

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

State of New Mexico  
Energy Minerals and Natural Resources

Oil Conservation Division  
1220 South St. Francis Dr.  
Santa Fe, NM 87505

Form C-101  
May 27, 2004

RECEIVED  
MAY 31 2006  
DOU-ARTECO

Submit to appropriate District Office

☐ AMENDED REPORT

APPLICATION FOR PERMIT TO **DRILL**, RE-ENTER, DEEPEN, PLUGBACK, OR ADD A ZONE

Operator Name and Address Parallel Petroleum Corp. 1004 N. Big Spring Street, Suite 400, Midland, TX. 79701		OGRID Number 230387
Property Code 35788	Property Name Chatter Box 1823-19 State Com	APF Number 30-015-34917
Proposed Pool 1 Unders Four Mile Draw; Wolfcamp		Proposed Pool 2

7 Surface Location									
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
1	30	18S	23E		300	North	742'	West	Eddy

8 Proposed 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
1	19	18S	23E		660'	North	742'	West	Eddy

Additional Well Information				
11 Work Type Code N	12 Well Type Code O & G	13 Cable/Rotary R	14 Lease Type Code P	15 Ground Level Elevation 4066'
16 Multiple No	17 Proposed Depth 9058MD, 4550TVD	18 Formation Wolfcamp	19 Contractor NA	20 Spud Date NA
Depth to Groundwater 460'		Distance from nearest fresh water well 1000'		Distance from nearest surface water 2000'
Pit: Liner: Synthetic X 12_mils thick Clay <input type="checkbox"/> Pit Volume: 25,000 bbls Drilling Method: Closed-Loop System <input type="checkbox"/> Fresh Water X Brine <input type="checkbox"/> Diesel/Oil-based <input type="checkbox"/> Gas/Air <input type="checkbox"/>				

21 Proposed Casing and Cement Program					
Hole Size	Casing Size	Casing weight/foot	Setting Depth	Sacks of Cement	Estimated TOC
12-1/4"	9-5/8"	36#	1400'	225	Surface
8-3/4"/7-7/8"	5-1/2"	17#	TVD 4550'	NA	Tie back to
			MD 9058'		Surface casing
Verify Tie back by CBL or Temperature Survey					

22 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 to be Drilled as a Horizontal Wolfcamp test. The attached drilling plan will be utilized for this test and contains details on the cement and mud programs as well as the directional information. The following is a summary of this plan.**

1. Prepare surface location. Move in and rig up drilling rig, spud well and drill and set conductor. Install and test BOP's.
2. Drill 12 1/4" Surface hole to a minimum depth of 1400'. Set 9 5/8" casing and cement.
3. Drill 8 3/4" production hole to kickoff point at 3590' drill and advance 8 3/4" and 7 7/8" hole to a Wolfcamp penetration point at approximately 660.1' FSL and 742' FWL of the SW corner of the section and continue drilling to BHL. (9058' MD & 4550' TVD)
4. Set 5 1/2" to TD and tie cement back to the surface casing. Perforate porosity and stimulate as necessary (specific procedure to be determined).
5. Place well on test.
6. No H2S if anticipated during the drilling of this well.

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 constructed according to NMOCD guidelines X, a general permit ☐, or an (attached) alternative OCD-approved plan ☐

Printed name: Deane Durham

Title: Drilling Engineer

E-mail Address: ddurham@p111.com

Date:

Phone: 432-684-3727

OIL CONSERVATION DIVISION

Approved by:

**BRYAN G. ARANT**  
**DISTRICT II GEOLOGIST**

Title:

Approval Date: JUN 08 2006

Expiration Date: JUN 08 2007

Conditions of Approval Attached ☐

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

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State of New Mexico  
Energy, Minerals & Natural Resources Department

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

Form C-102  
Revised October 12, 2005  
Submit to Appropriate District Office  
State Lease - 4 Copies  
Fee Lease - 3 Copies

RECEIVED  
MAY 31 2006  
OIL CONSERVATION DIVISION

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number	Pool Code	Pool Name
Property Code	Property Name	Well Number
OGRID No.	Operator Name	Elevation
	Unders. Four Mile Draw; Morrow	1
	CHATTER BOX 1823-19 STATE	
	PARALLEL PETROLEUM CORPORATION	4067'

Surface Location

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
1	30	18 S	23 E		300	NORTH	742	WEST	EDDY

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
1	19	18 S	23 E		660	NORTH	742	WEST	EDDY

Dedicated Acres	Joint or Infill	Consolidation Code	Order No.
320			

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

NOTE:

1) Plane Coordinates shown hereon are Transverse Mercator Grid and Conform to the "New Mexico Coordinate System", New Mexico East Zone, North American Datum of 1927. Distances shown hereon are mean horizontal surface values.

Project Area

Producing Area

30

19

742' (BHL)

300' (SL)

742'

660'

1

2

3

4

Description	Plane Coordinate
Chatter Box 1823-19 State #1	X = 376,087.5
Surface Location	Y = 627,687.6
Chatter Box 1823-19 State #1	X = 376,089.8
Bottom Hole Location	Y = 632,631.7

OPERATOR CERTIFICATION

I hereby certify the 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 division.

Signature: Deane Durham Date: 26 May 2006

Printed Name: Deane Durham

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.

May 8, 2006

Date of Survey

Signature & Seal of Professional Surveyor

W.O. Num. 2006-0429

Certificate No. MACON McDONALD 12185

RECEIVED  
MAY 31 2006  
JULIAN

# **PARALLEL** SURVEY CALCULATION PROGRAM PETROLEUM CORPORATION

OPERATOR:	Parallel Petroleum Corporation	Supervisors:	
WELL:	Chatter Box 1823-19 State #1		
SURF. LOCATION:	300 FNL, 742 FWL Sec. 30 T-18-S R-23-E		
BH LOCATION:	660 FNL, 742 FWL Sec. 19 T-18-S R-23-E		
COMMENTS:			
		MAG DEC. (-/+)	
		GRID CORR. (-/+)	
		TOTAL CORR. (-/+)	0.0

DATE: 05/24/06 TIME: 8:16 AM TRUE TO GRID ☐

MINIMUM CURVATURE CALCULATIONS(SPE-3362)									PROPOSED DIRECTION		TARGET TRACKING	
									0.0		TO CENTER	
SVY	MD	INC	GRID	VERT					DLS/		ABOVE(+)	RIGHT(+)
NUM			AZM	TVD	SECT	N-S	E-W		100		BELOW(-)	LEFT(-)
TIE	0	0.0	0.0	0.0	0.0	0.0	0.0					
1	3590	0.0	0.0	3590.0	0.0	0.0	0.0		0.0		960.0	0.0
2	3600	0.6	0.0	3600.0	0.1	0.1	0.0		6.0		950.0	0.0
3	3610	1.2	0.0	3610.0	0.2	0.2	0.0		6.0		940.0	0.0
4	5098	90.0	0.0	4550.0	960.1	960.1	0.0		6.0		0.0	0.0
5	9058	90.0	0.0	4550.0	4920.1	4920.1	0.0		0.0		0.0	0.0

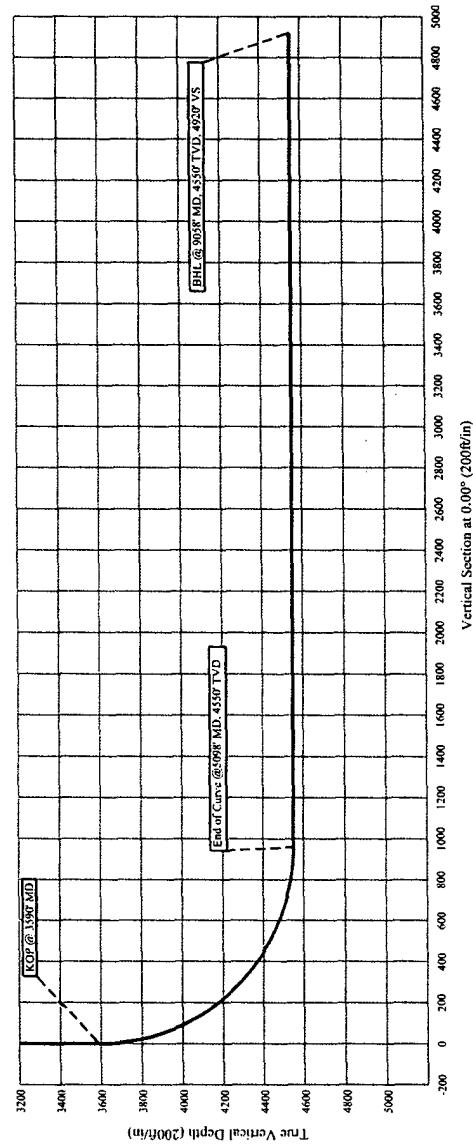
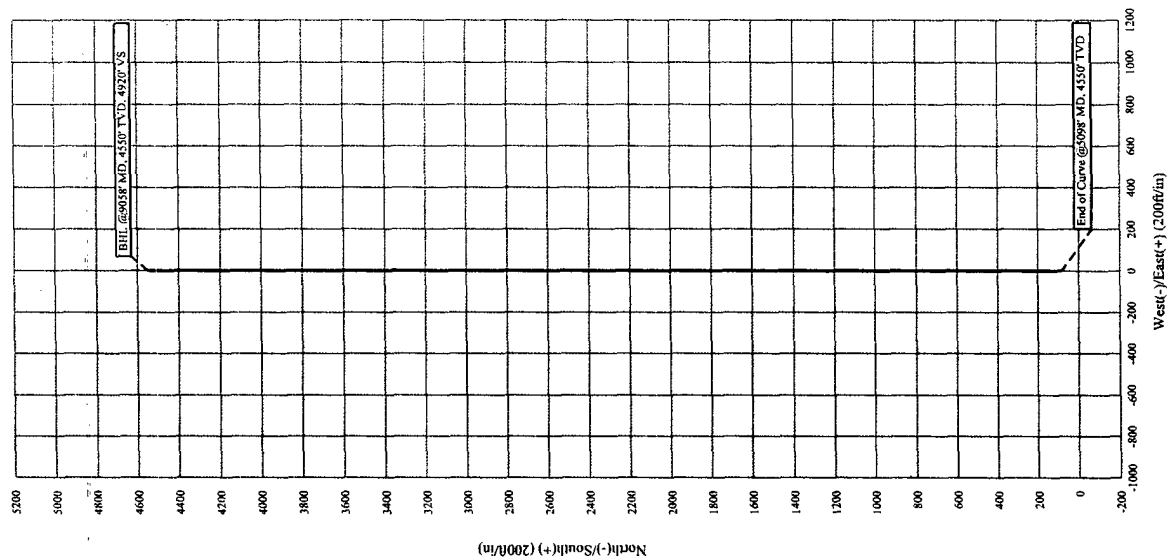
KOP @ 3590' MD  
 BUR = 6 DEG per 100 FT  
 End Curve @ 5098' MD, 4550' TVD  
 BHL @ 9058' MD, 4550' TVD, 4920' VS

# Parallel Petroleum Corp.

Chatter Box 1823-19 State #1  
 Surf. Loc. : Section 30, T 18-S, R 23-E  
 BH Loc. : Section 19, T 18-S, R 23-E  
 Eddy County, New Mexico

## COMPANY DETAILS

Parallel Petroleum Corp.  
 1004 N. Big Spring, Ste 400  
 Midland, Texas 79701



**PARALLEL PETROLEUM CORPORATION  
CHATTER BOX 1823-19 STATE #1  
SL: 742' FWL AND 300' FNL, BHL: 742' FWL AND 660' FNL  
SL: SEC 30, T18S, R23E, BHL: SEC 19, T18S, R23E  
EDDY COUNTY, NEW MEXICO**

**Objective**

Drill a horizontal in the Wolfcamp.

**Expected Geologic Tops**

Est GL from topo: 4067', KB 4079'.  
Glorieta 1825'  
Tubb 2835'  
Abo Shale 3425'  
Wolfcamp 4550'  
Wolfcamp Shale 4740'

**Well Geometry**

- 9 5/8" casing at 1400'
- kick-off at 3590' for horizontal zone of interest
- 5 1/2" casing through the horizontal Wolfcamp; Cement per completion.

**Casing Program**

<u>Hole</u>	<u>MD</u> <u>(ft)</u>	<u>Casing</u>	<u>Weight</u>	<u>Grade</u>	<u>Coupling</u>	<u>COMMENT</u>
12-1/4"	0 – 1400	9-5/8"	36	J55	LT&C	
8-3/4" 7-7/8"	0 – 9058'	5-1/2"	17	N80	LT&C	Run through the horizontal lateral.

### **Casing Cementing Program**

9-5/8" slurry: Lead: 125 sacks (50:50) Poz (Fly Ash): Class C + 5% bwow Sodium Chloride + 10% bwoc Bentonite + 151.7% fresh water. Tail: 200 sacks Class C + 1% bwoc Calcium Chloride + 56.3% fresh water

Note: If cement does not circulate to surface, notify OCD. A temperature survey will most likely be required. Top out to surface with 1" pipe in the annulus.

Note: 5-1/2" Cement per completion procedure. Top of Cement should be a tied-back to surface casing.

### **Mud Program**

<u>Depth</u>	<u>Hole</u>	<u>MW</u>	<u>Visc.</u>	<u>WL</u>	<u>Synopsis</u>
0 - 300	12-1/4"	8.4	32 - 38	No control	Fresh gel Lime floc.(outer) reserve. Fresh gel sweeps, paper & cotton seed hulls for losses.
300 - 1400	12-1/4"	8.4 - 8.6	28 - 29	No control	FRESH WATER mud only to 1400 ft. Severe loss potential. Circulate inner reserve. LCM: paper, fiber, cotton seed hulls.
1400 - 3400	8-3/4"	8.6 - 9.2	28 -29	No control	Cut brine. Start w/existing & add brine t/80K-120K chlorides
3400 - KOP	8-3/4"	8.9 - 9.5	38 - 45	10-12	XCD/Starch polymer as req'd for hole cleaning. Lubricants.
KOP - TD Horizontal	8-3/4" & 7-7/8"	8.9 - 9.5	38 - 45	10-12	XCD/Starch polymer as req'd for hole cleaning. Lubricants.



# PARALLEL

Petroleum Corporation

1004 North Big Spring, Suite 400 • Midland, TX 79701 • Ph: 432-684-3727 • Fax: 432-685-6580

May 26, 2006

Mr. Bryan Arrant  
New Mexico Oil Conservation Division  
1301 W. Grand Ave.  
Artesia, New Mexico 88210

RECEIVED  
MAY 31 2006  
OIL CONSERVATION

Re: Hydrogen Sulfide Potential  
South Hope Area Wolfcamp Program  
Specifically: Chatter Box 1823-19 State #1  
Eddy County, New Mexico

Dear Mr. Arrant:

Parallel Petroleum Corporation operates the Boxtop 1921-1 Federal #1 well located in Section 1, T-19-S, R-21-E. The well which was tested in the Wolfcamp formation did not have any indications of hydrogen sulfide from this formation. We believe the potential for it on locations in this area are negligible.

Should you need any additional information regarding this issue, please contact me at the address or phone number listed or email at [ddurham@p111.com](mailto:ddurham@p111.com).

Sincerely,

A. Deane Durham  
Senior Engineer



# Highlander Environmental Corp.

Midland, Texas

November 8, 2005

RECEIVED  
MAY 31 2006  
OBU-ANTEMA

Mr. Bryan Arrant  
State Of New Mexico,  
Oil Conservation Division  
1301 W. Grand Ave.  
Artesia, New Mexico 88210

Re: Parallel Petroleum Corporation, Eddy County, New Mexico permits

Dear Mr. Arrant:

The attached is a permit package contains APD's packages for the Chatter Box 1823-19 State Com #1 well. I have included one original and two copies of the package and a letter covering the Hydrogen Sulfide Potential for the site. The package also includes a form C-101, C-102, detailed drilling plan, horizontal plots and calculations.

The well will be drilled from the same well pad as the Ice Box 1823-30 State #1 (18' west) which was just recently permitted and the location is currently under construction. This is a directional well and the penetration point for the Wolfcamp formation will be 660' FSL of Section 19.

I will be acting as agent for Parallel for the permitting of this well. If you have any questions please call at 432-682-4559 or email me at [gmler@hec-enviro.com](mailto:gmler@hec-enviro.com).

Sincerely,

Gary E. Miller, Agent