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

Form C-144
June 1, 2004

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: **Ranch Hand Federal No. 1** (Zeta 23) **API #: 30-015-30691** U/L or Qtr/Qtr **Lot N S23 T20S R21E, 660'FSL 1800' FWL**

County: **Eddy** Latitude N_____ Longitude W_____ NAD: 1927 ☐ 1983 ☐

Surface Owner: Federal X State Private ☐ Indian ☐

Pit	**Below-grade tank N/A**	
Type: Drilling X Production ☐ Disposal ☐ Workover ☐ Emergency ☐ Lined X Unlined ☐ Liner type: Synthetic X Thickness: **12mil HDPE liner** Clay ☐ Pit Volume: **1500 bbl. Approximately**	Volume: _N/A bbl Type of fluid: _N/A_____ Construction material: __N/A_____ Double-walled, with leak detection? ☐ If not, explain why not.	
Depth to ground water (vertical distance from bottom of pit to seasonal high water elevation of groundwater.) **New Mexico, OCD water well and map data and local ranch well shows greater than 1,000 feet to groundwater.**	Less than 50 feet 50 feet or more, but less than 100 feet 100 feet or more	(20 points) 0 points) 0 pts.
Wellhead protection area: (Less than 200 feet from a private domestic water source, or less than 1000 feet from all other water sources.)	Yes No X	(20 points) (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 200 feet or more, but less than 1000 feet 1000 feet or more	(20 points) (10 points) (0 points) 0 pts.
	Ranking Score (Total Points)	**0 pts.**

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 for before and after remediation activity with final report.** (2) Indicate disposal location: offsite N/A If offsite, name of facility: N/A (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".**

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: **2 January 2007**

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 Mike Bratcher Date: 1/18/07

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

2 January 2007

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

Re: Ranch Hand Federal No. 1 Pit Closure Documents

Dear Mr. Bratcher:

Pursuant to the State of New Mexico regulatory requirements for permanent closure of drilling pits, please be advised the following documents are herewith enclosed: (1) Form C-144, (2) digital photos of existing pit (forwarded in final report), (3) sample location diagram (forwarded in final report) and (4) additional information constituting the proposed "Closure Plan" for closure of the Nadel and Gussman Permian, LLC, hereinafter "NGP", Ranch Hand Federal No. 1 (formerly Zeta 23) drilling pit, hereinafter "Ranch Hand", (API No. 3001530691) located in U/L N S23 T20S, R21E , 660' FSL and 1900' FWL of Eddy County, New Mexico.

INTRODUCTION

Remediation of the NGP, Ranch Hand drilling pit is targeted to begin 8 February 2007 with completion expected by 8 March 2007, 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 Bureau of Land Management and the State of New Mexico, OCD regarding this disposal action culminating in permanent closure of the Ranch Hand drilling pit.

Potential, temporary contamination from the Ranch Hand drilling pit site, should any exist, resulted solely from oil and gas production activities. Potential contaminates 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 and oil and gas production activities. The NGP Ranch Hand drilling pit is located in an area wherein groundwater depth to surface data is shown on the State of New Mexico, State Engineer's web site as greater than 1,000 feet.

Consequently, *insitu* disposal shall be engaged in accordance with the conditions of the approved Form C-144. It is the belief of NGP that compliant environmental performance and reduction of liability in this area pursuant to New Mexico; OCD regulations can be achieved with *insitu* disposal predicated on the evidentiary data heretofore presented. Further, should future Regulatory Performa mandate additional action or should the Operator choose to take additional action, the *insitu* option, in this case, (1) limits the environmental impact in general, (2) allows the Operator/government immediate access to said

liability, (3) contains said material within the Operator's lease boundary and (4) in the event evidence of water is discovered during the digging of the *insitu* pit, all actions would cease and New Mexico, OCD would immediately be notified that a haul off was necessary.

This compliance action shall strictly apply the State of New Mexico, OCD standards, i.e. clean-up level for the Ranch Hand drilling pit shall meet the less than 100 ppm of TPH, ND for BTEX and the less than 250 ppm 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, the 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 1,500 bbl. of liquid followed by the removal of all fines (drill cuttings) assuming (1) these fines have sufficiently dried allowing for maneuverability of heavy equipment in the pit area or (2) mixing shall occur in order to attain sufficient dryness of said fines prior to deposit into the *insitu* 20 ml HDPE liner, enabling *insitu* burial application to take place and final pit 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 operations in July 2007. Water 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 in accordance with OCD Regulatory Performa.

- Contractor shall mobilize to the Ranch Hand drilling pit site located approximately 20 miles southwest of Artesia, New Mexico (see Form C-144) accessing via Armstrong Road (County Road 12) due south of the Village of Hope. Personnel and heavy equipment necessary to provide for the initiation and completion of 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.

- The Ranch Hand drilling pit is currently double lined by one 12ml HDPE liner, which shall be removed by heavy equipment and disposed of with the drilling fines *insitu* pursuant to New Mexico, OCD requirements. *Insitu* actions provide for the encasement of all drilling pit contents in a 20 ml HDPE liner formed in a rectangular like box shape and placed vertically approximately 15 feet below ground. The bottom of the *insitu* pit composed of local high density aggregate shall first be lined with 4 ounce Geotextile Felt placing the 20 ml HDPE liner on top with the sides of the "container" married to previously undisturbed ground ensuring no objects such as sharp rocks, etc. shall be in the contact area.

- Once the burial trench/pit has been dug to sufficient dimensions to ensure proper placement of the pit contents, the track hoe shall begin to deposit pit materials within the secured "container" until all pit material has been placed within it. This 20ml HDPE liner "container" shall not be permanently sealed until after the drilling pit bottom has been sampled and approved for closure by the State of

New Mexico, OCD. In the event more material must be harvested to achieve compliance, and said harvest shall increase the volume of the *insitu* material to such a degree that it will threaten the integrity of the "container" or potentially cause leakage to occur by reason of increased volume, an additional *insitu* 20ml HDPE liner "container" shall be placed either adjacent (when space and terrain permits) or close to the existing "container". Such action will provide for reasonable assurance that no leakage will occur and maintain all contaminates within a specific geographic location within the lease boundary.

- 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 soil chloride levels greater than 250 ppm. However if levels at the bottom of the drilling pit test out or acceptable range, 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. No backfilling shall begin without authorization by the State of New Mexico, OCD.

- Backfilling of the Ranch Hand 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 moisture accumulation which prevents abnormal or unsustainable water impoundment resulting in erosive actions. Pursuant to the APD, the Ranch Hand site shall be seeded in compliance with BLM seed mixtures.

- 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 reclaimed Ranch Hand Federal No. 1 drilling pit site.

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

Sincerely,

Kem McCready
Operations Engineer