GW - 32

NPDES

Chavez, Carl J, EMNRD

From: Okpala.Maria@epamail.epa.gov
Sent: Wednesday, January 05, 2011 5:53 AM
To: Chavez, Carl J, EMNRD
Cc: VonGonten, Glenn, EMNRD; VanHorn, Kristen, NMENV; Powell, Richard, NMENV; Larsen.Brent@epamail.epa.gov
Subject: Re: Status of Western Refining Southwest- Gallup Refinery (GW-32) NPDES Permit Application Status Request

Due to unresolved issues with RCRA, we are currently not proceeding with permit issuance.

Maria Okpala
Onshore Oil & Gas Permits
NPDES Permits Branch - Permits & Technical Section
EPA, Region 6 - Dallas, TX
okpala.maria@epa.gov
Phone: 214 665-3152
Fax: 214 665-2191

From: "Chavez, Carl J, EMNRD" <CarlJ.Chavez@state.nm.us>
To: Maria Okpala/R6/USEPA/US@EPA
Cc: "VonGonten, Glenn, EMNRD" <Glenn.VonGonten@state.nm.us>, "VanHorn, Kristen, NMENV" <Kristen.VanHorn@state.nm.us>, "Powell, Richard, NMENV" <richard.powell@state.nm.us>
Date: 01/04/2011 03:12 PM
Subject: Status of Western Refining Southwest- Gallup Refinery (GW-32) NPDES Permit Application Status Request

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Maria:

Good afternoon. Could you please update the OCD on the status of the NPDES Permit Application with the EPA?

Thank you.

Carl J. Chavez, CHMM
New Mexico Energy, Minerals & Natural Resources Dept.
Oil Conservation Division, Environmental Bureau
1220 South St. Francis Dr., Santa Fe, New Mexico 87505
Office: (505) 476-3490
Fax: (505) 476-3462
E-mail: CarlJ.Chavez@state.nm.us
Website: http://www.emnrd.state.nm.us/ocd/index.htm
(Pollution Prevention Guidance is under "Publications")

Chavez, Carl J, EMNRD

From: Chavez, Carl J, EMNRD
Sent: Thursday, June 24, 2010 6:07 AM
To: 'Riege, Ed'
Cc: VonGonten, Glenn, EMNRD; Cobrain, Dave, NMENV; 'okpala.maria@epa.gov'
Subject: RE: Discharge Permit Major Modification to Discharge Permit (GW-032)

Ed:

Good morning. OCD has considered your request for a 90-day extension to respond to the OCD's May 13, 2010 "Major Modification" letter, contingent on the pending NPDES permitting actions of EPA Region 6. OCD hereby denies Western's request.

Given the lack of overlap between the requirements of OCD's discharge permit and EPA's NPDES permit, OCD has determined that there is no reason to delay requiring a Major Modification to Western's Gallup Refinery permit. The WQCC regulations (20.6.2.3109E NMAC) specify that OCD may require a discharge permit modification to protect ground water quality.

The Major Modification to the discharge permit will require Western to be consistent with the requirements and provisions the WQCC Abatement Plan program specified in 20.6.2.4101, 20.6.2.4103, Subsections C and E of 20.6.2.4106, 20.6.2.4107, and 20.6.2.4112 NMAC. The Major Modification to Western's Discharge Permit must address the following:

1) Western must determine the contaminant hydrogeology in the aquifers beneath the facility property and toward the Rio Puerco River;

2) Western must install monitor wells to investigate the mixing zone along the Rio Puerco to determine whether the Rio Puerco River is gaining or loosing; and,

3) Western must propose and implement a ground water monitoring program to demonstrate Western's compliance with the WQCC regulations and standards.

OCD has consistently communicated it's expectations to Western. Further delay, tied to EPA's NPDES permitting program is not appropriate because the requirements specified above are completely independent of the NPDES permit issues.

Please contact me if you have questions. Thank you.

Carl J. Chavez, CHMM
New Mexico Energy, Minerals & Natural Resources Dept.
Oil Conservation Division, Environmental Bureau 1220 South St. Francis Dr., Santa Fe, New Mexico 87505
Office: (505) 476-3490
Fax: (505) 476-3462
E-mail: CarlJ.Chavez@state.nm.us
Website: http://www.emnrd.state.nm.us/ocd/index.htm
(Pollution Prevention Guidance is under "Publications")

-----Original Message-----
From: Riege, Ed [mailto:Ed.Riege@wnr.com]
Sent: Tuesday, June 15, 2010 2:22 PM
To: Chavez, Carl J, EMNRD
Subject: Discharge Permit Mod Request (GW-032)

Carl,
This went out in today's mail.

Thanks,

Ed

Ed Riege
Environmental Manager

Western Refining
Gallup Refinery
Route 3 Box 7
Gallup, NM 87301
(505) 722-0217
ed.riege@wnr.com

Safety starts with "S", but always begins with "You"

Chavez, Carl J, EMNRD

From: Chavez, Carl J, EMNRD
Sent: Thursday, June 17, 2010 8:09 AM
To: 'okpala.maria@epa.gov'
Cc: VonGonten, Glenn, EMNRD
Subject: Western Refining Southwest, Inc.- Gallup Refinery (GW-032) Status of NPDES Permit Application
Attachments: 20100615141600169.pdf

Maria:

Good morning. Could you please provide the Oil Conservation Division (OCD) with the status of Western's NPDES Permit (Permit)?

The OCD provided its comments on the most recent EPA NPDES draft public notice and based on the attached letter from Western, OCD needs to know the status of the EPA Permit in order to implement a "Major Modification" to the current OCD Discharge Permit (GW-032) to allow the discharge.

Please contact me if you have questions. Thank you.

Carl J. Chavez, CHMM
New Mexico Energy, Minerals & Natural Resources Dept.
Oil Conservation Division, Environmental Bureau 1220 South St. Francis Dr., Santa Fe, New Mexico 87505
Office: (505) 476-3490
Fax: (505) 476-3462
E-mail: CarlJ.Chavez@state.nm.us
Website: http://www.emnrd.state.nm.us/ocd/index.htm
(Pollution Prevention Guidance is under "Publications")

-----Original Message-----
From: Riege, Ed [mailto:Ed.Riege@wnr.com]
Sent: Tuesday, June 15, 2010 2:22 PM
To: Chavez, Carl J, EMNRD
Subject: Discharge Permit Mod Request (GW-032)

Carl,
This went out in today's mail.

Thanks,
Ed

Ed Riege
Environmental Manager

Western Refining
Gallup Refinery
Route 3 Box 7
Gallup, NM 87301
(505) 722-0217
ed.riege@wnr.com

Safety starts with "S", but always begins with "You"

Western Refining
GALLUP

WNR
LISTED
NYSE

RECEIVED OCD
2010 JUN 16 P 1:20

June 15, 2010

Mr. Carl Chavez
New Mexico Energy, Minerals & Natural Resources Department
Oil Conservation Division
Environmental Bureau
1220 S. St. Francis Dr.
Santa Fe, NM 87505

Re: Discharge Permit "Modification" request to Discharge (GW-032)
Western refining Southwest – Gallup Refinery
McKinley County, New Mexico

Dear Mr. Chavez:

This letter is in response to your letter of May 13, 2010 regarding the Discharge Permit "Modification" request to Discharge. Western Refining Southwest, Inc. (Western) understands that the State of New Mexico has a vested interest in the NPDES permit. Western has always assumed that EPA will seek and obtain all necessary and appropriate input from the State of New Mexico.

Due to evolving details concerning the NPDES permit that can potentially influence our response to your letter, Western respectfully requests a 90 day extension to respond to the May 13, 2010 letter.

Sincerely,

Ed Riege
Environmental Manager

Western Refining
GALLUP

WNR
LISTED
NYSE

June 15, 2010

Mr. Carl Chavez
New Mexico Energy, Minerals & Natural Resources Department
Oil Conservation Division
Environmental Bureau
1220 S. St. Francis Dr.
Santa Fe, NM 87505

Re: Discharge Permit "Modification" request to Discharge (GW-032)
Western refining Southwest – Gallup Refinery
McKinley County, New Mexico

Dear Mr. Chavez:

This letter is in response to your letter of May 13, 2010 regarding the Discharge Permit "Modification" request to Discharge. Western Refining Southwest, Inc. (Western) understands that the State of New Mexico has a vested interest in the NPDES permit. Western has always assumed that EPA will seek and obtain all necessary and appropriate input from the State of New Mexico.

Due to evolving details concerning the NPDES permit that can potentially influence our response to your letter, Western respectfully requests a 90 day extension to respond to the May 13, 2010 letter.

Sincerely,

Ed Riege
Environmental Manager

NEW MEXICO
ENVIRONMENT DEPARTMENT

Surface Water Quality Bureau

Harold Runnels Building, N2050
1190 South St. Francis Drive (87505)
P.O. Box 5469, Santa Fe, NM 87502-5469
Phone (505) 827-0187 Fax (505) 827-0160
www.nmenv.state.nm.us

BILL RICHARDSON
Governor
DIANE DENISH
Lieutenant Governor

RON CURRY
Secretary
SARAH COTTRELL
Deputy Secretary

Original via UPS

May 20, 2010

Mr. Miguel Flores
Director
Water Quality Protection Division (6WQ)
U. S. Environmental Protection Agency
1445 Ross Avenue, Suite 1200
Dallas, Texas 75202-2733

Re: **State Certification**

Dear Mr. Flores:

Enclosed, please find the state certification for the following proposed NPDES permit:

Western Refining Gallup Refinery -- Permit #NM0031071

If any, comments and conditions are enclosed on separate sheets.

Sincerely,

Glenn E. Saums, Acting Chief
Surface Water Quality Bureau

cc: (w/enclosures)
Ms. Diane Smith, USEPA (6WQ-NP)
Mr. Mark B. Turri via Certified Mail (7008 1830 0003 4174 7108)
Western Refining Gallup Refinery
Route 3 Box 7
Gallup, New Mexico 87301
Brent Larsen, USEPA (6WQ) (via e-mail)
Dave Cobrain, NMED HWB
Glenn VonGonten, NMOCD

Dr. Alfredo Armendariz, Regional Administrator
Environmental Protection Agency
1445 Ross Avenue
Dallas, TX 75202-2733

Date: May 20, 2010

STATE CERTIFICATION

RE: Western Refining Gallup Refinery – Permit #NM0031071

Dear Dr. Armendariz:

The New Mexico Environment Department has examined the proposed NPDES permit above. The following conditions are necessary to assure compliance with the applicable provisions of the Clean Water Act Sections 208(e), 301, 302, 303, 306, and 307 and with appropriate requirements of State law. Compliance with the terms and conditions of the permit and this certification will provide reasonable assurance that the permitted activities will be conducted in a manner which will not violate applicable water quality standards and the water quality management plan and will be in compliance with the antidegradation policy.

The State of New Mexico

(X) certifies that the discharge will comply with the applicable provisions of Sections 208(e), 301, 302, 303, 306 and 307 of the Clean Water Act and with appropriate requirements of State law

( ) certifies that the discharge will comply with the applicable provisions of Sections 208(e), 301, 302, 303, 306 and 307 of the Clean Water Act and with appropriate requirements of State law upon inclusion of the following conditions in the permit (**see attachments**)

( ) denies certification for the reasons stated in the attachment

( ) waives its right to certify

In order to meet the requirements of State law, including water quality standards and appropriate basin plan as may be amended by the water quality management plan, each of the conditions cited in the draft permit and the State certification shall not be made less stringent.

The Department reserves the right to amend or revoke this certification if such action is necessary to ensure compliance with the State's water quality standards and water quality management plan.

Please contact Richard Powell at (505) 827-2798, if you have any questions concerning this certification. Comments and conditions pertaining to this draft permit are attached.

Sincerely,

Glenn Saums
Acting Bureau Chief
Surface Water Quality Bureau

Western Refining Gallup Refinery
State Certification of the Proposed NPDES Permit
NM0031071
May 20, 2010

Conditions of Certification

There are no conditions of State certification.

Comments That Are Not Conditions Of Certification

Comment #1 Part III.D.4 describes procedures for submittal of "Discharge Monitoring Reports and Other Reports." NMED is aware that EPA has implemented a program for voluntary submittal of Discharge Monitoring Reports electronically. The current language in this part does not appear to support this new program and suggests that EPA may wish to modify the language in this part to accommodate electronic submittals.

Comment #2 Discharges of process wastewater in an "extreme emergency" is mentioned in several locations in the Statement of Basis and the Proposed Permit, and the Statement of Basis states that under an extreme emergency "the facility intends to use appropriate temporary treatment systems to meet permit requirements." However, the permit does not define an "extreme emergency," its duration, or define "appropriate temporary treatment systems." NMED suggests that EPA include definitions of these terms both for purposes of clarifying EPA's expectation to the permittee as well as to facilitate enforcement.

Comment #3 The Proposed Permit establishes monthly average and daily maximum effluent loading limits for Oil & Grease and Chemical Oxygen Demand (COD) at outfall 101. NMED believes that many common refinery contaminants may not be detected unless additional effluent limits are included in this permit. To better characterize discharges from this facility, NMED suggests that EPA include loading and concentration limits for Oil & Grease, Total Organic Carbon (TOC) and possibly Polycyclic Aromatic Hydrocarbons (PAH) at outfall 101 and possibly outfall 001 as well.

Comment #4 Part I.A.2 requires that the permittee sample flow, BOD_5, TSS and E. coli Bacteria at a frequency of once/day if discharge occurs, but Benzene only at a frequency of twice/week if discharge occurs at outfall 001. NMED requests that Benzene be sampled at the same frequency as other parameters.

Comment #5 Part II.A includes a list of pollutants (40 CFR 122, Appendix D, Tables III and IV) that the permittee is required to sample once/day should any discharge occur. The title for the list of "Conventional and Nonconventional Pollutants" (40 CFR 122, Appendix D, Table IV) contains the phrase "if Expected to be Present." Although this phrase is included in Table IV of the regulations, NMED believes that EPA intends to require sampling of all pollutants in both Table III and Table IV for every discharge regardless of whether the permittee believes they are expected to be present and has based its state certification on this belief. For purposes of

clarifying EPA's expectation to the permittee as well as to facilitate enforcement, NMED requests that EPA remove the phrase "if Expected to be Present."

Comment #6 Part I.A Internal Outfall 101 requires that the permittee sample BOD_5, TSS, Oil & Grease, COD, Ammonia as N, Sulfide as S and Total Phenolics at a frequency of monthly; and Total Chromium and Hexavalent Chromium at a frequency of 1/year. NMED believes that these frequencies may be insufficient to best characterize the influence that the discharges from this internal outfall may have on pollutant loadings in the external outfall, particularly if a discharge occurs from the external outfall 001 up to a month (or year) from the previous sample collected from outfall 101. NMED suggests that a frequency of 1/week may be more appropriate for this internal outfall.

Comment #7 It is our understanding that, due to upsets during power failures and precipitation events, Western Refining has installed mobile pumps to redirect API Separator overflow back into the treatment system or into holding tanks for eventual processing. NMED suggests that EPA require the permittee to continue this practice regardless of an NPDES permit that allows emergency overflows to be discharged via outfall 001 to limit the occurrence and amount of discharges from this outfall.

Comment #8 Western Refining is currently installing a new wastewater treatment system that is scheduled to be operational by September 2010. NMED recommends that EPA, as a condition of the NPDES permit, to require the permittee to install, operate and properly maintain the new wastewater treatment system to ensure that the quality of effluent discharging into the pond network meets state and federal water quality standards in the event of an emergency discharge from outfall 001.

Comment #9 EPA and Western Refining should be aware that issuance of the NPDES permit does not relieve the permittee from complying with other applicable state permitting requirements and conditions (e.g., operational process, monitoring, inspections) such as those administered by the Oil Conservation Division, the Hazardous Waste Bureau, etc.

Comment #10NMED believes that there may be a potential for the discharges from outfall 001 to contain hazardous wastes that are not currently proposed to be regulated under this NPDES permit. NMED requests that EPA re-open and modify the permit if, during the term of the permit, data available to NMED or EPA indicates that previously unidentified hazardous wastes are being discharged via outfall 001.

Chavez, Carl J, EMNRD

From: Monzeglio, Hope, NMENV
Sent: Monday, May 10, 2010 2:32 PM
To: Saums, Glenn, NMENV
Cc: Bearzi, James, NMENV; Kieling, John, NMENV; Cobrain, Dave, NMENV; Van Horn, Kristen, NMENV; Chavez, Carl J, EMNRD; VonGonten, Glenn, EMNRD; Powell, Richard, NMENV
Subject: HWB Memo to NPDES Permit- Gallup
Attachments: HWB comments-NPDES Permit 5-10.pdf

Glenn

I will be sending a hard copy through inter-office mail.

Let me know if you have any questions.

Thanks

Hope

Hope Monzeglio
Environmental Specialist
New Mexico Environment Department
Hazardous Waste Bureau
2905 Rodeo Park Drive East, BLDG 1
Santa Fe NM 87505
Phone: (505) 476-6045; Main No.: (505)-476-6000
Fax: (505)-476-6060
hope.monzeglio@state.nm.us

Websites:
New Mexico Environment Department
Hazardous Waste Bureau

BILL RICHARDSON
Governor

DIANE DENISH
Lieutenant Governor

NEW MEXICO ENVIRONMENT DEPARTMENT

Hazardous Waste Bureau

2905 Rodeo Park Drive East, Building 1
Santa Fe, New Mexico 87505-6303
Phone (505) 476-6000 Fax (505) 476-6030
www.nmenv.state.nm.us

RON CURRY
Secretary

SARAH COTTRELL
Deputy Secretary

MEMORANDUM

TO: Glenn Saums, Acting Chief
Surface Water Quality Bureau

FROM: James P. Bearzi, Chief BJZ
Hazardous Waste Bureau

SUBJECT: APPLICATION TO DISCHARGE TO WATERS OF THE UNITED STATES NPDES PERMIT NO. NM0021071 WESTERN REFINING SOUTHWEST INC., GALLUP REFINERY

DATE: May 11, 2010

The Hazardous Waste Bureau (HWB) received a copy of the proposed National Pollution Discharge Elimination System (NPDES) Permit for Western Refining Company Southwest, Inc., Gallup Refinery (Permittee). HWB submits the following comments for your consideration.

Comment 1

On page 1 of 18, the NPDES Permit provides a Table that describes discharges from the facility. The Outfall reference number is 001 and the discharge from this point will include "process wastewater including process stormwater; sanitary wastewater, and reverse osmosis unit reject water." The existing wastewater treatment system treats hazardous waste (D018 and F037/F038 listed wastes). If the NPDES Permit is granted, as drafted, the Permittee will be allowed to discharge hazardous waste to the evaporation ponds, which is prohibited under RCRA and potentially off site to the Rio Puerco. HWB does not consider this to be protective of human health and the environment, or protective of New Mexico Water Quality standards.

Comment 2

The NPDES Permit, page 3 of 18, Section II (Discharge Description), last paragraph states "[t]he facility is designated not to discharge, but under extreme emergency may discharge process wastewater including process stormwater; sanitary wastewater, and reverse osmosis unit reject water via a series of evaporation ponds. Under such circumstances, the facility intends to use appropriate temporary treatment systems to meet

permit requirements." References to "extreme emergencies" are made throughout the NPDES Permit (e.g., Page 5). Page 11 of the NPDES Permit, under **Technology-Based Limits for Outfall 001 (0.0778 MGD),** states "[s]anitary wastewater flows into the aeration basins and then into the evaporation ponds. Outfall 001 shall be subject to secondary treatment requirements."

The NPDES Permit does not define extreme emergencies, temporary treatment systems, or secondary treatment requirements. The duration of extreme emergencies is also undefined. These definitions should be included in the Permit for clarity, and to facilitate timely and appropriate enforcement should these conditions arise through the term of the Permit.

Comment 3

The NPDES Permit, page 3 of 18, Section II (Discharge Description), last paragraph states "[t]he facility is designated not to discharge, but under extreme emergency may discharge process wastewater including process stormwater; sanitary wastewater, and reverse osmosis unit reject water via a series of evaporation ponds. Under such circumstances, the facility intends to use appropriate temporary treatment systems to meet permit requirements."

HWB has the following concerns related to the temporary treatment system:

a. The temporary treatment system is not described nor are the treatment objectives defined.

b. A time limit for installation of the temporary treatment system(s) is not established.

c. The Outfall for the temporary treatment system(s) is not identified.

Comment 4

Page 5 of the NPDES Permit, item B. Technology-Based Effluent Limitations/Conditions, paragraph 6 states "[a]ccording to the additional information submitted by the permittee, Western Refining is a crude oil refining and petroleum products manufacturing facility. The refinery receives and processes crude oil and other feedstocks, and then produces various finished products. These include propane, butane, naphtha, unleaded gasoline, diesel (low sulfur and ultra-low sulfur), and residual fuel. Amonium Thiosulfate and elemental sulfur are also produced as by-products through desulfurization process. As a result, Western Refining is subject to Refinery Guidelines at 40 CFR 419, Subpart B, Cracking Subcategory. Other sources of technology based limits include sanitary permit requirements and/or NMED water quality standards." Throughout the NPDES Permit, Outfall 001 and Internal Outfall 101 have certain effluent guidelines and limits and required analyses that must be conducted.

HWB is concerned that the NPDES Permit does not include the analyses of common refinery contaminants and hazardous constituents such as gasoline range organics (GRO), diesel range organics (DRO), toluene, ethylbenzene, and xylenes, other volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs), and the Skinner List inorganics. Additional analytical testing should be conducted on samples collected from the Discharge Outfall 001 and Internal Outfall 101 to include the Skinner List inorganics, VOCs, SVOCs to include the VOCs and SVOCs listed on the Skinner List, GRO and DRO, and oil range organics (ORO).

Comment 5

Page 5 of the NPDES Permit, below **Calculation of Technology-Based Limits,** is the following: "**Internal Outfall 101** - Process wastewater including process stormwater; and reverse osmosis unit reject water flows into the oil/water separator, then into the Benzene air strippers via a series of aeration basins and finally into the evaporation ponds. Discharges are proposed to be authorized from internal Outfall 101 into the aeration lagoons, and finally into the evaporation ponds. Internal Outfall 101 shall be subject to [Effluent Elimination Guidelines] ELG for petroleum Refinery, Subpart B-Cracking Subcategory." HWB has the following concerns and questions regarding this passage:

a. Internal Outfall 101 would allow for discharge of hazardous waste to the aeration lagoons that are slated to be closed under RCRA and then to the evaporation ponds. The benzene strippers also are slated for removal.

b. If the NPDES Permit is issued, the Permittee will be allowed to discharge hazardous waste from Internal Outfall 101. Currently, effluent (process wastewater), leaving the benzene strippers receives treatment in Aeration Lagoon 1 and Aeration Lagoon 2 for hazardous waste (benzene and F037/F038 listed hazardous waste).

c. The Permit should be modified to remove the condition allowing Internal Outfall 101 unless a wastewater treatment system is required under the Permit.

Comment 6

On page 11, the paragraph under **Stormwater Pollution Prevention Requirements** states "[s]tormwater has been identified by the permittee as a component of the discharge through Outfall No. 001. In an email dated February 19, 2010, the permittee indicated that all stormwater originating within its process areas is contaminated. These contaminated stormwaters are subject to ELGs as calculated above. In addition, the permittee stated that the maximum contaminated stormwater daily rate is 216,000 GPD. This facility also has coverage under the [Multi-Sector General Permit] MSGP for allowable "uncontaminated" stormwater discharges, not subject to ELG." HWB is concerned that the ELGs do not account for RCRA hazardous constituents. In addition,

as stated, the Permittee's stormwater is contaminated with process wastewater; therefore it is not clear how the Permittee would also be covered under the MSGP for allowable uncontaminated stormwater discharge. The Permit should prohibit discharge of stormwater mixed with process wastewater at Outfall 001.

Comment 7

Page 11, states "[a] daily maximum effluent limitation for Benzene of 0.005 mg/L is also proposed at Outfall 001." Page 12 of the NPDES Permit, paragraph 1 states "[i]t is proposed that the facility conduct annual inspections to identify areas contributing to the storm water discharge and identify potential sources of pollution which may affect the quality of storm water discharges from the facility" and in paragraph 2 states that "[i]t is proposed that all spilled product and other spilled waste be immediately cleaned up and properly disposed."

HWB is concerned with the use of the term "proposed," which implies the Permittee can choose to perform an activity rather than being required to implement the activity. HWB recommends the Permittee be required to meet the benzene daily effluent limitation of 0.005 mg/L, and conduct annual inspections and inspections after every storm event. The Permittee should be required to clean up spills immediately.

Comment 8

Page three, Section II. Discharge Description, states "[t]he facility does not currently discharge to a water of the state and does not have pollutant data to conduct analysis on and page 13, item i. (General Comments) states "[t]here is no data to perform reasonable potential calculations since the facility has not had a discharge within the last three years." To obtain the pollutant data, samples could be collected from the existing location of designated Internal Outfall 101 (a continuous discharge point), from the Evaporation Pond that is proposed as discharge point for Outfall 001, and from the Old API separator that collects the process storm water. These locations should be used to conduct pollutant data analyses prior to issuance of this Permit.

Comment 9

Page 14, paragraph 2 states "[s]hould any discharge occur from Outfall 001, the discharge shall be sampled within one hour of beginning for the pollutants listed at 40 CFR 122, Appendix D, Tables III and IV, plus pH, hardness, TDS, oil & grease, and TSS and the results submitted to EPA and NMED-SWQB. Should the discharge continue for more than one day, additional samples and analyses results shall be submitted for each additional day. These pollutants are listed in Part 2 of the proposed permit." All samples collected from Outfall 001 should be analyzed for the constituents identified in Comment 4.

Comment 10

Page 14, paragraph 5 states "TSS, BOD5, pH and E. coli bacterial shall be monitored daily at final Outfall 001, if discharge occurs. Benzene shall be monitored twice/week at Outfall 001, when discharge occurs." HWB recommends that benzene be analyzed daily at the discharge of Outfall 001. The duration of an extreme emergency discharge should be defined. See also Comment 2.

Comment 11

Page 1, Part I-Requirements for NPDES Permits, Section A. Limitations and Monitoring Requirements, Internal Outfall 101-0.402 MGD states "[d]uring the period beginning on the effective date of the permit and lasting through the expiration date of the permit (unless otherwise noted), the permittee **is authorized** to discharge process wastewater including process stormwater , and reverse osmosis unit reject water into a series of aeration lagoon, and finally into a series of evaporation ponds." A table is also present that provides effluent characteristics and includes frequency of sampling. HWB has the following concerns:

a. Sanitary wastewater was not listed as part of the discharge.

b. HWB recommends the following analysis for this discharge point: Skinner List inorganics, VOCs, SVOCs to include the VOCs and SVOCs listed on the Skinner List, GRO, DRO, and ORO.

Comment 12

Page 2, Part I, item 2. Final Effluent Limits Outfall-0.004 MGD, states "[d]uring the period beginning on the effective date of the permit and lasting through the expiration date of the permit (unless otherwise noted), the permittee **is NOT authorized to** discharge process wastewater including process stormwater ; sanitary wastewater, and reverse osmosis unit reject water via a series of evaporation ponds into an unnamed arroyo, thence to Puerco River, an ephemeral waterbody Segment No. 20.6.4.97 of the Lower Colorado River Basin, from Outfall 001. The Permittee shall take all reasonable steps to prevent a discharge. In the event of emergency discharges, the permittee shall be subject to the limitations and monitoring requirements specified below in Part II. A:." A table is also present that provides effluent characteristics and includes frequency of sampling. HWB recommends the following analysis for this discharge point: Skinner List inorganics, VOCs, SVOCs to include the VOCs and SVOCs listed on the Skinner List, GRO, DRO, ORO and chlorides.

Comment 13

On page 6 of Part II, under item E. Storm Water Pollution Prevention, states "[s]tormwater has been identified by the applicant/permittee as a component of the discharge through Outfall 001. This section applied to all stormwater discharges from the facility through permitted outfalls."

The term "process stormwater" was previously referenced but was not included in this section, incorrectly implying it is not contaminated with process wastewater. In addition, it should be noted that Outfall 001 will also emit process wastewater, sanitary wastewater, and reverse osmosis reject water, if a discharge occurs.

Comment 14

On page 6 of Part II, under item E. Storm Water Pollution Prevention, item 2.c. states "[w]here experience indicates a reasonable potential for equipment failure (e.g., a tank overflow or leakage), natural condition of (e.g., precipitation), or other circumstances which result in significant amounts of pollutants reaching surface waters, the SWP3 should include a prediction of the direction, rate of flow and total quantity of pollutants which could be discharged from the facility as a result of each condition or circumstance." The Permit should prohibit routine releases from routine equipment failures and releases to the environment from natural conditions because the wastewater treatment system should be designed to handle upsets.

Comment 15

HWB recommends the NPDES Permit not be issued until the facility has installed the new wastewater treatment system required by EPA, HWB and the New Mexico Energy, Minerals And Natural Resources Department Oil Conservation Division (OCD).

Please consider these comments when certifying the final Permit.

cc: Marcy Leavitt, NMED WWMD
Carl Chavez, OCD
File: Reading File and WRG
HWB-GRCC-09-006

Western Refining Gallup Refinery
State Certification of the Proposed NPDES Permit
NM0031071
May 20, 2010

Conditions of Certification

There are no conditions of State certification.

Comments That Are Not Conditions Of Certification

Comment #1 Part III.D.4 describes procedures for submittal of "Discharge Monitoring Reports and Other Reports." NMED is aware that EPA has implemented a program for voluntary submittal of Discharge Monitoring Reports electronically. The current language in this part does not appear to support this new program and suggests that EPA may wish to modify the language in this part to accommodate electronic submittals.

Comment #2 Discharges of process wastewater in an "extreme emergency" is mentioned in several locations in the Statement of Basis and the Proposed Permit, and the Statement of Basis states that under an extreme emergency "the facility intends to use appropriate temporary treatment systems to meet permit requirements." However, the permit does not define an "extreme emergency," its duration, or define "appropriate temporary treatment systems." NMED suggests that EPA include definitions of these terms both for purposes of clarifying EPA's expectation to the permittee as well as to facilitate enforcement.

Comment #3 The Proposed Permit establishes monthly average and daily maximum effluent loading limits for Oil & Grease and Chemical Oxygen Demand (COD) at outfall 101. NMED believes that many common refinery contaminants may not be detected unless additional effluent limits are included in this permit. To better characterize discharges from this facility, NMED suggests that EPA include loading and concentration limits for Oil & Grease, Total Organic Carbon (TOC) and possibly Polycyclic Aromatic Hydrocarbons (PAH) at outfall 101 and possibly outfall 001 as well.

Comment #4 Part I.A.2 requires that the permittee sample flow, BOD_5, TSS and E. coli Bacteria at a frequency of once/day if discharge occurs, but Benzene only at a frequency of twice/week if discharge occurs at outfall 001. NMED requests that Benzene be sampled at the same frequency as other parameters.

Comment #5 Part II.A includes a list of pollutants (40 CFR 122, Appendix D, Tables III and IV) that the permittee is required to sample once/day should any discharge occur. The title for the list of "Conventional and Nonconventional Pollutants" (40 CFR 122, Appendix D, Table IV) contains the phrase "if Expected to be Present." Although this phrase is included in Table IV of the regulations, NMED believes that EPA intends to require sampling of all pollutants in both Table III and Table IV for every discharge regardless of whether the permittee believes they are expected to be present and has based its state certification on this belief. For purposes of

clarifying EPA's expectation to the permittee as well as to facilitate enforcement, NMED requests that EPA remove the phrase "if Expected to be Present."

Comment #6 Part I.A Internal Outfall 101 requires that the permittee sample BOD_5, TSS, Oil & Grease, COD, Ammonia as N, Sulfide as S and Total Phenolics at a frequency of monthly; and Total Chromium and Hexavalent Chromium at a frequency of 1/year. NMED believes that these frequencies may be insufficient to best characterize the influence that the discharges from this internal outfall may have on pollutant loadings in the external outfall, particularly if a discharge occurs from the external outfall 001 up to a month (or year) from the previous sample collected from outfall 101. NMED suggests that a frequency of 1/week may be more appropriate for this internal outfall.

Comment #7 It is our understanding that, due to upsets during power failures and precipitation events, Western Refining has installed mobile pumps to redirect API Separator overflow back into the treatment system or into holding tanks for eventual processing. NMED suggests that EPA require the permittee to continue this practice regardless of an NPDES permit that allows emergency overflows to be discharged via outfall 001 to limit the occurrence and amount of discharges from this outfall.

Comment #8 Western Refining is currently installing a new wastewater treatment system that is scheduled to be operational by September 2010. NMED recommends that EPA, as a condition of the NPDES permit, to require the permittee to install, operate and properly maintain the new wastewater treatment system to ensure that the quality of effluent discharging into the pond network meets state and federal water quality standards in the event of an emergency discharge from outfall 001.

Comment #9 EPA and Western Refining should be aware that issuance of the NPDES permit does not relieve the permittee from complying with other applicable state permitting requirements and conditions (e.g., operational process, monitoring, inspections) such as those administered by the Oil Conservation Division, the Hazardous Waste Bureau, etc.

Comment #10NMED believes that there may be a potential for the discharges from outfall 001 to contain hazardous wastes that are not currently proposed to be regulated under this NPDES permit. NMED requests that EPA re-open and modify the permit if, during the term of the permit, data available to NMED or EPA indicates that previously unidentified hazardous wastes are being discharged via outfall 001.

New Mexico Energy, Minerals and Natural Resources Department

Bill Richardson
Governor

Jon Goldstein
Cabinet Secretary

Jim Noel
Assistant Cabinet Secretary

Mark Fesmire
Division Director
Oil Conservation Division

MEMORANDUM

TO: Glenn Saums, Acting Chief
Surface Water Quality Bureau

FROM: Glenn von Gonten, Acting Environmental Bureau Chief
Oil Conservation Division

SUBJECT: WESTERN REFINING SOUTHWEST, INC., GALLUP REFINERY APPLICATION TO DISCHARGE TO WATERS OF THE UNITED STATES - NPDES PERMIT NO. NM0031071

DATE: May 15, 2010

The Oil Conservation Division (OCD) has received a copy of the proposed National Pollutant Discharge Elimination System (NPDES) Permit for Western Refining Southwest, Inc. (Western), Gallup Refinery. In accordance with the Water Quality Control Commission's Delegation of Responsibilities, OCD administers and enforces applicable WQCC regulations pertaining to surface and ground water discharges at oil and gas industry sites in New Mexico, including oil refineries. Therefore, OCD has reviewed the proposed NPDES permit for Western's Gallup Refinery and has the following comments and concerns for EPA's consideration.

Comment 1: Western has not responded to OCD's November 20, 2009 "Administratively Incomplete" determination on Western's "Modification" Request to discharge to "Waters of the State" under OCD discharge permit (GW-032). It appears that Western has chosen to pursue a NPDES Permit and may wish to withdraw its Discharge Permit Modification Application. By letter dated May 13, 2010, OCD is requiring Western to submit a response to OCD's letter of November 20, 2009, in which OCD determined that Western's Modification Application was "Administratively Incomplete." If Western does not respond within 30 days, then OCD will deem that Western has withdrawn its modification request. Without a modification to its Discharge Permit, Western will not be permitted by OCD to discharge any effluent to the Puerco River and any discharge will be in violation to its Discharge Permit and the WQCC regulations, regardless of its possession of a NPDES permit. If EPA issues a NPDES permit to Western that indicates that Western may discharge to the Puerco River or any other ephemeral stream, then OCD will modify Western's Discharge Permit appropriately to ensure that Western's discharges do not impact ground water.

Comment 2: It appears that Western and EPA may not be aware that in 1989 the Water Quality Control Commission delegated to OCD the authority to administer and enforce WQCC regulations pertaining to surface and ground water discharges at oil refineries and to conduct technical reviews of NPDES Permits at oil and gas facilities in its *Delegation of Responsibilities* memo of July 21, 1989. OCD has the responsibility and authority to enforce WQCC rules that regulate discharges to surface water at oil and gas facilities, such as Western's Gallup Refinery. Because OCD has determined that Western must address surface water effluent discharge issues that may impact ground water pursuant to the WQCC regulations, OCD cannot support Western's NPDES Permit at this time. OCD recommends that EPA not issue Western's final NPDES permit until Western has satisfactorily addressed all of OCD's concerns. Please note that OCD may request and/or require additional information during the Discharge Permit modification process to address technical issues associated with the proposed NPDES permit.

Comment 3: OCD concurs with most of the Hazardous Waste Bureau's (HWB) comments in its memo to the Surface Water Quality Bureau dated May 11, 2010. However, HWB's Comment 8 appears not to have considered some existing pond water quality monitoring data. OCD does not feel that a sampling point at the Old API Separator is appropriate because OCD and HWB have determined that Western must remove this sampling point due to a fire hazard and because of the new waste water treatment system.

Comment 4: Western's Discharge Permit for its Gallup Refinery includes a provision for spills and releases. Based on the current wastewater treatment system at the Gallup Refinery, surface water discharges at the proposed off-property NPDES Outfall may constitute a knowing and willful violation by Western of its Discharge Permit.

Comment 5: Western has moved the proposed Outfall location in its NPDES Permit application to a location off its property and onto state trust lands. This is a different location than what was proposed in Western's Modification Request to OCD. To accomplish this, Western must obtain permission from the State Land Office to access state land and permission from OCD to discharge to surface waters of New Mexico. OCD has already required Western to submit a workplan to install additional monitoring wells on state lands to monitor ground water quality at the NPDES outfall. Western will also need approval from the State Land Office for any additional monitoring wells.

Comment 6: Western' spent cooling tower and boiler blow-down effluent currently bypass the existing treatment system and discharge directly into the pond network upgradient from the proposed NPDES outfall location. Sanitary effluent from the facility and the nearby Travel Center is mixed with waste water and presently serves as the biotic food source for bioremediation at the aeration lagoons of the existing treatment system. While EPA's proposed discharge monitoring program includes many appropriate constituents, it is not clear how the "Conventional and Nonconventional Pollutants Required to be tested by Existing Dischargers if expected to be Present" would be implemented by Western. OCD is also concerned with the frequency of monitoring, (*i.e.*, "monthly or 1/year") when daily discharges would be occurring at the NPDES Outfall. OCD notes that Western told OCD that daily discharges were never the

intent of the NPDES Permit when it was applying for a NPDES permit and a modification to its Discharge Permit.

OCD recommends that EPA require Western to conduct more frequent sampling following emergencies, upsets, *etc.* that could result in a discharge at the proposed NPDES Outfall. OCD also recommends that EPA require Western to install more monitor wells to determine the integrity of the evaporation pond network and any emergency discharges at the proposed NPDES Outfall. OCD recommends that EPA require Western to routinely monitor effluent, at least weekly, for a comprehensive list of constituents concern. OCD recommends that EPA require Western to install a treatment system down gradient from Evaporation Pond 2 to treat all wastewater.

Comment 7: OCD is concerned about the lack of adequate wastewater containment at the refinery. Western's current wastewater treatment system has experienced upsets during power failures and precipitation events. Consequently, Western installed mobile pumps to redirect the API Separator overflow back into the treatment system or into holding tanks for eventual processing. The proposed NPDES Permit would allow effluent to be discharged directly onto the surface as opposed to being redirected to the holding tanks at the facility. OCD has determined that the native soil does is permeable and that a discharge to the surface may migrate vertically to contaminate ground water.

Comment 8: Western is currently installing a new wastewater treatment system that is scheduled to be operational by September 2010. OCD recommends that EPA require Western to include the new wastewater treatment system in its NPDES permit to ensure that the quality of effluent discharging into the pond network meets state and federal water quality standards in the event of an emergency discharge to the proposed NPDES Outfall. Also, OCD recommends that EPA require Western to install pumps pipelines to redirect pond water to prevent off-property discharges.

Comment 9: OCD is concerned that Western originally specified the effluent discharge volume to the outfall as 100,000 GPD but the proposed NPDES Permit specifies the maximum discharge volume to be 400,000 GPD. OCD understands that the NPDES Permit is supposed to be for a one-time emergency discharge and Western has previously informed OCD that daily discharges will not occur. Because there is no definition what would constitute an "Emergency" situation, OCD must assume that effluent may be discharged to the Puerco River on a daily basis. OCD recommends that EPA require Western be required to monitor the quality of its effluent discharge on a weekly basis at a minimum if this happens.

Comment 10: OCD will require Western to install more monitor wells downgradient of the NPDES outfall along Puerco River to monitor the saturated zones between the refinery and the Puerco River and the mixing zone where pollutants may migrate vertically to ground water.

Comment 11: OCD has concerns about contaminated storm water at the refinery. Western has unsuccessfully attempted to identify and prevent the mixing of stormwater drainage with process

fluids. Therefore, consistent with HWB's Comment 6, OCD feels that EPA should require Western to install a treatment system downgradient from Evaporation Pond 2.

Please contact me if you have questions at (505) 476-3488.
GvG/cjc

cc: Diane Smith, EPA Region 6
Daniel Sanchez, OCD
Gail Macquesten, OCD
Carl Chavez, OCD
OCD District III Office, Aztec
Marcy Leavitt, NMED
James Bearzi, NMED-HWB
Dave Cobrain, NMED-HWB

Chavez, Carl J, EMNRD

From: Leavitt, Marcy, NMENV
Sent: Friday, May 14, 2010 2:08 PM
To: Fesmire, Mark, EMNRD; Chavez, Carl J, EMNRD; VonGonten, Glenn, EMNRD
Cc: Powell, Richard, NMENV; Saums, Glenn, NMENV
Subject: western refining 5-13-10 letter follow-up
Attachments: OCD memo 5-2010.doc

Mark, Glenn and Carl - We received a copy of OCD's May 13, 2010 comments on the Western Refining discharge. Although I understand that the letter is intended to address deficiencies in Western's ground water discharge permit application, the letter was sent directly to EPA and statements are made about the NPDES permit process that may warrant clarification. For example, the letter asserts that OCD is intending to exercise authority to approve or deny approval of the draft NPDES permit. Based on the May 13 letter, I thought that it would be worthwhile to reiterate and clarify the NPDES permit certification process for O&G facilities. Therefore I've attached a clarification memo that generally addresses the NPDES certification process.

We understand that OCD is requiring Western Refining to obtain a state ground water discharge permit to address any impacts from the surface water discharge on ground water quality. However, some of the requirements in OCD's May 13 letter appear to be directly related to the surface water discharge, and not necessarily the impact of the discharge on ground water quality (for example, the requirement for a background study to determine when a discharge is in violation of federal regulations, and evaluation of the potential impact on riverine wetlands and wildlife). It isn't clear to us if these are requirements that you want included in NPDES permit, or if they are something that OCD is requiring for the ground water discharge permit. Your clarification is appreciated.

Also, as my earlier e-mail to Diane Smith indicated, we will be incorporating OCD comments into the state certification of the Western Refining NPDES permit.

Thanks. Marcy

Marcy Leavitt
Director
Water and Waste Management Division
marcy.leavitt@state.nm.us
(505) 827-1758

MEMORANDUM

To: Mark Fesmire, Director, OCD
Glenn VonGonten, OCD
Carl Chavez, OCD

From: Marcy Leavitt, NMED

Re: NPDES Permit Certification Process

Date: May 14, 2010

This memo is intended to clarify the interagency coordination process between NMED's Surface Water Quality Bureau and OCD regarding NPDES permit certifications.

The purpose of the state's NPDES permit certification is to reasonably ensure that the permitted activities will be conducted in a manner that will comply with state surface water quality standards, the water quality management plan and the antidegradation policy. Accordingly, New Mexico has the responsibility to review draft NPDES permits provided by EPA and to either:

1) certify that the discharge will comply with the applicable provisions of Sections 208(e), 301, 302, 303, 306 and 307 of the federal Clean Water Act and with appropriate requirements of State law;
2) certify that the discharge will comply with the applicable provisions of Sections 208(e), 301, 302, 303, 306 and 307 of the Clean Water Act and with appropriate requirements of State law upon inclusion of specified conditions in the permit;
3) deny certification and include reasons for the denial; or
4) waive its right to certify.

The authority for the certification process has been delegated by the legislature to NMED:

> Water Quality Act – Section 74-6-4.F states that the commission:
> ...Shall assign responsibility for administering its regulations to constituent agencies so as to assure adequate coverage and prevent duplication of effort....In assigning responsibilities to constituent agencies, the commission shall give priority to the primary interests of the constituent agencies. The department of environment shall provide technical services, <u>including certification of permits pursuant to the federal act</u>, and shall maintain a repository of the scientific data required by this act;

Additionally, the 1989 Water Quality Control Commission delegation of authority states: Section 2, paragraph C:

> EID shall certify NPDES permits pursuant to Title IV of the Federal Water Pollution Control Act Amendments of 1972 and s402 of the CWA.

Additionally, the 1989 delegation of authority states that OCD is responsible for administration and enforcement of commission regulations pertaining to surface and ground water discharges at oil and natural gas production sites, oil refineries, natural gas processing plants, geothermal installations, carbon dioxide facilities, natural gas transmission lines, and discharges associated with the oil field service industry.

Therefore, OCD and NMED implement the following procedures for NPDES permit certifications:

1) NMED provides a copy of the draft NPDES permit to OCD upon receipt of the draft permit from EPA, and provides information regarding certification deadlines;
2) OCD submits its comments on the draft NPDES permit regarding surface water quality protection directly to NMED at least 2 working days in advance of the certification deadline; and
3) NMED incorporates OCD comments regarding compliance with state surface water quality standards, the water quality management plan and the antidegradation policy into its formal certification letter to EPA.

Please let me know if additional clarification is needed.

Chavez, Carl J, EMNRD

From: Leavitt, Marcy, NMENV
Sent: Friday, May 14, 2010 1:59 PM
To: 'smith.diane@epa.gov'
Cc: VonGonten, Glenn, EMNRD; Chavez, Carl J, EMNRD; Sanchez, Daniel J., EMNRD; Macquesten, Gail, EMNRD; Perrin, Charlie, EMNRD; Bearzi, James, NMENV; Cobrain, Dave, NMENV
Subject: RE: OCD Comments EPA Proposed NPDES Permit for Western Refining SW, Inc.- Gallup Refinery (GW-032)

Diane - To avoid any confusion, NMED will be incorporating OCD's comments into the state certification for the Western Refinery NPDES permit. NMED is the certifying agency. We expect to send the certification to EPA next week.

Marcy

Marcy Leavitt
Director
Water and Waste Management Division
marcy.leavitt@state.nm.us
(505) 827-1758

From: Chavez, Carl J, EMNRD
Sent: Friday, May 14, 2010 12:48 PM
To: smith.diane@epa.gov; Sanchez, Daniel J., EMNRD; Macquesten, Gail, EMNRD; Chavez, Carl J, EMNRD; Perrin, Charlie, EMNRD; Leavitt, Marcy, NMENV; Bearzi, James, NMENV; Cobrain, Dave, NMENV
Cc: VonGonten, Glenn, EMNRD
Subject: OCD Comments EPA Proposed NPDES Permit for Western Refining SW, Inc.- Gallup Refinery (GW-032)

Ladies and Gentlemen:

Please find attached OCD's comments on the above subject facility. Please contact Glenn von Gonten at (505) 476-3488 if you have questions. Thank you.

Carl J. Chavez, CHMM
New Mexico Energy, Minerals & Natural Resources Dept.
Oil Conservation Division, Environmental Bureau
1220 South St. Francis Dr., Santa Fe, New Mexico 87505
Office: (505) 476-3490
Fax: (505) 476-3462
E-mail: CarlJ.Chavez@state.nm.us
Website: http://www.emnrd.state.nm.us/ocd/index.htm
(Pollution Prevention Guidance is under "Publications")

Chavez, Carl J, EMNRD

From: Chavez, Carl J, EMNRD
Sent: Thursday, May 13, 2010 2:53 PM
To: 'okpala.maria@epa.gov'; 'smith.diane@epa.gov'; Leavitt, Marcy, NMENV; Cobrain, Dave, NMENV; Perrin, Charlie, EMNRD
Cc: VonGonten, Glenn, EMNRD; Sanchez, Daniel J., EMNRD
Subject: OCD Discharge Permit "Modification" Request to Discharge (GW-032) Letter dated May 13, 2010 CORRECTION
Attachments: NPDES Modification 5-13-10 Corrected Final.pdf

Ladies and Gentlemen:

Please find attached the Oil Conservation Division's (OCD) corrected letter with referenced attachments that was recently mailed to each of you. The hardcopy letter contained a date error in the first paragraph, i.e., "November 20, 2010" should have read "November 20, 2009."

Please replace the hardcopy letter with the attached letter. OCD is working to provide comments on the NPDES Permit by COB May 15, 2010.

Sorry for any inconvenience this has caused you. Please contact me if you have questions. Thank you.

Carl J. Chavez, CHMM
New Mexico Energy, Minerals & Natural Resources Dept.
Oil Conservation Division, Environmental Bureau
1220 South St. Francis Dr., Santa Fe, New Mexico 87505
Office: (505) 476-3490
Fax: (505) 476-3462
E-mail: CarlJ.Chavez@state.nm.us
Website: http://www.emnrd.state.nm.us/ocd/index.htm
(Pollution Prevention Guidance is under "Publications")

New Mexico Energy, Minerals and Natural Resources Department

Bill Richardson
Governor

Jon Goldstein
Cabinet Secretary

Jim Noel
Assistant Cabinet Secretary

Mark Fesmire
Division Director
Oil Conservation Division

May 13, 2010

Mr. Mark B. Turri
Refinery Manager
Western Refining Southwest- Gallup Refinery
Route 3 Box 7
Gallup, New Mexico 87301

Re: Discharge Permit "Modification" Request to Discharge (GW-032)
Western Refining Southwest- Gallup Refinery
McKinley County, New Mexico

Mr. Turri:

The "modification" application to discharge an estimated 100,000 GPD (~0.5 ft of evaporation pond network free board) of treated and untreated wastewater at Outfall 001 into "Waters of the State" at the west side of the Gallup Refinery submitted by Western Refining (Western) was deemed "Administratively Incomplete" by the Oil Conservation Division (OCD) on November 20, 2009. To date, Western has not responded to OCD's letter. OCD will allow Western until June 15, 2010 to submit a response. If Western does not respond within 30 days, then OCD will deem that Western has withdrawn its modification request.

OCD received a copy of Western's February 8, 2010 letter to Jenaie Franke of EPA's Region 6 office. It appears Western has been working with the EPA to provide information to develop a draft EPA NPDES Permit at the facility. OCD received a copy of the EPA's draft National Pollutant Discharge Elimination System (NPDES) Permit that was copied to the New Mexico Environment Department (NMED) on April 20, 2010.

It also appears that Western and EPA may not be aware that in 1989 the Water Quality Control Commission delegated to OCD the authority to administer and enforce WQCC regulations pertaining to surface and ground water discharges at oil refineries and to conduct technical reviews of NPDES Permits at oil and gas facilities in its *Delegation of Responsibilities* memo of July 21, 1989 (see Attachment 2). OCD will not approve the draft EPA NPDES Permit for the Gallup Refinery without first determining that the application is "Administratively Complete" and conducting a detailed technical review. Please note that OCD may request and/or require additional information to address any technical issues associated with the proposed discharge permit modifications.

Although OCD has not conducted a detailed technical review of Western's modification application because the application is not "Administratively Complete," Western must address the requirements that OCD specified in its November 20, 2009 letter by June 15, 2010. If Western does not address the deficiencies by that date, OCD will deem Western's modification withdrawn and will advise EPA that Western's draft NPDES Permit cannot be approved by the State of New Mexico.

Western must also submit a workplan with the following: a ground water monitoring system with additional monitoring wells down gradient of the outfall and the drainage feature leading to the Rio Puerco River to monitor the mixing zone (ground water-surface water interface zone); propose a monitoring frequency for these wells; a hydrogeologic report on ground water flow direction over time, hydraulic gradient; identify potential surface water discharge location(s); background water quality study to be used to determine when a discharge at a NPDES Outfall is in violation and State and Federal Environmental Regulations; and, a Contingency Plan to quickly remediate ground water and surface water if necessary. Western must submit this workplan by August 15, 2010.

In addition, Western's work plan must propose monitoring points along the Rio Puerco River to monitor loosing and gaining stream conditions and to understand interactions between ground water and surface water. Western must also evaluate historical precipitation events and corresponding water levels in the Rio Puerco to determine when and/or if the Rio Puerco could become a surface water feature again with potential for impacts from the proposed discharge. For example, if the water table rose 10 feet, would there be a riverine wetland environment, wildlife issues, etc.?

Western's work plan must also characterize the hydrogeology beneath the facility toward the Rio Puerco. OCD is aware of a saturated zone beneath and near the NAPI Separator and is concerned that the hydrogeology beneath the facility has not been fully characterized. Western must determine if any perched saturated zone(s) pinch-out or are hydrogeologically connected to the deeper aquifer system that may discharge into the Rio Puerco during gaining stream conditions, seasonally, and/or permanently.

If there are any questions regarding this matter, please contact Mr. Glenn von Gonten of my staff at (505) 476-3488 or Glenn.VonGonten@state.nm.us. You may also contact me at (505) 476-3493 if there are any OCD policy issues or questions you may have based on this correspondence.

Sincerely,

Daniel Sanchez
Enforcement and Compliance Manager
DS/cjc

Attachment 1: OCD November 20, 2010 "Administratively Incomplete" Letter
Attachment 2: 1989 WQCC *Delegation of Responsibilities* memo

xc: Jon Goldstein, EMNRD
Jim Noel, EMNRD.
Maria Okpala, EPA Region 6
Diane Smith, EPA Region 6
Marcy Leavitt, NMED
Dave Cobrain, NMED
Glenn von Gonten, OCD
Gail Macquesten, OCD
Carl Chavez, OCD
OCD District III Office

New Mexico Energy, Minerals and Natural Resources Department

Bill Richardson
Governor

Joanna Prukop
Cabinet Secretary

Mark Fesmire
Division Director
Oil Conservation Division

November 20, 2009

Mr. Mark B. Turri
Refinery Manager
Western Refining Southwest- Gallup Refinery
Route 3 Box 7
Gallup, New Mexico 87301

Re: Discharge Permit "Modification" Request to Discharge (GW-032)
Western Refining Southwest- Gallup Refinery
McKinley County, New Mexico

Dear Mr. Turri:

The New Mexico Oil Conservation Division (OCD) has received Western Refining Southwest, Inc. (Western's), "Modification" application with all appropriate fees dated October 30, 2009, for authorization to discharge an estimated 100,000 gallons (~0.5 ft of evaporation pond network free board) of treated and untreated wastewater into Outfall 001 (N 35° 29' 26.23" & W 108° 26' 26.01") or "Waters of the State" at the west side of the property. Western proposes to minimize discharges from occurring into Outfall 001. When Outfall 001 (basically the furthest down gradient evaporation pond) overflows, runoff discharges into an off-property tributary ("South Fork") located about 0.8 miles from the Rio Puerco River (ephemeral or intermittent stream) on state land. Tribal land is located approximately 1-mile west and down-gradient from the Outfall 001 location.

OCD's review of the application is to determine if any additional information may be required before deeming the permit application "administratively" complete and will facilitate a complete technical review of the proposed modification by OCD. OCD has determined that the modification application is not "Administratively Complete."

Therefore, OCD requires additional information. In accordance with Subsection A of 20.6.2.3108 NMAC of the New Mexico Water Quality Control Commission regulations (WQCC), "to be deemed administratively complete, an application shall provide all of the information required by Paragraphs (4) through (5) of Subsection F of 20.6.2.3108 NMAC and shall indicate, for department approval, the proposed locations for providing notice (English and Spanish) required by Paragraphs (1) and (4) of Subsection B or Paragraph (2) of Subsection C of 20.6.2.3108 NMAC." Western did not provide any water quality information in support of its statement that "the waste water will have no hazardous components and levels of all contaminants will be below regulatory standards." Items 7, 9, 11, and 12 of the application (cross-section information is not discernable at the scale provided and boring logs with hydrogeologic information were not included with the cross sections) are not

adequately addressed. At least one cross-section with hydrogeologic information is required from the New API Separator (NAPIS) with well boring logs to the Outfall 001 area to evaluate the hydrogeology (aquifer(s)) present in the area of interest.

To satisfy the 20.6.2.3108F(4) NMAC "quality" and application form item requirements, submit historical water quality analytical data from historical pond monitoring data that supports the above statement and demonstrates compliance with 20.6.2.7(ww), 20.6.2.3103, 20.6.4.109 and 20.6.4.900 NMAC applicable water quality standards. In addition, Western must also provide new water quality data for evaporation pond 2 (EP-2) effluent, since the applicant indicated that there was about 1667 bbl/day of cooling tower blow down effluent and 1071 bbl/day of boiler effluent discharging into EP-2.

Due to the presence of sanitary effluent in the refinery wastewater treatment system (discharge location unknown at this time- aeration lagoon vs. EP-2?), biological analytical data in comparison with 20.6.2.2101.NMAC parameters must be provided in order to characterize any discharge to "Waters of the State" or Outfall 001. The existing approved facility "Biohazard Plan" may also need to be modified before the discharge to Outfall 001 can be considered.

Western should already be aware from its historical water quality monitoring data that some pond wastewater exceeds regulatory water quality standards. Consequently, a treatment system for the wastewater should have been proposed in the application to address the contaminants, but was not. With regard to the F(4) "volume", Western did not factor in the additional wastewater flow volume to the existing treatment system from its Bloomfield Refinery, which will be closed (~18,000 bbl/day crude oil refining capacity). Western is in the midst of a major wastewater treatment system conversion, which has yet to be specified. OCD is aware of the situation with one NAPIS and treatment capacity problems that occur routinely during precipitation events and has questioned the ability of the existing treatment system to handle wastewater at the facility without the additional wastewater that will occur as a result of the Bloomfield Refinery closure. This must be addressed along with the final waste water treatment system that will handle the type and total volume of treated effluent that may be discharged into Outfall 001.

To satisfy the 20.6.2.3108(F) NMAC "depth to and total dissolved solids concentration of the ground water", Western must submit data from nearby monitor wells.

From available pond monitoring information, there will likely be ground water contamination, which will require additional monitor wells to monitor ground water quality at the "mixing zone" where ground water interfaces with surface water, as well as ground water remediation system(s) to capture and prevent contamination from migrating down gradient to state and tribal lands. In addition, OCD will require Western to conduct more hydrogeologic work to assess the "mixing zone" and the complete hydrogeology beneath the facility before permitting the discharge of contaminants to Outfall 001. Plans to discharge into Outfall 001 without acknowledging the contaminants of concern and stipulating the type of treatment system needed to facilitate a discharge to Outfall 001 with plans to re-route fluids between ponds to avoid what appears to be an inevitable daily discharge scenario at Outfall 001 is of major concern to the OCD.

Please review the attached 20.6.2.3108 NMAC flow chart and regulatory language pertaining to the WQCC public notice requirements for "Modifications." After the application is deemed "Administratively Complete", the revised 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 revised WQCC notice requirements of 20.6.2.3108 NMAC to determine if there is any public interest.

If there are any questions regarding this matter, please contact Carl J. Chavez at (505) 476-3490 or carlj.chavez@state.nm.us. On behalf of the staff of the OCD, I wish to thank you and your staff for your cooperation during this discharge permit review.

Sincerely,

Carl J. Chávez
Environmental Engineer

CJC/cjc

Attachments: 20.6.2.3108 NMAC (Public Notice)

xc: Willie Lane, EPA Region 6
Marcy Leavitt, NMED
Dave Cobrain, NMED
Glenn von Gonten, OCD
OCD District III Office, Aztec

WATER QUALITY CONTROL COMMISSION

DELEGATION OF RESPONSIBILITIES TO ENVIRONMENTAL IMPROVEMENT DIVISION AND OIL CONSERVATION DIVISION

In an effort to prevent duplication of effort and to clarify the division of responsibilities pursuant to the provisions of the Water Quality Act, NMSA Sections 74-6-1 et seq. (1978), as administered and enforced by the Water Quality Control Commission, the Commission hereby approves the following list of delegated duties and responsibilities for two of the agencies that are constituent agencies to which authority can be delegated, the Environmental Improvement Division ("EID") and the Oil Conservation Division ("OCD"). The Commission is specifically authorized to take this action by NMSA Section 74-6-4E (1978) and by other general provisions of the Water Quality Act. The Commission notes that pursuant to NMSA Section 74-6-9C (1978), constituent agencies may "report to the Commission and to other constituent agencies water pollution conditions that are believed to require action where the circumstances are such that the responsibility appears to be outside the responsibility assigned to the agency making the report." The Commission encourages OCD and EID to continue close communication and cooperation where responsibility is unclear, to ensure that water pollution is prevented or abated quickly, efficiently and consistently. In situations involving discharges or facilities under the jurisdiction of both agencies, the agencies shall mutually agree which shall be the lead agency and shall determine the method by which the discharge plan shall be evaluated and approved. In preparing this delegation statement, the Commission is cognizant of the limitations imposed on its authority by the Water Quality Act, especially NMSA Section 74-6-12G (1978) which prohibits it from taking any action which would "interfere with the exclusive authority of the Oil Conservation Commission over all persons and things necessary to prevent water pollution as a result of oil or gas operations...."

This delegation shall supersede all previous delegations to EID and OCD; reference to the dates and minutes of Commission meetings in which previous delegations were made are in parentheses and the minutes are attached. The specific grants of authority are not intended to be comprehensive. When a question of authority and jurisdiction arises, which is not specifically delegated, the general provisions below shall control.

1. General Provisions

As a general rule, OCD will administer and enforce applicable Commission regulations pertaining to surface and ground water discharges at oil and natural gas production sites, oil refineries, natural gas processing plants, geothermal installations, carbon dioxide facilities, natural gas transmission lines, and discharges

associated with activities of the oil field service industry. The Commission recognizes that OCD also administers regulations under both the Oil and Gas Act and the Geothermal Resources Act, and that OCD shall have discretion as to which regulations to enforce in any given situation. OCD shall have jurisdiction over all activities associated with exploration for or development, production, transportation before refinement, refinement, storage or treatment of unrefined oil and natural gas, or oil or gas products on refinery premises.

EID will administer and enforce Commission regulations regarding discharges from transmission, transportation and storage facilities for oil or oil by-products after refinement (including but not limited to gasoline stations), except those within refinery premises. EID will administer and enforce all Commission regulations pertaining to all other discharges to surface and ground water which are not specifically delegated to other departments and agencies. (Source: 1/13/69 and 5/8/84 Commission minutes)

2. Specific Grants of Authority

A. EID shall certify Section 404 dredge and fill material permits under the Clean Water Act ("CWA"). (Source: 1/13/76 and 6/14/83 Commission minutes)

B. EID shall administer the Wastewater Construction Grants program pursuant to Section 205 of the CWA. (Source: 6/14/83 Commission minutes)

C. EID shall certify NPDES permits pursuant to Title IV of the Federal Water Pollution Control Act Amendments of 1972 and S402 of the CWA. (Source: 10/1/74 and 8/14/84 Commission minutes)

D. EID shall certify hydropower licenses issued by the Federal Energy Regulatory Commission. (Source: 8/14/84 Commission minutes)

E. EID shall administer and enforce Commission regulations pertaining to the disposal of human excrement and bath water at oil and natural gas production sites, oil refineries, natural gas processing plants, geothermal installations, carbon dioxide facilities and natural gas transmission lines when the treatment facilities for the sewage are a separate and isolated discharge unmixed with any produced water, oil field waste or oil field service waste. (Such an isolated discharge would include: a small sewage treatment plant, package plant, or septic tank and drainfield.) If, on the other hand, sewage is in a discharge combined or mixed with produced water, oil field waste or oil field service waste, OCD shall have jurisdiction. (Source: 5/8/84 Commission minutes)

F. OCD shall administer and enforce Commission regulations at brine manufacturing operations and concerning discharges to ground or surface water at brine manufacturing operations, including all brine production wells, holding ponds and tanks. OCD shall have jurisdiction over all manufactured brine once it is transported, used or disposed of off brine plant premises for use in or directly related to oil and gas operations regulated by OCD. OCD shall regulate brine injection through its Class II Underground Injection control (UIC) Program if the brine is used in the drilling for or production of oil and gas. EID shall regulate brine injection through its UIC Program if the brine is used for other purposes. (Source: 6/13/89 Commission minutes)

G. EID shall administer and enforce all programs implemented by the state under PL 92-500 (The Federal Water Pollution Control Act) and its Amendments, unless directed otherwise by the Commission. (Source: 7/8/75 Commission minutes)

H. OCD shall have general jurisdiction over the oil field service industry. Many activities that would ordinarily be regulated by EID are regulated by OCD when those activities occur in the oil field service industry. The following list, which is not intended to be inclusive, serves to help clarify this delegation:

OCD	EID
waste oil handled or processed by oil field service companies or treating plants	used motor oil handlers
all underground and above-ground tanks on refinery premises, unless the tanks contain unmixed sewage; all underground and above-ground tanks not on refinery premises which contain crude petroleum, produced water or oil field service chemicals	all underground and above-ground tanks not on refinery premises, unless the tanks contain crude petroleum, produced water or oil field service chemicals
tanker trucks hauling, spilling or disposing of well-service chemicals, kill water, produced water, crude oil, tank bottom sludge and other oil field wastes and oil field service materials	tanker trucks spilling or disposing of non-oil and gas production wastes, non-oil and gas service materials, or refined petroleum products
washings from trucks and other equipment used in the transport, production or refining of oil and gas crude products, production wastes or service materials	washings from trucks and other equipment not used for oil and gas production related purposes

Both EID and OCD are authorized to continue to take appropriate legal action in their respective areas of delegation (including initiating proceedings in court) on behalf of the Commission on a finding of good cause to believe any person is violating or is threatening to violate a Commission regulation or the Water Quality Act. The agencies shall send a copy of each Complaint, Settlement Agreement and Judgment to the Commission Secretary for distribution to Commission members. (Source: NMSA Section 74-1-8.2(B) (1978), 2/8/71 and 1/11/83 Commission minutes)

WATER QUALITY CONTROL COMMISSION

Richard Mitzelfelt

By: Richard Mitzelfelt, Chairman

Aug 21, 1989

Date

New Mexico Energy, Minerals and Natural Resources Department

Bill Richardson
Governor

Jon Goldstein
Cabinet Secretary

Jim Noel
Assistant Cabinet Secretary

Mark Fesmire
Division Director
Oil Conservation Division

May 13, 2010

Mr. Mark B. Turri
Refinery Manager
Western Refining Southwest- Gallup Refinery
Route 3 Box 7
Gallup, New Mexico 87301

Re: Discharge Permit "Modification" Request to Discharge (GW-032)
Western Refining Southwest- Gallup Refinery
McKinley County, New Mexico

Mr. Turri:

The "modification" application to discharge an estimated 100,000 GPD (~0.5 ft of evaporation pond network free board) of treated and untreated wastewater at Outfall 001 into "Waters of the State" at the west side of the Gallup Refinery submitted by Western Refining (Western) was deemed "Administratively Incomplete" by the Oil Conservation Division (OCD) on November 20, 2009. To date, Western has not responded to OCD's letter. OCD will allow Western until June 15, 2010 to submit a response. If Western does not respond within 30 days, then OCD will deem that Western has withdrawn its modification request.

OCD received a copy of Western's February 8, 2010 letter to Jenaie Franke of EPA's Region 6 office. It appears Western has been working with the EPA to provide information to develop a draft EPA NPDES Permit at the facility. OCD received a copy of the EPA's draft National Pollutant Discharge Elimination System (NPDES) Permit that was copied to the New Mexico Environment Department (NMED) on April 20, 2010.

It also appears that Western and EPA may not be aware that in 1989 the Water Quality Control Commission delegated to OCD the authority to administer and enforce WQCC regulations pertaining to surface and ground water discharges at oil refineries and to conduct technical reviews of NPDES Permits at oil and gas facilities in its *Delegation of Responsibilities* memo of July 21, 1989 (see Attachment 2). OCD will not approve the draft EPA NPDES Permit for the Gallup Refinery without first determining that the application is "Administratively Complete" and conducting a detailed technical review. Please note that OCD may request and/or require additional information to address any technical issues associated with the proposed discharge permit modifications.

Although OCD has not conducted a detailed technical review of Western's modification application because the application is not "Administratively Complete," Western must address the requirements that OCD specified in its November 20, 2009 letter by June 15, 2010. If Western does not address the deficiencies by that date, OCD will deem Western's modification withdrawn and will advise EPA that Western's draft NPDES Permit cannot be approved by the State of New Mexico.

Western must also submit a workplan with the following: a ground water monitoring system with additional monitoring wells down gradient of the outfall and the drainage feature leading to the Rio Puerco River to monitor the mixing zone (ground water-surface water interface zone); propose a monitoring frequency for these wells; a hydrogeologic report on ground water flow direction over time, hydraulic gradient; identify potential surface water discharge location(s); background water quality study to be used to determine when a discharge at a NPDES Outfall is in violation and State and Federal Environmental Regulations; and, a Contingency Plan to quickly remediate ground water and surface water if necessary. Western must submit this workplan by August 15, 2010.

In addition, Western's work plan must propose monitoring points along the Rio Puerco River to monitor loosing and gaining stream conditions and to understand interactions between ground water and surface water. Western must also evaluate historical precipitation events and corresponding water levels in the Rio Puerco to determine when and/or if the Rio Puerco could become a surface water feature again with potential for impacts from the proposed discharge. For example, if the water table rose 10 feet, would there be a riverine wetland environment, wildlife issues, etc.?

Western's work plan must also characterize the hydrogeology beneath the facility toward the Rio Puerco. OCD is aware of a saturated zone beneath and near the NAPI Separator and is concerned that the hydrogeology beneath the facility has not been fully characterized. Western must determine if any perched saturated zone(s) pinch-out or are hydrogeologically connected to the deeper aquifer system that may discharge into the Rio Puerco during gaining stream conditions, seasonally, and/or permanently.

If there are any questions regarding this matter, please contact Mr. Glenn von Gonten of my staff at (505) 476-3488 or Glenn.VonGonten@state.nm.us. You may also contact me at (505) 476-3493 if there are any OCD policy issues or questions you may have based on this correspondence.

Sincerely,

Daniel Sanchez
Enforcement and Compliance Manager
DS/cjc

Attachment 1: OCD November 20, 2010 "Administratively Incomplete" Letter
Attachment 2: 1989 WQCC *Delegation of Responsibilities* memo

xc: Jon Goldstein, EMNRD
Jim Noel, EMNRD
Maria Okpala, EPA Region 6
Diane Smith, EPA Region 6
Marcy Leavitt, NMED
Dave Cobrain, NMED
Glenn von Gonten, OCD
Gail Macquesten, OCD
Carl Chavez, OCD
OCD District III Office

New Mexico Energy, Minerals and Natural Resources Department

Bill Richardson
Governor

Joanna Prukop
Cabinet Secretary

Mark Fesmire
Division Director
Oil Conservation Division

November 20, 2009

Mr. Mark B. Turri
Refinery Manager
Western Refining Southwest- Gallup Refinery
Route 3 Box 7
Gallup, New Mexico 87301

Re: Discharge Permit "Modification" Request to Discharge (GW-032)
Western Refining Southwest- Gallup Refinery
McKinley County, New Mexico

Dear Mr. Turri:

The New Mexico Oil Conservation Division (OCD) has received Western Refining Southwest, Inc. (Western's), "Modification" application with all appropriate fees dated October 30, 2009, for authorization to discharge an estimated 100,000 gallons (~0.5 ft of evaporation pond network free board) of treated and untreated wastewater into Outfall 001 (N 35° 29' 26.23" & W 108° 26' 26.01") or "Waters of the State" at the west side of the property. Western proposes to minimize discharges from occurring into Outfall 001. When Outfall 001 (basically the furthest down gradient evaporation pond) overflows, runoff discharges into an off-property tributary ("South Fork") located about 0.8 miles from the Rio Puerco River (ephemeral or intermittent stream) on state land. Tribal land is located approximately 1-mile west and down-gradient from the Outfall 001 location.

OCD's review of the application is to determine if any additional information may be required before deeming the permit application "administratively" complete and will facilitate a complete technical review of the proposed modification by OCD. OCD has determined that the modification application is not "Administratively Complete."

Therefore, OCD requires additional information. In accordance with Subsection A of 20.6.2.3108 NMAC of the New Mexico Water Quality Control Commission regulations (WQCC), "to be deemed administratively complete, an application shall provide all of the information required by Paragraphs (4) through (5) of Subsection F of 20.6.2.3108 NMAC and shall indicate, for department approval, the proposed locations for providing notice (English and Spanish) required by Paragraphs (1) and (4) of Subsection B or Paragraph (2) of Subsection C of 20.6.2.3108 NMAC." Western did not provide any water quality information in support of its statement that "the waste water will have no hazardous components and levels of all contaminants will be below regulatory standards." Items 7, 9, 11, and 12 of the application (cross-section information is not discernable at the scale provided and boring logs with hydrogeologic information were not included with the cross sections) are not

adequately addressed. At least one cross-section with hydrogeologic information is required from the New API Separator (NAPIS) with well boring logs to the Outfall 001 area to evaluate the hydrogeology (aquifer(s)) present in the area of interest.

To satisfy the 20.6.2.3108F(4) NMAC "quality" and application form item requirements, submit historical water quality analytical data from historical pond monitoring data that supports the above statement and demonstrates compliance with 20.6.2.7(ww), 20.6.2.3103, 20.6.4.109 and 20.6.4.900 NMAC applicable water quality standards. In addition, Western must also provide new water quality data for evaporation pond 2 (EP-2) effluent, since the applicant indicated that there was about 1667 bbl/day of cooling tower blow down effluent and 1071 bbl/day of boiler effluent discharging into EP-2.

Due to the presence of sanitary effluent in the refinery wastewater treatment system (discharge location unknown at this time - aeration lagoon vs. EP-2?), biological analytical data in comparison with 20.6.2.2101 NMAC parameters must be provided in order to characterize any discharge to "Waters of the State" or Outfall 001. The existing approved facility "Biohazard Plan" may also need to be modified before the discharge to Outfall 001 can be considered.

Western should already be aware from its historical water quality monitoring data that some pond wastewater exceeds regulatory water quality standards. Consequently, a treatment system for the wastewater should have been proposed in the application to address the contaminants, but was not. With regard to the F(4) "volume", Western did not factor in the additional wastewater flow volume to the existing treatment system from its Bloomfield Refinery, which will be closed (~18,000 bbl/day crude oil refining capacity). Western is in the midst of a major wastewater treatment system conversion, which has yet to be specified. OCD is aware of the situation with one NAPIS and treatment capacity problems that occur routinely during precipitation events and has questioned the ability of the existing treatment system to handle wastewater at the facility without the additional wastewater that will occur as a result of the Bloomfield Refinery closure. This must be addressed along with the final waste water treatment system that will handle the type and total volume of treated effluent that may be discharged into Outfall 001.

To satisfy the 20.6.2.3108(F) NMAC "depth to and total dissolved solids concentration of the ground water", Western must submit data from nearby monitor wells.

From available pond monitoring information, there will likely be ground water contamination, which will require additional monitor wells to monitor ground water quality at the "mixing zone" where ground water interfaces with surface water, as well as ground water remediation system(s) to capture and prevent contamination from migrating down gradient to state and tribal lands. In addition, OCD will require Western to conduct more hydrogeologic work to assess the "mixing zone" and the complete hydrogeology beneath the facility before permitting the discharge of contaminants to Outfall 001. Plans to discharge into Outfall 001 without acknowledging the contaminants of concern and stipulating the type of treatment system needed to facilitate a discharge to Outfall 001 with plans to re-route fluids between ponds to avoid what appears to be an inevitable daily discharge scenario at Outfall 001 is of major concern to the OCD.

Please review the attached 20.6.2.3108 NMAC flow chart and regulatory language pertaining to the WQCC public notice requirements for "Modifications." After the application is deemed "Administratively Complete", the revised 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 revised WQCC notice requirements of 20.6.2.3108 NMAC to determine if there is any public interest.

If there are any questions regarding this matter, please contact Carl J. Chavez at (505) 476-3490 or carlj.chavez@state.nm.us. On behalf of the staff of the OCD, I wish to thank you and your staff for your cooperation during this discharge permit review.

Sincerely,

Carl J. Chávez
Environmental Engineer

CJC/cjc

Attachments: 20.6.2.3108 NMAC (Public Notice)

xc: Willie Lane, EPA Region 6
Marcy Leavitt, NMED
Dave Cobrain, NMED
Glenn von Gonten, OCD
OCD District III Office, Aztec

WATER QUALITY CONTROL COMMISSION

DELEGATION OF RESPONSIBILITIES TO ENVIRONMENTAL IMPROVEMENT DIVISION AND OIL CONSERVATION DIVISION

In an effort to prevent duplication of effort and to clarify the division of responsibilities pursuant to the provisions of the Water Quality Act, NMSA Sections 74-6-1 et seq. (1978), as administered and enforced by the Water Quality Control Commission, the Commission hereby approves the following list of delegated duties and responsibilities for two of the agencies that are constituent agencies to which authority can be delegated, the Environmental Improvement Division ("EID") and the Oil Conservation Division ("OCD"). The Commission is specifically authorized to take this action by NMSA Section 74-6-4E (1978) and by other general provisions of the Water Quality Act. The Commission notes that pursuant to NMSA Section 74-6-9C (1978), constituent agencies may "report to the Commission and to other constituent agencies water pollution conditions that are believed to require action where the circumstances are such that the responsibility appears to be outside the responsibility assigned to the agency making the report." The Commission encourages OCD and EID to continue close communication and cooperation where responsibility is unclear, to ensure that water pollution is prevented or abated quickly, efficiently and consistently. In situations involving discharges or facilities under the jurisdiction of both agencies, the agencies shall mutually agree which shall be the lead agency and shall determine the method by which the discharge plan shall be evaluated and approved. In preparing this delegation statement, the Commission is cognizant of the limitations imposed on its authority by the Water Quality Act, especially NMSA Section 74-6-12G (1978) which prohibits it from taking any action which would "interfere with the exclusive authority of the Oil Conservation Commission over all persons and things necessary to prevent water pollution as a result of oil or gas operations...."

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associated with activities of the oil field service industry. The Commission recognizes that OCD also administers regulations under both the Oil and Gas Act and the Geothermal Resources Act, and that OCD shall have discretion as to which regulations to enforce in any given situation. OCD shall have jurisdiction over all activities associated with exploration for or development, production, transportation before refinement, refinement, storage or treatment of unrefined oil and natural gas, or oil or gas products on refinery premises.

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A. EID shall certify Section 404 dredge and fill material permits under the Clean Water Act ("CWA"). (Source: 1/13/76 and 6/14/83 Commission minutes)

B. EID shall administer the Wastewater Construction Grants program pursuant to Section 205 of the CWA. (Source: 6/14/83 Commission minutes)

C. EID shall certify NPDES permits pursuant to Title IV of the Federal Water Pollution Control Act Amendments of 1972 and S402 of the CWA. (Source: 10/1/74 and 8/14/84 Commission minutes)

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G. EID shall administer and enforce all programs implemented by the state under PL 92-500 (The Federal Water Pollution Control Act) and its Amendments, unless directed otherwise by the Commission. (Source: 7/8/75 Commission minutes)

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OCD	EID
waste oil handled or processed by oil field service companies or treating plants	used motor oil handlers
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tanker trucks hauling, spilling or disposing of well-service chemicals, kill water, produced water, crude oil, tank bottom sludge and other oil field wastes and oil field service materials	tanker trucks spilling or disposing of non-oil and gas production wastes, non-oil and gas service materials, or refined petroleum products
washings from trucks and other equipment used in the transport, production or refining of oil and gas crude products, production wastes or service materials	washings from trucks and other equipment not used for oil and gas production related purposes

Both EID and OCD are authorized to continue to take appropriate legal action in their respective areas of delegation (including initiating proceedings in court) on behalf of the Commission on a finding of good cause to believe any person is violating or is threatening to violate a Commission regulation or the Water Quality Act. The agencies shall send a copy of each Complaint, Settlement Agreement and Judgment to the Commission Secretary for distribution to Commission members. (Source: NMSA Section 74-1-8.2(B) (1978), 2/8/71 and 1/11/83 Commission minutes)

WATER QUALITY CONTROL COMMISSION

Richard Mitzelfelt

By: Richard Mitzelfelt, Chairman

Aug 21, 1989

Date

Chavez, Carl J, EMNRD

From: VonGonten, Glenn, EMNRD
Sent: Tuesday, April 20, 2010 11:44 AM
To: Chavez, Carl J, EMNRD; Fesmire, Mark, EMNRD; Sanchez, Daniel J., EMNRD
Subject: FW: EPA Proposed NPDES Permit for Western Refining - Gallup
Attachments: Proposed NPDES permit WesternRef4-16-10.pdf

From: Saums, Glenn, NMENV
Sent: Tuesday, April 20, 2010 10:24 AM
To: VonGonten, Glenn, EMNRD
Cc: Powell, Richard, NMENV
Subject: EPA Proposed NPDES Permit for Western Refining - Gallup

Attached for your information is a copy of a proposed NPDES permit for Western Refining that EPA has prepared and submitted to public notice. Per the NM Water Quality Act, NMED (SWQB) has to provide the State 401 certification to EPA and we plan on sending it by May 17. If you have comments you wish for us to include, we will need them a day or two before that at the latest although we would actually like to get them as soon as possible so we have plenty of time to prepare certification. Since this permit is for discharges to surface water, generally we do not comment on ground water issues particularly where ground water quality is being protected by other State regulations (e.g., the WQCC Ground & Surface Water Protection Regulations – 20.6.2 NMAC). Normally we only comment on surface water quality issues related to protection of the State's *Standards for Interstate and Intrastate Surface Waters* 20.6.4 NMAC or the State's Water Quality Management Plan.

Rich Powell in SWQB is our lead person on this permit. If you have any questions or comments please feel free to contact him at 827-2798 or richard.powell@state.nm.us.

Glenn Saums

Glenn Saums
Acting Bureau Chief
New Mexico Environment Dept.
Surface Water Quality Bureau
1190 St. Francis Dr., Room N2050 (87505)
P.O. Box 5469
Santa Fe, NM 87502-5469
(505) 827-2827 (voice)
(505) 827-0160 (fax)
glenn.saums@state.nm.us

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 6
1445 ROSS AVENUE
DALLAS, TEXAS 75202-2733

APR 16 2010

CERTIFIED MAIL: RETURN RECEIPT REQUESTED (7009 1680 0002 2842 4630)

REPLY TO: 6WQ-NP

Mr. Mark B. Turri
Western Refining Gallup Refinery
Route 3 Box 7
Gallup, NM 87301

Re: Application to Discharge to Waters of the United States NPDES Permit No. NM0031071 – Western Refining - Gallup Refinery

Dear Mr. Turri:

Enclosed is a copy of a proposed National Pollutant Discharge Elimination System permit developed in accordance with the requirements of the Clean Water Act. Also enclosed is a statement of basis explaining the permit conditions and the public notice for this permit.

Any comments you wish to make may be submitted in writing by the due date stated in the public notice to Ms. Diane Smith at the above address. After all comments have been received, the Agency will make a final permit issuance decision. Subsequently, a copy of the final permit will be mailed to you. Should you have any questions regarding the final permit, please feel free to contact Maria Okpala of the NPDES Permits Branch at the above address or Voice: (214) 665-3152, Fax: (214) 665-2191, or E-mail: okpala.maria@epa.gov.

Sincerely yours,

Willie G. Lane, Jr.
Chief
NPDES & Technical Permits Section

Enclosures
cc w/enclosures:

Sandra Gabaldon, NMED

U.S. Environmental Protection Agency
Public Notice of Draft NPDES Permit(s)

April 17, 2010

This is to give notice that the U.S. Environmental Protection Agency, Region 6, has formulated a Draft Permit for the following facility (facilities) under the National Pollutant Discharge Elimination System (NPDES). Development of the draft permit(s) was based on a preliminary staff review by EPA, Region 6, and consultation with the State of New Mexico. The State of New Mexico is currently reviewing the draft permit(s). The permit(s) will become effective no sooner than 30 days after the close of the comment period unless:

A. The State of New Mexico denies certification, or requests an extension for certification prior to that date.

B. Comments received by May 17, 2010, in accordance with §124.20, warrant a public notice of EPA's final permit decision.

C. A public hearing is held requiring delay of the effective date.

EPA's contact person for submitting written comments, requesting information regarding the draft permit, and/or obtaining copies of the permit and the Statement of Basis or Fact Sheet is:

Ms. Diane Smith
U.S. Environmental Protection Agency
Permit Processing Team (6WQ-NP)
1445 Ross Avenue, Suite 1200
Dallas, Texas 75202-2733
(214) 665-2145

EPA's comments and public hearing procedures may be found at 40 CFR 124.10 and 124.12 (48 Federal Register 14264, April 1, 1983, as amended at 49 Federal Register 38051, September 26, 1984). The comment period during which written comments on the draft permit may be submitted extends for 30 days from the date of this Notice. During the comment period, any interested person may request a Public Hearing by filing a written request which must state the issues to be raised. A public hearing will be held when EPA finds a significant degree of public interest.

EPA will notify the applicant and each person who has submitted comments or requested notice of the final permit decision. A final permit decision means a final decision to issue, deny, modify, revoke or reissue, or terminate a permit. Any person may request an Evidentiary Hearing on the Agency's final permit decision. However, the request must be submitted within 30 days of the date of the final permit decision. Any person may request an evidentiary hearing are granted on a New Source, New Discharger, or Recommencing the requirements of 40 CFR 124.74. Any condition(s) contested in a request for an Discharger, the applicant shall be without a permit.

Further information including the administrative record may be viewed at the above address between 8 a.m. and 4:30 p.m., Monday through Friday. It is recommended that you write or call to the contact above for an appointment, so the record(s) will be available at your convenience.

NPDES authorization to discharge to waters of the United States, Permit No. NM0031071

The applicant's mailing address is:

Western Refining Gallup Refinery
Route 3
Box 7
Gallup, NM 87301

The discharges from this facility are as described in the table below:

Outfall Reference Number	Discharge Coordinates Latitude Deg° Min' Sec" Longitude Deg° Min' Sec"	Type of Discharge	Discharge Volume MGD	Receiving Water	Water Body Segment
001	Latitude 35° 29' 26.3"; Longitude 108° 26' 26.01"	Discharge process wastewater including process stormwater; sanitary wastewater, and reverse osmosis unit reject water	0.004	Unnamed arroyo, thence to Puerco River, an ephemeral waterbody	Segment No. 20.6.4.97 of the Lower Colorado River Basin

This is a first-time issuance. A Statement of Basis is available, and describes the rationale for permit conditions. Under the SIC Code 2911, the applicant operates a Petroleum Refinery. The refinery has an overall capacity to process up to 32,200 barrels per day of crude oil and additional feedstocks.

NPDES PERMIT NO. NM0031071
STATEMENT OF BASIS

FOR THE DRAFT NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) PERMIT TO DISCHARGE TO WATERS OF THE UNITED STATES

APPLICANT:

Western Refining Gallup Refinery
Route 3
Box 7
Gallup, NM 87301

ISSUING OFFICE:

U.S. Environmental Protection Agency
Region 6
1445 Ross Avenue
Dallas, Texas 75202-2733

PREPARED BY:

Maria E. Okpala
Environmental Engineer
NPDES Permits Branch (6WQ-PP)
Water Quality Protection Division
Voice: 214-665-3152
Fax: 214-665-2191
Email: okpala.maria@epa.gov

DATE PREPARED:

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PERMIT ACTION

It is proposed that the facility be issued a first-time NPDES permit for a 5-year term in accordance with regulations contained in 40 Code of Federal Regulations (CFR) 122.46(a).

40 CFR CITATIONS: Unless otherwise stated, citations to 40 CFR refer to promulgated regulations listed at Title 40, Code of Federal Regulations, revised as of March 5, 2010.

RECEIVING WATER – BASIN

An unnamed arroyo, thence to Puerco River, an ephemeral waterbody Segment No. 20.6.4.97 of the Lower Colorado River Basin.

DOCUMENT ABBREVIATIONS

For brevity, Region 6 used acronyms and abbreviated terminology in this Statement of Basis document whenever possible. The following acronyms were used frequently in this document:

BAT	Best Available Technology Economically Achievable)
BOD_5	Biochemical oxygen demand (five-day unless noted otherwise)
BPJ	Best professional judgment
CFR	Code of Federal Regulations
cfs	Cubic feet per second
COD	Chemical oxygen demand
COE	United States Corp of Engineers
CWA	Clean Water Act
DMR	Discharge monitoring report
ELG	Effluent limitation guidelines
EPA	United States Environmental Protection Agency
ESA	Endangered Species Act
F&WS	United States Fish and Wildlife Service
GPM	Gallon per minute
µg/l	Micrograms per litter (one part per billion)
mg/l	Milligrams per liter (one part per million)
MGD	Million gallons per day
MSGP	Multi-Sector General Permit
NMAC	New Mexico Administrative Code
NMED	New Mexico Environment Department
NMIP	New Mexico NPDES Permit Implementation Procedures
NMWQS	New Mexico State Standards for Interstate and Intrastate Surface Waters
NPDES	National Pollutant Discharge Elimination System
MQL	Minimum quantification level
O&G	Oil and grease
RP	Reasonable potential
SIC	Standard industrial classification
s.u.	Standard units (for parameter pH)
SWQB	Surface Water Quality Bureau
TDS	Total dissolved solids
TMDL	Total maximum daily load
TRC	Total residual chlorine
TSS	Total suspended solids
WET	Whole effluent toxicity
WQCC	New Mexico Water Quality Control Commission
WQMP	Water Quality Management Plan
WQS	Water Quality Standards

I. APPLICANT LOCATION and ACTIVITY

Under the SIC Code 2911, the applicant operates a Petroleum Refinery. The refinery has an overall capacity to process up to 32,200 barrels per day of crude oil and additional feedstocks.

This permit includes petroleum refinery operations as regulated under [40 CFR 419], "Petroleum Refining Point Source Category," process stormwater and reverse osmosis unit reject water. The process wastewater collection system is a network of curbing, paving, catch basins, and underground piping that collects wastewater and stormwater from various processing areas within the refinery and then conveys the wastewater to a wastewater treatment system.

As described in the application, the facility is located along Interstate-40, Exit 39, Jamestown, McKinley County, New Mexico. Wastewater discharges from the facility flows into an unnamed arroyo, thence to Puerco River, an ephemeral waterbody Segment No. 20.6.4.97 of the Lower Colorado River Basin.

Discharges are located on that water at:
Outfall 001: Latitude 35° 29' 26.3"; Longitude 108° 26' 26.01"

II. DISCHARGE DESCRIPTION

The Gallup Refinery wastewater system is made up of the process wastewater system and the process area storm water system. These two streams are comingled and treated as process wastewater. The average flow rate from the wastewater system is 185 GPM (0.266 MGD). The process wastewater flows into the API separator which utilizes gravity and residence time to separate wastewater into three components namely sludge layer, oil layer and a clarified layer. The clarified effluent flows into the benzene air stripper columns. At the air stripper columns, ambient air is blown upwards through a falling cascade of clarified wastewater and as a result, dissolved gases and light hydrocarbons are disengaged and vented. After oil recovery and stripping of benzene from the wastewater, the wastewater enters the aeration basins. In the aeration basins, the treated wastewater is mixed with air in order to oxidize any remaining organic constituents and increase the dissolved oxygen concentration available in the water for growth of bacteria and other microbial organisms. The microbes degrade hydrocarbons into carbon dioxide and water. Effluent from the aeration basins flows into several evaporation ponds of various sizes. At the evaporation pond, wastewater is converted into vapor via solar and mechanical wind-effect evaporation.

Sanitary wastewater from the refinery as well as other wastewater from several houses and a local travel center also flows into the aeration basins. The average flowrate from the sanitary wastewater is 54 GPM (0.0778 MGD). Effluent from the aeration basins flows into the evaporation ponds. At the evaporation ponds, wastewater is converted into vapor via sola and mechanical wind-effect evaporation.

The refinery does not intend to change its operation or modify its facility as to create any new discharges. The facility does not currently discharge to a water of the state, and does not have pollutant data to conduct analysis on. The facility is designed not to discharge, but under extreme emergency may discharge process wastewater including process stormwater; sanitary wastewater, and reverse osmosis unit reject water via a series of evaporation ponds. Under such circumstances, the facility intends to use appropriate temporary treatment systems to meet permit

requirements. The refinery is subject to ELG prior to the process wastewater system and the process area storm water system comingling with sanitary wastewater at the aeration basins.

Table 1: Facility's Average Daily Productions

The table below shows facility's average daily application obtained from the permit application.

Quantity per day	Units of Measure	Operation	Affected outfall
20	1000 barrels feedstock per stream day	Crude (atmospheric)	001
20	1000 barrels feedstock per stream day	Crude (desalter)	001
5	1000 barrels feedstock per stream day	Fluidized Catalytic Cracking unit	001

In an email dated February 19, 2010, the facility updated its current production rate as follows: daily maximum estimated production rate – 32,200 BPD; crude desalter feedstock rate – 25,000 BPD; and Fluidized Catalytic Cracking Unit – 8,500 BPD.

III. REGULATORY AUTHORITY/PERMIT ACTION

In November 1972, Congress passed the Federal Water Pollution Control Act establishing the NPDES permit program to control water pollution. These amendments established technology-based or end-of-pipe control mechanisms and an interim goal to achieve "water quality which provides for the protection and propagation of fish, shellfish, and wildlife and provides for recreation in and on the water"; more commonly known as the "swimmable, fishable" goal. Further amendments in 1977 of the CWA gave EPA the authority to implement pollution control programs such as setting wastewater standards for industry and established the basic structure for regulating pollutants discharges into the waters of the United States. In addition, it made it unlawful for any person to discharge any pollutant from a point source into navigable waters, unless a permit was obtained under its provisions. Regulations governing the EPA administered NPDES permit program are generally found at 40 CFR §122 (program requirements & permit conditions), §124 (procedures for decision making), §125 (technology-based standards) and §136 (analytical procedures). Other parts of 40 CFR provide guidance for specific activities and may be used in this document as required.

It is proposed that the permit be issued for a 5-year term following regulations promulgated at 40 CFR 122.46(a). This is a first-time permit issuance. An NPDES Application for a Permit to Discharge (Form 1 & 2C) was received on June 25, 2009. The application was deemed administratively incomplete on January 26, 2010. Additional permit application information was submitted on February 16, 2010; February 23, 2010; March 2, 2010, and March 5, 2010. The application was deemed administratively complete on March 5, 2010.

IV. DRAFT PERMIT RATIONALE AND PROPOSED PERMIT CONDITIONS

A. OVERVIEW of TECHNOLOGY-BASED VERSUS WATER QUALITY STANDARDS-BASED EFFLUENT LIMITATIONS AND CONDITIONREASON FOR PERMIT ISSUANCE

Regulations contained in 40 CFR §122.44 NPDES permit limits are developed that meet the more stringent of either technology-based effluent limitation guidelines, numerical and/or narrative water quality standard-based effluent limits, on best professional judgment (BPJ) in the absence of guidelines, and/or requirements pursuant to 40 CFR 122.44(d), whichever are more

stringent. Technology-based effluent limitations are established in the proposed draft permit for BOD5, TSS, Oil and grease, COD, ammonia, sulfide, total phenolics, Total Chromium and Hexavalent Chromium. Water quality-based effluent limitations are established in the proposed draft permit for E. coli bacteria and pH. A BPJ limit is established in the proposed permit for benzene.

B. TECHNOLOGY-BASED EFFLUENT LIMITATIONS/CONDITIONS

Regulations promulgated at 40 CFR §122.44 (a) require technology-based effluent limitations to be placed in NPDES permits based on ELGs where applicable, on BPJ in the absence of guidelines, or on a combination of the two. In the absence of promulgated guidelines for the discharge, permit conditions may be established using BPJ procedures. EPA establishes limitations based on the following technology-based controls: BPT, BCT, and BAT. These levels of treatment are:

BPT - The first level of technology-based standards generally based on the average of the best existing performance facilities within an industrial category or subcategory.

BCT - Technology-based standard for the discharge from existing industrial point sources of conventional pollutants including BOD, TSS, fecal coliform, pH, and O&G.

BAT - The most appropriate means available on a national basis for controlling the direct discharge of toxic and non-conventional pollutants to navigable waters. BAT effluent limits represent the best existing performance of treatment technologies that are economically achievable within an industrial point source category or subcategory.

Based on available information, wastewater is not discharged from the refinery to surface water of the state because all the wastewater is evaporated. Wastewater evaporation represents best available technology economically achievable (BAT), and EPA proposes a no discharge permit for the facility. As a result, the facility is not authorized to discharge to a surface water of the State except in extreme emergencies.

According to the additional information submitted by the permittee, Western Refining is a crude oil refining and petroleum products manufacturing facility. The refinery receives and processes crude oil and other feedstocks, and then produces various finished products. These include propane, butane, naphtha, unleaded gasoline, diesel (low sulfur and ultra-low sulfur), and residual fuel. Ammonium Thiosulfate and elemental sulfur are also produced as by-products through desulfurization process. As a result, Western Refining is subject to Refinery Guidelines at 40 CFR 419, Subpart B, Cracking Subcategory. Other sources of technology based limits include sanitary permit requirements and/or NMED water quality standards.

Calculation of Technology-Based Limits

Internal Outfall 101 - Process wastewater including process stormwater; and reverse osmosis unit reject water flows into the oil/water separator, then into the Benzene air stripper via a series of aeration basins and finally into the evaporation ponds. Discharges are proposed to be authorized from internal Outfall 101 into the aeration lagoons, and finally into the evaporation ponds. Internal Outfall 101 shall be subject to ELG for Petroleum Refinery, Subpart B – Cracking Subcategory. See calculation of technology-based limits from the ELG below. The

concentration based limit for benzene is based on the BPJ of the permit writer and is consistent with limits given in other oil and gas industry permits.

Table 2: Calculation of Unit Process Rates and Unit Configuration Factors

Refinery Processes	EPA Process Number (*1)	Unit Process Rate K bbl/day (*2)	Total Feedstock Rate K bbl/day (*3)	Unit Process Rate to Feedstock Rate Ratio (*4)	Process Weighting Factor(*5)	Unit Process Configuration Factor (*6)
Atmospheric Crude Distillation	1	32.2	32.2	1	1	1.0
Crude Desalting	2	25	32.2	0.776398	1	0.776398
Fluidized Catalytic Cracking, FCC	6	8.5	32.2	0.2639752	6	1.5838
Hydrofluoric Alkylation Unit		3		Not Applicable to Refinery Process Configuration Factor		
Platformer Unit		7.3				
Isomerization Unit		5				
Diesel Hydrotreater, DH	54	4				
Kerosene Hydrotreater, KH		5				

Total crude feedstock rate = 32.2 K bbl/day
Total coking and cracking feedstock rate = 8.5+4+5= 17.5 K bbl/day (i.e FCC +DH+KH. Coking feedstock rate is zero because refinery does not perform coking operation.)
Total Reforming and Alkylation Unit = 7.3 +3=10.3 K bbl/day

Total Refinery Process Configuration = 1.0+0.776398+1.5838 = 3.36
Size Factor Input: Feedstock, K bbl/day = 32.2

According to 419.23(b), PROCESS FACTOR = 0.63; SIZE FACTOR = 0.95
Multiplier = Feedstock * Process Factor * Size Factor
Multiplier = 32.2* 0.63* 0.95 = 19.2717

Footnotes:

(*1) EPA Process numbers are found in 40 CFR 419, Appendix A. They can be cross-referenced in the *Development Document, New Source Performance Standards, and Pretreatment Standards for the Petroleum Refinery Point Source Category* (EPA 440/1-82/014), Table III-7, pp.49-54.
(*2) Data obtained from additional permit application information
(*3) Data obtained from additional permit application information
(*4) is (*2) divided by (*3)
(*5) Process weighting factor is specified at 40 CFR 419.42 (b) (3), Subpart D
(*6) The product in this column is the result of multiplying the "Unit Process Rate to Feedstock Rate Ratio" in column (*4) times the process factor specified in column (*5). These values are summed to obtain the total refinery process configuration factor.

Table 3A: Technology-Based Limits Calculation for Conventional, non-conventional, and toxic refinery loading calculations found at 40 CFR 419, Subpart B – Cracking Category: *Process Wastewater*

	References	Treatment Technology	Factors	Factors	Multiplier	Discharge Fractions through Outfall	LOADINGS:	
PROCESS WASTEWATER			Subpart B	Subpart B			Subpart B	Subpart B
PARAMETER			Avg (lb/K bbl)	Max (lb/K bbl)			Avg (lb/day)	Max (lb/day)
Conventional:								
BOD_5	419.24(a)	BCT	5.5	9.9	19.2717	1	105.9944	190.7898
TSS	419.24(a)	BCT	4.4	6.9	19.2717	1	84.79548	132.9747
Oil & Grease	419.24(a)	BCT	1.6	3.0	19.2717	1	30.83472	57.8151
Nonconventional:								
COD	419.23(a)	BAT	38.4	74	19.2717	1	740.0333	1426.106
Ammonia	419.23(a)	BAT	3.0	6.6	19.2717	1	57.8151	127.1932
Sulfide	419.23(a)	BAT	0.029	0.065	19.2717	1	0.558879	1.252661
BPT Calculations for Total Recoverable Phenolics, Total Chromium, and Hexavalent Chromium								
Total Phenolics	419.22(a)	BPT	0.036	0.074	19.2717	1	0.693781	1.426106
Chromium Total	419.22(a)	BPT	0.088	0.15	19.2717	1	1.69591	2.890755
Hexavalent Chromium	419.22(a)	BPT	0.0056	0.012	19.2717	1	0.107922	0.23126

Table 3B: BAT Calculations for Total Recoverable Phenolics, Total Chromium, and Hexavalent Chromium

	References	Treatment Technology	Factors	Factors	Rate K bbl/day	Discharge Fractions through Outfall	LOADINGS:	
PROCESS WASTEWATER			Subpart B	Subpart B			Subpart B	Subpart B
PARAMETER			Avg (lb/K bbl)	Max (lb/K bbl)			Avg (lb/day)	Max (lb/day)
BAT Calculations for								
Total Phenolics								
Crude Processes	419.23(c)	BAT	0.003	0.013	32.2	1	0.0966	0.4186
Cracking and Coking	419.23(c)	BAT	0.036	0.147	17.5	1	0.63	2.5725
Reforming and Alkylation	419.23(c)	BAT	0.032	0.132	10.3	1	0.3296	1.3596
Total Phenolics BAT:							1.0562	4.3507
Chromium (Total)								
Crude Processes	419.23(c)	BAT	0.004	0.011	32.2	1	0.1288	0.3542
Cracking and Coking	419.23 (c)	BAT	0.041	0.119	17.5	1	0.7175	2.0825
Reforming and Alkylation	419.23(c)	BAT	0.037	0.107	10.3	1	0.3811	1.1021
Total Chromium BAT:							1.2274	3.5388
Hexavalent Chromium								
Crude Processes	419.23 (c)	BAT	0.0003	0.0007	32.2	1	0.00966	0.02254
Cracking and Coking	419.23 (c)	BAT	0.0034	0.0076	17.5	1	0.0595	0.133
Reforming and Alkylation	419.23(c)	BAT	0.0031	0.0069	10.3	1	0.03193	0.07107
Hexavalent Chromium BAT:							0.10109	0.22661

For Total Recoverable Phenolics, Total Chromium, and Hexavalent Chromium, apply most stringent (BAT or BPT) calculation.

Table 4A: Technology-Based Limits Calculation for Conventional, non-conventional, and toxic refinery loading calculations found at 40 CFR 419, Subpart B – Cracking Category: *Stormwater*

	References	Treatment Technology	Factors	Factors	Rate K gal/day	Discharge Fractions through Outfall	LOADINGS:	
STORMWATER			Subpart B	Subpart B			Subpart B	Subpart B
PARAMETER			Avg (lb/K gal)	Max (lb/K gal)			Avg (lb/day)	Max (lb/day)
Conventional:								
BOD5	419.24(e)	BCT	0.22	0.40	216	1	47.52	86.4
TSS	419.24(e)	BCT	0.18	0.28	216	1	38.88	60.48
Oil and Grease	419.24(e)	BCT	0.067	0.13	216	1	14.472	28.08
Non-Conventional:								
COD	419.23(f)	BAT	1.5	3.0	216	1	324	648
Total Phenolics	419.23(f)	BAT	0.0014	0.0029	216	1	0.3024	0.6264
Metals:								
Total Chromium	419.23(f)	BAT	0.0018	0.0050	216	1	0.3888	1.08
Hexavalent Chromium	419.23(f)	BAT	0.00023	0.00052	216	1	0.00497	0.1123

Table 5A: Calculations of Total Allocations for Internal Outfall 101

Total Allocation = Process wastewater + Ballast water + Contaminated Stormwater (lbs/day)

Ballast water is not applicable to the refinery. As a result, no allocation is given to ballast water.

	PROCESS WASTEWATER		**BALLAST WATER**		**CONTAMINATED STORMWATER**		**TOTAL ALLOCATION**	
	Subpart B	Subpart B	Subpart B	Subpart B	Subpart B	Subpart B	Subpart B	Subpart B
PARAMETER	Avg (lb/K bbl)	Max (lb/K bbl)	Avg (lb/K bbl)	Max (lb/K bbl)	Avg (lb/K gal)	Max (lb/K gal)	Avg (lb/day)	Max (lb/day)
Conventional:								
BOD_5	105.9944	190.7898			47.52	86.4	153.5144	277.1898
TSS	84.79548	132.9747			38.88	60.48	123.6755	193.4547
Oil & Grease	30.83472	57.8151			14.472	28.08	45.30672	85.8951
Nonconventional:								
COD	740.0333	1426.106			324	648	1064.033	2074.106
Ammonia	57.8151	127.1932					57.8151	127.1932
Sulfide	0.558879	1.252661					0.558879	1.252661
Apply most stringent BAT or BPT for Total Recoverable Phenolics, Total chromium and Hexavalent Chromium i.e process wastewater								
Nonconventional:								
Total Phenolics	0.693781	1.426106			0.3024	0.6264	0.996181	2.052506
Metals:								
Total Chromium	1.2274	2.89055			0.3888	1.08	1.3351	3.7917
Hexavalent Chromium	0.10109	0.22661			0.00497	0.1123	0.12634	0.28536

Technology-Based Limits for Outfall 001 (0.0778 MGD)

Sanitary wastewater flows into the aeration basins and then into the evaporation ponds. Outfall 001 shall be subject to the secondary treatment requirements.

The 30-day and daily maximum loadings for BOD_5 and TSS are based on the facility's average flow of 0.0778 MGD as shown below:

Loading, lbs/day = Flow (MGD) * 8.34 lb/gal * Concentration (mg/l)

30-day Avg. (lbs/day) BOD_5, TSS = 0.0778 MGD * 8.34 lb/day * 30 mg/l = 19.4656 lbs/day

Daily Max. (lbs/day) BOD_5, TSS = = 0.0778 MGD * 8.34 lb/day * 45 mg/l = 29.1983 lbs/day

The final loadings for BOD_5 and TSS are loadings from the effluent guidelines and loadings due to the sanitary wastewater. TSS and BOD_5 30-day average and maximum concentrations of 30 mg/l and 45 mg/l respectively are proposed in the final Outfall 001. E.coli bacteria limits of 126 cfu per 100 ml monthly average and 410 cfu per 100 ml daily maximum are also proposed in the permit based on the current NMWQS.

A daily maximum effluent limitation for Benzene of 0.005 mg/L is also proposed at Outfall 001. This is based on the BPJ of the permit writer and is consistent with limits given in other oil and gas industry permits.

Table 5B: Calculations of Total Allocations for Final Outfall 001

	SANITARY WASTEWATER LOADINGS		ELG LOADINGS		TOTAL LOADINGS	
PARAMETER	30-Day Avg (lbs/day	Daily Max (lbs/day)	30-Day Avg (lbs/day	Daily Max (lbs/day)	30-Day Avg (lbs/day	Daily Max (lbs/day)
BOD_5	19.4656	29.1983	153.5144	277.1898	172.98	306.3881
TSS	19.4656	29.1983	123.6755	193.4547	143.1411	222.653

Stormwater Pollution Prevention Requirements

Stormwater has been identified by the permittee as a component of the discharge through Outfall No. 001. In an email dated February 19, 2010, the permittee indicated that all stormwater originating within its process areas is contaminated. These contaminated stormwaters are subject to ELGs as calculated above. In addition, the permittee stated that the maximum contaminated stormwater daily rate is 216,000 GPD. This facility also has coverage under the MSGP for allowable "uncontaminated" stormwater discharges, not subject to ELG. Stormwater pollution prevention requirements are proposed in the draft permit, and shall apply whether discharge occurs or not.

It is proposed that the facility conduct annual inspections to identify areas contributing to the storm water discharge and identify potential sources of pollution which may affect the quality of storm water discharges from the facility.

The proposed permit requires the permittee to maintain a site map. The site map shall include all areas where storm water may contact potential pollutants or substances which can cause pollution. It is also proposed that all spilled product and other spilled wastes be immediately cleaned up and properly disposed. The permit prohibits the use of any detergents, surfactants or other chemicals from being used to clean up spilled product. Additionally, the permit requires all waste fuel, lubricants, coolants, solvents or other fluids used in the repair or maintenance of vehicles or equipment be recycled or contained for proper disposal. All diked areas surrounding storage tanks or stormwater collection basins shall be free of residual oil or other contaminants so as to prevent the accidental discharge of these materials in the event of flooding, dike failure, or improper draining of the diked area. The permittee shall amend the SWP3 whenever there is a change in the facility or change in operation of the facility.

C. WATER QUALITY BASED LIMITATIONS

1. General Comments

Water quality based requirements are necessary where effluent limits more stringent than technology-based limits are necessary to maintain or achieve federal or state water quality limits. Under Section 301(b)(1)(C) of the CWA, discharges are subject to effluent limitations based on federal or state WQS. Effluent limitations and/or conditions established in the draft permit are in compliance with applicable State WQS and applicable State water quality management plans to assure that surface WQS of the receiving waters are protected and maintained, or attained.

2. Implementation

The NPDES permits contain technology-based effluent limitations reflecting the best controls available. Where these technology-based permit limits do not protect water quality or the designated uses, additional water quality-based effluent limitations and/or conditions are included in the NPDES permits. State narrative and numerical water quality standards are used in conjunction with EPA criteria and other available toxicity information to determine the adequacy of technology-based permit limits and the need for additional water quality-based controls.

3. State Water Quality Standards

The general and specific stream standards are provided in NMWQS (20.6.4 NMAC amended through August 1, 2007). The facility discharges into an unnamed arroyo, thence to Puerco River, an ephemeral waterbody Segment No. 20.6.4.97 of the Lower Colorado River Basin.

The CWA sections 101(a)(2) and 303(c) require water quality standards to provide, wherever attainable, water quality for the protection and propagation of fish, shellfish, wildlife, and recreation in and on the water, functions commonly referred to as "fishable/swimmable" uses. EPA's current water quality regulation effectively establishes a rebuttable presumption that "fishable/swimmable" uses are attainable and therefore should apply to a water body unless it can be demonstrated that such uses are not attainable. EPA does not expect the State to adopt uses for ephemeral waters that cannot be attained, but in those instances, the State must submit a

UAA to support an aquatic life designation that does not meet the CWA §101(a)(2) objective as required by 40 CFR 131.10(j)(1).

The New Mexico State Standards for Interstate and Intrastate Surface Waters are found at 20.6.4 NMAC, amended through August 1, 2007 and are found on the NMED's website at http://www.nmcpr.state.nm.us/nmac/parts/title20/20.006.0004.pdf. The designated uses of Segment No. 20.6.4.97 are livestock watering, wildlife habitat, limited aquatic life and secondary contact.

4. Permit-Action - Water Quality-Based Limits

Regulations promulgated at 40 CFR §122.44(d) require limits in addition to, or more stringent than effluent limitation guidelines (technology based). State WQS that are more stringent than effluent limitation guidelines are as follows:

a. BACTERIA

Outfall 001 shall be subject to E. coli requirement for primary body contact uses. WQS require limits for E. coli of 126 cfu/100 ml monthly geometric mean and 410 cfu/100 ml single sample maximum.

b. pH

The water quality-based standard for primary contact pH range of 6.6 – 9.0 standard units is more restrictive than the technology-based pH range of 6.0 – 9.0 standard units. The pH range shall be 6.6 – 9.0 standard units at all times, when discharging.

c. TOXICS

i. General Comments

The CWA in Section 301 (b) requires that effluent limitations for point sources include any limitations necessary to meet water quality standards. Federal regulations found at 40 CFR §122.44 (d) state that if a discharge poses the reasonable potential to cause an in-stream excursion above a water quality criteria, the permit must contain an effluent limit for that pollutant.

There is no data to perform reasonable potential calculation since the facility has not had a discharge within the last three years.

Minimum quantification levels (MQL's) for state water quality numerical standards-based effluent limitations are listed in Part II of the permit

Solids and Foam

The prohibition of the discharge of floating solids or visible foam in other than trace amounts is proposed in the draft permit. In addition, there shall be no discharge of visible films of oil, globules of oil, grease or solids in or on the water, or coatings on stream banks.

D. MONITORING FREQUENCY FOR LIMITED PARAMETERS

Regulations require permits to establish monitoring requirements to yield data representative of the monitored activity, 40 CFR §122.48(b), and to assure compliance with permit limitations, 40 CFR §122.44(i)(1). Sample frequency is based on the NMIP and is consistent with other facilities of similar size.

Should any discharge occur from Outfall 001, the discharge shall be sampled within one hour of beginning for the pollutants listed at 40 CFR 122, Appendix D, Tables III and IV, plus pH, hardness, TDS, oil & grease, and TSS and the results submitted to EPA and NMED-SWQB. Should the discharge continue for more than one day, additional samples and analyses results shall be submitted for each additional day. These pollutants are listed in Part 2 of the proposed permit.

Flow shall to be estimated, using sound scientific methods, such as a "V" notch weir, and reported daily when discharge occurs at Outfall 001; and twice per week at internal Outfall 101. BOD5, TSS, Oil and grease, COD, ammonia, sulfide, and total phenolics shall be monitored and reported monthly at internal Outfall 101. pH shall be monitored twice per week at internal Outfall 101.

Total Chromium, and Hexavalent Chromium – Gallup Refinery does not use or generate chromium at its facility, therefore a monitoring frequency of 1/year for total chromium and hexavalent chromium is considered adequate for the protection of the receiving water and its designated uses.

TSS, BOD5, pH and E. coli bacteria shall be monitored daily at final Outfall 001, if discharge occurs. Benzene shall be monitored twice/week at Outfall 001, when discharge occurs.

E. WHOLE EFFLUENT TOXICITY LIMITATIONS

Procedures for implementing WET terms and conditions in NPDES permits are contained in the NMIP, July 2009. Table 11 of Section V of the NMIP outlines the type of WET testing for different types of discharges. Since discharges are authorized in the event of emergency, no low flow situations are expected. As a result, an LC_{50} test, which is a shorter test, is appropriate for the discharge. The receiving water is described as being an ephemeral waterbody; flowing only under periods of snowmelt or when rainfall of long enough duration and/or intensity occur. Biomonitoring of the effluent is, therefore, required to assess potential toxicity, if and when there is a discharge. Biomonitoring requirements are stated in Part II.D of the draft permit.

OUTFALL 001

During the period beginning the effective date of the permit and lasting through the expiration date of the permit (unless otherwise noted), the permittee is **NOT authorized** to discharge process wastewater including process stormwater; sanitary wastewater, and reverse osmosis unit reject water via a series of evaporation ponds into an unnamed arroyo, thence to Puero River, an ephemeral waterbody Segment No. 20.6.4.97 of the Lower Colorado River Basin, from Outfall 001. The permittee shall take all reasonable steps to prevent a discharge. In the event of emergency discharges, the permittee shall be subject to the limitations and monitoring specified below and in Part II.D of the permit.

EFFLUENT CHARACTERISTIC	DISCHARGE MONITORING	
	30-DAY AVG MINIMUM	24-Hr. MINIMUM
Whole Effluent Toxicity Testing (24 Hr. Static Non-Renewal) 1/		
Daphnia pulex	REPORT	REPORT

EFFLUENT CHARACTERISTIC	MONITORING REQUIREMENTS	
	FREQUENCY	TYPE
Whole Effluent Toxicity Testing (24 Hr. Static RNon-enewal) 1/		
Daphnia pulex	1/ 6 months	Grab

FOOTNOTES

1/ Monitoring and reporting requirements begin on the effective date of this permit. See Part II, Whole Effluent Toxicity Testing Requirements for additional WET monitoring and reporting conditions.

F. FINAL EFFLUENT LIMITATIONS

See the draft permit for limitations.

V. FACILITY OPERATIONAL PRACTICES

A. WASTE WATER POLLUTION PREVENTION REQUIREMENTS

The permittee shall institute programs directed towards pollution prevention. The permittee will institute programs to improve the operating efficiency and extend the useful life of the treatment system.

B. OPERATION AND REPORTING

The permittee must submit Discharge Monitoring Report's (DMR's) quarterly, beginning on the effective date of the permit, lasting through the expiration date of the permit or termination of the permit, to report on all limitations and monitoring requirements in the permit.

VI. IMPAIRED WATER - 303(d) LIST AND TMDL

Wastewater discharges from the facility flows into an unnamed arroyo thence to Puerco River, an ephemeral waterbody Segment No. 20.6.4.97 of the Lower Colorodo River Basin. The receiving stream is not listed as impaired in the 2008 - 2010 State of New Mexico 303(d) List for Assessed River/Stream Reaches Requiring Total Maximum Daily Loads (TMDLs).

VII. ENDANGERED SPECIES

According to the most recent county listing available at US Fish and Wildlife Service (USFWS), Southwest Region 2 website, http://www.fws.gov/southwest/es/EndangeredSpecies/lists/, five species are listed as threatened or endangered in McKinley County. These are the Bald eagle, Black-footed ferret, Mexican spotted owl, Southwestern willow flycatcher, and Zuni fleabane.

On August 9, 2007, the bald eagle was removed from the federal list of threatened and endangered species. After nearly disappearing from most of the United States decades ago, the bald eagle is now flourishing across the nation and no longer needs the protection of the Endangered Species Act.

Research of available information finds that the primary cause for the population decreases leading to the threatened or endangered status for the avian species (Bald eagle, Mexican spotted owl, and Southwestern willow flycatcher) is destruction of habitat. Issuance of this permit is found to have no impact on the habitat of the listed species since no construction is authorized by this permitting action. Additionally, no pollutants were identified by the permittee, hence, issuance of this permit is found to have no impact on the identified avian species. EPA believes that the issuance of the permit will have no effect on these species as effluent from this refinery is not expected to contain detectable concentrations of the contaminants of concern nor did the permit application indicate the discharge is expected to contain concentrations of these chemicals of concern. Research of the Black-footed Ferret finds that the species has diminished, due to the eradication of the prairie dog, the primary food source and provider of shelter (burrows) for the ferret. Issuance of this permit should have no effect on the food source or habitat of the prairie dog or the ferret, nor is it associated with predator control programs. The Zuni fleabane, a flowering plant, is listed as threatened in Mckinley County. Zuni fleabane flowers from mid to late May into early June. Fruiting time varies from mid June to early July. The major threat is surface disturbance activity associated with mineral development. Off-road vehicle (ORV) activities are a potential threat to the fragile habitat of this species. This permitting action is found to have no impact on mineral exploration or development or ORV use.

The Environmental Protection Agency has evaluated the potential effects of issuance of this permit upon listed or proposed endangered or threatened species. The facility is designed not to discharge, but may discharge under extreme emergency, and therefore, EPA has determined there will be no effects on endangered and threatened species.

VIII. HISTORICAL AND ARCHEOLOGICAL PRESERVATION CONSIDERATIONS

The no-discharge permit would have no impact on historical and/or archeological sites.

IX. CERTIFICATION

This permit is in the process of certification by the State agency following regulations promulgated at 40 CFR 124.53. A draft permit and draft public notice will be sent to the District Engineer, Corps of Engineers; to the Regional Director of the U.S. Fish and Wildlife Service and to the National Marine Fisheries Service prior to the publication of that notice.

X. FINAL DETERMINATION

The public notice describes the procedures for the formulation of final determinations.

XI. ADMINISTRATIVE RECORD

The following information was used to develop the proposed permit:

A. APPLICATION

NPDES Application for Permit to Discharge, Form 1 & 2C, received on June 25, 2009.

B. State of New Mexico References

New Mexico State Standards for Interstate and Intrastate Surface Water, 20.6.4 NMAC, as amended through August 1, 2007.

Procedures for Implementing National Pollutant Discharge Elimination System in New Mexico, November 30, 2009.

Narrative Toxics Implementation Guidance – Whole Effluent Toxicity, December 16, 2005.
2008 – 2010 State of New Mexico CWA § 303(d) /§ 305 (b) Integrated Report, Appendix A.

C. Other References

Post Third Round NPDES Permit Implementation Strategy, adopted October 1, 1992.

http://www.fws.gov/southwest/es/EndangeredSpecies/lists/

Guide for the Application of Effluent Limitations Guidelines for the Petroleum Refining Industry, USEPA, Industrial Technology Division, June 1985.

D. 40 CFR CITATIONS

Sections 122, 124, 125, 133, and 136

E. MISCELLANEOUS CORRESPONDENCE

Letter from Dorothy Brown, EPA, to Mr. Mark B. Turri, Refinery Manager, Western Refining - Gallup Refinery, dated March 5, 2010, informing applicant that its' NPDES application received June 25, 2009, is administratively complete.

Emails from Rajen Gaurav, Western Refining – Gallup Refinery, to Maria Okpala, EPA, dated 2/19/2010, 2/23/10, 3/02/10, & 3/05/10 submitting additional refinery information.

Letter from Mark Turri, Refinery manager, Western Refining- Gallup Refinery, to Jenaie Franke, EPA, dated February 8, 2010, submitting additional permit application information.

Email from Carl Chavez J. (Oil Conservation Division, New Mexico Energy, Minerals & Natural Resources Department) to Hope Monzeglio, NMED and to Dave Cobrain, NMED, dated January 13, 2010 on major modification to discharge and NPDES update.

Letter from Dorothy Brown, EPA, to Mr. Mark B. Turri, Refinery Manager, Western Refining - Gallup Refinery, dated January 26, 2010, informing applicant that its' NPDES application received June 25, 2009, is administratively incomplete.

PROPOSED PERMIT

REGION 6
1445 ROSS AVENUE
DALLAS, TEXAS 75202-2733

NPDES Permit No NM0031071

AUTHORIZATION TO DISCHARGE UNDER THE
NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM

In compliance with the provisions of the Clean Water Act, as amended, (33 U.S.C. 1251 et. seq; the "Act"),

Western Refining Gallup Refinery
Route 3
Box 7
Gallup, NM 87301

is NOT authorized to discharge from a facility located at I-40, Exit 39, in the City of Jamestown, in McKinley County, New Mexico.

to an unnamed arroyo leading to Puerco River in Segment No. 20.6.4. 97 of the Lower Colorado River Basin, from

Outfall 001: Latitude 35° 29' 26.3"; Longitude 108° 26' 26.01"

in accordance with this cover page and the effluent limitations, monitoring requirements, and other conditions set forth in Part I, Part II and Part III.

This is a first-time permit.

This permit shall become effective on

This permit and the authorization to not discharge shall expire at midnight,

Issued on

Prepared by

Miguel I. Flores
Director
Water Quality Protection Division (6WQ)

Maria Okpala
Environmental Engineer
Permits & Technical Section (6WQ-PP)

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PART I – REQUIREMENTS FOR NPDES PERMITS

SECTION A. LIMITATIONS AND MONITORING REQUIREMENTS

Internal Outfall 101 – 0.402 MGD

During the period beginning on the effective date of the permit and lasting through the expiration date of the permit (unless otherwise noted), the permittee **is authorized** to discharge process wastewater including process stormwater[*1], and reverse osmosis unit reject water into a series of aeration lagoon, and finally into a series of evaporation ponds.

EFFLUENT CHARACTERISTICS		DISCHARGE LIMITATIONS Standard Units		MONITORING REQUIREMENTS	
POLLUTANT	STORET CODE	MINIMUM	MAXIMUM	MEASUREMENT FREQUENCY	SAMPLE TYPE
PH	00400	6.6	9.0	2/ week	Grab

EFFLUENT CHARACTERISTICS		MONITORING REQUIREMENTS Lbs/day, unless noted		mg/l unless noted			
POLLUTANT	STORET CODE	MONTHLY AVG	DAILY MAX	MONTHLY AVG	DAILY MAX	MEASUREMENT FREQUENCY	SAMPLE TYPE
Flow	50050	MGD	MGD	***	***	2/week	Estimate
BOD_5	00310	153.514	277.189	N/A	N/A	Monthly	Grab
TSS	00530	123.676	193.455	N/A	N/A	Monthly	Grab
Oil & Grease	00556	45.307	85.895	N/A	N/A	Monthly	Grab
COD	00340	1064.033	2074.106	N/A	N/A	Monthly	Grab
Ammonia as N	00610	57.815	127.193	N/A	N/A	Monthly	Grab
Sulfide as S	00745	0.559	1.253	N/A	N/A	Monthly	Grab
Total Phenolics	32730	0.996	2.053	N/A	N/A	Monthly	Grab
Total Chromium[*2]	01034	1.335	3.792	N/A	N/A	1/year	Grab
Hexavalent Chromium[*2]	01032	0.126	0.285	N/A	N/A	1/year	Grab

Footnotes:

*1 Process stormwater is contaminated and is subject to Effluent Limitation Guidelines (see Statement of Basis for calculation). This facility also has coverage under the Multi-Sector General Permit for allowable "uncontaminated" stormwater discharges, not subject to ELG.

*2 See Part II for MQL.

Samples taken in compliance with the monitoring requirements specified above shall be taken at the following location(s):

Internal Outfall 101, at the point of discharge from the final treatment, prior to combining with effluent from the sanitary wastewater.

2. FINAL Effluent Limits Outfall 001– 0.004 MGD

During the period beginning on the effective date of the permit and lasting through the expiration date of the permit (unless otherwise noted), the permittee is **NOT authorized to** discharge process wastewater including process stormwater[*1] ; sanitary wastewater, and reverse osmosis unit reject water via a series of evaporation ponds into an unnamed arroyo, thence to Puerco River, an ephemeral waterbody Segment No. 20.6.4.97 of the Lower Colorodo River Basin, from Outfall 001. The permittee shall take all reasonable steps to prevent a discharge. In the event of emergency discharges, the permittee shall be subject to the limitations and monitoring requirements specified below and in Part II. A:

EFFLUENT CHARACTERISTICS		DISCHARGE LIMITATIONS Standard Units		MONITORING REQUIREMENTS	
POLLUTANT	STORET CODE	MINIMUM	MAXIMUM	MEASUREMENT FREQUENCY	SAMPLE TYPE
pH	00400	6.6	9.0	Once/day (*2)	Grab

EFFLUENT CHARACTERISTICS		MONITORING REQUIREMENTS Lbs/day, unless noted		mg/l unless noted			
POLLUTANT	STORET CODE	MONTHLY AVG	DAILY MAX	MONTHLY AVG	DAILY MAX	MEASUREMENT FREQUENCY	SAMPLE TYPE
Flow	50050	Report, MGD	Report, MGD	***	***	Once/Day (*2)	Estimate
BOD_5	00310	172.98	306.388	30	45	Once/Day (*2)	Grab
TSS	00530	143.141	222.653	30	45	Once/Day (*2)	Grab
E. coli Bacteria (*3)	51040	N/A	N/A	126	410	Once/Day (*2)	Grab
Benzene	34030	N/A	N/A	N/A	0.005	Twice/week (*2)	Grab

Footnotes:

*1 Process stormwater is contaminated and is subject to Effluent Limitation Guidelines (see Statement of Basis for calculation). This facility also has coverage under the Multi-Sector General Permit for allowable "uncontaminated" stormwater discharges, not subject to ELG.

*2 If discharge occurs

*3 Colony forming units (cfu) per 100 ml.

OUTFALL 001

During the period beginning on the effective date of the permit and lasting through the expiration date of the permit, the permittee is **NOT authorized** to discharge process wastewater including process stormwater; sanitary wastewater, and reverse osmosis unit reject water via a series of evaporation ponds into an unammed arroyo, thence to Puerco River, an ephemeral waterbody Segment No. 20.6.4.97 of the Lower Colorado River Basin, from Outfall 001. The permittee shall take all reasonable steps to prevent a discharge. In the event event of emergency, the permittee shall be subject to the limitations and monitoring requirements specified below and in Part II.D:

EFFLUENT CHARACTERISTIC	DISCHARGE MONITORING	
	30-DAY AVG MINIMUM	24-Hr. MINIMUM
Whole Effluent Toxicity Testing (24 Hr. Static Non-Renewal) 1/		
Daphnia pulex	REPORT	REPORT

EFFLUENT CHARACTERISTIC	MONITORING REQUIREMENTS	
	FREQUENCY	TYPE
Whole Effluent Toxicity Testing (24 Hr. Static RNon-enewal) 1/		
Daphnia pulex	1/ 6 months	Grab

FOOTNOTES

1/ Monitoring and reporting requirements begin on the effective date of this permit. See Part II, Whole Effluent Toxicity Testing Requirements for additional WET monitoring and reporting conditions.

Samples taken in compliance with the monitoring requirements specified above shall be taken at the discharge from the final treatment from Outfalls 001 prior to the receiving stream.

FLOATING SOLIDS, VISIBLE FOAM AND/OR OILS

There shall be no discharge of floating solids or visible foam in other than trace amounts.
There shall be no discharge of visible films of oil, globules of oil, grease or solids in or on the water, or coatings on stream banks.

B. SCHEDULE OF COMPLIANCE

None, compliance with the terms and conditions of the permit shall start on the permit effective date.

C. MONITORING AND REPORTING (MINOR DISCHARGERS)

Monitoring information shall be on Discharge Monitoring Report Form(s) EPA 3320-1 as specified in Part III.D.4 of this permit and shall be submitted quarterly. Each quarterly submittal shall include separate forms for each month of the reporting period.

1. Reporting periods shall end on the last day of the months March, June, September, and December.

2. The permittee is required to submit regular monthly reports as described above postmarked no later than the 28th day of the month following each reporting period.

3. NO DISCHARGE REPORTING

If there is no discharge from any outfall during the sampling month, place an "X" in the NO DISCHARGE box located in the upper right corner of the Discharge Monitoring Report.

PART II - OTHER CONDITIONS

A. DISCHARGE REPORTING

Should any discharge occur, the permittee is required to sample within one hour of beginning of discharge for the pollutants listed in 40 CFR 122, Appendix D, Tables III and Table IV (See list below), plus flow, pH, hardness, TDS, and TSS and the results submitted to EPA and NMED/SWQB. Should the discharge continue for more than one day, additional samples and analyses results shall be submitted for each additional day.

Other Toxic Pollutants (Metals and Cyanide) and Total Phenols

Pollutant	MQL ug/l	Pollutant	MQL ug/l
Antimony, Total	60	Nickel, Total	0.5
Arsenic, Total	0.5	Selenium, Total	5
Beryllium, Total	0.5	Silver, Total	0.5
Cadmium, Total	1	Thallium, Total	0.5
Chromium, Total	10	Zinc, Total	20
Chromium (6+)	10	Cyanide, Total	10
Copper, Total	0.5	Phenols, Total	10
Lead, Total	0.5		
Mercury, Total*	0.0005 0.005		

Conventional and Nonconventional Pollutants Required to Be Tested by Existing Dischargers if Expected to be Present

Pollutant	MQL ug/l	Pollutant	MQL ug/l
Bromide		Sulfite	
Chlorine, Total Residual	33	Surfactants	
Color		Aluminum, Total	2.5
Fecal Coliform		Barium, Total	100
Fluoride		Boron, Total	100
Nitrate-Nitrite		Cobalt, Total	50
Nitrogen, Total Organic		Iron, Total	
Oil & Grease		Magnesium	
Phosphorus		Molybdenum, Total	10
Radioactivity		Manganese, Total	
Sulfate		Tin, Total	
Sulfide		Titanium, Total	

Footnotes:
*1 Default MQL for Mercury is 0.005 unless Part I of your permit requires the more sensitive Method 1631 (Oxidation / Purge and Trap / Cold vapor Atomic Fluorescence Spectrometry), then the MQL shall be 0.0005.

The permittee may develop an effluent specific method detection limit (MDL) in accordance with Appendix B to 40 CFR 136. For any pollutant for which the permittee determines an effluent specific MDL, the permittee shall send to the EPA Region 6 NPDES Permits Branch (6WQ P) a report containing QA/QC documentation, analytical results, and calculations necessary to demonstrate that the effluent specific MDL was correctly calculated. An effluent specific minimum quantification level (MQL) shall be determined in accordance with the following calculation:

$$MQL = 3.3 \times MDL$$

B. PERMIT MODIFICATION AND REOPENER

In accordance with 40 CFR Part 122.44(d), the permit may be reopened and modified during the life of the permit if relevant portions of New Mexico's Water Quality Standards for Interstate and Intrastate Streams are revised, or new State of New Mexico water qualit
y standards are established and/or remanded.

In accordance with 40 CFR Part 122.62(s)(2), the permit may be reopened and modified if new information is received that was not available at the time of permit issuance that would have justified the application of different permit conditions at the time of permit issuance. Permit modifications shall reflect the results of any of these actions and shall follow regulations listed at 40 CFR Part 124.5.

C. AFFIRMATIVE DEFENSE FOR EMERGENCY DISCHARGE

This is a "No Discharge" permit. The permittee shall take all reasonable steps to prevent a discharge. In case a discharge occurs due to emergency conditions, the permittee shall submit an affirmative defense which includes:

The cause of emergency conditions occurring;
The operating logs or relevant evidences which demonstrate that the facility was at the time being properly operated;
Documentation showing that all reasonable steps have been taken to minimize the discharge; and
Whether or not any flow reached the Puerco River.

D. WHOLE EFFLUENT TOXICITY TESTING (24-HOUR ACUTE NOEC FRESHWATER)

In the case of emergency discharge, the permittee shall collect a sample for evaluation of whole effluent toxicity.

It is unlawful and a violation of this permit for a permittee or his designated agent, to manipulate test samples in any manner, to delay sample shipment, or to terminate or to cause to terminate a toxicity test. Once initiated, all toxicity tests must be completed unless specific authority has been granted by EPA Region 6 or the State NPDES permitting authority.

1. SCOPE AND METHODOLOGY

a. The permittee shall test the effluent for toxicity in accordance with the provisions in this section.

APPLICABLE TO FINAL OUTFALL(S):	001
REPORTED AS FINAL OUTFALL:	001
CRITICAL DILUTION (%):	100%
EFFLUENT DILUTION SERIES (%):	0%, 100%
SAMPLE TYPE:	Grab
TEST SPECIES/METHODS:	40 CFR Part 136

Daphnia pulex acute static non-renewal 24-hour definitive toxicity test using EPA-821-R-02-012, or the latest update thereof. A minimum of five (5) replicates with eight (8) organisms per replicate must be used in the control and in each effluent dilution of this test.

b. The LC_{50} is defined as the effluent concentration which causes 50% or greater mortality at the end of the exposure period. Test failure is defined as a demonstration 50% or greater mortality at test completion (24 hours).

c. This permit may be reopened to require whole effluent toxicity limits, chemical specific effluent limits, additional testing, and/or other appropriate actions to address toxicity.

d. This permit does not establish requirements to automatically increase the WET testing frequency after a test failure, or to begin a toxicity reduction evaluation (TRE) in the event of multiple test failures. However, upon failure of any WET test, the permittee must report the test results to NMED, Surface Water Quality Bureau, in writing, within 5 business days of notification the test failure. NMED will review the test results and determine the appropriate action necessary, if any.

2. REQUIRED TOXICITY TESTING CONDITIONS

a. Test Acceptance

The permittee shall repeat a test, including the control and all effluent dilutions, if the procedures and quality assurance requirements defined in the test methods or in this permit are not satisfied, including the following additional criteria:

i. Each toxicity test control (0% effluent) must have a survival equal to or greater than 90%.

ii. The percent coefficient of variation between replicates shall be 40% or less in the control (0% effluent).

iii. The percent coefficient of variation between replicates shall be 40% or less in the critical dilution, unless significant lethal effects are exhibited.

Test failure may not be construed or reported as invalid due to a coefficient of variation value of greater than 40%. A repeat test shall be conducted within the required reporting period of any test determined to be invalid.

b. Statistical Interpretation

The statistical analyses used to determine if there is a statistically significant difference between the control and the critical dilution shall be in accordance with the methods for determining the LC_{50} EPA-821-R-02-012 or the most recent update thereof.

c. Samples and Composites

i. The permittee shall collect one grab composite sample from the outfall(s) listed at Item 1.a above.

ii. The maximum holding time for any effluent sample shall not exceed 36 hours. The toxicity test must be initiated within 36 hours after the collection of grab sample. Samples shall be chilled to 6 degrees Centigrade during collection, shipping, and/or storage.

iii. The permittee must collect samples such that the effluent samples are representative of any periodic episode of chlorination, biocide usage or other potentially toxic substance discharged on an intermittent basis.

3. REPORTING

a. The permittee shall prepare a full report of the results of all tests conducted pursuant to this Part in accordance with the Report Preparation Section of EPA-821-R-02-012, for every valid or invalid toxicity test initiated, whether carried to completion or not. The

permittee shall retain each full report pursuant to the provisions of PART III.C.3 of this permit. The permittee shall submit full reports upon the specific request of the Agency. For any test which fails, is considered invalid or which is terminated early for any reason, the full report must be submitted for agency review.

b. A valid test for each species must be reported during each reporting period specified in PART I of this permit unless the permittee is performing a TRE which may increase the frequency of testing and reporting. Only ONE set of biomonitoring data for each species is to be recorded for each reporting period. The data submitted should reflect the LOWEST Survival results for each species during the reporting period. All invalid tests, repeat tests (for invalid tests), and retests (for tests previously failed) performed during the reporting period must be attached for review.

c. The permittee shall report the following results of each valid toxicity test. Submit retest information, if required, clearly marked as such. Only results of valid tests are to be reported.

i. Daphnia pulex

(A) If the NOEC for survival is less than the critical dilution, enter a "1"; otherwise, enter a "0" for Parameter No. TEM3D.

(B) Report the NOEC value for survival, Parameter No. TOM3D.

(C) Report the highest (critical dilution or control) Coefficient of Variation, Parameter No. TQM3D.

d. If retests are required by NMED, enter the following codes:

i. For retest number 1, Parameter 22415, enter a "1" if the NOEC for survival is less than the critical dilution; otherwise, enter a "0."

ii. For retest number 2, Parameter 22416, enter a "1" if the NOEC for survival is less than the critical dilution; otherwise, enter a "0."

E. STORM WATER POLLUTION PREVENTION

Stormwater has been identified by the applicant/permittee as a component of the discharge through Outfall 001. This section applies to all stormwater discharges from the facility through permitted outfalls. The language below has been included in this permit to control stormwater from the facility subject to NPDES regulation:

1. The permittee shall prepare, implement, and maintain a Storm Water Pollution Prevention Plan (SWP3) within six (6) months of the effective date of the final permit. The terms and conditions of the SWP3 shall be an enforceable Part of the permit.

2. A visual inspection of the facility shall be conducted and a report made annually as described in Paragraphs E.2.d and E.2.e below. The annual report shall be retained on site and available upon request.

The following conditions shall be included in the SWP3 for this facility.

a. The permittee shall identify potential sources of pollution which may reasonably be expected to affect the quality of storm water discharges from the facility; describe and ensure implementation of practices which will be used to reduce pollutants in storm water discharges from the facility; and assure compliance with the terms and conditions of this permit.

b. The permittee must document where potential spills and leaks could occur that could contribute pollutants to stormwater discharges, and the corresponding outfall(s). The permittee must document all significant spills and leaks of oil or toxic or hazardous pollutants that actually occurred at exposed areas, or that drained to a stormwater conveyance, in the 3 years prior to the date you prepare or amend your SWPPP.

Note: Significant spills and leaks include, but are not limited to, releases of oil or hazardous substances in excess of quantities that are reportable under CWA Section 311 (see 40 CFR 110.6 and 40 CFR 117.21) or Section 102 of the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA), 42 USC §9602. This permit does not relieve you of the reporting requirements of 40 CFR 110, 40 CFR 117, and 40 CFR 302 relating to spills or other releases of oils or hazardous substances.

c. Where experience indicates a reasonable potential for equipment failure (e.g. a tank overflow or leakage), natural condition of (e.g. precipitation), or other circumstances which result in significant amounts of pollutants reaching surface waters, the SWP3 should include a prediction of the direction, rate of flow and total quantity of pollutants which could be discharged from the facility as a result of each condition or circumstance.

d. The permittee shall maintain for a period of three years a record summarizing the results of the inspection and a certification that the facility is in compliance with the SWP3 and the permit, and identifying any incidents of noncompliance. The summary report should contain, at a minimum, the date and time of inspection, name of inspectors(s), conditions found, and changes to be made to the SWP3.

e. The summary report and the following certification shall be signed and attached to the SWP3 and provided to the Environmental Protection Agency and the New Mexico Environment Department, Surface Water Quality Bureau upon request.

"I certify under pernalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those 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."

Signatory requirements for the certification may be found in Part III, Section D.11 of this permit.

f. The permittee shall make available to the Agency, the NMED, and/or the USFWS, upon request, a copy of the SWP3 and any supporting documentation.

3. The following shall be included in the SWP3, if applicable.

a. The permittee shall utilize all reasonable methods to minimize any adverse impact on the drainage system including but not limited to:

i. maintaining adequate road and driveway surfaces;
ii. removing debris and accumulated solids from the drainage system; and
iii. cleaning up prior to the next storm event, any spill by sweeping, absorbent pads, or other appropriate methods.

b. All spilled product and other spilled wastes shall be immediately cleaned up and disposed of according to all applicable regulations, Spill Prevention and Control (SPC) plans or Spill Prevention Control and Countermeasures (SPCC) plans. Use of detergents, emulsifiers, or dispersants to clean up spilled product is prohibited except where necessary to comply with State or Federal safety regulations (i.e., requirement for non-slippery work surface). In all such cases, initial cleanup shall be done by physical removal and chemical usage shall be minimized.

c. All equipment, parts, dumpsters, trash bins, petroleum products, chemical solvents, detergents, or other materials exposed to stormwater shall be maintained in a manner which prevents contamination of stormwater by pollutants.

d. All waste fuel, lubricants, coolants, solvents, or other fluids used in repair or maintenance of vehicles or equipments shall be recycled or contained for proper disposal. Spills of these materials are to be cleaned up by dry means whenever possible.

e. Stormwater Pollution Prevention Plan must be consistent with the requirements of the current Oil Pollution Prevention regulations.

f. Prior to discharge of uncontaminated stormwater from a secondary containment area, the permittee will conduct a visual inspection of the containment area for a visible sheen, an odor associated within the tanked products, and/or a stain pattern within the contained area that is indicative of a spill or leak into that area. No dewatering of the area is allowed under the condition of this permit, if evidence exists of a spill or leak, unless the discharge will not exceed 50 mg/l TOC, 15 mg/l Oil and Grease, or having a pH less than 6.0 or greater than 9.0 standard units.

g. The permittee shall assure compliance with all applicable regulations promulgated under 40 CFR Part 257. Management practices required under regulations found in this Part shall be referenced in the SWP3.

h. The permittee shall amend the SWP3 whenever there is a change in the facility or change in the operation of the facility which materially increases the potential for the ancillary activities to result in a discharge of significant amounts of pollutants.

i. If the SWP3 proves to be ineffective in achieving the general objectives preventing the release of significant amounts of pollutants to water of the state, then the specific objectives and requirements of the SWP3 shall be subject to modification to incorporate revised SWP3 requirements.

PART III - STANDARD CONDITIONS FOR NPDES PERMITS

A. GENERAL CONDITIONS

1. INTRODUCTION

In accordance with the provisions of 40 CFR Part 122.41, et. seq., this permit incorporates by reference ALL conditions and requirements applicable to NPDES Permits set forth in the Clean Water Act, as amended, (hereinafter known as the "Act") as well as ALL applicable regulations.

2. DUTY TO COMPLY

The permittee must comply with all conditions of this permit. Any permit noncompliance constitutes a violation of the Act and is grounds for enforcement action; for permit termination, revocation and reissuance, or modification; or for denial of a permit renewal application.

3. TOXIC POLLUTANTS

a. Notwithstanding Part III.A.5, if any toxic effluent standard or prohibition (including any schedule of compliance specified in such effluent standard or prohibition) is promulgated under Section 307(a) of the Act for a toxic pollutant which is present in the discharge and that standard or prohibition is more stringent than any limitation on the pollutant in this permit, this permit shall be modified or revoked and reissued to conform to the toxic effluent standard or prohibition.

b. The permittee shall comply with effluent standards or prohibitions established under Section 307(a) of the Act for toxic pollutants within the time provided in the regulations that established those standards or prohibitions, even if the permit has not yet been modified to incorporate the requirement.

4. DUTY TO REAPPLY

If the permittee wishes to continue an activity regulated by this permit after the expiration date of this permit, the permittee must apply for and obtain a new permit. The application shall be submitted at least 180 days before the expiration date of this permit. The Director may grant permission to submit an application less than 180 days in advance but no later than the permit expiration date. Continuation of expiring permits shall be governed by regulations promulgated at 40 CFR Part 122.6 and any subsequent amendments.

5. PERMIT FLEXIBILITY

This permit may be modified, revoked and reissued, or terminated for cause in accordance with 40 CFR 122.62-64. The filing of a request for a permit modification, revocation and reissuance, or termination, or a notification of planned changes or anticipated noncompliance, does not stay any permit condition.

6. PROPERTY RIGHTS

This permit does not convey any property rights of any sort, or any exclusive privilege.

7. DUTY TO PROVIDE INFORMATION

The permittee shall furnish to the Director, within a reasonable time, any information which the Director may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit, or to determine compliance with this permit. The permittee shall also furnish to the Director, upon request, copies of records required to be kept by this permit.

8. CRIMINAL AND CIVIL LIABILITY

Except as provided in permit conditions on "Bypassing" and "Upsets", nothing in this permit shall be construed to relieve the permittee from civil or criminal penalties for noncompliance. Any false or materially misleading representation or concealment of information required to be reported by the provisions of the permit, the Act, or applicable regulations, which avoids or effectively defeats the regulatory purpose of the Permit may subject the Permittee to criminal enforcement pursuant to 18 U.S.C. Section 1001.

9. OIL AND HAZARDOUS SUBSTANCE LIABILITY

Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities, or penalties to which the permittee is or may be subject under Section 311 of the Act.

10. STATE LAWS

Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities, or penalties established pursuant to any applicable State law or regulation under authority preserved by Section 510 of the Act.

11. SEVERABILITY

The provisions of this permit are severable, and if any provision of this permit or the application of any provision of this permit to any circumstance is held invalid, the application of such provision to other circumstances, and the remainder of this permit, shall not be affected thereby.

B. PROPER OPERATION AND MAINTENANCE

1. NEED TO HALT OR REDUCE NOT A DEFENSE

It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit. The permittee is responsible for maintaining adequate safeguards to prevent the discharge of untreated or inadequately treated wastes during electrical power failure either by means of alternate power sources, standby generators or retention of inadequately treated effluent.

2. DUTY TO MITIGATE

The permittee shall take all reasonable steps to minimize or prevent any discharge in violation of this permit which has a reasonable likelihood of adversely affecting human health or the environment.

3. PROPER OPERATION AND MAINTENANCE

a. The permittee shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by permittee as efficiently as possible and in a manner which will minimize upsets and discharges of excessive pollutants and will achieve compliance with the conditions of this permit. Proper operation and maintenance also includes adequate laboratory controls and appropriate quality assurance procedures. This provision requires the operation of backup or auxiliary facilities or similar systems which are installed by a permittee only when the operation is necessary to achieve compliance with the conditions of this permit.

b. The permittee shall provide an adequate operating staff which is duly qualified to carry out operation, maintenance and testing functions required to insure compliance with the conditions of this permit.

4. BYPASS OF TREATMENT FACILITIES

a. BYPASS NOT EXCEEDING LIMITATIONS

The permittee may allow any bypass to occur which does not cause effluent limitations to be exceeded, but only if it also is for essential maintenance to assure efficient operation. These bypasses are not subject to the provisions of Parts III.B.4.b. and 4.c.

b. NOTICE

(1) ANTICIPATED BYPASS

If the permittee knows in advance of the need for a bypass, it shall submit prior notice, if possible at least ten days before the date of the bypass.

(2) UNANTICIPATED BYPASS

The permittee shall, within 24 hours, submit notice of an unanticipated bypass as required in Part III.D.7.

c. PROHIBITION OF BYPASS

(1) Bypass is prohibited, and the Director may take enforcement action against a permittee for bypass, unless:

(a) Bypass was unavoidable to prevent loss of life, personal injury, or severe property

damage;

(b) There were no feasible alternatives to the bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes, or maintenance during normal periods of equipment downtime. This condition is not satisfied if adequate back-up equipment should have been installed in the exercise of reasonable engineering judgment to prevent a bypass which occurred during normal periods of equipment downtime or preventive maintenance; and,

(c) The permittee submitted notices as required by Part III.B.4.b.

(2) The Director may allow an anticipated bypass after considering its adverse effects, if the Director determines that it will meet the three conditions listed at Part III.B.4.c(1).

5. UPSET CONDITIONS

a. EFFECT OF AN UPSET
An upset constitutes an affirmative defense to an action brought for noncompliance with such technology-based permit effluent limitations if the requirements of Part III.B.5.b. are met. No determination made during administrative review of claims that noncompliance was caused by upset, and before an action for noncompliance, is final administrative action subject to judicial review.

b. CONDITIONS NECESSARY FOR A DEMONSTRATION OF UPSET
A permittee who wishes to establish the affirmative defense of upset shall demonstrate, through properly signed, contemporaneous operating logs, or other relevant evidence that:

(1) An upset occurred and that the permittee can identify the cause(s) of the upset;

(2) The permitted facility was at the time being properly operated;

(3) The permittee submitted notice of the upset as required by Part III.D.7; and,

(4) The permittee complied with any remedial measures required by Part III.B.2.

c. BURDEN OF PROOF
In any enforcement proceeding, the permittee seeking to establish the occurrence of an upset has the burden of proof.

6. REMOVED SUBSTANCES
Unless otherwise authorized, solids, sewage sludges, filter backwash, or other pollutants removed in the course of treatment or wastewater control shall be disposed of in a manner such as to prevent any pollutant from such materials from entering navigable waters.

7. PERCENT REMOVAL (PUBLICLY OWNED TREATMENT WORKS)
For publicly owned treatment works, the 30-day average (or Monthly Average) percent removal for Biochemical Oxygen Demand and Total Suspended Solids shall not be less than 85 percent unless otherwise authorized by the permitting authority in accordance with 40 CFR 133.103.

C. MONITORING AND RECORDS

1. INSPECTION AND ENTRY
The permittee shall allow the Director, or an authorized representative, upon the presentation of credentials and other documents as may be required by the law to:

a. Enter upon the permittee's premises where a regulated facility or activity is located or conducted, or where records must be kept under the conditions of this permit;

b. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;

c. Inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices or operations regulated or required under this permit; and

d. Sample or monitor at reasonable times, for the purpose of assuring permit compliance or as otherwise authorized by the Act, any substances or parameters at any location.

2. REPRESENTATIVE SAMPLING
Samples and measurements taken for the purpose of monitoring shall be representative of the monitored activity.

3. RETENTION OF RECORDS
The permittee shall retain records of all monitoring information, including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation, copies of all reports required by this permit, and records of all data used to complete the application for this permit, for a period of at least 3 years from the date of the sample, measurement, report, or application. This period may be extended by request of the Director at any time.

4. RECORD CONTENTS
Records of monitoring information shall include:
a. The date, exact place, and time of sampling or measurements;
b. The individual(s) who performed the sampling or measurements;
c. The date(s) and time(s) analyses were performed;
d. The individual(s) who performed the analyses;
e. The analytical techniques or methods used; and
f. The results of such analyses.

5. MONITORING PROCEDURES
a. Monitoring must be conducted according to test procedures approved under 40 CFR Part 136, unless other test procedures have been specified in this permit or approved by the Regional Administrator.

b. The permittee shall calibrate and perform maintenance procedures on all monitoring and analytical instruments at intervals frequent enough to insure accuracy of measurements and shall maintain appropriate records of such activities.

c. An adequate analytical quality control program, including the analyses of sufficient standards, spikes, and duplicate samples to insure the accuracy of all required analytical results shall be maintained by the permittee or designated commercial laboratory.

6. FLOW MEASUREMENTS
Appropriate flow measurement devices and methods consistent with accepted scientific practices shall be selected and used to ensure the accuracy and reliability of measurements of the volume of monitored discharges. The devices shall be installed, calibrated, and maintained to insure that the accuracy of the measurements is consistent with the accepted capability of that type of device. Devices selected shall be capable of measuring flows with a maximum deviation of less than 10% from true discharge rates throughout the range of expected discharge volumes.

D. REPORTING REQUIREMENTS

1. PLANNED CHANGES

a. INDUSTRIAL PERMITS
The permittee shall give notice to the Director as soon as possible of any planned physical alterations or additions to the permitted facility. Notice is required only when:

(1) The alteration or addition to a permitted facility may meet one of the criteria for determining whether a facility is a new source in 40 CFR Part 122.29(b); or,

(2) The alteration or addition could significantly change the nature or increase the quantity of

pollutants discharged. This notification applies to pollutants which are subject neither to effluent limitations in the permit, nor to notification requirements listed at Part III.D.10.a.

b. MUNICIPAL PERMITS .
Any change in the facility discharge (including the introduction of any new source or significant discharge or significant changes in the quantity or quality of existing discharges of pollutants) must be reported to the permitting authority. In no case are any new connections, increased flows, or significant changes in influent quality permitted that will cause violation of the effluent limitations specified herein.

2. ANTICIPATED NONCOMPLIANCE
The permittee shall give advance notice to the Director of any planned changes in the permitted facility or activity which may result in noncompliance with permit requirements.

3. TRANSFERS
This permit is not transferable to any person except after notice to the Director. The Director may require modification or revocation and reissuance of the permit to change the name of the permittee and incorporate such other requirements as may be necessary under the Act.

4. DISCHARGE MONITORING REPORTS AND OTHER REPORTS
Monitoring results must be reported on Discharge Monitoring Report (DMR) Form EPA No. 3320-1 in accordance with the "General Instructions" provided on the form. The permittee shall submit the original DMR signed and certified as required by Part III.D.11 and all other reports required by Part III.D. to the EPA at the address below. Duplicate copies of DMR's and all other reports shall be submitted to the appropriate State agency(ies) at the following address(es):

EPA:
Compliance Assurance and Enforcement Division
Water Enforcement Branch (6EN-W)
U.S. Environmental Protection Agency, Region 6
1445 Ross Avenue
Dallas, TX 75202-2733

New Mexico:
Program Manager
Surface Water Quality Bureau
New Mexico Environment Department
P.O. Box 5469
1190 Saint Francis Drive, Room N2050
Santa Fe, NM 87502-5469

5. ADDITIONAL MONITORING BY THE PERMITTEE
If the permittee monitors any pollutant more frequently than required by this permit, using test procedures approved under 40 CFR Part 136 or as specified in this permit, the results of this monitoring shall be included in the calculation and reporting of the data submitted in the Discharge Monitoring Report (DMR). Such increased monitoring frequency shall also be indicated on the DMR.

6. AVERAGING OF MEASUREMENTS
Calculations for all limitations which require averaging of measurements shall utilize an arithmetic mean unless otherwise specified by the Director in the permit.

7. TWENTY-FOUR HOUR REPORTING

a. The permittee shall report any noncompliance which may endanger health or the environment. Any information shall be provided orally within 24 hours from the time the permittee becomes aware of the circumstances. A written submission shall be provided within 5 days of the time the permittee becomes aware of the circumstances. The report shall contain the following information:

(1) A description of the noncompliance and its cause;

(2) The period of noncompliance including exact dates and times, and if the noncompliance has not been corrected, the anticipated time it is expected to continue; and,

(3) Steps being taken to reduce, eliminate, and prevent recurrence of the noncomplying discharge.

b. The following shall be included as information which must be reported within 24 hours:

(1) Any unanticipated bypass which exceeds any effluent limitation in the permit;

(2) Any upset which exceeds any effluent limitation in the permit; and,

(3) Violation of a maximum daily discharge limitation for any of the pollutants listed by the Director in Part II (industrial permits only) of the permit to be reported within 24 hours.

c. The Director may waive the written report on a case-by-case basis if the oral report has been received within 24 hours.

8. OTHER NONCOMPLIANCE

The permittee shall report all instances of noncompliance not reported under Parts III.D.4 and D.7 and Part I.B (for industrial permits only) at the time monitoring reports are submitted. The reports shall contain the information listed at Part III.D.7.

9. OTHER INFORMATION

Where the permittee becomes aware that it failed to submit any relevant facts in a permit application, or submitted incorrect information in a permit application or in any report to the Director, it shall promptly submit such facts or information.

10. CHANGES IN DISCHARGES OF TOXIC SUBSTANCES

All existing manufacturing, commercial, mining, and silvacultural permittees shall notify the Director as soon as it knows or has reason to believe:

a. That any activity has occurred or will occur which would result in the discharge, on a routine or frequent basis, of any toxic pollutant listed at 40 CFR Part 122, Appendix D, Tables II and III (excluding Total Phenols) which is not limited in the permit, if that discharge will exceed the highest of the following "notification levels":

(1) One hundred micrograms per liter (100 µg/L);
(2) Two hundred micrograms per liter (200 µg/L) for acrolein and acrylonitrile; five hundred micrograms per liter (500 µg/L) for 2,4-dinitro-phenol and for 2-methyl-4,6-dinitrophenol; and one milligram per liter (1 mg/L) for antimony;
(3) Five (5) times the maximum concentration value reported for that pollutant in the permit application; or
(4) The level established by the Director.

b. That any activity has occurred or will occur which would result in any discharge, on a nonroutine or infrequent basis, of a toxic pollutant which is not limited in the permit, if that discharge will exceed the highest of the following "notification levels":

(1) Five hundred micrograms per liter (500 µg/L);
(2) One milligram per liter (1 mg/L) for antimony;
(3) Ten (10) times the maximum concentration value reported for that pollutant in the permit application; or
(4) The level established by the Director.

11. SIGNATORY REQUIREMENTS

All applications, reports, or information submitted to the Director shall be signed and certified.

a. ALL PERMIT APPLICATIONS shall be signed as follows:

(1) FOR A CORPORATION - by a responsible corporate officer. For the purpose of this section, a responsible corporate officer means:

(a) A president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy or decision making functions for the corporation; or,

(b) The manager of one or more manufacturing, production, or operating facilities, provided, the manager is authorized to make management decisions which govern the operation of the regulated facility including having the explicit or implicit duty of making major capital investment recommendations, and initiating and directing other comprehensive measures to assure long term environmental compliance with environmental laws and regulations; the manager can ensure that the necessary systems are established or actions taken to gather complete and accurate information for permit application requirements; and where authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures.

(2) FOR A PARTNERSHIP OR SOLE PROPRIETORSHIP - by a general partner or the proprietor, respectively.

(3) FOR A MUNICIPALITY, STATE, FEDERAL, OR OTHER PUBLIC AGENCY - by either a principal executive officer or ranking elected official. For purposes of this section, a principal executive officer of a Federal agency includes:

(a) The chief executive officer of the agency, or

(b) A senior executive officer having responsibility for the overall operations of a principal geographic unit of the agency.

b. ALL REPORTS required by the permit and other information requested by the Director shall be signed by a person described above or by a duly authorized representative of that person. A person is a duly authorized representative only if:

(1) The authorization is made in writing by a person described above;

(2) The authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility or activity, such as the position of plant manager, operator of a well or a well field, superintendent, or position of equivalent responsibility, or an individual or position having overall responsibility for environmental matters for the company. A duly authorized representative may thus be either a named individual or an individual occupying a named position; and,

(3) The written authorization is submitted to the Director.

c. CERTIFICATION

Any person signing a document under this section shall make the following certification:

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

12. AVAILABILITY OF REPORTS

Except for applications, effluent data, permits, and other data specified in 40 CFR 122.7, any information submitted pursuant to this permit may be claimed as confidential by the submitter. If no claim is made at the time of submission, information may be made available to the public without further notice.

E. PENALTIES FOR VIOLATIONS OF PERMIT CONDITIONS

1. CRIMINAL

a. NEGLIGENT VIOLATIONS
The Act provides that any person who negligently violates permit conditions implementing Section 301, 302, 306, 307, 308, 318, or 405 of the Act is subject to a fine of not less than $2,500 nor more than $25,000 per day of violation, or by imprisonment for not more than 1 year, or both.

b. KNOWING VIOLATIONS
The Act provides that any person who knowingly violates permit conditions implementing Sections 301, 302, 306, 307, 308, 318, or 405 of the Act is subject to a fine of not less than $5,000 nor more than $50,000 per day of violation, or by imprisonment for not more than 3 years, or both.

c. KNOWING ENDANGERMENT
The Act provides that any person who knowingly violates permit conditions implementing Sections 301, 302, 303, 306, 307, 308, 318, or 405 of the Act and who knows at that time that he is placing another person in imminent danger of death or serious bodily injury is subject to a fine of not more than $250,000, or by imprisonment for not more than 15 years, or both.

d. FALSE STATEMENTS
The Act provides that any person who knowingly makes any false material statement, representation, or certification in any application, record, report, plan, or other document filed or required to be maintained under the Act or who knowingly falsifies, tampers with, or renders inaccurate, any monitoring device or method required to be maintained under the Act, shall upon conviction, be punished by a fine of not more than $10,000, or by imprisonment for not more than 2 years, or by both. If a conviction of a person is for a violation committed after a first conviction of such person under this paragraph, punishment shall be by a fine of not more than $20,000 per day of violation, or by imprisonment of not more than 4 years, or by both. (See Section 309.c.4 of the Clean Water Act)

2. CIVIL PENALTIES
The Act provides that any person who violates a permit condition implementing Sections 301, 302, 306, 307, 308, 318, or 405 of the Act is subject to a civil penalty not to exceed $27,500 per day for each violation.

3. ADMINISTRATIVE PENALTIES
The Act provides that any person who violates a permit condition implementing Sections 301, 302, 306, 307, 308, 318, or 405 of the Act is subject to an administrative penalty, as follows:

a. CLASS I PENALTY
Not to exceed $11,000 per violation nor shall the maximum amount exceed $27,500.

b. CLASS II PENALTY
Not to exceed $11,000 per day for each day during which the violation continues nor shall the maximum amount exceed $137,500.

F. DEFINITIONS
All definitions contained in Section 502 of the Act shall apply to this permit and are incorporated herein by reference. Unless otherwise specified in this permit, additional definitions of words or phrases used in this permit are as follows:

1. ACT means the Clean Water Act (33 U.S.C. 1251 et. seq.), as amended.

2. ADMINISTRATOR means the Administrator of the U.S. Environmental Protection Agency.

3. APPLICABLE EFFLUENT STANDARDS AND LIMITATIONS means all state and Federal effluent standards and limitations to which a discharge is subject under the Act, including, but not limited to, effluent limitations, standards or performance, toxic effluent standards and prohibitions, and pretreatment standards.

4. APPLICABLE WATER QUALITY STANDARDS means all water quality standards to which a discharge is subject under the Act.

5. BYPASS means the intentional diversion of waste streams from any portion of a treatment facility.

6. DAILY DISCHARGE means the discharge of a pollutant measured during a calendar day or any 24-hour period that reasonably represents the calendar day for purposes of sampling. For pollutants with limitations expressed in terms of mass, the "daily discharge" is calculated as the total mass of the pollutant discharged over the sampling day. For pollutants with limitations expressed in other units of measurement, the "daily discharge" is calculated as the average measurement of the pollutant over the sampling day. "Daily discharge" determination of concentration made using a composite sample shall be the concentration of the composite sample. When grab samples are used, the "daily discharge" determination of concentration shall be arithmetic average (weighted by flow value) of all samples collected during that sampling day.

7. DAILY MAXIMUM discharge limitation means the highest allowable "daily discharge" during the calendar month.

8. DIRECTOR means the U.S. Environmental Protection Agency Regional Administrator or an authorized representative.

9. ENVIRONMENTAL PROTECTION AGENCY means the U.S. Environmental Protection Agency.

10. GRAB SAMPLE means an individual sample collected in less than 15 minutes.

11. INDUSTRIAL USER means a nondomestic discharger, as identified in 40 CFR 403, introducing pollutants to a publicly owned treatment works.

12. MONTHLY AVERAGE (also known as DAILY AVERAGE) discharge limitations means the highest allowable average of "daily discharge(s)" over a calendar month, calculated as the sum of all "daily discharge(s)" measured during a calendar month divided by the number of "daily discharge(s)" measured during that month. When the permit establishes daily average concentration effluent limitations or conditions, the daily average concentration means the arithmetic average (weighted by flow) of all "daily discharge(s)" of concentration determined during the calendar month where C = daily concentration, F = daily flow, and n = number of daily samples; daily average discharge =

$$\frac{C_1F_1 + C_2F_2 + \ldots + C_nF_n}{F_1 + F_2 + \ldots + F_n}$$

13. NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM means the national program for issuing, modifying, revoking and reissuing, terminating, monitoring and enforcing permits, and imposing and enforcing pretreatment requirements, under Sections 307, 318, 402, and 405 of the Act.

14. SEVERE PROPERTY DAMAGE means substantial physical damage to property, damage to the treatment facilities which causes them to become inoperable, or substantial and permanent loss of natural resources which can reasonably be expected to occur in the absence of a bypass. Severe property damage does not mean economic loss caused by delays in production.

15. SEWAGE SLUDGE means the solids, residues, and precipitates separated from or created in sewage by the unit processes of a publicly owned treatment works. Sewage as used in this definition means any wastes, including wastes from humans, households, commercial establishments, industries, and storm water runoff that are discharged to or otherwise enter a publicly owned treatment works.

16. TREATMENT WORKS means any devices and systems used in the storage, treatment, recycling and reclamation of municipal sewage and industrial wastes of a liquid nature to implement Section 201 of the Act, or necessary to recycle or reuse water at the most economical cost over the estimated life of the works, including intercepting sewers, sewage collection systems, pumping, power and other equipment, and their appurtenances, extension, improvement, remodeling, additions, and alterations thereof.

17. UPSET means an exceptional incident in which there is unintentional and temporary noncompliance with technology-based permit effluent limitations because of factors beyond the reasonable control of the permittee. An upset does not include noncompliance to the extent caused by operational error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventive maintenance, or careless or improper operation.

18. FOR FECAL COLIFORM BACTERIA, a sample consists of one effluent grab portion collected during a 24-hour period at peak loads.

19. The term "MGD" shall mean million gallons per day.

20. The term "mg/L" shall mean milligrams per liter or parts per million (ppm).

21. The term "µg/L" shall mean micrograms per liter or parts per billion (ppb).

22. MUNICIPAL TERMS

a. 7-DAY AVERAGE or WEEKLY AVERAGE, other than for fecal coliform bacteria, is the arithmetic mean of the daily values for all effluent samples collected during a calendar week, calculated as the sum of all daily discharges measured during a calendar week divided by the number of daily discharges measured during that week. The 7-day average for fecal coliform bacteria is the geometric mean of the values for all effluent samples collected during a calendar week.

b. 30-DAY AVERAGE or MONTHLY AVERAGE, other than for fecal coliform bacteria, is the arithmetic mean of the daily values for all effluent samples collected during a calendar month, calculated as the sum of all daily discharges measured during a calendar month divided by the number of daily discharges measured during that month. The 30-day average for fecal coliform bacteria is the geometric mean of the values for all effluent samples collected during a calendar month.

c. 24-HOUR COMPOSITE SAMPLE consists of a minimum of 12 effluent portions collected at equal time intervals over the 24-hour period and combined proportional to flow or a sample collected at frequent intervals proportional to flow over the 24-hour period.

d. 12-HOUR COMPOSITE SAMPLE consists of 12 effluent portions collected no closer together than one hour and composited according to flow. The daily sampling intervals shall include the highest flow periods.

e. 6-HOUR COMPOSITE SAMPLE consists of six effluent portions collected no closer together than one hour (with the first portion collected no earlier than 10:00 a.m.) and composited according to flow.

f. 3-HOUR COMPOSITE SAMPLE consists of three effluent portions collected no closer together than one hour (with the first portion collected no earlier than 10:00 a.m.) and composited according to flow.

Chavez, Carl J, EMNRD

From: Chavez, Carl J, EMNRD
Sent: Tuesday, March 09, 2010 12:51 PM
To: okpala.maria@epa.gov
Cc: VonGonten, Glenn, EMNRD; Powell, Richard, NMENV
Subject: FW: There is no use of chromium at the Gallup Refinery (GW-032)

Maria:

Good afternoon. This is one of the OCD's main concerns about Western Refining Southwest, Inc.'s (WRSWI) "Major Modification" request to discharge to the NPDES Outfall at Gallup. The OCD deemed their application for a "Major Modification" incomplete and one of the reason's was because they did not provide water quality data from their pond network leading up to their proposed NPDES Outfall.

OCD needs to see what has historically been detected in the ponds, but WRSWI told us we have the data. Yes we do, but the onus is on WRSWI to provide all data for OCD to consider, and they have yet to provide it. Now when I see them making unsubstantiated statements to the EPA that there is no chromium, I am concerned that EPA may be proceeding with the NPDES Permit and relying on WRSWI's statement that no chromium exists. In fact, in their application, they stated that there were no contaminants in the ponds, which is without supporting documentation.

Until OCD receives the information requested in the OCD's "Administratively Incomplete" letter, OCD cannot conduct an administrative nor technical review of the discharge to the NPDES Outfall area.

Please contact me if you have questions. Thank you.

Carl J. Chavez, CHMM
New Mexico Energy, Minerals & Natural Resources Dept.
Oil Conservation Division, Environmental Bureau 1220 South St. Francis Dr., Santa Fe, New Mexico 87505
Office: (505) 476-3490
Fax: (505) 476-3462
E-mail: CarlJ.Chavez@state.nm.us
Website: http://www.emnrd.state.nm.us/ocd/index.htm
(Pollution Prevention Guidance is under "Publications")

-----Original Message-----
From: Monzeglio, Hope, NMENV
Sent: Tuesday, March 09, 2010 11:23 AM
To: Chavez, Carl J, EMNRD
Cc: Cobrain, Dave, NMENV; VonGonten, Glenn, EMNRD
Subject: RE: There is no use of chromium at the Gallup Refinery

Carl

I think this email is in relation to the NPDES permit? I am pretty sure chromium was used in past refining operations, it is still a concern. Not sure if this information is relevant to the context of the email below.

Thanks
Hope

-----Original Message-----
From: Chavez, Carl J, EMNRD
Sent: Tuesday, March 09, 2010 11:21 AM
To: Monzeglio, Hope, NMENV
Cc: VonGonten, Glenn, EMNRD
Subject: FW: There is no use of chromium at the Gallup Refinery

FYI.

Carl J. Chavez, CHMM
New Mexico Energy, Minerals & Natural Resources Dept.
Oil Conservation Division, Environmental Bureau 1220 South St. Francis Dr., Santa Fe, New Mexico 87505
Office: (505) 476-3490
Fax: (505) 476-3462
E-mail: CarlJ.Chavez@state.nm.us
Website: http://www.emnrd.state.nm.us/ocd/index.htm
(Pollution Prevention Guidance is under "Publications")

-----Original Message-----
From: Rajen, Gaurav [mailto:Gaurav.Rajen@wnr.com]
Sent: Monday, March 08, 2010 2:17 PM
To: Okpala.Maria@epamail.epa.gov
Cc: Riege, Ed; Chavez, Carl J, EMNRD; Powell, Richard, NMENV; Larsen, Thurman
Subject: There is no use of chromium at the Gallup Refinery

Dear Maria:

I have verified with our waste management specialists, and there is no use of chromium at the Gallup Refinery.

Many thanks,

Raj

Chavez, Carl J, EMNRD

From: Chavez, Carl J, EMNRD
Sent: Tuesday, March 02, 2010 8:48 AM
To: Powell, Richard, NMENV
Cc: Monzeglio, Hope, NMENV; VonGonten, Glenn, EMNRD
Subject: FW: Information and clarification you requested (NPDES Application)

FYI.

Carl J. Chavez, CHMM
New Mexico Energy, Minerals & Natural Resources Dept.
Oil Conservation Division, Environmental Bureau
1220 South St. Francis Dr., Santa Fe, New Mexico 87505
Office: (505) 476-3490
Fax: (505) 476-3462
E-mail: CarlJ.Chavez@state.nm.us
Website: http://www.emnrd.state.nm.us/ocd/index.htm
(Pollution Prevention Guidance is under "Publications")

From: Rajen, Gaurav [mailto:Gaurav.Rajen@wnr.com]
Sent: Tuesday, March 02, 2010 8:18 AM
To: Okpala.Maria@epamail.epa.gov
Cc: Chavez, Carl J, EMNRD; Powell, Richard, NMENV; Riege, Ed
Subject: Information and clarification you requested

Dear Ms. Okpala:

Please forgive me for any delay we have suffered. I am, at times, dependent on others to provide me with information and review.

As I understand it – you have estimated 32.2 K BPD as our crude feedstock rate; you have added the FCC, DHT, and KHT rates to get 17.5 K BPD for cracking and coking (no coking occurs); and added the Platformer and HF Alkylation rates to get 10.3 K BPD for reforming. If my understanding is correct, these rates are right.

Finally, the design flow rates for sanitary wastewater flows are 54 GPM – 4 GPM from the refinery itself, and 50 GPM from a travel center and some residential housing.

Many, many thanks,

Raj

From: Okpala.Maria@epamail.epa.gov [mailto:Okpala.Maria@epamail.epa.gov]
Sent: Tuesday, February 23, 2010 10:39 AM
To: Rajen, Gaurav
Subject: Re: Letter and attachment re NPDES No-discharge permit - sent to the EPA in the mail today

confirm these rates based on the information you sent me. Thanks

Total crude feedstock rate = 32.2 K bbl/day
Total coking and cracking feedstock rate = 8.5□= 17.5 K bbl/day (coking feedstock is zero)
Total Reforming and Alkylation Unit = 7.3 =10.3 K bbl/day

Maria Okpala
Onshore Oil & Gas Permits
NPDES Permits Branch - Permits & Technical Section
EPA, Region 6 - Dallas, TX
okpala.maria@epa.gov
Phone: 214 665-3152
Fax: 214 665-2191

Chavez, Carl J, EMNRD

From: Rajen, Gaurav [Gaurav.Rajen@wnr.com]
Sent: Tuesday, February 23, 2010 1:45 PM
To: Okpala.Maria@epamail.epa.gov
Cc: Riege, Ed; Chavez, Carl J, EMNRD; VonGonten, Glenn, EMNRD; Powell, Richard, NMENV
Subject: Gallup Refinery ponds' surface area in square feet

Dear Maria:

The ponds' area is 121.2 acres, or 5,279,478 square feet. Our evaporation rate is approximately 44 inches/year (estimated based on evaporation rates of nearby lakes), and the annual rainfall is 7.44 inches – so there is a net loss from the ponds of 36.56 inches/year; the process area that you were asking for is 3.88 acres and approximately 169,013 square feet.

Many thanks,

Raj

From: Okpala.Maria@epamail.epa.gov [mailto:Okpala.Maria@epamail.epa.gov]
Sent: Tuesday, February 23, 2010 1:34 PM
To: Rajen, Gaurav
Subject: Fw: Estimated process area in square feet and annual rainfall

Maria Okpala
Onshore Oil & Gas Permits
NPDES Permits Branch - Permits & Technical Section
EPA, Region 6 - Dallas, TX
okpala.maria@epa.gov
Phone: 214 665-3152
Fax: 214 665-2191

----- Forwarded by Maria Okpala/R6/USEPA/US on 02/23/2010 02:33 PM -----

From: "Chavez, Carl J, EMNRD" <CarlJ.Chavez@state.nm.us>
To: Maria Okpala/R6/USEPA/US@EPA
Cc: "VonGonten, Glenn, EMNRD" <Glenn.VonGonten@state.nm.us>
Date: 02/23/2010 11:11 AM
Subject: FW: Estimated process area in square feet and annual rainfall

---

Maria:

Good morning. Shouldn't Figure 3: Areas contributing to flow include the pond network leading up to the proposed NPDES Outfall location too? Thanks.

Carl J. Chavez, CHMM
New Mexico Energy, Minerals & Natural Resources Dept.
Oil Conservation Division, Environmental Bureau
1220 South St. Francis Dr., Santa Fe, New Mexico 87505
Office: (505) 476-3490

Fax: (505) 476-3462
E-mail: CarlJ.Chavez@state.nm.us
Website: http://www.emnrd.state.nm.us/ocd/index.htm
(Pollution Prevention Guidance is under "Publications")

From: Rajen, Gaurav [mailto:Gaurav.Rajen@wnr.com]
Sent: Tuesday, February 23, 2010 9:43 AM
To: Okpala.Maria@epamail.epa.gov
Cc: Riege, Ed; Chavez, Carl J, EMNRD; Powell, Richard, NMENV
Subject: Estimated process area in square feet and annual rainfall

Dear Ms. Okpala:

It was a pleasure talking to you this morning on the telephone; and a pleasure to send you the additional data and information you requested.

Our process area is 169, 013 square feet (3.88 acres). Our annual rainfall is approximately 7.44 inches (measured in 2008 at our rain gauge; we are still compiling our 2009 data).

I have also attached a few relevant pages from a storm drain extension study conducted by Tetra Tech in 2007. I believe you will find all the other information you may need in these pages.

Best regards,

Gaurav Rajen

[attachment "Pages on surface hydrology from Tetra Tech report.pdf" deleted by Maria Okpala/R6/USEPA/US]

Chavez, Carl J, EMNRD

From: Chavez, Carl J, EMNRD
Sent: Tuesday, February 23, 2010 10:09 AM
To: okpala.maria@epa.gov
Cc: VonGonten, Glenn, EMNRD
Subject: FW: Estimated process area in square feet and annual rainfall
Attachments: Pages on surface hydrology from Tetra Tech report.pdf

Maria:

Good morning. Shouldn't Figure 3: Areas contributing to flow include the pond network leading up to the proposed NPDES Outfall location too? Thanks.

Carl J. Chavez, CHMM
New Mexico Energy, Minerals & Natural Resources Dept.
Oil Conservation Division, Environmental Bureau
1220 South St. Francis Dr., Santa Fe, New Mexico 87505
Office: (505) 476-3490
Fax: (505) 476-3462
E-mail: CarlJ.Chavez@state.nm.us
Website: http://www.emnrd.state.nm.us/ocd/index.htm
(Pollution Prevention Guidance is under "Publications")

From: Rajen, Gaurav [mailto:Gaurav.Rajen@wnr.com]
Sent: Tuesday, February 23, 2010 9:43 AM
To: Okpala.Maria@epamail.epa.gov
Cc: Riege, Ed; Chavez, Carl J, EMNRD; Powell, Richard, NMENV
Subject: Estimated process area in square feet and annual rainfall

Dear Ms. Okpala:

It was a pleasure talking to you this morning on the telephone; and a pleasure to send you the additional data and information you requested.

Our process area is 169, 013 square feet (3.88 acres). Our annual rainfall is approximately 7.44 inches (measured in 2008 at our rain gauge; we are still compiling our 2009 data).

I have also attached a few relevant pages from a storm drain extension study conducted by Tetra Tech in 2007. I believe you will find all the other information you may need in these pages.

Best regards,

Gaurav Rajen

Chavez, Carl J, EMNRD

From: Rajen, Gaurav [Gaurav.Rajen@wnr.com]
Sent: Tuesday, February 23, 2010 9:43 AM
To: Okpala.Maria@epamail.epa.gov
Cc: Riege, Ed; Chavez, Carl J, EMNRD; Powell, Richard, NMENV
Subject: Estimated process area in square feet and annual rainfall
Attachments: Pages on surface hydrology from Tetra Tech report.pdf

Dear Ms. Okpala:

It was a pleasure talking to you this morning on the telephone; and a pleasure to send you the additional data and information you requested.

Our process area is 169, 013 square feet (3.88 acres). Our annual rainfall is approximately 7.44 inches (measured in 2008 at our rain gauge; we are still compiling our 2009 data).

I have also attached a few relevant pages from a storm drain extension study conducted by Tetra Tech in 2007. I believe you will find all the other information you may need in these pages.

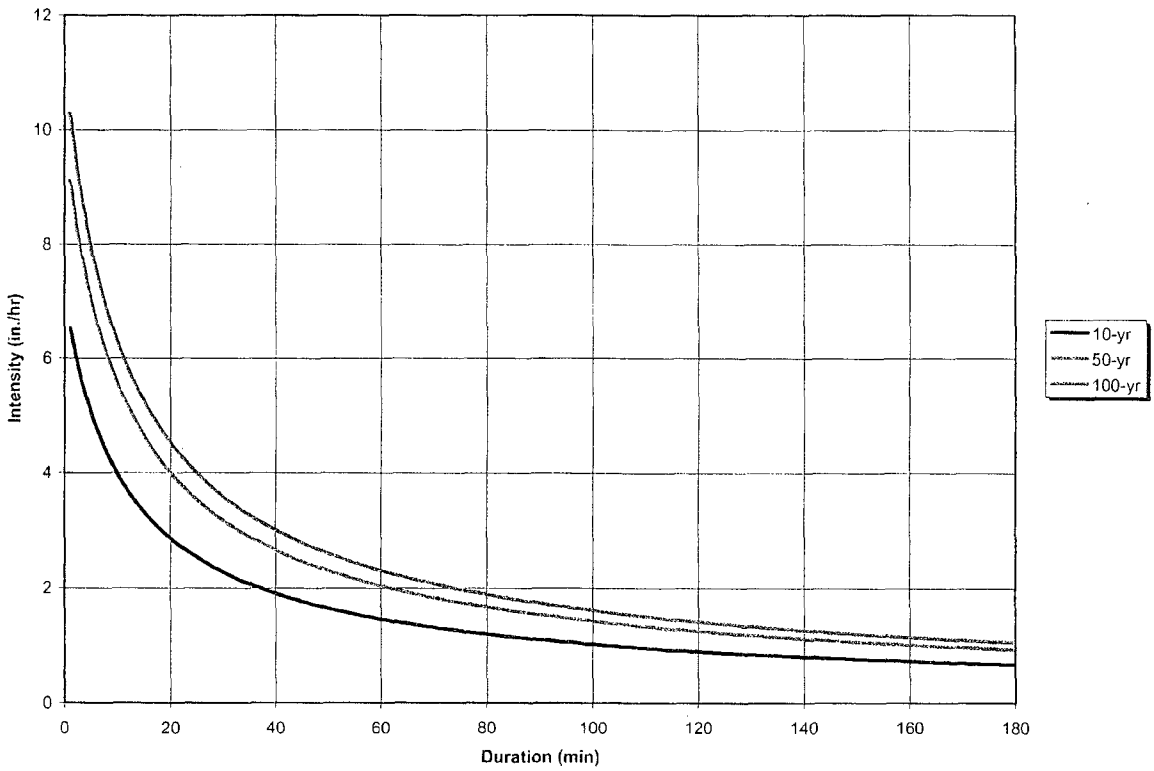
Best regards,

Gaurav Rajen

5.0 SURFACE HYDROLOGY

To determine the amount of stormwater runoff from the Process Area, several storms were analyzed utilizing intensity duration frequency curves obtained from NOAA's Precipitation Frequency Data Server (Figure 2). Runoff volumes for three one-hour storms (10-year, 50-year, and 100-year return intervals) were calculated using the Rational Method. This method takes into account the ground conditions, intensity of the storm, and the contributing area.

Figure 2: Intensity-duration-frequency curves



$$Q = C_f * C * i * A$$

where: Q = peak flow rate,

C_f = frequency factor

C = runoff coefficient,

i = intensity of precipitation and

A = drainage area

The frequency factor is 1.0 when design storms of 2- to 10-year recurrence intervals are used. For storms of higher return periods, the coefficients are higher because of smaller infiltration and other losses, and the product of the frequency factor and the runoff coefficient can never be greater than 1.0. Table 1 shows the frequency factor applied for each return period.

Table 1: Frequency Factor

Return Interval (years)	C_f
10	1.0
50	1.2
100	1.25

The area was subdivided into 29 separate basins. These divisions were based on storm drain system drawings and a contour map provided by Giant. The areas contributing flow to the storm drain system were delineated from a 2-ft contour map and are shown on Figure 3. Due to the relative flatness of the Process Area, the contributing areas were approximated as the 2-ft contour interval did not provide enough resolution to provide clear drainage boundaries. The hydrologic parameters for each basin are shown in Table 2.

Figure 3: Areas contributing to flow

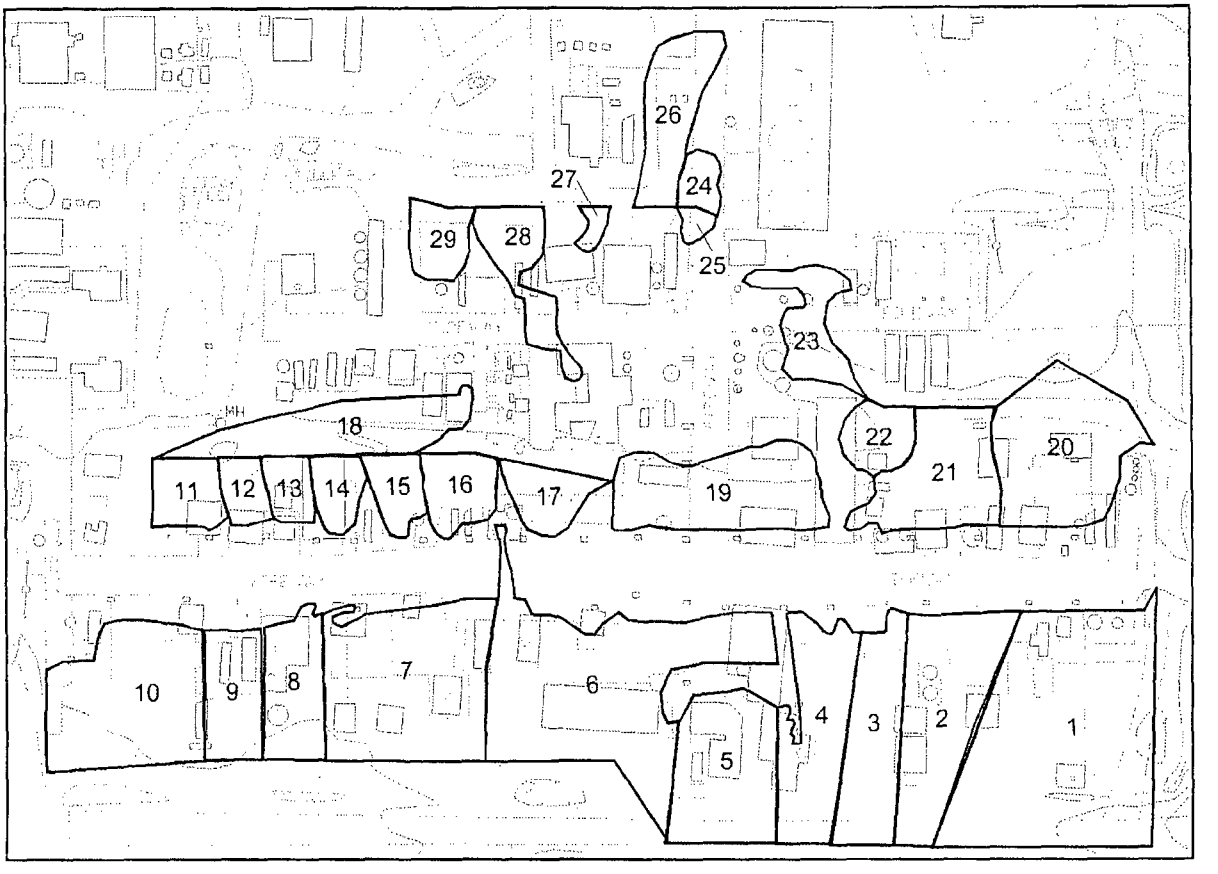


Table 2: Hydrologic Parameters

Basin ID	Frequency Factor (C) *[Dimensionless]*	Runoff Coefficient (C) *[Dimensionless]*	Area (A) *[acres]*	Flowrate 10-yr (Q) *[cfs]*	Flowrate 50-yr (Q) *[cfs]*	Flowrate 100-yr (Q) *[cfs]*
1	1.25	0.90	0.52	2.62	3.66	4.13
2	1.25	0.90	0.21	1.06	1.48	1.67
3	1.25	0.90	0.14	0.71	0.98	1.11
4	1.25	0.90	0.17	0.86	1.20	1.35
5	1.25	0.90	0.19	0.96	1.34	1.51
6	1.25	0.90	0.42	2.12	2.95	3.33
7	1.25	0.90	0.30	1.51	2.11	2.38
8	1.25	0.90	0.10	0.50	0.70	0.79
9	1.25	0.90	0.09	0.45	0.63	0.71
10	1.25	0.90	0.25	1.26	1.76	1.99
11	1.25	0.90	0.06	0.30	0.42	0.48
12	1.25	0.90	0.04	0.20	0.28	0.32
13	1.25	0.90	0.04	0.20	0.28	0.32
14	1.25	0.90	0.04	0.20	0.28	0.32

Table 2: Hydrologic Parameters

Basin ID	Frequency Factor (C$_f$) *[Dimensionless]*	Runoff Coefficient (C) *[Dimensionless]*	Area (A) *[acres]*	Flowrate 10-yr (Q) *[cfs]*	Flowrate 50-yr (Q) *[cfs]*	Flowrate 100-yr (Q) *[cfs]*
15	1.25	0.90	0.05	0.25	0.35	0.40
16	1.25	0.90	0.06	0.30	0.42	0.48
17	1.25	0.90	0.06	0.30	0.42	0.48
18	1.25	0.90	0.15	0.76	1.05	1.19
19	1.25	0.90	0.19	0.96	1.34	1.51
20	1.25	0.90	0.23	1.16	1.62	1.83
21	1.25	0.90	0.16	0.81	1.12	1.27
22	1.25	0.90	0.05	0.25	0.35	0.40
23	1.25	0.90	0.08	0.40	0.56	0.64
24	1.25	0.90	0.03	0.15	0.21	0.24
25	1.25	0.90	0.01	0.05	0.07	0.08
26	1.25	0.90	0.11	0.55	0.77	0.87
27	1.25	0.90	0.01	0.05	0.07	0.08
28	1.25	0.90	0.08	0.40	0.56	0.64
29	1.25	0.90	0.05	0.25	0.35	0.40

The runoff coefficient (C) used was 0.90 which corresponds to asphalt paving generating high runoff and is consistent with existing site conditions. Intensity of precipitation is equal to the time of concentration and the return period. Intensity of precipitation for each of the storm return periods is show in Table 3. Time of concentration (t_c) is defined as the travel time required for runoff from the hydraulically most remote point in the basin to the outflow location. The t_c used on all basins was 5 minutes due to the small size of each basin.

Table 3: Intensity of Precipitation

Return Interval (years)	*i* (in./hr)
10	5.04
50	7.03
100	7.94

Stormwater from the Process Area will be routed to two existing tanks not currently in use. These tanks have a storage capacity of 210,000 gallons each, for total available storage of 420,000 gallons. From the stormwater calculations, a 100-year, 1-hour storm would require 415,886 gallons of storage capacity (Table 4). These tanks have the capacity to store stormwater from the Process Area for a storm of this size until such time as it can be pumped to the NAPIS for treatment.

Table 4: Storm Runoff Volumes

Return Interval (years)	Runoff Volume (gallons)
10	263,998
50	368,222
100	415,886

A model was constructed to determine the flow capacity of the pipes in the storm drain system. The 100-yr, 1-hr peak flow was calculated at 31 cubic feet per second. The 1-hr peak flows for selected events are shown on Table 5. The existing 24 inch pipe is only able to convey 26 cubic feet per second at the current slope. Therefore, the new pipeline size was also selected to be 24 inches in diameter to match the maximum capacity of the existing incoming pipe. Pumping out of the tanks to the NAPIS will be performed through a separate 6 inch pipeline running parallel to the proposed 24 inch pipe. The maximum pumped flow, however, is anticipated to be 150 gallons per minute (approximately 20 cubic feet per minute or 0.33 cubic feet per second).

Table 5: Storm Peak Flows

Return Interval (years)	Peak Flow (cfs)
10	20
50	27
100	31

Chavez, Carl J, EMNRD

From: Rajen, Gaurav [Gaurav.Rajen@wnr.com]
Sent: Tuesday, February 23, 2010 9:38 AM
To: Chavez, Carl J, EMNRD
Cc: Powell, Richard, NMENV; Riege, Ed
Subject: Recent information sent to EPA - Maria Okpala FW: Data and information you requested in e-mails of February 10, 2010

Dear Carl and Richard:

We recently sent this information and data to Ms. Maria Okpala of the EPA Region 6. Inadvertently, I left you all out on the cc list. We will make sure this does not happen again.

I have also pasted below her original e-mails requesting the data and information we provided.

Many thanks,

Raj

From: Rajen, Gaurav
Sent: Friday, February 19, 2010 1:21 PM
To: Okpala.Maria@epamail.epa.gov
Cc: Riege, Ed; Allen, Ann; Turri, Mark
Subject: Data and information you requested in e-mails of February 10, 2010

Dear Ms. Okpala:

It is a pleasure to send you the data and information that you requested in your e-mails of Wednesday, February 10, 2010.

The processes not applicable to the Gallup Refinery, the processes applicable for us, and their feedstock and process rates (in barrels per day or BPD) are as follows:

Non-Applicable Processes

- Vacuum Crude Distillation – not applicable to the Gallup Refinery
- Visbreaking - – not applicable to the Gallup Refinery
- Thermal Cracking - – not applicable to the Gallup Refinery
- Moving bed catalytic cracking - – not applicable to the Gallup Refinery
- Sulfuric alkylation - – not applicable to the Gallup Refinery (Note: we do have a hydrofluoric acid-based Alkylation Unit.)

Applicable Processes

Crude Unit
Feedstock rates:
Daily maximum estimated 24-hour production rate – 32,200 BPD; Maximum average daily expected annual production rate – 29,000 BPD (The crude unit numbers include crude and other petroleum hydrocarbon feedstock).
Process rates:
There is a negligible loss of liquid volumes within this unit; so process rates should be assumed as identical to the feedstock rates. However, start-ups and shut-downs of units can lead to losses as high as 5% of the

feedstock rates; so the maximum difference would be that process rates could be up to 5% less than the feedstock rates, although infrequently.

Crude Desalter
Feedstock rates:
Maximum of 25,000 BPD
Process rates:
There is a negligible loss of liquid volumes within this unit; so process rates should be assumed as identical to the feedstock rates. However, start-ups and shut-downs of units can lead to losses as high as 5% of the feedstock rates; so the maximum difference would be that process rates could be up to 5% less than the feedstock rates, although infrequently.

FCC
Feedstock Rates
Maximum of 8500 BPD
Process rates:
There is a negligible loss of liquid volumes within this unit; so process rates should be assumed as identical to the feedstock rates. However, start-ups and shut-downs of units can lead to losses as high as 5% of the feedstock rates; so the maximum difference would be that process rates could be up to 5% less than the feedstock rates, although infrequently.

Hydrofluoric Alkylation Unit
Feedstock Rates
Maximum of 3000 BPD
Process rates:
There is a negligible loss of liquid volumes within this unit; so process rates should be assumed as identical to the feedstock rates. However, start-ups and shut-downs of units can lead to losses as high as 5% of the feedstock rates; so the maximum difference would be that process rates could be up to 5% less than the feedstock rates, although infrequently.

Diesel Hydro Treater
Feedstock Rates
Maximum of 4000 BPD
Process rates:
There is a negligible loss of liquid volumes within this unit; so process rates should be assumed as identical to the feedstock rates. However, start-ups and shut-downs of units can lead to losses as high as 5% of the feedstock rates; so the maximum difference would be that process rates could be up to 5% less than the feedstock rates, although infrequently.

Kerosene Hydro Treater
Feedstock Rates
Maximum of 5000 BPD
Process rates:
There is a negligible loss of liquid volumes within this unit; so process rates should be assumed as identical to the feedstock rates. However, start-ups and shut-downs of units can lead to losses as high as 5% of the feedstock rates; so the maximum difference would be that process rates could be up to 5% less than the feedstock rates, although infrequently.

Contaminated Stormwater and Ballast Flow
(GPD = Gallons per day)

We assume that all stormwater originating from within our process areas is contaminated. Currently, this stormwater is held in a concrete basin and then metered into our wastewater treatment system.

Ballast flow – not applicable to the Gallup Refinery
Stormwater flow
Dry-weather flow entering the process area stormwater system – 5000 GPD (Maximum)
Contaminated stormwater from precipitation events – upper bounds
10-year 1 hour event of 5.04 inches/hour of rain generating 263,998 gallons
50-year 1 hour event of 7.03 inches/hour of rain generating 368,222 gallons
100-year 1 hour event of 7.94 inches/hour of rain generating 415,886 gallons

Our stormwater system is being upgraded. In the future, we will have three tanks of total capacity of approximately 1,500,000 gallons. Storm water will be held in these tanks and processed through our API Separator and evaporation ponds at a maximum rate of 150 GPM, over a period of approximately 2 days (for the 100 year 1 hour rainfall event) – therefore, the maximum contaminated stormwater daily rate would be 216,000 GPD (maximum)

Please note that the contaminated stormwater estimates were developed through a stormwater system design study conducted by Tetra Tech for our Refinery in October 2007. We would be pleased to send you a copy of this report if you need it.

With my best regards,

Gaurav Rajen
Environmental Engineer
Gallup Refinery, Western Refining

From: Okpala.Maria@epamail.epa.gov [mailto:Okpala.Maria@epamail.epa.gov]
Sent: Wednesday, February 10, 2010 1:26 PM
To: Rajen, Gaurav
Subject: RE: Letter and attachment re NPDES No-discharge permit - sent to the EPA in the mail today

I need the following unit process rate (bbl/day) and feedstock rate (bbl/day) for the following processes:

Atmospheric Crude Distillation
Crude Desalting
Vacuum Crude Distillation
Visbreaking
Thermal cracking
FCC
Moving bed catalytic cracking
Hydrotreating
Sulfuric alkylation
catalytic reforming

Maria Okpala
Onshore Oil & Gas Permits
NPDES Permits Branch - Permits & Technical Section
EPA, Region 6 - Dallas, TX
okpala.maria@epa.gov

Phone: 214 665-3152
Fax: 214 665-2191

From: Okpala.Maria@epamail.epa.gov [mailto:Okpala.Maria@epamail.epa.gov]
Sent: Wednesday, February 10, 2010 1:31 PM
To: Rajen, Gaurav
Subject: RE: Letter and attachment re NPDES No-discharge permit - sent to the EPA in the mail today

Also the production flow rate for contaminated stormwater and ballast flow, if applicable. Thanks

Maria Okpala
Onshore Oil & Gas Permits
NPDES Permits Branch - Permits & Technical Section
EPA, Region 6 - Dallas, TX
okpala.maria@epa.gov
Phone: 214 665-3152
Fax: 214 665-2191

Chavez, Carl J, EMNRD

From: Rajen, Gaurav [Gaurav.Rajen@wnr.com]
Sent: Tuesday, February 09, 2010 8:30 AM
To: okpala.maria@epa.gov
Cc: Chavez, Carl J, EMNRD; Turri, Mark; Riege, Ed; Allen, Ann
Subject: Letter and attachment re NPDES No-discharge permit - sent to the EPA in the mail today
Attachments: Letter and attachment February 8.pdf

Maria Okpala
USEPA REGION 6
1445 Ross Avenue
Suite 1200
Mail Code: 6WQPP
Dallas, TX 75202-2733

Dear Ms. Okpala:

It is a pleasure to send you an electronic copy of our response to your request for more information regarding our various units and their charge rates.

Please do not hesitate to contact me if we can provide further supplemental information.

Best regards,

Gaurav Rajen, Ph.D.
Environmental Engineer
Gallup Refinery, Western Refining

February 8, 2010

6WQ-NP
Jenaie Franke
Environmental Protection Specialist
Planning and Analysis Branch
U.S. Environmental Protection Agency, Region 6
1445 Ross Avenue, Suite 1200
Dallas, Texas, 75202-2733

Re: NPDES Application Number NM0031071 – Western Refining Gallup Refinery

Dear Ms. Franke:

It is a pleasure to send on to you the information you requested as a part of reviewing our No-discharge NPDES permit application.

The Gallup Refinery is a crude oil refining and petroleum products manufacturing facility. The Standard Industrial Classification (SIC) code is 2911 and the NAIC is 32411. There are no organic chemicals, plastics, or synthetic fibers manufactured that contribute to our process flow of wastewater. We do not manufacture lubricating oils.

The Refinery receives and processes crude oil and other petroleum hydrocarbon feedstocks, and then produces various finished products. These include propane, butane, naphtha, unleaded gasoline, diesel (low sulfur and ultra-low sulfur), and residual fuel. Ammonium Thiosulfate and elemental sulfur are also produced as by-products through our desulfurization processes.

Details of our various units are provided in the attachment. As charge rates to various units fluctuate considerably, instead of providing past and current rates we have provided the maximum charge rates for various units. We hope this information will be sufficient for your review. The recent past operating rates would not be representative as the Refinery had been cut back. We are now operating at close to our maximum charge rates.

As Ms. Okpala of your staff so correctly has noted in her conversations with Dr. Gaurav Rajen, who works with us as an environmental engineer, we do not intend to discharge on a regular basis. It will be a great help to us to know the surface water quality standards we would need to meet, if there were ever to be a "once in a lifetime" discharge.

We understand that the EPA will take into account technology-based standards, as well as recognize that the State of New Mexico's Oil Conservation Division, a part of the Energy Minerals and Natural Resources Department, has set up regulations that ensure that

surface discharges are protective of groundwater. You will note that if the "once in a lifetime" discharge were ever to occur it would be on top of shallow groundwater that has total dissolved solids less than 10,000 mg/L – which makes it subject to limits specified in NMAC 20.6.2.3103.

We look forward to your review of our application.

Sincerely,

Mark S. Turri

Mark Turri
Refinery Manager

Enclosure
cc: Maria Okpala, U.S. EPA Region 6
Carl Chavez, Oil Conservation Division, NM Energy Minerals and Natural Resources Department
Ann Allen, Western Refining
Ed Riege, Western Refining
Gaurav Rajen, Western Refining

Facility Description and Charge Rates on Various Units

The Gallup Refinery is a crude oil refining and petroleum products manufacturing facility. The Standard Industrial Classification (SIC) code is 2911 and the NAIC is 32411. There are no organic chemicals, plastics, or synthetic fibers manufactured that contribute to our process flow of wastewater. We do not manufacture lubricating oils.

The Refinery receives and processes crude oil and other feedstocks, and then produces various finished products. These include propane, butane, naphtha, unleaded gasoline, diesel (low sulfur and ultra-low sulfur), and residual fuel. Ammonium Thiosulfate and elemental sulfur are also produced as by-products through our desulfurization processes as described below.

The following regulatory identification and permit govern the Gallup Refinery:

- U.S. EPA ID Number NMD000333211
- OCD Discharge Permit No. GW-032

The Gallup Refinery is located within a rural and sparsely populated section of McKinley County. The setting is a high desert plain on the western slope of the continental divide. The nearest occupied structures are the Pilot (formerly Giant) Travel Center refueling plaza located about a half-mile southeast of the Refinery, and a small cluster of residential homes located on the south side of Interstate 40 approximately 2 miles southwest of the Refinery. The Interstate-40 highway corridor passes approximately a half-mile south of the Refinery. The surrounding land is comprised primarily of public lands and is used for cattle and sheep grazing at a density of less than six cattle or 30 sheep per section. McKinley County is predominantly rural, as are the adjoining portions of neighboring counties.

The Refinery primarily receives crude oil via two 6 inch diameter pipelines; Bisti Pipeline comes down from the Four Corners Area and enters the Refinery property from the north and Hospah Pipeline comes in from the northeast. In addition, the Refinery can also receive natural gasoline feedstocks via a 4 inch diameter pipeline that comes in from the west along the Interstate 40 corridor. These feedstocks are then stored in tanks until refined into products.

The Refinery incorporates various processing units that convert crude oil and natural gasoline into finished products. These units are briefly described as follows.

- The crude distillation unit separates crude oil into various fractions; including gas, naphtha, light oil, heavy oil, and residuum.

- The fluidized catalytic cracking (FCC) unit breaks up long-chain hydrocarbon molecules into smaller molecules, and essentially converts heavier oils into naphtha and lighter oils.

- The alkylation unit combines specific types of hydrocarbon molecules into a high octane gasoline blending component.

- The reforming unit recombines low octane naphtha molecules to form high octane naphtha.

- The hydrotreating unit removes undesirable sulfur and nitrogen compounds from intermediate feedstocks, and also saturates these feedstocks with hydrogen.

- The isomerization unit converts low octane hydrocarbon molecules into high octane molecules.

- The treater units remove impurities from various intermediate and blending feedstocks in order to produce finished products that comply with sales specifications.

- The ammonium thiosulfate unit accepts high H2S and ammonia containing gas streams from the Amine and the Sour Water Stripper units, and converts these into a useful fertilizer product, ammonium thiosulfate.

- The sulfur recovery unit converts and recovers various sulfur compounds from the gases and liquids produced in other processing units to create a solid elemental sulfur product. This unit only operates when the ammonium thiosulfate unit is inoperable or cannot handle incoming loads.

As a result of these processing steps, the Refinery produces a wide range of petroleum products including propane, butane, unleaded gasoline, diesel, and residual fuel.

In addition to the aforementioned processing units, various other equipment and systems support the operation of the Refinery.

Maximum Charge Rates (BPD = Barrels per day)

As charge rates to various units fluctuate considerably, instead of providing past and current rates, we have provided the maximum charge rates for various units. We hope this information will be sufficient for your review. The recent past operating rates would not be representative as the Refinery had been cut back. We are now operating at close to our maximum charge rates.

Crude Unit – Hourly maximum – 35,400 BPD; Daily maximum estimated 24-hour production rate – 32,200 BPD; Maximum expected annual production rate – 29,000 BPD (The crude unit numbers include crude and other petroleum hydrocarbon feedstock).
FCC – 8500 BPD
Alkylation Unit – 3000 BPD
Platformer Unit – 7300 BPD

Isomerization Unit – when in operation, 5000 BPD
Diesel Hydro Treater – 3000 BPD
Kerosene Hydro Treater – 5000 BPD

Chavez, Carl J, EMNRD

From: Riege, Ed [Ed.Riege@wnr.com]
Sent: Monday, January 18, 2010 3:51 PM
To: Chavez, Carl J, EMNRD; VonGonten, Glenn, EMNRD
Cc: Allen, Ann; Turri, Mark; Rajen, Gaurav
Subject: Crude Charge Rate Effect On Wastewater Flows

Dear Carl

Thanks for the conference call last Tuesday. It is a pleasure to clarify the charge rates and flow rates numbers' issue as you requested during the call.

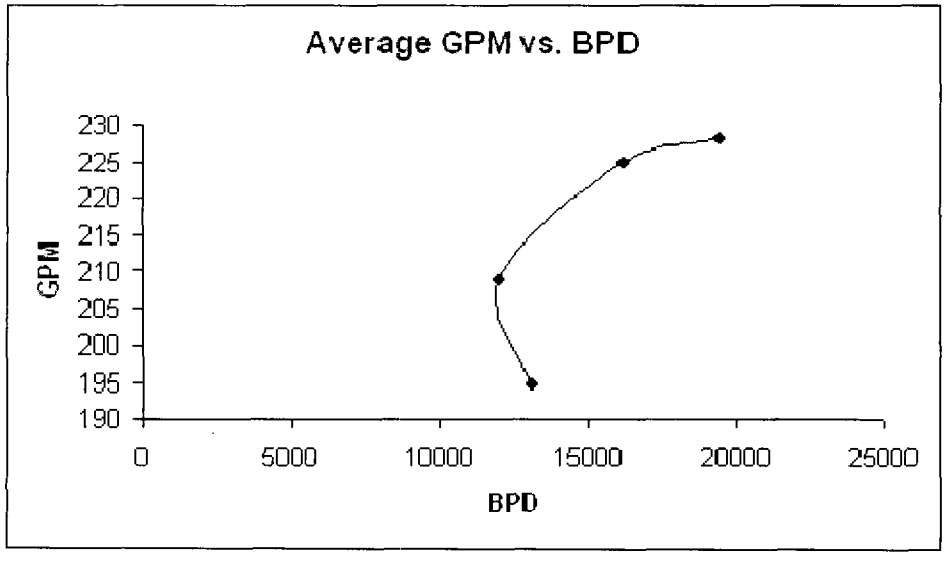
As crude charge rates change, desalter effluent does increase, at 12000 barrels/day (BPD) the Desalter effluent is 15 GPM, and at 24,000 BPD it is 30 GPM – this rate is set as 4.5% of the crude charge rate. This effluent is used to wash the crude free of salts, so although it is directly related to crude charge rate it is not equivalent to crude charge rate.

Other major sources (cooling tower blow downs for example) do not change as significantly. Their water usage is set based on capacity, water quality, atmospheric conditions, etc. It does not go up linearly with increased crude charge. As water evaporates and solids build up, fresh water has to be brought in. As more cooling is needed, efficiencies may change – but not linearly.

Perhaps a car engine's analogy would help – if a traveler wanted to drive the same distance at varying speeds, twice as fast for instance, the engine fuel, power, cooling and lubricating requirements will be more demanding but will not double. Similarly, our water consumers--- pumps, heat exchangers, etc. --- will run at greater capacity but not double their requirements.

You will notice from the data below, that although charge rate has increased substantially over these past months from 13,084 BPD to 19,382 BPD, average flow rates have increased from 195 GPM to 228 GPM. Although charge rate increased by 48%, total average flow rate increased by 16%.

Month	Average	Maximum	Minimum	Average daily crude charge rate
September	195 GPM	340 GPM	142 GPM	**13,084 BPD**
October	209 GPM	259 GPM	174 GPM	**11,996 BPD**
November	225 GPM	287 GPM	224 GPM	**16,172 BPD**
December	228 GPM	320 GPM	162 GPM	**19,382 BPD**



I hope this helps.

Ed

Ed Riege
Environmental Manager

Western Refining
Gallup Refinery
Route 3 Box 7
Gallup, NM 87301
(505) 722-0217
ed.riege@wnr.com

New Mexico Energy, Minerals and Natural Resources Department

Bill Richardson
Governor

Joanna Prukop
Cabinet Secretary

Mark Fesmire
Division Director
Oil Conservation Division

November 20, 2009

Mr. Mark B. Turri
Refinery Manager
Western Refining Southwest- Gallup Refinery
Route 3 Box 7
Gallup, New Mexico 87301

Re: Discharge Permit "Modification" Request to Discharge (GW-032)
Western Refining Southwest- Gallup Refinery
McKinley County, New Mexico

Dear Mr. Turri:

The New Mexico Oil Conservation Division (OCD) has received Western Refining Southwest, Inc. (Western's), "Modification" application with all appropriate fees dated October 30, 2009, for authorization to discharge an estimated 100,000 gallons (~0.5 ft of evaporation pond network free board) of treated and untreated wastewater into Outfall 001 (N 35° 29' 26.23" & W 108° 26' 26.01") or "Waters of the State" at the west side of the property. Western proposes to minimize discharges from occurring into Outfall 001. When Outfall 001 (basically the furthest down gradient evaporation pond) overflows, runoff discharges into an off-property tributary ("South Fork") located about 0.8 miles from the Rio Puerco River (ephemeral or intermittent stream) on state land. Tribal land is located approximately 1-mile west and down-gradient from the Outfall 001 location.

OCD's review of the application is to determine if any additional information may be required before deeming the permit application "administratively" complete and will facilitate a complete technical review of the proposed modification by OCD. OCD has determined that the modification application is not "Administratively Complete."

Therefore, OCD requires additional information. In accordance with Subsection A of 20.6.2.3108 NMAC of the New Mexico Water Quality Control Commission regulations (WQCC), "to be deemed administratively complete, an application shall provide all of the information required by Paragraphs (4) through (5) of Subsection F of 20.6.2.3108 NMAC and shall indicate, for department approval, the proposed locations for providing notice (English and Spanish) required by Paragraphs (1) and (4) of Subsection B or Paragraph (2) of Subsection C of 20.6.2.3108 NMAC." Western did not provide any water quality information in support of its statement that "the waste water will have no hazardous components and levels of all contaminants will be below regulatory standards." Items 7, 9, 11, and 12 of the application (cross-section information is not discernable at the scale provided and boring logs with hydrogeologic information were not included with the cross sections) are not

adequately addressed. At least one cross-section with hydrogeologic information is required from the New API Separator (NAPIS) with well boring logs to the Outfall 001 area to evaluate the hydrogeology (aquifer(s)) present in the area of interest.

To satisfy the 20.6.2.3108F(4) NMAC "quality" and application form item requirements, submit historical water quality analytical data from historical pond monitoring data that supports the above statement and demonstrates compliance with 20.6.2.7(ww), 20.6.2.3103, 20.6.4.109 and 20.6.4.900 NMAC applicable water quality standards. In addition, Western must also provide new water quality data for evaporation pond 2 (EP-2) effluent, since the applicant indicated that there was about 1667 bbl/day of cooling tower blow down effluent and 1071 bbl/day of boiler effluent discharging into EP-2.

Due to the presence of sanitary effluent in the refinery wastewater treatment system (discharge location unknown at this time- aeration lagoon vs. EP-2?), biological analytical data in comparison with 20.6.2.2101 NMAC parameters must be provided in order to characterize any discharge to "Waters of the State" or Outfall 001. The existing approved facility "Biohazard Plan" may also need to be modified before the discharge to Outfall 001 can be considered.

Western should already be aware from its historical water quality monitoring data that some pond wastewater exceeds regulatory water quality standards. Consequently, a treatment system for the wastewater should have been proposed in the application to address the contaminants, but was not. With regard to the F(4) "volume", Western did not factor in the additional wastewater flow volume to the existing treatment system from its Bloomfield Refinery, which will be closed (~18,000 bbl/day crude oil refining capacity). Western is in the midst of a major wastewater treatment system conversion, which has yet to be specified. OCD is aware of the situation with one NAPIS and treatment capacity problems that occur routinely during precipitation events and has questioned the ability of the existing treatment system to handle wastewater at the facility without the additional wastewater that will occur as a result of the Bloomfield Refinery closure. This must be addressed along with the final waste water treatment system that will handle the type and total volume of treated effluent that may be discharged into Outfall 001.

To satisfy the 20.6.2.3108(F) NMAC "depth to and total dissolved solids concentration of the ground water", Western must submit data from nearby monitor wells.

From available pond monitoring information, there will likely be ground water contamination, which will require additional monitor wells to monitor ground water quality at the "mixing zone" where ground water interfaces with surface water, as well as ground water remediation system(s) to capture and prevent contamination from migrating down gradient to state and tribal lands. In addition, OCD will require Western to conduct more hydrogeologic work to assess the "mixing zone" and the complete hydrogeology beneath the facility before permitting the discharge of contaminants to Outfall 001. Plans to discharge into Outfall 001 without acknowledging the contaminants of concern and stipulating the type of treatment system needed to facilitate a discharge to Outfall 001 with plans to re-route fluids between ponds to avoid what appears to be an inevitable daily discharge scenario at Outfall 001 is of major concern to the OCD.

Please review the attached 20.6.2.3108 NMAC flow chart and regulatory language pertaining to the WQCC public notice requirements for "Modifications." After the application is deemed "Administratively Complete", the revised 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 revised WQCC notice requirements of 20.6.2.3108 NMAC to determine if there is any public interest.

If there are any questions regarding this matter, please contact Carl J. Chavez at (505) 476-3490 or carlj.chavez@state.nm.us. On behalf of the staff of the OCD, I wish to thank you and your staff for your cooperation during this discharge permit review.

Sincerely,

Carl J. Chávez
Environmental Engineer

CJC/cjc

Attachments: 20.6.2.3108 NMAC (Public Notice)

xc: Willie Lane, EPA Region 6
Marcy Leavitt, NMED
Dave Cobrain, NMED
Glenn von Gonten, OCD
OCD District III Office, Aztec

District I
1625 N. French Dr., Hobbs, NM 88240
District II
1301 W. Grand Avenue, 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 June 10, 2

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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: GW

2. Operator: Western Refining-Southwest (Gallup Refinery)

   Address: Rt 3 Box 7 Gallup, NM 87301; I-40 / Exit 39, Jamestown, NM 87347

   Contact Person: Mark B. Turri Phone: (505) 722-3833

3. Location: SE 1/4 NE 1/4 Section 28 Township 15 N Range 15 W
   A large scale topographic map showing exact location is provided in the attachment.

4. Attach the name, telephone number and address of the landowner of the facility site. Western Refining, 123 W. Mills Avenue, El Paso, TX 79901; Ph: (915) 534-1400 (Refer to Attachment)

5. Attach the description of the facility with a diagram indicating location of fences, pits, dikes and tanks on the facility. (Refer to Attachment)

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. CERTIFICATION

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

Name: MARC B. TURRI Title: REFINERY MANAGER

Signature: Marc B. Turri Date: 10/30/09

E-mail Address: MARC.TURRI@WNR.COM

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

TABLE OF CONTENTS

3.0 Location of the Discharge Plan Facility 4
4.0 Landowners 6
5.0 Facility Description 7
The following regulatory identification and permit governs the Gallup Refinery: 7
6.0 Description of Materials Stored or Used at the Facility 14
7.0 Sources and Quantities of Effluent & Waste Solids Generated at the Facility 23
7.1 Wastewater 23
7.2 Solid (Non-wastewater) Wastes 25
8.0 Description of Current Liquid & Solid Waste Collection / Storage / Disposal Procedures 30
9.0 Description of proposed modifications to existing collection/treatment/disposal system 36
10.0 Routine inspection and maintenance plan to ensure permit compliance 37
11.0 Contingency Plan for Reporting and Clean-up of Spills or Releases 40
12.0 Geological/hydrological information for facility. Include depth to groundwater and quality of groundwater) .. 41
13.0 Facility Closure Plan to Demonstrate Compliance with OCD Rules, Regulations, and/or Orders. 46

LIST OF FIGURES

Figure 1: Regional map showing the location of the Gallup Refinery (red star along Interstate-40, 20 miles east of the City of Gallup) 4
Figure 2: Topographic Map of the Gallup Refinery Site - USGS Topographical Map - Gallup Quadrangle (Revised 1980) 5
Figure 3: Schematic of water flows within the Gallup Refinery 11
Figure 4: Regional scale: Flow lines and major surface water bodies (from: EPA Enviromapper - http://map24.epa.gov/EMR/?ZoomToWatershed=15020006) North is towards the top of the page. 37
Figure 5: Localized scale: Flow lines and major surface water bodies (from: EPA Enviromapper - http://map24.epa.gov/EMR/?ZoomToWatershed=15020006) North is towards the top of the page. Discharge would enter an unnamed arroyo and flow to the South Fork of the Puerco River 38
Figure 6: Soils in the Refinery Area 45

LIST OF TABLES

Table 1: Storage Tanks at the Gallup Refinery 15
Table 2: Other Materials Stored At Western Refining – Gallup Refinery 21

3.0 Location of the Discharge Plan Facility

Figure 1 shows the location of the refinery. The refinery is situated on an 810 acre irregular shaped tract of land that is substantially located within the lower one quarter of Section 28 and throughout Section 33 of Township 15 North, Range 15 West of the New Mexico Prime Meridian. A small component of the property lies within the northeastern one quarter of Section 4 of Township 14 North, Range 15 West. Figure 2 is a topographic map showing the general layout of the refinery in comparison to the local topography.

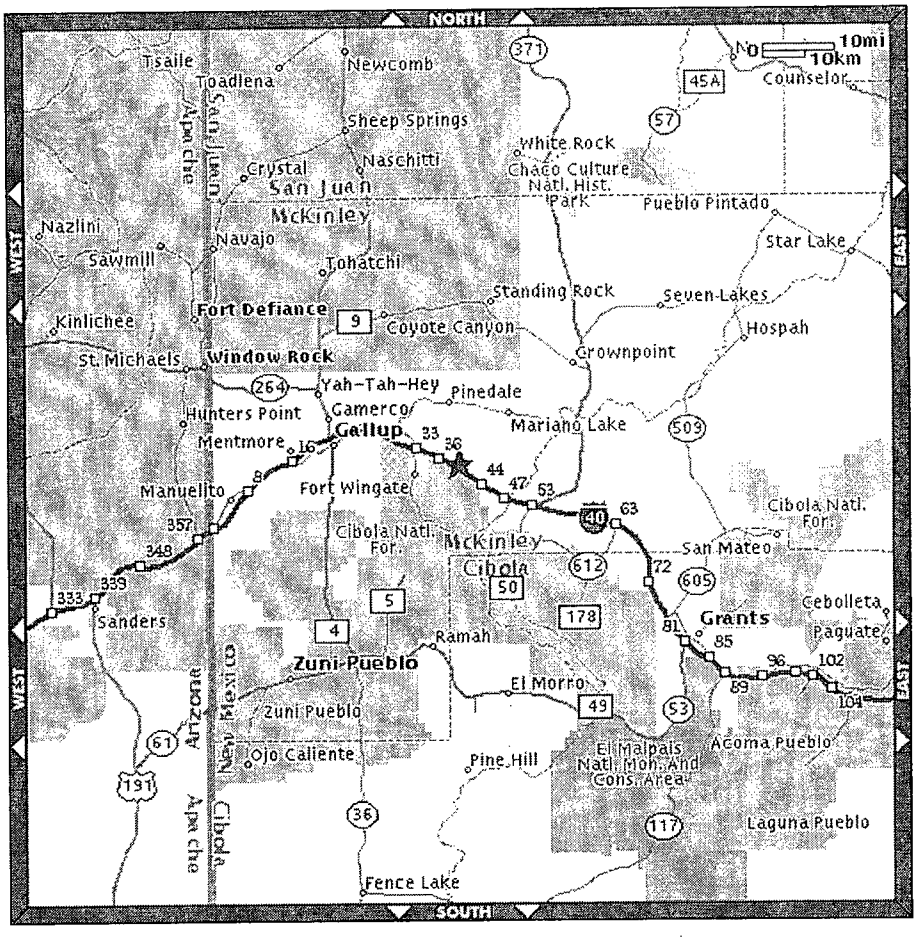


Figure 1: Regional map showing the location of the Gallup Refinery (red star along Interstate-40, 20 miles east of the City of Gallup).

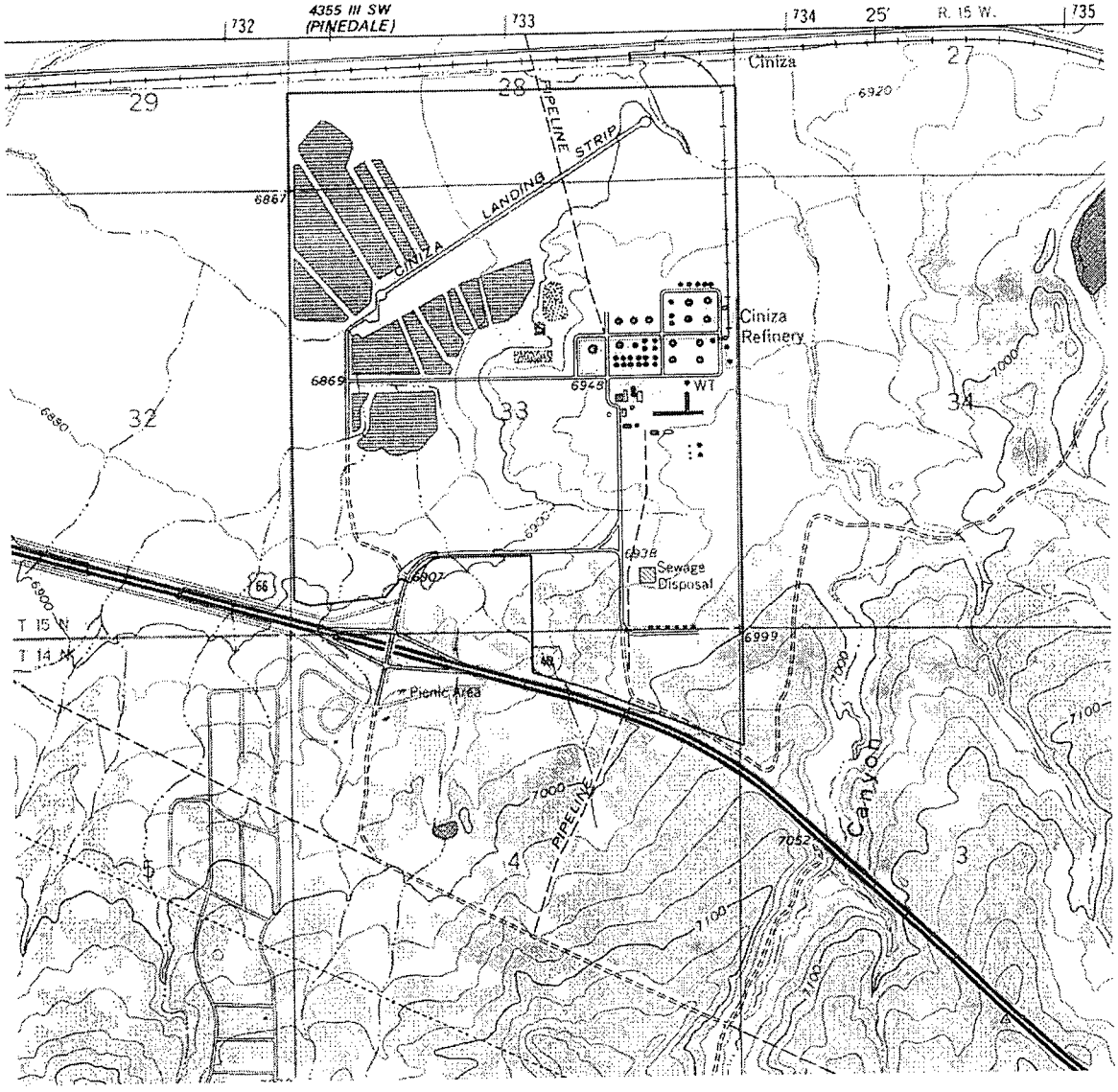


Figure 2: Topographic Map of the Gallup Refinery Site - USGS Topographical Map - Gallup Quadrangle (Revised 1980)

A detailed map of the plant site is also included with this application as Appendix A. This map is large format and measures 34 inches wide by 22 inches high.

4.0 Landowners

Prior to 1957, the land area encompassing the Gallup Refinery was federal land managed by the Bureau of Land Management (BLM).

In 1957, the El Paso Natural Gas Company obtained the land from the BLM and constructed the refinery on the current 810 acre tract.

In 1964, the Shell Oil Company purchased the refinery and associated property from the El Paso Natural Gas Company.

In 1982, Giant Industries Arizona, Inc. purchased the refinery and associated property from the Shell Oil Company.

In 2007, Western Refining acquired the Gallup Refinery from Giant Industries Arizona, Inc.

The current Owner is:

	Western Refining	(parent corporation)
	123 W. Mills Avenue	
	El Paso, TX 79901	
Operator:	Western Refining Southwest Inc	(postal address)
	Route 3, Box 7	
	Gallup, New Mexico 87301	
	Western Refining Southwest Inc	(physical address)
	I-40, Exit 39	
	Jamestown, New Mexico 87347	
Key Contact:	Mark B. Turri, Refinery Manager	
Telephone:	(505) 722-3833	

5.0 Facility Description

The Gallup Refinery is a crude oil refining facility. The Standard Industrial Classification (SIC) code is 2911 and the NAIC is 32411.

The refinery receives and processes crude oil and other feedstocks, and then produces various finished products. These include propane, butane, naphtha, unleaded gasoline, diesel (low sulfur and ultra-low sulfur), kerosene, and residual fuel.

The following regulatory identification and permit governs the Gallup Refinery:

- U.S. EPA ID Number NMD000333211
- OCD Discharge Permit No. GW-032

The Gallup Refinery is located within a rural and sparsely populated section of McKinley County. The setting is a high desert plain on the western slope of the continental divide. The nearest population centers are the Pilot (formerly Giant) Travel Center refueling plaza, the Interstate 40 highway corridor, and a small cluster of residential homes located on the south side of Interstate 40 approximately 2 miles southwest of the Refinery. The surrounding land is comprised primarily of public lands and is used for cattle and sheep grazing at a density of less than six cattle or 30 sheep per section. McKinley County is predominantly rural, as are the adjoining portions of neighboring counties.

The refinery primarily receives crude oil via two 6 inch diameter pipelines; Bisti Pipeline comes down from the Four Corners Area and enters the refinery property from the north and Hospah Pipeline comes in from the northeast. In addition, the refinery also receives natural gasoline feedstocks via a 4 inch diameter pipeline that comes in from the west along the Interstate 40 corridor. These feedstocks are then stored in tanks until refined into products.

The refinery incorporates various processing units that convert crude oil and natural gasoline into finished products. These units are briefly described as follows.

- The crude distillation unit separates crude oil into various fractions; including gas, naphtha, light oil, heavy oil, and residuum.
- The fluidized catalytic cracking unit breaks up long-chain hydrocarbon molecules into smaller molecules, and essentially converts heavier oils into naphtha and lighter oils.
- The alkylation unit combines specific types of hydrocarbon molecules into a high octane gasoline blending component.
- The reforming unit combines low octane naphtha molecules to form high octane naphtha.
- The hydrotreating unit removes undesirable sulfur and nitrogen compounds from intermediate feedstocks, and also saturates these feedstocks with hydrogen.

- The isomerization unit converts low octane hydrocarbon molecules into high octane molecules.

- The treater units remove impurities from various intermediate and blending feedstocks in order to produce finished products that comply with sales specifications.

- The ammonium thiosulfate unit accepts high H2S and ammonia containing gas streams from the Amine and the Sour Water Stripper units, and converts these into a useful fertilizer product, ammonium thiosulfate.

- The sulfur recovery unit converts and recovers various sulfur compounds from the gases and liquids produced in other processing units to create a solid elemental sulfur product. This unit only operates when the ammonium thiosulfate unit is inoperable or cannot handle incoming loads.

As a result of these processing steps, the Refinery produces a wide range of petroleum products including propane, butane, unleaded gasoline, diesel, kerosene, and residual fuel.

In addition to the aforementioned processing units, various other equipment and systems support the operation of the refinery and are briefly described as follows.

Storage tanks are used throughout the Refinery to hold and store crude oil, natural gasoline, intermediate feedstocks, finished products, chemicals, and water. These tanks are all located aboveground and range in size from 80,000 barrels to less than a 1,000 barrels. A grouping of tanks is commonly referred to as a "tank farm."

Pumps, valves, and piping systems are used throughout the Refinery to transfer various liquids among tankage and processing units.

A railroad spur track and a railcar loading rack are used to transfer feedstocks and products from refinery tankage both into and out of railcars.

Several tank truck loading racks are used at the Refinery to load out finished products and also may receive crude oil, other feedstocks, additives, and chemicals.

A pipeline connects the Refinery to the Pilot (formerly Giant) Travel Center and is used to supply gasoline and diesel fuel to the refueling plaza.

A firefighting training facility is used to conduct employee firefighting training.

The process wastewater system is a network of curbing, paving, catch basins, and underground piping that collects rainwater and other effluent from various processing areas within the Refinery and then conveys this wastewater to the new API separator.

The new API separator is a large double-walled concrete containment structure with an internal stainless steel lining (and leak detection systems) that utilizes gravity and residence time to separate wastewater into three components; a sludge layer that sinks to the bottom, an oily layer that floats to the top and is recovered for processing, and a clarified water effluent remaining in the middle. The clarified water effluent then flows onward to the stripper columns.

At the stripper columns, ambient air is blown upwards through a falling cascade of clarified wastewater and, as a result, dissolved gases and light hydrocarbons are disengaged and vented. Effluent from the stripper columns flows onward to the aeration basins.

At the aeration basins, the clarified and stripped wastewater is further mixed with ambient air in order to oxidize any remaining constituents and increase the dissolved oxygen concentration in the water in order to enhance biological activity and degradation. Effluent from the aeration basins flows onward to the evaporation ponds.

At the evaporation ponds, wastewater is converted into vapor via solar and mechanical wind-effect evaporation. Liquid wastewater is not discharged from the Refinery. It is normally held in the evaporation ponds. In an extreme eventuality of the ponds not being able to hold all the wastewater generated, a temporary discharge is being planned for along with other contingency measures.

The anticipated volume is assumed to be of the order of 100,000 gallons (enough to lower levels in the most at-risk pond by 0.5 feet) and extremely rare – perhaps once over a ten-year period. The wastewater will have no hazardous components and levels of all contaminants will be below regulatory standards. The discharge will be into a dry wash leading to the South Fork of the Puerco River. The shallow groundwater below the wash is estimated to be at depths ranging from 50-150 feet. The total dissolved solids concentration is greater than 1000 ppm in this shallow groundwater.

The storm water system is a network of valves, gates, berms, embankments, culverts, trenches, ditches, natural arroyos, and retention ponds that collect, convey, control, treat, and release storm water that falls within or passes through refinery property. Storm water that falls within the process areas is treated as process water and enters the refinery's wastewater treatment system. It first is held in the old API separator, and is then metered into the new API separator. A system of two new storm water tanks is currently being designed, and use of the old API separator will be discontinued.

Figure 3 provides a schematic of oil and water flows through the Gallup Refinery.

Items Specifically Requested in the OCD Guidance Document

Location of fences

The refinery incorporates an outer perimeter fence that substantially consists of barbed wire and posts, and roughly corresponds to the property boundaries. In addition, interior zones of 8 foot high chain link fencing are installed around the process areas, warehouse yards,

storage pads, loading racks, and other sensitive areas. The locations of these fence lines are shown on the plant site drawing in Appendix A.

Location of pits

The refinery no longer uses earthen pits for waste accumulation. All of these former pits have been excavated, remediated, and backfilled with clean soil.

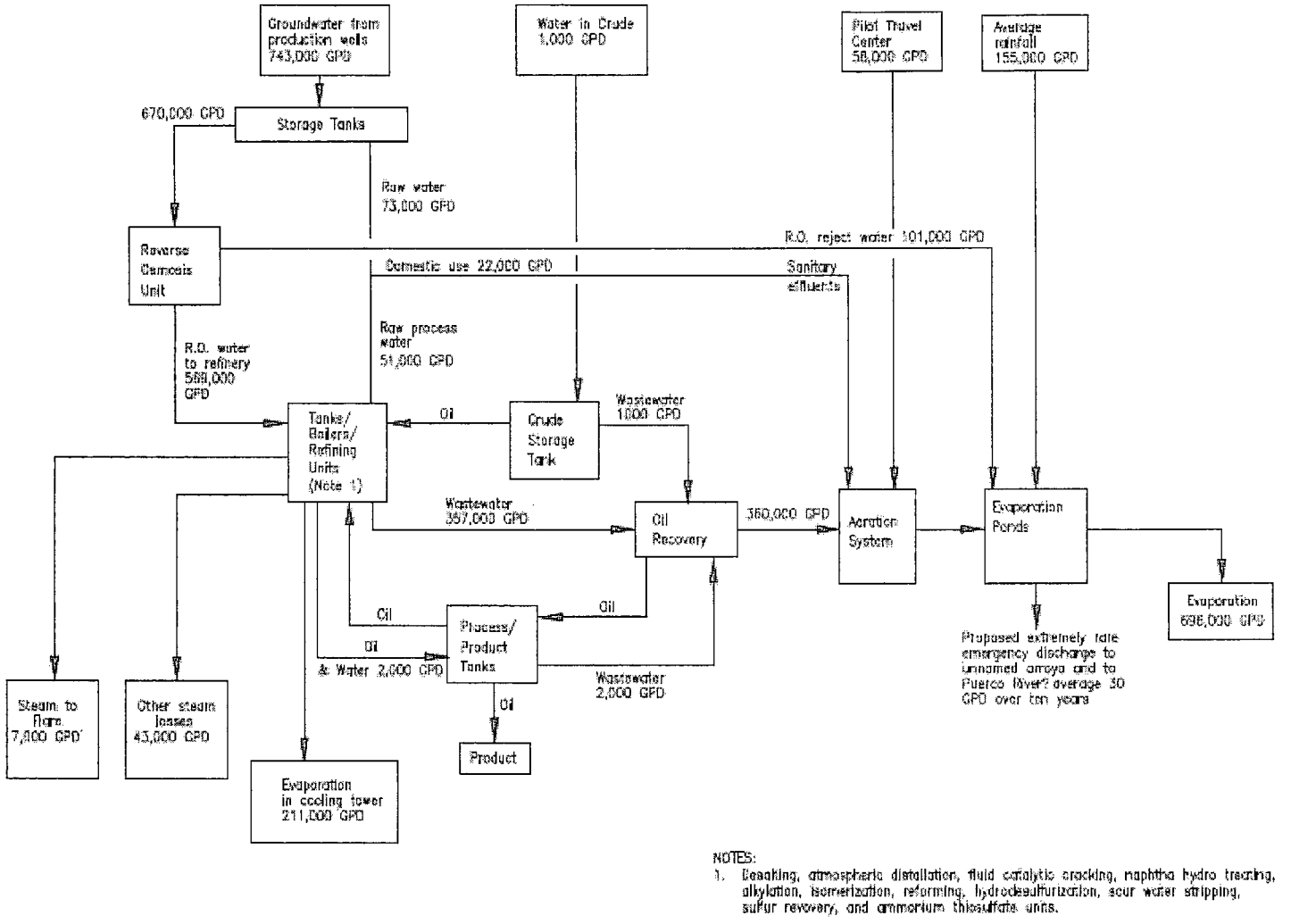


Figure 3: Schematic of water flows within the Gallup Refinery

Location of berms

The refinery uses earthen berms to form secondary containment basins for tankage and also for storm water flow control and outlying retention basins. The locations of these berms are shown on the plant site drawing in Appendix A. All earthern berms were compacted during the summer of 2009.

Location of tanks

The refinery uses aboveground tanks for storage at various locations within the refinery. The locations of these tanks are shown on the plant site drawing in Appendix A. Large groupings of tanks are identified as named tank farms. These include the following:

Main Tank Farm

Hot Oil Tank Farm

Tank Truck Loading Rack Tankage Area

High Pressure Storage Bullets Area

Hydrogen Storage Bullets Area

Location of discharges

Treated process wastewater is evaporated at the evaporation ponds.

Storm water that is not contained on-site is released off-site at two outfall locations on the western boundary of refinery property. During extreme rainfall events, some storm water may exit refinery property via sheet run-off at the northern and western boundaries.

Sanitary sewage was treated and released at septic fields located within the refinery. A new lift station now accepts this sanitary sewage and transports it to the aeration lagoons.

The locations of the evaporation ponds, storm water outfalls, and new lift station are shown on the plant site drawing in Appendix A.

Location of storage facilities

The Refinery uses warehouses, outdoor yards, and curbed pads for storage of various materials and equipment within the refinery. The locations of these storage facilities are shown on the plant site drawing in Appendix A.

Location of disposal facilities

The Refinery uses an OCD-permitted landfarm to treat non-hazardous oily residue that is intermittently generated within the Refinery. A temporary landfarm is also being used to treat non-hazardous oily waste material that is being generated at the refinery.

The Refinery formerly operated other land treatment units in order to treat and dispose of various waste materials generated within the refinery. These sites are no longer in use.

Some are closed and others are in the process of closure. Additional discussion of these sites is included in Section 13.

The locations of the current OCD-permitted landfarm, former land treatment units, and former disposal sites are all shown on the plant site drawing in Appendix A.

Location of processing facilities

The refinery uses various processing units and support systems as described above. The locations of these facilities are shown on the plant site drawing in Appendix A.

Location of other relevant facilities including drum storage

The locations of drum storage and other relevant facilities are labeled and shown on the plant site drawing in Appendix A.

6.0 Description of Materials Stored or Used at the Facility

The Refinery receives, stores, and processes crude oil and other petroleum-based feedstocks, and then produces various intermediate feedstocks and finished products, including propane, butane, unleaded gasoline, diesel, kerosene, and residual oil. These materials are stored in aboveground atmospheric and pressurized tanks, and are listed in Table 1. These tables include the following information.

- tank number or description
- year built
- approximate capacity
- product
- tank style
- floor style
- containment style

The Refinery also receives, stores, and uses a variety of additives, chemicals, and other sensitive materials in order to support the operation of the refinery. These materials are listed 1n Table 2. This table includes the following information.

- material name
- maximum quantity stored on-site at any given time
- location

Items Specifically Requested in the OCD Guidance Document

The OCD guidance document specifically requires that the following categories be included in the material list.

- process specific chemicals
- acids / caustics
- detergents / soaps
- solvents / inhibitors / degreasers
- paraffin treatment / emulsion breakers
- biocides
- other

Table 2 provides this information.

Table 1: Storage Tanks at the Gallup Refinery

Count #	TANK NUMBER or DESCRIPTION	YEAR BUILT	APPROX. CAPACITY (BBLS)	PRODUCT	TANK STYLE	FLOOR STYLE		CONTAINMENT STYLE
						as of 9/08	Double Floor Installed mo/yr	As of 9/08
1	P-V19A	1957	668.7 ft^3	Sweet HYDROGEN GAS	Bullet	Elevated	n/a	Soil/Gravel
2	P-V19B	1957	668.7 ft^3	Sweet HYDROGEN GAS	Bullet	Elevated	n/a	Soil/Gravel
3	P-V19C	1957	668.7 ft^3	Sweet HYDROGEN GAS	Bullet	Elevated	n/a	Soil/Gravel
4	TK-115	1957	5,000	DHT PRODUCT	Cone	Double	Mar-08	Soil/Gravel
5	TK-2	1965	4,000	UNLEADED PREMUM	Cone	Single		Soil/Gravel
6	TK-228	1957	5,000	K-1	Cone	Single		Soil/Gravel
7	TK-343	1957	5,000	ETHANOL	Cone	Single		Soil/Gravel
8	TK-4	1970	3,800	83.0 OCTANE	Cone	Single		Soil/Gravel
9	TK-446	1945	700	OLEFINS/ISO BUTANE	Bullet	Elevated	n/a	Soil/Gravel
10	TK-447	1957	1,373	ISO-BUTANE	Bullet	Elevated	n/a	Soil/Gravel
11	TK-555	1974	2,073	ISO-BUTANE	Bullet	Elevated	n/a	Soil/Gravel
12	TK-556	1957	718	PROPANE	Bullet	Elevated	n/a	Soil/Gravel
13	TK-560	1957	2,300	BUTANE	Bullet	Elevated	n/a	Soil/Gravel
14	TK-564	1957	5,000	NAT.GASOLINE/ISOMERATE	Elyps.	Single		Soil/Gravel
15	TK-565	1957	5,000	ISOM/NAT GASO/TOL	Elyps.	Single		Soil/Gravel
16	TK-575	1957	10,000	JET-A/K1	Cone	Single		Soil/Gravel
17	TK-102	1991	80,000	CRUDE	Cone	Single		Soil/Gravel
18	TK-106	1957	5,000	TRANSMIX	Cone	Single		Soil/Gravel
19	TK-18570		54	NALCO 7359	Cone	Single		Soil/Gravel
20	TK-18571		54	NALCO 7359	Cone	Single		Soil/Gravel
21	TK-5	1963	1,800	ETHANOL	Cone	Single		Soil/Gravel
22	TK-563	1986	20,000	NAT. GASOLINE	Elyps.	Single		Soil/Gravel
23	TK-7	1946	330	ISOMERATE	Bullet	Elevated	n/a	Concrete
24	TK-703	1963	25,000	RESIDUE/FCC FEED	Cone	Single		Soil/Gravel
25	TK-704	1963	10,000	FUEL OIL	Cone	Single		Soil/Gravel
26	TK-912		188	Add. Gasoline (6331)	Hor. Cyl.	Elevated	n/a	Concrete

Table 1 (continued): Storage Tanks at the Gallup Refinery

Count #	TANK NUMBER or DESCRIPTION	YEAR BUILT	APPROX. CAPACITY (BBLS)	PRODUCT	TANK STYLE	FLOOR STYLE		CONTAINMENT STYLE
						as of 9/08	Double Floor Installed mo/yr	As of 9/08
27	TK-913		206	Add. Gasoline (NAP 96)	Hor. Cyl.	Elevated	n/a	Concrete
28	Z81-T1	1998	1,000	TREATED WATER	Cone	Single		Concrete
29	Z81-T9		60	DIESEL	Hor. Cyl.	Elevated	n/a	Concrete
30	Q-T2	1956	112	CAUSTIC	Cone	Single		Concrete
31	Q-T8	1963	226	CAUSTIC	Cone	Single		Concrete
32	TK-1001		72	DIESEL TANK	Hor. Cyl.	Elevated	n/a	Concrete
33	TK-1002		72	GASOLINE TANK	Hor. Cyl.	Elevated	n/a	Concrete
34	TK-1003		57	DIESEL POUR POINT ADDITIVE	Hor. Cyl.	Elevated	n/a	Concrete
35	TK-1004		112	DIESEL LUBRICITY ADDITIVE	Hor. Cyl.	Elevated	n/a	Concrete
36	TK-235	1957	5,000	TRANSMIX	Cone	Single		Soil/Gravel
37	TK-337	1977	20,000	ETHANOL	Cone	Single		Soil/Gravel
38	TK-345	1977	20,000	REFORMATE/ETOH	Cone	Single		Soil/Gravel
39	TK-448	1957	1,373	ISO-BUTANE	Bullet	Elevated	n/a	Soil/Gravel
40	TK-570	1957	25,000	87.0 UNLD REG.	Cone	Single		Soil/Gravel
41	TK-576	1968	40,000	PREMUM BASE	Cone	Single		Soil/Gravel
42	TK-108	1957	5,000	ALKLATE	Cone	Single		Soil/Gravel
43	TK-342	1957	5,000	ETHANOL	Cone	Single		Soil/Gravel
45	TK-706	1963	10,000	FUEL OIL	Cone	Single		Soil/Gravel
46	TK-707	1963	1,000	SLOP OIL	Cone	Single		Soil/Gravel
47	TK-714	1969	30,000	FCC FEED	Cone	Single		Soil/Gravel
48	Z81-T10	1957	63	CAUSTIC	Cone	Single		Concrete
49	Z81-T6	1962	880	DOMESTIC WATER	Cone	Single		Concrete
73	TK-705	1963	10,000	FUEL OIL	Cone	Single		Soil/Gravel
51	A-V61.1		140	Caustic	Cone	Single		Concrete
50	TK-701	1963	37,000	FCC FEED	Cone	Single		Soil/Gravel

Table 1 (continued): Storage Tanks at the Gallup Refinery

Count #	TANK NUMBER or DESCRIPTION	YEAR BUILT	APPROX. CAPACITY (BBLS)	PRODUCT	TANK STYLE	FLOOR STYLE		CONTAINMENT STYLE
						as of 9/08	Double Floor Installed mo/yr	As of 9/08
52	Q-T6		29,800	DRAIN HOLDING TK	Cone	Single		Concrete
53	TK-557	1957	718	PROPANE	Bullet	Elevated	n/a	Soil/Gravel
54	TK-702	1963	25,000	FCC FEED	Cone	Single		Soil/Gravel
55	TK-709	1963	1,000	RESIDUE	Cone	Single		Soil/Gravel
56	Z81-T15		80	DIESEL	Hor. Cyl.	Elevated	n/a	Concrete
57	Z84-T105	2001	400	SLOP OIL	Cone	Single		Soil/Gravel
58	Z86-T1	1966	5,000	RAW WATER	Cone	Single		Soil/Gravel
59	Z86-T2	2002	10,832	RAW WATER	Cone	Single		Concrete
60	Foam Tk		10	Fire Fighting Foam Concentrate	Hor. Cyl.	Elevated	n/a	Concrete
61	SR-T10		20	CA-299 SETTLING AGENT	Cone	Single		Concrete
62	TK-581	1957	25,000	LCO	Cone	Single		Soil/Gravel
63	SR-T4	1992	106	IRON CHELATE SOLUTION	Cone	Single		Concrete
64	SR-T5	1992	76	IC-110 IRON CHELATE	Cone	Single		Concrete
65	SR-T6	1992	76	IC-210 FREE CHELATE	Cone	Single		Concrete
66	SR-T7	1993	3	Caustic	Cone	Single		Concrete
67	SR-T8	1993	20	CA-100 DEGRADATION INHIBITOR	Cone	Single		Concrete
68	SR-T9	1993	20	CA-2102 SETTLING AGENT	Cone	Single		Concrete
69	TK-231	1957	5,000	TRANSMIX	Cone	Single		Soil/Gravel
70	TK-232	1957	5,000	TRANSMIX	Cone	Single		Soil/Gravel
71	TK-338	1964	25,000	SWEET NAPHTHA	Cone	Single		Soil/Gravel
72	TK-571	1957	25,000	87.0 UNLD REG.	Cone	Single		Soil/Gravel
44	TK-344	1977	20,000	REFORMATE	Cone	Single		Soil/Gravel
74	TK-107	1957	5,000	SLOP OIL	Cone	Single		Soil/Gravel
75	TK-227	1957	5,000	K-1	Cone	Single		Soil/Gravel
76	TK-561	1957	2,300	BUTANE	Bullet	Elevated	n/a	Soil/Gravel
77	TK-572	1957	25,000	87.0 UNLD REG.	Cone	Single		Soil/Gravel
78	Z81-T20		22	TRI-ACT® 1820	Hor. Cyl.	Elevated	n/a	Concrete

Table 1 (continued): Storage Tanks at the Gallup Refinery

Count #	TANK NUMBER or DESCRIPTION	YEAR BUILT	APPROX. CAPACITY (BBLS)	PRODUCT	TANK STYLE	FLOOR STYLE		CONTAINMENT STYLE
						as of 9/08	Double Floor Installed mo/yr	As of 9/08
79	Z81-V11		63	CAUSTIC	Cone	Single		Concrete
80	FW Pp Fuel		12	Diesel for Fire Water Pump	Cone	Single		Concrete
81	Mercaptan		12	Mercaptan	Hor. Cyl.	Elevated	n/a	Concrete
82	TK-3	1965	4,000	87.0 OCTANE	Cone	Single		Soil/Gravel
83	TK-554	1974	2,073	BUTANE/PROPANE	Bullet	Elevated	n/a	Soil/Gravel
84	TK-574	1968	40,000	ST.RUN	Cone	Single		Soil/Gravel
85	TK-902		237	Additive Tk. (Western)	Cone	Single		Concrete
102	TK-909		5	Power Service	Hor. Cyl.	Elevated	n/a	Concrete
86	Z71-V2	1987	453	ANHYDROUS AMMONIA	Bullet	Elevated	n/a	Soil/Gravel
87	Z75-V2	1998	168	HYDROCARBON VAPORS	Cone	Single		Concrete
88	Z81-T7	1998	920	BRINE WATER	Cone	Single		Concrete
89	Z88-V16	2000	55	RO WATER	Cone	Elevated	n/a	Concrete
90	Z88-V17	2000	55	RO WATER	Cone	Elevated	n/a	Concrete
91	SWS-TK1	2006	1,000	SOUR WATER	Cone	Single		Soil/Gravel
92	TK-1	1965	3,000	DIESEL	Cone	Single		Soil/Gravel
93	TK-101	1957	80,000	CRUDE	Cone	Single		Soil/Gravel
94	TK-111	1957	5,000	DHT PRODUCT	Cone	Single		Soil/Gravel
95	TK-112	1957	5,000	DHT PRODUCT	Cone	Single		Soil/Gravel
96	TK-116	1957	5,000	DHT PRODUCT	Cone	Single		Soil/Gravel
97	TK-225	1957	25,000	DISTILLATE	Cone	Double	Jul-06	Soil/Gravel
98	TK-226	1957	25,000	KERSOSENE	Cone	Double	May-06	Soil/Gravel
99	TK-339	1957	25,000	SOUR NAPHTHA	Cone	Single		Soil/Gravel
100	TK-567	1969	20,000	83.O UNLD. REG.	Cone	Single		Soil/Gravel
101	TK-568	1998	2,000	AMMONIUM THIOSULFATE	Cone	Single		Soil/Gravel
102	TK-577	1957	10,000	DIESEL	Cone	Double	Aug-08	Soil/Gravel
103	TK-579	1957	20,000	DIESEL	Cone	Single		Soil/Gravel
104	TK-582	1957	25,000	UNLEADED PREMUM	Cone	Single		Soil/Gravel
105	TK-708	1963	1,000	Residue	Cone	Single		Soil/Gravel

Table 1 (continued): Storage Tanks at the Gallup Refinery

Count #	TANK NUMBER or DESCRIPTION	YEAR BUILT	APPROX. CAPACITY (BBLS)	PRODUCT	TANK STYLE	FLOOR STYLE		CONTAINMENT STYLE
						as of 9/08	Double Floor Installed mo/yr	As of 9/08
106	Z71-TK-716	2006	997	AMMONIUM THIOSULFATE	Cone	Single		Soil/Gravel
107	A-V59	1958	164	Baume/Caustic	Hor. Cyl.	Elevated	n/a	Concrete
108	TK-562	1986	20,000	ISOMERATE	Cone	Single		Soil/Gravel
109	TK-569	1957	25,000	83.O UNLD. REG.	Cone	Single		Soil/Gravel
110	TK-583	1996	55,000	DIESEL	Cone	Sec.		Soil/Gravel
111	TK-6	1963	1,800	LT STRAIGHT RUN	Cone	Single		Soil/Gravel
112	TK-910		13	Red Dye (Western)	Hor. Cyl.	Elevated	n/a	Concrete
113	Tk-915		50	Diesel-Gasoline Blend	Hor. Cyl.	Elevated	n/a	Soil/Gravel
114	Z75-V1	1998	168	HYDROCARBON VAPORS	Cone	Single		Concrete
115	Z81-T14		9	DIESEL	Cone	Single		Concrete
116	Z81-T5	1979	5,000	TREATED WATER	Cone	Single		Concrete
117	Z83-TK-3		161	Sulfuric Acid	Cone	Single		Soil/Gravel
118	TK-27	1979	5,000	STORM WATER (Future)	Cone	Single		Soil/Gravel
119	TK-28	1979	5,000	STORM WATER (Future)	Cone	Single		Soil/Gravel
120	Z81-T16	1953	69	STARTING AIR	Hor. Cyl.	Elevated	n/a	Concrete
122	TK-901	3Pty	237	Additive Tk. (Chevron)	Cone	Single		Concrete
123	TK-903	3Pty	48	Additive Tk. (Texaco)	Hor. Cyl.	Elevated	n/a	Concrete
124	TK-906	3Pty	143	Additive Tk. (Exxon)	Hor. Cyl.	Elevated	n/a	Concrete
125	TK-911	3Pty	191	Add. Tk.(Conoco)	Hor. Cyl.	Elevated	n/a	Concrete
126	TK-914	3Pty	191	Add. Tk. (Shell)	Hor. Cyl.	Elevated	n/a	Concrete
127	TK-117	1983	250	OUT OF SERVICE (De-Icer)	Cone	Double		Soil/Gravel
128	Q-T3		671	OUT OF SERVICE (Caustic)	Cone	Single		Concrete
129	Z81-T17		161	OUT OF SERVICE (Water Softener)	Cone	Single		Concrete

Table 1 (continued): Storage Tanks at the Gallup Refinery

Count #	TANK NUMBER or DESCRIPTION	YEAR BUILT	APPROX. CAPACITY (BBLS)	PRODUCT	TANK STYLE	FLOOR STYLE		CONTAINMENT STYLE
						as of 9/08	Double Floor Installed mo/yr	As of 9/08
130	Z81-T8		250	OUT OF SERVICE (Fuel Oil)	Cone	Single		Concrete
131	TK-451	1957	1,000	OUT OF SERVICE	Cone	Single		Soil/Gravel
132	TK-452	1957	1,000	OUT OF SERVICE	Cone	Single		Soil/Gravel
133	TK-453	1957	5,000	OUT OF SERVICE	Cone	Single		Soil/Gravel
134	TK-573	1957	250	OUT OF SERVICE (Kerosene)	Cone	Single		Soil/Gravel
135	TK-713		1,000	OUT OF SERVICE	Cone	Single		Soil/Gravel
136	TK-905		232	Add. Tk (Empty-Unocal)	Hor. Cyl.	Elevated	n/a	Concrete
137	TK-907		25	EMPTY TANK	Hor. Cyl.	Elevated	n/a	Concrete
138	TK-7135		16	EMPTY TANK (UNICHEM 7376)	Cone	Single		Concrete
139	Z81-T11		161	EMPTY TANK	Cone	Single		Soil/Gravel

Table 2: Other Materials Stored At Western Refining – Gallup Refinery

PRODUCT	MAXIMUM VOLUME	LOCATION
Antifreeze	12 55-gal drums	Whse[1] yard/Process area
Ethylene glycol	5 350-gal totes	SATs Unit/Whse Yard
Z Seal (ethylene glycol)	6 55-gal drums	VRU and Whse yard
Automatic Transmission Fluid	4 55-gal drums	Flammable Whse/Main Shops
Engine Oil	10 55-gal drums	Flammable Whse/Diesel Bldg
Turbine Oil	22 55-gal drums	Flammable Whse/Process Area
Hydraulic Oil	4 55-gal drums	Flammable Whse/FCCU
Gear Oil	8 55-gal drums	Flammable Whse/Process Area
Transformer Oil	5 55-gal drums	Flammable Whse/Process Area
Grease	>100 14-oz tubes	Flammable Whse/Process Area
Spindle Oil	2 55-gal drums	Flammable Whse/Process Area
Lube Oil	1,000-gal bulk tank	Gas Compressor Area
80 Octane Additive	4 55-gal drums	Whse Yard/Lab Storage
Isopropyl Alcohol	8 55-gal drums	Whse Yard/Platformer
Percholoroethylene	4 55-gal drums	Whse Yard/Platformer
Salt	50 50-lb sacks	Combustor/LE Whse
Salt	30 2,000-lb supersacks	Whse Yard/Treater Area
Salt	100,000-lb bulk storage	Boiler Area
Neutralizing Amine	400-gal bulk tank	Boiler Area
Anti Foam Agent	400-gal bulk tank	Boiler Area
Scale Inhibitor	400-gal bulk tank	Boiler Area
Biocide/bromocide	4,800 lbs	Whse Yard/Cooling Tower
Bioscrubber I	4 55-gal drums	Whse Yard/API Shed
Corrosion Inhibitor	10,000-lb bulk storage	Cooling Tower Area
Scale Dispersant	10,000-lb bulk storage	Cooling Tower Area
Bleach	1 300-gal tote	Whse Yard/Cooling Tower Area
HTH Tablets	6 10-gal pails	Whse Yard/Cooling Tower Area
Sulfuric Acid	50,000-lb bulk storage	Cooling Tower Area
Hydrofluroic Acid	50,000-lb bulk storage	Alkylation Unit
Potassium Hydroxide	5 300-gal totes	Whse Yard/Alky Unit
Potassium Hydroxide	20-tons bulk storage	Alky Unit/SATs
Potassium Hydroxide	15 2,000-lb sacks	Whse Yard/Alky Unit
Sodium Carbonate	10 55-lb bags	Flammable Whse/Alky Unit
Antifoam	10-gallons	Whse Yard/SATs
Methanol	2 400-gal totes	Whse Yard/SATs/Fuel Gas
Ammonium Thiosulfate	1 300-gal tote	Sulfur Recovery Unit (SRU)
Iron Chelate Mixture	2 3,500-gal bulk tanks	SRU
Merox	30 1-gal jugs	Whse/Treaters
Promoter	2 400-lb drums	Flammable Whse/FCCU

[1] Whse = warehouse

Table 2 (Continued): Other Materials Stored At Western Refining – Gallup Refinery

PRODUCT	MAXIMUM VOLUME	LOCATION
Stabilizing Amine	500-gal bulk tank	FCCU
Corrosion Inhibitor	220-gal bulk tank	Crude Unit
Corrosion Inhibitor	220-gal bulk tank	Crude Unit
Scale Inhibitor	500-gal bulk tank	Crude Unit
Neutralizing Amine	500-gal bulk tank	Crude Unit
Demulsifier	550-gal bulk tank	Crude Unit/Whse Yard
Xylene (Red Dye)	4 330-gal totes	Whse Yard/Loading Rack
Ethyl Hitech 3023	60,000-lb bulk tank	Loading Rack
Ethyl Mercaptan	2,000-lb bulk tank	Loading Rack
Pour Point Depressant	2,000-gal bulk tank	Tank Farm
T-3512	2 500-gal totes	Tank Farm/Whse Yard
DGS-105	3 500-gal totes	Tank Farm/Whse Yard

7.0 Sources and Quantities of Effluent & Waste Solids Generated at the Facility

The following processing units, systems, equipment, and categories are potential sources of wastewater effluent or waste solids generated at the refinery.

Sources of wastewater effluent are described in section 7.1. Most of these discharges are collected in the refinery process sewer system and flow to the new API separator. An exception is the boiler feedwater treatment system, which has a drainage line to Evaporation Pond No. 2, and can be routed either to the new API separator or to the Evaporation Pond No. 2. The Gallup Refinery is considering altering the routing of its cooling tower and boiler blowdowns to also have the option of sending these wastewaters directly to Evaporation Pond No. 2. In such an eventuality, samples of the cooling tower and boiler blowdown wastewaters will be collected and sampled for parameters to be specified by the OCD.

7.1 Wastewater

Boiler Feedwater Treatment System

Raw water is treated in this equipment in order to remove impurities before being supplied as feedwater to the refinery boilers. Wastewater containing dissolved solids is routinely discharged to Evaporation Pond No. 2 via in a dedicated drainage line from the water softening units and reverse osmosis (RO) units. This water can be diverted to pass through the new API separator.

This discharge typically ranges from 70,000 to 120,000 gallons per day.

Boilers

Five boilers are in service at the Refinery: two cogeneration boilers, two utility boilers, and one CO boiler. Wastewater containing dissolved solids is routinely discharged to the process sewer from these boilers.

This discharge typically ranges from 35,000 to 45,000 gallons per day.

Cooling Towers

Two cooling towers are in service at the Refinery. Wastewater containing dissolved solids and biocide residue is routinely discharged to the process sewer from this equipment.

This discharge typically ranges from 50,000 to 70,000 gallons per day.

Crude Unit

Two desalters at the crude distillation unit are used to remove impurities and water from crude oil. Wastewaters containing dissolved solids and trace hydrocarbons are routinely discharged to an air stripper and then to the process sewer from this equipment.

This discharge typically ranges from 25,000 to 40,000 gallons per day.

Naphtha Hydrotreater Unit (NHT)

One overhead accumulator drum at this processing unit is used to remove condensed water. Wastewater containing trace hydrocarbons is routinely discharged to the process sewer from this accumulator drum.

This discharge typically ranges from 600 to 800 gallons per day.

Alkylation Unit Scrubber

At the Alkylation Unit impurities and entrained water are removed from a gas stream. Wastewaters containing dissolved solids and trace hydrocarbons are intermittently discharged to the process sewer from this equipment.

This discharge typically ranges from 1,500 to 2,000 gallons per week.

Straight-Run Gasoline Treater Columns

A caustic wash column and a water wash column at this treater unit are used to remove impurities from an intermediate gasoline feedstock. Occasionally, the caustic solution must be replaced and, at that time, the spent solution is drained to the sewer. Wastewaters containing dissolved solids and trace hydrocarbons are intermittently discharged to the process sewer from the caustic wash column and routinely discharged from the water wash column.

This discharge typically ranges from 900 to 1,000 gallons per event when changing out the caustic wash solution, approximately 2 to 3 times per year.

Alkylate Treater Column

A caustic wash column at this treater unit is used to remove impurities from an intermediate gasoline feedstock. Occasionally, the caustic solution must be replaced and, at that time, the spent solution is discarded. Wastewater containing dissolved solids and trace hydrocarbons are intermittently discharged to the process sewer from this equipment.

This discharge typically ranges from 900 to 1,000 gallons per event when changing out the caustic wash solution, approximately 2 to 3 times per year.

KOH Treater Columns

Scrubber towers at these treater units are used to remove impurities from propane and butane product streams. Wastewater containing dissolved solids and trace hydrocarbons are routinely discharged to the process sewer from this equipment. The liquids are first held in a drum, wastewater is drained off, and floating hydrocarbons are pumped back to processing.

This discharge of wastewater typically ranges from 100 to 150 gallons per day.

Sulfur Recovery Unit (SRU)

At the SRU, sulfur compounds are recovered from refinery feedstocks and then converted into a wet solid. Wastewater from a rinsing operation and a belt press dewatering operation is routinely discharged to the process sewer. This wastewater contains dissolved solids and trace sulfur compounds.

This discharge typically ranges from 25,000 to 35,000 gallons per day, when this unit is in operation. This unit is typically on stand-by – it operates approximately two weeks a year.

Ammonium Thiosulfate Unit

This unit accepts high H2S and ammonia containing gas streams from the Amine and the Sour Water Stripper Units, and converts these into a useful fertilizer product, ammonium thiosulfate. Wastewater from the Sour Water Stripper containing ammonia, sulfides, and other trace hydrocarbons is routinely discharged to the sewer.

This discharge typically ranges from 25,000 to 35,000 gallons per day.

Storage Tanks

Numerous aboveground storage tanks are used within the refinery to store various products and intermediate feedstocks. Wastewater containing dissolved solids and trace hydrocarbons are occasionally drained from these tanks as bottom water or decanted water, and then discharged to the process sewer.

This discharge typically ranges from 1,800 to 2,500 gallons per day. Most of this discharge comes from the crude oil storage tanks.

7.2 Solid (Non-wastewater) Wastes

Sources of solid waste include the following. Most of these waste materials are generated intermittently and then removed, collected, containerized, and stored until shipped off-site for recycling or disposal.

Fluid Catalytic Cracking Unit (FCCU) Catalyst

A metallic (alumina) catalyst is used within the FCCU to convert hydrocarbon molecules. This catalyst is periodically replaced and the spent catalyst is stored in drums or supersacks until disposed at an off-site landfill. This material is a dry metallic solid and is non hazardous.

Approximately 350 to 450 tons of spent FCCU catalyst is generated each year.

Defluorinator Unit Catalyst

A metallic (alumina) catalyst is used within the Defluorinator Unit to remove trace fluorides from propane and butane products. This catalyst is periodically replaced and the spent catalyst is stored in supersacks until disposed at an off-site landfill. This material is a dry metallic solid and is non hazardous.

Approximately 600 to 900 tons of spent Defluorinator catalyst is generated each year.

Reforming Unit Catalyst

A metallic (platinum) catalyst is used in the Reforming Unit to treat hydrocarbon molecules. This catalyst is periodically replaced and the spent catalyst is recycled by an off-site metal recovery service. This material is a dry metallic solid and is shipped as a D018 hazardous waste due to the presence of trace benzene.
Approximately 10 to 15 tons of reformer catalyst is generated every one to two years.

Naphtha/Diesel Hydrotreating Units (NHT/DHT) Catalyst

Metallic catalysts are used in these treating units to treat hydrocarbon molecules. These catalysts are periodically replaced and the spent catalysts are recycled by an off-site metal recovery service. This material is a dry metallic solid and is shipped as a K171 hazardous waste.

Approximately 7 tons of naphtha hydrotreater catalyst and 10 tons of diesel hydrotreater catalyst are generated each year.

Spent Zinc Oxide Catalyst

A metallic (zinc) catalyst is used in the isomerization unit to treat hydrocarbon molecules. This catalyst is periodically replaced and the spent catalyst is recycled by an off-site metal recovery service. This material is a dry metallic solid and is non hazardous.

Approximately 2 to 3 tons of zinc oxide catalyst is generated every two years.

Sulfur Byproduct

An elemental sulfur byproduct is generated at the Sulfur Recovery Unit when it is in operation. This solid residue is stored in supersacks until shipped off-site for disposal at a landfill.

Approximately 45 tons of sulfur byproduct is generated each year.

Ammonium Thiosulfate Unit

This unit accepts high H2S and ammonia containing gas streams from the Amine and the Sour Water Stripper Units, and converts these into a useful fertilizer product, ammonium thiosulfate.

Approximately 2400 tons of ammonium thiosulfate products are generated each year, and is sold for use as fertilizer.

Vapor Recovery Unit (VRU) Used Seal Fluid

An air pollution control system is used to capture vapor emissions during tank truck loading. This system uses ethylene glycol as a seal fluid in a vacuum pump. Periodically, this fluid must be replaced.

Approximately 4200 gallons of used ethylene glycol is generated per year.

Heat Exchanger Bundle Cleaning Pad Oily Sludge

Heat exchanger bundles are occasionally cleaned in order to restore heat transfer performance. This cleaning activity is conducted within a concrete enclosure that incorporates a wastewater accumulation sump. Oily sediment and sludge may accumulate in the bottom of this sump. Wastewater overflows from this sump and is discharged into the process sewer.

The heat exchanger bundle cleaning sludge is a listed hazardous waste (K051) and is collected and contained in 55 gallon drums until disposed at an off-site hazardous waste disposal facility.

The quantity of this waste typically ranges from 1 to 3 tons per year.

Process Sewer System Sludge, Tank Bottom & API Separator Sludge

Sediment, sludge, and other debris can occasionally accumulate within the piping, junction boxes, and interceptor manholes that comprise the process sewer system. These materials are periodically removed via a vacuum truck and upon removal are classified as a hazardous waste (F037). These wastes are stored in a tank, until shipped off-site for disposal.

The quantity of this waste typically ranges from 1 to 5 tons per year.

API separator sludge is removed via vacuum trucks, stored in a tank and shipped off-site for disposal. This sludge ranges to about 500 tons/year.

Periodically, tank bottom sludge is cleaned out, stored in a tank and shipped off-site for disposal. This sludge ranges to about 50 tons per year.

Maintenance Shops

Most process equipment and mobile equipment is repaired and maintained at the refinery maintenance shops. Waste oils and antifreeze are collected in 55 gallon drums and recycled.

Approximately 2 drums of antifreeze and 4 drums of used motor oil are generated each year.

Quality Control Laboratory

Residual petroleum products are recycled in the refinery. Residual or expired reagents and other discarded chemicals are stored in lab packs until disposed off-site.

OCD Land Farms

Oily non hazardous solid waste is treated at the main on-site OCD-permitted land farm and a temporary land farm located in the NE-section of the Refinery.

The quantity of oily solid waste typically ranges from zero to 10 tons per year.

RCRA 90 Day Storage Pad

All hazardous wastes are stored at the RCRA 90 Day Storage (concrete) Pad until shipped off-site for recycling, treatment, or disposal. All hazardous wastes are placed in containers and stored on this dedicated concrete pad.

Aerosol Spray Cans

Most aerosol spray cans at the refinery contain paint. All aerosol spray cans that have been used up or that have been discarded for other reasons are collected and taken to the 90-day storage area, checked for contents,punctured and drained using an AEROSOLV can puncturing system over a 55-gallon drum.

Typically 200 to 350 aerosol spray cans are discarded each year.

Asbestos Containing Material (ACM)

Historically, asbestos containing materials have been used within the refinery for pipe and tank insulation. Occasionally, these materials must be removed and disposed as part of normal maintenance activities. All friable asbestos containing materials are abated in compliance with EPA and NMED regulations. These materials are put in drums and stored in a segregated and secure area specifically designated for ACM.

The quantity of ACM disposed each year is highly variable, and ranges from zero to as much as 50 cubic yards.

Lead/Acid Batteries

Discarded lead acid batteries are placed in a segregated area of the Mechanics Shop until shipped off-site for recycling.

The number of batteries discarded each year is highly variable and ranges from zero to as much as 50 units.

Spent Sand Blasting Media

Sand blasting is occasionally conducted at the refinery as part of normal maintenance activities. After repeated reuse, the sand grit becomes degraded and loses its abrasive action. When this occurs, the spent sand blasting media must be replaced. This material is then stored in drums or supersacks until disposed at an off-site landfill. This material is non hazardous.

The quantity of spent sand blasting media typically ranges from zero to 2 tons per year.

Naptha Hydro Treating Gasoline Filters

Used gasoline filters from the Naptha Hydro Treating unit are routinely generated. These are classified as hazardous wastes (D018), stored in a container and then shipped off-site to a permitted hazardous waste landfill.

Approximately, 10 cubic yards of these materials (loosely packed) are shipped off-site for disposal.

8.0 Description of Current Liquid & Solid Waste Collection / Storage / Disposal Procedures

The following procedures are used to manage the wastewater effluents and solid wastes that are generated within the refinery as described in Section 7.0.

Process Wastewater

Process wastewater is generated at various refinery processing units, storage tanks, utility systems, and maintenance activities as described in Section 7.0. This water is collected in a segregated sewer system located throughout the refinery processing and tankage areas. This collection system is substantially composed of concrete paving and curbing, concrete catch basins and trenches, and buried concrete and carbon steel pipe. Process wastewater flows by gravity to the API separator where solids, sludge, and floating scum are removed. From the API separator, the clarified effluent flows down to the benzene strippers and then on to the aerations basins and evaporation ponds. This wastewater is ultimately converted into vapor via solar and mechanical wind-effect evaporation.

Liquid wastewater is not discharged from the refinery and is held in the evaporation ponds. In an extreme eventuality of the ponds not being able to hold all the wastewater generated, a temporary discharge is being planned for along with other contingency measures. If faced with a need to discharge wastewater, Gallup Refinery will first attempt to build additional temporary evaporation ponds, pump water from downgradient ponds into upgradient ponds – if such measures are deemed inadequate, the wastewater will be treated using mobile treatment units to meet the standards based on all designated uses of downstream receiving waters, and then discharged. This discharge will be only from one of the ponds at most risk of overflowing, and will be limited to the extent required to prevent a catastrophic breach of pond dikes and an unplanned spill occurring.

The anticipated volume is assumed to be of the order of 100,000 gallons (enough to lower levels in the most at-risk pond by 0.5 feet) and extremely rare – perhaps once over a ten-year period. The wastewater will have no hazardous components and levels of all contaminants will be below regulatory standards.

Process Sewer System Sludge & API Separator Sludge

Oily sediment and sludge accumulates within the piping, junction boxes, and manholes of the process sewer system. This sludge is periodically removed using vacuum trucks and stored in a tank. Oily sediment and sludge also accumulates at the bottom of the API separator. The API separator's bottom sludge is removed via vacuum trucks, and stored in a tank.

Sewer system sludge and separator sludge is recycled as a feedstock to a petroleum coker at the Norco Refinery:

15536 River Road
Norco, LA 70079
EPA ID: LAD008186579

Storage Tank Bottom Sludge

Oily sludge accumulates at the bottom of storage tanks (e.g. crude oil, FCCU feed tanks). These tanks are periodically taken out of service and the sludge is removed, containerized, and shipped off-site for oil recovery, treatment, and disposal.

Tank bottom sludge is typically recycled as a feedstock to a petroleum coker at the Norco Refinery:

Motiva Enterprises, LLC – Norco Refinery
15536 River Road
Norco, LA 70079
EPA ID: LAD008186579

If this sludge is contaminated with heavy metals it is drummed and shipped off to the following facility:

Rinchem Co. Inc.
6133 Edith Blvd. NE
Albuquerque, NM 87107
EPA ID: NMD002208627

Heat Exchanger Bundle Cleaning Pad Sludge

Oily sludge accumulates at the bottom of the cleaning pad sump. At the conclusion of the exchanger cleaning operation, this sludge is removed, placed in 55 gallon drums, then shipped off-site for oil recovery, treatment, and disposal.

Heat exchanger sludge is typically incinerated or disposed at the following facility:

Rinchem Co. Inc.
6133 Edith Blvd. NE
Albuquerque, NM 87107
EPA ID: NMD002208627

Oily Non Hazardous Soil & Debris

Oily soil and debris is occasionally generated within the refinery due to maintenance activities, leaks, or spills. This material is collected, containerized, and then may either be treated at the OCD landfarm or shipped off-site for oil recovery, treatment, and disposal.

When sent off-site, oily soil and debris is typically disposed at either of the following facilities:

Waste Management of Arizona
Painted Desert Landfill
9001 North Porter Avenue
Joseph City, Arizona 86032
EPA ID: AZR05B244

Northwest New Mexico Regional Solid Waste Authority
101 Red Mesa Bluffs Drive
Thoreau, New Mexico 87323
Permit No. SWM-172203

We plan to add the following landfill to our current list –

San Juan County Regional Landfill
78 CR 3140
Aztec, NM 87410
87323
Permit No. SWM- 241102

Spent FCCU Catalyst

This material is a non hazardous dry solid that is stored in containers after removal from the FCCU and shipped off-site via truck.

Spent FCCU catalyst is typically disposed at either of the following facilities:

Waste Management of Arizona
Painted Desert Landfill
9001 North Porter Avenue
Joseph City, Arizona 86032
EPA ID: AZR05B244

Northwest New Mexico Regional Solid Waste Authority
101 Red Mesa Bluffs Drive
Thoreau, New Mexico 87323
Permit No. SWM-172203

Spent Reformer Catalyst

This material is a dry solid that is stored in containers after removal from the reformer. Occasionally it is regenerated in situ on-site and then reused in the reformer. On other occasions, it is shipped out via truck as a D018 hazardous waste and then reprocessed at an off-site facility.

When sent off-site, spent reformer catalyst is reprocessed at either of the following facilities:

Tricat, Inc.
Spent Catalyst Regeneration Facility
100 Taylor Blvd.
McAlester, OK 74501
EPA ID: OKD987097151

Multimetco, Inc.
1610 Frank Akers Road
Anniston, AL 36207
EPA ID: ALD980837959

Spent NHT/DHT Catalyst

This material is a dry solid that is stored in drums or supersacks after removal from the treater units. After removal, it is shipped out via truck as a K171 hazardous waste and recycled at an off-site facility.

When sent off-site, spent treater catalyst is recycled at either of the following facilities:

Tricat, Inc.
Spent Catalyst Regeneration Facility
100 Taylor Blvd.
McAlester, OK 74501
EPA ID: OKD987097151

Eurecat
13100 Bay Park Road
Pasadena, TX 77505
EPA ID: TXD06829963

Spent Defluorinator Catalyst

This material is a non hazardous dry solid that is stored in drums or supersacks after removal from the defluorinator.

Spent defluorinator catalyst is typically disposed at either the following facilities:

Waste Management of Arizona
Painted Desert Landfill
9001 North Porter Avenue
Joseph City, Arizona 86032
EPA ID: AZR05B244

Northwest New Mexico Regional Solid Waste Authority

101 Red Mesa Bluffs Drive
Thoreau, New Mexico 87323
Permit No. SWM-172203

Zinc Oxide Catalyst

Spent zinc oxide catalyst from the isomerization unit is collected in supersacks and then shipped by truck to UNICAT Catalyst Technologies, Inc., the original product manufacturer, who then contracts with the following company for recycling and disposal of this material. This material is non hazardous.

Cameron Chemical Corporation
830 Old Dill Road
Suffolk, VA 23434

Alternatively, depending on costs of shipping and disposal, Western Refining may dispose of this material at the Northwest New Mexico Regional Solid Waste Authority in Thoreau.

SRU Sulfur Byproduct

This material is a non hazardous wet solid that is drained and stored in supersacks after being generated at the SRU.

Sulfur byproduct is typically disposed at either the following facilities:

Waste Management of Arizona
Painted Desert Landfill
9001 North Porter Avenue
Joseph City, Arizona 86032
EPA ID: AZR05B244

Northwest New Mexico Regional Solid Waste Authority
101 Red Mesa Bluffs Drive
Thoreau, New Mexico 87323
Permit No. SWM-172203

Mercury Contaminated Waste Materials

Fluorescent light bulbs, instrument contents, and laboratory waste that contains mercury is handled as a D009 hazardous waste and is typically transported via truck and recycled at:

Recyclights
405 W. 86th Street
Minneapolis, MN 55420
EPA ID: MND000903463

Excess or off-spec chemicals

These materials are typically generated at the quality control laboratory and then placed in lab pack disposal containers. These lab packs are typically disposed by using Rinchem.

Rinchem Co. Inc.
6133 Edith Blvd. NE
Albuquerque, NM 87107
EPA ID: NMD002208627

Asbestos Containing Material

The materials are regulated as a special waste and are stored in doubled plastic bags and then disposed at Keers Environmental.

Keers Environmental, Inc.
Disposal Site
Mountainair, NM 87036
EPA ID: NMD147273528

Cooling Tower Sludge and Salt

This material is generated in the cleaning of cooling towers and contains primarily sodium and chloride. This material is non hazardous and non-detect for TCLP metals. Western Refinery disposes this material at a local landfill.

Northwest New Mexico Regional Solid Waste Authority
101 Red Mesa Bluffs Drive
Thoreau, New Mexico 87323
Permit No. SWM-172203

9.0 Description of proposed modifications to existing collection/treatment/disposal system.

Liquid wastewater is not discharged from the refinery and is held in the evaporation ponds. In an extreme eventuality of the ponds not being able to hold all the wastewater generated, a temporary discharge is being planned for along with other contingency measures. If faced with a need to discharge wastewater, Gallup Refinery will first attempt to build additional temporary evaporation ponds, pump water from downgradient ponds into upgradient ponds – if such measures are deemed inadequate, the wastewater will be treated using mobile treatment units to meet the standards based on all designated uses of downstream receiving waters, and then discharged. This discharge will be only from one of the ponds at most risk of overflowing, and will be limited to the extent required to prevent a catastrophic breach of pond dikes and an unplanned spill occurring. Discharge is anticipated to be from Pond 5 which feeds into Pond 6 (which is one of the most downgradient and at-risk ponds). The water quality in Pond 5 is better than in Pond 6. From evaporation, wastewater in Pond 6 begins to build higher levels of salts, etc.

More details of the proposed modification, including discharge location, are provided in the attached NPDES permit application.

The anticipated volume of discharge is assumed to be of the order of 100,000 gallons (enough to lower levels in the most at-risk pond by 0.5 feet) and extremely rare – perhaps once over a ten-year period. The wastewater will be treated to have no hazardous components and levels of all contaminants will be below regulatory standards. The discharge location and nearby surface water drainages and ponds are shown in Figures 4 and 5.

10.0 Routine inspection and maintenance plan to ensure permit compliance.

Refinery personnel and contractors routinely conduct inspection, maintenance, and repair of all processing units, systems, tanks, equipment, instrumentation, valves, piping, and other items necessary for the continued operation of the refinery. Some of these activities are conducted under the auspices of applicable regulations (e.g. 29 CFR 1910.119 – OSHA Process Safety Management Standard) and involve detailed recordkeeping and reporting. Specific procedures that relate to sources of liquid effluent and solid waste are described as follows.

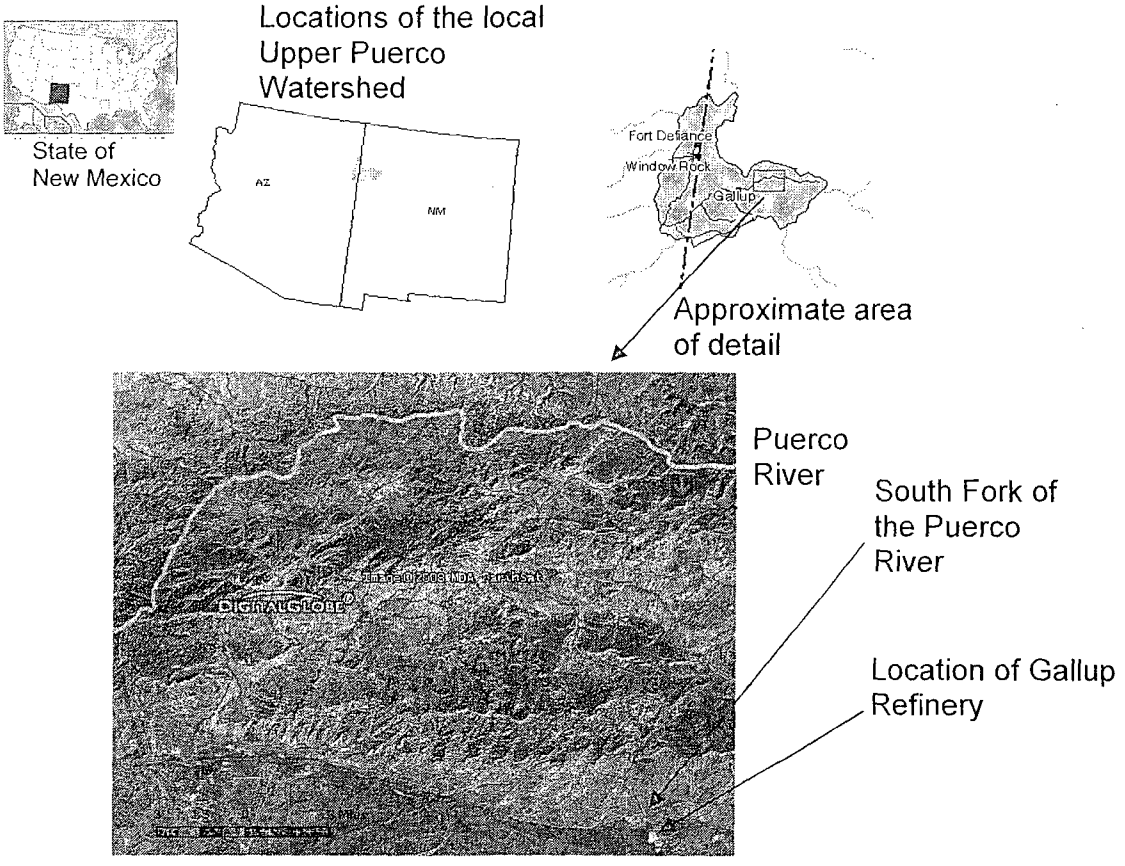


Figure 4: Regional scale: Flow lines and major surface water bodies (from: EPA Enviromapper - http://map24.epa.gov/EMR/?ZoomToWatershed=15020006) North is towards the top of the page.

Proposed emergency discharge point

Figure 5: Localized scale: Flow lines and major surface water bodies (from: EPA Enviromapper - http://map24.epa.gov/EMR/?ZoomToWatershed=15020006) North is towards the top of the page. Discharge would enter an unnamed arroyo and flow to the South Fork of the Puerco River.

Process Wastewater Collection System

Paving, curbing, catch basins, and trenches are routinely inspected for integrity. Previously, a video inspection technique was used to examine sewer system piping and components. As required by OCD, Western Refining has now begun utilizing the pressure test technique to verify the integrity of sewer system components. Western Refining conducts this pressure testing in increments of 20% per year over the next 5 years, until the entire system has been checked. The 20% increment will be based on nominal sewer pipe length and Western refining has tested the most important sections first. This test program uses OCD methodology and criteria.

The API separator is emptied and inspected regularly. If a crack or seam failure is discovered, it is repaired before placing the API separator back in service. A secondary containment and leak detection system is installed and inspected weekly.

The benzene strippers are inspected periodically. During major maintenance, the packing is removed. At this time, the stripper vessels are emptied and internally inspected. If needed, repairs are made before placing the strippers back in service.

Refinery operations personnel routinely conduct visual surveillance of process areas and monitor the integrity of concrete paving, curbing, catch basins, and trenches. Problems with containment systems are reported to the maintenance department for repair.

Storm Water Collection System

Storm water system "Best Management Practices" are described in detail in the Storm Water Pollution Prevention Plan (SWPPP) provided separately to the OCD.

Storage Tanks, Petroleum, and Chemical Storage Areas

Refinery Operations, Warehouse, Safety, Environmental, Technical Services, and Laboratory Field personnel routinely conduct visual surveillance of storage areas and monitor the integrity of containment and check for leakage or other problems. All incidents and near-misses are reported to refinery management for follow-up action and response. Additional information is included in the refinery ICP and SPCC.

11.0 Contingency Plan for Reporting and Clean-up of Spills or Releases

The Gallup Refinery has developed, implemented, and is currently utilizing an Integrated Contingency Plan (ICP) as described in the Federal Register Notice "The National Response Team's Integrated Contingency Plan Guidance (One Plan)" dated June 5, 1996 (Volume 61, Number 109, pages 28641 – 28664). This document describes the recommended method for developing and adopting a comprehensive and integrated contingency plan for complying with the numerous and overlapping safety and environmental requirements of OSHA, DOT, EPA, USCG, RSPA and other federal and state regulations. This includes the following regulations.

- EPA Spill Prevention, Control, & Countermeasures Plan (40 CFR Part 112.7)
- EPA Facility Response Plan (40 CFR Parts 112.20 & 112.21)
- EPA Risk Management Program (40 CFR Part 68)
- EPA Contingency Planning Requirements (40 CFR Parts 264, 265, & 279.52)
- USCG Facility Response Plan (33 CFR Part 154, Subpart F)
- DOT/RSPA Pipeline Response Plan (49 CFR Part 194)
- DOT Emergency Response Plans (49 CFR Parts 130 & 172)
- OSHA Process Safety Management Standard (29 CFR 1910.119)
- OSHA Emergency Action Plan (29 CFR 1910.38)
- OSHA Training & Response Requirements (29 CFR 1910.120)
- NMED/OCD Emergency Response Requirements

Included within the ICP is a plan for addressing Spill Prevention, Control, and Countermeasures (SPCC) as required by the Oil Pollution Act (40 CFR Part 112.7). The requirements of the ICP and SPCC encompass and comply with the requirements of NMOCD Rule 116 and WQCC Section 1203.

In addition, a Storm Water Pollution Prevention Plan (SWPPP), as required by Clean Water Act NPDES Multi-sector General Permit requirements, has been developed and implemented.

12.0 Geological/hydrological information for facility. Include depth to groundwater and quality of groundwater)

The Gallup Refinery is located within a rural and sparsely populated section of McKinley County. The setting is a high desert plain on the western flank of the continental divide. The surrounding land is comprised primarily of public lands and is used for cattle and sheep grazing at a density of less than six cattle or 30 sheep per section. Surface vegetation predominantly consists of native grasses, shrubs, cacti, and small trees. Average rainfall is less than 7 inches per year.

Local topography consists of a gradually inclined downslope from high ground in the southeast to a lowland fluvial plain in the northwest. The highest point on refinery property is located at the southeast corner boundary (elevation approximately 7,040 feet) and the lowest point is located at the northwest corner boundary (elevation approximately 6,860 feet). The refinery processing facility is located on a flat man-made terrace at an elevation of approximately 6,950 feet.

Surface water in this region predominantly consists of the man-made evaporation ponds and aeration basins located within the refinery, a cattle watering pond (Jon Myer's Pond) located east of the refinery, two small unnamed spring fed ponds located south of the refinery, and the South Fork of the Puerco River and its tributary arroyos. The various ponds and basins typically contain water consistently throughout the year. The South Fork of the Puerco River and its tributaries are intermittent and generally contain water only during and immediately after the occurrence of precipitation.

The 810 acre refinery property site is located on a layered geologic formation. Surface soils generally consist of fluvial and alluvial deposits; primarily clay and silt with minor inter-bedded sand layers. Below this surface layer is the Chinle Formation, which consists of very low permeability claystones and siltstones that comprise the shales of this formation. As such, the Chinle Formation effectively serves as an aquiclude. Inter-bedded within the Chinle Formation is the Sonsela Sandstone bed, which represents the uppermost potential aquifer in the region.

The Sonsela Sandstone bed lies within and parallels the dip of the Chinle Formation. As such, its high point is located southeast of the refinery and it slopes downward to the northwest as it passes under the refinery. Due to the confinement of the Chinle Formation aquiclude, the Sonsela Sandstone bed acts as a water-bearing reservoir and is artesian at its lower extremis. Artesian conditions exist throughout the central and western portions of the refinery property.

Groundwater flow within the Chinle Formation is extremely slow and typically averages less than 10^{-10} centimeters per second (less than 0.01 feet per year). Groundwater flow within the surface soil layer above the Chinle Formation is highly variable due to the presence of complex and irregular stratigraphy; including sand stringers, cobble beds, and dense clay layers. As such, hydraulic conductivity may range from less than 10^{-2} centimeters per second in the gravelly sands immediately overlying the Chinle Formation up to 10^{-8} centimeters per second in the clay soil layers located near the surface.

Shallow groundwater located under refinery property generally flows along the upper contact of the Chinle Formation. The prevailing flow direction is from the southeast and toward the northwest; however, a subsurface ridge has been identified and is thought to deflect some flow in a northeasterly direction in the vicinity of the refinery tank farm.

Items Specifically Requested in the OCD Guidance Document

Section A – Hydrologic/Geologic Information

1. Provide the name, description, and location of any bodies of water, streams, or other watercourses; and groundwater discharge sites within one mile of the outside perimeter of the facility. For water wells, locate wells within one-quarter mile of the outside perimeter of the facility and specify use of water.

The following water bodies are located within one mile of the outside perimeter of the refinery.

Aeration Basins

The aeration basins are shown on the plant site drawing in Appendix A.

Evaporation Ponds

The evaporation ponds are shown on the plant site drawing in Appendix A.

Storm Water Retention Areas

The storm water retention areas are shown on the plant site drawing in Appendix A.

The South Fork of the Puerco River & its Tributaries

The South Fork of the Puerco River and its tributary arroyos are shown in Figure 4.

Jon Myer's Pond (NE 1/4, Section 34, T15N, R15W)

Jon Myer's Pond is located approximately one mile east of the plant site and is shown in Figure 5. This pond is a source of water for cattle.

Unnamed Ponds (NW 1/4, Section 4, T14N, R15W)

These unnamed ponds are located approximately 1/4 mile south of Interstate 40 and are shown on the topographical map in Section 3.0.

Unnamed Artesian Surface Seep (south of Pond 9)

A small marshy area is located south of Evaporation Pond No. 9. This marsh results from a surface seep of artesian water from the Sonsela Sandstone Bed.

2. Provide the depth to and total dissolved solids concentration of the groundwater most likely to be affected by any discharge. Include the source of information and how it was determined. Provide a recent water quality analysis of the groundwater, if available, including name of analyzing laboratory and sample date.

In this permit application, shallow groundwater is defined to be groundwater that lies above the Chinle Formation aquiclude. Shallow groundwater is the groundwater most likely to be

affected by any discharge at the refinery, and also by the extremely rare intermittent discharge to a surface drainage.

Shallow groundwater located under the refinery is irregular, intermittent, and frequently discontinuous. As such, it represents an unreliable and unpredictable potential water source, and consequently is not extracted for beneficial use in this region.

Due to irregular surface topography and the inclined nature of the Chinle Formation, depth to groundwater is highly variable in the vicinity of refinery property. Groundwater may be encountered in as little as 1 foot below ground surface in the marsh area south of Pond 9 and as much as 180 feet below ground surface at the northwest corner of the refinery.

Sampling and analysis of shallow groundwater has been ongoing at the refinery since the mid 1980's and this data has been supplied to OCD in the annual groundwater reports.

3. Provide the following information and attach or reference source information.

   a. Soil type(s)

      Soil types vary from fine sands at the southeast boundary of the refinery to highly plastic clays located at the northwestern boundary of the refinery.

      This information was obtained from the Natural Resources Conservation Service McKinley County Soil Map. Figure 6 provides a map of soils in the refinery area.

   b. Name of aquifer(s)

      The uppermost useable aquifer is the SONSELA SANDSTONE BED located within the PETRIFIED FOREST MEMBER of the CHINLE FORMATION. Mr. Bill Kingsley, P.E, supplied this information.

   c. Composition of aquifer material

      The Sonsela Sandstone Bed is composed of sandstone. This information is from numerous drilling logs. Copies of these logs have been provided separately to the OCD.

   d. Depth to rock at base of alluvium

      Bedrock depth ranges from exposed to over 85 feet below ground surface at the northwest corner boundary.

4. Provide information on:

   a. The flooding potential at the discharge site with respect to major precipitation and/or run-off events

      The alluvial flatlands located at the north, northwestern, and western sections of the refinery are located within a flood plain as shown on the FEMA maps.

   b. Flood protection measures

      The evaporation ponds are protected against flood impacts by the minimum 8 foot high earthen berms which form the containment of the ponds.

Section B – Additional Information

1. Provide stratigraphic information including formation and member names, thickness, lithologies, lateral extent, etc.
   A stratigraphic profile diagram of the refinery site is provided in Appendix A.

2. Provide generalized maps and cross-sections.
   A plant site drawing is provided in Appendix A and a stratigraphic profile diagram of the refinery site is provided in Appendix A.

3. Provide potentiometric maps for aquifers potentially affected.
   A potentiometiic map of the Chinle/Alluvium water bearing zone is provided in Appendix A.

4. Provide porosity, hydraulic conductivity, storativity and other hydrologic parameters of the aquifer.

Porosity	10 - 20 percent
Conductivity	0.01 - 0.05 cm/s

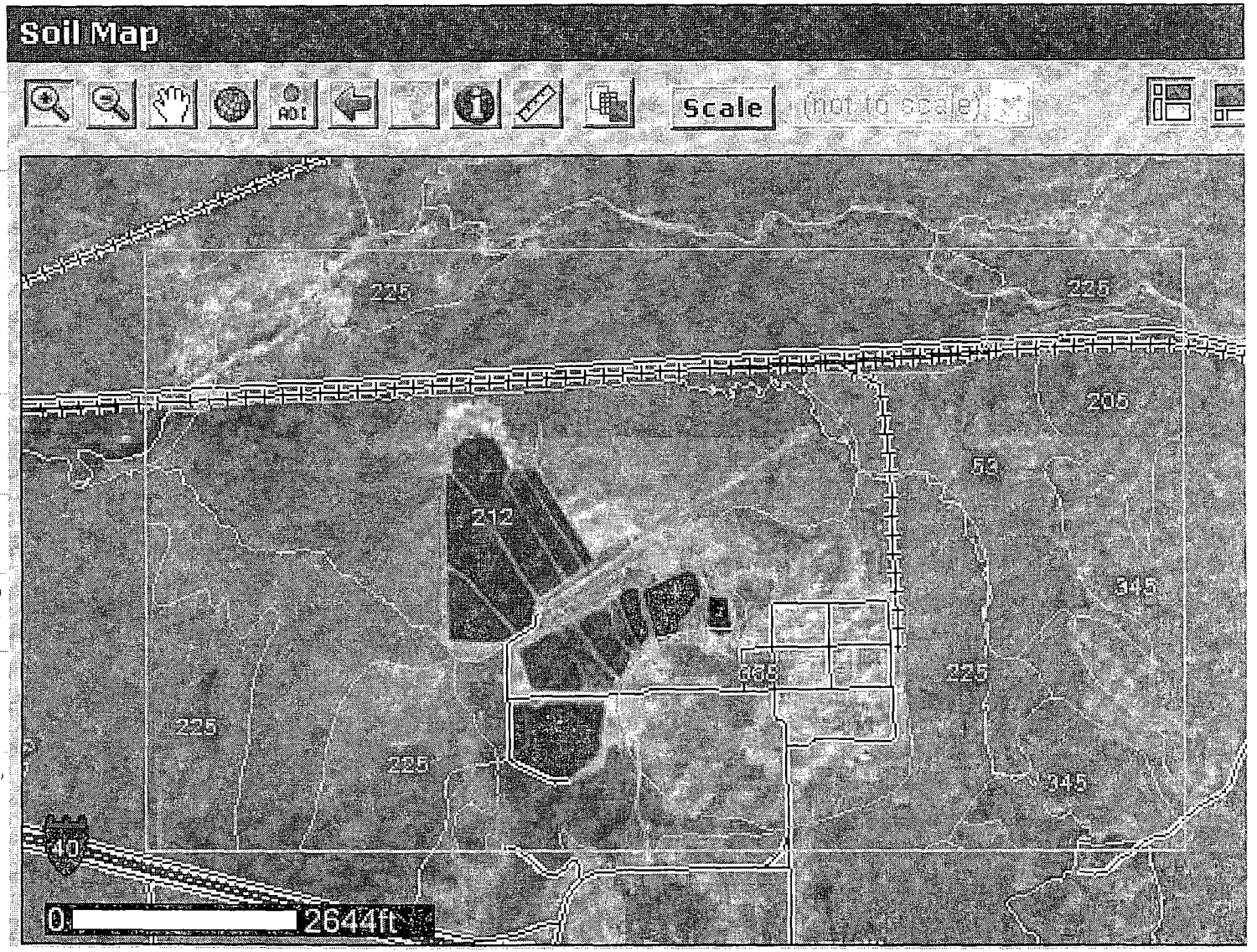
5. Provide specific information on the water quality of the aquifer.
   Sampling and analysis of shallow groundwater has been ongoing at the refinery since the mid 1980's and this data has been supplied to OCD in the annual groundwater reports.

6. Provide information on expected alteration of contaminants due to sorption, precipitation or chemical reaction in the unsaturated zone, and expected reactions and/or dilution in the aquifer.

   The predominant type of contaminant at the refinery is petroleum hydrocarbons.

   Petroleum hydrocarbons are easily adsorbed onto soil particles and tend to remain in the interstitial voids until washed out by precipitation or consumed by microorganisms.

   Petroleum hydrocarbons do not tend to react with soil particles.



Symbol	
53	Hawaikuh clay loam, 0 to 2 percent slopes
205	Penistaja-Tintero complex, 1 to 10 percent slopes
212	Rehobeth silty clay loam, 0 to 1 percent slopes
225	Aquima-Hawaikuh silt loams, 1 to 5 percent slopes
308	Fikel-Venzuni complex, 1 to 6 percent slopes
336	Nuffel-Venadito complex, 1 to 3 percent slopes
345	Rock outcrop-Tuces complex, 20 to 70 percent slopes
352	Zia sandy loam, 1 to 5 percent slopes

Figure 6: Soils in the Refinery Area

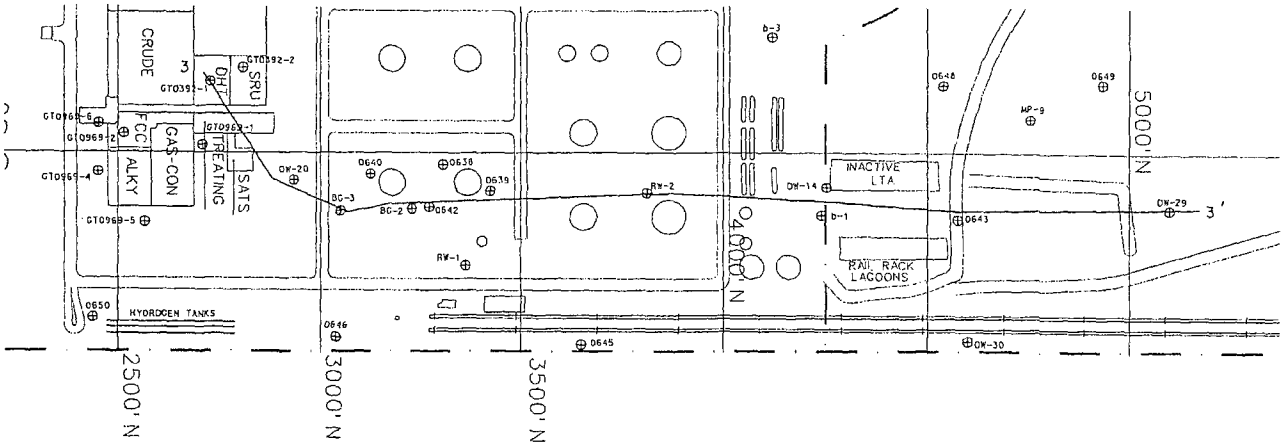
13.0 Facility Closure Plan to Demonstrate Compliance with OCD Rules, Regulations, and/or Orders.

The Gallup Refinery was constructed in 1957 and has been in continuous operation since that time. Over the years, various releases of petroleum-based products and other materials have occurred, largely as a result of minor spills, equipment leaks, waste treatment activities, and from former impoundments and disposal sites. As a result, surface soil, subsurface soil, and groundwater has been impacted at various locations and over various time periods spanning the past 46 years. All of the impacted areas have been classified as Solid Waste Management Units (SWMUs) and identified.

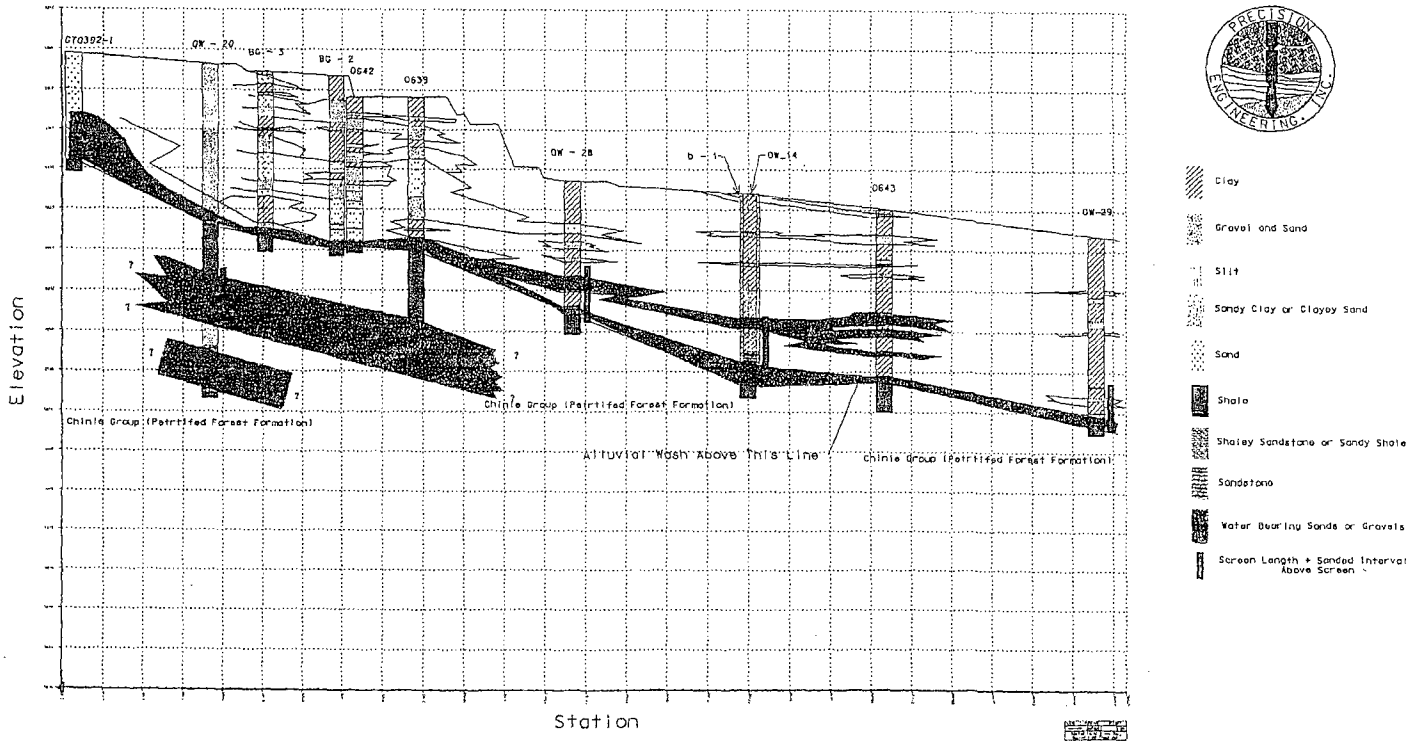
Some sources of prior contamination are still in the process of investigation or remediation, and consequently may represent a continuing source of release. An example of this is the Tank Farm. Although the original source of the release (a hole in a storage tank bottom) has been repaired, residual hydrocarbons are present in the soil and groundwater located under the Main Tank Farm. A hydrocarbon recovery system has been installed and is continuing to operate. Another example is the Railroad Rack Lagoon and Fan-out Area. This former retention pond was taken out of service in the 1980's and no longer receives wastewater from the Railcar Loading Rack. Corrective action is being implemented to remove and treat oily sludge from the lagoon and the site will be closed in 2009 upon completion of the clean-up plan.

A Corrective Measures Implementation plan is being developed for clean closure of two aeration basins at the Refinery. These will be cleaned when a new wastewater treatment system is built and begins to operate.

APPENDIX A



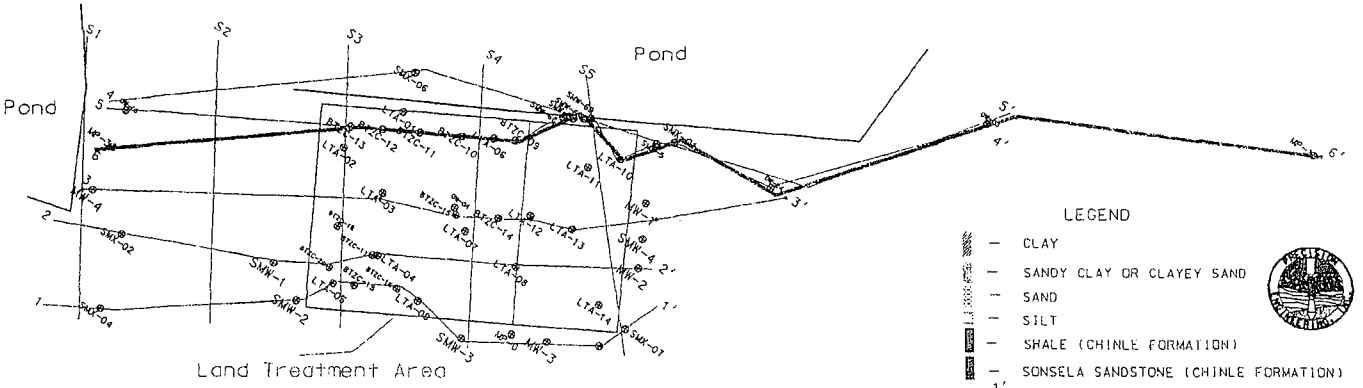
Profile 3 - 3'



PRECISION ENGINEERING, INC.

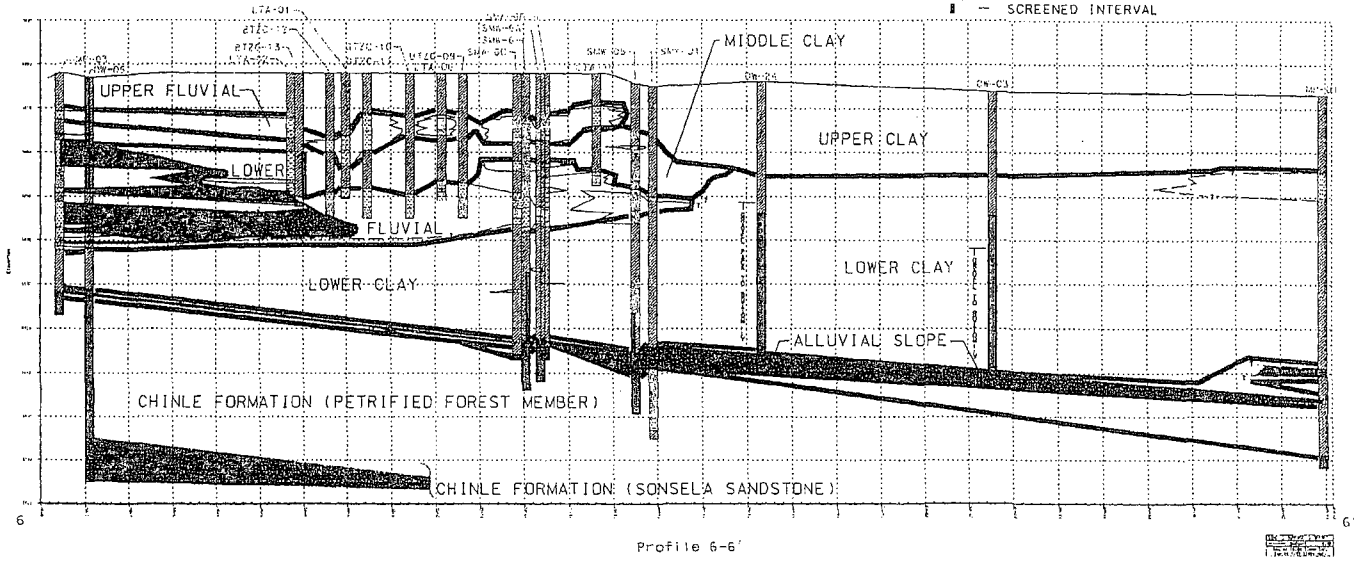
- Clay
- Gravel and Sand
- Silt
- Sandy Clay or Clayey Sand
- Sand
- Shale
- Shaley Sandstone or Sandy Shale
- Sandstone
- Water Bearing Sands or Gravels
- Screen Length + Sanded Interval Above Screen

North - South Section Westerly Plant Area



LEGEND

- CLAY
- SANDY CLAY OR CLAYEY SAND
- SAND
- SILT
- SHALE (CHINLE FORMATION)
- SONSELA SANDSTONE (CHINLE FORMATION)
- PROFILE LINE
- WATER BEARING ZONE
- SCREENED INTERVAL



Profile 6-6'

REFERENCE DRAWINGS

APPENDIX - D
PERIMETER FENCE EVACUATION POINTS

AERATION LAGOONS

1

AL2

AL1

POND 2

POND 3

Z91-DE10

Z84-P19

Z84 X-XX

Z86-P2

Z84-T27

Z84-T28

WASTE WATER TANKS

ENV. STUDY SHED

ENV. STUDY SHED

Z84-T30 Baker tank

API SEPARATORS

Z84-T6 (EAST)
Z84-T5 (WEST)

BENZENE STRIPPERS Z84-V4 Z84-V5

ANALYZER BLDG.

Z85-V2

Old API

Z84-T105

Z85-V3 (FL-1)

API PERMITS BLDG.

GATE #6

DRUM STRG.

TK-915

CONTAINMENT PAD

FIRE TRAINING AREA

SALVAGE STOCK YARD

GATE #7

WALK THROUGH GATE #7A

RAILROAD

GATE #8

TP 33

TF 11

MCC 11.1 MAIN N5

RAILCAR LOADING RACK

TEL BUILDING

GATE #9

573

337 344 345 583 339 225 226 1003 1004

554 555 556 557 560 561 446 447 448 563 562 564 565

579 574 576 577 575 581 582

338 567 115 116 111 112 235 231 106 232 107 108 342 343 227 228 453 452 451 117

571 572

Z71 E1A&B 568 716 569 570

Z71-V2

101 102

GATE #5

Z86 T-2

Z86-T1

Z81-T16 Z81-T9 Z81-T7 Z81-T17 Z81-T1 Z81-T5

Z81-T14 Z81-T15 Z81-T8 Z81-T6

Z81-8106

Z88-V16 Z88-V17

BRSH PAD

FLAMMABLE WAREHOUSE

I & E SHOP

WICK SHOP

LUNCH

PIPE & WELDERS SHOP

BOILER HSE.

PWR DIST

DSL GEN BLDG

SWATT'S SWS-T1

TK-18570 TK-18571

Z83 CT-1 Z81-T11 Z83 TK-3

COOLING TOWERS Z83 CT-2

FL-EFG

TF6 TF15 TF16

SUB STATION

SR-T8 SR-T9 SR-T5 SR-T6 SR-T4 SR-T10 SR-T7

SRU SATS

ISOM DHT

TREATING

Q-T6

Q-T8

TK-7135

NHT CRUDE

BLND GAS PLAT

GAS-CON FCC ALKY

A-V61.1 A-V59

R.O. UNIT

Z-100-V2

FIRE TRUCKS AND AMBULANCE

MAIN CONTROL CENTER

ALKALATION CHANGE HOUSE

P-V19A,B,&C BULLETS

57 56

SYS 4,5,& 23

RENTAL EQUIPMENT YARD

FUEL OIL LOADING RACK

713

707 708 709 706 705 703 704 702 701 714

SAFETY BUILDING

GATE #10

WALK THROUGH GATE #10A

GUARD

GATE #11

CONTRACTORS WALK THROUGH GATE #10B

PROPANE

TRAINING

ENGINEERING

INSPECTION

DESIGN

ADMIN. BLDG.

EMPLOYEE & VISITOR PARKING

CONTRACTOR PARKING

AUTHORIZED ENTRANTS ONLY

SOUTH DOOR REGION ACCT. EVACUATION ROUTE

INBOUND TRANS. LANES

OUTBOUND TRANS. LANES

RETAINING WALL

GATE #4

GATE #3

GATE #2

914 906 905 910 903 911 907 909 902 901

WALK THROUGH GATE #2A

WALK THROUGH GATE #2B

WALK THROUGH GATE #1A

WHSE

WHSE YARD

TRANS / LAB

Change House

PFE FIRE LANE SCALE

GUARD HOUSE MAIN GATE #1

PFE ESD

PARKING AREA

FOAM TANK

MERCAPTAN

FOAM DRILLUGE

FIRE H20 SYSTEM

FIRE MONITOR

EXTERIOR SMOKING AREA

DRIVERS LOUNGE

GUARD

FIRE HYDRANT

LEGEND

REFINERY PERIMETER FENCE =

REFINERY AREA BERMS =

Western Refining
Gallup Refinery

FIGURE A.1
PLANT LAYOUT

REV.	REVISION DESCRIPTION	RFC No.	DATE
3	DRAWING UPDATE		10/09/09
2	DRAWING UPDATE		09/23/08
1	ISSUED		11/05/07

SCALE 1/128" = 1'-0" APRV'D.
DATE 11-11/98 APRV'D.
DRN. CLM 1 REV. 3
CHK'D. DWG NO. Z-01-126

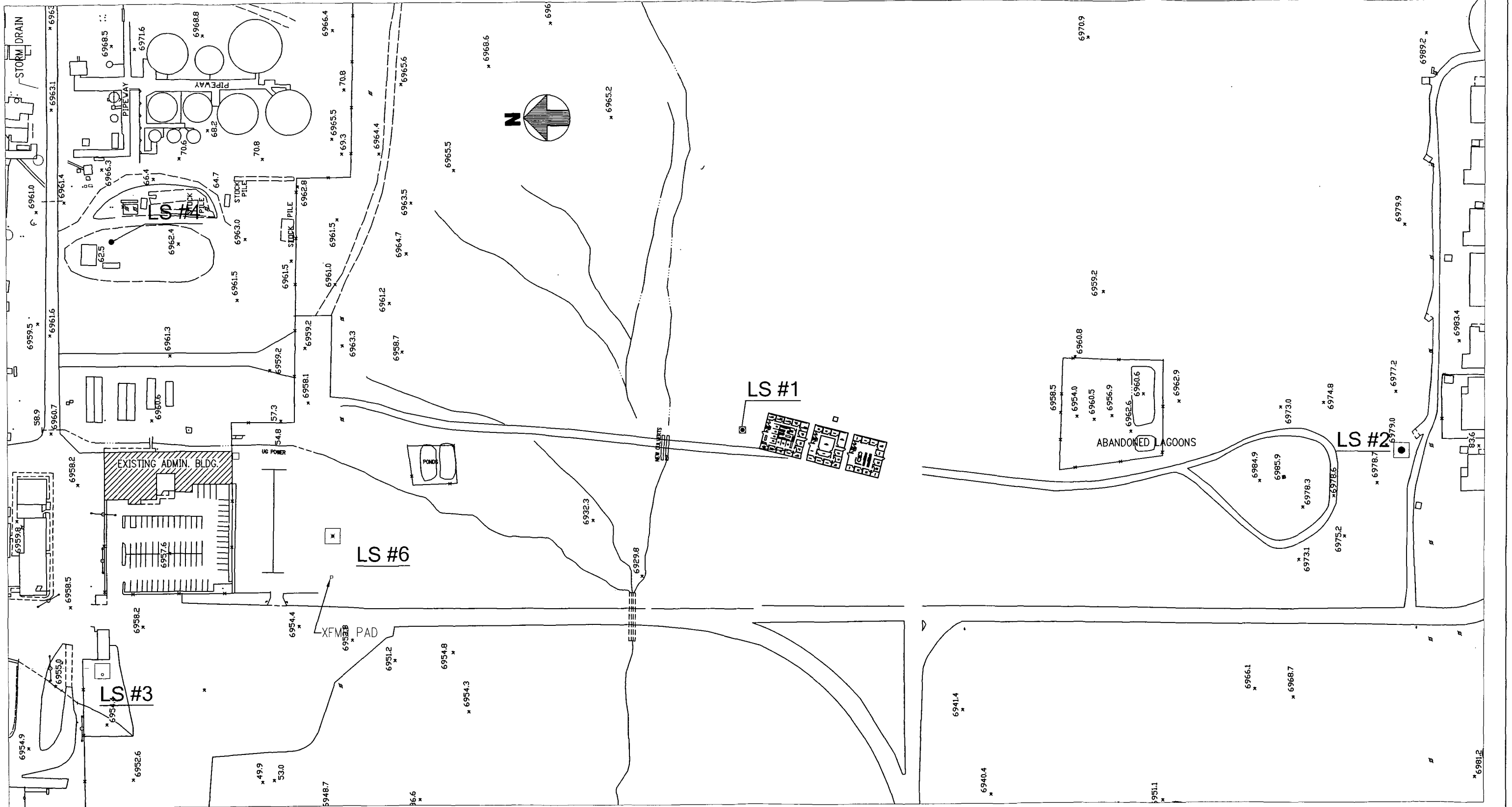
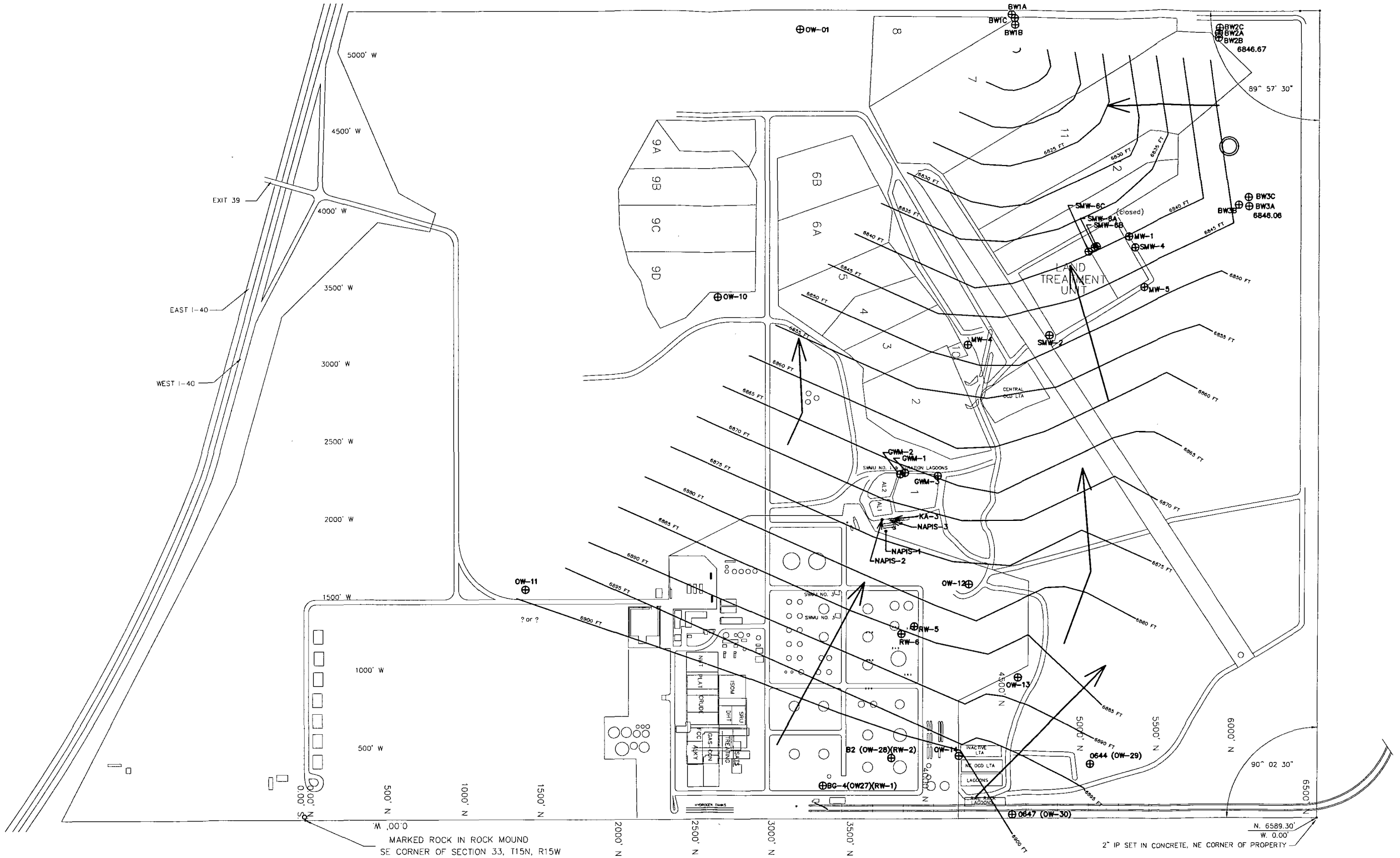


FIGURE A.2

Western Refining
Gallup Refinery

PROPOSED
OFFICE BUILDING/FIRE STA.
UTILITIES SITE PLAN

RFE No:		INSP/RT/UT:
DRN. BY: NLH	DATE:	WELD SPEC:
CHK'D. BY:	DATE:	PAINT:
APP'D. BY:	DATE:	CAD REF:
DRAWING NO.		SHEET 1 / REV



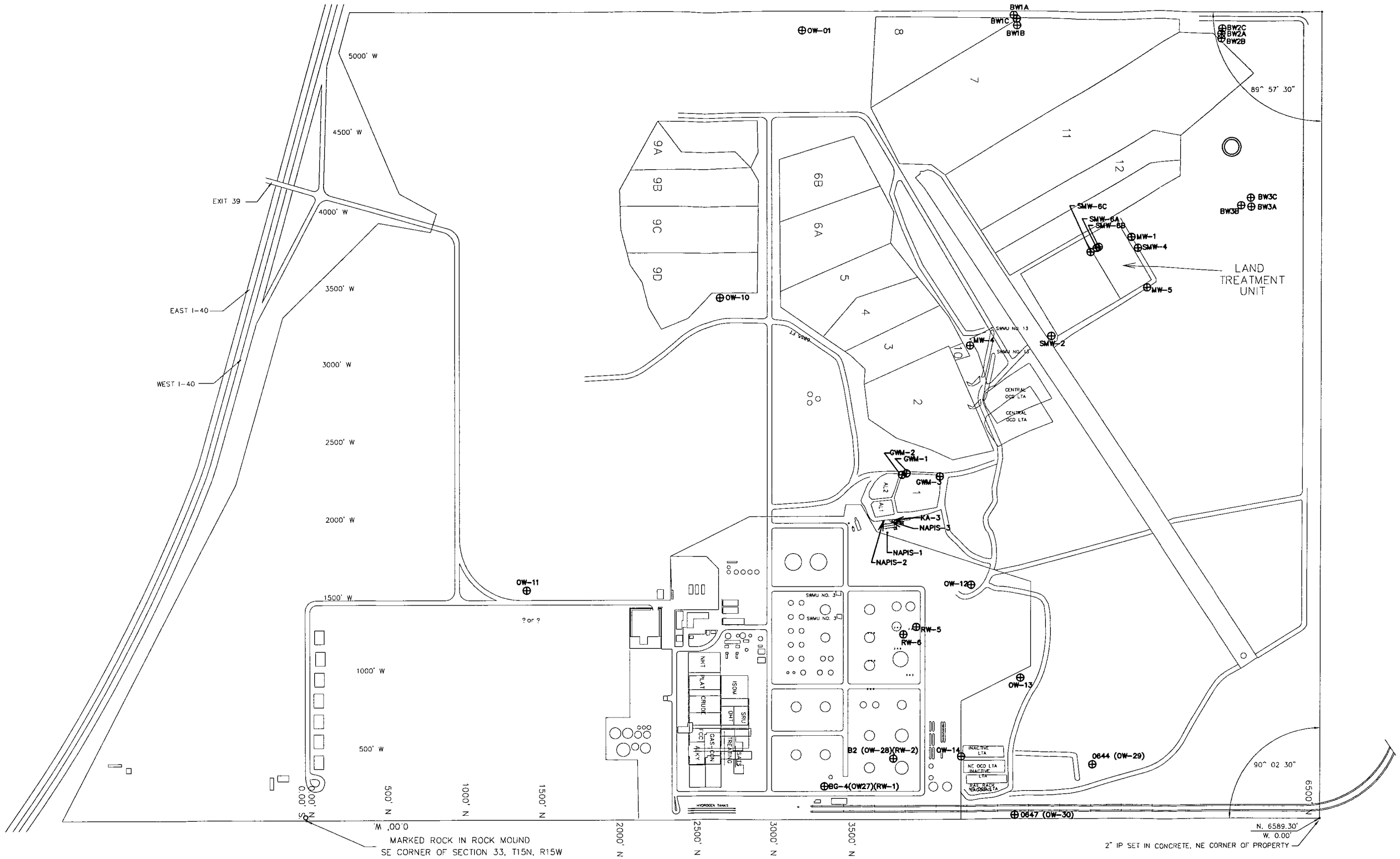
File 06-054

Figure A.3

Potentiometiric Map Showing Groundwater Elevations at the Chinle/Alluvium Interface July 2008

Western Refining
Gallup Refinery

Interstate 40, Exit 39
Jamestown, New Mexico 87347
Date: August 22, 2007

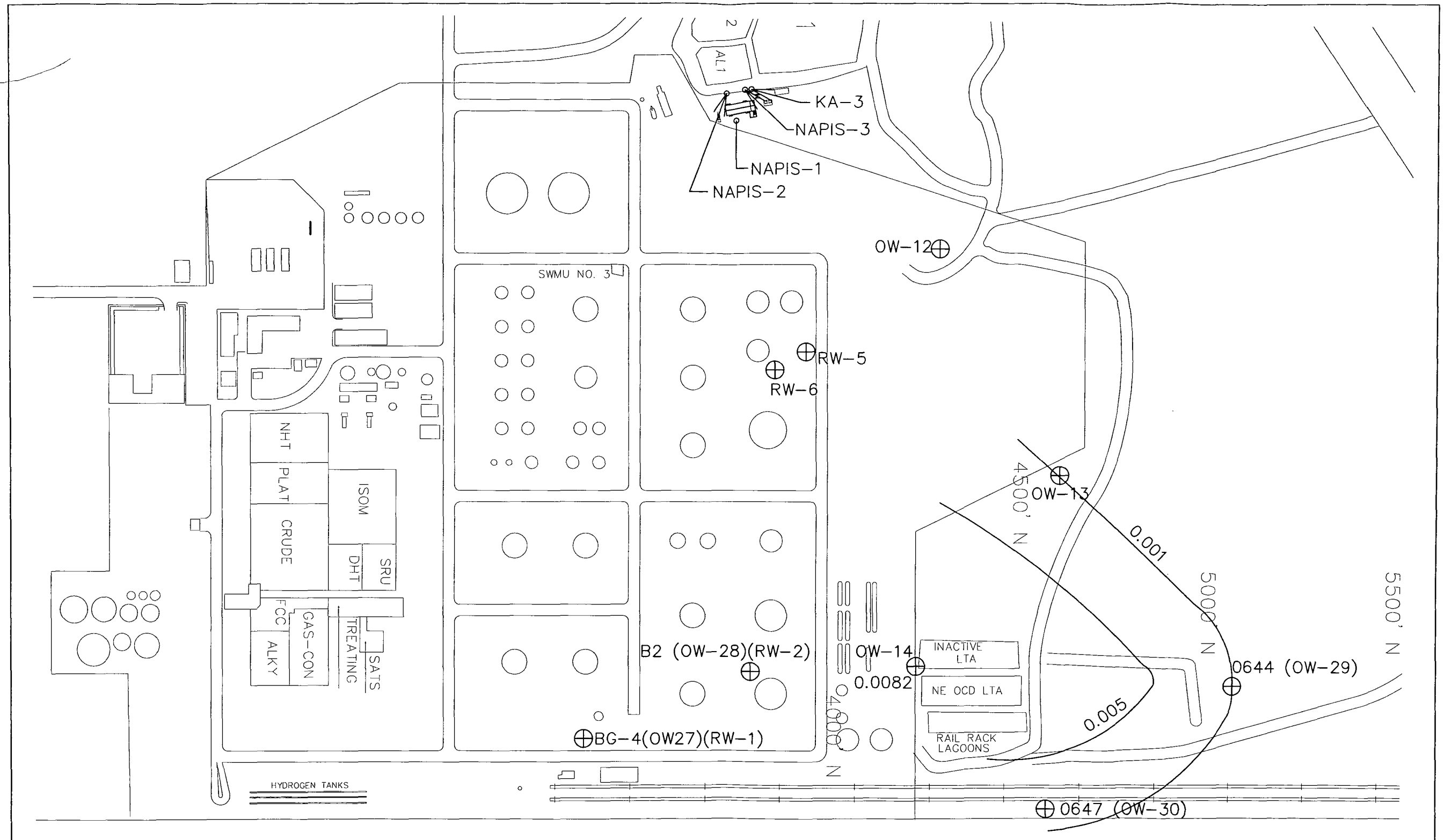


File 06-054

Figure A.4
Well Locations

Western Refining
Gallup Refinery

Interstate 40, Exit 39
Jamestown, New Mexico 87347
Date: August 22, 2007



File 06-054

Figure A.5
Benzene Iso Concentration Contours

Western Refining
Gallup Refinery

Interstate 40, Exit 39
Jamestown, New Mexico 87347
Date: August 22, 2007

Certified Mail 7008 2810 0000 4726 2007

October 30, 2009

Mr. Carl Chavez
Environmental Engineer
Oil Conservation Division
Environmental Bureau
1220 S. St. Francis Dr.
Santa Fe, NM 87505

Re: Discharge Permit "Modification" to Discharge (GW-032)
Western Refining Southwest – Gallup Refinery
McKinley County, New Mexico

Dear Mr. Chavez:

This letter and application are in response to your letter dated July 30, 2009 requesting a modification if WRSW seeks to discharge to the "Waters of the State". The attached major modification request application would be to allow discharges according to the NPDES application submitted to the EPA on June 25, 2009 and copied to OCD. A check of $4300 is enclosed as the permit review fee.

Please contact Ed Riege at (505) 722-0217 if you have any comments or questions regarding this submittal.

Sincerely,

Mark B. Turri

C: Willie Lane EPA Region 6 (letter only)
Ms. Hope Monzeglio
Ed Riege
Gaurav Rajen

Western Refining

6500 TROWBRIDGE DRIVE
EL PASO, TX 79905
(915) 775-3300

Check #: 10379052

Vendor #: 21686 Check Date: 08/25/09

Invoice Number	Invoice Date	Description	Gross	Discount	Net
CKRQ-08-12-09	08/12/09		4,300.00		4,300.00
			4,300.00		4,300.00

THE FACE OF THIS CHECK IS PRINTED BLUE - THE BACK CONTAINS A SIMULATED WATERMARK

Western Refining

6500 TROWBRIDGE DRIVE
EL PASO, TX 79905
(915) 775-3300

Bank of America
DALLAS, TEXAS
64-1278/611

10379052

VOID VOID VOID

Date: 08/25/09 Check No: 10379052 $*****4,300.00
Amount

Pay
FOUR THOUSAND THREE HUNDRED AND 00/100**********
To the Order of

New Mexico Oil Conservation Division
NM Water Quailty Managment
1220 South St Francis Dr
Santa Fe NM 87505

VOID VOID VOID

⑈10379052⑈ ⑆061112788⑆ 329 983 8344⑈

DATE IN	SUSPENSE	ENGINEER	LOGGED IN	TYPE	APP NO.

ABOVE THIS LINE FOR DIVISION USE ONLY

NEW MEXICO OIL CONSERVATION DIVISION
- Engineering Bureau -
1220 South St. Francis Drive, Santa Fe, NM 87505

ADMINISTRATIVE APPLICATION CHECKLIST

THIS CHECKLIST IS MANDATORY FOR ALL ADMINISTRATIVE APPLICATIONS FOR EXCEPTIONS TO DIVISION RULES AND REGULATIONS WHICH REQUIRE PROCESSING AT THE DIVISION LEVEL IN SANTA FE

Application Acronyms:

[NSL-Non-Standard Location] [NSP-Non-Standard Proration Unit] [SD-Simultaneous Dedication]
[DHC-Downhole Commingling] [CTB-Lease Commingling] [PLC-Pool/Lease Commingling]
[PC-Pool Commingling] [OLS - Off-Lease Storage] [OLM-Off-Lease Measurement]
[WFX-Waterflood Expansion] [PMX-Pressure Maintenance Expansion]
[SWD-Salt Water Disposal] [IPI-Injection Pressure Increase]
[EOR-Qualified Enhanced Oil Recovery Certification] [PPR-Positive Production Response]

[1] **TYPE OF APPLICATION** - Check Those Which Apply for [A]

[A] Location - Spacing Unit - Simultaneous Dedication
☒ NSL ☐ NSP ☐ SD

Check One Only for [B] or [C]

[B] Commingling - Storage - Measurement
☐ DHC ☐ CTB ☐ PLC ☐ PC ☐ OLS ☐ OLM

[C] Injection - Disposal - Pressure Increase - Enhanced Oil Recovery
☐ WFX ☐ PMX ☐ SWD ☐ IPI ☐ EOR ☐ PPR

[D] Other: Specify __Intermittent surface water discharge NPDES permit application

RECEIVED OCD
2009 NOV -5 P 2:28

[2] **NOTIFICATION REQUIRED TO:** - Check Those Which Apply, or ☐ Does Not Apply

[A] ☐ Working, Royalty or Overriding Royalty Interest Owners

[B] ☐ Offset Operators, Leaseholders or Surface Owner

[C] ☒ Application is One Which Requires Published Legal Notice

[D] ☐ Notification and/or Concurrent Approval by BLM or SLO
U.S. Bureau of Land Management - Commissioner of Public Lands, State Land Office

[E] ☐ For all of the above, Proof of Notification or Publication is Attached, and/or,

[F] ☐ Waivers are Attached

[3] **SUBMIT ACCURATE AND COMPLETE INFORMATION REQUIRED TO PROCESS THE TYPE OF APPLICATION INDICATED ABOVE.**

[4] **CERTIFICATION:** I hereby certify that the information submitted with this application for administrative approval is **accurate** and **complete** to the best of my knowledge. I also understand that **no action** will be taken on this application until the required information and notifications are submitted to the Division.

Note: Statement must be completed by an individual with managerial and/or supervisory capacity.

Mark B. Turri	Mark B Turri	Refinery Manager	10/30/09
Print or Type Name	Signature	Title	Date

MARK.TURRI@WNR.com
e-mail Address

NPDES DISCHARGE PERMIT NOTICE
(per NMAC 20.6.2.3108)

1. Name and Address of Proposed Discharger-

   Western Refining Southwest, Inc (Gallup Refinery)
   Rt. 3 Box 7
   Gallup, NM 87301

2. Location of the discharge, including street address, if available, and sufficient information to locate the facility with respect to surrounding landmarks

   I-40 / Exit 39 Jamestown, NM 87347; SE ¼, NE ¼ SECT 28, T15N, R15W (McKinley County)

3. A brief description of the activities that produce the discharge described in the application

   Western Refining Southwest, Inc. (Gallup Refinery) processes crude oil into a variety of petroleum products. The process wastewater collection system is a network of curbing, paving, catch basins, and underground piping that collects wastewater and stormwater from various processing areas within the refinery that is conveyed directly to a wastewater treatment system. The wastewater treatment system is designed for oil recovery and biological treatment in aeration basins prior to entering total retention evaporation ponds. In these ponds, further microbial degradation breaks down any hydrocarbon components into basic compounds, carbon dioxide and water. Under normal circumstances, no treated wastewater is ever discharged. In an extreme eventuality of the ponds not being able to hold all the wastewater generated, a temporary discharge is being planned for along with other contingency measures. Gallup Refinery will first attempt to build additional temporary evaporation ponds, pump water from downgradient ponds into upgradient ponds – if such measures are deemed inadequate, the wastewater will be treated using mobile treatment units to meet the standards of all designated uses of downstream receiving waters., and then discharged. This discharge will be only to the extent required to prevent a catastrophic breach of dikes and ponds and an unplanned spill occurring.

4. A brief description of the expected quality and volume of the discharge

   The anticipated volume is assumed to be of the order of 100,000 gallons (enough to lower levels in the most at-risk pond by 0.5 feet) and extremely rare – perhaps once over a ten-year period. The wastewater will have no hazardous components and levels of all contaminants will be below regulatory standards.

5. The depth to and total dissolved solids concentration of the groundwater most likely affected by the discharge

   The discharge will be into a dry wash leading to the South Fork of the Puerco River. The shallow groundwater below the wash is estimated to be at depths ranging from 50-150 feet. The total dissolved solids concentration is greater than 1000 ppm.

6. The address and phone number within the department by which interested persons may obtain information, submit comments, and request to be placed on a facility-specific mailing list for future notices

   Interested parties wishing either to obtain information, to submit comments on this permit modification, or to request placement on the facility mailing list may do so in care of the Oil Conservation Division (OCD), 1220 South St Francis Drive, Santa Fe, New Mexico 87505, Attention: Mr. Carl J. Chavez.

7. A statement that the department will accept comments and statements of interest regarding the application and will created a facility-specific mailing list for persons who wish to receive future notices.

   The Oil Conservation Division (OCD) will accept comments and statements of interest in reference to the modification to this permit application as requested. Interested persons, if requested, will be placed on the facility mailing for future notices.

PERMIT NOTICE

Western Refining Southwest, Inc (Gallup Refinery), in accordance with the State of New Mexico Regulation (NMAC 20.6.2.3108) and located at I-40 / Exit 39 Jamestown, NM 87347; mailing address Rt. 3 Box 7 Gallup, NM 87301, SE ¼, NE ¼ SECT 28, T15N, R15W (McKinley County), is requesting a major modification to its Groundwater Discharge Permit GW-032 to allow for intermittent (extremely rare) discharge of process wastewater to a dry wash leading to the South Fork of the Puerco River.

Western Refining Southwest, Inc. (Gallup Refinery) processes crude oil into a variety of petroleum products. The process wastewater collection system is a network of curbing, paving, catch basins, and underground piping that collects wastewater and stormwater from various processing areas within the refinery that is conveyed directly to a wastewater treatment system. The wastewater treatment system is designed for oil recovery and biological treatment in aeration basins prior to entering total retention evaporation ponds. In these ponds, further microbial degradation breaks down any hydrocarbon components into basic compounds, carbon dioxide and water. Under normal circumstances, no treated wastewater is ever discharged. In an extreme eventuality of the ponds not being able to hold all the wastewater generated, a temporary discharge is being planned for along with other contingency measures. Gallup Refinery will first attempt to build additional temporary evaporation ponds, pump water from downgradient ponds into upgradient ponds – if such measures are deemed inadequate, the wastewater will be treated using mobile treatment units to meet the standards based on all designated uses of downstream receiving waters., and then discharged. This discharge will be only from one of the ponds at most risk of overflowing, and will be limited to the extent required to prevent a catastrophic breach of pond dikes and an unplanned spill occurring.

The anticipated volume is assumed to be of the order of 100,000 gallons (enough to lower levels in the most at-risk pond by 0.5 feet) and extremely rare – perhaps once over a ten-year period. The wastewater will have no hazardous components and levels of all contaminants will be below regulatory standards. The discharge will be into a dry wash leading to the South Fork of the Puerco River. The shallow groundwater below the wash is estimated to be at depths ranging from 50-150 feet. The total dissolved solids concentration is greater than 1000 ppm in this shallow groundwater.

Interested parties wishing either to obtain information, to submit comments on this permit modification, or to request placement on the facility mailing list may do so in care of the Oil Conservation Division (OCD), 1220 South St Francis Drive, Santa Fe, New Mexico 87505, Attention: Mr. Carl J. Chavez.

The Oil Conservation Division (OCD) will accept comments and statements of interest in reference to the modification to this permit application as requested. Interested persons, if requested, will be placed on the facility mailing for future notices.

COUNTIES, CITIES, TRIBES - 10 MI RADIUS
Tom Trujillo
McKinley County Manager
P.O. Box 70
Gallup, NM 87301

Navajo Nation EPA
P.O. Box 529
Fort Defiance, AZ 86504

LAND OWNER
Red Cliffs Ranch LLC
42048 N. Stone Cutter Dr.
Scottsdale, AZ 85262

NEWSPAPER ADS
Gallup Independent
500 N. 9th Street
Gallup, NM 87305

GENERAL POSTING LOCATIONS
Facility (Giant) entrance
Jamestown, NM 87347

Federal Building
305 W. Hill Ave.
Gallup, NM 87301

Gallup Municipal Office Building
110 W. Aztec Ave.
Gallup, NM 87301

Octavia Fellin Public Library
115 W. Hill Ave.
Gallup, NM 87301

PUBLIC SERVICE ANNOUNCEMENT
Clear Channel Radio
1632 S. Second St
Gallup, NM 87301

Chavez, Carl J, EMNRD

From: Chavez, Carl J, EMNRD
Sent: Friday, November 06, 2009 8:10 AM
To: Turri, Mark
Cc: Powell, Richard, NMENV; 'Lane.Willie@epamail.epa.gov'; Sanchez, Daniel J., EMNRD
Subject: Western Refining Southwest- Gallup Refinery (GW-032) Major Modification Request to Discharge under National Pollutant Discharge Elimination System- EPA NPDES Permit
Attachments: PN Flow Chart.20.6.2new and mods.pdf; New and Mod WQCC Notice Regs.pdf

Mr. Turri:

The New Mexico Oil Conservation Division (OCD) is in receipt of your letter and modification submittal dated October 30, 2009 seeking a modification to the OCD discharge permit in order to discharge to "Waters of the State" at the above subject oil and gas facility.

Please find a link to the applicable Water Quality Control Commission (WQCC) regulations for "modifications" and the "public notice" process that OCD will follow to process your modification request.

§ 20.6.2 NMAC

Please find attached a flow chart with regulatory requirements for the public notice process under 20.6.2.3108 NMAC for the "Major Modification" process. The public notice process begins for the requestor and OCD upon a declaration by the OCD that the "Major Modification" submittal is "Administratively Complete" within 15 days of receipt of your modification request.

Please contact me if you have questions. Thank you.

Carl J. Chavez, CHMM
New Mexico Energy, Minerals & Natural Resources Dept.
Oil Conservation Division, Environmental Bureau
1220 South St. Francis Dr., Santa Fe, New Mexico 87505
Office: (505) 476-3490
Fax: (505) 476-3462
E-mail: CarlJ.Chavez@state.nm.us
Website: http://www.emnrd.state.nm.us/ocd/index.htm
(Pollution Prevention Guidance is under "Publications")

WQCC PUBLIC NOTICE AND PERMITTING FLOWCHART:

20.6.2.3108 – Applications for new discharge permits or discharge modifications

Applicant flow path | **OCD flow path**

Process Begins

Applicant submits application, proposal for notice, and filing $fee to OCD

Within 15 days of submittal

Admin. Compl. Review completed

OCD notifies applicant of admin compl determination

Administratively incomplete

Returned to applicant

Administratively complete

Within 30 Days of deeming an application complete

Applicant shall provide notice in accordance of Subsection F of 20.6.2.3108 NMAC

Applicant posts synopsis of the public notice at least 2 x 3 feet in size, in English and Spanish, at a place conspicuous to the pubic, approved by the department, at or near the facility for 30 days and one additional notice at a place conspicuous to the pubic located off the site, in a form and place approved by the department.

OR

The department may require a second posting location for sites with more than 640 contiguous acres or when the discharge site is not located on contiguous properties.

Applicant provides written notice to all adjacent property owners

OR

Applicant shall provide notice to owners of record of all properties within 1/3 mile from the property boundary of the discharge site.

If no adjacent property owners within 1/3 mile from the property boundary other than applicant

Applicant shall provide notice to owners of record of the next adjacent properties not owned by the discharger

Applicant provides notice by certified mail to the owner of the discharge site, if not the owner

Applicant must publish a synopsis of notice in English and Spanish display ad at least 3 x 4 inches not in the classified or legal advertisement section, in a newspaper of general circulation in the location of the proposed discharge

Within 15 days after completion of notice requirements

Applicant submits proof of notice (affidavit of mailings and list of property owners, proof of publication, an affidavit of posting) to OCD

Inadequate notice

OCD will require additional notice

Adequate notice

OCD Notice Process

Public Notice/ Technical Review (OCD may combine this process)

30 days

OCD posts notice on web site and mail notice to any affected local, state, federal, tribal or pueblo governmental agency, political subdivisions, ditch associations, and land grants, as identified by the department

OCD mail or email notice to those persons of record who have requested notice

60 days

Provide notice in accordance with Subsections F and I of 20.6.2.3108 NMAC

OCD shall make available a proposed approval or disapproval of the application, with conditions or reasons, on OCD's web site. Publish notice in a newspaper of general circulation in the state and location of the facility. Provide notice by certified mail to the owner of the discharge site. Mail or email notice to those persons of record who have requested notice, and mails notice to any affected governmental agency, ditch associations, and land grants. Mail notice to the governor, chairperson, or president of each Indian tribe, pueblo, or nation within the State of New Mexico.

Hold open 30 days for public comment. The 30 day period shall begin on the date of publication of the notice in the newspaper.

Request for Hearing?

Yes

No

Provide notice of hearing 30 days prior to hearing in accordance with Subsections F and H of 20.6.2.3108 NMAC

Hearing shall be held pursuant to 20.6.2.3110 NMAC

Approval

30 days

OCD provides copy of approved permit to permittee and interested parties

Applicant required to sign-off on permit and submit Fees

Not an official OCD document-for guidance only

Notice Requirements For New Discharge Permits and Modifications

20.6.2.3108 PUBLIC NOTICE AND PARTICIPATION:

A. Within 15 days of receipt of an application for a discharge permit, modification or renewal, the department shall review the application for administrative completeness. To be deemed administratively complete, an application shall provide all of the information required by Paragraphs (1) through (5) of Subsection F of 20.6.2.3108 NMAC and shall indicate, for department approval, the proposed locations and newspaper for providing notice required by Paragraphs (1) and (4) of Subsection B or Paragraph (2) of Subsection C of 20.6.2.3108 NMAC. The department shall notify the applicant in writing when the application is deemed administratively complete. If the department determines that the application is not administratively complete, the department shall notify the applicant of the deficiencies in writing within 15 days of receipt of the application and state what additional information is necessary.

B. Within 30 days of the department deeming an application for discharge permit or discharge permit modification administratively complete, the applicant shall provide notice, in accordance with the requirements of Subsection F of 20.6.2.3108 NMAC, to the general public in the locale of the proposed discharge in a form provided by the department by each of the methods listed below:

(1) for each 640 contiguous acres or less of a discharge site, prominently posting a synopsis of the public notice at least 2 feet by 3 feet in size, in English and in Spanish, at a place conspicuous to the public, approved by the department, at or near the proposed facility for 30 days; one additional notice, in a form approved by and may be provided by the department, shall be posted at a place located off the discharge site, at a place conspicuous to the public and approved by the department; the department may require a second posting location for more than 640 contiguous acres or when the discharge site is not located on contiguous properties;

(2) providing written notice of the discharge by mail, to owners of record of all properties within a 1/3 mile distance from the boundary of the property where the discharge site is located; if there are no properties other than properties owned by the discharger within a 1/3 mile distance from the boundary of property where the discharge site is located, the applicant shall provide notice to owners of record of the next nearest adjacent properties not owned by the discharger;

(3) providing notice by certified mail, return receipt requested, to the owner of the discharge site if the applicant is not the owner; and

(4) publishing a synopsis of the notice in English and in Spanish, in a display ad at least three inches by four inches not in the classified or legal advertisements section, in a newspaper of general circulation in the location of the proposed discharge.

C. Within 30 days of the department deeming an application for discharge permit renewal administratively complete, the applicant shall provide notice, in accordance with the requirements of Subsection F of 20.6.2.3108 NMAC, to the general public in the locale of the proposed discharge in a form provided by the department by each of the methods listed below:

(1) providing notice by certified mail to the owner of the discharge site if the applicant is not the owner; and

(2) publishing a synopsis of the notice, in English and in Spanish, in a display ad at least two inches by three inches, not in the classified or legal advertisements section, in a newspaper of general circulation in the location of the discharge.

D. Within 15 days of completion of the public notice requirements in Subsections B or C of 20.6.2.3108 NMAC, the applicant shall submit to the department proof of notice, including an affidavit of mailing(s) and the list of property owner(s), proof of publication, and an affidavit of posting, as appropriate.

E. Within 30 days of determining an application for a discharge permit, modification or renewal is administratively complete, the department shall post a notice on its website and shall mail notice to any affected local, state, federal, tribal or pueblo governmental agency, political subdivisions, ditch associations and land grants, as identified by the department. The department shall also mail or e-mail notice to those persons on a general and facility-specific list maintained by the department who have requested notice of discharge permit applications. The notice shall include the information listed in Subsection F of 20.6.2.3108 NMAC.

F. The notice provided under Subsection B, C and E of 20.6.2.3108 NMAC shall include:

(1) the name and address of the proposed discharger;

(2) the location of the discharge, including a street address, if available, and sufficient information to locate the facility with respect to surrounding landmarks;

(3) a brief description of the activities that produce the discharge described in the application;

(4) a brief description of the expected quality and volume of the discharge;

(5) the depth to and total dissolved solids concentration of the ground water most likely to be affected by the discharge;

(6) the address and phone number within the department by which interested persons may obtain information, submit comments, and request to be placed on a facility-specific mailing list for future notices; and

(7) a statement that the department will accept comments and statements of interest regarding the application and will create a facility-specific mailing list for persons who wish to receive future notices.

G. All persons who submit comments or statements of interest to the department or previously participated in a public hearing and who provide a mail or e-mail address shall be placed on a facility-specific mailing list and the department shall send those persons the public notice issued pursuant to Subsection H of 20.6.2.3108 NMAC, and notice of any public meeting or hearing scheduled on the application. All persons who contact the department to inquire about a specific facility shall be informed of the opportunity to be placed on the facility-specific mailing list.

H. Within 60 days after the department makes its administrative completeness determination and all required technical information is available, the department shall make available a proposed approval or disapproval of the application for a discharge permit, modification or renewal, including conditions for approval proposed by the department or the reasons for disapproval. The department shall mail by certified mail a copy of the proposed approval or disapproval to the applicant, and shall provide notice of the proposed approval or disapproval of the application for a discharge permit, modification or renewal by:

(1) posting on the department's website;

(2) publishing notice in a newspaper of general circulation in this state and a newspaper of general circulation in the location of the facility;

(3) mailing or e-mailing to those persons on a facility-specific mailing list;

(4) mailing to any affected local, state, or federal governmental agency, ditch associations and land grants, as identified by the department; and

(5) mailing to the governor, chairperson, or president of each Indian tribe, pueblo or nation within the state of New Mexico, as identified by the department.

I. The public notice issued under Subsection H shall include the information in Subsection F of 20.6.2.3108 NMAC and the following information:

(1) a brief description of the procedures to be followed by the secretary in making a final determination;

(2) a statement of the comment period and description of the procedures for a person to request a hearing on the application; and

(3) the address and telephone number at which interested persons may obtain a copy of the proposed approval or disapproval of an application for a discharge permit, modification or renewal.

J. In the event that the proposed approval or disapproval of an application for a discharge permit, modification or renewal is available for review within 30 days of deeming the application administratively complete, the department may combine the public notice procedures of Subsections E and H of 20.6.2.3108 NMAC.

K. Following the public notice of the proposed approval or disapproval of an application for a discharge permit, modification or renewal, and prior to a final decision by the secretary, there shall be a period of at least 30 days during which written comments may be submitted to the department and/or a public hearing may be requested in writing. The 30-day comment period shall begin on the date of publication of notice in the newspaper. All comments will be considered by the department. Requests for a hearing shall be in writing and shall set forth the reasons why a hearing should be held. A public hearing shall be held if the secretary determines there is substantial public interest. The department shall notify the applicant and any person requesting a hearing of the decision whether to hold a hearing and the reasons therefore in writing.

L. If a hearing is held, pursuant to Subsection K of 20.6.2.3108 NMAC, notice of the hearing shall be given by the department at least 30 days prior to the hearing in accordance with Subsection H of 20.6.2.3108 NMAC. The notice shall include the information identified in Subsection F of 20.6.2.3108 NMAC in addition to the time and place of the hearing and a brief description of the hearing procedures. The hearing shall be held pursuant to 20.6.2.3110 NMAC.

20.6.2 NMAC 17

[2-18-77, 12-24-87, 12-1-95, 11-15-96; 20.6.2.3108 NMAC - Rn, 20 NMAC 6.2.III.3108, 1-15-01; A, 12-1-01; A, 9-15-02; A, 7-16-06]

Western Refining
GALLUP

WNR LISTED NYSE

Certified Mail 7008 2810 0000 4726 2007

RECEIVED OCD
2009 NOV -5 P 2:28

October 30, 2009

Mr. Carl Chavez
Environmental Engineer
Oil Conservation Division
Environmental Bureau
1220 S. St. Francis Dr.
Santa Fe, NM 87505

Re: Discharge Permit "Modification" to Discharge (GW-032)
Western Refining Southwest – Gallup Refinery
McKinley County, New Mexico

Dear Mr. Chavez:

This letter and application are in response to your letter dated July 30, 2009 requesting a modification if WRSW seeks to discharge to the "Waters of the State". The attached major modification request application would be to allow discharges according to the NPDES application submitted to the EPA on June 25, 2009 and copied to OCD. A check of $4300 is enclosed as the permit review fee.

Please contact Ed Riege at (505) 722-0217 if you have any comments or questions regarding this submittal.

Sincerely,

Mark B. Turri

C: Willie Lane EPA Region 6 (letter only)
Ms. Hope Monzeglio
Ed Riege
Gaurav Rajen

Western Refining

6500 TROWBRIDGE DRIVE
EL PASO, TX 79905
(915) 775-3300

Check #: 10379052

Vendor #: 21686 Check Date: 08/25/09

Invoice Number	Invoice Date	Description	Gross	Discount	Net
CKRQ-08-12-09	08/12/09		4,300.00		4,300.00
			4,300.00		4,300.00

THE FACE OF THIS CHECK IS PRINTED BLUE - THE BACK CONTAINS A SIMULATED WATERMARK

Western Refining

6500 TROWBRIDGE DRIVE
EL PASO, TX 79905
(915) 775-3300

Bank of America
DALLAS, TEXAS
64-1278/611

10379052

Date: 08/25/09 Check No: 10379052 $*****4,300.00
Amount

Pay
FOUR THOUSAND THREE HUNDRED AND 00/100**********

To the Order of

New Mexico Oil Conservation Division
NM Water Quailty Managment
1220 South St Francis Dr
Santa Fe NM 87505

⑈10379052⑈ ⑆113278⑈ 329 983 8⑈

Chavez, Carl J, EMNRD

From: Monzeglio, Hope, NMENV
Sent: Friday, August 28, 2009 11:39 AM
To: Chavez, Carl J, EMNRD
Cc: Cobrain, Dave, NMENV
Subject: RE: Gallup

Carl

Thanks for your comments, I will make the necessary revisions.

To my knowledge the regulatory documents (Discharge Plan, CAFO) do not provide different dates that Gallup must comply with for the upgrade to the wastewater treatment system. The only deadline that needed to be met was March 1, 2009 (explained below). I want to clarify how I arrived on a date for the installation and operation of the upgraded wastewater treatment system. I looked over the OCD Discharge Permit and the March 12, 2008 letter (Revised Schedule for OCD Discharge Permit GW-032) to see if a deadline was set for when the upgraded wastewater treatment system had to be installed and operating. Item 3 of the March 12 letter states "Condition 16.D Aeration Lagoons Replacement Engineering Design/Construction Plan and Schedule. The NMOCD approve the March 1, 2009 deadline for the submittal..." The only required deadline was for Gallup to submit the design for the upgrade to the wastewater treatment system and included a schedule; this deadline has been met (Gallup submitted a design and schedule in the *Process Design Report For Wastewater Treatment Plan Upgrade (REV. A)* (Work Plan), dated May 26, 2009). The CAFO leaves the installation and operation start up date of the upgrade to the wastewater treatment system to NMED and OCD and states "[t]he Respondent shall design, construct, properly permit, and commence operation of an upgraded wastewater treatment system as approved by NMED and [OCD] and that is capable of treating all wastewater in accordance with the schedule established in a Process Design Report for Wastewater Treatment Work Plan when approved by the NMED and OCD." Our response to the schedule is in item D (shown in your email below) which modifies the schedule of when the wastewater treatment system must be installed and operating.

The CAFO addresses the upgrade to the WWTS, closure of the aeration lagoons, and removal of the benzene stripper; leaving the implementation to NMED and OCD where applicable. I can fill you in on the details.

As for the Facility Wide Groundwater Monitoring Work Plan (FWGMWP); yes, Gallup has submitted the document. I am in the process of reviewing it now. The FWGMWP included a table with sampling requirements which was a bit confusing and did not include all the sampling requirements in the Discharge Permit. I revised this table to include the requirements of both agencies. Once I have completed my comments, I will email you the draft letter and we can proceed from there. If I remember correctly, Gallup was going to wait until the FWGMWP was approved before they requested a modification to the discharge permit.

Thanks for the update on the NPDES Permit.

Thanks for your help.

Hope

From: Chavez, Carl J, EMNRD
Sent: Thursday, August 27, 2009 5:08 PM
To: Monzeglio, Hope, NMENV
Subject: RE: Gallup

Hope:

Hi. Looks good.

My only comments are in yellow highlight below, I think you mean "above" and not below right in Comment ?. I seem to have lost track of all the changes to the waste treatment system under the OCD discharge permit as I notice Comment D below gives a deadline date of August 25, 2010 for system startup. Somewhere between the agencies formalizing the OCD Discharge Permit and the CAFO and the treatment system incorporation into the CAFO we have some different dates to abide by. I think as long as the tasks are implemented and address the OCD Discharge Permit, the OCD can move along and seek to evaluate the status of project in the OCD Discharge Permit for the upcoming refinery inspection? Also, I seem to recall that the Gallup Refinery was seeking to setup a Facility Wide Ground Water Monitoring Plan similar to the Bloomfield Refinery and they did submit the report, which I have yet to review. I recall that OCD required them to submit it as a "modification" to the discharge permit, but they never did..... We may want to meet to discuss the OCD discharge permit, the CAFO, FWGWMP, and just to touch base on the big picture with the Gallup Refinery..... I received a call from Beck Larson regarding the NPDES Permit, fees, etc., and the "Major Modification" process. We discussed the CAFO and their signature and how WRSW must comply with the CAFO that requires the waste water treatment system to abide by 40 CFR 264 Subpart J anyway, and was WRSW still interested in submitting the "Major Modification" to their OCD Discharge Permit for the NPDES Permit. He was going to discuss the need to apply for an NPDES Permit again with Upper Management and I told him that it was fine, but OCD had perceived the signing of the CAFO Agreement, etc., to mean they decided to stick with RCRA and not apply for an NPDES Permit. The ball is in their court.

Comment C
In Section 4.6 (Alternative Upgrade Approach), page 4-6, last sentence, the Respondent states "Western Refining will submit the alternative design approach to OCD for approval prior to implementation."

NMED Response: The Respondent addressed an alternative approach to the upgraded WWTS to NMED and OCD in a meeting on July 1, 2009 that addressed the use of Macro Porous Polymer Extraction and a dissolved gas flotation unit. Then on August 17, 2009, the Respondent submitted a letter withdrawing the Process Design Report For Wastewater Treatment Plan Upgrade (REV. A). If the Respondent chooses to pursue an alternative wastewater treatment system, a new work plan must be submitted to OCD and NMED for approval by both agencies. The new work plan must describe all aspects of the alternative design. The implementation of an alternative approach will not change the deadline established in Comment 4 below which provides a deadline for the start of operation of an upgraded WWTS.

Comment D
The Respondent includes a Project Schedule in Section 5.

NMED Response: NMED and OCD do not approve the schedule presented in Section 5. The facility has had ample time to research and design an upgraded wastewater treatment system and first proposed upgrades in May 2007. Therefore, the Respondent must have the upgraded wastewater treatment system installed and operating by August 25, 2010.

Thanks.

Carl J. Chavez, CHMM
New Mexico Energy, Minerals & Natural Resources Dept.
Oil Conservation Division, Environmental Bureau
1220 South St. Francis Dr., Santa Fe, New Mexico 87505
Office: (505) 476-3490

Fax: (505) 476-3462
E-mail: CarlJ.Chavez@state.nm.us
Website: http://www.emnrd.state.nm.us/ocd/index.htm
(Pollution Prevention Guidance is under "Publications")

Hope Monzeglio
Environmental Specialist
New Mexico Environment Department
Hazardous Waste Bureau
2905 Rodeo Park Drive East, BLDG 1
Santa Fe NM 87505
Phone: (505) 476-6045; Main No.: (505)-476-6000
Fax: (505)-476-6060
hope.monzeglio@state.nm.us

Websites:
New Mexico Environment Department
Hazardous Waste Bureau

Bill Richardson
Governor

Joanna Prukop
Cabinet Secretary

Mark Fesmire
Division Director
Oil Conservation Division

July 30, 2009

Mr. Mark B. Turri
Refinery Manager
Western Refining Southwest- Gallup Refinery
Route 3 Box 7
Gallup, New Mexico 87301

Re: Discharge Permit "Modification" to Discharge (GW-032)
Western Refining Southwest- Gallup Refinery
McKinley County, New Mexico

Dear Mr. Turri:

The New Mexico Oil Conservation Division (OCD) recently renewed the discharge permit (permit) for the Gallup Refinery, which is a "Zero Discharge" permit consistent with the OCD's permitting program to protect ground water and surface waters under 20.6.2 NMAC (Ground and Surface Water Protection) and/or 20.6.4 NMAC (Standards for Interstate and Intrastate Surface Waters).

OCD was copied on the Western Refining Southwest (WRSW) - Gallup Refinery's National Pollutant Discharge Elimination System (NPDES) Application (application) submitted to the U.S. Environmental Protection Agency (EPA), Region 6 Office dated June 25, 2009. Since WRSW's Discharge Permit does not allow a discharge and you are now requesting to discharge by submittal of an NPDES Application to the EPA, OCD has determined pursuant to 20.6.2.1201(A) NMAC (Notice of Intent to Discharge); 20.6.2.3107 NMAC (Monitoring, Reporting, and Other Requirements); and 20.6.2.3109 NMAC (Secretary Approval, Disapproval, Modification or Termination of Discharge Permits, and Requirement for Abatement Plans) that WRSW must submit a "Major Modification" request to OCD. Therefore, a "Modification" request along with a fee of $8400 and compliance with the public notice requirements under 20.6.2.3108 NMAC shall be required if WRSW seeks to discharge to the environment or "Waters of the State" at the facility.

WRSW's discharge permit specifies in Section 5 (Modifications), "The owner/operator shall notify the OCD of any facility expansion, production increase or process modification that would result in any significant modification in the discharge, or potential of discharge of water contaminants. The Division Director may require a permit modification if any water quality standard specified at 20.6.2.3103 NMAC is being or will be exceeded, or if a toxic pollutant as defined in 20.6.2.7 NMAC is present in ground water at any place of withdrawal for present or

reasonably foreseeable future use, or that Water Quality Standards for Interstate and Intrastate steams as specified in 20.6.4 NMAC are being or may be violated in surface water in New Mexico." WRSW's modification request shall provide OCD with the information that it needs to modify the permit to address discharges that may impact ground water and surface water from the facility.

In the meeting held in Santa Fe on July 1, 2009, the OCD and NMED- HWB alerted WRSW that the proposed NPDES discharge may require additional controls to ensure protection of ground water quality, and only after a detailed review of the modification request is made, will the OCD be able to fully evaluate the affect(s) that an NPDES discharge would have on water quality at the facility.

Subsequent to the two meetings held with WRSW in early July of 2009, WRSW sent an e-mail message dated July 13, 2009 with attachments from the Federal Register related to NPDES Permits at "upstream" facilities (well heads, tank batteries, etc.). Please note that OCD regards the Gallup refinery to be a "downstream" facility (gas plants, refineries, etc.).

If there are any questions regarding this matter, please do not hesitate to contact me at (505) 476-3490 or via E-mail: carlj.chavez@state.nm.us.

Sincerely,

Carl J. Chávez
Environmental Engineer

CJC/cjc

xc: Willie Lane, USEPA- Region 6
Marcy Leavitt, NMED- SWQB
Hope Monzeglio, NMED- HWB
OCD District III Office, Aztec

New Mexico Energy, Minerals and Natural Resources Department

Bill Richardson
Governor

Joanna Prukop
Cabinet Secretary

Mark Fesmire
Division Director
Oil Conservation Division

July 30, 2009

Mr. Mark B. Turri
Refinery Manager
Western Refining Southwest- Gallup Refinery
Route 3 Box 7
Gallup, New Mexico 87301

Re: Discharge Permit "Modification" to Discharge (GW-032)
Western Refining Southwest- Gallup Refinery
McKinley County, New Mexico

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If there are any questions regarding this matter, please do not hesitate to contact me at (505) 476-3490 or via E-mail: carlj.chavez@state.nm.us.

Sincerely,

Carl J. Chávez
Environmental Engineer

CJC/cjc

xc: Willie Lane, USEPA- Region 6
Marcy Leavitt, NMED- SWQB
Hope Monzeglio, NMED- HWB
OCD District III Office, Aztec

Chavez, Carl J, EMNRD

From: Allen, Ann [ann.allen@wnr.com]
Sent: Monday, July 13, 2009 5:52 PM
To: Chavez, Carl J, EMNRD
Cc: Riege, Ed
Subject: Western Refining Gallup NPDES Permit Application
Attachments: EPA NPDES General Permit for Oil and Gas Facilities 2-25-91 (00107935).PDF; Subpart C - Onshore Subcategory (00107939).PDF

Carl--

Western cannot find any specific NMOCD wirtten policy or guidance that prohibits discharges to surface waters from downstream facilities such as the Gallup refinery. There is an EPA prohibition against discharges from upstream facilities into "navigable waters" (meaning "waters of the U.S.", which we believe includes any intermittent or ephemeral streams, including arroyos). Might this be the prohibition you had in mind?

EPA's prohibition of such discharges can be found at:

- **Final NPDES General Permits for the Oil and Gas Extraction Point Source Category, Onshore Subcategory - States of ...New Mexico (NMG320000), 56 FR 7698 (February 25, 1991) --** This general permit for New Mexico prohibits discharges into waters of the U.S. from oil and gas exploration and producing activities. The permit defines these upstream activities by referring to the Onshore Oil and Gas Extraction Point Source Category, 40 CFR, Part 435, Subpart C, which is discussed below. The permit also refers to OCD's authority over the regulation of oil and gas waste at upstream facilities. *This permit prohibits discharges into waters of the United States as defined at 40 CFR part 122.2. This disposal of waters and wastes resulting from oil and gas exploration and producing activities in manners other than by discharges into waters of the United States are otherwise limited by the New Mexico Oil Conservation Division (NMOCD) Rules 01 through 1304 and regulations of the State Oil and Gas Act (sections 70-2-1 through 70-2-38 NMSA, 1978) and as may be amended, and the water quality standards of the Water Quality Control Commission, sections 1-100 to 3101 and as explained in Water Quality and Water Pollution Control in New Mexico (1988), and as may be amended.* 56 FR 7703. Thus, at upstream facilities, EPA prohibits any discharges to surface waters and recognizes OCD's authority to limit these discharges in other ways. A copy of the NPDES General Permit is attached as Item 1.

- **Oil and Gas Extraction Point Source Category, 40 CFR, Part 435, Subpart C (§ 435.30-32) -** This EPA regulation explains the specific types of upstream facilities to which the discharge prohibition applies: *...there shall be no discharge of waste water pollutants into navigable waters from any source associated with production, field exploration, drilling, well completion, or well treatment (i.e., produced water, drilling muds, drill cuttings, and produced sand).* 40 CFR § 30.32. A copy of the EPA regulation is attached as Item 2.

Regards, Ann

Leslie Ann Allen
Senior Vice-President
Health, Safety, Environment and Regulatory Affairs

Western Refining
123 W. Mills Ave., Suite 200
El Paso, TX 79901
915 534-1480
915 534-2652(fax)
915 491-1562 (cell)

ITEM 1

[FRL-3908-2]

Final NPDES General Permits for the Oil and Gas Extraction Point Source Category, Onshore Subcategory—States of Louisiana (LAG320000), New Mexico (NMG320000), Oklahoma (OKG320000), and Texas (TXG320000)

AGENCY: United States Environmental Protection Agency.

ACTION: Issuance of four final NPDES General Permits.

SUMMARY: Region 6 of the United States Environmental Protection Agency (EPA) today issues final NPDES General Permits for oil and gas facilities in the Onshore Subcategory of the Oil and Gas Extraction Point Source Category in the States of Louisiana, New Mexico, Oklahoma and Texas. These general permits prohibit all discharges of pollutants to waters of the United States from those facilities, consistent with EPA guidelines codified at 40 CFR part 435, subpart C.

DATES: These permits are effective at 12:01 a.m. Eastern Daylight Savings Time, thirty days after the publication of this notice.

ADDRESSES: Notifications required by these permits should be sent to the Director, Water Management Division (6W), EPA Region 6, 1445 Ross Avenue, Dallas, Texas 75202.

FOR FURTHER INFORMATION CONTACT: Ms. Ellen Caldwell, EPA Region 6, 1445 Ross Avenue, Dallas, Texas 75202, telephone: (214) 655-7190.

SUPPLEMENTARY INFORMATION: EPA issues these general permits pursuant to its authority under section 402 of the Clean Water Act, 33 U.S.C. 1342. Except as noted herein, these permits apply to all Region 6 facilities in the Onshore Oil and Gas Point Source Extraction Point Source Category (40 CFR part 435, subpart C). They do not apply to facilities (1) in the Coastal Subcategory (40 CFR part 435, subpart D), including facilities which would be classified Onshore but for the decision in *American Petroleum Institute* v. *EPA*, 661 F. 2d 340 (5th Cir. 1981); (2) in the Agricultural and Wildlife Water Use Subcategory (40 CFR part 435 subpart E); (3) in the Stripper Subcategory (40 CFR part 435, subpart F); and (4) for which Conoco Inc submitted timely request for variance on the basis of fundamentally different factors, i.e., two facilities in the Muldoon Field in Fayette County, Texas.

EPA Region 6 proposed to issue these permits at 54 FR 35830 (August 30, 1989) and provided additional notice of that proposal in the Baton Rouge State Times, the Albuquerque Journal, the Daily Oklahoman and the Houston Post on September 18, 1989. The comment period was originally scheduled to end on November 17, 1989, but was extended to January 15, 1990.

As indicated in the Agency's proposal, the "no discharge" effluent limitations of the permits are based on earlier determinations that they are achievable through the "best practicable control technology currently available" (BPT), now codified as the Oil and Gas Point Source Extraction Guidelines at 40 CFR 435. EPA Region 6 has not independently considered "best conventional treatment" (BCT) or "best available treatment" (BAT) technologies for the waste streams regulated by these permits. Inasmuch as consideration of those treatment technology levels could not result in effluent limitations more stringent than the BPT "no discharge" limitations, it is the best professional judgement of EPA Region 6 that the "no discharge" limitations of the permits also constitute BCT and BAT levels of control.

The public comment period on the proposed permits ended on November 17, 1989 and susequently extended to January 15, 1990. EPA Region 6 has considered all comments it received. The United States Fish and Wildlife Service; the State of New Mexico Health and Environment Department; the State of New Mexico Energy, Minerals and Natural Resources Department, Oil Conservation Division; the Railroad Commission of the State of Texas; the Texas Water Commission; the American Petroleum Institute; Mesa Limited Partnership; Conoco, Inc.; Exxon Corporation, U.S.A.; and Phillips Petroleum Company submitted comments on EPA's proposal to issue these permits. EPA Region 6 has considered all comments it received. In some instances, the final permits differ from the proposed permits as a result of comments.

In the following comments summary, EPA has departed from the literal words of the commenters for clarity and to accommodate consolidated response to multiple comments on the same issue.

Response to Public Comments

Comment 1—EPA should clarify whether the location of the well head or discharge location is the controlling factor for determining applicability of the permits, particularly with regard to those facilities whose onshore categorization has been suspended in connection with the remand in *American Petroleum Institute* v. *EPA*, 661 F.2d 340 (5th Cir. 1981). See 47 FR 31554 (July 21, 1982).

Response to Comment 1—Because the "no discharge" effluent limitations of these permits are based on technological capability, not water quality needs, applicability of the permits is controlled by the nature and location of the facility, not location of a discharge. Because remote locations of facility components (e.g., storage tanks, separators, etc.) might otherwise subject some facilities to limitations under more than one subcategory, Region 6 has chosen to "locate" facilities by well head. See also Response to Comments 6 and 7, below. The Texas and Louisiana facilities at issue in *American Petroleum Institute* v. *EPA*, supra, with well heads in the area for which EPA suspended the Onshore Subcategory Guidelines at 47 FR 31554 (July 21, 1982), are not subject to LAG320000 or TXG320000.

Comment 2—In relevant part, 40 CFR 435.41 defines "coastal" as "any body of water landward of the territorial seas as defined in 40 CFR 125.1(gg)," but there is no 40 CFR 125.1(gg). How does EPA define "territorial seas?"

Response to Comment 2—Since promulgating 40 CFR part 435, EPA has revised its NPDES regulations and they no longer define "territorial seas." The former regulatory definition ws a verbatim recitation of CWA section 502(8), which defines the term as "the belt of the seas measured from the line of ordinary low water along that portion of the coast which is in direct contact with the open sea and the line marking the seaward limit of inland waters, and extending seaward a distance of three miles." See 38 FR 13528, 13530 (May 22, 1973). EPA continues to rely on that statutory definition.

Comment 3—The permits are silent on whether an onshore operator need take any action to obtain coverage under the proposed permits, e.g., submission of a notice of intent to be covered. Because the permits impose no discharge limits, applying for coverage should be unnecessary.

Response to Comment 3—EPA agrees with this comment. These general permits do not require submission of a notice of intent to be covered.

Comment 4—Do the permits' no discharge requirements apply to discharges to wetlands which are not adjacent to a body of water, i.e., isolated wetlands resulting from poor drainage? Who will determine whether or not a particular well site is a wetland? Facilities on islands should be subject to permits for the Coastal Subcategory.

Response to Comment 4—The onshore subcategory guidelines, to which these permits apply, includes those facilities "engaged in the (*sic*) production, field exploration, drilling, well completion and well treatment in the oil and gas industry which are located landward of the inner boundary of the territorial seas . . . and which are not included within subpart D (Coastal subcategory) * * *." 40 CFR 435.30. Coastal is defined at 40 CFR 435.41(e) as "(1) any body of water located landward of the territorial seas * * * or (2) any wetlands adjacent to such waters." In the preamble to the Federal Register notice promulgating the oil and gas extraction guidelines, EPA stated that the "coastal" definition was intended to encompass "all facilities located over waters landward of the territorial seas, including wetlands adjacent to such waters." (Emphasis added). 44 FR 22071 (April 13, 1979).

The Agency also explained in the same preamble that one basis for the regulatory distinction between coastal wells (which are allowed to discharge wastewater, subject to certain limitations that are set forth at 40 CFR 435.42) and onshore wells (which are subject to zero discharge requirement) was that "space constraints or reinjection difficulties may operate with respect to coastal and offshore platforms," *i.e.*, platforms located over water, but that "no such conditions apply to these wells operating on land." (Emphasis added.) *Id.*[1] The coastal subcategory definition specifically included wetlands adjacent to bodies of water landward of the territorial sea within the coastal category, but does not address facilities located over isolated wetlands. Based on the distinction between facilities on land and those over water that was drawn in the preamble to the guidelines, Region 6 does not consider facilities over water in isolated wetlands onshore facilities.

Regarding discharges to isolated wetlands, the guidelines prohibit the discharge of "waste water pollutants into navigable waters from any source" in the onshore subcategory. (Emphasis added.) 40 CFR 435.32(a). When EPA promulgated 40 CFR part 435, its definition of "navigable waters" (now known as "waters of the United States") encompassed certain waters actually used in interstate commerce and their tributaries. EPA later revised its definition of waters of the United States to specifically include, among other things, wetlands adjacent to waters of the United States and intrastate waters "such as * * * wetlands, the use degradation or destruction of which would affect or could affect interstate or foreign commerce * * *" and "(W)hich are or could be used for industrial purposes by industries in interstate commerce * * *." This definition includes many relatively small isolated wetlands not associated with or "adjacent to" other water bodies supporting interstate commerce. See 44 FR 32854 (June 7, 1979). When it promulgated 40 CFR part 435, EPA clearly intended to prohibit all onshore subcategory discharges to waters within its regulatory jurisdiction. In the preamble to the proposed permits, Region 6 made it clear that the permits were intended to prohibit the discharge of pollutants from onshore facilities to waters of the United States. Accordingly, the final permits prohibit discharges from onshore facilities to isolated wetlands which are waters of the United States.

In part I, section A, the final permits now reference 40 CFR 122.2 as the applicable regulatory definition for "waters of the United States." Likewise, EPA has amended the permits definition of "Coastal" to include all wetlands. As a result of these changes to the proposed permit language, it is now clear that no Onshore Subcategory facility may discharge to isolated wetlands which are waters of the United States and that facilities with wellheads in any waters inland of the territorial seas, including isolated wetlands, will not be subject to these Onshore Category permits, but the Coastal Subcategory permits EPA intends to issue in the future. See, e.g., 55 FR 23348 (June 7, 1990).

In planning their drilling operations, operators should already be considering whether their facilities will be located in wetlands, including isolated wetlands which are waters of the United States, to assure compliance with permitting requirements for the discharge of dredge and fill material under CWA section 404 and the Corps of Engineers' implementing regulations at 33 CFR parts 323 and 328.

Region 6 sees no reason for arbitrarily classifying all facilities on islands "coastal." Some of the islands located south and east of the Chapman Line (as geographically defined at 47 FR 31554) are wetlands, e.g., the coastal wetlands complex in the Mississippi river delta area, and facilities thereon would generally be considered "coastal." Conversely, facilities located on island, consisting of dry emergent lands, e.g.,

[1] On this basis, the guidelines removed 1,700 wells "which operated on land but which discharged into coastal waters" from the coastal subcategory and reclassified them as onshore or stripper, depending upon their rate of production. Id. In response to the Court's decision in *API* v. *EPA*, 661 F.2d 340 (5th Cir. 1981), EPA later suspended the applicability of the onshore guidelines to wells located on lar] in a clearly delineated geographic area in Texas and Louisiana, and in the Santa Maria Basin (California. See Response to Comment 1. N > other wells were affected by this suspension.

barrier islands, would generally be considered "onshore." It should be noted, however, that these and other types of islands may support multiple ecosystems and the nature of the specific area in which the wellhead is located controls the subcategory into which a specific facility falls.

Comment 5—The permits prohibit "seepage" from receiving pits to waters of the United States. It would be very difficult or impossible to have zero seepage over geologic time. EPA should clarify the meaning of the term.

Response to Comment 5—In response to this comment, the Agency has defined "seepage" in the permits as the movement of wastewater through a porous material (e.g., reserve pit dike), in sufficient quantity to produce visible surface flow from the containment area to a water of the United States during the life of the facility.

Comment 6—Please clarify the terms "ultimate disposal" and "direct discharges" as used in connection with the permits. The Texas Railroad Commission has issued State discharge permits to produced water treatment and disposal facilities on the Texas coast. These facilities receive produced waters from others, remove free hydrocarbons and suspended solids, then discharge the treated waters into tidally influenced coastal waters. They generally receive produced water from Coastal Subcategory wells, but could accommodate produced waters from wells in the Onshore Subcategory. Simply stated, would it violate these permits to discharge produced water originating at an Onshore Subcategory facility from one of the permitted produced water treatment facilities?

Response to Comment 6—Oil and gas drilling and production wastes are frequently cycled and/or managed through a series of temporary storage units (e.g., reserve pits, separator units, holding tanks). Until activity ceases at the facility, these storage units confine the wastes, preventing their discharge, flow or visible seepage to waters of the United States. In the preamble to the proposed permits EPA used the term "ultimate disposal" in reference to the final disposal of wastes from such units, indicating that such ultimate disposal, unlike "direct discharges", was not subject to these permits, but might be authorized by individual NPDES permits. See 54 FR 35931.

In considering this and several other comments, however, Region 6 reevaluated its position on ultimate disposal. EPA identified a number of "no discharge" technologies which may be used in connection with ultimate disposal of produced water (...g. land disposal, subsurface reinjection, subsurface disposal to a salt water aquifer, evaporation) at 41 FR 44942 (October 13, 1976). 40 CFR 435.32(a) thus prohibits all discharges of produced water associated with Onshore Subcategory operations. In view of this unequivocal regulatory prohibition, the permits prohibit the discharge of any wastewater emanating from an Onshore Subcategory facility to waters of the United States, regardless of whether those discharges might be classified as "direct discharges" or "ultimate disposal."

The coastal produced water treatment and disposal facilities to which the comment refers discharge to waters of the United States and are therefore not a permissible method of disposal for wastes generated by oil and gas facilities in the Onshore Subcategory. Oil and gas operators discharging Onshore Subcategory waste from remote locations or facilities will be subject to enforcement actions for violations of the permits. The operators of such treatment and disposal facilities may also be liable for such violations.

Comment 7—Most states, including Texas, prohibit the discharge of muds and cuttings, but allow the discharge of water which has come into contact with them from the various working pits. At a typical facility, such water, stormwater and wash water, is channeled to pits to prevent the accidental release of pollutants. At the completion of drilling operations, the water in pits is treated to remove solids and hydrocarbons, then tested to determine whether the composition complies with state water quality criteria. After obtaining a permit or other approval from the responsible state agency, the operator may discharge the remaining water in the pit. Are such discharges subject to the permits?

Response to Comment 7—As required by 40 CFR 435.32(a), the permits prohibit the discharge of waste water that has come into contact with muds or cuttings or other pollutants from any Onshore Subcategory source associated with production, field exploration, drilling, well completion, or well treatment. This prohibition is a technology-based effluent limitation grounded in application of BPT, not water quality. It thus applies whether or not the water is clarified and whether or not its discharge would comply with state water quality standards.

The permits prohibit only discharges to waters of the United States. Wastewater that has come into contact with muds and cuttings may thus be removed from reserve pits and disposed of by any method which does not involve discharge to waters of the United States and which complies with applicable state regulatory requirements. See also Responses to Comments 1 and 8.

Comment 8—In some production operations, fresh water (typically well water) is allowed to cascade over a series of flowlines which contain natural gas, cooling the gas and allowing more efficient removal of entrained water vapor prior to sale. The cooling water never contacts produced fluids and is thus uncontaminated. The only change noticeable in its composition is a slight increase in temperature which quickly dissipates after discharge. This uncontaminated water discharge, as well as the discharge of pipeline test water, should be allowed under the general permits.

Response to comment 8—EPA has historically associated noncontact cooling water and pipeline test water with pipeline operations beyond the ambit of the Oil and Gas Extraction Point Source Category and thus the development document on which the Agency based the part 435 guidelines includes no information on treatment technologies which might be applied to such wastewaters. Certainly, EPA Region 6 did not consider these wastestreams when it proposed these general permits. Accordingly, the discharges are not regulated by these general permits.

Comment 9—How will EPA identify facilities subject to the Agricultural and Wildlife Use Subcategory?

Response to Comment 9—40 CFR 435.50 and 435.51 requires that the Agricultural and Wildlife Use Subcategory facilities be located west of the 98th meridian and the produced waters must actually be used for such purposes during discharge periods.

Comment 10—New technologies, which can economically remove solids from produced water, reportedly can treat waters which are suited for discharge. Are such treatment procedures and subsequent discharges not direct discharges and thus excluded from coverage under the general permits?

Response to Comment 10—As required by 40 CFR 435.32(a), these permit prohibit the discharge of produced water derived from onshore wells whether the water has been treated or not (also see response to Comments 6 and 7).

Comment 11—The proposed permits indicate Onshore Subcategory wells in which production falls below 10 barrels a day after the effective date of the permits will not become stripper wells.

There is no sound legal or policy basis for subjecting such wells to the zero discharge limitations of the Offshore Subcategory permits. Approximately 70% of the wells in Texas currently produce less than ten barrels of oil per day. If these wells are forced to comply with a no discharge limit, many will have to be shut down.

Response to Comment 11—EPA's regulations at 40 CFR 435.60 state that the provisions of the stripper Subcategory "are applicable to those onshore facilities which produce 10 barrels per well per calendar day or less of crude oil and which are operating at the maximum feasible rate of production." "The average production per oil well at a field * * * serves as the basis for categorization" in the Stripper Subcategory. 44 FR 20073 (April 13, 1979). Part 435 does not specifically address the issue of whether facilities or wells producing more than ten barrels a day whose production later falls below that level are to be considered strippers. EPA interprets its guidelines, however, as excluding such facilities from the Stripper Subcategory.

The basis for exempting stripper facilities from the zero discharge requirement of the Onshore Subcategory was the unacceptable economic impact of installing evaluated treatment technologies to marginally profitable wells which could produce no more than ten barrels of oil per day. 41 FR 44942 (October 12, 1976). Limitations for discharges from stripper facilities were thus "reserved pending study of other, less *capital-intensive*, control technologies." (Emphasis added.) Id. Conversely, zero discharge was found attainable by Onshore Subcategory facilities capable of producing more than ten barrels of crude oil per day. Once Onshore operators make the capital investment to meet the zero discharge requirement, no additional capital costs must be incurred to continue meeting that requirement if maximum feasible production falls below 10 barrels a day.

Because operation and maintenance (O&M) costs were not a basis for exempting stripper facilities from the zero discharge requirements of the guidelines, such costs are not determinative in interpreting stripper exemption. Nevertheless, EPA Region 6 believes O&M costs on installed control systems are minimal. EPA has determined that the average cost (after taxes) of disposing of produced brine in a class II injection well, for instance, is no more than 20 cents a barrel (based on a worst case scenario and generally varying with the distance to the injection well and means of transport thereto) and the O&M costs of some other disposal technologies, e.g., evaporation, may even be lower.

Contrary to the implication of the comment, no well or field which is properly subject to the Stripper Subcategory on the effective date of the permits will be forced to shut down. They will remain subject to the Stripper Subcategory. Likewise, future wells which are never capable of producing more than ten barrels of crude oil will generally be regulated as strippers. The permits only prohibit Onshore Subcategory wells capable of production in excess of ten barrels of crude oil per day from lapsing into the Stripper Subcategory if and when producing capacity declines.

Comment 12—The Agricultural and Wildlife Water Use Subcategory is currently limited to facilities West of the 98th meridian, yet some wells East thereof produce water of sufficient quality to support wildlife and agriculture. EPA should address these "special case" facilities in connection with its issuance of these permits.

Response to Comment 12—EPA Region 6 has not proposed to deviate from the geographical boundaries of the Agricultural and Wildlife Use Subcategory as codified at 40 CFR 435.50 nor will it in responding to public comment on its issuance of these permits. There is nevertheless one "special case" which the Agency will address in separate proceedings. On April 24, 1978, Conoco Inc. applied for "fundamentally different factors" variances to allow discharges of produced water from two facilities a short distance East of the 98th meridian in the Muldon Field in Fayette County, Texas. Although Conoco's variance request met the deadline established in CWA Section 301(n)(2), EPA has not yet acted on it, either individually or in connection with these permits. To process Conoco's pending request, EPA will propose issuance of an individual permit for the discharges at issue, thus ensuring adequate opportunity for public review and comment.

Comment 13—Under the Water Quality Act of 1987, EPA may not require permits for point source discharges of uncontaminated storm water until at least February 4, 1992. Some discharges subject to the proposed general permits could become part of a stormwater discharge, however, and EPA should clarify that stormwater discharges are not regulated by the permits.

Response to Comment 13—As required by 40 CFR 435.32(a), the permits prohibit the discharge of all wastewater pollutants from Onshore Subcategory facilities, including but not limited to drilling fluids, drill cuttings, produced water, produced sand, deck or floor drainage, well treatment fluids, and workover fluids. Discharges regulated under the permits are prohibited, whether or not they are commingled with stormwater and no discharge regulated under these permits is likely to consist of uncontaminated stormwater. Rig and deck drainage, for example, generally contains waste from deck spills of trilling fluids and cuttings, regardless of whether it is generated by storm events or maintenance washdowns.

Comment 14—Oil and gas separation facilities are normally diked as a precautionary measure to prevent accidental release of oil and produced water. These diked areas periodically fill with rainwater which must be removed, typically by discharge to the surrounding environment. These discharges are currently regulated under the Spill Prevention Control and Countermeasure (SPCC) regulations at 40 CFR part 112, which prohibit the discharge of stormwater from diked areas if a sheen is present and require development of specific plans to prevent discharge of pollutants. Such discharges should be excluded from coverage under these general permits.

Response to Comment 14—The discharges to which this comment refers consist of uncontaminated stormwater which EPA may not now regulate. See Response to Comment 13. Accordingly, the permits impose no limits on such discharges unless they are commingled with wastes regulated under this permit.

Comment 15—Blow-out preventer fluid and produced sand should be excluded from coverage by the permits since the former is not used onshore and the latter is not covered by guidelines.

Response to Comment 15—Because it occurs in shallow horizons or in geologic settings where expected down-hole pressures are low, much onshore drilling is accomplished without blow-out preventers. Since these conditions are not applicable to all facilities. The permits accordingly prohibit the discharge of blowout preventer fluids.

Contrary to the allegation of the comment, 40 CFR 435.32(a) expressly prohibits the discharge of produced sand from Onshore Subcategory facilities. It should be noted that the permits' prohibition on discharges of produced sand apply to all facility sources of produced sand, including oil/water separators production test pits, and temporary storage tanks.

Comment 16—The proposed permits require that operators comply with best management practices (BMP's) codified in state regulations. EPA lacks authority to impose this requirement on the oil and gas industry through the issuance of NPDES permits.

Response to Comment 16—EPA possesses ample authority to impose this BMP requirement in NPDES permits. CWA section 402(a)(2) requires that EPA "prescribe conditions in issuing such permits to assure compliance with "effluent limitations imposed in accordance with CWA § 402(a)(1). See generally, *Montgomery Environmental Coalition* v. *Costle*, 646, F.2d 568 (DC Cir. 1980); *NRDC* v. *U.S. EPA*, 822 F.2d 104 (DC Cir. 1987); 40 CFR 122.44(k). The state requirements at issue are BMP's assuring compliance with the "no discharge" limits of the permits. Because they go beyond the prohibition of discharges, imposing specific implementation requirements, these state BMP requirements are moreover "more stringent limitation(s)

* * * necessary to meet
* * * treatment standards
* * * established pursuant to
* * * State law or regulations. Hence CWA Sections 402(a)(1) and 301(b)(1)(C) also authorize their imposition in NPDES permits.

Comment 17—The proposed permits include effluent limitations, BMP's and reporting requirements which duplicate state regulatory requirements. There is no need for these requirements, but they may subject operators to duplicate enforcement proceedings and liabilities. Enforcement of such measures is best left to the states.

Response to Comment 17—EPA generally lacks authority to exempt point source discharges from the Clean Water Act permitting requirements. *NRDC* v. *Costle* 568 F.2d 1369 (DC Cir. 1977). It thus cannot disclaim responsibility for regulating any point source because it is already regulated by states without an approved NPDES program. By incorporating some state requirements by reference in the permits, however, EPA is avoiding inconsistent State and Federal requirements. The comment's observation that operators may be subjected to parallel state and federal enforcement proceedings for violating the same substantive requirement is accurate. Whether such parallel proceedings are appropriate is a decision best made in connection with individual violations.

Comment 18—EPA should resolve issues underlying these permits in the context of rulemaking proceedings, and more specifically, in the pending rulemaking on the effluent guidelines, not in the issuance of these general permits.

Response to Comment 18—The proceedings under which EPA is issuing these general permits are rulemaking. Although the part 435 guidelines on which the effluent limitations of these permits are based are under consideration, Region 6 need not wait until amended guidelines are promulgated to issue these permits.

Comment 19—How will EPA set discharge limitations for toxics indicated in part III.D.4 of the permits? Do discharges of toxic substances not specifically listed in the permits violate the permits?

Response to Comment 19—The reports on potential toxics discharges required by part III.D.4 of the permits are primarily for information purposes. The permits prohibit all discharges regardless of the presence of toxic pollutants. Thus a discharge of effluent containing toxics not specifically listed in the permit would be a violation.

Comment 20—The permits will allow degradaton of the environment to the extent caused by chronic spills, leaks and discharges degrading the environment.

Response to Comment 20—To the full extent it has authority to regulate them under section 402 of the Act, EPA, Region 6 has prohibited spills, leaks and discharges in these permits.

Comment 21—The permits do not adequately address the issue of onsite disposal of potentially toxic waste in upland areas. State limitations on closure of temporary storage pits are inadequate and unacceptable post closure residues of oil and heavy metals have been found to be at unsuitable levels in some environmentally sensitive trust areas managed by the U.S. Fish and Wildlife Service. The Service thus favors individual, not general permits.

Response to Comment 21—EPA's NPDES permitting authority is limited to regulation of discharges to waters of the United States. To the extent that state requirements avoid such discharges, EPA has incorporated them by reference in the permits. The Agency cannot, however, regulate all onsite land disposal practices under the Clean Water Act. Because most states independently regulate facility closure on a case-by-case basis, EPA suggests that the Service may wish to provide similar comments in connection with such state proceedings.

Comment 22—The requirement that permittees report "any noncompliance with these permits, bypass or upset" in part III.D.2 of the permits should only apply to discharges which may endanger health or the environment.

Response to Comment 22—In these "zero discharge" permits, Region 6 has forgone some reporting requirements routinely imposed in other NPDES permits, e.g., submission of quarterly discharge monitoring reports, and the 24 hour reporting requirement is thus of increased significance. Section III.D.2 of each permit requires that all discharges (including discharges which may be subject to the affirmative defenses of bypass and upset under the terms of the permits) be reported within 24 hours, regardless of whether they endanger health or the environment. The qualifying phrase suggested by the comment would allow permittees to unilaterally determine whether they should report their discharges, unacceptably interfering with EPA's ability to enforce the permits. EPA may, of course, consider the effects of a discharge in determining whether to institute enforcement proceedings and the nature of such proceedings.

Comment 23—The proposed permits contain specific typographical and notational errors.

Response to Comment 23—The typographical and notational errors identified by the commentators have been corrected in the final permits.

State Certification: Section 301(b)(1)(C) of the Clean Water Act, 33 U.S.C. 1311(b)(1)(C) requires that NPDES permits include conditions insuring compliance with State water quality standards. Under section 401(a)(1) of the Act, 33 U.S.C. 1241(a)(1), EPA may not issue a permit until an affected state grants or waives certification of compliance with appropriate requirements of the Act and State law. The States of New Mexico and Oklahoma have certified these permits. The States of Louisiana and Texas have waived their certification rights.

Endangered Species Act: In relevant part, section 7 of the Endangered Species Act (ESA) and its implementing regulations (50 CFR part 402) requires that all federal agencies ensure that their actions, such as permit issuance, do not jeopardize the continued existence of an endangered or threatened species or result in the destruction or adverse modification of their critical habitats. In connection with its proposal to issue these general permits, EPA found that issuance of the permits was unlikely to adversely affect any listed species or critical habitat and indicated it would seek concurrence from the U.S. Fish and Wildlife Service in that finding. See 54 FR 35939, 35932 (August 30, 1989). The U.S. Fish and

Wildlife Service has concurred with this finding.

Coastal Zone Management Act

In accordance with section 307(c)(3) of the Coastal Zone Management Act, the Louisiana Coastal Management Division of the State of Louisiana Department of Natural Resources has reviewed NPDES permit LAG320000 and found its issuance consistent with the Louisiana Coastal Resources Program.

Economic Impact (E.O. 12291)

The Office of Management and Budget was exempted this action from the review requirements of Executive Order 12291 pursuant to section 8(b) of that order. The economic and inflationary effects of the regulations (40 CFR 435) on which these permits are based were evaluated in accordance with Executive Orders 11821 and 12044.

Paper Work Reduction Act

EPA has reviewed the requirements imposed on regulated facilities by these general permits under the Paper Work Reduction Act of 1980, 44 U.S.C. 3501, *et seq.* The information collection requirements of these permits have been approved by the Office of Management and Budget in prior submissions.

Regulatory Flexibility Act

Pursuant to 5 U.S.C. 605(b), I certify that these general permits will not have a significant impact on a substantial number of small entities. Final NPDES Permits LAG320000, NMG320000, OKG320000, and TXG320000, printed below, are hereby issued.

Dated: February 11, 1991.

Robert E. Layton Jr., P.E.,

Regional Administrator, EPA, Region 6.

General NPDES Permit for the Oil and Gas Extraction Point Source Category, Onshore Subcategory

Permit No. LAG320000—State of Louisiana

Permit No. NMG320000—State of New Mexico

Permit No. OKG320000—State of Oklahoma

Permit No. TXG320000—State of Texas

This permit, issued under the provisions of the Federal Water Pollution Control Act, as amended (33 U.S.C. 1251 et seq; the "Act"), prohibits the discharge of pollutants from any onshore oil and gas wells and facilities as defined in 40 CFR part 435, subpart C (Onshore Subcategory) and modified at 47 FR. 31554, July 21, 1982. It does not apply to wells or facilities in the Agricultural and Wildlife Use Subcategory (as defined at 40 CFR 435, subpart E). Likewise, it does not apply to existing wells which, at the time of permit issuance, fall within the Stripper Subcategory as defined at 40 CFR 435, subpart F, but onshore wells in which production later falls below 10 barrels per day shall remain subject to this permit. This permit also does not apply to two locations in Conoco's Muldoon Field, Fayette County, Texas nor to those wells or appurtenant facilities whose well heads are located in any water of the United States (as defined at 40 CFR 122.2).

To the extent that applicability of this permit is based on the geographical location of wells or facilities, the location of the wellhead shall be determinative, i.e., pollutant discharges which are prohibited at the location of the well head may not be discharged at other locations.

This permit prohibits the discharge of any pollutant from wells or facilities subject to its terms. Said pollutants include (but are not limited to):

Drilling Fluids
Drill Cuttings
Produced water
Produced sand
Deck and Rig Floor Drainage
Blowout Preventer fluid
Well Treatment Fluids

Further description of said pollutants, as well as monitoring, reporting, and other requirements are set forth in parts I, II, and III of this permit. This permit shall become effective when issued, and expire at midnight on February 25, 1996.

Signed this 11th day of February, 1991.

Myron O. Knudson, P.E.,

Director, Water Management Division, EPA Region 6.

Part I

(Applicable to LAG320000, NMG320000, OKG320000, TXG320000)

Section A. General Permit Coverage

General Permit Limits

(Applicable to LAG320000)

This permit prohibits discharges into waters of the United States as defined at 40 CFR part 122.2. The disposal of waters and waste resulting from oil and gas exploration and producing activities in manners other than by discharges into waters of the United States are limited by the Department of Natural Resources, Office of Conservation of the State of Louisiana according to Amendment to Statewide Order No. 29–B and the water quality standards of the Louisiana Department of Environmental Quality (Louisiana Revised Statute, L.R.S. 30:1091–1096).

(Applicable to NMG320000)

This permit prohibits discharges into waters of the United States as defined at 40 CFR part 122.2. This disposal of waters and waste resulting from oil and gas exploration and producing activities in manners other than by discharges into waters of the United States are otherwise limited by the New Mexico Oil Conservation Division (NMOCD) Rules 01 through 1304 and regulations of the State Oil and Gas Act (sections 70–2–1- through 70–2–38 NMSA, 1978) and as may be amended, and the water quality standards of the New Mexico Water Quality Control Commission, sections 1–100 to 3101 and as explained in Water Quality and Water Pollution Control in New Mexico (1988), and as may be amended.

(Applicable to OKG320000)

This permit prohibits discharges into waters of the United States as defined at 40 CFR part 122.2. The disposal of waters and waste resulting from oil and gas exploration and producing activities in manners other than by discharges into waters of the United States are otherwise limited by the Oklahoma Corporation Commission according to Rules of Practice 1 through 28 (1988) and the water quality standards of the Oklahoma Water Resources Board, Water Quality Division, sections 1 through 8 and as appended (1985) and as may be amended.

(Applicable to TXG320000)

This permit prohibits discharges into waters of the United States as defined at 40 CFR part 122.2. The disposal of waters and waste resulting from oil and gas exploration and producing activities in manners other than by discharges into waters of the United States are otherwise limited by the Railroad Commission of the State of Texas according to Rules for Oil, Gas and Geothermal Operations, 79 through 85 (1987) and the water quality standards of the Texas Water Commission (12 TexReg 3642, 13 TexReg 1776).

Section B. NPDES Individual versus General Permit Applicability

The Regional Administrator may require any person authorized by this permit to apply for and obtain an individual NPDES permit when:

1. The discharge(s) is a significant contributor of pollution;

2. The discharger is not in compliance with the conditions of this permit;

3. A change has occurred in the availability of the demonstrated technology or practices for the control or abatement of pollutants applicable to point sources;

4. A Water Management Plan containing requirements applicable to such a point source is approved;

5. The point source(s) covered by this permit no longer

(a) Involves the same or substantially similar types of operations,

(b) Is no longer limited to the same types of wastes,

(c) Requires the same effluent limitations or operating conditions, or

(d) In the opinion of the Regional Administrator, is more appropriately controlled under an individual permit than under a general permit.

Operators required to apply for an individual permit shall be notified in writing by the Regional Administrator.

A permit holder for a source excluded from coverage under this general permit solely because it already has an individual permit may request that its individual permit be revoked. Upon revocation of the individual permit, this general permit shall apply to the source.

Part II

(Applicable to LAG320000, NMG320000, OKG320000, TXG320000)

Section A. Effluent limitations and Monitoring Requirements, Onshore Subcategory

(Applicable to LAG320000)

The oil and gas exploration and production activities covered by this permit apply to the onshore area of the State of Louisiana as defined in part I.

(Applicable to NMG320000)

The oil and gas exploration and production activities covered by this permit apply to the onshore area of the State of New Mexico as defined in part I.

(Applicable to OKG320000)

The oil and gas exploration and production activities covered by this permit apply to the onshore area of the State of Oklahoma as defined in part I.

(Applicable to TXG320000)

The oil and gas exploration and production activities covered by this permit apply to the onshore area of the State of Texas as defined in part I.

1. Drilling Fluids

(a) Applicability

Permit conditions apply to all drilling fluids (muds), whether oil, mineral oil or water based, and include fluids adhering to drill cuttings, used as the result of activities associated with the exploration and the production of oil and gas.

(b) Prohibitions

The discharge of drilling fluids into waters of the United States is prohibited.

(Applicable to LAG320000)

Best management practices (BMP) shall be used in accordance with the treatment and disposal criteria of the State of Louisiana, Department of Natural Resources, Office of Conservation (Statewide Order 29–B) to ensure that receiving pits will not allow discharge or seepage of drilling fluids into waters of the United States.

(Applicable to NMG320000)

Best management practices (BMP) shall be used in accordance with the rules and regulations of the New Mexico Oil Conservation Division (Rules and Regulations) to ensure that receiving pits will not allow discharge or seepage of drilling fluids into waters of the United States.

(Applicable to OKG320000)

Best management practices (BMP) shall be used in accordance with the general rules and regulations of the Oklahoma Corporation Commission, Oil and Gas Conservation Division (General Rules and Regulations, 1988) to ensure that receiving pits will not allow discharge or seepage of drilling fluids into waters of the United States.

(Applicable to TXG320000)

Best management practices (BMP) shall be used in accordance with the treatment and disposal criteria of the Railroad Commission of Texas (Statewide rules for Oil, Gas and Geothermal Operations, RRCT, 1987) to ensure that receiving pits will not allow discharge or seepage of drilling fluids into waters of the United States.

2. Drill Cuttings

Special note: the permit prohibitions and limitations that apply to drilling fluids also apply to cuttings as well as to the fluids that adhere to them. Any permit condition that applies to the drilling fluid system therefore also applies to cuttings.

3. Produced Water

(a) Applicability

This permit applies to all formation waters recovered during activities associated with the exploration and production of oil and gas, including those recovered during production tests.

(b) Prohibitions

The discharge of produced water or produced water associated with oil is prohibited.

(Applicable to LAG320000)

Produced water, whether from well drilling, production or workover operations, as well as waste waters from storage tanks, separators, saltwater or brine pits are prohibited from being discharged into waters of the United States. Best management practices (BMP) shall be used in accordance with the treatment and disposal criteria of the Louisiana Department of Natural Resources, Office of Conservation (Statewide Order 29–B) to ensure that receiving pits will not allow the discharge or seepage of produced water into waters of the United States.

(Applicable to NMG320000)

Produced water, whether from well drilling, production or workover operations, as well as waste waters from storage tanks, separators, saltwater or brine pits are prohibited from being discharged into waters of the United States. Best management practices (BMP) shall be used in accordance with the treatment and disposal criteria of the New Mexico Oil Conservation Division (Rules and Regulations) to ensure that receiving pits will not allow the discharge or seepage of produced water into waters of the United States.

(Applicable to OKG320000)

Produced water, whether from well drilling, production or workover operations, as well as waste waters from storage tanks, separators, saltwater or brine pits are prohibited from being discharged into waters of the United States. Best management practices (BMP) shall be used in accordance with the treatment and disposal criteria of the Oklahoma Corporation Commission, Oil and Gas Conservation Division (General Rules and Regulations, 1988) to ensure that receiving pits will not allow the discharge or seepage of produced water into waters of the United States.

(Applicable to TXG320000)

Produced water, whether from well drilling, production or workover operations, as well as waste waters from storage tanks, separators, saltwater or brine pits are prohibited from being discharged into waters of the United States. Best management practices (BMP) shall be used in accordance with the treatment and disposal criteria of the Railroad Commission of Texas (Statewide Rules for Oil, Gas and Geothermal Operations, RRCT, 1987) to ensure that receiving pits will not allow the discharge or seepage of produced water into waters of the United States.

4. Produced Sand

Special note: The prohibitions and limitation that apply to drill cuttings, drilling fluids, well completion fluids and fluids that adhere to cuttings also apply to produced sand.

5. Deck or Rig Floor Drainage

(a) Applicability

This permit applies to material or fluid spillage, including drilling muds (oil, mineral oil or water based), wash-down water, grease, waste oil, lubricants, or hydraulic fluids resulting from activities associated with the exploration and production of oil and gas.

(b) Prohibitions

The discharge of rig floor or deck drainage into waters of the United States is prohibited.

(Applicable to LAG320000)

Best management practices (BMP) shall be used in accordance with the treatment and disposal criteria of the State of Louisiana, Department of Natural Resources, Office of Conservation (Statewide Order 29-B) to ensure that rig floor or deck drainage will not discharge, seep or otherwise be released into waters of the United States.

(Applicable to NMG320000)

Best management practices (BMP) shall be used in accordance with the treatment and disposal criteria of the New Mexico Oil Conservation Division (Rules and Regulations) to ensure that rig floor or deck drainage will not discharge or otherwise be released into waters of the United States.

(Applicable to OKG320000)

Best management practices (BMP) shall be used in accordance with the treatment and disposal criteria of the Oklahoma Corporation Commission, Oil and Gas Conservation Division (General Rules and Regulations, 1988) to ensure that rig floor or deck drainage will not discharge, seep or otherwise be released into waters of the United States.

(Applicable to TXG320000)

Best management practices (BMP) shall be used in accordance with the treatment and disposal criteria of the Railroad Commission of Texas (Statewide rules for Oil, Gas and Geothermal Operations, RRCT, 1987) to ensure that rig floor or deck drainage will not discharge, seep or otherwise be released into waters of the United States.

6. Blowout Preventer Fluid

(a) Applicability

This permit applies to all oil or hydraulic fluids used in blowout preventer mechanisms used in activities associated with the exploration and production of oil and gas.

(b) Prohibition

The discharge of blowout preventer fluids are prohibited.

7. Well Treatment Fluids, Completion Fluids, Workover Fluids

(a) Applicability

This permit applies to well treatment fluids, including well completion fluids, workover fluids, well stimulation fluids, or fluids resulting from well tests used in activities related to the exploration and production of oil and gas.

(b) Prohibition

The discharge of well treatment, completion, well testing and workover fluids, as well as discharges from production test, flare, completion or otherwise designated temporary storage pits, into waters of the United States is prohibited.

(Applicable to LAG320000)

Best management practices (BMP) shall be used in the disposal of these wastes in accordance with the treatment and disposal criteria of the State of Louisiana, Department of Natural Resources, Office of Conservation (Statewide Order 29-B) to ensure that there will be no discharges into waters of the United States.

(Applicable to NMG320000)

Best management practices (BMP) shall be used in the disposal of these wastes in accordance with the treatment and disposal criteria of the New Mexico Oil Conservation Division (Rules and Regulations) to ensure that there will be no discharges into waters of the United States.

(Applicable to OKG320000)

Best management practices (BMP) shall be used in the disposal of these wastes in accordance with the treatment and disposal criteria of the Oklahoma Corporation Commission, Oil and Gas Conservation Division (General Rules and Regulations, 1988) to ensure that there will be no discharges into waters of the United States.

(Applicable to TXG320000)

Best management practices (BMP) shall be used in the disposal of these wastes in accordance with the treatment and disposal criteria of the Railroad Commission of Texas (Statewide Rules for Oil, Gas and Geothermal Operations, RRCT, 1987) to ensure that there will be no discharges into waters of the United States.

Part III

(Applicable to LAG320000, NMG320000, OKG320000, TXG320000)

Section A. General Conditions

1. Introduction

In accordance with the provisions of 40 CFR part 122.41 et seq., this permit incorporates by reference ALL conditions and requirements applicable to NPDES permits set forth in the Clean Water Act, as amended (hereinafter known as the "Act") as well as ALL applicable CFR regulations.

2. Duty to Comply

The permittee must comply with all conditions of this permit. Any permit non-compliance constitutes a violation of the Clean Water Act and is grounds for enforcement action and/or for requiring a permittee to apply for and obtain an individual NPDES permit.

3. Permit Flexibility

This permit may be modified, revoked and reissued, or terminated for cause, in accordance with 40 CFR 122.62-64. The filing for a permit modification, revocation and reissuance, or termination, or a notification of planned changes or anticipated noncompliance, does not stay any permit condition.

4. Property Rights

This permit does not convey any property rights of any sort, or any exclusive privileges nor does it authorize any injury to private property or any invasion of personal rights, nor any infringement of Federal, State or local laws or regulations.

5. Duty to Provide Information

The permittee shall furnish to the Regional Administrator, within a reasonable time, any information which the Regional Administrator may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit, or to determine compliance with this permit. The permittee shall also furnish the Regional Administrator, upon request, copies of records required to be kept by this permit.

6. Criminal and Civil Liability

Except as provided in permit conditions on "Bypassing" and "Upsets", nothing in this permit shall be construed to relieve the permittee from civil or criminal penalties for noncompliance. Any false or materially misleading representation or concealment of information required to be reported by the provisions of the

permit, the Act or applicable CFR regulations which avoids or effectively defeats the regulatory purpose of the Permit may subject the permittee to criminal enforcement pursuant to 18 U.S.C. 1001.

7. Oil and Hazardous Substance Liability

Nothing in this permit shall be construed to preclude the institution of any legal action to relieve the permittee from any responsibilities, liabilities, or penalties to which the permittee may be subject under section 311 of the Clean Water Act.

8. State Laws

Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities, or penalties established pursuant to any applicable State law or regulation under authority preserved by section 510 of the Clean Water Act.

9. Severability

The provisions of this permit are severable, and if any provision of this permit or the application of any provision of this permit to any circumstance is held invalid, the application of such provision to other circumstances, and the remainder of this permit, shall not be affected thereby.

Section B. Proper Operation and Maintenance

1. Need to Halt or Reduce Not a Defense

It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.

2. Duty to Mitigate

The permittee shall take all reasonable steps to minimize or prevent any discharge in violation of this permit which has a reasonable likelihood of adversely affecting human health or the environment.

3. Proper Operation and Maintenance

The permittee shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed and used by the permittee to achieve compliance with the conditions of this permit. This provision requires the operation of backup or auxiliary facilities of similar systems which are installed by a permittee only when the operation is necessary to achieve compliance with the conditions of the permit.

4. Bypass of Facilities

(a) Definitions

(1) *Bypass* means the intentional diversion of waste streams from any portion of a facility.

(2) *Severe property damage* means substantial physical damage to property, damage to the treatment facilities that causes them to be inoperable, or substantial and permanent loss of natural resources than can reasonably be expected to occur in the absence of bypass. Severe property damage does not mean economic loss caused by delays in production.

(b) Notice

(1) Anticipated bypass. If the permittee knows in advance of the need for a bypass, it shall submit prior notice, if possible at least ten days before the date of the bypass.

(2) Unanticipated bypass. The permittee shall, within 24 hours, submit notice of an unanticipated bypass as required in part III.D.2.

(c) Prohibition of Bypass

(1) Bypass is prohibited, and the Regional Administrator may take enforcement action against a permittee for bypass, unless:

(a) Bypass was unavoidable to prevent loss of life, personal injury or severe property damage;

(b) There were no feasible alternatives to the bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes, or maintenance during normal periods of equipment downtime. This condition is not satisfied if adequate back-up equipment should have been installed in the exercise of reasonable engineering judgement to prevent a bypass which occurred during normal periods of equipment downtime or preventive maintenance; and

(c) The permittee submitted notices as required by part III.B.4.(b).

(2) The Regional Administrator may approve an anticipated bypass, after considering its adverse effects, if the Regional Administrator determines that it will meet three conditions listed at part III.B.4.(c)(1).

5. Upset Conditions

(a) Definition

Upset means an exceptional incident in which there is unintentional and temporary noncompliance with technology-based effluent limitations because of factors beyond the reasonable control of the permittee. An upset does not include noncompliance to the extent caused by operational error, improperly designed facilities, inadequate facilities, lack of preventive maintenance, or careless or improper operation.

(b) Effects of an Upset. An upset constitutes an affirmative defense of an action brought for noncompliance with such technology-based permit effluent limitations if the requirements of part III.B.5.b. are met. No determination made during administrative review of claims that noncompliance was caused by upset, and before an action for noncompliance, is final administrative action subject to judicial review.

(c) Conditions necessary for a demonstration of upset. The permittee who wishes to establish the affirmative defense of upset shall demonstrate, through properly signed, contemporaneous logs, or other relevant evidence that:

(1) An upset occurred and that the permittee can identify the cause(s) of the upset;

(2) The permitted facility was at the time being properly operated;

(3) The permittee submitted notice of the upset as required by part III.D.2; and

(4) The permittee complied with part III.B.2.

(d) Burden of Proof. In any enforcement proceeding the permittee seeking to establish the occurrence of an upset has the burden of proof.

6. Removed Substances

Solids, sludges, filter backwash, or other pollutants removed in the course of treatment or control of wastewaters shall be disposed of in a manner such as to prevent any pollution from such materials from entering waters of the United States.

Section C. Monitoring and Records

The permittee shall allow the Regional Administrator, or an authorized representative, upon the presentation of credentials and other documents as may be required by law to:

1. Enter upon the permittee premises where a regulated facility or activity is located or conducted, or where records must be kept under the conditions of this permit;

2. Have access to and copy, at reasonable times, those records tha. are kept to assure compliance with the permit (i.e., zero discharge). These records shall be kept for a period of at least three years.

3. Inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices or operations regulated or required under this permit; and

4. Sample or monitor at reasonable times, for the purposes of assuring

permit compliance or as otherwise authorized by the Act, any substances or parameters at any location.

Section D. Reporting Requirements

1. Anticipated Noncompliance

The permittee shall give advance notice to the Regional Administrator of any planned changes in the permitted facility or activity which may result in noncompliance with permit requirements.

2. Twenty-Four Hour Reporting

The permittee shall report any noncompliance with this permit, bypass or upset. Any information shall be provided orally within 24 hours from the time the permittee becomes aware of the circumstances. A written submission shall also be provided within 5 days of the time the permittee becomes aware of the circumstances. The written submission shall contain a description of the noncompliance and its cause; the period of noncompliance, including exact dates and times, and if the noncompliance has not been corrected, the anticipated time it is expected to continue; and steps taken or plans to reduce, eliminate, and prevent reoccurrence of the noncompliance.

3. Other Information

Where the permittee becomes aware that it failed to submit any relevant facts in any report to the Regional Adminstrator, it shall promptly submit such facts or information.

4. Changes in Discharges of Toxic Substances

The permittee shall notify the Regional Administrator as soon as it knows or has reason to believe:

(a) That any activity has occurred or will occur which would result in the discharge, on a routine or frequent basis, or any toxic pollutant which is not limited in the permit, if that discharge will exceed the highest of the "notification levels" described in 40 CFR 122.42(a)(1).

(b) That any activity has occurred or will occur which would result in any discharge, on a non-routine or infrequent basis, of a toxic pollutant which is not limited in the permit, if that discharge will exceed the highest of the "notification levels" described in 40 CFR 122.42(a)(2).

5. Signatory Requirements

All reports, or information submitted to the Regional Administrator shall be signed and certified as follows:

(1) For a corporation. By a responsible corporate officer. For the purpose of this section, a responsible corporate officer means:

(a) A president, secretary, treasurer, or vice-president of the corporation in charge of a principle business function, or decision making functions for the corporation, or

(b) The manager of one or more manufacturing, production or operating facilities employing more than 250 persons or having gross annual sales or expenditures exceeding $25 million (in second-quarter 1980 dollars), if authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures.

(c) For a partnership or sole proprietorship. By a general partner or the proprietor, respectively.

(d) For a municipality, State, Federal or other public agency. Either a principle executive office or ranking elected official. For purposes of this section, a principle executive officer of a Federal agency includes:

(2) The chief executive officer of the agency, or

(3) A senior executive officer having responsibility for the overall operations of a principle geographic unit of the agency.

(4) Alternatively, all reports required by the permit and other information requested by the Regional Administrator may be signed by a person described above or by a duly authorized representative only if:

(a) The authorization is made in writing by a person described above;

(b) The authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility or activity, such as the position of plant manager, operator of a well or oil field, superintendent, or position of equivalent responsibility, or an individual or position having overall responsibility for environmental matters for the company. A duly authorized representative may thus be either a individual or an individual occupying a named position; and

(c) The written authorization is submitted to the Regional Administrator.

(d) Certification. Any person signing a document under this section shall make the following certification:

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for the gathering of 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."

6. Availability of Reports

Except for applications, effluent data, other data specified in 40 CFR 122.7, any information submitted pursuant to this permit may be claimed confidential by the submitter. If no claim is made at the time of submission, information may be made available to the public without further notice.

Section E. Penalties for Villations of Permit Conditions

1. Criminal

(a) Negligent Violations

The Act provides that any person who negligently violates permit conditions implementing sections 301, 302, 306, 307 or 308 of the Act is subject to a fine of not less than $2,500 nor more than $25,000 per day of violation, or by imprisonment for not more than 1 year, or both.

(b) Knowing Violations

The Act provides that any person who knowingly violates permit conditions implementing sections 301, 302, 306, or 308 of the Act is subject to a fine of not less than $5,000 per day of violation nor more than $50,000 per day of violation, or by imprisonment for not more than 3 years, or both.

(c) Knowing Endangerment

The Act provides that any person who knowingly violates permit conditions implementing sections 301, 302, 306, 307 or 308 of the Act and who knows at the time that he is placing another person in imminent danger of death or serious bodily injury is subject to a fine of not more than $250,000, or by imprisonment for not more than 15 years, or both.

(d) False Statements

The Act provides that any person who knowingly makes any false material statement, representation, or certification in any application, record, report, plan, or other document filed or required to be maintained under the Act or who knowingly falsifies, tampers with, or renders inaccurate, any monitoring device or method required to be maintained under the Act, shall upon conviction, be punished by a fine of not more than $10,000 per day, or by imprisonment for not more than 2 years, or both. If a conviction of a person is for a violation committed after a first conviction of such a person under this paragraph, punishment shall be by a fine

of not more than $20,000 per day of violation, or by imprisonment of not more than 4 years, or by both (See section 309.c.4. of the Clean Water Act).

2. Civil Penalties

The Act provides that any person who violates a permit condition implementing sections 301, 302, 306, 307 or 308 of the Act is subject to a civil penalty not to exceed $25,000 per day for each violation.

3. Administrative Penalties

The Act provides that any person who violates a permit condition implementing sections 301, 302, 306, 307, 308, 318, or 405 of the Act is subject to a civil penalty not to exceed $25,000 per day for each violation.

(a) Class I Penalty

Not to exceed $10,000 per violation nor shall the maximum amount exceed $25,000.

(b) Class II Penalty

Not to exceed $10,000 per day for each day during which the violations continues nor shall the maximum amount exceed $125,000.

Section F. Definitions

All definitions in section 502 of the Act shall apply to this permit and are incorporated herein by reference. Unless otherwise specified in this permit, additional definitions words or phrases used in this permit are as follows:

1. *Act* means the Clean Water Act (33 U.S.C. 1251 et. seq.) as amended.

2. *Applicable effluent standards and limitations* means all state and Federal effluent standards and limitations to which a discharge is subject under the Act, including, but not limited to, effluent limitations, standards of performance, toxic effluent standards and prohibitions, and pretreatment standards.

3. *Applicable water quality standards* means all water quality standards to which a discharge is subject under the Act and which have been (a) approved or permitted to remain in effect by the Administrator following submission to him/her, pursuant to section 303(a) of the Act, or (b) promulgated by the Administrator pursuant to section 303(b) or 303(c) of the Act.

4. *Blowout preventer fluid* means a fluid used to actuate the hydraulic blow out preventer at the well site.

5. *Bypass* means the intentional diversion of waste streams from any portion of a treatment facility.

6. *Coastal* means any water, including any wetland, landward of the inner boundry of the territorial seas.

7. *Deck drainage* means all waste resulting from platform washings, deck washings, runoff from curbs, gutters, and drains including spillage of drilling muds, waste from drip pans and rig floor wash down and fluids derived from wash areas.

8. *Drill cuttings* means particles generated by drilling into subsurface geologic formations and which are carried to the surface with the drilling fluids.

9. *Drilling fluid* means any fluid sent down-hole, including muds and any specialty products, from the time the well is begun until the final cessation of drilling.

10. *Environmental Protection Agency* means the U.S. Environmental Protection Agency.

11. *Formation test fluids* means fluids brought up from wells as the result of testing the productivity of potentially economic oil or gas from geologic formations encountered during drilling.

12. *National Pollutant Discharge Elimination* means the national program for issuing, revoking and reissuing, terminating, monitoring and enforcing permits, and imposing and enforcing pretreatment requirements, under sections 307, 318, 402 and 405 of the Act.

13. *Produced sand* means particulate matter, sands, produced along with oil, gas and water during the production of oil and gas.

14. *Regional Administrator* means the Administrator of the U.S. Environmental Protection Agency, Region 6.

15. *Seepage* as used in the permits means the physical, slow movement of wastewater through a porous material in sufficient quantity to produce visible unbroken surface flow from a seepage area to waters of the United States.

16. *Severe property damage* means substantial physical damage to property, damage to treatment facilities which cause them to become inoperable, or substantial and permanent loss of natural resources which can reasonably be expected to occur in the absence of bypass. Severe property damage does not mean economic loss caused by delays in production.

17. *Territorial Seas* means the seas falling seaward of a line of ordinary low water along that portion of the coast which is in direct contact with the open ocean and the line marking the seaward limit of the inland waters, extending seaward a distance of 3 miles (CWA section 502).

18. *Upset* means an exceptional incident in which there is unintentional and temporary noncompliance with technology-based permit effluent limitations because of factors beyond the reasonable control of the permittee. An upset does not include noncompliance to the extent caused by operational error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventive maintenance, or careless or improper operation.

19. *Wetlands* means those areas which are inundated or saturated by surface or ground water at a frequency to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, fens, bogs and similar areas as indicated at 40 CFR 435.41(f).

[FR Doc. 91-4367 Filed 2-22-91; 8:45 am]
BILLING CODE 6560-50-M

ITEM 2

TABLE 1—PROPERTIES FOR REFERENCE C_{16}–C_{18} IOs SBF USED IN DISCHARGE SEDIMENT TOXICITY TESTING—Continued

Mud weight of SBF discharged with cuttings (pounds per gallon)	Reference C_{16}–C_{18} IOs SBF (pounds per gallon)	Reference C_{16}–C_{18} IOs SBF synthetic to water ratio (%)
11–14	11.5	80/20
>14	14.5	85/15
Plastic Viscosity (PV), centipoise (cP)	12–30	
Yield Point (YP), pounds/100 sq. ft	10–20	
10-second gel, pounds/100 sq. ft	8–15	
10-minute gel, pounds/100 sq. ft	12–30	
Electrical stability, V	>300	

[66 FR 6901, Jan. 22, 2001]

Subpart B [Reserved]

Subpart C—Onshore Subcategory

§ 435.30 Applicability; description of the onshore subcategory.

The provisions of this subpart are applicable to those facilities engaged in the production, field exploration, drilling, well completion and well treatment in the oil and gas extraction industry which are located landward of the inner boundary of the territorial seas as defined in 40 CFR 125.1(gg) and which are not included within subpart D, E, or F, *Provided, however,* That the applicability of this subpart to (a) facilities in existence on April 13, 1979 or thereafter engaged in the production, field exploration, drilling, well completion and well treatment in the oil and gas extraction industry which are located on land and which would have been considered "coastal" as defined under the interim final regulations for this industry (40 CFR 435.41, 41 FR 44942, October 13, 1976) or which are (b) located in the Santa Maria Basin of California is suspended.

(Secs. 301, 304(b) and 501 of the Clean Water Act as amended, 33 U.S.C. 1251 *et seq.*)

[44 FR 22075, Apr. 13, 1979, as amended at 47 FR 31555, July 21, 1982]

§ 435.31 Specialized definitions.

For the purpose of this subpart:

(a) The general definitions, abbreviations, and methods of analysis set forth in 40 CFR part 401 shall apply to this subpart.

§ 435.32 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best practicable control technology currently available.

Except as provided in §§ 125.30 through 125.32, any existing point source subject to this subpart shall achieve the following effluent limitations representing the degree of effluent reduction attainable by the application of the best practicable control technology currently available (BPT): there shall be no discharge of waste water pollutants into navigable waters from any source associated with production, field exploration, drilling, well completion, or well treatment (*i.e.*, produced water, drilling muds, drill cuttings, and produced sand).

[60 FR 33966, June 29, 1995]

Subpart D—Coastal Subcategory

SOURCE: 61 FR 66125, Dec. 16, 1996, unless otherwise noted.

§ 435.40 Applicability; description of the coastal subcategory.

The provisions of this subpart are applicable to those facilities engaged in field exploration, drilling, well production, and well treatment in the oil and gas industry in areas defined as "coastal." The term "coastal" shall mean:

(a) Any location in or on a water of the United States landward of the inner boundary of the territorial seas; or

(b)(1) Any location landward from the inner boundary of the territorial seas

Chavez, Carl J, EMNRD

From: Chavez, Carl J, EMNRD
Sent: Thursday, July 09, 2009 4:08 PM
To: Cobrain, Dave, NMENV; Monzeglio, Hope, NMENV
Subject: FW: Western Gallup Refinery NPDES Discharge
Attachments: Gallup Refinery -- Aerial Photo Topography (Reduced) (00084786).jpg; Gallup Refinery -- Land Ownership Status (2) (00084776).jpg; Gallup Refinery -- Land Ownership Status (Reduced) (2) (00084777).jpg; Figures on discharge location.doc

Dave:

I think these are the maps you were requesting. Let me know if not. Thanks.

Carl J. Chavez, CHMM
New Mexico Energy, Minerals & Natural Resources Dept.
Oil Conservation Division, Environmental Bureau
1220 South St. Francis Dr., Santa Fe, New Mexico 87505
Office: (505) 476-3490
Fax: (505) 476-3462
E-mail: CarlJ.Chavez@state.nm.us
Website: http://www.emnrd.state.nm.us/ocd/index.htm
(Pollution Prevention Guidance is under "Publications")

From: Riege, Ed [mailto:Ed.Riege@wnr.com]
Sent: Thursday, July 09, 2009 1:37 PM
To: Chavez, Carl J, EMNRD
Subject: FW: Western Gallup Refinery NPDES Discharge

Ann indicated to me you may not have received these maps.

Thanks
Ed

Ed Riege
Environmental Manager

Western Refining
Gallup Refinery
Route 3 Box 7
Gallup, NM 87301
(505) 722-0217
ed.riege@wnr.com

From: Riege, Ed
Sent: Tuesday, May 19, 2009 8:26 AM
To: 'Chavez, Carl J, EMNRD'
Cc: 'Lane.Willie@epamail.epa.gov'; Rajen, Gaurav
Subject: Western Gallup Refinery NPDES Discharge

Carl,

It was good to talk to you regarding our Discharge Permit application. Attached are maps and figures that you requested indicating the discharge point west of the refinery. Once application is completed you will receive a copy for review.

- **Land Ownership Status Map** – The refinery is located on private land owned by Western Refining Company on Section 33, Township 15 North, Range 15 West, New Mexico Principal

Meridian, and on the southern part of Section 28, which adjoins Section 33 to the north. The refinery is surrounded by State-owned land (colored blue on the map) and private land (colored white and light green on the map). The land colored dark green located south of both the refinery and Interstate 40 is also private land. It may be colored dark green, rather than white, on this map, because it is private "inholding" land within the boundaries of the Cibola National Forest. Navajo Nation land, located farther away from the refinery, is colored light brown.

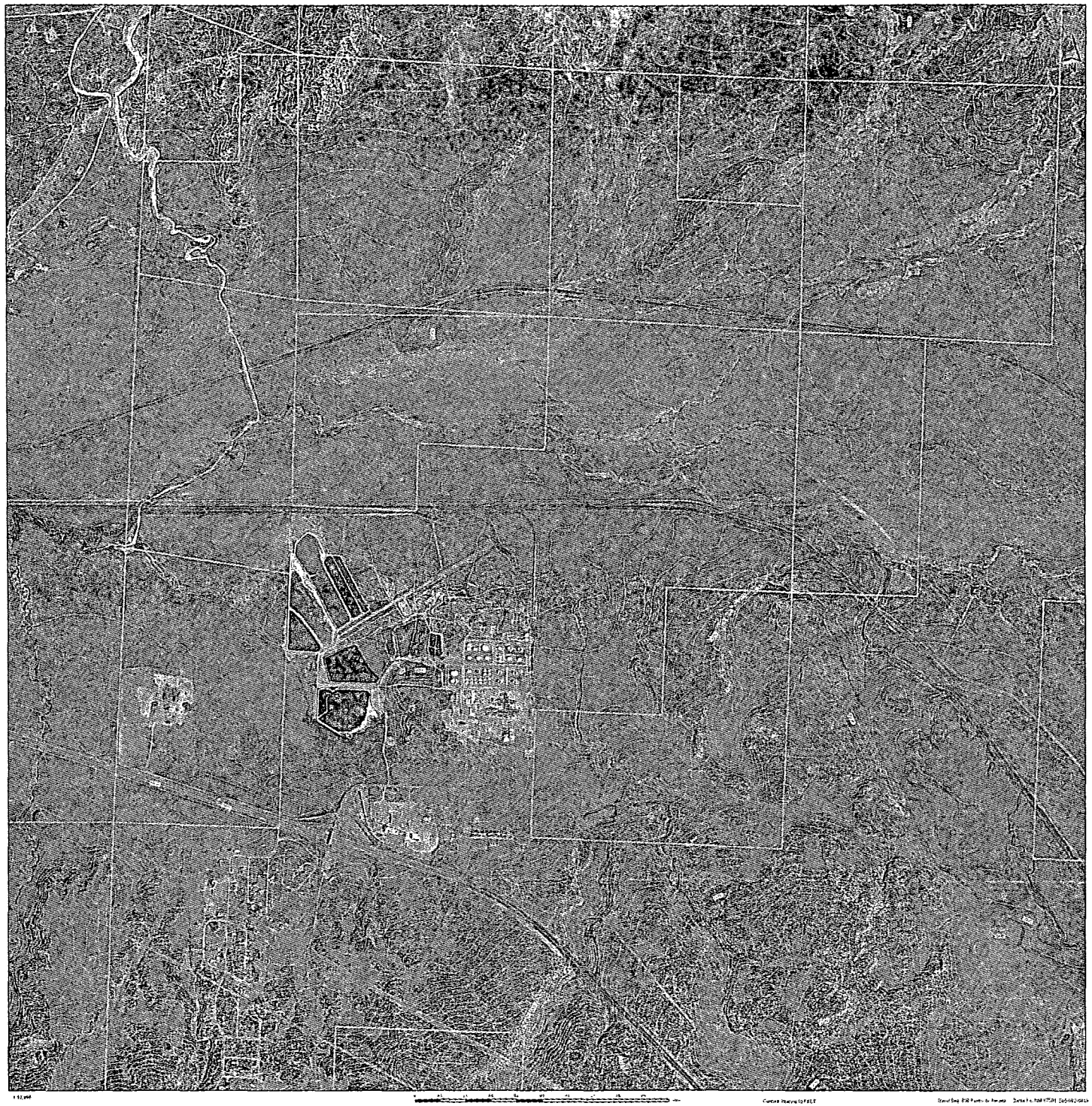
- **Aerial PhotoTopographic Map** – By comparing this aerial photograph with the land ownership map, the South Fork of the Rio Puerco can be located, running approximately east-west to the north of the refinery and approximately northeast-southwest to the west of the refinery. The topographic lines on this photograph also show a wash or arroyo running west and a little north from the refinery to the Rio Puerco. This is the route by which any surface discharge at the refinery could travel to the Rio Puerco.

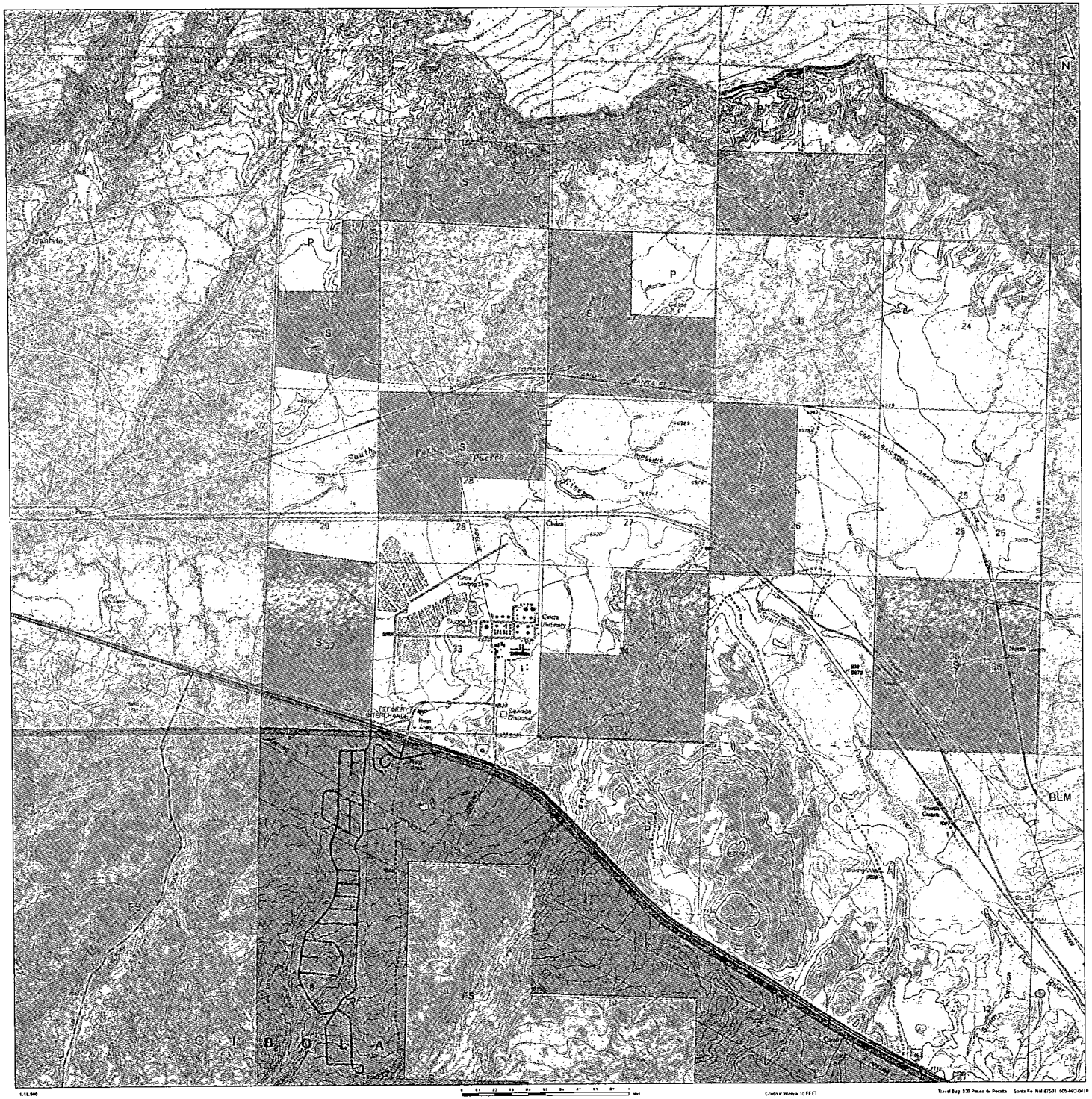
- Proposed discharge point coordinates are 35, 29, 26.23N and 108, 26, 26.01W.

Ed

Ed Riege
Environmental Manager

Western Refining
Gallup Refinery
Route 3 Box 7
Gallup, NM 87301
(505) 722-0217
ed.riege@wnr.com




N
BLM
Contour Interval 10 FEET

Canyon
Palo Duro Canyon
Palo Duro Creek
Tierra Blanca Creek
Prairie Dog Town Fork Red River
Red River
Tule Canyon
Quitaque Creek
Quitaque
Turkey Track Lake
Cleburne State Park
Cleburne
Lake Pauline
Pauline
Lake Tanglewood
Tanglewood
Lake Meredith
Meredith
Lake Fryer
Fryer
Lake Greenbelt
Greenbelt
Lake Alan Henry
Alan Henry
Lake Ransom Canyon
Ransom Canyon
Lake Ransom Road
Ransom Road
Lake Mackenzie
Mackenzie
Lake Buffalo Springs
Buffalo Springs

Chavez, Carl J, EMNRD

Subject: FW: Gallup Refinery (GW-032) NPDES Application & EPA Order and HWB RCRA Issues Communication Meeting
Location: Telephone Conference Call- WRSW will contact HWB and OCD

Start: Thu 7/9/2009 1:30 PM
End: Thu 7/9/2009 3:00 PM
Show Time As: Tentative

Recurrence: (none)

Meeting Status: Not yet responded

Organizer: Chavez, Carl J, EMNRD

Hey guys. This is provided as and FYI only. I would like to however, schedule a telephone conference call between the OCD and SWQB about the NPDES Application, which may include WRSW- Gallup Refinery staff? Would Monday or Tuesday of July 13 or 14th work? Thanks.

-----Original Appointment-----
From: Chavez, Carl J, EMNRD
Sent: Wednesday, July 08, 2009 12:05 PM
To: 'Allen, Ann'; Chavez, Carl J, EMNRD; VonGonten, Glenn, EMNRD; Monzeglio, Hope, NMENV; Cobrain, Dave, NMENV
Subject: Gallup Refinery (GW-032) NPDES Application & EPA Order and HWB RCRA Issues Communication Meeting
When: Thursday, July 09, 2009 1:30 PM-3:00 PM (GMT-07:00) Mountain Time (US & Canada).
Where: Telephone Conference Call- WRSW will contact HWB and OCD

Provided below is an agenda for a meeting on the above subject tomorrow that will not include any legal staff, but technical and resource staff. We met last week and fleshed out some issues that we should communicate about in the decision making process. One more item to include is any miscellaneous relevant subject issues that arise during the meeting tomorrow. The EPA and SWQB will not be involved in the meeting as the meeting is to discuss the pros/cons of NPDES Permit at the facility and any RCRA concerns. The intent of the meeting is to allow OCD to consider the HWB issues at the facility based on the NPDES Permit Application.

Carl:

Thank you for the information you provided in your email this morning. As a brief summary on the issue of delaying your letter, generally, we think the delay would be beneficial and necessary to allow the state agencies and Western to exchange additional information and to seek an understanding of each other's concerns. We would like to have a sit-down meeting with all of the decision-makers as soon as possible. We hope that this additional dialogue will lead to a mutually acceptable solution.

There are a number of points we would like to explore in detail with the state agencies that we believe are relevant to the state's decision on the NPDES application, such as:

- The state will be a party to our draft consent agreement obligations and, as such, will be fully involved in all of the compliance obligations, including design and construction of the WWTS.
- The issuance of the permit will have no adverse effect on any surface waters or groundwaters of the state;
- The permit would merely impose numerical surface discharge limits. The groundwater protection standards will still be applicable;
- The permit we seek is a limited one and should not present any precedential issues for the agencies since we are a refinery and not an upstream oil and gas operation.
- The refinery already is RCRA regulated (and has a post-closure permit). The NPDES permit will not affect that regulation by the state. For example, Western will still be subject to the RCRA 0.5 benzene standard, and that obligation is specifically memorialized in the draft consent agreement.

We would like the state to have ample opportunity to openly discuss these, and any other, points with Western. I look forward to talking with you in more detail later today.

Ann Allen

Leslie Ann Allen
Senior Vice-President
Health, Safety, Environment and Regulatory Affairs

Chavez, Carl J, EMNRD

From: Chavez, Carl J, EMNRD
Sent: Thursday, July 09, 2009 8:58 AM
To: 'Allen, Ann'
Cc: Monzeglio, Hope, NMENV; Cobrain, Dave, NMENV; VonGonten, Glenn, EMNRD; Powell, Richard, NMENV
Subject: RE: Western Refining Gallup - Conference Call Tomorrow with NMED HWB

Ann:

As the agencies proceed forward in the review of WRSW's NPDES application (application), there may be need to contact WRSW for clarification, but also know that in the review of the application, and procedures of the state, WRSW will be able to address any main concerns, issues and/or concerns of the agency in a final permit, if issued.

Also, please be aware that WRSW did not submit the NPDES application to the Oil Conservation Division as a request for a "Minor Modification" to the OCD Discharge Permit as requested in past dialogue with refinery personnel. In order for the OCD to administratively process a change under the discharge permit (GW-032), WRSW needs to comply with the provisions of the permit. I recommend that you submit a cover letter to the OCD with the attached NPDES application to address the above.

The agencies may schedule a meeting when and if the need arises as we move forward with the State's Administrative process.

Thank you.

Carl J. Chavez, CHMM
New Mexico Energy, Minerals & Natural Resources Dept.
Oil Conservation Division, Environmental Bureau
1220 South St. Francis Dr., Santa Fe, New Mexico 87505
Office: (505) 476-3490
Fax: (505) 476-3462
E-mail: CarlJ.Chavez@state.nm.us
Website: http://www.emnrd.state.nm.us/ocd/index.htm
(Pollution Prevention Guidance is under "Publications")

From: Allen, Ann [mailto:ann.allen@wnr.com]
Sent: Thursday, July 09, 2009 5:26 AM
To: Chavez, Carl J, EMNRD
Subject: FW: Western Refining Gallup - Conference Call Tomorrow with NMED HWB

Carl:

Western is interested in a face-to-face meeting with OCD and NMED to discuss the NPDES application, but are willing to participate in calls with the New Mexico agencies as you suggested. Yesterday , you invited Western to participate in a call today that already was scheduled between OCD and HWB. Given the issues involved and our understanding that we may not be granted other opportunities to talk through these issues, we feel strongly that a call to discuss the NPDES application will be most effective if we include those people who have relevant background and decision-making ability. We also believe as you have suggested that an open discussion would be greatly preferable to an exchange of written questions and answers. Since Mr. Bearzi is unable to participate in your call scheduled for today , and one of our key technical people also is unavailable at that particular time, we would be very interested in scheduling a additional call Friday to talk through our issues. We also could plan to be available at other times that are convenient to the agency personnel. Please let me know what the availability of the agencies would be in the next day or two.

Thank you for your efforts in coordinating the discussion among Western and the four agencies involved.

Ann

Leslie Ann Allen
Senior Vice-President
Health, Safety, Environment and Regulatory Affairs

Western Refining
123 W. Mills Ave., Suite 200
El Paso, TX 79901
915 534-1480
915 534-2652(fax)
915 491-1562 (cell)
www.wnr.com

From: Chavez, Carl J, EMNRD [mailto:CarlJ.Chavez@state.nm.us]
Sent: Wednesday, July 08, 2009 4:45 PM
To: Allen, Ann
Subject: RE: Western Refining Gallup - Conference Call Tomorrow with NMED HWB

Ann:

Unfortunately, if you cannot discuss any RCRA issues tomorrow, you can cancel out of the meeting as OCD had planned to talk with HWB anyway at that date and time. However, we could still hold the meeting and you could respond to any RCRA issues you were able to during the meeting, and any that you couldn't respond to, we could make notes for clarification later by your resource person. Unfortunately, James Bearzi may not be able to attend the call, but David Cobrain and Hope Monzeglio were in attendance at the same meeting in February where you discussed the Order and can respond to any comments or position that he took during that meeting. I would encourage you to participate in the meeting tomorrow. If not, I will attempt to obtain an itemized list of HWB issues to send to you for consideration and response by your resource person and we can forego a meeting altogether while we work to address HWB issues and concerns with reply by WRSW.

Let me know. Thanks.

Carl J. Chavez, CHMM
New Mexico Energy, Minerals & Natural Resources Dept.
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1220 South St. Francis Dr., Santa Fe, New Mexico 87505
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E-mail: CarlJ.Chavez@state.nm.us
Website: http://www.emnrd.state.nm.us/ocd/index.htm
(Pollution Prevention Guidance is under "Publications")

From: Allen, Ann [mailto:ann.allen@wnr.com]
Sent: Wednesday, July 08, 2009 4:14 PM
To: Chavez, Carl J, EMNRD
Subject: FW: Western Refining Gallup - Conference Call Tomorrow with NMED HWB

Carl--Sorry. I meant to say in my previous message that the key technical person is the one who can address the RCRA quesitons NMED Hazardous Waste Bureau has. Ann

Leslie Ann Allen
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www.wnr.com

From: Allen, Ann
Sent: Wednesday, July 08, 2009 4:04 PM
To: 'Chavez, Carl J, EMNRD'
Cc: Riege, Ed
Subject: FW: Western Refining Gallup - Conference Call Tomorrow with NMED HWB

Carl--

A key technical person I need on the call is not available tomorrow at 1:30 pm. He can be available on Friday. Can we do this on Friday?

Ann

Leslie Ann Allen
Senior Vice-President
Health, Safety, Environment and Regulatory Affairs

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From: Allen, Ann
Sent: Wednesday, July 08, 2009 2:04 PM
To: 'Chavez, Carl J, EMNRD'
Subject: Western Refining Gallup - Conference Call Tomorrow with NMED HWB

Carl--I respectfully request that you invite James Bearzi to be on the call. I think it is important that he attend especially since he participated in the February meeting with EPA and NMED and also in the meeting last week with refinery staff. I am checking now to see if the appropriate technical people on the Western side are available. Thanks, Ann

Leslie Ann Allen
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Chavez, Carl J, EMNRD

From: Chavez, Carl J, EMNRD
Sent: Thursday, July 09, 2009 8:29 AM
To: Monzeglio, Hope, NMENV; Cobrain, Dave, NMENV; Powell, Richard, NMENV
Subject: FW: Accepted: Gallup Refinery (GW-032) NPDES Application & EPA Order and HWB RCRA Issues Communication Meeting

To get patched into the conference call with WRSW today at 1:30 p.m. Mountain Time, please call and enter the code provided by Ann highlighted in yellow below. Thanks.

Carl J. Chavez, CHMM
New Mexico Energy, Minerals & Natural Resources Dept.
Oil Conservation Division, Environmental Bureau
1220 South St. Francis Dr., Santa Fe, New Mexico 87505
Office: (505) 476-3490
Fax: (505) 476-3462
E-mail: CarlJ.Chavez@state.nm.us
Website: http://www.emnrd.state.nm.us/ocd/index.htm
(Pollution Prevention Guidance is under "Publications")

-----Original Appointment-----
From: Allen, Ann [mailto:ann.allen@wnr.com]
Sent: Thursday, July 09, 2009 5:36 AM
To: Chavez, Carl J, EMNRD
Subject: Accepted: Gallup Refinery (GW-032) NPDES Application & EPA Order and HWB RCRA Issues Communication Meeting
When: Thursday, July 09, 2009 1:30 PM-3:00 PM (GMT-07:00) Mountain Time (US & Canada).
Where: Telephone Conference Call- WRSW will contact HWB and OCD

Carl--We can use call-in number 800-369-0860 participant code 148521#. Can you provide this number to other participants from the New Mexico agencies who are not in the same conference room with you? Ann

Chavez, Carl J, EMNRD

From: Chavez, Carl J, EMNRD
Sent: Wednesday, July 08, 2009 4:45 PM
To: 'Allen, Ann'
Subject: RE: Western Refining Gallup - Conference Call Tomorrow with NMED HWB

Ann:

Unfortunately, if you cannot discuss any RCRA issues tomorrow, you can cancel out of the meeting as OCD had planned to talk with HWB anyway at that date and time. However, we could still hold the meeting and you could respond to any RCRA issues you were able to during the meeting, and any that you couldn't respond to, we could make notes for clarification later by your resource person. Unfortunately, James Bearzi may not be able to attend the call, but David Cobrain and Hope Monzeglio were in attendance at the same meeting in February where you discussed the Order and can respond to any comments or position that he took during that meeting. I would encourage you to participate in the meeting tomorrow. If not, I will attempt to obtain an itemized list of HWB issues to send to you for consideration and response by your resource person and we can forego a meeting altogether while we work to address HWB issues and concerns with reply by WRSW.

Let me know. Thanks.

Carl J. Chavez, CHMM
New Mexico Energy, Minerals & Natural Resources Dept.
Oil Conservation Division, Environmental Bureau
1220 South St. Francis Dr., Santa Fe, New Mexico 87505
Office: (505) 476-3490
Fax: (505) 476-3462
E-mail: CarlJ.Chavez@state.nm.us
Website: http://www.emnrd.state.nm.us/ocd/index.htm
(Pollution Prevention Guidance is under "Publications")

From: Allen, Ann [mailto:ann.allen@wnr.com]
Sent: Wednesday, July 08, 2009 4:14 PM
To: Chavez, Carl J, EMNRD
Subject: FW: Western Refining Gallup - Conference Call Tomorrow with NMED HWB

Carl--Sorry. I meant to say in my previous message that the key technical person is the one who can address the RCRA quesitons NMED Hazardous Waste Bureau has. Ann

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From: Allen, Ann
Sent: Wednesday, July 08, 2009 4:04 PM
To: 'Chavez, Carl J, EMNRD'

Cc: Riege, Ed
Subject: FW: Western Refining Gallup - Conference Call Tomorrow with NMED HWB

Carl--

A key technical person I need on the call is not available tomorrow at 1:30 pm. He can be available on Friday. Can we do this on Friday?

Ann

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From: Allen, Ann
Sent: Wednesday, July 08, 2009 2:04 PM
To: 'Chavez, Carl J, EMNRD'
Subject: Western Refining Gallup - Conference Call Tomorrow with NMED HWB

Carl--I respectfully request that you invite James Bearzi to be on the call. I think it is important that he attend especially since he participated in the February meeting with EPA and NMED and also in the meeting last week with refinery staff. I am checking now to see if the appropriate technical people on the Western side are available. Thanks, Ann

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Chavez, Carl J, EMNRD

From: Chavez, Carl J, EMNRD
Sent: Wednesday, July 08, 2009 4:06 PM
To: Chavez, Carl J, EMNRD
Subject: NMOCD Discharge Permit (GW-032) Western Refining SW- Gallup Refinery NPDES Application

Mr. Powell:

Carl J. Chavez, CHMM
New Mexico Energy, Minerals & Natural Resources Dept.
Oil Conservation Division, Environmental Bureau
1220 South St. Francis Dr., Santa Fe, New Mexico 87505
Office: (505) 476-3490
Fax: (505) 476-3462
E-mail: CarlJ.Chavez@state.nm.us
Website: http://www.emnrd.state.nm.us/ocd/index.htm
(Pollution Prevention Guidance is under "Publications")

Chavez, Carl J, EMNRD

From: Chavez, Carl J, EMNRD
Sent: Wednesday, July 08, 2009 8:15 AM
To: 'Allen, Ann'
Subject: RE: Gallup NPDES Permit Application (GW-032)

Ann:

I have a meeting sometime this morning with the Director about the NPDES permit application at the Gallup Refinery. I will contact you today after that meeting. The OCD may be able to delay our Friday COB depending on what your concerns are?

As you know there are 3 official entities involved in the review of the NPDES permit application submitted by the Western Refinery. Neither the NMED- Surface Water Quality Bureau (SWQB) nor the Oil Conservation Division have Primacy for the NPDES Program in New Mexico. It is the EPA Region 6 Office in Dallas that has the licensing and permitting authority for NPDES permits in New Mexico. The NMED- SWQB is the certified agency in New Mexico that provides the technical support to the Federal Government and State agencies like the OCD in New Mexico. The WQCC delegated authority for the WQA in NM to various agencies that administer program related activities and for oil and gas or geothermal activities, it is the OCD who must review the NPDES permit jointly with the SWQB to determine whether the application is approvable. It has been the policy that the EPA will not approve NPDES permits at oil and gas facilities without the approval of the OCD, and similarly for Mining and Minerals where those programs apply for NPDES permits.

Based on the above, the NMED- Hazardous Waste Bureau (HWB) is interested in the NPDES permit because it affects the hazardous waste aspects of the treatment system that has been regulated jointly with the OCD under RCRA, oil and gas and WQCC regulations.

The OCD is currently reviewing the NPDES permit application with the SWQB and we must act within 30 days in or review process with the SWQB. The OCD is in communication with the EPA and HWB on the issues that have been fleshed out as part of the application process.

Thank you.

Carl J. Chavez, CHMM
New Mexico Energy, Minerals & Natural Resources Dept.
Oil Conservation Division, Environmental Bureau
1220 South St. Francis Dr., Santa Fe, New Mexico 87505
Office: (505) 476-3490
Fax: (505) 476-3462
E-mail: CarlJ.Chavez@state.nm.us
Website: http://www.emnrd.state.nm.us/ocd/index.htm
(Pollution Prevention Guidance is under "Publications")

From: Allen, Ann [mailto:ann.allen@wnr.com]
Sent: Tuesday, July 07, 2009 6:17 PM
To: Chavez, Carl J, EMNRD
Subject: Gallup NPDES Permit Application

Hi, Carl--

Can you e-mail me with a time we might be able to talk for a few minutes tomorrow?

Thanks,
Ann

Leslie Ann Allen
Senior Vice-President
Health, Safety, Environment and Regulatory Affairs

Western Refining
123 W. Mills Ave., Suite 200
El Paso, TX 79901
915 534-1480
915 534-2652(fax)
915 491-1562 (cell)
www.wnr.com

Chavez, Carl J, EMNRD

Subject:	WRSW- Gallup Refinery (GW-032) Process Design Rpt. WWTP Upgrade & NPDES Permit Issues Meeting
Location:	OCD Conference Room (3rd Floor) Wendell Chino Bldg. (1220 S. St. Francis Drive, Santa Fe 87505)
Start:	Wed 7/1/2009 1:00 PM
End:	Wed 7/1/2009 3:30 PM
Show Time As:	Tentative
Recurrence:	(none)
Meeting Status:	Not yet responded
Organizer:	Chavez, Carl J, EMNRD
Required Attendees:	Riege, Ed; Allen, Ann; Monzeglio, Hope, NMENV; Cobrain, Dave, NMENV; Chavez, Carl J, EMNRD

Meet to discuss and communicate on WWTP Upgrade and NPDES Issues.

Support staff welcome.

Please contact me 505-476-3490 if you have questions. Thanks.

Chavez, Carl J, EMNRD

From: Riege, Ed [Ed.Riege@wnr.com]
Sent: Thursday, July 09, 2009 1:37 PM
To: Chavez, Carl J, EMNRD
Subject: FW: Western Gallup Refinery NPDES Discharge
Attachments: Gallup Refinery -- Aerial Photo Topography (Reduced) (00084786).jpg; Gallup Refinery -- Land Ownership Status (2) (00084776).jpg; Gallup Refinery -- Land Ownership Status (Reduced) (2) (00084777).jpg; Figures on discharge location.doc

Ann indicated to me you may not have received these maps.

Thanks
Ed

Ed Riege
Environmental Manager

Western Refining
Gallup Refinery
Route 3 Box 7
Gallup, NM 87301
(505) 722-0217
ed.riege@wnr.com

From: Riege, Ed
Sent: Tuesday, May 19, 2009 8:26 AM
To: 'Chavez, Carl J, EMNRD'
Cc: 'Lane.Willie@epamail.epa.gov'; Rajen, Gaurav
Subject: Western Gallup Refinery NPDES Discharge

Carl,

It was good to talk to you regarding our Discharge Permit application. Attached are maps and figures that you requested indicating the discharge point west of the refinery. Once application is completed you will receive a copy for review.

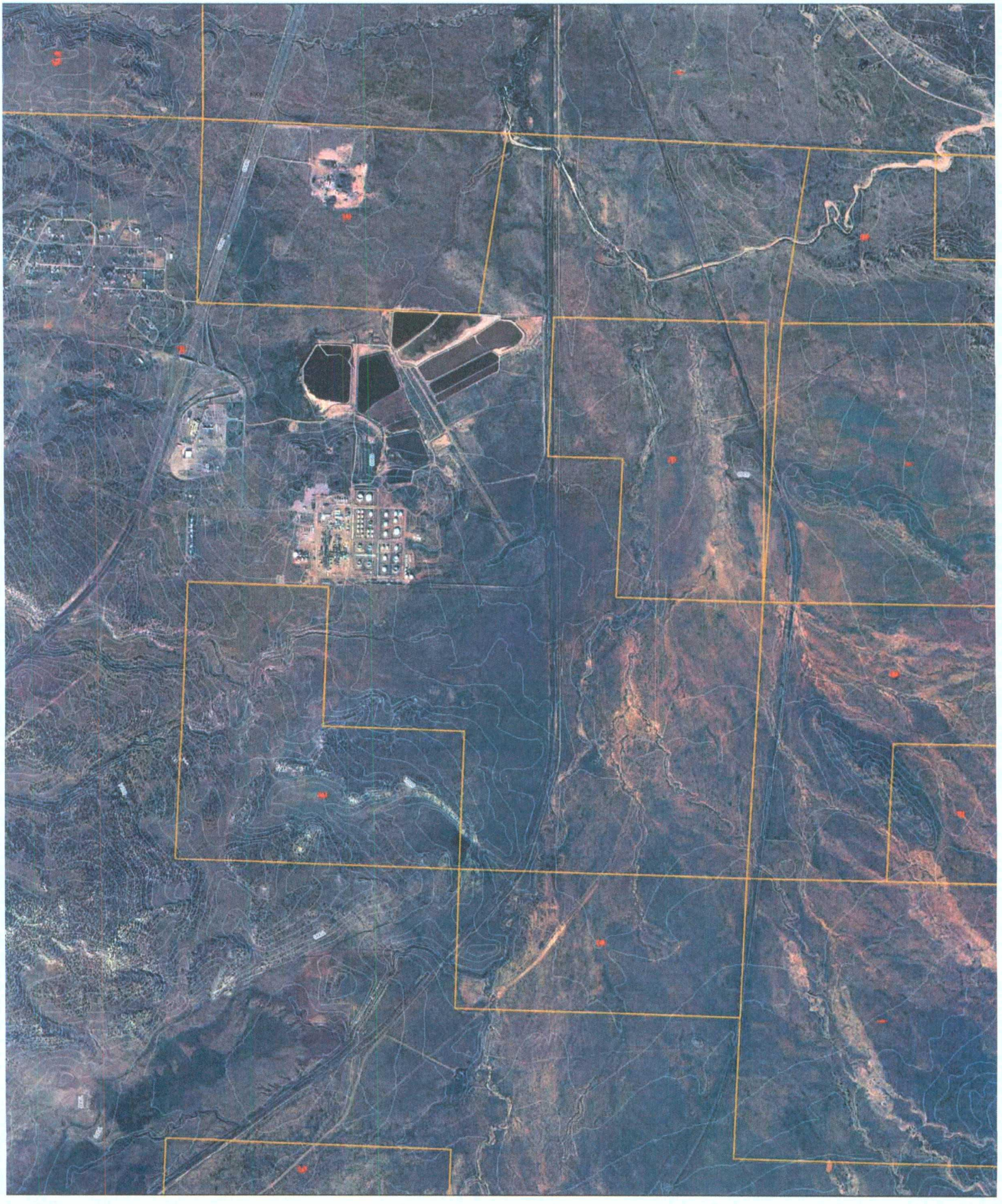
- **Land Ownership Status Map** – The refinery is located on private land owned by Western Refining Company on Section 33, Township 15 North, Range 15 West, New Mexico Principal Meridian, and on the southern part of Section 28, which adjoins Section 33 to the north. The refinery is surrounded by State-owned land (colored blue on the map) and private land (colored white and light green on the map). The land colored dark green located south of both the refinery and Interstate 40 is also private land. It may be colored dark green, rather than white, on this map, because it is private "inholding" land within the boundaries of the Cibola National Forest. Navajo Nation land, located farther away from the refinery, is colored light brown.

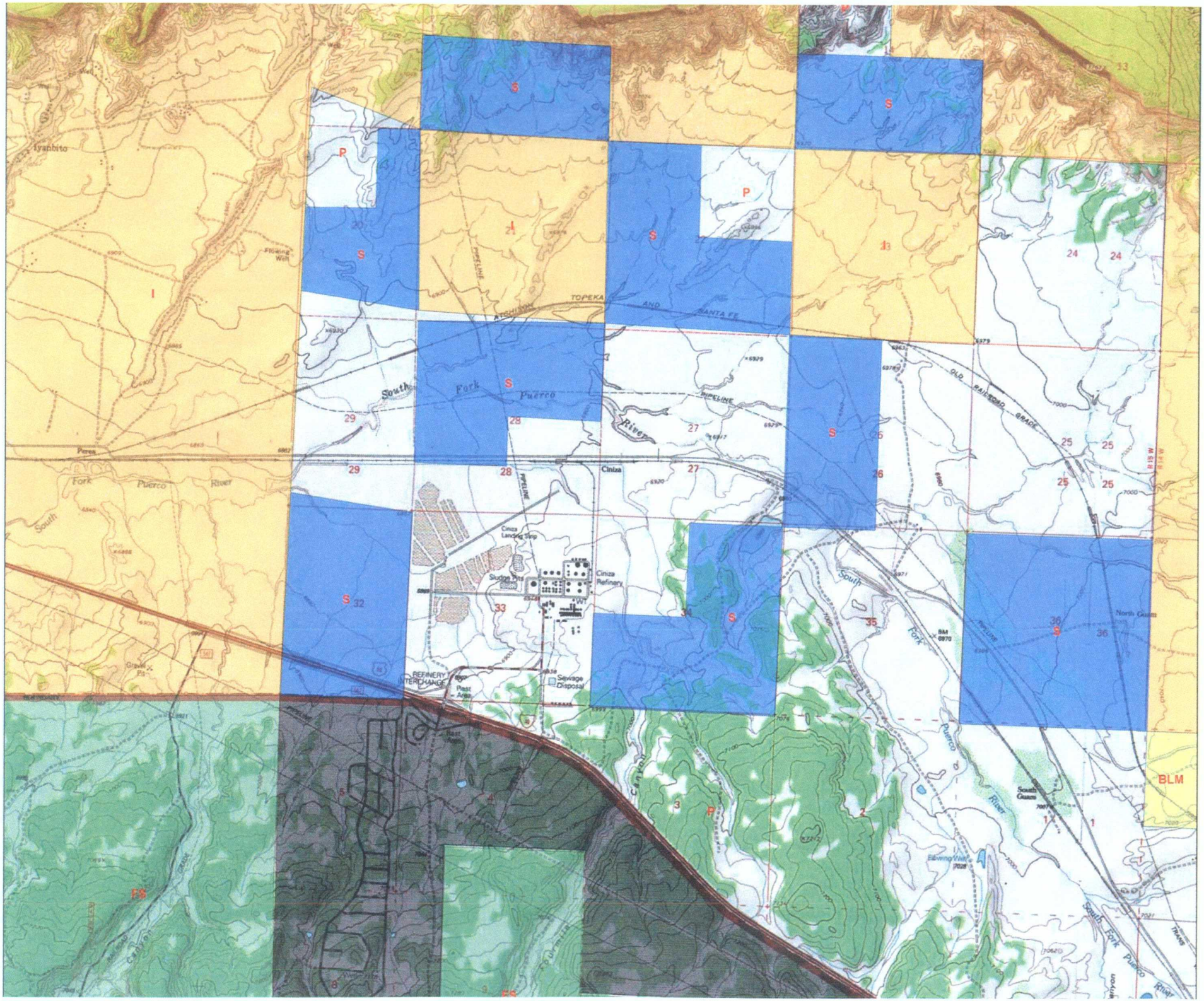
- **Aerial PhotoTopographic Map** – By comparing this aerial photograph with the land ownership map, the South Fork of the Rio Puerco can be located, running approximately east-west to the north of the refinery and approximately northeast-southwest to the west of the refinery. The topographic lines on this photograph also show a wash or arroyo running west and a little north from the refinery to the Rio Puerco. This is the route by which any surface discharge at the refinery could travel to the Rio Puerco.

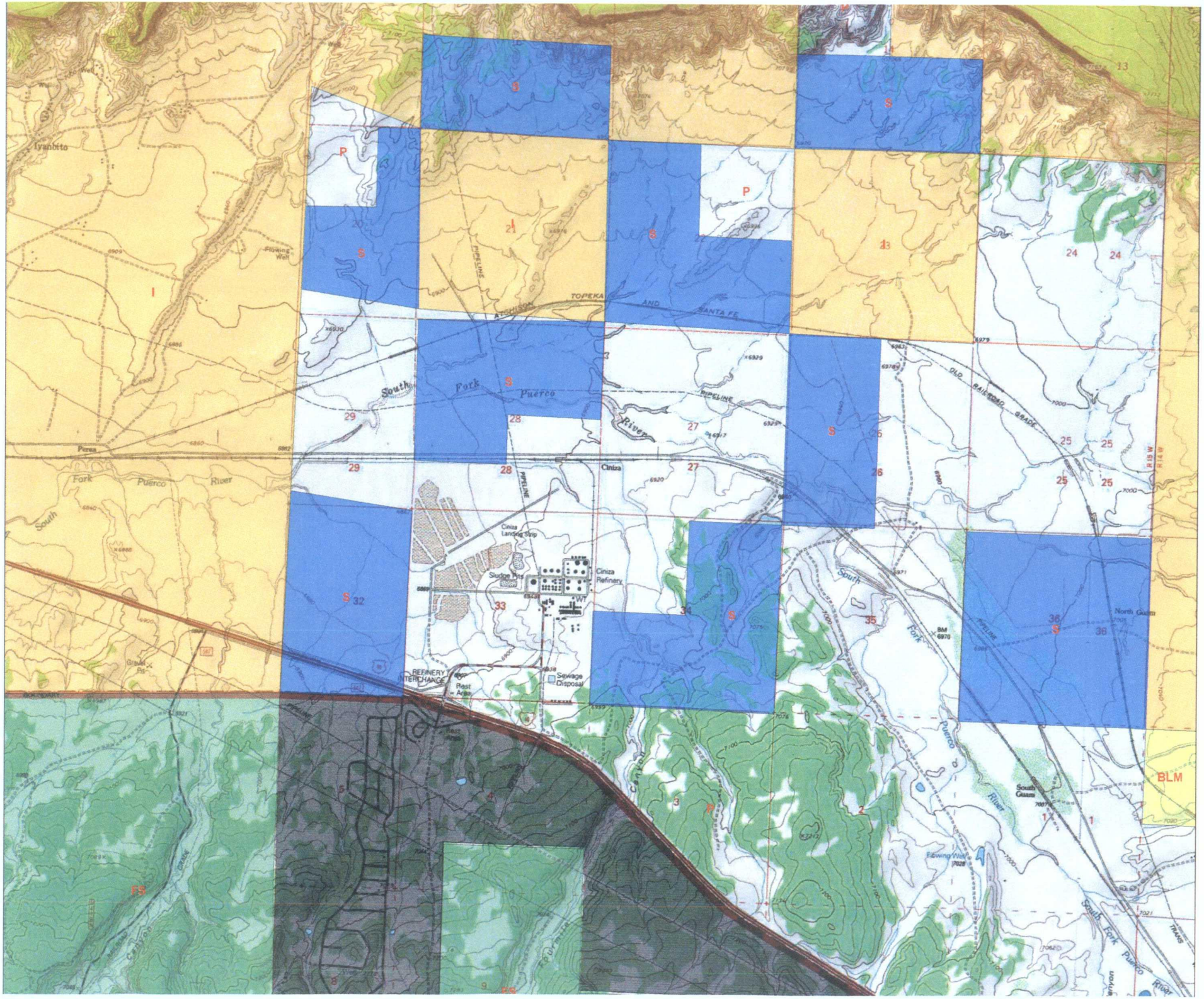
- Proposed discharge point coordinates are 35, 29, 26.23N and 108, 26, 26.01W.

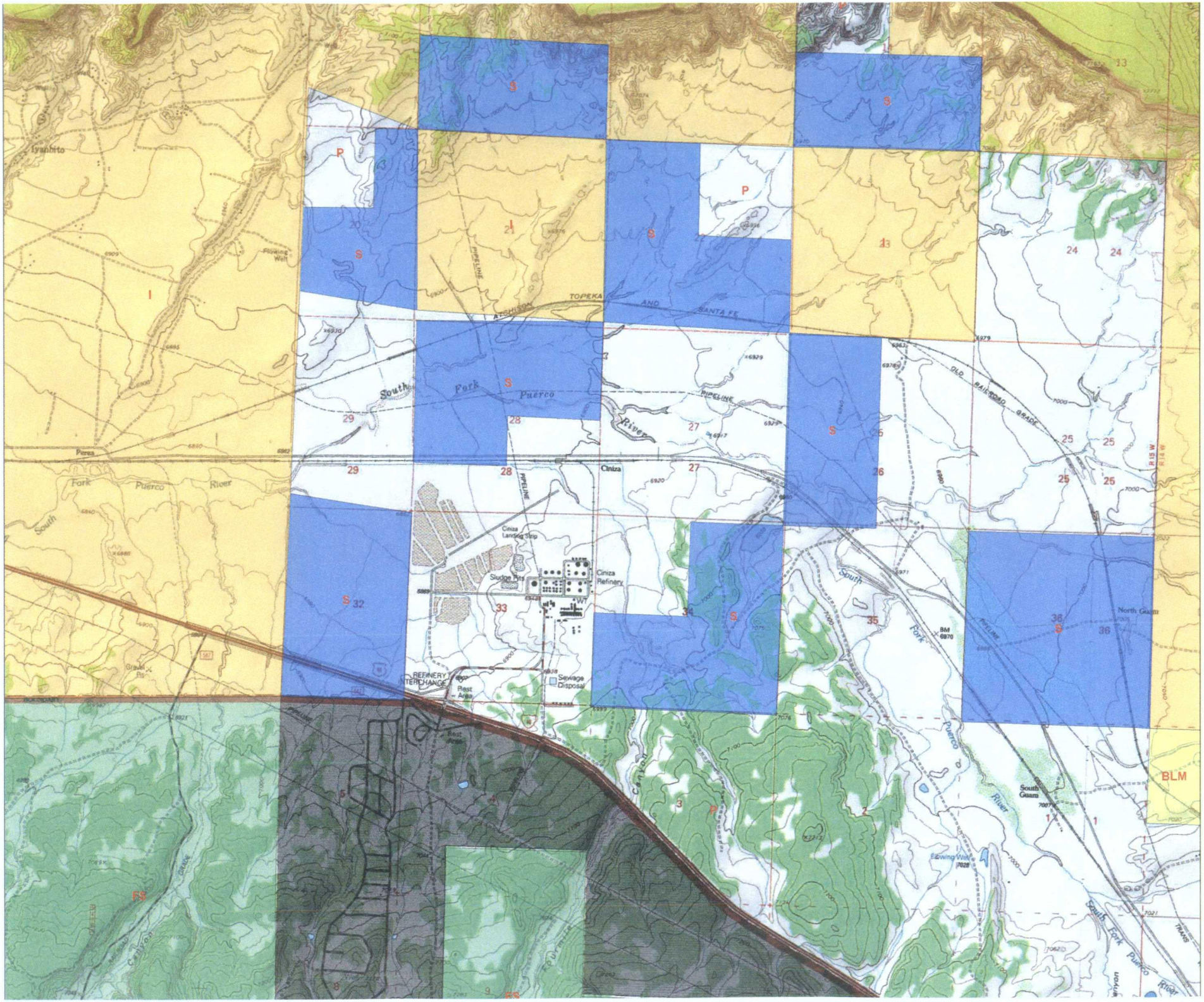
Ed

Ed Riege




Tyanbito
Flowing Well
TOPEKA AND SANTA FE
PIPELINE
South Fork Puerco River
Ciniza
Ciniza Landing Strip
Sludge Pits
Ciniza Refinery
REFINERY INTERCHANGE
Past Area
Sewage Disposal
OLD RAILROAD GRADE
North Guam
South Guam
Fleming Well
BLM
FS


Iyanbito
Ciniza
Ciniza Refinery
Ciniza Landing Strip
Sludge Pits
Sewage Disposal
REFINERY INTERCHANGE
Rest Area
Gravel Pit
TOPEKA AND SANTA FE
PIPELINE
OLD RAILROAD GRADE
South Fork Puerco River
North Gamo
South Gamo
BLM
FS
R 15 W
R 14 W


Iyanbito
Perea
Fork
Puerco
River
South
Ciniza
Ciniza Landing Strip
Sludge Pits
Ciniza Refinery
REFINERY INTERCHANGE
Rest Area
Sewage Disposal
TOPEKA AND SANTA FE
PIPELINE
OLD RAILROAD GRADE
North Gallup
South Gallup
Canyon
BLM
FS
T15W
R14W

Chavez, Carl J, EMNRD

From: Chavez, Carl J, EMNRD
Sent: Wednesday, July 01, 2009 5:49 PM
To: Chavez, Carl J, EMNRD
Cc: Chavez, Carl J, EMNRD; Monzeglio, Hope, NMENV
Subject: Western Refining SW- Gallup Refinery (GW-032) NPDES Application Meeting & Waste Water Treatment System Update Meeting (OCD Conf. Rm- Santa Fe)

I met with Ed Riege (WRSW), Raj Gaurav (WRSW) and Shane ? (WRSW) to discuss the above subject from 1:00 to 3:00 p.m. Also in attendance were Hope Monzeglio (NMED-HWB), James Bearzi (NMED-HWB), Glen Saums (NMED-SWQB), and Richard Powell (NMED-SWQB).

Based on a preliminary discussion, the proposed outfall location may be more effectively located to monitor discharges from the treatment system than the present location where mixing with stormwater runoff could occur.

Discussed OCD's zero discharge policy for pollutants. An approval of an NPDES discharge permit would be an exception to the OCD's policy unless there is treatment. The agencies also have to consider the spill/release record of the facility, which has shown releases to have occurred and OCD discussed the lack of follow-up documentation addressing the initial C-141 reported releases that occurred at the facility. In addition, the refinery was recently discharging benzene above the hazardous waste limit into EP-1. Discussed the "magic clay" that the refinery was placed over, but this doesn't give the refinery a green light to continue discharging to the environment and from a major facility like a refinery. OCD told WRSW that it would however consider the pros and cons of supporting an NPDES Permit for the facility. Also, it might take a 100 year flood event to discharge contamination from the refinery to "waters of the state."

EPA allows emergency NPDES Permits like this one in the event of a discharge to waters of the state. Any discharges that occur, would be more than 1-mile away from the tributary to the Rio Puerco River or waters of the state. OCD has always handled discharges outside of the treatment area under notification with corrective action and the SWPPP for the facility assisted with preventing releases from migrating off property or outside of its treatment area (ponds).

WRSW would not concede that it is seeking an NPDES Permit to avoid a potentially expensive RCRA Permit process. HWB indicated that the only location where a RCRA Permit may be required is at the treatment location where hazardous waste discharges are prohibited.

NMED is against the NPDES Permit, since it relinquishes their authority to oversee the treatment system under RCRA.

If OCD approves of the NPDES permit, NMED would not be pleased. Similarly, if OCD disapproves the NPDES application, there may be Legislators who will contact Mark Fesmire to complain and/or inquire as to why the permit was rejected by the OCD.

OCD agreed to provide notification to WRSW by Friday COB 7/10/2009 of its intent to support or disapprove an NPDES Permit for the facility. OCD plans to have a telephone conference call with the HWB next week- followed by a call to the SWQB. OCD would then contact NMED to let them know what our plans are regarding the NPDES Permit with a call to EPA Region 6. OCD will then contact WRSW of the OCD's final position on the matter.

The waste water treatment system incorporated into the recent discharge permit renewal touched on the NPDES vs. RCRA path for the treatment system. WRSW presented a couple of new treatment technologies to replace the bioreactor, which should reduce the amount of time for installation, i.e., Dissolved Gas Flotation Device to replace tank-based oil separation system and Micro-porous Polymer Extraction (MPPE) to replace bioreactor. The MPPE system will remove 99.9999 % VOCs and is a dual column resin bead system (use one column at a time w/ switch during backwashing of clogged column). Each column will handle max. capacity of 500 gpm, but refinery only runs about 300 gpm at any one time. More efficient and less time to install as permanent system.

Attachments: OCD Online "GW-032" (see NPDES thumbnail)

Carl J. Chavez, CHMM
New Mexico Energy, Minerals & Natural Resources Dept.
Oil Conservation Division, Environmental Bureau

1220 South St. Francis Dr., Santa Fe, New Mexico 87505
Office: (505) 476-3490
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Website: http://www.emnrd.state.nm.us/ocd/index.htm
(Pollution Prevention Guidance is under "Publications")

Western Refining
Gallup Refinery

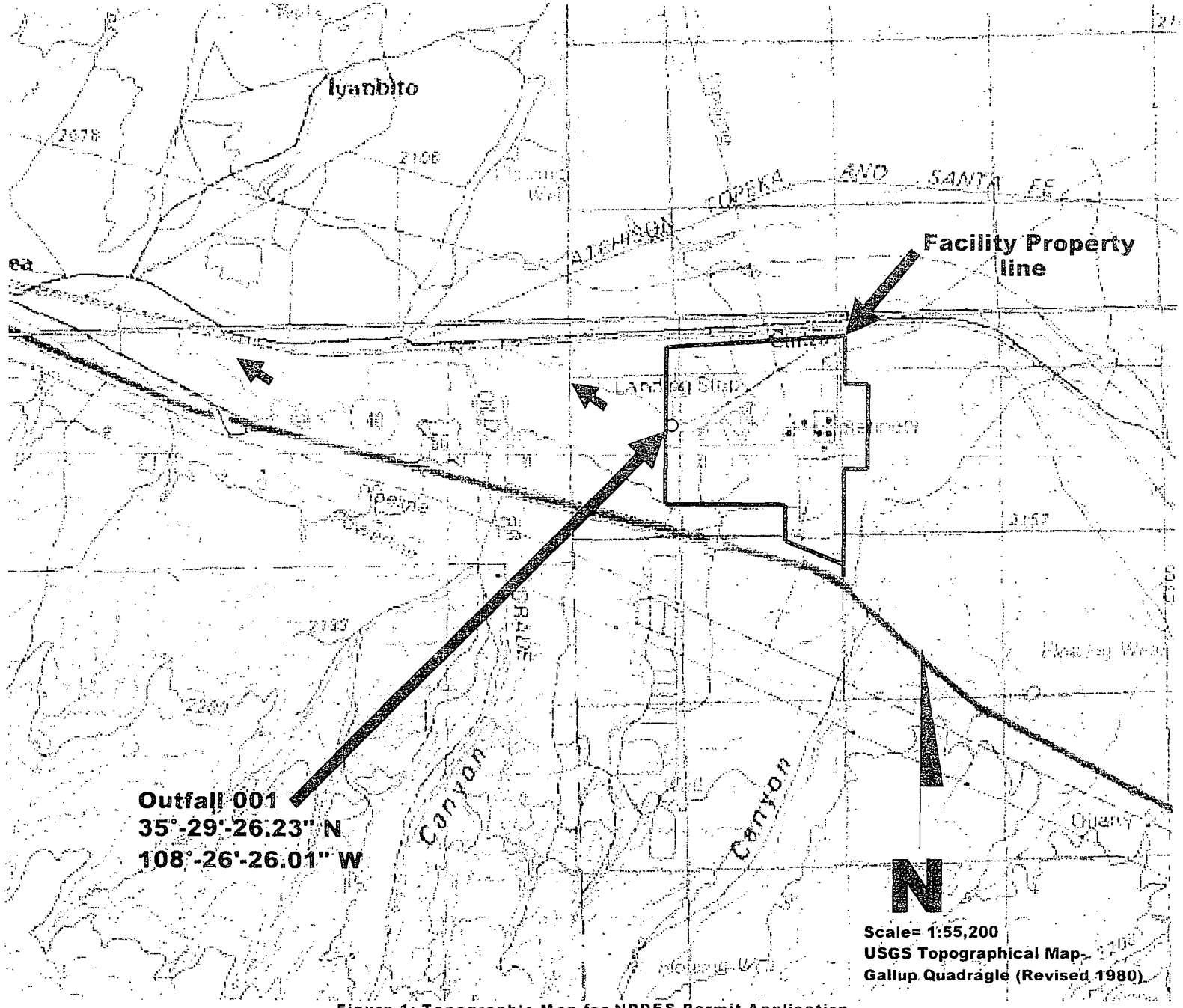


Figure 1: Topographic Map for NPDES Permit Application

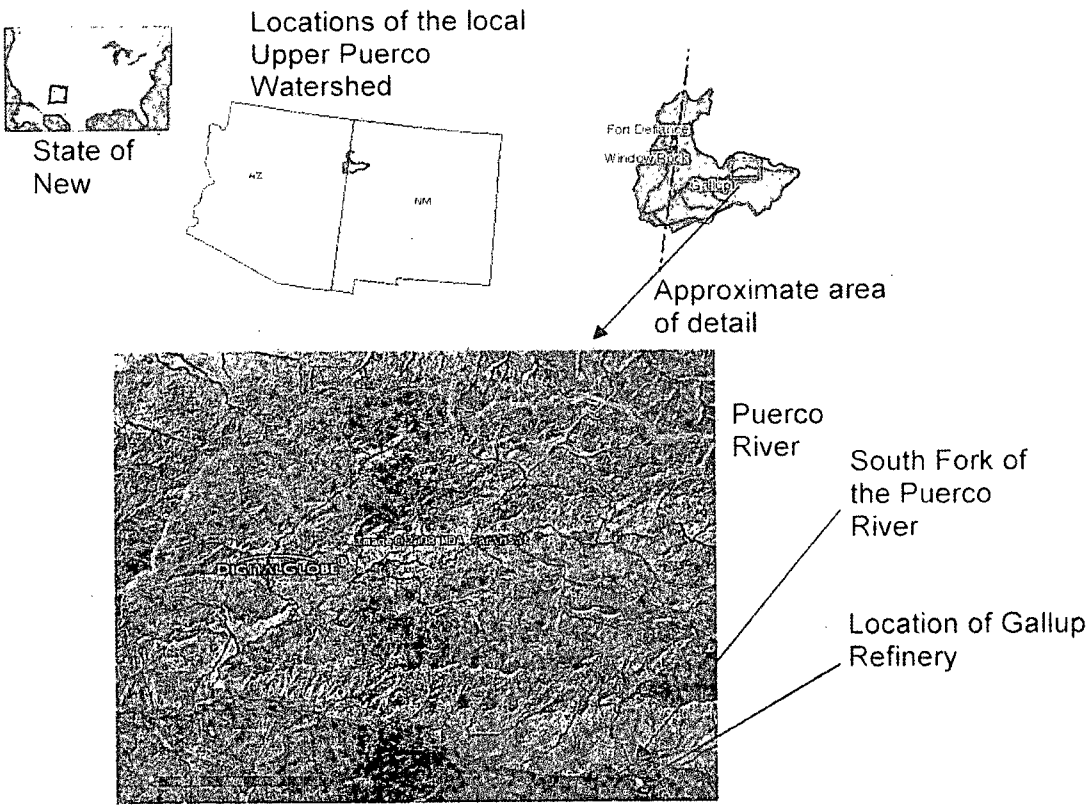


Figure 3: Regional scale: Flow lines and major surface water bodies (from: EPA Enviromapper - http://map24.epa.gov/EMR/?ZoomToWatershed=15020006) North is towards the top of the page.

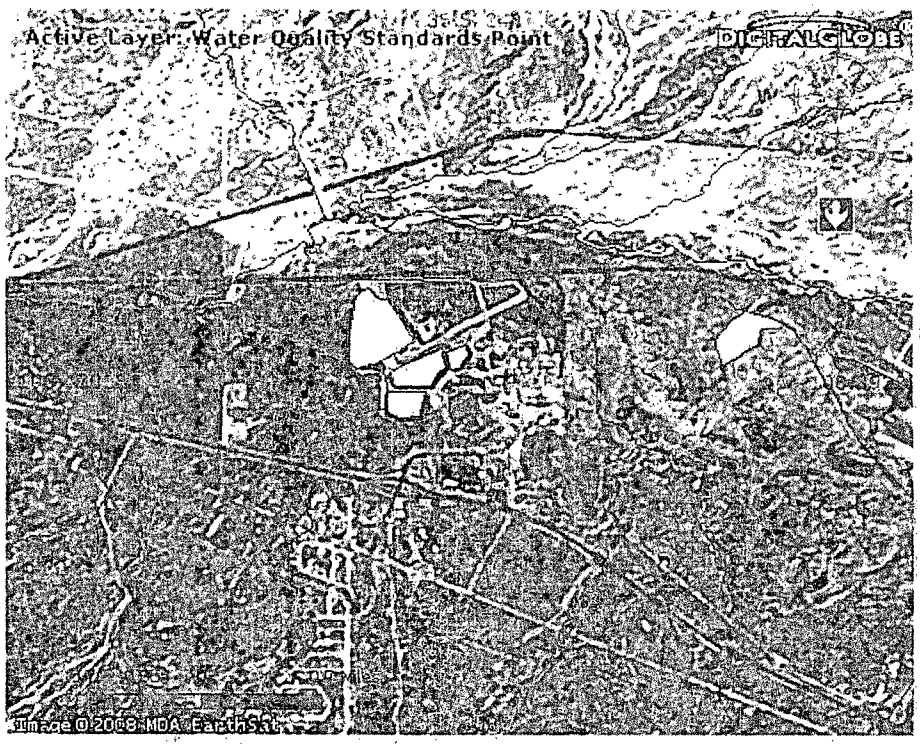


Figure 4: Localized scale: Flow lines and major surface water bodies (from: EPA Enviromapper - http://map24.epa.gov/EMR/?ZoomToWatershed=15020006) North is towards the top of the page. The pond to the east is Jon Myers' Livestock Pond.

3.3 Vegetation types

Surface vegetation consists of native xerophytic vegetation including grasses, shrubs, small junipers, and some prickly pear cacti. Average rainfall at the refinery is less than 7 inches per year, although it can vary to slightly higher levels elsewhere in the county depending on elevation.

On alluvial fans on valley sides and drainage ways, the existing vegetation is usually alkali sacaton, western wheatgrass, Indian ricegrass, blue grama, bottlebrush squirreltail, broom snakeweed, fourwing saltbush, threeawn, winterfat, mat muhly and spike muhly. On fan remnants on valley sides we usually find blue grama, western wheatgrass, Indian ricegrass, big sagebrush, galleta, bottlebrush squirreltail, fourwing saltbrush, needleandthread, oneseed juniper, sand dropseed, spineless horsebrush, rabbitbrush, and twoneedle pinyon.

3.4 Erosion features

The impacts of historic overgrazing are visible at the north-side of the facility, in the form of arroyos that formed when surface run-off cut through the ground and washed away

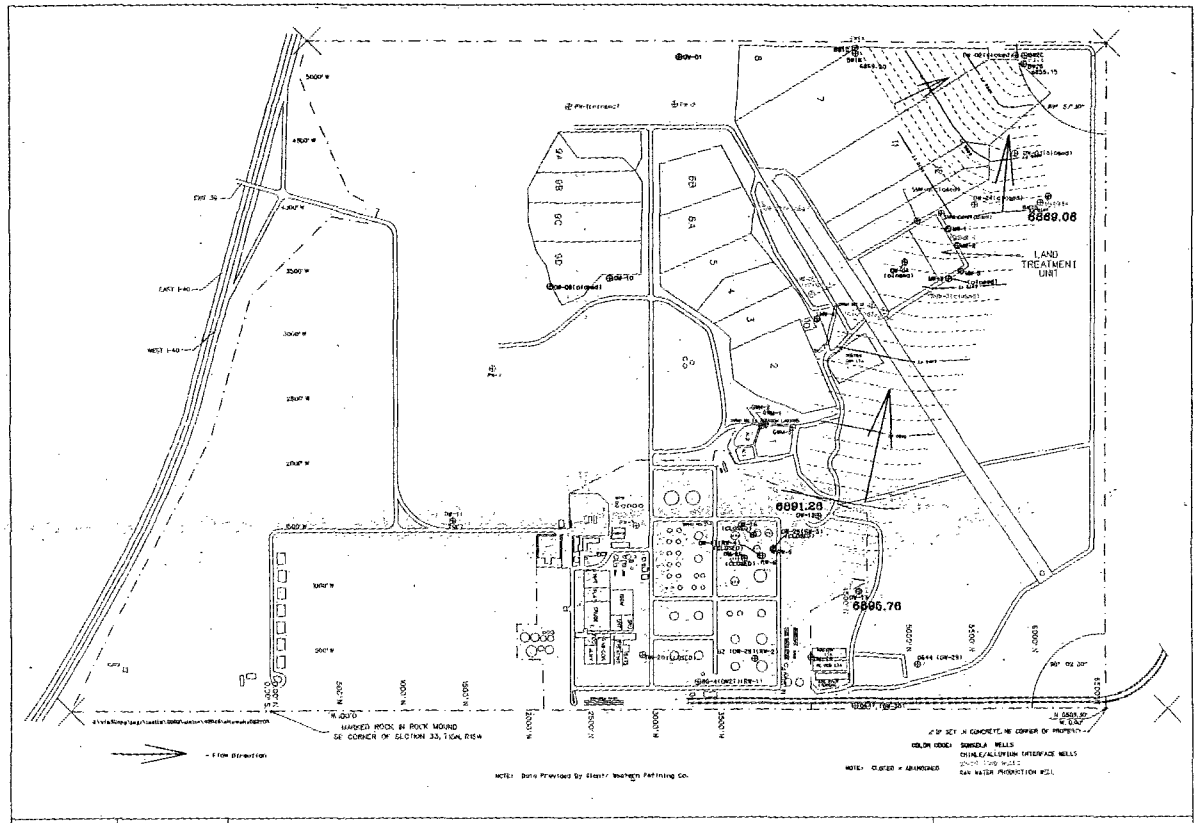


Figure 6
Sonsela Water
Piezometric Surface (October 2006)

Giant Refining, Inc. - Ciniza Refinery
Interstate 40, Exit 39
Jamestown, New Mexico 87347

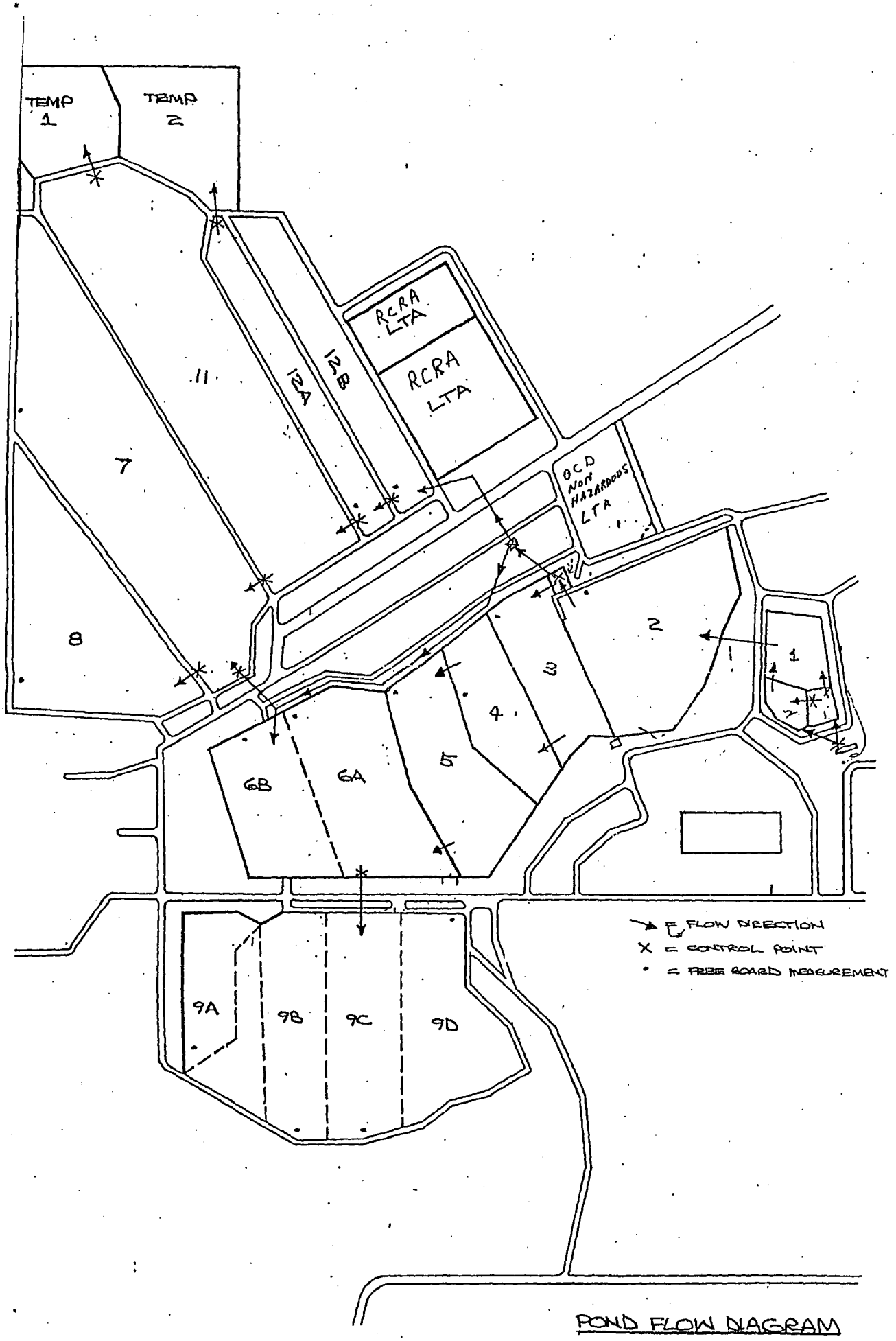
Date: August 28, 2007

GW - 032

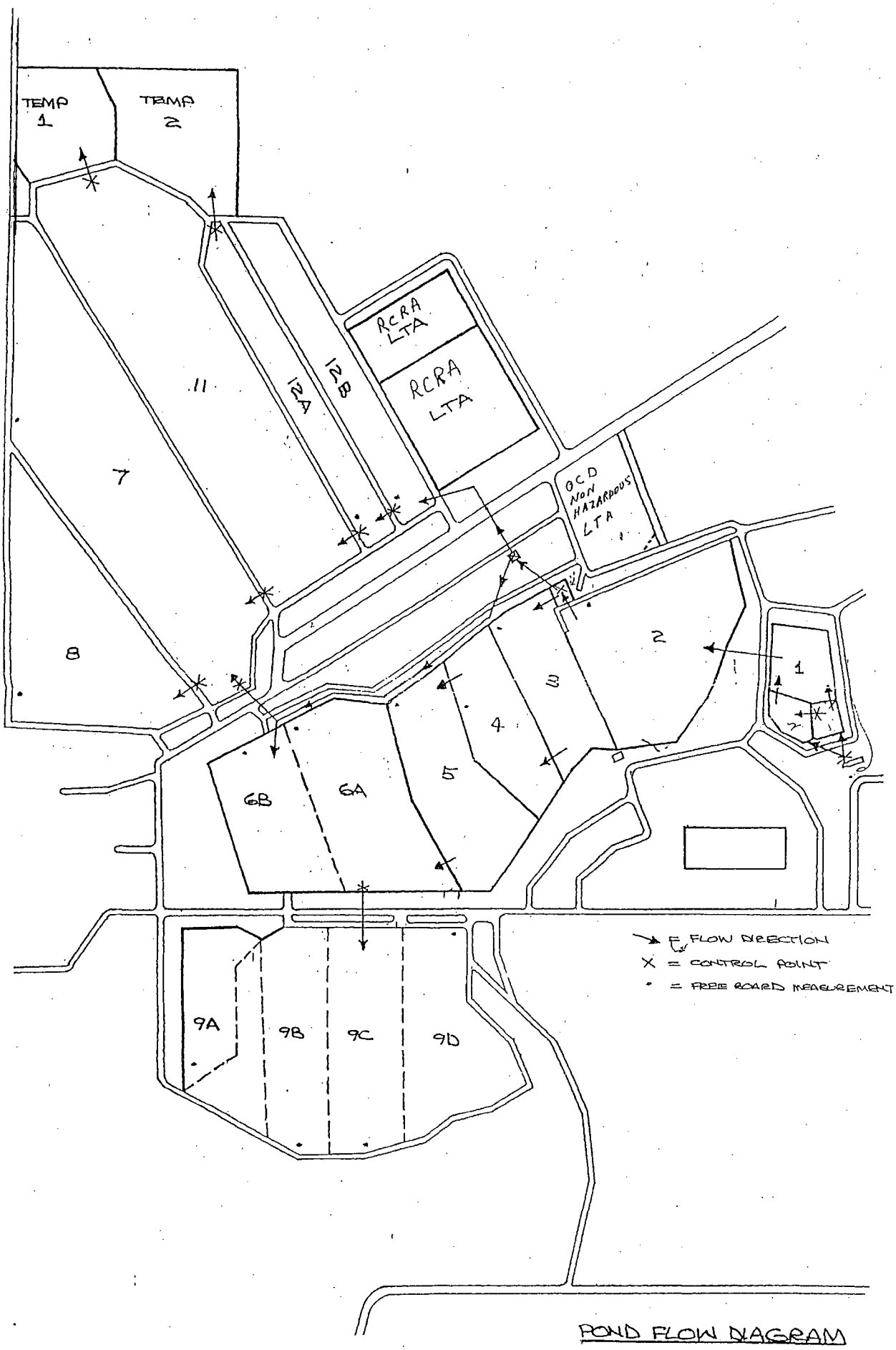
REPORTS

Year(s)

Revised 2006 Annual GW Report 3/13/2008



POND FLOW DIAGRAM



POND FLOW DIAGRAM

20.6.2.2100 APPLICABILITY: The requirements of Section 20.6.2.2101 and 20.6.2.2102 NMAC shall not apply to any discharge which is subject to a permit under the National Pollutant Discharge Elimination System of P. L. 92-500; provided that any discharger who is given written notice of National Pollutant Discharge Elimination System permit violation from the Administrator of the Environmental Protection Agency and who has not corrected the violation within thirty days of receipt of said notice shall be subject to Section 20.6.2.2101 and 20.6.2.2102 NMAC until in compliance with the National Pollution Discharge Elimination System permit conditions; provided further that nothing in this Part shall be construed as a deterrent to action under Section 74-6-11 NMSA, 1978.
[8-13-76; 20.6.2.2100 NMAC - Rn, 20 NMAC 6.2.II.2100, 1-15-01]

20.6.2.2101 GENERAL REQUIREMENTS:

A. Except as otherwise provided in Sections 20.6.2.2000 through 20.6.2.2201 NMAC, no person shall cause or allow effluent to discharge to a watercourse if the effluent as indicated by:

(1) any two consecutive daily composite samples;

(2) more than one daily composite sample in any thirty-day period (in which less than ten (10) daily composite samples are examined);

(3) more than ten percent (10%) of the daily composite samples in any thirty-day period (in which ten (10) or more daily composite samples are examined); or

(4) a grab sample collected during flow from an intermittent or infrequent discharge

does not conform to the following:

(a)	Bio-chemical Oxygen Demand (BOD)	Less than 30 mg/l
(b)	Chemical Oxygen Demand (COD)	Less than 125 mg/l
(c)	Settleable Solids	Less than 0.5 mg/l
(d)	Fecal Coliform Bacteria	Less than 500 organisms per 100 ml
(e)	pH	Between 6.6 and 8.6

B. Upon application, the secretary may eliminate the pH requirement for any effluent source that the secretary determines does not unreasonably degrade the water into which the effluent is discharged.

C. Subsection A of this Section does not apply to the weight of constituents in the water diverted.

D. Samples shall be examined in accordance with the most current edition of Standard Methods for the Examination of Water and Wastewater published by the American Public Health Association or the most current edition of Methods for Chemical Analysis of Water and Wastes published by the Environmental Protection Agency, where applicable.
[4-20-68, 3-14-71, 10-8-71, 8-13-76, 2-20-81, 12-1-95; 20.6.2.2101 NMAC - Rn, 20 NMAC 6.2.II.2101, 1-15-01]

20.6.2.2102 RIO GRANDE BASIN--COMMUNITY SEWERAGE SYSTEMS:

A. No person shall cause or allow effluent from a community sewerage system to discharge to a watercourse in the Rio Grande Basin between the headwaters of Elephant Butte Reservoir and Angostura Diversion Dam as described in Subsection E of this Section if the effluent, as indicated by:

(1) any two consecutive daily composite samples;

(2) more than one daily composite sample in any thirty-day period (in which less than ten (10) daily composite samples are examined);

(3) more than ten percent (10%) of the daily composite samples in any thirty-day period (in which ten (10) or more daily composite samples are examined); or

(4) a grab sample collected during flow from an intermittent or infrequent discharge

does not conform to the following:

(a)	Bio-chemical Oxygen Demand (BOD)	Less than 30 mg/l
(b)	Chemical Oxygen Demand (COD)	Less than 80 mg/l
(c)	Settleable Solids	Less than 0.1 mg/l
(d)	Fecal Coliform Bacteria	Less than 500 organisms per 100 ml
(e)	pH	Between 6.6 and 8.6

B. Upon application, the secretary may eliminate the pH requirement for any effluent source that the secretary determines does not unreasonably degrade the water into which the effluent is discharged.

C. Subsection A of this Section does not apply to the weight of constituents in the water diverted.

D. Samples shall be examined in accordance with the most current edition of Standard Methods for the Analysis of Water and Wastewater published by the American Public Health Association or the most current

C. The standards are not intended as maximum ranges and concentrations for use, and nothing herein contained shall be construed as limiting the use of waters containing higher ranges and concentrations.
[2-18-77; 20.6.2.3101 NMAC - Rn, 20 NMAC 6.2.III.3101, 1-15-01]

20.6.2.3102: [RESERVED]
[12-1-95; 20.6.2.3102 NMAC - Rn, 20 NMAC 6.2.III.3102, 1-15-01]

20.6.2.3103 STANDARDS FOR GROUND WATER OF 10,000 mg/l TDS CONCENTRATION OR LESS: The following standards are the allowable pH range and the maximum allowable concentration in ground water for the contaminants specified unless the existing condition exceeds the standard or unless otherwise provided in Subsection D of Section 20.6.2.3109 NMAC. Regardless of whether there is one contaminant or more than one contaminant present in ground water, when an existing pH or concentration of any water contaminant exceeds the standard specified in Subsection A, B, or C of this section, the existing pH or concentration shall be the allowable limit, provided that the discharge at such concentrations will not result in concentrations at any place of withdrawal for present or reasonably foreseeable future use in excess of the standards of this section. These standards shall apply to the dissolved portion of the contaminants specified with a definition of dissolved being that given in the publication "*methods for chemical analysis of water and waste of the U.S. environmental protection agency*," with the exception that standards for mercury, organic compounds and non-aqueous phase liquids shall apply to the total unfiltered concentrations of the contaminants.

A. Human Health Standards-Ground water shall meet the standards of Subsection A and B of this section unless otherwise provided. If more than one water contaminant affecting human health is present, the toxic pollutant criteria as set forth in the definition of toxic pollutant in Section 20.6.2.1101 NMAC for the combination of contaminants, or the Human Health Standard of Subsection A of Section 20.6.2.3103 NMAC for each contaminant shall apply, whichever is more stringent. Non-aqueous phase liquid shall not be present floating atop of or immersed within ground water, as can be reasonably measured.

(1)	Arsenic (As)	0.1 mg/l
(2)	Barium (Ba)	1.0 mg/l
(3)	Cadmium (Cd)	0.01 mg/l
(4)	Chromium (Cr)	0.05 mg/l
(5)	Cyanide (CN)	0.2 mg/l
(6)	Fluoride (F)	1.6 mg/l
(7)	Lead (Pb)	0.05 mg/l
(8)	Total Mercury (Hg)	0.002 mg/l
(9)	Nitrate (NO_3 as N)	10.0 mg/l
(10)	Selenium (Se)	0.05 mg/l
(11)	Silver (Ag)	0.05 mg/l
(12)	Uranium (U)	0.03 mg/l
(13)	Radioactivity: Combined Radium-226 & Radium-228	30 pCi/l
(14)	Benzene	0.01 mg/l
(15)	Polychlorinated biphenyls (PCB's)	0.001 mg/l
(16)	Toluene	0.75 mg/l
(17)	Carbon Tetrachloride	0.01 mg/l
(18)	1,2-dichloroethane (EDC)	0.01 mg/l
(19)	1,1-dichloroethylene (1,1-DCE)	0.005 mg/l
(20)	1,1,2,2-tetrachloroethylene (PCE)	0.02 mg/l
(21)	1,1,2-trichloroethylene (TCE)	0.1 mg/l
(22)	ethylbenzene	0.75 mg/l
(23)	total xylenes	0.62 mg/l
(24)	methylene chloride	0.1 mg/l
(25)	chloroform	0.1 mg/l
(26)	1,1-dichloroethane	0.025 mg/l
(27)	ethylene dibromide (EDB)	0.0001 mg/l
(28)	1,1,1-trichloroethane	0.06 mg/l
(29)	1,1,2-trichloroethane	0.01 mg/l
(30)	1,1,2,2-tetrachloroethane	0.01 mg/l
(31)	vinyl chloride	0.001 mg/l

(32) PAHs: total naphthalene plus monomethylnaphthalenes.....0.03 mg/l
(33) benzo-a-pyrene.....0.0007 mg/l

B. Other Standards for Domestic Water Supply

(1) Chloride (Cl) .....250.0 mg/l
(2) Copper (Cu) .....1.0 mg/l
(3) Iron (Fe) .....1.0 mg/l
(4) Manganese (Mn) .....0.2 mg/l
(6) Phenols.....0.005 mg/l
(7) Sulfate (SO_4) .....600.0 mg/l
(8) Total Dissolved Solids (TDS) .....1000.0 mg/l
(9) Zinc (Zn) .....10.0 mg/l
(10) pH.....between 6 and 9

C. Standards for Irrigation Use - Ground water shall meet the standards of Subsection A, B, and C of this section unless otherwise provided.

(1) Aluminum (Al)..... .....5.0 mg/l
(2) Boron (B) .....0.75 mg/l
(3) Cobalt (Co) .....0.05 mg/l
(4) Molybdenum (Mo) .....1.0 mg/l
(5) Nickel (Ni) .....0.2 mg/l

[2-18-77, 1-29-82, 11-17-83, 3-3-86, 12-1-95; 20.6.2.3103 NMAC - Rn, 20 NMAC 6.2.III.3103, 1-15-01; A, 9-26-04]

[Note: For purposes of application of the amended numeric uranium standard to past and current water discharges (as of 9-26-04), the new standard will not become effective until June 1, 2007. For any new water discharges, the uranium standard is effective 9-26-04.]

20.6.2.3104 DISCHARGE PERMIT REQUIRED: Unless otherwise provided by this Part, no person shall cause or allow effluent or leachate to discharge so that it may move directly of indirectly into ground water unless he is discharging pursuant to a discharge permit issued by the secretary. When a permit has been issued, discharges must be consistent with the terms and conditions of the permit. In the event of a transfer of the ownership, control, or possession of a facility for which a discharge permit is in effect, the transferee shall have authority to discharge under such permit, provided that the transferee has complied with Section 20.6.2.3111 NMAC, regarding transfers. [2-18-77, 12-24-87, 12-1-95; Rn & A, 20.6.2.3104 NMAC - 20 NMAC 6.2.III.3104, 1-15-01; A, 12-1-01]

20.6.2.3105 EXEMPTIONS FROM DISCHARGE PERMIT REQUIREMENT: Sections 20.6.2.3104 and 20.6.2.3106 NMAC do not apply to the following:

A. Effluent or leachate which conforms to all the listed numerical standards of Section 20.6.2.3103 NMAC and has a total nitrogen concentration of 10 mg/l or less, and does not contain any toxic pollutant. To determine conformance, samples may be taken by the agency before the effluent or leachate is discharged so that it may move directly or indirectly into ground water; provided that if the discharge is by seepage through non-natural or altered natural materials, the agency may take samples of the solution before or after seepage. If for any reason the agency does not have access to obtain the appropriate samples, this exemption shall not apply;

B. Effluent which is discharged from a sewerage system used only for disposal of household and other domestic waste which is designed to receive and which receives 2,000 gallons or less of liquid waste per day;

C. Water used for irrigated agriculture, for watering of lawns, trees, gardens or shrubs, or for irrigation for a period not to exceed five years for the revegetation of any disturbed land area, unless that water is received directly from any sewerage system;

D. Discharges resulting from the transport or storage of water diverted, provided that the water diverted has not had added to it after the point of diversion any effluent received from a sewerage system, that the source of the water diverted was not mine workings, and that the secretary has not determined that a hazard to public health may result;

E. Effluent which is discharged to a watercourse which is naturally perennial; discharges to dry arroyos and ephemeral streams are not exempt from the discharge permit requirement, except as otherwise provided in this section;

F. Those constituents which are subject to effective and enforceable effluent limitations in a National Pollutant Discharge Elimination System (NPDES) permit, where discharge onto or below the surface of the ground so that water contaminants may move directly or indirectly into ground water occurs downstream from the outfall

TITLE 20 ENVIRONMENTAL PROTECTION
CHAPTER 6 WATER QUALITY
PART 4 STANDARDS FOR INTERSTATE AND INTRASTATE SURFACE WATERS

20.6.4.1 ISSUING AGENCY: Water Quality Control commission.
[20.6.4.1 NMAC - Rp 20 NMAC 6.1.1001, 10-12-00]

20.6.4.2 SCOPE: Except as otherwise provided by statute or regulation of the water quality control commission, this part governs all surface waters of the state of New Mexico, which are subject to the New Mexico Water Quality Act, Sections 74-6-1 through 74-6-17 NMSA 1978.
[20.6.4.2 NMAC - Rp 20 NMAC 6.1.1002, 10-12-00; A, 05-23-05]

20.6.4.3 STATUTORY AUTHORITY: This part is adopted by the water quality control commission pursuant to Subsection C of Section 74-6-4 NMSA 1978.
[20.6.4.3 NMAC - Rp 20 NMAC 6.1.1003, 10-12-00]

20.6.4.4 DURATION: Permanent.
[20.6.4.4 NMAC - Rp 20 NMAC 6.1.1004, 10-12-00]

20.6.4.5 EFFECTIVE DATE: October 12, 2000, unless a later date is indicated in the history note at the end of a section.
[20.6.4.5 NMAC - Rp 20 NMAC 6.1.1005, 10-12-00]

20.6.4.6 OBJECTIVE:

A. The purpose of this part is to establish water quality standards that consist of the designated use or uses of surface waters of the state, the water quality criteria necessary to protect the use or uses and an antidegradation policy.

B. The state of New Mexico is required under the New Mexico Water Quality Act (Subsection C of Section 74-6-4 NMSA 1978) and the federal Clean Water Act, as amended (33 U.S.C. Section 1251 *et seq.*) to adopt water quality standards that protect the public health or welfare, enhance the quality of water and are consistent with and serve the purposes of the New Mexico Water Quality Act and the federal Clean Water Act. It is the objective of the federal Clean Water Act to restore and maintain the chemical, physical and biological integrity of the nation's waters, including those in New Mexico. This part is consistent with Section 101(a)(2) of the federal Clean Water Act, which declares that it is the national goal that wherever attainable, an interim goal of water quality that provides for the protection and propagation of fish, shellfish and wildlife and provides for recreation in and on the water be achieved by July 1, 1983. Agricultural, municipal, domestic and industrial water supply are other essential uses of New Mexico's surface water; however, water contaminants resulting from these activities will not be permitted to lower the quality of surface waters of the state below that required for protection and propagation of fish, shellfish and wildlife and recreation in and on the water, where practicable.

C. Pursuant to Subsection A of Section 74-6-12 NMSA 1978, this part does not grant to the water quality control commission or to any other entity the power to take away or modify property rights in water.
[20.6.4.6 NMAC - Rp 20 NMAC 6.1.1006, 10-12-00; A, 05-23-05]

20.6.4.7 DEFINITIONS: Terms defined in the New Mexico Water Quality Act, but not defined in this part will have the meaning given in the Water Quality Act.

A. **"Acute toxicity"** means toxicity involving a stimulus severe enough to induce a response in 96 hours of exposure or less. Acute toxicity is not always measured in terms of lethality, but may include other toxic effects that occur within a short time period.

B. "**Adjusted gross alpha**" means the total radioactivity due to alpha particle emission as inferred from measurements on a dry sample, including radium-226, but excluding radon-222 and uranium. Also excluded are source, special nuclear and by-product material as defined by the Atomic Energy Act of 1954.

C. "**Aquatic life**" means any plant or animal life that uses surface water as primary habitat for at least a portion of its life cycle, but does not include avian or mammalian species.

D. **"Attainable"** means achievable by the imposition of effluent limits required under sections 301(b) and 306 of the Clean Water Act and implementation of cost-effective and reasonable best management practices for nonpoint source control.

E. **"Best management practices" or "BMPs":**

(1) for national pollutant discharge elimination system (NPDES) permitting purposes means schedules of activities, prohibitions of practices, maintenance procedures and other management practices to prevent or reduce the pollution of "waters of the United States;" BMPs also include treatment requirements, operating procedures and practices to control plant site runoff, spillage or leaks, sludge or waste disposal or drainage from raw material storage; or

(2) for nonpoint source pollution control purposes means methods, measures or practices selected by an agency to meet its nonpoint source control needs; BMPs include but are not limited to structural and nonstructural controls and operation and maintenance procedures; BMPS can be applied before, during and after pollution-producing activities to reduce or eliminate the introduction of pollutants into receiving waters; BMPs for nonpoint source pollution control purposes shall not be mandatory except as required by state or federal law.

F. **"Bioaccumulation"** refers to the uptake and retention of a substance by an organism from its surrounding medium and food.

G. ***"Bioaccumulation factor"*** *is the ratio of a substance's concentration in tissue versus its concentration in ambient water, in situations* where the organism and the food chain are exposed.

H. **"Biomonitoring"** means the use of living organisms to test the suitability of effluents for discharge into receiving waters or to test the quality of surface waters of the state.

I. "**CAS number**" means an assigned number by chemical abstract service (CAS) to identify a substance. CAS numbers index information published in chemical abstracts by the American chemical society.

J. **"cfs"** means cubic feet per second.

K. **"cfu"** means colony forming units.

L. **"Chronic toxicity"** means toxicity involving a stimulus that lingers or continues for a relatively long period relative to the life span of an organism. Chronic effects include, but are not limited to, lethality, growth impairment, behavioral modifications, disease and reduced reproduction.

M. **"Classified water of the state"** means a surface water of the state, or reach of a surface water of the state, for which the commission has adopted a segment description and has designated a use or uses and applicable water quality criteria in 20.6.4.101 through 20.6.4.899 NMAC.

N. **"Coldwater"** in reference to an aquatic life use means a surface water of the state where the water temperature and other characteristics are suitable for the support or propagation or both of coldwater aquatic life.

O. **"Commission"** means the New Mexico water quality control commission.

P. **"Criteria"** are elements of state water quality standards, expressed as constituent concentrations, levels or narrative statements, representing a quality of water that supports a use. When criteria are met, water quality will protect the designated use.

Q. "**DDT and derivatives**" means 4,4'-DDT (CAS number 50293), 4,4'-DDE (CAS number 72559) and 4,4'-DDD (CAS number

72548).

R. **"Department"** means the New Mexico environment department.

S. **"Designated management agency"** means an agency as defined by 40 CFR Section 130.9(d).

T. **"Designated use"** means a use specified in Sections 20.6.4.101 through 20.6.4.899 NMAC for a surface water of the state whether or not it is being attained.

U. **"Dissolved"** means a constituent of a water sample that will pass through a 0.45-micrometer pore-size membrane filter under a pressure differential not exceeding one atmosphere. The "dissolved" fraction is also termed "filterable residue."

V. **"Domestic water supply"** means a surface water of the state that could be used for drinking or culinary purposes after disinfection.

W. "**Escherichia coli" or "E. coli"** means a bacterial species that inhabits the intestinal tract of humans and other warm-blooded animals, the presence of which indicates the potential presence of pathogenic microorganisms capable of producing disease.

X. **"Ephemeral"** when used to describe a surface water of the state means a water body that flows only in direct response to precipitation or snowmelt in the immediate locality; its bed is always above the water table of the adjacent region.

Y. **"Existing use"** means a use actually attained in a surface water of the state on or after November 28, 1975, whether or not it is a designated use.

Z. **"Fecal coliform bacteria"** means the portion of the coliform group of bacteria present in the gut or the feces of warmblooded animals. It generally includes organisms capable of producing gas from lactose broth in a suitable culture medium within 24 hours at 44.5 ± 0.2°C.

AA. **"Fish culture"** means production of coldwater or warmwater fishes in a hatchery or rearing station.

BB. "**Fish early life stages**" means the egg and larval stages of development of fish ending when the fish has its full complement of fin rays and loses larval characteristics.

CC. **"High quality coldwater"** in reference to an aquatic life use means a perennial surface water of the state in a minimally disturbed condition with considerable aesthetic value and superior coldwater aquatic life habitat. A surface water of the state to be so categorized must have water quality, stream bed characteristics and other attributes of habitat sufficient to protect and maintain a propagating coldwater aquatic life population.

DD. **"Intermittent"** when used to describe a surface water of the state means a water body that contains water only at certain times of the year, such as when it receives flow from springs, melting snow or precipitation.

EE. **"Interstate waters"** means all surface waters of the state that cross or form a part of the border between states.

FF. **"Intrastate waters"** means all surface waters of the state that are not interstate waters.

GG. **"Irrigation"** means application of water to land areas to supply the water needs of beneficial plants.

HH. **"LC-50"** means the concentration of a substance that is lethal to 50 percent of the test organisms within a defined time period. The length of the time period, which may vary from 24 hours to one week or more, depends on the test method selected to yield the information desired.

II. "**Limited aquatic life**" as a designated use, means the surface water is capable of supporting only a limited community of aquatic life. This subcategory includes surface waters that support aquatic species selectively adapted to take advantage of naturally occurring rapid environmental changes, ephemeral or intermittent water, high turbidity, fluctuating temperature, low dissolved oxygen content or unique chemical characteristics.

JJ. **"Livestock watering"** means the use of a surface water of the state as a supply of water for consumption by livestock.

KK. **"Marginal coldwater"** in reference to an aquatic life use means that natural intermittent or low flows, or other natural habitat conditions severely limit maintenance of a coldwater aquatic life population or historical data indicate that the maximum temperature in the surface water of the state may exceed 25°C (77°F).

LL. **"Marginal warmwater"** in reference to an aquatic life use means natural intermittent or low flow or other natural habitat conditions severely limit the ability of the surface water of the state to sustain a natural aquatic life population on a continuous annual basis; or historical data indicate that natural water temperature routinely exceeds 32.2°C (90°F).

MM. **"Micrograms per liter (µg/L)"** means micrograms of solute per liter of solution; equivalent to parts per billion when the specific gravity of the solution = 1.000.

NN. **"Milligrams per liter (mg/L)"** means milligrams of solute per liter of solution; equivalent to parts per million when the specific gravity of the solution = 1.000.

OO. **"Minimum quantification level"** means the minimum quantification level for a constituent determined by official published documents of the United States environmental protection agency.

PP. **"Natural causes"** means those causal agents that would affect water quality and the effect is not caused by human activity but is due to naturally occurring conditions.

QQ. **"Nonpoint source"** means any source of pollutants not regulated as a point source that degrades the quality or adversely affects the biological, chemical or physical integrity of surface waters of the state.

RR. **"NTU"** means nephelometric turbidity units based on a standard method using formazin polymer or its equivalent as the standard reference suspension. Nephelometric turbidity measurements expressed in units of NTU are numerically identical to the same measurements expressed in units of FTU (formazin turbidity units).

SS. "**Organoleptic**" means the capability to produce a detectable sensory stimulus such as odor or taste.

TT. "**Playa**" means a shallow closed basin lake typically found in the high plains and deserts.

UU. **"Perennial"** when used to describe a surface water of the state means the water body contains water continuously throughout the year in all years; its upper surface, generally, is lower than the water table of the region adjoining the stream.

VV. **"Picocurie (pCi)"** means a measure of radioactivity equal to the quantity of a radioactive substance in which the rate of disintegrations is 2.22 per minute.

WW. **"Point source"** means any discernible, confined and discrete conveyance from which pollutants are or may be discharged into a surface water of the state, but does not include return flows from irrigated agriculture.

XX. "**Practicable**" means that which may be done, practiced or accomplished; that which is performable, feasible, possible.

YY. **"Primary contact"** means any recreational or other water use in which there is prolonged and intimate human contact with the water, such as swimming and water skiing, involving considerable risk of ingesting water in quantities sufficient to pose a significant health hazard. Primary contact also means any use of surface waters of the state for cultural, religious or ceremonial purposes in which there is intimate human contact with the water, including but not limited to ingestion or immersion, that could pose a significant health hazard.

ZZ. **"Secondary contact"** means any recreational or other water use in which human contact with the water may occur and in which the probability of ingesting appreciable quantities of water is minimal, such as fishing, wading, commercial and recreational boating and any limited seasonal contact.

AAA. **"Segment"** means a classified surface water of the state described in 20.6.4.101 through 20.6.4.899 NMAC. The water within a segment should have the same uses, similar hydrologic characteristics or flow regimes, and natural physical, chemical and biological characteristics and exhibit similar reactions to external stresses, such as the discharge of pollutants.

BBB. "**Specific conductance**" means conductivity adjusted to 25°C.

CCC. **"State"** means the state of New Mexico.

DDD. **"Surface water(s) of the state"** means all surface waters situated wholly or partly within or bordering upon the state, including lakes, rivers, streams (including intermittent streams), mudflats, sandflats, wetlands, sloughs, prairie potholes, wet meadows, playa lakes, reservoirs or natural ponds. Surface waters of the state also means all tributaries of such waters, including adjacent wetlands, any manmade bodies of water that were originally

created in surface waters of the state or resulted in the impoundment of surface waters of the state, and any "waters of the United States" as defined under the Clean Water Act that are not included in the preceding description. Surface waters of the state does not include private waters that do not combine with other surface or subsurface water or any water under tribal regulatory jurisdiction pursuant to Section 518 of the Clean Water Act. Waste treatment systems, including treatment ponds or lagoons designed and actively used to meet requirements of the Clean Water Act (other than cooling ponds as defined in 40 CFR Part 423.11(m) that also meet the criteria of this definition), are not surface waters of the state, unless they were originally created in surface waters of the state or resulted in the impoundment of surface waters of the state.

EEE. **"TDS"** means total dissolved solids, also termed "total filterable residue."

FFF. **"Technology-based limitations"** means the application of technology-based effluent limitations as required under Section 301(b) of the federal Clean Water Act.

GGG. **"Total"** means a constituent of a water sample that is analytically determined without filtration.

HHH. "**Total PCBs**" means the sum of all homolog, all isomer, all congener or all aroclor analyses.

III. **"Toxic pollutant"** means those pollutants, or combination of pollutants, including disease-causing agents, that after discharge and upon exposure, ingestion, inhalation or assimilation into any organism, either directly from the environment or indirectly by ingestion through food chains, will cause death, shortened life spans, disease, adverse behavioral changes, reproductive or physiological impairment or physical deformations in such organisms or their offspring.

JJJ. "**Tributary**" means a perennial, intermittent or ephemeral waterbody that flows into a larger waterbody, and includes a tributary of a tributary.

KKK. **"Turbidity"** is an expression of the optical property in water that causes incident light to be scattered or absorbed rather than transmitted in straight lines.

LLL. **"Warmwater"** with reference to an aquatic life use means that water temperature and other characteristics are suitable for the support or propagation or both of warmwater aquatic life.

MMM. **"Water contaminant"** means any substance that could alter if discharged or spilled the physical, chemical, biological or radiological qualities of water. "Water contaminant" does not mean source, special nuclear or by-product material as defined by the Atomic Energy Act of 1954, but may include all other radioactive materials, including but not limited to radium and accelerator-produced isotopes.

NNN. **"Water pollutant"** means a water contaminant in such quantity and of such duration as may with reasonable probability injure human health, animal or plant life or property, or to unreasonably interfere with the public welfare or the use of property.

OOO. **"Water quality-based controls"** means effluent limitations, as provided under Section 301(b)(1)(C) of the federal Clean Water Act, that are developed and imposed on point-source dischargers in order to protect and maintain applicable water quality standards. These controls are more stringent than the technology-based effluent limitations required under other paragraphs of Section 301(b).

PPP. **"Wetlands"** means those areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions in New Mexico. Wetlands that are constructed outside of a surface water of the state for the purpose of providing wastewater treatment and that do not impound a surface water of the state are not included in this definition.

QQQ. **"Wildlife habitat"** means a surface water of the state used by plants and animals not considered as pathogens, vectors for pathogens or intermediate hosts for pathogens for humans or domesticated livestock and plants.

[20.6.4.7 NMAC - Rp 20 NMAC 6.1.1007, 10-12-00; A, 7-19-01; A, 05-23-05; A, 07-17-05; A, 08-01-07]

20.6.4.109 RIO GRANDE BASIN - Perennial reaches of Bluewater creek, Rio Moquino, Seboycta creek, Rio Paguate, the Rio Puerco above the village of Cuba and all other perennial reaches of tributaries to the Rio Puerco including the Rio San Jose in Cibola county from the USGS gaging station at Correo upstream to Horace springs.

A. Designated Uses: coldwater aquatic life, domestic water supply, fish culture, irrigation, livestock watering, wildlife habitat and primary contact.

B. Criteria:

(1) In any single sample: pH shall be within the range of 6.6 to 8.8, temperature 20°C (68°F) or less and total phosphorus (as P) 0.1 mg/L. The use-specific numeric criteria set forth in 20.6.4.900 NMAC are applicable to the designated uses listed above in Subsection A of this section.

(2) The monthly geometric mean of E. coli bacteria 126 cfu/100 mL or less; single sample 235 cfu/100 mL or less (see Subsection B of 20.6.4.14 NMAC).

[20.6.4.109 NMAC - Rp 20 NMAC 6.1.2107, 10-12-00; A, 05-23-05]

TABLE D.12
EPA METHOD 8260B VOLATILES. Levels of contaminants in inlets to Evaporation Ponds 1 and 2 and from within Ponds 1 through 8 – all units of concentrations are in mg/l.

	Date Sampled	Benzene	Toluene	Ethylbenzene	Xylene	MTBE
Pond 1	12/2/08	.0083	0.089	0.033	0.26	<0.005
	9/9/08	.0033	.0058'	.0026	.02	<.001
	6/17/08	<.001	.0056	.0016	.012	<.001
	3/11/08	0.19	0.47	.0087	0.54	.0059
Pond 2	12/2/08	.0018	0.02	.0072	.057	<.001
	9/9/08	<.001	.0011	<.001	.0044	<.001
	6/17/08	<.005	<.005	<.005	<.0075	<.005
	3/11/08	.0038	.011	.0021	.014	<.001
Pond 3	12/2/08	.0011	.012	.0043	.034	<.001
	9/9/08	<.010	<.010	<.010	<.015	<.010
	6/17/08	<.001	<.001	<.001	<.0015	<.001
	3/11/08	<.001	.0019	<.001	.004	<.001
Pond 4	12/2/08	<.001	.008	.0029	.022	<.001
	9/9/08	<.010	<.010	<.010	<.015	<.010
	6/17/08	<.001	<.001	<.001	<.0015	<.001
	3/11/08	<.001	<.001	<.001	.002	<.001
Pond 5	12/2/08	<.001	.0026	.0010	.0072	<.001
	9/9/08	<.010	<.010	<.010	<.015	<.010
	6/17/08	<.001	<.001	<.001	<.0015	<.001
	3/11/08	<.001	<.001	<.001	<.0015	<.001
Pond 6	12/2/08	<.001	<.001	<.001	<.0015	<.001
	9/9/08	<.010	<.010	<.010	<.015	<.010
	6/17/08	<.001	<.001	<.001	<.0015	<.001
	3/11/08	<.001	<.001	<.001	<.0015	<.001
Pond 7	12/2/08	<.001	<.001	<.001	<.0015	<.001
	9/9/08	<.010	<.010	<.010	<.015	<.010
	6/17/08	<.001	<.001	<.001	<.0015	<.001
	3/11/08	<.001	<.001	<.001	<.0015	<.001
Pond 8	12/2/08	<.001	<.001	<.001	<.0015	<.001
	9/9/08	<.010	<.010	<.010	<.015	<.010
	6/17/08	<.001	<.001	<.001	<.0015	<.001
	3/11/08	<.001	<.001	<.001	<.0015	<.001
EPA MCLS		**0.005**	**1**	**0.7**	**10.0**	
Residential Risk Based Screening Levels for Tap Water (12ug/L)		**0.01**	**0.75**	**0.75**	**0.62**	**0.012 (Residential Tap water Std.)**

TABLE D.13
EPA METHOD 300.0 ANIONS, EPA 120.1 SPECIFIC CONDUCTANCE, EPA 410.1 COD, EPA 405.1 BOD, SM4500-H+B: PH Levels of All Contaminants in Evaporation Ponds 1 through 8 found at least above Levels of Detection in 2008- all units of concentrations are in mg/l.

	DATE	pH	Specific Conductance (umhos/cm)	COD	BOD	E-Coli (cfu/100ml)	Fluoride	Chloride	NITROGEN Nitrite (as N) Nitrate (as N)	Phosphorus Orthophosphate (asP)	Sulfate
POND 1	12/2/08	7.76	4400				110	360	<1.0	7.2	780
	9/9/08	7.82	4500	3000	299	58	99	150	<1.0	<5.0	7700
	6/17/08	7.57	4600	1230	327		120	120	<1.0	15	1100
	3/11/08	3.81	4900	965	556	Absent	560	540	<5.0	<25	980
POND 2	12/2/08	7.80	8500				37	1800	<2.0	<2.0	1000
	9/9/08	7.97	10000	2500	122	300	48	2800	<1.0	<1.0	960
	6/17/08	7.90	11000	790	110		63	2900	<4.0	<5.0	1300
	3/11/08	6.81	8400	871	.71	Absent	63	2200	<5.0	<25	970
POND 3	12/2/08	7.86	8500				26	1800	<2.0	<10	980
	9/9/08	7.94	10000	950	73.0	310	51	2800	<1.0	<1.0	1100
	6/17/08	7.91	13000	691	96.9		44	3700	<4.0	<5.0	1400
	3/11/08	7.86	9800	871	323	Present	41	2700	<5.0	<5.0	1000
POND 4	12/2/08	7.89	9100				27	2000	<2.0	<2.0	1000
	6/17/08	7.90	11000	850	68.0	54.5	49	2900	<1.0	<1.0	1100
	6/17/08	7.94	15000	110	103		34	4500	<4.0	<5.0	1500
	3/11/08	8.06	10000	663	275	Present	32	2800	<5.0	<5.0	1000
POND 5	12/2/08	7.82	14000				29	2900	<4.0	<10	1200
	9/9/08	7.93	10000	667	59.0	54.5	33	3000	<1.0	<1.0	890
	6/7/08	7.86	17000	578	<128		26	5400	<10	<5.0	1800
	3/11/08	7.82	10000	506	178	Present	41	2900	<5.0	<5.0	1100
POND 6	12/2/08	7.70	19000				28	5500	<4.0	<10	7600
	9/9/08	7.83	16000	949	47.0	90.9	26	4900	<4.0	<5.0	1900
	6/17/08	7.64	25000	723	<128		29	6600	<10	<5.0	2600
	3/11/08	7.7	13000	847	126	Present	35	4100	<5.0	<5.0	1600
POND 7	12/2/08	7.55	140000				35	42000	<40	<10	8300
	9/9/08	7.52	110000	3330	47.8	27.9	25	38000	<40	<5.0	8500
	6/17/08	7.34	180000	4340	17.7		29	64000	<100	<5.0	15000
	3/11/08	7.61	68000	2118	15.7	Absent	22	22000	<5.0	<5.0	5600
POND 8	12/2/08	7.39	170000				31	46000	<40	<25	8600
	9/9/08	7.75	51000	3080	<16.0	102	26	17000	<20	<5.0	3400
	6/17/08	6.28	420000	16100	8.2		94	160000	<200	<5.0	20000
	3/11/08	7.47	94000	1770	17.4	Absent	25	3000	<5.0	<5.0	6100
EPA MCLS		**6-9**				**5%**	**4.0**				
NMWQS							**1.6**	**250** (Domestic Water)	**10 Nitrate 1 Nitrite**		**600**

TABLE: D.14
EPA METHOD 7470 MERCURY, 6010B TOTAL RECOVERABLE METALS. Levels of all contaminants in Evaporations Ponds 1 through 8 found at least above levels of detection in 2008. All units of concentrations are in mg/l. (Contaminants not presented were not detected.)

	DATE	Hg	Ba	Ca	Cr	Cu	Fe	Pb	Mg	Mn	K	Na	U	Zn
POND 1	12/2/08													
	9/9/08	<.0002	0.76	45	<.006	<.006		<.005	14	0.22	62	460	<.001	0.12
	6/17/08	.00035	0.10	57	.0085	.010	4.9	.0052	15	0.14	96	540	<.10	0.88
	3/11/08	<.0002	.029	18	.061	<.006	55		17	0.80	36	910	<0.50	1.8
POND 2	12/2/08													
	9/9/08	<.0002	0.10	340	<.006	<.006		<.0005	84	0.21	52	1900	<.00207	.086
	6/17/08	<.0002	.066	290	<.006	<.006	1.4	<0005	78	0.14	110	2200	<0.10	0.31
	3/11/08	<.0002	.022	81	<.006	<.006	5.4		55	0.28	88	1700	<0.10	0.12
POND 3	12/2/08													
	9/9/08	<.0002	0.11	340	<.006	<.006		<.005	87	0.21	54	2000	.00237	.047
	6/17/08	<.0002	.061	320	<.006	<.006	0.73	<.005	97	0.15	140	2700	<0.10	0.14
	3/11/08	<.0002	.037	170	<.006	<0006	1.4		71	0.23	93	2000	<0.10	.045
POND 4	12/2/08													
	9/9/08	<.0005	0.13	320	<.006	<.006		<.005	87	0.23	54	2000	.00187	.021
	6/17/08	<.0002	.065	340	<.030	<.030	0.42	<.025	130	0.19	160	3000	<0.50	<0.10
	3/11/08	<.0002	.045	230	<.006	<.006	0.73		80	0.21	94	2000	<0.10	.034
POND 5	12/2/08													
	9/9/08	<.0002	0.14	220	<.006	<.006		<.005	82	0.17	70	2000	.00142	<.020
	6/17/08	<.0002	0.074	390	<.030	<.030	<.25	<.025	150	0.44	190	3600	<0.50	<0.10
	3/11/08	<.0002	.059	290	<.006	<.006	0.64		80	0.28	83	1900	<0.10	0.029
POND 6	12/2/08													
	9/9/08	<.0002	0.11	330	<.006	<.006		<.005	130	0.46	130	3300	.00125	<.020
	6/17/08	<.0002	.093	460	<.030	<.030	<.025	<.025	170	1.1	190	4600	<0.50	<0.10
	3/11/08	<.0002	.073	300	<.030	<.030	1.3		100	0.52	110	2800	<0.50	<0.10
POND 7	12/2/08													
	9/9/08	<.0002	0.11	730	<.006	<.006		<.050	960	5.8	1100	28000	.00103	<.020
	6/17/08	<.0002	<0.20	1400	<0.12	<0.12	<0.25	<0.10	1400	8.1	1800	49000	<2.0	<0.40
	3/11/08	<.0002	.074	690	<.030	<.030	0.69		490	3.2	590	13000	<0.50	<0.10
POND 8	12/2/08													
	9/9/08	<.0002	0.12	530	<.030	<.030		<.025	420	2.4	800	9500	.00148	<0.10
	6/17/08	<.0008	<0.50	1100	<0.30	<0.30	<0.50	<0.25	8800	82	12000	99000	<5.0	<1.0
	3/11/08	<.0002	<0.10	590	<.060	<.060	1.4		760	5.8	1100	20000	<1.0	<0.20
EPA MCLS			**2.0**		**0.1**									0.29
NMWQS			**1.0**		**.05**					**.02**				

12-2-08 4TH QUARTER 6010B analysis not run.

TABLE D.15
EPA METHOD 8260B VOLATILES. Levels of contaminants in inlets to Evaporation Ponds 1 and 2 and from within Ponds 1 through 8 – all units of concentrations are in mg/l.

	POND 1 (MG/L)		POND 2 MG/L	POND 3 (MG/L)	POND 4 (MG/L)	POND 5 MG/L	POND 6 (MG/L)	POND 7 (MG/L)	POND 8 (MG/L)	Provisional-EPA MCLs/ATSDR Screening level/Health Advisory Level	NMWQS
1,2,4 TRIMETHYL BENZENE	12/2/08	0.13	.028	.018	.013	.048	.001	.0013	<.001		
	9/9/08	.027	.0064	<.01	<.01	<.01	<.01	<.01	<.01		
	6/17/08	.017	.015	.002	<.001	<.001	<.001	.0012	.0011		
	3/11/08	0.38	.012	.0043	.0028	.0015	.002	<.001			
1,3,5 TRIMETHYL BENZENE	12/2/08	.046	.0097	.0065	.0048	.019	<.001	<.001	<.001		
	9/9/08	.0095	.0021	<.01	<.01	<.01	<.01	<.01	<.01		
	6/17/08	.0044	<.005	<.001	<.001	<.001	<.001	<.001	<.001		
	3/11/08	0.11	.0032	.001	<.001	<.001	<.001	<.001	<.001		
NAPHTHALENE	12/2/08	.074	.016	.011	.0075	.0025	<.002	<.002	<.002		
	9/9/08	.033	.0064	<.02	<.02	<.02	<.02	<.02	<.02		**0.03**
	6/17/08	.031	.014	.003	<.002	<.002	<.002	<.002	<.002		
	3/11.0/	0.2	.020	.0087	.0066	.0037	.004	<.002	<.001		
1-METHYLNAPHTHALENE	12/2/08	.140	.037	.024	.014	.0061	<.004	<.004	<.004		
	9/9/0/	.062	.016	<.04	<.04	<.04	<.04	<.04	<.04		**0.03**
	6/17/08	.072	.033	.015	<.004	<.004	<.004	<.004	<.004		
	3/11/08	0.28	.034	.020	.015	.011	.015	<.004	<.004		
2-METHYL NAPHTHALENE	12/2/08	.220	.053	.035	.021	.0089	<.004	<.004	<.004		
	9/9/08	.088	.023	<.04	<.04	<.04	<.04	<.04	<.04		**0.03**
	6/17/08	0.3	.050	.023	<.004	<.004	<.004	<.004	<.004		
	3/11/08	0.39	.049	.028	.022	.017	.020	<.004	<.004		
ACETONE	12/2/08	1.0	.65	.67	.60	.20	<.01	.017	<.01		
	9/9/08	1.6	.36	.11	<.10	<0.1	<0.1	<0.1	<0.1		
	6/17/08	1.6	0.64	.16	.059	.046	<.010	.049	.12		
	3/11/08	1.4	1.7	.920	.80	.19	.64	.034	.024		
2-BUTANONE	12/2/08	.094	.072	.064	.043	.016	<.01	<.01	<.01		
	9/9/08	.15	.035	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1		
	6/17/08	.19	.080	.018	<.01	<.01	<.01	<.01	.014		
	3/11/08	.16	.12	.064	.042	.023	.032	<.01	<.01		
CARBON DISULFIDE	12/2/08	<.05	.026	.028	.034	.015	<.01	<.01	<.01		
	9/9/08	.039	.025	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1		
	6/17/08	.011	<.05	.010	.050	.033	<.01	<.01	<.01		
	3/11/08	<.05	.018	.045	.063	.097	.040	<.01	<.01		
CHLORO METHANE	6/17/08								.0013		
ISOPROPYL BENZENE	12/2/08	.0081	.0018	.0011	.001	<.001	<.001	<.001	<.001		
	9/9/08	.0011	<.001	<.01	<.001	<.01	<.01	<.01	<.01	**0.005**	
	6/17/08	<.001	<.005	<.001	<.001	<.001	<.001	<.001	<.001		
	3/11/08	.01	<.001	<.001	<.001	<.001	<.001	<.001	<.001		
4-ISOPROPYL TOLUENE	12/2/08	.0072	.0015	<.001	<.001	<.001	<.001	<.001	<.001		
	9/9/08	.0020	<.001	<.01	<.001	<.01	<.01	<.01	<.01		
	6/17/08	<.001	<.005	<.001	<.001	<.001	<.001	<.001	<.001		
	3/11/08	.0052	<.001	<.001	<.001	<.001	<.001	<.001	<.001		
N-BUTYL BENZENE	12/2/08	.021	.0041	.0024	.0023	.0011	<.001	<.001	<.001		
	9/9/08	.0087	.0025	<.01	<.01	<.01	<.01	<.01	<.01		
	6/17/08	.0055	.009	<.001	<.001	<.001	<.001	<.001	<.001		
	3/11/08	.046	.0014	<.001	<.001	<.001	<.001	<.001	<.001		
N-PROPYL BENZENE	12/2/08	.015	.0030	.0019	.0018	<.001	<.001	<.001	<.001		
	9/9/08	.0029	<.001	<.01	<.01	<.01	<.01	<.01	<.01		
	6/17/08	.0015	<.005	<.001	<.001	<.001	<.001	<.001	<.001		
	3/11/08	.036	<.001	<.001	<.001	<.001	<.001	<.001	<.001		
SEC-BUTYL BENZENE	12/2/08	.0064	<.001	<.001	.001	<.001	<.001	<.001	<.001		
	9/9/08	.0024	<.001	<.01	<.01	<.01	<.01	<.01	<.01	**0.005**	
	6/17/08	<.001	<.005	<.001	<.001	<.001	<.001	<.001	<.001		
	3/11/08	.0086	<.001	<.001	<.001	<.001	<.001	<.001	<.001		

TABLE D.16
EPA METHOD 8260B VOLATILES. Levels of contaminants in inlets to Evaporation Ponds 1 and 2. All units of concentrations are in mg/l.

	Date Sampled	Benzene	Toluene	Ethylbenzene	Xylene	MTBE
Evaporation Pond 1 Inlet	8/21/08	.023	.028	<.005	.029	<.005
Evaporation Pond 2 Inlet	8/21/08	<.01	.026	.014	.010	<.0.01

TABLE D.17
EPA METHOD 300.0 ANIONS, EPA 120.1 SPECIFIC CONDUCTANCE, EPA 410.1 COD, EPA 405.1 BOD, SM4500-H+B: PH. Levels of all contaminants in inlets to Evaporation Ponds 1 and 2. All units of concentrations are in mg/l.

	DATE	pH	Specific Conductance (umhos/cm)	COD	BOD	E-Coli (cfu/100ml)	Fluoride	Chloride	NITROGEN Nitrite (as N) Nitrate (as N)	Phosphorus Orthophosphate (asP)	Sulfate
EP 1 INLET	8/21/08	7.9	4400				32	150	<1.0	<5.0	1300
EP 2 INLET	8/21/08			1540	345						

TABLE D.18
EPA METHOD 8260B VOLATILES. Levels of all contaminants in inlets to Evaporation Ponds 1 and 2. All units of concentrations are in mg/l. Contaminants not presented were not detected.

	DATE	Hg	Ba	Ca	Cr	Cu	Fe	Pb	Mg	Mn	K	Na	U	Zn
EP-1 INLET	8/21/08		0.92	77	<.006	<.0063			17	.13	32	420		.29
EP-2 INLET	8/21/08				<.006	<.006								

TABLE D.19
EPA METHOD 8260B VOLATILES.
Levels of all contaminants in Inlets to Evaporation Ponds 1 and 2 found at least above Levels of Detection in 2008 - all units of concentrations are in mg/l (Note: Contaminants not presented were not detected.)

	Evaporation Pond 1 Inlet Concentration Levels (mg/l)	Evaporation Pond 2 Inlet Concentration Levels (mg/l)	Provisional - EPA MCLs/ATSDR Screening level/Health Advisory Level -	NMWQS
1,2,4 TRIMETHYLBENZENE	.027	.0064	**0.005**	
1,3,5 TRIMETHYLBENZENE	.0095	.0021		
NAPTHALENE	.033	.0064		**0.03**
1-METHYLNAPHTHALENE	.062	.016		**0.03**
2-METHYLNAPHTHALENE	.088	.023		**0.03**
ACETONE	1.6	0.36		
2-BUTANONE	0.15	0.035		
CARBON DISULFIDE	.039	.025		
ISOPROPYLBENZENE	.0011		**0.005**	
4-ISOPROPYLTOLUENE	.002			
N-BUTYLBENZENE	.0087	.0025		
N-PROPYLBENZENE	.0029			
SEC-BUTYLBENZENE	.0024		**0.005**	

TABLE D.20
EPA METHOD 8260B VOLATILES.
Quarterly Sampling Requirements: Levels of All Contaminants in AL-2 to EP-1, Pilot Effluent and NAPIS Effluent and EP-1. All units of concentrations are in mg/l (Note: Contaminants not presented were not detected.)

	Date Sampled	Benzene	Toluene	Ethylbenzene	Xylene	MTBE
AL-2 TO EP-1	3/11/08	**.19**	.46	0.099	0.68	<0.01
	6/17/08	<0.02	<0.02	<0.02	<0.03	<002
	9/9/08	<0.02	<0.02	<0.02	<0.03	<0.02
	12/2/08	0.012	0.085	0.028	0.21	<0.005
PILOT EFFLUENT	3/11/08	<0.001	.0015	<0.001	<0.0015	<0.001
	6/17/08	<0.001	0.0062	<0.001	<0.0015	<0.001
	9/9/08	<0.005	<0.005	<0.005	<0.005	<0.0075
	12/2/08	<0.001	<0.001	<0.001	<0.001	<0.001
NAPIS EFFLUENT	3/10/08	0.47	0.73	0.150	0.970	<0.05
	6/17/08	0.84	1.5	0.14	0.89	<0.1
	9/9/08	0.36	0.39	.028	0.2	<0.02
	12/2/08	1.4	3.3	0.36	1.9	<0.05
EP-1	3/11/08	0.19	0.44	0.079	0.48	0.0058
	6/17/08	<0.01	0.012	<0.01	0.024	<0.01
	9/9/08	<0.01	<0.01	<0.01	0.018	<0.01
	12/2/08	0.007	0.081	0.030	0.23	<0.005
EPA MCLS		**0.005**	**1**	**0.7**	**10.0**	
Residential Risk Based Screening Levels for Tap Water (12ug/L)		**0.01**	**0.75**	**0.75**	**0.62**	**0.012 (Residential Tap water Std.)**

TABLE D.21: EPA METHOD 8260B VOLATILES. Quarterly Sampling Requirements. Levels of All Contaminants in AL-2 to EP-1, Pilot Effluent and NAPIS Effluent and EP-1. All units of concentrations are in mg/l (Note: Contaminants not presented were not detected.)

	AL-2 TO EP-1 (MG/L)		PILOT EFFLUENT MG/L	NAPIS EFFLUENT (MG/L)	EP-1 (MG/L)	Provisional-EPA MCLs/ATSDR Screening level/Health Advisory Level	NMWQS
1,2,4 TRIMETHYLBENZENE	3/10/08	0.60	<0.001	0.590	0.3		
	6/17/08	0.039	<0.001	0.26	0.033		
	9/9/08	<0.02	<0.005	0.053	0.04		
	12/208	0.12	<0.001	0.4	0.11		
1,3,5 TRIMETHYLBENZENE	3/10/08	0.170	<0.001	0.170	0.09		
	6/17/08	<0.02	<0.001	<0.1	<0.01		
	9/9/08	<0.02	<0.005	<0.02	<0.01		
	12/2/08	0.041	<0.001	0.1	0.037		
NAPHTHALENE	3/10/08	0.330	<0.002	0.200	0.17		**0.03**
	6/17/08	0.051	<0.002	0.29	0.053		
	9/9/08	<0.04	<0.010	0.087	0.067		
	12/2/08	0.078	<0.002	0.43	0.072		
1-METHYLNAPHTHALENE	3/10/08	0.340	<0.004	0.250	0.19		**0.03**
	6/17/08	0.18	<0.004	0.4	0.087		
	9/9/08	<0.08	<0.02	<0.08	0.24		
	12/2/08	0.19	<0.004	0.29	0.14		
2-METHYLNAPHTHALENE	3/10/08	0.520	<0.004	0.380	0.29		**0.03**
	6/17/08	0.26	<0.004	<0.4	0.13		
	9/9/08	<0.08	<0.02	<0.08	0.35		
	12/2/08	0.28	<0.004	0.46	0.22		
ACETONE	3/10/08	2.2	0.490	0.500	1.2		
	6/17/08	3.8	0.078	17.0	1.6		
	9/9/08	2.2	0.3	17.0	1.7		
	12/2/08	1.9	0.058	4.7	1.7		
2-BUTANONE	3/10/08	0.480	<0.01	<0.5	0.17		
	6/17/08	0.350	0.010	2.5	0.32		
	9/9/08	<0.2	<0.05	1.9	0.21		
	12/2/08	0.095	<0.001	<0.5	0.10		
CHLOROFORM	3/11/08	<0.01	0.0069	<0.05	<0.005		
	6/17/08	<0.02	0.0044	<0.1	<0.01		
	9/9/08	<0.02	<0.005	<0.02	<0.01		
	12/2/08	<0.005	<0.001	<0.05	<0.005		
ISOPROPYLBENZENE	3/10/08	0.012	<0.001	<0.05	.0079	**0.005**	
	6/17/08	<0.02	<0.001	<0.1	<0.01		
	9/9/08	<0.02	<0.005	<0.02	<0.01		
	12/2/08	0.0066	<0.001	<0.05	0.0073		
4-ISOPROPYLTOLUENE	3/10/08	0.015	<0.001	<0.05	<0.005		
	6/17/08	<0.02	<0.001	<0.1	<0.01		
	9/9/08	<0.02	<0.005	<0.02	<0.01		
	12/2/08	0.0067	<0.001	<0.05	0.0055		
N-BUTYLBENZENE	3/10/08	0.055	<0.001	<0.05	<0.005		
	6/17/08	<0.02	<0.001	<0.1	<0.01		
	9/9/08	<0.02	<0.005	<0.02	<0.011		
	12/2/08	<0.005	<0.001	<0.05	0.0019		
N-PROPYLBENZENE	3/10/08	0.045	<0.001	<0.05	0.027		
	6/17/08	<0.02	<0.001	<0.1	<0.01		
	9/9/08	<0.02	<0.005	<0.02	<0.01		
	12/2/08	0.013	<0.001	<0.05	0.0013		
SEC-BUTYLBENZENE	3/11/08	<0.01	<0.001	<0.05	0.005	**0.005**	
	6/17/08	<0.02	<0.01	<0.1	<0.01		
	9/9/08	<0.02	<0.05	<0.02	<0.01		
	12/2/08	<0.05	<0.001	<0.05	<0.01		
1-4 DICHLORABENZENE	3/11/08	<0.01	<0.001	<0.05	<0.01		
	6/17/08	<0.02	0.0018	<0.1	<0.01		
	9/9/08	<0.02	<0.05	<0.02	<0.01		
	12/2/08	<0.05	<0.001	<0.05	<0.01		

TABLE D.22
EPA METHOD 8260B VOLATILES, EPA METHOD 8015B DRO/GRO.
Quarterly Levels in Al-2 to EP-1, Pilot Effluent, NAPIS Effluent, and EP-1. All units of concentrations are in mg/l.

	DATE	DRO	GRO	Hg	As	Ba	Cd	Ca	Cr	Cu
Al-2 to EP-1	3/10/08	24	1.7	<0.0002	<0.20	0.017	<0.002		0.1	<0.006
	6/17/08	140	1.4	0.00076	<0.02	0.14	<0.002		0.013	0.015
	9/9/08	44	<5.0	<0.0002	<0.02	0.069	<0.002		0.0072	<0.006
	12/2/08	160	<5.0	0.00048	<0.02	0.20	<0.005		<0.01	<0.02
PILOT EFFLUENT	3/11/08	12	<0.05	<0.0002	<0.02	0.022	<0.002		<0.006	0.018
	6/17/08	5.4	0.078	<0.0002	<0.02	0.019	<0.002		<0.006	0.012
	9/9/08	6.3	<1.0	<0.0002	<0.02	0.017	<0.002		<0.006	0.021
	12/2/08	10	<0.5	<0.0002	<0.02	0.021	<0.005	220	<0.01	0.040
NAPIS EFFLUENT	3/10/08	*290*	*11*	*0.00028*	*<0.2*	*0.32*	<0.002	*120*	*0.019*	0.053
	6/17/08	44	11	<0.0002	<0.02	0.081	<0.002	50	<0.006	<0.006
	9/9/08	35	<10	<0.0002	<0.02	0.062	<0.002	42	<0.006	<0.006
	12/2/08	68	20	0.00026	<0.02	0.11	<0.005		<0.01	<0.02
EP-1	3/11/08	32	1.9							
	6/17/08	140	2.7							
	9/9/08	140	<20							
	12/2/08	120	<5.0							
EPA MCLS					**0.01**	**2.0**			**0.1**	**1.3**
NMWQS					**0.1**	**1.0**			**.05**	**1.0**

	DATE	Fe	Pb	Mg	Mn	K	Se	Ag	Na	U	Zn
Al-2 to EP-1	3/10/08	110	<0.005		1.4		<0.05	<0.005		1.9	1.9
	6/17/08	9.0	0.0057		0.13		<0.05	<0.005		.00071	1.6
	9/9/08	2.5	<0.005		0.13		<0.05	<0.005		<0.001	0.19
	12/2/08	6.8	<0.005		0.40		0.034	<0.01			0.59
PILOT EFFLUENT	3/11/08	0.35	<0.005		0.092		<0.5	<0.005		<0.1	0.055
	6/17/08	0.44	<0.005		0.1		<0.05	<0.005		.0009	0.043
	9/9/08	0.49	<0.005		0.085		<0.05	<0.005		<0.001	0.057
	12/2/08	0.36	<0.005	51	0.086	31	<0.02	<0.01	260		0.068
NAPIS EFFLUENT	3/10/08	10	0.013	28	0.2	22	<0.5	<0.005	550	<0.1	1.3
	6/17/08	1.1	<0.005	12	0.057	13	<0.05	<0.005	320	<0.00063	0.19
	9/9/08	0.073	<0.005	9.0	0.057	7.7	0.052	<0.005	200	<0.001	<0.02
	12/2/08	1.8	<0.005		0.17		<0.02	<0.01			0.23
EPA MCLS		**0.3**	**0**		**0.3**					**0.03**	
NMWQS		**1.0**	**.05**		**0.2**					**0.03**	**10.0**

TABLE D.23
EPA METHOD 300.0 ANIONS, EPA 120.1 SPECIFIC CONDUCTANCE, EPA 410.1 COD, EPA 405.1 BOD, SM4500-H+B: PH.
Quarterly Sampling Requirements for Pilot Effluent and NAPIS Effluent, EP-1 and Boiler Water to EP-2. All units of concentrations are in mg/l.

	Date Sampled	pH	Specific Conductance (umhos/cm)	COD	BOD	Fluoride	Chloride	Nitrogen Nitrite (as N)	Nitrogen Nitrate (as N)	Phosphorus Orthophosphate (as P)	Sulfate
NAPIS EFFLUENT	3/10/08					69	480	<5.0	<5.0	<25	570
	6/17/08	9.07	4600			19	93	<1.0	3.4	37	630
	9/9/08	9.44	3300			11	78	1.8		14	440
	12/2/08	8.63	2200			12	160	<1.0	1.2	<5.0	510
PILOT EFFLUENT	3/11/08			824	618						
	6/17/08			699	399						
	9/9/08			795	375						
				336	642						
EP-1	3/11/08	3.81		965	510		500				
	6/17/08	7.43		2650	294						
	9/9/08	7.93		1360	262		170				
	12/2/08	7.62		840	231		350				
Boiler Water to EP-2	6/17/08	7.90	6500			1.3	67	<1.0	<0.10	<0.50	2600
EPA MCLs		6-9				4.0	1	1	10		250
NMWQS		6-9				1.6	250 Domestic Water	10	10		600

TABLE D.24
EPA METHOD 8270C SEMIVOLATILES. Quarterly Sampling Requirements.
Levels of All Contaminants in NAPIS Effluent and EP-1. All units of concentrations are in mg/l
(Note: Contaminants not presented were not detected.)

	NAPIS EFFLUENT (MG/L)		EP-1 MG/L	Provisional-EPA MCLs/ATSDR Screening level/Health Advisory Level	NMWQS
	DATE	RESULTS	RESULTS		
2,4-DIMETHYLPHENOL	3/10/08		0.1		
	6/17/08	0.15	0.13		
	9/9/08	0.49	0.2		
	12/208	0.12	0.087		
CARBAZOLE	3/10/08	0.071			
	6/17/08				
	9/9/08				
	12/2/08				
CHRYSENE	3/10/08	0.12			
	6/17/08				
	9/9/08				
	12/2/08				
FLUORENE	3/10/08	0.093			
	6/17/08				
	9/9/08				
	12/2/08				
2-METHYLNAPHTHALENE	3/10/08	0.59			
	6/17/08	0.5			
	9/9/08	0.063			
	12/2/08				
2-METHYLPHENOL	3/10/08	0.15	0.88		
	6/17/08	4.9	0.37		
	9/9/08	7.4	0.45		
	12/2/08	0.62	0.55		
3+4-METHYLPHENOL	3/10/08	0.17	1.3		
	6/17/08	8.5	0.40		
	9/9/08	13	0.6		
	12/2/08	3.2	0.86		
PHENANTHRENE	3/11/08	0.44			
	6/17/08	0.16			
	9/9/08				
	12/2/08				
PHENOL	3/10/08	0.19	0.45		
	6/17/08	17	1.2		**.005**
	9/9/08	25	1.3		
	12/2/08	6.8	15		
PYRENE	3/10/08	0.15			
	6/17/08				
	9/9/08				
	12/2/08				
ANILINE	3/10/08				
	6/17/08	0.4			
	9/9/08	2.1			
	12/2/08				
NAPHTHALENE	3/10/08				
	6/17/08	0.24			**0.03**
	9/9/08	0.076			
	12/2/08				

TABLE D.25
EPA METHOD 8015B GRO/DRO, EPA METHOD 300.0 ANIONS, EPA 120:1 SPECIFIC CONDUCTANCE, SM4500-H+B: PH. Levels of all contaminants found in NAPIS Wells 1, 2, 3 (Formerly tagged as KA-1R, KA-2R, KA-3R), AND KA-3. All units of concentrations are in mg/l.)

	DATE	pH	Specific Conductance (umhos/cm)	GRO	DRO	Fluoride	Chloride	Nitrate + Nitrite as N	Phosphorus Orthophosphate (as P)	Sulfate
NAPIS 1 (KA-1R)	4/11/08	7.26	2000	<0.05	<1.0	0.79	170	0.55 <0.10	<0.50	80
	7/9/08	7.27	1900	<0.05	<1.0	1.4	180	<1.0	<0.50	98
	9/30/08			<0.05	<1.0					
	11/10/08	7.30	1900	<0.05	<1.0	0.73	160	1.6 <0.10	<0.50	63
NAPIS 2 (KA-2R)	4/11/08	7.0	2100	2.2	1.5	0.92	360	<0.10 <1.0	<0.50	42
	7/9/08	7.18	2000	0.74	2.4	1.1	270	<1.0	<0.50	33
	9/30/08			0.45	3.9					
	11/10/08	7.21	1600	0.59	4.0	1.4	200	<0.1	<0.50	32
NAPIS 3 (KA-3R)	7/9/08	8.29	4200	<0.05	<1.0	0.46	1100	9.1	<0.50	270
	9/30/08	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY
	11/10/08	8.05	4300	<0.05	<1.0	1.1	1100	2.6 <1.0	<0.50	310
KA-3	11/10/08	7.34	2700	0.15	<1.0	0.46	590	11 2.0	<0.50	140
EPA MCLS		**6-9**				**4.0**		**0.2**	**10**	
NMWQS						**1.6**	**250** (Domestic Water)	**10 Nitrate 1 Nitrite**		**600**

Note: NAPIS 1 & NAPIS 2 - began sampling in second quarter 2008.
NAPIS 3 – began sampling third quarter 2008.
KA3 – Began sampling Fourth Quarter 2008.

TABLE D.26
EPA METHOD 8021B, VOLATILES, EPA 6010B TOTAL RECOVERABLE METALS, EPA METHOD 8310: PAHS.. Levels of all contaminants found in NAPIS Wells 1, 2, 3 (Formerly tagged as KA-1R, KA-2R, KA-3R), AND KA-3. EPA Method 8310 – PAHS showed only one hit in the Fourth Quarter in NAPIS 2 (KA-2R) for Fluorene .00099mg/l. All units of concentrations are in mg/l.)

	DATE	BENZENE	TOLUENE	ETHYL BENZENE	XYLENE	MTBE	Ba	Ca	Pb	Mg	K	Na	Fluorene
NAPIS 1 (KA-1R)	4/11/08	<0.001	<0.001	<0.001	<0.002	<0.0025		72		13	1.5	370	
	7/9/08	<0.001	<0.001	<0.001	<0.002	<0.0025		70		12	2.1	430	
	9/30/08	<0.001	<0.001	<0.001	<0.002	*	*	*	*	*	*	*	
	11/10/08	<0.001	<0.001	<0.001	<0.002	<0.0025	0.13	78		14	1.2	390	
NAPIS 2 (KA-2R)	4/11/08	0.91	0.019	0.051	0.12	0.32		110		19	1.3	380	
	7/9/08	0.013	<0.001	0.011	0.0056	0.2		70		13	<0.001	360	
	9/30/08	0.016	<0.001	0.0016	0.0041	*	*	*	*	*	*	*	*
	11/10/08	0.025	<0.001	0.011	<0.002	0.18	0.42	50	.0065	9.7		330	.00099
NAPIS 3 (KA-3R)	7/9/08	<0.001	<0.001	<0.001	<0.002	<0.0025		65		7.8	4.1	910	
	9/30/08	*	*	*	*	*	*	*	*	*	*	*	*
	11/10/08	<0.001	<0.001	<0.001	<0.002	<0.0025	0.13	41		6.6	4.4	960	
KA-3	11/10/08	<0.001	<0.001	<0.001	<0.002	0.13	0.20	65	.0095	11	1.8	570	
EPA MCLS		**0.005**	**1**	**0.7**	**10.0**		**20**		**0**				
Residential Risk Based Screening Levels for Tap Water (12ug/L)		**0.01**	**0.75**	**0.75**	**0.62**	**0.012** (Residential Tap Water Std)	**1.0**		**.05**				

*Third Quarter 2008 - Not analyzed for MTBE, or EPA 6010B. NAPIS 3 Well not sampled – not enough water in well for testing after purging.

Western Refining
GALLUP REFINERY

WNR LISTED NYSE

June 25, 2009

Via Hand Delivery

Mr. Willie Lane
U.S. Environmental Protection Agency Region 6
1445 Ross Avenue,
Dallas, TX 75202-2733

Re: Western [Refining Southwest, Inc. – Gallup Refinery
NPDES Application For Existing Industrial Facility

Dear Mr. Lane:

On behalf of the Western Refining Southwest Incorporated Gallup Refinery (the "Refinery") in connection with its application for a National Pollutant Discharge Elimination System ("NPDES") permit, enclosed please find: (i) Consolidated Permits Program Application Form 1 – General Information; (ii) Application Form 2C – Wastewater Discharge Information (as specified by 40 CFR § 122.21(a)(2)(D) for existing industrial facilities), and (iii) a schematic of water flows.

The Refinery is an existing petroleum refining facility located near Gallup, New Mexico. It has been in operation since the late 1950s and currently engages in wastewater treatment on-site. The Refinery currently holds NPDES permit coverage under EPA's Multi-Sector General Permit for storm water discharges. As explained in more detail below, the Refinery is not changing its operations or modifying its facility in such a way as to create any new discharges. The Refinery is applying for an NPDES permit to (i) cover any circumstance in which we may need to discharge into waters of the United States, for example, during a rare flooding event where the holding capacity of the evaporation ponds is exceeded, and (ii) to ensure that any discharge occurring under these circumstances will be subject to the limitations, terms, and conditions of an NPDES permit. Based on discussions with you and your staff, the Refinery believes that the enclosed application information will support the issuance of an individual NPDES permit for process water discharges from the Refinery.

Additionally, Western requests EPA Region 6's consideration of this application without submission of existing discharge data under the Form 2C portion of the

application package. As we have discussed with you and your staff, although the Refinery is an existing facility, its wastewater treatment system is designed so that there is no routine process wastewater discharge. All process wastewaters are treated and retained on site in an evaporation pond system.

Because the discharge to be permitted would be episodic and prospective, the Refinery does not have any data, or any reliable means of gathering such data, that would yield representative information about the discharges for which we seek a permit. EPA Region 6 is able to establish permit limits, terms and conditions in the absence of such information, in the same way it would in other permitting contexts. We believe that, if EPA Region 6 adopts this approach, the agency has the authority to consider the application complete as submitted. We will be glad to discuss this approach further if the agency has any concerns or questions.

Also, please note that the Refinery is engaged in designing and installing upgrades to the wastewater treatment system. These upgrades will help improve the quality of the existing process wastewater and will not result in any additional discharge from the facility.

We appreciate the assistance you have given us and we look forward to working with you and your staff during the application process. If you have any questions, please contact Ed Riege at 505-722-0217.

Sincerely,

Ann Allen for

Mark B. Turri
Refinery Manager

c: Carl Chavez/ New Mexico Oil Conservation Division
Hope Monzeglio/ NMED Hazardous Waste Bureau

Please print or type in the unshaded areas only.

Form Approved. OMB No. 2040-0086.

FORM 1 GENERAL

EPA

U.S. ENVIRONMENTAL PROTECTION AGENCY

GENERAL INFORMATION

Consolidated Permits Program

(Read the "General Instructions" before starting.)

I. EPA I.D. NUMBER

S		T/A	C
F	NMD000333211		D
1	2 — 13	14	15

LABEL ITEMS

I. EPA I.D. NUMBER

III. FACILITY NAME

V. FACILITY MAILING ADDRESS

VI. FACILITY LOCATION

PLEASE PLACE LABEL IN THIS SPACE

GENERAL INSTRUCTIONS

If a preprinted label has been provided, affix it in the designated space. Review the information carefully; if any of it is incorrect, cross through it and enter the correct data in the appropriate fill-in area below. Also, if any of the preprinted data is absent *(the area to the left of the label space lists the information that should appear)*, please provide it in the proper fill-in area(s) below. If the label is complete and correct, you need not complete Items I, III, V, and VI *(except VI-B which must be completed regardless)*. Complete all items if no label has been provided. Refer to the instructions for detailed item descriptions and for the legal authorizations under which this data is collected.

II. POLLUTANT CHARACTERISTICS

INSTRUCTIONS: Complete A through J to determine whether you need to submit any permit application forms to the EPA. If you answer "yes" to any questions, you must submit this form and the supplemental form listed in the parenthesis following the question. Mark "X" in the box in the third column if the supplemental form is attached. If you answer "no" to each question, you need not submit any of these forms. You may answer "no" if your activity is excluded from permit requirements; see Section C of the instructions. See also, Section D of the instructions for definitions of **bold-faced terms**.

SPECIFIC QUESTIONS	Mark "X" YES	NO	FORM ATTACHED
A. Is this facility a **publicly owned treatment works** which results in a **discharge** to **waters of the U.S.**? (FORM 2A)	16	X 17	18
B. Does or will this facility *(either existing or proposed)* include a **concentrated animal feeding operation** or **aquatic animal production facility** which results in a **discharge** to **waters of the U.S.**? (FORM 2B)	19	X 20	21
C. Is this a facility which currently results in **discharges** to **waters of the U.S.** other than those described in A or B above? (FORM 2C)	X 22	23	24
D. Is this a proposed facility *(other than those described in A or B above)* which will result in a **discharge** to **waters of the U.S.**? (FORM 2D)	25	X 26	27
E. Does or will this facility treat, store, or dispose of **hazardous wastes**? (FORM 3)	28	X 29	30
F. Do you or will you inject at this facility industrial or municipal effluent below the lowermost stratum containing, within one quarter mile of the well bore, underground sources of drinking water? (FORM 4)	31	X 32	33
G. Do you or will you inject at this facility any produced water or other fluids which are brought to the surface in connection with conventional oil or natural gas production, inject fluids used for enhanced recovery of oil or natural gas, or inject fluids for storage of liquid hydrocarbons? (FORM 4)	34	X 35	36
H. Do you or will you inject at this facility fluids for special processes such as mining of sulfur by the Frasch process, solution mining of minerals, in situ combustion of fossil fuel, or recovery of geothermal energy? (FORM 4)	37	X 38	39
I. Is this facility a proposed **stationary source** which is one of the 28 industrial categories listed in the instructions and which will potentially emit 100 tons per year of any air pollutant regulated under the Clean Air Act and may affect or be located in an attainment area? (FORM 5)	40	X 41	42
J. Is this facility a proposed **stationary source** which is NOT one of the 28 industrial categories listed in the instructions and which will potentially emit 250 tons per year of any air pollutant regulated under the Clean Air Act and may affect or be located in an **attainment area**? (FORM 5)	43	X 44	45

III. NAME OF FACILITY

c		
1	SKIP	Western Refining Gallup Refinery
15	16 - 29	30 — 69

IV. FACILITY CONTACT

A. NAME & TITLE *(last, first, & title)*	B. PHONE *(area code & no.)*
2 Riege, Edmund, Manager, Environmental Department	(505) 722-0217
15 — 16 — 45	46 — 48 — 49 — 51 — 52 — 55

V. FACILTY MAILING ADDRESS

A. STREET OR P.O. BOX

c	
3	Route 3 Box 7
15	16 — 45

B. CITY OR TOWN	C. STATE	D. ZIP CODE
4 Gallup	NM	87301
15 — 16 — 40	41 — 42	47 — 51

VI. FACILITY LOCATION

A. STREET, ROUTE NO. OR OTHER SPECIFIC IDENTIFIER

c	
5	I-40 Exit 39
15	16 — 45

B. COUNTY NAME

McKinley

46 — 70

C. CITY OR TOWN	D. STATE	E. ZIP CODE	F. COUNTY CODE *(if known)*
6 Jamestown	NM	87347	
15 — 16 — 40	41 — 42	47 — 51	52 — 54

CONTINUE ON REVERSE

CONTINUED FROM THE FRONT

VII. SIC CODES *(4-digit, in order of priority)*

A. FIRST	B. SECOND
2911 *(specify)* Petroleum Refining	*(specify)*

C. THIRD	D. FOURTH
(specify)	*(specify)*

VIII. OPERATOR INFORMATION

A. NAME: Western Refining Southwest Inc.

B. Is the name listed in Item VIII-A also the owner? ☑ YES ☐ NO

C. STATUS OF OPERATOR *(Enter the appropriate letter into the answer box: if "Other," specify.)*

F = FEDERAL
S = STATE
P = PRIVATE
M = PUBLIC *(other than federal or state)*
O = OTHER *(specify)*

P *(specify)*

D. PHONE *(area code & no.)*: A (505) 722-3833

E. STREET OR P.O. BOX: Route 3 Box 7

F. CITY OR TOWN: Gallup

G. STATE: NM

H. ZIP CODE: 87301

IX. INDIAN LAND: Is the facility located on Indian lands? ☐ YES ☑ NO

X. EXISTING ENVIRONMENTAL PERMITS

A. NPDES *(Discharges to Surface Water)*: NMR05B157

D. PSD *(Air Emissions from Proposed Sources)*:

B. UIC *(Underground Injection of Fluids)*:

E. OTHER *(specify)*: OCD - GW-032 *(specify)* Groundwater discharge permit GW-032 from the Oil Conservation Division of the New Mexico Energy Minerals Natural Resources Department

C. RCRA *(Hazardous Wastes)*: NMD000333211

E. OTHER *(specify)*: *(specify)*

XI. MAP

Attach to this application a topographic map of the area extending to at least one mile beyond property boundaries. The map must show the outline of the facility, the location of each of its existing and proposed intake and discharge structures, each of its hazardous waste treatment, storage, or disposal facilities, and each well where it injects fluids underground. Include all springs, rivers, and other surface water bodies in the map area. See instructions for precise requirements.

XII. NATURE OF BUSINESS *(provide a brief description)*

Gallup Refinery is located within a rural, sparsely populated section of McKinley County in Jamestown New Mexico (see Figure 1). The refinery is situated on an 810 acre irregularly shaped tract of land that is substantially located within the lower one quarter of Section 28 and throughout Section 33 of Township 15 North, Range 15 West of the New Mexico Prime Meridian. A small component of the property lies within the northeastern one quarter of Section 4 of Township 14 North, Range 15 West. The refinery has an overall capacity to process up to 23,000 barrels per day of crude oil and additional feedstocks. The process wastewater collection system is a network of curbing, paving, catch basins, and underground piping that collects wastewater and stormwater from various processing areas within the refinery and then conveys this wastewater to a wastewater treatment system. After oil recovery and stripping of benzene from the wastewater, the wastewater enters aeration basins. In the aeration basins, the treated wastewater is mixed with air in order to oxidize any remaining organic constituents and increase the dissolved oxygen concentration available in the water for growth of bacteria and other microbial organisms. The microbes degrade hydrocarbons into carbon dioxide and water. Effluent from the aeration lagoons flows onward into the first of several evaporation ponds of various sizes. At the evaporation ponds, wastewater is converted into vapor via solar and mechanical wind-effect evaporation. No wastewater is discharged from the refinery to surface waters of the state because all of the wastewater evaporates except under extremely rare circumstances, when discharge of treated water is possible.

XIII. CERTIFICATION *(see instructions)*

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this application and all attachments and that, based on my inquiry of those persons immediately responsible for obtaining the information contained in the application, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

A. NAME & OFFICIAL TITLE *(type or print)*	B. SIGNATURE	C. DATE SIGNED
Mark B. Turri, Refinery Manager	Mark B. Turri	06/24/2009

COMMENTS FOR OFFICIAL USE ONLY

EPA Form 3510-1 (8-90)

Western Refining
Gallup Refinery

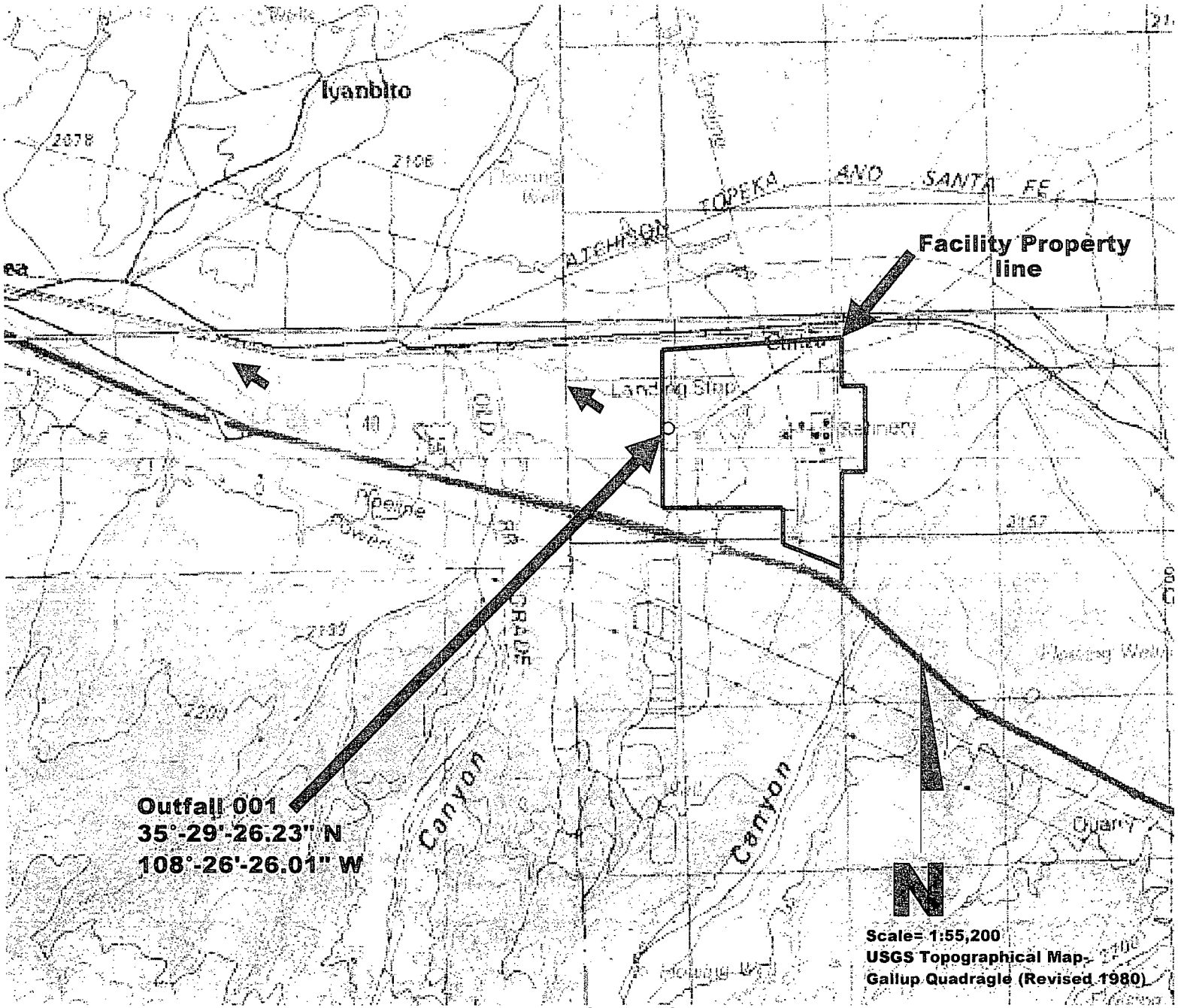


Figure 1: Topographic Map for NPDES Permit Application

Please print or type in the unshaded areas only.

EPA I.D. NUMBER (*copy from Item 1 of Form 1*)
NMD000333211

Form Approved.
OMB No. 2040-0086.
Approval expires 3-31-98.

FORM **2C** NPDES

U.S. ENVIRONMENTAL PROTECTION AGENCY
APPLICATION FOR PERMIT TO DISCHARGE WASTEWATER
EXISTING MANUFACTURING, COMMERCIAL, MINING AND SILVICULTURE OPERATIONS
Consolidated Permits Program

I. OUTFALL LOCATION

For each outfall, list the latitude and longitude of its location to the nearest 15 seconds and the name of the receiving water.

A. OUTFALL NUMBER (*list*)	B. LATITUDE			C. LONGITUDE			D. RECEIVING WATER (*name*)
	1. DEG.	2. MIN.	3. SEC.	1. DEG.	2. MIN.	3. SEC.	
001	35.00	29.00	26.23	108.00	26.00	26.01	Unnamed arroyo leading to Puerco River

II. FLOWS, SOURCES OF POLLUTION, AND TREATMENT TECHNOLOGIES

A. Attach a line drawing showing the water flow through the facility. Indicate sources of intake water, operations contributing wastewater to the effluent, and treatment units labeled to correspond to the more detailed descriptions in Item B. Construct a water balance on the line drawing by showing average flows between intakes, operations, treatment units, and outfalls. If a water balance cannot be determined (*e.g., for certain mining activities*), provide a pictorial description of the nature and amount of any sources of water and any collection or treatment measures.

B. For each outfall, provide a description of: (1) All operations contributing wastewater to the effluent, including process wastewater, sanitary wastewater, cooling water, and storm water runoff; (2) The average flow contributed by each operation; and (3) The treatment received by the wastewater. Continue on additional sheets if necessary.

1. OUTFALL NO. (*list*)	2. OPERATION(S) CONTRIBUTING FLOW		3. TREATMENT		
	a. OPERATION (*list*)	b. AVERAGE FLOW (*include units*)	a. DESCRIPTION	b. LIST CODES FROM TABLE 2C-1	
001	Process wastewater, refinery	360,000 gallons per day	aeration, biological treatment, evaporation, sedimentation	1F	1U
	(including stormwater from within			3B	3G
	process areas)				
	Sanitary wastewater	80,000 gallons per day	aeration, biological treatment, evaporation, sedimentation	1F	1U
				3B	3G
	Reverse Osmosis unit reject water	101,000 gallons per day	biological treatment, evaporation, sedimentation	1F	1U
				3G	

OFFICIAL USE ONLY (*effluent guidelines sub-categories*)

CONTINUED FROM THE FRONT

C. Except for storm runoff, leaks, or spills, are any of the discharges described in Items II-A or B intermittent or seasonal?

☑ YES (*complete the following table*) ☐ NO (*go to Section III*)

1. OUTFALL NUMBER (*list*)	2. OPERATION(s) CONTRIBUTING FLOW (*list*)	3. FREQUENCY a. DAYS PER WEEK (*specify average*)	3. FREQUENCY b. MONTHS PER YEAR (*specify average*)	4. FLOW a. FLOW RATE (*in mgd*) 1. LONG TERM AVERAGE	4. FLOW a. FLOW RATE (*in mgd*) 2. MAXIMUM DAILY	4. FLOW B. TOTAL VOLUME (*specify with units*) 1. LONG TERM AVERAGE	4. FLOW B. TOTAL VOLUME (*specify with units*) 2. MAXIMUM DAILY	4. FLOW C. DURATION (*in days*)
001	Process wastewater (including process stormwater), sanitary wastewater, reverse osmosis unit reject water. Currently, all treated wastewater enters into a series of evaporation ponds that have no surface water discharge. However, we may have to discharge treated effluent in an extreme emergency. In such an event, we would use appropriate temporary treatment systems to meet all permit limitations and requirements. We cannot predict the frequency. Data at right are based on a 100,000 gallon discharge once in 10 years.	0.002 (once in 10 years)	0.1 (once in 10 years)	0.00003 (0.1 mgd in 10 years)	0.1	100,000 gallon/day (maximum expected)	100,000 gallons	1 - 10 (not known)

III. PRODUCTION

A. Does an effluent guideline limitation promulgated by EPA under Section 304 of the Clean Water Act apply to your facility?

☑ YES (*complete Item III-B*) ☐ NO (*go to Section IV*)

B. Are the limitations in the applicable effluent guideline expressed in terms of production (*or other measure of operation*)?

☑ YES (*complete Item III-C*) ☐ NO (*go to Section IV*)

C. If you answered "yes" to Item III-B, list the quantity which represents an actual measurement of your level of production, expressed in the terms and units used in the applicable effluent guideline, and indicate the affected outfalls.

1. AVERAGE DAILY PRODUCTION a. QUANTITY PER DAY	b. UNITS OF MEASURE	c. OPERATION, PRODUCT, MATERIAL, ETC. (*specify*)	2. AFFECTED OUTFALLS (*list outfall numbers*)
20	1000 barrels feedstock per stream day	Crude (atmospheric)	001
20	1000 barrels feedstock per stream day	Crude (desalter)	001
5	1000 barrels feedstock per stream day	Fluidized Catalytic Cracking unit	001

IV. IMPROVEMENTS

A. Are you now required by any Federal, State or local authority to meet any implementation schedule for the construction, upgrading or operations of wastewater treatment equipment or practices or any other environmental programs which may affect the discharges described in this application? This includes, but is not limited to, permit conditions, administrative or enforcement orders, enforcement compliance schedule letters, stipulations, court orders, and grant or loan conditions.

☑ YES (*complete the following table*) ☐ NO (*go to Item IV-B*)

1. IDENTIFICATION OF CONDITION, AGREEMENT, ETC.	2. AFFECTED OUTFALLS a. NO.	2. AFFECTED OUTFALLS b. SOURCE OF DISCHARGE	3. BRIEF DESCRIPTION OF PROJECT	4. FINAL COMPLIANCE DATE a. REQUIRED	4. FINAL COMPLIANCE DATE b. PROJECTED
Groundwater Discharge Permit GW-032 from Oil Conservation Division of the New Mexico Energy Minerals and Natural Resources Department	001	Evaporation Pond #5, in case of an extreme emergency in which capacity of evaporation ponds is about to be exceeded	Upgrade oil-water separation, improve operation of wastewater treatment system	Under review	2012

B. OPTIONAL: You may attach additional sheets describing any additional water pollution control programs (*or other environmental projects which may affect your discharges*) you now have underway or which you plan. Indicate whether each program is now underway or planned, and indicate your actual or planned schedules for construction.

☐ MARK "X" IF DESCRIPTION OF ADDITIONAL CONTROL PROGRAMS IS ATTACHED

EPA I.D. NUMBER (*copy from Item 1 of Form 1*)
NMD000333211

CONTINUED FROM PAGE 2

V. INTAKE AND EFFLUENT CHARACTERISTICS

A, B, & C: See instructions before proceeding – Complete one set of tables for each outfall – Annotate the outfall number in the space provided. NOTE: Tables V-A, V-B, and V-C are included on separate sheets numbered V-1 through V-9.

D. Use the space below to list any of the pollutants listed in Table 2c-3 of the instructions, which you know or have reason to believe is discharged or may be discharged from any outfall. For every pollutant you list, briefly describe the reasons you believe it to be present and report any analytical data in your possession.

1. POLLUTANT	2. SOURCE	1. POLLUTANT	2. SOURCE
Uranium	Raw water (local groundwater)		
Vanadium	Crude oil		

VI. POTENTIAL DISCHARGES NOT COVERED BY ANALYSIS

Is any pollutant listed in Item V-C a substance or a component of a substance which you currently use or manufacture as an intermediate or final product or byproduct?

☐ YES (*list all such pollutants below*) ☑ NO (*go to Item VI-B*)

CONTINUED FROM THE FRONT

VII. BIOLOGICAL TOXICITY TESTING DATA

Do you have any knowledge or reason to believe that any biological test for acute or chronic toxicity has been made on any of your discharges or on a receiving water in relation to your discharge within the last 3 years?

☐ YES (*identify the test(s) and describe their purposes below*) ☑ NO (*go to Section VIII*)

VIII. CONTRACT ANALYSIS INFORMATION

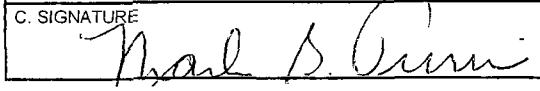
Were any of the analyses reported in Item V performed by a contract laboratory or consulting firm?

☐ YES (*list the name, address, and telephone number of, and pollutants analyzed by, each such laboratory or firm below*) ☑ NO (*go to Section IX*)

A. NAME	B. ADDRESS	C. TELEPHONE (*area code & no.*)	D. POLLUTANTS ANALYZED (*list*)

IX. CERTIFICATION

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

A. NAME & OFFICIAL TITLE (*type or print*)	B. PHONE NO. (*area code & no.*)
Mark B. Turri, Refinery Manager	(505) 722-3833
C. SIGNATURE 	D. DATE SIGNED 06/24/2009

PLEASE PRINT OR TYPE IN THE UNSHADED AREAS ONLY. You may report some or all of this information on separate sheets (*use the same format*) instead of completing these pages.
SEE INSTRUCTIONS.

EPA I.D. NUMBER (*copy from Item 1 of Form 1*)
NMD000333211

V. INTAKE AND EFFLUENT CHARACTERISTICS *(continued from page 3 of Form 2-C)*

OUTFALL NO.
001

PART A --You must provide the results of at least one analysis for every pollutant in this table. Complete one table for each outfall. See instructions for additional details.

1. POLLUTANT	2. EFFLUENT							3. UNITS (*specify if blank*)		4. INTAKE (*optional*)		
	a. MAXIMUM DAILY VALUE		b. MAXIMUM 30 DAY VALUE (*if available*)		c. LONG TERM AVRG. VALUE (*if available*)		d. NO. OF ANALYSES	a. CONCEN-TRATION	b. MASS	a. LONG TERM AVERAGE VALUE		b. NO. OF ANALYSES
	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
a. Biochemical Oxygen Demand (*BOD*)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
b. Chemical Oxygen Demand (*COD*)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
c. Total Organic Carbon (*TOC*)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
d. Total Suspended Solids (*TSS*)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
e. Ammonia (*as N*)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
f. Flow	VALUE NA		VALUE NA		VALUE NA		NA	NA	NA	VALUE NA		NA
g. Temperature (*winter*)	VALUE NA		VALUE NA		VALUE NA		NA	NA °C		VALUE NA		NA
h. Temperature (*summer*)	VALUE NA		VALUE NA		VALUE NA		NA	NA °C		VALUE NA		NA
i. pH	MINIMUM NA	MAXIMUM NA	MINIMUM NA	MAXIMUM NA			NA	STANDARD UNITS				

PART B – Mark "X" in column 2-a for each pollutant you know or have reason to believe is present. Mark "X" in column 2-b for each pollutant you believe to be absent. If you mark column 2a for any pollutant which is limited either directly, or indirectly but expressly, in an effluent limitations guideline, you must provide the results of at least one analysis for that pollutant. For other pollutants for which you mark column 2a, you must provide quantitative data or an explanation of their presence in your discharge. Complete one table for each outfall. See the instructions for additional details and requirements.

1. POLLUTANT AND CAS NO. (*if available*)	2. MARK "X"		3. EFFLUENT							4. UNITS		5. INTAKE (*optional*)		
	a. BELIEVED PRESENT	b. BELIEVED ABSENT	a. MAXIMUM DAILY VALUE		b. MAXIMUM 30 DAY VALUE (*if available*)		c. LONG TERM AVRG. VALUE (*if available*)		d. NO. OF ANALYSES	a. CONCEN-TRATION	b. MASS	a. LONG TERM AVERAGE VALUE		b. NO. OF ANALYSES
			(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
a. Bromide (24959-67-9)	X		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
b. Chlorine, Total Residual		X	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
c. Color	X		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
d. Fecal Coliform	X		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
e. Fluoride (16984-48-8)	X		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
f. Nitrate-Nitrite (*as N*)	X		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

ITEM V-B CONTINUED FROM FRONT

1. POLLUTANT AND CAS NO. (*if available*)	2. MARK "X"		3. EFFLUENT							4. UNITS		5. INTAKE (*optional*)		
	a. BELIEVED PRESENT	b. BELIEVED ABSENT	a. MAXIMUM DAILY VALUE		b. MAXIMUM 30 DAY VALUE (*if available*)		c. LONG TERM AVRG. VALUE (*if available*)		d. NO. OF ANALYSES	a. CONCEN-TRATION	b. MASS	a. LONG TERM AVERAGE VALUE		b. NO. OF ANALYSES
			(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
g. Nitrogen, Total Organic (*as N*)	X		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
h. Oil and Grease	X		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
i. Phosphorus (as P), Total (7723-14-0)	X		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
j. Radioactivity														
(1) Alpha, Total		X	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
(2) Beta, Total		X	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
(3) Radium, Total		X	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
(4) Radium 226, Total		X	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
k. Sulfate (*as SO_4*) (14808-79-8)	X		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
l. Sulfide (*as S*)		X	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
m. Sulfite (*as SO_3*) (14265-45-3)		X	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
n. Surfactants		X	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
o. Aluminum, Total (7429-90-5)	X		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
p. Barium, Total (7440-39-3)	X		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
q. Boron, Total (7440-42-8)	X		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
r. Cobalt, Total (7440-48-4)	X		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
s. Iron, Total (7439-89-6)	X		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
t. Magnesium, Total (7439-95-4)	X		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
u. Molybdenum, Total (7439-98-7)	X		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
v. Manganese, Total (7439-96-5)	X		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
w. Tin, Total (7440-31-5)	X		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
x. Titanium, Total (7440-32-6)	X		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

CONTINUE ON PAGE V-3

EPA I.D. NUMBER (*copy from Item 1 of Form 1*)	OUTFALL NUMBER
NMD000333211	001

CONTINUED FROM PAGE 3 OF FORM 2-C

PART C - If you are a primary industry and this outfall contains process wastewater, refer to Table 2c-2 in the instructions to determine which of the GC/MS fractions you must test for. Mark "X" in column 2-a for all such GC/MS fractions that apply to your industry and for ALL toxic metals, cyanides, and total phenols. If you are not required to mark column 2-a (*secondary industries, nonprocess wastewater outfalls, and nonrequired GC/MS fractions*), mark "X" in column 2-b for each pollutant you know or have reason to believe is present. Mark "X" in column 2-c for each pollutant you believe is absent. If you mark column 2a for any pollutant, you must provide the results of at least one analysis for that pollutant. If you mark column 2b for any pollutant, you must provide the results of at least one analysis for that pollutant if you know or have reason to believe it will be discharged in concentrations of 10 ppb or greater. If you mark column 2b for acrolein, acrylonitrile, 2,4 dinitrophenol, or 2-methyl-4, 6 dinitrophenol, you must provide the results of at least one analysis for each of these pollutants which you know or have reason to believe that you discharge in concentrations of 100 ppb or greater. Otherwise, for pollutants for which you mark column 2b, you must either submit at least one analysis or briefly describe the reasons the pollutant is expected to be discharged. Note that there are 7 pages to this part; please review each carefully. Complete one table (*all 7 pages*) for each outfall. See instructions for additional details and requirements.

1. POLLUTANT AND CAS NUMBER (*if available*)	2. MARK "X"			3. EFFLUENT							4. UNITS		5. INTAKE (*optional*)		
	a. TESTING REQUIRED	b. BELIEVED PRESENT	c. BELIEVED ABSENT	a. MAXIMUM DAILY VALUE		b. MAXIMUM 30 DAY VALUE (*if available*)		c. LONG TERM AVRG. VALUE (*if available*)		d. NO. OF ANALYSES	a. CONCENTRATION	b. MASS	a. LONG TERM AVERAGE VALUE		b. NO. OF ANALYSES
				(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
METALS, CYANIDE, AND TOTAL PHENOLS															
1M. Antimony, Total (7440-36-0)	X			NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2M. Arsenic, Total (7440-38-2)	X			NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3M. Beryllium, Total (7440-41-7)	X			NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4M. Cadmium, Total (7440-43-9)	X			NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
5M. Chromium, Total (7440-47-3)	X			NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
6M. Copper, Total (7440-50-8)	X			NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
7M. Lead, Total (7439-92-1)	X			NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8M. Mercury, Total (7439-97-6)	X			NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
9M. Nickel, Total (7440-02-0)	X			NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
10M. Selenium, Total (7782-49-2)	X			NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
11M. Silver, Total (7440-22-4)	X			NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
12M. Thallium, Total (7440-28-0)	X			NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
13M. Zinc, Total (7440-66-6)	X			NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
14M. Cyanide, Total (57-12-5)	X			NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
15M. Phenols, Total	X			NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
DIOXIN															
2,3,7,8-Tetra-chlorodibenzo-P-Dioxin (1764-01-6)	X		X	DESCRIBE RESULTS The US EPA has determined that refineries do not have dioxin or dioxin-like compounds in their wastewater. Even if present, they are usually at trace concentrations, and get recycled back with recovered oil in oil-water separators used at refineries.											

CONTINUED FROM THE FRONT

1. POLLUTANT AND CAS NUMBER (*if available*)	2. MARK "X"			3. EFFLUENT							4. UNITS		5. INTAKE (*optional*)		
	a. TESTING REQUIRED	b. BELIEVED PRESENT	c. BELIEVED ABSENT	a. MAXIMUM DAILY VALUE		b. MAXIMUM 30 DAY VALUE (*if available*)		c. LONG TERM AVRG. VALUE (*if available*)		d. NO. OF ANALYSES	a. CONCENTRATION	b. MASS	a. LONG TERM AVERAGE VALUE		b. NO. OF ANALYSES
				(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
GC/MS FRACTION – VOLATILE COMPOUNDS															
1V. Accrolein (107-02-8)	X			NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2V. Acrylonitrile (107-13-1)	X			NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3V. Benzene (71-43-2)	X			NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4V. Bis (*Chloromethyl*) Ether (542-88-1)	X			NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
5V. Bromoform (75-25-2)	X			NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
6V. Carbon Tetrachloride (56-23-5)	X			NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
7V. Chlorobenzene (108-90-7)	X			NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8V. Chlorodibromomethane (124-48-1)	X			NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
9V. Chloroethane (75-00-3)	X			NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
10V. 2-Chloroethylvinyl Ether (110-75-8)	X			NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
11V. Chloroform (67-66-3)	X			NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
12V. Dichlorobromomethane (75-27-4)	X			NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
13V. Dichlorodifluoromethane (75-71-8)	X			NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
14V. 1,1-Dichloroethane (75-34-3)	X			NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
15V. 1,2-Dichloroethane (107-06-2)	X			NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
16V. 1,1-Dichloroethylene (75-35-4)	X			NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
17V. 1,2-Dichloropropane (78-87-5)	X			NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
18V. 1,3-Dichloropropylene (542-75-6)	X			NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
19V. Ethylbenzene (100-41-4)	X			NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
20V. Methyl Bromide (74-83-9)	X			NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
21V. Methyl Chloride (74-87-3)	X			NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

CONTINUED FROM PAGE V-4

1. POLLUTANT AND CAS NUMBER (*if available*)	2. MARK "X"			3. EFFLUENT							4. UNITS		5. INTAKE (*optional*)		
	a. TESTING REQUIRED	b. BELIEVED PRESENT	c. BELIEVED ABSENT	a. MAXIMUM DAILY VALUE		b. MAXIMUM 30 DAY VALUE (*if available*)		c. LONG TERM AVRG. VALUE (*if available*)		d. NO. OF ANALYSES	a. CONCENTRATION	b. MASS	a. LONG TERM AVERAGE VALUE		b. NO. OF ANALYSES
				(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
GC/MS FRACTION – VOLATILE COMPOUNDS (*continued*)															
22V. Methylene Chloride (75-09-2)	X			NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
23V. 1,1,2,2-Tetrachloroethane (79-34-5)	X			NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
24V. Tetrachloro-ethylene (127-18-4)	X			NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
25V. Toluene (108-88-3)	X			NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
26V. 1,2-Trans-Dichloroethylene (156-60-5)	X			NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
27V. 1,1,1-Trichloro-ethane (71-55-6)	X			NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
28V. 1,1,2-Trichloro-ethane (79-00-5)	X			NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
29V Trichloro-ethylene (79-01-6)	X			NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
30V. Trichloro-fluoromethane (75-69-4)	X			NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
31V. Vinyl Chloride (75-01-4)	X			NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
GC/MS FRACTION – ACID COMPOUNDS															
1A. 2-Chlorophenol (95-57-8)	X			NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2A. 2,4-Dichloro-phenol (120-83-2)	X			NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3A. 2,4-Dimethyl-phenol (105-67-9)	X			NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4A. 4,6-Dinitro-O-Cresol (534-52-1)	X			NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
5A. 2,4-Dinitro-phenol (51-28-5)	X			NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
6A. 2-Nitrophenol (88-75-5)	X			NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
7A. 4-Nitrophenol (100-02-7)	X			NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8A. P-Chloro-M-Cresol (59-50-7)	X			NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
9A. Pentachloro-phenol (87-86-5)	X			NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
10A. Phenol (108-95-2)	X			NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
11A. 2,4,6-Trichloro-phenol (88-05-2)	X			NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

CONTINUED FROM THE FRONT

1. POLLUTANT AND CAS NUMBER (*if available*)	2. MARK "X"			3. EFFLUENT							4. UNITS		5. INTAKE (*optional*)		
	a. TESTING REQUIRED	b. BELIEVED PRESENT	c. BELIEVED ABSENT	a. MAXIMUM DAILY VALUE		b. MAXIMUM 30 DAY VALUE (*if available*)		c. LONG TERM AVRG. VALUE (*if available*)		d. NO. OF ANALYSES	a. CONCENTRATION	b. MASS	a. LONG TERM AVERAGE VALUE		b. NO. OF ANALYSES
				(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
GC/MS FRACTION – BASE/NEUTRAL COMPOUNDS															
1B. Acenaphthene (83-32-9)	X			NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2B. Acenaphtylene (208-96-8)	X			NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3B. Anthracene (120-12-7)	X			NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4B. Benzidine (92-87-5)	X			NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
5B. Benzo (*a*) Anthracene (56-55-3)	X			NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
6B. Benzo (*a*) Pyrene (50-32-8)	X			NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
7B. 3,4-Benzo-fluoranthene (205-99-2)	X			NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8B. Benzo (*ghi*) Perylene (191-24-2)	X			NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
9B. Benzo (*k*) Fluoranthene (207-08-9)	X			NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
10B. Bis (*2-Chloro-ethoxy*) Methane (111-91-1)	X			NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
11B. Bis (*2-Chloro-ethyl*) Ether (111-44-4)	X			NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
12B. Bis (*2-Chloroisopropyl*) Ether (102-80-1)	X			NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
13B. Bis (*2-Ethyl-hexyl*) Phthalate (117-81-7)	X			NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
14B. 4-Bromophenyl Phenyl Ether (101-55-3)	X			NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
15B. Butyl Benzyl Phthalate (85-68-7)	X			NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
16B. 2-Chloro-naphthalene (91-58-7)	X			NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
17B. 4-Chloro-phenyl Phenyl Ether (7005-72-3)	X			NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
18B. Chrysene (218-01-9)	X			NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
19B. Dibenzo (*a,h*) Anthracene (53-70-3)	X			NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
20B. 1,2-Dichloro-benzene (95-50-1)	X			NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
21B. 1,3-Di-chloro-benzene (541-73-1)	X			NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

CONTINUED FROM PAGE V-6

1. POLLUTANT AND CAS NUMBER (*if available*)	2. MARK "X"			3. EFFLUENT							4. UNITS		5. INTAKE (*optional*)		
	a. TESTING REQUIRED	b. BELIEVED PRESENT	c. BELIEVED ABSENT	a. MAXIMUM DAILY VALUE		b. MAXIMUM 30 DAY VALUE (*if available*)		c. LONG TERM AVRG. VALUE (*if available*)		d. NO. OF ANALYSES	a. CONCENTRATION	b. MASS	a. LONG TERM AVERAGE VALUE		b. NO. OF ANALYSES
				(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
GC/MS FRACTION – BASE/NEUTRAL COMPOUNDS (*continued*)															
22B. 1,4-Dichlorobenzene (106-46-7)	X			NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
23B. 3,3-Dichlorobenzidine (91-94-1)	X			NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
24B. Diethyl Phthalate (84-66-2)	X			NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
25B. Dimethyl Phthalate (131-11-3)	X			NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
26B. Di-N-Butyl Phthalate (84-74-2)	X			NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
27B. 2,4-Dinitrotoluene (121-14-2)	X			NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
28B. 2,6-Dinitrotoluene (606-20-2)	X			NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
29B. Di-N-Octyl Phthalate (117-84-0)	X			NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
30B. 1,2-Diphenylhydrazine (*as Azobenzene*) (122-66-7)	X			NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
31B. Fluoranthene (206-44-0)	X			NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
32B. Fluorene (86-73-7)	X			NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
33B. Hexachlorobenzene (118-74-1)	X			NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
34B. Hexachlorobutadiene (87-68-3)	X			NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
35B. Hexachlorocyclopentadiene (77-47-4)	X			NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
36B Hexachloroethane (67-72-1)	X			NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
37B. Indeno (*1,2,3-cd*) Pyrene (193-39-5)	X			NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
38B. Isophorone (78-59-1)	X			NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
39B. Naphthalene (91-20-3)	X			NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
40B. Nitrobenzene (98-95-3)	X			NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
41B. N-Nitrosodimethylamine (62-75-9)	X			NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
42B. N-Nitrosodi-N-Propylamine (621-64-7)	X			NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NANA

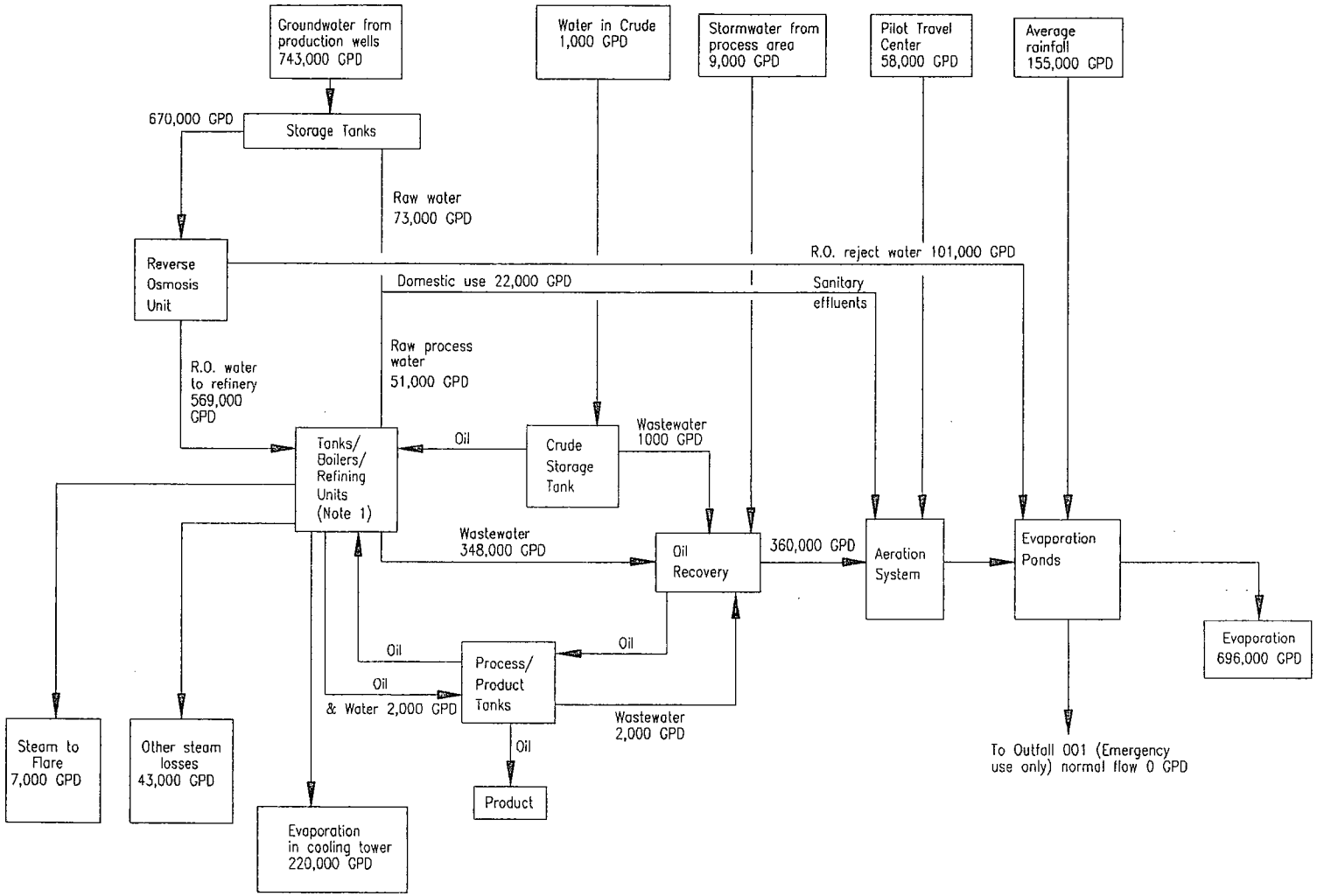
CONTINUED FROM THE FRONT

1. POLLUTANT AND CAS NUMBER (*if available*)	2. MARK "X"			3. EFFLUENT							4. UNITS		5. INTAKE (*optional*)		
	a. TESTING REQUIRED	b. BELIEVED PRESENT	c. BELIEVED ABSENT	a. MAXIMUM DAILY VALUE		b. MAXIMUM 30 DAY VALUE (*if available*)		c. LONG TERM AVRG. VALUE (*if available*)		d. NO. OF ANALYSES	a. CONCEN-TRATION	b. MASS	a. LONG TERM AVERAGE VALUE		b. NO. OF ANALYSES
				(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
GC/MS FRACTION – BASE/NEUTRAL COMPOUNDS (*continued*)															
43B. N-Nitro-sodiphenylamine (86-30-6)	X			NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
44B. Phenanthrene (85-01-8)	X			NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
45B. Pyrene (129-00-0)	X			NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
46B. 1,2,4-Tri-chlorobenzene (120-82-1)	X			NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
GC/MS FRACTION – PESTICIDES															
1P. Aldrin (309-00-2)	X			NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2P. α-BHC (319-84-6)	X			NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3P. β-BHC (319-85-7)	X			NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4P. γ-BHC (58-89-9)	X			NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
5P. δ-BHC (319-86-8)	X			NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
6P. Chlordane (57-74-9)	X			NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
7P. 4,4'-DDT (50-29-3)	X			NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8P. 4,4'-DDE (72-55-9)	X			NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
9P. 4,4'-DDD (72-54-8)	X			NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
10P. Dieldrin (60-57-1)	X			NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
11P. α-Enosulfan (115-29-7)	X			NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
12P. β-Endosulfan (115-29-7)	X			NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
13P. Endosulfan Sulfate (1031-07-8)	X			NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
14P. Endrin (72-20-8)	X			NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
15P. Endrin Aldehyde (7421-93-4)	X			NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
16P. Heptachlor (76-44-8)	X			NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

EPA I.D. NUMBER (*copy from Item 1 of Form 1*)	OUTFALL NUMBER
NMD000333211	001

CONTINUED FROM PAGE V-8

1. POLLUTANT AND CAS NUMBER (*if available*)	2. MARK "X"			3. EFFLUENT							4. UNITS		5. INTAKE (*optional*)		
	a. TESTING REQUIRED	b. BELIEVED PRESENT	c. BELIEVED ABSENT	a. MAXIMUM DAILY VALUE		b. MAXIMUM 30 DAY VALUE (*if available*)		c. LONG TERM AVRG. VALUE (*if available*)		d. NO. OF ANALYSES	a. CONCEN-TRATION	b. MASS	a. LONG TERM AVERAGE VALUE		b. NO. OF ANALYSES
				(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
GC/MS FRACTION – PESTICIDES (*continued*)															
17P. Heptachlor Epoxide (1024-57-3)	X			NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
18P. PCB-1242 (53469-21-9)	X			NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
19P. PCB-1254 (11097-69-1)	X			NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
20P. PCB-1221 (11104-28-2)	X			NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
21P. PCB-1232 (11141-16-5)	X			NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
22P. PCB-1248 (12672-29-6)	X			NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
23P. PCB-1260 (11096-82-5)	X			NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
24P. PCB-1016 (12674-11-2)	X			NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
25P. Toxaphene (8001-35-2)	X			NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA



NOTES:

1. Desalting, atmospheric distallation, fluid catalytic cracking, naphtha hydro treating, alkylation, isomerization, reforming, hydrodesulfurization, sour water stripping, sulfur revovery, and ammonium thiosulfate units.

Schematic of Water Flows within the Gallup Refinery

Chavez, Carl J, EMNRD

From: Lane.Willie@epamail.epa.gov
Sent: Wednesday, May 13, 2009 12:40 PM
To: Cobrain, Dave, NMENV; Chavez, Carl J, EMNRD
Cc: Okpala.Maria@epamail.epa.gov
Subject: RE: Western Refining SW- Gallup Refinery (GW-032) NPDES Permit Application

I would like to respond briefly to the last e-mail exchange. In general I agree with Dave. A "no-discharge permit" is highly unusual and we may need to look at that as a policy issue, but we can draft a no discharge permit under which any discharges would be a violation of the terms of the permit accident or not. They could argue some protection from violation of the CWA for failure to obtain a permit since they did obtain a permit, but again any discharge would be a violation of the permit. A "no-discharge" permit would have specific requirements for sampling in the event of a discharge. Our other option would be to issue a "typical" permit allowing discharges with specific limits that would apply to the discharge. If they met these limits they could discharge at any time with the only requirement being that they report these discharges on their Discharge Monitoring Reports. You should certainly evaluate the impact of having an NPDES permit on the RCRA program's authority.

I am also concerned with the statement referenced in Carl's earlier e-mail where Mr. Riege said that " but when the Rio Puerco is dry, they will reflect a "no sample" event for their DMR." Maybe this is a misunderstanding but the requirement to report will be independent of any water in the River. A discharge from the facility must be characterized and reported under any instream conditions.

Willie Lane
Chief, Permits and Technical Section
EPA Region 6
Phone: 214.665.8460
Fax: 214.665.2191

RE: Western Refining SW- Gallup Refinery (GW-032) NPDES Permit Application

Cobrain, Dave, NMENV to: Chavez, Carl J, EMNRD, Monzeglio, Hope, NMENV 05/13/2009 12:47 PM

Cc: Willie Lane, "VonGonten, Glenn, EMNRD", "De Saillan, Charles, NMENV", "Bearzi, James, NMENV"

Carl,

We're not sure that an NPDES permit applies to the Gallup Refinery since, as they stated to you, it's a "zero discharge" facility. As far as I am aware, you can't permit accidental discharges. How does OCD view permits for accidental discharges? It seems as if "accidental" implies "unintentional" which might be a regulatory violation whether or not an enforcement action is taken but, either way, it would be a form of noncompliance. Since permits address intentional activities, "accidental" isn't the type of potential occurrence that would be permitted by OCD is it?

Dave

Main HWB Phone: 505-476-6000
Direct Office Phone: 505-476-6055
Fax: 505-476-6030 or 505-476-6060

From: Chavez, Carl J, EMNRD
Sent: Wednesday, May 13, 2009 10:54 AM
To: Monzeglio, Hope, NMENV; Cobrain, Dave, NMENV
Cc: Lane.Willie@epa.gov; VonGonten, Glenn, EMNRD; Riege, Ed
Subject: Western Refining SW- Gallup Refinery (GW-032) NPDES Permit Application

Hope and Dave:

FYI, Ed Riege (Gallup Refinery) and refinery attorneys (Nick Hendrick and Amy Flores) contacted me this morning at 10:30 a.m. to discuss their plans to apply with EPA Region 6 for an NPDES Permit.

There will continue to be zero discharge at the facility; however, they feel that an NPDES Permit will address any accidental discharge under an emergency situation only that may impact the nearby Rio Puerco (they are preparing a detailed map for the application that will show land ownership and discharge point(s) in the area); and feel that it is within their right to apply for an NPDES Permit under the CWA instead of going through a RCRA Permit process under the recent NMED Legal Order. The NPDES Permit will allow them more flexibility in the design and construction of their tanks; however, the tanks will be compliant with the OCD Discharge Permit (GW-032).

According to Ed Riege, the Rio Puerco is dry most of the time and under an NPDES Permit, which will require quarterly monitoring, they will sample and report according to an approved DMR, but when the Rio Puerco is dry, they will reflect a "no sample" event for their DMR.

The refinery will submit a request for a "Minor Modification" to the OCD Discharge Permit to allow the OCD to review the NPDES Permit concurrently with the EPA and NMED. Please contact me if you have questions. Thank you.

Carl J. Chavez, CHMM
New Mexico Energy, Minerals & Natural Resources Dept.
Oil Conservation Division, Environmental Bureau
1220 South St. Francis Dr., Santa Fe, New Mexico 87505
Office: (505) 476-3490
Fax: (505) 476-3462
E-mail: CarlJ.Chavez@state.nm.us
Website: http://www.emnrd.state.nm.us/ocd/index.htm
(Pollution Prevention Guidance is under "Publications")

Chavez, Carl J, EMNRD

From: Chavez, Carl J, EMNRD
Sent: Wednesday, May 13, 2009 12:00 PM
To: Cobrain, Dave, NMENV; Monzeglio, Hope, NMENV
Cc: 'Lane.Willie@epa.gov'; VonGonten, Glenn, EMNRD; De Saillan, Charles, NMENV; Bearzi, James, NMENV
Subject: RE: Western Refining SW- Gallup Refinery (GW-032) NPDES Permit Application

Dave:

The EPA, OCD and NMED will have to review the application and communicate to see if an NPDES discharge permit could be issued for "waters of state" that is mostly dry and where no treatment is applied before discharge. Typically, as you stated, NPDES Permits would apply to a treated effluent before discharge into waters of the state or without treatment into a POTW with an IPP. According to the Ed Riege et al., the purpose of the NPDES Permit was two-fold: 1) Accidental releases to the Rio Puerco under an emergency situation, and 2) a choice between an NPDES or RCRA Permit related to the lagoon removal, etc. Ed Riege seemed to think after talking with the EPA that they could apply for an NPDES Permit, but if the Rio Puerco is dry during the quarterly monitoring, then they can simply record "NS" for no sample due to lack of standing water.

This is premature, we will communicate on this based on an overall review of the application. The OCD will review the application concurrently with the EPA and NMED. Please contact me if you have questions or want to discuss the ramifications in more detail. Thank you.

Carl J. Chavez, CHMM
New Mexico Energy, Minerals & Natural Resources Dept.
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Website: http://www.emnrd.state.nm.us/ocd/index.htm
(Pollution Prevention Guidance is under "Publications")

From: Cobrain, Dave, NMENV
Sent: Wednesday, May 13, 2009 11:46 AM
To: Chavez, Carl J, EMNRD; Monzeglio, Hope, NMENV
Cc: 'Lane.Willie@epa.gov'; VonGonten, Glenn, EMNRD; De Saillan, Charles, NMENV; Bearzi, James, NMENV
Subject: RE: Western Refining SW- Gallup Refinery (GW-032) NPDES Permit Application

Carl,

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Dave

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Direct Office Phone: 505-476-6055
Fax: 505-476-6030 or 505-476-6060

From: Chavez, Carl J, EMNRD
Sent: Wednesday, May 13, 2009 10:54 AM

To: Monzeglio, Hope, NMENV; Cobrain, Dave, NMENV
Cc: Lane.Willie@epa.gov; VonGonten, Glenn, EMNRD; Riege, Ed
Subject: Western Refining SW- Gallup Refinery (GW-032) NPDES Permit Application

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(Pollution Prevention Guidance is under "Publications")

Chavez, Carl J, EMNRD

From: Chavez, Carl J, EMNRD
Sent: Wednesday, May 13, 2009 10:54 AM
To: Monzeglio, Hope, NMENV; Cobrain, Dave, NMENV
Cc: 'Lane.Willie@epa.gov'; VonGonten, Glenn, EMNRD; 'Riege, Ed'
Subject: Western Refining SW- Gallup Refinery (GW-032) NPDES Permit Application

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Website: http://www.emnrd.state.nm.us/ocd/index.htm
(Pollution Prevention Guidance is under "Publications")

Chavez, Carl J, EMNRD

From: Chavez, Carl J, EMNRD
Sent: Tuesday, April 14, 2009 4:51 PM
To: 'Riege, Ed'
Cc: 'Lane.Willie@epa.gov'; Jones, Brad A., EMNRD; Monzeglio, Hope, NMENV; Cobrain, Dave, NMENV; VonGonten, Glenn, EMNRD
Subject: Western Refining SW- Gallup Refinery (GW-032) NPDES Permit

Ed:

The OCD received a call from Mr. Willie Lane of EPA Region 6 indicating that WRSW has an interest in obtaining an NPDES Permit for the facility. Depending on the discharge location, EPA Region 9 and/or Indian Tribe may be involved if the discharge is on tribal lands.

Since the New Mexico Oil Conservation Division (OCD) is a delegated agency of the Water Quality Control Commission (WQCC) for the protection of surface and ground water under the WQCC Regulations in New Mexico for oil and gas facilities, you will need to also apprise the OCD of your plans to discharge to waters of the state. The EPA and OCD must review any NPDES Permit or application concurrently, and the EPA may approve an NPDES discharge permit only with the approval of the OCD. The OCD policy has been a "Zero" discharge policy, unless treatment is performed that satisfies WQCC Regulations (§ 20.6.2 NMAC and § 20.6.4 NMAC). This has been the protocol at OCD oil and gas facilities in New Mexico with EPA Region 6.

Mr. Lane requested to know where the tribal land areas are relative to the proposed discharge? Is the discharge located on tribal land?
Please provide us with a localized map of the proposed discharge with respect to the surface management responsibilities map (Department of Interior/BLM).

The OCD requests the specifics for the proposed NPDES discharge and does it involve the refinery treatment system and ponds in any way? Please provide information to EPA and OCD so we may better understand what is being discharged and why the refinery needs to discharge to "waters of the state" instead of treatment at the refinery.

Thank you.

Carl J. Chavez, CHMM
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