

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 NBU 634-12EX	
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 Coalbed Methane Well: NO						5. UNIT or COMMUNITIZATION AGREEMENT NAME NATURAL BUTTES	
6. NAME OF OPERATOR EOG Resources, Inc.						7. OPERATOR PHONE 435 781-9111	
8. ADDRESS OF OPERATOR 1060 East Highway 40, Vernal, UT, 84078						9. OPERATOR E-MAIL kaylene_gardner@eogresources.com	
10. MINERAL LEASE NUMBER (FEDERAL, INDIAN, OR STATE) UTU01197-A-ST			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 type="checkbox"/> (Submit Commingling Application) NO <input checked="" type="checkbox"/>			19. SLANT VERTICAL <input checked="" type="checkbox"/> DIRECTIONAL <input type="checkbox"/> HORIZONTAL <input type="checkbox"/>	
20. LOCATION OF WELL	FOOTAGES	QTR-QTR	SECTION	TOWNSHIP	RANGE	MERIDIAN	
LOCATION AT SURFACE	623 FNL 672 FEL	NENE	12	10.0 S	22.0 E	S	
Top of Uppermost Producing Zone	623 FNL 672 FEL	NENE	12	10.0 S	22.0 E	S	
At Total Depth	623 FNL 672 FEL	NENE	12	10.0 S	22.0 E	S	
21. COUNTY UINTAH			22. DISTANCE TO NEAREST LEASE LINE (Feet) 623			23. NUMBER OF ACRES IN DRILLING UNIT 1674	
			25. DISTANCE TO NEAREST WELL IN SAME POOL (Applied For Drilling or Completed) 1270			26. PROPOSED DEPTH MD: 7128 TVD: 7128	
27. ELEVATION - GROUND LEVEL 5173			28. BOND NUMBER			29. SOURCE OF DRILLING WATER / WATER RIGHTS APPROVAL NUMBER IF APPLICABLE 49-225	
ATTACHMENTS							
VERIFY THE FOLLOWING ARE ATTACHED IN ACCORCANCE 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 type="checkbox"/> DIRECTIONAL SURVEY PLAN (IF DIRECTIONALLY OR HORIZONTALLY DRILLED)				<input checked="" type="checkbox"/> TOPOGRAPHICAL MAP			
NAME Kaylene Gardner			TITLE Regulatory Administrator			PHONE 435 781-9111	
SIGNATURE			DATE 09/14/2009			EMAIL kaylene_gardner@eogresources.com	
API NUMBER ASSIGNED 43047506830000			APPROVAL  Permit Manager				

Proposed Hole, Casing, and Cement

String	Hole Size	Casing Size	Top (MD)	Bottom (MD)		
Prod	7.875	4.5	0	8950		
Pipe	Grade	Length	Weight			
	Grade N-80 LT&C	7128	11.6			

Proposed Hole, Casing, and Cement

String	Hole Size	Casing Size	Top (MD)	Bottom (MD)		
Surf	12.25	9.625	0	2300		
Pipe	Grade	Length	Weight			
	Grade J-55 ST&C	2300	36.0			

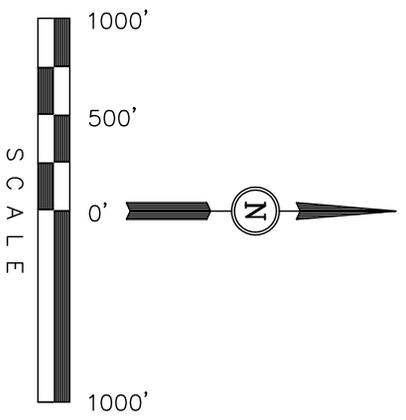
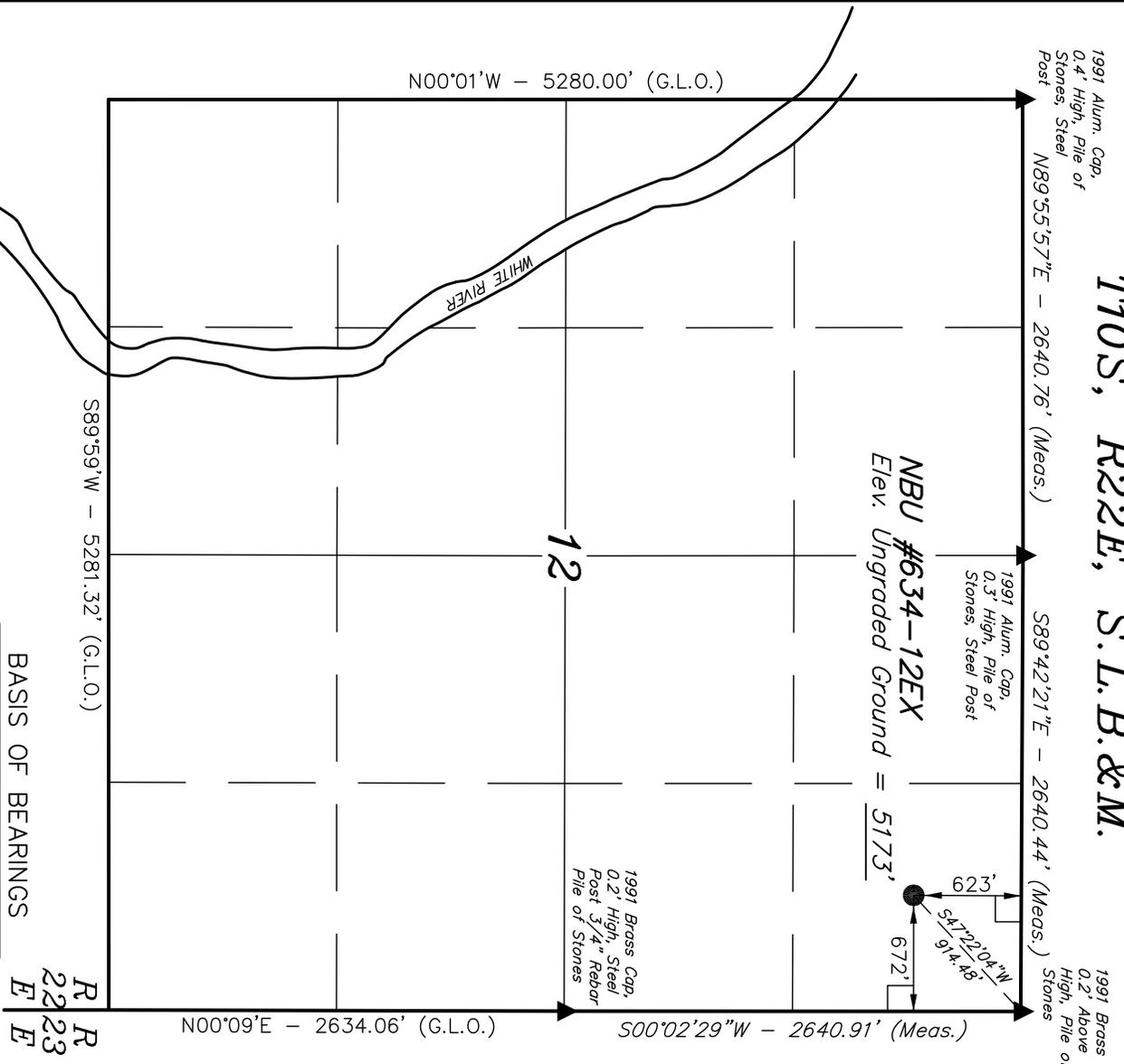
T10S, R22E, S.L.B.&M.

FOG RESOURCES, INC.

Well location, NBU #634-12EX, located as shown in the NE 1/4 NE 1/4 of Section 12, T10S, R22E, S.L.B.&M., Uintah County, Utah.

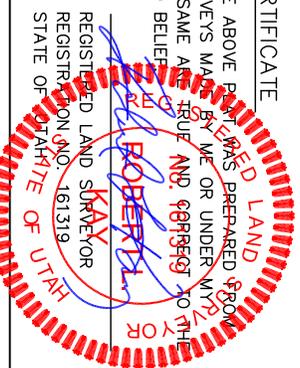
BASIS OF ELEVATION

BENCH MARK (20EAM) LOCATED IN THE SE 1/4 OF SECTION 35, T8S, R21E, S.L.B.&M. TAKEN FROM THE OURAY SE QUADRANGLE, UTAH, JINTAH COUNTY, 7.5 MINUTE SERIES (TOPOGRAPHICAL MAP) PUBLISHED BY THE UNITED STATES DEPARTMENT OF THE INTERIOR, GEOLOGICAL SURVEY. SAID ELEVATION IS MARKED AS BEING 4697 FEET.



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.



BASIS OF BEARINGS
BASIS OF BEARINGS IS A G.P.S. OBSERVATION.

- LEGEND:**
- = 90° SYMBOL
 - = PROPOSED WELL HEAD.
 - ▲ = SECTION CORNERS LOCATED.
- (NAD 83)
 LATITUDE = 39°58'08.23" (39.968953)
 LONGITUDE = 109°22'52.46" (109.381239)
 (NAD 27)
 LATITUDE = 39°58'08.35" (39.968986)
 LONGITUDE = 109°22'50.01" (109.380558)

UINTAH ENGINEERING & LAND SURVEYING	
85 SOUTH 200 EAST - VERNAL, UTAH 84078	
(435) 789-1017	
SCALE 1" = 1000'	DATE SURVEYED: 04-30-09
PARTY C.R. G.S. S.L.	DATE DRAWN: 05-05-09
WEATHER COOL	REFERENCES G.L.O. PLAT
	FILE FOG RESOURCES, INC.

EIGHT POINT PLAN

NATURAL BUTTES UNIT 634-12EX
NE/NE, SEC. 12, T10S, R22E, S.L.B.&M..
UINTAH COUNTY, UTAH

1. & 2. ESTIMATED TOPS & ANTICIPATED OIL, GAS, & WATER ZONES:

FORMATION	TVD-RKB (ft)	Objective	Lithology	
Green River	1,182		Shale	
Birdsnest Zone	1,320		Dolomite	
Mahogany Oil Shale	1,855		Shale	
Wasatch	4,107	Primary	Sandstone	Gas
Chapita Wells	4,686	Primary	Sandstone	Gas
Buck Canyon	5,330	Primary	Sandstone	Gas
North Horn	6,085	Primary	Sandstone	Gas
KMV Price River	6,404	Primary	Sandstone	Gas
TD	7,128			

Estimated TD: 7,128' or 200'± below TD

Anticipated BHP: 3,892 Psig

1. Fresh Waters may exist in the upper, approximately 1,000 ft ± of the Green River Formation, with top at about 2,000 ft ±.
2. Cement isolation is installed to surface of the well isolating all zones by cement.

3. PRESSURE CONTROL EQUIPMENT:

Production Hole – 5000 Psig
 BOP schematic diagrams attached.

4. CASING PROGRAM:

CASING	Hole Size	Length	Size	WEIGHT	Grade	Thread	Rating Collapse	Factor Burst	Tensile
Conductor	20"	0 – 60'	14"	32.5#	A-252	STC		1,880 PSI	10,000#
Surface	12 1/4"	0' – 2,300' KB±	9-5/8"	36.0#	J-55	STC	2020 PSI	3520 Psi	394,000#
Production	7-7/8"	Surface – TD	4-1/2"	11.6#	N-80	LTC	6350 PSI	7780 Psi	233,000#

Note: 12-1/4" surface hole will be drilled to a total depth of 200'± below the base of the Green River lost circulation zone and cased w/9-5/8" as shown to that depth. Drilled depth may be shallower or deeper than the 2300' shown above depending on the actual depth of the loss zone.

All casing will be new or inspected.

EIGHT POINT PLAN

NATURAL BUTTES UNIT 634-12EX
NE/NE, SEC. 12, T10S, R22E, S.L.B.&M..
UINTAH COUNTY, UTAH

5. Float Equipment:

Surface Hole Procedure (0'- 2300'±)

Guide Shoe

Insert Float Collar (PDC drillable)

Centralizers: 1-5' above shoe, top of jts. #2 and #3 then every 5th joint to surface. (15 total)

Production Hole Procedure (2300'± - TD):

Float shoe, 1 joint casing, float collar and balance of casing to surface. 4-1/2", 11.6#, N-80 or equivalent marker collars or short casing joints to be placed at top of Price River and 400' above top of Wasatch. Centralizers to be placed 5' above shoe on joint #1, top of joint #2, and every 2nd joint to 400' above Wasatch Island top. Thread lock float shoe, top and bottom of float collar, and top of 2nd joint.

6. MUD PROGRAM

Surface Hole Procedure (Surface - 2300'±):

Air/air mist or aerated water.

Production Hole Procedure (2300'± - TD):

Anticipated mud weight 9.5 – 10.5 ppg depending on actual wellbore conditions encountered while drilling.

2300'± - TD A closed mud system will be utilized. A bentonite gelled water mud system will be used to control viscosity w/PHPA polymer used for supplemental viscosity and clay encapsulation/inhibition. Water loss will be maintained at <15cc's using white starch or PAC. Bactericides will be used as needed. Anticipated pH will range from 9.0-10.0. Mud weight will be adjusted as necessary for well control. Deflocculants/thinners will be used as necessary to maintain mud quality. LCM sweeps will be utilized as necessary to control lost circulation and mud loss. CO2 contamination, if encountered, will be treated with lime and gypsum.

EIGHT POINT PLAN

NATURAL BUTTES UNIT 634-12EX
NE/NE, SEC. 12, T10S, R22E, S.L.B.&M..
UINTAH COUNTY, UTAH

7. VARIANCE REQUESTS:

Reference: Onshore Oil and Gas Order No. 1
Onshore Oil and Gas Order No. 2 – Section E: Special Drilling Operations

- EOG Resources, Inc. requests a variance to regulations requiring a straight run blooie line to be 100' in length. (Where possible, a straight run blooie line will be used).
- EOG Resources, Inc. requests a variance to regulations requiring the blooie line to be 100' in length. To reduce location excavation, the blooie line will be approximately 75' in length.
- EOG Resources, Inc. requests a variance to regulations, during air drilling operations only, requiring dedusting equipment. Dust during air drilling operations is controlled by water mist.
- EOG Resources, Inc. requests a variance to regulations, during air drilling operations only, requiring an automatic igniter or continuous pilot light on the blooie line. (Not required on aerated water system).
- EOG Resources, Inc. requests a variance that compressors are located in the opposite direction from the blooie line a minimum of 100 feet from the well bore. (Air Compressors are rig mounted).

8. EVALUATION PROGRAM:

Logs: Mud log from base of surface casing to TD.

Cased-hole Logs: Cased-hole logs will be run in lieu of open-hole logs consisting of the following: **Cement Bond / Casing Collar Locator and Pulsed Neutron**

EIGHT POINT PLAN

NATURAL BUTTES UNIT 634-12EX
NE/NE, SEC. 12, T10S, R22E, S.L.B.&M..
UINTAH COUNTY, UTAH

9. CEMENT PROGRAM:

Surface Hole Procedure (Surface - 2300'±):

Lead: 185 sks Class "G" cement with 16% Gel, 10 #/sx Gilsonite, 3% Salt, 2% CaCl₂, 3 lb/sx GR3 ¼ #/sx Flocele mixed at 11 ppg, 3.82 ft³/sk. yield, 23 gps water.

Tail: 207 sks Class "G" cement with 2% CaCl₂, ¼#/sk Flocele mixed at 15.6 ppg, 1.18 ft³/sk., 5.2 gps water.

Top Out: As necessary with Class "G" cement with 2% CaCl₂, ¼#/sk Flocele mixed at 15.6 ppg, 1.18 ft³/sk., 5.2 gps water.

Note: Cement volumes will be calculated to bring lead cement to surface and tail cement to 500' above the casing shoe.

Production Hole Procedure (2300'± - TD)

Lead: 98 sks: Hi-Lift "G" w/12% D20 (Bentonite), 1% D79 (Extender), 5% D44 (Salt), 0.2% D46 (Antifoam), 0.25% D112 (Fluid Loss Additive), 0.25 pps D29 (cello flakes) mixed at 11.0 ppg, 3.91 ft³/sk., 24.5 gps water.

Tail: 610 sks: 50:50 Poz "G" w/ 2% D20 (Bentonite), 0.1% D46 (Antifoam), 0.075% D13 (Retarder), 0.2% D167 (Fluid Loss Additive), 0.2% D65 (Dispersant), mixed at 14.1 ppg, 1.28 ft³/sk., 5.9gps water.

Note: The above number of sacks is based on gauge-hole calculation.
Lead volume to be calculated to bring cement to 200'± above 9-5/8" casing shoe.
Tail volume to be calculated to bring cement to 400'± above top of Wasatch.

Final Cement volumes will be based upon gauge-hole plus 45% excess.

10. ABNORMAL CONDITIONS:

Surface Hole (Surface - 2300'±):

Lost circulation

Production Hole (2300'± - TD):

Sloughing shales, lost circulation and key seat development are possible in the Wasatch Formation.

EIGHT POINT PLAN

NATURAL BUTTES UNIT 634-12EX
NE/NE, SEC. 12, T10S, R22E, S.L.B.&M..
UINTAH COUNTY, UTAH

11. STANDARD REQUIRED EQUIPMENT:

- A. Choke Manifold
- B. Upper and Lower Kelly Cock
- C. Stabbing Valve
- D. Visual Mud Monitoring

12. HAZARDOUS CHEMICALS:

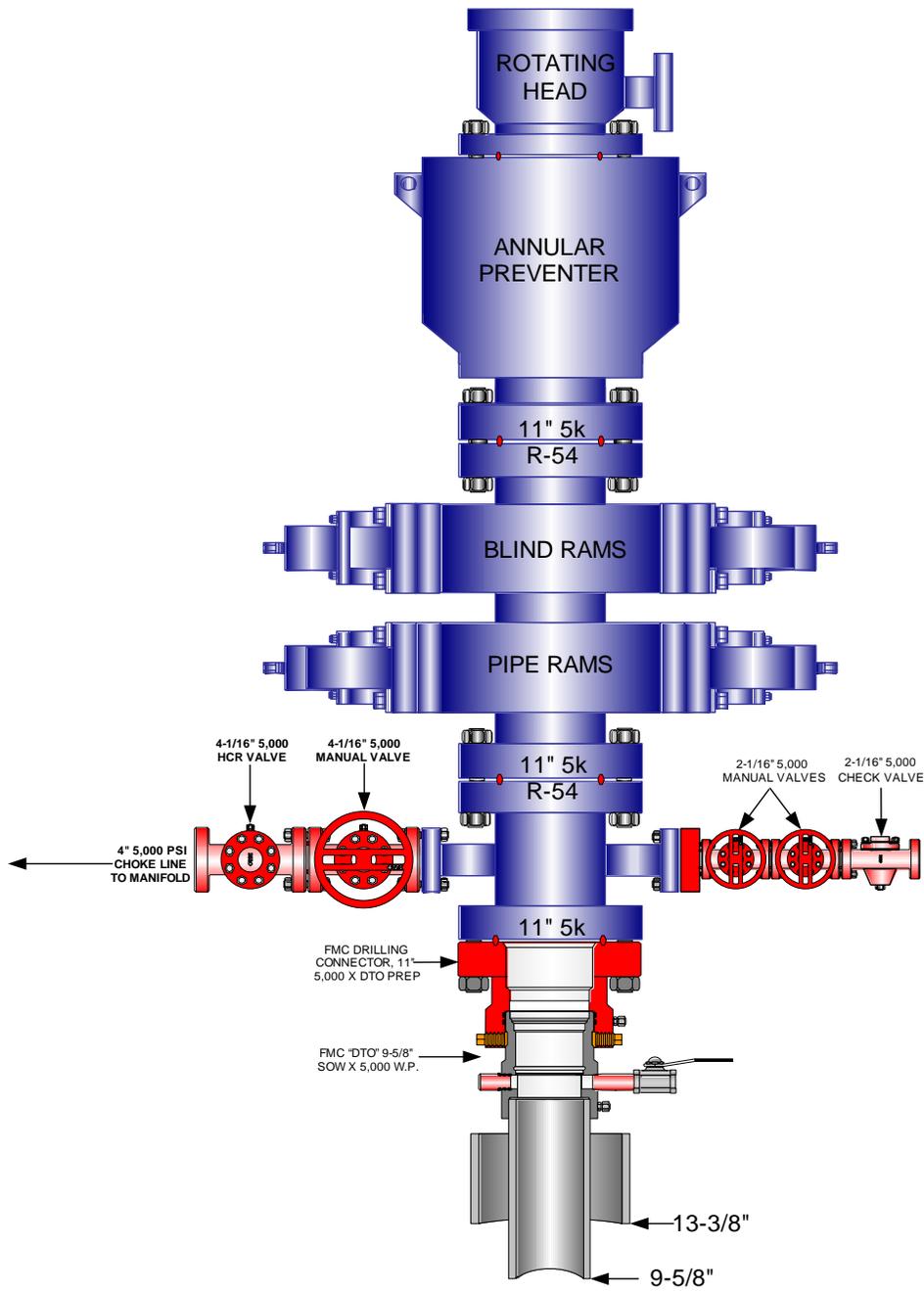
No chemicals subject to reporting under SARA title III in an amount equal to or greater than 10,000 pounds will be used, produced, stored, transported, or disposed of annually in association with the drilling of this well. Furthermore, no extremely hazardous substances, as defined in 40 CFR 355, in threshold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

13. Air Drilling Operations:

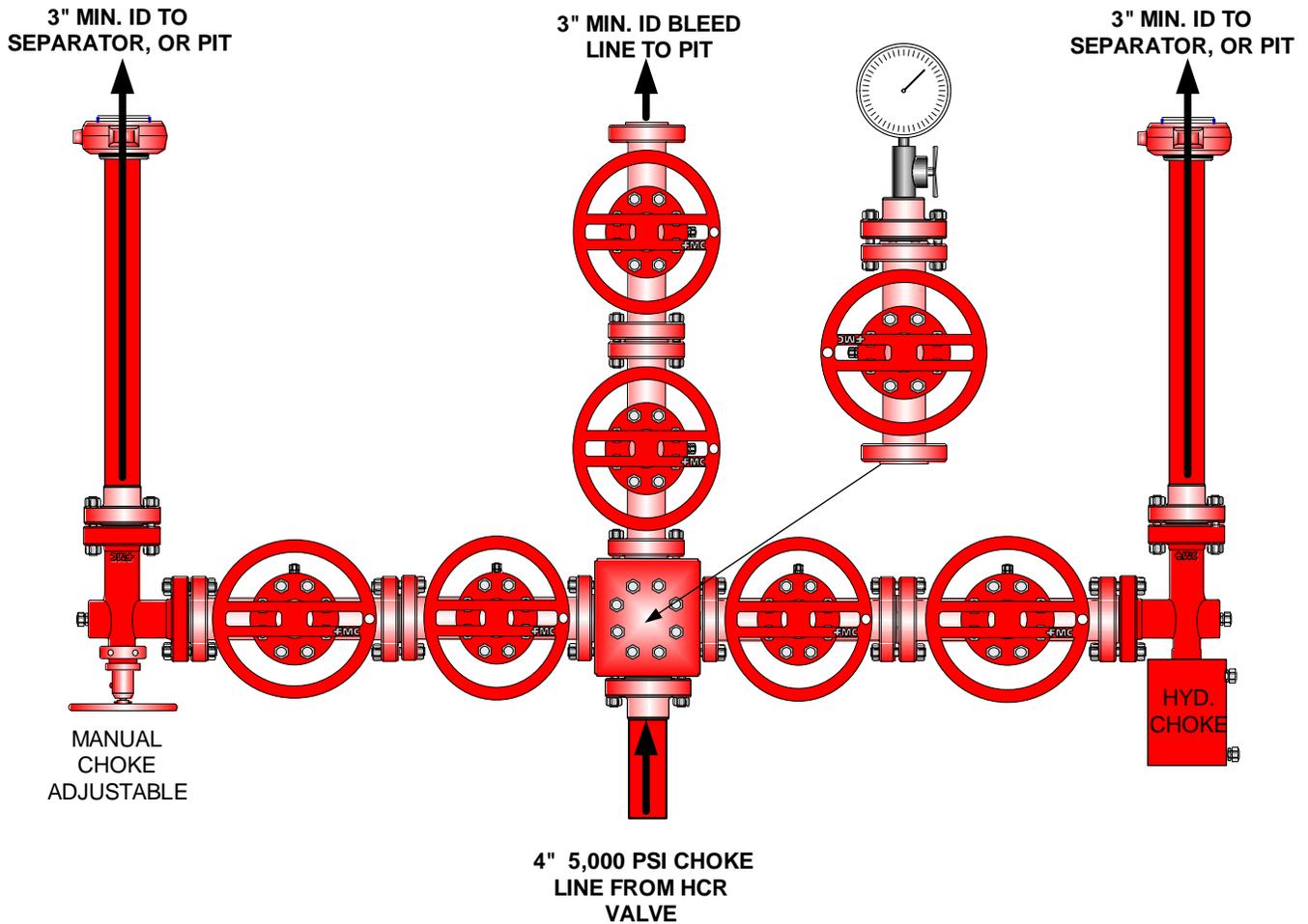
- 1. Main Air Compressors are 1250 CFM 350 psi with 2000 psi Boosters and are rig mounted.
- 2. Secondary Air Compressors are 1170 CFM 350 psi with 2000 psi Boosters and are rig mounted.
- 3. Minimum setting depth of conductor casing will be 60' GL or 10'± into competent formation, whichever is deeper, as determined by the EOG person in charge. Exceptions must be approved by an EOG drilling superintendent or manager.
- 4. The diameter of the diverter flow line will be a minimum of 10" to help reduce back pressure on the well bore during uncontrolled flow.
- 5. Rat and Mouse hole drilling will occur only after surface casing has been set and cemented.
- 6. EOG Resources, Inc. will use a properly maintained and lubricated stripper head.

(Attachment: BOP Schematic Diagram)

EOG RESOURCES 11" 5,000 PSI W.P. BOP CONFIGURATION



**EOG RESOURCES CHOKE MANIFOLD CONFIGURATION
W/ 5,000 PSI WP VALVES**



Testing Procedure:

1. BOP will be tested with a professional tester to conform to Onshore Order #2.
2. Blind and Pipe rams will be tested to rated working pressure, 5,000 psi.
3. Annular Preventer will be tested to 50% working pressure, 2,500 psi.
Casing will be tested to 0.22 psi / ft. or 1,500 psi. Not to exceed 70% of burst strength, **whichever is greater.**
4. All lines subject to well pressure will be tested to the same pressure as blind and pipe rams.
5. All BOPE specifications and configurations will meet Onshore Order #2 requirements.



***Natural Buttes Unit 634-12EX
NENE, Section 12, T10S, R22E
Uintah County, Utah***

SURFACE USE PLAN

1. EXISTING ROADS:

- A. See attached Plats showing directional reference stakes on location, and attached TOPO Map "B" showing access to location from existing roads.
- B. The proposed well site is located approximately 55.1 miles south of Vernal, Utah – See attached TOPO Map "A".
- C. Refer to attached Topographic Map "A" showing labeled access route to location.
- D. Existing roads will be maintained and repaired as necessary.

2. PLANNED ACCESS ROAD:

- A. The access road will be approximately 1056' in length. See attached Topo B.
- B. The access road has a 30 foot ROW w/18 foot running surface.
- C. Maximum grade of the new access road will be 8 percent.
- D. No turnouts will be required.
- E. Road drainage crossings shall be of the typical dry creek drainage crossing type.
- F. No bridges, or major cuts and fills will be required.
- G. The access road will be dirt surface.
- H. No gates, cattleguards, or fences will be required or encountered.
- I. A 40-foot permanent right-of-way is requested. No surfacing material will used.
- J. No additional storage areas will be needed for storing equipment, stockpiling, or vehicle parking.

All travel will be confined to existing access road rights-of-way.

New or reconstructed roads will be centerlined – flagged at time of location staking.

The road shall be constructed/upgraded to meet the standards of the anticipated traffic flow and all-weather road requirements. Construction/upgrading shall include ditching, draining, graveling, crowning, and capping the roadbed as necessary to provide a well constructed safe road. Prior to upgrading, the road shall be cleared of any snow cover and allowed to dry completely. Traveling off the 40 foot right-of-way will not be allowed. Road drainage crossings shall be of the typical dry creek drainage crossing type. Crossings shall be designed so they will not cause siltation or accumulation of debris in the drainage crossing nor shall the drainages be blocked by the roadbed. Erosion of drainage ditches by runoff water shall be prevented by diverting water off at frequent intervals by means of cutouts. Upgrading shall not be allowed during muddy conditions. Should mud holes develop, they shall be filled in and detours around them avoided.

As operator, EOG Resources, Inc. shall be responsible for all maintenance on cattleguards, or gates associated with this oil and/or gas operation.

Traveling off the 40 foot right-of-way will not be allowed. The access road and associated drainage structures will be constructed and maintained in accordance with road guidelines contained in the joint BLM/USFS publication: Surface Operating Standards for Oil and Gas Exploration and Development, Third Edition, and/or BLM Manual Section 9113 concerning road construction standards on projects subject to federal jurisdiction. During the drilling and production phase of operations, the road surface and shoulders will be kept in a safe and useable condition and drainage ditches and culverts will be kept clear and free flowing.

3. LOCATION OF EXISTING WELLS WITHIN A ONE-MILE RADIUS:

See attached TOPO map "C" for the location of wells within a one-mile radius.

4. LOCATION OF EXISTING AND/OR PROPOSED PRODUCTION FACILITIES:

A. On Well Pad

1. Production facilities will be set on location if the well is successfully completed for production. Facilities will consist of wellhead valves, combo separator-dehy unit with meter, two (2) 400 bbl vertical tanks and attaching piping.
2. Gas gathering lines – A 4" gathering line will be buried from dehy to the edge of the location.

B. Off Well Pad

1. Proposed pipeline will transport natural gas.
2. The pipeline will be a permanent feeder line.
3. The length of the proposed pipeline is 1927' x 40'. The proposed pipeline leaves the northern edge of the well pad (Lease U-01197-A-ST) proceeding in a southerly direction for an approximate distance of 1927' tying into an existing pipeline in the SWNE of Section 12, T10S, R22E (Lease U-01197-A-ST). Pipe

will be 4" NOM, 0.156 wall, Grade X42, Zap-Lock, electric weld with a 35 mil X-Tru coating.

4. Proposed pipeline will be a 4" OD steel, zap-lok line laid on the surface
5. Proposed pipeline will be laid on surface.
6. A 20-foot permanent pipeline right-of-way is requested. A 40-foot temporary pipeline right-of-way for construction purposes is requested, the temporary right-of-way will be utilized for a 10-day period.
7. Pipeline will be coupled using the Zap lock method. No additional off-pad facilities will be required.

All permanent (on site for six months or longer) structures constructed or installed (including pumping units) will be painted a flat, non-reflective, earthtone color to match one of the standard environmental colors, as determined by the Rocky Mountain Five State Interagency Committee. All facilities will be painted within 6 months of installation. **All facilities will be painted with Carlsbad Canyon.** Facilities required to comply with O.S.H.A. (Occupational Safety and Health Act) will be excluded.

5. LOCATION AND TYPE OF WATER SUPPLY:

- A. Water supply will be from Ouray Municipal Water Plant at Ouray, Utah, and/ or Bonanza Power Plant water source in Sec 26, T8S, R23E Uintah County, UT (State Water Right # 49-225(A31368)). Water will be hauled by a licensed trucking company.
- B. Water will be hauled by a licensed trucking company.
- C. No water well will be drilled on lease.

6. SOURCE OF CONSTRUCTION MATERIALS:

- A. All construction material for this pipeline will be of native borrow and soil accumulated during the construction of the location.
- B. No mineral materials will be required.

7. METHODS OF HANDLING WASTE DISPOSAL:

A. METHODS AND LOCATION

1. Cuttings will be confined in the reserve pit.
2. A portable toilet will be provided for human waste during the drilling and completion of the well. Disposal will be at the Vernal sewage disposal plant.

3. Burning will not be allowed. Trash and other waste material will be contained in a wire mesh cage and disposed of at the Uintah County Landfill.
 4. Produced wastewater will be confined to a lined pit or storage tank for a period not to exceed 90 days after initial production. After the 90 day period, the produced water will be contained in a tank on location and then disposed of at one of the following locations: Natural Buttes Unit 21-20B SWD, Ace Disposal, CWU 550-30N SWD or EOG Resources, Inc. drilling operations (Chapita Wells Unit, Natural Buttes Unit & Stagecoach Unit).
 5. All chemicals will be disposed of at an authorized disposal site. Drip pans and absorbent pads will be used on the drilling rig to avoid leakage of oil to the pit.
- B. Water from drilling fluids and recovered during testing operations will be disposed of by either evaporating in the reserve pit or by removed and disposed of at an authorized disposal site. Introduction of well bore hydrocarbons to the reserve pit will be avoided by flaring them off in the flare pit at the time of recovery.

The reserve pit will be constructed so as not to leak, break, or allow discharge. If the reserve pit requires padding prior to lining (due to rocky conditions) felt padding will be used.

The reserve pit shall be lined with felt and a 16 millimeter plastic liner. Sufficient bedding (i.e. weed free straw, or hay; felt; polyswell or soil) to cover any rocks. The liner will overlap the pit walls and be covered with dirt and/or rocks to hold it in place. No trash, scrap pipe, etc., that could puncture the liner will be disposed of in the pit. More stringent protective requirements may be deemed necessary by the A.O.

EOG Resources, Inc. maintains a file, per 29 CFR 1910.1200 (g) containing current Material Safety Data Sheets (MSDS) for all chemicals, compounds, and/or substances which are used during the course of construction, drilling, completion, and production operations for this project. Hazardous materials (substances) which may be found at the site may include drilling mud and cementing products which are primarily inhalation hazards, fuels (flammable and/or combustible), materials that may be necessary for well completion/ stimulation activities such as flammable or combustible substances and acids/gels (corrosives). The opportunity for Superfund Amendments and Reauthorization Act (SARA) listed Extremely Hazardous Substances (EHS) at the site is generally limited to proprietary treating chemicals. All hazardous and EHS and commercial preparations will be handled in an appropriate manner to minimize the potential for leaks or spills to the environment.

No chemicals subject to reporting under SARA Title III (hazardous materials) in an amount greater than 10,000 pounds will be used, produced, stored, transported, or disposed of annually in association with the drilling, testing, or completion of the well. Furthermore, extremely hazardous substances, as defined in 40 CFR 355, in threshold planning quantities, will not be used, produced, stored, transported, or disposed of in association with the drilling, testing or completion of the well.

8. ANCILLARY FACILITIES:

None anticipated.

9. WELL SITE LAYOUT:

- A. Refer to attached well site plat for related topography cuts and fills and cross sections.
- B. Refer to attached well site plat for rig layout and soil material stockpile location as approved on On-site.
- C. Refer to attached well site plat for rig orientation, parking areas, and access road.

The reserve pit will be located on the west corner of the location. The flare pit will be located downwind of the prevailing wind direction, a minimum of 100 feet from the well head and 30 feet from the reserve pit fence.

The stockpiled pit topsoil (first six inches) will be stored between corners #2 and #8, and corners #7 and #8. Upon completion of construction, the stockpiled topsoil from the location will be broadcast seeded with the approved seed mixture from this location and then walked down with a Caterpillar tractor.

Access to the well pad will be from the west.

FENCING REQUIREMENTS:

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

- A. Thirty-nine inch net wire shall be used with at least one strand of barbed wire on top of the net wire. (Barbed wire is not necessary if pipe or some type of reinforcement rod is attached to the top of the entire fence.)
- B. The net wire shall be no more than 2 inches above the ground. The barbed wire strand shall be 3 inches above the net wire. Total height of the fence shall be at least 42 inches.
- C. Corner posts shall be cemented and/or braced in such a manner as to keep the fence tight at all times.
- D. Standard steel, wood, or pipe posts shall be used between the corner braces. Maximum distances between any two posts shall be no greater than 16 feet.
- E. All wire shall be stretched by using a stretching device before it is attached to the corner posts.

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

Each existing fence to be crossed by the access road shall be braced and tied off before cutting so as to prevent slacking of the wire. The opening shall be closed temporarily as necessary during construction to prevent the escape of livestock, and, upon completion of construction, the fence shall be repaired to BLM or SMA specifications. A cattleguard with an adjacent 16 foot gate shall be installed in any fence where a road is regularly traveled. If the well is a producer, the cattleguards (shall/shall not) be permanently counted on concrete bases. Prior to crossing any fence located on Federal land, or any fence between Federal land and private land, the operator will contact the BLM, who will in turn contact the grazing permittee or owner of said fence and offer him/her the opportunity to be present when the fence is cut in order to satisfy himself/herself that the fence is adequately braced and tied off.

10. PLANS FOR RECLAMATION OF THE SURFACE:

A. Interim Reclamation (Producing Location)

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

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

If a plastic nylon reinforced liner is used, it shall be torn and perforated before backfilling of the reserve pit.

The reserve pit and that portion of the location not needed for production facilities/operations will be recontoured to the approximate natural contours – See attached Figure #3. The reserve pit will be reclaimed within 90 days from the date of the well completion, or as soon as environmental conditions allow. Before any dirt takes place, the reserve pit must be completely dry and free of all foreign obstacles.

The stockpiled pit topsoil will then be spread over the pit area and broadcast seeded with the prescribed seed mixture for this location. The seeded area will then be walked down with a cat.

B. Dry Hole/Abandoned Location

At such time as the well is plugged and abandoned, the operator will submit a subsequent report of abandonment and the BLM will attach the appropriated surface rehabilitation conditions of approval.

11. SURFACE OWNERSHIP:

Surface ownership of the proposed well site, access road, and pipeline route is as follows:

State of Utah

12. OTHER INFORMATION:

- A. EOG Resources, Inc. will inform all persons in the area who are associated with this project that they are subject to prosecution for knowingly disturbing historic or archaeological sites, or for collecting artifacts. If historic or archaeological materials are uncovered during construction, the operator will immediately stop work that might further disturb such materials, and contact the Authorized Officer. Within five working days the Authorized Officer will inform the operator as to:
- Whether the materials appear eligible for the National Register of Historic Places;
 - The mitigation measures the operator will likely have to undertake before the site can be used.
 - A time frame for the Authorized Officer to complete an expedited review under 36 CFR 800.11 to confirm, through the State Historic Preservation Officer, that the findings of the Authorized Officer are correct and that mitigation is appropriate.

If the operator wished, at any time, to relocate activities to avoid the expense of mitigation and/or the delays associated with this process, the Authorized Officer will assume responsibility for whatever recordation and stabilization of the exposed materials that may be required. Otherwise, the operator will be responsible for mitigation costs. The Authorized Officer will provide technical and procedural guidelines for the conduct of mitigation. Upon verification from the Authorized Officer that required mitigation has been completed, the operator will then be allowed to resume construction.

- B. As operator, EOG Resources, Inc. will control noxious weeds along Right-of-Ways for roads, pipelines, well sites, or other applicable facilities. A list of noxious weeds will be obtained from the BLM administered land, a Pesticide Use proposal shall be submitted, and given approval, prior to the application of herbicides or other pesticides or possible hazardous chemicals.
- C. Drilling rigs and/or equipment used during drilling operations on this well site will not be stacked or stored on BLM lands after the conclusion of drilling operations or at any other time without BLM authorization. However, if BLM authorization is obtained, it is only a temporary measure to allow time to make arrangements for permanent storage on commercial facilities. (The BLM does not seek to compete with private industry. There are commercial facilities available for stacking and storing drilling rigs.)
- D. The drilling rig and ancillary equipment will be removed from the location prior to commencement of completion operations. Completion operations will be conducted utilizing a completion/workover rig.

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 of Lessees. The operator is 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.

Construction activity will not be conducted using frozen or saturated soils material or during periods when watershed damage is likely to occur.

If the existing access road, proposed access road, and proposed pad are dry during construction, drilling, and completion activities, water will be applied to help facilitate compaction during construction and to minimize soil loss as a result of wind erosion.

A Cultural Resources survey will be conducted and submitted by Montgomery Archaeological Consultants. A Paleontological survey will be conducted and submitted by Intermountain Paleo.

LESSEE OR OPERATOR'S REPRESENTATIVE AND CERTIFICATION:

PERMITTING AGENT

Kaylene R. Gardner
EOG Resources, Inc.
P.O. Box 1815
Vernal, Ut 84078
(435) 781-9111

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 is fully responsible for the actions of his subcontractors. A copy of these conditions will be furnished to the field representative to insure compliance.

CERTIFICATION:

I hereby certify that I, or persons under my direct supervision, have inspected the proposed drill site and access route; that I am familiar with the conditions which currently exist; that the statements made in this plan are, to the best of my knowledge, true and correct; and that the work associated with the operations proposed herein will be performed by EOG Resources, Inc. and its contractors and subcontractors in conformity with this plan and the terms and conditions under which it is approved. This statement is subject to the provisions of 18 U.S.C. 1001 for the filing of a false statement.

Please be advised that EOG Resources, Inc. is considered to be the operator of the Natural Buttes Unit 634-12EX Well, located in the NENE, of Section 12, T10S, R22E, Uintah County, Utah; State land and minerals; and is responsible under the terms and conditions of the lease for the operations conducted upon the leased lands. Bond Coverage is under Bond # NM 2308.

August 22, 2009 _____
Date

Kaylene R. Gardner, Regulatory Administrator

EOG RESOURCES, INC.
NBU #634-12EX
LOCATED IN UINTAH COUNTY, UTAH
SECTION 12, T10S, R22E, S.L.B.&M.



PHOTO: VIEW FROM LOCATION STAKE TO CORNER #1

CAMERA ANGLE: NORTHEASTERLY



PHOTO: VIEW OF EXISTING ACCESS

CAMERA ANGLE: NORTHERLY



UELS Uintah Engineering & Land Surveying
85 South 200 East Vernal, Utah 84078
435-789-1017 uels@uelsinc.com

LOCATION PHOTOS	05	06	09	PHOTO
TAKEN BY: G.S.	MONTH	DAY	YEAR	
DRAWN BY: L.K.	REVISED: 00-00-00			

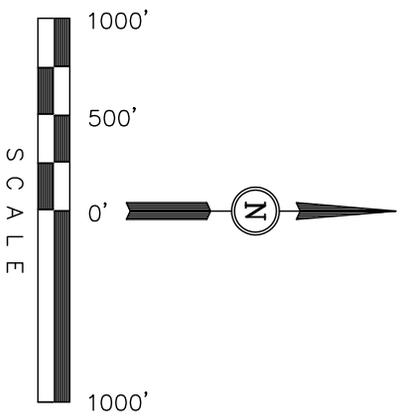
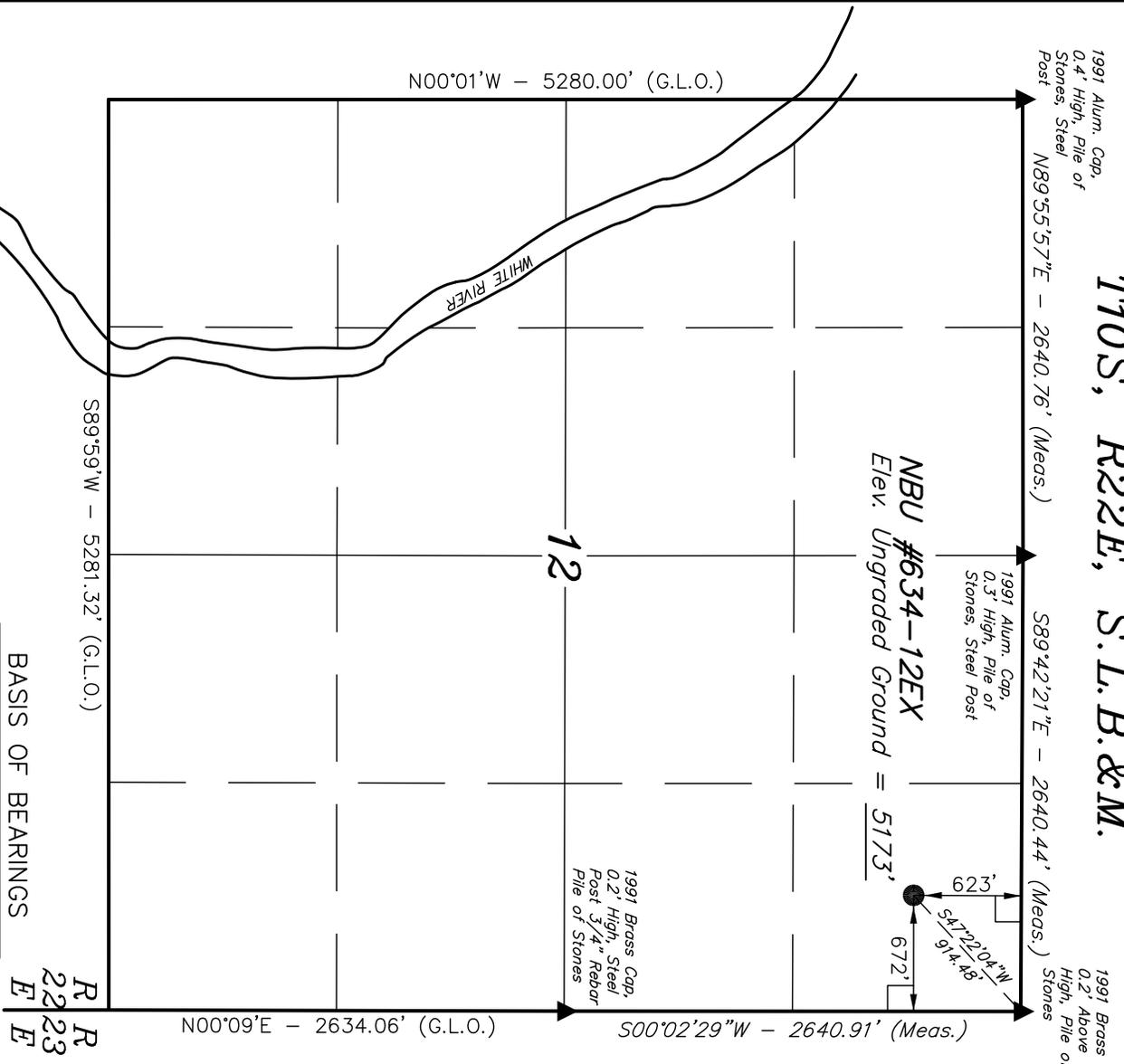
T10S, R22E, S.L.B.&M.

FOG RESOURCES, INC.

Well location, NBU #634-12EX, located as shown in the NE 1/4 NE 1/4 of Section 12, T10S, R22E, S.L.B.&M., Uintah County, Utah.

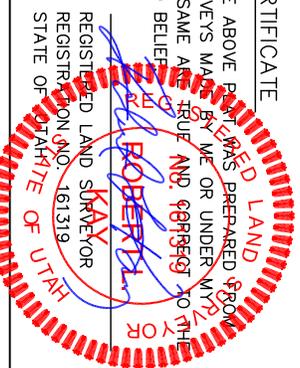
BASIS OF ELEVATION

BENCH MARK (20EAM) LOCATED IN THE SE 1/4 OF SECTION 35, T8S, R21E, S.L.B.&M. TAKEN FROM THE OURAY SE QUADRANGLE, UTAH, JINTAH COUNTY, 7.5 MINUTE SERIES (TOPOGRAPHICAL MAP) PUBLISHED BY THE UNITED STATES DEPARTMENT OF THE INTERIOR, GEOLOGICAL SURVEY. SAID ELEVATION IS MARKED AS BEING 4697 FEET.



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.



BASIS OF BEARINGS
BASIS OF BEARINGS IS A G.P.S. OBSERVATION.

(NAD 83)
LATITUDE = 39°58'08.23" (39.968953)
LONGITUDE = 109°22'52.46" (109.381239)
(NAD 27)
LATITUDE = 39°58'08.35" (39.968986)
LONGITUDE = 109°22'50.01" (109.380558)

- LEGEND:**
- = 90° SYMBOL
 - = PROPOSED WELL HEAD.
 - ▲ = SECTION CORNERS LOCATED.

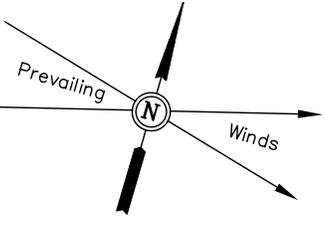
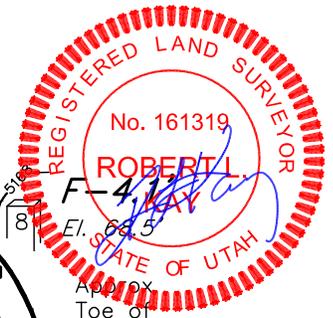
UINTAH ENGINEERING & LAND SURVEYING	
85 SOUTH 200 EAST - VERNAL, UTAH 84078	
(435) 789-1017	
SCALE 1" = 1000'	DATE SURVEYED: 04-30-09
PARTY C.R. G.S. S.L.	DATE DRAWN: 05-05-09
WEATHER COOL	REFERENCES G.L.O. PLAT
	FILE FOG RESOURCES, INC.

EOG RESOURCES, INC.

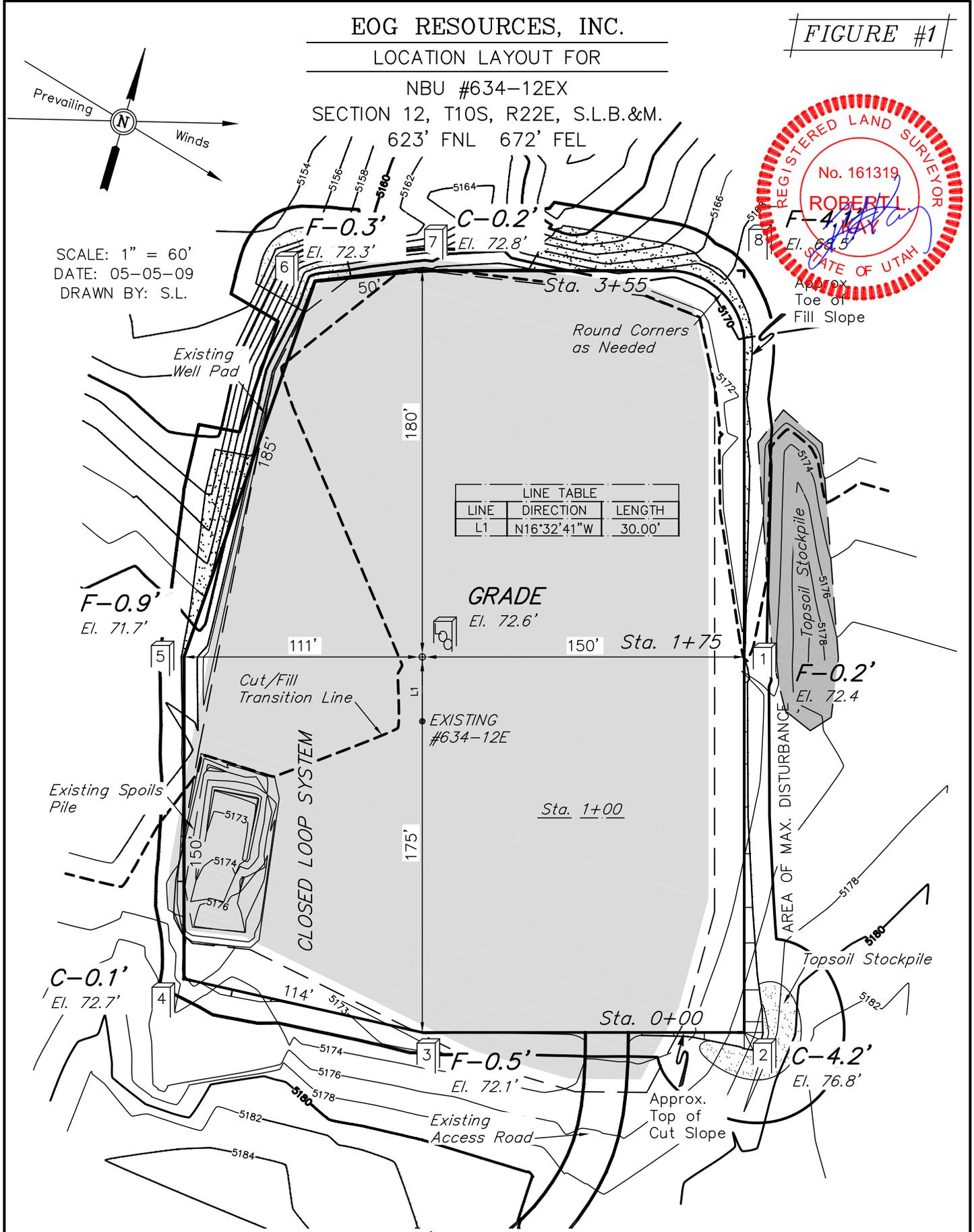
LOCATION LAYOUT FOR

NBU #634-12EX
SECTION 12, T10S, R22E, S.L.B.&M.
623' FNL 672' FEL

FIGURE #1



SCALE: 1" = 60'
DATE: 05-05-09
DRAWN BY: S.L.



LINE TABLE		
LINE	DIRECTION	LENGTH
L1	N16°32'41"W	30.00'

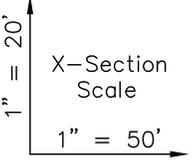
GRADE
El. 72.6'

Elev. Ungraded Ground At Loc. Stake = 5172.6'
FINISHED GRADE ELEV. AT LOC. STAKE = 5172.6'

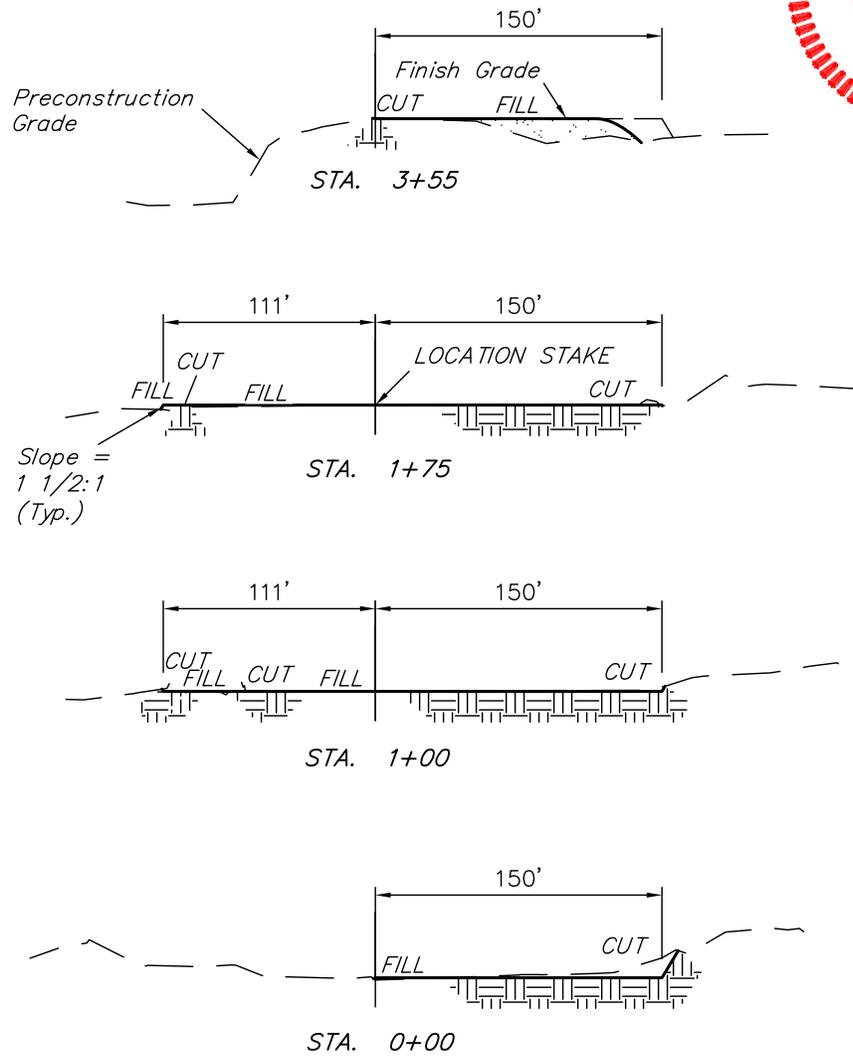
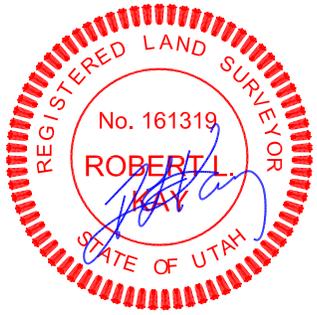
UINTAH ENGINEERING & LAND SURVEYING
85 So. 200 East * Vernal, Utah 84078 * (435) 789-1017

FIGURE #2

EOG RESOURCES, INC.
 TYPICAL CROSS SECTION FOR
 NBU #634-12EX
 SECTION 12, T10S, R22E, S.L.B.&M.
 623' FNL 672' FEL



DATE: 05-05-09
 DRAWN BY: S.L.



APPROXIMATE ACREAGES
 EXISTING WELL SITE DISTURBANCE = ± 1.776 ACRES
 PROPOSED WELL SITE DISTURBANCE = ± 0.664 ACRES
TOTAL = ± 2.440 ACRES

* NOTE:
 FILL QUANTITY INCLUDES
 5% FOR COMPACTION

APPROXIMATE YARDAGES

(6") Topsoil Stripping	=	150 Cu. Yds.
(New Construction Only)		
Remaining Location	=	580 Cu. Yds.
TOTAL CUT	=	730 CU.YDS.
FILL	=	580 CU.YDS.

EXCESS MATERIAL	=	150 Cu. Yds.
Topsoil	=	150 Cu. Yds.
EXCESS UNBALANCE	=	0 Cu. Yds.
(After Interim Rehabilitation)		

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EOG RESOURCES, INC.

TYPICAL RIG LAYOUT FOR

NBU #634-12EX

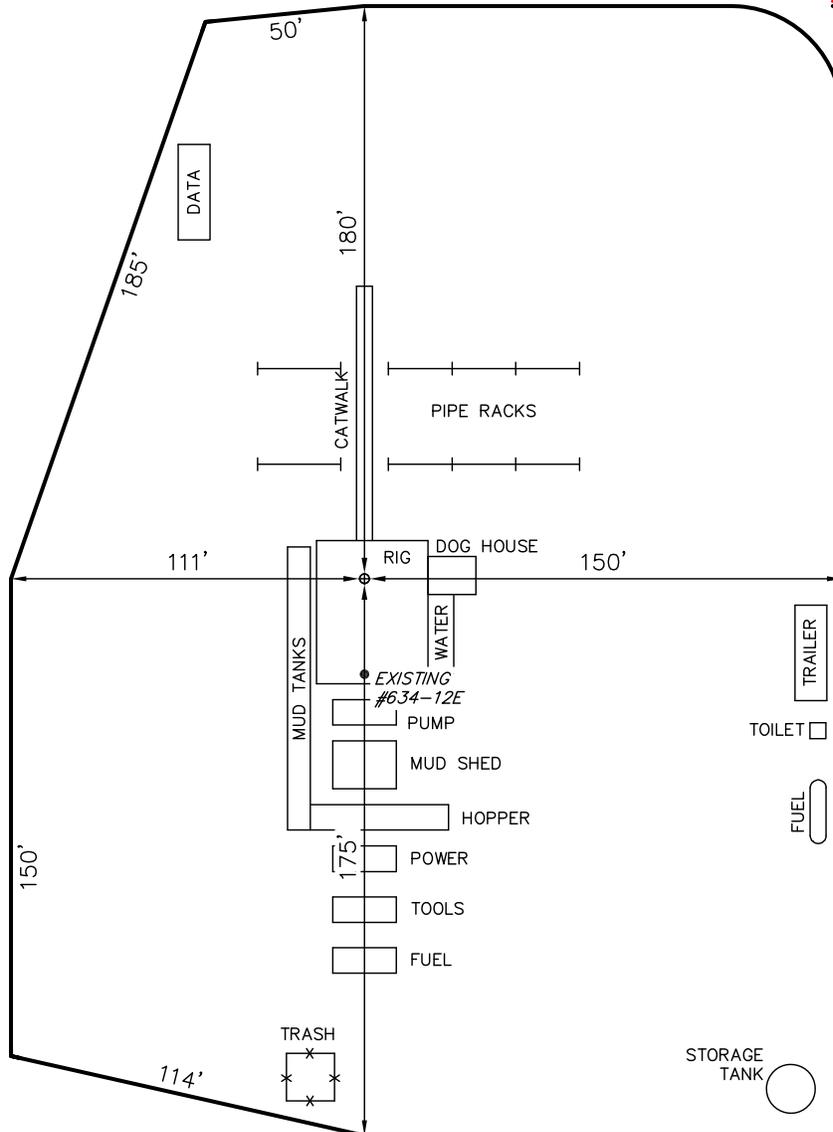
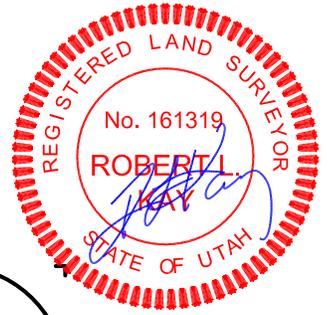
SECTION 12, T10S, R22E, S.L.B.&M.

623' FNL 672' FEL

FIGURE #3



SCALE: 1" = 60'
DATE: 05-05-09
DRAWN BY: S.L.

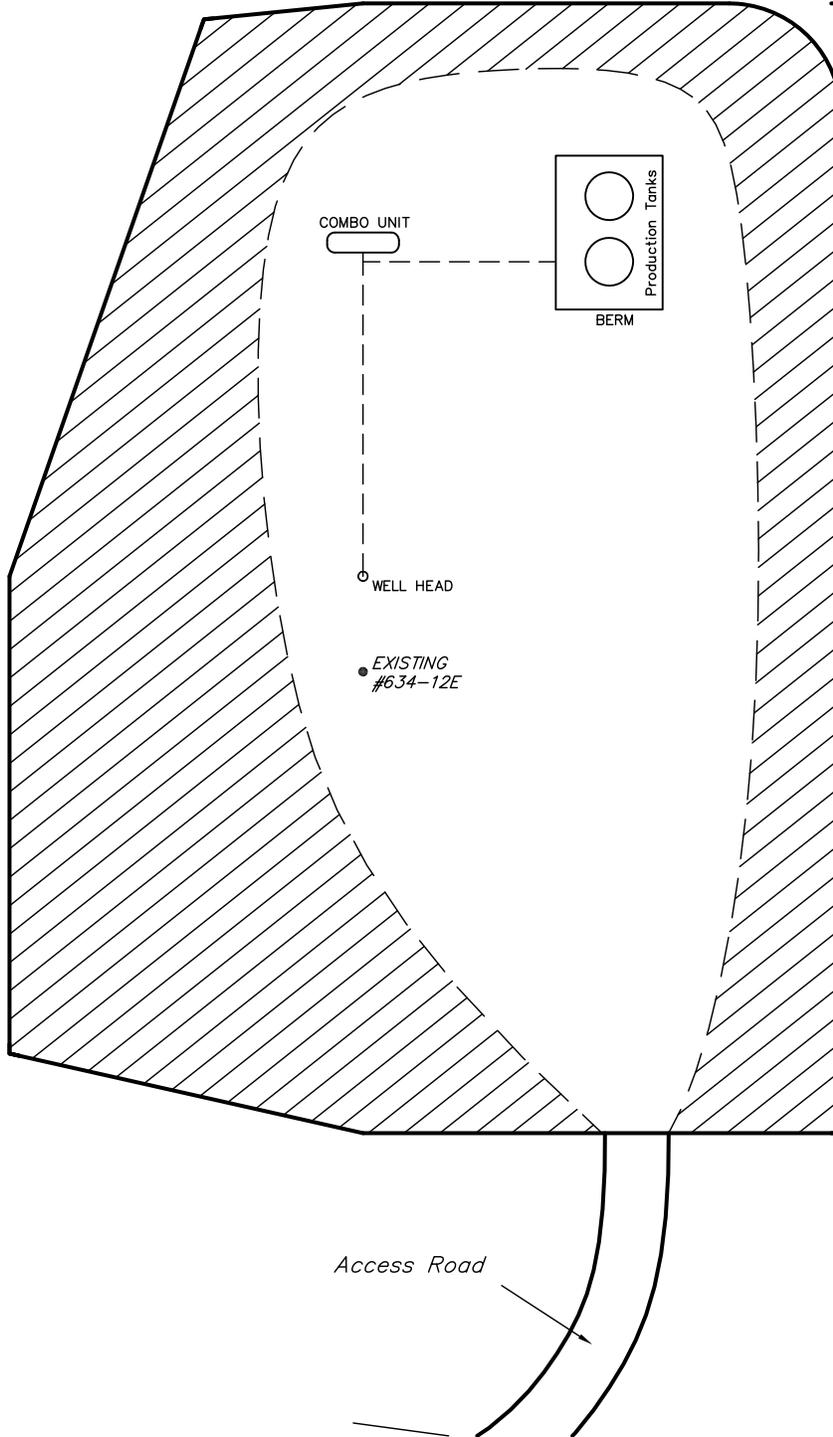
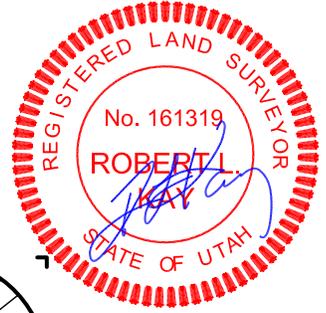


EOG RESOURCES, INC.
PRODUCTION FACILITY LAYOUT FOR
NBU #634-12EX
SECTION 12, T10S, R22E, S.L.B.&M.
623' FNL 672' FEL

FIGURE #4



SCALE: 1" = 60'
DATE: 05-05-09
DRAWN BY: S.L.

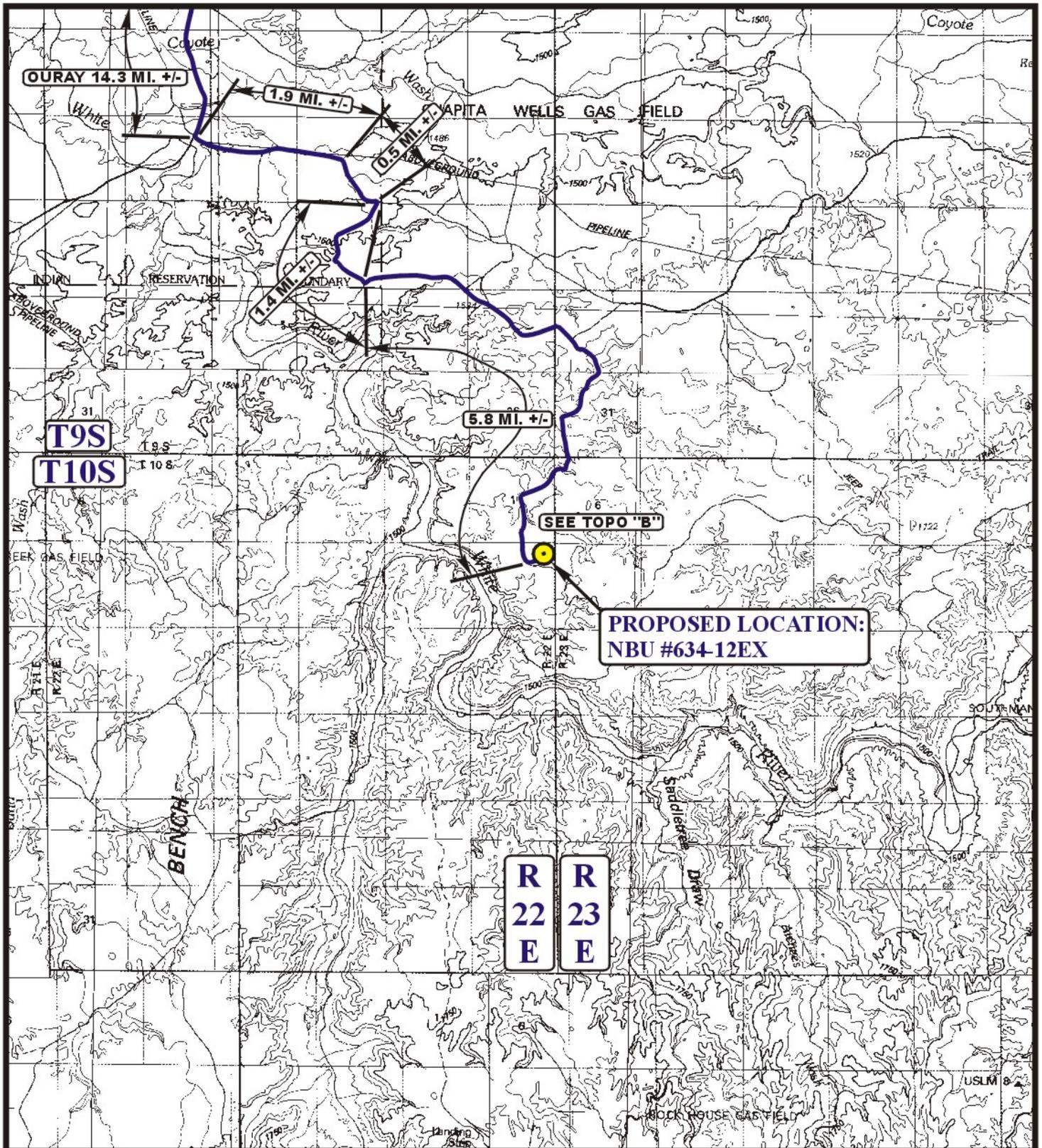


 RE-HABED AREA

EOG RESOURCES, INC.
NBU #634-12EX
SECTION 12, T10S, R22E, S.L.B.&M.

PROCEED IN A WESTERLY DIRECTION FROM VERNAL, UTAH ALONG U.S. HIGHWAY 40 APPROXIMATELY 14.0 MILES TO THE JUNCTION OF STATE HIGHWAY 88; EXIT LEFT AND PROCEED IN A SOUTHERLY DIRECTION APPROXIMATELY 17.0 MILES TO OURAY, UTAH; PROCEED IN A SOUTHERLY DIRECTION APPROXIMATELY 0.3 MILES ON THE SEEP RIDGE ROAD TO THE JUNCTION OF THIS ROAD AND AN EXISTING ROAD TO THE EAST; TURN LEFT AND PROCEED IN AN EASTERLY DIRECTION APPROXIMATELY 12.3 MILES TO THE JUNCTION OF THIS ROAD AND AN EXISTING ROAD TO THE SOUTH; TURN RIGHT AND PROCEED IN A SOUTHERLY DIRECTION APPROXIMATELY 1.7 MILES TO THE JUNCTION OF THIS ROAD AND AN EXISTING ROAD TO THE EAST; TURN LEFT AND PROCEED IN AN EASTERLY DIRECTION APPROXIMATELY 1.9 MILES TO THE JUNCTION OF THIS ROAD AND AN EXISTING ROAD TO THE SOUTHEAST; TURN RIGHT AND PROCEED IN A SOUTHEASTERLY DIRECTION APPROXIMATELY 0.5 MILES TO THE JUNCTION OF THIS ROAD AND AN EXISTING ROAD TO THE SOUTHWEST; TURN RIGHT AND PROCEED IN A SOUTHWESTERLY, THEN SOUTHEASTERLY DIRECTION APPROXIMATELY 1.4 MILES TO THE JUNCTION OF THIS ROAD AND AN EXISTING ROAD TO THE EAST; TURN LEFT AND PROCEED IN AN EASTERLY, THEN SOUTHWESTERLY DIRECTION APPROXIMATELY 5.8 MILES TO THE BEGINNING OF THE PROPOSED ACCESS TO THE NORTHEAST; FOLLOW ROAD FLAGS IN A NORTHEASTERLY DIRECTION APPROXIMATELY 0.2 MILES TO THE PROPOSED LOCATION.

TOTAL DISTANCE FROM VERNAL, UTAH TO THE PROPOSED WELL LOCATION IS APPROXIMATELY 55.1 MILES.



**PROPOSED LOCATION:
NBU #634-12EX**

**R
22
E** **R
23
E**

LEGEND:

 **PROPOSED LOCATION**



EOG RESOURCES, INC.

**NBU #634-12EX
SECTION 12, T10S, R22E, S.L.B.&M.
623' FNL 672' FEL**

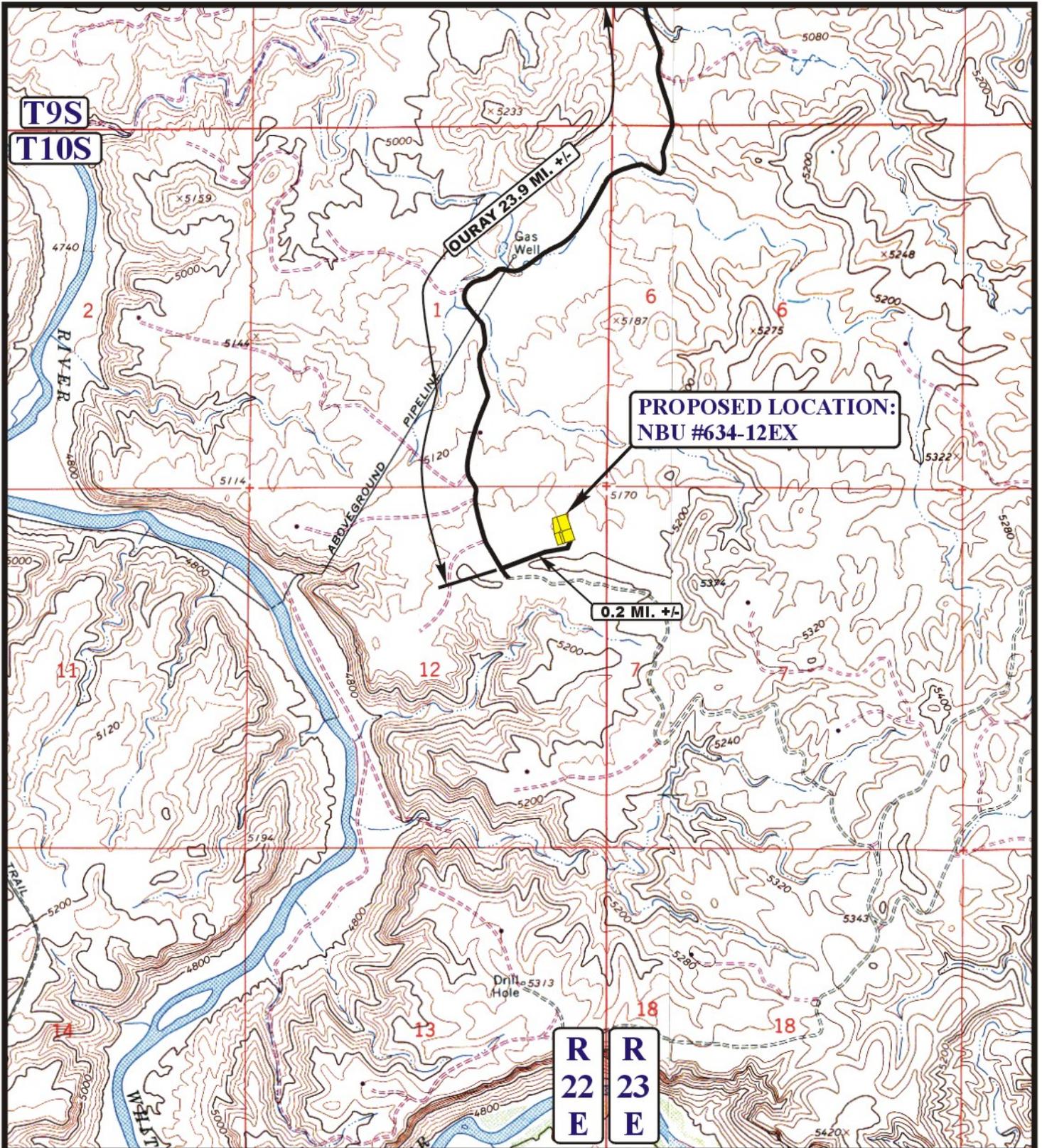


Utah Engineering & Land Surveying
85 South 200 East Vernal, Utah 84078
(435) 789-1017 * FAX (435) 789-1813

TOPOGRAPHIC **05 06 09**
MAP MONTH DAY YEAR

SCALE: 1:100,000 DRAWN BY: A.A. REVISED: 00-00-00





LEGEND:

- EXISTING ROAD
- PROPOSED ACCESS ROAD

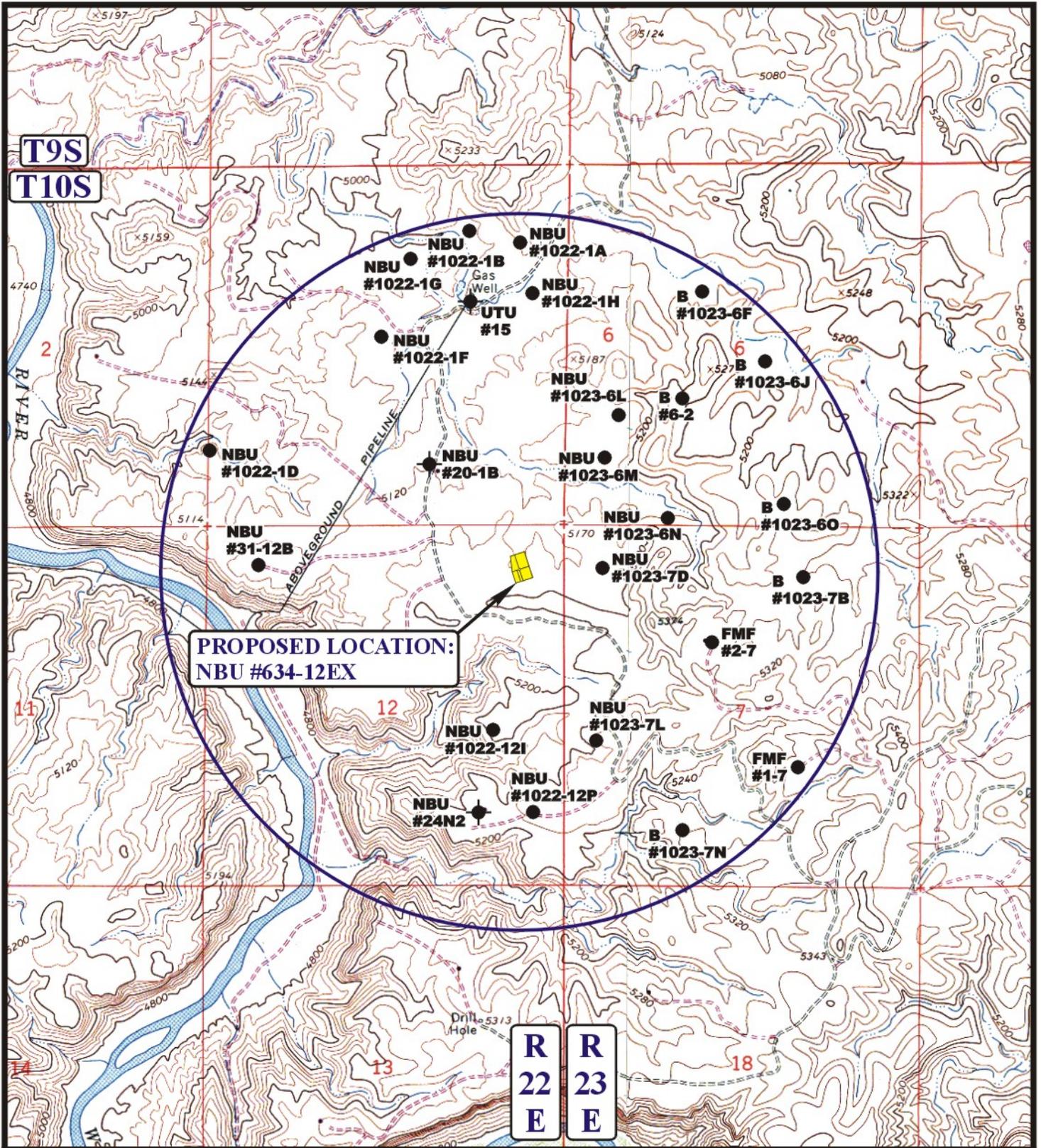


EOG RESOURCES, INC.

NBU #634-12EX
SECTION 12, T10S, R22E, S.L.B.&M.
623' FNL 672' FEL

U&L S **Utah Engineering & Land Surveying**
 85 South 200 East Vernal, Utah 84078
 (435) 789-1017 * FAX (435) 789-1813

TOPOGRAPHIC MAP **05 06 09**
 MONTH DAY YEAR
 SCALE: 1" = 2000' DRAWN BY: L.K. REVISED: 00-00-00 **B TOPO**



**PROPOSED LOCATION:
NBU #634-12EX**

LEGEND:

- ⊗ DISPOSAL WELLS
- PRODUCING WELLS
- SHUT IN WELLS
- ⊗ WATER WELLS
- ABANDONED WELLS
- TEMPORARILY ABANDONED

EOG RESOURCES, INC.

**NBU #634-12EX
SECTION 12, T10S, R22E, S.L.B.&M.
623' FNL 672' FEL**



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**TOPOGRAPHIC
MAP**

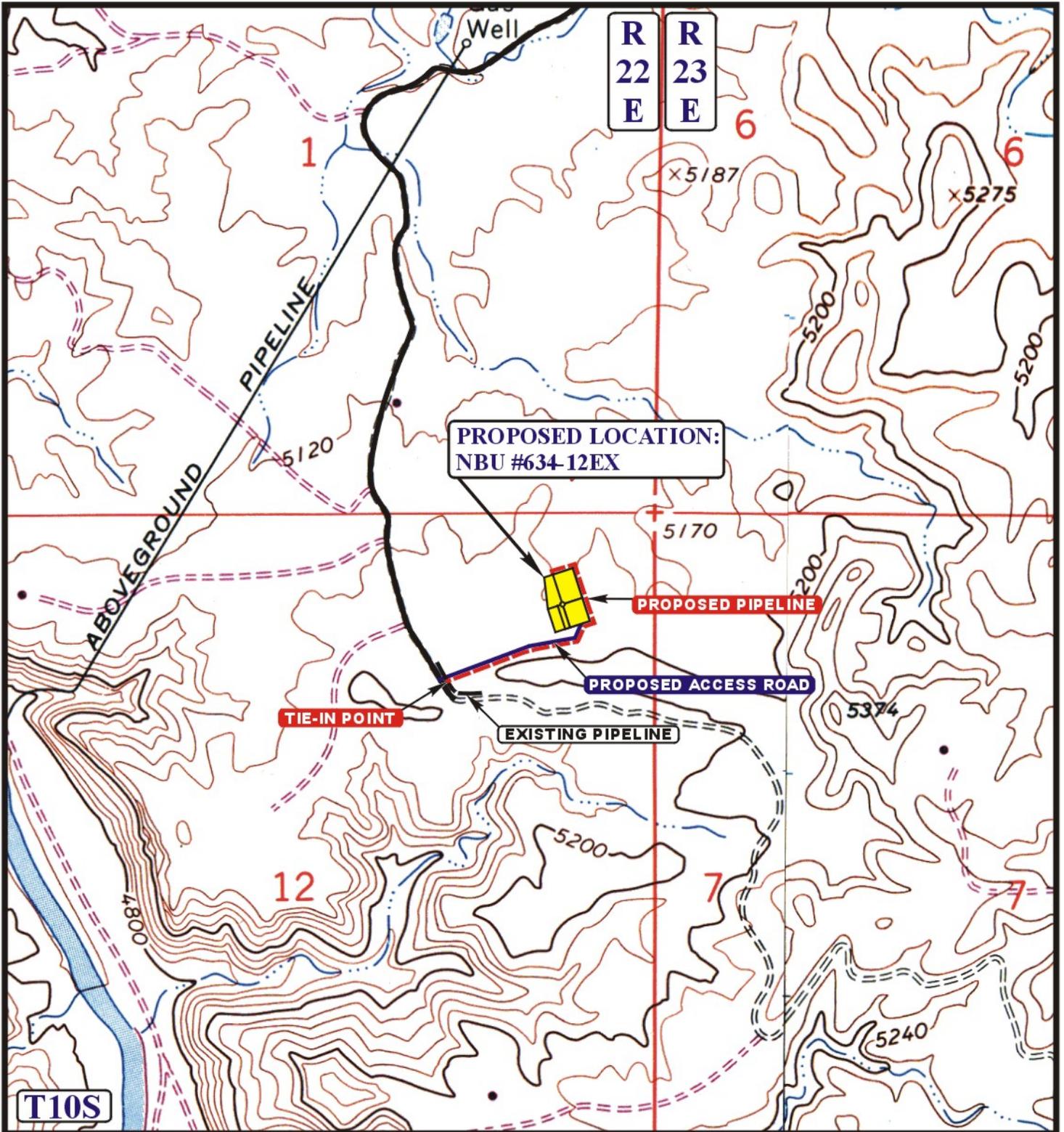
05 06 09
MONTH DAY YEAR

SCALE: 1" = 2000'

DRAWN BY: L.K.

REV: 00-00-00





APPROXIMATE TOTAL PIPELINE DISTANCE = 1,927' +/-

LEGEND:

-  PROPOSED ACCESS ROAD
-  EXISTING PIPELINE
-  PROPOSED PIPELINE

EOG RESOURCES, INC.

**NBU #634-12EX
SECTION 12, T10S, R22E, S.L.B.&M.
623' FNL 672' FEL**



Uintah Engineering & Land Surveying
85 South 200 East Vernal, Utah 84078
(435) 789-1017 * FAX (435) 789-1813



TOPOGRAPHIC MAP 03 08 07
MONTH DAY YEAR

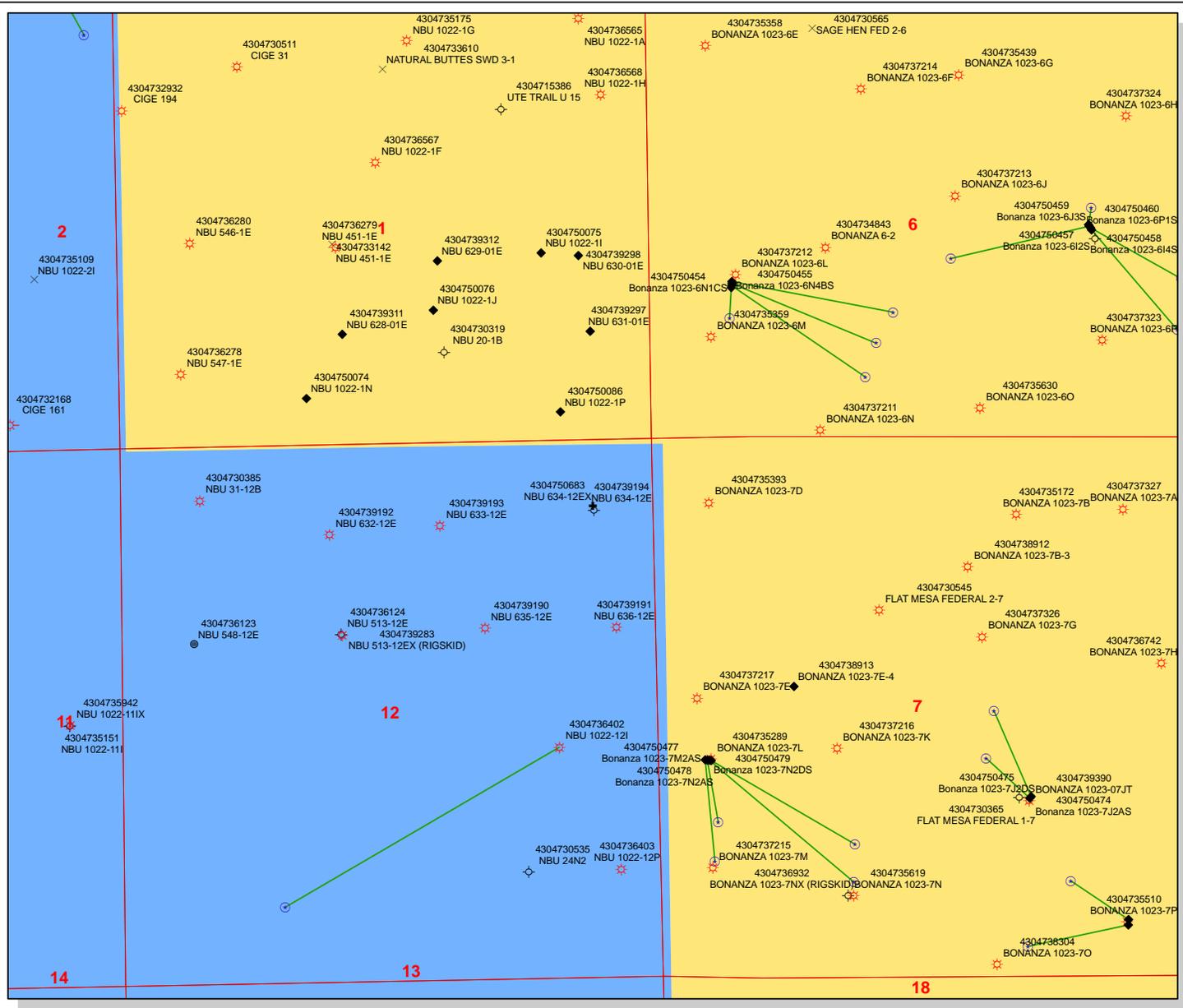
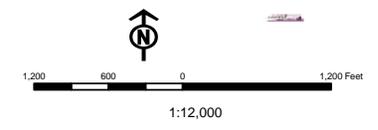
SCALE: 1" = 1000' DRAWN BY: A.A. REV: 06-09-09 L.K.

D TOPO

API Number: 4304750683
Well Name: NBU 634-12EX
Township 10.0 S Range 22.0 E Section 12
Meridian: SLBM
 Operator: EOG RESOURCES, INC.

Map Prepared:
 Map Produced by Diana Mason

- Sections Wells Query Events
- GIS_STAT_TYPE
- Null-
 - APD
 - DRL
 - GI
 - GS
 - LA
 - NEW
 - OPS
 - PA
 - PGW
 - POW
 - RET
 - SGW
 - SOW
 - TA
 - TW
 - WD
 - WI
 - WS



BOPE REVIEW EOG Resources, Inc. NBU 634-12EX 43047506830000

Well Name	EOG Resources, Inc. NBU 634-12EX 43047506830000		
String	Surf	Prod	
Casing Size(")	9.625	4.500	
Setting Depth (TVD)	2300	7128	
Previous Shoe Setting Depth (TVD)	0	2300	
Max Mud Weight (ppg)	8.3	10.5	
BOPE Proposed (psi)	500	5000	
Casing Internal Yield (psi)	3520	7780	
Operators Max Anticipated Pressure (psi)	3892	10.5	

Calculations	Surf String	9.625	"
Max BHP (psi)	$.052 * \text{Setting Depth} * \text{MW} =$	993	
			BOPE Adequate For Drilling And Setting Casing at Depth?
MASP (Gas) (psi)	$\text{Max BHP} - (0.12 * \text{Setting Depth}) =$	717	NO
MASP (Gas/Mud) (psi)	$\text{Max BHP} - (0.22 * \text{Setting Depth}) =$	487	YES OK
			*Can Full Expected Pressure Be Held At Previous Shoe?
Pressure At Previous Shoe	$\text{Max BHP} - .22 * (\text{Setting Depth} - \text{Previous Shoe Depth}) =$	487	NO OK
Required Casing/BOPE Test Pressure=		2300	psi
*Max Pressure Allowed @ Previous Casing Shoe=		0	psi *Assumes 1psi/ft frac gradient

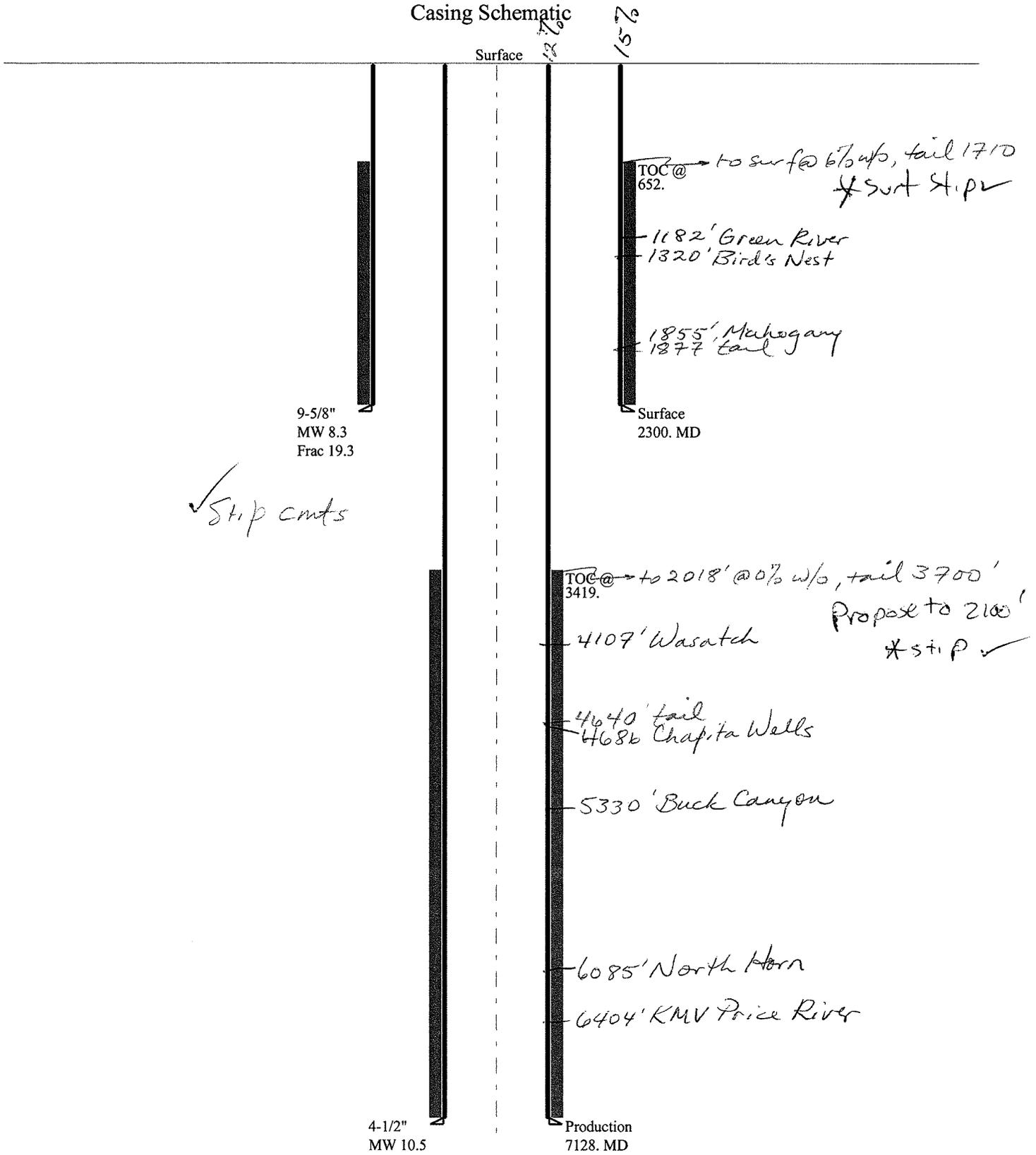
Calculations	Prod String	4.500	"
Max BPH (psi)	$.052 * \text{Setting Depth} * \text{MW} =$	3892	
			BOPE Adequate For Drilling And Setting Casing at Depth?
MASP (Gas) (psi)	$\text{Max BHP} - (0.12 * \text{Setting Depth}) =$	3037	YES
MASP (Gas/Mud) (psi)	$\text{Max BHP} - (0.22 * \text{Setting Depth}) =$	2324	YES OK
			*Can Full Expected Pressure Be Held At Previous Shoe?
Pressure At Previous Shoe	$\text{Max BHP} - .22 * (\text{Setting Depth} - \text{Previous Shoe Depth}) =$	2830	NO OK
Required Casing/BOPE Test Pressure=		5000	psi
*Max Pressure Allowed @ Previous Casing Shoe=		2300	psi *Assumes 1psi/ft frac gradient

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

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

43047506830000 NBU 634-12EX

Casing Schematic



Well name:	43047506830000 NBU 634-12EX		
Operator:	EOG Resources, Inc.		
String type:	Surface	Project ID:	43-047-50683
Location:	UINTAH COUNTY		

Design parameters:

Collapse

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

Minimum design factors:

Collapse:

Design factor 1.125

Burst:

Design factor 1.00

Environment:

H2S considered? No
Surface temperature: 74 °F
Bottom hole temperature: 106 °F
Temperature gradient: 1.40 °F/100ft
Minimum section length: 100 ft
Cement top: 652 ft

Burst

Max anticipated surface pressure: 2,024 psi
Internal gradient: 0.120 psi/ft
Calculated BHP 2,300 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: 2,016 ft

Non-directional string.

Re subsequent strings:

Next setting depth: 7,128 ft
Next mud weight: 10.500 ppg
Next setting BHP: 3,888 psi
Fracture mud wt: 19.250 ppg
Fracture depth: 2,300 ft
Injection pressure: 2,300 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	2300	9.625	36.00	J-55	ST&C	2300	2300	8.796	19991
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	995	2020	2.030	2300	3520	1.53	82.8	394	4.76 J

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

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

Date: September 1, 2009
Salt Lake City, Utah

Remarks:

Collapse is based on a vertical depth of 2300 ft, a mud weight of 8.33 ppg. The casing is considered to be evacuated for collapse purposes. Collapse strength is based on the Westcott, Dunlop & Kemler method of biaxial correction for tension.

Burst strength is not adjusted for tension.

Well name:	43047506830000 NBU 634-12EX		
Operator:	EOG Resources, Inc.		
String type:	Production	Project ID:	43-047-50683
Location:	UINTAH COUNTY		

Design parameters:

Collapse

Mud weight: 10.500 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: 174 °F
Temperature gradient: 1.40 °F/100ft
Minimum section length: 100 ft

Cement top: 3,419 ft

Burst

Max anticipated surface pressure: 2,320 psi
Internal gradient: 0.220 psi/ft
Calculated BHP 3,888 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: 6,009 ft

Non-directional string.

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	7128	4.5	11.60	N-80	LT&C	7128	7128	3.875	29356
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	3888	6350	1.633	3888	7780	2.00	82.7	223	2.70 J

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

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

Date: September 1, 2009
Salt Lake City, Utah

Remarks:

Collapse is based on a vertical depth of 7128 ft, a mud weight of 10.5 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.

**WORKSHEET
APPLICATION FOR PERMIT TO DRILL**

APD RECEIVED: 8/23/2009

API NO. ASSIGNED: 43047506830000

WELL NAME: NBU 634-12EX

OPERATOR: EOG Resources, Inc. (N9550)

PHONE NUMBER: 435 781-9111

CONTACT: Kaylene Gardner

PROPOSED LOCATION: NENE 12 100S 220E

Permit Tech Review:

SURFACE: 0623 FNL 0672 FEL

Engineering Review:

BOTTOM: 0623 FNL 0672 FEL

Geology Review:

COUNTY: UINTAH

LATITUDE: 39.96904

LONGITUDE: -109.38066

UTM SURF EASTINGS: 638296.00

NORTHINGS: 4425366.00

FIELD NAME: NATURAL BUTTES

LEASE TYPE: 3 - State

LEASE NUMBER: UTU01197-A-ST

PROPOSED PRODUCING FORMATION(S): MESA VERDE

SURFACE OWNER: 3 - State

COALBED METHANE: NO

RECEIVED AND/OR REVIEWED:

- PLAT**
- Bond:** STATE/FEE - 6196017
- Potash**
- Oil Shale 190-5**
- Oil Shale 190-3**
- Oil Shale 190-13**
- Water Permit:** 49-225
- RDCC Review:**
- Fee Surface Agreement**
- Intent to Commingle**

Commingle Approved

LOCATION AND SITING:

- R649-2-3.**
Unit: NATURAL BUTTES
 - R649-3-2. General**
 - R649-3-3. Exception**
 - Drilling Unit**
Board Cause No: Cause 173-14
Effective Date: 12/2/1999
Siting: 460' fr u bdry & uncomm. tract
 - R649-3-11. Directional Drill**
-

Comments: Presite Completed
RIGSKID FR 4304739194:

Stipulations: 12 - Cement Volume (3) - ddoucet
17 - Oil Shale 190-5(b) - dmason
22 - Rigskid - dmason
25 - Surface Casing - hmacdonald
27 - Other - bhill



State of Utah

DEPARTMENT OF NATURAL RESOURCES

MICHAEL R. STYLER
Executive Director

Division of Oil, Gas and Mining

JOHN R. BAZA
Division Director

Permit To Drill

Well Name: NBU 634-12EX
API Well Number: 43047506830000
Lease Number: UTU01197-A-ST
Surface Owner: STATE
Approval Date: 9/14/2009

Issued to:

EOG Resources, Inc., 1060 East Highway 40, Vernal, UT 84078

Authority:

Pursuant to Utah Code Ann. §40-6-1 et seq., and Utah Administrative Code R649-3-1 et seq., the Utah Division of Oil, Gas and Mining issues conditions of approval, and permit to drill the listed well. This permit is issued in accordance with the requirements of Cause 173-14. The expected producing formation or pool is the MESA VERDE Formation(s), completion into any other zones will require filing a Sundry Notice (Form 9). Completion and commingling of more than one pool will require approval in accordance with R649-3-22.

Duration:

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

General:

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

Conditions of Approval:

In accordance with 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.

All conditions of approval in the Statement of Basis and RDCC comments from (original well name) permit apply to (new well name).

All conditions of approval for the original well permit shall apply to the NBU 634-12EX well.

Surface casing shall be cemented to the surface.

Cement volume for the 4 1/2" production string shall be determined from actual hole diameter in order to place cement from the pipe setting depth back to 2100' MD as indicated in the submitted drilling plan.

Additional Approvals:

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

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

Notification Requirements:

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

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

Contact Information:

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

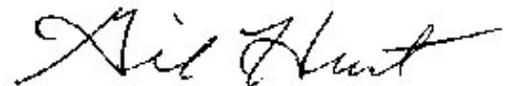
- Carol Daniels 801-538-5284 - office
- Dustin Doucet 801-538-5281 - office
801-733-0983 - after office hours
- Dan Jarvis 801-538-5338 - office
801-942-0871 - after office hours

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:



Gil Hunt
Associate Director, Oil & Gas

STATE OF UTAH DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS, AND MINING	FORM 9 5. LEASE DESIGNATION AND SERIAL NUMBER: UTU01197-A-ST
SUNDRY NOTICES AND REPORTS ON WELLS Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals.	6. IF INDIAN, ALLOTTEE OR TRIBE NAME: 7. UNIT or CA AGREEMENT NAME: NATURAL BUTTES
1. TYPE OF WELL Gas Well	8. WELL NAME and NUMBER: NBU 634-12EX
2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ONSHORE, L.P.	9. API NUMBER: 43047506830000
3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18th Street, Suite 600, Denver, CO, 80217 3779	PHONE NUMBER: 720 929-6007 Ext
4. LOCATION OF WELL FOOTAGES AT SURFACE: 0623 FNL 0672 FEL QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: Qtr/Qtr: NENE Section: 12 Township: 10.0S Range: 22.0E Meridian: S	9. FIELD and POOL or WILDCAT: NATURAL BUTTES COUNTY: UINTAH STATE: UTAH

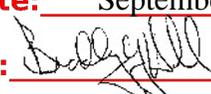
11. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION		
<input checked="" type="checkbox"/> NOTICE OF INTENT Approximate date work will start: 9/10/2010 <input type="checkbox"/> SUBSEQUENT REPORT Date of Work Completion: <input type="checkbox"/> SPUD REPORT Date of Spud: <input type="checkbox"/> DRILLING REPORT Report Date:	<input type="checkbox"/> ACIDIZE <input type="checkbox"/> CHANGE TO PREVIOUS PLANS <input type="checkbox"/> CHANGE WELL STATUS <input type="checkbox"/> DEEPEN <input type="checkbox"/> OPERATOR CHANGE <input type="checkbox"/> PRODUCTION START OR RESUME <input type="checkbox"/> REPERFORATE CURRENT FORMATION <input type="checkbox"/> TUBING REPAIR <input type="checkbox"/> WATER SHUTOFF <input type="checkbox"/> WILDCAT WELL DETERMINATION	<input type="checkbox"/> ALTER CASING <input type="checkbox"/> CHANGE TUBING <input type="checkbox"/> COMMINGLE PRODUCING FORMATIONS <input type="checkbox"/> FRACTURE TREAT <input type="checkbox"/> PLUG AND ABANDON <input type="checkbox"/> RECLAMATION OF WELL SITE <input type="checkbox"/> SIDETRACK TO REPAIR WELL <input type="checkbox"/> VENT OR FLARE <input type="checkbox"/> SI TA STATUS EXTENSION <input type="checkbox"/> OTHER	<input type="checkbox"/> CASING REPAIR <input type="checkbox"/> CHANGE WELL NAME <input type="checkbox"/> CONVERT WELL TYPE <input type="checkbox"/> NEW CONSTRUCTION <input type="checkbox"/> PLUG BACK <input type="checkbox"/> RECOMPLETE DIFFERENT FORMATION <input type="checkbox"/> TEMPORARY ABANDON <input type="checkbox"/> WATER DISPOSAL <input checked="" type="checkbox"/> APD EXTENSION 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: September 09, 2010
 By: 

NAME (PLEASE PRINT) Danielle Piernot	PHONE NUMBER 720 929-6156	TITLE Regulatory Analyst
SIGNATURE N/A		DATE 9/9/2010



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 43047506830000

API: 43047506830000

Well Name: NBU 634-12EX

Location: 0623 FNL 0672 FEL QTR NENE SEC 12 TWNP 100S RNG 220E MER S

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

Date Original Permit Issued: 9/10/2009

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

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

Signature: Danielle Piernot

Date: 9/9/2010

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

Date: September 09, 2010

By: 

STATE OF UTAH DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS, AND MINING		FORM 9
SUNDRY NOTICES AND REPORTS ON WELLS		5. LEASE DESIGNATION AND SERIAL NUMBER: UTU01197-A-ST
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2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ONSHORE, L.P.	9. API NUMBER: 43047506830000	
3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18th Street, Suite 600, Denver, CO, 80217 3779	PHONE NUMBER: 720 929-6515 Ext	9. FIELD and POOL or WILDCAT: NATURAL BUTTES
4. LOCATION OF WELL FOOTAGES AT SURFACE: 0623 FNL 0672 FEL QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: Qtr/Qtr: NENE Section: 12 Township: 10.0S Range: 22.0E Meridian: S	COUNTY: UINTAH	
		STATE: UTAH
11. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA		
TYPE OF SUBMISSION	TYPE OF ACTION	
<input checked="" type="checkbox"/> NOTICE OF INTENT Approximate date work will start: 8/22/2011 <input type="checkbox"/> SUBSEQUENT REPORT Date of Work Completion: <input type="checkbox"/> SPUD REPORT Date of Spud: <input type="checkbox"/> DRILLING REPORT Report Date:	<input type="checkbox"/> ACIDIZE <input type="checkbox"/> CHANGE TO PREVIOUS PLANS <input type="checkbox"/> CHANGE WELL STATUS <input type="checkbox"/> DEEPEN <input type="checkbox"/> OPERATOR CHANGE <input type="checkbox"/> PRODUCTION START OR RESUME <input type="checkbox"/> REPERFORATE CURRENT FORMATION <input type="checkbox"/> TUBING REPAIR <input type="checkbox"/> WATER SHUTOFF <input type="checkbox"/> WILDCAT WELL DETERMINATION <input type="checkbox"/> ALTER CASING <input type="checkbox"/> CHANGE TUBING <input type="checkbox"/> COMMINGLE PRODUCING FORMATIONS <input type="checkbox"/> FRACTURE TREAT <input type="checkbox"/> PLUG AND ABANDON <input type="checkbox"/> RECLAMATION OF WELL SITE <input type="checkbox"/> SIDETRACK TO REPAIR WELL <input type="checkbox"/> VENT OR FLARE <input type="checkbox"/> SI TA STATUS EXTENSION <input type="checkbox"/> OTHER	
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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: <u>08/22/2011</u>
		By: <u></u>
NAME (PLEASE PRINT) Andy Lytle	PHONE NUMBER 720 929-6100	TITLE Regulatory Analyst
SIGNATURE N/A	DATE 8/22/2011	



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 43047506830000

API: 43047506830000

Well Name: NBU 634-12EX

Location: 0623 FNL 0672 FEL QTR NENE SEC 12 TWNP 100S RNG 220E MER S

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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: Andy Lytle

Date: 8/22/2011

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



GARY R. HERBERT
Governor

GREG 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

May 9, 2012

Jenn Hawkins
Anadarko Petroleum Corporation
1099 18th Street, Suite 1800
Denver, CO 80202

Re: APDs Rescinded for Anadarko Petroleum Corporation
Uintah County

Dear Ms. Hawkins:

Enclosed find the list of APDs that you requested to be rescinded. No drilling activity at these locations has been reported to the division. Therefore, approval to drill these wells is hereby rescinded, effective May 2, 2012.

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
Bureau of Land Management, Vernal
SITLA, Ed Bonner

4304750055	NBU 753-32E	4304740374	NBU 705-26E
4304750683	NBU 634-12EX	4304750123	NBU 920-12N
4304740346	NBU 921-15N1S	4304750143	NBU 920-13J
4304740347	NBU 921-14M3S	4304750751	NBU 920-21G
4304740348	NBU 921-22A1S	4304750756	NBU 1022-35I1CS
4304750089	NBU 921-15O3T	4304750757	NBU 1022-35I4BS
4304740441	NBU 1022-25G2S	4304750758	NBU 1022-35J1CS
4304740442	NBU 1022-25G4S	4304750759	NBU 1022-35J4CS
4304740443	NBU 1022-25G3S	4304740380	NBU 920-13D
4304750852	FEDERAL 920-23O	4304750155	FEDERAL 920-24O
4304751026	NBU 921-12K	4304750769	NBU 1022-35K4CS
4304751027	NBU 921-12L	4304750770	NBU 1022-35N1CS
4304751028	NBU 921-12M	4304750771	NBU 1022-35O1BS
4304751039	NBU 920-21O	4304750772	NBU 1022-35O1CS
4304750697	NBU 687-30E	4304750791	NBU 921-10O
4304750811	NBU 699-25E	4304750792	NBU 921-10M
4304740153	NBU 1022-05JT	4304740439	NBU 1022-24P2S
4304740135	NBU 921-15MT	4304740440	NBU 1022-24P4S
4304750468	NBU 738-30E		
4304739369	NBU 922-18O		
4304739372	NBU 922-20E		
4304740184	NBU 921-30FT		
4304740217	NBU 759-29E		
4304740218	NBU 737-30E		
4304750461	NBU 1022-24O2S		
4304740267	NBU 704-26E		
4304740240	NBU 702-26E		
4304740241	NBU 703-26E		
4304750578	NBU 920-14B		
4304750579	NBU 920-14A		
4304740268	NBU 701-26E		
4304750627	NBU 920-21P		
4304750628	NBU 920-21N		
4304750682	NBU 921-12J		
4304750695	NBU 921-12N		
4304750111	NBU 921-11GT		
4304750112	NBU 921-11HT		
4304750118	NBU 740-30E		