

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

**NOTIFY OCD OF SPUD & TIME  
TO WITNESS CEMENTING OF  
SURFACE CASING**

Form C-101  
May 27, 2004

Submit to appropriate District Office

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

UCT 11 2007

☐ AMENDED REPORT

**OCD-ARTESIA**

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

<sup>1</sup> Operator Name and Address Parallel Petroleum Corp. 1004 N. Big Spring Street, Suite 400, Midland, TX. 79701		<sup>2</sup> OGRID Number 230387
<sup>3</sup> Property Code 36795	<sup>4</sup> Property Name Paris Draw State Unit 1624-17	<sup>5</sup> API Number 30-015-35861
<sup>9</sup> Proposed Pool 1 Wolfcamp West		<sup>10</sup> Proposed Pool 2

7 Surface Location									
UL or lot no H	Section 17	Township 16S	Range 24E	Lot Idn	Feet from the 1880'	North/South line N	Feet from the 213'	East/West line E	County Eddy

8 Proposed Bottom Hole Location If Different From Surface									
UL or lot no E	Section 17	Township 16S	Range 24E	Lot Idn	Feet from the 1880'	North/South line N	Feet from the 660'	East/West line W	County Eddy

<b>Additional Well Information</b>				
<sup>11</sup> Work Type Code N	<sup>12</sup> Well Type Code O & G	<sup>13</sup> Cable/Rotary R	<sup>14</sup> Lease Type Code P	<sup>15</sup> Ground Level Elevation 3672'
<sup>16</sup> Multiple No	<sup>17</sup> Proposed Depth 8668MD, 4435TVD	<sup>18</sup> Formation Wolfcamp	<sup>19</sup> Contractor NA	<sup>20</sup> Spud Date NA
Depth to Groundwater 250'		Distance from nearest fresh water well 6200'		Distance from nearest surface water 4200'
Pit: Liner: Synthetic <input checked="" type="checkbox"/> 12_mils thick Clay <input type="checkbox"/> Pit Volume: 25,000 bbls Drilling Method: Fresh Water <input checked="" type="checkbox"/> Brine <input type="checkbox"/> Diesel/Oil-based <input type="checkbox"/> Gas/Air <input type="checkbox"/>				
Closed-Loop System <input type="checkbox"/>				

21 Proposed Casing and Cement Program					
Hole Size	Casing Size	Casing weight/foot	Setting Depth	Sacks of Cement	Estimated TOC
11"	8-5/8"	24#	1700' core	325	Surface
7-7/8"	5-1/2"	17#	TVD 4435'	NA	Tie back
			MD 8668'		To surface
					casing

<sup>22</sup> 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 11" surface hole to a minimum depth of 1700'. Set 8 5/8" casing and cement.
3. Drill 7 7/8" production hole 5000' TD and evaluate formation mud logs as well as DLL/CNL/LDT/CAL/GR to TD.
4. Set Kickoff point at 3986' and drill and advance hole to a Wolfcamp penetration point at approximately 1880' FNL and 660' FEL of the section 17 and continue drilling to BHL. (8668' MD & 4435' TVD)
5. Set 5 1/2" to TD and tie cement back to surface casing. Perforate porosity and stimulate as necessary (specific procedure to be determined).
6. Place well on test. No H2S is anticipated during the drilling of this well.
7. Well will share a pad and common reserve pit with the Paris Draw State Unit 1624-16 #13.

<sup>23</sup> 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@plll.com

Date: 10-8-07

Phone: 432-684-3727

**OIL CONSERVATION DIVISION**

Approved by:

**BRYAN G. ARRANT**  
**DISTRICT II GEOLOGIST**

Title:

Approval Date: OCT 15 2007

Expiration Date: OCT 15 2008

Conditions of Approval Attached ☐

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  
1620 S. St. Francis Dr., Santa Fe, NM 87505

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

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number	Pool Code 75260	Pool Name UNDES. COTTONWOOD CREEK; WOLF CAMP, WEST
Property Code	Property Name PARIS DRAW STATE UNIT 1624-17	Well Number 14
OGRID No.	Operator Name PARALLEL PETROLEUM CORPORATION	Elevation 3672'

Surface Location

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
H	17	16 S	24 E		1880	NORTH	213	EAST	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
E	17	16 S	24 E		1880	NORTH	660	WEST	EDDY

Dedicated Acres 320	Joint or Infill	Consolidation Code	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

			<p>OPERATOR CERTIFICATION</p> <p>I hereby certify 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.</p> <p><i>Deane Durham</i> 10-8-07 Signature Date <i>Deane Durham</i> Printed Name</p>			
<p>Bottom Hole Location Plane Coordinate X = 454,073.3 Y = 700,262.5 Geodetic Coordinate Lat. 32°55'28.57" N Long. 104°37'01.95" W (NAD '27)</p>			<p>Penetration Point Plane Coordinate X = 458,061.7 Y = 700,263.7 Geodetic Coordinate Lat. 32°55'28.69" N Long. 104°36'15.16" W (NAD '27)</p>		<p>Surface Location Plane Coordinate X = 458,508.5 Y = 700,263.8 Geodetic Coordinate Lat. 32°55'28.70" N Long. 104°36'09.92" W (NAD '27)</p>	
<p>NOTE: 1) Plane Coordinates and Bearings shown hereon are Transverse Mercator Grid and Conform to the "New Mexico Coordinate System", New Mexico East Zone, North American Datum, of 1983. Distances shown hereon are mean horizontal surface values.</p>						
<p>September 17, 2007 Date of Survey Signature &amp; Seal of Professional Surveyor <i>MAISON McDONALD</i> W.O. Num. 2007-0929 Certificate No. MAISON McDONALD 12185</p>						

# **PARALLEL** SURVEY CALCULATION PROGRAM PETROLEUM CORPORATION

OPERATOR:	Parallel Petroleum Corporation	Supervisors:	
WELL:	Paris Draw State Unit 1624-17 #14		
LOCATION:	N/2 Sec. 17 T-16-S R-24-E		
COMMENTS:			
		MAG DEC. (-/+)	
		GRID CORR. (-/+)	
		TOTAL CORR. (-/+)	0.0
DATE: 10/02/07		TIME: 1:44 PM	TRUE TO GRID <input type="checkbox"/>

MINIMUM CURVATURE CALCULATIONS(SPE-3362)									PROPOSED DIRECTION 270.0		TARGET TRACKING TO CENTER	
SVY	MD	INC	GRID	TVD	VERT	N-S	E-W	DLS/	100		ABOVE(+)	RIGHT(+)
NUM			AZM		SECT						BELOW(-)	LEFT(-)
TIE	0	0.0	0.0	0.0	0.0	0.0	0.0					
1	3986	0.0	0.0	3986.0	0.0	0.0	0.0	0.0			449.0	0.0
2	3996	1.3	270.0	3996.0	0.1	0.0	-0.1	12.8			439.0	0.0
3	4006	2.6	270.0	4006.0	0.4	0.0	-0.4	12.8			429.0	0.0
4	4691	90.0	270.0	4435.0	449.0	0.0	-449.0	12.8			0.0	0.0
5	8668	90.0	270.0	4435.0	4425.7	0.0	-4425.7	0.0			0.0	0.0

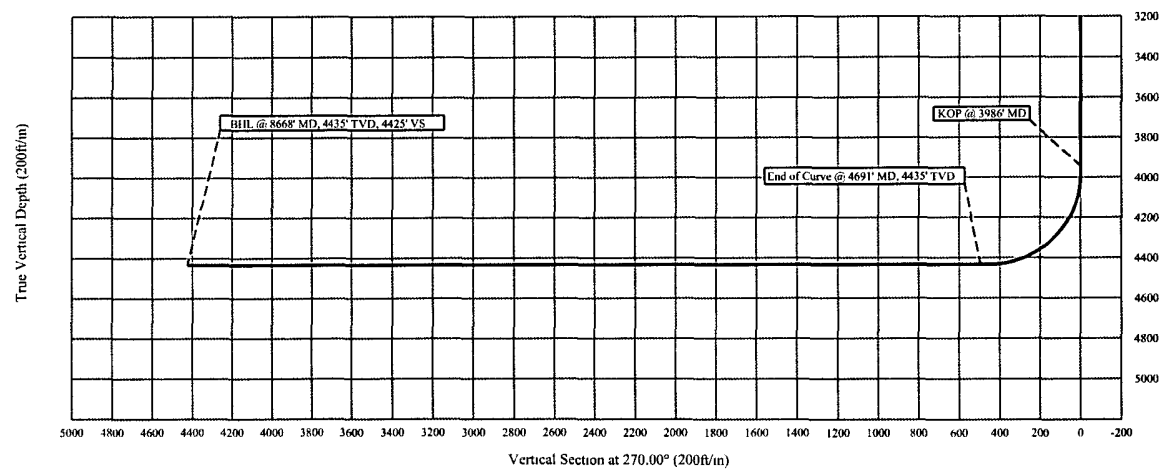
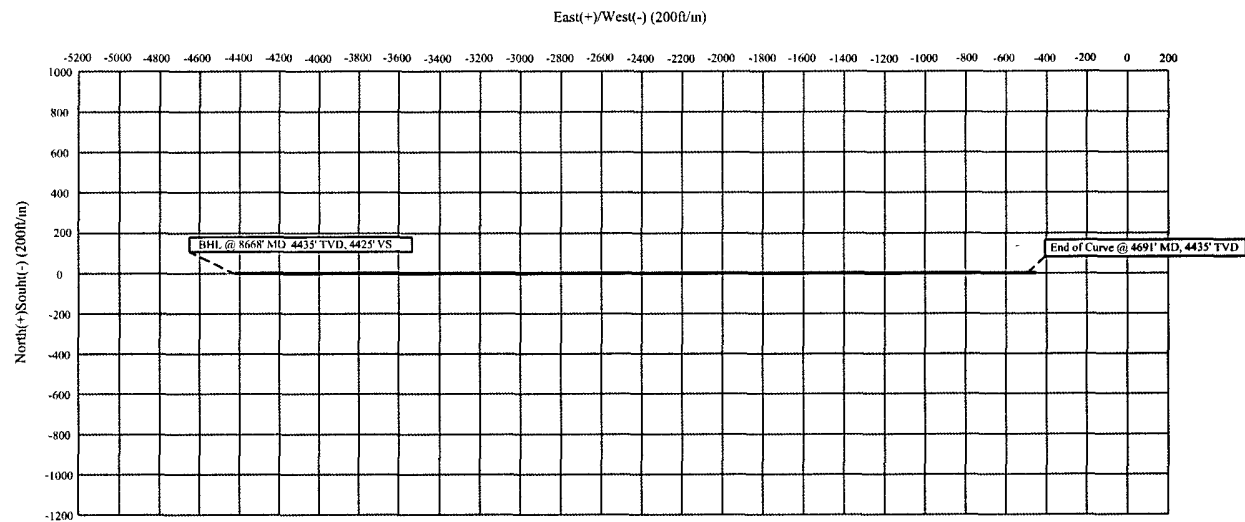
KOP @ 3986' MD  
 BUR = 12.8 DEG per 100 FT  
 End Curve @ 4691' MD, 4435' TVD  
 BHL @ 8668' MD, 4435' TVD, 4425' VS

# Parallel Petroleum Corp.

Paris Draw State Unit 1624-17 #14  
N/2 Sec. 17, T-16-S, R-24-E  
Eddy County, New Mexico

## COMPANY DETAILS

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



**PARALLEL PETROLEUM CORPORATION**  
**PARIS DRAW STATE UNIT 1624-17 #14**  
**SL: 1880' FNL AND 213' FEL, BHL: 1880' FNL AND 660' FWL**  
**SL: SEC 17, T16S, R24E, BHL: SEC 17, T16S, R24E**  
**EDDY COUNTY, NEW MEXICO**

**Objective**

Drill a horizontal in the Wolfcamp.

**Expected Geologic Tops**

GL: 3672', KB 3688'.  
 Glorieta 1365'  
 Tubb 2375'  
 Abo Shale 3020'  
 Wolfcamp 4435'  
 Wolfcamp Shale 4545'

**Well Geometry**

- 8 5/8" casing at 1500' <sup>1000'</sup>
- kick-off at 3986' for horizontal zone of interest
- 5 1/2" casing through the horizontal Wolfcamp; Acid soluble cement per completion.

**Casing Program**

<sup>1000'</sup>

<u>Hole</u>	<u>MD</u> (ft)	<u>Casing</u>	<u>Weight</u>	<u>Grade</u>	<u>Coupling</u>	<u>COMMENT</u>
11"	0 – 1500	8-5/8"	24	J55	ST&C	
7-7/8"	0 – 8668'	5-1/2"	17	N80	LT&C	Run through the horizontal lateral.

### Casing Cementing Program

8-5/8" 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

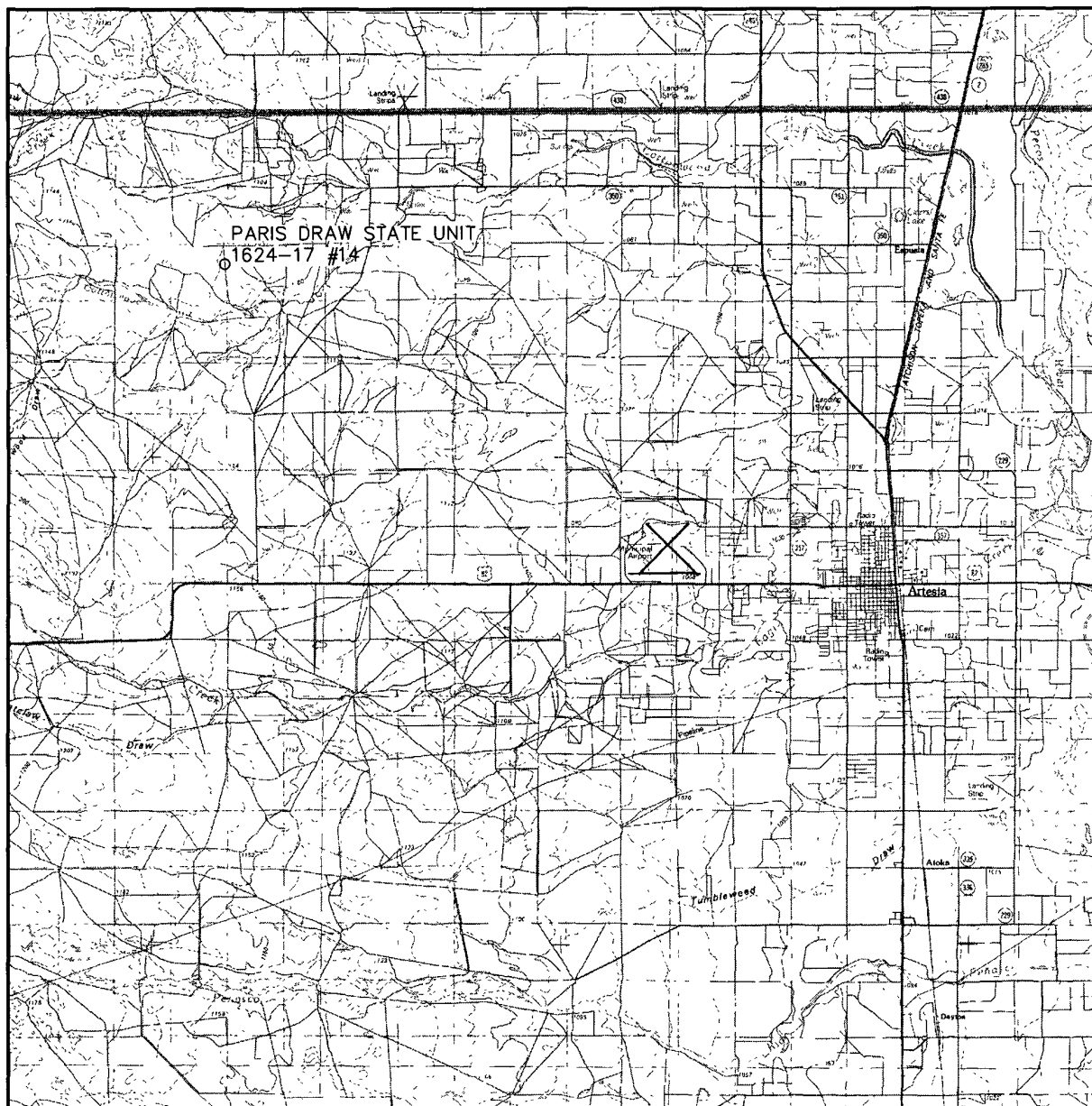
Note: If cement does not circulate to surface, notify OCD. A temperature survey will be required. Top out to surface with 1" pipe in the annulus.

Note: 5-1/2" Cement with acid-soluble CMT 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 - <del>1500</del> 1000'	11"	8.4 - 8.6	28 - 29	No control	FRESH WATER mud only to 1500 ft. Severe loss potential. Circulate inner reserve. LCM: paper, fiber, cotton seed hulls.
<del>1500</del> - 3000	7-7/8"	8.6 - 9.2	28 -29	No control	Cut brine. Start w/existing & add brine t/50K- 60K chlorides
3000 - KOP	7-7/8"	8.9 - 9.5	38 - 45	12-14	XCD/polymer as req'd for hole cleaning. Lubricants.
KOP - TD Horizontal	7-7/8"	8.9 - 9.5	38 - 45	12-14	XCD/polymer as req'd for hole cleaning. Lubricants.

# VICINITY MAP



SCALE: 1" = 3 MILES

SEC. 17 TWP. 16-S RGE. 24-E

SURVEY N.M.P.M.

COUNTY CHAVES

DESCRIPTION 1880' FNL & 213' FEL

ELEVATION 3672'

OPERATOR PARALLEL PETROLEUM CORPORATION

LEASE PARIS DRAW STATE UNIT 1624-17



110 W. LOUISIANA, STE. 110  
MIDLAND TEXAS, 79701  
(432) 687-0865 - (432) 687-0868 FAX

This topographic map depicts the Paris Draw area, featuring three distinct state units and a proposed access road. The units are labeled as follows:

- PARIS DRAW STATE UNIT 1624-17 #14**: Located in the upper left quadrant, near section 8.
- PARIS DRAW STATE UNIT 1624-17 #10**: Located in the center, near section 17.
- PARIS DRAW STATE UNIT 1624-20 #8**: Located in the lower left quadrant, near section 20.

A **2648 L.F. OF NEW ACCESS ROAD** is shown as a dashed line running vertically through the center of the map, connecting the three state units. Key landmarks and features include:

- Cottonwood**: A large, irregularly shaped area on the right side of the map.
- Windmill**: Two locations are marked with small circles and labeled "Windmill", one near section 19 and another near section 21.
- South**: A label indicating a direction or boundary line near section 20.

The map includes contour lines with elevations such as 3650, 3660, 3670, 3680, 3690, 3700, and 3710. Section numbers 7, 8, 9, 16, 17, 18, 19, 20, and 21 are visible, along with various spot elevations and grid coordinates.

CONTOUR INTERVAL:  
HOPE NE - 10'

U.S.G.S. TOPOGRAPHIC MAP  
HOPE NE



110 W. LOUISIANA, STE. 110  
MIDLAND TEXAS, 79701  
(432) 687-0865 - (432) 687-0868 FAX