

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

OCD Hobbs

FORM APPROVED
OMB NO. 1004-0135
Expires: July 31, 2010

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.

HOBBS OCD

5. Lease Serial No.
NMNM0392082A

6. If Indian, Allottee or Tribe Name

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

SUBMIT IN TRIPLICATE - Other instructions on reverse side.

JAN 07 2014

RECEIVED

8. Well Name and No.
HALLERTAU 5 FEDERAL COM 2H

9. API Well No.
30-025-40454

1. Type of Well

☒ Oil Well ☐ Gas Well ☐ Other

2. Name of Operator

CIMAREX ENERGY COMPANY

Contact: DEYSI FAVELA

Email: dfavela@cimarex.com

3a. Address

600 NORTH MARIENFELD STREET STE 600
MIDLAND, TX 79701

3b. Phone No. (include area code)

Ph: 432-620-1964

10. Field and Pool, or Exploratory
BONE SPRING WILDCAT

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

Sec 5 T26S R32E SWSE 220FSL 2080FEL

11. County or Parish, and State

LEA COUNTY, NM

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
	☐ Change Plans	☐ Plug and Abandon	☐ Temporarily Abandon	Change to Original APD
	☐ Convert to Injection	☐ Plug Back	☐ Water Disposal	

13. Describe Proposed or Completed Operation (clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or recomplete 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.)

Cimarex Energy respectfully requests changes to the APD:

Approved:

BHL 330 FNL & 1980 FEL

Change to:

BHL 330 FNL & 2260 FEL

See attachments:

See COAs on extension sundry.

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

Electronic Submission #227787 verified by the BLM Well Information System

For CIMAREX ENERGY COMPANY, sent to the Hobbs

Committed to AFMSS for processing by JOHNNY DICKERSON on 11/25/2013 ()

Name (Printed/Typed) DEYSI FAVELA

Title DRILLING TECHNICIAN

Signature

(Electronic Submission)

Date

11/22/2013

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved By

Title

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.

Office

APPROVED
DEC 31 2013
BUREAU OF LAND MANAGEMENT
CARLSBAD FIELD OFFICE

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.

**** OPERATOR-SUBMITTED ** OPERATOR-SUBMITTED ** OPERATOR-SUBMITTED ****

JAN 08 2014

DISTRICT I
1828 N. French Dr., Hobbs, NM 88240

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

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

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

HOBBS OCD

JAN 07 2014

RECEIVED

State of New Mexico
Energy, Minerals and Natural Resources Department

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

Form C-102
Revised July 16, 2010

Submit one copy to appropriate
District Office

WELL LOCATION AND ACREAGE DEDICATION PLAT

☐ AMENDED REPORT

API Number 30-025-40454	Pool Code	Pool Name Wildcat Bone Spring
Property Code	Property Name HALLERTAU "5" FEDERAL COM	Well Number 2H
OGRIID No. 162683	Operator Name CIMAREX ENERGY CO. OF COLORADO	Elevation 3257'

Surface Location

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
0	5	26 S	32 E		220	SOUTH	2080	EAST	LEA

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
LOT 2	5	26 S	32 E		330	NORTH	2260	EAST	LEA

Dedicated Acres 160	Joint or Infill	Consolidation Code	Order No.
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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

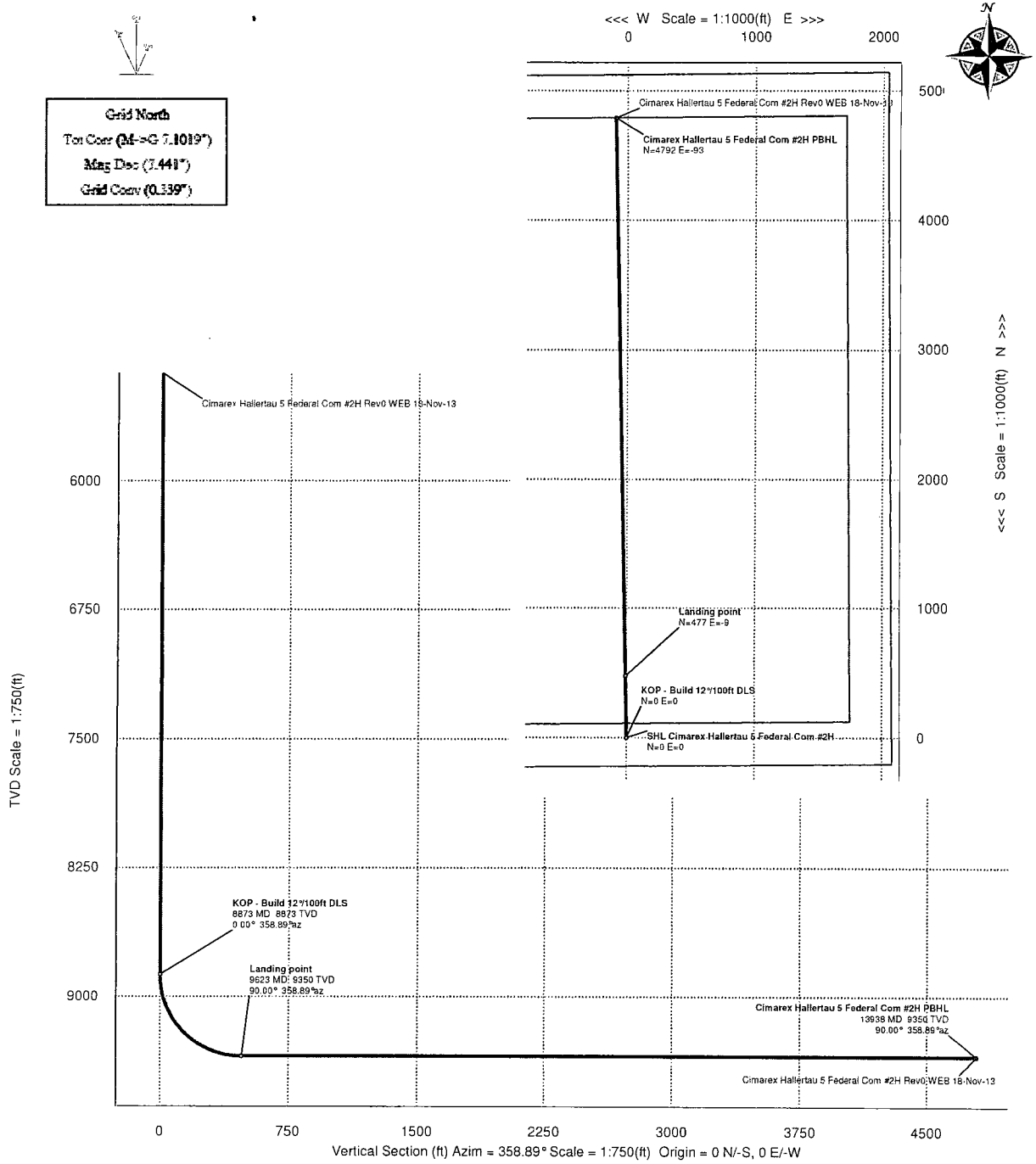
PROPOSED BOTTOM HOLE LOCATION Lat - N 32°04'43.31" Long - W 103°41'45.49" NMSPC- N 392950.6 E 738745.9 (NAD-83)	OPERATOR CERTIFICATION I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or undivided 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. <i>Deysi Favela</i> 11/20/2013 Signature Date Deysi Favela Printed Name dfavela@cimarex.com Email Address
SURFACE LOCATION Lat - N 32°03'55.89" Long - W 103°41'43.28" NMSPC- N 388159.563 E 738962.898 (NAD-83)	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 Surveyed Signature & Seal of Professional Surveyor Certificate No. Gary L. Jones 7977 BASIN SURVEYS 24495



Cimarex

PATHFINDER
A Schlumberger Company

WELL	Hallertau 5 Federal Com #2H		FIELD	NM Lea County		STRUCTURE	TBD	
Magnetic Parameters	Model: 800M 2013	Dip: 55.943°	Date: November 18, 2013	Surface Location	Lat: N 32 3 55.889	Northing: 388159.51 NUS	Grid Conv: 0.339°	Miscellaneous
	Mag Dec: 7.441°	FS: 48249.1m		Lon: W 103 41 42.292	Eastng: 738962.00 NUS	Scale Fact: 0.99995382		Plot: Cimarex Hallertau 5 Federal CTD0809
								Rev0 WEB 18-Nov-13
								Srvy Date: November 18, 2013



Critical Points

Critical Point	MD	INCL	AZIM	TVD	VSIC	N(+) / S(-)	E(+) / W(-)	DLS
SHL Cimarex Hallertau 5 Federal Com #2H	0.00	0.00	358.89	0.00	0.00	0.00	0.00	
KOP - Build 12\"/>100ft DLS	8872.50	0.00	358.89	8872.50	0.00	0.00	0.00	0.00
Landing point	9622.56	90.00	358.89	9350.00	477.50	477.41	-9.21	12.00
Cimarex Hallertau 5 Federal Com #2H PBHL	13938.22	90.00	358.89	9350.00	4793.16	4792.27	-92.60	0.00



Cimarex Hallertau 5 Federal Com #2H Rev0 WEB 18-Nov-13 Proposal Report
100' Interpolated
(Non-Def Plan)



Report Date: November 18, 2013 - 10:14 AM
Client: Cimarex
Field: NM Lea County (NAD 83)
Structure / Slot: TBD / Cimarex Hallertau 5 Federal Com #2H
Well: Cimarex Hallertau 5 Federal Com #2H
Borehole: Original Borehole
UWI / API#: Unknown / Unknown
Survey Name: Cimarex Hallertau 5 Federal Com #2H Rev0 WEB 18-Nov-13
Survey Date: November 18, 2013
Tort / AHD / DDI / ERD Ratio: 90.004 ° / 4793.162 ft / 5.808 / 0.513
Coordinate Reference System: NAD83 New Mexico State Plane, Eastern Zone, US Feet
Location Lat / Long: N 32° 3' 55.88878", W 103° 41' 43.29188"
Location Grid N/E Y/X: N 388159.563 ftUS, E 738962.998 ftUS
CRS Grid Convergence Angle: 0.3387 °
Grid Scale Factor: 0.99995382

Survey / DLS Computation: Minimum Curvature / Lubinski
Vertical Section Azimuth: 358.893 ° (Grid North)
Vertical Section Origin: 0.000 ft, 0.000 ft
TVD Reference Datum: Ground level
TVD Reference Elevation: 3257.000 ft above MSL
Seabed / Ground Elevation: 3257.000 ft above MSL
Magnetic Declination: 7.441 °
Total Gravity Field Strength: 998.4882mgn (9.80665 Based)
Total Magnetic Field Strength: 48249.078 nT
Magnetic Dip Angle: 59.943 °
Declination Date: November 18, 2013
Magnetic Declination Model: BGGM 2013
North Reference: Grid North
Grid Convergence Used: 0.3387 °
Total Corr Mag North->Grid North: 7.1019 °
Local Coord Referenced To: Structure Reference Point

Comments	MD (ft)	Incl (°)	Azim Grid (°)	TVD (ft)	VSEC (ft)	NS (ft)	EW (ft)	Northing (ftUS)	Easting (ftUS)	Latitude (N/S ° ' ")	Longitude (E/W ° ' ")	Closure (ft)	Closure Azimuth (°)	DLS (°/100ft)
SHL Cimarex Hallertau 5 Federal Com #2H	0.00	0.00	358.89	0.00	0.00	0.00	0.00	388159.56	738963.00	N 32 3 55.89	W 103 41 43.29	0.00	0.00	N/A
	100.00	0.00	358.89	100.00	0.00	0.00	0.00	388159.56	738963.00	N 32 3 55.89	W 103 41 43.29	0.00	0.00	0.00
	200.00	0.00	358.89	200.00	0.00	0.00	0.00	388159.56	738963.00	N 32 3 55.89	W 103 41 43.29	0.00	0.00	0.00
	300.00	0.00	358.89	300.00	0.00	0.00	0.00	388159.56	738963.00	N 32 3 55.89	W 103 41 43.29	0.00	0.00	0.00
	400.00	0.00	358.89	400.00	0.00	0.00	0.00	388159.56	738963.00	N 32 3 55.89	W 103 41 43.29	0.00	0.00	0.00
	500.00	0.00	358.89	500.00	0.00	0.00	0.00	388159.56	738963.00	N 32 3 55.89	W 103 41 43.29	0.00	0.00	0.00
	600.00	0.00	358.89	600.00	0.00	0.00	0.00	388159.56	738963.00	N 32 3 55.89	W 103 41 43.29	0.00	0.00	0.00
	700.00	0.00	358.89	700.00	0.00	0.00	0.00	388159.56	738963.00	N 32 3 55.89	W 103 41 43.29	0.00	0.00	0.00
	800.00	0.00	358.89	800.00	0.00	0.00	0.00	388159.56	738963.00	N 32 3 55.89	W 103 41 43.29	0.00	0.00	0.00
	900.00	0.00	358.89	900.00	0.00	0.00	0.00	388159.56	738963.00	N 32 3 55.89	W 103 41 43.29	0.00	0.00	0.00
	1000.00	0.00	358.89	1000.00	0.00	0.00	0.00	388159.56	738963.00	N 32 3 55.89	W 103 41 43.29	0.00	0.00	0.00
	1100.00	0.00	358.89	1100.00	0.00	0.00	0.00	388159.56	738963.00	N 32 3 55.89	W 103 41 43.29	0.00	0.00	0.00
	1200.00	0.00	358.89	1200.00	0.00	0.00	0.00	388159.56	738963.00	N 32 3 55.89	W 103 41 43.29	0.00	0.00	0.00
	1300.00	0.00	358.89	1300.00	0.00	0.00	0.00	388159.56	738963.00	N 32 3 55.89	W 103 41 43.29	0.00	0.00	0.00
	1400.00	0.00	358.89	1400.00	0.00	0.00	0.00	388159.56	738963.00	N 32 3 55.89	W 103 41 43.29	0.00	0.00	0.00
	1500.00	0.00	358.89	1500.00	0.00	0.00	0.00	388159.56	738963.00	N 32 3 55.89	W 103 41 43.29	0.00	0.00	0.00
	1600.00	0.00	358.89	1600.00	0.00	0.00	0.00	388159.56	738963.00	N 32 3 55.89	W 103 41 43.29	0.00	0.00	0.00
	1700.00	0.00	358.89	1700.00	0.00	0.00	0.00	388159.56	738963.00	N 32 3 55.89	W 103 41 43.29	0.00	0.00	0.00
	1800.00	0.00	358.89	1800.00	0.00	0.00	0.00	388159.56	738963.00	N 32 3 55.89	W 103 41 43.29	0.00	0.00	0.00
	1900.00	0.00	358.89	1900.00	0.00	0.00	0.00	388159.56	738963.00	N 32 3 55.89	W 103 41 43.29	0.00	0.00	0.00
	2000.00	0.00	358.89	2000.00	0.00	0.00	0.00	388159.56	738963.00	N 32 3 55.89	W 103 41 43.29	0.00	0.00	0.00
	2100.00	0.00	358.89	2100.00	0.00	0.00	0.00	388159.56	738963.00	N 32 3 55.89	W 103 41 43.29	0.00	0.00	0.00
	2200.00	0.00	358.89	2200.00	0.00	0.00	0.00	388159.56	738963.00	N 32 3 55.89	W 103 41 43.29	0.00	0.00	0.00
	2300.00	0.00	358.89	2300.00	0.00	0.00	0.00	388159.56	738963.00	N 32 3 55.89	W 103 41 43.29	0.00	0.00	0.00
	2400.00	0.00	358.89	2400.00	0.00	0.00	0.00	388159.56	738963.00	N 32 3 55.89	W 103 41 43.29	0.00	0.00	0.00
	2500.00	0.00	358.89	2500.00	0.00	0.00	0.00	388159.56	738963.00	N 32 3 55.89	W 103 41 43.29	0.00	0.00	0.00
	2600.00	0.00	358.89	2600.00	0.00	0.00	0.00	388159.56	738963.00	N 32 3 55.89	W 103 41 43.29	0.00	0.00	0.00
	2700.00	0.00	358.89	2700.00	0.00	0.00	0.00	388159.56	738963.00	N 32 3 55.89	W 103 41 43.29	0.00	0.00	0.00

Comments	MD (ft)	Incl (°)	Azim Grid (°)	TVD (ft)	VSEC (ft)	NS (ft)	EW (ft)	Northing (ftUS)	Easting (ftUS)	Latitude (N/S ° ' ")	Longitude (E/W ° ' ")	Closure (ft)	Closure Azimuth (°)	DLS (°/100ft)
KOP - Build 12"/100ft DLS	8300.00	0.00	358.89	8300.00	0.00	0.00	0.00	388159.56	738963.00	N 32 3 55.89	W 103 41 43.29	0.00	0.00	0.00
	8400.00	0.00	358.89	8400.00	0.00	0.00	0.00	388159.56	738963.00	N 32 3 55.89	W 103 41 43.29	0.00	0.00	0.00
	8500.00	0.00	358.89	8500.00	0.00	0.00	0.00	388159.56	738963.00	N 32 3 55.89	W 103 41 43.29	0.00	0.00	0.00
	8600.00	0.00	358.89	8600.00	0.00	0.00	0.00	388159.56	738963.00	N 32 3 55.89	W 103 41 43.29	0.00	0.00	0.00
	8700.00	0.00	358.89	8700.00	0.00	0.00	0.00	388159.56	738963.00	N 32 3 55.89	W 103 41 43.29	0.00	0.00	0.00
	8800.00	0.00	358.89	8800.00	0.00	0.00	0.00	388159.56	738963.00	N 32 3 55.89	W 103 41 43.29	0.00	0.00	0.00
	8872.50	0.00	358.89	8872.50	0.00	0.00	0.00	388159.56	738963.00	N 32 3 55.89	W 103 41 43.29	0.00	0.00	0.00
	8900.00	3.30	358.89	8899.98	0.79	0.79	-0.02	388160.35	738962.98	N 32 3 55.90	W 103 41 43.29	0.79	358.89	12.00
	9000.00	15.30	358.89	8998.49	16.92	16.92	-0.33	388176.48	738962.67	N 32 3 56.06	W 103 41 43.29	16.92	358.89	12.00
	9100.00	27.30	358.89	9091.49	53.18	53.17	-1.03	388212.73	738961.97	N 32 3 56.41	W 103 41 43.30	53.18	358.89	12.00
	9200.00	39.30	358.89	9174.92	107.98	107.96	-2.08	388267.51	738960.92	N 32 3 56.96	W 103 41 43.31	107.98	358.89	12.00
	9300.00	51.30	358.89	9245.14	178.92	178.89	-3.45	388338.44	738959.55	N 32 3 57.66	W 103 41 43.32	178.92	358.89	12.00
	9400.00	63.30	358.89	9299.07	262.92	262.87	-5.07	388422.42	738957.93	N 32 3 58.49	W 103 41 43.33	262.92	358.89	12.00
	9500.00	75.29	358.89	9334.36	356.29	356.22	-6.87	388515.77	738956.13	N 32 3 59.41	W 103 41 43.35	356.29	358.89	12.00
	9600.00	87.29	358.89	9349.47	454.95	454.87	-8.77	388614.41	738954.22	N 32 4 0.39	W 103 41 43.36	454.95	358.89	12.00
Landing point	9622.56	90.00	358.89	9350.00	477.50	477.41	-9.21	388636.95	738953.79	N 32 4 0.61	W 103 41 43.37	477.50	358.89	12.00
	9700.00	90.00	358.89	9350.00	554.94	554.84	-10.70	388714.38	738952.30	N 32 4 1.38	W 103 41 43.38	554.94	358.89	0.00
	9800.00	90.00	358.89	9350.00	654.94	654.82	-12.63	388814.35	738950.37	N 32 4 2.37	W 103 41 43.39	654.94	358.89	0.00
	9900.00	90.00	358.89	9350.00	754.94	754.80	-14.56	388914.33	738948.44	N 32 4 3.36	W 103 41 43.41	754.94	358.89	0.00
	10000.00	90.00	358.89	9350.00	854.94	854.79	-16.49	389014.31	738946.51	N 32 4 4.35	W 103 41 43.42	854.94	358.89	0.00
	10100.00	90.00	358.89	9350.00	954.94	954.77	-18.42	389114.28	738944.58	N 32 4 5.34	W 103 41 43.44	954.94	358.89	0.00
	10200.00	90.00	358.89	9350.00	1054.94	1054.75	-20.35	389214.26	738942.65	N 32 4 6.33	W 103 41 43.46	1054.94	358.89	0.00
	10300.00	90.00	358.89	9350.00	1154.94	1154.73	-22.28	389314.24	738940.72	N 32 4 7.32	W 103 41 43.47	1154.94	358.89	0.00
	10400.00	90.00	358.89	9350.00	1254.94	1254.71	-24.21	389414.21	738938.79	N 32 4 8.31	W 103 41 43.49	1254.94	358.89	0.00
	10500.00	90.00	358.89	9350.00	1354.94	1354.69	-26.14	389514.19	738936.86	N 32 4 9.30	W 103 41 43.50	1354.94	358.89	0.00
	10600.00	90.00	358.89	9350.00	1454.94	1454.67	-28.07	389614.17	738934.93	N 32 4 10.28	W 103 41 43.52	1454.94	358.89	0.00
	10700.00	90.00	358.89	9350.00	1554.94	1554.66	-30.00	389714.14	738933.00	N 32 4 11.27	W 103 41 43.53	1554.94	358.89	0.00
	10800.00	90.00	358.89	9350.00	1654.94	1654.64	-31.93	389814.12	738931.07	N 32 4 12.26	W 103 41 43.55	1654.94	358.89	0.00
	10900.00	90.00	358.89	9350.00	1754.94	1754.62	-33.86	389914.10	738929.14	N 32 4 13.25	W 103 41 43.56	1754.94	358.89	0.00
	11000.00	90.00	358.89	9350.00	1854.94	1854.60	-35.79	390014.07	738927.21	N 32 4 14.24	W 103 41 43.58	1854.94	358.89	0.00
	11100.00	90.00	358.89	9350.00	1954.94	1954.58	-37.72	390114.05	738925.28	N 32 4 15.23	W 103 41 43.60	1954.94	358.89	0.00
	11200.00	90.00	358.89	9350.00	2054.94	2054.56	-39.65	390214.03	738923.35	N 32 4 16.22	W 103 41 43.61	2054.94	358.89	0.00
	11300.00	90.00	358.89	9350.00	2154.94	2154.54	-41.58	390314.00	738921.42	N 32 4 17.21	W 103 41 43.63	2154.94	358.89	0.00
	11400.00	90.00	358.89	9350.00	2254.94	2254.52	-43.51	390413.98	738919.49	N 32 4 18.20	W 103 41 43.64	2254.94	358.89	0.00
	11500.00	90.00	358.89	9350.00	2354.94	2354.51	-45.45	390513.96	738917.55	N 32 4 19.19	W 103 41 43.66	2354.94	358.89	0.00
	11600.00	90.00	358.89	9350.00	2454.94	2454.49	-47.38	390613.93	738915.62	N 32 4 20.18	W 103 41 43.67	2454.94	358.89	0.00
	11700.00	90.00	358.89	9350.00	2554.94	2554.47	-49.31	390713.91	738913.69	N 32 4 21.17	W 103 41 43.69	2554.94	358.89	0.00
	11800.00	90.00	358.89	9350.00	2654.94	2654.45	-51.24	390813.89	738911.76	N 32 4 22.16	W 103 41 43.71	2654.94	358.89	0.00
	11900.00	90.00	358.89	9350.00	2754.94	2754.43	-53.18	390913.86	738909.83	N 32 4 23.15	W 103 41 43.72	2754.94	358.89	0.00
	12000.00	90.00	358.89	9350.00	2854.94	2854.41	-55.11	391013.84	738907.89	N 32 4 24.14	W 103 41 43.74	2854.94	358.89	0.00
	12100.00	90.00	358.89	9350.00	2954.94	2954.39	-57.04	391113.81	738905.96	N 32 4 25.13	W 103 41 43.75	2954.94	358.89	0.00
	12200.00	90.00	358.89	9350.00	3054.94	3054.38	-58.97	391213.79	738904.03	N 32 4 26.12	W 103 41 43.77	3054.94	358.89	0.00
	12300.00	90.00	358.89	9350.00	3154.94	3154.36	-60.91	391313.77	738902.09	N 32 4 27.11	W 103 41 43.78	3154.94	358.89	0.00
	12400.00	90.00	358.89	9350.00	3254.94	3254.34	-62.84	391413.74	738900.16	N 32 4 28.09	W 103 41 43.80	3254.94	358.89	0.00
	12500.00	90.00	358.89	9350.00	3354.94	3354.32	-64.77	391513.72	738898.23	N 32 4 29.08	W 103 41 43.81	3354.94	358.89	0.00
	12600.00	90.00	358.89	9350.00	3454.94	3454.30	-66.71	391613.70	738896.29	N 32 4 30.07	W 103 41 43.83	3454.94	358.89	0.00
	12700.00	90.00	358.89	9350.00	3554.94	3554.28	-68.64	391713.67	738894.36	N 32 4 31.06	W 103 41 43.85	3554.94	358.89	0.00
	12800.00	90.00	358.89	9350.00	3654.94	3654.26	-70.58	391813.65	738892.43	N 32 4 32.05	W 103 41 43.86	3654.94	358.89	0.00
	12900.00	90.00	358.89	9350.00	3754.94	3754.24	-72.51	391913.63	738890.49	N 32 4 33.04	W 103 41 43.88	3754.94	358.89	0.00
	13000.00	90.00	358.89	9350.00	3854.94	3854.23	-74.44	392013.60	738888.56	N 32 4 34.03	W 103 41 43.89	3854.94	358.89	0.00
	13100.00	90.00	358.89	9350.00	3954.94	3954.21	-76.38	392113.58	738886.62	N 32 4 35.02	W 103 41 43.91	3954.94	358.89	0.00
	13200.00	90.00	358.89	9350.00	4054.94	4054.19	-78.31	392213.56	738884.69	N 32 4 36.01	W 103 41 43.92	4054.94	358.89	0.00
	13300.00	90.00	358.89	9350.00	4154.94	4154.17	-80.25	392313.53	738882.75	N 32 4 37.00	W 103 41 43.94	4154.94	358.89	0.00
	13400.00	90.00	358.89	9350.00	4254.94	4254.15	-82.18	392413.51	738880.82	N 32 4 37.99	W 103 41 43.95	4254.94	358.89	0.00

Comments	MD (ft)	Incl (°)	Azim Grid (°)	TVD (ft)	VSEC (ft)	NS (ft)	EW (ft)	Northing (ftUS)	Easting (ftUS)	Latitude (N/S ° ' ")	Longitude (E/W ° ' ")	Closure (ft)	Closure Azimuth (°)	DLS ("/100ft)
	13500.00	90.00	358.89	9350.00	4354.94	4354.13	-84.12	392513.49	738878.88	N 32 4 38.98	W 103 41 43.97	4354.94	358.89	0.00
	13600.00	90.00	358.89	9350.00	4454.94	4454.11	-86.05	392613.46	738876.95	N 32 4 39.97	W 103 41 43.99	4454.94	358.89	0.00
	13700.00	90.00	358.89	9350.00	4554.94	4554.09	-87.99	392713.44	738875.01	N 32 4 40.96	W 103 41 44.00	4554.94	358.89	0.00
	13800.00	90.00	358.89	9350.00	4654.94	4654.08	-89.93	392813.41	738873.08	N 32 4 41.95	W 103 41 44.02	4654.94	358.89	0.00
	13900.00	90.00	358.89	9350.00	4754.94	4754.06	-91.86	392913.39	738871.14	N 32 4 42.94	W 103 41 44.03	4754.94	358.89	0.00
Cimarex Hallertau 5 Federal Com #2H PBHL	13938.22	90.00	358.89	9350.00	4793.16	4792.27	-92.60	392951.60	738870.40	N 32 4 43.31	W 103 41 44.04	4793.16	358.89	0.00

Survey Type: Non-Def Plan

Survey Error Model: ISCWSA Rev 0 *** 3-D 95.000% Confidence 2.7955 sigma
Survey Program:

Description	MD From (ft)	MD To (ft)	EOU Freq (ft)	Hole Size (in)	Casing Diameter (in)	Survey Tool Type	Borehole / Survey
	0.000	8872.500	1/100.000	30.000	30.000	SLB_MWD-POOR	Original Borehole / Cimarex Hallertau 5 Federal Com #2H
	8872.500	13938.218	1/100.000	30.000	30.000	SLB_MWD-STD	Original Borehole / Cimarex Hallertau 5 Federal Com #2H