

District I
1625 N. French Dr., Hobbs, NM 88240
Phone: (575) 393-6161 Fax: (575) 393-0720
District II
811 S. First St., 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 Dr., Santa Fe, NM 87505
Phone: (505) 476-3460 Fax: (505) 476-3462

State of New Mexico
Energy Minerals and Natural Resources

HOBBS OCD

Form C-101
Revised July 18, 2013

Oil Conservation Division

AUG 24 2015

☐ AMENDED REPORT

1220 South St. Francis Dr.

Santa Fe, NM 87505

RECEIVED

APPLICATION FOR PERMIT TO DRILL, RE-ENTER, DEEPEN, PLUGBACK, OR ADD A ZONE

¹ Operator Name and Address Endurance Resources LLC 203 W. Wall St., Suite 1000 Midland, Texas 79701		² OGRID Number 270329
³ Property Name Red Raider 25 BKS State		⁵ API Number 30-025-42758
⁴ Property Code 38002-315066	⁶ Well No. 5H	

⁷ Surface Location

UL - Lot	Section	Township	Range	Lot Idn	Feet from	N/S Line	Feet From	E/W Line	County
P	25	24 S	33 E		250	S	330	E	Lea

⁸ Proposed Bottom Hole Location

UL - Lot	Section	Township	Range	Lot Idn	Feet from	N/S Line	Feet From	E/W Line	County
A	25	24 S	33 E		330	N	330	E	Lea

⁹ Pool Information

Pool Name Red Hills: Bone Spring North	Pool Code 96434
---	--------------------

Additional Well Information

¹¹ Work Type New Well	¹² Well Type Oil	¹³ Cable/Rotary Rotary	¹⁴ Lease Type State of New Mexico	¹⁵ Ground Level Elevation 3507.9 ft.
¹⁶ Multiple N	¹⁷ Proposed Depth 13,902' MD	¹⁸ Formation Bone Spring	¹⁹ Contractor H&P	²⁰ Spud Date 10-15-2015
Depth to Ground water		Distance from nearest fresh water well		Distance to nearest surface water

✓ We will be using a closed-loop system in lieu of lined pits

²¹ Proposed Casing and Cement Program

Type	Hole Size	Casing Size	Casing Weight/ft	Setting Depth	Sacks of Cement	Estimated TOC
Surface	17 1/2"	13.375 in.	54.4 #	1260 ft.	1135	Surface
Int - 1	12 1/4"	9.625 in.	40 #	5282 ft.	1160	Surface
Prod	8 3/4"	5.50 in.	20 #	13902 ft.	1595	5000 ft.

Casing/Cement Program: Additional Comments

Plan to drill a 17-1/2" hole to 1,260 with Fresh water. Run 13-3/8"-54.5#-J-55 csg and cement to surface. Drill 12-1/4" hole to 5,282' w/ Brine, and run 9-5/8"-40#-L-80 csg & cement to surface. Drill 8-3/4" hole to KOP @ 8,877'. Drill 10" / 110' curve + 4,125' lateral to TMD of 13,902'. Run 5-1/2", P-110 csg and cement to 5000'.

²² Proposed Blowout Prevention Program

Type	Working Pressure	Test Pressure	Manufacturer
Double Ram	3000	3000	Cameron

²³ I hereby certify that the information given above is true and complete to the best of my knowledge and belief.

I further certify that I have complied with 19.15.14.9 (A) NMAC ☒ and/or 19.15.14.9 (B) NMAC ☒, if applicable.

Signature: *Manny Sirgo*
Printed name: Manny Sirgo

Title: Engineer

E-mail Address: manny@enduranceresourcesllc.com

Date: 8/20/2015

Phone: 432-242-4681

OIL CONSERVATION DIVISION

Approved By:

Title: Petroleum Engineer

Approved Date: 08/27/15

Expiration Date: 08/27/17

See Attached

Conditions of Approval Attached

Conditions of Approval

CONDITIONS OF APPROVAL

API #	Operator	Well name & Number
30-025-42758	ENDURANCE RESOURCES LLC	Red Raider BKS State # 005H

Applicable conditions of approval marked with XXXXXX

Administrative Orders Required

--	--

Other wells

--	--

Drilling

XXXXXXX	Once the well is spud, to prevent ground water contamination through whole or partial conduits from the surface, the operator shall drill without interruption through the fresh water zone or zones and shall immediately set in cement the water protection string

Casing

XXXXXXX	SURFACE & INTERNEMIATE(1) CASING - Cement must circulate to surface --
XXXXXXX	PRODUCTION CASING - Cement must tie back into intermediate casing --
	If cement does not circulate to surface, must run temperature survey or other log to determine top of cement
XXXXXXX	Surface casing must be set 25' below top of Rustler Anhydrite in order to seal off protectable water

Lost Circulation

XXXXXXX	Must notify OCD Hobbs Office if lost circulation is encountered at 575-370-3186

Stage Tool

XXXXXXX	Must notify OCD Hobbs Office prior to running Stage Tool at 575-370-3186
XXXXXXX	If using Stage Tool on Surface casing, Stage Tool must be greater than 350' and a minimum 200 feet above surface shoe.
XXXXXXX	When using a Stage Tool on Intermediate or Production Casing Stage must be a minimum of 50 feet below previous casing shoe.

Pits

XXXXXXX	If using a pit for drilling and completions, must have an approved pit form prior to spudding the well

Completion & Production

XXXXXXX	Will require a directional survey with the C-104

Endurance Resources LLC

HALLIBURTON

Sperry Drilling Services

Project: Lea County, NM (NAD 83)
Site: Red Raider BKS State
Well: Red Raider 25 BKS State 5H
Wellbore: Wellbore #1
Design: Plan #1
Rig: TBD



SURFACE LOCATION

US State Plane 1983
 New Mexico Eastern Zone
 Elevation: GL 3507.9 @ 3507.90usft (TBD)
 Northing 430897.14 Easting 793407.33 Latitude 32° 10' 55.163 N Longitude 103° 31' 6.859 W

WELLBORE TARGET DETAILS (MAP CO-ORDINATES AND LAT/LONG)

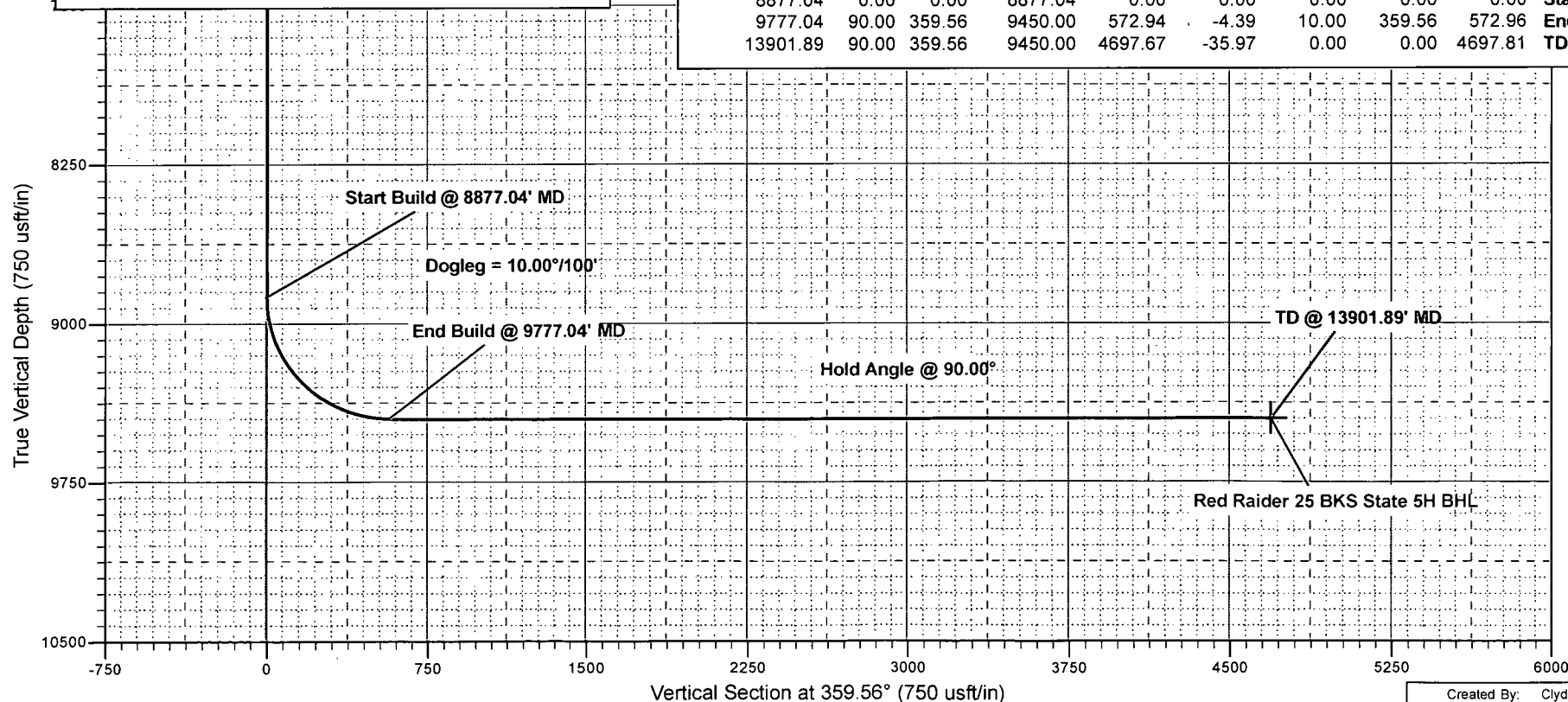
Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
Red Raider 25 BKS State 5H BHL	9450.00	4697.67	-35.97	435594.81	793371.36	32° 11' 41.650 N	103° 31' 6.864 W

To convert a Magnetic Direction to a Grid Direction, Add 6.78°

Magnetic Model: BGGM2015 Date: 11-Aug-15
 Azimuths to Grid North

SECTION DETAILS

MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	Vsect	Annotation
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
8877.04	0.00	0.00	8877.04	0.00	0.00	0.00	0.00	0.00	Start Build
9777.04	90.00	359.56	9450.00	572.94	-4.39	10.00	359.56	572.96	End Build
13901.89	90.00	359.56	9450.00	4697.67	-35.97	0.00	0.00	4697.81	TD



Created By: Clyde J. Geoffroy



Project: Lea County, NM (NAD 83)
Site: Red Raider BKS State
Well: Red Raider 25 BKS State 5H
Wellbore: Wellbore #1
Design: Plan #1
Rig: TBD

SURFACE LOCATION

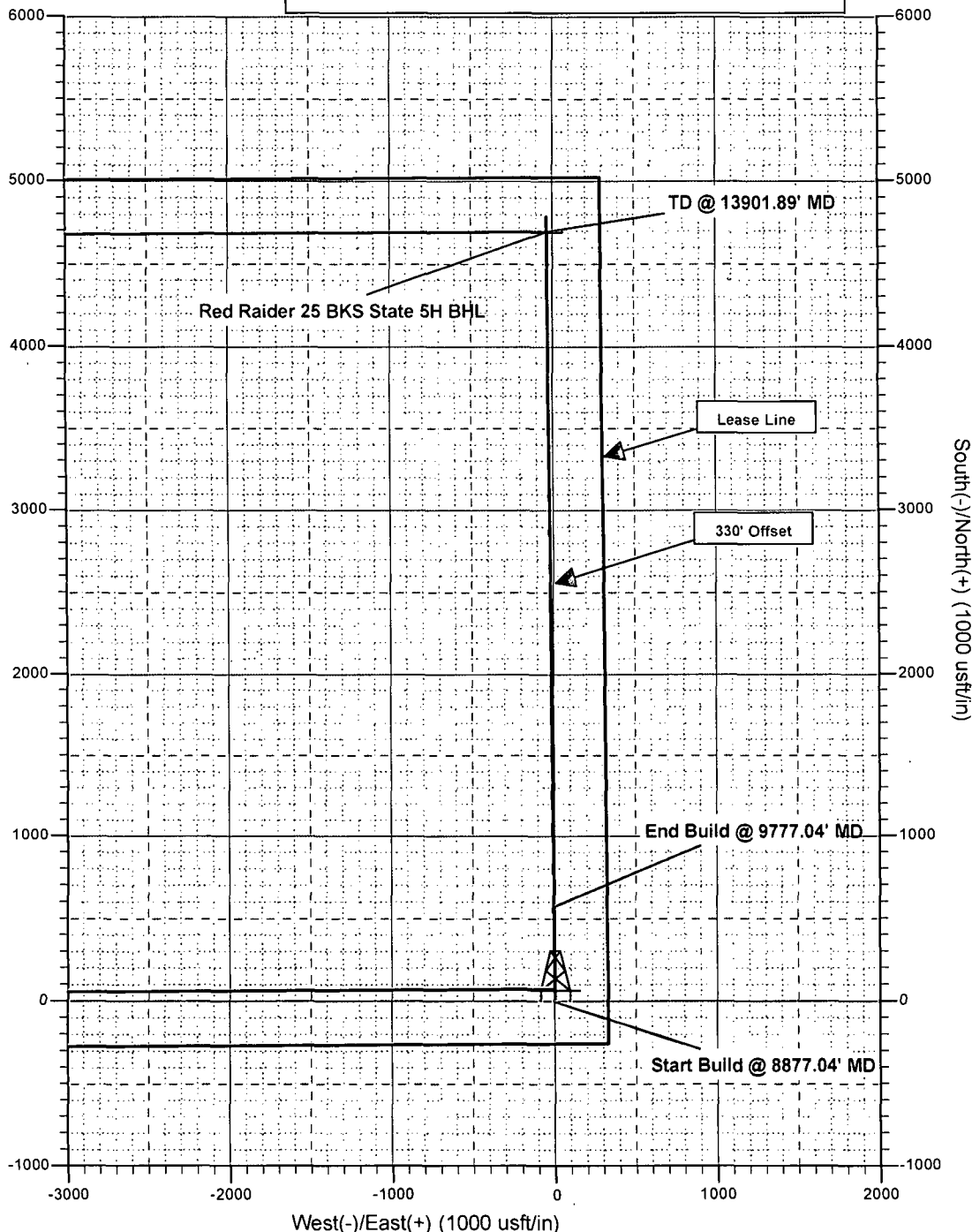
US State Plane 1983
 New Mexico Eastern Zone
 Elevation: GL 3507.9 @ 3507.90usft (TBD)
 Northing 430897.14 Easting 793407.33 Latitude 32° 10' 55.163 N Longitude 103° 31' 6.859 W

WELLBORE TARGET DETAILS (MAP CO-ORDINATES AND LAT/LONG)

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
Red Raider 25 BKS State 5H BHL	9450.00	4697.67	-35.97	435594.81	793371.36	32° 11' 41.650 N	103° 31' 6.864 W

To convert a Magnetic Direction to a Grid Direction, Add 6.78°

Magnetic Model: BGGM2015 Date: 11-Aug-15
 Azimuths to Grid North



Endurance Resources LLC

Lea County, NM (NAD 83)
Red Raider BKS State
Red Raider 25 BKS State 5H

Wellbore #1

Plan: Plan #1

Sperry Drilling Services Proposal Report

11 August, 2015

Well Coordinates: 430,897.14 N, 793,407.33 E (32° 10' 55.16" N, 103° 31' 06.86" W)
Ground Level: 3,507.90 usft

Local Coordinate Origin:	Centered on Well Red Raider 25 BKS State 5H
Viewing Datum:	GL 3507.9 @ 3507.90usft (TBD)
TVDs to System:	N
North Reference:	Grid
Unit System:	API - US Survey Feet

Version: 5000.1 Build: 76

HALLIBURTON

Plan Report for Red Raider 25 BKS State 5H - Plan #1

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	Toolface Azimuth (°)
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
8,877.04	0.00	0.00	8,877.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Start Build @ 8877.04' MD - Dogleg = 10.00°/100'										
8,900.00	2.30	359.56	8,899.99	0.46	0.00	0.46	10.00	10.00	0.00	359.56
9,000.00	12.30	359.56	8,999.06	13.14	-0.10	13.14	10.00	10.00	0.00	0.00
9,100.00	22.30	359.56	9,094.42	42.83	-0.33	42.84	10.00	10.00	0.00	0.00
9,200.00	32.30	359.56	9,183.17	88.63	-0.68	88.64	10.00	10.00	0.00	0.00
9,300.00	42.30	359.56	9,262.62	149.15	-1.14	149.15	10.00	10.00	0.00	0.00
9,400.00	52.30	359.56	9,330.35	222.54	-1.70	222.55	10.00	10.00	0.00	0.00
9,500.00	62.30	359.56	9,384.32	306.58	-2.35	306.59	10.00	10.00	0.00	0.00
9,600.00	72.30	359.56	9,422.86	398.71	-3.05	398.72	10.00	10.00	0.00	0.00
9,700.00	82.30	359.56	9,444.83	496.13	-3.80	496.15	10.00	10.00	0.00	0.00
9,777.04	90.00	359.56	9,450.00	572.94	-4.39	572.96	10.00	10.00	0.00	0.00
End Build @ 9777.04' MD - Hold Angle @ 90.00°										
9,800.00	90.00	359.56	9,450.00	595.90	-4.56	595.92	0.00	0.00	0.00	0.00
9,900.00	90.00	359.56	9,450.00	695.90	-5.33	695.92	0.00	0.00	0.00	0.00
10,000.00	90.00	359.56	9,450.00	795.89	-6.09	795.92	0.00	0.00	0.00	0.00
10,100.00	90.00	359.56	9,450.00	895.89	-6.86	895.92	0.00	0.00	0.00	0.00
10,200.00	90.00	359.56	9,450.00	995.89	-7.63	995.92	0.00	0.00	0.00	0.00
10,300.00	90.00	359.56	9,450.00	1,095.88	-8.39	1,095.92	0.00	0.00	0.00	0.00
10,400.00	90.00	359.56	9,450.00	1,195.88	-9.16	1,195.92	0.00	0.00	0.00	0.00
10,500.00	90.00	359.56	9,450.00	1,295.88	-9.92	1,295.92	0.00	0.00	0.00	0.00
10,600.00	90.00	359.56	9,450.00	1,395.87	-10.69	1,395.92	0.00	0.00	0.00	0.00
10,700.00	90.00	359.56	9,450.00	1,495.87	-11.45	1,495.92	0.00	0.00	0.00	0.00
10,800.00	90.00	359.56	9,450.00	1,595.87	-12.22	1,595.92	0.00	0.00	0.00	0.00
10,900.00	90.00	359.56	9,450.00	1,695.87	-12.99	1,695.92	0.00	0.00	0.00	0.00
11,000.00	90.00	359.56	9,450.00	1,795.86	-13.75	1,795.92	0.00	0.00	0.00	0.00
11,100.00	90.00	359.56	9,450.00	1,895.86	-14.52	1,895.92	0.00	0.00	0.00	0.00
11,200.00	90.00	359.56	9,450.00	1,995.86	-15.28	1,995.92	0.00	0.00	0.00	0.00
11,300.00	90.00	359.56	9,450.00	2,095.85	-16.05	2,095.92	0.00	0.00	0.00	0.00
11,400.00	90.00	359.56	9,450.00	2,195.85	-16.81	2,195.92	0.00	0.00	0.00	0.00
11,500.00	90.00	359.56	9,450.00	2,295.85	-17.58	2,295.92	0.00	0.00	0.00	0.00
11,600.00	90.00	359.56	9,450.00	2,395.85	-18.34	2,395.92	0.00	0.00	0.00	0.00
11,700.00	90.00	359.56	9,450.00	2,495.84	-19.11	2,495.92	0.00	0.00	0.00	0.00
11,800.00	90.00	359.56	9,450.00	2,595.84	-19.88	2,595.92	0.00	0.00	0.00	0.00
11,900.00	90.00	359.56	9,450.00	2,695.84	-20.64	2,695.92	0.00	0.00	0.00	0.00
12,000.00	90.00	359.56	9,450.00	2,795.83	-21.41	2,795.92	0.00	0.00	0.00	0.00
12,100.00	90.00	359.56	9,450.00	2,895.83	-22.17	2,895.92	0.00	0.00	0.00	0.00
12,200.00	90.00	359.56	9,450.00	2,995.83	-22.94	2,995.92	0.00	0.00	0.00	0.00
12,300.00	90.00	359.56	9,450.00	3,095.82	-23.70	3,095.92	0.00	0.00	0.00	0.00
12,400.00	90.00	359.56	9,450.00	3,195.82	-24.47	3,195.92	0.00	0.00	0.00	0.00
12,500.00	90.00	359.56	9,450.00	3,295.82	-25.24	3,295.92	0.00	0.00	0.00	0.00
12,600.00	90.00	359.56	9,450.00	3,395.82	-26.00	3,395.92	0.00	0.00	0.00	0.00
12,700.00	90.00	359.56	9,450.00	3,495.81	-26.77	3,495.92	0.00	0.00	0.00	0.00
12,800.00	90.00	359.56	9,450.00	3,595.81	-27.53	3,595.92	0.00	0.00	0.00	0.00
12,900.00	90.00	359.56	9,450.00	3,695.81	-28.30	3,695.92	0.00	0.00	0.00	0.00
13,000.00	90.00	359.56	9,450.00	3,795.80	-29.06	3,795.92	0.00	0.00	0.00	0.00
13,100.00	90.00	359.56	9,450.00	3,895.80	-29.83	3,895.92	0.00	0.00	0.00	0.00
13,200.00	90.00	359.56	9,450.00	3,995.80	-30.60	3,995.92	0.00	0.00	0.00	0.00
13,300.00	90.00	359.56	9,450.00	4,095.80	-31.36	4,095.92	0.00	0.00	0.00	0.00
13,400.00	90.00	359.56	9,450.00	4,195.79	-32.13	4,195.92	0.00	0.00	0.00	0.00
13,500.00	90.00	359.56	9,450.00	4,295.79	-32.89	4,295.92	0.00	0.00	0.00	0.00
13,600.00	90.00	359.56	9,450.00	4,395.79	-33.66	4,395.92	0.00	0.00	0.00	0.00
13,700.00	90.00	359.56	9,450.00	4,495.78	-34.42	4,495.92	0.00	0.00	0.00	0.00
13,800.00	90.00	359.56	9,450.00	4,595.78	-35.19	4,595.92	0.00	0.00	0.00	0.00
13,900.00	90.00	359.56	9,450.00	4,695.78	-35.96	4,695.92	0.00	0.00	0.00	0.00
13,901.89	90.00	359.56	9,450.00	4,697.67	-35.97	4,697.81	0.00	0.00	0.00	0.00
TD @ 13901.89' MD - Red Raider 25 BKS State 5H BHL										

Plan Report for Red Raider 25 BKS State 5H - Plan #1

Plan Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
8,877.04	8,877.04	0.00	0.00	Start Build @ 8877.04' MD
8,877.04	8,877.04	0.00	0.00	Dogleg = 10.00°/100'
9,777.04	9,450.00	572.94	-4.39	End Build @ 9777.04' MD
9,777.04	9,450.00	572.94	-4.39	Hold Angle @ 90.00°
13,901.89	9,450.00	4,697.67	-35.97	TD @ 13901.89' MD

Vertical Section Information

Angle Type	Target	Azimuth (°)	Origin Type	Origin		Start TVD (usft)
				+N/_S (usft)	+E/-W (usft)	
TD	No Target (Freehand)	359.56	Slot	0.00	0.00	0.00

Survey tool program

From (usft)	To (usft)	Survey/Plan	Survey Tool
0.00	13,901.89	Plan #1	MWD+SC

Targets associated with this wellbore

Target Name	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Shape
Red Raider 25 BKS State 5H BHL	9,450.00	4,697.67	-35.97	Point

North Reference Sheet for Red Raider BKS State - Red Raider 25 BKS State 5H - Wellbore #1

All data is in US Feet unless otherwise stated. Directions and Coordinates are relative to Grid North Reference.

Vertical Depths are relative to GL 3507.9 @ 3507.90usft (TBD). Northing and Easting are relative to Red Raider 25 BKS State 5H

Coordinate System is US State Plane 1983, New Mexico Eastern Zone using datum North American Datum 1983, ellipsoid GRS 1980

Projection method is Transverse Mercator (Gauss-Kruger)

Central Meridian is -104.33°, Longitude Origin:0° 0' 0.000 E°, Latitude Origin:0° 0' 0.000 N°

False Easting: 541,337.50usft, False Northing: 0.00usft, Scale Reduction: 0.99998186

Grid Coordinates of Well: 430,897.14 usft N, 793,407.33 usft E

Geographical Coordinates of Well: 32° 10' 55.16" N, 103° 31' 06.86" W

Grid Convergence at Surface is: 0.43°

Based upon Minimum Curvature type calculations, at a Measured Depth of 13,901.89usft the Bottom Hole Displacement is 4,697.81usft in the Direction of 359.56° (Grid).

Magnetic Convergence at surface is: -6.78° (11 August 2015, , BGGM2015)

