API Well No: 43047511950000 Received: 7/30/2010

FORM 3

AMENDED REPORT ☐

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

APPLICATION FOR PERMIT TO DRILL

1. WELL NAME and NUMBER
NBU 922-29G1DS

2. TYPE OF WORK
DRILL NEW WELL ☒ REENTER P&A WELL ☐ DEEPEN WELL ☐

3. FIELD OR WILDCAT
NATURAL BUTTES

4. TYPE OF WELL
Gas Well Coalbed Methane Well: NO

5. UNIT or COMMUNITIZATION AGREEMENT NAME
NATURAL BUTTES

6. NAME OF OPERATOR
KERR-MCGEE OIL & GAS ONSHORE, L.P.

7. OPERATOR PHONE
720 929-6007

8. ADDRESS OF OPERATOR
P.O. Box 173779, Denver, CO, 80217

9. OPERATOR E-MAIL
Kathy.SchneebeckDulnoan@anadarko.com

10. MINERAL LEASE NUMBER (FEDERAL, INDIAN, OR STATE)
UO 1207 ST

11. MINERAL OWNERSHIP
FEDERAL ☐ INDIAN ☐ STATE ☒ FEE ☐

12. SURFACE OWNERSHIP
FEDERAL ☐ INDIAN ☐ STATE ☒ FEE ☐

13. NAME OF SURFACE OWNER (if box 12 = 'fee')

14. SURFACE OWNER PHONE (if box 12 = 'fee')

15. ADDRESS OF SURFACE OWNER (if box 12 = 'fee')

16. SURFACE OWNER E-MAIL (if box 12 = 'fee')

17. INDIAN ALLOTTEE OR TRIBE NAME (if box 12 = 'INDIAN')

18. INTEND TO COMMINGLE PRODUCTION FROM MULTIPLE FORMATIONS
YES ☒ (Submit Commingling Application) NO ☐

19. SLANT
VERTICAL ☐ DIRECTIONAL ☒ HORIZONTAL ☐

20. LOCATION OF WELL	FOOTAGES	QTR-QTR	SECTION	TOWNSHIP	RANGE	MERIDIAN
LOCATION AT SURFACE	1872 FNL 1970 FEL	SWNE	29	9.0 S	22.0 E	S
Top of Uppermost Producing Zone	1832 FNL 1462 FEL	SWNE	29	9.0 S	22.0 E	S
At Total Depth	1832 FNL 1462 FEL	SWNE	29	9.0 S	22.0 E	S

21. COUNTY
UINTAH

22. DISTANCE TO NEAREST LEASE LINE (Feet)
1462

23. NUMBER OF ACRES IN DRILLING UNIT
400

25. DISTANCE TO NEAREST WELL IN SAME POOL (Applied For Drilling or Completed)
834

26. PROPOSED DEPTH
MD: 9532 TVD: 9480

27. ELEVATION - GROUND LEVEL
5037

28. BOND NUMBER
22013542

29. SOURCE OF DRILLING WATER / WATER RIGHTS APPROVAL NUMBER IF APPLICABLE
Permit #43-8496

ATTACHMENTS

VERIFY THE FOLLOWING ARE ATTACHED IN ACCORDANCE WITH THE UTAH OIL AND GAS CONSERVATION GENERAL RULES

- ☒ **WELL PLAT OR MAP PREPARED BY LICENSED SURVEYOR OR ENGINEER**
- ☒ **COMPLETE DRILLING PLAN**
- ☐ **AFFIDAVIT OF STATUS OF SURFACE OWNER AGREEMENT (IF FEE SURFACE)**
- ☐ **FORM 5. IF OPERATOR IS OTHER THAN THE LEASE OWNER**
- ☒ **DIRECTIONAL SURVEY PLAN (IF DIRECTIONALLY OR HORIZONTALLY DRILLED)**
- ☒ **TOPOGRAPHICAL MAP**

NAME Danielle Piernot **TITLE** Regulatory Analyst **PHONE** 720 929-6156

SIGNATURE **DATE** 07/30/2010 **EMAIL** gnbregulatory@anadarko.com

API NUMBER ASSIGNED
43047511950000

APPROVAL

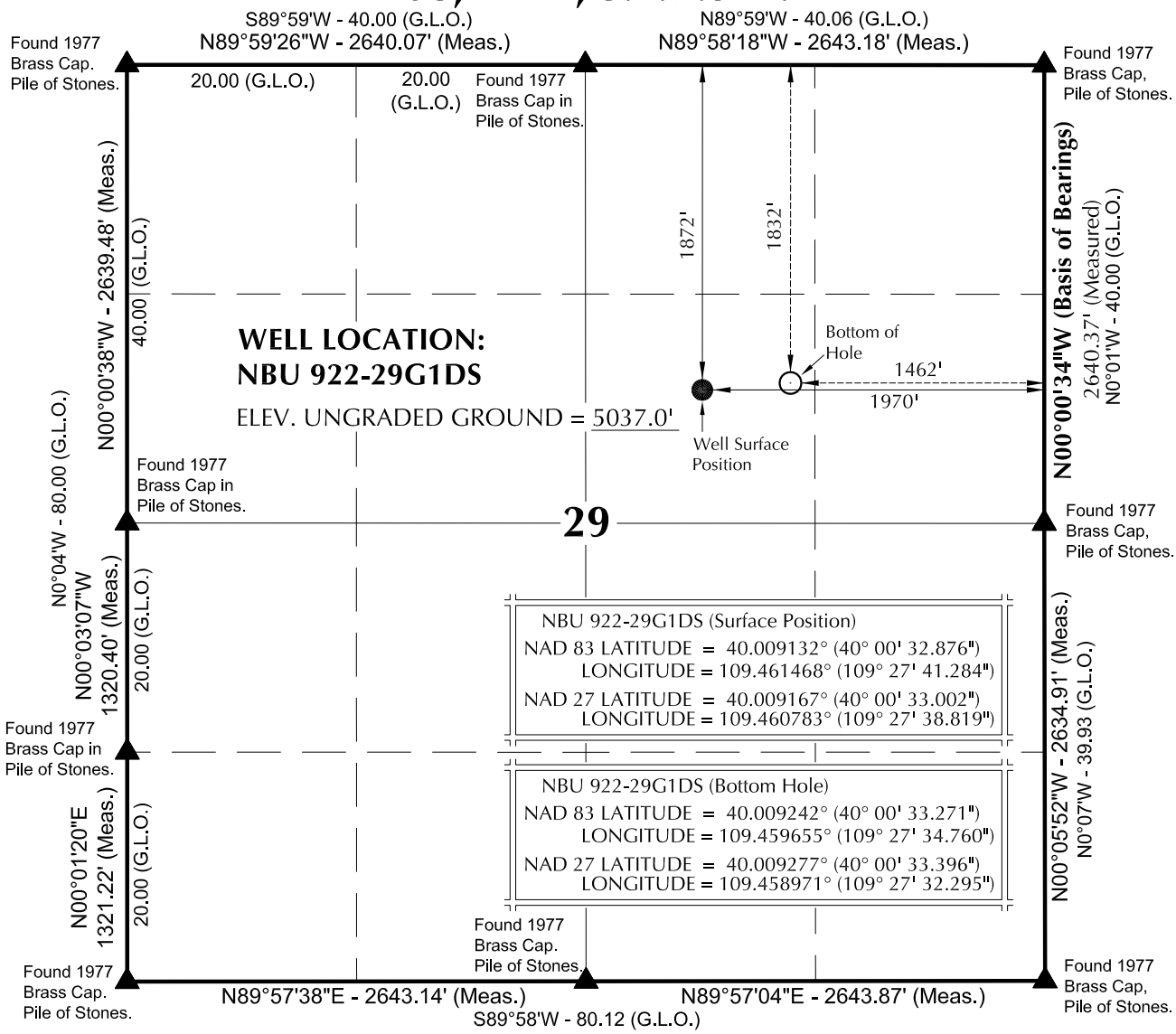
Permit Manager

Proposed Hole, Casing, and Cement						
String	**Hole Size**	**Casing Size**	**Top (MD)**	**Bottom (MD)**		
Prod	7.875	4.5	0	9532		
Pipe	**Grade**	**Length**	**Weight**			
	Grade I-80 Buttress	9532	11.6			

Proposed Hole, Casing, and Cement						
String	**Hole Size**	**Casing Size**	**Top (MD)**	**Bottom (MD)**		
Surf	11	8.625	0	2430		
Pipe	**Grade**	**Length**	**Weight**			
	Grade I-80 LT&C	2430	28.0			

'APIWellNo:43047511950000'

T9S, R22E, S.L.B.&M.



NOTES:

▲ = Section Corners Located

1. Well footages are measured at right angles to the Section Lines.
2. G.L.O. distances are shown in feet or chains. 1 chain = 66 feet.
3. The Bottom of hole bears N85°30'19"E 509.41' from the Surface Position.
4. Bearings are based on Global Positioning Satellite observations.
5. Basis of elevation is Tri-Sta "Two Water" located in the NW $\frac{1}{4}$ of Section 1, T10S, R21E, S.L.B.&M. The elevation of this Tri-Sta is shown on the Big Pack Mtn NE 7.5 Min. Quadrangle as being 5238'.

N

1000' 500' 0' 1000'

SCALE

SURVEYOR'S CERTIFICATE

THIS IS TO CERTIFY THAT THE ABOVE PLAT WAS PREPARED FROM FIELD NOTES OF ACTUAL SURVEYS MADE BY ME OR UNDER MY SUPERVISION AND THAT THE SAME ARE TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF.

PROFESSIONAL LAND SURVEYOR
REGISTRATION No. 6028691
STATE OF UTAH

Kerr-McGee Oil & Gas Onshore, LP
1099 18th Street - Denver, Colorado 80202

Well Pad: NBU 922-29G

NBU 922-29G1DS
WELL PLAT
1832' FNL, 1462' FEL (Bottom Hole)
SW $\frac{1}{4}$ NE $\frac{1}{4}$ OF SECTION 29, T9S, R22E, S.L.B.&M., UINTAH COUNTY, UTAH.

609 CONSULTING, LLC
371 Coffeen Avenue
Sheridan WY 82801
Phone 307-674-0609
Fax 307-674-0182

TIMBERLINE (435) 789-1365
ENGINEERING & LAND SURVEYING, INC.
209 NORTH 300 WEST - VERNAL, UTAH 84078

DATE SURVEYED: 03-31-10	SURVEYED BY: M.S.B.	SHEET NO: 4
DATE DRAWN: 04-01-10	DRAWN BY: M.P.D.	
SCALE: 1" = 1000'	Date Last Revised:	4 OF 16

'APIWellNo:43047511950000'

Scientific Drilling
Rocky Mountain Operations

Project: Uintah County, UT NAD27
Site: NBU 922-29G Pad
Well: NBU 922-29G1DS
Wellbore: OH
Design: Plan #1

Anadarko Petroleum Corporation

Kerr McGee Oil and Gas Onshore LP

WELL DETAILS: NBU 922-29G1DS

GL 5028' & RKB 14' @ 5042.00ft (ASSUMED) 5028.00

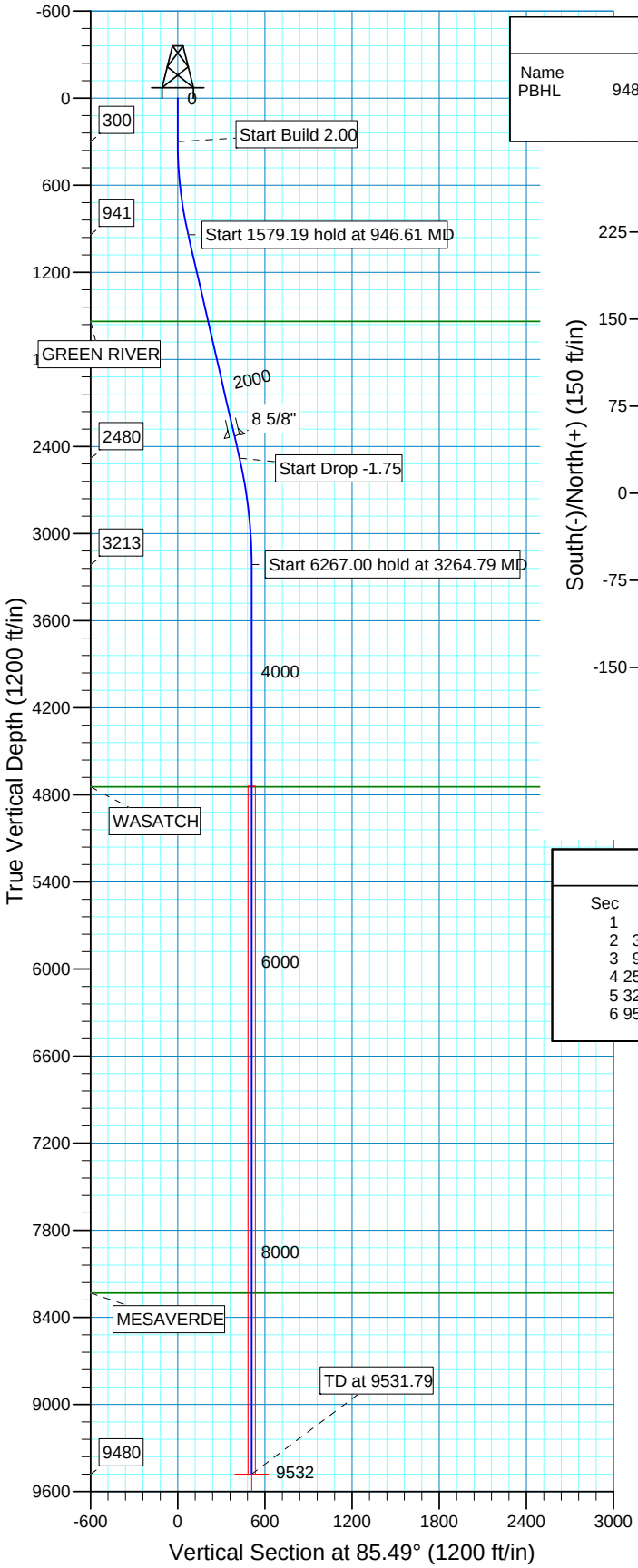
+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
0.00	0.00	616895.33	2571147.13	40° 0' 33.001 N	109° 27' 38.819 W

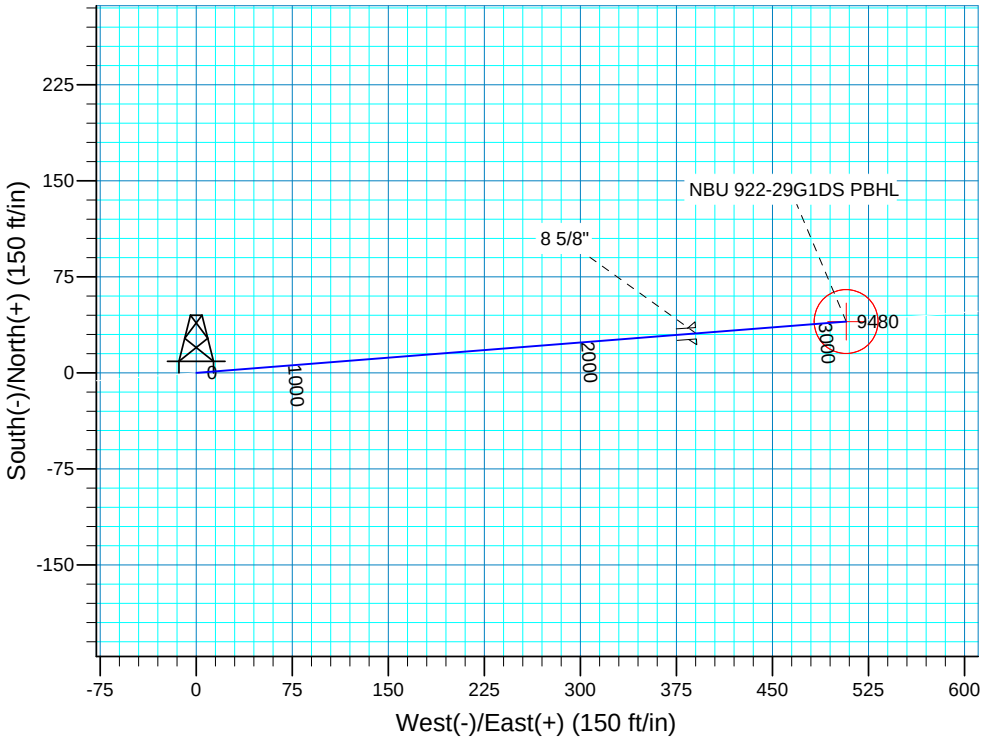
T M
Azimuths to True North
Magnetic North: 11.16°

Magnetic Field
Strength: 52462.0snT
Dip Angle: 65.91°
Date: 07/15/2010
Model: IGRF200510

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

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Shape
PBHL	9480.00	40.07	507.55	616946.96	2571653.64	40° 0' 33.397 N	109° 27' 32.296 W	Circle (Radius: 25.00





SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	DLeg	TFace	VSec	Target
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
2	300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	
3	946.61	12.93	85.49	941.14	5.72	72.44	2.00	85.49	72.66	
4	2525.80	12.93	85.49	2480.27	33.54	424.76	0.00	0.00	426.09	
5	3264.79	0.00	0.00	3213.00	40.07	507.55	1.75	180.00	509.13	
6	9531.79	0.00	0.00	9480.00	40.07	507.55	0.00	0.00	509.13	NBU 922-29G1DS PBHL

FORMATION TOP DETAILS

TVDPath	MDPath	Formation
1538.00	1559.01	GREEN RIVER
4745.00	4796.79	WASATCH
8232.00	8283.79	MESAVERDE

PROJECT DETAILS: Uintah County, UT NAD27

Geodetic System: US State Plane 1927 (Exact solution)
Datum: NAD 1927 (NADCON CONUS)
Ellipsoid: Clarke 1866
Zone: Utah Central 4302
Location: SEC 29 T9S R22E
System Datum: Mean Sea Level
Local North: No north reference data is available

Plan: Plan #1 (NBU 922-29G1DS/OH)

Created By: Robert H. Scott Date: 19:00, July 15 2010

'APIWellNo:43047511950000'

Scientific Drilling
Rocky Mountain Operations

Kerr McGee Oil and Gas Onshore LP

Uintah County, UT NAD27
NBU 922-29G Pad
NBU 922-29G1DS
OH

Plan: Plan #1

Standard Planning Report

15 July, 2010

Anadarko
Petroleum Corporation

Scientific Drilling
Rocky Mountain Operations

SDI
Planning Report

Anadarko Petroleum Corporation

Database:	EDM 2003.16 Single User Db	**Local Co-ordinate Reference:**	Well NBU 922-29G1DS
Company:	Kerr McGee Oil and Gas Onshore LP	**TVD Reference:**	GL 5028' & RKB 14' @ 5042.00ft (ASSUMED)
Project:	Uintah County, UT NAD27	**MD Reference:**	GL 5028' & RKB 14' @ 5042.00ft (ASSUMED)
Site:	NBU 922-29G Pad	**North Reference:**	True
Well:	NBU 922-29G1DS	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	OH		
Design:	Plan #1		

Project Uintah County, UT NAD27

Map System:	US State Plane 1927 (Exact solution)	**System Datum:**	Mean Sea Level
Geo Datum:	NAD 1927 (NADCON CONUS)		
Map Zone:	Utah Central 4302		

Site NBU 922-29G Pad, SEC 29 T9S R22E

Site Position:		**Northing:**	616,895.33 ft	**Latitude:**	40° 0' 33.001 N
From:	Lat/Long	**Easting:**	2,571,147.13 ft	**Longitude:**	109° 27' 38.819 W
Position Uncertainty:	0.00 ft	**Slot Radius:**	in	**Grid Convergence:**	1.31 °

Well NBU 922-29G1DS, 1872' FNL' 1970 FEL

Well Position	**+N/-S**	0.00 ft	**Northing:**	616,895.33 ft	**Latitude:**	40° 0' 33.001 N
	+E/-W	0.00 ft	**Easting:**	2,571,147.13 ft	**Longitude:**	109° 27' 38.819 W
Position Uncertainty		0.00 ft	**Wellhead Elevation:**	ft	**Ground Level:**	5,028.00 ft

Wellbore OH

Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF200510	07/15/10	11.16	65.92	52,462

Design Plan #1

Audit Notes:

Version:		**Phase:**	PLAN	**Tie On Depth:**	0.00

Vertical Section:	Depth From (TVD) (ft)	+N/-S (ft)	+E/-W (ft)	Direction (°)
	0.00	0.00	0.00	85.49

Plan Sections

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	TFO (°)	Target
0.00	0.00	0.00	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	
946.61	12.93	85.49	941.14	5.72	72.44	2.00	2.00	0.00	85.49	
2,525.80	12.93	85.49	2,480.27	33.54	424.76	0.00	0.00	0.00	0.00	
3,264.79	0.00	0.00	3,213.00	40.07	507.55	1.75	-1.75	0.00	180.00	
9,531.79	0.00	0.00	9,480.00	40.07	507.55	0.00	0.00	0.00	0.00	NBU 922-29G1DS I

Scientific Drilling
Rocky Mountain Operations

SDI
Planning Report

Anadarko Petroleum Corporation

Database:	EDM 2003.16 Single User Db	**Local Co-ordinate Reference:**	Well NBU 922-29G1DS
Company:	Kerr McGee Oil and Gas Onshore LP	**TVD Reference:**	GL 5028' & RKB 14' @ 5042.00ft (ASSUMED)
Project:	Uintah County, UT NAD27	**MD Reference:**	GL 5028' & RKB 14' @ 5042.00ft (ASSUMED)
Site:	NBU 922-29G Pad	**North Reference:**	True
Well:	NBU 922-29G1DS	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	OH		
Design:	Plan #1		

Planned Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
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
200.00	0.00	0.00	200.00	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
Start Build 2.00									
400.00	2.00	85.49	399.98	0.14	1.74	1.75	2.00	2.00	0.00
500.00	4.00	85.49	499.84	0.55	6.96	6.98	2.00	2.00	0.00
600.00	6.00	85.49	599.45	1.24	15.64	15.69	2.00	2.00	0.00
700.00	8.00	85.49	698.70	2.19	27.79	27.88	2.00	2.00	0.00
800.00	10.00	85.49	797.47	3.43	43.39	43.52	2.00	2.00	0.00
900.00	12.00	85.49	895.62	4.93	62.41	62.60	2.00	2.00	0.00
946.61	12.93	85.49	941.14	5.72	72.44	72.66	2.00	2.00	0.00
Start 1579.19 hold at 946.61 MD									
1,000.00	12.93	85.49	993.17	6.66	84.35	84.61	0.00	0.00	0.00
1,100.00	12.93	85.49	1,090.63	8.42	106.66	106.99	0.00	0.00	0.00
1,200.00	12.93	85.49	1,188.10	10.18	128.97	129.37	0.00	0.00	0.00
1,300.00	12.93	85.49	1,285.56	11.94	151.28	151.75	0.00	0.00	0.00
1,400.00	12.93	85.49	1,383.02	13.71	173.59	174.13	0.00	0.00	0.00
1,500.00	12.93	85.49	1,480.49	15.47	195.90	196.51	0.00	0.00	0.00
1,559.01	12.93	85.49	1,538.00	16.51	209.07	209.72	0.00	0.00	0.00
GREEN RIVER									
1,600.00	12.93	85.49	1,577.95	17.23	218.21	218.89	0.00	0.00	0.00
1,700.00	12.93	85.49	1,675.41	18.99	240.52	241.27	0.00	0.00	0.00
1,800.00	12.93	85.49	1,772.88	20.75	262.83	263.65	0.00	0.00	0.00
1,900.00	12.93	85.49	1,870.34	22.51	285.14	286.03	0.00	0.00	0.00
2,000.00	12.93	85.49	1,967.80	24.27	307.45	308.41	0.00	0.00	0.00
2,100.00	12.93	85.49	2,065.27	26.04	329.77	330.79	0.00	0.00	0.00
2,200.00	12.93	85.49	2,162.73	27.80	352.08	353.17	0.00	0.00	0.00
2,300.00	12.93	85.49	2,260.20	29.56	374.39	375.55	0.00	0.00	0.00
2,371.62	12.93	85.49	2,330.00	30.82	390.37	391.58	0.00	0.00	0.00
8 5/8"									
2,400.00	12.93	85.49	2,357.66	31.32	396.70	397.93	0.00	0.00	0.00
2,500.00	12.93	85.49	2,455.12	33.08	419.01	420.31	0.00	0.00	0.00
2,525.80	12.93	85.49	2,480.27	33.54	424.76	426.09	0.00	0.00	0.00
Start Drop -1.75									
2,600.00	11.63	85.49	2,552.77	34.78	440.50	441.87	1.75	-1.75	0.00
2,700.00	9.88	85.49	2,651.01	36.25	459.11	460.54	1.75	-1.75	0.00
2,800.00	8.13	85.49	2,749.77	37.48	474.72	476.20	1.75	-1.75	0.00
2,900.00	6.38	85.49	2,848.96	38.47	487.31	488.83	1.75	-1.75	0.00
3,000.00	4.63	85.49	2,948.50	39.23	496.88	498.43	1.75	-1.75	0.00
3,100.00	2.88	85.49	3,048.28	39.75	503.42	504.99	1.75	-1.75	0.00
3,200.00	1.13	85.49	3,148.21	40.02	506.91	508.49	1.75	-1.75	0.00
3,264.79	0.00	0.00	3,213.00	40.07	507.55	509.13	1.75	-1.75	0.00
Start 6267.00 hold at 3264.79 MD									
3,300.00	0.00	0.00	3,248.21	40.07	507.55	509.13	0.00	0.00	0.00
3,400.00	0.00	0.00	3,348.21	40.07	507.55	509.13	0.00	0.00	0.00
3,500.00	0.00	0.00	3,448.21	40.07	507.55	509.13	0.00	0.00	0.00
3,600.00	0.00	0.00	3,548.21	40.07	507.55	509.13	0.00	0.00	0.00
3,700.00	0.00	0.00	3,648.21	40.07	507.55	509.13	0.00	0.00	0.00
3,800.00	0.00	0.00	3,748.21	40.07	507.55	509.13	0.00	0.00	0.00
3,900.00	0.00	0.00	3,848.21	40.07	507.55	509.13	0.00	0.00	0.00
4,000.00	0.00	0.00	3,948.21	40.07	507.55	509.13	0.00	0.00	0.00
4,100.00	0.00	0.00	4,048.21	40.07	507.55	509.13	0.00	0.00	0.00

Database:	EDM 2003.16 Single User Db	**Local Co-ordinate Reference:**	Well NBU 922-29G1DS
Company:	Kerr McGee Oil and Gas Onshore LP	**TVD Reference:**	GL 5028' & RKB 14' @ 5042.00ft (ASSUMED)
Project:	Uintah County, UT NAD27	**MD Reference:**	GL 5028' & RKB 14' @ 5042.00ft (ASSUMED)
Site:	NBU 922-29G Pad	**North Reference:**	True
Well:	NBU 922-29G1DS	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	OH		
Design:	Plan #1		

Planned Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
4,200.00	0.00	0.00	4,148.21	40.07	507.55	509.13	0.00	0.00	0.00
4,300.00	0.00	0.00	4,248.21	40.07	507.55	509.13	0.00	0.00	0.00
4,400.00	0.00	0.00	4,348.21	40.07	507.55	509.13	0.00	0.00	0.00
4,500.00	0.00	0.00	4,448.21	40.07	507.55	509.13	0.00	0.00	0.00
4,600.00	0.00	0.00	4,548.21	40.07	507.55	509.13	0.00	0.00	0.00
4,700.00	0.00	0.00	4,648.21	40.07	507.55	509.13	0.00	0.00	0.00
4,796.79	0.00	0.00	4,745.00	40.07	507.55	509.13	0.00	0.00	0.00
WASATCH									
4,800.00	0.00	0.00	4,748.21	40.07	507.55	509.13	0.00	0.00	0.00
4,900.00	0.00	0.00	4,848.21	40.07	507.55	509.13	0.00	0.00	0.00
5,000.00	0.00	0.00	4,948.21	40.07	507.55	509.13	0.00	0.00	0.00
5,100.00	0.00	0.00	5,048.21	40.07	507.55	509.13	0.00	0.00	0.00
5,200.00	0.00	0.00	5,148.21	40.07	507.55	509.13	0.00	0.00	0.00
5,300.00	0.00	0.00	5,248.21	40.07	507.55	509.13	0.00	0.00	0.00
5,400.00	0.00	0.00	5,348.21	40.07	507.55	509.13	0.00	0.00	0.00
5,500.00	0.00	0.00	5,448.21	40.07	507.55	509.13	0.00	0.00	0.00
5,600.00	0.00	0.00	5,548.21	40.07	507.55	509.13	0.00	0.00	0.00
5,700.00	0.00	0.00	5,648.21	40.07	507.55	509.13	0.00	0.00	0.00
5,800.00	0.00	0.00	5,748.21	40.07	507.55	509.13	0.00	0.00	0.00
5,900.00	0.00	0.00	5,848.21	40.07	507.55	509.13	0.00	0.00	0.00
6,000.00	0.00	0.00	5,948.21	40.07	507.55	509.13	0.00	0.00	0.00
6,100.00	0.00	0.00	6,048.21	40.07	507.55	509.13	0.00	0.00	0.00
6,200.00	0.00	0.00	6,148.21	40.07	507.55	509.13	0.00	0.00	0.00
6,300.00	0.00	0.00	6,248.21	40.07	507.55	509.13	0.00	0.00	0.00
6,400.00	0.00	0.00	6,348.21	40.07	507.55	509.13	0.00	0.00	0.00
6,500.00	0.00	0.00	6,448.21	40.07	507.55	509.13	0.00	0.00	0.00
6,600.00	0.00	0.00	6,548.21	40.07	507.55	509.13	0.00	0.00	0.00
6,700.00	0.00	0.00	6,648.21	40.07	507.55	509.13	0.00	0.00	0.00
6,800.00	0.00	0.00	6,748.21	40.07	507.55	509.13	0.00	0.00	0.00
6,900.00	0.00	0.00	6,848.21	40.07	507.55	509.13	0.00	0.00	0.00
7,000.00	0.00	0.00	6,948.21	40.07	507.55	509.13	0.00	0.00	0.00
7,100.00	0.00	0.00	7,048.21	40.07	507.55	509.13	0.00	0.00	0.00
7,200.00	0.00	0.00	7,148.21	40.07	507.55	509.13	0.00	0.00	0.00
7,300.00	0.00	0.00	7,248.21	40.07	507.55	509.13	0.00	0.00	0.00
7,400.00	0.00	0.00	7,348.21	40.07	507.55	509.13	0.00	0.00	0.00
7,500.00	0.00	0.00	7,448.21	40.07	507.55	509.13	0.00	0.00	0.00
7,600.00	0.00	0.00	7,548.21	40.07	507.55	509.13	0.00	0.00	0.00
7,700.00	0.00	0.00	7,648.21	40.07	507.55	509.13	0.00	0.00	0.00
7,800.00	0.00	0.00	7,748.21	40.07	507.55	509.13	0.00	0.00	0.00
7,900.00	0.00	0.00	7,848.21	40.07	507.55	509.13	0.00	0.00	0.00
8,000.00	0.00	0.00	7,948.21	40.07	507.55	509.13	0.00	0.00	0.00
8,100.00	0.00	0.00	8,048.21	40.07	507.55	509.13	0.00	0.00	0.00
8,200.00	0.00	0.00	8,148.21	40.07	507.55	509.13	0.00	0.00	0.00
8,283.79	0.00	0.00	8,232.00	40.07	507.55	509.13	0.00	0.00	0.00
MESAVERDE									
8,300.00	0.00	0.00	8,248.21	40.07	507.55	509.13	0.00	0.00	0.00
8,400.00	0.00	0.00	8,348.21	40.07	507.55	509.13	0.00	0.00	0.00
8,500.00	0.00	0.00	8,448.21	40.07	507.55	509.13	0.00	0.00	0.00
8,600.00	0.00	0.00	8,548.21	40.07	507.55	509.13	0.00	0.00	0.00
8,700.00	0.00	0.00	8,648.21	40.07	507.55	509.13	0.00	0.00	0.00
8,800.00	0.00	0.00	8,748.21	40.07	507.55	509.13	0.00	0.00	0.00
8,900.00	0.00	0.00	8,848.21	40.07	507.55	509.13	0.00	0.00	0.00
9,000.00	0.00	0.00	8,948.21	40.07	507.55	509.13	0.00	0.00	0.00

Scientific Drilling
Rocky Mountain Operations

SDI
Planning Report

Anadarko Petroleum Corporation

Database:	EDM 2003.16 Single User Db	**Local Co-ordinate Reference:**	Well NBU 922-29G1DS
Company:	Kerr McGee Oil and Gas Onshore LP	**TVD Reference:**	GL 5028' & RKB 14' @ 5042.00ft (ASSUMED)
Project:	Uintah County, UT NAD27	**MD Reference:**	GL 5028' & RKB 14' @ 5042.00ft (ASSUMED)
Site:	NBU 922-29G Pad	**North Reference:**	True
Well:	NBU 922-29G1DS	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	OH		
Design:	Plan #1		

Planned Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
9,100.00	0.00	0.00	9,048.21	40.07	507.55	509.13	0.00	0.00	0.00
9,200.00	0.00	0.00	9,148.21	40.07	507.55	509.13	0.00	0.00	0.00
9,300.00	0.00	0.00	9,248.21	40.07	507.55	509.13	0.00	0.00	0.00
9,400.00	0.00	0.00	9,348.21	40.07	507.55	509.13	0.00	0.00	0.00
9,500.00	0.00	0.00	9,448.21	40.07	507.55	509.13	0.00	0.00	0.00
9,531.79	0.00	0.00	9,480.00	40.07	507.55	509.13	0.00	0.00	0.00
NBU 922-29G1DS PBHL									

Targets

Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (ft)	Easting (ft)	Latitude	Longitude
NBU 922-29G1DS PE - plan hits target center - Circle (radius 25.00)	0.00	0.00	9,480.00	40.07	507.55	616,946.96	2,571,653.64	40° 0' 33.397 N	109° 27' 32.296 W

Casing Points

Measured Depth (ft)	Vertical Depth (ft)	Name	Casing Diameter (in)	Hole Diameter (in)
2,371.62	2,330.00	8 5/8"	8.625	11.000

Formations

Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)
8,283.79	8,232.00	MESAVERDE			
1,559.01	1,538.00	GREEN RIVER			
4,796.79	4,745.00	WASATCH			

Plan Annotations

Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates +N/-S (ft)	Local Coordinates +E/-W (ft)	Comment
300.00	300.00	0.00	0.00	Start Build 2.00
946.61	941.14	5.72	72.44	Start 1579.19 hold at 946.61 MD
2,525.80	2,480.27	33.54	424.76	Start Drop -1.75
3,264.79	3,213.00	40.07	507.55	Start 6267.00 hold at 3264.79 MD
9,531.79	9,480.00	40.07	507.55	TD at 9531.79

'APIWellNo:43047511950000'

Scientific Drilling
Rocky Mountain Operations

Kerr McGee Oil and Gas Onshore LP

Uintah County, UT NAD27
NBU 922-29G Pad
NBU 922-29G1DS
OH

Plan: Plan #1

Standard Planning Report - Geographic

15 July, 2010

Anadarko
Petroleum Corporation

Scientific Drilling
Rocky Mountain Operations

SDI
Planning Report - Geographic

Anadarko Petroleum Corporation

Database:	EDM 2003.16 Single User Db	**Local Co-ordinate Reference:**	Well NBU 922-29G1DS
Company:	Kerr McGee Oil and Gas Onshore LP	**TVD Reference:**	GL 5028' & RKB 14' @ 5042.00ft (ASSUMED)
Project:	Uintah County, UT NAD27	**MD Reference:**	GL 5028' & RKB 14' @ 5042.00ft (ASSUMED)
Site:	NBU 922-29G Pad	**North Reference:**	True
Well:	NBU 922-29G1DS	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	OH		
Design:	Plan #1		

Project Uintah County, UT NAD27

Map System:	US State Plane 1927 (Exact solution)	**System Datum:**	Mean Sea Level
Geo Datum:	NAD 1927 (NADCON CONUS)		
Map Zone:	Utah Central 4302		

Site NBU 922-29G Pad, SEC 29 T9S R22E

Site Position:		**Northing:**	616,895.33 ft	**Latitude:**	40° 0' 33.001 N
From:	Lat/Long	**Easting:**	2,571,147.13 ft	**Longitude:**	109° 27' 38.819 W
Position Uncertainty:	0.00 ft	**Slot Radius:**	in	**Grid Convergence:**	1.31 °

Well NBU 922-29G1DS, 1872' FNL' 1970 FEL

Well Position	**+N/-S**	0.00 ft	**Northing:**	616,895.33 ft	**Latitude:**	40° 0' 33.001 N
	+E/-W	0.00 ft	**Easting:**	2,571,147.13 ft	**Longitude:**	109° 27' 38.819 W
Position Uncertainty		0.00 ft	**Wellhead Elevation:**	ft	**Ground Level:**	5,028.00 ft

Wellbore OH

Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF200510	07/15/10	11.16	65.92	52,462

Design Plan #1

Audit Notes:

Version:		**Phase:**	PLAN	**Tie On Depth:**	0.00

Vertical Section:	Depth From (TVD) (ft)	+N/-S (ft)	+E/-W (ft)	Direction (°)
	0.00	0.00	0.00	85.49

Plan Sections

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	TFO (°)	Target
0.00	0.00	0.00	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	
946.61	12.93	85.49	941.14	5.72	72.44	2.00	2.00	0.00	85.49	
2,525.80	12.93	85.49	2,480.27	33.54	424.76	0.00	0.00	0.00	0.00	
3,264.79	0.00	0.00	3,213.00	40.07	507.55	1.75	-1.75	0.00	180.00	
9,531.79	0.00	0.00	9,480.00	40.07	507.55	0.00	0.00	0.00	0.00	NBU 922-29G1DS I

Scientific Drilling
Rocky Mountain Operations

SDI
Planning Report - Geographic

Anadarko Petroleum Corporation

Database:	EDM 2003.16 Single User Db	**Local Co-ordinate Reference:**	Well NBU 922-29G1DS
Company:	Kerr McGee Oil and Gas Onshore LP	**TVD Reference:**	GL 5028' & RKB 14' @ 5042.00ft (ASSUMED)
Project:	Uintah County, UT NAD27	**MD Reference:**	GL 5028' & RKB 14' @ 5042.00ft (ASSUMED)
Site:	NBU 922-29G Pad	**North Reference:**	True
Well:	NBU 922-29G1DS	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	OH		
Design:	Plan #1		

Planned Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Map Northing (ft)	Map Easting (ft)	Latitude	Longitude
0.00	0.00	0.00	0.00	0.00	0.00	616,895.33	2,571,147.13	40° 0' 33.001 N	109° 27' 38.819 W
100.00	0.00	0.00	100.00	0.00	0.00	616,895.33	2,571,147.13	40° 0' 33.001 N	109° 27' 38.819 W
200.00	0.00	0.00	200.00	0.00	0.00	616,895.33	2,571,147.13	40° 0' 33.001 N	109° 27' 38.819 W
300.00	0.00	0.00	300.00	0.00	0.00	616,895.33	2,571,147.13	40° 0' 33.001 N	109° 27' 38.819 W
Start Build 2.00									
400.00	2.00	85.49	399.98	0.14	1.74	616,895.50	2,571,148.87	40° 0' 33.003 N	109° 27' 38.796 W
500.00	4.00	85.49	499.84	0.55	6.96	616,896.03	2,571,154.08	40° 0' 33.007 N	109° 27' 38.729 W
600.00	6.00	85.49	599.45	1.24	15.64	616,896.92	2,571,162.75	40° 0' 33.013 N	109° 27' 38.618 W
700.00	8.00	85.49	698.70	2.19	27.79	616,898.15	2,571,174.87	40° 0' 33.023 N	109° 27' 38.462 W
800.00	10.00	85.49	797.47	3.43	43.39	616,899.74	2,571,190.43	40° 0' 33.035 N	109° 27' 38.261 W
900.00	12.00	85.49	895.62	4.93	62.41	616,901.67	2,571,209.41	40° 0' 33.050 N	109° 27' 38.017 W
946.61	12.93	85.49	941.14	5.72	72.44	616,902.69	2,571,219.42	40° 0' 33.058 N	109° 27' 37.888 W
Start 1579.19 hold at 946.61 MD									
1,000.00	12.93	85.49	993.17	6.66	84.35	616,903.91	2,571,231.31	40° 0' 33.067 N	109° 27' 37.735 W
1,100.00	12.93	85.49	1,090.63	8.42	106.66	616,906.18	2,571,253.58	40° 0' 33.084 N	109° 27' 37.448 W
1,200.00	12.93	85.49	1,188.10	10.18	128.97	616,908.45	2,571,275.84	40° 0' 33.102 N	109° 27' 37.161 W
1,300.00	12.93	85.49	1,285.56	11.94	151.28	616,910.71	2,571,298.10	40° 0' 33.119 N	109° 27' 36.874 W
1,400.00	12.93	85.49	1,383.02	13.71	173.59	616,912.98	2,571,320.37	40° 0' 33.137 N	109° 27' 36.588 W
1,500.00	12.93	85.49	1,480.49	15.47	195.90	616,915.25	2,571,342.63	40° 0' 33.154 N	109° 27' 36.301 W
1,559.01	12.93	85.49	1,538.00	16.51	209.07	616,916.59	2,571,355.77	40° 0' 33.164 N	109° 27' 36.132 W
GREEN RIVER									
1,600.00	12.93	85.49	1,577.95	17.23	218.21	616,917.52	2,571,364.90	40° 0' 33.171 N	109° 27' 36.014 W
1,700.00	12.93	85.49	1,675.41	18.99	240.52	616,919.79	2,571,387.16	40° 0' 33.189 N	109° 27' 35.728 W
1,800.00	12.93	85.49	1,772.88	20.75	262.83	616,922.06	2,571,409.43	40° 0' 33.206 N	109° 27' 35.441 W
1,900.00	12.93	85.49	1,870.34	22.51	285.14	616,924.33	2,571,431.69	40° 0' 33.224 N	109° 27' 35.154 W
2,000.00	12.93	85.49	1,967.80	24.27	307.45	616,926.60	2,571,453.96	40° 0' 33.241 N	109° 27' 34.867 W
2,100.00	12.93	85.49	2,065.27	26.04	329.77	616,928.87	2,571,476.22	40° 0' 33.258 N	109° 27' 34.581 W
2,200.00	12.93	85.49	2,162.73	27.80	352.08	616,931.14	2,571,498.49	40° 0' 33.276 N	109° 27' 34.294 W
2,300.00	12.93	85.49	2,260.20	29.56	374.39	616,933.41	2,571,520.75	40° 0' 33.293 N	109° 27' 34.007 W
2,371.62	12.93	85.49	2,330.00	30.82	390.37	616,935.04	2,571,536.70	40° 0' 33.306 N	109° 27' 33.802 W
8 5/8"									
2,400.00	12.93	85.49	2,357.66	31.32	396.70	616,935.68	2,571,543.01	40° 0' 33.311 N	109° 27' 33.720 W
2,500.00	12.93	85.49	2,455.12	33.08	419.01	616,937.95	2,571,565.28	40° 0' 33.328 N	109° 27' 33.434 W
2,525.80	12.93	85.49	2,480.27	33.54	424.76	616,938.54	2,571,571.02	40° 0' 33.333 N	109° 27' 33.360 W
Start Drop -1.75									
2,600.00	11.63	85.49	2,552.77	34.78	440.50	616,940.14	2,571,586.73	40° 0' 33.345 N	109° 27' 33.157 W
2,700.00	9.88	85.49	2,651.01	36.25	459.11	616,942.03	2,571,605.30	40° 0' 33.359 N	109° 27' 32.918 W
2,800.00	8.13	85.49	2,749.77	37.48	474.72	616,943.62	2,571,620.87	40° 0' 33.372 N	109° 27' 32.718 W
2,900.00	6.38	85.49	2,848.96	38.47	487.31	616,944.90	2,571,633.44	40° 0' 33.381 N	109° 27' 32.556 W
3,000.00	4.63	85.49	2,948.50	39.23	496.88	616,945.87	2,571,642.99	40° 0' 33.389 N	109° 27' 32.433 W
3,100.00	2.88	85.49	3,048.28	39.75	503.42	616,946.54	2,571,649.52	40° 0' 33.394 N	109° 27' 32.349 W
3,200.00	1.13	85.49	3,148.21	40.02	506.91	616,946.89	2,571,653.00	40° 0' 33.397 N	109° 27' 32.304 W
3,264.79	0.00	0.00	3,213.00	40.07	507.55	616,946.96	2,571,653.64	40° 0' 33.397 N	109° 27' 32.296 W
Start 6267.00 hold at 3264.79 MD									
3,300.00	0.00	0.00	3,248.21	40.07	507.55	616,946.96	2,571,653.64	40° 0' 33.397 N	109° 27' 32.296 W
3,400.00	0.00	0.00	3,348.21	40.07	507.55	616,946.96	2,571,653.64	40° 0' 33.397 N	109° 27' 32.296 W
3,500.00	0.00	0.00	3,448.21	40.07	507.55	616,946.96	2,571,653.64	40° 0' 33.397 N	109° 27' 32.296 W
3,600.00	0.00	0.00	3,548.21	40.07	507.55	616,946.96	2,571,653.64	40° 0' 33.397 N	109° 27' 32.296 W
3,700.00	0.00	0.00	3,648.21	40.07	507.55	616,946.96	2,571,653.64	40° 0' 33.397 N	109° 27' 32.296 W
3,800.00	0.00	0.00	3,748.21	40.07	507.55	616,946.96	2,571,653.64	40° 0' 33.397 N	109° 27' 32.296 W
3,900.00	0.00	0.00	3,848.21	40.07	507.55	616,946.96	2,571,653.64	40° 0' 33.397 N	109° 27' 32.296 W
4,000.00	0.00	0.00	3,948.21	40.07	507.55	616,946.96	2,571,653.64	40° 0' 33.397 N	109° 27' 32.296 W
4,100.00	0.00	0.00	4,048.21	40.07	507.55	616,946.96	2,571,653.64	40° 0' 33.397 N	109° 27' 32.296 W

Database:	EDM 2003.16 Single User Db	**Local Co-ordinate Reference:**	Well NBU 922-29G1DS
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Project:	Uintah County, UT NAD27	**MD Reference:**	GL 5028' & RKB 14' @ 5042.00ft (ASSUMED)
Site:	NBU 922-29G Pad	**North Reference:**	True
Well:	NBU 922-29G1DS	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	OH		
Design:	Plan #1		

Planned Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Map Northing (ft)	Map Easting (ft)	Latitude	Longitude
4,200.00	0.00	0.00	4,148.21	40.07	507.55	616,946.96	2,571,653.64	40° 0' 33.397 N	109° 27' 32.296 W
4,300.00	0.00	0.00	4,248.21	40.07	507.55	616,946.96	2,571,653.64	40° 0' 33.397 N	109° 27' 32.296 W
4,400.00	0.00	0.00	4,348.21	40.07	507.55	616,946.96	2,571,653.64	40° 0' 33.397 N	109° 27' 32.296 W
4,500.00	0.00	0.00	4,448.21	40.07	507.55	616,946.96	2,571,653.64	40° 0' 33.397 N	109° 27' 32.296 W
4,600.00	0.00	0.00	4,548.21	40.07	507.55	616,946.96	2,571,653.64	40° 0' 33.397 N	109° 27' 32.296 W
4,700.00	0.00	0.00	4,648.21	40.07	507.55	616,946.96	2,571,653.64	40° 0' 33.397 N	109° 27' 32.296 W
4,796.79	0.00	0.00	4,745.00	40.07	507.55	616,946.96	2,571,653.64	40° 0' 33.397 N	109° 27' 32.296 W
WASATCH									
4,800.00	0.00	0.00	4,748.21	40.07	507.55	616,946.96	2,571,653.64	40° 0' 33.397 N	109° 27' 32.296 W
4,900.00	0.00	0.00	4,848.21	40.07	507.55	616,946.96	2,571,653.64	40° 0' 33.397 N	109° 27' 32.296 W
5,000.00	0.00	0.00	4,948.21	40.07	507.55	616,946.96	2,571,653.64	40° 0' 33.397 N	109° 27' 32.296 W
5,100.00	0.00	0.00	5,048.21	40.07	507.55	616,946.96	2,571,653.64	40° 0' 33.397 N	109° 27' 32.296 W
5,200.00	0.00	0.00	5,148.21	40.07	507.55	616,946.96	2,571,653.64	40° 0' 33.397 N	109° 27' 32.296 W
5,300.00	0.00	0.00	5,248.21	40.07	507.55	616,946.96	2,571,653.64	40° 0' 33.397 N	109° 27' 32.296 W
5,400.00	0.00	0.00	5,348.21	40.07	507.55	616,946.96	2,571,653.64	40° 0' 33.397 N	109° 27' 32.296 W
5,500.00	0.00	0.00	5,448.21	40.07	507.55	616,946.96	2,571,653.64	40° 0' 33.397 N	109° 27' 32.296 W
5,600.00	0.00	0.00	5,548.21	40.07	507.55	616,946.96	2,571,653.64	40° 0' 33.397 N	109° 27' 32.296 W
5,700.00	0.00	0.00	5,648.21	40.07	507.55	616,946.96	2,571,653.64	40° 0' 33.397 N	109° 27' 32.296 W
5,800.00	0.00	0.00	5,748.21	40.07	507.55	616,946.96	2,571,653.64	40° 0' 33.397 N	109° 27' 32.296 W
5,900.00	0.00	0.00	5,848.21	40.07	507.55	616,946.96	2,571,653.64	40° 0' 33.397 N	109° 27' 32.296 W
6,000.00	0.00	0.00	5,948.21	40.07	507.55	616,946.96	2,571,653.64	40° 0' 33.397 N	109° 27' 32.296 W
6,100.00	0.00	0.00	6,048.21	40.07	507.55	616,946.96	2,571,653.64	40° 0' 33.397 N	109° 27' 32.296 W
6,200.00	0.00	0.00	6,148.21	40.07	507.55	616,946.96	2,571,653.64	40° 0' 33.397 N	109° 27' 32.296 W
6,300.00	0.00	0.00	6,248.21	40.07	507.55	616,946.96	2,571,653.64	40° 0' 33.397 N	109° 27' 32.296 W
6,400.00	0.00	0.00	6,348.21	40.07	507.55	616,946.96	2,571,653.64	40° 0' 33.397 N	109° 27' 32.296 W
6,500.00	0.00	0.00	6,448.21	40.07	507.55	616,946.96	2,571,653.64	40° 0' 33.397 N	109° 27' 32.296 W
6,600.00	0.00	0.00	6,548.21	40.07	507.55	616,946.96	2,571,653.64	40° 0' 33.397 N	109° 27' 32.296 W
6,700.00	0.00	0.00	6,648.21	40.07	507.55	616,946.96	2,571,653.64	40° 0' 33.397 N	109° 27' 32.296 W
6,800.00	0.00	0.00	6,748.21	40.07	507.55	616,946.96	2,571,653.64	40° 0' 33.397 N	109° 27' 32.296 W
6,900.00	0.00	0.00	6,848.21	40.07	507.55	616,946.96	2,571,653.64	40° 0' 33.397 N	109° 27' 32.296 W
7,000.00	0.00	0.00	6,948.21	40.07	507.55	616,946.96	2,571,653.64	40° 0' 33.397 N	109° 27' 32.296 W
7,100.00	0.00	0.00	7,048.21	40.07	507.55	616,946.96	2,571,653.64	40° 0' 33.397 N	109° 27' 32.296 W
7,200.00	0.00	0.00	7,148.21	40.07	507.55	616,946.96	2,571,653.64	40° 0' 33.397 N	109° 27' 32.296 W
7,300.00	0.00	0.00	7,248.21	40.07	507.55	616,946.96	2,571,653.64	40° 0' 33.397 N	109° 27' 32.296 W
7,400.00	0.00	0.00	7,348.21	40.07	507.55	616,946.96	2,571,653.64	40° 0' 33.397 N	109° 27' 32.296 W
7,500.00	0.00	0.00	7,448.21	40.07	507.55	616,946.96	2,571,653.64	40° 0' 33.397 N	109° 27' 32.296 W
7,600.00	0.00	0.00	7,548.21	40.07	507.55	616,946.96	2,571,653.64	40° 0' 33.397 N	109° 27' 32.296 W
7,700.00	0.00	0.00	7,648.21	40.07	507.55	616,946.96	2,571,653.64	40° 0' 33.397 N	109° 27' 32.296 W
7,800.00	0.00	0.00	7,748.21	40.07	507.55	616,946.96	2,571,653.64	40° 0' 33.397 N	109° 27' 32.296 W
7,900.00	0.00	0.00	7,848.21	40.07	507.55	616,946.96	2,571,653.64	40° 0' 33.397 N	109° 27' 32.296 W
8,000.00	0.00	0.00	7,948.21	40.07	507.55	616,946.96	2,571,653.64	40° 0' 33.397 N	109° 27' 32.296 W
8,100.00	0.00	0.00	8,048.21	40.07	507.55	616,946.96	2,571,653.64	40° 0' 33.397 N	109° 27' 32.296 W
8,200.00	0.00	0.00	8,148.21	40.07	507.55	616,946.96	2,571,653.64	40° 0' 33.397 N	109° 27' 32.296 W
8,283.79	0.00	0.00	8,232.00	40.07	507.55	616,946.96	2,571,653.64	40° 0' 33.397 N	109° 27' 32.296 W
MESAVERDE									
8,300.00	0.00	0.00	8,248.21	40.07	507.55	616,946.96	2,571,653.64	40° 0' 33.397 N	109° 27' 32.296 W
8,400.00	0.00	0.00	8,348.21	40.07	507.55	616,946.96	2,571,653.64	40° 0' 33.397 N	109° 27' 32.296 W
8,500.00	0.00	0.00	8,448.21	40.07	507.55	616,946.96	2,571,653.64	40° 0' 33.397 N	109° 27' 32.296 W
8,600.00	0.00	0.00	8,548.21	40.07	507.55	616,946.96	2,571,653.64	40° 0' 33.397 N	109° 27' 32.296 W
8,700.00	0.00	0.00	8,648.21	40.07	507.55	616,946.96	2,571,653.64	40° 0' 33.397 N	109° 27' 32.296 W
8,800.00	0.00	0.00	8,748.21	40.07	507.55	616,946.96	2,571,653.64	40° 0' 33.397 N	109° 27' 32.296 W
8,900.00	0.00	0.00	8,848.21	40.07	507.55	616,946.96	2,571,653.64	40° 0' 33.397 N	109° 27' 32.296 W
9,000.00	0.00	0.00	8,948.21	40.07	507.55	616,946.96	2,571,653.64	40° 0' 33.397 N	109° 27' 32.296 W
9,100.00	0.00	0.00	9,048.21	40.07	507.55	616,946.96	2,571,653.64	40° 0' 33.397 N	109° 27' 32.296 W

Scientific Drilling
Rocky Mountain Operations

SDI
Planning Report - Geographic

Anadarko Petroleum Corporation

Database:	EDM 2003.16 Single User Db	**Local Co-ordinate Reference:**	Well NBU 922-29G1DS
Company:	Kerr McGee Oil and Gas Onshore LP	**TVD Reference:**	GL 5028' & RKB 14' @ 5042.00ft (ASSUMED)
Project:	Uintah County, UT NAD27	**MD Reference:**	GL 5028' & RKB 14' @ 5042.00ft (ASSUMED)
Site:	NBU 922-29G Pad	**North Reference:**	True
Well:	NBU 922-29G1DS	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	OH		
Design:	Plan #1		

Planned Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Map Northing (ft)	Map Easting (ft)	Latitude	Longitude
9,200.00	0.00	0.00	9,148.21	40.07	507.55	616,946.96	2,571,653.64	40° 0' 33.397 N	109° 27' 32.296 W
9,300.00	0.00	0.00	9,248.21	40.07	507.55	616,946.96	2,571,653.64	40° 0' 33.397 N	109° 27' 32.296 W
9,400.00	0.00	0.00	9,348.21	40.07	507.55	616,946.96	2,571,653.64	40° 0' 33.397 N	109° 27' 32.296 W
9,500.00	0.00	0.00	9,448.21	40.07	507.55	616,946.96	2,571,653.64	40° 0' 33.397 N	109° 27' 32.296 W
9,531.79	0.00	0.00	9,480.00	40.07	507.55	616,946.96	2,571,653.64	40° 0' 33.397 N	109° 27' 32.296 W
NBU 922-29G1DS PBHL									

Targets

Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (ft)	Easting (ft)	Latitude	Longitude
NBU 922-29G1DS PE - plan hits target center - Circle (radius 25.00)	0.00	0.00	9,480.00	40.07	507.55	616,946.96	2,571,653.64	40° 0' 33.397 N	109° 27' 32.296 W

Casing Points

Measured Depth (ft)	Vertical Depth (ft)	Name	Casing Diameter (in)	Hole Diameter (in)
2,371.62	2,330.00	8 5/8"	8.625	11.000

Formations

Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)
8,283.79	8,232.00	MESAVERDE			
1,559.01	1,538.00	GREEN RIVER			
4,796.79	4,745.00	WASATCH			

Plan Annotations

Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates +N/-S (ft)	Local Coordinates +E/-W (ft)	Comment
300.00	300.00	0.00	0.00	Start Build 2.00
946.61	941.14	5.72	72.44	Start 1579.19 hold at 946.61 MD
2,525.80	2,480.27	33.54	424.76	Start Drop -1.75
3,264.79	3,213.00	40.07	507.55	Start 6267.00 hold at 3264.79 MD
9,531.79	9,480.00	40.07	507.55	TD at 9531.79

NBU 922-29G1DS

Pad: NBU 922-29G
Surface: 1,872' FNL 1,970' FEL (SW/4NE/4)
BHL: 1,832' FNL 1,462' FEL (SW/4NE/4)
Section 29 T9S R22E

Uintah County, Utah
Mineral Lease: UO 1207 ST

ONSHORE ORDER NO. 1

DRILLING PROGRAM

1. – 2. Estimated Tops of Important Geologic Markers:
Estimated Depths of Anticipated Water, Oil, Gas, or Mineral Formations:

Formation	Depth	Resource
Uinta	0 – Surface	
Green River	1,538'	
Birds Nest	1,823'	Water
Mahogany	2,180'	Water
Wasatch	4,745'	Gas
Mesaverde	7,263'	Gas
MVU2	8,232'	Gas
MVL1	8,733'	Gas
TVD	9,480'	
TD	9,532'	

3. Pressure Control Equipment (Schematic Attached)

Please refer to the attached Drilling Program.

4. Proposed Casing & Cementing Program:

Please refer to the attached Drilling Program.

5. Drilling Fluids Program:

Please refer to the attached Drilling Program.

6. Evaluation Program:

Please refer to the attached Drilling Program.

'APIWellNo:43047511950000'

7. Abnormal Conditions:

Maximum anticipated bottomhole pressure calculated at 9,480' TVD, approximately equals 5,808 psi (calculated at 0.61 psi/foot).

Maximum anticipated surface pressure equals approximately 3,722 psi (bottomhole pressure minus the pressure of a partially evacuated hole calculated at 0.22 psi/foot).

8. Anticipated Starting Dates:

Drilling is planned to commence immediately upon approval of this application.

9. Variances:

Please refer to the attached Drilling Program.
Onshore Order #2 – Air Drilling Variance

Kerr-McGee Oil & Gas Onshore LP (KMG) respectfully requests a variance to several requirements associated with air drilling outlined in Onshore Order 2

- *Blowout Prevention Equipment (BOPE) requirements;*
- *Mud program requirements; and*
- *Special drilling operation (surface equipment placement) requirements associated with air drilling.*

This Standard Operating Practices addendum provides supporting information as to why KMG current air drilling practices for constructing the surface casing hole should be granted a variance to Onshore Order 2 air drilling requirements.

The reader should note that the air rig is used only to construct a stable surface casing hole through a historically difficult lost circulation zone. A conventional rotary rig follows the air rig, and is used to drill and construct the majority of the wellbore.

More notable, KMG has used the air rig layout and procedures outlined below to drill the surface casing hole in approximately 675 wells without incident of blow out or loss of life.

Background
In a typical well, KMG utilizes an air rig for drilling the surface casing hole, an interval from the surface to surface casing depths, which varies in depth from 1,700 to 2,800 feet. The air rig drilling operation does not drill through productive or over pressured formations in KMG field, but does penetrate the Uinta and Green River Formations. The purpose of the air drilling operation is to overcome the severe loss circulation zone in the Green River known as the Bird's Nest while creating a stable hole for the surface casing. The surface casing hole is generally drilled to approximately 500 feet below the Bird's Nest.

'APIWellNo:43047511950000'

Before the surface air rig is mobilized, a rathole rig is utilized to set and cement conductor pipe through a competent surface formation. Generally, the conductor is set at 40 feet. In some cases, conductor may be set deeper in areas that the surface formation is not found competent. This rig also drills the rat and mouse holes in preparation for the surface casing and production string drilling operations.

The air rig is then mobilized to drill the surface casing hole by drilling a 12-1/4 inch hole to just above the Bird's Nest interval with an air hammer. The hammer is then tripped and replaced with a 12-1/4 inch tri-cone bit. The tri-cone bit is used to drill to the surface casing point, approximately 500 feet below the loss circulation zone (Bird's Nest). The 9-5/8 inch surface casing is then run and cemented in place, thereby isolating the lost circulation zone.

KMG fully appreciates Onshore Order 2 well control and safety requirements associated with a typical air drilling operations. However, the requirements of Onshore Order 2 are excessive with respect to the air rig layout and drilling operation procedures that are currently in practice to drill and control the surface casing hole in KMG Fields.

Variance for BOPE Requirements
The air rig operation utilizes a properly lubricated and maintained air bowl diverter system which diverts the drilling returns to a six-inch blooie line. The air bowl is the only piece of BOPE equipment which is installed during drilling operations and is sufficient to contain the air returns associated with this drilling operation. As was discussed earlier, the drilling of the surface hole does not encounter any over pressured or productive zones, and as a result standard BOPE equipment should not be required. In addition, standard drilling practices do not support the use of BOPE on 40 feet of conductor pipe.

Variance for Mud Material Requirements
Onshore Order 2 also states that sufficient quantities of mud materials shall be maintained or readily accessible for the purpose of assuring adequate well control. Once again, the surface hole drilling operations does not encounter over pressured or productive intervals, and as a result there is not a need to control pressure in the surface hole with a mud system. Instead of mud, the air rigs utilize water from the reserve pit for well control, if necessary. A skid pump which is located near the reserve pit (see attachment) will supply the water to the well bore.

Variance for Special Drilling Operation (surface equipment placement) Requirements
Onshore Order 2 requires specific safety distances or setbacks for the placement of associated standard air drilling equipment, wellbore, and reserve pits. The air rigs used to drill the surface holes are not typical of an air rig used to drill a producing hole in other parts of the US. These are smaller in nature and designed to fit a KMG location. The typical air rig layout for drilling surface hole in the field is attached.

Typically the blooie line discharge point is required to be 100 feet from the well bore. In the case of a KMG well, the reserve pit is only 45 feet from the rig and is used for the drill cuttings. The blooie line, which transports the drill cuttings from the well to the reserve pit, subsequently discharges only 45 feet from the well bore.

'APIWellNo:43047511950000'

Typically the air rig compressors are required to be located in the opposite direction from the blooie line and a minimum of 100 feet from the well bore. At the KMG locations, the air rig compressors are approximately 40 feet from the well bore and approximately 60 feet from the blooie line discharge due to the unique air rig design. The air compressors (see attachment) are located on the rig (1250 cfm) and on a standby trailer (1170 cfm). A booster sits between the two compressors and boosts the output from 350 psi to 2000 psi. The design does put the booster and standby compressor opposite from the blooie line.

Lastly, Onshore Order 2 addresses the need for an automatic igniter or continuous pilot light on the blooie line. The air rig does not utilize an igniter as the surface hole drilling operation does not encounter productive formations.

Conclusion
The air rig operating procedures and the attached air rig layout have effectively maintained well control while drilling the surface holes in KMG Fields. KMG respectfully requests a variance from Onshore Order 2 with respect to air drilling well control requirements as discussed above.

10. Other Information:

Please refer to the attached Drilling Program.

'APIWellNo:43047511950000'

KERR-McGEE OIL & GAS ONSHORE LP

DRILLING PROGRAM

COMPANY NAME	KERR-McGEE OIL & GAS ONSHORE LP	DATE	July 28, 2010
WELL NAME	**NBU 922-29G1DS**	TD	9,480' TVD 9,532' MD
FIELD	Natural Buttes	COUNTY Uintah	STATE Utah
		FINISHED ELEVATION	5,029'
SURFACE LOCATION	SW/4 NE/4 1,872' FNL 1,970' FEL Sec 29 T 9S R 22E		
	Latitude: 40.009167 Longitude: -109.460783 NAD 27		
BTM HOLE LOCATION	SW/4 NE/4 1,832' FNL 1,462' FEL Sec 29 T 9S R 22E		
	Latitude: 40.009277 Longitude: -109.458971 NAD 27		
OBJECTIVE ZONE(S)	Wasatch/Mesaverde		
ADDITIONAL INFO	Regulatory Agencies: UDOGM (Minerals), UDOGM (Surface), UDOGM Tri-County Health Dept.		

GEOLOGICAL			MECHANICAL		
LOGS	FORMATION TOPS	DEPTH	HOLE SIZE	CASING SIZE	MUD WEIGHT
		40'	14"		
			11"	8-5/8", 28#, IJ-55, LTC	Air mist
All water flows encountered while drilling will be reported to the appropriate agencies.					
	Green River @	**1,538'**			
	Top of Birds Nest @	**1,823'**			
	Mahogany @	**2,180'**			
	Preset f/ GL @	**2,430' MD**			
	Note: 11" surface hole will usually be drilled ±400' below the lost circulation zone (aka bird's nest). Drilled depth may be ±200' of the estimated set depth depending on the acutal depth of the loss zone.				
	Wasatch @	**4,745'**			
Mud logging program TBD Cased hole logging program from TD - surf csg			7-7/8"	4-1/2" 11.6# I-80 or equivalent BTC csg	Water / Fresh Water Mud 8.3-12.0 ppg
	Mverde @	**7,263' TVD**			
	MVU2 @	**8,232' TVD**			
	MVU1 @	**8,733' TVD**			
Max anticipated Mud required 12.0 ppg	**TD @**	**9,480' TVD** **9,532' MD**			

'APIWellNo:43047511950000'

KERR-McGEE OIL & GAS ONSHORE LP

DRILLING PROGRAM

CASING PROGRAM

	SIZE	INTERVAL			WT.	GR.	CPLG.	DESIGN FACTORS BURST	COLLAPSE	TENSION
CONDUCTOR	14"	0-40'								
								3,390	1,880	348,000
SURFACE	8-5/8"	0	to	2,430	28.00	IJ-55	LTC	0.88	1.65	5.06
								7,780	6,350	278,000
PRODUCTION	4-1/2"	0	to	9,532	11.60	I-80	BTC	2.03	1.07	2.88

*Burst on suface casing is controlled by fracture gradient as shoe with gas gradient above. D.F. = 2.21

1) Max Anticipated Surf. Press.(MASP) (Surface Casing) = (Pore Pressure at next csg point-(0.22 psi/ft-partial evac gradient x TVD of next csg point))

2) MASP (Prod Casing) = Pore Pressure at TD - (0.22 psi/ft-partial evac gradient x TD)
(Burst Assumptions: TD = 12.0 ppg) 0.22 psi/ft = gradient for partially evac wellbore
(Collapse Assumption: Fully Evacuated Casing, Max MW) (Tension Assumptions: Air Weight of Casing*Buoy.Fact. of water)
MASP 3,722 psi

3) Maximum Anticipated Bottom Hole Pressure (MABHP) = Pore Pressure at TD
(Burst Assumptions: TD = 12.0 ppg) 0.61 psi/ft = bottomhole gradient
(Collapse Assumption: Fully Evacuated Casing, Max MW) (Tension Assumptions: Air Weight of Casing*Buoy.Fact. of water)
MABHP 5,808 psi

CEMENT PROGRAM

		FT. OF FILL	DESCRIPTION	SACKS	EXCESS	WEIGHT	YIELD
SURFACE	LEAD	500'	Premium cmt + 2% CaCl	180	60%	15.80	1.15
Option 1			+ 0.25 pps flocele				
	TOP OUT CMT (6 jobs)	1,200'	20 gals sodium silicate + Premium cmt	270	0%	15.80	1.15
			+ 2% CaCl + 0.25 pps flocele				
SURFACE		**NOTE: If well will circulate water to surface, option 2 will be utilized**					
Option 2	LEAD	1,930'	65/35 Poz + 6% Gel + 10 pps gilsonite	180	35%	11.00	3.82
			+ 0.25 pps Flocele + 3% salt BWOW				
	TAIL	500'	Premium cmt + 2% CaCl	150	35%	15.80	1.15
			+ 0.25 pps flocele				
	TOP OUT CMT	as required	Premium cmt + 2% CaCl	as req.		15.80	1.15
PRODUCTION	LEAD	4,242'	Premium Lite II +0.25 pps	310	10%	11.00	3.38
			celloflake + 5 pps gilsonite + 10% gel				
			+ 0.5% extender				
	TAIL	5,290'	50/50 Poz/G + 10% salt + 2% gel	1,020	10%	14.30	1.31
			+ 0.1% R-3				

*Substitute caliper hole volume plus 0% excess for LEAD if accurate caliper is obtained
*Substitute caliper hole volume plus 10% excess for TAIL if accurate caliper is obtained

FLOAT EQUIPMENT & CENTRALIZERS

SURFACE	Guide shoe, 1 jt, insert float. Centralize first 3 joints with bow spring centralizers. Thread lock guide shoe
PRODUCTION	Float shoe, 1 jt, float collar. No centralizers will be used.

ADDITIONAL INFORMATION

Test casing head to 750 psi after installing. Test surface casing to 1,500 psi prior to drilling out.

BOPE: 11" 5M with one annular and 2 rams. The BOPE will be installed before the production hole is drilled and tested to 5,000 psi (annular to 2,500 psi) prior to drilling out the surface casing shoe. Record on chart recorder and tour sheet. Function test rams on each trip. Maintain safety valve and inside BOP on rig floor at all times. Most rigs have top drives; however, if used, the Kelly is to be equipped with upper and lower kelly valves.

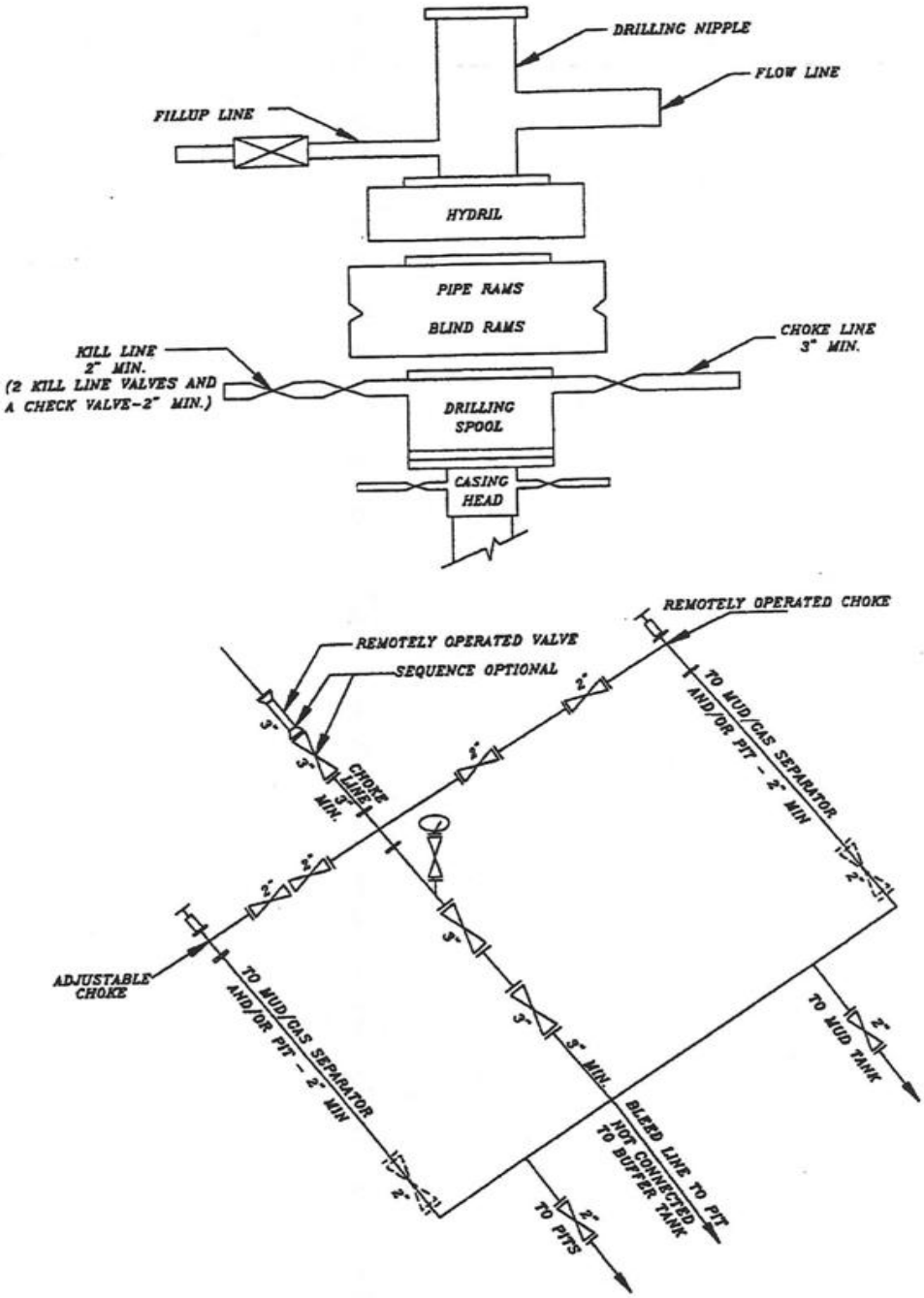
Surveys will be taken at 1,000' minimum intervals.

Most rigs have PVT System for mud monitoring. If no PVT is available, visual monitoring will be utilized.

DRILLING ENGINEER: _____ **DATE:** _____
John Huycke / Emile Goodwin

DRILLING SUPERINTENDENT: _____ **DATE:** _____
John Merkel / Lovel Young

EXHIBIT A
NBU 922-29G1DS



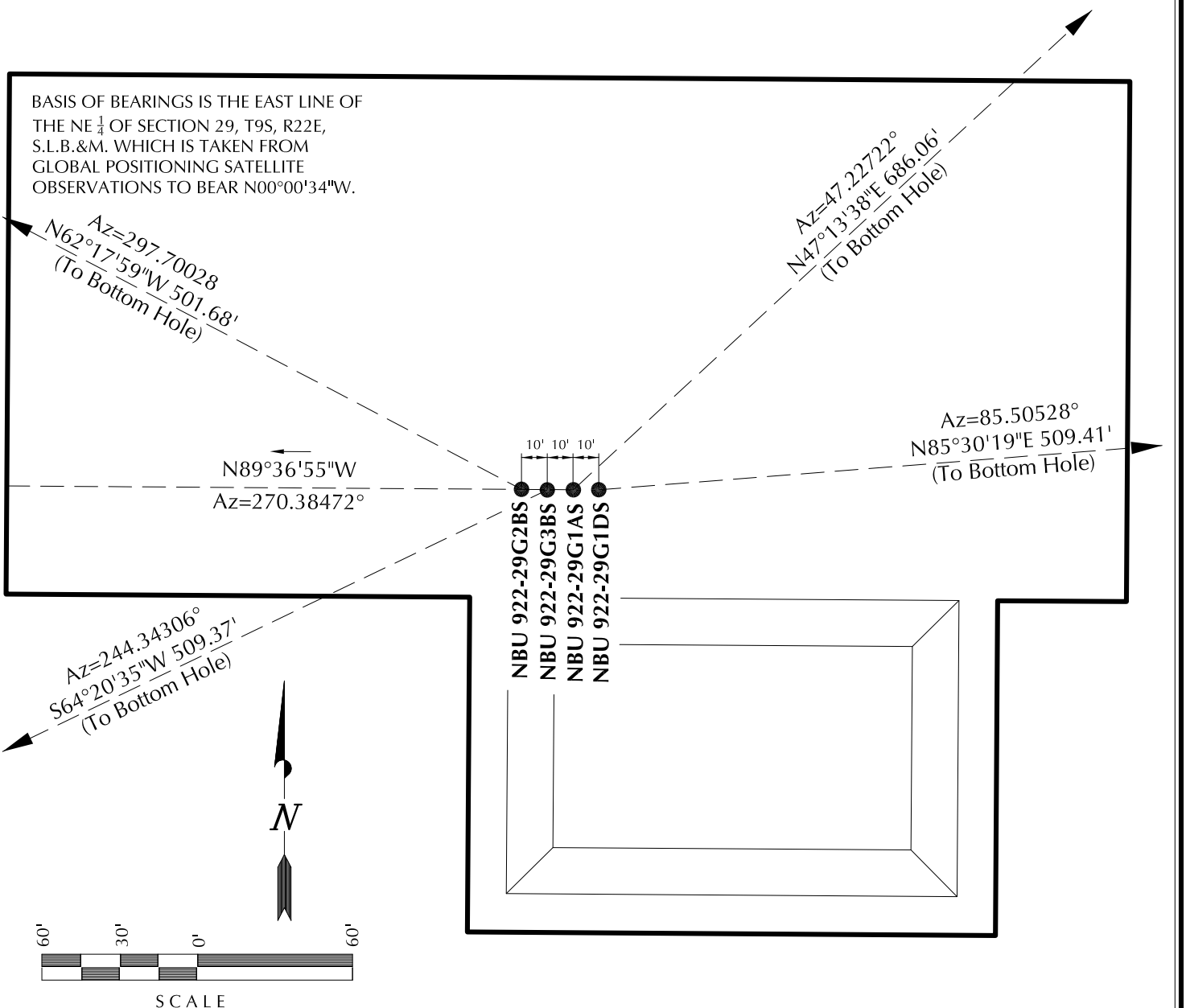
SCHEMATIC DIAGRAM OF 5,000 PSI BOP STACK

'APIWellNo:43047511950000'

WELL NAME	SURFACE POSITION					BOTTOM HOLE				
	NAD83		NAD27			NAD83		NAD27		
	LATITUDE	LONGITUDE	LATITUDE	LONGITUDE	FOOTAGES	LATITUDE	LONGITUDE	LATITUDE	LONGITUDE	FOOTAGES
NBU 922-29G2BS	40°00'32.878" 40.009133°	109°27'41.670" 109.461575°	40°00'33.004" 40.009168°	109°27'39.205" 109.460890°	1872' FNL 2000' FEL	40°00'35.183" 40.009773°	109°27'47.377" 109.463160°	40°00'35.308" 40.009808°	109°27'44.911" 109.462475°	1639' FNL 2444' FEL
NBU 922-29G3BS	40°00'32.876" 40.009132°	109°27'41.541" 109.461539°	40°00'33.002" 40.009167°	109°27'39.076" 109.460854°	1872' FNL 1990' FEL	40°00'30.697" 40.008527°	109°27'47.440" 109.463178°	40°00'30.823" 40.008562°	109°27'44.975" 109.462493°	2093' FNL 2449' FEL
NBU 922-29G1AS	40°00'32.877" 40.009132°	109°27'41.411" 109.461503°	40°00'33.003" 40.009167°	109°27'38.946" 109.460818°	1872' FNL 1980' FEL	40°00'37.480" 40.010411°	109°27'34.940" 109.459706°	40°00'37.605" 40.010446°	109°27'32.475" 109.459021°	1406' FNL 1476' FEL
NBU 922-29G1DS	40°00'32.876" 40.009132°	109°27'41.284" 109.461468°	40°00'33.002" 40.009167°	109°27'38.819" 109.460783°	1872' FNL 1970' FEL	40°00'33.271" 40.009242°	109°27'34.760" 109.459655°	40°00'33.396" 40.009277°	109°27'32.295" 109.458971°	1832' FNL 1462' FEL

RELATIVE COORDINATES - From Surface Position to Bottom Hole

WELL NAME	NORTH	EAST	WELL NAME	NORTH	EAST	WELL NAME	NORTH	EAST	WELL NAME	NORTH	EAST
NBU 922-29G2BS	233.2'	-444.2'	NBU 922-29G3BS	-220.5'	-459.1'	NBU 922-29G1AS	465.9'	503.6'	NBU 922-29G1DS	39.9'	507.8'



Kerr-McGee Oil & Gas Onshore, LP
1099 18th Street - Denver, Colorado 80202

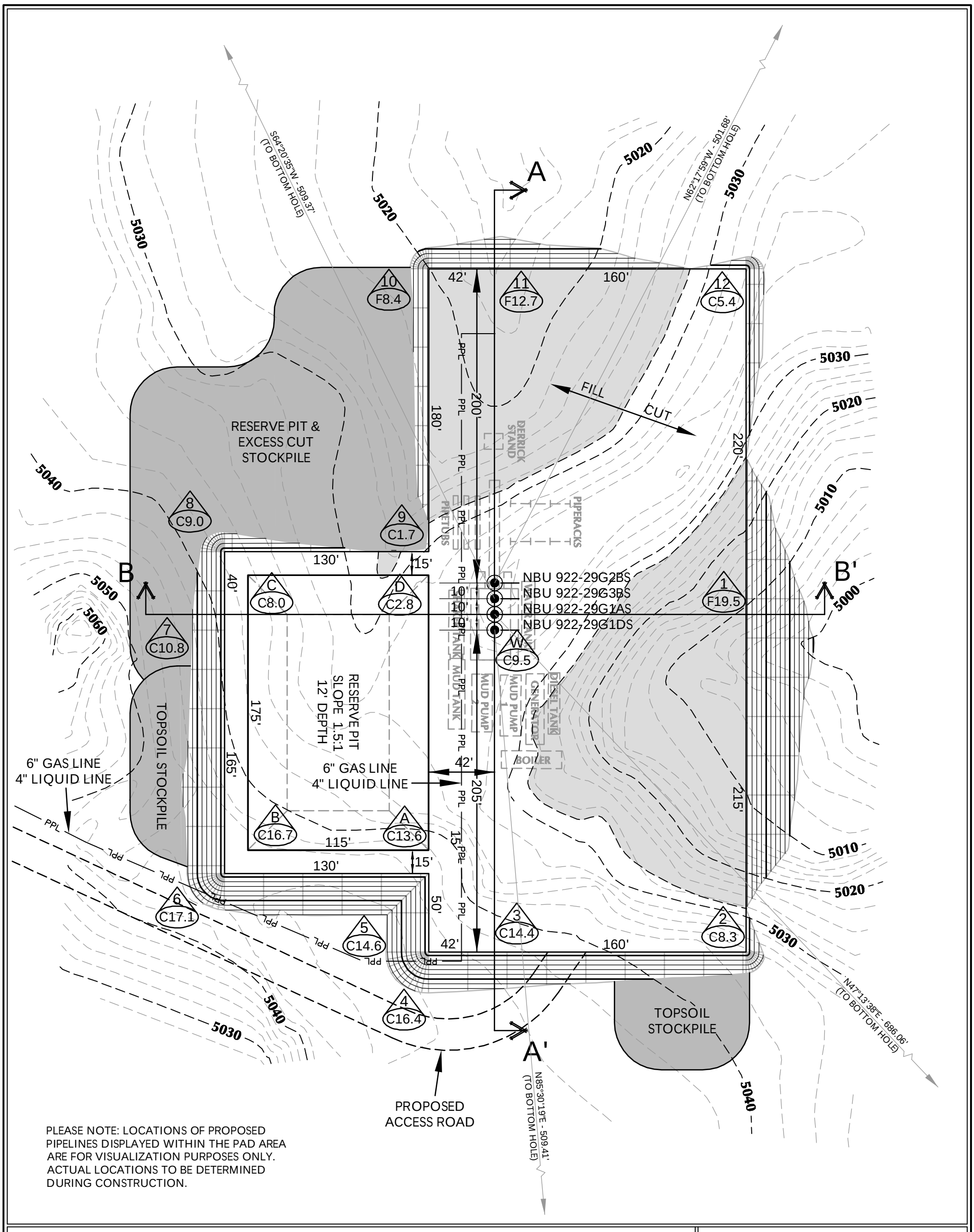
WELL PAD - NBU 922-29G

WELL PAD INTERFERENCE PLAT
WELLS - NBU 922-29G2BS, NBU 922-29G3BS, NBU 922-29G1AS & NBU 922-29G1DS
LOCATED IN SECTION 29, T9S, R22E, S.L.B.&M., UINTAH COUNTY, UTAH.

609 CONSULTING, LLC
371 Coffeen Avenue
Sheridan WY 82801
Phone 307-674-0609
Fax 307-674-0182

TIMBERLINE (435) 789-1365
ENGINEERING & LAND SURVEYING, INC.
209 NORTH 300 WEST - VERNAL, UTAH 84078

DATE SURVEYED: 03-31-10	SURVEYED BY: M.S.B.	SHEET NO:
DATE DRAWN: 04-01-10	DRAWN BY: M.P.D.	5
SCALE: 1" = 60'	Date Last Revised:	5 OF 16



PLEASE NOTE: LOCATIONS OF PROPOSED PIPELINES DISPLAYED WITHIN THE PAD AREA ARE FOR VISUALIZATION PURPOSES ONLY. ACTUAL LOCATIONS TO BE DETERMINED DURING CONSTRUCTION.

WELL PAD - NBU 922-29G DESIGN SUMMARY

EXISTING GRADE @ CENTER OF WELL PAD = 5038.0'
FINISHED GRADE ELEVATION = 5028.5'
CUT SLOPES = 1.5:1
FILL SLOPES = 1.5:1
TOTAL WELL PAD AREA = 3.26 ACRES
TOTAL DAMAGE AREA = 5.80 ACRES
SHRINKAGE FACTOR = 1.10
SWELL FACTOR = 1.00

WELL PAD QUANTITIES

TOTAL CUT FOR WELL PAD = 19,230 C.Y.
TOTAL FILL FOR WELL PAD = 18,715 C.Y.
TOPSOIL @ 6" DEPTH = 2,627 C.Y.
EXCESS MATERIAL = 515 C.Y.

RESERVE PIT QUANTITIES

TOTAL CUT FOR RESERVE PIT
+/- 6,820 CY
RESERVE PIT CAPACITY (2' OF FREEBOARD)
+/- 25,930 BARRELS

WELL PAD LEGEND

- EXISTING WELL LOCATION
- PROPOSED WELL LOCATION
- PROPOSED BOTTOM HOLE LOCATION
- EXISTING CONTOURS (2' INTERVAL)
- PROPOSED CONTOURS (2' INTERVAL)
- PPL — PROPOSED PIPELINE
- EPL — EXISTING PIPELINE

HORIZONTAL 0 30 60 1" = 60'
2' CONTOURS

Kerr-McGee Oil & Gas Onshore, LP
1099 18th Street - Denver, Colorado 80202

WELL PAD - NBU 922-29G

WELL PAD - LOCATION LAYOUT
NBU 922-29G2BS, NBU 922-29G3BS,
NBU 922-29G1AS & NBU 922-29G1DS
LOCATED IN SECTION 29, T9S, R22E,
S.L.B.&M., UINTAH COUNTY, UTAH

609 CONSULTING, LLC
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Sheridan, WY 82801
Phone 307-674-0609
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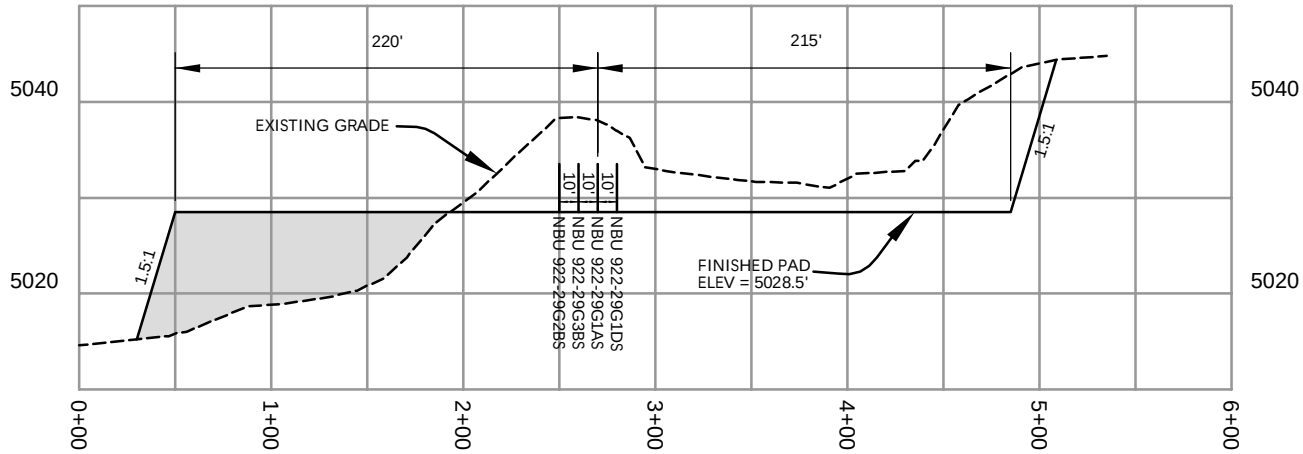
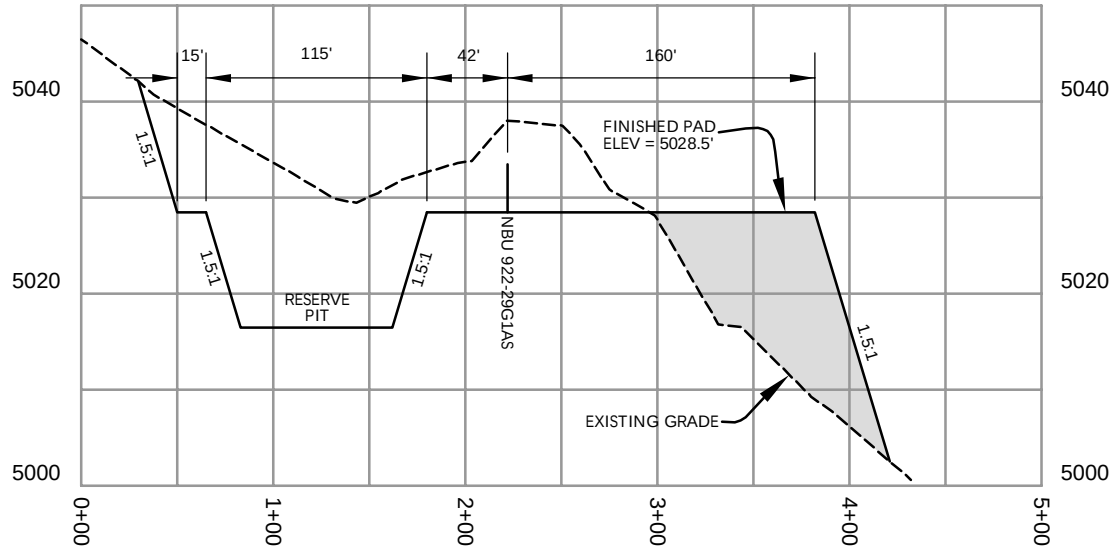
TIMBERLINE (435) 789-1365
ENGINEERING & LAND SURVEYING, INC.
209 NORTH 300 WEST - VERNAL, UTAH 84078

Scale: 1"=60'	Date: 4/23/10	SHEET NO:
REVISED:	TAR 7/9/10	6

K:\ANADARKO\2010_35_NBU_FOCUS_SEC_922-29\DWG\NBU 922-29G\922-29G.dwg, 7/12/2010 4:52:45 PM, PDF-XChange for AcroPlot Pro



CROSS SECTION A-A'



CROSS SECTION B-B'

Kerr-McGee Oil & Gas Onshore, LP
1099 18th Street - Denver, Colorado 80202

WELL PAD - NBU 922-29G

WELL PAD - CROSS SECTIONS
NBU 922-29G2BS, NBU 922-29G3BS,
NBU 922-29G1AS & NBU 922-29G1DS
LOCATED IN SECTION 29, T9S, R22E,
S.L.B.&M., UINTAH COUNTY, UTAH

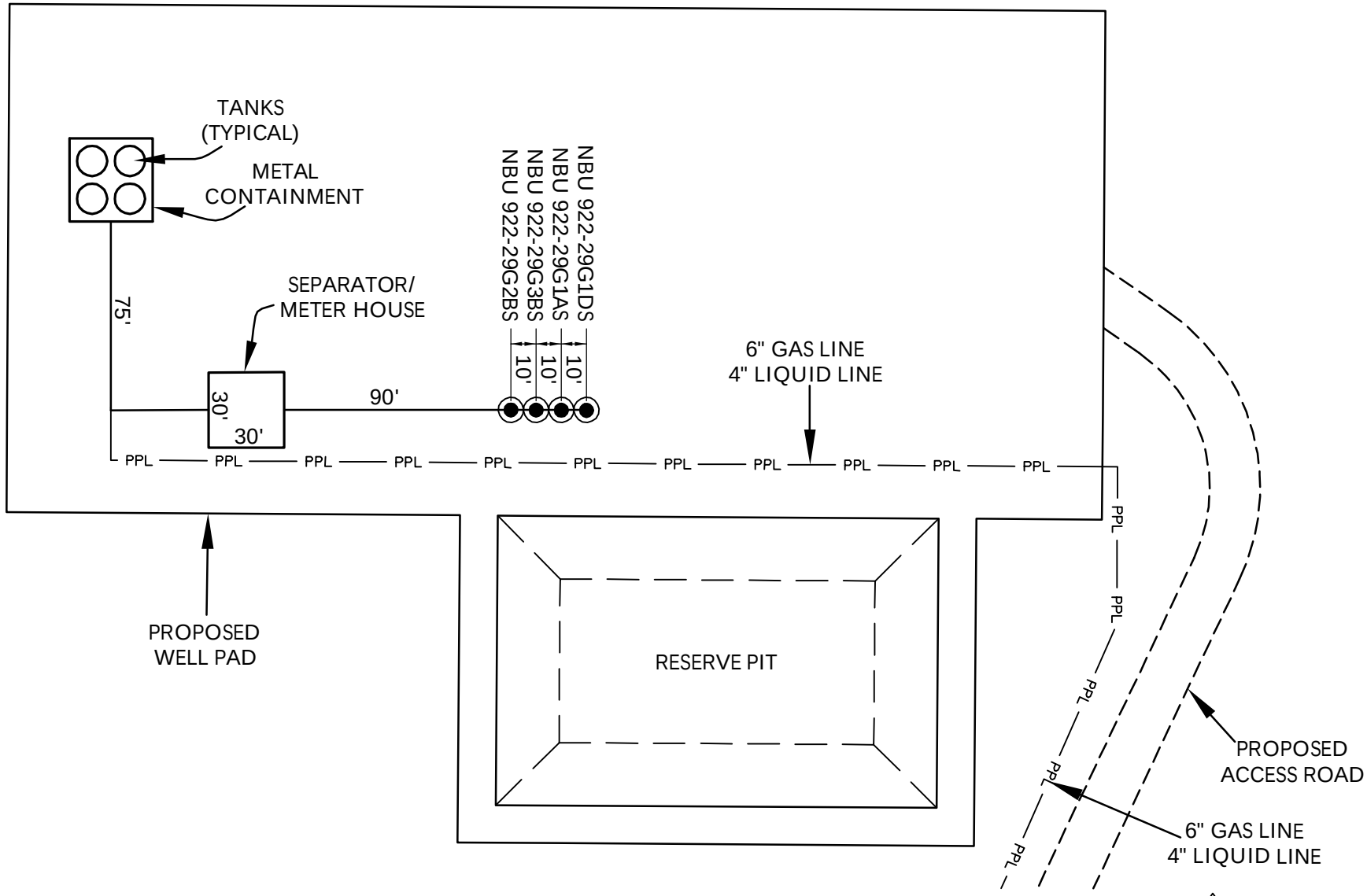
609
CONSULTING, LLC
371 Coffeen Avenue
Sheridan, WY 82801
Phone 307-674-0609
Fax 307-674-0182

HORIZONTAL 0 50 100 1" = 100'
VERTICAL 0 10 20 1" = 20'

TIMBERLINE (435) 789-1365
ENGINEERING & LAND SURVEYING, INC.
209 NORTH 300 WEST - VERNAL, UTAH 84078

Scale: 1"=100' | Date: 4/23/10 | SHEET NO: 7
REVISED: TAR 7/9/10
7 OF 16

'API WellNo:43047511950000'
K:\ANADARKO\2010_35_NBU_FOCUS_SEC_922-29\DWG\NBU 922-29G\922-29G.dwg, 7/12/2010 4:53:08 PM, PDF-XChange for AcroPlot Pro



Kerr-McGee Oil & Gas Onshore, LP
1099 18th Street - Denver, Colorado 80202

WELL PAD - NBU 922-29G

WELL PAD - FACILITIES DIAGRAM
NBU 922-29G2BS, NBU 922-29G3BS,
NBU 922-29G1AS & NBU 922-29G1DS
LOCATED IN SECTION 29, T9S, R22E,
S.L.B.&M., UINTAH COUNTY, UTAH

609
CONSULTING, LLC
371 Coffeen Avenue
Sheridan, WY 82801
Phone 307-674-0609
Fax 307-674-0182

WELL PAD LEGEND

- EXISTING WELL LOCATION
- PROPOSED WELL LOCATION
- PPL — PROPOSED PIPELINE
- EPL — EXISTING PIPELINE

HORIZONTAL 0 30' 60' 1" = 60'

TIMBERLINE (435) 789-1365
ENGINEERING & LAND SURVEYING, INC.
209 NORTH 300 WEST - VERNAL, UTAH 84078

Scale: 1"=60'	Date: 4/23/10	SHEET NO:
REVISED:	TAR 7/9/10	8 8 OF 16

API WellNo:43047511950000'
K:\ANADARKO\2010_35_NBU_FOCUS_SEC_922-29\DWG\NBU 922-29G\922-29G.dwg, 7/12/2010 4:53:43 PM, PDF-XChange for AcroPlot Pro

'APIWellNo:43047511950000'

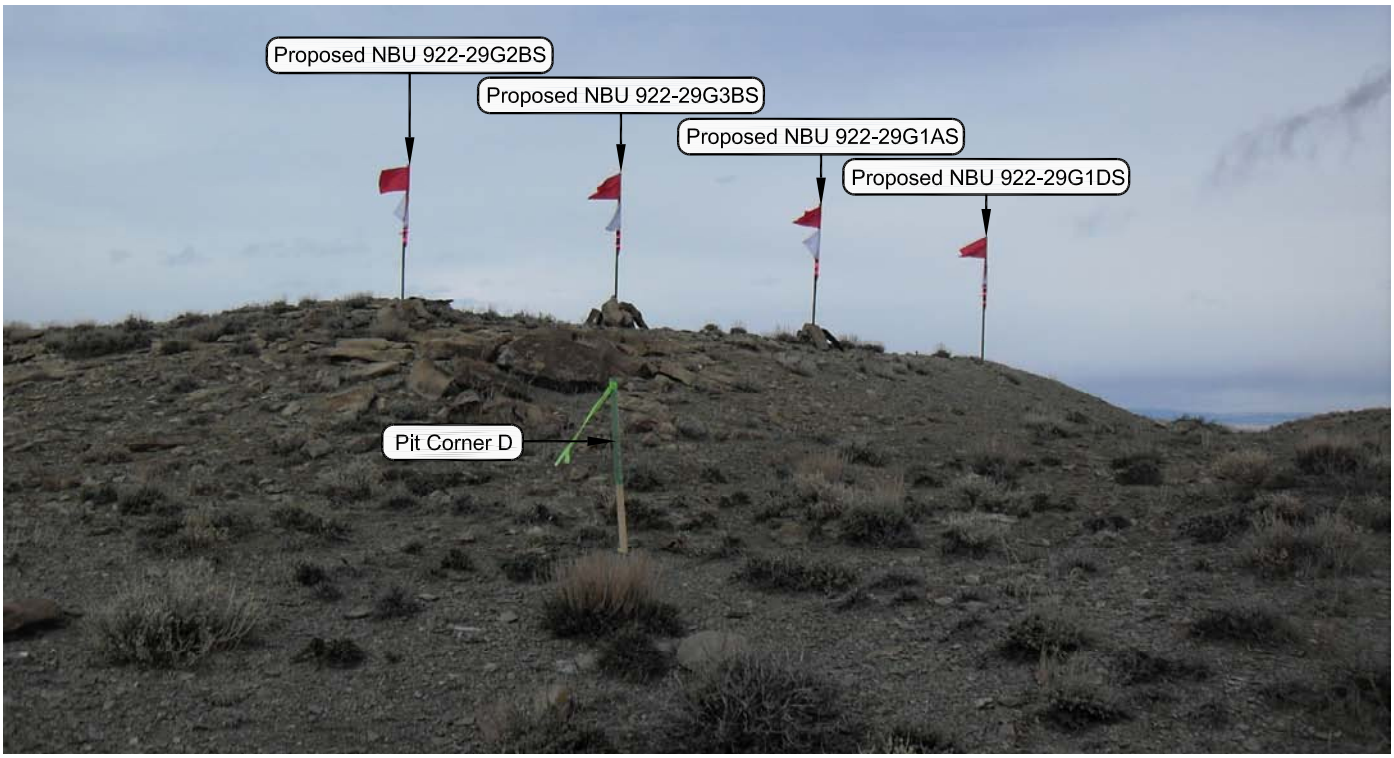


PHOTO VIEW: FROM PIT CORNER D TO LOCATION STAKE **CAMERA ANGLE: NORTHERLY**

PHOTO VIEW: FROM BEGINNING OF PROPOSED ROAD **CAMERA ANGLE: SOUTHWESTERLY**

Kerr-McGee Oil & Gas Onshore, LP
1099 18th Street - Denver, Colorado 80202

Well Pad - NBU 922-29G

NBU 922-29G2BS, NBU 922-29G3BS, NBU 922-29G1AS & NBU 922-29G1DS LOCATION PHOTOS LOCATED IN SECTION 29, T9S, R22E, S.L.B.&M., UINTAH COUNTY, UTAH.

609 CONSULTING, LLC
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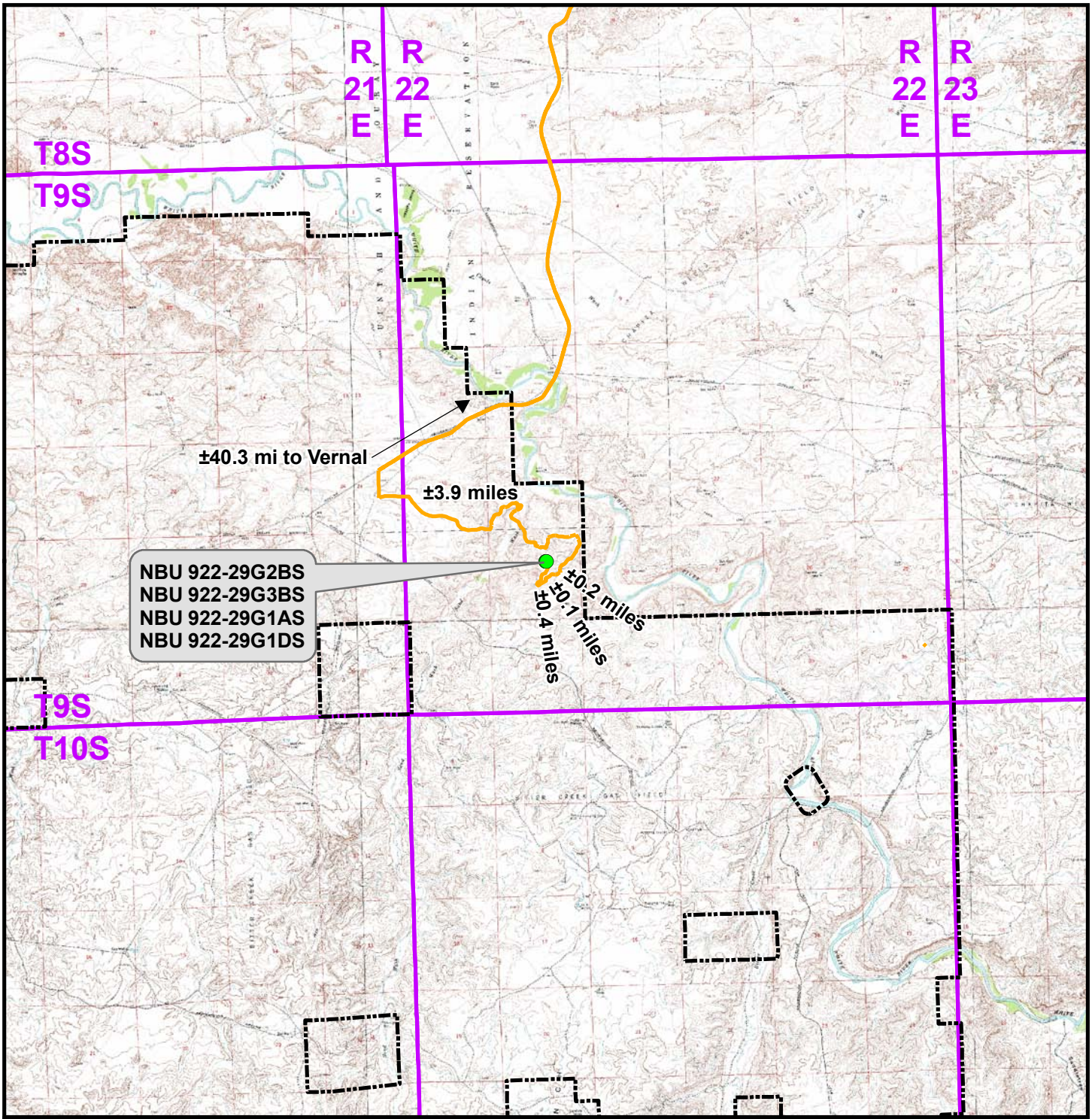
Sheridan WY 82801
Phone 307-674-0609
Fax 307-674-0182

TIMBERLINE (435) 789-1365
ENGINEERING & LAND SURVEYING, INC.
209 NORTH 300 WEST - VERNAL, UTAH 84078

DATE PHOTOS TAKEN: 03-31-10	PHOTOS TAKEN BY: M.S.B.	SHEET NO:
DATE DRAWN: 04-01-10	DRAWN BY: M.P.D.	9
Date Last Revised:		9 OF 16

'APIWellNo:43047511950000'



Legend

Distance From Well Pad - NBU 922-29G To Unit Boundary: ±1,970ft

- Proposed Well Location
- Natural Buttes Unit Boundary
- Access Route - Proposed

Kerr-McGee Oil & Gas Onshore, LP
1099 18th Street, Denver, Colorado 80202

WELL PAD - NBU 922-29G

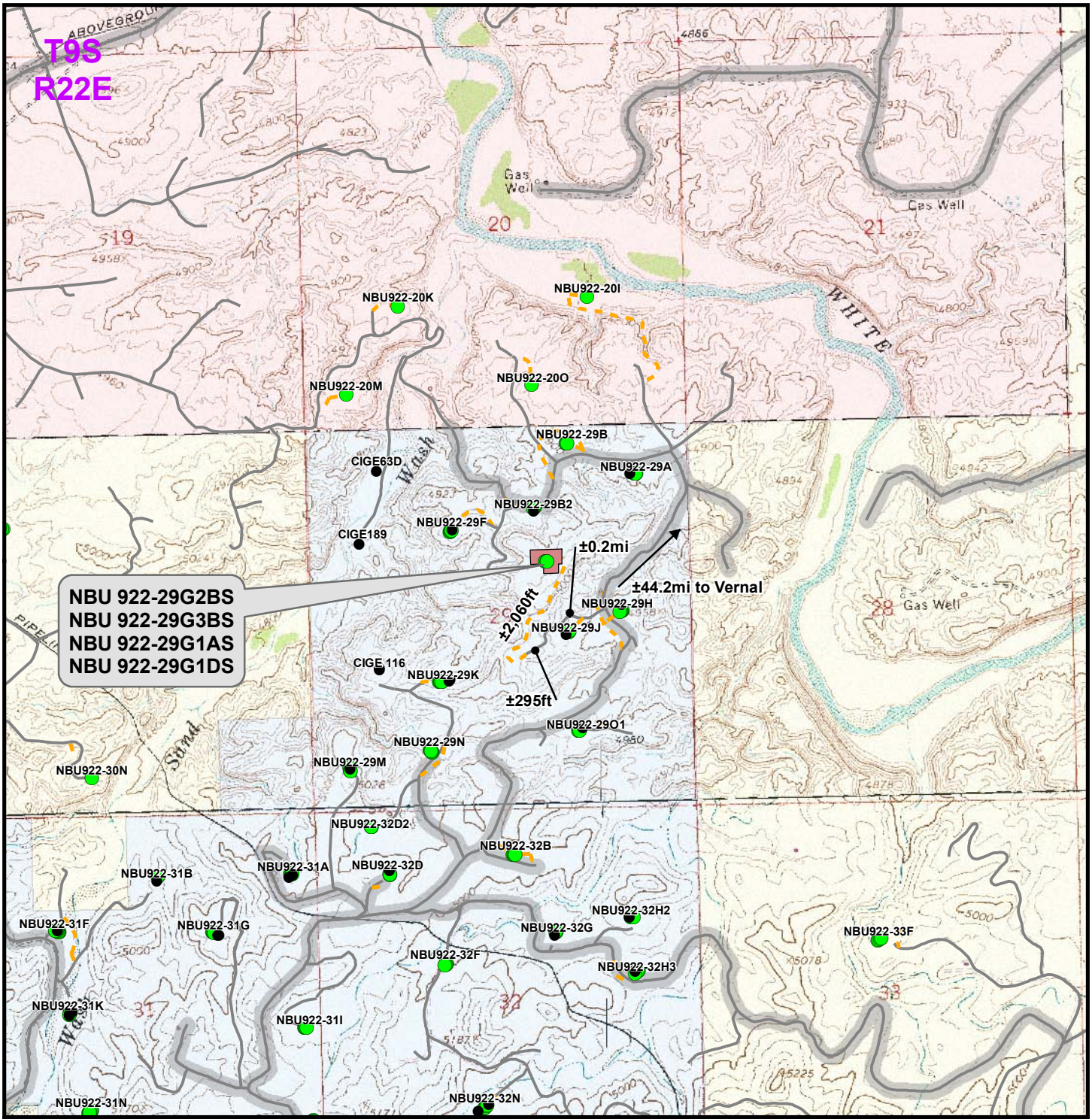
TOPO A
NBU 922-29G2BS, NBU 922-29G3BS, NBU 922-29G1AS & NBU 922-29G1DS
LOCATED IN SECTION 29, T9S, R22E
S.L.B.&M., UINTAH COUNTY, UTAH

609 CONSULTING, LLC
371 Coffeen Avenue
Sheridan, WY 82801
Phone (307) 674-0609
Fax (307) 674-0182

N

Scale: 1:100,000	NAD83 USP Central		Sheet No: 10
Drawn: CPS	Date: 30 Apr 2010		
Revised: CPS	Date: 9 July 2010		

'APIWellNo:43047511950000'



Legend

Total Proposed Road Length: ±2,060ft

- Well - Proposed
- Well - Existing
- Well Pad
- Road - Proposed
- Road - Existing
- County Road
- Bureau of Land Management
- Indian Reservation
- State
- Private

Kerr-McGee Oil & Gas Onshore, LP
1099 18th Street, Denver, Colorado 80202

WELL PAD - NBU 922-29G

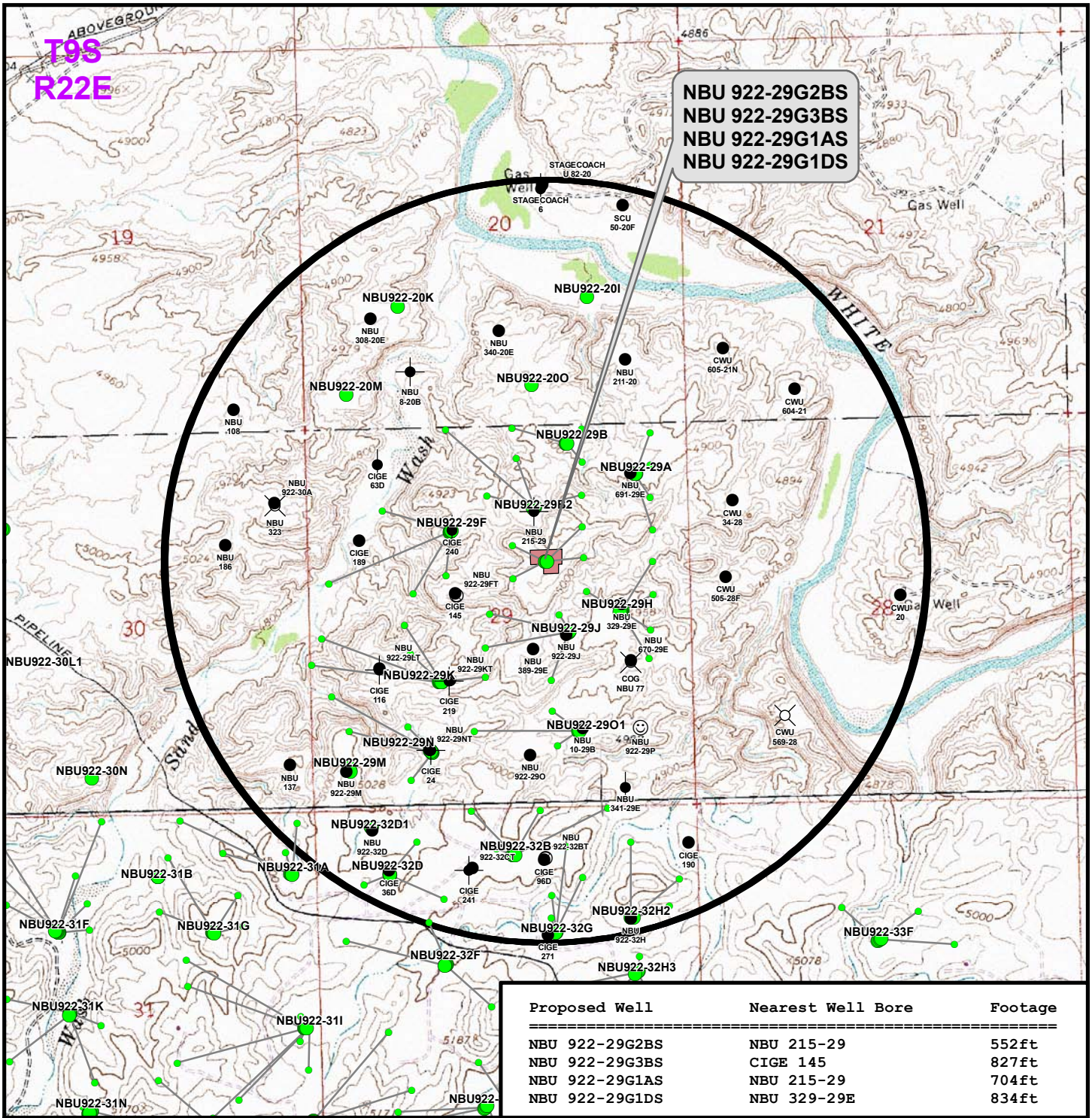
TOPO B
NBU 922-29G2BS, NBU 922-29G3BS,
NBU 922-29G1AS & NBU 922-29G1DS
LOCATED IN SECTION 29, T9S, R22E
S.L.B.&M., UINTAH COUNTY, UTAH

609 CONSULTING, LLC
371 Coffeen Avenue
Sheridan, WY 82801
Phone (307) 674-0609
Fax (307) 674-0182

N

Scale: 1" = 2,000ft	NAD83 USP Central		Sheet No: 11
Drawn: CPS	Date: 30 Apr 2010		11 of 16
Revised: CPS	Date: 9 July 2010		

'APIWellNo:43047511950000'



Proposed Well	Nearest Well Bore	Footage
NBU 922-29G2BS	NBU 215-29	552ft
NBU 922-29G3BS	CIGE 145	827ft
NBU 922-29G1AS	NBU 215-29	704ft
NBU 922-29G1DS	NBU 329-29E	834ft

Legend

Well locations derived from State of Utah, Dept. of Natural Resources, Division of Oil, Gas and Mining

- Well - Proposed
- Bottom Hole - Proposed
- Well Path
- Well Pad
- Well - 1 Mile Radius
- Producing
- Active
- Spudded (Drilling commenced: Not yet completed)
- Approved permit (APD); not yet spudded
- New Permit (Not yet approved or drilled)
- Inactive
- Drilling Operations Suspended
- Temporarily-Abandoned
- Shut-In
- Plugged and Abandoned
- Location Abandoned
- Dry hole marker, buried
- Returned APD (Unapproved)

Kerr-McGee Oil & Gas Onshore, LP
1099 18th Street, Denver, Colorado 80202

WELL PAD - NBU 922-29G

TOPO C
NBU 922-29G2BS, NBU 922-29G3BS, NBU 922-29G1AS & NBU 922-29G1DS
LOCATED IN SECTION 29, T9S, R22E
S.L.B.&M., UINTAH COUNTY, UTAH

609 CONSULTING, LLC
371 Coffeen Avenue
Sheridan, WY 82801
Phone (307) 674-0609
Fax (307) 674-0182

N

Scale: 1" = 2,000ft	NAD83 USP Central		Sheet No: 12
Drawn: CPS	Date: 30 Apr 2010		12 of 16
Revised: CPS	Date: 9 July 2010		

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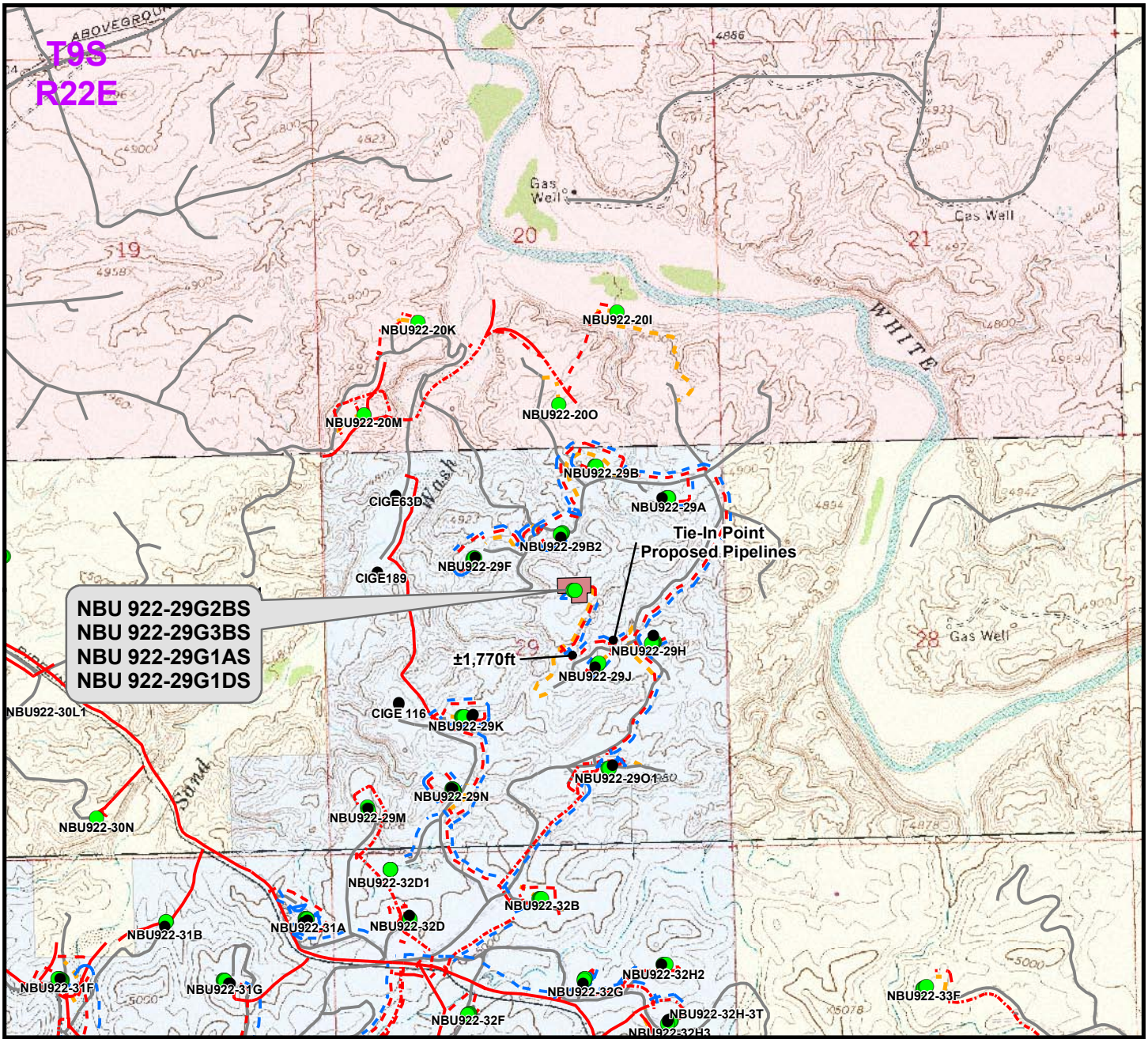


Proposed Liquid Pipeline	Length
Proposed 4" (Meter House to Edge of Pad)	±470ft
Proposed 4" (Edge of Pad to 29J Intersection)	±1,770ft
TOTAL PROPOSED LIQUID PIPELINE =	±2,240ft

Proposed Gas Pipeline	Length
Proposed 6" (Meter House to Edge of Pad)	±470ft
Proposed 6" (Edge of Pad to 29J Intersection)	±1,770ft
TOTAL PROPOSED GAS PIPELINE =	±2,240ft

Legend

- Well - Proposed
- Well - Existing
- Well Pad
- Gas Pipeline - Proposed
- Gas Pipeline - To Be Upgraded
- Gas Pipeline - Existing
- Liquid Pipeline - Proposed
- Liquid Pipeline - To Be Upgraded
- Liquid Pipeline - Existing
- Road - Proposed
- Road - Existing
- Bureau of Land Management
- Indian Reservation
- State
- Private

Kerr-McGee Oil & Gas Onshore, LP
1099 18th Street, Denver, Colorado 80202

WELL PAD - NBU 922-29G

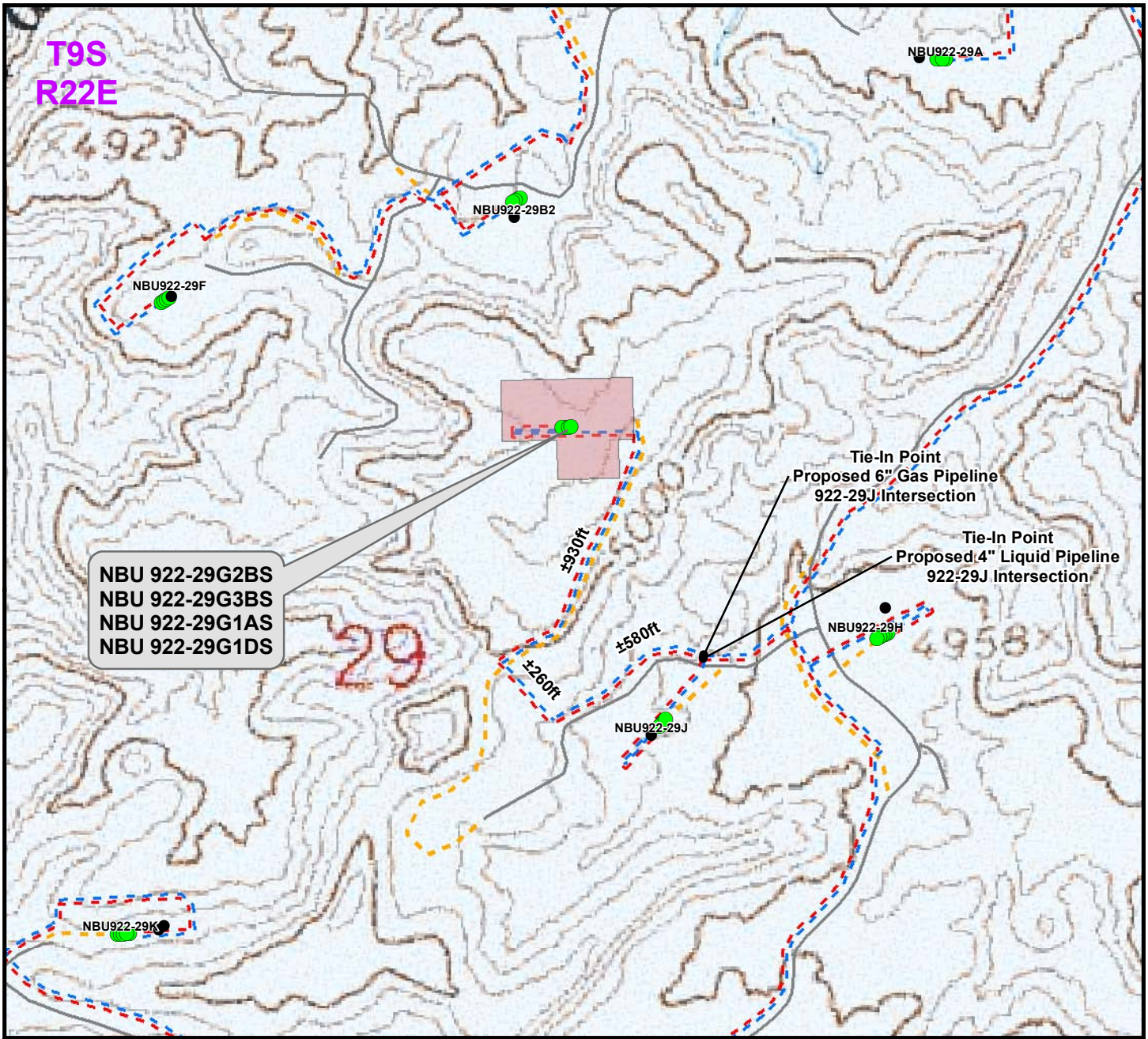
TOPO D
NBU 922-29G2BS, NBU 922-29G3BS, NBU 922-29G1AS & NBU 922-29G1DS
LOCATED IN SECTION 29, T9S, R22E
S.L.B.&M., UINTAH COUNTY, UTAH

609 CONSULTING, LLC
371 Coffeen Avenue
Sheridan, WY 82801
Phone (307) 674-0609
Fax (307) 674-0182

N

Scale: 1" = 2,000ft	NAD83 USP Central		Sheet No: 13
Drawn: CPS	Date: 30 Apr 2010		13 of 16
Revised: CPS	Date: 9 July 2010		

'APIWellNo:43047511950000'



Proposed Liquid Pipeline	Length
Proposed 4" (Meter House to Edge of Pad)	±470ft
Proposed 4" (Edge of Pad to 29J Intersection)	±1,770ft
TOTAL PROPOSED LIQUID PIPELINE =	±2,240ft

Proposed Gas Pipeline	Length
Proposed 6" (Meter House to Edge of Pad)	±470ft
Proposed 6" (Edge of Pad to 29J Intersection)	±1,770ft
TOTAL PROPOSED GAS PIPELINE =	±2,240ft

Legend

- Well - Proposed
- Well - Existing
- Well Pad
- Gas Pipeline - Proposed
- Gas Pipeline - To Be Upgraded
- Gas Pipeline - Existing
- Liquid Pipeline - Proposed
- Liquid Pipeline - To Be Upgraded
- Liquid Pipeline - Existing
- Road - Proposed
- Road - Existing
- Bureau of Land Management
- Indian Reservation
- State
- Private

Kerr-McGee Oil & Gas Onshore, LP
1099 18th Street, Denver, Colorado 80202

WELL PAD - NBU 922-29G

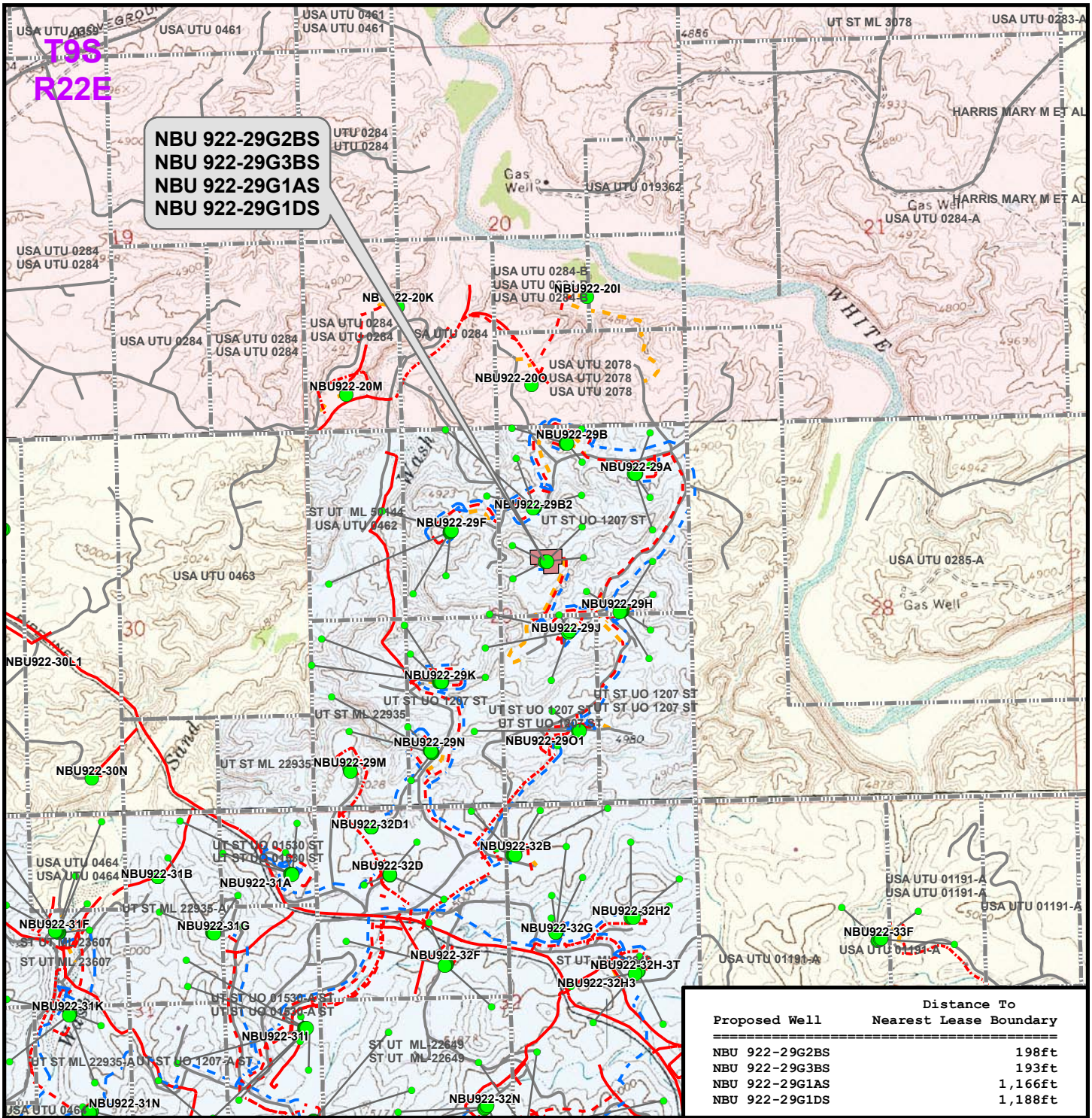
TOPO D2 (PAD & PIPELINE DETAIL)
NBU 922-29G2BS, NBU 922-29G3BS,
NBU 922-29G1AS & NBU 922-29G1DS
LOCATED IN SECTION 29, T9S, R22E
S.L.B.&M., UINTAH COUNTY, UTAH

609 CONSULTING, LLC
371 Coffeen Avenue
Sheridan, WY 82801
Phone (307) 674-0609
Fax (307) 674-0182

N

Scale: 1" = 500ft	NAD83 USP Central		Sheet No: 14
Drawn: CPS	Date: 30 Apr 2010		14 of 16
Revised: CPS	Date: 9 July 2010		

'APIWellNo:43047511950000'



Proposed Well	Distance To Nearest Lease Boundary
NBU 922-29G2BS	198ft
NBU 922-29G3BS	193ft
NBU 922-29G1AS	1,166ft
NBU 922-29G1DS	1,188ft

Legend

- Well - Proposed
- Bottom Hole - Proposed
- Well Path
- Well Pad
- Lease Boundary
- Road - Proposed
- Road - Existing
- Gas Pipeline - Proposed
- Gas Pipeline - To Be Upgraded
- Gas Pipeline - Existing
- Liquid Pipeline - Proposed
- Liquid Pipeline - To Be Upgraded
- Liquid Pipeline - Existing
- Bureau of Land Management
- Indian Reservation
- State
- Private

Kerr-McGee Oil & Gas Onshore, LP
1099 18th Street, Denver, Colorado 80202

WELL PAD - NBU 922-29G

TOPO E
NBU 922-29G2BS, NBU 922-29G3BS, NBU 922-29G1AS & NBU 922-29G1DS
LOCATED IN SECTION 29, T9S, R22E
S.L.B.&M., UINTAH COUNTY, UTAH

609 CONSULTING, LLC
371 Coffeen Avenue
Sheridan, WY 82801
Phone (307) 674-0609
Fax (307) 674-0182

N

Scale: 1" = 2,000ft	NAD83 USP Central		Sheet No: 15
Drawn: CPS	Date: 30 Apr 2010		15 of 16
Revised: CPS	Date: 9 July 2010		

Kerr-McGee Oil & Gas Onshore, LP
WELL PAD – NBU 922-29G
WELLS – NBU 922-29G2BS, NBU 922-29G3BS, NBU 922-29G1AS & NBU 922-29G1DS
Section 29, T9S, R22E, S.L.B.&M.

From the intersection of U.S. Highway 40 and 500 East Street in Vernal, Utah proceed in an easterly then southerly direction along U.S. Highway 40 approximately 3.3 miles to the junction of State Highway 45; exit right and proceed in a southerly direction along State Highway 45 approximately 20.2 miles to the junction of the Glen Bench Road (County B Road 3260). Exit right and proceed in a southwesterly direction along the Glen Bench Road approximately 16.8 miles to a service road to the south. Exit left and proceed in a southerly then southeasterly direction along the service road approximately 3.9 miles to a second service road to the west. Exit right and proceed in a southwesterly direction along the second service road approximately 0.2 miles to the existing NBU 389-29E well pad. Continue through the NBU 389-29E well pad approximately 295 feet to the proposed access road. Follow road flags in a southwesterly then northeasterly direction approximately 2060 feet to the proposed well pad.

Total distance from Vernal, Utah to the proposed well location is approximately 44.9 miles in a southerly direction.

'APIWellNo:43047511950000'

1099 18th Street
Denver, CO 80202
303-296-3600 (main)
303-296-3601 (fax)

ANNA C. CAVALERI
(Direct) 720-929-6029

July 26, 2010

Ms. Diana Mason
Division of Oil, Gas and Mining
P.O. Box 145801
Salt Lake City, UT 84114-6100

Re: Directional Drilling R649-3-11
NBU 922-29G1DS
T9S R22E
Section 29: SWNE (Surface & Bottom Hole)
Surface Footages: 1872' FNL, 1970' FEL
Bottom Hole Footages: 1832' FNL, 1462' FEL
Uintah County, Utah

Dear Ms. Mason:

Pursuant to the filing of Kerr-McGee Oil & Gas Onshore LP's (Kerr-McGee) Application for Permit to Drill regarding the above referenced well, we are hereby submitting this letter in accordance with Oil & Gas Conservation Rule R649-3-11 pertaining to the Directional Drilling of Wells.

- Kerr-McGee's NBU 922-29G1DS is located within the Natural Buttes Unit area.
- Kerr-McGee is permitting this well as a directional well in order to minimize surface disturbance. Locating the well at the surface location and directionally drilling from this location, Kerr-McGee will be able to utilize the existing road and pipelines in the area.
- Furthermore, Kerr-McGee certifies that it is the sole working interest owner within 460 feet of the entire directional well bore

Therefore, based on the above stated information Kerr-McGee Oil & Gas Onshore LP requests the permit be granted pursuant to R649-3-11.

Sincerely,

KERR-MCGEE OIL & GAS ONSHORE LP

Anna C. Cavaleri
Landman

NBU 922-29G1AS
Surface: 1,872' FNL 1,980' FEL (SW/4NE/4)
BHL: 1,406' FNL 1,476' FEL (SW/4NE/4)

NBU 922-29G1DS
Surface: 1,872' FNL 1,970' FEL (SW/4NE/4)
BHL: 1,832' FNL 1,462' FEL (SW/4NE/4)

NBU 922-29G2BS
Surface: 1,872' FNL 2,000' FEL (SW/4NE/4)
BHL: 1,639' FNL 2,444' FEL (SW/4NE/4)

NBU 922-29G3BS
Surface: 1,872' FNL 1,990' FEL (SW/4NE/4)
BHL: 2,093' FNL 2,449' FEL (SW/4NE/4)

Pad: NBU 922-29G
Section 29 T9S R22E
Mineral Lease: UO 1207 ST

Uintah County, Utah
Operator: Kerr-McGee Oil & Gas Onshore LP

MULTI-POINT SURFACE USE PLAN of OPERATIONS (SUPO)

This SUPO contains surface operating procedures for Kerr-McGee Oil & Gas Onshore LP (KMG), a wholly owned subsidiary of Anadarko Petroleum Corporation (APC) pertaining to actions that involve the State of Utah School and Institutional Trust Lands Administration (SITLA) in the development of minerals leased to APC/KMG (including, but not limited to, APDs/SULAs/ROEs/ROWs and/or easements).

See associated Utah Division of Oil, Gas, and Mining (UDOGM) Form 3(s), plats, maps, and other attachments for site-specific information on projects represented herein.

In accordance with Utah Oil & Gas Conservation Rule R649-3-11 pertaining to Directional Drilling, these wells will be directionally drilled. Refer to Topo Map A for directions to the location and Topo Maps A and B for location of access roads within a 2-mile radius.

A. Existing Roads:

Existing roads consist of county roads and improved/unimproved lease roads. APC/KMG will maintain existing roads in a condition that is the same as or better than before operations began and in a safe and usable condition. Maintenance of existing roads will continue until final abandonment and reclamation of well pads and/or other facilities. The road maintenance may include, but is not limited to, blading, ditching, culvert installation/cleanout, surfacing, and dust control.

Typically, roads, gathering lines and electrical distribution lines will occupy common disturbance corridors and roadways will be used as working space. All disturbances located in the same corridor will overlap each other to the maximum extent possible; in no case will the maximum disturbance width of the access road and utility corridors exceed 50', unless otherwise approved.

B. Planned Access Roads:

Approximately ±2,060' (0.4 miles) of new access road to this pad location is proposed (see Topo Map B). Applicable Uintah County encroachment and/or pipeline crossing permits will be obtained prior to construction/development. No other pipelines will be crossed at this location.

Where roads are new or to be reconstructed, they will be located, designed, and maintained to meet the standards of SITLA and other commonly accepted Best Management Practices (BMPs). If a new road/corridor were to cross a water of the United States, KMG will adhere to the requirements of applicable Nationwide or Individual Permits of the Department of Army Corps of Engineers.

Turnouts; major cut and fills; culverts; bridges; gates; cattle guards; low water crossings; or modifications needed to existing infrastructure/facilities were determined at the on-site and, as applicable, are typically shown on attached Exhibits and Topo maps.

C. Location of Existing and Proposed Facilities:

Production facilities (see Well Pad Design Summary and Facilities Diagram):

Production facilities will be installed on the disturbed portion of each well pad and may include bermed components (typically excluding dehy's and/or separators) that contain fluids (i.e. production tanks, produced liquids tanks). The berms will be constructed of compacted subsoil or corrugated metal, impervious, designed to hold 110% of the capacity of the largest tank, and be independent of the back cut. All permanent (on-site six months or longer) aboveground structures constructed or installed, including pumping units, will be painted a flat, non-reflective, earth-tone color chosen at the onsite in coordination with SITLA.

Production tanks will be constructed, maintained, and operated to prevent unauthorized surface or subsurface discharges of liquids and to prevent livestock or wildlife entry. The tanks are not to be used for disposal of liquids from additional sources without prior approval of UDOGM.
Gathering facilities:

The following pipeline transmission facilities will apply if the well is productive (see Topo D):

The total gas gathering (steel line pipe with fusion bond epoxy coating) pipeline distances from the meter to the tie in point is ±2,240' and the individual segments are broken up as follows:

±470' (0.1 miles) –New 6" buried gas pipeline from the meter to the edge of the pad.
±1,770' (0.3 miles) –New 6" buried gas pipeline from the edge of the pad to the proposed 6" buried gas pipeline tie-in point (NBU 922-29J pad intersection).

The total liquid gathering pipeline (Flexsteel) distance from the meter to the tie in point is ±2,240' and the individual segments are broken up as follows:

±470' (0.1 miles) –New 4" buried liquid pipeline from the meter to the edge of the pad.
±1,770' (0.3 miles) –New 4" buried liquid pipeline from the edge of the pad to the proposed 4" buried liquid pipeline tie-in point (NBU 922-29J pad intersection).

The proposed pipelines will be buried and will include gas gathering and liquid gathering pipelines in the same trench. Where the pipeline is adjacent to the road or well pad, the road and/or well pad will be utilized for construction activities and staging. Kerr-McGee requests a permanent 30' right-of-way adjacent to the road for life-of-project for maintenance, repairs, and/or upgrades, no additional right-of-way will be needed beyond the 30'. Where the pipeline is not adjacent to the road or well pad, Kerr-McGee requests a temporary 45' construction right-of-way and 30' permanent right-of-way.

The proposed trench width for the pipeline would range from 18-48 inches and will be excavated to a depth of 48 to 60 inches of normal soil cover or 24 inches of cover in consolidated rock. During construction blasting may occur along the proposed right-of-way where trenching equipment cannot cut into the bedrock. Large debris and rocks removed from the earth during trenching and blasting that could not be returned to the trench would be distributed evenly and naturally in the project area. The proposed pipelines will be pressure tested pneumatically (depending on size) or with fluids (either fresh or produced). If fluids are used, there will be no discharge to the surface.

Pipeline signs will be installed along the right-of-way to indicate the pipeline proximity, ownership, and to provide emergency contact phone numbers. Above ground valves, T's, and/or cathodic protection will be installed at various locations for connection, corrosion prevention and/or for safety purposes.

D. Location and Type of Water Supply:

Water for drilling purposes will be obtained from one of the following sources:

- Dalbo Inc.'s underground well located in Ouray, Utah, Sec. 32 T4S R3E, Water User Claim number 43-8496, application number 53617.
- Price Water Pumping Inc. Green River and White River, various sources, Water Right Number 49-1659, application number: a35745.

Water will be hauled to location over the roads marked on Maps A and B.

No water well is to be drilled on this lease.

E. Source of Construction Materials:

Construction operations will typically be completed with native materials found on location. If needed, construction materials that must be imported to the site (mineral material aggregate, soils or materials suitable for fill/surfacing) will be obtained from a nearby permitted source and described in subsequent Sundry requests. No construction materials will be removed from State lands without prior approval from SITLA.

F. Methods of Handling Waste Materials:

Should the well be productive, produced water will be contained in a water tank and will be transported by pipeline and/or truck to an approved disposal sites facilities and/or Salt Water Disposal (SWD) injection well. Currently, those facilities are:

RNI in Sec. 5 T9S R22E
Ace Oilfield in Sec. 2 T6S R20E
MC&MC in Sec. 12 T6S R19E
Pipeline Facility in Sec. 36 T9S R20E
Goat Pasture Evaporation Pond in SW/4 Sec. 16 T10S R22E
Bonanza Evaporation Pond in Sec. 2 T10S R23E
Ouray #1 SWD in Sec. 1 T9S R21E
NBU 159 SWD in Sec. 35 T9S R21E
CIGE 112D SWD in Sec. 19 T9S R21E
CIGE 114 SWD in Sec. 34 T9S R21E
NBU 921-34K SWD in Sec. 34 T9S R21E
NBU 921-33F SWD in Sec. 33 T9S R21E
NBU 921-34L SWD in Sec. 34 T9S R21E

Drill cuttings and/or fluids will be contained in the reserve/frac pit. Cuttings will be buried in pit(s) upon closure. Unless otherwise approved, no oil or other oil-based drilling additives, chromium/metals-based, or saline muds will be used during drilling. Only fresh water (as specified above), biodegradable polymer soap, bentonite clay, and/or non-toxic additives will be used in the mud system.

Pits will be constructed to minimize the accumulation of surface runoff. Should fluid hydrocarbons be encountered during drilling, completions or well testing, product will either be contained in test tanks on the well site or evacuated by vacuum trucks and transported to an approved disposal/sales facility. Should petroleum hydrocarbons unexpectedly be released into a pit, they will be removed as soon as practical but in no case will they remain longer than 72 hours unless an alternate is approved by SITLA. Should timely removal prove infeasible, the pit will be netted with mesh no larger than 1 inch until such time as hydrocarbons can be removed. Hydrocarbon removal will also take place prior to the closure of the pit, unless authorization is provided for disposal via alternative pit closure methods (e.g. solidification).

The reserve and/or fracture stimulation pit will be lined with a synthetic material 20-mil or thicker, The liner will be installed over smooth fill subgrade that is free of pockets, loose rocks, or other materials (i.e. sand, sifted dirt, bentonite, straw, etc.) that could damage the liner. Any additional pits necessary to subsequent operations, such as temporary flare or workover pits, will be contained within the originally approved well pad and disturbance boundaries. Such temporary pits will be backfilled and reclaimed within 180 days of completion of work at a well location.

For the protection of livestock and wildlife, all open pits and cellars will be fenced/covered to prevent wildlife or livestock entry. Total height of pit fencing will be at least 42 inches and corner posts will be cemented

and/or braced in such a manner as to keep the fence tight at all times. Standard steel, wood, or pipe posts shall be used between the corner braces. Maximum distance between any 2 fence posts shall be no greater than 16 feet.

Pits containing drilling cuttings, mud, and/or completions fluids will be allowed to dry. Any free fluids remaining after six (6) months from reaching total depth, date of completion, and/or determination of inactivity will be removed (as weather conditions allow) to an approved site and the pit reclaimed. Additional drying methods may include fly-ash solidification or sprinkler evaporation. Installation and operation of any sprinklers, pumps, and equipment will ensure that water spray or mist does not drift. Reserve pit liners will be cut off or folded as near to the mud surface as possible and as safety considerations allow and buried on location.

No garbage or non-exempt substances as defined by Resource Conservation and Recovery Act (RCRA) subtitle C will be placed in the reserve pit. All refuse generated during construction, drilling, completion, and well testing activities will be contained in an enclosed receptacle, removed from the drill locations promptly, and transported to an approved disposal facility.

Portable, self-contained chemical toilets and/or sewage processing facilities will be provided for human waste disposal. Upon completion of operations, or as required, the toilet holding tanks will be pumped and the contents disposed of in an approved sewage disposal facility. All applicable regulations pertaining to disposal of human and solid waste will be observed.

Any undesirable event, accidental release, or in excess of reportable quantities will be managed according to the notification requirements of UDOGMs “Reporting Oil and Gas Undesirable Events” rule, and, where State wells are participatory to a Federal agreement, according to NTL-3A.

Materials Management

Hazardous materials above reportable quantities will not be produced by drilling or completing proposed wells or constructing the pipelines/facilities. The term “hazardous materials” as used here means: (1) any substance, pollutant, or containment listed as hazardous under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) of 1980, as amended 42 U.S.C. 9601 et seq., and the regulations issued under CERCLA; and (2) any hazardous waste as defined in RCRA of 1976, as amended. In addition, no extremely hazardous substance, as defined in 40 CFR 355, in threshold planning quantities, would be used, produced, stored, transported, or disposed of while producing any well.

Chemicals subject to reporting under Title III of the Superfund Amendments and Reauthorization Act (SARA) in quantities of 10,000 pounds or more may be produced and/or stored at production facilities and may be kept in limited quantities on drilling sites and well locations for short periods of time during drilling or completion activities.

G. Ancillary Facilities:

None are anticipated.

H. Well Site Layout (see Well Pad Design Summary):

The location, orientation and aerial extent of each drill pad; reserve/completion/flare pit; access road ingress/egress points, drilling rig, dikes/ditches, existing wells/infrastructure; proposed cuts and fills; and topsoil and spoil material stockpile locations are depicted on the exhibits for each project, where applicable. Site-specific conditions may require slight deviation in actual equipment and facility layout; however, the area of disturbance, as described in the survey, will not be exceeded.

Coordinates are provided in the National Spatial Reference System, North American Datum, 1983 (NAD83) or latest edition. Distances are depicted on each plat to the nearest two adjacent section lines.

I. Plans for Reclamation of the Surface:

Surface reclamation will be undertaken in two phases: interim and final. Interim reclamation is conducted following well completion and extends through the period of production. This reclamation is for the area of the well pad that is not required for production activities. Final reclamation is conducted following well plugging/conversion and/or facility abandonment processes.

Reclamation activities in both phases may include but are not limited to: re-contouring or re-configuration of topographic surfaces, restoration of drainage systems, segregation of spoils materials, minimizing surface disturbance, re-evaluating backfill requirements, pit closure, topsoil redistribution, soil treatments, seeding and weed control.

Interim Reclamation

Interim reclamation includes pit closure, re-contouring (where possible), soil bed preparation, topsoil placement, seeding, and/or weed control.

Interim re-contouring involves bringing all construction material from cuts and fills back onto the well pad and site and reestablishing the natural contours where desirable and practical. Fill and stockpiled spoils no longer necessary to the operation will be spread on the cut slopes and covered with stockpiled topsoil. All stockpiled top soils will be used for interim reclamation where practical to maintain soil viability. Where possible, the land surface will be left “rough” after re-contouring to ensure that the maximum surface area will be available to support the reestablishment of vegetative cover.

A reserve pit, upon being allowed to dry, will be backfilled and compacted with cover materials that are void of any topsoil, vegetation, large stones, rocks or foreign objects. Soils that are moisture laden, saturated, or partially/completely frozen will not be used for backfill or cover. The pit area will be mounded to allow for settling and to promote positive surface drainage away from the pit.

Final Reclamation

Final reclamation will be performed for newly drilled unproductive wells and/or at the end of the life of a productive well. As soon as practical after the conclusion of drilling and testing operations, unproductive drill holes will be plugged and abandoned (P&A). Site and road reclamation will commence following plugging. In no case will reclamation at non-producing locations be initiated later than six (6) months from the date a well is plugged. A joint inspection of the disturbed area to be reclaimed may be requested by APC/KMG. The primary purpose of this inspection will be to review the existing conditions, or agree upon a revised final reclamation and abandonment plan. A Notice of Intent to Abandon will be filed for final recommendations regarding surface reclamation.

After plugging, all wellhead equipment that is no longer needed will be removed, and the well site will be reclaimed. Final contouring will blend with and follow as closely as practical the natural terrain and contours of the original site and surrounding areas. After re-contouring, final grading will be conducted over the entire surface of the well site and access road. Where practical, the area will be ripped to a depth of 18 to 24 inches on 18 to 24-inch centers and surface materials will be pitted with small depressions to form longitudinal depressions 12 to 18 inches deep perpendicular to the natural flow of water.

All unnecessary surface equipment and structures (e.g. cattle guards) and water control structures (e.g. culverts, drainage pipes) not needed to facilitate successful reclamation will be removed during final reclamation. Roads that will be reclaimed will be ripped to a depth of 18 inches where practical, re-contoured to approximate the original contour of the ground and seeded.

Upon successfully completing reclamation of a P&A location, a Final Abandonment Notice will be submitted to UDOGM.

Seeding and Measures Common to Interim and Final Reclamation

Reclaimed areas may be fenced to exclude grazing and encourage re-vegetation.

On slopes where severe erosion can become a problem and the use of machinery is not practical, seed will be hand broadcast and raked with twice the specified amount of seed. The slope will be stabilized using materials specifically designed to prevent erosion on steep slopes and hold seed in place so vegetation can become permanently established. These materials will include, but are not limited to, erosion control blankets and bonded fiber matrix at a rate to achieve a minimum of 80 percent soil coverage.

Seeding will occur year-round as conditions allow. Seed mixes appropriate to the native plant community as determined and specified for each project location based on the site specific soils will be used for re-vegetation. The site specific seed mix will be provided by SITLA.

'APIWellNo:43047511950000'

J. Surface/Mineral Ownership:

SITLA
675 East 500 South, Suite 500
Salt Lake City, UT 84102

K. Other Information:

A Class I literature report was completed on July 27, 2010 by Montgomery Archaeological Consultants, Inc. (MOAC). For additional details please refer to report MOAC 10-088.

A paleontological reconnaissance survey was completed by Intermountain Paleo-Consulting (IPC) and a report will be provided under separate cover.

A biological field survey was completed by Grasslands Consulting, Inc. on May 18th and July 1, 2010. For additional details please refer to report GCI-255:

M. Lessee's or Operators' Representative & Certification:

Danielle Piernot
Regulatory Analyst I
Kerr-McGee Oil & Gas Onshore LP
PO Box 173779
Denver, CO 80217-3779
(720) 929-6156

Tommy Thompson
General Manager, Drilling
Kerr-McGee Oil & Gas Onshore LP
PO Box 173779
Denver, CO 80217-3779
(720) 929-6724

Certification: All lease and/or unit operations will be conducted in such a manner that full compliance is made with all applicable laws, regulations, Onshore Oil and Gas Orders, the approved Plan of Operations, and any applicable Notice to Lessees.

The Operator will be fully responsible for the actions of its subcontractors. A complete copy of the approved "Application for Permit to Drill" will be furnished to the field representative(s) to ensure compliance and shall be on location during all construction and drilling operations.

Kerr-McGee Oil & Gas Onshore LP is considered to be the operator of the subject well. Kerr-McGee Oil & Gas Onshore LP agrees to be responsible under terms and conditions of the lease for the operations conducted upon leased lands.

Bond coverage for State lease activities is provided by State Surety Bond 22013542, and for applicable Federal lease activities and pursuant to 43 CFR 3104, by Bureau of Land Management Nationwide Bond WYB000291.

I hereby certify that I, or persons under my supervision, have inspected the proposed drill site and access route, that I am familiar with the conditions that currently exist; that I have full knowledge of the State and Federal laws applicable to this operation; that the statements made in this plan are, to the best of my knowledge, true and correct; and the work associated with the operations proposed herein will be performed in conformity with this APD package and the terms and conditions under which it is approved. I also certify that I, or the company I represent, am responsible for operations conducted under this application. These statements are subject to the provisions of 18 U.S.C. 1001 for the filing of false statements.

Danielle Piernot

Danielle Piernot

July 29, 2010
Date

'APIWellNo:43047511950000'

'APIWellNo:43047511950000'

CLASS I REVIEW OF KERR-MCGEE OIL AND GAS ONSHORE LP'S 42 PROPOSED WELL LOCATIONS IN T9S, R22E, SECTION 29 (MOAC Report No. 10-088) UINTAH COUNTY, UTAH

By:

Andrea Van Schmus

Prepared For:

State of Utah
School and Institutional Trust Lands Administration

Prepared Under Contract With:

Kerr-McGee Oil and Gas Onshore LP
1368 South 1200 East
Vernal, Utah 84078

Prepared By:

Montgomery Archaeological Consultants, Inc.
P.O. Box 219
Moab, Utah 84532

MOAC Report No. 10-088

July 26, 2010

State of Utah Public Lands Policy Coordination Office
Permit No. 117

United States Department of Interior (FLPMA)
Permit No. 10-UT-60122

' A P I W e l l N o : 4 3 0 4 7 5 1 1 9 5 0 0 0 0 '

Grasslands Consulting, Inc.

4800 Happy Canyon Road, Suite 110, Denver, CO 80237

(303) 759-5377 Office (303) 759-5324 Fax

SPECIAL STATUS PLANT AND WILDLIFE SPECIES REPORT

Report Number: GCI #255

Report Date: July 22, 2010

Operator: Kerr-McGee Oil & Gas Onshore LP

Well: NBU 922-29G well pad (Bores: NBU 922-29G3BS, NBU 922-29G1DS, NBU 922-29G2BS, NBU 922-29G1AS)

Pipeline: Associated pipeline leading to proposed well pad

Access Road: Associated access road leading to proposed well pad

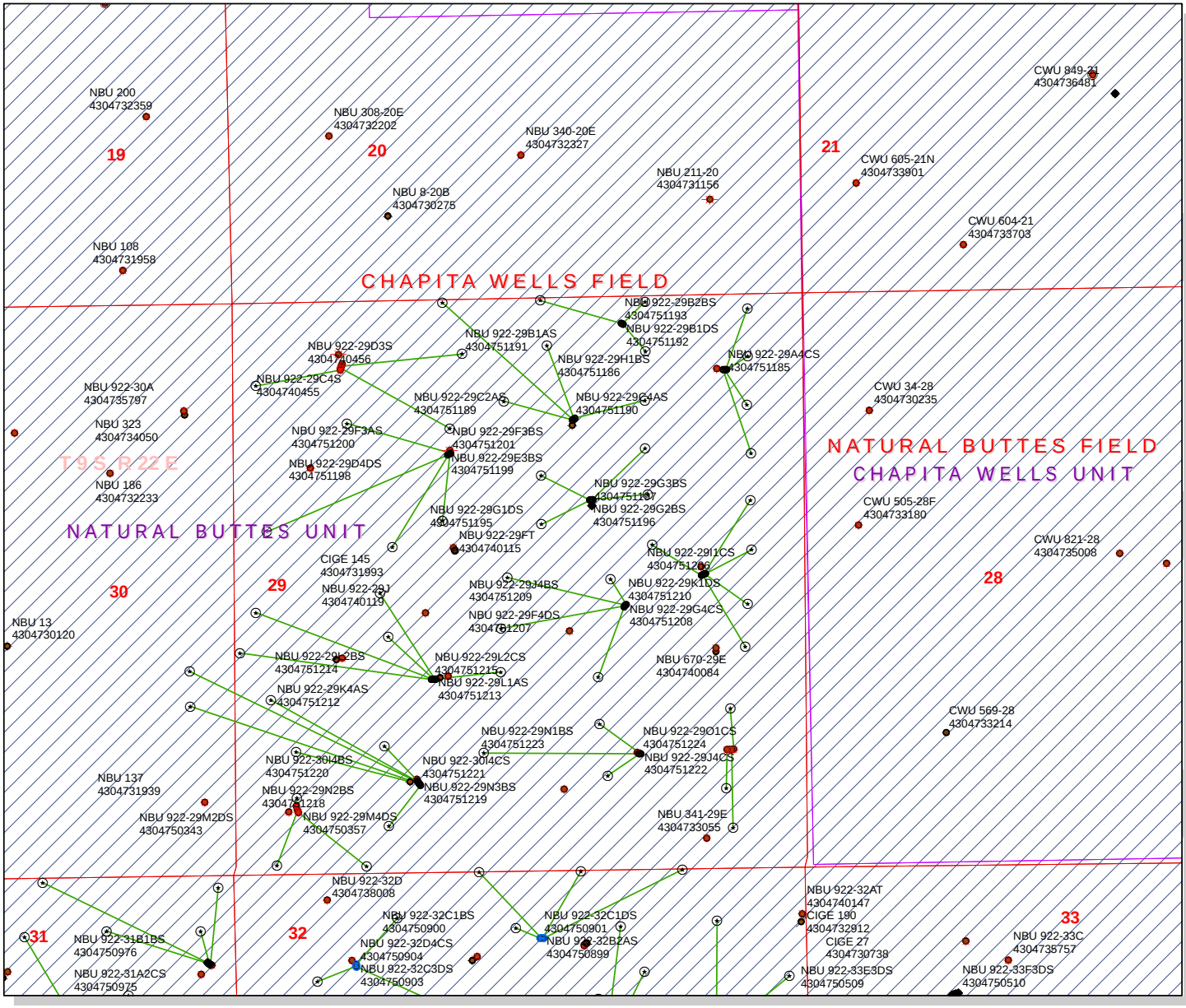
Location: Section 29, Township 9 South, Range 22 East; Uintah County, Utah

Survey-Species: Uinta Basin Hookless Cactus (*Sclerocactus wetlandicus*)

Survey Date: May 18, 2010

Observers: Grasslands Consulting, Inc. Biologists: Brad Snopek, Jennie Sinclair, Jonathan Sexauer, Adrienne Cunningham, Garrett Peterson and field technicians.

'APIWellNo:4304751195000'



API Number: 4304751195

Well Name: NBU 922-29G1DS

Township 09.0 S Range 22.0 E Section 29

Meridian: SLBM

Operator: KERR-MCGEE OIL & GAS ONSHORE, L.P.

Map Prepared:
Map Produced by Diana Mason

Units

STATUS

- ACTIVE
- EXPLORATORY
- GAS STORAGE
- NF PP OIL
- NF SECONDARY
- PI OIL
- PP GAS
- PP GEOTHERML
- PP OIL
- SECONDARY
- TERMINATED

Fields

- Sections
- Township
- Bottom Hole Location - AGRC

Wells Query

- <all other values>

Status

- APD - Aproved Permit
- DRL - Spuded (Drilling Commenced)
- GIW - Gas Injection
- GS - Gas Storage
- LA - Location Abandoned
- LOC - New Location
- OPS - Operation Suspended
- PA - Plugged Abandoned
- PGW - Producing Gas Well
- POW - Producing Oil Well
- RET - Returned APD
- SGW - Shut-in Gas Well
- SOW - Shut-in Oil Well
- TA - Temp. Abandoned
- TW - Test Well
- WDW - Water Disposal
- WIW - Water Injection Well
- WSW - Water Supply Well

1,200 600 0 1,200 Feet

1:11,338

'APIWellNo:43047511950000'

United States Department of the Interior

BUREAU OF LAND MANAGEMENT
Utah State Office
P.O. Box 45155
Salt Lake City, Utah 84145-0155

IN REPLY REFER TO:
3160
(UT-922)

August 5, 2010

Memorandum

To: Assistant District Manager Minerals, Vernal District

From: Michael Coulthard, Petroleum Engineer

Subject: 2010 Plan of Development Natural Buttes Unit
Uintah County, Utah.

Pursuant to email between Diana Whitney, Division of Oil, Gas and Mining, and Mickey Coulthard, Utah State Office, Bureau of Land Management, the following wells are planned for calendar year 2010 within the Natural Buttes Unit, Uintah County, Utah.

API #	WELL NAME	LOCATION
(Proposed PZ WASATCH-MESA VERDE)		
43-047-51183	NBU 922-29A1BS	Sec 29 T09S R22E 0688 FNL 0719 FEL
		BHL Sec 29 T09S R22E 0126 FNL 0505 FEL
43-047-51184	NBU 922-29A1CS	Sec 29 T09S R22E 0688 FNL 0709 FEL
		BHL Sec 29 T09S R22E 0566 FNL 0513 FEL
43-047-51185	NBU 922-29A4CS	Sec 29 T09S R22E 0689 FNL 0729 FEL
		BHL Sec 29 T09S R22E 1016 FNL 0527 FEL
43-047-51186	NBU 922-29H1BS	Sec 29 T09S R22E 0689 FNL 0739 FEL
		BHL Sec 29 T09S R22E 1468 FNL 0498 FEL
43-047-51187	NBU 922-29B2CS	Sec 29 T09S R22E 1119 FNL 2128 FEL
		BHL Sec 29 T09S R22E 0434 FNL 2368 FEL
43-047-51188	NBU 922-29B4AS	Sec 29 T09S R22E 1114 FNL 2119 FEL
		BHL Sec 29 T09S R22E 0960 FNL 1472 FEL
43-047-51189	NBU 922-29C2AS	Sec 29 T09S R22E 1124 FNL 2137 FEL
		BHL Sec 29 T09S R22E 0020 FNL 1948 FWL
43-047-51190	NBU 922-29C4AS	Sec 29 T09S R22E 1129 FNL 2145 FEL
		BHL Sec 29 T09S R22E 0943 FNL 2499 FWL
43-047-51191	NBU 922-29B1AS	Sec 29 T09S R22E 0247 FNL 1666 FEL
		BHL Sec 29 T09S R22E 0045 FNL 1448 FEL

API #	WELL NAME	LOCATION
(Proposed PZ WASATCH-MESA VERDE)		
43-047-51192	NBU 922-29B1DS	Sec 29 T09S R22E 0251 FNL 1657 FEL
		BHL Sec 29 T09S R22E 0504 FNL 1456 FEL
43-047-51193	NBU 922-29B2BS	Sec 29 T09S R22E 0244 FNL 1675 FEL
		BHL Sec 29 T09S R22E 0017 FNL 2416 FEL
43-047-51194	NBU 922-29G1AS	Sec 29 T09S R22E 1872 FNL 1980 FEL
		BHL Sec 29 T09S R22E 1406 FNL 1476 FEL
43-047-51195	NBU 922-29G1DS	Sec 29 T09S R22E 1872 FNL 1970 FEL
		BHL Sec 29 T09S R22E 1832 FNL 1462 FEL
43-047-51196	NBU 922-29G2BS	Sec 29 T09S R22E 1872 FNL 2000 FEL
		BHL Sec 29 T09S R22E 1639 FNL 2444 FEL
43-047-51197	NBU 922-29G3BS	Sec 29 T09S R22E 1872 FNL 1990 FEL
		BHL Sec 29 T09S R22E 2093 FNL 2449 FEL
43-047-51198	NBU 922-29D4DS	Sec 29 T09S R22E 1416 FNL 1998 FWL
		BHL Sec 29 T09S R22E 1122 FNL 1045 FWL
43-047-51199	NBU 922-29E3BS	Sec 29 T09S R22E 1433 FNL 1973 FWL
		BHL Sec 29 T09S R22E 2113 FNL 0287 FWL
43-047-51200	NBU 922-29F3AS	Sec 29 T09S R22E 1422 FNL 1990 FWL
		BHL Sec 29 T09S R22E 2039 FNL 1910 FWL
43-047-51201	NBU 922-29F3BS	Sec 29 T09S R22E 1427 FNL 1982 FWL
		BHL Sec 29 T09S R22E 2277 FNL 1445 FWL
43-047-51202	NBU 922-29G4AS	Sec 29 T09S R22E 2592 FNL 0979 FEL
		BHL Sec 29 T09S R22E 2300 FNL 1432 FEL
43-047-51203	NBU 922-29H1CS	Sec 29 T09S R22E 2583 FNL 0961 FEL
		BHL Sec 29 T09S R22E 1901 FNL 0513 FEL
43-047-51204	NBU 922-29H4CS	Sec 29 T09S R22E 2575 FNL 0943 FEL
		BHL Sec 29 T09S R22E 2366 FNL 0514 FEL
43-047-51205	NBU 922-29I1BS	Sec 29 T09S R22E 2579 FNL 0952 FEL
		BHL Sec 29 T09S R22E 2423 FSL 0559 FEL
43-047-51206	NBU 922-29I1CS	Sec 29 T09S R22E 2588 FNL 0970 FEL
		BHL Sec 29 T09S R22E 2033 FSL 0591 FEL
43-047-51207	NBU 922-29F4DS	Sec 29 T09S R22E 2428 FSL 1688 FEL
		BHL Sec 29 T09S R22E 2580 FNL 2502 FWL
43-047-51208	NBU 922-29G4CS	Sec 29 T09S R22E 2436 FSL 1681 FEL
		BHL Sec 29 T09S R22E 2608 FNL 1821 FEL

API #	WELL NAME	LOCATION
(Proposed PZ WASATCH-MESA VERDE)		
43-047-51209	NBU 922-29J4BS	Sec 29 T09S R22E 2413 FSL 1702 FEL
		BHL Sec 29 T09S R22E 1764 FSL 1953 FEL
43-047-51210	NBU 922-29K1DS	Sec 29 T09S R22E 2421 FSL 1695 FEL
		BHL Sec 29 T09S R22E 2231 FSL 2433 FWL
43-047-51211	NBU 922-29K2CS	Sec 29 T09S R22E 1770 FSL 1801 FWL
		BHL Sec 29 T09S R22E 2167 FSL 1389 FWL
43-047-51212	NBU 922-29K4AS	Sec 29 T09S R22E 1771 FSL 1821 FWL
		BHL Sec 29 T09S R22E 1827 FSL 2421 FWL
43-047-51213	NBU 922-29L1AS	Sec 29 T09S R22E 1770 FSL 1811 FWL
		BHL Sec 29 T09S R22E 2572 FSL 1320 FWL
43-047-51214	NBU 922-29L2BS	Sec 29 T09S R22E 1770 FSL 1791 FWL
		BHL Sec 29 T09S R22E 2414 FSL 0170 FWL
43-047-51215	NBU 922-29L2CS	Sec 29 T09S R22E 1769 FSL 1781 FWL
		BHL Sec 29 T09S R22E 2040 FSL 0016 FWL
43-047-51216	NBU 922-29L3CS	Sec 29 T09S R22E 0822 FSL 1637 FWL
		BHL Sec 29 T09S R22E 1601 FSL 0289 FWL
43-047-51217	NBU 922-29M2AS	Sec 29 T09S R22E 0798 FSL 1655 FWL
		BHL Sec 29 T09S R22E 1114 FSL 0515 FWL
43-047-51218	NBU 922-29N2BS	Sec 29 T09S R22E 0830 FSL 1631 FWL
		BHL Sec 29 T09S R22E 1158 FSL 1334 FWL
43-047-51219	NBU 922-29N3BS	Sec 29 T09S R22E 0790 FSL 1661 FWL
		BHL Sec 29 T09S R22E 0414 FSL 1360 FWL
43-047-51220	NBU 922-30I4BS	Sec 29 T09S R22E 0814 FSL 1643 FWL
		BHL Sec 30 T09S R22E 1876 FSL 0455 FEL
43-047-51221	NBU 922-30I4CS	Sec 29 T09S R22E 0806 FSL 1649 FWL
		BHL Sec 30 T09S R22E 1550 FSL 0455 FEL
43-047-51222	NBU 922-29J4CS	Sec 29 T09S R22E 1049 FSL 1576 FEL
		BHL Sec 29 T09S R22E 1330 FSL 1950 FEL
43-047-51223	NBU 922-29N1BS	Sec 29 T09S R22E 1050 FSL 1596 FEL
		BHL Sec 29 T09S R22E 1080 FSL 2251 FWL
43-047-51224	NBU 922-29O1CS	Sec 29 T09S R22E 1049 FSL 1586 FEL
		BHL Sec 29 T09S R22E 0854 FSL 1885 FEL

This office has no objection to permitting the wells at this time.

Michael L. Coulthard

Digitally signed by Michael L. Coulthard
DN: cn=Michael L. Coulthard, o=Bureau of Land Management, ou=Branch of Fluid Minerals, email=Michael_Coulthard@blm.gov, c=US
Date: 2010.08.05 09:28:46 -06'00'

'APIWellNo:43047511950000'

bcc: File - Natural Buttes Unit
Division of Oil Gas and Mining
Central Files
Agr. Sec. Chron
Fluid Chron

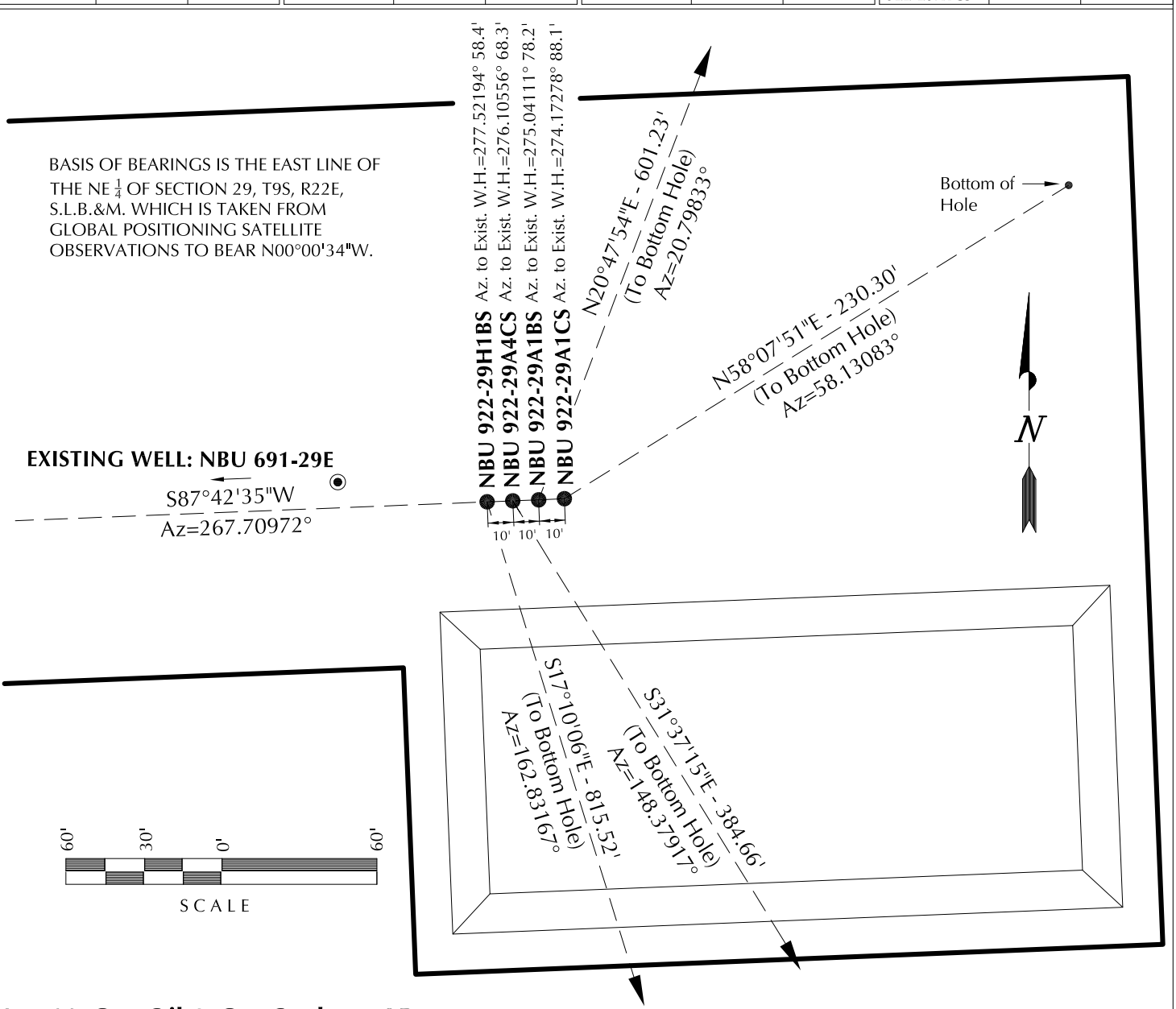
MCoulthard:mc:8-5-10

'APIWellNo:43047511950000'

WELL NAME	SURFACE POSITION					BOTTOM HOLE				
	NAD83		NAD27			NAD83		NAD27		
	LATITUDE	LONGITUDE	LATITUDE	LONGITUDE	FOOTAGES	LATITUDE	LONGITUDE	LATITUDE	LONGITUDE	FOOTAGES
NBU 922-29H1BS	40°00'44.560" 40.012378°	109°27'25.466" 109.457074°	40°00'44.686" 40.012413°	109°27'23.002" 109.456389°	689' FNL 739' FEL	40°00'36.862" 40.010239°	109°27'22.374" 109.456215°	40°00'36.987" 40.010274°	109°27'19.910" 109.455531°	1468' FNL 498' FEL
NBU 922-29A4CS	40°00'44.564" 40.012379°	109°27'25.338" 109.457038°	40°00'44.690" 40.012414°	109°27'22.874" 109.456354°	689' FNL 729' FEL	40°00'41.328" 40.011480°	109°27'22.747" 109.456319°	40°00'41.453" 40.011515°	109°27'20.283" 109.455634°	1016' FNL 527' FEL
NBU 922-29A1BS	40°00'44.568" 40.012380°	109°27'25.209" 109.457003°	40°00'44.693" 40.012415°	109°27'22.745" 109.456318°	688' FNL 719' FEL	40°00'50.120" 40.013922°	109°27'22.466" 109.456240°	40°00'50.246" 40.013957°	109°27'20.001" 109.455556°	126' FNL 505' FEL
NBU 922-29A1CS	40°00'44.572" 40.012381°	109°27'25.081" 109.456967°	40°00'44.698" 40.012416°	109°27'22.617" 109.456282°	688' FNL 709' FEL	40°00'45.773" 40.012715°	109°27'22.568" 109.456269°	40°00'45.899" 40.012750°	109°27'20.104" 109.455584°	566' FNL 513' FEL
NBU 691-29E	40°00'44.636" 40.012399°	109°27'26.210" 109.457281°	40°00'44.761" 40.012434°	109°27'23.746" 109.456596°	681' FNL 796' FEL					

RELATIVE COORDINATES - From Surface Position to Bottom Hole

WELL NAME	NORTH	EAST	WELL NAME	NORTH	EAST	WELL NAME	NORTH	EAST	WELL NAME	NORTH	EAST
NBU 922-29H1BS	-779.2'	240.7'	**NBU 922-29A4CS**	-327.6'	201.7'	**NBU 922-29A1BS**	562.1'	213.5'	**NBU 922-29A1CS**	121.6'	195.6'



Kerr-McGee Oil & Gas Onshore, LP
1099 18th Street - Denver, Colorado 80202

WELL PAD - NBU 922-29A

WELL PAD INTERFERENCE PLAT
WELLS - NBU 922-29H1BS, NBU 922-29A4CS, NBU 922-29A1BS & NBU 922-29A1CS LOCATED IN SECTION 29, T9S, R22E, S.L.B.&M., UINTAH COUNTY, UTAH.

609 CONSULTING, LLC
371 Coffeen Avenue
Sheridan WY 82801
Phone 307-674-0609
Fax 307-674-0182

TIMBERLINE (435) 789-1365
ENGINEERING & LAND SURVEYING, INC.
209 NORTH 300 WEST - VERNAL, UTAH 84078

DATE SURVEYED: 03-15-10	SURVEYED BY: D.J.S.	SHEET NO:
DATE DRAWN: 06-04-10	DRAWN BY: B.M.	5
SCALE: 1" = 60'	Date Last Revised:	5 OF 16

'APIWellNo:43047511950000'

Scientific Drilling
Rocky Mountain Operations

Project: Uintah County, UT NAD27
Site: NBU 922-29A Pad
Well: NBU 922-29A1BS
Wellbore: OH
Design: Plan #1

Anadarko Petroleum Corporation

Kerr McGee Oil and Gas Onshore LP

WELL DETAILS: NBU 922-29A1BS

GL 4888' & RKB 14' @ 4902.00ft (ASSUMED) 4888.00

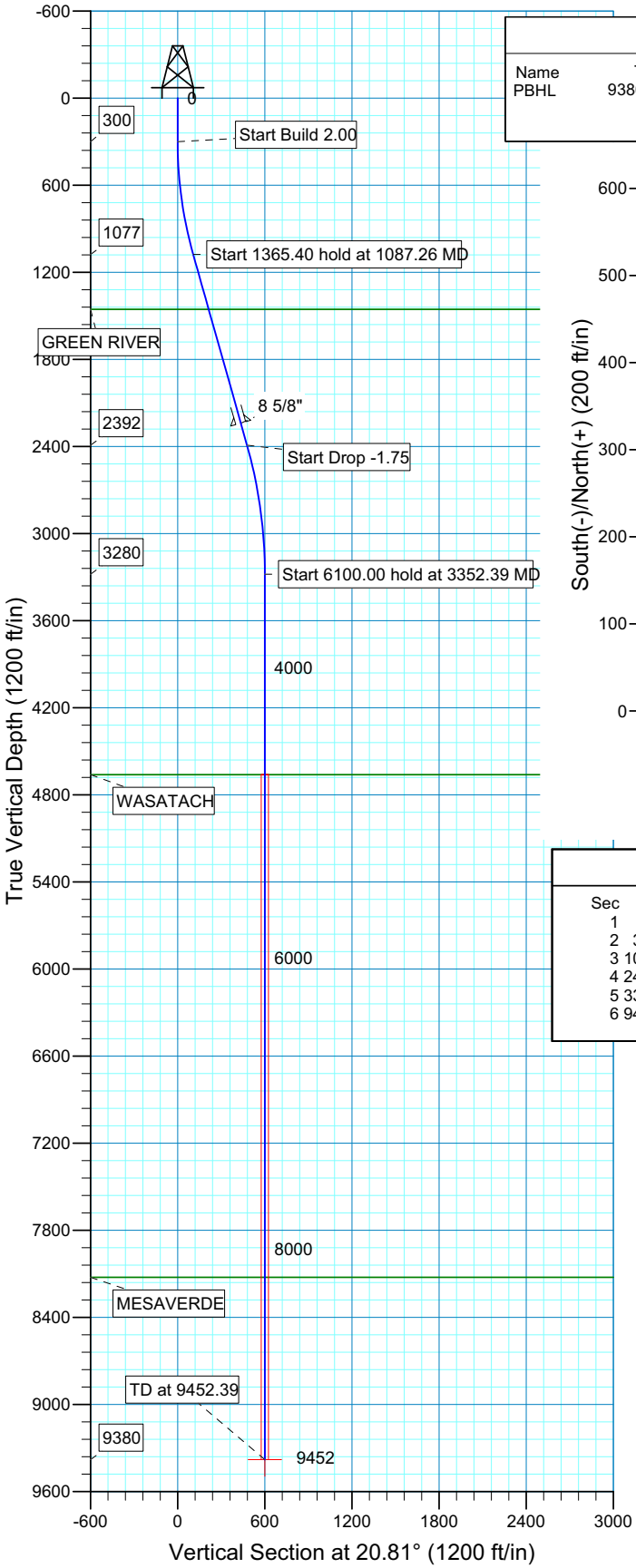
+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
0.00	0.00	618106.62	2572370.45	40° 0' 44.694 N	109° 27' 22.745 W

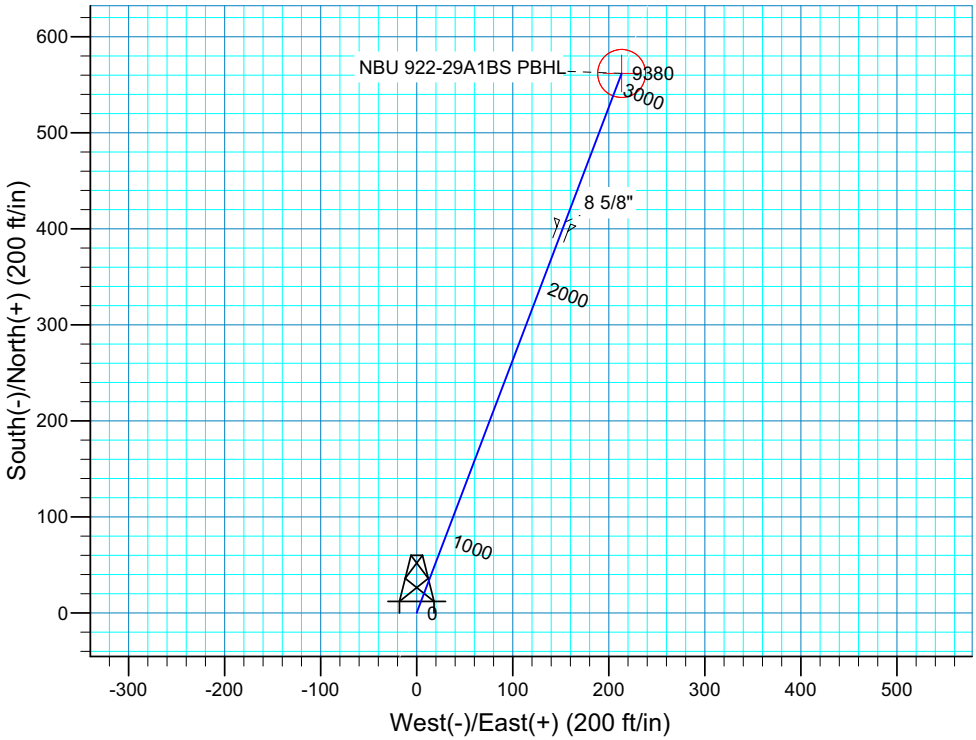
T M
Azimuths to True North
Magnetic North: 11.16°

Magnetic Field
Strength: 52465.3snT
Dip Angle: 65.92°
Date: 07/16/2010
Model: IGRF200510

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

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Shape
PBHL	9380.00	561.67	213.43	618673.02	2572570.99	40° 0' 50.245 N	109° 27' 20.002 W	Circle (Radius: 25.00





SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	DLeg	TFace	VSec	Target
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
2	300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	
3	1087.26	15.75	20.81	1077.39	100.48	38.18	2.00	20.81	107.49	
4	2452.66	15.75	20.81	2391.56	446.84	169.79	0.00	0.00	478.01	
5	3352.39	0.00	0.00	3280.00	561.67	213.43	1.75	180.00	600.86	
6	9452.39	0.00	0.00	9380.00	561.67	213.43	0.00	0.00	600.86	NBU 922-29A1BS PBHL

FORMATION TOP DETAILS

TVDPath	MDPath	Formation
1455.00	1479.59	GREEN RIVER
4661.00	4733.39	WASATACH
8125.00	8197.39	MESAVERDE

PROJECT DETAILS: Uintah County, UT NAD27

Geodetic System: US State Plane 1927 (Exact solution)
Datum: NAD 1927 (NADCON CONUS)
Ellipsoid: Clarke 1866
Zone: Utah Central 4302
Location: SEC 29 T9S R22E
System Datum: Mean Sea Level
Local North: No north reference data is available

Plan: Plan #1 (NBU 922-29A1BS/OH)

Created By: Robert H. Scott Date: 9:23, July 16 2010

'APIWellNo:43047511950000'

Scientific Drilling
Rocky Mountain Operations

Project: Uintah County, UT NAD27
Site: NBU 922-29A Pad
Well: NBU 922-29A1CS
Wellbore: OH
Design: Plan #1

Anadarko Petroleum Corporation

Kerr McGee Oil and Gas Onshore LP

T M
Azimuths to True North
Magnetic North: 11.16°

Magnetic Field
Strength: 52465.3snT
Dip Angle: 65.92°
Date: 07/16/2010
Model: IGRF200510

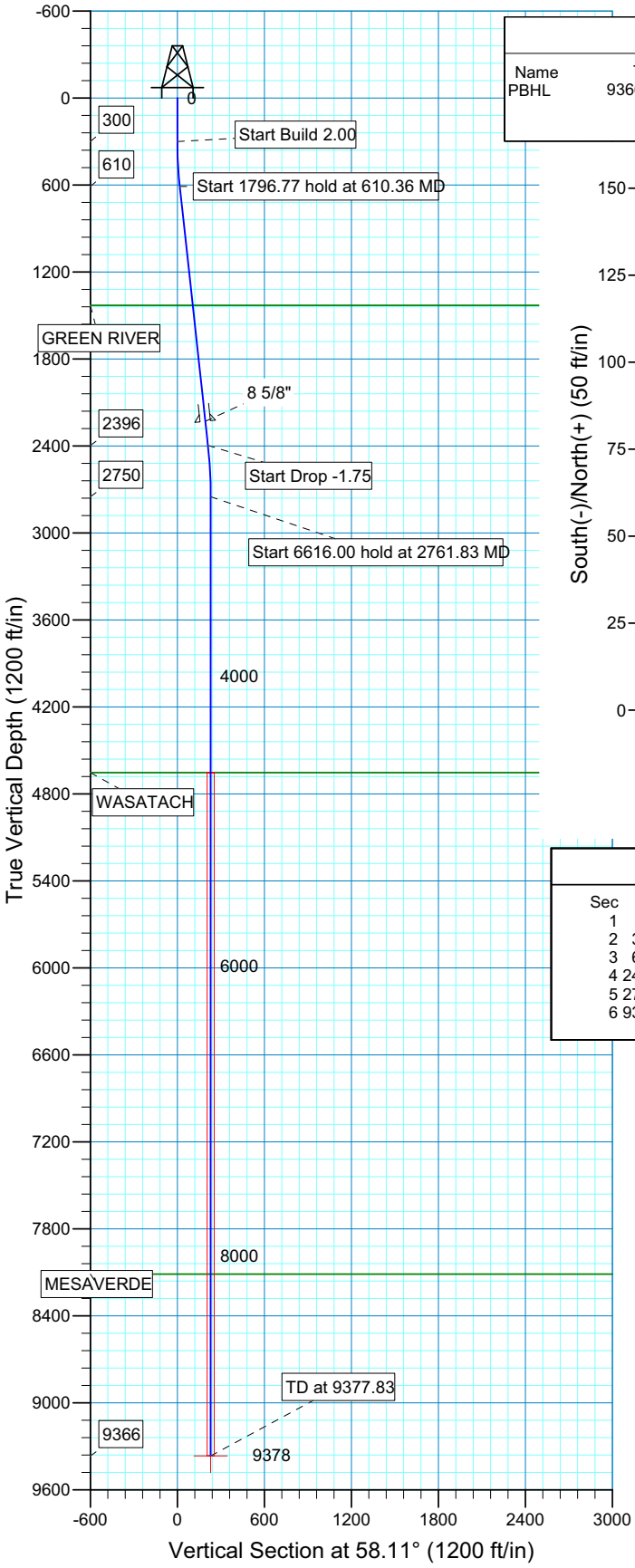
WELL DETAILS: NBU 922-29A1CS

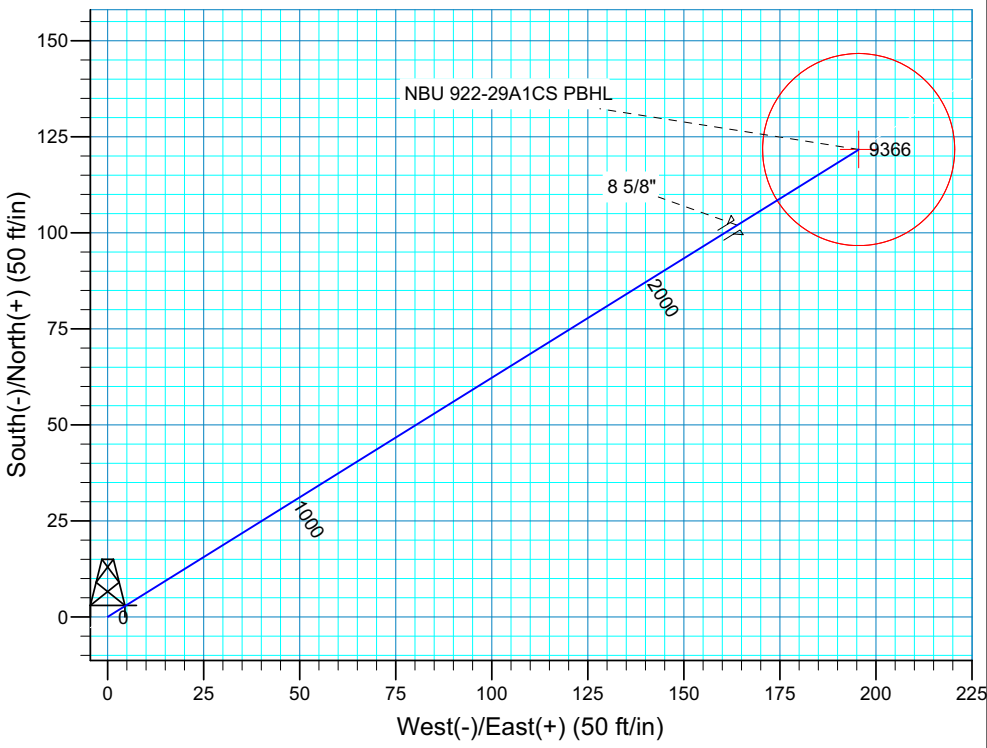
GL 4888' & RKB 14' @ 4902.00ft (ASSUMED) 4888.00

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
0.00	0.00	618107.22	2572380.52	40° 0' 44.698 N	109° 27' 22.615 W

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

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Shape
PBHL	9366.00	121.66	195.50	618233.32	2572573.20	40° 0' 45.900 N	109° 27' 20.102 W	Circle (Radius: 25.00





SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	DLeg	TFace	VSec	Target
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
2	300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	
3	610.36	6.21	58.11	609.76	8.87	14.26	2.00	58.11	16.80	
4	2407.13	6.21	58.11	2395.99	111.52	179.21	0.00	0.00	211.07	
5	2761.83	0.00	0.00	2750.00	121.66	195.50	1.75	180.00	230.27	
6	9377.83	0.00	0.00	9366.00	121.66	195.50	0.00	0.00	230.27	NBU 922-29A1CS PBHL

FORMATION TOP DETAILS

TVDPath	MDPath	Formation
1430.00	1435.44	GREEN RIVER
4653.00	4664.83	WASATACH
8113.00	8124.83	MESAVERDE

PROJECT DETAILS: Uintah County, UT NAD27

Geodetic System: US State Plane 1927 (Exact solution)
Datum: NAD 1927 (NADCON CONUS)
Ellipsoid: Clarke 1866
Zone: Utah Central 4302
Location: SEC 29 T9S R22E
System Datum: Mean Sea Level
Local North: No north reference data is available

Plan: Plan #1 (NBU 922-29A1CS/OH)

Created By: Robert H. Scott Date: 9:26, July 16 2010

'APIWellNo:43047511950000'

Scientific Drilling
Rocky Mountain Operations

Project: Uintah County, UT NAD27
Site: NBU 922-29A Pad
Well: NBU 922-29A4CS
Wellbore: OH
Design: Plan #1

Anadarko Petroleum Corporation

Kerr McGee Oil and Gas Onshore LP

WELL DETAILS: NBU 922-29A4CS

GL 4888' & RKB 14' @ 4902.00ft (ASSUMED) 4888.00

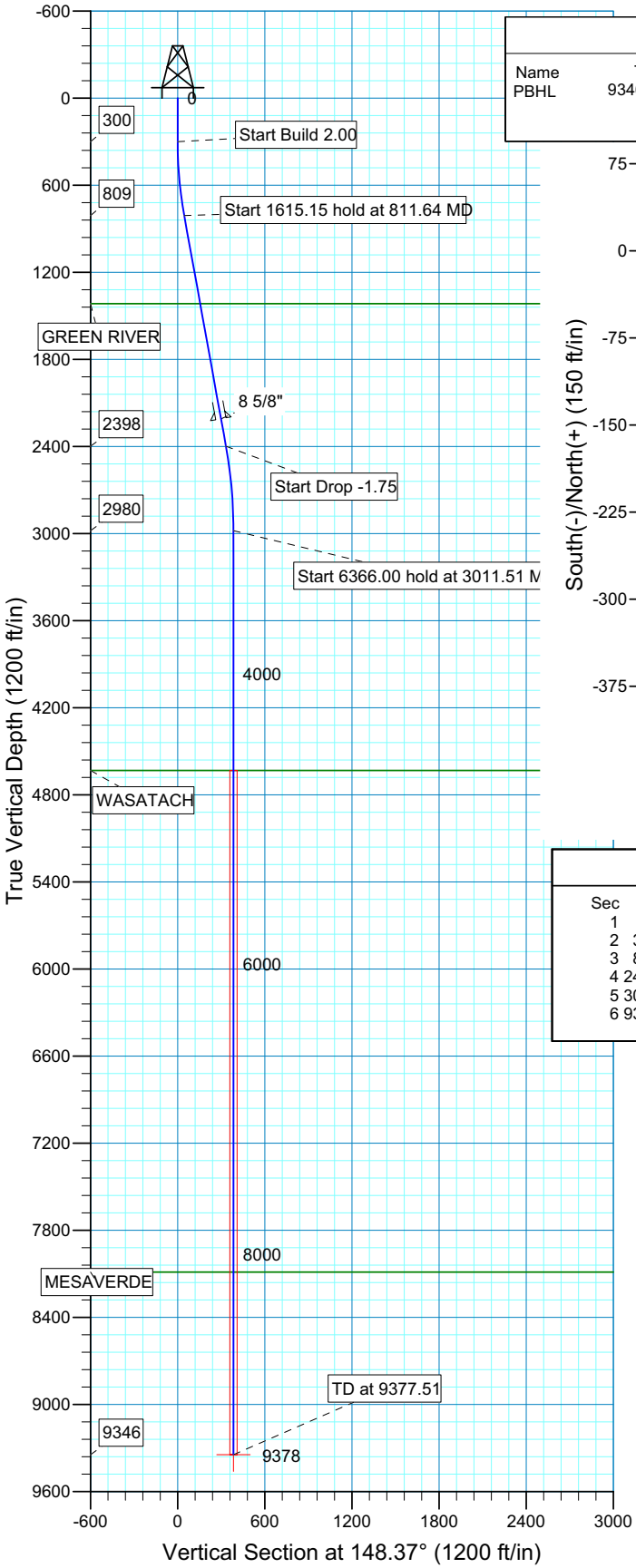
+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
0.00	0.00	618106.02	2572360.38	40° 0' 44.690 N	109° 27' 22.874 W

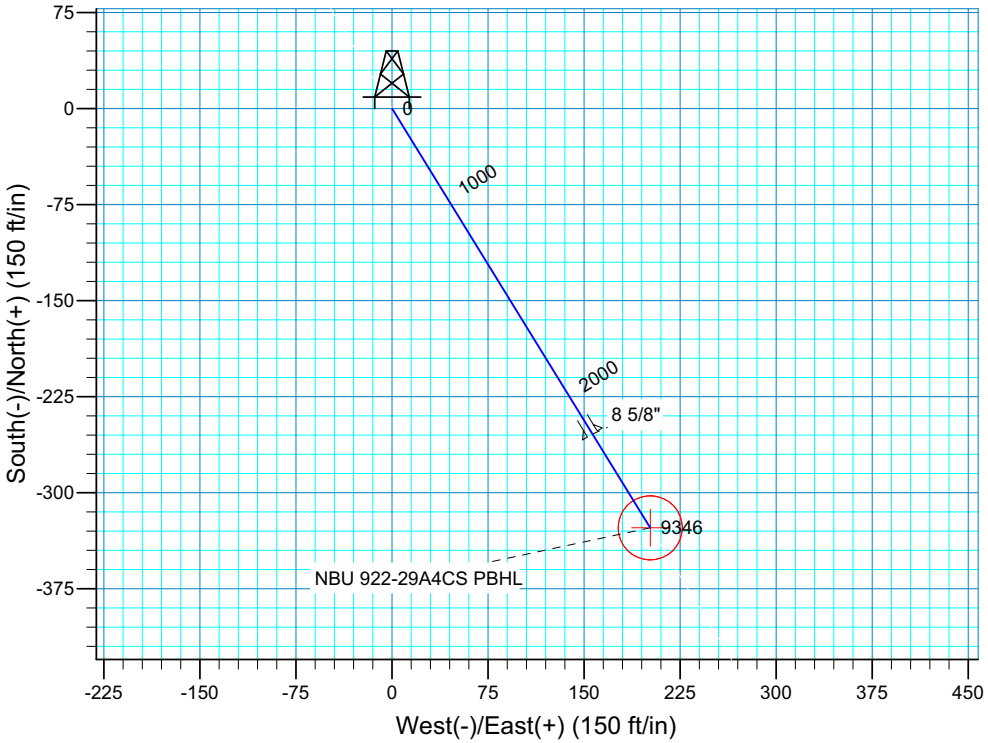
T M
Azimuths to True North
Magnetic North: 11.16°

Magnetic Field
Strength: 52465.3snT
Dip Angle: 65.92°
Date: 07/16/2010
Model: IGRF200510

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

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Shape
PBHL	9346.00	-327.45	201.67	617783.27	2572569.48	40° 0' 41.454 N	109° 27' 20.282 W	Circle (Radius: 25.00





SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	DLeg	TFace	VSec	Target
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
2	300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	
3	811.64	10.23	148.37	808.92	-38.80	23.90	2.00	148.37	45.57	
4	2426.78	10.23	148.37	2398.38	-283.11	174.36	0.00	0.00	332.49	
5	3011.51	0.00	0.00	2980.00	-327.45	201.67	1.75	180.00	384.57	
6	9377.51	0.00	0.00	9346.00	-327.45	201.67	0.00	0.00	384.57	NBU 922-29A4CS PBHL

FORMATION TOP DETAILS

TVDPath	MDPath	Formation
1416.00	1428.53	GREEN RIVER
4632.00	4663.51	WASATACH
8089.00	8120.51	MESAVERDE

PROJECT DETAILS: Uintah County, UT NAD27

Geodetic System: US State Plane 1927 (Exact solution)
Datum: NAD 1927 (NADCON CONUS)
Ellipsoid: Clarke 1866
Zone: Utah Central 4302
Location: SEC 29 T9S R22E
System Datum: Mean Sea Level
Local North: No north reference data is available

Plan: Plan #1 (NBU 922-29A4CS/OH)

Created By: Robert H. Scott Date: 9:27, July 16 2010

'APIWellNo:43047511950000'

Scientific Drilling
Rocky Mountain Operations

Project: Uintah County, UT NAD27
Site: NBU 922-29A Pad
Well: NBU 922-29H1BS
Wellbore: OH
Design: Plan #1

Anadarko Petroleum Corporation

Kerr McGee Oil and Gas Onshore LP

WELL DETAILS: NBU 922-29H1BS

GL 4888' & RKB 14' @ 4902.00ft (ASSUMED) 4888.00

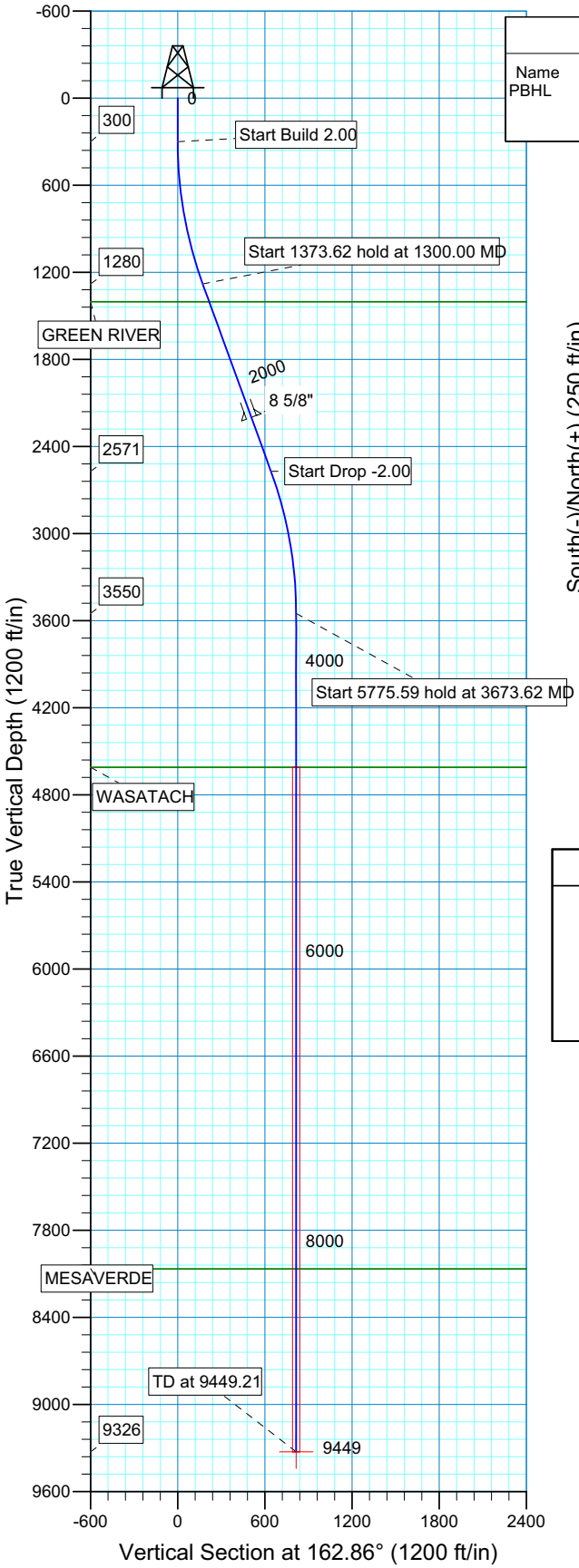
+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
0.00	0.00	618105.44	2572350.59	40° 0' 44.687 N	109° 27' 23.000 W

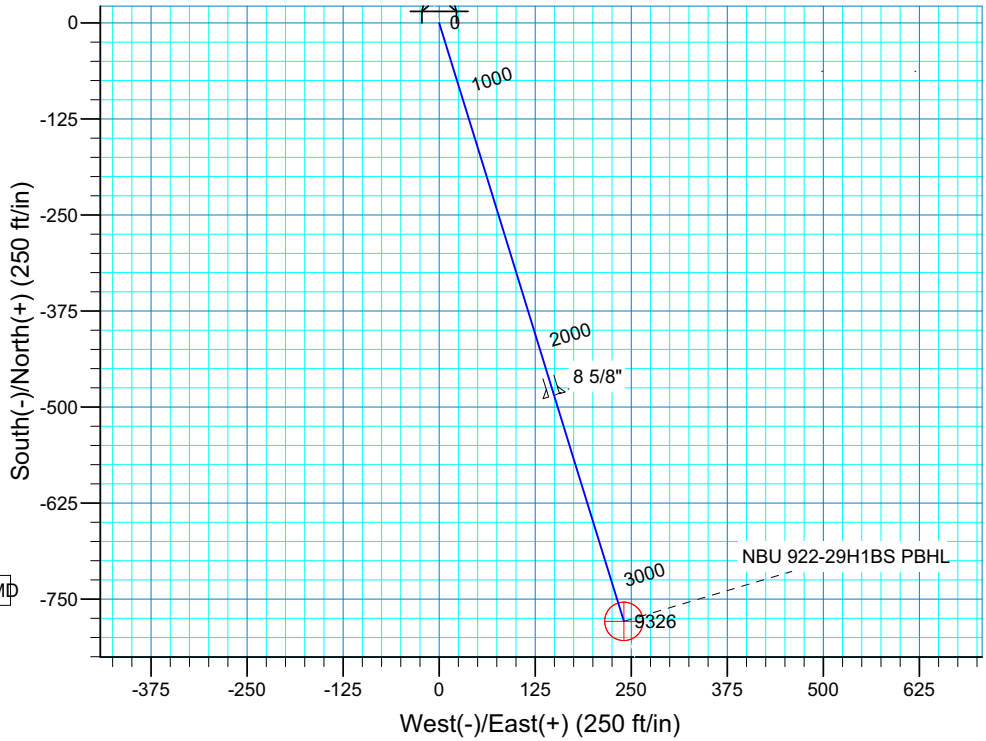
T M
Azimuths to True North
Magnetic North: 11.16°

Magnetic Field
Strength: 52465.3snT
Dip Angle: 65.92°
Date: 07/16/2010
Model: IGRF200510

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

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Shape
PBHL	9326.00	-779.12	240.33	617332.02	2572608.65	40° 0' 36.986 N	109° 27' 19.912 W	Circle (Radius: 25.00)





SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	DLeg	TFace	VSec	Target
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
2	300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	
3	1300.00	20.00	162.86	1279.82	-165.09	50.92	2.00	162.86	172.77	
4	2673.62	20.00	162.86	2570.59	-614.02	189.40	0.00	0.00	642.57	
5	3673.62	0.00	0.00	3550.41	-779.12	240.33	2.00	180.00	815.34	
6	9449.21	0.00	0.00	9326.00	-779.12	240.33	0.00	0.00	815.34	NBU 922-29H1BS PBHL

FORMATION TOP DETAILS

TVDPath	MDPath	Formation
1403.00	1431.09	GREEN RIVER
4610.00	4733.21	WASATACH
8066.00	8189.21	MESAVERDE

PROJECT DETAILS: Uintah County, UT NAD27

Geodetic System: US State Plane 1927 (Exact solution)
Datum: NAD 1927 (NADCON CONUS)
Ellipsoid: Clarke 1866
Zone: Utah Central 4302
Location: SEC 29 T9S R22E
System Datum: Mean Sea Level
Local North: No north reference data is available

Plan: Plan #1 (NBU 922-29H1BS/OH)

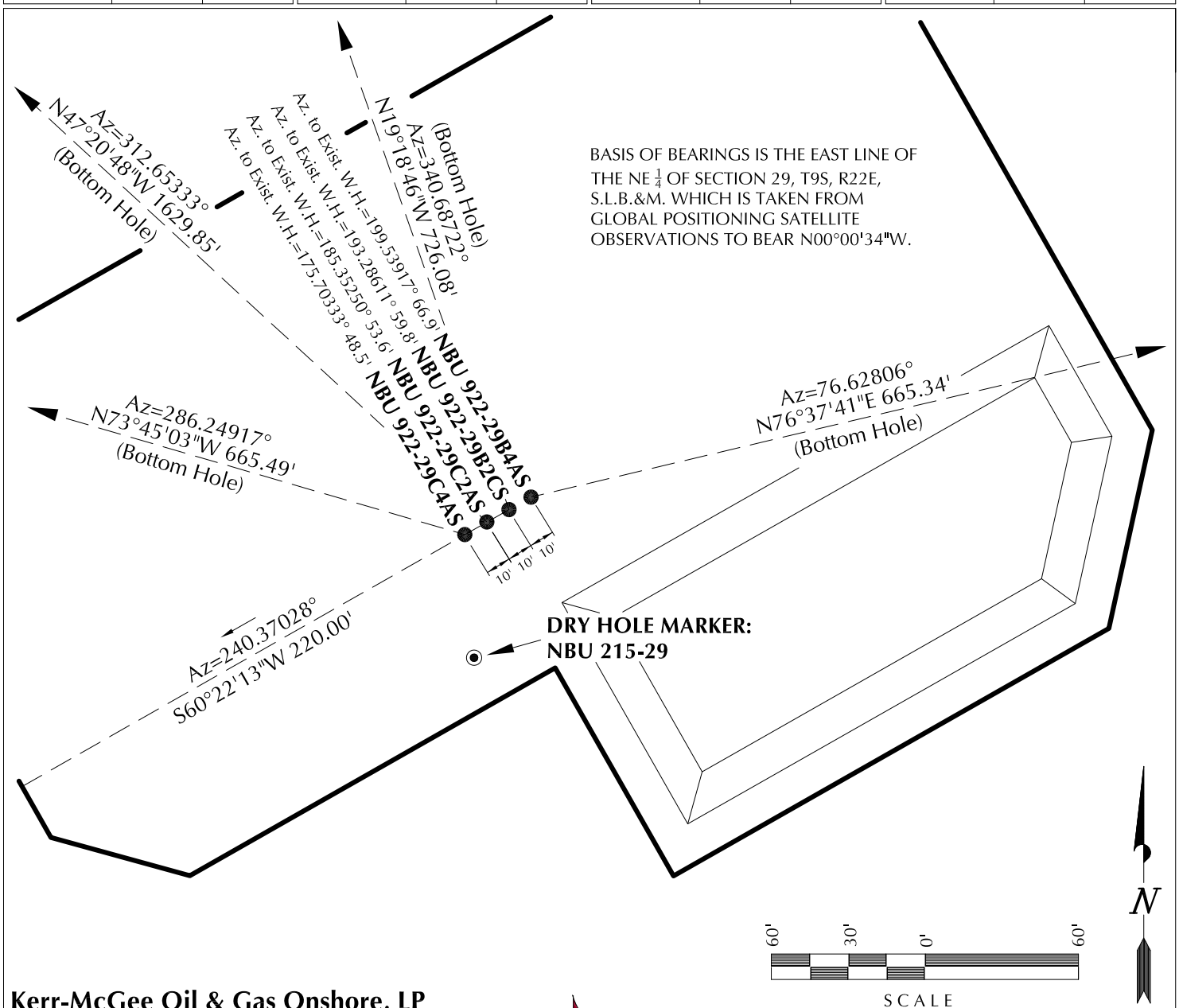
Created By: Robert H. Scott Date: 9:28, July 16 2010

'APIWellNo:43047511950000'

WELL NAME	SURFACE POSITION					BOTTOM HOLE				
	NAD83		NAD27			NAD83		NAD27		
	LATITUDE	LONGITUDE	LATITUDE	LONGITUDE	FOOTAGES	LATITUDE	LONGITUDE	LATITUDE	LONGITUDE	FOOTAGES
NBU 922-29C4AS	40°00'40.220" 40.011172°	109°27'43.541" 109.462095°	40°00'40.346" 40.011207°	109°27'41.075" 109.461410°	1129' FNL 2145' FEL	40°00'42.060" 40.011683°	109°27'51.750" 109.464375°	40°00'42.186" 40.011718°	109°27'49.284" 109.463690°	943' FNL 2499' FWL
NBU 922-29C2AS	40°00'40.270" 40.011186°	109°27'43.430" 109.462064°	40°00'40.395" 40.011221°	109°27'40.964" 109.461379°	1124' FNL 2137' FEL	40°00'51.180" 40.014217°	109°27'58.832" 109.466342°	40°00'51.306" 40.014252°	109°27'56.366" 109.465657°	20' FNL 1948' FWL
NBU 922-29B2CS	40°00'40.317" 40.011199°	109°27'43.318" 109.462033°	40°00'40.443" 40.011234°	109°27'40.852" 109.461348°	1119' FNL 2128' FEL	40°00'47.087" 40.013080°	109°27'46.403" 109.462890°	40°00'47.213" 40.013115°	109°27'43.937" 109.462205°	434' FNL 2368' FEL
NBU 922-29B4AS	40°00'40.366" 40.011213°	109°27'43.206" 109.462002°	40°00'40.492" 40.011248°	109°27'40.741" 109.461317°	1114' FNL 2119' FEL	40°00'41.886" 40.011635°	109°27'34.889" 109.459692°	40°00'42.012" 40.011670°	109°27'32.424" 109.459007°	960' FNL 1472' FEL
NBU 215-29	40°00'39.743" 40.011040°	109°27'43.494" 109.462082°	40°00'39.869" 40.011075°	109°27'41.029" 109.461397°	1177' FNL 2142' FEL					

RELATIVE COORDINATES - From Surface Position to Bottom Hole

WELL NAME	NORTH	EAST	WELL NAME	NORTH	EAST	WELL NAME	NORTH	EAST	WELL NAME	NORTH	EAST
NBU 922-29C4AS	186.2'	-638.9'	**NBU 922-29C2AS**	1104.3'	-1198.7'	**NBU 922-29B2CS**	685.2'	-240.1'	**NBU 922-29B4AS**	153.9'	647.3'



Kerr-McGee Oil & Gas Onshore, LP
1099 18th Street - Denver, Colorado 80202

WELL PAD - NBU 922-29B2

WELL PAD INTERFERENCE PLAT
WELLS - NBU 922-29C4AS, NBU 922-29C2AS, NBU 922-29B2CS & NBU 922-29B4AS LOCATED IN SECTION 29, T9S, R22E, S.L.B.&M., UINTAH COUNTY, UTAH.

609 CONSULTING, LLC
371 Coffeen Avenue
Sheridan WY 82801
Phone 307-674-0609
Fax 307-674-0182

TIMBERLINE (435) 789-1365
ENGINEERING & LAND SURVEYING, INC.
209 NORTH 300 WEST - VERNAL, UTAH 84078

DATE SURVEYED: 06-05-10	SURVEYED BY: D.J.S.	SHEET NO:
DATE DRAWN: 06-07-10	DRAWN BY: K.O.B.	**5**
SCALE: 1" = 60'	Date Last Revised:	5 OF 16

'API Well No: 43047511950000'

Anadarko E&P Company LP

Project:	UINTAH COUNTY, UTAH (nad 27)
Site:	NBU 922-29B2 PAD
Well:	NBU 922-29B2CS
Wellbore:	NBU 922-29B2CS
Design:	Design #1
TVD:	WELL @ 4939.00ft (Original Well Elev)
Ground:	4925.00
Lat:	40° 0' 40.492 N
Long:	109° 27' 40.741 W

Weatherford®

FORMATION TOP DETAILS

TVDPath	MDPath	Formation
1472.00	1503.71	GRNR
1772.00	1821.79	BIRDSNEST
2122.00	2192.89	MAHOGANY
4698.00	4803.37	WSTC
7240.00	7345.37	DKCYN
8190.00	8295.37	MVU21
8703.00	8808.37	MVL1

WELL DETAILS: NBU 922-29B2CS

Ground Level: 4925.00

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot
0.00	0.00	14533855.04	2071267.40	40° 0' 40.442 N	109° 27' 40.853 W	

WELLBORE TARGET DETAILS (LAT/LONG)

Name	TVD	+N/-S	+E/-W	Latitude	Longitude	Shape
PBHL NBU 922-29B2CS	9456.00	685.09	-240.02	40° 0' 47.214 N	109° 27' 43.938 W	Circle (Radius: 25.00)

SECTION DETAILS

MD	Inc	Azi	TVD	+N/-S	+E/-W	DLeg	TFace	VSec	Annotation
0.00	0.00	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	Start Build 2.00
1270.57	19.41	340.69	1252.11	153.69	-53.84	2.00	340.69	162.84	Start 1204.24 hold at 1270.57 MD
2474.81	19.41	340.69	2387.89	531.40	-186.17	0.00	0.00	563.07	Start Drop -2.00
3445.37	0.00	0.00	3340.00	685.09	-240.02	2.00	180.00	725.91	Start 6116.00 hold at 3445.37 MD
9561.37	0.00	0.00	9456.00	685.09	-240.02	0.00	0.00	725.91	TD at 9561.37

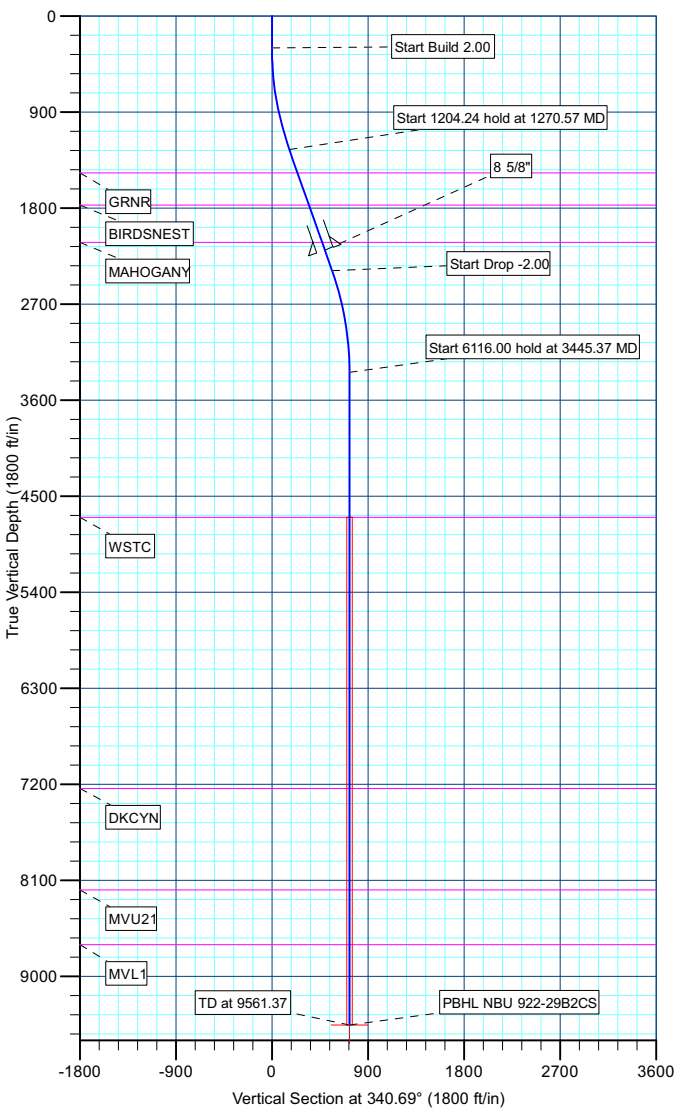
CASING DETAILS

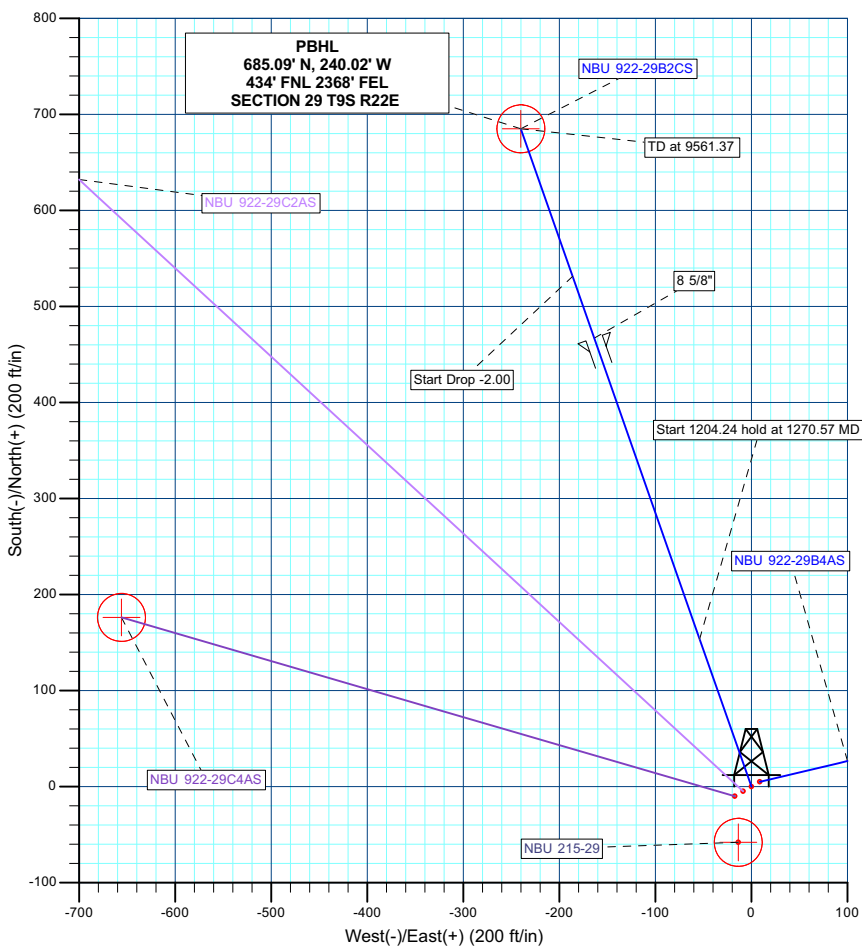
TVD	MD	Name	Size
2194.73	2270.00	8 5/8"	8-5/8

T M

Azimuths to True North
Magnetic North: 11.21°

Magnetic Field
Strength: 52418.4snT
Dip Angle: 65.93°
Date: 7/8/2010
Model: BGGM2010





Plan: Design #1 (NBU 922-29B2CS/NBU 922-29B2CS)

Created By: TRACY WILLIAMS 14:41, July 19 2010

'API Well No: 43047511950000'

Anadarko E&P Company LP

Project:	UINTAH COUNTY, UTAH (nad 27)
Site:	NBU 922-29B2 PAD
Well:	NBU 922-29B4AS
Wellbore:	NBU 922-29B4AS
Design:	Design #1
TVD:	WELL @ 4939.00ft (Original Well Elev)
Ground:	4925.00
Lat:	40° 0' 40.492 N
Long:	109° 27' 40.741 W

Weatherford®

FORMATION TOP DETAILS

TVDPath	MDPath	Formation
1465.00	1490.13	GRNR
1751.00	1787.39	BIRDSNEST
2101.00	2151.18	MAHOGANY
4673.00	4754.56	WSTC
7193.00	7274.56	DKCYN
8667.00	8748.56	MVL1
9152.00	9233.56	MVU21

WELL DETAILS: NBU 922-29B4AS

Ground Level: 4925.00

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot
0.00	0.00	14533860.21	2071276.00	40° 0' 40.492 N	109° 27' 40.741 W	

WELLBORE TARGET DETAILS (LAT/LONG)

Name	TVD	+N/-S	+E/-W	Latitude	Longitude	Shape
PBHL NBU 922-29B4AS	9410.00	153.79	647.06	40° 0' 42.012 N	109° 27' 32.424 W	Circle (Radius: 25.00)

SECTION DETAILS

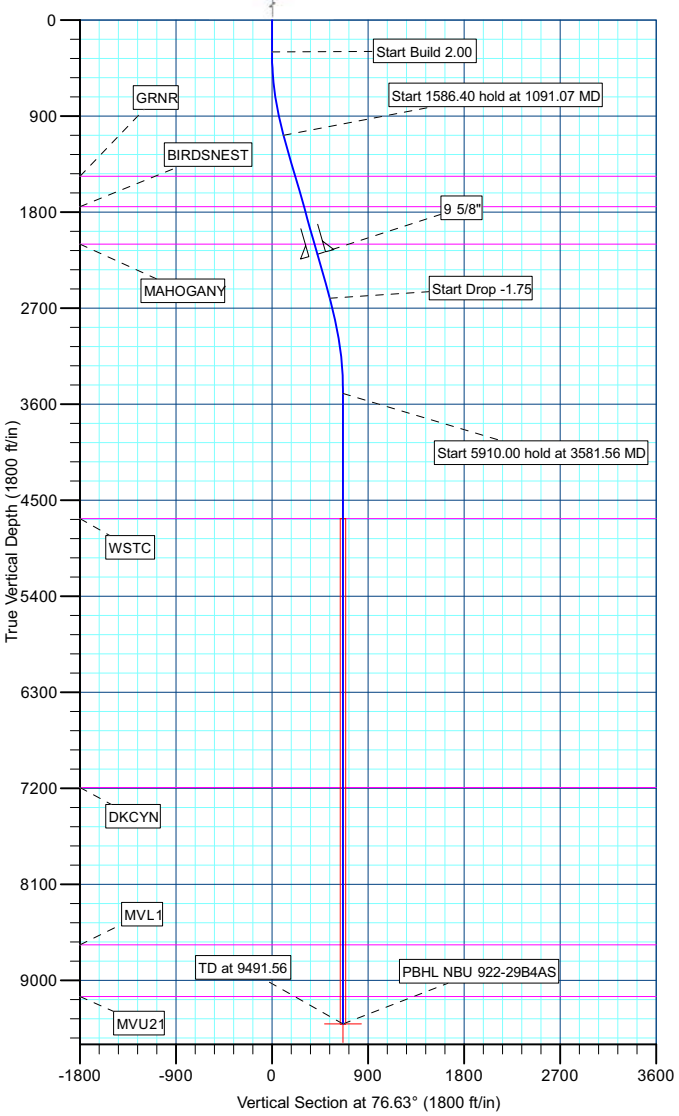
MD	Inc	Azi	TVD	+N/-S	+E/-W	DLeg	TFace	VSec	Annotation
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	Start Build 2.00
1091.07	15.82	76.63	1081.06	25.10	105.59	2.00	76.63	108.53	Start 1586.40 hold at 1091.07 MD
2677.48	15.82	76.63	2607.36	125.11	526.38	0.00	0.00	541.05	Start Drop -1.75
3581.56	0.00	0.00	3500.00	153.79	647.06	1.75	180.00	665.08	Start 5910.00 hold at 3581.56 MD
9491.56	0.00	0.00	9410.00	153.79	647.06	0.00	0.00	665.08	TD at 9491.56

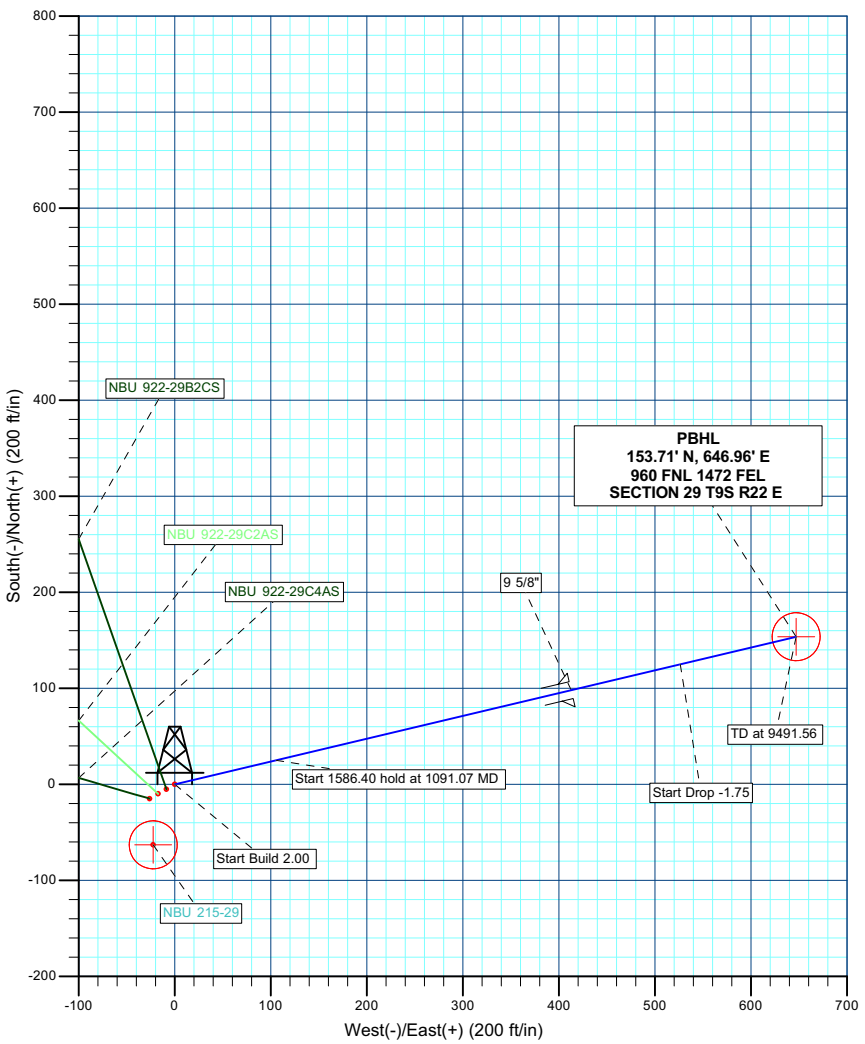
CASING DETAILS

TVD	MD	Name	Size
2196.08	2250.00	9 5/8"	9-5/8

Azimuths to True North
Magnetic North: 11.21°

Magnetic Field
Strength: 52418.4snT
Dip Angle: 65.93°
Date: 7/8/2010
Model: BGGM2010





Plan: Design #1 (NBU 922-29B4AS/NBU 922-29B4AS)

Created By: TRACY WILLIAMS 11:18, July 09 2010

'API Well No: 43047511950000'

Anadarko E&P Company LP

Project:	UINTAH COUNTY, UTAH (nad 27)
Site:	NBU 922-29B2 PAD
Well:	NBU 922-29C2AS
Wellbore:	NBU 922-29C2AS
Design:	Design #1
TVD:	WELL @ 4939.00ft (Original Well Elev)
Ground:	4925.00
Lat:	40° 0' 40.492 N
Long:	109° 27' 40.741 W

Weatherford

FORMATION TOP DETAILS

TVDPath	MDPath	Formation
1482.00	1505.27	GRNR
1805.00	1839.09	BIRDSNEST
2139.00	2184.27	MAHOGANY
4716.00	4847.55	WSTC
7279.00	7480.05	DKCYN
8236.00	8437.05	MVU21
8733.00	8934.05	MVL1

WELL DETAILS: NBU 922-29C2AS

Ground Level: 4925.00

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot
0.00	0.00	14533850.16	2071258.81	40° 0' 40.396 N	109° 27' 40.964 W	

WELLBORE TARGET DETAILS (LAT/LONG)

Name	TVD	+N/-S	+E/-W	Latitude	Longitude	Shape
PBHL NBU 922-29C2AS	9495.00	1103.96	-1198.10	40° 0' 51.307 N	109° 27' 56.365 W	Circle (Radius: 25.00)

SECTION DETAILS

MD	Inc	Azi	TVD	+N/-S	+E/-W	DLeg	TFace	VSec	Annotation
0.00	0.00	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	Start Build 2.00
1031.19	14.62	312.66	1023.28	62.89	-68.25	2.00	312.66	92.81	Start 5717.67 hold at 1031.19 MD
6748.86	14.62	312.66	6555.72	1041.07	-1129.85	0.00	0.00	1536.35	Start Drop -2.00
7480.05	0.00	0.00	7279.00	1103.96	-1198.10	2.00	180.00	1629.16	Start 2216.00 hold at 7480.05 MD
9696.05	0.00	0.00	9495.00	1103.96	-1198.10	0.00	0.00	1629.16	TD at 9696.05

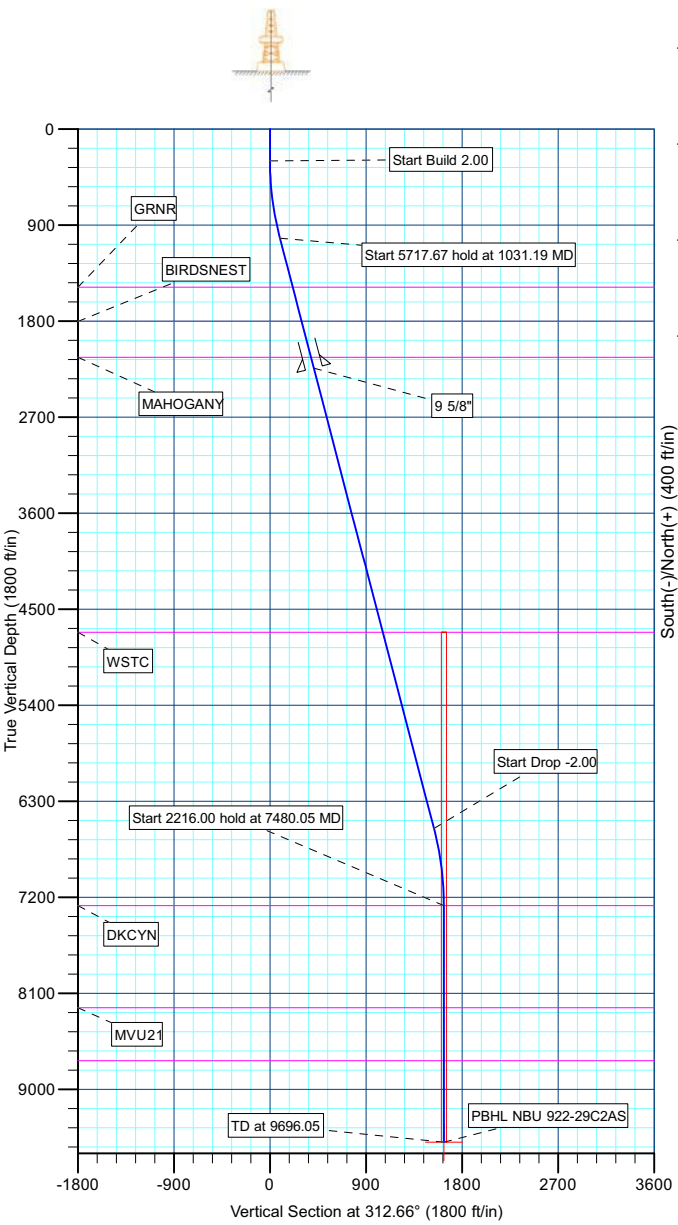
CASING DETAILS

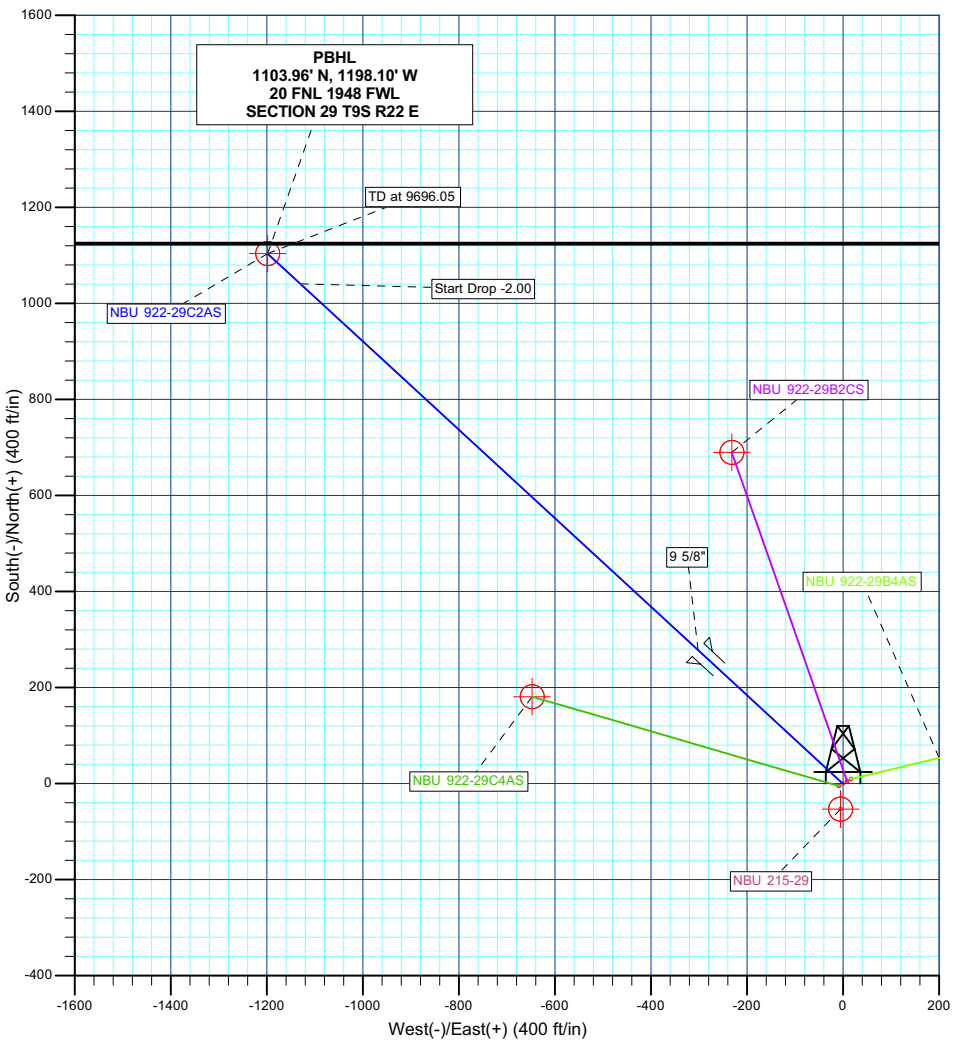
TVD	MD	Name	Size
2241.31	2290.00	9 5/8"	9-5/8

T M

Azimuths to True North
Magnetic North: 11.21°

Magnetic Field
Strength: 52418.4snT
Dip Angle: 65.93°
Date: 7/8/2010
Model: BGGM2010





Plan: Design #1 (NBU 922-29C2AS/NBU 922-29C2AS)

Created By: TRACY WILLIAMS 15:12, July 09 2010

'API Well No: 43047511950000'

Anadarko E&P Company LP

Project:	UINTAH COUNTY, UTAH (nad 27)
Site:	NBU 922-29B2 PAD
Well:	NBU 922-29C4AS
Wellbore:	NBU 922-29C4AS
Design:	Design #1
TVD:	WELL @ 4939.00ft (Original Well Elev)
Ground:	4925.00
Lat:	40° 0' 40.492 N
Long:	109° 27' 40.741 W

Weatherford

FORMATION TOP DETAILS

TVDPath	MDPath	Formation
1445.00	1472.57	GRNR
1743.00	1785.31	BIRDSNEST
2108.00	2168.37	MAHOGANY
4679.00	4768.22	WSTC
7236.00	7325.22	DKCYN
8172.00	8261.22	MVU21
8696.00	8785.22	MVL1

WELL DETAILS: NBU 922-29C4AS

Ground Level: 4925.00

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot
0.00	0.00	14533844.91	2071250.21	40° 0' 40.345 N	109° 27' 41.076 W	

WELLBORE TARGET DETAILS (LAT/LONG)

Name	TVD	+N/-S	+E/-W	Latitude	Longitude	Shape
PBHL NBU 922-29C4AS	9452.00	186.12	-638.56	40° 0' 42.185 N	109° 27' 49.284 W	Circle (Radius: 25.00)

SECTION DETAILS

MD	Inc	Azi	TVD	+N/-S	+E/-W	DLeg	TFace	VSec	Annotation
0.00	0.00	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	Start Build 2.00
1183.15	17.66	286.25	1169.23	37.79	-129.66	2.00	286.25	135.05	Start 1301.91 hold at 1183.15 MD
2485.07	17.66	286.25	2409.77	148.33	-508.90	0.00	0.00	530.08	Start Drop -2.00
3368.22	0.00	0.00	3279.00	186.12	-638.56	2.00	180.00	665.13	Start 6173.00 hold at 3368.22 MD
9541.22	0.00	0.00	9452.00	186.12	-638.56	0.00	0.00	665.13	TD at 9541.22

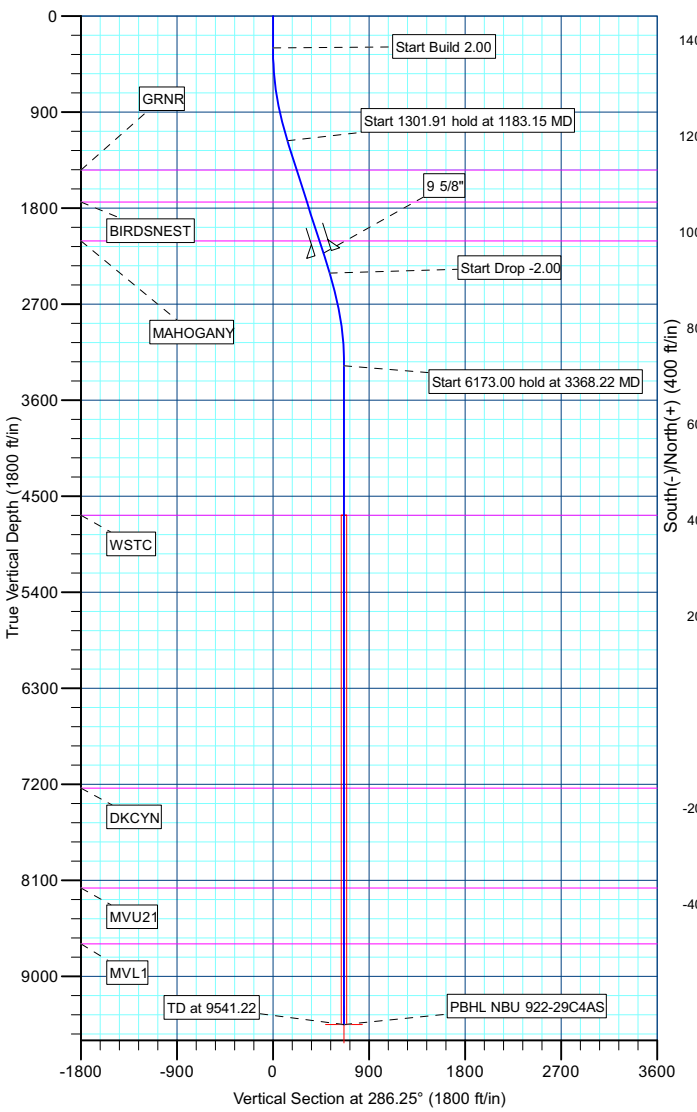
CASING DETAILS

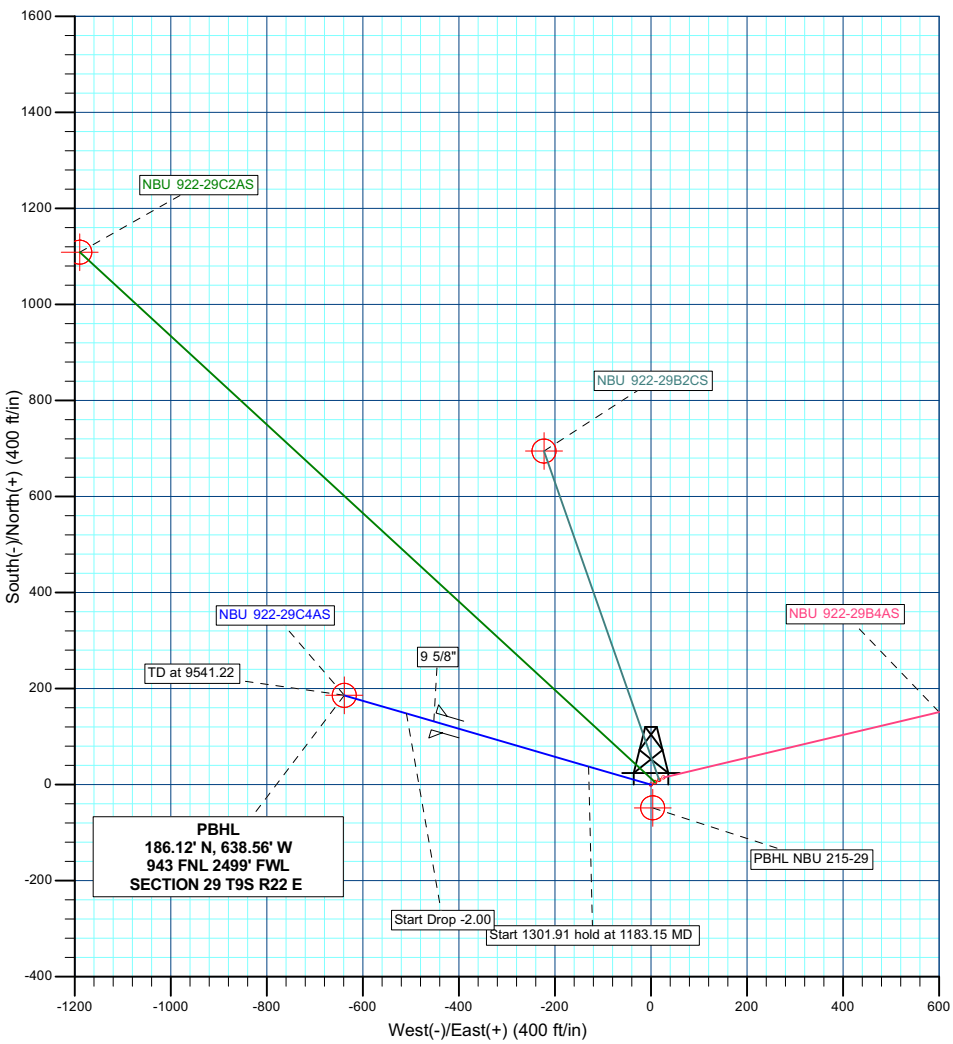
TVD	MD	Name	Size
2223.90	2290.00	9 5/8"	9-5/8

T M

Azimuths to True North
Magnetic North: 11.21°

Magnetic Field
Strength: 52418.3snT
Dip Angle: 65.93°
Date: 7/8/2010
Model: BGGM2010





Plan: Design #1 (NBU 922-29C4AS/NBU 922-29C4AS)

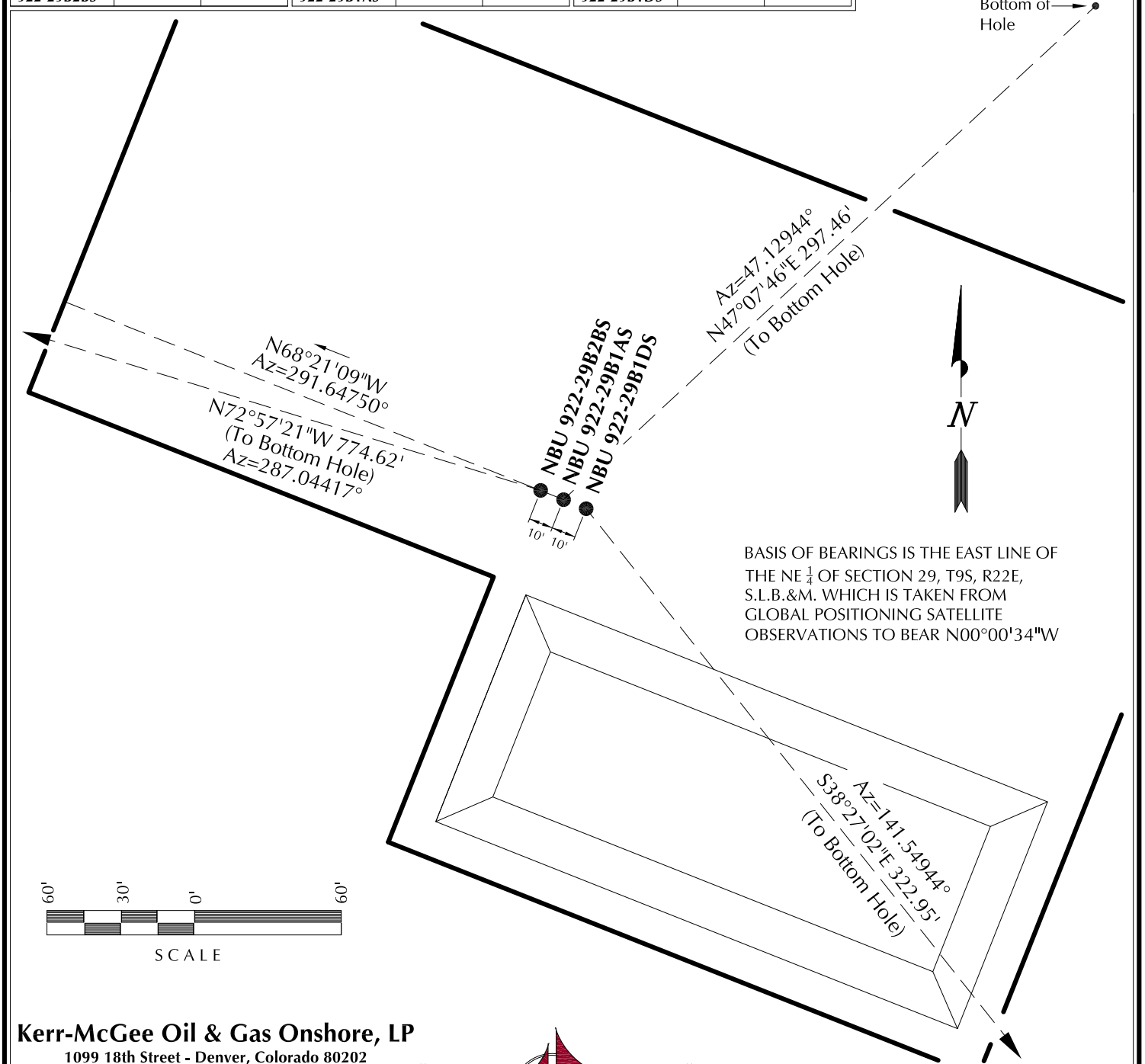
Created By: TRACY WILLIAMS 13:53, July 09 2010

'APIWellNo:43047511950000'

WELL NAME	SURFACE POSITION					BOTTOM HOLE				
	NAD83		NAD27			NAD83		NAD27		
	LATITUDE	LONGITUDE	LATITUDE	LONGITUDE	FOOTAGES	LATITUDE	LONGITUDE	LATITUDE	LONGITUDE	FOOTAGES
NBU 922-29B2BS	40°00'48.964" 40.013601°	109°27'37.505" 109.460418°	40°00'49.090" 40.013636°	109°27'35.039" 109.459733°	244' FNL 1675' FEL	40°00'51.208" 40.014224°	109°27'47.020" 109.463061°	40°00'51.333" 40.014259°	109°27'44.555" 109.462376°	17' FNL 2416' FEL
NBU 922-29B1AS	40°00'48.927" 40.013591°	109°27'37.384" 109.460384°	40°00'49.052" 40.013626°	109°27'34.918" 109.459700°	247' FNL 1666' FEL	40°00'50.926" 40.014146°	109°27'34.582" 109.459606°	40°00'51.052" 40.014181°	109°27'32.117" 109.458921°	45' FNL 1448' FEL
NBU 922-29B1DS	40°00'48.890" 40.013581°	109°27'37.265" 109.460351°	40°00'49.016" 40.013616°	109°27'34.800" 109.459667°	251' FNL 1657' FEL	40°00'46.391" 40.012886°	109°27'34.685" 109.459635°	40°00'46.517" 40.012921°	109°27'32.219" 109.458950°	504' FNL 1456' FEL

RELATIVE COORDINATES - From Surface Position to Bottom Hole

WELL NAME	NORTH	EAST	WELL NAME	NORTH	EAST	WELL NAME	NORTH	EAST
NBU 922-29B2BS	227.0'	-740.6'	NBU 922-29B1AS	202.4'	218.0'	NBU 922-29B1DS	-252.9'	200.8'



Kerr-McGee Oil & Gas Onshore, LP
1099 18th Street - Denver, Colorado 80202

WELL PAD - NBU 922-29B

WELL PAD INTERFERENCE PLAT
WELLS - NBU 922-29B2BS, NBU 922-29B1AS & NBU 922-29B1DS
LOCATED IN SECTION 29, T9S, R22E, S.L.B.&M., UINTAH COUNTY, UTAH.

609 CONSULTING, LLC
371 Coffeen Avenue
Sheridan WY 82801
Phone 307-674-0609
Fax 307-674-0182

TIMBERLINE (435) 789-1365
ENGINEERING & LAND SURVEYING, INC.
209 NORTH 300 WEST - VERNAL, UTAH 84078

DATE SURVEYED: 03-23-10	SURVEYED BY: K.B.C.	SHEET NO: 4
DATE DRAWN: 03-29-10	DRAWN BY: K.O.B.	
SCALE: 1" = 60'	Date Last Revised: 06-03-10 K.O.B.	4 OF 15

'APIWellNo:43047511950000'

Scientific Drilling
Rocky Mountain Operations

Project: Uintah County, UT UTM12
Site: NBU 922-29B Pad
Well: NBU 922-29B1AS
Wellbore: OH
Design: Plan #1

Anadarko Petroleum Corporation

Kerr McGee Oil and Gas Onshore LP

WELL DETAILS: NBU 922-29B1AS

GL 4886' & RKB 14' @ 4900.00ft (ASSUMED) 4886.00

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
0.00	0.00	14534734.08	2071713.83	40° 0' 49.054 N	109° 27' 34.920 W

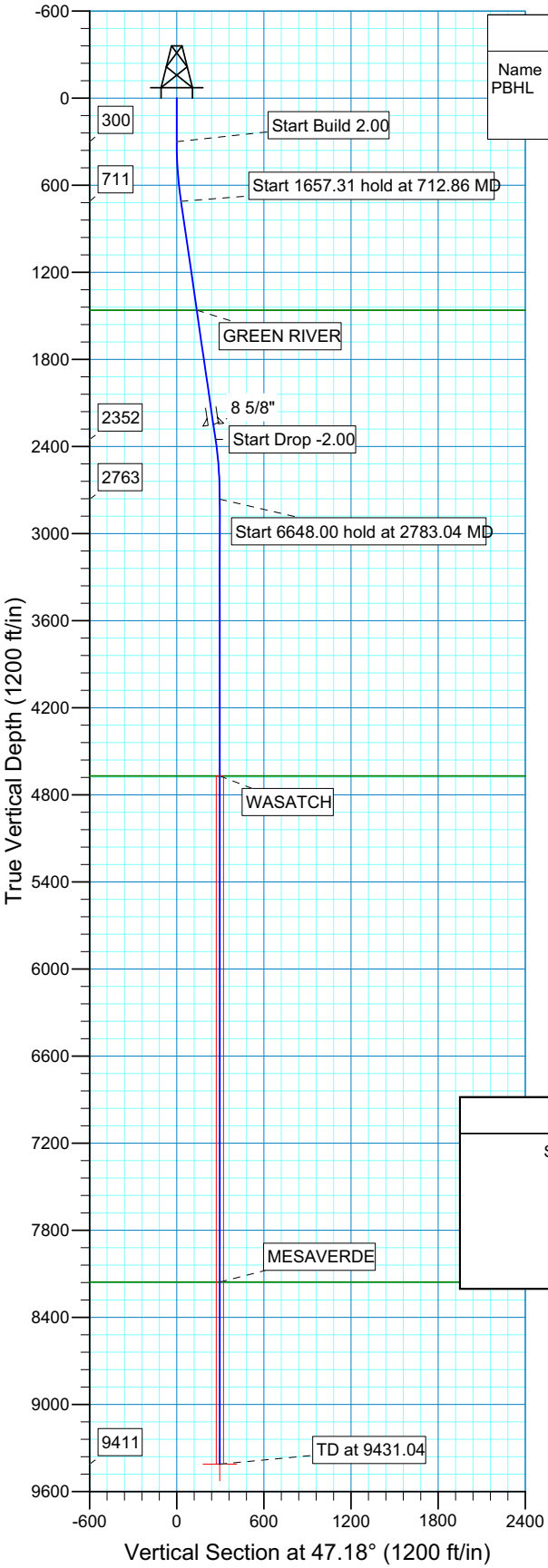
T M

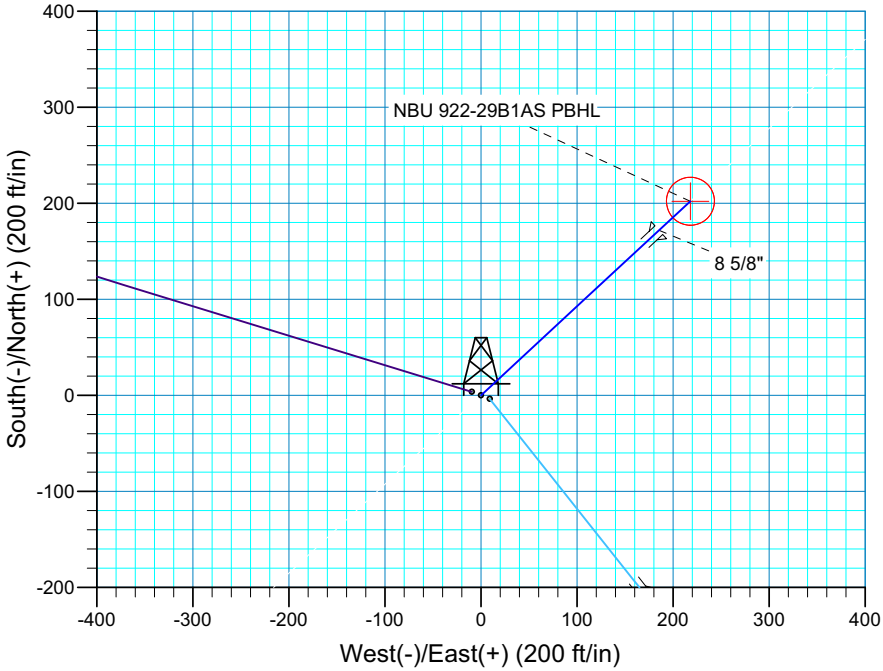
Azimuths to True North
Magnetic North: 11.18°

Magnetic Field
Strength: 52432.4snT
Dip Angle: 65.91°
Date: 07/21/2010
Model: IGRF2010

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

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Shape
PBHL	9411.00	202.14	218.17	14534939.96	2071928.47	40° 0' 51.052 N	109° 27' 32.116 W	Circle (Radius: 25.00)





SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	DLeg	TFace	VSec	Target
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
2	300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	
3	712.86	8.26	47.18	711.44	20.18	21.79	2.00	47.18	29.70	
4	2370.17	8.26	47.18	2351.56	181.95	196.38	0.00	0.00	267.72	
5	2783.04	0.00	0.00	2763.00	202.14	218.17	2.00	180.00	297.42	
6	9431.04	0.00	0.00	9411.00	202.14	218.17	0.00	0.00	297.42	NBU 922-29B1AS PBHL

FORMATION TOP DETAILS

TVDPath	MDPath	Formation
1461.00	1470.28	GREEN RIVER
4670.00	4690.04	WASATCH
8157.00	8177.04	MESAVERDE

PROJECT DETAILS: Uintah County, UT UTM12

Geodetic System: Universal Transverse Mercator (US Survey Feet)
Datum: NAD 1927 - Western US
Ellipsoid: Clarke 1866
Zone: Zone 12N (114 W to 108 W)
Location: SEC 29 T9S R22E
System Datum: Mean Sea Level
Local North: No north reference data is available

Plan: Plan #1 (NBU 922-29B1AS/OH)

Created By: Robert H. Scott Date: 8:47, July 21 2010

'APIWellNo:43047511950000'

Scientific Drilling
Rocky Mountain Operations

Project: Uintah County, UT UTM12
Site: NBU 922-29B Pad
Well: NBU 922-29B1DS
Wellbore: OH
Design: Plan #1

Anadarko Petroleum Corporation

Kerr McGee Oil and Gas Onshore LP

WELL DETAILS: NBU 922-29B1DS

GL 4886' & RKB 14' @ 4900.00ft (ASSUMED) 4886.00

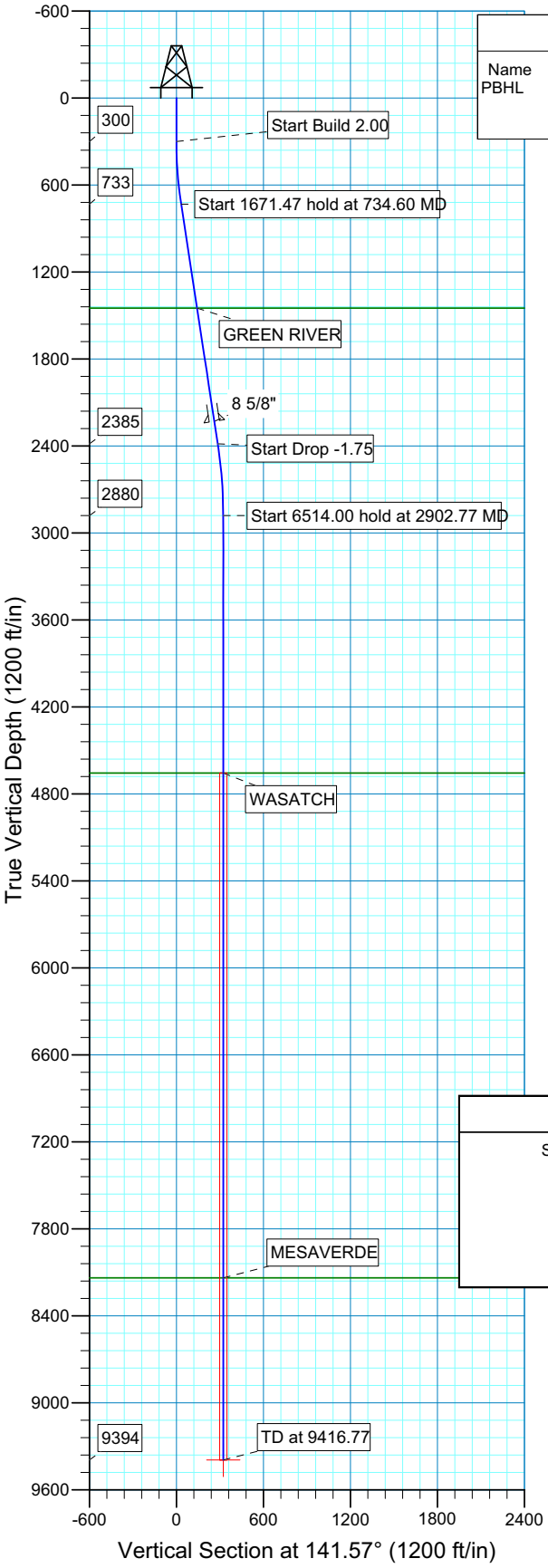
+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
0.00	0.00	14534730.60	2071723.14	40° 0' 49.018 N	109° 27' 34.801 W

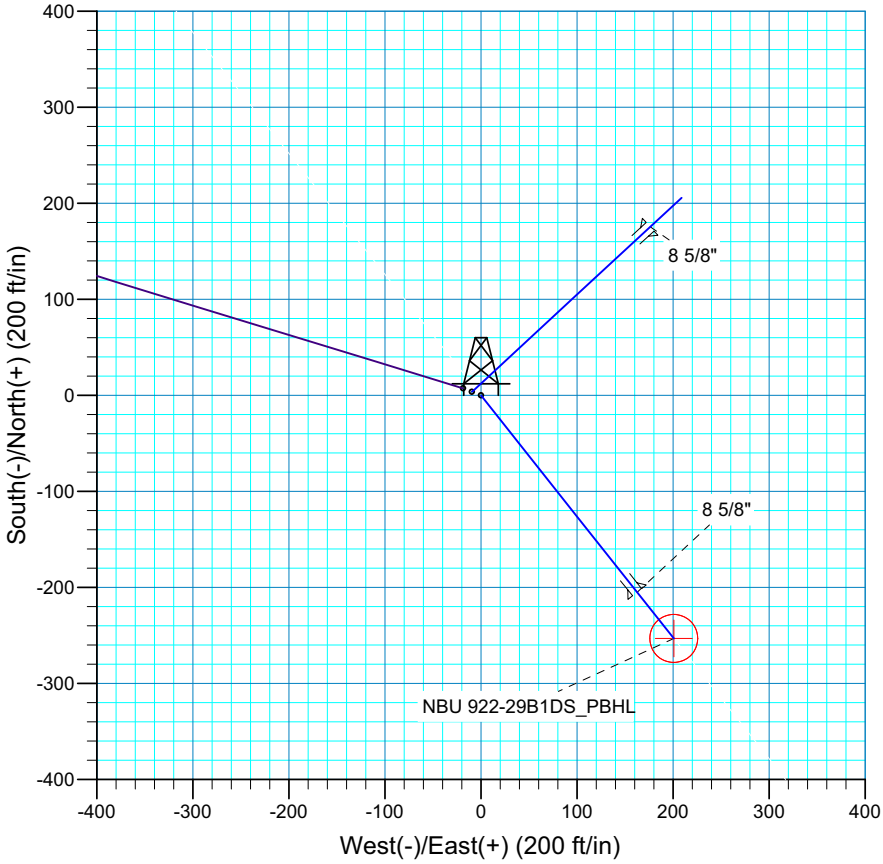
T M
Azimuths to True North
Magnetic North: 11.18°

Magnetic Field
Strength: 52432.4snT
Dip Angle: 65.91°
Date: 07/21/2010
Model: IGRF2010

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

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Shape
PBHL	9394.00	-253.13	200.81	14534480.98	2071928.29	40° 0' 46.516 N	109° 27' 32.220 W	Circle (Radius: 25.00)





SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	DLeg	TFace	VSec	Target
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
2	300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	
3	734.60	8.69	141.57	732.94	-25.78	20.45	2.00	141.57	32.90	
4	2406.08	8.69	141.57	2385.21	-223.67	177.44	0.00	0.00	285.50	
5	2902.77	0.00	0.00	2880.00	-253.13	200.81	1.75	180.00	323.11	
6	9416.77	0.00	0.00	9394.00	-253.13	200.81	0.00	0.00	323.11	NBU 922-29B1DS_PBHL

FORMATION TOP DETAILS

TVDPath	MDPath	Formation
1449.00	1458.98	GREEN RIVER
4656.00	4678.77	WASATCH
8138.00	8160.77	MESAVERDE

PROJECT DETAILS: Uintah County, UT UTM12

Geodetic System: Universal Transverse Mercator (US Survey Feet)
Datum: NAD 1927 - Western US
Ellipsoid: Clarke 1866
Zone: Zone 12N (114 W to 108 W)
Location: SEC 29 T9S R22E
System Datum: Mean Sea Level
Local North: No north reference data is available

Plan: Plan #1 (NBU 922-29B1DS/OH)

Created By: Robert H. Scott Date: 8:45, July 21 2010

'APIWellNo:43047511950000'

Scientific Drilling
Rocky Mountain Operations

Project: Uintah County, UT UTM12
Site: NBU 922-29B Pad
Well: NBU 922-29B2BS
Wellbore: OH
Design: Plan #1

Anadarko Petroleum Corporation

Kerr McGee Oil and Gas Onshore LP

WELL DETAILS: NBU 922-29B2BS

GL 4886' & RKB 14' @ 4900.00ft (ASSUMED) 4886.00

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
0.00	0.00	14534737.56	2071704.53	40° 0' 49.090 N	109° 27' 35.039 W

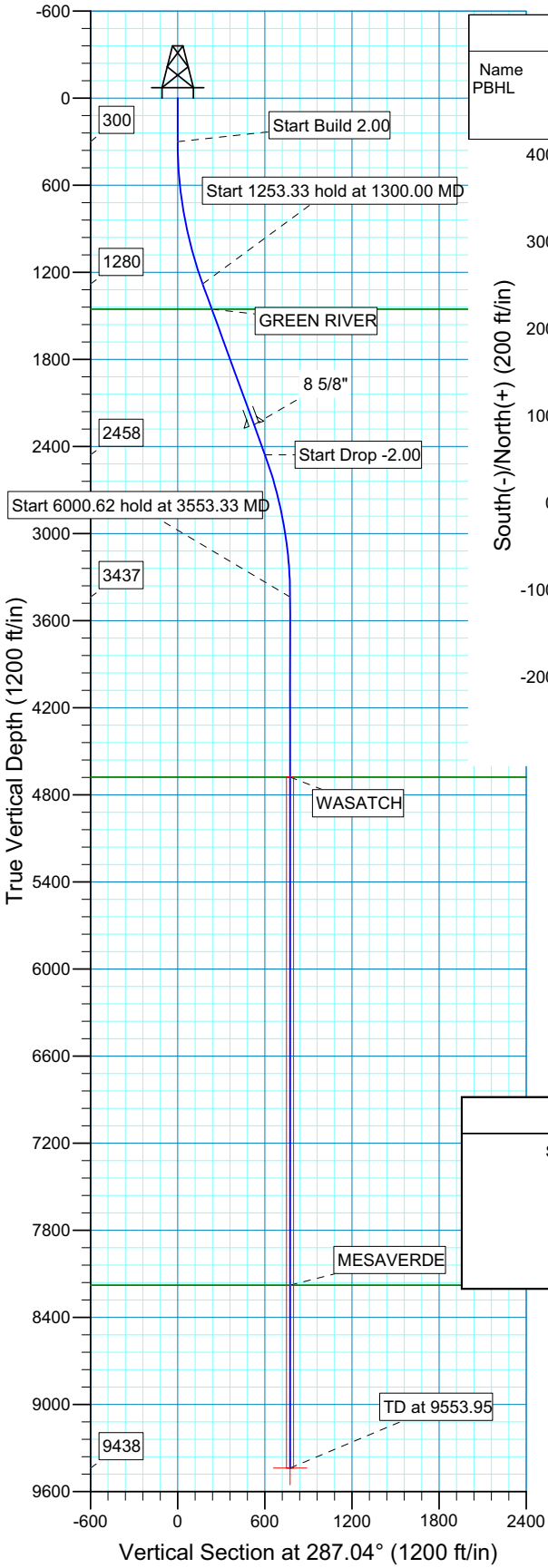
T M

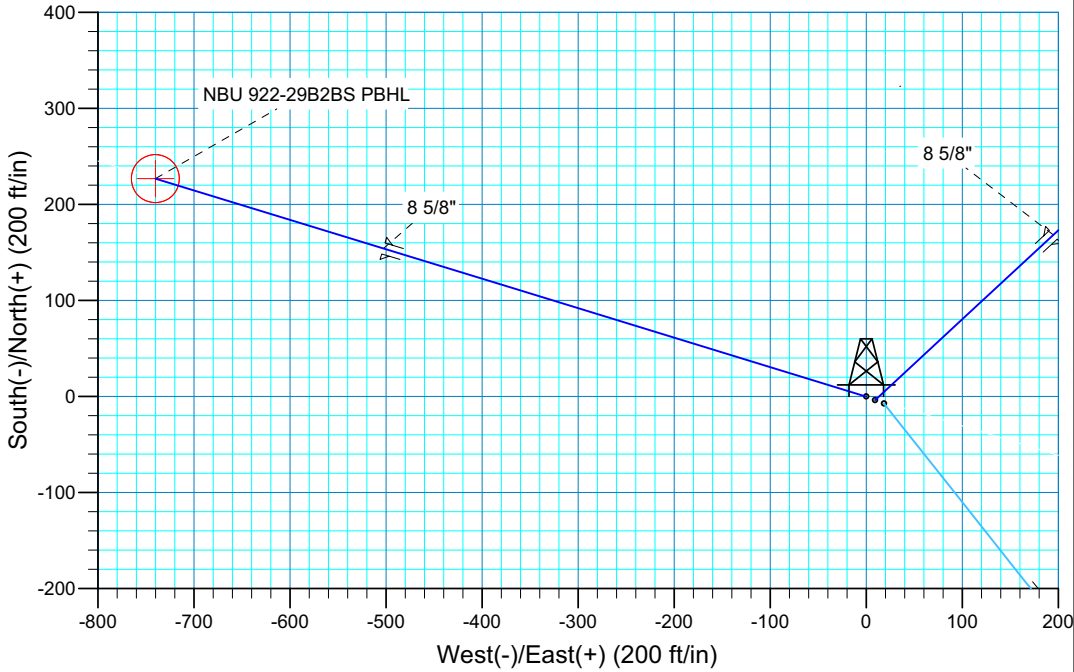
Azimuths to True North
Magnetic North: 11.18°

Magnetic Field
Strength: 52432.4snT
Dip Angle: 65.91°
Date: 07/21/2010
Model: IGRF2010

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

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Shape
PBHL	9438.00	226.92	-740.20	14534951.65	2070960.52	40° 0' 51.332 N	109° 27' 44.554 W	Circle (Radius: 25.00)





SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	DLeg	TFace	VSec	Target
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
2	300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	
3	1300.00	20.00	287.04	1279.82	50.64	-165.18	2.00	287.04	172.77	
4	2553.33	20.00	287.04	2457.56	176.28	-575.02	0.00	0.00	601.43	
5	3553.33	0.00	0.00	3437.38	226.92	-740.20	2.00	180.00	774.20	
6	9553.95	0.00	0.00	9438.00	226.92	-740.20	0.00	0.00	774.20	NBU 922-29B2BS PBHL

FORMATION TOP DETAILS

TVDPath	MDPath	Formation
1454.00	1485.36	GREEN RIVER
4678.00	4793.95	WASATCH
8179.00	8294.95	MESAVERDE

PROJECT DETAILS: Uintah County, UT UTM12

Geodetic System: Universal Transverse Mercator (US Survey Feet)
Datum: NAD 1927 - Western US
Ellipsoid: Clarke 1866
Zone: Zone 12N (114 W to 108 W)
Location: SEC 29 T9S R22E
System Datum: Mean Sea Level
Local North: No north reference data is available

Plan: Plan #1 (NBU 922-29B2BS/OH)

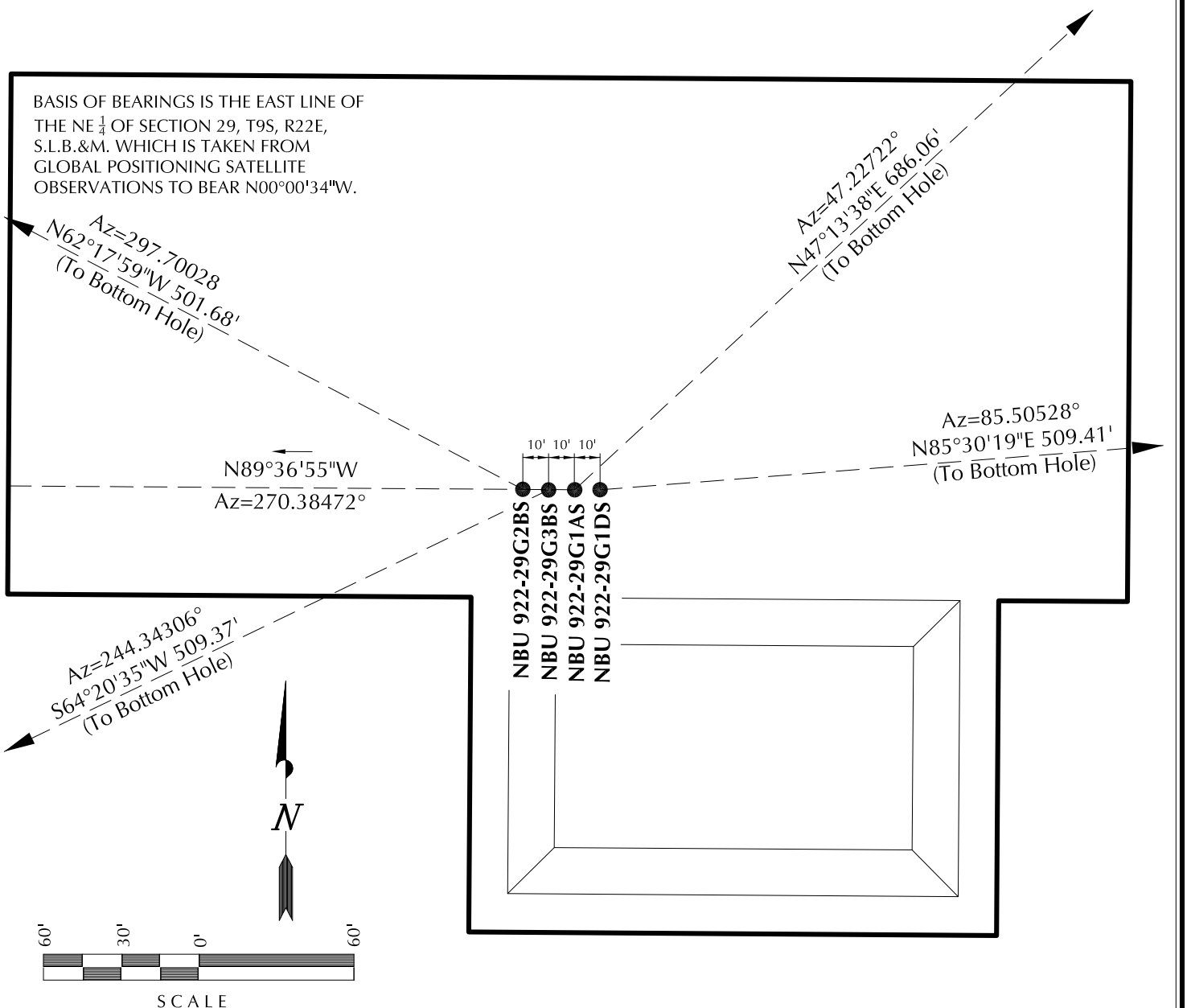
Created By: Robert H. Scott Date: 8:49, July 21 2010

'APIWellNo:43047511950000'

WELL NAME	SURFACE POSITION					BOTTOM HOLE				
	NAD83		NAD27			NAD83		NAD27		
	LATITUDE	LONGITUDE	LATITUDE	LONGITUDE	FOOTAGES	LATITUDE	LONGITUDE	LATITUDE	LONGITUDE	FOOTAGES
NBU 922-29G2BS	40°00'32.878" 40.009133°	109°27'41.670" 109.461575°	40°00'33.004" 40.009168°	109°27'39.205" 109.460890°	1872' FNL 2000' FEL	40°00'35.183" 40.009773°	109°27'47.377" 109.463160°	40°00'35.308" 40.009808°	109°27'44.911" 109.462475°	1639' FNL 2444' FEL
NBU 922-29G3BS	40°00'32.876" 40.009132°	109°27'41.541" 109.461539°	40°00'33.002" 40.009167°	109°27'39.076" 109.460854°	1872' FNL 1990' FEL	40°00'30.697" 40.008527°	109°27'47.440" 109.463178°	40°00'30.823" 40.008562°	109°27'44.975" 109.462493°	2093' FNL 2449' FEL
NBU 922-29G1AS	40°00'32.877" 40.009132°	109°27'41.411" 109.461503°	40°00'33.003" 40.009167°	109°27'38.946" 109.460818°	1872' FNL 1980' FEL	40°00'37.480" 40.010411°	109°27'34.940" 109.459706°	40°00'37.605" 40.010446°	109°27'32.475" 109.459021°	1406' FNL 1476' FEL
NBU 922-29G1DS	40°00'32.876" 40.009132°	109°27'41.284" 109.461468°	40°00'33.002" 40.009167°	109°27'38.819" 109.460783°	1872' FNL 1970' FEL	40°00'33.271" 40.009242°	109°27'34.760" 109.459655°	40°00'33.396" 40.009277°	109°27'32.295" 109.458971°	1832' FNL 1462' FEL

RELATIVE COORDINATES - From Surface Position to Bottom Hole

WELL NAME	NORTH	EAST	WELL NAME	NORTH	EAST	WELL NAME	NORTH	EAST	WELL NAME	NORTH	EAST
NBU 922-29G2BS	233.2'	-444.2'	**NBU 922-29G3BS**	-220.5'	-459.1'	**NBU 922-29G1AS**	465.9'	503.6'	**NBU 922-29G1DS**	39.9'	507.8'



Kerr-McGee Oil & Gas Onshore, LP
1099 18th Street - Denver, Colorado 80202

WELL PAD - NBU 922-29G

WELL PAD INTERFERENCE PLAT
WELLS - NBU 922-29G2BS, NBU 922-29G3BS, NBU 922-29G1AS & NBU 922-29G1DS
LOCATED IN SECTION 29, T9S, R22E, S.L.B.&M., UINTAH COUNTY, UTAH.

609
CONSULTING, LLC
371 Coffeen Avenue
Sheridan WY 82801
Phone 307-674-0609
Fax 307-674-0182

TIMBERLINE (435) 789-1365
ENGINEERING & LAND SURVEYING, INC.
209 NORTH 300 WEST - VERNAL, UTAH 84078

DATE SURVEYED: 03-31-10	SURVEYED BY: M.S.B.	SHEET NO:
DATE DRAWN: 04-01-10	DRAWN BY: M.P.D.	5
SCALE: 1" = 60'	Date Last Revised:	5 OF 16

'APIWellNo:43047511950000'

Scientific Drilling
Rocky Mountain Operations

Project: Uintah County, UT NAD27
Site: NBU 922-29G Pad
Well: NBU 922-29G1AS
Wellbore: OH
Design: Plan #1

Anadarko Petroleum Corporation

Kerr McGee Oil and Gas Onshore LP

WELL DETAILS: NBU 922-29G1AS

GL 5028' & RKB 14' @ 5042.00ft (ASSUMED) 5028.00

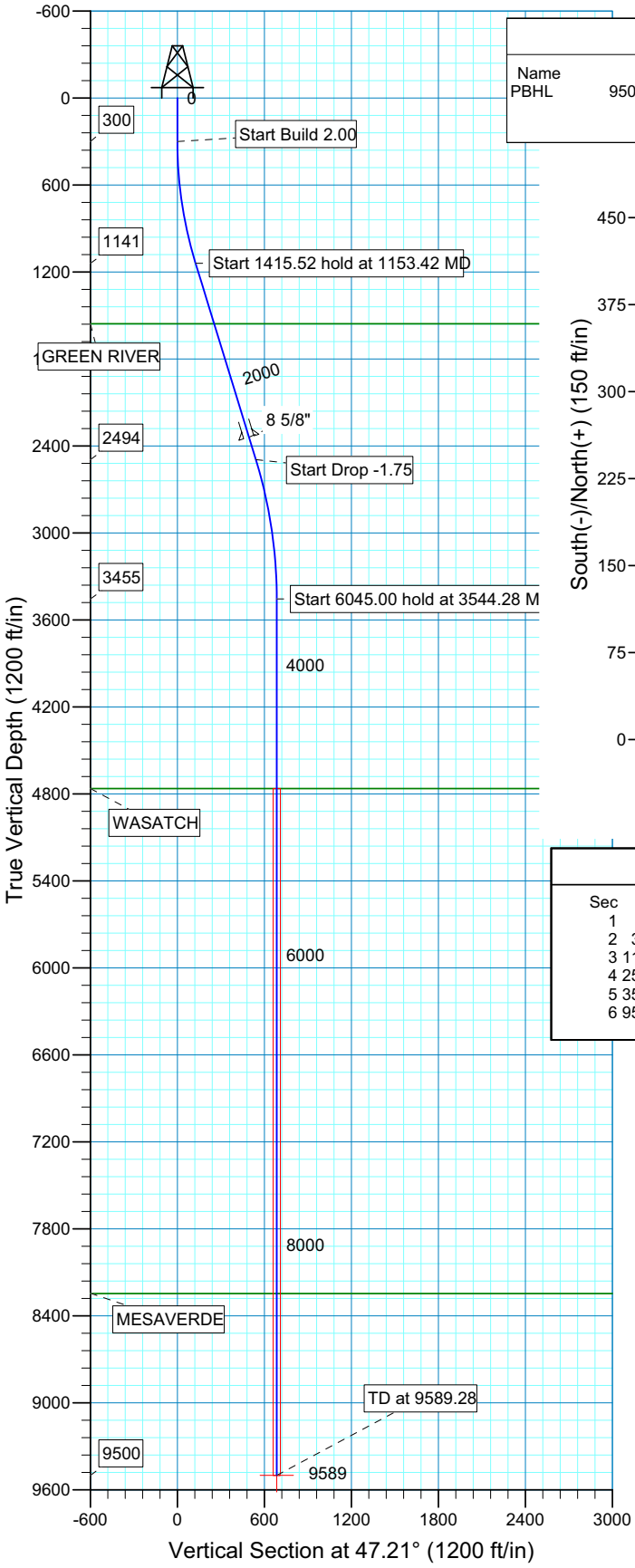
+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
0.00	0.00	616895.09	2571137.33	40° 0' 33.001 N	109° 27' 38.945 W

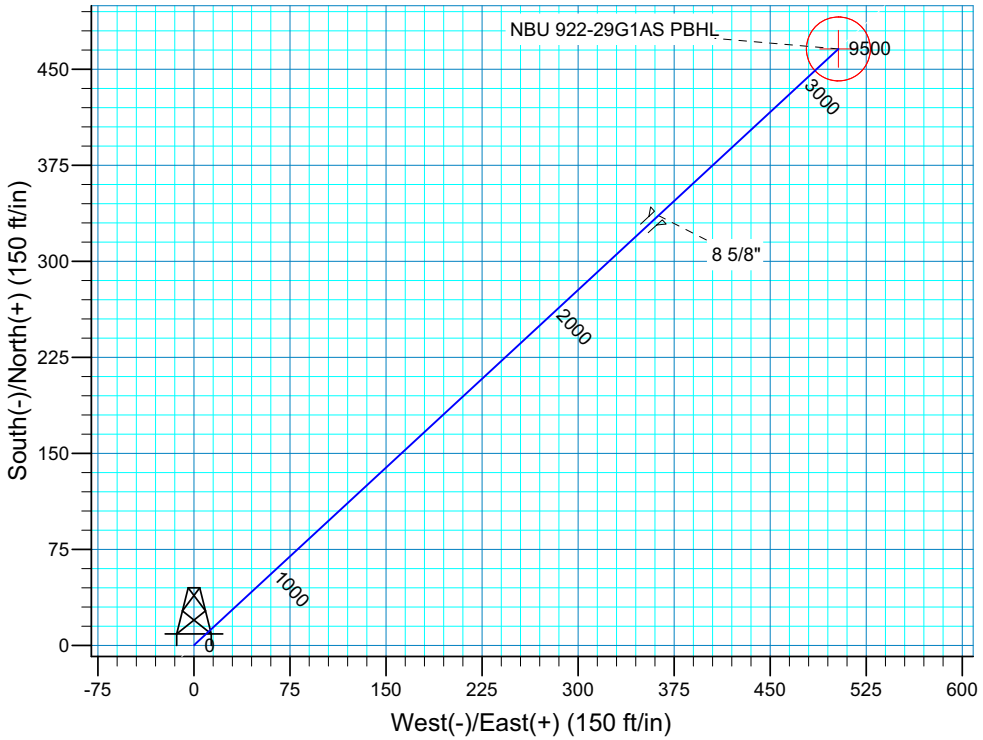
T M
Azimuths to True North
Magnetic North: 11.16°

Magnetic Field
Strength: 52462.0snT
Dip Angle: 65.91°
Date: 07/15/2010
Model: IGRF200510

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

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Shape
PBHL	9500.00	465.88	503.34	617372.33	2571629.92	40° 0' 37.606 N	109° 27' 32.476 W	Circle (Radius: 25.00





SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	DLeg	TFace	VSec	Target
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
2	300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	
3	1153.42	17.07	47.21	1140.85	85.71	92.60	2.00	47.21	126.18	
4	2568.94	17.07	47.21	2494.02	367.93	397.51	0.00	0.00	541.65	
5	3544.28	0.00	0.00	3455.00	465.88	503.34	1.75	180.00	685.86	
6	9589.28	0.00	0.00	9500.00	465.88	503.34	0.00	0.00	685.86	NBU 922-29G1AS PBHL

FORMATION TOP DETAILS

TVDPath	MDPath	Formation
1557.00	1588.74	GREEN RIVER
4763.00	4852.28	WASATCH
8246.00	8335.28	MESAVERDE

PROJECT DETAILS: Uintah County, UT NAD27

Geodetic System: US State Plane 1927 (Exact solution)
Datum: NAD 1927 (NADCON CONUS)
Ellipsoid: Clarke 1866
Zone: Utah Central 4302
Location: SEC 29 T9S R22E
System Datum: Mean Sea Level
Local North: No north reference data is available

Plan: Plan #1 (NBU 922-29G1AS/OH)

Created By: Robert H. Scott Date: 18:59, July 15 2010

'APIWellNo:43047511950000'

Scientific Drilling
Rocky Mountain Operations

Project: Uintah County, UT NAD27
Site: NBU 922-29G Pad
Well: NBU 922-29G1DS
Wellbore: OH
Design: Plan #1

Anadarko Petroleum Corporation

Kerr McGee Oil and Gas Onshore LP

WELL DETAILS: NBU 922-29G1DS

GL 5028' & RKB 14' @ 5042.00ft (ASSUMED) 5028.00

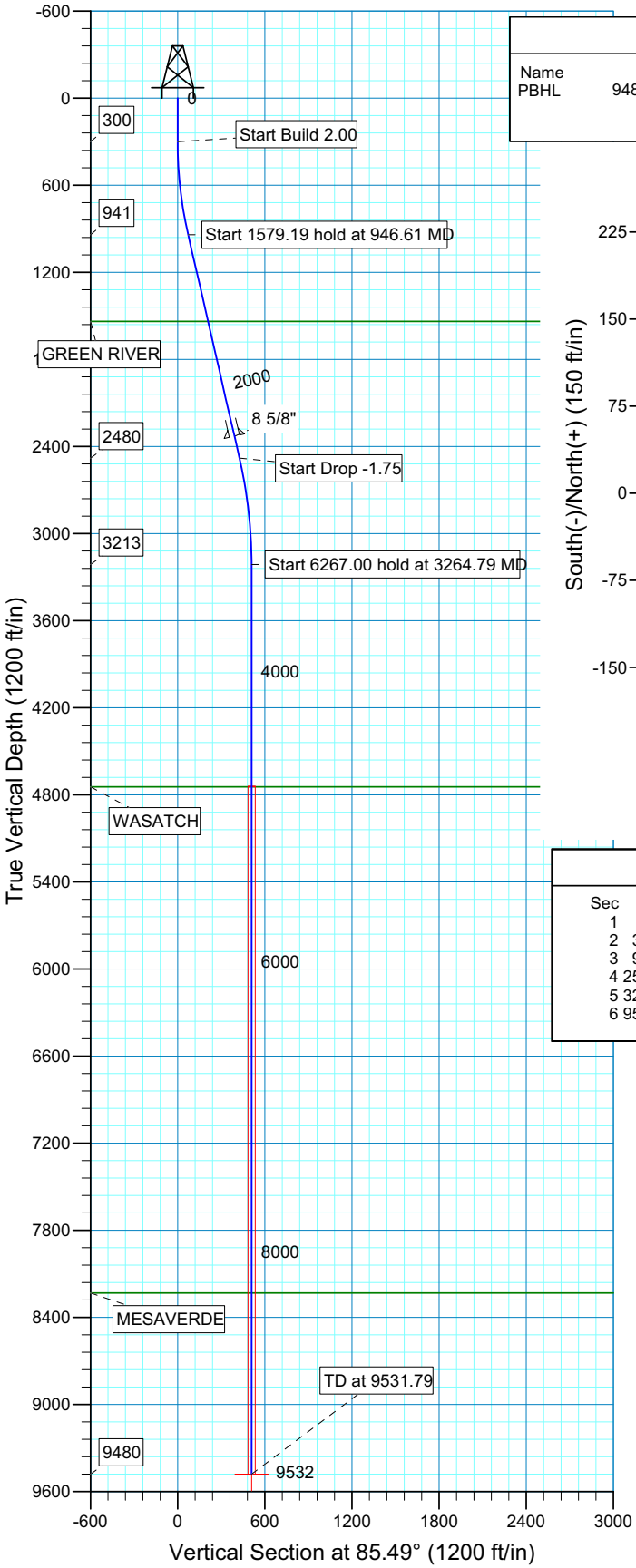
+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
0.00	0.00	616895.33	2571147.13	40° 0' 33.001 N	109° 27' 38.819 W

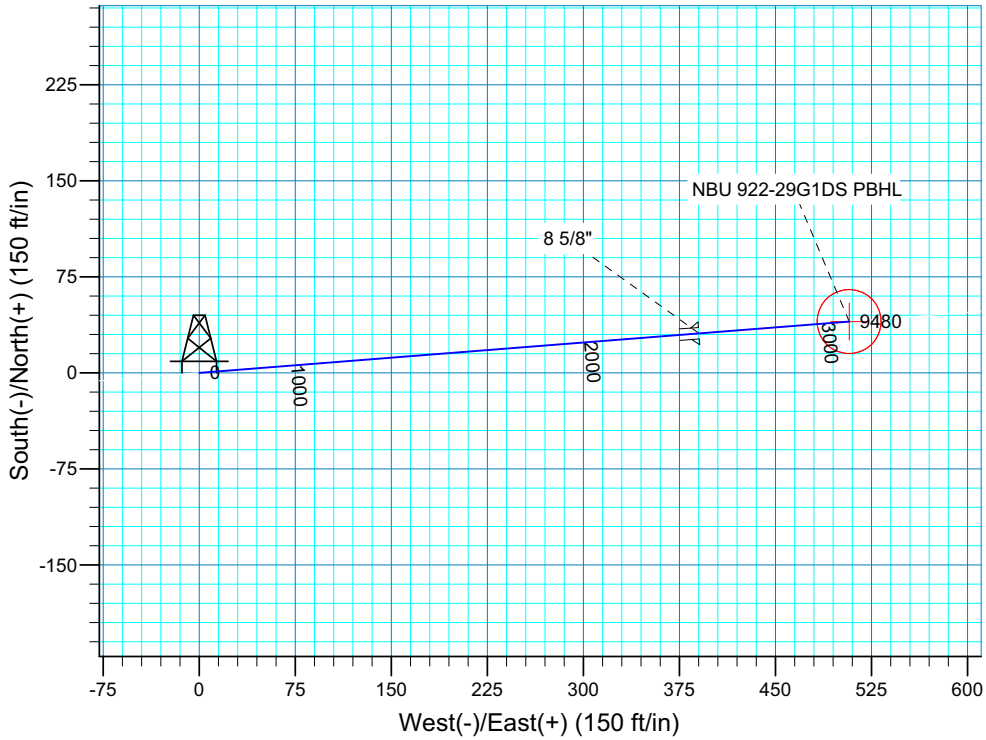
T M
Azimuths to True North
Magnetic North: 11.16°

Magnetic Field
Strength: 52462.0snT
Dip Angle: 65.91°
Date: 07/15/2010
Model: IGRF200510

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

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Shape
PBHL	9480.00	40.07	507.55	616946.96	2571653.64	40° 0' 33.397 N	109° 27' 32.296 W	Circle (Radius: 25.00





SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	DLeg	TFace	VSec	Target
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
2	300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	
3	946.61	12.93	85.49	941.14	5.72	72.44	2.00	85.49	72.66	
4	2525.80	12.93	85.49	2480.27	33.54	424.76	0.00	0.00	426.09	
5	3264.79	0.00	0.00	3213.00	40.07	507.55	1.75	180.00	509.13	
6	9531.79	0.00	0.00	9480.00	40.07	507.55	0.00	0.00	509.13	NBU 922-29G1DS PBHL

FORMATION TOP DETAILS

TVDPath	MDPath	Formation
1538.00	1559.01	GREEN RIVER
4745.00	4796.79	WASATCH
8232.00	8283.79	MESAVERDE

PROJECT DETAILS: Uintah County, UT NAD27

Geodetic System: US State Plane 1927 (Exact solution)
Datum: NAD 1927 (NADCON CONUS)
Ellipsoid: Clarke 1866
Zone: Utah Central 4302
Location: SEC 29 T9S R22E
System Datum: Mean Sea Level
Local North: No north reference data is available

Plan: Plan #1 (NBU 922-29G1DS/OH)

Created By: Robert H. Scott Date: 19:00, July 15 2010

'APIWellNo:43047511950000'

Scientific Drilling
Rocky Mountain Operations

Project: Uintah County, UT NAD27
Site: NBU 922-29G Pad
Well: NBU 922-29G2BS
Wellbore: OH
Design: Plan #1

Anadarko Petroleum Corporation

Kerr McGee Oil and Gas Onshore LP

WELL DETAILS: NBU 922-29G2BS

GL 5028' & RKB 14' @ 5042.00ft (ASSUMED) 5028.00

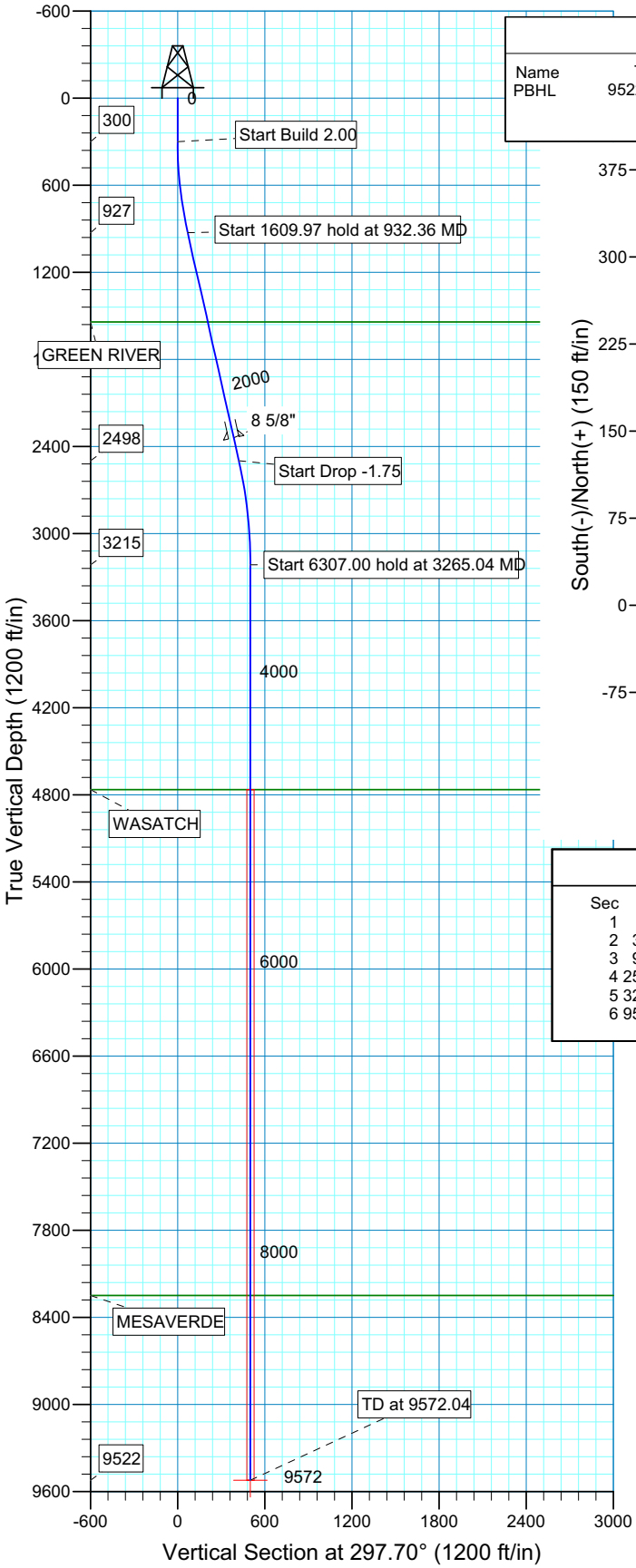
+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
0.00	0.00	616895.00	2571117.16	40° 0' 33.005 N	109° 27' 39.204 W

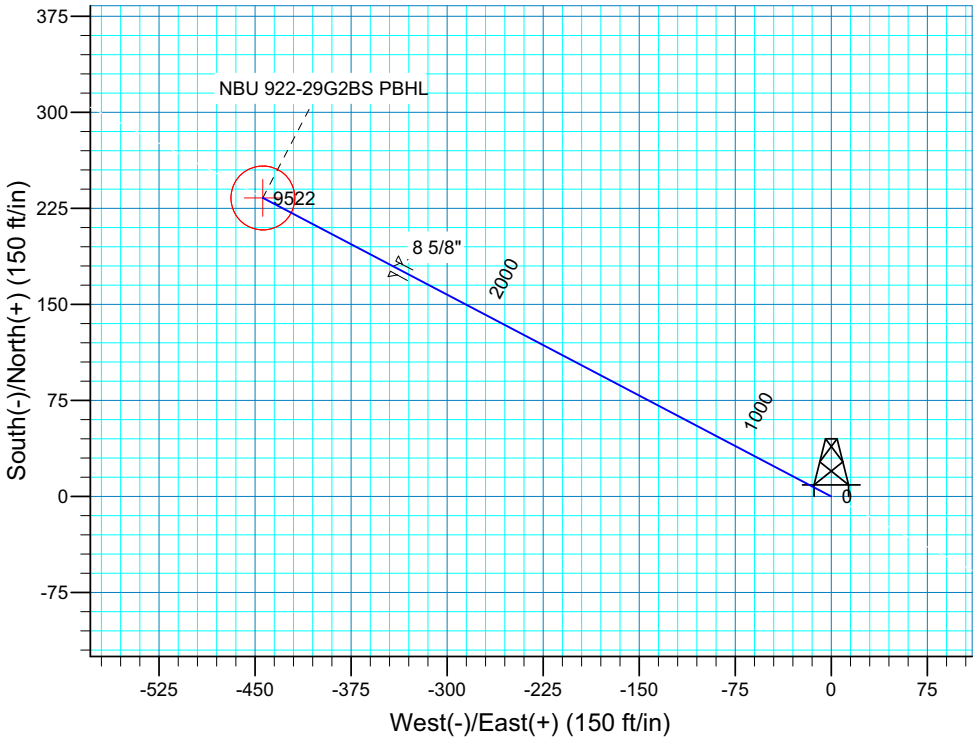
T M
Azimuths to True North
Magnetic North: 11.16°

Magnetic Field
Strength: 52462.0snT
Dip Angle: 65.91°
Date: 07/15/2010
Model: IGRF200510

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

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Shape
PBHL	9522.00	233.13	-443.96	617117.95	2570668.00	40° 0' 35.309 N	109° 27' 44.910 W	Circle (Radius: 25.00





SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	DLeg	TFace	VSec	Target
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
2	300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	
3	932.36	12.65	297.70	927.24	32.32	-61.54	2.00	297.70	69.51	
4	2542.34	12.65	297.70	2498.15	196.20	-373.63	0.00	0.00	422.01	
5	3265.04	0.00	0.00	3215.00	233.13	-443.96	1.75	180.00	501.45	
6	9572.04	0.00	0.00	9522.00	233.13	-443.96	0.00	0.00	501.45	NBU 922-29G2BS PBHL

FORMATION TOP DETAILS

TVDPath	MDPath	Formation
1542.00	1562.41	GREEN RIVER
4764.00	4814.04	WASATCH
8249.00	8299.04	MESAVERDE

PROJECT DETAILS: Uintah County, UT NAD27

Geodetic System: US State Plane 1927 (Exact solution)
Datum: NAD 1927 (NADCON CONUS)
Ellipsoid: Clarke 1866
Zone: Utah Central 4302
Location: SEC 29 T9S R22E
System Datum: Mean Sea Level
Local North: No north reference data is available

Plan: Plan #1 (NBU 922-29G2BS/OH)

Created By: Robert H. Scott Date: 19:04, July 15 2010

'APIWellNo:43047511950000'

Scientific Drilling
Rocky Mountain Operations

Project: Uintah County, UT NAD27
Site: NBU 922-29G Pad
Well: NBU 922-29G3BS
Wellbore: OH
Design: Plan #1

Anadarko Petroleum Corporation

Kerr McGee Oil and Gas Onshore LP

WELL DETAILS: NBU 922-29G3BS

GL 5028' & RKB 14' @ 5042.00ft (ASSUMED) 5028.00

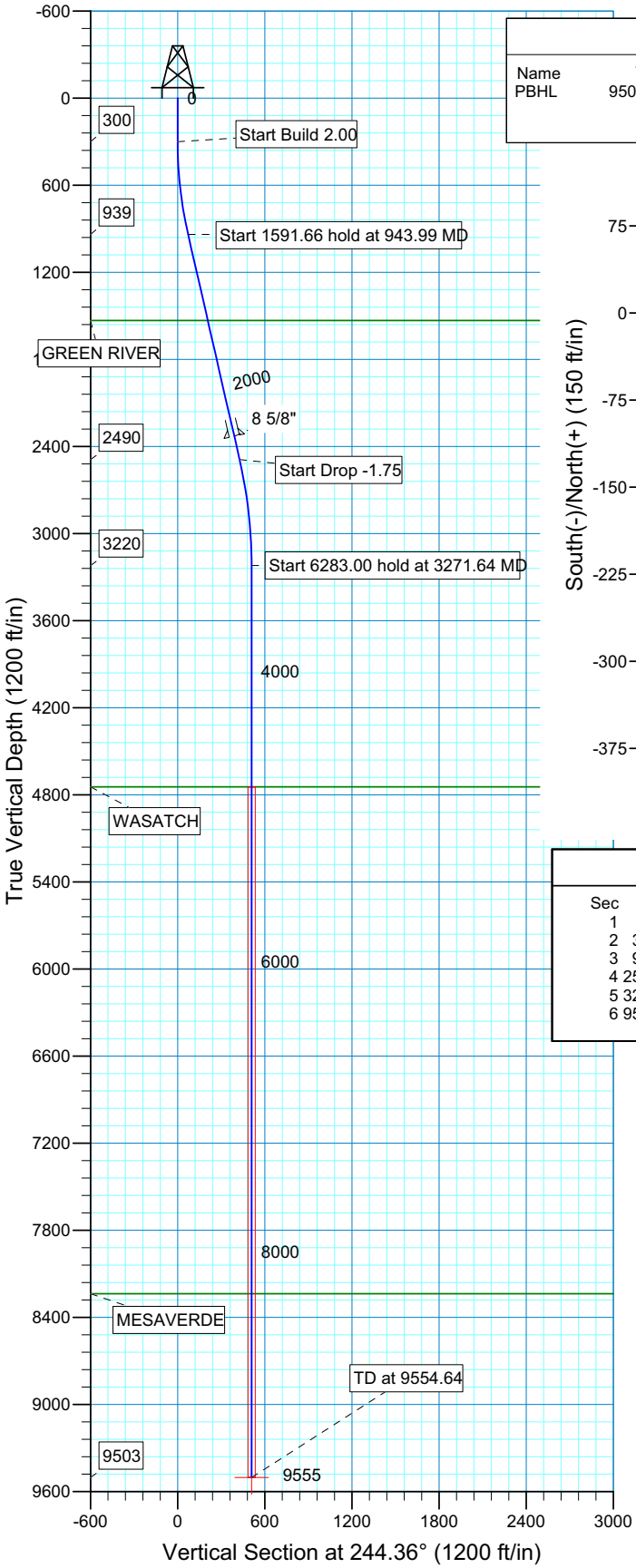
+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
0.00	0.00	616894.87	2571127.25	40° 0' 33.001 N	109° 27' 39.074 W

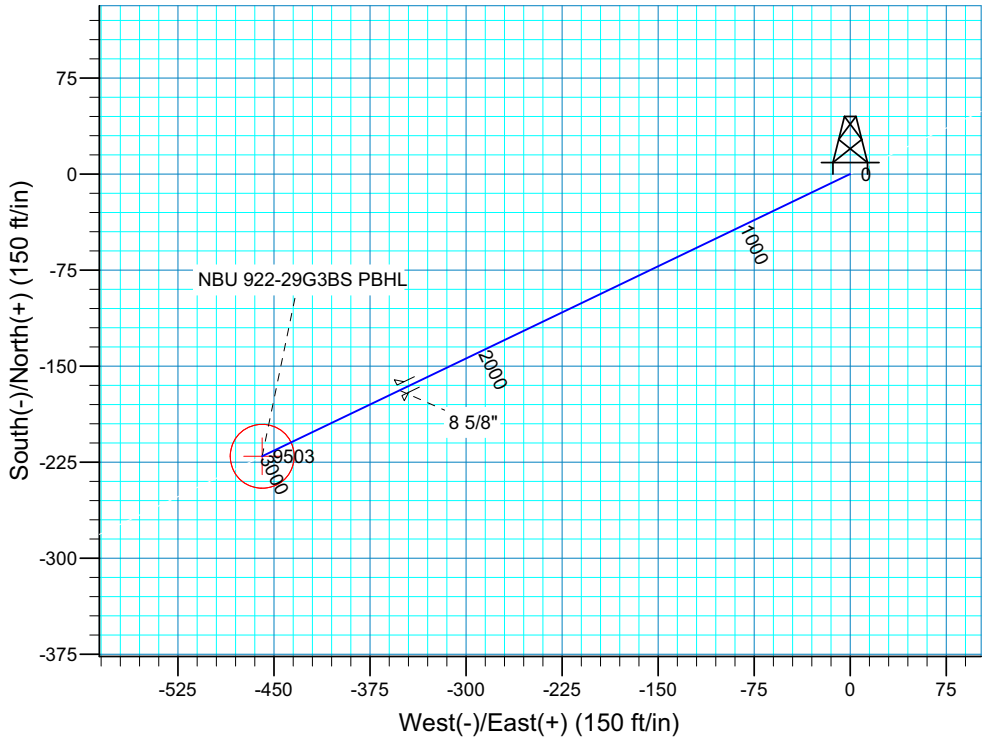
T M
Azimuths to True North
Magnetic North: 11.16°

Magnetic Field
Strength: 52462.0snT
Dip Angle: 65.91°
Date: 07/15/2010
Model: IGRF200510

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

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Shape
PBHL	9503.00	-220.36	-459.10	616664.10	2570673.30	40° 0' 30.823 N	109° 27' 44.975 W	Circle (Radius: 25.00





SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	DLeg	TFace	VSec	Target
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
2	300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	
3	943.99	12.88	244.36	938.58	-31.19	-64.98	2.00	244.36	72.08	
4	2535.65	12.88	244.36	2490.20	-184.71	-384.84	0.00	0.00	426.87	
5	3271.64	0.00	0.00	3220.00	-220.36	-459.10	1.75	180.00	509.24	
6	9554.64	0.00	0.00	9503.00	-220.36	-459.10	0.00	0.00	509.24	NBU 922-29G3BS PBHL

FORMATION TOP DETAILS

TVDPath	MDPath	Formation
1532.00	1552.73	GREEN RIVER
4745.00	4796.64	WASATCH
8237.00	8288.64	MESAVERDE

PROJECT DETAILS: Uintah County, UT NAD27

Geodetic System: US State Plane 1927 (Exact solution)
Datum: NAD 1927 (NADCON CONUS)
Ellipsoid: Clarke 1866
Zone: Utah Central 4302
Location: SEC 29 T9S R22E
System Datum: Mean Sea Level
Local North: No north reference data is available

Plan: Plan #1 (NBU 922-29G3BS/OH)

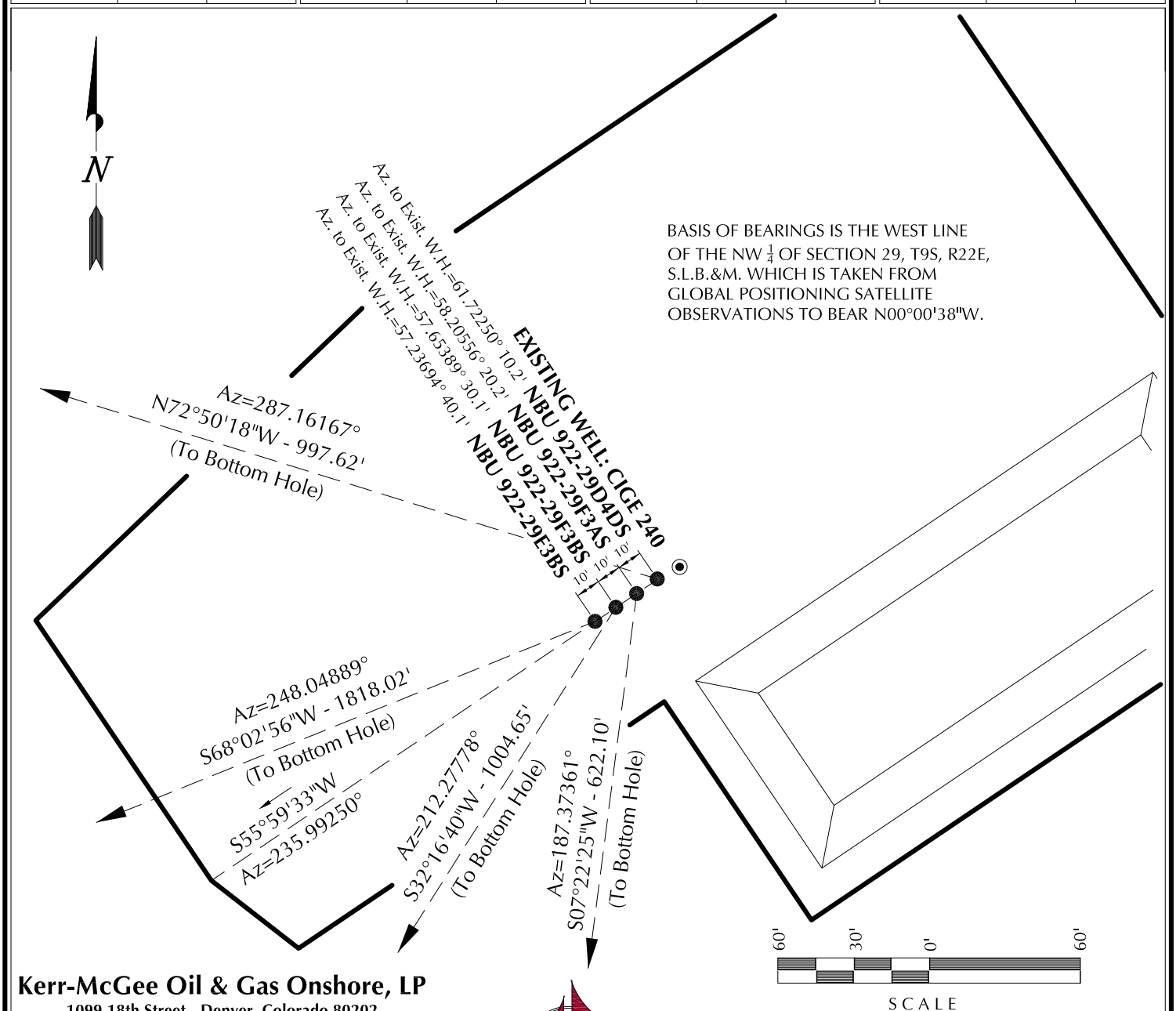
Created By: Robert H. Scott Date: 19:02, July 15 2010

'APIWellNo:43047511950000'

WELL NAME	SURFACE POSITION					BOTTOM HOLE				
	NAD83		NAD27			NAD83		NAD27		
	LATITUDE	LONGITUDE	LATITUDE	LONGITUDE	FOOTAGES	LATITUDE	LONGITUDE	LATITUDE	LONGITUDE	FOOTAGES
NBU 922-29E3BS	40°00'37.219" 40.010338°	109°27'58.502" 109.466251°	40°00'37.344" 40.010373°	109°27'56.036" 109.465566°	1433' FNL 1973' FWL	40°00'30.503" 40.008473°	109°28'20.167" 109.472268°	40°00'30.629" 40.008508°	109°28'17.700" 109.471583°	2113' FNL 287' FWL
NBU 922-29F3BS	40°00'37.274" 40.010354°	109°27'58.395" 109.466221°	40°00'37.400" 40.010389°	109°27'55.929" 109.465536°	1427' FNL 1982' FWL	40°00'28.882" 40.008023°	109°28'05.288" 109.468136°	40°00'29.008" 40.008058°	109°28'02.822" 109.467451°	2277' FNL 1445' FWL
NBU 922-29F3AS	40°00'37.328" 40.010369°	109°27'58.289" 109.466191°	40°00'37.454" 40.010404°	109°27'55.823" 109.465506°	1422' FNL 1990' FWL	40°00'31.233" 40.008676°	109°27'59.314" 109.466476°	40°00'31.359" 40.008711°	109°27'56.848" 109.465791°	2039' FNL 1910' FWL
NBU 922-29D4DS	40°00'37.386" 40.010385°	109°27'58.184" 109.466162°	40°00'37.511" 40.010420°	109°27'55.718" 109.465477°	1416' FNL 1998' FWL	40°00'40.293" 40.011193°	109°28'10.431" 109.469564°	40°00'40.419" 40.011228°	109°28'07.964" 109.468879°	1122' FNL 1045' FWL
CIGE 240	40°00'37.433" 40.010398°	109°27'58.069" 109.466130°	40°00'37.559" 40.010433°	109°27'55.603" 109.465445°	1411' FNL 2007' FWL					

RELATIVE COORDINATES - From Surface Position to Bottom Hole

WELL NAME	NORTH	EAST	WELL NAME	NORTH	EAST	WELL NAME	NORTH	EAST	WELL NAME	NORTH	EAST
NBU 922-29E3BS	-679.6'	-1686.2'	NBU 922-29F3BS	-849.4'	-536.5'	NBU 922-29F3AS	-617.0'	-79.8'	NBU 922-29D4DS	294.4'	-953.2'



Kerr-McGee Oil & Gas Onshore, LP
1099 18th Street - Denver, Colorado 80202

WELL PAD - NBU 922-29F

WELL PAD INTERFERENCE PLAT

WELLS - NBU 922-29E3BS, NBU 922-29F3BS, NBU 922-29F3AS & NBU 922-29D4DS
LOCATED IN SECTION 29, T9S, R22E, S.L.B.&M., UINTAH COUNTY, UTAH.

609
CONSULTING, LLC
371 Coffeen Avenue
Sheridan WY 82801
Phone 307-674-0609
Fax 307-674-0182

TIMBERLINE (435) 789-1365
ENGINEERING & LAND SURVEYING, INC.
209 NORTH 300 WEST - VERNAL, UTAH 84078

DATE SURVEYED: 03-30-10	SURVEYED BY: K.B.C.	SHEET NO:
DATE DRAWN: 04-01-10	DRAWN BY: K.O.B.	5
SCALE: 1" = 60'	Date Last Revised: 07-06-10 E.M.S.	5 OF 16

'APIWellNo:43047511950000'

Scientific Drilling
Rocky Mountain Operations

Project: Uintah County, UT UTM12
Site: NBU 922-29F Pad
Well: NBU 922-29D4DS
Wellbore: OH
Design: Plan #1

Anadarko Petroleum Corporation

Kerr McGee Oil and Gas Onshore LP

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

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Shape
PBHL	9488.00	294.30	-952.80	14533816.52	2069158.54	40° 0' 40.421 N	109° 28' 7.964 W	Circle (Radius: 25.00)

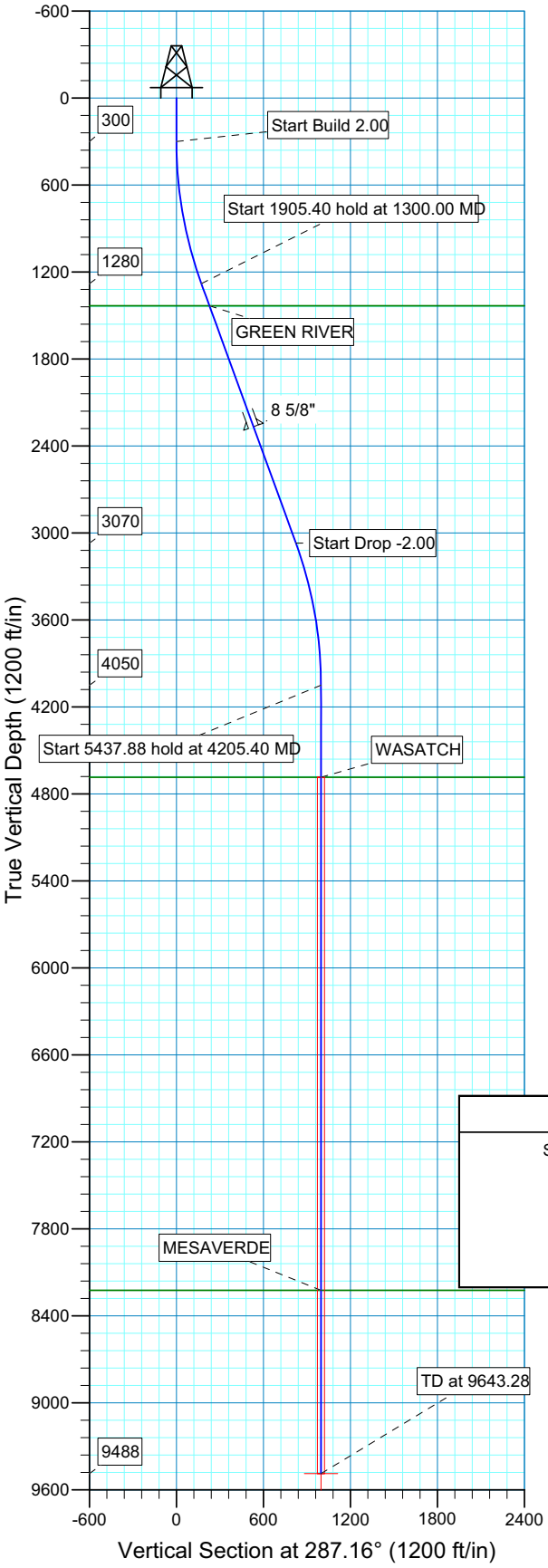
T M
Azimuths to True North
Magnetic North: 11.18°

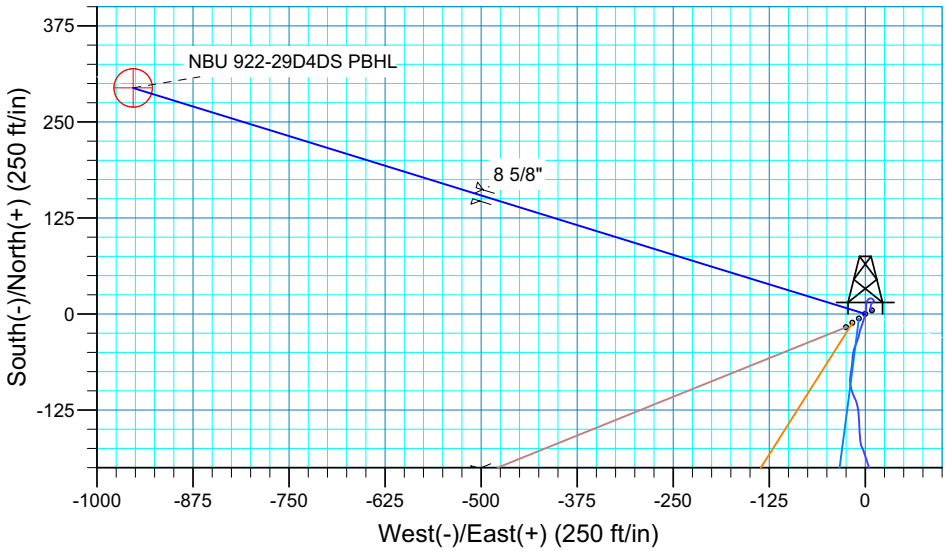
Magnetic Field
Strength: 52429.6snT
Dip Angle: 65.91°
Date: 07/21/2010
Model: IGRF2010

WELL DETAILS: NBU 922-29D4DS

GL 4922' & RKB 14' @ 4936.00ft (ASSUMED) 4922.00

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
0.00	0.00	14533538.67	2070116.27	40° 0' 37.512 N	109° 27' 55.717 W





SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	DLeg	TFace	VSec	Target
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
2	300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	
3	1300.00	20.00	287.16	1279.82	50.99	-165.07	2.00	287.16	172.77	
4	3205.40	20.00	287.16	3070.31	243.31	-787.73	0.00	0.00	824.45	
5	4205.40	0.00	0.00	4050.12	294.30	-952.80	2.00	180.00	997.22	
6	9643.28	0.00	0.00	9488.00	294.30	-952.80	0.00	0.00	997.22	NBU 922-29D4DS PBHL

FORMATION TOP DETAILS

TVDPath	MDPath	Formation
1433.00	1463.02	GREEN RIVER
4685.00	4840.28	WASATCH
8224.00	8379.28	MESAVERDE

PROJECT DETAILS: Uintah County, UT UTM12

Geodetic System: Universal Transverse Mercator (US Survey Feet)
Datum: NAD 1927 - Western US
Ellipsoid: Clarke 1866
Zone: Zone 12N (114 W to 108 W)
Location: SEC 29 T9S R222
System Datum: Mean Sea Level
Local North: No north reference data is available

Plan: Plan #1 (NBU 922-29D4DS/OH)

Created By: Robert H. Scott Date: 17:19, July 21 2010

'APIWellNo:43047511950000'

Scientific Drilling
Rocky Mountain Operations

Project: Uintah County, UT UTM12
Site: NBU 922-29F Pad
Well: NBU 922-29E3BS
Wellbore: OH
Design: Plan #1

Anadarko Petroleum Corporation

Kerr McGee Oil and Gas Onshore LP

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

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Shape
PBHL	9461.00	-679.20	-1685.26	14532813.01	2068418.33	40° 0' 30.629 N	109° 28' 17.699 W	Circle (Radius: 25.00)

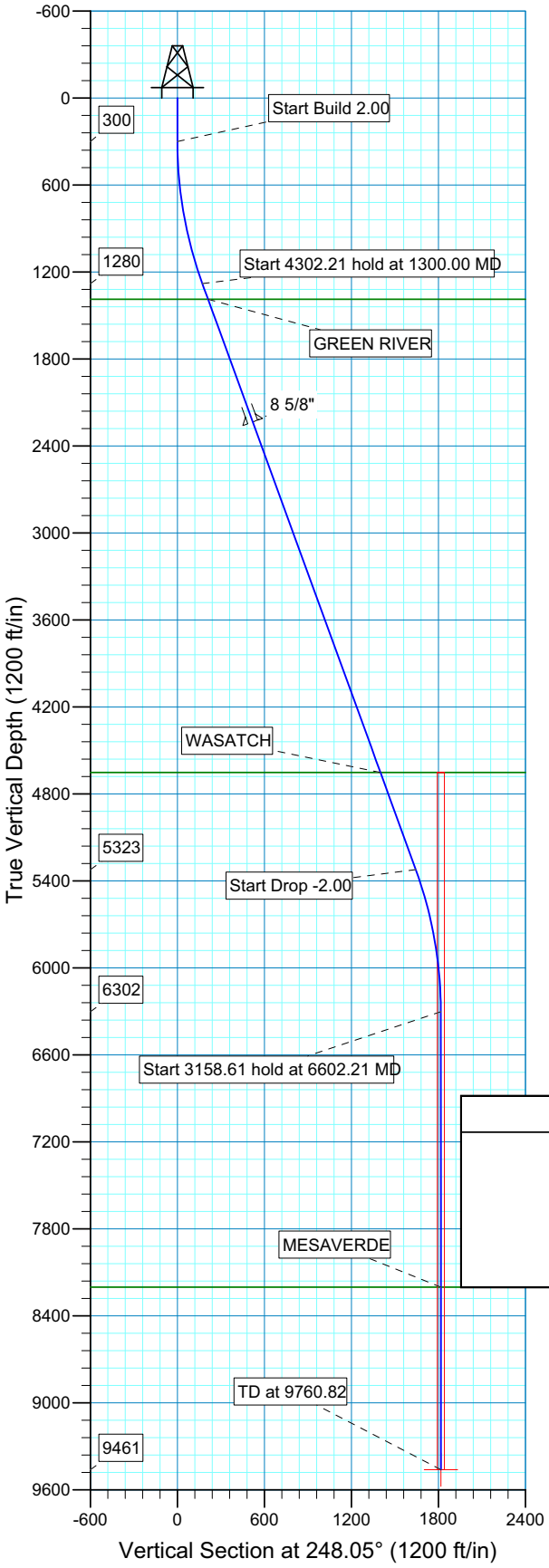
T M
Azimuths to True North
Magnetic North: 11.18°

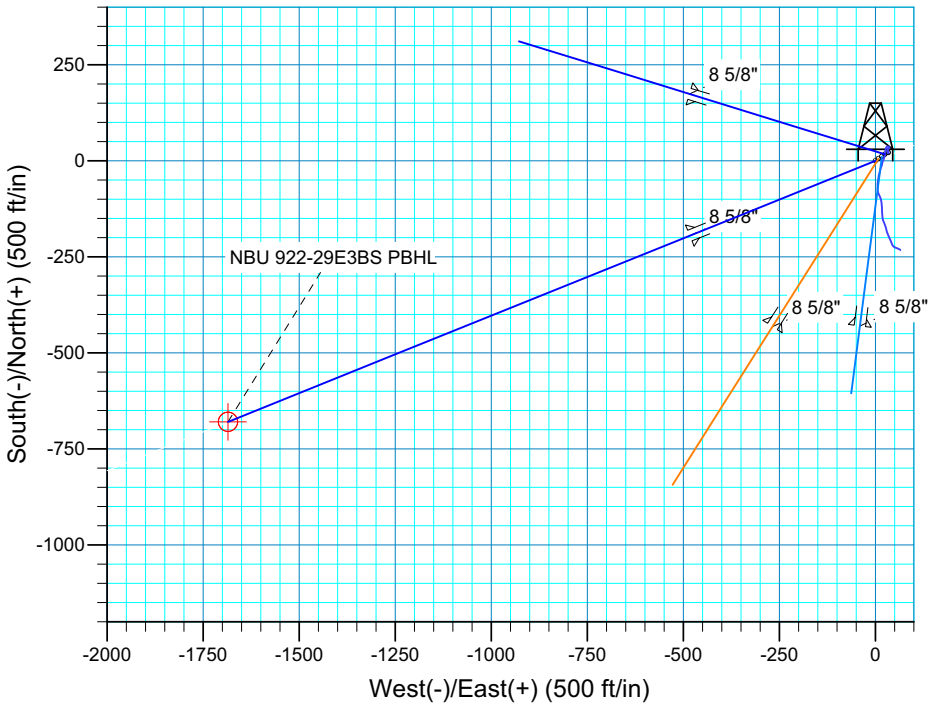
Magnetic Field
Strength: 52429.5snT
Dip Angle: 65.91°
Date: 07/21/2010
Model: IGRF2010

WELL DETAILS: NBU 922-29E3BS

GL 4922' & RKB 14' @ 4936.00ft (ASSUMED) 4922.00

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
0.00	0.00	14533521.13	2070091.64	40° 0' 37.343 N	109° 27' 56.038 W





SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	DLeg	TFace	VSec	Target
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
2	300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	
3	1300.00	20.00	248.05	1279.82	-64.58	-160.24	2.00	248.05	172.77	
4	5602.21	20.00	248.05	5322.57	-614.61	-1525.02	0.00	0.00	1644.21	
5	6602.21	0.00	0.00	6302.39	-679.20	-1685.26	2.00	180.00	1816.98	
6	9760.82	0.00	0.00	9461.00	-679.20	-1685.26	0.00	0.00	1816.98	

FORMATION TOP DETAILS

TVDPath	MDPath	Formation
1388.00	1415.13	GREEN RIVER
4652.00	4888.60	WASATCH
8202.00	8501.82	MESAVERDE

PROJECT DETAILS: Uintah County, UT UTM12

Geodetic System: Universal Transverse Mercator (US Survey Feet)
Datum: NAD 1927 - Western US
Ellipsoid: Clarke 1866
Zone: Zone 12N (114 W to 108 W)
Location: SEC 29 T9S R222
System Datum: Mean Sea Level
Local North: No north reference data is available

Plan: Plan #1 (NBU 922-29E3BS/OH)

Created By: Robert H. Scott Date: 17:22, July 21 2010

'APIWellNo:43047511950000'

Scientific Drilling
Rocky Mountain Operations

Project: Uintah County, UT UTM12
Site: NBU 922-29F Pad
Well: NBU 922-29F3AS
Wellbore: OH
Design: Plan #1

Anadarko Petroleum Corporation

Kerr McGee Oil and Gas Onshore LP

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

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Shape
PBHL	9430.00	-616.61	-79.82	14532914.81	2070039.05	40° 0' 31.360 N	109° 27' 56.848 W	Circle (Radius: 25.00)

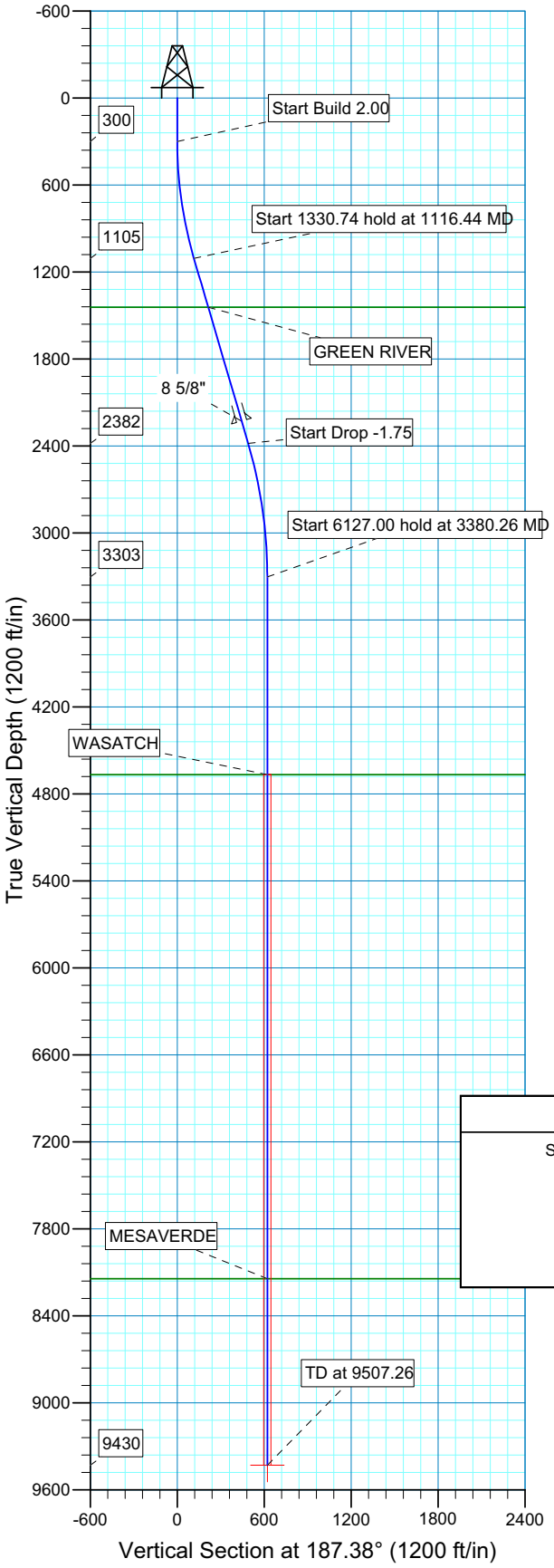
T M
Azimuths to True North
Magnetic North: 11.18°

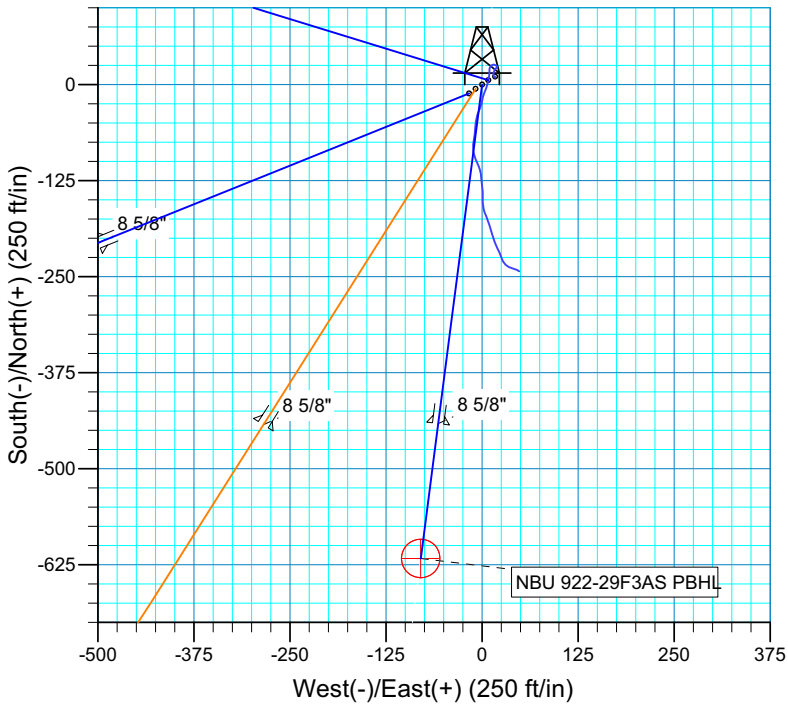
Magnetic Field
Strength: 52429.6snT
Dip Angle: 65.91°
Date: 07/21/2010
Model: IGRF2010

WELL DETAILS: NBU 922-29F3AS

GL 4922' & RKB 14' @ 4936.00ft (ASSUMED) 4922.00

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
0.00	0.00	14533532.71	2070108.24	40° 0' 37.454 N	109° 27' 55.822 W





SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	DLeg	TFace	VSec	Target
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
2	300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	
3	1116.44	16.33	187.38	1105.44	-114.60	-14.84	2.00	187.38	115.56	
4	2447.19	16.33	187.38	2382.50	-485.64	-62.87	0.00	0.00	489.69	
5	3380.26	0.00	0.00	3303.00	-616.61	-79.82	1.75	180.00	621.76	
6	9507.26	0.00	0.00	9430.00	-616.61	-79.82	0.00	0.00	621.76	NBU 922-29F3AS PBHL

FORMATION TOP DETAILS

TVDPath	MDPath	Formation
1443.00	1468.20	GREEN RIVER
4667.00	4744.26	WASATCH
8144.00	8221.26	MESAVERDE

PROJECT DETAILS: Uintah County, UT UTM12

Geodetic System: Universal Transverse Mercator (US Survey Feet)
Datum: NAD 1927 - Western US
Ellipsoid: Clarke 1866
Zone: Zone 12N (114 W to 108 W)
Location: SEC 29 T9S R222
System Datum: Mean Sea Level
Local North: No north reference data is available

Plan: Plan #1 (NBU 922-29F3AS/OH)

Created By: Robert H. Scott Date: 17:25, July 21 2010

'APIWellNo:43047511950000'

Scientific Drilling
Rocky Mountain Operations

Project: Uintah County, UT UTM12
Site: NBU 922-29F Pad
Well: NBU 922-29F3BS
Wellbore: OH
Design: Plan #1

Anadarko Petroleum Corporation

Kerr McGee Oil and Gas Onshore LP

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

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Shape
PBHL	9435.00	-848.97	-536.36	14532669.02	2069578.27	40° 0' 29.009 N	109° 28' 2.824 W	Circle (Radius: 25.00)

T M

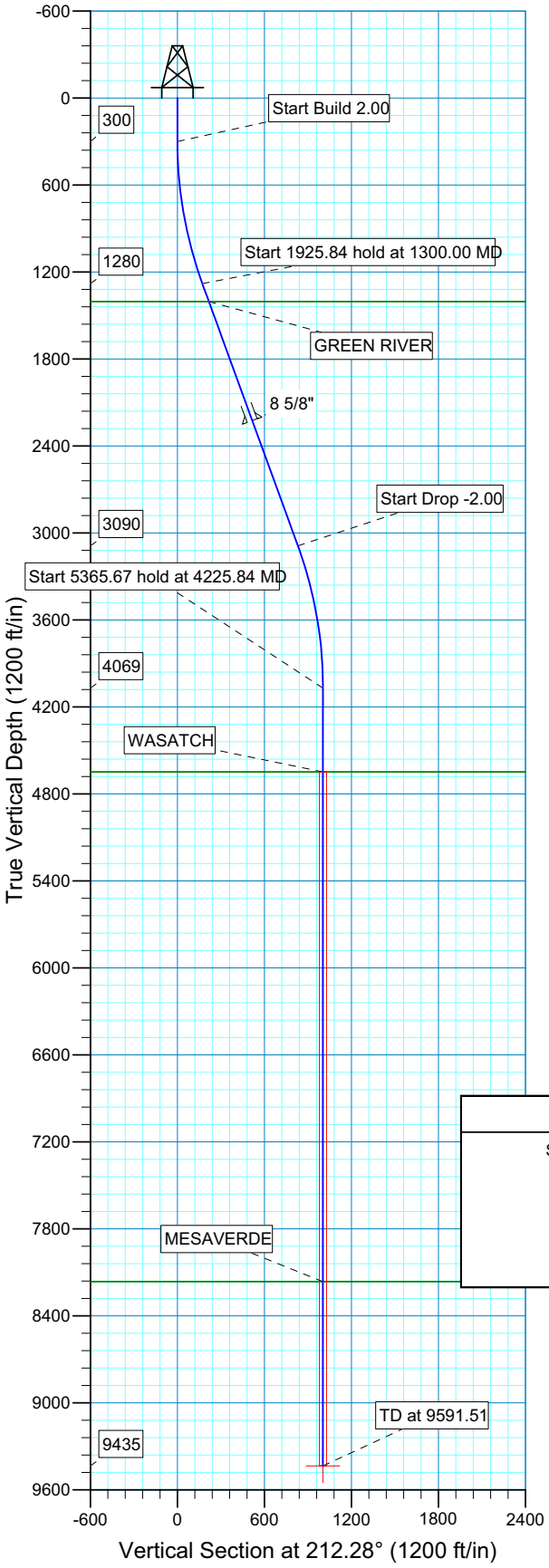
Azimuths to True North
Magnetic North: 11.18°

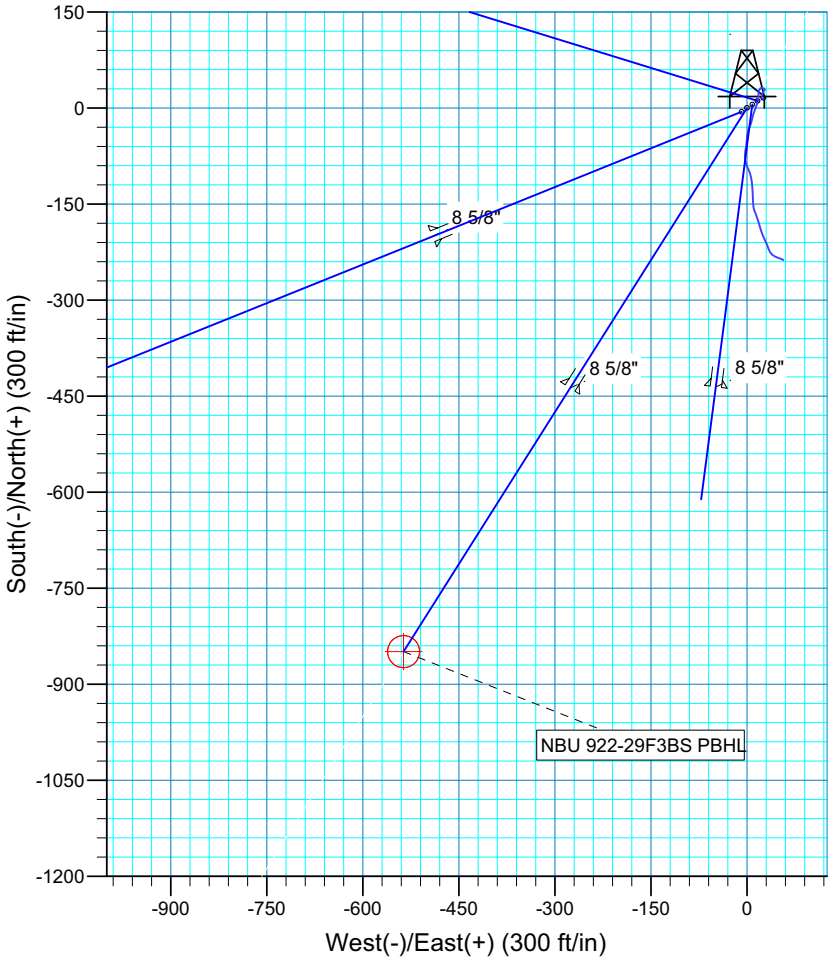
Magnetic Field
Strength: 52429.6snT
Dip Angle: 65.91°
Date: 07/21/2010
Model: IGRF2010

WELL DETAILS: NBU 922-29F3BS

GL 4922' & RKB 14' @ 4936.00ft (ASSUMED) 4922.00

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
0.00	0.00	14533527.10	2070099.94	40° 0' 37.400 N	109° 27' 55.930 W





SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	DLeg	TFace	VSec	Target
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
2	300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	
3	1300.00	20.00	212.28	1279.82	-146.06	-92.28	2.00	212.28	172.77	
4	3225.84	20.00	212.28	3089.51	-702.91	-444.09	0.00	0.00	831.44	
5	4225.84	0.00	0.00	4069.33	-848.97	-536.36	2.00	180.00	1004.21	
6	9591.51	0.00	0.00	9435.00	-848.97	-536.36	0.00	0.00	1004.21	NBU 922-29F3BS PBHL

FORMATION TOP DETAILS

TVDPath	MDPath	Formation
1404.00	1432.15	GREEN RIVER
4648.00	4804.51	WASATCH
8164.00	8320.51	MESAVERDE

PROJECT DETAILS: Uintah County, UT UTM12

Geodetic System: Universal Transverse Mercator (US Survey Feet)
Datum: NAD 1927 - Western US
Ellipsoid: Clarke 1866
Zone: Zone 12N (114 W to 108 W)
Location: SEC 29 T9S R222
System Datum: Mean Sea Level
Local North: No north reference data is available

Plan: Plan #1 (NBU 922-29F3BS/OH)

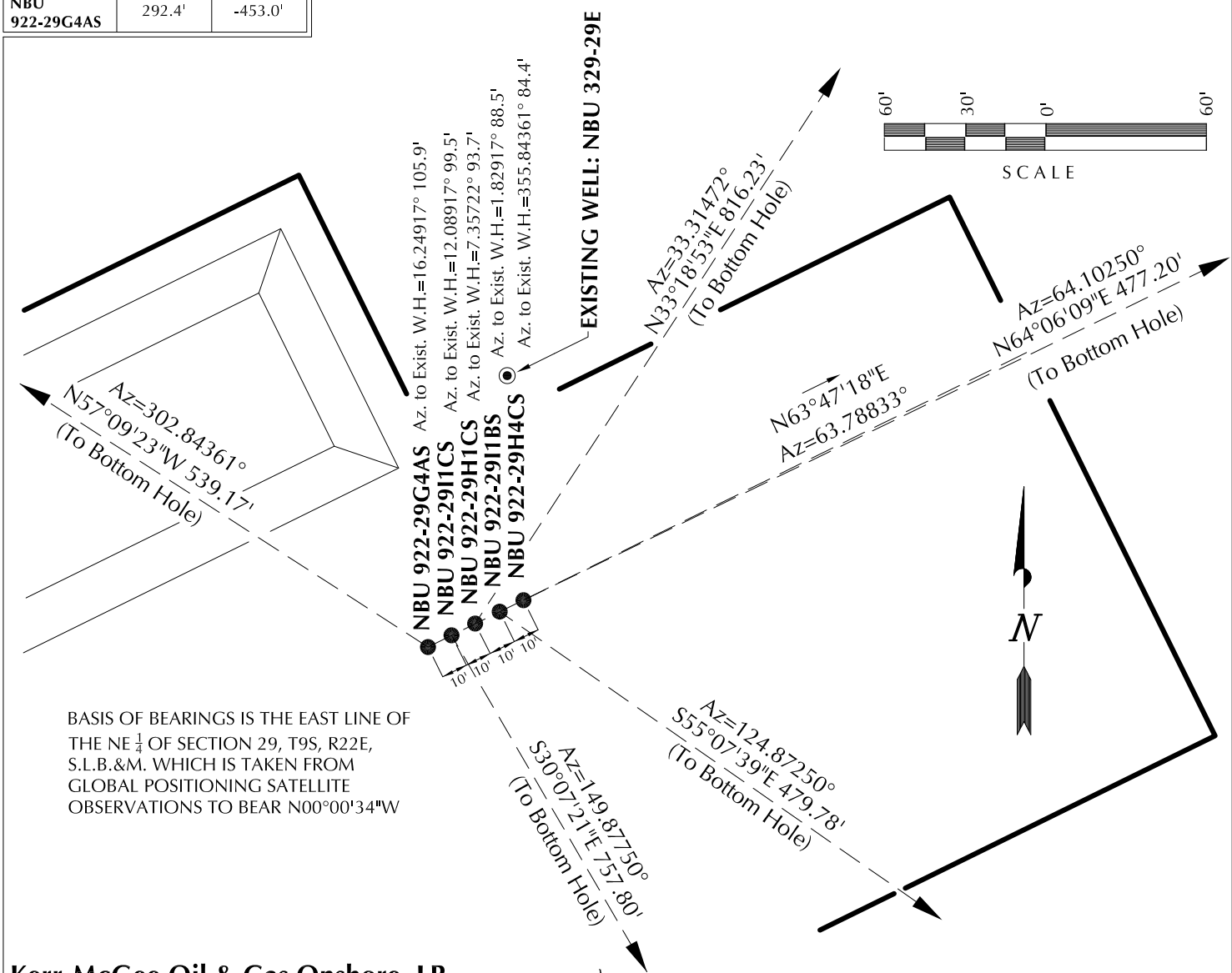
Created By: Robert H. Scott Date: 17:27, July 21 2010

'APIWellNo:43047511950000'

WELL NAME	SURFACE POSITION					BOTTOM HOLE				
	NAD83		NAD27			NAD83		NAD27		
	LATITUDE	LONGITUDE	LATITUDE	LONGITUDE	FOOTAGES	LATITUDE	LONGITUDE	LATITUDE	LONGITUDE	FOOTAGES
NBU 922-29H4CS	40°00'25.931" 40.007203°	109°27'28.094" 109.457804°	40°00'26.056" 40.007238°	109°27'25.630" 109.457119°	2575' FNL 943' FEL	40°00'27.990" 40.007775°	109°27'22.579" 109.456272°	40°00'28.115" 40.007810°	109°27'20.115" 109.455587°	2366' FNL 514' FEL
NBU 922-29I1BS	40°00'25.889" 40.007191°	109°27'28.209" 109.457836°	40°00'26.014" 40.007226°	109°27'25.745" 109.457151°	2579' FNL 952' FEL	40°00'23.178" 40.006438°	109°27'23.152" 109.456431°	40°00'23.304" 40.006473°	109°27'20.688" 109.455747°	2423' FSL 559' FEL
NBU 922-29H1CS	40°00'25.845" 40.007179°	109°27'28.327" 109.457869°	40°00'25.970" 40.007214°	109°27'25.863" 109.457184°	2583' FNL 961' FEL	40°00'32.584" 40.009051°	109°27'22.567" 109.456268°	40°00'32.709" 40.009086°	109°27'20.102" 109.455584°	1901' FNL 513' FEL
NBU 922-29I1CS	40°00'25.801" 40.007167°	109°27'28.441" 109.457900°	40°00'25.927" 40.007202°	109°27'25.976" 109.457216°	2588' FNL 970' FEL	40°00'19.325" 40.005368°	109°27'23.555" 109.456543°	40°00'19.450" 40.005403°	109°27'21.091" 109.455859°	2033' FSL 591' FEL
NBU 922-29G4AS	40°00'25.758" 40.007155°	109°27'28.554" 109.457932°	40°00'25.883" 40.007190°	109°27'26.089" 109.457247°	2592' FNL 979' FEL	40°00'28.647" 40.007957°	109°27'34.373" 109.459548°	40°00'28.772" 40.007992°	109°27'31.909" 109.458863°	2300' FNL 1432' FEL
NBU 329-29E	40°00'26.762" 40.007434°	109°27'28.173" 109.457826°	40°00'26.888" 40.007469°	109°27'25.708" 109.457141°	2490' FNL 949' FEL					

RELATIVE COORDINATES - From Surface Position to Bottom Hole

WELL NAME	NORTH	EAST	WELL NAME	NORTH	EAST	WELL NAME	NORTH	EAST	WELL NAME	NORTH	EAST
NBU 922-29H4CS	208.4'	429.3'	NBU 922-29I1BS	-274.3'	393.6'	NBU 922-29H1CS	682.1'	448.3'	NBU 922-29I1CS	-655.5'	380.3'
WELL NAME	NORTH	EAST									
NBU 922-29G4AS	292.4'	-453.0'									



BASIS OF BEARINGS IS THE EAST LINE OF THE NE $\frac{1}{4}$ OF SECTION 29, T9S, R22E, S.L.B.&M. WHICH IS TAKEN FROM GLOBAL POSITIONING SATELLITE OBSERVATIONS TO BEAR N00°00'34"W

Kerr-McGee Oil & Gas Onshore, LP
1099 18th Street - Denver, Colorado 80202

WELL PAD - NBU 922-29H

WELL PAD INTERFERENCE PLAT
WELLS - NBU 922-29H4CS, NBU 922-29I1BS, NBU 922-29H1CS, NBU 922-29I1CS & NBU 922-29G4AS
LOCATED IN SECTION 29, T9S, R22E, S.L.B.&M., UINTAH COUNTY, UTAH.

609
CONSULTING, LLC
371 Coffeen Avenue
Sheridan WY 82801
Phone 307-674-0609
Fax 307-674-0182

TIMBERLINE (435) 789-1365
ENGINEERING & LAND SURVEYING, INC.
209 NORTH 300 WEST - VERNAL, UTAH 84078

DATE SURVEYED: 03-16-10	SURVEYED BY: D.J.S.	SHEET NO: 6
DATE DRAWN: 03-18-10	DRAWN BY: K.O.B.	
SCALE: 1" = 60'	Date Last Revised: 06-04-10 K.O.B.	6 OF 17

'APIWellNo:43047511950000'

Scientific Drilling
Rocky Mountain Operations

Project: Uintah County, UT NAD27
Site: NBU 922-29H Pad
Well: NBU 922-29G4AS
Wellbore: OH
Design: Plan #1

Anadarko Petroleum Corporation

Kerr McGee Oil and Gas Onshore LP

WELL DETAILS: NBU 922-29G4AS

GL 4889' & RKB 14' @ 4903.00ft (4903) 4889.00

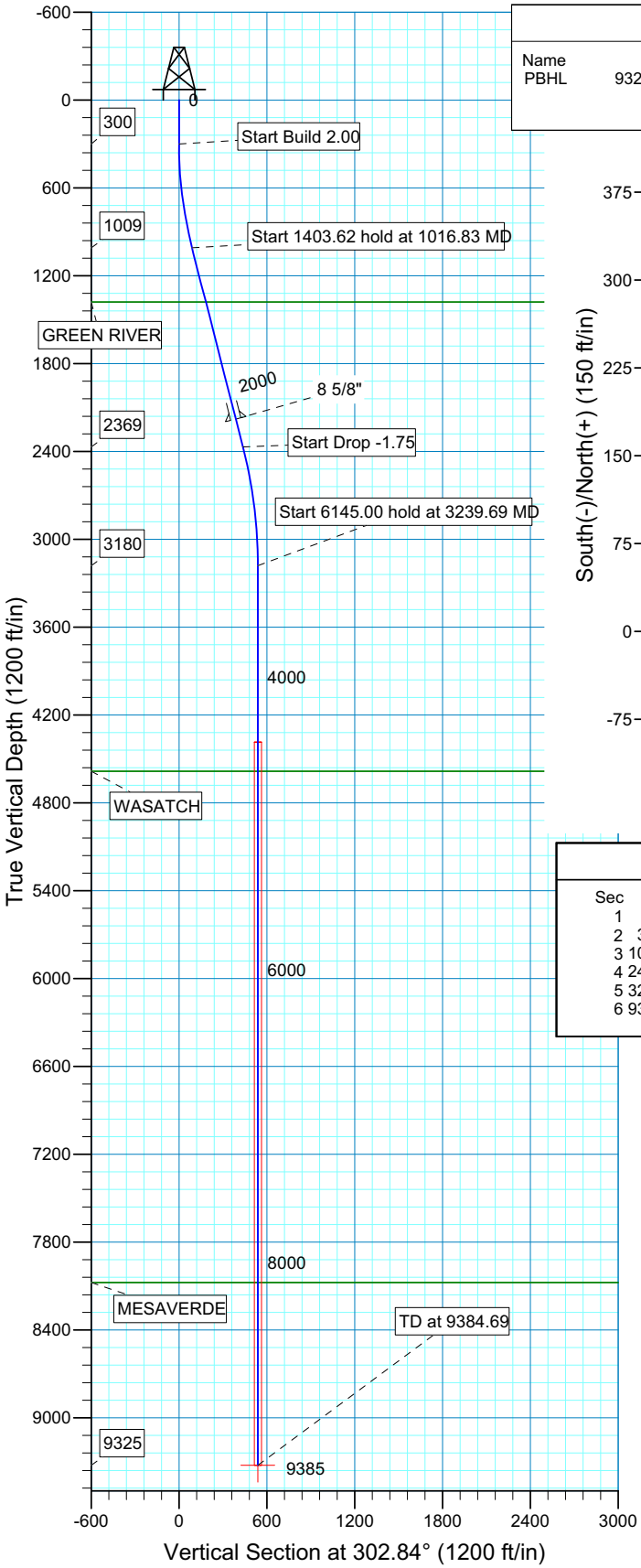
+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
0.00	0.00	616198.00	2572153.78	40° 0' 25.884 N	109° 27' 26.089 W

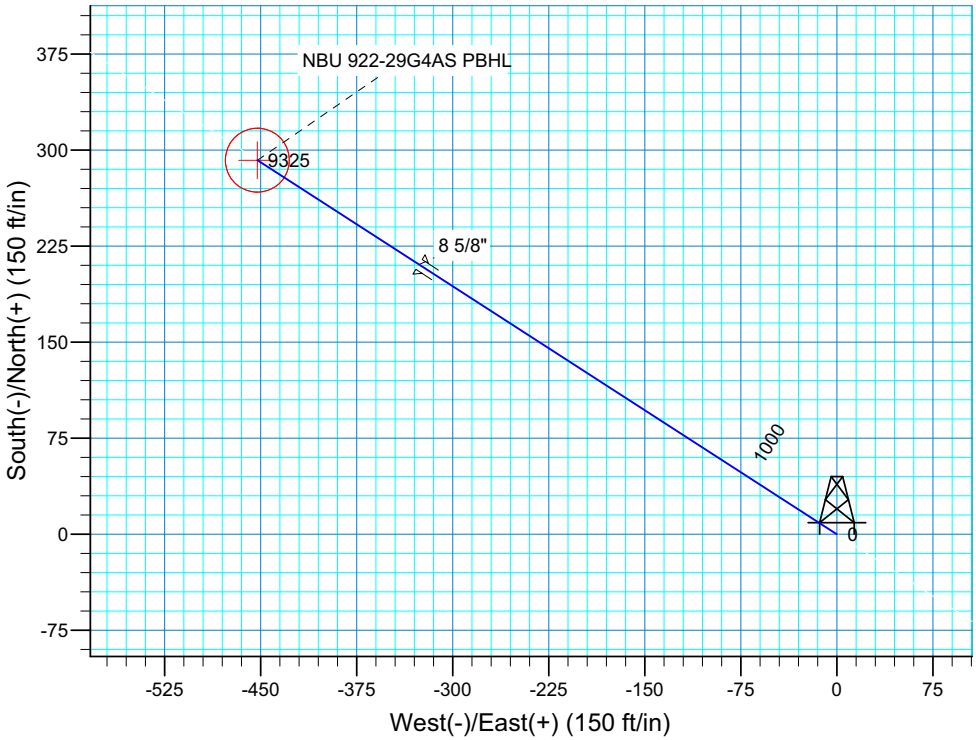
T M
Azimuths to True North
Magnetic North: 11.16°

Magnetic Field
Strength: 52462.6snT
Dip Angle: 65.91°
Date: 07/15/2010
Model: IGRF200510

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

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Shape
PBHL	9325.00	292.13	-452.66	616479.71	2571694.56	40° 0' 28.771 N	109° 27' 31.907 W	Circle (Radius: 25.00)





SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	DLeg	TFace	VSec	Target
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
2	300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	
3	1016.83	14.34	302.84	1009.38	48.38	-74.96	2.00	302.84	89.22	
4	2420.45	14.34	302.84	2369.28	236.84	-366.99	0.00	0.00	436.78	
5	3239.69	0.00	0.00	3180.00	292.13	-452.66	1.75	180.00	538.74	
6	9384.69	0.00	0.00	9325.00	292.13	-452.66	0.00	0.00	538.74	NBU 922-29G4AS PBHL

FORMATION TOP DETAILS

TVDPath	MDPath	Formation
1379.00	1398.34	GREEN RIVER
4585.00	4644.69	WASATCH
8077.00	8136.69	MESAVERDE

PROJECT DETAILS: Uintah County, UT NAD27

Geodetic System: US State Plane 1927 (Exact solution)
Datum: NAD 1927 (NADCON CONUS)
Ellipsoid: Clarke 1866
Zone: Utah Central 4302
Location: SEC 29 T9S R22E
System Datum: Mean Sea Level
Local North: No north reference data is available

Plan: Plan #1 (NBU 922-29G4AS/OH)

Created By: Robert H. Scott Date: 17:27, July 15 2010

'APIWellNo:43047511950000'

Scientific Drilling
Rocky Mountain Operations

Project: Uintah County, UT NAD27
Site: NBU 922-29H Pad
Well: NBU 922-29H1CS
Wellbore: OH
Design: Plan #1

Anadarko Petroleum Corporation

Kerr McGee Oil and Gas Onshore LP

WELL DETAILS: NBU 922-29H1CS

GL 4889' & RKB 14' @ 4903.00ft (ASSUMED) 4889.00

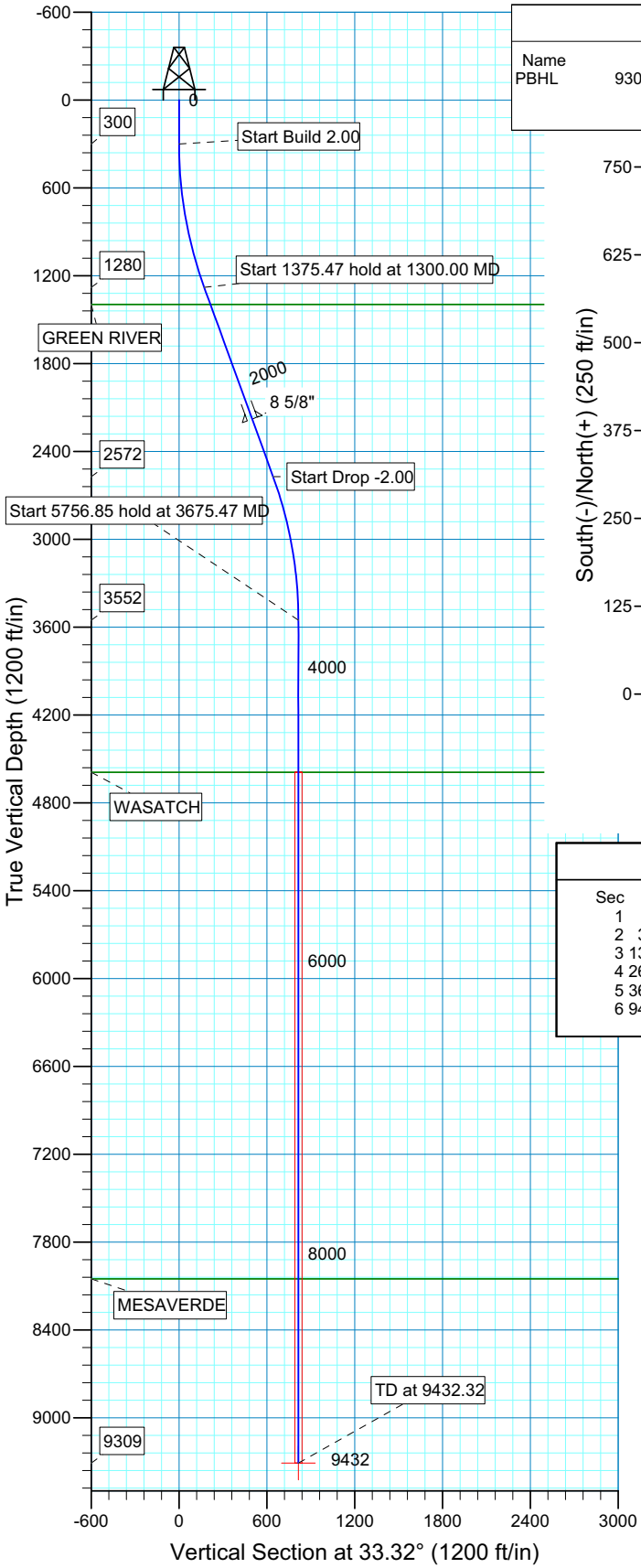
+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
0.00	0.00	616207.14	2572171.22	40° 0' 25.970 N	109° 27' 25.862 W

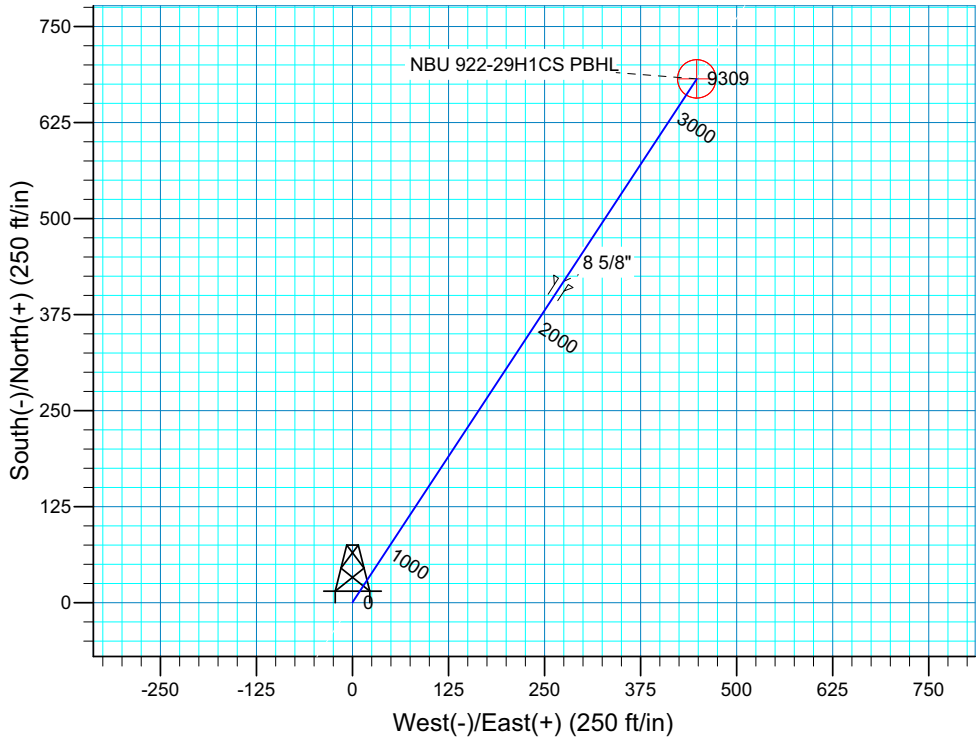
T M
Azimuths to True North
Magnetic North: 11.16°

Magnetic Field
Strength: 52462.6snT
Dip Angle: 65.91°
Date: 07/15/2010
Model: IGRF200510

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

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Shape
PBHL	9309.00	681.88	448.17	616899.07	2572603.70	40° 0' 32.710 N	109° 27' 20.102 W	Circle (Radius: 25.00)





SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	DLeg	TFace	VSec	Target
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
2	300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	
3	1300.00	20.00	33.32	1279.82	144.38	94.89	2.00	33.32	172.77	
4	2675.47	20.00	33.32	2572.33	537.50	353.28	0.00	0.00	643.21	
5	3675.47	0.00	0.00	3552.15	681.88	448.17	2.00	180.00	815.97	
6	9432.32	0.00	0.00	9309.00	681.88	448.17	0.00	0.00	815.97	NBU 922-29H1CS PBHL

FORMATION TOP DETAILS

TVDPath	MDPath	Formation
1396.00	1423.64	GREEN RIVER
4592.00	4715.32	WASATCH
8051.00	8174.32	MESAVERDE

PROJECT DETAILS: Uintah County, UT NAD27

Geodetic System: US State Plane 1927 (Exact solution)
Datum: NAD 1927 (NADCON CONUS)
Ellipsoid: Clarke 1866
Zone: Utah Central 4302
Location: SEC 29 T9S R22E
System Datum: Mean Sea Level
Local North: No north reference data is available

Plan: Plan #1 (NBU 922-29H1CS/OH)

Created By: Robert H. Scott Date: 17:30, July 15 2010

'APIWellNo:43047511950000'

Scientific Drilling
Rocky Mountain Operations

Project: Uintah County, UT NAD27
Site: NBU 922-29H Pad
Well: NBU 922-29H4CS
Wellbore: OH
Design: Plan #1

Anadarko Petroleum Corporation

Kerr McGee Oil and Gas Onshore LP

WELL DETAILS: NBU 922-29H4CS

GL 4889' & RKB 14' @ 4903.00ft (ASSUMED) 4889.00

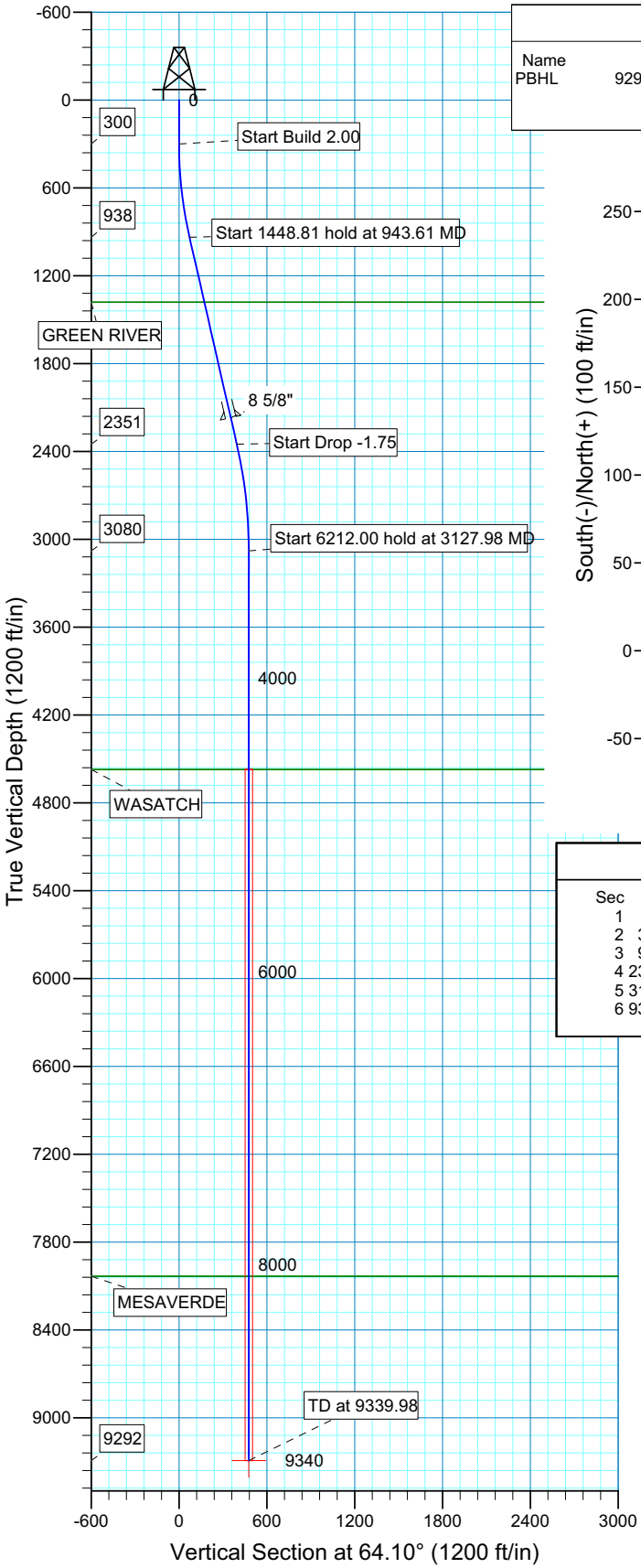
+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
0.00	0.00	616216.30	2572189.22	40° 0' 26.057 N	109° 27' 25.628 W

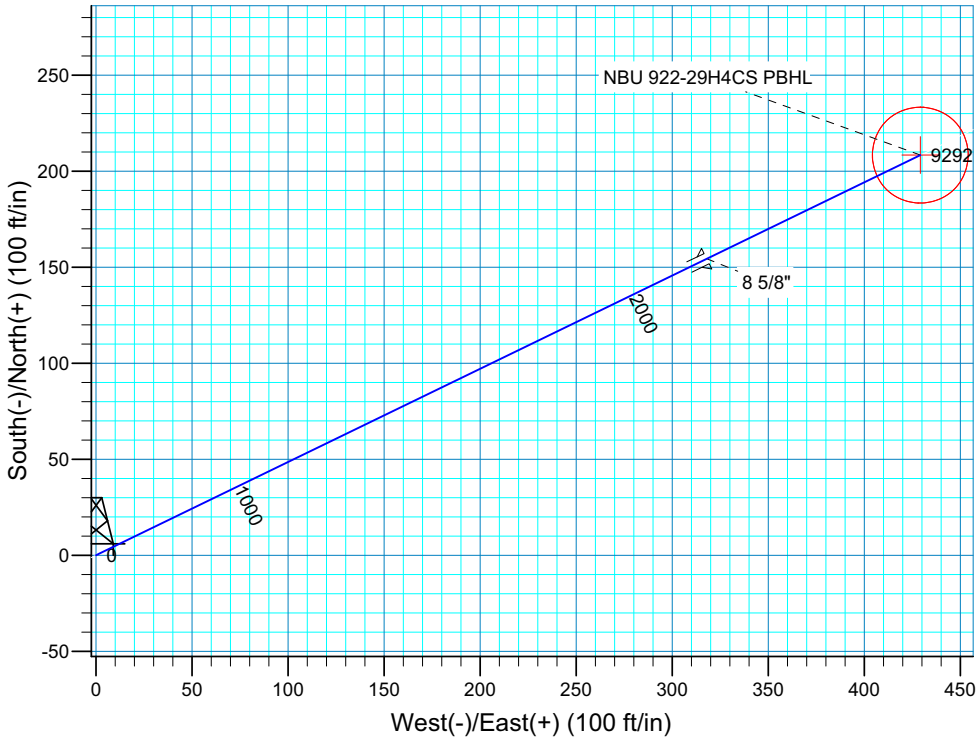
T M
Azimuths to True North
Magnetic North: 11.16°

Magnetic Field
Strength: 52462.6snT
Dip Angle: 65.91°
Date: 07/15/2010
Model: IGRF200510

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

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Shape
PBHL	9292.00	208.35	429.13	616434.40	2572613.48	40° 0' 28.116 N	109° 27' 20.113 W	Circle (Radius: 25.00)





SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	DLeg	TFace	VSec	Target
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
2	300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	
3	943.61	12.87	64.10	938.21	31.44	64.76	2.00	64.10	71.99	
4	2392.43	12.87	64.10	2350.62	172.42	355.12	0.00	0.00	394.76	
5	3127.98	0.00	0.00	3080.00	208.35	429.13	1.75	180.00	477.04	
6	9339.98	0.00	0.00	9292.00	208.35	429.13	0.00	0.00	477.04	NBU 922-29H4CS PBHL

FORMATION TOP DETAILS

TVDPath	MDPath	Formation
1380.00	1396.79	GREEN RIVER
4572.00	4619.98	WASATCH
8033.00	8080.98	MESAVERDE

PROJECT DETAILS: Uintah County, UT NAD27

Geodetic System: US State Plane 1927 (Exact solution)
Datum: NAD 1927 (NADCON CONUS)
Ellipsoid: Clarke 1866
Zone: Utah Central 4302
Location: SEC 29 T9S R22E
System Datum: Mean Sea Level
Local North: No north reference data is available

Plan: Plan #1 (NBU 922-29H4CS/OH)

Created By: Robert H. Scott Date: 17:32, July 15 2010

'APIWellNo:43047511950000'

Scientific Drilling
Rocky Mountain Operations

Project: Uintah County, UT NAD27
Site: NBU 922-29H Pad
Well: NBU 922-29I1BS
Wellbore: OH
Design: Plan #1

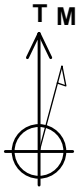
Anadarko Petroleum Corporation

Kerr McGee Oil and Gas Onshore LP

WELL DETAILS: NBU 922-29I1BS

GL 4889' & RKB 14' @ 4903.00ft (ASSUMMED) 4889.00

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
0.00	0.00	616211.76	2572180.36	40° 0' 26.014 N	109° 27' 25.744 W

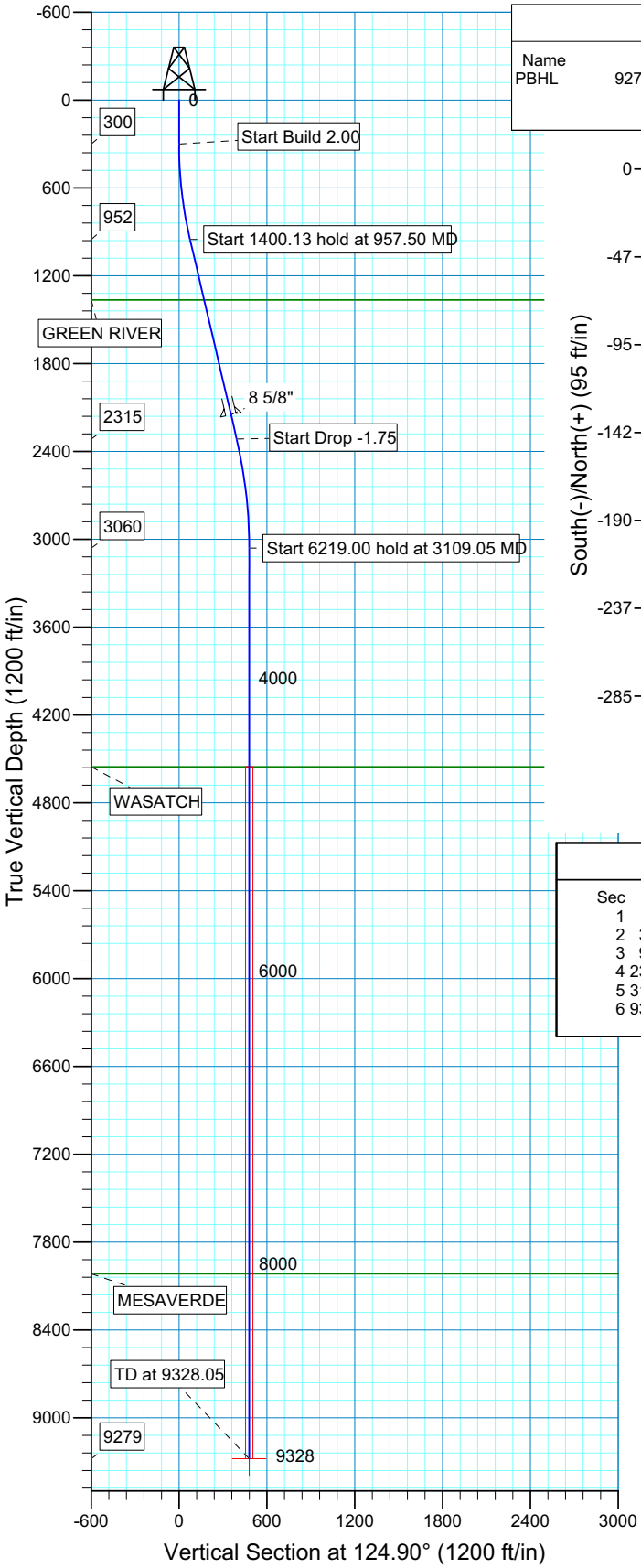


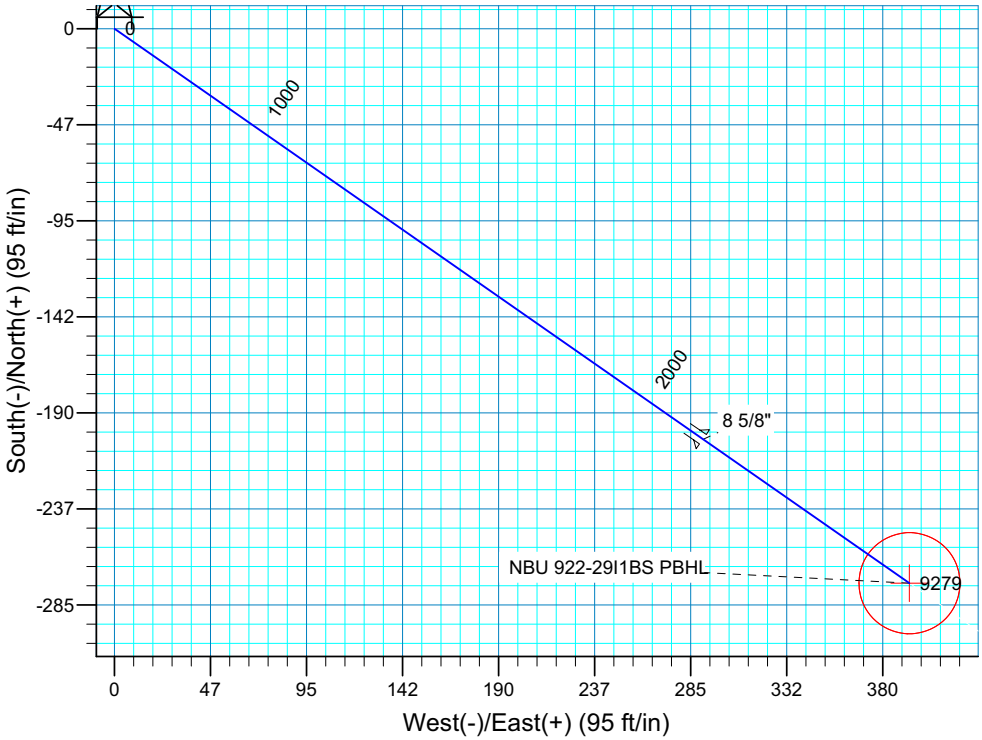
Azimuths to True North
Magnetic North: 11.16°

Magnetic Field
Strength: 52462.6snT
Dip Angle: 65.91°
Date: 07/15/2010
Model: IGRF200510

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

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Shape
PBHL	9279.00	-274.31	393.28	615946.50	2572579.81	40° 0' 23.303 N	109° 27' 20.689 W	Circle (Radius: 25.00





SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	DLeg	TFace	VSec	Target
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
2	300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	
3	957.50	13.15	124.90	951.74	-42.97	61.61	2.00	124.90	75.12	
4	2357.63	13.15	124.90	2315.16	-225.20	322.87	0.00	0.00	393.65	
5	3109.05	0.00	0.00	3060.00	-274.31	393.28	1.75	180.00	479.50	
6	9328.05	0.00	0.00	9279.00	-274.31	393.28	0.00	0.00	479.50	NBU 922-29I1BS PBHL

FORMATION TOP DETAILS

TVDPath	MDPath	Formation
1365.00	1381.89	GREEN RIVER
4554.00	4603.05	WASATCH
8016.00	8065.05	MESAVERDE

PROJECT DETAILS: Uintah County, UT NAD27

Geodetic System: US State Plane 1927 (Exact solution)
Datum: NAD 1927 (NADCON CONUS)
Ellipsoid: Clarke 1866
Zone: Utah Central 4302
Location: SEC 29 T9S R22E
System Datum: Mean Sea Level
Local North: No north reference data is available

Plan: Plan #1 (NBU 922-29I1BS/OH)

Created By: Robert H. Scott Date: 17:33, July 15 2010

'APIWellNo:43047511950000'

Scientific Drilling
Rocky Mountain Operations

Project: Uintah County, UT NAD27
Site: NBU 922-29H Pad
Well: NBU 922-29I1CS
Wellbore: OH
Design: Plan #1

Anadarko Petroleum Corporation

Kerr McGee Oil and Gas Onshore LP

WELL DETAILS: NBU 922-29I1CS

WELL @ 4903.00ft (Original Well Elev) 4889.00

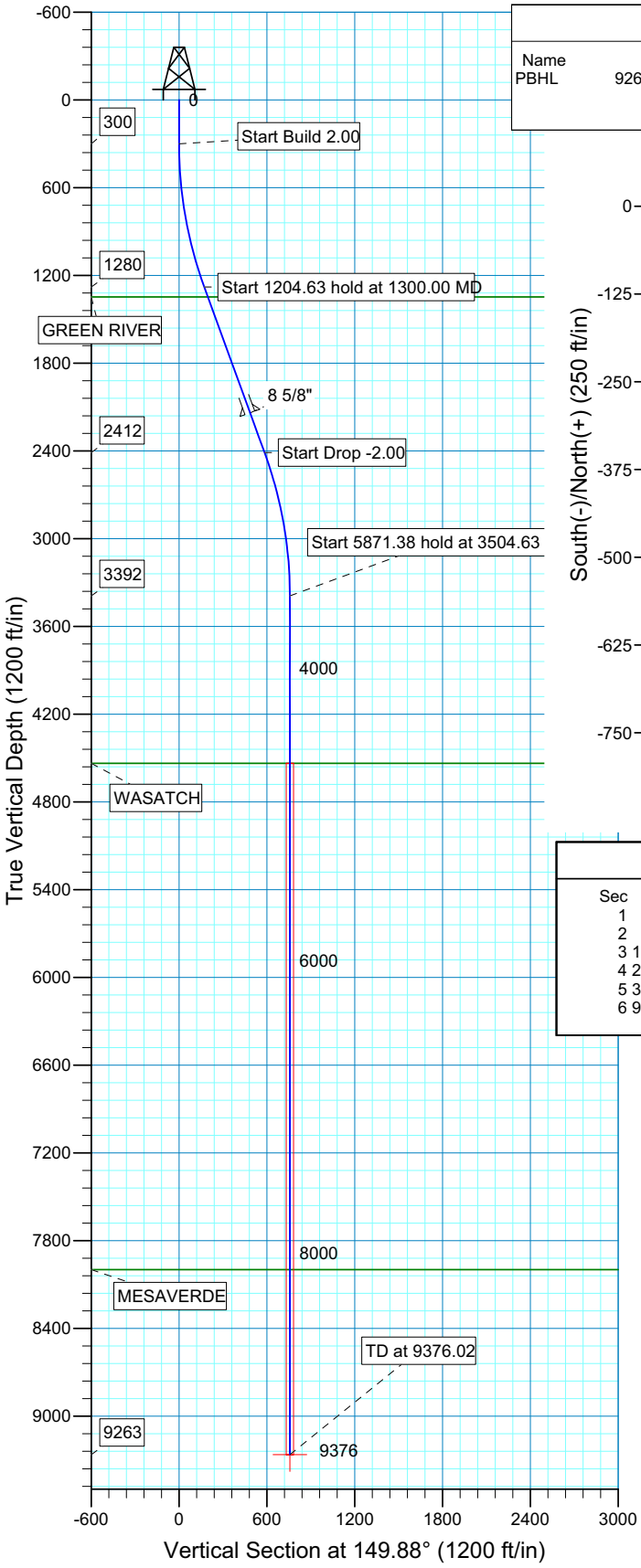
+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
0.00	0.00	616202.56	2572162.36	40° 0' 25.927 N	109° 27' 25.978 W

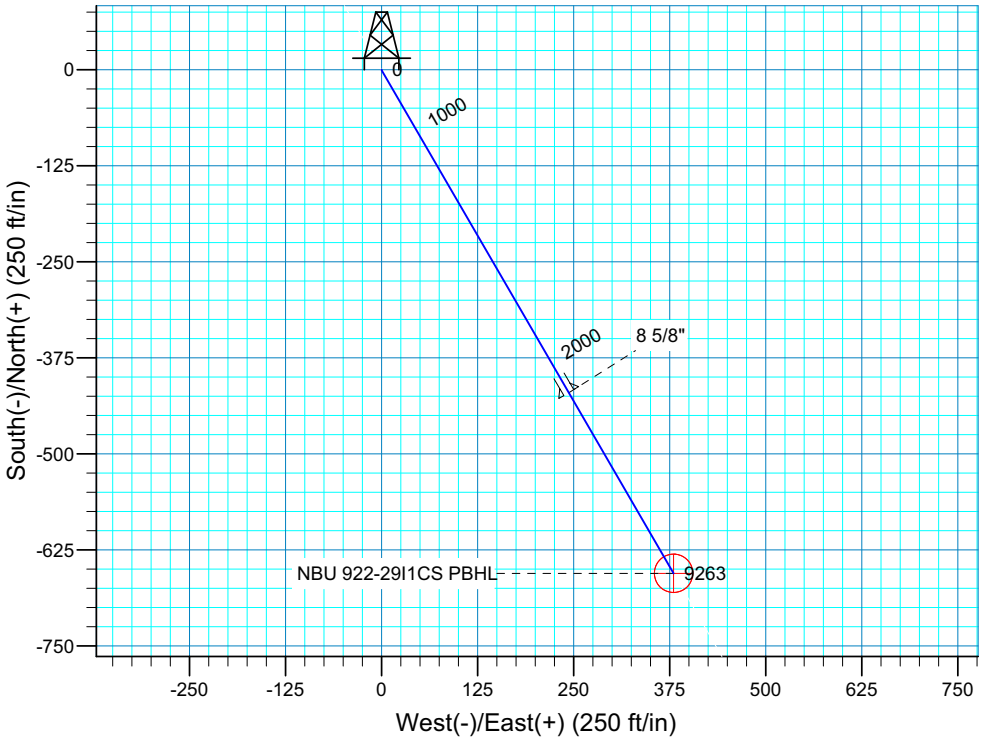
T M
Azimuths to True North
Magnetic North: 11.16°

Magnetic Field
Strength: 52462.6snT
Dip Angle: 65.91°
Date: 07/15/2010
Model: IGRF200510

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

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Shape
PBHL	9263.00	-655.27	380.13	615556.15	2572557.35	40° 0' 19.451 N	109° 27' 21.092 W	Circle (Radius: 25.00





SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	DLeg	TFace	VSec	Target
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
2	300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	
3	1300.00	20.00	149.88	1279.82	-149.44	86.69	2.00	149.88	172.77	
4	2504.63	20.00	149.88	2411.80	-505.83	293.43	0.00	0.00	584.78	
5	3504.63	0.00	0.00	3391.62	-655.27	380.13	2.00	180.00	757.55	
6	9376.02	0.00	0.00	9263.00	-655.27	380.13	0.00	0.00	757.55	NBU 922-29I1CS PBHL

FORMATION TOP DETAILS

TVDPath	MDPath	Formation
1347.00	1371.50	GREEN RIVER
4536.00	4649.02	WASATCH
7999.00	8112.02	MESAVERDE

PROJECT DETAILS: Uintah County, UT NAD27

Geodetic System: US State Plane 1927 (Exact solution)
Datum: NAD 1927 (NADCON CONUS)
Ellipsoid: Clarke 1866
Zone: Utah Central 4302
Location: SEC 29 T9S R22E
System Datum: Mean Sea Level
Local North: No north reference data is available

Plan: Plan #1 (NBU 922-29I1CS/OH)

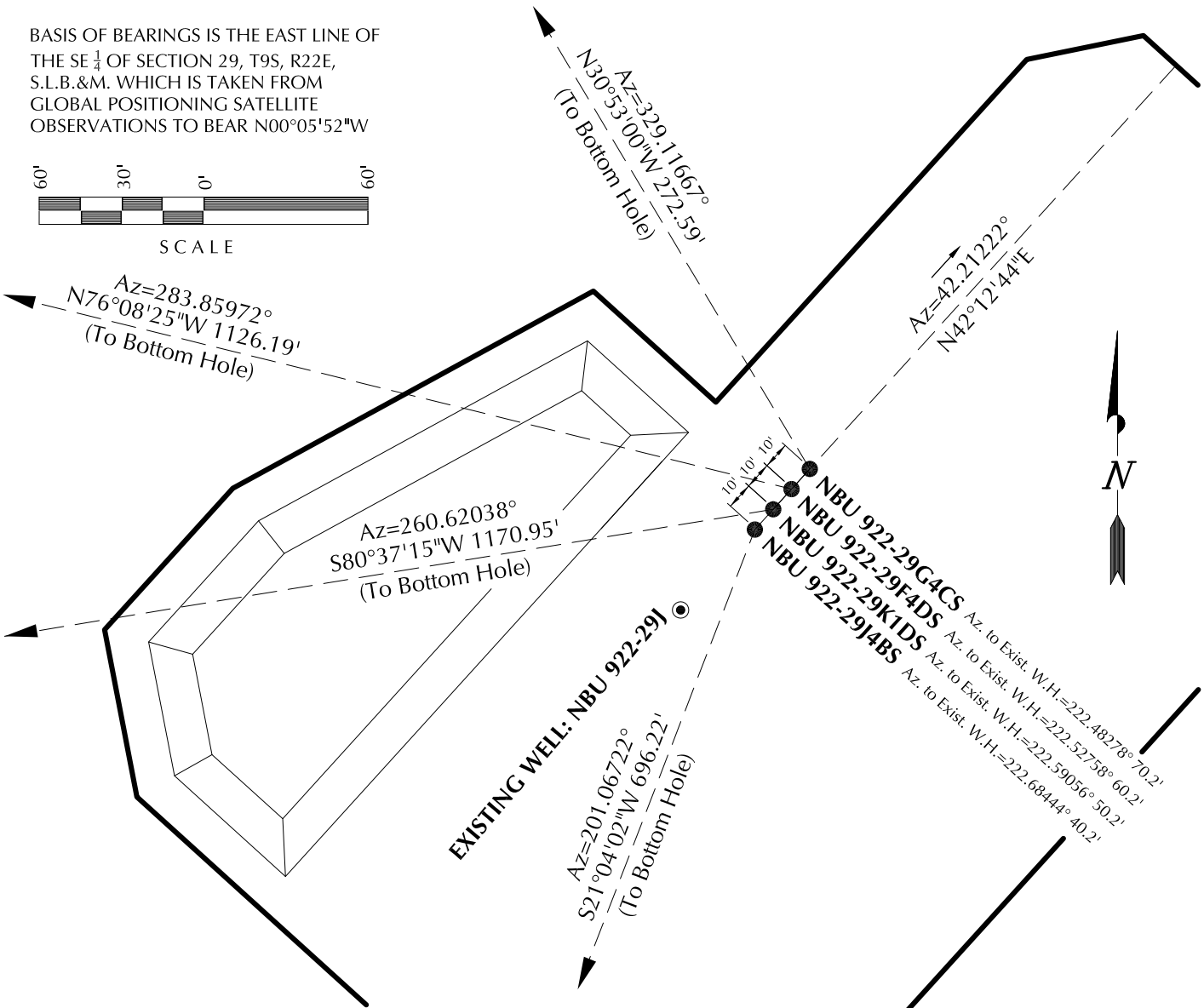
Created By: Robert H. Scott Date: 17:35, July 15 2010

'APIWellNo:43047511950000'

WELL NAME	SURFACE POSITION					BOTTOM HOLE				
	NAD83		NAD27			NAD83		NAD27		
	LATITUDE	LONGITUDE	LATITUDE	LONGITUDE	FOOTAGES	LATITUDE	LONGITUDE	LATITUDE	LONGITUDE	FOOTAGES
NBU 922-29G4CS	40°00'23.295" 40.006471°	109°27'37.573" 109.460437°	40°00'23.420" 40.006506°	109°27'35.108" 109.459752°	2436' FSL 1681' FEL	40°00'25.606" 40.007113°	109°27'39.371" 109.460936°	40°00'25.732" 40.007148°	109°27'36.906" 109.460252°	2608' FNL 1821' FEL
NBU 922-29F4DS	40°00'23.221" 40.006450°	109°27'37.659" 109.460461°	40°00'23.347" 40.006485°	109°27'35.195" 109.459776°	2428' FSL 1688' FEL	40°00'25.887" 40.007191°	109°27'51.707" 109.464363°	40°00'26.013" 40.007226°	109°27'49.242" 109.463678°	2580' FNL 2502' FWL
NBU 922-29K1DS	40°00'23.148" 40.006430°	109°27'37.746" 109.460485°	40°00'23.274" 40.006465°	109°27'35.281" 109.459800°	2421' FSL 1695' FEL	40°00'21.263" 40.005906°	109°27'52.589" 109.464608°	40°00'21.389" 40.005941°	109°27'50.123" 109.463923°	2231' FSL 2433' FWL
NBU 922-29J4BS	40°00'23.075" 40.006410°	109°27'37.832" 109.460509°	40°00'23.201" 40.006445°	109°27'35.367" 109.459824°	2413' FSL 1702' FEL	40°00'16.656" 40.004627°	109°27'41.048" 109.461402°	40°00'16.782" 40.004662°	109°27'38.583" 109.460717°	1764' FSL 1953' FEL
NBU 922-29J	40°00'22.783" 40.006329°	109°27'38.182" 109.460606°	40°00'22.909" 40.006364°	109°27'35.717" 109.459921°	2384' FSL 1729' FEL					

RELATIVE COORDINATES - From Surface Position to Bottom Hole

WELL NAME	NORTH	EAST	WELL NAME	NORTH	EAST	WELL NAME	NORTH	EAST	WELL NAME	NORTH	EAST
NBU 922-29G4CS	233.9'	-139.9'	**NBU 922-29F4DS**	269.8'	-1093.4'	**NBU 922-29K1DS**	-190.8'	-1155.3'	**NBU 922-29J4BS**	-649.7'	-250.3'



Kerr-McGee Oil & Gas Onshore, LP
1099 18th Street - Denver, Colorado 80202

WELL PAD - NBU 922-29J

WELL PAD INTERFERENCE PLAT
WELLS - NBU 922-29G4CS, NBU 922-29F4DS, NBU 922-29K1DS & NBU 922-29J4BS LOCATED IN SECTION 29, T9S, R22E, S.L.B.&M., UINTAH COUNTY, UTAH.

609
CONSULTING, LLC
371 Coffeen Avenue
Sheridan WY 82801
Phone 307-674-0609
Fax 307-674-0182

TIMBERLINE (435) 789-1365
ENGINEERING & LAND SURVEYING, INC.
209 NORTH 300 WEST - VERNAL, UTAH 84078

DATE SURVEYED: 03-25-10	SURVEYED BY: K.B.C.	SHEET NO:
DATE DRAWN: 03-30-10	DRAWN BY: K.O.B.	5
SCALE: 1" = 60'	Date Last Revised: 06-05-10 K.O.B.	5 OF 16

'APIWellNo:43047511950000'

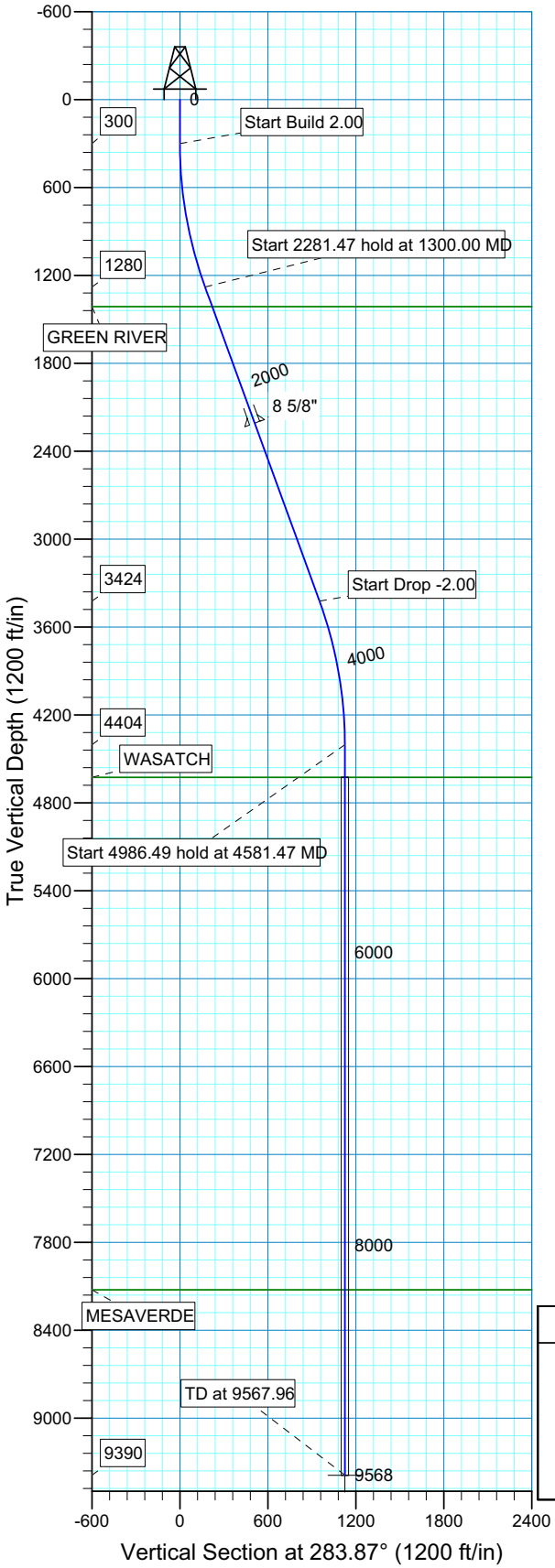
Scientific Drilling
Rocky Mountain Operations

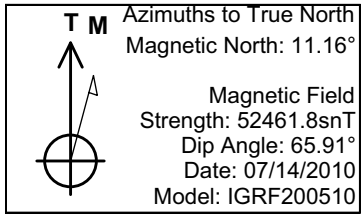
Project: Uintah County, UT NAD27
Site: NBU 922-29J Pad
Well: NBU 922-29F4DS
Wellbore: OH
Design: Plan #1

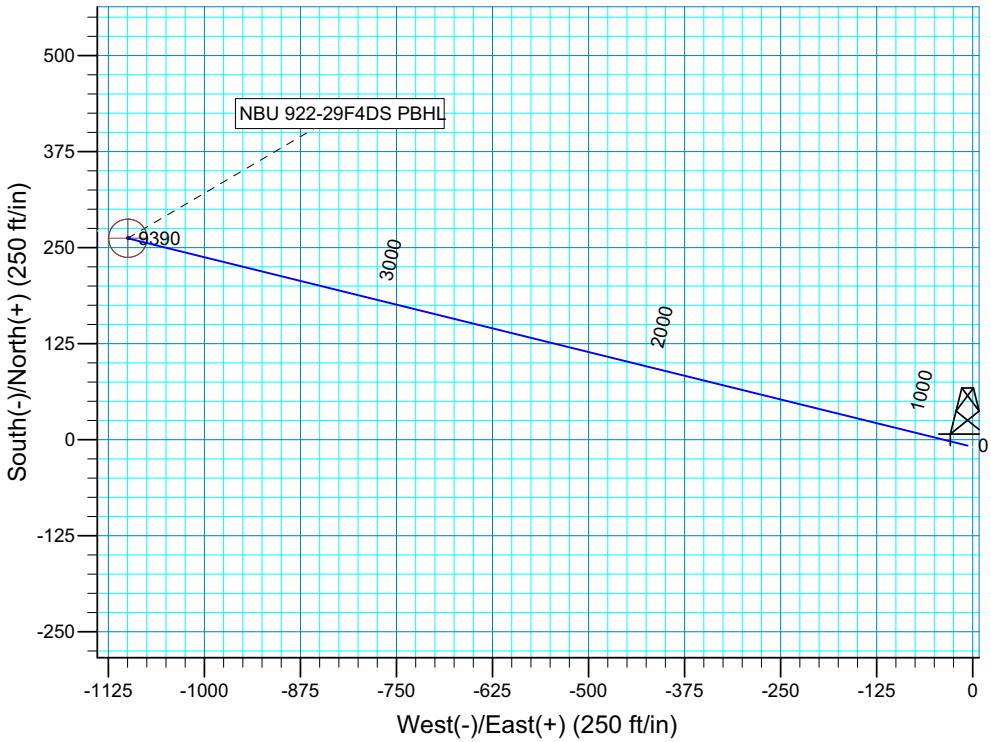
Anadarko Petroleum Corporation

Kerr McGee Oil and Gas Onshore LP

WELL DETAILS: NBU 922-29F4DS					
GL 4921' & RKB 14 @ 4935.00ft (ASSUMED)					4921.00
+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
-7.66	-6.72	615925.09	2571451.41	40° 0' 23.346 N	109° 27' 35.194 W







Plan: Plan #1 (NBU 922-29F4DS/OH)

Created By: Robert H. Scott Date: 13:52, July 14 2010

FORMATION TOP DETAILS

TVDPath	MDPath	Formation
1414.00	1442.80	GREEN RIVER
4627.00	4804.96	WASATCH
8125.00	8302.96	MESAVERDE

PROJECT DETAILS: Uintah County, UT NAD27

Geodetic System: US State Plane 1927 (Exact solution)
Datum: NAD 1927 (NADCON CONUS)
Ellipsoid: Clarke 1866
Zone: Utah Central 4302
Location: SEC 29 T9S R22E
System Datum: Mean Sea Level
Local North: No north reference data is available

SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	DLeg	TFace	VSec	Target
1	0.00	0.00	0.00	0.00	-7.66	-6.72	0.00	0.00	0.00	
2	300.00	0.00	0.00	300.00	-7.66	-6.72	0.00	0.00	0.00	
3	1300.00	20.00	283.87	1279.82	33.76	-174.45	2.00	283.87	172.77	
4	3581.48	20.00	283.87	3423.70	220.86	-932.00	0.00	0.00	953.08	
5	4581.48	0.00	0.00	4403.52	262.28	-1099.73	2.00	180.00	1125.85	
6	9567.96	0.00	0.00	9390.00	262.28	-1099.73	0.00	0.00	1125.85	NBU 922-29F4DS PBHL

'APIWellNo:43047511950000'

Scientific Drilling
Rocky Mountain Operations

Project: Uintah County, UT NAD27
Site: NBU 922-29J Pad
Well: NBU 922-29G4CS
Wellbore: OH
Design: Plan #1

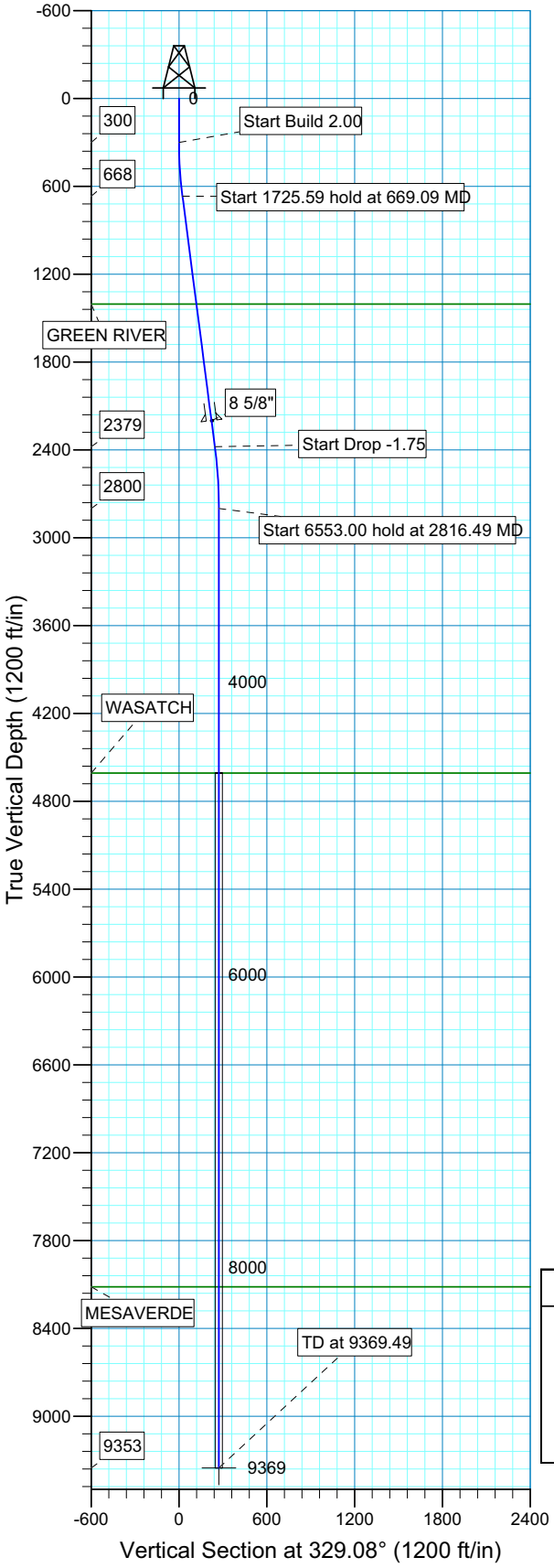
Anadarko Petroleum Corporation

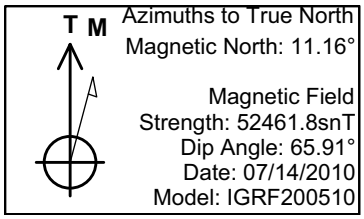
Kerr McGee Oil and Gas Onshore LP

WELL DETAILS: NBU 922-29G4CS

GL 4921' & RKB 14' @ 4935.00ft (ASSUMED) 4921.00

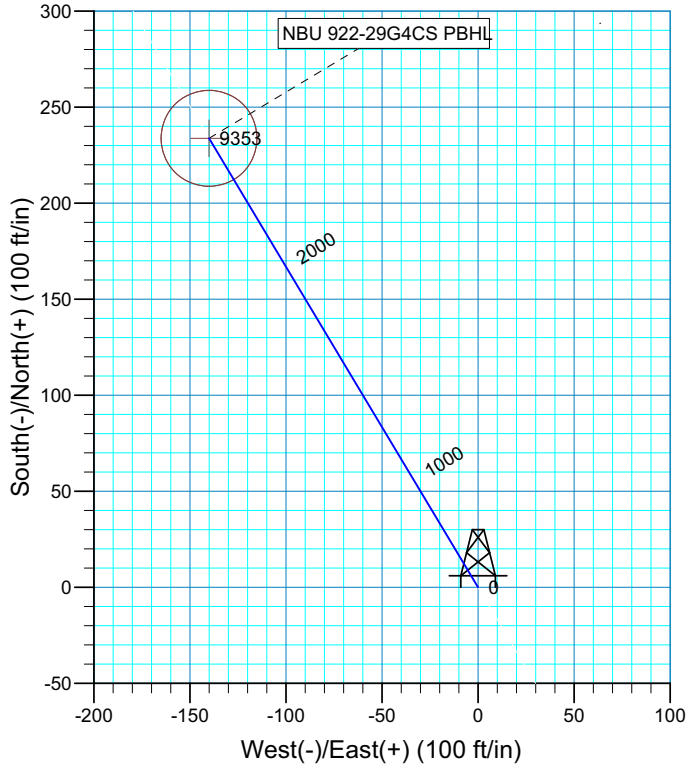
+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
0.00	0.00	615932.91	2571457.96	40° 0' 23.422 N	109° 27' 35.107 W





Azimuths to True North
Magnetic North: 11.16°

Magnetic Field
Strength: 52461.8snT
Dip Angle: 65.91°
Date: 07/14/2010
Model: IGRF200510



Plan: Plan #1 (NBU 922-29G4CS/OH)

Created By: Robert H. Scott Date: 13:51, July 14 2010

FORMATION TOP DETAILS

TVDPath	MDPath	Formation
1405.00	1412.18	GREEN RIVER
4607.00	4623.49	WASATCH
8116.00	8132.49	MESAVERDE

PROJECT DETAILS: Uintah County, UT NAD27

Geodetic System: US State Plane 1927 (Exact solution)
Datum: NAD 1927 (NADCON CONUS)
Ellipsoid: Clarke 1866
Zone: Utah Central 4302
Location: SEC 29 T9S R22E
System Datum: Mean Sea Level
Local North: No north reference data is available

SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	DLeg	TFace	VSec	Target
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
2	300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	
3	669.09	7.38	329.08	668.07	20.37	-12.20	2.00	329.08	23.74	
4	2394.67	7.38	329.08	2379.35	210.57	-126.11	0.00	0.00	245.45	
5	2816.49	0.00	0.00	2800.00	233.85	-140.06	1.75	180.00	272.58	
6	9369.49	0.00	0.00	9353.00	233.85	-140.06	0.00	0.00	272.58	NBU 922-29G4CS PBHL

'APIWellNo:43047511950000'

Scientific Drilling
Rocky Mountain Operations

Project: Uintah County, UT NAD27
Site: NBU 922-29J Pad
Well: NBU 922-29J4BS
Wellbore: OH
Design: Plan #1

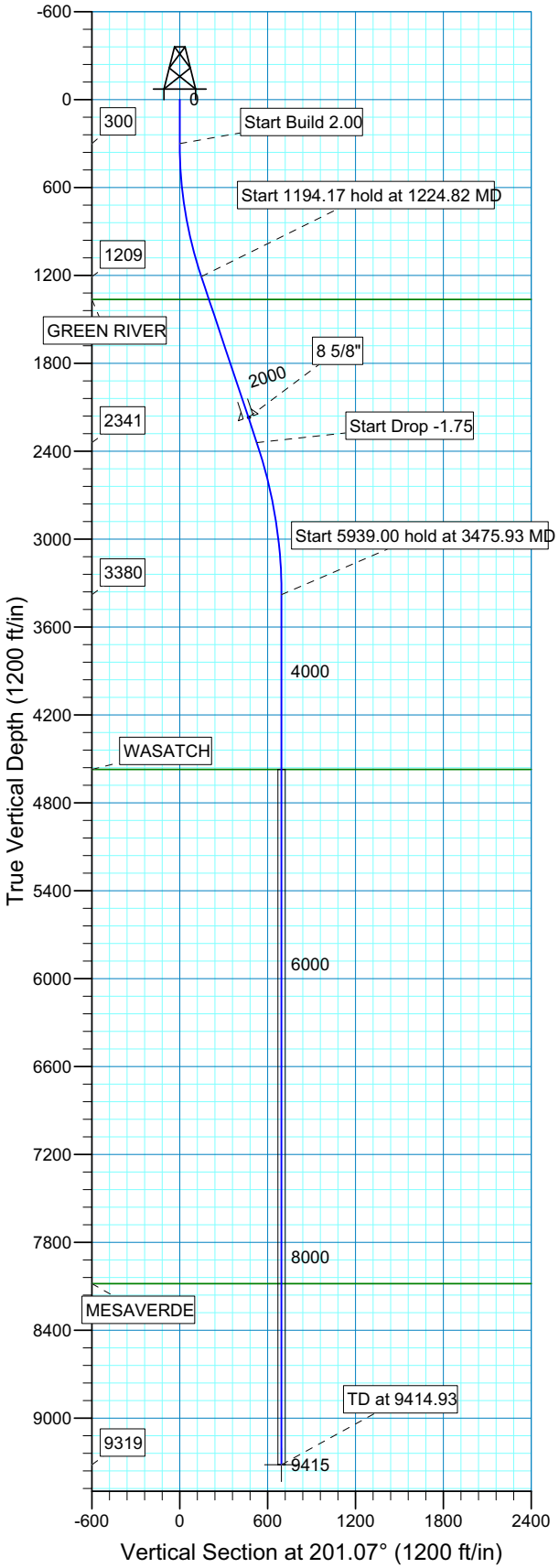
Anadarko Petroleum Corporation

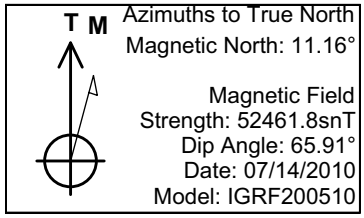
Kerr McGee Oil and Gas Onshore LP

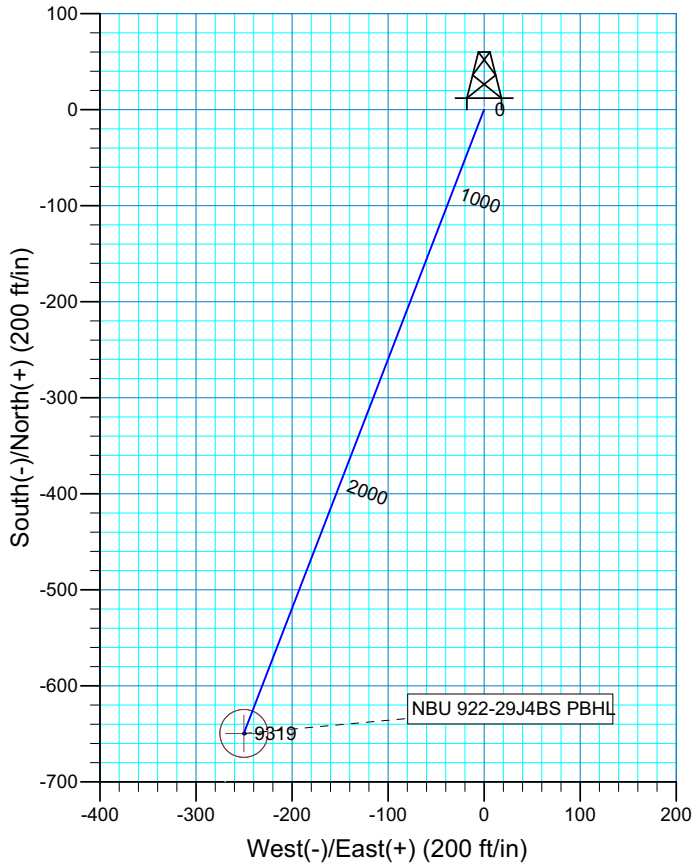
WELL DETAILS: NBU 922-29J4BS

GL 4921' & RKB 14' @ 4935.00ft (ASSUMED) 4921.00

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
0.00	0.00	615910.21	2571438.30	40° 0' 23.202 N	109° 27' 35.366 W







Plan: Plan #1 (NBU 922-29J4BS/OH)

Created By: Robert H. Scott Date: 13:43, July 14 2010

FORMATION TOP DETAILS

TVDPath	MDPath	Formation
1365.00	1389.49	GREEN RIVER
4572.00	4667.93	WASATCH
8083.00	8178.93	MESAVERDE

PROJECT DETAILS: Uintah County, UT NAD27

Geodetic System: US State Plane 1927 (Exact solution)
Datum: NAD 1927 (NADCON CONUS)
Ellipsoid: Clarke 1866
Zone: Utah Central 4302
Location: SEC 29 T9S R22E
System Datum: Mean Sea Level
Local North: No north reference data is available

SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	DLeg	TFace	VSec	Target
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
2	300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	
3	1224.82	18.50	201.07	1208.84	-138.09	-53.19	2.00	201.07	147.98	
4	2418.99	18.50	201.07	2341.33	-491.62	-189.36	0.00	0.00	526.83	
5	3475.93	0.00	0.00	3380.00	-649.44	-250.15	1.75	180.00	695.95	
6	9414.93	0.00	0.00	9319.00	-649.44	-250.15	0.00	0.00	695.95	NBU 922-29J4BS PBHL

'APIWellNo:43047511950000'

Scientific Drilling
Rocky Mountain Operations

Project: Uintah County, UT NAD27
Site: NBU 922-29J Pad
Well: NBU 922-29K1DS
Wellbore: OH
Design: Plan #1

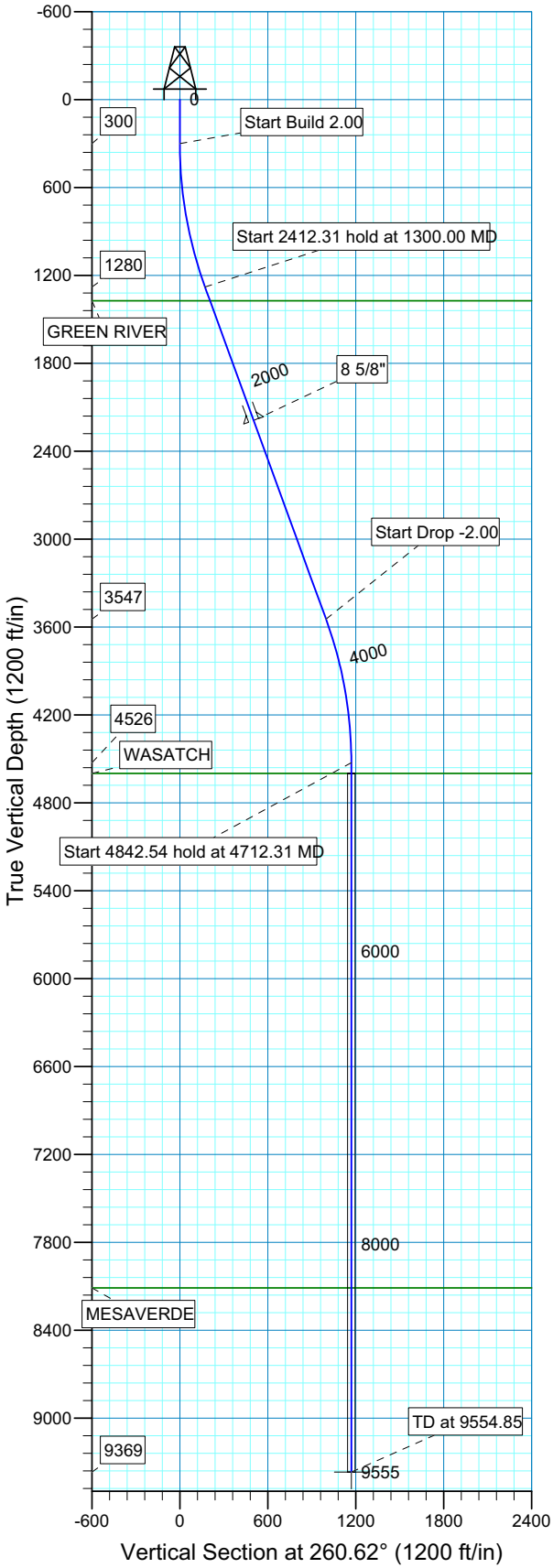
Anadarko Petroleum Corporation

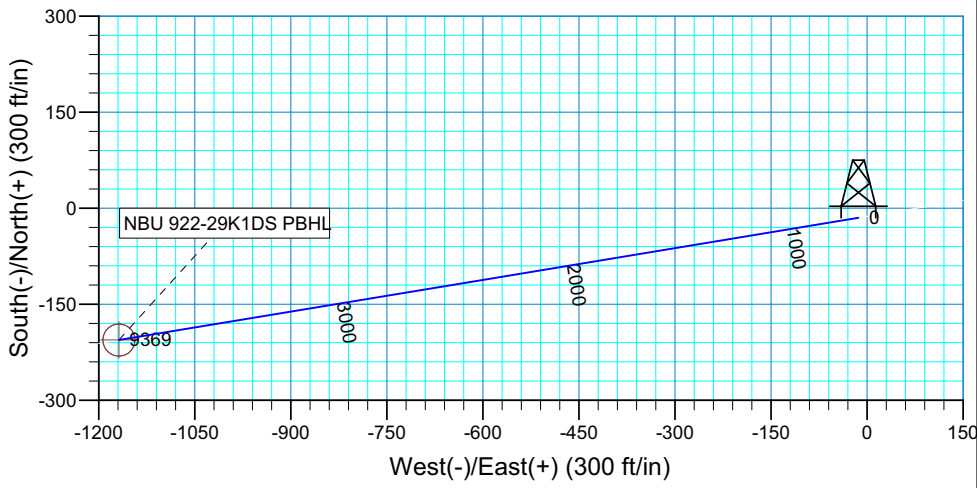
Kerr McGee Oil and Gas Onshore LP

WELL DETAILS:NBU 922-29K1DS					
GL 4921' & RKB 14' @ 4935.00ft (ASSUMED)					4921.00
+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
-14.95	-13.45	615917.66	2571444.85	40° 0' 23.274 N	109° 27' 35.280 W

T M
Azimuths to True North
Magnetic North: 11.16°

Magnetic Field
Strength: 52461.8snT
Dip Angle: 65.91°
Date: 07/14/2010
Model: IGRF200510





Plan: Plan #1 (NBU 922-29K1DS/OH)

Created By: Robert H. Scott Date: 13:44, July 14 2010

FORMATION TOP DETAILS

TVDPath	MDPath	Formation
1373.00	1399.16	GREEN RIVER
4600.00	4785.85	WASATCH
8111.00	8296.85	MESAVERDE

PROJECT DETAILS: Uintah County, UT NAD27

Geodetic System: US State Plane 1927 (Exact solution)
Datum: NAD 1927 (NADCON CONUS)
Ellipsoid: Clarke 1866
Zone: Utah Central 4302
Location: SEC 29 T9S R22E
System Datum: Mean Sea Level
Local North: No north reference data is available

SECTION DETAILS

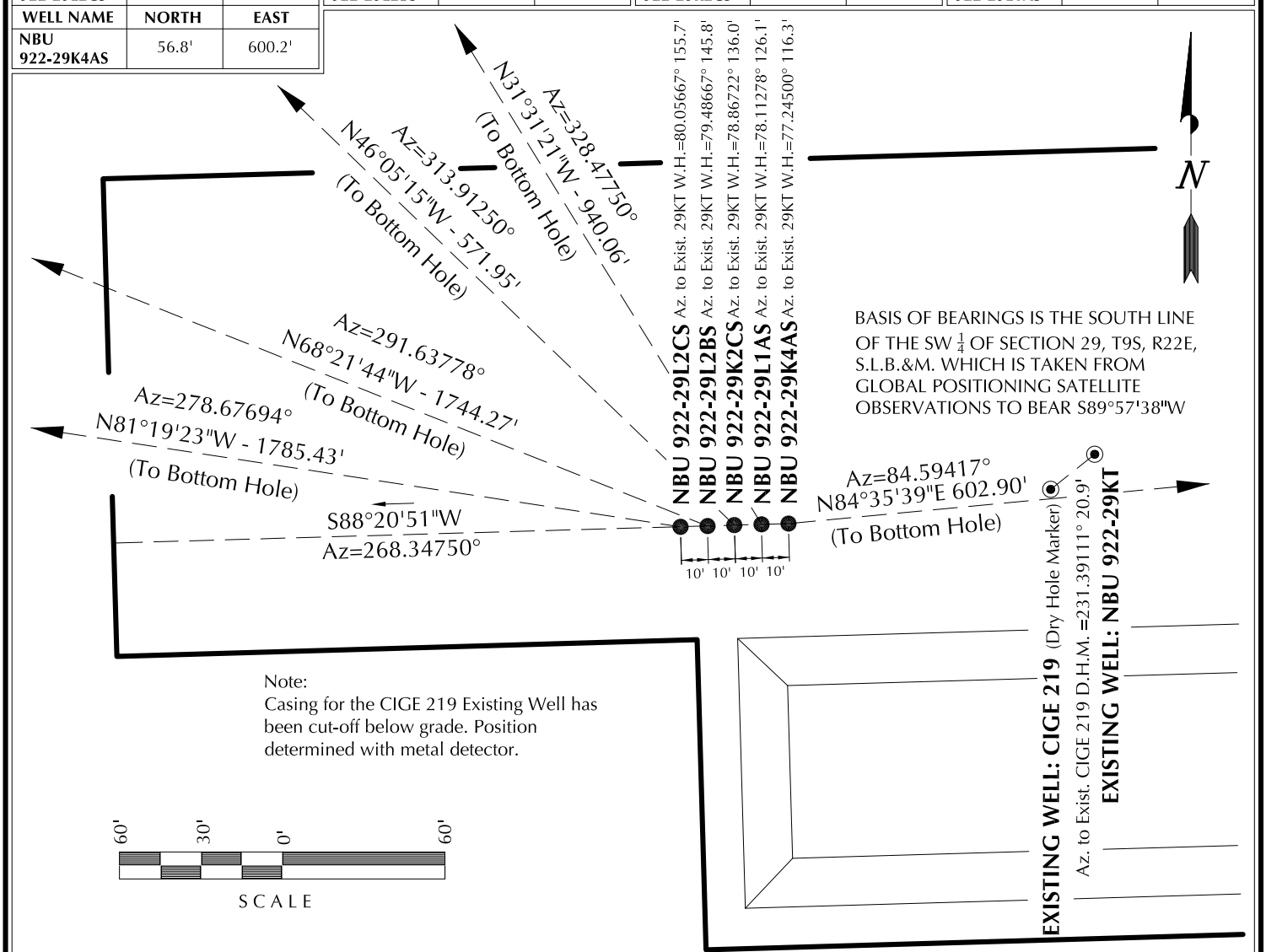
Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	DLeg	TFace	VSec	Target
1	0.00	0.00	0.00	0.00	-14.95	-13.45	0.00	0.00	0.00	
2	300.00	0.00	0.00	300.00	-14.95	-13.45	0.00	0.00	0.00	
3	1300.00	20.00	260.62	1279.82	-43.11	-183.90	2.00	260.62	172.77	
4	3712.30	20.00	260.62	3546.64	-177.61	-997.92	0.00	0.00	997.82	
5	4712.30	0.00	0.00	4526.45	-205.77	-1168.38	2.00	180.00	1170.59	
6	9554.85	0.00	0.00	9369.00	-205.77	-1168.38	0.00	0.00	1170.59	NBU 922-29K1DS PBHL

'APIWellNo:43047511950000'

WELL NAME	SURFACE POSITION					BOTTOM HOLE				
	NAD83		NAD27			NAD83		NAD27		
	LATITUDE	LONGITUDE	LATITUDE	LONGITUDE	FOOTAGES	LATITUDE	LONGITUDE	LATITUDE	LONGITUDE	FOOTAGES
NBU 922-29L2CS	40°00'16.698" 40.004638°	109°28'00.963" 109.466934°	40°00'16.824" 40.004673°	109°27'58.497" 109.466249°	1769' FSL 1781' FWL	40°00'19.358" 40.005377°	109°28'23.639" 109.473233°	40°00'19.484" 40.005412°	109°28'21.172" 109.472548°	2040' FSL 16' FWL
NBU 922-29L2BS	40°00'16.701" 40.004639°	109°28'00.834" 109.466898°	40°00'16.827" 40.004674°	109°27'58.368" 109.466213°	1770' FSL 1791' FWL	40°00'23.054" 40.006404°	109°28'21.665" 109.472685°	40°00'23.180" 40.006439°	109°28'19.198" 109.471999°	2414' FSL 170' FWL
NBU 922-29K2CS	40°00'16.704" 40.004640°	109°28'00.707" 109.466863°	40°00'16.830" 40.004675°	109°27'58.241" 109.466178°	1770' FSL 1801' FWL	40°00'20.623" 40.005729°	109°28'06.001" 109.468334°	40°00'20.749" 40.005764°	109°28'03.534" 109.467648°	2167' FSL 1389' FWL
NBU 922-29L1AS	40°00'16.707" 40.004641°	109°28'00.577" 109.466827°	40°00'16.833" 40.004676°	109°27'58.111" 109.466142°	1770' FSL 1811' FWL	40°00'24.624" 40.006840°	109°28'06.892" 109.468581°	40°00'24.750" 40.006875°	109°28'04.426" 109.467896°	2572' FSL 1320' FWL
NBU 922-29K4AS	40°00'16.710" 40.004642°	109°28'00.449" 109.466791°	40°00'16.836" 40.004677°	109°27'57.983" 109.466106°	1771' FSL 1821' FWL	40°00'17.271" 40.004798°	109°27'52.738" 109.464649°	40°00'17.397" 40.004833°	109°27'50.272" 109.463965°	1827' FSL 2421' FWL
NBU 922-29KT	40°00'16.964" 40.004712°	109°27'58.992" 109.466387°	40°00'17.090" 40.004747°	109°27'56.526" 109.465702°	1796' FSL 1934' FWL					
CIGE 219	40°00'16.835" 40.004676°	109°27'59.201" 109.466445°	40°00'16.961" 40.004711°	109°27'56.736" 109.465760°	1783' FSL 1918' FWL					

RELATIVE COORDINATES - From Surface Position to Bottom Hole

WELL NAME	NORTH	EAST	WELL NAME	NORTH	EAST	WELL NAME	NORTH	EAST	WELL NAME	NORTH	EAST
NBU 922-29L2CS	269.4'	-1765.0'	NBU 922-29L2BS	643.2'	-1621.4'	NBU 922-29K2CS	396.7'	-412.0'	NBU 922-29L1AS	801.3'	-491.5'
WELL NAME	NORTH	EAST									
NBU 922-29K4AS	56.8'	600.2'									



Note:
Casing for the CIGE 219 Existing Well has been cut-off below grade. Position determined with metal detector.

Kerr-McGee Oil & Gas Onshore, LP
1099 18th Street - Denver, Colorado 80202

WELL PAD - NBU 922-29K

WELL PAD INTERFERENCE PLAT
WELLS - NBU 922-29L2CS, NBU 922-29L2BS, NBU 922-29K2CS, NBU 922-29L1AS & NBU 922-29K4AS
LOCATED IN SECTION 29, T9S, R22E, S.L.B.&M., UINTAH COUNTY, UTAH.

609 CONSULTING, LLC
371 Coffeen Avenue
Sheridan WY 82801
Phone 307-674-0609
Fax 307-674-0182

TIMBERLINE (435) 789-1365
ENGINEERING & LAND SURVEYING, INC.
209 NORTH 300 WEST - VERNAL, UTAH 84078

DATE SURVEYED: 03-25-10	SURVEYED BY: K.B.C.	SHEET NO:
DATE DRAWN: 03-30-10	DRAWN BY: K.O.B.	6
SCALE: 1" = 60'	Date Last Revised: 06-02-10 E.M.S.	6 OF 17

'APIWellNo:43047511950000'

Scientific Drilling
Rocky Mountain Operations

Project: Uintah County, UT NAD27
Site: NBU 922-29K Pad
Well: NBU 922-29K2CS
Wellbore: OH
Design: Plan #1

Anadarko Petroleum Corporation

Kerr McGee Oil and Gas Onshore LP

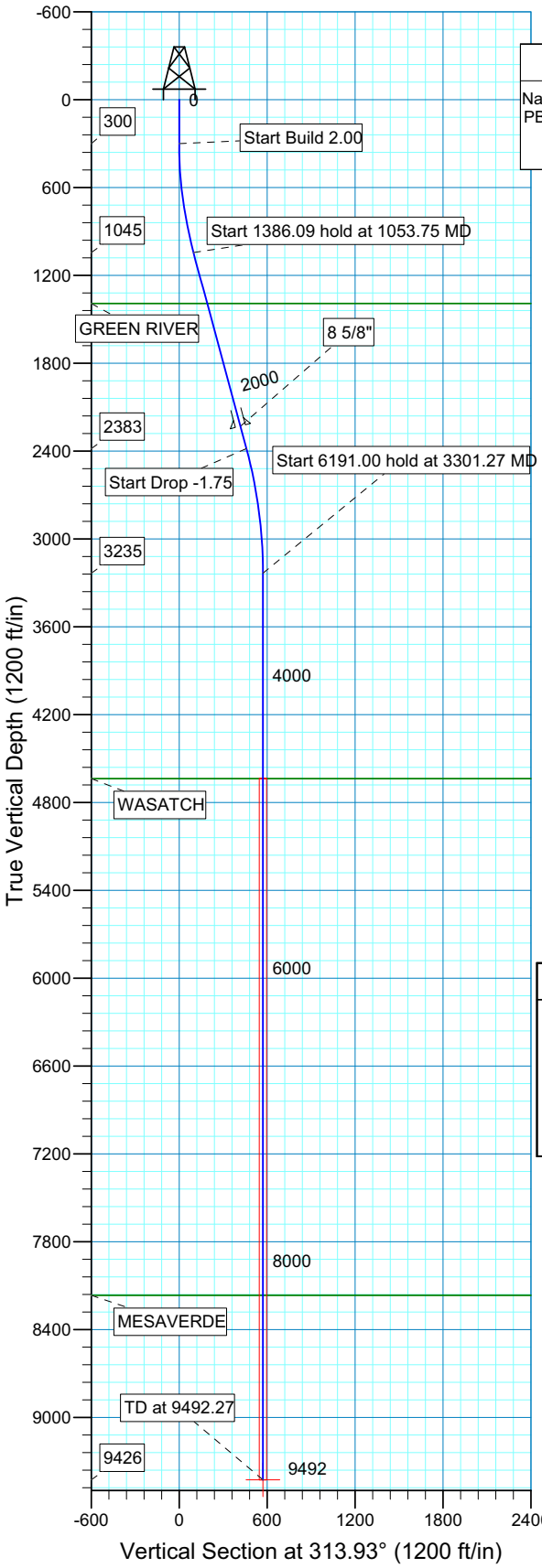
T M
Azimuths to True North
Magnetic North: 11.16°

Magnetic Field
Strength: 52459.5snT
Dip Angle: 65.91°
Date: 07/15/2010
Model: IGRF200510

WELL DETAILS: NBU 922-29K2CS

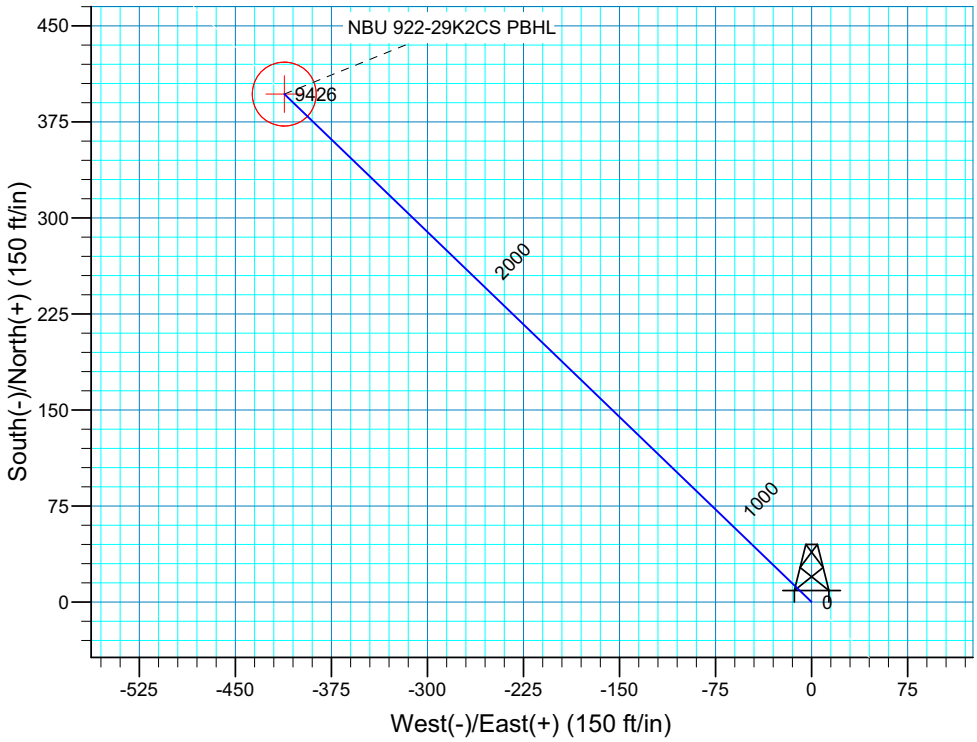
GL 4950' & RKB 14' @ 4964.00ft (ASSUMED) 4950.00

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
0.00	0.00	615225.15	2569673.56	40° 0' 16.830 N	109° 27' 58.241 W



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

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Shape
PBHL	9426.00	396.68	-411.78	615612.36	2569252.87	40° 0' 20.750 N	109° 28' 3.533 W	Circle (Radius: 25.0



SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	DLeg	TFace	VSec	Target
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
2	300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	
3	1053.75	15.08	313.93	1045.09	68.40	-71.00	2.00	313.93	98.59	
4	2439.84	15.08	313.93	2383.47	318.51	-330.63	0.00	0.00	459.09	
5	3301.27	0.00	0.00	3235.00	396.68	-411.78	1.75	180.00	571.76	
6	9492.27	0.00	0.00	9426.00	396.68	-411.78	0.00	0.00	571.76	NBU 922-29K2CS PBHL

FORMATION TOP DETAILS

TVDPath	MDPath	Formation
1393.00	1414.07	GREEN RIVER
4637.00	4703.27	WASATCH
8167.00	8233.27	MESAVERDE

PROJECT DETAILS: Uintah County, UT NAD27

Geodetic System: US State Plane 1927 (Exact solution)
Datum: NAD 1927 (NADCON CONUS)
Ellipsoid: Clarke 1866
Zone: Utah Central 4302
Location: SEC 29 T9S R22E
System Datum: Mean Sea Level
Local North: No north reference data is available

Plan: Plan #1 (NBU 922-29K2CS/OH)

Created By: Robert H. Scott Date: 10:35, July 15 2010

'APIWellNo:43047511950000'

Scientific Drilling
Rocky Mountain Operations

Project: Uintah County, UT NAD27
Site: NBU 922-29K Pad
Well: NBU 922-29K4AS
Wellbore: OH
Design: Plan #1

Anadarko Petroleum Corporation

Kerr McGee Oil and Gas Onshore LP

WELL DETAILS: NBU 922-29K4AS

GL 4950' & RKB 14' @ 4964.00ft (ASSUMED) 4950.00

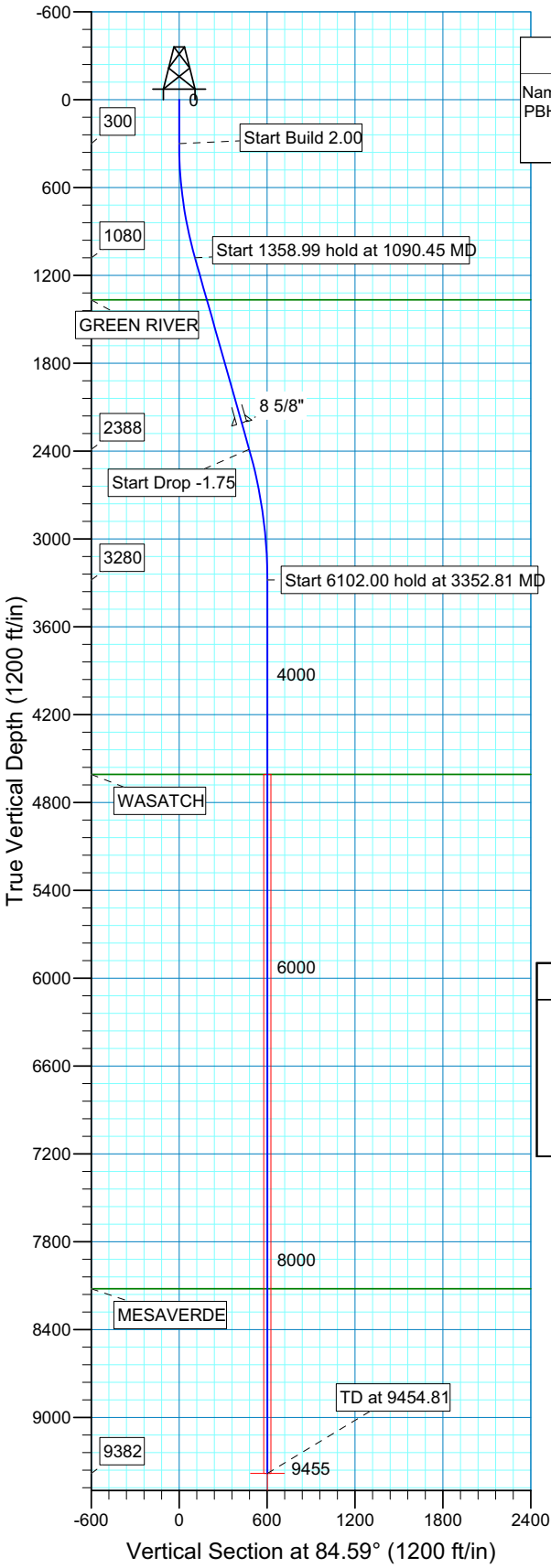
+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
0.00	0.00	615226.34	2569693.70	40° 0' 16.837 N	109° 27' 57.982 W

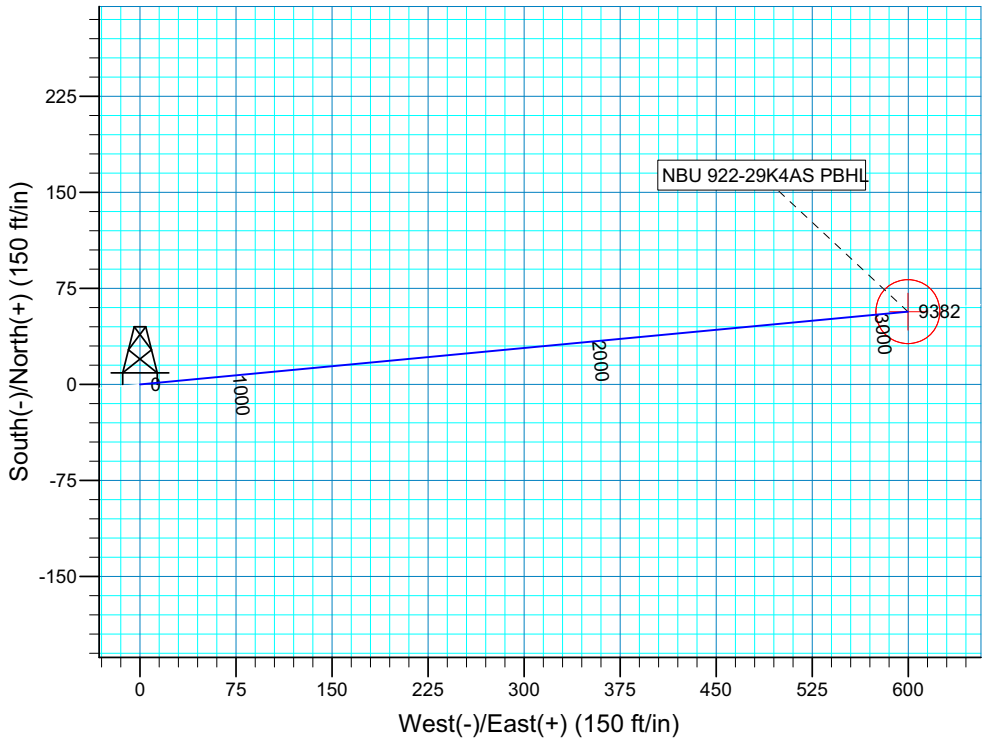
T M
Azimuths to True North
Magnetic North: 11.16°

Magnetic Field
Strength: 52459.5snT
Dip Angle: 65.91°
Date: 07/15/2010
Model: IGRF200510

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

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Shape
PBHL	9382.00	56.83	599.75	615296.79	2570292.00	40° 0' 17.399 N	109° 27' 50.274 W	Circle (Radius: 25.0





SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	DLeg	TFace	VSec	Target
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
2	300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	
3	1090.45	15.81	84.59	1080.46	10.22	107.88	2.00	84.59	108.36	
4	2449.44	15.81	84.59	2388.05	45.15	476.46	0.00	0.00	478.59	
5	3352.81	0.00	0.00	3280.00	56.83	599.75	1.75	180.00	602.43	
6	9454.81	0.00	0.00	9382.00	56.83	599.75	0.00	0.00	602.43	NBU 922-29K4AS PBHL

FORMATION TOP DETAILS

TVDPath	MDPath	Formation
1367.00	1388.26	GREEN RIVER
4609.00	4681.81	WASATCH
8121.00	8193.81	MESAVERDE

PROJECT DETAILS: Uintah County, UT NAD27

Geodetic System: US State Plane 1927 (Exact solution)
Datum: NAD 1927 (NADCON CONUS)
Ellipsoid: Clarke 1866
Zone: Utah Central 4302
Location: SEC 29 T9S R22E
System Datum: Mean Sea Level
Local North: No north reference data is available

Plan: Plan #1 (NBU 922-29K4AS/OH)

Created By: Robert H. Scott Date: 10:34, July 15 2010

'APIWellNo:43047511950000'

Scientific Drilling
Rocky Mountain Operations

Project: Uintah County, UT NAD27
Site: NBU 922-29K Pad
Well: NBU 922-29L1AS
Wellbore: OH
Design: Plan #1

Anadarko Petroleum Corporation

Kerr McGee Oil and Gas Onshore LP

WELL DETAILS: NBU 922-29L1AS

GL 4950' & RKB 14' @ 4964.00ft (ASSUMED) 4950.00

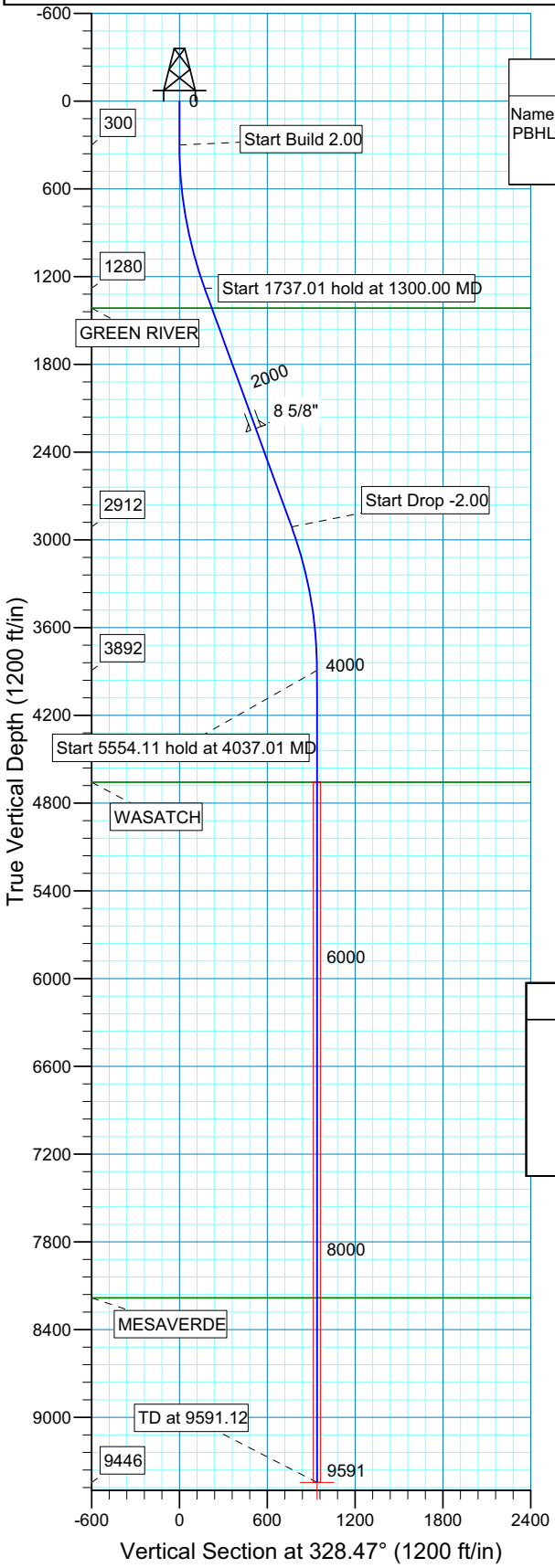
+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
0.00	0.00	615225.79	2569683.63	40° 0' 16.834 N	109° 27' 58.111 W

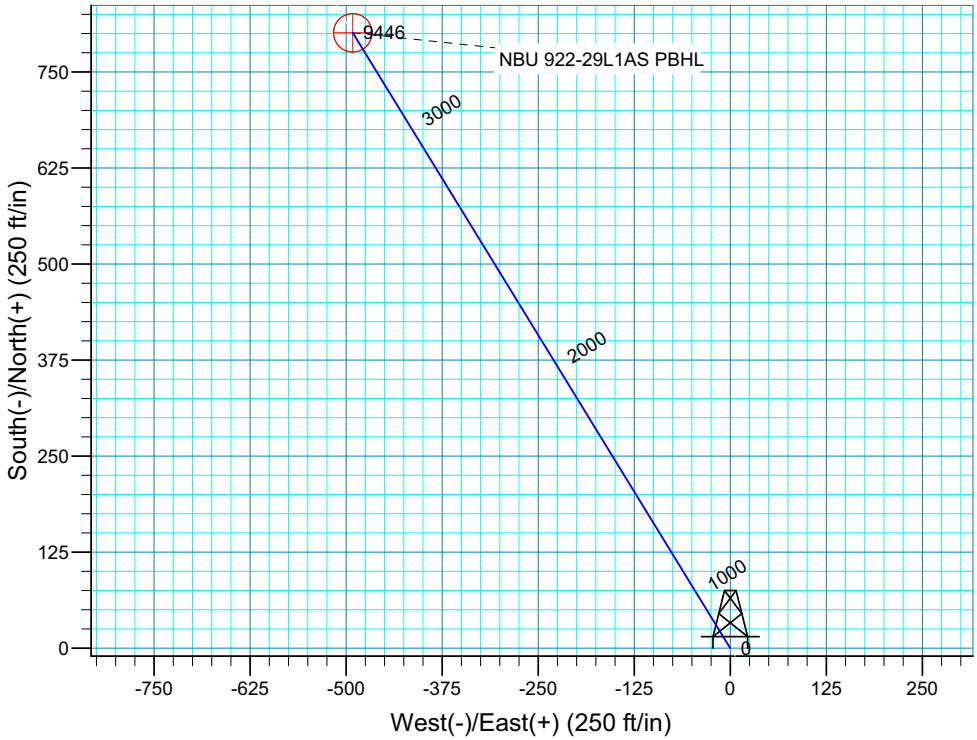
T M
Azimuths to True North
Magnetic North: 11.16°

Magnetic Field
Strength: 52459.5snT
Dip Angle: 65.91°
Date: 07/15/2010
Model: IGRF200510

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

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Shape
PBHL	9446.00	800.94	-491.32	616015.35	2569174.22	40° 0' 24.750 N	109° 28' 4.426 W	Circle (Radius: 25.0





SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	DLeg	TFace	VSec	Target
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
2	300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	
3	1300.00	20.00	328.47	1279.82	147.27	-90.34	2.00	328.47	172.77	
4	3037.01	20.00	328.47	2912.07	653.67	-400.98	0.00	0.00	766.86	
5	4037.01	0.00	0.00	3891.89	800.94	-491.32	2.00	180.00	939.63	
6	9591.12	0.00	0.00	9446.00	800.94	-491.32	0.00	0.00	939.63	

FORMATION TOP DETAILS

TVDPath	MDPath	Formation
1415.00	1443.86	GREEN RIVER
4658.00	4803.12	WASATCH
8183.00	8328.12	MESAVERDE

PROJECT DETAILS: Uintah County, UT NAD27

Geodetic System: US State Plane 1927 (Exact solution)
Datum: NAD 1927 (NADCON CONUS)
Ellipsoid: Clarke 1866
Zone: Utah Central 4302
Location: SEC 29 T9S R22E
System Datum: Mean Sea Level
Local North: No north reference data is available

Plan: Plan #1 (NBU 922-29L1AS/OH)

Created By: Robert H. Scott Date: 10:30, July 15 2010

'APIWellNo:43047511950000'

Scientific Drilling
Rocky Mountain Operations

Project: Uintah County, UT NAD27
Site: NBU 922-29K Pad
Well: NBU 922-29L2BS
Wellbore: OH
Design: Plan #1

Anadarko Petroleum Corporation

Kerr McGee Oil and Gas Onshore LP

WELL DETAILS: NBU 922-29L2BS

GL 4950' & RKB 14' @ 4964.00ft (ASSUMED) 4950.00

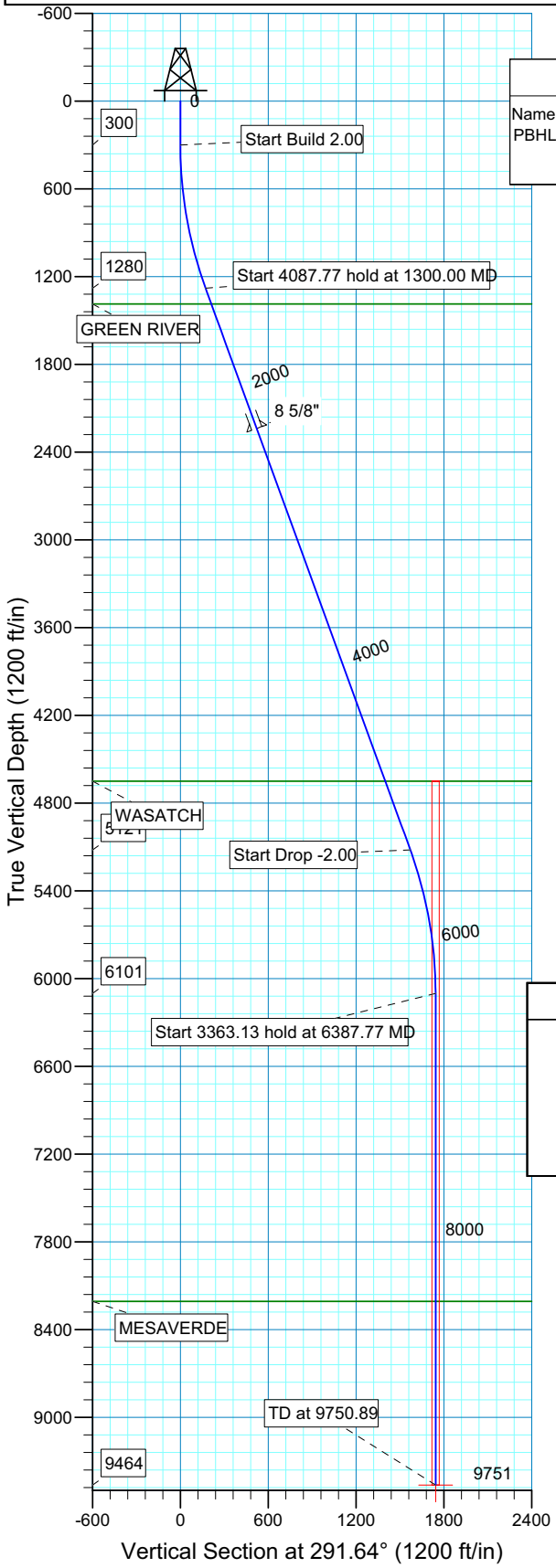
+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
0.00	0.00	615224.56	2569663.76	40° 0' 16.826 N	109° 27' 58.367 W

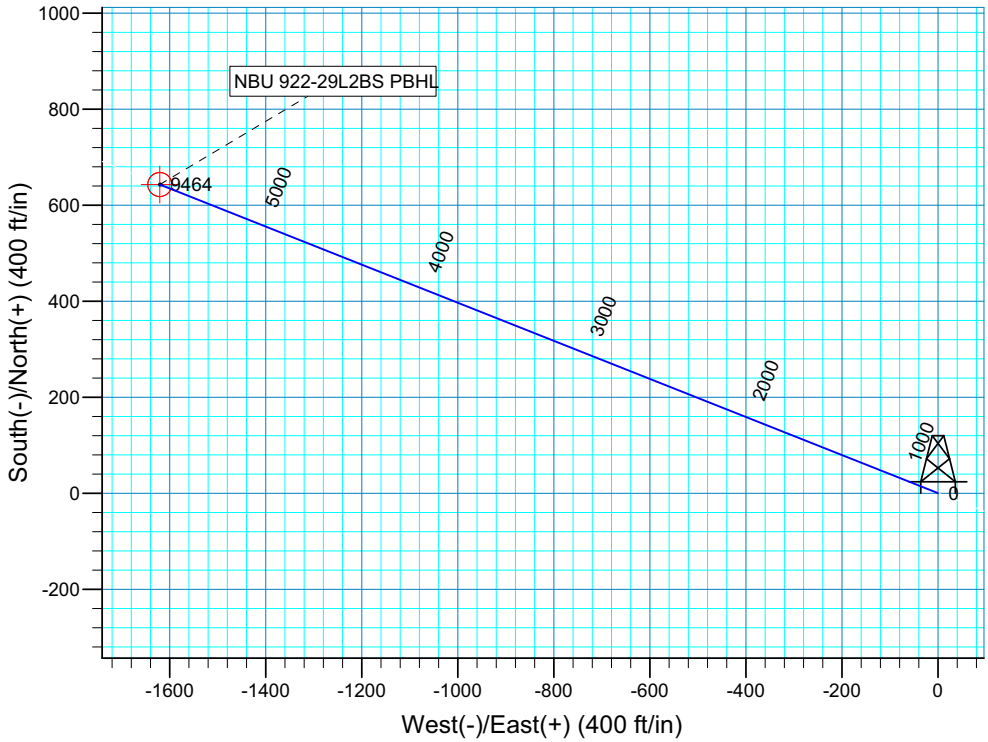
T M
Azimuths to True North
Magnetic North: 11.16°

Magnetic Field
Strength: 52459.5snT
Dip Angle: 65.91°
Date: 07/15/2010
Model: IGRF200510

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

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Shape
PBHL	9464.00	642.96	-1620.76	615830.50	2568028.81	40° 0' 23.180 N	109° 28' 19.196 W	Circle (Radius: 25.0





SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	DLeg	TFace	VSec	Target
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
2	300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	
3	1300.00	20.00	291.64	1279.82	63.71	-160.59	2.00	291.64	172.77	
4	5387.77	20.00	291.64	5121.06	579.25	-1460.17	0.00	0.00	1570.87	
5	6387.77	0.00	0.00	6100.87	642.96	-1620.76	2.00	180.00	1743.63	
6	9750.89	0.00	0.00	9464.00	642.96	-1620.76	0.00	0.00	1743.63	NBU 922-29L2BS PBHL

FORMATION TOP DETAILS

TVDPath	MDPath	Formation
1388.00	1415.13	GREEN RIVER
4651.00	4887.54	WASATCH
8207.00	8493.89	MESAVERDE

PROJECT DETAILS: Uintah County, UT NAD27

Geodetic System: US State Plane 1927 (Exact solution)
Datum: NAD 1927 (NADCON CONUS)
Ellipsoid: Clarke 1866
Zone: Utah Central 4302
Location: SEC 29 T9S R22E
System Datum: Mean Sea Level
Local North: No north reference data is available

Plan: Plan #1 (NBU 922-29L2BS/OH)

Created By: Robert H. Scott Date: 10:36, July 15 2010

'APIWellNo:43047511950000'

Scientific Drilling
Rocky Mountain Operations

Project: Uintah County, UT NAD27
Site: NBU 922-29K Pad
Well: NBU 922-29L2CS
Wellbore: OH
Design: Plan #1

Anadarko Petroleum Corporation

Kerr McGee Oil and Gas Onshore LP

WELL DETAILS: NBU 922-29L2CS

GL 4950' & RKB 14' @ 4964.00ft (ASSUMED) 4950.00

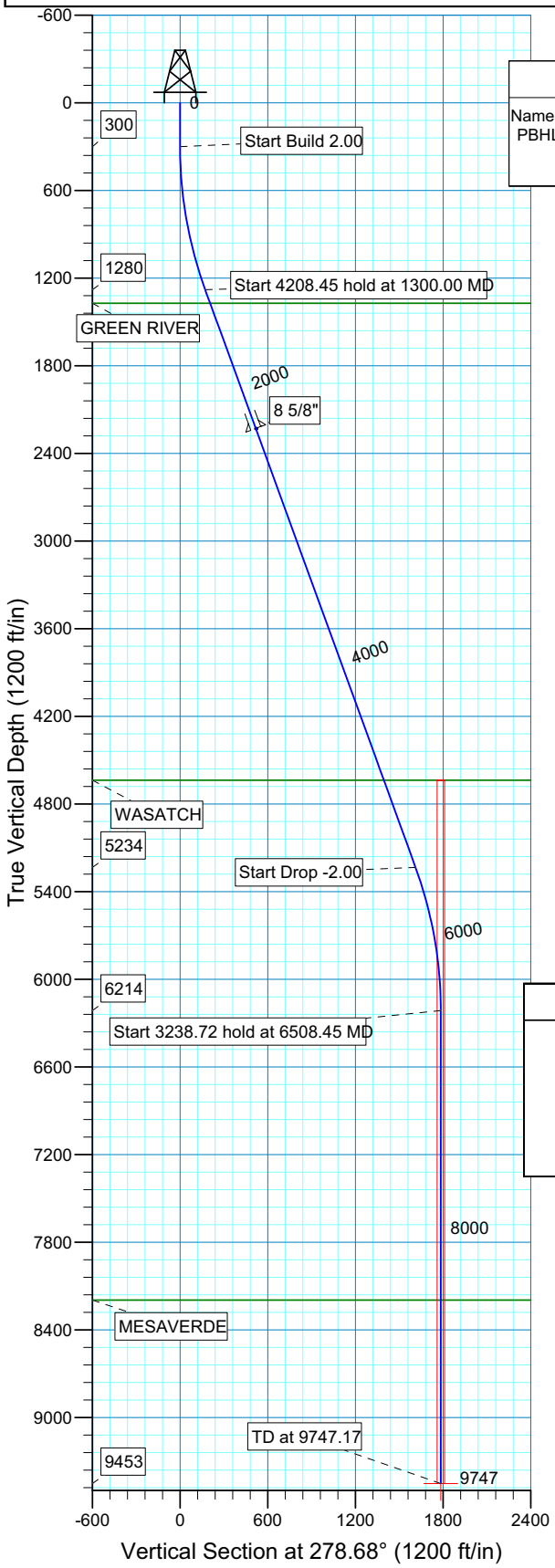
+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
0.00	0.00	615223.97	2569653.69	40° 0' 16.823 N	109° 27' 58.496 W

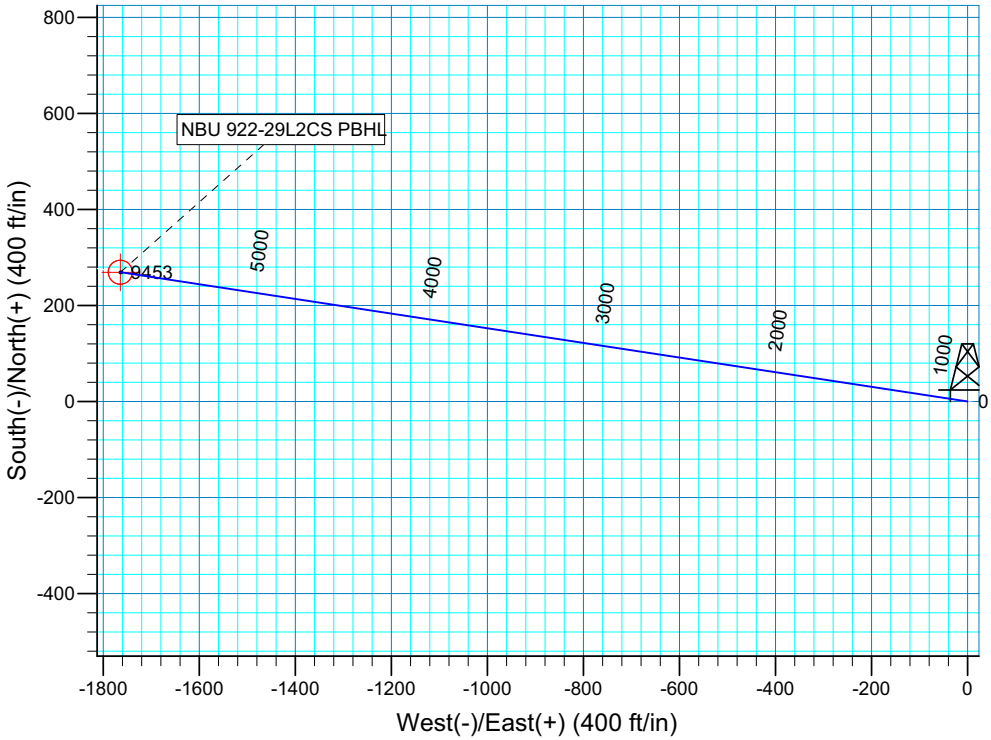
T M
Azimuths to True North
Magnetic North: 11.16°

Magnetic Field
Strength: 52459.5snT
Dip Angle: 65.91°
Date: 07/15/2010
Model: IGRF200510

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

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Shape
PBHL	9453.00	269.24	-1764.49	615453.03	2567883.54	40° 0' 19.483 N	109° 28' 21.173 W	Circle (Radius: 25.0





SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	DLeg	TFace	VSec	Target
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
2	300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	
3	1300.00	20.00	278.68	1279.82	26.06	-170.79	2.00	278.68	172.77	
4	5508.45	20.00	278.68	5234.46	243.18	-1593.70	0.00	0.00	1612.14	
5	6508.45	0.00	0.00	6214.28	269.24	-1764.49	2.00	180.00	1784.91	
6	9747.17	0.00	0.00	9453.00	269.24	-1764.49	0.00	0.00	1784.91	NBU 922-29L2CS PBHL

FORMATION TOP DETAILS

TVDPath	MDPath	Formation
1372.00	1398.10	GREEN RIVER
4637.00	4872.64	WASATCH
8196.00	8490.17	MESAVERDE

PROJECT DETAILS: Uintah County, UT NAD27

Geodetic System: US State Plane 1927 (Exact solution)
Datum: NAD 1927 (NADCON CONUS)
Ellipsoid: Clarke 1866
Zone: Utah Central 4302
Location: SEC 29 T9S R22E
System Datum: Mean Sea Level
Local North: No north reference data is available

Plan: Plan #1 (NBU 922-29L2CS/OH)

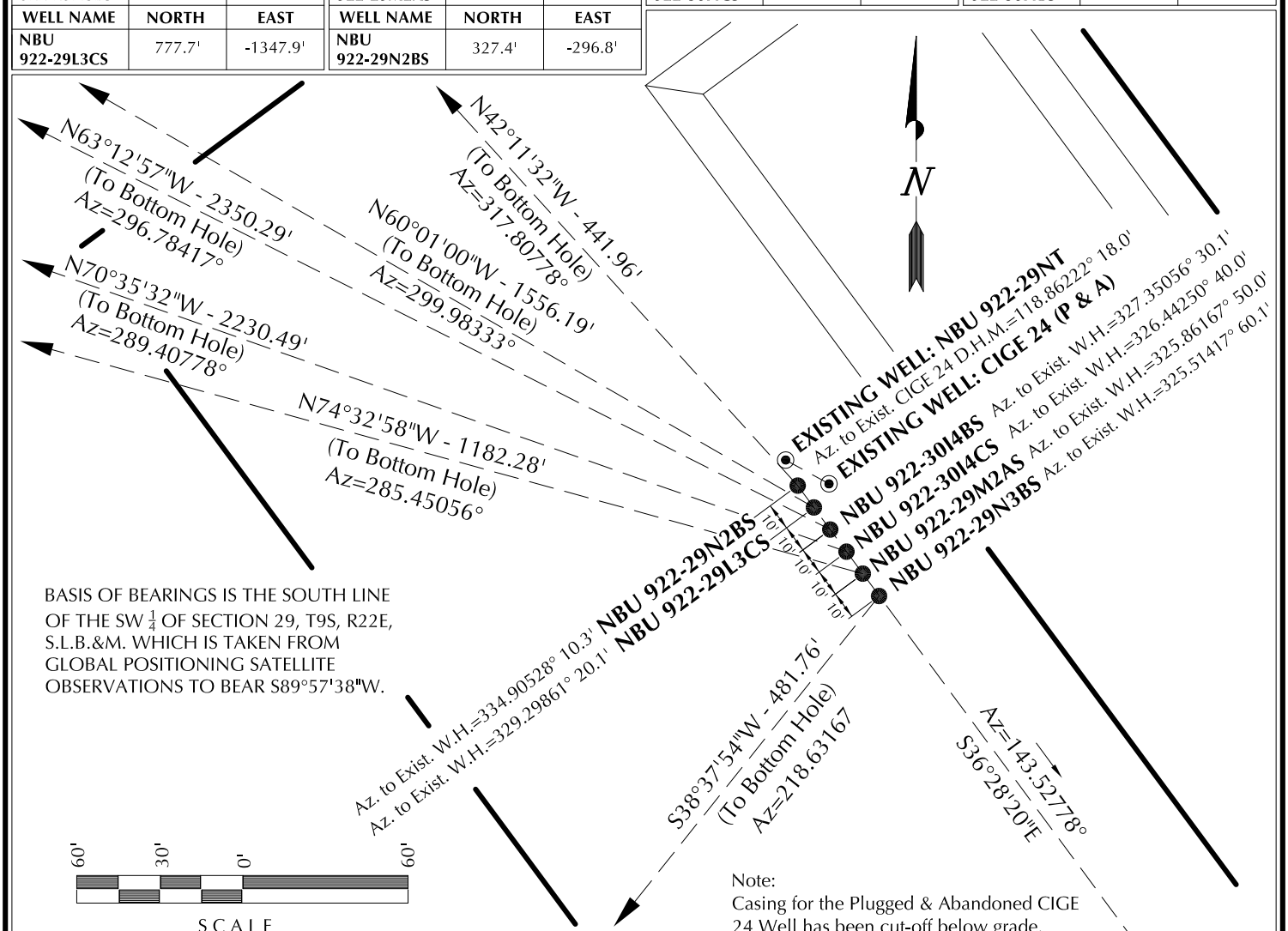
Created By: Robert H. Scott Date: 10:38, July 15 2010

'APIWellNo:43047511950000'

WELL NAME	SURFACE POSITION					BOTTOM HOLE				
	NAD83		NAD27			NAD83		NAD27		
	LATITUDE	LONGITUDE	LATITUDE	LONGITUDE	FOOTAGES	LATITUDE	LONGITUDE	LATITUDE	LONGITUDE	FOOTAGES
NBU 922-29N3BS	40°00'07.022" 40.001951°	109°28'02.503" 109.467362°	40°00'07.148" 40.001985°	109°28'00.037" 109.466677°	790' FSL 1661' FWL	40°00'03.304" 40.000918°	109°28'06.367" 109.468435°	40°00'03.429" 40.000953°	109°28'03.901" 109.467750°	414' FSL 1360' FWL
NBU 922-29M2AS	40°00'07.102" 40.001973°	109°28'02.579" 109.467383°	40°00'07.228" 40.002008°	109°28'00.114" 109.466698°	798' FSL 1655' FWL	40°00'10.213" 40.002837°	109°28'17.219" 109.471450°	40°00'10.339" 40.002872°	109°28'14.753" 109.470765°	1114' FSL 515' FWL
NBU 922-30I4CS	40°00'07.181" 40.001995°	109°28'02.656" 109.467404°	40°00'07.307" 40.002030°	109°28'00.190" 109.466719°	806' FSL 1649' FWL	40°00'14.502" 40.004028°	109°28'29.683" 109.474912°	40°00'14.628" 40.004063°	109°28'27.216" 109.474227°	1550' FSL 455' FEL
NBU 922-30I4BS	40°00'07.261" 40.002017°	109°28'02.732" 109.467425°	40°00'07.387" 40.002052°	109°28'00.266" 109.466740°	814' FSL 1643' FWL	40°00'17.723" 40.004923°	109°28'29.687" 109.474913°	40°00'17.849" 40.004958°	109°28'27.220" 109.474228°	1876' FSL 455' FEL
NBU 922-29L3CS	40°00'07.340" 40.002039°	109°28'02.808" 109.467447°	40°00'07.466" 40.002074°	109°28'00.342" 109.466762°	822' FSL 1637' FWL	40°00'15.023" 40.004173°	109°28'20.126" 109.472257°	40°00'15.149" 40.004208°	109°28'17.659" 109.471572°	1601' FSL 289' FWL
NBU 922-29N2BS	40°00'07.419" 40.002061°	109°28'02.884" 109.467468°	40°00'07.545" 40.002096°	109°28'00.418" 109.466783°	830' FSL 1631' FWL	40°00'10.654" 40.002959°	109°28'06.697" 109.468527°	40°00'10.780" 40.002994°	109°28'04.231" 109.467842°	1158' FSL 1334' FWL
NBU 922-29NT	40°00'07.511" 40.002086°	109°28'02.940" 109.467483°	40°00'07.637" 40.002121°	109°28'00.474" 109.466798°	840' FSL 1627' FWL					
CIGE 24	40°00'07.425" 40.002063°	109°28'02.737" 109.467427°	40°00'07.551" 40.002097°	109°28'00.272" 109.466742°	831' FSL 1642' FWL					

RELATIVE COORDINATES - From Surface Position to Bottom Hole

WELL NAME	NORTH	EAST	WELL NAME	NORTH	EAST	WELL NAME	NORTH	EAST	WELL NAME	NORTH	EAST
NBU 922-29N3BS	-376.3'	-300.8'	**NBU 922-29M2AS**	315.0'	-1139.6'	**NBU 922-30I4CS**	741.2'	-2103.7'	**NBU 922-30I4BS**	1059.1'	-2098.1'
WELL NAME	**NORTH**	**EAST**	**WELL NAME**	**NORTH**	**EAST**						
NBU 922-29L3CS	777.7'	-1347.9'	**NBU 922-29N2BS**	327.4'	-296.8'						



BASIS OF BEARINGS IS THE SOUTH LINE OF THE SW $\frac{1}{4}$ OF SECTION 29, T9S, R22E, S.L.B.&M. WHICH IS TAKEN FROM GLOBAL POSITIONING SATELLITE OBSERVATIONS TO BEAR S89°57'38"W.

Note:
Casing for the Plugged & Abandoned CIGE 24 Well has been cut-off below grade.
Position determined with metal detector.

Kerr-McGee Oil & Gas Onshore, LP
1099 18th Street - Denver, Colorado 80202

WELL PAD - NBU 922-29N

WELL PAD INTERFERENCE PLAT
WELLS - NBU 922-29N3BS, NBU 922-29M2AS, NBU 922-30I4CS, NBU 922-30I4BS, NBU 922-29L3CS & NBU 922-29N2BS
LOCATED IN SECTION 29, T9S, R22E, S.L.B.&M., UINTAH COUNTY, UTAH.

609
CONSULTING, LLC
371 Coffeen Avenue
Sheridan WY 82801
Phone 307-674-0609
Fax 307-674-0182

TIMBERLINE (435) 789-1365
ENGINEERING & LAND SURVEYING, INC.
209 NORTH 300 WEST - VERNAL, UTAH 84078

DATE SURVEYED: 05-27-10	SURVEYED BY: M.S.B.	SHEET NO:
DATE DRAWN: 06-02-10	DRAWN BY: B.M.	7
SCALE: 1" = 60'	Date Last Revised:	7 OF 18

'APIWellNo:43047511950000'

Scientific Drilling
Rocky Mountain Operations

Project: Uintah County, UT NAD27
Site: NBU 922-29N Pad
Well: NBU 922-29L3CS
Wellbore: OH
Design: Plan #1

Anadarko Petroleum Corporation

Kerr McGee Oil and Gas Onshore LP

WELL DETAILS: NBU 922-29L3CS

GL 4932' & RKB 14' @ 4946.00ft (ASSUMED) 4932.00

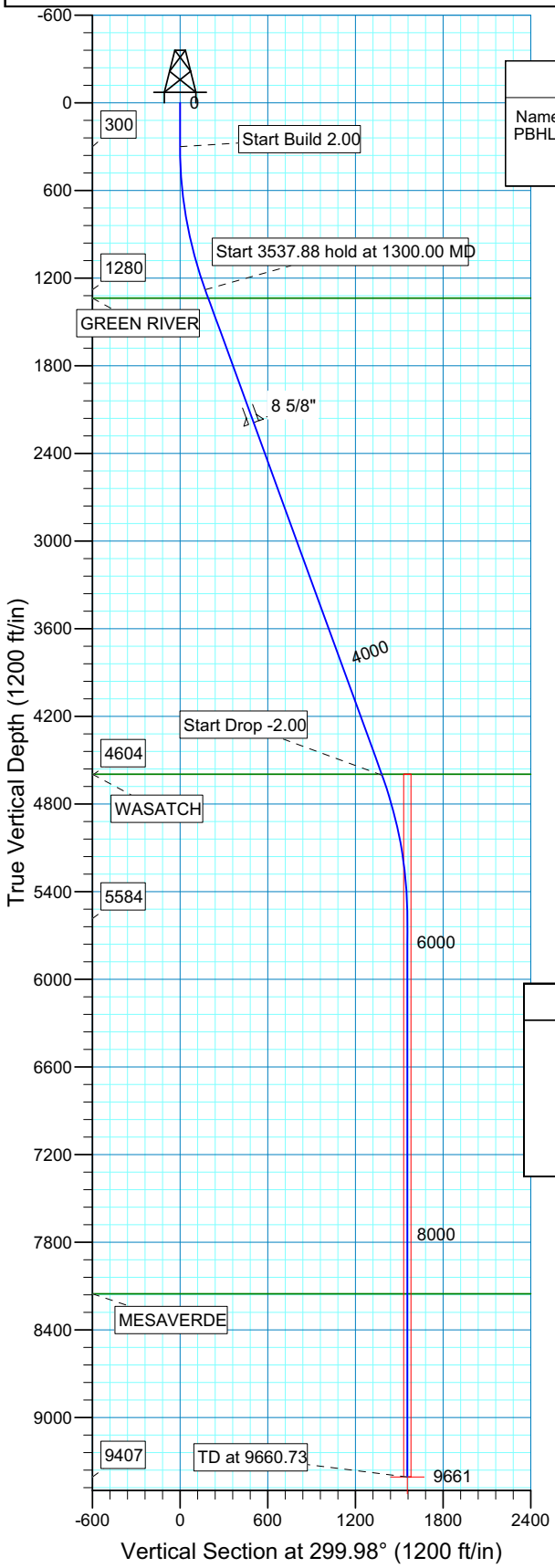
+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
0.00	0.00	614274.28	2569531.54	40° 0' 7.466 N	109° 28' 0.343 W

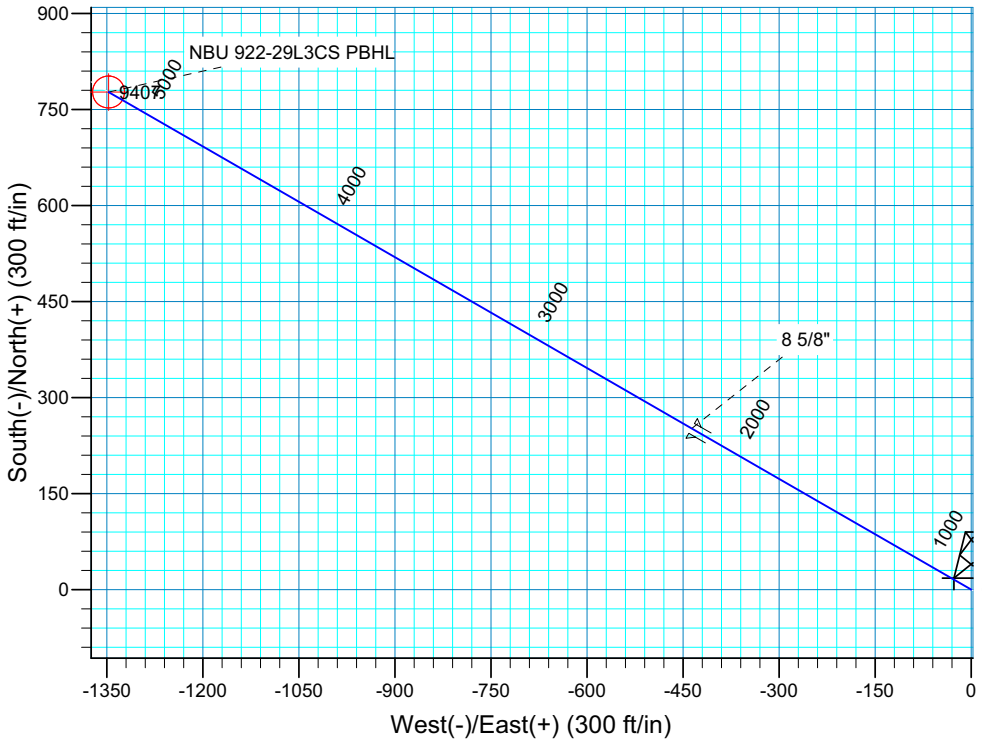
T M
Azimuths to True North
Magnetic North: 11.16°

Magnetic Field
Strength: 52458.1snT
Dip Angle: 65.91°
Date: 07/15/2010
Model: IGRF200510

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

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Shape
PBHL	9407.00	777.34	-1347.41	615020.79	2568166.8	140° 0' 15.149 N	109° 28' 17.659 W	Circle (Radius: 25.0





SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	DLeg	TFace	VSec	Target
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
2	300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	
3	1300.00	20.00	299.98	1279.82	86.34	-149.65	2.00	299.98	172.77	
4	4837.88	20.00	299.98	4604.33	691.01	-1197.76	0.00	0.00	1382.79	
5	5837.88	0.00	0.00	5584.15	777.34	-1347.41	2.00	180.00	1555.56	
6	9660.73	0.00	0.00	9407.00	777.34	-1347.41	0.00	0.00	1555.56	NBU 922-29L3CS PBHL

FORMATION TOP DETAILS

TVDPath	MDPath	Formation
1337.00	1360.85	GREEN RIVER
4596.00	4829.01	WASATCH
8153.00	8406.73	MESAVERDE

PROJECT DETAILS: Uintah County, UT NAD27

Geodetic System: US State Plane 1927 (Exact solution)
Datum: NAD 1927 (NADCON CONUS)
Ellipsoid: Clarke 1866
Zone: Utah Central 4302
Location: SEC 29 T9S R22E
System Datum: Mean Sea Level
Local North: No north reference data is available

Plan: Plan #1 (NBU 922-29L3CS/OH)

Created By: Robert H. Scott Date: 13:59, July 15 2010

'APIWellNo:43047511950000'

Scientific Drilling
Rocky Mountain Operations

Project: Uintah County, UT NAD27
Site: NBU 922-29N Pad
Well: NBU 922-29M2AS
Wellbore: OH
Design: Plan #1

Anadarko Petroleum Corporation

Kerr McGee Oil and Gas Onshore LP

WELL DETAILS: NBU 922-29M2AS

GL 4932' & RKB 14' @ 4946.00ft (ASSUMED) 4932.00

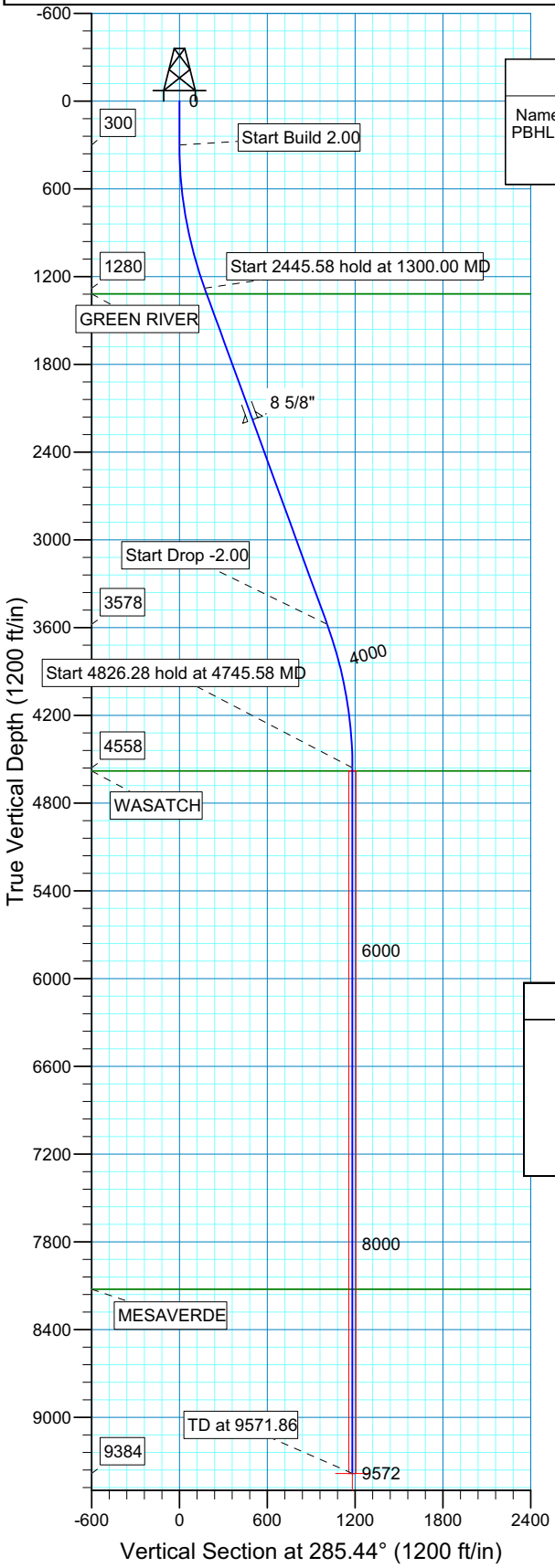
+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
0.00	0.00	614250.65	2569550.01	40° 0' 7.229 N	109° 28' 0.113 W

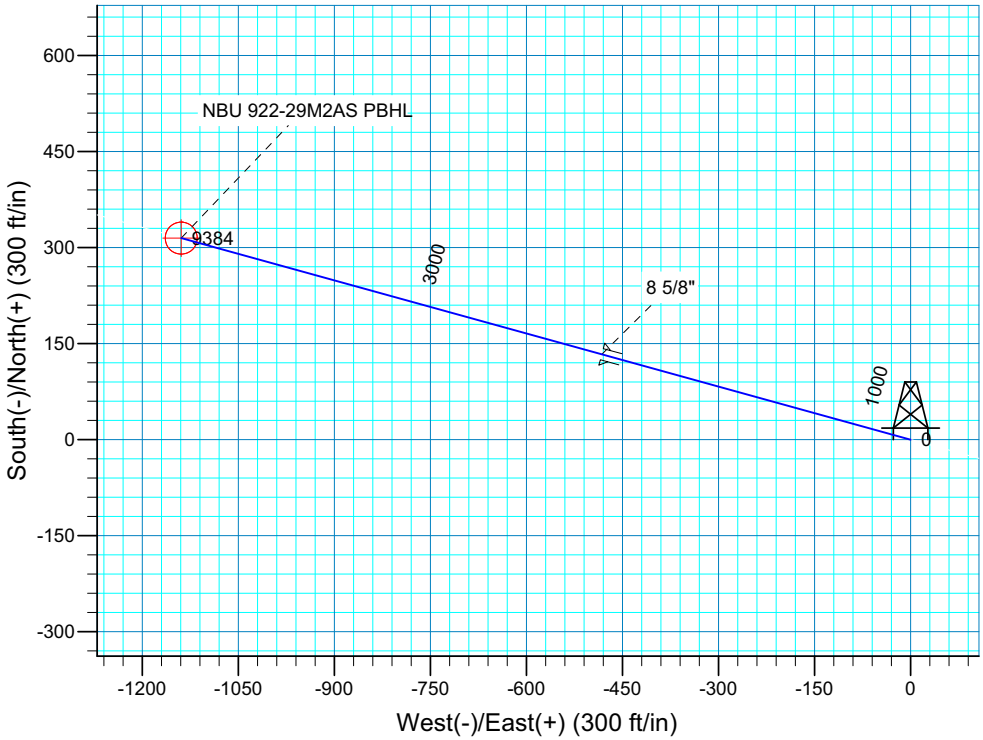
T M
Azimuths to True North
Magnetic North: 11.16°

Magnetic Field
Strength: 52458.1snT
Dip Angle: 65.91°
Date: 07/15/2010
Model: IGRF200510

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

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Shape
PBHL	9384.00	314.74	-1139.30	614539.41	2568403.86	40° 0' 10.339 N	109° 28' 14.754 W	Circle (Radius: 25.00





SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	DLeg	TFace	VSec	Target
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
2	300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	
3	1300.00	20.00	285.44	1279.82	46.01	-166.53	2.00	285.44	172.77	
4	3745.58	20.00	285.44	3577.91	268.73	-972.77	0.00	0.00	1009.20	
5	4745.58	0.00	0.00	4557.72	314.74	-1139.30	2.00	180.00	1181.97	
6	9571.86	0.00	0.00	9384.00	314.74	-1139.30	0.00	0.00	1181.97	NBU 922-29M2AS PBHL

FORMATION TOP DETAILS

TVDPath	MDPath	Formation
1318.00	1340.64	GREEN RIVER
4581.00	4768.86	WASATCH
8125.00	8312.86	MESAVERDE

PROJECT DETAILS: Uintah County, UT NAD27

Geodetic System: US State Plane 1927 (Exact solution)
Datum: NAD 1927 (NADCON CONUS)
Ellipsoid: Clarke 1866
Zone: Utah Central 4302
Location: SEC 29 T9S R22E
System Datum: Mean Sea Level
Local North: No north reference data is available

Plan: Plan #1 (NBU 922-29M2AS/OH)

Created By: Robert H. Scott Date: 14:03, July 15 2010

'APIWellNo:43047511950000'

Scientific Drilling
Rocky Mountain Operations

Project: Uintah County, UT NAD27
Site: NBU 922-29N Pad
Well: NBU 922-29N2BS
Wellbore: OH
Design: Plan #1

Anadarko Petroleum Corporation

Kerr McGee Oil and Gas Onshore LP

WELL DETAILS: NBU 922-29N2BS

GL 4932' & RKB 14' @ 4946.00ft (ASSUMED) 4932.00

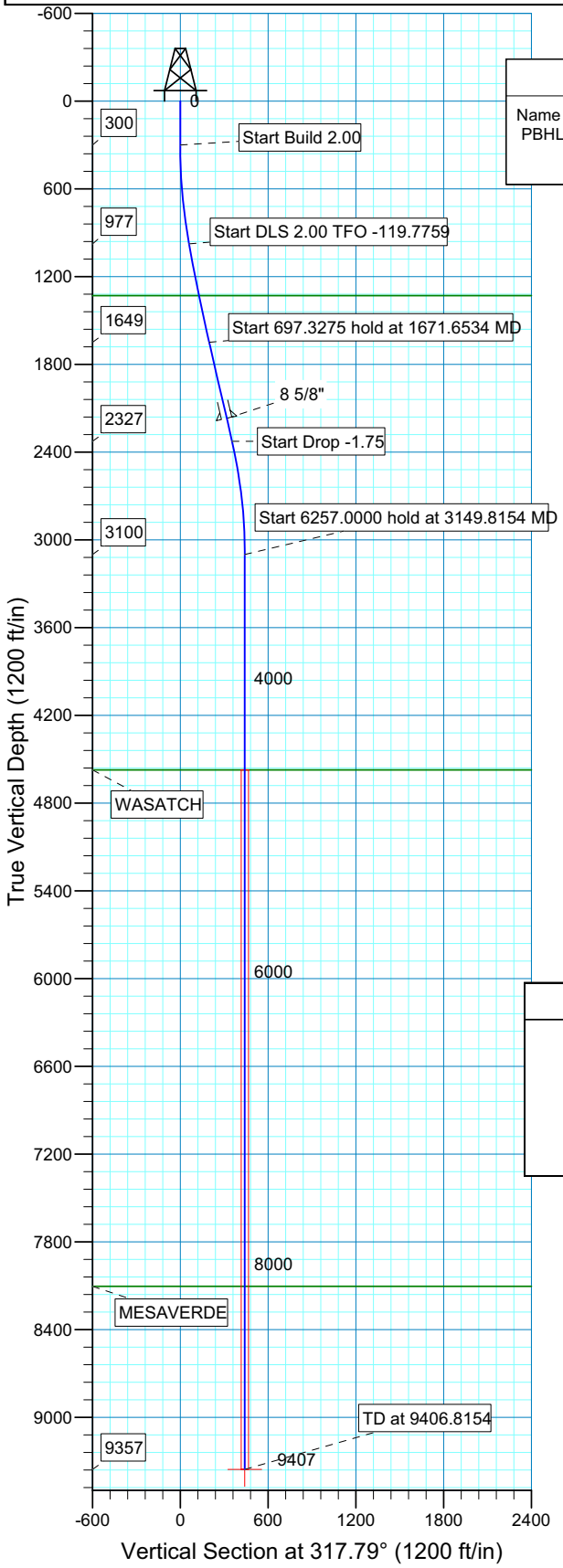
+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
0.00	0.00	614282.16	2569525.48	40° 0' 7.546 N	109° 28' 0.419 W

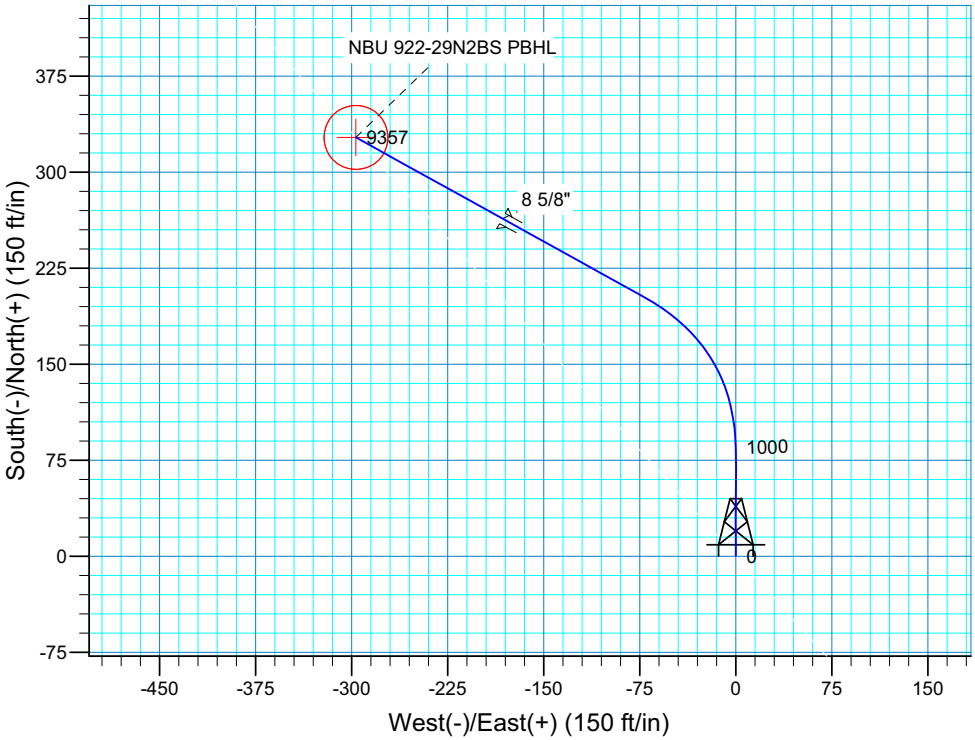
T M
Azimuths to True North
Magnetic North: 11.16°

Magnetic Field
Strength: 52458.1snT
Dip Angle: 65.91°
Date: 07/15/2010
Model: IGRF200510

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

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Shape
PBHL	9357.00	327.09	-296.66	614602.42	2569221.46	40° 0' 10.778 N	109° 28' 4.231 W	Circle (Radius: 25.00





SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	DLeg	TFace	VSec	Target
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
2	300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	
3	983.00	13.66	0.00	976.55	81.03	0.00	2.00	0.00	60.02	
4	1671.65	13.66	298.99	1648.96	202.35	-71.50	2.00	-119.78	197.92	
5	2368.98	13.66	298.99	2326.55	282.18	-215.60	0.00	0.00	353.86	
6	3149.82	0.00	0.00	3100.00	327.09	-296.66	1.75	180.00	441.58	
7	9406.82	0.00	0.00	9357.00	327.09	-296.66	0.00	0.00	441.58	NBU 922-29N2BS PBHL

FORMATION TOP DETAILS

TVDPath	MDPath	Formation
1330.00	1344.95	GREEN RIVEr
4574.00	4623.82	WASATCH
8104.00	8153.82	MESAVERDE

PROJECT DETAILS: Uintah County, UT NAD27

Geodetic System: US State Plane 1927 (Exact solution)
Datum: NAD 1927 (NADCON CONUS)
Ellipsoid: Clarke 1866
Zone: Utah Central 4302
Location: SEC 29 T9S R22E
System Datum: Mean Sea Level
Local North: No north reference data is available

Plan: Plan #1 (NBU 922-29N2BS/OH)

Created By: Robert H. Scott Date: 14:05, July 15 2010

'APIWellNo:43047511950000'

Scientific Drilling
Rocky Mountain Operations

Project: Uintah County, UT NAD27
Site: NBU 922-29N Pad
Well: NBU 922-29N3BS
Wellbore: OH
Design: Plan #1

Anadarko Petroleum Corporation

Kerr McGee Oil and Gas Onshore LP

WELL DETAILS: NBU 922-29N3BS

GL 4932' & RKB 14' @ 4946.00ft (ASSUMED) 4932.00

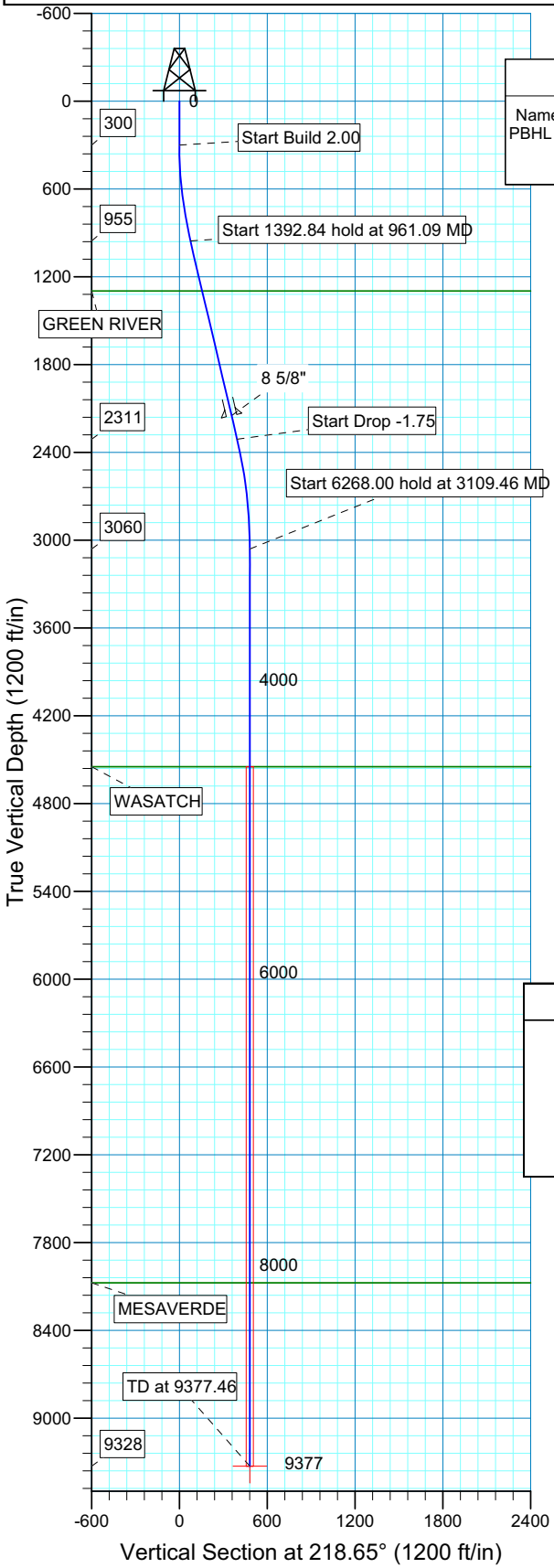
+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
0.00	0.00	614242.41	2569556.08	40° 0' 7.146 N	109° 28' 0.037 W

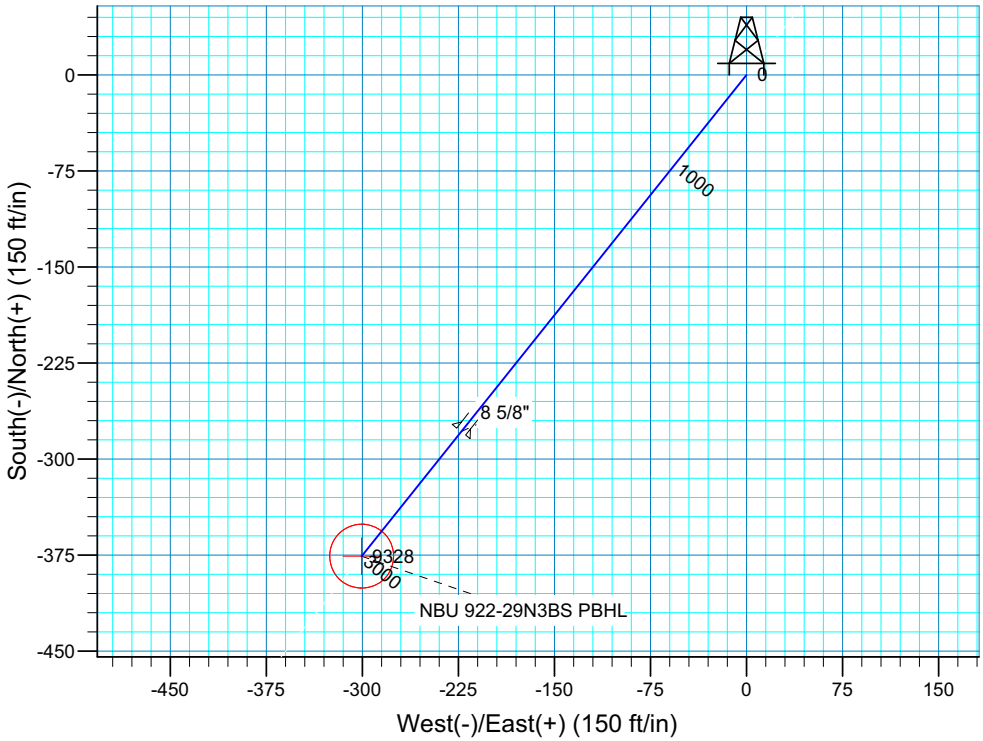
T M
Azimuths to True North
Magnetic North: 11.16°

Magnetic Field
Strength: 52458.1snT
Dip Angle: 65.91°
Date: 07/15/2010
Model: IGRF200510

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

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Shape
PBHL	9328.00	-375.89	-300.59	613859.78	2569264.12	40° 0' 3.431 N	109° 28' 3.900 W	Circle (Radius: 25.00





SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	DLeg	TFace	VSec	Target
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
2	300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	
3	961.09	13.22	218.65	955.24	-59.31	-47.43	2.00	218.65	75.94	
4	2353.93	13.22	218.65	2311.15	-308.11	-246.39	0.00	0.00	394.51	
5	3109.46	0.00	0.00	3060.00	-375.89	-300.59	1.75	180.00	481.30	
6	9377.46	0.00	0.00	9328.00	-375.89	-300.59	0.00	0.00	481.30	NBU 922-29N3BS PBHL

FORMATION TOP DETAILS

TVDPath	MDPath	Formation
1298.00	1313.19	GREEN RIVER
4549.00	4598.46	WASATCH
8075.00	8124.46	MESAVERDE

PROJECT DETAILS: Uintah County, UT NAD27

Geodetic System: US State Plane 1927 (Exact solution)
Datum: NAD 1927 (NADCON CONUS)
Ellipsoid: Clarke 1866
Zone: Utah Central 4302
Location: SEC 29 T9S R22E
System Datum: Mean Sea Level
Local North: No north reference data is available

Plan: Plan #1 (NBU 922-29N3BS/OH)

Created By: Robert H. Scott Date: 14:07, July 15 2010

'APIWellNo:43047511950000'

Scientific Drilling
Rocky Mountain Operations

Project: Uintah County, UT NAD27
Site: NBU 922-29N Pad
Well: NBU 922-30I4BS
Wellbore: OH
Design: Plan #1

Anadarko Petroleum Corporation

Kerr McGee Oil and Gas Onshore LP

WELL DETAILS: NBU 922-30I4BS

GL 4932' & RKB 14' @ 4946.00ft (ASSUMED) 4932.00

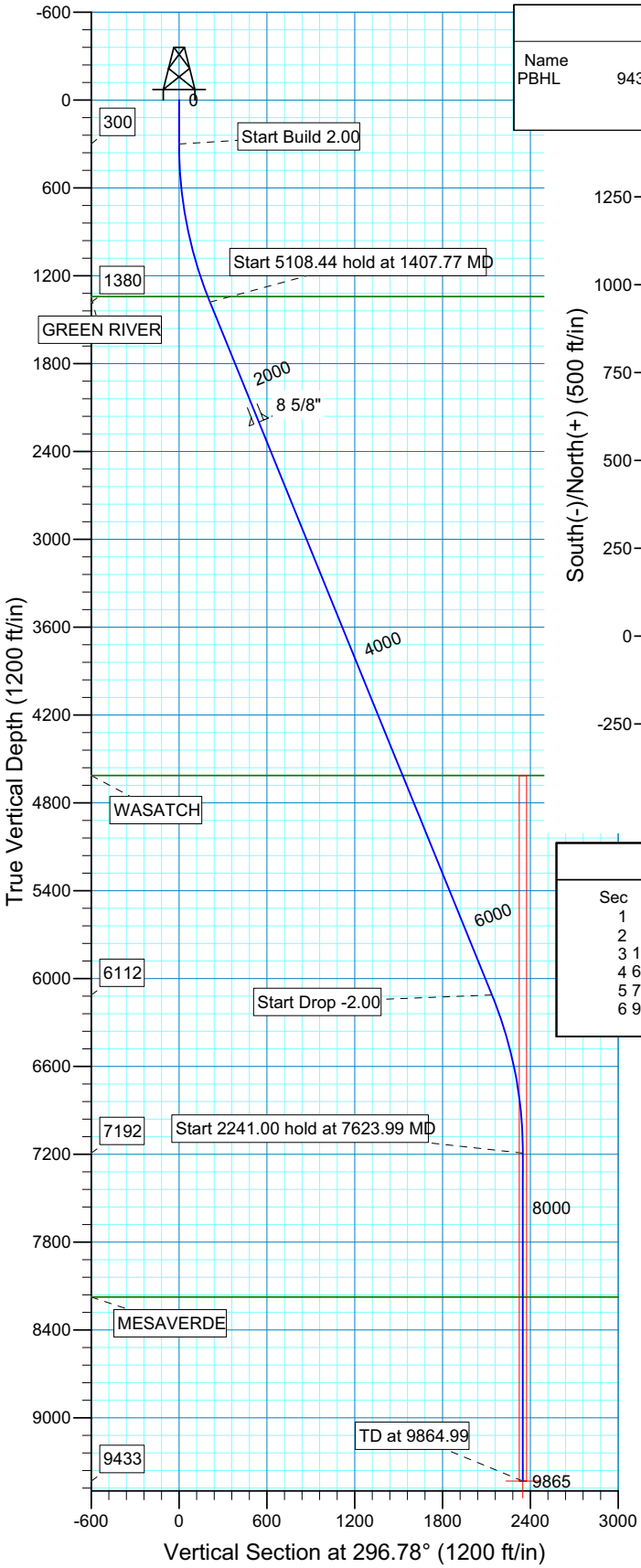
+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
0.00	0.00	614266.40	2569537.88	40° 0' 7.387 N	109° 28' 0.264 W

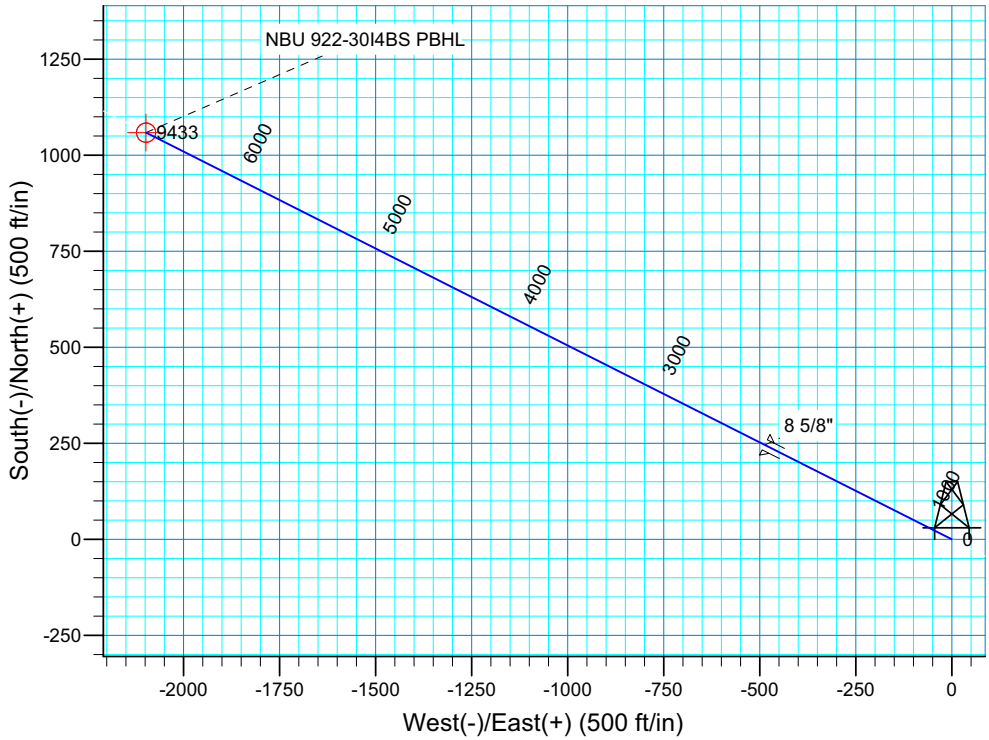
T M
Azimuths to True North
Magnetic North: 11.16°

Magnetic Field
Strength: 52458.1snT
Dip Angle: 65.91°
Date: 07/15/2010
Model: IGRF200510

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

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Shape
PBHL	9433.00	1058.59	-2097.57	615277.04	2567416.80	40° 0' 17.849 N	109° 28' 27.221 W	Circle (Radius: 25.00





SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	DLeg	TFace	VSec	Target
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
2	300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	
3	1407.77	22.16	296.78	1380.37	95.30	-188.84	2.00	296.78	211.53	
4	6516.22	22.16	296.78	6111.63	963.29	-1908.73	0.00	0.00	2138.03	
5	7623.99	0.00	0.00	7192.00	1058.59	-2097.57	2.00	180.00	2349.55	
6	9864.99	0.00	0.00	9433.00	1058.59	-2097.57	0.00	0.00	2349.55	NBU 922-30I4BS PBHL

FORMATION TOP DETAILS

TVDPath	MDPath	Formation
1342.00	1366.46	GREEN RIVER
4613.00	4898.11	WASATCH
8175.00	8606.99	MESAVERDE

PROJECT DETAILS: Uintah County, UT NAD27

Geodetic System: US State Plane 1927 (Exact solution)
Datum: NAD 1927 (NADCON CONUS)
Ellipsoid: Clarke 1866
Zone: Utah Central 4302
Location: SEC 29 T9S R22E
System Datum: Mean Sea Level
Local North: No north reference data is available

Plan: Plan #1 (NBU 922-30I4BS/OH)

Created By: Robert H. Scott Date: 14:08, July 15 2010

'APIWellNo:43047511950000'

Scientific Drilling
Rocky Mountain Operations

Project: Uintah County, UT NAD27
Site: NBU 922-29N Pad
Well: NBU 922-30I4CS
Wellbore: OH
Design: Plan #1

Anadarko Petroleum Corporation

Kerr McGee Oil and Gas Onshore LP

WELL DETAILS: NBU 922-30I4CS

GL 4932' & RKB 14' @ 4946.00ft (ASSUMED) 4932.00

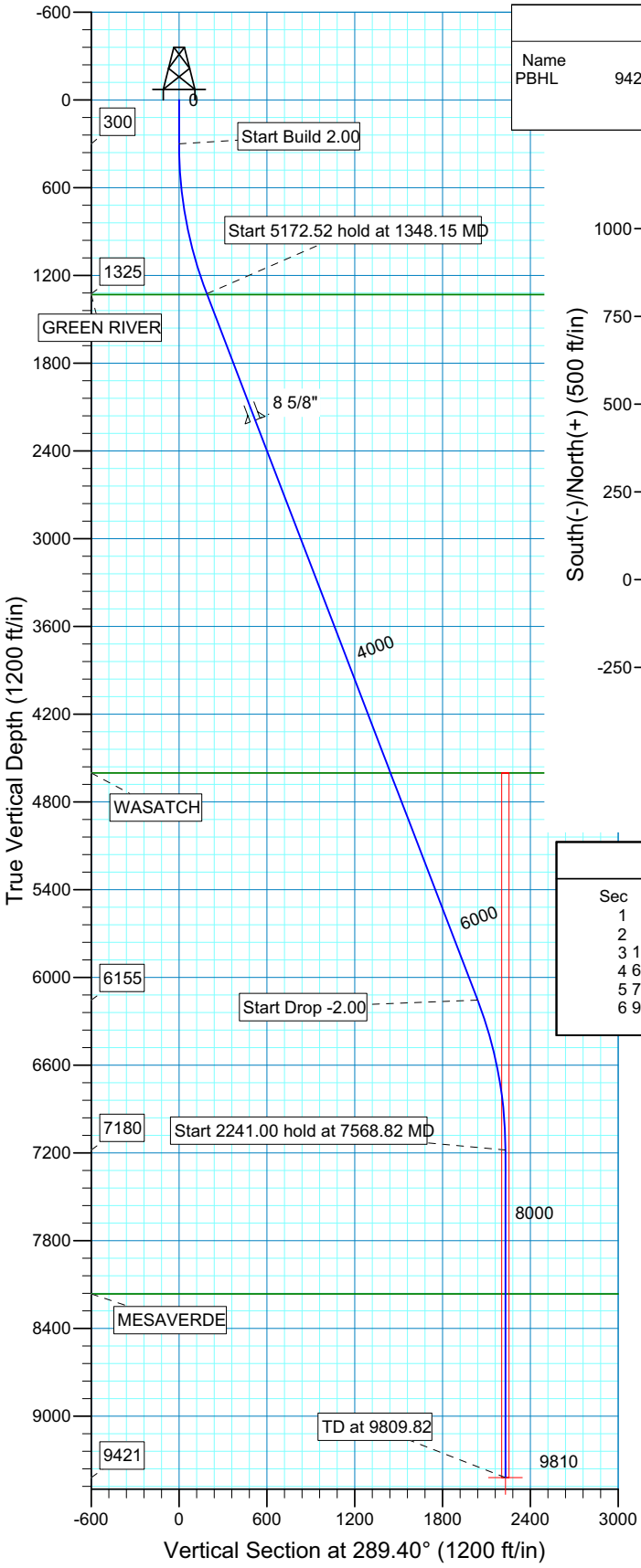
+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
0.00	0.00	614258.53	2569543.95	40° 0' 7.308 N	109° 28' 0.188 W

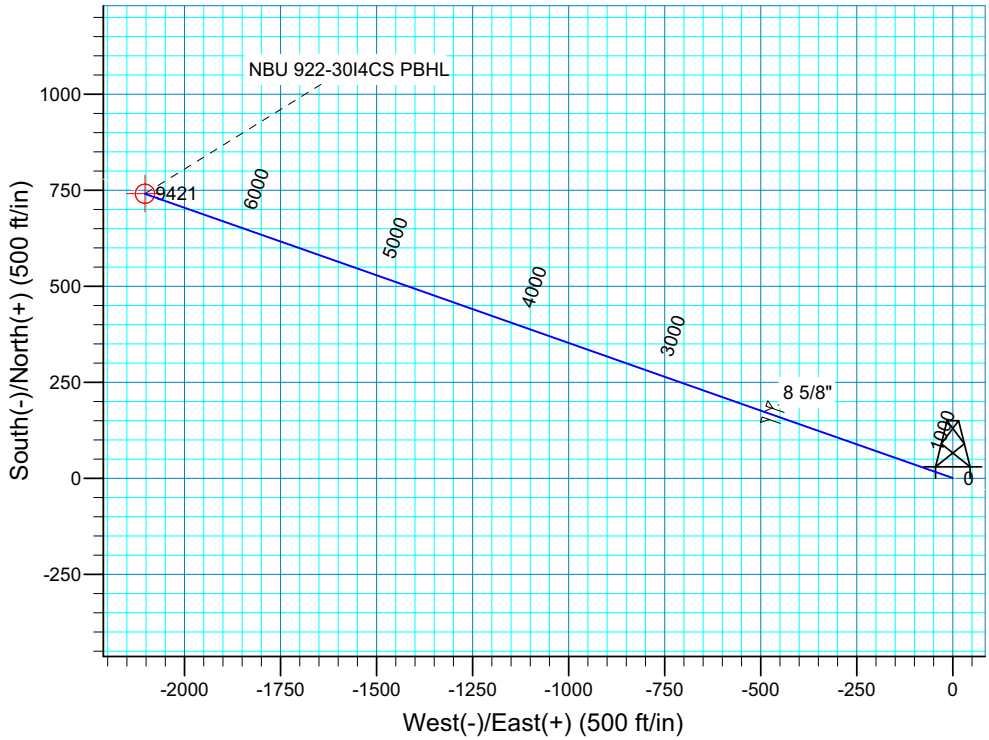
T M
Azimuths to True North
Magnetic North: 11.16°

Magnetic Field
Strength: 52458.1snT
Dip Angle: 65.91°
Date: 07/15/2010
Model: IGRF200510

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

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Shape
PBHL	9421.00	740.60	-2103.20	614951.13	2567424.47	40° 0' 14.627 N	109° 28' 27.217 W	Circle (Radius: 25.00)





SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	DLeg	TFace	VSec	Target
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
2	300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	
3	1348.15	20.96	289.40	1324.92	62.98	-178.85	2.00	289.40	189.62	
4	6520.67	20.96	289.40	6155.08	677.62	-1924.34	0.00	0.00	2040.16	
5	7568.82	0.00	0.00	7180.00	740.60	-2103.20	2.00	180.00	2229.78	
6	9809.82	0.00	0.00	9421.00	740.60	-2103.20	0.00	0.00	2229.78	NBU 922-30I4CS PBHL

FORMATION TOP DETAILS

TVDPath	MDPath	Formation
1331.00	1354.66	GREEN RIVER
4603.00	4858.58	WASATCH
8164.00	8552.82	MESAVERDE

PROJECT DETAILS: Uintah County, UT NAD27

Geodetic System: US State Plane 1927 (Exact solution)
Datum: NAD 1927 (NADCON CONUS)
Ellipsoid: Clarke 1866
Zone: Utah Central 4302
Location: SEC 29 T9S R22E
System Datum: Mean Sea Level
Local North: No north reference data is available

Plan: Plan #1 (NBU 922-30I4CS/OH)

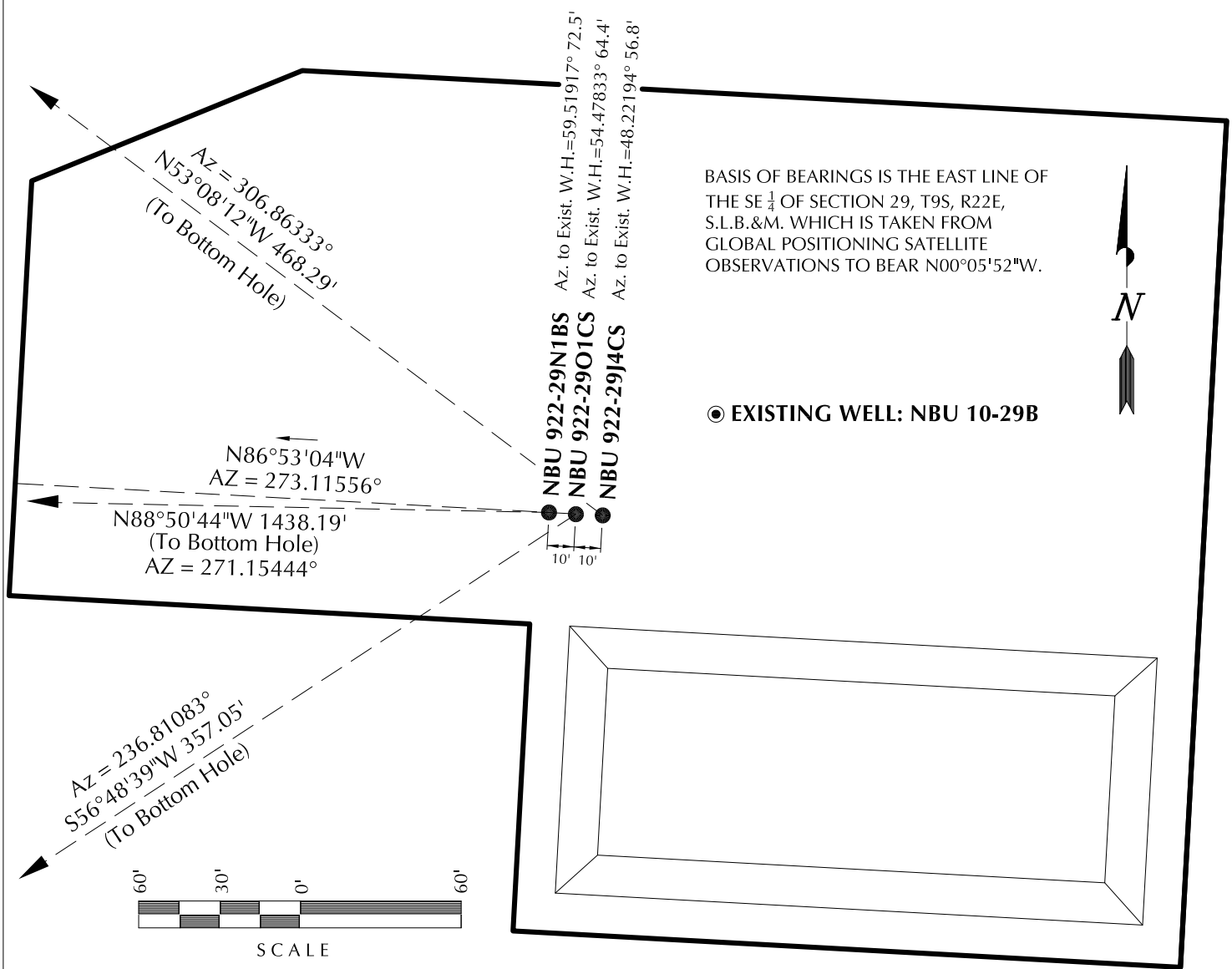
Created By: Robert H. Scott Date: 14:14, July 15 2010

'APIWellNo:43047511950000'

WELL NAME	SURFACE POSITION					BOTTOM HOLE				
	NAD83		NAD27			NAD83		NAD27		
	LATITUDE	LONGITUDE	LATITUDE	LONGITUDE	FOOTAGES	LATITUDE	LONGITUDE	LATITUDE	LONGITUDE	FOOTAGES
NBU 922-29N1BS	40°00'09.604" 40.002668°	109°27'36.445" 109.460123°	40°00'09.729" 40.002703°	109°27'33.980" 109.459439°	1050' FSL 1596' FEL	40°00'09.890" 40.002747°	109°27'54.917" 109.465255°	40°00'10.016" 40.002782°	109°27'52.452" 109.464570°	1080' FSL 2251' FWL
NBU 922-29O1CS	40°00'09.597" 40.002666°	109°27'36.316" 109.460088°	40°00'09.723" 40.002701°	109°27'33.851" 109.459403°	1049' FSL 1586' FEL	40°00'07.666" 40.002130°	109°27'40.154" 109.461154°	40°00'07.792" 40.002164°	109°27'37.690" 109.460469°	854' FSL 1885' FEL
NBU 922-29J4CS	40°00'09.593" 40.002665°	109°27'36.187" 109.460052°	40°00'09.718" 40.002700°	109°27'33.722" 109.459367°	1049' FSL 1576' FEL	40°00'12.368" 40.003436°	109°27'41.000" 109.461389°	40°00'12.494" 40.003471°	109°27'38.535" 109.460704°	1330' FSL 1950' FEL
NBU 10-29B	40°00'09.967" 40.002769°	109°27'35.642" 109.459901°	40°00'10.092" 40.002803°	109°27'33.178" 109.459216°	1087' FSL 1533' FEL					

RELATIVE COORDINATES - From Surface Position to Bottom Hole

WELL NAME	NORTH	EAST	WELL NAME	NORTH	EAST	WELL NAME	NORTH	EAST
NBU 922-29N1BS	29.0'	-1437.9'	**NBU 922-29O1CS**	-195.4'	-298.8'	**NBU 922-29J4CS**	280.9'	-374.7'



Kerr-McGee Oil & Gas Onshore, LP
1099 18th Street - Denver, Colorado 80202

WELL PAD - NBU 922-29O1

WELL PAD INTERFERENCE PLAT
WELLS - NBU 922-29N1BS, NBU 922-29O1CS & NBU 922-29J4CS
LOCATED IN SECTION 29, T9S, R22E, S.L.B.&M., UINTAH COUNTY, UTAH.

609
CONSULTING, LLC
371 Coffeen Avenue
Sheridan WY 82801
Phone 307-674-0609
Fax 307-674-0182

TIMBERLINE (435) 789-1365
ENGINEERING & LAND SURVEYING, INC.
209 NORTH 300 WEST - VERNAL, UTAH 84078

DATE SURVEYED: 03-16-10	SURVEYED BY: D.J.S.	SHEET NO:
DATE DRAWN: 03-18-10	DRAWN BY: K.H.G.	4
SCALE: 1" = 60'	Date Last Revised: 06-04-10 K.O.B.	4 OF 15

'APIWellNo:43047511950000'

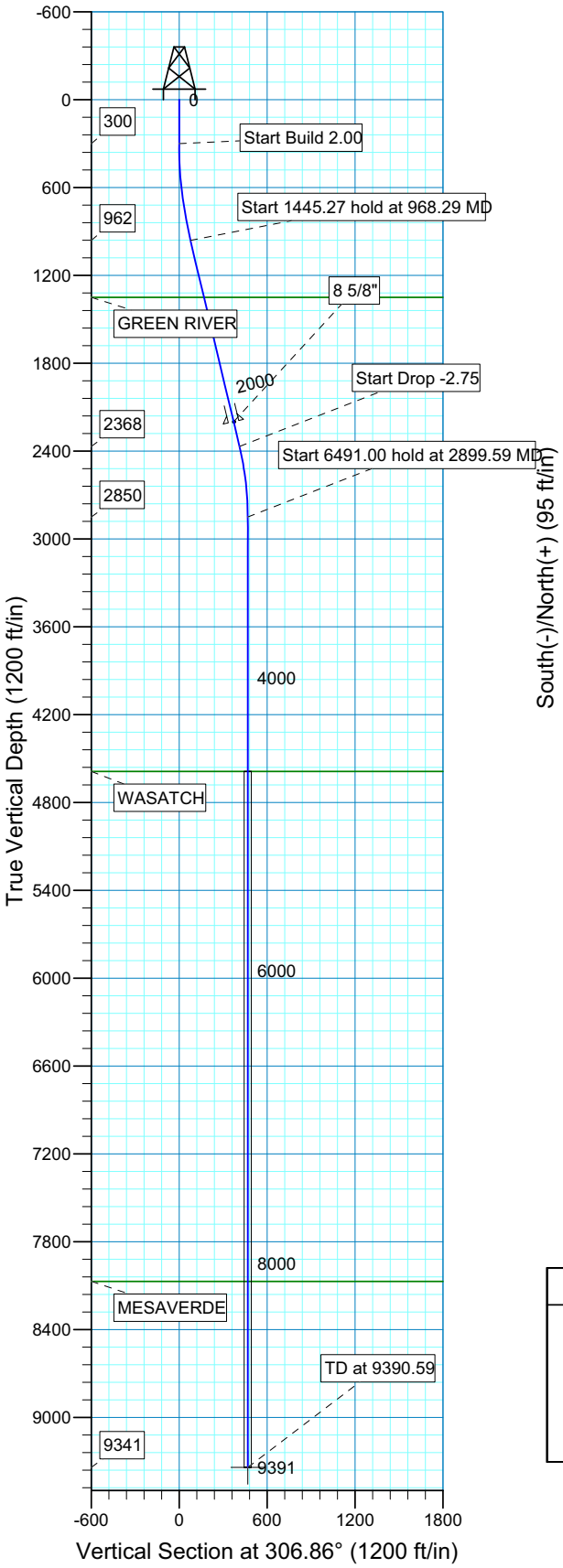
Scientific Drilling
Rocky Mountain Operations

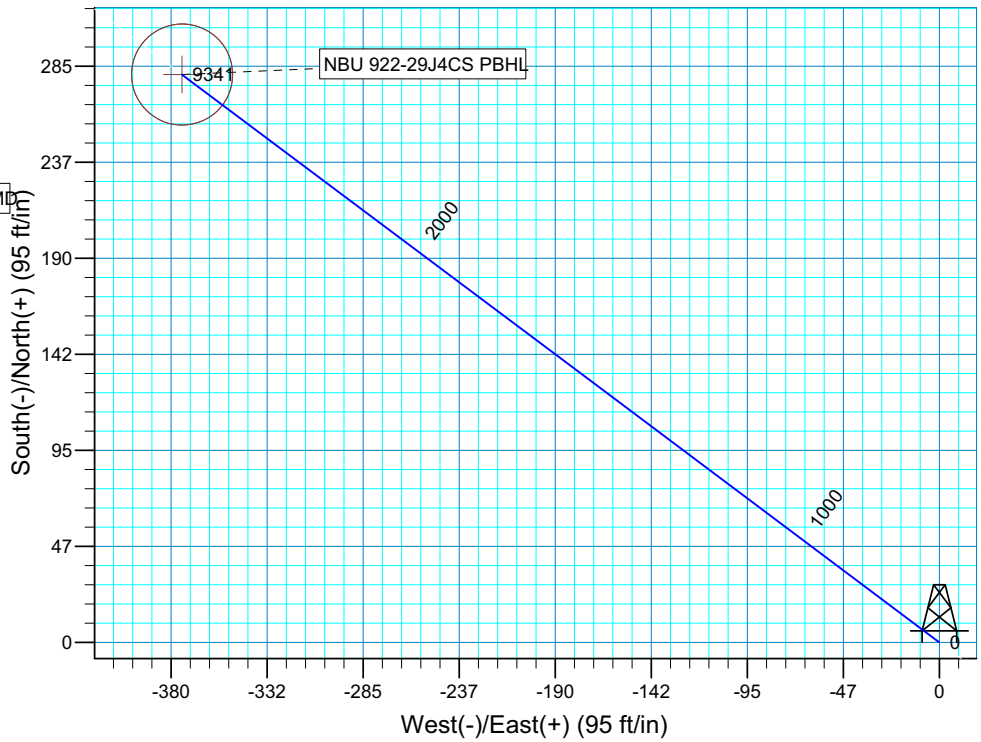
Project: Uintah County, UT NAD27
Site: NBU 922-29O1 Pad
Well: NBU 922-29J4CS
Wellbore: OH
Design: Plan #1

Anadarko Petroleum Corporation

Kerr McGee Oil and Gas Onshore LP

WELL DETAILS: NBU 922-29J4CS					
GL 4961' & RKB 14' @ 4975.00ft (ASSUMED) 0.00					
+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
0.00	0.00	614549.41	2571597.40	40° 0' 9.720 N	109° 27' 33.721 W





Plan: Plan #1 (NBU 922-29J4CS/OH)

Created By: Robert H. Scott Date: 14:36, July 14 2010

FORMATION TOP DETAILS

TVDPath	MDPath	Formation
1350.00	1366.84	GREEN RIVER
4588.00	4637.59	WASATCH
8072.00	8121.59	MESAVERDE

PROJECT DETAILS: Uintah County, UT NAD27

Geodetic System: US State Plane 1927 (Exact solution)
Datum: NAD 1927 (NADCON CONUS)
Ellipsoid: Clarke 1866
Zone: Utah Central 4302
Location: SEC 29 T9S R22E
System Datum: Mean Sea Level
Local North: No north reference data is available

SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	DLeg	TFace	VSec	Target
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
2	300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	
3	968.29	13.37	306.86	962.25	46.55	-62.08	2.00	306.86	77.60	
4	2413.56	13.37	306.86	2368.37	246.98	-329.38	0.00	0.00	411.69	
5	2899.59	0.00	0.00	2850.00	280.84	-374.53	2.75	180.00	468.13	
6	9390.59	0.00	0.00	9341.00	280.84	-374.53	0.00	0.00	468.13	NBU 922-29J4CS PBHL

'API Well No:43047511950000'

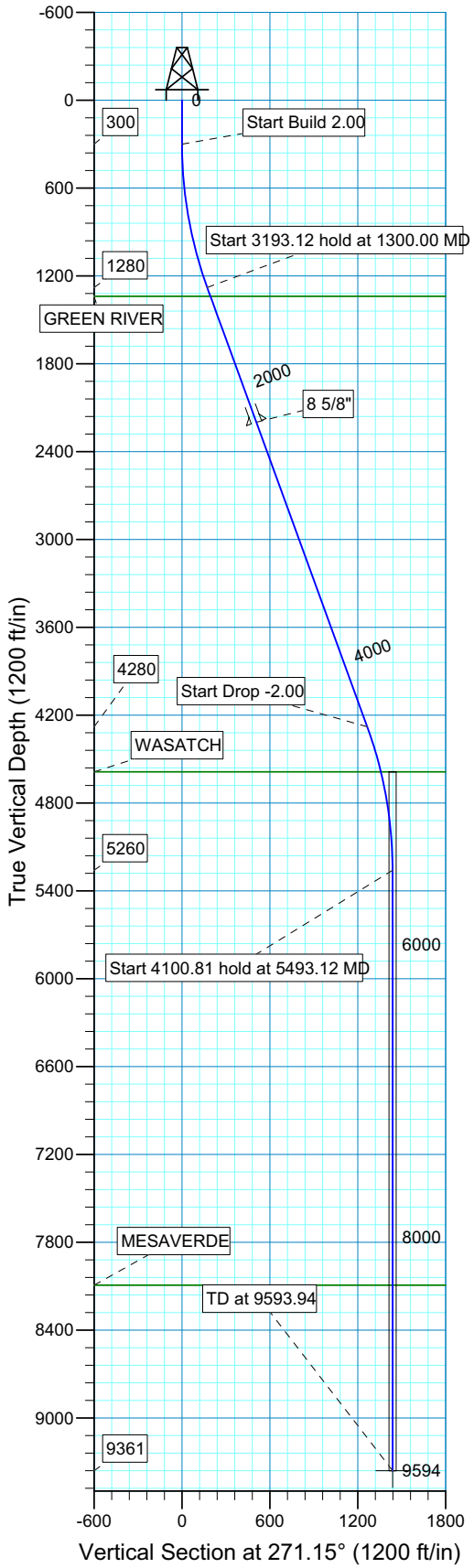
Scientific Drilling
Rocky Mountain Operations

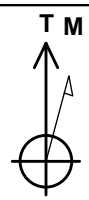
Project: Uintah County, UT NAD27
Site: NBU 922-29O1 Pad
Well: NBU 922-29N1BS
Wellbore: OH
Design: Plan #1

Anadarko Petroleum Corporation

Kerr McGee Oil and Gas Onshore LP

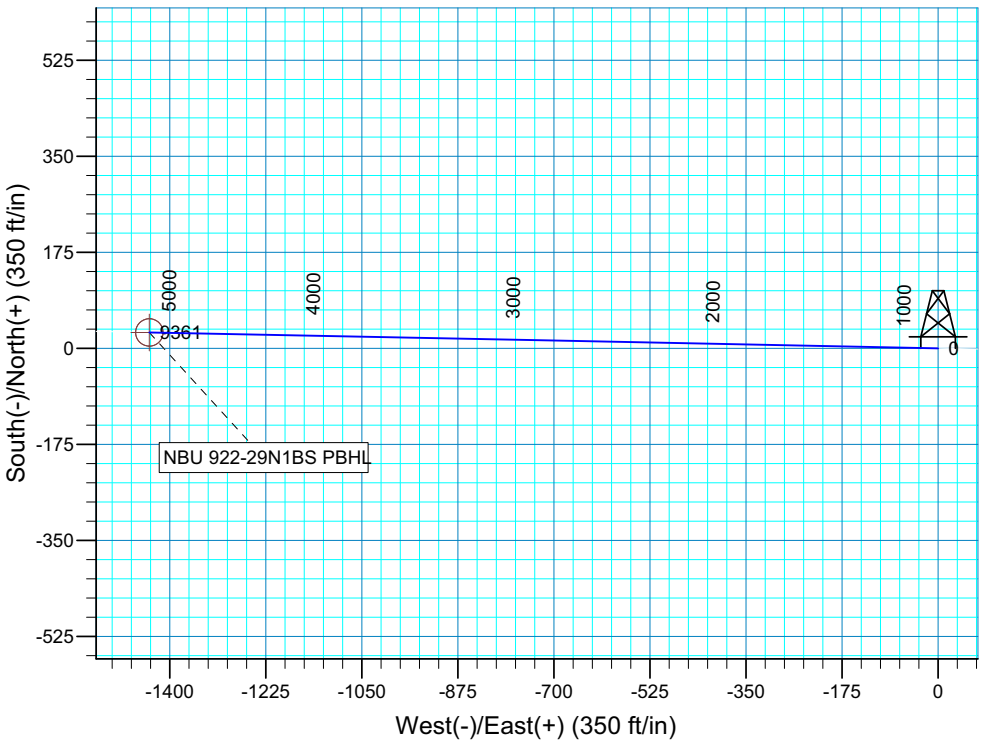
WELL DETAILS: NBU 922-29N1BS					
GL 4961' & RKB 14' @ 4975.00ft (ASSUMED) 4961.00					
+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
0.00	0.00	614550.03	2571577.21	40° 0' 9.731 N	109° 27' 33.980 W





Azimuths to True North
Magnetic North: 11.16°

Magnetic Field
Strength: 52459.5snT
Dip Angle: 65.91°
Date: 07/14/2010
Model: IGRF200510



Plan: Plan #1 (NBU 922-29N1BS/OH)

Created By: Robert H. Scott Date: 10:54, July 14 2010

FORMATION TOP DETAILS

TVDPath	MDPath	Formation
1340.00	1364.05	GREEN RIVER
4588.00	4814.61	WASATCH
8093.00	8325.94	MESAVERDE

PROJECT DETAILS: Uintah County, UT NAD27

Geodetic System: US State Plane 1927 (Exact solution)
Datum: NAD 1927 (NADCON CONUS)
Ellipsoid: Clarke 1866
Zone: Utah Central 4302
Location: SEC 29 T9S R22E
System Datum: Mean Sea Level
Local North: No north reference data is available

SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	DLeg	TFace	VSec	Target
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
2	300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	
3	1300.00	20.00	271.15	1279.82	3.46	-172.73	2.00	271.15	172.77	
4	4493.12	20.00	271.15	4280.37	25.37	-1264.63	0.00	0.00	1264.88	
5	5493.12	0.00	0.00	5260.19	28.83	-1437.36	2.00	180.00	1437.65	
6	9593.94	0.00	0.00	9361.00	28.83	-1437.36	0.00	0.00	1437.65	NBU 922-29N1BS PBHL

'APIWellNo:43047511950000'

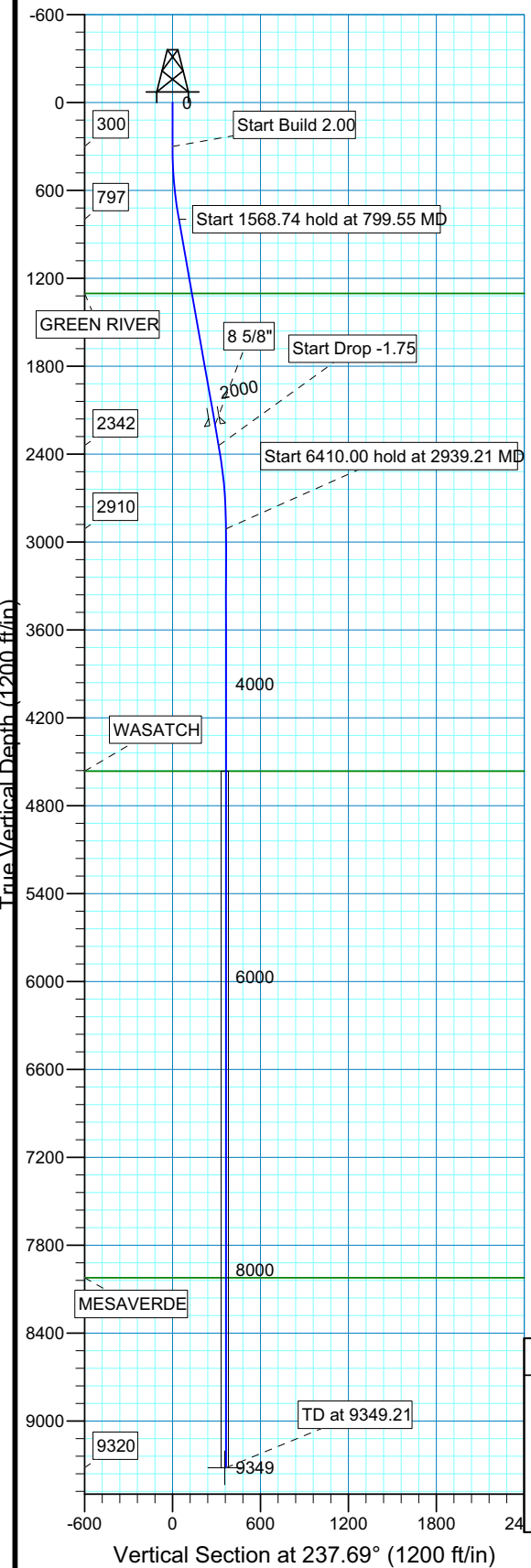
Scientific Drilling
Rocky Mountain Operations

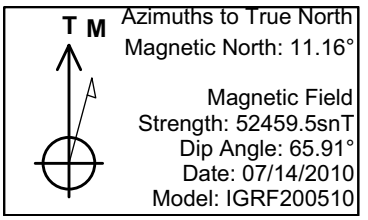
Project: Uintah County, UT NAD27
Site: NBU 922-29O1 Pad
Well: NBU 922-29O1CS
Wellbore: OH
Design: Plan #1

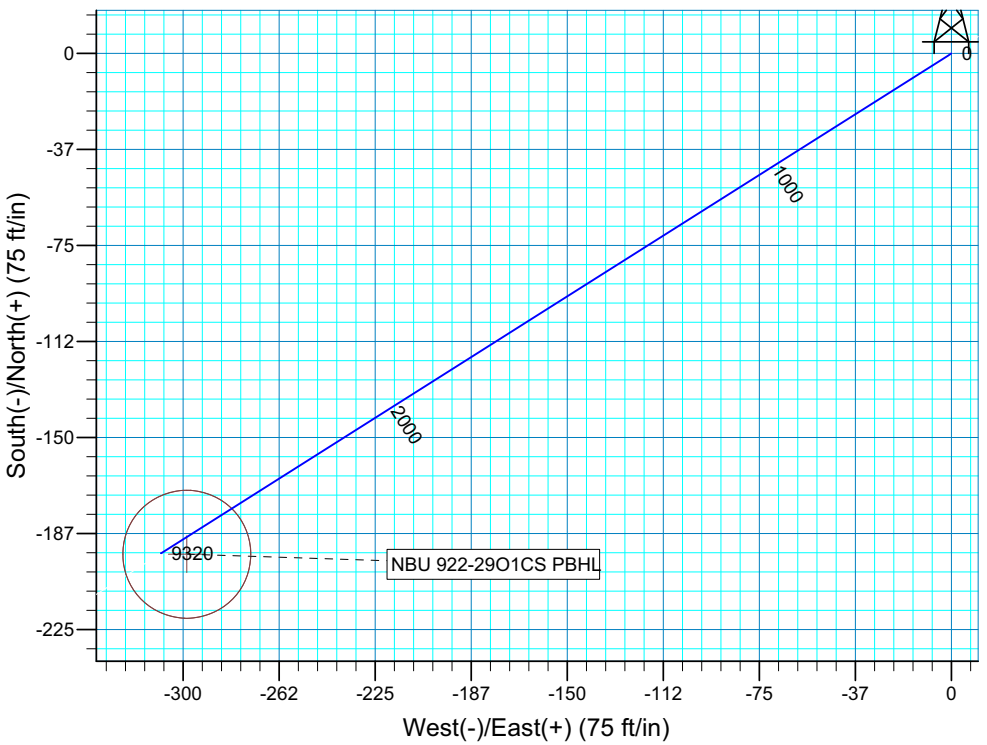
Anadarko Petroleum Corporation

Kerr McGee Oil and Gas Onshore LP

WELL DETAILS: NBU 922-29O1CS					
GL 4961' & RKB 14' @ 4975.00ft (ASSUMED) 4961.00					
+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
0.00	0.00	614549.54	2571587.31	40° 0' 9.724 N	109° 27' 33.851 W







Plan: Plan #1 (NBU 922-29O1CS/OH)

Created By: Robert H. Scott Date: 11:15, July 14 2010

FORMATION TOP DETAILS

TVDPath	MDPath	Formation
1304.00	1314.33	GREEN RIVER
4564.00	4593.21	WASATCH
8023.00	8052.21	MESAVERDE

PROJECT DETAILS: Uintah County, UT NAD27

Geodetic System: US State Plane 1927 (Exact solution)
Datum: NAD 1927 (NADCON CONUS)
Ellipsoid: Clarke 1866
Zone: Utah Central 4302
Location: SEC 29 T9S R22E
System Datum: Mean Sea Level
Local North: No north reference data is available

SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	DLeg	TFace	VSec	Target
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
2	300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	
3	799.55	9.99	237.69	797.02	-23.22	-36.72	2.00	237.69	43.44	
4	2368.29	9.99	237.69	2341.97	-168.69	-266.75	0.00	0.00	315.61	
5	2939.21	0.00	0.00	2910.00	-195.23	-308.71	1.75	180.00	365.26	
6	9349.21	0.00	0.00	9320.00	-195.23	-308.71	0.00	0.00	365.26	NBU 922-29O1CS PBHL

'APIWellNo:43047511950000'

From: Jim Davis
To: Bonner, Ed; Garrison, LaVonne; Hill, Brad; Mason, Diana
CC: Bartlett, Floyd; Laura.Gianakos@anadarko.com; Piernot, Danielle; Upch...
Date: 9/2/2010 9:13 AM
Subject: SITLA approval of Kerr McGee wells
Attachments: KMG approvals and paleo 9.1.2010.xlsx

The following wells have been approved by SITLA including arch clearance. Paleo clearance is also granted with stipulations as noted.

Full Paleo monitoring: All ground-disturbing activities must be monitored by a permitted paleontologist.

NBU 922-29F4DS [API #4304751207]	Full Monitoring	IPC 10-08
NBU 922-29G4CS [API #4304751208]	Full Monitoring	IPC 10-08
NBU 922-29J4BS [API #4304751209]	Full Monitoring	IPC 10-08
NBU 922-29K1DS [API #4304751210]	Full Monitoring	IPC 10-08
NBU 922-29G1AS [API #4304751194]	Full Monitoring	IPC 10-06
NBU 922-29G1DS [API #4304751195]	Full Monitoring	IPC 10-06
NBU 922-29G2BS [API #4304751196]	Full Monitoring	IPC 10-06
NBU 922-29G3BS [API #4304751197]	Full Monitoring	IPC 10-06
NBU 921-25A3DS [API 4304751248]	Full Monitoring	IPC 10-21
NBU 921-25G1CS [API 4304751249]	Full Monitoring	IPC 10-21
NBU 921-25G2AS [API 4304751250]	Full Monitoring	IPC 10-21
NBU 921-25H2AS [API 4304751252]	Full Monitoring	IPC 10-21
NBU 921-25H2DS [API 4304751253]	Full Monitoring	IPC 10-21
NBU 921-25G3AS [API 4304751274]	Full Monitoring	IPC 10-23
NBU 921-25G3CS [API 4304751275]	Full Monitoring	IPC 10-23
NBU 921-25J2CS [API 4304751276]	Full Monitoring	IPC 10-23
NBU 921-25K1CS [API 4304751277]	Full Monitoring	IPC 10-23
NBU 921-25A2AS [API 4304751237]	Full Monitoring	IPC 10-21
NBU 921-25B1CS [API 4304751238]	Full Monitoring	IPC 10-21

Spot Paleo Monitoring: All ground-disturbing activities must be monitored by a permitted paleontologist at the beginning of construction and thereafter spot-monitored as paleontological conditions merit.

NBU 921-25C1AS [API 4304751239]	Spot Monitoring	IPC 10-20
NBU 921-25D1BS [API 4304751240]	Spot Monitoring	IPC 10-20
NBU 921-25D1CS [API 4304751251]	Spot Monitoring	IPC 10-20
NBU 921-25E1CS [API 4304751241]	Spot Monitoring	IPC 10-20
NBU 921-25E3AS [API 4304751242]	Spot Monitoring	IPC 10-20
NBU 921-25F1BS [API 4304751243]	Spot Monitoring	IPC 10-21
NBU 921-25F1CS [API 4304751244]	Spot Monitoring	IPC 10-21
NBU 921-25F3AS [API 4304751245]	Spot Monitoring	IPC 10-21
NBU 921-25F3CS [API 4304751246]	Spot Monitoring	IPC 10-21
NBU 921-25L1BS [API 4304751247]	Spot Monitoring	IPC 10-21
NBU 921-25J1DS [API 4304751256]	Spot Monitoring	IPC 10-23
NBU 921-25J4AS [API 4304751254]	Spot Monitoring	IPC 10-23
NBU 921-25J4CS [API 4304751255]	Spot Monitoring	IPC 10-23
NBU 921-25K4BS [API 4304751257]	Spot Monitoring	IPC 10-22
NBU 921-25L2AS [API 4304751258]	Spot Monitoring	IPC 10-22
NBU 921-25L4AS [API 4304751259]	Spot Monitoring	IPC 10-22
NBU 921-25N2BS [API 4304751260]	Spot Monitoring	IPC 10-22
NBU 921-25K4CS [API 4304751261]	Spot Monitoring	IPC 10-23
NBU 921-25N2DS [API 4304751262]	Spot Monitoring	IPC 10-23
NBU 921-25N3AS [API 4304751263]	Spot Monitoring	IPC 10-23

'APIWellNo:43047511950000'

NBU 921-25O4BS [API 4304751264]	Spot Monitoring	IPC 10-23	
NBU 921-25B3AS [API 4304751265]	Spot Monitoring	IPC 10-20	
NBU 921-25B3DS [API 4304751266]	Spot Monitoring	IPC 10-20	
NBU 921-25C2DS [API 4304751267]	Spot Monitoring	IPC 10-20	
NBU 921-25C3AS [API 4304751268]	Spot Monitoring	IPC 10-20	
NBU 921-25IT [API 4304751273]	Spot Monitoring	IPC 10-23	
NBU 921-25H3DS [API 4304751269]	Spot Monitoring	IPC 10-23	
NBU 921-25I2AS [API 4304751270]	Spot Monitoring	IPC 10-23	
NBU 921-25I4AS [API 4304751271]	Spot Monitoring	IPC 10-23	
NBU 921-25I4DS [API 4304751272]	Spot Monitoring	IPC 10-23	
NBU 922-29A1BS [API #4304751183]	Spot Monitoring	IPC 10-06	
NBU 922-29A1CS [API #4304751184]	Spot Monitoring	IPC 10-06	
NBU 922-29A4CS [API #4304751185]	Spot Monitoring	IPC 10-06	
NBU 922-29H1BS [API #4304751186]	Spot Monitoring	IPC 10-06	
NBU 922-29B2CS [API #4304751187]	Spot Monitoring	IPC 10-06	
NBU 922-29B4AS [API #4304751188]	Spot Monitoring	IPC 10-06	(SITLA surf/ Fed Min)
NBU 922-29C2AS [API #4304751189]	Spot Monitoring	IPC 10-06	(SITLA surf/ Fed Min)
NBU 922-29C4AS [API #4304751190]	Spot Monitoring	IPC 10-06	
NBU 922-29B1AS [API #4304751191]	Spot Monitoring	IPC 10-06	
NBU 922-29B1DS [API #4304751192]	Spot Monitoring	IPC 10-06	
NBU 922-29B2BS [API #4304751193]	Spot Monitoring	IPC 10-06	
NBU 922-29D4DS [API #4304751198]	Spot Monitoring	IPC 10-05	
NBU 922-29E3BS [API #4304751199]	Spot Monitoring	IPC 10-05	
NBU 922-29F3AS [API #4304751200]	Spot Monitoring	IPC 10-05	
NBU 922-29F3BS [API #4304751201]	Spot Monitoring	IPC 10-05	
NBU 922-29G4AS [API #4304751202]	Spot Monitoring	IPC 10-06	
NBU 922-29H1CS [API #4304751203]	Spot Monitoring	IPC 10-06	
NBU 922-29H4CS [API #4304751204]	Spot Monitoring	IPC 10-06	
NBU 922-29I1BS [API #4304751205]	Spot Monitoring	IPC 10-06	
NBU 922-29I1CS [API #4304751206]	Spot Monitoring	IPC 10-06	
NBU 922-29K2CS [API #4304751211]	Spot Monitoring	IPC 10-07	
NBU 922-29K4AS [API #4304751212]	Spot Monitoring	IPC 10-07	
NBU 922-29L1AS [API #4304751213]	Spot Monitoring	IPC 10-07	
NBU 922-29L2BS [API #4304751214]	Spot Monitoring	IPC 10-07	
NBU 922-29L2CS [API #4304751215]	Spot Monitoring	IPC 10-07	
NBU 922-29L3CS [API #4304751216]	Spot Monitoring	IPC 10-07	
NBU 922-29M2AS [API #4304751217]	Spot Monitoring	IPC 10-07	
NBU 922-29N2BS [API #4304751218]	Spot Monitoring	IPC 10-07	
NBU 922-29N3BS [API #4304751219]	Spot Monitoring	IPC 10-07	
NBU 922-30I4BS [API #4304751220]	Spot Monitoring	IPC 10-07	(SITLA surf/ Fed Min)
NBU 922-30I4CS [API #4304751221]	Spot Monitoring	IPC 10-07	(SITLA surf/Fed Min)
NBU 922-29J4CS [API #4304751222]	Spot Monitoring	IPC 10-08	
NBU 922-29N1BS [API #4304751223]	Spot Monitoring	IPC 10-08	
NBU 922-29O1CS [API #4304751224]	Spot Monitoring	IPC 10-08	

That's quite a list, so I'm attaching a quick-and-dirty spreadsheet of the same data. This may be helpful to some of you.

Thanks.
-Jim

'APIWellNo:43047511950000'

Jim Davis
Utah Trust Lands Administration
jimdavis1@utah.gov
Phone: (801) 538-5156

BOPE REVIEW KERR-MCGEE OIL & GAS ONSHORE, L.P. NBU 922-29G1DS 43047511950000

Well Name	KERR-MCGEE OIL & GAS ONSHORE, L.P. NBU 922-29G1DS 430475119			
String	Surf	Prod		
Casing Size(")	8.625	4.500		
Setting Depth (TVD)	2430	9480		
Previous Shoe Setting Depth (TVD)	40	2430		
Max Mud Weight (ppg)	8.3	12.0		
BOPE Proposed (psi)	500	5000		
Casing Internal Yield (psi)	3390	7780		
Operators Max Anticipated Pressure (psi)	5783	11.7		

Calculations	Surf String	8.625	"	
Max BHP (psi)	.052*Setting Depth*MW=	1053		
			BOPE Adequate For Drilling And Setting Casing at Depth?	
MASP (Gas) (psi)	Max BHP-(0.12*Setting Depth)=	761	NO	air drill
MASP (Gas/Mud) (psi)	Max BHP-(0.22*Setting Depth)=	518	NO	OK
			***Can Full Expected Pressure Be Held At Previous Shoe?**	
Pressure At Previous Shoe	Max BHP-.22*(Setting Depth - Previous Shoe Depth)=	527	NO	Reasonable depth for area
Required Casing/BOPE Test Pressure=		2373	psi	
***Max Pressure Allowed @ Previous Casing Shoe=**		40	psi *Assumes 1psi/ft frac gradient	

Calculations	Prod String	4.500	"	
Max BHP (psi)	.052*Setting Depth*MW=	5916		
			BOPE Adequate For Drilling And Setting Casing at Depth?	
MASP (Gas) (psi)	Max BHP-(0.12*Setting Depth)=	4778	YES	
MASP (Gas/Mud) (psi)	Max BHP-(0.22*Setting Depth)=	3830	YES	OK
			***Can Full Expected Pressure Be Held At Previous Shoe?**	
Pressure At Previous Shoe	Max BHP-.22*(Setting Depth - Previous Shoe Depth)=	4365	NO	Reasonable
Required Casing/BOPE Test Pressure=		5000	psi	
***Max Pressure Allowed @ Previous Casing Shoe=**		2430	psi *Assumes 1psi/ft frac gradient	

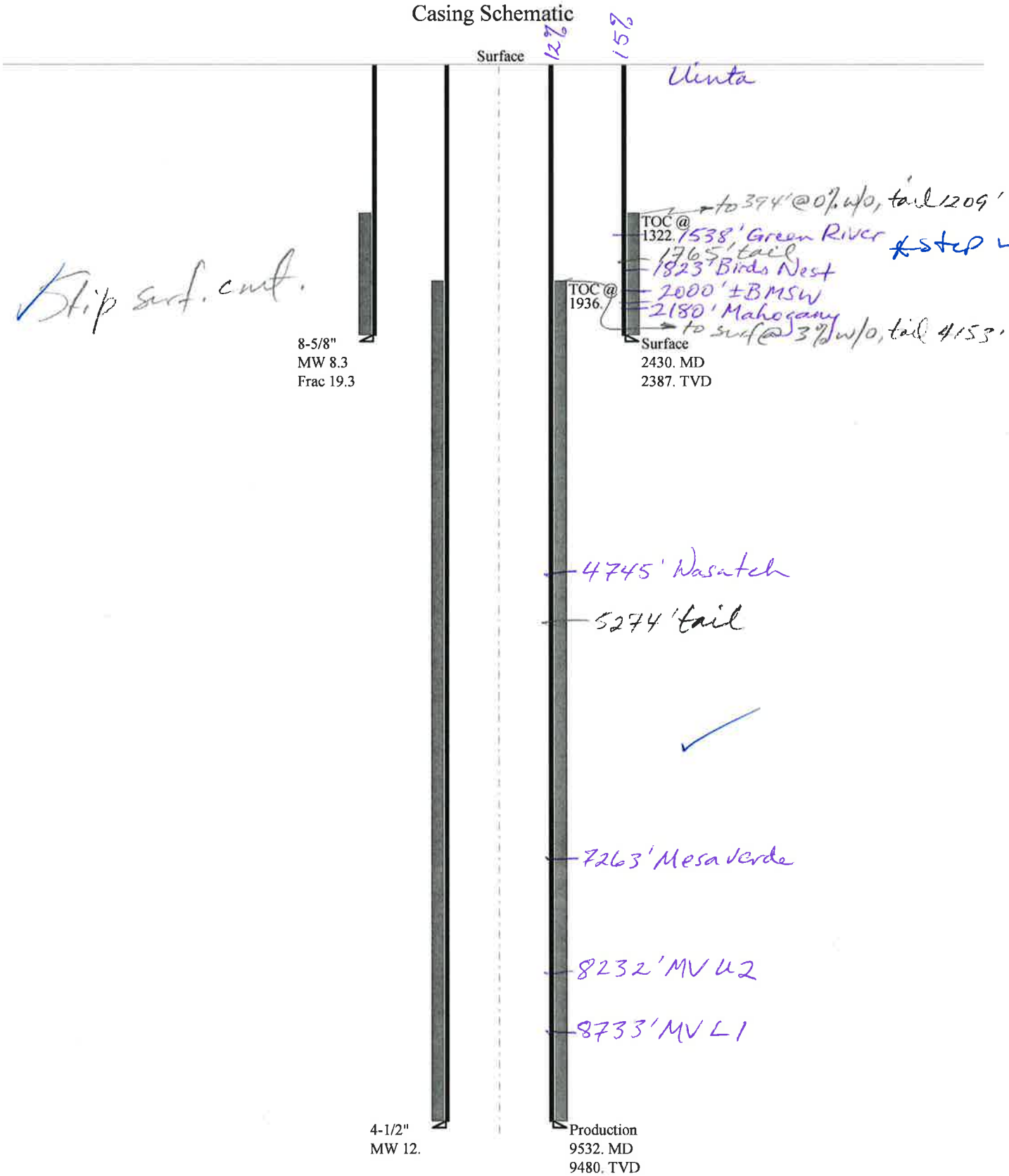
Calculations	String		"	
Max BHP (psi)	.052*Setting Depth*MW=			
			BOPE Adequate For Drilling And Setting Casing at Depth?	
MASP (Gas) (psi)	Max BHP-(0.12*Setting Depth)=		NO	
MASP (Gas/Mud) (psi)	Max BHP-(0.22*Setting Depth)=		NO	
			***Can Full Expected Pressure Be Held At Previous Shoe?**	
Pressure At Previous Shoe	Max BHP-.22*(Setting Depth - Previous Shoe Depth)=		NO	
Required Casing/BOPE Test Pressure=			psi	
***Max Pressure Allowed @ Previous Casing Shoe=**			psi *Assumes 1psi/ft frac gradient	

Calculations	String		"	
Max BHP (psi)	.052*Setting Depth*MW=			
			BOPE Adequate For Drilling And Setting Casing at Depth?	
MASP (Gas) (psi)	Max BHP-(0.12*Setting Depth)=		NO	
MASP (Gas/Mud) (psi)	Max BHP-(0.22*Setting Depth)=		NO	
			***Can Full Expected Pressure Be Held At Previous Shoe?**	
Pressure At Previous Shoe	Max BHP-.22*(Setting Depth - Previous Shoe Depth)=		NO	
Required Casing/BOPE Test Pressure=			psi	
***Max Pressure Allowed @ Previous Casing Shoe=**			psi *Assumes 1psi/ft frac gradient	

'APIWellNo:43047511950000'

43047511950000 NBU 922-29G1DS

Casing Schematic



'APIWellNo:43047511950000'

Well name:	**43047511950000 NBU 922-29G1DS**
Operator:	**KERR-MCGEE OIL & GAS ONSHORE, L.P.**
String type:	Surface
Project ID:	43-047-51195
Location:	UINTAH COUNTY

Design parameters:

Collapse

Mud weight: 8.330 ppg
Design is based on evacuated pipe.

Burst

Max anticipated surface pressure: 2,138 psi
Internal gradient: 0.120 psi/ft
Calculated BHP 2,425 psi

No backup mud specified.

Minimum design factors:

Collapse:

Design factor 1.125

Burst:

Design factor 1.00

Tension:

8 Round STC: 1.80 (J)
8 Round LTC: 1.70 (J)
Buttress: 1.60 (J)
Premium: 1.50 (J)
Body yield: 1.50 (B)

Tension is based on air weight.
Neutral point: 2,129 ft

Environment:

H2S considered? No
Surface temperature: 74 °F
Bottom hole temperature: 107 °F
Temperature gradient: 1.40 °F/100ft
Minimum section length: 100 ft

Cement top: 1,322 ft

Directional Info - Build & Drop

Kick-off point 300 ft
Departure at shoe: 405 ft
Maximum dogleg: 2 °/100ft
Inclination at shoe: 12.93 °

Re subsequent strings:

Next setting depth: 9,480 ft
Next mud weight: 12.000 ppg
Next setting BHP: 5,910 psi
Fracture mud wt: 19.250 ppg
Fracture depth: 2,430 ft
Injection pressure: 2,430 psi

Run Seq	Segment Length (ft)	Size (in)	Nominal Weight (lbs/ft)	Grade	End Finish	True Vert Depth (ft)	Measured Depth (ft)	Drift Diameter (in)	Est. Cost ($)
1	2430	8.625	28.00	I-55	LT&C	2387	2430	7.892	96228

Run Seq	Collapse Load (psi)	Collapse Strength (psi)	Collapse Design Factor	Burst Load (psi)	Burst Strength (psi)	Burst Design Factor	Tension Load (kips)	Tension Strength (kips)	Tension Design Factor
1	1033	1880	1.820	2425	3390	1.40	66.8	348	5.21 J

Prepared by: Helen Sadik-Macdonald
Div of Oil,Gas & Mining
Phone: 801 538-5357
FAX: 801-359-3940
Date: September 27,2010
Salt Lake City, Utah

Remarks:
Collapse is based on a vertical depth of 2387 ft, a mud weight of 8.33 ppg The casing is considered to be evacuated for collapse purposes.
Collapse strength is based on the Westcott, Dunlop & Kemler method of biaxial correction for tension.

Burst strength is not adjusted for tension.
Collapse strength is (biaxially) derated for doglegs in directional wells by multiplying the tensile stress by the cross section area to calculate a

Engineering responsibility for use of this design will be that of the purchaser.

'APIWellNo:43047511950000'

Well name:	**43047511950000 NBU 922-29G1DS**
Operator:	**KERR-MCGEE OIL & GAS ONSHORE, L.P.**
String type:	Production
Project ID:	43-047-51195
Location:	UINTAH COUNTY

Design parameters:

Collapse

Mud weight:	12.000 ppg
Internal fluid density:	1.000 ppg

Burst

Max anticipated surface pressure:	3,824 psi
Internal gradient:	0.220 psi/ft
Calculated BHP	5,910 psi

No backup mud specified.

Minimum design factors:

Collapse:

Design factor	1.125

Burst:

Design factor	1.00

Tension:

8 Round STC:	1.80 (J)
8 Round LTC:	1.80 (J)
Buttress:	1.60 (J)
Premium:	1.50 (J)
Body yield:	1.60 (B)

Tension is based on air weight.
Neutral point: 7,831 ft

Environment:

H2S considered?	No
Surface temperature:	74 °F
Bottom hole temperature:	207 °F
Temperature gradient:	1.40 °F/100ft
Minimum section length:	100 ft
Cement top:	1,936 ft

Directional Info - Build & Drop

Kick-off point	300 ft
Departure at shoe:	509 ft
Maximum dogleg:	2 °/100ft
Inclination at shoe:	0 °

Run Seq	Segment Length (ft)	Size (in)	Nominal Weight (lbs/ft)	Grade	End Finish	True Vert Depth (ft)	Measured Depth (ft)	Drift Diameter (in)	Est. Cost ($)
1	9532	4.5	11.60	I-80	LT&C	9480	9532	3.875	125822

Run Seq	Collapse Load (psi)	Collapse Strength (psi)	Collapse Design Factor	Burst Load (psi)	Burst Strength (psi)	Burst Design Factor	Tension Load (kips)	Tension Strength (kips)	Tension Design Factor
1	5417	6360	1.174	5910	7780	1.32	110	212	1.93 J

Prepared by: Helen Sadik-Macdonald
Div of Oil,Gas & Mining
Phone: 801 538-5357
FAX: 801-359-3940
Date: September 27,2010
Salt Lake City, Utah

Remarks:
Collapse is based on a vertical depth of 9480 ft, a mud weight of 12 ppg An internal gradient of .052 psi/ft was used for collapse from TD to
Collapse strength is based on the Westcott, Dunlop & Kemler method of biaxial correction for tension.

Burst strength is not adjusted for tension.
Collapse strength is (biaxially) derated for doglegs in directional wells by multiplying the tensile stress by the cross section area to calculate a

Engineering responsibility for use of this design will be that of the purchaser.

ON-SITE PREDRILL EVALUATION
Utah Division of Oil, Gas and Mining

Operator	KERR-MCGEE OIL & GAS ONSHORE, L.P.				
Well Name	NBU 922-29G1DS				
API Number	43047511950000	**APD No**	2860	**Field/Unit**	NATURAL BUTTES
Location: 1/4,1/4	SWNE **Sec** 29 **Tw** 9.0S **Rng** 22.0E 1872 FNL 1970 FEL				
GPS Coord (UTM)		**Surface Owner**			

Participants

See other Comments.

Regional/Local Setting & Topography

The general area is within the Natural Buttes Unit in the lower portion of the Sand Wash Drainage of Uintah, County, approximately 36 air miles and 44.9 road miles south of Vernal, Utah. Access is by State of Utah Highways, Uintah County and existing or planned oilfield development roads to the site. Approximately 2,060 feet of new road will be constructed over SITLA lands. Topography of the Sand Wash area is characterized by broad open flats dissected by numerous sub-drainages, which often become steep with ridges and draws with exposed sandstone layers. No perennial streams occur in the drainage. Individual draws or washes are ephemeral with spring runoff or flows from sometimes-intense summer rainstorms. No springs exist in the area. An occasional constructed pond occurs furnishing water for antelope or livestock.

The NBU 922-29G pad will be constructed on relatively steep broken topography with the well locations on a rise or ridge. Four wells, to be directionally drilled, are planned from this pad. They are the NBU 922-29G2BS, 922-29G3BS, 922-29G1AS and 29G1DS Significant swales are located to the south and north of the center of the pad. The one to the south begins in the reserve pit area but will be cut to obtain fill for the west side of the pad. The other runs to the north thru Corner 1 and will require19 feet of fill. No drainage diversions are needed. The selected site appears to be suitable for constructing a pad, drilling and operating the proposed wells and is the only suitable site in the general area.

Both the surface and minerals are owned by SITLA.

Surface Use Plan

Current Surface Use
Grazing
Wildlfe Habitat

New Road Miles	**Well Pad**	**Src Const Material**	**Surface Formation**
0.4	**Width** 332 **Length** 405	Onsite	UNTA

Ancillary Facilities N

Waste Management Plan Adequate?

Environmental Parameters

Affected Floodplains and/or Wetlands N

Flora / Fauna

Vegetation is a poor desert shrub type, which includes black sage, curly mesquite, globe mallow, prickly pear, broom snakeweed, halogeton, Sihy, shadscale and spring annuals.

Antelope, sheep during the winter, rabbits, coyotes, and small mammals, birds and raptors.

Soil Type and Characteristics

Surface soils are a shallow rocky loam.

Erosion Issues N

Sedimentation Issues N

Site Stability Issues N

Drainage Diverson Required? N

Berm Required? N

Erosion Sedimentation Control Required? N

Paleo Survey Run? Y **Paleo Potental Observed?** N **Cultural Survey Run?** Y **Cultural Resources?** N

Reserve Pit

Site-Specific Factors		Site Ranking	
Distance to Groundwater (feet)	100 to 200	5	
Distance to Surface Water (feet)	>1000	0	
Dist. Nearest Municipal Well (ft)	>5280	0	
Distance to Other Wells (feet)	300 to 1320	10	
Native Soil Type	Mod permeability	10	
Fluid Type	Fresh Water	5	
Drill Cuttings	Normal Rock	0	
Annual Precipitation (inches)		0	
Affected Populations			
Presence Nearby Utility Conduits	Not Present	0	
	Final Score	30	1 Sensitivity Level

Characteristics / Requirements

The proposed reserve pit is 115’ x 175’ x 12’ deep located in a cut on the southeast corner of the location. Kerr McGee plans a 30-mil liner with a double felt sub-liner.

Closed Loop Mud Required? N **Liner Required?** Y **Liner Thickness** 30 **Pit Underlayment Required?** Y

Other Observations / Comments

Floyd Bartlett (DOGM), Sheila Wopsock, Clay Einerson, Mac Burton, Jordon Portillo, Roger Perry, Laura Gianokas, Doyle Holmes, Kenny Gathings (Kerr McGee), Mitch Batty, John Slaugh, (Timberline Engineering and Land Surveying), Jim Davis (SITLA), Ben Williams, Alex Hansen (UDWR), Travis Slaugh (Uintah County), David Gordon (BLM).

Floyd Bartlett 8/25/2010

Evaluator	Date / Time

Application for Permit to Drill
Statement of Basis

APD No	API WellNo	Status	Well Type	Surf Owner	CBM
2860	43047511950000	SITLA	GW	S	No
Operator	KERR-MCGEE OIL & GAS ONSHORE, L.P.		**Surface Owner-APD**		
Well Name	NBU 922-29G1DS		**Unit**	NATURAL BUTTES	
Field	NATURAL BUTTES		**Type of Work**	DRILL	
Location	SWNE 29 9S 22E S 1872 FNL 1970 FEL		GPS Coord (UTM)	631380E 4429701N	

Geologic Statement of Basis

Kerr McGee proposes to set 2,430' of surface casing at this location. The depth to the base of the moderately saline water at this location is estimated to be at a depth of 2,000'. A search of Division of Water Rights records shows no water wells within a 10,000 foot radius of the proposed location . The surface formation at this site is the Uinta Formation. The Uinta Formation is made up of interbedded shales and sandstones. The sandstones are mostly lenticular and discontinuous and should not be a significant source of useable ground water. The proposed casing and cement should adequately protect any usable ground water.

Brad Hill	9/21/2010
APD Evaluator	**Date / Time**

Surface Statement of Basis

The general area is within the Natural Buttes Unit in the lower portion of the Sand Wash Drainage of Uintah, County, approximately 36 air miles and 44.9 road miles south of Vernal, Utah. Access is by State of Utah Highways, Uintah County and existing or planned oilfield development roads to the site. Approximately 2,060 feet of new road will be constructed over SITLA lands. Topography of the Sand Wash area is characterized by broad open flats dissected by numerous sub-drainages, which often become steep with ridges and draws with exposed sandstone layers. No perennial streams occur in the drainage. Individual draws or washes are ephemeral with spring runoff or flows from sometimes-intense summer rainstorms. No springs exist in the area. An occasional constructed pond occurs furnishing water for antelope or livestock.

The NBU 922-29G pad will be constructed on relatively steep broken topography with the well locations on a rise or ridge. Four wells, to be directionally drilled, are planned from this pad. They are the NBU 922-29G2BS, 922-29G3BS, 922-29G1AS and 29G1DS Significant swales are located to the south and north of the center of the pad. The one to the south begins in the reserve pit area but will be cut to obtain fill for the west side of the pad. The other runs to the north thru Corner 1 and will require19 feet of fill. No drainage diversions are needed. The selected site appears to be suitable for constructing a pad, drilling and operating the proposed wells and is the only suitable site in the general area.

Both the surface and minerals are owned by SITLA. Jim Davis represented SITLA at the pre-site investigation. Mr. Davis had no concerns pertaining to this location excepted as covered above. SITLA will provide site reclamation standards and a seed mix.

Ben Williams and Alex Hansen represented the Utah Division of Wildlife Resources. Mr. Williams stated the area is classified as crucial yearlong antelope habitat but recommended no restrictions for this species. No other wildlife will be significantly affected.

Floyd Bartlett	8/25/2010
Onsite Evaluator	**Date / Time**

Conditions of Approval / Application for Permit to Drill

Application for Permit to Drill
Statement of Basis

Category	Condition
Pits	A synthetic liner with a minimum thickness of30 mils with a double felt subliner shall be properly installed and maintained in the reserve pit.
Surface	The reserve pit shall be fenced upon completion of drilling operations.
Surface	The well site shall be bermed to prevent fluids from leaving the pad.

WORKSHEET
APPLICATION FOR PERMIT TO DRILL

APD RECEIVED: 7/30/2010 **API NO. ASSIGNED:** 43047511950000

WELL NAME: NBU 922-29G1DS

OPERATOR: KERR-MCGEE OIL & GAS ONSHORE, L.P. (N2995) **PHONE NUMBER:** 720 929-6156

CONTACT: Danielle Piernot

PROPOSED LOCATION: SWNE 29 090S 220E **Permit Tech Review:** ✔

SURFACE: 1872 FNL 1970 FEL **Engineering Review:** ✔

BOTTOM: 1832 FNL 1462 FEL **Geology Review:** ✔

COUNTY: UINTAH

LATITUDE: 40.00918 **LONGITUDE:** -109.46073

UTM SURF EASTINGS: 631380.00 **NORTHINGS:** 4429701.00

FIELD NAME: NATURAL BUTTES

LEASE TYPE: 3 - State

LEASE NUMBER: UO 1207 ST **PROPOSED PRODUCING FORMATION(S):** WASATCH-MESA VERDE

SURFACE OWNER: 3 - State **COALBED METHANE:** NO

RECEIVED AND/OR REVIEWED:

- ✔ **PLAT**
- ✔ **Bond:** STATE/FEE - 22013542
- ☐ **Potash**
- ✔ **Oil Shale 190-5**
- ☐ **Oil Shale 190-3**
- ☐ **Oil Shale 190-13**
- ✔ **Water Permit:** Permit #43-8496
- ☐ **RDCC Review:**
- ☐ **Fee Surface Agreement**
- ✔ **Intent to Commingle**

Commingling Approved

LOCATION AND SITING:

- ☐ **R649-2-3.**

Unit: NATURAL BUTTES

- ☐ **R649-3-2. General**
- ☐ **R649-3-3. Exception**
- ✔ **Drilling Unit**

Board Cause No: Cause 173-14

Effective Date: 12/2/1999

Siting: Suspends General Siting

- ✔ **R649-3-11. Directional Drill**

Comments: Presite Completed

Stipulations:
3 - Commingling - ddoucet
5 - Statement of Basis - bhill
15 - Directional - dmason
17 - Oil Shale 190-5(b) - dmason
25 - Surface Casing - hmacdonald

GARY R. HERBERT
Governor

GREGORY S. BELL
Lieutenant Governor

State of Utah

DEPARTMENT OF NATURAL RESOURCES

MICHAEL R. STYLER
Executive Director

Division of Oil, Gas and Mining

JOHN R. BAZA
Division Director

Permit To Drill

****

Well Name: NBU 922-29G1DS
API Well Number: 43047511950000
Lease Number: UO 1207 ST
Surface Owner: STATE
Approval Date: 9/28/2010

Issued to:
KERR-MCGEE OIL & GAS ONSHORE, L.P., P.O. Box 173779, Denver, CO 80217

Authority:
Pursuant to Utah Code Ann. §40-6-1 et seq., and Utah Administrative Code R649-3-1 et seq., the Utah Division of Oil, Gas and Mining issues conditions of approval, and permit to drill the listed well. This permit is issued in accordance with the requirements of Cause 173-14. The expected producing formation or pool is the WASATCH-MESA VERDE Formation(s), completion into any other zones will require filing a Sundry Notice (Form 9). Completion and commingling of more than one pool will require approval in accordance with R649-3-22.

Duration:
This approval shall expire one year from the above date unless substantial and continuous operation is underway, or a request for extension is made prior to the expiration date

Commingle:
In accordance with Board Cause No. 173-14, commingling of the production from the Wasatch formation and the Mesaverde formation in this well is allowed.

General:
Compliance with the requirements of Utah Admin. R. 649-1 et seq., the Oil and Gas Conservation General Rules, and the applicable terms and provisions of the approved Application for permit to drill.

Conditions of Approval:
In accordance with Utah Admin. R.649-3-11, Directional Drilling, the operator shall submit a complete angular deviation and directional survey report to the Division within 30 days following completion of the well.

In accordance with the Order in Cause No. 190-5(b) dated October 28, 1982, the operator shall comply with the requirements of Rules R649-3-31 and R649-3-27 pertaining to Designated Oil Shale Areas. Additionally, the operators shall ensure that the surface and or production casing is properly cemented over the entire oil shale section as defined by Rule R649-3-31. The Operator shall report the actual depth the oil shale is encountered to the division.

Compliance with the Conditions of Approval/Application for Permit to Drill outlined in the Statement of Basis (copy attached).

Surface casing shall be cemented to the surface.

Additional Approvals:
The operator is required to obtain approval from the Division of Oil, Gas and mining before performing any of the following actions during the drilling of this well:
- Any changes to the approved drilling plan – contact Dustin Doucet
- Significant plug back of the well – contact Dustin Doucet
- Plug and abandonment of the well – contact Dustin Doucet

Notification Requirements:
The operator is required to notify the Division of Oil, Gas and Mining of the following actions during drilling of this well:
- Within 24 hours following the spudding of the well – contact Carol Daniels
  OR
  submit an electronic sundry notice (pre-registration required) via the Utah Oil & Gas website at https://oilgas.ogm.utah.gov
- 24 hours prior to testing blowout prevention equipment - contact Dan Jarvis
- 24 hours prior to cementing or testing casing – contact Dan Jarvis
- Within 24 hours of making any emergency changes to the approved drilling program – contact Dustin Doucet
- 24 hours prior to commencing operations to plug and abandon the well – contact Dan Jarvis

Contact Information:
The following are Division of Oil, Gas and Mining contacts and their telephone numbers (please leave a voicemail message if the person is not available to take the call):
- Carol Daniels 801-538-5284 - office
- Dustin Doucet 801-538-5281 - office
  801-733-0983 - after office hours
- Dan Jarvis 801-538-5338 - office
  801-231-8956 - after office hours

Reporting Requirements:
All reports, forms and submittals as required by the Utah Oil and Gas Conservation General Rules will be promptly filed with the Division of Oil, Gas and Mining, including but not limited to:
- Entity Action Form (Form 6) – due within 5 days of spudding the well
- Monthly Status Report (Form 9) – due by 5th day of the following calendar month
- Requests to Change Plans (Form 9) – due prior to implementation
- Written Notice of Emergency Changes (Form 9) – due within 5 days
- Notice of Operations Suspension or Resumption (Form 9) – due prior to implementation
- Report of Water Encountered (Form 7) – due within 30 days after completion
- Well Completion Report (Form 8) – due within 30 days after completion or plugging

Approved By:

Acting Associate Director, Oil & Gas

SUBMIT AS EMAIL | Print Form

BLM - Vernal Field Office - Notification Form

Operator KERR-McGEE OIL & GAS Rig Name/# BUCKET RIG
Submitted By ANDY LYTLE Phone Number 720.929.6100
Well Name/Number NBU 922-29G1DS
Qtr/Qtr SWNE Section 29 Township 9S Range 22E
Lease Serial Number UO-1207 ST
API Number 4304751195

Spud Notice – Spud is the initial spudding of the well, not drilling out below a casing string.

Date/Time 11/06/2010 08:00 HRS AM ☐ PM ☐

Casing – Please report time casing run starts, not cementing times.

- ☑ Surface Casing
- ☐ Intermediate Casing
- ☐ Production Casing
- ☐ Liner
- ☐ Other

RECEIVED
NOV 03 2010
DIV. OF OIL, GAS & MINING

Date/Time 11/24/2010 08:00 HRS AM ☐ PM ☐

BOPE

- ☐ Initial BOPE test at surface casing point
- ☐ BOPE test at intermediate casing point
- ☐ 30 day BOPE test
- ☐ Other

Date/Time _____ _____ AM ☐ PM ☐

Remarks ESTIMATED DATE AND TIME. PLEASE CONTACT KENNY GATHINGS AT 435.781.7048 OR LOVEL YOUNG AT 435.828.0986

API Well No: 43047511950000

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS, AND MINING

FORM 9

5.LEASE DESIGNATION AND SERIAL NUMBER: UO 1207 ST

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals.

6. IF INDIAN, ALLOTTEE OR TRIBE NAME:

7.UNIT or CA AGREEMENT NAME: NATURAL BUTTES

1. TYPE OF WELL Gas Well

8. WELL NAME and NUMBER: NBU 922-29G1DS

2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ONSHORE, L.P.

9. API NUMBER: 43047511950000

3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18th Street, Suite 600, Denver, CO, 80217 3779

PHONE NUMBER: 720 929-6007 Ext

9. FIELD and POOL or WILDCAT: NATURAL BUTTES

4. LOCATION OF WELL
FOOTAGES AT SURFACE: 1872 FNL 1970 FEL
QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: Qtr/Qtr: SWNE Section: 29 Township: 09.0S Range: 22.0E Meridian: S

COUNTY: UINTAH

STATE: UTAH

11. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION		
☐ NOTICE OF INTENT Approximate date work will start:	☐ ACIDIZE	☐ ALTER CASING	☐ CASING REPAIR
	☐ CHANGE TO PREVIOUS PLANS	☐ CHANGE TUBING	☐ CHANGE WELL NAME
☐ SUBSEQUENT REPORT Date of Work Completion:	☐ CHANGE WELL STATUS	☐ COMMINGLE PRODUCING FORMATIONS	☐ CONVERT WELL TYPE
	☐ DEEPEN	☐ FRACTURE TREAT	☐ NEW CONSTRUCTION
	☐ OPERATOR CHANGE	☐ PLUG AND ABANDON	☐ PLUG BACK
✓ SPUD REPORT Date of Spud: 11/5/2010	☐ PRODUCTION START OR RESUME	☐ RECLAMATION OF WELL SITE	☐ RECOMPLETE DIFFERENT FORMATION
	☐ REPERFORATE CURRENT FORMATION	☐ SIDETRACK TO REPAIR WELL	☐ TEMPORARY ABANDON
	☐ TUBING REPAIR	☐ VENT OR FLARE	☐ WATER DISPOSAL
☐ DRILLING REPORT Report Date:	☐ WATER SHUTOFF	☐ SI TA STATUS EXTENSION	☐ APD EXTENSION
	☐ WILDCAT WELL DETERMINATION	☐ OTHER	OTHER:

12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.

MIRU PETE MARTIN BUCKET RIG. DRILLED 20" CONDUCTOR HOLE TO 40'.
RAN 14" 36.7# SCHEDULE 10 CONDUCTOR PIPE. CMT W/ 28 SX READY MIX.
SPUD WELL LOCATION ON NOVEMBER 5, 2010 AT 14:00 HRS.

Accepted by the Utah Division of Oil, Gas and Mining
FOR RECORD ONLY
November 09, 2010

NAME (PLEASE PRINT)	PHONE NUMBER	TITLE
Gina Becker	720 929-6086	Regulatory Analyst II

SIGNATURE	DATE
N/A	11/9/2010

RECEIVED November 09, 2010

API Well No: 43047511950000

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS, AND MINING

FORM 9

5.LEASE DESIGNATION AND SERIAL NUMBER: UO 1207 ST

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals.

6. IF INDIAN, ALLOTTEE OR TRIBE NAME:

7.UNIT or CA AGREEMENT NAME: NATURAL BUTTES

1. TYPE OF WELL Gas Well

8. WELL NAME and NUMBER: NBU 922-29G1DS

2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ONSHORE, L.P.

9. API NUMBER: 43047511950000

3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18th Street, Suite 600, Denver, CO, 80217 3779

PHONE NUMBER: 720 929-6007 Ext

9. FIELD and POOL or WILDCAT: NATURAL BUTTES

4. LOCATION OF WELL
FOOTAGES AT SURFACE: 1872 FNL 1970 FEL
QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: Qtr/Qtr: SWNE Section: 29 Township: 09.0S Range: 22.0E Meridian: S

COUNTY: UINTAH

STATE: UTAH

11. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION		
☐ NOTICE OF INTENT Approximate date work will start:	☐ ACIDIZE	☐ ALTER CASING	☐ CASING REPAIR
	☐ CHANGE TO PREVIOUS PLANS	☐ CHANGE TUBING	☐ CHANGE WELL NAME
	☐ CHANGE WELL STATUS	☐ COMMINGLE PRODUCING FORMATIONS	☐ CONVERT WELL TYPE
☐ SUBSEQUENT REPORT Date of Work Completion:	☐ DEEPEN	☐ FRACTURE TREAT	☐ NEW CONSTRUCTION
	☐ OPERATOR CHANGE	☐ PLUG AND ABANDON	☐ PLUG BACK
☐ SPUD REPORT Date of Spud:	☐ PRODUCTION START OR RESUME	☐ RECLAMATION OF WELL SITE	☐ RECOMPLETE DIFFERENT FORMATION
	☐ REPERFORATE CURRENT FORMATION	☐ SIDETRACK TO REPAIR WELL	☐ TEMPORARY ABANDON
	☐ TUBING REPAIR	☐ VENT OR FLARE	☐ WATER DISPOSAL
✓ DRILLING REPORT Report Date: 11/12/2010	☐ WATER SHUTOFF	☐ SI TA STATUS EXTENSION	☐ APD EXTENSION
	☐ WILDCAT WELL DETERMINATION	☐ OTHER	OTHER:

12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.

MIRU PROPETRO AIR RIG ON NOVEMBER 10, 2010. DRILLED 11" SURFACE HOLE TO 2610'. RAN 8 5/8" 28# IJ-55 SURFACE CSG. PUMP 146 BBLS FRESH WATER. PUMP 20 BBLS GEL WATER. PUMP 325 SX CLASS G PREM LITE @ 15.8 PPG, 1.15 YD. DROP PLUG ON THE FLY, DISPLACED W/ 153 BBLS WATER. LOST RETURNS. SLOWED DOWN RATE, LIFT PRESSURE 400 PSI, BUMP PLUG & HOLD 850 PSI FOR 5 MIN. FLOAT HELD. TOP OUT W/ 65 SX SAME CEMENT. CEMENT TO SURFACE. WORT.

Accepted by the Utah Division of Oil, Gas and Mining
FOR RECORD ONLY
November 15, 2010

NAME (PLEASE PRINT)	PHONE NUMBER	TITLE
Gina Becker	720 929-6086	Regulatory Analyst II

SIGNATURE	DATE
N/A	11/15/2010

RECEIVED November 15, 2010

API Well No: 43047511950000

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS, AND MINING

FORM 9

5.LEASE DESIGNATION AND SERIAL NUMBER: UO 1207 ST

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals.

6. IF INDIAN, ALLOTTEE OR TRIBE NAME:

7.UNIT or CA AGREEMENT NAME: NATURAL BUTTES

1. TYPE OF WELL Gas Well

8. WELL NAME and NUMBER: NBU 922-29G1DS

2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ONSHORE, L.P.

9. API NUMBER: 43047511950000

3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18th Street, Suite 600, Denver, CO, 80217 3779

PHONE NUMBER: 720 929-6007 Ext

9. FIELD and POOL or WILDCAT: NATURAL BUTTES

4. LOCATION OF WELL
FOOTAGES AT SURFACE: 1872 FNL 1970 FEL
QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: Qtr/Qtr: SWNE Section: 29 Township: 09.0S Range: 22.0E Meridian: S

COUNTY: UINTAH

STATE: UTAH

11. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION		
☐ NOTICE OF INTENT Approximate date work will start:	☐ ACIDIZE	☐ ALTER CASING	☐ CASING REPAIR
	☐ CHANGE TO PREVIOUS PLANS	☐ CHANGE TUBING	☐ CHANGE WELL NAME
☐ SUBSEQUENT REPORT Date of Work Completion:	☐ CHANGE WELL STATUS	☐ COMMINGLE PRODUCING FORMATIONS	☐ CONVERT WELL TYPE
	☐ DEEPEN	☐ FRACTURE TREAT	☐ NEW CONSTRUCTION
	☐ OPERATOR CHANGE	☐ PLUG AND ABANDON	☐ PLUG BACK
✓ SPUD REPORT Date of Spud: 11/5/2010	☐ PRODUCTION START OR RESUME	☐ RECLAMATION OF WELL SITE	☐ RECOMPLETE DIFFERENT FORMATION
	☐ REPERFORATE CURRENT FORMATION	☐ SIDETRACK TO REPAIR WELL	☐ TEMPORARY ABANDON
	☐ TUBING REPAIR	☐ VENT OR FLARE	☐ WATER DISPOSAL
☐ DRILLING REPORT Report Date:	☐ WATER SHUTOFF	☐ SI TA STATUS EXTENSION	☐ APD EXTENSION
	☐ WILDCAT WELL DETERMINATION	☐ OTHER	OTHER:

12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.

MIRU PETE MARTIN BUCKET RIG. DRILLED 20" CONDUCTOR HOLE TO 40'.
RAN 14" 36.7# SCHEDULE 10 CONDUCTOR PIPE. CMT W/ 28 SX READY MIX.
SPUD WELL LOCATION ON NOVEMBER 5, 2010 AT 14:00 HRS.

Accepted by the Utah Division of Oil, Gas and Mining
FOR RECORD ONLY
November 09, 2010

NAME (PLEASE PRINT)	PHONE NUMBER	TITLE
Gina Becker	720 929-6086	Regulatory Analyst II

SIGNATURE	DATE
N/A	11/9/2010

RECEIVED November 09, 2010

FORM 6

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

ENTITY ACTION FORM

Operator: KERR McGEE OIL & GAS ONSHORE LP

Operator Account Number: N 2995

Address: P.O. Box 173779

city DENVER

state CO zip 80217

Phone Number: (720) 929-6100

Well 1

API Number	Well Name		QQ	Sec	Twp	Rng	County
4304751195	NBU 922-29G1DS		SWNE	29	9S	22E	UINTAH
Action Code	**Current Entity Number**	**New Entity Number**	**Spud Date**			**Entity Assignment Effective Date**	
B	99999	2900	11/5/2010			11/10/10	

Comments: MIRU PETE MARTIN BUCKET RIG. WSMVD
SPUD WELL LOCATION ON 11/5/2010 AT 14:00 HRS. BHL = SWNE

Well 2

API Number	Well Name		QQ	Sec	Twp	Rng	County
Action Code	**Current Entity Number**	**New Entity Number**	**Spud Date**			**Entity Assignment Effective Date**	

Comments:

Well 3

API Number	Well Name		QQ	Sec	Twp	Rng	County
Action Code	**Current Entity Number**	**New Entity Number**	**Spud Date**			**Entity Assignment Effective Date**	

Comments:

ACTION CODES:

- A - Establish new entity for new well (single well only)
- B - Add new well to existing entity (group or unit well)
- C - Re-assign well from one existing entity to another existing entity
- D - Re-assign well from one existing entity to a new entity
- E - Other (Explain in 'comments' section)

GINA BECKER
Name (Please Print)

Signature

REGULATORY ANALYST
Title

11/9/2010
Date

RECEIVED
NOV 10 2010
DIV. OF OIL, GAS & MINING

(5/2000)

API Well No: 43047511950000

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS, AND MINING

FORM 9

5.LEASE DESIGNATION AND SERIAL NUMBER: UO 1207 ST

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals.

6. IF INDIAN, ALLOTTEE OR TRIBE NAME:

7.UNIT or CA AGREEMENT NAME: NATURAL BUTTES

1. TYPE OF WELL Gas Well

8. WELL NAME and NUMBER: NBU 922-29G1DS

2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ONSHORE, L.P.

9. API NUMBER: 43047511950000

3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18th Street, Suite 600, Denver, CO, 80217 3779

PHONE NUMBER: 720 929-6007 Ext

9. FIELD and POOL or WILDCAT: NATURAL BUTTES

4. LOCATION OF WELL
FOOTAGES AT SURFACE: 1872 FNL 1970 FEL
QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: Qtr/Qtr: SWNE Section: 29 Township: 09.0S Range: 22.0E Meridian: S

COUNTY: UINTAH

STATE: UTAH

11. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION		
☐ NOTICE OF INTENT Approximate date work will start:	☐ ACIDIZE	☐ ALTER CASING	☐ CASING REPAIR
	☐ CHANGE TO PREVIOUS PLANS	☐ CHANGE TUBING	☐ CHANGE WELL NAME
	☐ CHANGE WELL STATUS	☐ COMMINGLE PRODUCING FORMATIONS	☐ CONVERT WELL TYPE
☐ SUBSEQUENT REPORT Date of Work Completion:	☐ DEEPEN	☐ FRACTURE TREAT	☐ NEW CONSTRUCTION
	☐ OPERATOR CHANGE	☐ PLUG AND ABANDON	☐ PLUG BACK
☐ SPUD REPORT Date of Spud:	☐ PRODUCTION START OR RESUME	☐ RECLAMATION OF WELL SITE	☐ RECOMPLETE DIFFERENT FORMATION
	☐ REPERFORATE CURRENT FORMATION	☐ SIDETRACK TO REPAIR WELL	☐ TEMPORARY ABANDON
	☐ TUBING REPAIR	☐ VENT OR FLARE	☐ WATER DISPOSAL
✓ DRILLING REPORT Report Date: 11/12/2010	☐ WATER SHUTOFF	☐ SI TA STATUS EXTENSION	☐ APD EXTENSION
	☐ WILDCAT WELL DETERMINATION	☐ OTHER	OTHER:

12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.

MIRU PROPETRO AIR RIG ON NOVEMBER 10, 2010. DRILLED 11" SURFACE HOLE TO 2610'. RAN 8 5/8" 28# IJ-55 SURFACE CSG. PUMP 146 BBLS FRESH WATER. PUMP 20 BBLS GEL WATER. PUMP 325 SX CLASS G PREM LITE @ 15.8 PPG, 1.15 YD. DROP PLUG ON THE FLY, DISPLACED W/ 153 BBLS WATER. LOST RETURNS. SLOWED DOWN RATE, LIFT PRESSURE 400 PSI, BUMP PLUG & HOLD 850 PSI FOR 5 MIN. FLOAT HELD. TOP OUT W/ 65 SX SAME CEMENT. CEMENT TO SURFACE. WORT.

Accepted by the Utah Division of Oil, Gas and Mining
FOR RECORD ONLY
November 15, 2010

NAME (PLEASE PRINT)	PHONE NUMBER	TITLE
Gina Becker	720 929-6086	Regulatory Analyst II

SIGNATURE	DATE
N/A	11/15/2010

RECEIVED November 15, 2010

API Well No: 43047511950000

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS, AND MINING

FORM 9

5.LEASE DESIGNATION AND SERIAL NUMBER: UO 1207 ST

SUNDRY NOTICES AND REPORTS ON WELLS

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6. IF INDIAN, ALLOTTEE OR TRIBE NAME:

7.UNIT or CA AGREEMENT NAME: NATURAL BUTTES

1. TYPE OF WELL: Gas Well

8. WELL NAME and NUMBER: NBU 922-29G1DS

2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ONSHORE, L.P.

9. API NUMBER: 43047511950000

3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18th Street, Suite 600, Denver, CO, 80217 3779
PHONE NUMBER: 720 929-6007 Ext

9. FIELD and POOL or WILDCAT: NATURAL BUTTES

4. LOCATION OF WELL
FOOTAGES AT SURFACE: 1872 FNL 1970 FEL
QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: Qtr/Qtr: SWNE Section: 29 Township: 09.0S Range: 22.0E Meridian: S

COUNTY: UINTAH

STATE: UTAH

11. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION

- ☐ NOTICE OF INTENT
  Approximate date work will start:
- ✓ SUBSEQUENT REPORT
  Date of Work Completion: 1/4/2011
- ☐ SPUD REPORT
  Date of Spud:
- ☐ DRILLING REPORT
  Report Date:

TYPE OF ACTION

☐ ACIDIZE	☐ ALTER CASING	☐ CASING REPAIR
☐ CHANGE TO PREVIOUS PLANS	☐ CHANGE TUBING	☐ CHANGE WELL NAME
☐ CHANGE WELL STATUS	☐ COMMINGLE PRODUCING FORMATIONS	☐ CONVERT WELL TYPE
☐ DEEPEN	☐ FRACTURE TREAT	☐ NEW CONSTRUCTION
☐ OPERATOR CHANGE	☐ PLUG AND ABANDON	☐ PLUG BACK
☐ PRODUCTION START OR RESUME	☐ RECLAMATION OF WELL SITE	☐ RECOMPLETE DIFFERENT FORMATION
☐ REPERFORATE CURRENT FORMATION	☐ SIDETRACK TO REPAIR WELL	☐ TEMPORARY ABANDON
☐ TUBING REPAIR	☐ VENT OR FLARE	☐ WATER DISPOSAL
☐ WATER SHUTOFF	☐ SI TA STATUS EXTENSION	☐ APD EXTENSION
☐ WILDCAT WELL DETERMINATION	✓ OTHER	OTHER: ACTS PIT

12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.

FINISHED DRILLING FROM 2610' TO 9575' ON JANUARY 2, 2011. RAN 4 ½" 11.6# I-80 PRODUCTION CSG. PUMP 40 BBLS SPACER, LEAD CEMENT W/ 500 SX CLASS G PREM LITE @ 12.4 PPG, 1.93 YD. TAILED CEMENT W/ 1100 SX CLASS G 50/50 POZ MIX @ 14.3 PPG, 1.25 YD. DISPLACED W/ 147 BBLS WATER, BUMPED PLUG W/ 500 PSI OVER FINAL CIRC PSI OF 2650 & GOT 40 BBLS SPACER & 5 BBLS CEMENT. RD CEMENTERS AND CLEANED PITS. RELEASED ENSIGN RIG #139 ON JANUARY 4, 2011 @ 00:00 HRS. THE PIT ON THIS LOCATION WILL BE REFURBISHED AND UTILIZED AS PART OF THE ACTS SYSTEM.

Approved by the Utah Division of Oil, Gas and Mining
Date: 01/19/2011
By:

NAME (PLEASE PRINT)	PHONE NUMBER	TITLE
Gina Becker	720 929-6086	Regulatory Analyst II

SIGNATURE	DATE
N/A	1/5/2011

RECEIVED January 05, 2011

The Utah Division of Oil, Gas, and Mining

- State of Utah
- Department of Natural Resources

Electronic Permitting System - Sundry Notices

Sundry Conditions of Approval Well Number 43047511950000

A synthetic liner with a minimum thickness of 30 mils with a felt subliner shall be properly installed and maintained in the pit.

Approved by the
Utah Division of
Oil, Gas and Mining

Date: 01/19/2011

By:

API Well No: 43047511950000

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS, AND MINING

FORM 9

5.LEASE DESIGNATION AND SERIAL NUMBER: UO 1207 ST

SUNDRY NOTICES AND REPORTS ON WELLS

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6. IF INDIAN, ALLOTTEE OR TRIBE NAME:

7.UNIT or CA AGREEMENT NAME: NATURAL BUTTES

1. TYPE OF WELL Gas Well

8. WELL NAME and NUMBER: NBU 922-29G1DS

2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ONSHORE, L.P.

9. API NUMBER: 43047511950000

3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18th Street, Suite 600, Denver, CO, 80217 3779

PHONE NUMBER: 720 929-6515 Ext

9. FIELD and POOL or WILDCAT: NATURAL BUTTES

4. LOCATION OF WELL
FOOTAGES AT SURFACE: 1872 FNL 1970 FEL
QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: Qtr/Qtr: SWNE Section: 29 Township: 09.0S Range: 22.0E Meridian: S

COUNTY: UINTAH

STATE: UTAH

11. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION		
☐ NOTICE OF INTENT Approximate date work will start:	☐ ACIDIZE	☐ ALTER CASING	☐ CASING REPAIR
	☐ CHANGE TO PREVIOUS PLANS	☐ CHANGE TUBING	☐ CHANGE WELL NAME
☐ SUBSEQUENT REPORT Date of Work Completion:	☐ CHANGE WELL STATUS	☐ COMMINGLE PRODUCING FORMATIONS	☐ CONVERT WELL TYPE
	☐ DEEPEN	☐ FRACTURE TREAT	☐ NEW CONSTRUCTION
	☐ OPERATOR CHANGE	☐ PLUG AND ABANDON	☐ PLUG BACK
☐ SPUD REPORT Date of Spud:	✓ PRODUCTION START OR RESUME	☐ RECLAMATION OF WELL SITE	☐ RECOMPLETE DIFFERENT FORMATION
	☐ REPERFORATE CURRENT FORMATION	☐ SIDETRACK TO REPAIR WELL	☐ TEMPORARY ABANDON
	☐ TUBING REPAIR	☐ VENT OR FLARE	☐ WATER DISPOSAL
✓ DRILLING REPORT Report Date: 3/14/2011	☐ WATER SHUTOFF	☐ SI TA STATUS EXTENSION	☐ APD EXTENSION
	☐ WILDCAT WELL DETERMINATION	☐ OTHER	OTHER:

12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.

THE SUBJECT WELL WAS PLACED ON PRODUCTION ON MARCH 14, 2011 AT 1:30 P.M. THE CHRONOLOGICAL WELL HISTORY WILL BE SUBMITTED WITH THE WELL COMPLETION REPORT.

Accepted by the Utah Division of Oil, Gas and Mining

FOR RECORD ONLY

NAME (PLEASE PRINT)	PHONE NUMBER	TITLE
Gina Becker	720 929-6086	Regulatory Analyst II

SIGNATURE	DATE
N/A	3/15/2011

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

AMENDED REPORT ☐ (highlight changes)

FORM 8

WELL COMPLETION OR RECOMPLETION REPORT AND LOG

5. LEASE DESIGNATION AND SERIAL NUMBER: UO 1207 ST

6. IF INDIAN, ALLOTTEE OR TRIBE NAME:

1a. TYPE OF WELL: OIL WELL ☐ GAS WELL ☑ DRY ☐ OTHER

7. UNIT or CA AGREEMENT NAME: UTU63047A

b. TYPE OF WORK: NEW WELL ☑ HORIZ. LATS. ☐ DEEP-EN ☐ RE-ENTRY ☐ DIFF. RESVR. ☐ OTHER

8. WELL NAME and NUMBER: NBU 922-29G1DS

2. NAME OF OPERATOR: KERR MCGEE OIL & GAS ONSHORE, L.P.

9. API NUMBER: 4304751195

3. ADDRESS OF OPERATOR: P.O.BOX 173779 CITY DENVER STATE CO ZIP 80217

PHONE NUMBER: (720) 929-6100

10 FIELD AND POOL, OR WILDCAT: NATURAL BUTTES

4. LOCATION OF WELL (FOOTAGES)

AT SURFACE: SWNE 1872 FNL 1970 FEL S29, T9S, R22E

BHL reviewed by HSM

AT TOP PRODUCING INTERVAL REPORTED BELOW: SWNE 1821 FNL 1474 FEL S29, T9S, R22E

AT TOTAL DEPTH: SWNE 1854 FNL 1462 FEL S29, T9S, R22E

11. QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: SWNE 29 9S 22E S

12. COUNTY: UINTAH

13. STATE: UTAH

14. DATE SPUDDED: 11/5/2010

15. DATE T.D. REACHED: 1/2/2011

16. DATE COMPLETED: 3/14/2011 ABANDONED ☐ READY TO PRODUCE ☑

17. ELEVATIONS (DF, RKB, RT, GL): 5028 GL

18. TOTAL DEPTH: MD 9,575 TVD 9,528

19. PLUG BACK T.D.: MD 9,518 TVD 9,471

20. IF MULTIPLE COMPLETIONS, HOW MANY? *

21. DEPTH BRIDGE PLUG SET: MD TVD

22. TYPE ELECTRIC AND OTHER MECHANICAL LOGS RUN (Submit copy of each): CBL-RMTE

23.
WAS WELL CORED? NO ☑ YES ☐ (Submit analysis)
WAS DST RUN? NO ☑ YES ☐ (Submit report)
DIRECTIONAL SURVEY? NO ☐ YES ☑ (Submit copy)

24. CASING AND LINER RECORD (Report all strings set in well)

HOLE SIZE	SIZE/GRADE	WEIGHT (#/ft.)	TOP (MD)	BOTTOM (MD)	STAGE CEMENTER DEPTH	CEMENT TYPE & NO. OF SACKS	SLURRY VOLUME (BBL)	CEMENT TOP **	AMOUNT PULLED
20"	14" STL	36.7#		40		28			
11"	8 5/8" IJ-55	28#		2,593		417		0	
7 7/8"	4 1/2" I-80	11.6#		7,328		1,600		1020	
7 7/8"	4 1/2" P110	11.6#	7,328	9,561					

25. TUBING RECORD

SIZE	DEPTH SET (MD)	PACKER SET (MD)	SIZE	DEPTH SET (MD)	PACKER SET (MD)	SIZE	DEPTH SET (MD)	PACKER SET (MD)
2 3/8"	8,731							

26. PRODUCING INTERVALS

FORMATION NAME	TOP (MD)	BOTTOM (MD)	TOP (TVD)	BOTTOM (TVD)
(A) MESAVERDE	7,373	9,338		
(B) WSMVD				
(C)				
(D)				

27. PERFORATION RECORD

INTERVAL (Top/Bot - MD)	SIZE	NO. HOLES	PERFORATION STATUS
7,373 9,338	0.36	162	Open ☑ Squeezed ☐
			Open ☐ Squeezed ☐
			Open ☐ Squeezed ☐
			Open ☐ Squeezed ☐

28. ACID, FRACTURE, TREATMENT, CEMENT SQUEEZE, ETC.

DEPTH INTERVAL	AMOUNT AND TYPE OF MATERIAL
7373 - 9338	PUMP 10,338 BBLS SLICK H2O & 396,371 LBS SAND

RECEIVED
APR 27 2011
DIV. OF OIL, GAS & MINING

29. ENCLOSED ATTACHMENTS:

☐ ELECTRICAL/MECHANICAL LOGS ☐ GEOLOGIC REPORT ☐ DST REPORT ☑ DIRECTIONAL SURVEY
☐ SUNDRY NOTICE FOR PLUGGING AND CEMENT VERIFICATION ☐ CORE ANALYSIS ☐ OTHER:

30. WELL STATUS: PROD

(5/2000)

(CONTINUED ON BACK)

31. INITIAL PRODUCTION

INTERVAL A (As shown in item #26)

DATE FIRST PRODUCED:		TEST DATE:		HOURS TESTED:		TEST PRODUCTION RATES: →	OIL – BBL:	GAS – MCF:	WATER – BBL:	PROD. METHOD:
3/14/2011		4/2/2011		24			0	2,678	240	FLOWING
CHOKE SIZE:	TBG. PRESS.	CSG. PRESS.	API GRAVITY	BTU – GAS	GAS/OIL RATIO	24 HR PRODUCTION RATES: →	OIL – BBL:	GAS – MCF:	WATER – BBL:	INTERVAL STATUS:
20/64	1,339	1,755					0	2,678	240	PROD

INTERVAL B (As shown in item #26)

DATE FIRST PRODUCED:		TEST DATE:		HOURS TESTED:		TEST PRODUCTION RATES: →	OIL – BBL:	GAS – MCF:	WATER – BBL:	PROD. METHOD:
CHOKE SIZE:	TBG. PRESS.	CSG. PRESS.	API GRAVITY	BTU – GAS	GAS/OIL RATIO	24 HR PRODUCTION RATES: →	OIL – BBL:	GAS – MCF:	WATER – BBL:	INTERVAL STATUS:

INTERVAL C (As shown in item #26)

DATE FIRST PRODUCED:		TEST DATE:		HOURS TESTED:		TEST PRODUCTION RATES: →	OIL – BBL:	GAS – MCF:	WATER – BBL:	PROD. METHOD:
CHOKE SIZE:	TBG. PRESS.	CSG. PRESS.	API GRAVITY	BTU – GAS	GAS/OIL RATIO	24 HR PRODUCTION RATES: →	OIL – BBL:	GAS – MCF:	WATER – BBL:	INTERVAL STATUS:

INTERVAL D (As shown in item #26)

DATE FIRST PRODUCED:		TEST DATE:		HOURS TESTED:		TEST PRODUCTION RATES: →	OIL – BBL:	GAS – MCF:	WATER – BBL:	PROD. METHOD:
CHOKE SIZE:	TBG. PRESS.	CSG. PRESS.	API GRAVITY	BTU – GAS	GAS/OIL RATIO	24 HR PRODUCTION RATES: →	OIL – BBL:	GAS – MCF:	WATER – BBL:	INTERVAL STATUS:

32. DISPOSITION OF GAS (Sold, Used for Fuel, Vented, Etc.)

33. SUMMARY OF POROUS ZONES (Include Aquifers):

Show all important zones of porosity and contents thereof: Cored intervals and all drill-stem tests, including depth interval tested, cushion used, time tool open, flowing and shut-in pressures and recoveries.

34. FORMATION (Log) MARKERS:

Formation	Top (MD)	Bottom (MD)	Descriptions, Contents, etc.	Name	Top (Measured Depth)
GREEN RIVER	1,449				
BIRD'S NEST	1,834				
MAHOGANY	2,349				
WASATCH	4,790	7,360			
MESAVERDE	7,360	9,575	TD		

35. ADDITIONAL REMARKS (Include plugging procedure)

Attached is the chronological well history and final survey. Completion chrono details individual frac stages.

36. I hereby certify that the foregoing and attached information is complete and correct as determined from all available records.

NAME (PLEASE PRINT) GINA BECKER TITLE REGULATORY ANALYST

SIGNATURE DATE 4/19/2011

This report must be submitted within 30 days of

- completing or plugging a new well
- drilling horizontal laterals from an existing well bore
- recompleting to a different producing formation
- reentering a previously plugged and abandoned well
- significantly deepening an existing well bore below the previous bottom-hole depth
- drilling hydrocarbon exploratory holes, such as core samples and stratigraphic tests

* ITEM 20: Show the number of completions if production is measured separately from two or more formations.

** ITEM 24: Cement Top – Show how reported top(s) of cement were determined (circulated (CIR), calculated (CAL), cement bond log (CBL), temperature survey (TS)).

Send to: Utah Division of Oil, Gas and Mining
1594 West North Temple, Suite 1210
Box 145801
Salt Lake City, Utah 84114-5801

Phone: 801-538-5340

Fax: 801-359-3940

US ROCKIES REGION

Operation Summary Report

Well: NBU 922-29G1DS-RED	Spud Conductor: 11/5/2010	Spud Date: 11/10/2010
Project: UTAH-UINTAH	Site: NBU 922-29G PAD	Rig Name No: ENSIGN 139/139, PROPETRO/
Event: DRILLING	Start Date: 10/19/2010	End Date: 11/12/2010
Active Datum: RKB @5,043.00ft (above Mean Sea Level)	UWI: SW/NE/0/9/S/22/E/29/0/0/26/PM/N/1872/E/0/1970/0/0	

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (ft)	Operation
11/10/2010	0:00 - 6:00	6.00	MIRU	01	A	P		WAIT UNTIL DAYLIGHT DUE TO ROAD CONDITIONS
	6:00 - 19:30	13.50	MIRU	01	A	P		MOVE RIG ONTO LOCATION, DRESS TOP OF CONDUCTOR. INSTALL DIVERTER HEAD AND BOWIE LINE. BUILD DITCH. MOVE RIG OVER HOLE AND RIG UP.. SET CATWALK AND PIPE RACKS. RIG UP AND PRIME PIT PUMP AND MUD PUMP.
	19:30 - 20:00	0.50	PRPSPD	01	B	P		P/U 1.50 DEG BENT HOUSING HUNTING MTR SN 8080 . 7/8 LOBE .16 RPM. M/U Q506 SN 7023207 2ND RUN, W/ 6-18'S. INSTALL RUBBER.
	20:00 - 21:00	1.00	DRLSUR	02	A	P		SPUD SURFACE 11-10-2010 @ 20:00 HRS. DRILL 11" SURFACE HOLE F/40'-200' (160' @ 144'/HR) PSI ON/ OFF 690/410, UP/ DOWN/ ROT 27/22/25. 500 GPM, 45 RPM ON TOP DRIVE, 15-18K WOB
	21:00 - 0:00	3.00	DRLSUR	06	A	P		TOOH, PU AND ORIENT SCIENTIFIC DIR BHA, TIO TO 200'.
11/11/2010	0:00 - 1:00	1.00	DRLSUR	10	D	X		TROUBLE SHOOT MWD TOOL
	1:00 - 4:30	3.50	DRLSUR	02	C	P		DRILL/ SLIDE 11" SURFACE HOLE F/200'-440' (240' 68'/HR) PSI ON/ OFF 750/500, UP/ DOWN/ ROT 30/25/27. 130 SPM 18-20K WOB, 45 RPM ON TOP DRIVE. CIRCULATING RESERV PIT
	4:30 - 8:00	3.50	DRLSUR	06	H	X		TOOH, TROUBLE SHOOT DIR TOOL, REPLACE ANTENA, TIH T/440'
	8:00 - 0:00	16.00	DRLSUR	02	C	P		DRILL/ SLIDE 11" SURFACE HOLE F/440'-2210' (1710' 110'/HR) PSI ON/ OFF 1620/1350, UP/ DOWN/ ROT 72/67/69. 13 GPM/ 9GPM W/ AIR 18-20K WOB, 55 RPM ON TOP DRIVE. CIRCULATING RESERV PIT, DRLG W/ AIRIATED H20. LOST PARTIAL RETURNS @ 1550'
11/12/2010	0:00 - 5:30	5.50	DRLSUR	02	C	P		DRILL/ SLIDE 11" SURFACE HOLE F/2210'-2610' (400' 66'/HR) PSI ON/ OFF 1620/1350, UP/ DOWN/ ROT 72/67/69. 560 GPM/ 450 GPM W/ AIR 18-22K WOB, 55 RPM ON TOP DRIVE. CIRCULATING RESERV PIT, DRLG W/ AIRIATED H20. LOST PARTIAL RETURNS @ 1550'
	5:30 - 7:00	1.50	DRLSUR	05	A	P		CIRC AND COND HOLE CLEAN
	7:00 - 11:00	4.00	DRLSUR	06	A	P		TOOH, LDDS AND DIR BHA
	11:00 - 12:00	1.00	CSG	12	A	P		RU TO RUN CSG, MOVE PIPE RACKS AND CATWALK, MOVE CSG OVER TO WORK AREA
	12:00 - 15:30	3.50	CSG	12	C	P		HELD SAFETY MEETING, RUN CSG. RAN 58JTS OF 8-5/8", 28#, J-55, 8 RND CSG W/ LTC THREADS. LANDED FLOAT SHOE @ 2578' KB. RAN BAFFLE PLATE IN TOP OF SHOE JT LANDED 2531.88' KB. FILL CSG @ 500', 1500', AND 2500'.
	15:30 - 16:00	0.50	RDMO	01	E	P		RIG DOWN RIG, MOVE OFF WELL. RELEASE RIG 11/12/2010 @ 16:00 HRS.

US ROCKIES REGION

Operation Summary Report

Well: NBU 922-29G1DS-RED	Spud Conductor: 11/5/2010	Spud Date: 11/10/2010
Project: UTAH-UINTAH	Site: NBU 922-29G PAD	Rig Name No: ENSIGN 139/139, PROPETRO/
Event: DRILLING	Start Date: 10/19/2010	End Date: 11/12/2010
Active Datum: RKB @5,043.00ft (above Mean Sea Level)	UWI: SW/NE/0/9/S/22/E/29/0/0/26/PM/N/1872/E/0/1970/0/0	

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (ft)	Operation
	16:00 - 18:00	2.00	CSG	12	E	P		HOLD SAFETY MEETING. INSTALL CEMENT HEAD. PSI TEST TO 2000 PSI. PUMP 146 BBLS OF 8.3# H20 AHEAD. PARTIAL CIRC. PUMP 20 BBLS OF 8.4# GEL WATER AHEAD. PARTIAL CIRC. PUMP 325 SX (72 BBLS) OF 15.8# 1.15 YIELD TAIL(2% CALC, 1/4# /SK OF FLOCELE). PARTIAL CIRC. DROP PLUG ON FLY AND DISPLACE W/153 BBLS OF 8.3# H20. LOST RETURNS, SLOWED DOWN RATE, LIFT PRESSURE WAS 400 PSI, BUMP PLUG AND HOLD 850 PSI FOR 5 MIN. FLOAT HELD. TOP OUT, PUMP 65 SX (13 BBLS) OF 15.8# 1.15 YIELD TAIL(4 % CALC, 1/4# /SK OF FLOCELE). CMT TO SURFACE. RIG DOWN CEMENTERS AND RELEASE CEMENTERS 18:00 HRS. CONDUCTOR CASING: Cond. Depth set: 40' Cement sx used: 28 SPUD DATE/TIME: 11-10-2010 @ 20:00 SURFACE HOLE: Surface From depth: 40' Surface To depth: 2,610 Total SURFACE hours: 26 Surface Casing size: 8.625" # of casing joints ran: 58 Casing set MD: 2,578.00' # sx of cement: 352 SKS, (72BBLS)TAIL, 65 SKS (13 BBLS)TOP OUT Cement blend (ppg:) 15.8# ON TAIL CMTS Cement yield (ft3/sk): # of bbls to surface:0 BBL Describe cement issues: PARTIAL CIRC DURING CMT JOB Describe hole issues: NO MAJOR ISSUES, LOST PARTIAL CIRC @ 1550'
12/28/2010	6:00 - 8:00	2.00	MIRU	01	C	P		SKID RIG 10' TO NBU922-29G1DS
	8:00 - 10:30	2.50	PRPSPD	14	A	P		NUBOP,R/U FLOW,FLARE LINES,V-DOOR CATWALK
	10:30 - 11:30	1.00	PRPSPD	07	C	P		RIG SERVICE CHANGE SAVOR SUB
	11:30 - 13:30	2.00	PRPSPD	09	A	P		SLIP & CUT 121' DRLG LINE
	13:30 - 14:00	0.50	PRPSPD	23		P		PRE SPUD SAFETY INSPECTION
	14:00 - 20:30	6.50	PRPSPD	15	A	P		TEST BOP RAMS,CHOKE,MANIFOLD,KILLINE,FLOOR VALVES 5K,ANNULAR 2.5K,CSG 1.5K F/30 MIN ,250 LOWS FOR ALL,HAD TO REPLACE BOP O-RING ON STACK
	20:30 - 21:00	0.50	PRPSPD	14	B	P		INSTALL WEARRING,CELLAR COVERS
	21:00 - 0:00	3.00	PRPSPD	06	A	P		P/U BHA #1,SCRIBE DIR TOOLS ,TIH
12/29/2010	0:00 - 1:00	1.00	PRPSPD	06	A	P		TIH W/BHA #1,TO TOP OF CEMENT 2480'
	1:00 - 9:00	8.00	PRPSPD	08	A	Z		WORK ON PUMPS HAD RUBBER UNDER VALVES,ALSO WORK ON IRON DERRICK HAND BECAUSE SHOE WILL NOT OPEN
	9:00 - 10:00	1.00	DRLPRO	02	F	P		DRILL CEMENT & FE F 2480 TO 2620'

US ROCKIES REGION

Operation Summary Report

Well: NBU 922-29G1DS-RED	Spud Conductor: 11/5/2010	Spud Date: 11/10/2010
Project: UTAH-UINTAH	Site: NBU 922-29G PAD	Rig Name No: ENSIGN 139/139, PROPETRO/
Event: DRILLING	Start Date: 10/19/2010	End Date: 11/12/2010
Active Datum: RKB @5,043.00ft (above Mean Sea Level)	UWI: SW/NE/0/9/S/22/E/29/0/0/26/PM/N/1872/E/0/1970/0/0	

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (ft)	Operation
	10:00 - 13:30	3.50	DRLPRO	02	D	P		SPUD 7.875 HOLE @10:00 AM ,DIRDRILL F/2620 TO 3211=591,AVG 169 FT/HR,WOB 18/20,RPM 40/114,TORQ 4/8K,PSI 1100/1550,STKS 102,GPM 504,BOP DRILL,,CIRC RES PIT,SLIDE 55' 8%,
	13:30 - 14:00	0.50	DRLPRO	07	A	P		RIG SERVICE
	14:00 - 0:00	10.00	DRLPRO	02	D	P		DIR DRILL F/3211 TO 4660 =1449 ,AVG 145 FT/HR,WOB 18/20,RPM 40/114,TORQ 4/8K,PSI 1100/1550,STKS 100,GPM 494,BOP DRILL MORNING TOUR,CIRC RES PIT
12/30/2010	0:00 - 13:30	13.50	DRLPRO	02	D	P		DIR DRILL F/4660 TO 6375 =1715 ,AVG 127 FT/HR,WOB 20,RPM 40/114,TORQ 9-11K,PSI 11500/1950,STKS 96,GPM 475,SLIDE 50' 3.5%,LT MUD UP @ 6000' F/LOSSES,8.8#/38
	13:30 - 14:00	0.50	DRLPRO	07	A	P		RIG SERVICE
	14:00 - 23:00	9.00	DRLPRO	02	D	P		DIR DRILL F/ 6375 TO 6917 =542 ,AVG 60 FT/HR,WOB 20,RPM 40/114,TORQ 9-11K,PSI 11500/1950,STKS 96,GPM 475,SLIDE 50' 3.5,10.0/40 5%
	23:00 - 0:00	1.00	DRLPRO	08	A	Z		IRON DERRICKHAND WILL NOT RELEASE AGAIN
12/31/2010	0:00 - 0:30	0.50	DRLPRO	08	A	Z		WORK ON IDH
	0:30 - 2:00	1.50	DRLPRO	02	D	P		DIR DRILL F/6917 TO 7009 =92 ,AVG 61 FT/HR,WOB 20,RPM 40/114,TORQ 9-11K,PSI 11500/1950,STKS 96,GPM 475,SLIDE 50' 3.5,10.0/40 5%
	2:00 - 3:00	1.00	DRLPRO	08	A	Z		WORK ON IDH
	3:00 - 8:00	5.00	DRLPRO	02	D	P		DIR DRILL F/ 7009 TO 7280=271 ,AVG 54 FT/HR,WOB 20,RPM 40/114,TORQ 9-11K,PSI 11500/1950,STKS 96,GPM 475,SLIDE 50' 3.5,10.3/37 7%LCM
	8:00 - 16:00	8.00	DRLPRO	08	A	Z		SPOT CRAIN,CHANGE PUMP POD ,OBS- THEN WAIT ON AND CHANGE IDH SHOE
	16:00 - 0:00	8.00	DRLPRO	02	D	P		DIR DRILL F/7280 TO 7820=540 ,AVG 68 FT/HR,WOB 20,RPM 40/114,TORQ 9-11K,PSI 11500/1950,STKS 96,GPM 475,SLIDE 50' 3.5,11.1/ 7%LCM
1/1/2011	0:00 - 17:30	17.50	DRLPRO	02	D	P		DIR DRILL F/7820 TO 8730 =910 ,AVG 5 FT/HR,WOB 20,RPM 40/100,TORQ 9-11K,PSI 1800/2200,STKS 90,GPM 440,SLIDE ,11.3/ 42 15%LCM
	17:30 - 18:00	0.50	DRLPRO	07	A	P		RIG SERVICE
	18:00 - 0:00	6.00	DRLPRO	02	D	P		DIR DRILL F/8730 TO 9030 =300 ,AVG 50 FT/HR,WOB 20,RPM 40/100,TORQ 9-11K,PSI 1900/2300,STKS 90,GPM 440,SLIDE ,11.8/ 44 15%LCM
1/2/2011	0:00 - 14:30	14.50	DRLPRO	02	D	P		DIR DRILL F/9030 TO 9454 = 424 ,AVG 29.2 FT/HR,WOB 20,RPM 40/100,TORQ 9-11K,PSI 1900/2400,STKS 84,GPM 420,SLIDE 0% ,12.0/ 44 - 18%LCM
	14:30 - 15:00	0.50	DRLPRO	07	A	P		RIG SER
	15:00 - 18:30	3.50	DRLPRO	02	D	P		DIR DRILL F/ 9454 TO 9575 = 121 ,AVG 34.5 FT/HR,WOB 20,RPM 40/100,TORQ 9-11K,PSI 1900/2400,STKS 84,GPM 420,SLIDE 0% ,12.0/ 44 - 18%LCM
	18:30 - 19:30	1.00	DRLPRO	05	A	P		CIRC BTM UP
	19:30 - 0:00	4.50	DRLPRO	06	E	P		SHORT TO SHOE (TIGHT SPOT @ 5861 & 4762
1/3/2011	0:00 - 10:00	10.00	DRLPRO	06	E	P		WIPER TRIP TO THE SHOE
	10:00 - 12:00	2.00	DRLPRO	05	A	P		CIRC BTM UP TWICE
	12:00 - 0:00	12.00	DRLPRO	06	D	P		L.D.D.P & BHA
1/4/2011	0:00 - 3:00	3.00	DRLPRO	06	A	P		L.D.D.P & BHA

US ROCKIES REGION

Operation Summary Report

Well: NBU 922-29G1DS-RED	Spud Conductor: 11/5/2010	Spud Date: 11/10/2010
Project: UTAH-UINTAH	Site: NBU 922-29G PAD	Rig Name No: ENSIGN 139/139, PROPETRO/
Event: DRILLING	Start Date: 10/19/2010	End Date: 11/12/2010
Active Datum: RKB @5,043.00ft (above Mean Sea Level)	UWI: SW/NE/0/9/S/22/E/29/0/0/26/PM/N/1872/E/0/1970/0/0	

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (ft)	Operation
	3:00 - 3:30	0.50	DRLPRO	14	B	P		PULL WEAR BUSHING
	3:30 - 15:00	11.50	DRLPRO	12	C	P		HELD S/M R/U FRANKS CSG CREW & RUN 226 JTS PLUS 2 MARKERS PROD CASING SHOE SET @ 9544 F/C @ 9502
	15:00 - 18:00	3.00	DRLPRO	12	E	P		HELD SAFETY MEETING W/ HALLIBURTON - & TEST LINES 5000 PSI CEMENT W/ 40 BBLS WATER AHEAD & 500 SKS LEAD @ 12.4 PPG YIELD 1.93 & F/ TAIL 1100 SKS @ 14.3 YIELD 1.25 & DISPLACED W/ 147 BBLS WATER BUMP PLUG W/ 500 PSI OVER FINAL CIRC PSI OF 2650 & GOT 40 BBL SPACER & 5 BBLS CEMENT
	18:00 - 23:59	5.98	DRLPRO	14	A	P		FLUSH OUT STACK & N/D & SET SLIPS 85K & CUT OFF & WASH CLEAN OUT MUD TANKS & RELEASED RIG @ 00:00 HRS ON 1/4/2011

US ROCKIES REGION

Operation Summary Report

Well: NBU 922-29G1DS-RED	Spud Conductor: 11/5/2010	Spud Date: 11/10/2010
Project: UTAH-UINTAH	Site: NBU 922-29G PAD	Rig Name No: ENSIGN 139/139, PROPETRO/
Event: DRILLING	Start Date: 10/19/2010	End Date: 11/12/2010
Active Datum: RKB @5,043.00ft (above Mean Sea Level)	UWI: SW/NE/0/9/S/22/E/29/0/0/26/PM/N/1872/E/0/1970/0/0	

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (ft)	Operation
	23:59 - 23:59	0.00	DRLPRO					CONDUCTOR CASING: Cond. Depth set: 40 Cement sx used: 28 SPUD DATE/TIME: 11/10/2010 20:00 SURFACE HOLE: Surface From depth: 40 Surface To depth: 2,610 Total SURFACE hours: 26.00 Surface Casing size: 8 5/8 # of casing joints ran: 58 Casing set MD: 2,578.0 # sx of cement: 417 Cement blend (ppg:) 11# 15.8# Cement yield (ft3/sk): 3.82/1.15 # of bbls to surface: 0 Describe cement issues: PARTAIL RETURNS Describe hole issues: NONE PRODUCTION: Rig Move/Skid start date/time: 12/28/2010 6:00 Rig Move/Skid finish date/time: 12/28/2010 8:00 Total MOVE hours: 2.0 Prod Rig Spud date/time: 12/29/2010 9:00 Rig Release date/time: 1/4/2011 23:59 Total SPUD to RR hours: 159.0 Planned depth MD 9,544 Planned depth TVD 9,497 Actual MD: 9,575 Actual TVD: 9,479 Open Wells $: $766,251 AFE $: $738,112 Open wells $/ft: $80.03 PRODUCTION HOLE: Prod. From depth: 2,620 Prod. To depth: 9,575 Total PROD hours: 92 Log Depth: NO LOGS Float Collar Top Depth: 9502 Production Casing size: 4 1/2 # of casing joints ran: 228 Casing set MD: 9,561.0 Stage 1 # sx of cement: 500 LEAD-1100 TAIL Cement density (ppg:) 12.4/14.3 Cement yield (ft3/sk): 2.03/1.25 Stage 2 # sx of cement: Cement density (ppg:) Cement yield (ft3/sk): Top Out Cmt # sx of cement: Cement density (ppg:) Cement yield (ft3/sk): Est. TOC (Lead & Tail) or 2 Stage : 0/4200 Describe cement issues: Describe hole issues: DIRECTIONAL INFO: KOP: 249 Max angle: 13.48 Departure: 505.00 Max dogleg MD: 2.64@603'

US ROCKIES REGION

Operation Summary Report

Well: NBU 922-29G1DS-RED	Spud Conductor: 11/5/2010	Spud Date: 11/10/2010
Project: UTAH-UINTAH	Site: NBU 922-29G PAD	Rig Name No: MILES 3/3
Event: COMPLETION	Start Date: 2/4/2011	End Date: 3/15/2011
Active Datum: RKB @5,043.00ft (above Mean Sea Level)	UWI: SW/NE/0/9/S/22/E/29/0/0/26/PM/N/1872/E/0/1970/0/0	

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (ft)	Operation
3/7/2011	6:30 - 7:00	0.50	COMP	48		P		MIRU CUTTERS WIRELINE & SUPERIOR WELL SERVICE. HSM & JSA
	7:00 - 7:50	0.83	COMP	37	B	P		07:00 - OPEN WELL. WHP = 0 PSI. PERF STG 1) PU 3 1/8 EXP GUN, 23 GM, 0.36 HOLE SIZE, 120 DEG PHASING. RIH & PERF MV F/ 9071-72, 3 SPF, 3 HOLES. 9086-87, 3 SPF, 3 HOLES. 9301-04, 3 SPF, 9 HOLES. 9336-38, 3 SPF, 6 HOLES. 21 HOLES. POOH, X-OVER FOR FRAC CREW.
	17:47 - 18:48	1.02	COMP	36	E	P		07:50 - PT SURFACE EQUIP. TO 8000 PSI. 17:47 OPEN WELL FRAC STG 1) WHP 238 PSI, BRK DWN 3.7 BPM @ 3911 PSI. ISIP 2788 PSI, FG 0.74, PMP 6 BBLS 15% HCL, PMP 149 BBLS 10/M SCALE INHIBITOR. PUMP 269 BBLS @ 45.7 BPM @ 6344 PSI, 17/21 PERFS OPEN = 81% [60 BBLS PMPD - SD - REPAIR CHICKSAN LEAK - DWN 10 MIN] [107 BBLS PMPD - SD - REPAIR CHICKSAN LEAK - SAME - DWN 20 MIN] MP 6663 PSI, MR 49.3 BPM, AP 5451 PSI, AR 46.3 BPM, ISIP 2611 PSI, FG 0.72, NPI (-177) PSI. PMP 1142 BBLS SW & 31,733 LBS OF 30/50 SND & 5,280 LBS OF 20/40 SLC SND. TOTAL PROP 37,013 LBS, SWI, 18:48 X-OVER FOR WL. SWI - SDFN. FREEZE PROTECT WH. PREP TO PERFORATE IN AM.
3/8/2011	6:30 - 7:00	0.50	COMP	48		P		HSM & JSA W/SUPERIOR WELL SERVICE
	7:00 - 8:50	1.83	COMP	37		P		07:00 OPEN WELL PERF STG 2) PU 4 1/2 8K HAL CBP & 3 1/8 EXP GUN, 23 GM, 0.36 HOLE SIZE. 120 DEG PHASING. RIH SET CBP @ 9,038', P/U & PERF MV F/ 9006 08, 3 SPF, 6 HOLES. 8887-88, 3 SPF, 3 HOLES. 8870-72, 3 SPF, 6 HOLES. 8817-18, 3 SPF, 3 HOLES. 8801-02, 3 SPF, 3 HOLES. 8761-62, 3 SPF, 3 HOLES. 24 HOLES. POOH, X-OVER FOR FRAC CREW.
	9:10 - 9:47	0.62	COMP	36	E	P		09:10 OPEN WELL FRAC STG 2) WHP 1879 PSI, BRK DWN 3.8 BPM @ 2792 PSI. ISIP 2222 PSI, FG 0.69. PUMP 196 BBLS @ 50.4 BPM @ 5979 PSI. 18/24 PERFS OPEN = 77% MP 6517 PSI, MR 50.9 BPM, AP 5403 PSI, AR 47 BPM, ISIP 2742 PSI, FG 0.75, NPI 520 PSI. PMP 1436 BBLS SW & 54,667 LBS OF 30/50 SND & 5,295 LBS OF 20/40 SLC SND. TOTAL PROP 59,962 LBS, SWI, 09:47 X-OVER FOR WL.

Operation Summary Report

Well: NBU 922-29G1DS-RED	Spud Conductor: 11/5/2010	Spud Date: 11/10/2010
Project: UTAH-UINTAH	Site: NBU 922-29G PAD	Rig Name No: MILES 3/3
Event: COMPLETION	Start Date: 2/4/2011	End Date: 3/15/2011
Active Datum: RKB @5,043.00ft (above Mean Sea Level)	UWI: SW/NE/0/9/S/22/E/29/0/0/26/PM/N/1872/E/0/1970/0/0	

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (ft)	Operation
	9:47 - 10:30	0.72	COMP	37	B	P		PERF STG 3) PU 4 1/2 8K HAL CBP & 3 1/8 EXP GUN, 23 GM, 0.36 HOLE SIZE. 120 DEG PHASING. RIH SET CBP @ 8,745, P/U & PERF MV F/ 8713-15, 3 SPF, 6 HOLES. 8670-71, 3 SPF, 3 HOLES. 8601-02, 3 SPF, 3 HOLES. 8562-63, 3 SPF, 3 HOLES. 8522-23, 3 SPF, 3 HOLES. 8464-65, 3 SPF, 3 HOLES. 21 HOLES. POOH, X-OVER FOR FRAC CREW
	11:39 - 12:38	0.98	COMP	36	E	P		11:39 OPEN WELL FRAC STG 3) WHP 1130 PSI, BRK DWN 3.9 BPM @ 3424 PSI. ISIP 2372 PSI, FG 0.71. PUMP 157 BBLS @ 44.6 BPM @ 5435 PSI. 18/21 PERFS OPEN = 86%5 [261 BBLS PMPD - SD - REPAIR SUCTION HOSE ON 1 PMP - DWN 5] [381 BBLS PMPD - SD - REPAIR CHICKSAN LEAK IN LINE - DWN 18 MIN.] MP 6474 PSI, MR 48.4 BPM, AP 5953 PSI, AR 46.1 BPM, ISIP 2192 PSI, FG 0.69, NPI (-180) PSI. PMP 1277 BBLS SW & 43,306 LBS OF 30/50 SND & 5,060 LBS OF 20/40 SLC SND. TOTAL PROP 48,266 LBS, SWI, 12:38 X-OVER FOR WL.
	12:38 - 13:30	0.87	COMP	37	B	P		PERF STG 4) PU 4 1/2 8K HAL CBP & 3 1/8 EXP GUN, 23 GM, 0.36 HOLE SIZE. 120 DEG PHASING. RIH SET CBP @ 8,428', P/U & PERF MV F/ 8397-98, 3 SPF, 3 HOLES. 8359-60, 3 SPF, 3 HOLES. 8317-18, 3 SPF, 3 HOLES. 8275-76, 3 SPF, 3 HOLES. 8223-24, 3 SPF, 3 HOLES. 8193-94, 3 SPF, 3 HOLES. 8177-78, 3 SPF, 3 HOLES. 8164-65, 3 SPF, 3 HOLES. 24 HOLES. POOH, X-OVER FOR FRAC CREW.
	15:24 - 16:44	1.33	COMP	36	E	P		15:24 OPEN WELL FRAC STG 4) WHP 1928 PSI, BRK DWN 4.7 BPM @ 3466 PSI. ISIP 2165 PSI, FG 0.70. PUMP 165 BBLS @ 47.4 BPM @ 5209 PSI. 20/24 PERFS OPEN = 82% [AFTER B/D - SD - CHANGE OUT GROUND VALVE - DWN 45 MIN.] MP 5751 PSI, MR 48.5 BPM, AP 4796 PSI, AR 47.7 BPM, ISIP 2616 PSI, FG 0.75, NPI 451 PSI. PMP 1286 BBLS SW & 44,768 LBS OF 30/50 SND & 5,060 LBS OF 20/40 SLC SND. TOTAL PROP 49,828 LBS, SWI, 16:44 X-OVER FOR WL.
	16:44 - 17:30	0.77	COMP	37	B	P		PERF STG 5) PU 4 1/2 8K HAL CBP & 3 1/8 EXP GUN, 23 GM, 0.36 HOLE SIZE. 90 DEG PHASING. RIH SET CBP @ 8,048', P/U & PERF MV F/ 7946-48, 4 SPF, 8 HOLES. 7936-38, 4 SPF, 8 HOLES. 7856-57, 4 SPF, 4 HOLES. 7834-35, 4 SPF, 4 HOLES. 24 HOLES. POOH, X-OVER FOR FRAC CREW. SWI - SDFN. FREEZE PROTECT WH. PREP TO FRAC IN AM.
3/9/2011	7:30 - 8:00	0.50	COMP	48		P		HSM & JSA W/SUPERIOR WELL SERVICE

US ROCKIES REGION

Operation Summary Report

Well: NBU 922-29G1DS-RED	Spud Conductor: 11/5/2010	Spud Date: 11/10/2010
Project: UTAH-UINTAH	Site: NBU 922-29G PAD	Rig Name No: MILES 3/3
Event: COMPLETION	Start Date: 2/4/2011	End Date: 3/15/2011
Active Datum: RKB @5,043.00ft (above Mean Sea Level)	UWI: SW/NE/0/9/S/22/E/29/0/0/26/PM/N/1872/E/0/1970/0/0	

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (ft)	Operation
	8:18 - 8:47	0.48	COMP	36	E	P		08:18 OPEN WELL FRAC STG 5) WHP 1514 PSI, BRK DWN 3.9 BPM @ 3179 PSI. ISIP 2118 PSI, FG 0.71. PUMP 111 BBLS @ 49.3 BPM @ 5012 PSI. 21/24 PERFS OPEN = 89% MP 5931 PSI, MR 50.9 BPM, AP 4692 PSI, AR 49.3 BPM, ISIP 2475 PSI, FG 0.75, NPI 357 PSI. PMP 892 BBLS SW & 27,933 LBS OF 30/50 SND & 5,179 LBS OF 20/40 SLC SND. TOTAL PROP 33,112 LBS, SWI, 08:47 X-OVER FOR WL.
	8:47 - 9:35	0.80	COMP	37	B	P		PERF STG 6) PU 4 1/2 8K HAL CBP & 3 1/8 EXP GUN, 23 GM, 0.36 HOLE SIZE. 120 DEG PHASING. RIH SET CBP @ 7,784', P/U & PERF MV F/ 7704-05, 3 SPF, 3 HOLES. 7664-66, 3 SPF, 6 HOLES. 7642-43, 3 SPF, 3 HOLES. 7577-80, 3 SPF, 9 HOLES. 7560-61, 3 SPF, 3 HOLES. 24 HOLES. POOH, X-OVER FOR FRAC CREW.
	10:32 - 11:25	0.88	COMP	36	E	P		10:32 OPEN WELL FRAC STG 6) WHP 135 PSI, BRK DWN 4.7 BPM @ 3088 PSI. ISIP 1271 PSI, FG 0.61. PUMP 310 BBLS @ 50.1 BPM @ 4776 PSI. 18/24 PERFS OPEN = 77% MP 5381 PSI, MR 52.30 BPM, AP 4614 PSI, AR 51 BPM, ISIP 2182 PSI, FG 0.72, NPI 911 PSI. PMP 2461 BBLS SW & 92,212 LBS OF 30/50 SND & 5,288 LBS OF 20/40 SLC SND. TOTAL PROP 97,500 LBS, SWI, 11:25 X-OVER FOR WL.
	11:25 - 12:10	0.75	COMP	37	B	P		PERF STG 7) PU 4 1/2 8K HAL CBP & 3 1/8 EXP GUN, 23 GM, 0.36 HOLE SIZE. 90 DEG PHASING. RIH SET CBP @ 7,509', P/U & PERF MV F/ 7477-79, 4 SPF, 8 HOLES. 7418-19, 4 SPF, 4 HOLES. 7407-09, 4 SPF, 8 HOLES. 7373-74, 4 SPF, 4 HOLES. 24 HOLES. POOH, X-OVER FOR FRAC CREW
	17:51 - 18:34	0.72	COMP	36	E	P		17:51 OPEN WELL FRAC STG 7) WHP 1537 PSI, BRK DWN 4.6 BPM @ 2047 PSI. ISIP 1574 PSI, FG 0.65. PUMP 247 BBLS @ 51.1 BPM @ 5294 PSI. 18/24 PERFS OPEN = 75% MP 6609 PSI, MR 51.9 BPM, AP 5512 PSI, AR 51 BPM, ISIP 2393 PSI, FG 0.76, NPI 819 PSI. PMP 1845 BBLS SW & 68,491 LBS OF 30/50 SND & 2,253 LBS OF 20/40 SLC SND. TOTAL PROP 70,744 LBS, SWI, 18:34 X-OVER FOR WL.

US ROCKIES REGION

Operation Summary Report

Well: NBU 922-29G1DS-RED	Spud Conductor: 11/5/2010	Spud Date: 11/10/2010
Project: UTAH-UINTAH	Site: NBU 922-29G PAD	Rig Name No: MILES 3/3
Event: COMPLETION	Start Date: 2/4/2011	End Date: 3/15/2011
Active Datum: RKB @5,043.00ft (above Mean Sea Level)	UWI: SW/NE/0/9/S/22/E/29/0/0/26/PM/N/1872/E/0/1970/0/0	

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (ft)	Operation
	18:34 - 19:15	0.68	COMP	34	I	P		KILL PLG) PU 4 1/2 8K HALCO CBP, RIH SET CBP @ 7,323'. POOH & LD TOOLS. SWI - RD CUTTERS WL & SUPERIOR FRAC. 19:20 SDFN. PREP WELL TO RIH W/BHA & D/O CBPs. TOTAL WATER USED 10,338 BBLS TOTAL 30/50 SAND USED 363,110 LBS TOTAL 20/40 RCS USED 33,261 LBS TOTAL SCALE INHIBITOR USED 866 GAL TOTAL BIOCIDE USED 211 GAL
3/14/2011	7:00 - 7:15	0.25	COMP	48		P		JSA- ROADING RIG. RUSU. PU TBG.
	7:15 - 11:30	4.25	COMP	30	A	P		ROAD RIG AND EQUIP FROM NBU 921-27L PAD TO LOCATION. ALL SURFACE CSG VALVES WERE OPEN. SPOT AND RUSU. ND WH. NU BOP. RU FLOOR. SPOT IN TBG TRAILER.
	11:30 - 16:30	5.00	COMP	31	I	P		MU 3-7/8" BIT, POBS, 1.87" XN. PUSH THRU WELLHEAD. RIH AS MEAS AND PU 232-JTS 2-3/8" L-80 TBG. TAG AT 7330'. LD 2-JTS. RU DRLG EQUIP. HAVE 231-JTS IN, EOT AT 7294'. SDFN
3/15/2011	7:00 - 7:15	0.25	COMP	48		P		JSA- PRES TEST. D/O PLUGS. LD TBG. NU WH.

US ROCKIES REGION

Operation Summary Report

Well: NBU 922-29G1DS-RED	Spud Conductor: 11/5/2010	Spud Date: 11/10/2010
Project: UTAH-UINTAH	Site: NBU 922-29G PAD	Rig Name No: MILES 3/3
Event: COMPLETION	Start Date: 2/4/2011	End Date: 3/15/2011
Active Datum: RKB @5,043.00ft (above Mean Sea Level)	UWI: SW/NE/0/9/S/22/E/29/0/0/26/PM/N/1872/E/0/1970/0/0	

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (ft)	Operation
	7:15 - 16:00	8.75	COMP	44	C	P		HOOK UP PMP LINES. FILL TBG AND PRES TEST TO 2500#. GOOD. EST CIRC AND D/O PLUGS. #1- C/O 17' SAND TO CBP AT 7340'. D/O IN 18 MIN. 300# INC. RIH. #2- C/O 30' SAND TO CBP AT 7509'. D/O IN 6 MIN. 400# INC. RIH. #3- C/O 35' SAND TO CBP AT 7740'. D/O IN 5 MIN. 100# INC. RIH. #4- C/O 30' SAND TO CBP AT 7978'. D/O IN 6 MIN. 500# INC. RIH. #5- C/O 30' SAND TO CBP AT 8428'. D/O IN 5 MIN. 400# INC. RIH. #6- C/O 30' SAND TO CBP AT 8745'. D/O IN 5 MIN. 300# INC. RIH. #7- C/O 38' SAND TO CBP AT 9046'. D/O IN 5 MIN. 400# INC. RIH. PBTD- C/O 90' SAND TO PBTD AT 9506' W/ 301-JTS IN, (168' RATHOLE). CIRC CLEAN. RD PWR SWIVEL. POOH W/ 25-JTS. PU 4" 10K HANGER. LUB IN AND LAND 276-JTS 2-3/8" L-80 TBG W/ EOT AT 8730.47'. RD FLOOR. ND BOP. NU WH. POBS AT 2600#. SITP 800, SICP 2000, SURFACE CSG OPEN. HOOK UP TO HAL 9000 AND TURN OVER TO FBC AND SALES. RDSU. MOVE OVER TO 29G1AS. RUSU. SURFACE CSG VALVE OPEN. ND WH. NU BOP. RU FLOOR. SDFN. TBG DETAIL KB 14.00 4" 10K HANGER .83 276-JTS 2-3/8" L-80 8713.44 1.87" XN 2.20 EOT 8730.47 315 JTS DELIVERED, 2 JTS BAD 37-JTS RETURNED. TWTR 10,338 / TWR 2200 / LTR 8138
	13:30 - 13:30	0.00	PROD	50				WELL TURNED TO SALES @ 1330 HR ON 3/15/11 - 1000 MCFD, 1920 BWPD, CP 2100#, FTP 1900#, CK 20/64"

Scientific Drilling
Rocky Mountain Operations

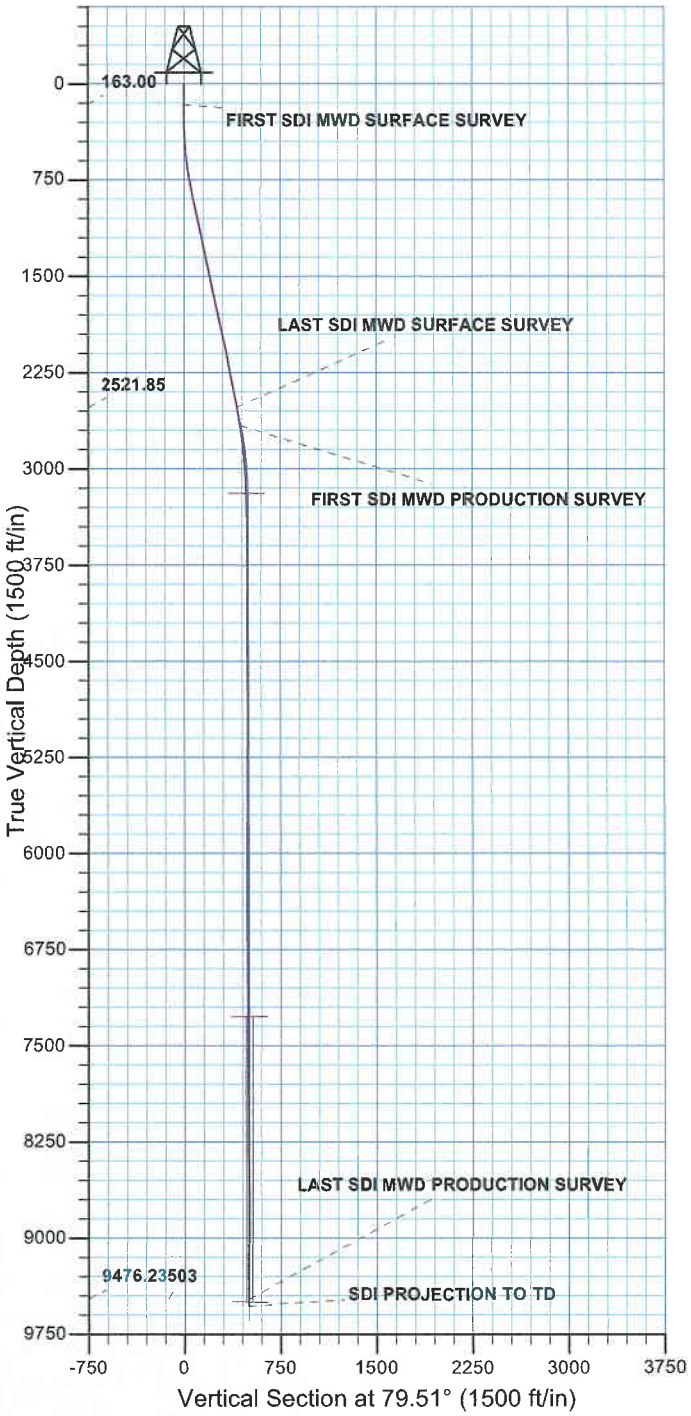
Project: Uintah County, UT UTM12
Site: NBU 922-29G Pad
Well: NBU 922-29G1DS
Wellbore: OH
Design: OH

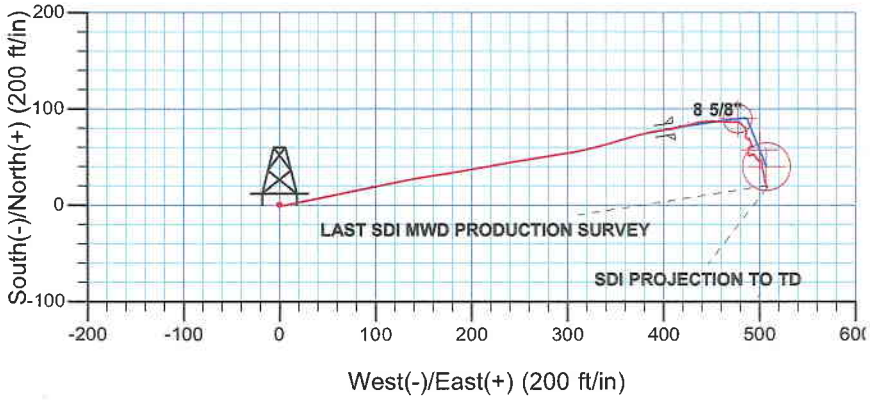
Anadarko Petroleum Corporation

WELL DETAILS: NBU 922-29G1DS					
GL 5029' & RKB 14' @ 5043.00ft (ENSIGN 139)					
+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
0.00	0.00	14533105.04	2071438.64	40° 0' 33.001 N	109° 27' 38.819 W

Azimuths to True North
Magnetic North: 11.14°

Magnetic Field
Strength: 52398.2snT
Dip Angle: 65.90°
Date: 11/10/2010
Model: IGRF2010





PROJECT DETAILS: Uintah County, UT UTM12	
Geodetic System:	Universal Transverse Mercator (US Survey Feet)
Datum:	NAD 1927 - Western US
Ellipsoid:	Clarke 1866
Zone:	Zone 12N (114 W to 108 W)
Location:	SEC 29 T9S R22E
System Datum:	Mean Sea Level

Design: OH (NBU 922-29G1DS/OH)

Created By: RobertScott Date: 10:33, January 20 2011

Scientific Drilling
Rocky Mountain Operations

Kerr McGee Oil and Gas Onshore LP

Uintah County, UT UTM12
NBU 922-29G Pad
NBU 922-29G1DS

OH

Design: OH

Standard Survey Report

20 January, 2011

Anadarko
Petroleum Corporation

Company:	Kerr McGee Oil and Gas Onshore LP	**Local Co-ordinate Reference:**	Well NBU 922-29G1DS
Project:	Uintah County, UT UTM12	**TVD Reference:**	GL 5029' & RKB 14' @ 5043.00ft (ENSIGN 139)
Site:	NBU 922-29G Pad	**MD Reference:**	GL 5029' & RKB 14' @ 5043.00ft (ENSIGN 139)
Well:	NBU 922-29G1DS	**North Reference:**	True
Wellbore:	OH	**Survey Calculation Method:**	Minimum Curvature
Design:	OH	**Database:**	EDM5000-RobertS-Local

Project Uintah County, UT UTM12

Map System:	Universal Transverse Mercator (US Survey Feet)	**System Datum:**	Mean Sea Level
Geo Datum:	NAD 1927 - Western US		
Map Zone:	Zone 12N (114 W to 108 W)		

Site NBU 922-29G Pad, SEC 29 T9S R22E

Site Position:		**Northing:**	14,533,105.04 usft	**Latitude:**	40° 0' 33.001 N
From:	Lat/Long	**Easting:**	2,071,438.63 usft	**Longitude:**	109° 27' 38.819 W
Position Uncertainty:	0.00 ft	**Slot Radius:**	13.200 in	**Grid Convergence:**	0.99 °

Well NBU 922-29G1DS, 1872' FNL' 1970 FEL

Well Position	**+N/-S**	0.00 ft	**Northing:**	14,533,105.04 usft	**Latitude:**	40° 0' 33.001 N
	+E/-W	0.00 ft	**Easting:**	2,071,438.63 usft	**Longitude:**	109° 27' 38.819 W
Position Uncertainty		0.00 ft	**Wellhead Elevation:**	ft	**Ground Level:**	5,029.00 ft

Wellbore OH

Magnetics	**Model Name**	**Sample Date**	**Declination (°)**	**Dip Angle (°)**	**Field Strength (nT)**
	IGRF2010	11/10/2010	11.14	65.90	52,398

Design OH

Audit Notes:

Version:	1.0	**Phase:**	ACTUAL	**Tie On Depth:**	0.00

Vertical Section:	**Depth From (TVD) (ft)**	**+N/-S (ft)**	**+E/-W (ft)**	**Direction (°)**
	0.00	0.00	0.00	79.51

Survey Program **Date** 01/20/2011

From (ft)	**To (ft)**	**Survey (Wellbore)**	**Tool Name**	**Description**
10.00	2,563.00	Survey #1 SDI Surface MWD (OH)	MWD SDI	MWD - Standard ver 1.0.1
2,707.00	9,575.00	Survey #2 SDI MWD PRODUCTION (OH)	MWD SDI	MWD - Standard ver 1.0.1

Survey

Measured Depth (ft)	**Inclination (°)**	**Azimuth (°)**	**Vertical Depth (ft)**	**+N/-S (ft)**	**+E/-W (ft)**	**Vertical Section (ft)**	**Dogleg Rate (°/100ft)**	**Build Rate (°/100ft)**	**Turn Rate (°/100ft)**
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
10.00	0.00	0.00	10.00	0.00	0.00	0.00	0.00	0.00	0.00
163.00	0.63	224.26	163.00	-0.60	-0.59	-0.69	0.41	0.41	0.00
FIRST SDI MWD SURFACE SURVEY									
249.00	0.27	39.80	249.00	-0.79	-0.79	-0.92	1.05	-0.42	204.12
336.00	1.34	81.68	335.99	-0.48	0.35	0.26	1.33	1.23	48.14
423.00	3.25	85.67	422.91	-0.15	3.82	3.73	2.20	2.20	4.59
513.00	4.92	80.35	512.68	0.69	10.17	10.12	1.90	1.86	-5.91
603.00	7.29	79.49	602.16	2.38	19.59	19.69	2.64	2.63	-0.96
693.00	8.92	76.72	691.26	5.03	31.99	32.37	1.86	1.81	-3.08

Company:	Kerr McGee Oil and Gas Onshore LP	**Local Co-ordinate Reference:**	Well NBU 922-29G1DS
Project:	Uintah County, UT UTM12	**TVD Reference:**	GL 5029' & RKB 14' @ 5043.00ft (ENSIGN 139)
Site:	NBU 922-29G Pad	**MD Reference:**	GL 5029' & RKB 14' @ 5043.00ft (ENSIGN 139)
Well:	NBU 922-29G1DS	**North Reference:**	True
Wellbore:	OH	**Survey Calculation Method:**	Minimum Curvature
Design:	OH	**Database:**	EDM5000-RobertS-Local

Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
783.00	9.81	79.37	780.06	8.04	46.32	47.01	1.10	0.99	2.94
873.00	11.27	78.26	868.54	11.25	62.47	63.47	1.64	1.62	-1.23
963.00	12.59	78.17	956.60	15.05	80.68	82.07	1.47	1.47	-0.10
1,053.00	13.48	78.25	1,044.28	19.19	100.55	102.36	0.99	0.99	0.09
1,143.00	13.33	78.35	1,131.82	23.43	120.98	123.22	0.17	-0.17	0.11
1,233.00	12.46	79.92	1,219.55	27.22	140.70	143.31	1.04	-0.97	1.74
1,323.00	11.51	80.83	1,307.59	30.35	159.13	161.99	1.08	-1.06	1.01
1,413.00	11.01	80.86	1,395.86	33.15	176.47	179.56	0.56	-0.56	0.03
1,503.00	11.25	79.90	1,484.17	36.05	193.60	196.93	0.34	0.27	-1.07
1,593.00	11.80	80.20	1,572.35	39.16	211.31	214.91	0.61	0.61	0.33
1,683.00	12.35	80.25	1,660.36	42.35	229.87	233.74	0.61	0.61	0.06
1,773.00	12.49	79.43	1,748.25	45.77	248.92	253.09	0.25	0.16	-0.91
1,863.00	11.70	81.54	1,836.25	48.90	267.51	271.95	1.01	-0.88	2.34
1,953.00	12.13	81.01	1,924.32	51.72	285.88	290.52	0.49	0.48	-0.59
2,043.00	12.75	80.04	2,012.20	54.91	305.00	309.90	0.73	0.69	-1.08
2,133.00	11.61	76.79	2,100.18	58.70	323.60	328.88	1.48	-1.27	-3.61
2,223.00	10.99	74.24	2,188.43	63.10	340.67	346.47	0.88	-0.69	-2.83
2,313.00	11.17	72.25	2,276.75	68.09	357.23	363.66	0.47	0.20	-2.21
2,403.00	11.08	75.56	2,365.06	72.90	373.91	380.93	0.72	-0.10	3.68
2,493.00	11.78	80.22	2,453.28	76.62	391.34	398.75	1.29	0.78	5.18
2,563.00	11.43	80.75	2,521.85	78.95	405.23	412.83	0.52	-0.50	0.76
LAST SDI MWD SURFACE SURVEY									
2,707.00	8.56	74.01	2,663.65	84.19	429.62	437.77	2.15	-1.99	-4.68
FIRST SDI MWD PRODUCTION SURVEY									
2,797.00	6.53	81.62	2,752.87	86.79	441.12	449.55	2.51	-2.26	8.46
2,888.00	6.24	93.31	2,843.31	87.25	451.18	459.52	1.46	-0.32	12.85
2,978.00	5.83	91.19	2,932.81	86.88	460.63	468.75	0.52	-0.46	-2.36
3,069.00	5.14	95.79	3,023.40	86.37	469.31	477.19	0.90	-0.76	5.05
3,159.00	2.68	77.40	3,113.18	86.42	475.37	483.16	3.03	-2.73	-20.43
3,250.00	1.68	113.62	3,204.12	86.35	478.67	486.39	1.82	-1.10	39.80
3,340.00	1.48	131.52	3,294.09	85.05	480.75	488.20	0.59	-0.22	19.89
3,431.00	1.79	143.12	3,385.05	83.14	482.48	489.55	0.50	0.34	12.75
3,521.00	0.99	119.21	3,475.02	81.63	484.01	490.78	1.08	-0.89	-26.57
3,612.00	0.87	150.19	3,566.01	80.65	485.03	491.61	0.56	-0.13	34.04
3,702.00	1.21	143.00	3,656.00	79.30	485.95	492.26	0.40	0.38	-7.99
3,793.00	0.67	174.21	3,746.98	78.00	486.58	492.65	0.80	-0.59	34.30
3,884.00	0.96	174.30	3,837.97	76.71	486.71	492.54	0.32	0.32	0.10
3,974.00	0.52	217.48	3,927.97	75.64	486.53	492.17	0.76	-0.49	47.98
4,065.00	0.79	194.48	4,018.96	74.70	486.13	491.60	0.41	0.30	-25.27
4,155.00	1.28	187.00	4,108.95	73.10	485.85	491.04	0.56	0.54	-8.31
4,246.00	1.60	168.87	4,199.92	70.85	485.97	490.75	0.61	0.35	-19.92
4,336.00	1.73	117.48	4,289.88	68.99	487.42	491.83	1.61	0.14	-57.10
4,427.00	1.04	28.18	4,380.87	69.08	489.03	493.43	2.21	-0.76	-98.13

Company:	Kerr McGee Oil and Gas Onshore LP	**Local Co-ordinate Reference:**	Well NBU 922-29G1DS
Project:	Uintah County, UT UTM12	**TVD Reference:**	GL 5029' & RKB 14' @ 5043.00ft (ENSIGN 139)
Site:	NBU 922-29G Pad	**MD Reference:**	GL 5029' & RKB 14' @ 5043.00ft (ENSIGN 139)
Well:	NBU 922-29G1DS	**North Reference:**	True
Wellbore:	OH	**Survey Calculation Method:**	Minimum Curvature
Design:	OH	**Database:**	EDM5000-RobertS-Local

Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
4,517.00	0.84	160.23	4,470.86	69.18	489.64	494.05	1.91	-0.22	146.72
4,608.00	0.82	160.46	4,561.85	67.94	490.08	494.26	0.02	-0.02	0.25
4,698.00	1.19	149.12	4,651.84	66.53	490.77	494.68	0.46	0.41	-12.60
4,789.00	0.14	207.78	4,742.83	65.62	491.21	494.94	1.23	-1.15	64.46
4,879.00	0.34	171.99	4,832.83	65.26	491.19	494.86	0.27	0.22	-39.77
4,970.00	0.45	176.41	4,923.83	64.64	491.25	494.81	0.13	0.12	4.86
5,060.00	0.63	164.51	5,013.82	63.81	491.41	494.81	0.23	0.20	-13.22
5,151.00	0.57	149.34	5,104.82	62.94	491.77	495.01	0.19	-0.07	-16.67
5,241.00	0.66	169.20	5,194.81	62.04	492.10	495.17	0.26	0.10	22.07
5,332.00	0.31	72.93	5,285.81	61.60	492.43	495.41	0.83	-0.38	-105.79
5,422.00	0.41	130.03	5,375.81	61.46	492.91	495.86	0.39	0.11	63.44
5,513.00	0.55	127.24	5,466.81	60.99	493.51	496.36	0.16	0.15	-3.07
5,603.00	0.81	290.83	5,556.80	60.96	493.26	496.11	1.50	0.29	181.77
5,694.00	0.65	283.96	5,647.80	61.31	492.15	495.09	0.20	-0.18	-7.55
5,784.00	0.70	236.93	5,737.79	61.13	491.20	494.12	0.60	0.06	-52.26
5,875.00	0.69	233.20	5,828.78	60.50	490.29	493.11	0.05	-0.01	-4.10
5,965.00	0.74	221.37	5,918.78	59.74	489.48	492.17	0.17	0.06	-13.14
6,056.00	0.38	217.41	6,009.77	59.06	488.90	491.48	0.40	-0.40	-4.35
6,146.00	0.51	203.86	6,099.77	58.46	488.56	491.04	0.18	0.14	-15.06
6,237.00	0.57	164.57	6,190.77	57.65	488.52	490.85	0.40	0.07	-43.18
6,327.00	0.95	175.42	6,280.76	56.47	488.70	490.81	0.45	0.42	12.06
6,418.00	1.04	180.45	6,371.74	54.90	488.75	490.57	0.14	0.10	5.53
6,508.00	1.27	181.66	6,461.73	53.08	488.71	490.21	0.26	0.26	1.34
6,599.00	0.74	122.27	6,552.71	51.76	489.18	490.43	1.21	-0.58	-65.26
6,689.00	0.81	133.32	6,642.71	51.01	490.14	491.23	0.18	0.08	12.28
6,780.00	0.81	31.44	6,733.70	51.12	490.94	492.04	1.38	0.00	-111.96
6,870.00	0.58	54.21	6,823.69	51.93	491.64	492.88	0.39	-0.26	25.30
6,961.00	0.44	38.73	6,914.69	52.47	492.23	493.56	0.21	-0.15	-17.01
7,051.00	0.26	38.30	7,004.69	52.90	492.58	493.97	0.20	-0.20	-0.48
7,142.00	0.41	92.97	7,095.69	53.05	493.03	494.44	0.37	0.16	60.08
7,232.00	0.63	131.43	7,185.68	52.70	493.72	495.06	0.45	0.24	42.73
7,319.00	0.84	122.05	7,272.68	52.05	494.62	495.83	0.28	0.24	-10.78
7,410.00	0.50	120.50	7,363.67	51.49	495.53	496.62	0.37	-0.37	-1.70
7,500.00	0.34	191.66	7,453.67	51.03	495.81	496.81	0.56	-0.18	79.07
7,591.00	0.36	138.44	7,544.67	50.55	495.95	496.86	0.35	0.02	-58.48
7,681.00	0.67	153.11	7,634.66	49.87	496.37	497.15	0.37	0.34	16.30
7,772.00	0.67	134.90	7,725.66	49.02	496.99	497.61	0.23	0.00	-20.01
7,863.00	1.26	167.62	7,816.64	47.67	497.58	497.94	0.86	0.65	35.96
7,953.00	1.12	102.12	7,906.63	46.52	498.65	498.79	1.44	-0.16	-72.78
8,044.00	0.89	99.82	7,997.61	46.21	500.22	500.27	0.26	-0.25	-2.53
8,134.00	0.94	57.74	8,087.60	46.49	501.53	501.61	0.73	0.06	-46.76
8,225.00	0.24	237.48	8,178.60	46.78	502.00	502.13	1.30	-0.77	197.52
8,315.00	0.30	158.01	8,268.60	46.46	501.93	502.00	0.39	0.07	-88.30
8,406.00	0.59	163.10	8,359.60	45.79	502.16	502.10	0.32	0.32	5.59

Company:	Kerr McGee Oil and Gas Onshore LP	**Local Co-ordinate Reference:**	Well NBU 922-29G1DS
Project:	Uintah County, UT UTM12	**TVD Reference:**	GL 5029' & RKB 14' @ 5043.00ft (ENSIGN 139)
Site:	NBU 922-29G Pad	**MD Reference:**	GL 5029' & RKB 14' @ 5043.00ft (ENSIGN 139)
Well:	NBU 922-29G1DS	**North Reference:**	True
Wellbore:	OH	**Survey Calculation Method:**	Minimum Curvature
Design:	OH	**Database:**	EDM5000-RobertS-Local

Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
8,496.00	0.76	173.28	8,449.59	44.76	502.36	502.11	0.23	0.19	11.31
8,587.00	0.64	153.79	8,540.58	43.70	502.66	502.21	0.29	-0.13	-21.42
8,678.00	0.76	164.39	8,631.58	42.66	503.04	502.40	0.19	0.13	11.65
8,768.00	1.11	178.04	8,721.56	41.22	503.24	502.33	0.46	0.39	15.17
8,859.00	1.23	178.94	8,812.55	39.36	503.28	502.04	0.13	0.13	0.99
8,950.00	1.40	181.61	8,903.52	37.27	503.27	501.64	0.20	0.19	2.93
9,040.00	1.32	159.39	8,993.50	35.20	503.60	501.59	0.59	-0.09	-24.69
9,131.00	1.60	158.35	9,084.47	33.04	504.44	502.02	0.31	0.31	-1.14
9,221.00	1.59	172.28	9,174.43	30.64	505.07	502.21	0.43	-0.01	15.48
9,311.00	1.95	173.13	9,264.39	27.88	505.42	502.05	0.40	0.40	0.94
9,402.00	2.12	166.88	9,355.33	24.70	505.99	502.03	0.31	0.19	-6.87
9,493.00	2.45	161.33	9,446.26	21.22	507.00	502.38	0.44	0.36	-6.10
9,523.00	2.40	157.38	9,476.23	20.03	507.44	502.61	0.58	-0.17	-13.17
LAST SDI MWD PRODUCTION SURVEY									
9,575.00	2.40	157.38	9,528.19	18.02	508.28	503.06	0.00	0.00	0.00
SDI PROJECTION TO TD									

Design Annotations

Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates +N/-S (ft)	Local Coordinates +E/-W (ft)	Comment
163.00	163.00	-0.60	-0.59	FIRST SDI MWD SURFACE SURVEY
2,563.00	2,521.85	78.95	405.23	LAST SDI MWD SURFACE SURVEY
2,707.00	2,663.65	84.19	429.62	FIRST SDI MWD PRODUCTION SURVEY
9,523.00	9,476.23	20.03	507.44	LAST SDI MWD PRODUCTION SURVEY
9,575.00	9,528.19	18.02	508.28	SDI PROJECTION TO TD

Checked By: _____ Approved By: _____ Date: _____

Scientific Drilling
Rocky Mountain Operations

Kerr McGee Oil and Gas Onshore LP

Uintah County, UT UTM12
NBU 922-29G Pad
NBU 922-29G1DS

OH

Design: OH

Survey Report - Geographic

20 January, 2011

Anadarko
Petroleum Corporation

Company:	Kerr McGee Oil and Gas Onshore LP	**Local Co-ordinate Reference:**	Well NBU 922-29G1DS
Project:	Uintah County, UT UTM12	**TVD Reference:**	GL 5029' & RKB 14' @ 5043.00ft (ENSIGN 139)
Site:	NBU 922-29G Pad	**MD Reference:**	GL 5029' & RKB 14' @ 5043.00ft (ENSIGN 139)
Well:	NBU 922-29G1DS	**North Reference:**	True
Wellbore:	OH	**Survey Calculation Method:**	Minimum Curvature
Design:	OH	**Database:**	EDM5000-RobertS-Local

Project Uintah County, UT UTM12

Map System:	Universal Transverse Mercator (US Survey Feet)	**System Datum:**	Mean Sea Level
Geo Datum:	NAD 1927 - Western US		
Map Zone:	Zone 12N (114 W to 108 W)		

Site NBU 922-29G Pad, SEC 29 T9S R22E

Site Position:		**Northing:**	14,533,105.04 usft	**Latitude:**	40° 0' 33.001 N
From:	Lat/Long	**Easting:**	2,071,438.63 usft	**Longitude:**	109° 27' 38.819 W
Position Uncertainty:	0.00 ft	**Slot Radius:**	13.200 in	**Grid Convergence:**	0.99 °

Well NBU 922-29G1DS, 1872' FNL' 1970 FEL

Well Position	**+N/-S**	0.00 ft	**Northing:**	14,533,105.04 usft	**Latitude:**	40° 0' 33.001 N
	+E/-W	0.00 ft	**Easting:**	2,071,438.63 usft	**Longitude:**	109° 27' 38.819 W
Position Uncertainty		0.00 ft	**Wellhead Elevation:**	ft	**Ground Level:**	5,029.00 ft

Wellbore OH

Magnetics	**Model Name**	**Sample Date**	**Declination (°)**	**Dip Angle (°)**	**Field Strength (nT)**
	IGRF2010	11/10/2010	11.14	65.90	52,398

Design OH

Audit Notes:

Version:	1.0	**Phase:**	ACTUAL	**Tie On Depth:**	0.00

Vertical Section:	**Depth From (TVD) (ft)**	**+N/-S (ft)**	**+E/-W (ft)**	**Direction (°)**
	0.00	0.00	0.00	79.51

Survey Program **Date** 01/20/2011

From (ft)	**To (ft)**	**Survey (Wellbore)**	**Tool Name**	**Description**
10.00	2,563.00	Survey #1 SDI Surface MWD (OH)	MWD SDI	MWD - Standard ver 1.0.1
2,707.00	9,575.00	Survey #2 SDI MWD PRODUCTION (OH)	MWD SDI	MWD - Standard ver 1.0.1

Survey

Measured Depth (ft)	**Inclination (°)**	**Azimuth (°)**	**Vertical Depth (ft)**	**+N/-S (ft)**	**+E/-W (ft)**	**Map Northing (usft)**	**Map Easting (usft)**	**Latitude**	**Longitude**
0.00	0.00	0.00	0.00	0.00	0.00	14,533,105.04	2,071,438.63	40° 0' 33.001 N	109° 27' 38.819 W
10.00	0.00	0.00	10.00	0.00	0.00	14,533,105.04	2,071,438.63	40° 0' 33.001 N	109° 27' 38.819 W
163.00	0.63	224.26	163.00	-0.60	-0.59	14,533,104.43	2,071,438.06	40° 0' 32.995 N	109° 27' 38.826 W
FIRST SDI MWD SURFACE SURVEY									
249.00	0.27	39.80	249.00	-0.79	-0.79	14,533,104.24	2,071,437.86	40° 0' 32.993 N	109° 27' 38.829 W
336.00	1.34	81.68	335.99	-0.48	0.35	14,533,104.57	2,071,438.99	40° 0' 32.996 N	109° 27' 38.814 W
423.00	3.25	85.67	422.91	-0.15	3.82	14,533,104.96	2,071,442.45	40° 0' 33.000 N	109° 27' 38.770 W
513.00	4.92	80.35	512.68	0.69	10.17	14,533,105.91	2,071,448.78	40° 0' 33.008 N	109° 27' 38.688 W
603.00	7.29	79.49	602.16	2.38	19.59	14,533,107.76	2,071,458.17	40° 0' 33.024 N	109° 27' 38.567 W
693.00	8.92	76.72	691.26	5.03	31.99	14,533,110.62	2,071,470.53	40° 0' 33.051 N	109° 27' 38.407 W
783.00	9.81	79.37	780.06	8.04	46.32	14,533,113.88	2,071,484.81	40° 0' 33.080 N	109° 27' 38.223 W

Company:	Kerr McGee Oil and Gas Onshore LP	**Local Co-ordinate Reference:**	Well NBU 922-29G1DS
Project:	Uintah County, UT UTM12	**TVD Reference:**	GL 5029' & RKB 14' @ 5043.00ft (ENSIGN 139)
Site:	NBU 922-29G Pad	**MD Reference:**	GL 5029' & RKB 14' @ 5043.00ft (ENSIGN 139)
Well:	NBU 922-29G1DS	**North Reference:**	True
Wellbore:	OH	**Survey Calculation Method:**	Minimum Curvature
Design:	OH	**Database:**	EDM5000-RobertS-Local

Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
873.00	11.27	78.26	868.54	11.25	62.47	14,533,117.36	2,071,500.90	40° 0' 33.112 N	109° 27' 38.016 W
963.00	12.59	78.17	956.60	15.05	80.68	14,533,121.48	2,071,519.04	40° 0' 33.150 N	109° 27' 37.782 W
1,053.00	13.48	78.25	1,044.28	19.19	100.55	14,533,125.97	2,071,538.83	40° 0' 33.191 N	109° 27' 37.526 W
1,143.00	13.33	78.35	1,131.82	23.43	120.98	14,533,130.55	2,071,559.19	40° 0' 33.233 N	109° 27' 37.264 W
1,233.00	12.46	79.92	1,219.55	27.22	140.70	14,533,134.69	2,071,578.84	40° 0' 33.270 N	109° 27' 37.010 W
1,323.00	11.51	80.83	1,307.59	30.35	159.13	14,533,138.14	2,071,597.21	40° 0' 33.301 N	109° 27' 36.773 W
1,413.00	11.01	80.86	1,395.86	33.15	176.47	14,533,141.23	2,071,614.51	40° 0' 33.329 N	109° 27' 36.550 W
1,503.00	11.25	79.90	1,484.17	36.05	193.60	14,533,144.43	2,071,631.58	40° 0' 33.357 N	109° 27' 36.330 W
1,593.00	11.80	80.20	1,572.35	39.16	211.31	14,533,147.84	2,071,649.24	40° 0' 33.388 N	109° 27' 36.103 W
1,683.00	12.35	80.25	1,660.36	42.35	229.87	14,533,151.36	2,071,667.73	40° 0' 33.420 N	109° 27' 35.864 W
1,773.00	12.49	79.43	1,748.25	45.77	248.92	14,533,155.10	2,071,686.73	40° 0' 33.453 N	109° 27' 35.619 W
1,863.00	11.70	81.54	1,836.25	48.90	267.51	14,533,158.55	2,071,705.26	40° 0' 33.484 N	109° 27' 35.380 W
1,953.00	12.13	81.01	1,924.32	51.72	285.88	14,533,161.69	2,071,723.58	40° 0' 33.512 N	109° 27' 35.144 W
2,043.00	12.75	80.04	2,012.20	54.91	305.00	14,533,165.21	2,071,742.64	40° 0' 33.544 N	109° 27' 34.898 W
2,133.00	11.61	76.79	2,100.18	58.70	323.60	14,533,169.32	2,071,761.17	40° 0' 33.581 N	109° 27' 34.659 W
2,223.00	10.99	74.24	2,188.43	63.10	340.67	14,533,174.01	2,071,778.17	40° 0' 33.625 N	109° 27' 34.440 W
2,313.00	11.17	72.25	2,276.75	68.09	357.23	14,533,179.29	2,071,794.64	40° 0' 33.674 N	109° 27' 34.227 W
2,403.00	11.08	75.56	2,365.06	72.90	373.91	14,533,184.39	2,071,811.23	40° 0' 33.722 N	109° 27' 34.013 W
2,493.00	11.78	80.22	2,453.28	76.62	391.34	14,533,188.41	2,071,828.59	40° 0' 33.758 N	109° 27' 33.789 W
2,563.00	11.43	80.75	2,521.85	78.95	405.23	14,533,190.98	2,071,842.43	40° 0' 33.781 N	109° 27' 33.610 W
LAST SDI MWD SURFACE SURVEY									
2,707.00	8.56	74.01	2,663.65	84.19	429.62	14,533,196.64	2,071,866.73	40° 0' 33.833 N	109° 27' 33.297 W
FIRST SDI MWD PRODUCTION SURVEY									
2,797.00	6.53	81.62	2,752.87	86.79	441.12	14,533,199.43	2,071,878.19	40° 0' 33.859 N	109° 27' 33.149 W
2,888.00	6.24	93.31	2,843.31	87.25	451.18	14,533,200.07	2,071,888.23	40° 0' 33.863 N	109° 27' 33.019 W
2,978.00	5.83	91.19	2,932.81	86.88	460.63	14,533,199.86	2,071,897.69	40° 0' 33.860 N	109° 27' 32.898 W
3,069.00	5.14	95.79	3,023.40	86.37	469.31	14,533,199.50	2,071,906.38	40° 0' 33.855 N	109° 27' 32.786 W
3,159.00	2.68	77.40	3,113.18	86.42	475.37	14,533,199.66	2,071,912.44	40° 0' 33.855 N	109° 27' 32.708 W
3,250.00	1.68	113.62	3,204.12	86.35	478.67	14,533,199.65	2,071,915.74	40° 0' 33.854 N	109° 27' 32.666 W
3,340.00	1.48	131.52	3,294.09	85.05	480.75	14,533,198.38	2,071,917.84	40° 0' 33.842 N	109° 27' 32.639 W
3,431.00	1.79	143.12	3,385.05	83.14	482.48	14,533,196.50	2,071,919.61	40° 0' 33.823 N	109° 27' 32.617 W
3,521.00	0.99	119.21	3,475.02	81.63	484.01	14,533,195.02	2,071,921.15	40° 0' 33.808 N	109° 27' 32.598 W
3,612.00	0.87	150.19	3,566.01	80.65	485.03	14,533,194.06	2,071,922.20	40° 0' 33.798 N	109° 27' 32.584 W
3,702.00	1.21	143.00	3,656.00	79.30	485.95	14,533,192.72	2,071,923.14	40° 0' 33.785 N	109° 27' 32.573 W
3,793.00	0.67	174.21	3,746.98	78.00	486.58	14,533,191.43	2,071,923.79	40° 0' 33.772 N	109° 27' 32.564 W
3,884.00	0.96	174.30	3,837.97	76.71	486.71	14,533,190.15	2,071,923.94	40° 0' 33.759 N	109° 27' 32.563 W
3,974.00	0.52	217.48	3,927.97	75.64	486.53	14,533,189.07	2,071,923.79	40° 0' 33.749 N	109° 27' 32.565 W
4,065.00	0.79	194.48	4,018.96	74.70	486.13	14,533,188.13	2,071,923.40	40° 0' 33.739 N	109° 27' 32.570 W
4,155.00	1.28	187.00	4,108.95	73.10	485.85	14,533,186.53	2,071,923.15	40° 0' 33.724 N	109° 27' 32.574 W
4,246.00	1.60	168.87	4,199.92	70.85	485.97	14,533,184.27	2,071,923.31	40° 0' 33.701 N	109° 27' 32.572 W
4,336.00	1.73	117.48	4,289.88	68.99	487.42	14,533,182.44	2,071,924.79	40° 0' 33.683 N	109° 27' 32.554 W
4,427.00	1.04	28.18	4,380.87	69.08	489.03	14,533,182.56	2,071,926.39	40° 0' 33.684 N	109° 27' 32.533 W
4,517.00	0.84	160.23	4,470.86	69.18	489.64	14,533,182.67	2,071,927.00	40° 0' 33.685 N	109° 27' 32.525 W
4,608.00	0.82	160.46	4,561.85	67.94	490.08	14,533,181.44	2,071,927.46	40° 0' 33.672 N	109° 27' 32.519 W
4,698.00	1.19	149.12	4,651.84	66.53	490.77	14,533,180.04	2,071,928.18	40° 0' 33.659 N	109° 27' 32.511 W
4,789.00	0.14	207.78	4,742.83	65.62	491.21	14,533,179.14	2,071,928.63	40° 0' 33.650 N	109° 27' 32.505 W
4,879.00	0.34	171.99	4,832.83	65.26	491.19	14,533,178.78	2,071,928.62	40° 0' 33.646 N	109° 27' 32.505 W
4,970.00	0.45	176.41	4,923.83	64.64	491.25	14,533,178.15	2,071,928.70	40° 0' 33.640 N	109° 27' 32.504 W
5,060.00	0.63	164.51	5,013.82	63.81	491.41	14,533,177.33	2,071,928.86	40° 0' 33.632 N	109° 27' 32.502 W
5,151.00	0.57	149.34	5,104.82	62.94	491.77	14,533,176.46	2,071,929.24	40° 0' 33.623 N	109° 27' 32.498 W
5,241.00	0.66	169.20	5,194.81	62.04	492.10	14,533,175.57	2,071,929.58	40° 0' 33.614 N	109° 27' 32.494 W
5,332.00	0.31	72.93	5,285.81	61.60	492.43	14,533,175.14	2,071,929.92	40° 0' 33.610 N	109° 27' 32.489 W
5,422.00	0.41	130.03	5,375.81	61.46	492.91	14,533,175.01	2,071,930.41	40° 0' 33.608 N	109° 27' 32.483 W
5,513.00	0.55	127.24	5,466.81	60.99	493.51	14,533,174.55	2,071,931.01	40° 0' 33.604 N	109° 27' 32.475 W
5,603.00	0.81	290.83	5,556.80	60.96	493.26	14,533,174.51	2,071,930.76	40° 0' 33.603 N	109° 27' 32.479 W

Company:	Kerr McGee Oil and Gas Onshore LP	**Local Co-ordinate Reference:**	Well NBU 922-29G1DS
Project:	Uintah County, UT UTM12	**TVD Reference:**	GL 5029' & RKB 14' @ 5043.00ft (ENSIGN 139)
Site:	NBU 922-29G Pad	**MD Reference:**	GL 5029' & RKB 14' @ 5043.00ft (ENSIGN 139)
Well:	NBU 922-29G1DS	**North Reference:**	True
Wellbore:	OH	**Survey Calculation Method:**	Minimum Curvature
Design:	OH	**Database:**	EDM5000-RobertS-Local

Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
5,694.00	0.65	283.96	5,647.80	61.31	492.15	14,533,174.84	2,071,929.65	40° 0' 33.607 N	109° 27' 32.493 W
5,784.00	0.70	236.93	5,737.79	61.13	491.20	14,533,174.65	2,071,928.70	40° 0' 33.605 N	109° 27' 32.505 W
5,875.00	0.69	233.20	5,828.78	60.50	490.29	14,533,174.00	2,071,927.81	40° 0' 33.599 N	109° 27' 32.517 W
5,965.00	0.74	221.37	5,918.78	59.74	489.48	14,533,173.23	2,071,927.00	40° 0' 33.591 N	109° 27' 32.527 W
6,056.00	0.38	217.41	6,009.77	59.06	488.90	14,533,172.54	2,071,926.44	40° 0' 33.585 N	109° 27' 32.535 W
6,146.00	0.51	203.86	6,099.77	58.46	488.56	14,533,171.93	2,071,926.11	40° 0' 33.579 N	109° 27' 32.539 W
6,237.00	0.57	164.57	6,190.77	57.65	488.52	14,533,171.12	2,071,926.08	40° 0' 33.571 N	109° 27' 32.540 W
6,327.00	0.95	175.42	6,280.76	56.47	488.70	14,533,169.95	2,071,926.28	40° 0' 33.559 N	109° 27' 32.537 W
6,418.00	1.04	180.45	6,371.74	54.90	488.75	14,533,168.37	2,071,926.36	40° 0' 33.544 N	109° 27' 32.537 W
6,508.00	1.27	181.66	6,461.73	53.08	488.71	14,533,166.56	2,071,926.36	40° 0' 33.526 N	109° 27' 32.537 W
6,599.00	0.74	122.27	6,552.71	51.76	489.18	14,533,165.24	2,071,926.85	40° 0' 33.513 N	109° 27' 32.531 W
6,689.00	0.81	133.32	6,642.71	51.01	490.14	14,533,164.51	2,071,927.81	40° 0' 33.505 N	109° 27' 32.519 W
6,780.00	0.81	31.44	6,733.70	51.12	490.94	14,533,164.63	2,071,928.62	40° 0' 33.506 N	109° 27' 32.508 W
6,870.00	0.58	54.21	6,823.69	51.93	491.64	14,533,165.45	2,071,929.30	40° 0' 33.514 N	109° 27' 32.499 W
6,961.00	0.44	38.73	6,914.69	52.47	492.23	14,533,166.01	2,071,929.89	40° 0' 33.520 N	109° 27' 32.492 W
7,051.00	0.26	38.30	7,004.69	52.90	492.58	14,533,166.44	2,071,930.22	40° 0' 33.524 N	109° 27' 32.487 W
7,142.00	0.41	92.97	7,095.69	53.05	493.03	14,533,166.60	2,071,930.67	40° 0' 33.525 N	109° 27' 32.482 W
7,232.00	0.63	131.43	7,185.68	52.70	493.72	14,533,166.26	2,071,931.37	40° 0' 33.522 N	109° 27' 32.473 W
7,319.00	0.84	122.05	7,272.68	52.05	494.62	14,533,165.62	2,071,932.28	40° 0' 33.515 N	109° 27' 32.461 W
7,410.00	0.50	120.50	7,363.67	51.49	495.53	14,533,165.08	2,071,933.20	40° 0' 33.510 N	109° 27' 32.449 W
7,500.00	0.34	191.66	7,453.67	51.03	495.81	14,533,164.63	2,071,933.49	40° 0' 33.505 N	109° 27' 32.446 W
7,591.00	0.36	138.44	7,544.67	50.55	495.95	14,533,164.15	2,071,933.63	40° 0' 33.501 N	109° 27' 32.444 W
7,681.00	0.67	153.11	7,634.66	49.87	496.37	14,533,163.48	2,071,934.07	40° 0' 33.494 N	109° 27' 32.439 W
7,772.00	0.67	134.90	7,725.66	49.02	496.99	14,533,162.64	2,071,934.70	40° 0' 33.485 N	109° 27' 32.431 W
7,863.00	1.26	167.62	7,816.64	47.67	497.58	14,533,161.30	2,071,935.32	40° 0' 33.472 N	109° 27' 32.423 W
7,953.00	1.12	102.12	7,906.63	46.52	498.65	14,533,160.17	2,071,936.41	40° 0' 33.461 N	109° 27' 32.409 W
8,044.00	0.89	99.82	7,997.61	46.21	500.22	14,533,159.88	2,071,937.98	40° 0' 33.458 N	109° 27' 32.389 W
8,134.00	0.94	57.74	8,087.60	46.49	501.53	14,533,160.18	2,071,939.29	40° 0' 33.460 N	109° 27' 32.372 W
8,225.00	0.24	237.48	8,178.60	46.78	502.00	14,533,160.49	2,071,939.75	40° 0' 33.463 N	109° 27' 32.366 W
8,315.00	0.30	158.01	8,268.60	46.46	501.93	14,533,160.17	2,071,939.69	40° 0' 33.460 N	109° 27' 32.367 W
8,406.00	0.59	163.10	8,359.60	45.79	502.16	14,533,159.50	2,071,939.92	40° 0' 33.454 N	109° 27' 32.364 W
8,496.00	0.76	173.28	8,449.59	44.76	502.36	14,533,158.47	2,071,940.15	40° 0' 33.443 N	109° 27' 32.362 W
8,587.00	0.64	153.79	8,540.58	43.70	502.66	14,533,157.42	2,071,940.46	40° 0' 33.433 N	109° 27' 32.358 W
8,678.00	0.76	164.39	8,631.58	42.66	503.04	14,533,156.39	2,071,940.86	40° 0' 33.423 N	109° 27' 32.353 W
8,768.00	1.11	178.04	8,721.56	41.22	503.24	14,533,154.94	2,071,941.08	40° 0' 33.408 N	109° 27' 32.350 W
8,859.00	1.23	178.94	8,812.55	39.36	503.28	14,533,153.09	2,071,941.16	40° 0' 33.390 N	109° 27' 32.350 W
8,950.00	1.40	181.61	8,903.52	37.27	503.27	14,533,151.00	2,071,941.18	40° 0' 33.369 N	109° 27' 32.350 W
9,040.00	1.32	159.39	8,993.50	35.20	503.60	14,533,148.94	2,071,941.55	40° 0' 33.349 N	109° 27' 32.346 W
9,131.00	1.60	158.35	9,084.47	33.04	504.44	14,533,146.79	2,071,942.43	40° 0' 33.328 N	109° 27' 32.335 W
9,221.00	1.59	172.28	9,174.43	30.64	505.07	14,533,144.40	2,071,943.10	40° 0' 33.304 N	109° 27' 32.327 W
9,311.00	1.95	173.13	9,264.39	27.88	505.42	14,533,141.65	2,071,943.50	40° 0' 33.276 N	109° 27' 32.322 W
9,402.00	2.12	166.88	9,355.33	24.70	505.99	14,533,138.48	2,071,944.12	40° 0' 33.245 N	109° 27' 32.315 W
9,493.00	2.45	161.33	9,446.26	21.22	507.00	14,533,135.02	2,071,945.19	40° 0' 33.211 N	109° 27' 32.302 W
9,523.00	2.40	157.38	9,476.23	20.03	507.44	14,533,133.84	2,071,945.65	40° 0' 33.199 N	109° 27' 32.296 W
LAST SDI MWD PRODUCTION SURVEY									
9,575.00	2.40	157.38	9,528.19	18.02	508.28	14,533,131.84	2,071,946.53	40° 0' 33.179 N	109° 27' 32.286 W
SDI PROJECTION TO TD									

Company:	Kerr McGee Oil and Gas Onshore LP	**Local Co-ordinate Reference:**	Well NBU 922-29G1DS
Project:	Uintah County, UT UTM12	**TVD Reference:**	GL 5029' & RKB 14' @ 5043.00ft (ENSIGN 139)
Site:	NBU 922-29G Pad	**MD Reference:**	GL 5029' & RKB 14' @ 5043.00ft (ENSIGN 139)
Well:	NBU 922-29G1DS	**North Reference:**	True
Wellbore:	OH	**Survey Calculation Method:**	Minimum Curvature
Design:	OH	**Database:**	EDM5000-RobertS-Local

Design Annotations

Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates +N/-S (ft)	Local Coordinates +E/-W (ft)	Comment
163.00	163.00	-0.60	-0.59	FIRST SDI MWD SURFACE SURVEY
2,563.00	2,521.85	78.95	405.23	LAST SDI MWD SURFACE SURVEY

Checked By: _____ Approved By: _____ Date: _____