

State of New Mexico  
Energy Minerals and Natural Resources

Form C-144  
June 1, 2004

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

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

For drilling and production facilities, submit to  
appropriate NMOCD District Office.  
For downstream facilities, submit to Santa Fe office

**Pit or Below-Grade Tank Registration or Closure**

Is pit or below-grade tank covered by a "general plan"? Yes ☐ No ☐

Type of action: Registration of a pit or below-grade tank ☐ Closure of a pit or below-grade tank X

Operator: Nadel & Gussman Permian, LLC Telephone: 432-682-4429 e-mail address: kemm@naguss.com  
Address: 601 N. Marienfeld, Suite 508, Midland, Texas 79701  
Facility or well name: Tornillo 18, State No. 1 API #: 3001534137 U/L or Qtr/Qtr Lot L4 Sec 18 T21S R24E  
County: Eddy Latitude N Longitude W NAD: 1927 ☐ 1983 ☐  
Surface Owner: Federal State X Private ☐ Indian ☐

RECEIVED

|   |  |  |  |                           |
|---|--|--|--|---------------------------|
| <b>Pit</b><br>Type: Drilling X Production <input type="checkbox"/> Disposal <input type="checkbox"/><br>Workover <input type="checkbox"/> Emergency <input type="checkbox"/><br>Lined X Unlined <input type="checkbox"/><br>Liner type: Synthetic X Thickness: 12ml HDPE liner Clay <input type="checkbox"/><br>Pit Volume: 2000 bbl. Approximately |  | <b>Below-grade tank N/A</b><br>Volume: N/A bbl Type of fluid: N/A<br>Construction material: N/A<br>Double-walled, with leak detection? <input type="checkbox"/> If not, explain why not. |  | JAN 11 2006<br>OUL-AMTEOM |
| Depth to ground water (vertical distance from bottom of pit to seasonal high water elevation of groundwater.) Closest water wells exist in Sec 24 @28', S29 @20', T23 Sec 23 @180', T21 Sec 2 @260'.  | Less than 50 feet<br>50 feet or more, but less than 100 feet<br>100 feet or more     | (20 points) 20 pts.<br>(10 points)<br>(0 points)   |  |                           |
| Wellhead protection area: (Less than 200 feet from a private domestic water source, or less than 1000 feet from all other water sources.) Dry hole plugged.   | Yes<br>No X  | (20 points)<br>(0 points) 0 pts.   |  |                           |
| Distance to surface water: (horizontal distance to all wetlands, playas, irrigation canals, ditches, and perennial and ephemeral watercourses.)   | Less than 200 feet<br>200 feet or more, but less than 1000 feet<br>1000 feet or more | (20 points) 20 pts.<br>(10 points)<br>(0 points)   |  |                           |
| <b>Ranking Score (Total Points)</b>   |  | <b>40 pts.</b>   |  |                           |

**If this is a pit closure:** (1) Attach a diagram of the facility showing the pit's relationship to other equipment and tanks. **Digital Photos shall be submitted before and after remediation activity.** (2) Indicate disposal location: **Control Recovery, Inc. (CRI) south of Carlsbad, NM** offsite X If offsite, name of facility: CRI (3) Attach a general description of remedial action taken including remediation start date and end date. (4) Groundwater encountered: No X Yes ☐ If yes, show depth below ground surface \_ ft. and attach sample results.

(5) Attach soil sample results and a diagram of sample locations and excavations.

Additional Comments: Please refer to the attached letter for detailed "Closure Plan" information, digital photos, and sample location diagram.

I hereby certify that the information above is true and complete to the best of my knowledge and belief. I further certify that the above-described pit or below-grade tank has been/will be constructed or closed according to NMOCD guidelines X, a general permit ☐, or an (attached) alternative OCD-approved plan ☐.

Date: 9 January 2006

Printed Name/Title Kem McCready, Operations Engineer

Signature

*Kem McCready*

Your certification and NMOCD approval of this application/closure does not relieve the operator of liability should the contents of the pit or tank contaminate ground water or otherwise endanger public health or the environment. Nor does it relieve the operator of its responsibility for compliance with any other federal, state, or local laws and/or regulations.

Approval:

Printed Name/Title

Signature

*[Signature]*

Date: 1-12-06

This Approval does not grant ANY time extensions set by Rule 50

Mr. Kern McCready  
Operations Engineer  
NADEL AND GUSSMAN PERMIAN, LLC  
601 N. Marienfeld  
Suite 508  
Midland, TX 79701

January 9, 2006

Mr. Mike Bratcher  
OIL CONSERVATION DIVISION  
1301 West Grand Avenue  
Artesia, NM 88210

Re: Tornillo 18, State No.1 Pit Closure Documents

Dear Mr. Bratcher:

Pursuant to the State of New Mexico regulatory requirements for permanent closure of drilling pits, enclosed herewith is the completed Form C-144, digital photos of existing pit, sample location diagram and additional information constituting the "Closure Plan" for closure of the Nadel and Gussman Permian, LLC, hereinafter "NGP", Tornillo 18, State No. 1 drilling pit (API No. 3001534137) located in U/L 4 S18 T21S, R24E of Eddy County, New Mexico.

#### **INTRODUCTION**

Remediation of the NGP Tornillo 18, State No. 1, hereinafter Tornillo 18, drilling pit is targeted to begin 12 January 2006 with completion expected by 16 January 2006, permitting weather and the occurrence of unexpected conditions not within the Operator's control do not create delays or exacerbate the proposed schedule in any way. NGP intends to maintain its commitment to environmental health and safety and fully comply with the Regulatory Performa of the State of New Mexico, OCD regarding this disposal action and permanent closure of Tornillo 18 drilling pit.

Potential, temporary contamination from the Tornillo 18 drilling pit site, should any exist, resulted solely from oil and gas production activities. Potential contaminants of concern are typical mid to high-level concentrations of brines, typical polymers (such as xanthium gum and starch) and in general, drilling mud and fluids remaining upon completion of said drilling operations.

Area land use is primarily ranching with domestic pasturage, recreation and oil and gas production activities. The NGP Tornillo 18 drilling pit is located in an area wherein neither the State of New Mexico nor the Operator can provide reliable analytical data for groundwater table depths sufficient enough to ensure *insitu* disposal. Pursuant to the New Mexico State Engineer's Office database, 4 separate water wells drilled in adjacent proximities substantiate the undulating geologic infrastructure of the area as follows: (1) Section 24, GL 28', (2) Section 29, GL 20', (3) T23, Section 23, GL 180' and (4) T21, Section 2, GL 260'.

NGP initially evaluated *insitu* disposal by considering drilling either a single well to a 100' (approximately) or a grid of wells bordering the immediate vicinity of the proposed *insitu* tomb to verify horizontal and vertical groundwater table definitions specific to the area of concern. After

further consideration, NGP discerned such actions would not provide sufficient data on groundwater table depth to surface in the immediate vicinity of the existing pit, especially for the purpose of discerning lateral offsets of water table presence, even though vertical data might indicate *insitu* application to be compliant with the regulatory proviso. If the surrounding geological data had supported a more uniform structural composition, the State could possibly consider the application not to be an "at-risk" internment. However, the concern of both the Operator and the State is that while vertically acceptable, the *insitu* deposit might abut the presence of a shallower water table (stringers) in the undulating (anticlinal/synclinal folds) geological infrastructure.

Further, in conjunction with their normal online databank, the State of New Mexico, OCD is cross-referencing with a groundwater map titled "Eddy County Depth to Groundwater", produced by Wayne Johnson at Chevron/Texaco, dated 9 February 2005. This map does not show elevation definition (flat representation) but has proven to be very accurate and inaccurate at the same time which compounds both the Operator and the State's hesitation to consider the Tornillo 18 area anything but a water sensitive designation to ensure compliant environmental performance and reduction of liability.

Consequently, NGP intends to haul the above cited pit contents to CRI (Control Recovery, Inc.) a State approved land disposal facility located south of Carlsbad, New Mexico (see Form C-144). This compliance action shall strictly engage the State of New Mexico, OCD standards, i.e. clean-up level for Tornillo 18 drilling pit shall meet the less than 100ppm of TPH, ND for BTEX and the less than 250ppm of chlorides unless approved otherwise and substantiated by background information documented to be higher than the above cited indices.

#### **CLOSURE PLAN**

Prior to commencement of closure activities, NGP contractor will contact One-Call for line spot clearance confirming the State of New Mexico, OCD is in agreement with the proposed "Closure Plan" for removal of approximately 2,000 bbl. of liquid followed by the removal of all fines (drill cuttings) assuming these fines have sufficiently dried allowing for maneuverability of heavy equipment in the pit area, enabling transport to CRI, Inc. and final closure.

Environmental health and safety regulations mandate control of pit volumes at all times. Thus, the liquid material was pumped off as needed and properly disposed of during active drilling in June 2005. The Tornillo 18 was plugged with verbal acknowledgement given on 11 July 2005 by the State of New Mexico, OCD. All water that has accumulated since this time is either due to liquid material not completely hauled from actual drilling operations or rain. This water has subsequently been hauled from the location and properly disposed of pursuant to OCD Regulatory Performa.

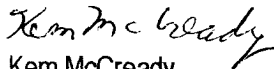
- ❖ Contractor shall mobilize to Tornillo 18 drilling pit site located approximately 15 miles North and 12 miles Southwest of Carlsbad, New Mexico (see Form C-144). Personnel necessary to provide for the initiation and completion of said remediation activities presented above shall be engaged as is appropriate to the mandated exercise.
- ❖ No remediation activity shall occur off the existing pad or already disturbed areas as authorized by the APD and approved Best Management Practices (BMP's). NGP shall consider weather conditions and necessary equipment positioning to provide a clear area for adequate staging for

site control and safety compliance, ensuring operations shall be compliant with New Mexico, OCD Regulatory Performa.

- ❖ Tornillo 18 drilling pit is currently lined with a 12ml HDPE liner, which shall be removed by heavy equipment and disposed of with the drilling fines transported to CRI, Inc. pursuant to New Mexico, OCD requirements.
- ❖ Prior to initiation of backfilling, the Operator shall take appropriate samples of the pit area to ensure compliance with OCD Standards for remediation of possible TPH, ND for BTEX and levels of less than 250ppm of chlorides. However if levels at the bottom of the drilling pit test too high, a background set of samples shall be obtained for testing from the immediate vicinity and compared to those of the pit bottom. Simultaneously, more soil shall be removed from the "hot spots". Once completed, new data acquisition shall occur and sample results determine whether or not compliance has been reached in order to begin backfilling.
- ❖ Backfilling of the Tornillo 18 drilling pit shall be commensurate with existing topography and terrain relief features (contouring) so as to return it to its "near-as" previous condition, including a contour for prevention of water impoundment. The drilling pad at Tornillo 18 shall be utilized for backfilling, ripped and mixed into the pit material. Maintenance of the topographic relief shall also apply to the pad area.
- ❖ The "Closure Plan" shall include a final report providing lab analysis of the backfill material, digital project photos and evidentiary narrative to support the completed disposition of the Tornillo 18 drilling pit site.

Should you have questions, please call 432-682-4429 (office) or 432-425-6347 (cell).

Sincerely,

  
Kem McCready  
Operations Engineer

cc: State of New Mexico, OCD, Form C-144