

Submit 1 Copy To Appropriate District Office
District I - (575) 393-6161
1625 N. French Dr., Hobbs, NM 88240
District II - (575) 748-1283
811 S. First St., Artesia, NM 88210
District III - (505) 334-6178
1000 Rio Brazos Rd., Aztec, NM 87410
District IV - (505) 476-3460
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy, Minerals and Natural Resources

Form C-103
Revised July 18, 2013

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

WELL API NO. 30-043-21308
5. Indicate Type of Lease STATE ☒ FEE ☐
6. State Oil & Gas Lease No. V092291
7. Lease Name or Unit Agreement Name State 2207 36D
8. Well Number 193H
9. OGRID Number 120782
10. Pool name or Wildcat WC 22N7W36; Gallup(O)

SUNDRY NOTICES AND REPORTS ON WELLS (DO NOT USE THIS FORM FOR PROPOSALS TO DRILL OR TO DEEPEN OR PLUG BACK TO A DIFFERENT RESERVOIR. USE "APPLICATION FOR PERMIT" (FORM C-101) FOR SUCH PROPOSALS.)	
1. Type of Well: Oil Well ☒ Gas Well ☐ Other ☐	
2. Name of Operator WPX Energy Production, LLC	
3. Address of Operator PO Box 640 Aztec, NM 87410	
4. Well Location Unit Letter <u>D</u> : <u>725'</u> feet from the <u>FNL</u> line and <u>311'</u> feet from the <u>FWL</u> line Section <u>36</u> Township <u>22N</u> Range <u>7W</u> NMPM County <u>Sandoval, NM</u>	
11. Elevation (Show whether DR, RKB, RT, GR, etc.) 6942'	

12. Check Appropriate Box to Indicate Nature of Notice, Report or Other Data

NOTICE OF INTENTION TO:		SUBSEQUENT REPORT OF:	
PERFORM REMEDIAL WORK ☐	PLUG AND ABANDON ☐	REMEDIAL WORK ☐	ALTERING CASING ☐
TEMPORARILY ABANDON ☐	CHANGE PLANS ☐	COMMENCE DRILLING OPNS. ☐	P AND A ☐
PULL OR ALTER CASING ☐	MULTIPLE COMPL ☐	CASING/CEMENT JOB ☐	
DOWNHOLE COMMINGLE ☐			
CLOSED-LOOP SYSTEM ☐			
OTHER: <u>Change in Plans</u> ☒		OTHER: <u>Change in Plans</u> ☒	

13. Describe proposed or completed operations. (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work). SEE RULE 19.15.7.14 NMAC. For Multiple Completions: Attach wellbore diagram of proposed completion or recompletion.

WPX Energy request a change from a vertical to a horizontal well per the attached OPS, Directional Drill plans and C102 Plat Package with a name change from State 2207-36D 193 to State 2207-36D 193H.

OIL CONS. DIV DIST. 3

JUN 06 2017

COA added C-104 for NSL / as drilled C-102 & Directional Survey

Spud Date:

6/1/17

Rig Release Date:

I hereby certify that the information above is true and complete to the best of my knowledge and belief.

SIGNATURE

Manish Jaramila

TITLE

Permit Tech

DATE

6/6/17

Type or print name

E-mail address:

PHONE:

For State Use Only

APPROVED BY:

TITLE

Deputy Oil & Gas Inspector,
District #3

DATE

6/6/2017

Conditions of Approval (if any):

AV

District I
1625 N. French Drive, Hobbs, NM 88240
Phone: (575) 393-6161 Fax: (575) 393-0720

District II
811 S. First Street, Artesia, NM 88210
Phone: (575) 748-1283 Fax: (575) 748-9720

District III
1000 Rio Brazos Road, Aztec, NM 87410
Phone: (505) 334-6178 Fax: (505) 334-6170

District IV
1220 S. St. Francis Drive, Santa Fe, NM 87505
Phone: (505) 476-3460 Fax: (505) 476-3462

State of New Mexico
Energy, Minerals & Natural Resources Department

Form C-102
Revised August 1, 2011

Submit one copy to
Appropriate District Office

OIL CONSERVATION DIVISION

1220 South St. Francis Drive
Santa Fe, NM 87505

☒ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

¹ API Number 30-043-21308	² Pool Code 98231	³ Pool Name WC 22N7W36; GALLUP (O)
⁴ Property Code 317749	⁵ Property Name STATE 2207-36D	⁶ Well Number 193H
⁷ GRID No. 120782	⁸ Operator Name WPX ENERGY PRODUCTION, LLC	⁹ Elevation 6942'

¹⁰Surface Location

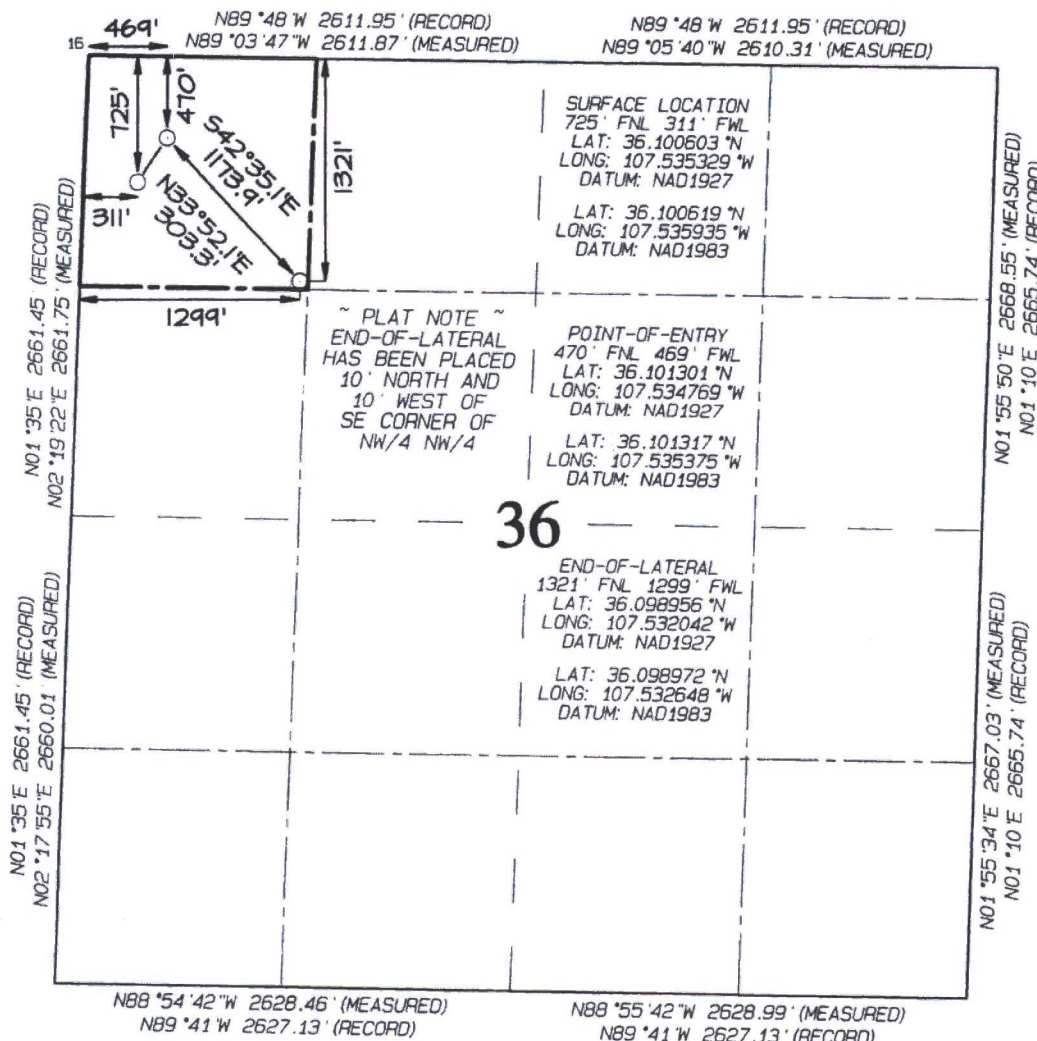
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
D	36	22N	7W		725	NORTH	311	WEST	SANDOVAL

¹¹Bottom 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
D	36	22N	7W		1321	NORTH	1299	WEST	SANDOVAL

¹² Dedicated Acres 40.00 Acres - NW/4 NW/4	¹³ Joint or Infill	¹⁴ Consolidation Code	¹⁵ 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



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 division.

Signature: *Marie E. Jaramillo* Date: 6/6/17

Printed Name: Marie E. Jaramillo

E-mail Address: marie.jaramillo@wpenergy.com

Signature and Seal of Professional Surveyor

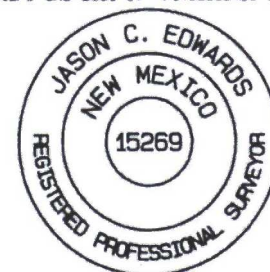
¹⁸ SURVEYOR CERTIFICATION

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 Revised: JUNE 1, 2017

Survey Date: FEBRUARY 10, 2016

Signature and Seal of Professional Surveyor



JASON C. EDWARDS

Certificate Number 15269



WPX Energy

Operations Plan

(Note: This procedure will be adjusted onsite based upon actual conditions)

<u>Date:</u>	June 5, 2017	<u>Field:</u>	Gallup
<u>Well Name:</u>	State 2207-36D #193H	<u>Surface:</u>	State
<u>SH Location:</u>	NWNW Section 36 22N-07W	<u>Elevation:</u>	6942' GR
<u>BH Location:</u>	NWNW Section 36 22N-07W	<u>Minerals:</u>	State

Measured Depth: 6461.19'

I. GEOLOGY

Surface formation - NACIMIENTO

A. FORMATION TOPS: (GR)

NAME	MD	TVD	NAME	MD	TVD
OJO ALAMO	658.00	658.00	POINT LOOKOUT	3,671.00	3,585.00
KIRTLAND	872.00	871.00	MANCOS	3,840.00	3,751.00
PICTURED CLIFFS	1,236.00	1,228.00	GALLUP	4,177.00	4,086.00
LEWIS	1,357.00	1,345.00	KICKOFF POINT	4,279.35	4,188.43
CHACRA	1,673.00	1,651.00	TOP TARGET	5,121.00	4,805.00
CLIFF HOUSE	2,867.00	2,806.00	LANDING POINT	5,287.49	4,825.00
MENEFEE	2,908.00	2,846.00	BASE TARGET	5,287.49	4,825.00
			TD	6,461.19	4,810.00

B. MUD LOGGING PROGRAM:

Mudlogger on location from surface csg to TD.

C. LOGGING PROGRAM:

LWD GR from surface casing to TD.

D. NATURAL GAUGES:

Gauge any noticeable increases in gas flow. Record all gauges in Tour book and on morning reports.

II. DRILLING

A. MUD PROGRAM:

LSND mud (WBM) will be used to drill the 12-1/4" Surface hole, the 8 3/4" Directional Vertical hole, and the curve portion of the wellbore. A LSND (WBM) or (OBM) will be used to drill the lateral portion of well. Treat for lost circulation as necessary. Obtain 100% returns prior to cementing. Notify Engineering of any mud losses.

B. BOP TESTING:

While drill pipe is in use, the pipe rams and the blind rams will be function tested once each trip. The BOPE will be tested to 2,000 psi (High) for 10 minutes and the annular tested to 1,500 psi for 10 minutes. Pressure test surface casing to 1,500 psi for 30 minutes and intermediate casing to 1,500 psi for 30 minutes. Utilize a BOPE Testing Unit with a recording chart and appropriate test plug for testing. All tests and inspections will be recorded in the tour book as to time and results.

III. MATERIALS

A. CASING PROGRAM:

CASING TYPE	OH SIZE (IN)	DEPTH (MD)	CSG SIZE	WEIGHT	GRADE	CONN
SURFACE	12.25"	320.00'	9.625"	36 LBS	J-55 or equiv	STC
INTERMEDIATE	8.75"	5287.49'	7"	23 LBS	J-55 or equiv	LTC
PRODUCTION	6.125"	5137.49' - 6461.19'	4.5"	11.6 LBS	P-110 or equiv	LTC
TIE BACK	6.125"	Surf. - 5137.49'	4.5"	11.6 LBS	P-110 or equiv	LTC

B. FLOAT EQUIPMENT:

1. SURFACE CASING:

9-5/8" notched regular pattern guide shoe. Run (1) standard centralizer on each of the bottom (4) joints of Surface Casing.

2. INTERMEDIATE CASING:

7" cement nose guide shoe with a self-fill insert float. Place float collar one joint above the shoe. Install (1) centralizer on each of the bottom (3) joints and one standard centralizer every (3) joints to 2,500 ft. Run (1) centralizer at 2,500 ft., 2,300ft., 2,000ft., 1,500 ft., and 1,000 ft. If losses are encountered during the drilling of the intermediate section a DV tool will be utilized and a 2 stage cement job may be planned to ensure cement circ back to surface. The DV tool will be placed 100' above the top of the Chacra formation. If cement is circulated back to surface on the first stage, a cancelation device will be dropped to shift the dv tool closed and the 2nd stage cement job will be aborted at that time, if no cement is seen at surface on the 1st stage the stage tool will be opened and a 2nd stage cement job will be pumped.

3. PRODUCTION LINER:

Run 4-1/2" Liner with cement nose guide Float Shoe + 2jts. of 4-1/2" casing + Landing Collar + 4-1/2" pup joint + 1 RSI (Sliding Sleeve) positioned inside the 330ft Hard line. Centralizer program will be determined by Wellbore condition and when Lateral is evaluated by Geoscientists and Reservoir Engineers. Set seals on Liner Hanger. Test TOL to 1500 psi for 15 minutes.

C. CEMENT:

(Note: Volumes may be adjusted onsite due to actual conditions)

1. Surface:

5 bbl Fresh Water Spacer, 100 sx (160 cu.ft.) of 14.5 ppg Type I-II (Neat G) + 20% Fly Ash cement w/ 7.41 gal/sack mix water ratio @ 1.61 cu ft/sx yield. Calculated @ volume + 50% excess. WOC 12 hours. Test csg to 600psi. Total Volume: (160 cu-ft/100 sx/ Bbls).TOC at Surface.

2. Intermediate:

Spacer #1: 20 bbl (112 cuft) Chemwash. Lead Cement: 97 bbls, 276 sks, (544 cuft), 12.3 ppg @ 1.97 cuft/sk yield. Tail Cement: 59 bbls, 254 sks, (331 cuft), 13.5 ppg @ 1.3 cuft/sk yield. Displacement: Displace w/ +/- 208 bbl Drilling mud or water. Total Cement: 156 bbls, 530 sks, (874 cuft)

3. Prod Liner:

Spacer #1: 10 bbl (56 cu-ft) Water Spacer. Spacer #2: 40 bbl 9.5 ppg (224.6 cu-ft) Tuned Spacer III. Spacer #3: 10 bbl Water Spacer. Lead Cement: Extencem™ System. Yield 1.36 cuft/sk 13.3 ppg (129 sx /175 cuft /31 bbls). Tail Spacer: 20 BBL of MMCR. Displacement: Displace w/ +/-74bbl Fr Water. Total Cement (129 sx /175bbls).

D. COMPLETION:

Run CCL for perforating

A. PRESSURE TEST:

1. Pressure test 4-1/2" casing to 4500 psi max, hold at 1500 psi for 30 minutes. Increase pressure to Open RSI sleeve.

B. STIMULATION:

1. Stimulate with approximately 2,805,000# 20/40 mesh sand and 340,000# 16/30 mesh sand in 619,113 gallons water with 42,696 mscf N2 for 17 stages.
2. Isolate stages with flow through frac plug.
3. Drill out frac plugs and flowback lateral.

C. RUNNING TUBING:

1. Production Tubing: Run 2-7/8", 6.5#, J-55, EUE tubing with a SN on top of bottom joint. Land tubing near Top of Liner.

If this horizontal well is drilled past the applicable setbacks, an unorthodox location application is not required because the completed interval in this well, as defined by 19.15.16.7 B(1) NMAC, will be entirely within the applicable setbacks. This approach complies with all applicable rules, including 19.15.16.14 A(3) NMAC, 19.15.16.14 B(2) NMAC, 19.15.16.15 B(2) NMAC, and 19.15.16.15 B(4) NMAC.

NOTES:

A 4-1/2" 11.6# P-110 Liner will be run to TD and landed +/- 150 ft. into the 7" 23# J-55 Intermediate casing with a Liner Hanger and pack-off assembly then cemented to top of liner hanger.

After cementing and TOL clean up operations are complete, the TOL will be tested to 1500 psi (per BLM).

WPX Energy

Sandoval County, NM 3003 West

State 2207-36D

State 2207-36D #193H

Wellbore #1

Plan: Plan #5

Standard Planning Report

02 June, 2017



www.scientificdrilling.com



Scientific Drilling Int.
Planning Report

Database:	Grand Junction District	Local Co-ordinate Reference:	Well State 2207-36D #193H
Company:	WPX Energy	TVD Reference:	KB @ 6963.00usft (Cyclone 32)
Project:	Sandoval County, NM 3003 West	MD Reference:	KB @ 6963.00usft (Cyclone 32)
Site:	State 2207-36D	North Reference:	True
Well:	State 2207-36D #193H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #5		

Project	Sandoval County, NM 3003 West		
Map System:	US State Plane 1927 (Exact solution)	System Datum:	Mean Sea Level
Geo Datum:	NAD 1927 (NADCON CONUS)		
Map Zone:	New Mexico West 3003		

Site	State 2207-36D		
Site Position:		Northing:	1,855,994.92 usft
From:	Lat/Long	Easting:	588,036.05 usft
Position Uncertainty:	0.00 usft	Slot Radius:	13-3/16 "
		Latitude:	36.100603
		Longitude:	-107.535329
		Grid Convergence:	0.18 °

Well	State 2207-36D #193H		
Well Position	+N/-S	0.00 usft	Northing: 1,855,994.92 usft
	+E/-W	0.00 usft	Easting: 588,036.05 usft
Position Uncertainty	0.00 usft	Wellhead Elevation:	0.00 usft
		Latitude:	36.100603
		Longitude:	-107.535329
		Ground Level:	6,942.00 usft

Wellbore	Wellbore #1		
Magnetics	Model Name	Sample Date	Declination (°)
	HDGM	5/5/2017	9.00
			Dip Angle (°) 62.87
			Field Strength (nT) 49,511

Design	Plan #5		
Audit Notes:			
Version:	Phase:	PLAN	Tie On Depth: 0.00
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)
	0.00	0.00	0.00
			Direction (°) 136.37

Plan Sections										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	TFO (°)	Target
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
500.00	0.00	0.00	500.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,231.37	14.63	338.41	1,223.45	86.34	-34.17	2.00	2.00	0.00	338.41	
3,547.98	14.63	338.41	3,464.98	630.31	-249.42	0.00	0.00	0.00	0.00	
4,279.35	0.00	0.00	4,188.43	716.65	-283.59	2.00	-2.00	0.00	180.00	
5,287.49	90.73	136.37	4,825.00	249.97	161.29	9.00	9.00	13.53	136.37	
6,461.19	90.73	136.37	4,810.00	-599.50	971.07	0.00	0.00	0.00	0.00	ST36D-193H BHL

Scientific Drilling Int.

Planning Report

Database:	Grand Junction District	Local Co-ordinate Reference:	Well State 2207-36D #193H
Company:	WPX Energy	TVD Reference:	KB @ 6963.00usft (Cyclone 32)
Project:	Sandoval County, NM 3003 West	MD Reference:	KB @ 6963.00usft (Cyclone 32)
Site:	State 2207-36D	North Reference:	True
Well:	State 2207-36D #193H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #5		

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
100.00	0.00	0.00	100.00	0.00	0.00	0.00	0.00	0.00	0.00
200.00	0.00	0.00	200.00	0.00	0.00	0.00	0.00	0.00	0.00
300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	0.00
400.00	0.00	0.00	400.00	0.00	0.00	0.00	0.00	0.00	0.00
500.00	0.00	0.00	500.00	0.00	0.00	0.00	0.00	0.00	0.00
Start Build 2.00									
600.00	2.00	338.41	599.98	1.62	-0.64	-1.62	2.00	2.00	0.00
658.08	3.16	338.41	658.00	4.05	-1.60	-4.04	2.00	2.00	0.00
Ojo Alamo									
700.00	4.00	338.41	699.84	6.49	-2.57	-6.47	2.00	2.00	0.00
800.00	6.00	338.41	799.45	14.59	-5.77	-14.55	2.00	2.00	0.00
872.04	7.44	338.41	871.00	22.43	-8.88	-22.36	2.00	2.00	0.00
Kirtland									
900.00	8.00	338.41	898.70	25.92	-10.26	-25.84	2.00	2.00	0.00
964.03	9.28	338.41	962.00	34.87	-13.80	-34.76	2.00	2.00	0.00
Fruitland									
1,000.00	10.00	338.41	997.47	40.47	-16.01	-40.34	2.00	2.00	0.00
1,100.00	12.00	338.41	1,095.62	58.21	-23.03	-58.03	2.00	2.00	0.00
1,200.00	14.00	338.41	1,193.06	79.13	-31.31	-78.88	2.00	2.00	0.00
1,231.37	14.63	338.41	1,223.45	86.34	-34.17	-86.07	2.00	2.00	0.00
Start 2316.62 hold at 1231.37 MD									
1,236.07	14.63	338.41	1,228.00	87.44	-34.60	-87.17	0.00	0.00	0.00
Picture Cliffs									
1,300.00	14.63	338.41	1,289.86	102.45	-40.54	-102.13	0.00	0.00	0.00
1,356.99	14.63	338.41	1,345.00	115.84	-45.84	-115.47	0.00	0.00	0.00
Lewis									
1,400.00	14.63	338.41	1,386.62	125.93	-49.83	-125.54	0.00	0.00	0.00
1,500.00	14.63	338.41	1,483.37	149.42	-59.13	-148.95	0.00	0.00	0.00
1,600.00	14.63	338.41	1,580.13	172.90	-68.42	-172.35	0.00	0.00	0.00
1,673.24	14.63	338.41	1,651.00	190.10	-75.22	-189.50	0.00	0.00	0.00
Chacra									
1,700.00	14.63	338.41	1,676.89	196.38	-77.71	-195.76	0.00	0.00	0.00
1,800.00	14.63	338.41	1,773.65	219.86	-87.00	-219.17	0.00	0.00	0.00
1,900.00	14.63	338.41	1,870.41	243.34	-96.29	-242.58	0.00	0.00	0.00
2,000.00	14.63	338.41	1,967.17	266.82	-105.59	-265.98	0.00	0.00	0.00
2,100.00	14.63	338.41	2,063.93	290.30	-114.88	-289.39	0.00	0.00	0.00
2,200.00	14.63	338.41	2,160.69	313.79	-124.17	-312.80	0.00	0.00	0.00
2,300.00	14.63	338.41	2,257.45	337.27	-133.46	-336.21	0.00	0.00	0.00
2,400.00	14.63	338.41	2,354.20	360.75	-142.75	-359.61	0.00	0.00	0.00
2,500.00	14.63	338.41	2,450.96	384.23	-152.05	-383.02	0.00	0.00	0.00
2,600.00	14.63	338.41	2,547.72	407.71	-161.34	-406.43	0.00	0.00	0.00
2,700.00	14.63	338.41	2,644.48	431.19	-170.63	-429.84	0.00	0.00	0.00
2,800.00	14.63	338.41	2,741.24	454.68	-179.92	-453.24	0.00	0.00	0.00
2,866.93	14.63	338.41	2,806.00	470.39	-186.14	-468.91	0.00	0.00	0.00
Cliff House									
2,900.00	14.63	338.41	2,838.00	478.16	-189.21	-476.65	0.00	0.00	0.00
2,908.27	14.63	338.41	2,846.00	480.10	-189.98	-478.59	0.00	0.00	0.00
Menefee									
3,000.00	14.63	338.41	2,934.76	501.64	-198.51	-500.06	0.00	0.00	0.00
3,100.00	14.63	338.41	3,031.52	525.12	-207.80	-523.47	0.00	0.00	0.00
3,200.00	14.63	338.41	3,128.28	548.60	-217.09	-546.88	0.00	0.00	0.00
3,300.00	14.63	338.41	3,225.03	572.08	-226.38	-570.28	0.00	0.00	0.00

Scientific Drilling Int.

Planning Report

Database: Grand Junction District
Company: WPX Energy
Project: Sandoval County, NM 3003 West
Site: State 2207-36D
Well: State 2207-36D #193H
Wellbore: Wellbore #1
Design: Plan #5

Local Co-ordinate Reference: Well State 2207-36D #193H
TVD Reference: KB @ 6963.00usft (Cyclone 32)
MD Reference: KB @ 6963.00usft (Cyclone 32)
North Reference: True
Survey Calculation Method: Minimum Curvature

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
3,400.00	14.63	338.41	3,321.79	595.56	-235.67	-593.69	0.00	0.00	0.00
3,500.00	14.63	338.41	3,418.55	619.05	-244.97	-617.10	0.00	0.00	0.00
3,547.98	14.63	338.41	3,464.98	630.31	-249.42	-628.33	0.00	0.00	0.00
Start Drop -2.00									
3,600.00	13.59	338.41	3,515.43	642.10	-254.09	-640.08	2.00	-2.00	0.00
3,671.37	12.16	338.41	3,585.00	656.89	-259.94	-654.82	2.00	-2.00	0.00
Point Lookout									
3,700.00	11.59	338.41	3,613.02	662.36	-262.11	-660.28	2.00	-2.00	0.00
3,800.00	9.59	338.41	3,711.31	679.45	-268.87	-677.31	2.00	-2.00	0.00
3,840.20	8.78	338.41	3,751.00	685.41	-271.23	-683.26	2.00	-2.00	0.00
Mancos									
3,900.00	7.59	338.41	3,810.19	693.33	-274.36	-691.15	2.00	-2.00	0.00
4,000.00	5.59	338.41	3,909.52	704.00	-278.58	-701.78	2.00	-2.00	0.00
4,100.00	3.59	338.41	4,009.20	711.43	-281.52	-709.19	2.00	-2.00	0.00
4,176.90	2.05	338.41	4,086.00	714.95	-282.92	-712.70	2.00	-2.00	0.00
Gallup									
4,200.00	1.59	338.41	4,109.09	715.63	-283.19	-713.38	2.00	-2.00	0.00
4,279.35	0.00	0.00	4,188.43	716.65	-283.59	-714.40	2.00	-2.00	0.00
KOP - Start DLS 9.00 TFO 136.37									
4,300.00	1.86	136.37	4,209.07	716.41	-283.36	-714.06	9.00	9.00	0.00
4,350.00	6.36	136.37	4,258.93	713.82	-280.89	-710.48	9.00	9.00	0.00
4,400.00	10.86	136.37	4,308.36	708.40	-275.73	-703.00	9.00	9.00	0.00
4,416.99	12.39	136.37	4,325.00	705.92	-273.36	-699.57	9.00	9.00	0.00
Gallup Upper									
4,450.00	15.36	136.37	4,357.04	700.19	-267.90	-691.66	9.00	9.00	0.00
4,500.00	19.86	136.37	4,404.69	689.25	-257.47	-676.54	9.00	9.00	0.00
4,550.00	24.36	136.37	4,451.00	675.63	-244.49	-657.73	9.00	9.00	0.00
4,600.00	28.86	136.37	4,495.69	659.43	-229.04	-635.34	9.00	9.00	0.00
4,650.00	33.36	136.37	4,538.49	640.73	-211.22	-609.51	9.00	9.00	0.00
4,700.00	37.86	136.37	4,579.13	619.67	-191.14	-580.41	9.00	9.00	0.00
4,730.82	40.63	136.37	4,603.00	605.55	-177.68	-560.91	9.00	9.00	0.00
Mancos Lwr									
4,741.44	41.59	136.37	4,611.00	600.50	-172.87	-553.93	9.00	9.00	0.00
El Vado									
4,750.00	42.36	136.37	4,617.36	596.36	-168.92	-548.20	9.00	9.00	0.00
4,800.00	46.86	136.37	4,652.95	570.95	-144.70	-513.10	9.00	9.00	0.00
4,850.00	51.36	136.37	4,685.67	543.60	-118.62	-475.31	9.00	9.00	0.00
4,900.00	55.86	136.37	4,715.33	514.47	-90.86	-435.07	9.00	9.00	0.00
4,917.59	57.44	136.37	4,725.00	503.84	-80.72	-420.38	9.00	9.00	0.00
Frac Barrier - Mancos Unc									
4,950.00	60.36	136.37	4,741.74	483.75	-61.57	-392.63	9.00	9.00	0.00
5,000.00	64.86	136.37	4,764.74	451.63	-30.95	-348.25	9.00	9.00	0.00
5,050.00	69.36	136.37	4,784.18	418.30	0.82	-302.20	9.00	9.00	0.00
5,055.22	69.83	136.37	4,786.00	414.76	4.20	-297.31	9.00	9.00	0.00
PS 3									
5,100.00	73.86	136.37	4,799.95	383.96	33.55	-254.76	9.00	9.00	0.00
5,119.15	75.58	136.37	4,805.00	370.59	46.30	-236.29	9.00	9.00	0.00
PS2									
5,150.00	78.36	136.37	4,811.95	348.84	67.04	-206.24	9.00	9.00	0.00
5,200.00	82.86	136.37	4,820.11	313.14	101.06	-156.92	9.00	9.00	0.00
5,250.00	87.36	136.37	4,824.37	277.09	135.43	-107.12	9.00	9.00	0.00
5,287.49	90.73	136.37	4,825.00	249.97	161.29	-69.64	9.00	9.00	0.00

Scientific Drilling Int.

Planning Report

Database: Grand Junction District
Company: WPX Energy
Project: Sandoval County, NM 3003 West
Site: State 2207-36D
Well: State 2207-36D #193H
Wellbore: Wellbore #1
Design: Plan #5

Local Co-ordinate Reference: Well State 2207-36D #193H
TVD Reference: KB @ 6963.00usft (Cyclone 32)
MD Reference: KB @ 6963.00usft (Cyclone 32)
North Reference: True
Survey Calculation Method: Minimum Curvature

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
Start 1173.70 hold at 5287.49 MD - 7"									
5,300.00	90.73	136.37	4,824.84	240.91	169.92	-57.13	0.00	0.00	0.00
5,400.00	90.73	136.37	4,823.56	168.54	238.91	42.86	0.00	0.00	0.00
5,500.00	90.73	136.37	4,822.28	96.16	307.91	142.85	0.00	0.00	0.00
5,600.00	90.73	136.37	4,821.00	23.78	376.90	242.85	0.00	0.00	0.00
5,700.00	90.73	136.37	4,819.73	-48.59	445.90	342.84	0.00	0.00	0.00
5,800.00	90.73	136.37	4,818.45	-120.97	514.89	442.83	0.00	0.00	0.00
5,900.00	90.73	136.37	4,817.17	-193.34	583.88	542.82	0.00	0.00	0.00
6,000.00	90.73	136.37	4,815.89	-265.72	652.88	642.81	0.00	0.00	0.00
6,100.00	90.73	136.37	4,814.62	-338.09	721.87	742.81	0.00	0.00	0.00
6,200.00	90.73	136.37	4,813.34	-410.47	790.87	842.80	0.00	0.00	0.00
6,300.00	90.73	136.37	4,812.06	-482.84	859.86	942.79	0.00	0.00	0.00
6,400.00	90.73	136.37	4,810.78	-555.22	928.85	1,042.78	0.00	0.00	0.00
6,461.19	90.73	136.37	4,810.00	-599.50	971.07	1,103.96	0.00	0.00	0.00
TD at 6461.19									

Design Targets

Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
- hit/miss target									
- Shape									
ST36D-193H BHL	0.00	0.00	4,810.00	-599.50	971.07	1,855,398.39	589,008.95	36.098956	-107.532042
- plan hits target center									
- Point									
ST36D-193H POE	0.00	0.00	4,825.00	254.08	165.56	1,856,249.50	588,200.83	36.101301	-107.534769
- plan misses target center by 5.93usft at 5287.46usft MD (4825.00 TVD, 249.99 N, 161.27 E)									
- Point									

Casing Points

Measured Depth (usft)	Vertical Depth (usft)	Name	Casing Diameter (")	Hole Diameter (")
5,287.49	4,825.00	7"	7	8-3/4

Scientific Drilling Int.

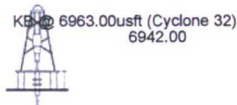
Planning Report

Database:	Grand Junction District	Local Co-ordinate Reference:	Well State 2207-36D #193H
Company:	WPX Energy	TVD Reference:	KB @ 6963.00usft (Cyclone 32)
Project:	Sandoval County, NM 3003 West	MD Reference:	KB @ 6963.00usft (Cyclone 32)
Site:	State 2207-36D	North Reference:	True
Well:	State 2207-36D #193H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #5		

Formations						
Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)	
658.08	658.00	Ojo Alamo				
872.04	871.00	Kirtland				
964.03	962.00	Fruitland				
1,236.07	1,228.00	Picture Cliffs				
1,356.99	1,345.00	Lewis				
1,673.24	1,651.00	Chacra				
2,866.93	2,806.00	Cliff House				
2,908.27	2,846.00	Menefee				
3,671.37	3,585.00	Point Lookout				
3,840.20	3,751.00	Mancos				
4,176.90	4,086.00	Gallup				
4,416.99	4,325.00	Gallup Upper				
4,730.82	4,603.00	Mancos Lwr				
4,741.44	4,611.00	El Vado				
4,917.59	4,725.00	Frac Barrier				
4,917.59	4,725.00	Mancos Unc				
5,055.22	4,786.00	PS 3				
5,119.15	4,805.00	PS2				

Plan Annotations					
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates			
		+N/-S (usft)	+E/-W (usft)	Comment	
500.00	500.00	0.00	0.00	Start Build 2.00	
1,231.37	1,223.45	86.34	-34.17	Start 2316.62 hold at 1231.37 MD	
3,547.98	3,464.98	630.31	-249.42	Start Drop -2.00	
4,279.35	4,188.43	716.65	-283.59	KOP	
4,279.35	4,188.43	716.65	-283.59	Start DLS 9.00 TFO 136.37	
5,287.49	4,825.00	249.97	161.29	Start 1173.70 hold at 5287.49 MD	
6,461.19	4,810.00	-599.50	971.07	TD at 6461.19	

State 2207-36D #193H
Sandoval County, NM 3003 West
Northing: 1855994.92
Easting: 588036.05
Plan #5



Azimuths to True North
Magnetic North: 9.00°
Magnetic Field
Strength: 49511.2snT
Dip Angle: 62.87°
Date: 5/5/2017
Model: HDGM

WELL DETAILS State 2207-36D #193H

Ground Level: 6942.00

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
0.00	0.00	1855994.92	588036.05	36.100603	-107.535329

SECTION DETAILS

MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	Vsect
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
500.00	0.00	0.00	500.00	0.00	0.00	0.00	0.00	0.00
1231.37	14.63	338.41	1223.45	86.34	-34.17	2.00	338.41	-86.07
3547.98	14.63	338.41	3464.98	630.31	-249.42	0.00	0.00	-628.33
4279.35	0.00	0.00	4188.43	716.65	-283.59	2.00	180.00	-714.40
5287.49	90.73	136.37	4825.00	249.97	161.29	9.00	136.37	-69.64
6461.19	90.73	136.37	4810.00	-599.50	971.07	0.00	0.00	1103.96

SITE DETAILS: State 2207-36D

Site Centre Northing: 1855994.92
Easting: 588036.05

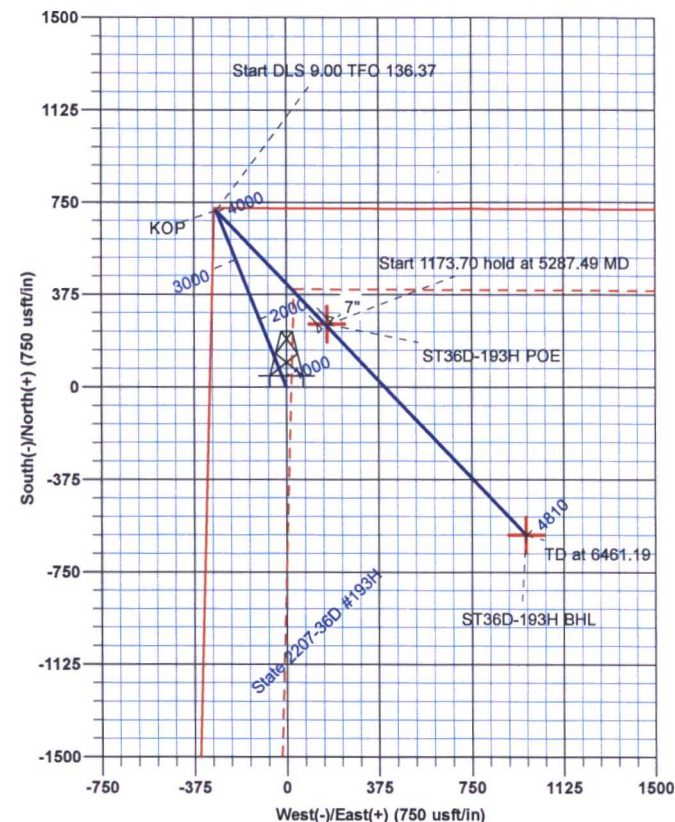
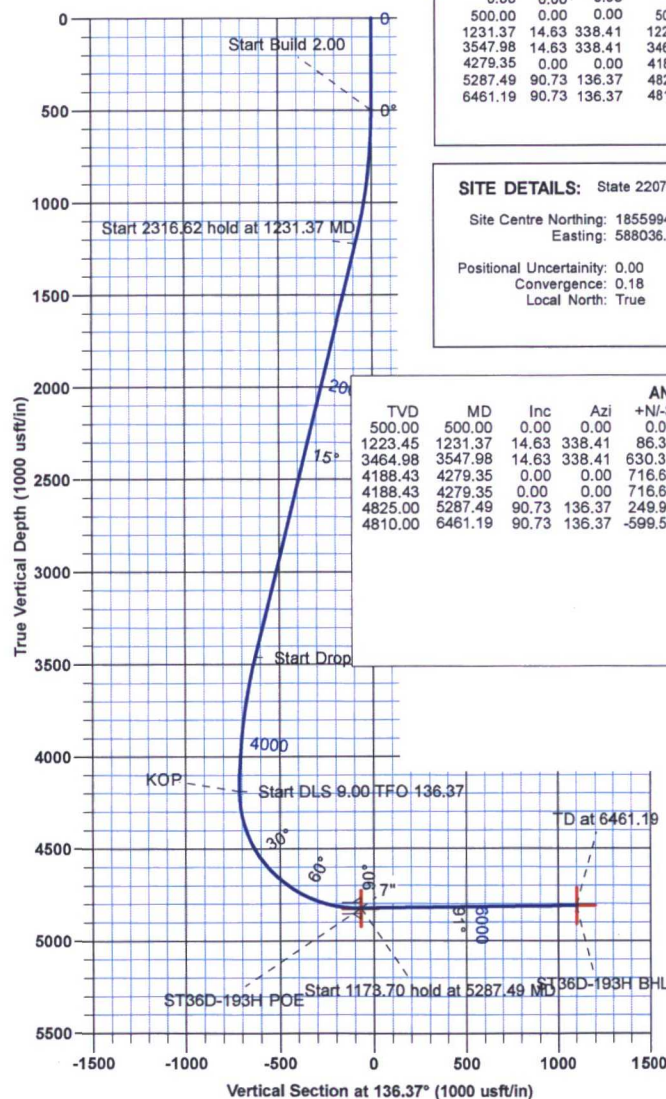
Positional Uncertainty: 0.00
Convergence: 0.18
Local North: True

PROJECT DETAILS: Sandoval County, NM 3003 West

Geodetic System: US State Plane 1927 (Exact solution)
Datum: NAD 1927 (NADCON CONUS)
Ellipsoid: Clarke 1866
Zone: New Mexico West 3003
System Datum: Mean Sea Level

ANNOTATIONS

TVD	MD	Inc	Azi	+N/-S	+E/-W	Vsect	Departure	Annotation
500.00	500.00	0.00	0.00	0.00	0.00	0.00	0.00	Start Build 2.00
1223.45	1231.37	14.63	338.41	86.34	-34.17	-85.74	92.85	Start 2316.62 hold at 1231.37 MD
3464.98	3547.98	14.63	338.41	630.31	-249.42	-625.95	677.87	Start Drop -2.00
4188.43	4279.35	0.00	0.00	716.65	-283.59	-711.69	770.72	KOP
4188.43	4279.35	0.00	0.00	716.65	-283.59	-711.69	770.72	Start DLS 9.00 TFO 136.37
4825.00	5287.49	90.73	136.37	249.97	161.29	-66.96	1415.48	Start 1173.70 hold at 5287.49 MD
4810.00	6461.19	90.73	136.37	-599.50	971.07	1106.59	2589.08	TD at 6461.19



CASING DETAILS

TVD	MD	Size
4825.00	5287.49	7

8:37, June 02 2017
Scientific Drilling
633 Rankin Circle N.
Houston, TX 77073

Directions from the Intersection of US Hwy 550 & US Hwy 64

in Bloomfield, NM to WPX Energy Production, LLC State 2207-36D #193H

725' FNL & 311' FWL, Section 36, T22N, R7W, N.M.P.M., Sandoval County, NM

Latitude: 36.100619°N Longitude: 107.535935°W Datum: NAD1983

From the intersection of US Hwy 550 & US Hwy 64 in Bloomfield, NM, travel Southerly on US Hwy 550 for 53.6 miles to Mile Marker 97.7;

Go Right (Southerly) on Indian Service Route #474 for 3.6 miles to fork in roadway;

Go Right (Southerly) which is straight continuing on Indian Service Route #474 for 1.0 miles to fork in roadway;

Go Left (Southerly) continuing on Indian Service Route #474 for 0.1 miles to fork in roadway;

Go Right (Southerly) which is straight exiting Indian Service Route #474 entering Indian Service Route #46 for 3.4 miles to 4-way intersection in roadway;

Go Right (Westerly) exiting Indian Service Route #46 for 2.9 miles to new access on right-hand side of existing roadway which continues for 703.9' to staked WPX State 2207-36D #193H location.