| | W. Grand Ave | | FORM APP | |
|---|--|-----------------------------|---|----------------------|
| (April 2004) G-05-UV Arte UNITED STATES | esia, NM 882 | 10 L | OMB No. 10 Expires Marc | b 31, 2007 |
| 1620 DEPARTMENT OF THE DEPARTMENT OF THE DEPARTMENT OF LAND MAN | INTERIOR | | 5. Lease Serial No. | 3407 |
| APPLICATION FOR PERMIT TO | | | 6. If Indian, Allotee or | Tribe Name |
| la. Type of work: DRILL REENT | ER | | 7 If Unit or CA Agreem | ent, Name and No. |
| lb. Type of Well: Oil Well 🖌 Gas Well Other | Single Zone | tiple Zone | 8. Lease Name and Wei Highwayman Fee | 11 71 |
| 2. Name of Operator | | <u> </u> | 9. API Well No. | |
| Nadel and Gussman Permian, LLC | 35. Phone No. (include area code) | <u>></u> | 30-015 | |
| 3a. Address 601 N. Marienfeld, Suite 508 Midland, TX 79701 | | EIVED | 10. Field and Pool, or Exp HG (Morrow) | noratory |
| 4. Location of Well (Report location clearly and in accordance with an | ty State requirements.*) | 1 | 11. Sec., T. R. M. or Blk. | and Survey or Area |
| At surface 660' FSL & 1,430' FWL At proposed prod. zone Same | | 2 0 2005 VATES:M | UL N Sec. 19 T19 | 95 R30E |
| 14. Distance in miles and direction from nearest town or post office* 24 road miles NE of Carlsbad, NM | | | 12. County or Parish Eddy | 13. State NI |
| 15. Distance from proposed* location to nearest property or lease line, ft. | 16. No. of acres in lease | | Unit dedicated to this well | 1 |
| (Also to nearest drig. unit line, if any) 660' | 316 | 316 | A Bond No. on file | |
| Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft. N/A | 19. Proposed Depth 12,200 | NM 28 | | |
| 21. Elevations (Show whether DF, KDB, RT, GL, etc.) 3,360' | 22. Approximate date work will s 06/01/2005 | start* | 23. Estimated duration 42 days | |
| | 24. Attachments Ca | pitan Cor | ntrolled Water | Besin |
| The following, completed in accordance with the requirements of Onsho | | | | |
| Well plat certified by a registered surveyor. A Drilling Plan. | Item 20 above | ;). | unless covered by an ex | isting bond on file |
| 3. A Surface Use Plan (if the location is on National Forest System SUPO shall be filed with the appropriate Forest Service Office). | | te specific infor | mation and/or plans as m | ay be required by t |
| 25. Signature Jul Fernan | Name (Printed/Typed) Josh Fernau | | D | ate 04/06/2005 |
| Title Staff Engineer | | | I | |
| Approved by (Signature) /s/ Jesse J. Juen | Name (Printed/Typed) | se J. Ju | | SEP 1 9 |
| Title STATE DIRECTOR | Office | | E OFFICE | <u></u> |
| Application approval does not warrant or certify that the applicant hole conduct operations thereon. | ds legal or equitable title to those ri | ights in the subje APPR(| ect lease which would enti | tle the applicant to |

(Instructions on page 2)

WITNESS 13 39" AND 959" CEMENT JOBS APPROVAL SUBJECT TO GENERAL REQUIREMENTS AND SPECIAL STIPULATIONS ATTACHED

DISTRICT 1 * 1625 N. French Dr., Hobbs, NM 88240 DISTRICT II

811 South First, Artesia, NM 88210

DISTRICT III 1000 Rio Brazos Rd., Aztec, NM 87410

DISTRICT IV 2040 South Pacheco, Santa Fe, NM 87505 Energy, Minerals and Natural Resources Department

Form C-102 Revised March 17, 1999

Submit to Appropriate District Office State Lease - 4 Copies Fee Lease - 3 Copies

Pool Name

OIL CONSERVATION DIVISION

2040 South Pacheco Santa Fe, New Mexico 87504-2088

WELL LOCATION AND ACREAGE DEDICATION PLAT

□ AMENDED REPORT

Pool Code **API** Number Well Number **Property** Code **Property** Name HIGHWAYMAN FEDERAL 1 Elevation OGRID No. **Operator** Name NADEL AND GUSSMAN PERMIAN 3360 Surface Location Feet from the North/South line Feet from the East/West line County UL or lot No. Section Township Range Lot Idn EDDY 1430 WEST Ν 19 19 S 30 E 660 SOUTH Bottom Hole Location If Different From Surface East/West line UL or lot No. Section Township Range Lot Idn Feet from the North/South line Feet from the County **Dedicated** Acres Joint or Infill **Consolidation** Code Order No. 316 NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION LOT 1 39.17 AC OPERATOR CERTIFICATION I hereby certify the the information contained herein is true and complete to the best of my knowledge and belief. bon LOT 2 39.18 AC Printed Na Staff Title Date SURVEYOR CERTIFICATION LOT 3 39.20 AC I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervison, and that the same is true and correct to the best of my belief. FEBRUARY 2, 2005 JONES GARY L. Date Surveyed Seal ON MEXIC Signature Professional Surveys LOT 4 39.21 AC Lat.: N32*38'26.1" 3360.5 3363.3' Long.: W104*00'54.8" 1430' 51 7977 Certificate Eddy E ballow Ne 3357.4 3360.1' BASIN SURVEYS





Exhibit #5

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HIGHWAYMAN FEDERAL #1 Located at 660' FSL and 1430' FWL Section 19, Township 19 South, Range 30 East, N.M.P.M., Eddy County, New Mexico.

| | P.O. Box 1786 | W.O. Number: 5169AA – KJG #1 | NADEL AND |
|--|---|------------------------------|------------------|
| | HODDS, New MEXICO DOZ41 | Survey Date: 03-02-2005 | GUSSMAN PERMIAN. |
| Surveys | (505) 393-7316 - Office (505) 392-3074 - Fax | Scale: 1" = 2000' | L.L.C. |
| focused on excellence in the oilfield | basinsurvøys.com | Date: 03-03-2005 | |

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<u>13 Point Drilling Plan:</u>

- 1. Location: (SHL) 660' FSL & 1,430' FWL, Sec. 19, T-19-S, R-30-E, Eddy County, New Mexico (Form C-102)
- 2. Elevation: 3,360' GL
- 3. Geological Name of Surface Formation: The soils are classified as Tonuco Loamy fine sands series.
- 4. Type of Drilling Tools to be utilized; Rotary Tools
- 5. Proposed Drilling Depth: 12,200'
- 6. Tops of Important Geological Markers:

| Capitan Reef | 1,740' | Bone Spring | 6,145' | Atoka | 11,154' |
|--------------|--------|-------------|---------|-----------------|---------|
| | 1,904' | Wolfcamp | 9,660' | Morrow Clastics | 11,574' |
| Delaware | 4,250' | Strawn | 10,544' | Lower Morrow | 11,864' |

7. Estimated Depth of Anticipated Water, Oil or Gas:

| Oil | -Delaware | 4,250' |
|-----|------------------|---------|
| Oil | -Bone Spring | 6,145' |
| Oil | -Wolfcamp | 9,660' |
| Gas | -Atoka | 11,154' |
| Gas | -Morrow Clastics | 11,574' |

8. Casing Program:

| Ho | le Size | Interval | OD Casing | Weight Grade Jt. | <u>Cement</u> |
|------------|---------|-----------|-----------|------------------------|---------------|
| 17 | 1/2" | 0-400' | 13 3/8" | 48# H-40 | Surface |
| WITNESS 12 | 1/4" | 0-3,600' | 9 5/8" | 40# N-80 or P-110 | Surface |
| 83 | 3/4" | 0-12,200' | 5 1/2" | 17# S-95 and 20# P-110 | TOC 3,600' |

9. Specifications for Pressure Control Equipment: (Exhibit #6)

This rig will have a 13 5/8" 5M BOP Shaffer with pipe rams and blind rams, kill line, 10,000 psi choke manifold. Camron hydraulic controls, and accumulator with remote controls. When nippling 135/2" (Sto Psi) $\omega/RIGPPUMPS$ up, will test BOP and choke to $\frac{1}{1,000}$ psi, will operate BOP once a day or as directed by the company representative. WILL TET 95/3" CSG USING 3" PARTY TESTER TO TSTO OF FATERAAL YIED STRENGTH.

10. Mud Program:

The well will be drilled to TD with a combination of brine, cut brine, and XCD Polymer mud system.

| | Depth | Type | <u>Wt</u> | Viscosity | Waterloss |
|---|-------------|-------------|--------------|-----------|------------------------|
| | 0-400' | FW | 8.4# | 28-34 | NC |
| 1 | 400'-3,600' | ₿W | 8.4# | 30-32 | NC |
| (| 12,200'-TD | CB/XCD-PLY | 8.8-10.0# | 32-45 | 10 |
| | -will a | switch to 1 | Fresh Waster | if Reef i | s encountered and lost |
| | - | 1 6 . | ~ | 11 | |

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- 11. Testing, Logging & Coring Program:
 - a. Testing: No DST's are expected.
 - b. Coring: no coring is planned.
 - c. Logging: open hole logs will be run prior to running production casing. The standard suite will be a Dual Lateral/ML and GR/Density/Neutron combination.
 - d. Depending on the sand quality, a FMI and/or formation tester may be run.
 - e. Open hole logs will not be run through the surface hole section.

12. Potential Hazards:

No significant hazards are expected. Lost circulation may occur, no H₂S expected, but the operator will utilize a 3rd party H₂S monitoring package from 3,600' to TD.

13. Anticipated Starting Date & Duration:

Plans are to begin drilling operations about June 1, 2005, approximately 42 days will be required to drill the well and 10 days will be needed for the completion.

Hydrogen Sulfide Drilling Operations Plan

- 1. Company and Contract personnel admitted on location should be trained by a qualified H_2S safety instructor to the following:
 - A. Characteristics of H_2S .

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- B. Physical Effects and Hazards.
- C. Proper Use of Safety Equipment and Life Support Systems.
- D. Principle and Operation of H₂S Detectors, Warning System and Briefing.
- E. Evacuation Procedure, Routes and First Aid.
- F. Proper Use of 30 minute Pressure Demand Air Pack.
- 2. H₂S Detection and Alarm Systems
 - A. H₂S Detectors and Audio Alarm System to be Located at Bell Nipple, End of Blooie Line (mud pit) and on Derrick floor or doghouse.
- 3. Windsock and/or Wind Streamers
 - A. Windsock at Mud Pit Area Should be High Enough to be Visible.
 - B. Windsock at Briefing Area Should be High Enough to be Visible.
 - C. There Should be a Windsock at Entrance to Location.
- 4. Condition Flags and Signs
 - A. Warning Sign on Access Road to Location.
 - B. Flags to be Displayed on Sign at Entrance to Location.
 - 1. Green Flag, Normal Safe Condition.
 - 2. Yellow Flag, Indicates Potential Pressure and Danger.
 - 3. Red Flag, Danger H₂S Present in Dangerous Concentration Only Emergency Personnel Admitted to Location.
- 5. Well Control Equipment A. See **Exhibit #6**.
- 6. Communication
 - A. While Working Under Masks Chalkboards Will be Used for Communication.
 - B. Hand Signals will be Used Where Chalk Board is Inappropriate.
 - C. Two Way Radio or Cell Phone will be Used to Communicate off Location in Case of Available at Most Drilling Foreman's Trailer or Living Quarters.
- 7. Drillstem Testing
 - A. Exhausts will be Watered.
 - B. Flare Line will be Equipped with an Electric Igniter or a propane pilot light in case gas reaches the surface.
 - C. If Location is near any Dwelling a Closed DST will be Performed.
- 8. Drilling Contractor Supervisor will be Required to be Familiar with the Effects H₂S has on tubular goods and other mechanical equipment.
- 9. If H₂S Encountered, Mud system will be Altered if Necessary to Maintain Control of Formation. A Mud Gas Separator will be Brought into Service Along with H₂S Scavengers if Necessary.

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12. Operator's Representative -

| Joel Martin | Office Phone Home Phone Mobile Phone | (432) 682-4429 (432) 694-2569 (432) 238-9969 |
|---------------|--|--|
| Josh Fernau | Office Phone Home Phone Mobile Phone | (432) 682-4429 (806) 978-1523 (432) 238-2874 |
| Teddy Rowland | Office Phone Home Phone Mobile Phone | (505) 746-1428 (505) 746-4970 (505) 513-1499 |

13. Certification - I hereby certify that I, or persons under my direct supervision, have inspected the proposed drilling site and access route; that I am familiar with the condition which presently exists; that the statements made in this plan are, to the best of my knowledge, true and correct; and that the work associated with the operations proposed herein will be performed by a construction company or their contractors and sub-contractors in conformity with this plan.

Josh Fernau Staff Engineer

Staff Engineer Date: 04/06/05

| Operator's Name: | NADEL AND GUSSMAN PERMIAN, LLC |
|-------------------------|---|
| Well Name & No. | 1 – HIGHWAYMAN FEDERAL |
| Location: | 660' FSL & 1430' FWL – SEC 19 – T19S – R30E – EDDY COUNTY |
| Lease: | NM-113407 |
| LCaSC. | |

I. DRILLING OPERATIONS REQUIREMENTS:

1. The Bureau of Land Management (BLM) is to be notified at the Roswell Field Office, 2909 West Second St., Roswell NM 88201, (505) 627-0272 for wells in Chaves and Roosevelt Counties; the Carlsbad Field Office, 620 East Greene St., Carlsbad, NM 88220, (505) 234-5909 or (505) 361-2822 (After hours) - for wells in Eddy County; and the Hobbs Field Station, 414 West Taylor, Hobbs NM 88240, (505) 393-3612 for wells in Lea County, in sufficient time for a representative to witness:

A. Spudding

B. Cementing casing: 13-3/8 inch 9-5/8 inch 5-1/2 inch

C. BOP tests

2 Unless the production casing has been run and cemented or the well has been properly plugged, the drilling rig shall not be removed from over the hole without prior approval.

3. Submit a Sundry Notice (Form 3160-5, one original and five copies) for each casing string, describing the casing and cementing operations. Include pertinent information such as; spud date, hole size, casing (size, weight, grade and thread type), cement (type, quantity and top), water zones and problems or hazards encountered. The Sundry shall be submitted within 15 days of completion of each casing string. The reports may be combined into the same Sundry if they fall within the same 15 day time frame.

4. The API No. assigned to the well by NMOCD shall be included on the subsequent report of setting the first casing string.

5. Gamma-Ray/Neutron logs shall be run from the base of the Salado Formation to the surface; cable speed not to exceed 30 feet per minute.

II. CASING:

1. The <u>13-3/8</u> inch surface casing shall be set at <u>400 feet or 25 feet into the top of the Rustler</u> <u>Anhydrite</u>, below usable water and cement circulated to the surface. If cement does not circulate to the surface the appropriate BLM office shall be notified and a temperature survey or cement bond log shall be run to verify the top of the cement. Remedial cementing shall be completed prior to drilling out that string.

2. The minimum required fill of cement behind the <u>9-5/8</u> inch salt protection casing is <u>circulate cement to</u> the surface. Upon loss of circulation in the Capitan Reef, the operator will notify the PET staff at the appropriate office to arrange for witnessing of the change to fresh water.

3. The minimum required fill of cement behind the <u>5-1/2</u> inch production casing is <u>cement shall extend</u> <u>upward a minimum of 500 feet above the uppermost hydrocarbon bearing interval.</u>

III. PRESSURE CONTROL:

, .**.**>

1. All BOP systems and related equipment shall comply with well control requirements as described in Onshore Oil and Gas Order No. 2. The BOP and related equipment shall be installed and operational before drilling below the **9-5/8** inch casing shoe and shall be tested as described in Onshore Order No. 2. Any equipment failing to test satisfactorily shall be repaired or replaced.

2. Minimum working pressure of the blowout preventer and related equipment (BOPE) required for drilling the surface and intermediate casing shall be <u>2000</u> psi. Minimum working pressure of the blowout preventer and related equipment (BOPE) required for drilling below the <u>9-5/8</u> inch casing shall be <u>5000</u> psi.

The appropriate BLM office shall be notified in sufficient time for a representative to witness the tests.
 A variance to test the <u>13-3/8 inch surface casing and BOP</u> to the reduced pressure of <u>1000</u> psi with the rig pumps is approved.

- The tests shall be done by an independent service company.
- The results of the test shall be reported to the appropriate BLM office.
- Testing fluid must be water or an appropriate clear liquid suitable for sub-freezing temperatures. Use of drilling mud for testing is not permitted since it can mask small leaks.
- Testing must be done in a safe workman-like manner. Hard line connections shall be required.
- BOPE must be tested prior to drilling into the Wolfcamp Formation by an independent service company.

IV. DRILLING MUD:

Mud system monitoring equipment, with derrick floor indicators and visual and audio alarms, shall be operating before drilling into the <u>Wolfcamp</u> Formation, and shall be used until production casing is run and cemented. Monitoring equipment shall consist of the following:

- 1. Recording pit level indicator to indicate volume gains and losses.
- 2. Mud measuring device for accurately determining the mud volumes necessary to fill the hole during trips.
- 3. Flow-sensor on the flow line to warn of abnormal mud returns from the well.