

FORM APPROVED  
OMB No. 1004-0137  
Expires March 31, 2007

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL OR REENTER

1a. Type of work: <input type="checkbox"/> DRILL <input checked="" type="checkbox"/> REENTER		5. Lease Serial No. NM-03677
1b. Type of Well: <input checked="" type="checkbox"/> Oil Well <input type="checkbox"/> Gas Well <input type="checkbox"/> Other <input checked="" type="checkbox"/> Single Zone <input type="checkbox"/> Multiple Zone		6. If Indian, Allottee or Tribe Name
2. Name of Operator NADEL AND GUSSMAN HEYCO, L.L.C.		7. If Unit or CA Agreement, Name and No.
3a. Address P.O. BOX 1936 ROSWELL NM 88202		8. Lease Name and Well No. <b>2376187</b> SAND POUNDER FEDERAL #1
3b. Phone No. (include area code) 575-623-6601		9. API Well No. 30-015-32552
4. Location of Well (Report location clearly and in accordance with any State requirements.) At surface 660' FNL, 1980' FEL, UL B At proposed prod. zone Same		10. Field and Pool, or Exploratory BURTON FLAT E. Undesignated 11. Sec., T., R., M., or Bk. and Survey or Area SECTION 29, T-20-S, R-29-E <b>237137</b>
14. Distance in miles and direction from nearest town or post office* 17 MILES NORTHEAST OF CARLSBAD NM		12. County or Parish EDDY
15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any) 660'		13. State NM
16. No. of acres in lease 2150.97		17. Spacing Unit dedicated to this well 40
18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft. 1320'		20. BLM/BIA Bond No. on file NM# 000520
21. Elevations (Show whether DF, KDB, RT, GL, etc.) 3254' GL		22. Approximate date work will start* 09/30/2012
		23. Estimated duration 10 DAYS

24. Attachments

The following, completed in accordance with the requirements of Onshore Oil and Gas Order No. 1, shall be attached to this form:

- |   |  |
|---|--|
| 1. Well plat certified by a registered surveyor.  | 4. Bond to cover the operations unless covered by an existing bond on file (see Item 20 above).    |
| 2. A Drilling Plan.   | 5. Operator certification  |
| 3. A Surface Use Plan (if the location is on National Forest System Lands, the SUPO shall be filed with the appropriate Forest Service Office). | 6. Such other site specific information and/or plans as may be required by the authorized officer. |

25. Signature	Name (Printed/Typed) JASON GOSS	Date 06/27/2012
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Title DRILLING ENGINEER	
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Approved by (Signature) /s/George MacDonell	Name (Printed/Typed)	Date JAN 7 2013
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Title FIELD MANAGER	Office CARLSBAD FIELD OFFICE
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Application approval does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.  
Conditions of approval, if any, are attached.

APPROVAL FOR TWO YEARS

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

\*(Instructions on page 2)

Capitan Controlled Water Basin

Approval Subject to General Requirements  
& Special Stipulations Attached

SEE ATTACHED FOR  
CONDITIONS OF APPROVAL

District I  
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

State of New Mexico  
Energy, Minerals & Natural Resources

## OIL CONSERVATION DIVISION

2040 South Pacheco  
Santa Fe, N M 87505

☐ AMENDED REPORT

## WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number	Pool Code	Pool Name Burton Flats East Norrow
Property Code	Property Name SAND POUNDER FED.	Well Number 1
OGRID No.	Operation Name MANZANO OIL CORP.	Elevation 3254

## Surface Location

UL or Lot No.	Section	Township	Range	Lot Idn.	Feet from the	North/South line	Feet from the	East/West line	County
B	29	20 S	29 E		660	NORTH	1980	EAST	EDDY

## Bottom Hole Location If Different From Surface

UL or Lot No.	Section	Township	Range	Lot Idn.	Feet from the	North/South line	Feet from the	East/West line	County
Dedicated Acres 320	Joint or Infill	Consolidation Code	Order No.						

NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTEREST HAVE BEEN CONSOLIDATED OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION

	OPERATOR CERTIFICATION I HEREBY CERTIFY THAT THE INFORMATION HEREIN IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF.
	Signature <i>George R. Smith</i>
	Printed Name George R. Smith
	Title agent
Date October 29, 2002	
SURVEYOR CERTIFICATION 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 SUPERVISION, AND THAT THE SAME IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF.	
Date of Survey Signature and Seal of Professional Surveyor REGISTERED LAND SURVEYOR PROFESSIONAL ENGINEER NM PE&PS #5412 Certificate Number	

District I  
1625 N. French Dr., Hobbs, NM 88240  
Phone: (575) 393-6161 Fax: (575) 393-0720  
District II  
811 S. First St., Artesia, NM 88210  
Phone: (575) 748-1283 Fax: (575) 748-9720  
District III  
1000 Rio Brazos Road, Aztec, NM 87410  
Phone: (505) 334-6178 Fax: (505) 334-6170  
District IV  
1220 S. St. Francis Dr., Santa Fe, NM 87505  
Phone: (505) 476-3460 Fax: (505) 476-3462

State of New Mexico  
Energy, Minerals & Natural Resources Department  
OIL CONSERVATION DIVISION  
1220 South St. Francis Dr.  
Santa Fe, NM 87505

Form C-102  
Revised August 1, 2011  
Submit one copy to appropriate  
District Office

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

<sup>1</sup> API Number 30-015-32552	<sup>2</sup> Pool Code 3713	<sup>3</sup> Pool Name AVALON; B.S.; EAST Burton Flat East Undesignated
<sup>4</sup> Property Code 39618	<sup>5</sup> Property Name SAND POUNDER FEDERAL	<sup>6</sup> Well Number 1
<sup>7</sup> OGRID No. 258462	<sup>8</sup> Operator Name NADEL AND GUSSMAN HEYCO, L.L.C.	<sup>9</sup> Elevation 3254'

<sup>10</sup> Surface Location									
UL or lot no. B	Section 29	Township 20 S	Range 29 E	Lot Idn	Feet from the 660	North/South line NORTH	Feet from the 1980	East/West line EAST	County EDDY

<sup>11</sup> Bottom Hole Location If Different From Surface									
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
<sup>12</sup> Dedicated Acres 40	<sup>13</sup> Joint or Infill	<sup>14</sup> Consolidation Code	<sup>15</sup> Order No.						

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.

<sup>16</sup> 	GPS Coordinates: N 32 - 32' 59.5" W 104 - 05' 42.0"		<sup>17</sup> <b>OPERATOR CERTIFICATION</b> I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom hole location or has a right to drill this well at this location pursuant to a contract with an owner of such a mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.
	Signature: Date: 6/27/12 Printed Name: JASON GOSS E-mail Address: JAGOSS@NAGUSS.COM		
<sup>18</sup> <b>SURVEYOR CERTIFICATION</b> 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 supervision, and that the same is true and correct to the best of my belief.			Date of Survey Signature and Seal of Professional Surveyor:
Certificate Number			

Nadel and Gussman HEYCO, L.L.C.  
P.O. Box 1936  
Roswell, NM 88202

June 12, 2012

**UNITED STATES DEPARTMENT OF INTERIOR**

Bureau of Land Management  
Carlsbad Field Office  
620 E. Greene Street  
Carlsbad, NM 88220

**RE: STATEMENT ACCEPTING RESPONSIBILITY FOR OPERATIONS**

The undersigned accepts all applicable terms, conditions, stipulations, and restrictions concerning operations conducted on the leased land, or portion thereof, as described below:

Lease Name: Sand Pounder Federal No. 1

Lease Number: Federal Lease # NMNM- 03677. 2150.97 Acres Total in Lease. 40 acres dedicated to Sand Pounder Federal No. 1.

Legal Description of Land: Sec. 29, T-20-S R-29-E,

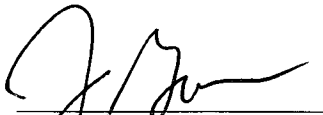
Leases Covers: Stebbins Farm area: Section 29, T-20-S, R-29-E

Deepest Formation: Strawn

Bond Coverage: Blanket Statewide

BLM Bond File Number: #000520

Land & Mineral ownership: Federal



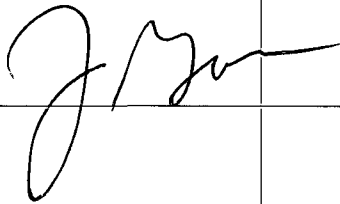
Jason Goss  
Drilling Engineer

## OPERATOR CERTIFICATION

I certify that I, or someone under my direct supervision, have inspected the drill site and access route proposed herein; that I am familiar with the conditions that presently exist; that I have full knowledge of State and Federal Laws applicable to this operation; that the statements made in this APD package are, to the best of my knowledge, true, and correct; and that the work associated with the operations proposed herein will be performed in conformity with this APD package and the terms and conditions under which it is approved. I also certify that I, or the company I represent, am responsible for the operations conducted under this application. These statements are subject to the provisions of 18 U.S.C. 1001 for the filing of false statements. Executed the 28 day of June 2012.

Name: Jason Goss  
Position: Drilling Engineer  
Address: P.O. BOX 1936  
Roswell NM 88202  
Telephone: 575-623-6601  
Email: jgoss@naguss.com

Signed: \_\_\_\_\_

A handwritten signature in black ink, appearing to read 'J Goss', is written over a horizontal line.

**DRILLING AND OPERATIONS PLAN  
NADEL AND GUSSMAN HEYCO, L.L.C.  
SAND POUNDER FEDERAL #1H**

Surface: 660' FNL & 1980' FEL  
UL B Sec 29, T-20-S, R-29-E  
Eddy County, New Mexico.

**ELEVATION:** GL 3,254'

**GEOLOGICAL NAME OF SURFACE FORMATION:** QUATERNARY ALLUVIUM

**Type of Well:** Vertical Gas Well drilled to 11,950' and plugged on 3-16-2003.

**PROPOSED DRILLING DEPTH:** Reenter: drill out plugs and clean out to a TD of 10,540'

**TOPS OF IMPORTANT GEOLOGICAL MARKERS:** TVD

**Depth to Fresh Water: Section 30, T-20S, R-29E = 52ft**

Eroded Rustler/Salado	near surface	
Btm Salt	1005'	Surface casing set at 400'
Yates	1005'	Intermediate Set 1005'
Top Capitan Reef	1280'	
Bottom Capitan Reef	3,065'	2 <sup>nd</sup> Intermediate 9-5/8" casing set at 3,150ft
Top Delaware-Cherry Canyon	3,200'	
Bone Spring Ls.	5,880'	
U. Avalon Shale	6,165'	
Bone Spring 1 <sup>st</sup> Sand	6,980'	
Bone Spring 2 <sup>nd</sup> Sand	7,520'	
Bone Spring 3 <sup>rd</sup> Sand	8,820'	
Wolfcamp	9,380'	
Wolfcamp Shale	9,490'	
Penn Shale	9,830'	
Strawn Limestone	10,435'	
<b>Total Depth of reentry</b>	<b>10,540'</b>	
Atoka	10,668'	
<b>Cement plug #1 (will not drill out)</b>	<b>10,759' - 10,969'</b>	
Morrow Limestone	11,018'	
Morrow Clastics	11,370'	
<b>Original TD: 3-14-2003</b>	<b>11,950'</b>	

**Estimated Depth of Possible Water, Oil or Gas (that is not behind pipe):**

Bone Spring/Avalon Shale	6,165'-9,300'	Oil, Gas and Water
Wolfcamp Shale	9,490'	Oil and Gas
Strawn	10,435'	Oil, Gas and water

**PROPOSED PLAN: NGH PLANS TO DRILL OUT PLUGS AND CLEAN OUT TO 10,540FT W/ PULLING UNIT, LOG THEN PLUG WELL AS BEFORE.**

**CURRENT CASING IN HOLE (SEE ATTACHED 3160-5 FROM MANZANO OIL COMPANY)****NO PLANS FOR ADDITIONAL STRINGS**

HOLE SIZE	CASING SIZE	WT. /GRADE	THREAD/COLLAR	SETTING DEPTH	TOP CEMENT
	30" Conductor			unknown min. 40'	
26"	20"	94# K-55	8rd BTC	400'	Surface
17.5"	13 3/8"	68# J-55	8rd BTC	1005'	Surface
12.25"	9-5/8"	36# & 40# K-55	8rd LTC	3,150'	Surface

**CEMENT (SEE ATTACHED 3160-5 FROM MANZANO OIL CORP)****CEMENT PROGRAM, NO PLANS FOR ADDITIONAL CASING STRINGS/CEMENT**

**SURFACE CASING: (20") PUMPED 2/1/2003:** LEAD 100 SX THIXSET "H" (14.4 PPG, 1.60 YIELD), MIDDLE 450 SX "C" + 2% CACL + .25#/SX FLOCELE (12.5 PPG, 1.96 YIELD), TAIL 250 SX "C" + 2% CACL (14.8 PPG, 1.34 YIELD). DID NOT CIRCULATE, RAN TEMP SURVEY, TOC 52' - RUN 1" TO 52' AND CEMENT WITH 75 SX "C" W/ 2% CACL. CIRCULATE 25 SX TO PIT.

**1<sup>ST</sup> INTERMEDIATE (13-3/8") PUMPED 2/4/2003:** LEAD 900 SX CLASS "C" + 2% CACL + .25#/SX FLOCELE (12.5 PPG, 1.96 YIELD), TAIL 250 SX PREMIUM PLUS "C" + 2% CACL (14.8 PPG, 1.34 YIELD). CIRCULATED 250 SX TO PIT.

**2<sup>ND</sup> INTERMEDIATE (9-5/8") PUMPED 2/11/2003:** 2 STAGE CEMENT. 1<sup>ST</sup> STAGE 550 SX CLASS "H" + 2% CACL + .25#/SX FLOCELE (14.4 PPG, YIELD 1.34). OPENED DV TOOL AT 1573'. CIRCULATED 100 SX TO PIT. 2<sup>ND</sup> STAGE LEAD 320 SX CLASS "C" + 2% CACL + .25#/SX FLOCELE (12.5 PPG, 1.96 YIELD), TAIL 50 SX PREMIUM PLUS "C" + 2% CACL (14.4 PPG, YIELD 1.34), CIRCULATED 77 SX TO PIT.

**CEMENT PROGRAM FOR RE-PLUGGING WELL: ALL CEMENT BLENDS WILL BE TESTED TO BLM MINIMUM REQUIREMENTS, SALT GEL MUD WILL BE CIRCULATED BETWEEN ALL PLUGS.**

**CEMENT PLUG #1: EXISTING PLUG AT 10,969-10,759, NGH WILL NOT DRILL OUT THIS PLUG**

BELOW PLUGS NGH WILL DRILL OUT AND WILL RESET FOLLOWING LOGGING:

**CEMENT PLUG #2** 7,633 - 7,483' 80 SX CLASS H (15.6 PPG, 1.18 FT<sup>3</sup>/SX)

**CEMENT PLUG #3** 5,945' - 5,795' 60 SX CLASS H (15.6 PPG, 1.18 FT<sup>3</sup>/SX)

**CEMENT PLUG #4 (SHOE PLUG FOR CAPITAN REEF CSG STRING)** 3,303' - 3,103' 85 SX CLASS C W/ 2% CACL (14.8 PPG, 1.34 FT<sup>3</sup>/SX)

**CEMENT PLUG #5 (SHOE PLUG FOR SALT CSG STRING)** 1,045' - 945' 40 SX CLASS C W/ 2% CACL (14.8 PPG, 1.34 FT<sup>3</sup>/SX)

**CEMENT PLUG #6 (SHOE PLUG FOR FW CSG STRING) 445' - 345'**  
**FT<sup>A</sup>/SX)**

**40 SX CLASS C W/ 2% CACL (14.8 PPG, 1.34**

**CEMENT PLUG #7 (SURFACE PLUG) 65' TO SURFACE 40 SX CLASS C W/ 2% CACL (14.8 PPG, 1.34 FT<sup>A</sup>/SX)**

#### **SPECIFICATIONS FOR PRESSURE CONTROL EQUIPMENT: (SEE DIAGRAM)**

A 5,000# WP BOP with 2 pipe rams and power source for closing, and 5K choke manifold will be installed prior to any work. 5K casing head "A" Section will be welded to 20" surface casing, spool, mud cross and manual valve all having a 5K working pressure rating will be added as well. A choke line with two 5K valves will be attach to one side of mud cross and be connected to a single inlet/dual outlet choke manifold with 5K pressure rating and two manual chokes. One choke line will be routed to the gas buster /flowback tank the other to an additional back flow tank. All equipment will be tested to 250 low and 5,000 high by a third party testing company prior to commencing operations. A full opening stabbing valve for drill pipe/tubing will be on rig floor at all times. A kill line with two 5K valves will be attached to the opposite side of mud cross and a flow line from rotating head will be run to mud tanks and solids control equipment.

#### **MUD PROGRAM:**

**0- 5,795'** (surface to cement plug #3)

Drill 7 -7/8" Open hole from 3150' to 5,795 with **Fresh Water (8.4 to 8.7 ppg)**. Control lost circulation with paper and LCM pills. Viscosity 28-30, no fluid loss control. Fresh water gel sweeps.

**5,795' - 10,540'** (Cement Plug #3 to TD)

Drill 7-7/8" open hole from 5,795 – 10,540 with **%4 - %6 KCL mud. 8.7 - 9.7 PPG**, Control lost circulation with paper and LCM pills. Make additions of KCL for weight as needed, use xanthan gum and poly-anionic cellulose for Viscosity 32-36 and water loss <10 cc/30 min.

All necessary mud products for weight addition, viscosity and fluid loss control will be on location at all times. Mud program subject to change due to hole conditions.

#### **Auxiliary Equipment**

- A. A full opening drill pipe stabbing valve having the appropriate connections will be on the rig floor at all times with 5,000 psi working pressure.
- B. Hydrogen Sulfide detection equipment will be in place and operating before any drill out of cement takes place.

**TESTING, LOGGING & CORING PROGRAM:**

Testing: No DST's will be conducted.

Open hole logs are planned at TD 10,540ft of vertical hole

- a. Halliburton Triple Combo, gamma, CNL, Resistivity
- b. Side wall cores are also planned.

**POTENTIAL HAZARDS:**

No significant hazards are expected to TVD of 10,540ft, no abnormal temperatures are expected 175 degrees Fahrenheit 10,540ft, **expected pressure gradient will be .433 psi/ft to Strawn Formation, Wolfcamp shale can have higher BHP than normal however the expected BHP is not expected to be greater than 4,100 psi, a mud weight of no greater than 9.7 ppg is expected.** Lost circulation may occur, no H<sub>2</sub>S is expected, but the operator will utilize a 3<sup>rd</sup> party H<sub>2</sub>S monitoring package before commencing operations. If H<sub>2</sub>S is encountered the operator will comply with the provisions of onshore oil and gas order no 6. All personnel will be familiar with all aspects of safe operation of equipment being used to drill this well.

**ANTICIPATED STARTING DATE & DURATION:**

Nadel & Gussman HEYCO, LLC anticipates drilling operations to begin ASAP after receiving approved APD. Expected time to complete is approximately 7-9 days.

Jason Goss, Drilling Engineer  
Nadel & Gussman HEYCO, LLC

Date

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENTOil Cons.  
N.M. Div-Dist. 2  
1301 W. Grand Avenue  
Altesia, NM 88210FORM APPROVED  
OMB No. 1004-0135  
Expires November 30, 2000

5

**SUNDRY NOTICES AND REPORTS ON WELLS**  
*Do not use this form for proposals to drill or to re-enter an abandoned well. Use Form 3160-3 (APD) for such proposals.***SUBMIT IN TRIPLICATE - Other instructions on reverse side**

1. Type of Well  
☐ Oil Well ☒ Gas Well ☐ Other

2. Name of Operator  
Manzano Oil Corporation

3a. Address  
P.O. Box 2107, Roswell, NM 88202

4. Location of Well (Footage, Sec., T., R., M., or Survey Description)  
660' FNL & 1980' FEL  
Section 29, T20S, R29E

3b. Phone No. (include area code)  
(505) 623-1996

5. Lease Serial No.  
NM-03677

6. If Indian, Allottee or Tribe Name

7. If Unit or CA/Agreement, Name and/or No.

8. Well Name and No.  
Sand Pounder Federal #1

9. API Well No.  
30-015-32552

10. Field and Pool, or Exploratory Area  
Burton Flat East Morrow

11. County or Parish, State  
Eddy, New Mexico

**12. CHECK APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA**

TYPE OF SUBMISSION	TYPE OF ACTION			
<input type="checkbox"/> Notice of Intent	<input type="checkbox"/> Acidize	<input type="checkbox"/> Deepen	<input type="checkbox"/> Production (Start/Resume)	<input type="checkbox"/> Water Shut-Off
<input checked="" type="checkbox"/> Subsequent Report	<input type="checkbox"/> Alter Casing	<input type="checkbox"/> Fracture Treat	<input type="checkbox"/> Reclamation	<input type="checkbox"/> Well Integrity
<input type="checkbox"/> Final Abandonment Notice	<input type="checkbox"/> Casing Repair	<input type="checkbox"/> New Construction	<input type="checkbox"/> Recomplete	<input type="checkbox"/> Other
	<input type="checkbox"/> Change Plans	<input checked="" type="checkbox"/> Plug and Abandon	<input type="checkbox"/> Temporarily Abandon	
	<input type="checkbox"/> Convert to Injection	<input type="checkbox"/> Plug Back	<input type="checkbox"/> Water Disposal	

13. Describe Proposed or Completed Operation (clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or recomplete horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the Bond under which the work will be performed or provide the Bond No. on file with BLM/BIA. Required subsequent reports shall be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompletion in a new interval, a Form 3160-4 shall be filed once testing has been completed. Final Abandonment Notices shall be filed only after all requirements, including reclamation, have been completed, and the operator has determined that the site is ready for final inspection.)

3/14/03 7:00 a.m. - TD 7-7/8" hole @ 11950'

3/15/03 5:00 p.m. - TIH - Open ended w/345 jts 4-1/2" drill pipe

3/16/03 12:00 a.m. - RU Halliburton Cementing Services

Pump 1st plug; 10969' - 10759', 115 sx "H" (15.6 ppg/1.18 ft<sup>3</sup>/sx) Lay down 105 jts DPPump 2nd plug; 7633' - 7483', 80 sx "H" (15.6 ppg/1.18 ft<sup>3</sup>/sx) Lay down 53 jts DPPump 3rd plug; 5945' - 5795', 60 sx "H" (15.6 ppg/1.18 ft<sup>3</sup>/sx) Lay down 83 jts DPPump 4th plug; 3303' - 3103', 85 sx "C" + 2% CaCl (14.8 ppg/1.34 ft<sup>3</sup>/sx) Lay down 71 jts DPPump 5th plug; 1045' - 945', 40 sx "C" (14.8 ppg/1.32 ft<sup>3</sup>/sx) Lay down 19 jts DPPump 6th plug; 445' - 345', 40 sx "C" (14.8 ppg/1.32 ft<sup>3</sup>/sx) Lay down 12 jts DPPump 7th plug; 62'- Surface 50 sx "C" (14.8 ppg/1.32 ft<sup>3</sup>/sx)

12:00 p.m. - Plug down, cement circulated to surface - BLM Field Representative, Homer Saenz, on location to witness P&amp;A operation.

14. I hereby certify that the foregoing is true and correct  
Name (Printed/Typed)

Toby Solis

Title Engineer

Signature

Date 4/2/03

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved by

(ORIG. SGD) ALEXIS C. SWOBODA

PETROLEUM ENGINEER APR 14 2003

Conditions of approval, if any, are attached. Approval of this notice does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.

Office

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

Approved as to plugging of this well bore.  
Liability under bond is retained until  
surface restoration is completed.

Post P&amp;A

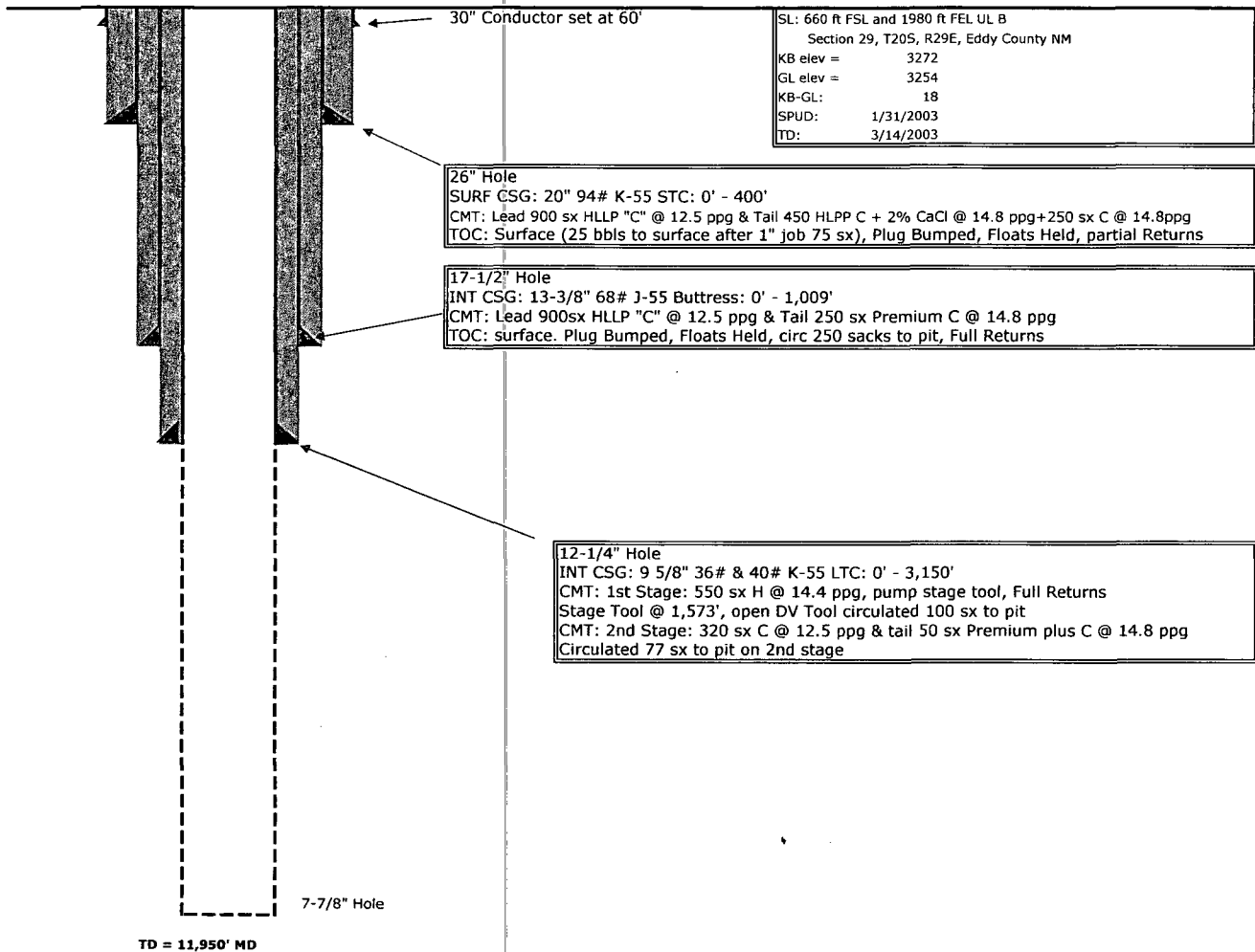
NADEL AND GUSSMAN HEYCO

## Sand Pounder Federal #1

### Wellbore Diagram

Burton Flat East Morrow Field  
Eddy County NM  
API # 30-015-32552

As Drilled 03/16/03



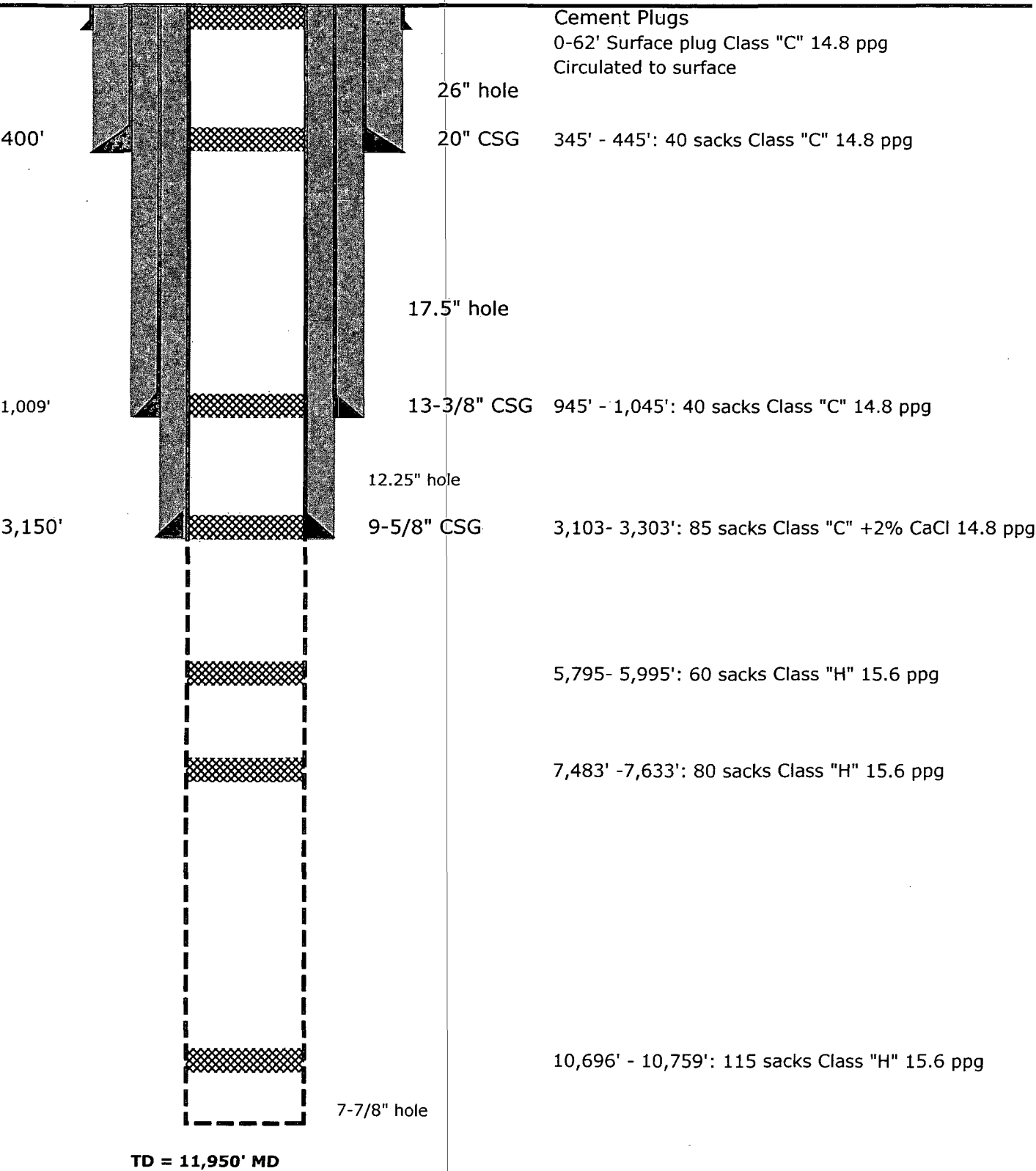
Prepared by: Jason Goss  
Date Prepared: 06/12/12

Date Revised:  
Revised by:

NADEL AND GUSSMAN HEYCO  
As Plugged 03/16/03

Sand Pounder Federal #1  
Wellbore Diagram

Burton Flat East Morrow Field  
Eddy County NM  
API # 30-015-32552



UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

Oil Cons.

N.M. Div-Dist. 2

1301 W. Grand Avenue

Albuquerque, NM 88210

**SUNDRY NOTICES AND REPORTS ON WELLS**  
Do not use this form for proposals to drill or recomplete an abandoned well. Use Form 3160-3 (APD) for such proposals.FORM APPROVED  
OMB No. 1004-0135  
Expires November 30, 2000

5

5. Lease Serial No.

NM-03677

6. If Indian, Allottee or Tribe Name

7. If Unit or CA/Agreement, Name and/or No.

8. Well Name and No.

Sand Pounder Federal #1

9. API Well No.

30-015-32552

10. Field and Pool, or Exploratory Area

Burton Flat East Morrow

11. County or Parish, State

Eddy, New Mexico

**SUBMIT IN TRIPLICATE - Other instructions on reverse side**

1. Type of Well

☐ Oil Well ☒ Gas Well ☐ Other

2. Name of Operator

Manzano Oil Corporation

3a. Address

P.O. Box 2107, Roswell, NM 88202-2107

3b. Phone No. (include area code)

505/623-1996

4. Location of Well (Footage, Sec., T., R., M., or Survey Description)

660' FNL & 1980' FEL  
Section 29, T-20-S, R-29-E

UT B

## 12. CHECK APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION			
<input type="checkbox"/> Notice of Intent	<input type="checkbox"/> Acidize	<input type="checkbox"/> Deepen	<input type="checkbox"/> Production (Start/Resume)	<input type="checkbox"/> Water Shut-Off
<input checked="" type="checkbox"/> Subsequent Report	<input type="checkbox"/> Alter Casing	<input type="checkbox"/> Fracture Treat	<input type="checkbox"/> Reclamation	<input type="checkbox"/> Well Integrity
<input type="checkbox"/> Final Abandonment Notice	<input type="checkbox"/> Casing Repair	<input type="checkbox"/> New Construction	<input type="checkbox"/> Recomplete	<input type="checkbox"/> Other
	<input type="checkbox"/> Change Plans	<input type="checkbox"/> Plug and Abandon	<input type="checkbox"/> Temporarily Abandon	
	<input type="checkbox"/> Convert to Injection	<input type="checkbox"/> Plug Back	<input type="checkbox"/> Water Disposal	

13. Describe Proposed or Completed Operation (clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or recomplete horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the Bond under which the work will be performed or provide the Bond No. on file with BLM/BIA. Required subsequent reports shall be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompletion in a new interval, a Form 3160-4 shall be filed once testing has been completed. Final Abandonment Notices shall be filed only after all requirements, including reclamation, have been completed, and the operator has determined that the site is ready for final inspection.)

2/3/03 Drill out in 17-1/2" hole

2/4/03 TD 17-1/2" hole @ 1005' - 7:30 am - Run 24 jts 13-3/8" 68#/ft, J-55, Butress (1009') casing w/Texas Pattern Guide Shoe, Float collar (5 centralizers) to TD - RU Halliburton Cementing Services & cement w/900 sx HLPP "C" + 2% CaCl + .25#/sx Flocele (12.50 ppg/1.96 ft<sup>3</sup>/sx) + 250 sx Premium Plus "C" + 2% CaCl (14.8 ppg/1.34 ft<sup>3</sup>/sx), Plug down @ 3:00 pm, Circ. 250 sx to pit.

2/5/03 NU 3M BOP &amp; test to 1000# w/rig pumps - Tested good - Drill out in 12-1/4" hole

1/11/03 TD 12-1/4" hole @ 3150' - 2:30 am - Run 80 jts 9-5/8" 36# & 40#/ft, K-55, LT&C (3154') casing w/Guide Shoe, float collar, Multiple Stage Cement Tool (@ 1573') & (7 centralizer to TD - RU Haliburton & cement 1st stage w/550sx "H" of .25 #/sx Flocele + 2% CaCl (14.4 ppg/1.34 ft<sup>3</sup>/sx) - Open DV Tool & circ. 100 sx to pit - 2nd Stage w/320 sx "C" + .25#/sx Flocele + 2% CaCl (12.5 ppg/1.96 ft<sup>3</sup>/sx) + 50 sx Premium Plus "C" + 2% CaCl - Plug down @ 6:00 am, Circ 77 sx to Pit. NU 5M BOP & test to 1500# w/Independent Tester.

14. I hereby certify that the foregoing is true and correct  
Name (Printed/Typed)

Michael G. Hanagan

Title Agent

Signature

Date 2/25/03

ACCEPTED FOR RECORD

Approved by

Conditions of approval, if any, are attached. Approval of this notice does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.

Title

Office

LEIS Date BYAK  
PETROLEUM ENGINEER

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENTOil Cons.  
N.M. Div-Dist. 2  
1001 W. Grand Avenue  
Albuquerque, NM 88210FORM APPROVED  
OMB No. 1004-0135  
Expires November 30, 2000

5

**SUNDRY NOTICES AND REPORTS ON WELLS**  
*Do not use this form for proposals to drill or to re-enter an abandoned well. Use Form 3160-3 (APD) for such proposals.*

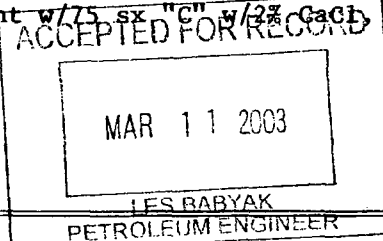
<b>SUBMIT IN TRIPLICATE - Other instructions on reverse side</b>	
1. Type of Well <input type="checkbox"/> Oil Well <input checked="" type="checkbox"/> Gas Well <input type="checkbox"/> Other	5. Lease Serial No. NM-03677
2. Name of Operator Manzano Oil Corporation /	6. If Indian, Allottee or Tribe Name
3a. Address P.O. Box 2107, Roswell, NM 88202-2107	7. If Unit or CA/Agreement, Name and/or No.
3b. Phone No. (include area code) 505/623-9196	8. Well Name and No. Sand Pounder Federal #1
4. Location of Well (Footage, Sec., T., R., M., or Survey Description) 660' FNL & 1980' FEL Section 29, T20S-R29E	9. API Well No. 30-015-32552
UT. B	10. Field and Pool, or Exploratory Area Burton Flat East Morrow
	11. County or Parish, State Eddy, New Mexico

## 12. CHECK APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION			
<input type="checkbox"/> Notice of Intent	<input type="checkbox"/> Acidize	<input type="checkbox"/> Deepen	<input type="checkbox"/> Production (Start/Resume)	<input type="checkbox"/> Water Shut-Off
<input checked="" type="checkbox"/> Subsequent Report	<input type="checkbox"/> Alter Casing	<input type="checkbox"/> Fracture Treat	<input type="checkbox"/> Reclamation	<input type="checkbox"/> Well Integrity
<input type="checkbox"/> Final Abandonment Notice	<input type="checkbox"/> Casing Repair	<input type="checkbox"/> New Construction	<input type="checkbox"/> Recomplete	<input type="checkbox"/> Other Spud & run casing
	<input type="checkbox"/> Change Plans	<input type="checkbox"/> Plug and Abandon	<input type="checkbox"/> Temporarily Abandon	
	<input type="checkbox"/> Convert to Injection	<input type="checkbox"/> Plug Back	<input type="checkbox"/> Water Disposal	

13. Describe Proposed or Completed Operation (clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or recompleat horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the Bond under which the work will be performed or provide the Bond No. on file with BLM/BIA. Required subsequent reports shall be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompletion in a new interval, a Form 3160-4 shall be filed once testing has been completed. Final Abandonment Notices shall be filed only after all requirements, including reclamation, have been completed, and the operator has determined that the site is ready for final inspection.)

1/31/03 MIRU Patterson UTI Rig #504 - Spud & drill 26" hole @ 8:30 pm - Lost circ @ 335'  
2/1/03 TD @ 400' 1:00 pm w/returns - Pump Viscous LCM pill/regain partial returns - Run 10  
jts-20", 94#/ft K-55, Butress casing (404') w/Texas pattern guide shoe & insert float  
(4 centralizers) to TD - RU Halliburton Cementing Services & cement w/100 sx Thixset  
"H" (14.4 ppg/1.60 ft<sup>3</sup>/sx) + 450 sx HLPP "C" + 2% CaCl + .25#/sx Flocele (12.50 ppg/  
1.96 ft<sup>3</sup>/sx) + 250 sx Premium Plus "C" + 2% CaCl (14.8 ppg/1.34 ft<sup>3</sup>/sx)  
2/2/03 Plug down @ 2:30 am - Cement operation w/partial returns/did not circ. cement - Run  
temp survey TOC @ 52 1/2' - Run 1" to 52' & cement w/75 sx "C" w/2% CaCl circ  
25 sx to pit.



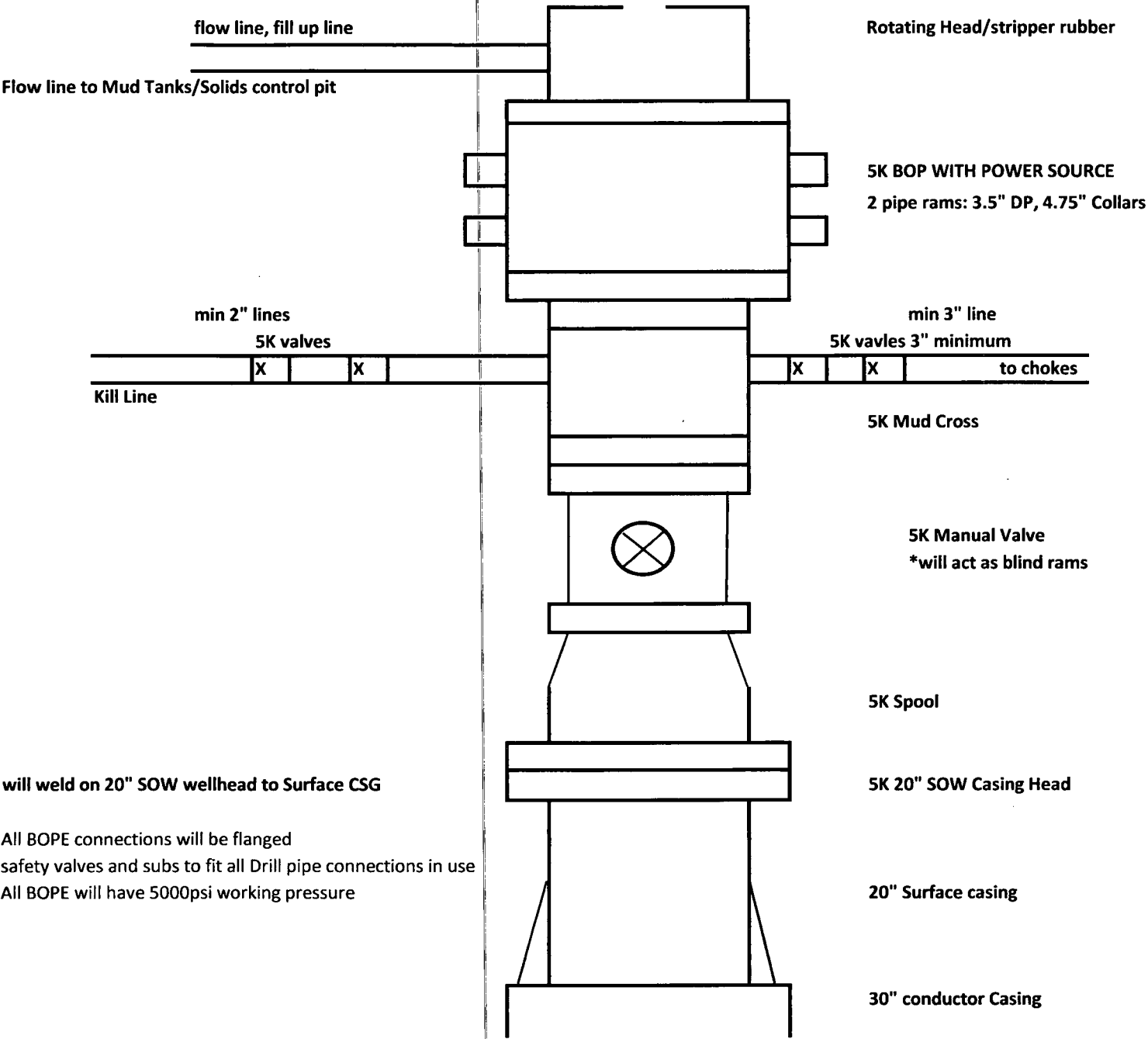
14. I hereby certify that the foregoing is true and correct Name (Printed/Typed) Michael G. Hanagan	Title Agent
Signature <i>Michael G. Hanagan</i>	Date 2/25/03

THIS SPACE FOR FEDERAL OR STATE OFFICE USE	
Approved by	Title
Conditions of approval, if any, are attached. Approval of this notice does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.	Date
	Office

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

Well Sand Pounder Federal #1  
660' FNL, 1,980 FEL, Sec. 29, 20S, 29E  
Eddy County New Mexico

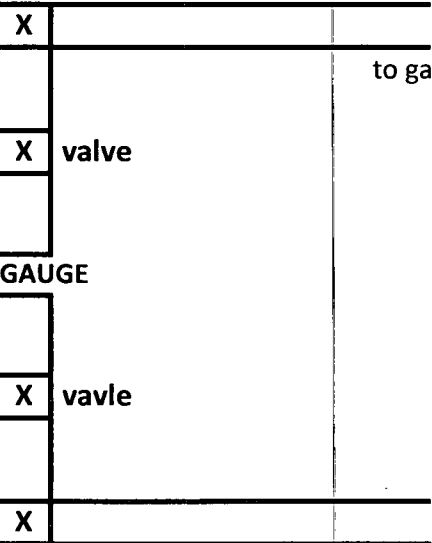
Nadel and Gussman HEYCO, L.L.C.  
Pulling Unit BOP and Well Control Equip. Schematic



Choke Manifold

5000 psi choke

ADJUSTABLE CHOKE



min 2" lines

to gas buster/tanks

GAUGE

valve

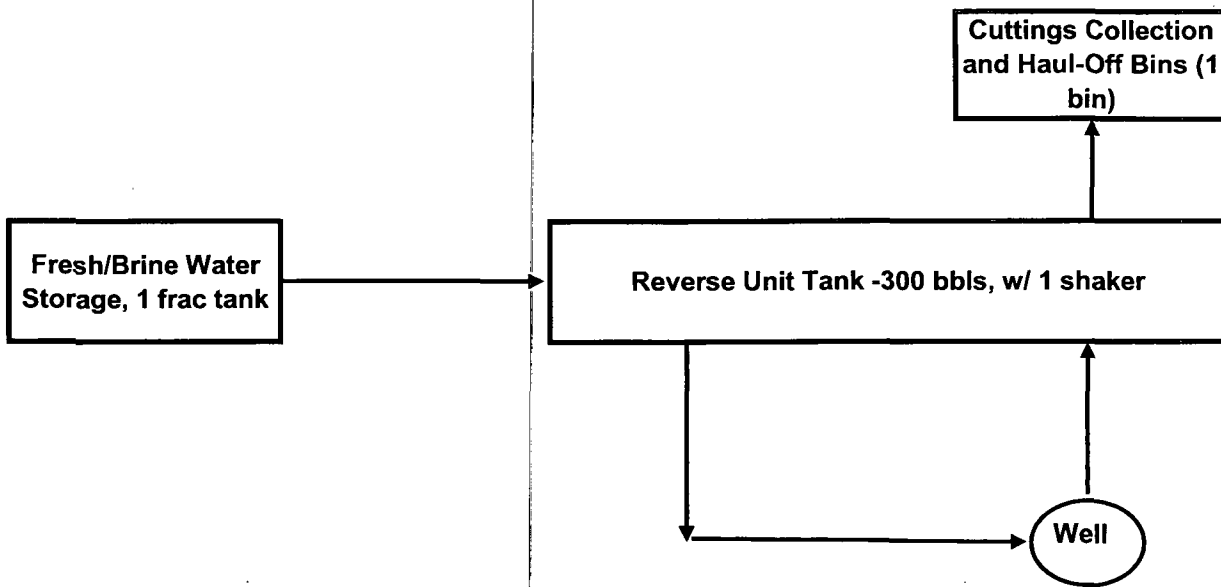
vavle

ADJUSTABLE CHOKE

to Flow back tank

# **CLOSED-LOOP SYSTEM**

## **Design Plan:**



## **Operating and Maintenance Plan:**

During drilling operations, third party service companies will utilize solids control equipment to remove cuttings from the drilling fluid and collect it in haul-off bins. Equipment will be closely monitored at all times while drilling by the derrick man and the service company employees.

## **Closure Plan:**

During drilling operations, third party service companies will haul-off drill solids and fluids to an approved disposal facility as noted on the C-144 form. At the end of the well, all closed loop equipment will be removed from the location.

**NADEL AND GUSSMAN HEYCO, L.L.C.**

**P.O. Box 1936  
Roswell, NM 88202  
(575) 623-6601 (Office)**

6/12/12

Mr. Ingram  
Carlsbad BLM Field Office  
620 E. Greene St.  
Carlsbad, NM 88220

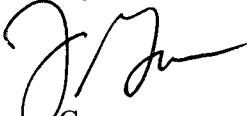
**Re: Sand Pounder Federal No. 1  
Sec. 29, T20S, R29E  
Eddy County, NM  
Rule 118 H2S Exposure**

Dear Mr. Ingram,

Nadel and Gussman HEYCO, LLC have evaluated this well and we do not expect to encounter hydrogen sulfide. However, we will employ a third party monitoring system. We will begin monitoring prior to drilling out the surface plug and will continue monitoring the remainder of the well.

Please contact me if you have any additional questions.

Sincerely,



Jason Goss  
Drilling Engineer

**Hydrogen Sulfide Drilling Operations Plan  
Sand Pounder Federal #1  
Sec 29, T20S, R29E  
Eddy County N.M.**

1. Company and contract personnel admitted on location should be trained by a qualified H<sub>2</sub>S safety instructor to the recognize and handle following:
  - A. Characteristics of H<sub>2</sub>S gas
  - B. Physical effects and hazards
  - C. Proper use of safety equipment and life support systems
  - D. Principle and operation of H<sub>2</sub>S detectors, warning system and briefing knowledge
  - E. Evacuation procedure, routes and first aid support
  - F. Proper use of 30 minutes Pressure-on-Demand Air Pack
2. Supervisory personnel will be trained in the following areas:
  - A. Effects of H<sub>2</sub>S on metal components.
  - B. Corrective action and shut in procedures, blowout prevention, and well control procedure.
  - C. Contents of Hydrogen Sulfide Drilling Operations Plan.
3. H<sub>2</sub>S Detection and Alarm Systems will be in place before commencing any operations.
  - A. H<sub>2</sub>S detectors and audio alarm system to be located at wellhead, shale shaker and mud pits. Will be installed and maintained by third party safety company.
  - B. Thirty minute self-contained work unit located in at briefing areas.
3. Windsock and/or Wind Streamers
  - A. Windsock at mud pit area or on pulling unit (high enough to be visible)
4. Condition Flags and Signs
  - A. H<sub>2</sub>S warning signs on lease access road into location
  - B. Flags displayed on sign at location entrance
    1. Green flag indicates "Normal Safe Conditions"
    2. Yellow Flag indicates "Potential Pressure and Danger"
    3. Red Flag indicates "Danger - H<sub>2</sub>S Present in High Concentrations" *admit only emergency personnel*
5. Well Control Equipment
  - A. See BOP, and Choke exhibit.
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 radios or cell phones used to communicate off location.
7. Drillstem Testing (**not planned**)
  - A. Exhausts watered
  - B. Flare line equipped with electric Igniter/propane pilot light in case gas reaches surface
  - C. If location near dwelling closed DST will be performed
8. If H<sub>2</sub>S encountered, mud system shall be addressed to maintain control of formation. A mud gas separator will be brought into service along with H<sub>2</sub>S scavengers, if necessary. pH will be maintained at 10, to minimize H<sub>2</sub>S in the system. Hydrogen sulfide scavengers will also be used to minimize hazards while

# PUBLIC PROTECTION PLAN FOR EMERGENCY CONTACTS

## **NADEL AND GUSSMAN HEYCO, LLC**

(432) 682-4429

### **Company Personnel**

Jason Goss	Drilling Engineer	432-682-4429
		512-784-2613
Keith Cannon	Drilling Supt.	575-623-6601
		575-626-1936

## **ARTESIA N.M.**

Ambulance	911
State Police	575-746-5000
City Police	575-746-5000
Sheriff's Office	575-746-9888
Fire Department	575-746-5050 or 575-746-5051
N.M.O.C.D	575-748-1283

## **CARLSBAD N.M.**

Ambulance	911
State Police	575-885-3137
City Police	575-885-2111
Sheriff's Office	575-887-7551
Fire Department	575-885-3125 or 575-885-2111
Carlsbad BLM	575-887-6544

## **HOBBS N.M.**

Ambulance	911
State Police	575-392-5588
City Police	575-397-9265
Sheriff's Office	575-396-3611
Fire Department	575-397-9308
N.M.O.C.D	575-393-6161
Hobbs BLM	575-393-3612

Flight for Life (Lubbock Tx)	806-743-9911
Aerocare (Lubbock Tx)	806-747-8923
Med flight air Ambulance (Albuq NM)	505-842-4433
SB air Med Services (Albuq NM)	505-842-4949

Wild Well Control	281-784-4700 (24 hour emergency number)
Boots & Coots IWC	800-256-9688 or 281-931-8884
Cudd Pressure Control	915-699-0139 or 915-563-3356
BJ Services (Artesia NM)	575-746-3569
(Hobbs NM)	575-392-5556

New Mexico Emergency Response Commission (Santa Fe)	505-476-9600
24 Hour	505-827-9126
New Mexico State Emergency Operations Center	505-476-9635

## PECOS DISTRICT CONDITIONS OF APPROVAL

OPERATOR'S NAME:	NADEL & GUSSMAN HEYCO, LLC
LEASE NO.:	NM03677
WELL NAME & NO.:	1-SAND POUNDER FEDERAL
SURFACE HOLE FOOTAGE:	660'/N. & 1980'/E.
BOTTOM HOLE FOOTAGE	
LOCATION:	Section 29, T. 20 S., R. 29 E., NMPM
COUNTY:	Eddy County, New Mexico

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Standard Conditions of Approval (COA) apply to this APD. If any deviations to these standards exist or special COAs are required, the section with the deviation or requirement will be checked below.

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- ☐ **Permit Expiration**
- ☐ **Archaeology, Paleontology, and Historical Sites**
- ☐ **Noxious Weeds**
- ☒ **Special Requirements**
  - Production facilities**
    - Cave/Karst
    - Plugging Requirements
- ☐ **Construction**
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  - Topsoil
  - Closed Loop System
  - Federal Mineral Material Pits
  - Well Pads
  - Roads
- ☐ **Road Section Diagram**
- ☒ **Drilling**
  - Waste Material and Fluids
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- ☐ **Production (Post Drilling)**
  - Well Structures & Facilities
  - Pipelines
  - Electric Lines
- ☐ **Interim Reclamation**
- ☐ **Final Abandonment & Reclamation**