Form 3160-3 (April 2004)

UNITED STATES DEPARTMENT OF THE INTERIOR **BUREAU OF LAND MANAGEMENT**

FORM	APPROVED
	lo. 1004-0137
Expires	March 31, 200

2m?	ίbľ.	
LUI.	7	

|58| Lease Septe 10.4 | NMNM-112955

APPLICATION FOR PERMIT TO D	DRILL OR	REENTER	K	6- If Indian, Allotee or Trib	e Name -	
la. Type of work: DRILL REENTE	ir.		210 FA	7. If Unit or CA Agreement, 1	Name and No.	
ib. Type of Well: Oil Well Gas Well Other	Sin	gle Zone 🚺 M	Multiple Zone	8. Lease Name and Well No. TSAH TAH SWD #1		
2. Name of Operator ROSETTA RESOURCES OPERATING	G LP			9. API Well No. 30-045- 34282		
3a. Address 1200 17th ST., SUITE 770 DENVER, CO 80202	3b. Phone No. (720) 35	(include area coa 59-9144	le)	10. Field and Pool, or Exploratory SWD; MESA VERDE		
4. Location of Well (Report location clearly and in accordance with any At surface 1200' FNL & 1511' FEL At proposed prod. zone SAME	v State requireme		b+ 2.	11. Sec., T. R. M., or Bik. and S	survey or Area	
14. Distance in miles and direction from nearest town or post office* 26 AIR MILES S OF BLOOMFIELD, NM		<u> </u>	ol 2_	12. County or Parish SAN JUAN	13. State NM	
15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any) 191'	16. No. of ac	res in lease	17. Spacin	g Unit dedicated to this well		
18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft. 332' (1 #1)	19. Proposed 4,600'	Depth		BIA Bond No. on file STATE WIDE NMB000371		
21. Elevations (Show whether DF, KDB, RT, GL, etc.) 6,810' GL	22. Approxim	ate date work wi 07/15/2007	ill start*	23. Estimated duration 3 WEEKS		
	24. Attacl	hments				
The following, completed in accordance with the requirements of Onshore	e Oil and Gas (Order No.1, shall	be attached to the	is form:		
 Well plat certified by a registered surveyor. A Drilling Plan. A Surface Use Plan (if the location is on National Forest System I SUPO shall be filed with the appropriate Forest Sprvice Office). 	Lands, the	Item 20 abo 5. Operator ce	ove). ertification	ns unless covered by an existing ormation and/or plans as may be	,	

authorized officer

25. Signature Title CONSULTANT

Name (Printed/Typed) **BRIAN WOOD** Date 04/15/2007

Approved by (Signature)

PHONE: (505) 466-8120

FAX: (505) 466-9682

Name (Printed/Typed)

Title

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.

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)

DRILLING OPERATIONS AUTHORIZED ARE SUBJECT TO COMPLIANCE WITH ATTACHED

NOTIFY AZTEC OCD 24 HRS. PRIOR TO CASING & CEMENT This action is subject to technical and procedural review pursuant to 43 CFR 3 and appeal pursuant to 43 CFR 3185.4



NMOCD

\$ 5/10

State of New Mexico Energy. Minerals & Mining Resources Department OIL CONSERVATION DIVISION 2040 South Pacheco 2017 1 Santa Fe. NM 87505

207 MPR 18 AM 11: 24

MBNDED REPORT

		w=i i			A ←DI			N DI A	ATRECEN	FA
APA Nun	per 1.1000		Pool Code		AUR		MESA	Poo	Nome DUF	OTEH RIM
30-045-2	54282	96	5160			SWD;	MESA	VERI	DEARCH	C. William
Property Code	ade Property Name					Well Number				
-35715 OGRD No.				SAH TA		<u> </u>			<u></u>	• Elevation
239235		- DAGE	TTA DE	Operator SOURCE		TD A TINE	~ I D			68IO.
		* KO3E	IIA NE		face Lo		G. L.F.		•	OOIO
UL or Lot Sec.	Twp.	Rge.	Lot John				Feet Irom>	East/	/Wost	County
В [· · · · · · · · · · · · · · · · · · ·	юw.	2	1200'	$ \cdot $	ORTH	1511	l e	\ST	SAN JUAN
				<u> </u>			From Surface		1	
UL or Lot Sec.	Тир.	Rge.	Lot ldn.	Feet from	ı> Nort	h/\$outh	Feet from>	East/	T20W	County
Dedication Joi	nt ? (Consolidation		<u></u>			Qre	der No.		
• •				•						
N	ALLOWABLE								SEEN CONSO	LDATED
\$ 89:59. M	2630		TANDARD	\$ 89.59		APPROVE 262	d by the Div 16"	/ISKIN		
9 99 20 11			•	0 03 33	<u>"</u>	\		- •		
Z Q. Lot 4 43: ₹	 Lo	ot 3	. Lo	t 2	1200.		Lot 5	N 0.04. W	I hereby of contained I to the besides. Signature	TOR CERTIFICATION sertify that the information herein is true and complete at of the knowledge and
N					NAD deci		(Tree		Printed No	BRIAN WOOD
2665			Ì		decimal of degree 36.34710'N 107.84445'W		2663	Title	CONSULTANT	
								3,	Date	APR. 15, 2007
			1						SURVE	YOR CERTIFICATION
N 0'43' W 2643'	** ca	m BLM/GLO laulated ssumed		TE SOLD PER	9 101° CEIV CONS. CONS.	ED 007 007 008L3	15 16 TI 18 19 20 27	N 0'07' W 2642'	on this planters of or under a same is the of specific parts of Signature of Signat	09/28/06

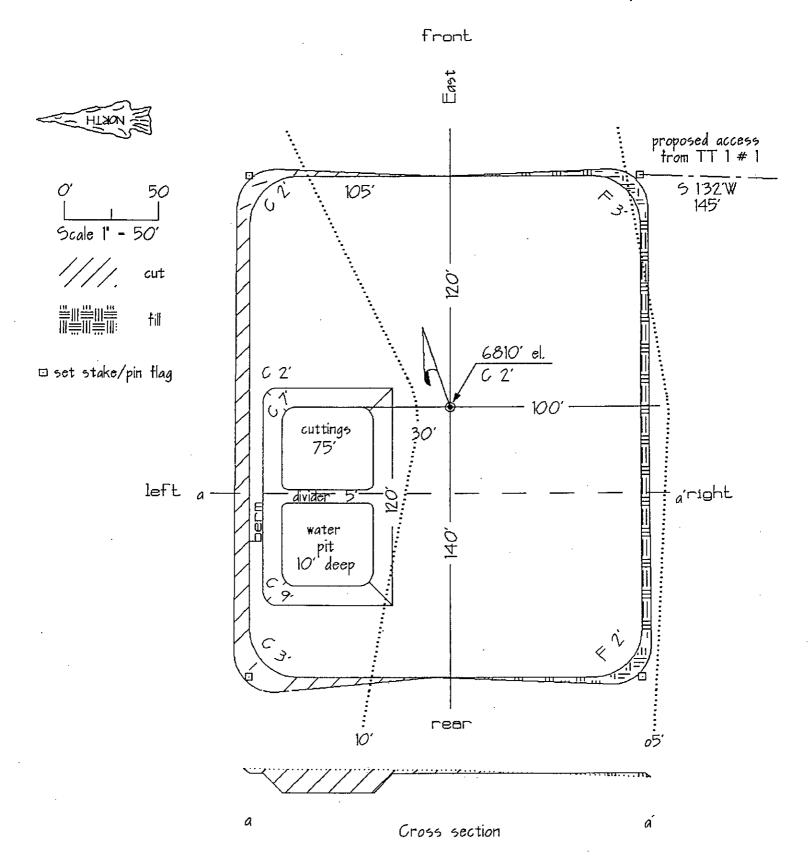
\$ 89'56' W

2600

\$ 89.58. W

2599

Submit 3 Copies To Appropriate District	State of New Me	xico	Form C-103
<u>District I</u> 1625 N. French Dr., Hobbs, NM 88240	Energy, Minerals and Natu	ral Resources	WELL API NO. 34282
<u>District II</u> 1301 W. Grand Ave., Artesia, NM 88210	OIL CONSERVATION	DIVISION	30-0-35-
District III	1220 South St. Fran	icis Dr.	5. Indicate Type of Lease STATE FEE
1000 Rio Brazos Rd., Aztec, NM 87410 District IV	Santa Fe, NM 87	7505	6. State Oil & Gas Lease No.
1220 S. St. Francis Dr., Santa Fe, NM 87505	·		NMNM-112955
·	CES AND REPORTS ON WELLS		7. Lease Name or Unit Agreement Name
(DO NOT USE THIS FORM FOR PROPOS. DIFFERENT RESERVOIR. USE "APPLICATION PROPOSALS.)			TSAH TAH SWD
1. Type of Well: Oil Well	Gas Well Other WATER DISP	OSAL WELL	8. Well Number #1
2. Name of Operator ROSETTA RESOURCES OPERAT	ING LP		9. OGRID Number 239235
3. Address of Operator			10. Pool name or Wildcat
1200 17 th ST., SUITE 770, DENVE	र, CO 80202		SWD; MESA VERDE
4. Well Location	1200) ENT 0, 1811) ET	`	
Unit Letter: LOT 2	1200' FNL & 1511' FE		ND (D) (CAN WIAN County
Section 1			NMPM SAN JUAN County
	11. Elevation (Show whether DR, 6,810' GL	KKB, KI, GK, eic.	
Pit or Below-grade Tank Application or			
Pit type: <u>DRILLING</u> Depth to Groundwat	er: <u>>100'</u> Distance from nearest fresh wat	ter well: <u>>1,000'</u> Dista	ance from nearest surface water: 200'
Pit Liner Thickness: 12 mil	Below-Grade Tank: Volume	bbls; Con	struction Material
12. Check	k Appropriate Box to Indicate	e Nature of No	tice, Report or Other Data
NOTICE OF INT	PLUG AND ABANDON CHANGE PLANS	REMEDIAL WOR	RILLING OPNS. P AND A
PULL OR ALTER CASING	MULTIPLE COMPL	CASING/CEMEN	NT JOB
OTHER: DRILLING PIT		OTHER:	
			d give pertinent dates, including estimated date of th wellbore diagram of proposed completion or
•			
I hereby certify that the information at has been/will be constructed or closed accord	poyle is true and complete to the bes	t of my knowledge	e and belief. I further certify that any pit or below-grade tan
SIGNATURE Salas		NSULTANT	DATE: APRIL 15, 2007
Type or print name: BRIAN WOOD	E-mail address: brian@pern	mitswest.com	Telephone No.: (505) 466-8120
For State Use Only	Carrier Service	TV 00 0 040 0	MCDECTOD DICT AN / /
APPROVED BY: Conditions of Approval (if any):	TITLE	INT UIL & GAS II	NSPECTOR, DIST. & DATE 5/10/07



Rosetta Resources Operating LP Tsah Tah SWD #1 1200' FNL & 1511' FEL Sec. 1, T. 24 N., R. 10 W. San Juan County, New Mexico

Drilling Program

1. ESTIMATED FORMATION TOPS

<u>Formation</u>	<u>GL Depth</u>	KB Depth	<u>Elevation</u>
Nacimiento	0'	10'	+6,810'
Ojo Alamo Sandstone	820'	830'	+5,990'
Kirtland Shale	910'	920'	+5,900'
Fruitland Coal	1,660'	1,670'	+5,150'
Pictured Cliffs Sandstone	1,710'	1,760'	+5,100'
Lewis Shale	1,810'	1,820'	+5,000'
Cliff House Sandstone	2,180'	2,190'	+4,630'
La Ventana Tongue	2,580'	2,590'	+4,230'
Menefee	3,295'	3,305'	+3,515'
Point Lookout	4,185'	4,195'	+2,625'
Mancos Shale	4,510'	4,520'	+2,300'
Total Depth (TD)	4,600'	4,610'	+2,210'

2. NOTABLE ZONES

Oil & Gas Zones	<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.

Application will be made to the NMOCD for approval to dispose of produced water into the La Ventana, Menefee, and Point Lookout zones.



Rosetta Resources Operating LP Tsah Tah SWD #1 1200' FNL & 1511' FEL Sec. 1, T. 24 N., R. 10 W. San Juan County, New Mexico

3. PRESSURE CONTROL

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

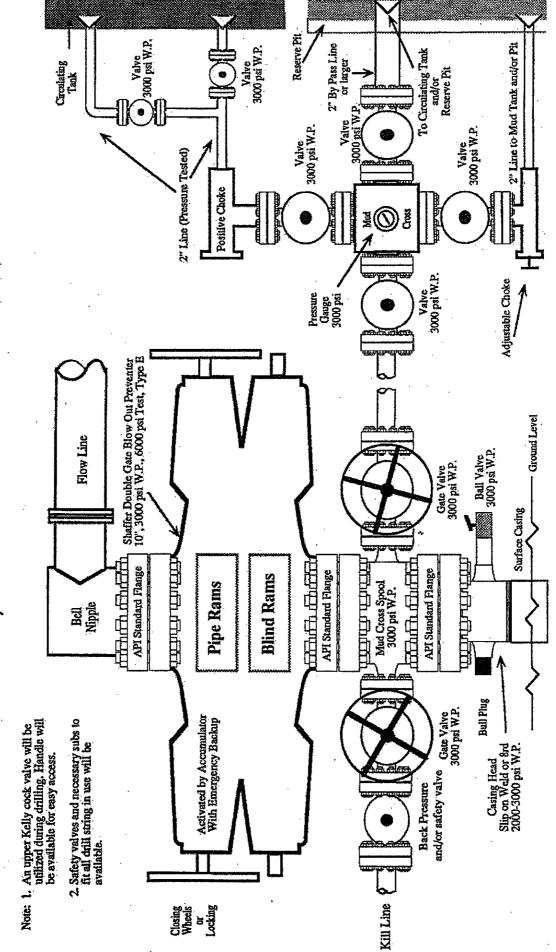
4. CASING & CEMENT

<u>Hole Size</u>	<u>O. D.</u>	<u>Weight</u>	<u>Grade</u>	<u>Type</u>	Age.	<u>Setting Depth</u>
12-1/4"	8-5/8"	24#	J-55	ST&C	New	200'
7-7/8"	5-1/2"	15.5#	J-55	ST&C	New	4,600'

Surface casing will be cemented to the surface with ≈ 165 cubic feet (≈ 140 sacks) Class B with 1/4 pound per sack cellophane + 2% CaCl₂. 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.



2,000 PSI BOP SYSTEM



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 #1 1200' FNL & 1511' FEL Sec. 1, T. 24 N., R. 10 W. San Juan County, New Mexico

Production casing will be cemented to the surface with $\approx 1,600$ cubic feet and ≈ 10 centralizers will be used. Volume = 100% excess. Lead with $\approx 1,482$ cubic feet (≈ 720 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% CaCl₂. Tail yield = 1.18 cubic feet per sack. Tail weight = 15.6 pounds per gallon.

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 $\leq 1,975$ 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.

