

State of New Mexico  
Energy, Minerals and Natural Resources Department

**Susana Martinez**  
Governor

**David Martin**  
Cabinet Secretary

**Tony Delfin**  
Deputy Cabinet Secretary

**David R. Catanach, Division Director**  
Oil Conservation Division



New Mexico Oil Conservation Division approval and conditions listed below are made in accordance with OCD Rule 19.15.7.11 and are in addition to the actions approved by BLM on the following 3160-3 APD form.

Operator Signature Date: 9/14/15

Well information:

Operator WPH, Well Name and Number W Alamo 14 #4614

API# 30-045-35714, Section 1, Township 22 NS, Range 8 E/W

Conditions of Approval: (See the below checked and handwritten conditions)

- ☒ Notify Aztec OCD 24hrs prior to casing & cement.
- ☒ Hold C-104 for directional survey & "As Drilled" Plat
- ☐ Hold C-104 for NSL, NSP, DHC
- ☐ Spacing rule violation. Operator must follow up with change of status notification on other well to be shut in or abandoned
- ☐ Regarding the use of a pit, closed loop system or below grade tank, the operator must comply with the following as applicable:
  - A pit requires a complete C-144 be submitted and approved prior to the construction or use of the pit, pursuant to 19.15.17.8.A
  - A closed loop system requires notification prior to use, pursuant to 19.15.17.9.A
  - A below grade tank requires a registration be filed prior to the construction or use of the below grade tank, pursuant to 19.15.17.8.C
- ☒ Once the well is spud, to prevent ground water contamination through whole or partial conduits from the surface, the operator shall drill without interruption through the fresh water zone or zones and shall immediately set in cement the water protection string
- ☒ Submit Gas Capture Plan form prior to spudding or initiating recompletion operations
- ☒ Regarding Hydraulic Fracturing, review EPA Underground Injection Control Guidance 84
- ☒ Oil base muds are not to be used until fresh water zones are cased and cemented providing isolation from the oil or diesel. This includes synthetic oils. Oil based mud, drilling fluids and solids must be contained in a steel closed loop system.
- ☒ Well-bore communication is regulated under 19.15.29 NMAC. This requires well-bore Communication to be reported in accordance with 19.15.29.8.

Charles Perri  
NMOCD Approved by Signature

6-5-16  
Date



RECEIVED

FORM APPROVED  
OMB No. 1004-0136  
Expires January 31, 2004

OIL CONS. DIV DIST. 3

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

SEP 14 2015

JAN 29 2016

APPLICATION FOR PERMIT TO DRILL OR REENTER

Armington Field Office  
Bureau of Land Management

5. Lease Serial No.	NMNM 117143
6. If Indian, Allottee or Tribe Name	
7. If Unit or CA Agreement, Name and No.	W. Alamito Unit R-14002
8. Lease Name and Well No.	W Alamito UT #461H
9. API Well No.	30-045-35714
10. Field and Pool, or Exploratory	West Alamito Unit Mancos HZ Oil
11. Sec., T., R., M., or Blk. and Survey or Area	SHL: Sec 1, T22N, R8W BHL: Sec 12, T22N, R8W
12. County or Parish	San Juan County
13. State	NM
14. Distance in miles and direction from nearest town or post office*	approximately 6 miles southwest of Lybrook, New Mexico
15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any) 240'	
16. No. of Acres in lease	1,122.40 acres
17. Spacing Unit dedicated to this well	640.06 acres E/2 Sections 1 & 12, T22N, R8W
18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft. 40'	
19. Proposed Depth	12,670' MD / 4,886' TVD
20. BLM/BIA Bond No. on file	UTB000178
21. Elevations (Show whether DF, KDB, RT, GL, etc.)	6,938' GR
22. Approximate date work will start*	October 15, 2015
23. Estimated duration	1 month

OIL CONS. DIV DIST. 3

JAN 29 2016

SWNE

24. Attachments

The following, completed in accordance with the requirements of Onshore Oil and Gas Order No. 1, shall be attached to this form:

1. Well plat certified by a registered surveyor.
2. A Drilling Plan.
3. A Surface Use Plan (if the location is on National Forest System Lands, the SUPO shall be filed with the appropriate Forest Service Office).
4. Bond to cover the operations unless covered by an existing bond on file (see Item 20 above).
5. Operator certification.
6. Such other site specific information and/or plans as may be required by the authorized officer.

25. Signature	Name (Printed/Typed)	Date
	Andrea Felix	09/14/2015
Title		
Regulatory Specialist Sr.		
Approved by (Signature)	Name (Printed/Typed)	Date
	AFE	1/28/16
Title	Office	
	FFO	

Application approval does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.

Conditions of approval, if any, are attached.

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

\*(Instructions on reverse)

WPX Energy Production, LLC, proposes to develop the Alamito-Gallup / Basin Mancos formation at the above described location in accordance with the attached drilling and surface use plans.

The well pad surface is under jurisdiction of the BLM and is on lease and will be twinned with the W Alamito #460H.

This location has been archaeologically surveyed by La Plata Archeological Consultants. Copies of their report have been submitted directly to the BLM.

A new 122.4 foot on lease access will be built to access the location.

A new 332.6 foot on lease pipeline will be built.

DRILLING OPERATIONS  
AUTHORIZED ARE SUBJECT TO  
COMPLIANCE WITH ATTACHED  
"GENERAL REQUIREMENTS"

BLM'S APPROVAL OR ACCEPTANCE OF THIS  
ACTION DOES NOT RELIEVE THE LESSEE AND  
OPERATOR FROM OBTAINING ANY OTHER  
AUTHORIZATION REQUIRED FOR OPERATIONS  
ON FEDERAL AND INDIAN LANDS

NMOCDAV

This action is subject to technical  
and procedural review D. 101  
43 CFR 3165.3 and approved  
pursuant to 43 CFR 3165.4



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

*API Number 30-045-35714		*Pool Code 98163	*Pool Name ALAMITO MANCOS W
*Property Code 315082	*Property Name W ALAMITO UNIT		*Well Number 461H
*OGRID No. 120782	*Operator Name WPX ENERGY PRODUCTION, LLC		*Elevation 6938'

<sup>10</sup> Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
A	1	22N	8W	1	240	NORTH	1087	EAST	SAN JUAN

<sup>11</sup> 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
G	12	22N	8W		2228	NORTH	1716	EAST	SAN JUAN

<sup>12</sup> Dedicated Acres 240.45	W/2 E/2 - Section 1 W/2 NE/4 - Section 12	<sup>13</sup> Joint or Infill	<sup>14</sup> Consolidation Code	<sup>15</sup> Order No. R-14002 - 1922.40 Acres
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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

SURFACE LOCATION  
240' FNL 1087' FEL  
SECTION 1, T22N, R8W  
LAT: 36.175388°N  
LONG: 107.627445°W  
DATUM: NAD1927

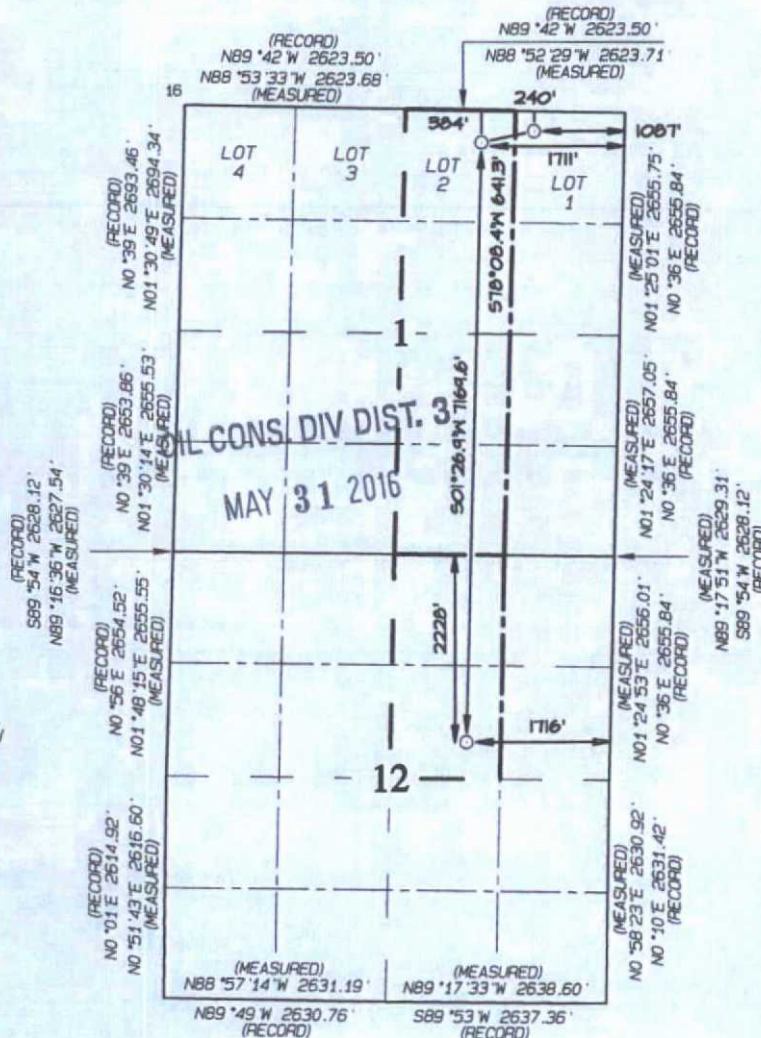
LAT: 36.175402°N  
LONG: 107.628054°W  
DATUM: NAD1983

POINT-OF-ENTRY  
384' FNL 1711' FEL  
SECTION 1, T22N, R8W  
LAT: 36.175001°N  
LONG: 107.629565°W  
DATUM: NAD1927

LAT: 36.175015°N  
LONG: 107.630174°W  
DATUM: NAD1983

END-OF-LATERAL  
2228' FNL 1716' FEL  
SECTION 12, T22N, R8W  
LAT: 36.155310°N  
LONG: 107.629834°W  
DATUM: NAD1927

LAT: 36.155324°N  
LONG: 107.630443°W  
DATUM: NAD1983



<sup>17</sup> 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: 5/31/16

Printed Name: Marie E. Jaramillo  
marie.jaramillo@wpxenergy.com  
E-mail Address

<sup>18</sup> 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: MAY 31, 2016  
Date of Survey: JUNE 16, 2015

Signature and Seal of Professional Surveyor



JASON C. EDWARDS  
Certificate Number 15269





## WPX ENERGY

### Operations Plan

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

**DATE:** 08/05/2015

**FIELD:** Alamito- Gallup/ Basin Mancos

**WELL NAME:** W Alamito UT 461H

**SURFACE:** BLM

**SH Location:** NENE Section 1 22N-08W

**ELEVATION:** 6938' GR

**BH Location:** SWNE Section 12 22N-08W  
San Juan CO., NM

**MINERALS:** Federal

### **MEASURED DEPTH:**

**I. GEOLOGY:** Surface formation – Nacimiento

#### **A. FORMATION TOPS:** ( KB)

Name	MD	TVD	Name	MD	TVD
Ojo Alamo	771	771	Point Lookout	3802	3730
Kirtland	940	938	Mancos	3998	3921
Picture Cliffs	1346	1336	Gallup	<b>4312</b>	4227
Lewis	1447	1434	<b>Kickoff Point</b>	<b>4326</b>	4241
Chacra	1751	1730	Top Target	5338	4998
Cliff House	2862	2814	<b>Landing Point</b>	<b>5501</b>	5006
Menefee	2920	2870	Base Target	5501	5006
			TD	12670	4886

**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. BOPE TESTING:** While drill pipe is in use, the pipe rams and the blind rams will be function tested once each trip. The anticipated reservoir is expected to be less than 1300 psi, so the BOPE will be tested to **250 psi (Low) for 5 minutes** and **1500 psi (High) for 10 minutes**. Pressure test surface casing to **600 psi for 30 minutes** and intermediate casing to **1500 psi for 30 minutes**. Utilize a BOPE Testing Unit with a recording chart and appropriate test plug for testing. The drum brakes will be inspected and tested each tour. **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) (FT)	CASING SIZE (IN)	WEIGHT(LB)	GRADE
Surface	12.25"	320'	9.625"	36#	J-55
Intermediate	8.75"	5,501	7"	23#	K-55
Prod. Liner	6.125"	5351' - 12670'	4-1/2"	11.6#	N-80
Tie-Back String	N/A	Surf. - 5351'	4-1/2"	11.6#	N-80

#### 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 2,700 ft., 2,500 ft., 2,300ft., 2,000ft., 1,500 ft., and 1,000 ft.
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.
4. TIE-BACK CASING: None

#### C. CEMENTING:

*(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: 20 bbl (112 cu-ft) Mud Flush III spacer + Lead: +/- 700 sx Foamed 50/50 Poz Cement. 13.0 ppg + 0.1% Halad 766 + 0.2% Versaset + 1.5% Chem-Foamer 760 (Yield :1.43 cu-ft/ sk. / Vol: 1001 cu-ft / 178.3 Bbls.) + TAIL: 100 sx 13.5 #/gal. + 0.2% Versaset + 0.15% HALAD-766 (Yield: 1.28 cu-ft / sk / Vol: 128 cu-ft / 22.8 Bbls.). + Fresh Water Displacement (1,362 cu-ft / +/- 242 Bbls) + 100 sx Top-Out Cement Premium: Yield: (1.17 cu-ft/ sk / (Vol: 117 cu-ft / 20.8 Bbls). WOC 12 hrs. Test Casing to 1500 PSI for 30 minutes. Total Cement Volume: (900 sx / 1246 cu-ft / 222 bbls). Mix with +/- 84,000 SCF Nitrogen. TOC at surface.
3. PRODUCTION 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 1.29 cu ft/sk, 13.5 ppg, (583 sx / 794 cu ft. / 141 bbls). **Tail Spacer**: 20 BBL of MMCR. **Displacement**: Displace w/ +/- 171 bbl Fr Water. Total Cement ( 794 cu ft / 141 bbls).



**IV. COMPLETION****A. CBL**

1. Run CCL for perforating.

**B. 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 sleeves.

**C. 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 N<sub>2</sub> for 17 stages.
2. Isolate stages with flow through frac plug.
3. Drill out frac plugs and flowback lateral.

**D. 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.

- Although this horizontal well will be 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.

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**NOTE:**

Installation of RSI sleeves at Toe of Lateral.

**Proposed Operations:**

A 4-1/2" 11.6# N-80 Liner will be run to TD and landed +/- 150 ft. into the 7" 23# K-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).

A 4-1/2" 11.6# N-80 tie-back string with seal assembly will be run and stung into the PBR of the liner hanger, tested to 1500 PSI and hung off at the surface. After Stimulation and Testing operations are complete the 4-1/2" tie-back string will be removed from the well.



# **WPX Energy**

**T22N R8W**

**W Alamito UT 1A**

**W Alamito UT #461H - Slot A2**

**W Alamito UT #461H**

**Plan: Design #1 1Aug15 sam**

## **Standard Planning Report**

**01 August, 2015**

**WPX**  
Planning Report

Database:	San Juan	Local Co-ordinate Reference:	Well W Alamito UT #461H (A2) - Slot A2
Company:	WPX Energy	TVD Reference:	KB @ 6954.00usft (Aztec 920)
Project:	T22N R8W	MD Reference:	KB @ 6954.00usft (Aztec 920)
Site:	W Alamito UT 1A	North Reference:	True
Well:	W Alamito UT #461H	Survey Calculation Method:	Minimum Curvature
Wellbore:	W Alamito UT #461H		
Design:	Design #1 1Aug15 sam		

Project	T22N R8W		
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	W Alamito UT 1A				
Site Position:		Northing:	1,883,146.08 usft	Latitude:	36.1753860
From:	Lat/Long	Easting:	560,805.38 usft	Longitude:	-107.6273100
Position Uncertainty:	0.00 usft	Slot Radius:	13.20 in	Grid Convergence:	0.12 °

Well	W Alamito UT #461H - Slot A2					
Well Position	+N/-S	0.73 usft	Northing:	1,883,146.72 usft	Latitude:	36.1753880
	+E/-W	-39.84 usft	Easting:	560,765.53 usft	Longitude:	-107.6274450
Position Uncertainty		0.00 usft	Wellhead Elevation:	0.00 usft	Ground Level:	6,940.00 usft

Wellbore	W Alamito UT #461H				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	8/1/2015	9.27	62.90	50,017

Design	Design #1 1Aug15 sam			
Audit Notes:				
Version:	Phase:	PLAN	Tie On Depth:	0.00
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)
	0.00	0.00	0.00	185.51

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	
1,142.42	12.85	315.10	1,137.05	50.81	-50.63	2.00	2.00	0.00	315.10	
4,325.93	12.85	315.10	4,240.85	552.30	-550.29	0.00	0.00	0.00	0.00	
5,096.82	60.00	180.46	4,890.80	240.11	-622.53	9.00	6.12	-17.47	-138.83	Start 60 tan #461H
5,156.82	60.00	180.46	4,920.80	188.15	-622.95	0.00	0.00	0.00	0.00	End 60 tan #461H
5,325.27	75.16	180.37	4,984.86	32.90	-624.07	9.00	9.00	-0.05	-0.34	
5,500.80	90.96	180.64	5,006.00	-140.79	-625.60	9.00	9.00	0.15	0.98	POE #461H
12,670.13	90.96	180.64	4,886.00	-7,308.67	-705.15	0.00	0.00	0.00	0.00	BHL #461H



**WPX**  
Planning Report

Database: San Juan  
Company: WPX Energy  
Project: T22N R8W  
Site: W Alamito UT 1A  
Well: W Alamito UT #461H  
Wellbore: W Alamito UT #461H  
Design: Design #1 1Aug15 sam

Local Co-ordinate Reference: Well W Alamito UT #461H (A2) - Slot A2  
TVD Reference: KB @ 6954.00usft (Aztec 920)  
MD Reference: KB @ 6954.00usft (Aztec 920)  
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)
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
320.00	0.00	0.00	320.00	0.00	0.00	0.00	0.00	0.00	0.00
<b>9 5/8" 36# J-55</b>									
500.00	0.00	0.00	500.00	0.00	0.00	0.00	0.00	0.00	0.00
<b>Start Build 2.00</b>									
1,000.00	10.00	315.10	997.47	30.83	-30.72	-27.74	2.00	2.00	0.00
1,142.42	12.85	315.10	1,137.05	50.81	-50.63	-45.72	2.00	2.00	0.00
<b>Hold 12.85 Inclination</b>									
1,500.00	12.85	315.10	1,485.68	107.14	-106.75	-96.39	0.00	0.00	0.00
2,000.00	12.85	315.10	1,973.16	185.90	-185.23	-167.26	0.00	0.00	0.00
2,500.00	12.85	315.10	2,460.64	264.67	-263.71	-238.12	0.00	0.00	0.00
3,000.00	12.85	315.10	2,948.12	343.43	-342.18	-308.98	0.00	0.00	0.00
3,500.00	12.85	315.10	3,435.60	422.20	-420.66	-379.85	0.00	0.00	0.00
4,000.00	12.85	315.10	3,923.08	500.96	-499.14	-450.71	0.00	0.00	0.00
4,325.93	12.85	315.10	4,240.85	552.30	-550.29	-496.90	0.00	0.00	0.00
<b>Start Build DLS 9.00 TFO -138.83</b>									
4,500.00	10.28	230.23	4,412.41	556.10	-576.05	-498.21	9.00	-1.47	-48.76
5,000.00	51.42	182.34	4,836.30	320.00	-620.64	-258.92	9.00	8.23	-9.58
5,096.82	60.00	180.46	4,890.80	240.11	-622.53	-179.22	9.00	8.86	-1.94
<b>Hold 60.00 Inclination</b>									
5,156.82	60.00	180.46	4,920.80	188.15	-622.95	-127.46	0.00	0.00	0.00
<b>Start Build DLS 9.00 TFO -0.34</b>									
5,325.27	75.16	180.37	4,984.86	32.90	-624.07	27.19	9.00	9.00	-0.05
<b>Start DLS 9.00 TFO 0.98</b>									
5,500.00	90.89	180.63	5,006.01	-139.99	-625.59	199.42	9.00	9.00	0.15
<b>7" 23# K-55</b>									
5,500.80	90.96	180.64	5,006.00	-140.79	-625.60	200.22	9.00	9.00	0.15
<b>POE at 90.96 Inc 180.64 deg</b>									
6,000.00	90.96	180.64	4,997.64	-639.89	-631.14	697.55	0.00	0.00	0.00
6,500.00	90.96	180.64	4,989.28	-1,139.79	-636.69	1,195.67	0.00	0.00	0.00
7,000.00	90.96	180.64	4,980.91	-1,639.69	-642.23	1,693.79	0.00	0.00	0.00
7,500.00	90.96	180.64	4,972.54	-2,139.59	-647.78	2,191.91	0.00	0.00	0.00
8,000.00	90.96	180.64	4,964.17	-2,639.49	-653.33	2,690.03	0.00	0.00	0.00
8,500.00	90.96	180.64	4,955.80	-3,139.39	-658.88	3,188.15	0.00	0.00	0.00
9,000.00	90.96	180.64	4,947.43	-3,639.29	-664.43	3,686.27	0.00	0.00	0.00
9,500.00	90.96	180.64	4,939.06	-4,139.19	-669.98	4,184.40	0.00	0.00	0.00
10,000.00	90.96	180.64	4,930.69	-4,639.08	-675.52	4,682.52	0.00	0.00	0.00
10,500.00	90.96	180.64	4,922.32	-5,138.98	-681.07	5,180.64	0.00	0.00	0.00
11,000.00	90.96	180.64	4,913.95	-5,638.88	-686.62	5,678.76	0.00	0.00	0.00
11,500.00	90.96	180.64	4,905.59	-6,138.78	-692.17	6,176.88	0.00	0.00	0.00
12,000.00	90.96	180.64	4,897.22	-6,638.68	-697.72	6,675.00	0.00	0.00	0.00
12,500.00	90.96	180.64	4,888.85	-7,138.58	-703.27	7,173.12	0.00	0.00	0.00
12,670.13	90.96	180.64	4,886.00	-7,308.67	-705.15	7,342.61	0.00	0.00	0.00
<b>TD at 12670.13</b>									

**WPX**  
Planning Report

<b>Database:</b>	San Juan	<b>Local Co-ordinate Reference:</b>	Well W Alamito UT #461H (A2) - Slot A2
<b>Company:</b>	WPX Energy	<b>TVD Reference:</b>	KB @ 6954.00usft (Aztec 920)
<b>Project:</b>	T22N R8W	<b>MD Reference:</b>	KB @ 6954.00usft (Aztec 920)
<b>Site:</b>	W Alamito UT 1A	<b>North Reference:</b>	True
<b>Well:</b>	W Alamito UT #461H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	W Alamito UT #461H		
<b>Design:</b>	Design #1 1Aug15 sam		

Design Targets									
Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
BHL #461H - plan hits target center - Point	0.00	0.00	4,886.00	-7,308.67	-705.15	1,875,836.57	560,075.88	36.1553097	-107.6298336
Start 60 tan #461H - plan hits target center - Point	0.00	0.00	4,890.80	240.11	-622.53	1,883,385.51	560,142.49	36.1760476	-107.6295543
End 60 tan #461H - plan misses target center by 1.00usft at 5156.82usft MD (4920.80 TVD, 188.16 N, -622.95 E) - Point	0.00	0.00	4,920.80	188.15	-621.95	1,883,333.55	560,143.18	36.1759048	-107.6295524
POE #461H - plan hits target center - Point	0.00	0.00	5,006.00	-140.79	-625.60	1,883,004.60	560,140.23	36.1750012	-107.6295647

Casing Points					
Measured Depth (usft)	Vertical Depth (usft)	Name	Casing Diameter (in)	Hole Diameter (in)	
320.00	320.00	9 5/8" 36# J-55	9.62	12.25	
5,500.00	5,006.01	7" 23# K-55	7.00	8.75	

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	
1,142.42	1,137.05	50.81	-50.63	Hold 12.85 Inclination	
4,325.93	4,240.85	552.30	-550.29	Start Build DLS 9.00 TFO -138.83	
5,096.82	4,890.80	240.11	-622.53	Hold 60.00 Inclination	
5,156.82	4,920.80	188.15	-622.95	Start Build DLS 9.00 TFO -0.34	
5,325.27	4,984.86	32.90	-624.07	Start DLS 9.00 TFO 0.98	
5,500.80	5,006.00	-140.79	-625.60	POE at 90.96 Inc 180.64 deg	
12,670.13	4,886.00	-7,308.67	-705.15	TD at 12670.13	





Well Name: W Alamito UT #461H  
Surface Location: W Alamito UT 1A  
NAD 1927 (NADCON CONUS), US State Plane 1927 (Exact solution) New Mexico West 3003  
Ground Elevation: 6940.00  
+N/-S +E/-W Northing Easting Latitude Longitude Slot  
0.00 0.00 1883146.72 560765.53 36.1753880 -107.6274450 A2  
KB @ 6954.00usft (Aztec 920)

M  
Azimuths to True North  
Magnetic North: 9.27°  
Magnetic Field  
Strength: 50017.4snT  
Dip Angle: 62.90°  
Date: 8/1/2015  
Model: IGRF2010

#### DESIGN TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Shape
Start 60 tan #461H	4890.80	240.11	-622.53	1883385.51	560142.49	36.1760476	-107.6295543	Point
- plan hits target center								
End 60 tan #461H	4920.80	188.15	-621.95	1883333.55	560143.18	36.1759049	-107.6295523	Point
- plan misses target center by 1.00usft at 5156.82usft MD (4920.80 TVD, 188.16 N, -622.95 E)								
POE #461H	5006.00	-140.79	-625.60	1883004.60	560140.23	36.1750012	-107.6295647	Point
- plan hits target center								
BHL #461H	4896.00	-7308.67	-705.15	1875836.57	560075.88	36.1553098	-107.6298336	Point
- plan hits target center								

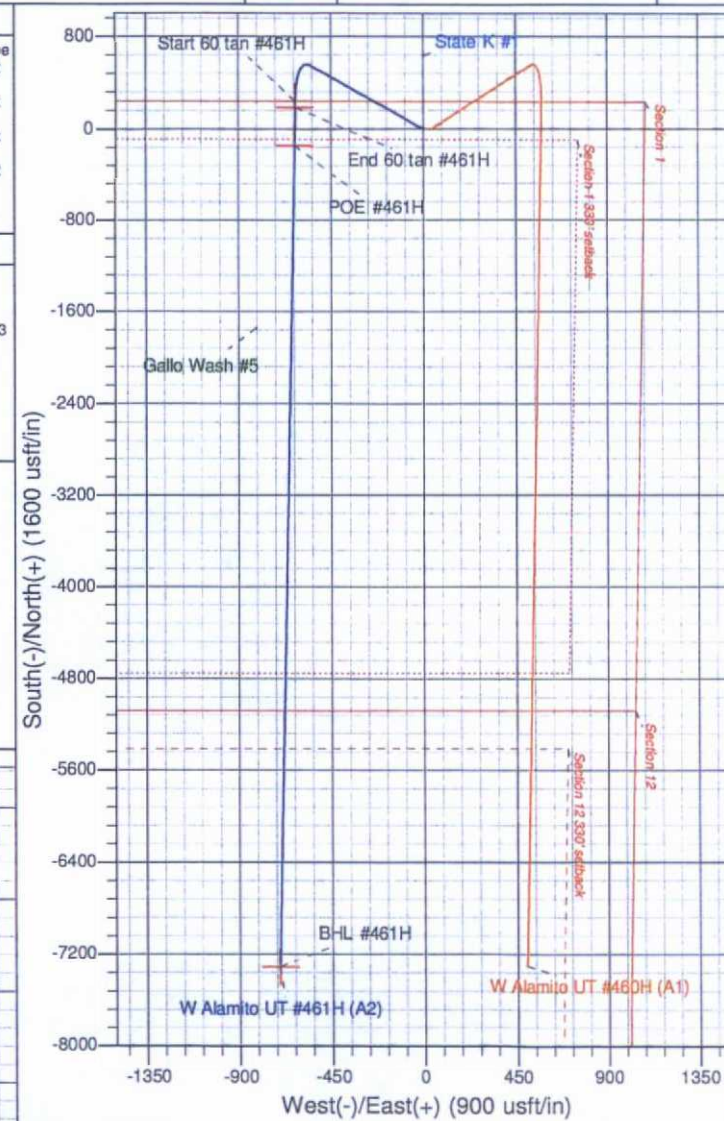
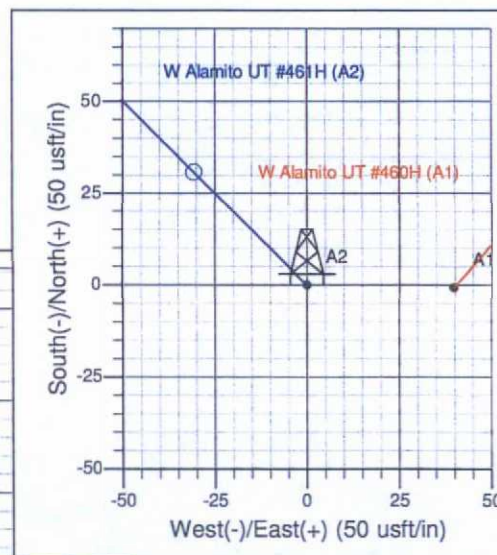
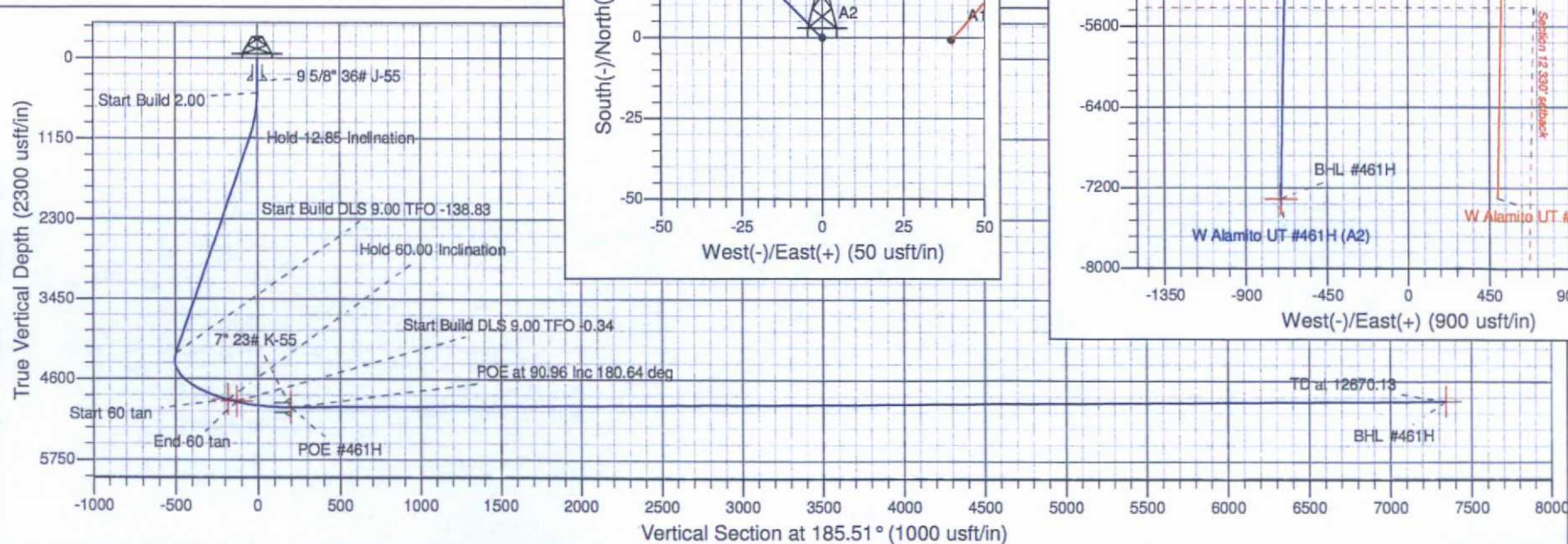
#### ANNOTATIONS

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
1137.05	1142.42	12.85	315.10	50.81	-50.63	-45.72	71.73	Hold 12.85 Inclination
4240.85	4325.93	12.85	315.10	552.30	-550.29	-496.80	779.65	Start Build DLS 9.00 TFO -138.83
4890.80	5096.82	60.00	180.46	240.11	-622.53	-179.22	1132.79	Hold 60.00 Inclination
4920.80	5156.82	60.00	180.46	188.15	-622.95	-127.46	1184.76	Start Build DLS 9.00 TFO -0.34
4984.86	5325.27	75.16	180.37	32.90	-624.07	27.19	1340.01	Start DLS 9.00 TFO 0.98
5006.00	5500.80	90.96	180.64	-140.79	-625.60	200.22	1513.71	POE at 90.96 Inc 180.64 deg
4886.00	12670.13	90.96	180.64	-7308.67	-705.15	7342.61	8682.03	TD at 12670.13

Project: T22N R8W  
Site: W Alamito UT 1A  
Well: W Alamito UT #461H  
Wellbore: W Alamito UT #461H  
Design: Design #1 1Aug15 sam

#### SLOTS

Slot Name	+N/-S	+E/-W	Northing	Easting
A1	-0.73	39.84	1883146.08	560805.37
A2	0.00	0.00	1883146.72	560765.53





driving surface; the tear drop would be used to access the proposed wellheads and other facilities.

2. As practical, access will be a teardrop-shaped road through the production areas so that the center may be revegetated.
3. Within 90 days of installation, production facilities would be painted Juniper Green to blend with the natural color of the landscape and would be located, to the extent practical, to reasonably minimize visual impact.
4. Berms will be constructed around all storage facilities sufficient in size to contain the storage capacity of tanks. Berm walls will be compacted with appropriate equipment to assure containment.

After the completion phases and pipeline installation, portions of the project areas not needed for operation will be reclaimed. When the wells are plugged, final reclamation will occur within the remainder of the project areas. Reclamation is described in detail in the Reclamation Plan (Appendix A).

## 7.0 Methods for Handling Waste

- ✓ A. Cuttings
  1. Drilling operations will utilize a closed-loop system. Drilling of the horizontal laterals will be accomplished with water-based mud. All cuttings will be placed in roll-off bins and hauled to a commercial disposal facility or land farm. WPX will follow Onshore Oil and Gas Order No. 1 regarding the placement, operation, and removal of closed-loop systems. No blow pit will be used.
  2. Closed-loop tanks will be adequately sized for containment of all fluids.
- B. Drilling Fluids
  1. Drilling fluids will be stored onsite in above-ground storage tanks. Upon termination of drilling operations, the drilling fluids will be recycled and transferred to other permitted closed-loop systems or returned to the vendor for reuse, as practical. All residual fluids will be hauled to a commercial disposal facility.
- C. Spills
  1. Any spills of non-freshwater fluids will be immediately cleaned up and removed to an approved disposal site.
- D. Sewage
  1. Portable toilets will be provided and maintained during construction, as needed (see Figure 4 in Appendix B for the location of toilets).
- E. Garbage and other water material
  1. All garbage and trash will be placed in a metal trash basket. The trash and garbage will be hauled off site and dumped in an approved landfill, as needed.
- F. Hazardous Waste
  1. No chemicals subject to reporting under Superfund Amendments and Reauthorization Act Title III in an amount equal to or greater than 10,000 pounds will be used, produced, stored, transported, or disposed of annually in association with the drilling, testing, or completing of these wells.
  2. No extremely hazardous substances, as defined in 40 CFR 355, in threshold planning quantities will be used, produced, stored, transported, or disposed of annually in association with the drilling, testing, or completing of these wells.



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

**in Bloomfield, NM to WPX Energy Production, LLC W Alamito UT #461H**

**240' FNL & 1087' FEL, Section 1, T22N, R8W, N.M.P.M., San Juan County, NM**

**Latitude: 36.175402°N Longitude: 107.628054°W Datum: NAD1983**

From the intersection of US Hwy 550 & US Hwy 64 in Bloomfield, NM, travel Southerly on US Hwy 550 for 38.7 miles to Mile Marker 112.7;

Go Right (Southerly) on County Road #7900 for 4.9 miles to fork in road;

Go Straight (South-easterly) remaining on County Road #7900 for 0.2 miles to fork in road;

Go Left (Easterly) exiting County Road #7900 for 2.8 miles to new access on left-hand side of existing roadway which continues for 122.4' to staked WPX W Alamito UT #461H location.

