### **State of New Mexico**

# **Energy, Minerals and Natural Resources Oil Conservation Division**

## RECEIVED

1220 S. St Francis Dr.

MAR 23 2009

Santa Fe, NM 87505

APP	HOBB PLICATION	SPRP	ERMIT T	O DRILL,	RE-EN	NTER	, DEE	PEN	, PLUGBA	CK	K, OR A	ADD A ZONE
				e and Address			<del></del>	_	Í		. OGRID	
		RO					ļ		1523	74		
P. O. BOX 1981 MIDLAND , TX 79702											3. API N	umber
	,	14.	IIDEAND,	1A 19102					30-	E	> 2 5	- 39377
	4. Property Cod	e	···		5. Proper	ty Name		-				6. Well No
	37581				LANGI	LEY 21						001
		7		7. S	urface	Loca	tion					
UL - Lo	t Section	Township	Range	Lot Idn	Feet F	rom	N/S Li	ne	Feet From	E	E/W Line	County
Н	21	23S	36E	Н	198	30	N	[	, 800		Е	LEA
	,0			8. P	ool Inf	forma	tion					
Wildcat	Mar	row										0
	,			Addition	nal We	ll Info	rmati	on		,	•	
9. W	ork Type	10. Wel	l Туре	r	Cable/Rota				. Lease Type		13. Gro	und Level Elevation
Ņew	Well	GA	S.					<u> </u>	Federal Z			3450
14.	Multiple	15. Propo	sed Depth	10	6. Formati	on		1	17. Contractor		<del></del>	18. Spud Date
:	N	11	500		Morrow	<b>v</b>						
· De	epth to Ground w	ater		Distance f	from neare	est fresh	water we	ll .		D	istance to	nearest surface water
	r: Synthetic [] ed Loop System		mils thick	Clay Pit Vo	olume:		bbls Dr			Dies	el/Oil-basi	ed [ ] Gas/Air [ ]
<u> </u>	ed Eoop System			D 10		1.0				D100	on on ous	001 / 000/111 ()
T T	II-1- C:	Carina 7		Proposed C					gram Sacks of C	· · · · ·	ant I	Estimated TOC
Type	Hole Size	Casing T		Casing Weigh 48	ivit	Setting Depth Sacks of C				ent	Estimated TOC	
Surf Int1	12.25	9.62:		40		5500 .1640						
Prod	8.75	5.5		17			11500 1240					5000
<u> </u>			Cosino	g/Cement Pi	roaren	v Add	litiona	l Co	mmants		· · · · · · · · · · · · · · · · · · ·	
			Casing	g/Cement I i	ogran	ı. Auu	шопа	1 (0)	illilents .			
Please se	e the attached	drilling pro	ogram.									
			-									
			Pı	roposed Blo	wout P	reven	tion P	rogr	am			
	Туре	,		king Pressure					essure		N	lanufacturer
	Annular			1000	_			100	. 0			3M
I	DoubleRam			3500				350		╄		5M
	Annular			3150				315	0	Т	·	5M
I hereby ce	ertify that the info	ormation give	n above is tru	e and complete to	o the		OII	CO	NSERVA	TI(	JN DI	VISION
I hereby certify that the information given above is true and complete to the best of my knowledge and belief.						OIL	CO	NOEKVA	110	/ // DI	VISION	
I further certify that the drilling pit will be constructed according to NMOCD guidelines 4 general permit , or an (attached) alternative					ative			1	2111	//	M	
OCD-approved plan .							ved By:		A GINDL	X	/ISOF	
Printed 1		rap (	operas	100			OISTF ved Dat		M SUPE	E		
Title: Email A	ddress: Ca	11100	-11 NW	SOU ICE	2000					EX	oiration l	Date:
Date:	29/09	nagos	Phone:		171	-A	PR	<del>n 3</del>	<del>2009</del> –			
<u> </u>	- 101	<u>-</u>		<u>- ~ 0 // // s</u>	7						·	

### RECEIVED

DISTRICT I DISTRICT 1
1625 N. FRENCH DR., HOBBS, NM 88244MAR 2 3 2009

State of New Mexico Energy, Minerals and Natural Resources Department

Form C-102 Revised October 12, 2005 Submit to Appropriate District Office

DISTRICT II 1301 W. GRAND AVENUE, ARTESIA.

HOBBSUCOL CONSERVATION DIVISION 1220 SOUTH ST. FRANCIS DR. Santa Fe, New Mexico 87505

State Lease - 4 Copies Fee Lease - 3 Copies

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

DISTRICT IV 1220 S. ST. FRANCIS DR., SANTA FR, NM 87505	WELL LOCATION AND	ACREAGE DEDICATION	PLAT	☐ AMENDED REPORT
3D.025-39377	Pool Code	wildcat	Pool Name	
Property Code	Prop LANG		Well Number	
0GRID No. 152374	-	rator Name ERATING, INC.		Elevation 3450'
	Surfa	ce Location		

#### Feet from the North/South line Feet from the East/West line County Lot Idn UL or lot No. Section Township Range 1980 NORTH 800 **EAST** LEA 21 36-E 23 - SН

#### Bottom Hole Location If Different From Surface North/South line Feet from the East/West line County Lot Idn Feet from the UL or lot No. Section Township Range Consolidation Code Order No. Joint or Infill Dedicated Acres 320

NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED

OR A	NON-STANDARD UNIT HAS BEI	EN APPROVED BY THE	DIVISION
		Percc	OPERATOR CERTIFICATION  I hereby certify that the information 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 mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered
	GEODETIC COORDINATES NAD 27 NME	800'	Signature Date  Candy Cope and  Printed Name
	LAT.=32.291682° N LONG.=103.263721° W		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.
			Date Surveyan ME LA Signature & Scal of Professional Surveyor
			Certificate No. GARY EIDSON 12841 RONALD J. EIDSON 3239

ROCA Operating, LLC Langley No. 21 1980' FNL & 800' FEL S21, T23S, R36E Lea County, NM

- 1. Ground Elevation above Sea Level: 3450'
- 2. Proposed drilling depth: 11500'

#### 3. Estimated tops of geological markers:

Rustler	1215'
Tansill	2960'
Yates	3120'
Seven Rivers	3350'
Queen	<u> </u>
Grayburg	√ 3890′
Glorietta	5940'
Abo	7920'
Abo Reef	8150'
Strawn	9360'
Atoka	10770'
Barnett	11460'

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MAR 23 2009 HOBBSOCD

4. Possible mineral bearing formations:

Glorietta	0
Strawn	G/O
Atoka	G

#### 5. Casing Program

Hole size	Interval	Csg OD	<u>PPF</u>	<u>Grd</u>	<u>Conn</u>	<u>TOC</u>	<u>DFc</u>	<u>DFв</u>	<u>DF T</u>
17-1/2"	0' - 1250'	13-3/8"	48#	H40	STC	Surf	1.26	2.27	2.01
12-1/4"	0' - 4500'	9-5/8"	40#	J55	LTC	Surf	1.22	1.41	1.62
12-1/4"	4500' - 5500'	9-5/8"	40#	HCK55	LTC	Surf	1.64	1.28	4.96
8-3/4"	0' - 2200'	5-1/2"	17#	L80	BTC		6.11	1.25	1.60
8-3/4"	2200' - 11500'	5-1/2"	17#	L80	LTC	5000'	1.17	1.25	1.60

#### 6. Cementing and Setting Depth

1250'

13-3/8" Surface

13-3/6	Surface	1230	Light C w/ 5 pps gilsonite & 1/4# FLA (12.8 / 1.84) and <b>300 sx</b> C w/ 2% CaCl <sub>2</sub> (14.8/1.35).
9-5/8"	Intermediate	5500'	9-5/8" 40# J55/HCK55 LTC w/ DV tool @ 4000' and cement to surf w/ 1.) <b>355 sx</b> 50:50:10 Poz:C:Gel w/ 3# gilsonite & 1/4# FLA (11.9/2.48) and <b>170 sx C</b> (14.8/1.33) 2.) <b>915 sx</b> 50:50:10 Poz:C:Gel w/ 3# gilsonite & 1/4# FLA (11.9/2.48) and <b>200 sx C</b> (14.8/1.33)
5-1/2"	Production	11500'	5-1/2" 17# L80 B/LTC w/ DV tool @ ~ 7000' and cement to surf w/

1.) **385 sx** Interfill H (50:50:10 Poz:H:Gel) w/ 0.2% HR-601 (11.9/2.48) and **470 sx** H w/ 0.6% LAP-1, 0.3% CFR-3, 0.2% HR-5 & 0.25# D-Air 3000 (15.6/1.20)

13-3/8" 48# H40 STC into Rustler and cement to surface with 710 sx

2.) **285 sx** Interfill H (50:50:10 Poz:H:Gel) w/ 0.2% HR-601 (11.9/2.48) and **100 sx** H w/ 0.3% CFR-3, 0.2% HR-5 & 0.25# D-Air 3000 (15.6/1.20)

#### 7. Pressure Control Equipment:

After setting 13-3/8" casing and installing 3M casing head, NU 13-5/8" 3M drilling spool and annular. Test BOP and casing to 1000 psi using clear fluid and rig pumps.

After setting 9-5/8" casing and installing 5M casing spool, NU 11" 5M drilling spool, double ram and annular. Test stack to 3500 psi and casing to 3150 psi using clear fluid and  $3^{rd}$  party tester.

### 8. Proposed Mud Circulating System

Interval	Mud Wt.	FV	<u>FL</u>	Type Mud System
0' - 1250'	8.4 - 8.9	28 - 34	NC	Fresh water spud mud. Add paper for seepage.
1250' - 5500'	10.0 - 10.2	NC	NC	Saturated brine. Salt gel / paper and / or PHPA sweeps for seepage and hole cleaning.
5500' - 9300'	8.5 – 8.7	NC	NC	Fresh water. Viscous bentonite-paper and / or PHPA sweeps for seepage and hole cleaning.
9300' - 11500'	8.6 – 9.0	32 - 34	<12	Reduce FL w/ additions of bentonite, pac and starch. Spot high-vis pill at TD.

ECTION LEA COL	21, TOWNSHI UNTY,	IP 23 S	SOUTH, R	PANGE	36	EAST, NEV	N.M.P.M., V MEXICO
			600'				
		C	O' NORTH DFFSET 8447.4' □				normy
,009	150' WEST OFFSET □ 3446.1'	ELE LAT. = 3	ELEY 21 #1 O V. 3449.7' 82.291682° N 103.263721° W		150' □ OFF □ 344		,009
			□ O' SOUTH OFFSET 3441.0'				
		-	600'		·		
	TO LOCATION						
AND COUNT WEST ON C MILES. TURI 0.7 MILES.	INTERSECTION OF STATE IN Y RD. E11 (TEAGUE SWIT OUNTY ROAD E11 APPRO, N LEFT AND GO SOUTHWE VEER RIGHT AND GO WES	TCH), GO X. 4.5 EST APPROX. ST APPROX.	100	0	Scale:1"	100 '=100'	200 Feet
APPROX. O. EAST APPRO	TURN RIGHT AND GO NOI 15 MILES. TURN RIGHT A DX. 0.15 MILES TO A P. ION IS APPROX. 513 FEE PROVIDING SURVEYING SERV SINCE 1946	ND GO & A. PAD. T NORTH.	LC AND 8	LA OCATED 1981 OO FEET FR NSHIP 23 S	INGLEY 2 O FEET F POM THE COUTH, RA	1 #1 WELL FROM THE NORT EAST LINE OF ANGE 36 EAST, NEW MEXICO.	TH LINE SECTION 21,
1 1		MPANY	<u> </u>			Charl 1	
	OHN WEST SURVEYING CO. 412 N DAL PASO		Survey Date	: 5/20/0	ואל	Sheet 1	of 1 Sheets
	OHN WEST SURVEYING CO. 412 N DAL PASO HOBBS, N.M. 88240 (505) 393–3117		Survey Date: W.O Number			Sheet 1 By: LA	Rev 1:

## VICINITY MAP

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	22	23	24	19	20	21	22	23	24	19	20	21	ST. 207
	27	26	25	30	29	28	27	26	25	30	ESO KINQ SA	28	
	34	35	36	31	32	33	34	35	36	31	32	33	34 E17
	3	S E51	1 []	TEAGUE SWITCH	5	4	3	2	1	6	5	/s	IJŔĬĸĬŤ
	10	11	12	TEAGUE 2	8	9	10	11	12	7	8 /0,	9	
	15	14	13	18	LAN	NGELY 21	#1	14	13	18	17	16	
	<b>S</b> S	23	24	19	20	E11	22	23	TEAGUE S	WITCH 19	- 20	21	
	27	26	25	30	29	58	27	26	25	30	29	28	
	34	35	36	31	35	33	5)3m33	35	DEEPWELL 36	S 31	Ω 35	33	
	3	5	1	6	5	4	3	2	1	6	1. S. Z. Z.	4	
	10	11	12	7	8	9	10	11	12	7	8	9	
	15	14	13	18	17	16	15 IS DEEPWELLS	14	13 COOPER	18 EMETERY		16 EAST	15
								-			÷		

SCALE: 1" = 2 MILES

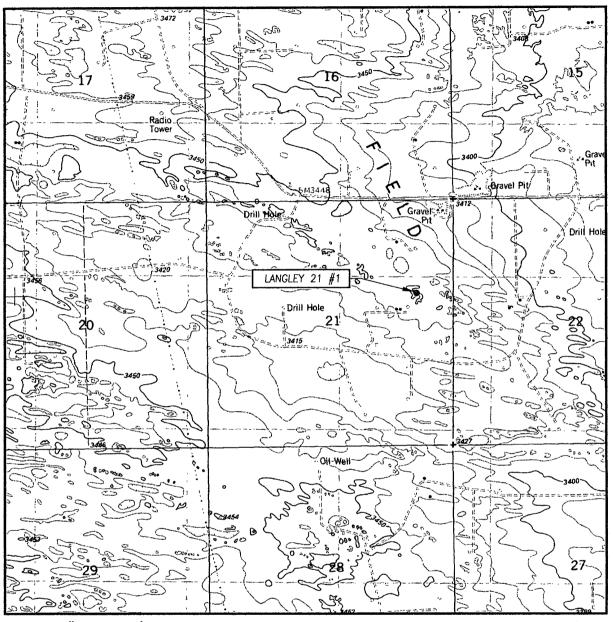
SEC. 21	TWP. <u>23-S</u> RGE. <u>36-E</u>	
SURVEY	N.M.P.M.	
COUNTY	LEA STATE NEW MEXIC	<u>CO</u>
DESCRIPTION	N 1980' FNL & 800' FL	EL
ELEVATION_	3450'	
OPERATOR_	ROCA OPERATING, INC.	
LEASE	LANGLEY 21	



PROVIDING SURVEYING SERVICES
SINCE 1946
JOHN WEST SURVEYING COMPANY
412 N. DAL PASO
HOBBS, N.M. 88240
(505) 393-3117



## LOCATION VERIFICATION MAP



SCALE: 1" = 2000'

CONTOUR INTERVAL: 10' EAST LAKE, N.M.

SEC. 21 TWP. 23-S RGE. 36-E

SURVEY N.M.P.M.

COUNTY LEA STATE NEW MEXICO

DESCRIPTION 1980' FNL & 800' FEL

ELEVATION 3450'

OPERATOR ROCA OPERATING, INC.

LEASE LANGLEY 21

U.S.G.S. TOPOGRAPHIC MAP
EAST LAKE, N.M.



PROVIDING SURVEYING SERVICES
SINCE 1946
JOHN WEST SURVEYING COMPANY
412 N. DAL PASO
HOBBS, N.M. 88240
(505) 393-3117

# ROCA Operating, Inc. – Langley 21 No. 1 Pad Lay-Out w/ Reserve Pits

