District I
1625 N French Dr. Hobbs, NM 88240
District II
1301 W Grand Avenue, Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410

1220 S St. Francis Dr , Santa Fe, NM 87505

District IV

# State of New Mexico Energy Minerals and Natural Resources

Form C-101 May 27, 2004

Oil Conservation Division Conservation Conservat

JUGBACK, OR <u>ADD A ZONE</u> APPLICATION FOR PERMIT TO DRILL, RE-ENTER, DEEPEN, PL Operator Name and Address Mar Oil and Gas Corporation PO Box 5155 Santa Fe, NM 87502 Property Code 32471 roperty Name SFPRR Proposed Pool 1 10 Proposed Pool 2 Sawyer, San Andres, West Surface Location UL or lot no Section Township Lot Ide Range Feet from the North/South line Feet from the East/West line County 33 G 98 37E 2000 1893 East 8 Proposed Bottom Hole Location If Different From Surface UL or lot no Section Township Range Feet from the North/South line East/West line Feet from the County 33 37E 1129 North 3251 East Additional Well Information 11 Work Type Code Well Type Code Cable/Rotary Lease Type Code 15 Ground Level Elevation 3974 16 Multiple Proposed Depth 18 Formation Ontractor Spud Date 6181ft MTD San Andres Unknown ASAP Depth to Groundwater 50-400 ft Distance from nearest fresh water well >1000ft Distance from nearest surface water > 1 mile Liner Synthetic X 12 mils thick Clay Pit Volume 1000 bbls Drilling Method Closed-Loop System Fresh Water X Brine Diesel/Oil-based Gas/Air <sup>21</sup> Proposed Casing and Cement Program Hole Size Casing Size Casing weight/foot Setting Depth Sacks of Cement Estimated TOC 12.250 8 625 24#/fì 430 250 Surface <u>7 785</u> 4.5  $10.5 \# / \Omega$ 5018 1000 Surface Describe the proposed program. If this application is to DEEPEN or PLUG BACK, give the data on the present productive zone and proposed new productive zone Describe the blowout prevention program, if any. Use additional sheets if necessary Well fluids will be contained in steel pit and disposed in NMOCD permitted disposal well. Drill cuttings will be hauled to permitted facility Mar Oil and Gas Corporation purposes to set whipstock at 4421ft in 4 1/2" casing cut window in casing and drill 500ft curved radius to TVD of 4921ft continue drilling horizontally in a northwesterly direction to 6181ft measured depth. Maximum TVD 4971ft BHL 1129 FNL X 3251 FEL, Unit Letter "C", Section 33, T9S, R37E, Lea County, NM Attached C 102, Wellbore diagram, Horizontal calculations 23 I hereby certify that the information given above is true and complete to the best of my knowledge and belief I further certify that the drilling pit will be OIL CONSERVATION DIVISION constructed according to NMOCD guidelines X, a general permit or an (attached) alternative OCD-approved plan Approved by Signature Printed name Billy (Bill) E. Prichard Title Field Supervisor E-mail Address billy@pwllc.net 575-390-9100

District I
1625 N. French Dr., Hobbs, NM 88240
District II
1301 W. Grand Avenue, 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 & Natural Resources Department
OIL CONSERVATION DIVISION

1220 South St. Francis Dr.

Santa Fe, NM 87505



Submit to Appropriate District Office MAY Z U ZOBrate Lease - 4 Copies



WELL LOCATION AND ACREAGE DEDICATION PLAT

	API Numbe 30-025-2555			Pool Code 55490		Pool Name Sawyer; San Andres; West					
<sup>4</sup> Property 32471				SFPRR				<sup>6</sup> Well Number #022			
OGRID 151228				<sup>8</sup> Operator Name Mar Oil and Gas Corp. PO Box 5155 Santa Fe,NM 87502				Elevation 3974 GL			
					<sup>10</sup> Surface L	ocation					
UL or lot no. G	Section 33	Section Township 33 9S				Lot Idn Feet from the 2000		North/South line North	Feet from the	East/West line East	County Lea
			<sup>11</sup> Bo	ttom Hole	Location If	Different From	Surface				
UL or lot no. C			Range 37E	Lot Idn	Feet from the	North/South line North	Feet from the 3125	East/West line East	County Lea		
Dedicated Acre 160	S Joint o	r Infill	Consolidation (	Code 15 Ord	er Na.			I	<u> </u>		

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	BHL 1129 FNL X 3251 FEI	L, UL C, Sec 33, T9S R	37E	17 OPERATOR CERTIFICATION  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 dryssym.
				Signature Date  Billy E. Prichard  Printed Name
	Surface Location 2000 FNL X 1893 FE	L, UL G, Sec 33, T9S,	R37E	18SURVEYOR 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 Original Survey Plat on file with NMOCD
				Date of Survey Signature and Seal of Professional Surveyor.

### SFPRR # 22 Wellbore sketch

Surface location 2000 FNL X 1893 FEL,Unit Letter G Section 33,T9S, R37E Bottom Hole Location

1129 FNL X 3251 FEL, Unit Letter C, Section 33, T9S,R37E

# RECEIVED

8002 U Z YAM

HOBBS OCD

8 5/8" 24 # at 430ft

Cmt with 250sx C

Cmt Circulated to surface

DV Tool at 2645ft

TOC calculated at 4004 feet

Horizontal Drain lateral 1000ft northwesterly c

Perfs 4922-4986ft

4 1/2" 10.5# csg at 5018ft Cmt in 2 stages with 1100sx cmt

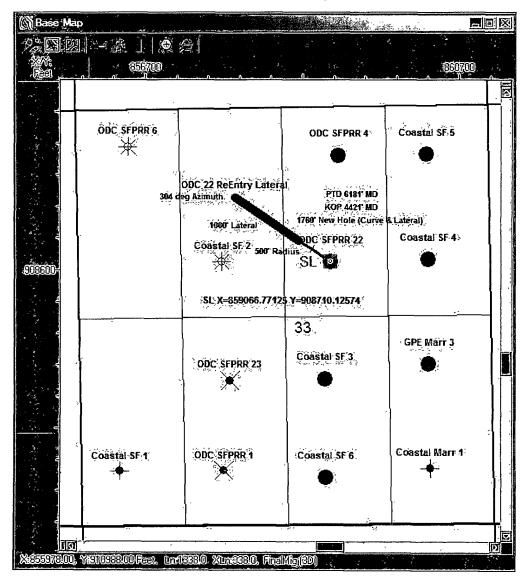
# San Andres ODC SFPRR 22 Re-entry Lateral Well

#### Well Plan - 1 x 1000' Lateral, w/ 500' Radius

PTD 6181' MD - KOP 4421' MD - New Hole 1760'

(In Blue, 1"=1000' Orig CLP Export, By J Sporl, 4-30-8)

T9S-R37E-S33 - Lea County, NM





## San Andres - ODC SFPRR 22 Re-entry Lateral Well

**Directional Plan (First Pass, with Targets)** 

#### Surface Location: X=859066.77125 / Y=908710.12574

(NM East 3001 - NAD27, T9S-R37E-S33, Lea County, New Mexico) Surface Elevation (ODC 22 Scout Ticket) - 3974' ASL - 3985' KB READY TO PERMIT

### Re-entry Lateral - 500' Radius - 1000' Lateral Length - 2.87 deg Lateral Angle

Oil Prone (Near Crestal) to Gas Prone (Crestal) - 2 Fracture Targets - Bypassed Gas and Attic Oil
The ODC SFPRR 22 is actively producing at 5 BOPD + 15 MCFD
The offset Sun 1 (Best BOE Producer) due west is actively producing at 100 MCFD

#### INPUT PARAMETERS

KB	3985
Target 1	-936
BHL Target	-986
Drop, ft	50

Surface Elevation	3974
Radius of Curvature	500.
Azımuth	, 303.968
Lateral Length	. <b>√ 1000</b>
Lateral Angle	2.866

SS-TVD	TVD	RADIAL DIST	AZIM	HOLE	TARGET	MD
3985	0	0	303.968		КВ	0
3974	11	0	303.968	Vertical Hole	Ground Level	
0	3985	0	303 968		Sea Level	
-436	4421	0	303.968		KOP	4421
-522.825	4507.825	7.595	303.968			
-607.010	4592.010	30 155	303 968	)		
-686.000	4671.000	66.985	303.968			
-757.395	4742.395	116.980	303.968	}		
-789 555	4774 555	146.445	303 968	Curved Hole		
-819.020	4804.020	178.605	303 968			
-869.015	4854.015	250.000	303.968			
-905.845	4890.845	328 990	303.968			
-928.405	4913.405	413.175	303.968	Lateral Hole ↓		
-935.775	4920.775	485.000	303.968	0	Target 1 - Top SA-P1 Dolomite	760
-947.829	4932.829	725.000	303.968	240.000	Lease Line	
-959.883	4944.883	965.000	303.968	480.000	Target,Fracture 1	
-967.417	4952.417	1115.000	303.968	630.000	Target Fracture 2	
-986.000	4971.000	1485.000	303.968	1000.000	BHL Target - Mid SA-P1b (20' below Top)	1000
					PTD	6181
					New Hole (Curve & Lateral)	1760

#### Notes:

Input Values in Violet

PBHL Target -986' is 54' updip to ML OWC -1040', and 7' downdip to ML GOC in SA-P1b Dolomite.

Good fracture porosity expected since the Lateral Hole is entirely within a dim area on the Top Dolomite amplitude extraction;

le. To dnll obliquely at the convergence of two fracture swarms on the structural crest of the field

By. J. Sport 5-1-8

