

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

1. Type of Well

☒ Oil Well ☐ Gas Well ☐ Other

RECEIVED

8. Well Name and No.

HALLERTAU 5 FEDERAL COM 7H

2. Name of Operator

CIMAREX ENERGY COMPANY

Contact: DEYSI FAVELA

E-Mail: dfavela@cimarex.com

9. API Well No.

30-025-41063

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 SESW 330FSL 1830FWL

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 recompleat 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 recompleat 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 & 1710 FWL

Change to:

BHL 330 FNL & 1260 FWL

See attachments:

Original COAs still stand

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

**Electronic Submission #227791 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

APPROVED

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved By

Title

DEC 31 2013

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

BUREAU OF LAND MANAGEMENT

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

HOBBS OCD

DISTRICT I

1625 N. French Dr., Hobbs, NM 88240

DISTRICT II

1501 W. 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

State of New Mexico
Energy, Minerals and Natural Resources Department

Form C-102

Revised July 18, 2010

Submit one copy to appropriate
District Office

RECEIVED

CONSERVATION DIVISION

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

WELL LOCATION AND ACREAGE DEDICATION PLAT

☐ AMENDED REPORT

API Number 30-025-41063	Pool Code	Pool Name Wildcat Bone Spring
Property Code	Property Name HALLERTAU 5 FEDERAL	Well Number 7H
OGRID No. 162683	Operator Name CIMAREX ENERGY CO. OF COLORADO	Elevation 3273'

Surface Location

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
N	5	26 S	32 E		330	SOUTH	1830	WEST	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
D	5	26 S	32 E		330	NORTH	1260	WEST	LEA

Dedicated Acres	Joint or Infill	Consolidation Code	Order No.
160			

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

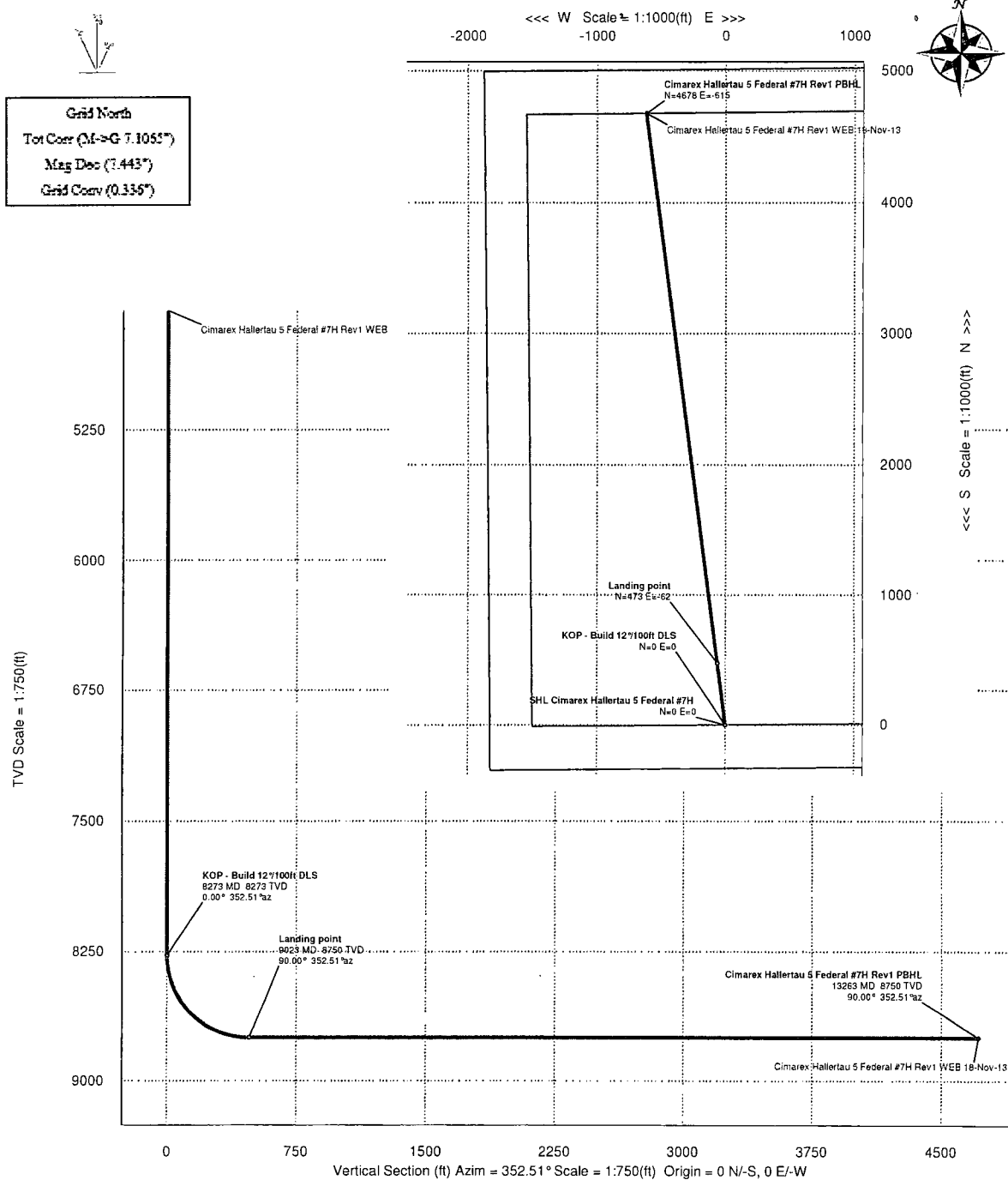
PROPOSED BOTTOM HOLE LOCATION Lat - N 32°04'43.26" Long - W 103°42'06.49" NMSPC- N 392934.3 E 736938.3 (NAD-83) SURFACE LOCATION Lat - N 32°03'56.93" Long - W 103°41'59.67" NMSPC- N 388258.9 E 737553.1 (NAD-83)	OPERATOR CERTIFICATION I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or 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. <i>Deysi Favela</i> 11/22/2013 Signature Date Deysi Favela Printed Name dfavela@cimarex.com Email Address
	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: FEBRUARY 11, 2014 Signature: [Signature] Professional Surveyor Certificate No. Gary L. Jones 7977 BASIN SURVEYS 25963



Cimarex

PATHFINDER
A Schlumberger Company

WELL	Hallertau 5 Federal #7H		FIELD	NM Lea County		STRUCTURE	TBD	
Magnetic Parameters Model: BGM 2013	Dp: 16.843" Mag Dec: 7.443°	Date: November 18, 2013 FS: 48348.807	Surface Location Lat: N 32 31.8 924 Lon: W 102 41 19.818	Northings 388256.90 NUS 727553.10 NUS	Eastings Grid Conv: 0.235° Scale Fact: 0.9999319	Miscellaneous Stat: Cimarex Hallertau 5 Federal #7H0 Flat - Ground Level 3277ft above MSL Plan: Rev1 WEB 18-Nov-13 - Any Date November 18, 2013		



Critical Points

Critical Point	MD	INCL	AZIM	TVD	VSEC	N(±) / S(-)	E(±) / W(-)	DLS
SHL Cimarex Hallertau 5 Federal #7H	0.00	0.00	352.51	0.00	0.00	0.00	0.00	
KOP - Build 12°/100ft DLS	8272.50	0.00	352.51	8272.50	0.00	0.00	0.00	0.00
Landing point	9022.56	90.00	352.51	8750.00	477.50	473.43	-62.20	12.00
Cimarex Hallertau 5 Federal #7H Rev1 PRHI	13262.92	90.00	352.51	8750.00	4717.86	4677.63	-614.83	0.00



Cimarex Hallertau 5 Federal #7H Rev1 WEB 18-Nov-13 Proposal Report 100'

Interpolated

(Non-Def Plan)



Report Date: November 18, 2013 - 11:38 AM
Client: Cimarex
Field: NM Lea County (NAD 83)
Structure / Slot: TBD / Cimarex Hallertau 5 Federal #7H
Well: Cimarex Hallertau 5 Federal #7H
Borehole: Original Borehole
UWI / API#: Unknown / Unknown
Survey Name: Cimarex Hallertau 5 Federal #7H Rev1 WEB 18-Nov-13
Survey Date: November 18, 2013
Tort / AHD / DDI / ERD Ratio: 90.007 ° / 4717.862 ft / 5.809 / 0.539
Coordinate Reference System: NAD83 New Mexico State Plane, Eastern Zone, US Feet
Location Lat / Long: N 32° 3' 56.93419", W 103° 41' 59.66953"
Location Grid N/E Y/X: N 388256.900 ftUS, E 737553.100 ftUS
CRS Grid Convergence Angle: 0.3363 °
Grid Scale Factor: 0.99995319

Survey / DLS Computation: Minimum Curvature / Lubinski
Vertical Section Azimuth: 352.512 ° (Grid North)
Vertical Section Origin: 0.000 ft, 0.000 ft
TVD Reference Datum: Ground Level
TVD Reference Elevation: 3273.000 ft above MSL
Seabed / Ground Elevation: 3273.000 ft above MSL
Magnetic Declination: 7.443 °
Total Gravity Field Strength: 998.4867 mgn (9.80665 Based)
Total Magnetic Field Strength: 48248.579 nT
Magnetic Dip Angle: 59.943 °
Declination Date: November 18, 2013
Magnetic Declination Model: BGGM 2013
North Reference: Grid North
Grid Convergence Used: 0.3363 °
Total Corr Mag North->Grid North: 7.1065 °

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 #7H	0.00	0.00	352.51	0.00	0.00	0.00	0.00	388256.90	737553.10	N 32 3 56.93	W 103 41 59.67	0.00	0.00	N/A
	100.00	0.00	352.51	100.00	0.00	0.00	0.00	388256.90	737553.10	N 32 3 56.93	W 103 41 59.67	0.00	0.00	0.00
	200.00	0.00	352.51	200.00	0.00	0.00	0.00	388256.90	737553.10	N 32 3 56.93	W 103 41 59.67	0.00	0.00	0.00
	300.00	0.00	352.51	300.00	0.00	0.00	0.00	388256.90	737553.10	N 32 3 56.93	W 103 41 59.67	0.00	0.00	0.00
	400.00	0.00	352.51	400.00	0.00	0.00	0.00	388256.90	737553.10	N 32 3 56.93	W 103 41 59.67	0.00	0.00	0.00
	500.00	0.00	352.51	500.00	0.00	0.00	0.00	388256.90	737553.10	N 32 3 56.93	W 103 41 59.67	0.00	0.00	0.00
	600.00	0.00	352.51	600.00	0.00	0.00	0.00	388256.90	737553.10	N 32 3 56.93	W 103 41 59.67	0.00	0.00	0.00
	700.00	0.00	352.51	700.00	0.00	0.00	0.00	388256.90	737553.10	N 32 3 56.93	W 103 41 59.67	0.00	0.00	0.00
	800.00	0.00	352.51	800.00	0.00	0.00	0.00	388256.90	737553.10	N 32 3 56.93	W 103 41 59.67	0.00	0.00	0.00
	900.00	0.00	352.51	900.00	0.00	0.00	0.00	388256.90	737553.10	N 32 3 56.93	W 103 41 59.67	0.00	0.00	0.00
	1000.00	0.00	352.51	1000.00	0.00	0.00	0.00	388256.90	737553.10	N 32 3 56.93	W 103 41 59.67	0.00	0.00	0.00
	1100.00	0.00	352.51	1100.00	0.00	0.00	0.00	388256.90	737553.10	N 32 3 56.93	W 103 41 59.67	0.00	0.00	0.00
	1200.00	0.00	352.51	1200.00	0.00	0.00	0.00	388256.90	737553.10	N 32 3 56.93	W 103 41 59.67	0.00	0.00	0.00
	1300.00	0.00	352.51	1300.00	0.00	0.00	0.00	388256.90	737553.10	N 32 3 56.93	W 103 41 59.67	0.00	0.00	0.00
	1400.00	0.00	352.51	1400.00	0.00	0.00	0.00	388256.90	737553.10	N 32 3 56.93	W 103 41 59.67	0.00	0.00	0.00
	1500.00	0.00	352.51	1500.00	0.00	0.00	0.00	388256.90	737553.10	N 32 3 56.93	W 103 41 59.67	0.00	0.00	0.00
	1600.00	0.00	352.51	1600.00	0.00	0.00	0.00	388256.90	737553.10	N 32 3 56.93	W 103 41 59.67	0.00	0.00	0.00
	1700.00	0.00	352.51	1700.00	0.00	0.00	0.00	388256.90	737553.10	N 32 3 56.93	W 103 41 59.67	0.00	0.00	0.00
	1800.00	0.00	352.51	1800.00	0.00	0.00	0.00	388256.90	737553.10	N 32 3 56.93	W 103 41 59.67	0.00	0.00	0.00
	1900.00	0.00	352.51	1900.00	0.00	0.00	0.00	388256.90	737553.10	N 32 3 56.93	W 103 41 59.67	0.00	0.00	0.00
	2000.00	0.00	352.51	2000.00	0.00	0.00	0.00	388256.90	737553.10	N 32 3 56.93	W 103 41 59.67	0.00	0.00	0.00
	2100.00	0.00	352.51	2100.00	0.00	0.00	0.00	388256.90	737553.10	N 32 3 56.93	W 103 41 59.67	0.00	0.00	0.00
	2200.00	0.00	352.51	2200.00	0.00	0.00	0.00	388256.90	737553.10	N 32 3 56.93	W 103 41 59.67	0.00	0.00	0.00
	2300.00	0.00	352.51	2300.00	0.00	0.00	0.00	388256.90	737553.10	N 32 3 56.93	W 103 41 59.67	0.00	0.00	0.00
	2400.00	0.00	352.51	2400.00	0.00	0.00	0.00	388256.90	737553.10	N 32 3 56.93	W 103 41 59.67	0.00	0.00	0.00
	2500.00	0.00	352.51	2500.00	0.00	0.00	0.00	388256.90	737553.10	N 32 3 56.93	W 103 41 59.67	0.00	0.00	0.00
	2600.00	0.00	352.51	2600.00	0.00	0.00	0.00	388256.90	737553.10	N 32 3 56.93	W 103 41 59.67	0.00	0.00	0.00
	2700.00	0.00	352.51	2700.00	0.00	0.00	0.00	388256.90	737553.10	N 32 3 56.93	W 103 41 59.67	0.00	0.00	0.00
	2800.00	0.00	352.51	2800.00	0.00	0.00	0.00	388256.90	737553.10	N 32 3 56.93	W 103 41 59.67	0.00	0.00	0.00
	2900.00	0.00	352.51	2900.00	0.00	0.00	0.00	388256.90	737553.10	N 32 3 56.93	W 103 41 59.67	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)
	3000.00	0.00	352.51	3000.00	0.00	0.00	0.00	388256.90	737553.10	N 32 3 56.93	W 103 41 59.67	0.00	0.00	0.00
	3100.00	0.00	352.51	3100.00	0.00	0.00	0.00	388256.90	737553.10	N 32 3 56.93	W 103 41 59.67	0.00	0.00	0.00
	3200.00	0.00	352.51	3200.00	0.00	0.00	0.00	388256.90	737553.10	N 32 3 56.93	W 103 41 59.67	0.00	0.00	0.00
	3300.00	0.00	352.51	3300.00	0.00	0.00	0.00	388256.90	737553.10	N 32 3 56.93	W 103 41 59.67	0.00	0.00	0.00
	3400.00	0.00	352.51	3400.00	0.00	0.00	0.00	388256.90	737553.10	N 32 3 56.93	W 103 41 59.67	0.00	0.00	0.00
	3500.00	0.00	352.51	3500.00	0.00	0.00	0.00	388256.90	737553.10	N 32 3 56.93	W 103 41 59.67	0.00	0.00	0.00
	3600.00	0.00	352.51	3600.00	0.00	0.00	0.00	388256.90	737553.10	N 32 3 56.93	W 103 41 59.67	0.00	0.00	0.00
	3700.00	0.00	352.51	3700.00	0.00	0.00	0.00	388256.90	737553.10	N 32 3 56.93	W 103 41 59.67	0.00	0.00	0.00
	3800.00	0.00	352.51	3800.00	0.00	0.00	0.00	388256.90	737553.10	N 32 3 56.93	W 103 41 59.67	0.00	0.00	0.00
	3900.00	0.00	352.51	3900.00	0.00	0.00	0.00	388256.90	737553.10	N 32 3 56.93	W 103 41 59.67	0.00	0.00	0.00
	4000.00	0.00	352.51	4000.00	0.00	0.00	0.00	388256.90	737553.10	N 32 3 56.93	W 103 41 59.67	0.00	0.00	0.00
	4100.00	0.00	352.51	4100.00	0.00	0.00	0.00	388256.90	737553.10	N 32 3 56.93	W 103 41 59.67	0.00	0.00	0.00
	4200.00	0.00	352.51	4200.00	0.00	0.00	0.00	388256.90	737553.10	N 32 3 56.93	W 103 41 59.67	0.00	0.00	0.00
	4300.00	0.00	352.51	4300.00	0.00	0.00	0.00	388256.90	737553.10	N 32 3 56.93	W 103 41 59.67	0.00	0.00	0.00
	4400.00	0.00	352.51	4400.00	0.00	0.00	0.00	388256.90	737553.10	N 32 3 56.93	W 103 41 59.67	0.00	0.00	0.00
	4500.00	0.00	352.51	4500.00	0.00	0.00	0.00	388256.90	737553.10	N 32 3 56.93	W 103 41 59.67	0.00	0.00	0.00
	4600.00	0.00	352.51	4600.00	0.00	0.00	0.00	388256.90	737553.10	N 32 3 56.93	W 103 41 59.67	0.00	0.00	0.00
	4700.00	0.00	352.51	4700.00	0.00	0.00	0.00	388256.90	737553.10	N 32 3 56.93	W 103 41 59.67	0.00	0.00	0.00
	4800.00	0.00	352.51	4800.00	0.00	0.00	0.00	388256.90	737553.10	N 32 3 56.93	W 103 41 59.67	0.00	0.00	0.00
	4900.00	0.00	352.51	4900.00	0.00	0.00	0.00	388256.90	737553.10	N 32 3 56.93	W 103 41 59.67	0.00	0.00	0.00
	5000.00	0.00	352.51	5000.00	0.00	0.00	0.00	388256.90	737553.10	N 32 3 56.93	W 103 41 59.67	0.00	0.00	0.00
	5100.00	0.00	352.51	5100.00	0.00	0.00	0.00	388256.90	737553.10	N 32 3 56.93	W 103 41 59.67	0.00	0.00	0.00
	5200.00	0.00	352.51	5200.00	0.00	0.00	0.00	388256.90	737553.10	N 32 3 56.93	W 103 41 59.67	0.00	0.00	0.00
	5300.00	0.00	352.51	5300.00	0.00	0.00	0.00	388256.90	737553.10	N 32 3 56.93	W 103 41 59.67	0.00	0.00	0.00
	5400.00	0.00	352.51	5400.00	0.00	0.00	0.00	388256.90	737553.10	N 32 3 56.93	W 103 41 59.67	0.00	0.00	0.00
	5500.00	0.00	352.51	5500.00	0.00	0.00	0.00	388256.90	737553.10	N 32 3 56.93	W 103 41 59.67	0.00	0.00	0.00
	5600.00	0.00	352.51	5600.00	0.00	0.00	0.00	388256.90	737553.10	N 32 3 56.93	W 103 41 59.67	0.00	0.00	0.00
	5700.00	0.00	352.51	5700.00	0.00	0.00	0.00	388256.90	737553.10	N 32 3 56.93	W 103 41 59.67	0.00	0.00	0.00
	5800.00	0.00	352.51	5800.00	0.00	0.00	0.00	388256.90	737553.10	N 32 3 56.93	W 103 41 59.67	0.00	0.00	0.00
	5900.00	0.00	352.51	5900.00	0.00	0.00	0.00	388256.90	737553.10	N 32 3 56.93	W 103 41 59.67	0.00	0.00	0.00
	6000.00	0.00	352.51	6000.00	0.00	0.00	0.00	388256.90	737553.10	N 32 3 56.93	W 103 41 59.67	0.00	0.00	0.00
	6100.00	0.00	352.51	6100.00	0.00	0.00	0.00	388256.90	737553.10	N 32 3 56.93	W 103 41 59.67	0.00	0.00	0.00
	6200.00	0.00	352.51	6200.00	0.00	0.00	0.00	388256.90	737553.10	N 32 3 56.93	W 103 41 59.67	0.00	0.00	0.00
	6300.00	0.00	352.51	6300.00	0.00	0.00	0.00	388256.90	737553.10	N 32 3 56.93	W 103 41 59.67	0.00	0.00	0.00
	6400.00	0.00	352.51	6400.00	0.00	0.00	0.00	388256.90	737553.10	N 32 3 56.93	W 103 41 59.67	0.00	0.00	0.00
	6500.00	0.00	352.51	6500.00	0.00	0.00	0.00	388256.90	737553.10	N 32 3 56.93	W 103 41 59.67	0.00	0.00	0.00
	6600.00	0.00	352.51	6600.00	0.00	0.00	0.00	388256.90	737553.10	N 32 3 56.93	W 103 41 59.67	0.00	0.00	0.00
	6700.00	0.00	352.51	6700.00	0.00	0.00	0.00	388256.90	737553.10	N 32 3 56.93	W 103 41 59.67	0.00	0.00	0.00
	6800.00	0.00	352.51	6800.00	0.00	0.00	0.00	388256.90	737553.10	N 32 3 56.93	W 103 41 59.67	0.00	0.00	0.00
	6900.00	0.00	352.51	6900.00	0.00	0.00	0.00	388256.90	737553.10	N 32 3 56.93	W 103 41 59.67	0.00	0.00	0.00
	7000.00	0.00	352.51	7000.00	0.00	0.00	0.00	388256.90	737553.10	N 32 3 56.93	W 103 41 59.67	0.00	0.00	0.00
	7100.00	0.00	352.51	7100.00	0.00	0.00	0.00	388256.90	737553.10	N 32 3 56.93	W 103 41 59.67	0.00	0.00	0.00
	7200.00	0.00	352.51	7200.00	0.00	0.00	0.00	388256.90	737553.10	N 32 3 56.93	W 103 41 59.67	0.00	0.00	0.00
	7300.00	0.00	352.51	7300.00	0.00	0.00	0.00	388256.90	737553.10	N 32 3 56.93	W 103 41 59.67	0.00	0.00	0.00
	7400.00	0.00	352.51	7400.00	0.00	0.00	0.00	388256.90	737553.10	N 32 3 56.93	W 103 41 59.67	0.00	0.00	0.00
	7500.00	0.00	352.51	7500.00	0.00	0.00	0.00	388256.90	737553.10	N 32 3 56.93	W 103 41 59.67	0.00	0.00	0.00
	7600.00	0.00	352.51	7600.00	0.00	0.00	0.00	388256.90	737553.10	N 32 3 56.93	W 103 41 59.67	0.00	0.00	0.00
	7700.00	0.00	352.51	7700.00	0.00	0.00	0.00	388256.90	737553.10	N 32 3 56.93	W 103 41 59.67	0.00	0.00	0.00
	7800.00	0.00	352.51	7800.00	0.00	0.00	0.00	388256.90	737553.10	N 32 3 56.93	W 103 41 59.67	0.00	0.00	0.00
	7900.00	0.00	352.51	7900.00	0.00	0.00	0.00	388256.90	737553.10	N 32 3 56.93	W 103 41 59.67	0.00	0.00	0.00
	8000.00	0.00	352.51	8000.00	0.00	0.00	0.00	388256.90	737553.10	N 32 3 56.93	W 103 41 59.67	0.00	0.00	0.00
	8100.00	0.00	352.51	8100.00	0.00	0.00	0.00	388256.90	737553.10	N 32 3 56.93	W 103 41 59.67	0.00	0.00	0.00
	8200.00	0.00	352.51	8200.00	0.00	0.00	0.00	388256.90	737553.10	N 32 3 56.93	W 103 41 59.67	0.00	0.00	0.00
KOP - Build	8272.50	0.00	352.51	8272.50	0.00	0.00	0.00	388256.90	737553.10	N 32 3 56.93	W 103 41 59.67	0.00	0.00	0.00
12"/100ft DLS	8300.00	3.30	352.51	8299.98	0.79	0.78	-0.10	388257.68	737553.00	N 32 3 56.94	W 103 41 59.67	0.79	352.51	12.00
	8400.00	15.30	352.51	8398.49	16.92	16.76	-2.20	388273.68	737550.90	N 32 3 57.10	W 103 41 59.69	16.92	352.51	12.00
	8500.00	27.30	352.51	8491.49	53.18	52.72	-6.93	388309.62	737546.17	N 32 3 57.46	W 103 41 59.75	53.18	352.51	12.00

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)
Landing point	8600.00	39.30	352.51	8574.92	107.98	107.06	-14.07	388363.95	737539.03	N 32 3 57.99	W 103 41 59.83	107.98	352.51	12.00
	8700.00	51.30	352.51	8645.14	178.92	177.40	-23.31	388434.29	737529.79	N 32 3 58.69	W 103 41 59.93	178.92	352.51	12.00
	8800.00	63.30	352.51	8699.07	262.92	260.68	-34.25	388517.56	737518.85	N 32 3 59.52	W 103 42 0.05	262.92	352.51	12.00
	8900.00	75.29	352.51	8734.36	356.29	353.25	-46.41	388610.13	737506.69	N 32 4 0.43	W 103 42 0.18	356.29	352.51	12.00
	9000.00	87.29	352.51	8749.47	454.95	451.08	-59.27	388707.95	737493.84	N 32 4 1.40	W 103 42 0.33	454.95	352.51	12.00
	9022.56	90.00	352.51	8750.00	477.50	473.43	-62.20	388730.31	737490.30	N 32 4 1.62	W 103 42 0.36	477.50	352.51	12.00
	9100.00	90.00	352.51	8750.00	554.94	550.22	-72.29	388807.09	737480.81	N 32 4 2.38	W 103 42 0.47	554.94	352.51	0.00
	9200.00	90.00	352.51	8750.00	654.94	649.36	-85.32	388906.23	737467.79	N 32 4 3.36	W 103 42 0.62	654.94	352.51	0.00
	9300.00	90.00	352.51	8750.00	754.94	748.51	-98.35	389005.38	737454.76	N 32 4 4.35	W 103 42 0.76	754.94	352.51	0.00
	9400.00	90.00	352.51	8750.00	854.94	847.66	-111.37	389104.52	737441.73	N 32 4 5.33	W 103 42 0.91	854.94	352.51	0.00
	9500.00	90.00	352.51	8750.00	954.94	946.81	-124.40	389203.66	737428.70	N 32 4 6.31	W 103 42 1.05	954.94	352.51	0.00
	9600.00	90.00	352.51	8750.00	1054.94	1045.95	-137.43	389302.80	737415.68	N 32 4 7.29	W 103 42 1.20	1054.94	352.51	0.00
	9700.00	90.00	352.51	8750.00	1154.94	1145.10	-150.46	389401.95	737402.65	N 32 4 8.27	W 103 42 1.34	1154.94	352.51	0.00
	9800.00	90.00	352.51	8750.00	1254.94	1244.25	-163.49	389501.09	737389.62	N 32 4 9.26	W 103 42 1.48	1254.94	352.51	0.00
	9900.00	90.00	352.51	8750.00	1354.94	1343.40	-176.52	389600.23	737376.59	N 32 4 10.24	W 103 42 1.63	1354.94	352.51	0.00
	10000.00	90.00	352.51	8750.00	1454.94	1442.55	-189.55	389699.37	737363.56	N 32 4 11.22	W 103 42 1.77	1454.94	352.51	0.00
	10100.00	90.00	352.51	8750.00	1554.94	1541.69	-202.58	389798.52	737350.53	N 32 4 12.20	W 103 42 1.92	1554.94	352.51	0.00
	10200.00	90.00	352.51	8750.00	1654.94	1640.84	-215.61	389897.66	737337.50	N 32 4 13.18	W 103 42 2.06	1654.94	352.51	0.00
	10300.00	90.00	352.51	8750.00	1754.94	1739.99	-228.64	389996.80	737324.48	N 32 4 14.17	W 103 42 2.21	1754.94	352.51	0.00
	10400.00	90.00	352.51	8750.00	1854.94	1839.13	-241.67	390095.95	737311.45	N 32 4 15.15	W 103 42 2.35	1854.94	352.51	0.00
	10500.00	90.00	352.51	8750.00	1954.94	1938.28	-254.70	390195.09	737298.42	N 32 4 16.13	W 103 42 2.50	1954.94	352.51	0.00
	10600.00	90.00	352.51	8750.00	2054.94	2037.43	-267.73	390294.23	737285.39	N 32 4 17.11	W 103 42 2.64	2054.94	352.51	0.00
	10700.00	90.00	352.51	8750.00	2154.94	2136.58	-280.76	390393.37	737272.35	N 32 4 18.09	W 103 42 2.79	2154.94	352.51	0.00
	10800.00	90.00	352.51	8750.00	2254.94	2235.72	-293.79	390492.52	737259.32	N 32 4 19.07	W 103 42 2.93	2254.94	352.51	0.00
	10900.00	90.00	352.51	8750.00	2354.94	2334.87	-306.82	390591.66	737246.29	N 32 4 20.06	W 103 42 3.08	2354.94	352.51	0.00
	11000.00	90.00	352.51	8750.00	2454.94	2434.02	-319.85	390690.80	737233.26	N 32 4 21.04	W 103 42 3.22	2454.94	352.51	0.00
	11100.00	90.00	352.51	8750.00	2554.94	2533.17	-332.89	390789.94	737220.23	N 32 4 22.02	W 103 42 3.37	2554.94	352.51	0.00
	11200.00	90.00	352.51	8750.00	2654.94	2632.31	-345.92	390889.08	737207.20	N 32 4 23.00	W 103 42 3.51	2654.94	352.51	0.00
	11300.00	90.00	352.51	8750.00	2754.94	2731.46	-358.95	390988.23	737194.17	N 32 4 23.98	W 103 42 3.65	2754.94	352.51	0.00
	11400.00	90.00	352.51	8750.00	2854.94	2830.61	-371.98	391087.37	737181.13	N 32 4 24.97	W 103 42 3.80	2854.94	352.51	0.00
	11500.00	90.00	352.51	8750.00	2954.94	2929.75	-385.02	391186.51	737168.10	N 32 4 25.95	W 103 42 3.94	2954.94	352.51	0.00
	11600.00	90.00	352.51	8750.00	3054.94	3028.90	-398.05	391285.65	737155.07	N 32 4 26.93	W 103 42 4.09	3054.94	352.51	0.00
	11700.00	90.00	352.51	8750.00	3154.94	3128.05	-411.09	391384.80	737142.03	N 32 4 27.91	W 103 42 4.23	3154.94	352.51	0.00
	11800.00	90.00	352.51	8750.00	3254.94	3227.19	-424.12	391483.94	737129.00	N 32 4 28.89	W 103 42 4.38	3254.94	352.51	0.00
	11900.00	90.00	352.51	8750.00	3354.94	3326.34	-437.15	391583.08	737115.97	N 32 4 29.87	W 103 42 4.52	3354.94	352.51	0.00
	12000.00	90.00	352.51	8750.00	3454.94	3425.49	-450.19	391682.22	737102.93	N 32 4 30.86	W 103 42 4.67	3454.94	352.51	0.00
	12100.00	90.00	352.51	8750.00	3554.94	3524.64	-463.22	391781.36	737089.90	N 32 4 31.84	W 103 42 4.81	3554.94	352.51	0.00
	12200.00	90.00	352.51	8750.00	3654.94	3623.78	-476.26	391880.51	737076.86	N 32 4 32.82	W 103 42 4.96	3654.94	352.51	0.00
	12300.00	90.00	352.51	8750.00	3754.94	3722.93	-489.29	391979.65	737063.83	N 32 4 33.80	W 103 42 5.10	3754.94	352.51	0.00
	12400.00	90.00	352.51	8750.00	3854.94	3822.08	-502.33	392078.79	737050.79	N 32 4 34.78	W 103 42 5.25	3854.94	352.51	0.00
	12500.00	90.00	352.51	8750.00	3954.94	3921.22	-515.37	392177.93	737037.76	N 32 4 35.77	W 103 42 5.39	3954.94	352.51	0.00
	12600.00	90.00	352.51	8750.00	4054.94	4020.37	-528.40	392277.07	737024.72	N 32 4 36.75	W 103 42 5.54	4054.94	352.51	0.00
	12700.00	90.00	352.51	8750.00	4154.94	4119.52	-541.44	392376.21	737011.69	N 32 4 37.73	W 103 42 5.68	4154.94	352.51	0.00
	12800.00	90.00	352.51	8750.00	4254.94	4218.66	-554.48	392475.36	736998.65	N 32 4 38.71	W 103 42 5.83	4254.94	352.51	0.00
	12900.00	90.00	352.51	8750.00	4354.94	4317.81	-567.51	392574.50	736985.61	N 32 4 39.69	W 103 42 5.97	4354.94	352.51	0.00
	13000.00	90.00	352.51	8750.00	4454.94	4416.96	-580.55	392673.64	736972.58	N 32 4 40.67	W 103 42 6.12	4454.94	352.51	0.00
	13100.00	90.00	352.51	8750.00	4554.94	4516.10	-593.59	392772.78	736959.54	N 32 4 41.66	W 103 42 6.26	4554.94	352.51	0.00
	13200.00	90.00	352.51	8750.00	4654.94	4615.25	-606.63	392871.92	736946.50	N 32 4 42.64	W 103 42 6.40	4654.94	352.51	0.00
Cimarex Hallertau 5 Federal #7H Rev1 PBHL	13262.92	90.00	352.51	8750.00	4717.86	4677.63	-614.83	392934.30	736938.30	N 32 4 43.26	W 103 42 6.50	4717.86	352.51	0.00

Survey Type: Non-Def Plan

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

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)
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	8272.500		1/100.000	30.000	30.000	SLB_MWD-POOR	Original Borehole / Cimarex Hallertau 5 Federal #7H Rev1						
	8272.500	13262.917		1/100.000	30.000	30.000	SLB_MWD-STD	Original Borehole / Cimarex Hallertau 5 Federal #7H Rev1						