

**PAUL BACA PROFESSIONAL COURT REPORTERS**

**OIL  
CONSERVATION  
DIVISION**

**CASE #: 14194**

**EXHIBIT**

**2**

STATE OF NEW MEXICO  
ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT  
OIL CONSERVATION DIVISION

APPLICATION OF CIMAREX ENERGY CO.  
FOR A NON-STANDARD OIL SPACING AND  
PRORATION UNIT AND FOR COMPULSORY  
POOLING, CHAVES COUNTY, NEW MEXICO.

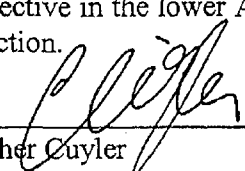
Case No. 14,194

AFFIDAVIT OF CHRISTOPHER CUYLER

CITY AND COUNTY OF MIDLAND )  
STATE OF TEXAS ) ss.  
)

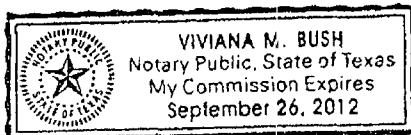
Christopher Cuyler, being duly sworn upon his oath, deposes and states:

1. I am over the age of 18, and have personal knowledge of the matters stated herein.
2. I am a geologist for Cimarex Energy Co. ("Cimarex").
3. Exhibit A is a plat of the Caprock Lower Abo Area that shows structural contours on the top of the Hueco (Wolfcamp) Limestone Formation as well as a geological line of cross section that will serve as Exhibit B.
4. Exhibit B is a cross section that shows the productive interval and stratigraphic target for horizontal wells in the area.
5. Exhibit C is a plat that shows local well control as well as the subject well.
6. Exhibit D is the proposed directional report for this horizontal well. This shows the plan view as well as the cross sectional representation of our wellbore.
7. All quarter-quarter sections in the well unit are prospective in the lower Abo, and Cimarex anticipates producing reserves from each quarter-quarter section.

  
\_\_\_\_\_  
Christopher Cuyler

SUBSCRIBED AND SWORN TO before me this 15<sup>th</sup> day of October, 2008 by Christopher Cuyler.

My Commission Expires: September 26, 2012   
\_\_\_\_\_  
Notary Public



Oil Conservation Division  
Case No. 2  
Exhibit No. \_\_\_\_\_

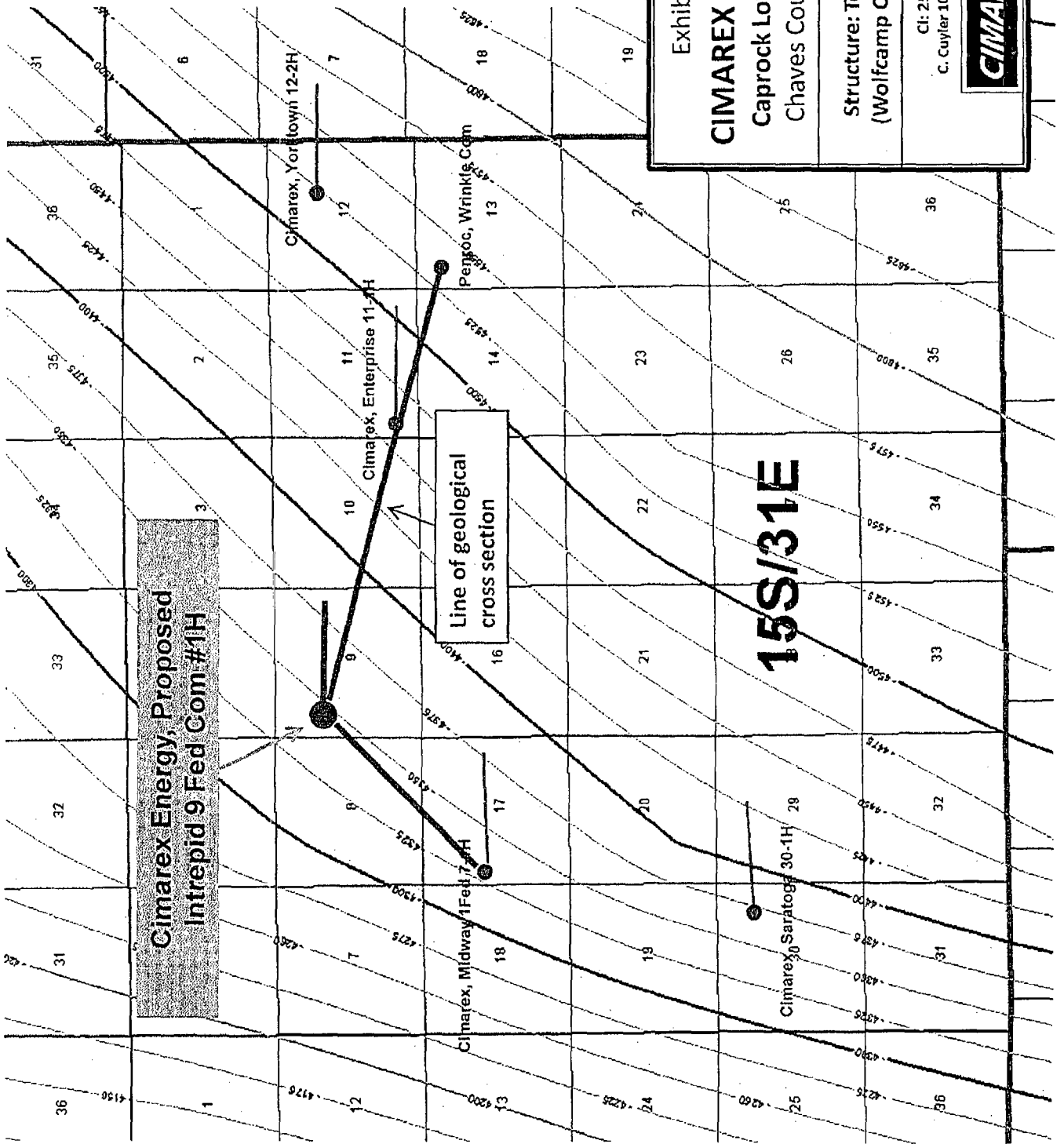


Exhibit A

**CIMAREX ENERGY**  
 Caprock Lower Abo,  
 Chaves County, NM

Structure: Top Hueco  
 (Wolfcamp Carbonate)

Cl: 25'  
 C. Cuyler 10/14/08

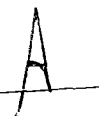


**Cimarex Energy, Proposed  
 Intrepid 9 Fed Com #11H**

Line of geological  
 cross section

**15S/31E**

EXHIBIT



W

Log  
Depth (ft)

8200 -  
8255 -  
8310 -  
8365 -  
8420 -  
8475 -  
8530 -  
8585 -  
8640 -  
8695 -  
8750 -  
8805 -  
8860 -  
8915 -  
8970 -  
9025 -  
9080 -  
9135 -  
9190 -  
9245 -  
9300 -

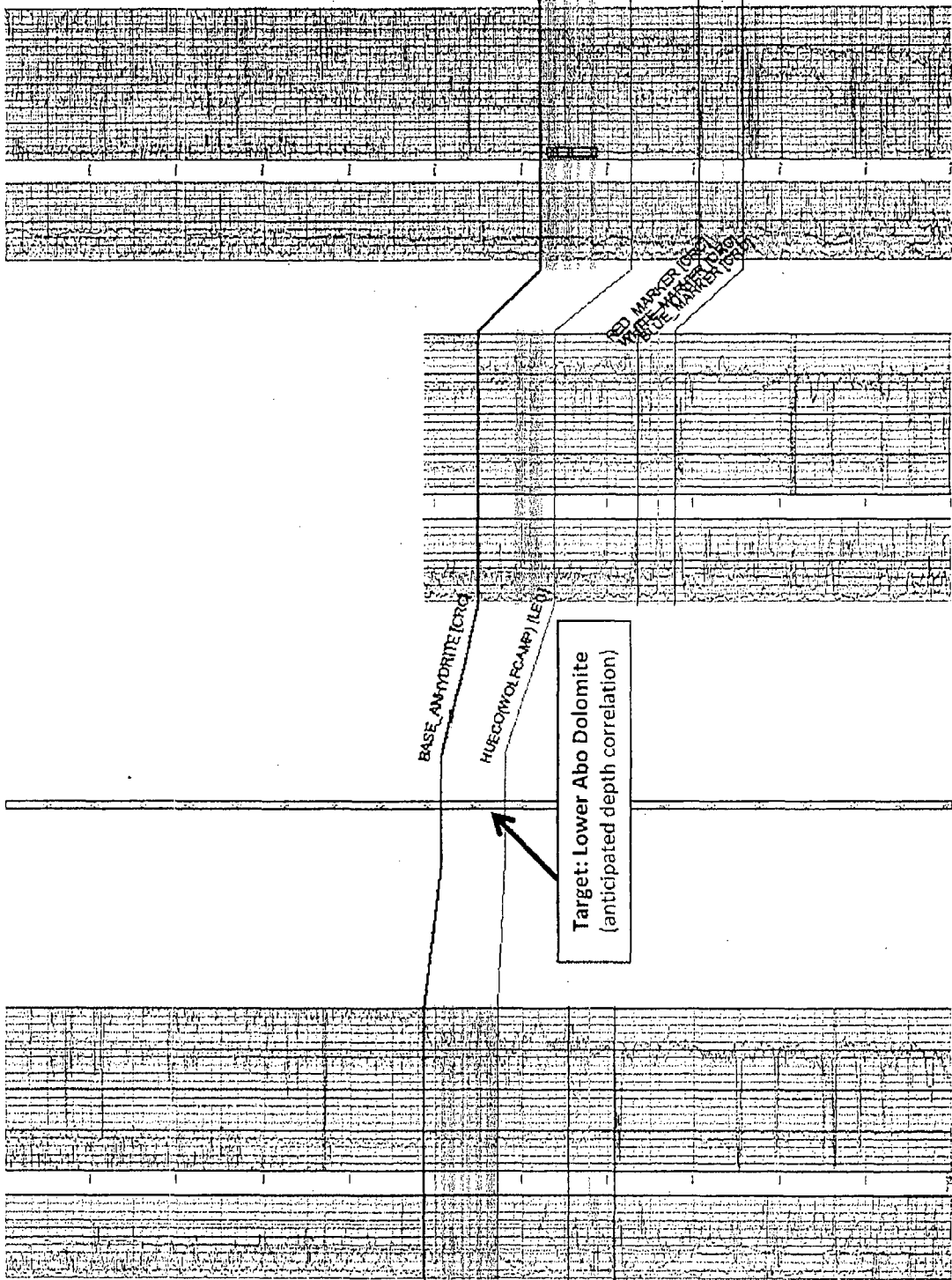
30005290340000  
CIMAREX ENERGY OF CO  
MIDWAY 17 FEDERAL

30005290000  
CIMAREX ENERGY  
INTREPID 9 FED COM

30005280020000  
CIMAREX ENERGY OF CO  
ENTERPRISE 11 STATE COM

30005210280000  
CHEVRON U S A INC  
WRINKLE 1 COM

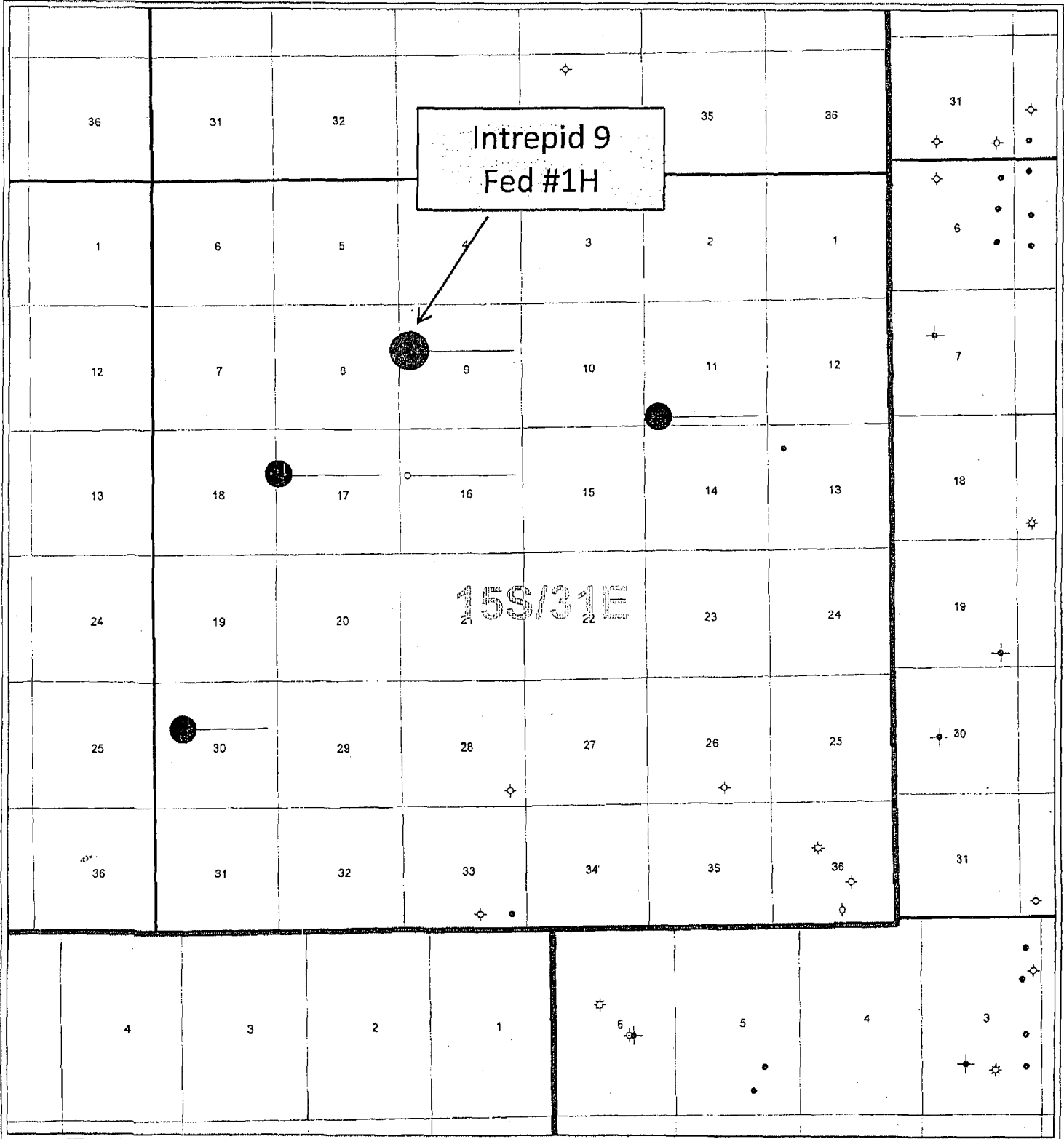
62,703  
2,391



EXHIBIT

B

Exhibit B



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EXHIBIT C



# Planned Wellpath Report

Plan #1  
Page 1 of 3



INTEQ

## REFERENCE WELLPATH IDENTIFICATION

Operator	Cimarex Energy Co.	Slot	No. 1 SHL
Area	Chaves County, NM	Well	No. 1
Field	(Intrepid) Sec 9 T15-S R31-E	Wellbore	No. 1 PWB
Facility	Intrepid 9 FED COM 1		

## REPORT SETUP INFORMATION

Projection System	NAD27 / TM New Mexico State Planes, Eastern Zone (3001), US feet	Software System	WellArchitect™ 1.2
North Reference	Grid	User	Victor Hernandez
Scale	0.999936	Report Generated	01/30/08 at 15:26:12
Wellbore last revised	01/30/08	Database/Source file	WA_Midland/No._1_PWB.x

## WELLPATH LOCATION

	Local coordinates		Grid coordinates		Geographic coordinates	
	North [feet]	East [feet]	Easting [US feet]	Northing [US feet]	Latitude [°]	Longitude [°]
Slot Location	0.00	0.00	653083.10	739550.50	33 01 55.515N	103 50 01.807W
Facility Reference Pt			653083.10	739550.50	33 01 55.515N	103 50 01.807W
Field Reference Pt			653083.10	739550.50	33 01 55.515N	103 50 01.807W

## WELLPATH DATUM

Calculation method	Minimum curvature	Rig on No. 1 SHL (RT) to Facility Vertical Datum	18.00 feet
Horizontal Reference Pt	Facility Center	Rig on No. 1 SHL (RT) to GRN. ELEV.	4453.00 feet
Vertical Reference Pt	Rig on No. 1 SHL (RT)	Facility Vertical Datum to Mud Line (Facility)	0.00 feet
MD Reference Pt	Rig on No. 1 SHL (RT)	Section Origin	N 0.00, E 0.00 ft
Field Vertical Reference	GRN. ELEV.	Section Azimuth	89.72°

EXHIBIT D



# Planned Wellpath Report

Plan #1  
Page 2 of 3



INTEQ

## REFERENCE WELLPATH IDENTIFICATION

Operator	Cimarex Energy Co.	Slot	No. 1 SHL
Area	Chaves County, NM	Well	No. 1
Field	(Intrepid) Sec 9 T15-S R31-E	Wellbore	No. 1 PWB
Facility	Intrepid 9 FED COM 1		

## WELLPATH DATA (58 stations) † = interpolated/extrapolated station

MD [feet]	Inclination [°]	Azimuth [°]	TVD [feet]	Vert Sect [feet]	North [feet]	East [feet]	DLS [°/100ft]	Design Comments	Path Comment
0.00	0.000	0.000	0.00	0.00	0.00	0.00	0.00		
2312.00†	0.000	0.000	2312.00	0.00	0.00	0.00	0.00		YATES
3090.00†	0.000	0.000	3090.00	0.00	0.00	0.00	0.00		QUEEN
3940.00†	0.000	0.000	3940.00	0.00	0.00	0.00	0.00		SAN ANDRES
7340.00†	0.000	0.000	7340.00	0.00	0.00	0.00	0.00		ABO SHALE
8300.00	0.000	0.000	8300.00	0.00	0.00	0.00	0.00	Tie On	
8385.00	0.000	89.723	8385.00	0.00	0.00	0.00	0.00	KOP	
8400.00†	4.290	89.723	8399.99	0.56	0.00	0.56	28.60		
8500.00†	32.890	89.723	8493.79	32.11	0.16	32.11	28.60		
8600.00†	61.490	89.723	8561.04	104.71	0.51	104.71	28.60		
8688.10†	86.687	89.723	8585.00	188.76	0.91	188.75	28.60		LOWER ABO DOLOMITE
8698.34	89.615	89.723	8585.33	198.99	0.96	198.99	28.60	EOC	
8700.00†	89.615	89.723	8585.34	200.65	0.97	200.65	0.00		
8800.00†	89.615	89.723	8586.01	300.65	1.45	300.64	0.00		
8900.00†	89.615	89.723	8586.68	400.65	1.93	400.64	0.00		
9000.00†	89.615	89.723	8587.35	500.64	2.42	500.64	0.00		
9100.00†	89.615	89.723	8588.03	600.64	2.90	600.63	0.00		
9200.00†	89.615	89.723	8588.70	700.64	3.38	700.63	0.00		
9300.00†	89.615	89.723	8589.37	800.64	3.87	800.63	0.00		
9400.00†	89.615	89.723	8590.04	900.63	4.35	900.62	0.00		
9500.00†	89.615	89.723	8590.71	1000.63	4.83	1000.62	0.00		
9600.00†	89.615	89.723	8591.38	1100.63	5.31	1100.62	0.00		
9700.00†	89.615	89.723	8592.05	1200.63	5.80	1200.61	0.00		
9800.00†	89.615	89.723	8592.72	1300.62	6.28	1300.61	0.00		
9900.00†	89.615	89.723	8593.40	1400.62	6.76	1400.61	0.00		
10000.00†	89.615	89.723	8594.07	1500.62	7.24	1500.60	0.00		
10100.00†	89.615	89.723	8594.74	1600.62	7.73	1600.60	0.00		
10200.00†	89.615	89.723	8595.41	1700.62	8.21	1700.60	0.00		
10300.00†	89.615	89.723	8596.08	1800.61	8.69	1800.59	0.00		
10400.00†	89.615	89.723	8596.75	1900.61	9.18	1900.59	0.00		
10500.00†	89.615	89.723	8597.42	2000.61	9.66	2000.59	0.00		
10600.00†	89.615	89.723	8598.09	2100.61	10.14	2100.58	0.00		
10700.00†	89.615	89.723	8598.76	2200.60	10.62	2200.58	0.00		
10800.00†	89.615	89.723	8599.44	2300.60	11.11	2300.58	0.00		
10900.00†	89.615	89.723	8600.11	2400.60	11.59	2400.57	0.00		
11000.00†	89.615	89.723	8600.78	2500.60	12.07	2500.57	0.00		
11100.00†	89.615	89.723	8601.45	2600.60	12.55	2600.57	0.00		
11200.00†	89.615	89.723	8602.12	2700.59	13.04	2700.56	0.00		
11300.00†	89.615	89.723	8602.79	2800.59	13.52	2800.56	0.00		
11400.00†	89.615	89.723	8603.46	2900.59	14.00	2900.55	0.00		



# Planned Wellpath Report

Plan #1  
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INTEQ

## REFERENCE WELLPATH IDENTIFICATION

Operator	Cimarex Energy Co.	Slot	No. 1 SHL
Area	Chaves County, NM	Well	No. 1
Field	(Intrepid) Sec 9 T15-S R31-E	Wellbore	No. 1 PWB
Facility	Intrepid 9 FED COM 1		

## WELLPATH DATA (58 stations) † = interpolated/extrapolated station

MD [feet]	Inclination [°]	Azimuth [°]	TVD [feet]	Vert Sect [feet]	North [feet]	East [feet]	DLS [°/100ft]	Design Comments	Path Comment
11500.00†	89.615	89.723	8604.13	3000.59	14.49	3000.55	0.00		
11600.00†	89.615	89.723	8604.81	3100.58	14.97	3100.55	0.00		
11700.00†	89.615	89.723	8605.48	3200.58	15.45	3200.54	0.00		
11800.00†	89.615	89.723	8606.15	3300.58	15.93	3300.54	0.00		
11900.00†	89.615	89.723	8606.82	3400.58	16.42	3400.54	0.00		
12000.00†	89.615	89.723	8607.49	3500.58	16.90	3500.53	0.00		
12100.00†	89.615	89.723	8608.16	3600.57	17.38	3600.53	0.00		
12200.00†	89.615	89.723	8608.83	3700.57	17.86	3700.53	0.00		
12300.00†	89.615	89.723	8609.50	3800.57	18.35	3800.52	0.00		
12400.00†	89.615	89.723	8610.17	3900.57	18.83	3900.52	0.00		
12500.00†	89.615	89.723	8610.85	4000.56	19.31	4000.52	0.00		
12600.00†	89.615	89.723	8611.52	4100.56	19.80	4100.51	0.00		
12700.00†	89.615	89.723	8612.19	4200.56	20.28	4200.51	0.00		
12800.00†	89.615	89.723	8612.86	4300.56	20.76	4300.51	0.00		
12900.00†	89.615	89.723	8613.53	4400.55	21.24	4400.50	0.00		
13000.00†	89.615	89.723	8614.20	4500.55	21.73	4500.50	0.00		
13100.00†	89.615	89.723	8614.87	4600.55	22.21	4600.50	0.00		
13119.01	89.615	89.723	8615.00†	4619.56	22.30	4619.51	0.00	No. 1 BHL	

## HOLE & CASING SECTIONS Ref Wellbore: No. 1 PWB Ref Wellpath: Plan #1

String/Diameter	Start MD [feet]	End MD [feet]	Interval [feet]	Start TVD [feet]	End TVD [feet]	Start N/S [feet]	Start E/W [feet]	End N/S [feet]	End E/W [feet]
17.5in Open Hole	0.00	340.00	340.00	0.00	340.00	0.00	0.00	0.00	0.00
13.375in Casing Surface	0.00	340.00	340.00	0.00	340.00	0.00	0.00	0.00	0.00
12.25in Open Hole	340.00	3950.00	3610.00	340.00	3950.00	0.00	0.00	0.00	0.00
9.625in Casing Intermediate	340.00	3950.00	3610.00	340.00	3950.00	0.00	0.00	0.00	0.00
8.75in Open Hole	3950.00	8300.00	4350.00	3950.00	8300.00	0.00	0.00	0.00	0.00
7in Liner	3950.00	8300.00	4350.00	3950.00	8300.00	0.00	0.00	0.00	0.00
6.125in Open Hole	8300.00	13119.01	4819.01	8300.00	NA	0.00	0.00	NA	NA

## TARGETS

Name	MD [feet]	TVD [feet]	North [feet]	East [feet]	Grid East [us survey feet]	Grid North [us survey feet]	Latitude [°]	Longitude [°]	Shape
1) No. 1 BHL	13119.01	8615.00	22.30	4619.51	657702.30	739572.80	33 01 55.515N	103 49 07.548W	point



