

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

AS DRILLED

WELL LOCATION AND ACREAGE DEDICATION PLAT

¹ API Number 30-039-31251	² Pool Code 98088	³ Pool Name CHACO NE HZ (OIL)
⁴ Property Code 313800	⁵ Property Name NE CHACO COM	⁶ Well Number 176H
⁷ GRID No. 120782	⁸ Operator Name WPX ENERGY PRODUCTION, LLC	⁹ Elevation 6982'

¹⁰ Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
D	6	23N	6W	4	1120	NORTH	736	WEST	RIO ARriba

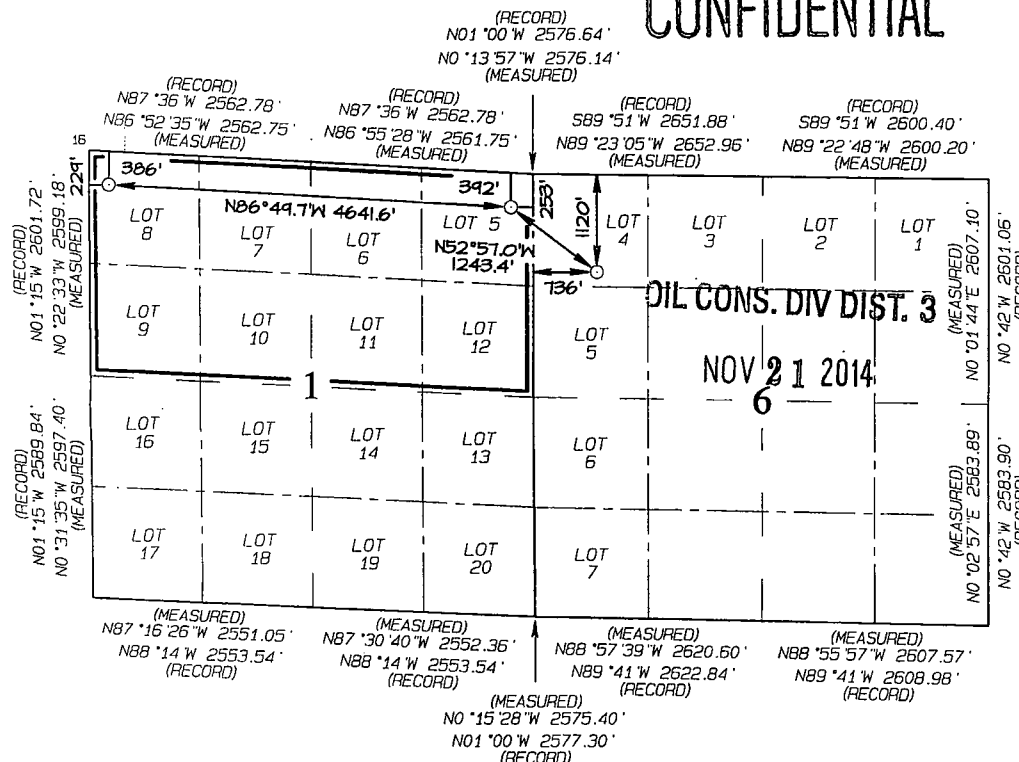
¹¹ Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	280	East/West line	County
D	1	23N	7W	8	386	NORTH	229	WEST	RIO ARriba

¹² Dedicated Acres 303.89 Acres N/2 - Section 1	¹³ Joint or Infill	¹⁴ Consolidation Code	¹⁵ Order No. R-13817A 9,237.30 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

CONFIDENTIAL



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: *Lacey Granillo* Date: 11-20-14
Printed Name: LACEY GRANILLO
E-mail Address: lacey.granillo@wpxenergy.com

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: NOVEMBER 20, 2014
Survey Date: SEPTEMBER 19, 2013

Signature and Seal of Professional Surveyor

JASON C. EDWARDS
NEW MEXICO
REGISTERED PROFESSIONAL SURVEYOR
15269

JASON C. EDWARDS
Certificate Number 15269

END-OF-LATERAL
386' FNL 229' FNL
SECTION 1, T23N, R7W
LAT: 36.260124°N
LONG: 107.535341°W
DATUM: NAD1927
LAT: 36.260137°N
LONG: 107.535947°W
DATUM: NAD1983

BASE PERFORATION
384' FNL 331' FNL
SECTION 1, T23N, R7W
LAT: 36.260119°N
LONG: 107.534992°W
DATUM: NAD1927
LAT: 36.260132°N
LONG: 107.535598°W
DATUM: NAD1983

POINT-OF-ENTRY
392' FNL 253' FEL
SECTION 1, T23N, R7W
LAT: 36.259587°N
LONG: 107.519614°W
DATUM: NAD1927
LAT: 36.259600°N
LONG: 107.520219°W
DATUM: NAD1983

SURFACE LOCATION
1120' FNL 736' FNL
SECTION 6, T23N, R6W
LAT: 36.257565°N
LONG: 107.516215°W
DATUM: NAD1927
LAT: 36.257578°N
LONG: 107.516821°W
DATUM: NAD1983

N

WPXENERGYSM



WPX Energy Rocky Mountain, LLC

Rio Arriba County, NM NAD27

Chaco 2306-06D

NE Chaco Com #176H

OH

OIL CONS. DIV DIST. 3

Design: OH

NOV 21 2014

Survey Report - Geographic

20 November, 2014

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Scientific Drilling

www.scientificdrilling.com

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Scientific Drilling



Company Name: WPX Energy Rocky Mountain, LLC
Project: Rio Arriba County, NM NAD27
Site: Chaco 2306-06D
Well: NE Chaco Com #176H

WPXENERGY

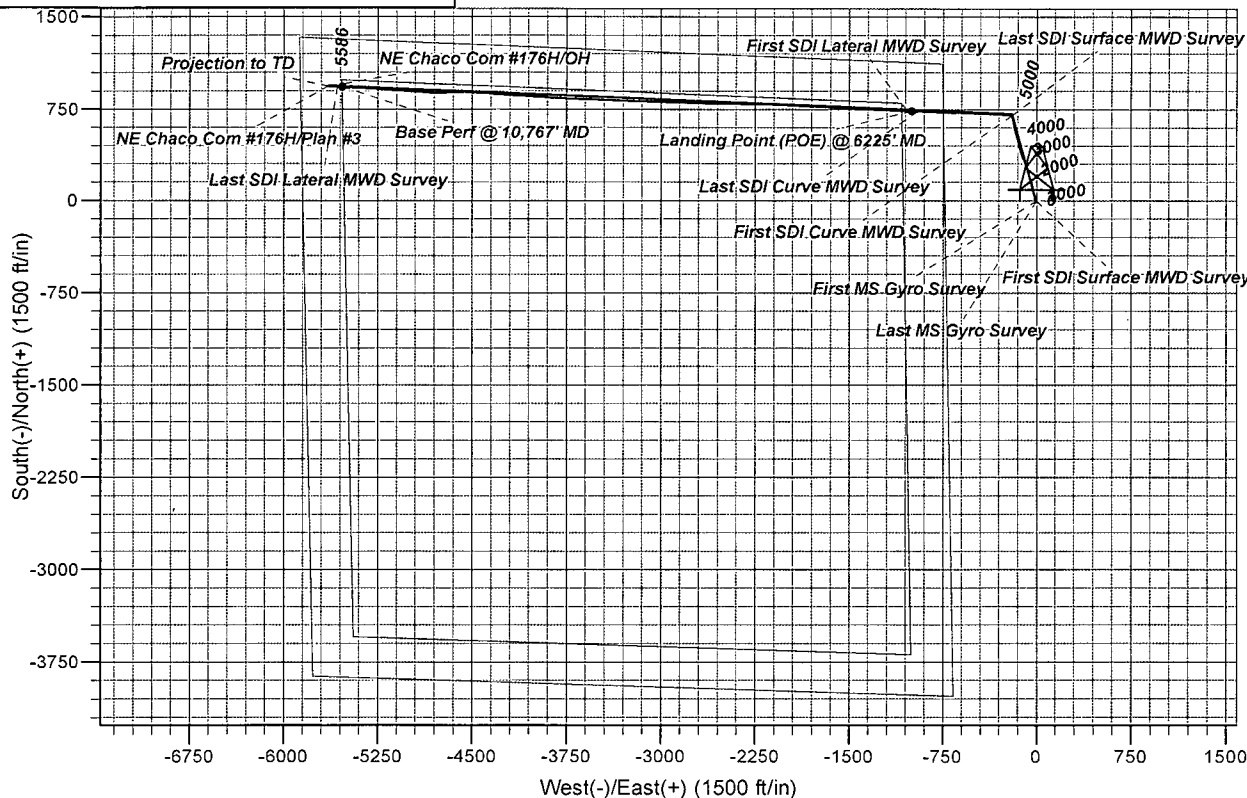
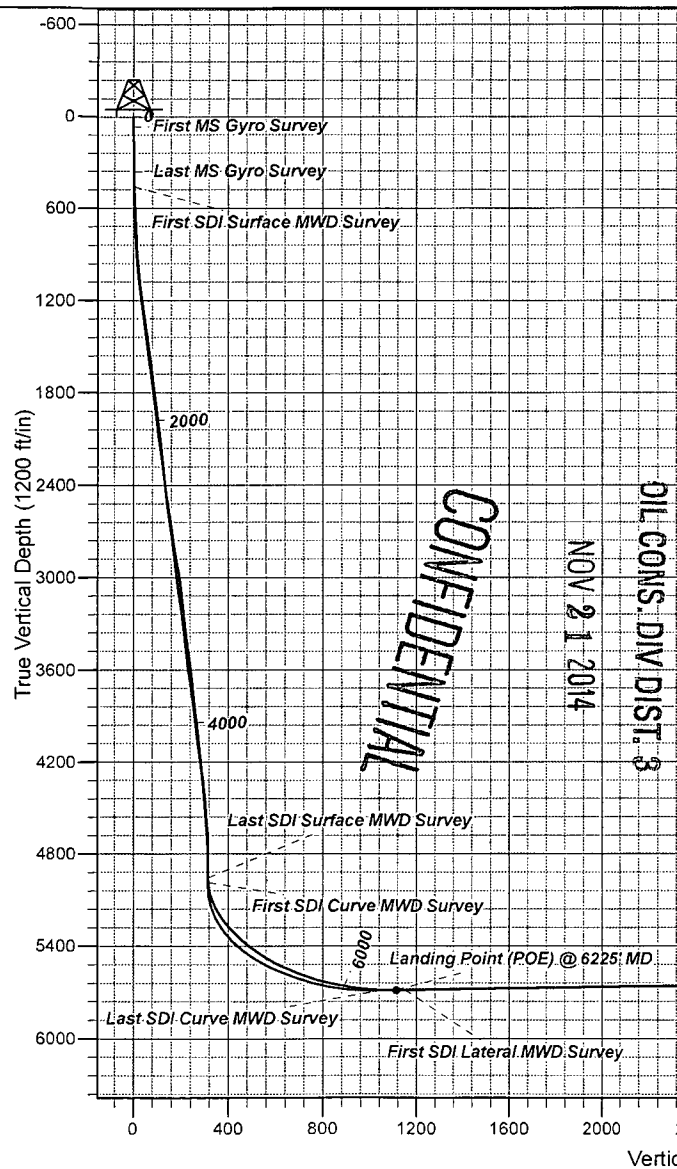


Azimuths to True North
Magnetic North: 9.41°

Magnetic Field
Strength: 50061.4nT
Dip Angle: 63.03°
Date: 11/4/2014
Model: BGGM2014

WELL DETAILS: NE Chaco Com #176H

+N/-S	+E/-W	GL 6982' & RKB 14' @ 6996.00ft (Aztec 730)	6982.00
0.00	0.00	Northing	Latitude
		Easting	Longitude
		1915401.88	-107.5162200
		126677.83	
		36.2575600	



Vertical Section at 279.86° (800 ft/in)

Design: OH (NE Chaco Com #176H/OH)
Created By: Janie Collins Date: 11:15, November 20 2014
PROJECT DETAILS: Rio Arriba County, NM NAD27
Geodetic System: US State Plane 1927 (Exact solution) Datum: NAD 1927 (NADCON CONUS) Ellipsoid: Clarke 1866 Zone: New Mexico Central 3002
System Datum: Mean Sea Level Local North: True



Survey Report - Geographic



Company:	WPX Energy Rocky Mountain, LLC	Local Co-ordinate Reference:	Well NE Chaco Com #176H
Project:	Rio Arriba County, NM NAD27	TVD Reference:	GL 6982' & RKB 14' @ 6996.00ft (Aztec 730)
Site:	Chaco 2306-06D	MD Reference:	GL 6982' & RKB 14' @ 6996.00ft (Aztec 730)
Well:	NE Chaco Com #176H	North Reference:	True
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	Database:	Grand Junction District

Project	Rio Arriba County, NM NAD27		
Map System:	US State Plane 1927 (Exact solution)	System Datum:	Mean Sea Level
Geo Datum:	NAD 1927 (NADCON CONUS)		
Map Zone:	New Mexico Central 3002		

Site	Chaco 2306-06D		
Site Position:		Northing:	1,915,390.69 usft
From:	Lat/Long	Easting:	126,698.33 usft
Position Uncertainty:	0.00 ft	Slot Radius:	13.200 in
		Latitude:	36.2575300
		Longitude:	-107.5161500
		Grid Convergence:	-0.75 °

Well:	NE Chaco Com #176H		
Well Position	+N/-S	0.00 ft	Northing:
	+E/-W	0.00 ft	Easting:
Position Uncertainty	0.00 ft	Wellhead Elevation:	0.00 ft
		Latitude:	36.2575600
		Longitude:	-107.5162200
		Ground Level:	6,982.00 ft

Wellbore	OH		
Magnetics	Model Name	Sample Date	Declination
			(°)
	BGGM2014	11/4/2014	9.41
			Dip Angle
			(°)
			63.03
			Field Strength
			(nT)
			50,061

Design	OH		
Audit Notes:			
Version:	1.0	Phase:	ACTUAL
		Tie On Depth:	0.00
Vertical Section:	Depth From (TVD)	+N/-S	+E/-W
	(ft)	(ft)	(ft)
	0.00	0.00	0.00
			Direction
			(°)
			279.86

Survey Program	Date 11/20/2014		
From	To	Survey (Wellbore)	Tool Name
(ft)	(ft)		
64.00	364.00	Survey #1 - Gyro Surveys (OH)	Gyro
463.00	5,023.00	Survey #2 - Surface MWD Survey (OH)	MWD SDI
5,055.00	6,177.00	Survey #3 - Curve MWD Survey (OH)	MWD SDI
6,262.00	10,870.00	Survey #4 - Lateral MWD Survey (OH)	MWD SDI
			Description
			MWD - Standard ver 1.0.1
			MWD - Standard ver 1.0.1
			MWD - Standard ver 1.0.1

Survey									
Measured	Inclination	Azimuth	Vertical	+N/-S	+E/-W	Map	Map	Latitude	Longitude
Depth	(°)	(°)	Depth	(ft)	(ft)	Northing	Easting		
(ft)			(ft)			(usft)	(usft)		
0.00	0.00	0.00	0.00	0.00	0.00	1,915,401.88	126,677.83	36.2575600	-107.5162200
64.00	0.39	237.04	64.00	-0.12	-0.18	1,915,401.77	126,677.64	36.2575597	-107.5162207
First MS Gyro Survey									
114.00	0.63	251.27	114.00	-0.30	-0.59	1,915,401.59	126,677.24	36.2575592	-107.5162220
164.00	0.74	240.43	163.99	-0.55	-1.13	1,915,401.35	126,676.69	36.2575585	-107.5162239
214.00	0.74	259.72	213.99	-0.76	-1.73	1,915,401.14	126,676.09	36.2575579	-107.5162259
264.00	0.62	275.25	263.99	-0.80	-2.31	1,915,401.12	126,675.51	36.2575578	-107.5162279
314.00	0.36	287.01	313.98	-0.73	-2.73	1,915,401.19	126,675.09	36.2575580	-107.5162293

Company:	WPX Energy Rocky Mountain, LLC	Local Co-ordinate Reference:	Well NE Chaco Com #176H
Project:	Rio Arriba County, NM NAD27	TVD Reference:	GL 6982' & RKB 14' @ 6996.00ft (Aztec 730)
Site:	Chaco 2306-06D	MD Reference:	GL 6982' & RKB 14' @ 6996.00ft (Aztec 730)
Well:	NE Chaco Com #176H	North Reference:	True
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	Database:	Grand Junction District

Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
364.00	0.35	276.49	363.98	-0.66	-3.03	1,915,401.26	126,674.79	36.2575582	-107.5162303
Last MS Gyro Survey									
463.00	0.71	280.95	462.98	-0.51	-3.94	1,915,401.42	126,673.89	36.2575586	-107.5162334
First SDI Surface MWD Survey									
524.00	0.95	283.15	523.97	-0.33	-4.80	1,915,401.62	126,673.02	36.2575591	-107.5162363
588.00	2.06	323.38	587.95	0.72	-6.00	1,915,402.68	126,671.84	36.2575620	-107.5162404
651.00	3.36	335.59	650.88	3.31	-7.44	1,915,405.29	126,670.43	36.2575691	-107.5162453
713.00	4.38	340.63	712.74	7.20	-8.98	1,915,409.20	126,668.95	36.2575797	-107.5162505
776.00	6.14	349.80	775.47	12.78	-10.37	1,915,414.80	126,667.62	36.2575951	-107.5162552
839.00	7.96	353.88	837.99	20.44	-11.43	1,915,422.47	126,666.66	36.2576161	-107.5162588
901.00	8.60	351.06	899.35	29.28	-12.61	1,915,431.33	126,665.60	36.2576404	-107.5162628
964.00	9.98	349.36	961.52	39.30	-14.35	1,915,441.37	126,663.99	36.2576679	-107.5162687
1,027.00	10.68	350.05	1,023.50	50.42	-16.37	1,915,452.51	126,662.12	36.2576985	-107.5162756
1,089.00	11.64	350.35	1,084.32	62.24	-18.41	1,915,464.36	126,660.23	36.2577309	-107.5162825
1,152.00	12.33	349.22	1,145.95	75.12	-20.73	1,915,477.26	126,658.08	36.2577663	-107.5162904
1,213.00	12.08	345.61	1,205.57	87.70	-23.54	1,915,489.88	126,655.44	36.2578009	-107.5162999
1,273.00	11.74	342.21	1,264.28	99.59	-26.96	1,915,501.82	126,652.17	36.2578335	-107.5163115
1,334.00	11.97	342.23	1,323.98	111.53	-30.79	1,915,513.80	126,648.50	36.2578663	-107.5163245
1,395.00	11.97	343.03	1,383.65	123.60	-34.57	1,915,525.92	126,644.88	36.2578995	-107.5163373
1,457.00	10.99	345.28	1,444.41	135.46	-37.95	1,915,537.83	126,641.66	36.2579321	-107.5163487
1,519.00	10.38	345.33	1,505.34	146.58	-40.86	1,915,548.99	126,638.89	36.2579626	-107.5163586
1,580.00	10.52	343.51	1,565.33	157.24	-43.83	1,915,559.68	126,636.05	36.2579919	-107.5163687
1,640.00	11.18	343.87	1,624.25	168.08	-47.00	1,915,570.56	126,633.03	36.2580216	-107.5163795
1,701.00	10.71	342.26	1,684.14	179.16	-50.37	1,915,581.68	126,629.80	36.2580521	-107.5163909
1,762.00	10.39	342.47	1,744.11	189.80	-53.76	1,915,592.37	126,626.56	36.2580813	-107.5164024
1,822.00	10.66	342.11	1,803.10	200.24	-57.09	1,915,602.85	126,623.36	36.2581100	-107.5164137
1,882.00	9.93	343.54	1,862.14	210.49	-60.26	1,915,613.14	126,620.32	36.2581381	-107.5164244
1,943.00	9.37	344.59	1,922.27	220.32	-63.07	1,915,623.01	126,617.64	36.2581651	-107.5164339
2,004.00	9.49	342.17	1,982.45	229.89	-65.93	1,915,632.62	126,614.91	36.2581914	-107.5164436
2,065.00	9.48	339.83	2,042.62	239.39	-69.20	1,915,642.16	126,611.76	36.2582175	-107.5164547
2,125.00	9.48	342.60	2,101.80	248.75	-72.39	1,915,651.55	126,608.70	36.2582432	-107.5164655
2,187.00	9.62	347.55	2,162.94	258.68	-75.03	1,915,661.52	126,606.19	36.2582705	-107.5164745
2,247.00	10.45	347.66	2,222.02	268.89	-77.27	1,915,671.76	126,604.08	36.2582985	-107.5164821
2,308.00	10.27	345.71	2,282.03	279.56	-79.80	1,915,682.46	126,601.69	36.2583279	-107.5164907
2,369.00	10.40	345.20	2,342.04	290.16	-82.55	1,915,693.09	126,599.08	36.2583570	-107.5165000
2,429.00	10.73	343.92	2,401.02	300.76	-85.48	1,915,703.73	126,596.29	36.2583861	-107.5165099
2,491.00	10.44	344.03	2,461.96	311.71	-88.62	1,915,714.72	126,593.29	36.2584162	-107.5165206
2,552.00	10.32	339.84	2,521.97	322.15	-92.02	1,915,725.21	126,590.02	36.2584448	-107.5165321
2,613.00	10.40	336.02	2,581.97	332.31	-96.15	1,915,735.42	126,586.04	36.2584727	-107.5165461
2,674.00	11.15	339.01	2,641.90	342.85	-100.50	1,915,746.01	126,581.82	36.2585017	-107.5165609
2,735.00	11.60	339.36	2,701.70	354.09	-104.77	1,915,757.31	126,577.70	36.2585326	-107.5165754
2,796.00	11.34	338.28	2,761.48	365.40	-109.15	1,915,768.68	126,573.46	36.2585636	-107.5165902
2,857.00	11.31	336.14	2,821.29	376.44	-113.79	1,915,779.78	126,568.97	36.2585940	-107.5166059
2,918.00	11.83	340.91	2,881.05	387.82	-118.26	1,915,791.22	126,564.65	36.2586252	-107.5166211
2,980.00	11.62	342.79	2,941.76	399.79	-122.18	1,915,803.24	126,560.88	36.2586581	-107.5166344
3,043.00	11.64	344.79	3,003.47	411.99	-125.73	1,915,815.48	126,557.50	36.2586916	-107.5166464
3,106.00	11.31	345.70	3,065.21	424.11	-128.92	1,915,827.64	126,554.46	36.2587249	-107.5166573
3,168.00	10.99	343.44	3,126.04	435.66	-132.11	1,915,839.23	126,551.43	36.2587566	-107.5166681
3,231.00	10.93	345.85	3,187.89	447.21	-135.28	1,915,850.82	126,548.41	36.2587883	-107.5166788
3,294.00	10.51	346.60	3,249.79	458.59	-138.07	1,915,862.24	126,545.77	36.2588196	-107.5166883
3,357.00	10.19	343.90	3,311.77	469.54	-140.95	1,915,873.22	126,543.03	36.2588497	-107.5166980
3,419.00	10.77	346.54	3,372.73	480.44	-143.82	1,915,884.16	126,540.31	36.2588796	-107.5167078
3,482.00	11.50	347.31	3,434.55	492.29	-146.57	1,915,896.04	126,537.71	36.2589122	-107.5167171
3,544.00	10.74	345.59	3,495.38	503.91	-149.36	1,915,907.71	126,535.07	36.2589441	-107.5167266
3,608.00	10.38	343.56	3,558.30	515.22	-152.48	1,915,919.05	126,532.10	36.2589752	-107.5167371

Company:	WPX Energy-Rocky Mountain, LLC	Local Co-ordinate Reference:	Well NE Chaco Com #176H
Project:	Rio Arriba County, NM NAD27	TVD Reference:	GL 6982' & RKB 14' @ 6996.00ft (Aztec 730)
Site:	Chaco 2306-06D	MD Reference:	GL 6982' & RKB 14' @ 6996.00ft (Aztec 730)
Well:	NE Chaco Com #176H	North Reference:	True
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	Database:	Grand Junction District

Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
3,671.00	11.14	345.66	3,620.19	526.56	-155.59	1,915,930.43	126,529.14	36.2590063	-107.5167477
3,735.00	11.68	347.31	3,682.92	538.87	-158.54	1,915,942.78	126,526.34	36.2590401	-107.5167577
3,798.00	11.39	345.79	3,744.65	551.12	-161.47	1,915,955.07	126,523.58	36.2590738	-107.5167677
3,861.00	10.88	345.45	3,806.47	562.91	-164.49	1,915,966.89	126,520.71	36.2591061	-107.5167779
3,923.00	10.40	343.77	3,867.40	573.94	-167.53	1,915,977.97	126,517.82	36.2591365	-107.5167882
3,986.00	10.91	347.80	3,929.31	585.23	-170.38	1,915,989.29	126,515.12	36.2591675	-107.5167979
4,048.00	10.94	350.82	3,990.19	596.77	-172.55	1,916,000.86	126,513.09	36.2591992	-107.5168052
4,111.00	10.72	350.97	4,052.07	608.46	-174.43	1,916,012.57	126,511.37	36.2592313	-107.5168116
4,174.00	10.64	350.58	4,113.98	619.99	-176.30	1,916,024.12	126,509.65	36.2592629	-107.5168179
4,236.00	9.87	351.16	4,174.99	630.88	-178.05	1,916,035.04	126,508.04	36.2592929	-107.5168239
4,299.00	9.43	351.73	4,237.09	641.33	-179.63	1,916,045.50	126,506.60	36.2593215	-107.5168292
4,362.00	9.24	350.27	4,299.26	651.42	-181.22	1,916,055.61	126,505.14	36.2593493	-107.5168346
4,425.00	8.68	347.65	4,361.49	661.05	-183.09	1,916,065.27	126,503.39	36.2593757	-107.5168410
4,489.00	8.14	347.32	4,424.80	670.19	-185.12	1,916,074.43	126,501.48	36.2594008	-107.5168479
4,551.00	8.16	345.26	4,486.18	678.72	-187.20	1,916,083.00	126,499.51	36.2594243	-107.5168549
4,614.00	7.11	340.99	4,548.62	686.74	-189.61	1,916,091.04	126,497.21	36.2594463	-107.5168631
4,677.00	5.41	335.30	4,611.24	693.12	-192.12	1,916,097.45	126,494.78	36.2594638	-107.5168716
4,740.00	4.62	336.87	4,674.00	698.15	-194.36	1,916,102.51	126,492.61	36.2594776	-107.5168792
4,804.00	3.01	328.81	4,737.86	701.96	-196.24	1,916,106.35	126,490.78	36.2594881	-107.5168856
4,866.00	1.82	303.05	4,799.80	703.89	-197.91	1,916,108.30	126,489.13	36.2594934	-107.5168912
4,929.00	0.86	203.91	4,862.79	704.00	-198.94	1,916,108.42	126,488.11	36.2594937	-107.5168947
4,992.00	1.50	174.90	4,925.78	702.75	-199.06	1,916,107.17	126,487.97	36.2594902	-107.5168951
5,023.00	1.31	176.17	4,956.77	701.99	-199.00	1,916,106.41	126,488.02	36.2594882	-107.5168949
Last SDI Surface MWD Survey									
5,055.00	1.44	256.06	4,988.76	701.53	-199.37	1,916,105.96	126,487.65	36.2594869	-107.5168962
First SDI Curve MWD Survey									
5,086.00	5.36	296.02	5,019.70	702.07	-201.05	1,916,106.52	126,485.98	36.2594884	-107.5169019
5,118.00	8.72	295.06	5,051.46	703.75	-204.59	1,916,108.25	126,482.46	36.2594930	-107.5169139
5,149.00	11.63	282.56	5,081.97	705.43	-209.77	1,916,109.99	126,477.30	36.2594976	-107.5169314
5,181.00	14.74	277.57	5,113.12	706.67	-216.95	1,916,111.32	126,470.13	36.2595010	-107.5169558
5,212.00	18.33	274.41	5,142.84	707.56	-225.73	1,916,112.33	126,461.37	36.2595035	-107.5169856
5,244.00	20.63	272.99	5,173.00	708.24	-236.38	1,916,113.15	126,450.73	36.2595053	-107.5170217
5,275.00	23.50	272.80	5,201.73	708.83	-248.00	1,916,113.89	126,439.11	36.2595070	-107.5170611
5,307.00	25.96	272.02	5,230.79	709.39	-261.38	1,916,114.63	126,425.75	36.2595085	-107.5171065
5,340.00	29.19	270.88	5,260.04	709.77	-276.65	1,916,115.20	126,410.48	36.2595095	-107.5171583
5,371.00	31.09	271.78	5,286.85	710.13	-292.21	1,916,115.77	126,394.93	36.2595105	-107.5172110
5,402.00	32.80	273.52	5,313.15	710.90	-308.59	1,916,116.75	126,378.56	36.2595126	-107.5172666
5,434.00	35.22	275.10	5,339.68	712.25	-326.43	1,916,118.34	126,360.73	36.2595163	-107.5173271
5,465.00	36.67	274.66	5,364.77	713.80	-344.57	1,916,120.12	126,342.62	36.2595206	-107.5173886
5,496.00	37.71	273.63	5,389.47	715.15	-363.25	1,916,121.72	126,323.95	36.2595243	-107.5174520
5,528.00	40.19	273.35	5,414.35	716.37	-383.33	1,916,123.20	126,303.90	36.2595277	-107.5175201
5,560.00	43.52	273.32	5,438.19	717.61	-404.64	1,916,124.72	126,282.60	36.2595311	-107.5175923
5,591.00	46.52	272.03	5,460.10	718.63	-426.55	1,916,126.03	126,260.71	36.2595339	-107.5176666
5,622.00	47.96	271.37	5,481.14	719.30	-449.30	1,916,127.00	126,237.98	36.2595357	-107.5177438
5,653.00	50.30	271.85	5,501.43	719.96	-472.73	1,916,127.96	126,214.56	36.2595375	-107.5178232
5,685.00	52.30	272.01	5,521.43	720.81	-497.68	1,916,129.13	126,189.61	36.2595398	-107.5179079
5,716.00	55.84	272.47	5,539.62	721.79	-522.76	1,916,130.44	126,164.55	36.2595425	-107.5179929
5,747.00	58.17	271.96	5,556.50	722.79	-548.74	1,916,131.78	126,138.58	36.2595453	-107.5180810
5,779.00	60.32	271.68	5,572.86	723.66	-576.23	1,916,133.02	126,111.11	36.2595477	-107.5181742
5,809.00	60.15	270.66	5,587.76	724.20	-602.26	1,916,133.89	126,085.09	36.2595491	-107.5182625
5,842.00	61.91	270.88	5,603.74	724.59	-631.13	1,916,134.65	126,056.23	36.2595502	-107.5183604
5,873.00	64.32	270.80	5,617.76	724.99	-658.77	1,916,135.42	126,028.59	36.2595513	-107.5184542
5,904.00	67.45	271.76	5,630.42	725.63	-687.06	1,916,136.43	126,000.32	36.2595531	-107.5185501
5,936.00	70.11	272.01	5,642.00	726.61	-716.87	1,916,137.80	125,970.52	36.2595558	-107.5186512
5,967.00	73.51	272.29	5,651.68	727.71	-746.29	1,916,139.29	125,941.11	36.2595588	-107.5187510

Company:	WPX Energy Rocky Mountain, LLC	Local Co-ordinate Reference:	Well NE Chaco Com #176H
Project:	Rio Arriba County, NM NAD27	TVD Reference:	GL 6982' & RKB 14' @ 6996.00ft (Aztec 730)
Site:	Chaco 2306-06D	MD Reference:	GL 6982' & RKB 14' @ 6996.00ft (Aztec 730)
Well:	NE Chaco Com #176H	North Reference:	True
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	Database:	Grand Junction District

Survey										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude	
5,998.00	76.04	271.57	5,659.82	728.72	-776.19	1,916,140.68	125,911.24	36.2595616	-107.5188524	
6,029.00	77.91	271.68	5,666.81	729.57	-806.38	1,916,141.93	125,881.06	36.2595639	-107.5189548	
6,060.00	78.57	271.17	5,673.12	730.33	-836.71	1,916,143.09	125,850.73	36.2595660	-107.5190577	
6,092.00	81.60	272.73	5,678.63	731.40	-868.21	1,916,144.57	125,819.25	36.2595689	-107.5191645	
6,123.00	84.10	272.54	5,682.49	732.82	-898.94	1,916,146.39	125,788.55	36.2595728	-107.5192688	
6,155.00	86.53	273.17	5,685.11	734.41	-930.79	1,916,148.39	125,756.72	36.2595772	-107.5193767	
6,177.00	87.93	273.35	5,686.17	735.66	-952.73	1,916,149.93	125,734.80	36.2595806	-107.5194511	
Last SDI Curve MWD Survey										
6,225.00	90.14	271.84	5,686.98	737.83	-1,000.67	1,916,152.73	125,686.89	36.2595866	-107.5196137	
Landing Point (POE) @ 6225' MD										
6,262.00	91.85	270.67	5,686.33	738.64	-1,037.65	1,916,154.02	125,649.92	36.2595888	-107.5197391	
First SDI Lateral MWD Survey										
6,292.00	91.68	272.20	5,685.41	739.39	-1,067.63	1,916,155.16	125,619.96	36.2595908	-107.5198408	
6,353.00	91.31	272.61	5,683.82	741.95	-1,128.55	1,916,158.52	125,559.08	36.2595979	-107.5200474	
6,415.00	91.10	272.99	5,682.51	744.97	-1,190.46	1,916,162.35	125,497.21	36.2596062	-107.5202574	
6,476.00	91.28	272.86	5,681.25	748.09	-1,251.37	1,916,166.26	125,436.35	36.2596147	-107.5204639	
6,537.00	92.69	273.14	5,679.13	751.28	-1,312.25	1,916,170.25	125,375.52	36.2596235	-107.5206704	
6,598.00	91.48	273.35	5,676.91	754.73	-1,373.11	1,916,174.49	125,314.71	36.2596329	-107.5208768	
6,659.00	90.37	272.75	5,675.93	757.97	-1,434.01	1,916,178.53	125,253.85	36.2596418	-107.5210833	
6,720.00	90.61	272.56	5,675.41	760.80	-1,494.95	1,916,182.16	125,192.96	36.2596496	-107.5212900	
6,781.00	91.14	271.09	5,674.48	762.74	-1,555.91	1,916,184.90	125,132.03	36.2596549	-107.5214967	
6,845.00	92.02	272.83	5,672.71	764.93	-1,619.84	1,916,187.92	125,068.13	36.2596609	-107.5217136	
6,907.00	91.78	273.91	5,670.66	768.57	-1,681.70	1,916,192.37	125,006.32	36.2596709	-107.5219233	
6,969.00	91.24	273.23	5,669.02	772.43	-1,743.56	1,916,197.04	124,944.52	36.2596815	-107.5221331	
7,031.00	90.98	273.25	5,667.82	775.93	-1,805.45	1,916,201.35	124,882.68	36.2596911	-107.5223430	
7,094.00	91.55	273.34	5,666.43	779.55	-1,868.33	1,916,205.79	124,819.86	36.2597010	-107.5225563	
7,156.00	91.99	272.90	5,664.51	782.93	-1,930.20	1,916,209.97	124,758.03	36.2597103	-107.5227661	
7,219.00	91.91	272.61	5,662.37	785.95	-1,993.10	1,916,213.82	124,695.18	36.2597186	-107.5229794	
7,282.00	90.30	271.98	5,661.16	788.48	-2,056.03	1,916,217.17	124,632.29	36.2597255	-107.5231928	
7,345.00	89.93	271.66	5,661.03	790.48	-2,119.00	1,916,219.99	124,569.35	36.2597310	-107.5234064	
7,408.00	90.24	272.23	5,660.94	792.61	-2,181.96	1,916,222.95	124,506.42	36.2597369	-107.5236199	
7,472.00	90.64	272.00	5,660.44	794.98	-2,245.92	1,916,226.15	124,442.50	36.2597433	-107.5238368	
7,534.00	90.27	270.67	5,659.95	796.42	-2,307.90	1,916,228.40	124,380.55	36.2597473	-107.5240470	
7,597.00	90.64	270.92	5,659.45	797.29	-2,370.89	1,916,230.10	124,317.57	36.2597497	-107.5242606	
7,660.00	92.35	270.12	5,657.81	797.87	-2,433.86	1,916,231.49	124,254.61	36.2597512	-107.5244742	
7,723.00	92.66	269.83	5,655.05	797.84	-2,496.80	1,916,232.29	124,191.68	36.2597511	-107.5246877	
7,786.00	92.95	270.31	5,651.97	797.92	-2,559.72	1,916,233.19	124,128.76	36.2597513	-107.5249011	
7,849.00	90.54	272.32	5,650.05	799.36	-2,622.67	1,916,235.46	124,065.84	36.2597553	-107.5251145	
7,912.00	90.54	272.31	5,649.46	801.91	-2,685.62	1,916,238.82	124,002.93	36.2597623	-107.5253280	
7,975.00	90.71	272.27	5,648.77	804.42	-2,748.56	1,916,242.16	123,940.02	36.2597692	-107.5255415	
8,038.00	90.04	272.12	5,648.36	806.84	-2,811.51	1,916,245.40	123,877.11	36.2597758	-107.5257550	
8,101.00	90.13	272.12	5,648.27	809.17	-2,874.47	1,916,248.55	123,814.19	36.2597822	-107.5259685	
8,164.00	90.40	271.32	5,647.97	811.06	-2,937.44	1,916,251.27	123,751.25	36.2597873	-107.5261821	
8,226.00	90.75	270.88	5,647.35	812.25	-2,999.43	1,916,253.27	123,689.28	36.2597906	-107.5263923	
8,288.00	90.77	270.62	5,646.53	813.06	-3,061.42	1,916,254.89	123,627.31	36.2597928	-107.5266025	
8,351.00	91.08	271.22	5,645.51	814.07	-3,124.40	1,916,256.72	123,564.34	36.2597956	-107.5268161	
8,414.00	90.50	272.59	5,644.64	816.16	-3,187.36	1,916,259.64	123,501.42	36.2598013	-107.5270296	
8,477.00	89.96	273.79	5,644.39	819.67	-3,250.26	1,916,263.97	123,438.57	36.2598109	-107.5272429	
8,540.00	90.03	272.95	5,644.40	823.37	-3,313.15	1,916,268.49	123,375.73	36.2598210	-107.5274562	
8,603.00	90.64	272.82	5,644.03	826.54	-3,376.07	1,916,272.49	123,312.86	36.2598297	-107.5276696	
8,667.00	90.67	272.37	5,643.30	829.44	-3,440.00	1,916,276.22	123,248.98	36.2598377	-107.5278864	
8,730.00	90.64	272.04	5,642.58	831.87	-3,502.95	1,916,279.47	123,186.06	36.2598443	-107.5280999	
8,793.00	90.88	271.80	5,641.74	833.98	-3,565.90	1,916,282.40	123,123.14	36.2598501	-107.5283134	
8,856.00	90.24	271.68	5,641.13	835.89	-3,628.87	1,916,285.13	123,060.20	36.2598553	-107.5285270	
8,919.00	90.47	271.47	5,640.74	837.62	-3,691.85	1,916,287.69	122,997.25	36.2598601	-107.5287405	

Company:	WPX Energy Rocky Mountain, LLC	Local Co-ordinate Reference:	Well NE Chaco Com #176H
Project:	Rio Arriba County, NM NAD27	TVD Reference:	GL 6982' & RKB 14' @ 6996.00ft (Aztec 730)
Site:	Chaco-2306-06D	MD Reference:	GL 6982' & RKB 14' @ 6996.00ft (Aztec 730)
Well:	NE Chaco Com #176H	North Reference:	True
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	Database:	Grand Junction District

Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
8,983.00	90.87	272.63	5,639.99	839.91	-3,755.80	1,916,290.81	122,933.34	36.2598663	-107.5289574
9,046.00	91.07	273.10	5,638.92	843.06	-3,818.71	1,916,294.79	122,870.47	36.2598749	-107.5291708
9,109.00	91.31	273.70	5,637.61	846.79	-3,881.59	1,916,299.34	122,807.65	36.2598852	-107.5293840
9,171.00	92.09	273.75	5,635.77	850.82	-3,943.43	1,916,304.18	122,745.87	36.2598962	-107.5295938
9,234.00	93.03	274.03	5,632.96	855.09	-4,006.22	1,916,309.27	122,683.14	36.2599079	-107.5298067
9,297.00	92.66	273.52	5,629.83	859.23	-4,069.01	1,916,314.23	122,620.41	36.2599193	-107.5300196
9,360.00	93.10	273.70	5,626.67	863.19	-4,131.80	1,916,319.01	122,557.67	36.2599301	-107.5302326
9,422.00	92.59	273.17	5,623.59	866.90	-4,193.61	1,916,323.53	122,495.91	36.2599403	-107.5304422
9,486.00	93.23	273.64	5,620.34	870.70	-4,257.42	1,916,328.16	122,432.17	36.2599507	-107.5306586
9,550.00	92.59	274.93	5,617.09	875.48	-4,321.15	1,916,333.77	122,368.50	36.2599638	-107.5308748
9,613.00	90.88	274.81	5,615.18	880.82	-4,383.90	1,916,339.93	122,305.83	36.2599784	-107.5310876
9,676.00	90.47	273.35	5,614.44	885.30	-4,446.73	1,916,345.24	122,243.06	36.2599907	-107.5313007
9,739.00	90.40	271.94	5,613.96	888.21	-4,509.66	1,916,348.97	122,180.17	36.2599987	-107.5315141
9,802.00	93.21	271.15	5,611.98	889.91	-4,572.60	1,916,351.49	122,117.26	36.2600033	-107.5317275
9,865.00	89.30	267.16	5,610.60	888.98	-4,635.55	1,916,351.38	122,054.30	36.2600007	-107.5319410
9,928.00	96.10	267.42	5,607.63	886.00	-4,698.37	1,916,349.23	121,991.45	36.2599925	-107.5321541
9,991.00	96.61	271.05	5,600.66	885.17	-4,760.97	1,916,349.21	121,928.85	36.2599902	-107.5323664
10,054.00	94.00	272.07	5,594.83	886.88	-4,823.67	1,916,351.74	121,866.17	36.2599949	-107.5325790
10,117.00	90.57	273.54	5,592.32	889.96	-4,886.54	1,916,355.64	121,803.35	36.2600033	-107.5327922
10,179.00	90.81	274.05	5,591.57	894.06	-4,948.39	1,916,360.55	121,741.55	36.2600146	-107.5330020
10,242.00	90.17	274.91	5,591.04	898.98	-5,011.20	1,916,366.29	121,678.82	36.2600280	-107.5332150
10,305.00	90.84	274.83	5,590.48	904.33	-5,073.97	1,916,372.46	121,616.13	36.2600427	-107.5334279
10,368.00	89.93	273.70	5,590.06	909.01	-5,136.79	1,916,377.97	121,553.37	36.2600555	-107.5336409
10,431.00	90.50	274.28	5,589.82	913.40	-5,199.64	1,916,383.17	121,490.59	36.2600676	-107.5338541
10,494.00	91.07	273.30	5,588.96	917.56	-5,262.49	1,916,388.16	121,427.79	36.2600790	-107.5340673
10,557.00	89.70	273.63	5,588.53	921.37	-5,325.37	1,916,392.78	121,364.96	36.2600894	-107.5342805
10,619.00	89.87	273.24	5,588.77	925.08	-5,387.26	1,916,397.31	121,303.13	36.2600996	-107.5344904
10,682.00	91.31	273.03	5,588.12	928.53	-5,450.16	1,916,401.58	121,240.28	36.2601090	-107.5347037
10,746.00	91.48	272.07	5,586.56	931.38	-5,514.08	1,916,405.26	121,176.41	36.2601168	-107.5349205
10,767.00	91.01	271.68	5,586.10	932.06	-5,535.06	1,916,406.22	121,155.43	36.2601186	-107.5349917
Base Perf @ 10,767' MD									
10,806.00	90.13	270.97	5,585.72	932.97	-5,574.05	1,916,407.63	121,116.46	36.2601211	-107.5351239
Last SDI Lateral MWD Survey									
10,870.00	90.13	270.97	5,585.57	934.05	-5,638.04	1,916,409.55	121,052.49	36.2601240	-107.5353409
Projection to TD									

Design Annotations				
Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment
		+N/-S (ft)	+E/-W (ft)	
64.00	64.00	-0.12	-0.18	First MS Gyro Survey
364.00	363.98	-0.66	-3.03	Last MS Gyro Survey
463.00	462.98	-0.51	-3.94	First SDI Surface MWD Survey
5,023.00	4,956.77	701.99	-199.00	Last SDI Surface MWD Survey
5,055.00	4,988.76	701.53	-199.37	First SDI Curve MWD Survey
6,177.00	5,686.17	735.66	-952.73	Last SDI Curve MWD Survey
6,225.00	5,686.98	737.83	-1,000.67	Landing Point (POE) @ 6225' MD
6,262.00	5,686.33	738.64	-1,037.65	First SDI Lateral MWD Survey
10,767.00	5,586.10	932.06	-5,535.06	Base Perf @ 10,767' MD
10,806.00	5,585.72	932.97	-5,574.05	Last SDI Lateral MWD Survey
10,870.00	5,585.57	934.05	-5,638.04	Projection to TD



Survey Report - Geographic



Company:	WPX Energy Rocky Mountain, LLC	Local Co-ordinate Reference:	Well NE Chaco Com #176H
Project:	Rio Arriba County, NM NAD27	TVD Reference:	GL 6982' & RKB 14' @ 6996.00ft (Aztec 730)
Site:	Chaco 2306-06D	MD Reference:	GL 6982' & RKB 14' @ 6996.00ft (Aztec 730)
Well:	NE Chaco Com #176H	North Reference:	True
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	Database:	Grand Junction District

Checked By: _____	Approved By: _____	Date: _____
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