

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

FORM 3

AMENDED REPORT

APPLICATION FOR PERMIT TO DRILL						1. WELL NAME and NUMBER Morgan State 921-36N1BS																																
2. TYPE OF WORK DRILL NEW WELL <input checked="" type="checkbox"/> REENTER P&A WELL <input type="checkbox"/> DEEPEN WELL <input type="checkbox"/>						3. FIELD OR WILDCAT NATURAL BUTTES																																
4. TYPE OF WELL Gas Well <input type="checkbox"/> Coalbed Methane Well: NO <input type="checkbox"/>						5. UNIT or COMMUNITIZATION AGREEMENT NAME																																
6. NAME OF OPERATOR KERR-MCGEE OIL & GAS ONSHORE, L.P.						7. OPERATOR PHONE 720 929-6515																																
8. ADDRESS OF OPERATOR P.O. Box 173779, Denver, CO, 80217						9. OPERATOR E-MAIL julie.jacobson@anadarko.com																																
10. MINERAL LEASE NUMBER (FEDERAL, INDIAN, OR STATE) ML 22265			11. MINERAL OWNERSHIP FEDERAL <input type="checkbox"/> INDIAN <input type="checkbox"/> STATE <input checked="" type="checkbox"/> FEE <input type="checkbox"/>			12. SURFACE OWNERSHIP FEDERAL <input type="checkbox"/> INDIAN <input type="checkbox"/> STATE <input checked="" type="checkbox"/> FEE <input type="checkbox"/>			13. NAME OF SURFACE OWNER (if box 12 = 'fee')			14. SURFACE OWNER PHONE (if box 12 = 'fee')																										
15. ADDRESS OF SURFACE OWNER (if box 12 = 'fee')						16. SURFACE OWNER E-MAIL (if box 12 = 'fee')																																
17. INDIAN ALLOTTEE OR TRIBE NAME (if box 12 = 'INDIAN')			18. INTEND TO COMMINGLE PRODUCTION FROM MULTIPLE FORMATIONS YES <input checked="" type="checkbox"/> (Submit Commingling Application) NO <input type="checkbox"/>			19. SLANT VERTICAL <input type="checkbox"/> DIRECTIONAL <input checked="" type="checkbox"/> HORIZONTAL <input type="checkbox"/>			20. LOCATION OF WELL			<table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th>FOOTAGES</th> <th>QTR-QTR</th> <th>SECTION</th> <th>TOWNSHIP</th> <th>RANGE</th> <th>MERIDIAN</th> </tr> </thead> <tbody> <tr> <td>1008 FSL 1748 FWL</td> <td>SESW</td> <td>36</td> <td>9.0 S</td> <td>21.0 E</td> <td>S</td> </tr> <tr> <td>1170 FSL 2145 FWL</td> <td>SESW</td> <td>36</td> <td>9.0 S</td> <td>21.0 E</td> <td>S</td> </tr> <tr> <td>1170 FSL 2145 FWL</td> <td>SESW</td> <td>36</td> <td>9.0 S</td> <td>21.0 E</td> <td>S</td> </tr> </tbody> </table>			FOOTAGES	QTR-QTR	SECTION	TOWNSHIP	RANGE	MERIDIAN	1008 FSL 1748 FWL	SESW	36	9.0 S	21.0 E	S	1170 FSL 2145 FWL	SESW	36	9.0 S	21.0 E	S	1170 FSL 2145 FWL	SESW	36	9.0 S	21.0 E	S
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21. COUNTY UINTAH			22. DISTANCE TO NEAREST LEASE LINE (Feet) 1170			23. NUMBER OF ACRES IN DRILLING UNIT 639			25. DISTANCE TO NEAREST WELL IN SAME POOL (Applied For Drilling or Completed) 424			26. PROPOSED DEPTH MD: 10536 TVD: 10501																										
27. ELEVATION - GROUND LEVEL 5025			28. BOND NUMBER 22013542			29. SOURCE OF DRILLING WATER / WATER RIGHTS APPROVAL NUMBER IF APPLICABLE 43-8496																																
Hole, Casing, and Cement Information																																						
String	Hole Size	Casing Size	Length	Weight	Grade & Thread	Max Mud Wt.	Cement	Sacks	Yield	Weight																												
Surf	12.25	8.625	0 - 2570	28.0	J-55 LT&C	0.2	Type V	180	1.15	15.8																												
							Class G	270	1.15	15.8																												
Prod	7.875	4.5	0 - 10536	11.6	HCP-110 LT&C	13.0	Premium Lite High Strength	320	3.38	12.0																												
							50/50 Poz	1530	1.31	14.3																												
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																																
NAME Danielle Piernot				TITLE Regulatory Analyst				PHONE 720 929-6156																														
SIGNATURE				DATE 12/20/2011				EMAIL danielle.piernot@anadarko.com																														
API NUMBER ASSIGNED 43047522640000				APPROVAL  Permit Manager																																		

Kerr-McGee Oil & Gas Onshore. L.P.**MORGAN STATE 921-36N1BS**

Surface: 1008 FSL / 1748 FWL SESW
 BHL: 1170 FSL / 2145 FWL SESW

Section 36 T9S R21E

Unitah County, Utah
 Mineral Lease: ML-22265

ONSHORE ORDER NO. 1**DRILLING PROGRAM**

1. & 2.a **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	1,350'	
Birds Nest	1,624'	Water
Mahogany	2,119'	Water
Wasatch	4,569'	Gas
Mesaverde	7,221'	Gas
Sego	9,421'	Gas
Castlegate	9,478'	Gas
MN5	9,901'	Gas
TVD =	10,501'	
TD =	10,536'	

- 2.C Kerr McGee Oil & Gas Onshore LP (Kerr McGee) will either drill to the the Blackhawk formation, which is part of the Mesaverde formation, or the Wasatch/Mesaverde formation. If Kerr McGee drills to the Blackhawk formation (part of the Mesaverde formation), please refer to MN5 as the bottom formation. The attached Blackhawk Drilling Program includes Total Vertical Depth, Total Depth, and appropriate casing and cement programs for the deeper formation.

If Kerr McGee drills to the Wasatch/Mesaverde formation please refer to Sego as the bottom formation. The attached Wasatch/Mesaverde Drilling Program includes Total Vertical Depth, Total Depth, and appropriate casing and cement programs for the depths the Wasatch/Mesaverde formations are found.

3. **Pressure Control Equipment** (Schematic Attached)

Please refer to the attached Blackhawk Drilling Program and the Wasatch/Mesaverde Drilling Program

4. Proposed Casing & Cementing Program:

Please refer to the attached Blackhawk Drilling Program and the Wasatch/Mesaverde Drilling Program

5. Drilling Fluids Program:

Please refer to the attached Blackhawk Drilling Program and the Wasatch/Mesaverde Drilling Program

6. Evaluation Program:

Please refer to the attached Blackhawk Drilling Program and the Wasatch/Mesaverde Drilling Program

7. Abnormal Conditions:**7.a Blackhawk (Part of Mesaverde Formation) Target Formation**

Maximum anticipated bottom hole pressure calculated at 10501' TVD, approximately equals
6,931 psi (0.66 psi/ft = actual bottomhole gradient)

Maximum Anticipated Bottom Hole Pressure (MABHP) = Pore Pressure at TD

Maximum anticipated surface pressure equals approximately 4,668 psi (bottom hole pressure
minus the pressure of a partially evacuated hole calculated at 0.22 psi/foot, per Onshore Order No. 2).

Per Onshore Order No. 2 - Max Anticipated Surf. Press.(MASP) = (Pore Pressure at next csg point-
(0.22 psi/ft-partial evac gradient x TVD of next csg point))

7.b Wasach/Mesaverde Target Formation

Maximum anticipated bottom hole pressure calculated at 9421' TVD, approximately equals
6,029 psi (0.64 psi/ft = actual bottomhole gradient)

Maximum Anticipated Bottom Hole Pressure (MABHP) = Pore Pressure at TD

Maximum anticipated surface pressure equals approximately 3,944 psi (bottom hole pressure
minus the pressure of a partially evacuated hole calculated at 0.22 psi/foot, per Onshore Order No. 2).

Per Onshore Order No. 2 - Max Anticipated Surf. Press.(MASP) = (Pore Pressure at next csg point-
(0.22 psi/ft-partial evac gradient x TVD of next csg point))

8. Anticipated Starting Dates:

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

9. Variances:

Please refer to the attached Blackhawk Drilling Program and the Wasatch/Mesaverde 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 for the first 200 feet, then will drill a 11 inch hole to just above the Bird's Nest interval with an air hammer. The hammer is then tripped and replaced with a 11 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 8-5/8 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.

Variance for FIT Requirements

KMG also respectfully requests a variance to Onshore Order 2, Section III, Part Bi, for the pressure integrity test (PIT, also known as a formation integrity test (FIT)). This well is not an exploratory well and is being drilled in an area where the formation integrity is well known. Additionally, when an FIT is run with the mud weight as required, the casing shoe frequently breaks down and causes subsequent lost circulation when drilling the entire depth of the well.

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.

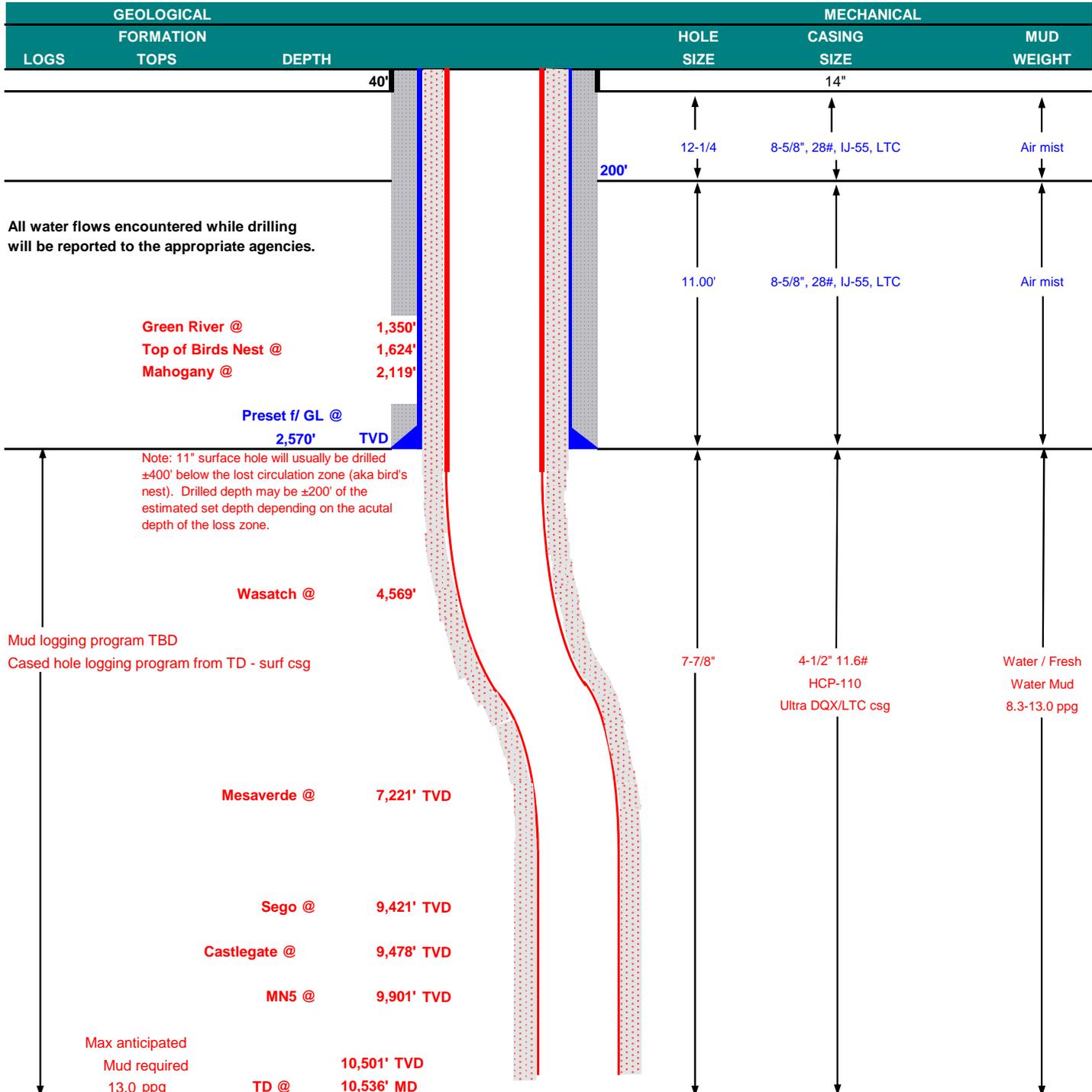
10. **Other Information:**

Please refer to the attached Blackhawk Drilling Program and the Wasatch/Mesaverde Drilling Program



KERR-McGEE OIL & GAS ONSHORE LP BLACKHAWK DRILLING PROGRAM

COMPANY NAME	KERR-McGEE OIL & GAS ONSHORE LP		DATE	December 19, 2011			
WELL NAME	MORGAN STATE 921-36N1BS		TD	10,501' TVD	10,536' MD		
FIELD	Natural Buttes	COUNTY	Uintah	STATE	Utah	FINISHED ELEVATION	5,025'
SURFACE LOCATION	SESW	1008 FSL	1748 FWL	Sec 36	T 9S	R 21E	
	Latitude:	39.988205	Longitude:	-109.502549		NAD 27	
BTM HOLE LOCATION	SESW	1170 FSL	2145 FWL	Sec 36	T 9S	R 21E	
	Latitude:	39.988668	Longitude:	-109.501131		NAD 27	
OBJECTIVE ZONE(S)	BLACKHAWK						
ADDITIONAL INFO	Regulatory Agencies: UDOGM (Minerals), UDOGM (Surface), UDOGM Tri-County Health Dept.						





KERR-McGEE OIL & GAS ONSHORE LP
BLACKHAWK DRILLING PROGRAM

CASING PROGRAM

							DESIGN FACTORS			
	SIZE	INTERVAL		WT.	GR.	CPLG.	BURST	COLLAPSE	LTC	DQX
		TENSION								
CONDUCTOR	14"	0-40'					3,390	1,880	348,000	N/A
SURFACE	8-5/8"	0	to 2,570	28.00	IJ-55	LTC	2.09	1.56	5.52	N/A
PRODUCTION	4-1/2"	0	to 5,000	11.60	HCP-110	DQX	1.19	1.22	279,000	367,174
	4-1/2"	5,000	to 10,536'	11.60	HCP-110	LTC	1.19	1.22	5.42	

Surface Casing:

(Burst Assumptions: TD = 13.0 ppg) 0.73 psi/ft = frac gradient @ surface shoe

Fracture at surface shoe with 0.1 psi/ft gas gradient above

(Collapse Assumption: Fully Evacuated Casing, Max MW)

(Tension Assumptions: Air Weight of Casing*Buoy.Fact. of water)

Production casing:

(Burst Assumptions: Pressure test with 8.4ppg @ 9000 psi) 0.66 psi/ft = bottomhole gradient

(Collapse Assumption: Fully Evacuated Casing, Max MW)

(Tension Assumptions: Air Weight of Casing*Buoy.Fact. of water)

CEMENT PROGRAM

		FT. OF FILL	DESCRIPTION	SACKS	EXCESS	WEIGHT	YIELD
SURFACE	LEAD	500'	Premium cmt + 2% CaCl + 0.25 pps flocele	180	60%	15.80	1.15
Option 1	TOP OUT CMT (6 jobs)	1,200'	20 gals sodium silicate + Premium cmt + 2% CaCl + 0.25 pps flocele	270	0%	15.80	1.15
NOTE: If well will circulate water to surface, option 2 will be utilized							
SURFACE	LEAD	2,070'	65/35 Poz + 6% Gel + 10 pps gilsonite + 0.25 pps Flocele + 3% salt BWOW	190	35%	11.00	3.82
Option 2	TAIL	500'	Premium cmt + 2% CaCl + 0.25 pps flocele	150	35%	15.80	1.15
	TOP OUT CMT	as required	Premium cmt + 2% CaCl	as req.		15.80	1.15
PRODUCTION	LEAD	4,066'	Premium Lite II +0.25 pps celloflake + 5 pps gilsonite + 10% gel + 0.5% extender	320	35%	12.00	3.38
	TAIL	6,470'	50/50 Poz/G + 10% salt + 2% gel + 0.1% R-3	1,530	35%	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. 15 centralizers for a Mesaverde and 20 for a Blackhawk well.

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:

Nick Spence / Danny Showers / Chad Loesel

DATE: _____

DRILLING SUPERINTENDENT:

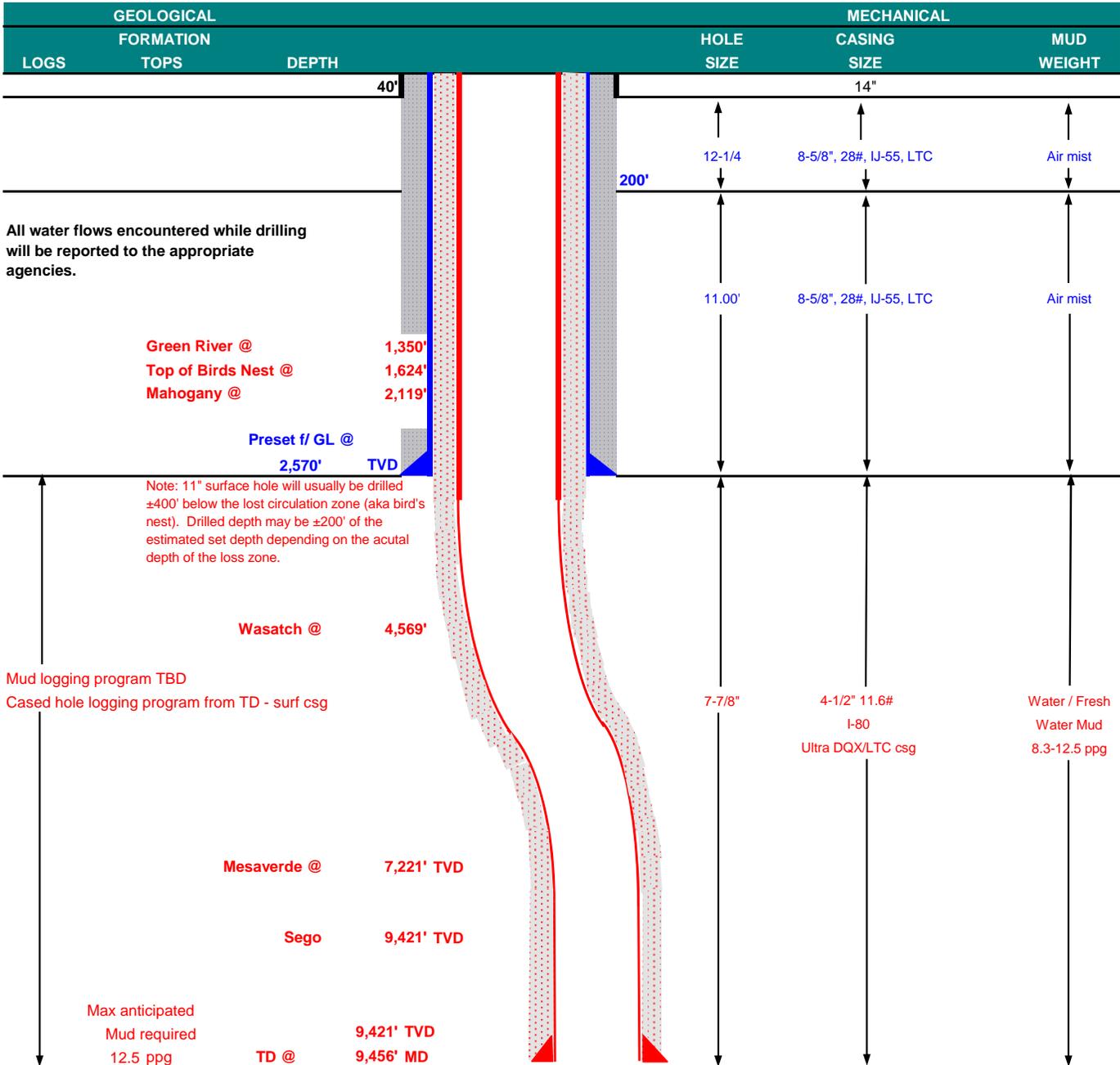
Kenny Gathings / Lovel Young

DATE: _____



KERR-McGEE OIL & GAS ONSHORE LP WASATCH/MESAVERDE DRILLING PROGRAM

COMPANY NAME	KERR-McGEE OIL & GAS ONSHORE LP		DATE	December 19, 2011	
WELL NAME	MORGAN STATE 921-36N1BS		TD	9,421'	9,456' MD
FIELD	Natural Buttes	COUNTY	Uintah	STATE	Utah
SURFACE LOCATION	SESW	1008 FSL	1748 FWL	Sec 36 T 9S R 21E	FINISHED ELEVATION 5,025'
	Latitude:	39.988205	Longitude:	-109.502549	NAD 27
BTM HOLE LOCATION	SESW	1170 FSL	2145 FWL	Sec 36 T 9S R 21E	
	Latitude:	39.988668	Longitude:	-109.501131	NAD 27
OBJECTIVE ZONE(S)	Wasatch/Mesaverde				
ADDITIONAL INFO	Regulatory Agencies: UDOGM (Minerals), UDOGM (Surface), UDOGM Tri-County Health Dept.				





KERR-McGEE OIL & GAS ONSHORE LP

WASATCH/MESAVERDE DRILLING PROGRAM

CASING PROGRAM

							DESIGN FACTORS				
							LTC	DQX			
	SIZE	INTERVAL	WT.	GR.	CPLG.	BURST	COLLAPSE	TENSION			
CONDUCTOR	14"	0-40'									
						3,390	1,880	348,000	N/A		
SURFACE	8-5/8"	0 to 2,570	28.00	IJ-55	LTC	2.09	1.56	5.52	N/A		
						7,780	6,350		267,035		
PRODUCTION	4-1/2"	0 to 5,000	11.60	I-80	DQX	1.11	1.04		3.01		
						7,780	6,350	223,000			
	4-1/2"	5,000 to 9,456'	11.60	I-80	LTC	1.11	1.04	5.33			

Surface Casing:

(Burst Assumptions: TD = 12.5 ppg) 0.73 psi/ft = frac gradient @ surface shoe

Fracture at surface shoe with 0.1 psi/ft gas gradient above

(Collapse Assumption: Fully Evacuated Casing, Max MW)

(Tension Assumptions: Air Weight of Casing*Buoy.Fact. of water)

Production casing:

(Burst Assumptions: Pressure test with 8.4ppg @ 7000 psi) 0.64 psi/ft = bottomhole gradient

(Collapse Assumption: Fully Evacuated Casing, Max MW)

(Tension Assumptions: Air Weight of Casing*Buoy.Fact. of water)

CEMENT PROGRAM

		FT. OF FILL	DESCRIPTION	SACKS	EXCESS	WEIGHT	YIELD
SURFACE	LEAD	500'	Premium cmt + 2% CaCl + 0.25 pps flocele	180	60%	15.80	1.15
Option 1	TOP OUT CMT (6 jobs)	1,200'	20 gals sodium silicate + Premium cmt + 2% CaCl + 0.25 pps flocele	270	0%	15.80	1.15
NOTE: If well will circulate water to surface, option 2 will be utilized							
SURFACE	LEAD	2,070'	65/35 Poz + 6% Gel + 10 pps gilsonite + 0.25 pps Flocele + 3% salt BWOW	190	35%	11.00	3.82
Option 2	TAIL	500'	Premium cmt + 2% CaCl + 0.25 pps flocele	150	35%	15.80	1.15
	TOP OUT CMT	as required	Premium cmt + 2% CaCl	as req.		15.80	1.15
PRODUCTION	LEAD	4,066'	Premium Lite II +0.25 pps celloflake + 5 pps gilsonite + 10% gel + 0.5% extender	320	35%	12.00	3.38
	TAIL	5,390'	50/50 Poz/G + 10% salt + 2% gel + 0.1% R-3	1,270	35%	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
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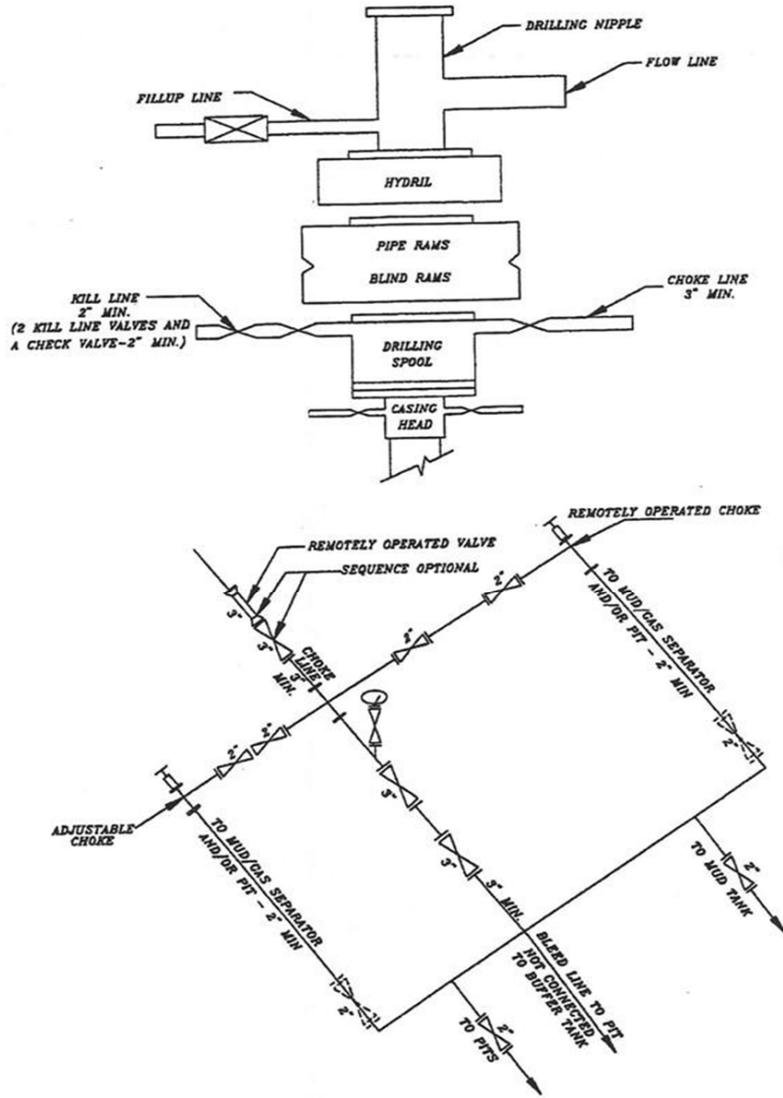
DRILLING ENGINEER: _____
Nick Spence / Danny Showers / Chad Loesel

DATE: _____

DRILLING SUPERINTENDENT: _____
Kenny Gathings / Lovel Young

DATE: _____

EXHIBIT A
MORGAN STATE 921-36N1BS



SCHEMATIC DIAGRAM OF 5,000 PSI BOP STACK

T9S, R21E, S.L.B.&M.

WEST - 80.00 (G.L.O.)

N89°55'26"W - 2639.89' (Meas.)

N89°56'39"W - 2639.91' (Meas.)

Found 1" Aluminum Cap on 5/8" Rebar. Pile of Stones.

Found 1" Aluminum Cap on 5/8" Rebar, with a Stone on East side of Cap.

Found 1977 Brass Cap. Pile of Stones.

MORGAN STATE 921-36N1BS (Surface Position)
 NAD 83 LATITUDE = 39.988170° (39° 59' 17.412")
 LONGITUDE = 109.503235° (109° 30' 11.646")
 NAD 27 LATITUDE = 39.988205° (39° 59' 17.538")
 LONGITUDE = 109.502549° (109° 30' 09.175")

MORGAN STATE 921-36N1BS (Bottom Hole)
 NAD 83 LATITUDE = 39.988633° (39° 59' 19.078")
 LONGITUDE = 109.501817° (109° 30' 06.542")
 NAD 27 LATITUDE = 39.988668° (39° 59' 19.204")
 LONGITUDE = 109.501131° (109° 30' 04.072")

Found 1977 Brass Cap, Steel Post & Pile of Stones.

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WELL LOCATION: MORGAN STATE 921-36N1BS

ELEV. UNGRADED GROUND = 5025.4'

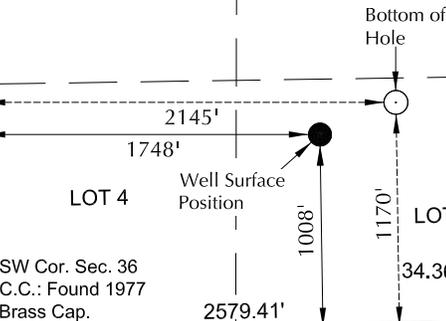
N00°03'41"W - 2641.51' (Meas.)
 N00°03'E - 79.80 (G.L.O.)

N00°05'54"E - 2569.93' (Meas.)
 N0°04'E - 38.96 (G.L.O.)

Found 1 1/2" Aluminum Cap on 5/8" Rebar in Pile of Stones.

N00°00'34"E - 2612.15' (Meas.)
 N00°03'E - 79.80 (G.L.O.)

20.43 (G.L.O.)
 N00°03'48"E - 2697.12' (Meas.)
 N0°02'E - 40.86 (G.L.O.)



NW. Cor. Sec. 1:
Found 1977 Brass Cap.

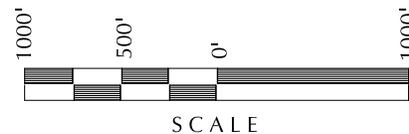
S89°06'03"W (Basis of Bearings)
 2678.51' (Measured)
 S89°06'W - 40.59 (G.L.O.)

1/4 Cor. Sec. 1:
Found 1977 Brass Cap in Pile of Stones.
 N88°43'26"W - 2691.59' (Meas.)
 N88°46'W - 40.78 (G.L.O.)

Found 1977 Brass Cap, Set Stone, Steel Post & Pile of Stones.

NOTES:

- ▲ = Section Corners Located
- 1. Well footages are measured at right angles to the Section Lines.
- 2. G.L.O. distances are shown in feet or chains.
1 chain = 66 feet.
- 3. The Bottom of hole bears N67°01'45"E 431.64' from the Surface Position.
- 4. Bearings are based on Global Positioning Satellite observations.
- 5. Basis of elevation is Tri-Sta "Two Water" located in the NW 1/4 of Section 1, T10S, R21E, S.L.B.&M. The elevation of this Tri-Sta is shown on the Big Pack Mtn NE 7.5 Min. Quadrangle as being 5238'.



SURVEYOR'S CERTIFICATE

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

No. 6028691-11-11-11
 JOHN R. LAUGH
 PROFESSIONAL LAND SURVEYOR
 REGISTRATION No. 6028691
 STATE OF UTAH

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

WELL PAD: MORGAN STATE 921-36N

**MORGAN STATE 921-36N1BS
 WELL PLAT**
 1170' FSL, 2145' FWL (Bottom Hole)
 LOT 3 OF SECTION 36, T9S, R21E,
 S.L.B.&M., UTAH COUNTY, UTAH.



CONSULTING, LLC
 2155 North Main Street
 Sheridan WY 82801
 Phone 307-674-0609
 Fax 307-674-0182

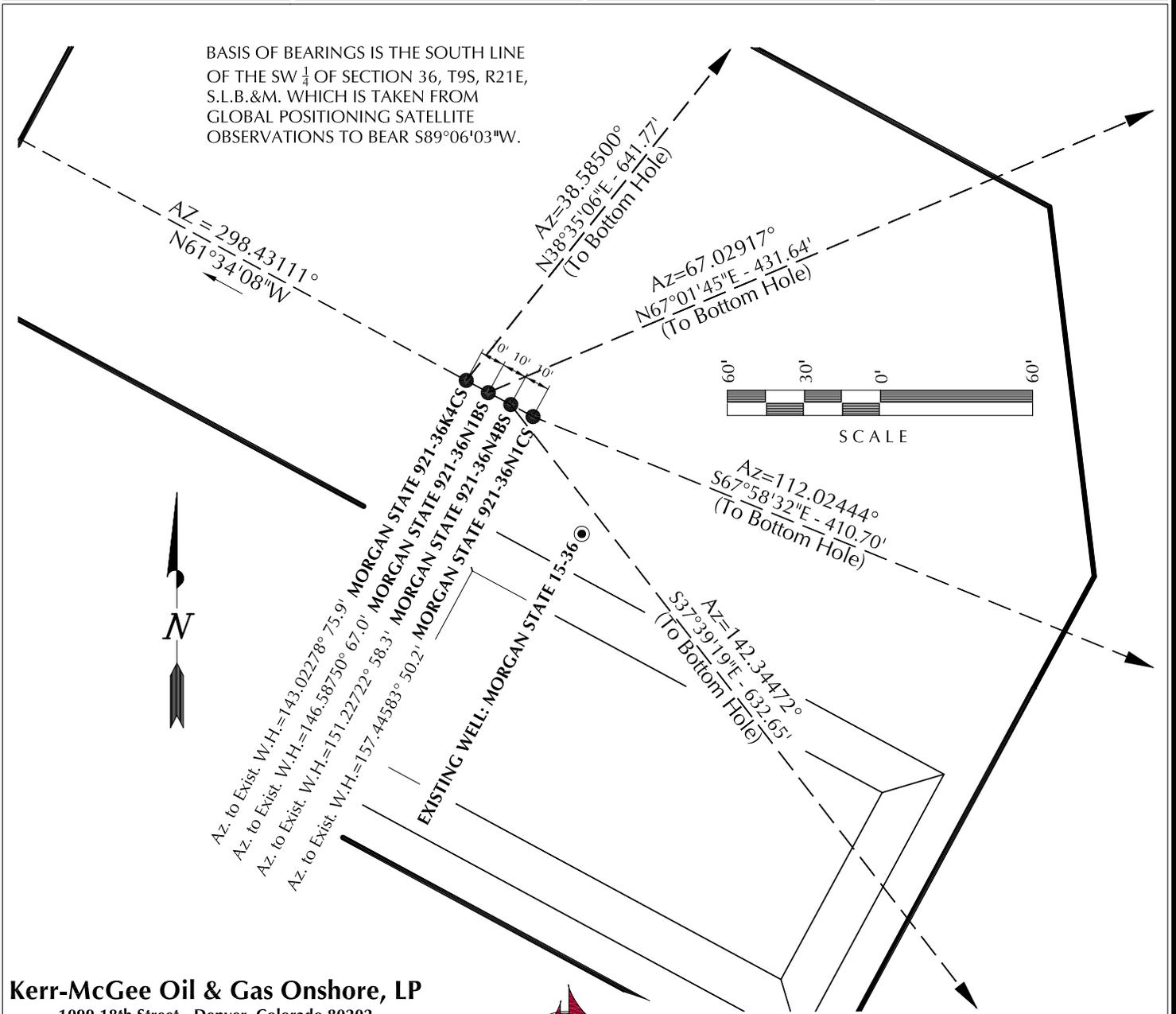
TIMBERLINE (435) 789-1365
 ENGINEERING & LAND SURVEYING, INC.
 209 NORTH 300 WEST - VERNAL, UTAH 84078

DATE SURVEYED: 9-20-11	SURVEYED BY: J.W.	SHEET NO: 3
DATE DRAWN: 11-03-11	DRAWN BY: T.J.R.	
SCALE: 1" = 1000'		3 OF 16

WELL NAME	SURFACE POSITION					BOTTOM HOLE				
	NAD83		NAD27		FOOTAGES	NAD83		NAD27		FOOTAGES
	LATITUDE	LONGITUDE	LATITUDE	LONGITUDE		LATITUDE	LONGITUDE	LATITUDE	LONGITUDE	
MORGAN STATE 921-36N1CS	39°59'17.317"	109°30'11.419"	39°59'17.443"	109°30'08.948"	998' FSL	39°59'15.797"	109°30'06.528"	39°59'15.923"	109°30'04.058"	838' FSL
MORGAN STATE 921-36N4BS	39.988144°	109.503172°	39.988179°	109.502486°	1765' FWL	39.987721°	109.501813°	39.987756°	109.501127°	2146' FWL
MORGAN STATE 921-36N1BS	39°59'17.364"	109°30'11.533"	39°59'17.490"	109°30'09.062"	1003' FSL	39°59'12.417"	109°30'06.566"	39°59'12.543"	109°30'04.095"	496' FSL
MORGAN STATE 921-36N1CS	39.988157°	109.503204°	39.988192°	109.502517°	1756' FWL	39.986783°	109.501824°	39.986818°	109.501138°	2143' FWL
MORGAN STATE 921-36N1BS	39°59'17.412"	109°30'11.646"	39°59'17.538"	109°30'09.175"	1008' FSL	39°59'19.078"	109°30'06.542"	39°59'19.204"	109°30'04.072"	1170' FSL
MORGAN STATE 921-36N1CS	39.988170°	109.503235°	39.988205°	109.502549°	1748' FWL	39.988633°	109.501817°	39.988668°	109.501131°	2145' FWL
MORGAN STATE 921-36K4CS	39°59'17.458"	109°30'11.759"	39°59'17.584"	109°30'09.288"	1013' FSL	39°59'22.416"	109°30'06.621"	39°59'22.542"	109°30'04.150"	1508' FSL
MORGAN STATE 15-36	39.988183°	109.503266°	39.988218°	109.502580°	1739' FWL	39.989560°	109.501839°	39.989595°	109.501153°	2139' FWL
MORGAN STATE 15-36	39°59'16.859"	109°30'11.172"	39°59'16.985"	109°30'08.701"	951' FSL					
MORGAN STATE 921-36N1CS	39.988017°	109.503103°	39.988051°	109.502417°	1785' FWL					

RELATIVE COORDINATES - From Surface Position to Bottom Hole

WELL NAME	NORTH	EAST	WELL NAME	NORTH	EAST	WELL NAME	NORTH	EAST	WELL NAME	NORTH	EAST
MORGAN STATE 921-36N1CS	-154.0'	380.7'	MORGAN STATE 921-36N4BS	-500.9'	386.5'	MORGAN STATE 921-36N1BS	168.5'	397.4'	MORGAN STATE 921-36K4CS	501.7'	400.3'



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

WELL PAD - MORGAN STATE 921-36N

WELL PAD INTERFERENCE PLAT
WELLS - MORGAN STATE 921-36N1CS,
MORGAN STATE 921-36N4BS,
MORGAN STATE 921-36N1BS &
MORGAN STATE 921-36K4CS
LOCATED IN SECTION 36, T9S, R21E,
S.L.B.&M., UINTAH COUNTY, UTAH.



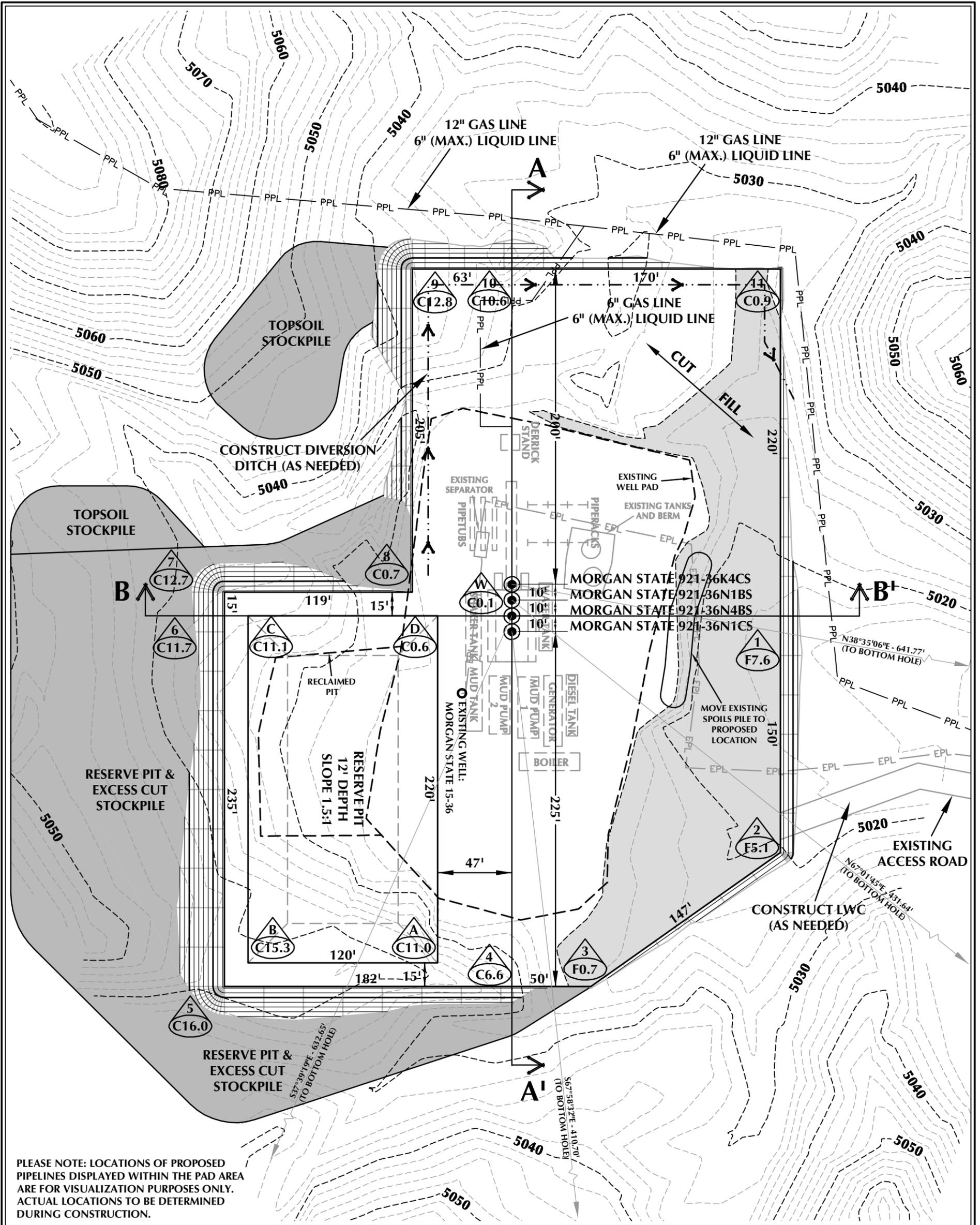
CONSULTING, LLC
2155 North Main Street
Sheridan WY 82801
Phone 307-674-0609
Fax 307-674-0182

TIMBERLINE

(435) 789-1365

ENGINEERING & LAND SURVEYING, INC.
209 NORTH 300 WEST - VERNAL, UTAH 84078

DATE SURVEYED: 9-20-11	SURVEYED BY: J.W.	SHEET NO: 5
DATE DRAWN: 11-03-11	DRAWN BY: T.J.R.	
SCALE: 1" = 60'	Date Last Revised:	5 OF 16



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

WELL PAD - MORGAN STATE 921-36N DESIGN SUMMARY

EXISTING GRADE @ CENTER OF WELL PAD = 5025.4'
 FINISHED GRADE ELEVATION = 5025.3'
 CUT SLOPES = 1.5:1
 FILL SLOPES = 1.5:1
 TOTAL WELL PAD AREA = 3.44 ACRES
 TOTAL DISTURBANCE AREA = 4.83 ACRES
 SHRINKAGE FACTOR = 1.10
 SWELL FACTOR = 1.00

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 1099 18th Street - Denver, Colorado 80202

WELL PAD - MORGAN STATE 921-36N

WELL PAD - LOCATION LAYOUT
 MORGAN STATE 921-36N1CS,
 MORGAN STATE 921-36N4BS,
 MORGAN STATE 921-36N1BS &
 MORGAN STATE 921-36K4CS
 LOCATED IN SECTION 36, T9S, R21E,
 S.L.B.&M., UTAH COUNTY, UTAH



CONSULTING, LLC
 2155 North Main Street
 Sheridan, WY 82801
 Phone 307-674-0609
 Fax 307-674-0182

WELL PAD QUANTITIES

TOTAL CUT FOR WELL PAD = 14,188 C.Y.
 TOTAL FILL FOR WELL PAD = 5,467 C.Y.
 TOPSOIL @ 6" DEPTH = 1,897 C.Y.
 EXCESS MATERIAL = 8,721 C.Y.

RESERVE PIT QUANTITIES

TOTAL CUT FOR RESERVE PIT
 +/- 9,210 C.Y.
 RESERVE PIT CAPACITY (2' OF FREEBOARD)
 +/- 35,230 BARRELS

WELL PAD LEGEND

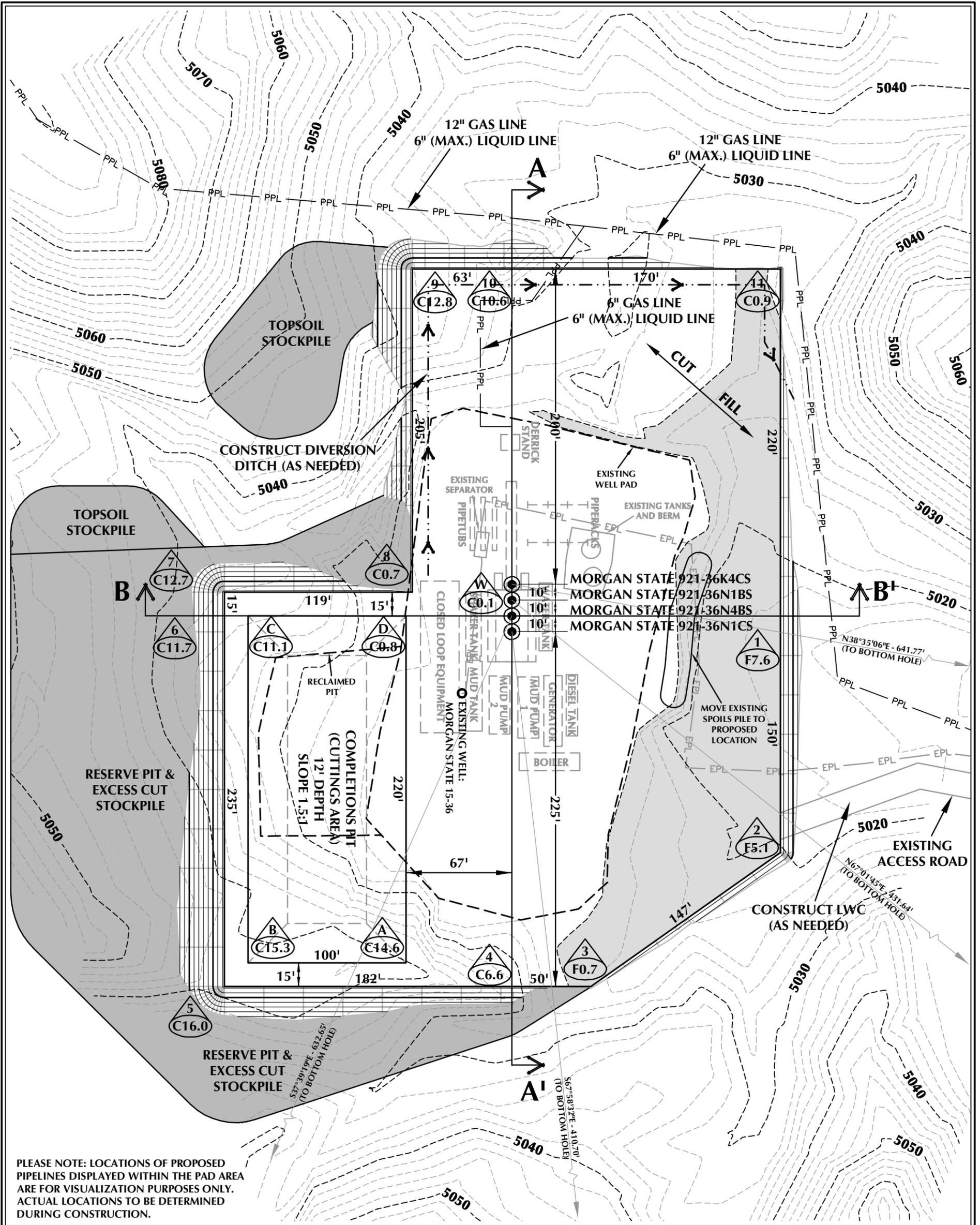
- EXISTING WELL LOCATION
- PROPOSED WELL LOCATION
- PROPOSED BOTTOM HOLE LOCATION
- EXISTING CONTOURS (2' INTERVAL)
- PROPOSED CONTOURS (2' INTERVAL)
- PROPOSED PIPELINE
- EXISTING PIPELINE



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

SCALE: 1"=60' DATE: 11/11/11 SHEET NO:

REVISED: **6** 6 OF 16



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

WELL PAD - MORGAN STATE 921-36N (CLOSED LOOP) DESIGN SUMMARY

EXISTING GRADE @ CENTER OF WELL PAD = 5025.4'
 FINISHED GRADE ELEVATION = 5025.3'
 CUT SLOPES = 1.5:1
 FILL SLOPES = 1.5:1
 TOTAL WELL PAD AREA = 3.44 ACRES
 TOTAL DISTURBANCE AREA = 4.83 ACRES
 SHRINKAGE FACTOR = 1.10
 SWELL FACTOR = 1.00

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 1099 18th Street - Denver, Colorado 80202

WELL PAD - MORGAN STATE 921-36N

WELL PAD - LOCATION LAYOUT
 MORGAN STATE 921-36N1CS,
 MORGAN STATE 921-36N4BS,
 MORGAN STATE 921-36N1BS &
 MORGAN STATE 921-36K4CS
 LOCATED IN SECTION 36, T9S, R21E,
 S.L.B.&M., UTAH COUNTY, UTAH



CONSULTING, LLC
 2155 North Main Street
 Sheridan, WY 82801
 Phone 307-674-0609
 Fax 307-674-0182

WELL PAD QUANTITIES

TOTAL CUT FOR WELL PAD = 14,188 C.Y.
 TOTAL FILL FOR WELL PAD = 5,467 C.Y.
 TOPSOIL @ 6" DEPTH = 1,897 C.Y.
 EXCESS MATERIAL = 8,721 C.Y.

COMPLETIONS PIT QUANTITIES

TOTAL CUT FOR COMPLETIONS PIT
 +/- 7,410 C.Y.
 COMPLETIONS PIT CAPACITY
 (2' OF FREEBOARD)
 +/- 28,140 BARRELS

TIMBERLINE (435) 789-1365
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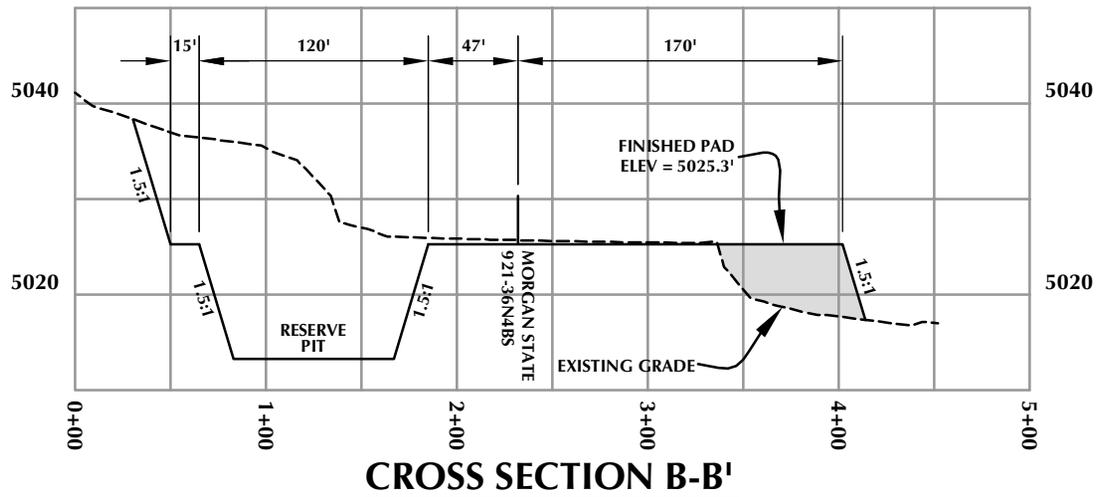
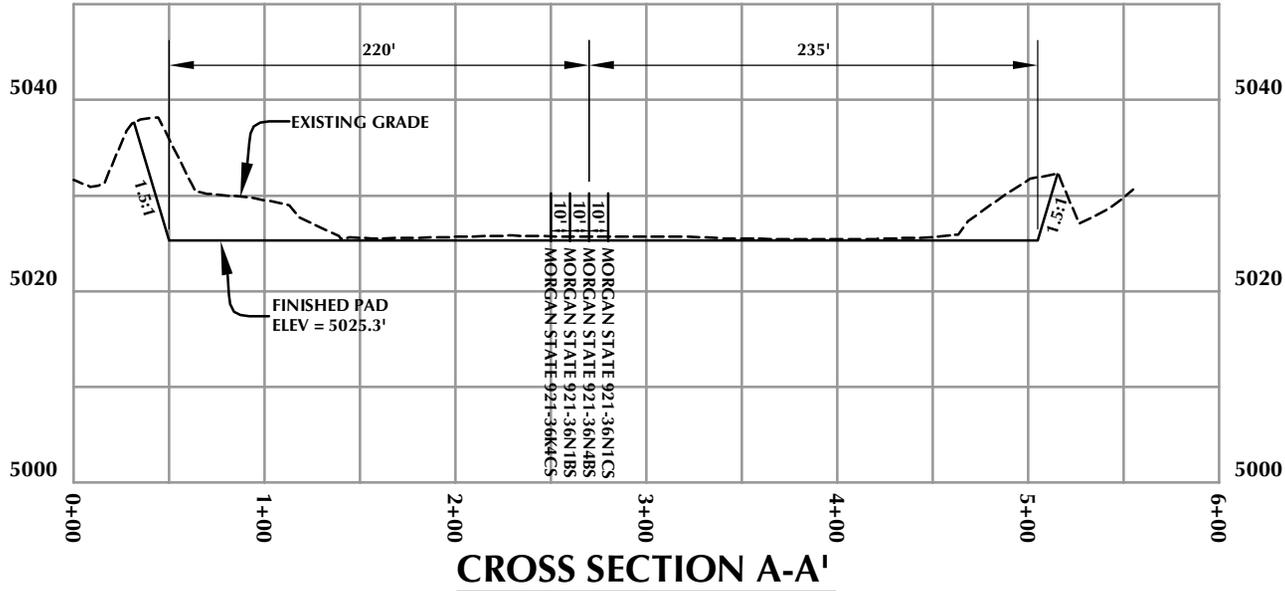
WELL PAD LEGEND

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



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

SCALE: 1"=60' DATE: 11/15/11 SHEET NO:
 REVIS: **6B** 6B OF 16



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WELL PAD - MORGAN STATE 921-36N

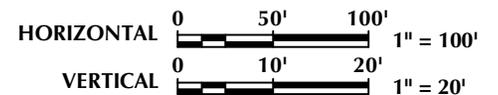
WELL PAD - CROSS SECTIONS
MORGAN STATE 921-36N1CS,
MORGAN STATE 921-36N4BS,
MORGAN STATE 921-36N1BS &
MORGAN STATE 921-36N4CS
LOCATED IN SECTION 36, T9S, R21E,
S.L.B.&M., UINTAH COUNTY, UTAH



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Scale: 1"=100'

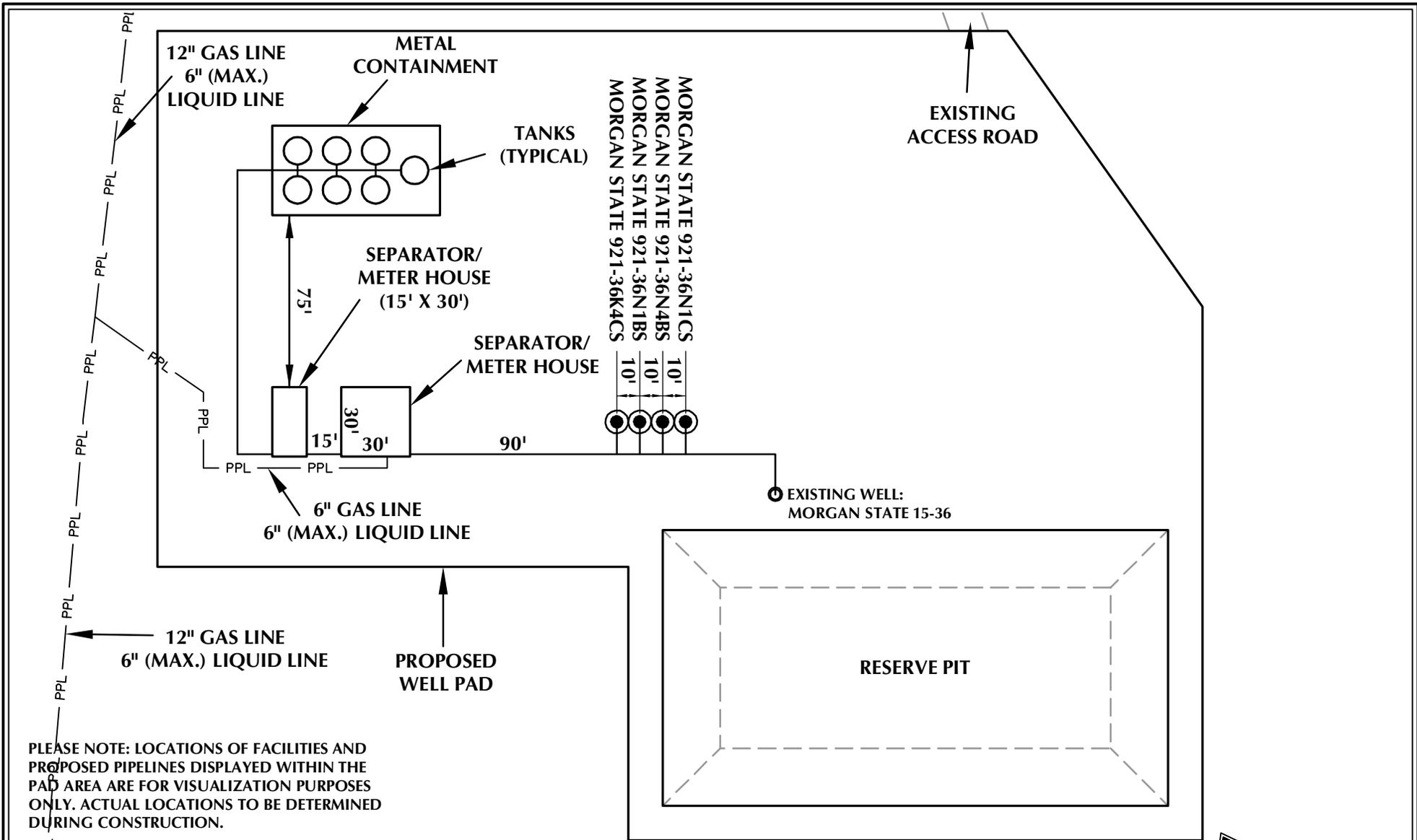
Date: 11/11/11

SHEET NO:

REVISED:

7

7 OF 16



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

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1099 18th Street - Denver, Colorado 80202

WELL PAD - MORGAN STATE 921-36N

WELL PAD - FACILITIES DIAGRAM
MORGAN STATE 921-36N1CS,
MORGAN STATE 921-36N4BS,
MORGAN STATE 921-36N1BS &
MORGAN STATE 921-36K4CS
LOCATED IN SECTION 36, T9S, R21E,
S.L.B.&M., UINTAH COUNTY, UTAH



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2155 North Main Street
Sheridan, WY 82801
Phone 307-674-0609
Fax 307-674-0182

WELL PAD LEGEND

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

HORIZONTAL 1" = 60'

TIMBERLINE
ENGINEERING & LAND SURVEYING, INC.
209 NORTH 300 WEST - VERNAL, UTAH 84078

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Scale: 1"=60'

Date: 11/11/11

SHEET NO:

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8

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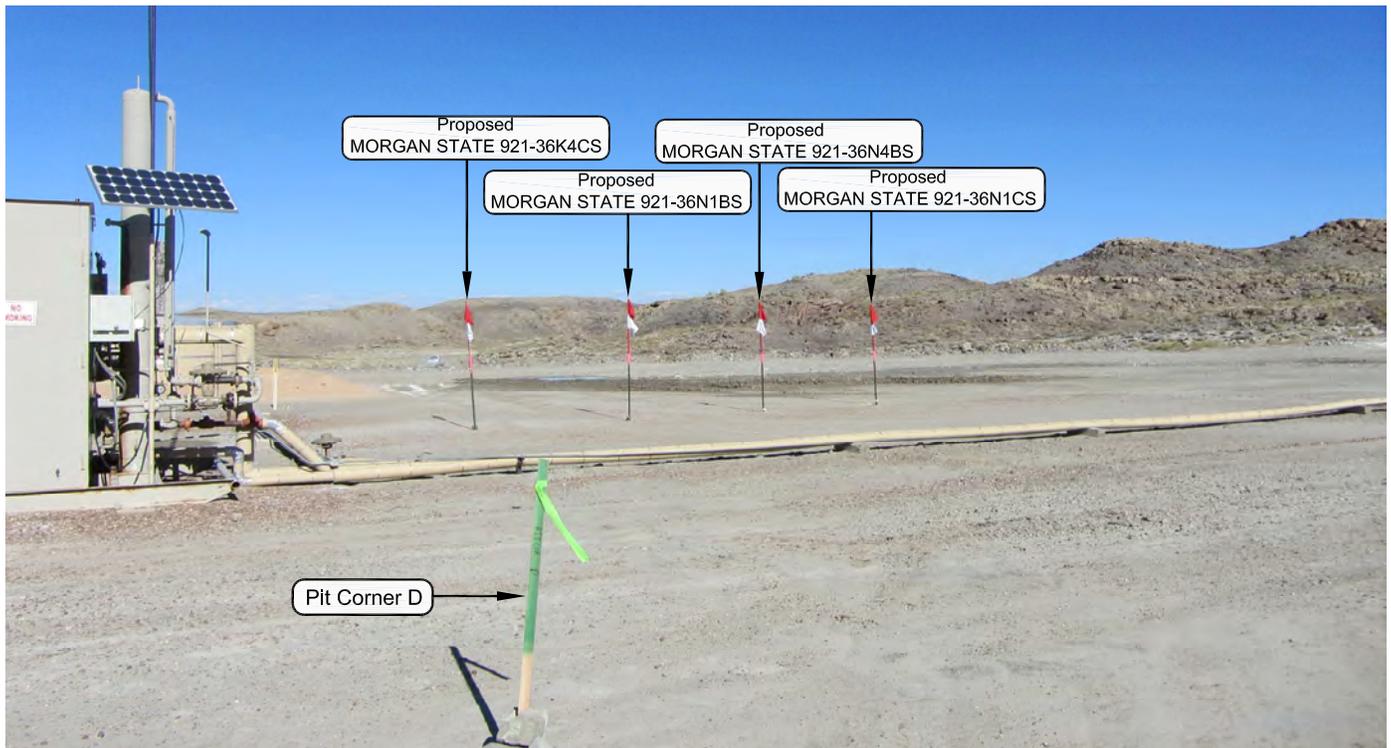


PHOTO VIEW: FROM PIT CORNER D TO LOCATION STAKE

CAMERA ANGLE: NORTHEASTERLY



PHOTO VIEW: FROM EXISTING ACCESS ROAD

CAMERA ANGLE: SOUTHWESTERLY

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 1099 18th Street - Denver, Colorado 80202

WELL PAD - MORGAN STATE 921-36N

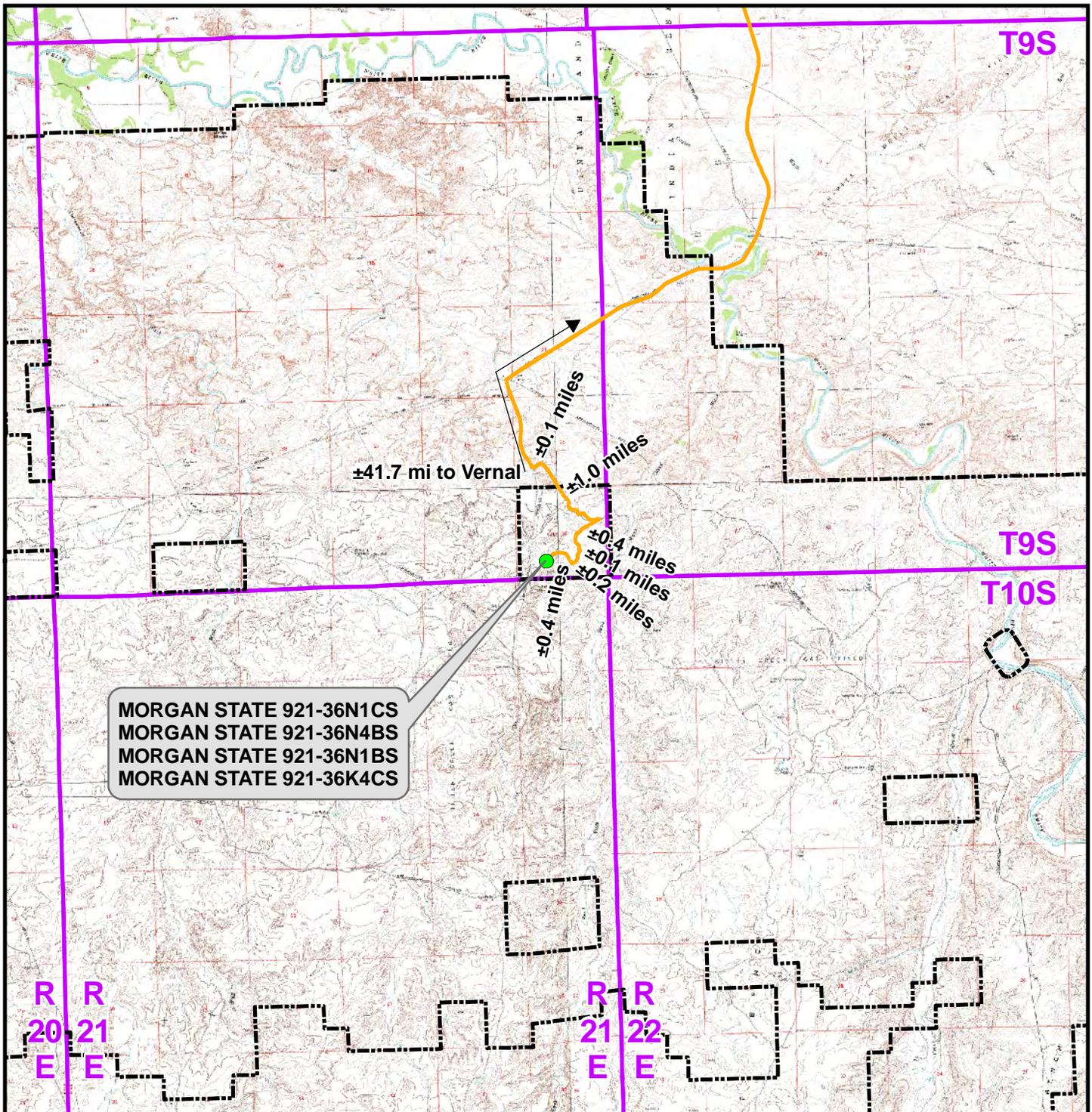
LOCATION PHOTOS
 MORGAN STATE 921-36N1CS,
 MORGAN STATE 921-36N4BS,
 MORGAN STATE 921-36N1BS &
 MORGAN STATE 921-36K4CS
 LOCATED IN SECTION 36, T9S, R21E,
 S.L.B.&M., UINTAH COUNTY, UTAH.



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 209 NORTH 300 WEST - VERNAL, UTAH 84078

DATE PHOTOS TAKEN: 9-20-11	PHOTOS TAKEN BY: J.W.	SHEET NO: 9 9 OF 16
DATE DRAWN: 11-03-11	DRAWN BY: T.J.R.	
Date Last Revised:		



MORGAN STATE 921-36N1CS
 MORGAN STATE 921-36N4BS
 MORGAN STATE 921-36N1BS
 MORGAN STATE 921-36K4CS

Legend

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

Distance From Well Pad - MORGAN STATE 921-36N To Unit Boundary: ±998ft

WELL PAD - MORGAN STATE 921-36N

TOPO A
 MORGAN STATE 921-36N1CS,
 MORGAN STATE 921-36N4BS,
 MORGAN STATE 921-36N1BS &
 MORGAN STATE 921-36K4CS
 LOCATED IN SECTION 36, T9S, R21E,
 S.L.B.&M., UINTAH COUNTY, UTAH

**Kerr-McGee Oil &
 Gas Onshore L.P.**

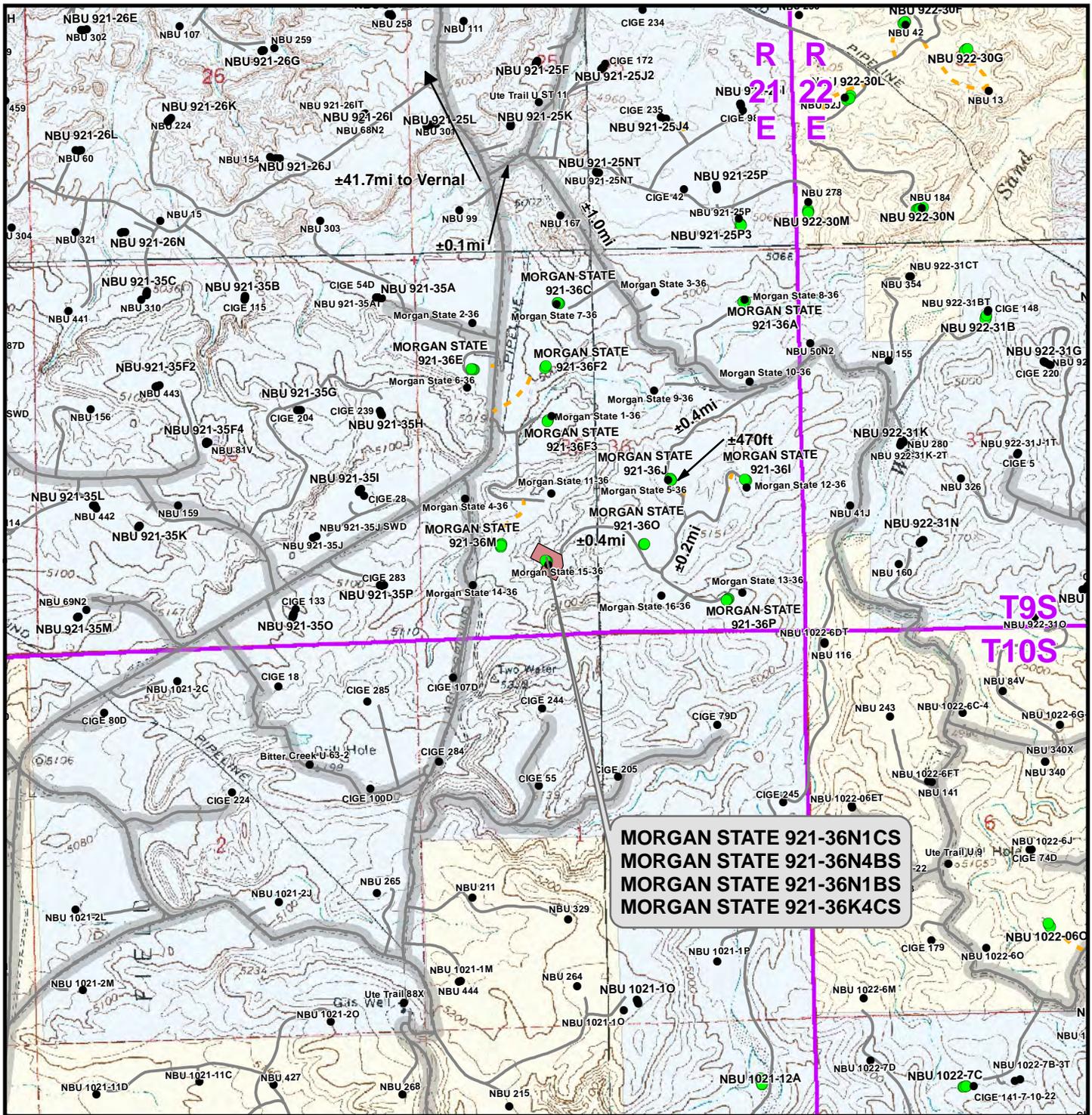
1099 18th Street
 Denver, Colorado 80202



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 2155 North Main Street
 Sheridan, Wyoming 82801
 Phone 307-674-0609
 Fax 307-674-0182



SCALE: 1:100,000	NAD83 USP Central	10 10 OF 16
DRAWN: TL	DATE: 11 Nov 2011	
REVISED:	DATE:	



Legend

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

Total Proposed Road Length: ±0ft

WELL PAD - MORGAN STATE 921-36N

TOPO B
 MORGAN STATE 921-36N1CS,
 MORGAN STATE 921-36N4BS,
 MORGAN STATE 921-36N1BS &
 MORGAN STATE 921-36K4CS
 LOCATED IN SECTION 36, T9S, R21E,
 S.L.B.&M., Uintah County, UTAH

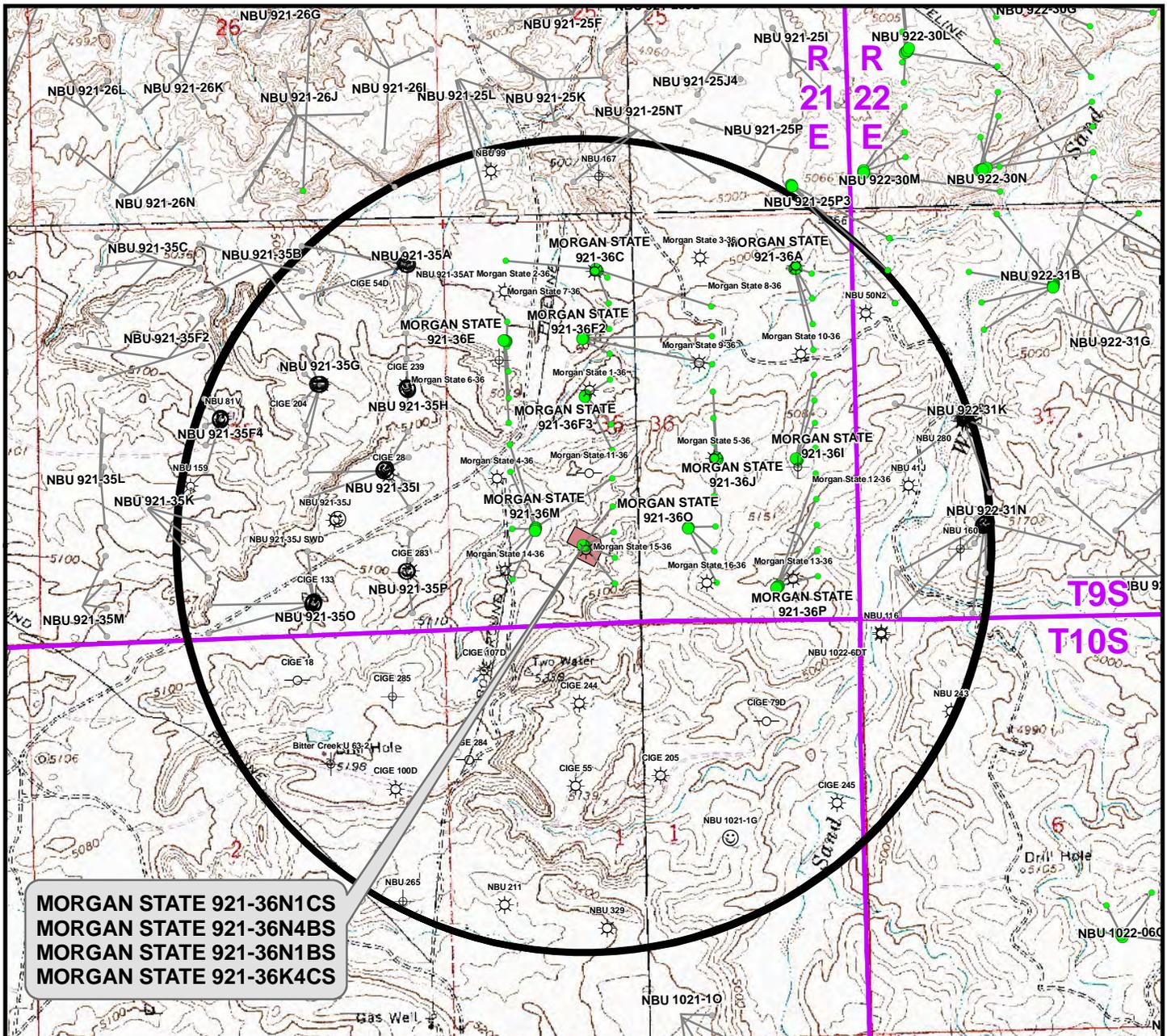
**Kerr-McGee Oil &
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609 CONSULTING, LLC
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 Sheridan, Wyoming 82801
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SCALE: 1" = 2,000ft	NAD83 USP Central	SHEET NO:
DRAWN: TL	DATE: 11 Nov 2011	11
REVISED:	DATE:	

11 OF 16



MORGAN STATE 921-36N1CS
MORGAN STATE 921-36N4BS
MORGAN STATE 921-36N1BS
MORGAN STATE 921-36K4CS

Well locations derived from Utah Division of Oil, Gas and Mining (UDOGM) (oilgas.ogm.utah.gov). The estimated distances from proposed bore locations to the nearest existing bore locations are based on UDOGM data.

Proposed Well	Nearest Well Bore	Footage
MORGAN STATE 921-36N1CS	Morgan State 15-36	377ft
MORGAN STATE 921-36N4BS	Morgan State 15-36	575ft
MORGAN STATE 921-36N1BS	Morgan State 15-36	424ft
MORGAN STATE 921-36K4CS	Morgan State 11-36	522ft

Legend

- Well - Proposed
- Well Path
- ☀ Producing
- ⊕ Deferred
- Bottom Hole - Proposed
- Well Pad
- ☺ Spudded
- ⊗ Cancelled
- ☉ APD Approved
- ⊖ Temporarily Abandoned
- ☼ Active Injector
- ⊕ Plugged & Abandoned
- Bottom Hole - Existing
- ◻ Well - 1 Mile Radius
- ⊗ Preliminary Location
- ⊗ Location Abandoned
- ⊖ Shut-In

WELL PAD - MORGAN STATE 921-36N

TOPO C
 MORGAN STATE 921-36N1CS,
 MORGAN STATE 921-36N4BS,
 MORGAN STATE 921-36N1BS &
 MORGAN STATE 921-36K4CS
 LOCATED IN SECTION 36, T9S, R21E,
 S.L.B.&M., Uintah County, Utah

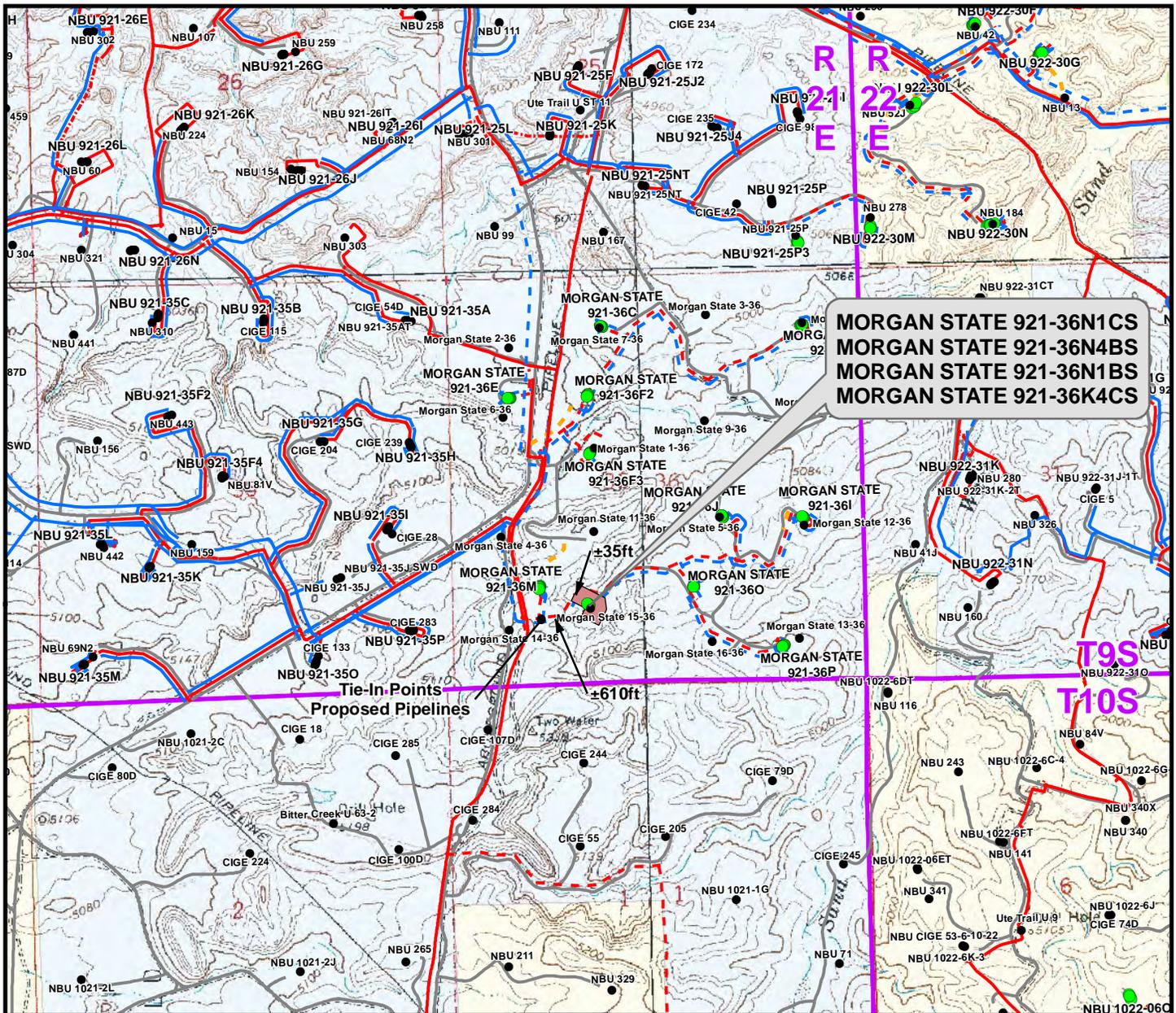
**Kerr-McGee Oil &
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 Denver, Colorado 80202



CONSULTING, LLC
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 Sheridan, Wyoming 82801
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SCALE: 1" = 2,000ft	NAD83 USP Central	12
DRAWN: TL	DATE: 11 Nov 2011	
REVISED:	DATE:	

SHEET NO:
12 OF 16



**MORGAN STATE 921-36N1CS
MORGAN STATE 921-36N4BS
MORGAN STATE 921-36N1BS
MORGAN STATE 921-36K4CS**

Proposed Liquid Pipeline	Length	Proposed Gas Pipeline	Length
Buried 6" (Max.) (Meter House to Edge of Pad)	±160ft	Buried 6" (Meter House to Edge of Pad)	±160ft
Buried 6" (Max.) (Edge of Pad to 360 Intersection)	±35ft	Buried 6" (Edge of Pad to 360 Intersection)	±35ft
Buried 6" (Max.) (360 Intersection to 36M Intersection)	±610ft	Buried 12" (360 Intersection to 36M Intersection)	±610ft
TOTAL PROPOSED BURIED LIQUID PIPELINE =	±805ft	TOTAL PROPOSED BURIED GAS PIPELINE =	±805ft

Legend

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

WELL PAD - MORGAN STATE 921-36N

TOPO D
MORGAN STATE 921-36N1CS,
MORGAN STATE 921-36N4BS,
MORGAN STATE 921-36N1BS &
MORGAN STATE 921-36K4CS
LOCATED IN SECTION 36, T9S, R21E,
S.L.B.&M., Uintah County, UTAH

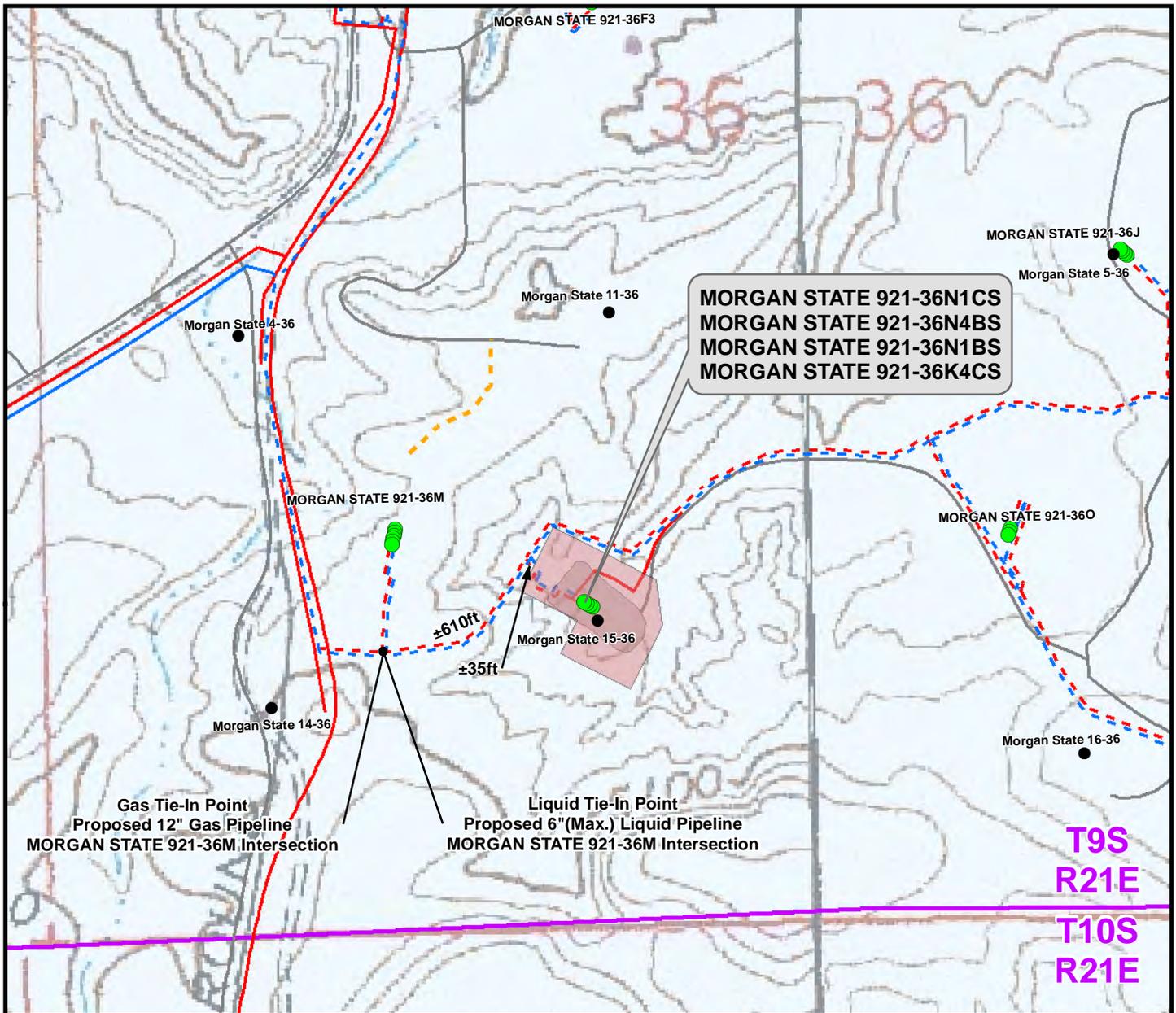
**Kerr-McGee Oil &
Gas Onshore L.P.**

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Denver, Colorado 80202



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2155 North Main Street
Sheridan, Wyoming 82801
Phone 307-674-0609
Fax 307-674-0182

SCALE: 1" = 2,000ft	NAD83 USP Central	13 13 OF 16
DRAWN: TL	DATE: 11 Nov 2011	
REVISED:	DATE:	



Proposed Liquid Pipeline		Length	Proposed Gas Pipeline		Length
Buried 6" (Max.) (Meter House to Edge of Pad)		±160ft	Buried 6" (Meter House to Edge of Pad)		±160ft
Buried 6" (Max.) (Edge of Pad to 360 Intersection)		±35ft	Buried 6" (Edge of Pad to 360 Intersection)		±35ft
Buried 6" (Max.) (360 Intersection to 36M Intersection)		±610ft	Buried 12" (360 Intersection to 36M Intersection)		±610ft
TOTAL PROPOSED BURIED LIQUID PIPELINE =		±805ft	TOTAL PROPOSED BURIED GAS PIPELINE =		±805ft

Legend

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

WELL PAD - MORGAN STATE 921-36N

TOPO D2 (PAD & PIPELINE DETAIL)
 MORGAN STATE 921-36N1CS,
 MORGAN STATE 921-36N4BS,
 MORGAN STATE 921-36N1BS &
 MORGAN STATE 921-36K4CS
 LOCATED IN SECTION 36, T9S, R21E,
 S.L.B.&M., UINTAH COUNTY, UTAH

**Kerr-McGee Oil &
 Gas Onshore L.P.**

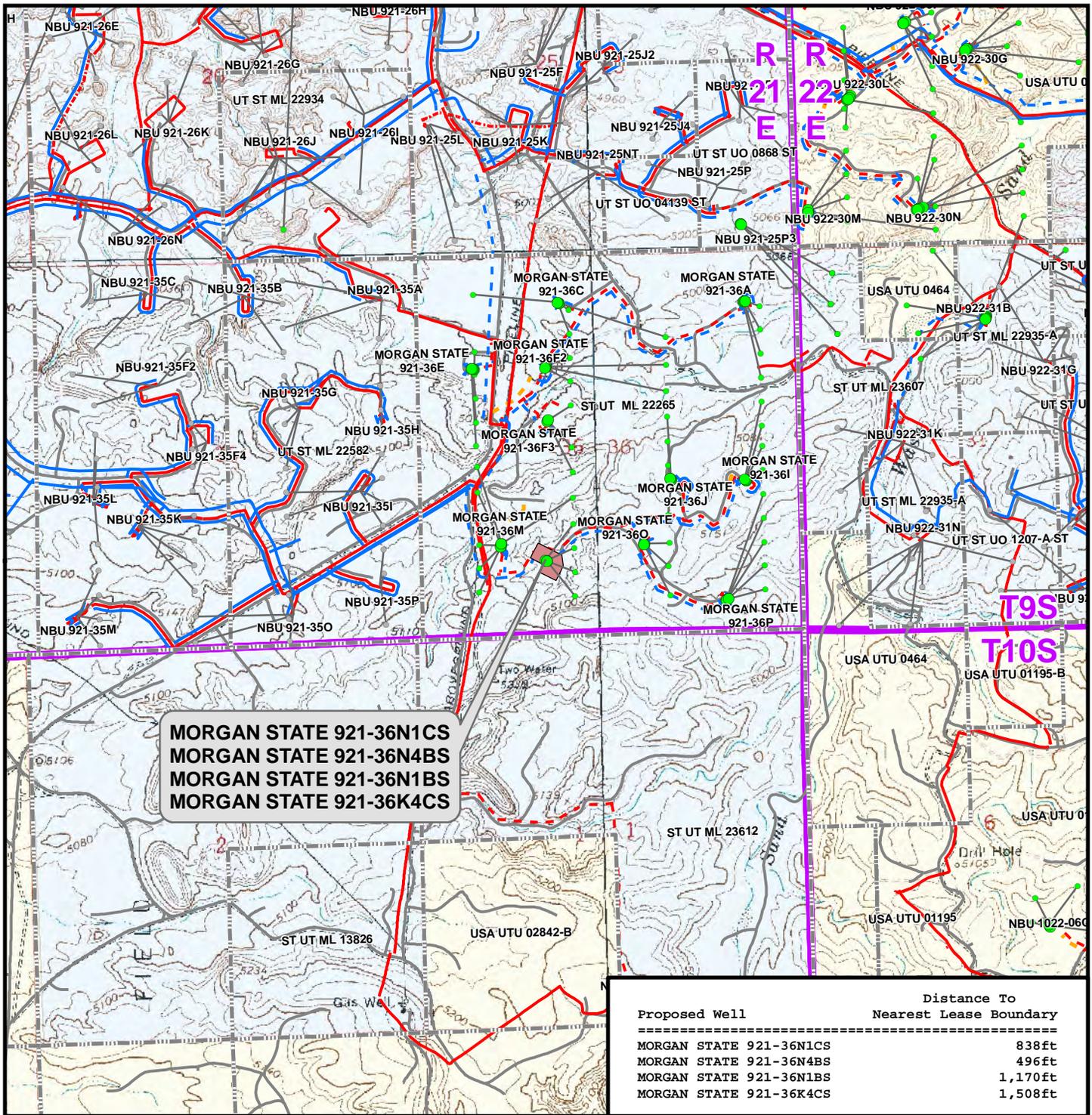
1099 18th Street
 Denver, Colorado 80202



CONSULTING, LLC
 2155 North Main Street
 Sheridan, Wyoming 82801
 Phone 307-674-0609
 Fax 307-674-0182



SCALE: 1" = 500ft	NAD83 USP Central	14 14 OF 16
DRAWN: TL	DATE: 11 Nov 2011	
REVISED:	DATE:	



**MORGAN STATE 921-36N1CS
MORGAN STATE 921-36N4BS
MORGAN STATE 921-36N1BS
MORGAN STATE 921-36K4CS**

Proposed Well	Distance To Nearest Lease Boundary
MORGAN STATE 921-36N1CS	838ft
MORGAN STATE 921-36N4BS	496ft
MORGAN STATE 921-36N1BS	1,170ft
MORGAN STATE 921-36K4CS	1,508ft

Legend

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

WELL PAD - MORGAN STATE 921-36N

TOPO E
MORGAN STATE 921-36N1CS,
MORGAN STATE 921-36N4BS,
MORGAN STATE 921-36N1BS &
MORGAN STATE 921-36K4CS
 LOCATED IN SECTION 36, T9S, R21E,
 S.L.B.&M., Uintah County, Utah

**Kerr-McGee Oil &
Gas Onshore L.P.**

**1099 18th Street
Denver, Colorado 80202**



CONSULTING, LLC

2155 North Main Street
Sheridan, Wyoming 82801
Phone 307-674-0609
Fax 307-674-0182

SCALE: 1" = 2,000ft

DRAWN: TL

REVISED:

NAD83 USP Central

DATE: 11 Nov 2011

DATE:

SHEET NO:

15

15 OF 16

Kerr-McGee Oil & Gas Onshore, LP
WELL PAD – MORGAN STATE 921-36N
WELLS – MORGAN STATE 921-36N1CS, MORGAN STATE 921-36N4BS,
MORGAN STATE 921-36N1BS & MORGAN STATE 921-36K4CS
Section 36, T9S, R21E, S.L.B.&M.

From the intersection of U.S. Highway 40 and 500 East Street in Vernal, Utah, proceed in an easterly, then southerly direction along U.S. Highway 40 approximately 3.3 miles to the junction of State Highway 45. Exit right and proceed in a southerly direction along State Highway 45 approximately 20.2 miles to the junction of the Glen Bench Road (County B Road 3260). Exit right and proceed in a southwesterly direction along the Glen Bench Road approximately 18.2 miles to a Class D County Road to the northeast. Exit left and proceed in a northeasterly direction along the Class D County Road approximately 0.1 miles to a second Class D County Road to the southeast. Exit right and proceed in a southeasterly direction along the second Class D County Road approximately 1.0 miles to a service road to the southwest. Exit right and proceed in a southwesterly direction approximately 0.4 miles to the proposed MORGAN STATE 921-36J well pad. Proceed in a southeasterly direction approximately 470 feet through the proposed MORGAN STATE 921-36J well pad to a second service road to the south. Proceed in a southerly direction along the second service road approximately 0.2 miles to a third service road to the northwest. Exit right and proceed in a northwesterly, then southwesterly direction approximately 0.4 miles to the proposed well location.

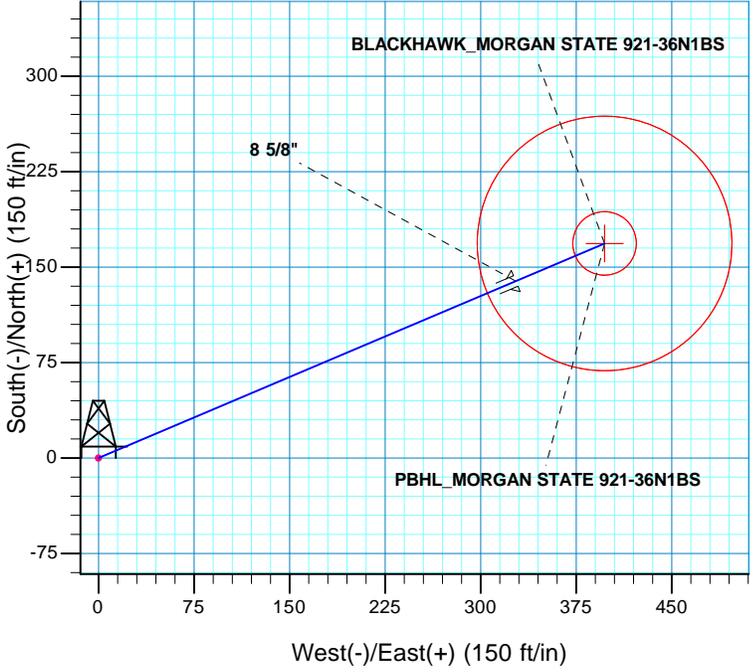
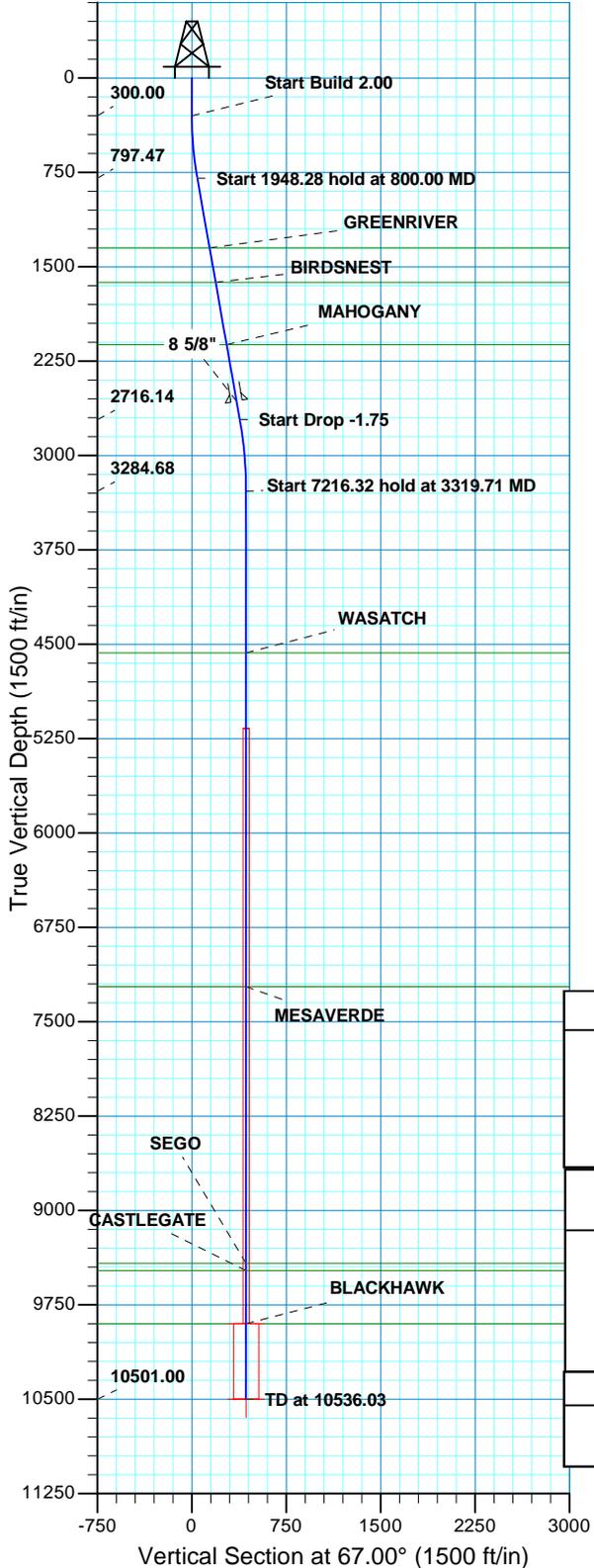
Total distance from Vernal, Utah to the proposed well location is approximately 43.9 miles in a southerly direction.



WELL DETAILS: MORGAN STATE 921-36N1BS								
GL 5025 & KB 4 @ 5029.00ft (ASSUMED)								
+N/-S	+E/-W	Northing	Easting	Latitude	Longitude			
0.00	0.00	14525272.31	2059870.82	39° 59' 17.538 N	109° 30' 9.176 W			
DESIGN TARGET DETAILS								
Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Shape
BLACKHAWK	9901.00	168.63	397.27	14525447.59	2060265.20	39° 59' 19.205 N	109° 30' 4.072 W	Circle (Radius: 25.00)
- plan hits target center								
PBHL	10501.00	168.63	397.27	14525447.59	2060265.20	39° 59' 19.205 N	109° 30' 4.072 W	Circle (Radius: 100.00)
- plan hits target center								

Azimuths to True North
 Magnetic North: 11.02°

Magnetic Field
 Strength: 52275.6snT
 Dip Angle: 65.85°
 Date: 2011/12/02
 Model: IGRF2010



SECTION DETAILS									
MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSect	Target
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	
800.00	10.00	67.00	797.47	17.01	40.06	2.00	67.00	43.52	
2748.28	10.00	67.00	2716.14	149.20	351.48	0.00	0.00	381.84	
3319.71	0.00	0.00	3284.68	168.63	397.27	1.75	180.00	431.58	
10536.03	0.00	0.00	10501.00	168.63	397.27	0.00	0.00	431.58	PBHL_MORGAN STATE 921-36N1BS

PROJECT DETAILS: UTAH - UTM (feet), NAD27, Zone 12N		FORMATION TOP DETAILS		
Geodetic System: Universal Transverse Mercator (US Survey Feet)	Datum: NAD 1927 (NADCON CONUS)	TVDPath	MDPath	Formation
Ellipsoid: Clarke 1866	Zone: Zone 12N (114 W to 108 W)	1350.00	1361.06	GREENRIVER
Location: SECTION 36 T9S R21E	System Datum: Mean Sea Level	1624.00	1639.29	BIRDSNEST
		2119.00	2141.92	MAHOGANY
		4569.00	4604.03	WASATCH
		7221.00	7256.03	MESAVERDE
		9421.00	9456.03	SEGO
		9478.00	9513.03	CASTLEGATE
		9901.00	9936.03	BLACKHAWK

CASING DETAILS			
TVD	MD	Name	Size
2569.00	2598.86	8 5/8"	8.625

RECEIVED :



Scientific Drilling
Rocky Mountain Operations

US ROCKIES REGION PLANNING

UTAH - UTM (feet), NAD27, Zone 12N

MORGAN STATE 921-36N PAD

MORGAN STATE 921-36N1BS

OH

Plan: PLAN #1 PRELIMINARY

Standard Planning Report

02 December, 2011





SDI
Planning Report



Database:	EDM5000-RobertS-Local	Local Co-ordinate Reference:	Well MORGAN STATE 921-36N1BS
Company:	US ROCKIES REGION PLANNING	TVD Reference:	GL 5025 & KB 4 @ 5029.00ft (ASSUMED)
Project:	UTAH - UTM (feet), NAD27, Zone 12N	MD Reference:	GL 5025 & KB 4 @ 5029.00ft (ASSUMED)
Site:	MORGAN STATE 921-36N PAD	North Reference:	True
Well:	MORGAN STATE 921-36N1BS	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	PLAN #1 PRELIMINARY		

Project	UTAH - UTM (feet), NAD27, Zone 12N		
Map System:	Universal Transverse Mercator (US Survey Feet)	System Datum:	Mean Sea Level
Geo Datum:	NAD 1927 (NADCON CONUS)		
Map Zone:	Zone 12N (114 W to 108 W)		

Site	MORGAN STATE 921-36N PAD, SECTION 36 T9S R21E				
Site Position:	Northing:	14,525,276.91 usft	Latitude:	39° 59' 17.585 N	
From: Lat/Long	Easting:	2,059,862.05 usft	Longitude:	109° 30' 9.288 W	
Position Uncertainty:	0.00 ft	Slot Radius:	13.200 in	Grid Convergence:	0.96 °

Well	MORGAN STATE 921-36N1BS, 1008 FSL 1748 FWL					
Well Position	+N/-S	-4.73 ft	Northing:	14,525,272.32 usft	Latitude:	39° 59' 17.538 N
	+E/-W	8.69 ft	Easting:	2,059,870.81 usft	Longitude:	109° 30' 9.176 W
Position Uncertainty		0.00 ft	Wellhead Elevation:		Ground Level:	5,025.00 ft

Wellbore	OH				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	2011/12/02	11.01	65.85	52,276

Design	PLAN #1 PRELIMINARY			
Audit Notes:				
Version:	Phase:	PLAN	Tie On Depth:	0.00
Vertical Section:	Depth From (TVD) (ft)	+N/-S (ft)	+E/-W (ft)	Direction (°)
	0.00	0.00	0.00	67.00

Plan Sections										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	TFO (°)	Target
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	0.00	
800.00	10.00	67.00	797.47	17.01	40.06	2.00	2.00	0.00	67.00	
2,748.28	10.00	67.00	2,716.14	149.20	351.48	0.00	0.00	0.00	0.00	
3,319.71	0.00	0.00	3,284.68	168.63	397.27	1.75	-1.75	0.00	180.00	
10,536.03	0.00	0.00	10,501.00	168.63	397.27	0.00	0.00	0.00	0.00	PBHL_MORGAN ST/



SDI
Planning Report



Database:	EDM5000-RobertS-Local	Local Co-ordinate Reference:	Well MORGAN STATE 921-36N1BS
Company:	US ROCKIES REGION PLANNING	TVD Reference:	GL 5025 & KB 4 @ 5029.00ft (ASSUMED)
Project:	UTAH - UTM (feet), NAD27, Zone 12N	MD Reference:	GL 5025 & KB 4 @ 5029.00ft (ASSUMED)
Site:	MORGAN STATE 921-36N PAD	North Reference:	True
Well:	MORGAN STATE 921-36N1BS	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	PLAN #1 PRELIMINARY		

Planned Survey										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
100.00	0.00	0.00	100.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
200.00	0.00	0.00	200.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Start Build 2.00										
400.00	2.00	67.00	399.98	0.68	1.61	1.75	2.00	2.00	2.00	0.00
500.00	4.00	67.00	499.84	2.73	6.42	6.98	2.00	2.00	2.00	0.00
600.00	6.00	67.00	599.45	6.13	14.45	15.69	2.00	2.00	2.00	0.00
700.00	8.00	67.00	698.70	10.89	25.66	27.88	2.00	2.00	2.00	0.00
800.00	10.00	67.00	797.47	17.01	40.06	43.52	2.00	2.00	2.00	0.00
Start 1948.28 hold at 800.00 MD										
900.00	10.00	67.00	895.95	23.79	56.05	60.89	0.00	0.00	0.00	0.00
1,000.00	10.00	67.00	994.43	30.58	72.03	78.25	0.00	0.00	0.00	0.00
1,100.00	10.00	67.00	1,092.91	37.36	88.02	95.62	0.00	0.00	0.00	0.00
1,200.00	10.00	67.00	1,191.39	44.15	104.00	112.98	0.00	0.00	0.00	0.00
1,300.00	10.00	67.00	1,289.87	50.93	119.98	130.35	0.00	0.00	0.00	0.00
1,361.06	10.00	67.00	1,350.00	55.07	129.74	140.95	0.00	0.00	0.00	0.00
GREENRIVER										
1,400.00	10.00	67.00	1,388.35	57.72	135.97	147.71	0.00	0.00	0.00	0.00
1,500.00	10.00	67.00	1,486.83	64.50	151.95	165.08	0.00	0.00	0.00	0.00
1,600.00	10.00	67.00	1,585.31	71.29	167.94	182.44	0.00	0.00	0.00	0.00
1,639.29	10.00	67.00	1,624.00	73.95	174.22	189.26	0.00	0.00	0.00	0.00
BIRDSNEST										
1,700.00	10.00	67.00	1,683.79	78.07	183.92	199.81	0.00	0.00	0.00	0.00
1,800.00	10.00	67.00	1,782.27	84.86	199.91	217.17	0.00	0.00	0.00	0.00
1,900.00	10.00	67.00	1,880.75	91.64	215.89	234.54	0.00	0.00	0.00	0.00
2,000.00	10.00	67.00	1,979.23	98.43	231.88	251.90	0.00	0.00	0.00	0.00
2,100.00	10.00	67.00	2,077.72	105.21	247.86	269.27	0.00	0.00	0.00	0.00
2,141.92	10.00	67.00	2,119.00	108.05	254.56	276.54	0.00	0.00	0.00	0.00
MAHOGANY										
2,200.00	10.00	67.00	2,176.20	112.00	263.84	286.63	0.00	0.00	0.00	0.00
2,300.00	10.00	67.00	2,274.68	118.78	279.83	303.99	0.00	0.00	0.00	0.00
2,400.00	10.00	67.00	2,373.16	125.57	295.81	321.36	0.00	0.00	0.00	0.00
2,500.00	10.00	67.00	2,471.64	132.35	311.80	338.72	0.00	0.00	0.00	0.00
2,598.86	10.00	67.00	2,569.00	139.06	327.60	355.89	0.00	0.00	0.00	0.00
8 5/8"										
2,600.00	10.00	67.00	2,570.12	139.14	327.78	356.09	0.00	0.00	0.00	0.00
2,700.00	10.00	67.00	2,668.60	145.92	343.77	373.45	0.00	0.00	0.00	0.00
2,748.28	10.00	67.00	2,716.14	149.20	351.48	381.84	0.00	0.00	0.00	0.00
Start Drop -1.75										
2,800.00	9.09	67.00	2,767.15	152.55	359.38	390.42	1.75	-1.75	0.00	0.00
2,900.00	7.34	67.00	2,866.12	158.13	372.54	404.71	1.75	-1.75	0.00	0.00
3,000.00	5.59	67.00	2,965.48	162.54	382.91	415.98	1.75	-1.75	0.00	0.00
3,100.00	3.84	67.00	3,065.13	165.75	390.49	424.21	1.75	-1.75	0.00	0.00
3,200.00	2.09	67.00	3,165.00	167.78	395.26	429.39	1.75	-1.75	0.00	0.00
3,300.00	0.34	67.00	3,264.97	168.61	397.21	431.52	1.75	-1.75	0.00	0.00
3,319.71	0.00	0.00	3,284.68	168.63	397.27	431.58	1.75	-1.75	0.00	0.00
Start 7216.32 hold at 3319.71 MD										
3,400.00	0.00	0.00	3,364.97	168.63	397.27	431.58	0.00	0.00	0.00	0.00
3,500.00	0.00	0.00	3,464.97	168.63	397.27	431.58	0.00	0.00	0.00	0.00
3,600.00	0.00	0.00	3,564.97	168.63	397.27	431.58	0.00	0.00	0.00	0.00
3,700.00	0.00	0.00	3,664.97	168.63	397.27	431.58	0.00	0.00	0.00	0.00
3,800.00	0.00	0.00	3,764.97	168.63	397.27	431.58	0.00	0.00	0.00	0.00



SDI
Planning Report



Database:	EDM5000-RobertS-Local	Local Co-ordinate Reference:	Well MORGAN STATE 921-36N1BS
Company:	US ROCKIES REGION PLANNING	TVD Reference:	GL 5025 & KB 4 @ 5029.00ft (ASSUMED)
Project:	UTAH - UTM (feet), NAD27, Zone 12N	MD Reference:	GL 5025 & KB 4 @ 5029.00ft (ASSUMED)
Site:	MORGAN STATE 921-36N PAD	North Reference:	True
Well:	MORGAN STATE 921-36N1BS	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	PLAN #1 PRELIMINARY		

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)
3,900.00	0.00	0.00	3,864.97	168.63	397.27	431.58	0.00	0.00	0.00
4,000.00	0.00	0.00	3,964.97	168.63	397.27	431.58	0.00	0.00	0.00
4,100.00	0.00	0.00	4,064.97	168.63	397.27	431.58	0.00	0.00	0.00
4,200.00	0.00	0.00	4,164.97	168.63	397.27	431.58	0.00	0.00	0.00
4,300.00	0.00	0.00	4,264.97	168.63	397.27	431.58	0.00	0.00	0.00
4,400.00	0.00	0.00	4,364.97	168.63	397.27	431.58	0.00	0.00	0.00
4,500.00	0.00	0.00	4,464.97	168.63	397.27	431.58	0.00	0.00	0.00
4,600.00	0.00	0.00	4,564.97	168.63	397.27	431.58	0.00	0.00	0.00
4,604.03	0.00	0.00	4,569.00	168.63	397.27	431.58	0.00	0.00	0.00
WASATCH									
4,700.00	0.00	0.00	4,664.97	168.63	397.27	431.58	0.00	0.00	0.00
4,800.00	0.00	0.00	4,764.97	168.63	397.27	431.58	0.00	0.00	0.00
4,900.00	0.00	0.00	4,864.97	168.63	397.27	431.58	0.00	0.00	0.00
5,000.00	0.00	0.00	4,964.97	168.63	397.27	431.58	0.00	0.00	0.00
5,100.00	0.00	0.00	5,064.97	168.63	397.27	431.58	0.00	0.00	0.00
5,200.00	0.00	0.00	5,164.97	168.63	397.27	431.58	0.00	0.00	0.00
5,300.00	0.00	0.00	5,264.97	168.63	397.27	431.58	0.00	0.00	0.00
5,400.00	0.00	0.00	5,364.97	168.63	397.27	431.58	0.00	0.00	0.00
5,500.00	0.00	0.00	5,464.97	168.63	397.27	431.58	0.00	0.00	0.00
5,600.00	0.00	0.00	5,564.97	168.63	397.27	431.58	0.00	0.00	0.00
5,700.00	0.00	0.00	5,664.97	168.63	397.27	431.58	0.00	0.00	0.00
5,800.00	0.00	0.00	5,764.97	168.63	397.27	431.58	0.00	0.00	0.00
5,900.00	0.00	0.00	5,864.97	168.63	397.27	431.58	0.00	0.00	0.00
6,000.00	0.00	0.00	5,964.97	168.63	397.27	431.58	0.00	0.00	0.00
6,100.00	0.00	0.00	6,064.97	168.63	397.27	431.58	0.00	0.00	0.00
6,200.00	0.00	0.00	6,164.97	168.63	397.27	431.58	0.00	0.00	0.00
6,300.00	0.00	0.00	6,264.97	168.63	397.27	431.58	0.00	0.00	0.00
6,400.00	0.00	0.00	6,364.97	168.63	397.27	431.58	0.00	0.00	0.00
6,500.00	0.00	0.00	6,464.97	168.63	397.27	431.58	0.00	0.00	0.00
6,600.00	0.00	0.00	6,564.97	168.63	397.27	431.58	0.00	0.00	0.00
6,700.00	0.00	0.00	6,664.97	168.63	397.27	431.58	0.00	0.00	0.00
6,800.00	0.00	0.00	6,764.97	168.63	397.27	431.58	0.00	0.00	0.00
6,900.00	0.00	0.00	6,864.97	168.63	397.27	431.58	0.00	0.00	0.00
7,000.00	0.00	0.00	6,964.97	168.63	397.27	431.58	0.00	0.00	0.00
7,100.00	0.00	0.00	7,064.97	168.63	397.27	431.58	0.00	0.00	0.00
7,200.00	0.00	0.00	7,164.97	168.63	397.27	431.58	0.00	0.00	0.00
7,256.03	0.00	0.00	7,221.00	168.63	397.27	431.58	0.00	0.00	0.00
MESAVERDE									
7,300.00	0.00	0.00	7,264.97	168.63	397.27	431.58	0.00	0.00	0.00
7,400.00	0.00	0.00	7,364.97	168.63	397.27	431.58	0.00	0.00	0.00
7,500.00	0.00	0.00	7,464.97	168.63	397.27	431.58	0.00	0.00	0.00
7,600.00	0.00	0.00	7,564.97	168.63	397.27	431.58	0.00	0.00	0.00
7,700.00	0.00	0.00	7,664.97	168.63	397.27	431.58	0.00	0.00	0.00
7,800.00	0.00	0.00	7,764.97	168.63	397.27	431.58	0.00	0.00	0.00
7,900.00	0.00	0.00	7,864.97	168.63	397.27	431.58	0.00	0.00	0.00
8,000.00	0.00	0.00	7,964.97	168.63	397.27	431.58	0.00	0.00	0.00
8,100.00	0.00	0.00	8,064.97	168.63	397.27	431.58	0.00	0.00	0.00
8,200.00	0.00	0.00	8,164.97	168.63	397.27	431.58	0.00	0.00	0.00
8,300.00	0.00	0.00	8,264.97	168.63	397.27	431.58	0.00	0.00	0.00
8,400.00	0.00	0.00	8,364.97	168.63	397.27	431.58	0.00	0.00	0.00
8,500.00	0.00	0.00	8,464.97	168.63	397.27	431.58	0.00	0.00	0.00
8,600.00	0.00	0.00	8,564.97	168.63	397.27	431.58	0.00	0.00	0.00
8,700.00	0.00	0.00	8,664.97	168.63	397.27	431.58	0.00	0.00	0.00
8,800.00	0.00	0.00	8,764.97	168.63	397.27	431.58	0.00	0.00	0.00



SDI
Planning Report



Database:	EDM5000-RobertS-Local	Local Co-ordinate Reference:	Well MORGAN STATE 921-36N1BS
Company:	US ROCKIES REGION PLANNING	TVD Reference:	GL 5025 & KB 4 @ 5029.00ft (ASSUMED)
Project:	UTAH - UTM (feet), NAD27, Zone 12N	MD Reference:	GL 5025 & KB 4 @ 5029.00ft (ASSUMED)
Site:	MORGAN STATE 921-36N PAD	North Reference:	True
Well:	MORGAN STATE 921-36N1BS	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	PLAN #1 PRELIMINARY		

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)
8,900.00	0.00	0.00	8,864.97	168.63	397.27	431.58	0.00	0.00	0.00
9,000.00	0.00	0.00	8,964.97	168.63	397.27	431.58	0.00	0.00	0.00
9,100.00	0.00	0.00	9,064.97	168.63	397.27	431.58	0.00	0.00	0.00
9,200.00	0.00	0.00	9,164.97	168.63	397.27	431.58	0.00	0.00	0.00
9,300.00	0.00	0.00	9,264.97	168.63	397.27	431.58	0.00	0.00	0.00
9,400.00	0.00	0.00	9,364.97	168.63	397.27	431.58	0.00	0.00	0.00
9,456.03	0.00	0.00	9,421.00	168.63	397.27	431.58	0.00	0.00	0.00
SEGO									
9,500.00	0.00	0.00	9,464.97	168.63	397.27	431.58	0.00	0.00	0.00
9,513.03	0.00	0.00	9,478.00	168.63	397.27	431.58	0.00	0.00	0.00
CASTLEGATE									
9,600.00	0.00	0.00	9,564.97	168.63	397.27	431.58	0.00	0.00	0.00
9,700.00	0.00	0.00	9,664.97	168.63	397.27	431.58	0.00	0.00	0.00
9,800.00	0.00	0.00	9,764.97	168.63	397.27	431.58	0.00	0.00	0.00
9,900.00	0.00	0.00	9,864.97	168.63	397.27	431.58	0.00	0.00	0.00
9,936.03	0.00	0.00	9,901.00	168.63	397.27	431.58	0.00	0.00	0.00
BLACKHAWK - BLACKHAWK_MORGAN STATE 921-36N1BS									
10,000.00	0.00	0.00	9,964.97	168.63	397.27	431.58	0.00	0.00	0.00
10,100.00	0.00	0.00	10,064.97	168.63	397.27	431.58	0.00	0.00	0.00
10,200.00	0.00	0.00	10,164.97	168.63	397.27	431.58	0.00	0.00	0.00
10,300.00	0.00	0.00	10,264.97	168.63	397.27	431.58	0.00	0.00	0.00
10,400.00	0.00	0.00	10,364.97	168.63	397.27	431.58	0.00	0.00	0.00
10,500.00	0.00	0.00	10,464.97	168.63	397.27	431.58	0.00	0.00	0.00
10,536.03	0.00	0.00	10,501.00	168.63	397.27	431.58	0.00	0.00	0.00
PBHL_MORGAN STATE 921-36N1BS									

Design Targets									
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (usft)	Easting (usft)	Latitude	Longitude
BLACKHAWK_MORGAI - hit/miss target - Shape	0.00	0.00	9,901.00	168.63	397.27	14,525,447.60	2,060,265.19	39° 59' 19.205 N	109° 30' 4.072 W
PBHL_MORGAN STATI - plan hits target center - Circle (radius 100.00)	0.00	0.00	10,501.00	168.63	397.27	14,525,447.60	2,060,265.19	39° 59' 19.205 N	109° 30' 4.072 W

Casing Points					
Measured Depth (ft)	Vertical Depth (ft)	Name	Casing Diameter (in)	Hole Diameter (in)	
2,598.86	2,569.00	8 5/8"	8.625	11.000	



Database:	EDM5000-RobertS-Local	Local Co-ordinate Reference:	Well MORGAN STATE 921-36N1BS
Company:	US ROCKIES REGION PLANNING	TVD Reference:	GL 5025 & KB 4 @ 5029.00ft (ASSUMED)
Project:	UTAH - UTM (feet), NAD27, Zone 12N	MD Reference:	GL 5025 & KB 4 @ 5029.00ft (ASSUMED)
Site:	MORGAN STATE 921-36N PAD	North Reference:	True
Well:	MORGAN STATE 921-36N1BS	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	PLAN #1 PRELIMINARY		

Formations					
Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)
1,361.06	1,350.00	GREENRIVER			
1,639.29	1,624.00	BIRDSNEST			
2,141.92	2,119.00	MAHOGANY			
4,604.03	4,569.00	WASATCH			
7,256.03	7,221.00	MESAVERDE			
9,456.03	9,421.00	SEGO			
9,513.03	9,478.00	CASTLEGATE			
9,936.03	9,901.00	BLACKHAWK			

Plan Annotations					
Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment	
		+N/-S (ft)	+E/-W (ft)		
300.00	300.00	0.00	0.00	Start Build 2.00	
800.00	797.47	17.01	40.06	Start 1948.28 hold at 800.00 MD	
2,748.28	2,716.14	149.20	351.48	Start Drop -1.75	
3,319.71	3,284.68	168.63	397.27	Start 7216.32 hold at 3319.71 MD	
10,536.03	10,501.00	168.63	397.27	TD at 10536.03	

MORGAN STATE 921-36K4CS

Surface:	1013 FSL / 1739 FWL	SESW	Lot 3
BHL:	1508 FSL / 2139 FWL	NESW	Lot

MORGAN STATE 921-36N1BS

Surface:	1008 FSL / 1748 FWL	SESW	Lot 3
BHL:	1170 FSL / 2145 FWL	SESW	Lot 3

MORGAN STATE 921-36N1CS

Surface:	998 FSL / 1765 FWL	SESW	Lot 3
BHL:	838 FSL / 2146 FWL	SESW	Lot 3

MORGAN STATE 921-36N4BS

Surface:	1003 FSL / 1756 FWL	SESW	Lot 3
BHL:	496 FSL / 2143 FWL	SESW	Lot 3

Pad: MORGAN STATE 921-36N PAD

Section 36 T9S R21E
Mineral Lease: ML-22265

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

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

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

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

A. Existing Roads:

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

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

B. Planned Access Roads:

No new access road is proposed. (see Topo Map B). Applicable Uintah County encroachment and/or pipeline crossing permits will be obtained prior to construction/development. No other pipelines will be crossed at this location.

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

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

C. Location of Existing and Proposed Facilities:

This pad will expand the existing pad for the Morgan State 15-36. The Morgan State 15-36 well location is a producing well according to Utah Division of Oil, Gas and Mining (UDOGM) records as of December 5, 2011.

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

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

Gathering Facilities:

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

The total gas gathering (steel line pipe with fusion bond epoxy coating) pipeline distances from the meter to the tie in point is $\pm 805'$ and the individual segments are broken up as follows:

- ±160' (0.03 miles) –New 6” buried gas pipeline from the meter to the edge of the pad. Please refer to Topo D2 - Pad and Pipeline Detail.
- ±35' (0.01 miles) –New 6” buried gas pipeline from the edge of pad to the 921-36O intersection. Please refer to Topo D2 - Pad and Pipeline Detail.
- ±610' (0.1 miles) –New 12” buried gas pipeline from the 921-36O intersection to the 921-36M intersection. Please refer to Topo D2 - Pad and Pipeline Detail.

The total liquid gathering pipeline distance from the separator to the tie in point is ±805’ and the individual segments are broken up as follows:

- ±160' (0.03 miles) –New 6” buried liquid pipeline from the separator to the edge of the pad. Please refer to Topo D2 - Pad and Pipeline Detail.
- ±35' (0.01 miles) –New 6” buried liquid pipeline from the edge of pad to the 921-36O intersection. Please refer to Topo D2 - Pad and Pipeline Detail.
- ±610' (0.1 miles) –New 6” buried liquid pipeline from the 921-36O intersection to the 921-36M intersection. Please refer to Topo D2 - Pad and Pipeline Detail.

The liquid gathering lines will be made of polyethylene or a composite polyethylene/steel or polyethylene/fiberglass that is not subject to internal or external pipe corrosion. The content of the produced fluids to be transferred by the liquid gathering system will be approximately 92% produced water and 8% condensate. Trunk line valve connections for the water gathering system will be below ground but accessible from the surface in order to prevent freezing during winter time.

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

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

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

D. Location and Type of Water Supply:

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

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

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

No water well is to be drilled on this lease.

E. Source of Construction Materials:

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

F. Methods for Handling Waste Materials:

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

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

Kerr-McGee will use either a closed loop drilling system that will require one pit and one cuttings storage area to be constructed on the drilling pad or a traditional drilling operation with one pit used for drilling and completion operations. The cuttings storage area will be used to contain only the de-watered drill cuttings and will be lined and bermed to prevent any liquid runoff. The drill cuttings will be buried in the completion pit once completion operations are completed according to traditional pit closure standards. The pit will be constructed to allow for completion operations. The completion operations pit will be lined with a synthetic material 20 mil or thicker and will be used for the completing of the wells on the pad or used as part of our Aandarko Completions Transportation System (ACTS). Using the closed loop drilling system will allow Kerr-McGee to decrease the amount of disturbance/footprint on location compared to a single large drilling/completions pit.

If Kerr-McGee does not use a closed loop drilling system, it will construct a traditional drilling/completions pit to contain drill cuttings and for use in completion operations. The pit will be lined with a synthetic material 20 mil or thicker. The drill cuttings will be buried in the pit using traditional pit closure standards.

Unless otherwise approved, no oil or other oil based drill additives, chromium/metals-based, or saline muds will be used during drilling. Only fresh water, biodegradable polymer soap, bentonite clay, and /or non-toxic additives will be used in the system.

Pits will be constructed to minimize the accumulation of surface runoff. Should fluid hydrocarbons be encountered during drilling, completions, or well testing, product will either be contained in test tanks on the well site or evacuated by vacuum

trucks and transported to an approved disposal/sales facility. Should petroleum hydrocarbons unexpectedly be released into the pit, they will be removed as soon as practical but in no case will they remain longer than 72 hours unless an alternative is approved by SITLA. Should timely removal prove infeasible, the pit will be netted with mesh no larger than 1 inch until such time as the hydrocarbons can be removed. Hydrocarbon removal will also take place prior to the closure of the pit, unless authorization is provided for disposal via alternative pit closure methods. (e.g. solidification)

Any additional pits necessary for subsequent operations, such as temporary flare pits, or workover pits, will be contained within the originally approved well pad and disturbance boundaries. Such temporary pits will be backfilled and reclaimed within 180 days of completion of the work.

For the protection of livestock and wildlife, all open pits and cellars will be fenced/covered to prevent wildlife or livestock entry. Total height of pit fencing will be at least 42 inches and corner posts will be cemented and/or braced in such a manner as to keep the fence tight at all times. Standard steel, wood, or pipe posts shall be used between the corner braces. Maximum distance between any 2 fence posts shall be no greater than 16 feet.

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

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

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

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

Materials Management

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

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

G. Ancillary Facilities:

None are anticipated.

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

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

Coordinates are provided in the National Spatial Reference System, North American Datum, 1927 (NAD27) or latest edition. Distances are depicted on each plat to the nearest two adjacent section lines.

I. Plans for Reclamation of the Surface:

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

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

Interim Reclamation

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

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

A reserve pit, upon being allowed to dry, will be backfilled and compacted with cover materials that are void of any topsoil, vegetation, large stones, rocks or foreign objects. Soils that are moisture laden, saturated, or partially/

completely frozen will not be used for backfill or cover. The pit area will be mounded to allow for settling and to promote positive surface drainage away from the pit.

Final Reclamation

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

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

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

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

Seeding and Measures Common to Interim and Final Reclamation

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

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

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

J. Surface/Mineral Ownership:

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

L. Other Information:

None

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

Danielle Piernot
Regulatory Analyst II
Kerr-McGee Oil & Gas Onshore LP
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Tommy Thompson
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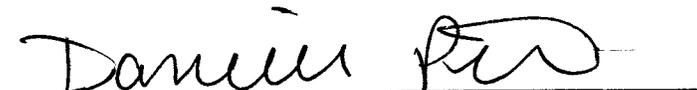
Certification: All lease and/or unit operations will be conducted in such a manner that full compliance is made with all applicable laws, regulations, Onshore Oil and Gas Orders, the approved Plan of Operations, and any applicable Notice to Lessees.

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

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

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

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



Danielle Piernot

December 19, 2011

Date



Kerr-McGee Oil & Gas Onshore LP
PO Box 173779
DENVER, CO 80217-3779

December 14, 2011

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

Re: Directional Drilling R649-3-11
Morgan State 921-36N1BS
T9S-R21E
Section 36: SESW (Surface), SESW (Bottom Hole)
Surface: 1008' FSL, 1748' FWL
Bottom Hole: 1170' FSL, 2145' FWL
Uintah County, Utah

Dear Ms. Mason:

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

- 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 roads 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

A handwritten signature in blue ink that reads 'Joe Matney'.

Joe Matney
Sr. Staff Landman

From: Jim Davis
To: APD APPROVAL
CC: Danielle Piernot; Julie Jacobson
Date: 2/23/2012 3:22 PM
Subject: APD Approval: the Kerr McGee Morgan State wells

The following wells have been approved by SITLA including arch and paleo clearance.

4304752246 Morgan State 921-36G4BS
4304752253 Morgan State 921-36G4CS
4304752255 Morgan State 921-36J1CS
4304752256 Morgan State 921-36J4BS
4304752281 Morgan State 921-36F1BS
4304752282 Morgan State 921-36F1CS
4304752283 Morgan State 921-36G1BS
4304752284 Morgan State 921-36G1CS
4304752285 Morgan State 921-36F4BS
4304752286 Morgan State 921-36K1BS
4304752287 Morgan State 921-36K1CS
4304752247 Morgan State 921-36P1BS
4304752248 Morgan State 921-36P1CS
4304752249 Morgan State 921-36I4BS
4304752250 Morgan State 921-36I4CS
4304752252 Morgan State 921-36P4BS
4304752263 Morgan State 921-36K4CS
4304752264 Morgan State 921-36N1BS
4304752265 Morgan State 921-36N1CS
4304752266 Morgan State 921-36N4BS
4304752276 Morgan State 921-36D4CS
4304752277 Morgan State 921-36E1BS
4304752278 Morgan State 921-36E1CS
4304752279 Morgan State 921-36E4BS
4304752280 Morgan State 921-36E4CS
4304752245 Morgan State 921-36O4CS
4304752254 Morgan State 921-36O1CS
4304752267 Morgan State 921-36O1BS
4304752257 Morgan State 921-36K4BS
4304752258 Morgan State 921-36L1BS
4304752259 Morgan State 921-36L1CS
4304752260 Morgan State 921-36M1BS
4304752261 Morgan State 921-36M1CS
4304752262 Morgan State 921-36M4BS
4304752272 Morgan State 921-36B4CS
4304752273 Morgan State 921-36C4BS
4304752274 Morgan State 921-36C4CS
4304752275 Morgan State 921-36D1CS

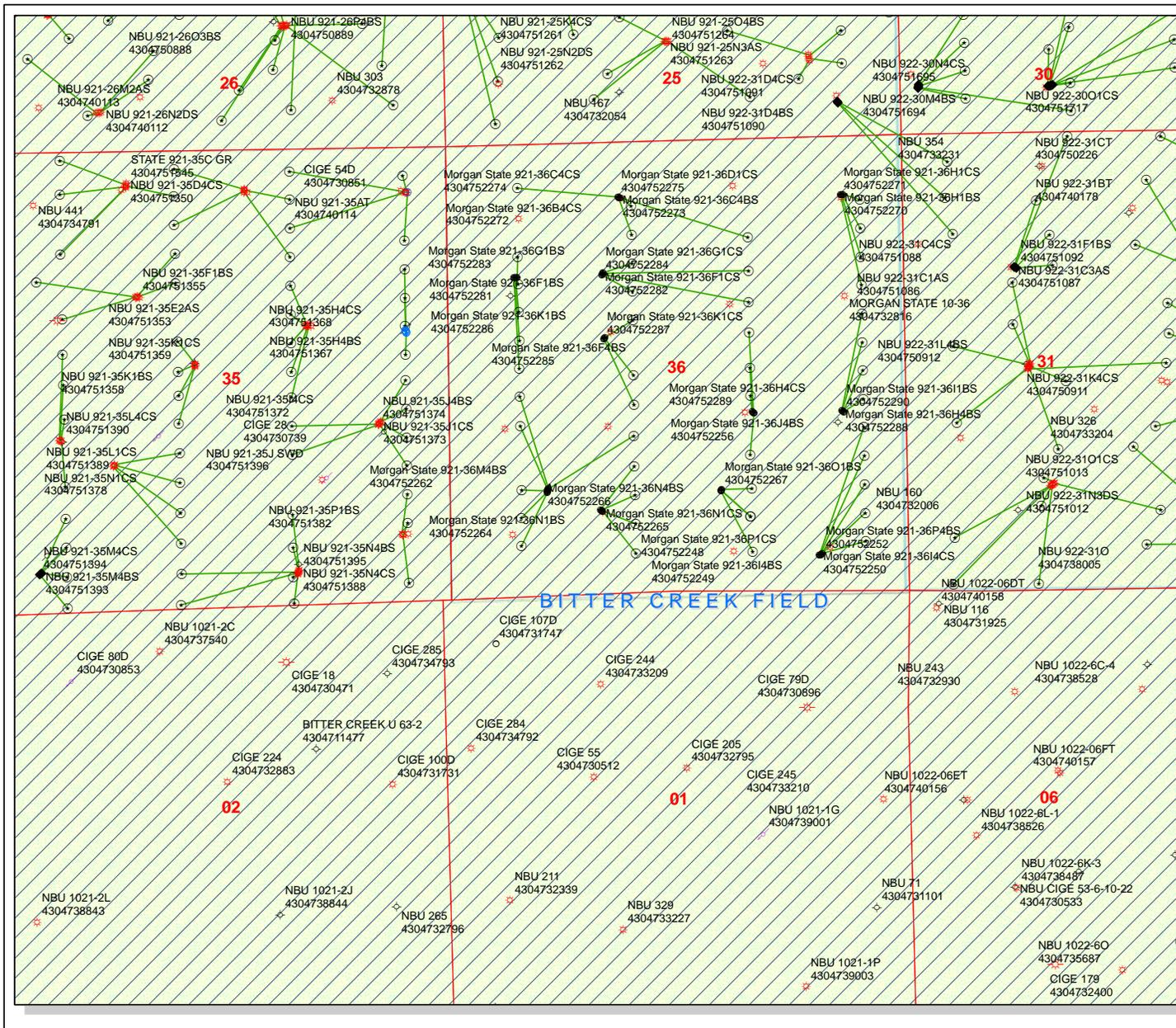
There are eight more wells on two pads in this section, the 36A pad and the 36I pad, that have not yet been approved. Anadarko is gathering reclamation cost figures on pads similar to those as part of the process of acquiring adequate SITLA bonds.
-Jim

Jim Davis
Utah Trust Lands Administration
jimdavis1@utah.gov

API Well Number: 43047522640000

Phone: (801) 538-5156

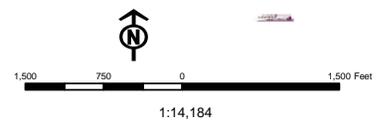
RECEIVED: February 23, 2012



API Number: 4304752264
Well Name: Morgan State 921-36N1BS
Township T0.9 . Range R2.1 . Section 36
Meridian: SLBM
 Operator: KERR-MCGEE OIL & GAS ONSHORE, L.P.

Map Prepared:
 Map Produced by Diana Mason

- | | |
|----------------------|-------------------------------------|
| Units Status | Wells Query Status |
| ACTIVE | APD - Approved Permit |
| EXPLORATORY | DRIL - Spudded (Drilling Commenced) |
| GAS STORAGE | GIW - Gas Injection |
| NF PP OIL | GS - Gas Storage |
| NF SECONDARY | LA - Location Abandoned |
| PI OIL | LOC - New Location |
| PP GAS | OPS - Operation Suspended |
| PP GEOTHERM. | PA - Plugged Abandoned |
| PP OIL | PGW - Producing Gas Well |
| SECONDARY | POW - Producing Oil Well |
| TERMINATED | RET - Returned APD |
| Fields Status | SOW - Shut-in Oil Well |
| Unknown | SGW - Shut-in Gas Well |
| ABANDONED | TA - Temp. Abandoned |
| ACTIVE | TW - Test Well |
| COMBINED | WDW - Water Disposal |
| INACTIVE | WWI - Water Injection Well |
| STORAGE | WSW - Water Supply Well |
| TERMINATED | |



Well Name	KERR-MCGEE OIL & GAS ONSHORE, L.P. Morgan State 921-36N1BS			
String	Surf	Prod		
Casing Size(")	8.625	4.500		
Setting Depth (TVD)	2550	10501		
Previous Shoe Setting Depth (TVD)	0	2550		
Max Mud Weight (ppg)	8.4	13.0		
BOPE Proposed (psi)	500	5000		
Casing Internal Yield (psi)	3390	10690		
Operators Max Anticipated Pressure (psi)	6931	12.7		

Calculations	Surf String	8.625	"
Max BHP (psi)	.052*Setting Depth*MW=	1114	
			BOPE Adequate For Drilling And Setting Casing at Depth?
MASP (Gas) (psi)	Max BHP-(0.12*Setting Depth)=	808	NO air drill
MASP (Gas/Mud) (psi)	Max BHP-(0.22*Setting Depth)=	553	NO Reasonable depth in area
			*Can Full Expected Pressure Be Held At Previous Shoe?
Pressure At Previous Shoe	Max BHP-.22*(Setting Depth - Previous Shoe Depth)=	553	NO
Required Casing/BOPE Test Pressure=		2373	psi
*Max Pressure Allowed @ Previous Casing Shoe=		0	psi *Assumes 1psi/ft frac gradient

Calculations	Prod String	4.500	"
Max BHP (psi)	.052*Setting Depth*MW=	7099	
			BOPE Adequate For Drilling And Setting Casing at Depth?
MASP (Gas) (psi)	Max BHP-(0.12*Setting Depth)=	5839	NO
MASP (Gas/Mud) (psi)	Max BHP-(0.22*Setting Depth)=	4789	YES OK
			*Can Full Expected Pressure Be Held At Previous Shoe?
Pressure At Previous Shoe	Max BHP-.22*(Setting Depth - Previous Shoe Depth)=	5350	NO Reasonable
Required Casing/BOPE Test Pressure=		5000	psi
*Max Pressure Allowed @ Previous Casing Shoe=		2550	psi *Assumes 1psi/ft frac gradient

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

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

43047522640000 Morgan State 921-36N1BS

Casing Schematic

Surface

12.7
15.1

Uinta

to surf @ 9% w/p, tail 3658'

TOC @ 703.

1350' Green River
to 544' @ 0% w/p, tail 1359'

TOC @ 1500 ± BMSW
1472. 1624' Birds Nest

*STIP ✓

1915' tail

2119' Mahogany

Surface

2580. MD

2550. TVD

Stop surf. cmt.

8-5/8"
MW 8.4
Frac 19.3

cmts proposed to surf.

4155' tail

4509' Wasatch

722' Mesaverde

9421' Sego

9478' Castlegate

9901' MN5

4-1/2"
MW 13.

Production
10536. MD
10501. TVD

1008SL

169

1177FSL ✓

1748WL

397

2145FWL ✓

OR.

SE SW Sec 36-9S-21E

Well name:	43047522640000 Morgan State 921-36N1BS		
Operator:	KERR-MCGEE OIL & GAS ONSHORE, L.P.		
String type:	Surface	Project ID:	43-047-52264
Location:	UINTAH	COUNTY	

Design parameters:**Collapse**

Mud weight: 8.400 ppg
Design is based on evacuated pipe.

Burst

Max anticipated surface pressure: 2,220 psi
Internal gradient: 0.120 psi/ft
Calculated BHP: 2,526 psi

No backup mud specified.

Minimum design factors:**Collapse:**

Design factor 1.125

Burst:

Design factor 1.00

Tension:

8 Round STC: 1.80 (J)
8 Round LTC: 1.70 (J)
Buttress: 1.60 (J)
Premium: 1.50 (J)
Body yield: 1.50 (B)

Tension is based on air weight.

Neutral point: 2,259 ft

Environment:

H2S considered? No
Surface temperature: 74 °F
Bottom hole temperature: 110 °F
Temperature gradient: 1.40 °F/100ft
Minimum section length: 100 ft

Cement top: 1,472 ft

Directional Info - Build & Drop

Kick-off point: 300 ft
Departure at shoe: 353 ft
Maximum dogleg: 2 °/100ft
Inclination at shoe: 10 °

Re subsequent strings:

Next setting depth: 10,501 ft
Next mud weight: 13.000 ppg
Next setting BHP: 7,092 psi
Fracture mud wt: 19.250 ppg
Fracture depth: 2,523 ft
Injection pressure: 2,523 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	2580	8.625	28.00	I-55	LT&C	2550	2580	7.892	102168
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	1113	1880	1.689	2526	3390	1.34	71.4	348	4.87 J

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

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

Date: February 27, 2012
Salt Lake City, Utah

Remarks:

Collapse is based on a vertical depth of 2550 ft, a mud weight of 8.4 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:	43047522640000 Morgan State 921-36N1BS		
Operator:	KERR-MCGEE OIL & GAS ONSHORE, L.P.		
String type:	Production	Project ID:	43-047-52264
Location:	UINTAH COUNTY		

Design parameters:

Collapse

Mud weight: 13.000 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: 221 °F
 Temperature gradient: 1.40 °F/100ft
 Minimum section length: 100 ft
 Cement top: 703 ft

Burst

Max anticipated surface pressure: 4,781 psi
 Internal gradient: 0.220 psi/ft
 Calculated BHP 7,092 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: 8,495 ft

Directional Info - Build & Drop

Kick-off point 300 ft
 Departure at shoe: 432 ft
 Maximum dogleg: 2 °/100ft
 Inclination at shoe: 0 °

Estimated cost: 158,672 (\$)

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 (\$)
2	5000	4.5	11.60	HCP-110	DQX	4965	5000	3.875	132000
1	5536	4.5	11.60	HCP-110	LT&C	10501	10536	3.875	26672

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
2	3353	8132	2.425	5874	10690	1.82	121.8	367.2	3.01 B
1	7092	8650	1.220	7092	10690	1.51	64.2	279	4.34 J

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

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

Date: February 27, 2012
 Salt Lake City, Utah

Remarks:

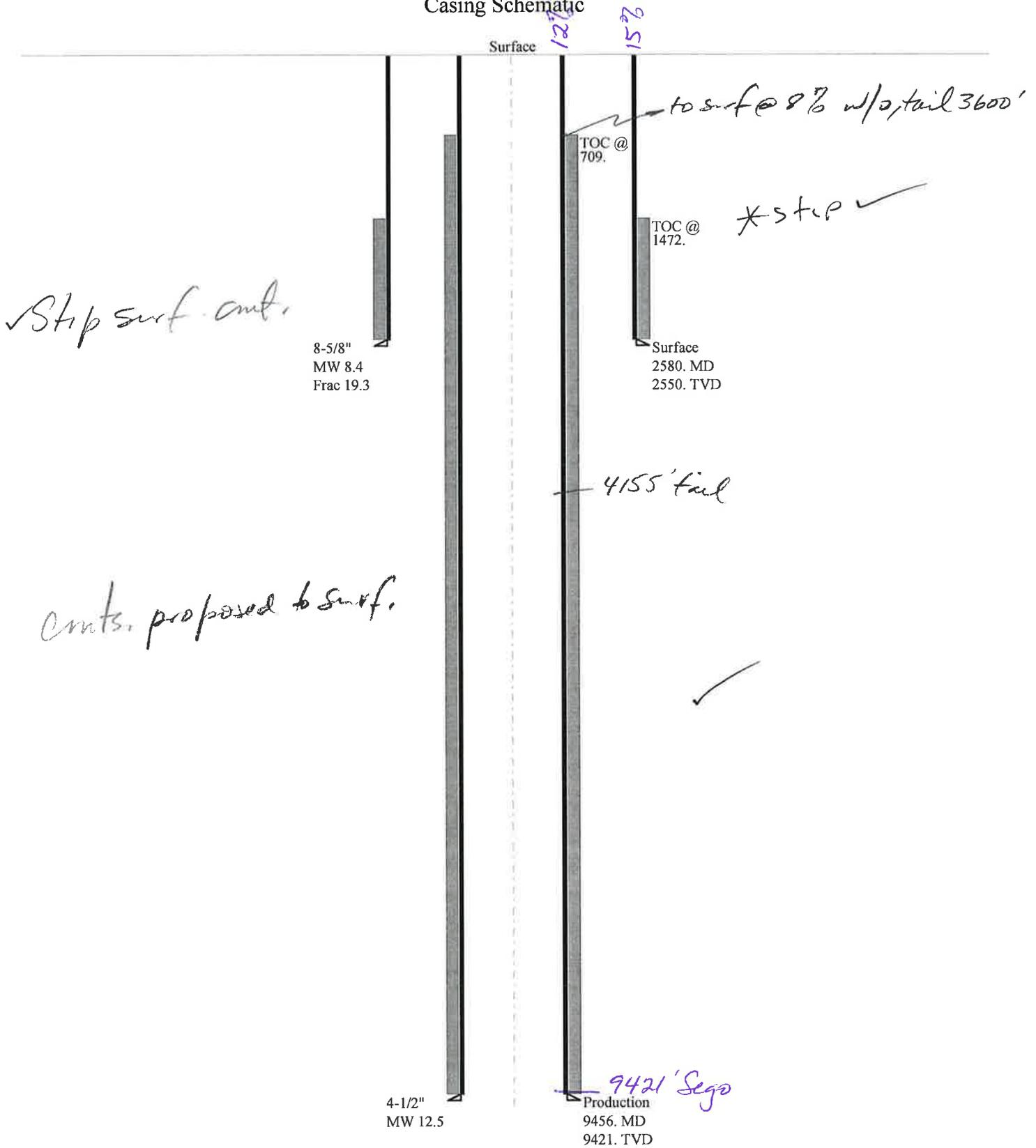
Collapse is based on a vertical depth of 10501 ft, a mud weight of 13 ppg. The casing is considered to be evacuated for collapse purposes. Collapse strength is based on the Westcott, Dunlop & Kemler method of biaxial correction for tension.

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

43047522640000 Morgan State 921-36N1BS

Casing Schematic



Well name: 43047522640000 Morgan State 921-36N1BS	
Operator: KERR-MCGEE OIL & GAS ONSHORE, L.P.	Project ID: 43-047-52264
String type: Production	
Location: UINTAH COUNTY	

Design parameters:

Collapse

Mud weight: 12.500 ppg
 Internal fluid density: 1.000 ppg

Burst

Max anticipated surface pressure: 4,045 psi
 Internal gradient: 0.220 psi/ft
 Calculated BHP: 6,118 psi

No backup mud specified.

Minimum design factors:

Collapse:

Design factor: 1.125

Burst:

Design factor: 1.00

Tension:

8 Round STC: 1.80 (J)
 8 Round LTC: 1.80 (J)
 Buttress: 1.60 (J)
 Premium: 1.50 (J)
 Body yield: 1.60 (B)

Tension is based on air weight.
 Neutral point: 7,696 ft

Estimated cost: 190,819 (\$)

Environment:

H2S considered? No
 Surface temperature: 74 °F
 Bottom hole temperature: 206 °F
 Temperature gradient: 1.40 °F/100ft
 Minimum section length: 100 ft
 Cement top: 709 ft

Directional Info - Build & Drop

Kick-off point: 300 ft
 Departure at shoe: 432 ft
 Maximum dogleg: 2 °/100ft
 Inclination at shoe: 0 °

Run Seq	Segment Length (ft)	Size (in)	Nominal Weight (lbs/ft)	Grade	End Finish	True Vert Depth (ft)	Measured Depth (ft)	Drift Diameter (in)	Est. Cost (\$)
2	5000	4.5	11.60	I-80	DQX	4965	5000	3.875	132000
1	4456	4.5	11.60	I-80	LT&C	9421	9456	3.875	58819

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
2	2966	5919	1.995	5137	7780	1.51	109.3	267	2.44 J
1	5628	6360	1.130	6118	7780	1.27	51.7	212	4.10 J

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

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

Date: February 27, 2012
 Salt Lake City, Utah

Remarks:

Collapse is based on a vertical depth of 9421 ft, a mud weight of 12.5 ppg. An internal gradient of .052 psi/ft was used for collapse from TD. 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:	43047522640000 Morgan State 921-36N1BS		
Operator:	KERR-MCGEE OIL & GAS ONSHORE, L.P.		
String type:	Surface	Project ID:	43-047-52264
Location:	UINTAH	COUNTY	

Design parameters:

Collapse

Mud weight: 8.400 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: 110 °F
 Temperature gradient: 1.40 °F/100ft
 Minimum section length: 100 ft
 Cement top: 1,472 ft

Burst

Max anticipated surface pressure: 2,220 psi
 Internal gradient: 0.120 psi/ft
 Calculated BHP 2,526 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: 2,259 ft

Directional Info - Build & Drop

Kick-off point 300 ft
 Departure at shoe: 353 ft
 Maximum dogleg: 2 °/100ft
 Inclination at shoe: 10 °

Re subsequent strings:

Next setting depth: 9,421 ft
 Next mud weight: 12.500 ppg
 Next setting BHP: 6,118 psi
 Fracture mud wt: 19.250 ppg
 Fracture depth: 2,523 ft
 Injection pressure: 2,523 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	2580	8.625	28.00	I-55	LT&C	2550	2580	7.892	102168
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	1113	1880	1.689	2526	3390	1.34	71.4	348	4.87 J

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

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

Date: February 27, 2012
 Salt Lake City, Utah

Remarks:

Collapse is based on a vertical depth of 2550 ft, a mud weight of 8.4 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 Morgan State 921-36N1BS
API Number 43047522640000 **APD No** 5091 **Field/Unit** NATURAL BUTTES
Location: 1/4,1/4 SESW **Sec** 36 **Tw** 9.0S **Rng** 21.0E 1008 FSL 1748 FWL
GPS Coord (UTM) 627790 4427515 **Surface Owner**

Participants

Sheila Wopsock, Charles Chase, Danielle Piernot, Doyle Holmes, (Anadarko). John Slaugh, Mitch Batty, (Timberline). Jim Davis (SITLA). Alex Hansen (DWR). Chris Jensen and David Hackford, (DOGGM).

Regional/Local Setting & Topography

This site is on an existing location, and very little new construction will be necessary.

This location is within the Natural Buttes Unit but this section is not part of the Natural Buttes Unit. It is approximately 14 road miles southeast of Ouray, Utah. The general area is at the head of a long unnamed wash east of Cottonwood Wash. Both washes enter the White River in the same general area, approximately six miles to the north. The area is characterized by rolling hills, which are frequently divided by somewhat gentle draws that drain northerly. This unnamed wash is an ephemeral drainage. No springs, seeps or streams exist in the area. An occasional pond constructed to supply water for cattle and antelope exists. The washes are sometimes rimmed with steep side hills, which have exposed sandstone bedrock cliffs along the rims.

Four new directional wells will be drilled from this location which currently has one well, the Morgan State 15-36. The decision to PA or TA this well has not been made at this time.

Surface Use Plan

Current Surface Use

Grazing
Wildlfe Habitat
Existing Well Pad

**New Road
Miles**

Well Pad

Src Const Material

Surface Formation

0

Width 352 Length 425

Onsite

UNTA

Ancillary Facilities N

Waste Management Plan Adequate? Y

Environmental Parameters

Affected Floodplains and/or Wetlands N

Flora / Fauna

Prickly pear, wild onion, shadscale, mat saltbrush, Indian ricegrass, halogeton, pepper grass. Principal species present are cheatgrass, black sagebrush, stipa, mesquite grass.

Sheep, antelope, coyote, raptors, small mammals and birds.

Soil Type and Characteristics

Rocky sandy clay loam.

Erosion Issues Y

Diversion ditch must be maintained.

Sedimentation Issues N

Site Stability Issues N

Drainage Diverson Required? Y

Around west side of location.

Berm Required? N

Erosion Sedimentation Control Required? N

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

Reserve Pit

Site-Specific Factors

Site Ranking

Distance to Groundwater (feet)	>200	0
Distance to Surface Water (feet)	>1000	0
Dist. Nearest Municipal Well (ft)	>5280	0
Distance to Other Wells (feet)		20
Native Soil Type	Mod permeability	10
Fluid Type	Fresh Water	5
Drill Cuttings	Normal Rock	0
Annual Precipitation (inches)		0
Affected Populations		
Presence Nearby Utility Conduits	Not Present	0
Final Score		35 1 Sensitivity Level

Characteristics / Requirements

The reserve pit is planned in an area of cut on the south corner of the location. Dimensions are 220' x 100' x 12' deep with two feet of freeboard. Kerr McGee has agreed to line this pit with a 30 mil synthetic liner and a layer of felt sub-liner.

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

Other Observations / Comments

David Hackford
Evaluator

1/11/2012
Date / Time

Application for Permit to Drill Statement of Basis

3/20/2012

Utah Division of Oil, Gas and Mining

Page 1

APD No	API WellNo	Status	Well Type	Surf Owner	CBM
5091	43047522640000	SITLA	GW	S	No
Operator	KERR-MCGEE OIL & GAS ONSHORE, L.P.		Surface Owner-APD		
Well Name	Morgan State 921-36N1BS		Unit		
Field	NATURAL BUTTES		Type of Work	DRILL	
Location	SESW 36 9S 21E S 1008 FSL 1748 FWL GPS Coord (UTM) 627791E 4427503N				

Geologic Statement of Basis

Kerr McGee proposes to set 2,570' 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 1,500'. A search of Division of Water Rights records shows one water well within a 10,000 foot radius of the center of Section 36. The well is listed as 2,640 feet deep and used for drilling water. The surface formation at this site is the Uinta Formation. The Uinta Formation is made up of interbedded shales and sandstones. The sandstones are mostly lenticular and discontinuous and should not be a significant source of useable ground water. The proposed casing and cement should adequately protect. Any usable ground water.

Brad Hill
APD Evaluator

2/1/2012
Date / Time

Surface Statement of Basis

The general area is in the central portion of the Natural Buttes Unit. Within this area is the White River and rugged drainages that drain into it. 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 is six 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 43.9 miles to the northwest. Access from Vernal is by following Utah State, Uintah County and oilfield development roads.

Four wells will be directionally drilled from this location. They are the Morgan State 921-36N1CS, Morgan State 921-36N4BS, Morgan State 921-36N1BS and the Morgan State 921-36K4CS. The existing location currently has one well. This well is the Morgan State 15-36. The decision to PA or TA this well has not been made at this time. A drainage ditch will be necessary around the west side of the location. The pad as modified should be stable and sufficient for five wells, and is the best site for a location in the immediate area.

New construction will consist of approximately 150 feet on the south, 75 feet on the west, 50 feet on the north, and 50 feet on the east side of the existing location.

Both the surface and minerals are owned by SITLA. Jim Davis of SITLA and Alex Hansen with DWR were invited by email to the pre-site evaluation. Both were present. Kerr McGee personnel were told to consult with SITLA for reclamation standards including seeding mixes to be used.

David Hackford
Onsite Evaluator

1/11/2012
Date / Time

RECEIVED: March 20, 2012

Application for Permit to Drill Statement of Basis

3/20/2012

Utah Division of Oil, Gas and Mining

Page 2

Conditions of Approval / Application for Permit to Drill

Category	Condition
Pits	A synthetic liner with a minimum thickness of 16 mils with a felt subliner shall be properly installed and maintained in the reserve pit.
Pits	The reserve pit should be located on the south side of the location.
Surface	Drainages adjacent to the proposed pad shall be diverted around the location.

WORKSHEET APPLICATION FOR PERMIT TO DRILL

APD RECEIVED: 12/20/2011

API NO. ASSIGNED: 43047522640000

WELL NAME: Morgan State 921-36N1BS

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

PHONE NUMBER: 720 929-6156

CONTACT: Danielle Piernot

PROPOSED LOCATION: SESW 36 090S 210E

Permit Tech Review:

SURFACE: 1008 FSL 1748 FWL

Engineering Review:

BOTTOM: 1170 FSL 2145 FWL

Geology Review:

COUNTY: UINTAH

LATITUDE: 39.98805

LONGITUDE: -109.50321

UTM SURF EASTINGS: 627791.00

NORTHINGS: 4427503.00

FIELD NAME: NATURAL BUTTES

LEASE TYPE: 3 - State

LEASE NUMBER: ML 22265

PROPOSED PRODUCING FORMATION(S): BLACKHAWK

SURFACE OWNER: 3 - State

COALBED METHANE: NO

RECEIVED AND/OR REVIEWED:

- PLAT
- Bond: STATE/FEE - 22013542
- Potash
- Oil Shale 190-5
- Oil Shale 190-3
- Oil Shale 190-13
- Water Permit: 43-8496
- RDCC Review:
- Fee Surface Agreement
- Intent to Commingle

Commingle Approved

LOCATION AND SITING:

- R649-2-3.
- Unit:
- R649-3-2. General
- R649-3-3. Exception
- Drilling Unit
- Board Cause No: Cause 173-24
- Effective Date: 10/5/2009
- Siting: 460' Fr Exterior Lease Boundary
- R649-3-11. Directional Drill

Comments: Presite Completed

Stipulations: 3 - Commingle - ddoucet
 5 - Statement of Basis - bhill
 15 - Directional - dmason
 17 - Oil Shale 190-5(b) - dmason
 25 - Surface Casing - hmacdonald



GARY R. HERBERT
Governor

GREGORY S. BELL
Lieutenant Governor

State of Utah

DEPARTMENT OF NATURAL RESOURCES

MICHAEL R. STYLER
Executive Director

Division of Oil, Gas and Mining

JOHN R. BAZA
Division Director

Permit To Drill

Well Name: Morgan State 921-36N1BS
API Well Number: 43047522640000
Lease Number: ML 22265
Surface Owner: STATE
Approval Date: 3/20/2012

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 173-24. The expected producing formation or pool is the BLACKHAWK Formation(s), completion into any other zones will require filing a Sundry Notice (Form 9). Completion and commingling of more than one pool will require approval in accordance with R649-3-22.

Duration:

This approval shall expire one year from the above date unless substantial and continuous operation is underway, or a request for extension is made prior to the expiration date

Commingle:

In accordance with Board Cause No. 173-24, commingling of the production from the Wasatch formation and the Mesaverde formation in this well is allowed.

General:

Compliance with the requirements of Utah Admin. R. 649-1 et seq., the Oil and Gas Conservation General Rules, and the applicable terms and provisions of the approved Application for permit to drill.

Conditions of Approval:

Compliance with the Conditions of Approval/Application for Permit to Drill outlined in the Statement of Basis (copy attached).

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.

Surface casing shall be cemented to the surface.

Additional Approvals:

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

- Any changes to the approved drilling plan - contact Dustin Doucet
- Significant plug back of the well - contact Dustin Doucet
- Plug and abandonment of the well - contact Dustin Doucet

Notification Requirements:

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

- Within 24 hours following the spudding of the well - contact Carol Daniels
OR
submit an electronic sundry notice (pre-registration required) via the Utah Oil & Gas website
at <http://oilgas.ogm.utah.gov>
- 24 hours prior to testing blowout prevention equipment - contact Dan Jarvis
- 24 hours prior to cementing or testing casing - contact Dan Jarvis
- Within 24 hours of making any emergency changes to the approved drilling program
- contact Dustin Doucet
- 24 hours prior to commencing operations to plug and abandon the well contact Dan Jarvis

Contact Information:

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

- Carol Daniels 801-538-5284 - office
- Dustin Doucet 801-538-5281 - office
801-733-0983 - after office hours
- Dan Jarvis 801-538-5338 - office
801-231-8956 - after office hours

Reporting Requirements:

All reports, forms and submittals as required by the Utah Oil and Gas Conservation General Rules will be promptly filed with the Division of Oil, Gas and Mining, including but not limited to:

- Entity Action Form (Form 6) - due within 5 days of spudding the well
- Monthly Status Report (Form 9) - due by 5th day of the following calendar month
- Requests to Change Plans (Form 9) - due prior to implementation
- Written Notice of Emergency Changes (Form 9) - due within 5 days
- Notice of Operations Suspension or Resumption (Form 9) - due prior to implementation
- Report of Water Encountered (Form 7) - due within 30 days after completion
- Well Completion Report (Form 8) - due within 30 days after completion or

plugging

Approved By:

A handwritten signature in black ink, appearing to read "J. Rogers", written in a cursive style.

For John Rogers
Associate Director, Oil & Gas

STATE OF UTAH DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS, AND MINING	FORM 9
SUNDRY NOTICES AND REPORTS ON WELLS	
Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals.	
1. TYPE OF WELL Gas Well	5. LEASE DESIGNATION AND SERIAL NUMBER: ML 22265
2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ONSHORE, L.P.	6. IF INDIAN, ALLOTTEE OR TRIBE NAME:
3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18th Street, Suite 600, Denver, CO, 80217 3779	7. UNIT or CA AGREEMENT NAME:
4. LOCATION OF WELL FOOTAGES AT SURFACE: 1008 FSL 1748 FWL QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: Qtr/Qtr: SESW Section: 36 Township: 09.0S Range: 21.0E Meridian: S	8. WELL NAME and NUMBER: MORGAN STATE 921-36N1BS
PHONE NUMBER: 720 929-6511	9. API NUMBER: 43047522640000
9. FIELD and POOL or WILDCAT: MATHEW BUTTES	COUNTY: UINTAH
	STATE: UTAH

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

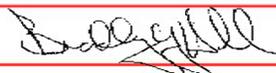
TYPE OF SUBMISSION	TYPE OF ACTION		
<input checked="" type="checkbox"/> NOTICE OF INTENT Approximate date work will start: 3/20/2013	<input type="checkbox"/> ACIDIZE	<input type="checkbox"/> ALTER CASING	<input type="checkbox"/> CASING REPAIR
<input type="checkbox"/> SUBSEQUENT REPORT Date of Work Completion:	<input type="checkbox"/> CHANGE TO PREVIOUS PLANS	<input type="checkbox"/> CHANGE TUBING	<input type="checkbox"/> CHANGE WELL NAME
<input type="checkbox"/> SPUD REPORT Date of Spud:	<input type="checkbox"/> CHANGE WELL STATUS	<input type="checkbox"/> COMMINGLE PRODUCING FORMATIONS	<input type="checkbox"/> CONVERT WELL TYPE
<input type="checkbox"/> DRILLING REPORT 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 checked="" type="checkbox"/> APD EXTENSION
	<input type="checkbox"/> WILDCAT WELL DETERMINATION	<input type="checkbox"/> OTHER	OTHER: <input style="width: 100px;" type="text"/>

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

Kerr-McGee Oil & Gas Onshore, L.P. (Kerr-McGee) respectfully requests an extension to this APD for the maximum time allowed. Please contact the undersigned with any questions and/or comments. Thank you.

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

Date: March 04, 2013

By: 

NAME (PLEASE PRINT) Luke Urban	PHONE NUMBER 720 929-6501	TITLE Regulatory Specialist
SIGNATURE N/A	DATE 2/28/2013	



The Utah Division of Oil, Gas, and Mining

- State of Utah
- Department of Natural Resources

Electronic Permitting System - Sundry Notices

Request for Permit Extension Validation Well Number 43047522640000

API: 43047522640000

Well Name: MORGAN STATE 921-36N1BS

Location: 1008 FSL 1748 FWL QTR SESW SEC 36 TWNP 090S RNG 210E MER S

Company Permit Issued to: KERR-MCGEE OIL & GAS ONSHORE, L.P.

Date Original Permit Issued: 3/20/2012

The undersigned as owner with legal rights to drill on the property as permitted above, hereby verifies that the information as submitted in the previously approved application to drill, remains valid and does not require revision. Following is a checklist of some items related to the application, which should be verified.

- If located on private land, has the ownership changed, if so, has the surface agreement been updated? Yes No

- Have any wells been drilled in the vicinity of the proposed well which would affect the spacing or siting requirements for this location? Yes No

- Has there been any unit or other agreements put in place that could affect the permitting or operation of this proposed well? Yes No

- Have there been any changes to the access route including ownership, or rightof- way, which could affect the proposed location? Yes No

- Has the approved source of water for drilling changed? Yes No

- Have there been any physical changes to the surface location or access route which will require a change in plans from what was discussed at the onsite evaluation? Yes No

- Is bonding still in place, which covers this proposed well? Yes No

Signature: Luke Urban

Date: 2/28/2013

Title: Regulatory Specialist Representing: KERR-MCGEE OIL & GAS ONSHORE, L.P.

STATE OF UTAH DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS, AND MINING	FORM 9
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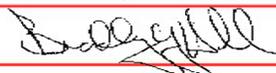
TYPE OF SUBMISSION	TYPE OF ACTION		
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**Approved by the
Utah Division of
Oil, Gas and Mining**

Date: February 12, 2014

By: 

NAME (PLEASE PRINT) Teena Paulo	PHONE NUMBER 720 929-6236	TITLE Staff Regulatory Specialist
SIGNATURE N/A	DATE 2/7/2014	



The Utah Division of Oil, Gas, and Mining

- State of Utah
- Department of Natural Resources

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- Has the approved source of water for drilling changed? Yes No
- Have there been any physical changes to the surface location or access route which will require a change in plans from what was discussed at the onsite evaluation? Yes No
- Is bonding still in place, which covers this proposed well? Yes No

Signature: Teena Paulo

Date: 2/7/2014

Title: Staff Regulatory Specialist Representing: KERR-MCGEE OIL & GAS ONSHORE, L.P.



GARY R. HERBERT
Governor

SPENCER J. COX
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

March 26, 2015

Kerr-McGee Oil & Gas Onshore, LP.
1099 18th Street, Suite 600
Denver, CO 80217

Re: APDs Rescinded Kerr-McGee Oil & Gas Onshore, LP., Uintah County

Ladies and Gentlemen:

Enclosed find the list of APDs that is being rescinded. No drilling activity at these locations has been reported to the division. Therefore, approval to drill these wells is hereby rescinded as of March 26, 2015.

A new APD must be filed with this office for approval prior to the commencement of any future work on the subject location.

If any previously unreported operations have been performed on this well location, it is imperative that you notify the Division immediately.

Sincerely,


Diana Mason
Environmental Scientist

cc: Well File
SITLA, Ed Bonner
Bureau of Land Management, Vernal

MORGAN STATE	921-36K4BS	43-047-52257
MORGAN STATE	921-36L1BS	43-047-52258
MORGAN STATE	921-36L1CS	43-047-52259
MORGAN STATE	921-36M1BS	43-047-52260
MORGAN STATE	921-36M1CS	43-047-52261
MORGAN STATE	921-36M4BS	43-047-52262
MORGAN STATE	921-36K4CS	43-047-52263
MORGAN STATE	921-36N1BS	43-047-52264
MORGAN STATE	921-36N1CS	43-047-52265
MORGAN STATE	921-36N4BS	43-047-52266
SRW 823-03O GR		43-047-53974
SRW 823-13G1CS		43-047-53976
SRW 823-22A1CS		43-047-53977