20.6.2.3106C(2)	Location of the discharge, nearby water features, and groundwater monitoring wells	Figures 3-1 and 3-2
20.6.2.3106C(3)	Depth to and TDS concentration of groundwater	Section 5.4
20.6.2.3106C(4)	Flooding potential of the site	Figure 3-1
20.6.2.3106C(5)	Location and design of site, sampling methods for calculations and flow	Sections 4.3, Section 6
20.6.2.3106C(6)	Depth and description of lithology	Section 5.3
20.6.2.3106C(7)	Information demonstrating that discharges will not be above standards	Section 4, Section 5.4.2
20.6.2.3106C(8)	Information required for a technical evaluation of underground injection control wells	NA
20.6.2.3107A(1) – (8)	Effluent and groundwater monitoring, reporting, and recordkeeping	Section 6, Section 7
20.6.2.3107A(9)	Procedures for detecting failure of the discharge system	Section 8

Checklist for Administrative Completeness and Regulatory Cross-References to Renewal Application Contents New Mexico Administrative Code (Continued)

Applicable New Mexico Administrative Code (NMAC) Section	Information Requirement	Location in Discharge Permit GW-028 Renewal Application
20.6.2.3107A(10)	Contingency Plan to address failure of the discharge permit or system	Section 9
20.6.2.3107A(11)	Closure Plan	Section 10
20.6.2.3107B	Sampling and Analysis	Section 6, Section 7
20.6.2.3108A	Administrative Completeness and Public Notice	Section 2
20.6.2.3108B	Providing specific notice to the general public	Section 2
20.6.2.3108B(1)	For every 640 acres of less of a discharge site, a 2X3 feet poster will be posted for the public	Section 2.1
20.6.2.3108B(2)	Providing written notice of where discharge is located to all neighbors within 1/3 mile	Section 2.2
20.6.2.3108B(3)	Providing notice to owner if applicant is not owner	Section 2.3
20.6.2.3108B(4)	Publishing synopsis that is 3x4 inches in a newspaper of general circulation in the location of discharge	Section 2.4
20.6.2.3108D	Submit proof of public notice to the department after the public notice period	Section 2.5
20.6.2.3108F(1)	Name and address of proposed discharger	Section 3

Checklist for Administrative Completeness and Regulatory Cross-References to Renewal Application Contents New Mexico Administrative Code (Continued)

Applicable New Mexico Administrative Code (NMAC) Section	Information Requirement	Location in Discharge Permit GW-028 Renewal Application
20.6.2.3108F(4)	Description of quality and volume of discharge	Section 4.2
20.6.2.3108F(5)	Depth to and TDS concentration of groundwater	Section 5.4
20.6.2.3109	Secretary approval, disapproval, modification or termination or discharge permits and requirement for abatement plans.	Procedure for OCD; not required in application
20.6.2.3109C	Discharge requirements for OCD approval of application	Section 6, Section 7
20.6.2.3108F(2)	Location of discharge	Section 3, Section 4.3
20.6.2.3108F(3)	Description of discharge activities	Section 4.1

Table of Contents

List of Figures

List of Appendices

1 INTRODUCTION

HollyFrontier Navajo Refining LLC (Navajo) hereby submits this application for renewal of and modification to the current Discharge Permit GW-028 (Discharge Permit) for its Artesia, New Mexico (NM), Refinery (the Refinery).[1] The current Discharge Permit was issued on August 22, 2012, and is set to expire on October 21, 2016, thereby triggering the requirement for submittal of a Renewal Application to the New Mexico Energy, Minerals & Natural Resources Department, Oil Conservation Division (OCD, Agency) by June 23, 2016 (120 days prior to the permit expiration date, pursuant to 20.6.2.3206F New Mexico Administrative Code [NMAC]).

The Refinery currently refines and processes approximately 115,000 barrels per day (bbl/day) of crude oil and other feedstocks into asphalt, fuel oil, gasoline, diesel, jet fuel, and liquefied petroleum gas. To supply water for the refining process, the Refinery currently operates a reverse osmosis (RO) system to pre-treat fresh groundwater, either purchased from the City of Artesia or produced from the Refinery's deep artesian wells. The RO system generates reject fluids that are authorized in the current Discharge Permit to be applied to the North and South Fields (also referred to as "farms" because of historical and current agricultural usage) at the Refinery.

Condition 6.C of the current Discharge Permit requires that land application of the Refinery's reverse osmosis (RO) reject cease by October 21, 2016. This Renewal Application includes the request to renew the existing authorization to discharge the RO reject fluids to the Refinery's fields/farms and modify the date to cease land application while Navajo evaluates potential options to replace land application. The potential options being considered to replace the land application of RO Reject are underground injection into a new water disposal well or construction of evaporation ponds. Navajo will select an alternative disposal method on or before the expiration of the permit on October 21, 2016.

1.1 PERMITTING HISTORY

Discharge Permit GW-028 was originally issued on October 21, 1991, and was most recently renewed on August 22, 2012. During the course of the current permit term, there were several permit modifications, including approvals of:

- Adjustment of the submittal date for the annual discharge permit report and the annual groundwater monitoring report from October 21st of each year to March 15th of each year.
- Installation of an Iron Co-Precipitation (ICP) Unit and a 100 gallon per minute (gpm) Phillips 66 Selenium Reduction Technology (SeRT®) Unit to reduce the concentration of selenium associated with stripped sour waters.

[1]For ease of reference, the Renewal Application, which includes a modification request, will be referred to hereafter as "Renewal Application."

- Revision of the deadline to cease land application of RO reject fluid stream by October 21, 2016.
- Increasing the maximum discharge limit for the RO reject fluid stream to 15,000 barrels per day (bpd) from 10,000 bpd due to the increased fresh water needs of the Refinery, resulting in the generation of increased RO reject fluids.
- Installation of a temporary RO unit to meet increased fresh water needs.
- Replacement of the temporary RO unit with a third permanent primary RO unit.

1.2 RENEWAL APPLICATION CONTENTS AND STRUCTURE

This Discharge Permit Renewal Application was developed based on the requirements set forth in the following forms and regulations:

- 20.6.2.3106 NMAC – Application for Discharge Permits and Renewals
- 20.6.2.3107 NMAC – Monitoring, Reporting, and Other Requirements
- 20.6.2.3108 NMAC – Public Notice and Participation
- 20.6.2.3109 NMAC – Secretary Approval, Disapproval, Modification, or Termination of Discharge Permits, and Requirements for Abatement Plans
- OCD Form (unnumbered): Discharge Plan Application for Service Companies, Gas Plants, Refineries, Compressor, Geothermal Facilities and Crude Oil Pump Stations

A regulatory cross-reference table indicating the sections of the Renewal Application that provide information required by the regulations is provided in the Checklist for Administrative Completeness and Regulatory Cross Reference Tables included as part of the Table of Contents of this Renewal Application.

1.3 FILING AND PERMIT FEES

In accordance with 20.6.2.3114F NMAC, Navajo has submitted the applicable permit modification filing fee ($100) and understands that a permit fee of $8,400 will be assessed upon approval of the Renewal Application.

2 PUBLIC PARTICIPATION

This section addresses 20.6.2.3108 NMAC.

The Renewal Application is subject to public notice in accordance with 20.6.2.3108 NMAC. A discussion of Navajo's planned procedures for notifying the public and meeting the public notice requirements of 20.6.2.3108 NMAC is provided in the sections below. Navajo has provided the information required under 20.6.2.3108F(1)-(5) NMAC in this Renewal Application, and indicates in the sections below, for OCD review and approval, the proposed locations and newspaper for providing notice required by 20.6.2.3108B(1)-(4) NMAC. A copy of the public notice to be used for the required mailing, which includes the information required by 20.6.2.3108F NMAC, is provided in Appendix 2-1. Initial public notice will be provided within 30 days of Navajo's receipt of an administrative completeness determination from OCD regarding the renewal application and modification request.

2.1 LOCATION OF PUBLIC NOTICE DISPLAY

This section addresses 20.6.2.3108(B)(1) NMAC.

A synopsis of the public notice will be posted for 30 days in both English and Spanish and at least two feet by three feet in size in two locations: 1) on the Refinery fence near the northwest corner of the North RO reject field and 2) outside of the Refinery's main administrative office at 501 East Main Street, Artesia, NM 88210.

2.2 NOTIFICATION OF NEARBY PROPERTY OWNERS

This section addresses 20.6.2.3108(B)(2) NMAC.

Notice of the proposed modification will be made by United States Postal Service (USPS) certified mail, return receipt requested, to property owners located within ⅓ mile of the Refinery boundary, or to the nearest adjacent landowner, in accordance with 20.6.2.3108B(2) NMAC.

2.3 OWNER OF THE DISCHARGE SITE

This section addresses 20.6.2.3108(B)(3) NMAC.

Navajo is the applicant and owns (and operates) the discharge location site. Therefore, separate notification to the discharge site landowner is not applicable.

2.4 NEWSPAPER PUBLICATION

This section addresses 20.6.2.3108(B)(4) NMAC.

A synopsis of the public notice will be published once by Navajo in the *Artesia Daily Press* in both English and Spanish and in a display ad at least three inches by four inches in size, and which is not posted in the classified or legal advertisements section.

2.5 PROOF OF PUBLIC NOTICE

This section addresses 20.6.2.3108(D) NMAC.

Within 15 days of completion of public notice requirements, Navajo will submit to OCD an affidavit of mailings and identity of property owners, an affidavit of posting, and proof of publication from the *Artesia Daily Press*.

2.6 CONTENTS OF THE PUBLIC NOTICE

This section addresses 20.6.2.3108(F) NMAC.

Navajo will provide a notice that fulfills the requirements in 20.6.2.3108 (F) NMAC, as shown in the proposed Notice of Permit Renewal and Modification Request provided in Appendix 2-1.

3 FACILITY DESCRIPTION AND OWNERSHIP

This section addresses Discharge Permit Application Form Items 3, 4, and 5 and 20.6.2.3108F(1) and F(2) NMAC.

The Refinery is located at 501 East Main Street in the City of Artesia, Eddy County, New Mexico, 88210 in the SE/4 of Section 1, E/2 of Section 8, W/2 of Section 9, N/2 of Section 12, Township 17 South, Range 26 East, New Mexico Principal Meridian (NMPM), Eddy County. The Refinery occupies approximately 466 acres northeast of the intersection of Highway 285 and Highway 82. Figure 3-1 is a large scale topographic map showing the location of the Refinery, and other features required to be depicted in a renewal application. An aerial photograph of the Refinery is provided in Figure 3-2, which also shows locations of facilities relevant to management of the reverse osmosis fluid reject stream.

The Refinery is owned and operated by HollyFrontier Navajo Refining LLC at the following mailing address and phone number:

HollyFrontier Navajo Refining LLC
P.O. Box 159
Artesia, NM 88211-0159
575-748-3311

The Refinery currently refines and processes approximately 115,000 bbl/day of crude oil and other feedstocks into asphalt, fuel oil, gasoline, diesel, jet fuel, and liquefied petroleum gas. Auxiliary activities associated with these processes separate impurities from the feedstocks and products or are required for the operation and maintenance of the Refinery.

4 GENERATING PROCESS DESCRIPTION

This section addresses Discharge Permit Application Form Items 6 through 9; 20.6.2.3106C(1) and C(7) NMAC; and 20.6.2.3108F(3) and F(4) NMAC.

Discharge Permit GW-028 currently authorizes the land application of up to 15,000 barrels per day of reverse osmosis (RO) reject fluids to two land application (farm/field) areas within the Refinery. The generating process associated with RO reject fluid streams is described below. The locations of the three RO units at the Refinery, the discharge points, and the field locations are provided in Figure 3-2 of this Renewal Application. Discharge volumes and analytical characterization of the RO reject fluid stream is discussed in below. This Renewal Application does not include storage or discharge of any streams except the currently permitted RO reject fluids.

4.1 REVERSE OSMOSIS PROCESS SUMMARY

This section addresses Discharge Permit Application Form Item 7 and 20.6.2.3108F(3) NMAC.

The purpose of the Refinery's RO units is to remove dissolved solids from incoming fresh water by passing high-pressure feed water through a series of filter elements that contain a semi-permeable RO membrane. This membrane prevents large molecules, or dissolved solids, from passing through the membrane, but does allow smaller water molecules to pass through the membrane. The clean water then becomes the RO permeate, or product water (suitable for use in critical needs for boiler steam generation and cooling tower operation), while the concentrated, dissolved solids in the feed water becomes the RO concentrate, or reject. Each of the Refinery's RO units function similarly in the pre-treatment of fresh groundwater.

The volume of reject fluid generation depends on the recovery percentage of the clean water. The ratio of permeate to feed water is a critical operating and design parameter that needs to be maintained in order to achieve maximum efficiency of the system. Typically, RO systems are designed to operate at 75% recovery, though the achievable percent recovery is dependent on a number of factors and, consequently, can vary. Percent recovery is defined as the volume of permeate water produced per equivalent volume of feed water. For example, a system that produces 50 gallons per minute (gpm) of permeate at 75% recovery will have a feed water flow rate of 67 gpm. The remaining 17 gpm will carry away the concentrated dissolved solids in the RO reject stream.

In practice, recovery percentages vary based upon the quality of the incoming water, system design, and other operational factors; however, a minimum concentrate, or reject water discharge, flow rate must always be maintained to effectively remove the concentrated dissolved solids from the system. The minimum concentrate flow rate is determined by the minimum velocity requirements of the membrane manufacturer and the design of the system arrays. RO systems are designed to operate at a specific rate of permeate production, and require a minimum concentrate flow to achieve this permeate production level. The percent recovery is achieved by

setting the concentrate flow rate. A concentrate flow that is too low will lead to scaling and deposition on the membrane surface; a concentrate flow rate that is too high will decrease the amount and quality of the permeate water produced. In summary, the concentrate flow, or reject water discharge volume, should be maintained at a volume equal to or greater than the minimum volume required for efficient operation of the system; i.e., concentrate flow cannot be lowered with the sole purpose of minimizing reject water discharge volumes.

More detailed process information was previously provided to OCD in Attachment 3 of Navajo's Application for Modification of Discharge Permit GW-028 (May 22, 2015), to increase the volume of RO fluids authorized for land application. The May 2015 permit modification request package contains a technical summary of the RO water treatment process that generates the RO reject fluids and process drawings that depict the RO units' pump and vessel skid layouts, instrumentation and controls, and plot plans.

4.2 RO REJECT FLUIDS WATER VOLUME AND QUALITY

This section addresses Discharge Permit Application Form Item 7, 20.6.2.3108C(1) NMAC, and 20.6.2.3108F(4) NMAC.

The RO reject fluids discharge volume is currently permitted at a maximum of 15,000 barrels per day (630,000 gallons per day [gpd]) to the Refinery's two discharge fields. Daily volume measurements are provided to OCD by the 15th day of the month for the previous calendar month reporting period, and flow measurements are included in the required annual report to OCD due on March 15th annually. The *2015 Annual Discharge Permit Report* was submitted to OCD on March 11, 2016.

The quality of RO reject fluids is monitored in accordance with Discharge Permit GW-028 Conditions 4.B(1)-(7). Navajo currently reports on sampling and analytical results to the OCD on a quarterly basis and also provides all sample data, analytical results, and flow measurements in the required annual report to OCD. The most recent analytical report from samples collected on May 19, 2016, is provided as Appendix 4-1.

Navajo has also completed a number of site investigations to evaluate whether discharge to the fields is affecting the groundwater quality. The following documents have been submitted to OCD under separate cover and include information related to the site investigations:

- *2015 Annual Groundwater Report* (Arcadis March 2016)
- *Reverse Osmosis Reject Fields Hydrogeologic and Water Quality Evaluation* (Arcadis August 20, 2015; Revision 1: January 19, 2016)
- *Reverse Osmosis Reject Water Discharge Fields Investigation Final Report – Revised* (Arcadis December 2015)
- *Background Groundwater Investigation Report* (Arcadis September 2015)

- *2015 Facility Wide Groundwater Monitoring Workplan* (Arcadis June 2015) ("FWGMWP")
- *Contaminant Migration Evaluation Investigation Report* (Arcadis February 2015).

4.3 DISCHARGE PROCEDURES AND LOCATIONS

This section addresses Discharge Permit Application Form Item 8, 20.6.2.3106C(5) NMAC, and 20.6.2.3108F(2) NMAC.

RO reject fluids generated by the Refinery's RO process are routed to and discharged to the surface of one of two fields/farms located on the Refinery property. The fields are located northeast of the Refinery operations areas and are planted with perennial rye grass. Both of the fields have earthen berms that limit the area in which discharge occurs, and contain several ditches that disperse flow throughout the field from the point of discharge. The location of the two fields and the discharge points are shown on Figure 3-2.

4.4 MODIFICATIONS TO THE DISCHARGE SYSTEM

This section addresses Discharge Permit Application Form Item 9.

The only modification requested is to continue the land application discharge beyond October 21, 2016 to allow for a potential alternate discharge option to be designed, permitted and constructed. As described above, Navajo is evaluating two potential disposal options: underground injection in a water disposal well and construction of evaporation ponds. Navajo intends to make a final selection on or before October 21, 2016.

5 GEOLOGICAL/HYDROGEOLOGICAL DATA

This section addresses Discharge Permit Application Form Item 12; 20.6.2.3106C(2), C(3), C(6), and C(7) NMAC; 20.6.2.3106F NMAC, and 20.6.2.3108F NMAC.

The following sections provide available geologic and hydrogeologic information regarding the RO reject fluids discharge location and satisfy the Water Quality Control Commission regulations (20.6.2.3106F NMAC), which require that renewal applications include and address "all of the information necessary" for evaluation of a new discharge permit, including information on geology and hydrology.

5.1 RELEVANT INVESTIGATIONS AND DOCUMENTS

Extensive subsurface investigations have been completed across the Refinery, including the area of the current RO reject fluid discharge to the Refinery fields. The methods and results of the most recent and pertinent assessments are contained in the following reports, listed in reverse chronological order:

- *2015 Annual Groundwater Report* (Arcadis March 2016)
- *Reverse Osmosis Reject Fields Hydrogeologic and Water Quality Evaluation* (Arcadis August 20, 2015; Revision 1: January 19, 2016)
- *Reverse Osmosis Reject Water Discharge Fields Investigation Final Report – Revised* (Arcadis December 2015)
- *Background Groundwater Investigation Report* (Arcadis September 2015)
- *2015 Facility Wide Groundwater Monitoring Workplan* (Arcadis June 2015) ("FWGMWP")
- *Contaminant Migration Evaluation Investigation Report* (Arcadis February 2015)

5.2 NEARBY WATER FEATURES

Figure 3-1 shows the locations of streams, springs or other watercourses, and water wells within one mile of the site. With the exception of the RO reject fluid fields, there are no other locations of ground water discharge sites within one mile of the outside perimeter of the fields. The existing groundwater monitoring wells around the RO reject fields are shown in Figure 2 (Well Locations) of the 2015 FWGMWP.

5.3 GEOLOGY

This section addresses 20.6.2.3106C(6) NMAC.

Surficial soil at the Refinery is predominantly comprised of approximately 60% Pima series and 40% Karro series. The Pima and Karro series both consist of deep, well drained soils that formed in alluvial settings. They are both calcareous and have slow to medium runoff. The

surface soil overlies thin, discontinuous interbedded zones of clayey sands and gravels bounded by thicker zones of fine grained silts, clays, and indurated caliche.

The shallowest fresh water-bearing unit, or "shallow saturated zone," (described below) occurs in these interbedded sand and gravel channels at 15 to 30 feet below ground surface (bgs). The overlying clays, silts, and caliche undulate at the site, which creates intermittent confined and unconfined groundwater conditions in the shallow saturated zone. Based upon recent investigations of soils in the RO reject fluid stream land application areas, the soils are comprised of large amounts (e.g., 120,000 mg/kg) of calcite, with lesser amounts of gypsum, clay minerals, and metal oxides, and the remaining comprised of silica oxide phases, such as quartz. (Arcadis January 2016, p. 9)

Geologic cross-sections across the Refinery are provided as Figures 14 through 29 of the *Contaminant Migration Evaluation Investigation Report* (Arcadis 2015).

5.4 GROUNDWATER

This section addresses Discharge Permit Application Form Item 12 and 20.6.2.3106C(3) NMAC.

Ground water that may be affected by the discharge of RO reject fluids to the Refinery's fields occurs at a depth of approximately 25 feet bgs with a total dissolved solids (TDS) concentration of approximately 2,500 mg/L.

5.4.1 GROUNDWATER QUALITY

Routine groundwater monitoring of the shallow saturated zone relative to the discharge fields is currently conducted in accordance with the current FWGMWP. The current groundwater monitoring program consists of synoptic gauging of all wells on a semi-annual basis and sampling select wells on a semi-annual, annual, or biennial basis. Groundwater samples are submitted to an independent commercial laboratory for analysis of chemicals of concern (COCs) as specified in the current FWGMWP, including benzene, toluene, ethylbenzene, and xylenes (BTEX), RCRA metals, TDS, cations, and anions. Laboratory analytical data reports and tabulated results of groundwater samples collected on a semi-annual, annual, or biennial basis were previously provided in the annual groundwater reports, with the most recent being Appendix C of the *2015 Annual Groundwater Report* that was submitted to the OCD in March 2016.

Recent data regarding the quality of groundwater under the discharge fields is summarized in Table 4, Volume 1, of the *2015 Annual Groundwater Report*. There are no phase-separated hydrocarbon (PSH) plumes beneath the North or South RO fields (Arcadis *2015 Annual Groundwater Report*, Figure 8).

5.4.2 POTENTIAL GROUNDWATER EFFECTS OF DISCHARGE TO THE FIELDS

This section addresses 20.6.2.3106C(7) NMAC.

It is inconclusive whether the RO reject discharge stream may potentially be contributing to elevated concentrations of constituents of concern in the ground water, or if there may be up gradient sources of these constituents or if data obtained is reflective of naturally-occurring background concentrations of these constituents.

6 DISCHARGE MONITORING, SAMPLE ANALYSIS, AND REPORTING

This section addresses 20.6.2.3106C(5) NMAC, 20.6.2.3107A(1) NMAC and 20.6.2.3109C(3)(c) NMAC.

The following paragraphs discuss the Refinery's procedures for discharge volume and quality monitoring and reporting.

6.1 DISCHARGE VOLUME MONITORING

Discharge flow from the RO units is metered and recorded by the Refinery's control system and historian. The discharge volume is determined on a daily basis. Daily discharge volumes will continue to be reported to the OCD in a monthly report by the 15th day of the following month and in the *Annual Discharge Permit Report*.

6.2 SAMPLE COLLECTION AND ANALYSIS

Current Permit Condition 4.B.1 specifies that Navajo collect samples of the RO reject fluid stream on a quarterly basis, and analyze the collected samples for all constituents listed in 20.6.2.3103A, B, and C NMAC. Samples are collected at or near the point of discharge from each operational RO unit discharging to the Refinery's fields. Navajo will sample and analyze according to the methods set forth in the Refinery's FWGMWP.

6.3 REPORTING

Current Permit Condition 4.B.1 specifies that Navajo submit to OCD a monthly report which includes the daily discharge flow measurements in the previous month and any sample analysis results received that month. Navajo will continue to submit monthly reports by the 15th day of the following month. Navajo will also continue to submit an Annual Discharge Permit Report and Annual Groundwater Monitoring Report as specified by current Permit Conditions 2.F and 2.G.

6.4 RECORDKEEPING

Pursuant to 20.6.2.3107A(7) NMAC, Navajo will retain all sample and analytical data, including quality assurance/quality control data for a period of five years. Records will be made available to OCD upon request.

7 GROUNDWATER MONITORING

This section addresses 20.6.2.3107A(2) and (5) NMAC and 20.6.2.3109C(3)(c) NMAC.

The current Facility Wide Ground Water Monitoring Program includes an extensive network of monitoring and/or recovery wells that consolidates activities relating to the existing Discharge Permit GW-028, as well as the Refinery's Resource Conservation and Recovery Act (RCRA) permit and corrective action investigations and corrective measures. In general, semi-annual (spring, fall) monitoring activities for wells currently encompass level-gauging (groundwater and phase-separated hydrocarbons [PSH], where present) of monitoring and recovery wells and collection of groundwater samples from monitoring wells and select recovery and off-site agricultural irrigation wells. (Arcadis 2015. *2015 Facility Wide Groundwater Monitoring Workplan*) All groundwater monitoring associated with the RO reject fluid discharge fields will continue to be conducted under the FWGWMP. Section 5 (Geological/Hydrological Data) identifies figures featuring the locations of existing water wells and groundwater monitoring wells at the Refinery. The Refinery gives prior notice to OCD (and NMED) with respect to the semi-annual groundwater sampling events. Results of all monitoring and analysis activities are reported on an annual basis (in the *Annual Groundwater Monitoring Report*) to OCD and NMED.

8 INSPECTION AND MAINTENANCE

This section addresses Discharge Permit Application Form Item 10 and 20.6.2.3107A(9) NMAC.

The RO reject fluid discharge system components are inspected and maintained by Refinery personnel to ensure proper functioning and to prevent any unintentional leaks of the RO reject fluid. The Refinery Operations Department conducts inspections of the RO system during each 12-hour shift, including monitoring of pressure gauges. If pressure at the discharge outlet is elevated, the discharge pipeline will be cleaned to remove accumulated scaling. Pipelines from the RO system to the discharges are visually inspected for evidence of leaks on a weekly basis.

9 CONTINGENCY PLAN

This section addresses Discharge Permit Application Form Item 11 and 20.6.2.3107A(10) NMAC.

While the RO reject fluid stream is classified by OCD as "oil-field, non-exempt wastes" for the purposes of OCD permitting because the fluid stream is generated in support of refinery operations, the fluids are not typical "oil-field wastes" generated during the oil production process, and are not characteristically hazardous. The nature of the discharge stream precludes the possibility for fires, explosions, or releases to air. Further, Navajo has existing emergency preparedness, communications, and response procedures and plans in place, e.g., RCRA Contingency Plan, Clean Water Act Spill Prevention, Control and Countermeasure Plan and Facility Response Plan, and Clean Air Act Risk Management Plan. These well-established procedures will be utilized in the event of a contingency associated with the discharge system.

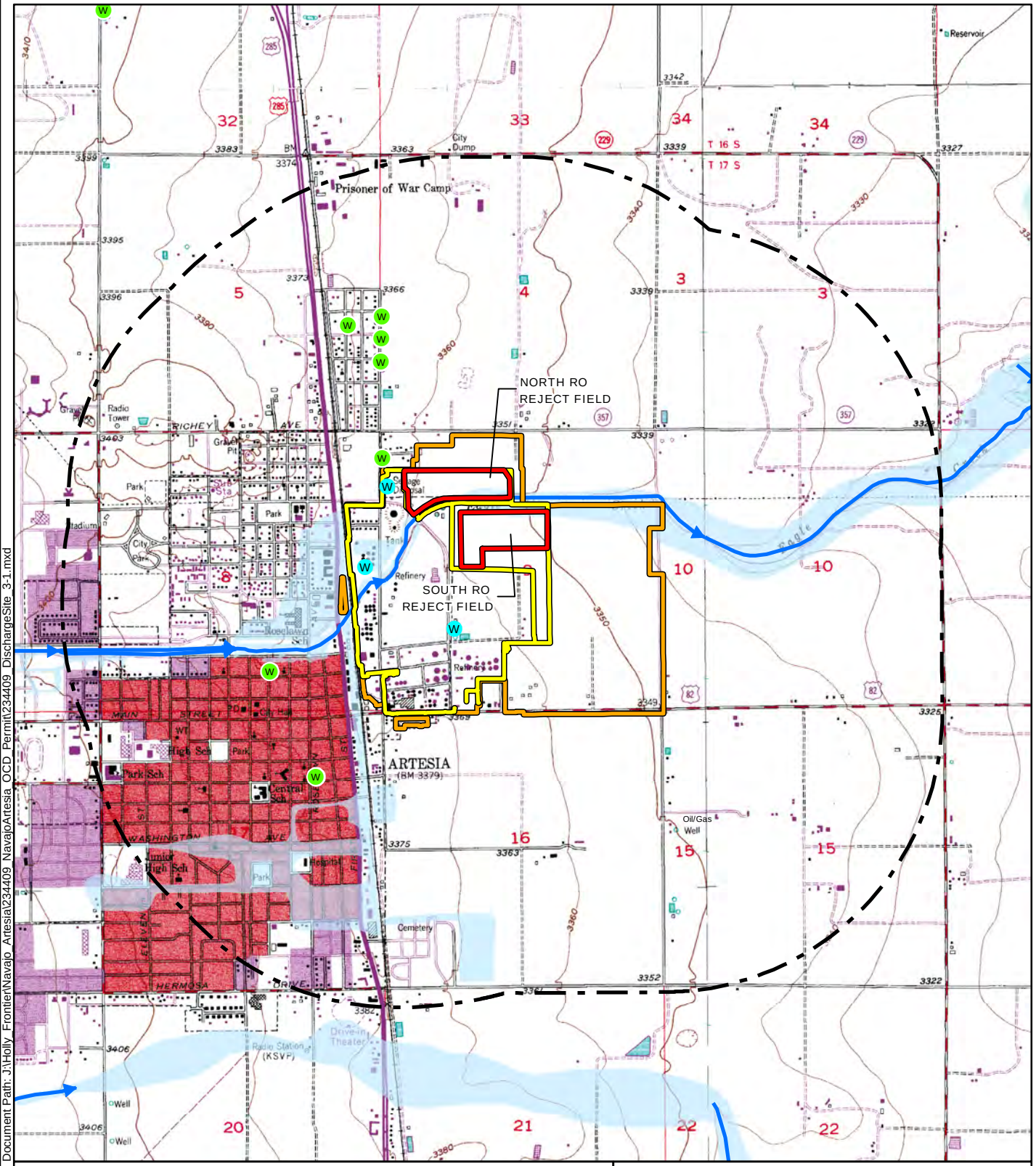
10 CLOSURE PLAN

This section addresses Discharge Permit Application Form Item 13 and 20.6.2.3107A(11) NMAC.

Based on the current Discharge Permit GW-028 Condition 1.I, Navajo will notify OCD in writing when any permitted discharge to the RO reject fields is discontinued for a period of six months. The applicability of a closure and/or post-closure plan and associated financial assurance per 20.6.2.3107A(11) NMAC would be assessed at that time in conjunction with discussions with OCD.

At a minimum, upon permanently discontinuing use of the farms/fields for RO reject fluid discharge, Navajo will remove or plug all piping and discharge system components so that discharge can no longer occur. Upon notification by OCD that groundwater monitoring may cease, Navajo will plug and abandon the applicable groundwater monitoring wells associated with the RO reject fields.

Figures



Document Path: J:\Holly_Frontier\Navajo_Artesia\234409_NavajoArtesia_OCD_Permit\234409_DischargeSite_3-1.mxd

LEGEND

- NAVAJO WATER SUPPLY WELL
- WATER SUPPLY WELL
- 1 MILE DISTANCE PROPERTY BOUNDARY
- RO REJECT WATER DISCHARGE FIELD
- REFINERY FENCELINE
- PROPERTY BOUNDARY (FENCELINE SHOWN WHERE COINCIDENT)
- SURFACE WATER FEATURE (INTERMITTENT)
- 100-YEAR FLOODPLAIN (1% ANNUAL CHANCE OF FLOODING)

SOURCES:
U.S.G.S ARTESIA AND SPRING LAKE, NM 7.5 MINUTE TOPOGRAPHIC MAPS; NATIONAL HYDROLOGIC DATASET; NEW MEXICO ENVIRONMENT DEPARTMENT

N

0 0.25 0.5
Miles

1 in = 0.5 miles

DISCHARGE SITE LOCATION

GW-028 Discharge Permit Renewal Application
HollyFrontier Navajo Refining LLC
Artesia Refinery, Eddy County, New Mexico

Project Number: 234409.0001	MXD: 234409_DischargeSite_3-1
Author: MLOVELACE	Date: 6/21/2016

TRC
505 E. HUNTLAND DR.
SUITE 250
AUSTIN, TX 78752
(512) 329-6080

FIGURE
3-1

Document Path: J:\Holly_Frontier\Navajo_Artesia\234409_NavajoArtesia_OCD_Permit\234409_Facility_3-2.mxd

LEGEND

- PRIMARY RO UNIT LOCATION
- DISCHARGE POINT
- NAVAJO REFINING PROPERTY
- RO REJECT WATER DISCHARGE FIELD
- REFINERY FENCELINE

N

0 500 1,000
Feet
1 in = 1,000 ft

SOURCE: ARCADIS US INC, ESRI AND THEIR DATA PARTNERS

FACILITY DIAGRAM

GW-028 Discharge Permit Renewal Application
HollyFrontier Navajo Refining LLC
Artesia Refinery, Eddy County, New Mexico

PROJECT NUMBER: 234409.0001	FILE NAME: 234409_Facility_3-2
AUTHOR: MLOVELACE	DATE: 6/22/2016

TRC
505 E. HUNTLAND DR.
SUITE 250
AUSTIN, TX 78752
PH:512-329-6080

FIGURE
3-2

Appendix 2-1

Notice of Permit Renewal and Modification Request

NOTICE OF PERMIT RENEWAL

On June 23, 2016, the HollyFrontier Navajo Refining LLC (Navajo), Artesia, New Mexico (NM), Refinery (the Refinery), applied to the New Mexico Energy, Minerals & Natural Resources Department Oil Conservation Division (OCD) for a renewal and modification of Groundwater Discharge Permit GW-028. The Renewal Application provides information on current Refinery operations and the currently authorized discharge and includes a modification request to continue the currently authorized discharge. As specified in 20.6.2.3108B New Mexico Administrative Code (NMAC), the Refinery is posting this notice of permit renewal and modification request to all persons on the facility mailing list. This notice includes the information required by 20.6.2.3108F NMAC.

The Refinery operates three reverse osmosis (RO) units to treat raw water from the City of Artesia or water pumped from the ground for use as boiler feed water or cooling tower makeup water in the Refinery process. The RO reject fluid that is produced during the process, is discharged at the permittee's two fields (also referred to as farms). The Permittee is authorized to discharge 15,000 barrels per day of reverse osmosis reject fluids to the surface at the Permittee's two fields. No increase to the currently permitted discharge volume to the fields is requested at this time.

Ground water that may be affected by the discharge occurs at a depth of approximately 25 feet below ground surface with a total dissolved solids concentration of approximately 2,500 milligrams per liter (mg/L). No change to the RO fluid discharge water quality is expected, and the discharge to the fields is not expected to affect existing groundwater quality. Based on analysis of the RO reject fluids to date, OCD has identified chloride, fluoride, sulfate, and total dissolved solids as potential constituents of concern. However, based on investigations of the groundwater down gradient from the discharge locations, it is inconclusive whether the RO reject discharge stream may potentially be contributing to elevated concentrations of constituents of concern in the ground water, or if there may be up gradient sources of these constituents or if data obtained is reflective of naturally-occurring background concentrations of these constituents.

The Refinery is located at 501 East Main Street, Artesia, NM, 88210 in the SE/4 Section 1, E/2 of Section 8, W/2 of Section 9, N/2 of section 12, Township 17 South, Range 26 East, NMPM, Eddy County. The RO reject fluid discharge will continue to be applied to the surface of an open space within the Refinery boundaries (i.e., the fields), which is located on the northern part of the Refinery east of US-285 and south of East Richey Avenue. The northern discharge point is located 1255 feet south of East Richey Avenue and 1569 feet east of US-285. The southern discharge point is located 2532 feet south of East Richey Avenue and 2208 feet east of US-285.

Comments, questions, and requests for a copy of the application (either a paper copy or an electronic copy via the internet) should be sent to the following OCD contact:

Mr. Carl Chavez
Oil Conservation Division
New Mexico Energy, Minerals & Natural Resources Department
1220 South St. Francis Drive
Santa Fe, NM 87505
(505) 476-3490
carlj.chavez@state.nm.us

The OCD will accept comments and statements of interest regarding this application and will create a facility-specific mailing list for persons wishing to receive future notices.

AVISO DE RENOVACIÓN DE PERMISO

El día 23 de junio del 2016, la Refinería HollyFrontier Navajo Refining LLC (Navajo), Artesia, Nuevo México (NM), solicitó a la División de Conservación de Petróleo (Oil Conservation Division [OCD]) del Departamento de Energía, Minerales y Recursos Naturales la renovación del Permiso de Descarga de Aguas Subterráneas GW-028. La Solicitud de Renovación provee información sobre las operaciones actuales en la Refinería y la descarga actualmente autorizada, e incluye una solicitud para continuación de la descarga actualmente autorizada. Tal como está especificado en el Código Administrativo de Nuevo México (New Mexico Administrative Code [NMAC]) 20.6.2.3108B, la Refinería publica este aviso de renovación de permiso y solicitud de modificación a todas personas en la lista de correo de la instalación. Esta notificación incluye la información requerida por NMAC 20.6.2.3108F.

La Refinería opera tres unidades de tipo ósmosis inversa (OI) para tratar agua virgen de la Ciudad de Artesia, o agua subterránea bombeada para el suministro de calderas o para el reabastecimiento de agua para torres de refrigeración en el proceso de refinación. El fluido de rechazo de OI producido durante el proceso, es descargado en los dos campos permitidos previamente. La Refinería está autorizada para descargar 15,000 barriles por día de fluidos de rechazo de la ósmosis inversa a la cubierta de los dos campos habilitados. Con esta notificación, no se solicita ningún incremento a la descarga actualmente permitida sobre estos.

Las aguas subterráneas podrían ser afectadas por la descarga se encuentran a una profundidad de aproximadamente 25 pies (7.6 metros) debajo de la superficie del suelo, con concentración total de sólidos disueltos (TDS) de aproximadamente 2,500 miligramos por litro (mg/L). No se anticipa ningún cambio a la calidad del agua de rechazo de la OI, debido a que no hay cambios en el afluente de aguas, o en el proceso de la OI, y no se anticipa que la calidad actual del agua subterránea sea afectada por la descarga sobre los campos. Basado en los análisis de aguas de rechazo del OI realizadas hasta la fecha, los componentes de riesgo identificados son: cloruro, fluoruro, sulfato, y sólidos disueltos total. Sin embargo, basado en las investigaciones del agua subterránea bajo gradiente de los sitios de descarga, no es concluyente que la descarga de aguas de rechazo de la OI pueda contribuir a concentraciones elevadas de los mencionados componentes de riesgo en las aguas subterráneas; o si estos componentes se originan en lugares de mayor elevación que el sitio en cuestión; o si los datos obtenidos anteriormente reflejan las concentraciones de los componentes que existen naturalmente en aguas subterráneas.

La Refinería está ubicada en 501 East Main Street, Artesia, NM, 88210 en SE/4 de sección 1, E/2 de sección 8, W/2 de sección 9, N/2 de sección 12, Township 17 South, Range 26 East, NMPM, Condado de Eddy. La Refinería continuará la descarga de fluido de rechazo de OI sobre la superficie de un campo abierto, dentro de los límites de la Refinería, el cual está ubicado en la parte norte de la Refinería al este de la carretera US-285 y al sur de East Richey Avenue. El punto norte de descarga está ubicado a 1,255 pies (383 metros) hacia el sur de East Richey Avanue y a 1,569 pies (478 metros) al este de US-285. El punto sur de descarga está ubicado a 2,532 pies (772 metros) al sur de East Richey Avenue y a 2,208 pies (673 metros) al este de US-285.

Para enviar comentarios, preguntas, y ordenar una copia de la solicitud (ambos en papel o copia electrónica vía internet), favor envíelos los al siguiente contacto de la OCD:

Sr. Carl Chávez
Oil Conservation Division
New Mexico Energy, Minerals & Natural Resources Department
1220 South St. Francis Drive
Santa Fe, NM 87505
(505) 476-3490
carlj.chavez@state.nm.us

La OCD aceptará comentarios y declaraciones de interés en relación con esta solicitud y preparará una lista de correo específica para esta instalación para personas que desean recibir avisos futuros.

Appendix 4-1

RO Reject Fluids Analytical Data

Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

May 27, 2016

Robert Combs

Navajo Refining Company
P.O. Box 159
Artesia, NM 88211-0159
TEL: (575) 748-3311
FAX

RE: Monthly Temporary R.O. Reject OrderNo.: 1605957

Dear Robert Combs:

Hall Environmental Analysis Laboratory received 2 sample(s) on 5/20/2016 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. In order to properly interpret your results it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0190

Sincerely,

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Navajo Refining Company
Client Sample ID: Temporary R.O. Reject
Project: Monthly Temporary R.O. Reject
Collection Date: 5/19/2016 9:30:00 AM
Lab ID: 1605957-001
Matrix: AQUEOUS
Received Date: 5/20/2016 9:50:00 AM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8011/504.1: EDB							Analyst: **JME**	
1,2-Dibromoethane	ND	0.0033	0.010		µg/L	1	5/23/2016 7:19:12 PM	25433
EPA METHOD 8082: PCB'S							Analyst: **SCC**	
Aroclor 1016	ND	0.28	1.0		µg/L	1	5/26/2016 1:01:11 PM	25436
Aroclor 1221	ND	0.70	1.0		µg/L	1	5/26/2016 1:01:11 PM	25436
Aroclor 1232	ND	0.76	1.0		µg/L	1	5/26/2016 1:01:11 PM	25436
Aroclor 1242	ND	0.20	1.0		µg/L	1	5/26/2016 1:01:11 PM	25436
Aroclor 1248	ND	0.57	1.0		µg/L	1	5/26/2016 1:01:11 PM	25436
Aroclor 1254	ND	0.97	1.0		µg/L	1	5/26/2016 1:01:11 PM	25436
Aroclor 1260	ND	0.24	1.0		µg/L	1	5/26/2016 1:01:11 PM	25436
Surr: Decachlorobiphenyl	50.8	0	26.1-140		%Rec	1	5/26/2016 1:01:11 PM	25436
Surr: Tetrachloro-m-xylene	53.2	0	15-123		%Rec	1	5/26/2016 1:01:11 PM	25436
EPA METHOD 8015D: DIESEL RANGE							Analyst: **KJH**	
Diesel Range Organics (DRO)	ND	0.20	0.20		mg/L	1	5/23/2016 10:32:02 AM	25440
Motor Oil Range Organics (MRO)	ND	2.5	2.5		mg/L	1	5/23/2016 10:32:02 AM	25440
Surr: DNOP	116	0	63.2-161		%Rec	1	5/23/2016 10:32:02 AM	25440
EPA METHOD 8015D: GASOLINE RANGE							Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	0.025	0.050		mg/L	1	5/23/2016 11:54:29 AM	A34422
Surr: BFB	89.9	0	66.4-120		%Rec	1	5/23/2016 11:54:29 AM	A34422
EPA METHOD 8310: PAHS							Analyst: **SCC**	
Naphthalene	ND	1.1	2.0		µg/L	1	5/24/2016 3:56:19 PM	25416
1-Methylnaphthalene	ND	1.1	2.0		µg/L	1	5/24/2016 3:56:19 PM	25416
2-Methylnaphthalene	ND	1.1	2.0		µg/L	1	5/24/2016 3:56:19 PM	25416
Benzo(a)pyrene	ND	0.018	0.070		µg/L	1	5/24/2016 3:56:19 PM	25416
Surr: Benzo(e)pyrene	70.2	0	20-153		%Rec	1	5/24/2016 3:56:19 PM	25416
EPA METHOD 300.0: ANIONS							Analyst: **LGT**	
Fluoride	2.5	0.023	0.10		mg/L	1	5/24/2016 8:25:09 PM	R34457
Chloride	36	1.4	25		mg/L	50	5/24/2016 8:37:33 PM	R34457
Sulfate	990	3.2	25		mg/L	50	5/24/2016 8:37:33 PM	R34457
Nitrate+Nitrite as N	1.3	0.42	1.0		mg/L	5	5/24/2016 8:49:59 PM	R34457
EPA METHOD 200.7: DISSOLVED METALS							Analyst: **ELS**	
Aluminum	ND	0.0038	0.020		mg/L	1	5/23/2016 11:58:08 AM	A34409
Barium	0.040	0.0013	0.0020		mg/L	1	5/23/2016 11:58:08 AM	A34409
Boron	0.060	0.0011	0.040		mg/L	1	5/23/2016 11:58:08 AM	A34409
Cadmium	ND	0.00075	0.0020		mg/L	1	5/23/2016 11:58:08 AM	A34409
Chromium	ND	0.0018	0.0060		mg/L	1	5/23/2016 11:58:08 AM	A34409
Cobalt	0.0029	0.00074	0.0060	J	mg/L	1	5/23/2016 11:58:08 AM	A34409

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

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D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Navajo Refining Company
Client Sample ID: Temporary R.O. Reject
Project: Monthly Temporary R.O. Reject
Collection Date: 5/19/2016 9:30:00 AM
Lab ID: 1605957-001
Matrix: AQUEOUS
Received Date: 5/20/2016 9:50:00 AM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 200.7: DISSOLVED METALS							Analyst: **ELS**	
Copper	ND	0.0040	0.0060		mg/L	1	5/23/2016 11:58:08 AM	A34409
Iron	ND	0.0091	0.020		mg/L	1	5/23/2016 11:58:08 AM	A34409
Manganese	0.00056	0.00032	0.0020	J	mg/L	1	5/23/2016 11:58:08 AM	A34409
Molybdenum	0.011	0.0019	0.0080		mg/L	1	5/23/2016 11:58:08 AM	A34409
Nickel	ND	0.0024	0.010		mg/L	1	5/23/2016 11:58:08 AM	A34409
Silver	ND	0.0028	0.0050		mg/L	1	5/23/2016 11:58:08 AM	A34409
Zinc	0.0056	0.0028	0.010	J	mg/L	1	5/23/2016 11:58:08 AM	A34409
EPA 200.8: DISSOLVED METALS							Analyst: **JLF**	
Arsenic	0.0013	0.00014	0.0010		mg/L	1	5/20/2016 3:46:20 PM	B34393
Lead	ND	0.00017	0.00050		mg/L	1	5/20/2016 3:46:20 PM	B34393
Selenium	0.0064	0.00021	0.0010		mg/L	1	5/20/2016 3:46:20 PM	B34393
Uranium	0.0030	0.000051	0.00050		mg/L	1	5/20/2016 3:46:20 PM	B34393
EPA METHOD 245.1: MERCURY							Analyst: **pmf**	
Mercury	ND	0.000053	0.00020		mg/L	1	5/24/2016 10:55:01 AM	25455
EPA METHOD 8260B: VOLATILES							Analyst: **BCN**	
Benzene	ND	0.096	1.0		µg/L	1	5/21/2016 7:30:00 AM	C34390
Toluene	ND	0.12	1.0		µg/L	1	5/21/2016 7:30:00 AM	C34390
Ethylbenzene	ND	0.11	1.0		µg/L	1	5/21/2016 7:30:00 AM	C34390
1,2-Dichloroethane (EDC)	ND	0.12	1.0		µg/L	1	5/21/2016 7:30:00 AM	C34390
1,2-Dibromoethane (EDB)	ND	0.11	1.0		µg/L	1	5/21/2016 7:30:00 AM	C34390
Carbon Tetrachloride	ND	0.11	1.0		µg/L	1	5/21/2016 7:30:00 AM	C34390
Chloroform	ND	0.089	1.0		µg/L	1	5/21/2016 7:30:00 AM	C34390
1,1-Dichloroethane	ND	0.11	1.0		µg/L	1	5/21/2016 7:30:00 AM	C34390
1,1-Dichloroethene	ND	0.11	1.0		µg/L	1	5/21/2016 7:30:00 AM	C34390
Methylene Chloride	ND	0.19	3.0		µg/L	1	5/21/2016 7:30:00 AM	C34390
1,1,2,2-Tetrachloroethane	ND	0.13	2.0		µg/L	1	5/21/2016 7:30:00 AM	C34390
Tetrachloroethene (PCE)	ND	0.15	1.0		µg/L	1	5/21/2016 7:30:00 AM	C34390
1,1,1-Trichloroethane	ND	0.091	1.0		µg/L	1	5/21/2016 7:30:00 AM	C34390
1,1,2-Trichloroethane	ND	0.13	1.0		µg/L	1	5/21/2016 7:30:00 AM	C34390
Trichloroethene (TCE)	ND	0.18	1.0		µg/L	1	5/21/2016 7:30:00 AM	C34390
Vinyl chloride	ND	0.20	1.0		µg/L	1	5/21/2016 7:30:00 AM	C34390
Xylenes, Total	ND	0.37	1.5		µg/L	1	5/21/2016 7:30:00 AM	C34390
Surr: 1,2-Dichloroethane-d4	83.7	0	70-130		%Rec	1	5/21/2016 7:30:00 AM	C34390
Surr: 4-Bromofluorobenzene	101	0	70-130		%Rec	1	5/21/2016 7:30:00 AM	C34390
Surr: Dibromofluoromethane	82.8	0	70-130		%Rec	1	5/21/2016 7:30:00 AM	C34390
Surr: Toluene-d8	95.5	0	70-130		%Rec	1	5/21/2016 7:30:00 AM	C34390
TOTAL PHENOLICS BY SW-846 9067							Analyst: **SCC**	

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Navajo Refining Company
Client Sample ID: Temporary R.O. Reject
Project: Monthly Temporary R.O. Reject
Collection Date: 5/19/2016 9:30:00 AM
Lab ID: 1605957-001 **Matrix:** AQUEOUS **Received Date:** 5/20/2016 9:50:00 AM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
TOTAL PHENOLICS BY SW-846 9067							Analyst: **SCC**	
Phenolics, Total Recoverable	ND	1.5	2.5		µg/L	1	5/27/2016	25543
SM4500-H+B: PH							Analyst: **JRR**	
pH	7.75	0.100	1.68	H	pH units	1	5/23/2016 3:18:46 PM	R34435
SM2540C MOD: TOTAL DISSOLVED SOLIDS							Analyst: **KS**	
Total Dissolved Solids	1890	10.5	20.0	*	mg/L	1	5/25/2016 3:53:00 PM	25475

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

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D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Navajo Refining Company
Client Sample ID: Trip Blank
Project: Monthly Temporary R.O. Reject
Collection Date:
Lab ID: 1605957-002
Matrix: TRIP BLANK
Received Date: 5/20/2016 9:50:00 AM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8011/504.1: EDB							Analyst: **JME**	
1,2-Dibromoethane	ND	0.0033	0.010		µg/L	1	5/23/2016 7:50:20 PM	25433
EPA METHOD 8015D: GASOLINE RANGE							Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	0.025	0.050		mg/L	1	5/23/2016 1:08:34 PM	A34422
Surr: BFB	91.1	0	66.4-120		%Rec	1	5/23/2016 1:08:34 PM	A34422
EPA METHOD 8260B: VOLATILES							Analyst: **BCN**	
Benzene	ND	0.096	1.0		µg/L	1	5/21/2016 7:54:00 AM	C34390
Toluene	ND	0.12	1.0		µg/L	1	5/21/2016 7:54:00 AM	C34390
Ethylbenzene	ND	0.11	1.0		µg/L	1	5/21/2016 7:54:00 AM	C34390
1,2-Dichloroethane (EDC)	ND	0.12	1.0		µg/L	1	5/21/2016 7:54:00 AM	C34390
1,2-Dibromoethane (EDB)	ND	0.11	1.0		µg/L	1	5/21/2016 7:54:00 AM	C34390
Carbon Tetrachloride	ND	0.11	1.0		µg/L	1	5/21/2016 7:54:00 AM	C34390
Chloroform	ND	0.089	1.0		µg/L	1	5/21/2016 7:54:00 AM	C34390
1,1-Dichloroethane	ND	0.11	1.0		µg/L	1	5/21/2016 7:54:00 AM	C34390
1,1-Dichloroethene	ND	0.11	1.0		µg/L	1	5/21/2016 7:54:00 AM	C34390
Methylene Chloride	ND	0.19	3.0		µg/L	1	5/21/2016 7:54:00 AM	C34390
1,1,2,2-Tetrachloroethane	ND	0.13	2.0		µg/L	1	5/21/2016 7:54:00 AM	C34390
Tetrachloroethene (PCE)	ND	0.15	1.0		µg/L	1	5/21/2016 7:54:00 AM	C34390
1,1,1-Trichloroethane	ND	0.091	1.0		µg/L	1	5/21/2016 7:54:00 AM	C34390
1,1,2-Trichloroethane	ND	0.13	1.0		µg/L	1	5/21/2016 7:54:00 AM	C34390
Trichloroethene (TCE)	ND	0.18	1.0		µg/L	1	5/21/2016 7:54:00 AM	C34390
Vinyl chloride	ND	0.20	1.0		µg/L	1	5/21/2016 7:54:00 AM	C34390
Xylenes, Total	ND	0.37	1.5		µg/L	1	5/21/2016 7:54:00 AM	C34390
Surr: 1,2-Dichloroethane-d4	83.4	0	70-130		%Rec	1	5/21/2016 7:54:00 AM	C34390
Surr: 4-Bromofluorobenzene	102	0	70-130		%Rec	1	5/21/2016 7:54:00 AM	C34390
Surr: Dibromofluoromethane	83.2	0	70-130		%Rec	1	5/21/2016 7:54:00 AM	C34390
Surr: Toluene-d8	93.1	0	70-130		%Rec	1	5/21/2016 7:54:00 AM	C34390

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

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D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Anatek Labs, Inc.

1282 Alturas Drive • Moscow, ID 83843 • (208) 883-2839 • Fax (208) 882-9246 • email moscow@anateklabs.com
504 E Sprague Ste. D • Spokane WA 99202 • (509) 838-3999 • Fax (509) 838-4433 • email spokane@anateklabs.com

Client:	HALL ENVIRONMENTAL ANALYSIS LAB	**Batch #:**	160524029
Address:	4901 HAWKINS NE SUITE D ALBUQUERQUE, NM 87109	**Project Name:**	1605957
Attn:	ANDY FREEMAN		

Analytical Results Report

Sample Number	160524029-001	**Sampling Date**	5/19/2016	**Date/Time Received**	5/24/2016 12:45 PM
Client Sample ID	1605957-001J / TEMPORARY R.O. REJECT			**Sampling Time**	9:30 AM
Matrix	Water	**Sample Location**			
Comments					

Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifier
Cyanide	ND	mg/L	0.01	5/27/2016	MER	EPA 335.4	

Authorized Signature

John Coddington, Lab Manager

MCL	EPA's Maximum Contaminant Level
ND	Not Detected
PQL	Practical Quantitation Limit

This report shall not be reproduced except in full, without the written approval of the laboratory.
The results reported relate only to the samples indicated.
Soil/solid results are reported on a dry-weight basis unless otherwise noted.

Anatek Labs, Inc.

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Client: HALL ENVIRONMENTAL ANALYSIS LAB
Address: 4901 HAWKINS NE SUITE D
ALBUQUERQUE, NM 87109
Attn: ANDY FREEMAN

Batch #: 160524029
Project Name: 1605957

Analytical Results Report

Quality Control Data

Lab Control Sample

Parameter	LCS Result	Units	LCS Spike	%Rec	AR %Rec	Prep Date	Analysis Date
Cyanide	0.534	mg/L	0.5	106.8	90-110	5/27/2016	5/27/2016

Matrix Spike

Sample Number	Parameter	Sample Result	MS Result	Units	MS Spike	%Rec	AR %Rec	Prep Date	Analysis Date
160519034-025	Cyanide	ND	0.510	mg/L	0.5	102.0	90-110	5/27/2016	5/27/2016

Matrix Spike Duplicate

Parameter	MSD Result	Units	MSD Spike	%Rec	%RPD	AR %RPD	Prep Date	Analysis Date
Cyanide	0.532	mg/L	0.5	106.4	4.2	0-20	5/27/2016	5/27/2016

Method Blank

Parameter	Result	Units	PQL	Prep Date	Analysis Date
Cyanide	ND	mg/L	0.01	5/27/2016	5/27/2016

AR	Acceptable Range
ND	Not Detected
PQL	Practical Quantitation Limit
RPD	Relative Percentage Difference

Comments:

Certifications held by Anatek Labs ID: EPA:ID00013; AZ:0701; CO:ID00013; FL(NELAP):E87693; ID:ID00013; MT:CERT0028; NM: ID00013; OR:ID200001-002; WA:C595
Certifications held by Anatek Labs WA: EPA:WA00169; ID:WA00169; WA:C585; MT:Cert0095; FL(NELAP): E871099

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1605957**

27-May-16

Client: Navajo Refining Company

Project: Monthly Temporary R.O. Reject

Sample ID **MB-A**	SampType: **MBLK**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **PBW**	Batch ID: **A34409**	RunNo: **34409**
Prep Date:	Analysis Date: **5/23/2016**	SeqNo: **1060909** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Aluminum	ND	0.020								
Barium	ND	0.0020								
Boron	ND	0.040								
Cadmium	ND	0.0020								
Chromium	ND	0.0060								
Cobalt	ND	0.0060								
Copper	ND	0.0060								
Iron	ND	0.020								
Manganese	ND	0.0020								
Molybdenum	ND	0.0080								
Nickel	ND	0.010								
Silver	ND	0.0050								
Zinc	ND	0.010								

Sample ID **LCS-A**	SampType: **LCS**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **LCSW**	Batch ID: **A34409**	RunNo: **34409**
Prep Date:	Analysis Date: **5/23/2016**	SeqNo: **1060910** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Aluminum	0.53	0.020	0.5000	0	106	85	115			
Barium	0.50	0.0020	0.5000	0	101	85	115			
Boron	0.52	0.040	0.5000	0	105	85	115			
Cadmium	0.51	0.0020	0.5000	0	101	85	115			
Chromium	0.50	0.0060	0.5000	0	99.5	85	115			
Cobalt	0.48	0.0060	0.5000	0	96.2	85	115			
Copper	0.50	0.0060	0.5000	0	100	85	115			
Iron	0.50	0.020	0.5000	0	100	85	115			
Manganese	0.49	0.0020	0.5000	0	98.4	85	115			
Molybdenum	0.53	0.0080	0.5000	0	105	85	115			
Nickel	0.47	0.010	0.5000	0	94.8	85	115			
Silver	0.10	0.0050	0.1000	0	101	85	115			
Zinc	0.51	0.010	0.5000	0	101	85	115			

Sample ID **LLLCS-A**	SampType: **LCSLL**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **BatchQC**	Batch ID: **A34409**	RunNo: **34409**
Prep Date:	Analysis Date: **5/23/2016**	SeqNo: **1060911** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Aluminum	0.0097	0.020	0.01000	0	96.7	50	150			J
Barium	0.0018	0.0020	0.002000	0	89.0	50	150			J

Qualifiers:

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H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

WO#: **1605957**
27-May-16

Client: Navajo Refining Company
Project: Monthly Temporary R.O. Reject

Sample ID **LLLCS-A**	SampType: **LCSLL**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **BatchQC**	Batch ID: **A34409**	RunNo: **34409**
Prep Date:	Analysis Date: **5/23/2016**	SeqNo: **1060911** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Boron	0.040	0.040	0.04000	0	100	50	150			
Cadmium	0.0017	0.0020	0.002000	0	87.0	50	150			J
Chromium	0.0058	0.0060	0.006000	0	96.3	50	150			J
Cobalt	0.0064	0.0060	0.006000	0	106	50	150			
Copper	0.0071	0.0060	0.006000	0	119	50	150			
Iron	0.023	0.020	0.02000	0	116	50	150			
Manganese	0.0021	0.0020	0.002000	0	103	50	150			
Molybdenum	0.0089	0.0080	0.008000	0	112	50	150			
Nickel	0.0055	0.010	0.005000	0	110	50	150			J
Silver	0.0049	0.0050	0.005000	0	97.8	50	150			J
Zinc	0.0048	0.010	0.005000	0	95.4	50	150			J

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
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QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1605957**

27-May-16

Client: Navajo Refining Company

Project: Monthly Temporary R.O. Reject

Sample ID	**LCS**	SampType:	**LCS**	TestCode:	**EPA 200.8: Dissolved Metals**					
Client ID:	**LCSW**	Batch ID:	**B34393**	RunNo:	**34393**					
Prep Date:		Analysis Date:	**5/20/2016**	SeqNo:	**1060562**	Units:	**mg/L**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.025	0.0010	0.02500	0	98.5	85	115			
Lead	0.012	0.00050	0.01250	0	97.6	85	115			
Selenium	0.026	0.0010	0.02500	0	103	85	115			
Uranium	0.012	0.00050	0.01250	0	99.4	85	115			

Sample ID	**LLLCS**	SampType:	**LCSLL**	TestCode:	**EPA 200.8: Dissolved Metals**					
Client ID:	**BatchQC**	Batch ID:	**B34393**	RunNo:	**34393**					
Prep Date:		Analysis Date:	**5/20/2016**	SeqNo:	**1060563**	Units:	**mg/L**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.00099	0.0010	0.001000	0	98.8	50	150			J
Lead	0.00049	0.00050	0.0005000	0	97.8	50	150			J
Selenium	0.0010	0.0010	0.001000	0	99.6	50	150			J
Uranium	0.00049	0.00050	0.0005000	0	97.0	50	150			J

Sample ID	**MB**	SampType:	**MBLK**	TestCode:	**EPA 200.8: Dissolved Metals**					
Client ID:	**PBW**	Batch ID:	**B34393**	RunNo:	**34393**					
Prep Date:		Analysis Date:	**5/20/2016**	SeqNo:	**1060564**	Units:	**mg/L**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								
Lead	ND	0.00050								
Selenium	ND	0.0010								
Uranium	ND	0.00050								

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1605957**

27-May-16

Client: Navajo Refining Company

Project: Monthly Temporary R.O. Reject

Sample ID	**MB-25455**	SampType:	**MBLK**	TestCode:	**EPA Method 245.1: Mercury**					
Client ID:	**PBW**	Batch ID:	**25455**	RunNo:	**34451**					
Prep Date:	**5/23/2016**	Analysis Date:	**5/24/2016**	SeqNo:	**1062360**	Units:	**mg/L**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	ND	0.00020								

Sample ID	**LCS-25455**	SampType:	**LCS**	TestCode:	**EPA Method 245.1: Mercury**					
Client ID:	**LCSW**	Batch ID:	**25455**	RunNo:	**34451**					
Prep Date:	**5/23/2016**	Analysis Date:	**5/24/2016**	SeqNo:	**1062361**	Units:	**mg/L**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.0051	0.00020	0.005000	0	101	80	120			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1605957**

27-May-16

Client: Navajo Refining Company

Project: Monthly Temporary R.O. Reject

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA Method 300.0: Anions**							
Client ID: **PBW**	Batch ID: **R34457**	RunNo: **34457**							
Prep Date:	Analysis Date: **5/24/2016**	SeqNo: **1062706**	Units: **mg/L**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	ND	0.10								
Chloride	ND	0.50								
Sulfate	ND	0.50								
Nitrate+Nitrite as N	ND	0.20								

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA Method 300.0: Anions**							
Client ID: **LCSW**	Batch ID: **R34457**	RunNo: **34457**							
Prep Date:	Analysis Date: **5/24/2016**	SeqNo: **1062707**	Units: **mg/L**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.52	0.10	0.5000	0	104	90	110			
Chloride	4.8	0.50	5.000	0	95.0	90	110			
Sulfate	9.8	0.50	10.00	0	97.7	90	110			
Nitrate+Nitrite as N	3.4	0.20	3.500	0	98.5	90	110			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1605957**

27-May-16

Client: Navajo Refining Company

Project: Monthly Temporary R.O. Reject

Sample ID	**MB-25433**	SampType:	**MBLK**	TestCode:	**EPA Method 8011/504.1: EDB**					
Client ID:	**PBW**	Batch ID:	**25433**	RunNo:	**34423**					
Prep Date:	**5/23/2016**	Analysis Date:	**5/23/2016**	SeqNo:	**1061420**	Units:	**µg/L**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,2-Dibromoethane	ND	0.010								

Sample ID	**LCS-25433**	SampType:	**LCS**	TestCode:	**EPA Method 8011/504.1: EDB**					
Client ID:	**LCSW**	Batch ID:	**25433**	RunNo:	**34423**					
Prep Date:	**5/23/2016**	Analysis Date:	**5/23/2016**	SeqNo:	**1061422**	Units:	**µg/L**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,2-Dibromoethane	0.12	0.010	0.1000	0	122	70	130			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1605957**

27-May-16

Client: Navajo Refining Company

Project: Monthly Temporary R.O. Reject

Sample ID **LCS-25440**	SampType: **LCS**	TestCode: **EPA Method 8015D: Diesel Range**
Client ID: **LCSW**	Batch ID: **25440**	RunNo: **34408**
Prep Date: **5/23/2016**	Analysis Date: **5/23/2016**	SeqNo: **1060963** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	2.5	0.20	2.500	0	101	65.4	162			
Surr: DNOP	0.24		0.2500		97.5	63.2	161			

Sample ID **MB-25440**	SampType: **MBLK**	TestCode: **EPA Method 8015D: Diesel Range**
Client ID: **PBW**	Batch ID: **25440**	RunNo: **34408**
Prep Date: **5/23/2016**	Analysis Date: **5/23/2016**	SeqNo: **1060964** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	0.20								
Motor Oil Range Organics (MRO)	ND	2.5								
Surr: DNOP	0.56		0.5000		111	63.2	161			

Sample ID **1605957-001AMS**	SampType: **MS**	TestCode: **EPA Method 8015D: Diesel Range**
Client ID: **Temporary R.O. Rej**	Batch ID: **25440**	RunNo: **34408**
Prep Date: **5/23/2016**	Analysis Date: **5/23/2016**	SeqNo: **1061172** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	2.8	0.20	2.500	0	110	73.3	174			
Surr: DNOP	0.29		0.2500		115	63.2	161			

Sample ID **1605957-001AMSD**	SampType: **MSD**	TestCode: **EPA Method 8015D: Diesel Range**
Client ID: **Temporary R.O. Rej**	Batch ID: **25440**	RunNo: **34408**
Prep Date: **5/23/2016**	Analysis Date: **5/23/2016**	SeqNo: **1061173** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	2.8	0.20	2.500	0	112	73.3	174	1.16	20	
Surr: DNOP	0.27		0.2500		108	63.2	161	0	0	

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1605957**

27-May-16

Client: Navajo Refining Company

Project: Monthly Temporary R.O. Reject

Sample ID **5ML RB**	SampType: **MBLK**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **PBW**	Batch ID: **A34422**	RunNo: **34422**
Prep Date:	Analysis Date: **5/23/2016**	SeqNo: **1061336** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	0.050								
Surr: BFB	19		20.00		94.8	66.4	120			

Sample ID **2.5UG GRO LCSB**	SampType: **LCS**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **LCSW**	Batch ID: **A34422**	RunNo: **34422**
Prep Date:	Analysis Date: **5/23/2016**	SeqNo: **1061337** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	0.50	0.050	0.5000	0	99.4	80	120			
Surr: BFB	22		20.00		108	66.4	120			

Sample ID **1605957-001BMS**	SampType: **MS**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **Temporary R.O. Rej**	Batch ID: **A34422**	RunNo: **34422**
Prep Date:	Analysis Date: **5/23/2016**	SeqNo: **1061342** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	0.50	0.050	0.5000	0	99.9	70	130			
Surr: BFB	20		20.00		102	66.4	120			

Sample ID **1605957-001BMSD**	SampType: **MSD**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **Temporary R.O. Rej**	Batch ID: **A34422**	RunNo: **34422**
Prep Date:	Analysis Date: **5/23/2016**	SeqNo: **1061343** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	0.53	0.050	0.5000	0	105	70	130	5.26	20	
Surr: BFB	21		20.00		107	66.4	120	0	0	

Qualifiers:

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D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1605957**

27-May-16

Client: Navajo Refining Company

Project: Monthly Temporary R.O. Reject

Sample ID **MB-25436**	SampType: **MBLK**	TestCode: **EPA Method 8082: PCB's**
Client ID: **PBW**	Batch ID: **25436**	RunNo: **34486**
Prep Date: **5/23/2016**	Analysis Date: **5/26/2016**	SeqNo: **1063584** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Aroclor 1016	ND	1.0								
Aroclor 1221	ND	1.0								
Aroclor 1232	ND	1.0								
Aroclor 1242	ND	1.0								
Aroclor 1248	ND	1.0								
Aroclor 1254	ND	1.0								
Aroclor 1260	ND	1.0								
Surr: Decachlorobiphenyl	2.0		2.500		81.2	26.1	140			
Surr: Tetrachloro-m-xylene	3.0		2.500		119	15	123			

Sample ID **LCS-25436**	SampType: **LCS**	TestCode: **EPA Method 8082: PCB's**
Client ID: **LCSW**	Batch ID: **25436**	RunNo: **34486**
Prep Date: **5/23/2016**	Analysis Date: **5/26/2016**	SeqNo: **1063585** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Aroclor 1016	3.8	1.0	5.000	0	75.4	15	131			
Aroclor 1260	3.8	1.0	5.000	0	75.9	15	162			
Surr: Decachlorobiphenyl	1.9		2.500		75.6	26.1	140			
Surr: Tetrachloro-m-xylene	2.3		2.500		92.8	15	123			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
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QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1605957**

27-May-16

Client: Navajo Refining Company

Project: Monthly Temporary R.O. Reject

Sample ID **100ng LCS**	SampType: **LCS**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **LCSW**	Batch ID: **C34390**	RunNo: **34390**
Prep Date:	Analysis Date: **5/20/2016**	SeqNo: **1060663** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	18	1.0	20.00	0	91.4	70	130			
Toluene	19	1.0	20.00	0	97.5	70	130			
1,1-Dichloroethene	17	1.0	20.00	0	83.3	70	130			
Trichloroethene (TCE)	19	1.0	20.00	0	95.6	70	130			
Surr: 1,2-Dichloroethane-d4	8.3		10.00		82.9	70	130			
Surr: 4-Bromofluorobenzene	10		10.00		102	70	130			
Surr: Dibromofluoromethane	8.5		10.00		85.4	70	130			
Surr: Toluene-d8	9.6		10.00		95.8	70	130			

Sample ID **rb2**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBW**	Batch ID: **C34390**	RunNo: **34390**
Prep Date:	Analysis Date: **5/20/2016**	SeqNo: **1060664** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	1.0								
Toluene	ND	1.0								
Ethylbenzene	ND	1.0								
1,2-Dichloroethane (EDC)	ND	1.0								
1,2-Dibromoethane (EDB)	ND	1.0								
Carbon Tetrachloride	ND	1.0								
Chloroform	ND	1.0								
1,1-Dichloroethane	ND	1.0								
1,1-Dichloroethene	ND	1.0								
Methylene Chloride	ND	3.0								
1,1,2,2-Tetrachloroethane	ND	2.0								
Tetrachloroethene (PCE)	ND	1.0								
1,1,1-Trichloroethane	ND	1.0								
1,1,2-Trichloroethane	ND	1.0								
Trichloroethene (TCE)	ND	1.0								
Vinyl chloride	ND	1.0								
Xylenes, Total	ND	1.5								
Surr: 1,2-Dichloroethane-d4	8.4		10.00		84.0	70	130			
Surr: 4-Bromofluorobenzene	10		10.00		100	70	130			
Surr: Dibromofluoromethane	8.5		10.00		84.6	70	130			
Surr: Toluene-d8	9.4		10.00		93.9	70	130			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
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QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1605957**

27-May-16

Client: Navajo Refining Company

Project: Monthly Temporary R.O. Reject

Sample ID **MB-25416**	SampType: **MBLK**	TestCode: **EPA Method 8310: PAHs**
Client ID: **PBW**	Batch ID: **25416**	RunNo: **34425**
Prep Date: **5/20/2016**	Analysis Date: **5/24/2016**	SeqNo: **1061459** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Naphthalene	ND	2.0								
1-Methylnaphthalene	ND	2.0								
2-Methylnaphthalene	ND	2.0								
Acenaphthylene	ND	2.5								
Acenaphthene	ND	2.0								
Fluorene	ND	0.80								
Phenanthrene	ND	0.60								
Anthracene	ND	0.60								
Fluoranthene	ND	0.30								
Pyrene	ND	0.30								
Benz(a)anthracene	ND	0.070								
Chrysene	ND	0.20								
Benzo(b)fluoranthene	ND	0.10								
Benzo(k)fluoranthene	ND	0.070								
Benzo(a)pyrene	ND	0.070								
Dibenz(a,h)anthracene	ND	0.12								
Benzo(g,h,i)perylene	ND	0.12								
Indeno(1,2,3-cd)pyrene	ND	0.25								
Surr: Benzo(e)pyrene	14		20.00		69.0	20	153			

Sample ID **LCS-25416**	SampType: **LCS**	TestCode: **EPA Method 8310: PAHs**
Client ID: **LCSW**	Batch ID: **25416**	RunNo: **34425**
Prep Date: **5/20/2016**	Analysis Date: **5/24/2016**	SeqNo: **1061630** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Naphthalene	66	2.0	80.00	0	82.8	55.6	124			
1-Methylnaphthalene	65	2.0	80.20	0	80.8	55.3	124			
2-Methylnaphthalene	64	2.0	80.00	0	80.6	55.4	124			
Acenaphthylene	66	2.5	80.20	0	82.9	60.2	119			
Acenaphthene	64	2.0	80.00	0	80.4	56	126			
Fluorene	6.2	0.80	8.020	0	77.8	51.6	129			
Phenanthrene	3.3	0.60	4.020	0	81.1	58.8	129			
Anthracene	3.3	0.60	4.020	0	82.3	59.9	121			
Fluoranthene	5.4	0.30	8.020	0	67.0	48	145			
Pyrene	6.6	0.30	8.020	0	81.7	56.2	130			
Benz(a)anthracene	0.67	0.070	0.8020	0	83.5	50.4	142			
Chrysene	3.2	0.20	4.020	0	80.6	54.7	134			
Benzo(b)fluoranthene	0.82	0.10	1.002	0	81.8	61.8	120			
Benzo(k)fluoranthene	0.42	0.070	0.5000	0	84.0	55.9	134			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1605957**

27-May-16

Client: Navajo Refining Company

Project: Monthly Temporary R.O. Reject

Sample ID **LCS-25416**	SampType: **LCS**	TestCode: **EPA Method 8310: PAHs**
Client ID: **LCSW**	Batch ID: **25416**	RunNo: **34425**
Prep Date: **5/20/2016**	Analysis Date: **5/24/2016**	SeqNo: **1061630** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzo(a)pyrene	0.43	0.070	0.5020	0	85.7	51.3	137			
Dibenz(a,h)anthracene	0.84	0.12	1.002	0	83.8	57.8	134			
Benzo(g,h,i)perylene	0.85	0.12	1.000	0	85.0	57.2	134			
Indeno(1,2,3-cd)pyrene	1.6	0.25	2.004	0	81.3	58.2	137			
Surr: Benzo(e)pyrene	15		20.00		76.9	20	153			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1605957**

27-May-16

Client: Navajo Refining Company

Project: Monthly Temporary R.O. Reject

Sample ID	**MB-25543**	SampType:	**MBLK**	TestCode:	**Total Phenolics by SW-846 9067**					
Client ID:	**PBW**	Batch ID:	**25543**	RunNo:	**34512**					
Prep Date:	**5/27/2016**	Analysis Date:	**5/27/2016**	SeqNo:	**1064497**	Units:	**µg/L**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Phenolics, Total Recoverable	ND	2.5								

Sample ID	**LCS-25543**	SampType:	**LCS**	TestCode:	**Total Phenolics by SW-846 9067**					
Client ID:	**LCSW**	Batch ID:	**25543**	RunNo:	**34512**					
Prep Date:	**5/27/2016**	Analysis Date:	**5/27/2016**	SeqNo:	**1064498**	Units:	**µg/L**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Phenolics, Total Recoverable	23	2.5	20.00	0	116	64.4	135			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

WO#: **1605957**
27-May-16

Client: Navajo Refining Company
Project: Monthly Temporary R.O. Reject

Sample ID **MB-25475**	SampType: **MBLK**	TestCode: **SM2540C MOD: Total Dissolved Solids**
Client ID: **PBW**	Batch ID: **25475**	RunNo: **34475**
Prep Date: **5/24/2016**	Analysis Date: **5/25/2016**	SeqNo: **1063156** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Dissolved Solids	ND	20.0								

Sample ID **LCS-25475**	SampType: **LCS**	TestCode: **SM2540C MOD: Total Dissolved Solids**
Client ID: **LCSW**	Batch ID: **25475**	RunNo: **34475**
Prep Date: **5/24/2016**	Analysis Date: **5/25/2016**	SeqNo: **1063157** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Dissolved Solids	1010	20.0	1000	0	101	80	120			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

HALL ENVIRONMENTAL ANALYSIS LABORATORY

Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

Sample Log-In Check List

Client Name: NAVAJO REFINING CO Work Order Number: 1605957 RcptNo: 1

Received by/date: SA 05/20/16

Logged By: **Lindsay Mangin** 5/20/2016 9:50:00 AM

Completed By: **Lindsay Mangin** 5/20/2016 10:07:53 AM

Reviewed By: JA 05/20/16

Chain of Custody

1. Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Present ☑
2. Is Chain of Custody complete?	Yes ☑	No ☐	Not Present ☐
3. How was the sample delivered?	Courier		

Log In

4. Was an attempt made to cool the samples?	Yes ☑	No ☐	NA ☐
5. Were all samples received at a temperature of >0° C to 6.0°C	Yes ☑	No ☐	NA ☐
6. Sample(s) in proper container(s)?	Yes ☑	No ☐	
7. Sufficient sample volume for indicated test(s)?	Yes ☑	No ☐	
8. Are samples (except VOA and ONG) properly preserved?	Yes ☑	No ☐	
9. Was preservative added to bottles?	Yes ☐	No ☑	NA ☐
10. VOA vials have zero headspace?	Yes ☑	No ☐	No VOA Vials ☐
11. Were any sample containers received broken?	Yes ☐	No ☑	
12. Does paperwork match bottle labels? (Note discrepancies on chain of custody)	Yes ☑	No ☐	# of preserved bottles checked for pH: ____ (<2 or >12 unless noted)
13. Are matrices correctly identified on Chain of Custody?	Yes ☑	No ☐	Adjusted?
14. Is it clear what analyses were requested?	Yes ☑	No ☐	
15. Were all holding times able to be met? (If no, notify customer for authorization.)	Yes ☑	No ☐	Checked by:

Special Handling (if applicable)

16. Was client notified of all discrepancies with this order? Yes ☐ No ☐ NA ☑

Person Notified: ____ Date: ____

By Whom: ____ Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person

Regarding: ____

Client Instructions: ____

17. Additional remarks:

18. **Cooler Information**

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	1.8	Good	Yes			

Chain-of-Custody Record

Client: Navajo Refinery

Mailing Address: P.O. Box 159 Artesia,

NM 88211-0159

Phone #: 575-748-3311

email or Fax#: 575-746-5451

QA/QC Package:

X Standard ☐ Level 4 (Full Validation)

☐ Other _____

☐ EDD (Type) _____

Turn-Around Time:

X Standard ☐ Rush _____

Project Name:

Monthly Temporary R.O. Reject

Project #: P.O. # 167796

Project Manager:

Robert Combs

Sampler: Brady Hubbard

On Ice: X Yes ☐ No

Sample Temperature: 1.8

HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

Tel. 505-345-3975 Fax 505-345-4107

Analysis Request

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No. 1605957	8260B:WQCC List VOCs	8270C: WQCC list SVOCs	6010B: WQCC Metals	335.4 Total Cyanide	7470: Mercury	8015: GRO, DRO, ORO	8082: PCBs	Radioactivity (Ra-226+Ra-228)	Sulfate Chloride	Phenols	Fluoride	Nitrate/Nitrite	Total Dissolved Solids	PH	504.1:EDB	Air Bubbles (Y or N)
5-19-16	9:30	liquid	Temporary R.O. Reject	2 - 500ml P	unpres H2SO4	-001									X		X	X	X	X		Y
5-19-16	9:30	liquid	Temporary R.O. Reject	3-40ml VOA	HCL	-001	X															
5-19-16	9:30	liquid	Temporary R.O. Reject	1-500ml P	HNO3	-001					X											
5-19-16	9:30	liquid	Temporary R.O. Reject	1-125ml P	HNO3	-001			X													
5-19-16	9:30	liquid	Temporary R.O. Reject	1-500ml P	NaOH	-001				X												
5-19-16	9:30	liquid	Temporary R.O. Reject	2- 1L P	HNO3	-001								X								
5-19-16	9:30	liquid	Temporary R.O. Reject	2-40ml VOA	Na2S2O3	-001															X	
5-19-16	9:30	liquid	Temporary R.O. Reject	2 - 1L Glass	unpres	-001							X									
5-19-16	9:30	liquid	Temporary R.O. Reject	1 - 1L Glass	unpres	-001		X														
5-19-16	9:30	liquid	Temporary R.O. Reject	3-40ml VOA	HCl	-001						X										
5-19-16	9:30	liquid	Temporary R.O. Reject	1-250mlGlass	unpres	-001						X										
5-19-16	9:30	liquid	Temporary R.O. Reject	1 - 1L Glass	H2SO4	-001										X						
	~~9:30~~	liquid	Trip Blank	2-40ml VOA	HCL	-002																

Date	Time	Relinquished by	Received by	Date	Time
5-19-16	2:00	Brady Hubbard			
				05/20/16	0950
Date	Time	Relinquished by	Received by	Date	Time

Remarks:
Metals: As, Al, Ba, B, Cd, Cr, Co, Cu, Fe, Pb, Mn, Hg, Mo, Ni, Se, Ag, U, Zn
VOCs: 1,1,1-Trichloroethane; 1,1,2,2-Tetrachloroethane; 1,1,2,2-Tetrachloroethylene; 1,1,2-Trichloroethane; 1,1,2-Trichloroethylene; 1,1-Dichloroethane; 1,1-Dichloroethene; 1,2-Dibromoethane; 1,2-Dichloroethane; Benzene; Carbon Tetrachloride; Chloroform; Dichloromethane; Ethylbenzene; Toluene; Total Xylenes; Vinyl Chloride
SVOCs: benzo(a)pyrene, phenol, *-methylnaphthalene, 2-methylnaphthalene, naphthalene

HALL ENVIRONMENTAL ANALYSIS LABORATORY

Hall Environmental Analysis Laboratory
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Albuquerque, NM 87109
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Website: www.hallenvironmental.com

May 27, 2016

Robert Combs

Navajo Refining Company
P.O. Box 159
Artesia, NM 88211-0159
TEL: (575) 748-3311
FAX

RE: Monthly R.O. Reject OrderNo.: 1605958

Dear Robert Combs:

Hall Environmental Analysis Laboratory received 2 sample(s) on 5/20/2016 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. In order to properly interpret your results it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0190

Sincerely,

Andy Freeman

Laboratory Manager

4901 Hawkins NE
Albuquerque, NM 87109

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Navajo Refining Company
Client Sample ID: R.O. Reject
Project: Monthly R.O. Reject
Collection Date: 5/19/2016 10:15:00 AM
Lab ID: 1605958-001
Matrix: AQUEOUS
Received Date: 5/20/2016 9:50:00 AM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8011/504.1: EDB							Analyst: **JME**	
1,2-Dibromoethane	ND	0.0033	0.010		µg/L	1	5/23/2016 8:05:54 PM	25433
EPA METHOD 8082: PCB'S							Analyst: **SCC**	
Aroclor 1016	ND	0.28	1.0		µg/L	1	5/26/2016 2:13:41 PM	25436
Aroclor 1221	ND	0.70	1.0		µg/L	1	5/26/2016 2:13:41 PM	25436
Aroclor 1232	ND	0.76	1.0		µg/L	1	5/26/2016 2:13:41 PM	25436
Aroclor 1242	ND	0.20	1.0		µg/L	1	5/26/2016 2:13:41 PM	25436
Aroclor 1248	ND	0.57	1.0		µg/L	1	5/26/2016 2:13:41 PM	25436
Aroclor 1254	ND	0.97	1.0		µg/L	1	5/26/2016 2:13:41 PM	25436
Aroclor 1260	ND	0.24	1.0		µg/L	1	5/26/2016 2:13:41 PM	25436
Surr: Decachlorobiphenyl	67.2	0	26.1-140		%Rec	1	5/26/2016 2:13:41 PM	25436
Surr: Tetrachloro-m-xylene	73.6	0	15-123		%Rec	1	5/26/2016 2:13:41 PM	25436
EPA METHOD 8015D: DIESEL RANGE							Analyst: **KJH**	
Diesel Range Organics (DRO)	ND	0.20	0.20		mg/L	1	5/23/2016 10:53:32 AM	25440
Motor Oil Range Organics (MRO)	ND	2.5	2.5		mg/L	1	5/23/2016 10:53:32 AM	25440
Surr: DNOP	119	0	63.2-161		%Rec	1	5/23/2016 10:53:32 AM	25440
EPA METHOD 8015D: GASOLINE RANGE							Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	0.025	0.050		mg/L	1	5/23/2016 1:33:07 PM	A34422
Surr: BFB	89.1	0	66.4-120		%Rec	1	5/23/2016 1:33:07 PM	A34422
EPA METHOD 8310: PAHS							Analyst: **SCC**	
Naphthalene	ND	1.1	2.0		µg/L	1	5/24/2016 4:25:34 PM	25416
1-Methylnaphthalene	ND	1.1	2.0		µg/L	1	5/24/2016 4:25:34 PM	25416
2-Methylnaphthalene	ND	1.1	2.0		µg/L	1	5/24/2016 4:25:34 PM	25416
Benzo(a)pyrene	ND	0.018	0.070		µg/L	1	5/24/2016 4:25:34 PM	25416
Surr: Benzo(e)pyrene	73.0	0	20-153		%Rec	1	5/24/2016 4:25:34 PM	25416
EPA METHOD 300.0: ANIONS							Analyst: **LGT**	
Fluoride	1.9	0.023	0.10		mg/L	1	5/21/2016 4:05:35 AM	A34410
Chloride	190	0.55	10		mg/L	20	5/21/2016 4:42:49 AM	A34410
Nitrogen, Nitrate (As N)	1.2	0.042	0.10		mg/L	1	5/21/2016 4:05:35 AM	A34410
Sulfate	1000	3.2	25		mg/L	50	5/24/2016 10:29:18 PM	R34453
EPA METHOD 200.7: DISSOLVED METALS							Analyst: **ELS**	
Aluminum	ND	0.0038	0.020		mg/L	1	5/23/2016 11:59:58 AM	A34409
Barium	0.067	0.0013	0.0020		mg/L	1	5/23/2016 11:59:58 AM	A34409
Boron	0.096	0.0011	0.040		mg/L	1	5/23/2016 11:59:58 AM	A34409
Cadmium	ND	0.00075	0.0020		mg/L	1	5/23/2016 11:59:58 AM	A34409
Chromium	ND	0.0018	0.0060		mg/L	1	5/23/2016 11:59:58 AM	A34409
Cobalt	0.0031	0.00074	0.0060	J	mg/L	1	5/23/2016 11:59:58 AM	A34409

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Navajo Refining Company
Client Sample ID: R.O. Reject
Project: Monthly R.O. Reject
Collection Date: 5/19/2016 10:15:00 AM
Lab ID: 1605958-001
Matrix: AQUEOUS
Received Date: 5/20/2016 9:50:00 AM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 200.7: DISSOLVED METALS							Analyst: **ELS**	
Copper	ND	0.0040	0.0060		mg/L	1	5/23/2016 11:59:58 AM	A34409
Iron	0.033	0.0091	0.020		mg/L	1	5/23/2016 11:59:58 AM	A34409
Manganese	0.0017	0.00032	0.0020	J	mg/L	1	5/23/2016 11:59:58 AM	A34409
Molybdenum	0.0060	0.0019	0.0080	J	mg/L	1	5/23/2016 11:59:58 AM	A34409
Nickel	ND	0.0024	0.010		mg/L	1	5/23/2016 11:59:58 AM	A34409
Silver	ND	0.0028	0.0050		mg/L	1	5/23/2016 11:59:58 AM	A34409
Zinc	0.023	0.0028	0.010		mg/L	1	5/23/2016 11:59:58 AM	A34409
EPA 200.8: DISSOLVED METALS							Analyst: **JLF**	
Arsenic	0.0016	0.00069	0.0050	J	mg/L	5	5/20/2016 4:01:39 PM	B34393
Lead	ND	0.00017	0.00050		mg/L	1	5/20/2016 3:58:35 PM	B34393
Selenium	0.0088	0.00021	0.0010		mg/L	1	5/20/2016 3:58:35 PM	B34393
Uranium	0.0054	0.000051	0.00050		mg/L	1	5/20/2016 3:58:35 PM	B34393
EPA METHOD 245.1: MERCURY							Analyst: **pmf**	
Mercury	ND	0.000053	0.00020		mg/L	1	5/24/2016 10:57:02 AM	25455
EPA METHOD 8260B: VOLATILES							Analyst: **BCN**	
Benzene	ND	0.096	1.0		µg/L	1	5/21/2016 8:17:00 AM	C34390
Toluene	ND	0.12	1.0		µg/L	1	5/21/2016 8:17:00 AM	C34390
Ethylbenzene	ND	0.11	1.0		µg/L	1	5/21/2016 8:17:00 AM	C34390
1,2-Dichloroethane (EDC)	ND	0.12	1.0		µg/L	1	5/21/2016 8:17:00 AM	C34390
1,2-Dibromoethane (EDB)	ND	0.11	1.0		µg/L	1	5/21/2016 8:17:00 AM	C34390
Carbon Tetrachloride	ND	0.11	1.0		µg/L	1	5/21/2016 8:17:00 AM	C34390
Chloroform	ND	0.089	1.0		µg/L	1	5/21/2016 8:17:00 AM	C34390
1,1-Dichloroethane	ND	0.11	1.0		µg/L	1	5/21/2016 8:17:00 AM	C34390
1,1-Dichloroethene	ND	0.11	1.0		µg/L	1	5/21/2016 8:17:00 AM	C34390
Methylene Chloride	ND	0.19	3.0		µg/L	1	5/21/2016 8:17:00 AM	C34390
1,1,2,2-Tetrachloroethane	ND	0.13	2.0		µg/L	1	5/21/2016 8:17:00 AM	C34390
Tetrachloroethene (PCE)	ND	0.15	1.0		µg/L	1	5/21/2016 8:17:00 AM	C34390
1,1,1-Trichloroethane	ND	0.091	1.0		µg/L	1	5/21/2016 8:17:00 AM	C34390
1,1,2-Trichloroethane	ND	0.13	1.0		µg/L	1	5/21/2016 8:17:00 AM	C34390
Trichloroethene (TCE)	ND	0.18	1.0		µg/L	1	5/21/2016 8:17:00 AM	C34390
Vinyl chloride	ND	0.20	1.0		µg/L	1	5/21/2016 8:17:00 AM	C34390
Xylenes, Total	ND	0.37	1.5		µg/L	1	5/21/2016 8:17:00 AM	C34390
Surr: 1,2-Dichloroethane-d4	84.7	0	70-130		%Rec	1	5/21/2016 8:17:00 AM	C34390
Surr: 4-Bromofluorobenzene	100	0	70-130		%Rec	1	5/21/2016 8:17:00 AM	C34390
Surr: Dibromofluoromethane	83.6	0	70-130		%Rec	1	5/21/2016 8:17:00 AM	C34390
Surr: Toluene-d8	94.7	0	70-130		%Rec	1	5/21/2016 8:17:00 AM	C34390
TOTAL PHENOLICS BY SW-846 9067							Analyst: **SCC**	

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Navajo Refining Company
Client Sample ID: R.O. Reject
Project: Monthly R.O. Reject
Collection Date: 5/19/2016 10:15:00 AM
Lab ID: 1605958-001
Matrix: AQUEOUS
Received Date: 5/20/2016 9:50:00 AM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
TOTAL PHENOLICS BY SW-846 9067							Analyst: **SCC**	
Phenolics, Total Recoverable	ND	1.5	2.5		µg/L	1	5/27/2016	25543
SM4500-H+B: PH							Analyst: **JRR**	
pH	7.85	0.100	1.68	H	pH units	1	5/23/2016 3:23:24 PM	R34435
SM2540C MOD: TOTAL DISSOLVED SOLIDS							Analyst: **KS**	
Total Dissolved Solids	2280	10.5	20.0	*	mg/L	1	5/25/2016 3:53:00 PM	25475

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Navajo Refining Company
Client Sample ID: Trip Blank
Project: Monthly R.O. Reject
Collection Date:
Lab ID: 1605958-002
Matrix: TRIP BLANK
Received Date: 5/20/2016 9:50:00 AM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8011/504.1: EDB							Analyst: **JME**	
1,2-Dibromoethane	ND	0.0033	0.010		µg/L	1	5/23/2016 8:52:29 PM	25433
EPA METHOD 8015D: GASOLINE RANGE							Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	0.025	0.050		mg/L	1	5/23/2016 1:57:51 PM	A34422
Surr: BFB	91.4	0	66.4-120		%Rec	1	5/23/2016 1:57:51 PM	A34422
EPA METHOD 8260B: VOLATILES							Analyst: **BCN**	
Benzene	ND	0.096	1.0		µg/L	1	5/21/2016 8:41:00 AM	C34390
Toluene	ND	0.12	1.0		µg/L	1	5/21/2016 8:41:00 AM	C34390
Ethylbenzene	ND	0.11	1.0		µg/L	1	5/21/2016 8:41:00 AM	C34390
1,2-Dichloroethane (EDC)	ND	0.12	1.0		µg/L	1	5/21/2016 8:41:00 AM	C34390
1,2-Dibromoethane (EDB)	ND	0.11	1.0		µg/L	1	5/21/2016 8:41:00 AM	C34390
Carbon Tetrachloride	ND	0.11	1.0		µg/L	1	5/21/2016 8:41:00 AM	C34390
Chloroform	ND	0.089	1.0		µg/L	1	5/21/2016 8:41:00 AM	C34390
1,1-Dichloroethane	ND	0.11	1.0		µg/L	1	5/21/2016 8:41:00 AM	C34390
1,1-Dichloroethene	ND	0.11	1.0		µg/L	1	5/21/2016 8:41:00 AM	C34390
Methylene Chloride	ND	0.19	3.0		µg/L	1	5/21/2016 8:41:00 AM	C34390
1,1,2,2-Tetrachloroethane	ND	0.13	2.0		µg/L	1	5/21/2016 8:41:00 AM	C34390
Tetrachloroethene (PCE)	ND	0.15	1.0		µg/L	1	5/21/2016 8:41:00 AM	C34390
1,1,1-Trichloroethane	ND	0.091	1.0		µg/L	1	5/21/2016 8:41:00 AM	C34390
1,1,2-Trichloroethane	ND	0.13	1.0		µg/L	1	5/21/2016 8:41:00 AM	C34390
Trichloroethene (TCE)	ND	0.18	1.0		µg/L	1	5/21/2016 8:41:00 AM	C34390
Vinyl chloride	ND	0.20	1.0		µg/L	1	5/21/2016 8:41:00 AM	C34390
Xylenes, Total	ND	0.37	1.5		µg/L	1	5/21/2016 8:41:00 AM	C34390
Surr: 1,2-Dichloroethane-d4	85.5	0	70-130		%Rec	1	5/21/2016 8:41:00 AM	C34390
Surr: 4-Bromofluorobenzene	99.4	0	70-130		%Rec	1	5/21/2016 8:41:00 AM	C34390
Surr: Dibromofluoromethane	84.3	0	70-130		%Rec	1	5/21/2016 8:41:00 AM	C34390
Surr: Toluene-d8	94.0	0	70-130		%Rec	1	5/21/2016 8:41:00 AM	C34390

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Anatek Labs, Inc.

1282 Alturas Drive • Moscow, ID 83843 • (208) 883-2839 • Fax (208) 882-9246 • email moscow@anateklabs.com
504 E Sprague Ste. D • Spokane WA 99202 • (509) 838-3999 • Fax (509) 838-4433 • email spokane@anateklabs.com

Client:	HALL ENVIRONMENTAL ANALYSIS LAB	**Batch #:**	160524028
Address:	4901 HAWKINS NE SUITE D ALBUQUERQUE, NM 87109	**Project Name:**	1605958
Attn:	ANDY FREEMAN		

Analytical Results Report

Sample Number	160524028-001	**Sampling Date**	5/19/2016	**Date/Time Received**	5/24/2016 12:45 PM
Client Sample ID	1605958-001J / R.O. REJECT			**Sampling Time**	10:15 AM
Matrix	Water	**Sample Location**			
Comments					

Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifier
Cyanide	ND	mg/L	0.01	5/27/2016	MER	EPA 335.4	

Authorized Signature

John Coddington, Lab Manager

MCL EPA's Maximum Contaminant Level
ND Not Detected
PQL Practical Quantitation Limit

This report shall not be reproduced except in full, without the written approval of the laboratory.
The results reported relate only to the samples indicated.
Soil/solid results are reported on a dry-weight basis unless otherwise noted.

Anatek Labs, Inc.

1282 Alturas Drive • Moscow, ID 83843 • (208) 883-2839 • Fax (208) 882-9246 • email moscow@anateklabs.com
504 E Sprague Ste. D • Spokane WA 99202 • (509) 838-3999 • Fax (509) 838-4433 • email spokane@anateklabs.com

Client: HALL ENVIRONMENTAL ANALYSIS LAB
Address: 4901 HAWKINS NE SUITE D
ALBUQUERQUE, NM 87109
Attn: ANDY FREEMAN

Batch #: 160524028
Project Name: 1605958

Analytical Results Report

Quality Control Data

Lab Control Sample

Parameter	LCS Result	Units	LCS Spike	%Rec	AR %Rec	Prep Date	Analysis Date
Cyanide	0.534	mg/L	0.5	106.8	90-110	5/27/2016	5/27/2016

Matrix Spike

Sample Number	Parameter	Sample Result	MS Result	Units	MS Spike	%Rec	AR %Rec	Prep Date	Analysis Date
160519034-025	Cyanide	ND	0.510	mg/L	0.5	102.0	90-110	5/27/2016	5/27/2016

Matrix Spike Duplicate

Parameter	MSD Result	Units	MSD Spike	%Rec	%RPD	AR %RPD	Prep Date	Analysis Date
Cyanide	0.532	mg/L	0.5	106.4	4.2	0-20	5/27/2016	5/27/2016

Method Blank

Parameter	Result	Units	PQL	Prep Date	Analysis Date
Cyanide	ND	mg/L	0.01	5/27/2016	5/27/2016

AR	Acceptable Range
ND	Not Detected
PQL	Practical Quantitation Limit
RPD	Relative Percentage Difference

Comments:

Certifications held by Anatek Labs ID: EPA:ID00013; AZ:0701; CO:ID00013; FL(NELAP):E87893; ID:ID00013; MT:CERT0028; NM: ID00013; OR:ID200001-002; WA:C595
Certifications held by Anatek Labs WA: EPA:WA00169; ID:WA00169; WA:C585; MT:Cert0095; FL(NELAP): E871099

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1605958**

27-May-16

Client: Navajo Refining Company

Project: Monthly R.O. Reject

Sample ID **MB-A**	SampType: **MBLK**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **PBW**	Batch ID: **A34409**	RunNo: **34409**
Prep Date:	Analysis Date: **5/23/2016**	SeqNo: **1060909** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Aluminum	ND	0.020								
Barium	ND	0.0020								
Boron	ND	0.040								
Cadmium	ND	0.0020								
Chromium	ND	0.0060								
Cobalt	ND	0.0060								
Copper	ND	0.0060								
Iron	ND	0.020								
Manganese	ND	0.0020								
Molybdenum	ND	0.0080								
Nickel	ND	0.010								
Silver	ND	0.0050								
Zinc	ND	0.010								

Sample ID **LCS-A**	SampType: **LCS**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **LCSW**	Batch ID: **A34409**	RunNo: **34409**
Prep Date:	Analysis Date: **5/23/2016**	SeqNo: **1060910** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Aluminum	0.53	0.020	0.5000	0	106	85	115			
Barium	0.50	0.0020	0.5000	0	101	85	115			
Boron	0.52	0.040	0.5000	0	105	85	115			
Cadmium	0.51	0.0020	0.5000	0	101	85	115			
Chromium	0.50	0.0060	0.5000	0	99.5	85	115			
Cobalt	0.48	0.0060	0.5000	0	96.2	85	115			
Copper	0.50	0.0060	0.5000	0	100	85	115			
Iron	0.50	0.020	0.5000	0	100	85	115			
Manganese	0.49	0.0020	0.5000	0	98.4	85	115			
Molybdenum	0.53	0.0080	0.5000	0	105	85	115			
Nickel	0.47	0.010	0.5000	0	94.8	85	115			
Silver	0.10	0.0050	0.1000	0	101	85	115			
Zinc	0.51	0.010	0.5000	0	101	85	115			

Sample ID **LLLCS-A**	SampType: **LCSLL**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **BatchQC**	Batch ID: **A34409**	RunNo: **34409**
Prep Date:	Analysis Date: **5/23/2016**	SeqNo: **1060911** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Aluminum	0.0097	0.020	0.01000	0	96.7	50	150			J
Barium	0.0018	0.0020	0.002000	0	89.0	50	150			J

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

WO#: **1605958**
27-May-16

Client: Navajo Refining Company
Project: Monthly R.O. Reject

Sample ID **LLLCS-A** SampType: **LCSLL** TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **BatchQC** Batch ID: **A34409** RunNo: **34409**
Prep Date: Analysis Date: **5/23/2016** SeqNo: **1060911** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Boron	0.040	0.040	0.04000	0	100	50	150			
Cadmium	0.0017	0.0020	0.002000	0	87.0	50	150			J
Chromium	0.0058	0.0060	0.006000	0	96.3	50	150			J
Cobalt	0.0064	0.0060	0.006000	0	106	50	150			
Copper	0.0071	0.0060	0.006000	0	119	50	150			
Iron	0.023	0.020	0.02000	0	116	50	150			
Manganese	0.0021	0.0020	0.002000	0	103	50	150			
Molybdenum	0.0089	0.0080	0.008000	0	112	50	150			
Nickel	0.0055	0.010	0.005000	0	110	50	150			J
Silver	0.0049	0.0050	0.005000	0	97.8	50	150			J
Zinc	0.0048	0.010	0.005000	0	95.4	50	150			J

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
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S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1605958**

27-May-16

Client: Navajo Refining Company

Project: Monthly R.O. Reject

Sample ID	**LCS**	SampType: **LCS**		TestCode: **EPA 200.8: Dissolved Metals**					
Client ID:	**LCSW**	Batch ID: **B34393**		RunNo: **34393**					
Prep Date:		Analysis Date: **5/20/2016**		SeqNo: **1060562**		Units: **mg/L**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.025	0.0010	0.02500	0	98.5	85	115			
Lead	0.012	0.00050	0.01250	0	97.6	85	115			
Selenium	0.026	0.0010	0.02500	0	103	85	115			
Uranium	0.012	0.00050	0.01250	0	99.4	85	115			

Sample ID	**LLLCS**	SampType: **LCSLL**		TestCode: **EPA 200.8: Dissolved Metals**					
Client ID:	**BatchQC**	Batch ID: **B34393**		RunNo: **34393**					
Prep Date:		Analysis Date: **5/20/2016**		SeqNo: **1060563**		Units: **mg/L**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.00099	0.0010	0.001000	0	98.8	50	150			J
Lead	0.00049	0.00050	0.0005000	0	97.8	50	150			J
Selenium	0.0010	0.0010	0.001000	0	99.6	50	150			J
Uranium	0.00049	0.00050	0.0005000	0	97.0	50	150			J

Sample ID	**MB**	SampType: **MBLK**		TestCode: **EPA 200.8: Dissolved Metals**					
Client ID:	**PBW**	Batch ID: **B34393**		RunNo: **34393**					
Prep Date:		Analysis Date: **5/20/2016**		SeqNo: **1060564**		Units: **mg/L**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								
Lead	ND	0.00050								
Selenium	ND	0.0010								
Uranium	ND	0.00050								

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1605958**

27-May-16

Client: Navajo Refining Company

Project: Monthly R.O. Reject

Sample ID	**MB-25455**	SampType:	**MBLK**	TestCode:	**EPA Method 245.1: Mercury**				
Client ID:	**PBW**	Batch ID:	**25455**	RunNo:	**34451**				
Prep Date:	**5/23/2016**	Analysis Date:	**5/24/2016**	SeqNo:	**1062360**	Units:	**mg/L**		

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	ND	0.00020								

Sample ID	**LCS-25455**	SampType:	**LCS**	TestCode:	**EPA Method 245.1: Mercury**				
Client ID:	**LCSW**	Batch ID:	**25455**	RunNo:	**34451**				
Prep Date:	**5/23/2016**	Analysis Date:	**5/24/2016**	SeqNo:	**1062361**	Units:	**mg/L**		

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.0051	0.00020	0.005000	0	101	80	120			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1605958**

27-May-16

Client: Navajo Refining Company

Project: Monthly R.O. Reject

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA Method 300.0: Anions**							
Client ID: **PBW**	Batch ID: **A34410**	RunNo: **34410**							
Prep Date:	Analysis Date: **5/20/2016**	SeqNo: **1061021**	Units: **mg/L**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	ND	0.10								
Chloride	ND	0.50								
Nitrogen, Nitrate (As N)	ND	0.10								

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA Method 300.0: Anions**							
Client ID: **LCSW**	Batch ID: **A34410**	RunNo: **34410**							
Prep Date:	Analysis Date: **5/20/2016**	SeqNo: **1061022**	Units: **mg/L**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.47	0.10	0.5000	0	94.7	90	110			
Chloride	4.9	0.50	5.000	0	97.5	90	110			
Nitrogen, Nitrate (As N)	2.5	0.10	2.500	0	99.3	90	110			

Sample ID **1605958-001FMS**	SampType: **MS**	TestCode: **EPA Method 300.0: Anions**							
Client ID: **R.O. Reject**	Batch ID: **A34410**	RunNo: **34410**							
Prep Date:	Analysis Date: **5/21/2016**	SeqNo: **1061050**	Units: **mg/L**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	2.2	0.10	0.5000	1.948	59.5	71.4	120			S
Nitrogen, Nitrate (As N)	3.7	0.10	2.500	1.246	99.1	87.3	111			

Sample ID **1605958-001FMSD**	SampType: **MSD**	TestCode: **EPA Method 300.0: Anions**							
Client ID: **R.O. Reject**	Batch ID: **A34410**	RunNo: **34410**							
Prep Date:	Analysis Date: **5/21/2016**	SeqNo: **1061051**	Units: **mg/L**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	2.4	0.10	0.5000	1.948	92.5	71.4	120	7.09	20	
Nitrogen, Nitrate (As N)	3.7	0.10	2.500	1.246	99.0	87.3	111	0.0806	20	

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA Method 300.0: Anions**							
Client ID: **PBW**	Batch ID: **R34453**	RunNo: **34453**							
Prep Date:	Analysis Date: **5/24/2016**	SeqNo: **1062512**	Units: **mg/L**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Sulfate	ND	0.50								

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1605958**

27-May-16

Client: Navajo Refining Company

Project: Monthly R.O. Reject

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA Method 300.0: Anions**
Client ID: **LCSW**	Batch ID: **R34453**	RunNo: **34453**
Prep Date:	Analysis Date: **5/24/2016**	SeqNo: **1062513** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Sulfate	9.7	0.50	10.00	0	96.5	90	110			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1605958**

27-May-16

Client: Navajo Refining Company

Project: Monthly R.O. Reject

Sample ID	**MB-25433**	SampType: **MBLK**			TestCode: **EPA Method 8011/504.1: EDB**					
Client ID:	**PBW**	Batch ID: **25433**			RunNo: **34423**					
Prep Date:	**5/23/2016**	Analysis Date: **5/23/2016**			SeqNo: **1061420**		Units: **µg/L**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,2-Dibromoethane	ND	0.010								

Sample ID	**LCS-25433**	SampType: **LCS**			TestCode: **EPA Method 8011/504.1: EDB**					
Client ID:	**LCSW**	Batch ID: **25433**			RunNo: **34423**					
Prep Date:	**5/23/2016**	Analysis Date: **5/23/2016**			SeqNo: **1061422**		Units: **µg/L**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,2-Dibromoethane	0.12	0.010	0.1000	0	122	70	130			

Sample ID	**1605958-001CMS**	SampType: **MS**			TestCode: **EPA Method 8011/504.1: EDB**					
Client ID:	**R.O. Reject**	Batch ID: **25433**			RunNo: **34423**					
Prep Date:	**5/23/2016**	Analysis Date: **5/23/2016**			SeqNo: **1061456**		Units: **µg/L**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,2-Dibromoethane	0.11	0.010	0.1000	0	114	40.3	153			

Sample ID	**1605958-001CMSD**	SampType: **MSD**			TestCode: **EPA Method 8011/504.1: EDB**					
Client ID:	**R.O. Reject**	Batch ID: **25433**			RunNo: **34423**					
Prep Date:	**5/23/2016**	Analysis Date: **5/23/2016**			SeqNo: **1061458**		Units: **µg/L**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,2-Dibromoethane	0.12	0.010	0.1000	0	117	40.3	153	3.01	29.5	

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1605958**

27-May-16

Client: Navajo Refining Company

Project: Monthly R.O. Reject

Sample ID **LCS-25440**	SampType: **LCS**	TestCode: **EPA Method 8015D: Diesel Range**							
Client ID: **LCSW**	Batch ID: **25440**	RunNo: **34408**							
Prep Date: **5/23/2016**	Analysis Date: **5/23/2016**	SeqNo: **1060963**	Units: **mg/L**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	2.5	0.20	2.500	0	101	65.4	162			
Surr: DNOP	0.24		0.2500		97.5	63.2	161			

Sample ID **MB-25440**	SampType: **MBLK**	TestCode: **EPA Method 8015D: Diesel Range**							
Client ID: **PBW**	Batch ID: **25440**	RunNo: **34408**							
Prep Date: **5/23/2016**	Analysis Date: **5/23/2016**	SeqNo: **1060964**	Units: **mg/L**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	0.20								
Motor Oil Range Organics (MRO)	ND	2.5								
Surr: DNOP	0.56		0.5000		111	63.2	161			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1605958**

27-May-16

Client: Navajo Refining Company

Project: Monthly R.O. Reject

Sample ID	**5ML RB**	SampType:	**MBLK**	TestCode:	**EPA Method 8015D: Gasoline Range**					
Client ID:	**PBW**	Batch ID:	**A34422**	RunNo:	**34422**					
Prep Date:		Analysis Date:	**5/23/2016**	SeqNo:	**1061336**	Units:	**mg/L**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	0.050								
Surr: BFB	19		20.00		94.8	66.4	120			

Sample ID	**2.5UG GRO LCSB**	SampType:	**LCS**	TestCode:	**EPA Method 8015D: Gasoline Range**					
Client ID:	**LCSW**	Batch ID:	**A34422**	RunNo:	**34422**					
Prep Date:		Analysis Date:	**5/23/2016**	SeqNo:	**1061337**	Units:	**mg/L**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	0.50	0.050	0.5000	0	99.4	80	120			
Surr: BFB	22		20.00		108	66.4	120			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
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QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1605958**

27-May-16

Client: Navajo Refining Company

Project: Monthly R.O. Reject

Sample ID **MB-25436**	SampType: **MBLK**	TestCode: **EPA Method 8082: PCB's**							
Client ID: **PBW**	Batch ID: **25436**	RunNo: **34486**							
Prep Date: **5/23/2016**	Analysis Date: **5/26/2016**	SeqNo: **1063584**	Units: **µg/L**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Aroclor 1016	ND	1.0								
Aroclor 1221	ND	1.0								
Aroclor 1232	ND	1.0								
Aroclor 1242	ND	1.0								
Aroclor 1248	ND	1.0								
Aroclor 1254	ND	1.0								
Aroclor 1260	ND	1.0								
Surr: Decachlorobiphenyl	2.0		2.500		81.2	26.1	140			
Surr: Tetrachloro-m-xylene	3.0		2.500		119	15	123			

Sample ID **LCS-25436**	SampType: **LCS**	TestCode: **EPA Method 8082: PCB's**							
Client ID: **LCSW**	Batch ID: **25436**	RunNo: **34486**							
Prep Date: **5/23/2016**	Analysis Date: **5/26/2016**	SeqNo: **1063585**	Units: **µg/L**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Aroclor 1016	3.8	1.0	5.000	0	75.4	15	131			
Aroclor 1260	3.8	1.0	5.000	0	75.9	15	162			
Surr: Decachlorobiphenyl	1.9		2.500		75.6	26.1	140			
Surr: Tetrachloro-m-xylene	2.3		2.500		92.8	15	123			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
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QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1605958**

27-May-16

Client: Navajo Refining Company

Project: Monthly R.O. Reject

Sample ID **100ng LCS**	SampType: **LCS**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **LCSW**	Batch ID: **C34390**	RunNo: **34390**
Prep Date:	Analysis Date: **5/20/2016**	SeqNo: **1060663** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	18	1.0	20.00	0	91.4	70	130			
Toluene	19	1.0	20.00	0	97.5	70	130			
1,1-Dichloroethene	17	1.0	20.00	0	83.3	70	130			
Trichloroethene (TCE)	19	1.0	20.00	0	95.6	70	130			
Surr: 1,2-Dichloroethane-d4	8.3		10.00		82.9	70	130			
Surr: 4-Bromofluorobenzene	10		10.00		102	70	130			
Surr: Dibromofluoromethane	8.5		10.00		85.4	70	130			
Surr: Toluene-d8	9.6		10.00		95.8	70	130			

Sample ID **rb2**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBW**	Batch ID: **C34390**	RunNo: **34390**
Prep Date:	Analysis Date: **5/20/2016**	SeqNo: **1060664** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	1.0								
Toluene	ND	1.0								
Ethylbenzene	ND	1.0								
1,2-Dichloroethane (EDC)	ND	1.0								
1,2-Dibromoethane (EDB)	ND	1.0								
Carbon Tetrachloride	ND	1.0								
Chloroform	ND	1.0								
1,1-Dichloroethane	ND	1.0								
1,1-Dichloroethene	ND	1.0								
Methylene Chloride	ND	3.0								
1,1,2,2-Tetrachloroethane	ND	2.0								
Tetrachloroethene (PCE)	ND	1.0								
1,1,1-Trichloroethane	ND	1.0								
1,1,2-Trichloroethane	ND	1.0								
Trichloroethene (TCE)	ND	1.0								
Vinyl chloride	ND	1.0								
Xylenes, Total	ND	1.5								
Surr: 1,2-Dichloroethane-d4	8.4		10.00		84.0	70	130			
Surr: 4-Bromofluorobenzene	10		10.00		100	70	130			
Surr: Dibromofluoromethane	8.5		10.00		84.6	70	130			
Surr: Toluene-d8	9.4		10.00		93.9	70	130			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1605958**

27-May-16

Client: Navajo Refining Company

Project: Monthly R.O. Reject

Sample ID **MB-25416**	SampType: **MBLK**	TestCode: **EPA Method 8310: PAHs**
Client ID: **PBW**	Batch ID: **25416**	RunNo: **34425**
Prep Date: **5/20/2016**	Analysis Date: **5/24/2016**	SeqNo: **1061459** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Naphthalene	ND	2.0								
1-Methylnaphthalene	ND	2.0								
2-Methylnaphthalene	ND	2.0								
Acenaphthylene	ND	2.5								
Acenaphthene	ND	2.0								
Fluorene	ND	0.80								
Phenanthrene	ND	0.60								
Anthracene	ND	0.60								
Fluoranthene	ND	0.30								
Pyrene	ND	0.30								
Benz(a)anthracene	ND	0.070								
Chrysene	ND	0.20								
Benzo(b)fluoranthene	ND	0.10								
Benzo(k)fluoranthene	ND	0.070								
Benzo(a)pyrene	ND	0.070								
Dibenz(a,h)anthracene	ND	0.12								
Benzo(g,h,i)perylene	ND	0.12								
Indeno(1,2,3-cd)pyrene	ND	0.25								
Surr: Benzo(e)pyrene	14		20.00		69.0	20	153			

Sample ID **LCS-25416**	SampType: **LCS**	TestCode: **EPA Method 8310: PAHs**
Client ID: **LCSW**	Batch ID: **25416**	RunNo: **34425**
Prep Date: **5/20/2016**	Analysis Date: **5/24/2016**	SeqNo: **1061630** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Naphthalene	66	2.0	80.00	0	82.8	55.6	124			
1-Methylnaphthalene	65	2.0	80.20	0	80.8	55.3	124			
2-Methylnaphthalene	64	2.0	80.00	0	80.6	55.4	124			
Acenaphthylene	66	2.5	80.20	0	82.9	60.2	119			
Acenaphthene	64	2.0	80.00	0	80.4	56	126			
Fluorene	6.2	0.80	8.020	0	77.8	51.6	129			
Phenanthrene	3.3	0.60	4.020	0	81.1	58.8	129			
Anthracene	3.3	0.60	4.020	0	82.3	59.9	121			
Fluoranthene	5.4	0.30	8.020	0	67.0	48	145			
Pyrene	6.6	0.30	8.020	0	81.7	56.2	130			
Benz(a)anthracene	0.67	0.070	0.8020	0	83.5	50.4	142			
Chrysene	3.2	0.20	4.020	0	80.6	54.7	134			
Benzo(b)fluoranthene	0.82	0.10	1.002	0	81.8	61.8	120			
Benzo(k)fluoranthene	0.42	0.070	0.5000	0	84.0	55.9	134			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1605958**

27-May-16

Client: Navajo Refining Company

Project: Monthly R.O. Reject

Sample ID **LCS-25416**	SampType: **LCS**	TestCode: **EPA Method 8310: PAHs**							
Client ID: **LCSW**	Batch ID: **25416**	RunNo: **34425**							
Prep Date: **5/20/2016**	Analysis Date: **5/24/2016**	SeqNo: **1061630**	Units: **µg/L**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzo(a)pyrene	0.43	0.070	0.5020	0	85.7	51.3	137			
Dibenz(a,h)anthracene	0.84	0.12	1.002	0	83.8	57.8	134			
Benzo(g,h,i)perylene	0.85	0.12	1.000	0	85.0	57.2	134			
Indeno(1,2,3-cd)pyrene	1.6	0.25	2.004	0	81.3	58.2	137			
Surr: Benzo(e)pyrene	15		20.00		76.9	20	153			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1605958**

27-May-16

Client: Navajo Refining Company

Project: Monthly R.O. Reject

Sample ID	**MB-25543**	SampType:	**MBLK**	TestCode:	**Total Phenolics by SW-846 9067**					
Client ID:	**PBW**	Batch ID:	**25543**	RunNo:	**34512**					
Prep Date:	**5/27/2016**	Analysis Date:	**5/27/2016**	SeqNo:	**1064497**	Units:	**µg/L**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Phenolics, Total Recoverable	ND	2.5								

Sample ID	**LCS-25543**	SampType:	**LCS**	TestCode:	**Total Phenolics by SW-846 9067**					
Client ID:	**LCSW**	Batch ID:	**25543**	RunNo:	**34512**					
Prep Date:	**5/27/2016**	Analysis Date:	**5/27/2016**	SeqNo:	**1064498**	Units:	**µg/L**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Phenolics, Total Recoverable	23	2.5	20.00	0	116	64.4	135			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

WO#: **1605958**
27-May-16

Client: Navajo Refining Company
Project: Monthly R.O. Reject

Sample ID	**MB-25475**	SampType: **MBLK**		TestCode: **SM2540C MOD: Total Dissolved Solids**						
Client ID:	**PBW**	Batch ID: **25475**		RunNo: **34475**						
Prep Date:	**5/24/2016**	Analysis Date: **5/25/2016**		SeqNo: **1063156**		Units: **mg/L**				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Dissolved Solids	ND	20.0								

Sample ID	**LCS-25475**	SampType: **LCS**		TestCode: **SM2540C MOD: Total Dissolved Solids**						
Client ID:	**LCSW**	Batch ID: **25475**		RunNo: **34475**						
Prep Date:	**5/24/2016**	Analysis Date: **5/25/2016**		SeqNo: **1063157**		Units: **mg/L**				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Dissolved Solids	1010	20.0	1000	0	101	80	120			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

HALL ENVIRONMENTAL ANALYSIS LABORATORY

Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

Sample Log-In Check List

Client Name: NAVAJO REFINING CO Work Order Number: 1605958 RcptNo: 1

Received by/date: SA 05/20/16

Logged By: Lindsay Mangin 5/20/2016 9:50:00 AM

Completed By: Lindsay Mangin 5/20/2016 10:12:15 AM

Reviewed By: 05/20/16

Chain of Custody

1. Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Present ☑
2. Is Chain of Custody complete?	Yes ☑	No ☐	Not Present ☐
3. How was the sample delivered?	Courier		

Log In

4. Was an attempt made to cool the samples?	Yes ☑	No ☐	NA ☐
5. Were all samples received at a temperature of >0° C to 6.0°C	Yes ☑	No ☐	NA ☐
6. Sample(s) in proper container(s)?	Yes ☑	No ☐	
7. Sufficient sample volume for indicated test(s)?	Yes ☑	No ☐	
8. Are samples (except VOA and ONG) properly preserved?	Yes ☑	No ☐	
9. Was preservative added to bottles?	Yes ☐	No ☑	NA ☐
10. VOA vials have zero headspace?	Yes ☑	No ☐	No VOA Vials ☐
11. Were any sample containers received broken?	Yes ☐	No ☑	
12. Does paperwork match bottle labels? (Note discrepancies on chain of custody)	Yes ☑	No ☐	# of preserved bottles checked for pH: 6 (≤2 or ≥12 unless noted)
13. Are matrices correctly identified on Chain of Custody?	Yes ☑	No ☐	Adjusted? NO
14. Is it clear what analyses were requested?	Yes ☑	No ☐	
15. Were all holding times able to be met? (If no, notify customer for authorization.)	Yes ☑	No ☐	Checked by: AJS

Special Handling (if applicable)

16. Was client notified of all discrepancies with this order? Yes ☐ No ☐ NA ☑

Person Notified: ____ Date: ____

By Whom: ____ Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person

Regarding: ____

Client Instructions: ____

17. Additional remarks:

18. Cooler Information

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	1.0	Good	Yes			

Chain-of-Custody Record

Client: Navajo Refinery

Mailing Address: P.O. Box 159 Artesia,

NM 88211-0159

Phone #: 575-748-3311

Email or Fax#: 575-746-5451

QA/QC Package:

Standard ☐ Level 4 (Full Validation)

Other

EDD (Type)

Turn-Around Time:

X Standard ☐ Rush

Project Name:

Monthly R.O. Reject

Project #: P.O. # 167796

Project Manager:

Robert Combs

Sampler: Brady Hubbard

On Ice: X Yes ☐ No

Sample Temperature: 1.0

HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

Tel. 505-345-3975 Fax 505-345-4107

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No. 1605958	8260B:WQCC List VOCs	8270C: WQCC list SVOCs	6010B; WQCC Metals	335.4: Total Cyanide	7470: Mercury	8015: GRO, DRO, ORO	8082: PCBs	Radioactivity (Ra-226+Ra-228)	Sulfate Chloride	Phenols	Fluoride	Nitrate/Nitrite	Total Dissolved Solids	PH	504.1:EDB	Air Bubbles (Y or N)
9-16	10:15	liquid	R.O. Reject	2 - 500ml P	1-unpres 1-H2SO4	-001									X		X	X	X	X		Y
9-16	10:15	liquid	R.O. Reject	3-40ml VOA	HCL	-001	X															
9-16	10:15	liquid	R.O. Reject	1-500ml P	HNO3	-001					X											
9-16	10:15	liquid	R.O. Reject	1-125ml P	HNO3	-001			X													
9-16	10:15	liquid	R.O. Reject	1-500ml P	NaOH	-001				X												
9-16	10:15	liquid	R.O. Reject	2- 1L P	HNO3	-001								X								
9-16	10:15	liquid	R.O. Reject	2-40ml VOA	Na2S2O3	-001															X	
9-16	10:15	liquid	R.O. Reject	2 - 1L Glass	unpres	-001							X									
9-16	10:15	liquid	R.O. Reject	1 - 1L Glass	unpres	-001		X														
9-16	10:15	liquid	R.O. Reject	3-40ml VOA	HCl	-001						X										
9-16	10:15	liquid	R.O. Reject	1-250mlGlass	unpres	-001						X										
9-16	10:15	liquid	R.O. Reject	1 - 1L Glass	H2SO4	-001										X						
		liquid	Trip Blank	2-40ml VOA	HCL	-002																

Date:	Time:	Relinquished by:	Received by:	Date	Time
9-16	2:00	Brady Hubbard	Jac Ant	05/20/16	0950
	Time:	Relinquished by:	Received by:	Date	Time

Remarks:

Metals: As, Al, Ba, B, Cd, Cr, Co, Cu, Fe, Pb, Mn, Hg, Mo, Ni, Se, Ag, U, Zn

VOCs: 1,1,1-Trichloroethane; 1,1,2,2-Tetrachloroethane; 1,1,2,2-Tetrachloroethylene; 1,1,2-Trichloroethane; 1,1,2-Trichloroethylene; 1,1-Dichloroethane; 1,1-Dichloroethene; 1,2-Dibromoethane; 1,2-Dichloroethane; Benzene; Carbon Tetrachloride; Chloroform; Dichloromethane; Ethylbenzene; Toluene; Total Xylenes; Vinyl Chloride

SVOCs: benzo(a)pyrene, phenol, 1-methylnaphthalene, 2-methylnaphthalene, naphthalene