

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

OCD-ARTESIA

SUNDRY NOTICES AND REPORTS ON WELLS
Do not use this form for proposals to drill or to re-enter an abandoned well. Use form 3160-3 (APD) for such proposals.

FORM APPROVED
OMB No. 1004-0135
Expires July 31, 1996

5 Lease Serial No

NM-025559

6. If Indian, Allotment or Tribal Name

7. If Unit or CA/Agreement, Name and/or No.

APR 19 2010

NMOCD ARTESIA

8. Well Name and No

Irwin 13 Federal No. 1

9. API Well No.

30-015-37715

10. Field and Pool, or Exploratory Area

Hackberry; Bone Spring, NW

11. County or Parish, State

Eddy County, NM

SUBMIT IN TRIPLICATE - Other instructions on reverse side

1. Type of Well

☒ Oil Well ☐ Gas Well ☐ Other

2. Name of Operator

Cimarex Energy Co. of Colorado

3a Address

600 N. Marienfeld St., Ste. 600; Midland, TX 79701

3b Phone No (include area code)

432-571-7800

4. Location of Well (Footage, Sec., T., R., M., or Survey Description)

SHL 1300 FSL & 330 FEL 13-19S-30E

BHL 330 FNL & 375 FEL

12. CHECK APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION			
☒ Notice of Intent	☐ Acidize	☐ Deepen	☐ Production (Start/Resume)	☐ Water Shut-Off
☐ Subsequent Report	☐ Alter Casing	☐ Fracture Treat	☐ Reclamation	☐ Well Integrity
☐ Final Abandonment Notice	☐ Casing Repair	☐ New Construction	☐ Recomplete	☒ Other <u>Change BHL</u>
	☒ Change Plans	☐ Plug and Abandon	☐ Temporarily Abandon	
	☐ Convert to Injection	☐ Plug Back	☐ Water Disposal	

13. Describe Proposed or Completed Operation (clearly state all pertinent details, included estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or recomple horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the bond under which the work will be performed or provide the Bond No. on file with BLM/BIA. Required subsequent reports shall be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompletion in a new interval, a Form 3160-4 shall be filed once testing has been completed. Final Abandonment Notices shall be filed only after all requirements, including reclamation, have been completed, and the operator has determined that the site is ready for final inspection.)

In order to more effectively drain the reservoir, Cimarex has opted to change the BHL for the Irwin 13 Federal No. 1 as shown below.

Permitted Location
SHL 1300 FSL & 330 FEL
BHL 330 FNL & 375 FEL
13-19S-30E

Eddy County, NM

Proposed Location
SHL 1300 FSL & 330 FEL
BHL 330 FNL & 660 FEL
13-19S-30E
Eddy County, NM

After drilling and setting surface casing, drill to vertical TD 9000' and log. Set 7" casing to 8090' and cross over to 2 3/4" 2000 psi IJ fiberglass tubing underneath to 9000' and cement in place. Drill out of the bottom of the 7" with a 6 1/2" bit and through cement and fiberglass tubing to KOP @ 8150' and kick off to drill the lateral. The fiberglass tubing effectively circulates cement to surface and plugs back the open hole. Drill to lateral TD (12321' MD, 8725' TVD). Run 4 1/2" PEAK liner from RSB packer @ 7990' to TD @ 12321'. Frac through PEAK completion liner.

4 1/2" Per Operator
DW 4510

Please see attached revised C-102 and preliminary directional survey.

14. I hereby certify that the foregoing is true and correct

Name (Printed/Typed)

Zeno Farris

Signature

Zeno Farris

Title

Manager Operations Administration

Date

March 18, 2010

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved by

Conditions of Approval, if any, are attached. Approval of this notice 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.

Title 18 U.S.C. Section 1001, makes 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)

APPROVED

APR 14 2010

/s/ Dustin Winkler

BUREAU OF LAND MANAGEMENT
CARLSBAD FIELD OFFICE

DISTRICT I
1626 N. French Dr., Hobbs, NM 88240

DISTRICT II
1301 W. Grand Avenue, Artesia, NM 88210

DISTRICT III
1000 Rio Bravo Rd., Aztec, NM 87410

DISTRICT IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy, Minerals and Natural Resources Department

Form C-102
Revised October 15, 2009

Submit one copy to appropriate
District Office

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

WELL LOCATION AND ACREAGE DEDICATION PLAT

☐ AMENDED REPORT

API Number	Pool Code 97020	Pool Name Hackberry; Bone Spring, NW
Property Code	Property Name IRWIN "13" FEDERAL	Well Number 1
OGRID No. 162683	Operator Name CIMAREX ENERGY CO. OF COLORADO	Elevation 3408'

Surface Location

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
P	13	19 S	30 E		1300	SOUTH	330	EAST	EDDY

Bottom Hole Location If Different From Surface

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
A	13	19 S	30 E		330	NORTH	660	EAST	EDDY

Dedicated Acres 160	Joint or Infill	Consolidation Code	Order No. NSL Pending
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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

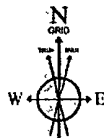
PROPOSED BOTTOM HOLE LOCATION Lat - N 32°40'00.09" Long - W 103°55'08.63" NMSPC- N 608522.470 E 668818.960 (NAD-83) BHL 330 FNL & 660 FEL EOC 1529 FSL & 397 FEL SHL & P.P. Bone Spring 1300 FSL & 330 FEL SURFACE LOCATION Lat - N 32°39'23.97" Long - W 103°55'04.84" NMSPC- N 602873.6 E 669156.7 (NAD-83) Proposed Producing Interval NM-025559	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 released 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 is a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division. Zeno Farris 3/26/2010 Signature Date Zeno Farris Printed Name 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. GARY L. JONES Date Surveyed Signature & Seal of Professional Surveyor Certificate No. Gary L. Jones 7977 BASIN SURVEYS
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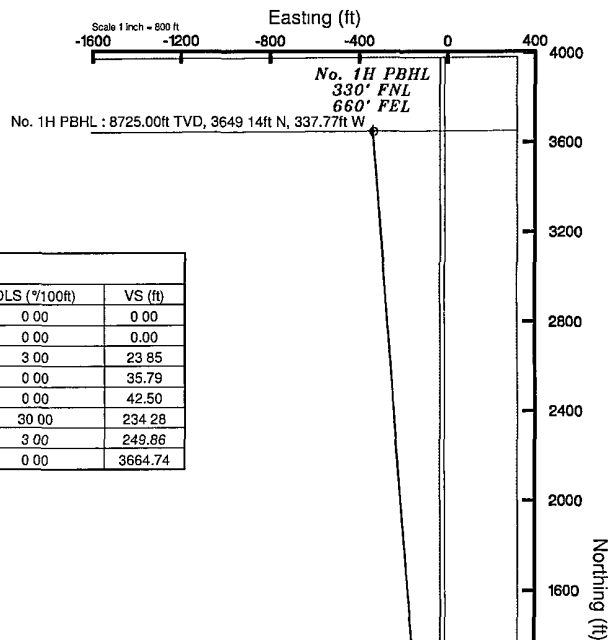
Cimarex Energy Co.

Location: Eddy County, NM
Field: (Irwin) Sec 13, T19S, R30E
Facility: Irwin 13 Fed No. 1H

Slot: No. 1H SHL
Well: No. 1H
Wellbore: No. 1H PWB



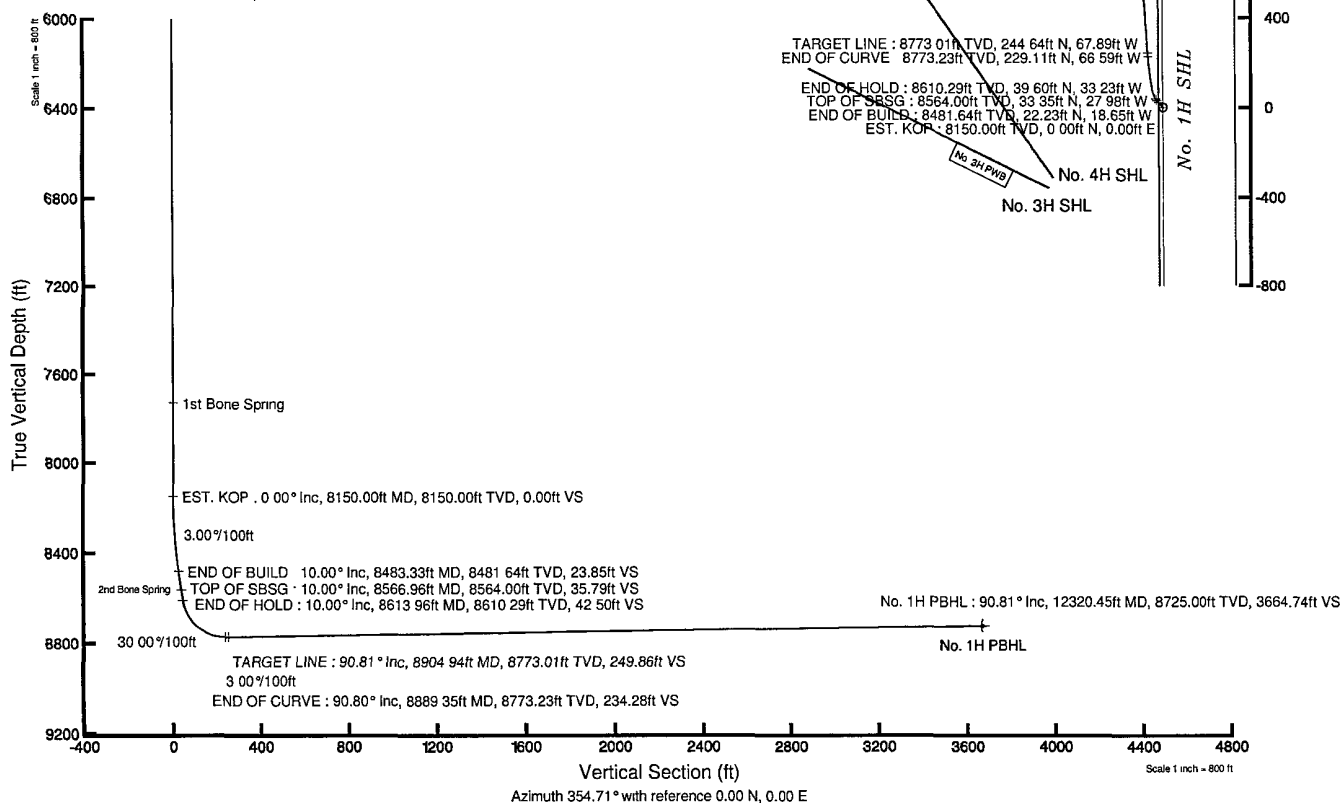
BGGM (1945 0 to 2011 0) Dip 60.57° Field 49027.2 nT
Magnetic North is 7.98 degrees East of True North (at 3/9/2010)
Grid North is 0.22 degrees East of True North
To correct azimuth from True to Grid subtract 0.22 degrees
To correct azimuth from Magnetic to Grid add 7.75 degrees
For example if the Magnetic North Azimuth = 90 degs, then the Grid North Azimuth = 90 + 7.75 = 97.75



Well Profile Data

Design Comment	MD (ft)	Inc (°)	Az (°)	TVD (ft)	Local N (ft)	Local E (ft)	DLS (°/100ft)	VS (ft)
Tie On	0.00	0.000	320.000	0.00	0.00	0.00	0.00	0.00
EST. KOP	8150.00	0.000	320.000	8150.00	0.00	0.00	0.00	0.00
END OF BUILD	8483.33	10.000	320.000	8481.64	22.23	-18.65	3.00	23.85
TOP OF SBSG	8566.96	10.000	320.000	8564.00	33.35	-27.98	0.00	35.79
END OF HOLD	8613.96	10.000	320.000	8610.29	39.60	-33.23	0.00	42.50
END OF CURVE	8889.35	90.800	355.000	8773.23	229.11	-66.59	30.00	234.28
TARGET LINE	8904.94	90.805	355.468	8773.01	244.64	-67.89	3.00	249.86
No. 1H PBHL	12320.45	90.805	355.468	8725.00	3649.14	-337.77	0.00	3664.74

Plot reference wellpath is Prelim. 3	
True vertical depths are referenced to Rig on No. 1H SHL (RT)	Grid System: NAD83 / TM New Mexico State Planes, Eastern Zone (3001), US feet
Measured depths are referenced to Rig on No. 1H SHL (RT)	North Reference: Grid north
Rig on No. 1H SHL (RT) to Mean Sea Level 3408 feet	Scale: True distance
Mean Sea Level to Mud line (Facility: Irwin 13 Fed No. 1H) -3408 feet	Depths are in feet
Coordinates are in feet referenced to Surface Location	Created by: Victor Hernandez on 3/12/2010





Planned Wellpath Report

Prelim_3
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REFERENCE WELLPATH IDENTIFICATION

Operator	Cimarex Energy Co.	Slot	No. 1H SHL
Area	Eddy County, NM	Well	No. 1H
Field	(Irwin) Sec 13, T19S, R30E	Wellbore	No. 1H PWB
Facility	Irwin 13 Fed No. 1H		

REPORT SETUP INFORMATION

Projection System	NAD83 / TM New Mexico State Planes, Eastern Zone (3001), US feet	Software System	WellArchitect® 2.0
North Reference	Grid	User	Victor Hernandez
Scale	0.999928	Report Generated	3/12/2010 at 3:53:47 PM
Convergence at slot	0.22° East	Database/Source file	WA_Midland/No._1H_PWB.xml

WELLPATH LOCATION

	Local coordinates		Grid coordinates		Geographic coordinates	
	North[ft]	East[ft]	Easting[USft]	Northing[USft]	Latitude	Longitude
Slot Location	0.00	0.00	669156.70	602873.60	32°39'23.973"N	103°55'04.842"W
Facility Reference Pt			669156.70	602873.60	32°39'23.973"N	103°55'04.842"W
Field Reference Pt			669156.70	602873.60	32°39'23.973"N	103°55'04.842"W

WELLPATH DATUM

Calculation method	Minimum curvature	Rig on No. 1H SHL (RT) to GL	0.00ft
Horizontal Reference Pt	Surface Location	Rig on No. 1H SHL (RT) to Mean Sea Level	3408.00ft
Vertical Reference Pt	Rig on No. 1H SHL (RT)	GL to Mud Line (Facility)	0.00ft
MD Reference Pt	Rig on No. 1H SHL (RT)	Section Origin	N 0.00, E 0.00 ft
Field Vertical Reference	Mean Sea Level	Section Azimuth	354.71°



Planned Wellpath Report

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REFERENCE WELLPATH IDENTIFICATION			
Operator	Cimarex Energy Co.	Slot	No. 1H SHL
Area	Eddy County, NM	Well	No. 1H
Field	(Irwin) Sec 13, T19S, R30E	Wellbore	No. 1H PWB
Facility	Irwin 13 Fed No. 1H		

WELLPATH DATA (50 stations) † = interpolated/extrapolated station												
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Grid East [srv ft]	Grid North [srv ft]	Latitude	Longitude	DLS [°/100ft]	Comments
0.00	0.000	320.000	0.00	0.00	0.00	0.00	669156.70	602873.60	32°39'23.973"N	103°55'04.842"W	0.00	Tie On
7729.00†	0.000	320.000	7729.00	0.00	0.00	0.00	669156.70	602873.60	32°39'23.973"N	103°55'04.842"W	0.00	1st Bone Spring
8150.00	0.000	320.000	8150.00	0.00	0.00	0.00	669156.70	602873.60	32°39'23.973"N	103°55'04.842"W	0.00	EST. KOP
8250.00†	3.000	320.000	8249.95	2.15	2.01	-1.68	669155.02	602875.60	32°39'23.993"N	103°55'04.862"W	3.00	
8350.00†	6.000	320.000	8349.63	8.60	8.01	-6.73	669149.98	602881.61	32°39'24.053"N	103°55'04.921"W	3.00	
8450.00†	9.000	320.000	8448.77	19.33	18.01	-15.11	669141.59	602891.61	32°39'24.152"N	103°55'05.018"W	3.00	
8483.33	10.000	320.000	8481.64	23.85	22.23	-18.65	669138.05	602895.83	32°39'24.194"N	103°55'05.059"W	3.00	END OF BUILD
8550.00†	10.000	320.000	8547.30	33.37	31.09	-26.09	669130.61	602904.69	32°39'24.282"N	103°55'05.146"W	0.00	
8566.96	10.000	320.000	8564.00	35.79	33.35	-27.98	669128.72	602906.95	32°39'24.304"N	103°55'05.168"W	0.00	TOP OF SBSG; 2nd Bone Spring
8613.96	10.000	320.000	8610.29	42.50	39.60	-33.23	669123.47	602913.20	32°39'24.366"N	103°55'05.229"W	0.00	END OF HOLD
8650.00†	19.822	338.658	8645.09	50.97	47.72	-37.48	669119.22	602921.31	32°39'24.447"N	103°55'05.278"W	30.00	
8750.00†	49.249	349.930	8726.64	106.28	102.05	-50.57	669106.13	602975.64	32°39'24.985"N	103°55'05.429"W	30.00	
8850.00†	79.054	353.801	8769.76	195.15	190.17	-62.78	669093.93	603063.75	32°39'25.857"N	103°55'05.568"W	30.00	
8889.35	90.800	355.000	8773.23	234.28	229.11	-66.59	669090.11	603102.70	32°39'26.243"N	103°55'05.611"W	30.00	END OF CURVE
8904.94	90.805	355.468	8773.01	249.86	244.64	-67.89	669088.82	603118.23	32°39'26.396"N	103°55'05.625"W	3.00	TARGET LINE
8950.00†	90.805	355.468	8772.38	294.91	289.56	-71.45	669085.26	603163.14	32°39'26.841"N	103°55'05.665"W	0.00	
9050.00†	90.805	355.468	8770.97	394.89	389.24	-79.35	669077.36	603262.81	32°39'27.828"N	103°55'05.753"W	0.00	
9150.00†	90.805	355.468	8769.57	494.87	488.91	-87.25	669069.46	603362.48	32°39'28.814"N	103°55'05.840"W	0.00	
9250.00†	90.805	355.468	8768.16	594.86	588.59	-95.15	669061.56	603462.15	32°39'29.801"N	103°55'05.928"W	0.00	
9350.00†	90.805	355.468	8766.76	694.84	688.27	-103.05	669053.65	603561.82	32°39'30.787"N	103°55'06.016"W	0.00	
9450.00†	90.805	355.468	8765.35	794.82	787.95	-110.95	669045.75	603661.49	32°39'31.774"N	103°55'06.104"W	0.00	
9550.00†	90.805	355.468	8763.95	894.80	887.62	-118.86	669037.85	603761.16	32°39'32.760"N	103°55'06.192"W	0.00	
9650.00†	90.805	355.468	8762.54	994.78	987.30	-126.76	669029.95	603860.83	32°39'33.747"N	103°55'06.280"W	0.00	
9750.00†	90.805	355.468	8761.13	1094.76	1086.98	-134.66	669022.05	603960.50	32°39'34.733"N	103°55'06.368"W	0.00	
9850.00†	90.805	355.468	8759.73	1194.74	1186.66	-142.56	669014.15	604060.17	32°39'35.720"N	103°55'06.455"W	0.00	
9950.00†	90.805	355.468	8758.32	1294.73	1286.33	-150.46	669006.25	604159.84	32°39'36.707"N	103°55'06.543"W	0.00	
10050.00†	90.805	355.468	8756.92	1394.71	1386.01	-158.36	668998.35	604259.51	32°39'37.693"N	103°55'06.631"W	0.00	
10150.00†	90.805	355.468	8755.51	1494.69	1485.69	-166.27	668990.45	604359.18	32°39'38.680"N	103°55'06.719"W	0.00	
10250.00†	90.805	355.468	8754.11	1594.67	1585.36	-174.17	668982.55	604458.85	32°39'39.666"N	103°55'06.807"W	0.00	
10350.00†	90.805	355.468	8752.70	1694.65	1685.04	-182.07	668974.64	604558.52	32°39'40.653"N	103°55'06.895"W	0.00	



Planned Wellpath Report

Prelim_3

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INTEQ

REFERENCE WELLPATH IDENTIFICATION			
Operator	Cimarex Energy Co.	Slot	No. 1H SHL
Area	Eddy County, NM	Well	No. 1H
Field	(Irwin) Sec 13, T19S, R30E	Wellbore	No. 1H PWB
Facility	Irwin 13 Fed No. 1H		

WELLPATH DATA (50 stations) † = interpolated/extrapolated station												
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Grid East [srv ft]	Grid North [srv ft]	Latitude	Longitude	DLS [°/100ft]	Comments
10450.00†	90.805	355.468	8751.29	1794.63	1784.72	-189.97	668966.74	604658.19	32°39'41.639"N	103°55'06.983"W	0.00	
10550.00†	90.805	355.468	8749.89	1894.61	1884.40	-197.87	668958.84	604757.86	32°39'42.626"N	103°55'07.071"W	0.00	
10650.00†	90.805	355.468	8748.48	1994.60	1984.07	-205.77	668950.94	604857.53	32°39'43.612"N	103°55'07.158"W	0.00	
10750.00†	90.805	355.468	8747.08	2094.58	2083.75	-213.67	668943.04	604957.20	32°39'44.599"N	103°55'07.246"W	0.00	
10850.00†	90.805	355.468	8745.67	2194.56	2183.43	-221.58	668935.14	605056.87	32°39'45.586"N	103°55'07.334"W	0.00	
10950.00†	90.805	355.468	8744.27	2294.54	2283.11	-229.48	668927.24	605156.54	32°39'46.572"N	103°55'07.422"W	0.00	
11050.00†	90.805	355.468	8742.86	2394.52	2382.78	-237.38	668919.34	605256.21	32°39'47.559"N	103°55'07.510"W	0.00	
11150.00†	90.805	355.468	8741.45	2494.50	2482.46	-245.28	668911.44	605355.88	32°39'48.545"N	103°55'07.598"W	0.00	
11250.00†	90.805	355.468	8740.05	2594.48	2582.14	-253.18	668903.54	605455.55	32°39'49.532"N	103°55'07.686"W	0.00	
11350.00†	90.805	355.468	8738.64	2694.46	2681.82	-261.08	668895.64	605555.22	32°39'50.518"N	103°55'07.774"W	0.00	
11450.00†	90.805	355.468	8737.24	2794.45	2781.49	-268.99	668887.73	605654.89	32°39'51.505"N	103°55'07.861"W	0.00	
11550.00†	90.805	355.468	8735.83	2894.43	2881.17	-276.89	668879.83	605754.56	32°39'52.491"N	103°55'07.949"W	0.00	
11650.00†	90.805	355.468	8734.42	2994.41	2980.85	-284.79	668871.93	605854.23	32°39'53.478"N	103°55'08.037"W	0.00	
11750.00†	90.805	355.468	8733.02	3094.39	3080.53	-292.69	668864.03	605953.90	32°39'54.464"N	103°55'08.125"W	0.00	
11850.00†	90.805	355.468	8731.61	3194.37	3180.20	-300.59	668856.13	606053.57	32°39'55.451"N	103°55'08.213"W	0.00	
11950.00†	90.805	355.468	8730.21	3294.35	3279.88	-308.49	668848.23	606153.24	32°39'56.438"N	103°55'08.301"W	0.00	
12050.00†	90.805	355.468	8728.80	3394.33	3379.56	-316.39	668840.33	606252.91	32°39'57.424"N	103°55'08.389"W	0.00	
12150.00†	90.805	355.468	8727.40	3494.32	3479.24	-324.30	668832.43	606352.58	32°39'58.411"N	103°55'08.477"W	0.00	
12250.00†	90.805	355.468	8725.99	3594.30	3578.91	-332.20	668824.53	606452.25	32°39'59.397"N	103°55'08.564"W	0.00	
12320.45	90.805	355.468	8725.00†	3664.74	3649.14	-337.77	668818.96	606522.47	32°40'00.092"N	103°55'08.626"W	0.00	No. 1H PBHE

HOLE & CASING SECTIONS Ref Wellbore: No. 1H PWB Ref Wellpath: Prelim_3									
String/Diameter	Start MD [ft]	End MD [ft]	Interval [ft]	Start TVD [ft]	End TVD [ft]	Start N/S [ft]	Start E/W [ft]	End N/S [ft]	End E/W [ft]
6.125in Open Hole	8580.00	12320.45	3740.45	8576.84	8725.00	35.09	-29.44	3649.14	-337.77



Planned Wellpath Report

Prelim_3

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INTEQ

REFERENCE WELLPATH IDENTIFICATION			
Operator	Cimarex Energy Co.	Slot	No. 1H SHL
Area	Eddy County, NM	Well	No. 1H
Field	(Irwin) Sec 13, T19S, R30E	Wellbore	No. 1H PWB
Facility	Irwin 13 Fed No. 1H		

TARGETS									
Name	MD [ft]	TVD [ft]	North [ft]	East [ft]	Grid East [srv ft]	Grid North [srv ft]	Latitude	Longitude	Shape
1) No. 1H PBHL	12320.45	8725.00	3649.14	-337.77	668818.96	606522.47	32°40'00.092"N	103°55'08.626"W	point

SURVEY PROGRAM Ref Wellbore: No. 1H PWB Ref Wellpath: Prelim_3				
Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
0.00	12320.45	NaviTrak (Standard)		No. 1H PWB