

**GW - \_\_\_\_\_ 014 \_\_\_\_\_**

**CLOSURE  
PLANS**

## Chavez, Carl J, EMNRD

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**From:** Moore, Darrell [Darrell.Moore@hollycorp.com]  
**Sent:** Monday, November 30, 2009 2:15 PM  
**To:** Chavez, Carl J, EMNRD; Michael Leighton; hsnpcb@leaco.net  
**Cc:** Lackey, Johnny  
**Subject:** Financial Assurance  
**Attachments:** Lea Refining Closure Plan.doc

Carl

Attached is Navajo's financial estimate for closure monitoring of the Lea Facility. We assumed the same monitoring parameters that are in effect for the Artesia Plant. As you and I discussed over the phone on September 9, it is Navajo's understanding that OCD will review this plan and the financial numbers and let Navajo know if OCD agrees with Navajo's assessment. Once that agreement has been reached, Navajo will then provide some financial instrument to guarantee that agreed upon cost.

If you have any questions, please call me at 575-746-5281.

Darrell Moore  
Environmental Manager for Water and Waste  
Navajo Refining Company, LLC  
Phone Number 575-746-5281  
Cell Number 575-703-5058  
Fax Number 575-746-5451

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# **NAVAJO REFINING INC. LEA REFINERY CLOSURE PLAN**

**November 2009**

## **SITE LOCATION AND DESCRIPTION**

This closure plan has been developed for Navajo Refining Company's facility in Lea County that we call Lea Refining Co. and is permitted under discharge plan GW-014. The facility is located 5 miles southwest of Lovington, NM on the west side of Hwy 18. The facility is a typical topping crude unit that takes crude oil and processes it through a crude unit to make the first cuts of intermediate petroleum. These intermediates are then piped and trucked to the Artesia facility to be made into finished gasoline, diesel, jet fuel and asphalt. The facility has numerous tanks, office buildings, piping, and the process unit.

## **SITE SOILS AND GEOLOGY**

The site is covered with a thin soil that is 6" thick at its thickest. Below this is a caliche layer that varies from 1 to 10 feet thick. This caliche layer is hard and can be fractured. Below this caliche layer is the unconsolidated beach sand of the Ogallala Aquifer. This beach sand extends hundreds of feet. The local drinking water in the area comes from this formation at approximately 100 feet deep. The general direction of groundwater flow is from north to south.

## **CLOSURE PLAN COMPONENTS**

Currently, there are 14 monitor wells on the site. This closure plan will include monitoring these wells and any additional wells that may be added to protect groundwater.

## **ANALYTICAL COSTS**

Navajo is assuming that the analysis that will be required will be semi-annual. This analysis will include alkalinity, dissolved metals, semi-volatiles, TDS, volatiles, and TPH/DRO/GRO. Further, Navajo is assuming having to add 6 addition wells during the life of the facility. The following table itemizes those 30 year sampling costs.

### 30 YEAR ITEMIZED SAMPLING COSTS

	Alkalinity x 14 wells	Dissolved metals x 14 wells	Semi's x 14 wells	TDS x 14 wells	Volatiles x 14 wells	Tph/dro/oro x 14 wells
Cost per event	\$238	\$1680	\$3500	\$140	\$1540	\$630
Cost per year	\$476	\$3360	\$7000	\$280	\$3080	\$1260
Total cost 30 years	\$14,280	\$100,800	\$210,000	\$8,400	\$92,400	\$37,800

\* Cost per well per event is \$552

Therefore, the total cost to sample 14 wells semiannually for 30 years for the above analytes is \$463,680 at today's prices.

We anticipate having to add 6 additional wells in the future. We have no idea WHEN in the future. These wells will cost \$10,000 each to add for an additional \$60,000. Assume we have to sample these wells for 20 years, adds an additional \$132,480.

Labor for sampling, measuring and reporting on these wells is \$4200 per event or \$8400 per year. Multiply by 30 years and you get \$252,000.

Finally, with a total of 20 wells, at some time in the future Navajo anticipates having to replace each well one time in the 30 years at \$10,000 each. That will be a total of \$200,000.

To pull all this together is as follows:

<b>1) Cost to sample current 14 wells for 30 years</b>	<b>\$463,689</b>
<b>2) Cost to add 6 additional wells at some point in the future</b>	<b>\$60,000</b>
<b>3) Cost to sample these 6 wells for 20 years</b>	<b>\$132,480</b>
<b>4) Labor for sampling, measuring and reporting for 30 yrs</b>	<b>\$252,000</b>
<b>5) Cost to replace each of the 20 wells once in 30 years</b>	<b><u>\$200,000</u></b>
<b>Total</b>	<b>\$1,108,169**</b>

*\*\* This total is in today's dollars. An inflation factor will be used each year to adjust these numbers. In addition, these numbers will be adjusted each year based on actual events and the yearly draw-down of the 30 year monitoring cycle.*

## Chavez, Carl J, EMNRD

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**From:** Chavez, Carl J, EMNRD  
**Sent:** Tuesday, October 27, 2009 1:53 PM  
**To:** 'Michael Leighton'  
**Subject:** FW: Discharger Permit Dates from 10/8/2009 Meeting & Closure Plan Guidance for Monitoring & Abatement of GW (GW-14)

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](mailto:CarlJ.Chavez@state.nm.us)  
Website: <http://www.emnrd.state.nm.us/ocd/index.htm>  
(Pollution Prevention Guidance is under "Publications")

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**From:** Chavez, Carl J, EMNRD  
**Sent:** Tuesday, October 27, 2009 1:52 PM  
**To:** 'Moore, Darrell'  
**Cc:** Lackey, Johnny; VonGonten, Glenn, EMNRD  
**Subject:** Discharger Permit Dates from 10/8/2009 Meeting & Closure Plan Guidance for Monitoring & Abatement of GW (GW-14)

Darrell:

Good point. Yes, that would be fine, but they aren't questions so much as they are discharge permit items. Let me know if you have any questions on the closure report. I had discussed WQCC Regulations 20.6.2 NMAC and Abatement Plan "Closure Plan" items that address ground water contamination. This serves as a good template for the closure report. In addition, you may search the OCD's Rules for "Closure Report" to see if there is any other good contents to add to the report. The reference to the Western Refining Southwest- Gallup Refinery and closure report for pond network does not have the contents of the WQCC and OCD regulations for closure plans, but does have good estimate information for that section of the closure report. Give me a call 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  
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E-mail: [CarlJ.Chavez@state.nm.us](mailto:CarlJ.Chavez@state.nm.us)  
Website: <http://www.emnrd.state.nm.us/ocd/index.htm>  
(Pollution Prevention Guidance is under "Publications")

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**From:** Moore, Darrell [<mailto:Darrell.Moore@hollycorp.com>]  
**Sent:** Tuesday, October 27, 2009 11:04 AM  
**To:** Chavez, Carl J, EMNRD  
**Subject:** Response

In your recent e mail, there are several dates that you are asking for responses. We would like to send you a response on ALL questions on November 6, 2009. Will you approve that.?

That way we will have ONE response to all your questions.

Darrell Moore

Environmental Manager for Water and Waste  
Navajo Refining Company, LLC  
Phone Number 575-746-5281  
Cell Number 575-703-5058  
Fax Number 575-746-5451

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## Chavez, Carl J, EMNRD

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**From:** Chavez, Carl J, EMNRD  
**Sent:** Tuesday, September 29, 2009 9:00 AM  
**To:** 'Moore, Darrell'  
**Cc:** Lackey, Johnny; Hinojosa, Jaime; Jelmini, David; Harrison, John  
**Subject:** Navajo Refining Company- Lovington Refinery (GW-014) Extension for Closure Plan

Darrell:

Approved. The OCD will expect receipt of the Closure Plan with Financial Assurance Cost Estimate by November 30, 2009.

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  
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**From:** Moore, Darrell [<mailto:Darrell.Moore@hollycorp.com>]  
**Sent:** Friday, September 25, 2009 11:12 AM  
**To:** Chavez, Carl J, EMNRD  
**Cc:** Lackey, Johnny; Hinojosa, Jaime; Jelmini, David; Harrison, John  
**Subject:** Extension for Closure Plan

Carl

Section 24 of our Lovington Discharge Permit (GW-014) asks that a Closure Plan and financial assurance cost estimate for post closure cleanup monitoring be submitted to OCD by September 30, 2009. Navajo is requesting an extension of 60 days to evaluate the post closure plan requirement for the Lovington facility.

Thank you for your time in this matter.

Darrell Moore  
Environmental Manager for Water and Waste  
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