

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

FORM 3

AMENDED REPORT

<b>APPLICATION FOR PERMIT TO DRILL</b>		<b>1. WELL NAME and NUMBER</b> NBU 922-36L4BS
<b>2. TYPE OF WORK</b> DRILL NEW WELL <input checked="" type="checkbox"/> REENTER P&A WELL <input type="checkbox"/> DEEPEN WELL <input type="checkbox"/>		<b>3. FIELD OR WILDCAT</b> NATURAL BUTTES
<b>4. TYPE OF WELL</b> Gas Well Coalbed Methane Well: NO		<b>5. UNIT or COMMUNITIZATION AGREEMENT NAME</b> NATURAL BUTTES
<b>6. NAME OF OPERATOR</b> KERR-MCGEE OIL & GAS ONSHORE, L.P.		<b>7. OPERATOR PHONE</b> 720 929-6587
<b>8. ADDRESS OF OPERATOR</b> P.O. Box 173779, Denver, CO, 80217		<b>9. OPERATOR E-MAIL</b> mary.mondragon@anadarko.com
<b>10. MINERAL LEASE NUMBER (FEDERAL, INDIAN, OR STATE)</b> ML 22650	<b>11. MINERAL OWNERSHIP</b> FEDERAL <input type="checkbox"/> INDIAN <input type="checkbox"/> STATE <input checked="" type="checkbox"/> FEE <input type="checkbox"/>	
<b>12. SURFACE OWNERSHIP</b> FEDERAL <input type="checkbox"/> INDIAN <input type="checkbox"/> STATE <input checked="" type="checkbox"/> FEE <input type="checkbox"/>		<b>13. NAME OF SURFACE OWNER (if box 12 = 'fee')</b>
<b>14. SURFACE OWNER PHONE (if box 12 = 'fee')</b>		<b>15. ADDRESS OF SURFACE OWNER (if box 12 = 'fee')</b>
<b>16. SURFACE OWNER E-MAIL (if box 12 = 'fee')</b>		<b>17. INDIAN ALLOTTEE OR TRIBE NAME (if box 12 = 'INDIAN')</b>
<b>18. INTEND TO COMMINGLE PRODUCTION FROM MULTIPLE FORMATIONS</b> YES <input checked="" type="checkbox"/> (Submit Commingling Application) NO <input type="checkbox"/>		<b>19. SLANT</b> VERTICAL <input type="checkbox"/> DIRECTIONAL <input checked="" type="checkbox"/> HORIZONTAL <input type="checkbox"/>

20. LOCATION OF WELL	FOOTAGES	QTR-QTR	SECTION	TOWNSHIP	RANGE	MERIDIAN
<b>LOCATION AT SURFACE</b>	539 FSL 413 FWL	SWSW	36	9.0 S	22.0 E	S
<b>Top of Uppermost Producing Zone</b>	1925 FSL 930 FWL	NWSW	36	9.0 S	22.0 E	S
<b>At Total Depth</b>	1925 FSL 930 FWL	NWSW	36	9.0 S	22.0 E	S

<b>21. COUNTY</b> UINTAH	<b>22. DISTANCE TO NEAREST LEASE LINE (Feet)</b> 930	<b>23. NUMBER OF ACRES IN DRILLING UNIT</b> 203
<b>24. DISTANCE TO NEAREST WELL IN SAME POOL (Applied For Drilling or Completed)</b> 775	<b>25. PROPOSED DEPTH</b> MD: 8943 TVD: 8600	
<b>26. ELEVATION - GROUND LEVEL</b> 4968	<b>27. BOND NUMBER</b> 22013542	<b>28. SOURCE OF DRILLING WATER / WATER RIGHTS APPROVAL NUMBER IF APPLICABLE</b> Permit #43-8496

**ATTACHMENTS**

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

<input checked="" type="checkbox"/> WELL PLAT OR MAP PREPARED BY LICENSED SURVEYOR OR ENGINEER	<input checked="" type="checkbox"/> COMPLETE DRILLING PLAN
<input type="checkbox"/> AFFIDAVIT OF STATUS OF SURFACE OWNER AGREEMENT (IF FEE SURFACE)	<input type="checkbox"/> FORM 5. IF OPERATOR IS OTHER THAN THE LEASE OWNER
<input checked="" type="checkbox"/> DIRECTIONAL SURVEY PLAN (IF DIRECTIONALLY OR HORIZONTALLY DRILLED)	<input checked="" type="checkbox"/> TOPOGRAPHICAL MAP

<b>NAME</b> Kathy Schneebeck-Dulnoan	<b>TITLE</b> Staff Regulatory Analyst	<b>PHONE</b> 720 929-6007
<b>SIGNATURE</b>	<b>DATE</b> 04/23/2009	<b>EMAIL</b> Kathy.SchneebeckDulnoan@anadarko.com
<b>API NUMBER ASSIGNED</b> 43047503680000	<b>APPROVAL</b>   Permit Manager	

<b>Proposed Hole, Casing, and Cement</b>						
<b>String</b>	<b>Hole Size</b>	<b>Casing Size</b>	<b>Top (MD)</b>	<b>Bottom (MD)</b>		
Prod	7.875	4.5	0	8943		
<b>Pipe</b>	<b>Grade</b>	<b>Length</b>	<b>Weight</b>			
	Grade N-80 LT&C	8943	11.6			

<b>Proposed Hole, Casing, and Cement</b>						
<b>String</b>	<b>Hole Size</b>	<b>Casing Size</b>	<b>Top (MD)</b>	<b>Bottom (MD)</b>		
Surf	12.25	9.625	0	2150		
<b>Pipe</b>	<b>Grade</b>	<b>Length</b>	<b>Weight</b>			
	Grade J-55 LT&C	2150	36.0			





# **ANADARKO PETROLEUM CORP.**

**UINTAH COUNTY, UTAH (nad 27)**

**NBU 922-36M PAD**

**NBU 922-36L4BS**

**NBU 922-36L4BS**

**Plan: Design #1**

## **Standard Planning Report**

**23 April, 2009**



**Weatherford®**

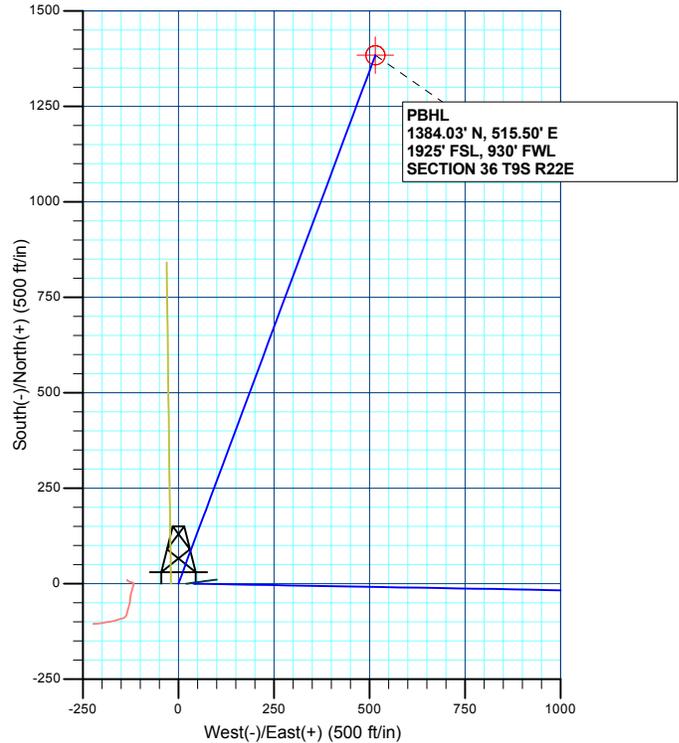
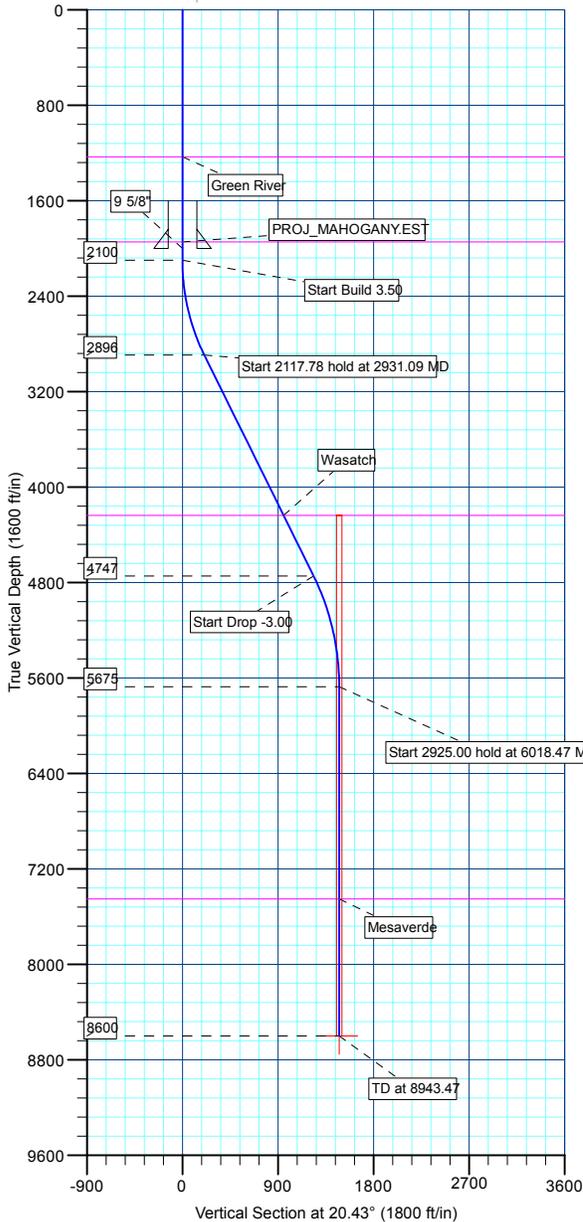


WELL DETAILS: NBU 922-36L4BS						
+N/-S	+E/-W	Northing	Easting	Ground Level:	4966.00	Slot
0.00	0.00	14525267.57	2089850.54	Latitude	39° 59' 12.336 N	109° 23' 44.016 W

WELLBORE TARGET DETAILS (LAT/LONG)						
Name	TVD	+N/-S	+E/-W	Latitude	Longitude	Shape
PBHL	8600.00	1384.04	515.49	39° 59' 26.016 N	109° 23' 37.392 W	Circle (Radius: 25.00)

SECTION DETAILS									
MD	Inc	Azi	TVD	+N/-S	+E/-W	DLeg	TFace	VSec	Target
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
2100.00	0.00	0.00	2100.00	0.00	0.00	0.00	0.00	0.00	
2931.09	29.09	20.43	2895.84	193.49	72.07	3.50	20.43	206.47	
5048.87	29.09	20.43	4746.52	1158.30	431.42	0.00	0.00	1236.04	
6018.47	0.00	0.00	5675.00	1384.03	515.50	3.00	180.00	1476.92	
8943.47	0.00	0.00	8600.00	1384.03	515.50	0.00	0.00	1476.92	PBHL_NBU 922-36L4BS

KB ELEV: WELL @ 4984.00ft (Original Well Elev)  
 GRD ELEV: 4966.00



FORMATION TOP DETAILS		
TVDPATH	MDPATH	FORMATION
1232.00	1232.00	Green River
1946.00	1946.00	PROJ_MAHOGANY.EST
4239.00	4468.10	Wasatch
7453.00	7796.47	Mesaverde

CASING DETAILS			
TVD	MD	Name	Size
2000.00	2000.00	9 5/8"	9.62



<b>Database:</b>	EDM 2003.21 Single User Db	<b>Local Co-ordinate Reference:</b>	Well NBU 922-36L4BS
<b>Company:</b>	ANADARKO PETROLEUM CORP.	<b>TVD Reference:</b>	WELL @ 4984.00ft (Original Well Elev)
<b>Project:</b>	UINTAH COUNTY, UTAH (nad 27)	<b>MD Reference:</b>	WELL @ 4984.00ft (Original Well Elev)
<b>Site:</b>	NBU 922-36M PAD	<b>North Reference:</b>	True
<b>Well:</b>	NBU 922-36L4BS	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	NBU 922-36L4BS		
<b>Design:</b>	Design #1		

<b>Project</b>	UINTAH COUNTY, UTAH (nad 27),		
<b>Map System:</b>	Universal Transverse Mercator (US Survey Fee	<b>System Datum:</b>	Mean Sea Level
<b>Geo Datum:</b>	NAD 1927 - Western US		
<b>Map Zone:</b>	Zone 12N (114 W to 108 W)		

<b>Site</b>	NBU 922-36M PAD, SECTION 36 T9SS R22 E				
<b>Site Position:</b>		<b>Northing:</b>	14,525,268.28 ft	<b>Latitude:</b>	39° 59' 12.336 N
<b>From:</b>	Lat/Long	<b>Easting:</b>	2,089,889.76 ft	<b>Longitude:</b>	109° 23' 43.512 W
<b>Position Uncertainty:</b>	0.00 ft	<b>Slot Radius:</b>	in	<b>Grid Convergence:</b>	1.03 °

<b>Well</b>	NBU 922-36L4BS					
<b>Well Position</b>	<b>+N/-S</b>	0.00 ft	<b>Northing:</b>	14,525,267.57 ft	<b>Latitude:</b>	39° 59' 12.336 N
	<b>+E/-W</b>	-39.22 ft	<b>Easting:</b>	2,089,850.54 ft	<b>Longitude:</b>	109° 23' 44.016 W
<b>Position Uncertainty</b>		0.00 ft	<b>Wellhead Elevation:</b>	ft	<b>Ground Level:</b>	4,966.00 ft

<b>Wellbore</b>	NBU 922-36L4BS				
<b>Magnetics</b>	<b>Model Name</b>	<b>Sample Date</b>	<b>Declination (°)</b>	<b>Dip Angle (°)</b>	<b>Field Strength (nT)</b>
	BGGM2008	1/20/2009	11.36	65.97	52,590

<b>Design</b>	Design #1			
<b>Audit Notes:</b>				
<b>Version:</b>	<b>Phase:</b>	PLAN	<b>Tie On Depth:</b>	0.00
<b>Vertical Section:</b>	<b>Depth From (TVD) (ft)</b>	<b>+N/-S (ft)</b>	<b>+E/-W (ft)</b>	<b>Direction (°)</b>
	0.00	0.00	0.00	20.43

<b>Plan Sections</b>										
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	
2,100.00	0.00	0.00	2,100.00	0.00	0.00	0.00	0.00	0.00	0.00	
2,931.09	29.09	20.43	2,895.84	193.49	72.07	3.50	3.50	0.00	20.43	
5,048.87	29.09	20.43	4,746.52	1,158.30	431.42	0.00	0.00	0.00	0.00	
6,018.47	0.00	0.00	5,675.00	1,384.03	515.50	3.00	-3.00	0.00	180.00	
8,943.47	0.00	0.00	8,600.00	1,384.03	515.50	0.00	0.00	0.00	0.00	PBHL_NBU 922-36



<b>Database:</b>	EDM 2003.21 Single User Db	<b>Local Co-ordinate Reference:</b>	Well NBU 922-36L4BS
<b>Company:</b>	ANADARKO PETROLEUM CORP.	<b>TVD Reference:</b>	WELL @ 4984.00ft (Original Well Elev)
<b>Project:</b>	UINTAH COUNTY, UTAH (nad 27)	<b>MD Reference:</b>	WELL @ 4984.00ft (Original Well Elev)
<b>Site:</b>	NBU 922-36M PAD	<b>North Reference:</b>	True
<b>Well:</b>	NBU 922-36L4BS	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	NBU 922-36L4BS		
<b>Design:</b>	Design #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)
<b>Start Build 3.50</b>									
2,100.00	0.00	0.00	2,100.00	0.00	0.00	0.00	0.00	0.00	0.00
2,200.00	3.50	20.43	2,199.94	2.86	1.07	3.05	3.50	3.50	0.00
2,300.00	7.00	20.43	2,299.50	11.43	4.26	12.20	3.50	3.50	0.00
2,400.00	10.50	20.43	2,398.32	25.69	9.57	27.41	3.50	3.50	0.00
2,500.00	14.00	20.43	2,496.03	45.57	16.97	48.63	3.50	3.50	0.00
2,600.00	17.50	20.43	2,592.26	71.00	26.45	75.77	3.50	3.50	0.00
2,700.00	21.00	20.43	2,686.66	101.89	37.95	108.73	3.50	3.50	0.00
2,800.00	24.50	20.43	2,778.86	138.13	51.45	147.40	3.50	3.50	0.00
2,900.00	28.00	20.43	2,868.54	179.57	66.88	191.62	3.50	3.50	0.00
<b>Start 2117.78 hold at 2931.09 MD</b>									
2,931.09	29.09	20.43	2,895.84	193.49	72.07	206.47	3.50	3.50	0.00
3,000.00	29.09	20.43	2,956.06	224.88	83.76	239.97	0.00	0.00	0.00
3,100.00	29.09	20.43	3,043.45	270.44	100.73	288.59	0.00	0.00	0.00
3,200.00	29.09	20.43	3,130.84	316.00	117.70	337.20	0.00	0.00	0.00
3,300.00	29.09	20.43	3,218.23	361.56	134.67	385.82	0.00	0.00	0.00
3,400.00	29.09	20.43	3,305.61	407.11	151.63	434.43	0.00	0.00	0.00
3,500.00	29.09	20.43	3,393.00	452.67	168.60	483.05	0.00	0.00	0.00
3,600.00	29.09	20.43	3,480.39	498.23	185.57	531.67	0.00	0.00	0.00
3,700.00	29.09	20.43	3,567.78	543.79	202.54	580.28	0.00	0.00	0.00
3,800.00	29.09	20.43	3,655.16	589.34	219.51	628.90	0.00	0.00	0.00
3,900.00	29.09	20.43	3,742.55	634.90	236.48	677.51	0.00	0.00	0.00
4,000.00	29.09	20.43	3,829.94	680.46	253.44	726.13	0.00	0.00	0.00
4,100.00	29.09	20.43	3,917.33	726.02	270.41	774.74	0.00	0.00	0.00
4,200.00	29.09	20.43	4,004.71	771.58	287.38	823.36	0.00	0.00	0.00
4,300.00	29.09	20.43	4,092.10	817.13	304.35	871.97	0.00	0.00	0.00
4,400.00	29.09	20.43	4,179.49	862.69	321.32	920.59	0.00	0.00	0.00
<b>Wasatch</b>									
4,468.10	29.09	20.43	4,239.00	893.72	332.87	953.69	0.00	0.00	0.00
4,500.00	29.09	20.43	4,266.88	908.25	338.29	969.20	0.00	0.00	0.00
4,600.00	29.09	20.43	4,354.26	953.81	355.26	1,017.82	0.00	0.00	0.00
4,700.00	29.09	20.43	4,441.65	999.36	372.22	1,066.43	0.00	0.00	0.00
4,800.00	29.09	20.43	4,529.04	1,044.92	389.19	1,115.05	0.00	0.00	0.00
4,900.00	29.09	20.43	4,616.43	1,090.48	406.16	1,163.66	0.00	0.00	0.00
5,000.00	29.09	20.43	4,703.81	1,136.04	423.13	1,212.28	0.00	0.00	0.00
<b>Start Drop -3.00</b>									
5,048.87	29.09	20.43	4,746.52	1,158.30	431.42	1,236.04	0.00	0.00	0.00
5,100.00	27.55	20.43	4,791.53	1,181.03	439.89	1,260.29	3.00	-3.00	0.00
5,200.00	24.55	20.43	4,881.36	1,222.19	455.22	1,304.21	3.00	-3.00	0.00
5,300.00	21.55	20.43	4,973.36	1,258.88	468.88	1,343.37	3.00	-3.00	0.00
5,400.00	18.55	20.43	5,067.28	1,291.01	480.85	1,377.65	3.00	-3.00	0.00
5,500.00	15.55	20.43	5,162.88	1,318.49	491.09	1,406.98	3.00	-3.00	0.00
5,600.00	12.55	20.43	5,259.87	1,341.24	499.56	1,431.26	3.00	-3.00	0.00
5,700.00	9.55	20.43	5,358.01	1,359.21	506.25	1,450.43	3.00	-3.00	0.00
5,800.00	6.55	20.43	5,457.01	1,372.34	511.14	1,464.44	3.00	-3.00	0.00
5,900.00	3.55	20.43	5,556.61	1,380.59	514.22	1,473.25	3.00	-3.00	0.00
6,000.00	0.55	20.43	5,656.53	1,383.95	515.47	1,476.83	3.00	-3.00	0.00
<b>Start 2925.00 hold at 6018.47 MD</b>									
6,018.47	0.00	0.00	5,675.00	1,384.03	515.50	1,476.92	3.00	-3.00	0.00
6,100.00	0.00	0.00	5,756.53	1,384.03	515.50	1,476.92	0.00	0.00	0.00
6,200.00	0.00	0.00	5,856.53	1,384.03	515.50	1,476.92	0.00	0.00	0.00
6,300.00	0.00	0.00	5,956.53	1,384.03	515.50	1,476.92	0.00	0.00	0.00
6,400.00	0.00	0.00	6,056.53	1,384.03	515.50	1,476.92	0.00	0.00	0.00



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<b>Site:</b>	NBU 922-36M PAD	<b>North Reference:</b>	True
<b>Well:</b>	NBU 922-36L4BS	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	NBU 922-36L4BS		
<b>Design:</b>	Design #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)
6,500.00	0.00	0.00	6,156.53	1,384.03	515.50	1,476.92	0.00	0.00	0.00
6,600.00	0.00	0.00	6,256.53	1,384.03	515.50	1,476.92	0.00	0.00	0.00
6,700.00	0.00	0.00	6,356.53	1,384.03	515.50	1,476.92	0.00	0.00	0.00
6,800.00	0.00	0.00	6,456.53	1,384.03	515.50	1,476.92	0.00	0.00	0.00
6,900.00	0.00	0.00	6,556.53	1,384.03	515.50	1,476.92	0.00	0.00	0.00
7,000.00	0.00	0.00	6,656.53	1,384.03	515.50	1,476.92	0.00	0.00	0.00
7,100.00	0.00	0.00	6,756.53	1,384.03	515.50	1,476.92	0.00	0.00	0.00
7,200.00	0.00	0.00	6,856.53	1,384.03	515.50	1,476.92	0.00	0.00	0.00
7,300.00	0.00	0.00	6,956.53	1,384.03	515.50	1,476.92	0.00	0.00	0.00
7,400.00	0.00	0.00	7,056.53	1,384.03	515.50	1,476.92	0.00	0.00	0.00
7,500.00	0.00	0.00	7,156.53	1,384.03	515.50	1,476.92	0.00	0.00	0.00
7,600.00	0.00	0.00	7,256.53	1,384.03	515.50	1,476.92	0.00	0.00	0.00
7,700.00	0.00	0.00	7,356.53	1,384.03	515.50	1,476.92	0.00	0.00	0.00
<b>Mesaverde</b>									
7,796.47	0.00	0.00	7,453.00	1,384.03	515.50	1,476.92	0.00	0.00	0.00
7,800.00	0.00	0.00	7,456.53	1,384.03	515.50	1,476.92	0.00	0.00	0.00
7,900.00	0.00	0.00	7,556.53	1,384.03	515.50	1,476.92	0.00	0.00	0.00
8,000.00	0.00	0.00	7,656.53	1,384.03	515.50	1,476.92	0.00	0.00	0.00
8,100.00	0.00	0.00	7,756.53	1,384.03	515.50	1,476.92	0.00	0.00	0.00
8,200.00	0.00	0.00	7,856.53	1,384.03	515.50	1,476.92	0.00	0.00	0.00
8,300.00	0.00	0.00	7,956.53	1,384.03	515.50	1,476.92	0.00	0.00	0.00
8,400.00	0.00	0.00	8,056.53	1,384.03	515.50	1,476.92	0.00	0.00	0.00
8,500.00	0.00	0.00	8,156.53	1,384.03	515.50	1,476.92	0.00	0.00	0.00
8,600.00	0.00	0.00	8,256.53	1,384.03	515.50	1,476.92	0.00	0.00	0.00
8,700.00	0.00	0.00	8,356.53	1,384.03	515.50	1,476.92	0.00	0.00	0.00
8,800.00	0.00	0.00	8,456.53	1,384.03	515.50	1,476.92	0.00	0.00	0.00
8,900.00	0.00	0.00	8,556.53	1,384.03	515.50	1,476.92	0.00	0.00	0.00
<b>PBHL_NBU 922-36LB4S</b>									
8,943.47	0.00	0.00	8,600.00	1,384.03	515.50	1,476.92	0.00	0.00	0.00

Design Targets									
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (ft)	Easting (ft)	Latitude	Longitude
PBHL_NBU 922-36LE	0.00	0.00	8,600.00	1,384.04	515.49	14,526,660.66	2,090,341.04	39° 59' 26.016 N	109° 23' 37.392 W
- hit/miss target									
- Shape									
- plan misses target center by 0.01ft at 8943.47ft MD (8600.00 TVD, 1384.03 N, 515.50 E)									
- Circle (radius 25.00)									

Casing Points					
Measured Depth (ft)	Vertical Depth (ft)	Name	Casing Diameter (in)	Hole Diameter (in)	
2,000.00	2,000.00	9 5/8"	9.62	12.25	



<b>Database:</b>	EDM 2003.21 Single User Db	<b>Local Co-ordinate Reference:</b>	Well NBU 922-36L4BS
<b>Company:</b>	ANADARKO PETROLEUM CORP.	<b>TVD Reference:</b>	WELL @ 4984.00ft (Original Well Elev)
<b>Project:</b>	UINTAH COUNTY, UTAH (nad 27)	<b>MD Reference:</b>	WELL @ 4984.00ft (Original Well Elev)
<b>Site:</b>	NBU 922-36M PAD	<b>North Reference:</b>	True
<b>Well:</b>	NBU 922-36L4BS	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	NBU 922-36L4BS		
<b>Design:</b>	Design #1		

Formations					
Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)
1,232.00	1,232.00	Green River			
1,946.00	1,946.00	PROJ_MAHOGANY.EST			
4,468.10	4,239.00	Wasatch			
7,796.47	7,453.00	Mesaverde			

Plan Annotations					
Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment	
		+N/-S (ft)	+E/-W (ft)		
2,100.00	2,100.00	0.00	0.00	Start Build 3.50	
2,931.09	2,895.84	193.49	72.07	Start 2117.78 hold at 2931.09 MD	
5,048.87	4,746.52	1,158.30	431.42	Start Drop -3.00	
6,018.47	5,675.00	1,384.03	515.50	Start 2925.00 hold at 6018.47 MD	
8,943.47	8,600.00	1,384.03	515.50	TD at 8943.47	



# **ANADARKO PETROLEUM CORP.**

**UINTAH COUNTY, UTAH (nad 27)  
NBU 922-36M PAD  
NBU 922-36L4BS**

**NBU 922-36L4BS  
Design #1**

## **Anticollision Report**

**23 April, 2009**





<b>Company:</b>	ANADARKO PETROLEUM CORP.	<b>Local Co-ordinate Reference:</b>	Well NBU 922-36L4BS
<b>Project:</b>	UINTAH COUNTY, UTAH (nad 27)	<b>TVD Reference:</b>	WELL @ 4984.00ft (Original Well Elev)
<b>Reference Site:</b>	NBU 922-36M PAD	<b>MD Reference:</b>	WELL @ 4984.00ft (Original Well Elev)
<b>Site Error:</b>	0.00ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	NBU 922-36L4BS	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	NBU 922-36L4BS	<b>Database:</b>	EDM 2003.21 Single User Db
<b>Reference Design:</b>	Design #1	<b>Offset TVD Reference:</b>	Offset Datum

<b>Reference</b>	Design #1		
<b>Filter type:</b>	NO GLOBAL FILTER: Using user defined selection & filtering criteria		
<b>Interpolation Method:</b>	Stations	<b>Error Model:</b>	ISCWSA
<b>Depth Range:</b>	0.00 to 20,000.00ft	<b>Scan Method:</b>	Closest Approach 3D
<b>Results Limited by:</b>	Maximum center-center distance of 10,000.00ft	<b>Error Surface:</b>	Elliptical Conic
<b>Warning Levels Evaluated at:</b>	2.00 Sigma		

<b>Survey Tool Program</b>	<b>Date</b>	1/20/2009		
<b>From (ft)</b>	<b>To (ft)</b>	<b>Survey (Wellbore)</b>	<b>Tool Name</b>	<b>Description</b>
0.00	8,943.47	Design #1 (NBU 922-36L4BS)	MWD	MWD - Standard

Summary						
Site Name	Reference Measured Depth (ft)	Offset Measured Depth (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Separation Factor	Warning
Offset Well - Wellbore - Design						
NBU 922-36M PAD						
CIGE 221 EXISTING WELL - CIGE 221 EXISTING - CIG	1,396.29	1,396.63	117.15	111.43	20.479	CC
CIGE 221 EXISTING WELL - CIGE 221 EXISTING - CIG	1,400.00	1,400.00	117.16	111.42	20.425	ES
CIGE 221 EXISTING WELL - CIGE 221 EXISTING - CIG	2,200.00	2,198.87	131.31	122.22	14.456	SF
NBU 922-36L3DS - NBU 922-36L3DS - Design #1	2,100.00	2,100.00	19.61	10.44	2.138	CC, ES, SF
NBU 922-36M3T - NBU 922-36M3T - Design #1	2,000.00	2,000.00	19.61	10.88	2.247	CC, ES, SF
NBU 922-36N4BS - NBU 922-36N4BS - Design #1	2,000.00	2,000.00	39.22	30.49	4.495	CC, ES, SF

Offset Design													Offset Site Error:	0.00 ft
NBU 922-36M PAD - CIGE 221 EXISTING WELL - CIGE 221 EXISTING - CIGE 221 EXISTING													Offset Well Error:	0.00 ft
Survey Program: 100-NS-GYRO-MS														
Reference Measured Depth (ft)	Vertical Depth (ft)	Offset Measured Depth (ft)	Vertical Depth (ft)	Semi Major Axis			Offset Wellbore Centre		Distance		Minimum Separation (ft)	Separation Factor	Warning	
				Reference (ft)	Offset (ft)	Highside Toolface (°)	+N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)				
0.00	0.00	0.00	0.00	0.00	0.00	-85.94	9.51	-134.18	134.52					
100.00	100.00	100.00	100.00	0.09	0.11	-85.94	9.51	-134.18	134.52	134.32	0.20	669.279		
200.00	200.00	200.00	200.00	0.32	0.37	-85.94	9.51	-134.18	134.52	133.83	0.69	194.613		
210.25	210.25	210.25	210.25	0.34	0.39	-85.95	9.51	-134.18	134.52	133.79	0.73	184.825		
300.00	300.00	300.00	300.00	0.54	0.51	-86.04	9.30	-134.20	134.52	133.47	1.05	128.320		
400.00	400.00	400.00	400.00	0.77	0.66	-86.13	9.08	-134.21	134.52	133.09	1.43	94.370		
500.00	500.00	500.00	500.00	0.99	0.91	-86.13	9.08	-134.21	134.52	132.62	1.90	70.808		
600.00	600.00	600.44	600.43	1.22	1.08	-86.19	8.92	-134.06	134.36	132.06	2.29	58.636		
700.00	700.00	700.50	700.50	1.44	1.20	-86.30	8.64	-133.73	134.01	131.37	2.64	50.734		
800.00	800.00	801.02	801.01	1.67	1.37	-86.45	8.26	-133.18	133.44	130.40	3.04	43.904		
900.00	900.00	902.04	902.02	1.89	1.58	-86.74	7.53	-132.07	132.30	128.83	3.47	38.171		
1,000.00	1,000.00	1,002.98	1,002.94	2.12	1.79	-87.24	6.28	-130.23	130.41	126.50	3.91	33.358		
1,100.00	1,100.00	1,104.81	1,104.71	2.34	2.03	-87.87	4.73	-127.24	127.42	123.05	4.37	29.153		
1,200.00	1,200.00	1,205.49	1,205.31	2.56	2.28	-88.34	3.57	-123.23	123.40	118.56	4.84	25.486		
1,300.00	1,300.00	1,305.10	1,304.82	2.79	2.53	-88.73	2.65	-118.99	119.12	113.81	5.31	22.417		
1,396.29	1,396.29	1,396.63	1,396.29	3.01	2.72	-89.92	0.17	-117.15	117.15	111.43	5.72	20.479	CC	
1,400.00	1,400.00	1,400.00	1,399.66	3.01	2.72	-89.99	0.03	-117.16	117.16	111.42	5.74	20.425	ES	
1,500.00	1,500.00	1,499.08	1,498.66	3.24	2.89	-91.95	-4.01	-117.73	117.81	111.69	6.12	19.237		
1,600.00	1,600.00	1,598.84	1,598.34	3.46	3.05	-93.75	-7.78	-118.82	119.08	112.57	6.52	18.277		
1,700.00	1,700.00	1,698.57	1,697.98	3.69	3.23	-95.58	-11.72	-120.02	120.61	113.69	6.92	17.434		
1,800.00	1,800.00	1,798.72	1,798.04	3.91	3.42	-97.49	-15.93	-121.20	122.25	114.92	7.34	16.667		

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation



**Weatherford International Ltd.**  
Anticollision Report



<b>Company:</b>	ANADARKO PETROLEUM CORP.	<b>Local Co-ordinate Reference:</b>	Well NBU 922-36L4BS
<b>Project:</b>	UINTAH COUNTY, UTAH (nad 27)	<b>TVD Reference:</b>	WELL @ 4984.00ft (Original Well Elev)
<b>Reference Site:</b>	NBU 922-36M PAD	<b>MD Reference:</b>	WELL @ 4984.00ft (Original Well Elev)
<b>Site Error:</b>	0.00ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	NBU 922-36L4BS	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	NBU 922-36L4BS	<b>Database:</b>	EDM 2003.21 Single User Db
<b>Reference Design:</b>	Design #1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design													Offset Site Error:	0.00 ft
Survey Program: 100-NS-GYRO-MS													Offset Well Error:	0.00 ft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Tooface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
1,900.00	1,900.00	1,898.46	1,897.68	4.14	3.62	-99.35	-20.13	-122.32	123.99	116.23	7.76	15.974		
2,000.00	2,000.00	1,998.03	1,997.16	4.36	3.83	-101.10	-24.26	-123.66	126.05	117.86	8.19	15.388		
2,100.00	2,100.00	2,098.92	2,097.96	4.59	4.05	-102.77	-28.28	-124.80	127.98	119.35	8.63	14.823		
2,200.00	2,199.94	2,198.87	2,197.83	4.81	4.28	-125.90	-32.36	-125.41	131.31	122.22	9.08	14.456 SF		
2,300.00	2,299.50	2,298.05	2,296.91	5.04	4.51	-130.41	-36.67	-125.83	138.72	129.20	9.52	14.575		
2,400.00	2,398.32	2,396.82	2,395.60	5.27	4.75	-135.92	-40.77	-126.06	151.06	141.12	9.93	15.210		
2,500.00	2,496.03	2,493.31	2,492.02	5.52	4.99	-141.48	-44.34	-126.38	169.26	158.96	10.31	16.423		
2,600.00	2,592.26	2,589.77	2,588.43	5.82	5.22	-146.65	-47.30	-126.92	193.73	183.09	10.64	18.206		
2,700.00	2,686.66	2,682.79	2,681.42	6.18	5.44	-151.12	-49.86	-127.33	224.44	213.51	10.93	20.533		
2,800.00	2,778.86	2,773.40	2,771.98	6.62	5.67	-154.91	-52.57	-127.83	261.83	250.65	11.17	23.430		
2,900.00	2,868.54	2,861.59	2,860.13	7.16	5.88	-158.01	-55.19	-128.47	305.52	294.14	11.38	26.853		
2,931.09	2,895.84	2,888.43	2,886.96	7.35	5.95	-158.85	-55.98	-128.67	320.33	308.89	11.43	28.018		
3,000.00	2,956.06	2,946.18	2,944.67	7.79	6.09	-160.88	-57.78	-129.14	354.05	342.33	11.73	30.191		
3,100.00	3,043.45	3,029.68	3,028.12	8.48	6.29	-163.24	-60.81	-130.04	404.00	391.83	12.17	33.189		
3,200.00	3,130.84	3,114.30	3,112.67	9.21	6.50	-165.14	-64.12	-131.03	454.62	441.99	12.64	35.975		
3,300.00	3,218.23	3,198.73	3,197.02	9.97	6.71	-166.66	-67.58	-132.04	505.70	492.59	13.12	38.557		
3,400.00	3,305.61	3,283.22	3,281.42	10.76	6.92	-167.93	-71.21	-133.00	557.13	543.52	13.61	40.940		
3,500.00	3,393.00	3,367.54	3,365.65	11.57	7.14	-169.01	-75.02	-133.86	608.84	594.73	14.11	43.147		
3,600.00	3,480.39	3,452.60	3,450.62	12.40	7.35	-169.93	-78.94	-134.75	660.77	646.15	14.62	45.199		
3,700.00	3,567.78	3,538.38	3,536.32	13.24	7.56	-170.66	-82.53	-136.16	712.73	697.59	15.14	47.088		
3,800.00	3,655.16	3,624.94	3,622.79	14.09	7.76	-171.24	-85.73	-138.16	764.66	749.00	15.65	48.847		
3,900.00	3,742.55	3,713.33	3,711.10	14.96	7.94	-171.67	-88.30	-140.96	816.37	800.21	16.16	50.506		
4,000.00	3,829.94	3,800.00	3,797.68	15.82	8.12	-171.97	-90.04	-144.50	867.79	851.11	16.68	52.028		
4,100.00	3,917.33	3,884.58	3,882.15	16.70	8.28	-172.17	-91.41	-148.56	919.22	902.04	17.18	53.503		
4,200.00	4,004.71	3,966.76	3,964.20	17.58	8.43	-172.32	-92.86	-152.95	970.97	953.29	17.68	54.912		
4,300.00	4,092.10	4,051.35	4,048.64	18.47	8.58	-172.44	-94.42	-157.83	1,022.95	1,004.76	18.19	56.226		
4,400.00	4,179.49	4,137.85	4,134.97	19.36	8.75	-172.55	-95.93	-162.89	1,074.89	1,056.18	18.71	57.441		
4,500.00	4,266.88	4,225.32	4,222.28	20.25	8.91	-172.64	-97.32	-168.04	1,126.73	1,107.50	19.24	58.575		
4,600.00	4,354.26	4,315.30	4,312.10	21.14	9.08	-172.72	-98.49	-173.25	1,178.31	1,158.55	19.77	59.616		
4,700.00	4,441.65	4,405.65	4,402.30	22.04	9.25	-172.80	-99.34	-178.38	1,229.58	1,209.28	20.30	60.580		
4,800.00	4,529.04	4,495.88	4,492.41	22.95	9.42	-172.88	-100.01	-183.15	1,280.54	1,259.70	20.83	61.469		
4,900.00	4,616.43	4,586.45	4,582.87	23.85	9.59	-172.97	-100.60	-187.40	1,331.21	1,309.84	21.37	62.298		
5,000.00	4,703.81	4,674.45	4,670.80	24.75	9.76	-173.08	-101.17	-191.08	1,381.68	1,359.77	21.91	63.062		
5,048.87	4,746.52	4,717.25	4,713.56	25.20	9.85	-173.13	-101.48	-192.74	1,406.31	1,384.13	22.17	63.419		
5,100.00	4,791.53	4,762.38	4,758.66	25.60	9.94	-173.29	-101.83	-194.39	1,431.47	1,408.87	22.60	63.330		
5,200.00	4,881.36	4,853.45	4,849.68	26.26	10.12	-173.56	-102.57	-197.48	1,477.16	1,453.77	23.38	63.167		
5,300.00	4,973.36	4,947.60	4,943.77	26.86	10.32	-173.78	-103.24	-200.49	1,517.99	1,493.88	24.11	62.961		
5,400.00	5,067.28	5,042.72	5,038.85	27.40	10.52	-173.95	-103.79	-203.39	1,553.85	1,529.09	24.77	62.741		
5,500.00	5,162.88	5,138.15	5,134.22	27.88	10.71	-174.07	-104.22	-206.46	1,584.77	1,559.42	25.35	62.518		
5,600.00	5,259.87	5,237.60	5,233.62	28.29	10.92	-174.13	-104.52	-209.82	1,610.64	1,584.78	25.86	62.280		
5,700.00	5,358.01	5,342.98	5,338.95	28.63	11.13	-174.17	-104.67	-212.87	1,631.09	1,604.78	26.30	62.014		
5,800.00	5,457.01	5,445.08	5,441.03	28.91	11.33	-174.20	-104.66	-215.20	1,646.01	1,619.36	26.66	61.751		
5,900.00	5,556.61	5,542.72	5,538.65	29.11	11.54	-174.19	-104.73	-217.33	1,655.80	1,628.88	26.92	61.509		
6,000.00	5,656.53	5,641.97	5,637.87	29.24	11.74	-174.16	-104.92	-219.49	1,660.49	1,633.38	27.11	61.259		
6,018.47	5,675.00	5,660.64	5,656.53	29.25	11.78	-153.72	-104.95	-219.89	1,660.78	1,633.65	27.13	61.210		
6,100.00	5,756.53	5,743.07	5,738.95	29.32	11.96	-153.66	-105.06	-221.68	1,661.67	1,634.23	27.44	60.565		
6,200.00	5,856.53	5,800.00	5,795.86	29.41	12.08	-153.62	-105.10	-222.93	1,663.27	1,635.55	27.73	59.986		
6,300.00	5,956.53	5,800.00	5,795.86	29.50	12.08	-153.62	-105.10	-222.93	1,669.92	1,642.02	27.90	59.861		
6,400.00	6,056.53	5,800.00	5,795.86	29.60	12.08	-153.62	-105.10	-222.93	1,682.48	1,654.42	28.07	59.946		
6,500.00	6,156.53	5,800.00	5,795.86	29.69	12.08	-153.62	-105.10	-222.93	1,700.85	1,672.61	28.24	60.232		
6,600.00	6,256.53	5,800.00	5,795.86	29.79	12.08	-153.62	-105.10	-222.93	1,724.82	1,696.41	28.41	60.709		
6,700.00	6,356.53	5,800.00	5,795.86	29.88	12.08	-153.62	-105.10	-222.93	1,754.18	1,725.60	28.59	61.366		

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation



**Weatherford International Ltd.**  
Anticollision Report



<b>Company:</b>	ANADARKO PETROLEUM CORP.	<b>Local Co-ordinate Reference:</b>	Well NBU 922-36L4BS
<b>Project:</b>	UINTAH COUNTY, UTAH (nad 27)	<b>TVD Reference:</b>	WELL @ 4984.00ft (Original Well Elev)
<b>Reference Site:</b>	NBU 922-36M PAD	<b>MD Reference:</b>	WELL @ 4984.00ft (Original Well Elev)
<b>Site Error:</b>	0.00ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	NBU 922-36L4BS	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	NBU 922-36L4BS	<b>Database:</b>	EDM 2003.21 Single User Db
<b>Reference Design:</b>	Design #1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design												Offset Site Error:	0.00 ft
Survey Program: 100-NS-GYRO-MS												Offset Well Error:	0.00 ft
Reference		Offset		Semi Major Axis			Distance					Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	
6,800.00	6,456.53	5,800.00	5,795.86	29.98	12.08	-153.62	-105.10	-222.93	1,788.65	1,759.89	28.76	62.191	
6,900.00	6,556.53	5,800.00	5,795.86	30.08	12.08	-153.62	-105.10	-222.93	1,827.95	1,799.02	28.94	63.169	
7,000.00	6,656.53	5,800.00	5,795.86	30.18	12.08	-153.62	-105.10	-222.93	1,871.78	1,842.66	29.12	64.289	
7,100.00	6,756.53	5,800.00	5,795.86	30.28	12.08	-153.62	-105.10	-222.93	1,919.81	1,890.52	29.29	65.537	
7,200.00	6,856.53	5,800.00	5,795.86	30.39	12.08	-153.62	-105.10	-222.93	1,971.76	1,942.28	29.47	66.899	
7,300.00	6,956.53	5,800.00	5,795.86	30.49	12.08	-153.62	-105.10	-222.93	2,027.30	1,997.65	29.65	68.364	
7,400.00	7,056.53	5,800.00	5,795.86	30.60	12.08	-153.62	-105.10	-222.93	2,086.17	2,056.33	29.84	69.921	
7,500.00	7,156.53	5,800.00	5,795.86	30.71	12.08	-153.62	-105.10	-222.93	2,148.07	2,118.05	30.02	71.557	
7,600.00	7,256.53	5,800.00	5,795.86	30.81	12.08	-153.62	-105.10	-222.93	2,212.77	2,182.57	30.20	73.264	
7,700.00	7,356.53	5,800.00	5,795.86	30.92	12.08	-153.62	-105.10	-222.93	2,280.02	2,249.63	30.39	75.032	
7,800.00	7,456.53	5,800.00	5,795.86	31.04	12.08	-153.62	-105.10	-222.93	2,349.60	2,319.03	30.57	76.852	
7,900.00	7,556.53	5,800.00	5,795.86	31.15	12.08	-153.62	-105.10	-222.93	2,421.31	2,390.55	30.76	78.718	
8,000.00	7,656.53	5,800.00	5,795.86	31.26	12.08	-153.62	-105.10	-222.93	2,494.97	2,464.03	30.95	80.622	
8,100.00	7,756.53	5,800.00	5,795.86	31.38	12.08	-153.62	-105.10	-222.93	2,570.41	2,539.28	31.13	82.558	
8,200.00	7,856.53	5,800.00	5,795.86	31.49	12.08	-153.62	-105.10	-222.93	2,647.48	2,616.16	31.32	84.520	
8,300.00	7,956.53	5,800.00	5,795.86	31.61	12.08	-153.62	-105.10	-222.93	2,726.04	2,694.53	31.51	86.505	
8,400.00	8,056.53	5,800.00	5,795.86	31.73	12.08	-153.62	-105.10	-222.93	2,805.96	2,774.26	31.70	88.506	
8,500.00	8,156.53	5,800.00	5,795.86	31.85	12.08	-153.62	-105.10	-222.93	2,887.14	2,855.24	31.89	90.521	
8,600.00	8,256.53	5,800.00	5,795.86	31.97	12.08	-153.62	-105.10	-222.93	2,969.46	2,937.37	32.09	92.546	
8,700.00	8,356.53	5,800.00	5,795.86	32.09	12.08	-153.62	-105.10	-222.93	3,052.84	3,020.56	32.28	94.577	
8,800.00	8,456.53	5,800.00	5,795.86	32.21	12.08	-153.62	-105.10	-222.93	3,137.19	3,104.72	32.47	96.612	
8,900.00	8,556.53	5,800.00	5,795.86	32.34	12.08	-153.62	-105.10	-222.93	3,222.44	3,189.77	32.67	98.649	
8,943.47	8,600.00	5,800.00	5,795.86	32.39	12.08	-153.62	-105.10	-222.93	3,259.75	3,227.00	32.75	99.534	



**Weatherford International Ltd.**  
Anticollision Report



<b>Company:</b>	ANADARKO PETROLEUM CORP.	<b>Local Co-ordinate Reference:</b>	Well NBU 922-36L4BS
<b>Project:</b>	UINTAH COUNTY, UTAH (nad 27)	<b>TVD Reference:</b>	WELL @ 4984.00ft (Original Well Elev)
<b>Reference Site:</b>	NBU 922-36M PAD	<b>MD Reference:</b>	WELL @ 4984.00ft (Original Well Elev)
<b>Site Error:</b>	0.00ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	NBU 922-36L4BS	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	NBU 922-36L4BS	<b>Database:</b>	EDM 2003.21 Single User Db
<b>Reference Design:</b>	Design #1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design													Offset Site Error:	0.00 ft	
Survey Program: 0-MWD													Offset Well Error:		0.00 ft
Reference		Offset		Semi Major Axis			Distance						Warning		
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor			
0.00	0.00	0.00	0.00	0.00	0.00	-90.00	0.00	-19.61	19.61						
100.00	100.00	100.00	100.00	0.09	0.09	-90.00	0.00	-19.61	19.61	19.43	0.18	106.411			
200.00	200.00	200.00	200.00	0.32	0.32	-90.00	0.00	-19.61	19.61	18.98	0.63	30.942			
300.00	300.00	300.00	300.00	0.54	0.54	-90.00	0.00	-19.61	19.61	18.53	1.08	18.103			
400.00	400.00	400.00	400.00	0.77	0.77	-90.00	0.00	-19.61	19.61	18.08	1.53	12.794			
500.00	500.00	500.00	500.00	0.99	0.99	-90.00	0.00	-19.61	19.61	17.63	1.98	9.893			
600.00	600.00	600.00	600.00	1.22	1.22	-90.00	0.00	-19.61	19.61	17.18	2.43	8.064			
700.00	700.00	700.00	700.00	1.44	1.44	-90.00	0.00	-19.61	19.61	16.73	2.88	6.806			
800.00	800.00	800.00	800.00	1.67	1.67	-90.00	0.00	-19.61	19.61	16.28	3.33	5.888			
900.00	900.00	900.00	900.00	1.89	1.89	-90.00	0.00	-19.61	19.61	15.83	3.78	5.188			
1,000.00	1,000.00	1,000.00	1,000.00	2.12	2.12	-90.00	0.00	-19.61	19.61	15.38	4.23	4.636			
1,100.00	1,100.00	1,100.00	1,100.00	2.34	2.34	-90.00	0.00	-19.61	19.61	14.93	4.68	4.191			
1,200.00	1,200.00	1,200.00	1,200.00	2.56	2.56	-90.00	0.00	-19.61	19.61	14.48	5.13	3.824			
1,300.00	1,300.00	1,300.00	1,300.00	2.79	2.79	-90.00	0.00	-19.61	19.61	14.03	5.58	3.516			
1,400.00	1,400.00	1,400.00	1,400.00	3.01	3.01	-90.00	0.00	-19.61	19.61	13.58	6.03	3.253			
1,500.00	1,500.00	1,500.00	1,500.00	3.24	3.24	-90.00	0.00	-19.61	19.61	13.13	6.48	3.028			
1,600.00	1,600.00	1,600.00	1,600.00	3.46	3.46	-90.00	0.00	-19.61	19.61	12.69	6.93	2.831			
1,700.00	1,700.00	1,700.00	1,700.00	3.69	3.69	-90.00	0.00	-19.61	19.61	12.24	7.38	2.659			
1,800.00	1,800.00	1,800.00	1,800.00	3.91	3.91	-90.00	0.00	-19.61	19.61	11.79	7.83	2.506			
1,900.00	1,900.00	1,900.00	1,900.00	4.14	4.14	-90.00	0.00	-19.61	19.61	11.34	8.28	2.370			
2,000.00	2,000.00	2,000.00	2,000.00	4.36	4.36	-90.00	0.00	-19.61	19.61	10.89	8.73	2.248			
2,100.00	2,100.00	2,100.00	2,100.00	4.59	4.59	-90.00	0.00	-19.61	19.61	10.44	9.17	2.138	CC, ES, SF		
2,200.00	2,199.94	2,199.98	2,199.94	4.81	4.81	-111.07	2.62	-19.65	20.71	11.10	9.62	2.154			
2,300.00	2,299.50	2,299.94	2,299.57	5.04	5.04	-112.63	10.45	-19.75	24.03	13.98	10.05	2.390			
2,400.00	2,398.32	2,399.84	2,398.61	5.27	5.27	-114.42	23.49	-19.93	29.58	19.08	10.50	2.818			
2,500.00	2,496.03	2,499.67	2,496.76	5.52	5.51	-115.99	41.66	-20.17	37.35	26.39	10.97	3.406			
2,600.00	2,592.26	2,599.40	2,593.72	5.82	5.79	-117.19	64.91	-20.48	47.34	35.85	11.49	4.121			
2,700.00	2,686.66	2,699.01	2,689.23	6.18	6.11	-118.04	93.16	-20.85	59.50	47.41	12.09	4.922			
2,800.00	2,778.86	2,798.49	2,783.02	6.62	6.49	-118.60	126.30	-21.29	73.81	61.01	12.81	5.764			
2,900.00	2,868.54	2,897.83	2,874.82	7.16	6.95	-118.94	164.22	-21.80	90.22	76.56	13.66	6.604			
2,931.09	2,895.84	2,928.68	2,902.92	7.35	7.11	-119.00	176.96	-21.97	95.74	81.77	13.97	6.854			
3,000.00	2,956.06	2,997.13	2,964.50	7.79	7.49	-118.81	206.84	-22.37	107.98	93.25	14.73	7.332			
3,100.00	3,043.45	3,095.89	3,051.92	8.48	8.10	-117.15	252.80	-22.98	125.25	109.24	16.00	7.826			
3,200.00	3,130.84	3,194.33	3,138.92	9.21	8.77	-115.78	298.85	-23.59	142.56	125.19	17.37	8.208			
3,300.00	3,218.23	3,292.77	3,225.92	9.97	9.47	-114.71	344.90	-24.21	159.93	141.13	18.80	8.507			
3,400.00	3,305.61	3,391.22	3,312.92	10.76	10.20	-113.85	390.95	-24.82	177.34	157.06	20.28	8.744			
3,500.00	3,393.00	3,489.66	3,399.93	11.57	10.95	-113.14	437.01	-25.43	194.79	172.98	21.81	8.933			
3,600.00	3,480.39	3,588.10	3,486.93	12.40	11.72	-112.55	483.06	-26.05	212.26	188.90	23.37	9.084			
3,700.00	3,567.78	3,686.54	3,573.93	13.24	12.51	-112.05	529.11	-26.66	229.75	204.80	24.95	9.208			
3,800.00	3,655.16	3,784.98	3,660.93	14.09	13.30	-111.62	575.16	-27.27	247.26	220.70	26.56	9.309			
3,900.00	3,742.55	3,882.86	3,748.40	14.96	13.94	-111.71	619.09	-27.86	264.87	236.89	27.99	9.465			
4,000.00	3,829.94	3,980.47	3,837.40	15.82	14.53	-112.64	659.12	-28.39	282.74	253.43	29.31	9.645			
4,100.00	3,917.33	4,077.43	3,927.43	16.70	15.09	-114.25	695.11	-28.87	301.05	270.51	30.53	9.859			
4,200.00	4,004.71	4,173.42	4,017.98	17.58	15.61	-116.40	726.96	-29.30	320.08	288.46	31.62	10.122			
4,300.00	4,092.10	4,268.12	4,108.54	18.47	16.07	-118.95	754.64	-29.66	340.21	307.64	32.56	10.448			
4,400.00	4,179.49	4,361.25	4,198.63	19.36	16.48	-121.78	778.18	-29.98	361.82	328.48	33.34	10.853			
4,500.00	4,266.88	4,452.53	4,287.80	20.25	16.84	-124.79	797.69	-30.24	385.32	351.37	33.95	11.350			
4,600.00	4,354.26	4,541.75	4,375.63	21.14	17.15	-127.89	813.31	-30.45	411.05	376.65	34.40	11.950			
4,700.00	4,441.65	4,628.71	4,461.76	22.04	17.40	-130.99	825.24	-30.60	439.31	404.62	34.70	12.662			
4,800.00	4,529.04	4,713.26	4,545.88	22.95	17.61	-134.04	833.69	-30.72	470.35	435.48	34.87	13.489			
4,900.00	4,616.43	4,800.00	4,632.45	23.85	17.78	-137.15	839.14	-30.79	504.34	469.44	34.90	14.450			
5,000.00	4,703.81	4,874.66	4,707.08	24.75	17.88	-139.79	841.20	-30.82	541.30	506.38	34.92	15.499			

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation



**Weatherford International Ltd.**  
Anticollision Report



<b>Company:</b>	ANADARKO PETROLEUM CORP.	<b>Local Co-ordinate Reference:</b>	Well NBU 922-36L4BS
<b>Project:</b>	UINTAH COUNTY, UTAH (nad 27)	<b>TVD Reference:</b>	WELL @ 4984.00ft (Original Well Elev)
<b>Reference Site:</b>	NBU 922-36M PAD	<b>MD Reference:</b>	WELL @ 4984.00ft (Original Well Elev)
<b>Site Error:</b>	0.00ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	NBU 922-36L4BS	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	NBU 922-36L4BS	<b>Database:</b>	EDM 2003.21 Single User Db
<b>Reference Design:</b>	Design #1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design													Offset Site Error:	0.00 ft
Survey Program: 0-MWD													Offset Well Error:	0.00 ft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Tooface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
5,048.87	4,746.52	4,914.10	4,746.52	25.20	17.93	-141.16	841.34	-30.82	560.47	525.58	34.89	16.063		
5,100.00	4,791.53	4,959.11	4,791.53	25.60	17.98	-142.99	841.34	-30.82	580.48	545.70	34.78	16.690		
5,200.00	4,881.36	5,048.94	4,881.36	26.26	18.09	-146.04	841.34	-30.82	617.47	582.87	34.60	17.847		
5,300.00	4,973.36	5,140.94	4,973.36	26.86	18.20	-148.49	841.34	-30.82	651.18	616.66	34.52	18.863		
5,400.00	5,067.28	5,234.87	5,067.28	27.40	18.32	-150.44	841.34	-30.82	681.18	646.66	34.52	19.734		
5,500.00	5,162.88	5,330.46	5,162.88	27.88	18.45	-151.99	841.34	-30.82	707.14	672.58	34.56	20.460		
5,600.00	5,259.87	5,427.46	5,259.87	28.29	18.57	-153.18	841.34	-30.82	728.84	694.20	34.63	21.045		
5,700.00	5,358.01	5,525.59	5,358.01	28.63	18.70	-154.07	841.34	-30.82	746.08	711.36	34.71	21.493		
5,800.00	5,457.01	5,624.59	5,457.01	28.91	18.83	-154.70	841.34	-30.82	758.73	723.94	34.79	21.808		
5,900.00	5,556.61	5,724.19	5,556.61	29.11	18.97	-155.08	841.34	-30.82	766.72	731.85	34.86	21.993		
6,000.00	5,656.53	5,824.12	5,656.53	29.24	19.11	-155.23	841.34	-30.82	769.97	735.05	34.92	22.049		
6,018.47	5,675.00	5,842.58	5,675.00	29.25	19.13	-134.81	841.34	-30.82	770.05	735.12	34.93	22.045		
6,100.00	5,756.53	5,924.12	5,756.53	29.32	19.24	-134.81	841.34	-30.82	770.05	734.88	35.17	21.898		
6,200.00	5,856.53	6,024.12	5,856.53	29.41	19.38	-134.81	841.34	-30.82	770.05	734.58	35.47	21.712		
6,300.00	5,956.53	6,124.12	5,956.53	29.50	19.53	-134.81	841.34	-30.82	770.05	734.28	35.77	21.527		
6,400.00	6,056.53	6,224.12	6,056.53	29.60	19.67	-134.81	841.34	-30.82	770.05	733.97	36.08	21.343		
6,500.00	6,156.53	6,324.12	6,156.53	29.69	19.81	-134.81	841.34	-30.82	770.05	733.66	36.39	21.161		
6,600.00	6,256.53	6,424.12	6,256.53	29.79	19.96	-134.81	841.34	-30.82	770.05	733.35	36.70	20.981		
6,700.00	6,356.53	6,524.12	6,356.53	29.88	20.11	-134.81	841.34	-30.82	770.05	733.03	37.02	20.802		
6,800.00	6,456.53	6,624.12	6,456.53	29.98	20.26	-134.81	841.34	-30.82	770.05	732.71	37.34	20.624		
6,900.00	6,556.53	6,724.12	6,556.53	30.08	20.41	-134.81	841.34	-30.82	770.05	732.39	37.66	20.448		
7,000.00	6,656.53	6,824.12	6,656.53	30.18	20.56	-134.81	841.34	-30.82	770.05	732.07	37.98	20.274		
7,100.00	6,756.53	6,924.12	6,756.53	30.28	20.71	-134.81	841.34	-30.82	770.05	731.74	38.31	20.101		
7,200.00	6,856.53	7,024.12	6,856.53	30.39	20.87	-134.81	841.34	-30.82	770.05	731.41	38.64	19.930		
7,300.00	6,956.53	7,124.12	6,956.53	30.49	21.02	-134.81	841.34	-30.82	770.05	731.08	38.97	19.760		
7,400.00	7,056.53	7,224.12	7,056.53	30.60	21.18	-134.81	841.34	-30.82	770.05	730.75	39.30	19.593		
7,500.00	7,156.53	7,324.12	7,156.53	30.71	21.34	-134.81	841.34	-30.82	770.05	730.41	39.64	19.427		
7,600.00	7,256.53	7,424.12	7,256.53	30.81	21.50	-134.81	841.34	-30.82	770.05	730.07	39.98	19.262		
7,700.00	7,356.53	7,524.12	7,356.53	30.92	21.66	-134.81	841.34	-30.82	770.05	729.73	40.32	19.100		
7,800.00	7,456.53	7,624.12	7,456.53	31.04	21.82	-134.81	841.34	-30.82	770.05	729.39	40.66	18.939		
7,900.00	7,556.53	7,724.12	7,556.53	31.15	21.98	-134.81	841.34	-30.82	770.05	729.05	41.00	18.780		
8,000.00	7,656.53	7,824.12	7,656.53	31.26	22.15	-134.81	841.34	-30.82	770.05	728.70	41.35	18.623		
8,100.00	7,756.53	7,924.12	7,756.53	31.38	22.31	-134.81	841.34	-30.82	770.05	728.35	41.70	18.467		
8,200.00	7,856.53	8,024.12	7,856.53	31.49	22.48	-134.81	841.34	-30.82	770.05	728.00	42.05	18.313		
8,300.00	7,956.53	8,124.12	7,956.53	31.61	22.65	-134.81	841.34	-30.82	770.05	727.65	42.40	18.161		
8,400.00	8,056.53	8,224.12	8,056.53	31.73	22.82	-134.81	841.34	-30.82	770.05	727.29	42.76	18.011		
8,500.00	8,156.53	8,324.12	8,156.53	31.85	22.98	-134.81	841.34	-30.82	770.05	726.94	43.11	17.862		
8,600.00	8,256.53	8,424.12	8,256.53	31.97	23.15	-134.81	841.34	-30.82	770.05	726.58	43.47	17.715		
8,700.00	8,356.53	8,524.12	8,356.53	32.09	23.32	-134.81	841.34	-30.82	770.05	726.22	43.83	17.570		
8,800.00	8,456.53	8,624.12	8,456.53	32.21	23.50	-134.81	841.34	-30.82	770.05	725.86	44.19	17.427		
8,900.00	8,556.53	8,724.12	8,556.53	32.34	23.67	-134.81	841.34	-30.82	770.05	725.50	44.55	17.285		
8,943.47	8,600.00	8,767.58	8,600.00	32.39	23.74	-134.81	841.34	-30.82	770.05	725.34	44.71	17.224		



**Weatherford International Ltd.**  
Anticollision Report



<b>Company:</b>	ANADARKO PETROLEUM CORP.	<b>Local Co-ordinate Reference:</b>	Well NBU 922-36L4BS
<b>Project:</b>	UINTAH COUNTY, UTAH (nad 27)	<b>TVD Reference:</b>	WELL @ 4984.00ft (Original Well Elev)
<b>Reference Site:</b>	NBU 922-36M PAD	<b>MD Reference:</b>	WELL @ 4984.00ft (Original Well Elev)
<b>Site Error:</b>	0.00ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	NBU 922-36L4BS	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	NBU 922-36L4BS	<b>Database:</b>	EDM 2003.21 Single User Db
<b>Reference Design:</b>	Design #1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design													Offset Site Error:	0.00 ft
Survey Program: 0-MWD													Offset Well Error:	0.00 ft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
0.00	0.00	0.00	0.00	0.00	0.00	89.99	0.00	19.61	19.61					
100.00	100.00	100.00	100.00	0.09	0.09	89.99	0.00	19.61	19.61	19.42	0.18	106.380		
200.00	200.00	200.00	200.00	0.32	0.32	89.99	0.00	19.61	19.61	18.97	0.63	30.933		
300.00	300.00	300.00	300.00	0.54	0.54	89.99	0.00	19.61	19.61	18.52	1.08	18.098		
400.00	400.00	400.00	400.00	0.77	0.77	89.99	0.00	19.61	19.61	18.07	1.53	12.791		
500.00	500.00	500.00	500.00	0.99	0.99	89.99	0.00	19.61	19.61	17.62	1.98	9.890		
600.00	600.00	600.00	600.00	1.22	1.22	89.99	0.00	19.61	19.61	17.17	2.43	8.062		
700.00	700.00	700.00	700.00	1.44	1.44	89.99	0.00	19.61	19.61	16.73	2.88	6.804		
800.00	800.00	800.00	800.00	1.67	1.67	89.99	0.00	19.61	19.61	16.28	3.33	5.886		
900.00	900.00	900.00	900.00	1.89	1.89	89.99	0.00	19.61	19.61	15.83	3.78	5.186		
1,000.00	1,000.00	1,000.00	1,000.00	2.12	2.12	89.99	0.00	19.61	19.61	15.38	4.23	4.635		
1,100.00	1,100.00	1,100.00	1,100.00	2.34	2.34	89.99	0.00	19.61	19.61	14.93	4.68	4.190		
1,200.00	1,200.00	1,200.00	1,200.00	2.56	2.56	89.99	0.00	19.61	19.61	14.48	5.13	3.823		
1,300.00	1,300.00	1,300.00	1,300.00	2.79	2.79	89.99	0.00	19.61	19.61	14.03	5.58	3.515		
1,400.00	1,400.00	1,400.00	1,400.00	3.01	3.01	89.99	0.00	19.61	19.61	13.58	6.03	3.252		
1,500.00	1,500.00	1,500.00	1,500.00	3.24	3.24	89.99	0.00	19.61	19.61	13.13	6.48	3.027		
1,600.00	1,600.00	1,600.00	1,600.00	3.46	3.46	89.99	0.00	19.61	19.61	12.68	6.93	2.830		
1,700.00	1,700.00	1,700.00	1,700.00	3.69	3.69	89.99	0.00	19.61	19.61	12.23	7.38	2.658		
1,800.00	1,800.00	1,800.00	1,800.00	3.91	3.91	89.99	0.00	19.61	19.61	11.78	7.83	2.505		
1,900.00	1,900.00	1,900.00	1,900.00	4.14	4.14	89.99	0.00	19.61	19.61	11.33	8.28	2.369		
2,000.00	2,000.00	2,000.00	2,000.00	4.36	4.36	89.99	0.00	19.61	19.61	10.88	8.73	2.247	CC, ES, SF	
2,100.00	2,100.00	2,099.29	2,099.27	4.59	4.57	89.38	0.23	21.31	21.33	12.16	9.16	2.328		
2,200.00	2,199.94	2,198.37	2,198.21	4.81	4.78	73.76	0.92	26.41	25.48	15.90	9.58	2.659		
2,300.00	2,299.50	2,297.54	2,297.05	5.04	4.99	86.43	2.00	34.42	31.70	21.69	10.01	3.167		
2,400.00	2,398.32	2,396.61	2,395.76	5.27	5.21	102.88	3.12	42.80	40.25	29.80	10.45	3.853		
2,500.00	2,496.03	2,494.82	2,493.61	5.52	5.43	118.73	4.24	51.10	53.65	42.78	10.87	4.936		
2,600.00	2,592.26	2,591.79	2,590.22	5.82	5.65	131.28	5.34	59.29	73.45	62.20	11.25	6.530		
2,700.00	2,686.66	2,687.16	2,685.25	6.18	5.87	140.34	6.42	67.35	99.90	88.33	11.57	8.631		
2,800.00	2,778.86	2,780.58	2,778.33	6.62	6.09	146.76	7.49	75.25	132.79	120.93	11.86	11.195		
2,900.00	2,868.54	2,871.67	2,869.09	7.16	6.30	151.39	8.51	82.85	171.80	159.69	12.11	14.186		
2,931.09	2,895.84	2,899.38	2,896.73	7.35	6.36	152.61	8.79	84.97	185.15	172.97	12.18	15.204		
3,000.00	2,956.06	2,960.37	2,957.57	7.79	6.48	155.42	9.36	89.17	215.60	203.14	12.46	17.308		
3,100.00	3,043.45	3,048.41	3,045.47	8.48	6.66	158.62	10.02	94.10	260.51	247.63	12.88	20.225		
3,200.00	3,130.84	3,135.89	3,132.87	9.21	6.84	161.15	10.50	97.66	306.16	292.84	13.32	22.986		
3,300.00	3,218.23	3,222.77	3,219.72	9.97	7.01	163.25	10.80	99.90	352.48	338.71	13.77	25.604		
3,400.00	3,305.61	3,309.01	3,305.96	10.76	7.18	165.07	10.93	100.83	399.43	385.21	14.22	28.094		
3,500.00	3,393.00	3,396.06	3,393.00	11.57	7.35	166.66	10.93	100.86	446.91	432.23	14.68	30.445		
3,600.00	3,480.39	3,483.44	3,480.39	12.40	7.54	167.95	10.93	100.86	494.61	479.44	15.17	32.608		
3,700.00	3,567.78	3,570.83	3,567.78	13.24	7.73	169.02	10.93	100.86	542.47	526.80	15.67	34.623		
3,800.00	3,655.16	3,658.22	3,655.16	14.09	7.92	169.91	10.93	100.86	590.46	574.28	16.18	36.502		
3,900.00	3,742.55	3,745.61	3,742.55	14.96	8.11	170.67	10.93	100.86	638.54	621.85	16.69	38.255		
4,000.00	3,829.94	3,832.99	3,829.94	15.82	8.30	171.33	10.93	100.86	686.70	669.48	17.21	39.893		
4,100.00	3,917.33	3,920.38	3,917.33	16.70	8.50	171.90	10.93	100.86	734.91	717.17	17.74	41.425		
4,200.00	4,004.71	4,007.77	4,004.71	17.58	8.69	172.40	10.93	100.86	783.18	764.91	18.27	42.860		
4,300.00	4,092.10	4,095.16	4,092.10	18.47	8.88	172.84	10.93	100.86	831.49	812.68	18.81	44.205		
4,400.00	4,179.49	4,182.54	4,179.49	19.36	9.07	173.24	10.93	100.86	879.83	860.48	19.35	45.467		
4,500.00	4,266.88	4,269.93	4,266.88	20.25	9.27	173.59	10.93	100.86	928.20	908.30	19.90	46.655		
4,600.00	4,354.26	4,357.32	4,354.26	21.14	9.46	173.91	10.93	100.86	976.59	956.15	20.44	47.772		
4,700.00	4,441.65	4,444.71	4,441.65	22.04	9.65	174.20	10.93	100.86	1,025.01	1,004.02	20.99	48.826		
4,800.00	4,529.04	4,532.09	4,529.04	22.95	9.84	174.46	10.93	100.86	1,073.44	1,051.90	21.55	49.820		
4,900.00	4,616.43	4,619.48	4,616.43	23.85	10.04	174.70	10.93	100.86	1,121.89	1,099.79	22.10	50.760		
5,000.00	4,703.81	4,706.87	4,703.81	24.75	10.23	174.92	10.93	100.86	1,170.35	1,147.69	22.66	51.649		

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation



**Weatherford International Ltd.**  
Anticollision Report



<b>Company:</b>	ANADARKO PETROLEUM CORP.	<b>Local Co-ordinate Reference:</b>	Well NBU 922-36L4BS
<b>Project:</b>	UINTAH COUNTY, UTAH (nad 27)	<b>TVD Reference:</b>	WELL @ 4984.00ft (Original Well Elev)
<b>Reference Site:</b>	NBU 922-36M PAD	<b>MD Reference:</b>	WELL @ 4984.00ft (Original Well Elev)
<b>Site Error:</b>	0.00ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	NBU 922-36L4BS	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	NBU 922-36L4BS	<b>Database:</b>	EDM 2003.21 Single User Db
<b>Reference Design:</b>	Design #1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design												Offset Site Error:	0.00 ft
Survey Program: 0-MWD												Offset Well Error:	0.00 ft
Reference		Offset		Semi Major Axis			Distance					Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Tooface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)		Separation Factor
5,048.87	4,746.52	4,749.57	4,746.52	25.20	10.33	175.02	10.93	100.86	1,194.04	1,171.11	22.93	52.066	
5,100.00	4,791.53	4,794.58	4,791.53	25.60	10.43	175.19	10.93	100.86	1,218.23	1,194.88	23.35	52.166	
5,200.00	4,881.36	4,884.41	4,881.36	26.26	10.62	175.47	10.93	100.86	1,262.03	1,237.92	24.11	52.341	
5,300.00	4,973.36	4,976.41	4,973.36	26.86	10.83	175.70	10.93	100.86	1,301.09	1,276.28	24.81	52.443	
5,400.00	5,067.28	5,070.34	5,067.28	27.40	11.04	175.89	10.93	100.86	1,335.29	1,309.85	25.44	52.486	
5,500.00	5,162.88	5,165.93	5,162.88	27.88	11.25	176.04	10.93	100.86	1,364.55	1,338.55	26.00	52.477	
5,600.00	5,259.87	5,262.93	5,259.87	28.29	11.46	176.16	10.93	100.86	1,388.78	1,362.29	26.49	52.426	
5,700.00	5,358.01	5,361.06	5,358.01	28.63	11.68	176.25	10.93	100.86	1,407.91	1,381.01	26.90	52.338	
5,800.00	5,457.01	5,460.06	5,457.01	28.91	11.90	176.32	10.93	100.86	1,421.89	1,394.66	27.23	52.215	
5,900.00	5,556.61	5,559.66	5,556.61	29.11	12.12	176.36	10.93	100.86	1,430.68	1,403.20	27.48	52.060	
6,000.00	5,656.53	5,659.59	5,656.53	29.24	12.35	176.37	10.93	100.86	1,434.26	1,406.61	27.65	51.873	
6,018.47	5,675.00	5,678.06	5,675.00	29.25	12.39	-163.20	10.93	100.86	1,434.34	1,406.67	27.67	51.835	
6,100.00	5,756.53	5,759.59	5,756.53	29.32	12.57	-163.20	10.93	100.86	1,434.34	1,406.37	27.98	51.268	
6,200.00	5,856.53	5,859.59	5,856.53	29.41	12.79	-163.20	10.93	100.86	1,434.34	1,405.97	28.37	50.559	
6,300.00	5,956.53	5,959.59	5,956.53	29.50	13.01	-163.20	10.93	100.86	1,434.34	1,405.58	28.76	49.867	
6,400.00	6,056.53	6,059.59	6,056.53	29.60	13.24	-163.20	10.93	100.86	1,434.34	1,405.19	29.16	49.192	
6,500.00	6,156.53	6,159.59	6,156.53	29.69	13.46	-163.20	10.93	100.86	1,434.34	1,404.79	29.55	48.532	
6,600.00	6,256.53	6,259.59	6,256.53	29.79	13.68	-163.20	10.93	100.86	1,434.34	1,404.39	29.95	47.887	
6,700.00	6,356.53	6,359.59	6,356.53	29.88	13.91	-163.20	10.93	100.86	1,434.34	1,403.99	30.35	47.258	
6,800.00	6,456.53	6,459.59	6,456.53	29.98	14.13	-163.20	10.93	100.86	1,434.34	1,403.59	30.75	46.643	
6,900.00	6,556.53	6,559.59	6,556.53	30.08	14.35	-163.20	10.93	100.86	1,434.34	1,403.19	31.15	46.042	
7,000.00	6,656.53	6,659.59	6,656.53	30.18	14.57	-163.20	10.93	100.86	1,434.34	1,402.79	31.56	45.455	
7,100.00	6,756.53	6,759.59	6,756.53	30.28	14.80	-163.20	10.93	100.86	1,434.34	1,402.39	31.96	44.880	
7,200.00	6,856.53	6,859.59	6,856.53	30.39	15.02	-163.20	10.93	100.86	1,434.34	1,401.98	32.36	44.319	
7,300.00	6,956.53	6,959.59	6,956.53	30.49	15.24	-163.20	10.93	100.86	1,434.34	1,401.57	32.77	43.770	
7,400.00	7,056.53	7,059.59	7,056.53	30.60	15.47	-163.20	10.93	100.86	1,434.34	1,401.17	33.18	43.234	
7,500.00	7,156.53	7,159.59	7,156.53	30.71	15.69	-163.20	10.93	100.86	1,434.34	1,400.76	33.58	42.709	
7,600.00	7,256.53	7,259.59	7,256.53	30.81	15.91	-163.20	10.93	100.86	1,434.34	1,400.35	33.99	42.195	
7,700.00	7,356.53	7,359.59	7,356.53	30.92	16.14	-163.20	10.93	100.86	1,434.34	1,399.94	34.40	41.693	
7,800.00	7,456.53	7,459.59	7,456.53	31.04	16.36	-163.20	10.93	100.86	1,434.34	1,399.53	34.81	41.201	
7,900.00	7,556.53	7,559.59	7,556.53	31.15	16.58	-163.20	10.93	100.86	1,434.34	1,399.12	35.22	40.720	
8,000.00	7,656.53	7,659.59	7,656.53	31.26	16.81	-163.20	10.93	100.86	1,434.34	1,398.71	35.64	40.249	
8,100.00	7,756.53	7,759.59	7,756.53	31.38	17.03	-163.20	10.93	100.86	1,434.34	1,398.29	36.05	39.788	
8,200.00	7,856.53	7,859.59	7,856.53	31.49	17.26	-163.20	10.93	100.86	1,434.34	1,397.88	36.46	39.336	
8,300.00	7,956.53	7,959.59	7,956.53	31.61	17.48	-163.20	10.93	100.86	1,434.34	1,397.47	36.88	38.894	
8,400.00	8,056.53	8,059.59	8,056.53	31.73	17.70	-163.20	10.93	100.86	1,434.34	1,397.05	37.29	38.461	
8,500.00	8,156.53	8,159.59	8,156.53	31.85	17.93	-163.20	10.93	100.86	1,434.34	1,396.63	37.71	38.036	
8,600.00	8,256.53	8,259.59	8,256.53	31.97	18.15	-163.20	10.93	100.86	1,434.34	1,396.22	38.13	37.620	
8,700.00	8,356.53	8,359.59	8,356.53	32.09	18.37	-163.20	10.93	100.86	1,434.34	1,395.80	38.54	37.213	
8,800.00	8,456.53	8,459.59	8,456.53	32.21	18.60	-163.20	10.93	100.86	1,434.34	1,395.38	38.96	36.814	
8,900.00	8,556.53	8,559.59	8,556.53	32.34	18.82	-163.20	10.93	100.86	1,434.34	1,394.96	39.38	36.422	
8,943.47	8,600.00	8,603.06	8,600.00	32.39	18.92	-163.20	10.93	100.86	1,434.34	1,394.78	39.56	36.254	



**Weatherford International Ltd.**  
Anticollision Report



<b>Company:</b>	ANADARKO PETROLEUM CORP.	<b>Local Co-ordinate Reference:</b>	Well NBU 922-36L4BS
<b>Project:</b>	UINTAH COUNTY, UTAH (nad 27)	<b>TVD Reference:</b>	WELL @ 4984.00ft (Original Well Elev)
<b>Reference Site:</b>	NBU 922-36M PAD	<b>MD Reference:</b>	WELL @ 4984.00ft (Original Well Elev)
<b>Site Error:</b>	0.00ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	NBU 922-36L4BS	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	NBU 922-36L4BS	<b>Database:</b>	EDM 2003.21 Single User Db
<b>Reference Design:</b>	Design #1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design													Offset Site Error:	0.00 ft	
Survey Program: 0-MWD													Offset Well Error:		0.00 ft
Reference		Offset		Semi Major Axis			Distance						Warning		
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor			
0.00	0.00	0.00	0.00	0.00	0.00	90.00	0.00	39.22	39.22						
100.00	100.00	100.00	100.00	0.09	0.09	90.00	0.00	39.22	39.22	39.03	0.18	212.790			
200.00	200.00	200.00	200.00	0.32	0.32	90.00	0.00	39.22	39.22	38.59	0.63	61.875			
300.00	300.00	300.00	300.00	0.54	0.54	90.00	0.00	39.22	39.22	38.14	1.08	36.201			
400.00	400.00	400.00	400.00	0.77	0.77	90.00	0.00	39.22	39.22	37.69	1.53	25.585			
500.00	500.00	500.00	500.00	0.99	0.99	90.00	0.00	39.22	39.22	37.24	1.98	19.783			
600.00	600.00	600.00	600.00	1.22	1.22	90.00	0.00	39.22	39.22	36.79	2.43	16.126			
700.00	700.00	700.00	700.00	1.44	1.44	90.00	0.00	39.22	39.22	36.34	2.88	13.611			
800.00	800.00	800.00	800.00	1.67	1.67	90.00	0.00	39.22	39.22	35.89	3.33	11.774			
900.00	900.00	900.00	900.00	1.89	1.89	90.00	0.00	39.22	39.22	35.44	3.78	10.374			
1,000.00	1,000.00	1,000.00	1,000.00	2.12	2.12	90.00	0.00	39.22	39.22	34.99	4.23	9.271			
1,100.00	1,100.00	1,100.00	1,100.00	2.34	2.34	90.00	0.00	39.22	39.22	34.54	4.68	8.381			
1,200.00	1,200.00	1,200.00	1,200.00	2.56	2.56	90.00	0.00	39.22	39.22	34.09	5.13	7.646			
1,300.00	1,300.00	1,300.00	1,300.00	2.79	2.79	90.00	0.00	39.22	39.22	33.64	5.58	7.030			
1,400.00	1,400.00	1,400.00	1,400.00	3.01	3.01	90.00	0.00	39.22	39.22	33.19	6.03	6.506			
1,500.00	1,500.00	1,500.00	1,500.00	3.24	3.24	90.00	0.00	39.22	39.22	32.74	6.48	6.054			
1,600.00	1,600.00	1,600.00	1,600.00	3.46	3.46	90.00	0.00	39.22	39.22	32.29	6.93	5.662			
1,700.00	1,700.00	1,700.00	1,700.00	3.69	3.69	90.00	0.00	39.22	39.22	31.84	7.38	5.317			
1,800.00	1,800.00	1,800.00	1,800.00	3.91	3.91	90.00	0.00	39.22	39.22	31.39	7.83	5.011			
1,900.00	1,900.00	1,900.00	1,900.00	4.14	4.14	90.00	0.00	39.22	39.22	30.94	8.28	4.739			
2,000.00	2,000.00	2,000.00	2,000.00	4.36	4.36	90.00	0.00	39.22	39.22	30.49	8.73	4.495 CC, ES, SF			
2,100.00	2,100.00	2,097.55	2,097.49	4.59	4.57	90.07	-0.05	42.12	42.20	33.04	9.16	4.609			
2,200.00	2,199.94	2,194.46	2,194.00	4.81	4.77	72.73	-0.20	50.75	50.13	40.56	9.57	5.238			
2,300.00	2,299.50	2,290.13	2,288.61	5.04	4.99	79.53	-0.45	64.86	62.71	52.72	9.99	6.277			
2,400.00	2,398.32	2,383.93	2,380.42	5.27	5.23	86.80	-0.79	84.03	81.03	70.60	10.43	7.772			
2,500.00	2,496.03	2,475.32	2,468.67	5.52	5.51	92.92	-1.21	107.73	105.71	94.81	10.90	9.699			
2,600.00	2,592.26	2,563.82	2,552.74	5.82	5.85	97.53	-1.70	135.34	136.77	125.34	11.43	11.970			
2,700.00	2,686.66	2,649.07	2,632.20	6.18	6.24	100.78	-2.25	166.20	173.95	161.92	12.02	14.466			
2,800.00	2,778.86	2,730.79	2,706.76	6.62	6.69	102.95	-2.84	199.62	216.85	204.14	12.71	17.059			
2,900.00	2,868.54	2,808.78	2,776.28	7.16	7.20	104.28	-3.46	234.95	265.06	251.57	13.49	19.645			
2,931.09	2,895.84	2,832.25	2,796.86	7.35	7.37	104.55	-3.66	246.22	281.06	267.30	13.76	20.424			
3,000.00	2,956.06	2,887.62	2,844.96	7.79	7.81	106.34	-4.15	273.64	317.58	303.16	14.42	22.028			
3,100.00	3,043.45	2,971.47	2,917.71	8.48	8.51	108.40	-4.89	315.33	371.04	355.59	15.45	24.016			
3,200.00	3,130.84	3,055.33	2,990.47	9.21	9.25	109.95	-5.63	357.01	424.75	408.20	16.55	25.662			
3,300.00	3,218.23	3,139.18	3,063.23	9.97	10.02	111.15	-6.37	398.69	478.64	460.93	17.71	27.023			
3,400.00	3,305.61	3,223.04	3,135.99	10.76	10.81	112.11	-7.10	440.38	532.65	513.73	18.92	28.152			
3,500.00	3,393.00	3,306.90	3,208.75	11.57	11.63	112.90	-7.84	482.06	586.75	566.58	20.17	29.092			
3,600.00	3,480.39	3,390.75	3,281.51	12.40	12.45	113.55	-8.58	523.74	640.91	619.46	21.45	29.880			
3,700.00	3,567.78	3,474.61	3,354.26	13.24	13.30	114.10	-9.32	565.43	695.13	672.37	22.76	30.544			
3,800.00	3,655.16	3,558.46	3,427.02	14.09	14.15	114.57	-10.06	607.11	749.38	725.29	24.09	31.110			
3,900.00	3,742.55	3,642.32	3,499.78	14.96	15.01	114.98	-10.80	648.79	803.66	778.22	25.44	31.595			
4,000.00	3,829.94	3,726.18	3,572.54	15.82	15.87	115.33	-11.53	690.48	857.97	831.17	26.80	32.013			
4,100.00	3,917.33	3,810.03	3,645.30	16.70	16.74	115.65	-12.27	732.16	912.30	884.12	28.18	32.375			
4,200.00	4,004.71	3,893.89	3,718.06	17.58	17.62	115.93	-13.01	773.84	966.64	937.07	29.57	32.692			
4,300.00	4,092.10	3,977.74	3,790.81	18.47	18.50	116.18	-13.75	815.53	1,021.00	990.03	30.97	32.969			
4,400.00	4,179.49	4,061.60	3,863.57	19.36	19.39	116.40	-14.49	857.21	1,075.37	1,043.00	32.38	33.214			
4,500.00	4,266.88	4,145.46	3,936.33	20.25	20.28	116.60	-15.23	898.89	1,129.76	1,095.96	33.79	33.431			
4,600.00	4,354.26	4,229.31	4,009.09	21.14	21.17	116.79	-15.96	940.58	1,184.15	1,148.93	35.22	33.625			
4,700.00	4,441.65	4,313.17	4,081.85	22.04	22.06	116.96	-16.70	982.26	1,238.55	1,201.90	36.65	33.798			
4,800.00	4,529.04	4,397.02	4,154.61	22.95	22.96	117.11	-17.44	1,023.94	1,292.95	1,254.87	38.08	33.954			
4,900.00	4,616.43	4,480.88	4,227.36	23.85	23.86	117.25	-18.18	1,065.63	1,347.36	1,307.85	39.52	34.095			
5,000.00	4,703.81	4,564.73	4,300.12	24.75	24.76	117.38	-18.92	1,107.31	1,401.78	1,360.82	40.96	34.222			

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation



**Weatherford International Ltd.**  
Anticollision Report



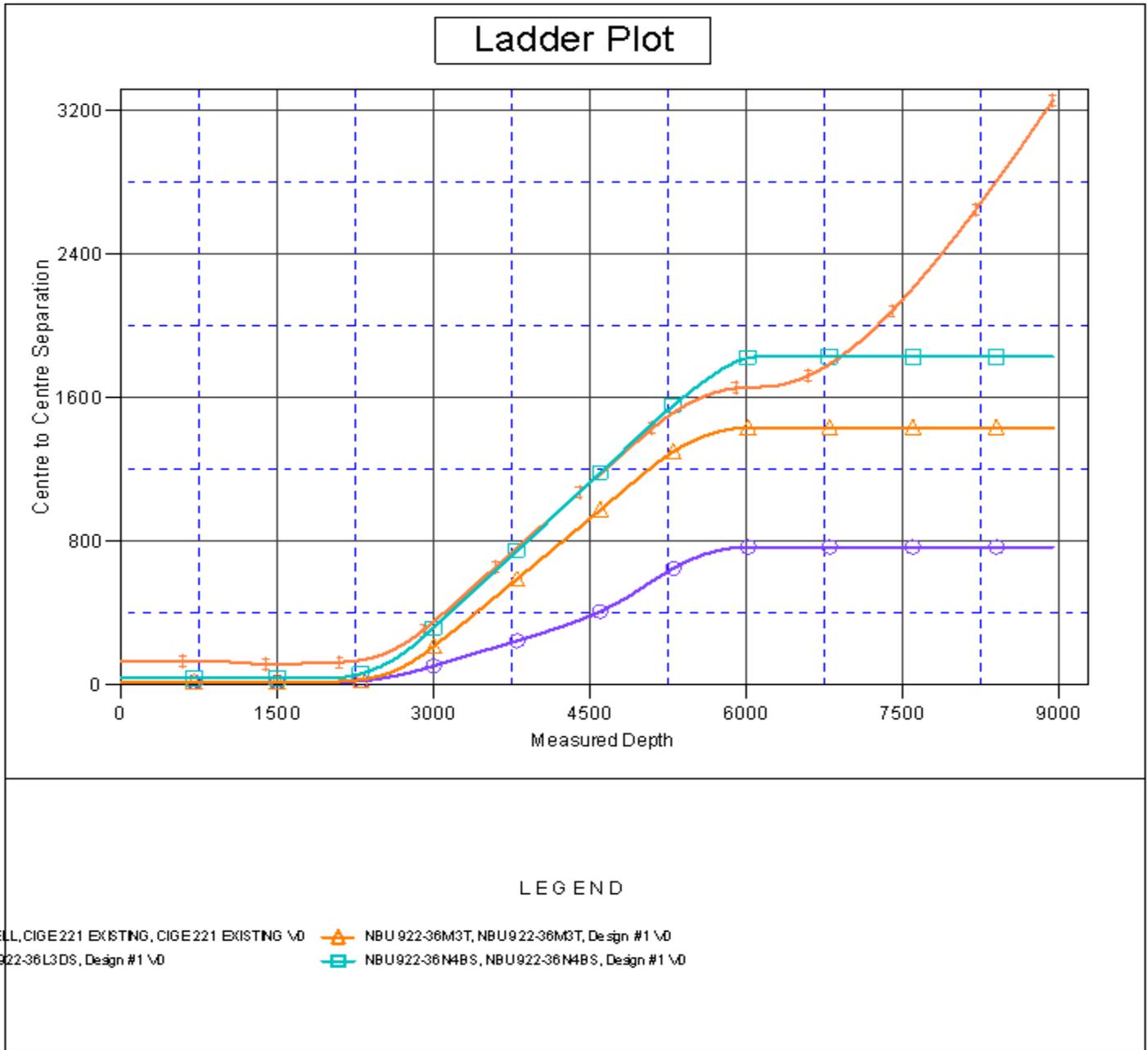
<b>Company:</b>	ANADARKO PETROLEUM CORP.	<b>Local Co-ordinate Reference:</b>	Well NBU 922-36L4BS
<b>Project:</b>	UINTAH COUNTY, UTAH (nad 27)	<b>TVD Reference:</b>	WELL @ 4984.00ft (Original Well Elev)
<b>Reference Site:</b>	NBU 922-36M PAD	<b>MD Reference:</b>	WELL @ 4984.00ft (Original Well Elev)
<b>Site Error:</b>	0.00ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	NBU 922-36L4BS	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	NBU 922-36L4BS	<b>Database:</b>	EDM 2003.21 Single User Db
<b>Reference Design:</b>	Design #1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design												Offset Site Error:	0.00 ft
Survey Program: 0-MWD												Offset Well Error:	0.00 ft
Reference		Offset		Semi Major Axis			Distance					Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	
5,048.87	4,746.52	4,605.71	4,335.68	25.20	25.20	117.44	-19.28	1,127.68	1,428.38	1,386.71	41.67	34.280	
5,100.00	4,791.53	4,648.78	4,373.04	25.60	25.66	118.34	-19.66	1,149.09	1,455.94	1,413.41	42.53	34.234	
5,200.00	4,881.36	4,733.97	4,446.96	26.26	26.58	119.85	-20.41	1,191.44	1,508.23	1,464.13	44.11	34.196	
5,300.00	4,973.36	4,820.27	4,521.84	26.86	27.51	121.07	-21.17	1,234.33	1,558.30	1,512.66	45.64	34.141	
5,400.00	5,067.28	4,907.43	4,597.47	27.40	28.45	122.01	-21.94	1,277.66	1,606.07	1,558.94	47.13	34.077	
5,500.00	5,162.88	4,995.22	4,673.63	27.88	29.40	122.72	-22.71	1,321.30	1,651.49	1,602.94	48.55	34.016	
5,600.00	5,259.87	5,083.39	4,750.14	28.29	30.36	123.20	-23.49	1,365.13	1,694.56	1,644.67	49.89	33.966	
5,700.00	5,358.01	5,171.70	4,826.76	28.63	31.31	123.50	-24.26	1,409.03	1,735.29	1,684.15	51.14	33.933	
5,800.00	5,457.01	5,328.80	4,964.82	28.91	32.82	122.97	-25.59	1,483.90	1,772.77	1,720.09	52.68	33.651	
5,900.00	5,556.61	5,556.56	5,174.58	29.11	34.40	121.94	-27.16	1,572.28	1,802.00	1,747.84	54.16	33.274	
6,000.00	5,656.53	5,802.92	5,411.55	29.24	35.58	121.00	-28.34	1,639.04	1,821.26	1,766.05	55.21	32.985	
6,018.47	5,675.00	5,850.07	5,457.77	29.25	35.73	141.27	-28.50	1,648.31	1,823.65	1,768.30	55.35	32.948	
6,100.00	5,756.53	6,062.65	5,668.45	29.32	36.25	140.61	-28.99	1,675.81	1,830.50	1,774.68	55.81	32.797	
6,200.00	5,856.53	6,250.85	5,856.53	29.41	36.45	140.48	-29.08	1,681.06	1,831.79	1,775.68	56.11	32.647	
6,300.00	5,956.53	6,350.85	5,956.53	29.50	36.53	140.48	-29.08	1,681.06	1,831.79	1,775.49	56.30	32.537	
6,400.00	6,056.53	6,450.85	6,056.53	29.60	36.60	140.48	-29.08	1,681.06	1,831.79	1,775.29	56.49	32.424	
6,500.00	6,156.53	6,550.85	6,156.53	29.69	36.69	140.48	-29.08	1,681.06	1,831.79	1,775.09	56.69	32.310	
6,600.00	6,256.53	6,650.85	6,256.53	29.79	36.77	140.48	-29.08	1,681.06	1,831.79	1,774.89	56.90	32.195	
6,700.00	6,356.53	6,750.85	6,356.53	29.88	36.85	140.48	-29.08	1,681.06	1,831.79	1,774.69	57.10	32.080	
6,800.00	6,456.53	6,850.85	6,456.53	29.98	36.93	140.48	-29.08	1,681.06	1,831.79	1,774.48	57.31	31.964	
6,900.00	6,556.53	6,950.85	6,556.53	30.08	37.02	140.48	-29.08	1,681.06	1,831.79	1,774.27	57.52	31.847	
7,000.00	6,656.53	7,050.85	6,656.53	30.18	37.10	140.48	-29.08	1,681.06	1,831.79	1,774.05	57.73	31.729	
7,100.00	6,756.53	7,150.85	6,756.53	30.28	37.19	140.48	-29.08	1,681.06	1,831.79	1,773.84	57.95	31.611	
7,200.00	6,856.53	7,250.85	6,856.53	30.39	37.28	140.48	-29.08	1,681.06	1,831.79	1,773.62	58.17	31.492	
7,300.00	6,956.53	7,350.85	6,956.53	30.49	37.37	140.48	-29.08	1,681.06	1,831.79	1,773.40	58.39	31.373	
7,400.00	7,056.53	7,450.85	7,056.53	30.60	37.46	140.48	-29.08	1,681.06	1,831.79	1,773.17	58.61	31.253	
7,500.00	7,156.53	7,550.85	7,156.53	30.71	37.55	140.48	-29.08	1,681.06	1,831.79	1,772.95	58.84	31.133	
7,600.00	7,256.53	7,650.85	7,256.53	30.81	37.65	140.48	-29.08	1,681.06	1,831.79	1,772.72	59.07	31.012	
7,700.00	7,356.53	7,750.85	7,356.53	30.92	37.74	140.48	-29.08	1,681.06	1,831.79	1,772.49	59.30	30.891	
7,800.00	7,456.53	7,850.85	7,456.53	31.04	37.84	140.48	-29.08	1,681.06	1,831.79	1,772.25	59.53	30.770	
7,900.00	7,556.53	7,950.85	7,556.53	31.15	37.93	140.48	-29.08	1,681.06	1,831.79	1,772.02	59.77	30.648	
8,000.00	7,656.53	8,050.85	7,656.53	31.26	38.03	140.48	-29.08	1,681.06	1,831.79	1,771.78	60.01	30.526	
8,100.00	7,756.53	8,150.85	7,756.53	31.38	38.13	140.48	-29.08	1,681.06	1,831.79	1,771.54	60.25	30.404	
8,200.00	7,856.53	8,250.85	7,856.53	31.49	38.23	140.48	-29.08	1,681.06	1,831.79	1,771.29	60.49	30.281	
8,300.00	7,956.53	8,350.85	7,956.53	31.61	38.33	140.48	-29.08	1,681.06	1,831.79	1,771.05	60.74	30.158	
8,400.00	8,056.53	8,450.85	8,056.53	31.73	38.43	140.48	-29.08	1,681.06	1,831.79	1,770.80	60.99	30.036	
8,500.00	8,156.53	8,550.85	8,156.53	31.85	38.53	140.48	-29.08	1,681.06	1,831.79	1,770.55	61.24	29.913	
8,600.00	8,256.53	8,650.85	8,256.53	31.97	38.64	140.48	-29.08	1,681.06	1,831.79	1,770.30	61.49	29.790	
8,700.00	8,356.53	8,750.85	8,356.53	32.09	38.74	140.48	-29.08	1,681.06	1,831.79	1,770.04	61.75	29.667	
8,800.00	8,456.53	8,850.85	8,456.53	32.21	38.85	140.48	-29.08	1,681.06	1,831.79	1,769.78	62.00	29.544	
8,900.00	8,556.53	8,950.85	8,556.53	32.34	38.95	140.48	-29.08	1,681.06	1,831.79	1,769.52	62.26	29.420	
8,943.47	8,600.00	8,994.32	8,600.00	32.39	39.00	140.48	-29.08	1,681.06	1,831.79	1,769.41	62.38	29.367	



<b>Company:</b>	ANADARKO PETROLEUM CORP.	<b>Local Co-ordinate Reference:</b>	Well NBU 922-36L4BS
<b>Project:</b>	UINTAH COUNTY, UTAH (nad 27)	<b>TVD Reference:</b>	WELL @ 4984.00ft (Original Well Elev)
<b>Reference Site:</b>	NBU 922-36M PAD	<b>MD Reference:</b>	WELL @ 4984.00ft (Original Well Elev)
<b>Site Error:</b>	0.00ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	NBU 922-36L4BS	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	NBU 922-36L4BS	<b>Database:</b>	EDM 2003.21 Single User Db
<b>Reference Design:</b>	Design #1	<b>Offset TVD Reference:</b>	Offset Datum

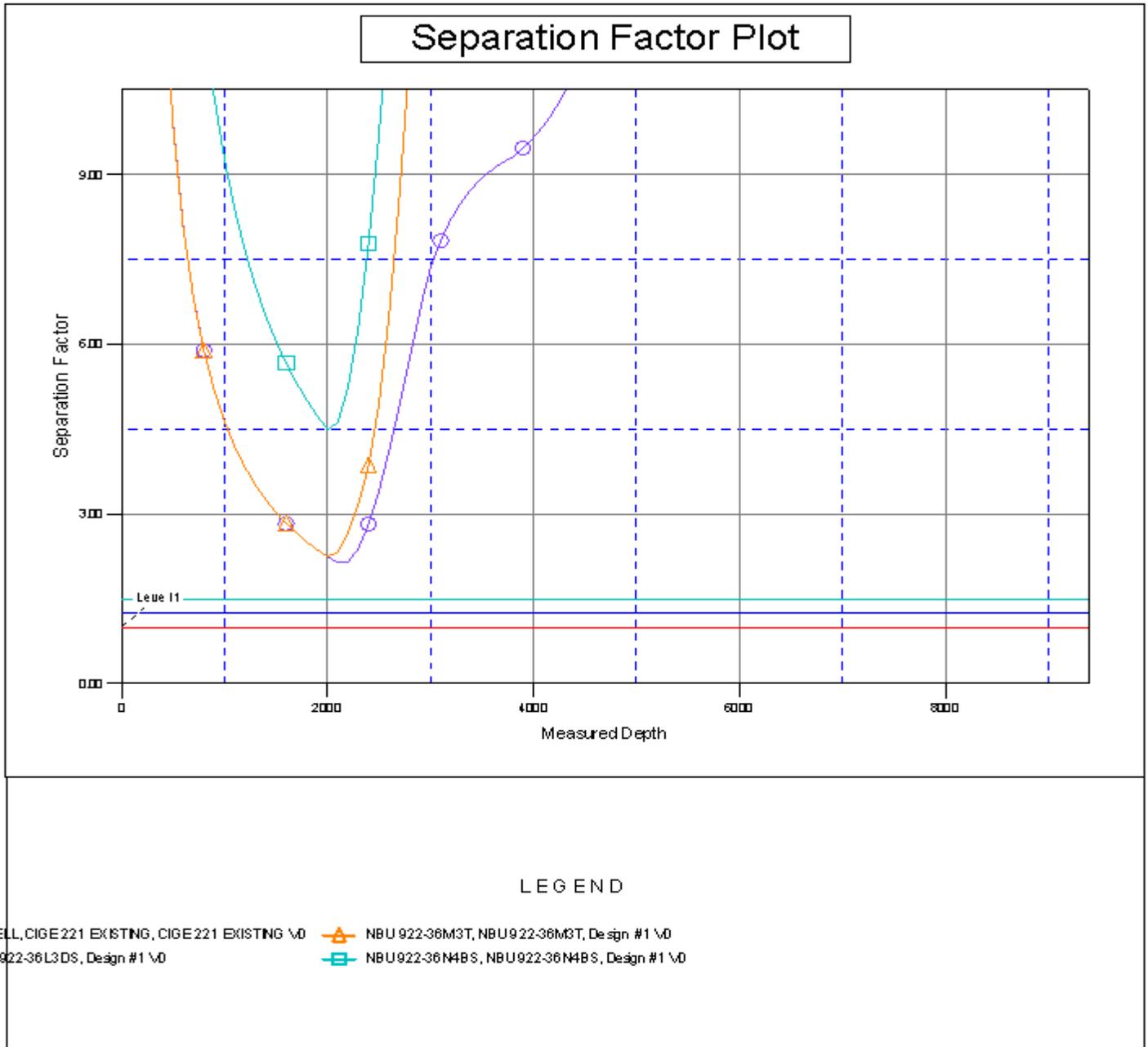
Reference Depths are relative to WELL @ 4984.00ft (Original Well Elev) Coordinates are relative to: NBU 922-36L4BS  
 Offset Depths are relative to Offset Datum Coordinate System is Universal Transverse Mercator (US Survey Feet), Zone 12N  
 Central Meridian is 111° 0' 0.000 W ° Grid Convergence at Surface is: 1.03°





<b>Company:</b>	ANADARKO PETROLEUM CORP.	<b>Local Co-ordinate Reference:</b>	Well NBU 922-36L4BS
<b>Project:</b>	UINTAH COUNTY, UTAH (nad 27)	<b>TVD Reference:</b>	WELL @ 4984.00ft (Original Well Elev)
<b>Reference Site:</b>	NBU 922-36M PAD	<b>MD Reference:</b>	WELL @ 4984.00ft (Original Well Elev)
<b>Site Error:</b>	0.00ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	NBU 922-36L4BS	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	NBU 922-36L4BS	<b>Database:</b>	EDM 2003.21 Single User Db
<b>Reference Design:</b>	Design #1	<b>Offset TVD Reference:</b>	Offset Datum

Reference Depths are relative to WELL @ 4984.00ft (Original Well Elev) Coordinates are relative to: NBU 922-36L4BS  
 Offset Depths are relative to Offset Datum Coordinate System is Universal Transverse Mercator (US Survey Feet), Zone 12N  
 Central Meridian is 111° 0' 0.000 W ° Grid Convergence at Surface is: 1.03°





# Weatherford®

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**NBU 922-36L4BS**

Pad: NBU 922-36M (CIGE 221)  
Surface: 539' FSL, 413' FWL (SW/4SW/4)  
BHL: 1,925' FSL 930' FWL (NW/4SW/4)  
Sec. 36 T9S R22E

Uintah, Utah  
Mineral Lease: ML22650

**ONSHORE ORDER NO. 1**

***DRILLING PROGRAM***

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

<u>Formation</u>	<u>Depth</u>	<u>Resource</u>
Uinta	0 – Surface	
Green River	1,232'	
Birds Nest	1,427'	Water
Mahogany	1,946'	Water
Wasatch	4,239'	Gas
Mesaverde	6,517'	Gas
MVU2	7,453'	Gas
MVL1	8,033'	Gas
TVD	8,600'	
TD	8,943'	

**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.*

**7. Abnormal Conditions:**

Maximum anticipated bottomhole pressure calculated at 8,943' TD, approximately equals 5,293 psi (calculated at 0.57 psi/foot).

Maximum anticipated surface pressure equals approximately 3,198 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.*

*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.*

*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.*

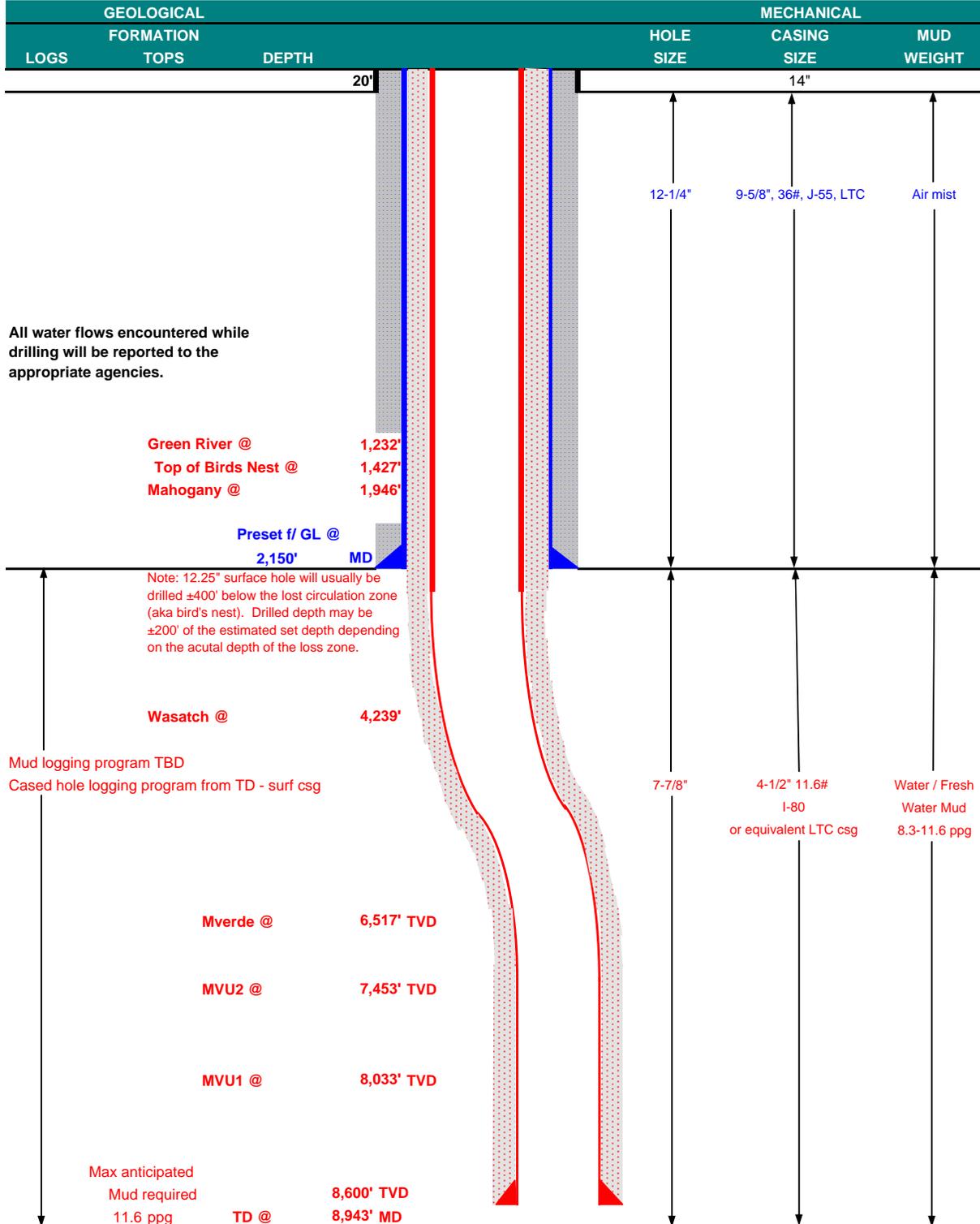
**10. Other Information:**

*Please refer to the attached Drilling Program.*



## KERR-McGEE OIL & GAS ONSHORE LP DRILLING PROGRAM

COMPANY NAME	KERR-McGEE OIL & GAS ONSHORE LP		DATE	June 8, 2009			
WELL NAME	<b>NBU 922-36L4BS</b>		TD	8,600'	TVD	8,943' MD	
FIELD	Natural Buttes	COUNTY	Uintah	STATE	Utah	ELEVATION	4,968' GL      KB 4,983'
SURFACE LOCATION	SW/4 SW/4	539' FSL	413' FWL	Sec 36	T 9S	R 22E	
	Latitude: 39.986760		Longitude: -109.395562		NAD 27		
BTM HOLE LOCATION	NW/4 SW/4	1,925' FSL	930' FWL	Sec 36	T 9S	R 22E	
	Latitude: 39.990563		Longitude: -109.393724		NAD 27		
OBJECTIVE ZONE(S)	Wasatch/Mesaverde						
ADDITIONAL INFO	Regulatory Agencies: SITLA (Minerals), UDOGM (Surface), Tri-County Health Dept.						





**KERR-McGEE OIL & GAS ONSHORE LP  
DRILLING PROGRAM**

**CASING PROGRAM**

	SIZE	INTERVAL	WT.	GR.	CPLG.	DESIGN FACTORS		
						BURST	COLLAPSE	TENSION
CONDUCTOR	14"	0-40'				3,520	2,020	453,000
SURFACE	9-5/8"	0 to 2,150	36.00	J-55	LTC	1.03	2.01	7.45
						7,780	6,350	201,000
PRODUCTION	4-1/2"	0 to 8,943	11.60	I-80	LTC	2.36	1.22	2.22

- 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 = 11.6 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 3,198 psi**
- 3) Maximum Anticipated Bottom Hole Pressure (MABHP) = Pore Pressure at TD  
 (Burst Assumptions: TD = 11.6 ppg) 0.59 psi/ft = bottomhole gradient  
 (Collapse Assumption: Fully Evacuated Casing, Max MW) (Tension Assumptions: Air Weight of Casing\*Buoy.Fact. of water)  
**MABHP 5,293 psi**

**CEMENT PROGRAM**

	FT. OF FILL	DESCRIPTION	SACKS	EXCESS	WEIGHT	YIELD
SURFACE LEAD	500'	Premium cmt + 2% CaCl + 0.25 pps flocele	215	60%	15.60	1.18
Option 1 TOP OUT CMT (6 jobs)	1,200'	20 gals sodium silicate + Premium cmt + 2% CaCl + 0.25 pps flocele	380	0%	15.60	1.18
		Premium cmt + 2% CaCl				
<b>NOTE: If well will circulate water to surface, option 2 will be utilized</b>						
SURFACE LEAD	1,650'	65/35 Poz + 6% Gel + 10 pps gilsonite + 0.25 pps Flocele + 3% salt BWOW	390	35%	12.60	1.81
TAIL	500'	Premium cmt + 2% CaCl + 0.25 pps flocele	180	35%	15.60	1.18
TOP OUT CMT	as required	Premium cmt + 2% CaCl	as req.		15.60	1.18
PRODUCTION LEAD	3,733'	Premium Lite II + 3% KCl + 0.25 pps celloflake + 5 pps gilsonite + 10% gel + 0.5% extender	360	40%	11.00	3.38
TAIL	5,210'	50/50 Poz/G + 10% salt + 2% gel + 0.1% R-3	1,280	40%	14.30	1.31

\*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**

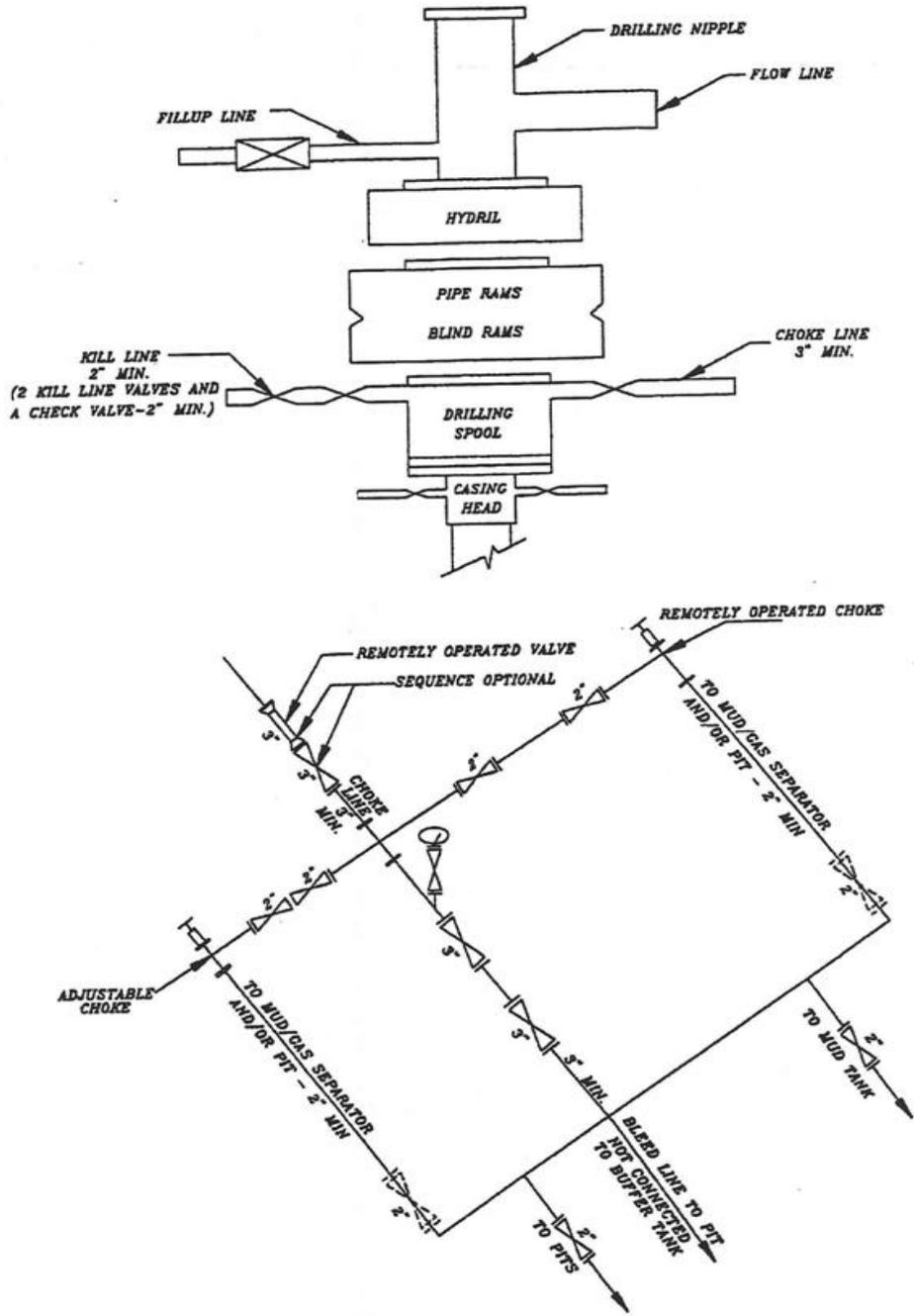
SURFACE	Guide shoe, 1 jt, insert float. Centralize first 3 joints with bow spring centralizers. Thread lock guide shoe
PRODUCTION	Float shoe, 1 jt, float collar. No centralizers will be used.

**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 922-36L4BS



**SCHEMATIC DIAGRAM OF 5,000 PSI BOP STACK**

# WELL PAD INTERFERENCE PLAT

## DIRECTIONAL PAD - CIGE 221



### SURFACE POSITION FOOTAGES:

NBU 922-36M3T  
538' FSL & 433' FWL

NBU 922-36L3DS  
539' FSL & 393' FWL

NBU 922-36L4BS  
539' FSL & 413' FWL

NBU 922-36N4BS  
538' FSL & 453' FWL

CIGE 221 (Existing Well Head)  
548' FSL & 513' FWL

BASIS OF BEARINGS IS THE SOUTH LINE OF THE SW 1/4 OF SECTION 36, T9S, R22E, S.L.B.&M. WHICH IS TAKEN FROM GLOBAL POSITIONING SATELLITE OBSERVATIONS TO BEAR S89°57'57"E.

### BOTTOM HOLE FOOTAGES:

NBU 922-36L3DS  
1380' FSL & 385' FWL

NBU 922-36L4BS  
1925' FSL & 930' FWL

NBU 922-36N4BS  
510' FSL & 2095' FWL

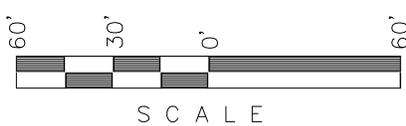
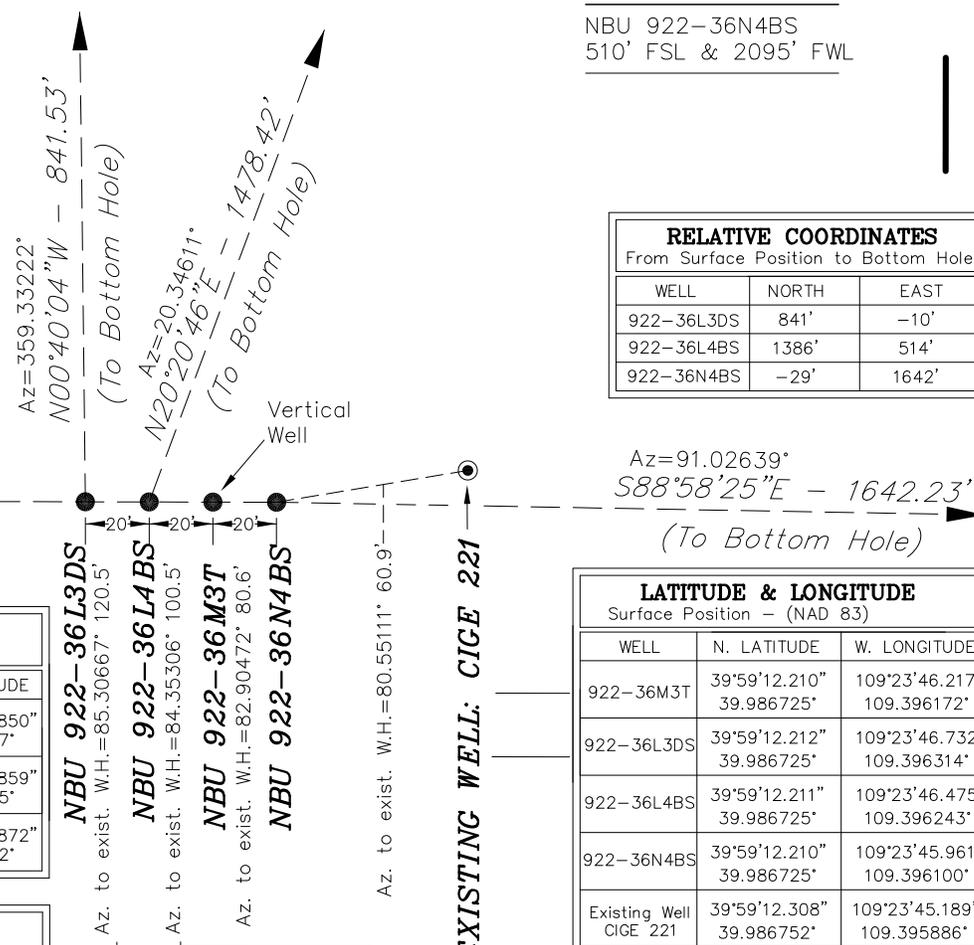
RELATIVE COORDINATES		
From Surface Position to Bottom Hole		
WELL	NORTH	EAST
922-36L3DS	841'	-10'
922-36L4BS	1386'	514'
922-36N4BS	-29'	1642'

LATITUDE & LONGITUDE		
Surface Position - (NAD 83)		
WELL	N. LATITUDE	W. LONGITUDE
922-36M3T	39°59'12.210" 39.986725°	109°23'46.217" 109.396172°
922-36L3DS	39°59'12.212" 39.986725°	109°23'46.732" 109.396314°
922-36L4BS	39°59'12.211" 39.986725°	109°23'46.475" 109.396243°
922-36N4BS	39°59'12.210" 39.986725°	109°23'45.961" 109.396100°
Existing Well CIGE 221	39°59'12.308" 39.986752°	109°23'45.189" 109.395886°

LATITUDE & LONGITUDE		
Surface Position - (NAD 27)		
WELL	N. LATITUDE	W. LONGITUDE
922-36M3T	39°59'12.334" 39.986760°	109°23'43.765" 109.395490°
922-36L3DS	39°59'12.336" 39.986760°	109°23'44.280" 109.395633°
922-36L4BS	39°59'12.335" 39.986760°	109°23'44.022" 109.395562°
922-36N4BS	39°59'12.334" 39.986759°	109°23'43.509" 109.395419°
Existing Well CIGE 221	39°59'12.432" 39.986787°	109°23'42.737" 109.395205°

LATITUDE & LONGITUDE		
Bottom Hole - (NAD 83)		
WELL	N. LATITUDE	W. LONGITUDE
922-36L3DS	39°59'20.525" 39.989035°	109°23'46.850" 109.396347°
922-36L4BS	39°59'25.902" 39.990528°	109°23'39.859" 109.394405°
922-36N4BS	39°59'11.906" 39.986641°	109°23'24.872" 109.390242°

LATITUDE & LONGITUDE		
Bottom Hole - (NAD 27)		
WELL	N. LATITUDE	W. LONGITUDE
922-36L3DS	39°59'20.649" 39.989069°	109°23'44.397" 109.395666°
922-36L4BS	39°59'26.027" 39.990563°	109°23'37.406" 109.393724°
922-36N4BS	39°59'12.030" 39.986675°	109°23'22.421" 109.389561°



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

NBU 922-36M3T, NBU 922-36L3DS,  
 NBU 922-36L4BS & NBU 922-36N4BS  
 LOCATED IN SECTION 36, T9S, R22E,  
 S.L.B.&M. UINTAH COUNTY, UTAH.

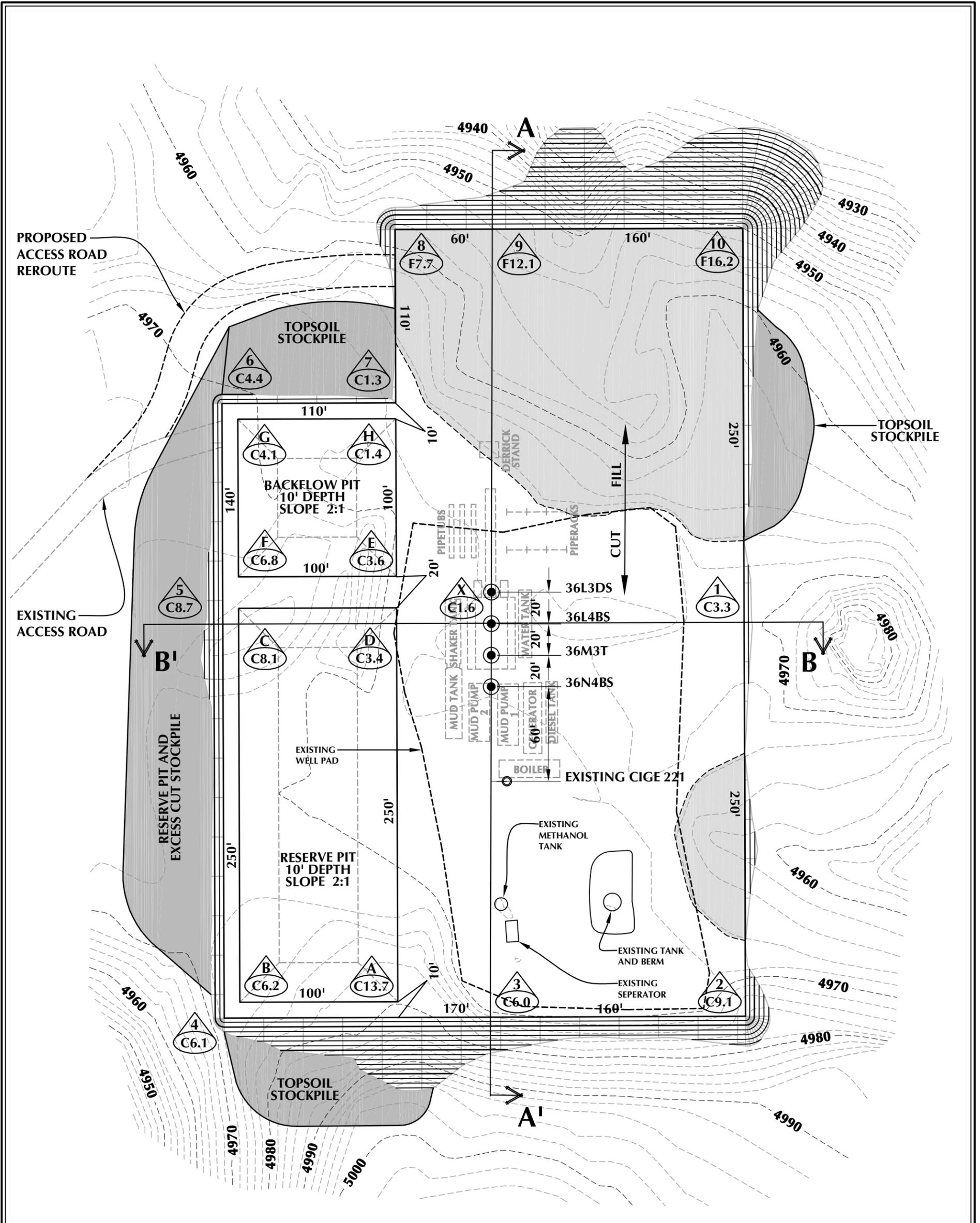


CONSULTING, LLC  
 371 Coffeen Avenue  
 Sheridan WY 82801  
 Phone 307-674-0609  
 Fax 307-674-0182

DATE SURVEYED: 09-16-08	SURVEYED BY: M.S.B.
DATE DRAWN: 10-03-08	DRAWN BY: E.M.S.
	REVISED: 1-28-09

**Timberline**  
 Engineering & Land Surveying, Inc.  
 (435) 789-1365  
 209 NORTH 300 WEST VERNAL, UTAH 84078

SHEET  
**5**  
 OF 13



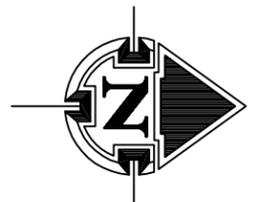
**WELL PAD NBU CIGE 221 QUANTITIES**

EXISTING GRADE @ CENTER OF PAD = 4,967.8'  
 FINISHED GRADE ELEVATION = 4,966.2'  
 CUT SLOPES = 1.5:1  
 FILL SLOPES = 1.5:1

TOTAL CUT FOR WELL PAD = 15,149 C.Y.  
 TOTAL FILL FOR WELL PAD = 14,648 C.Y.  
 TOPSOIL @ 6" DEPTH = 2,345 C.Y.  
 EXCESS MATERIAL = 501 C.Y.  
 TOTAL DISTURBANCE = 4.07 ACRES  
 SHRINKAGE FACTOR = 1.10  
 SWELL FACTOR = 1.00  
 RESERVE PIT CAPACITY (2' OF FREEBOARD)  
 +/- 25,880 BARRELS  
 RESERVE PIT VOLUME  
 +/- 7,185 CY  
 BACKFLOW PIT CAPACITY (2' OF FREEBOARD)  
 +/- 8,780 BARRELS  
 BACKFLOW PIT VOLUME  
 +/- 2,520 CY

**WELL PAD LEGEND**

- EXISTING WELL LOCATION
- PROPOSED WELL LOCATION
- EXISTING CONTOURS (2' INTERVAL)
- PROPOSED CONTOURS (2' INTERVAL)



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

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 ONSHORE L.P.**  
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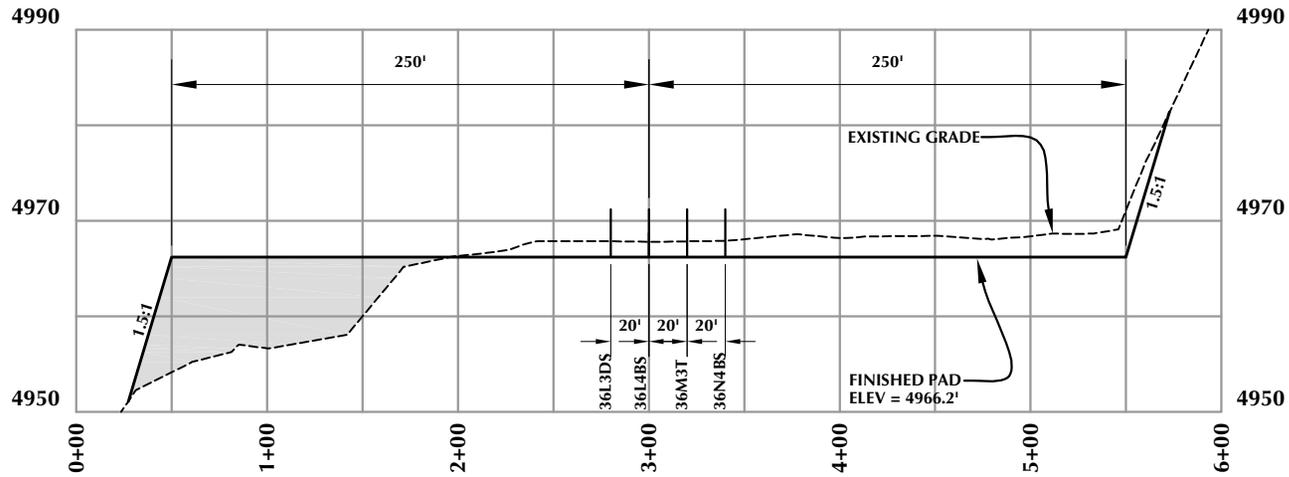


**609 CONSULTING, LLC**  
 371 Coffeen Avenue  
 Sheridan WY 82801  
 Phone 307-674-0609  
 Fax 307-674-0182

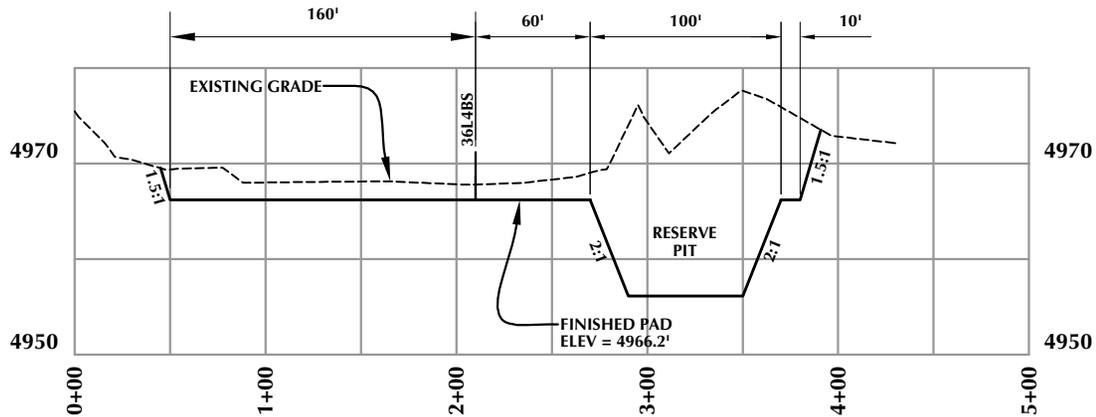
Scale: 1"=60'	Date: 1/29/09	SHEET NO:
REVISED:	BY DATE	<b>6</b> 6 OF 13

**WELL PAD - LOCATION LAYOUT**  
 NBU 922-36M3T, NBU 922-36L3DS,  
 NBU 922-36L4BS, NBU 922-36N4BS  
 LOCATED IN SECTION 36, T.9S., R.22E.  
 S.L.B.&M., UTAH COUNTY, UTAH

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 38 WEST 100 NORTH VERNAL, UTAH 84078



**CROSS SECTION A-A'**



**CROSS SECTION B-B'**

NOTE: CROSS SECTION B-B' DEPICTS  
MAXIMUM RESERVE PIT DEPTH.

**KERR-MCGEE OIL & GAS  
ONSHORE L.P.**

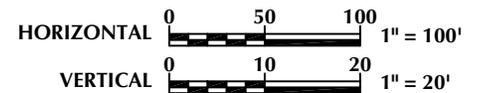
1099 18th Street - Denver, Colorado 80202

**WELL PAD - CROSS SECTIONS  
NBU 922-36M3T, NBU 922-36L3DS,  
NBU 922-36L4BS, NBU 922-36N4BS  
LOCATED IN SECTION 36, T.9S., R.22E.  
S.L.B.&M., UINTAH COUNTY, UTAH**



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Scale: 1"=100'	Date: 1/29/09	SHEET NO:
REVISID:	BY DATE	<b>7</b> 7 OF 13



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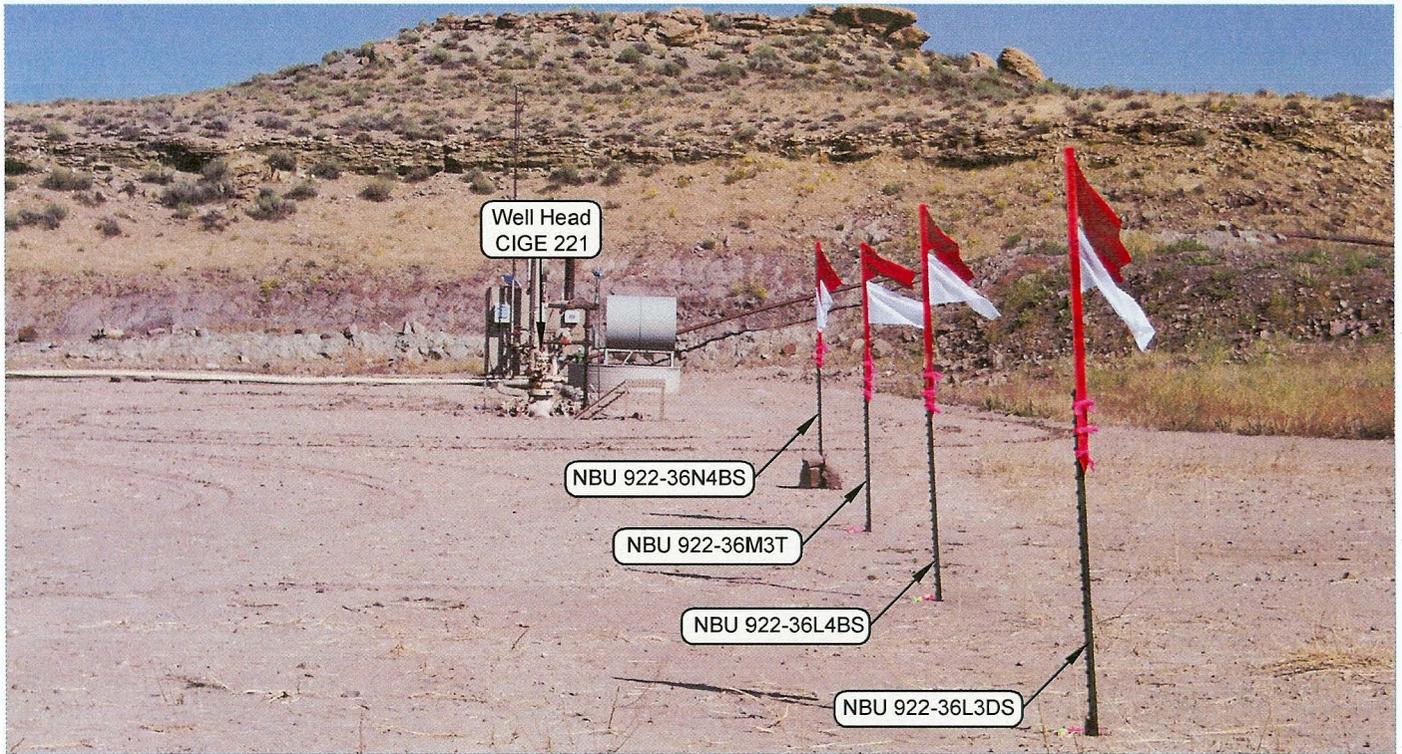


PHOTO VIEW: FROM LOCATION STAKES TO EXISTING WELL HEAD

CAMERA ANGLE: EASTERLY

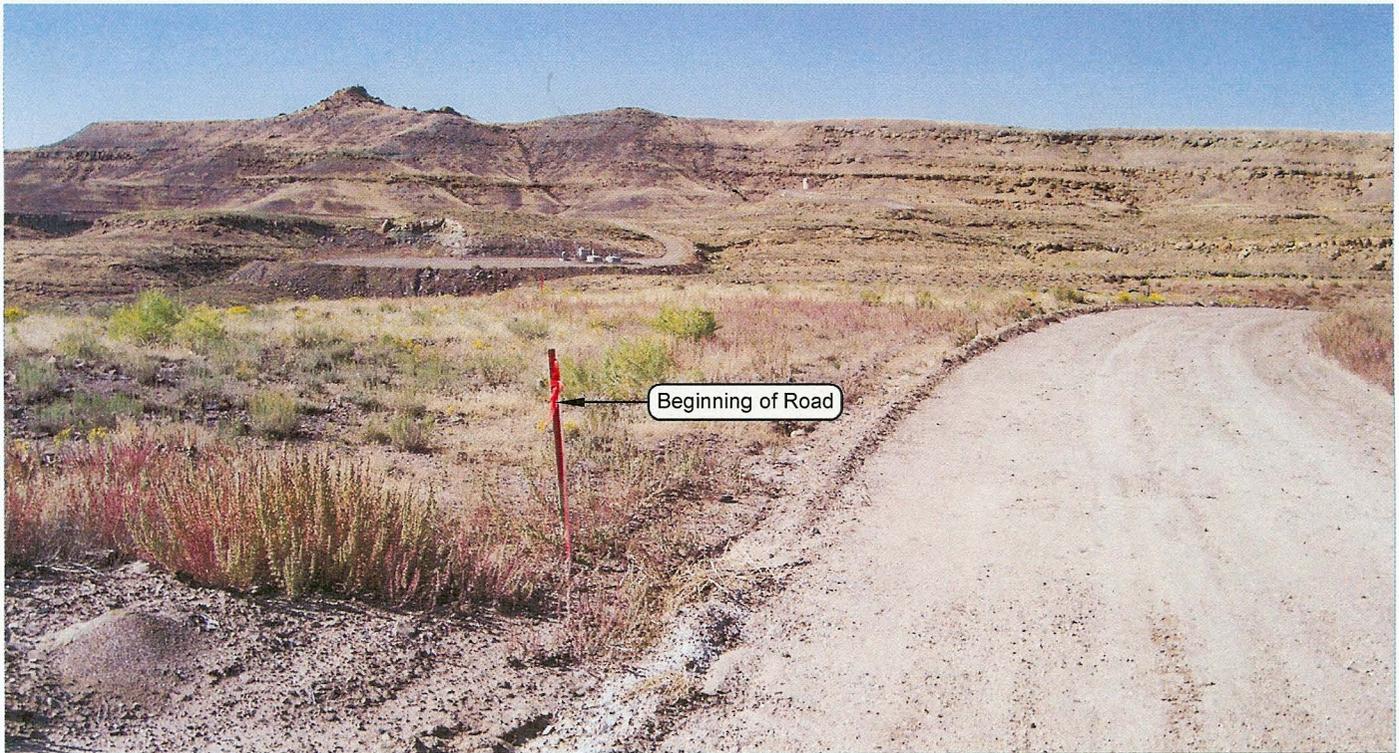
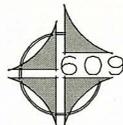


PHOTO VIEW: FROM BEGINNING OF PROPOSED ROAD

CAMERA ANGLE: NORTHWESTERLY

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



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 371 Coffeen Avenue  
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 Phone 307-674-0609  
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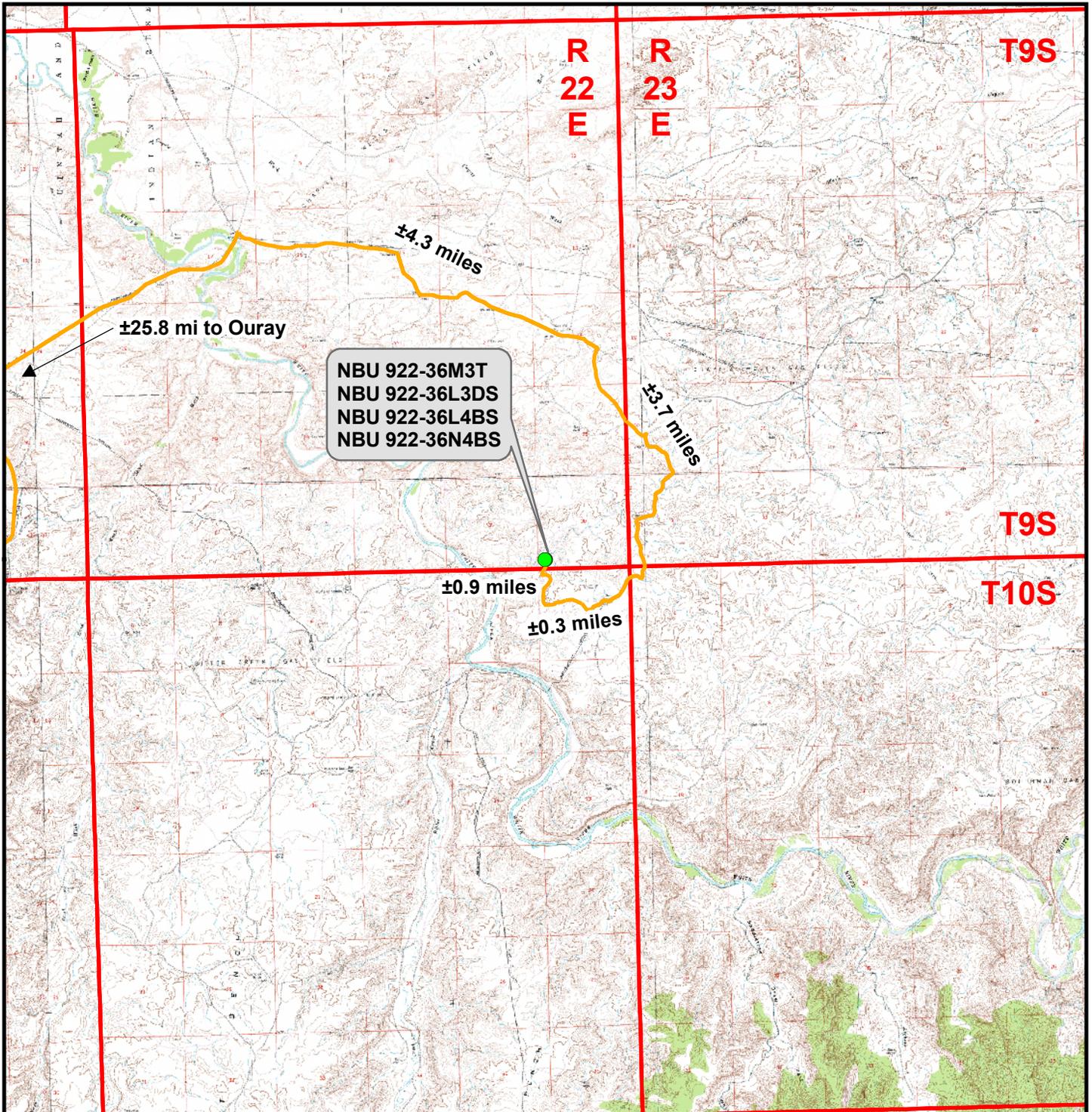
**LOCATION PHOTOS**

TAKEN BY: M.S.B.	DRAWN BY: E.M.S.	DATE TAKEN: 09-16-08
		DATE DRAWN: 10-03-08
		REVISED: 01-28-09

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 209 NORTH 300 WEST VERNAL, UTAH 84078

**SHEET**  
**8**  
**OF 13**

NBU 922-36M3T, NBU 922-36L3DS,  
 NBU 922-36L4BS & NBU 922-36N4BS  
 LOCATED IN SECTION 36, T9S, R22E,  
 S.L.B.&M. UINTAH COUNTY, UTAH.



**Legend**

- Proposed Well Location
- Access Route - Proposed

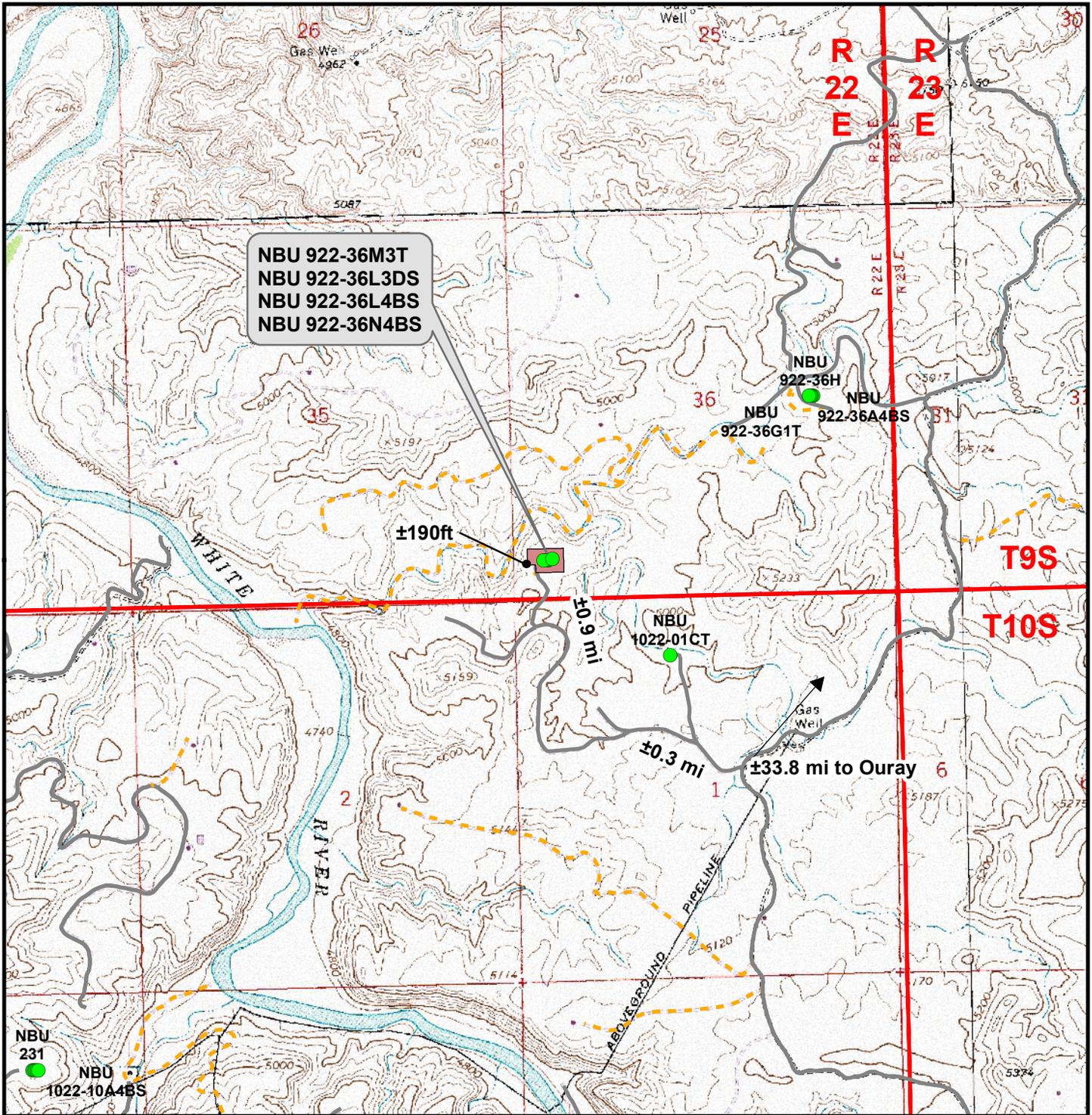
**Kerr-McGee Oil & Gas Onshore, LP**  
 1099 18th Street, Denver, Colorado 80202

**NBU 922-36M3T, NBU 922-36L3DS,  
 NBU 922-36L4BS & NBU 922-36N4BS**  
**Topo A**  
**Located In Section 36, T9S, R22E**  
**S.L.B.&M., Uintah County, Utah**

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



Scale: 1:100,000	NAD83 USP Central	Sheet No:
Drawn: JELO	Date: 28 Jan 2009	<b>9</b>
Revised:	Date:	



**Legend**

- Well - Proposed
- Well Pad
- Road - Proposed
- Road - Existing

Total Proposed Road Length: ±190ft

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

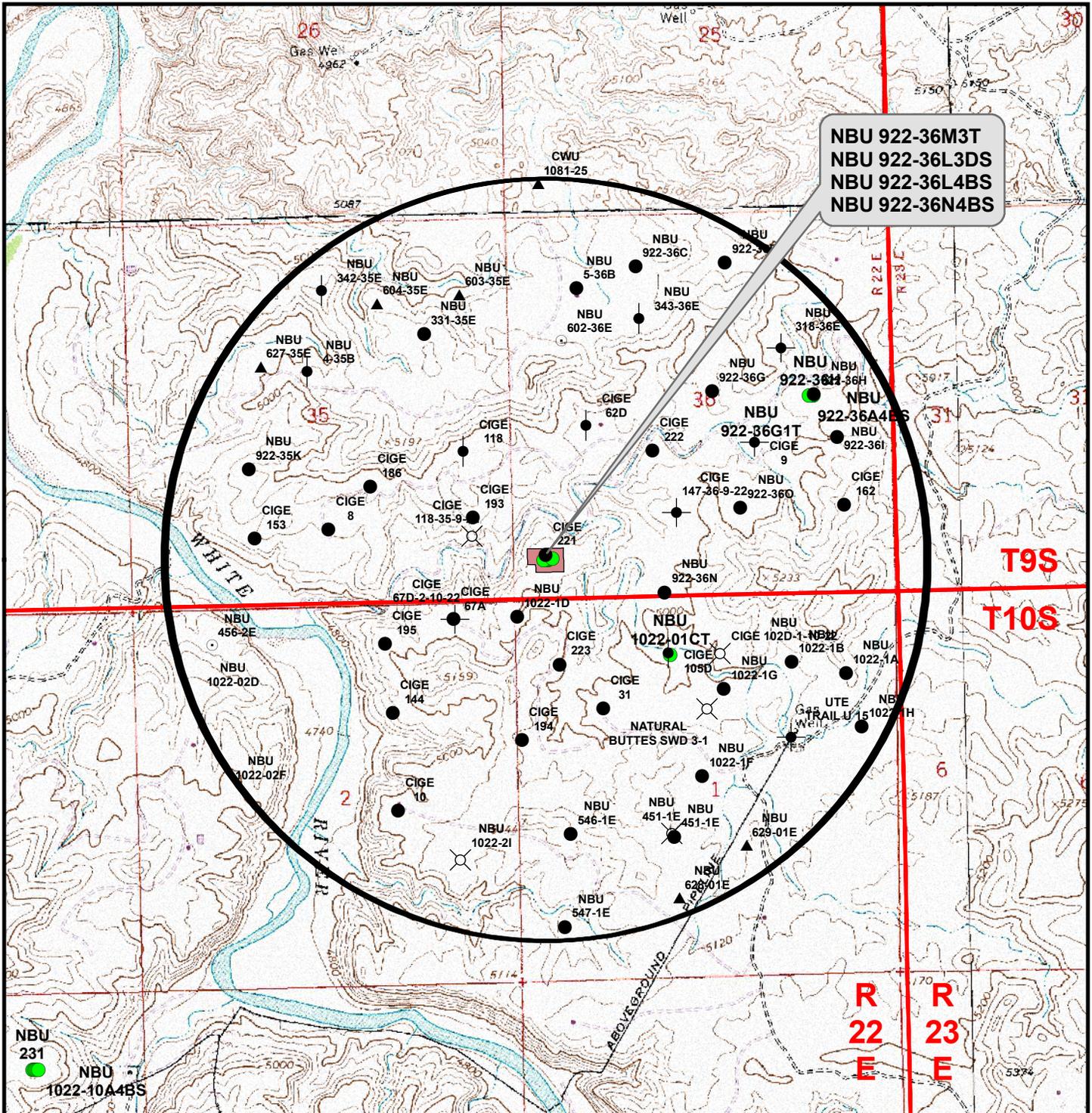
**NBU 922-36M3T, NBU 922-36L3DS,  
NBU 922-36L4BS & NBU 922-36N4BS**  
Topo B  
Located In Section 36, T9S, R22E  
S.L.B.&M., Uintah County, Utah

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



Scale: 1" = 2000ft	NAD83 USP Central
Drawn: JELO	Date: 28 Jan 2009
Revised:	Date:

Sheet No:  
**10** 10 of 13



**NBU 922-36M3T  
NBU 922-36L3DS  
NBU 922-36L4BS  
NBU 922-36N4BS**

**Legend**

- Well - Proposed
- Well - 1 Mile Radius
- Producing
- ▲ Approved permit (APD); not yet spudded
- Spudded (Drilling commenced: Not yet complete)
- ⊗ Location Abandoned
- Shut-In
- Well Pad
- Temporarily-Abandoned
- Plugged and Abandoned

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

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

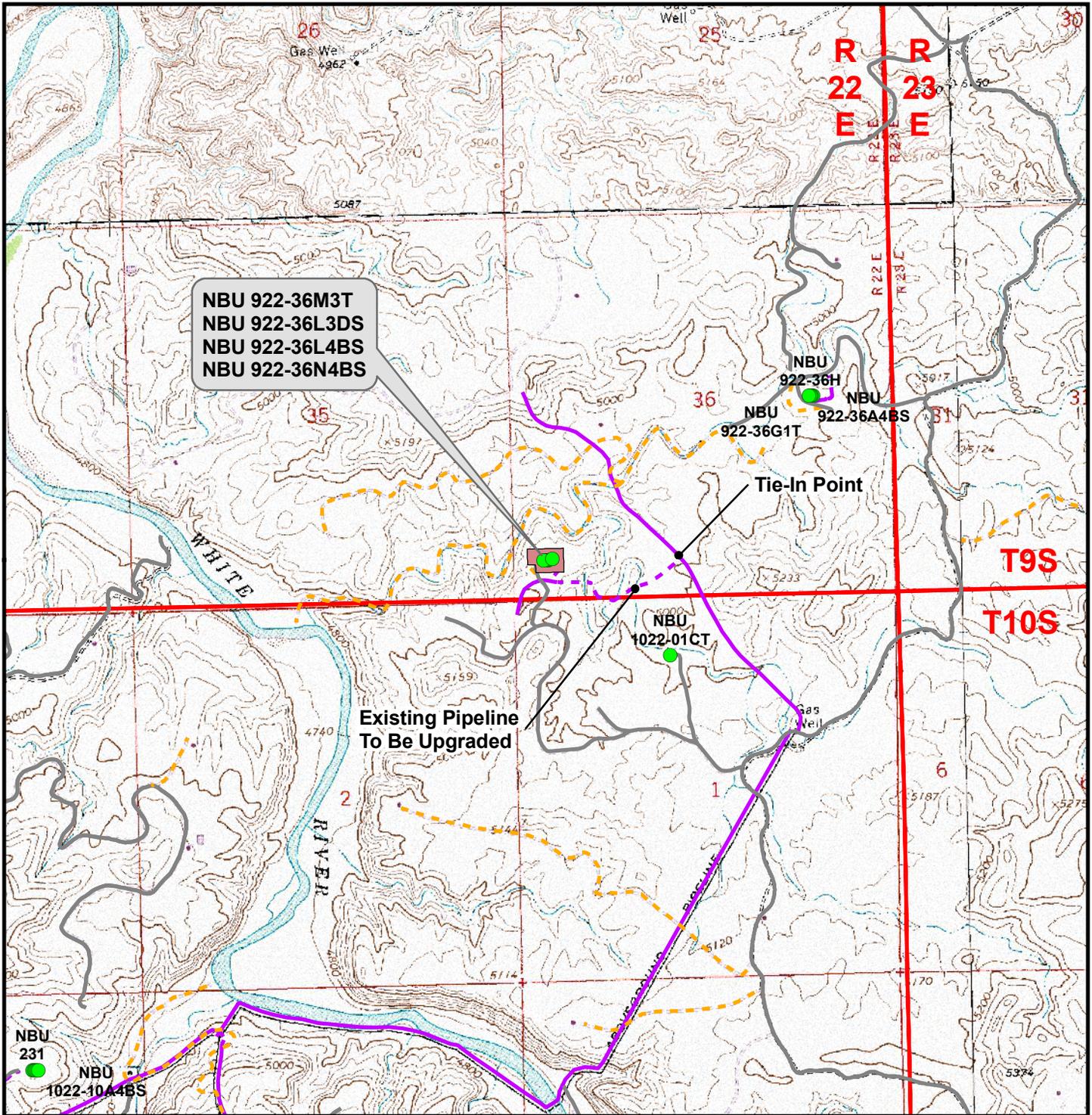
**NBU 922-36M3T, NBU 922-36L3DS,  
NBU 922-36L4BS & NBU 922-36N4BS  
Topo C  
Located In Section 36, T9S, R22E  
S.L.B.&M., Uintah County, Utah**

**609**

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



Scale: 1" = 2000ft	NAD83 USP Central	Sheet No: <b>11</b> 11 of 13
Drawn: JELO	Date: 28 Jan 2009	
Revised:	Date:	



NBU 922-36M3T  
 NBU 922-36L3DS  
 NBU 922-36L4BS  
 NBU 922-36N4BS

Existing Pipeline  
 To Be Upgraded

Tie-In Point

T9S  
 T10S

**Legend**

- Well - Proposed
- Well Pad
- Road - Proposed
- Pipeline - Proposed
- Road - Existing
- Pipeline - Existing

Proposed Pipeline Length From Tie-In Point To Edge Of Pad: ±2,110ft  
 Proposed Pipeline Length Around Pad: ±660ft

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

**NBU 922-36M3T, NBU 922-36L3DS,  
 NBU 922-36L4BS & NBU 922-36N4BS**  
 Topo D  
 Located In Section 36, T9S, R22E  
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Drawn: JELO	Date: 28 Jan 2009
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Sheet No:  
**12** 12 of 13

**Kerr-McGee Oil & Gas Onshore, LP**  
**NBU 922-36M3T, NBU 922-36L3DS, NBU 922-36L4BS & NBU 922-36N4BS**  
**Section 36, T9S, R22E, S.L.B.&M.**

PROCEED IN A WESTERLY DIRECTION FROM VERNAL, UTAH ALONG U.S. HIGHWAY 40 APPROXIMATELY 13.9 MILES TO THE JUNCTION OF STATE HIGHWAY 88. EXIT LEFT AND PROCEED IN A SOUTHERLY DIRECTION ALONG STATE HIGHWAY 88 APPROXIMATELY 16.8 MILES TO OURAY, UTAH. FROM OURAY, PROCEED IN A SOUTHERLY DIRECTION ALONG THE SEEP RIDGE ROAD (COUNTY B ROAD 2810) APPROXIMATELY 11.2 MILES TO THE INTERSECTION OF THE GLEN BENCH ROAD (COUNTY B ROAD 3260). EXIT LEFT AND PROCEED IN AN EASTERLY, THEN SOUTHEASTERLY, THEN NORTHEASTERLY DIRECTION ALONG THE GLEN BENCH ROAD APPROXIMATELY 14.6 MILES TO THE INTERSECTION OF THE CHAPETA WELLS ROAD (COUNTY B ROAD 3410) WHICH ROAD INTERSECTION IS APPROXIMATELY 400 FEET NORTHEAST OF THE MOUNTAIN FUEL BRIDGE, AT THE WHITE RIVER. EXIT RIGHT AND PROCEED IN A SOUTHEASTERLY DIRECTION APPROXIMATELY 4.3 MILES ALONG THE CHAPETA WELLS ROAD TO THE INTERSECTION OF THE ATCHEE WASH ROAD (COUNTY B ROAD 4240). EXIT RIGHT AND PROCEED IN A SOUTHEASTERLY, THEN SOUTHERLY DIRECTION ALONG THE ATCHEE WASH ROAD APPROXIMATELY 3.7 MILES TO AN EXISTING SERVICE ROAD TO THE SOUTHWEST. EXIT RIGHT AND PROCEED IN A SOUTHWESTERLY, THEN NORTHWESTERLY, THEN WESTERLY DIRECTION ALONG THE SERVICE ROAD APPROXIMATELY 0.3 MILES TO A SECOND SERVICE ROAD TO THE WEST. EXIT LEFT AND PROCEED IN A WESTERLY THEN NORTHERLY DIRECTION ALONG THE SECOND SERVICE ROAD APPROXIMATELY 0.9 MILES TO THE EXISTING WELL PAD.

TOTAL DISTANCE FROM VERNAL, UTAH TO THE PROPOSED WELL LOCATION IS APPROXIMATELY 65.7 MILES IN A SOUTHERLY DIRECTION.

***Kerr-McGee Oil & Gas Onshore LP***

**NBU 922-36L3DS**

Surface: 539' FSL, 393' FWL (SW/4SW/4)  
BHL: 1,380' FSL 385' FWL (SW/4SW/4)

**NBU 922-36L4BS**

Surface: 539' FSL, 413' FWL (SW/4SW/4)  
BHL: 1,925' FSL 930' FWL (NW/4SW/4)

**NBU 922-36M3T**

Surface: 538' FSL, 433' FWL (SW/4SW/4)

**NBU 922-36N4BS**

Surface: 538' FSL, 453' FWL (SW/4SW/4)  
BHL: 510' FSL 2,095' FWL (SE/4SW/4)

Section 36 Township 9 South Range 22 East

Pad: NBU 922-36M (CIGE 221)

Uintah, Utah

Surface: State

Minerals: State – ML22650

**ONSHORE ORDER NO. 1**

***MULTI-POINT SURFACE USE & OPERATIONS PLAN***

**Directional Drilling:**

In accordance with Oil & Gas Conservation Rule R649-3-11 pertaining to Directional Drilling, this well will be directionally drilled in order to access portions of our lease which are otherwise inaccessible due to topography.

**1. Existing Roads:**

Refer to Topo Map A for directions to the location.

Refer to Topo Maps A and B for location of access roads within a 2-mile radius.

Refer to Topo Maps A and B for location of access roads within a 2-mile radius.

All existing roads will be maintained and kept in good repair during all drilling and completion operations associated with this well.

**2. Planned Access Roads:**

Approximately  $\pm 0.04$  mi. ( $\pm 190'$ ) of new access road is proposed. Please refer to the attached Topo Map B.

The upgraded and new portions of the access road will be crowned and ditched with a running surface of 18 feet and a maximum disturbed width of 30 feet. Appropriate water control will be installed to control erosion.

*Existence of pipelines; maximum grade; turnouts; major cut and fills, culverts, or bridges; gates, cattle guards, fence cuts, or modifications to existing facilities were determined at the on-site.*

The access road was centerline flagged during time of staking.

Surfacing material may be necessary, depending upon weather conditions.

Surface disturbance and vehicular traffic will be limited to the approved location and approved access route. Any additional area needed will be approved in advance.

**3. Location of Existing Wells Within a 1-Mile Radius:**

Please refer to Topo Map C.

**4. Location of Existing & Proposed Facilities:**

*The following guidelines will apply if the well is productive.*

All production facilities will be located on the disturbed portion of the well pad and at a minimum of 25 feet from the toe of the back slope or the top of the fill slope.

A dike will be constructed completely around those production facilities which contain fluids (i.e., production tanks, produced water tanks, and/or heater/treater). These dikes will be constructed of compacted subsoil, be impervious, hold 100% of the capacity of the largest tank, and be independent of the back cut.

All permanent (on-site six months or longer) above the ground structures constructed or installed, including pumping units, will be painted a flat, non-reflective, earthtone color to match one of the standard environmental colors, as determined by the five state Rocky Mountain Inter-Agency Committee.

All facilities will be painted within six months of installation. Facilities required to comply with the Occupational Safety and Health Act (OSHA) will be excluded. The required color is Shadow Gray, a non-reflective earthtone.

Any necessary pits will be properly fenced to protect livestock and prevent wildlife entry.

**5. Location and Type of Water Supply:**

Water for drilling purposes will be obtained from Dalbo Inc.'s underground well located in Ouray, Utah, Sec. 32 T4S R3E, Water User Claim #43-8496, Application #53617.

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.

**6. Source of Construction Materials:**

Surface and subsoil materials in the immediate area will be utilized.

Any gravel will be obtained from a commercial source.

**7. Methods of Handling Waste Materials:**

Drill cuttings will be contained and buried in the reserve pit.

Drilling fluids, including salts and chemicals, will be contained in the reserve pit. Upon termination of drilling and completion operations, the liquid contents of the reserve pit will be removed and disposed of at an approved waste disposal facility within 120 days after drilling is terminated.

The reserve pit will be constructed on the location and will not be located within natural drainage, where a flood hazard exists or surface runoff will destroy or damage the pit walls. The reserve pit will be constructed so that it will not leak, break, or allow discharge of liquids.

A plastic reinforced liner and felt will be used; it will be a minimum of 20 mil thick, with sufficient bedding used to cover any rocks. The liner will overlap the pit walls and be covered with dirt and/or rocks to hold it in place. No trash or scrap that could puncture the liner will be disposed of in the pit. Any spills of oil, gas, salt water, or other noxious fluids will be immediately cleaned up and removed to an approved disposal site.

A chemical porta-toilet will be furnished with the drilling rig.

Garbage, trash, and other waste materials will be collected in a portable, self-contained, fully enclosed trash cage during operations. No trash will be burned on location.

All debris and other waste material not contained in the trash cage will be cleaned up and removed from the location immediately after removal of the drilling rig.

Any open pits will be fenced during the operations. The fencing will be maintained until such time as the pits are backfilled.

No chemicals subject to reporting under SARA Title III (hazardous materials) in an amount greater than 10,000 pounds will be used, produced, stored, transported, or disposed of annually in association with the drilling of this well. Furthermore, no extremely hazardous substances, as defined in 40 CFR 355, in threshold planning quantities, will be used, produced, stored, transported, or disposed of in association with the drilling of this well.

Any produced water from the proposed well will be contained in a water tank and will then be hauled By truck to one of the pre-approved disposal sites: RNI in Sec. 5 T9S R22E, NBU #159 in Sec. 35 T9S R21E, 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.

**8. Ancillary Facilities:**

None are anticipated.

**9. Well Site Layout: (See Location Layout Diagram)**

The attached Location Layout Diagram describes drill pad cross-sections, cuts and fills, and locations of the mud tanks, reserve pit, flare pit, pipe racks, trailer parking, spoil dirt stockpile(s), and surface material stockpile(s).

Please see the attached diagram to describe rig orientation, parking areas, and access roads.

The reserve pit will be lined, and when the reserve pit is closed, the pit liner will be buried below plow depth.

All pits will be fenced according to the following minimum standards:

39 inch net wire will be used with at least one strand of barbed wire on top of the net wire. Barbed wire is not necessary if pipe or some type of reinforcement rod is attached to the top of the entire fence.

The net wire shall be no more than two inches above the ground. The barbed wire shall be three inches over the net wire. Total height of the fence shall be at least 42 inches.

Corner posts shall be cemented and/or braced in such a manner 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.

All wire shall be stretched, by using a stretching device, before it is attached to corner posts.

The reserve pit fencing will be on three sides during drilling operations, and on the fourth side when the rig moves off location. Pits will be fenced and maintained until cleanup.

Location size may change prior to the drilling of the well due to current rig availability. If the proposed location is not large enough to accommodate the drilling rig the location will be re-surveyed and a Form 9 shall be submitted.

**10. Plans for Reclamation of the Surface:**

*Producing Location:*

Immediately upon well completion, the location and surrounding area will be cleared of all unused tubing, materials, trash, and debris not required for production.

Immediately upon well completion, any hydrocarbons in the pit shall be removed in accordance with 43 CFR 3162.7-1.

A plastic, nylon reinforced liner will be used, it shall be torn and perforated before backfilling of the reserve pit.

Before any dirt work associated with location restoration takes place, the reserve pit shall be as dry as possible. All debris in it will be removed. Other waste and spoil materials will be disposed of immediately upon completion of operations.

The reserve pit and that portion of the location not needed for production facilities/operations will be recontoured to the approximate natural contours. The reserve pit will be reclaimed within 90 days from the date of well completion, weather permitting.

To prevent surface water(s) from standing (ponding) on the reclaimed reserve pit area, final reclamation of the reserve pit will consist of "mounding" the surface three feet above surrounding ground surface to allow the reclaimed pit area to drain effectively.

Upon completion of backfilling, leveling, and recontouring, the stockpiled topsoil will be spread evenly over the reclaimed area(s).

*Dry Hole/Abandoned Location:*

Abandoned well sites, roads, and other disturbed areas will be restored as near as practical to their original condition. Where applicable, these conditions include the re-establishment of irrigation systems, the re-establishment of appropriate soil conditions, and re-establishment of vegetation as specified.

All disturbed surfaces will be recontoured to the approximate natural contours, with reclamation of the well pad and access road to be performed as soon as practical after final abandonment. Reseeding operations will be performed after completion of other reclamation operations.

**Kerr-McGee Oil & Gas Onshore LP**  
NBU 922-36L3DS/ 36L4BS/ 36N4BS/ 36M3T

Page 6  
Surface Use and Operations Plan

**11. Surface/Mineral Ownership:**

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

**12. Other Information:**

All lease and/or unit operations will be conducted in such a manner that full compliance is made with all applicable laws, regulations, the approved Plan of Operations, and any applicable Notice of Lessees. The Operator is fully responsible for the actions of his subcontractors. A copy of these conditions will be furnished to the field representative to ensure compliance.

The Operator will control noxious weeds along Rights-Of-Way for roads, pipelines, well sites, or other applicable facilities.

A Class III archaeological survey report and paleontological survey report is attached.

**13. Lessee's or Operators' Representative & Certification:**

Kathy Schneebeck Dulnoan  
Staff Regulatory Analyst  
Kerr-McGee Oil & Gas Onshore LP  
PO Box 173779  
Denver, CO 80217-3779  
(720) 929-6226

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 pursuant to 43 CFR 3104 for lease activities is being provided by State Surety Bond 22013542.

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.

Kathy Schneebeck Dulnoan  
Kathy Schneebeck Dulnoan

April 8, 2009  
Date

'APIWellNo:43047503680000'



Kerr-McGee Oil & Gas Onshore LP  
P.O. Box 173779  
Denver, CO 80217-3779

April 6, 2009

Mrs. 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 922-36L4BS  
T9S-R22E  
Section 36: SWSW/NWSW  
Surface: 539' FSL, 413' FWL  
Bottom Hole: 1925' FSL, 930' FWL  
Uintah County, Utah

Dear Mrs. 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 Exception to Location and Siting of Wells.

- Kerr-McGee's NBU 922-36L4BS 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.

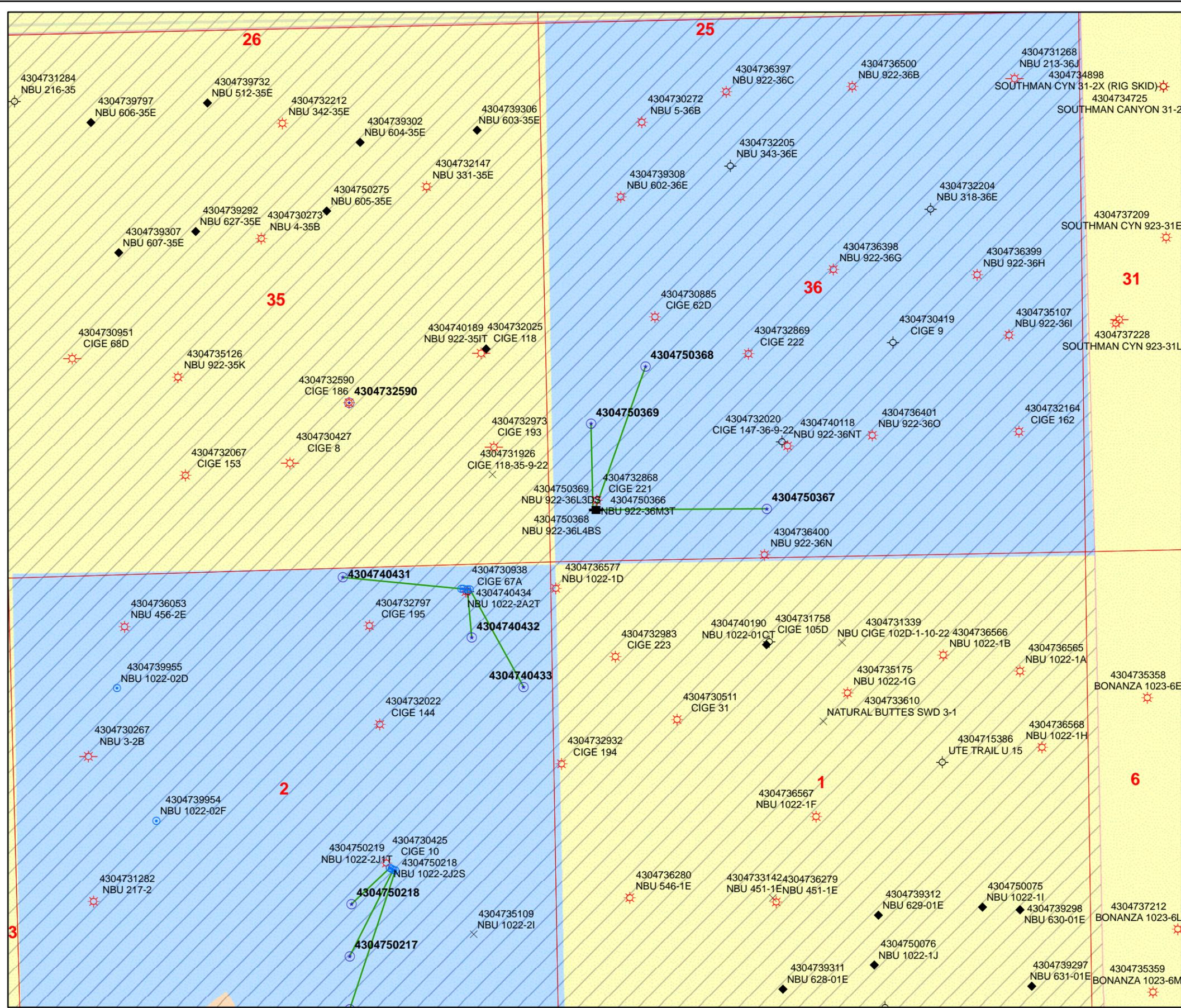
Therefore, based on the above stated information Kerr-McGee Oil & Gas Onshore LP requests the permit be granted pursuant to R649-3-11.

Sincerely,

KERR-MCGEE OIL & GAS ONSHORE LP

Jessy Pink  
Landman

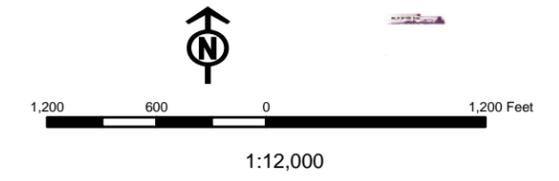
'APIWellNo:43047503680000'



**API Number: 4304750368**  
**Well Name: NBU 922-36L4BS**  
**Township 09.0 S Range 22.0 E Section 36**  
**Meridian: SLBM**  
 Operator: KERR-MCGEE OIL & GAS ONSHORE, L.P.

Map Prepared:  
 Map Produced by Diana Mason

<b>Units</b>	<b>Wells Query Events</b>
ACTIVE	<call other values>
EXPLORATORY	GIS_STAT_TYPE
GAS STORAGE	<Null>
NF PP OIL	APD
NF SECONDARY	DRL
PI OIL	GI
PP GAS	GS
PP GEOTHERML	LA
PP OIL	NEW
SECONDARY	OPS
TERMINATED	PA
<b>Fields</b>	PGW
STATUS	POW
ACTIVE	RET
COMBINED	SGW
Sections	SOW
	TA
	TW
	WD
	WI
	WS



APIWellNo:43047503680000

# 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)

May 1, 2009

Memorandum

To: Assistant District Manager Minerals, Vernal District  
From: Michael Coulthard, Petroleum Engineer  
Subject: 2009 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 2009 within the Natural Buttes Unit, Uintah County, Utah.

API #	WELL NAME	LOCATION
(Proposed PZ WASATCH-MESA VERDE)		
43-047-50362	NBU 921-26D1CS	Sec 26 T09S R21E 0836 FNL 1648 FWL
	BHL	Sec 26 T09S R21E 0600 FNL 0980 FWL
43-047-50363	NBU 921-26D1BS	Sec 26 T09S R21E 0820 FNL 1661 FWL
	BHL	Sec 26 T09S R21E 0110 FNL 0980 FWL
43-047-50364	NBU 921-26B3S	Sec 26 T09S R21E 0804 FNL 1673 FWL
	BHL	Sec 26 T09S R21E 0950 FNL 2360 FEL
43-047-50365	NBU 921-26B2S	Sec 26 T09S R21E 0788 FNL 1685 FWL
	BHL	Sec 26 T09S R21E 0460 FNL 2360 FEL
43-047-50366	NBU 922-36M3T	Sec 36 T09S R22E 0538 FSL 0433 FWL
43-047-50367	NBU 922-36N4BS	Sec 36 T09S R22E 0538 FSL 0453 FWL
	BHL	Sec 36 T09S R22E 0510 FSL 2095 FWL
43-047-50368	NBU 922-36L4BS	Sec 36 T09S R22E 0539 FSL 0413 FWL
	BHL	Sec 36 T09S R22E 1925 FSL 0930 FWL
43-047-50369	NBU 922-36L3DS	Sec 36 T09S R22E 0539 FSL 0393 FWL
	BHL	Sec 36 T09S R22E 1380 FSL 0385 FWL

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

/s/ Michael L. Coulthard

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

MCoulthard:mc:5-1-09

**From:** Jim Davis  
**To:** Bonner, Ed; Mason, Diana  
**Date:** 5/18/2009 4:11 PM  
**Subject:** Kerr McGee well approvals.

**CC:** Garrison, LaVonne  
The following wells have been approved by SITLA including arch and paleo clearance.  
Kerr-McGee's NBU 922-36M3T [API #4304750366]  
Kerr-McGee's NBU 922-36N4BS [API #4304750367]  
Kerr-McGee's NBU 922-36L4BS [API #4304750368]  
Kerr-McGee's NBU 922-36L3DS [API #4304750369]  
-Jim

Jim Davis  
Utah Trust Lands Administration  
jimdavis1@utah.gov  
Phone: (801) 538-5156

Well Name	KERR-MCGEE OIL & GAS ONSHORE, L.P. NBU 922-36L4BS 4304750368		
String	Surf	Prod	
Casing Size(")	9.625	4.500	
Setting Depth (TVD)	2150	8943	
Previous Shoe Setting Depth (TVD)	20	2150	
Max Mud Weight (ppg)	8.3	11.6	
BOPE Proposed (psi)	500	5000	
Casing Internal Yield (psi)	3520	7780	
Operators Max Anticipated Pressure (psi)	5293	11.4	

Calculations	Surf String	9.625	"
Max BPH (psi)	$.052 * \text{Setting Depth} * \text{MW} =$	931	
			<b>BOPE Adequate For Drilling And Setting Casing at Depth?</b>
MASP (Gas) (psi)	$\text{Max BHP} - (0.12 * \text{Setting Depth}) =$	673	NO OK
MASP (Gas/Mud) (psi)	$\text{Max BHP} - (0.22 * \text{Setting Depth}) =$	458	YES
			<b>*Can Full Expected Pressure Be Held At Previous Shoe?</b>
Pressure At Previous Shoe	$\text{Max BHP} - .22 * (\text{Setting Depth} - \text{Previous Shoe Depth}) =$	462	NO reasonable depth for area
Required Casing/BOPE Test Pressure=		2150	psi
*Max Pressure Allowed @ Previous Casing Shoe=		20	psi *Assumes 1psi/ft frac gradient

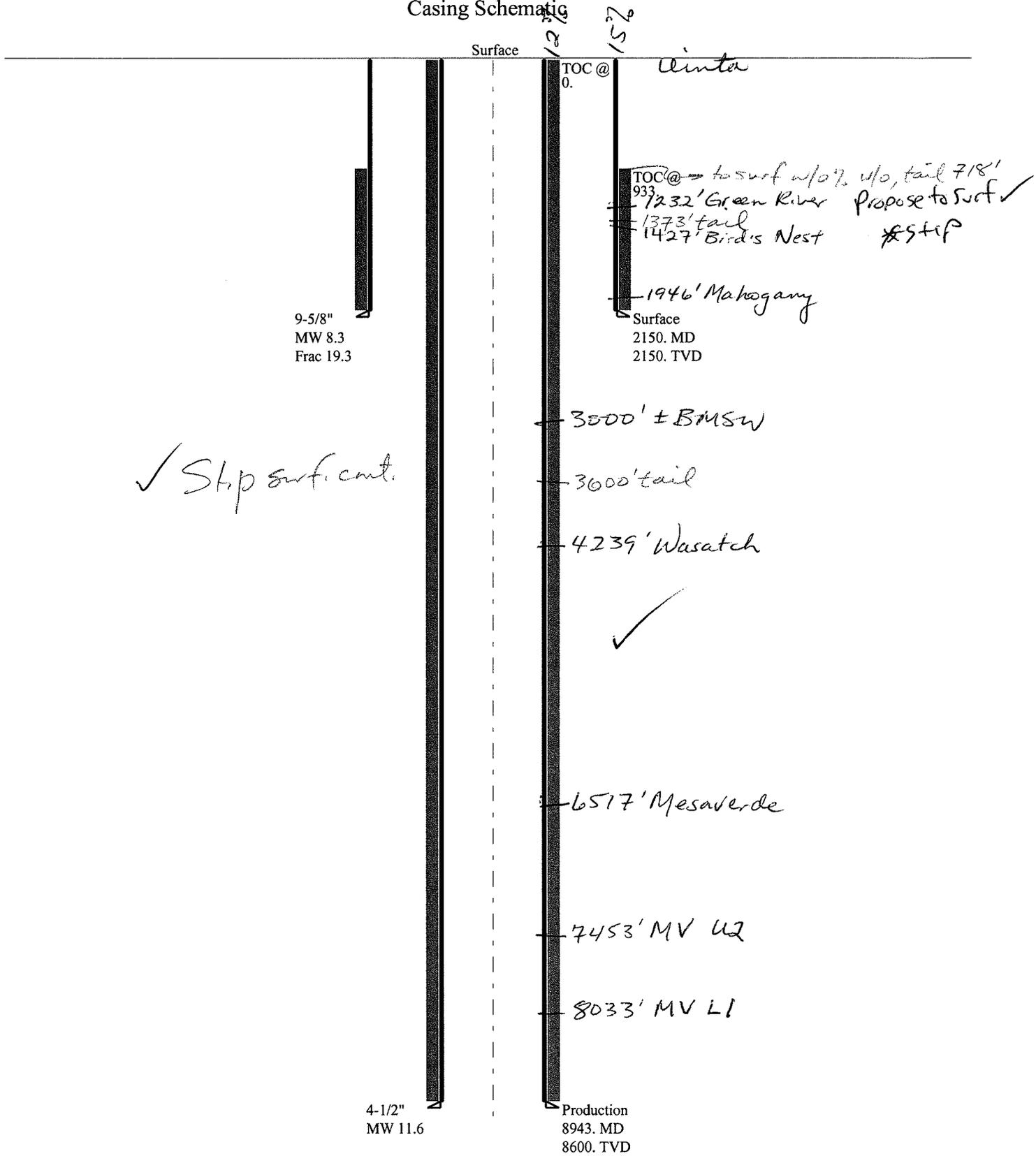
Calculations	Prod String	4.500	"
Max BPH (psi)	$.052 * \text{Setting Depth} * \text{MW} =$	5394	
			<b>BOPE Adequate For Drilling And Setting Casing at Depth?</b>
MASP (Gas) (psi)	$\text{Max BHP} - (0.12 * \text{Setting Depth}) =$	4321	YES
MASP (Gas/Mud) (psi)	$\text{Max BHP} - (0.22 * \text{Setting Depth}) =$	3427	YES OK
			<b>*Can Full Expected Pressure Be Held At Previous Shoe?</b>
Pressure At Previous Shoe	$\text{Max BHP} - .22 * (\text{Setting Depth} - \text{Previous Shoe Depth}) =$	3900	NO Reasonable
Required Casing/BOPE Test Pressure=		5000	psi
*Max Pressure Allowed @ Previous Casing Shoe=		2150	psi *Assumes 1psi/ft frac gradient

Calculations	String		"
Max BPH (psi)	$.052 * \text{Setting Depth} * \text{MW} =$		
			<b>BOPE Adequate For Drilling And Setting Casing at Depth?</b>
MASP (Gas) (psi)	$\text{Max BHP} - (0.12 * \text{Setting Depth}) =$		NO
MASP (Gas/Mud) (psi)	$\text{Max BHP} - (0.22 * \text{Setting Depth}) =$		NO
			<b>*Can Full Expected Pressure Be Held At Previous Shoe?</b>
Pressure At Previous Shoe	$\text{Max BHP} - .22 * (\text{Setting Depth} - \text{Previous Shoe Depth}) =$		NO
Required Casing/BOPE Test Pressure=			psi
*Max Pressure Allowed @ Previous Casing Shoe=			psi *Assumes 1psi/ft frac gradient

Calculations	String		"
Max BPH (psi)	$.052 * \text{Setting Depth} * \text{MW} =$		
			<b>BOPE Adequate For Drilling And Setting Casing at Depth?</b>
MASP (Gas) (psi)	$\text{Max BHP} - (0.12 * \text{Setting Depth}) =$		NO
MASP (Gas/Mud) (psi)	$\text{Max BHP} - (0.22 * \text{Setting Depth}) =$		NO
			<b>*Can Full Expected Pressure Be Held At Previous Shoe?</b>
Pressure At Previous Shoe	$\text{Max BHP} - .22 * (\text{Setting Depth} - \text{Previous Shoe Depth}) =$		NO
Required Casing/BOPE Test Pressure=			psi
*Max Pressure Allowed @ Previous Casing Shoe=			psi *Assumes 1psi/ft frac gradient

# 43047503680000 NBU 922-36L4BS

## Casing Schematic



Well name:	<b>43047503680000 NBU 922-36L4BS</b>		
Operator:	<b>KERR-MCGEE OIL &amp; GAS ONSHORE, L.P.</b>		
String type:	Surface	Project ID:	43-047-50368
Location:	UINTAH COUNTY		

**Design parameters:**

**Collapse**

Mud weight: 8.330 ppg  
Design is based on evacuated pipe.

**Minimum design factors:**

**Collapse:**

Design factor 1.125

**Burst:**

Design factor 1.00

**Environment:**

H2S considered? No  
Surface temperature: 74 °F  
Bottom hole temperature: 104 °F  
Temperature gradient: 1.40 °F/100ft  
Minimum section length: 100 ft

Cement top: 933 ft

**Burst**

Max anticipated surface pressure: 1,892 psi  
Internal gradient: 0.120 psi/ft  
Calculated BHP 2,150 psi

No backup mud specified.

**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: 1,885 ft

**Directional Info - Build & Drop**

Kick-off point 2100 ft  
Departure at shoe: 1 ft  
Maximum dogleg: 3.5 °/100ft  
Inclination at shoe: 1.75 °

**Re subsequent strings:**

Next setting depth: 8,600 ft  
Next mud weight: 11.600 ppg  
Next setting BHP: 5,182 psi  
Fracture mud wt: 19.250 ppg  
Fracture depth: 2,150 ft  
Injection pressure: 2,150 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	2150	9.625	36.00	J-55	LT&C	2150	2150	8.796	17581

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	930	1933	2.078	2150	3520	1.64	77.4	453	5.85 J

Prepared by: Helen Sadik-Macdonald  
Div of Oil, Gas & Mining

Phone: 801 538-5357  
FAX: 801-359-3940

Date: June 8, 2009  
Salt Lake City, Utah

Remarks:

Collapse is based on a vertical depth of 2150 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

Well name:	<b>43047503680000 NBU 922-36L4BS</b>		
Operator:	<b>KERR-MCGEE OIL &amp; GAS ONSHORE, L.P.</b>		
String type:	Production	Project ID:	43-047-50368
Location:	UINTAH	COUNTY	

**Design parameters:**

**Collapse**

Mud weight: 11.600 ppg  
 Design is based on evacuated pipe.

**Minimum design factors:**

**Collapse:**

Design factor 1.125

**Burst:**

Design factor 1.00

**Environment:**

H2S considered? No  
 Surface temperature: 74 °F  
 Bottom hole temperature: 194 °F  
 Temperature gradient: 1.40 °F/100ft  
 Minimum section length: 100 ft

Cement top: Surface

**Burst**

Max anticipated surface pressure: 3,290 psi  
 Internal gradient: 0.220 psi/ft  
 Calculated BHP 5,182 psi

No backup mud specified.

**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: 7,452 ft

**Directional Info - Build & Drop**

Kick-off point 2100 ft  
 Departure at shoe: 1477 ft  
 Maximum dogleg: 3.5 °/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	8943	4.5	11.60	I-80	LT&C	8600	8943	3.875	118048
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	5182	6360	1.227	5182	7780	1.50	99.8	212	2.13 J

Prepared by: Helen Sadik-Macdonald  
 Div of Oil, Gas & Mining

Phone: 801 538-5357  
 FAX: 801-359-3940

Date: June 8, 2009  
 Salt Lake City, Utah

**Remarks:**

Collapse is based on a vertical depth of 8600 ft, a mud weight of 11.6 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

# ON-SITE PREDRILL EVALUATION

## Utah Division of Oil, Gas and Mining

**Operator** KERR-MCGEE OIL & GAS ONSHORE, L.P.  
**Well Name** NBU 922-36L4BS  
**API Number** 43047503680000      **APD No** 1439      **Field/Unit** NATURAL BUTTES  
**Location: 1/4,1/4** SWSW      **Sec** 36      **Tw** 9.0S      **Rng** 22.0E      539 FSL 413 FWL  
**GPS Coord (UTM)**      **Surface Owner**

**Participants**

Floyd Bartlett (DOGM), Ed Bonner (SITLA), Ramie Hoopes, Clay Einerson, Griz Oleen, Tony Kzneck, Charles Chase (Kerr McGee), Ben Williams (UDWR) and Kolby Kay (Timberline Engineering and Land Surveying).

**Regional/Local Setting & Topography**

The general area is in the southeast portion of the Natural Buttes Unit, which contains the White River and rugged drainages that drain into the White River. Topography is varied and frequently dissected by short draws or washes, which become overly steep as they approach the White River breaks or rim. Distance to the White River varies from ¼ mile to 2 miles. The side drainages are dry except for ephemeral flows. No seeps or springs exist in the area. An occasional pond has been constructed to supply water for livestock and antelope. Vernal, Utah is approximately 43 air miles to the northwest. Access from Vernal is approximately 65.7 road miles following Utah State, Uintah County and oilfield development roads to the location.

The proposed 4 well pad for the NBU 922-36 M3T, L3DS, L4BS, N4BS which encompasses an existing pad of the CIGE 221 gas well will be significantly enlarged. The existing well probably will be plugged. The surface of the location will be lowered up to 1.6 feet to obtain fill for the enlargement. Enlargement will be in all directions except to the east which is against a rocky hill. Short draws to the west will be filled. A knoll to the north will not be disturbed. A deep canyon parallels the site on the west. It was decided that rounding would occur as needed between Corners 9 and 10 so that fill would not extend beyond any benches in that area. This will make it easier to recover the fill. The topsoil stockpile between Corners 3 and 4 will be moved to the north. The flow-back pit will not be constructed at least at this time. Reserve pit spoils may also be placed in this area. No other drainage concerns exist. The White River is approximately 3/4 mile to the west. The existing pad shows no stability problems and the site has no apparent concerns for constructing an enlarged pad as modified and drilling and operating the planned wells. It is the only suitable location in the immediate area. A new Location Layout is being prepared to reflect the above adjustments.

Both the surface and minerals are owned by SITLA.

**Surface Use Plan**

**Current Surface Use**  
 Wildlife Habitat  
 Existing Well Pad

<b>New Road Miles</b>	<b>Well Pad</b>	<b>Src Const Material</b>	<b>Surface Formation</b>
0	<b>Width</b> 320 <b>Length</b> 500	Onsite	UNTA

**Ancillary Facilities** N

**Waste Management Plan Adequate?** Y

**Environmental Parameters**

**Affected Floodplains and/or Wetlands** N

**Flora / Fauna**

Area beyond the existing pad is poorly vegetated with greasewood, cheatgrass, black sagebrush, broom snakeweed, globemallow, Sitanion hystrix, shadscale, rabbitbrush, pepper weed, halogeton and annuals.

Sheep, deer, antelope, coyote, and other small mammals and birds.

**Soil Type and Characteristics**

Shallow rocky sandy loam.

**Erosion Issues** N

**Sedimentation Issues** N

**Site Stability Issues** N

**Drainage Diversion Required?** N

**Berm Required?** N

**Erosion Sedimentation Control Required?** N

**Paleo Survey Run?**    **Paleo Potential Observed?** N    **Cultural Survey Run?** Y    **Cultural Resources?**

**Reserve Pit**

**Site-Specific Factors**

**Site Ranking**

<b>Distance to Groundwater (feet)</b>	>200	0
<b>Distance to Surface Water (feet)</b>	>1000	0
<b>Dist. Nearest Municipal Well (ft)</b>	>5280	0
<b>Distance to Other Wells (feet)</b>		20
<b>Native Soil Type</b>	High permeability	20
<b>Fluid Type</b>	Fresh Water	5
<b>Drill Cuttings</b>	Normal Rock	0
<b>Annual Precipitation (inches)</b>		0
<b>Affected Populations</b>		
<b>Presence Nearby Utility Conduits</b>	Not Present	0
	<b>Final Score</b>	45

1 Sensitivity Level

**Characteristics / Requirements**

The reserve pit is planned in an area of cut in the southeast corner of the location. Dimensions are 100' x 250' x 10' deep with 2' of freeboard. Because the length of time the reserve pit will be used and the roughness of the terrain, Kerr McGee committed to line it with a 30-mil.liner and an appropriate thickness of felt sub-liner to cushion the rock. The second pit shown is not approved with this permit. Kerr McGee was informed they would have to submit a separate application and plan for this pit.

**Closed Loop Mud Required?**    **Liner Required?** Y    **Liner Thickness** 30    **Pit Underlayment Required?** Y

**Other Observations / Comments**

On 5/13/2009 the following met and discussed the changes incorporated in the above description. Floyd Bartlett (DOGM), Clay Einerson, Lovell Young (Kerr McGee), and Kolby Kay (Timberline Engineering and Land Surveying).

Floyd Bartlett  
**Evaluator**

4/28/2009  
**Date / Time**

# Application for Permit to Drill Statement of Basis

6/17/2009

**Utah Division of Oil, Gas and Mining**

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<b>APD No</b>	<b>API WellNo</b>	<b>Status</b>	<b>Well Type</b>	<b>Surf Owner</b>	<b>CBM</b>
1439	43047503680000	LOCKED	GW	S	No
<b>Operator</b>	KERR-MCGEE OIL & GAS ONSHORE, L.P.		<b>Surface Owner-APD</b>		
<b>Well Name</b>	NBU 922-36L4BS		<b>Unit</b>	NATURAL BUTTES	
<b>Field</b>	NATURAL BUTTES		<b>Type of Work</b>	DRILL	
<b>Location</b>	SWSW 36 9S 22E S 539 FSL 413 FWL GPS Coord (UTM) 636984E 4427306N				

**Geologic Statement of Basis**

Kerr McGee proposes to set 2,150' 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 3,000'. 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 production casing cement should be brought up above the base of the moderately saline ground water in order to isolate it from fresher waters up hole. The proposed casing and cement should adequately protect any usable ground water.

Brad Hill  
**APD Evaluator**

5/19/2009  
**Date / Time**

**Surface Statement of Basis**

The general area is in the southeast portion of the Natural Buttes Unit, which contains the White River and rugged drainages that drain into the White River. Topography is varied and frequently dissected by short draws or washes, which become overly steep as they approach the White River breaks or rim. Distance to the White River varies from ¼ mile to 2 miles. The side drainages are dry except for ephemeral flows. No seeps or springs exist in the area. An occasional pond has been constructed to supply water for livestock and antelope. Vernal, Utah is approximately 43 air miles to the northwest. Access from Vernal is approximately 65.7 road miles following Utah State, Uintah County and oilfield development roads to the location.

The proposed 4 well pad for the NBU 922-36 M3T, L3DS, L4BS, N4BS which encompasses an existing pad of the CIGE 221 gas well will be significantly enlarged. The existing well probably will be plugged. The surface of the location will be lowered up to 1.6 feet to obtain fill for the enlargement. Enlargement will be in all directions except to the east which is against a rocky hill. Short draws to the west will be filled. A knoll to the north will not be disturbed. A deep canyon parallels the site on the west. It was decided that rounding would occur as needed between Corners 9 and 10 so that fill would not extend beyond any benches in that area. This will make it easier to recover the fill. The topsoil stockpile between Corners 3 and 4 will be moved to the north. The flow-back pit will not be constructed at least at this time. Reserve pit spoils may also be placed in this area. No other drainage concerns exist. The White River is approximately ¾ mile to the west. The existing pad shows no stability problems and the site has no apparent concerns for constructing an enlarged pad as modified and drilling and operating the planned wells. It is the only suitable location in the immediate area. A new Location Layout is being prepared to reflect the above adjustments.

Both the surface and minerals are owned by SITLA. Ed Bonner of SITLA attended the pre-site and was agreeable to the modifications. He had no additional concerns regarding the proposal.

Ben Williams of the Utah Division of Wildlife Resources also attended the pre-site. Mr. Williams stated no wildlife values would be significantly affected by drilling and operating the wells at this location. He provided Ed Bonner of SITLA and Ramie Hoopes of Kerr McGee a written wildlife evaluation and a copy of a

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# Application for Permit to Drill Statement of Basis

6/17/2009

Utah Division of Oil, Gas and Mining

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recommended seed mix to be used for re-vegetating the disturbed area.

Floyd Bartlett  
**Onsite Evaluator**

4/28/2009  
**Date / Time**

**Conditions of Approval / Application for Permit to Drill**

<b>Category</b>	<b>Condition</b>
Pits	A synthetic liner with a minimum thickness of 30 mils with a felt subliner shall be properly installed and maintained in the reserve pit.
Surface	The reserve pit shall be fenced upon completion of drilling operations.

**WORKSHEET  
APPLICATION FOR PERMIT TO DRILL**

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**APD RECEIVED:** 4/23/2009

**API NO. ASSIGNED:** 43047503680000

**WELL NAME:** NBU 922-36L4BS

**OPERATOR:** KERR-MCGEE OIL & GAS ONSHORE, L.P. (N2995)

**PHONE NUMBER:** 720 929-6007

**CONTACT:** Kathy Schneebeck-Dulnoan

**PROPOSED LOCATION:** SWSW 36 090S 220E

**Permit Tech Review:**

**SURFACE:** 0539 FSL 0413 FWL

**Engineering Review:**

**BOTTOM:** 1925 FSL 0930 FWL

**Geology Review:**

**COUNTY:** UINTAH

**LATITUDE:** 39.98672

**LONGITUDE:** -109.39560

**UTM SURF EASTINGS:** 636984.00

**NORTHINGS:** 4427306.00

**FIELD NAME:** NATURAL BUTTES

**LEASE TYPE:** 3 - State

**LEASE NUMBER:** ML 22650

**PROPOSED PRODUCING FORMATION(S):** WASATCH-MESA VERDE

**SURFACE OWNER:** 3 - State

**COALBED METHANE:** NO

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**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

**Commingle 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:** 460' fr u bdry & uncomm. tract
  - R649-3-11. Directional Drill
- 

**Comments:** Presite Completed

**Stipulations:** 5 - Statement of Basis - bhll  
15 - Directional - dmason  
17 - Oil Shale 190-5(b) - dmason  
25 - Surface Casing - hmacdonald



JON M. HUNTSMAN, JR.  
*Governor*

GARY R. HERBERT  
*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 922-36L4BS  
**API Well Number:** 43047503680000  
**Lease Number:** ML 22650  
**Surface Owner:** STATE  
**Approval Date:** 6/24/2009

**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

**Commingling:**

In accordance with Board Cause No. 173-14, completion into and commingling of production from the Wasatch and Mesaverde formations 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.

**Notification Requirements:**

The operator is required to notify the Division of Oil, Gas and Mining of the following action during drilling of this well:

- 24 hours prior to cementing or testing casing - contact Dan Jarvis
- 24 hours prior to testing blowout prevention equipment - contact Dan Jarvis
- 24 hours prior to spudding the well - contact Carol Daniels
- Within 24 hours of any emergency changes made to the approved drilling program - contact Dustin Doucet
- Prior to commencing operations to plug and abandon the well - contact Dan Jarvis

The operator is required to get approval from the Division of Oil, Gas and Mining before performing any of the following actions during the drilling of this well:

- Plugging and abandonment or significant plug back of this well - contact Dustin Doucet
- Any changes to the approved drilling plan - contact Dustin Doucet

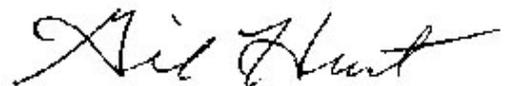
The following are Division of Oil, Gas and Mining contacts and their telephone numbers (please leave a voice mail message if the person is not available to take the call):

- Dan Jarvis at: (801) 538-5338 office  
(801) 942-0871 home
- Carol Daniels at: (801) 538-5284 office
- Dustin Doucet at: (801) 538-5281 office  
(801) 733-0983 home

**Reporting Requirements:**

All required reports, forms and submittals will be promptly filed with the Division, including but not limited to the Entity Action Form (Form 6), Report of Water Encountered During Drilling (Form 7), Weekly Progress Reports for drilling and completion operations, and Sundry Notices and Reports on Wells requesting approval of change of plans or other operational actions.

**Approved By:**



Gil Hunt  
Associate Director, Oil & Gas

<b>STATE OF UTAH</b> DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS, AND MINING	<b>FORM 9</b>  <b>5. LEASE DESIGNATION AND SERIAL NUMBER:</b> ML 22650
<b>SUNDRY NOTICES AND REPORTS ON WELLS</b>  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.	<b>6. IF INDIAN, ALLOTTEE OR TRIBE NAME:</b>  <b>7. UNIT or CA AGREEMENT NAME:</b> NATURAL BUTTES
<b>1. TYPE OF WELL</b> Gas Well	<b>8. WELL NAME and NUMBER:</b> NBU 922-36L4BS
<b>2. NAME OF OPERATOR:</b> KERR-MCGEE OIL & GAS ONSHORE, L.P.	<b>9. API NUMBER:</b> 43047503680000
<b>3. ADDRESS OF OPERATOR:</b> P.O. Box 173779 1099 18th Street, Suite 600, Denver, CO, 80217 3779	<b>PHONE NUMBER:</b> 720 929-6007 Ext
<b>4. LOCATION OF WELL</b> <b>FOOTAGES AT SURFACE:</b> 0539 FSL 0413 FWL <b>QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN:</b> Qtr/Qtr: SWSW Section: 36 Township: 09.0S Range: 22.0E Meridian: S	<b>9. FIELD and POOL or WILDCAT:</b> NATURAL BUTTES  <b>COUNTY:</b> UINTAH  <b>STATE:</b> UTAH

**11. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA**

TYPE OF SUBMISSION	TYPE OF ACTION		
<input checked="" type="checkbox"/> <b>NOTICE OF INTENT</b> Approximate date work will start: 8/7/2009  <input type="checkbox"/> <b>SUBSEQUENT REPORT</b> Date of Work Completion:  <input type="checkbox"/> <b>SPUD REPORT</b> Date of Spud:  <input type="checkbox"/> <b>DRILLING REPORT</b> Report Date:	<input type="checkbox"/> ACIDIZE <input type="checkbox"/> CHANGE TO PREVIOUS PLANS <input type="checkbox"/> CHANGE WELL STATUS <input type="checkbox"/> DEEPEN <input type="checkbox"/> OPERATOR CHANGE <input type="checkbox"/> PRODUCTION START OR RESUME <input type="checkbox"/> REPERFORATE CURRENT FORMATION <input type="checkbox"/> TUBING REPAIR <input type="checkbox"/> WATER SHUTOFF <input type="checkbox"/> WILDCAT WELL DETERMINATION	<input type="checkbox"/> ALTER CASING <input type="checkbox"/> CHANGE TUBING <input type="checkbox"/> COMMINGLE PRODUCING FORMATIONS <input type="checkbox"/> FRACTURE TREAT <input type="checkbox"/> PLUG AND ABANDON <input type="checkbox"/> RECLAMATION OF WELL SITE <input type="checkbox"/> SIDETRACK TO REPAIR WELL <input type="checkbox"/> VENT OR FLARE <input type="checkbox"/> SI TA STATUS EXTENSION <input type="checkbox"/> OTHER	<input type="checkbox"/> CASING REPAIR <input type="checkbox"/> CHANGE WELL NAME <input type="checkbox"/> CONVERT WELL TYPE <input type="checkbox"/> NEW CONSTRUCTION <input type="checkbox"/> PLUG BACK <input type="checkbox"/> RECOMPLETE DIFFERENT FORMATION <input type="checkbox"/> TEMPORARY ABANDON <input type="checkbox"/> WATER DISPOSAL <input type="checkbox"/> APD EXTENSION OTHER:

**12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.**

Verbal approval was received by Dustin Doucet on Tuesday August 4, 2009 at 10:30 a.m. regarding moving the proposed pit 50' to the laydown due to new rig layout. This will allow for the wells to line up with the pit. The move will be contained within the original location and encroach on the proposed second pit that will not be utilized. There will be no additional disturbance needed.

**Approved by the Utah Division of Oil, Gas and Mining**

**Date:** August 11, 2009

**By:** Dustin Doucet

<b>NAME (PLEASE PRINT)</b> Raleen White	<b>PHONE NUMBER</b> 720 929-6666	<b>TITLE</b> Sr. Regulatory Analyst
<b>SIGNATURE</b> N/A		<b>DATE</b> 8/7/2009

<b>STATE OF UTAH</b> DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS, AND MINING	<b>FORM 9</b>  <b>5. LEASE DESIGNATION AND SERIAL NUMBER:</b> ML 22650
<b>SUNDRY NOTICES AND REPORTS ON WELLS</b>  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.	<b>6. IF INDIAN, ALLOTTEE OR TRIBE NAME:</b>  <b>7. UNIT or CA AGREEMENT NAME:</b> NATURAL BUTTES
<b>1. TYPE OF WELL</b> Gas Well	<b>8. WELL NAME and NUMBER:</b> NBU 922-36L4BS
<b>2. NAME OF OPERATOR:</b> KERR-MCGEE OIL & GAS ONSHORE, L.P.	<b>9. API NUMBER:</b> 43047503680000
<b>3. ADDRESS OF OPERATOR:</b> P.O. Box 173779 1099 18th Street, Suite 600, Denver, CO, 80217 3779	<b>PHONE NUMBER:</b> 720 929-6007 Ext
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**11. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA**

TYPE OF SUBMISSION	TYPE OF ACTION		
<input type="checkbox"/> <b>NOTICE OF INTENT</b> Approximate date work will start:	<input type="checkbox"/> ACIDIZE	<input type="checkbox"/> ALTER CASING	<input type="checkbox"/> CASING REPAIR
<input type="checkbox"/> <b>SUBSEQUENT REPORT</b> Date of Work Completion:	<input type="checkbox"/> CHANGE TO PREVIOUS PLANS	<input type="checkbox"/> CHANGE TUBING	<input type="checkbox"/> CHANGE WELL NAME
<input checked="" type="checkbox"/> <b>SPUD REPORT</b> Date of Spud: 8/26/2009	<input type="checkbox"/> CHANGE WELL STATUS	<input type="checkbox"/> COMMINGLE PRODUCING FORMATIONS	<input type="checkbox"/> CONVERT WELL TYPE
<input type="checkbox"/> <b>DRILLING REPORT</b> Report Date:	<input type="checkbox"/> DEEPEN	<input type="checkbox"/> FRACTURE TREAT	<input type="checkbox"/> NEW CONSTRUCTION
	<input type="checkbox"/> OPERATOR CHANGE	<input type="checkbox"/> PLUG AND ABANDON	<input type="checkbox"/> PLUG BACK
	<input type="checkbox"/> PRODUCTION START OR RESUME	<input type="checkbox"/> RECLAMATION OF WELL SITE	<input type="checkbox"/> RECOMPLETE DIFFERENT FORMATION
	<input type="checkbox"/> REPERFORATE CURRENT FORMATION	<input type="checkbox"/> SIDETRACK TO REPAIR WELL	<input type="checkbox"/> TEMPORARY ABANDON
	<input type="checkbox"/> TUBING REPAIR	<input type="checkbox"/> VENT OR FLARE	<input type="checkbox"/> WATER DISPOSAL
	<input type="checkbox"/> WATER SHUTOFF	<input type="checkbox"/> SI TA STATUS EXTENSION	<input type="checkbox"/> APD EXTENSION
	<input type="checkbox"/> WILDCAT WELL DETERMINATION	<input type="checkbox"/> 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 PIPE. CMT W/28 SX READY MIX. SPUD WELL LOCATION ON 08/26/2009 AT 15:00 HRS.

**Accepted by the**  
**Utah Division of**  
**Oil, Gas and Mining**  
**FOR RECORD ONLY**  
 August 27, 2009

<b>NAME (PLEASE PRINT)</b> Andy Lytle	<b>PHONE NUMBER</b> 720 929-6100	<b>TITLE</b> Regulatory Analyst
<b>SIGNATURE</b> N/A		<b>DATE</b> 8/27/2009

<b>STATE OF UTAH</b> DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS, AND MINING	<b>FORM 9</b>  <b>5. LEASE DESIGNATION AND SERIAL NUMBER:</b> ML 22650
<b>SUNDRY NOTICES AND REPORTS ON WELLS</b>  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.	<b>6. IF INDIAN, ALLOTTEE OR TRIBE NAME:</b>  <b>7. UNIT or CA AGREEMENT NAME:</b> NATURAL BUTTES
<b>1. TYPE OF WELL</b> Gas Well	<b>8. WELL NAME and NUMBER:</b> NBU 922-36L4BS
<b>2. NAME OF OPERATOR:</b> KERR-MCGEE OIL & GAS ONSHORE, L.P.	<b>9. API NUMBER:</b> 43047503680000
<b>3. ADDRESS OF OPERATOR:</b> P.O. Box 173779 1099 18th Street, Suite 600, Denver, CO, 80217 3779	<b>PHONE NUMBER:</b> 720 929-6007 Ext
<b>4. LOCATION OF WELL</b> <b>FOOTAGES AT SURFACE:</b> 0539 FSL 0413 FWL <b>QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN:</b> Qtr/Qtr: SWSW Section: 36 Township: 09.0S Range: 22.0E Meridian: S	<b>9. FIELD and POOL or WILDCAT:</b> NATURAL BUTTES  <b>COUNTY:</b> UINTAH  <b>STATE:</b> UTAH

11. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION		
<input type="checkbox"/> <b>NOTICE OF INTENT</b> Approximate date work will start:	<input type="checkbox"/> ACIDIZE	<input type="checkbox"/> ALTER CASING	<input type="checkbox"/> CASING REPAIR
<input type="checkbox"/> <b>SUBSEQUENT REPORT</b> Date of Work Completion:	<input type="checkbox"/> CHANGE TO PREVIOUS PLANS	<input type="checkbox"/> CHANGE TUBING	<input type="checkbox"/> CHANGE WELL NAME
<input type="checkbox"/> <b>SPUD REPORT</b> Date of Spud:	<input type="checkbox"/> CHANGE WELL STATUS	<input type="checkbox"/> COMMINGLE PRODUCING FORMATIONS	<input type="checkbox"/> CONVERT WELL TYPE
<input checked="" type="checkbox"/> <b>DRILLING REPORT</b> Report Date: 9/8/2009	<input type="checkbox"/> DEEPEN	<input type="checkbox"/> FRACTURE TREAT	<input type="checkbox"/> NEW CONSTRUCTION
	<input type="checkbox"/> OPERATOR CHANGE	<input type="checkbox"/> PLUG AND ABANDON	<input type="checkbox"/> PLUG BACK
	<input type="checkbox"/> PRODUCTION START OR RESUME	<input type="checkbox"/> RECLAMATION OF WELL SITE	<input type="checkbox"/> RECOMPLETE DIFFERENT FORMATION
	<input type="checkbox"/> REPERFORATE CURRENT FORMATION	<input type="checkbox"/> SIDETRACK TO REPAIR WELL	<input type="checkbox"/> TEMPORARY ABANDON
	<input type="checkbox"/> TUBING REPAIR	<input type="checkbox"/> VENT OR FLARE	<input type="checkbox"/> WATER DISPOSAL
	<input type="checkbox"/> WATER SHUTOFF	<input type="checkbox"/> SI TA STATUS EXTENSION	<input type="checkbox"/> APD EXTENSION
	<input type="checkbox"/> WILDCAT WELL DETERMINATION	<input type="checkbox"/> OTHER	OTHER: _____

12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.

MIRU PROPETRO AIR RIG ON 09/06/2009. DRILLED 12-1/4" SURFACE HOLE TO 2,159'. RAN 9-5/8" 36# J-55 SURFACE CSG. CMT SURFACE TAIL W/300 SX CLASS G PREM LITE @ 15.8 PPG, 1.15 YIELD. FLOAT HELD. TOP OUT W/400 SX CLASS G PREM LITE @ 15.8 PPG, 1.15 YIELD. WORT.

**Accepted by the**  
**Utah Division of**  
**Oil, Gas and Mining**  
**FOR RECORD ONLY**  
 October 15, 2009

<b>NAME (PLEASE PRINT)</b> Andy Lytle	<b>PHONE NUMBER</b> 720 929-6100	<b>TITLE</b> Regulatory Analyst
<b>SIGNATURE</b> N/A		<b>DATE</b> 10/14/2009

<b>STATE OF UTAH</b> DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS, AND MINING	<b>FORM 9</b>  <b>5. LEASE DESIGNATION AND SERIAL NUMBER:</b> ML 22650
<b>SUNDRY NOTICES AND REPORTS ON WELLS</b>  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.	<b>6. IF INDIAN, ALLOTTEE OR TRIBE NAME:</b>  <b>7. UNIT or CA AGREEMENT NAME:</b> NATURAL BUTTES
<b>1. TYPE OF WELL</b> Gas Well	<b>8. WELL NAME and NUMBER:</b> NBU 922-36L4BS
<b>2. NAME OF OPERATOR:</b> KERR-MCGEE OIL & GAS ONSHORE, L.P.	<b>9. API NUMBER:</b> 43047503680000
<b>3. ADDRESS OF OPERATOR:</b> P.O. Box 173779 1099 18th Street, Suite 600, Denver, CO, 80217 3779	<b>PHONE NUMBER:</b> 720 929-6007 Ext
<b>4. LOCATION OF WELL</b> <b>FOOTAGES AT SURFACE:</b> 0539 FSL 0413 FWL <b>QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN:</b> Qtr/Qtr: SWSW Section: 36 Township: 09.0S Range: 22.0E Meridian: S	<b>9. FIELD and POOL or WILDCAT:</b> NATURAL BUTTES  <b>COUNTY:</b> UINTAH  <b>STATE:</b> UTAH

11. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION		
<input type="checkbox"/> <b>NOTICE OF INTENT</b> Approximate date work will start:	<input type="checkbox"/> ACIDIZE	<input type="checkbox"/> ALTER CASING	<input type="checkbox"/> CASING REPAIR
<input type="checkbox"/> <b>SUBSEQUENT REPORT</b> Date of Work Completion:	<input type="checkbox"/> CHANGE TO PREVIOUS PLANS	<input type="checkbox"/> CHANGE TUBING	<input type="checkbox"/> CHANGE WELL NAME
<input type="checkbox"/> <b>SPUD REPORT</b> Date of Spud:	<input type="checkbox"/> CHANGE WELL STATUS	<input type="checkbox"/> COMMINGLE PRODUCING FORMATIONS	<input type="checkbox"/> CONVERT WELL TYPE
<input checked="" type="checkbox"/> <b>DRILLING REPORT</b> Report Date: 10/21/2009	<input type="checkbox"/> DEEPEN	<input type="checkbox"/> FRACTURE TREAT	<input type="checkbox"/> NEW CONSTRUCTION
	<input type="checkbox"/> OPERATOR CHANGE	<input type="checkbox"/> PLUG AND ABANDON	<input type="checkbox"/> PLUG BACK
	<input type="checkbox"/> PRODUCTION START OR RESUME	<input type="checkbox"/> RECLAMATION OF WELL SITE	<input type="checkbox"/> RECOMPLETE DIFFERENT FORMATION
	<input type="checkbox"/> REPERFORATE CURRENT FORMATION	<input type="checkbox"/> SIDETRACK TO REPAIR WELL	<input type="checkbox"/> TEMPORARY ABANDON
	<input type="checkbox"/> TUBING REPAIR	<input type="checkbox"/> VENT OR FLARE	<input type="checkbox"/> WATER DISPOSAL
	<input type="checkbox"/> WATER SHUTOFF	<input type="checkbox"/> SI TA STATUS EXTENSION	<input type="checkbox"/> APD EXTENSION
	<input type="checkbox"/> WILDCAT WELL DETERMINATION	<input type="checkbox"/> OTHER	OTHER: _____

12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.

FINISHED DRILLING FROM 2159' TO 9057' ON 10/19/2009. RAN 4-1/2" 11.6# I-80 PRODUCTION CSG. PUMP 40 BBLS WATER. LEAD CMT W/540 SX CLASS G PREM LITE @ 12.2 PPG, 2.17 YIELD. TAILED CMT W/1158 SX CLASS G 50/50 POZ MIX @ 14.3 PPG, 1.31 YIELD. WASH LINES, DROP PLUG & DISPLACE W/139 BBLS WATER W/ CLAYTREAT & MAGNACIDE TO BUMP PLUG W/3250 PSI. REGAINED RETURNS WITH 378 BBLS CMT AWAY. LOST FULL RETURNS WHEN PUMP WAS SLOWED TO 3 BPM LAST 10 BBLS. RELEASE PSI, FLOATS HELD. ND BOP, CLEAN MUD TANKS. RELEASE ENSIGN 145 RIG ON 10/21/2009 AT 06:00 HRS.

**Accepted by the**  
**Utah Division of**  
**Oil, Gas and Mining**  
**FOR RECORD ONLY**  
 October 28, 2009

<b>NAME (PLEASE PRINT)</b> Andy Lytle	<b>PHONE NUMBER</b> 720 929-6100	<b>TITLE</b> Regulatory Analyst
<b>SIGNATURE</b> N/A		<b>DATE</b> 10/26/2009

<b>STATE OF UTAH</b> DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS, AND MINING	<b>FORM 9</b>  <b>5. LEASE DESIGNATION AND SERIAL NUMBER:</b> ML 22650
<b>SUNDRY NOTICES AND REPORTS ON WELLS</b>  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.	<b>6. IF INDIAN, ALLOTTEE OR TRIBE NAME:</b>  <b>7. UNIT or CA AGREEMENT NAME:</b> NATURAL BUTTES
<b>1. TYPE OF WELL</b> Gas Well	<b>8. WELL NAME and NUMBER:</b> NBU 922-36L4BS
<b>2. NAME OF OPERATOR:</b> KERR-MCGEE OIL & GAS ONSHORE, L.P.	<b>9. API NUMBER:</b> 43047503680000
<b>3. ADDRESS OF OPERATOR:</b> P.O. Box 173779 1099 18th Street, Suite 600, Denver, CO, 80217 3779	<b>PHONE NUMBER:</b> 720 929-6007 Ext
<b>4. LOCATION OF WELL</b> <b>FOOTAGES AT SURFACE:</b> 0539 FSL 0413 FWL <b>QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN:</b> Qtr/Qtr: SWSW Section: 36 Township: 09.0S Range: 22.0E Meridian: S	<b>9. FIELD and POOL or WILDCAT:</b> NATURAL BUTTES  <b>COUNTY:</b> UINTAH  <b>STATE:</b> UTAH

11. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION		
<input type="checkbox"/> <b>NOTICE OF INTENT</b> Approximate date work will start:	<input type="checkbox"/> ACIDIZE	<input type="checkbox"/> ALTER CASING	<input type="checkbox"/> CASING REPAIR
<input type="checkbox"/> <b>SUBSEQUENT REPORT</b> Date of Work Completion:	<input type="checkbox"/> CHANGE TO PREVIOUS PLANS	<input type="checkbox"/> CHANGE TUBING	<input type="checkbox"/> CHANGE WELL NAME
<input type="checkbox"/> <b>SPUD REPORT</b> Date of Spud:	<input type="checkbox"/> CHANGE WELL STATUS	<input type="checkbox"/> COMMINGLE PRODUCING FORMATIONS	<input type="checkbox"/> CONVERT WELL TYPE
<input checked="" type="checkbox"/> <b>DRILLING REPORT</b> Report Date: 2/2/2010	<input type="checkbox"/> DEEPEN	<input type="checkbox"/> FRACTURE TREAT	<input type="checkbox"/> NEW CONSTRUCTION
	<input type="checkbox"/> OPERATOR CHANGE	<input type="checkbox"/> PLUG AND ABANDON	<input type="checkbox"/> PLUG BACK
	<input checked="" type="checkbox"/> <b>PRODUCTION START OR RESUME</b>	<input type="checkbox"/> RECLAMATION OF WELL SITE	<input type="checkbox"/> RECOMPLETE DIFFERENT FORMATION
	<input type="checkbox"/> REPERFORATE CURRENT FORMATION	<input type="checkbox"/> SIDETRACK TO REPAIR WELL	<input type="checkbox"/> TEMPORARY ABANDON
	<input type="checkbox"/> TUBING REPAIR	<input type="checkbox"/> VENT OR FLARE	<input type="checkbox"/> WATER DISPOSAL
	<input type="checkbox"/> WATER SHUTOFF	<input type="checkbox"/> SI TA STATUS EXTENSION	<input type="checkbox"/> APD EXTENSION
	<input type="checkbox"/> WILDCAT WELL DETERMINATION	<input type="checkbox"/> 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 2/2/2010 AT 11:30 A.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**  
 February 05, 2010

<b>NAME (PLEASE PRINT)</b> Andy Lytle	<b>PHONE NUMBER</b> 720 929-6100	<b>TITLE</b> Regulatory Analyst
<b>SIGNATURE</b> N/A		<b>DATE</b> 2/2/2010

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

AMENDED REPORT  FORM 8  
(highlight changes)

<b>WELL COMPLETION OR RECOMPLETION REPORT AND LOG</b>		5. LEASE DESIGNATION AND SERIAL NUMBER: <b>ML-22650</b>
1a. TYPE OF WELL: OIL WELL <input type="checkbox"/> GAS WELL <input checked="" type="checkbox"/> DRY <input type="checkbox"/> OTHER _____		6. IF INDIAN, ALLOTTEE OR TRIBE NAME
b. TYPE OF WORK: NEW WELL <input checked="" type="checkbox"/> HORIZ. LATS. <input type="checkbox"/> DEEP-EN <input type="checkbox"/> RE-ENTRY <input type="checkbox"/> DIFF. RESVR. <input type="checkbox"/> OTHER _____		7. UNIT or CA AGREEMENT NAME <b>UTU63047A</b>
2. NAME OF OPERATOR: <b>KERR McGEE OIL &amp; GAS ONSHORE LP</b>		8. WELL NAME and NUMBER: <b>NBU 922-36L4BS</b>
3. ADDRESS OF OPERATOR: <b>P.O. BOX 173779 CITY DENVER STATE CO ZIP 80217</b>		9. API NUMBER: <b>4304750368</b>
4. LOCATION OF WELL (FOOTAGES) AT SURFACE: <b>SWSW 539 FSL &amp; 413 FWL</b>  AT TOP PRODUCING INTERVAL REPORTED BELOW: <b>NWSW 1932 FSL &amp; 926 FWL SEC.36-9S-22E</b> <i>1919 FSL 950 FWL</i> AT TOTAL DEPTH: <b>NWSW 1918 FSL &amp; 949 FWL SEC.36-9S-22E</b>		10. FIELD AND POOL, OR WILDCAT <b>NATURAL BUTTES</b>
		11. QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: <b>SWSW 36 9S 22E</b>
		12. COUNTY <b>UINTAH</b>
		13. STATE <b>UTAH</b>

14. DATE SPUDDED: <b>8/26/2009</b>	15. DATE T.D. REACHED: <b>10/19/2009</b>	16. DATE COMPLETED: <b>2/2/2010</b>	ABANDONED <input type="checkbox"/> READY TO PRODUCE <input checked="" type="checkbox"/>	17. ELEVATIONS (DF, RKB, RT, GL): <b>4968' GL</b>
18. TOTAL DEPTH: MD <b>9,057</b> TVD <b>8,719</b>	19. PLUG BACK T.D.: MD <b>8,995</b> TVD <b>8,657</b>	20. IF MULTIPLE COMPLETIONS, HOW MANY? *	21. DEPTH BRIDGE MD PLUG SET: TVD	

22. TYPE ELECTRIC AND OTHER MECHANICAL LOGS RUN (Submit copy of each) <b>GR/CBL-BHV-SDL/DSN/ACTR</b>	23. WAS WELL CORED? NO <input checked="" type="checkbox"/> YES <input type="checkbox"/> (Submit analysis) WAS DST RUN? NO <input checked="" type="checkbox"/> YES <input type="checkbox"/> (Submit report) DIRECTIONAL SURVEY? NO <input type="checkbox"/> YES <input checked="" type="checkbox"/> (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			
12 1/4"	9 5/8 J-55	36#		2,119		700			
7 7/8"	4 1/2 I-80	11.6#		9,039		1698		2170	

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"	8,619							

26. PRODUCING INTERVALS					27. PERFORATION RECORD				
FORMATION NAME	TOP (MD)	BOTTOM (MD)	TOP (TVD)	BOTTOM (TVD)	INTERVAL (Top/Bot - MD)	SIZE	NO. HOLES	PERFORATION STATUS	
(A) MESAVERDE	7,058	8,988			7,058 8,988	0.36	366	Open <input checked="" type="checkbox"/>	Squeezed <input type="checkbox"/>
(B)								Open <input type="checkbox"/>	Squeezed <input type="checkbox"/>
(C)								Open <input type="checkbox"/>	Squeezed <input type="checkbox"/>
(D)								Open <input type="checkbox"/>	Squeezed <input type="checkbox"/>

28. ACID, FRACTURE, TREATMENT, CEMENT SQUEEZE, ETC.	
DEPTH INTERVAL	AMOUNT AND TYPE OF MATERIAL
7,058-8,988	PMP 12,038 BBLs SLICK H2O & 461,305 LBS 30/50 SD.

29. ENCLOSED ATTACHMENTS: <input type="checkbox"/> ELECTRICAL/MECHANICAL LOGS <input type="checkbox"/> SUNDRY NOTICE FOR PLUGGING AND CEMENT VERIFICATION <input type="checkbox"/> GEOLOGIC REPORT <input type="checkbox"/> CORE ANALYSIS <input type="checkbox"/> DST REPORT <input type="checkbox"/> OTHER: _____	30. WELL STATUS: <b>PROD</b> <b>RECEIVED</b> <b>MAR 08 2010</b> DIV. OF OIL, GAS & MINING
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31. INITIAL PRODUCTION

INTERVAL A (As shown in item #26)

DATE FIRST PRODUCED: 2/2/2010		TEST DATE: 2/23/2010		HOURS TESTED: 24		TEST PRODUCTION RATES: →	OIL – BBL: 0	GAS – MCF: 2,058	WATER – BBL: 141	PROD. METHOD: FLOWING
CHOKE SIZE: 18/64	TBG. PRESS. 2,043	CSG. PRESS. 2,328	API GRAVITY	BTU – GAS	GAS/OIL RATIO	24 HR PRODUCTION RATES: →	OIL – BBL: 0	GAS – MCF: 2,058	WATER – BBL: 141	INTERVAL STATUS: 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.)

SOLD

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	1,127				
MAHOGANY	1,747				
WASATCH	4,492	6,757			
MESAVERDE	6,760	9,025			

35. ADDITIONAL REMARKS (Include plugging procedure)

ATTACHED TO THIS COMPLETION REPORT IS THE CHRONOLOGICAL WELL HISTORY AND EOWR.

36. I hereby certify that the foregoing and attached information is complete and correct as determined from all available records.

NAME (PLEASE PRINT) ANDY LYTLE TITLE REGULATORY ANALYST  
 SIGNATURE  DATE 3/1/2010

This report must be submitted within 30 days of

- completing or plugging a new well
- reentering a previously plugged and abandoned well
- drilling horizontal laterals from an existing well bore
- significantly deepening an existing well bore below the previous bottom-hole depth
- recompleting to a different producing formation
- 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 Phone: 801-538-5340  
 1594 West North Temple, Suite 1210  
 Box 145801 Fax: 801-359-3940  
 Salt Lake City, Utah 84114-5801

# **Kerr McGee Oil and Gas Onshore LP**

**Uintah County, UT UTM12**

**NBU 922-36M Pad**

**NBU 922-36L4BS**

**OH**

**Design: OH**

## **Standard Survey Report**

**21 October, 2009**

# Scientific Drilling International

## Survey Report

**Company:** Kerr McGee Oil and Gas Onshore LP  
**Project:** Uintah County, UT UTM12  
**Site:** NBU 922-36M Pad  
**Well:** NBU 922-36L4BS  
**Wellbore:** OH  
**Design:** OH

**Local Co-ordinate Reference:** Well NBU 922-36L4BS  
**TVD Reference:** GL 4967' & RKB 14' @ 4981.00ft (Ensign 145)  
**MD Reference:** GL 4967' & RKB 14' @ 4981.00ft (Ensign 145)  
**North Reference:** True  
**Survey Calculation Method:** Minimum Curvature  
**Database:** EDM 2003.16 Multi-User Db

<b>Project</b>	Uintah County, UT UTM12		
<b>Map System:</b>	Universal Transverse Mercator (US Survey Feet)	<b>System Datum:</b>	Mean Sea Level
<b>Geo Datum:</b>	NAD 1927 - Western US		
<b>Map Zone:</b>	Zone 12N (114 W to 108 W)		

<b>Site</b>	NBU 922-36M Pad, Sec 36 T9S R22E				
<b>Site Position:</b>		<b>Northing:</b>	14,525,279.08 ft	<b>Latitude:</b>	39° 59' 12.432 N
<b>From:</b>	Lat/Long	<b>Easting:</b>	2,089,949.89 ft	<b>Longitude:</b>	109° 23' 42.737 W
<b>Position Uncertainty:</b>	0.00 ft	<b>Slot Radius:</b>	in	<b>Grid Convergence:</b>	1.03 °

<b>Well</b>	NBU 922-36L4BS, 539' FSL 413' FWL					
<b>Well Position</b>	<b>+N/-S</b>	0.00 ft	<b>Northing:</b>	14,525,267.47 ft	<b>Latitude:</b>	39° 59' 12.335 N
	<b>+E/-W</b>	0.00 ft	<b>Easting:</b>	2,089,850.07 ft	<b>Longitude:</b>	109° 23' 44.022 W
<b>Position Uncertainty</b>		0.00 ft	<b>Wellhead Elevation:</b>	ft	<b>Ground Level:</b>	4,967.00 ft

<b>Wellbore</b>	OH				
<b>Magnetics</b>	<b>Model Name</b>	<b>Sample Date</b>	<b>Declination</b>	<b>Dip Angle</b>	<b>Field Strength</b>
	IGRF2005-10	8/17/2009	(°)	(°)	(nT)
			11.25	65.93	52,547

<b>Design</b>	OH				
<b>Audit Notes:</b>					
<b>Version:</b>	1.0	<b>Phase:</b>	ACTUAL	<b>Tie On Depth:</b>	0.00
<b>Vertical Section:</b>	<b>Depth From (TVD)</b>	<b>+N/-S</b>	<b>+E/-W</b>	<b>Direction</b>	
	(ft)	(ft)	(ft)	(°)	
	0.00	0.00	0.00	325.02	

<b>Survey Program</b>	Date 10/21/2009				
<b>From (ft)</b>	<b>To (ft)</b>	<b>Survey (Wellbore)</b>	<b>Tool Name</b>	<b>Description</b>	
10.00	2,108.00	Survey #1 -Surface (OH)	MWD SDI	MWD - Standard ver 1.0.1	
2,163.00	9,057.00	Survey #2 - Production (OH)	MWD SDI	MWD - Standard ver 1.0.1	

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	
228.00	0.47	314.27	228.00	0.62	-0.64	0.88	0.22	0.22	0.00	
<b>First SDI Surface MWD Survey</b>										
258.00	0.53	322.10	258.00	0.82	-0.81	1.14	0.30	0.20	26.10	
348.00	0.65	303.26	347.99	1.43	-1.50	2.03	0.25	0.13	-20.93	
428.00	1.35	333.16	427.98	2.52	-2.30	3.38	1.06	0.87	37.37	
518.00	1.78	339.51	517.95	4.77	-3.27	5.78	0.51	0.48	7.06	
608.00	2.13	348.19	607.89	7.72	-4.10	8.68	0.51	0.39	9.64	
698.00	1.98	0.14	697.84	10.91	-4.44	11.49	0.50	-0.17	13.28	
788.00	1.60	356.52	787.79	13.72	-4.51	13.83	0.44	-0.42	-4.02	
878.00	1.65	4.64	877.76	16.27	-4.48	15.90	0.26	0.06	9.02	

# Scientific Drilling International

## Survey Report

**Company:** Kerr McGee Oil and Gas Onshore LP  
**Project:** Uintah County, UT UTM12  
**Site:** NBU 922-36M Pad  
**Well:** NBU 922-36L4BS  
**Wellbore:** OH  
**Design:** OH

**Local Co-ordinate Reference:** Well NBU 922-36L4BS  
**TVD Reference:** GL 4967' & RKB 14' @ 4981.00ft (Ensign 145)  
**MD Reference:** GL 4967' & RKB 14' @ 4981.00ft (Ensign 145)  
**North Reference:** True  
**Survey Calculation Method:** Minimum Curvature  
**Database:** EDM 2003.16 Multi-User Db

### 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)
968.00	1.92	2.29	967.71	19.06	-4.32	18.10	0.31	0.30	-2.61
1,058.00	1.86	10.12	1,057.66	22.01	-4.00	20.33	0.29	-0.07	8.70
1,148.00	1.43	13.60	1,147.63	24.54	-3.48	22.10	0.49	-0.48	3.87
1,238.00	1.31	13.60	1,237.60	26.63	-2.97	23.52	0.13	-0.13	0.00
1,328.00	1.48	334.89	1,327.58	28.68	-3.23	25.35	1.04	0.19	-43.01
1,418.00	1.20	318.39	1,417.55	30.44	-4.34	27.43	0.53	-0.31	-18.33
1,508.00	1.97	327.17	1,507.52	32.44	-5.81	29.91	0.89	0.86	9.76
1,598.00	1.78	323.99	1,597.47	34.87	-7.47	32.86	0.24	-0.21	-3.53
1,688.00	1.31	335.81	1,687.44	36.94	-8.71	35.26	0.63	-0.52	13.13
1,778.00	1.65	3.15	1,777.41	39.18	-9.06	37.29	0.86	0.38	30.38
1,868.00	1.29	352.40	1,867.38	41.47	-9.13	39.21	0.50	-0.40	-11.94
1,958.00	1.24	356.77	1,957.35	43.45	-9.32	40.94	0.12	-0.06	4.86
2,048.00	1.66	352.71	2,047.33	45.71	-9.54	42.92	0.48	0.47	-4.51
2,108.00	1.48	350.93	2,107.30	47.34	-9.77	44.39	0.31	-0.30	-2.97
<b>Last SDI Surface MWD Survey</b>									
2,163.00	1.16	358.69	2,162.29	48.60	-9.89	45.49	0.67	-0.58	14.11
<b>First SDI Production MWD Survey</b>									
2,254.00	2.80	32.43	2,253.23	51.40	-8.72	47.11	2.14	1.80	37.08
2,344.00	5.67	21.07	2,342.98	57.40	-5.94	50.44	3.31	3.19	-12.62
2,435.00	7.81	25.45	2,433.35	67.18	-1.67	56.00	2.42	2.35	4.81
2,525.00	9.04	27.27	2,522.37	78.99	4.20	62.31	1.40	1.37	2.02
2,616.00	11.61	21.80	2,611.89	93.85	10.87	70.66	3.02	2.82	-6.01
2,706.00	16.04	18.88	2,699.27	114.03	18.27	82.95	4.98	4.92	-3.24
2,797.00	18.35	17.17	2,786.19	139.62	26.56	99.16	2.60	2.54	-1.88
2,888.00	20.39	21.09	2,872.04	168.10	36.50	116.80	2.66	2.24	4.31
2,978.00	21.66	20.26	2,956.05	198.31	47.89	135.02	1.45	1.41	-0.92
3,069.00	22.62	21.17	3,040.34	230.38	60.03	154.34	1.12	1.05	1.00
3,159.00	25.56	20.36	3,122.49	264.73	73.04	175.02	3.29	3.27	-0.90
3,250.00	27.38	19.44	3,203.95	302.87	86.83	198.36	2.05	2.00	-1.01
3,340.00	28.15	24.17	3,283.60	341.76	102.41	221.29	2.59	0.86	5.26
3,431.00	28.68	23.16	3,363.63	381.42	119.79	243.82	0.79	0.58	-1.11
3,521.00	31.29	20.07	3,441.58	423.24	136.31	268.61	3.37	2.90	-3.43
3,612.00	30.85	20.35	3,519.53	467.32	152.53	295.42	0.51	-0.48	0.31
3,702.00	32.36	23.43	3,596.18	511.06	170.14	321.17	2.46	1.68	3.42
3,793.00	31.86	22.68	3,673.26	555.56	189.08	346.77	0.70	-0.55	-0.82
3,884.00	33.45	20.23	3,749.88	601.26	207.02	373.93	2.27	1.75	-2.69
3,974.00	32.88	18.26	3,825.22	647.73	223.25	402.70	1.35	-0.63	-2.19
4,065.00	33.25	19.45	3,901.48	694.72	239.29	431.99	0.82	0.41	1.31
4,155.00	33.69	23.01	3,976.57	740.96	257.27	459.57	2.24	0.49	3.96
4,246.00	32.87	21.06	4,052.64	787.24	276.01	486.74	1.48	-0.90	-2.14
4,336.00	31.19	18.50	4,128.94	832.14	292.18	514.25	2.40	-1.87	-2.84
4,427.00	30.86	18.56	4,206.93	876.61	307.09	542.14	0.36	-0.36	0.07
4,518.00	30.80	22.85	4,285.08	920.21	323.57	568.42	2.42	-0.07	4.71
4,608.00	28.74	23.12	4,363.19	961.35	341.01	592.12	2.29	-2.29	0.30
4,699.00	30.66	23.76	4,442.24	1,002.71	358.95	615.72	2.14	2.11	0.70
4,789.00	30.93	20.52	4,519.55	1,045.37	376.31	640.73	1.87	0.30	-3.60
4,880.00	30.17	20.33	4,597.92	1,088.72	392.45	666.99	0.84	-0.84	-0.21
4,971.00	27.34	21.79	4,677.69	1,129.57	408.15	691.46	3.20	-3.11	1.60
5,061.00	24.58	22.76	4,758.60	1,166.03	423.07	712.77	3.10	-3.07	1.08
5,152.00	22.13	23.86	4,842.14	1,199.17	437.33	731.75	2.73	-2.69	1.21
5,242.00	20.29	25.58	4,926.04	1,228.75	450.92	748.19	2.16	-2.04	1.91
5,333.00	18.88	20.75	5,011.78	1,256.75	462.95	764.23	2.36	-1.55	-5.31
5,423.00	17.27	21.21	5,097.34	1,282.82	472.95	779.87	1.80	-1.79	0.51
5,514.00	14.70	17.71	5,184.81	1,306.42	481.35	794.38	3.02	-2.82	-3.85

# Scientific Drilling International

## Survey Report

**Company:** Kerr McGee Oil and Gas Onshore LP  
**Project:** Uintah County, UT UTM12  
**Site:** NBU 922-36M Pad  
**Well:** NBU 922-36L4BS  
**Wellbore:** OH  
**Design:** OH

**Local Co-ordinate Reference:** Well NBU 922-36L4BS  
**TVD Reference:** GL 4967' & RKB 14' @ 4981.00ft (Ensign 145)  
**MD Reference:** GL 4967' & RKB 14' @ 4981.00ft (Ensign 145)  
**North Reference:** True  
**Survey Calculation Method:** Minimum Curvature  
**Database:** EDM 2003.16 Multi-User Db

### 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)
5,605.00	13.20	19.15	5,273.13	1,327.23	488.27	807.47	1.69	-1.65	1.58
5,695.00	11.63	20.45	5,361.02	1,345.44	494.81	818.64	1.77	-1.74	1.44
5,786.00	8.93	16.26	5,450.55	1,360.82	499.99	828.26	3.08	-2.97	-4.60
5,876.00	7.47	18.62	5,539.63	1,373.07	503.82	836.11	1.66	-1.62	2.62
5,967.00	4.61	15.80	5,630.11	1,382.20	506.70	841.93	3.16	-3.14	-3.10
6,057.00	1.66	56.01	5,719.98	1,386.41	508.77	844.19	3.90	-3.28	44.68
6,148.00	1.27	114.63	5,810.95	1,386.72	510.78	843.30	1.62	-0.43	64.42
6,238.00	1.38	126.59	5,900.93	1,385.66	512.56	841.41	0.33	0.12	13.29
6,329.00	0.82	60.40	5,991.91	1,385.33	514.00	840.31	1.42	-0.62	-72.74
6,420.00	0.84	93.12	6,082.91	1,385.62	515.23	839.84	0.51	0.02	35.96
6,510.00	0.62	4.29	6,172.90	1,386.07	515.93	839.81	1.15	-0.24	-98.70
6,601.00	2.20	343.63	6,263.87	1,388.23	515.47	841.85	1.80	1.74	-22.70
6,691.00	1.67	343.81	6,353.82	1,391.15	514.62	844.73	0.59	-0.59	0.20
6,782.00	1.14	331.15	6,444.79	1,393.22	513.81	846.88	0.67	-0.58	-13.91
6,872.00	0.62	12.73	6,534.78	1,394.48	513.49	848.10	0.88	-0.58	46.20
6,963.00	0.18	16.07	6,625.78	1,395.09	513.64	848.52	0.48	-0.48	3.67
7,053.00	0.26	343.02	6,715.78	1,395.42	513.62	848.80	0.16	0.09	-36.72
7,144.00	0.35	306.72	6,806.78	1,395.79	513.33	849.26	0.23	0.10	-39.89
7,234.00	0.18	200.90	6,896.78	1,395.82	513.06	849.44	0.48	-0.19	-117.58
7,325.00	0.53	354.09	6,987.78	1,396.10	512.97	849.73	0.76	0.38	168.34
7,416.00	0.35	125.14	7,078.77	1,396.36	513.15	849.84	0.88	-0.20	144.01
7,506.00	0.70	135.69	7,168.77	1,395.81	513.76	849.04	0.40	0.39	11.72
7,597.00	1.06	133.66	7,259.76	1,394.83	514.76	847.66	0.40	0.40	-2.23
7,687.00	1.49	115.47	7,349.74	1,393.76	516.42	845.83	0.65	0.48	-20.21
7,778.00	0.18	6.40	7,440.73	1,393.39	517.50	844.91	1.71	-1.44	-119.86
7,868.00	0.62	25.21	7,530.72	1,393.97	517.73	845.26	0.50	0.49	20.90
7,959.00	0.18	12.73	7,621.72	1,394.55	517.97	845.60	0.49	-0.48	-13.71
8,049.00	0.26	114.50	7,711.72	1,394.61	518.18	845.52	0.38	0.09	113.08
8,140.00	0.53	111.87	7,802.72	1,394.37	518.76	844.99	0.30	0.30	-2.89
8,231.00	0.70	145.97	7,893.71	1,393.75	519.46	844.08	0.43	0.19	37.47
8,321.00	0.79	145.18	7,983.71	1,392.78	520.13	842.91	0.10	0.10	-0.88
8,412.00	0.88	137.88	8,074.70	1,391.75	520.95	841.59	0.15	0.10	-8.02
8,502.00	1.49	134.89	8,164.68	1,390.41	522.24	839.75	0.68	0.68	-3.32
8,593.00	1.85	125.05	8,255.64	1,388.73	524.29	837.20	0.50	0.40	-10.81
8,684.00	1.93	117.58	8,346.59	1,387.18	526.85	834.46	0.28	0.09	-8.21
8,774.00	1.76	116.09	8,436.54	1,385.87	529.43	831.91	0.20	-0.19	-1.66
8,865.00	1.85	124.00	8,527.50	1,384.43	531.90	829.31	0.29	0.10	8.69
8,955.00	2.02	134.54	8,617.45	1,382.51	534.24	826.40	0.44	0.19	11.71
9,002.00	2.20	136.12	8,664.42	1,381.28	535.45	824.69	0.40	0.38	3.36
<b>Last SDI Production MWD Survey</b>									
9,057.00	2.20	136.12	8,719.37	1,379.76	536.92	822.61	0.00	0.00	0.00
<b>Projection To TD</b>									

# Scientific Drilling International

## Survey Report

**Company:** Kerr McGee Oil and Gas Onshore LP  
**Project:** Uintah County, UT UTM12  
**Site:** NBU 922-36M Pad  
**Well:** NBU 922-36L4BS  
**Wellbore:** OH  
**Design:** OH

**Local Co-ordinate Reference:** Well NBU 922-36L4BS  
**TVD Reference:** GL 4967' & RKB 14' @ 4981.00ft (Ensign 145)  
**MD Reference:** GL 4967' & RKB 14' @ 4981.00ft (Ensign 145)  
**North Reference:** True  
**Survey Calculation Method:** Minimum Curvature  
**Database:** EDM 2003.16 Multi-User Db

Targets									
Target Name	Dip Angle	Dip Dir.	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
- hit/miss target	(°)	(°)	(ft)	(ft)	(ft)	(ft)	(ft)		
- Shape									
NBU 922-36L4BS PBHL	0.00	0.00	8,600.00	1,385.25	514.88	14,526,661.76	2,090,339.93	39° 59' 26.027 N	109° 23' 37.406 W
- actual wellpath misses target center by 19.06ft at 8937.00ft MD (8599.46 TVD, 1382.94 N, 533.78 E) - Circle (radius 25.00)									

Design Annotations				
Measured Depth	Vertical Depth	Local Coordinates		Comment
(ft)	(ft)	+N/-S (ft)	+E/-W (ft)	
228.00	228.00	0.62	-0.64	First SDI Surface MWD Survey
2,108.00	2,107.30	47.34	-9.77	Last SDI Surface MWD Survey
2,163.00	2,162.29	48.60	-9.89	First SDI Production MWD Survey
9,002.00	8,664.42	1,381.28	535.45	Last SDI Production MWD Survey
9,057.00	8,719.37	1,379.76	536.92	Projection To TD

Checked By: \_\_\_\_\_ Approved By: \_\_\_\_\_ Date: \_\_\_\_\_

**US ROCKIES REGION  
Operation Summary Report**

Well: NBU 922-36L4BS ( BLUE )      Spud Conductor: 8/26/2009      Spud Date: 9/6/2009  
 Project: UTAH-UINTAH      Site: NBU 922-36M PAD      Rig Name No: PROPETRO/, ENSIGN 145/145  
 Event: DRILLING      Start Date: 7/21/2009      End Date: 10/21/2009  
 Active Datum: RKB @4,981.00ft (above Mean Sea Leve)      UWI: SW/SW/0/9/S/22/E/36/0/0/26/PM/S/539.00/W/0/413.00/0/0

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (ft)	Operation
9/6/2009	10:30 - 11:00	0.50	DRLSUR	01	B	P		R/U PROPETRO 12, BLOOY LINE,AIR BOWL,COMP,BOOSTER
	11:00 - 11:30	0.50	DRLSUR	06	A	P		P/U HAMMER ASSY
	11:30 - 13:30	2.00	DRLSUR	02	A	P		SPUD AIR HAMMER - 09/06/09 - 11:30 AM - DRL F/ 44' TO 180' AIR MIST 9 BPM 1200 PSI,2400 CFM
	13:30 - 14:30	1.00	DRLSUR	06	A	P		L/D HAMMER TOOLS
	14:30 - 17:30	3.00	DRLSUR	06	A	P		P/U BIT AND DRL ASSY & ORIENT DIR TOOLS
	17:30 - 0:00	6.50	DRLSUR	02	D	P		SPUD BIT @ 17:30 9-6-09 DRL F/ 180' TO 1070' 12BBL PM 1500 PSI ROTATE , SLIDE - SLIDE F/ 278-286,390-400,560-566,650-,654,- TOTAL 28'
9/7/2009	0:00 - 15:30	15.50	DRLSUR	02	D	P		1.86DRL F/ 1070' TO 2150'T.D. .9 BBL 2400 CFM ROTATE, SLIDE, SLIDE F/ 1280'-1286'-1460'-1468'-1550'-1556'-1640'-1648'1730' 1742'-1910'-1918'2000'-2008' TOTAL - 56'
	15:30 - 16:30	1.00	DRLSUR	05	C	P		CIRC TO L/D TOOLS ,BIT
	16:30 - 17:30	1.00	DRLSUR	06	A	P		L/D PIPE
	17:30 - 21:30	4.00	DRLSUR	08	A	Z		BLEW 2 HYDROLIC HOSES, WAIT ON AND REPLACE SAME
	21:30 - 22:00	0.50	DRLSUR	06	A	P		TRIP IN HOLE
	22:00 - 23:00	1.00	DRLSUR	05	C	P		CIRC TO L/D TOOLS
	23:00 - 0:00	1.00	DRLSUR	06	A	P		L/D PIPE
9/8/2009	0:00 - 4:00	4.00	DRLSUR	06	A	P		L/D TOOLS & BIT
	4:00 - 6:00	2.00	DRLSUR	12	C	P		RUN 48 JOINTS J-55 36# 9 5/8 CSNG, SHOE @ 2110' BAFFLE @ 2065' RELEASE RIG 9-8-09 0600 HRS
	6:00 - 11:30	5.50	DRLSUR	12	E	P		CMNT SURFACE TAIL 300SX 15.8# 1.15 YLD,FLOAT HELD,400 SX 15.8# 1.15 YLD, ON TOP OUTS
10/14/2009	6:00 - 8:00	2.00	MIRU	01	A	P		RIG DOWN FLO LINES, FLARE LINES, ETC AND PREPARE TO WALK THE RIG.
	8:00 - 10:30	2.50	MIRU	01	A	P		WALK THE RIG 20' TO THE NBU 922-L4BS, CENTER AND LEVEL RIG. SET IN THE SKATE.
	10:30 - 12:00	1.50	DRLPRO	14	A	P		NU THE BOP'S AND FUNCTION TEST SAME.
	12:00 - 15:30	3.50	DRLPRO	15	A	P		TEST PIPE RAMS, BLIND RAMS, FLOOR VALVES, CHOKE AND CHOKE MANIFOLD TO 250 AND 5000 PSI. TEST HYDRIL TO 250 AND 2500 PSI. TEST CSG. TO 1500 PSI FOR 30 MINUTES.
	15:30 - 16:00	0.50	DRLPRO	14	B	P		INSTALL WEAR BUSHING
	16:00 - 19:00	3.00	DRLPRO	06	A	P		MAKE UP FHM555ZM PDC, 1.5 BH, 6/7 LOBE, 2.7 STAGE, .22 RPG MOTOR, MWD EQUIPMENT ON 768' OF HWDP BHA. TIH WITH SAME. INSTALL ROTATING HEAD INSERT.
	19:00 - 19:30	0.50	DRLPRO	02	F	P		DRILL SHOE TRACK
	19:30 - 0:00	4.50	DRLPRO	02	D	P		DRILL/SLIDE 2159'-2577' (418') 92.8'/HR., 14-24K WOB, 130 BIT RPM, 460 GPM, 800-1400 PSI, 300-500 DIFF., MW 8.4, VIS 26
10/15/2009	0:00 - 11:00	11.00	DRLPRO	02	D	P		DRILL/SLIDE 2577'- 3483' (906') 82.3'/HR., 14-26K WOB, 130 BIT RPM, 460 GPM, 800-1400 PSI, 300-500 DIFF., MW 8.4, VIS 26
	11:00 - 11:30	0.50	DRLPRO	07	A	P		SERVICE RIG
	11:30 - 0:00	12.50	DRLPRO	02	D	P		DRILL/SLIDE 3483'-4513' (1030') 82.4'/HR., 50-52% SLIDES 14-26K WOB, 130 BIT RPM, 460 GPM, 1250-1800 PSI, 300-500 DIFF., MW 8.4, VIS 26

**US ROCKIES REGION  
Operation Summary Report**

Well: NBU 922-36L4BS ( BLUE )	Spud Conductor: 8/26/2009	Spud Date: 9/6/2009
Project: UTAH-UINTAH	Site: NBU 922-36M PAD	Rig Name No: PROPETRO/, ENSIGN 145/145
Event: DRILLING	Start Date: 7/21/2009	End Date: 10/21/2009
Active Datum: RKB @4,981.00ft (above Mean Sea Leve		
UWI: SW/SW/0/9/S/22/E/36/0/0/26/PM/S/539.00/W/0/413.00/0/0		

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (ft)	Operation
10/16/2009	0:00 - 8:00	8.00	DRLPRO	02	D	P		DRILL/SLIDE 4513'-5385' (872') 109'/HR., 14-26K WOB, 130 BIT RPM, 460 GPM, 1300-1800 PSI, 300-500 DIFF., MW 8.4, VIS 26
	8:00 - 8:30	0.50	DRLPRO	07	A	P		SERVICE RIG, FUNCTION FLOOR SAVER, CHECK COM
	8:30 - 0:00	15.50	DRLPRO	02	D	P		DRILL/SLIDE 5385'-6813' (1428') 92.1'/HR., SLIDE 14%, 14-26K WOB, 130 BIT RPM, 460 GPM, 1950-2350 PSI, 300-500 DIFF., MW 8.4-10.1, VIS 26-38
10/17/2009	0:00 - 13:00	13.00	DRLPRO	02	D	P		DRILL/SLIDE 6813'-7649' (836') 64.3'/HR., SLIDE 14%, 14-26K WOB, 130 BIT RPM, 460 GPM, 1950-2350 PSI, 300-500 DIFF., MW 8.4-10.1, VIS 26-38
	13:00 - 13:30	0.50	DRLPRO	07	A	P		SERVICE RIG
	13:30 - 19:30	6.00	DRLPRO	02	D	P		DRILL/SLIDE 7649'-7951' (302') 50.3'/HR., 14-26K WOB, 130 BIT RPM, 460 GPM, 1950-2350 PSI, 300-500 DIFF., MW 10.1-10.9, VIS 38
	19:30 - 22:30	3.00	DRLPRO	22	G	X		LOST FULL RETURNS @ 7951'. MIX LCM TO 5% IN ACTIVE SYSTEM. PUMP 120 BBLS 5% LCM, BUILD VOLUME, MIX ACTIVE TO 5% LCM. PUMP 48 BBLS AND REGAINED FULL RETURNS. LOSS ZONE +/- 6200'.
	22:30 - 0:00	1.50	DRLPRO	02	D	P		DRILL/SLIDE 7951'-7988' (37') 24.6'/HR., 14-26K WOB, 130 BIT RPM, 460 GPM, 1950-2350 PSI, 300-500 DIFF., MW 11.1-, VIS 38, LCM 8%, BGG 50-150, CG 2250
10/18/2009	0:00 - 1:30	1.50	DRLPRO	05	C	P		CIRCULATE BOTTOMS UP.
	1:30 - 7:00	5.50	DRLPRO	06	A	P		POOH FOR BIT #2, ROTATE OUT FIRST 10 STANDS. LD MOTOR AND BIT. FUNCTIN COM AND BLIND RAMS.
	7:00 - 13:00	6.00	DRLPRO	06	A	P		MAKE UP NEW 1.5 DEG BH, 7/8 LOBE, 3.3 STAGE MOTOR AND FHMX555ZM PDC BIT. TIH WITH SAME. WASH 90' TO BOTTOM.
	13:00 - 0:00	11.00	DRLPRO	02	D	P		DRILL/SLIDE 7988'-8484' (496') 45.09'/HR., 14-26K WOB, 105 BIT RPM, 460 GPM, 1950-2350 PSI, 300-500 DIFF., MW 11.9-, VIS 44, LCM 8%, BGG 100-600, CG 1200-1600, TRIP GAS 2160
10/19/2009	0:00 - 13:30	13.50	DRLPRO	02	D	P		DRILL/SLIDE 8484'-9057' (573') 42.4'/HR., 14-26K WOB, 130 BIT RPM, 460 GPM, 1950-2350 PSI, 300-500 DIFF., MW 12.1-, VIS 44, LCM 8%, BGG 100-600, CG 1200-1600,
	13:30 - 14:30	1.00	DRLPRO	05	C	P		CIRCULATE BOTTOMS UP.
	14:30 - 0:00	9.50	DRLPRO	06	E	P		WIPER TRIP TO 2110', ROTATE AND PUMP OUT FIRST 10 STANDS WITH 60-80K OVER STRING, ROTATE OUT NEXT 17 STANDS WITH 60-80K OVER STRING, THEN STRAIGHT PULLS. TIH FILLING, BREAKING CIRC. AT 5000', 7000 AND TD.
10/20/2009	0:00 - 2:00	2.00	DRLPRO	05	C	P		CIRCULATE BOTTOMS UP. TRIP GAS 2390 UNITS, MUD CUT TO 11.6
	2:00 - 9:00	7.00	DRLPRO	06	B	P		POOH TO LOG, ROTATE OUT FIRST 22 STANDS THEN STRAIGHT PULL AFTER THAT. MAX PULL 80K OVER STRING. FINISH OUT OF HOLE, LD DIRECTIONAL TOOLS.
	9:00 - 9:30	0.50	DRLPRO	14	B	P		PULL THE WEAR BUSHING.
	9:30 - 14:00	4.50	DRLPRO	11	D	P		HELD SAFETY MEETING WITH HALLIBURTON. RIH WITH TRIPLE COMBO AND LOG FROM 9061' TO 2110, RAN GR TO SURFACE. RD HALLIBURTON.
	14:00 - 15:00	1.00	DRLPRO	12	A	P		HELD SAFETY MEETING, RU WEATHERFORD CASING CREW.

**US ROCKIES REGION  
Operation Summary Report**

Well: NBU 922-36L4BS ( BLUE )	Spud Conductor: 8/26/2009	Spud Date: 9/6/2009
Project: UTAH-UINTAH	Site: NBU 922-36M PAD	Rig Name No: PROPETRO/, ENSIGN 145/145
Event: DRILLING	Start Date: 7/21/2009	End Date: 10/21/2009
Active Datum: RKB @4,981.00ft (above Mean Sea Leve		
UWI: SW/SW/0/9/S/22/E/36/0/0/26/PM/S/539.00/W/0/413.00/0/0		

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (ft)	Operation
	15:00 - 23:30	8.50	DRLPRO	12	C	P		RUN CSG. AS FOLLOWS: FLOAT SHOE, 1 JT. CSG. FLOAT COLLAR, 108 JTS. I-80 BTC, CSG. MARKER JT. SET AT 4420', 104 JTS. 4 1/2" 11.6 PPF I-80 BTC CSG. OAL 9038.56', SET AT 9038.56'. CENTRALIZED WITH 15 BOW SPRINGS, 1 ON FIRST 3 JTS. THEN EVERY 3RD JT.
	23:30 - 0:00	0.50	DRLPRO	05	D	P		START CIRCULATING BOTTOMS UP, HAD RETURNS FOR 5 MINUTES THEN LOST FULL RETURNS. SWITCH TO BJ.
10/21/2009	0:00 - 0:30	0.50	DRLPRO	12	B	P		HELD SAFETY MEETING W/ BJ, RU SAME
	0:30 - 3:30	3.00	DRLPRO	12	E	P		SWITCH TO BJ, TEST LINES TO 4500 CEMENT 4 1/2" AS FOLLOWS: 40 BBLs WATER, LEAD W/ 540 SKS PL2 MIXED @ 12.2 PPG, YIELD 2.17, TAIL W/ 1158 SKS 50:50 POZ MIXED @ 14.3PPG, YIELD 1.31, WASH LINES, DROP PLUG & DISPLACE W/139 BBLs WATER W/ CLAYTREAT & MAGNACIDE TO BUMP PLUG W/ 3250 PSI. REGAINED RETURNS WITH 378 BBLs CEMENT AWAY. LOST FULL RETURNS WHE WE SLOWED PUMP TO 3 BPM LAST 10 BBLs. RELEASE PSI, FLOATS HELD
	3:30 - 4:30	1.00	DRLPRO	12	B	P		LAND THE CASING WITH 80K STRING WT. (50K W/O BLOCKS), WASH THE STACK, RD BJ, REMOVE LANDING JOINT.
	4:30 - 6:00	1.50	DRLPRO	14	A	P		ND BOP, CLEAN MUD TANKS. RELEASE THE RIG @ 06:00 10-21-2009

**US ROCKIES REGION  
Operation Summary Report**

Well: NBU 922-36L4BS ( BLUE )      Spud Conductor: 8/26/2009      Spud Date: 9/6/2009  
 Project: UTAH-UINTAH      Site: NBU 922-36M PAD      Rig Name No: LEED 698/698  
 Event: COMPLETION      Start Date: 12/4/2009      End Date:  
 Active Datum: RKB @4,981.00ft (above Mean Sea Leve)      UWI: SW/SW/0/9/S/22/E/36/0/0/26/PM/S/539.00/W/0/413.00/0/0

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (ft)	Operation
12/23/2009	7:00 - 7:15	0.25	COMP	48		P		HSM. WL SAFTY OPEN WELL 0#. MIRU B&C QICK TEST. PSI TEST CSG & BOTH FRAC VALVES T/ 7000 PSI. GOOD TEST. BLEED OFF PSI. RDMO B&C QUICK TEST. MIRU CASD HOLE SOLUTIONS. PU 3 1/8 EXP GUN, 23 GM, .36 HOLE SIZE. 90 DEG PHASING. RIH PERF F/ 8956'-60', 4 SPF, 16 HOLES. 8982'-88', 4 SPF, 24 HOLES. TOTAL HOLES = 40. POOH, WINTERIZE WELL HEAD. SWI.
	7:15 - 15:00	7.75	COMP	37	B	P		
12/28/2009	7:00 - 7:30	0.50	COMP	48		P		HSM. FRACING & PERFORATING ON A PAD WELL. STG 1) WHP 1,111 PSI, BRK 4,464 PSI @ 5.5 BPM, ISIP 2,830 PSI, FG .75. PUMP 100 BBLs @ 50.2 BPM @ 5,600 PSI = 85% HOLES OPEN. MP 6,598 PSI, MR 51.2 BPM, AP 5,150 PSI, AR 49.7 BPM, ISIP 3,029 PSI, FG .77. NPI 199 PSI. PMP 817 BBLs OF SW & 17,856 LBS OF 30/50 SND & 5,000 LBS OF 20/40 RESIN SND. TOTAL PROP 22,856 LBS. STG 2 ) PU 4 1/2" CBP & 3 1/8" EXP GNS, 23 GRM, .36 HOLES, 90 DEG PHASING RIH. SET CBP @ 8,808 & PERF 8,774' - 78' 4SPF, 8,8730' - 34' 4SPF, 8,657' - 59' 4SPF, 40 HOLES. WHP 1,420 PSI, BRK 3,509 PSI @ 5.0 BPM, ISIP 2,537 PSI, FG .72. PUMP 100 BBLs @ 49 BPM @ 4,810 PSI = 100% HOLES OPEN. MP 5,502 PSI, MR 51.1 BPM, AP 4,740 PSI, AR 50.9 BPM, ISIP 2,602 PSI, FG .73. NPI 65 PSI. PMP 664 BBLs OF SW & 18,528 LBS OF 30/50 SND & 5,000 LBS OF 20/40 RESIN SND. TOTAL PROP 23,528 LBS. STG 3 ) PU 4 1/2" CBP & 3 1/8" EXP GNS, 23 GRM, .36 HOLES, 90 & 120 DEG PHASING RIH. SET CBP @ 8,622' & PERF 8,586' - 88' 4SPF, 8,538' - 42' 3SPF, 8,519' - 21' 4SPF, 8,502' - 04' 4SPF, 8,480' 82' 4SPF, 44 HOLES. WHP 2,238 PSI, BRK 3,041 PSI @ 5 BPM, ISIP 2,408 PSI, FG .72. PUMP 100 BBLs @ 51 BPM @ 4,652 PSI = 100% HOLES OPEN. MP 5,930 PSI, MR 51.1 BPM, AP 4,270 PSI, AR 50.2 BPM, ISIP 2,842 PSI, FG .77. NPI 434 PSI. PMP 2,094 BBLs OF SW & 76,845 LBS OF 30/50 SND & 5,630 LBS OF 20/40 RESIN SND. TOTAL PROP 82375 LBS.
	7:30 - 13:04	5.57	COMP	36	B	P		
	13:04 - 15:40	2.60	COMP	36	B	P		
12/29/2009	22:43 - 23:30	0.78	COMP	36	B	P		
12/29/2009	0:14 - 0:14	0.00	COMP			P		CONT. TO PERF & FRAC ON PAD WELL.

**US ROCKIES REGION  
Operation Summary Report**

Well: NBU 922-36L4BS ( BLUE )		Spud Conductor: 8/26/2009	Spud Date: 9/6/2009
Project: UTAH-UINTAH		Site: NBU 922-36M PAD	Rig Name No: LEED 698/698
Event: COMPLETION		Start Date: 12/4/2009	End Date:
Active Datum: RKB @4,981.00ft (above Mean Sea Leve		UWI: SW/SW/0/9/S/22/E/36/0/0/26/PM/S/539.00/W/0/413.00/0/0	

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (ft)	Operation
	8:00 - 9:16	1.27	COMP	36	B	P		STG 4 ) PU 4 1/2" CBP & 3 1/8" EXP GNS, 23 GRM, .36 HOLES, 90 & 120 DEG PHASING RIH. SET BAKER CBP @ 8,350' & PERF 8316' - 20' 3SPF, 8,294' - 96' 3SPF, 8,273' - 75' 4SPF, 8,250' - 52' 4SPF, 8,140' - 42' 4SPF, 42 HOLES. WHP 1,560 PSI, BRK 2,636 PSI @ 5.2 BPM, ISIP 2,074 PSI, FG .68. PUMP 100 BBLS @ 51.1 BPM @ 4,730 PSI = 81% HOLES OPEN. MP 6,190 PSI, MR 52.6 BPM, AP 4,375 PSI, AR 50.8 BPM, ISIP 2,531 PSI, FG .74. NPI 457 PSI. PMP 2,768 BBLS OF SW & 102,311 LBS OF 30/50 SND & 5,000 LBS OF 20/40 RESIN SND. TOTAL PROP 107,311 LBS.
	9:16 - 11:44	2.47	COMP	36	B	P		STG 5) PU 3 1/8 EXP GUN, 23 GM, .36 HOLE SIZE. 90 DEG PHASING. RIH & SET CBP @ 8,026', PERF F/ 7,992'-96', 4 SPF, 7,934' - 38', 4SPF, 7,862'-64' 4SPF, 40 HOLES. WHP 1,685 PSI, BRK 3,464 PSI @ 5.2 BPM, ISIP 2,121 PSI, FG .70. PUMP 100 BBLS @ 51 BPM @ 4,600 PSI = 93% HOLES OPEN. MP 4,915 PSI, MR 51.0 BPM, AP 3,936 PSI, AR 50.6 BPM, ISIP 2,044 PSI, FG .69. NPI 146 PSI. PMP 1,559 BBLS OF SW & 57,072 LBS OF 30/50 SND & 5,000 LBS OF 20/40 RESIN SND. TOTAL PROP 62,072 LBS.
	11:44 - 14:00	2.27	COMP	36	B	P		STG 6) PU 3 1/8 EXP GUN, 23 GM, .36 HOLE SIZE. 90 DEG PHASING. RIH & SET CBP @ 7,752', PERF F/ 7,730'-32', 4 SPF, 7,696' - 00', 4SPF, 7,650'-52' 4SPF, 7,617'-19' 4SPF, 40 HOLES. WHP 910 PSI, BRK 4,483 PSI @ 5.8 BPM, ISIP 2,198 PSI, FG .72. PUMP 100 BBLS @ 50.7 BPM @ 3,623 PSI = 100% HOLES OPEN. MP 4,919 PSI, MR 50.8 BPM, AP 3,612 PSI, AR 50.1 BPM, ISIP 2,427 PSI, FG .72. NPI 229 PSI. PMP 1,544 BBLS OF SW & 59,493 LBS OF 30/50 SND & 5,000 LBS OF 20/40 RESIN SND. TOTAL PROP 64,493 LBS.
	14:00 - 16:43	2.72	COMP	36	B	P		STG 7 ) PU 3 1/8 EXP GUN, 23 GM, .36 HOLE SIZE. 90 DEG PHASING. RIH & SET CBP @ 7,550', PERF F/ 7,510'-20', 4 SPF, 40 HOLES. WHP 1,020 PSI, BRK 5,070 PSI @ 4.8 BPM, ISIP 2,345 PSI, FG .75. PUMP 100 BBLS @ 50 BPM @ 4,280 PSI = 100% HOLES OPEN. MP 4,448 PSI, MR 51.5 BPM, AP 3,680 PSI, AR 50.3 BPM, ISIP 2,339 PSI, FG .74. NPI -6 PSI. PMP 675 BBLS OF SW & 18,487 LBS OF 30/50 SND & 5,000 LBS OF 20/40 RESIN SND. TOTAL PROP 23,487 LBS.

**US ROCKIES REGION  
Operation Summary Report**

Well: NBU 922-36L4BS ( BLUE )      Spud Conductor: 8/26/2009      Spud Date: 9/6/2009  
 Project: UTAH-UINTAH      Site: NBU 922-36M PAD      Rig Name No: LEED 698/698  
 Event: COMPLETION      Start Date: 12/4/2009      End Date:  
 Active Datum: RKB @4,981.00ft (above Mean Sea Level)      UWI: SW/SW/0/9/S/22/E/36/0/0/26/PM/S/539.00/W/0/413.00/0/0

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (ft)	Operation
	16:43 - 17:04	0.35	COMP	36	B	P		STG 8 ) PU 3 1/8 EXP GUN, 23 GM, .36 HOLE SIZE. 90 DEG PHASING. RIH & SET CBP @ 7,356', PERF F/ 7,322'-26', 4 SPF, 7,275'-77' 4SPF, 7,246'-48' 4SPF, 7,194'-96' 4SPF, 40 HOLES. WHP 675 PSI, BRK 2,698 PSI @ 9.7 BPM, ISIP 1,661 PSI, FG .66. PUMP 100 BBLs @ 50 BPM @ 4,025 PSI = 85% HOLES OPEN. MP 4,843 PSI, MR 50.9 BPM, AP 3,560 PSI, AR 50.5 BPM, ISIP 2,221 PSI, FG .74. NPI 560 PSI. PMP 929 BBLs OF SW & 30,475 LBS OF 30/50 SND & 5,490 LBS OF 20/40 RESIN SND. TOTAL PROP 35,965 LBS.
	17:04 - 18:47	1.72	COMP	36	B	P		STG 9 ) PU 3 1/8 EXP GUN, 23 GM, .36 HOLE SIZE. 90 DEG PHASING. RIH & SET CBP @ 7,104', PERF F/ 7,058'-68', 4 SPF, 40 HOLES. WHP 950 PSI, BRK 4,111 PSI @ 7.9 BPM, ISIP 1,332 PSI, FG .62. PUMP 100 BBLs @ 51 BPM @ 3,300 PSI = 100% HOLES OPEN. MP 4,790 PSI, MR 50.9 BPM, AP 3,040 PSI, AR 50 BPM, ISIP 1,661 PSI, FG .67. NPI 329 PSI. PMP 988 BBLs OF SW & 33,513 LBS OF 30/50 SND & 5,625 LBS OF 20/40 RESIN SND. TOTAL PROP 39,218 LBS.
	18:47 - 20:00	1.22	COMP	34	I	P		KILL PLUG) RIH W/BAKER 8K CBP & SET @ 7008'. POOH & LD TOOLS. RDMO FRAC TECH & CASEDHOLE SOLUTIONS. SWI - SDFN. PREP TO DLRG PLUGS IN AM.
12/31/2009	7:00 - 7:30	0.50	COMP	48		P		JSA PU PIPE SAFELY
	7:30 - 18:00	10.50	COMP	30		P		MIRU TALLEY & PU PIPES TAG KILL PLUG @ 7008' NU PUMP EST CIRC.
								PLUG #1] DRILL THRU HALLI 8K CBP @ 7008' IN 7 MIN W/ 1# INCREASE
								PLUG #2] CONTINUE TO RIH TAG SAND @ 7058' (40' FILL) C/O & DRILL THRU HALLI 8K CBP @ 7098' IN 7 MIN W/ 0# INCREASE
								PLUG#3] CONTINUE TO RIH TAG SAND @ 7331' (25' FILL) C/O & DRILL THRU HALLI 8K CBP @ 7356' IN 35 MIN W/ 50 # INCREASE
								PLUG#4] CONTINUE TO RIH TAG SAND @ 7530 (20' FILL) C/O & DRILL THRU HALLI 8K CBP @ 7550' IN 15 MIN W/ 0 # INCREASE
								PLUG#5] CONTINUE TO RIH TAG SAND @ 7717' (35' FILL) C/O & DRILL THRU HALLI 8K CBP @ 7752' IN MIN 30 W/ #100 INCREASE
								CIRC WELL CLEAN F/ 30 MIN POOH 5 STANDS EOT @ 7433' SWIFW
1/4/2010	7:00 - 7:15	0.25	COMP	48		P		JSA COLD WEATHER

**US ROCKIES REGION**  
**Operation Summary Report**

Well: NBU 922-36L4BS ( BLUE )	Spud Conductor: 8/26/2009	Spud Date: 9/6/2009
Project: UTAH-UINTAH	Site: NBU 922-36M PAD	Rig Name No: LEED 698/698
Event: COMPLETION	Start Date: 12/4/2009	End Date:
Active Datum: RKB @4,981.00ft (above Mean Sea Level) UWI: SW/SW/0/9/S/22/E/36/0/0/26/PM/S/539.00/W/0/413.00/0/0		

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (ft)	Operation
	7:15 - 7:15	0.00	COMP	30		P		SIWP= 1350 PSI OPEN WELL TO PIT, TANK FROZEN CANNOT PULL WATER FROM UPRIGHT, TANK DID NOT GET HEATED OVER WEEKEND WAS SUPPOSED TO, WAIT ON HOT OILER, THEN SPENT 3 HOURS HEATING TANK, RIH W/ TUBING TAG @ 8001' EST CIRC  PLUG #6] RIH TAG SAND @ 8001' (25' FILL) C/O & DRILL THRU HALLI 8K CBP @ 8026 IN 30 MIN W/ 100# INCREASE  PLUG #7] CONTINUE TO RIH TAG SAND @ 8325' (25' FILL) C/O & DRILL THRU HALLI 8K CBP @8350 IN 30 MIN W/ 50 # INCREASE ( 850 PSI ON WELL)  PLUG #8] CONTINUE TO RIH TAG SAND @ 8493' ( 25' FILL) C/O & DRILL THRU HALLI 8K CBP @ 8618' IN 35 MIN W/ 50# INCREASE.
1/5/2010	7:00 - 7:15	0.25	COMP	48		P		CIRC WELL CLEAN SWIFN JSA = RD- RU
	7:15 - 11:00	3.75	COMP	30		P		SIWP= 2800 PSI OPEN WELL TO PIT RU PUMP & PWR SWIVEL RIH TAG @ 8778'  PLUG #9] RIH TAG SAND @ 8779' (30' FILL) C/O & DRILL THRU HALLI 8K CBP @ 8808' IN 25 MIN W/ 0# INCREASE (750# ON WELL) CONTINUE TO RIH TAG PBTD @ 8996' CIRC CLEAN RD PWR SWVL LD 13 JNTS LAND TUBING ON HANGER RD FLOOR & TUBING EQUIP ND BOPS NU WELLHEAD PUMP OFF BIT @ 2400 PSI SWI F/ 30 MIN TURN WELL OVER TO FBC W/ 12030 BBLS PUMPED, RIG REC 2830 BBLS, 9208 BBLS LEFT TO REC RIG DOWN RIG MOVE TO GREEN WELL.
2/2/2010	11:30 -		PROD	50				WELL TURNED TO SALES @ 1130 HR ON 2/2/2010 - 2200 MCFD, 480 BWPD, CP 3000#, FTP 2500#, CK 14/64"
2/23/2010	7:00 -		PROD	50				WELL IP'D ON 2/23/10 - 2058 MCFD, 0 BOPD, 141 BWPD, CP 2328#, FTP 2043#, CK 18/64", LP 80#, 24 HRS

<b>STATE OF UTAH</b> DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS, AND MINING		<b>FORM 9</b>
<b>SUNDRY NOTICES AND REPORTS ON WELLS</b>		<b>5. LEASE DESIGNATION AND SERIAL NUMBER:</b> ML 22650
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.		<b>6. IF INDIAN, ALLOTTEE OR TRIBE NAME:</b>
		<b>7. UNIT or CA AGREEMENT NAME:</b> NATURAL BUTTES
<b>1. TYPE OF WELL</b> Gas Well	<b>8. WELL NAME and NUMBER:</b> NBU 922-36L4BS	
<b>2. NAME OF OPERATOR:</b> KERR-MCGEE OIL & GAS ONSHORE, L.P.		<b>9. API NUMBER:</b> 43047503680000
<b>3. ADDRESS OF OPERATOR:</b> P.O. Box 173779 1099 18th Street, Suite 600, Denver, CO, 80217 3779	<b>PHONE NUMBER:</b> 720 929-6515 Ext	<b>9. FIELD and POOL or WILDCAT:</b> NATURAL BUTTES
<b>4. LOCATION OF WELL</b> <b>FOOTAGES AT SURFACE:</b> 0539 FSL 0413 FWL <b>QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN:</b> Qtr/Qtr: SWSW Section: 36 Township: 09.0S Range: 22.0E Meridian: S		<b>COUNTY:</b> UINTAH
		<b>STATE:</b> UTAH
11. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA		
<b>TYPE OF SUBMISSION</b>	<b>TYPE OF ACTION</b>	
<input checked="" type="checkbox"/> <b>NOTICE OF INTENT</b> Approximate date work will start: 6/27/2011  <input type="checkbox"/> <b>SUBSEQUENT REPORT</b> Date of Work Completion:  <input type="checkbox"/> <b>SPUD REPORT</b> Date of Spud:  <input type="checkbox"/> <b>DRILLING REPORT</b> Report Date:	<input type="checkbox"/> ACIDIZE <input type="checkbox"/> CHANGE TO PREVIOUS PLANS <input type="checkbox"/> CHANGE WELL STATUS <input type="checkbox"/> DEEPEN <input type="checkbox"/> OPERATOR CHANGE <input type="checkbox"/> PRODUCTION START OR RESUME <input type="checkbox"/> REPERFORATE CURRENT FORMATION <input type="checkbox"/> TUBING REPAIR <input type="checkbox"/> WATER SHUTOFF <input type="checkbox"/> WILDCAT WELL DETERMINATION <input type="checkbox"/> ALTER CASING <input type="checkbox"/> CHANGE TUBING <input type="checkbox"/> COMMINGLE PRODUCING FORMATIONS <input type="checkbox"/> FRACTURE TREAT <input type="checkbox"/> PLUG AND ABANDON <input type="checkbox"/> RECLAMATION OF WELL SITE <input type="checkbox"/> SIDETRACK TO REPAIR WELL <input type="checkbox"/> VENT OR FLARE <input type="checkbox"/> SI TA STATUS EXTENSION <input checked="" type="checkbox"/> OTHER	
	<input checked="" type="checkbox"/> CASING REPAIR <input type="checkbox"/> CHANGE WELL NAME <input type="checkbox"/> CONVERT WELL TYPE <input type="checkbox"/> NEW CONSTRUCTION <input type="checkbox"/> PLUG BACK <input type="checkbox"/> RECOMPLETE DIFFERENT FORMATION <input type="checkbox"/> TEMPORARY ABANDON <input type="checkbox"/> WATER DISPOSAL <input type="checkbox"/> APD EXTENSION OTHER: <input type="text" value="Wellhead Repair"/>	
12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.		
<p>The operator requests approval to conduct wellhead/casing repair operations on the subject well location. Please find the attached procedure for the proposed repair work on the subject well location.</p> <p style="text-align: right;"><b>Approved by the Utah Division of Oil, Gas and Mining</b></p> <p style="text-align: right;"><b>Date:</b> <u>07/11/2011</u></p> <p style="text-align: right;"><b>By:</b> <u><i>Dark K. Quist</i></u></p>		
<b>NAME (PLEASE PRINT)</b> Gina Becker	<b>PHONE NUMBER</b> 720 929-6086	<b>TITLE</b> Regulatory Analyst II
<b>SIGNATURE</b> N/A	<b>DATE</b> 6/27/2011	

**WORKORDER #:**

**Name:** NBU 922-36L4BS - [922-36M PAD]  
**Surface Location:** SWSW Sec. 36, T9S, R22E  
 Uintah County, UT

6/23/2011

**API:** 4304750368      **LEASE#:** ML-22650

**ELEVATIONS:** 4968' GL      4981' KB

**TOTAL DEPTH:** 9057'      **PBTD:** 8995'

**SURFACE CASING:** 9 5/8", 36# J-55 @ 2119'

**PRODUCTION CASING:** 4 1/2", 11.6#, I-80 @ 9039'  
 TOC @ 2170' per CBL

**PERFORATIONS:** Mesaverde 7058' - 8988'

Tubular/Borehole	Drift inches	Collapse psi	Burst psi	Capacities		
				Gal./ft.	Cuft/ft.	Bbl./ft.
2.375" 4.7# J-55 tbg.	1.901	8100	7700	0.1624	0.02171	0.00387
4.5" 11.6# I-80	3.875	6350	7780	0.6528	0.0872	0.0155
9.625" 36# J-55	8.921	2020	3520	3.247	0.434	0.0773
<b>Annular Capacities</b>						
2.375" tbg. X 4 1/2" 11.6# csg				0.4227	0.0565	0.01

**GEOLOGICAL TOPS:**

1127' Green River  
 1747' Mahogany  
 4492' Wasatch  
 6760' Mesaverde

## **NBU 922-36L4BS- WELLHEAD REPAIR PROCEDURE**

### **PREP-WORK PRIOR TO MIRU:**

1. Dig out down to the 2" surface casing valve or to the valve on the riser off the surface casing.
2. Install a tee with 2 valves, with a pressure gauge and sensor on one valve.
3. Open casing valve and record pressures.
4. Install nipple and steel hose on the other valve, the relief valve,. Do not use hammer unions. No impact equipment or tools to be used for any of this installation. Extend hose and hard piping to a downwind location at least 100' from the wellhead. Consider installing a manifold so that vent area could be in two locations approx. 90 degrees apart from the wellhead.
5. Open the relief valve and blow well down to the atmosphere.
6. Make a determination of amount of gas flow, either by installation of a choke nipple, bucket test or other.
7. Shut well in. Observe for rate of build-up by utilizing sensor data. Do not build-up for more than 24 hours. Vent gas through the vent line and leave open to the atmosphere.

### **WORKOVER PROCEDURE:**

1. MIRU workover rig.
2. Kill well with 10# brine / KCL (dictated by well pressure ).
3. Remove tree, install double BOP with blind and 2 3/8" pipe rams, with accumulator closing unit and manual back-ups. Function test BOP system.
4. POOH w/ tubing laying down extra tubing.
5. Rig up wireline service. RIH and set CBP @ ~7008'. Dump bail 4 sx cement on top of plug. POOH and RD wireline service. TIH w/ tubing and seating nipple. Land tubing ±60' above cement. RDMO.
6. Monitor well pressures. If surface casing is dead. MIRU. ND WH and NU BOP. POOH w/ tubing.
7. Depending on conditions at wellsite, continue with either CUT/PATCH Procedure or BACK-OFF Procedure.

**CUT/PATCH PROCEDURE:**

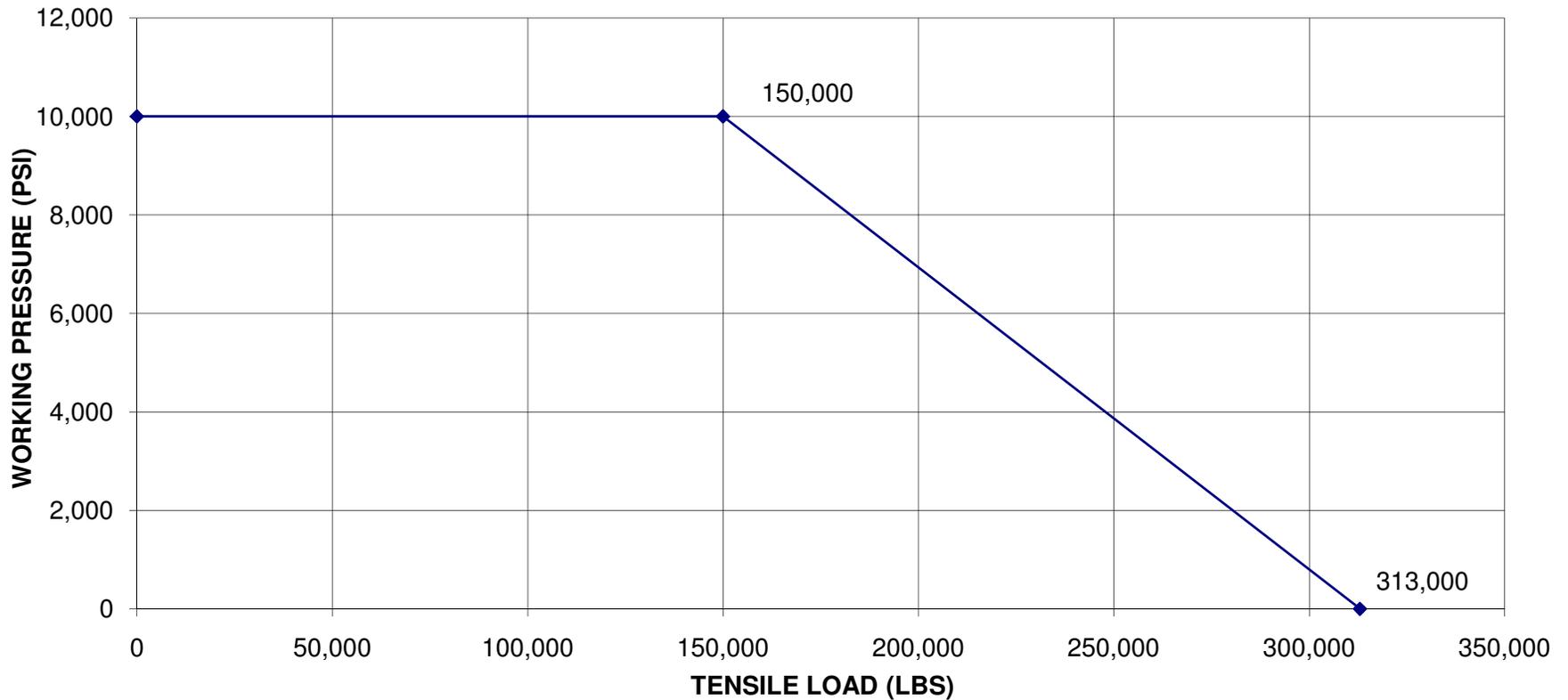
1. PU internal casing cutters and RIH. Cut casing at +/- 30' from surface.
2. POOH, LD cutters and casing.
3. PU 7 3/8" overshoot with 4 1/2" right hand standard wicker grapple, 1 - 4 3/4" drill collar with 3 1/2" IF threads, pup joint, manual bumper sub, and crossovers. If casing cut is deeper than ±30' utilize >7000 ft-lb torque pipe as needed. Pull a minimum of 10,000# to keep grapple engaged if cement top is high (<~900'). If cement top is low (>~900'), more weight will be required to put casing in neutral. Torque casing string to ±7000 ft-lbs, count number of turns to make-up, and document in the daily report. Ensure that tongs are safely anchored to rig and that all personnel are at a safe working distance from the tongs during torque-up and torque release. After initial make-up, place pipe torque to neutral and mark pipe. Place ±7000 ft-lbs on casing a second time, count turns, then return pipe torque to neutral and count turns. Repeat if torque-up turns do not equal torque release turns. Once torque-in equals torque-out, release overshoot, POOH, and lay down.
4. TIH w/ skirted mill and dress off the fish top for approximately 1/2 hour. TOO H.
5. PU & RIH w/ 4 1/2" 10k external casing patch on 4 1/2" P-110 casing. Ensure that sliding sleeve assembly shifts ±3' and casing tags no-go portion of patch. NOTE: Shear pins will shear at 3500 to 4500 lbs.
6. Latch fish, PU to 100,000# tension. RU B&C. Cycle pressure test to 3500 psi.
7. Install slips. Land casing w/ 80,000# tension.
8. Cut-off and dress 4 1/2" casing stub.
9. NUWH. PU 3 7/8" bit, POBS and RIH. D/O cement and plug ~6958'. Clean out to PBSD (8995').
10. POOH, land tbg and pump off POBS.
11. NUWH, RDMO. Turn well over to production ops.

**BACK-OFF PROCEDURE:**

1. PU internal casing cutters and RIH. Cut casing at +/- 6' from surface.
2. POOH, LD cutters and casing.
3. PU 4 1/2" overshoot. RIH, latch fish. Pick string weight to neutral.
4. MIRU casing crew and wireline services. RIH and shoot string shot at casing collar @ ± 46'.
5. Back-off casing, POOH.

6. PU new casing joint with buttress threads and entry guide and RIH. Tag casing top. Thread into casing and torque up to  $\pm 7000$  ft-lbs, count number of additional turns to make-up, and document in the daily report. Ensure that tongs are safely anchored to rig and that all personnel are at a safe working distance from the tongs during torque-up and torque release. After initial make-up, place pipe torque to neutral and mark pipe. Place  $\pm 7000$  ft-lbs on casing a second time, count turns, then return pipe torque to neutral and count turns. Repeat if torque-up turns do not equal torque release turns. Once torque-in equals torque-out go to step 7.
7. PU 100,000# tension string weight. RU B&C. Cycle pressure test to 3500 psi.
8. Install slips. Land casing w/ 80,000# tension.
9. Cut-off and dress 4 1/2" casing stub.
10. NUWH. PU 3 7/8" bit, POBS and RIH. D/O cement and plug ~6958'. Clean out to PBTB (8995').
11. POOH, land tbg and pump off POBS.
12. NUWH, RDMO. Turn well over to production ops.

**STRENGTH DATA FOR LOGAN 5.88" OD "L" TYPE CSG PATCH  
4-1/2 CASING, 10K PSI MAX WP 125K YIELD MAT'L  
LOGAN ASSEMBLY NO. 510L-005 -000**



COLLAPSE PRESSURE:  
11,222 PSI @ 0 TENSILE  
8,634 PSI @ 220K TENSILE

Tensile Strength @ Yield:  
Tensile Strength w/ 0 Int. Press.= 472,791lbs.  
Tensile Strength w/ 10K Int. Press.= 313,748lbs.

DATA BY SLS 11/16/2009

**RECEIVED** Jun. 27, 2011



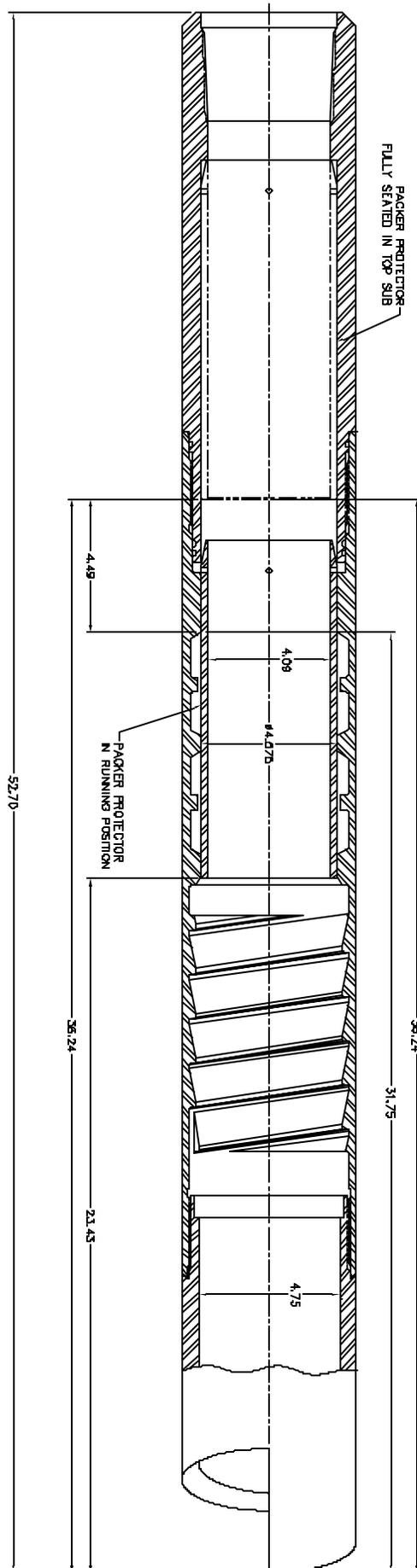
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## **Logan High Pressure Casing Patches Assembly Procedure**

All parts should be thoroughly greased before being assembled.

1. Install all four Logan Type "L" Packers in the spaces provided in the Casing Patch Bowl. Refer to diagram provided for proper installation.
2. Install Packer Protector from the Basket Grapple end of the Bowl. The beveled end of the Packer Protector goes in first. Carefully push the Packer Protector through the four Type "L" Packers.
3. Align Shear Pin Holes in Packer Protector so that the holes have just passed into the counter bore at the Top Sub end, refer to diagram. The Packer Protector is provided with four Shear Pin Holes. Use only two holes, 180 degrees apart and install the pins.
4. Screw the Basket Grapple in from the lower end of the Bowl, using left-hand rotation. The Tang Slot in the Basket Grapple must land in line with the slot in the Bowl.
5. Insert the Basket Grapple Control into the end of the Bowl. Align Tang on the Basket Grapple Control with the Tang Slot of the Bowl and Basket Grapple. This secures the Bowl and the Basket Grapple together.
6. Install the Cutlipped Guide into the lower end of the Bowl.
7. Install O-Rings on the two five-foot long Extensions. Screw the first Extension into the top end of the Bowl. Screw the second Extension into the top end of the first Extension.
8. Install O-Ring on Top Sub. Screw Top Sub into top end of second Extension.

Follow recommended Make-Up Torque as provided in chart.



510L-005-001 4-1/2" LOGAN HP CASING PATCH

STATE OF UTAH DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS, AND MINING		FORM 9
		<b>5. LEASE DESIGNATION AND SERIAL NUMBER:</b> ML 22650
<b>SUNDRY NOTICES AND REPORTS ON WELLS</b>		<b>6. IF INDIAN, ALLOTTEE OR TRIBE NAME:</b>
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.		<b>7. UNIT or CA AGREEMENT NAME:</b> NATURAL BUTTES
<b>1. TYPE OF WELL</b> Gas Well		<b>8. WELL NAME and NUMBER:</b> NBU 922-36L4BS
<b>2. NAME OF OPERATOR:</b> KERR-MCGEE OIL & GAS ONSHORE, L.P.		<b>9. API NUMBER:</b> 43047503680000
<b>3. ADDRESS OF OPERATOR:</b> P.O. Box 173779 1099 18th Street, Suite 600, Denver, CO, 80217 3779	<b>PHONE NUMBER:</b> 720 929-6511	<b>9. FIELD and POOL or WILDCAT:</b> NATURAL BUTTES
<b>4. LOCATION OF WELL</b> <b>FOOTAGES AT SURFACE:</b> 0539 FSL 0413 FWL <b>QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN:</b> Qtr/Qtr: SWSW Section: 36 Township: 09.0S Range: 22.0E Meridian: S		<b>COUNTY:</b> UINTAH
		<b>STATE:</b> UTAH
11. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA		
<b>TYPE OF SUBMISSION</b>	<b>TYPE OF ACTION</b>	
<input type="checkbox"/> NOTICE OF INTENT Approximate date work will start:  <input checked="" type="checkbox"/> SUBSEQUENT REPORT Date of Work Completion: 8/30/2011  <input type="checkbox"/> SPUD REPORT Date of Spud:  <input type="checkbox"/> DRILLING REPORT Report Date:	<input type="checkbox"/> ACIDIZE  <input type="checkbox"/> CHANGE TO PREVIOUS PLANS  <input type="checkbox"/> CHANGE WELL STATUS  <input type="checkbox"/> DEEPEN  <input type="checkbox"/> OPERATOR CHANGE  <input type="checkbox"/> PRODUCTION START OR RESUME  <input type="checkbox"/> REPERFORATE CURRENT FORMATION  <input type="checkbox"/> TUBING REPAIR  <input type="checkbox"/> WATER SHUTOFF  <input type="checkbox"/> WILDCAT WELL DETERMINATION <input type="checkbox"/> ALTER CASING  <input type="checkbox"/> CHANGE TUBING  <input type="checkbox"/> COMMINGLE PRODUCING FORMATIONS  <input type="checkbox"/> FRACTURE TREAT  <input type="checkbox"/> PLUG AND ABANDON  <input type="checkbox"/> RECLAMATION OF WELL SITE  <input type="checkbox"/> SIDETRACK TO REPAIR WELL  <input type="checkbox"/> VENT OR FLARE  <input type="checkbox"/> SI TA STATUS EXTENSION  <input checked="" type="checkbox"/> OTHER	
	<input checked="" type="checkbox"/> CASING REPAIR <input type="checkbox"/> CHANGE WELL NAME <input type="checkbox"/> CONVERT WELL TYPE <input type="checkbox"/> NEW CONSTRUCTION <input type="checkbox"/> PLUG BACK <input type="checkbox"/> RECOMPLETE DIFFERENT FORMATION <input type="checkbox"/> TEMPORARY ABANDON <input type="checkbox"/> WATER DISPOSAL <input type="checkbox"/> APD EXTENSION OTHER: <input type="text"/>	
12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.		
<p>The operator has concluded the wellhead/casing repairs on the subject well location. Please see the attached chronological history for the details of the operations.</p>		
<p><b>Accepted by the Utah Division of Oil, Gas and Mining FOR RECORD ONLY January 27, 2012</b></p>		
<b>NAME (PLEASE PRINT)</b> Jaime Scharnowske	<b>PHONE NUMBER</b> 720 929-6304	<b>TITLE</b> Regulatory Analyst
<b>SIGNATURE</b> N/A		<b>DATE</b> 1/24/2012

**US ROCKIES REGION**  
**Operation Summary Report**

Well: NBU 922-36L4BS ( BLUE )		Spud Conductor: 8/26/2009		Spud Date: 9/6/2009				
Project: UTAH-UINTAH		Site: NBU 922-36M PAD		Rig Name No: SWABBCO 6/6				
Event: WELL WORK EXPENSE		Start Date: 8/26/2011		End Date: 8/30/2011				
Active Datum: RKB @4,981.00ft (above Mean Sea Leve		UWI: SW/SW/0/9/S/22/E/36/0/0/26/PM/S/539.00/W/0/413.00/0/0						
Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (ft)	Operation
8/26/2011	7:00 - 7:15	0.25	WO/REP	48		P		JSA= WELL CONTROL
	7:15 - 17:00	9.75	WO/REP	30		P		FWP=150 PSI CONTROL WELL W/20 BBLS TMAC ND W/H NU BOPS UNLAND TUBING LD HNGR POOH W/ 272 JNTS 2-3/8" L-80 TUBING LD 90 JNTS DUE TO INT SCALE RU W/L RIH W/ GUAGE RNG TO 7050' PU CIBP RIH SET @ 7000' DUMP BAIL 2 SKS CEM FILL HOLE W/ TMAC PRESS TEST TO 500# SIW PREP TO REPAIR W/H MON SDFW
8/29/2011	7:00 - 7:15	0.25	WO/REP	48		P		JSA= CASING TONGS
	7:15 - 17:00	9.75	WO/REP	30		P		SIWP= 0 PSI PU INT CUTTER RIH CUT CSG BELOW 4' PUP ND WELLHEAD PU OVERSHOT RIH OVER CSG RU CSG TONGS APPLY LH TORQUE B/O CSG @ 1ST JNT LAY DWN PU NEW JNT RIH THREAD ONTO CSG STRING APPLY 63 RNDTS TORQUE TO 7000# RD TONGS RU TESTER TEST TO 3500# SET SLIPS NU W/H PU 3-7/8" BIT RIH TAG CEM @ 6980' LD 20 MORE JNTS DUE TO INT SCALE PU PWR SWVL PREP TO D/O IN AM SIW SDFN
8/30/2011	7:00 - 7:15	0.25	WO/REP	48		P		JSA= FOAMING SAFELY
	7:15 - 19:00	11.75	WO/REP	30		P		SIWP= 0 PSI EST CIRC W/ FOAM AIR UNIT DRILL THRU CEM & CIBP @ 7000 DRILL THRU PLUG IN 25 MIN LOST CIRC 1 HR EST CIRC CONT TO RIH TAG @ 8990' LD 12 JNTS RD PWR SWVL CONTINUE TO POOH LD BIT PU 1.87XN NPL RIH W/ 272 JNTS LAND TUBING ON HNGR EOT @ 8619.70' RIH TO SN W/ BROACH RD FLOOR & TUBING EQUIP ND BOPS NU WELLHEAD SIW PREP TO RD IN AM

**DIVISION OF OIL, GAS AND MINING**

**SPUDDING INFORMATION**

Name of Company: KERR-McGEE OIL & GAS ONSHORE, L.P.

Well Name: NBU 922-36L4BS

Api No: 43-047-50368 Lease Type: STATE

Section 36 Township 09S Range 22E County UINTAH

Drilling Contractor PETE MARTIN DRLG RIG # 145

**SPUDDED:**

Date 08/26/2009

Time 3:00 PM

How DRY

**Drilling will Commence:** \_\_\_\_\_

Reported by JAMES GOBER

Telephone # (435) 828-7024

Date 08/27/2009 Signed CHD

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
4304750367	NBU 922-36N4BS		SWSW	36	9S	22E	UINTAH
Action Code	Current Entity Number	New Entity Number	Spud Date		Entity Assignment Effective Date		
<u>B</u>	99999	<u>2900</u>	8/26/2009		<u>8/27/09</u>		
Comments: MIRU PETE MARTIN BUCKET RIG. <u>WSTMVD</u> SPUD WELL LOCATION ON 08/26/2009 AT 11:00 HRS. <u>BHL = SESW</u>							

Well 2

API Number	Well Name		QQ	Sec	Twp	Rng	County
4304750366	NBU 922-36M3T		SWSW	36	9S	22E	UINTAH
Action Code	Current Entity Number	New Entity Number	Spud Date		Entity Assignment Effective Date		
<u>B</u>	99999	<u>2900</u>	8/26/2009		<u>8/27/09</u>		
Comments: MIRU PETE MARTIN BUCKET RIG. <u>WSTMVD</u> SPUD WELL LOCATION ON 08/26/2009 AT 13:00 HRS. <u>BHL = SWSW</u>							

Well 3

API Number	Well Name		QQ	Sec	Twp	Rng	County
4304750368	NBU 922-36L4BS		SWSW	36	9S	22E	UINTAH
Action Code	Current Entity Number	New Entity Number	Spud Date		Entity Assignment Effective Date		
<u>B</u>	99999	<u>2900</u>	8/26/2009		<u>8/27/09</u>		
Comments: MIRU PETE MARTIN BUCKET RIG. <u>WSTMVD</u> SPUD WELL LOCATION ON 08/26/2009 AT 15:00 HRS. <u>BHL = NWSW</u>							

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)

ANDY LYTLE

Name (Please Print)

Signature

REGULATORY ANALYST

Title

8/27/2009

Date

RECEIVED

AUG 27 2009

STATE OF UTAH DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS, AND MINING		FORM 9
		<b>5. LEASE DESIGNATION AND SERIAL NUMBER:</b> ML 22650
<b>SUNDRY NOTICES AND REPORTS ON WELLS</b>		<b>6. IF INDIAN, ALLOTTEE OR TRIBE NAME:</b>
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.		<b>7. UNIT or CA AGREEMENT NAME:</b> NATURAL BUTTES
<b>1. TYPE OF WELL</b> Gas Well		<b>8. WELL NAME and NUMBER:</b> NBU 922-36L4BS
<b>2. NAME OF OPERATOR:</b> KERR-MCGEE OIL & GAS ONSHORE, L.P.		<b>9. API NUMBER:</b> 43047503680000
<b>3. ADDRESS OF OPERATOR:</b> P.O. Box 173779 1099 18th Street, Suite 600, Denver, CO, 80217 3779	<b>PHONE NUMBER:</b> 720 929-6514	<b>9. FIELD and POOL or WILDCAT:</b> NATURAL BUTTES
<b>4. LOCATION OF WELL</b> <b>FOOTAGES AT SURFACE:</b> 0539 FSL 0413 FWL <b>QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN:</b> Qtr/Qtr: SWSW Section: 36 Township: 09.0S Range: 22.0E Meridian: S		<b>COUNTY:</b> UINTAH
		<b>STATE:</b> UTAH
11. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA		
<b>TYPE OF SUBMISSION</b>	<b>TYPE OF ACTION</b>	
<input type="checkbox"/> NOTICE OF INTENT Approximate date work will start:  <input checked="" type="checkbox"/> SUBSEQUENT REPORT Date of Work Completion: 1/10/2014  <input type="checkbox"/> SPUD REPORT Date of Spud:  <input type="checkbox"/> DRILLING REPORT Report Date:	<input type="checkbox"/> ACIDIZE <input type="checkbox"/> ALTER CASING <input type="checkbox"/> CHANGE TO PREVIOUS PLANS <input type="checkbox"/> CHANGE TUBING <input type="checkbox"/> CHANGE WELL STATUS <input type="checkbox"/> COMMINGLE PRODUCING FORMATIONS <input type="checkbox"/> DEEPEN <input type="checkbox"/> FRACTURE TREAT <input type="checkbox"/> OPERATOR CHANGE <input type="checkbox"/> PLUG AND ABANDON <input type="checkbox"/> PRODUCTION START OR RESUME <input type="checkbox"/> RECLAMATION OF WELL SITE <input type="checkbox"/> REPERFORATE CURRENT FORMATION <input type="checkbox"/> SIDETRACK TO REPAIR WELL <input type="checkbox"/> TUBING REPAIR <input type="checkbox"/> VENT OR FLARE <input type="checkbox"/> WATER SHUTOFF <input type="checkbox"/> SI TA STATUS EXTENSION <input type="checkbox"/> WILDCAT WELL DETERMINATION <input checked="" type="checkbox"/> OTHER	
	<input type="checkbox"/> CASING REPAIR <input type="checkbox"/> CHANGE WELL NAME <input type="checkbox"/> CONVERT WELL TYPE <input type="checkbox"/> NEW CONSTRUCTION <input type="checkbox"/> PLUG BACK <input type="checkbox"/> RECOMPLETE DIFFERENT FORMATION <input type="checkbox"/> TEMPORARY ABANDON <input type="checkbox"/> WATER DISPOSAL <input type="checkbox"/> APD EXTENSION OTHER: <input type="text" value="Production Enhancement"/>	
12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.		
<p>The Operator conducted the following workover/wellbore cleanout on the subject well on 01/10/2014. Please see attached chronological well history for details. Thank you!</p>		
<p><b>Accepted by the Utah Division of Oil, Gas and Mining FOR RECORD ONLY January 24, 2014</b></p>		
<b>NAME (PLEASE PRINT)</b> Kay E. Kelly	<b>PHONE NUMBER</b> 720 929 6582	<b>TITLE</b> Regulatory Analyst
<b>SIGNATURE</b> N/A		<b>DATE</b> 1/23/2014

**US ROCKIES REGION**  
**Operation Summary Report**

Well: NBU 922-36L4BS ( BLUE )		Spud Conductor: 8/26/2009		Spud Date: 9/6/2009				
Project: UTAH-UINTAH			Site: NBU 922-36M PAD			Rig Name No: SWABBCO 6/6		
Event: WELL WORK EXPENSE			Start Date: 1/10/2014			End Date: 1/16/2014		
Active Datum: RKB @4,981.01ft (above Mean Sea Level)				UWI: SW/SW/0/9/S/22/E/36/0/0/26/PM/S/539.00/W/0/413.00/0/0				

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (ft)	Operation
1/13/2014	7:00 - 7:30	0.50	MAINT	48		P		TBG STUCK
	7:30 - 17:30	10.00	MAINT	45	A	P		MIRU, BLOW DWN WELL, KILL WELL, 20 BBLS TBG, 20 BBLS CSG, UNLAND TBG, TBG STUCK, NU BOP'S, PULL HANGER, WORK TBG. PU PWR SWIVEL, ROTATE TBG, WORK TBG, BROKE TBG LOOSE, RU PRS SCAN TBG OOH, HIT FLUID 177 JTS OUT, SWABB, PULL TBG.,SWIFN
1/14/2014	7:00 - 7:30	0.50	MAINT	48		P		MILLING
	7:30 - 16:30	9.00	MAINT	44	D	P		PU MILL, SN, TIH TBG TO BRIDGE, RU FOAM UNIT BREAK CIRC, C/O TO PBTD, PU MILL, SN, TIH TBG TO BRIDGE, RU FOAM UNIT BREAK CIRC, C/O TO PBTD
1/15/2014	7:00 - 7:30	0.50	MAINT	48		P		FOAM UNIT
	7:30 - 17:00	9.50	MAINT	44	D	P		RU WEATHERFORD FOAM UNIT, BREAK CIRC,MILL ON SCALE PLUG, MILL 65' SCALE, FELL THROUGH, TIH TO PBTD, C/O 80' SAND, CIRC WELL CLEAN, RD WEATHERFORD, BROACH TBG, POOH STD BACK 136 STDS,SWIFN
1/16/2014	7:00 - 7:30	0.50	MAINT	48		P		BROACHING
	7:30 - 12:00	4.50	MAINT	31	I	P		KILL WELL, PU SN, TIH TBG 273 JTS TBG, NU HANGER, LAND TBG, PU BROACH, BROACH TO SN, ND BOP'S, NUWH, RTP, RDMO
								HANGER 1.00'
								KB 13.00'
								TBG 122 JTS L-80 3858.90'
								TBG 6' PUP N-80 6.00'
								TBG 150 JTS J-55 4732.79'
								SN 1.875" 2.20'
								EOT 8613.79'