CONFIDENTIAL

Form 3160-3
(July 1992)

FORM APPROVED
OMB NO. 1040-0136
Expires: February 28, 1995

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

SUBMIT IN TRIPLICATE*

APPLICATION FOR PERMIT TO DRILL OR DEEPEN

5. LEASE DESIGNATION AND SERIAL NO.
UTU-30290

6. IF INDIAN, ALLOTTEE OR TRIBE NAME
N/A

TYPE OF WORK
DRILL ☑ DEEPEN ☐

7. UNIT AGREEMENT NAME
JOHNSON BOTTOM UNIT UTU-86617X

TYPE OF WELL
☑ OIL WELL ☐ GAS WELL ☐ OTHER ☑ SINGLE ZONE ☐ MULTIPLE ZONE

8. FARM OR LEASE NAME, WELL NO.
JB 8G-21-7-21

2. NAME OF OPERATOR
QUESTAR EXPLORATION & PRODUCTION , CO.

Contact: Jan Nelson
E-Mail: jan.nelson@questar.com

9.API NUMBER: 43-047-40613

3. ADDRESS
11002 E. 17500 SO. Vernal, Ut 84078

Telphone number
Phone 435-781-4331 Fax 435-781-4395

10. FIELD AND POOL, OR WILDCAT 560
Brennan ~~UNDESIGNATED~~ Bottom

4. LOCATION OF WELL (Report location clearly and in accordance with and State requirements*)
At Surface 2199' FNL 844' FEL, SENE, SECTION 21, T7S, R21E
At proposed production zone PLEASE SEE ADDITIONAL INFORMATION

11. SEC.,T, R, M, OR BLK & SURVEY OR AREA
SEC. 21, T7S, R21E Mer SLB&M

14. DISTANCE IN MILES FROM NEAREST TOWN OR POSTOFFICE*
28 + / - MILES SOUTH OF OURAY, UTAH

12. COUNTY OR PARISH
Uintah

13. STATE
UT

15. DISTANCE FROM PROPOSED LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT.
(also to nearest drig,unit line if any)
585' + / -

16.NO.OF ACRES IN LEASE
720

17. NO. OF ACRES ASSIGNED TO THIS WELL
40

18.DISTANCE FROM PROPOSED location to nearest well, drilling, completed, applied for, on this lease, ft
2,000' +/-

19. PROPOSED DEPTH
10,972' MD SW LATERAL
10,715' MD E LATERAL

20. BLM/BIA Bond No. on file
ESB000024

21. ELEVATIONS (Show whether DF, RT, GR, ect.)
4813.3' GR

22. DATE WORK WILL START
3/1/2010

23. Estimated duration
45 Days

24. Attachments

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

1. Well plat certified by a registered surveyor.
2. A Drilling Plan
3. A surface Use Plan (if location is on National Forest System Lands, the SUPO shall be filed with the appropriate Forest Service Office).
4. Bond to cover the operations unless covered by an exisiting bond on file (see Item 20 above).
5. Operator certification.
6. Such other site specific information and/or plans as may be required by the authorized officer.

SIGNED Jan Nelson Name (printed/typed) Jan Nelson DATE 09-15-2009

TITLE Permit Agent

(This space for Federal or State office use)

PERMIT NO. 43-047-40613 APPROVAL DATE

Application approval does not warrant or certify the applicant holds any legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon

CONDITIONS OF APPROVAL, IF ANY:

APPROVED BY Bradley G. Hill TITLE BRADLEY G. HILL ENVIRONMENTAL MANAGER DATE 11-05-09

*See Instructions On Reverse Side

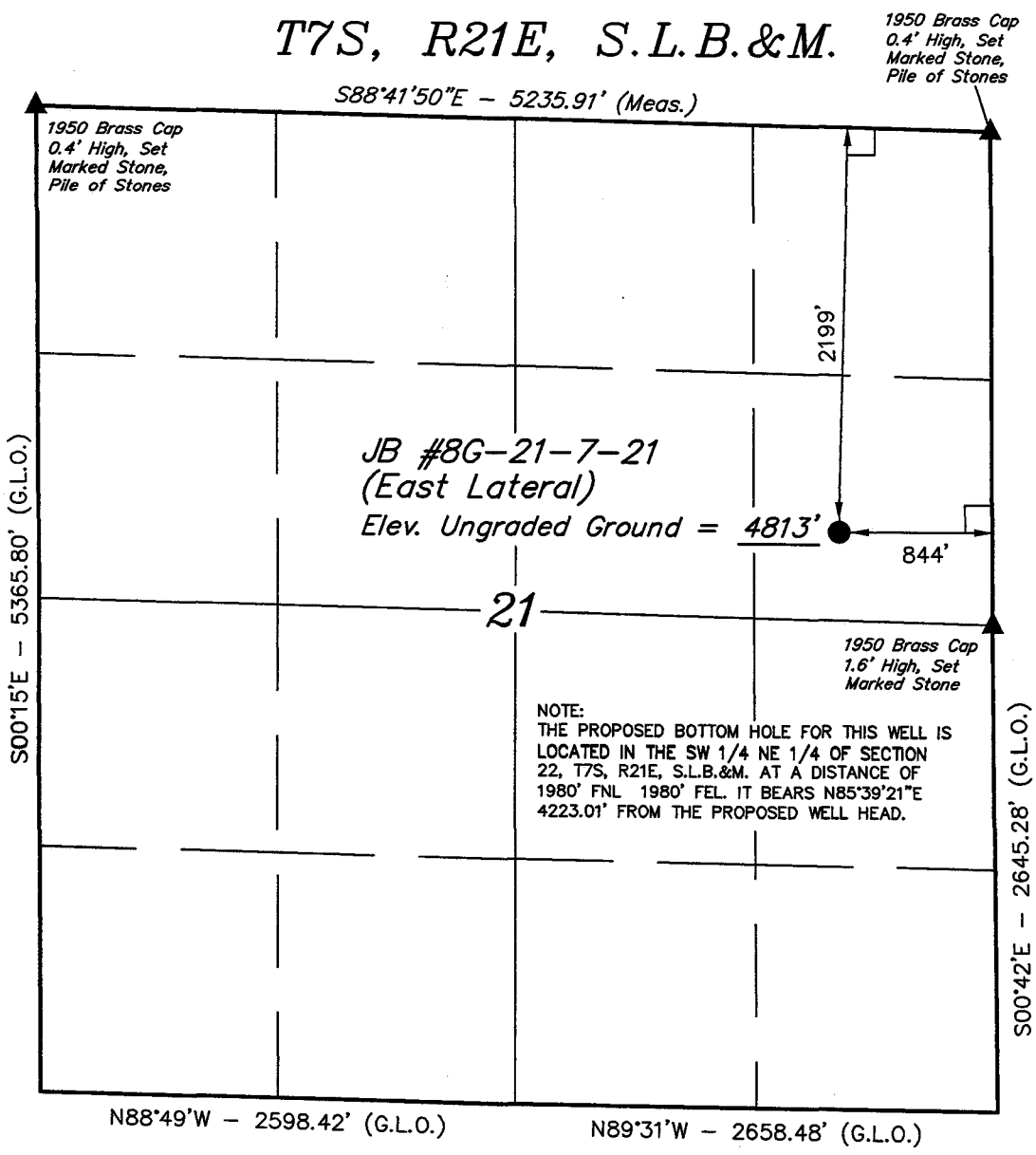
Title 18 U.S.C Section 1001, makes it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any mater within its jurisdiction

Federal Approval of this Action is Necessary

RECEIVED
SEP 24 2009
DIV. OF OIL, GAS & MINING

QUESTAR EXPLR. & PROD.

Well location, JB #8G-21-7-21 (East Lateral), located as shown in the SE 1/4 NE 1/4 of Section 21, T7S, R21E, S.L.B.&M. Uintah County, Utah.



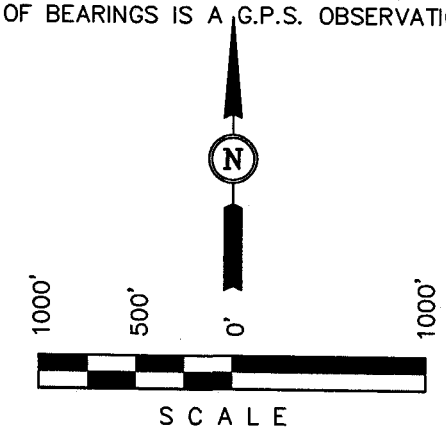
NOTE:
THE PROPOSED BOTTOM HOLE FOR THIS WELL IS LOCATED IN THE SW 1/4 NE 1/4 OF SECTION 22, T7S, R21E, S.L.B.&M. AT A DISTANCE OF 1980' FNL 1980' FEL. IT BEARS N85°39'21"E 4223.01' FROM THE PROPOSED WELL HEAD.

BASIS OF ELEVATION

BENCH MARK (43EAM) LOCATED IN THE SE 1/4 OF SECTION 21, T7S, R21E, S.L.B.&M. TAKEN FROM THE BRENNAN BASIN, QUADRANGLE, UTAH, UINTAH COUNTY, 7.5 MINUTE QUAD. (TOPOGRAPHIC MAP) PUBLISHED BY THE UNITED STATES DEPARTMENT OF THE INTERIOR, GEOLOGICAL SURVEY. SAID ELEVATION IS MARKED AS BEING 4832 FEET.

BASIS OF BEARINGS

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



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.

REGISTERED LAND SURVEYOR
REGISTRATION NO. 161318
STATE OF UTAH

LEGEND:

└ = 90° SYMBOL

● = PROPOSED WELL HEAD.

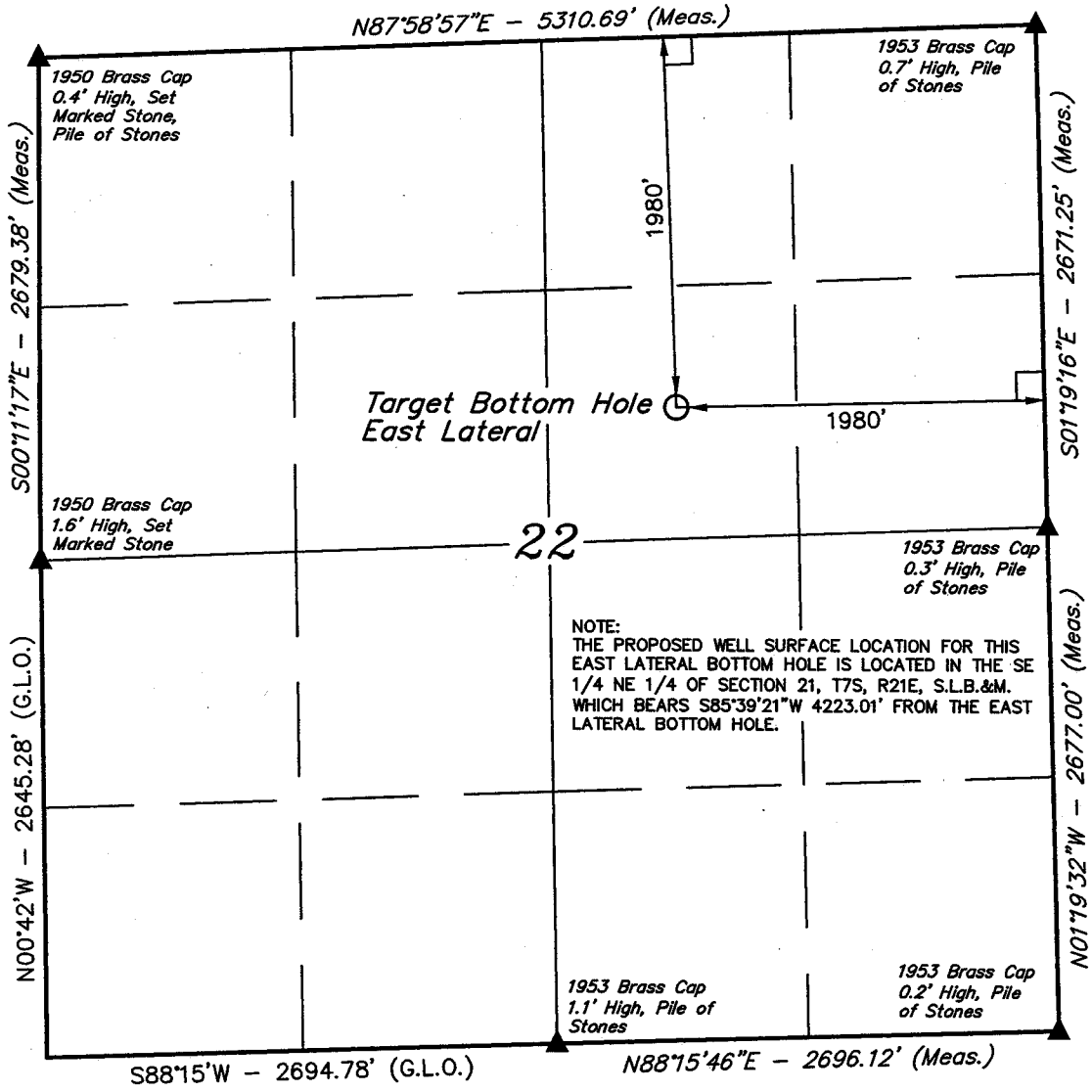
▲ = SECTION CORNERS LOCATED.

(AUTONOMOUS NAD 83)
LATITUDE = 40°11'51.48" (40.197633)
LONGITUDE = 109°33'15.46" (109.554294)
(AUTONOMOUS NAD 27)
LATITUDE = 40°11'51.61" (40.197669)
LONGITUDE = 109°33'12.97" (109.553603)

UINTAH ENGINEERING & SURVEYING
85 SOUTH 200 EAST – VERNAL, UTAH 84078
(435) 789-1017

SCALE 1" = 1000'	DATE SURVEYED: 10-08-07	DATE DRAWN: 10-18-07
PARTY D.A. T.M. L.K.	REFERENCES G.L.O. PLAT	
WEATHER COOL	FILE QUESTAR EXPLR. & PROD.	

T7S, R21E, S.L.B.&M.



QUESTAR EXPLR. & PROD.

Well location, JB #8G-21-7-21 (East Lateral) TARGET BOTTOM HOLE, located as shown in the SW 1/4 NE 1/4 of Section 22, T7S, R21E, S.L.B.&M. Uintah County, Utah.

BASIS OF ELEVATION

BENCH MARK (43EAM) LOCATED IN THE SE 1/4 OF SECTION 21, T7S, R21E, S.L.B.&M. TAKEN FROM THE BRENNAN BASIN, QUADRANGLE, UTAH, UINTAH COUNTY, 7.5 MINUTE QUAD. (TOPOGRAPHIC MAP) PUBLISHED BY THE UNITED STATES DEPARTMENT OF THE INTERIOR, GEOLOGICAL SURVEY. SAID ELEVATION IS MARKED AS BEING 4832 FEET.

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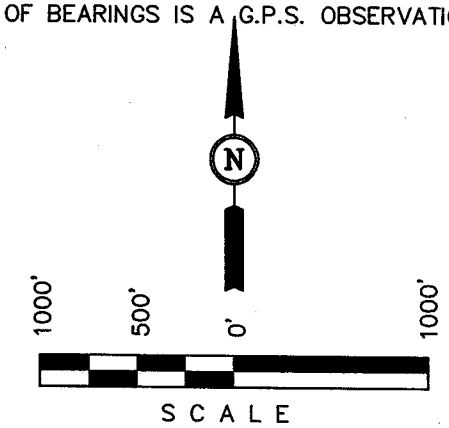

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REGISTERED LAND SURVEYOR No. 161319 STATE OF UTAH ROBERT L. KAY

UINTAH ENGINEERING & LAND SURVEYING
85 SOUTH 200 EAST – VERNAL, UTAH 84078
(435) 789-1017

SCALE 1" = 1000'	DATE SURVEYED: 10-08-07	DATE DRAWN: 08-13-08
PARTY D.A. T.M. L.K.	REFERENCES G.L.O. PLAT	
WEATHER COOL	FILE QUESTAR EXPLR. & PROD.	

NAD 83 (TARGET BOTTOM HOLE)
LATITUDE = 40°11'54.62" (40.198506)
LONGITUDE = 109°32'21.21" (109.539225)

NAD 27 (TARGET BOTTOM HOLE)
LATITUDE = 40°11'54.75" (40.198542)
LONGITUDE = 109°32'18.72" (109.538533)

LEGEND:

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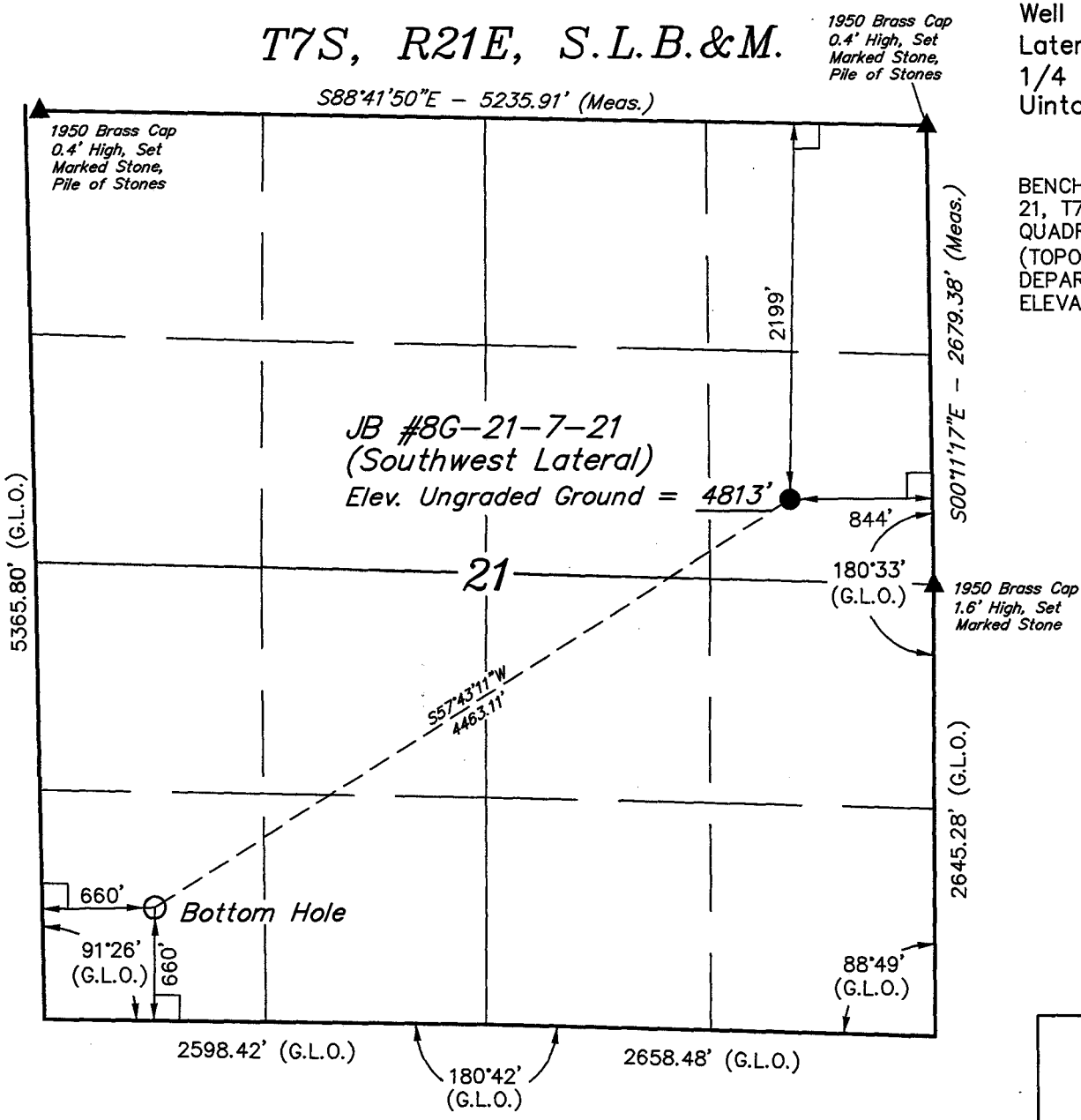
QUESTAR EXPLR. & PROD.

Well location, JB #8G-21-7-21 (Southwest Lateral), located as shown in the SE 1/4 NE 1/4 of Section 21, T7S, R21E, S.L.B.&M. Uintah County, Utah.



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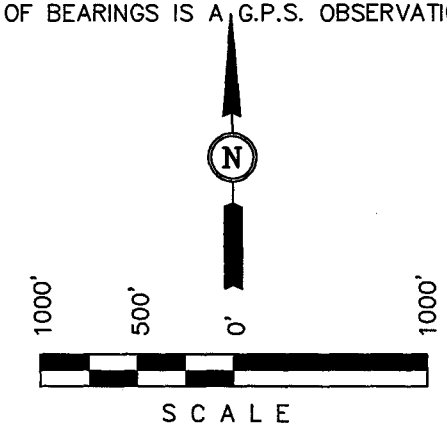

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REGISTERED LAND SURVEYOR
REGISTRATION NO. 161319
STATE OF UTAH

REGISTERED LAND SURVEYOR No. 161319 ROBERT L. STATE OF UTAH

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UINTAH ENGINEERING & LAND SURVEYING
85 SOUTH 200 EAST - VERNAL, UTAH 84078
(435) 789-1017

SCALE 1" = 1000'	DATE SURVEYED: 10-08-07	DATE DRAWN: 10-18-07
PARTY D.A. T.M. L.K.	REFERENCES G.L.O. PLAT	
WEATHER COOL	FILE QUESTAR EXPLR. & PROD.	

QUESTAR

Questar Exploration and Production Company
11002 East 17500 South
Vernal, UT 84078
Tel 435 781 4300 • Fax 435 781 4329

September 10, 2009

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

Dear Mrs. Mason:

In reference to the State Oil and Gas Conservation rule R649-3-3 Questar Exploration and Production Company JB 8G-21-7-21 is an exception to this rule due to a drainage on the east side of location.

There are no additional lease owners within 460' of the proposed location. If you have any question please contact Jan Nelson @ (435) 781-4331.

Thank you,

Jan Nelson

Jan Nelson
Permit Agent

RECEIVED
SEP 24 2009
DIV. OF OIL, GAS & MINING

QUESTAR EXPLR. & PROD.

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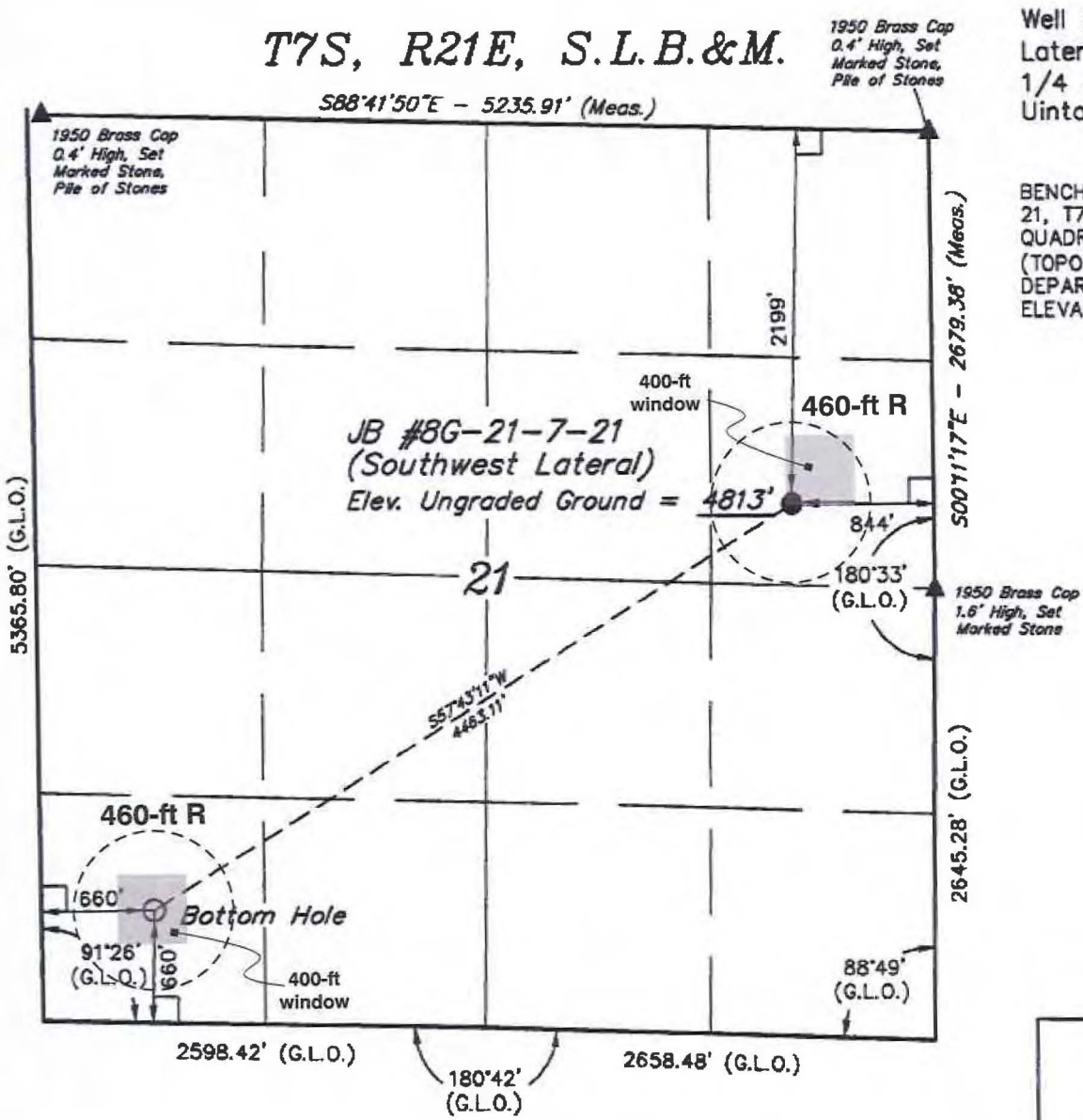

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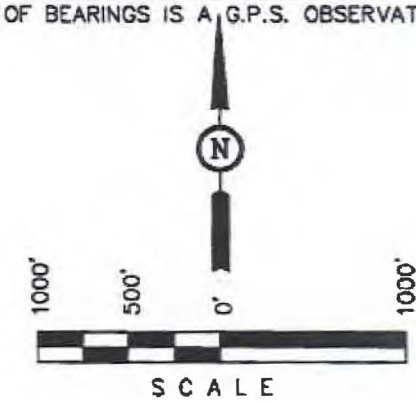

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REGISTRATION NO. 161319
STATE OF UTAH

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85 SOUTH 200 EAST - VERNAL, UTAH 84078
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SCALE 1" = 1000'	DATE SURVEYED: 10-08-07	DATE DRAWN: 10-18-07
PARTY D.A. T.M. L.K.	REFERENCES G.L.O. PLAT	
WEATHER COOL	FILE QUESTAR EXPLR. & PROD.	

Additional Operator Remarks for Bottom Hole Location and Lease Designation:

JB 8G-21-7-21 (SURFACE LOCATION) 623117X 40.197718
4450495Y -109.553556
LEASE # UTU-30290
2199' FNL 844' FEL, SENE, SECTION 21, T7S, R21E

EAST LATERAL (BOTTOM HOLE LOCATION) 624399X 40.198591
LEASE # UTU-49656 4450613Y -109.538467
1980' FNL 1980' FEL, SWNE SECTION 22, T7S, R21E

SOUTHWEST LATERAL (BOTTOM HOLE LOCATION)
LEASE # UTU-30290
660' FSL 660' FWL SWSW, SECTION 21, T7S, R21E 621994X 40.191053
4449737Y -109.566886

QUESTAR EXPLORATION AND PRODUCTION

JB 8G-21-7-21
New Dual Horizontal Well
Summarized Procedure

1. MIRU air rig.
2. Drill 12 ¼" surface hole to 480'±.
3. Run 9 5/8", 36#, J-55, STC casing and cement to surface.
4. RD air rig, move off location.
5. MIRU drilling rig.
6. NU rig's 3,000 WP rated BOP. Test BOP's and surface casing.
7. PU straight hole BHA, drill out surface casing and 10' of new formation, run FIT.
8. Drill 8 ¾" hole to 6,000'.
9. TOOH, PU directional BHA, TIH.
10. Drill to 6,290', kick off and drill well at a 238° azimuth with 16°/100' build rates to land in H4a Lime formation at a TVD of +/- 6,651', 6,856' MD.
11. Drill in zone to 6,870' MD. TOOH, LDDP.
12. PU and run 7", 26#, P-110, LTC casing to 6,870', cement casing.
13. PU DP, directional BHA, TIH.
14. Drill +/- 4,116' of lateral in H4a Lime.
    a. Mud system to be a water based mud, weights are expected to be in the 8.5 – 10.0 ppg range.
15. Circulate and condition hole, TOOH.
    a. PU 4,156' of 4-1/2" slotted liner and liner dropping tool.
    b. RIH w/ liner and dropping tool, drop liner at 6,816'.
16. RU wireline and set RBP @ 6,300'.
17. Run & set 7" whipstock on bridge plug @ 6,300', oriented at 86° azimuth, mill window in 7" casing 6,283' – 6,290'.
18. PU directional BHA, TIH, kick off and drill well at a 86° azimuth with 16°/100' build rates to land in H4a Lime formation at a TVD of +/- 6,643', 6,854' MD.
19. Drill +/- 3,861' of lateral in G1 Lime.
    a. Mud system to be a water based mud, weights are expected to be in the 8.5 – 10.0 ppg range.
20. Circulate and condition hole, TOOH, LD 4,000' DP.
    a. PU 3,861' of 4-1/2" slotted liner, 554' of blank liner and liner dropping tool.

b. RIH w/ liner and dropping tool, drop liner at 6,300', just outside window.
c. TOOH laying down DP.

21. RU wireline, RIH and set RBP @ +/- 4,500' to isolate laterals.
22. ND BOP's.
23. RDMOL.

DRILLING PROGRAM

ONSHORE OIL & GAS ORDER NO. 1
Approval of Operations on Onshore
Federal Oil and Gas Leases

All lease and/or unit operations will be conducted in such a manner that full compliance is made with applicable laws, regulations (43 CFR 3100), Onshore Oil & Gas No. 1, and the approved plan of operations. The operator is fully responsible for the actions of its subcontractors. A copy of these conditions will be furnished the field representative to insure compliance.

1. Formation Tops

The estimated top of important geologic markers are as follows:

SW Lateral:

Formation	Depth, TVD	Depth, MD
Green River	3,286'	3,286'
Kick Off Point	6,293'	6,293'
Green River (H4a Lime)	6,651'	6,856'
TD	6,640'	10,972'

E Lateral:

Formation	Depth, TVD	Depth, MD
Green River	3,286'	3,286'
Kick Off Point	6,290'	6,290'
Green River (H4a Lime)	6,643'	6,854'
TD	6,542'	10,715'

2. Anticipated Depths of Oil, Gas, Water, and Other Mineral Bearing Zones

The estimated depths at which the top an bottom of the anticipated water, oil, gas, or other mineral bearing formations are expected to be encountered as follows:

SW Lateral:

Substance	Formation	Depth, TVD	Depth, MD
Oil/Gas	Green River (H4a Lime)	6,640' – 6,651'	6,856' – 10,972'

E lateral:

Substance	Formation	Depth, TVD	Depth, MD
Oil/Gas	Green River (H4a Lime)	6,542' – 6,643'	6,854' – 10,715'

All fresh water and prospectively valuable minerals encountered during drilling will be recorded by depth and adequately protected. All oil and gas shows will be tested to determine commercial potential.

All water shows and water-bearing sands will be reported to the BLM in Vernal, Utah. Copies of State of Utah form OGC-8-X are acceptable. If flows are detected, samples will be submitted to the BLM along with any water analyses conducted. Fresh water will be obtained from Wonsits Valley water right A36125 (which was filed on May 7, 1964) or Red Wash water right # 49-2153 (which was filed on March 25, 1960). It was determined by the Fish and Wildlife Service that any water right number filed before 1989 is not depleting to the Upper Colorado River System, to supply fresh water for drilling purposes. All water resulting from drilling operations will be disposed of at Red Wash Central Battery Disposal site; SWSE, Section 27, T7S, R23E or Wonsits Valley Disposal Site; SWNW, Section 12, T8S, R21E.

3. Operator's Specification for Pressure Control Equipment

A. 3,000 psi double gate, 3,000 psi annular (schematic attached)

B. Function test daily.

C. All casing strings shall be pressure tested (0.22 psi/ft or 1,500 psi, whichever is greater) prior to drilling the plug after cementing; test pressure shall not exceed the internal yield of the casing.

D. Ram type preventers and associated equipment shall be tested to rated working pressure if isolated by a test plug or to 50% of the internal yield pressure of casing, whichever is less. BOP and related equipment shall meet the minimum requirements of Onshore Oil & Gas Order No. 2 for equipment and testing requirements, procedures, etc..., for a 3M system and individual components shall be operable as designed.

4. Casing Program

Hole Size	Casing Size	Top, MD	Bottom, MD	Weight, lb/ft	Grade	Thread	Condition
17 ½ "	14"	sfc	40'	Steel	Cond.	None	Used
12 ¼"	9 5/8"	sfc	480'	36.0	J-55	STC	New
8 ¾"	7"	sfc	6,943'	26.0	P-110	LTC	New

Casing Strengths:				Collapse	Burst	Tensile (minimum)
9 5/8"	36.0 lb.	J-55	STC	2,020 psi	3,520 psi	394,000 lb.
7"	26.0 lb.	P-110	LTC	6,210 psi	9,960 psi	693,000 lb.

The lateral portion of these wellbores will be cased with slotted liners.

SW lateral:

Hole Size	Casing Size	Top,MD	Bottom, MD	Weight	Grade
6 1/8"	4 ½"	6,816'	10,972'	11.6	P-110

E Lateral:

Hole Size	Casing Size	Top,MD	Bottom, MD	Weight	Grade
6 1/8"	4 ½"	6,300'	10,715'	11.6	P-110

Please refer to the attached wellbore diagram and re-entry procedure for further details.

5. Cementing Program

20" Conductor:
Cement to surface with construction cement.

9-5/8" Surface Casing: sfc – 480' (MD)
Lead/Tail Slurry: 0' – 480'. 170 sks (310 cu ft) Rockies LT cement + 0.25 lb/sk Kwik Seal + 0.125 lb/sk Poly-E-Flake. Slurry wt: 13.5 ppg, Slurry yield: 1.81 ft^3/sk, Slurry volume: 12-1/4" hole + 100% excess.

7" Intermediate Casing: 4,000' – 6,856' (MD)
Lead/Tail Slurry: 4,000' – 6,856'. 430 sks (535 cu ft) 50/50 Poz Premium + 0.6% Halad (R)-322 fluid loss + 2.0% Microbond M expander + 5% salt + 0.125 lb/sk Poly-E-Flake. Slurry wt: 14.35 ppg, Slurry yield: 1.24 ft^3/sk, Slurry volume: 8-3/4" hole + 20% excess.

SW Lateral: 4-1/2" Slotted & Blank Liner
No cement, dropped in open hole.

E Lateral: 4-1/2" Slotted & Blank Liner
No cement, dropped in open hole.

6. Auxilliary Equipment

A. Kelly Cock – Yes

B. Float at the bit – No

C. Monitoring equipment on the mud system – visually and/or PVT or Flow Show

D. Fully opening safety valve on the rig floor – Yes

E. Rotating Head – Yes

F. Request for Variance

Drilling surface hole with air:

A variance from 43 CFR 3160 Onshore Oil and Gas Order #2, Section III Requirements, subsection E. Special Drilling Operations is requested for the specific operation of drilling and setting surface casing on the subject well with a truck mounted air rig. The variance from the following requirements of Order #2 is requested because surface casing depth for this well is 480 feet and high pressures are not expected.

1. **Properly lubricated and maintained rotating head** – A diverter system in place of a rotating head. The diverter system forces the air and cutting returns to the reserve pit and is used to drill the surface casing.
2. **Blooie line discharge 100 feet from wellbore and securely anchored** – the blooie line discharge for this operation will be located 50 to 70 feet from the wellhead. This reduced length is necessary due to the smaller location size to minimize surface disturbance.
3. **Automatic igniter or continuous pilot light on blooie line** – a diffuser will be used rather than an automatic pilot/igniter. Water is injected into the compressed air and eliminates the need for a pilot light and the need for dust suppression equipment.
4. **Compressors located in the opposite direction from the blooie line a minimum of 100 feet from the wellbore** – compressors located within 50 feet on the opposite side of the wellbore from the blooie line and is equipped with a 1) emergency kill switch on the driller's console, 2) pressure relief valves on the compressors, 3) spark arrestors on the motors.
5. **Kill Fluid to control well** – In lieu of having mud products on location to kill the well for an unanticipated kick, Questar will kill the well with water contained in a 400 bbl tank on site. The 400 bbl water tank will also be storage for surface casing cement water.
6. **Deflector on the end of the blooie line** – Questar will mount a deflector unit at the end of the blooie line for the purpose of changing the direction and velocity of the air and cuttings flow into the reserve pit. Changing the velocity and direction of the cuttings and air will preserve the pit liner. In the event the deflector washes out due to erosion caused by the sand blasting effect of the cuttings, there will be no problem because the deflector is mounted on the very end of the blooie. A washed out deflector will be easily replaced.
7. **Flare Pit** – there will be no need of a flare pit during the surface hole air drilling operation because the blooie line is routed directly to the reserve pit. When the big rig arrives for the main drilling after setting surface casing, a flare box will be installed and all flare lines will be routed to the flare box.

G. All other operations and equipment for air/gas drilling shall meet specifications in Onshore Order #2, Section III Requirements, subsection E. Special Drilling Operations and Onshore Order #1.

Drilling of the lateral will be done with fresh water mud systems consisting primarily of fresh water, bentonite, lignite, caustic, lime, soda ash, and polymers. No chromates will be used. It is not intended to use oil in the mud, however, in the event it is used the concentration will be less than 4% by volume. Maximum anticipated mud weight is 10.0 ppg.

No minimum quantity of weight material will be required to be kept on location.

PVT/Flow show will be used upon exit of surface casing to TD.

Gas detector will be used upon exit of surface casing to TD.

7. Testing, Logging, and Coring Program

A. Cores – None Anticipated

B. DST – None Anticipated

C. Logging:
   i. Mud logging from casing exit to TD
   ii. MWD-GR will be utilized during drilling operations to aid in landing the curve and maintaining the laterals within the desired zone.

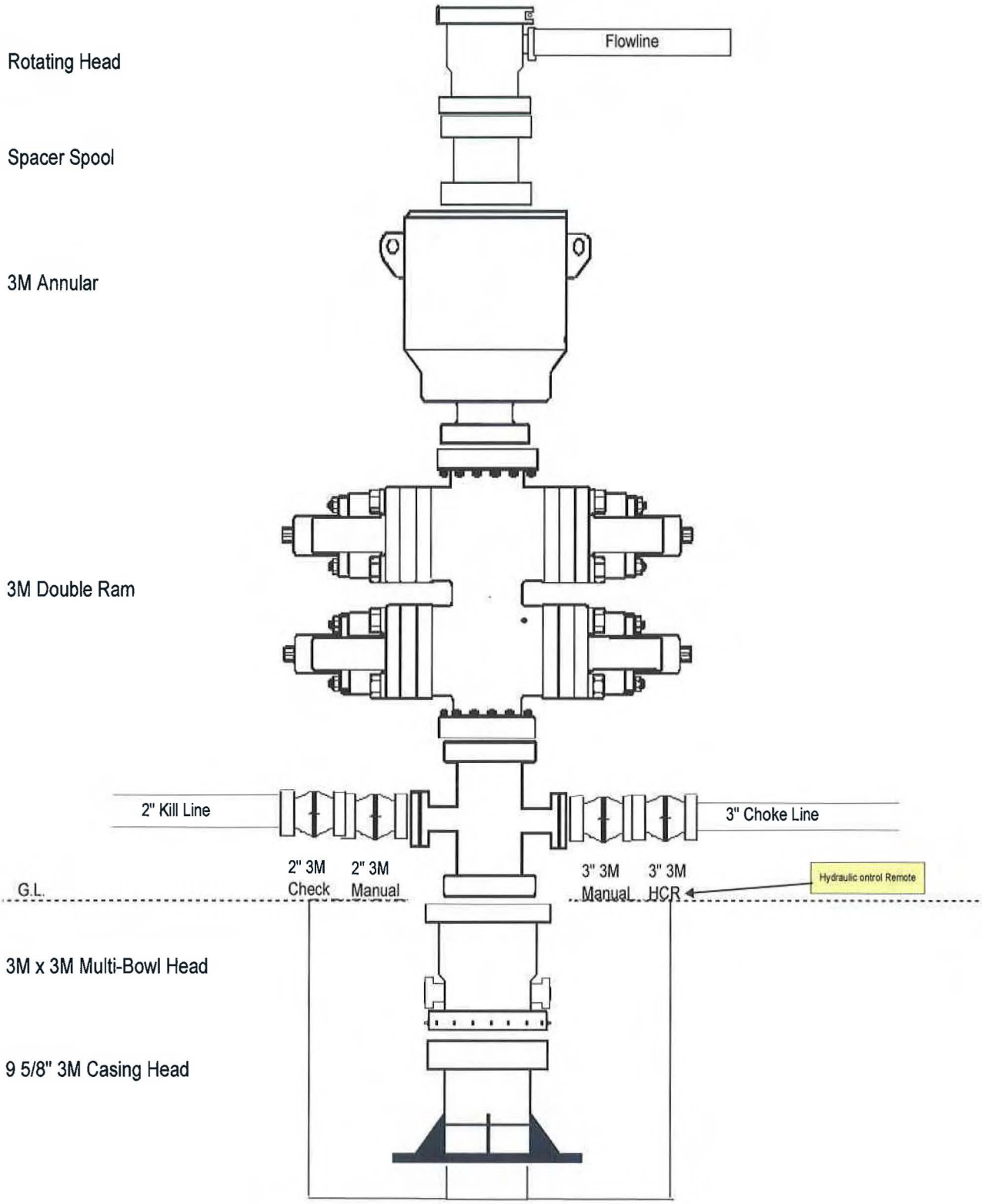
D. Formation and completion interval: H4a Lime interval, final determination of completion will be made by analysis of mud logging data. Stimulation: stimulation will be designed for the particular area of interest encountered.

E.

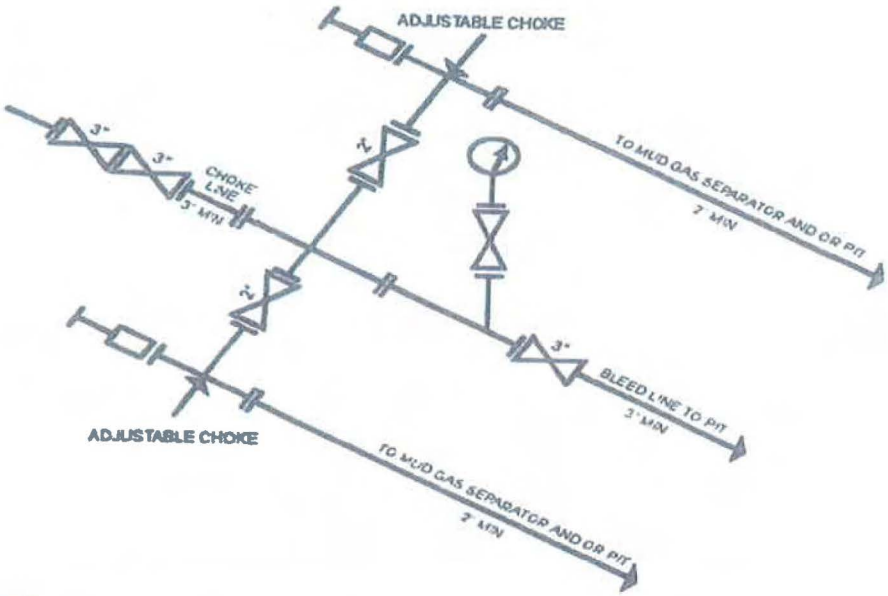
8. Anticipated Abnormal Pressures and Temperatures, Other Potential Hazards

No abnormal temperatures or pressures are anticipated. No H_2S has been encountered or is known to exist from previous wells drilled to similar depths in the general area. Maximum anticipated bottom-hole pressure equals approximately 3,450 psi. Maximum anticipated bottom hole temperature is approximately 140°F.

3M BOP STACK


Rotating Head
Flowline
Spacer Spool
3M Annular
3M Double Ram
2" Kill Line
3" Choke Line
2" 3M Check
2" 3M Manual
3" 3M Manual
3" 3M HCR
Hydraulic ontrol Remote
G.L.
3M x 3M Multi-Bowl Head
9 5/8" 3M Casing Head

3M CHOKE MANIFOLD



3M CHOKE MANIFOLD EQUIPMENT - CONFIGURATION OF CHOKES MAY VARY
[54 FR 39528, Sept. 27, 1989]

JB 8G-21-7-21 Original Hole/Lateral 1 Plan CJL 9-16-09 Proposal

Report Date:	September 16, 2009	**Survey / DLS Computation Method:**	Minimum Curvature / Lubinski
Client:		**Vertical Section Azimuth:**	238.000°
Field:	Uinta	**Vertical Section Origin:**	N 0.000 ft, E 0.000 ft
Structure / Slot:	Johnson Bottom / JB 8G-21-7-21	**TVD Reference Datum:**	KB
Well:	JB 8G-21-7-21	**TVD Reference Elevation:**	4827.0 ft relative to MSL
Borehole:	Original Hole/Lateral 1	**Sea Bed / Ground Level Elevation:**	4760.000 ft relative to MSL
UWI/API#:		**Magnetic Declination:**	11.335°
Survey Name / Date:	JB 8G-21-7-21 Original Hole/Lateral 1 Plan CJL 9-16-09	**Total Field Strength:**	52633.194 nT
Tort / AHD / DDI / ERD ratio:	90.150° / 4474.64 ft / 5.823 / 0.673	**Magnetic Dip:**	66.074°
Grid Coordinate System:	NAD83 Utah State Planes, Central Zone, US Feet	**Declination Date:**	September 16, 2009
Location Lat/Long:	N 40 11 51.480, W 109 33 15.460	**Magnetic Declination Model:**	IGRF 2005
Location Grid N/E Y/X:	N 7246624.693 ftUS, E 2183869.609 ftUS	**North Reference:**	Grid North
Grid Convergence Angle:	+1.24637733°	**Total Corr Mag North -> Grid North:**	+10.089°
Grid Scale Factor:	0.99991881	**Local Coordinates Referenced To:**	Well Head

Comments	Measured Depth (ft)	Inclination (deg)	Azimuth (deg)	TVD (ft)	Vertical Section (ft)	NS (ft)	EW (ft)	Closure (ft)	Closure Azimuth (deg)	DLS (deg/100 ft)	Tool Face (deg)
	0.00	0.00	238.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-122.00M
KOP	6293.00	0.00	238.00	6293.00	0.00	0.00	0.00	0.00	0.00	0.00	-122.00M
	6300.00	1.12	238.00	6300.00	0.07	-0.04	-0.06	0.07	238.00	16.00	-122.00M
	6400.00	17.12	238.00	6398.41	15.87	-8.41	-13.46	15.87	238.00	16.00	0.00G
	6500.00	33.13	238.00	6488.66	58.20	-30.84	-49.35	58.20	238.00	16.00	0.00G
	6600.00	49.13	238.00	6563.73	123.76	-65.58	-104.96	123.76	238.00	16.00	0.00G
	6700.00	65.14	238.00	6617.82	207.48	-109.95	-175.96	207.48	238.00	16.00	0.00G
	6800.00	81.14	238.00	6646.73	302.87	-160.50	-256.85	302.87	238.00	16.00	0.00G
Enter H4a / Set 7"	6856.28	90.15	238.00	6651.00	358.94	-190.21	-304.40	358.94	238.00	16.00	0.00G
TD	10972.00	90.15	238.00	6640.22	4474.64	-2371.20	-3794.71	4474.64	238.00	0.00	0.00G

Survey Type: Non-Def Proposal

Survey Error Model: **NONE version *** 3-D 95.00% Confidence 2.7955 sigma**

Surveying Prog:

MD From (ft)	MD To (ft)	EOU Freq	Survey Tool Type	Borehole -> Survey
0.00	10972.00	1/100.00	NULL_ZERO (default tool used)	Original Hole/Lateral 1 -> JB 8G-21-7-21 Original Hole/Latera

JB 8G-21-7-21 Lateral 2 Plan CJL 9-16-09 Proposal

Schlumberger

Report Date:	September 16, 2009	Survey / DLS Computation Method:	Minimum Curvature / Lubinski
Client:		Vertical Section Azimuth:	86.000°
Field:	Uinta	Vertical Section Origin:	N 0.000 ft, E 0.000 ft
Structure / Slot:	Johnson Bottom / JB 8G-21-7-21	TVD Reference Datum:	KB
Well:	JB 8G-21-7-21	TVD Reference Elevation:	4827.0 ft relative to MSL
Borehole:	Lateral 2	Sea Bed / Ground Level Elevation:	4760.000 ft relative to MSL
UWI/API#:		Magnetic Declination:	11.335°
Survey Name / Date:	JB 8G-21-7-21 Lateral 2 Plan CJL 9-16-09 / September 16, 2009	Total Field Strength:	52633.194 nT
Tort / AHD / DDI / ERD ratio:	91.500° / 4222.12 ft / 5.795 / 0.636	Magnetic Dip:	66.074°
Grid Coordinate System:	NAD83 Utah State Planes, Central Zone, US Feet	Declination Date:	September 16, 2009
Location Lat/Long:	N 40 11 51.480, W 109 33 15.460	Magnetic Declination Model:	IGRF 2005
Location Grid N/E Y/X:	N 7246624.693 ftUS, E 2183869.609 ftUS	North Reference:	Grid North
Grid Convergence Angle:	+1.24637733°	Total Corr Mag North -> Grid North:	+10.089°
Grid Scale Factor:	0.99991881	Local Coordinates Referenced To:	Well Head

Comments	Measured Depth (ft)	Inclination (deg)	Azimuth (deg)	TVD (ft)	Vertical Section (ft)	NS (ft)	EW (ft)	Closure (ft)	Closure Azimuth (deg)	DLS (deg/100 ft)	Tool Face (deg)
Tie-In	0.00	0.00	86.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	86.00M
KOP	6290.00	0.00	86.00	6290.00	0.00	0.00	0.00	0.00	0.00	0.00	86.00M
	6300.00	1.62	86.00	6300.00	0.14	0.01	0.14	0.14	86.00	16.23	86.00M
	6400.00	17.85	86.00	6398.23	16.99	1.19	16.95	16.99	86.00	16.23	0.00G
	6500.00	34.07	86.00	6487.84	60.62	4.23	60.48	60.62	86.00	16.23	0.00G
	6600.00	50.30	86.00	6561.69	127.55	8.90	127.24	127.55	86.00	16.23	0.00G
	6700.00	66.52	86.00	6613.89	212.45	14.82	211.94	212.45	86.00	16.23	0.00G
	6800.00	82.75	86.00	6640.30	308.56	21.52	307.81	308.56	86.00	16.23	0.00G
EOC	6853.93	91.50	86.00	6643.00	362.36	25.28	361.48	362.36	86.00	16.23	0.00G
KOP	10715.00	91.50	86.00	6541.93	4222.12	294.52	4211.83	4222.12	86.00	0.00	0.00G

Survey Type: Non-Def Proposal

Survey Error Model: NONE version *** 3-D 95.00% Confidence 2.7955 sigma

Surveying Prog:

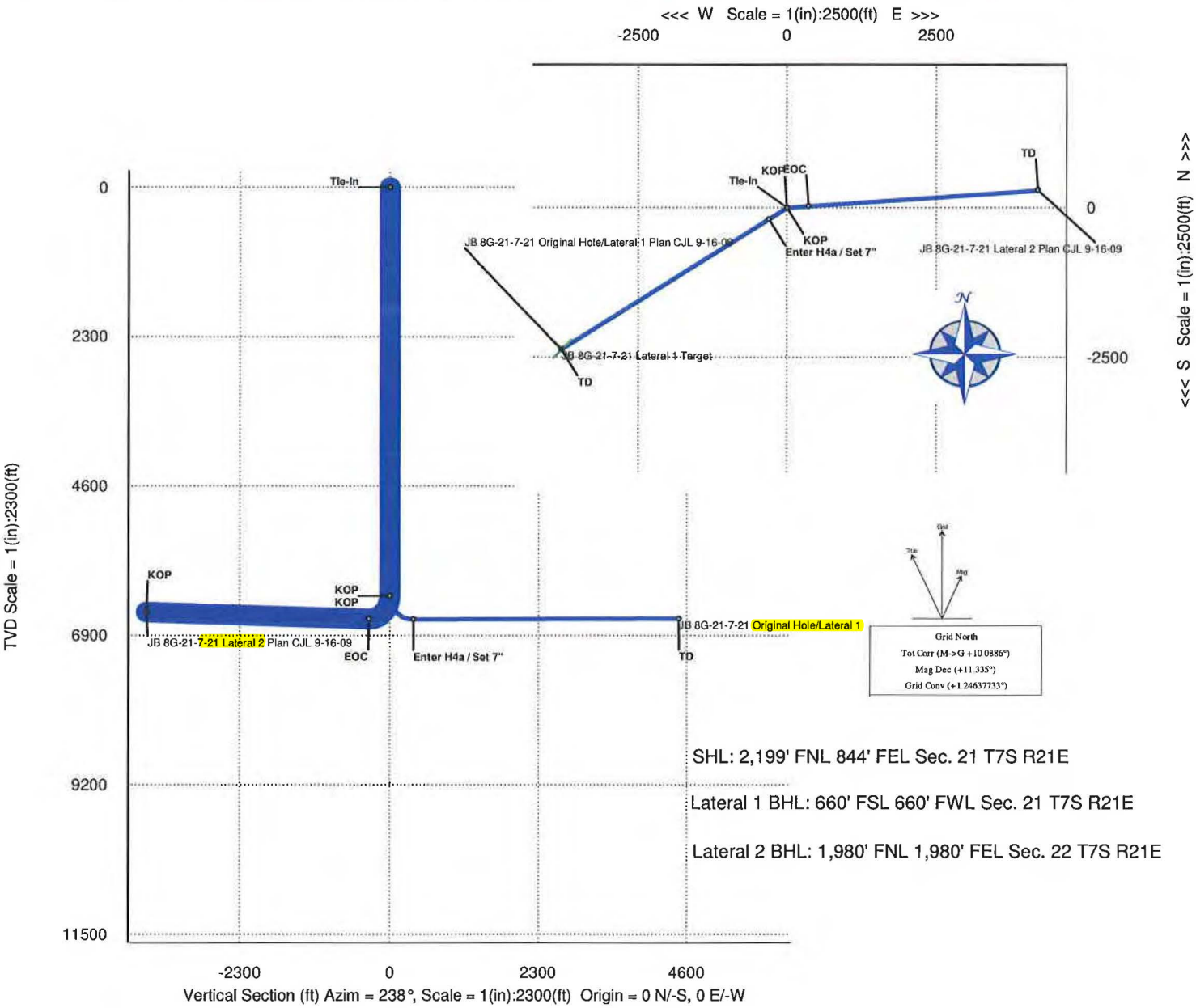
MD From (ft)	MD To (ft)	EOU Freq	Survey Tool Type	Borehole -> Survey
0.00	10715.00	1/100.00	NULL_ZERO (default tool used)	Lateral 2 -> JB 8G-21-7-21 Lateral 2 Plan CJL 9-16-09

Schlumberger

WELL	FIELD	STRUCTURE
JB 8G-21-7-21	Uinta	Johnson Bottom

Magnetic Parameters						Surface Location						Miscellaneous			
Model:	IGRF 2005	Dip:	66.074°	Date:	September 16, 2009	Lat:	N40 11 51.480	Northing:	7246624.69 ftUS	Grid Conv:	+1.24637733°	Slot:	JB 8G-21-7-21	TVD Ref:	KB (4827.00 ft above MSL)
		Mag Dec:	+11.335°	FS:	52633.2 nT	Lon:	W109 33 15.460	Easting:	2183869.61 ftUS	Scale Fact:	0.9999188071	Plan:	JB 8G-21-7-21	Srvy Date:	September 16, 2009

NAD83 Utah State Planes, Central Zone, US Feet



Surface Location

Northing: 7246624.69 ft Easting: 2183869.61 ft

Target Description			Grid Coord				Local Coord	
Target Name	Shape	Major Axis	N(+)/S(-)	E(+)/W(-)	TVD	VSec	N(+)/S(-)	E(+)/W(-)
JB 8G-21-7-21 Lateral 1 Target	Point	0.00	7244253.20	2180089.13	0.00	4463.10	-2371.69	-3780.80
JB 8G-21-7-21 Lateral 1 Target	Point	0.00	7244253.20	2180089.13	0.00	4463.10	-2371.69	-3780.80

Critical Points

Critical Point	MD	INCL	AZIM	TVD	VSEC	N(+)/S(-)	E(+)/W(-)	DLS
KOP	6293.00	0.00	238.00	6293.00	0.00	0.00	0.00	0.00
Enter H4a / Set 7"	6856.28	90.15	238.00	6651.00	358.94	-190.21	-304.40	16.00
TD	10972.00	90.15	238.00	6640.22	4474.64	-2371.20	-3794.71	0.00

Legend

JB 8G-21-7-21 Original Hole/Lateral 1 Plan CJL 9-16-09

JB 8G-21-7-21 Lateral 2 Plan CJL 9-16-09

JB 8G-21-7-21 Lateral 1 Target

Quality Control

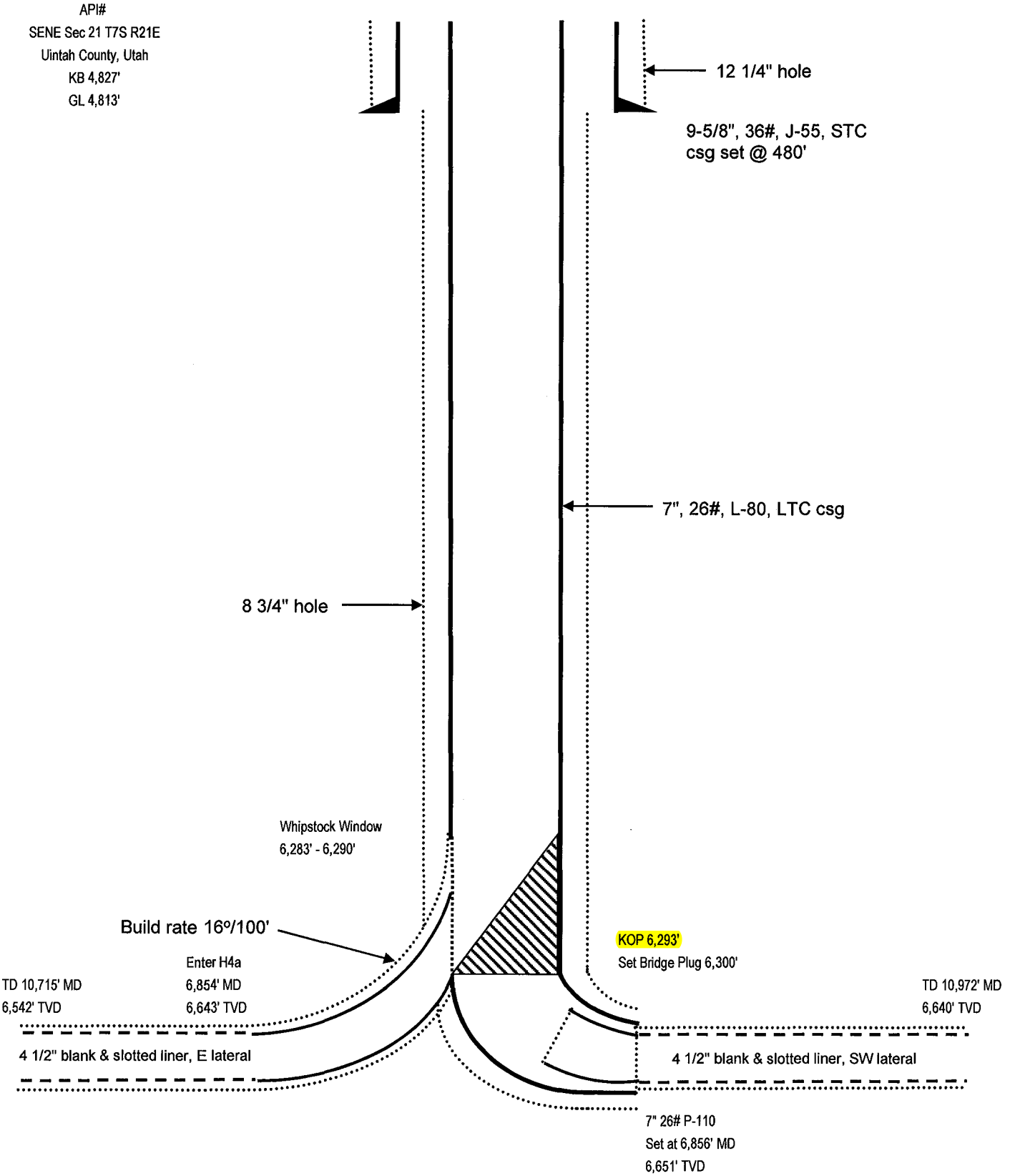
Date Drawn: Wed 05:01 PM September 16, 2009

Drawn by: Current User

Checked by:

Client OK:

Proposed
JB 8G-21-7-21
API#
SENE Sec 21 T7S R21E
Uintah County, Utah
KB 4,827'
GL 4,813'



QUESTAR EXPLORATION & PRODUCTION, CO.
JB 8G-21-7-21
2199' FNL 844' FEL
SENE, SECTION 21, T7S, R21E
UINTAH COUNTY, UTAH
LEASE # UTU-30290

ONSHORE ORDER NO. 1

MULTI – POINT SURFACE USE & OPERATIONS PLAN

An onsite inspection was conducted for the JB 8G-21-7-21 on September 4, 2008. Weather conditions were sunny and warm at the time of the onsite. In attendance at the inspection were the following individauls:

Holly Villa	Bureau of Land Management
Amy Torres	Bureau of Land Management
Jan Nelson	Questar Exploration & Production, Co.
Raymond Pallesen	Questar Exploration & Production, Co.
Jesse Walton	Uintah Engineering & Land Surveying

1. **Existing Roads:**

The proposed well site is approximately 28 miles South of Ouray, Utah.

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

In order to run safe drilling operation the existing road will be re-routed temporary until the well is completed and on production. QEP has received approval from Uintah Country for the road re-route. Once the well has been put into production the road will be put back in its original location which will run through the well pad.

2. **Planned Access Roads:**

Please refer to Questar Exploration & Production Company Greater Deadmen Bench EIS UT-080-2003-0369V Record of Decision dated March 31, 2008.

Refer to Topo Map B for the location of the proposed access road.

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

Please refer to Topo Map C.

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

Please refer to Questar Exploration & Production Company Greater Deadmen Bench EIS UT-080-2003-0369V Record of Decision dated March 31, 2008.

Refer to Topo Map D for the location of the proposed pipeline.

Product will be tanked and hauled to delivery site.

A muffler will be placed on pumping unit to help reduce sound levels.

Surface gas pipelines will be constructed in accordance with the following guidance.

GAS SALES LINE: *The pipeline will be unpainted steel, 4" inside diameter, welded, schedule # 20 or greater. Pipeline segments will be welded together on disturbed areas in or near the the location, whenever possilbe, and dragged into place.*

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

Please refer to Questar Exploration & Production Company Greater Deadmen Bench EIS UT-080-2003-0369V Record of Decision dated March 31, 2008.

Water for drilling purposes would be obtained from Wonsits Valley Water Right # A 36125 (which was filed on May 7, 1964) or Red Wash Water Right # 49-2153 (which was filed on March 25, 1960). It was determined by the Fish and Wildlife Service that any water right number filed before 1989 is not depleting to the Upper Colorado River System.

6. **Source of Construction Materials:**

Please refer to Questar Exploration & Production Company Greater Deadmen Bench EIS UT-080-2003-0369V Record of Decision dated March 31, 2008.

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

Please refer to Questar Exploration & Production Company Greater Deadmen Bench EIS UT-080-2003-0369V Record of Decision dated March 31, 2008.

8. **Ancillary Facilities:**

Please refer to Questar Exploration & Production Company Greater Deadmen Bench EIS UT-080-2003-0369V Record of Decision dated March 31, 2008.

Facilities will be painted Carlsbad Canyon

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

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

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

A pit liner is required. A felt pit liner will be required if bedrock is encountered.

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

Please refer to Questar Exploration & Production Company Uinta Basin Division Reclamation Plan

Interim Reclamation

Please refer to Questar Exploration & Production Company Uinta Basin Division Reclamation Plan and Figure # 3 in plat package.

Seed Mix:

Interim Reclamation:
6 lbs Hycrest Crested Wheatgrass
6 lbs Needle & Threadgrass

Final Reclamation:
Seed Mix # 5 4 lbs Gardner Saltbush, 4 lbs Shadscale, 4 lbs Hycrest Crested Wheat

Qep will monitor and control noxious and invasive weeds along access roads, pipeline routes, well sites, or other applicable facilities by spraying or mechanical removal. On BLM-administered land, a Pesticide Use Proposal will be submitted and approved prior to the application of herbicides, pesticides or other hazardous chemicals.

11. Surface Ownership:

Bureau of Land Management
170 South 500 East
Vernal, Utah 84078
(435) 781-4400

12. Other Information

A Class III archaeological survey was conducted by Montgomery Archaeology Consultants. A copy of this report was submitted directly to the appropriate agencies by Montgomery Archaeology Consultants. Cultural resource clearance was recommended for this location.

A Class III paleontological survey was conducted by Intermountain Paleo Consulting. A copy of this report was submitted directly to the appropriate agencies by Stephen D. Sandau. The inspection resulted in the location of no fossil resources. However, if vertebrate fossil(s) are found during construction a paleontologist should be immediately notified. QEP will provide paleo monitor if needed.

No Drilling or construction will take place during the Pronghorn season May 15 thru June 20.

Rock and gravel as needed.

Lessee's or Operator's Representative & Certification:

Jan Nelson
Permit Agent
Questar Exploration & Production Company
11002 East 17500 South
Vernal, UT 84078
(435) 781-4331

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.

Questar Exploration & Production Company is considered to be the operator of the subject well. Questar Exploration & Production Company agrees to be responsible under terms and conditions of the lease for the operations conducted upon leased lands.

Bond coverage pursuant to 43 CFR 3104.2 for lease activities is being provided by Bond No. ESB000024.

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 operations; 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 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.

Jan Nelson

Jan Nelson

9/15/2009
Date

QUESTAR EXPLR. & PROD.

JB #8G-21-7-21

LOCATED IN UINTAH COUNTY, UTAH
SECTION 21, T7S, R21E, S.L.B.&M.

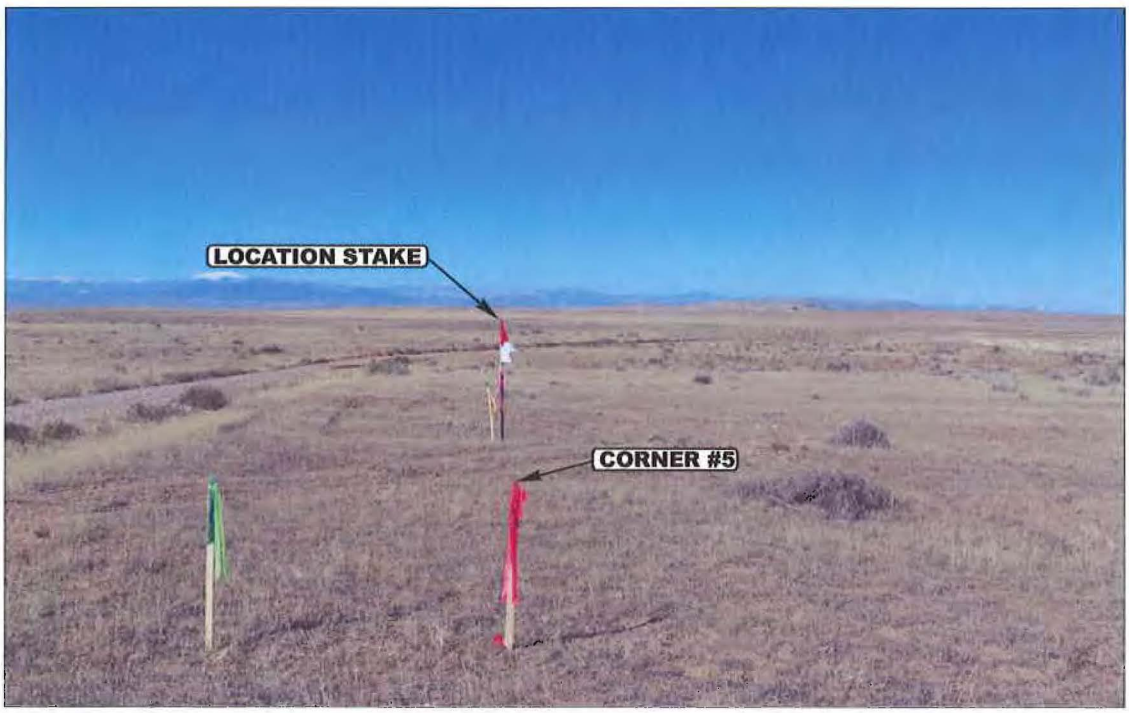


PHOTO: VIEW FROM CORNER #5 TO LOCATION STAKE **CAMERA ANGLE: NORTHWESTERLY**

PHOTO: VIEW OF BEGINNING OF PROPOSED ACCESS **CAMERA ANGLE: EASTERLY**

- Since 1964 -

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

LOCATION PHOTOS	10 MONTH	11 DAY	07 YEAR	PHOTO
TAKEN BY: D.A.	DRAWN BY: Z.L.	REVISED: 00-00-00		

QUESTAR EXPLR. & PROD.

JB #8-21-7-21
SECTION 21, T7S, R21E, S.L.B.&M.

PROCEED IN AN EASTERLY, THEN SOUTHEASTERLY DIRECTION FROM VERNAL, UTAH ALONG U.S. HIGHWAY 40 APPROXIMATELY 3.9 MILES TO THE JUNCTION OF STATE HIGHWAY 45; EXIT RIGHT AND PROCEED IN A SOUTHERLY, THEN SOUTHWESTERLY DIRECTION APPROXIMATELY 13.0 MILES ON STATE HIGHWAY 45 TO THE JUNCTION OF THIS ROAD AND AN EXISTING ROAD TO THE SOUTHWEST; TURN RIGHT AND PROCEED IN A SOUTHWESTERLY DIRECTION APPROXIMATELY 4.2 MILES TO THE JUNCTION OF THIS ROAD AND AN EXISTING ROAD TO THE SOUTHEAST; TURN LEFT AND PROCEED IN A SOUTHEASTERLY DIRECTION APPROXIMATELY 1.7 MILES TO THE JUNCTION OF THIS ROAD AND AN EXISTING ROAD TO THE SOUTHWEST; TURN RIGHT AND PROCEED IN A SOUTHWESTERLY, THEN EASTERLY DIRECTION APPROXIMATELY 4.2 MILES TO THE JUNCTION OF THIS ROAD AND AN EXISTING ROAD TO THE SOUTHWEST; TURN LEFT AND PROCEED IN A SOUTHWESTERLY, THEN SOUTHEASTERLY DIRECTION APPROXIMATELY 1.0 MILES TO THE JUNCTION OF THIS ROAD AND AN EXISTING ROAD TO THE BEGINNING OF THE PROPOSED RE-ROUTE ROAD TO THE SOUTHWEST; FOLLOW ROAD FLAGS IN A SOUTHWESTERLY DIRECTION APPROXIMATELY 400' TO THE BEGINNING OF THE PROPOSED ACCESS ROAD TO THE EAST; FOLLOW ROAD FLAGS IN AN EASTERLY DIRECTION APPROXIMATELY 35' TO THE PROPOSED LOCATION.

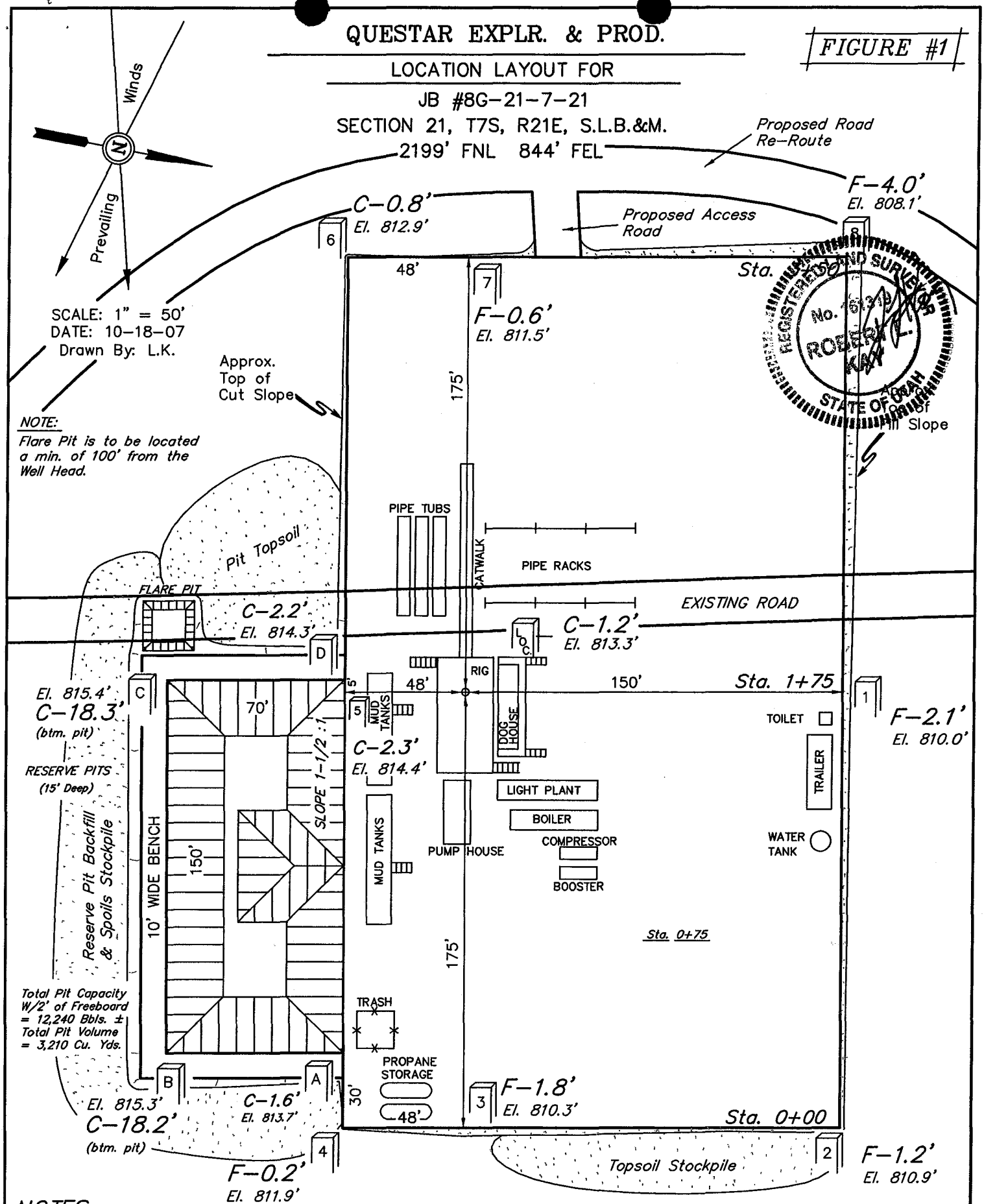
TOTAL DISTANCE FROM VERNAL, UTAH TO THE PROPOSED WELL LOCATION IS APPROXIMATELY 40.0 MILES.

QUESTAR EXPLR. & PROD.

LOCATION LAYOUT FOR

JB #8G-21-7-21
SECTION 21, T7S, R21E, S.L.B.&M.
2199' FNL 844' FEL

FIGURE #1



NOTES:

Elev. Ungraded Ground At Loc. Stake = 4813.3'
FINISHED GRADE ELEV. AT LOC. STAKE = 4812.1'

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

QUESTAR EXPLR. & PROD.

TYPICAL CROSS SECTIONS FOR

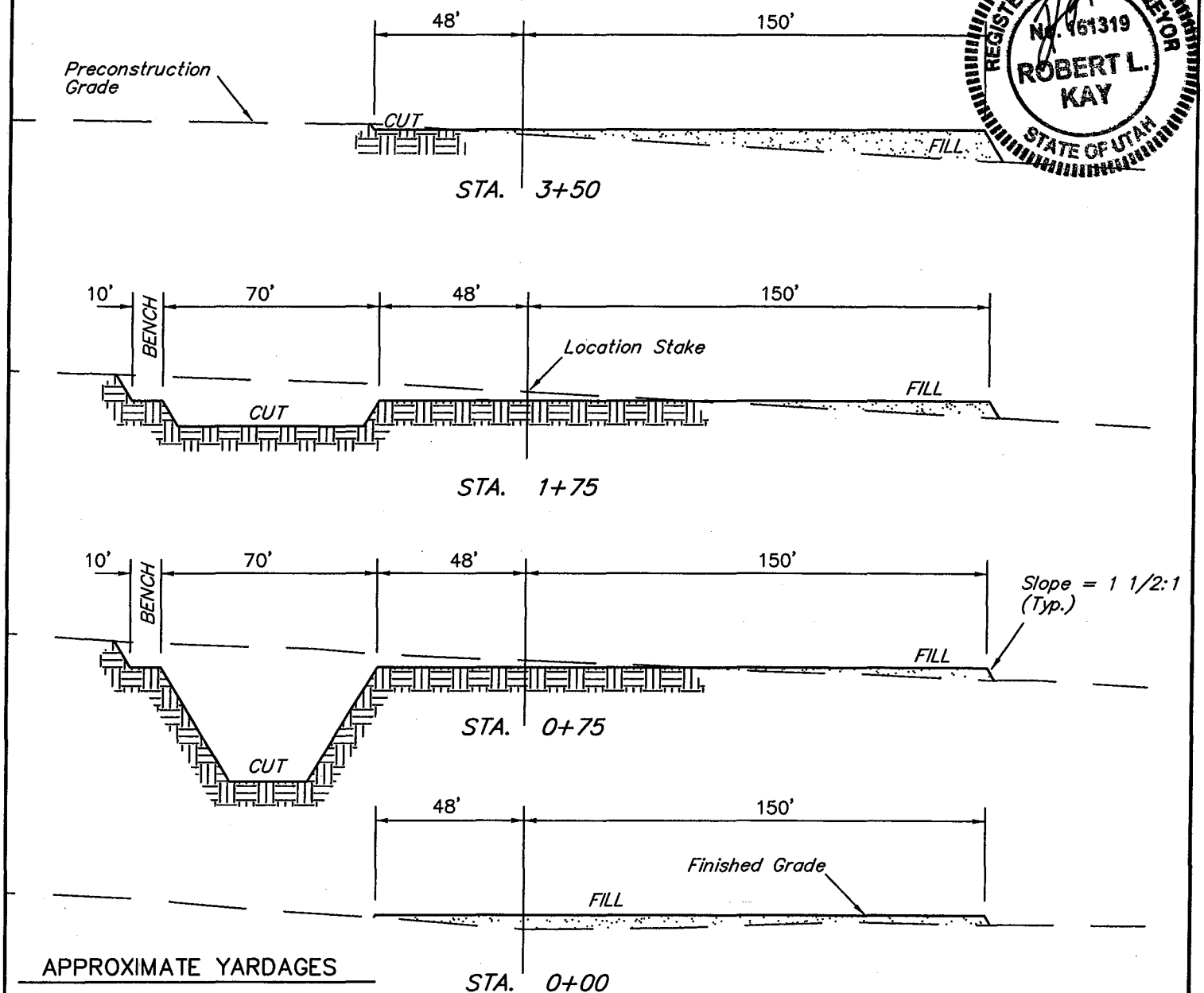
JB #8G-21-7-21
SECTION 21, T7S, R21E, S.L.B.&M.
2199' FNL 844' FEL

FIGURE #2

1" = 20'
X-Section Scale
1" = 50'

DATE: 10-18-07
Drawn By: L.K.

REGISTERED LAND SURVEYOR No. 161319 ROBERT L. KAY STATE OF UTAH



APPROXIMATE YARDAGES

CUT

(6") Topsoil Stripping	=	1,660 Cu. Yds.
Remaining Location	=	4,840 Cu. Yds.
TOTAL CUT	=	6,500 CU.YDS.
FILL	=	3,230 CU.YDS.
Excess Material	=	3,270 Cu. Yds.
Topsoil & Pit Backfill (1/2 Pit Vol.)	=	3,270 Cu. Yds.
EXCESS UNBALANCE (After Interim Rehabilitation)	=	0 Cu. Yds.

NOTE:
Topsoil should not be Stripped Below Finished Grade on Substructure Area.

* NOTE:
FILL QUANTITY INCLUDES 5% FOR COMPACTION

APPROXIMATE ACREAGES

WELL SITE DISTURBANCE = ±1.997 ACRES
ACCESS ROAD DISTURBANCE = ±0.570 ACRES
PIPELINE DISTURBANCE = ±5.081 ACRES

TOTAL = ±7.648 ACRES

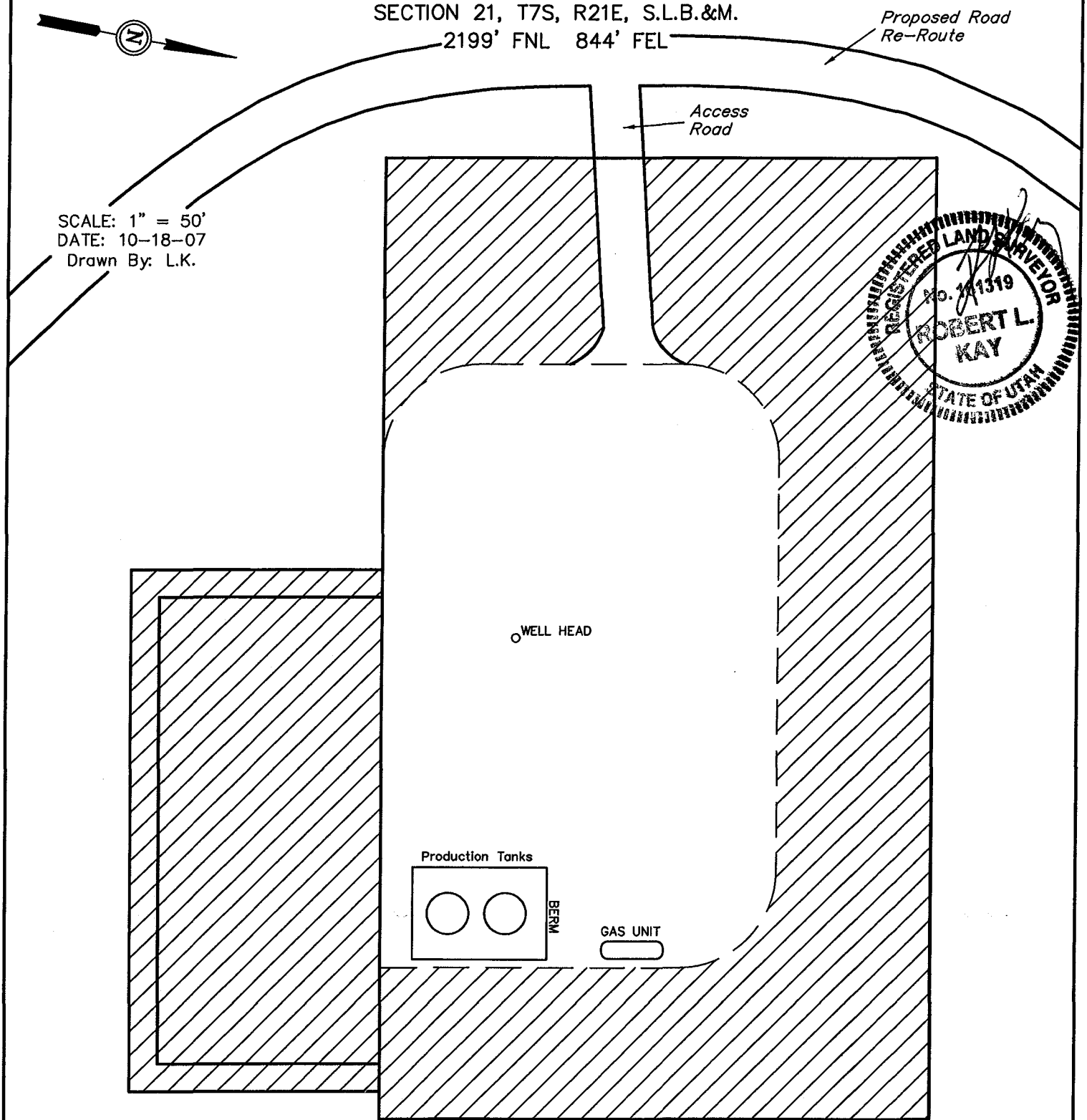
UINTAH ENGINEERING & LAND SURVEYING
85 So. 200 East * Vernal, Utah 84078 * (435) 789-1017

QUESTAR EXPLR. & PROD.

INTERIM RECLAMATION PLAN FOR

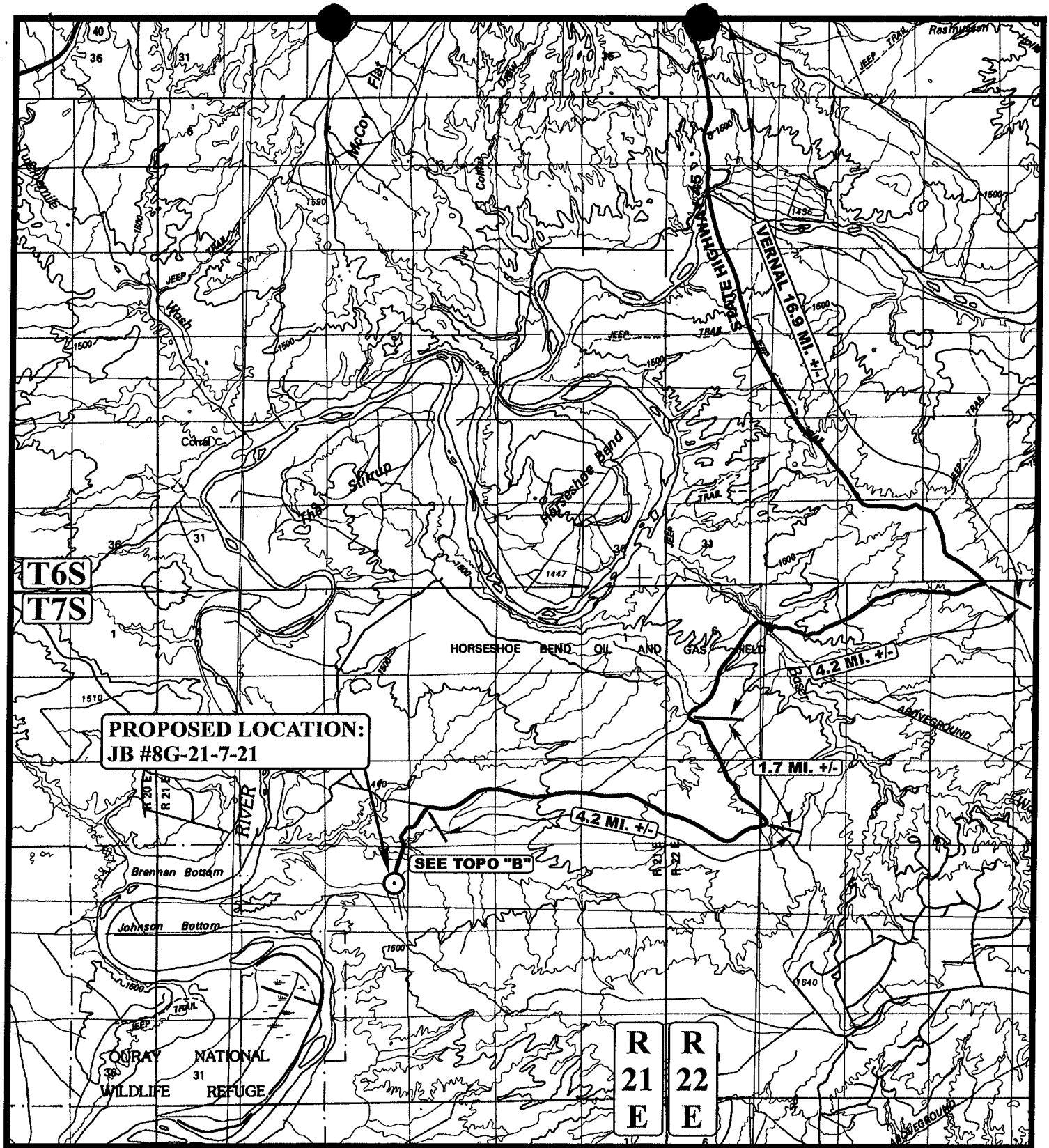
JB #8G-21-7-21
SECTION 21, T7S, R21E, S.L.B.&M.
2199' FNL 844' FEL

FIGURE #3



INTERIM RECLAMATION

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



LEGEND:

⊙ PROPOSED LOCATION

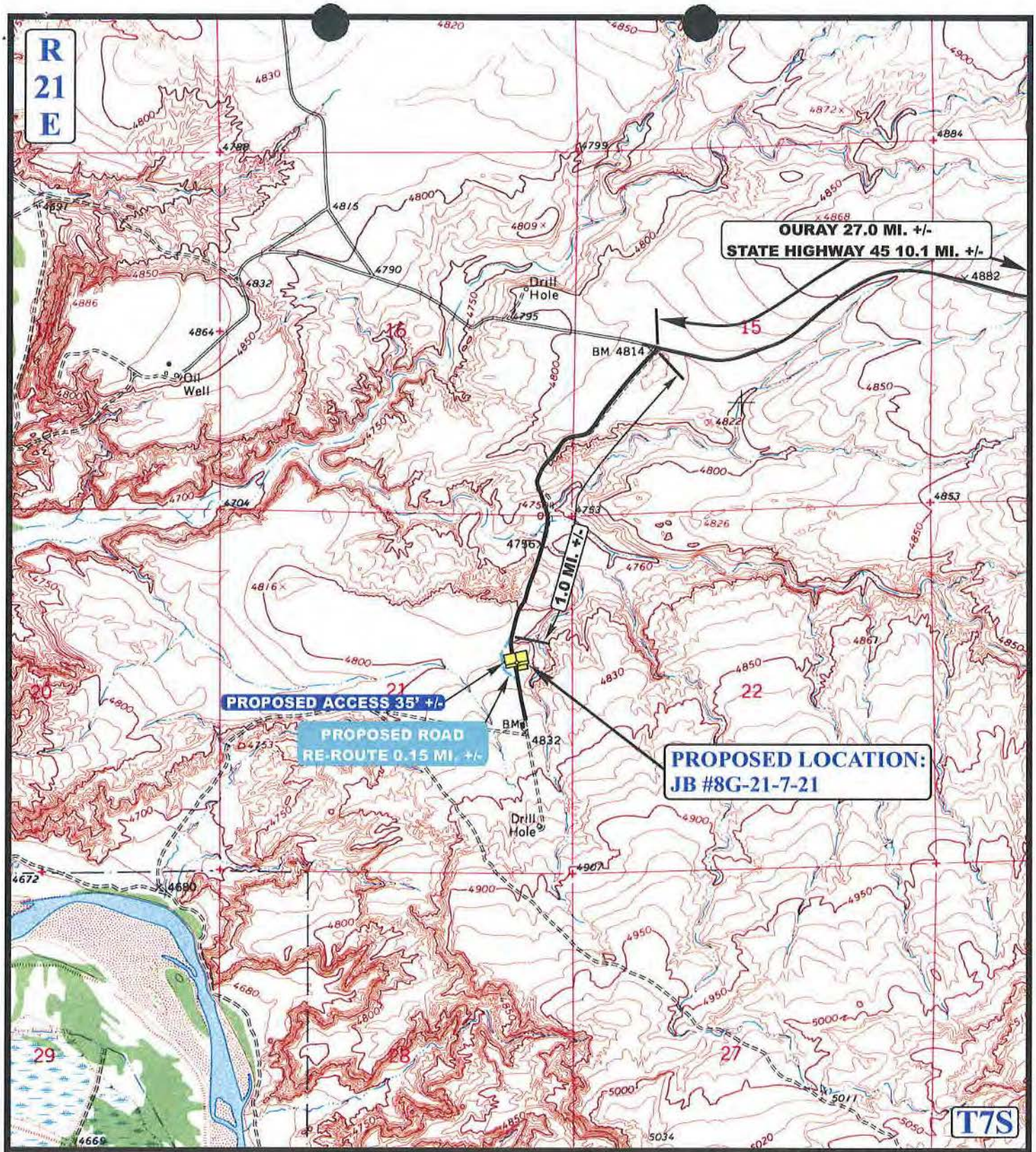
N

QUESTAR EXPLR. & PROD.

JB #8G-21-7-21
SECTION 21, T7S, R21E, S.L.B.&M.
2199' FNL 844' FEL

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

TOPOGRAPHIC MAP	10 MONTH	11 DAY	07 YEAR	A TOPO
SCALE: 1:100,000	DRAWN BY: Z.L.	REVISED: 00-00-00		



LEGEND:

PROPOSED ACCESS ROAD
PROPOSED ROAD RE-ROUTE
EXISTING ROAD

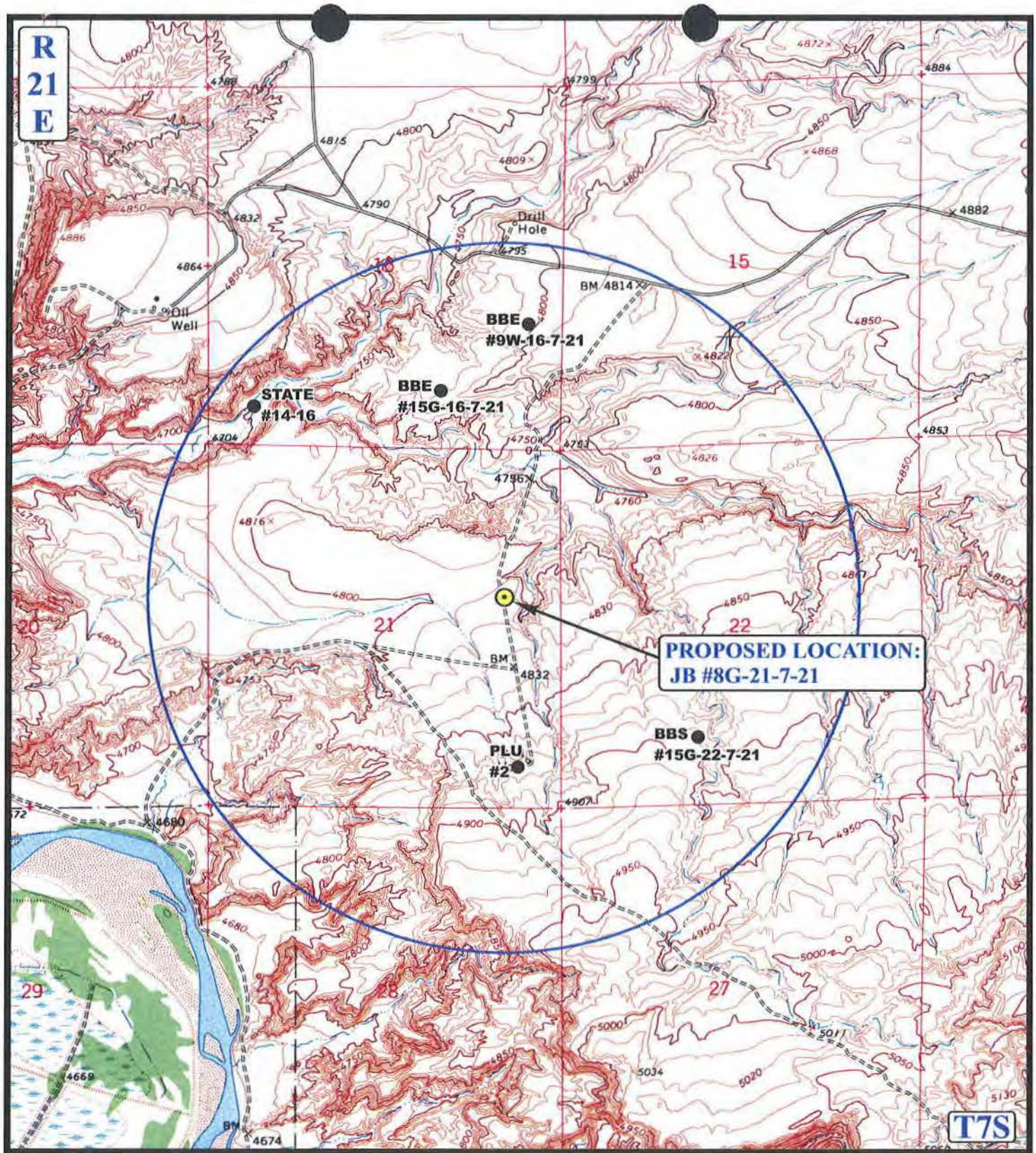
N

QUESTAR EXPLR. & PROD.

JB #8G-21-7-21
SECTION 21, T7S, R21E, S.L.B.&M.
2199' FNL 844' FEL

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

TOPOGRAPHIC MAP	10 MONTH	11 DAY	07 YEAR	B TOPO
SCALE: 1" = 2000'	DRAWN BY: Z.L.	REVISED: 00-00-00		



LEGEND:

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

N

QUESTAR EXPLR. & PROD.

JB #8G-21-7-21
SECTION 21, T7S, R21E, S.L.B.&M.
2199' FNL 844' FEL

Uintah Engineering & Land Surveying
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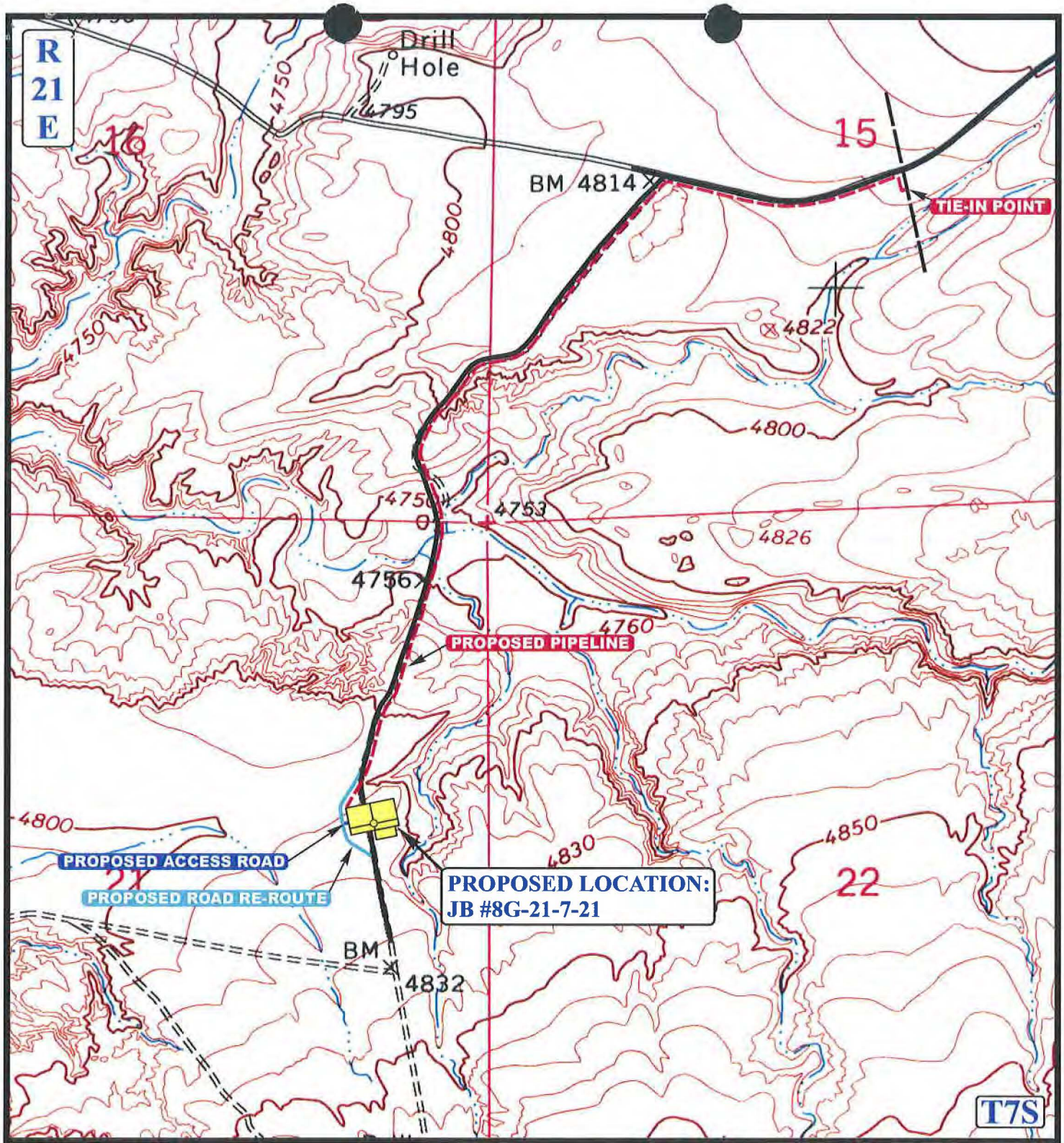
TOPOGRAPHIC MAP	10 MONTH	11 DAY	07 YEAR	C TOPO
SCALE: 1" = 2000'	DRAWN BY: Z.L.	REVISED: 00-00-00		



APPROXIMATE TOTAL PIPELINE DISTANCE = 7,377' +/-

LEGEND:

- PROPOSED ACCESS ROAD
- PROPOSED ROAD RE-ROUTE
- EXISTING ROAD
- PROPOSED PIPELINE

N

QUESTAR EXPLR. & PROD.

JB #8G-21-7-21
SECTION 21, T7S, R21E, S.L.B.&M.
2199' FNL 844' FEL

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

TOPOGRAPHIC MAP	10 MONTH	11 DAY	07 YEAR	D TOPO
SCALE: 1" = 1000'	DRAWN BY: Z.L.	REVISED: 00-00-00		

WORKSHEET
APPLICATION FOR PERMIT TO DRILL

APD RECEIVED: 09/24/2009

API NO. ASSIGNED: 43-047-40613

WELL NAME: JB 8G-21-7-21

OPERATOR: QUESTAR EXPLORATION & (N5085)

PHONE NUMBER: 435-781-4331

CONTACT: JAN NELSON

PROPOSED LOCATION:

SENE 21 070S 210E

SURFACE: 2199 FNL 0844 FEL

Sec 22 BOTTOM: 1980 FNL 1980 FEL SWNE

Sec 21 LAT #2 0660 FSL 0660 FWL SWSW

COUNTY: UINTAH

LATITUDE: 40.19772 LONGITUDE: -109.55356

UTM SURF EASTINGS: 623117 NORTHINGS: 4450495

FIELD NAME: BRENNAN BOTTOM (560)

INSPECT LOCATN BY: / /

Tech Review	Initials	Date
Engineering		
Geology		
Surface		

LEASE TYPE: 1 - Federal

LEASE NUMBER: UTU-30290

SURFACE OWNER: 1 - Federal

PROPOSED FORMATION: GRRV

COALBED METHANE WELL? NO

RECEIVED AND/OR REVIEWED:

✓ Plat

✓ Bond: Fed[1] Ind[] Sta[] Fee[]
(No. ESB000024)

N Potash (Y/N)

N Oil Shale 190-5 (B) or 190-3 or 190-13

✓ Water Permit
(No. 49-2153)

N RDCC Review (Y/N)
(Date:)

N/A Fee Surf Agreement (Y/N)

N/A Intent to Commingle (Y/N)

LOCATION AND SITING:

___ R649-2-3. Horizontal

Unit: JOHNSON BOTTOM

___ R649-3-2. General

Siting: 460 From Qtr/Qtr & 920' Between Wells

___ R649-3-3. Exception

___ Drilling Unit

Board Cause No:

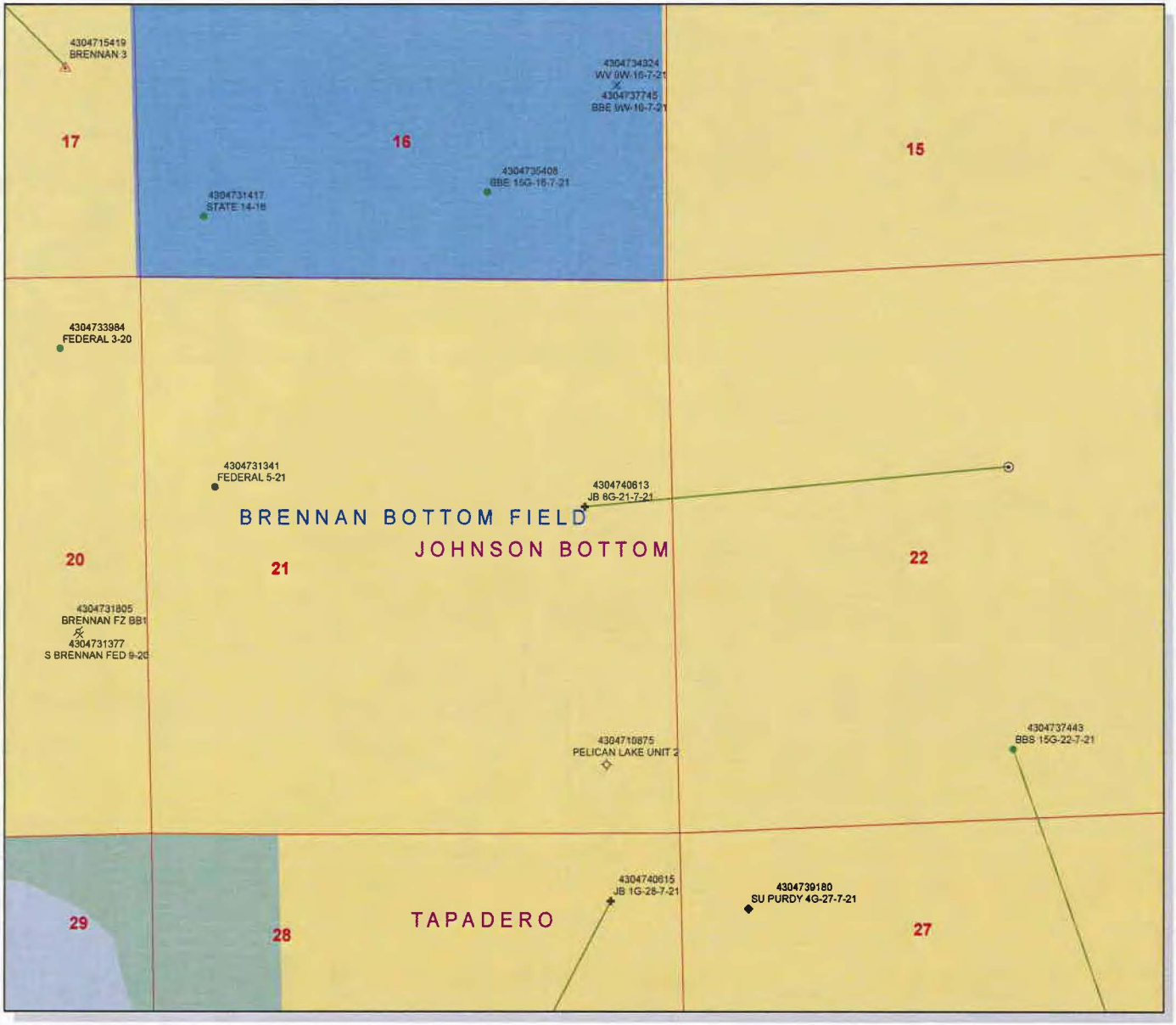
Eff Date:

Siting:

___ R649-3-11. Directional Drill

COMMENTS:

STIPULATIONS: 1- Federal Approval
2- Spacing Stip



API Number: 4304740613

Well Name: JB 8G-21-7-21

Township 07.0 S Range 21.0 E Section 21

Meridian: SLBM

Operator: QUESTAR EXPLORATION & PRODUCTION CO

Map Prepared:
Map Produced by Diana Mason

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

Fields
STATUS
- ACTIVE
- COMBINED
- Sections

Wells Query Events
- <all other values>

GIS_STAT_TYPE
- <Null>
- APD
- DRL
- GI
- GS
- LA
- NEW
- OPS
- PA
- PGW
- POW
- RET
- SGW
- SOW
- TA
- TW
- WD
- WI
- WS

1,200 600 0 1,200 Feet

1:12,000

United States Department of the Interior

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

IN REPLY REFER TO:
3160
(UT-922)

October 2, 2009

Memorandum

To: Assistant District Manager Minerals, Vernal District

From: Michael Coulthard, Petroleum Engineer

Subject: 2009 Plan of Development Johnson Bottom, Uintah County, Utah.

Pursuant to email between Diana Whitney, Division of Oil, Gas and Mining, and Mickey Coulthard, Utah State Office, Bureau of Land Management, the following horizontal wells are planned for calendar year 2009 within the Johnson Bottom Unit, Uintah County, Utah

API #	WELL NAME	LOCATION

(Proposed PZ Green River)

43-047-40613 JB 8G-21-7-21 Sec 21 T07S R21E 2199 FNL 0844 FEL
LAT #1 Sec 22 T07S R21E 1980 FNL 1980 FEL
LAT #2 Sec 21 T07S R21E 0660 FSL 0660 FWL

43-047-40614 JB 12G-27-7-21 Sec 27 T08S R21E 1859 FSL 0859 FWL
Lateral Sec 33 T07S R21E 1800 FNL 1300 FEL

43-047-40615 JB 1G-28-7-21 Sec 28 T07S R21E 0663 FNL 0664 FEL
Lateral Sec 28 T07S R21E 1000 FSL 2750 FEL

43-047-40616 JB 15G-34-7-21 Sec 34 T07S R21E 0834 FSL 2119 FEL
LAT #1 Sec 33 T07S R21E 1600 FSL 1000 FEL
LAT #2 Sec 35 T07S R21E 1100 FSL 0600 FWL

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

/s/ Michael L. Coulthard

bcc: File – Johnson Bottom Unit
Division of Oil Gas and Mining
Central Files
Agr. Sec. Chron
Fluid Chron

JON M. HUNTSMAN, JR.
Governor

GARY R. HERBERT
Lieutenant Governor

State of Utah

DEPARTMENT OF NATURAL RESOURCES

MICHAEL R. STYLER
Executive Director

Division of Oil, Gas and Mining

JOHN R. BAZA
Division Director

November 5, 2009

Questar Exploration & Production, Co.
11002 E 17500 S
Vernal, UT 84078

Re: JB 8G-21-7-21 Well, Surface Location 2199' FNL, 844' FEL, SE NE, Sec. 21, T. 7 South, R. 21 East, (1) Bottom Location 1980' FNL, 1980' FEL, SW NE, Sec. 22, T. 7 South, R. 21 East (2) Bottom Location 660' FSL, 660' FWL, SW SW Sec. 21, T. 7 South, R. 21 East, Uintah County, Utah

Gentlemen:

Pursuant to the provisions and requirements of Utah Code Ann.§ 40-6-1 *et seq.*, Utah Administrative Code R649-3-1 *et seq.*, and the attached Conditions of Approval, approval to drill the referenced well is granted.

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. The API identification number assigned to this well is 43-047-40613.

Sincerely,

Gil Hunt
Associate Director

Enclosures

cc: Uintah County Assessor
Bureau of Land Management, Vernal Office

Operator:	Questar Exploration & Production, Co.
Well Name & Number	JB 8G-21-7-21
API Number:	43-047-40613
Lease:	UTU-30290

Location Surface Location:	SE NE	**Sec.** 21	**T.** 7 South	**R.** 21 East
(1)Bottom Location:	SW NE	**Sec.** 22	**T.** 7 South	**R.** 21 East
(2)Bottom Location:	SW SW	**Sec.** 21	**T.** 7 South	**R.** 21 East

Conditions of Approval

1. 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.

2. Notification Requirements

   Notify the Division with 24 hours of spudding the well.

   - Contact Carol Daniels at (801) 538-5284.

   Notify the Division prior to commencing operations to plug and abandon the well.

   - Contact Dustin Doucet at (801) 538-5281 office (801) 733-0983 home

3. Reporting Requirements

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

4. State approval of this well does not supersede the required federal approval, which must be obtained prior to drilling.

5. 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.

6. This proposed well is located in an area for which drilling units (well spacing patterns) have not been established through an order of the Board of Oil, Gas and Mining (the "Board"). In order to avoid the possibility of waste or injury to correlative rights, the operator is requested, once the well has been drilled, completed, and has produced, to analyze geological and engineering data generated therefrom, as well as any similar data from surrounding areas if available. As soon as is practicable after completion of its analysis, and if the analysis suggests an area larger than the quarter-quarter section upon which the well is located is being drained, the operator is requested to seek an appropriate order from the Board establishing drilling and spacing units in conformance with such analysis by filing a Request for Agency Action with the Board.

CONFIDENTIAL

Form 3160-3
(July 1992)

FORM APPROVED
OMB NO. 1040-0136
Expires: February 28, 1995

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

SUBMIT IN TRIPLICATE*

APPLICATION FOR PERMIT TO DRILL OR DEEPEN

5. LEASE DESIGNATION AND SERIAL NO.: UTU-30290

6. IF INDIAN, ALLOTTEE OR TRIBE NAME: N/A

TYPE OF WORK: DRILL ☑ DEEPEN ☐

7. UNIT AGREEMENT NAME: JOHNSON BOTTOM UNIT UTU-86617X

TYPE OF WELL: OIL WELL ☑ GAS WELL ☐ OTHER ☐ SINGLE ZONE ☑ MULTIPLE ZONE ☐

8. FARM OR LEASE NAME, WELL NO.: JB 8G-21-7-21

2. NAME OF OPERATOR: QUESTAR EXPLORATION & PRODUCTION , CO.

Contact: Jan Nelson
E-Mail: jan.nelson@questar.com

9. API NUMBER: 43 047 40613

3. ADDRESS: 11002 E. 17500 SO. Vernal, Ut 84078

Telphone number: *Phone 435-781-4331* *Fax 435-781-4395*

10. FIELD AND POOL, OR WILDCAT: UNDESIGNATED

4. LOCATION OF WELL (Report location clearly and in accordance with and State requirements*)
At Surface: 2199' FNL 844' FEL, SENE, SECTION 21, T7S, R21E
At proposed production zone: PLEASE SEE ADDITIONAL INFORMATION

11. SEC.,T, R, M, OR BLK & SURVEY OR AREA: SEC. 21, T7S, R21E Mer SLB&M

14. DISTANCE IN MILES FROM NEAREST TOWN OR POSTOFFICE*
28 + / - MILES SOUTH OF OURAY, UTAH

12. COUNTY OR PARISH: Uintah

13. STATE: UT

15. DISTANCE FROM PROPOSED LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT. (also to nearest drig,unit line if any)
585' + / -

16. NO.OF ACRES IN LEASE: 720

17. NO. OF ACRES ASSIGNED TO THIS WELL: 40

18. DISTANCE FROM PROPOSED location to nearest well, drilling, completed, applied for, on this lease, ft
2,000' +/-

19. PROPOSED DEPTH
10,972' MD SW LATERAL
10,715' MD E LATERAL

20. BLM/BIA Bond No. on file
ESB000024

21. ELEVATIONS (Show whether DF, RT, GR, ect.)
4813.3' GR

22. DATE WORK WILL START
3/1/2010

23. Estimated duration
45 Days

24. Attachments

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

1. Well plat certified by a registered surveyor.
2. A Drilling Plan
3. A surface Use Plan (if location is on National Forest System Lands, the SUPO shall be filed with the appropriate Forest Service Office).
4. Bond to cover the operations unless covered by an exisiting bond on file (see Item 20 above).
5. Operator certification.
6. Such other site specific information and/or plans as may be required by the authorized officer.

SIGNED Jan Nelson Name (printed/typed) Jan Nelson DATE 09-15-2009

TITLE Permit Agent

CONDITIONS OF APPROVAL ATTACHED

(This space for Federal or State office use)

VERNAL FIELD OFFIC

PERMIT NO. _____ APPROVAL DATE _____

Application approval does not warrant or certify the applicant holds any legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon

CONDITIONS OF APPROVAL, IF ANY:

APPROVED BY Stephanie J Howard TITLE Acting Assistant Field Manager Lands & Mineral Resources DATE 11/23/09

*See Instructions On Reverse Side

Title 18 U.S.C Section 1001, makes it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any mater within its jurisdiction

RECEIVED SEP 17 2009 BLM VERNAL, UTAH

UDOGM

RECEIVED DEC 07 2009 DIV. OF OIL, GAS & MINING

NOTICE OF APPROVAL

NOS 8-31-2008

AFMSS# 08PP1081A

UNITED STATES DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
VERNAL FIELD OFFICE
170 South 500 East VERNAL, UT 84078 (435) 781-4400

CONDITIONS OF APPROVAL FOR APPLICATION FOR PERMIT TO DRILL

Company:	**Questar Exploration & Production, Co**	**Location:**	**SENE, Sec. 21, T7S, R21E**
Well No:	**JB 8G-21-7-21**	**Lease No:**	**UTU-30290**
API No:	**43-047-40613**	**Agreement:**	**N/A**

OFFICE NUMBER: (435) 781-4400

OFFICE FAX NUMBER: (435) 781-3420

A COPY OF THESE CONDITIONS SHALL BE FURNISHED TO YOUR FIELD REPRESENTATIVE TO INSURE COMPLIANCE

All lease and/or unit operations are to be conducted in such a manner that full compliance is made with the applicable laws, regulations (43 CFR Part 3160), and this approved Application for Permit to Drill including Surface and Downhole Conditions of Approval. The operator is considered fully responsible for the actions of his subcontractors. A copy of the approved APD must be on location during construction, drilling, and completion operations. **This permit was processed using a 390 CX tied to NEPA approved 3/31/2008. Therefore, this permit is approved for a two (2) year period OR until lease expiration OR the well must be spud by 3/31/2013 (5 years from the NEPA approval date), whichever occurs first. An additional extension, up to two (2) years, may be applied for by sundry notice prior to expiration.**

NOTIFICATION REQUIREMENTS

Location Construction (Notify Environmental Scientist)	-	Forty-Eight (48) hours prior to construction of location and access roads.
Location Completion (Notify Environmental Scientist)	-	Prior to moving on the drilling rig.
Spud Notice (Notify Petroleum Engineer)	-	Twenty-Four (24) hours prior to spudding the well.
Casing String & Cementing (Notify Supv. Petroleum Tech.)	-	Twenty-Four (24) hours prior to running casing and cementing all casing strings to: ut_vn_opreport@blm.gov.
BOP & Related Equipment Tests (Notify Supv. Petroleum Tech.)	-	Twenty-Four (24) hours prior to initiating pressure tests.
First Production Notice (Notify Petroleum Engineer)	-	Within Five (5) business days after new well begins or production resumes after well has been off production for more than ninety (90) days.

SURFACE USE PROGRAM
CONDITIONS OF APPROVAL (COAs)

- All new and replacement internal combustion gas field engines of less than or equal to 300 design-rated horsepower must not emit more than 2 gms of NO_x per horsepower-hour. This requirement does not apply to gas field engines of less than or equal to 40 design-rated horsepower.

- All and replacement internal combustion gas field engines of greater than 300 design rated horsepower must not emit more than 1.0 gms of NO_x per horsepower-hour.

- If there is an active Gilsonite mining operation within 2 miles of the well location, operator shall notify the Gilsonite operator at least 48 hours prior to any blasting during construction.

- If paleontological materials are uncovered during construction, the operator is to immediately stop work and contact the Authorized Officer (AO). A determination will be made by the AO as to what mitigation may be necessary for the discovered paleontologic material before construction can continue.

- During operations, if any vertebrate paleontological resources are discovered, all operations affecting such sites shall be immediately suspended, and all discoveries shall be left intact until authorized to proceed by the Authorized Officer. The appropriate Authorized Officer of the Vernal BLM office shall be notified within 48 hrs of the discovery, and a decision as to the preferred alternative/course of action will be rendered.

- As in the APD, the operator has agreed to not construct or drill from May 15th to June 20th to help protect pronghorns while they are kidding.

- As in the APD, the operator has obtained permission from the county to re-route the road temporarily around the location.

DOWNHOLE PROGRAM
CONDITIONS OF APPROVAL (COAs)

SITE SPECIFIC DOWNHOLE COAs:

- Intermediate casing lead cement shall be brought from 4000' to surface with Hi-Fill cement.
- Run Gamma Ray log to surface.

Variances Granted:

Air Drilling:

- Properly lubricated and maintained rotating head, variance granted to use a properly maintained and lubricated diverter head in place of a rotating head.
- Blooie line discharge 100' from the well bore, variance granted for blooie line discharge to be 50'-70' from the well bore.
- Automatic igniter. Variance granted for igniter due to water mist.
- Compressors located in the opposite direction from the blooie line a minimum of 100' from the well bore. Variance granted for air compressors to be located within 50 feet from the well bore and opposite from the blooie line.
- In lieu of mud products on location, Questar will have a 400 bbl. water tank containing water for kill fluid.
- Questar is granted permission to mount a deflector at the end of the blooie line.
- Flare pit - so long as the pit liner is repaired immediately if damaged.

All provisions outlined in Onshore Oil & Gas Order #2 Drilling Operations shall be strictly adhered to. The following items are emphasized:

DRILLING/COMPLETION/PRODUCING OPERATING STANDARDS

- The spud date and time shall be reported orally to Vernal Field Office within 24 hours of spudding.
- <u>Notify Vernal Field Office Supervisory Petroleum Engineering Technician at least 24 hours in advance of casing cementing operations and BOPE & casing pressure tests.</u>
- All requirements listed in Onshore Order #2 III. E. Special Drilling Operations are applicable for air drilling of surface hole.
- Blowout prevention equipment (BOPE) shall remain in use until the well is completed or abandoned. Closing unit controls shall remain unobstructed and readily accessible at all times. Choke manifolds shall be located outside of the rig substructure.
- All BOPE components shall be inspected daily and those inspections shall be recorded in the daily drilling report. Components shall be operated and tested as required by Onshore Oil & Gas Order

No. 2 to insure good mechanical working order. All BOPE pressure tests shall be performed by a test pump with a chart recorder and **NOT** by the rig pumps. Test shall be reported in the driller's log.

- BOP drills shall be initially conducted by each drilling crew within 24 hours of drilling out from under the surface casing and weekly thereafter as specified in Onshore Oil & Gas Order No. 2.

- Casing pressure tests are required before drilling out from under all casing strings set and cemented in place.

- No aggressive/fresh hard-banded drill pipe shall be used within casing.

- **Cement baskets shall not be run on surface casing.**

- The operator must report all shows of water or water-bearing sands to the BLM. If flowing water is encountered it must be sampled, analyzed, and a copy of the analyses submitted to the BLM Vernal Field Office.

- The operator must report encounters of all non oil & gas mineral resources (such as Gilsonite, tar sands, oil shale, trona, etc.) to the Vernal Field Office, in writing, within 5 working days of each encounter. Each report shall include the well name/number, well location, date and depth (from KB or GL) of encounter, vertical footage of the encounter and, the name of the person making the report (along with a telephone number) should the BLM need to obtain additional information.

- A complete set of angular deviation and directional surveys of a directional well will be submitted to the Vernal BLM office engineer within 30 days of the completion of the well.

- While actively drilling, chronologic drilling progress reports shall be filed directly with the BLM, Vernal Field Office on a weekly basis in sundry, letter format or e-mail to the Petroleum Engineers until the well is completed.

- A cement bond log (CBL) will be run from the production casing shoe to the top of cement and shall be utilized to determine the bond quality for the production casing. Submit a field copy of the CBL to this office.

- **Please submit an electronic copy of all other logs run on this well in LAS format to UT_VN_Welllogs@BLM.gov. This submission will supersede the requirement for submittal of paper logs to the BLM.**

- There shall be no deviation from the proposed drilling, completion, and/or workover program as approved. Safe drilling and operating practices must be observed. Any changes in operation must have prior approval from the BLM Vernal Field Office.

OPERATING REQUIREMENT REMINDERS:

- All wells, whether drilling, producing, suspended, or abandoned, shall be identified in accordance with 43 CFR 3162.6. There shall be a sign or marker with the name of the operator, lease serial number, well number, and surveyed description of the well.

- In accordance with 43 CFR 3162.4-3, this well shall be reported on the "Monthly Report of Operations" (Oil and Gas Operations Report ((OGOR)) starting with the month in which operations commence and continue each month until the well is physically plugged and abandoned. This report shall be filed in duplicate, directly with the Minerals Management Service, P.O. Box 17110, Denver, Colorado 80217-0110, or call 1-800-525-7922 (303) 231-3650 for reporting information.

- Should the well be successfully completed for production, the BLM Vernal Field office must be notified when it is placed in a producing status. Such notification will be by written communication and must be received in this office by not later than the fifth business day following the date on which the well is placed on production. The notification shall provide, as a minimum, the following informational items:

    - Operator name, address, and telephone number.

    - Well name and number.

    - Well location (¼¼, Sec., Twn, Rng, and P.M.).

    - Date well was placed in a producing status (date of first production for which royalty will be paid).

    - The nature of the well's production, (i.e., crude oil, or crude oil and casing head gas, or natural gas and entrained liquid hydrocarbons).

    - The Federal or Indian lease prefix and number on which the well is located; otherwise the non-Federal or non-Indian land category, i.e., State or private.

    - Unit agreement and/or participating area name and number, if applicable.

    - Communitization agreement number, if applicable.

- Any venting or flaring of gas shall be done in accordance with Notice to Lessees (NTL) 4A and needs prior approval from the BLM Vernal Field Office.

- All undesirable events (fires, accidents, blowouts, spills, discharges) as specified in NTL 3A will be reported to the BLM, Vernal Field Office. Major events, as defined in NTL3A, shall be reported verbally within 24 hours, followed by a written report within 15 days. "Other than Major Events" will be reported in writing within 15 days. "Minor Events" will be reported on the Monthly Report of Operations and Production.

- Whether the well is completed as a dry hole or as a producer, "Well Completion and Recompletion Report and Log" (BLM Form 3160-4) shall be submitted not later than 30 days after completion of the well or after completion of operations being performed, in accordance with 43 CFR 3162.4-1. Two copies of all logs run, core descriptions, and all other surveys or data obtained and compiled during the drilling, workover, and/or completion operations, shall be filed on BLM Form 3160-4.

Submit with the well completion report a geologic report including, at a minimum, formation tops, and a summary and conclusions. Also include deviation surveys, sample descriptions, strip logs, core data, drill stem test data, and results of production tests if performed. Samples (cuttings, fluid, and/or gas) shall be submitted only when requested by the BLM, Vernal Field Office.

- All off-lease storage, off-lease measurement, or commingling on-lease or off-lease, shall have prior written approval from the BLM Vernal Field Office.

- Oil and gas meters shall be calibrated in place prior to any deliveries. The BLM Vernal Field Office Petroleum Engineers will be provided with a date and time for the initial meter calibration and all future meter proving schedules. A copy of the meter calibration reports shall be submitted to the BLM Vernal Field Office. All measurement facilities will conform to the API standards for liquid hydrocarbons and the AGA standards for natural gas measurement. All measurement points shall be identified as the point of sale or allocation for royalty purposes.

- A schematic facilities diagram as required by Onshore Oil & Gas Order No. 3 shall be submitted to the BLM Vernal Field Office within 30 days of installation or first production, whichever occurs first. All site security regulations as specified in Onshore Oil & Gas Order No. 3 shall be adhered to. All product lines entering and leaving hydrocarbon storage tanks will be effectively sealed in accordance with Onshore Oil & Gas Order No. 3.

- Any additional construction, reconstruction, or alterations of facilities, including roads, gathering lines, batteries, etc., which will result in the disturbance of new ground, shall require the filing of a suitable plan and need prior approval of the BLM Vernal Field Office. Emergency approval may be obtained orally, but such approval does not waive the written report requirement.

- No location shall be constructed or moved, no well shall be plugged, and no drilling or workover equipment shall be removed from a well to be placed in a suspended status without prior approval of the BLM Vernal Field Office. If operations are to be suspended for more than 30 days, prior approval of the BLM Vernal Field Office shall be obtained and notification given before resumption of operations.

- Pursuant to Onshore Oil & Gas Order No. 7, this is authorization for pit disposal of water produced from this well for a period of 90 days from the date of initial production. A permanent disposal method must be approved by this office and in operation prior to the end of this 90-day period. In order to meet this deadline, an application for the proposed permanent disposal method shall be submitted along with any necessary water analyses, as soon as possible, but no later than 45 days after the date of first production. Any method of disposal which has not been approved prior to the end of the authorized 90-day period will be considered as an Incident of Noncompliance and will be grounds for issuing a shut-in order until an acceptable manner for disposing of said water is provided and approved by this office.

- Unless the plugging is to take place immediately upon receipt of oral approval, the Field Office Petroleum Engineers must be notified at least 24 hours in advance of the plugging of the well, in order that a representative may witness plugging operations. If a well is suspended or abandoned, all pits must be fenced immediately until they are backfilled. The "Subsequent Report of Abandonment" (Form BLM 3160-5) must be submitted within 30 days after the actual plugging of the well bore, showing location of plugs, amount of cement in each, and amount of casing left in hole, and the current status of the surface restoration.

CONFIDENTIAL

DIVISION OF OIL, GAS AND MINING

SPUDDING INFORMATION

Name of Company: **QUESTAR EXPLORATION & PRODUCTION COMPANY**

Well Name: **JB 8G-21-7-21**

Api No: **43-047-40613** Lease Type: **FEDERAL**

Section **21** Township **07S** Range **21E** County **UINTAH**

Drilling Contractor **PETE MARTIN DRLG** RIG # **BUCKET**

SPUDDED:

Date **04/16/2010**

Time **9:00 AM**

How **DRY**

Drilling will Commence:

Reported by **RUSS ROBINSON**

Telephone # **(435) 828-0394**

Date **04/19/2010** **Signed** **CHD**

CONFIDENTIAL

FORM 9

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

5. LEASE DESIGNATION AND SERIAL NUMBER: UTU-30290

SUNDRY NOTICES AND REPORTS ON WELLS

6. IF INDIAN, ALLOTTEE OR TRIBE NAME: N/A

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.

7. UNIT or CA AGREEMENT NAME: JOHNSON BOTTOM UTU86617X

1. TYPE OF WELL: OIL WELL ☑ GAS WELL ☐ OTHER _____

8. WELL NAME and NUMBER: JB 8G-21-7-21

2. NAME OF OPERATOR: QUESTAR EXPLORATION & PRODUCTION COMPANY

9. API NUMBER: 4304740613

3. ADDRESS OF OPERATOR: 11002 E. 17500 S. CITY VERNAL STATE UT ZIP 84078

PHONE NUMBER: (435) 781-4331

10. FIELD AND POOL, OR WILDCAT: BRENNAN BOTTOM

4. LOCATION OF WELL

FOOTAGES AT SURFACE: 2199' FNL 844' FEL

COUNTY: UINTAH

QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: SENE 21 7S 21E

STATE: UTAH

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

TYPE OF SUBMISSION	TYPE OF ACTION		
☐ NOTICE OF INTENT (Submit in Duplicate)	☐ ACIDIZE	☐ DEEPEN	☐ REPERFORATE CURRENT FORMATION
Approximate date work will start: _____	☐ ALTER CASING	☐ FRACTURE TREAT	☐ SIDETRACK TO REPAIR WELL
	☐ CASING REPAIR	☐ NEW CONSTRUCTION	☐ TEMPORARILY ABANDON
	☐ CHANGE TO PREVIOUS PLANS	☐ OPERATOR CHANGE	☐ TUBING REPAIR
	☐ CHANGE TUBING	☐ PLUG AND ABANDON	☐ VENT OR FLARE
☑ SUBSEQUENT REPORT (Submit Original Form Only)	☐ CHANGE WELL NAME	☐ PLUG BACK	☐ WATER DISPOSAL
Date of work completion:	☐ CHANGE WELL STATUS	☐ PRODUCTION (START/RESUME)	☐ WATER SHUT-OFF
	☐ COMMINGLE PRODUCING FORMATIONS	☐ RECLAMATION OF WELL SITE	☑ OTHER: SPUD
_____	☐ CONVERT WELL TYPE	☐ RECOMPLETE - DIFFERENT FORMATION	

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

TIGHT HOLE - Questar Exploration & Production Company is requesting that this information be held "CONFIDENTIAL".

On 4/18/2010 Spud the JB 8G-21-7-21 well. Drilled 136' of 20" hole & set 14" pipe 136' deep and pressure cemented back to surface.

On 4/19/2010 Drilled 12-1/4" hole to 510'. Set 9-5/8", 36#, K-55 Csg @ 490' & cemented back to surface.

NAME (PLEASE PRINT) Jan Nelson TITLE Permit Agent

SIGNATURE Jan Nelson DATE 4/20/2010

(This space for State use only)

RECEIVED
APR 2 0 2010
DIV. OF OIL, GAS & MINING

(5/2000) (See Instructions on Reverse Side)

State of Utah
Division of Oil, Gas and Mining

ENTITY ACTION FORM - FORM 6

OPERATOR ACCT. No. N-5085

OPERATOR: **Questar Exploration & Production Co.**
ADDRESS: **11002 East 17500 South**
Vernal, Utah 84078 (435)781-4331

Action Code	Current Entity No.	New Entity No.	API Number	Well Name	QQ	SC	TP	RG	County	Spud Date	Effective Date
A	99999	17595	43-047-40613	JB 8G-21-7-21	SENE	21	7S	21E	Uintah	04/18/2010	4/28/10
WELL 1 COMMENTS: GRRV BHL= Sec 22 SWNE Sec 21 SWSW											
WELL 2 COMMENTS:											
WELL 3 COMMENTS:											
WELL 4 COMMENTS:											
WELL 5 COMMENTS:											

ACTION CODES (See instructions on back of form)
- A - Establish new entity for new well (single well only)
- B - Add new well to existing entity (group or unit well)
- C - Re-assign well from one existing entity to another existing entity
- D - Re-assign well from one existing entity to a new entity
- E - Other (explain in comments section)

NOTE: Use COMMENT section to explain why each Action Code was selected

(3/89)

Jan Nelson
Signature

Permit Agent 04/20/2010
Title Date

Phone No. (435)781-4331

RECEIVED
APR 20 2010
DIV. OF OIL, GAS & MINING

API Well No: 43047406130000

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

FORM 9

5.LEASE DESIGNATION AND SERIAL NUMBER: UTU-30290

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: JOHNSON BOTTOM

1. TYPE OF WELL Oil Well

8. WELL NAME and NUMBER: JB 8G-21-7-21

2. NAME OF OPERATOR: QUESTAR EXPLORATION & PRODUCTION CO

9. API NUMBER: 43047406130000

3. ADDRESS OF OPERATOR: 11002 East 17500 South , Vernal, UT, 84078

PHONE NUMBER: 435 781-4362 Ext

9. FIELD and POOL or WILDCAT: BRENNAN BOTTOM

4. LOCATION OF WELL
FOOTAGES AT SURFACE: 2199 FNL 0844 FEL
QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: Qtr/Qtr: SENE Section: 21 Township: 07.0S Range: 21.0E Meridian: S

COUNTY: UINTAH

STATE: UTAH

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

TYPE OF SUBMISSION	TYPE OF ACTION		
✓ NOTICE OF INTENT Approximate date work will start: 5/31/2010	☐ ACIDIZE	☐ ALTER CASING	☐ CASING REPAIR
	✓ CHANGE TO PREVIOUS PLANS	☐ CHANGE TUBING	☐ CHANGE WELL NAME
	☐ CHANGE WELL STATUS	☐ COMMINGLE PRODUCING FORMATIONS	☐ CONVERT WELL TYPE
☐ SUBSEQUENT REPORT Date of Work Completion:	☐ DEEPEN	☐ FRACTURE TREAT	☐ NEW CONSTRUCTION
	☐ OPERATOR CHANGE	☐ PLUG AND ABANDON	☐ PLUG BACK
	☐ PRODUCTION START OR RESUME	☐ RECLAMATION OF WELL SITE	☐ RECOMPLETE DIFFERENT FORMATION
☐ SPUD REPORT Date of Spud:	☐ REPERFORATE CURRENT FORMATION	☐ SIDETRACK TO REPAIR WELL	☐ TEMPORARY ABANDON
	☐ TUBING REPAIR	☐ VENT OR FLARE	☐ WATER DISPOSAL
☐ DRILLING REPORT Report Date:	☐ WATER SHUTOFF	☐ SI TA STATUS EXTENSION	☐ APD EXTENSION
	☐ WILDCAT WELL DETERMINATION	☐ OTHER	OTHER:

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

Questar Exploration and Production Company request approval to run a pinch packer completion system in the laterals. The location of the packer elements will be determined after evaluating the mud logs.

Accepted by the Utah Division of Oil, Gas and Mining

Date: May 13, 2010

By:

NAME (PLEASE PRINT)	PHONE NUMBER	TITLE
Jan Nelson	435 781-4331	Permit Agent
SIGNATURE N/A		**DATE** 5/13/2010

RECEIVED May 13, 2010

API Well No: 43047406130000

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

FORM 9

5.LEASE DESIGNATION AND SERIAL NUMBER: UTU-30290

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: JOHNSON BOTTOM

1. TYPE OF WELL Oil Well

8. WELL NAME and NUMBER: JB 8G-21-7-21

2. NAME OF OPERATOR: QUESTAR EXPLORATION & PRODUCTION CO

9. API NUMBER: 43047406130000

3. ADDRESS OF OPERATOR: 11002 East 17500 South , Vernal, UT, 84078

PHONE NUMBER: 303 308-3068 Ext

9. FIELD and POOL or WILDCAT: BRENNAN BOTTOM

4. LOCATION OF WELL
FOOTAGES AT SURFACE: 2199 FNL 0844 FEL
QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: Qtr/Qtr: SENE Section: 21 Township: 07.0S Range: 21.0E Meridian: S

COUNTY: UINTAH

STATE: UTAH

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

TYPE OF SUBMISSION	TYPE OF ACTION		
✓ NOTICE OF INTENT Approximate date work will start: 5/31/2010	☐ ACIDIZE	✓ ALTER CASING	☐ CASING REPAIR
	☐ CHANGE TO PREVIOUS PLANS	☐ CHANGE TUBING	☐ CHANGE WELL NAME
	☐ CHANGE WELL STATUS	☐ COMMINGLE PRODUCING FORMATIONS	☐ CONVERT WELL TYPE
☐ SUBSEQUENT REPORT Date of Work Completion:	☐ DEEPEN	☐ FRACTURE TREAT	☐ NEW CONSTRUCTION
	☐ OPERATOR CHANGE	☐ PLUG AND ABANDON	☐ PLUG BACK
	☐ PRODUCTION START OR RESUME	☐ RECLAMATION OF WELL SITE	☐ RECOMPLETE DIFFERENT FORMATION
☐ SPUD REPORT Date of Spud:	☐ REPERFORATE CURRENT FORMATION	☐ SIDETRACK TO REPAIR WELL	☐ TEMPORARY ABANDON
	☐ TUBING REPAIR	☐ VENT OR FLARE	☐ WATER DISPOSAL
☐ DRILLING REPORT Report Date:	☐ WATER SHUTOFF	☐ SI TA STATUS EXTENSION	☐ APD EXTENSION
	☐ WILDCAT WELL DETERMINATION	☐ OTHER	OTHER:

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

Questar Exploration and Production Company request permission to change the 7" casing grade from 26# P-110 to 26# N-80 LT&C. The substituted pipe meets the design requirements.

Accepted by the Utah Division of Oil, Gas and Mining

Date: June 07, 2010

By:

NAME (PLEASE PRINT)	PHONE NUMBER	TITLE
Jan Nelson	435 781-4331	Permit Agent
SIGNATURE N/A		**DATE** 5/26/2010

RECEIVED May 26, 2010

Division of Oil, Gas and Mining

OPERATOR CHANGE WORKSHEET (for state use only)

ROUTING
CDW

Change of Operator (Well Sold) **X - Operator Name Change**

The operator of the well(s) listed below has changed, effective: **6/14/2010**

FROM: (Old Operator):	**TO:** (New Operator):
N5085-Questar Exploration and Production Company 1050 17th St, Suite 500 Denver, CO 80265 Phone: 1 (303) 308-3048	N3700-QEP Energy Company 1050 17th St, Suite 500 Denver, CO 80265 Phone: 1 (303) 308-3048

CA No. **Unit:** **JOHNSON BOTTOM**

WELL NAME	SEC	TWN	RNG	API NO	ENTITY NO	LEASE TYPE	WELL TYPE	WELL STATUS
SEE ATTACHED								

OPERATOR CHANGES DOCUMENTATION

Enter date after each listed item is completed

1. (R649-8-10) Sundry or legal documentation was received from the **FORMER** operator on: 6/28/2010
2. (R649-8-10) Sundry or legal documentation was received from the **NEW** operator on: 6/28/2010
3. The new company was checked on the **Department of Commerce, Division of Corporations Database on:** 6/24/2010

4a. Is the new operator registered in the State of Utah: Business Number: 764611-0143

5a. (R649-9-2)Waste Management Plan has been received on: Requested

5b. Inspections of LA PA state/fee well sites complete on: n/a

5c. Reports current for Production/Disposition & Sundries on: ok

6. **Federal and Indian Lease Wells:** The BLM and or the BIA has approved the merger, name change, or operator change for all wells listed on Federal or Indian leases on: BLM 8/16/2010 BIA not yet
7. **Federal and Indian Units:**
   The BLM or BIA has approved the successor of unit operator for wells listed on: 8/16/2010
8. **Federal and Indian Communization Agreements ("CA"):**
   The BLM or BIA has approved the operator for all wells listed within a CA on: N/A
9. **Underground Injection Control ("UIC")** Division has approved UIC Form 5 Transfer of Authority to **Inject,** for the enhanced/secondary recovery unit/project for the water disposal well(s) listed on: 6/29/2010

DATA ENTRY:

1. Changes entered in the **Oil and Gas Database on:** 6/30/2010
2. Changes have been entered on the **Monthly Operator Change Spread Sheet on:** 6/30/2010
3. Bond information entered in RBDMS on: 6/30/2010
4. Fee/State wells attached to bond in RBDMS on: 6/30/2010
5. Injection Projects to new operator in RBDMS on: 6/30/2010
6. Receipt of Acceptance of Drilling Procedures for APD/New on: n/a

BOND VERIFICATION:

1. Federal well(s) covered by Bond Number: ESB000024
2. Indian well(s) covered by Bond Number: 965010693

3a. (R649-3-1) The **NEW** operator of any state/fee well(s) listed covered by Bond Number 965010695

3b. The **FORMER** operator has requested a release of liability from their bond on: n/a

LEASE INTEREST OWNER NOTIFICATION:

4. (R649-2-10) The **NEW** operator of the fee wells has been contacted and informed by a letter from the Division of their responsibility to notify all interest owners of this change on: n/a

COMMENTS:

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.

5. LEASE DESIGNATION AND SERIAL NUMBER: See attached

6. IF INDIAN, ALLOTTEE OR TRIBE NAME: See attached

7. UNIT or CA AGREEMENT NAME: See attached

1. TYPE OF WELL: OIL WELL ☐ GAS WELL ☐ OTHER

8. WELL NAME and NUMBER: See attached

2. NAME OF OPERATOR: Questar Exploration and Production Company N5085

9. API NUMBER: Attached

3. ADDRESS OF OPERATOR: 1050 17th Street, Suite 500 CITY Denver STATE CO ZIP 80265

PHONE NUMBER: (303) 672-6900

10. FIELD AND POOL, OR WILDCAT: See attached

4. LOCATION OF WELL

FOOTAGES AT SURFACE: See attached

COUNTY: Attached

QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN:

STATE: UTAH

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

TYPE OF SUBMISSION	TYPE OF ACTION		
☑ NOTICE OF INTENT (Submit in Duplicate)	☐ ACIDIZE	☐ DEEPEN	☐ REPERFORATE CURRENT FORMATION
Approximate date work will start:	☐ ALTER CASING	☐ FRACTURE TREAT	☐ SIDETRACK TO REPAIR WELL
6/14/2010	☐ CASING REPAIR	☐ NEW CONSTRUCTION	☐ TEMPORARILY ABANDON
	☐ CHANGE TO PREVIOUS PLANS	☐ OPERATOR CHANGE	☐ TUBING REPAIR
	☐ CHANGE TUBING	☐ PLUG AND ABANDON	☐ VENT OR FLARE
☐ SUBSEQUENT REPORT (Submit Original Form Only)	☐ CHANGE WELL NAME	☐ PLUG BACK	☐ WATER DISPOSAL
Date of work completion:	☐ CHANGE WELL STATUS	☐ PRODUCTION (START/RESUME)	☐ WATER SHUT-OFF
	☐ COMMINGLE PRODUCING FORMATIONS	☐ RECLAMATION OF WELL SITE	☑ OTHER: Operator Name Change
	☐ CONVERT WELL TYPE	☐ RECOMPLETE - DIFFERENT FORMATION	

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

Effective June 14, 2010 Questar Exploration and Production Company changed its name to QEP Energy Company. This name change involves only an internal corporate name change and no third party change of operator is involved. The same employees will continue to be responsible for operations of the properties described on the attached list. All operations will continue to be covered by bond numbers:

Federal Bond Number: 965002976 (BLM Reference No. ESB000024) N3700
Utah State Bond Number: ~~965003033~~ 965010695
Fee Land Bond Number: ~~965003033~~
BIA Bond Number: ~~799446~~ 965010693

The attached document is an all inclusive list of the wells operated by Questar Exploration and Production Company. As of June 14, 2010 QEP Energy Company assumes all rights, duties and obligations as operator of the properties as described on the list

NAME (PLEASE PRINT): Morgan Anderson TITLE: Regulatory Affairs Analyst

SIGNATURE: Morgan Anderson DATE: 6/23/2010

(This space for State use only)

RECEIVED
JUN 28 2010
DIV. OF OIL, GAS & MINING

APPROVED 6/30/2009
Earlene Russell
Division of Oil, Gas and Mining
Earlene Russell, Engineering Technician

(5/2000) (See Instructions on Reverse Side)

Questar Exploration Production Company (N5085) to QEP Energy Company (N3700)
JOHNSON BOTTOM
effective June 14, 2010

well_name	sec	twp	rng	api	entity	mineral lease	type	stat	C
LEOTA 1-34-2B	34	070S	210E	4304730879	5420	Federal	OW	P	
WV 7W-36-7-21	36	070S	210E	4304734065	13334	State	D	PA	
WV 9W-36-7-21	36	070S	210E	4304734066	13331	State	D	PA	
WV 11W-36-7-21	36	070S	210E	4304734067	13678	State	GW	PA	
WV 5W-36-7-21	36	070S	210E	4304734099	13807	State	GW	OPS	C
WV 13W-36-7-21	36	070S	210E	4304734100	13678	State	GW	P	
SU PURDY 7W-34-7-21	34	070S	210E	4304734380	13679	Federal	GW	P	
BBE 15G-16-7-21	16	070S	210E	4304735408	14070	State	OW	P	
BBS 15G-22-7-21	22	070S	210E	4304737443	15688	Federal	OW	P	C
TU 3-35-7-21	35	070S	210E	4304738995	16512	Federal	GW	P	
SU PURDY 3M-25-7-21	25	070S	210E	4304739179		Federal	OW	APD	C
JB 4G-27-7-21	27	070S	210E	4304739180		Federal	OW	APD	C
SU PURDY 10G-27-7-21	27	070S	210E	4304739181		Federal	OW	APD	C
JB 8G-21-7-21	21	070S	210E	4304740613	17595	Federal	OW	DRL	C
JB 12G-27-7-21	27	070S	210E	4304740614		Federal	OW	APD	C
JB 1G-28-7-21	28	070S	210E	4304740615		Federal	OW	APD	C
JB 15G-34-7-21	34	070S	210E	4304740616		Federal	OW	APD	C

Bonds: BLM = ESB000024
BIA = 956010693
State = 965010695

United States Department of the Interior

BUREAU OF LAND MANAGEMENT
Utah State Office
P.O. Box 45155
Salt Lake City, UT 84145-0155
http://www.blm.gov/ut/st/en.html

TAKE PRIDE IN AMERICA

IN REPLY REFER TO:
3100
(UT-922)

JUL 28 2010

Memorandum

To: Vernal Field Office, Price Field Office, Moab Field Office

From: Chief, Branch of Minerals Roger L Bankert

Subject: Name Change Recognized

Attached is a copy of the Certificate of Name Change issued by the Texas Secretary of State and a decision letter recognizing the name change from the Eastern States Office. We have updated our records to reflect the name change in the attached list of leases.

The name change from **Questar Exploration and Production Company** into **QEP Energy Company** is effective June 8, 2010.

cc: MMS
UDOGM

RECEIVED
AUG 16 2010
DIV. OF OIL, GAS & MINING

Federal Approval of this Action is Necessary

API Well No: 43047406130000

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.

5.LEASE DESIGNATION AND SERIAL NUMBER: UTU-30290

6. IF INDIAN, ALLOTTEE OR TRIBE NAME:

7.UNIT or CA AGREEMENT NAME: JOHNSON BOTTOM

1. TYPE OF WELL Oil Well

8. WELL NAME and NUMBER: JB 8G-21-7-21

2. NAME OF OPERATOR: QEP ENERGY COMPANY

9. API NUMBER: 43047406130000

3. ADDRESS OF OPERATOR: 11002 East 17500 South , Vernal, Ut, 84078

PHONE NUMBER: 303 308-3068 Ext

9. FIELD and POOL or WILDCAT: BRENNAN BOTTOM

4. LOCATION OF WELL
FOOTAGES AT SURFACE: 2199 FNL 0844 FEL
QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: Qtr/Qtr: SENE Section: 21 Township: 07.0S Range: 21.0E Meridian: S

COUNTY: UINTAH

STATE: UTAH

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

TYPE OF SUBMISSION	TYPE OF ACTION		
✓ NOTICE OF INTENT Approximate date work will start: 7/6/2010	☐ ACIDIZE	☐ ALTER CASING	☐ CASING REPAIR
	✓ CHANGE TO PREVIOUS PLANS	☐ CHANGE TUBING	☐ CHANGE WELL NAME
	☐ CHANGE WELL STATUS	☐ COMMINGLE PRODUCING FORMATIONS	☐ CONVERT WELL TYPE
☐ SUBSEQUENT REPORT Date of Work Completion:	☐ DEEPEN	☐ FRACTURE TREAT	☐ NEW CONSTRUCTION
	☐ OPERATOR CHANGE	☐ PLUG AND ABANDON	☐ PLUG BACK
	☐ PRODUCTION START OR RESUME	☐ RECLAMATION OF WELL SITE	☐ RECOMPLETE DIFFERENT FORMATION
☐ SPUD REPORT Date of Spud:	☐ REPERFORATE CURRENT FORMATION	☐ SIDETRACK TO REPAIR WELL	☐ TEMPORARY ABANDON
	☐ TUBING REPAIR	☐ VENT OR FLARE	☐ WATER DISPOSAL
☐ DRILLING REPORT Report Date:	☐ WATER SHUTOFF	☐ SI TA STATUS EXTENSION	☐ APD EXTENSION
	☐ WILDCAT WELL DETERMINATION	☐ OTHER	OTHER:

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

This sundry is being submitted to document the conversation between Jan Nelson, QEP Energy Company and Ryan Angus, Vernal BLM on Saturday, July 3, 2010 at 4:00 p.m. There were no shows during the drilling of lateral #1 of the JB 8G-21-7-21 well and productive potential remains questionable. The #1 lateral was drilled to 8,135' and a slotted liner was run. Due to the questionable results of lateral #1, the bottom hole location (BHL) for lateral #2 is being revised to a southeast orientation toward established production and known reservoir parameters. The new BHL is: 660' FSL 1980' FWL, SE/SW, Section 22, T7S, R21E Please refer to the updated directional plan and legal plat attached for lateral#2. Please contact me at (435)781-4331 if further information is needed.

Approved by the Utah Division of Oil, Gas and Mining

Date: August 03, 2010

By: [signature]

NAME (PLEASE PRINT)	PHONE NUMBER	TITLE
Jan Nelson	435 781-4331	Permit Agent

SIGNATURE	DATE
N/A	7/6/2010

QEP Energy Company

Independence Plaza
1050 17th Street, Suite 500
Denver, CO 80265
Tel: 303.672.6900
Fax: 303.294.9632

June 15, 2010

43-047-40613

Division of Oil, Gas & Mining
1594 W. N. Temple STE 1210
Salt Lake City, UT 84114-5801
Attention: Mr. Brad Hill, Oil and Gas Permitting Manager

RE: Request for Consent to Exception Well Location
JB 8G-21-7-21 Well
Surface Location T7S-R21E, SLM Section 21: SENE
1ST Bottom Hole Location T7S-R21E, SLM Section 21: SWSW
2ND Bottom Hole Location T7S-R21E, SLM Section 22: SWNE
Johnson Bottom Unit
Uintah County, Utah

Dear Mr. Hill:

QEP Energy Company ("QEP"), formally known as Questar Exploration and Production Company, as unit operator of the Johnson Bottom Unit ("JBU"), is currently drilling the southwest lateral of the above referenced dual horizontal well. Federal Lease UTU65223 is an uncommitted tract within JBU and QEP is required under the Division of Administrative Rules ("Rules") R649-3-2 to stay a minimum of 660' from the lease line of said lease. This lease is directly to the north of currently planned eastern horizontal lateral, please see the attached plats. To the south of the currently planned eastern lateral of the referenced well lies Unleased Federal acreage, which subject to joining JBU upon issuance. QEP is also required under Rules R649-3-2 to stay a minimum of 660' from the Unleased Federal acreage.

In order to stay in compliance with Rules R649-3-2 to the Federal Lease UTU65223, QEP respectfully requests the consent for the exception location per Rules R649-3-3 for a tolerance between 1980' FNL and 2180' FNL in the SWNE of Section 22, T7S-R21E. The eastern lateral will not be drilled east of 1980' FEL. This tolerance will allow this eastern lateral and BHL to be a minimum of 660' south of lease UTU65223 and will encroach no closer than 460' from the Unleased Federal acreage to the south of the planned lateral. QEP requests that this Application be granted administrative approval upon consent from the Bureau of Land Management. There are no other Working Interest or Mineral owners within a 460' radius that would be effected by this exception.

QEP requests the administrative approval be granted as soon as possible since the current plan is to drill the eastern lateral of the above referenced well directly after reaching TD of the southwest lateral. I thank you in advance for your help on this matter. Should you have any questions, please contact me at (303) 672-6937.

Sincerely,

Birgit Roesink-Miller, RPL
Senior Landman

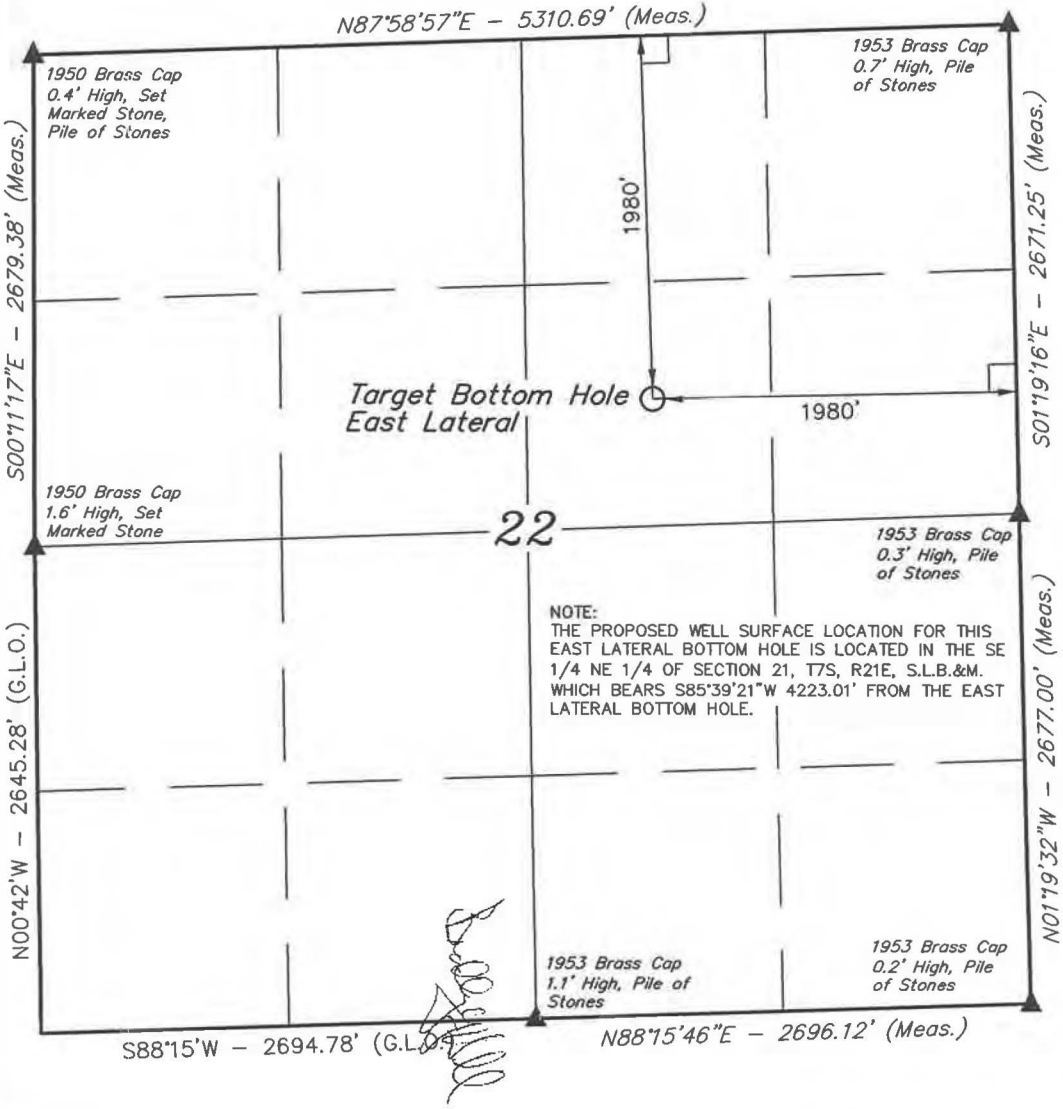
Enclosure

RECEIVED
JUN 16 2010
DIV. OF OIL, GAS & MINING

QUESTAR EXPLR. & PROD.

Well location, JB #8G-21-7-21 (East Lateral) TARGET BOTTOM HOLE, located as shown in the SW 1/4 NE 1/4 of Section 22, T7S, R21E, S.L.B.&M. Uintah County, Utah.

T7S, R21E, S.L.B.&M.



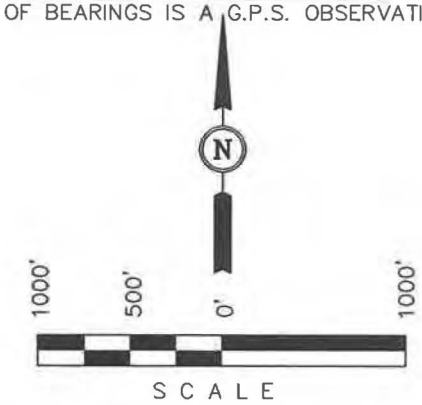
NOTE:
THE PROPOSED WELL SURFACE LOCATION FOR THIS EAST LATERAL BOTTOM HOLE IS LOCATED IN THE SE 1/4 NE 1/4 OF SECTION 21, T7S, R21E, S.L.B.&M. WHICH BEARS S85°39'21"W 4223.01' FROM THE EAST LATERAL BOTTOM HOLE.

BASIS OF ELEVATION

BENCH MARK (43EAM) LOCATED IN THE SE 1/4 OF SECTION 21, T7S, R21E, S.L.B.&M. TAKEN FROM THE BRENNAN BASIN, QUADRANGLE, UTAH, UINTAH COUNTY, 7.5 MINUTE QUAD. (TOPOGRAPHIC MAP) PUBLISHED BY THE UNITED STATES DEPARTMENT OF THE INTERIOR, GEOLOGICAL SURVEY. SAID ELEVATION IS MARKED AS BEING 4832 FEET.

BASIS OF BEARINGS

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



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.

REGISTERED LAND SURVEYOR
REGISTRATION NO. 161319
STATE OF UTAH

REGISTERED LAND SURVEYOR No. 161319 ROBERT L. KAY STATE OF UTAH

LEGEND:

└ = 90° SYMBOL

● = PROPOSED WELL HEAD.

▲ = SECTION CORNERS LOCATED.

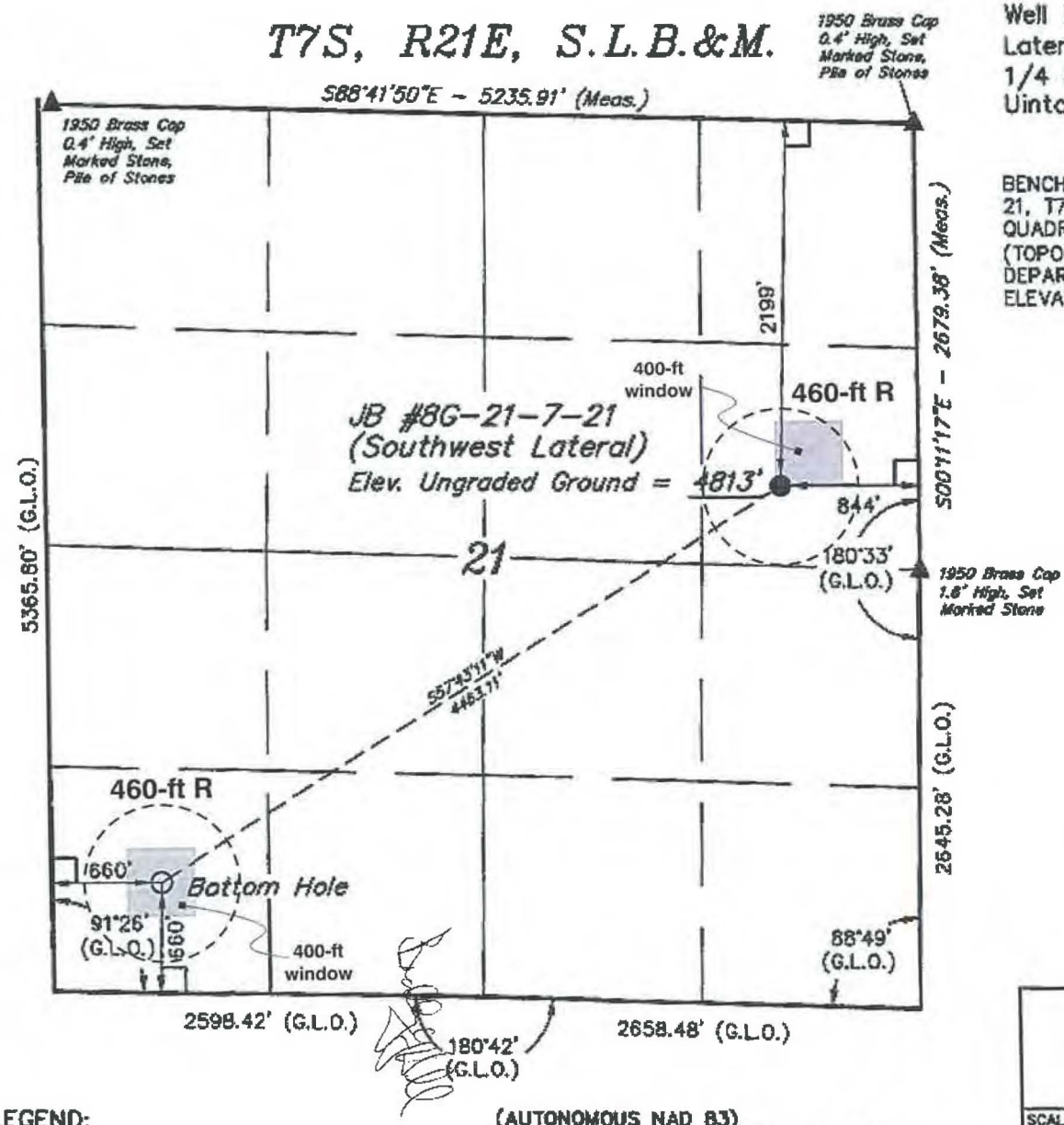
NAD 83 (TARGET BOTTOM HOLE)
LATITUDE = 40°11'54.62" (40.198506)
LONGITUDE = 109°32'21.21" (109.539225)
NAD 27 (TARGET BOTTOM HOLE)
LATITUDE = 40°11'54.75" (40.198542)
LONGITUDE = 109°32'18.72" (109.538533)

UINTAH ENGINEERING & LAND SURVEYING
85 SOUTH 200 EAST - VERNAL, UTAH 84078
(435) 789-1017

SCALE 1" = 1000'	DATE SURVEYED: 10-08-07	DATE DRAWN: 08-13-08
PARTY D.A. T.M. L.K.	REFERENCES G.L.O. PLAT	
WEATHER COOL	FILE QUESTAR EXPLR. & PROD.	

QUESTAR EXPLR. & PROD.

Well location, JB #8G-21-7-21 (Southwest Lateral), located as shown in the SE 1/4 NE 1/4 of Section 21, T7S, R21E, S.L.B.&M. Uintah County, Utah.



BASIS OF ELEVATION

BENCH MARK (43EAM) LOCATED IN THE SE 1/4 OF SECTION 21, T7S, R21E, S.L.B.&M. TAKEN FROM THE BRENNAN BASIN, QUADRANGLE, UTAH, UINTAH COUNTY, 7.5 MINUTE QUAD. (TOPOGRAPHIC MAP) PUBLISHED BY THE UNITED STATES DEPARTMENT OF THE INTERIOR, GEOLOGICAL SURVEY. SAID ELEVATION IS MARKED AS BEING 4832 FEET.

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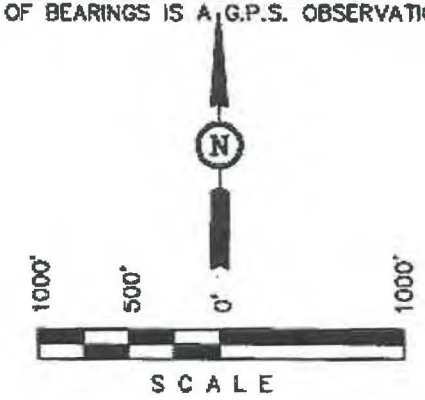


CERTIFICATE

THIS IS TO CERTIFY THAT THE ABOVE [illegible] FROM FIELD NOTES OF ACTUAL SURVEYS [illegible] ME OR [illegible] SUPERVISION AND THAT THE SAME [illegible] TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF.

REGISTERED LAND SURVEYOR
REGISTRATION NO. 161319
STATE OF UTAH

LEGEND:

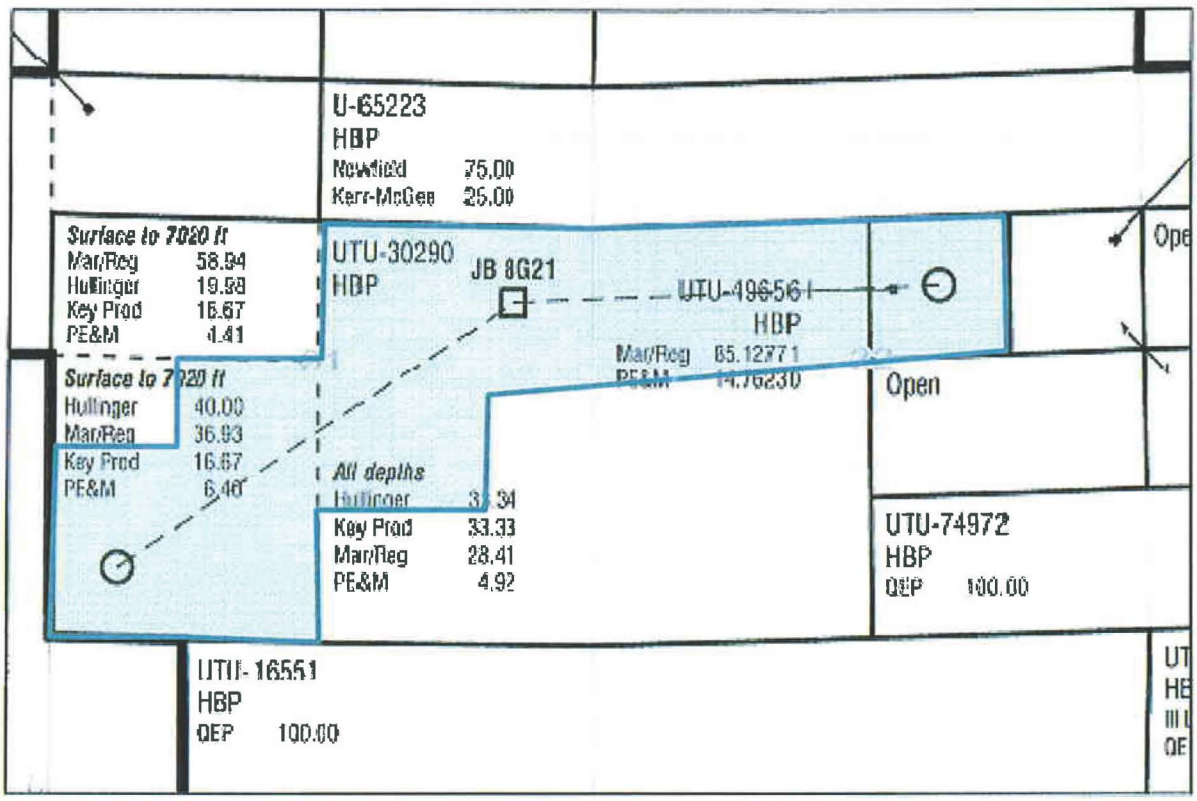
- ∟ = 90° SYMBOL
- ● = PROPOSED WELL HEAD.
- ▲ = SECTION CORNERS LOCATED.

(AUTONOMOUS NAD 83)
LATITUDE = 40°11'51.48" (40.197633)
LONGITUDE = 109°33'15.46" (109.554294)
(AUTONOMOUS NAD 27)
LATITUDE = 40°11'51.61" (40.197669)
LONGITUDE = 109°33'12.97" (109.553603)

UINTAH ENGINEERING & LAND SURVEYING
85 SOUTH 200 EAST - VERNAL, UTAH 84078
(435) 789-1017

SCALE 1" = 1000'	DATE SURVEYED: 10-08-07	DATE DRAWN: 10-18-07
PARTY D.A. T.M. L.K.	REFERENCES G.L.O. PLAT	
WEATHER COOL	FILE QUESTAR EXPLR. & PROD.	

7S–21E



JB 8G21
Drilling Block

QUESTAR

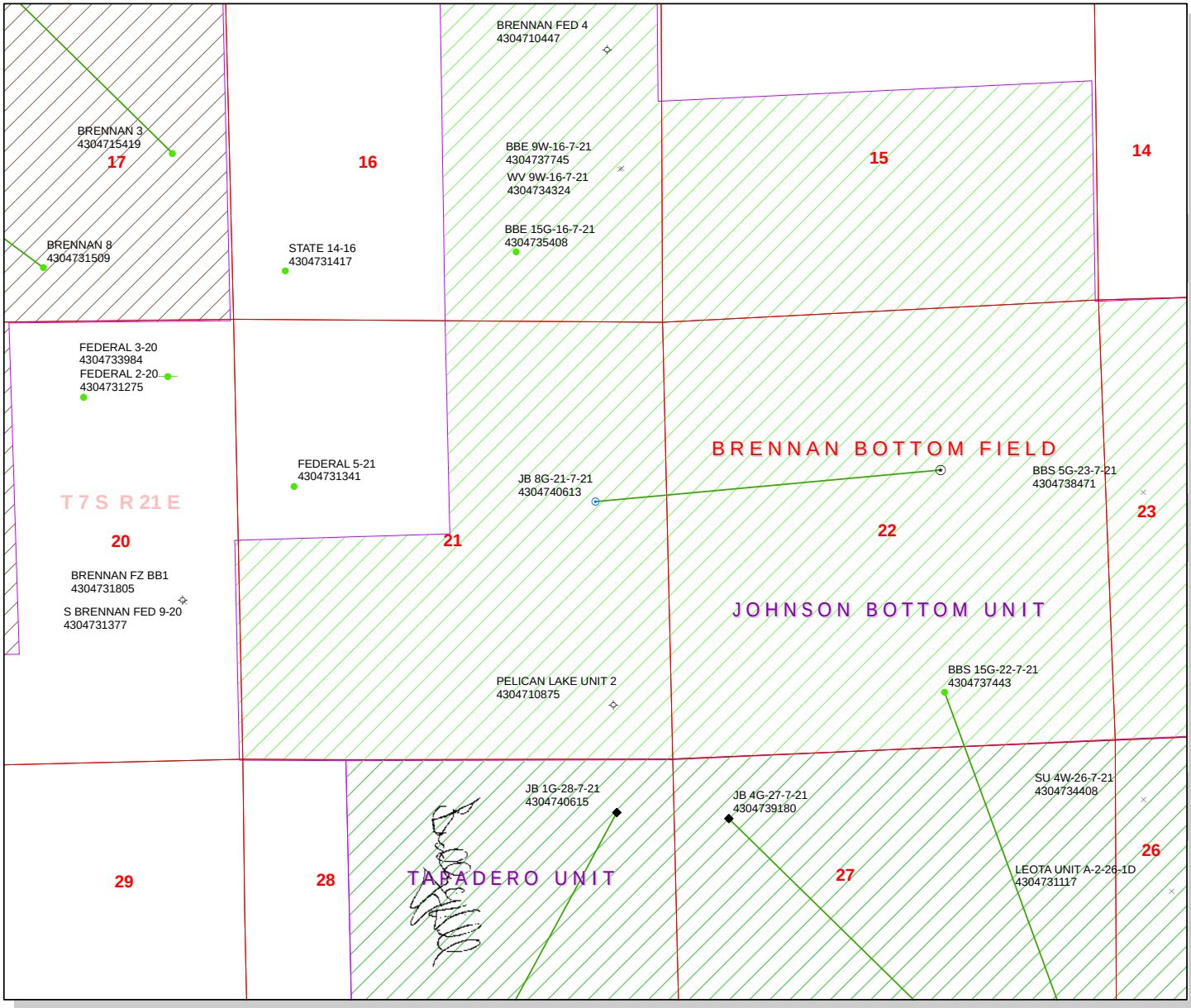
Drilling Block

JB 8G21-7-21

SL—Sec 21, T7S–R21E: 2050' FNL, 750' FEL
BHL—Sec 21, T7S–R21E: 660' FSL, 660 FWL
BHL—Sec 22, T7S–R21E: 1980' FNL, 1980' FEL

Johnson Bottom Unit—Uintah County, Utah

December 11, 2009



API Number: 4304740613

Well Name: JB 8G-21-7-21

Township 07.0 S Range 21.0 E Section 21

Meridian: SLBM

Operator: QEP ENERGY COMPANY

Map Prepared:
Map Produced by Diana Mason

Units

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

Fields
- Sections
- Township

Wells Query
- <all other values>

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

1,600 800 0 1,600 Feet

1:15,030

United States Department of the Interior

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

IN REPLY REFER TO:
3160
(UT-922)

July 20, 2010

Memorandum

To: Assistant District Manager Minerals, Vernal District

From: Michael Coulthard, Petroleum Engineer

Subject: 2010 Plan of Development Johnson Bottom, Uintah County, Utah.

Pursuant to email between Diana Whitney, Division of Oil, Gas and Mining, and Mickey Coulthard, Utah State Office, Bureau of Land Management, lateral #2 for the following horizontal well has been modified as follows (see our memo dated October 9, 2009 for the original location). The well is currently being drilled in the Johnson Bottom Unit, Uintah County, Utah.

API #	WELL NAME	LOCATION
(Proposed PZ Green River)		
43-047-40613	JB 8G-21-7-21	Sec 21 T07S R21E 2199 FNL 0844 FEL
	LAT#2	Sec 22 T07S R21E 0660 FSL 1980 FWL

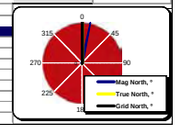
This office has no objection to permitting the change.

/s/ Michael L. Coulthard

bcc: File – Johnson Bottom Unit
Division of Oil Gas and Mining
Central Files
Agr. Sec. Chron
Fluid Chron

MCoulthard:mc:7-20-10

JOB INFORMATION		Well Details			
JOB NUMBER	10070158	Northing, ft	986785.27	Latitude	40 11 51.480N
JOB START DATE	7/5/2010	Easting, ft	665678.04	Longitude	109 33 15.460W
JOB END DATE		Elevation, ft	4812.00	Uncertainty	
COMPANY NAME	NATIVE NAVIGATION	Vert. Sect, °	133.28	TVD Ref	RKB @ 4827'
AFE/API#		Units, ft or m	Feet	Proj to Bit	0.00
OPERATOR	QUESTAR	**Magnetics & Map Systems**			
WELL NAME	JB BG-21-7-21_L2	Current Datum	IGRF200510		
LOCATION	Vernal, Utah	Magnetic Date	12/31/09		
RIG NAME	Aztec Rig #781	Field Str, nT	52605.50		
REPRESENTATIVE	Russ Robison	Declination, °	11.30		
DIRECTIONAL DRILLERS	J. Wardell, D. McQiutty, J. Pennington	Dip Angle, °	66.07		
MWD COMPANY	Pathfinder	Mag North, °	11.30		
MWD PERSONNEL		True North, °	0.00		
COMPANY WEBSITE	www.NativeNavigation.com	Grid North, °	0.00		



QUESTAR®

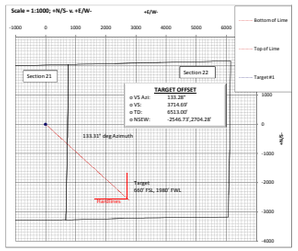
NATIVE NAVIGATION
DIRECTIONAL DRILLING SPECIALISTS

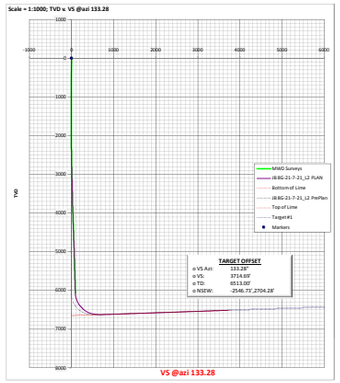
TARGET CONDITIONS

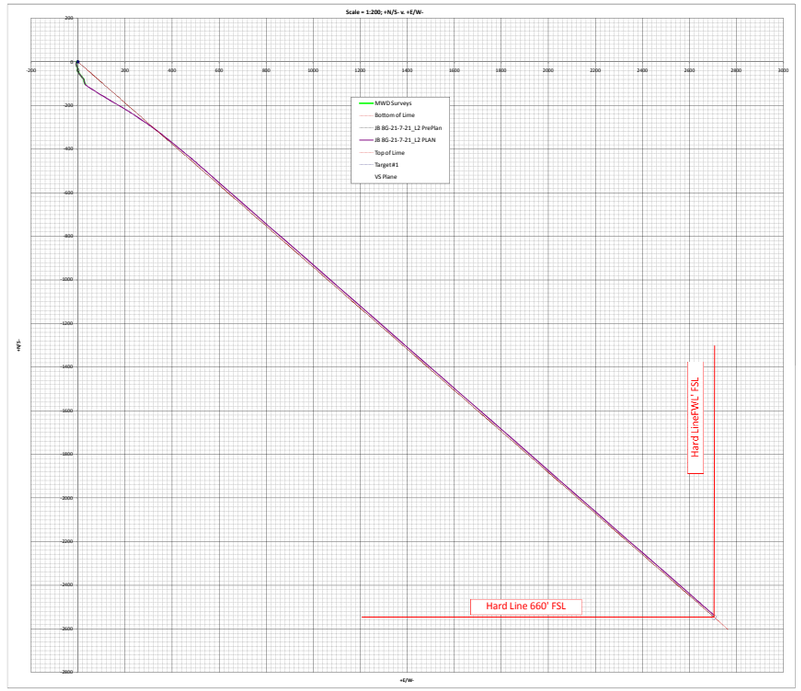
o VS Azimuth:	133.28°
o Lateral in Formation:	31.78'
o Formation Dip:	92.1°
o KOP:	6092'
o Plan TD at 0VS:	6649'
o Upper formation at 0VS:	6646'
o Lower formation at 0VS:	6652'

TARGET INFORMATION

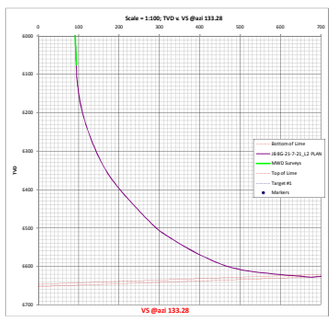
o VS:	3714.69'
o TD at 0'VS:	6646.00'
o TD at BHL:	6513.00' (at target)
o NS/EW:	-2546.77,2704.28'

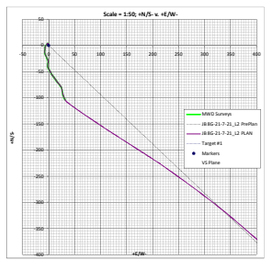






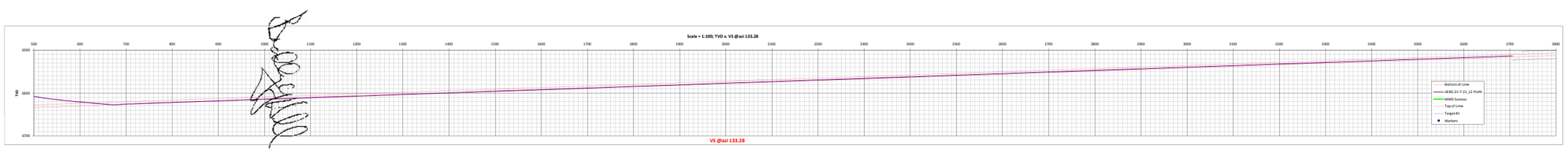
JB BG-21-7-21_L2 PLAN											
No.	MD	CL	Inc.	Azi.	TVD	VS	+N/S-	+E/W-	BR	WR	DLS Comments
82	6092.00	15.00	2.10	159.20	6090.25	94.34	-104.30	31.37	0.00	0.00	0.00 Tie-In: Begin BR 10.29 ↑100ft
83	6100.00	8.00	2.86	147.77	6098.24	94.66	-104.60	31.53	9.48	-142.94	11.27 Int: 6100
84	6122.00	22.00	5.19	135.00	6120.18	96.19	-105.77	32.52	10.58	-58.01	11.27 Projected Azi of 135.°, Begin TR -3.00 ↑100ft
85	6200.00	78.00	13.15	126.54	6197.13	108.54	-113.56	42.16	10.20	-10.84	10.32 Int: 6200
86	6300.00	100.00	23.44	124.09	6291.95	139.56	-131.53	67.84	10.30	-2.45	10.32 Int: 6300
87	6400.00	100.00	33.75	123.09	6379.63	186.67	-157.92	107.69	10.31	-1.00	10.32 Int: 6400
88	6544.50	144.50	48.66	122.33	6488.03	279.96	-209.14	187.62	10.32	-0.53	10.32 Begin Turn Back 2.60 ↑100ft
89	6600.00	55.50	54.32	124.28	6522.58	322.72	-232.99	223.88	10.19	3.52	10.56 Int: 6600
90	6700.00	100.00	64.58	127.19	6573.35	407.98	-283.31	293.61	10.26	2.91	10.56 Int: 6700
91	6800.00	100.00	74.88	129.65	6607.05	501.32	-341.57	366.96	10.31	2.45	10.56 Int: 6800
92	6967.00	167.00	92.14	133.31	6626.76	666.52	-451.11	490.72	10.33	2.19	10.56 End Build & Turn
93	7000.00	33.00	92.14	133.31	6625.53	699.49	-473.73	514.71	0.00	0.00	0.00 Int: 7000
94	7100.00	100.00	92.14	133.31	6621.80	799.42	-542.28	587.43	0.00	0.00	0.00 Int: 7100
95	7200.00	100.00	92.14	133.31	6618.07	899.35	-610.83	660.14	0.00	0.00	0.00 Int: 7200
96	7300.00	100.00	92.14	133.31	6614.34	999.28	-679.38	732.85	0.00	0.00	0.00 Int: 7300
97	7400.00	100.00	92.14	133.31	6610.61	1099.22	-747.93	805.56	0.00	0.00	0.00 Int: 7400
98	7500.00	100.00	92.14	133.31	6606.88	1199.15	-816.48	878.28	0.00	0.00	0.00 Int: 7500
99	7600.00	100.00	92.14	133.31	6603.15	1299.08	-885.03	950.99	0.00	0.00	0.00 Int: 7600
100	7700.00	100.00	92.14	133.31	6599.42	1399.01	-953.58	1023.70	0.00	0.00	0.00 Int: 7700
101	7800.00	100.00	92.14	133.31	6595.69	1498.94	-1022.13	1096.41	0.00	0.00	0.00 Int: 7800
102	7900.00	100.00	92.14	133.31	6591.96	1598.87	-1090.68	1169.12	0.00	0.00	0.00 Int: 7900
103	8000.00	100.00	92.14	133.31	6588.23	1698.80	-1159.23	1241.84	0.00	0.00	0.00 Int: 8000
104	8100.00	100.00	92.14	133.31	6584.50	1798.73	-1227.78	1314.55	0.00	0.00	0.00 Int: 8100
105	8200.00	100.00	92.14	133.31	6580.77	1898.66	-1296.33	1387.26	0.00	0.00	0.00 Int: 8200
106	8300.00	100.00	92.14	133.31	6577.04	1998.59	-1364.88	1459.97	0.00	0.00	0.00 Int: 8300
107	8400.00	100.00	92.14	133.31	6573.31	2098.52	-1433.43	1532.69	0.00	0.00	0.00 Int: 8400
108	8500.00	100.00	92.14	133.31	6569.58	2198.45	-1501.97	1605.40	0.00	0.00	0.00 Int: 8500
109	8600.00	100.00	92.14	133.31	6565.85	2298.38	-1570.52	1678.11	0.00	0.00	0.00 Int: 8600
110	8700.00	100.00	92.14	133.31	6562.12	2398.31	-1639.07	1750.82	0.00	0.00	0.00 Int: 8700
111	8800.00	100.00	92.14	133.31	6558.39	2498.24	-1707.62	1823.53	0.00	0.00	0.00 Int: 8800
112	8900.00	100.00	92.14	133.31	6554.66	2598.17	-1776.17	1896.25	0.00	0.00	0.00 Int: 8900
113	9000.00	100.00	92.14	133.31	6550.93	2698.10	-1844.72	1968.96	0.00	0.00	0.00 Int: 9000
114	9100.00	100.00	92.14	133.31	6547.21	2798.03	-1913.27	2041.67	0.00	0.00	0.00 Int: 9100
115	9200.00	100.00	92.14	133.31	6543.48	2897.96	-1981.82	2114.38	0.00	0.00	0.00 Int: 9200
116	9300.00	100.00	92.14	133.31	6539.75	2997.89	-2050.37	2187.10	0.00	0.00	0.00 Int: 9300
117	9400.00	100.00	92.14	133.31	6536.02	3097.82	-2118.92	2259.81	0.00	0.00	0.00 Int: 9400
118	9500.00	100.00	92.14	133.31	6532.29	3197.75	-2187.47	2332.52	0.00	0.00	0.00 Int: 9500
119	9600.00	100.00	92.14	133.31	6528.56	3297.68	-2256.02	2405.23	0.00	0.00	0.00 Int: 9600
120	9700.00	100.00	92.14	133.31	6524.83	3397.61	-2324.57	2477.94	0.00	0.00	0.00 Int: 9700
121	9800.00	100.00	92.14	133.31	6521.10	3497.54	-2393.12	2550.66	0.00	0.00	0.00 Int: 9800
122	9900.00	100.00	92.14	133.31	6517.37	3597.48	-2461.67	2623.37	0.00	0.00	0.00 Int: 9900
123	10000.00	100.00	92.14	133.31	6513.64	3697.41	-2530.22	2696.08	0.00	0.00	0.00 Int: 10000
124	10007.90	7.90	92.14	133.31	6513.34	3705.30	-2535.63	2701.83	0.00	0.00	0.00 BHL Target





JB BG-21-7-21

Questar
Native Navigation: Frank Westcott
Drawn By: Eric W. Trant, Trant Logistics, LLC
June 10, 2010



RECEIVED

Tie-in Date: 06/27/2010
Date Completed: 07/03/2010

PathFinder Energy Services, Inc.

Survey Report

RECEIVED

OCT 0 7 2010

DIV. OF OIL, GAS & MINING

QUESTAR EXPLORATION & PRODUCTION CO
JB 8G-21-7-21 ST1
UNITAH COUNTY, UT
Rig:AZTEC 781
PathFinder Office Supervisor: MARK TRAHAN
PathFinder Field Engineers: MICHAEL FLOWERS
KHALED BARAKE

Survey Calculations by RX5 V6.03A using Minimum Curvature

Survey Horiz. Reference:WELLHEAD
Ref Coordinates: LAT:40.11.51.4799 N LON:109.33.15.4600 W
GRID Reference:NAD83 utah north Lambert
Ref GRID Coor: X: 2183978.7000 Y: 3237478.0100
North Aligned To:TRUE NORTH
Total Magnetic Correction:11.15°EAST TO TRUE
Vertical Section Plane: 237.72
Survey Vert. Reference: 14.00' Rotary Table To Ground
Altitude:4813.00' Ground To MSL

Measured Depth (ft)	Incl (deg)	Drift Dir. (deg)	TVD (ft)	Course Length (ft)	Vertical Section (ft)	TOTAL Rectangular Offsets (ft)	(ft)	Closure Dist (ft)	Dir (deg)	DLS (dg/100ft)
THE FOLLOWING ARE NATIVE NAVIGATION EM SURVEYS.										
578.00	0.70	343.70	577.98	0.00	-0.97	3.39 N	0.99 W	3.53@	343.69	0.00
701.00	0.30	260.30	700.98	123.00	-0.88	4.06 N	1.52 W	4.33@	339.46	0.59
762.00	0.30	291.00	761.98	61.00	-0.64	4.09 N	1.83 W	4.48@	335.92	0.26
824.00	0.20	296.20	823.98	62.00	-0.49	4.19 N	2.08 W	4.68@	333.67	0.17
885.00	0.10	231.80	884.98	61.00	-0.38	4.21 N	2.21 W	4.76@	332.26	0.30
945.00	0.10	13.80	944.98	60.00	-0.36	4.23 N	2.24 W	4.79@	332.06	0.31
1068.00	0.10	40.10	1067.98	123.00	-0.54	4.41 N	2.15 W	4.91@	334.06	0.04
1131.00	0.10	99.50	1130.98	63.00	-0.64	4.45 N	2.06 W	4.90@	335.17	0.16
1192.00	0.10	106.70	1191.98	61.00	-0.71	4.42 N	1.95 W	4.84@	336.16	0.02
1316.00	0.40	230.20	1315.98	124.00	-0.35	4.11 N	2.18 W	4.66@	332.05	0.37
1443.00	0.40	206.80	1442.97	127.00	0.47	3.43 N	2.72 W	4.38@	321.59	0.13
1570.00	0.60	228.00	1569.97	127.00	1.50	2.59 N	3.42 W	4.29@	307.20	0.21
1634.00	0.50	234.00	1633.97	64.00	2.11	2.21 N	3.89 W	4.47@	299.54	0.18
1697.00	0.70	232.70	1696.96	63.00	2.77	1.81 N	4.42 W	4.78@	292.28	0.32
1824.00	0.90	210.20	1823.95	127.00	4.43	0.48 N	5.54 W	5.56@	274.94	0.29
1888.00	0.90	213.20	1887.94	64.00	5.33	0.38 S	6.07 W	6.08@	266.45	0.07
1951.00	0.80	202.80	1950.94	63.00	6.14	1.20 S	6.51 W	6.62@	259.59	0.29
2015.00	0.70	199.00	2014.93	64.00	6.81	1.98 S	6.81 W	7.09@	253.81	0.17
2078.00	0.60	197.20	2077.93	63.00	7.36	2.66 S	7.03 W	7.52@	249.31	0.16
2142.00	0.60	192.70	2141.92	64.00	7.86	3.30 S	7.21 W	7.93@	245.37	0.07
2205.00	0.60	180.20	2204.92	63.00	8.27	3.95 S	7.28 W	8.28@	241.49	0.21
2269.00	0.80	178.30	2268.91	64.00	8.67	4.74 S	7.27 W	8.67@	236.91	0.31
2332.00	0.70	180.10	2331.91	63.00	9.10	5.56 S	7.25 W	9.14@	232.53	0.16
2396.00	0.90	183.00	2395.90	64.00	9.60	6.45 S	7.28 W	9.73@	228.45	0.32
2459.00	1.10	189.80	2458.89	63.00	10.29	7.54 S	7.41 W	10.57@	224.49	0.37
2523.00	1.30	189.50	2522.88	64.00	11.19	8.87 S	7.63 W	11.70@	220.74	0.31

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2586.00	1.30	187.80	2585.86	63.00	12.13	10.28 S	7.85 W	12.93@	217.37	0.06
2650.00	1.30	179.10	2649.85	64.00	12.97	11.72 S	7.94 W	14.16@	214.10	0.31
2713.00	1.30	168.80	2712.83	63.00	13.60	13.14 S	7.79 W	15.27@	210.65	0.37
2777.00	1.30	167.50	2776.81	64.00	14.11	14.56 S	7.49 W	16.37@	207.22	0.05
2840.00	1.30	161.10	2839.80	63.00	14.51	15.93 S	7.10 W	17.44@	204.03	0.23
2903.00	1.50	158.00	2902.78	63.00	14.83	17.37 S	6.56 W	18.57@	200.69	0.34
2967.00	1.60	156.60	2966.76	64.00	15.11	18.97 S	5.89 W	19.87@	197.26	0.17
3030.00	1.60	151.60	3029.73	63.00	15.31	20.55 S	5.13 W	21.18@	194.00	0.22
3094.00	1.50	150.80	3093.71	64.00	15.41	22.07 S	4.29 W	22.48@	191.01	0.16
3157.00	1.30	160.20	3156.69	63.00	15.61	23.46 S	3.65 W	23.74@	188.84	0.48
3221.00	1.30	155.70	3220.67	64.00	15.87	24.81 S	3.10 W	25.00@	187.13	0.16
3284.00	1.30	153.30	3283.66	63.00	16.04	26.10 S	2.49 W	26.21@	185.45	0.09
3348.00	1.20	156.20	3347.64	64.00	16.21	27.36 S	1.89 W	27.42@	183.95	0.19
3411.00	1.40	158.50	3410.62	63.00	16.45	28.68 S	1.34 W	28.71@	182.68	0.33
3475.00	1.60	178.10	3474.60	64.00	17.05	30.30 S	1.03 W	30.31@	181.94	0.86
3538.00	1.40	195.10	3537.58	63.00	18.06	31.92 S	1.20 W	31.94@	182.15	0.77
3601.00	1.50	194.20	3600.56	63.00	19.22	33.46 S	1.60 W	33.50@	182.74	0.16
3665.00	1.60	194.00	3664.54	64.00	20.48	35.14 S	2.02 W	35.20@	183.29	0.16
3728.00	1.80	184.00	3727.51	63.00	21.70	36.98 S	2.30 W	37.05@	183.57	0.57
3792.00	2.00	176.30	3791.48	64.00	22.83	39.10 S	2.30 W	39.17@	183.37	0.51
3855.00	1.70	161.00	3854.44	63.00	23.57	41.08 S	1.93 W	41.12@	182.69	0.91
3919.00	2.00	151.00	3918.41	64.00	23.85	42.95 S	1.08 W	42.97@	181.44	0.69
3982.00	2.60	151.30	3981.36	63.00	24.00	45.17 S	0.14 E	45.17@	179.82	0.95
4046.00	2.50	149.60	4045.30	64.00	24.14	47.65 S	1.55 E	47.67@	178.14	0.20
4109.00	2.10	150.30	4108.24	63.00	24.24	49.83 S	2.81 E	49.91@	176.77	0.64
4172.00	1.90	153.30	4171.21	63.00	24.39	51.77 S	3.85 E	51.91@	175.74	0.36
4236.00	1.80	151.10	4235.17	64.00	24.55	53.60 S	4.82 E	53.81@	174.86	0.19
4299.00	1.70	148.70	4298.14	63.00	24.63	55.26 S	5.78 E	55.56@	174.03	0.20
4363.00	1.70	144.50	4362.12	64.00	24.59	56.85 S	6.82 E	57.25@	173.15	0.19

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4426.00	1.70	142.00	4425.09	63.00	24.44	58.34 S	7.94 E	58.88@	172.25	0.12
4490.00	1.80	140.20	4489.06	64.00	24.22	59.86 S	9.17 E	60.56@	171.29	0.18
4554.00	1.70	142.00	4553.03	64.00	23.99	61.38 S	10.40 E	62.26@	170.39	0.18
4617.00	1.70	144.80	4616.00	63.00	23.85	62.88 S	11.51 E	63.93@	169.63	0.13
4681.00	1.80	145.20	4679.97	64.00	23.76	64.48 S	12.63 E	65.71@	168.92	0.16
4744.00	1.80	143.00	4742.94	63.00	23.63	66.09 S	13.79 E	67.51@	168.21	0.11
4808.00	2.00	144.50	4806.90	64.00	23.49	67.80 S	15.05 E	69.45@	167.49	0.32
4871.00	2.00	147.30	4869.87	63.00	23.42	69.62 S	16.28 E	71.50@	166.84	0.16
4935.00	1.80	140.80	4933.83	64.00	23.29	71.34 S	17.52 E	73.46@	166.20	0.46
4998.00	1.70	138.90	4996.80	63.00	23.03	72.81 S	18.76 E	75.19@	165.55	0.18
5062.00	1.50	135.40	5060.78	64.00	22.70	74.12 S	19.97 E	76.76@	164.92	0.35
5125.00	1.60	141.80	5123.75	63.00	22.43	75.40 S	21.09 E	78.29@	164.37	0.32
5251.00	1.30	146.20	5249.71	126.00	22.22	77.97 S	22.98 E	81.28@	163.58	0.25
5315.00	1.50	144.70	5313.69	64.00	22.15	79.26 S	23.86 E	82.77@	163.24	0.32
5378.00	1.70	161.80	5376.67	63.00	22.34	80.82 S	24.63 E	84.49@	163.05	0.82
5442.00	1.80	171.50	5440.64	64.00	22.97	82.71 S	25.08 E	86.43@	163.13	0.49
5505.00	1.80	170.10	5503.61	63.00	23.75	84.67 S	25.39 E	88.39@	163.30	0.07
5633.00	1.90	170.20	5631.54	128.00	25.32	88.74 S	26.10 E	92.50@	163.61	0.08
5696.00	2.00	166.30	5694.50	63.00	26.07	90.83 S	26.54 E	94.63@	163.71	0.26
5760.00	1.90	168.60	5758.47	64.00	26.81	92.96 S	27.01 E	96.80@	163.80	0.20
5823.00	1.90	162.50	5821.43	63.00	27.45	94.98 S	27.53 E	98.89@	163.83	0.32
5887.00	2.10	156.30	5885.39	64.00	27.89	97.07 S	28.32 E	101.11@	163.73	0.46
5950.00	2.20	157.10	5948.35	63.00	28.26	99.24 S	29.26 E	103.46@	163.57	0.17
6014.00	2.30	156.30	6012.30	64.00	28.65	101.54 S	30.25 E	105.95@	163.41	0.16
6077.00	2.10	159.20	6075.25	63.00	29.07	103.78 S	31.17 E	108.36@	163.28	0.36
6141.00	1.90	151.80	6139.22	64.00	29.38	105.81 S	32.09 E	110.57@	163.13	0.51
6173.00	2.90	204.00	6171.19	32.00	30.09	107.02 S	32.01 E	111.70@	163.35	7.17
6204.00	7.20	231.20	6202.07	31.00	32.68	108.95 S	30.18 E	113.05@	164.52	15.50
6236.00	10.10	248.60	6233.70	32.00	37.43	111.23 S	26.00 E	114.23@	166.84	12.11

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6268.00	14.50	257.00	6264.96	32.00	43.97	113.16 S	19.48 E	114.82@	170.23	14.81
6300.00	18.60	258.00	6295.63	32.00	52.54	115.12 S	10.58 E	115.61@	174.75	12.84
6331.00	22.50	259.30	6324.65	31.00	62.70	117.25 S	0.09 W	117.25@	180.04	12.67
6363.00	25.60	262.80	6353.87	32.00	74.65	119.26 S	12.97 W	119.96@	186.21	10.66
6395.00	28.60	263.40	6382.36	32.00	87.82	121.00 S	27.44 W	124.08@	192.78	9.41
6427.00	32.10	262.30	6409.97	32.00	102.46	123.02 S	43.48 W	130.48@	199.46	11.07
6448.00	34.80	261.50	6427.49	21.00	113.02	124.66 S	54.94 W	136.23@	203.78	13.03
6480.00	38.90	260.20	6453.09	32.00	130.67	127.72 S	73.88 W	147.55@	210.05	13.04
6512.00	43.30	258.70	6477.20	32.00	150.21	131.58 S	94.55 W	162.03@	215.70	14.09
6543.00	46.60	256.70	6499.14	31.00	170.79	136.26 S	115.94 W	178.91@	220.39	11.58
6575.00	50.20	253.70	6520.38	32.00	193.61	142.38 S	139.06 W	199.03@	224.32	13.25
6607.00	53.80	251.50	6540.08	32.00	217.98	149.93 S	163.11 W	221.55@	227.41	12.48
6639.00	57.10	249.10	6558.23	32.00	243.70	158.83 S	187.92 W	246.05@	229.80	12.02
6670.00	60.90	245.90	6574.19	31.00	269.88	169.01 S	212.45 W	271.47@	231.50	15.12
6702.00	64.30	242.10	6588.92	32.00	298.10	181.47 S	237.97 W	299.27@	232.67	14.97
6734.00	66.90	237.60	6602.15	32.00	327.21	196.11 S	263.15 W	328.19@	233.31	15.16
6765.00	70.60	234.10	6613.38	31.00	356.08	212.33 S	287.05 W	357.04@	233.51	15.91
6796.00	72.90	231.20	6623.09	31.00	385.40	230.19 S	310.44 W	386.48@	233.44	11.57
6828.00	74.10	230.30	6632.18	32.00	415.85	249.61 S	334.20 W	417.13@	233.25	4.62
6860.00	76.00	230.30	6640.44	32.00	446.51	269.35 S	357.99 W	448.00@	233.04	5.94
6892.00	79.80	230.60	6647.14	32.00	477.54	289.27 S	382.11 W	479.26@	232.87	11.91
6923.00	84.60	231.10	6651.35	31.00	508.03	308.66 S	405.92 W	509.94@	232.75	15.57
6955.00	87.10	231.50	6653.66	32.00	539.74	328.61 S	430.83 W	541.85@	232.67	7.91
6987.00	86.90	231.30	6655.34	32.00	571.50	348.55 S	455.80 W	573.80@	232.60	0.88
** TIED INTO NATIVE NAVIGATION EM SURVEY @ 7024'MD.										
7024.00	89.10	231.60	6656.63	37.00	608.26	371.59 S	484.72 W	610.76@	232.53	6.00
THE FOLLOWING ARE NATIVE NAVIGATION MWD SURVEYS.										
7079.00	91.40	227.20	6656.39	55.00	662.66	407.37 S	526.47 W	665.67@	232.27	9.03
ST1 DEPARTS ORIGINAL WELLBORE @ 7090'MD (6656'TVD).										
THE FOLLOWING ARE PATHFINDER MWD SURVEYS.										
7108.00	89.87	228.66	6656.07	29.00	691.23	426.80 S	547.99 W	694.59@	232.09	7.29
7123.00	89.78	228.53	6656.11	15.00	706.04	436.72 S	559.24 W	709.56@	232.01	1.05

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7151.00	89.87	228.33	6656.20	28.00	733.68	455.30 S	580.19 W	737.51@	231.88	0.78
7185.00	90.57	228.09	6656.07	34.00	767.21	477.96 S	605.54 W	771.44@	231.72	2.18
7216.00	91.28	228.23	6655.57	31.00	797.77	498.63 S	628.63 W	802.38@	231.58	2.33
7247.00	91.19	228.29	6654.90	31.00	828.34	519.27 S	651.76 W	833.32@	231.46	0.35
7275.00	91.01	228.95	6654.36	28.00	855.99	537.77 S	672.76 W	861.28@	231.36	2.44
7307.00	90.13	229.18	6654.04	32.00	887.62	558.74 S	696.94 W	893.26@	231.28	2.84
7336.00	89.25	229.63	6654.20	29.00	916.32	577.61 S	718.96 W	922.24@	231.22	3.41
7369.00	89.52	230.16	6654.56	33.00	949.01	598.86 S	744.20 W	955.23@	231.18	1.80
7402.00	91.89	230.41	6654.15	33.00	981.72	619.95 S	769.58 W	988.22@	231.15	7.22
7442.00	92.24	230.70	6652.71	40.00	1021.39	645.34 S	800.45 W	1028.19@	231.12	1.14
7473.00	89.78	231.18	6652.16	31.00	1052.16	664.87 S	824.51 W	1059.19@	231.12	8.09
7503.00	89.60	231.52	6652.32	30.00	1081.98	683.61 S	847.94 W	1089.18@	231.12	1.28
7535.00	90.66	232.31	6652.25	32.00	1113.81	703.35 S	873.13 W	1121.18@	231.15	4.13
7567.00	90.22	232.97	6652.01	32.00	1145.68	722.77 S	898.56 W	1153.17@	231.19	2.48
7601.00	91.19	233.85	6651.59	34.00	1179.58	743.03 S	925.86 W	1187.14@	231.25	3.85
7631.00	90.92	234.21	6651.04	30.00	1209.52	760.65 S	950.13 W	1217.10@	231.32	1.50
7665.00	90.48	235.01	6650.62	34.00	1243.46	780.34 S	977.85 W	1251.04@	231.41	2.69
7696.00	90.40	235.90	6650.38	31.00	1274.44	797.91 S	1003.38 W	1281.97@	231.51	2.88
7729.00	90.40	236.26	6650.15	33.00	1307.42	816.33 S	1030.76 W	1314.86@	231.62	1.09
7762.00	89.43	236.66	6650.20	33.00	1340.42	834.56 S	1058.27 W	1347.75@	231.74	3.18
7798.00	90.31	237.21	6650.28	36.00	1376.41	854.20 S	1088.44 W	1383.60@	231.88	2.88
7828.00	89.60	237.83	6650.31	30.00	1406.41	870.31 S	1113.75 W	1413.46@	231.99	3.14
7847.00	90.31	237.86	6650.32	19.00	1425.41	880.43 S	1129.83 W	1432.36@	232.07	3.74
7878.00	90.92	237.30	6649.99	31.00	1456.41	897.04 S	1156.00 W	1463.22@	232.19	2.67
7909.00	92.33	237.23	6649.11	31.00	1487.39	913.80 S	1182.06 W	1494.09@	232.29	4.55
7942.00	91.36	236.86	6648.05	33.00	1520.38	931.74 S	1209.74 W	1526.96@	232.40	3.15
7973.00	89.96	237.27	6647.69	31.00	1551.37	948.59 S	1235.75 W	1557.86@	232.49	4.71
8005.00	89.52	238.13	6647.83	32.00	1583.37	965.69 S	1262.80 W	1589.73@	232.59	3.02
8033.00	89.60	238.50	6648.05	28.00	1611.37	980.40 S	1286.63 W	1617.59@	232.69	1.35

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8065.00	90.57	238.49	6648.00	32.00	1643.36	997.12 S	1313.91 W	1649.43@	232.81	3.03
8096.00	89.87	237.03	6647.88	31.00	1674.36	1013.66 S	1340.13 W	1680.31@	232.90	5.22
8128.00	90.48	237.72	6647.79	32.00	1706.36	1030.91 S	1367.08 W	1712.22@	232.98	2.88
8162.00	90.13	237.58	6647.60	34.00	1740.36	1049.10 S	1395.80 W	1746.11@	233.07	1.11
8193.00	90.66	238.04	6647.39	31.00	1771.36	1065.62 S	1422.04 W	1777.00@	233.15	2.26
8222.00	89.43	238.02	6647.37	29.00	1800.36	1080.97 S	1446.64 W	1805.90@	233.23	4.24
8258.00	91.19	238.65	6647.17	36.00	1836.35	1099.87 S	1477.28 W	1841.75@	233.33	5.19
8287.00	90.48	238.53	6646.75	29.00	1865.35	1114.98 S	1502.03 W	1870.63@	233.41	2.48
8317.00	89.96	237.99	6646.64	30.00	1895.35	1130.76 S	1527.54 W	1900.53@	233.49	2.50
8353.00	90.13	238.06	6646.61	36.00	1931.35	1149.83 S	1558.08 W	1936.41@	233.57	0.51
8384.00	90.40	238.48	6646.46	31.00	1962.34	1166.13 S	1584.44 W	1967.31@	233.65	1.61
8417.00	90.66	239.03	6646.16	33.00	1995.34	1183.25 S	1612.65 W	2000.18@	233.73	1.84
8428.00	91.10	239.42	6645.99	11.00	2006.33	1188.87 S	1622.10 W	2011.13@	233.76	5.34
STRAIGHT LINE PROJECTION TO BIT DEPTH AT 8500'MD.										
8500.00	91.10	239.42	6644.61	72.00	2078.29	1225.50 S	1684.08 W	2082.78@	233.96	0.00

** The survey data at tie-in point was furnished by a recognized survey company and entered as submitted. Survey stations above the tie-in point represent recalculated data by PathFinder Energy Services, Inc. and may reflect minor changes due to rounding differences between survey programs. Only survey stations taken by qualified PathFinder personnel are subject to certification.

Tie-in Date: 07/06/2010
Date Completed: 07/27/2010

PathFinder Energy Services, Inc.
Survey Report

QUESTAR EXPLORATION & PRODUCTION CO
JB 8G-21-7-21 LATERAL #2 ST2
UINTAH COUNTY, UT
Rig:AZTEC 781
PathFinder Office Supervisor: MARK TRAHAN
PathFinder Field Engineers: MICHAEL FLOWERS
KHALED BARAKE

Survey Calculations by RX5 V6.03A using Minimum Curvature

Survey Horiz. Reference:WELLHEAD
Ref Coordinates: LAT:40.11.51.4799 N LON:109.33.15.4600 W
GRID Reference:NAD83 utah north Lambert
Ref GRID Coor: X: 2183978.7000 Y: 3237478.0100
North Aligned To:TRUE NORTH
Total Magnetic Correction:11.15°EAST TO TRUE
Vertical Section Plane: 133.28
Survey Vert. Reference: 14.00' Rotary Table To Ground
Altitude:4813.00' Ground To MSL

Measured Depth (ft)	Incl (deg)	Drift Dir. (deg)	TVD (ft)	Course Length (ft)	Vertical Section (ft)	TOTAL Rectangular Offsets (ft)	(ft)	Closure Dist (ft)	Dir (deg)	DLS (dg/100ft)
THE FOLLOWING ARE NATIVE NAVIGATION EM SURVEYS.										
578.00	0.70	343.70	577.98	0.00	-3.05	3.39 N	0.99 W	3.53@	343.69	0.00
701.00	0.30	260.30	700.98	123.00	-3.89	4.06 N	1.52 W	4.33@	339.46	0.59
762.00	0.30	291.00	761.97	61.00	-4.13	4.09 N	1.83 W	4.48@	335.92	0.26
824.00	0.20	296.20	823.97	62.00	-4.39	4.19 N	2.08 W	4.68@	333.67	0.17
885.00	0.10	231.80	884.97	61.00	-4.50	4.21 N	2.21 W	4.76@	332.26	0.30
945.00	0.10	13.80	944.97	60.00	-4.53	4.23 N	2.24 W	4.79@	332.06	0.31
1068.00	0.10	40.10	1067.97	123.00	-4.59	4.41 N	2.15 W	4.91@	334.05	0.04
1131.00	0.10	99.50	1130.97	63.00	-4.55	4.45 N	2.06 W	4.90@	335.17	0.16
1192.00	0.10	106.70	1191.97	61.00	-4.45	4.42 N	1.95 W	4.84@	336.16	0.02
1316.00	0.40	230.20	1315.97	124.00	-4.41	4.11 N	2.18 W	4.66@	332.05	0.37
1443.00	0.40	206.80	1442.97	127.00	-4.34	3.43 N	2.72 W	4.38@	321.59	0.13
1570.00	0.60	228.00	1569.97	127.00	-4.27	2.59 N	3.42 W	4.29@	307.20	0.21
1634.00	0.50	234.00	1633.96	64.00	-4.35	2.21 N	3.89 W	4.47@	299.54	0.18
1697.00	0.70	232.70	1696.96	63.00	-4.46	1.81 N	4.42 W	4.78@	292.28	0.32
1824.00	0.90	210.20	1823.95	127.00	-4.36	0.48 N	5.54 W	5.56@	274.94	0.29
1888.00	0.90	213.20	1887.94	64.00	-4.16	0.38 S	6.07 W	6.08@	266.45	0.07
1951.00	0.80	202.80	1950.93	63.00	-3.92	1.20 S	6.51 W	6.62@	259.59	0.29
2015.00	0.70	199.00	2014.93	64.00	-3.60	1.98 S	6.81 W	7.09@	253.81	0.17
2078.00	0.60	197.20	2077.92	63.00	-3.30	2.66 S	7.03 W	7.52@	249.31	0.16
2142.00	0.60	192.70	2141.92	64.00	-2.98	3.30 S	7.21 W	7.93@	245.37	0.07
2205.00	0.60	180.20	2204.92	63.00	-2.59	3.95 S	7.28 W	8.28@	241.49	0.21
2269.00	0.80	178.30	2268.91	64.00	-2.04	4.74 S	7.27 W	8.67@	236.91	0.31
2332.00	0.70	180.10	2331.90	63.00	-1.47	5.56 S	7.25 W	9.14@	232.53	0.16
2396.00	0.90	183.00	2395.90	64.00	-0.88	6.45 S	7.28 W	9.73@	228.45	0.32
2459.00	1.10	189.80	2458.89	63.00	-0.22	7.54 S	7.41 W	10.57@	224.49	0.37
2523.00	1.30	189.50	2522.88	64.00	0.52	8.87 S	7.63 W	11.70@	220.74	0.31

RECEIVED
OCT 07 2010
DIV. OF OIL, GAS & MINING

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UINTAH COUNTY, UT
RIG:AZTEC 781

Measured Depth (ft)	Incl (deg)	Drift Dir. (deg)	TVD (ft)	Course Length (ft)	Vertical Section (ft)	TOTAL Rectangular Offsets (ft)	(ft)	Closure Dist (ft)	Dir (deg)	DLS (dg/100ft)
2586.00	1.30	187.80	2585.86	63.00	1.33	10.28 S	7.85 W	12.93@	217.37	0.06
2650.00	1.30	179.10	2649.84	64.00	2.26	11.72 S	7.94 W	14.16@	214.10	0.31
2713.00	1.30	168.80	2712.83	63.00	3.34	13.14 S	7.79 W	15.27@	210.65	0.37
2777.00	1.30	167.50	2776.81	64.00	4.53	14.56 S	7.49 W	16.37@	207.22	0.05
2840.00	1.30	161.10	2839.79	63.00	5.75	15.93 S	7.10 W	17.44@	204.03	0.23
2903.00	1.50	158.00	2902.77	63.00	7.13	17.37 S	6.56 W	18.57@	200.69	0.34
2967.00	1.60	156.60	2966.75	64.00	8.72	18.97 S	5.89 W	19.87@	197.26	0.17
3030.00	1.60	151.60	3029.73	63.00	10.36	20.55 S	5.13 W	21.18@	194.00	0.22
3094.00	1.50	150.80	3093.70	64.00	12.00	22.07 S	4.29 W	22.48@	191.01	0.16
3157.00	1.30	160.20	3156.68	63.00	13.43	23.46 S	3.65 W	23.74@	188.84	0.48
3221.00	1.30	155.70	3220.67	64.00	14.75	24.81 S	3.10 W	25.00@	187.13	0.16
3284.00	1.30	153.30	3283.65	63.00	16.08	26.10 S	2.49 W	26.21@	185.45	0.09
3348.00	1.20	156.20	3347.64	64.00	17.38	27.36 S	1.89 W	27.42@	183.96	0.19
3411.00	1.40	158.50	3410.62	63.00	18.68	28.68 S	1.34 W	28.71@	182.68	0.33
3475.00	1.60	178.10	3474.60	64.00	20.02	30.30 S	1.03 W	30.31@	181.94	0.86
3538.00	1.40	195.10	3537.58	63.00	21.01	31.92 S	1.20 W	31.94@	182.15	0.77
3601.00	1.50	194.20	3600.56	63.00	21.77	33.46 S	1.60 W	33.50@	182.74	0.16
3665.00	1.60	194.00	3664.53	64.00	22.62	35.14 S	2.02 W	35.20@	183.29	0.16
3728.00	1.80	184.00	3727.51	63.00	23.68	36.98 S	2.30 W	37.05@	183.57	0.57
3792.00	2.00	176.30	3791.47	64.00	25.13	39.10 S	2.30 W	39.17@	183.37	0.51
3855.00	1.70	161.00	3854.44	63.00	26.76	41.08 S	1.93 W	41.12@	182.69	0.91
3919.00	2.00	151.00	3918.41	64.00	28.66	42.95 S	1.08 W	42.97@	181.44	0.69
3982.00	2.60	151.30	3981.35	63.00	31.07	45.17 S	0.14 E	45.17@	179.82	0.95
4046.00	2.50	149.60	4045.29	64.00	33.79	47.65 S	1.55 E	47.67@	178.14	0.20
4109.00	2.10	150.30	4108.24	63.00	36.21	49.83 S	2.81 E	49.91@	176.77	0.64
4172.00	1.90	153.30	4171.20	63.00	38.30	51.77 S	3.85 E	51.91@	175.74	0.36
4236.00	1.80	151.10	4235.17	64.00	40.25	53.60 S	4.82 E	53.81@	174.86	0.19
4299.00	1.70	148.70	4298.14	63.00	42.09	55.26 S	5.78 E	55.56@	174.03	0.20
4363.00	1.70	144.50	4362.11	64.00	43.94	56.85 S	6.82 E	57.25@	173.15	0.19

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4426.00	1.70	142.00	4425.08	63.00	45.78	58.34 S	7.94 E	58.88@	172.25	0.12
4490.00	1.80	140.20	4489.05	64.00	47.72	59.86 S	9.17 E	60.56@	171.29	0.18
4554.00	1.70	142.00	4553.02	64.00	49.65	61.38 S	10.40 E	62.26@	170.39	0.18
4617.00	1.70	144.80	4616.00	63.00	51.49	62.88 S	11.51 E	63.93@	169.63	0.13
4681.00	1.80	145.20	4679.97	64.00	53.41	64.48 S	12.63 E	65.71@	168.92	0.16
4744.00	1.80	143.00	4742.93	63.00	55.35	66.09 S	13.79 E	67.51@	168.21	0.11
4808.00	2.00	144.50	4806.90	64.00	57.44	67.80 S	15.05 E	69.45@	167.49	0.32
4871.00	2.00	147.30	4869.86	63.00	59.58	69.62 S	16.28 E	71.50@	166.84	0.16
4935.00	1.80	140.80	4933.83	64.00	61.66	71.34 S	17.52 E	73.46@	166.20	0.46
4998.00	1.70	138.90	4996.80	63.00	63.57	72.81 S	18.76 E	75.19@	165.55	0.18
5062.00	1.50	135.40	5060.77	64.00	65.35	74.12 S	19.97 E	76.76@	164.92	0.35
5125.00	1.60	141.80	5123.75	63.00	67.05	75.40 S	21.09 E	78.29@	164.37	0.32
5251.00	1.30	146.20	5249.71	126.00	70.18	77.97 S	22.98 E	81.28@	163.58	0.25
5315.00	1.50	144.70	5313.69	64.00	71.71	79.26 S	23.86 E	82.77@	163.24	0.32
5378.00	1.70	161.80	5376.67	63.00	73.34	80.82 S	24.63 E	84.49@	163.05	0.82
5442.00	1.80	171.50	5440.64	64.00	74.96	82.71 S	25.08 E	86.43@	163.13	0.49
5505.00	1.80	170.10	5503.60	63.00	76.53	84.67 S	25.39 E	88.39@	163.30	0.07
5633.00	1.90	170.20	5631.54	128.00	79.84	88.74 S	26.10 E	92.50@	163.61	0.08
5696.00	2.00	166.30	5694.50	63.00	81.59	90.83 S	26.54 E	94.63@	163.71	0.26
5760.00	1.90	168.60	5758.46	64.00	83.40	92.96 S	27.01 E	96.80@	163.80	0.20
5823.00	1.90	162.50	5821.43	63.00	85.16	94.98 S	27.53 E	98.89@	163.83	0.32
5887.00	2.10	156.30	5885.39	64.00	87.16	97.07 S	28.32 E	101.11@	163.73	0.46
5950.00	2.20	157.10	5948.35	63.00	89.33	99.24 S	29.26 E	103.46@	163.57	0.17
6014.00	2.30	156.30	6012.30	64.00	91.64	101.54 S	30.25 E	105.95@	163.41	0.16
** TIED INTO NATIVE NAVIGATION EM SURVEY @ 6077'MD.										
6077.00	2.10	159.20	6075.25	63.00	93.84	103.78 S	31.17 E	108.36@	163.28	0.36
LATERAL #2 DEPARTS ORIGINAL WELLBORE @ 6105'MD (6103'TVD).										
THE FOLLOWING SURVEY IS SCIENTIFIC GYRO SURVEYS.										
6105.00	4.95	166.63	6103.19	28.00	95.31	105.44 S	31.63 E	110.08@	163.30	10.29
THE FOLLOWING ARE PATHFINDER MWD SURVEYS.										
6145.00	8.44	157.61	6142.92	40.00	99.43	109.83 S	33.15 E	114.72@	163.20	9.09
6176.00	11.43	140.72	6173.46	31.00	104.55	114.31 S	35.96 E	119.84@	162.54	13.37
6204.00	13.37	148.43	6200.80	28.00	110.43	119.22 S	39.41 E	125.57@	161.71	9.10

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6237.00	16.27	143.98	6232.70	33.00	118.65	126.21 S	44.13 E	133.70@	160.73	9.43
6269.00	19.35	144.36	6263.16	32.00	128.26	134.15 S	49.86 E	143.11@	159.61	9.63
6301.00	22.25	143.88	6293.08	32.00	139.42	143.35 S	56.52 E	154.09@	158.48	9.08
6332.00	24.71	143.30	6321.51	31.00	151.57	153.29 S	63.85 E	166.06@	157.39	7.97
6365.00	27.87	139.68	6351.09	33.00	166.04	164.70 S	72.97 E	180.14@	156.11	10.73
6397.00	32.54	136.98	6378.74	32.00	182.07	176.71 S	83.69 E	195.52@	154.66	15.20
6426.00	35.70	134.53	6402.75	29.00	198.31	188.34 S	95.04 E	210.97@	153.22	11.88
6459.00	40.01	131.86	6428.80	33.00	218.56	202.18 S	109.81 E	230.08@	151.49	13.97
6491.00	44.76	131.31	6452.43	32.00	240.11	216.49 S	125.95 E	250.46@	149.81	14.89
6524.00	50.30	130.89	6474.70	33.00	264.43	232.49 S	144.29 E	273.62@	148.18	16.81
6556.00	54.26	131.02	6494.27	32.00	289.71	249.07 S	163.40 E	297.89@	146.73	12.38
6586.00	55.31	130.24	6511.57	30.00	314.20	265.03 S	182.00 E	321.51@	145.52	4.09
6619.00	57.51	129.99	6529.83	33.00	341.64	282.74 S	203.02 E	348.08@	144.32	6.70
6651.00	60.50	129.60	6546.31	32.00	369.02	300.30 S	224.10 E	374.70@	143.27	9.40
6683.00	64.90	128.75	6560.98	32.00	397.37	318.25 S	246.14 E	402.33@	142.28	13.95
6714.00	67.62	130.04	6573.46	31.00	425.68	336.26 S	268.06 E	430.03@	141.44	9.56
6747.00	69.29	130.46	6585.58	33.00	456.33	356.09 S	291.49 E	460.18@	140.70	5.20
6780.00	72.90	129.83	6596.27	33.00	487.50	376.22 S	315.35 E	490.90@	140.03	11.09
6809.00	77.73	129.16	6603.62	29.00	515.48	394.05 S	336.99 E	518.50@	139.46	16.80
6841.00	79.49	129.19	6609.94	32.00	546.77	413.87 S	361.31 E	549.39@	138.88	5.50
6874.00	81.95	128.71	6615.26	33.00	579.24	434.34 S	386.64 E	581.50@	138.33	7.59
6906.00	84.59	128.38	6619.01	32.00	610.91	454.14 S	411.49 E	612.84@	137.82	8.31
6928.00	86.70	128.36	6620.68	22.00	632.77	467.76 S	428.69 E	634.48@	137.50	9.59
LATERAL #2 SIDETRACK 1 DEPARTS LATERAL #2 @ 6960'MD (6622'TVD).										
6961.00	86.79	129.71	6622.55	33.00	665.62	488.51 S	454.28 E	667.09@	137.08	4.09
6989.00	87.41	129.46	6623.97	28.00	693.53	506.32 S	475.83 E	694.82@	136.78	2.39
7033.00	90.48	130.32	6624.78	44.00	737.44	534.53 S	509.58 E	738.51@	136.37	7.25
LATERAL #2 SIDETRACK 2 DEPARTS LATERAL #2 SIDETRACK 1 @ 7050'MD (6625'TVD).										
7065.00	87.76	131.40	6625.27	32.00	769.40	555.46 S	533.78 E	770.36@	136.14	9.15
7100.00	88.37	129.54	6626.45	35.00	804.34	578.17 S	560.39 E	805.18@	135.89	5.59

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7130.00	91.54	129.76	6626.48	30.00	834.27	597.31 S	583.48 E	835.00@	135.67	10.59
7164.00	93.03	130.07	6625.12	34.00	868.19	619.11 S	609.54 E	868.81@	135.45	4.48
7196.00	91.36	128.75	6623.90	32.00	900.09	639.41 S	634.24 E	900.61@	135.23	6.65
7224.00	90.66	127.67	6623.40	28.00	927.98	656.72 S	656.24 E	928.40@	135.02	4.60
7259.00	92.95	126.88	6622.30	35.00	962.76	677.91 S	684.07 E	963.08@	134.74	6.92
7292.00	92.68	126.79	6620.68	33.00	995.51	697.67 S	710.45 E	995.73@	134.48	0.86
7323.00	91.98	127.09	6619.42	31.00	1026.30	716.28 S	735.21 E	1026.45@	134.25	2.46
7356.00	91.89	125.68	6618.30	33.00	1059.04	735.85 S	761.76 E	1059.13@	134.01	4.28
7388.00	91.63	124.89	6617.32	32.00	1090.71	754.32 S	787.87 E	1090.75@	133.75	2.60
7421.00	91.28	124.26	6616.48	33.00	1123.32	773.04 S	815.03 E	1123.33@	133.49	2.18
7451.00	93.47	124.28	6615.24	30.00	1152.93	789.92 S	839.80 E	1152.93@	133.25	7.30
7482.00	93.56	125.23	6613.34	31.00	1183.53	807.56 S	865.22 E	1183.54@	133.03	3.07
7502.00	92.42	124.69	6612.30	20.00	1203.29	819.00 S	881.59 E	1203.32@	132.89	6.31
7533.00	92.15	124.17	6611.06	31.00	1233.89	836.52 S	907.14 E	1233.96@	132.68	1.89
7564.00	91.01	125.24	6610.21	31.00	1264.54	854.16 S	932.62 E	1264.66@	132.49	5.04
7596.00	92.15	127.47	6609.32	32.00	1296.29	873.12 S	958.38 E	1296.46@	132.33	7.82
7628.00	90.75	128.26	6608.51	32.00	1328.13	892.75 S	983.63 E	1328.36@	132.23	5.02
7663.00	91.01	128.58	6607.98	35.00	1363.00	914.50 S	1011.05 E	1363.28@	132.13	1.18
7694.00	92.59	129.37	6607.00	31.00	1393.90	933.99 S	1035.13 E	1394.22@	132.06	5.70
7726.00	92.95	128.76	6605.46	32.00	1425.78	954.13 S	1059.95 E	1426.14@	131.99	2.21
7759.00	92.07	129.13	6604.01	33.00	1458.65	974.85 S	1085.59 E	1459.06@	131.92	2.89
7792.00	92.59	128.48	6602.67	33.00	1491.52	995.52 S	1111.29 E	1491.98@	131.85	2.52
7825.00	92.33	128.46	6601.25	33.00	1524.38	1016.03 S	1137.10 E	1524.90@	131.78	0.79
7855.00	91.36	127.59	6600.29	30.00	1554.23	1034.50 S	1160.72 E	1554.82@	131.71	4.34
7883.00	92.33	126.51	6599.38	28.00	1582.05	1051.36 S	1183.05 E	1582.71@	131.63	5.18
7916.00	91.36	125.44	6598.32	33.00	1614.77	1070.73 S	1209.75 E	1615.54@	131.51	4.37
7950.00	90.84	124.45	6597.67	34.00	1648.40	1090.20 S	1237.61 E	1649.31@	131.38	3.29
7981.00	91.98	123.29	6596.91	31.00	1678.97	1107.48 S	1263.34 E	1680.04@	131.24	5.25
8014.00	93.83	124.11	6595.23	33.00	1711.47	1125.76 S	1290.76 E	1712.72@	131.09	6.13

PathFinder Energy Services, Inc.
Survey Report

RECEIVED
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DIV. OF OIL, GAS & MINING

QUESTAR EXPLORATION & PRODUCTION CO
JB 8G-21-7-21 LATERAL #2 ST2
UINTAH COUNTY, UT
RIG:AZTEC 781

Measured Depth (ft)	Incl (deg)	Drift Dir. (deg)	TVD (ft)	Course Length (ft)	Vertical Section (ft)	TOTAL Rectangular Offsets (ft)	(ft)	Closure Dist (ft)	Dir (deg)	DLS (dg/100ft)
8044.00	92.24	123.50	6593.65	30.00	1741.02	1142.43 S	1315.65 E	1742.43@	130.97	5.68
8078.00	92.68	123.41	6592.19	34.00	1774.49	1161.15 S	1343.99 E	1776.12@	130.83	1.32
8110.00	92.86	122.76	6590.64	32.00	1805.95	1178.60 S	1370.77 E	1807.79@	130.69	2.11
8142.00	92.95	122.72	6589.02	32.00	1837.37	1195.89 S	1397.65 E	1839.45@	130.55	0.31
8172.00	91.36	122.01	6587.89	30.00	1866.80	1211.93 S	1422.97 E	1869.13@	130.42	5.80
8204.00	90.57	121.16	6587.35	32.00	1898.13	1228.69 S	1450.23 E	1900.75@	130.27	3.63
8236.00	92.68	120.61	6586.44	32.00	1929.37	1245.11 S	1477.68 E	1932.31@	130.12	6.81
8268.00	91.71	119.91	6585.22	32.00	1960.52	1261.22 S	1505.30 E	1963.82@	129.96	3.74
8300.00	91.28	119.55	6584.38	32.00	1991.62	1277.09 S	1533.08 E	1995.31@	129.80	1.75
8329.00	91.45	119.15	6583.69	29.00	2019.76	1291.30 S	1558.35 E	2023.83@	129.65	1.50
8361.00	92.07	118.47	6582.71	32.00	2050.73	1306.71 S	1586.37 E	2055.25@	129.48	2.87
8394.00	91.71	118.21	6581.62	33.00	2082.60	1322.37 S	1615.40 E	2087.62@	129.30	1.34
8425.00	93.12	117.98	6580.32	31.00	2112.49	1336.95 S	1642.72 E	2118.01@	129.14	4.61
8456.00	91.98	117.87	6578.94	31.00	2142.35	1351.46 S	1670.09 E	2148.40@	128.98	3.70
8491.00	91.45	117.80	6577.89	35.00	2176.07	1367.79 S	1701.02 E	2182.74@	128.80	1.53
8522.00	90.40	118.60	6577.39	31.00	2206.00	1382.44 S	1728.34 E	2213.21@	128.66	4.26
8550.00	90.04	117.57	6577.28	28.00	2233.02	1395.62 S	1753.04 E	2240.74@	128.52	3.90
8583.00	90.66	117.06	6577.08	33.00	2264.75	1410.76 S	1782.36 E	2273.12@	128.36	2.43
8615.00	93.65	116.61	6575.88	32.00	2295.41	1425.20 S	1810.89 E	2304.45@	128.20	9.45
8646.00	94.53	117.49	6573.67	31.00	2325.10	1439.26 S	1838.43 E	2334.80@	128.06	4.01
8678.00	92.95	117.57	6571.58	32.00	2355.83	1454.02 S	1866.75 E	2366.20@	127.92	4.94
8708.00	92.59	117.39	6570.13	30.00	2384.67	1467.84 S	1893.33 E	2395.68@	127.79	1.34
8735.00	93.91	116.79	6568.60	27.00	2410.55	1480.12 S	1917.33 E	2422.17@	127.67	5.37
8745.00	93.74	116.62	6567.93	10.00	2420.12	1484.60 S	1926.24 E	2431.96@	127.62	2.40
8776.00	90.04	116.37	6566.91	31.00	2449.78	1498.42 S	1953.97 E	2462.37@	127.48	11.96
8806.00	89.25	115.74	6567.09	30.00	2478.43	1511.60 S	1980.92 E	2491.78@	127.35	3.37
8838.00	89.60	116.20	6567.42	32.00	2508.98	1525.61 S	2009.68 E	2523.16@	127.20	1.81
8871.00	93.74	117.54	6566.45	33.00	2540.61	1540.52 S	2039.10 E	2555.61@	127.07	13.19
8903.00	93.65	117.50	6564.39	32.00	2571.34	1555.27 S	2067.42 E	2587.10@	126.95	0.31

PathFinder Energy Services, Inc.
Survey Report

QUESTAR EXPLORATION & PRODUCTION CO
JB 8G-21-7-21 LATERAL #2 ST2
UINTAH COUNTY, UT
RIG:AZTEC 781

Measured Depth (ft)	Incl (deg)	Drift Dir. (deg)	TVD (ft)	Course Length (ft)	Vertical Section (ft)	TOTAL Rectangular Offsets (ft)	(ft)	Closure Dist (ft)	Dir (deg)	DLS (dg/100ft)
8935.00	92.24	117.82	6562.75	32.00	2602.12	1570.11 S	2095.73 E	2618.64@	126.84	4.52
8964.00	90.04	117.72	6562.17	29.00	2630.06	1583.61 S	2121.38 E	2647.28@	126.74	7.59
8996.00	91.28	118.19	6561.80	32.00	2660.92	1598.61 S	2149.64 E	2678.90@	126.64	4.14
9027.00	93.56	118.15	6560.49	31.00	2690.82	1613.23 S	2176.94 E	2709.54@	126.54	7.36
9060.00	91.71	118.21	6558.98	33.00	2722.64	1628.80 S	2206.00 E	2742.16@	126.44	5.61
9092.00	91.28	117.84	6558.14	32.00	2753.51	1643.83 S	2234.24 E	2773.81@	126.34	1.77
9121.00	93.12	118.00	6557.03	29.00	2781.45	1657.40 S	2259.84 E	2802.47@	126.26	6.37
9152.00	92.24	117.04	6555.58	31.00	2811.25	1671.71 S	2287.30 E	2833.08@	126.16	4.20
9187.00	92.51	116.93	6554.13	35.00	2844.81	1687.58 S	2318.47 E	2867.61@	126.05	0.83
9219.00	92.07	116.87	6552.85	32.00	2875.49	1702.04 S	2346.98 E	2899.18@	125.95	1.39
9247.00	91.28	116.55	6552.03	28.00	2902.32	1714.62 S	2371.98 E	2926.81@	125.86	3.04
9280.00	91.80	116.51	6551.14	33.00	2933.90	1729.36 S	2401.50 E	2959.37@	125.76	1.58
9312.00	91.63	116.80	6550.19	32.00	2964.55	1743.71 S	2430.08 E	2990.96@	125.66	1.05
9345.00	91.80	117.22	6549.20	33.00	2996.22	1758.69 S	2459.47 E	3023.57@	125.57	1.37
9377.00	92.24	117.33	6548.07	32.00	3026.96	1773.34 S	2487.90 E	3055.22@	125.48	1.42
9409.00	91.45	117.05	6547.04	32.00	3057.69	1787.96 S	2516.34 E	3086.87@	125.40	2.62
9439.00	91.80	116.90	6546.19	30.00	3086.47	1801.56 S	2543.07 E	3116.54@	125.31	1.27
9473.00	92.15	116.67	6545.02	34.00	3119.05	1816.87 S	2573.40 E	3150.15@	125.22	1.23
9501.00	91.98	116.05	6544.01	28.00	3145.82	1829.29 S	2598.48 E	3177.80@	125.15	2.29
9532.00	91.71	116.20	6543.01	31.00	3175.43	1842.94 S	2626.29 E	3208.40@	125.06	1.00
9548.00	91.36	115.84	6542.58	16.00	3190.70	1849.95 S	2640.67 E	3224.20@	125.01	3.14
STRAIGHT LINE PROJECTION TO BIT DEPTH @ 9610'MD.										
9610.00	91.36	115.84	6541.11	62.00	3249.83	1876.97 S	2696.45 E	3285.40@	124.84	0.00

** The survey data at tie-in point was furnished by a recognized survey company and entered as submitted. Survey stations above the tie-in point represent recalculated data by PathFinder Energy Services, Inc. and may reflect minor changes due to rounding differences between survey programs. Only survey stations taken by qualified PathFinder personnel are subject to certification.

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

AMENDED REPORT ☐ (highlight changes) FORM 8

WELL COMPLETION OR RECOMPLETION REPORT AND LOG

5. LEASE DESIGNATION AND SERIAL NUMBER: UTU 30290
6. IF INDIAN, ALLOTTEE OR TRIBE NAME: N/A
7. UNIT or CA AGREEMENT NAME: UTU86617X
8. WELL NAME and NUMBER: JB 8G 21-7-21
9. API NUMBER: 4304740613
10 FIELD AND POOL, OR WILDCAT: UNDESIGNATED

1a. TYPE OF WELL: OIL WELL ☑ GAS WELL ☐ DRY ☐ OTHER

b. TYPE OF WORK: NEW WELL ☑ HORIZ. LATS. ☐ DEEP-EN ☐ RE-ENTRY ☐ DIFF. RESVR. ☐ OTHER Dual Lateral

2. NAME OF OPERATOR: QEP Energy Company

3. ADDRESS OF OPERATOR: 11002 East 17500 South CITY Vernal STATE UT ZIP 84078 PHONE NUMBER: (435) 781-4342

4. LOCATION OF WELL (FOOTAGES)
AT SURFACE: 2199' FNL, 844' FEL
AT TOP PRODUCING INTERVAL REPORTED BELOW:
AT TOTAL DEPTH: Lat 1 - ~~1856' FSL, 2528'~~ 1941 FSL 840 FWL FEL, SEC 21-7S-21E

BHL reviewed by HSM

11. QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: SENE 21 T7S 21E
12. COUNTY: UINTAH
13. STATE: UTAH

14. DATE SPUDDED: 4/18/2010
15. DATE T.D. REACHED: 7/27/2010
16. DATE COMPLETED: 8/23/2010 ABANDONED ☐ READY TO PRODUCE ☑
17. ELEVATIONS (DF, RKB, RT, GL): 4826' KB

18. TOTAL DEPTH: MD 8,500 TVD 6,646
19. PLUG BACK T.D.: MD 8,500 TVD Ø
20. IF MULTIPLE COMPLETIONS, HOW MANY? *
21. DEPTH BRIDGE PLUG SET: MD TVD

22. TYPE ELECTRIC AND OTHER MECHANICAL LOGS RUN (Submit copy of each)
CBL, VDL, CCL/GR, SPECTRAL DENSITY DSN, ARRAY COMP

23.
WAS WELL CORED? NO ☑ YES ☐ (Submit analysis)
WAS DST RUN? NO ☑ YES ☐ (Submit report)
DIRECTIONAL SURVEY? NO ☐ YES ☑ (Submit copy)

24. CASING AND LINER RECORD (Report all strings set in well)

HOLE SIZE	SIZE/GRADE	WEIGHT (#/ft.)	TOP (MD)	BOTTOM (MD)	STAGE CEMENTER DEPTH	CEMENT TYPE & NO. OF SACKS	SLURRY VOLUME (BBL)	CEMENT TOP **	AMOUNT PULLED
12-1/4"	9-5/8 K-55	36#	0	490		285		0	
8-3/4"	7 N-80	26#		7,075		940		0	
6-1/8"	4-1/2 N-80	11.6#		8,975					
6-1/8"	4-1/2" N-80	11.6#		8,500					

25. TUBING RECORD

SIZE	DEPTH SET (MD)	PACKER SET (MD)	SIZE	DEPTH SET (MD)	PACKER SET (MD)	SIZE	DEPTH SET (MD)	PACKER SET (MD)
2-7/8	6,928							

26. PRODUCING INTERVALS

FORMATION NAME	TOP (MD)	BOTTOM (MD)	TOP (TVD)	BOTTOM (TVD)
(A) Green River Lat 2	6,569	8,975		
(B) Green River Lat 1	7,075	8,500		
(C)				
(D)				

27. PERFORATION RECORD

INTERVAL (Top/Bot - MD)		SIZE	NO. HOLES	PERFORATION STATUS
6,569	8,975			Open ☑ Squeezed ☐
7,075	8,500			Open ☑ Squeezed ☐
				Open ☐ Squeezed ☐
				Open ☐ Squeezed ☐

28. ACID, FRACTURE, TREATMENT, CEMENT SQUEEZE, ETC.

DEPTH INTERVAL	AMOUNT AND TYPE OF MATERIAL
6569' - 8975' (Lateral 2)	Acidized Lateral #2 (Upper) w/ 28,000 Gals of 15% HCL
7075' - 8500'(Lateral 1)	Acidized Lateral #1 (Lower) w/ 23,000 Gals of 15% HCL

29. ENCLOSED ATTACHMENTS:
☐ ELECTRICAL/MECHANICAL LOGS ☐ GEOLOGIC REPORT ☐ DST REPORT ☑ DIRECTIONAL SURVEY
☐ SUNDRY NOTICE FOR PLUGGING AND CEMENT VERIFICATION ☐ CORE ANALYSIS ☐ OTHER:

30. WELL STATUS: Producing

(5/2000)

(CONTINUED ON BACK)

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31. INITIAL PRODUCTION

INTERVAL A (As shown in item #26)

DATE FIRST PRODUCED:		TEST DATE:		HOURS TESTED:		TEST PRODUCTION RATES: →	OIL – BBL:	GAS – MCF:	WATER – BBL:	PROD. METHOD:
8/23/2010		8/27/2010		24			63	0	213	pumping
CHOKE SIZE:	TBG. PRESS. 200	CSG. PRESS. 19	API GRAVITY	BTU – GAS	GAS/OIL RATIO	24 HR PRODUCTION RATES: →	OIL – BBL:	GAS – MCF:	WATER – BBL:	INTERVAL STATUS:

INTERVAL B (As shown in item #26)

DATE FIRST PRODUCED:		TEST DATE:		HOURS TESTED:		TEST PRODUCTION RATES: →	OIL – BBL:	GAS – MCF:	WATER – BBL:	PROD. METHOD:
CHOKE SIZE:	TBG. PRESS.	CSG. PRESS.	API GRAVITY	BTU – GAS	GAS/OIL RATIO	24 HR PRODUCTION RATES: →	OIL – BBL:	GAS – MCF:	WATER – BBL:	INTERVAL STATUS:

INTERVAL C (As shown in item #26)

DATE FIRST PRODUCED:		TEST DATE:		HOURS TESTED:		TEST PRODUCTION RATES: →	OIL – BBL:	GAS – MCF:	WATER – BBL:	PROD. METHOD:
CHOKE SIZE:	TBG. PRESS.	CSG. PRESS.	API GRAVITY	BTU – GAS	GAS/OIL RATIO	24 HR PRODUCTION RATES: →	OIL – BBL:	GAS – MCF:	WATER – BBL:	INTERVAL STATUS:

INTERVAL D (As shown in item #26)

DATE FIRST PRODUCED:		TEST DATE:		HOURS TESTED:		TEST PRODUCTION RATES: →	OIL – BBL:	GAS – MCF:	WATER – BBL:	PROD. METHOD:
CHOKE SIZE:	TBG. PRESS.	CSG. PRESS.	API GRAVITY	BTU – GAS	GAS/OIL RATIO	24 HR PRODUCTION RATES: →	OIL – BBL:	GAS – MCF:	WATER – BBL:	INTERVAL STATUS:

32. DISPOSITION OF GAS (Sold, Used for Fuel, Vented, Etc.)

n/a

33. SUMMARY OF POROUS ZONES (Include Aquifers):

Show all important zones of porosity and contents thereof: Cored intervals and all drill-stem tests, including depth interval tested, cushion used, time tool open, flowing and shut-in pressures and recoveries.

Formation	Top (MD)	Bottom (MD)	Descriptions, Contents, etc.
UINTA	0		
GREEN RIVER	3,162		
"X"-MARKER	5,646		

34. FORMATION (Log) MARKERS:

Name	Top (Measured Depth)

35. ADDITIONAL REMARKS (Include plugging procedure)

DUAL LATERAL OIL WELL - SEE ATTACHMENT PAGE ONE

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

NAME (PLEASE PRINT) DAHN CALDWELL TITLE OFFICE ADMINISTRATOR

SIGNATURE DATE 10/7/2010

This report must be submitted within 30 days of

- completing or plugging a new well
- drilling horizontal laterals from an existing well bore
- recompleting to a different producing formation
- reentering a previously plugged and abandoned well
- significantly deepening an existing well bore below the previous bottom-hole depth
- drilling hydrocarbon exploratory holes, such as core samples and stratigraphic tests

* ITEM 20: Show the number of completions if production is measured separately from two or more formations.

** ITEM 24: Cement Top – Show how reported top(s) of cement were determined (circulated (CIR), calculated (CAL), cement bond log (CBL), temperature survey (TS)).

Send to: Utah Division of Oil, Gas and Mining
1594 West North Temple, Suite 1210
Box 145801
Salt Lake City, Utah 84114-5801

Phone: 801-538-5340

Fax: 801-359-3940

(5/2000)

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JB 8G 21-7-21 – DUAL LATERAL WELL

ATTACHMENT PAGE ONE

#4 – Lower Lateral 1 – 8,500' TD/ 6,646' TVD / PBTD: 8,500' MD

SEC 21-T7S-R21S – 1856' FSL, 2528' FEL

Upper Lateral 2 – 9,610' TD/ 6,542' TVD / PBTD : 8,975' MD

Sec 22-7S-R21E – 1205' FNL, 1853' FWL

#27 – Perforation Record – Upper Lateral 2 - 4.5", N-80, 11.6#, LT&C, Blank 5,559' – 6,569' – Alternating jts of blank & perforated jts f/ 6,569' – 8,975'

Lower Lateral 1 - 4.5", N-80, 11.6#, LT&C, Blank 7,031' – 7,075' – Alternating jts of blank & perforated jts f/ 7,075' – 8,500'

Producing out of the Green River

#34 – REMARKS – 136' Conductor couldn't hit rock.

CONFIDENTIAL

QEP ENERGY

Operations Summary Report – DRILLING

Well Name: JB 8G-21-7-21
Location: 21- 7-S 21-E 26
Rig Name: AZTEC

Spud Date: 4/18/2010
Rig Release: 7/28/2010
Rig Number: 781

Date	From - To	Hours	Code	Sub Code	Description of Operations
4/19/2010	06:00 - 12:00	6.00	LOC	2	DRILL WITH BUCKET RIG FROM 0' TO 136'. SET CONDUCTOR IN 15' OF HARD CLAY. UPPER HOLE WAS NOTHING BUT SAND. HAD TO FILL HOLE WITH GEL WATER TO HOLE HOLE OPEN
	12:00 - 13:00	1.00	LOC	2	RUN 139' OF 14" CONDUCTOR CASING, 3' STICK UP, WELDED CENTRALIZERS ON BOTTON OF 3 JOINTS OF PIPE
	13:00 - 15:00	2.00	LOC	2	RIG UP PRO-PETRO CEMENT AND PRESURE CEMENT CONDUCTOR PIPE. TOTAL CONDUCTOR VOLUME - 24 BBLS, DISPLACE CEMENT WITH 21 BBLS WATER LEAVING 20 FEET OF CEMENT IN PIPE, RIG DOWN PRO PETRO CEMENTERS
	15:00 - 16:30	1.50	LOC	2	DRILL MOUSE HOLE TO 20' AND LINE WITH 14" CULVERT PIPE, HAD TO FILL HOLE WITH GEL WATER TO HOLD HOLE OPEN
	16:30 - 18:30	2.00	LOC	1	CLEAN UP CEMENT/CUTTINGS MESS WITH ROUSTABOUTS AND BACKHOE
	18:30 -				NOTIFIED BLM ELECTRONICALLY ON 4/14/2010 @ 21:30 HRS FOR SPUD ON 4/16/2010 NOTIFIED VERBALY - DONNA KENNEY WITH BLM OF SAME ON 4/15/2010 @08:00 HRS NOTIFIED KARROL DANIELS WITH UT OIL AND GAS OF SAME ON 4/15/2010 @08:00 HRS (LEFT MESSAGE)
4/20/2010	06:00 - 12:00	6.00	LOC	3	MOVE IN AND RIG UP PRO PETRO AIR RIG
	12:00 - 18:00	6.00	DRL	1	DRILL 12 3/4" HOLE FROM 136' TO 510'
	18:00 - 18:30	0.50	CIRC	1	BLOW HOLE CLEAN
	18:30 - 20:00	1.50	TRP	3	LAY DOWN DRILL STRING AND PREPARE TO RUN CASING
	20:00 - 21:30	1.50	CSG	2	RUN 16 JOINTS OF 9 5/8 K-55 36# CASING., LAND AT 490, FLOAT COLLAT AT 449.7
	21:30 - 22:00	0.50	CMT	1	RIG UP PRO PETRO CEMENTERS
	22:00 - 23:30	1.50	CMT	2	PUMP CEMENT JOB : 35 BBLS FRESH WATER, 20 BBLS GEL WATER, PUMP 58.5 BBLS OF 15.8 PPG TAIL CEMENT, PUMP 33 BBLS FRESH WATER DISPLACEMENT AT FCP OF 200, BUMPED PLUG @ 620 PSI, FLOATS HELD, BLEAD BACK 1/4 BBL. 17 BBLS RETURNED TO SURFACE
	23:30 - 00:00	0.50	CMT	1	RIG DOWN PRO PETRO
5/22/2010	06:00 - 06:00	24.00	LOC	3	ON 5/15/2010, TRUCK IN 6 CAMP TRAILERS, SEWER AND WATER TANKS AND RIG UP SAME. ON 5/17/2010, RIG UP COMMUNICATIONS IN CONSULTANT TRAILERS. ON 5/19/2010 RIG UP PASON MONITORS IN TRAILERS. ON 5/21/2010 (EVENING), 6 PIPE TUBS (311 JOINTS) OF 3.5", 13.30#, S-135 DRILL PIPE ARRIVE ON LOCATION. 8 NON PERMITTED LOADS LEAVING AZTEC YARD THIS MORNING.
5/23/2010	06:00 - 06:00	24.00	LOC	3	10 LOADS OF RIG HAULED IN TODAY. JUNK BASKET, CHOKE MANIFOLD, FUEL TANK, ACCUMULATOR, TOP DRIVE POWER UNIT, DOUBLE GATE BOP, PIPE RACKS (8), 6 1/4" DRILL COLLARS (20), CATWALK, 2 LIGHT PLANT HOUSES, TOOL HOUSE, DRAWTOOL RAMP, FORKLIFT, 70% OF RIG HERE. 8 PERMIT LOADS TO LEAVE MONDAY MORNING.
5/24/2010	06:00 - 06:00	24.00	LOC	3	WAIT ON RIG
5/25/2010	06:00 - 06:00	24.00	LOC	3	RIG IN TRANSIT, SHOULD BE HERE THIS MORNING SOMETIME
5/26/2010	06:00 - 09:00	3.00	LOC	3	WAIT ON RIG
	09:00 - 20:30	11.50	LOC	4	RIG UP, RIG 100% SET IN, 50% RIGGED UP
	20:30 - 06:00	9.50	OTH		WAIT ON DAYLIGHT
5/27/2010	06:00 - 22:00	16.00	LOC	4	RIG UP, SET IN BOP (TIE DOWN FLANGE, 12" SPOOL, DOUBLE GATES, ANNULAR AND ROTATING HEAD, ALL SEPERATE). INSTALLED 2" VALVES AND CHECK VALVE. NIPPLE UP FLOW LINE. FABRICATE GAS BUSTER LINES(75% COMPLETE). MODIFIED CHOKE MANIFOLD LINES. SET FLARE LINES. RIG UP TOP DRIVE. RIG UP BACKYARD. 2- 4 MAN CREWS. RIG 80% RIGGED UP.

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OCT 13 2010
DIV. OF OIL, GAS & MINI

Operations Summary Report

Well Name: JB 8G-21-7-21
Location: 21- 7-S 21-E 26
Rig Name: AZTEC

Spud Date: 4/18/2010
Rig Release: 7/28/2010
Rig Number: 781

Date	From - To	Hours	Code	Sub Code	Description of Operations
5/27/2010	06:00 - 22:00	16.00	LOC	4	NOTIFIED BLM (DONNA KENNEY) VERBALLY AND ELECTRONICALLY, 1700 HRS, 5/26/2010 FOR BOP TEST. NOTIFIED STATE VIA EMAIL, 5/25/2010, 1600 HRS.
	22:00 - 06:00	8.00	LOC	4	WAIT ON DAYLIGHT
5/28/2010	06:00 - 21:00	15.00	LOC	4	RIG UP TOP DRIVE, FINISH NIPPLE UP, WORK ON BUSTER LINES.
	21:00 - 04:00	7.00	BOP	2	BEGIN DAY WORK @ 21:00 05/27/10. TEST BOP EQUIPMENT WITH SINGLE JACK TESTERS. TEST CASING TO 1500 PSI FOR 30 MIN - LOST 50 PSI. TEST ANNULAR TO 1500 PSI FPR 10 MINUTES. TEST PIPE RAMS, BLIND RAMS, CHOKE LINE, KILL LINE, UPPER KELLY VALVE, LOWER KELLY VALVE, IBOP, CHOKE MANIFOLD, SAFETY VALVE TO 3,000 PSI FOR 10 MINUTES.
	04:00 - 06:00	2.00	TRP	1	PICK UP BHA
5/29/2010	06:00 - 07:00	1.00	TRP	1	PICK UP BHA, TRIP IN
	07:00 - 08:30	1.50	OTH		INSTALL AND WORK ON ROTATING HEAD, SET TORQUE ON TOP DRIVE FOR 4 1/2 XH, FROM 3 1/2 IF.
	08:30 - 09:30	1.00	TRP	1	PICK UP BHA, TAG CEMENT AT 416'
	09:30 - 10:30	1.00	OTH		CALIBRATE PASON EQUIPMENT WITH PASON HANDS
	10:30 - 12:00	1.50	DRL	4	DRILL CEMENT AND FLOAT AND SHOE, PLUS 10' FORMATION
	12:00 - 12:30	0.50	OTH		EXTEND TOP DRIVE TRACK TO ACCOMODATE MOUSEHOLE, CHANGE SHAKER SCREENS
	12:30 - 13:00	0.50	RIG	1	RIG SERVICE
	13:00 - 13:30	0.50	EQT	2	CIRCULATE AND PERFORM FIT TO 44 PSI. 10 PPG MUD EQUIVALENT AT SHOE
	13:30 - 15:00	1.50	DRL	1	DRILL FROM 528' TO 650', 122' AT 81'/HR, 5-10K WOB, 55 RPM, 500 PSI AT 130 STROKES, #1 PUMP, 280 GPM, 2-300 PSI DIFFERENTIAL, 8.4 MUD WT, 27 VIS.
	15:00 - 15:30	0.50	SUR	1	CIRCULATE AND WIRELINE SURVEY AT 578', .7 DEGREES, 343.7 AZ
	15:30 - 18:00	2.50	DRL	1	DRILL FROM 650' TO 865', 215' AT 86 '/HR, 5-10K WOB, 55 ROTARY RPM, 68 MUD MOTOR RPM, 1000 PSI AT 100 STROKES ON #1, #2 PUMPS, 484 GPM, 2-300 PSI DIFFERENTIAL, 8.4 MUD WT, 27 VIS.
	18:00 - 21:30	3.50	DRL	1	DRILL FROM 865' TO 1172', 307' AT 87.7 '/HR, 15-18K WOB, 55 ROTARY RPM, 68 MUD MOTOR RPM, 1000 PSI AT 90 STROKES ON #1, #2 PUMPS, 427 GPM, 200 to 300 PSI DIFFERENTIAL, 8.4 MUD WT, 27 VIS.
	21:30 - 22:00	0.50	SUR	1	CIRCULATE AND SURVEY @ 1092 - 0.5 DEG - 117.4 AZ
	22:00 - 02:00	4.00	DRL	1	DRILL FROM 1172' TO, 1674' AT 125.5'/HR, 15-18K WOB, 55 ROTARY RPM, 68 MUD MOTOR RPM, 1000 PSI AT 90 STROKES ON #1, #2 PUMPS, 427 GPM, 200 to 300 PSI DIFFERENTIAL, 8.6 MUD WT, 28 VIS.
	02:00 - 02:30	0.50	SUR	1	CIRCULATE AND SURVEY @1594' - 0.4 DEG - 240.9 AZ
	02:30 - 06:00	3.50	DRL	1	DRILL FROM 1674' TO 1908' AT 66.8'/HR, 8-18K WOB, 55 ROTARY RPM, 68 MUD MOTOR RPM, 1000 PSI AT 90 STROKES ON #1, #2 PUMPS, 427 GPM, 200 to 300 PSI DIFFERENTIAL, 8.6 MUD WT, 28 VIS.
5/30/2010	06:00 - 13:00	7.00	DRL	1	DRILL FROM 1908' TO 2119', 211' AT 30'/HR, 2-8K WOB, 55 ROTARY RPM, 77 MUD MOTOR RPM, 1200 PSI AT 100 STROKES ON #1, #2 PUMPS, 484 GPM, 200 to 300 PSI DIFFERENTIAL, 8.6 MUD WT, 28 VIS. LOW BIT WEIGHT DUE TO STRING BOUNCING
	13:00 - 13:30	0.50	RIG	1	RIG SERVICE, CHECK COM
	13:30 - 15:30	2.00	DRL	1	DRILL FROM 2119' TO 2182', 63' AT 31'/HR, 2-8K WOB, 50-65 ROTARY RPM, 77 MUD MOTOR RPM, 1200 PSI AT 100 STROKES ON #1, #2 PUMPS, 484 GPM, 200 to 300 PSI DIFFERENTIAL, 8.6 MUD WT, 30 VIS. LOW BIT WEIGHT DUE TO STRING BOUNCING
	15:30 - 16:00	0.50	SUR	1	WIRELINE SURVEY @2101, .9 DEGREES, 168.8 AZ, NO FLOW
	16:00 - 18:00	2.00	DRL	1	DRILL FROM 2182' TO 2246', 64' AT 32'/HR, 2-8K WOB, 50-65 ROTARY RPM, 77 MUD MOTOR RPM, 1200 PSI AT 100 STROKES ON #1, #2 PUMPS, 484 GPM,

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Operations Summary Report

Well Name: JB 8G-21-7-21
Location: 21- 7-S 21-E 26
Rig Name: AZTEC

Spud Date: 4/18/2010
Rig Release: 7/28/2010
Rig Number: 781

Date	From - To	Hours	Code	Sub Code	Description of Operations
5/30/2010	16:00 - 18:00	2.00	DRL	1	200 to 300 PSI DIFFERENTIAL, 8.6 MUD WT, 33 VIS. LOW BIT WEIGHT DUE TO STRING BOUNCING
	18:00 - 04:00	10.00	DRL	1	DRILL FROM 2246' to 2689, 443' AT 44.3'/HR, 2-18K WOB, 50-65 ROTARY RPM, 77 MUD MOTOR RPM, 1200 PSI AT 100 STROKES ON #1, #2 PUMPS, 484 GPM, 200 to 300 PSI DIFFERENTIAL, 8.6 MUD WT, 36 VIS. LOW BIT WEIGHT DUE TO STRING BOUNCING
	04:00 - 04:30	0.50	SUR	1	CIRCULATE AND SURVEY @ 2609' - 1.1DEG - 178.8 AZ
	04:30 - 06:00	1.50	DRL	1	DRILL FROM 2689 TO 2755', 66' AT 44.3'/HR, 2-18K WOB, 50-65 ROTARY RPM, 77 MUD MOTOR RPM, 1200 PSI AT 100 STROKES ON #1, #2 PUMPS, 484 GPM, 200 to 300 PSI DIFFERENTIAL, 8.6 MUD WT, 36 VIS. LOW BIT WEIGHT DUE TO STRING BOUNCING
5/31/2010	06:00 - 06:30	0.50	DRL	1	RIG SERVICE, BRAKE INSPECTION, CHECK COM
	06:30 - 11:30	5.00	DRL	1	DRILL FROM 2755'-3198', 443' AT 88'/HR, 15-18K WOB, 50-65 ROTARY RPM, 77 MUD MOTOR RPM, 1300 PSI AT 100 STROKES ON #1, #2 PUMPS, 484 GPM, 200 to 300 PSI DIFFERENTIAL, 8.6 MUD WT, 36 VIS. BOUNCING GRADUALLY WENT AWAY STARTING AROUND 2700'
	11:30 - 12:00	0.50	SUR	1	CIRCULATE AND WIRELINE SURVEY @ 3115', 1.3 DEGREES, 140.3 AZ
	12:00 - 18:00	6.00	DRL	1	DRILL FROM 3198'-3642', 444' AT 74'/HR, 15-18K WOB, 50-65 ROTARY RPM, 77 MUD MOTOR RPM, 1300 PSI AT 100 STROKES ON #1, #2 PUMPS, 484 GPM, 200 to 300 PSI DIFFERENTIAL, 8.6 MUD WT, 34 VIS
	18:00 - 20:00	2.00	DRL	1	DRILL FROM 3642 to 3703', 61' AT 30.5'/HR, 18-20K WOB, 50-65 ROTARY RPM, 77 MUD MOTOR RPM, 1400 PSI AT 100 STROKES ON #1, #2 PUMPS, 484 GPM, 200 to 300 PSI DIFFERENTIAL, 8.7 MUD WT, 34 VIS
	20:00 - 20:30	0.50	SUR	1	CIRCULATE AND SURVEY @ 3620' - 1.5 DEG - 208.8 AZ
	20:30 - 23:00	2.50	DRL	1	DRILL FROM 3703' TO 3824, 121' AT 48.4'/HR, 18-20K WOB, 50-65 ROTARY RPM, 77 MUD MOTOR RPM, 1500 PSI AT 100 STROKES ON #1, #2 PUMPS, 484 GPM, 200 to 300 PSI DIFFERENTIAL, 8.9 MUD WT, 34 VIS
	23:00 - 01:30	2.50	RIG	2	TROUBLE SHOOT TOP DRIVE - WILL NOT STAY RUNNING. PULLED DRAIN PLUG ON TRANSMISSION AND PIECES OF BEARING AND METAL SHAVINGS WERE SEEN.
	01:30 - 06:00	4.50	RIG	2	FLOW CHECK MIX AND PUMP PILL. TRIP OUT OF HOLE. WAIT ON AZTEC MECHANIC FROM FARMINGTON TO COME REPAIR TOP DRIVE TRANSMISSION
6/1/2010	06:00 - 06:30	0.50	RIG	2	OPERATE PIPE AND BLIND RAMS, BREAK OFF AND INSPECT, FLUID LEVEL IN STACK REMAINING STATIC.
	06:30 - 08:30	2.00	RIG	2	TRIP IN TO SHOE, 497'
	08:30 - 10:00	1.50	RIG	2	WAIT ON AZTEC MECHANIC
	10:00 - 17:00	7.00	RIG	2	CHANGE OUT DRIVE GEAR ON TOP DRIVE POWER UNIT
	17:00 - 19:00	2.00	RIG	2	TRIP IN, BREAK CIRC AT 2175', CONTINUE TRIP IN TO 2817' - 17 STANDS OF BOTTOM.
	19:00 - 06:00	11.00	RIG	2	REPLACE POWER CORD TO TOP DRIVE. TOP DRIVE CONTROLS NOT FUNCTIONING AFTER CORD WAS REPLACED. TROUBLE SHOOT SAME. CIRCULATE HOLE AT 260 GPM, RECIPRICATE WHEN POSSIBLE. HAVE FULL CIRCULATION AND PIPE IS FREE.
6/2/2010	06:00 - 15:00	9.00	RIG	2	REPAIR TOP DRIVE - REPLACE 37 WIRE PIG TAIL ON TOP DRIVE.
	15:00 - 15:30	0.50	RIG	2	TRIP IN HOLE - NO TIGHT HOLE
	15:30 - 16:00	0.50	RIG	2	WASH AND REAM FROM 3767' TO 3824' - 57'. LAST 15' A LITTLE RATTY
	16:00 - 18:00	2.00	DRL	1	RIG BACK ON DAY WORK. DRILL FROM 3824' TO 3923', 99' AT 49.5'/HR, 15-20K WOB, 50-65 ROTARY RPM, 77 MUD MOTOR RPM, 1500 PSI AT 100 STROKES ON #1, #2 PUMPS, 484 GPM, 200 to 300 PSI DIFFERENTIAL, 8.8 MUD WT, 34 VIS. HOLE SEEPING 1-2 BBL/HR. MIX AND SHAKE OUT SAWDUST TO HEAL SEEPAGE.

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Operations Summary Report

Well Name: JB 8G-21-7-21
Location: 21- 7-S 21-E 26
Rig Name: AZTEC

Spud Date: 4/18/2010
Rig Release: 7/28/2010
Rig Number: 781

Date	From - To	Hours	Code	Sub Code	Description of Operations
6/2/2010	18:00 - 00:30	6.50	DRL	1	DRILL FROM 3923' to 4213', 290' AT 44.6'/HR, 18-20K WOB, 50-65 ROTARY RPM, 77 MUD MOTOR RPM, 1500 PSI AT 100 STROKES ON #1, #2 PUMPS, 484 GPM, 200 to 300 PSI DIFFERENTIAL, 8.9 MUD WT, 34 VIS. HOLE SEEPING 1-2 BBL/HR. MIX AND SHAKE OUT SAWDUST TO HEAL SEEPAGE.
	00:30 - 01:00	0.50	SUR	1	CIRCULATE AND SURVEY - 4133' - 2.7 DEG - 153.7 AZ
	01:00 - 06:00	5.00	DRL	1	DRILL FROM 4213' TO 4409' , 196' AT 39.2'/HR, 18-20K WOB, 50-65 ROTARY RPM, 77 MUD MOTOR RPM, 1500 PSI AT 100 STROKES ON #1, #2 PUMPS, 484 GPM, 200 to 300 PSI DIFFERENTIAL, 8.9 MUD WT, 34 VIS. HOLE SEEPING 1-2 BBL/HR. MIX AND SHAKE OUT SAWDUST TO HEAL SEEPAGE.
6/3/2010	06:00 - 15:30	9.50	DRL	1	DRILL FROM 4409' TO 4721' , 312' AT 32.8'/HR, 18-21K WOB, 50-65 ROTARY RPM, 77 MUD MOTOR RPM, 1500 PSI AT 100 STROKES ON #1& #2 PUMPS, 485 GPM, 200 to 300 PSI DIFFERENTIAL, 8.9 MUD WT, 34 VIS. HOLE SEEPING 1-2 BBL/HR. MIX AND SHAKE OUT SAWDUST TO HEAL SEEPAGE.
	15:30 - 16:00	0.50	SUR	1	WIRELINE SURVEY
	16:00 - 16:30	0.50	RIG	1	RIG SERVICE
	16:30 - 00:00	7.50	DRL	1	DRILL F/ 4721' TO 4951' FTG. 230' ROP 30.6 FT/HR.
	00:00 - 00:30	0.50	CIRC	1	CIRC. & COND. AIRED UP MUD
	00:30 - 06:00	5.50	DRL	1	DRILL F/ 4951' TO 5123' = 172' ROP - 31.3'/HR WOB - 20 GPM - 485
6/4/2010	06:00 - 09:30	3.50	DRL	1	DRILL FROM 5123' TO 5229' = 106' ROP - 26.5'/HR WOB - 22-25 GPM - 533
	09:30 - 10:00	0.50	SUR	1	RUN WIRELINE SURVEY
	10:00 - 10:30	0.50	RIG	1	RIG & TOP-DRIVE SERVICE
	10:30 - 00:00	13.50	DRL	1	DRILL FROM 5229' TO 5800' = 571' ROP = 42.7 FT/HR; WOB 18-20 GPM 533
	00:00 - 00:30	0.50	SUR	1	WIRELINE SURVEY
	00:30 - 06:00	5.50	DRL	1	DRILL FROM 5800' TO 6070' = 270' ROP = 49 FT/HR WOB 18-20 GPM 533
6/5/2010	06:00 - 07:30	1.50	DRL	1	DRILL FROM 6070' TO 6165' = 95' ROP = 63.3'/HR WOB - 20 GPM - 533
	07:30 - 08:30	1.00	CIRC	1	CIRCULATE AND PUMP TRIP SLUG
	08:30 - 13:00	4.50	TRP	2	TRIP OUT OF THE HOLE TO PICK UP DIRECTIONAL TOOLS, TIGHT SPOTS F/ 5825' TO 5696' & 4272' TO 3912'
	13:00 - 14:00	1.00	TRP	1	LAY DOWN DRILL COLLARS, MONEL, MOTOR AND BIT #1
	14:00 - 14:30	0.50	RIG	1	RIG SERVICE
	14:30 - 15:30	1.00	TRP	1	PICK UP DIRECTIONAL TOOLS
	15:30 - 16:30	1.00	DRL	3	ORIENT & TEST DIRECIONAL TOOLS
	16:30 - 01:30	9.00	TRP	2	TRIP IN HOLE & (SURVEY EVERY 60')
	01:30 - 02:30	1.00	REAM	1	WASH 73' TO BOTTOM
	02:30 - 06:00	3.50	DRL	2	DIR DRILL F/ 6165' TO 6230' = 65' ROP = 18.5 FT/HR. WOB 25/30 K GPM 460
6/6/2010	06:00 - 09:00	3.00	DRL	2	DIRECTIONAL DRILL FROM 6230' TO 6267' = 37' ROP - 12.3'/HR WOB - 35/45 GPM 460/509
	09:00 - 09:30	0.50	OTH		CHANGE OUT CAMP GENERATOR
	09:30 - 10:00	0.50	OTH		WORK ON PUMPS
	10:00 - 12:00	2.00	DRL	2	DIRECTIONAL DRILL FROM 6267' TO 6312' = 45' ROP - 22.5'/HR WOB - 35/40 GPM - 509
	12:00 - 12:30	0.50	OTH		WORK ON MWD SURFACE EQUIPMENT
	12:30 - 14:30	2.00	DRL	2	DIRECTIONAL DRILL FROM 6312' TO 6347' = 35' ROP - 17.5FT/HR WOB 34/45 GPM 509
	14:30 - 15:00	0.50	RIG	1	SERVICE RIG, TOP-DRIVE

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Operations Summary Report

Well Name: JB 8G-21-7-21
Location: 21- 7-S 21-E 26
Rig Name: AZTEC

Spud Date: 4/18/2010
Rig Release: 7/28/2010
Rig Number: 781

Date	From - To	Hours	Code	Sub Code	Description of Operations
6/6/2010	15:00 - 23:00	8.00	DRL	2	DIRECTIONAL DRILL FROM 6347' TO 6499' = 152' ROP 19 FT/HR WOB 35/45 GPM 509 GPM
	23:00 - 04:00	5.00	OTH		TROUBLE SHOOT MWD
	04:00 - 06:00	2.00	TRP	13	TRIP OUT F/ MWD FAILURE
6/7/2010	06:00 - 07:00	1.00	CIRC	1	CIRCULATE, BATCH AND PUMP SECOND TRIP SLUG
	07:00 - 11:00	4.00	TRP	13	TRIP OUT OF THE HOLE FOR MWD FAILURE
	11:00 - 13:00	2.00	TRP	1	LAY DOWN BIT #2, CHANGE OUT MWD TOOLS, INSPECT MOTOR, PICK UP NEW BIT AND MWD TOOL, ORIENT AND TEST
	13:00 - 13:30	0.50	TRP	2	TRIP IN THE THE SHOE
	13:30 - 14:30	1.00	RIG	6	CUT AND SLIP DRILLING LINE
	14:30 - 19:30	5.00	TRP	2	TRIP IN HOLE, FILL PIPE & TEST MWD. @ 4638'
	19:30 - 20:30	1.00	RIG	6	DAMAGED DRILLING LINE ON TRIP IN HOLE, SLIP & CUT BAD SPOT
	20:30 - 22:00	1.50	TRP	2	TRIP IN HOLE TO 6468'
	22:00 - 00:00	2.00	OTH		TROUBLE SHOOT M.W.D.
	00:00 - 05:00	5.00	TRP	13	PUMP SLUG & TRIP OUT OF THE HOLE FOR MWD FAILURE
	05:00 - 06:00	1.00	TRP	1	LAY DOWN MUD E-MAG TOOL AND PICK UP MWD PULSE TOOL
6/8/2010	06:00 - 08:30	2.50	TRP	1	LAY DOWN E-MAG TOOL AND PICK UP PULSE TOOL
	08:30 - 13:30	5.00	TRP	2	TRIP IN THE HOLE TO 6454, TIGHT AT 6085 (TEST MWD AT CASING SHOE, 1640', 5131', 6100' AND VERIFIED SURVEY AT 6427)
	13:30 - 14:30	1.00	REAM	1	WASH FROM 6454 TO 6499', 15' OF FILL
	14:30 - 06:00	15.50	DRL	2	DIRECTIONAL DRILL FROM 6499' TO 6710' = 211' ROP 13.6 RFT/HR. WOB 35/50 GPM 485
6/9/2010	06:00 - 13:30	7.50	DRL	2	DIRECTIONAL DRILL F/ 6710' TO 6785' = 75' ROP 10' FT/HR. WOB 35/50 GPM 485
	13:30 - 14:00	0.50	RIG	1	SERVICE RIG TOP-DRIVE
	14:00 - 15:30	1.50	DRL	2	DIRECTIONAL DRILL F/ 6785' TO 6800' = 15' ROP 10 FT/ HR. WOB 35/50 GPM 485
	15:30 - 16:00	0.50	OTH		TROUBLE SHOOT MWD AND RE-LOG GAMMA FROM 6780' TO 6800'
	16:00 - 17:00	1.00	DRL	2	DIRECTIONAL DRILL F/ 6800' TO 6806' = 6' ROP 6 FT/HR WOB 35/50 GPM 485
	17:00 - 18:00	1.00	CIRC	1	CIRC. F/ TRIP ABD PUMP TRIP SLUG
	18:00 - 23:00	5.00	TRP	12	TRIP OUT OF THE HOLE DUE TO INCREASE IN PRESSURE, POSSIBLE MOTOR FAILURE
	23:00 - 02:00	3.00	RIG	2	UNABLE TO PULL DRIVE BUSHINGS, PULL & GRIND OUT DRIVE BUSHINGS
	02:00 - 06:00	4.00	TRP	1	CHANGE OUT MOTOR, BIT, MUELSHOE SUB, UBHO AND MWD TOOL, (MOTOR LOOKED OK BUT MWD TOOL WAS BROKE ABOUT 1' UP FROM THE BOTTOM)
6/10/2010	06:00 - 07:00	1.00	TRP	1	BEND MOTOR TO 2.23 AND ORIENT DIRECTIONAL TOOLS
	07:00 - 13:00	6.00	TRP	2	TRIP IN THE HOLE TO 6395, TEST MWD AT SHOE AND 3600', TAG BRIDGE AT 5990
	13:00 - 15:00	2.00	REAM	1	WASH AND REAM FROM 6395 TO 6806
	15:00 - 15:30	0.50	OTH		RE-LOG GAMMA FROM 6775 TO 6783 TO CALIBRATE NEW LOGGING TOOL
	15:30 - 06:00	14.50	DRL	2	DIRECTIONAL DRILL FROM 6806 TO 6905' = 99' ROP 6.8 FT/HR. WOB 40/60 GPM. 534
6/11/2010	06:00 - 14:30	8.50	DRL	2	DIRECTIONAL DRILL FROM 6905' TO 6972' - 67' ROP - 7.9'/HR WOB - 20/70 GPM - 533
	14:30 - 15:30	1.00	RIG	1	RIG SERVICE, CHANGED OUT HAMMER UNION ON TOPDRIVE
	15:30 - 16:00	0.50	DRL	2	DIRECTIONAL DRILL FROM 6972 TO 6977 @ 80'/HR
	16:00 - 16:30	0.50	CIRC	1	CIRCULATE UP SAMPLE, INCONCLUSIVE LIMESTONE
	16:30 - 19:00	2.50	DRL	1	DIRECTIONAL DRILL FROM 6977 TO 7006' 29' ROP - 11.6 FT/HR. WOB - 20/70 GPM - 533
	19:00 - 19:30	0.50	CIRC	1	CIRCULATE UP SAMPLE = IN ZONE LIMESTONE

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Operations Summary Report

Well Name: JB 8G-21-7-21
Location: 21- 7-S 21-E 26
Rig Name: AZTEC

Spud Date: 4/18/2010
Rig Release: 7/28/2010
Rig Number: 781

Date	From - To	Hours	Code	Sub Code	Description of Operations
6/11/2010	19:30 - 05:30	10.00	DRL	2	DIRECTIONAL DRILL FROM 7006' TO 7075, SLID TO A PROJECTED 91° SLIDING @5-7'/HR, ROTATING @17-20'/HR WOB - 45-70 ENTERED TOP OF H4 LIMESTONE @6955 MD, 6653.5 TVD
	05:30 - 06:00	0.50	CIRC	1	CIRC. F/ SHORT TRIP,
6/12/2010	06:00 - 06:30	0.50	CIRC	1	CIRCULATE FOR SHORT TRIP
	06:30 - 09:00	2.50	TRP	14	SHORT TRIP TO 6116, ORIENT TOOL FACE AND WASH IN FROM 6575 TO 6644 NO FILL, NOTIFIED DONNA KENNY BLM VERBALLY AND ELECTRONICALLY ON RUNNING 7" INTERMEDIATE CASING NOTIFIED STATE OF SAME (LEFT MESSAGE)
	09:00 - 11:00	2.00	CIRC	1	PUMP HI-VIS SWEEP,CIRCULATE BOTTOMS UP AND MIX AND PUMP SLUG
	11:00 - 13:00	2.00	TRP	2	TRIP OUT OF THE HOLE (SLM)
	13:00 - 13:30	0.50	CIRC	1	MIX AND PUMP SECOND TRIP SLUG
	13:30 - 17:00	3.50	TRP	2	TRIP OUT OF THE HOLE FOR LOGS (SLM)
	17:00 - 18:30	1.50	TRP	1	LAY DOWN DIRECTIONAL TOOLS
	18:30 - 21:30	3.00	LOG	1	SAFETY MEETING, B/U & RUN TRIPLE COMBO LOGS W/ HALCO HIT BRIDGE @ 1928' WORK BRIDGE W/ NO SUCCESS, POOH W/ LOGGING TOOL & R/D
	21:30 - 02:30	5.00	TRP	15	TRIP IN HOLE TO CONDITION F/ LOGS, TAG BRIDGE @ 1928' , 6695'
	02:30 - 04:30	2.00	OTH		WORK TIGHT HOLE FROM 6695' TO 6806'
	04:30 - 05:00	0.50	TRP	15	TRIP IN THE HOLE
	05:00 - 06:00	1.00	CIRC	1	PUMP VIS SWEEP AND CIRCULATE/CONDITION FOR LOGS
6/13/2010	06:00 - 08:00	2.00	CIRC	1	CIRCULATE AND CONDITION MUD FOR LOGS
	08:00 - 14:30	6.50	TRP	2	TRIP OUT OF THE HOLE, TIGHT FROM 7050 TO 6544 BACK REAM FROM 6770 TO 6739 PUMP OUT FROM 6641 TO 6609
	14:30 - 19:30	5.00	LOG	1	HELD SAFETY MEETING, RIG UP LOGGERS AND RUN IN THE HOLE WITH TRIPLE COMBO. MADE IT TO 6000' AND STACKED OUT ON A BRIDGE. LOG UP FROM THERE
	19:30 - 20:00	0.50	RIG	1	SERVICE RIG, TOP-DRIVE
	20:00 - 22:00	2.00	TRP	15	TRIP IN HOLE TO CONDITION F/CASING
	22:00 - 23:00	1.00	RIG	2	TROUBLE SHOOT # 1 GEN.
	23:00 - 00:30	1.50	TRP	15	TRIP IN HOLE TO CONDITION F/ CASING, HIT BRIDGE @ 6763'
	00:30 - 02:00	1.50	REAM	1	WASH & REAM F/ 6763' TO 6832'
	02:00 - 02:30	0.50	TRP	15	TRIP IN HOLE TO CONDITION F/CASING, LOST 120 BBLS ON THE TRIP
	02:30 - 04:30	2.00	CIRC	1	CIRC. & COND F/CASING, MIX LCM
	04:30 - 06:00	1.50	TRP	3	L.D.D.P
6/14/2010	06:00 - 11:30	5.50	TRP	3	LAY DOWN DRILL STRING, TIGHT F/6761 T/6598 NOTIFIED DONNA KENNEY WITH BLM OF BOP TEST (LEFT MESSAGE) AND ELECTRONICALLY NOTIFIED STATE OF SAME - LEFT MESSAGE
	11:30 - 13:30	2.00	CSG	1	HELD SAFETY MEETING, RIG UP CASING CREW, WORK ON HYDROLIC POWER UNIT
	13:30 - 22:00	8.50	CSG	2	RUN 171 JOINTS OF 7", N-80, 36# CASING SHOE AT 7075, TOP OF FLOAT COLLAR AT 7035
	22:00 - 00:00	2.00	CIRC	1	CIRC. CASING
	00:00 - 04:30	4.50	CMT	2	SAFETY MEETING, R/U HALCO & CEMENT 7" INTER. CASING & R/D, PIPE DISP TO FLOAT COLLAR = 269, FINAL LIFT PSI WAS CALCULATED AT 900PSI, PRESSURED UP TO 1560 PSI AT 262 BBLS OF DISPLACEMENT AWAYAND LOST RETURNS, HAD GOOD RETURNS UP TO THAT POINT, DID NOT BUMP PLUG, FLOATS HELD, NO CEMENT RETURNED TO SURFACE,

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Operations Summary Report

Well Name: JB 8G-21-7-21
Location: 21- 7-S 21-E 26
Rig Name: AZTEC

Spud Date: 4/18/2010
Rig Release: 7/28/2010
Rig Number: 781

Date	From - To	Hours	Code	Sub Code	Description of Operations
6/14/2010	00:00 - 04:30	4.50	CMT	2	OVER DISPLACED DISPLACED BY 1.5 BBL AT INCREASED PUMPING PRESSURE
	04:30 - 05:30	1.00	BOP	1	NIPPLE DOWN B.O.P.E.
	05:30 - 06:00	0.50			SAFETY MTNG. & SET SLIPS.
6/15/2010	06:00 - 06:30	0.50	CSG	6	CUT OFF CASING AND LAY DOWN
	06:30 - 11:00	4.50	BOP	1	NIPPLE UP BOP, CHANGED OUT TO 3 1/2" RAMS, CHANGE OUT CASING BAILS/ELEVATORS, INSTALL 3 1/2 IF SAVER SUB
	11:00 - 15:00	4.00	TRAV	1	TEST TOP DRIVE DOUBLE BALL VALVE, FLOOR VALVES, PIPE RAMS,BLIND RAMS, INSIDE KILL VALVES, CHECK VALVE, INSIDE OUTSIDE CHOKE VALVES AND CHOKE MANIFOLD AND 7" CASING TO 3000 PSI HIGH 250 PSI LOW, ANNULAR TO 1500 PSI HIGH 250 LOW
	15:00 - 15:30	0.50	OTH		INSTALL WEAR BUSHING
	15:30 - 17:00	1.50	DRL	3	LINE UP DIRECTIONAL TOOLS AND STRAP
	17:00 - 21:30	4.50	TRP	1	HELD SAFETY MEETING R/U LAY DOWN TRUCK, & P/U BHA,
	21:30 - 22:30	1.00	RIG	1	SERVICE RIG, TOP-DRIVE, X/O PIPE SPINNERS
	22:30 - 01:00	2.50	TRP	2	BREAK CIRC. TRIP F/ PLUGGED STRING
	01:00 - 03:00	2.00	OTH		UNPLUG DIR. TOOLS, PLUGED @ BOW SPINGS BELOW CARRIER TOOL, L.C.M.
	03:00 - 04:30	1.50	TRP	2	TRIP IN HOLE & FILL PIPE
	04:30 - 06:00	1.50	TRP	2	P/U 3 1/2" D.P.
6/16/2010	06:00 - 08:00	2.00	TRP	2	PICK UP 3.5" DRILL STRING
	08:00 - 08:30	0.50	OTH		REPAIR WATER LINE TO HYDROMATIC AND SET TORQUES ON TOP DRIVE
	08:30 - 09:00	0.50	TRP	2	PICK UP 3.5" DRILL STRING, TAG FLOAT @ 7034'
	09:00 - 10:00	1.00	DRL	4	DRILL FLOAT COLLAR FROM 7034' TO 7036',DRILL CEMENT, TAG AND DRILL SHOE AT 7073' TO 7075'
	10:00 - 10:30	0.50	DRL	2	DRILL NEW HOLE FROM 7075' TO 7087'
	10:30 - 11:00	0.50	CIRC	1	CIRCULATE TO EVEN OUT MUD WEIGHT FOR FIT TEST
	11:00 - 11:30	0.50	EQT	2	FIT TO 10.1 EMW. OMW - 8.9, DEPTH - 7087, SURFACE PSI - 450
	11:30 - 13:00	1.50	DRL	2	DRILL FROM 7087' TO 7127' - 40' ROP - 26.6'/HR WOB - 24 GPM - 300
	13:00 - 13:30	0.50	RIG	1	RIG SERVICE
	13:30 - 14:30	1.00	RIG	6	CUT DRILLING LINE
	14:30 - 21:00	6.50	RIG	2	WAIT ON & X/O KELLY HOSE
	21:00 - 01:00	4.00	DRL	2	DRILL F/ 7127 TO 7226' = 99' ROP 24.7 FT/HR WOB 25 - 30 GPM 300
	01:00 - 02:00	1.00	SUR	1	SURVEYS
	02:00 - 05:30	3.50	DRL	2	DRILL F/ 7226' TO 7300' =74' ROP 21.1 FT/HR. WOB 25 -30 GPM 300
	05:30 - 06:00	0.50	SUR	1	SURVEYS
6/17/2010	06:00 - 07:00	1.00	CIRC	1	CIRCULATE AND CONDITION HOLE, HAVING TROUBLE SLIDING
	07:00 - 10:00	3.00	DRL	2	DIRECTIONAL DRILL FROM 7300' TO 7314' , 14' AT 4.6'/HR, 20-35K WOB, 40 ROTARY RPM, 87 MUD MOTOR RPM, 2450 PSI AT 125 STROKES ON #1 PUMP, 300 GPM, 200 to 300 PSI DIFFERENTIAL, 8.7 MUD WT, 36 VIS. HOLE STICKY AND DOES NOT WANT TO SLIDE.
	10:00 - 12:00	2.00	TRP	14	TRIP OUT TO SHOE, HAD TO PUMP AND ROTATE OUT 120'.
	12:00 - 13:00	1.00	REAM	1	REAM BACK TO BOTTOM, 7075' TO 7314'
	13:00 - 14:00	1.00	CIRC	1	STILL WOULD NOT SLIDE, SPOT 3 SACKS BEADS, STILL WOULD NOT SLIDE.
	14:00 - 14:30	0.50	TRP	13	TRIP OUT, PUMPED OUT FIRST 2 STANDS, TRIP OUT TO SHOE
	14:30 - 15:30	1.00	CIRC	1	MIX AND PUMP PILL, HAD SOME MIXING PUMP ISSUES
	15:30 - 18:00	2.50	TRP	13	TRIP OUT,
	18:00 - 20:00	2.00	TRP	1	VISUALLY INSPECT BHA - NO SIGNS OF JUNK MARKS OR ANYTHING OUT

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Operations Summary Report

Well Name: JB 8G-21-7-21
Location: 21- 7-S 21-E 26
Rig Name: AZTEC

Spud Date: 4/18/2010
Rig Release: 7/28/2010
Rig Number: 781

Date	From - To	Hours	Code	Sub Code	Description of Operations
6/17/2010	18:00 - 20:00	2.00	TRP	1	OF THE ORDINARY. MOTOR DRAINED GOOD HAD 1/16" AXIAL BEARING PLAY. BREAK OUT BIT, CHANGE EMMWD BATTERY. CONFER WITH OPS ON PLAN GOING FORWARD. MAKE UP BIT #6.
	20:00 - 03:30	7.50	TRP	2	TRIP IN HOLE TO 7160', FILL PIPE & BREAK CIRC. @ 3420' @ 7000'
	03:30 - 04:00	0.50	DRL	7	BEGIN TROUGHING FROM 7165' TO 7175' @ 160 LEFT TOOLFACE, IN ORDER TO OPEN HOLE SIDETRACK WELL
	04:00 - 06:00	2.00			TIME DRILL @ 5 MIN PER INCH FROM 7175' TO 7177'
6/18/2010	06:00 - 17:00	11.00	DRL	2	TIME DRILL FROM 7177' TO 7190'. FROM 7175' TO 7180' TIME DRILL @ 5 MIN/INCH 203 G TOOLFACE; 7180 TO 7185 TIME DRILL @ 3 MIN/INCH 228 G TOOLFACE; 7185 TO 7187 TIME DRILL @ 3 MIN/INCH 241 G TOOLFACE; 7187 TO 7190' TIME DRILL @ 3 MIN/INCH 265 G TOOLFACE. 20-50K WOB, 87 MUD MOTOR RPM, 2500 PSI OFF BOTTOM AT 125 STROKES, #1 PUMP, 20-50 PSI DIFFERENTIAL, 300 GPM, 8.7 MUD WT, 38 VIS.
	17:00 - 17:30	0.50	RIG	1	RIG SERVICE
	17:30 - 20:30	3.00	DRL	2	TIME DRILL FROM 7190' TO 7195'. FROM 7190' TO 7195' TIME DRILL @ 3 MIN/INCH 263 G TOOLFACE; 20-50K WOB, 87 MUD MOTOR RPM, 2500 PSI OFF BOTTOM AT 125 STROKES, #1 PUMP, 20-50 PSI DIFFERENTIAL, 300 GPM, 8.7 MUD WT, 38 VIS.
	20:30 - 21:30	1.00	SUR	1	CIRCULATE POLYMER OUT OF EMMWD TOOL. RESET TOOL FACE
	21:30 - 00:00	2.50	DRL	2	TIME DRILL FROM 7195' TO 7202 '. FROM 7195' TO 7202' TIME DRILL @ 2 MIN/INCH 260 G TOOLFACE; 10-30K WOB, 87 MUD MOTOR RPM, 2600 PSI OFF BOTTOM AT 125 STROKES, #1 PUMP, 20-50 PSI DIFFERENTIAL, 300 GPM, 8.7 MUD WT, 38 VIS.
	00:00 - 01:00	1.00	CIRC	1	ATTEMPT TO MIX DRY JOB,VALVE ON PILL PIT WOULD NOT ISOLATE, FLOW CHECK
	01:00 - 06:00	5.00	TRP	13	TRIP OUT FOR FAILED EMMWD.
6/19/2010	06:00 - 07:30	1.50	TRP	13	TRIP OUT, LAY DOWN MOTOR, OPERATE PIPE AND BLIND RAMS
	07:30 - 08:00	0.50	RIG	1	SERVICE RIG
	08:00 - 11:00	3.00	TRP	13	MAKE UP SAME BIT, CHANGE MWD'S, ORIENT TOOLS, LAY DOWN 2 MONELS AND 1 TOOL CARRIER, PICK UP 2 FLEX MONELS AND 1 NON MAG FLEX PONY
	11:00 - 16:30	5.50	TRP	13	TRIP IN WITH 28 JOINTS, 3.5" DRILL PIPE, (PUSH PIPE), PICK UP 5 EXTRA JOINTS OF HWDP AND TRIP IN, BREAK CIRCULATION AT 2280' AND 7025'
	16:30 - 19:00	2.50	REAM	1	WASH AND REAM FROM 7075' TO 7311' ATTEMPTS TO ORIENT INTO SIDE TRACK @ 7175' WERE NOT SUCCESSFUL. TRIP TO BOTTOM OF ORIGINAL HOLE @ 7314'. DRAG DOWN IS 5 - 10K DRAG UP IS 10 - 15K. NO TIGHT HOLE GETTING TO BOTTOM @ 7314'
	19:00 - 01:30	6.50	DRL	2	DIRECTIONAL DRILL FROM 7314' TO 7402' - 88' in 6.5hr = 13.5 fph. SLIDE 31IN 3HR = 10.3 FPH ROTATE 57' IN 3.5HR = 19 FPH. 22K WOB, 45 RPM TD 87 RPM MOTOR, 300 GPM. 2850 PSI WITH #1 PUMP @125 SPM. 50 TO 150 PSI MOTOR DIFFERENTIAL PRESSURE. 8.7 MW 36 FV. GAMMA WILL NOT FUNCTION WHILE ROTATING - RE-LOG ALL ROTATED FOOTAGE. RESULTS SEEN FROM SLIDES ARE OPPOSITE OF WHAT THEY SHOULD BE.
	01:30 - 02:30	1.00	CIRC	7	CIRCULATE SAMPLE, FLOW CHECK, MIX AND PUMP DRY PILL.
	02:30 - 06:00	3.50	TRP	13	TRIP OUT TO CHECK ORIENTATION OF MWD AND MOTOR.
6/20/2010	06:00 - 06:30	0.50	RIG	2	WORK ON HYDRAULIC WINCH
	06:30 - 08:00	1.50	TRP	13	TRIP OUT, OPERATE PIPE AND BLIND RAMS
	08:00 - 12:00	4.00	TRP	1	INSPECT TOOL ORIENTATION AND BIT, BOTH OK. CHANGE OUT MOTORS AND UBHO. REPLACE EM TOOL WITH PULSE TOOL. ORIENT TOOLS. SURFACE TEST PULSE TOOL, OK.
	12:00 - 15:30	3.50	TRP	1	TRIP IN HOLE TO 7140' FILL PIPE AND BREAK CIRCULATION @ 3200'
	15:30 - 20:00	4.50	DRL	7	TROUGH HOLE FROM 7142' TO 7157' HOLD 150 LEFT GRAVITY TOOLFACE
	20:00 - 00:00	4.00	DRL	7	TIME DRILL FROM 7157' TO 7158' @ 5 MIN/INCH HOLD 150 LEFT GRAVITY

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Operations Summary Report

Well Name: JB 8G-21-7-21
Location: 21- 7-S 21-E 26
Rig Name: AZTEC

Spud Date: 4/18/2010
Rig Release: 7/28/2010
Rig Number: 781

Date	From - To	Hours	Code	Sub Code	Description of Operations
6/20/2010	20:00 - 00:00	4.00	DRL	7	TOOLFACE. TIME DRILL FROM 7158' TO 7159' @ 4 MIN/INCH 150 LEFT GRAVITY TF. TIME DRILL FROM 7159' TO 7160' @ 3 MIN/INCH 145 LEFT GRAVITY TF. TIME DRILL FROM 7160' TO 7165' @ 1 TO 2 MIN/INCH 150 LEFT GRAVITY TF. PICK UP @ 7165' SHUT DOWN PUMPS AND SLACKED OFF IN ORDER TO TEST LEDGE. COULD NOT GET ANY WEIGHT ON BIT WITH PUMPS OFF @ 7165'
	00:00 - 01:00	1.00	DRL	7	PICK UP TO 7142' TROUGH HOLE FROM 7142' TO 7152'. HOLD 150 LEFT GRAVITY TOOLFACE.
	01:00 - 02:00	1.00	CIRC	1	MIX PILL, FLOW CHECK, PUMP PILL
	02:00 - 06:00	4.00	RIG	2	TRIP OUT FOR 1.83 BENT MOTOR. DRILLER EXTENDED TOP DRIVE OUT TOO FAR WHILE BREAKING JOINT OFF OF TOP DRIVE. TOP DRIVE CAUGHT ON DIVING BOARD, BENDING BOARD DOWN APX 1.5 FEET. PULL FOUR STANDS TO 6950' MD - INTO CASING. INSPECT AND REPAIR DIVING BOARD IN DERRICK. WAIT ON WELDER.
6/21/2010	06:00 - 08:00	2.00	RIG	2	REPAIR DIVING BOARD
	08:00 - 08:30	0.50	CIRC	1	MIX AND PUMP DRY JOB
	08:30 - 12:00	3.50	TRP	12	TRIP OUT, OPERATE PIPE AND BLIND RAMS
	12:00 - 13:30	1.50	TRP	12	CHANGE OUT BITS, ADJUST 1.5 DEG. BEND TO 2 DEG. BEND ON MOTOR, ORIENT TOOLS
	13:30 - 14:00	0.50	RIG	1	RIG SERVICE
	14:00 - 18:00	4.00	TRP	12	TRIP IN, BROKE CIRCULATION AT 2500', 4967' AND 7014'
	18:00 - 21:30	3.50	DRL	7	TROUGH FROM 7142' TO 7160'. HOLD 160 LEFT GRAVITY TOOL FACE. PUMP 230 GPM
	21:30 - 06:00	8.50	DRL	7	TIME DRILL @ 5 MIN/INCH FROM 7160' TO 7166'. TIME DRILL @ 4 MIN/INCH FROM 7166' TO 7169'. 170 RIGHT TO 145 LEFT GRAVITY TOOL FACE. PUMP 230 GPM - 66 MOTOR RPM.
6/22/2010	06:00 - 13:00	7.00	DRL	2	TIME DRILL FROM 7170' TO 7183', 7170' TO 7171' @4 MIN/FT, 7171' TO 7176' @ 3 MIN/FT, 7176' TO 7181' @ 2 MIN/FT, 7181' TO 7183' @ 1 MIN/FT.
	13:00 - 13:30	0.50	OTH		SLIDE FROM 7183' TO 7189' LOOKING FOR A KICK OFF LEDGE, NOTHING.
	13:30 - 14:00	0.50	TRP	2	TRIP IN, TAG BRIDGE AT 7336'
	14:00 - 18:00	4.00	REAM	1	WASH AND REAM FROM 7336' TO 7402', HOLE RATTY AND FALLING IN, RAISED MUD WT FROM 8.7 PPG TO 9.1 PPG.
	18:00 - 19:30	1.50	DRL	2	DIRECTIONAL DRILL FROM 7402' TO 7415' @ 8.7 FPH. 22K WOB, 25 ROTARY RPM, 285 GPM, 2850 PSI. MOTOR IS CAVO 4 3/4" 0.29 RPG ADJUSTABLE SET @ 2.0 DEGREES. ALL ROTATE
	19:30 - 20:00	0.50	SUR	1	RE-LOG WITH GAMMA FROM 7400' TO 7415'
	20:00 - 04:00	8.00	DRL	2	DIRECTIONAL DRILL FROM 7415' TO 7465' @ 6.3 FPH. 22K WOB, 25 ROTARY RPM, 290 GPM, 2850 PSI. MOTOR IS CAVO 4 3/4" 0.29 RPG ADJUSTABLE SET @ 2.0 DEGREES.
	04:00 - 05:00	1.00	CIRC	1	CIRCULATE, MIX DRY JOB, FLOW CHECK, PUMP DRY JOB
	05:00 - 06:00	1.00	TRP	10	TRIP OUT FOR BIT
6/23/2010	06:00 - 10:00	4.00	TRP	10	TRIP OUT, OPERATE PIPE AND BLIND RAMS
	10:00 - 12:00	2.00	TRP	10	CHANGE OUT BITS AND MOTORS, ORIENT TOOL
	12:00 - 13:30	1.50	TRP	10	TRIP INTO 3100', FILL PIPE AT 2590'
	13:30 - 14:30	1.00	RIG	6	CUT DRILLING LINE 100'
	14:30 - 15:00	0.50	RIG	1	RIG SERVICE
	15:00 - 17:00	2.00	TRP	10	TRIP IN, TAG BRIDGE AT 7195'
	17:00 - 19:30	2.50	REAM	1	WASH AND REAM FROM 7195' TO 7465', REAMED OUT BRIDGE AT 7195', HOLE REAMED EASY FROM THERE UNTIL 7340'. 7340' TO 7465' WAS RATTY. NOT AS BAD AS THE PREVIOUS DAY.
	19:30 - 23:00	3.50	DRL	2	DRILL FROM 7465' TO 7493' @ 8 FPH. 22K WOB, 35 RPM, 290 GPM, 3000 PSI. MOTOR IS 4 3/4" CAVO 7/8 3.0 0.29 RPG SET AT 1.75 DEGREES. ALL ROTATE.

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Operations Summary Report

Well Name: JB 8G-21-7-21
Location: 21- 7-S 21-E 26
Rig Name: AZTEC

Spud Date: 4/18/2010
Rig Release: 7/28/2010
Rig Number: 781

Date	From - To	Hours	Code	Sub Code	Description of Operations
6/23/2010	23:00 - 00:00	1.00	CIRC	1	CIRCULATE AND SURVEY
	00:00 - 03:00	3.00	SUR	1	RE-LOG FROM 7437 TO 7493'. PULL UP TO 7300' SURVEY WITH PULSE MWD TOOL @ 30' INTERVALS FROM 7250' TO 7150'. SURVEY FROM 7150' TO 7045 @ 15' INTERVALS. TIGHT HOLE @ 7370' AND 7347'.
	03:00 - 03:30	0.50	CIRC	1	CIRCULATE, FLOW CHECK, MIX AND PUMP DRY PILL
	03:30 - 06:00	2.50	TRP	1	TRIP OUT OF HOLE
6/24/2010	06:00 - 08:00	2.00	TRP	1	TRIP OUT TO LAY DOWN DIRCETIONAL TOOLS AND PICK UP CEMENTING BHA
	08:00 - 09:00	1.00	TRP	1	LAY DOWN DIRECTIONAL TOOLS AND MOTOR
	09:00 - 10:00	1.00	RIG	1	RIG SERVICE
	10:00 - 14:00	4.00	TRP	2	PICK UP 11 JOINTS 2 3/8" 4.7# N-80 TUBING, PLUS PERFORATED 2 3/8" CEMENTING SWAGE. TRIP IN.
	14:00 - 15:00	1.00	TRP	2	TRIP OUT OF HOLE TO PICK UP TO PICK UP 22 ADDITIONAL JOINTS OF TUBING.
	15:00 - 17:00	2.00	OTH		WAIT ON TUBING
	17:00 - 22:00	5.00	TRP	2	PICK UP 22 ADDITIONAL JOINTS OF TUBING. 33 TOTAL JOINTS 2 3/8 4.7# N-80 TUBING RUN. TRIP IN HOLE TO PUMP CEMENT PLUG.
	22:00 - 23:00	1.00	REAM	1	WASH AND REAM FROM 7060' TO 7493' - BOTTOM. NO TIGHT HOLE.
	23:00 - 00:00	1.00	CIRC	1	CIRCULATE BOTTOMS UP X 2 @ 260 GPM. RECIPRICATE STRING 60'.
	00:00 - 02:00	2.00	CMT	4	HSM, SWAP TO HALLIBURTON TO SET BALANCED CEMENT PLUG. PUMP 36 BBL. SPACER MIXED @ 16 PPG. PUMP 200 SKS (35 BBL) PLUGCEM CEMENT MIXED AT 17 PPG, 0.99 FT3/SK YIELD, 3.76 GAL/SK WATER. CEMENT ADDITIVES ARE 0.15% HR-5, 0.3% CFR-3. PUMP 9 BBL SPACER MIXED @ 16 PPG. DISPLACE WITH 9.3+ WATER BASED MUD. SHUT DOWN PUMPS @ 27 BBL DISPLACED AND ALLOWED PLUG TO BALANCE @ 33.5 BBL DISPLACED. CALCULATED TOP OF PLUG @ 6730' MD. BOTTOM OF PLUG @ 7474' MD. PRESSURE AT END OF 27 BBL DISPLACEMENT @ 2.5 BPM WAS 100 PSI.
	02:00 - 02:30	0.50	TRP	2	TRIP OUT OF HOLE 20 STANDS TO 6214' @ 35 FEET PER MINUTE.
	02:30 - 03:30	1.00	CIRC	1	CIRCULATE BOTTOMS UP @ 235 GPM.
	03:30 - 06:00	2.50	TRP	2	TRIP OUT OF HOLE. LAY DOWN 2 3/8" TUBING.
6/25/2010	06:00 - 09:00	3.00	TRP	5	LAY DOWN 2 3/8" TUBING, OPERATE PIPE AND BLIND RAMS
	09:00 - 19:00	10.00	WOT	1	WAIT ON CEMENT, CHANGE OUT VALVE FOR HYDRAULID WINCH, OIL AND FILTERS ON #2 PUMP,OIL IN RIGHT ANGLE DRIVE, COMPOUND BOX AND TOP DRIVE. REPAIR SHIFTER FOR #1 TRANSMISSION. WELD AND REPAIR POSSUM BELLY GATE (WAS LEAKING BAD). RIG SERVICE, BRAKE INSPECTION.
	19:00 - 20:00	1.00	TRP	1	MAKE UP BHA - SURFACE TEST MOTOR - OK
	20:00 - 22:30	2.50	TRP	2	TRIP IN HOLE 44 STANDS TO 5967'. BREAK CIRCULATION @ 3158 & 5967'.
	22:30 - 01:30	3.00	WOT	1	WAIT ON CEMENT
	01:30 - 02:00	0.50	DRL	4	TAG CEMENT @ 6204. DRILL SOFT CEMENT AND STRINGERS. 0 TO 5K WOB, 35 RPM, 261 GPM, 0 - 50 PSI MOTOR DIFFERENTIAL.
	02:00 - 02:30	0.50	RIG	1	WORK ON #2 PUMP, ROD WASHERS, ROD CLAMP
	02:30 - 06:00	3.50	DRL	4	DRILL CEMENT FROM 6221' TO 6500 . CEMENT IN THIS INTERVAL IS INTERMITTENT. SOFT WITH STRINGERS. DRILL WITH 0 TO 5K WOB, 40 RPM, 261 GPM, 0 TO 50 PSI DIFFERENTIAL, 1800 - 1900 FT LB TORQUE, 300 TO 400 FPH. INTERVAL FROM 6500' TO 6700' DRILL WITH 2 - 10 K WOB, 40 RPM, 261 GPM, 0 - 100 PSI DIFFERENTIAL, 1800 - 2000 FT LB TORQUE. CEMENT IS STILL INTERMITTENT IN THIS INTERVAL 300 - 400 FPH.
6/26/2010	06:00 - 08:30	2.50	DRL	4	DRILL CEMENT FROM 6700' TO 7075', GOOD HARD CEMENT STARTED TO COME BACK FROM 6700'
	08:30 - 09:00	0.50	RIG	1	RIG SERVICE
	09:00 - 09:30	0.50	DRL	4	DRILL CEMENT FROM 7075' TO 7090', SET 30K ON BOTTOM, SOLID
	09:30 - 10:00	0.50	CIRC	1	MIX SLUG, CIRCULATE BOTTOMS UP, PUMP SLUG, CEMENT FROM

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Operations Summary Report

Well Name: JB 8G-21-7-21
Location: 21- 7-S 21-E 26
Rig Name: AZTEC

Spud Date: 4/18/2010
Rig Release: 7/28/2010
Rig Number: 781

Date	From - To	Hours	Code	Sub Code	Description of Operations
6/26/2010	09:30 - 10:00	0.50	CIRC	1	BOTTOMS UP WAS HARD.
	10:00 - 14:00	4.00	TRP	2	TRIP OUT, OPERATE PIPE AND BLIND RAMS
	14:00 - 15:30	1.50	TRP	1	LAY DOWN PDC AND STRAIGHT MOTOR, PICK UP MILL TOOTH AND 1.76 CAVO MOTOR. ORIENT TOOLS.
	15:30 - 20:00	4.50	TRP	2	TRIP IN, FILLED PIPE AT 2500' AND 5000'
	20:00 - 06:00	10.00	DRL	7	SIDETRACK WELL OFF OF PLUG. TIME DRILL @ 5 MIN/INCH FROM 7090' TO 7094' HOLD 100 LEFT GRAVITY TOOL FACE. TIME DRILL @ 4 MIN/INCH FROM 7094 TO 7099' HOLD 110 LEFT GRAVITY TOOLFACE. DRILL FROM 7099' TO 7100' @ 3 MIN/INCH. HOLD 105 LEFT GRAVITY TOOL FACE.
6/27/2010	06:00 - 12:00	6.00	DRL	2	TIME DRILL FROM 7100' TO 7115', TIME DRILLED FROM 7100' - 7105' @ 3 MIN/FT, 7105'-7110' @ 2 MIN/FT, 7110' - 7115' @ 1 MIN/FT.
	12:00 - 12:30	0.50	DRL	1	ROTARY DRILL FROM 7115' TO 7120'.
	12:30 - 13:00	0.50	CIRC	1	MIX SLUG, CIRCULATE UP SAMPLE (100% LIMESTONE), PUMP SLUG
	13:00 - 16:30	3.50	TRP	10	TRIP OUT
	16:30 - 20:00	3.50	TRP	1	LAY DOWN KAMBI MWD. RESET CAVO MOTOR TO 1.5 DEGREES. PICK UP PATHFINDER MWD WITH NEAR BIT GAMMA AND INCLINATION. SCRIBE TOOLS, SUFACE PULSE TEST MWD.
	20:00 - 23:00	3.00	TRP	2	TRIP IN HOLE. FILL PIPE @ 3800' AND 7083'.
	23:00 - 06:00	7.00	DRL	2	DIRECTIONAL DRILL FROM 7120' TO 7185' - 65' IN 7HR = 9.3FPH (SLIDE 5' IN 1HR = 5 FPH, ROTATE 60' IN 6HR = 10 FPH) - 22K WOB, 40 RPM, 261 GPM.
6/28/2010	06:00 - 07:00	1.00	DRL	2	DIRECTIONAL DRILL FROM 7185' TO 7195', 10' AT 10'/HR, 22K WOB, 30 ROTARY RPM, 78 MOTOR RPM, 2800 PSI OFF BOTTOM, 50-75 PSI DIFFERENTIAL, 112 STROKES, #1 PUMP, 271 GPM, MUD WT 8.8, VIS 37
	07:00 - 07:30	0.50	RIG	2	WORK ON POP OFFS ON BOTH PUMPS
	07:30 - 08:00	0.50	DRL	2	DIRECTIONAL DRILL FROM 7195' TO 7197', 2' AT 4'/HR, 22-25K WOB, 0 ROTARY RPM, 78 MOTOR RPM, 2800 PSI OFF BOTTOM, 50-75 PSI DIFFERENTIAL, 112 STROKES, #1 PUMP, 271 GPM, MUD WT 8.8, VIS 37, SLIDE FROM 7195'-7197'
	08:00 - 09:30	1.50	RIG	2	CHANGE OUT GROUND STAND PIPE UNION, STILL DRIPPING, PIPE THREADS WORN OUT. CHANGE OUT 8' STAND PIPE PIECE WITH STAND PIPE HOSE.
	09:30 - 16:30	7.00	DRL	2	DIRECTIONAL DRILL FROM 7197' TO 7308', ' AT 13'/HR, 22-25K WOB, 30 ROTARY RPM, 70 MOTOR RPM, 2800 PSI OFF BOTTOM, 50-75 PSI DIFFERENTIAL, 100 STROKES, #1 PUMP, 242 GPM, MUD WT 8.8, VIS 37, SLIDE FROM 7197'-7202', SLIDE FROM 7303' TO 7308'
	16:30 - 19:00	2.50	SUR	1	CUMULATIVE SURVEY TIME
	19:00 - 01:00	6.00			DIRECTIONAL DRILL FROM 7308' TO 7378' AT 11.6'/HR, 22-25K WOB, 38 ROTARY RPM, 70 MOTOR RPM, 2500 PSI OFF BOTTOM, 50-75 PSI DIFFERENTIAL, 105 STROKES, #1 PUMP, 242 GPM, MUD WT 8.8, VIS 37,
	01:00 - 01:30	0.50	CIRC	5	CIRCULATE UP SAMPLES
	01:30 - 06:00	4.50	DRL	2	DIRECTIONAL DRILL FROM 7378' TO 7408' AT 6.7'/HR, 22-25K WOB, 38 ROTARY RPM, 70 MOTOR RPM, 2500 PSI OFF BOTTOM, 50-75 PSI DIFFERENTIAL, 105 STROKES, #1 PUMP, 242 GPM, MUD WT 8.8, VIS 37, SLIDE 7378' TO 7383' @ 4FPH.
6/29/2010	06:00 - 12:00	6.00	DRL	2	DIRECTIONAL DRILL FROM 7408' TO 7479 AT 11.8'/HR, 22-25K WOB, 38 ROTARY RPM, 70 MOTOR RPM, 2500 PSI OFF BOTTOM, 50-75 PSI DIFFERENTIAL, 105 STROKES, #1 PUMP, 242 GPM, MUD WT 8.8, VIS 37,
	12:00 - 12:30	0.50	RIG	1	RIG SERVICE, INSPECT BRAKES
	12:30 - 15:30	3.00	DRL	2	DIRECTIONAL DRILL FROM 7479' TO 7545' AT 22'/HR, 22-25K WOB, 38 ROTARY RPM, 70 MOTOR RPM, 2500 PSI OFF BOTTOM, 50-75 PSI DIFFERENTIAL, 105 STROKES, #1 PUMP, 242 GPM, MUD WT 8.8, VIS 37, SLIDE 7' FROM 7480' TO 7487'.
	15:30 - 19:00	3.50	SUR	1	CUMULATIVE SURVEY TIME - 15' INTERVALS

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Operations Summary Report

Well Name: JB 8G-21-7-21
Location: 21- 7-S 21-E 26
Rig Name: AZTEC

Spud Date: 4/18/2010
Rig Release: 7/28/2010
Rig Number: 781

Date	From - To	Hours	Code	Sub Code	Description of Operations
6/29/2010	19:00 - 03:00	8.00	DRL	2	DIRECTIONAL DRILL FROM 7545' TO 7639' AT 11.8'/HR, 22-25K WOB, 35 ROTARY RPM, 70 MOTOR RPM, 2200 PSI OFF BOTTOM, 50 - 150 PSI DIFFERENTIAL, 96 STROKES, #1 PUMP, 230 GPM, MUD WT 8.8, VIS 38, SLIDE 5' FROM 7574' TO 7579' GRAVITY TF 10R TO 10L @ 4 FPH.
	03:00 - 03:30	0.50	CIRC	7	CIRCULATE BOTTOMS UP - SAMPLES
	03:30 - 06:00	2.50	TRP	14	SHORT TRIP TO SHOE, WORK TIGHT AREAS WITH PUMP 7507 TO 7560, 7480 TO 7485'
6/30/2010	06:00 - 12:00	6.00	DRL	2	DIRECTIONAL DRILL FROM 7639' TO 7735' AT 16'/HR, 22-25K WOB, 35 ROTARY RPM, 70 MOTOR RPM, 2200 PSI OFF BOTTOM, 50 - 150 PSI DIFFERENTIAL, 100 STROKES, #1 PUMP, 239 GPM, MUD WT 8.8, VIS 38.
	12:00 - 12:30	0.50	RIG	1	RIG SERVICE
	12:30 - 15:00	2.50	DRL	2	DIRECTIONAL DRILL FROM 7735' TO 7784' AT 19.6'/HR, 22-25K WOB, 35 ROTARY RPM, 70 MOTOR RPM, 2200 PSI OFF BOTTOM, 50 - 150 PSI DIFFERENTIAL, 100 STROKES, #1 PUMP, 239 GPM, MUD WT 8.8, VIS 38. SLIDE FROM 7769' TO 7773' AT 13' HR.
	15:00 - 15:30	0.50	SUR	1	SURVEYS
	15:30 - 16:00	0.50	CIRC	1	PJSM, CIRCULATE AND PREPARE FOR TRIP
	16:00 - 18:00	2.00	TRP	2	TRIP OUT TO SHOE, HAD TO PUMP OUT THROUGH INTERMITTENT TIGHT SPOTS FROM 7660' TO 7450' , LAID DOWN 1 SINGLE
	18:00 - 18:30	0.50	CIRC	1	MIX AND PUMP SLUG
	18:30 - 21:00	2.50	TRP	2	TRIP OUT
	21:00 - 01:30	4.50	TRP	1	LAY DOWN MOTOR AND FLEX COLLARS. PICK UP NEW NEAR BIT INCLINATION AND GAMMA SUB. REMOVE AND TEST PULSE MWD. PICK UP NEW MOTOR AND NON-MAG DRILL COLLARS. SCRIBE TOOLS. SURFACE TEST MWD
	01:30 - 03:30	2.00	TRP	2	TRIP IN HOLE WITH BHA, 44 JOINTS PUSH PIPE, AND HWDP.
	03:30 - 05:00	1.50	RIG	6	SLIP AND CUT DRILLING LINE
	05:00 - 06:00	1.00	TRP	2	TRIP IN HOLE, FILL PIPE AND PULSE TEST @ 7080'.
7/1/2010	06:00 - 07:00	1.00	TRP	2	TRIP IN HOLE, FILL PIPE AND PULSE TEST @ 7080'.
	07:00 - 08:00	1.00	REAM	1	WASH 76 ' TO BOTTOM
	08:00 - 13:30	5.50	DRL	2	DRILL F/ 7784' TO 7821' = 37' ROP 6.7 FT/HR WOB 25 K GPM 242 SLID TOTAL OF 13'
	13:30 - 14:00	0.50	SUR	1	SURVEYS
	14:00 - 14:30	0.50	RIG	1	SERVICE RIG TOP-DRIVE
	14:30 - 15:00	0.50	CIRC	1	CIRC. F/ TRIP
	15:00 - 21:00	6.00	TRP	2	PUMP SLUG & TRIP OUT OF HOLE F/ BHA CHANGE
	21:00 - 21:30	0.50	TRP	1	L/D MONELS DC, P/U FLEX MONELS
	21:30 - 22:00	0.50	DRL	3	SCRIBE TOOLS & TEST MWD.
	22:00 - 03:00	5.00	TRP	2	TRIP IN HOLE, FILL PIPE & PULSE TEST, X/O JARS, TRIP DRILL
	03:00 - 03:30	0.50	REAM	1	WASH AND REAM 47' TO BOTTOM
	03:30 - 06:00	2.50	DRL	2	DRIECTIONAL DRILL FROM 7821 TO 7840' 19'
7/2/2010	06:00 - 09:00	3.00	DRL	2	DIRECTIONAL DRILL FROM 7840' TO 7854 14' ROP 4.6'/HR WOB - 10/35 GPM - 250
	09:00 - 10:00	1.00	OTH		TROUBLE SHOOT NEAR BIT MWD TOOLS - FAILURE
	10:00 - 11:00	1.00	TRP	13	TRIP OUT TO THE SHOE
	11:00 - 11:30	0.50	CIRC	1	MIX AND PUMP TRIP SLUG
	11:30 - 14:30	3.00	TRP	13	TRIP OUT OF THE HOLE TO CHANGE OUT NEAR BIT MWD TOOLS
	14:30 - 15:30	1.00	TRP	1	CHANGE OUT BIT, MOTOR AND MWD TOOLS.
	15:30 - 16:00	0.50	RIG	1	RIG SERVICE
	16:00 - 17:30	1.50	DRL	3	P/U & ORIENT DIRECTIONAL TOOLS AND TEST
	17:30 - 23:30	6.00	TRP	2	TRIP IN HOLE, FILL PIPE & PULSE TEST.

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Operations Summary Report

Well Name: JB 8G-21-7-21
Location: 21- 7-S 21-E 26
Rig Name: AZTEC

Spud Date: 4/18/2010
Rig Release: 7/28/2010
Rig Number: 781

Date	From - To	Hours	Code	Sub Code	Description of Operations
7/2/2010	23:30 - 00:00	0.50	REAM	1	WASH 32' TO BOTTOM
	00:00 - 05:00	5.00	DRL	2	DIRECTIONAL DRILL FROM 7854' TO 7895' 41' ROP - 8.2'/HR WOB - 30(ROT)45(SLIDING) GPM - 250
	05:00 - 06:00	1.00	SUR	1	SURVEYS
7/3/2010	06:00 - 13:00	7.00	DRL	2	DIRECTIONAL DRILL FROM 7895' TO 7982' 87' ROP - 12.4 WOB 22 (ROT) 35(SLIDING) GPM - 250
	13:00 - 14:00	1.00	RIG	1	RIG SERVICE
	14:00 - 18:00	4.00	DRL	1	DIRECTIONAL DRILL FROM 7982' TO 8017' = 35' ROP = 8.75 FT/HR. WOB 22 (ROT) 35 (SLIDING) GPM - 250
	18:00 - 19:00	1.00	SUR	1	SURVEYS
	19:00 - 05:00	10.00	DRL	1	DIRECTIONAL DRILL FROM 8017' TO 8135' = 118' ROP 11.8 FT/HR. WOB 22 (ROT) (35 SLIDING) GPM 250
	05:00 - 06:00	1.00	SUR	1	SURVEYS
7/4/2010	06:00 - 08:30	2.50	DRL	2	DIRECTIONAL DRILL FROM 8135' TO 8169' 34' ROP - 13.6 WOB - 20(R) 35-40(S) GPM - 245
	08:30 - 09:00	0.50	TRP	2	SHORT TRIP 5 STDS TO 7854'
	09:00 - 09:30	0.50	OTH		REMOVE AND REPLACE WASH PIPE
	09:30 - 10:00	0.50	TRP	2	TRIP IN THE HOLE TO BOTTOM - NO TIGHT HOLE
	10:00 - 10:30	0.50	DRL	1	DIRECTIONAL DRILL FROM 8169' TO 8188' 19' ROP - 38'/HR WOB - 20/28 GPM - 245
	10:30 - 11:00	0.50	CIRC	1	PUMP LOW VIS / HIGH VIS SWEEP
	11:00 - 15:30	4.50	DRL	2	DIRECTIONAL DRILL FROM 8188' TO 8331' 143' ROP - 31.7'/HR WOB - 20/28 GPM - 245
	15:30 - 16:00	0.50	RIG	1	RIG SERVICE
	16:00 - 22:30	6.50	DRL	2	DIRECTIONAL DRILL FROM 8331 TO 8500' 169' ROP - 26'/HR WOB - 20/28 GPM - 245
	22:30 - 23:30	1.00	CIRC	1	CIRCULATE FOR SHORT TRIP
	23:30 - 00:00	0.50	CIRC	1	PUMP SLUG AND PULL 4 STDS
	00:00 - 04:30	4.50	FISH	3	JAR ON STUCK PIPE AT 8230
	04:30 - 06:00	1.50	REAM	1	REAM OUT TIGHT HOLE FROM 8230 TO 8200
7/5/2010	06:00 - 07:00	1.00	REAM	1	BACK REAM FROM 8200 TO 7904, HOLE LOOKED GOOD ABOVE 7950
	07:00 - 08:00	1.00	TRP	2	TRIP OUT FOR CASING TO SHOE (SLM)
					NOTIFIED DONNA KENNEY WITH BLM VERBALLY AND ELECTRONICALLY OF PRODUCTION LINER TO BE RUN ON 7/4/2010 @ 14:00 HRS, ALSO NOTIFIED THE STATE OF THE SAME - LEFT MESSAGE ON ADMINISTRATORS VOICEMAIL
	08:00 - 08:30	0.50	RIG	1	RIG SERVICE AND INSPECT TOP DRIVE AND TRACK AFTER JARRING OPERATIONS, FOUND A SHEARED BOLT IN TORQUE BUSHING AND LOOSE BOLTS IN TRACK
	08:30 - 13:00	4.50	TRP	2	MIX AND PUMP SLUG AND TRIP OUT OF THE HOLE FOR CASING (SLM) LAYED DOWN 2 JOINTS OF DP AND JARS
	13:00 - 15:00	2.00	TRP	1	L/D DIR. TOOLS
	15:00 - 17:30	2.50	CSG	2	SAFETY MTNG. R/U & R/D, RUN 33 JOINTS @ 1469' OF 4.5", N-80, P-110,11.6# CASING, EVERY OTHER JOINT PERFORATED
	17:30 - 22:00	4.50	CSG	4	TRIP IN HOLE W/ LINER & RELEASE, TOP OF LINER AT 7031'
	22:00 - 02:30	4.50	CSG	4	TRIP OUT OF HOLE W/ LINER SETTING TOOL & L/D
	02:30 - 05:00	2.50	DEQ	1	PJSM. R/U WIRE LINE, RIH W/ COLLAR LOCATOR & BRIDGE PLUG, SET BRIDGE PLUG 5' ABOVE COLLAR @ 6125' USING WIRELINE NUMBERS.
	05:00 - 06:00	1.00	TRP	1	P/U BHA AND ORIENT WHIP
7/6/2010	06:00 - 07:30	1.50	TRP	1	PICK UP BHA, WHIPSTOCK / MILLING ASSEMBLY AND ORIENT

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Operations Summary Report

Well Name: JB 8G-21-7-21
Location: 21- 7-S 21-E 26
Rig Name: AZTEC

Spud Date: 4/18/2010
Rig Release: 7/28/2010
Rig Number: 781

Date	From - To	Hours	Code	Sub Code	Description of Operations
7/6/2010	07:30 - 11:30	4.00	TRP	2	TRIP IN THE HOLE TO 6106
	11:30 - 12:30	1.00	LOG	4	HELD SAFETY MEETING, RIG UP WIRELINE TRUCK AND GYRO TOOL AND RUN IN THE HOLE WITH SAME
	12:30 - 13:00	0.50	DRL	7	ORIENT AND SET WHIPSTOCK @ 133.54 AZI., TOP OF WHIP @ 6092.15, BOTTOM OF WHIP @ 6100'
	13:00 - 13:30	0.50	LOG	4	RIG DOWN WIRELINE TRUCK AND GYRO TOOL
	13:30 - 01:30	12.00	DRL	7	MILL WINDOW FROM 6092' TO 6105' = 13' ROP 1.8 FT/HR, GPM. 191 WT. 8-12 K, RPM 90
	01:30 - 02:00	0.50	CIRC	1	SWEEP HOLE & CIRC.
	02:00 - 03:00	1.00	RIG	6	CUT DRILLING LINE
	03:00 - 03:30	0.50	RIG	1	SERVICE RIG, TOP-DRIVE
	03:30 - 06:00	2.50	TRP	2	TRIP OUT W/ MILL ASSEM.
7/7/2010	06:00 - 06:30	0.50	TRP	2	TRIP OUT OF THE HOLE FOR DIRECTIONAL TOOLS
	06:30 - 07:00	0.50	TRP	1	LAY DOWN MILLING ASSEMBLY, WINDOW MILL 3/16 OUT OF GAGE, FOLLOW MILL IN GAGE
	07:00 - 08:30	1.50	TRP	1	P/U DIRECTIONAL TOOLS, GYRO UBHO SUB AND ORIENT
	08:30 - 12:00	3.50	TRP	2	TRIP IN THE HOLE WITH DIRECTIONAL TOOLS, P/U JARS
	12:00 - 12:30	0.50	RIG	1	RIG SERVICE
	12:30 - 13:00	0.50	CIRC	1	CIRCULATE FOR FIT TEST
	13:00 - 13:30	0.50	EQT	2	FIT @ 6105 WITH 8.8 PPG, PRESSURED UP TO 380 PSI AND BLEAD OFF TO 355 IN 15 MINUTES. FIT - 9.9 EMW
	13:30 - 15:00	1.50	LOG	4	RIG UP WIRELINE TRUCK, SIDE ENTRY PUMP IN SUB AND RIH W/GYRO TOOL
	15:00 - 17:30	2.50	LOG	4	NO COMMUNICATION BETWEEN SURFACE AND GYRO TOOL, TROUBLESHOOT SURFACE EQUIPMENT, POOH TO C/O TOOLS AND RE-HEAD WIRELINE, RIH W/NEW TOOL
	17:30 - 18:00	0.50	LOG	4	RIH WITH GYRO TOOL AND SEAT FOR TOOLFACES
	18:00 - 19:00	1.00	DRL	2	DIRECTIONAL DRILL WITH GYRO TOOL FROM 6105 TO 6120
	19:00 - 20:00	1.00	LOG	4	POOH WITH GYRO TOOL AND MAKE CONNECTION, RUN BACK IN THE HOLE AND SEAT FOR TOOLFACES
	20:00 - 22:30	2.50	DRL	2	DIRECTIONAL DRILL WITH GYRO TOOL FROM 6120 TO 6153
	22:30 - 23:00	0.50	LOG	4	POOH WITH GYRO TOOL AND MAKE CONNECTION, RUN BACK IN THE HOLE AND SEAT FOR TOOLFACES
	23:00 - 01:00	2.00	DRL	2	DIRECTIONAL DRILL WITH GYRO TOOL FROM 6153 TO 6187
	01:00 - 02:30	1.50	LOG	4	PULL OUT OF HOLE W/ GYRO & L/D
	02:30 - 05:30	3.00	DRL	2	DIRECTIONAL DRILL F/ 6187' TO 6240 53' ROP 17.6'/HR WOB 10/14 GPM - 290
	05:30 - 06:00	0.50	SUR	1	SURVEYS
7/8/2010	06:00 - 12:00	6.00	DRL	2	DIRECTIONAL DRILL FROM 6240 TO 6313 73' ROP - 12.1'/HR WOB - 10/12 GPM - 242
	12:00 - 12:30	0.50	RIG	1	RIG SERVICE
	12:30 - 14:30	2.00	DRL	2	DIRECTIONAL DRILL FROM 6313 TO 6342 29' ROP 11.6 FT/HR. WOB 10/12 GPM 242
	14:30 - 15:30	1.00	SUR	1	SURVEYS
	15:30 - 16:00	0.50	CIRC	1	CIRC. F/ TRIP
	16:00 - 19:30	3.50	TRP	2	TRIP OUT OF HOLE TO ADJUST M.MTR.
	19:30 - 20:00	0.50	DRL	3	ADJUST BEND ON M.MTR TO A 2.23° BEND & ORIENT MWD
	20:00 - 23:00	3.00	TRP	2	TRIP IN HOLE, FILL PIPE & TEST MWD.
	23:00 - 23:30	0.50	REAM	1	WASH 30 FT. TO BOTTOM
	23:30 - 05:30	6.00	DRL	2	DIRECTIONAL DRILL F/ 6342 TO 6455' = 113' ROP18.8 FT/HR. WOB 10/16 GPM 242

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Operations Summary Report

Well Name: JB 8G-21-7-21
Location: 21- 7-S 21-E 26
Rig Name: AZTEC

Spud Date: 4/18/2010
Rig Release: 7/28/2010
Rig Number: 781

Date	From - To	Hours	Code	Sub Code	Description of Operations
7/8/2010	05:30 - 06:00	0.50	SUR	1	SURVEYS
7/9/2010	06:00 - 13:30	7.50	DRL	2	DIRECTIONAL DRILL FROM 6455 TO 6532 77'
					ROP - 10.3'/HR WOB 8-16 K GPM. 290
	13:30 - 14:00	0.50	RIG	1	SERVICE RIG, TOP- DRIVE
	14:00 - 17:00	3.00	DRL	2	DIRECTIONAL DRILL FROM 6532 TO 6592' = 60'
					ROP = 20 FT/HR. WOB 8-16 K, GPM 290
	17:00 - 18:00	1.00	SUR	1	SURVEYS
	18:00 - 23:30	5.50	DRL	2	DIRECTIONAL DRILL FROM 6582' TO 6726 = 144'
					ROP = 26.1 FT/HR. WOB 8-16 K, GPM 300
	23:30 - 00:00	0.50	OTH		TROUBLE SHOOT & RE-LOG GAMMA 21'
	00:00 - 05:00	5.00	DRL	2	DIRECTIONAL DRILL FROM 6726' TO 6820'= 94'
					ROP = 18.8 FT/HR. WOB 8-16 GPM 300 GPM.
	05:00 - 06:00	1.00	SUR	1	SURVEYS
7/10/2010	06:00 - 07:00	1.00	DRL	2	DIRECTIONAL DRILL FROM 6820 TO 6839' 19'
					ROP - 19'/HR WOB 14 GPM - 290
	07:00 - 08:30	1.50	WOT	2	CIRCULATE AND WAIT ON ORDERS ABOUT ROTATING MWD TOOL CARRIER
					THROUGH 20° DOGLEG @ 6797' SEEN ON A CHECK SHOT SURVEY.
	08:30 - 09:30	1.00	REAM	1	ROTARY REAM HOLE FROM 6790' TO 6839'
	09:30 - 13:30	4.00	DRL	2	DIRECTIONAL DRILL FROM 6839' TO 6884' 45'
					ROP 11.25 FT/HR. WOB 10/16 K GPM 290
	13:30 - 14:00	0.50	RIG	1	SERVICE RIG, TOP -DRIVE
	14:00 - 20:30	6.50	DRL	1	DIRECTIONAL DRILL FROM 6884' TO 6970' 86'
					ROP 13.2 FT/HR. WOB 10/16 K GPM 290
	20:30 - 21:30	1.00	CIRC	1	CIRC. F/ TRIP & PUMP SLUG
	21:30 - 01:00	3.50	TRP	2	TRIP F/ BHA
	01:00 - 02:00	1.00	TRP	1	HANDLE BHA, X/O MUD MTRS. & TOOL CARRIER
	02:00 - 02:30	0.50	DRL	3	ORIENT DIR. TOOLS & SCRIBE
	02:30 - 05:30	3.00	TRP	2	TRIP IN HOLE, FILL PIPE & TEST MWD.
	05:30 - 06:00	0.50	REAM	1	WASH AND RE-LOG GAMMA FROM 6930 TO 6970
7/11/2010	06:00 - 12:30	6.50	DRL	3	NEAR BIT GAMMA SHOWED A DEFLECTION FROM 89.32° @6965 TO
					92.84°@6970 MD (TVD - 6621, TOZ - 6627, DIP ANGLE - 92.1)
					TROUGH WELL FROM 6945 TO 6970 WITH LOW SIDE TOOLFACE IN AN
					ATTEMPT TO REDUCE ANGLE IN THE HOLE. UNSUCESSFUL
	12:30 - 15:00	2.50	DRL	7	PULL BACK TO 6874 AND TROUGH FROM 6874 TO 6884 @225° TOOL FACE
	15:00 - 03:30	12.50	DRL	7	TIME DRILL FROM 6884 TO 6895' UNSUCESSFUL
	03:30 - 04:00	0.50	REAM	1	WASH TO 6940'
	04:00 - 04:30	0.50	DRL	7	TROUGH WELL F/ 6940 TO 6950
	04:30 - 06:00	1.50	DRL	7	TIME DRILL F/ 6950 TO 6951
7/12/2010	06:00 - 07:00	1.00	DRL	7	TIME DRILL FROM 6951 TO 6952'
					NO WOB, NO DIFF
	07:00 - 08:00	1.00	REAM	1	WASH FROM 6952 TO 6960' TAG LEDGE @ 6960' BIT WT. @ 17K, WORK
					TOOL FACE & SET @ 180°
	08:00 - 13:00	5.00	DRL	1	DIRECTIONAL DRILL FROM 6960 TO 6998' 38'
					ROP - 7.6'/HR WOB - 22/24 GPM - 240
	13:00 - 13:30	0.50	OTH		TROUBLE SHOOT NEAR BIT INC. GIVING INCORRECT DATA WHEN
					ROTATING ON BOTTOM, GIVING CORRECT DATA WHEN ROTATING OR
					STATIC OFF BOTTOM
	13:30 - 17:00	3.50	DRL	2	DIRECTIONAL DRILL FROM 6998' TO 7031 33'
					ROP - 9.4 WOB 24/45 GPM 290
	17:00 - 17:30	0.50	RIG	1	RIG SERVICE
	17:30 - 18:00	0.50	SUR	1	P/U OFF BOTTOM AND GET NEAR BIT INC. AND SURVEYS
	18:00 - 23:00	5.00	DRL	2	DIRECTIONAL DRILL FROM 7031' TO 7079' 48'
					ROP 9.6 FT/HR. WOB 24/45 GPM 290

CONFIDENTIAL

Operations Summary Report

Well Name: JB 8G-21-7-21
Location: 21- 7-S 21-E 26
Rig Name: AZTEC

Spud Date: 4/18/2010
Rig Release: 7/28/2010
Rig Number: 781

Date	From - To	Hours	Code	Sub Code	Description of Operations
7/12/2010	23:00 - 00:30	1.50	SUR	1	P/U OFF BOTTOM AND GET NEAR BIT INC. AND SURVEYS
	00:30 - 01:30	1.00	DRL	7	TROUGH HOLE F/ 6996 TO 7006
	01:30 - 06:00	4.50	DRL	7	TIME DRILL F/ 7006 TO 7011 - NO RESULTS
7/13/2010	06:00 - 09:00	3.00	TRP	12	PUMP SLUG AND TRIP OUT OF THE HOLE TO CHANGE MOTOR BEND TO 2.0°
	09:00 - 11:30	2.50	TRP	1	LAY DOWN MWD AND NEAR BIT TOOLS, MOTOR AND BIT & P/U
	11:30 - 12:30	1.00	RIG	1	SERVICE RIG, TOP-DRIVE, X/O OIL IN TOP-DRIVE
	12:30 - 18:00	5.50	TRP	2	TRIP IN HOLE, FILL PIPE & SHALLOW TEST P-ZIG
	18:00 - 19:00	1.00	OTH		TROUGHED WELL F/ 7050-7054
	19:00 - 02:00	7.00	DRL	7	TIME DRILL F/ 7050 TO 7054, UNSUCE
	02:00 - 06:00	4.00	TRP	1	TRIP OUT TO P/U SLICK SLEAVE STABILIZED HOUSING F/ M.MTR.
7/14/2010	06:00 - 08:30	2.50	TRP	1	HANDLE BHA, C/O BITS (P/U MILLTOOTH), BEND MOTOR TO A 1.76, SCRIBE AND ORIENT MWD TOOL
	08:30 - 09:30	1.00	RIG	1	RIG SERVICE
	09:30 - 14:00	4.50	TRP	2	TRIP IN THE HOLE, SURFACE TEST MWD, ORIENT THROUGH SIDETRACK AT 6960 W/180° TF
	14:00 - 17:00	3.00	DRL	7	ORIENT TOOL FACE TO 160L AND TROUGH FROM 7035 TO 7052
	17:00 - 06:00	13.00	DRL	7	TIME DRILL F/ 7054' TO 7061'
7/15/2010	06:00 - 12:00	6.00	DRL	7	TIME DRILL F/ 7061' TO 7081' - 20'
	12:00 - 19:00	7.00	DRL	2	DIRECTIONAL DRILL FROM 7081' TO 7137' @ 8FPH. SLIDE 42' - ROTATE 14'. 12 TO 30 K WOB, 40 RPM, 100 SPM (240 GPM) 2800 PSI SPP, 30 TO 150 MOTOR DIFFERENTIAL PRESSURE. NEAR BIT INCLINATION AND GAMMA QUIT WORKING @ 7133', INITIAL ESTIMATE OF CAUSE OF FAILURE IS DEAD BATTERY. NOTIFIED DONNA KENNEY BLM VERNAL UTAH OF OUR 30 DAY BOP TEST VERBALLY @ 18:00 AND BY E-MAIL.
	19:00 - 20:30	1.50	CIRC	1	CIRCULATE, PULL 3 STANDS, FLOW CHECK, PUMP DRY PILL.
	20:30 - 00:30	4.00	TRP	10	TRIP OUT TO CHANGE NEAR BIT INC. AND GAMMA TOOL, BIT, AND MOTOR.
	00:30 - 01:30	1.00	TRP	1	LAY DOWN PULSE MWD, NEAR BIT MWD, MOTOR
	01:30 - 06:00	4.50	BOP	2	PULL WEAR BUSHING, RIG UP SINGLE JACK TESTERS AND TEST PIPE RAMS, KILL LINE, CHOKE LINE AND VALVES, TIW VALVE, LOWER KELLY VALVE TO 250 PSI FOR 10 MINUTES AND 3000 PSI FOR 10 MINUTES
7/16/2010	06:00 - 07:00	1.00	BOP	2	FINISH BOP TEST
	07:00 - 07:30	0.50	OTH		INSTALL WEAR BUSHING
	07:30 - 08:30	1.00	TRP	2	PICK UP DIRECTIONAL TOOLS AND ORIENT SAME
	08:30 - 11:00	2.50	TRP	2	TRIP IN TO 5970', SURFACE TEST MWD, FILL PIPE AT 3300' AND 5970'
	11:00 - 12:00	1.00	RIG	6	CUT DRILL LINE, CHANGE OIL
	12:00 - 13:00	1.00	RIG	1	RIG SERVICE, CHANGE OIL AND OIL FILTERS IN DRAWORKS COMPOUND, CHANGE OUT HYDRAULIC FILTERS ON HYDRAULIC UNIT
	13:00 - 13:30	0.50	TRP	2	TRIP IN, TAG BRIDGE AT 6710'
	13:30 - 15:00	1.50	REAM	1	WASH AND REAM FROM 6710' TO 6810', ABUNDANT CUTTINGS COMING ACROSS SHAKER.
	15:00 - 15:30	0.50	TRP	2	TRIP IN, DOWN DRAG 20-30K.
	15:30 - 16:00	0.50	REAM	1	REAM (ORIENT AND SLIDE) FROM 7127' TO 7137'
	16:00 - 05:00	13.00	DRL	2	DIRECTIONAL DRILL FROM 7137' TO 7325' @ 14.5. FPH 22 - 25 K WOB, 40 RPM, 100 SPM (240 GPM). 3050 PSI SPP, 50 - 125 MOTOR DIFFERENTIAL PRESSURE. NEAR BIT INCLINATION IS NOT RELIABLE WHILE ROTATING, BUT IS RELIABLE WHILE STATIC.
	05:00 - 06:00	1.00	SUR	1	SURVEYS EVERY 30' - ONE CHECK SHOT BETWEEN EACH SURVEY
7/17/2010	06:00 - 16:30	10.50	DRL	2	DIRECTIONAL DRILL FROM 7325' TO 7486' @ 15.3'/HR, 22 - 25 K WOB, 40 RPM, 70 MOTOR RPM, 100 SPM (240 GPM). 3050 PSI OFF BOTTOM, 50 - 125 MOTOR DIFFERENTIAL PRESSURE. WT 9.2, VIS 43
	16:30 - 18:00	1.50	SUR	1	SURVEY
	18:00 - 19:00	1.00	CIRC	1	CIRCULATE HIGH VIS SWEEP AROUND - VERY LITTLE CUTTINGS BACK

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Operations Summary Report

Well Name: JB 8G-21-7-21
Location: 21- 7-S 21-E 26
Rig Name: AZTEC

Spud Date: 4/18/2010
Rig Release: 7/28/2010
Rig Number: 781

Date	From - To	Hours	Code	Sub Code	Description of Operations
7/17/2010	19:00 - 02:30	7.50	TRP	14	SHORT TRIP 22 STANDS TO WINDOW. REAM TIGHT HOLE FROM 7362' TO 6940' ON TRIP OUT. REAM TIGHT SPOT @ 7272' ON TRIP IN. WASH TO BOTTOM FROM 7272'
	02:30 - 06:00	3.50	DRL	2	DIRECTIONAL DRILL FROM 7486' TO ' @ 14.5'/HR, 22 - 25 K WOB, 40 RPM, 70 MOTOR RPM, 100 SPM (240 GPM). 3050 PSI OFF BOTTOM, 50 - 125 MOTOR DIFFERENTIAL PRESSURE. WT 9.2, VIS 43
7/18/2010	06:00 - 09:00	3.00	DRL	2	DIRECTIONAL DRILL FROM 7530' TO 7545 ' @ 5'/HR, 20 - 25 K WOB, 40 RPM, 70 MOTOR RPM, 100 SPM (240 GPM). 3050 PSI OFF BOTTOM, 50 - 125 MOTOR DIFFERENTIAL PRESSURE. WT 9.2, VIS 43
	09:00 - 10:00	1.00	TRP	2	TRIP OUT TO 6200', HOLE IN GOOD SHAPE
	10:00 - 10:30	0.50	CIRC	1	MIX AND PUMP SLUG
	10:30 - 14:30	4.00	TRP	2	TRIP OUT, OPERATE PIPE AND BLIND RAMS
	14:30 - 16:30	2.00	TRP	1	CHANGE OUT 2 SLICK MONELS WITH 2 FLEX MONELS. INSPECT MWD, BIT, MUD MOTOR AND ORIENTATION, ALL OK
	16:30 - 17:00	0.50	OTH		CHANGE OUT AND INSTALL ROTATING HEAD RUBBER
	17:00 - 18:00	1.00	RIG	1	RIG SERVICE, CHANGE OIL IN TOP DRIVE
	18:00 - 00:30	6.50	TRP	1	TRIP IN HOLE. FILL PIPE @ 3200' CIRCULATE AND SYNC MWD @ 6319'. COULD NOT GET INTO SIDE TRACK @ 7085' - ORIENT TO 170 LEFT AND SLIDE INTO SIDE TRACK. WASH 75' TO BOTTOM. NO TIGHT HOLE
	00:30 - 05:00	4.50	DRL	2	DIRECTIONAL DRILL FROM 7545' TO 7605' @ 13.3'/HR, 20 - 25 K WOB, 40 RPM, 66 MOTOR RPM, 95 SPM (228 GPM). 3300 PSI OFF BOTTOM, 50 - 125 MOTOR DIFFERENTIAL PRESSURE. WT 9.2, VIS 43
	05:00 - 06:00	1.00	SUR	1	SURVEY AND CHECK SHOTS @ 15' INTERVALS
7/19/2010	06:00 - 09:30	3.50	DRL	2	DIRECTIONAL DRILL FROM 7605' TO 7626 ' @ 6.5'/HR, ALL SLIDE. 15 - 25 K WOB, 40 RPM, 66 MOTOR RPM, 95 SPM (228 GPM). 3300 PSI OFF BOTTOM, 50 - 125 MOTOR DIFFERENTIAL PRESSURE. WT 9.2, VIS 43
	09:30 - 10:00	0.50	RIG	1	RIG SERVICE
	10:00 - 16:00	6.00	DRL	2	DIRECTIONAL DRILL FROM 7626 ' TO 7699' @ 12.1'/HR, 15 - 25 K WOB, 40 RPM, 66 MOTOR RPM, 95 SPM (228 GPM). 3300 PSI OFF BOTTOM, 50 - 125 MOTOR DIFFERENTIAL PRESSURE. WT 9.1, VIS 43
	16:00 - 18:00	2.00	SUR	1	SURVEYS
	18:00 - 04:00	10.00	DRL	2	DIRECTIONAL DRILL FROM 7699' TO 7762 @ 6.3'/HR, 15 - 25 K WOB, 40 RPM, 66 MOTOR RPM, 95 SPM (228 GPM). 3300 PSI OFF BOTTOM, 50 - 125 MOTOR DIFFERENTIAL PRESSURE. WT 9.0+, VIS 39
	04:00 - 06:00	2.00	SUR	1	SURVEY
7/20/2010	06:00 - 12:00	6.00	DRL	2	DIRECTIONAL DRILL FROM 7762' TO 7885'.,123' @ 20.5'/HR, 15 - 25 K WOB, 40 RPM, 66 MOTOR RPM, 95 SPM (228 GPM). 3300 PSI OFF BOTTOM, 50 - 125 MOTOR DIFFERENTIAL PRESSURE. WT 9.0+, VIS 40
	12:00 - 12:30	0.50	RIG	1	SERVICE RIG.
	12:30 - 16:00	3.50	DRL	2	DIRECTIONAL DRILL FROM 7885' to 7981'.,96' @ 27.4'/HR, 15 - 25 K WOB, 40 RPM, 65 MOTOR RPM, 93 SPM (225 GPM). 3300 PSI OFF BOTTOM, 50 - 125 MOTOR DIFFERENTIAL PRESSURE. WT 9.0+, VIS 40
	16:00 - 18:00	2.00	SUR	1	SURVEYS
	18:00 - 23:30	5.50	DRL	2	DIRECTIONAL DRILL FROM 7981' TO 8028'. 47' @ 8.5'/HR,10' SLIDE 37' ROTATE. 15 - 25 K WOB, 40 RPM, 65 MOTOR RPM, 93 SPM (225 GPM). 3300 PSI OFF BOTTOM, 50 - 125 MOTOR DIFFERENTIAL PRESSURE. WT 9.0+, VIS 40. TOOK APPARENT DEFLECTION @ 7990' +/-, NEAR BIT INCLINATION WENT FROM 91.7 DEGREES @ 7987' MD, TO 93.8 DEG @ 8010'. SLIDING DOWN
	23:30 - 00:30	1.00	REAM	1	REAM FROM 7950' TO 8028' TO AID IN SLIDING
	00:30 - 04:30	4.00	DRL	2	DIRECTIONAL DRILL FROM 8028' TO 8086 - 58' @ 14,5'/HR,21' SLIDE 37' ROTATE. 15 - 25 K WOB, 40 RPM, 65 MOTOR RPM, 93 SPM (225 GPM). 3300 PSI OFF BOTTOM, 50 - 125 MOTOR DIFFERENTIAL PRESSURE. WT 9.0+, VIS

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Operations Summary Report

Well Name: JB 8G-21-7-21
Location: 21- 7-S 21-E 26
Rig Name: AZTEC

Spud Date: 4/18/2010
Rig Release: 7/28/2010
Rig Number: 781

Date	From - To	Hours	Code	Sub Code	Description of Operations
7/20/2010	00:30 - 04:30	4.00	DRL	2	40. SLIDE 21'
	04:30 - 06:00	1.50	SUR	1	SURVEYS
7/21/2010	06:00 - 07:00	1.00	CIRC	1	CIRCULATE, CONFIRM BAD NEAR BIT MWD BATTERIES, CIRCULATE AROUND SWEEP
	07:00 - 09:00	2.00	TRP	2	TRIP OUT TO 6255', HOLE IN GOOD SHAPE EXCEPT FOR MINOR TIGHT SPOTS(15-35K OVER NORMAL DRAG) FROM 7875'- 7775'
	09:00 - 09:30	0.50	CIRC	1	MIX AND PUMP SLUG
	09:30 - 13:00	3.50	TRP	2	TRIP OUT, OPERATE PIPE AND BLIND RAMS WITH REMOTE
	13:00 - 14:30	1.50	TRP	2	CHANGE OUT MWD AND MWD BATTERIES, PZIG TOOL, MOTORS AND BIT, ORIENT DIRECTIONAL TOOLS
	14:30 - 15:00	0.50	RIG	1	RIG SERVICE
	15:00 - 20:00	5.00	TRP	2	TRIP IN TO 6970' MD. TAG UP ON SIDETRACK
	20:00 - 20:30	0.50	REAM	1	REAM OUT SIDETRACK @ 6970'
	20:30 - 22:00	1.50	TRP	2	TRIP IN HOLE. WASH 90' TO BOTTOM - NO TIGHT HOLE. SYNC PATHFINDER MWD AT 1.5 SECOND SETTING DUE TO EXCESS BACKGROUND NOISE. ONE MINUTE NEAR BIT GAMMA UPDATES, 4 MINUTE NEAR BIT INCLINATION UPDATES.
	22:00 - 05:00	7.00	DRL	2	DIRECTIONAL DRILL FROM 8086 TO 8230' 144' @20 '/HR, SLIDE 7' IN 1HR 18 - 26 K WOB, 40 RPM, 65 MOTOR RPM, 93 SPM (225 GPM). 3300 PSI OFF BOTTOM, 50 - 125 MOTOR DIFFERENTIAL PRESSURE. WT 9.1, VIS 40.
	05:00 - 06:00	1.00	SUR	1	SURVEYS
7/22/2010	06:00 - 13:00	7.00	DRL	2	DIRECTIONAL DRILL FROM 8230' TO 8394' - 164' @23.4 '/HR, ALL ROTATE 18 - 26 K WOB, 40 RPM, 65 MOTOR RPM, 93 SPM (225 GPM). 3300 PSI OFF BOTTOM, 50 - 125 MOTOR DIFFERENTIAL PRESSURE. WT 9.1, VIS 40.
	13:00 - 13:30	0.50	DRL	2	RIG SERVICE
	13:30 - 17:00	3.50	DRL	2	DIRECTIONAL DRILL FROM 8394' TO 8492' - 98' @ 28 '/HR, ALL ROTATE 18 - 26 K WOB, 40 RPM, 65 MOTOR RPM, 93 SPM (225 GPM). 3300 PSI OFF BOTTOM, 50 - 125 MOTOR DIFFERENTIAL PRESSURE. WT 9.1, VIS 40.
	17:00 - 18:00	1.00	DRL	2	SURVEYS
	18:00 - 22:30	4.50	DRL	2	DIRECTIONAL DRILL FROM 8492' TO 8559 - 67 ' @ 15 '/HR, SLIDE 5' IN 1HR. 18 - 26 K WOB, 40 RPM, 65 MOTOR RPM, 110 SPM #2 (220 GPM). 3400 PSI OFF BOTTOM, 50 - 125 MOTOR DIFFERENTIAL PRESSURE. WT 9.1, VIS 40.
	22:30 - 00:00	1.50	SUR	1	SURVEY. TROUBLE SHOOT NEAR BIT GAMMA AND INCLINATION FAILURE
	00:00 - 04:30	4.50	TRP	13	TRIP FOR PATHFINDER NEAR BIT MWD FAILURE. BACK REAM TIGHT HOLE FROM 8500 TO 8050.
	04:30 - 05:00	0.50	CIRC	1	MIX AND PUMP PILL
	05:00 - 06:00	1.00	TRP	13	TRIP OUT
7/23/2010	06:00 - 10:00	4.00	TRP	13	TRIP OUT, OPERATE PIPE AND BLIND RAMS
	10:00 - 12:30	2.50	TRP	2	CHECK BIT AND MOTOR, OK. CHANGE OUT MWD, MWD CARRIER, BATTERIES, PZIG TOOL, ORIENT TOOLS.
	12:30 - 13:00	0.50	RIG	1	RIG SERVICE
	13:00 - 16:30	3.50	OTH		SURFACE TEST MWD AT 170', FAILED. RESEAT TOOL AND REORIENT, FAILED, LAY DOWN MWD AND WORK ON SAME. NEAR BIT GAMMA AND INCLINATION BACK UP TOOLS WOULD NOT FUNCTION.
	16:30 - 17:30	1.00			PICK UP PATHFINDER PULSE TOOL WITH GAMMA 32.1' BEHIND THE BIT, INCLINATION AND AZIMUTH 40.2' BEHIND THE BIT. ORIENT AND SCRIBE TOOLS.
	17:30 - 02:30	9.00	TRP	2	TRIP IN HOLE, PULSE TEST MWD AT SURFACE. FILL PIPE @ 3032', CIRCULATE AND PULSE TEST MWD @ 6295', WASH THROUGH BRIDGE @ 7730'. WASH FROM 8499' TO BOTTOM @ 8559'. NO TIGHT HOLE, NO PROBLEMS GETTING INTO SIDETRACK @ 6970. RABBIT DRILL STRING IN ORDER TO FIND BROKEN PIPE SCREEN. SCREEN FOUND AND RETREIVED 9 STANDS OFF BOTTOM.

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Operations Summary Report

Well Name: JB 8G-21-7-21
Location: 21- 7-S 21-E 26
Rig Name: AZTEC

Spud Date: 4/18/2010
Rig Release: 7/28/2010
Rig Number: 781

Date	From - To	Hours	Code	Sub Code	Description of Operations
7/23/2010	02:30 - 06:00	3.50	DRL	2	DIRECTIONAL DRILL FROM 8559 TO 8598 - 39 ' @ 11'/HR. SLIDE 5' IN 1HR. 24 K WOB, 40 RPM, 65 MOTOR RPM, 115 SPM #2 (229 GPM). 3500 PSI OFF BOTTOM, 50 - 125 MOTOR DIFFERENTIAL PRESSURE. WT 9.1, VIS 40.
7/24/2010	06:00 - 11:00	5.00	DRL	2	DIRECTIONAL DRILL FROM 8598' TO 8657',59 ' @ 11'/HR. 24 K WOB, 40 RPM, 65 MOTOR RPM, 115 SPM #2 (229 GPM). 3500 PSI OFF BOTTOM, 50 - 125 MOTOR DIFFERENTIAL PRESSURE. WT 9.1, VIS 40.
	11:00 - 11:30	0.50	RIG	1	RIG SERVICE, FINISH CIRCULATING UP SWEEP
	11:30 - 13:00	1.50	TRP	14	SHORT TRIP TO 8000', 1ST STAND TIGHT, PUMPED IT OUT. PULLED FROM 8600' TO 8350' WITHOUT PUMP, 10-30K EXTRA PULL IN SPOTS, 8350' TO 8000' GOOD. TRIPPED BACK IN FINE.
	13:00 - 23:00	10.00	DRL	2	DIRECTIONAL DRILL FROM 8657' TO 8774' - 117' @ 11.7'/HR. 18 - 24 K WOB, 40 RPM, 65 MOTOR RPM, 115 SPM #2 (229 GPM). 3500 PSI OFF BOTTOM, 50 - 125 MOTOR DIFFERENTIAL PRESSURE. WT 9.1, VIS 40.
	23:00 - 00:00	1.00	SUR	1	SURVEYS
	00:00 - 01:00	1.00	CIRC	7	CIRCULATE SAMPLE FROM 8770' - SAMPLE FROM 8770' SHOWS 35% SHALE, 65% LIMESTONE
	01:00 - 02:00	1.00	DRL	2	DIRECTIONAL DRILL FROM 8774' TO 8780' -6 ' @ 6 '/HR. ALL SLIDE 170 L TO 170 R GRAVITY TOOL FACE 18 - 32 K WOB, 65 MOTOR RPM, 115 SPM #2 (229 GPM). 3500 PSI OFF BOTTOM, 50 - 125 MOTOR DIFFERENTIAL PRESSURE. WT 9.1, VIS 40. SAMPLE AT 8775' SHOWS 50% SHALE AND 50% LIMESTONE OUT OF ZONE @ 8742' MD.
	02:00 - 03:00	1.00	CIRC	1	PUMP HIGH VIS SWEEP AROUND
	03:00 - 06:00	3.00	TRP	1	TRIP OUT TO PICK UP PATHFINDER PZIG TOOLS. REAM TIGHT SPOT @ 8500', STEADY DRAG COMING OFF BOTTOM 15 TO 20K.
7/25/2010	06:00 - 06:30	0.50	CIRC	1	MIX AND PUMP SLUG
	06:30 - 09:30	3.00	TRP	2	TRIP OUT, OPERATE PIPE AND BLIND RAMS
	09:30 - 12:00	2.50	TRP	2	CHANGE BITS, MOTORS AND TOOL CARRIERS. CHECK MWD, PICK UP PZIG TOOLS, ORIENT AND SURFACE TEST DIRECTIONAL TOOLS.
	12:00 - 13:00	1.00	RIG	1	RIG SERVICE, CHANGE OIL AND FILTERS IN HYDRAULIC UNIT
	13:00 - 14:30	1.50	RIG	6	SLIP AND CUT DRILL LINE 90'
	14:30 - 20:30	6.00	TRP	2	TRIP IN, CHANGED OUT AGITATOR AND SHOCK TOOL, BROKE CIRCULATION AT 3000' PULSE TEST MWD TOOLS @ 6321'. WASH IN FROM 8600' TO 8740'. NO TIGHT HOLE.
	20:30 - 21:00	0.50	SUR	1	RE - LOG WELL FROM 8740' TO 8760'
	21:00 - 22:00	1.00	CIRC	1	WASHED VALVE SEAT ON #1 PUMP (4.5"LINERS) SWAP TO #2 PUMP (5" LINERS) CANNOT GET MWD PULSES DECODED WITH #1 PUMP ON HOLE. CIRCULATE AND RECIPRICATE WHILE REPAIRING #2 PUMP.
	22:00 - 23:30	1.50	SUR	1	SYNC MWD TOOL. LOG WELL FROM 8760' TO 8765'.
	23:30 - 00:30	1.00			DIRECTIONAL DRILL FROM 8780' - 8797 ' @ 17 '/HR. 18 - 22 K WOB, 65 MOTOR RPM, 115 SPM #2 (229 GPM). 3000 PSI OFF BOTTOM, 50 - 125 MOTOR DIFFERENTIAL PRESSURE. WT 9.1, VIS. PATHFINDER NEAR BIT INC AND GAMMA TOOL QUIT WORKING AT APX 8792' MD DUE TO COMMUNICATION ISSUES WITH THE EM PORTION OF PZIG.
	00:30 - 01:00	0.50	CIRC	5	CIRCULATE SAMPLES
	01:00 - 02:30	1.50	DRL	2	DIRECTIONAL DRILL FROM 8797' TO 8815' @ 18'/HR. 20 K WOB, 65 MOTOR RPM, 100 TOTAL RPM,115 SPM #2 (229 GPM). 3000 PSI OFF BOTTOM, 50 - 125 MOTOR DIFFERENTIAL PRESSURE. WT 9.1, VIS41.
	02:30 - 03:00	0.50	CIRC	5	CIRCULATE SAMPLES SAMPLE @ 8815 - 60% LIMESTONE, 40% SHALE
	03:00 - 04:00	1.00	DRL	2	DIRECTIONAL DRILL FROM 8815' TO 8837 @ 22'/HR. 20 K WOB, 65 MOTOR RPM, 100 TOTAL RPM,115 SPM #2 (229 GPM). 3000 PSI OFF BOTTOM, 50 - 125 MOTOR DIFFERENTIAL PRESSURE. WT 9.1, VIS 40.
	04:00 - 04:30	0.50	CIRC	7	CIRCULATE SAMPLES
	04:30 - 05:00	0.50			DIRECTIONAL DRILL FROM 8837 TO 8850' @ 26'/HR. 20 K WOB, 65 MOTOR

Operations Summary Report

Well Name: JB 8G-21-7-21
Location: 21- 7-S 21-E 26
Rig Name: AZTEC

Spud Date: 4/18/2010
Rig Release: 7/28/2010
Rig Number: 781

Date	From - To	Hours	Code	Sub Code	Description of Operations
7/25/2010	04:30 - 05:00	0.50			RPM, 100 TOTAL RPM,115 SPM #2 (229 GPM). 3000 PSI OFF BOTTOM, 50 - 125 MOTOR DIFFERENTIAL PRESSURE. WT 9.1, VIS 40.
	05:00 - 06:00	1.00	SUR	1	SURVEYS
7/26/2010	06:00 - 17:00	11.00	DRL	2	DIRECTIONAL DRILL FROM 8850' TO 9026' @ 16'/HR. 22 K WOB, 65 MOTOR RPM, 100 TOTAL RPM,115 SPM #1 (229 GPM). 3450 PSI OFF BOTTOM, 50 - 125 MOTOR DIFFERENTIAL PRESSURE. WT 9.1, VIS 40.
	17:00 - 18:00	1.00	SUR	1	SURVEYS AND CHECK SHOTS
	18:00 - 18:30	0.50	CIRC	1	CIRCULATE FOR SHORT TRIP.
	18:30 - 19:30	1.00	TRP	14	SHORT TRIP TO 8555, TIGHT FROM 9026' TO 8744'
	19:30 - 05:00	9.50	DRL	2	DIRECTIONAL DRILL FROM 9026' TO 9190' @ 17 FPH. 18 - 22k WOB, 65 MOTOR RPM, 100 TOTAL RPM. 225 GPM, 3450 SPP, 50-150 MOTOR DIFFERENTIAL PRESSURE, MUD WT 9.1 FV 40.
	05:00 - 06:00	1.00	SUR	1	SURVEYS AND CHECK SHOTS
7/27/2010	06:00 - 10:30	4.50	DRL	2	DIRECTIONAL DRILL FROM 9190 TO 9310 120' ROP - 26.6'/HR GPM - 230 WOB - 22/24
	10:30 - 11:00	0.50	CIRC	1	CIRCULATE FOR SHORT TRIP
	11:00 - 12:00	1.00	TRP	14	SHORT TRIP TO 8997', TIGHT FROM 9115 TO 8997 - BACKREAMED
	12:00 - 14:30	2.50	DRL	2	PUMP SWEEP AND DIRECTIONAL DRILL FROM 9310 TO 9374' 64' ROP - 25.6'/HR GPM - 230 WOB - 24
	14:30 - 15:00	0.50	RIG	1	RIG SERVICE
	15:00 - 17:00	2.00	SUR	1	SURVEYS
	17:00 - 00:30	7.50	DRL	1	DIRECTIONAL DRILL FROM 9374 TO 9610 TD - 236' @ 30 FPH. ALL ROTATE. 230 GPM, 22-24K WOB, 230 GPM, 3600 SPP, 66 MOTOR RPM, 35 ROTARY RPM.
	00:30 - 01:30	1.00	CIRC	1	PUMP HIGH VIS SWEEP, CIRCULATE AROUND.
	01:30 - 06:00	4.50	TRP	2	TRIP OUT SLM
7/28/2010	06:00 - 10:00	4.00	TRP	2	TRIP OUT OF THE HOLE (SLM)
	10:00 - 12:00	2.00	TRP	1	LAY DOWN DIRECTIONAL TOOLS
	12:00 - 13:00	1.00	CSG	1	HELD SAFETY MEETING AND RIG UP CASING CREW
	13:00 - 14:30	1.50	CSG	2	RUN 77 JOINTS OF 4.5", 11.6#, P-110 (PERFED), N-80 (BLANK) LINER, EVERY OTHER JOINT PERFORATED IN THE LATERAL EVERY JOINT BLANK IN THE CURVE
	14:30 - 15:30	1.00	CSG	1	RIG DOWN CASERS
	15:30 - 20:00	4.50	TRP	2	TRIP IN THE HOLE WITH LINER. LINER STUCK @ 8975' SHOE DEPTH - TOP OF LINER @ 5559' - TOP OF PERFORATED PIPE @ 6569' - TOP OF WINDOW @ 6092' - BOTTOM OF WINDOW @ 6099.92' - ENTERED PAY ZONE @ 7093'. HOLE TD IS 9610'.
	20:00 - 21:30	1.50	WOT	2	CONFER WITH ENGINEERING ABOUT HOW TO PROCEED.
	21:30 - 22:00	0.50	TRP	3	BACK OUT OF LINER WITH SMITH MODEL D SETTING TOOL. PULLED 175,000 UP AND SLACKED OFF TO 50,000 PRIOR TO BACKING OUT. PICK UP AFTER BACKING OUT WAS 105,000 AND SLACK OFF WAS 103,000.
	22:00 - 06:00	8.00	TRP	3	HSM WITH WEATHERFORD LAY DOWN CREW. TRIP OUT OF HOLE, LDDP, LAY DOWN SMITH SETTING TOOL, TRIP IN 52 STANDS DRILL PIPE, TRIP OUT LDDP.
7/29/2010	06:00 - 07:00	1.00	TRP	3	LAY DOWN DRILL STRING, PULL WEAR BUSHING
	07:00 - 08:00	1.00	CSG	1	RIG DOWN LAY DOWN MACHINE
	08:00 - 11:00	3.00	LOG	4	PJSM, RIG UP WARRIOR WIRILINE TRUCK, RUN IN THE HOLE WITH 6.125" GAGE RING, JUNK BASKET AND COLLAR LOCATOR, POOH AND RIH WITH COLLAR LOCATOR AND RETRIEVABLE BRIDGE PLUG. SET RBP AT 5350'. SHEAR BOLT DID NOT SHEAR, PULL OUT OF ROPE SOCKET AND LEFT 19' OF WIRELINE TOOLS IN THE HOLE CONSISTING OF: CABLE HEAD - 1" OD, COLLAR LOCATOR - 3 1/8" OD, QUICK CHANGE - 1.6" OD, WEIGHT BAR - 3 1/8" OD, QUICK CHANGE - 1.6" OD, SETTING TOOL - 3.835" OD AND SET

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QEP ENERGY

Operations Summary Report

Well Name: JB 8G-21-7-21
Location: 21- 7-S 21-E 26
Rig Name: AZTEC

Spud Date: 4/18/2010
Rig Release: 7/28/2010
Rig Number: 781

Date	From - To	Hours	Code	Sub Code	Description of Operations
7/29/2010	08:00 - 11:00	3.00	LOG	4	SLEVE. TOP OF WIRELINE TOOLS AT 5331 RBP IS WEATHERFORD 7" WRP SETTING TOOL IS SLOW SET BAKER #20
	11:00 - 11:30	0.50	OTH		CLOSE BLIND RAMS AND PRESSURE UP AGINST RBP TO 850 PSI, LOST 30 PSI IN 3 MIN.
	11:30 - 12:00	0.50	LOG	4	RIG DOWN WORRIOR WIRELINE TRUCK
	12:00 - 14:30	2.50	BOP	1	NIPPLE DOWN BOP
	14:30 - 18:00	3.50	LOC	7	CLEAN MUD TANKS RIG RELEASED @ 1800 HRS ON 7/28/2010
	18:00 - 06:00	12.00	LOC	4	RIG DOWN AND PREPARE FOR TRUCKS

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Operations Summary Report - COMPLETION

Well Name: JB 8G-21-7-21
Location: 21- 7-S 21-E 26
Rig Name: ROCKY MTN WS

Spud Date: 4/18/2010
Rig Release:
Rig Number: 3

Date	From - To	Hours	Code	Sub Code	Description of Operations
8/4/2010	05:30 - 07:00	1.50	TRAV	1	TRAVEL TO LOCATION
	07:00 - 12:00	5.00	LOC	4	ROAD RIG TO LOC. RIG UP COMPLETION RIG
	12:00 - 14:00	2.00	BOP	1	NIPPLE UP 7 1/16"-5K BOP
	14:00 - 15:00	1.00	RIG	1	SERVICE RIG
	15:00 - 16:30	1.50	TRAV	1	TRAVEL TO RANGELY
8/5/2010	05:30 - 07:00	1.50	TRAV	1	TRAVEL TO LOCATION
	07:00 - 12:00	5.00	TRP	5	PICK UP FISHING TOOLS & 2 7/8" TBG TO 5350
	12:00 - 13:30	1.50	CIRC	1	CIRC WELL CLEAN W/200 BBLS 2% KCL WATER.
	13:30 - 14:30	1.00	FISH	3	JAR SETTING TOOL FREE
	14:30 - 16:00	1.50	TRP	2	POOH W/FISHING TOOLS & FISH(WIRELINE SETTING TOOL)
	16:00 - 17:00	1.00	TRP	4	LAY DOWN TOOLS & FISH-SWIFN
	17:00 - 18:30	1.50	TRAV	1	TRAVEL TO RANGELY
	18:30 -				LLTR=200 BBLS.
8/6/2010	05:30 - 07:00	1.50	TRAV	1	TRAVEL TO LOCATION
	07:00 - 12:00	5.00	LOG	2	RUN CBL F/5350-SURF, CEMENT TOP @3402
	12:00 - 12:15	0.25	EQT	1	PRESS. TEST 7" CSG TO 3500 PSI / 15 MIN -HELD
	12:15 - 13:45	1.50	TRP	2	RIH W/ RET HEAD & 2 7/8" TBG, RELEASE RBP @ 5350'
	13:45 - 15:15	1.50	TRP	2	POOH W/TBG & RBP
	15:15 - 16:00	0.75	TRP	2	RIH W/ 2 7/8" KILLSTRING TO 1000' SWIFWE
	16:00 - 17:30	1.50	TRAV	1	TRAVEL TO RANGELY LLTR=348 BBLS.
8/9/2010	05:30 - 07:00	1.50	TRAV	1	TRAVEL TO LOCATION
	07:00 - 08:00	1.00	TRP	2	POOH W/ KILLSTRING
	08:00 - 11:30	3.50	TRP	2	RIH W/ 3 3/4" BIT,3570'-2 3/8" WORKSTRING & 2 7/8" TBG
	11:30 - 14:30	3.00	DRL	4	DRILL UP 4 1/2" LINER SHOE @ 8815, RIH TO TD @9610
	14:30 - 17:00	2.50	TRP	2	POOH W/ 3 3/4" BIT TO 3600' , SWIFN
	17:00 - 18:30	1.50	TRAV	1	TRAVEL TO RANGELY LLTR = 438 BBLS
8/10/2010	05:30 - 07:00	1.50	TRAV	1	TRAVEL TO LOCATION
	07:00 - 08:30	1.50	TRP	2	FINISH POOH W/ 2 3/8" WORKSTRING & 3 3/4" BIT
	08:30 - 10:30	2.00	LOG	4	RIG UP JW WIRELINE & CHEMICAL CUT 4 1/2" LINER @ 6120'
	10:30 - 12:30	2.00	TRP	2	RIH W/ 4 1/2" CSG SPEAR , BUMPER SUB & 2 7/8" TBG
	12:30 - 12:45	0.25	FISH	5	ENGAGE FISHTOP @ 5560 & PULL LINER FREE @ 5000# OVER STRING WT.
	12:45 - 14:15	1.50	TRP	2	POOH W/ 2 7/8" TBG
	14:15 - 16:00	1.75	TRP	4	LAY DN FISHING TOOLS & 557.79' 4 1/2" CSG. SWIFN
	16:00 - 17:30	1.50	TRAV	1	TRAVEL TO RANGELY LLTR = 458 BBLS
8/11/2010	05:30 - 07:00	1.50	TRAV	1	TRAVEL TO LOCATION
	07:00 - 11:00	4.00	TRP	2	RIH W/ TBG TO 9566'
	11:00 - 15:00	4.00	RIG	1	SWIFN SERVICE EQUIPMENT
	15:00 - 16:30	1.50	TRAV	1	TRAVELTO RANGELY LLTR = 458 BBLS
8/12/2010	05:30 - 07:00	1.50	TRAV	1	TRAVEL TO LOCATION
	07:00 - 13:30	6.50	STIM	1	PUMP 6 STAGE ACID SQUEEZE ON UPPER LATERAL
	13:30 - 15:30	2.00	TRP	2	POOH W/ TBG TO 3700' SWIFN LLTR = 1337 BBLS
	15:30 - 17:00	1.50	TRAV	1	TRAVEL TO RANGELY
8/13/2010	05:30 - 07:00	1.50	TRAV	1	TRAVEL TO LOCATION
	07:00 - 08:30	1.50	TRP	2	BLEED OFF WELL, POOH W/ 2 3/8" WORKSTRING
	08:30 - 15:00	6.50	TRP	2	MAKE UP WHIPSTOCK FISHING TOOLS & RIH, JAR WHIPSTOCK FREE @ 6092' POOH & LAYDOWN FISHING TOOLS & WHIPSTOCK
	15:00 - 16:00	1.00	TRP	2	RIH W/ RET HEAD & 2 7/8" TBG TO 3100' SWIFN
	16:00 - 17:30	1.50	TRAV	1	TRAVEL TO RANGELY LLTR= 1337 BBLS
8/14/2010	05:30 - 07:00	1.50	TRAV	1	TRAVEL TO LOCATION
	07:00 - 07:15	0.25	WCL	2	BLEED OFF WELL
	07:15 - 08:30	1.25	TRP	2	FINISH RIH W/ RET HEAD,F-NIPPLE & 2 7/8" TBG TO 5998'
	08:30 - 15:00	6.50	SWAB	1	SWAB TEST UPPER LATERAL SWIFWE LLTR=1217 BBLS
	15:00 - 16:30	1.50	TRAV	2	TRAVEL TO RANGELY

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Operations Summary Report

Well Name: JB 8G-21-7-21
Location: 21- 7-S 21-E 26
Rig Name: ROCKY MTN WS

Spud Date: 4/18/2010
Rig Release:
Rig Number: 3

Date	From - To	Hours	Code	Sub Code	Description of Operations
8/16/2010	05:30 - 07:00	1.50	TRAV	1	TRAVEL TO LOCATION
	07:00 - 09:00	2.00	SWAB	1	SWAB TEST UPPER LATERAL
	09:00 - 12:00	3.00	CIRC	3	BREAK CIRC & RELEASE RBP @ 6125
	12:00 - 14:30	2.50	TRP	2	POOH W/ RBP
	14:30 - 17:00	2.50	TRP	2	RIH W/ 3570'-2 3/8" TBG & 2 7/8" TBG TO 6500' SWIFN LLTR= 1554 BBL
	17:00 - 18:30	1.50	TRAV	1	TRAVEL TO RANGELY
8/17/2010	05:30 - 07:00	1.50	TRAV	1	TRAVEL TO LOCATION
	07:00 - 08:00	1.00	TRP	2	FINISH RIH TO 8446'
	08:00 - 13:00	5.00	STIM	1	RIG UP HES & PUMP 5 STAGE ACID SQUEEZE ON LOWER LATERAL
	13:00 - 15:00	2.00	TRP	2	POOH TO 3570' SWIFN LLTR=2250 BBLS
	15:00 - 16:30	1.50	TRAV	1	TRAVEL TO RANGELY
8/18/2010	05:30 - 07:00	1.50	TRAV	1	TRAVEL TO LOCATION
	07:00 - 09:00	2.00	TRP	5	LAY DOWN 2 3/8" WORKSTRING
	09:00 - 11:00	2.00	TRP	2	RIH W/ 7" PKR,SN & 2 7/8" TBG, SET PKR @ 6790 W/ SN @ 6754'
	11:00 - 16:00	5.00	SWAB	1	SWAB-TEST LOWER LATERAL SWIFN LLTR= 2168 BBLS
	16:00 - 17:30	1.50	TRAV	1	TRAVEL TO RANGELY
8/19/2010	05:30 - 07:00	1.50	TRAV	1	TRAVEL TO LOCATION
	07:00 - 15:00	8.00	SWAB	1	SWAB-TEST LOWER LATERAL W/ PKR @ 6790' 25% OIL-CUT
	15:00 - 16:30	1.50	TRAV	1	SWIFN LLTR=2046 BBLS TRAVEL TO RANGELY
8/20/2010	05:30 - 07:00	1.50	TRAV	1	TRAVEL TO LOCATION
	07:00 - 08:00	1.00	SWAB	1	MAKE 1-SWAB RUN TO 5800' FL@4800' REC 5-BBLS OIL
	08:00 - 10:30	2.50	TRP	2	RELEASE PKR @ 6790' & POOH
	10:30 - 13:30	3.00	TRP	2	RIH W/ PROD TBG
	13:30 - 16:00	2.50	WHD	2	N/D BOP, SET ANCHOR & N/U WELLHEAD SWIFWE LLTR=2046 BBLS
	16:00 - 17:30	1.50	TRAV	1	TRAVEL TO RANGELY
8/23/2010	05:30 - 07:00	1.50	TRAV	1	TRAVEL TO LOCATION
	07:00 - 08:00	1.00	HOT	1	FLUSH TBG W/ 75 BBLS 230 DEG. SNAKE OIL
	08:00 - 14:00	6.00	TRP	7	PICK-UP AND RIH W/ PUMP & RODS
	14:00 - 15:00	1.00	TRP	18	LOAD TBG W/ 21 BBLS & LONG STROKE PUMP TO 600 PSI-OK LLTR=2067 BBLS
	15:00 - 16:00	1.00	LOC	4	RIG DOWN WELL SERVICE EQUIPMENT
	16:00 - 17:30	1.50	TRAV	1	TRAVEL TO RANGELY

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Tie-in Date: 06/27/2010
Date Completed: 07/03/2010

PathFinder Energy Services, Inc.
Survey Report

QUESTAR EXPLORATION & PRODUCTION CO
JB 8G-21-7-21 ST1 LAT. 1
UNITAH COUNTY, UT
Rig:AZTEC 781
PathFinder Office Supervisor: MARK TRAHAN
PathFinder Field Engineers: MICHAEL FLOWERS
KHALED BARAKE

Survey Calculations by RX5 V6.03A using Minimum Curvature

Survey Horiz. Reference:WELLHEAD
Ref Coordinates: LAT:40.11.51.4799 N LON:109.33.15.4600 W
GRID Reference:NAD83 utah north Lambert
Ref GRID Coor: X: 2183978.7000 Y: 3237478.0100
North Aligned To:TRUE NORTH
Total Magnetic Correction:11.15°EAST TO TRUE
Vertical Section Plane: 237.72
Survey Vert. Reference: 14.00' Rotary Table To Ground
Altitude:4813.00' Ground To MSL

Measured Depth (ft)	Incl (deg)	Drift Dir. (deg)	TVD (ft)	Course Length (ft)	Vertical Section (ft)	TOTAL Rectangular Offsets (ft)	(ft)	Closure Dist (ft)	Dir (deg)	DLS (dg/100ft)
THE FOLLOWING ARE NATIVE NAVIGATION EM SURVEYS.										
578.00	0.70	343.70	577.98	0.00	-0.97	3.39 N	0.99 W	3.53@	343.69	0.00
701.00	0.30	260.30	700.98	123.00	-0.88	4.06 N	1.52 W	4.33@	339.46	0.59
762.00	0.30	291.00	761.98	61.00	-0.64	4.09 N	1.83 W	4.48@	335.92	0.26
824.00	0.20	296.20	823.98	62.00	-0.49	4.19 N	2.08 W	4.68@	333.67	0.17
885.00	0.10	231.80	884.98	61.00	-0.38	4.21 N	2.21 W	4.76@	332.26	0.30
945.00	0.10	13.80	944.98	60.00	-0.36	4.23 N	2.24 W	4.79@	332.06	0.31
1068.00	0.10	40.10	1067.98	123.00	-0.54	4.41 N	2.15 W	4.91@	334.06	0.04
1131.00	0.10	99.50	1130.98	63.00	-0.64	4.45 N	2.06 W	4.90@	335.17	0.16
1192.00	0.10	106.70	1191.98	61.00	-0.71	4.42 N	1.95 W	4.84@	336.16	0.02
1316.00	0.40	230.20	1315.98	124.00	-0.35	4.11 N	2.18 W	4.66@	332.05	0.37
1443.00	0.40	206.80	1442.97	127.00	0.47	3.43 N	2.72 W	4.38@	321.59	0.13
1570.00	0.60	228.00	1569.97	127.00	1.50	2.59 N	3.42 W	4.29@	307.20	0.21
1634.00	0.50	234.00	1633.97	64.00	2.11	2.21 N	3.89 W	4.47@	299.54	0.18
1697.00	0.70	232.70	1696.96	63.00	2.77	1.81 N	4.42 W	4.78@	292.28	0.32
1824.00	0.90	210.20	1823.95	127.00	4.43	0.48 N	5.54 W	5.56@	274.94	0.29
1888.00	0.90	213.20	1887.94	64.00	5.33	0.38 S	6.07 W	6.08@	266.45	0.07
1951.00	0.80	202.80	1950.94	63.00	6.14	1.20 S	6.51 W	6.62@	259.59	0.29
2015.00	0.70	199.00	2014.93	64.00	6.81	1.98 S	6.81 W	7.09@	253.81	0.17
2078.00	0.60	197.20	2077.93	63.00	7.36	2.66 S	7.03 W	7.52@	249.31	0.16
2142.00	0.60	192.70	2141.92	64.00	7.86	3.30 S	7.21 W	7.93@	245.37	0.07
2205.00	0.60	180.20	2204.92	63.00	8.27	3.95 S	7.28 W	8.28@	241.49	0.21
2269.00	0.80	178.30	2268.91	64.00	8.67	4.74 S	7.27 W	8.67@	236.91	0.31
2332.00	0.70	180.10	2331.91	63.00	9.10	5.56 S	7.25 W	9.14@	232.53	0.16
2396.00	0.90	183.00	2395.90	64.00	9.60	6.45 S	7.28 W	9.73@	228.45	0.32
2459.00	1.10	189.80	2458.89	63.00	10.29	7.54 S	7.41 W	10.57@	224.49	0.37
2523.00	1.30	189.50	2522.88	64.00	11.19	8.87 S	7.63 W	11.70@	220.74	0.31

Attn: HELEN SADIK-MACDONALD

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PathFinder Energy Services, Inc.
Survey Report

QUESTAR EXPLORATION & PRODUCTION CO
JB 8G-21-7-21 ST1
UNITAH COUNTY, UT
RIG:AZTEC 781

Measured Depth (ft)	Incl (deg)	Drift Dir. (deg)	TVD (ft)	Course Length (ft)	Vertical Section (ft)	TOTAL Rectangular Offsets (ft)	(ft)	Closure Dist (ft)	Dir (deg)	DLS (dg/100ft)
2586.00	1.30	187.80	2585.86	63.00	12.13	10.28 S	7.85 W	12.93@	217.37	0.06
2650.00	1.30	179.10	2649.85	64.00	12.97	11.72 S	7.94 W	14.16@	214.10	0.31
2713.00	1.30	168.80	2712.83	63.00	13.60	13.14 S	7.79 W	15.27@	210.65	0.37
2777.00	1.30	167.50	2776.81	64.00	14.11	14.56 S	7.49 W	16.37@	207.22	0.05
2840.00	1.30	161.10	2839.80	63.00	14.51	15.93 S	7.10 W	17.44@	204.03	0.23
2903.00	1.50	158.00	2902.78	63.00	14.83	17.37 S	6.56 W	18.57@	200.69	0.34
2967.00	1.60	156.60	2966.76	64.00	15.11	18.97 S	5.89 W	19.87@	197.26	0.17
3030.00	1.60	151.60	3029.73	63.00	15.31	20.55 S	5.13 W	21.18@	194.00	0.22
3094.00	1.50	150.80	3093.71	64.00	15.41	22.07 S	4.29 W	22.48@	191.01	0.16
3157.00	1.30	160.20	3156.69	63.00	15.61	23.46 S	3.65 W	23.74@	188.84	0.48
3221.00	1.30	155.70	3220.67	64.00	15.87	24.81 S	3.10 W	25.00@	187.13	0.16
3284.00	1.30	153.30	3283.66	63.00	16.04	26.10 S	2.49 W	26.21@	185.45	0.09
3348.00	1.20	156.20	3347.64	64.00	16.21	27.36 S	1.89 W	27.42@	183.95	0.19
3411.00	1.40	158.50	3410.62	63.00	16.45	28.68 S	1.34 W	28.71@	182.68	0.33
3475.00	1.60	178.10	3474.60	64.00	17.05	30.30 S	1.03 W	30.31@	181.94	0.86
3538.00	1.40	195.10	3537.58	63.00	18.06	31.92 S	1.20 W	31.94@	182.15	0.77
3601.00	1.50	194.20	3600.56	63.00	19.22	33.46 S	1.60 W	33.50@	182.74	0.16
3665.00	1.60	194.00	3664.54	64.00	20.48	35.14 S	2.02 W	35.20@	183.29	0.16
3728.00	1.80	184.00	3727.51	63.00	21.70	36.98 S	2.30 W	37.05@	183.57	0.57
3792.00	2.00	176.30	3791.48	64.00	22.83	39.10 S	2.30 W	39.17@	183.37	0.51
3855.00	1.70	161.00	3854.44	63.00	23.57	41.08 S	1.93 W	41.12@	182.69	0.91
3919.00	2.00	151.00	3918.41	64.00	23.85	42.95 S	1.08 W	42.97@	181.44	0.69
3982.00	2.60	151.30	3981.36	63.00	24.00	45.17 S	0.14 E	45.17@	179.82	0.95
4046.00	2.50	149.60	4045.30	64.00	24.14	47.65 S	1.55 E	47.67@	178.14	0.20
4109.00	2.10	150.30	4108.24	63.00	24.24	49.83 S	2.81 E	49.91@	176.77	0.64
4172.00	1.90	153.30	4171.21	63.00	24.39	51.77 S	3.85 E	51.91@	175.74	0.36
4236.00	1.80	151.10	4235.17	64.00	24.55	53.60 S	4.82 E	53.81@	174.86	0.19
4299.00	1.70	148.70	4298.14	63.00	24.63	55.26 S	5.78 E	55.56@	174.03	0.20
4363.00	1.70	144.50	4362.12	64.00	24.59	56.85 S	6.82 E	57.25@	173.15	0.19

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PathFinder Energy Services, Inc.
Survey Report

QUESTAR EXPLORATION & PRODUCTION CO
JB 8G-21-7-21 ST1
UNITAH COUNTY, UT
RIG:AZTEC 781

Measured Depth (ft)	Incl (deg)	Drift Dir. (deg)	TVD (ft)	Course Length (ft)	Vertical Section (ft)	TOTAL Rectangular Offsets (ft)	(ft)	Closure Dist (ft)	Dir (deg)	DLS (dg/100ft)
4426.00	1.70	142.00	4425.09	63.00	24.44	58.34 S	7.94 E	58.88@	172.25	0.12
4490.00	1.80	140.20	4489.06	64.00	24.22	59.86 S	9.17 E	60.56@	171.29	0.18
4554.00	1.70	142.00	4553.03	64.00	23.99	61.38 S	10.40 E	62.26@	170.39	0.18
4617.00	1.70	144.80	4616.00	63.00	23.85	62.88 S	11.51 E	63.93@	169.63	0.13
4681.00	1.80	145.20	4679.97	64.00	23.76	64.48 S	12.63 E	65.71@	168.92	0.16
4744.00	1.80	143.00	4742.94	63.00	23.63	66.09 S	13.79 E	67.51@	168.21	0.11
4808.00	2.00	144.50	4806.90	64.00	23.49	67.80 S	15.05 E	69.45@	167.49	0.32
4871.00	2.00	147.30	4869.87	63.00	23.42	69.62 S	16.28 E	71.50@	166.84	0.16
4935.00	1.80	140.80	4933.83	64.00	23.29	71.34 S	17.52 E	73.46@	166.20	0.46
4998.00	1.70	138.90	4996.80	63.00	23.03	72.81 S	18.76 E	75.19@	165.55	0.18
5062.00	1.50	135.40	5060.78	64.00	22.70	74.12 S	19.97 E	76.76@	164.92	0.35
5125.00	1.60	141.80	5123.75	63.00	22.43	75.40 S	21.09 E	78.29@	164.37	0.32
5251.00	1.30	146.20	5249.71	126.00	22.22	77.97 S	22.98 E	81.28@	163.58	0.25
5315.00	1.50	144.70	5313.69	64.00	22.15	79.26 S	23.86 E	82.77@	163.24	0.32
5378.00	1.70	161.80	5376.67	63.00	22.34	80.82 S	24.63 E	84.49@	163.05	0.82
5442.00	1.80	171.50	5440.64	64.00	22.97	82.71 S	25.08 E	86.43@	163.13	0.49
5505.00	1.80	170.10	5503.61	63.00	23.75	84.67 S	25.39 E	88.39@	163.30	0.07
5633.00	1.90	170.20	5631.54	128.00	25.32	88.74 S	26.10 E	92.50@	163.61	0.08
5696.00	2.00	166.30	5694.50	63.00	26.07	90.83 S	26.54 E	94.63@	163.71	0.26
5760.00	1.90	168.60	5758.47	64.00	26.81	92.96 S	27.01 E	96.80@	163.80	0.20
5823.00	1.90	162.50	5821.43	63.00	27.45	94.98 S	27.53 E	98.89@	163.83	0.32
5887.00	2.10	156.30	5885.39	64.00	27.89	97.07 S	28.32 E	101.11@	163.73	0.46
5950.00	2.20	157.10	5948.35	63.00	28.26	99.24 S	29.26 E	103.46@	163.57	0.17
6014.00	2.30	156.30	6012.30	64.00	28.65	101.54 S	30.25 E	105.95@	163.41	0.16
6077.00	2.10	159.20	6075.25	63.00	29.07	103.78 S	31.17 E	108.36@	163.28	0.36
6141.00	1.90	151.80	6139.22	64.00	29.38	105.81 S	32.09 E	110.57@	163.13	0.51
6173.00	2.90	204.00	6171.19	32.00	30.09	107.02 S	32.01 E	111.70@	163.35	7.17
6204.00	7.20	231.20	6202.07	31.00	32.68	108.95 S	30.18 E	113.05@	164.52	15.50
6236.00	10.10	248.60	6233.70	32.00	37.43	111.23 S	26.00 E	114.23@	166.84	12.11

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PathFinder Energy Services, Inc.
Survey Report

QUESTAR EXPLORATION & PRODUCTION CO
JB 8G-21-7-21 ST1
UNITAH COUNTY, UT
RIG:AZTEC 781

Measured Depth (ft)	Incl (deg)	Drift Dir. (deg)	TVD (ft)	Course Length (ft)	Vertical Section (ft)	TOTAL Rectangular Offsets (ft)	(ft)	Closure Dist (ft)	Dir (deg)	DLS (dg/100ft)
6268.00	14.50	257.00	6264.96	32.00	43.97	113.16 S	19.48 E	114.82@	170.23	14.81
6300.00	18.60	258.00	6295.63	32.00	52.54	115.12 S	10.58 E	115.61@	174.75	12.84
6331.00	22.50	259.30	6324.65	31.00	62.70	117.25 S	0.09 W	117.25@	180.04	12.67
6363.00	25.60	262.80	6353.87	32.00	74.65	119.26 S	12.97 W	119.96@	186.21	10.66
6395.00	28.60	263.40	6382.36	32.00	87.82	121.00 S	27.44 W	124.08@	192.78	9.41
6427.00	32.10	262.30	6409.97	32.00	102.46	123.02 S	43.48 W	130.48@	199.46	11.07
6448.00	34.80	261.50	6427.49	21.00	113.02	124.66 S	54.94 W	136.23@	203.78	13.03
6480.00	38.90	260.20	6453.09	32.00	130.67	127.72 S	73.88 W	147.55@	210.05	13.04
6512.00	43.30	258.70	6477.20	32.00	150.21	131.58 S	94.55 W	162.03@	215.70	14.09
6543.00	46.60	256.70	6499.14	31.00	170.79	136.26 S	115.94 W	178.91@	220.39	11.58
6575.00	50.20	253.70	6520.38	32.00	193.61	142.38 S	139.06 W	199.03@	224.32	13.25
6607.00	53.80	251.50	6540.08	32.00	217.98	149.93 S	163.11 W	221.55@	227.41	12.48
6639.00	57.10	249.10	6558.23	32.00	243.70	158.83 S	187.92 W	246.05@	229.80	12.02
6670.00	60.90	245.90	6574.19	31.00	269.88	169.01 S	212.45 W	271.47@	231.50	15.12
6702.00	64.30	242.10	6588.92	32.00	298.10	181.47 S	237.97 W	299.27@	232.67	14.97
6734.00	66.90	237.60	6602.15	32.00	327.21	196.11 S	263.15 W	328.19@	233.31	15.16
6765.00	70.60	234.10	6613.38	31.00	356.08	212.33 S	287.05 W	357.04@	233.51	15.91
6796.00	72.90	231.20	6623.09	31.00	385.40	230.19 S	310.44 W	386.48@	233.44	11.57
6828.00	74.10	230.30	6632.18	32.00	415.85	249.61 S	334.20 W	417.13@	233.25	4.62
6860.00	76.00	230.30	6640.44	32.00	446.51	269.35 S	357.99 W	448.00@	233.04	5.94
6892.00	79.80	230.60	6647.14	32.00	477.54	289.27 S	382.11 W	479.26@	232.87	11.91
6923.00	84.60	231.10	6651.35	31.00	508.03	308.66 S	405.92 W	509.94@	232.75	15.57
6955.00	87.10	231.50	6653.66	32.00	539.74	328.61 S	430.83 W	541.85@	232.67	7.91
6987.00	86.90	231.30	6655.34	32.00	571.50	348.55 S	455.80 W	573.80@	232.60	0.88
** TIED INTO NATIVE NAVIGATION EM SURVEY @ 7024'MD.										
7024.00	89.10	231.60	6656.63	37.00	608.26	371.59 S	484.72 W	610.76@	232.53	6.00
THE FOLLOWING ARE NATIVE NAVIGATION MWD SURVEYS.										
7079.00	91.40	227.20	6656.39	55.00	662.66	407.37 S	526.47 W	665.67@	232.27	9.03
ST1 DEPARTS ORIGINAL WELLBORE @ 7090'MD (6656'TVD).										
THE FOLLOWING ARE PATHFINDER MWD SURVEYS.										
7108.00	89.87	228.66	6656.07	29.00	691.23	426.80 S	547.99 W	694.59@	232.09	7.29
7123.00	89.78	228.53	6656.11	15.00	706.04	436.72 S	559.24 W	709.56@	232.01	1.05

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QUESTAR EXPLORATION & PRODUCTION CO
JB 8G-21-7-21 ST1
UNITAH COUNTY, UT
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Measured Depth (ft)	Incl (deg)	Drift Dir. (deg)	TVD (ft)	Course Length (ft)	Vertical Section (ft)	TOTAL Rectangular Offsets (ft)	(ft)	Closure Dist (ft)	Dir (deg)	DLS (dg/100ft)
7151.00	89.87	228.33	6656.20	28.00	733.68	455.30 S	580.19 W	737.51@	231.88	0.78
7185.00	90.57	228.09	6656.07	34.00	767.21	477.96 S	605.54 W	771.44@	231.72	2.18
7216.00	91.28	228.23	6655.57	31.00	797.77	498.63 S	628.63 W	802.38@	231.58	2.33
7247.00	91.19	228.29	6654.90	31.00	828.34	519.27 S	651.76 W	833.32@	231.46	0.35
7275.00	91.01	228.95	6654.36	28.00	855.99	537.77 S	672.76 W	861.28@	231.36	2.44
7307.00	90.13	229.18	6654.04	32.00	887.62	558.74 S	696.94 W	893.26@	231.28	2.84
7336.00	89.25	229.63	6654.20	29.00	916.32	577.61 S	718.96 W	922.24@	231.22	3.41
7369.00	89.52	230.16	6654.56	33.00	949.01	598.86 S	744.20 W	955.23@	231.18	1.80
7402.00	91.89	230.41	6654.15	33.00	981.72	619.95 S	769.58 W	988.22@	231.15	7.22
7442.00	92.24	230.70	6652.71	40.00	1021.39	645.34 S	800.45 W	1028.19@	231.12	1.14
7473.00	89.78	231.18	6652.16	31.00	1052.16	664.87 S	824.51 W	1059.19@	231.12	8.09
7503.00	89.60	231.52	6652.32	30.00	1081.98	683.61 S	847.94 W	1089.18@	231.12	1.28
7535.00	90.66	232.31	6652.25	32.00	1113.81	703.35 S	873.13 W	1121.18@	231.15	4.13
7567.00	90.22	232.97	6652.01	32.00	1145.68	722.77 S	898.56 W	1153.17@	231.19	2.48
7601.00	91.19	233.85	6651.59	34.00	1179.58	743.03 S	925.86 W	1187.14@	231.25	3.85
7631.00	90.92	234.21	6651.04	30.00	1209.52	760.65 S	950.13 W	1217.10@	231.32	1.50
7665.00	90.48	235.01	6650.62	34.00	1243.46	780.34 S	977.85 W	1251.04@	231.41	2.69
7696.00	90.40	235.90	6650.38	31.00	1274.44	797.91 S	1003.38 W	1281.97@	231.51	2.88
7729.00	90.40	236.26	6650.15	33.00	1307.42	816.33 S	1030.76 W	1314.86@	231.62	1.09
7762.00	89.43	236.66	6650.20	33.00	1340.42	834.56 S	1058.27 W	1347.75@	231.74	3.18
7798.00	90.31	237.21	6650.28	36.00	1376.41	854.20 S	1088.44 W	1383.60@	231.88	2.88
7828.00	89.60	237.83	6650.31	30.00	1406.41	870.31 S	1113.75 W	1413.46@	231.99	3.14
7847.00	90.31	237.86	6650.32	19.00	1425.41	880.43 S	1129.83 W	1432.36@	232.07	3.74
7878.00	90.92	237.30	6649.99	31.00	1456.41	897.04 S	1156.00 W	1463.22@	232.19	2.67
7909.00	92.33	237.23	6649.11	31.00	1487.39	913.80 S	1182.06 W	1494.09@	232.29	4.55
7942.00	91.36	236.86	6648.05	33.00	1520.38	931.74 S	1209.74 W	1526.96@	232.40	3.15
7973.00	89.96	237.27	6647.69	31.00	1551.37	948.59 S	1235.75 W	1557.86@	232.49	4.71
8005.00	89.52	238.13	6647.83	32.00	1583.37	965.69 S	1262.80 W	1589.73@	232.59	3.02
8033.00	89.60	238.50	6648.05	28.00	1611.37	980.40 S	1286.63 W	1617.59@	232.69	1.35

CONFIDENTIAL

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Survey Report

QUESTAR EXPLORATION & PRODUCTION CO
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UNITAH COUNTY, UT
RIG:AZTEC 781

Measured Depth (ft)	Incl (deg)	Drift Dir. (deg)	TVD (ft)	Course Length (ft)	Vertical Section (ft)	TOTAL Rectangular Offsets (ft)	(ft)	Closure Dist (ft)	Dir (deg)	DLS (dg/100ft)
8065.00	90.57	238.49	6648.00	32.00	1643.36	997.12 S	1313.91 W	1649.43@	232.81	3.03
8096.00	89.87	237.03	6647.88	31.00	1674.36	1013.66 S	1340.13 W	1680.31@	232.90	5.22
8128.00	90.48	237.72	6647.79	32.00	1706.36	1030.91 S	1367.08 W	1712.22@	232.98	2.88
8162.00	90.13	237.58	6647.60	34.00	1740.36	1049.10 S	1395.80 W	1746.11@	233.07	1.11
8193.00	90.66	238.04	6647.39	31.00	1771.36	1065.62 S	1422.04 W	1777.00@	233.15	2.26
8222.00	89.43	238.02	6647.37	29.00	1800.36	1080.97 S	1446.64 W	1805.90@	233.23	4.24
8258.00	91.19	238.65	6647.17	36.00	1836.35	1099.87 S	1477.28 W	1841.75@	233.33	5.19
8287.00	90.48	238.53	6646.75	29.00	1865.35	1114.98 S	1502.03 W	1870.63@	233.41	2.48
8317.00	89.96	237.99	6646.64	30.00	1895.35	1130.76 S	1527.54 W	1900.53@	233.49	2.50
8353.00	90.13	238.06	6646.61	36.00	1931.35	1149.83 S	1558.08 W	1936.41@	233.57	0.51
8384.00	90.40	238.48	6646.46	31.00	1962.34	1166.13 S	1584.44 W	1967.31@	233.65	1.61
8417.00	90.66	239.03	6646.16	33.00	1995.34	1183.25 S	1612.65 W	2000.18@	233.73	1.84
8428.00	91.10	239.42	6645.99	11.00	2006.33	1188.87 S	1622.10 W	2011.13@	233.76	5.34
STRAIGHT LINE PROJECTION TO BIT DEPTH AT 8500'MD.										
8500.00	91.10	239.42	6644.61	72.00	2078.29	1225.50 S	1684.08 W	2082.78@	233.96	0.00

** The survey data at tie-in point was furnished by a recognized survey company and entered as submitted. Survey stations above the tie-in point represent recalculated data by PathFinder Energy Services, Inc. and may reflect minor changes due to rounding differences between survey programs. Only survey stations taken by qualified PathFinder personnel are subject to certification.

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Tie-in Date: 07/06/2010
Date Completed: 07/27/2010

PathFinder Energy Services, Inc.
Survey Report

QUESTAR EXPLORATION & PRODUCTION CO
JB 8G-21-7-21 LATERAL #2 ST2
UINTAH COUNTY, UT
Rig:AZTEC 781
PathFinder Office Supervisor: MARK TRAHAN
PathFinder Field Engineers: MICHAEL FLOWERS
KHALED BARAKE

Survey Calculations by RX5 V6.03A using Minimum Curvature

Survey Horiz. Reference:WELLHEAD
Ref Coordinates: LAT:40.11.51.4799 N LON:109.33.15.4600 W
GRID Reference:NAD83 utah north Lambert
Ref GRID Coor: X: 2183978.7000 Y: 3237478.0100
North Aligned To:TRUE NORTH
Total Magnetic Correction:11.15°EAST TO TRUE
Vertical Section Plane: 133.28
Survey Vert. Reference: 14.00' Rotary Table To Ground
Altitude:4813.00' Ground To MSL

Measured Depth (ft)	Incl (deg)	Drift Dir. (deg)	TVD (ft)	Course Length (ft)	Vertical Section (ft)	TOTAL Rectangular Offsets (ft)	(ft)	Closure Dist (ft)	Dir (deg)	DLS (dg/100ft)
THE FOLLOWING ARE NATIVE NAVIGATION EM SURVEYS.										
578.00	0.70	343.70	577.98	0.00	-3.05	3.39 N	0.99 W	3.53@	343.69	0.00
701.00	0.30	260.30	700.98	123.00	-3.89	4.06 N	1.52 W	4.33@	339.46	0.59
762.00	0.30	291.00	761.97	61.00	-4.13	4.09 N	1.83 W	4.48@	335.92	0.26
824.00	0.20	296.20	823.97	62.00	-4.39	4.19 N	2.08 W	4.68@	333.67	0.17
885.00	0.10	231.80	884.97	61.00	-4.50	4.21 N	2.21 W	4.76@	332.26	0.30
945.00	0.10	13.80	944.97	60.00	-4.53	4.23 N	2.24 W	4.79@	332.06	0.31
1068.00	0.10	40.10	1067.97	123.00	-4.59	4.41 N	2.15 W	4.91@	334.05	0.04
1131.00	0.10	99.50	1130.97	63.00	-4.55	4.45 N	2.06 W	4.90@	335.17	0.16
1192.00	0.10	106.70	1191.97	61.00	-4.45	4.42 N	1.95 W	4.84@	336.16	0.02
1316.00	0.40	230.20	1315.97	124.00	-4.41	4.11 N	2.18 W	4.66@	332.05	0.37
1443.00	0.40	206.80	1442.97	127.00	-4.34	3.43 N	2.72 W	4.38@	321.59	0.13
1570.00	0.60	228.00	1569.97	127.00	-4.27	2.59 N	3.42 W	4.29@	307.20	0.21
1634.00	0.50	234.00	1633.96	64.00	-4.35	2.21 N	3.89 W	4.47@	299.54	0.18
1697.00	0.70	232.70	1696.96	63.00	-4.46	1.81 N	4.42 W	4.78@	292.28	0.32
1824.00	0.90	210.20	1823.95	127.00	-4.36	0.48 N	5.54 W	5.56@	274.94	0.29
1888.00	0.90	213.20	1887.94	64.00	-4.16	0.38 S	6.07 W	6.08@	266.45	0.07
1951.00	0.80	202.80	1950.93	63.00	-3.92	1.20 S	6.51 W	6.62@	259.59	0.29
2015.00	0.70	199.00	2014.93	64.00	-3.60	1.98 S	6.81 W	7.09@	253.81	0.17
2078.00	0.60	197.20	2077.92	63.00	-3.30	2.66 S	7.03 W	7.52@	249.31	0.16
2142.00	0.60	192.70	2141.92	64.00	-2.98	3.30 S	7.21 W	7.93@	245.37	0.07
2205.00	0.60	180.20	2204.92	63.00	-2.59	3.95 S	7.28 W	8.28@	241.49	0.21
2269.00	0.80	178.30	2268.91	64.00	-2.04	4.74 S	7.27 W	8.67@	236.91	0.31
2332.00	0.70	180.10	2331.90	63.00	-1.47	5.56 S	7.25 W	9.14@	232.53	0.16
2396.00	0.90	183.00	2395.90	64.00	-0.88	6.45 S	7.28 W	9.73@	228.45	0.32
2459.00	1.10	189.80	2458.89	63.00	-0.22	7.54 S	7.41 W	10.57@	224.49	0.37
2523.00	1.30	189.50	2522.88	64.00	0.52	8.87 S	7.63 W	11.70@	220.74	0.31

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DIV. OF OIL, GAS & MINING

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UINTAH COUNTY, UT
RIG:AZTEC 781

Measured Depth (ft)	Incl (deg)	Drift Dir. (deg)	TVD (ft)	Course Length (ft)	Vertical Section (ft)	TOTAL Rectangular Offsets (ft)	(ft)	Closure Dist (ft)	Dir (deg)	DLS (dg/100ft)
2586.00	1.30	187.80	2585.86	63.00	1.33	10.28 S	7.85 W	12.93@	217.37	0.06
2650.00	1.30	179.10	2649.84	64.00	2.26	11.72 S	7.94 W	14.16@	214.10	0.31
2713.00	1.30	168.80	2712.83	63.00	3.34	13.14 S	7.79 W	15.27@	210.65	0.37
2777.00	1.30	167.50	2776.81	64.00	4.53	14.56 S	7.49 W	16.37@	207.22	0.05
2840.00	1.30	161.10	2839.79	63.00	5.75	15.93 S	7.10 W	17.44@	204.03	0.23
2903.00	1.50	158.00	2902.77	63.00	7.13	17.37 S	6.56 W	18.57@	200.69	0.34
2967.00	1.60	156.60	2966.75	64.00	8.72	18.97 S	5.89 W	19.87@	197.26	0.17
3030.00	1.60	151.60	3029.73	63.00	10.36	20.55 S	5.13 W	21.18@	194.00	0.22
3094.00	1.50	150.80	3093.70	64.00	12.00	22.07 S	4.29 W	22.48@	191.01	0.16
3157.00	1.30	160.20	3156.68	63.00	13.43	23.46 S	3.65 W	23.74@	188.84	0.48
3221.00	1.30	155.70	3220.67	64.00	14.75	24.81 S	3.10 W	25.00@	187.13	0.16
3284.00	1.30	153.30	3283.65	63.00	16.08	26.10 S	2.49 W	26.21@	185.45	0.09
3348.00	1.20	156.20	3347.64	64.00	17.38	27.36 S	1.89 W	27.42@	183.96	0.19
3411.00	1.40	158.50	3410.62	63.00	18.68	28.68 S	1.34 W	28.71@	182.68	0.33
3475.00	1.60	178.10	3474.60	64.00	20.02	30.30 S	1.03 W	30.31@	181.94	0.86
3538.00	1.40	195.10	3537.58	63.00	21.01	31.92 S	1.20 W	31.94@	182.15	0.77
3601.00	1.50	194.20	3600.56	63.00	21.77	33.46 S	1.60 W	33.50@	182.74	0.16
3665.00	1.60	194.00	3664.53	64.00	22.62	35.14 S	2.02 W	35.20@	183.29	0.16
3728.00	1.80	184.00	3727.51	63.00	23.68	36.98 S	2.30 W	37.05@	183.57	0.57
3792.00	2.00	176.30	3791.47	64.00	25.13	39.10 S	2.30 W	39.17@	183.37	0.51
3855.00	1.70	161.00	3854.44	63.00	26.76	41.08 S	1.93 W	41.12@	182.69	0.91
3919.00	2.00	151.00	3918.41	64.00	28.66	42.95 S	1.08 W	42.97@	181.44	0.69
3982.00	2.60	151.30	3981.35	63.00	31.07	45.17 S	0.14 E	45.17@	179.82	0.95
4046.00	2.50	149.60	4045.29	64.00	33.79	47.65 S	1.55 E	47.67@	178.14	0.20
4109.00	2.10	150.30	4108.24	63.00	36.21	49.83 S	2.81 E	49.91@	176.77	0.64
4172.00	1.90	153.30	4171.20	63.00	38.30	51.77 S	3.85 E	51.91@	175.74	0.36
4236.00	1.80	151.10	4235.17	64.00	40.25	53.60 S	4.82 E	53.81@	174.86	0.19
4299.00	1.70	148.70	4298.14	63.00	42.09	55.26 S	5.78 E	55.56@	174.03	0.20
4363.00	1.70	144.50	4362.11	64.00	43.94	56.85 S	6.82 E	57.25@	173.15	0.19

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4426.00	1.70	142.00	4425.08	63.00	45.78	58.34 S	7.94 E	58.88@	172.25	0.12
4490.00	1.80	140.20	4489.05	64.00	47.72	59.86 S	9.17 E	60.56@	171.29	0.18
4554.00	1.70	142.00	4553.02	64.00	49.65	61.38 S	10.40 E	62.26@	170.39	0.18
4617.00	1.70	144.80	4616.00	63.00	51.49	62.88 S	11.51 E	63.93@	169.63	0.13
4681.00	1.80	145.20	4679.97	64.00	53.41	64.48 S	12.63 E	65.71@	168.92	0.16
4744.00	1.80	143.00	4742.93	63.00	55.35	66.09 S	13.79 E	67.51@	168.21	0.11
4808.00	2.00	144.50	4806.90	64.00	57.44	67.80 S	15.05 E	69.45@	167.49	0.32
4871.00	2.00	147.30	4869.86	63.00	59.58	69.62 S	16.28 E	71.50@	166.84	0.16
4935.00	1.80	140.80	4933.83	64.00	61.66	71.34 S	17.52 E	73.46@	166.20	0.46
4998.00	1.70	138.90	4996.80	63.00	63.57	72.81 S	18.76 E	75.19@	165.55	0.18
5062.00	1.50	135.40	5060.77	64.00	65.35	74.12 S	19.97 E	76.76@	164.92	0.35
5125.00	1.60	141.80	5123.75	63.00	67.05	75.40 S	21.09 E	78.29@	164.37	0.32
5251.00	1.30	146.20	5249.71	126.00	70.18	77.97 S	22.98 E	81.28@	163.58	0.25
5315.00	1.50	144.70	5313.69	64.00	71.71	79.26 S	23.86 E	82.77@	163.24	0.32
5378.00	1.70	161.80	5376.67	63.00	73.34	80.82 S	24.63 E	84.49@	163.05	0.82
5442.00	1.80	171.50	5440.64	64.00	74.96	82.71 S	25.08 E	86.43@	163.13	0.49
5505.00	1.80	170.10	5503.60	63.00	76.53	84.67 S	25.39 E	88.39@	163.30	0.07
5633.00	1.90	170.20	5631.54	128.00	79.84	88.74 S	26.10 E	92.50@	163.61	0.08
5696.00	2.00	166.30	5694.50	63.00	81.59	90.83 S	26.54 E	94.63@	163.71	0.26
5760.00	1.90	168.60	5758.46	64.00	83.40	92.96 S	27.01 E	96.80@	163.80	0.20
5823.00	1.90	162.50	5821.43	63.00	85.16	94.98 S	27.53 E	98.89@	163.83	0.32
5887.00	2.10	156.30	5885.39	64.00	87.16	97.07 S	28.32 E	101.11@	163.73	0.46
5950.00	2.20	157.10	5948.35	63.00	89.33	99.24 S	29.26 E	103.46@	163.57	0.17
6014.00	2.30	156.30	6012.30	64.00	91.64	101.54 S	30.25 E	105.95@	163.41	0.16
** TIED INTO NATIVE NAVIGATION EM SURVEY @ 6077'MD.										
6077.00	2.10	159.20	6075.25	63.00	93.84	103.78 S	31.17 E	108.36@	163.28	0.36
LATERAL #2 DEPARTS ORIGINAL WELLBORE @ 6105'MD (6103'TVD).										
THE FOLLOWING SURVEY IS SCIENTIFIC GYRO SURVEYS.										
6105.00	4.95	166.63	6103.19	28.00	95.31	105.44 S	31.63 E	110.08@	163.30	10.29
THE FOLLOWING ARE PATHFINDER MWD SURVEYS.										
6145.00	8.44	157.61	6142.92	40.00	99.43	109.83 S	33.15 E	114.72@	163.20	9.09
6176.00	11.43	140.72	6173.46	31.00	104.55	114.31 S	35.96 E	119.84@	162.54	13.37
6204.00	13.37	148.43	6200.80	28.00	110.43	119.22 S	39.41 E	125.57@	161.71	9.10

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RIG:AZTEC 781

Measured Depth (ft)	Incl (deg)	Drift Dir. (deg)	TVD (ft)	Course Length (ft)	Vertical Section (ft)	TOTAL Rectangular Offsets (ft)	(ft)	Closure Dist (ft)	Dir (deg)	DLS (dg/100ft)
6237.00	16.27	143.98	6232.70	33.00	118.65	126.21 S	44.13 E	133.70@	160.73	9.43
6269.00	19.35	144.36	6263.16	32.00	128.26	134.15 S	49.86 E	143.11@	159.61	9.63
6301.00	22.25	143.88	6293.08	32.00	139.42	143.35 S	56.52 E	154.09@	158.48	9.08
6332.00	24.71	143.30	6321.51	31.00	151.57	153.29 S	63.85 E	166.06@	157.39	7.97
6365.00	27.87	139.68	6351.09	33.00	166.04	164.70 S	72.97 E	180.14@	156.11	10.73
6397.00	32.54	136.98	6378.74	32.00	182.07	176.71 S	83.69 E	195.52@	154.66	15.20
6426.00	35.70	134.53	6402.75	29.00	198.31	188.34 S	95.04 E	210.97@	153.22	11.88
6459.00	40.01	131.86	6428.80	33.00	218.56	202.18 S	109.81 E	230.08@	151.49	13.97
6491.00	44.76	131.31	6452.43	32.00	240.11	216.49 S	125.95 E	250.46@	149.81	14.89
6524.00	50.30	130.89	6474.70	33.00	264.43	232.49 S	144.29 E	273.62@	148.18	16.81
6556.00	54.26	131.02	6494.27	32.00	289.71	249.07 S	163.40 E	297.89@	146.73	12.38
6586.00	55.31	130.24	6511.57	30.00	314.20	265.03 S	182.00 E	321.51@	145.52	4.09
6619.00	57.51	129.99	6529.83	33.00	341.64	282.74 S	203.02 E	348.08@	144.32	6.70
6651.00	60.50	129.60	6546.31	32.00	369.02	300.30 S	224.10 E	374.70@	143.27	9.40
6683.00	64.90	128.75	6560.98	32.00	397.37	318.25 S	246.14 E	402.33@	142.28	13.95
6714.00	67.62	130.04	6573.46	31.00	425.68	336.26 S	268.06 E	430.03@	141.44	9.56
6747.00	69.29	130.46	6585.58	33.00	456.33	356.09 S	291.49 E	460.18@	140.70	5.20
6780.00	72.90	129.83	6596.27	33.00	487.50	376.22 S	315.35 E	490.90@	140.03	11.09
6809.00	77.73	129.16	6603.62	29.00	515.48	394.05 S	336.99 E	518.50@	139.46	16.80
6841.00	79.49	129.19	6609.94	32.00	546.77	413.87 S	361.31 E	549.39@	138.88	5.50
6874.00	81.95	128.71	6615.26	33.00	579.24	434.34 S	386.64 E	581.50@	138.33	7.59
6906.00	84.59	128.38	6619.01	32.00	610.91	454.14 S	411.49 E	612.84@	137.82	8.31
6928.00	86.70	128.36	6620.68	22.00	632.77	467.76 S	428.69 E	634.48@	137.50	9.59
LATERAL #2 SIDETRACK 1 DEPARTS LATERAL #2 @ 6960'MD (6622'TVD).										
6961.00	86.79	129.71	6622.55	33.00	665.62	488.51 S	454.28 E	667.09@	137.08	4.09
6989.00	87.41	129.46	6623.97	28.00	693.53	506.32 S	475.83 E	694.82@	136.78	2.39
7033.00	90.48	130.32	6624.78	44.00	737.44	534.53 S	509.58 E	738.51@	136.37	7.25
LATERAL #2 SIDETRACK 2 DEPARTS LATERAL #2 SIDETRACK 1 @ 7050'MD (6625'TVD).										
7065.00	87.76	131.40	6625.27	32.00	769.40	555.46 S	533.78 E	770.36@	136.14	9.15
7100.00	88.37	129.54	6626.45	35.00	804.34	578.17 S	560.39 E	805.18@	135.89	5.59

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7130.00	91.54	129.76	6626.48	30.00	834.27	597.31 S	583.48 E	835.00@	135.67	10.59
7164.00	93.03	130.07	6625.12	34.00	868.19	619.11 S	609.54 E	868.81@	135.45	4.48
7196.00	91.36	128.75	6623.90	32.00	900.09	639.41 S	634.24 E	900.61@	135.23	6.65
7224.00	90.66	127.67	6623.40	28.00	927.98	656.72 S	656.24 E	928.40@	135.02	4.60
7259.00	92.95	126.88	6622.30	35.00	962.76	677.91 S	684.07 E	963.08@	134.74	6.92
7292.00	92.68	126.79	6620.68	33.00	995.51	697.67 S	710.45 E	995.73@	134.48	0.86
7323.00	91.98	127.09	6619.42	31.00	1026.30	716.28 S	735.21 E	1026.45@	134.25	2.46
7356.00	91.89	125.68	6618.30	33.00	1059.04	735.85 S	761.76 E	1059.13@	134.01	4.28
7388.00	91.63	124.89	6617.32	32.00	1090.71	754.32 S	787.87 E	1090.75@	133.75	2.60
7421.00	91.28	124.26	6616.48	33.00	1123.32	773.04 S	815.03 E	1123.33@	133.49	2.18
7451.00	93.47	124.28	6615.24	30.00	1152.93	789.92 S	839.80 E	1152.93@	133.25	7.30
7482.00	93.56	125.23	6613.34	31.00	1183.53	807.56 S	865.22 E	1183.54@	133.03	3.07
7502.00	92.42	124.69	6612.30	20.00	1203.29	819.00 S	881.59 E	1203.32@	132.89	6.31
7533.00	92.15	124.17	6611.06	31.00	1233.89	836.52 S	907.14 E	1233.96@	132.68	1.89
7564.00	91.01	125.24	6610.21	31.00	1264.54	854.16 S	932.62 E	1264.66@	132.49	5.04
7596.00	92.15	127.47	6609.32	32.00	1296.29	873.12 S	958.38 E	1296.46@	132.33	7.82
7628.00	90.75	128.26	6608.51	32.00	1328.13	892.75 S	983.63 E	1328.36@	132.23	5.02
7663.00	91.01	128.58	6607.98	35.00	1363.00	914.50 S	1011.05 E	1363.28@	132.13	1.18
7694.00	92.59	129.37	6607.00	31.00	1393.90	933.99 S	1035.13 E	1394.22@	132.06	5.70
7726.00	92.95	128.76	6605.46	32.00	1425.78	954.13 S	1059.95 E	1426.14@	131.99	2.21
7759.00	92.07	129.13	6604.01	33.00	1458.65	974.85 S	1085.59 E	1459.06@	131.92	2.89
7792.00	92.59	128.48	6602.67	33.00	1491.52	995.52 S	1111.29 E	1491.98@	131.85	2.52
7825.00	92.33	128.46	6601.25	33.00	1524.38	1016.03 S	1137.10 E	1524.90@	131.78	0.79
7855.00	91.36	127.59	6600.29	30.00	1554.23	1034.50 S	1160.72 E	1554.82@	131.71	4.34
7883.00	92.33	126.51	6599.38	28.00	1582.05	1051.36 S	1183.05 E	1582.71@	131.63	5.18
7916.00	91.36	125.44	6598.32	33.00	1614.77	1070.73 S	1209.75 E	1615.54@	131.51	4.37
7950.00	90.84	124.45	6597.67	34.00	1648.40	1090.20 S	1237.61 E	1649.31@	131.38	3.29
7981.00	91.98	123.29	6596.91	31.00	1678.97	1107.48 S	1263.34 E	1680.04@	131.24	5.25
8014.00	93.83	124.11	6595.23	33.00	1711.47	1125.76 S	1290.76 E	1712.72@	131.09	6.13

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8044.00	92.24	123.50	6593.65	30.00	1741.02	1142.43 S	1315.65 E	1742.43@	130.97	5.68
8078.00	92.68	123.41	6592.19	34.00	1774.49	1161.15 S	1343.99 E	1776.12@	130.83	1.32
8110.00	92.86	122.76	6590.64	32.00	1805.95	1178.60 S	1370.77 E	1807.79@	130.69	2.11
8142.00	92.95	122.72	6589.02	32.00	1837.37	1195.89 S	1397.65 E	1839.45@	130.55	0.31
8172.00	91.36	122.01	6587.89	30.00	1866.80	1211.93 S	1422.97 E	1869.13@	130.42	5.80
8204.00	90.57	121.16	6587.35	32.00	1898.13	1228.69 S	1450.23 E	1900.75@	130.27	3.63
8236.00	92.68	120.61	6586.44	32.00	1929.37	1245.11 S	1477.68 E	1932.31@	130.12	6.81
8268.00	91.71	119.91	6585.22	32.00	1960.52	1261.22 S	1505.30 E	1963.82@	129.96	3.74
8300.00	91.28	119.55	6584.38	32.00	1991.62	1277.09 S	1533.08 E	1995.31@	129.80	1.75
8329.00	91.45	119.15	6583.69	29.00	2019.76	1291.30 S	1558.35 E	2023.83@	129.65	1.50
8361.00	92.07	118.47	6582.71	32.00	2050.73	1306.71 S	1586.37 E	2055.25@	129.48	2.87
8394.00	91.71	118.21	6581.62	33.00	2082.60	1322.37 S	1615.40 E	2087.62@	129.30	1.34
8425.00	93.12	117.98	6580.32	31.00	2112.49	1336.95 S	1642.72 E	2118.01@	129.14	4.61
8456.00	91.98	117.87	6578.94	31.00	2142.35	1351.46 S	1670.09 E	2148.40@	128.98	3.70
8491.00	91.45	117.80	6577.89	35.00	2176.07	1367.79 S	1701.02 E	2182.74@	128.80	1.53
8522.00	90.40	118.60	6577.39	31.00	2206.00	1382.44 S	1728.34 E	2213.21@	128.66	4.26
8550.00	90.04	117.57	6577.28	28.00	2233.02	1395.62 S	1753.04 E	2240.74@	128.52	3.90
8583.00	90.66	117.06	6577.08	33.00	2264.75	1410.76 S	1782.36 E	2273.12@	128.36	2.43
8615.00	93.65	116.61	6575.88	32.00	2295.41	1425.20 S	1810.89 E	2304.45@	128.20	9.45
8646.00	94.53	117.49	6573.67	31.00	2325.10	1439.26 S	1838.43 E	2334.80@	128.06	4.01
8678.00	92.95	117.57	6571.58	32.00	2355.83	1454.02 S	1866.75 E	2366.20@	127.92	4.94
8708.00	92.59	117.39	6570.13	30.00	2384.67	1467.84 S	1893.33 E	2395.68@	127.79	1.34
8735.00	93.91	116.79	6568.60	27.00	2410.55	1480.12 S	1917.33 E	2422.17@	127.67	5.37
8745.00	93.74	116.62	6567.93	10.00	2420.12	1484.60 S	1926.24 E	2431.96@	127.62	2.40
8776.00	90.04	116.37	6566.91	31.00	2449.78	1498.42 S	1953.97 E	2462.37@	127.48	11.96
8806.00	89.25	115.74	6567.09	30.00	2478.43	1511.60 S	1980.92 E	2491.78@	127.35	3.37
8838.00	89.60	116.20	6567.42	32.00	2508.98	1525.61 S	2009.68 E	2523.16@	127.20	1.81
8871.00	93.74	117.54	6566.45	33.00	2540.61	1540.52 S	2039.10 E	2555.61@	127.07	13.19
8903.00	93.65	117.50	6564.39	32.00	2571.34	1555.27 S	2067.42 E	2587.10@	126.95	0.3

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8935.00	92.24	117.82	6562.75	32.00	2602.12	1570.11 S	2095.73 E	2618.64@	126.84	4.52
8964.00	90.04	117.72	6562.17	29.00	2630.06	1583.61 S	2121.38 E	2647.28@	126.74	7.59
8996.00	91.28	118.19	6561.80	32.00	2660.92	1598.61 S	2149.64 E	2678.90@	126.64	4.14
9027.00	93.56	118.15	6560.49	31.00	2690.82	1613.23 S	2176.94 E	2709.54@	126.54	7.36
9060.00	91.71	118.21	6558.98	33.00	2722.64	1628.80 S	2206.00 E	2742.16@	126.44	5.61
9092.00	91.28	117.84	6558.14	32.00	2753.51	1643.83 S	2234.24 E	2773.81@	126.34	1.77
9121.00	93.12	118.00	6557.03	29.00	2781.45	1657.40 S	2259.84 E	2802.47@	126.26	6.37
9152.00	92.24	117.04	6555.58	31.00	2811.25	1671.71 S	2287.30 E	2833.08@	126.16	4.20
9187.00	92.51	116.93	6554.13	35.00	2844.81	1687.58 S	2318.47 E	2867.61@	126.05	0.83
9219.00	92.07	116.87	6552.85	32.00	2875.49	1702.04 S	2346.98 E	2899.18@	125.95	1.39
9247.00	91.28	116.55	6552.03	28.00	2902.32	1714.62 S	2371.98 E	2926.81@	125.86	3.04
9280.00	91.80	116.51	6551.14	33.00	2933.90	1729.36 S	2401.50 E	2959.37@	125.76	1.58
9312.00	91.63	116.80	6550.19	32.00	2964.55	1743.71 S	2430.08 E	2990.96@	125.66	1.05
9345.00	91.80	117.22	6549.20	33.00	2996.22	1758.69 S	2459.47 E	3023.57@	125.57	1.37
9377.00	92.24	117.33	6548.07	32.00	3026.96	1773.34 S	2487.90 E	3055.22@	125.48	1.42
9409.00	91.45	117.05	6547.04	32.00	3057.69	1787.96 S	2516.34 E	3086.87@	125.40	2.62
9439.00	91.80	116.90	6546.19	30.00	3086.47	1801.56 S	2543.07 E	3116.54@	125.31	1.27
9473.00	92.15	116.67	6545.02	34.00	3119.05	1816.87 S	2573.40 E	3150.15@	125.22	1.23
9501.00	91.98	116.05	6544.01	28.00	3145.82	1829.29 S	2598.48 E	3177.80@	125.15	2.29
9532.00	91.71	116.20	6543.01	31.00	3175.43	1842.94 S	2626.29 E	3208.40@	125.06	1.00
9548.00	91.36	115.84	6542.58	16.00	3190.70	1849.95 S	2640.67 E	3224.20@	125.01	3.14
STRAIGHT LINE PROJECTION TO BIT DEPTH @ 9610'MD.										
9610.00	91.36	115.84	6541.11	62.00	3249.83	1876.97 S	2696.45 E	3285.40@	124.84	0.00

** The survey data at tie-in point was furnished by a recognized survey company and entered as submitted. Survey stations above the tie-in point represent recalculated data by PathFinder Energy Services, Inc. and may reflect minor changes due to rounding differences between survey programs. Only survey stations taken by qualified PathFinder personnel are subject to certification.

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

AMENDED REPORT ☐ (highlight changes)

FORM 8

WELL COMPLETION OR RECOMPLETION REPORT AND LOG

5. LEASE DESIGNATION AND SERIAL NUMBER: UTU 30290

6. IF INDIAN, ALLOTTEE OR TRIBE NAME: N/A

7. UNIT or CA AGREEMENT NAME: UTU86617X

8. WELL NAME and NUMBER: JB 8G 21-7-21

9. API NUMBER: 4304740613

10 FIELD AND POOL, OR WILDCAT: UNDESIGNATED

11. QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: SENE 21 T7S 21E

12. COUNTY: UINTAH

13. STATE: UTAH

1a. TYPE OF WELL: OIL WELL ☑ GAS WELL ☐ DRY ☐ OTHER

b. TYPE OF WORK: NEW WELL ☑ HORIZ. LATS. ☐ DEEP-EN ☐ RE-ENTRY ☐ DIFF. RESVR. ☐ OTHER Dual Lateral

2. NAME OF OPERATOR: QEP Energy Company

3. ADDRESS OF OPERATOR: 11002 East 17500 South CITY Vernal STATE UT ZIP 84078

PHONE NUMBER: (435) 781-4342

4. LOCATION OF WELL (FOOTAGES)

AT SURFACE: 2199' FNL, 844' FEL

BHL Reviewed by HSM

AT TOP PRODUCING INTERVAL REPORTED BELOW: ST1 1923 FSL 2528 FEL ST2 302 FNL 1852 FEL

AT TOTAL DEPTH: Lat 1 - 1856' FSL, 2528' FEL, SEC 21-7S-21E

14. DATE SPUDDED: 4/18/2010

15. DATE T.D. REACHED: 7/27/2010

16. DATE COMPLETED: 8/23/2010 ABANDONED ☐ READY TO PRODUCE ☑

17. ELEVATIONS (DF, RKB, RT, GL): 4826' KB

18. TOTAL DEPTH: MD 8,500 TVD 6,646.5

19. PLUG BACK T.D.: MD 8,500 TVD 0

20. IF MULTIPLE COMPLETIONS, HOW MANY? *

21. DEPTH BRIDGE PLUG SET: MD TVD

22. TYPE ELECTRIC AND OTHER MECHANICAL LOGS RUN (Submit copy of each)

CBL, VDL, CCL/GR, SPECTRAL DENSITY DSN, ARRAY COMP

23.
WAS WELL CORED? NO ☑ YES ☐ (Submit analysis)
WAS DST RUN? NO ☑ YES ☐ (Submit report)
DIRECTIONAL SURVEY? NO ☐ YES ☑ (Submit copy)

24. CASING AND LINER RECORD (Report all strings set in well)

HOLE SIZE	SIZE/GRADE	WEIGHT (#/ft.)	TOP (MD)	BOTTOM (MD)	STAGE CEMENTER DEPTH	CEMENT TYPE & NO. OF SACKS	SLURRY VOLUME (BBL)	CEMENT TOP **	AMOUNT PULLED
12-1/4"	9-5/8 K-55	36#	0	490		285		0	
8-3/4"	7 N-80	26#		7,075		940		0	
6-1/8"	4-1/2 N-80	11.6#		8,975					
6-1/8"	4-1/2" N-80	11.6#		8,500					

25. TUBING RECORD

SIZE	DEPTH SET (MD)	PACKER SET (MD)	SIZE	DEPTH SET (MD)	PACKER SET (MD)	SIZE	DEPTH SET (MD)	PACKER SET (MD)
2-7/8	6,961							

26. PRODUCING INTERVALS

FORMATION NAME	TOP (MD)	BOTTOM (MD)	TOP (TVD)	BOTTOM (TVD)
(A) Green River Lat 2	6,569	8,975		
(B) Green River Lat 1	7,075	8,500		
(C)				
(D)				

27. PERFORATION RECORD

INTERVAL (Top/Bot - MD)		SIZE	NO. HOLES	PERFORATION STATUS
6,569	8,975			Open ☑ Squeezed ☐
7,075	8,500			Open ☑ Squeezed ☐
				Open ☐ Squeezed ☐
				Open ☐ Squeezed ☐

28. ACID, FRACTURE, TREATMENT, CEMENT SQUEEZE, ETC.

DEPTH INTERVAL	AMOUNT AND TYPE OF MATERIAL
6569' - 8975' (Lateral 2)	Acidized Lateral #2 (Upper) w/ 28,000 Gals of 15% HCL
7075' - 8500'(Lateral 1)	Acidized Lateral #1 (Lower) w/ 23,000 Gals of 15% HCL

29. ENCLOSED ATTACHMENTS:

☐ ELECTRICAL/MECHANICAL LOGS ☐ GEOLOGIC REPORT ☐ DST REPORT ☑ DIRECTIONAL SURVEY
☐ SUNDRY NOTICE FOR PLUGGING AND CEMENT VERIFICATION ☐ CORE ANALYSIS ☐ OTHER:

30. WELL STATUS: Producing

(5/2000)

(CONTINUED ON BACK)

CONFIDENTIAL

31. INITIAL PRODUCTION

INTERVAL A (As shown in item #26)

DATE FIRST PRODUCED:	TEST DATE:	HOURS TESTED:	TEST PRODUCTION RATES: →	OIL – BBL:	GAS – MCF:	WATER – BBL:	PROD. METHOD:
8/23/2010	8/27/2010	24		63	0	213	pumping

CHOKE SIZE:	TBG. PRESS.	CSG. PRESS.	API GRAVITY	BTU – GAS	GAS/OIL RATIO	24 HR PRODUCTION RATES: →	OIL – BBL:	GAS – MCF:	WATER – BBL:	INTERVAL STATUS:
	200	19								

INTERVAL B (As shown in item #26)

DATE FIRST PRODUCED:	TEST DATE:	HOURS TESTED:	TEST PRODUCTION RATES: →	OIL – BBL:	GAS – MCF:	WATER – BBL:	PROD. METHOD:

CHOKE SIZE:	TBG. PRESS.	CSG. PRESS.	API GRAVITY	BTU – GAS	GAS/OIL RATIO	24 HR PRODUCTION RATES: →	OIL – BBL:	GAS – MCF:	WATER – BBL:	INTERVAL STATUS:

INTERVAL C (As shown in item #26)

DATE FIRST PRODUCED:	TEST DATE:	HOURS TESTED:	TEST PRODUCTION RATES: →	OIL – BBL:	GAS – MCF:	WATER – BBL:	PROD. METHOD:

CHOKE SIZE:	TBG. PRESS.	CSG. PRESS.	API GRAVITY	BTU – GAS	GAS/OIL RATIO	24 HR PRODUCTION RATES: →	OIL – BBL:	GAS – MCF:	WATER – BBL:	INTERVAL STATUS:

INTERVAL D (As shown in item #26)

DATE FIRST PRODUCED:	TEST DATE:	HOURS TESTED:	TEST PRODUCTION RATES: →	OIL – BBL:	GAS – MCF:	WATER – BBL:	PROD. METHOD:

CHOKE SIZE:	TBG. PRESS.	CSG. PRESS.	API GRAVITY	BTU – GAS	GAS/OIL RATIO	24 HR PRODUCTION RATES: →	OIL – BBL:	GAS – MCF:	WATER – BBL:	INTERVAL STATUS:

32. DISPOSITION OF GAS (Sold, Used for Fuel, Vented, Etc.)

n/a

33. SUMMARY OF POROUS ZONES (Include Aquifers):

Show all important zones of porosity and contents thereof: Cored intervals and all drill-stem tests, including depth interval tested, cushion used, time tool open, flowing and shut-in pressures and recoveries.

Formation	Top (MD)	Bottom (MD)	Descriptions, Contents, etc.
UINTA	0		
GREEN RIVER	3,162		
"X"-MARKER	5,646		

34. FORMATION (Log) MARKERS:

Name	Top (Measured Depth)

35. ADDITIONAL REMARKS (Include plugging procedure)

TIGHT HOLE - DUAL LATERAL OIL WELL - SEE ATTACHMENT PAGE ONE

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

NAME (PLEASE PRINT) DAHN CALDWELL TITLE OFFICE ADMINISTRATOR

SIGNATURE Dahn Caldwell DATE 10/7/2010

This report must be submitted within 30 days of

- completing or plugging a new well
- drilling horizontal laterals from an existing well bore
- recompleting to a different producing formation
- reentering a previously plugged and abandoned well
- significantly deepening an existing well bore below the previous bottom-hole depth
- drilling hydrocarbon exploratory holes, such as core samples and stratigraphic tests

* ITEM 20: Show the number of completions if production is measured separately from two or more formations.

** ITEM 24: Cement Top – Show how reported top(s) of cement were determined (circulated (CIR), calculated (CAL), cement bond log (CBL), temperature survey (TS)).

Send to: Utah Division of Oil, Gas and Mining
1594 West North Temple, Suite 1210
Box 145801
Salt Lake City, Utah 84114-5801

Phone: 801-538-5340

Fax: 801-359-3940

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(5/2000)

JB 8G 21-7-21 – DUAL LATERAL WELL

ATTACHMENT PAGE ONE

TIGHT HOLE

#4 – Lower Lateral 1 – 8,500' TD/ 6,646' TVD / PBTD: 8,500' MD

SEC 21-T7S-R21S – 1856' FSL, 2528' FEL

Upper Lateral 2 – 9,610' TD/ 6,542' TVD / PBTD : 8,975' MD

Sec 22-7S-R21E – 1205' FNL, 1853' FWL

#27 – Perforation Record – Upper Lateral 2 - 4.5", N-80, 11.6#, LT&C, Blank 5,559' – 6,569' – Alternating jts of blank & perforated jts f/ 6,569' – 8,975'

Lower Lateral 1 - 4.5", N-80, 11.6#, LT&C, Blank 7,031' – 7,075' – Alternating jts of blank & perforated jts f/ 7,075' – 8,500'

Producing out of the Green River

#34 – REMARKS – 136' Conductor - couldn't hit rock.

CONFIDENTIAL

Tie-in Date: 06/27/2010
Date Completed: 07/03/2010

PathFinder Energy Services, Inc.
Survey Report

QUESTAR EXPLORATION & PRODUCTION CO
JB 8G-21-7-21 ST1
UNITAH COUNTY, UT
Rig:AZTEC 781
PathFinder Office Supervisor: MARK TRAHAN
PathFinder Field Engineers: MICHAEL FLOWERS
KHALED BARAKE

Survey Calculations by RX5 V6.03A using Minimum Curvature

Survey Horiz. Reference:WELLHEAD
Ref Coordinates: LAT:40.11.51.4799 N LON:109.33.15.4600 W
GRID Reference:NAD83 utah north Lambert
Ref GRID Coor: X: 2183978.7000 Y: 3237478.0100
North Aligned To:TRUE NORTH
Total Magnetic Correction:11.15°EAST TO TRUE
Vertical Section Plane: 237.72
Survey Vert. Reference: 14.00' Rotary Table To Ground
Altitude:4813.00' Ground To MSL

Measured Depth (ft)	Incl (deg)	Drift Dir. (deg)	TVD (ft)	Course Length (ft)	Vertical Section (ft)	TOTAL Rectangular Offsets (ft)	(ft)	Closure Dist (ft)	Dir (deg)	DLS (dg/100ft)
THE FOLLOWING ARE NATIVE NAVIGATION EM SURVEYS.										
578.00	0.70	343.70	577.98	0.00	-0.97	3.39 N	0.99 W	3.53@	343.69	0.00
701.00	0.30	260.30	700.98	123.00	-0.88	4.06 N	1.52 W	4.33@	339.46	0.59
762.00	0.30	291.00	761.98	61.00	-0.64	4.09 N	1.83 W	4.48@	335.92	0.26
824.00	0.20	296.20	823.98	62.00	-0.49	4.19 N	2.08 W	4.68@	333.67	0.17
885.00	0.10	231.80	884.98	61.00	-0.38	4.21 N	2.21 W	4.76@	332.26	0.30
945.00	0.10	13.80	944.98	60.00	-0.36	4.23 N	2.24 W	4.79@	332.06	0.31
1068.00	0.10	40.10	1067.98	123.00	-0.54	4.41 N	2.15 W	4.91@	334.06	0.04
1131.00	0.10	99.50	1130.98	63.00	-0.64	4.45 N	2.06 W	4.90@	335.17	0.16
1192.00	0.10	106.70	1191.98	61.00	-0.71	4.42 N	1.95 W	4.84@	336.16	0.02
1316.00	0.40	230.20	1315.98	124.00	-0.35	4.11 N	2.18 W	4.66@	332.05	0.37
1443.00	0.40	206.80	1442.97	127.00	0.47	3.43 N	2.72 W	4.38@	321.59	0.13
1570.00	0.60	228.00	1569.97	127.00	1.50	2.59 N	3.42 W	4.29@	307.20	0.21
1634.00	0.50	234.00	1633.97	64.00	2.11	2.21 N	3.89 W	4.47@	299.54	0.18
1697.00	0.70	232.70	1696.96	63.00	2.77	1.81 N	4.42 W	4.78@	292.28	0.32
1824.00	0.90	210.20	1823.95	127.00	4.43	0.48 N	5.54 W	5.56@	274.94	0.29
1888.00	0.90	213.20	1887.94	64.00	5.33	0.38 S	6.07 W	6.08@	266.45	0.07
1951.00	0.80	202.80	1950.94	63.00	6.14	1.20 S	6.51 W	6.62@	259.59	0.29
2015.00	0.70	199.00	2014.93	64.00	6.81	1.98 S	6.81 W	7.09@	253.81	0.17
2078.00	0.60	197.20	2077.93	63.00	7.36	2.66 S	7.03 W	7.52@	249.31	0.16
2142.00	0.60	192.70	2141.92	64.00	7.86	3.30 S	7.21 W	7.93@	245.37	0.07
2205.00	0.60	180.20	2204.92	63.00	8.27	3.95 S	7.28 W	8.28@	241.49	0.21
2269.00	0.80	178.30	2268.91	64.00	8.67	4.74 S	7.27 W	8.67@	236.91	0.31
2332.00	0.70	180.10	2331.91	63.00	9.10	5.56 S	7.25 W	9.14@	232.53	0.16
2396.00	0.90	183.00	2395.90	64.00	9.60	6.45 S	7.28 W	9.73@	228.45	0.32
2459.00	1.10	189.80	2458.89	63.00	10.29	7.54 S	7.41 W	10.57@	224.49	0.37
2523.00	1.30	189.50	2522.88	64.00	11.19	8.87 S	7.63 W	11.70@	220.74	0.31

PathFinder Energy Services, Inc.
Survey Report

QUESTAR EXPLORATION & PRODUCTION CO
JB 8G-21-7-21 ST1
UNITAH COUNTY, UT
RIG:AZTEC 781

Measured Depth (ft)	Incl (deg)	Drift Dir. (deg)	TVD (ft)	Course Length (ft)	Vertical Section (ft)	TOTAL Rectangular Offsets (ft)	(ft)	Closure Dist (ft)	Dir (deg)	DLS (dg/100ft)
2586.00	1.30	187.80	2585.86	63.00	12.13	10.28 S	7.85 W	12.93@	217.37	0.06
2650.00	1.30	179.10	2649.85	64.00	12.97	11.72 S	7.94 W	14.16@	214.10	0.31
2713.00	1.30	168.80	2712.83	63.00	13.60	13.14 S	7.79 W	15.27@	210.65	0.37
2777.00	1.30	167.50	2776.81	64.00	14.11	14.56 S	7.49 W	16.37@	207.22	0.05
2840.00	1.30	161.10	2839.80	63.00	14.51	15.93 S	7.10 W	17.44@	204.03	0.23
2903.00	1.50	158.00	2902.78	63.00	14.83	17.37 S	6.56 W	18.57@	200.69	0.34
2967.00	1.60	156.60	2966.76	64.00	15.11	18.97 S	5.89 W	19.87@	197.26	0.17
3030.00	1.60	151.60	3029.73	63.00	15.31	20.55 S	5.13 W	21.18@	194.00	0.22
3094.00	1.50	150.80	3093.71	64.00	15.41	22.07 S	4.29 W	22.48@	191.01	0.16
3157.00	1.30	160.20	3156.69	63.00	15.61	23.46 S	3.65 W	23.74@	188.84	0.48
3221.00	1.30	155.70	3220.67	64.00	15.87	24.81 S	3.10 W	25.00@	187.13	0.16
3284.00	1.30	153.30	3283.66	63.00	16.04	26.10 S	2.49 W	26.21@	185.45	0.09
3348.00	1.20	156.20	3347.64	64.00	16.21	27.36 S	1.89 W	27.42@	183.95	0.19
3411.00	1.40	158.50	3410.62	63.00	16.45	28.68 S	1.34 W	28.71@	182.68	0.33
3475.00	1.60	178.10	3474.60	64.00	17.05	30.30 S	1.03 W	30.31@	181.94	0.86
3538.00	1.40	195.10	3537.58	63.00	18.06	31.92 S	1.20 W	31.94@	182.15	0.77
3601.00	1.50	194.20	3600.56	63.00	19.22	33.46 S	1.60 W	33.50@	182.74	0.16
3665.00	1.60	194.00	3664.54	64.00	20.48	35.14 S	2.02 W	35.20@	183.29	0.16
3728.00	1.80	184.00	3727.51	63.00	21.70	36.98 S	2.30 W	37.05@	183.57	0.57
3792.00	2.00	176.30	3791.48	64.00	22.83	39.10 S	2.30 W	39.17@	183.37	0.51
3855.00	1.70	161.00	3854.44	63.00	23.57	41.08 S	1.93 W	41.12@	182.69	0.91
3919.00	2.00	151.00	3918.41	64.00	23.85	42.95 S	1.08 W	42.97@	181.44	0.69
3982.00	2.60	151.30	3981.36	63.00	24.00	45.17 S	0.14 E	45.17@	179.82	0.95
4046.00	2.50	149.60	4045.30	64.00	24.14	47.65 S	1.55 E	47.67@	178.14	0.20
4109.00	2.10	150.30	4108.24	63.00	24.24	49.83 S	2.81 E	49.91@	176.77	0.64
4172.00	1.90	153.30	4171.21	63.00	24.39	51.77 S	3.85 E	51.91@	175.74	0.36
4236.00	1.80	151.10	4235.17	64.00	24.55	53.60 S	4.82 E	53.81@	174.86	0.19
4299.00	1.70	148.70	4298.14	63.00	24.63	55.26 S	5.78 E	55.56@	174.03	0.20
4363.00	1.70	144.50	4362.12	64.00	24.59	56.85 S	6.82 E	57.25@	173.15	0.19

PathFinder Energy Services, Inc.
Survey Report

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Measured Depth (ft)	Incl (deg)	Drift Dir. (deg)	TVD (ft)	Course Length (ft)	Vertical Section (ft)	TOTAL Rectangular Offsets (ft)	(ft)	Closure Dist (ft)	Dir (deg)	DLS (dg/100ft)
4426.00	1.70	142.00	4425.09	63.00	24.44	58.34 S	7.94 E	58.88@	172.25	0.12
4490.00	1.80	140.20	4489.06	64.00	24.22	59.86 S	9.17 E	60.56@	171.29	0.18
4554.00	1.70	142.00	4553.03	64.00	23.99	61.38 S	10.40 E	62.26@	170.39	0.18
4617.00	1.70	144.80	4616.00	63.00	23.85	62.88 S	11.51 E	63.93@	169.63	0.13
4681.00	1.80	145.20	4679.97	64.00	23.76	64.48 S	12.63 E	65.71@	168.92	0.16
4744.00	1.80	143.00	4742.94	63.00	23.63	66.09 S	13.79 E	67.51@	168.21	0.11
4808.00	2.00	144.50	4806.90	64.00	23.49	67.80 S	15.05 E	69.45@	167.49	0.32
4871.00	2.00	147.30	4869.87	63.00	23.42	69.62 S	16.28 E	71.50@	166.84	0.16
4935.00	1.80	140.80	4933.83	64.00	23.29	71.34 S	17.52 E	73.46@	166.20	0.46
4998.00	1.70	138.90	4996.80	63.00	23.03	72.81 S	18.76 E	75.19@	165.55	0.18
5062.00	1.50	135.40	5060.78	64.00	22.70	74.12 S	19.97 E	76.76@	164.92	0.35
5125.00	1.60	141.80	5123.75	63.00	22.43	75.40 S	21.09 E	78.29@	164.37	0.32
5251.00	1.30	146.20	5249.71	126.00	22.22	77.97 S	22.98 E	81.28@	163.58	0.25
5315.00	1.50	144.70	5313.69	64.00	22.15	79.26 S	23.86 E	82.77@	163.24	0.32
5378.00	1.70	161.80	5376.67	63.00	22.34	80.82 S	24.63 E	84.49@	163.05	0.82
5442.00	1.80	171.50	5440.64	64.00	22.97	82.71 S	25.08 E	86.43@	163.13	0.49
5505.00	1.80	170.10	5503.61	63.00	23.75	84.67 S	25.39 E	88.39@	163.30	0.07
5633.00	1.90	170.20	5631.54	128.00	25.32	88.74 S	26.10 E	92.50@	163.61	0.08
5696.00	2.00	166.30	5694.50	63.00	26.07	90.83 S	26.54 E	94.63@	163.71	0.26
5760.00	1.90	168.60	5758.47	64.00	26.81	92.96 S	27.01 E	96.80@	163.80	0.20
5823.00	1.90	162.50	5821.43	63.00	27.45	94.98 S	27.53 E	98.89@	163.83	0.32
5887.00	2.10	156.30	5885.39	64.00	27.89	97.07 S	28.32 E	101.11@	163.73	0.46
5950.00	2.20	157.10	5948.35	63.00	28.26	99.24 S	29.26 E	103.46@	163.57	0.17
6014.00	2.30	156.30	6012.30	64.00	28.65	101.54 S	30.25 E	105.95@	163.41	0.16
6077.00	2.10	159.20	6075.25	63.00	29.07	103.78 S	31.17 E	108.36@	163.28	0.36
6141.00	1.90	151.80	6139.22	64.00	29.38	105.81 S	32.09 E	110.57@	163.13	0.51
6173.00	2.90	204.00	6171.19	32.00	30.09	107.02 S	32.01 E	111.70@	163.35	7.17
6204.00	7.20	231.20	6202.07	31.00	32.68	108.95 S	30.18 E	113.05@	164.52	15.50
6236.00	10.10	248.60	6233.70	32.00	37.43	111.23 S	26.00 E	114.23@	166.84	12.11

PathFinder Energy Services, Inc.
Survey Report

QUESTAR EXPLORATION & PRODUCTION CO
JB 8G-21-7-21 ST1
UNITAH COUNTY, UT
RIG:AZTEC 781

Measured Depth (ft)	Incl (deg)	Drift Dir. (deg)	TVD (ft)	Course Length (ft)	Vertical Section (ft)	TOTAL Rectangular Offsets (ft)	(ft)	Closure Dist (ft)	Dir (deg)	DLS (dg/100ft)
6268.00	14.50	257.00	6264.96	32.00	43.97	113.16 S	19.48 E	114.82@	170.23	14.81
6300.00	18.60	258.00	6295.63	32.00	52.54	115.12 S	10.58 E	115.61@	174.75	12.84
6331.00	22.50	259.30	6324.65	31.00	62.70	117.25 S	0.09 W	117.25@	180.04	12.67
6363.00	25.60	262.80	6353.87	32.00	74.65	119.26 S	12.97 W	119.96@	186.21	10.66
6395.00	28.60	263.40	6382.36	32.00	87.82	121.00 S	27.44 W	124.08@	192.78	9.41
6427.00	32.10	262.30	6409.97	32.00	102.46	123.02 S	43.48 W	130.48@	199.46	11.07
6448.00	34.80	261.50	6427.49	21.00	113.02	124.66 S	54.94 W	136.23@	203.78	13.03
6480.00	38.90	260.20	6453.09	32.00	130.67	127.72 S	73.88 W	147.55@	210.05	13.04
6512.00	43.30	258.70	6477.20	32.00	150.21	131.58 S	94.55 W	162.03@	215.70	14.09
6543.00	46.60	256.70	6499.14	31.00	170.79	136.26 S	115.94 W	178.91@	220.39	11.58
6575.00	50.20	253.70	6520.38	32.00	193.61	142.38 S	139.06 W	199.03@	224.32	13.25
6607.00	53.80	251.50	6540.08	32.00	217.98	149.93 S	163.11 W	221.55@	227.41	12.48
6639.00	57.10	249.10	6558.23	32.00	243.70	158.83 S	187.92 W	246.05@	229.80	12.02
6670.00	60.90	245.90	6574.19	31.00	269.88	169.01 S	212.45 W	271.47@	231.50	15.12
6702.00	64.30	242.10	6588.92	32.00	298.10	181.47 S	237.97 W	299.27@	232.67	14.97
6734.00	66.90	237.60	6602.15	32.00	327.21	196.11 S	263.15 W	328.19@	233.31	15.16
6765.00	70.60	234.10	6613.38	31.00	356.08	212.33 S	287.05 W	357.04@	233.51	15.91
6796.00	72.90	231.20	6623.09	31.00	385.40	230.19 S	310.44 W	386.48@	233.44	11.57
6828.00	74.10	230.30	6632.18	32.00	415.85	249.61 S	334.20 W	417.13@	233.25	4.62
6860.00	76.00	230.30	6640.44	32.00	446.51	269.35 S	357.99 W	448.00@	233.04	5.94
6892.00	79.80	230.60	6647.14	32.00	477.54	289.27 S	382.11 W	479.26@	232.87	11.91
6923.00	84.60	231.10	6651.35	31.00	508.03	308.66 S	405.92 W	509.94@	232.75	15.57
6955.00	87.10	231.50	6653.66	32.00	539.74	328.61 S	430.83 W	541.85@	232.67	7.91
6987.00	86.90	231.30	6655.34	32.00	571.50	348.55 S	455.80 W	573.80@	232.60	0.88
** TIED INTO NATIVE NAVIGATION EM SURVEY @ 7024'MD.										
7024.00	89.10	231.60	6656.63	37.00	608.26	371.59 S	484.72 W	610.76@	232.53	6.00
THE FOLLOWING ARE NATIVE NAVIGATION MWD SURVEYS.										
7079.00	91.40	227.20	6656.39	55.00	662.66	407.37 S	526.47 W	665.67@	232.27	9.03
ST1 DEPARTS ORIGINAL WELLBORE @ 7090'MD (6656'TVD).										
THE FOLLOWING ARE PATHFINDER MWD SURVEYS.										
7108.00	89.87	228.66	6656.07	29.00	691.23	426.80 S	547.99 W	694.59@	232.09	7.29
7123.00	89.78	228.53	6656.11	15.00	706.04	436.72 S	559.24 W	709.56@	232.01	1.05

PathFinder Energy Services, Inc.
Survey Report

QUESTAR EXPLORATION & PRODUCTION CO
JB 8G-21-7-21 ST1
UNITAH COUNTY, UT
RIG:AZTEC 781

Measured Depth (ft)	Incl (deg)	Drift Dir. (deg)	TVD (ft)	Course Length (ft)	Vertical Section (ft)	TOTAL Rectangular Offsets (ft)	(ft)	Closure Dist (ft)	Dir (deg)	DLS (dg/100ft)
7151.00	89.87	228.33	6656.20	28.00	733.68	455.30 S	580.19 W	737.51@	231.88	0.78
7185.00	90.57	228.09	6656.07	34.00	767.21	477.96 S	605.54 W	771.44@	231.72	2.18
7216.00	91.28	228.23	6655.57	31.00	797.77	498.63 S	628.63 W	802.38@	231.58	2.33
7247.00	91.19	228.29	6654.90	31.00	828.34	519.27 S	651.76 W	833.32@	231.46	0.35
7275.00	91.01	228.95	6654.36	28.00	855.99	537.77 S	672.76 W	861.28@	231.36	2.44
7307.00	90.13	229.18	6654.04	32.00	887.62	558.74 S	696.94 W	893.26@	231.28	2.84
7336.00	89.25	229.63	6654.20	29.00	916.32	577.61 S	718.96 W	922.24@	231.22	3.41
7369.00	89.52	230.16	6654.56	33.00	949.01	598.86 S	744.20 W	955.23@	231.18	1.80
7402.00	91.89	230.41	6654.15	33.00	981.72	619.95 S	769.58 W	988.22@	231.15	7.22
7442.00	92.24	230.70	6652.71	40.00	1021.39	645.34 S	800.45 W	1028.19@	231.12	1.14
7473.00	89.78	231.18	6652.16	31.00	1052.16	664.87 S	824.51 W	1059.19@	231.12	8.09
7503.00	89.60	231.52	6652.32	30.00	1081.98	683.61 S	847.94 W	1089.18@	231.12	1.28
7535.00	90.66	232.31	6652.25	32.00	1113.81	703.35 S	873.13 W	1121.18@	231.15	4.13
7567.00	90.22	232.97	6652.01	32.00	1145.68	722.77 S	898.56 W	1153.17@	231.19	2.48
7601.00	91.19	233.85	6651.59	34.00	1179.58	743.03 S	925.86 W	1187.14@	231.25	3.85
7631.00	90.92	234.21	6651.04	30.00	1209.52	760.65 S	950.13 W	1217.10@	231.32	1.50
7665.00	90.48	235.01	6650.62	34.00	1243.46	780.34 S	977.85 W	1251.04@	231.41	2.69
7696.00	90.40	235.90	6650.38	31.00	1274.44	797.91 S	1003.38 W	1281.97@	231.51	2.88
7729.00	90.40	236.26	6650.15	33.00	1307.42	816.33 S	1030.76 W	1314.86@	231.62	1.09
7762.00	89.43	236.66	6650.20	33.00	1340.42	834.56 S	1058.27 W	1347.75@	231.74	3.18
7798.00	90.31	237.21	6650.28	36.00	1376.41	854.20 S	1088.44 W	1383.60@	231.88	2.88
7828.00	89.60	237.83	6650.31	30.00	1406.41	870.31 S	1113.75 W	1413.46@	231.99	3.14
7847.00	90.31	237.86	6650.32	19.00	1425.41	880.43 S	1129.83 W	1432.36@	232.07	3.74
7878.00	90.92	237.30	6649.99	31.00	1456.41	897.04 S	1156.00 W	1463.22@	232.19	2.67
7909.00	92.33	237.23	6649.11	31.00	1487.39	913.80 S	1182.06 W	1494.09@	232.29	4.55
7942.00	91.36	236.86	6648.05	33.00	1520.38	931.74 S	1209.74 W	1526.96@	232.40	3.15
7973.00	89.96	237.27	6647.69	31.00	1551.37	948.59 S	1235.75 W	1557.86@	232.49	4.71
8005.00	89.52	238.13	6647.83	32.00	1583.37	965.69 S	1262.80 W	1589.73@	232.59	3.02
8033.00	89.60	238.50	6648.05	28.00	1611.37	980.40 S	1286.63 W	1617.59@	232.69	1.35

PathFinder Energy Services, Inc.
Survey Report

QUESTAR EXPLORATION & PRODUCTION CO
JB 8G-21-7-21 ST1
UNITAH COUNTY, UT
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Measured Depth (ft)	Incl (deg)	Drift Dir. (deg)	TVD (ft)	Course Length (ft)	Vertical Section (ft)	TOTAL Rectangular Offsets (ft)	(ft)	Closure Dist (ft)	Dir (deg)	DLS (dg/100ft)
8065.00	90.57	238.49	6648.00	32.00	1643.36	997.12 S	1313.91 W	1649.43@	232.81	3.03
8096.00	89.87	237.03	6647.88	31.00	1674.36	1013.66 S	1340.13 W	1680.31@	232.90	5.22
8128.00	90.48	237.72	6647.79	32.00	1706.36	1030.91 S	1367.08 W	1712.22@	232.98	2.88
8162.00	90.13	237.58	6647.60	34.00	1740.36	1049.10 S	1395.80 W	1746.11@	233.07	1.11
8193.00	90.66	238.04	6647.39	31.00	1771.36	1065.62 S	1422.04 W	1777.00@	233.15	2.26
8222.00	89.43	238.02	6647.37	29.00	1800.36	1080.97 S	1446.64 W	1805.90@	233.23	4.24
8258.00	91.19	238.65	6647.17	36.00	1836.35	1099.87 S	1477.28 W	1841.75@	233.33	5.19
8287.00	90.48	238.53	6646.75	29.00	1865.35	1114.98 S	1502.03 W	1870.63@	233.41	2.48
8317.00	89.96	237.99	6646.64	30.00	1895.35	1130.76 S	1527.54 W	1900.53@	233.49	2.50
8353.00	90.13	238.06	6646.61	36.00	1931.35	1149.83 S	1558.08 W	1936.41@	233.57	0.51
8384.00	90.40	238.48	6646.46	31.00	1962.34	1166.13 S	1584.44 W	1967.31@	233.65	1.61
8417.00	90.66	239.03	6646.16	33.00	1995.34	1183.25 S	1612.65 W	2000.18@	233.73	1.84
8428.00	91.10	239.42	6645.99	11.00	2006.33	1188.87 S	1622.10 W	2011.13@	233.76	5.34
STRAIGHT LINE PROJECTION TO BIT DEPTH AT 8500'MD.										
8500.00	91.10	239.42	6644.61	72.00	2078.29	1225.50 S	1684.08 W	2082.78@	233.96	0.00

** The survey data at tie-in point was furnished by a recognized survey company and entered as submitted. Survey stations above the tie-in point represent recalculated data by PathFinder Energy Services, Inc. and may reflect minor changes due to rounding differences between survey programs. Only survey stations taken by qualified PathFinder personnel are subject to certification.

Tie-in Date: 07/06/2010
Date Completed: 07/27/2010

PathFinder Energy Services, Inc.
Survey Report

QUESTAR EXPLORATION & PRODUCTION CO
JB 8G-21-7-21 LATERAL #2 ST2
UINTAH COUNTY, UT
Rig:AZTEC 781
PathFinder Office Supervisor: MARK TRAHAN
PathFinder Field Engineers: MICHAEL FLOWERS
KHALED BARAKE

Survey Calculations by RX5 V6.03A using Minimum Curvature

Survey Horiz. Reference:WELLHEAD
Ref Coordinates: LAT:40.11.51.4799 N LON:109.33.15.4600 W
GRID Reference:NAD83 utah north Lambert
Ref GRID Coor: X: 2183978.7000 Y: 3237478.0100
North Aligned To:TRUE NORTH
Total Magnetic Correction:11.15°EAST TO TRUE
Vertical Section Plane: 133.28
Survey Vert. Reference: 14.00' Rotary Table To Ground
Altitude:4813.00' Ground To MSL

Measured Depth (ft)	Incl (deg)	Drift Dir. (deg)	TVD (ft)	Course Length (ft)	Vertical Section (ft)	TOTAL Rectangular Offsets (ft)	(ft)	Closure Dist (ft)	Dir (deg)	DLS (dg/100ft)
THE FOLLOWING ARE NATIVE NAVIGATION EM SURVEYS.										
578.00	0.70	343.70	577.98	0.00	-3.05	3.39 N	0.99 W	3.53@	343.69	0.00
701.00	0.30	260.30	700.98	123.00	-3.89	4.06 N	1.52 W	4.33@	339.46	0.59
762.00	0.30	291.00	761.97	61.00	-4.13	4.09 N	1.83 W	4.48@	335.92	0.26
824.00	0.20	296.20	823.97	62.00	-4.39	4.19 N	2.08 W	4.68@	333.67	0.17
885.00	0.10	231.80	884.97	61.00	-4.50	4.21 N	2.21 W	4.76@	332.26	0.30
945.00	0.10	13.80	944.97	60.00	-4.53	4.23 N	2.24 W	4.79@	332.06	0.31
1068.00	0.10	40.10	1067.97	123.00	-4.59	4.41 N	2.15 W	4.91@	334.05	0.04
1131.00	0.10	99.50	1130.97	63.00	-4.55	4.45 N	2.06 W	4.90@	335.17	0.16
1192.00	0.10	106.70	1191.97	61.00	-4.45	4.42 N	1.95 W	4.84@	336.16	0.02
1316.00	0.40	230.20	1315.97	124.00	-4.41	4.11 N	2.18 W	4.66@	332.05	0.37
1443.00	0.40	206.80	1442.97	127.00	-4.34	3.43 N	2.72 W	4.38@	321.59	0.13
1570.00	0.60	228.00	1569.97	127.00	-4.27	2.59 N	3.42 W	4.29@	307.20	0.21
1634.00	0.50	234.00	1633.96	64.00	-4.35	2.21 N	3.89 W	4.47@	299.54	0.18
1697.00	0.70	232.70	1696.96	63.00	-4.46	1.81 N	4.42 W	4.78@	292.28	0.32
1824.00	0.90	210.20	1823.95	127.00	-4.36	0.48 N	5.54 W	5.56@	274.94	0.29
1888.00	0.90	213.20	1887.94	64.00	-4.16	0.38 S	6.07 W	6.08@	266.45	0.07
1951.00	0.80	202.80	1950.93	63.00	-3.92	1.20 S	6.51 W	6.62@	259.59	0.29
2015.00	0.70	199.00	2014.93	64.00	-3.60	1.98 S	6.81 W	7.09@	253.81	0.17
2078.00	0.60	197.20	2077.92	63.00	-3.30	2.66 S	7.03 W	7.52@	249.31	0.16
2142.00	0.60	192.70	2141.92	64.00	-2.98	3.30 S	7.21 W	7.93@	245.37	0.07
2205.00	0.60	180.20	2204.92	63.00	-2.59	3.95 S	7.28 W	8.28@	241.49	0.21
2269.00	0.80	178.30	2268.91	64.00	-2.04	4.74 S	7.27 W	8.67@	236.91	0.31
2332.00	0.70	180.10	2331.90	63.00	-1.47	5.56 S	7.25 W	9.14@	232.53	0.16
2396.00	0.90	183.00	2395.90	64.00	-0.88	6.45 S	7.28 W	9.73@	228.45	0.32
2459.00	1.10	189.80	2458.89	63.00	-0.22	7.54 S	7.41 W	10.57@	224.49	0.37
2523.00	1.30	189.50	2522.88	64.00	0.52	8.87 S	7.63 W	11.70@	220.74	0.31

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Measured Depth (ft)	Incl (deg)	Drift Dir. (deg)	TVD (ft)	Course Length (ft)	Vertical Section (ft)	TOTAL Rectangular Offsets (ft)	(ft)	Closure Dist (ft)	Dir (deg)	DLS (dg/100ft)
2586.00	1.30	187.80	2585.86	63.00	1.33	10.28 S	7.85 W	12.93@	217.37	0.06
2650.00	1.30	179.10	2649.84	64.00	2.26	11.72 S	7.94 W	14.16@	214.10	0.31
2713.00	1.30	168.80	2712.83	63.00	3.34	13.14 S	7.79 W	15.27@	210.65	0.37
2777.00	1.30	167.50	2776.81	64.00	4.53	14.56 S	7.49 W	16.37@	207.22	0.05
2840.00	1.30	161.10	2839.79	63.00	5.75	15.93 S	7.10 W	17.44@	204.03	0.23
2903.00	1.50	158.00	2902.77	63.00	7.13	17.37 S	6.56 W	18.57@	200.69	0.34
2967.00	1.60	156.60	2966.75	64.00	8.72	18.97 S	5.89 W	19.87@	197.26	0.17
3030.00	1.60	151.60	3029.73	63.00	10.36	20.55 S	5.13 W	21.18@	194.00	0.22
3094.00	1.50	150.80	3093.70	64.00	12.00	22.07 S	4.29 W	22.48@	191.01	0.16
3157.00	1.30	160.20	3156.68	63.00	13.43	23.46 S	3.65 W	23.74@	188.84	0.48
3221.00	1.30	155.70	3220.67	64.00	14.75	24.81 S	3.10 W	25.00@	187.13	0.16
3284.00	1.30	153.30	3283.65	63.00	16.08	26.10 S	2.49 W	26.21@	185.45	0.09
3348.00	1.20	156.20	3347.64	64.00	17.38	27.36 S	1.89 W	27.42@	183.96	0.19
3411.00	1.40	158.50	3410.62	63.00	18.68	28.68 S	1.34 W	28.71@	182.68	0.33
3475.00	1.60	178.10	3474.60	64.00	20.02	30.30 S	1.03 W	30.31@	181.94	0.86
3538.00	1.40	195.10	3537.58	63.00	21.01	31.92 S	1.20 W	31.94@	182.15	0.77
3601.00	1.50	194.20	3600.56	63.00	21.77	33.46 S	1.60 W	33.50@	182.74	0.16
3665.00	1.60	194.00	3664.53	64.00	22.62	35.14 S	2.02 W	35.20@	183.29	0.16
3728.00	1.80	184.00	3727.51	63.00	23.68	36.98 S	2.30 W	37.05@	183.57	0.57
3792.00	2.00	176.30	3791.47	64.00	25.13	39.10 S	2.30 W	39.17@	183.37	0.51
3855.00	1.70	161.00	3854.44	63.00	26.76	41.08 S	1.93 W	41.12@	182.69	0.91
3919.00	2.00	151.00	3918.41	64.00	28.66	42.95 S	1.08 W	42.97@	181.44	0.69
3982.00	2.60	151.30	3981.35	63.00	31.07	45.17 S	0.14 E	45.17@	179.82	0.95
4046.00	2.50	149.60	4045.29	64.00	33.79	47.65 S	1.55 E	47.67@	178.14	0.20
4109.00	2.10	150.30	4108.24	63.00	36.21	49.83 S	2.81 E	49.91@	176.77	0.64
4172.00	1.90	153.30	4171.20	63.00	38.30	51.77 S	3.85 E	51.91@	175.74	0.36
4236.00	1.80	151.10	4235.17	64.00	40.25	53.60 S	4.82 E	53.81@	174.86	0.19
4299.00	1.70	148.70	4298.14	63.00	42.09	55.26 S	5.78 E	55.56@	174.03	0.20
4363.00	1.70	144.50	4362.11	64.00	43.94	56.85 S	6.82 E	57.25@	173.15	0.19

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Measured Depth (ft)	Incl (deg)	Drift Dir. (deg)	TVD (ft)	Course Length (ft)	Vertical Section (ft)	TOTAL Rectangular Offsets (ft)	(ft)	Closure Dist (ft)	Dir (deg)	DLS (dg/100ft)
4426.00	1.70	142.00	4425.08	63.00	45.78	58.34 S	7.94 E	58.88@	172.25	0.12
4490.00	1.80	140.20	4489.05	64.00	47.72	59.86 S	9.17 E	60.56@	171.29	0.18
4554.00	1.70	142.00	4553.02	64.00	49.65	61.38 S	10.40 E	62.26@	170.39	0.18
4617.00	1.70	144.80	4616.00	63.00	51.49	62.88 S	11.51 E	63.93@	169.63	0.13
4681.00	1.80	145.20	4679.97	64.00	53.41	64.48 S	12.63 E	65.71@	168.92	0.16
4744.00	1.80	143.00	4742.93	63.00	55.35	66.09 S	13.79 E	67.51@	168.21	0.11
4808.00	2.00	144.50	4806.90	64.00	57.44	67.80 S	15.05 E	69.45@	167.49	0.32
4871.00	2.00	147.30	4869.86	63.00	59.58	69.62 S	16.28 E	71.50@	166.84	0.16
4935.00	1.80	140.80	4933.83	64.00	61.66	71.34 S	17.52 E	73.46@	166.20	0.46
4998.00	1.70	138.90	4996.80	63.00	63.57	72.81 S	18.76 E	75.19@	165.55	0.18
5062.00	1.50	135.40	5060.77	64.00	65.35	74.12 S	19.97 E	76.76@	164.92	0.35
5125.00	1.60	141.80	5123.75	63.00	67.05	75.40 S	21.09 E	78.29@	164.37	0.32
5251.00	1.30	146.20	5249.71	126.00	70.18	77.97 S	22.98 E	81.28@	163.58	0.25
5315.00	1.50	144.70	5313.69	64.00	71.71	79.26 S	23.86 E	82.77@	163.24	0.32
5378.00	1.70	161.80	5376.67	63.00	73.34	80.82 S	24.63 E	84.49@	163.05	0.82
5442.00	1.80	171.50	5440.64	64.00	74.96	82.71 S	25.08 E	86.43@	163.13	0.49
5505.00	1.80	170.10	5503.60	63.00	76.53	84.67 S	25.39 E	88.39@	163.30	0.07
5633.00	1.90	170.20	5631.54	128.00	79.84	88.74 S	26.10 E	92.50@	163.61	0.08
5696.00	2.00	166.30	5694.50	63.00	81.59	90.83 S	26.54 E	94.63@	163.71	0.26
5760.00	1.90	168.60	5758.46	64.00	83.40	92.96 S	27.01 E	96.80@	163.80	0.20
5823.00	1.90	162.50	5821.43	63.00	85.16	94.98 S	27.53 E	98.89@	163.83	0.32
5887.00	2.10	156.30	5885.39	64.00	87.16	97.07 S	28.32 E	101.11@	163.73	0.46
5950.00	2.20	157.10	5948.35	63.00	89.33	99.24 S	29.26 E	103.46@	163.57	0.17
6014.00	2.30	156.30	6012.30	64.00	91.64	101.54 S	30.25 E	105.95@	163.41	0.16
** TIED INTO NATIVE NAVIGATION EM SURVEY @ 6077'MD.										
6077.00	2.10	159.20	6075.25	63.00	93.84	103.78 S	31.17 E	108.36@	163.28	0.36
LATERAL #2 DEPARTS ORIGINAL WELLBORE @ 6105'MD (6103'TVD).										
THE FOLLOWING SURVEY IS SCIENTIFIC GYRO SURVEYS.										
6105.00	4.95	166.63	6103.19	28.00	95.31	105.44 S	31.63 E	110.08@	163.30	10.29
THE FOLLOWING ARE PATHFINDER MWD SURVEYS.										
6145.00	8.44	157.61	6142.92	40.00	99.43	109.83 S	33.15 E	114.72@	163.20	9.09
6176.00	11.43	140.72	6173.46	31.00	104.55	114.31 S	35.96 E	119.84@	162.54	13.37
6204.00	13.37	148.43	6200.80	28.00	110.43	119.22 S	39.41 E	125.57@	161.71	9.10

PathFinder Energy Services, Inc.
Survey Report

QUESTAR EXPLORATION & PRODUCTION CO
JB 8G-21-7-21 LATERAL #2 ST2
UINTAH COUNTY, UT
RIG:AZTEC 781

Measured Depth (ft)	Incl (deg)	Drift Dir. (deg)	TVD (ft)	Course Length (ft)	Vertical Section (ft)	TOTAL Rectangular Offsets (ft)	(ft)	Closure Dist (ft)	Dir (deg)	DLS (dg/100ft)
6237.00	16.27	143.98	6232.70	33.00	118.65	126.21 S	44.13 E	133.70@	160.73	9.43
6269.00	19.35	144.36	6263.16	32.00	128.26	134.15 S	49.86 E	143.11@	159.61	9.63
6301.00	22.25	143.88	6293.08	32.00	139.42	143.35 S	56.52 E	154.09@	158.48	9.08
6332.00	24.71	143.30	6321.51	31.00	151.57	153.29 S	63.85 E	166.06@	157.39	7.97
6365.00	27.87	139.68	6351.09	33.00	166.04	164.70 S	72.97 E	180.14@	156.11	10.73
6397.00	32.54	136.98	6378.74	32.00	182.07	176.71 S	83.69 E	195.52@	154.66	15.20
6426.00	35.70	134.53	6402.75	29.00	198.31	188.34 S	95.04 E	210.97@	153.22	11.88
6459.00	40.01	131.86	6428.80	33.00	218.56	202.18 S	109.81 E	230.08@	151.49	13.97
6491.00	44.76	131.31	6452.43	32.00	240.11	216.49 S	125.95 E	250.46@	149.81	14.89
6524.00	50.30	130.89	6474.70	33.00	264.43	232.49 S	144.29 E	273.62@	148.18	16.81
6556.00	54.26	131.02	6494.27	32.00	289.71	249.07 S	163.40 E	297.89@	146.73	12.38
6586.00	55.31	130.24	6511.57	30.00	314.20	265.03 S	182.00 E	321.51@	145.52	4.09
6619.00	57.51	129.99	6529.83	33.00	341.64	282.74 S	203.02 E	348.08@	144.32	6.70
6651.00	60.50	129.60	6546.31	32.00	369.02	300.30 S	224.10 E	374.70@	143.27	9.40
6683.00	64.90	128.75	6560.98	32.00	397.37	318.25 S	246.14 E	402.33@	142.28	13.95
6714.00	67.62	130.04	6573.46	31.00	425.68	336.26 S	268.06 E	430.03@	141.44	9.56
6747.00	69.29	130.46	6585.58	33.00	456.33	356.09 S	291.49 E	460.18@	140.70	5.20
6780.00	72.90	129.83	6596.27	33.00	487.50	376.22 S	315.35 E	490.90@	140.03	11.09
6809.00	77.73	129.16	6603.62	29.00	515.48	394.05 S	336.99 E	518.50@	139.46	16.80
6841.00	79.49	129.19	6609.94	32.00	546.77	413.87 S	361.31 E	549.39@	138.88	5.50
6874.00	81.95	128.71	6615.26	33.00	579.24	434.34 S	386.64 E	581.50@	138.33	7.59
6906.00	84.59	128.38	6619.01	32.00	610.91	454.14 S	411.49 E	612.84@	137.82	8.31
6928.00	86.70	128.36	6620.68	22.00	632.77	467.76 S	428.69 E	634.48@	137.50	9.59
LATERAL #2 SIDETRACK 1 DEPARTS LATERAL #2 @ 6960'MD (6622'TVD).										
6961.00	86.79	129.71	6622.55	33.00	665.62	488.51 S	454.28 E	667.09@	137.08	4.09
6989.00	87.41	129.46	6623.97	28.00	693.53	506.32 S	475.83 E	694.82@	136.78	2.39
7033.00	90.48	130.32	6624.78	44.00	737.44	534.53 S	509.58 E	738.51@	136.37	7.25
LATERAL #2 SIDETRACK 2 DEPARTS LATERAL #2 SIDETRACK 1 @ 7050'MD (6625'TVD).										
7065.00	87.76	131.40	6625.27	32.00	769.40	555.46 S	533.78 E	770.36@	136.14	9.15
7100.00	88.37	129.54	6626.45	35.00	804.34	578.17 S	560.39 E	805.18@	135.89	5.59

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UINTAH COUNTY, UT
RIG:AZTEC 781

Measured Depth (ft)	Incl (deg)	Drift Dir. (deg)	TVD (ft)	Course Length (ft)	Vertical Section (ft)	TOTAL Rectangular Offsets (ft)	(ft)	Closure Dist (ft)	Dir (deg)	DLS (dg/100ft)
7130.00	91.54	129.76	6626.48	30.00	834.27	597.31 S	583.48 E	835.00@	135.67	10.59
7164.00	93.03	130.07	6625.12	34.00	868.19	619.11 S	609.54 E	868.81@	135.45	4.48
7196.00	91.36	128.75	6623.90	32.00	900.09	639.41 S	634.24 E	900.61@	135.23	6.65
7224.00	90.66	127.67	6623.40	28.00	927.98	656.72 S	656.24 E	928.40@	135.02	4.60
7259.00	92.95	126.88	6622.30	35.00	962.76	677.91 S	684.07 E	963.08@	134.74	6.92
7292.00	92.68	126.79	6620.68	33.00	995.51	697.67 S	710.45 E	995.73@	134.48	0.86
7323.00	91.98	127.09	6619.42	31.00	1026.30	716.28 S	735.21 E	1026.45@	134.25	2.46
7356.00	91.89	125.68	6618.30	33.00	1059.04	735.85 S	761.76 E	1059.13@	134.01	4.28
7388.00	91.63	124.89	6617.32	32.00	1090.71	754.32 S	787.87 E	1090.75@	133.75	2.60
7421.00	91.28	124.26	6616.48	33.00	1123.32	773.04 S	815.03 E	1123.33@	133.49	2.18
7451.00	93.47	124.28	6615.24	30.00	1152.93	789.92 S	839.80 E	1152.93@	133.25	7.30
7482.00	93.56	125.23	6613.34	31.00	1183.53	807.56 S	865.22 E	1183.54@	133.03	3.07
7502.00	92.42	124.69	6612.30	20.00	1203.29	819.00 S	881.59 E	1203.32@	132.89	6.31
7533.00	92.15	124.17	6611.06	31.00	1233.89	836.52 S	907.14 E	1233.96@	132.68	1.89
7564.00	91.01	125.24	6610.21	31.00	1264.54	854.16 S	932.62 E	1264.66@	132.49	5.04
7596.00	92.15	127.47	6609.32	32.00	1296.29	873.12 S	958.38 E	1296.46@	132.33	7.82
7628.00	90.75	128.26	6608.51	32.00	1328.13	892.75 S	983.63 E	1328.36@	132.23	5.02
7663.00	91.01	128.58	6607.98	35.00	1363.00	914.50 S	1011.05 E	1363.28@	132.13	1.18
7694.00	92.59	129.37	6607.00	31.00	1393.90	933.99 S	1035.13 E	1394.22@	132.06	5.70
7726.00	92.95	128.76	6605.46	32.00	1425.78	954.13 S	1059.95 E	1426.14@	131.99	2.21
7759.00	92.07	129.13	6604.01	33.00	1458.65	974.85 S	1085.59 E	1459.06@	131.92	2.89
7792.00	92.59	128.48	6602.67	33.00	1491.52	995.52 S	1111.29 E	1491.98@	131.85	2.52
7825.00	92.33	128.46	6601.25	33.00	1524.38	1016.03 S	1137.10 E	1524.90@	131.78	0.79
7855.00	91.36	127.59	6600.29	30.00	1554.23	1034.50 S	1160.72 E	1554.82@	131.71	4.34
7883.00	92.33	126.51	6599.38	28.00	1582.05	1051.36 S	1183.05 E	1582.71@	131.63	5.18
7916.00	91.36	125.44	6598.32	33.00	1614.77	1070.73 S	1209.75 E	1615.54@	131.51	4.37
7950.00	90.84	124.45	6597.67	34.00	1648.40	1090.20 S	1237.61 E	1649.31@	131.38	3.29
7981.00	91.98	123.29	6596.91	31.00	1678.97	1107.48 S	1263.34 E	1680.04@	131.24	5.25
8014.00	93.83	124.11	6595.23	33.00	1711.47	1125.76 S	1290.76 E	1712.72@	131.09	6.13

PathFinder Energy Services, Inc.
Survey Report

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Measured Depth (ft)	Incl (deg)	Drift Dir. (deg)	TVD (ft)	Course Length (ft)	Vertical Section (ft)	TOTAL Rectangular Offsets (ft)	(ft)	Closure Dist (ft)	Dir (deg)	DLS (dg/100ft)
8044.00	92.24	123.50	6593.65	30.00	1741.02	1142.43 S	1315.65 E	1742.43@	130.97	5.68
8078.00	92.68	123.41	6592.19	34.00	1774.49	1161.15 S	1343.99 E	1776.12@	130.83	1.32
8110.00	92.86	122.76	6590.64	32.00	1805.95	1178.60 S	1370.77 E	1807.79@	130.69	2.11
8142.00	92.95	122.72	6589.02	32.00	1837.37	1195.89 S	1397.65 E	1839.45@	130.55	0.31
8172.00	91.36	122.01	6587.89	30.00	1866.80	1211.93 S	1422.97 E	1869.13@	130.42	5.80
8204.00	90.57	121.16	6587.35	32.00	1898.13	1228.69 S	1450.23 E	1900.75@	130.27	3.63
8236.00	92.68	120.61	6586.44	32.00	1929.37	1245.11 S	1477.68 E	1932.31@	130.12	6.81
8268.00	91.71	119.91	6585.22	32.00	1960.52	1261.22 S	1505.30 E	1963.82@	129.96	3.74
8300.00	91.28	119.55	6584.38	32.00	1991.62	1277.09 S	1533.08 E	1995.31@	129.80	1.75
8329.00	91.45	119.15	6583.69	29.00	2019.76	1291.30 S	1558.35 E	2023.83@	129.65	1.50
8361.00	92.07	118.47	6582.71	32.00	2050.73	1306.71 S	1586.37 E	2055.25@	129.48	2.87
8394.00	91.71	118.21	6581.62	33.00	2082.60	1322.37 S	1615.40 E	2087.62@	129.30	1.34
8425.00	93.12	117.98	6580.32	31.00	2112.49	1336.95 S	1642.72 E	2118.01@	129.14	4.61
8456.00	91.98	117.87	6578.94	31.00	2142.35	1351.46 S	1670.09 E	2148.40@	128.98	3.70
8491.00	91.45	117.80	6577.89	35.00	2176.07	1367.79 S	1701.02 E	2182.74@	128.80	1.53
8522.00	90.40	118.60	6577.39	31.00	2206.00	1382.44 S	1728.34 E	2213.21@	128.66	4.26
8550.00	90.04	117.57	6577.28	28.00	2233.02	1395.62 S	1753.04 E	2240.74@	128.52	3.90
8583.00	90.66	117.06	6577.08	33.00	2264.75	1410.76 S	1782.36 E	2273.12@	128.36	2.43
8615.00	93.65	116.61	6575.88	32.00	2295.41	1425.20 S	1810.89 E	2304.45@	128.20	9.45
8646.00	94.53	117.49	6573.67	31.00	2325.10	1439.26 S	1838.43 E	2334.80@	128.06	4.01
8678.00	92.95	117.57	6571.58	32.00	2355.83	1454.02 S	1866.75 E	2366.20@	127.92	4.94
8708.00	92.59	117.39	6570.13	30.00	2384.67	1467.84 S	1893.33 E	2395.68@	127.79	1.34
8735.00	93.91	116.79	6568.60	27.00	2410.55	1480.12 S	1917.33 E	2422.17@	127.67	5.37
8745.00	93.74	116.62	6567.93	10.00	2420.12	1484.60 S	1926.24 E	2431.96@	127.62	2.40
8776.00	90.04	116.37	6566.91	31.00	2449.78	1498.42 S	1953.97 E	2462.37@	127.48	11.96
8806.00	89.25	115.74	6567.09	30.00	2478.43	1511.60 S	1980.92 E	2491.78@	127.35	3.37
8838.00	89.60	116.20	6567.42	32.00	2508.98	1525.61 S	2009.68 E	2523.16@	127.20	1.81
8871.00	93.74	117.54	6566.45	33.00	2540.61	1540.52 S	2039.10 E	2555.61@	127.07	13.19
8903.00	93.65	117.50	6564.39	32.00	2571.34	1555.27 S	2067.42 E	2587.10@	126.95	0.31

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8935.00	92.24	117.82	6562.75	32.00	2602.12	1570.11 S	2095.73 E	2618.64@	126.84	4.52
8964.00	90.04	117.72	6562.17	29.00	2630.06	1583.61 S	2121.38 E	2647.28@	126.74	7.59
8996.00	91.28	118.19	6561.80	32.00	2660.92	1598.61 S	2149.64 E	2678.90@	126.64	4.14
9027.00	93.56	118.15	6560.49	31.00	2690.82	1613.23 S	2176.94 E	2709.54@	126.54	7.36
9060.00	91.71	118.21	6558.98	33.00	2722.64	1628.80 S	2206.00 E	2742.16@	126.44	5.61
9092.00	91.28	117.84	6558.14	32.00	2753.51	1643.83 S	2234.24 E	2773.81@	126.34	1.77
9121.00	93.12	118.00	6557.03	29.00	2781.45	1657.40 S	2259.84 E	2802.47@	126.26	6.37
9152.00	92.24	117.04	6555.58	31.00	2811.25	1671.71 S	2287.30 E	2833.08@	126.16	4.20
9187.00	92.51	116.93	6554.13	35.00	2844.81	1687.58 S	2318.47 E	2867.61@	126.05	0.83
9219.00	92.07	116.87	6552.85	32.00	2875.49	1702.04 S	2346.98 E	2899.18@	125.95	1.39
9247.00	91.28	116.55	6552.03	28.00	2902.32	1714.62 S	2371.98 E	2926.81@	125.86	3.04
9280.00	91.80	116.51	6551.14	33.00	2933.90	1729.36 S	2401.50 E	2959.37@	125.76	1.58
9312.00	91.63	116.80	6550.19	32.00	2964.55	1743.71 S	2430.08 E	2990.96@	125.66	1.05
9345.00	91.80	117.22	6549.20	33.00	2996.22	1758.69 S	2459.47 E	3023.57@	125.57	1.37
9377.00	92.24	117.33	6548.07	32.00	3026.96	1773.34 S	2487.90 E	3055.22@	125.48	1.42
9409.00	91.45	117.05	6547.04	32.00	3057.69	1787.96 S	2516.34 E	3086.87@	125.40	2.62
9439.00	91.80	116.90	6546.19	30.00	3086.47	1801.56 S	2543.07 E	3116.54@	125.31	1.27
9473.00	92.15	116.67	6545.02	34.00	3119.05	1816.87 S	2573.40 E	3150.15@	125.22	1.23
9501.00	91.98	116.05	6544.01	28.00	3145.82	1829.29 S	2598.48 E	3177.80@	125.15	2.29
9532.00	91.71	116.20	6543.01	31.00	3175.43	1842.94 S	2626.29 E	3208.40@	125.06	1.00
9548.00	91.36	115.84	6542.58	16.00	3190.70	1849.95 S	2640.67 E	3224.20@	125.01	3.14
STRAIGHT LINE PROJECTION TO BIT DEPTH @ 9610'MD.										
9610.00	91.36	115.84	6541.11	62.00	3249.83	1876.97 S	2696.45 E	3285.40@	124.84	0.00

** The survey data at tie-in point was furnished by a recognized survey company and entered as submitted. Survey stations above the tie-in point represent recalculated data by PathFinder Energy Services, Inc. and may reflect minor changes due to rounding differences between survey programs. Only survey stations taken by qualified PathFinder personnel are subject to certification.

United States Department of the Interior

BUREAU OF LAND MANAGEMENT
Utah State Office
440 West 200 South, Suite 500
Salt Lake City, UT 84101
http://www.blm.gov/ut/st/en.html

DIV. OF OIL, GAS & MINING

IN REPLY REFER TO:
3160 – UTU86617X
(UT922000)

FEB 14 2014

RECEIVED
FEB 27 2014

QEP Energy Company
Independence Plaza
1050 17th Street, Suite 500
Denver, Colorado 80256

Re: Non-Paying Well Determination
JB 8G-21-7-21 Well, Johnson Bottom Unit
Uintah County, Utah

Gentlemen:

Pursuant to your request of February 10, 2014, it has been determined by this office that under existing conditions the following well is not capable of producing unitized substances in paying quantities as defined in Section 9 of the unit agreement:

API Number	Well Name	Surface Location							Comp. Date	Lease
43-047-40613	JB 8G-21-7-21	SENE	21	7.0	S	21.0	E	SLB&M	8/23/2010	UTU30290

All past and future production from this well shall be handled and reported on a lease basis. If you have any questions, please contact Mickey Coulthard of this office at (801) 539-4042.

Sincerely,

Roger L. Bankert

Roger L. Bankert
Chief, Branch of Minerals

cc: Vernal Field Office Manager (UTG01)
ONRR
SITLA
Division of Oil, Gas and Mining

FEDERAL APPROVAL OF THIS ACTION IS NECESSARY

FORM 9

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

5.LEASE DESIGNATION AND SERIAL NUMBER: UTU-30290

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: JOHNSON BOTTOM

1. TYPE OF WELL Oil Well

8. WELL NAME and NUMBER: JB 8G-21-7-21

2. NAME OF OPERATOR: QEP ENERGY COMPANY

9. API NUMBER: 43047406130000

3. ADDRESS OF OPERATOR: 11002 East 17500 South , Vernal, Ut, 84078

PHONE NUMBER: 303 308-3068 Ext

9. FIELD and POOL or WILDCAT: BRENNAN BOTTOM

4. LOCATION OF WELL
FOOTAGES AT SURFACE: 2199 FNL 0844 FEL
QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: Qtr/Qtr: SENE Section: 21 Township: 07.0S Range: 21.0E Meridian: S

COUNTY: UINTAH

STATE: UTAH

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

TYPE OF SUBMISSION

- ✓ NOTICE OF INTENT — Approximate date work will start: 10/28/2014
- ☐ SUBSEQUENT REPORT — Date of Work Completion:
- ☐ SPUD REPORT — Date of Spud:
- ☐ DRILLING REPORT — Report Date:

TYPE OF ACTION

☐ ACIDIZE	☐ ALTER CASING	☐ CASING REPAIR
☐ CHANGE TO PREVIOUS PLANS	☐ CHANGE TUBING	☐ CHANGE WELL NAME
☐ CHANGE WELL STATUS	☐ COMMINGLE PRODUCING FORMATIONS	☐ CONVERT WELL TYPE
☐ DEEPEN	☐ FRACTURE TREAT	☐ NEW CONSTRUCTION
☐ OPERATOR CHANGE	☐ PLUG AND ABANDON	☐ PLUG BACK
☐ PRODUCTION START OR RESUME	☐ RECLAMATION OF WELL SITE	☐ RECOMPLETE DIFFERENT FORMATION
✓ REPERFORATE CURRENT FORMATION	☐ SIDETRACK TO REPAIR WELL	☐ TEMPORARY ABANDON
☐ TUBING REPAIR	☐ VENT OR FLARE	☐ WATER DISPOSAL
☐ WATER SHUTOFF	☐ SI TA STATUS EXTENSION	☐ APD EXTENSION
☐ WILDCAT WELL DETERMINATION	☐ OTHER	OTHER:

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

QEP ENERGY COMPANY REQUESTS APPROVAL TO RECOMPLETE THE JB 8G-21-7-21 BY ADDING ADDITIONAL PERFORATIONS TO THE GREEN RIVER FORMATION. SEE ATTACHED PROCEDURES.

Accepted by the Utah Division of Oil, Gas and Mining

Date: November 13, 2014

By: Dark K Quist

NAME (PLEASE PRINT)	PHONE NUMBER	TITLE
Benna Muth	435 781-4320	Regulatory Assistant

SIGNATURE	DATE
N/A	10/28/2014

RECEIVED: Oct. 28, 2014

QEP Energy requests approval to recomplete the JB 8G-21-7-21 by adding additional perforations to the Green River formation as follows:

1. Set a CFP at 6010'.
2. Stage 1:
    a. 5673'-5675', 3spf, frac with crosslink fluid.
    b. 5685'-5686', 3spf, frac with crosslink fluid.
    c. 5713'-5714', 3spf, frac with crosslink fluid.
    d. 5758'-5760', 3spf, frac with crosslink fluid.
    e. 5799'-5800', 3spf, frac with crosslink fluid.
    f. 5809'-5810', 3spf, frac with crosslink fluid.
    g. 5866'-5867', 3spf, frac with crosslink fluid.
    h. 5895'-5896', 3spf, frac with crosslink fluid.
    i. 5911'-5912', 3spf, frac with crosslink fluid.
    j. 5918'-5919', 3spf, frac with crosslink fluid.
    k. 5940'-5942', 3spf, frac with crosslink fluid.
    l. 5967'-5969', 3spf, frac with crosslink fluid.
3. Return well to production.
4. Drill up frac plug after the frac fluid is recovered to restore existing production.

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