

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT 2006 NOV 27 PM 12:30

APPLICATION FOR PERMIT TO DRILL OR REENTER

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

5. Lease Serial No.
NMNM-112955

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.
TSAH TAH SWD #11

9. API Well No.
30-045-34082

10. Field and Pool, or Exploratory
SWD; MESA VERDE

11. Sec., T. R. M. or Blk. and Survey or Area
N 11-24N-10W NMPM

12. County or Parish
SAN JUAN

13. State
NM

1a. Type of work: ☒ DRILL

☐ REENTER

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

2. Name of Operator
ROSETTA RESOURCES OPERATING LP

3a. Address 1200 17th ST., SUITE 770
DENVER, CO 80202

3b. Phone No. (include area code)
(720) 359-9144

4. Location of Well (Report location clearly and in accordance with any State requirements.)
At surface 970' FSL & 1510' FWL
At proposed prod. zone SAME

14. Distance in miles and direction from nearest town or post office*
27 AIR MILES S OF BLOOMFIELD, NM

15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any) 970'

16. No. of acres in lease
1,761.69

17. Spacing Unit dedicated to this well
N/A

18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft. 382' (11 #3)

19. Proposed Depth
4,500'

20. BLM/BIA Bond No. on file
BLM STATE WIDE NMB000371

21. Elevations (Show whether DF, KDB, RT, GL, etc.)
6,886' GL

22. Approximate date work will start*
01/15/2007

23. Estimated duration
3 WEEKS

24. Attachments

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

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

25. Signature *Brian Wood* Name (Printed/Typed) BRIAN WOOD Date 11/23/2006

Title CONSULTANT PHONE: (505) 466-8120 FAX: (505) 466-9682

Approved by (Signature) *D. Markiewicz* Name (Printed/Typed) Date 1/9/07

Title AFM Office FFO

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. Minimum BOPS test pressure: 1000*

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) Conditions: 1. Inj. to be confined to Menefee and Point Lookout Formations
2. SWD order must be issued prior to commencing injection

This action is subject to technical and procedural review pursuant to 43 CFR 3165.3 and appeal pursuant to 43 CFR 3165.4

DRILLING OPERATIONS AUTHORIZED ARE SUBJECT TO COMPLIANCE WITH ATTACHED "GENERAL REQUIREMENTS".

NMOCD

1/16/07

DISTRICT I
1625 N. French Dr., Hobbs, N.M. 88240

State of New Mexico
Energy, Minerals & Natural Resources Department

Form C-102
Revised August 15, 2000

DISTRICT II
511 South First, Artesia, N.M. 88210

DISTRICT III
1000 Rio Brazos Rd., Aztec, N.M. 87410

DISTRICT IV
2040 South Pacheco, Santa Fe, NM 87505

OIL CONSERVATION DIVISION

2040 South Pacheco
Santa Fe, NM 87505

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

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

*API Number 30-045- 34082		*Pool Code 96160	*Pool Name SWD; MESA VERDE	
*Property Code 35715	*Property Name TSAH TAH SWD		*Well Number 11	
*GRID No. 239235	*Operator Name ROSETTA RESOURCES OPERATING LP		*Elevation 6886'	

10 Surface Location

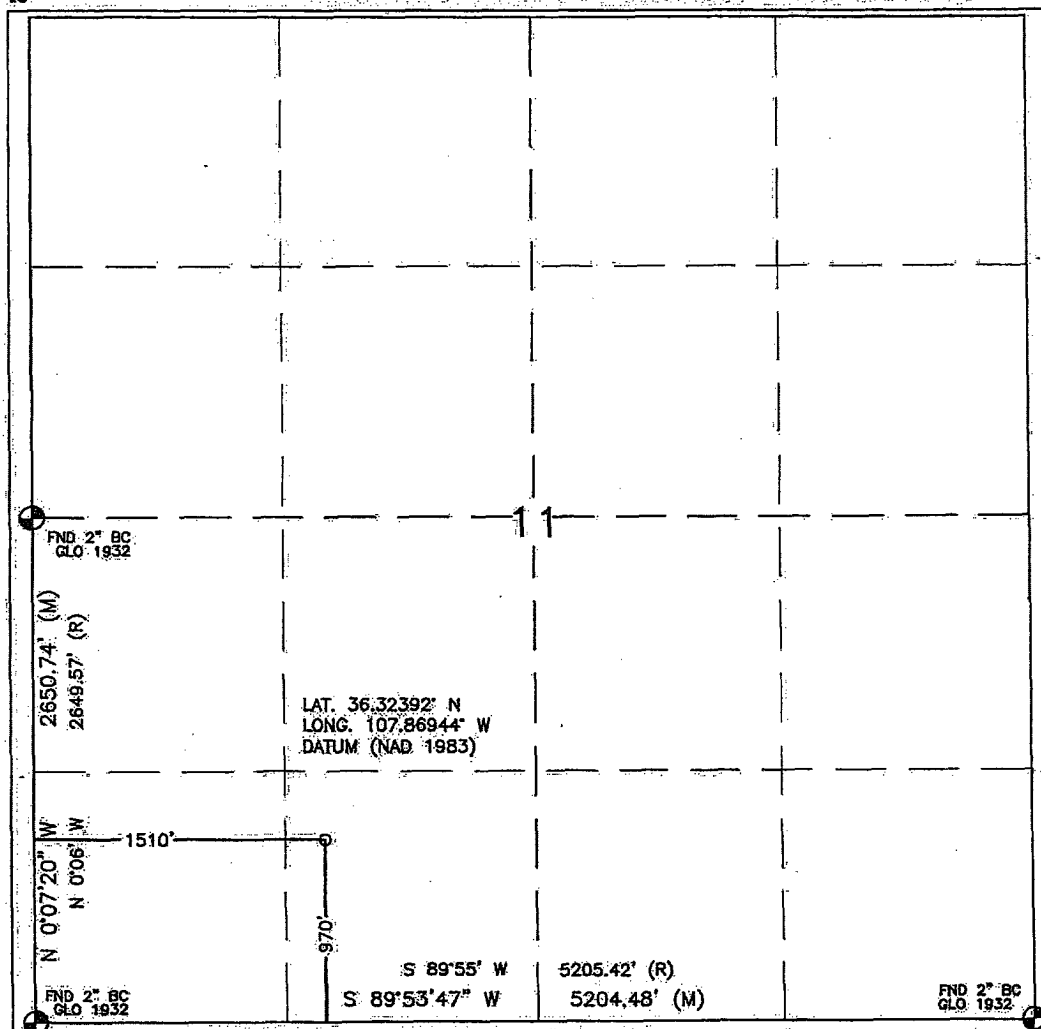
UL or lot no.	Section	Township	Range	Lot Idn.	Feet from the	North/South line	Feet from the	East/West line	County
N	11	24N	10W		970'	SOUTH	1510'	WEST	SAN JUAN

11 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
12 Dedicated Acres			13 Joint or Infill		14 Consolidation Code		15 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

16



17 OPERATOR CERTIFICATION

I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief

Signature: *Brian Wood*
Printed Name: BRIAN WOOD
Title: CONSULTANT
Date: NOV. 23, 2006

18 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 belief.

SEPTEMBER 23, 2006
Date of Survey
Signature and Seal of Professional Surveyor: *David Russell*
DAVID RUSSELL
Certificate Number: 10201

Submit 3 Copies To Appropriate District Office
District I
1625 N. French Dr., Hobbs, NM 88240
District II
1301 W. Grand Ave., Artesia, NM 88210
District III
1000 Rio Brazos Rd., Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy, Minerals and Natural Resources

Form C-103
May 27, 2004

OIL CONSERVATION DIVISION
1220 South St. Francis Dr.
Santa Fe, NM 87505

WELL API NO. 30-045- 34082
5. Indicate Type of Lease STATE <input type="checkbox"/> FEE <input type="checkbox"/>
6. State Oil & Gas Lease No. NMNM-112955
7. Lease Name or Unit Agreement Name TSAH TAH SWD
8. Well Number #11
9. OGRID Number
10. Pool name or Wildcat SWD; MESA VERDE

SUNDRY NOTICES AND REPORTS ON WELLS (DO NOT USE THIS FORM FOR PROPOSALS TO DRILL OR TO DEEPEN OR PLUG BACK TO A DIFFERENT RESERVOIR. USE "APPLICATION FOR PERMIT" (FORM C-101) FOR SUCH PROPOSALS.)	
1. Type of Well: Oil Well <input type="checkbox"/> Gas Well <input checked="" type="checkbox"/> Other	
2. Name of Operator ROSETTA RESOURCES OPERATING LP	
3. Address of Operator 1200 17 th ST., SUITE 770, DENVER, CO 80202	
4. Well Location Unit Letter: N 970' FSL & 1510' FWL Section 11 Township 24 N Range 10 W NMPM SJ County	
11. Elevation (Show whether DR, RKB, RT, GR, etc.) 6,886' GL	
Pit or Below-grade Tank Application <input checked="" type="checkbox"/> or Closure <input type="checkbox"/>	
Pit type: <u>DRILLING</u> Depth to Groundwater: <u>>100'</u> Distance from nearest fresh water well: <u>>1,300'</u> Distance from nearest surface water: <u>>500'</u>	
Pit Liner Thickness: 12 mil Below-Grade Tank: Volume bbls; Construction Material	

12. Check Appropriate Box to Indicate Nature of Notice, Report or Other Data

NOTICE OF INTENTION TO:		SUBSEQUENT REPORT OF:	
PERFORM REMEDIAL WORK <input type="checkbox"/>	PLUG AND ABANDON <input type="checkbox"/>	REMEDIAL WORK <input type="checkbox"/>	ALTERING CASING <input type="checkbox"/>
TEMPORARILY ABANDON <input type="checkbox"/>	CHANGE PLANS <input type="checkbox"/>	COMMENCE DRILLING OPNS. <input type="checkbox"/>	P AND A <input type="checkbox"/>
PULL OR ALTER CASING <input type="checkbox"/>	MULTIPLE COMPL <input type="checkbox"/>	CASING/CEMENT JOB <input type="checkbox"/>	
OTHER: DRILLING PIT <input checked="" type="checkbox"/>		OTHER: <input type="checkbox"/>	

13. Describe proposed or completed operations. (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work). SEE RULE 1103. For Multiple Completions: Attach wellbore diagram of proposed completion or recompletion.

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

SIGNATURE Brian Wood TITLE: CONSULTANT DATE: NOV. 23, 2006

Type or print name: BRIAN WOOD E-mail address: brian@permitswest.com Telephone No.: (505) 466-8120

For State Use Only

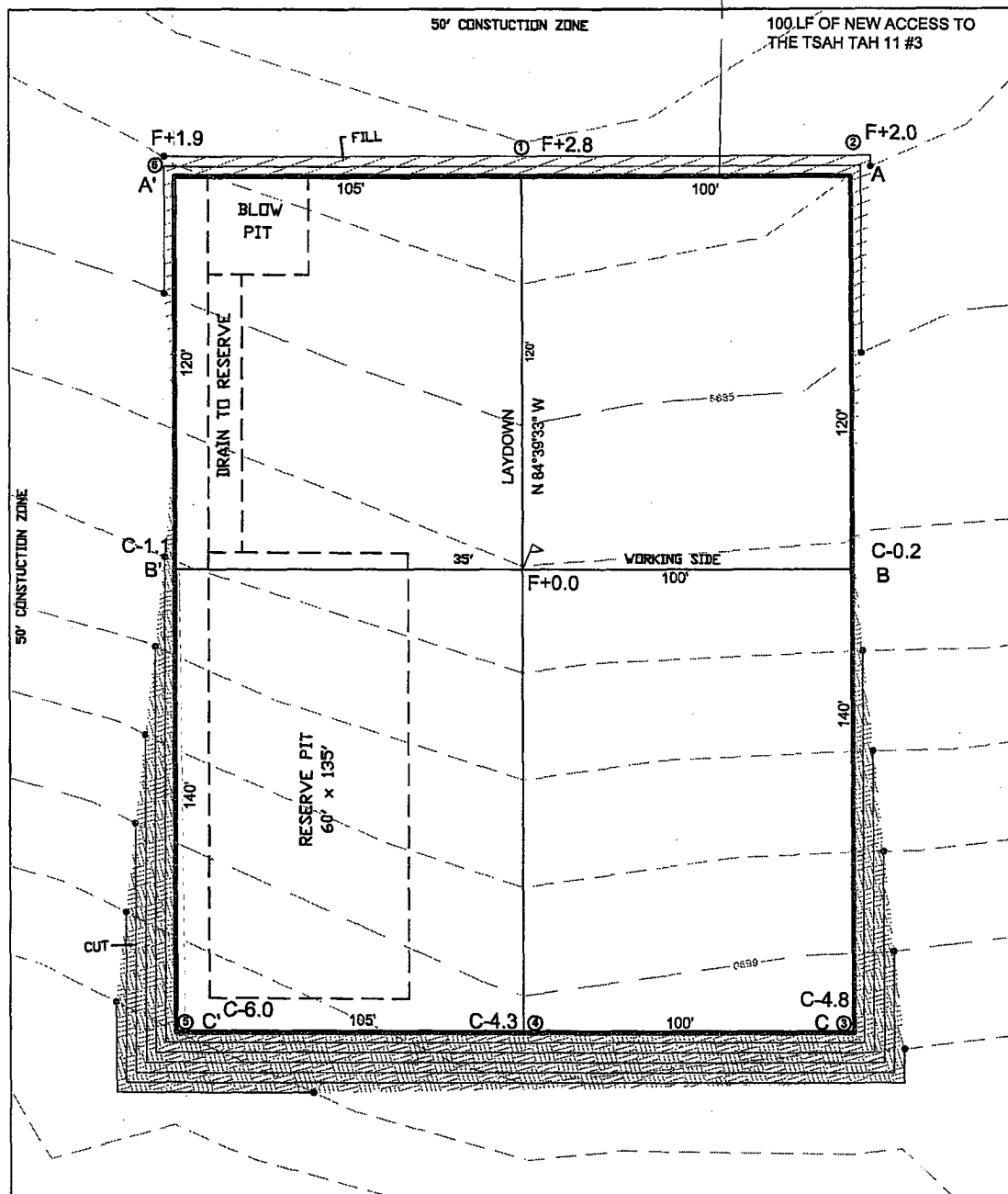
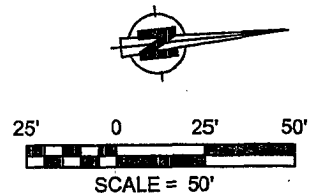
APPROVED BY: [Signature] TITLE: DEPUTY OIL & GAS INSPECTOR, DIST. 4 DATE: JAN 16 2007

Conditions of Approval (if any):

LATITUDE: 36.32392°N
LONGITUDE: 107.86944°W
DATUM: NAD 83

ROSETTA RESOURCES OPERATING LP

TSAH TAH SWD #11
970' FSL & 1510' FWL
LOCATED IN THE SE/4 SW/4 OF SECTION 11,
T24N, R10W, N.M.P.M.,
SAN JUAN COUNTY, NEW MEXICO
GROUND ELEVATION: 6886', NAVD 88
FINISHED PAD ELEVATION: 6886.0', NAVD 88



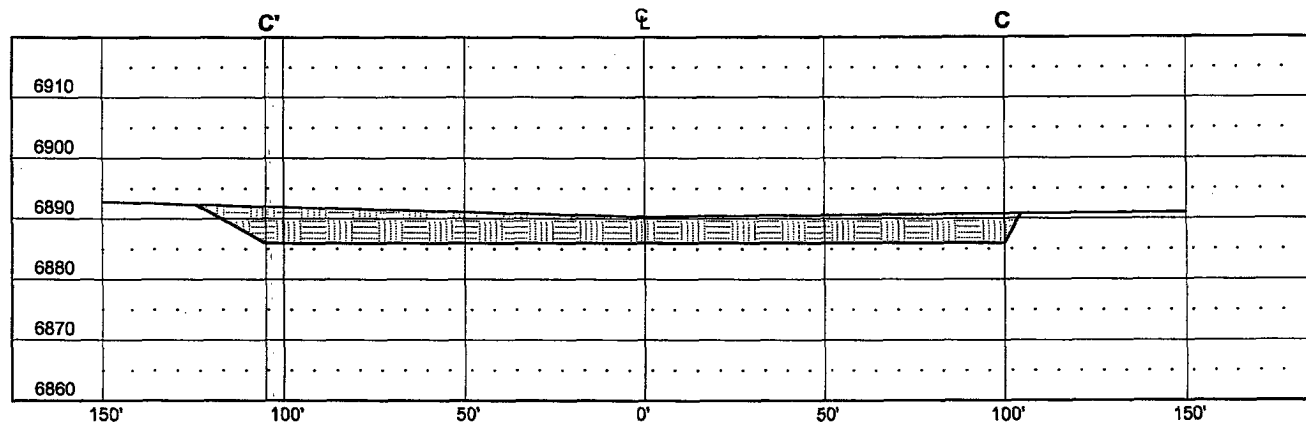
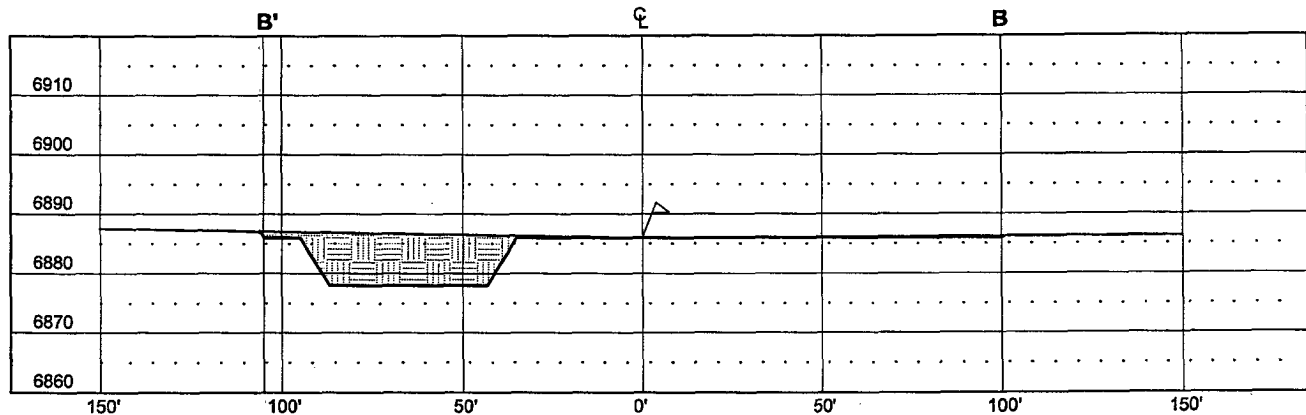
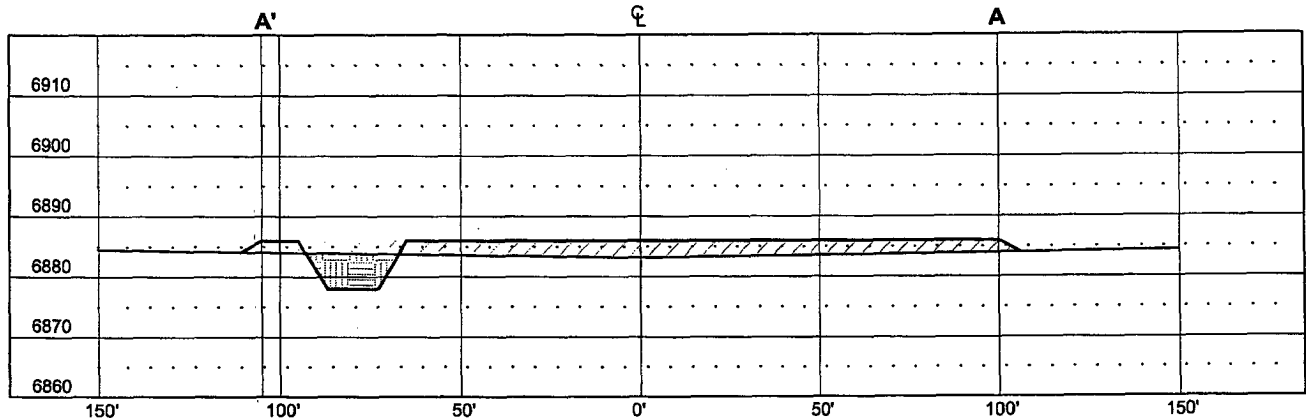
1 FOOT CONTOUR INTERVAL SHOWN
SCALE: 1" = 50'
JOB No.: RRO012
DATE: 09/25/06



Russell Surveying
1409 W. Aztec Blvd. #5
Aztec, New Mexico 87410
(505) 334-8637

ROSETTA RESOURCES OPERATING LP

TSAH TAH SWD #11
 970' FSL & 1510' FWL
 LOCATED IN THE SE/4 SW/4 OF SECTION 11,
 T24N, R10W, N.M.P.M.,
 SAN JUAN COUNTY, NEW MEXICO
 GROUND ELEVATION: 6886', NAVD 88
 FINISHED PAD ELEVATION: 6886.0', NAVD 88



VERT. SCALE: 1" = 30'
 HORZ. SCALE: 1" = 50'
 JOB No.: RRO012
 DATE: 09/25/06



Russell Surveying
 1409 W. Aztec Blvd. #5
 Aztec, New Mexico 87410
 (505) 334-8637

Rosetta Resources Operating LP
Tsah Tah SWD #11
970' FSL & 1510' FWL
Sec. 11, T. 24 N., R. 10 W.
San Juan County, New Mexico

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Drilling Program

1. ESTIMATED FORMATION TOPS

<u>Formation</u>	<u>GL Depth</u>	<u>KB Depth</u>	<u>Elevation</u>
Nacimiento	0'	10'	+6,886'
Ojo Alamo Sandstone	886'	896'	+6,000'
Kirtland Shale	961'	971'	+5,925'
Fruitland Formation	1,386'	1,396'	+5,500'
Pictured Cliffs Sandstone	1,636'	1,646'	+5,250'
Lewis Shale	1,786'	1,796'	+5,100'
Cliffhouse Sandstone	2,411'	2,421'	+4,475'
Menefee Shale	2,986'	2,996'	+3,900'
Point Lookout	4,086'	4,096'	+2,800'
Mancos Shale	4,286'	4,296'	+2,600'
Total Depth (TD)	4,500'	4,510'	+2,386'

2. NOTABLE ZONES

<u>Oil & Gas Zones</u>	<u>Water Zone</u>	<u>Coal Zone</u>
Fruitland	Nacimiento	Fruitland
Pictured Cliffs	Ojo Alamo	

Water zones will be protected with casing, cement, and fresh water weighted mud. Fresh water encountered during drilling will be recorded by depth, cased, and cemented. Oil and gas shows will be tested for commercial potential based on the well site geologist's recommendations.

3. PRESSURE CONTROL

The drilling contract has not yet been awarded, thus the exact BOP model to

Rosetta Resources Operating LP
Tsah Tah SWD #11
970' FSL & 1510' FWL
Sec. 11, T. 24 N., R. 10 W.
San Juan County, New Mexico

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be used is not yet known. (A typical 2,000 psi model is on PAGE 3.) BOP and choke manifold system will be installed and tested to 500 psi before drilling surface casing plug. It will remain in use until the well is completed or abandoned. A safety valve and sub with a full opening valve to fit the drill pipe and collars will be available on the rig floor in the open position at all times for use when kelly is not in use.

All BOP mechanical and pressure tests will be recorded on the driller's log. BOPs will be inspected and opened and closed at least daily to check mechanical working order. Inspections will be recorded on the daily drilling report. Pressure tests will be conducted before drilling out from under all casing strings which are set and cemented in place.

4. CASING & CEMENT

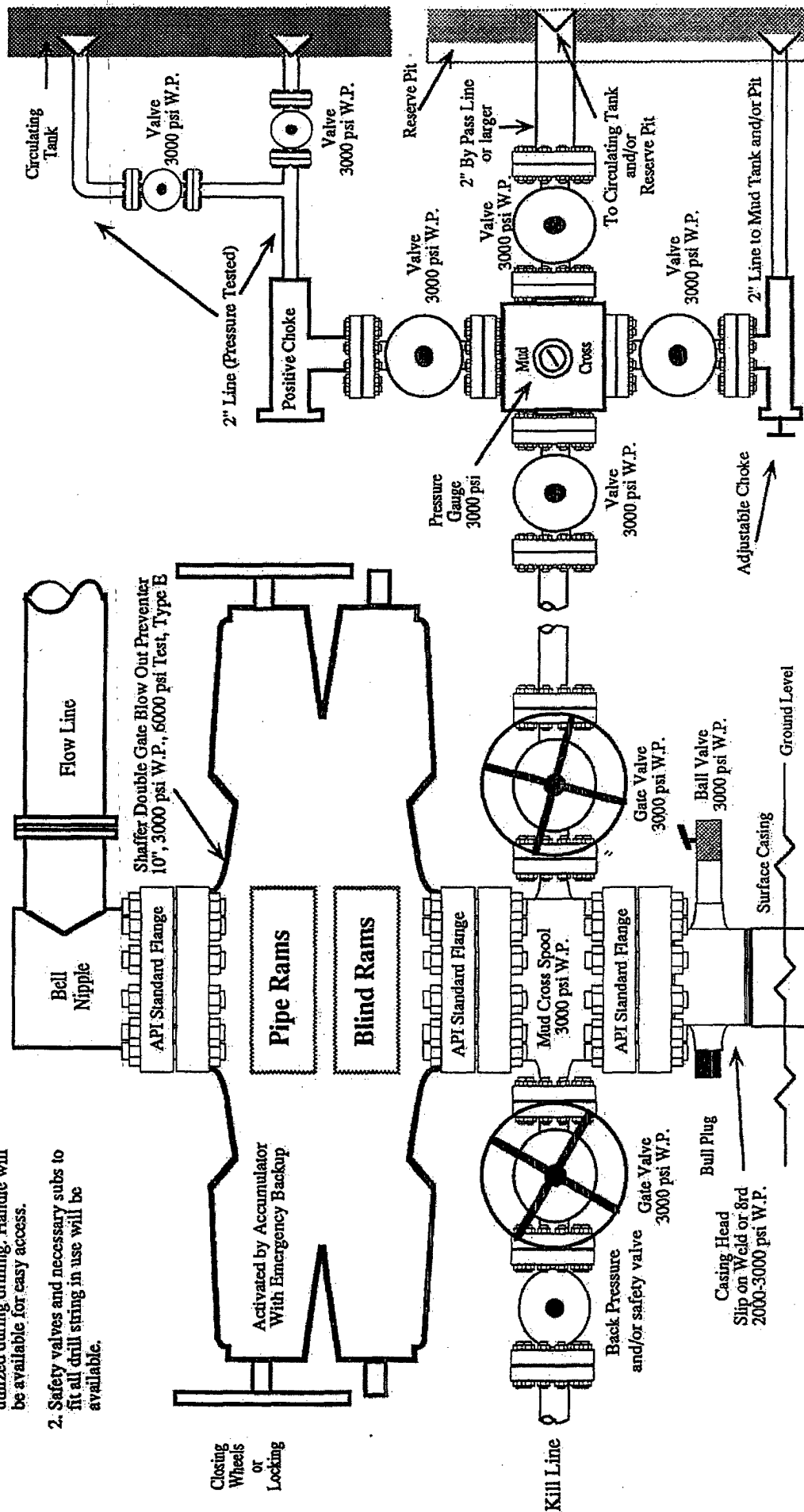
<u>Hole Size</u>	<u>O. D.</u>	<u>Weight</u>	<u>Grade</u>	<u>Type</u>	<u>Age</u>	<u>Setting Depth</u>
12-1/4"	8-5/8"	24#	J-55	S T & C	New	200'
7-7/8"	5-1/2"	15.5#	J-55	S T & C	New	4,500'

Surface casing will be cemented to the surface with ≈ 165 cubic feet (≈ 140 sacks) Class B with 1/4 pound per sack cellophane + 2% CaCl_2 . Yield = 1.18 cubic feet per sack. Weight = 15.6 pounds per gallon. Volume = 100% excess. Centralizers will be installed on the middle of the shoe joint and every other centralizer thereafter. Thread lock the guide shoe and bottom of float collar only. Will use API casing dope.

Production casing will be cemented to the surface with $\approx 1,560$ cubic feet and ≈ 10 centralizers will be used. Volume = 100% excess. Lead with $\approx 1,442$ cubic feet (≈ 700 sacks) Class B with 2% SMS + 1/4 pound per sack cellophane + 5 pounds per sack gilsonite. Lead yield = 2.06 cubic feet per sack. Lead weight = 12.6 pounds per gallon. Tail with ≈ 118 cubic feet (≈ 100 sacks) Class B with 1/4 pound per sack cellophane + 5 pounds per sack gilsonite + 2% CaCl_2 . Tail yield = 1.18 cubic feet per sack. Tail weight = 15.6 pounds per gallon.

2,000 PSI BOP SYSTEM

- 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 in use will be available.



Note: This equipment is designed to meet requirements for a 2-M rating standard per 43 CFR part 3160 (amended). Proper operation and testing of equipment will be carried out per standard. 2,000 psi equipment can be substituted in the drawing to meet minimum requirements per standard.

Rosetta Resources Operating LP
Tsah Tah SWD #11
970' FSL & 1510' FWL
Sec. 11, T. 24 N., R. 10 W.
San Juan County, New Mexico

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5. MUD PROGRAM

A nine pound polymer and fresh water mud system with a viscosity of ≈ 35 will be used. Sufficient material to maintain mud qualities, control lost circulation, and contain a blowout will be available at the well while drilling.

6. CORES, TESTS, & LOGS

No cores or drill stem tests are planned. DIL/GR log may be run from TD to surface. CNL/FSC log may be run over certain intervals.

7. DOWN HOLE CONDITIONS

No abnormal pressures, temperatures, nor hydrogen sulfide are expected. Maximum expected bottom hole pressure will be $\leq 1,800$ psi.

8. OTHER INFORMATION

The anticipated spud date is upon approval. It is expected it will take ≈ 1 week to drill and ≈ 2 weeks to complete the well.