

HOBBS OCD  
FEB 26 2018  
RECEIVED

FORM APPROVED  
OMB No. 1004-0137  
Expires October 31, 2014

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

SECRETARY'S POTASH

APPLICATION FOR PERMIT TO DRILL OR REENTER

5. Lease Serial No.  
NMLC-029512A

6. If Indian, Allottee or Tribe Name  
N/A

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

8. Lease Name and Well No. (16979)  
WALLEN FEDERAL 10

1a. Type of work:  DRILL  REENTER

1b. Type of Well:  Oil Well  Gas Well  Other  Single Zone  Multiple Zone

2. Name of Operator DAKOTA RESOURCES INC. (I) (5691)

9. API Well No.  
30-025-44613

3a. Address 4914 N. MIDKIFF RD.  
MIDLAND, TX 79705

3b. Phone No. (include area code)  
432 697-3420

10. Field and Pool, or Exploratory (59090)  
TEAS; YATES - SEVEN RIVERS

4. Location of Well (Report location clearly and in accordance with any State requirements.)\*  
At surface 300' FNL & 990' FEL  
At proposed prod. zone SAME

11. Sec., T. R. M. or Blk. and Survey or Area  
NENE 19-20S-34E

14. Distance in miles and direction from nearest town or post office\*  
19 AIR MILES SW OF MONUMENT, NM

12. County or Parish  
LEA 13. State  
NM

15. Distance from proposed\* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any) 1650'

16. No. of acres in lease  
600

17. Spacing Unit dedicated to this well  
NENE 19-20S-34E

18. Distance from proposed location\* to nearest well, drilling, completed, applied for, on this lease, ft. 660' (Wallen 3)

19. Proposed Depth  
3600'

20. BLM/BIA Bond No. on file  
NMB-000001

21. Elevations (Show whether DF, KDB, RT, GL, etc.)  
3,637.2' UNGRADED

22. Approximate date work will start\*  
11/10/2015

23. Estimated duration  
1 MONTH

24. Attachments

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

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

25. Signature *Brian Wood* Name (Printed/Typed) BRIAN WOOD (PHONE: 505 466-8120) Date 08/23/2015

Title CONSULTANT (FAX: 505 466-9682)

Approved by (Signature) */s/Cody Layton* Name (Printed/Typed) FIELD MANAGER Date FEB 26 2018

Title Office CARLSBAD FIELD OFFICE

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.

(Continued on page 2)

*Requested GCP 02/28/18  
Rec GCP 03/19/18*

\*(Instructions on page 2)

SEE ATTACHED FOR  
CONDITIONS OF APPROVAL

Capitan Controlled Water Basin

*KS  
07/20/18*

Approval Subject to General Requirements  
& Special Stipulations Attached

Dakota Resources Inc. (I)  
Wallen Federal 10  
SHL: 660' FNL & 990' FEL  
BHL: 945' FNL & 1144' FEL  
Sec. 19, T. 20 S., R. 34 E., Lea County, NM

DRILL PLAN PAGE 1

## Drilling Program

### 1. ESTIMATED DEPTHS

<u>Name</u>	<u>TVD</u>	<u>Subsea</u>	<u>Content</u>
Quaternary	0'	3640'	fresh water
Rustler	1475'	2165'	anhydrite
Salt	1602'	2038'	salt
McNutt base	2948'	692'	potash
base of salt	3127'	513'	salt
Yates	3319'	321'	oil, gas, saltwater
Seven Rivers	3458'	182'	oil, gas, saltwater
Total Depth	3600'	40'	---

### 2. NOTABLE ZONES

Water bearing strata were found at 150' - 190' in the Jewett-McDonald AA-1 (30-025-02440). That well is 2012' northeast. It was plugged back and converted to 165' deep water well (CP 00657).

### 3. PRESSURE CONTROL

A 3000-psi BOP will be nipped up to the surface casing before drilling out and used continuously until TD is reached. All equipment will be tested to 1000-psi before drilling out of the surface and intermediate strings. A typical 3000-psi system is attached. If the equipment changes, then a Sundry Notice will be filed. System will meet Onshore Orders 2 (BOP) requirements.

Pipe rams will be operated and checked each 24-hour period and each time the drill pipe is out of the hole. These functional tests will be documented on the daily drilling logs.

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4. CASING & CEMENT

Type	Hole O D	Casing O D	#/ft	Grade	Thread	Depth Set
Conductor	24"	16"	65	H-40	ST&C	35'
Surface	14.75"	10.75"	40.5	H-40	ST&C	250'
Intermediate	9.875"	7.625"	26.4	N-80	LT&C	3150'
Production	6.75"	4.5"	10.5	K-55	ST&C	3600'

Conductor pipe will be cemented to surface with Ready-mix.

Surface casing will be cemented to surface with 100 sacks (188 cubic feet) Class C + 2% bentonite mixed @ 13.05 #/gal and 1.88 cubic feet/sack followed by 100 sacks (132 cubic feet) Class C neat mixed @ 14.8 #/gal and 1.32 cubic feet/sack. Total cement = 320 cubic feet. Excess >100%. Centralizers will be installed as required by Onshore Order 2.

Intermediate casing will be cemented to surface with 800 sacks (1752 cubic feet) light mixed @ 12.4 #/gal and 2.19 cubic feet/sack followed by 200 sacks (264 cubic feet) Class C + 1% CaCl<sub>2</sub> mixed @ 14.8 #/gal and 1.32 cubic feet/sack. Total cement = 2016 cubic feet. Excess >100%

Production casing will be cemented to surface with 200 sacks (438 cubic feet) light mixed @ 12.4 #/gal and 2.19 cubic feet/sack followed by 100 sacks (132 cubic feet) Class C + 2% CaCl<sub>2</sub> mixed @ 14.8 #/gal and 1.32 cubic feet/sack. Total cement = 570 cubic feet. Excess >15%

5. MUD PROGRAM

Fresh water spud mud (8.34 ppg, 22 viscosity, 7 pH) will be used from GL to ≈1500'. Brine water (10 ppg, 22 viscosity, 9 pH) will be used from ≈1500' to TD.

An electronic/mechanical mud monitor will with a minimum pit volume totalizer, stroke counter, and flow sensor will be used. All necessary mud products will be

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DRILL PLAN PAGE 3

on site to handle any abnormal hole condition that could possibly be encountered during the drilling of this well.

#### 6. CORES, TESTS, & LOGS

No core or drill stem test is planned. A Standard CNL/FDC/GR, DLL logs will be run from the base of intermediate casing to TD.

#### 7. DOWN HOLE CONDITIONS

No abnormal pressure or temperature is expected. Maximum expected bottom hole pressure is  $\approx 1550$  psi. Estimated BHT will be  $100^{\circ}$  F. No  $H_2S$  is expected.

#### 8. OTHER INFORMATION

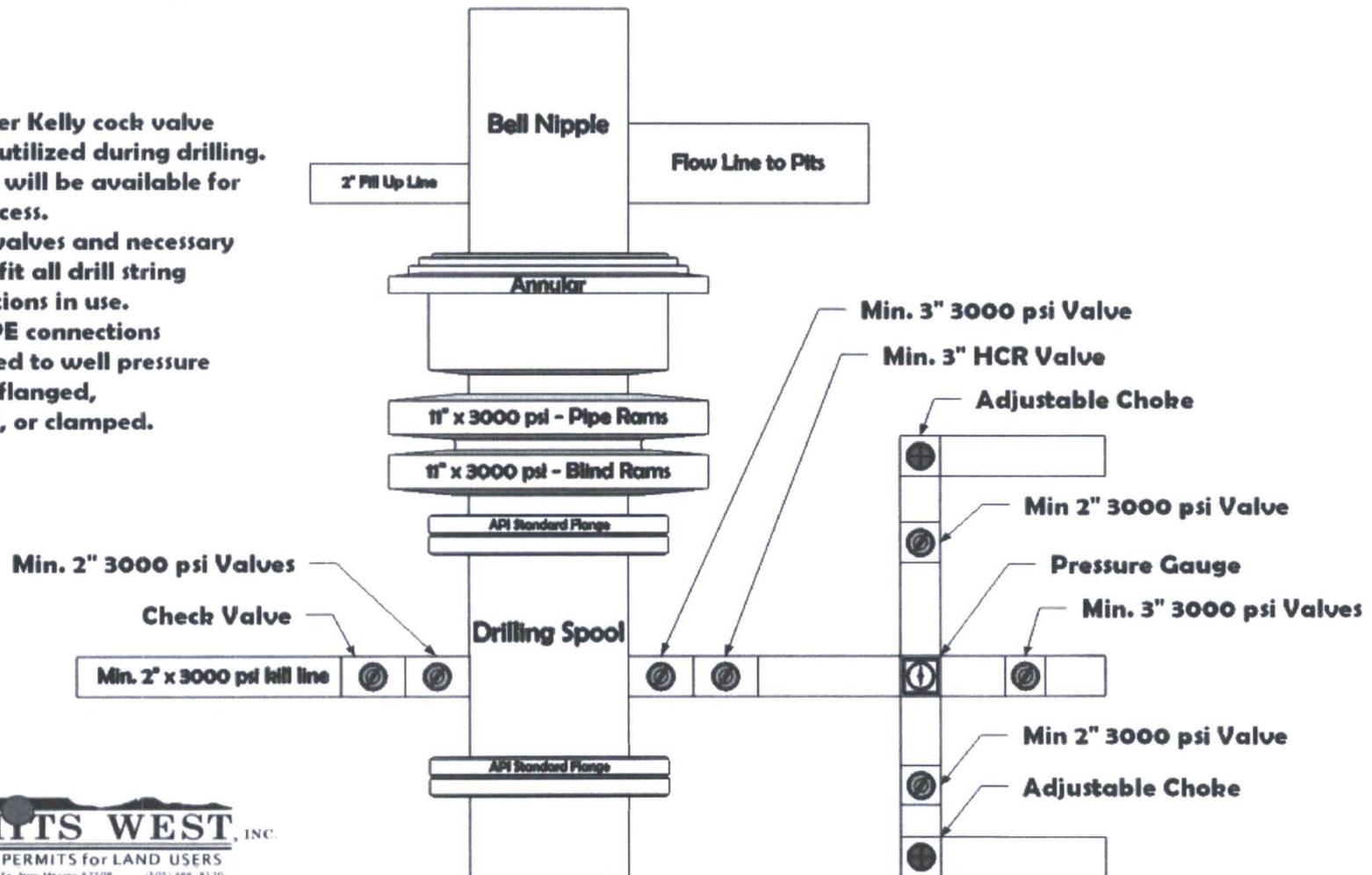
The anticipated spud date is upon approval. It is expected it will take  $\approx 3$  weeks to drill and complete the well.

Dakota Resources Inc. (I)  
 Wallen Federal 10  
 330' FNL & 990' FEL  
 Sec. 19, T. 20 S., R. 34 E.  
 Lea County, NM

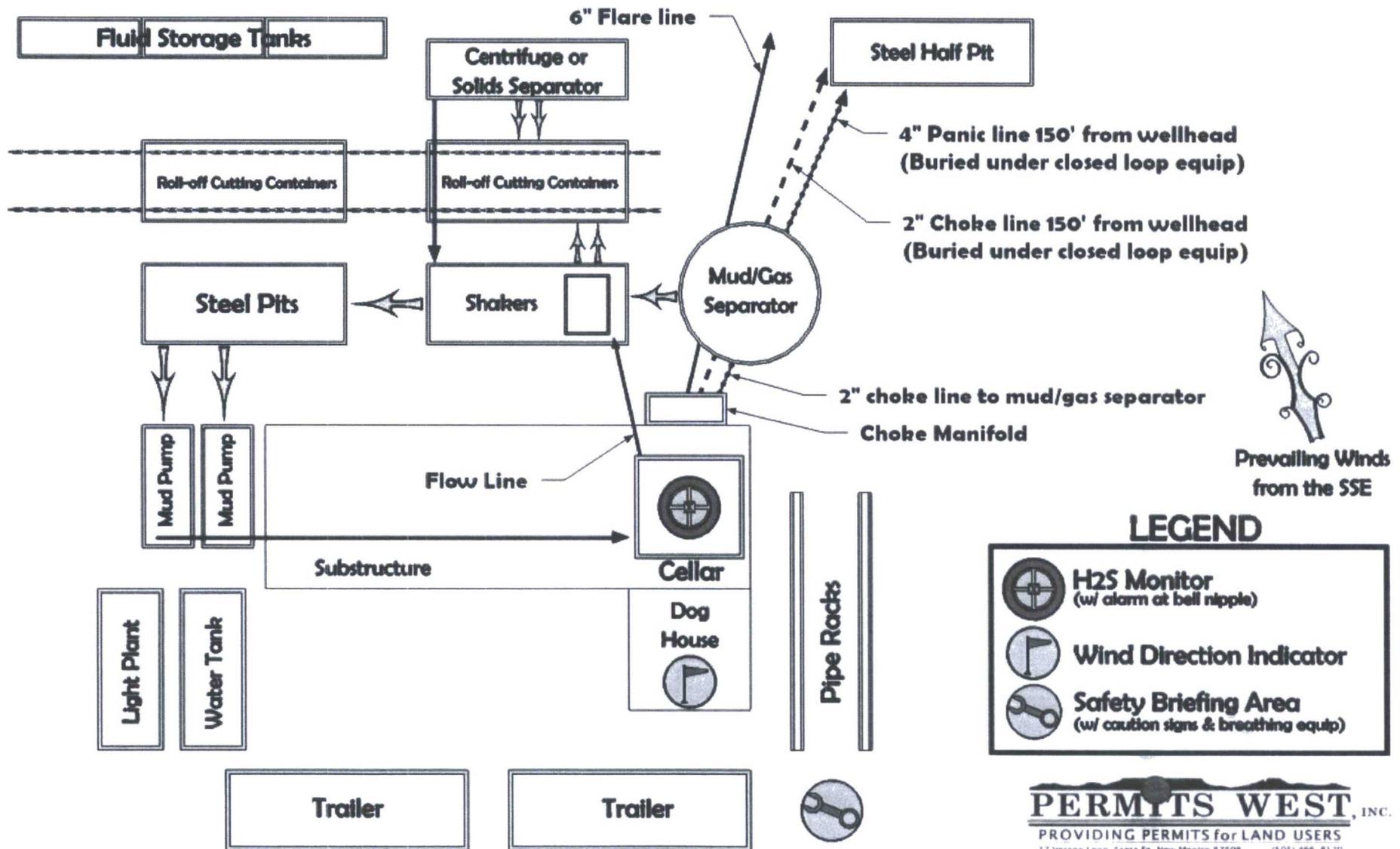
Stage	Stage Type	Fluid Type	Volume	Stage lbs Sand	Cum lbs Sand	Rate
1	Acid	15% NEFE	4000	0	0	5
2	PrePad	17# Linear Gel	2500	0	0	15
3	PAD	17# Gel w/ Borate XL	14000	0	0	25
4	1 ppg 16/30 Brown Sand	17# Gel w/ Borate XL	2000	2000	2000	25
5	2 ppg 16/30 Brown Sand	17# Gel w/ Borate XL	2000	4000	6000	25
6	3 ppg 16/30 Brown Sand	17# Gel w/ Borate XL	5000	15000	21000	25
7	4 ppg 16/30 Brown Sand	17# Gel w/ Borate XL	7000	28000	49000	25
8	5 ppg 16/30 Brown Sand	17# Gel w/ Borate XL	10000	50000	99000	25
9	5 ppg 16/30 Resin Coated Sand	17# Gel w/ Borate XL	10000	50000	149000	25
10	FLUSH	17# Linear Gel	1000		149000	25
<b>Total</b>			<b>53500</b>		<b>149000</b>	
<u>Chemical Additives</u>		<u>Frac Tanks</u>				
Surfactant 1 gal/M		3 Tanks 475 bbls ea 2% KCL				
Biocide 2 bags per frac tank						
<u>Job Time (min)</u>						
51						

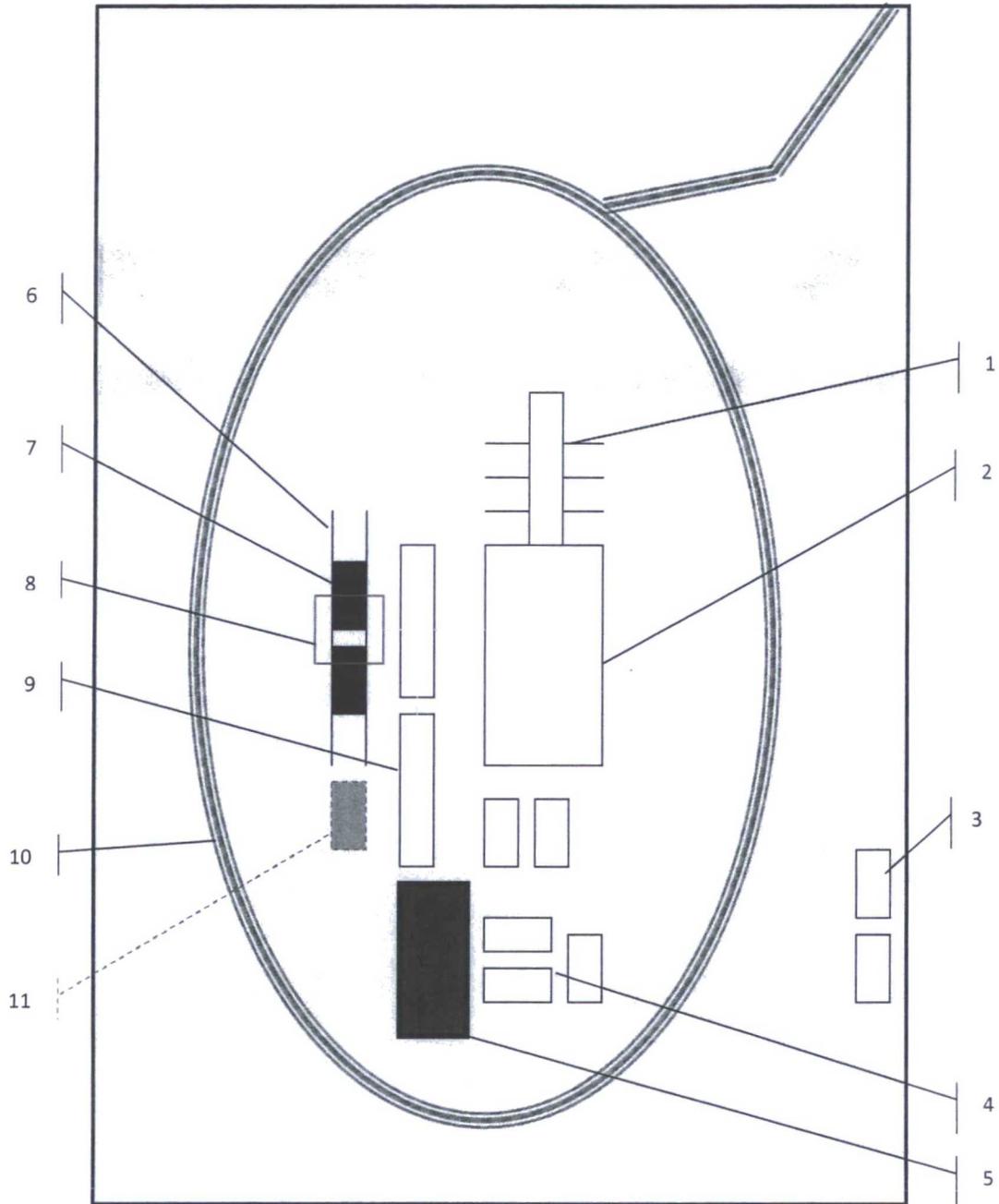
# 3M psi BOP Schematic

- Note:**
1. An upper Kelly cock valve will be utilized during drilling. Handle will be available for easy access.
  2. Safety valves and necessary subs to fit all drill string connections in use.
  3. All BOPE connections subjected to well pressure will be flanged, welded, or clamped.



# Rig and Closed Loop System with H2S Safety Equipment Diagram





**Schematic Closed Loop Drilling Rig\***

1. Pipe Rack
2. Drill Rig
3. House Trailers/ Offices
4. Generator/Fuel/Storage
5. Overflow-Frac Tank
6. Skids
7. Roll Offs
8. Hopper or Centrifuge
9. Mud Tanks
10. Loop Drive
11. Generator (only for use with centrifuge)

\*Not drawn to scale: Closed loop system requires at least 30 feet beyond mud tanks. Ideally 60 feet would be available

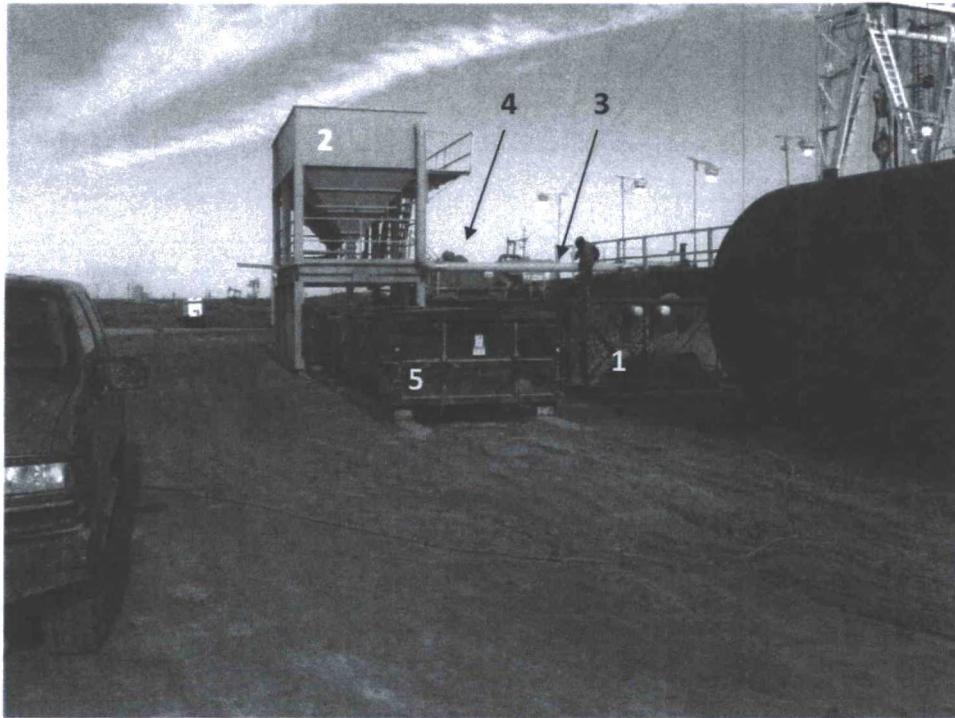


Above: Centrifugal Closed Loop System

**PERMITS WEST, INC.**

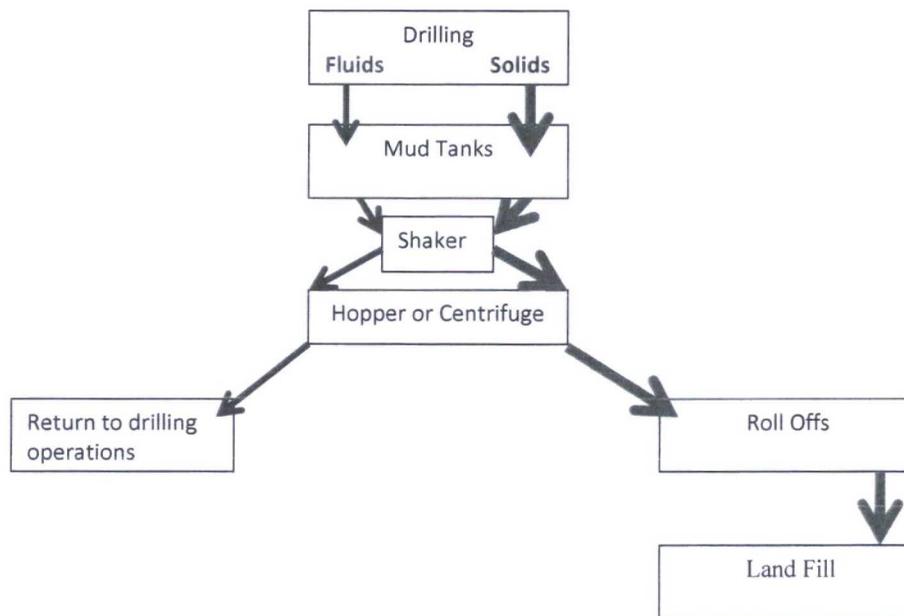
PROVIDING PERMITS for LAND USERS

37Verano Loop, Santa Fe, New Mexico 87508 (505) 466-8120



Closed Loop Drilling System: Mud tanks to right (1)  
 Hopper in air to settle out solids (2)  
 Water return pipe (3)  
 Shaker between hopper and mud tanks (4)  
 Roll offs on skids (5)

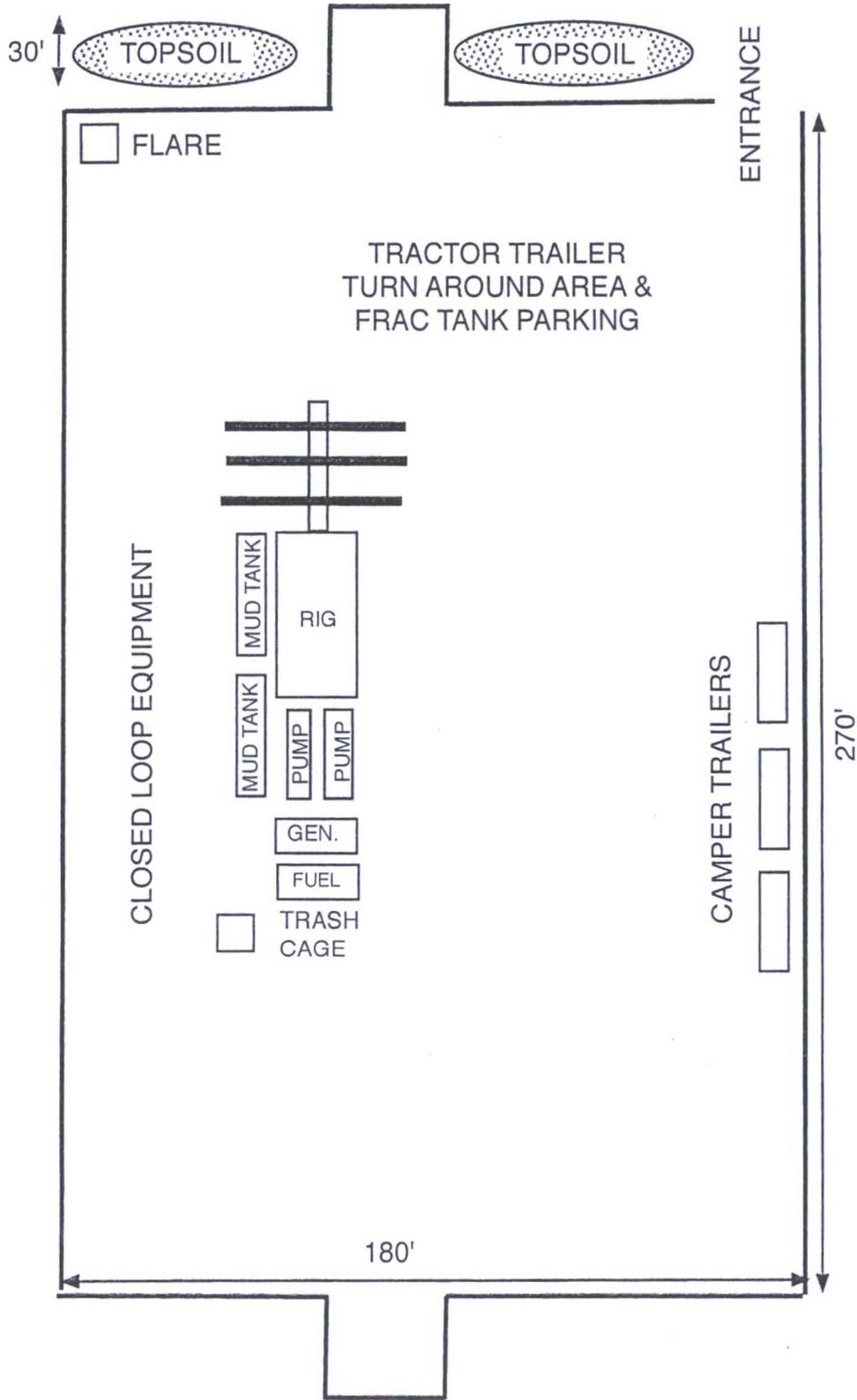
**Flow Chart for Drilling Fluids and Solids**



Photos Courtesy of Gandy Corporation Oil Field Service

Dakota's  
Wallen Federal 10

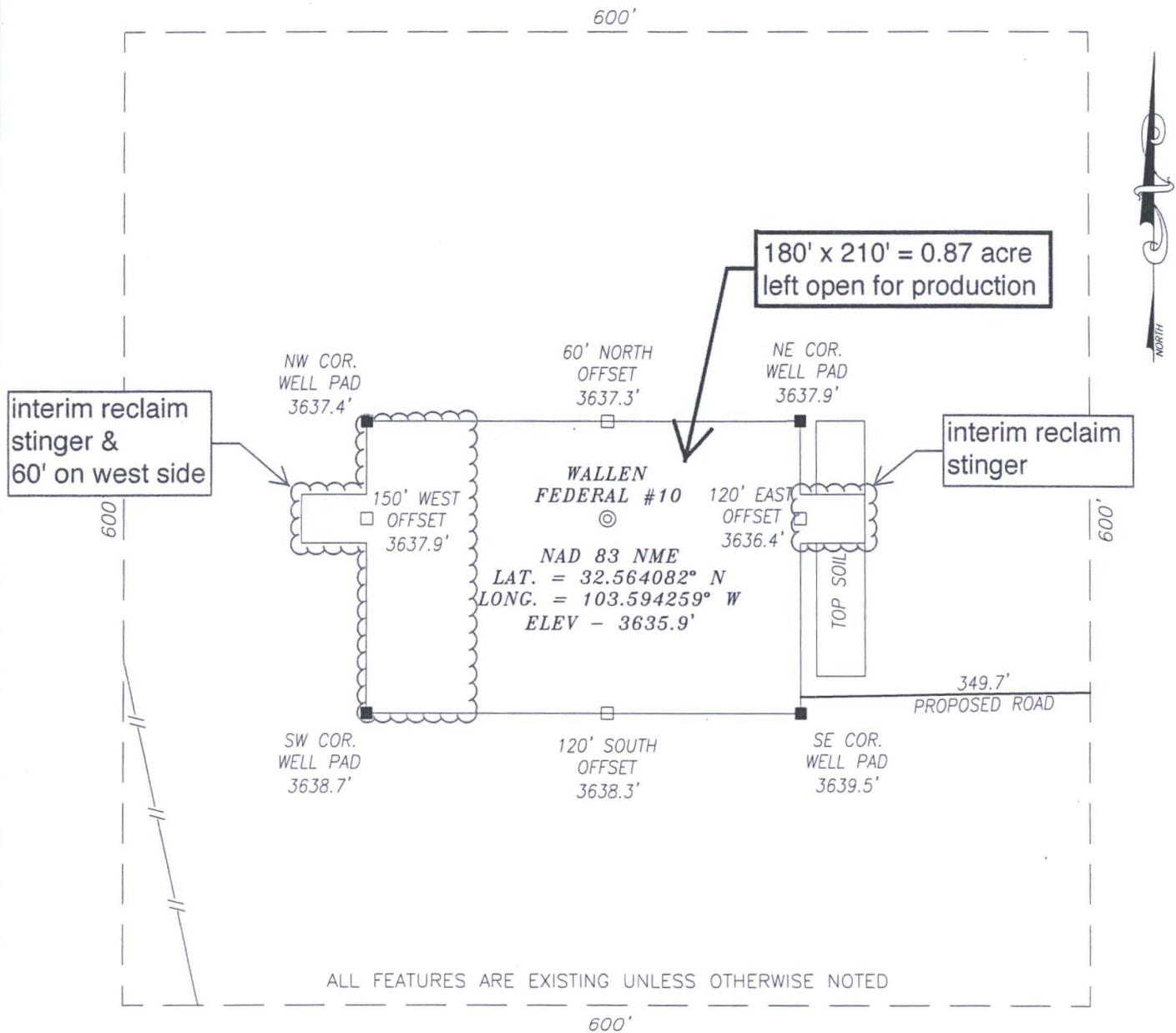
NORTH ←  
1" = 40'



SECTION 19, TOWNSHIP 20 SOUTH, RANGE 34 EAST, N.M.P.M.,

LEA COUNTY

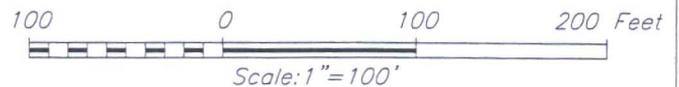
NEW MEXICO



INTERIM RECLAMATION DIAGRAM

DIRECTIONS TO LOCATION

FROM INTERSECTION OF HWY 62-180 AND SKEEN ROAD, GO SOUTH ON SKEEN ROAD FOR APPROX. 2.65 MILES; THEN TURN RIGHT (WEST) AND GO APPROX. 380 FEET; THEN TURN LEFT (SOUTHWEST) AND GO APPROX. 250 FEETS THE EXISTING WALLEN FEDERAL #3 WELLPAD; PROPOSED WELL LIES APPROX. 700 FEET SOUTHWEST FROM THE SOUTHWESTERLY CORNER OF EXISTING PAD.



HARCROW SURVEYING, LLC  
 2314 W. MAIN ST, ARTESIA, N.M. 88210  
 PH: (575) 746-2158 FAX: (575) 746-2158  
 Texas Firm No. 10194089  
 c.harcrow@harcrowsurveying.com



DAKOTA RESOURCES INC.

WALLEN FEDERAL #10  
 LOCATED 660 FEET FROM THE NORTH LINE  
 AND 990 FEET FROM THE EAST LINE OF SECTION 19,  
 TOWNSHIP 20 SOUTH, RANGE 34 EAST, N.M.P.M.,  
 LEA COUNTY, NEW MEXICO

SURVEY DATE: MAY 4, 2017	PAGE: 1 OF 1
DRAFTING DATE: MAY 10, 2017	
APPROVED BY: CH	DRAWN BY: SA
	FILE: 17-567

Dakota Resources Inc. (I)  
Wallen Federal 11  
SHL: 660' FNL & 330' FEL  
BHL: 1185' FNL & 506' FEL  
Sec. 19, T. 20 S., R. 34 E., Lea County, NM

SURFACE PLAN PAGE 1

### Surface Use Plan

#### 1. ROAD DIRECTIONS & DESCRIPTIONS (See MAPS 1 - 6)

From the Hobbs Airport...

Go Southwest 22-3/4 miles on paved US 62 to the equivalent of Mile Post 76.7

Then turn left and go South 2.4 miles on caliche County Road 27

Then turn right just after a cattle guard and go West  $\approx$ 400' on a caliche road

Then bear left and go SW  $\approx$ 250' on a caliche road onto the Wallen Federal 3 pad

Then continue SW 315.1' cross-country to the proposed #11 pad

Go South 180' across the #11 pad

Then turn right and go West 349.7' cross-country to the proposed #10 pad

Non-county roads will be maintained as needed to Gold Book standards. This includes pulling the ditches and preserving the crown. Caliche will be bought and hauled from Danny Berry's existing caliche pit on his land in SENE 35-20s-34e.

#### 2. ROAD TO BE BUILT OR UPGRADED (See MAPS 3 - 6)

NM One Call will be notified before construction starts. New road will cross two buried pipelines. The 664.8' of new road will be crowned, have a 14' wide driving surface, and be surfaced with caliche. Maximum disturbed width = 20'. Maximum grade = 1%. Maximum cut or fill = 1'. No culvert, cattle guard, or vehicle turn out is needed. Upgrading will consist of filling potholes with caliche west of the country road.

#### 3. EXISTING WELLS (See MAP 7)

Existing disposal, oil, gas, water, and P & A wells are within a mile. There are no existing injection wells within a mile radius.

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SURFACE PLAN PAGE 2

4. PROPOSED PRODUCTION FACILITIES (See MAPS 3 - 6)

Only production equipment on the pad will be the pump jack. A  $\approx 3$ " O. D. HDPE surface pipeline will be laid 844.8' east and northeast along the new roads and #11 pad to Dakota's existing pipeline at its Wallen Federal 3 pad. Pipe will operate at  $\approx 50$  psi.

5. WATER SUPPLY (See MAPS 2 - 6)

Water will be trucked from Danny Berry's existing water station in NWNE 2-21s-33e. The water station is supplied by existing water wells.

6. CONSTRUCTION MATERIALS & METHODS (See MAPS 2 - 6 and 8 - 10)

NM One Call (811) will be notified before construction starts. Topsoil and brush will be stockpiled east of the pad. V door will be to the east. A closed loop drilling system will be used. Caliche will be bought and hauled from Danny Berry's existing caliche pit on his land in SENE 35-20s-34e.

7. WASTE DISPOSAL

All trash will be placed in a portable trash cage. It will be hauled to the Lea County landfill. There will be no trash burning. Contents (drill cuttings, mud, salts, and other chemicals) of the mud tanks will be hauled to the Halfway state approved (NM-01-0006) disposal site. Human waste will be disposed of in chemical toilets and hauled to the Hobbs wastewater treatment plant.

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SURFACE PLAN PAGE 3

#### 8. ANCILLARY FACILITIES

There will be no airstrip or camp. Camper trailers will be on location for the company man, tool pusher, or mud logger.

#### 9. WELL SITE LAYOUT

See Rig Diagram for depictions of the well pad, trash cage, access onto the location, parking, living facilities, and rig orientation.

#### 10. RECLAMATION

Interim reclamation will consist of removing caliche and reclaiming the pad by 60' on the west side and both stingers. This will shrink the pad by  $\approx 25\%$  (0.29 acre) to a 180' x 210' (0.87 acre) area around the pump jack. Disturbed areas will be contoured to match pre-construction grades. Soil and brush will be evenly spread over disturbed areas. Seeded areas will be ripped or harrowed. A BLM approved seed mix will be sown in a BLM approved manner. Enough stockpiled topsoil will be retained to cover the remainder of the pad when the well is plugged. Once the well is plugged, then the remainder of the pad will be similarly reclaimed. Noxious weeds will be controlled.

#### 11. SURFACE OWNER

All construction will be on BLM and on lease.

#### 12. OTHER INFORMATION

Lone Mountain Archaeological Services inspected the revised project and submitted report NMCRI 138076 on May 17, 2017.

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SURFACE PLAN PAGE 4

CERTIFICATION

I hereby 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 which currently 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 this 16th day of September, 2017.

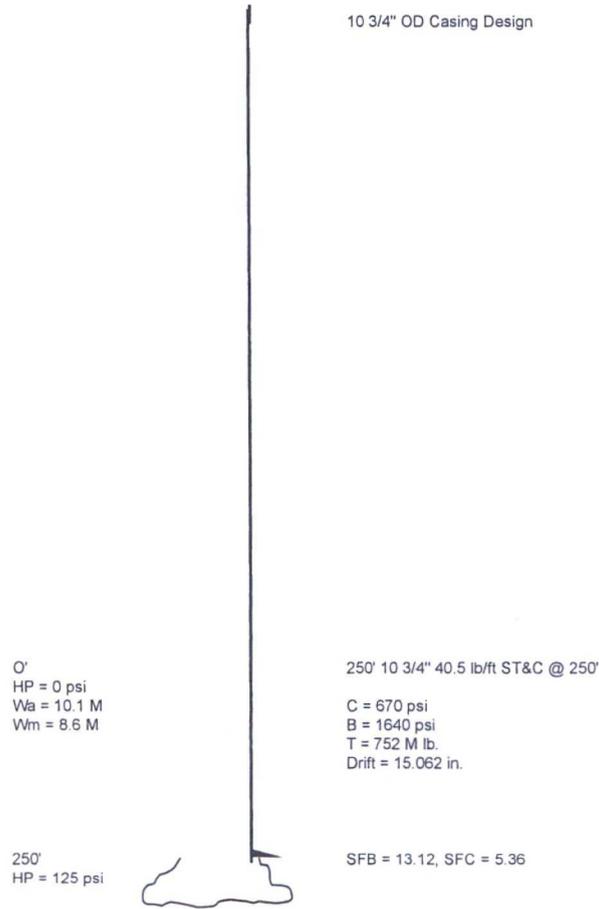


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Brian Wood, Consultant  
Permits West, Inc.  
37 Verano Loop, Santa Fe, NM 87508  
(505) 466-8120      FAX: (505) 466-9682      Cellular: (505) 699-2276

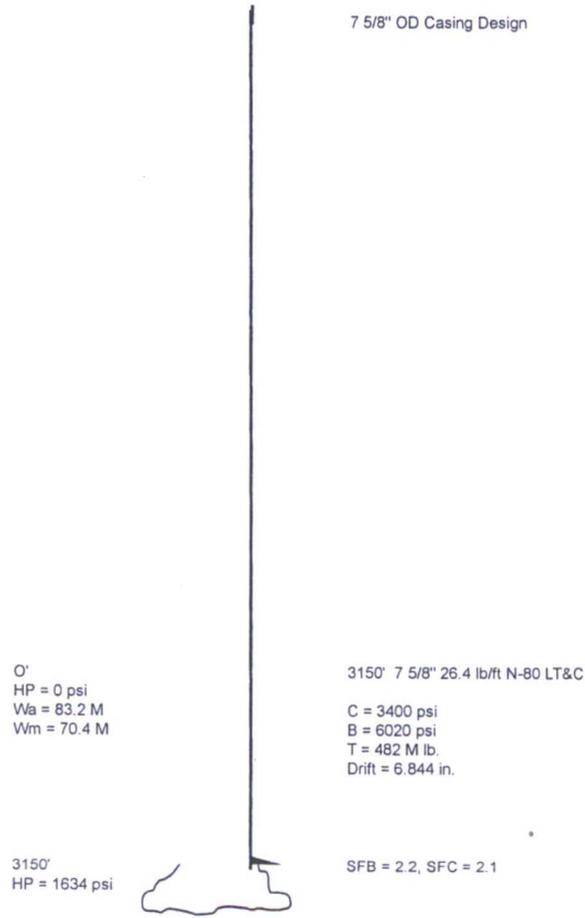
Field representative will be:  
Chris Morphew, President/CEO  
Dakota Resources Inc. (I)  
4914 N. Midkiff Rd.  
Midland TX 79705  
Office: (432) 697-3420

Dakota Resources, Inc.  
Wallen Federal # 10 & #11 Surface Casing



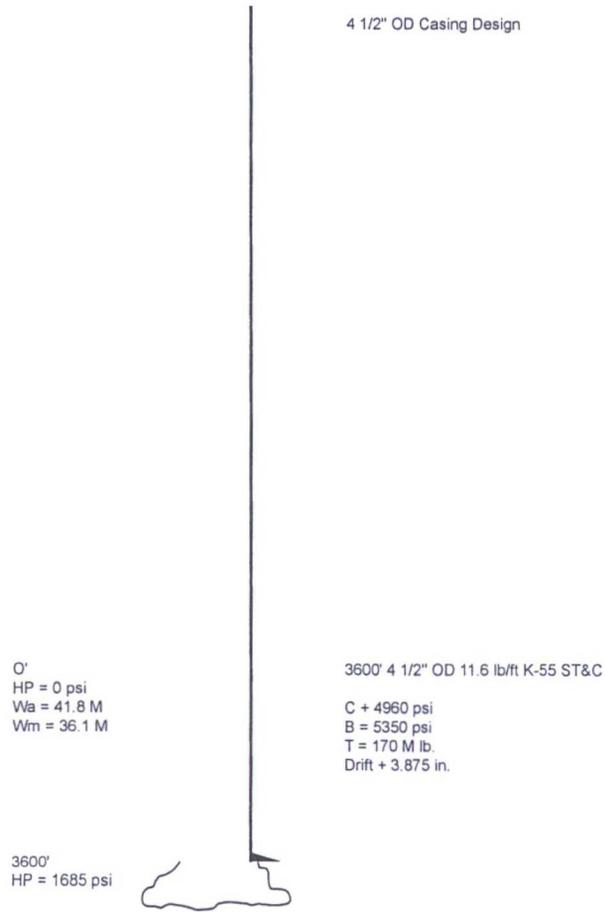
1. Casing set in 9.6 ppg drilling fluid. (.5/psi/ft)
2. Buoyancy factor of .853 considered.
3. Maximum allowable pull 100 M lb. above string weight with SFT = 6.9.
4. Collapse safety factors calculated for empty casing.

Dakota Resources, Inc.  
Wallen Federal # 10 & #11 Intermediate Casing



1. Casing set in 10.0 ppg drilling fluid, (.519/psi/ft)
2. Buoyancy factor of .847 considered.
3. Maximum allowable pull 100 M lb. above string weight with SFT = 2.8.
4. Collapse safety factors calculated for empty casing.

Dakota Resources, Inc.  
Wallen Federal # 10 Production Casing



1. Casing set in 9.0 ppg drilling fluid. (.468/psi/ft)
2. Buoyancy factor of .863 considered.
3. Maximum allowable pull 100 M lb. above string weight with SFT = 1.24.
4. Collapse safety factors calculated for empty casing.