

HOBBS OCD

ATS-15-113

FORM APPROVED
OMB No. 1004-0137
Expires October 31, 2014

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

NOV 23 2015

Hobbs

5. Lease Serial No. **BHL NMNM 92199**

6. If Indian, Allottee or Tribe Name

APPLICATION FOR PERMIT TO DRILL OR REENTER

1a. Type of work: ☒ DRILL ☐ REENTER

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

1b. Type of Well: ☒ Oil Well ☐ Gas Well ☐ Other ☒ Single Zone ☐ Multiple Zone

8. Lease Name and Well No.
BROADCASTER 29 FEDERAL 4H

2. Name of Operator
ENDURANCE RESOURCES, LLC

9. API Well No.
30-025-42954

3a. Address 203 WEST WALL STREET, SUITE 1000
MIDLAND, TX 79701

3b. Phone No. (include area code)
432-242-4680

10. Field and Pool, or Exploratory
Antelope Ridge, Bone Spring (2209)

4. Location of Well (Report location clearly and in accordance with any State requirements.)*

At surface 150' FSL & 660' FEL **P 20-23-34**

At proposed prod. zone 330' FSL & 660' FEL **P-2923-34**

11. Sec., T. R. M. or Blk. and Survey or Area
SEC 20-T23S-R34E

14. Distance in miles and direction from nearest town or post office*
25 MILES NORTHWEST OF JAL, NEW MEXICO

12. County or Parish
LEA

13. State
NM

15. Distance from proposed* 150'
location to nearest
property or lease line, ft.
(Also to nearest drig. unit line, if any)

16. No. of acres in lease
560

17. Spacing Unit dedicated to this well
160

18. Distance from proposed location*
to nearest well, drilling, completed,
applied for, on this lease, ft.

19. Proposed Depth
15425 MD
10570 TVD

20. BLM/BIA Bond No. on file

21. Elevations (Show whether DF, KDB, RT, GL, etc.)
3495.4 GL

22. Approximate date work will start*

23. Estimated duration
45 DAYS

24. Attachments

The following, completed in accordance with the requirements of Onshore Oil and Gas Order No.1, must be attached to this form:

1. Well plat certified by a registered surveyor.

2. A Drilling Plan.

3. A Surface Use Plan (if the location is on National Forest System Lands, the
SUPO must be filed with the appropriate Forest Service Office).

4. Bond to cover the operations unless covered by an existing bond on file (see
Item 20 above).

5. Operator certification

6. Such other site specific information and/or plans as may be required by the
BLM.

25. Signature **L. A. Sirgo**

Name (Printed/Typed)
M.A. SIRGO III

Date
09/19/2014

Title
ENGINEER

Approved by (Signature)
Steve Caffey

Name (Printed/Typed)

Date
NOV 16 2015

Title
FIELD MANAGER

Office
CARLSBAD FIELD OFFICE

Application approval 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.

Conditions of approval, if any, are attached.

APPROVAL FOR TWO YEARS

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
States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

(Continued on page 2)

*(Instructions)

Carlsbad Controlled Water Basin

Approval Subject to General Requirements
& Special Stipulations Attached

SEE ATTACHED FOR
CONDITIONS OF APPROVAL

NOV 30 2015

E-PERMITTING -- New Well
Comp P&A TA
CSNG Loc Chng
ReComp Add New Well
Cancel Well Create Pool



HOBBS OCD

NOV 23 2015

RECEIVED

Endurance Resources LLC

DRILLING & OPERATIONS PROGRAM

Broadcaster 29 Fed 4H

SHL: 150' FSL & 660' FEL (P)

Sec 20-23S-34E

BHL: 330' FSL & 660' FEL (P)

Sec 29-23S-34E

Lea Co, NM

1. Geological Name of Surface Formation

Quaternary

2. Estimated Tops of Important Geological Markers

Fresh Water	311'
Rustler	1,040'
Top of Salt	1,650'
Base of Salt	4,454'
Lamar Limestone	3,420'
Delaware	5,150' Oil
Bone Spring	8,630'
1 st Bone Spring	9,750' Oil
2 nd Bone Spring	10,275' Oil
3 rd Bone Spring	10,707' Oil
TVD: 10,570' ; MD: 14,944'	

3. Estimated Depths of Anticipated Fresh Water, Oil or Gas

The estimated depths at which water, oil and gas will be encountered are as follows:

Water: Average depth to water: 311'. Minimum depth: 255'. Max: 430'. As reported from the New Mexico Office of the State Engineer website.

Oil & Gas: 5,150' – 10,500' (Delaware through Bone Spring)



ENDURANCE
RESOURCES, LLC

No other formations are expected to give up oil, gas, or fresh water in measurable quantities.

4. Proposed Casing Program:

*Sal
Cofl*

Size	Depth	#/ft	Grade/ <i>Company</i>	Collapse	Burst	Tension
13-3/8"	1,300' <i>1095'</i>	54.5	J-55 / <i>BTC</i>	1.67	4.04	7.25
9-5/8"	5,250' <i>5100'</i>	40.0	L-80 / <i>LTC</i>	1.13	2.11	3.46
5-1/2"	14,944' <i>15425'</i>	20.0	P-110 / <i>BT C</i>	1.88	2.10	2.18

NOTE: ALL CASING IS NEW & API APPROVED. WHILE RUNNING CASING, PIPE WILL BE KEPT A MINIMUM OF 1/3 FULL AT ALL TIMES TO AVOID APPROACHING COLLAPSE PRESSURE OF THE CASING. SURFACE CASING WILL BE WATCHED & NECESSARY ADJUSTMENTS MADE TO ENSURE PIPE IF FULL DUE TO LOST CIRCULATION ZONES THAT MAY OCCUR. CENTRALIZERS WILL BE USED ON SURFACE CASING

5. Proposed Cement Program:

- a. 13-3/8" Surface *Toc - Surf*
 Lead: 800 sks 35/65 Poz Class C (13.7ppg / 1.67cuft/sk)
 Tail: 550 sks Class C + 0.2% retarder (14.80ppg / 1.33cuft/sk)
 **Calculated w/ 100% excess on OH volume
- b. 9-5/8" Intermediate *Toc - Surf*
 Lead: 1400 sks 35/65 Poz Class C + HR-800 Retarder + 0.125 lbm/sk Poly-E-Flake Lost Circulation Additive (12.9ppg / 1.85cuft/sk)
 Tail: 300sks Class C + 0.2% retarder (14.80ppg / 1.33cuft/sk)
 **Calculated w/ 100% excess on OH volumes & 10% in CH
- c. 5-1/2" Production *Toc - 4900'*
 Lead: 1300 sks 50/50 Poz (Class H) + 3 lbm/sk Kol-Seal Lost Circulation Additive + 0.125 lbm/sk Poly-E-Flake Lost Circulation Additive + 0.25% HR-601 Retarder + 0.5 lbm/sk D-Air 5000 Defoamer) (11.5ppg/ 2.39cuft/sk)
 Tail: 1100 sks Class H + 0.5% HaladR-344 Low Fluid Loss Control + 0.25% CFR-3 Dispersant + 1 lbm/sk Salt Dispersant + 0.25% HR-601 Retarder + 0.25% HR-601 Retarder (13.2ppg/ 1.61cuft/sk)



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****Calculated w/ 100% excess in vertical OH, 35% excess on OH volumes & 10% in CH**

NOTE: THE ABOVE CEMENT VOLUMES COULD BE REVISED PENDING FLUID CALIPER & CALIPER LOG DATA. ALL VOLUMES ARE DESIGNED TO CIRCULATE TO SURFACE.

6. Minimum Specifications for Pressure Control:

13-5/8 (5M) working pressure BOP system consisting of one set of blind rams and one set of pipe rams and a 5000# annular type preventer (please see BOP schematic). A 5M choke manifold & 120 gallon accumulator with floor and remote operating stations & auxiliary power system. Rotating head as needed. A Kelly cock will be installed and maintained in operable condition and a drill string safety valve in the open position will be available on the rig floor.

BOP unit will be hydraulically operated. BOP will be NU and operated at least once a day while drilling and the blind rams will be operated when out of the hole during trips. From the base of the 13-3/8" csg through running of production casing, the well will be equipped with a 5M BOP system. Below the 9-5/8 csg shoe, this 5M system will be equipped with a HCR valve, remote kill line, & annular to match. The remote kill line will be installed prior to testing the system & tested to stack pressure.

Before drilling out of the 13-3/8 surface casing, BOP will be tested by an independent surface company to 250 psi low & 3000 psi high. Hydril will be tested to 250 psi low and 1500 psi high. Before drilling out the 9-5/8 intermediate shoe BOP will be tested by an independent service company to 250psi low and 5000 psi high. Hydril will be tested to 250 psi low and 2500 psi high. These low pressure tests from 250 to 300 psi will be held a minimum of 10 minutes if test is done with a test plug & 30 minutes without a test plug.

7. Estimated BHP:

4752 psi @ 10,570' TVD

8. Mud Program: The applicable depths & properties of this system are as follows:



ENDURANCE
RESOURCES, LLC

Depth	Type of System	Mud Weight	Viscosity (sec)	Waterloss (cc)
0 – 1,250' 1,250' - 1,850'	Fresh	8.4	29-32	NC
1,250' – 5,100'	Brine	10.0	28-32	NC
5,100' – 14,994'	Cut Brine	8.3 – 9.3	28-32	NC-12

NOTE: NECESSARY MUD PRODUCTS FOR WEIGHT ADDITION & FLUID LOSS WILL BE ON LOCATION AT ALL TIMES. VISUAL MUD MONITORING EQUIPMENT (I.E. TRIP TANK) WILL BE IN PLACE TO DETECT VOLUME CHANGES INDICATING LOSS OR GAIN OF CIRCULATION VOLUME WITH ALARMS.

9. Auxiliary Well Control & Monitoring Equipment:

- A Kelly cock will be in the drill string at all times.
- A full opening drill pipe stabbing valve having the appropriate connections will be on the rig floor at all times
- H₂S detection equipment will be in operation & breathing apparatuses will be on location after the drill out of the 13-3/8" casing shoe until the 5-1/2" casing is cemented.

10. Testing, Logging & Coring Program:

- No drill stem tests are planned.
- GR/N well log ran from KOP to surface.
- Triple combo logs from KOP to intermediate casing shoe.
- No coring is planned.

11. Potential Hazards:

No abnormal pressures or temperatures are expected. If H₂S is encountered, Endurance Resources LLC will comply with Onshore Order #6. Regardless, all personnel will be trained & qualified with H₂S safety. Rig safety equipment will all also be checked daily once drill out of the 13-3/8" casing shoe to TD. It has been noted that H₂S has been encountered in the salt section. If H₂S is encountered, measurements & formations will be reported to the BLM.



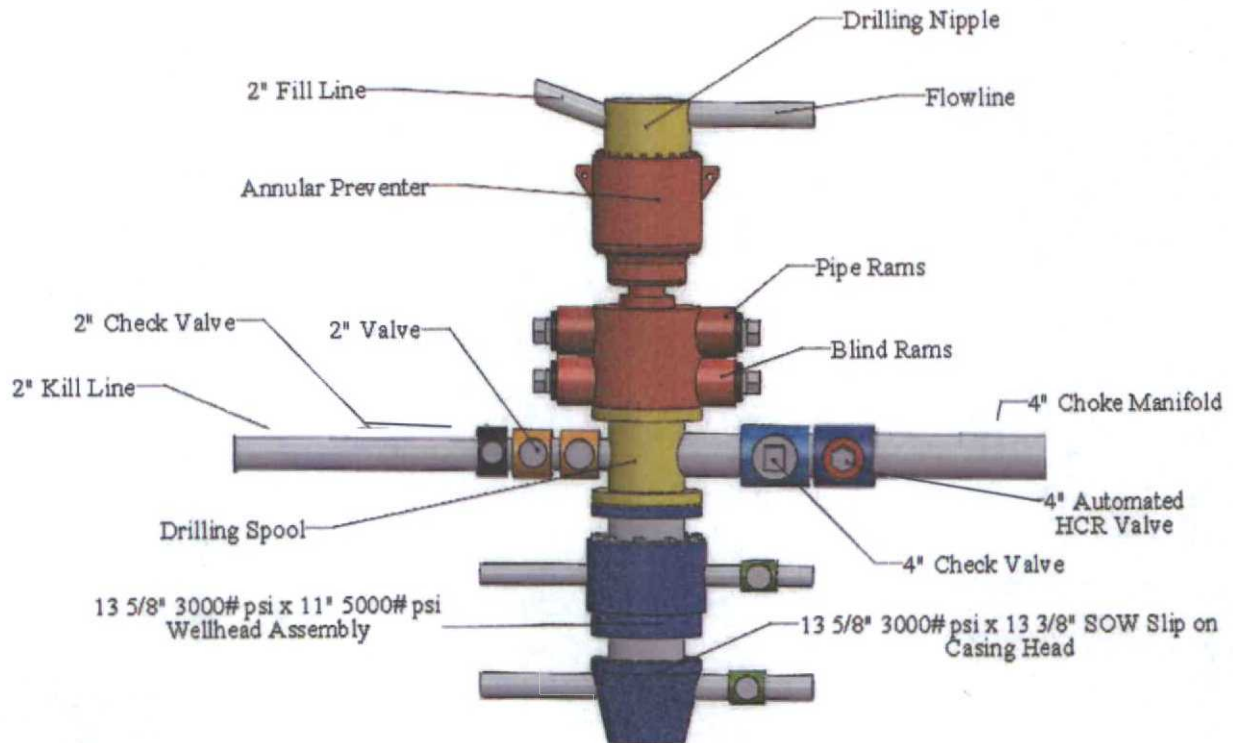
ENDURANCE
RESOURCES, LLC

12. Anticipated starting date & Duration of Operations:

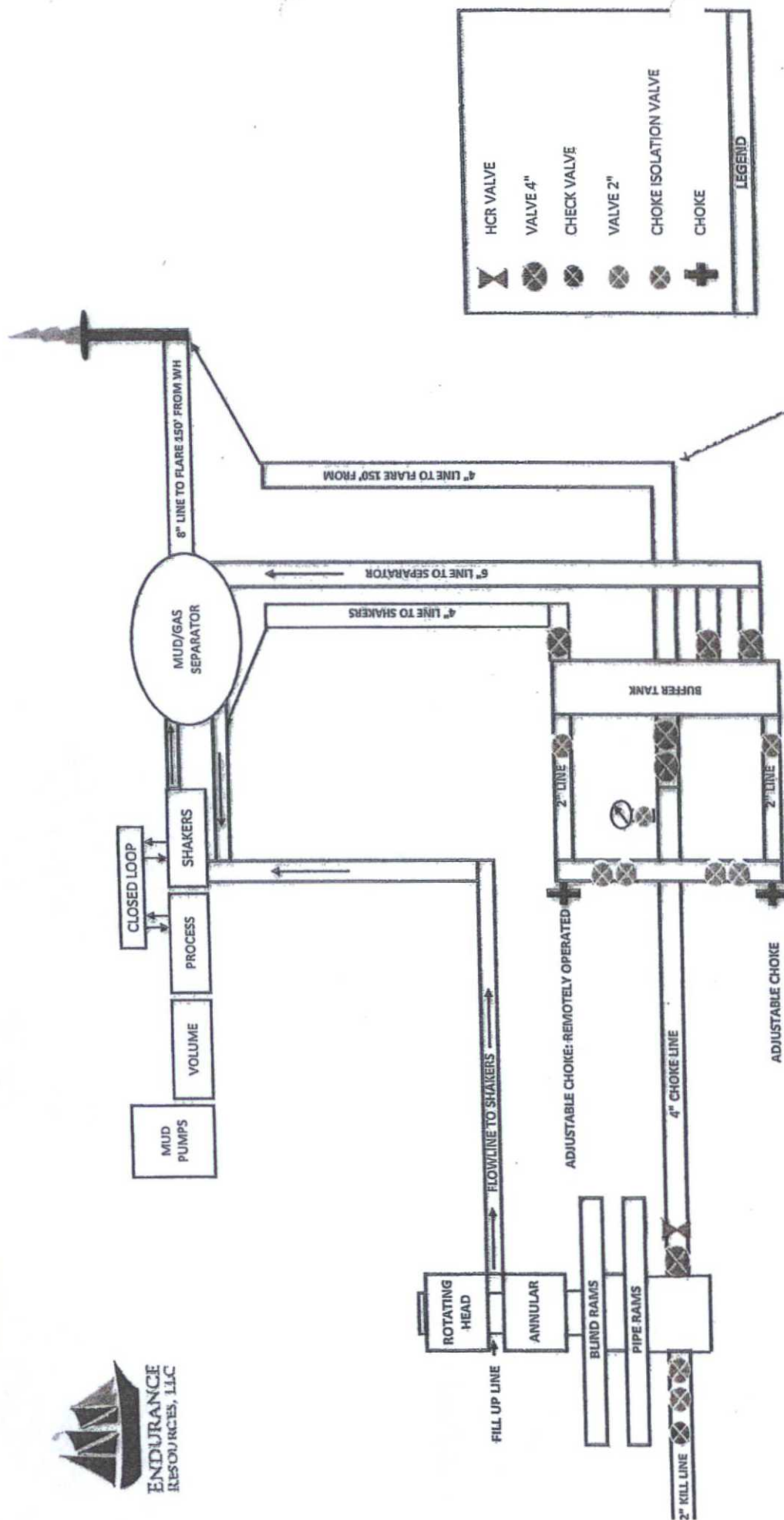
Road & location construction will begin after the BLM has approved the APD. Anticipated spud date will begin after BLM approval & after a drilling rig is secured. Move in operations & drilling is expected to take no more than 45 days. An additional 30-50 days will be needed to complete this well & construct surface facilities and/or lay flow lines in order to place well on production.

Broadcaster 29 Federal 4H

5000# BOP



5M BOP, 5M CHOKE MANIFOLD, AND CLOSED LOOP EQUIPMENT SCHEMATIC FOR 13-5/8 BOP SYSTEM TESTED TO 3M PER ONSHORE ORDER #2



Endurance Resources LLC

HALLIBURTON
Sperry Drilling Services

Project: Lea County, NM (NAD 83)
Site: Broadcaster 29 Federal #4H
Well: Broadcaster 29 Federal #4H
Wellbore: Wellbore #1
Plan: Plan #1
Rig: Patriot 4

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	Start Build
9997.04	0.00	0.00	9997.04	0.00	0.00	0.00	0.00	0.00	End Build
10897.04	90.00	179.48	10570.00	-572.93	5.23	10.00	179.48	572.96	TD
15425.04	90.00	179.48	10570.00	-5100.75	46.57	0.00	0.00	5100.96	

DESIGN TARGET DETAILS

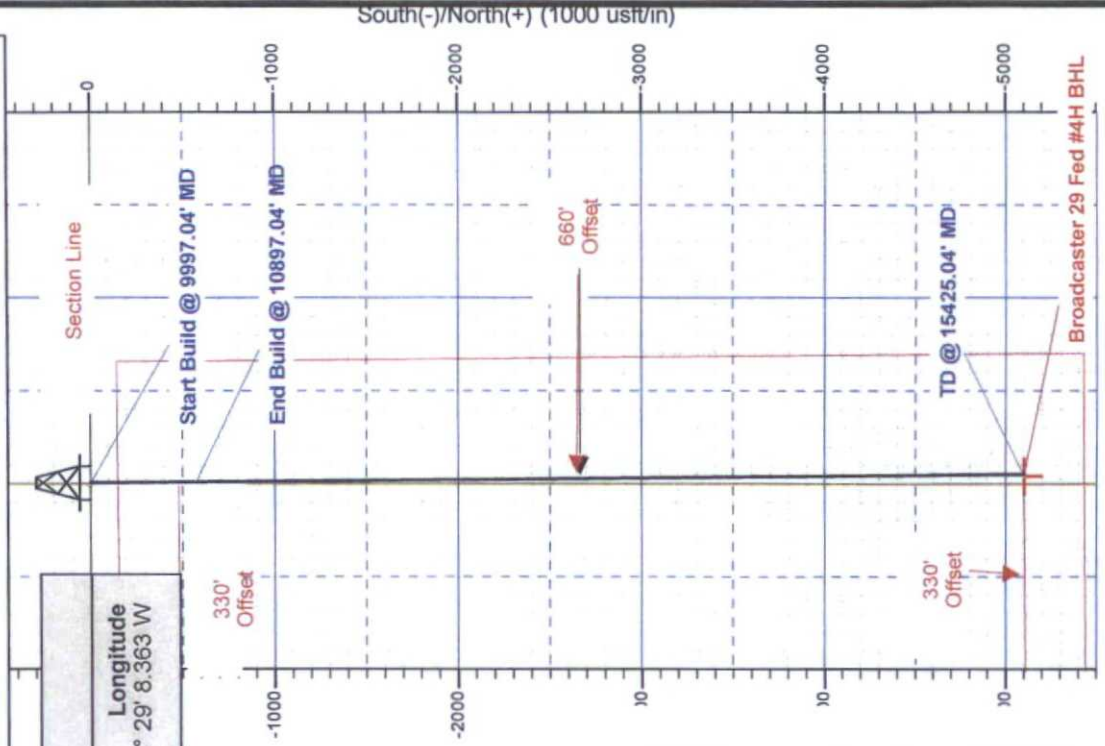
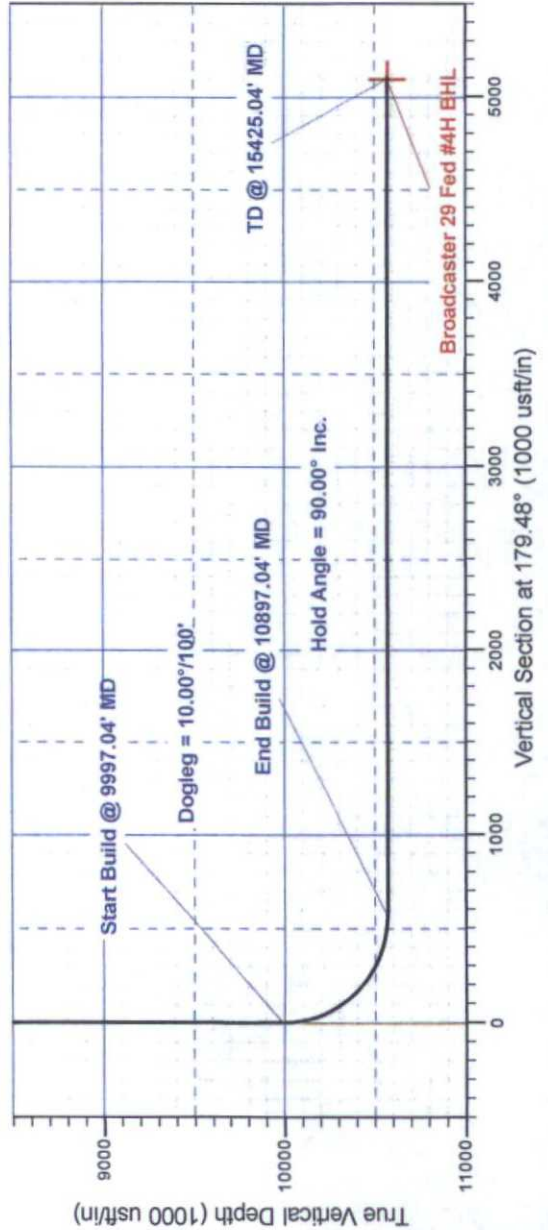
Name	Broadcaster 29 Fed #4H BHL	TVD	10570.00	+N/-S	-5100.75	+E/-W	46.57	Northing	462720.27	Easting	803340.60	Latitude	32° 16' 9.293 N	Longitude	103° 29' 8.363 W
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Surface Location:

US State Plane 1983
New Mexico Eastern Zone
Elevation: GL 3495.4' + KB 22.5' @ 3517.90usft (Patriot 4)
Northing 467821.02 Easting 803294.03 Latitude 32° 16' 59.768 N Longitude 103° 29' 8.436 W

To convert a Magnetic Direction to a Grid Direction, Add 6.89°

Magnetic Model: BGGM2013 Date: 10-Jan-14
Azimuths to Grid North



Endurance Resources LLC

Lea County, NM (NAD 83)
Broadcaster 29 Federal
Broadcaster 29 Federal #4H

Wellbore #1

Plan: Plan #1

Sperry Drilling Services Proposal Report

10 January, 2014

Well Coordinates: 467,821.02 N, 803,294.03 E (32° 16' 59.77" N, 103° 29' 08.44" W)
Ground Level: 3,495.40 usft

Local Coordinate Origin:	Centered on Well Broadcaster 29 Federal #4H
Viewing Datum:	GL 3495.4' + KB 22.5' @ 3517.90usft (Patriot 4)
TVDs to System:	N
North Reference:	Grid
Unit System:	API - US Survey Feet

Version: 5000.1 Build: 65

HALLIBURTON

Plan Report for Broadcaster 29 Federal #4H - 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
100.00	0.00	0.00	100.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
200.00	0.00	0.00	200.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
400.00	0.00	0.00	400.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
500.00	0.00	0.00	500.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
600.00	0.00	0.00	600.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
700.00	0.00	0.00	700.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
800.00	0.00	0.00	800.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
900.00	0.00	0.00	900.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1,000.00	0.00	0.00	1,000.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1,100.00	0.00	0.00	1,100.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1,200.00	0.00	0.00	1,200.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1,300.00	0.00	0.00	1,300.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1,400.00	0.00	0.00	1,400.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1,500.00	0.00	0.00	1,500.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1,600.00	0.00	0.00	1,600.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1,700.00	0.00	0.00	1,700.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1,800.00	0.00	0.00	1,800.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1,900.00	0.00	0.00	1,900.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2,000.00	0.00	0.00	2,000.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2,100.00	0.00	0.00	2,100.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2,200.00	0.00	0.00	2,200.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2,300.00	0.00	0.00	2,300.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2,400.00	0.00	0.00	2,400.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2,500.00	0.00	0.00	2,500.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2,600.00	0.00	0.00	2,600.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2,700.00	0.00	0.00	2,700.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2,800.00	0.00	0.00	2,800.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2,900.00	0.00	0.00	2,900.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3,000.00	0.00	0.00	3,000.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3,100.00	0.00	0.00	3,100.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3,200.00	0.00	0.00	3,200.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3,300.00	0.00	0.00	3,300.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3,400.00	0.00	0.00	3,400.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3,500.00	0.00	0.00	3,500.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3,600.00	0.00	0.00	3,600.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3,700.00	0.00	0.00	3,700.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3,800.00	0.00	0.00	3,800.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3,900.00	0.00	0.00	3,900.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4,000.00	0.00	0.00	4,000.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4,100.00	0.00	0.00	4,100.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4,200.00	0.00	0.00	4,200.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4,300.00	0.00	0.00	4,300.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4,400.00	0.00	0.00	4,400.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4,500.00	0.00	0.00	4,500.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4,600.00	0.00	0.00	4,600.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4,700.00	0.00	0.00	4,700.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4,800.00	0.00	0.00	4,800.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4,900.00	0.00	0.00	4,900.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5,000.00	0.00	0.00	5,000.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5,100.00	0.00	0.00	5,100.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5,200.00	0.00	0.00	5,200.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5,300.00	0.00	0.00	5,300.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5,400.00	0.00	0.00	5,400.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5,500.00	0.00	0.00	5,500.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5,600.00	0.00	0.00	5,600.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5,700.00	0.00	0.00	5,700.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5,800.00	0.00	0.00	5,800.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Plan Report for Broadcaster 29 Federal #4H - 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 (°)
5,900.00	0.00	0.00	5,900.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
6,000.00	0.00	0.00	6,000.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
6,100.00	0.00	0.00	6,100.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
6,200.00	0.00	0.00	6,200.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
6,300.00	0.00	0.00	6,300.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
6,400.00	0.00	0.00	6,400.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
6,500.00	0.00	0.00	6,500.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
6,600.00	0.00	0.00	6,600.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
6,700.00	0.00	0.00	6,700.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
6,800.00	0.00	0.00	6,800.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
6,900.00	0.00	0.00	6,900.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7,000.00	0.00	0.00	7,000.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7,100.00	0.00	0.00	7,100.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7,200.00	0.00	0.00	7,200.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7,300.00	0.00	0.00	7,300.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7,400.00	0.00	0.00	7,400.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7,500.00	0.00	0.00	7,500.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7,600.00	0.00	0.00	7,600.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7,700.00	0.00	0.00	7,700.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7,800.00	0.00	0.00	7,800.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7,900.00	0.00	0.00	7,900.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
8,000.00	0.00	0.00	8,000.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
8,100.00	0.00	0.00	8,100.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
8,200.00	0.00	0.00	8,200.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
8,300.00	0.00	0.00	8,300.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
8,400.00	0.00	0.00	8,400.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
8,500.00	0.00	0.00	8,500.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
8,600.00	0.00	0.00	8,600.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
8,700.00	0.00	0.00	8,700.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
8,800.00	0.00	0.00	8,800.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
8,900.00	0.00	0.00	8,900.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
9,000.00	0.00	0.00	9,000.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
9,100.00	0.00	0.00	9,100.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
9,200.00	0.00	0.00	9,200.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
9,300.00	0.00	0.00	9,300.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
9,400.00	0.00	0.00	9,400.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
9,500.00	0.00	0.00	9,500.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
9,600.00	0.00	0.00	9,600.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
9,700.00	0.00	0.00	9,700.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
9,800.00	0.00	0.00	9,800.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
9,900.00	0.00	0.00	9,900.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
9,997.04	0.00	0.00	9,997.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Start Build @ 9997.04' MD - Dogleg = 10.00°/100'										
10,000.00	0.30	179.48	10,000.00	-0.01	0.00	0.01	10.00	10.00	0.00	179.48
10,050.00	5.30	179.48	10,049.92	-2.45	0.02	2.45	10.00	10.00	0.00	0.00
10,100.00	10.30	179.48	10,099.45	-9.23	0.08	9.23	10.00	10.00	0.00	0.00
10,150.00	15.30	179.48	10,148.19	-20.30	0.19	20.30	10.00	10.00	0.00	0.00
10,200.00	20.30	179.48	10,195.78	-35.57	0.32	35.57	10.00	10.00	0.00	0.00
10,250.00	25.30	179.48	10,241.86	-54.94	0.50	54.94	10.00	10.00	0.00	0.00
10,300.00	30.30	179.48	10,286.08	-78.24	0.71	78.25	10.00	10.00	0.00	0.00
10,350.00	35.30	179.48	10,328.10	-105.32	0.96	105.32	10.00	10.00	0.00	0.00
10,400.00	40.30	179.48	10,367.59	-135.95	1.24	135.95	10.00	10.00	0.00	0.00
10,450.00	45.30	179.48	10,404.27	-169.91	1.55	169.91	10.00	10.00	0.00	0.00
10,500.00	50.30	179.48	10,437.85	-206.93	1.89	206.94	10.00	10.00	0.00	0.00
10,550.00	55.30	179.48	10,468.07	-246.74	2.25	246.75	10.00	10.00	0.00	0.00
10,600.00	60.30	179.48	10,494.71	-289.03	2.64	289.04	10.00	10.00	0.00	0.00
10,650.00	65.30	179.48	10,517.56	-333.49	3.04	333.50	10.00	10.00	0.00	0.00
10,700.00	70.30	179.48	10,536.45	-379.76	3.47	379.78	10.00	10.00	0.00	0.00
10,750.00	75.30	179.48	10,551.24	-427.51	3.90	427.52	10.00	10.00	0.00	0.00

HALLIBURTON**Plan Report for Broadcaster 29 Federal #4H - 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 (°)
10,800.00	80.30	179.48	10,561.80	-476.36	4.35	476.38	10.00	10.00	0.00	0.00
10,850.00	85.30	179.48	10,568.07	-525.95	4.80	525.97	10.00	10.00	0.00	0.00
10,897.04	90.00	179.48	10,570.00	-572.93	5.23	572.96	10.00	10.00	0.00	0.00
End Build @ 10897.04' MD - Hold Angle = 90.00° Inc.										
10,900.00	90.00	179.48	10,570.00	-575.89	5.26	575.92	0.00	0.00	0.00	0.00
11,000.00	90.00	179.48	10,570.00	-675.89	6.17	675.92	0.00	0.00	0.00	0.00
11,100.00	90.00	179.48	10,570.00	-775.88	7.08	775.92	0.00	0.00	0.00	0.00
11,200.00	90.00	179.48	10,570.00	-875.88	8.00	875.92	0.00	0.00	0.00	0.00
11,300.00	90.00	179.48	10,570.00	-975.87	8.91	975.92	0.00	0.00	0.00	0.00
11,400.00	90.00	179.48	10,570.00	-1,075.87	9.82	1,075.92	0.00	0.00	0.00	0.00
11,500.00	90.00	179.48	10,570.00	-1,175.87	10.74	1,175.92	0.00	0.00	0.00	0.00
11,600.00	90.00	179.48	10,570.00	-1,275.86	11.65	1,275.92	0.00	0.00	0.00	0.00
11,700.00	90.00	179.48	10,570.00	-1,375.86	12.56	1,375.92	0.00	0.00	0.00	0.00
11,800.00	90.00	179.48	10,570.00	-1,475.85	13.47	1,475.92	0.00	0.00	0.00	0.00
11,900.00	90.00	179.48	10,570.00	-1,575.85	14.39	1,575.92	0.00	0.00	0.00	0.00
12,000.00	90.00	179.48	10,570.00	-1,675.85	15.30	1,675.92	0.00	0.00	0.00	0.00
12,100.00	90.00	179.48	10,570.00	-1,775.84	16.21	1,775.92	0.00	0.00	0.00	0.00
12,200.00	90.00	179.48	10,570.00	-1,875.84	17.13	1,875.92	0.00	0.00	0.00	0.00
12,300.00	90.00	179.48	10,570.00	-1,975.83	18.04	1,975.92	0.00	0.00	0.00	0.00
12,400.00	90.00	179.48	10,570.00	-2,075.83	18.95	2,075.92	0.00	0.00	0.00	0.00
12,500.00	90.00	179.48	10,570.00	-2,175.82	19.86	2,175.92	0.00	0.00	0.00	0.00
12,600.00	90.00	179.48	10,570.00	-2,275.82	20.78	2,275.92	0.00	0.00	0.00	0.00
12,700.00	90.00	179.48	10,570.00	-2,375.82	21.69	2,375.92	0.00	0.00	0.00	0.00
12,800.00	90.00	179.48	10,570.00	-2,475.81	22.60	2,475.92	0.00	0.00	0.00	0.00
12,900.00	90.00	179.48	10,570.00	-2,575.81	23.52	2,575.92	0.00	0.00	0.00	0.00
13,000.00	90.00	179.48	10,570.00	-2,675.80	24.43	2,675.92	0.00	0.00	0.00	0.00
13,100.00	90.00	179.48	10,570.00	-2,775.80	25.34	2,775.92	0.00	0.00	0.00	0.00
13,200.00	90.00	179.48	10,570.00	-2,875.80	26.26	2,875.92	0.00	0.00	0.00	0.00
13,300.00	90.00	179.48	10,570.00	-2,975.79	27.17	2,975.92	0.00	0.00	0.00	0.00
13,400.00	90.00	179.48	10,570.00	-3,075.79	28.08	3,075.92	0.00	0.00	0.00	0.00
13,500.00	90.00	179.48	10,570.00	-3,175.78	28.99	3,175.92	0.00	0.00	0.00	0.00
13,600.00	90.00	179.48	10,570.00	-3,275.78	29.91	3,275.92	0.00	0.00	0.00	0.00
13,700.00	90.00	179.48	10,570.00	-3,375.77	30.82	3,375.92	0.00	0.00	0.00	0.00
13,800.00	90.00	179.48	10,570.00	-3,475.77	31.73	3,475.92	0.00	0.00	0.00	0.00
13,900.00	90.00	179.48	10,570.00	-3,575.77	32.65	3,575.92	0.00	0.00	0.00	0.00
14,000.00	90.00	179.48	10,570.00	-3,675.76	33.56	3,675.92	0.00	0.00	0.00	0.00
14,100.00	90.00	179.48	10,570.00	-3,775.76	34.47	3,775.92	0.00	0.00	0.00	0.00
14,200.00	90.00	179.48	10,570.00	-3,875.75	35.38	3,875.92	0.00	0.00	0.00	0.00
14,300.00	90.00	179.48	10,570.00	-3,975.75	36.30	3,975.92	0.00	0.00	0.00	0.00
14,400.00	90.00	179.48	10,570.00	-4,075.75	37.21	4,075.92	0.00	0.00	0.00	0.00
14,500.00	90.00	179.48	10,570.00	-4,175.74	38.12	4,175.92	0.00	0.00	0.00	0.00
14,600.00	90.00	179.48	10,570.00	-4,275.74	39.04	4,275.92	0.00	0.00	0.00	0.00
14,700.00	90.00	179.48	10,570.00	-4,375.73	39.95	4,375.92	0.00	0.00	0.00	0.00
14,800.00	90.00	179.48	10,570.00	-4,475.73	40.86	4,475.92	0.00	0.00	0.00	0.00
14,900.00	90.00	179.48	10,570.00	-4,575.72	41.77	4,575.92	0.00	0.00	0.00	0.00
15,000.00	90.00	179.48	10,570.00	-4,675.72	42.69	4,675.92	0.00	0.00	0.00	0.00
15,100.00	90.00	179.48	10,570.00	-4,775.72	43.60	4,775.92	0.00	0.00	0.00	0.00
15,200.00	90.00	179.48	10,570.00	-4,875.71	44.51	4,875.92	0.00	0.00	0.00	0.00
15,300.00	90.00	179.48	10,570.00	-4,975.71	45.43	4,975.92	0.00	0.00	0.00	0.00
15,400.00	90.00	179.48	10,570.00	-5,075.70	46.34	5,075.92	0.00	0.00	0.00	0.00
15,425.04	90.00	179.48	10,570.00	-5,100.75	46.57	5,100.96	0.00	0.00	0.00	0.00

TD @ 15425.04' MD - Broadcaster 29 Fed #4H BHL

HALLIBURTON**Plan Report for Broadcaster 29 Federal #4H - Plan #1****Plan Annotations**

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
9,997.04	9,997.04	0.00	0.00	Start Build @ 9997.04' MD
9,997.04	9,997.04	0.00	0.00	Dogleg = 10.00°/100'
10,897.04	10,570.00	-572.93	5.23	End Build @ 10897.04' MD
10,897.04	10,570.00	-572.93	5.23	Hold Angle = 90.00° Inc.
15,425.04	10,570.00	-5,100.75	46.57	TD @ 15425.04' MD

Vertical Section Information

Angle Type	Target	Azimuth (°)	Origin Type	Origin		Start TVD (usft)
				+N/-S (usft)	+E/-W (usft)	
TD	No Target (Freehand)	179.48	Slot	0.00	0.00	0.00

Survey tool program

From (usft)	To (usft)	Survey/Plan	Survey Tool
0.00	15,425.04	Plan #1	MWD

Targets associated with this wellbore

Target Name	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Shape
Broadcaster 29 Fed #4H BHL	10,570.00	-5,100.75	46.57	Point

HALLIBURTON**North Reference Sheet for Broadcaster 29 Federal - Broadcaster 29 Federal #4H - 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 3495.4' + KB 22.5' @ 3517.90usft (Patriot 4). Northing and Easting are relative to Broadcaster 29 Federal #4H 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: 0.99998768

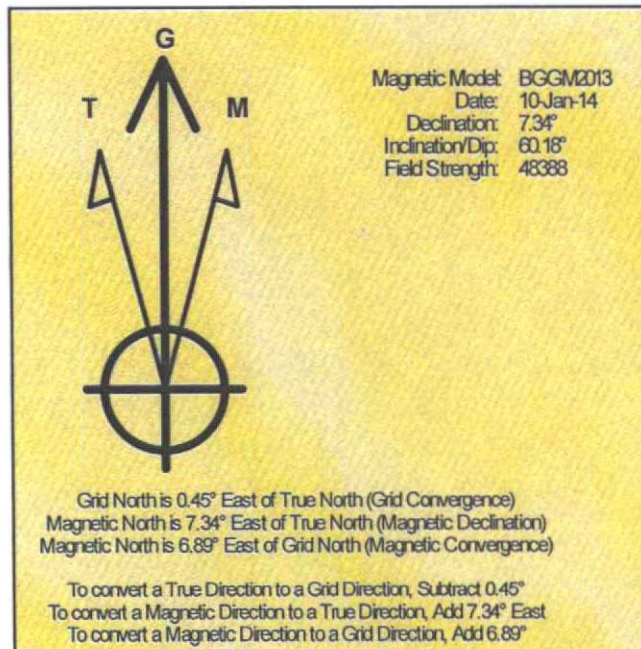
Grid Coordinates of Well: 467,821.02 usft N, 803,294.03 usft E

Geographical Coordinates of Well: 32° 16' 59.77" N, 103° 29' 08.44" W

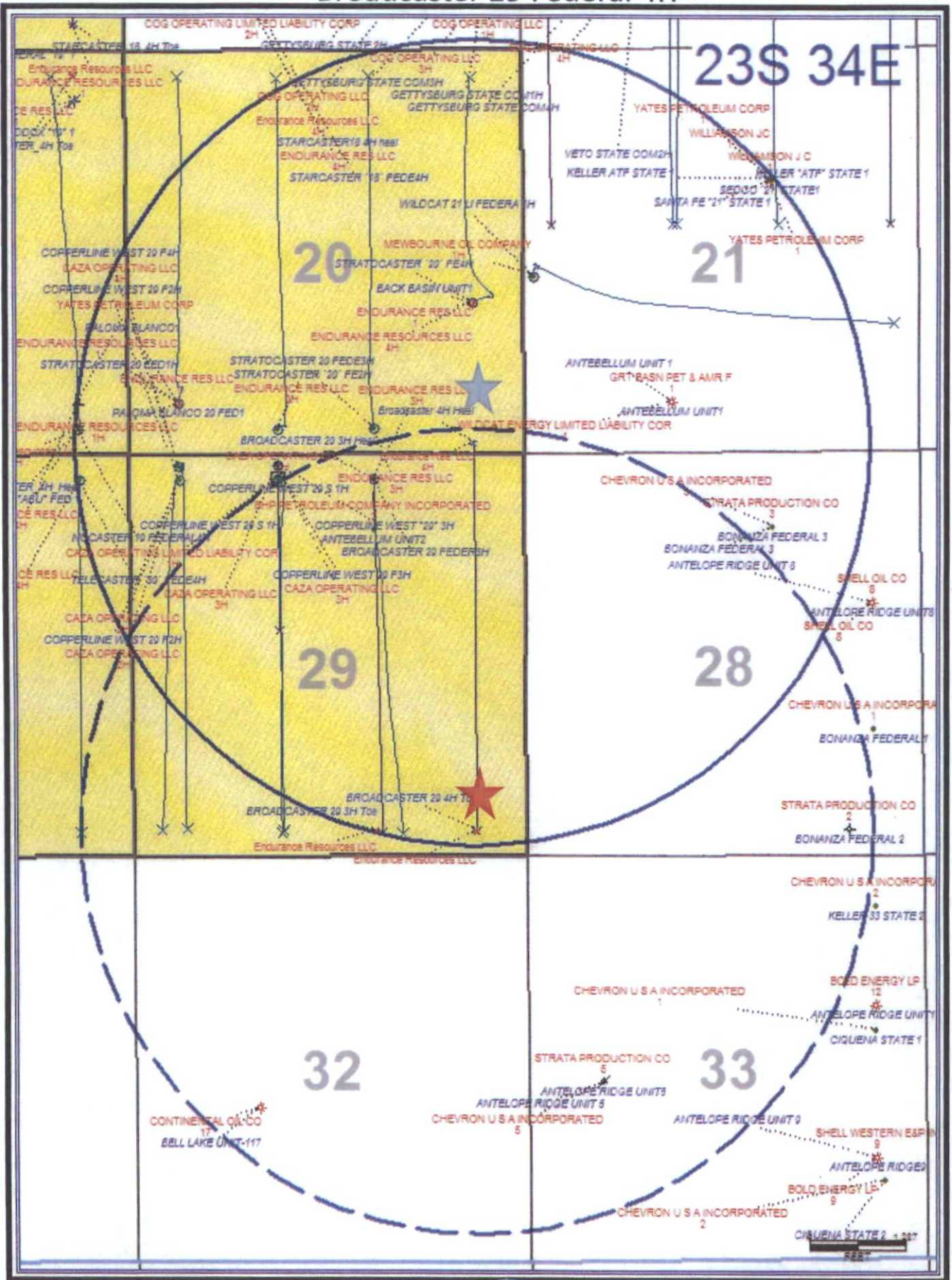
Grid Convergence at Surface is: 0.45°

Based upon Minimum Curvature type calculations, at a Measured Depth of 15,425.04usft the Bottom Hole Displacement is 5,100.96usft in the Direction of 179.48° (Grid).

Magnetic Convergence at surface is: -6.89° (10 January 2014, , BGGM2013)



Broadcaster 29 Federal 4H



Surface Location

Bottom Hole Location



Surface 5280' Radius

Bottom Hole 5280' Radius