Gulf Oil Exploration and Production Company

R. C. Smith
Area Drilling Superintendent

P. O. Box 2619
Casper, WY 82602

July 10, 1984

RECEIVED
JUL 12 1984
DIV. OF OIL, GAS & MINING

State of Utah
Department of Natural Resources & Energy
Division of Oil, Gas, & Mining
Attention: Well Records
4241 State Office Building
Salt Lake City, Utah 84114

Re: Gulf Oil Corporation
Brennan Federal #8
SW¼ SE¼ Section 17, Township 7
South, Range 21 East, Uintah
County, Utah

Dear Sir:

Submitted herewith are three (3) copies of the APD, drill plans and roadway construction plans as submitted to the Bureau of Land Management in Vernal, Utah.

Please address response or inquiry to the attention of W. L. Rohrer (307) 235-1311.

Sincerely,

R. C. Smith

WLR/cam

Enclosures

Form 9-331 C
(May 1963)

SUBMIT IN TRIPLICATE*
(Other instructions on reverse side)

Form approved.
Budget Bureau No. 42-R1425.

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

1a. TYPE OF WORK
DRILL [X] DEEPEN [ ] PLUG BACK [ ]

b. TYPE OF WELL
OIL WELL [X] GAS WELL [ ] OTHER SINGLE ZONE [ ] MULTIPLE ZONE [ ]

2. NAME OF OPERATOR
Gulf Oil Corporation (Attention: W. L. Rohrer)

3. ADDRESS OF OPERATOR
P. O. Box 2619, Casper, Wyoming 82602

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.*)
At surface
660' FSL & 2,250' FEL
At proposed prod. zone
SW¼ SE¼ Section 17

5. LEASE DESIGNATION AND SERIAL NO.
SL-066409-A

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

7. UNIT AGREEMENT NAME

8. FARM OR LEASE NAME

9. WELL NO.
Gulf Brennan Federal #8

10. FIELD AND POOL, OR WILDCAT
BRENNAN BOTTOM

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA
Sec. 17, T.7S., R.21E.

12. COUNTY OR PARISH: Uintah
13. STATE: Utah

14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE*
17 miles south of Vernal, Utah

15. DISTANCE FROM PROPOSED* LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT. (Also to nearest drlg. unit line, if any): 660'

16. NO. OF ACRES IN LEASE: 640

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

18. DISTANCE FROM PROPOSED LOCATION* TO NEAREST WELL, DRILLING, COMPLETED, OR APPLIED FOR, ON THIS LEASE, FT.: 2,050'

19. PROPOSED DEPTH: 6,925 Wasatch

20. ROTARY OR CABLE TOOLS: Rotary

21. ELEVATIONS (Show whether DF, RT, GR, etc.)
Ground - 4,767

22. APPROX. DATE WORK WILL START*
ASAP

23. PROPOSED CASING AND CEMENTING PROGRAM
All New — Minimum Specifications

SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
12¼"	8-5/8"	24# K-55 STC	400'	Cmt to surface *(preset)
7-7/8"	5½"	15.5# K-55 STC	6,925'	Cmt to surface

*400' of 8-5/8" casing will be preset by small air drilling unit prior to moving in drilling rig.

EXHIBITS:

A. Survey Plats
B. Drilling Programs
C. BOP Diagram
D. Surface Use Program
E. Topographic & County Maps
F. Well Location Map
G. Drill Pad Diagram

APPROVED BY THE STATE OF UTAH DIVISION OF OIL, GAS, AND MINING
DATE: 7/13/84
BY: John R. Baza

IN ABOVE SPACE DESCRIBE PROPOSED PROGRAM: If proposal is to deepen or plug back, give data on present productive zone and proposed new productive zone. If proposal is to drill or deepen directionally, give pertinent data on subsurface locations and measured and true vertical depths. Give blowout preventer program, if any.

24.
SIGNED Richard C. Smith R. C. Smith TITLE Area Drilling Superintendent DATE July 10, 1984

(This space for Federal or State office use)

PERMIT NO. _____ APPROVAL DATE _____

APPROVED BY _____ TITLE _____ DATE _____
CONDITIONS OF APPROVAL, IF ANY:

*See Instructions On Reverse Side

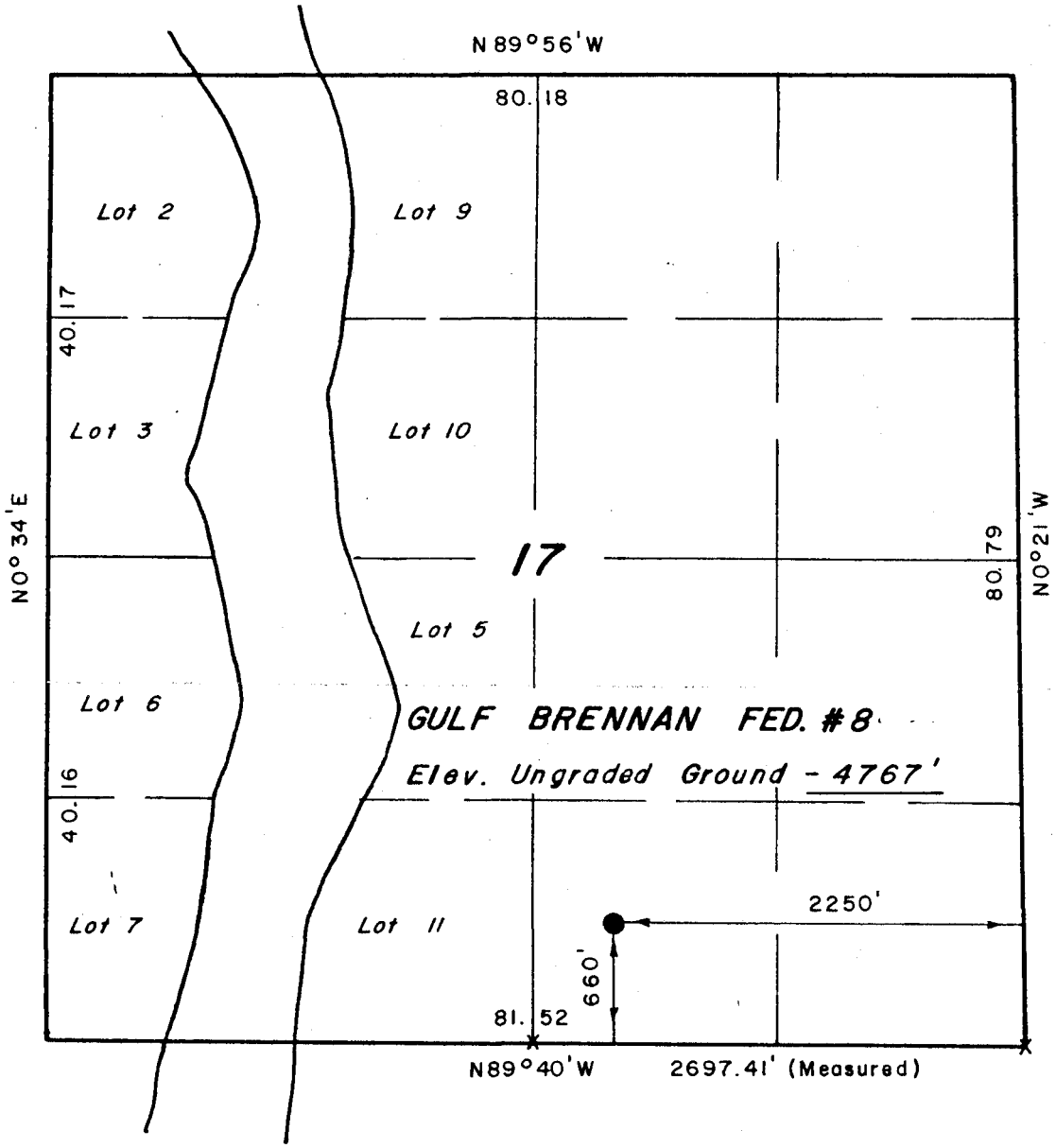
PROJECT

GULF OIL CORP.

Well location, *GULF BRENNAN FEDERAL #8*, located as shown in the SW1/4 SE 1/4 Section 17, T7S, R21E, S.L.B. & M. Uintah County, Utah.

EXHIBIT A

T 7 S, R 21 E, S.L.B. & M.



X = Section Corners Located

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. 3154
STATE OF UTAH

UINTAH ENGINEERING & LAND SURVEYING
P. O. BOX Q — 85 SOUTH - 200 EAST
VERNAL, UTAH - 84078

SCALE 1" = 1000'	DATE 6/19/84
PARTY D.A. G.S. J.H. S.B.	REFERENCES GLO Plat
WEATHER Warm	FILE GULF OIL

EXHIBIT B

DRILLING PROGRAM

Company: Gulf Oil Corporation Brennan Federal #8
Location: 660' FSL & 2250' FEL, Sec. 17, T.7S., R.21E., Uintah County, Utah

1. Estimated Tops of Important Geologic Markers

Formation		Depth
Upper Green River	(B1; T110)	3350'
	(D1; T122)	5790'
	(E1; T130)	6250'
	(E5; T134)	6360'
Lower Green River	(G1; Limestone)	6500'
Wasatch Marker	(I1; T138)	6830'

2. Estimated Depths of Anticipated Water, Oil, Gas or Minerals

Formation		Depth	Remarks
Lower Green River	G1	6500'	Oil, Gas, or Water
	H1-H2	6723'	
	H3	6773'	
Wasatch Marker	I1	6867'	

Protection: case and cement

3. The Operator's Minimum Specifications For Pressure Control

Exhibit "C" is a schematic diagram of the blowout preventer equipment. The BOP's will be hydraulically tested to the full working pressure after nippling up and after any use under pressure. Pipe rams will be operationally checked each 24-hour period and blind rams each time pipe is pulled out of the hole.

Accessories to BOP's include an upper and a lower kelly cock, floor safety valve, drill string BOP and choke manifold with pressure rating equivalent to the BOP stack.

4. The Proposed Casing Program

Size	Grade	Wt/Ft	Condition	Depth Set	
8-5/8"	K-55 STC	24#	New	400'	Cement to surface (Preset)
5½"	K-55 STC	15.5#	New	6925'	Cement to surface

5. The Type and Characteristics of the Proposed Circulating Muds

Mud system will be gel-chemical with adequate stocks of sorptive agents and other materials on site to handle any anticipated downhole problem as well as possible spills of fuel and oil on surface.

(a) 0' - 400' spud with air - convert to fresh water and gel if necessary for hole cleaning.
(b) 400' - 6300' drill with fresh water with flocculants or extenders as needed.

5. The Type and Characteristics cont...

(c) Weight of Mud: 8.6-9.0# gal.
Viscosity: 27-30 sec. qt.
Water Loss: no control
(d) Weighting Material: barite; quantity sufficient for 1 lb/gal increase
(e) Monitoring Equipment: PVT & flow sensors

6. The Testing, Logging, and Coring Programs to be Followed

(a) No DST
(b) A two man chromatograph unit will be used from base of surface casing to T.D. DIL-GR-CAL and density logs are planned from surface csg. to T.D.
(c) No coring is anticipated.
(d) A frac of 50,000 gallons is presently proposed in the Lower Green River.

7. Any Anticipated Abnormal Pressures or Temperatures Expected

No abnormal pressures or temperatures have been noted or reported in wells drilled in the area, nor at the depth anticipated in this well.
Expected BHP 1200-1500 psi.
No hydrogen sulfide or other hazardous fluids or gases have been found, reported or known to exist at these depths in the area.

8. The Auxilary Equipment to be Used

(a) An upper and lower kelly cock will be kept in the string.
(b) A mud logging unit or gas detecting device will be monitoring the system.
(c) A stabbing valve will be on the floor to be stabbed into the drill pipe when kelly is not in the string.

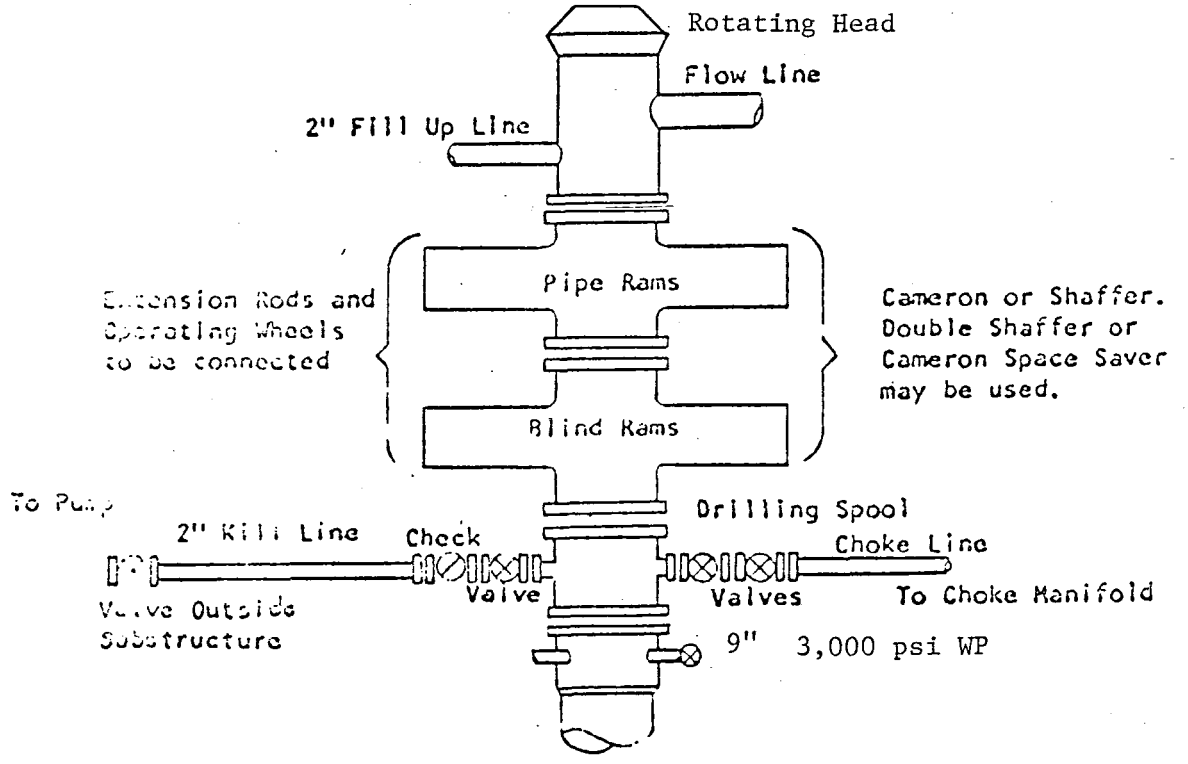
BLOWOUT PREVENTER DRAWING NO. 3

EXHIBIT C

3000 PSI WORKING PRESSURE BOP HOOK-UP
API SERIES 900 FLANGES OR BETTER (MINIMUM ASSEMBLY)

Install on 8-5/8" casing. Pressure test to 3000 psi after installing on 8-5/8" casing prior to drilling cement plug.

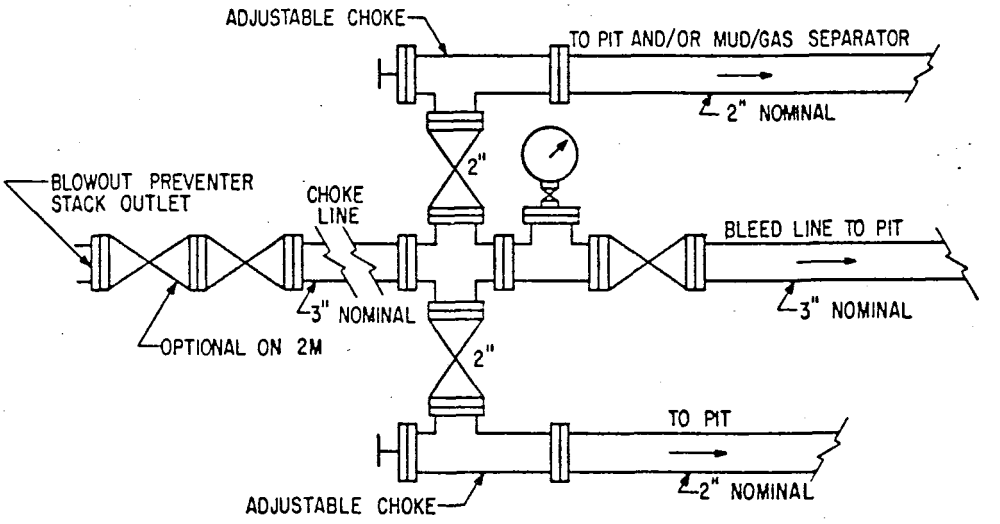
10" preventers to be installed on 8-5/8" OD surface casing.



The BOP's shall be hydraulic operated by hydraulic, air or electrical pumps. Accumulator reservoir shall be sufficient to close all preventers simultaneously in 20 seconds with the charging pumps closed down. Minimum accumulator pressure shall be 1500 psi initially and not less than 1200 psi when all preventers are closed. All BOP operating control lines shall be steel piping.

The drilling spool ID shall be adequate to permit the use of drop through slips on any subsequent string of casing which might be run. It also shall be provided with flanged side outlet connections and steel seated valves. Other choke line valves shall be also steel seated and 3000 psi WP. Other kill line valves shall need to meet specifications of size and pressure only except that the kill line check valve shall be flanged as well.

Gulf will furnish casing head together with casing head valves. Contractor shall furnish at his expense all other equipment above casing head.



TYPICAL CHOKE MANIFOLD ASSEMBLY
FOR 2M AND 3M RATED WORKING
PRESSURE SERVICE — SURFACE INSTALLATION

EXHIBIT D

SURFACE USE PROGRAM

Company: Gulf Oil Corporation Brennan Federal #8
Well Location: 660' FSL & 2250' FEL, Sec. 17, T.7S., R.21E., Uintah County, Utah

1. Existing Roads

A. See county and topographic maps (Exhibit E). Starting at Vernal, go south on new road as approximated by these maps.

B. All roads will be maintained during drilling operations and production phase.

2. Planned Access Roads: See topographic map. About 450' of new construction, 0.4 mile of upgrading or reconstruction.

3. Location of Existing Wells: See Exhibit F

4. Location of Existing and/or Proposed Facilities

A. It is contemplated that, in the event of production, the treater and storage facilities will be accomodated on the well pad.

1. The approximate dimensions and location of drilling and future production facilities are shown on the drill pad diagram. If production is obtained, the unused areas of the drill pad will be rehabilitated.

5. Water Supply

A. The water, as needed, will be hauled by a contractor from an approved source.

B. The water will be transported by truck over existing roads.

C. No water well will be drilled.

6. Construction Materials

A. Native soil from the well site will be used to build the location.

B. No construction material will be obtained from Federal or Indian land without the required permits.

7. Handling Waste Disposals

A. Drill cuttings will be buried in the reserve pit.

B. Garbage and other waste material will be kept in a fenced (small wire mesh) trash burn pit and either burned or buried.

C. No salts anticipated.

D. Chemicals, if needed, will be contained in sacks or drums until used in the mud system.

7. Handling Waste Disposals cont...

E. A sanitary hole will be provided for sewage.

F. Drilling fluids will be handled in the reserve pit.

G. Any produced fluids will be collected in a test tank.

8. Ancillary Facilities

No airstrip, camp or other facility will be built during the drilling or completion of this well.

9. Well Site Layout

A. Topographic map shows location relative to topographic features.

B. Cut and fill diagrams are shown on the well site layout.

C. Reserve and burn pits are shown.

D. Access road, parking and service areas, and living facilities are shown.

D. Soil stockpiles are shown.

F. Rig orientation shown.

G. Reserve pit will not be lined unless so requested.

10. Plans for Restoration

A. The location will be contoured to conform as nearly as possible to the original profile of the land as soon as possible after plugging or setting production casing.

B. Original drainage will be re-established if impacted.

C. Drill pad diagrams show excess cut segregated from topsoil.

D. The cut/fill staking distinguishes surface manipulations.

E. Waste disposal is explained under Item 7.

F. Revegetation will be according to the specification of BLM.

G. No soil treatments planned unless specified by BLM.

H. The reserve pit will have 4-wire fencing on three sides during drilling and after to rig release the fourth side will be fenced. This pit fence will be maintained until the pit is dry. If there is any oil on the pits when drilling is completed, it will be removed immediately or the pits will be flagged overhead.

10. Plans for Restoration cont...

I. Rehabilitation will start as soon as drilling ceases and will be completed when the pits are dry.

11. Surface Ownership of all Involved Lands: The surface ownership of all involved land is Federal under the jurisdiction of the Bureau of Land Management.

12. Other Information:

A. Topography: The well site is located in a bench east of the Green River.

Flora: Wild grasses, sage, and cactus make up most of the flora in the area.

Fauna: Antelope, mule deer, coyotes, rabbits, and gophers are the wildlife, while cattle or sheep are the domestic species.

B. Type of Surface Use Activity: Cattle or sheep grazing and oil production.

C. Occupied Dwellings: None within 2 miles.

Archaeological or Historical Sites: The archaeological survey report will be submitted as soon as completed.

Proximity to Water: All drainages in the immediate area are ephemeral. Green River is located about 1700' west of drill site.

13. Operator's Representative and Certification:

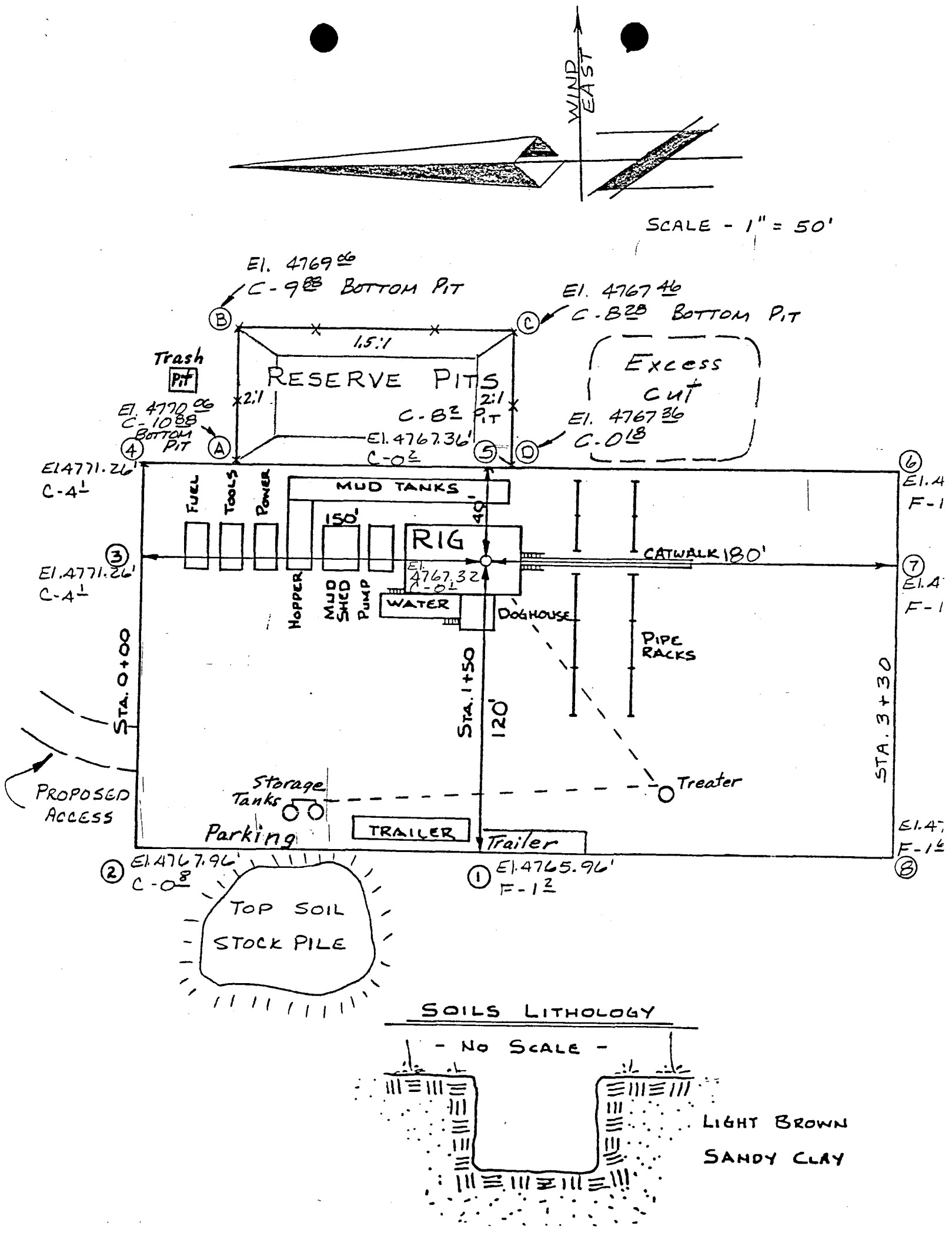
Charlie B. Cortez
Gulf Oil Explor. & Prod. Co.
P. O. Box 2619
Casper, Wyoming 82602
Ph 307-235-1311

Richard C. Smith
Area Drilling Superintendent
Gulf Oil Corp.
P. O. Box 2619
Casper, Wyoming 82602
Ph 307-235-1311

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

Date: 7/10/84

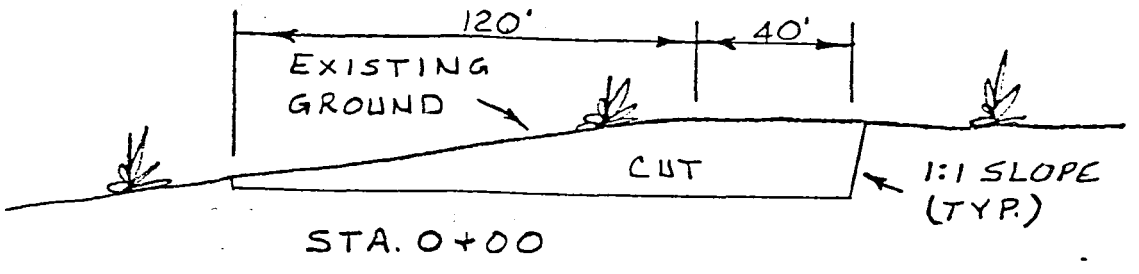
Name: G. A. Bryant
Acting Area Drilling Engineer


WIND
EAST
SCALE - 1" = 50'
El. 4769.06
C-9.88 BOTTOM PIT
El. 4767.46
C-8.28 BOTTOM PIT
1.5:1
RESERVE PITS
Trash
PIT
2:1
2:1
C-8.2 PIT
Excess
Cut
El. 4770.06
C-10.88
BOTTOM
PIT
El. 4767.36'
C-0.2
El. 4767.36
C-0.18
El. 4771.26'
C-4.1
FUEL
TOOLS
POWER
MUD TANKS
150'
40'
RIG
CATWALK 180'
El. 4771.26'
C-4.1
El. 4767.32
C-0.1
HOPPER
MUD SHED
PUMP
WATER
DOGHOUSE
PIPE RACKS
STA. 0+00
STA. 1+50
120'
STA. 3+30
PROPOSED ACCESS
Storage Tanks
Treater
Parking
TRAILER
Trailer
El. 4767.96'
C-0.8
El. 4765.96'
F-1.2
TOP SOIL
STOCK PILE
SOILS LITHOLOGY
- NO SCALE -
LIGHT BROWN
SANDY CLAY

GULF OIL CORP.

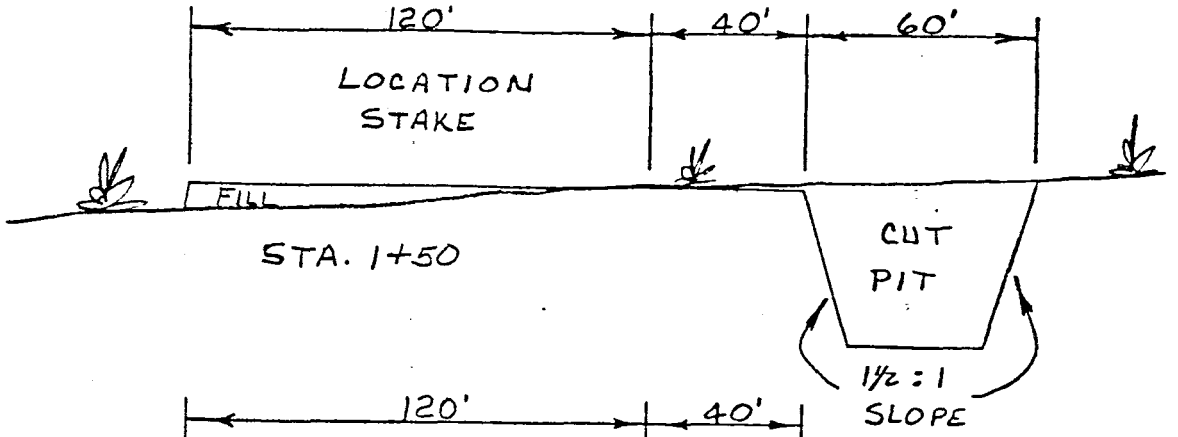
GULF BRENNAN FED. #8

CROSS SECTIONS



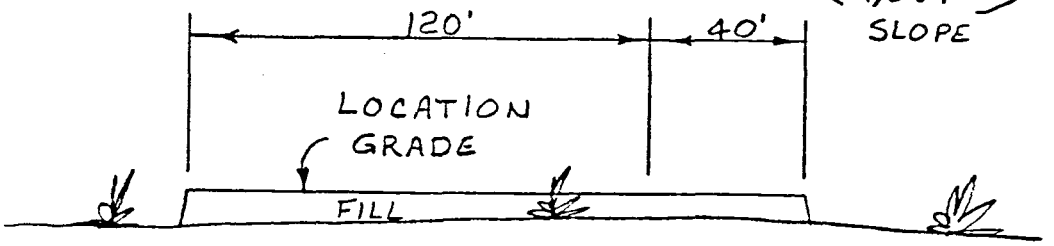
STA. 0+00

1.4765.96'
=-1 2



STA. 1+50

1.4766.16'
=-1 0



STA. 3+30

1.4765.56'
-1 6

EXHIBIT G

SCALES

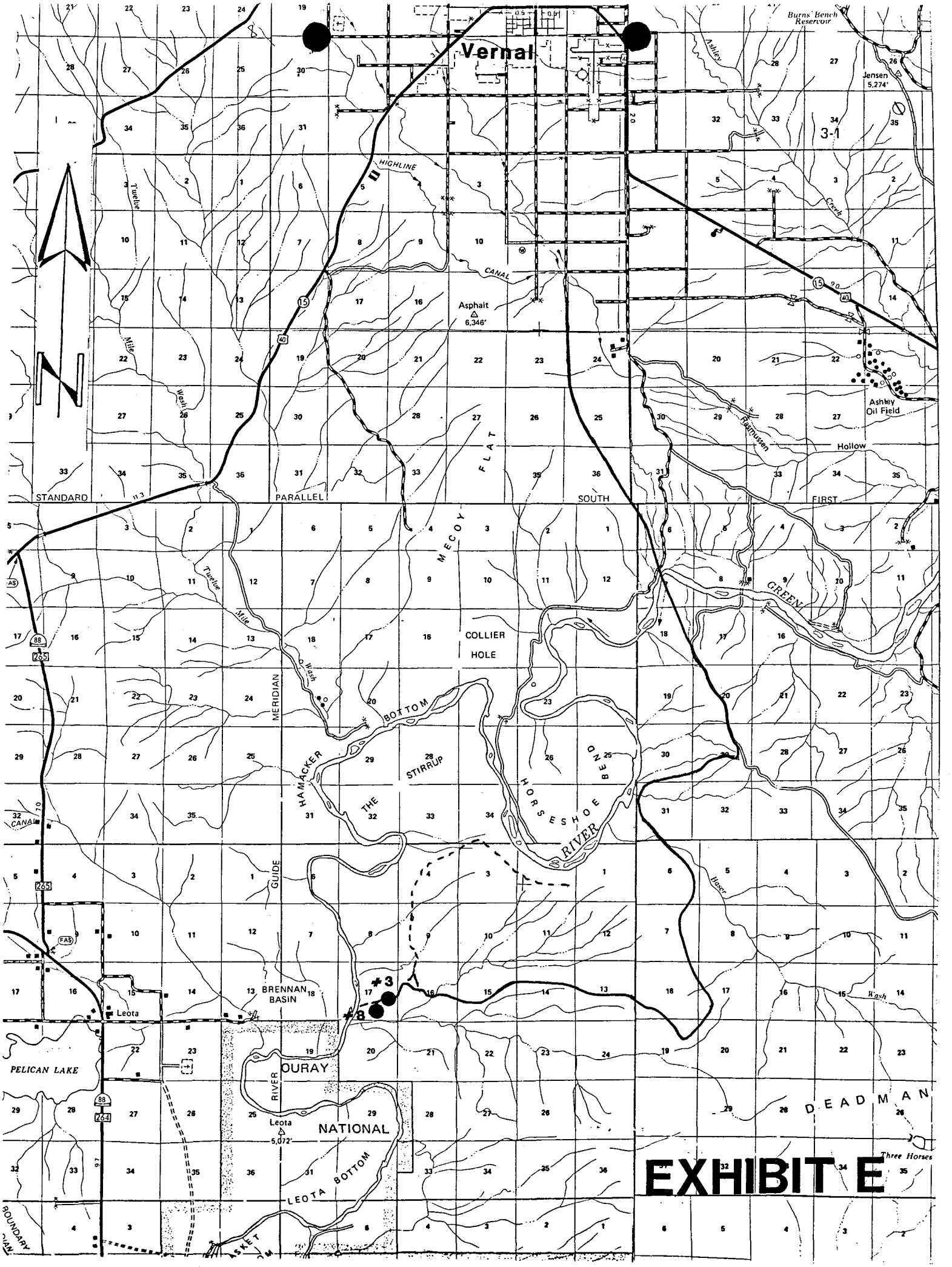
1" = 10'

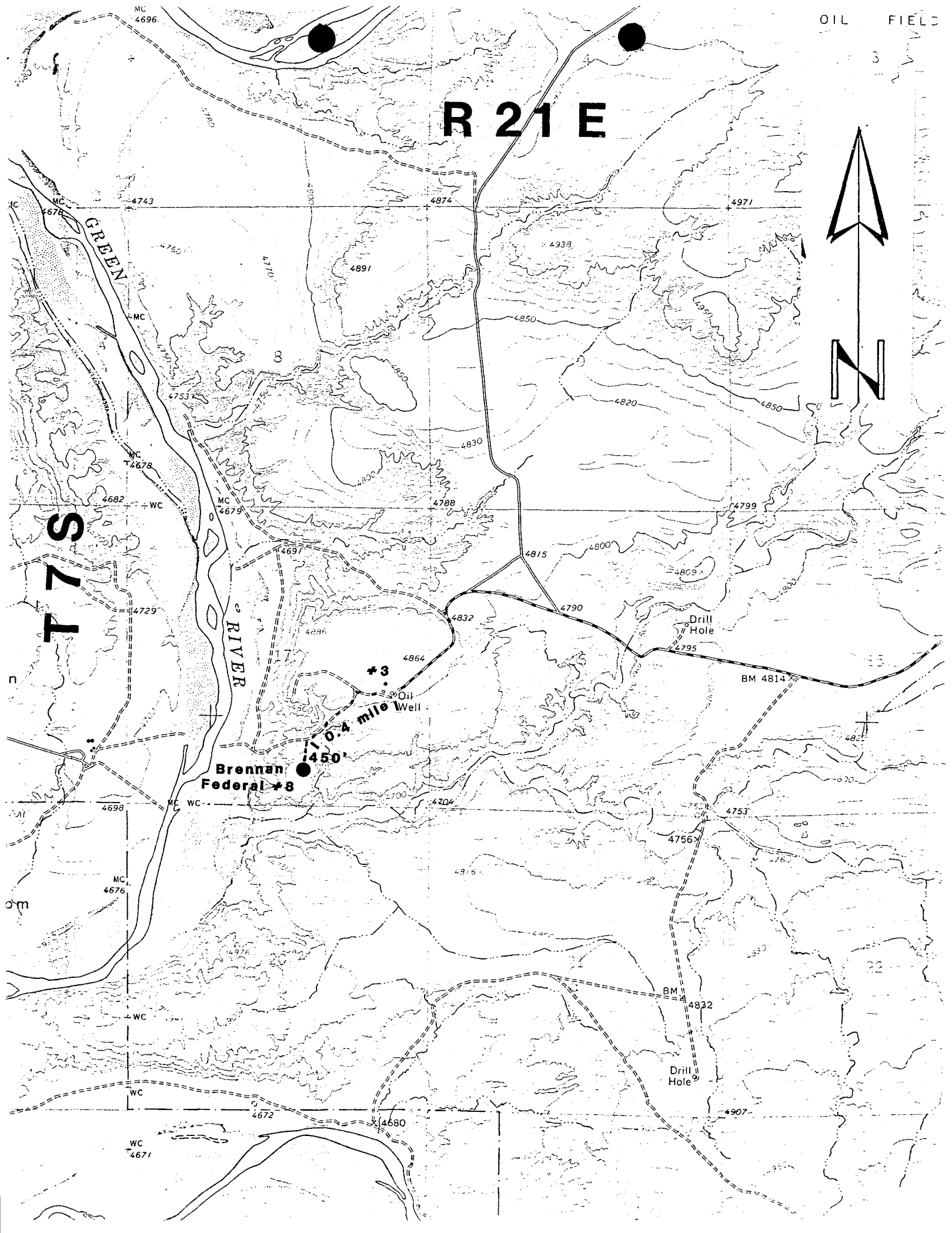
1" = 50'

APPROX. YARDAGES

CUBIC YARDS CUT = 3,367

CUBIC YARDS FILL = 1,073


Vernal
Burns Bench Reservoir
Ashley
Jensen 5,274'
3-1
HIGHLINE
CANAL
Asphalt 6,346'
Twelve
Mile
Wash
Creek
Ashley Oil Field
Rasmussen
Hollow
STANDARD
PARALLEL
SOUTH
FIRST
MECOY
FLAT
COLLIER
HOLE
GREEN
RIVER
HORSESHOE
BEND
HAMACKER
BOTTOM
THE
STIRRUP
MERIDIAN
GUIDE
Hoer
Wash
#3
#8
BRENNAN BASIN
Leota
PELICAN LAKE
OURAY
NATIONAL
Leota 5,072'
LEOTA BOTTOM
DEADMAN
Three Horses
BOUNDARY
EXHIBIT E


OIL FIELD
R 21 E
T 7 S
N
GREEN
RIVER
Brennan
Federal #8
#3
Oil
Well
0.4 mile
450'
Drill
Hole
BM 4814
BM
4832
Drill
Hole
4743
4874
4971
4891
4938
4850
4820
4830
4788
4799
4815
4800
4790
4832
4864
4795
4729
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4698
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4756
4672
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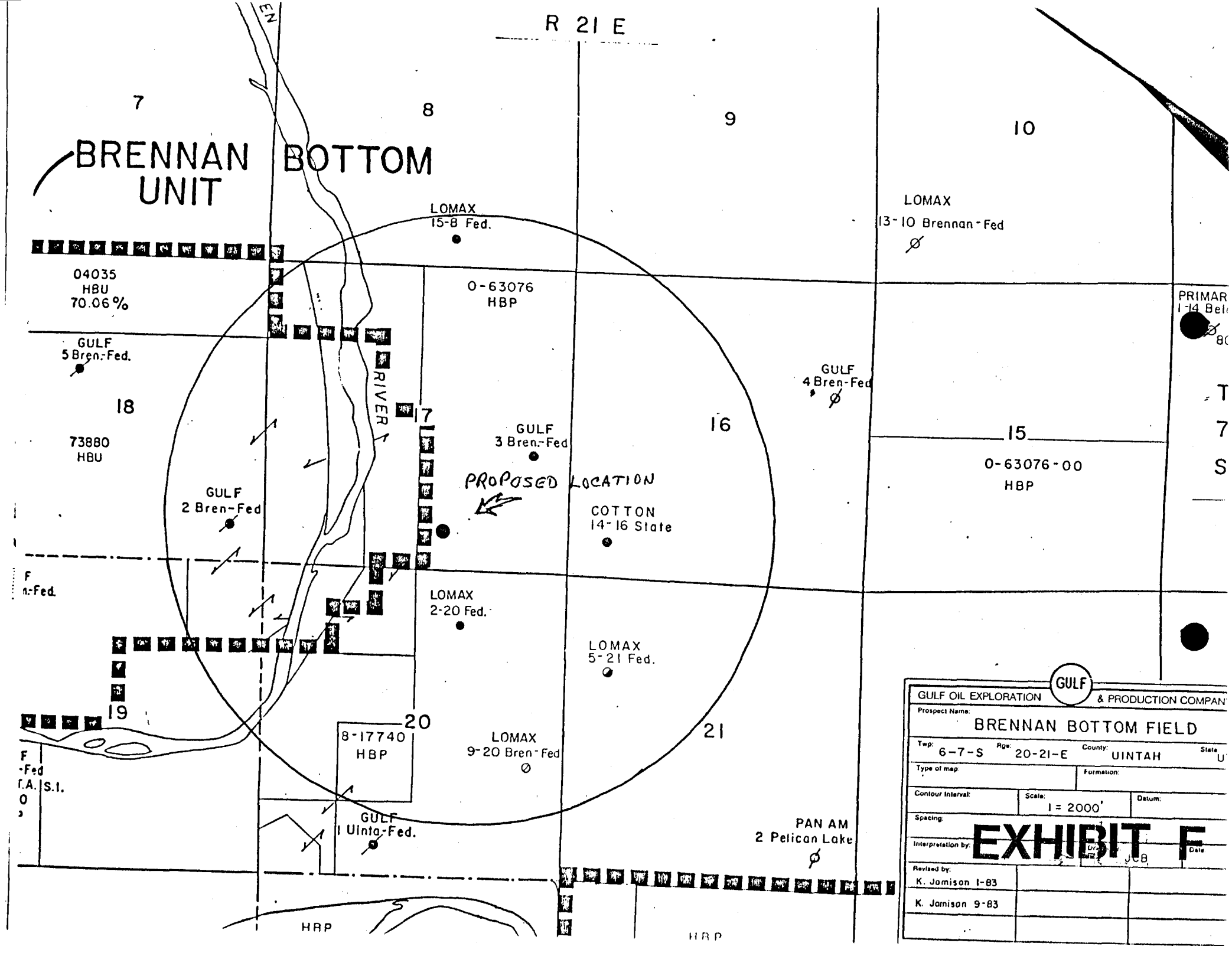
4907
4671
4676
4678
4696
MC
WC


R 21 E
7
8
9
10
BRENNAN BOTTOM UNIT
LOMAX
15-8 Fed.
LOMAX
13-10 Brennan-Fed
04035
HBU
70.06%
0-63076
HBP
GULF
5 Bren.-Fed.
GULF
4 Bren-Fed
18
17
16
15
73880
HBU
GULF
3 Bren.-Fed
0-63076-00
HBP
PROPOSED LOCATION
GULF
2 Bren-Fed
COTTON
14-16 State
RIVER
LOMAX
2-20 Fed.
LOMAX
5-21 Fed.
19
20
21
8-17740
HBP
LOMAX
9-20 Bren-Fed
GULF
1 Uinta-Fed.
PAN AM
2 Pelican Lake
HBP
HBP
GULF OIL EXPLORATION & PRODUCTION COMPANY
Prospect Name:
BRENNAN BOTTOM FIELD
Twp: 6-7-S
Rge: 20-21-E
County: UINTAH
Type of map:
Formation:
Contour Interval:
Scale: 1 = 2000'
Datum:
Spacing:
Interpretation by:
Date
Revised by:
K. Jamison 1-83
K. Jamison 9-83
EXHIBIT F

OPERATOR Gulf Oil Corp. DATE 7-12-84

WELL NAME Gulf Brennan Fed. #8

SEC SWSE 17 T 7S R 21E COUNTY Grand

43-047-31509	Fed
API NUMBER	TYPE OF LEASE

POSTING CHECK OFF:

[ ] INDEX	[ ] HL	[ ]
[ ] NID	[ ] PI	[ ]
[ ] MAP	[ ]	[ ]

PROCESSING COMMENTS:

no other wells within 1000'

Need water permit

APPROVAL LETTER:

SPACING: [ ] A-3 _____ UNIT [ ] c-3-a _____ CAUSE NO. & DATE

[✓] c-3-b [ ] c-3-c

SPECIAL LANGUAGE:

1- Water

- [x] RECONCILE WELL NAME AND LOCATION ON APD AGAINST SAME DATA ON PLAT MAP.
- [x] AUTHENTICATE LEASE AND OPERATOR INFORMATION
- [x] VERIFY ADEQUATE AND PROPER BONDING
- [x] AUTHENTICATE IF SITE IS IN A NAMED FIELD, ETC.
- [ ] APPLY SPACING CONSIDERATION
  - [ ] ORDER _____
  - [ ] UNIT _____
  - [x] c-3-b
  - [ ] c-3-c
- [x] CHECK DISTANCE TO NEAREST WELL.
- [ ] CHECK OUTSTANDING OR OVERDUE REPORTS FOR OPERATOR'S OTHER WELLS.
- [ ] IF POTASH DESIGNATED AREA, SPECIAL LANGUAGE ON APPROVAL LETTER
- [ ] IF IN OIL SHALE DESIGNATED AREA, SPECIAL APPROVAL LANGUAGE.

July 13, 1984

Gulf Oil Corporation
Attn: W. L. Rohrer
P. O. Box 2619
Casper, Wyoming 82602

RE: Well No. Gulf Brennan Fed. #8
SWSE Sec. 17, T. 7S, R. 21E
660' FSL, 2250' FEL
Uintah County, Utah

Gentlemen:

Approval to drill the above referenced oil well is hereby granted in accordance with Rule C-3 (b), General Rules and Regulations and Rules of Practice and Procedure, subject to the following stipulations:

1. Prior to commencement of drilling, receipt by the Division of evidence providing assurance of an adequate and approved supply of water.

In addition, the following actions are necessary to fully comply with this approval:

1. Spudding notification to the Division within 24 hours after drilling operations commence.

2. Submittal to the Division of completed Form OGC-8-X, Report of Water Encountered During Drilling.

3. Prompt notification to the Division should you determine that it is necessary to plug and abandon this well. Notify John R. Baza, Petroleum Engineer, (Office) (801) 533-5771, (Home) 298-7695 or R. J. Firth, Associate Director, (Home) 571-6068.

4. Compliance with the requirements and regulations of Rule C-27, Associated Gas Flaring, General Rules and Regulations, Oil and Gas Conservation.

5. This approval shall expire one (1) year after date of issuance unless substantial and continuous operation is underway or an application for an extension is made prior to the approval expiration date.

The API number assigned to this well is 43-047-31509.

Sincerely,

R. J. Firth
Associate Director, Oil & Gas

RJF/as

cc: Branch of Fluid Minerals

Enclosures

DALBO, INC.

Oil and Water Service

P.O. Box 1167, Vernal, Utah 84078 - Phone 801-789-0743

RECEIVED

JUL 20 1984

DIVISION OF OIL
GAS & MINING

July 18, 1984

STATE OF UTAH
Department of Natural Resources
and Energy
Division of Oil, Gas & Mining
4241 State Office Building
Salt Lake City, UT 84114

ATTENTION: WELL RECORDS ARLENE SOLLIS

Gentlemen:

RE: WATER PERMIT NO. 49-1328 T 60106

Dalbo, Inc. will be hauling water from the Green River under the above permit number for the drilling and completion of Gulf's Brennan Federal No. 8, Section 17 TS 7S Range 21 E.

Very truly yours,

Dale Fisher

DALE FISHER
Sales Representative

DF/cy

CC: Keith Trichell- Gulf Oil

Form 9-331 C
(May 1963)

SUBMIT IN TRIPLICATE*
(Other instructions on reverse side)

Form approved.
Budget Bureau No. 42-R1425.

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

5. LEASE DESIGNATION AND SERIAL NO.: SL-066409-A

6. IF INDIAN, ALLOTTEE OR TRIBE NAME:

7. UNIT AGREEMENT NAME:

8. FARM OR LEASE NAME:

9. WELL NO.: Gulf Brennan Federal #8

10. FIELD AND POOL, OR WILDCAT:

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA: Sec. 17, T.7S., R.21E.

1a. TYPE OF WORK: DRILL [X] DEEPEN [ ] PLUG BACK [ ]

b. TYPE OF WELL: OIL WELL [X] GAS WELL [ ] OTHER SINGLE ZONE [ ] MULTIPLE ZONE [ ]

2. NAME OF OPERATOR: Gulf Oil Corporation (Attention: W. L. Rohrer)

3. ADDRESS OF OPERATOR: P. O. Box 2619, Casper, Wyoming 82602

RECEIVED

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.*)
At surface: 660' FSL & 2,250' FEL
At proposed prod. zone: SW¼ SE¼ Section 17

JUL 27 1984

DIVISION OF OIL GAS & MINING

14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE: 17 miles south of Vernal, Utah

12. COUNTY OR PARISH: Uintah

13. STATE: Utah

15. DISTANCE FROM PROPOSED* LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT. (Also to nearest drlg. unit line, if any): 660'

16. NO. OF ACRES IN LEASE: 640

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

18. DISTANCE FROM PROPOSED LOCATION* TO NEAREST WELL, DRILLING, COMPLETED, OR APPLIED FOR, ON THIS LEASE, FT.: 2,050'

19. PROPOSED DEPTH: 6,925

20. ROTARY OR CABLE TOOLS: Rotary

21. ELEVATIONS (Show whether DF, RT, GR, etc.): Ground - 4,767

22. APPROX. DATE WORK WILL START*: ASAP

23. All New — PROPOSED CASING AND CEMENTING PROGRAM — Minimum Specifications

SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
12¼"	8-5/8"	24# K-55 STC	400'	Cmt to surface *(preset)
7-7/8"	5½"	15.5# K-55 STC	6,925'	Cmt to surface

*400' of 8-5/8" casing will be preset by small air drilling unit prior to moving in drilling rig.

EXHIBITS:

A. Survey Plats
B. Drilling Programs
C. BOP Diagram
D. Surface Use Program
E. Topographic & County Maps
F. Well Location Map
G. Drill Pad Diagram

4
JUL 1984
RECEIVED
Vernal, Utah

IN ABOVE SPACE DESCRIBE PROPOSED PROGRAM: If proposal is to deepen or plug back, give data on present productive zone and proposed new productive zone. If proposal is to drill or deepen directionally, give pertinent data on subsurface locations and measured and true vertical depths. Give blowout preventer program, if any.

24. SIGNED R. C. Smith TITLE Area Drilling Superintendent DATE July 10, 1984

(This space for Federal or State office use)

PERMIT NO. _____ APPROVAL DATE _____

APPROVED BY _____ TITLE DISTRICT MANAGER DATE 7/26/84

CONDITIONS OF APPROVAL, IF ANY:

NOTICE OF APPROVAL

CONDITIONS OF APPROVAL ATTACHED TO OPERATOR'S COPY

*See Instructions On Reverse Side

UT-080-4-M-249
State Oil, Gas & Mining

CONDITIONS OF APPROVAL FOR NOTICE TO DRILL

Company Gulf Oil Corporation Well No. Brennan Federal No. 8

Location Sec. 17 T 7S R21E Lease No. SL-066409-A

Onsite Inspection Date 7-17-84

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 and Gas Order No. 1, and the approved plan of operations. The operator is fully responsible for the actions of his subcontractors. A copy of these conditions will be furnished the field representative to insure compliance.

A. DRILLING PROGRAM

1. All fresh water and prospectively valuable minerals (as described by BLM at onsite) encountered during drilling, will be recorded by depth and adequately protected. All oil and gas shows will be tested to determine commercial potential.

2. Pressure Control Equipment

   In accordance with API Bulletin RP 53, 3,000 psi BOP stacks shall be equipped with an annular, bag-type preventer. Prior to drilling out the surface casing shoe, the annular-type preventer shall be tested to 1,500 psi.

   BOP systems will be consistent with API RP 53. Pressure tests will be conducted before drilling out from under all casing strings which are set and cemented in place. Blowout preventer controls will be installed prior to drilling the surface casing plug and will remain in use until the well is completed or abandoned. Preventers will be inspected and operated at least daily to ensure good mechanical working order, and this inspection recorded on the daily drilling report. Preventers will be pressure tested before drilling casing cement plugs.

   The District Office should be notifed, with sufficient lead time, in order to have a BLM representative on location during pressure testing.

3. Casing Program and Auxiliary Equipment

   The District Office should be notified, with sufficient lead time, in order to have a BLM representative on location while running all casing strings and cementing.

4. Mud Program and Circulating Medium

No chromate additives will be used in the mud system on Federal and Indian lands without prior BLM approval to ensure adequate protection of fresh water aquifers.

5. Coring, Logging and Testing Program

Whether the well is completed as a dry hole or as a producer, "Well Completion and Recompletion Report and Log" (Form 3160-4) will be submitted not later than 30 days after completion of the well or after completion of operations being performed, in accordance with 43 CFR 3164. Two copies of all logs, core descriptions, core analyses, well-test data, geologic summaries, sample description, and all other surveys or data obtained and compiled during the drilling, workover, and/or completion operations, will be filed with Form 3160-4. Samples (cuttings, fluids, and/or gases) will be submitted when requested by the authorized officer (AO).

6. No location will be constructed or moved, no well will be plugged, and no drilling or workover equipment will be removed from a well to be placed in a suspended status without prior approval of the AO. If operations are to be suspended, prior approval of the AO will be obtained and notification given before resumption of operations.

The spud date will be reported orally to the AO within 48 hours after spudding. If the spudding occurs on a weekend or holiday, the report will be submitted on the following regular work day. The oral report will be followed up with a Sundry Notice.

In accordance with Onshore Oil and Gas Order No. 1, this well will be reported on Form 3160-6 "Monthly Report of Operations", starting with the month in which operations commence and continue each month until the well is physically plugged and abandoned. This report will be filed, in duplicate, to the Vernal BLM District Office, 170 South 500 East, Vernal, Utah 84078.

Immediate Report: Spills, blowouts, fires, leaks, accidents, or any other unusual occurrences shall be promptly reported in accordance with the requirements of NTL-3A or its revision.

If a replacement rig is contemplated for completion operations, a "Sundry Notice" (Form 3160-5) to that effect will be filed, for prior approval of the AO, and all conditions of this approved plan are applicable during all operations conducted with the replacement rig.

Should the well be successfully completed for production, the AO will be notified when the well is placed in a producting status. Such notification will be sent by telegram or other written communication, not later than 5 days following the date on which the well is placed on production.

Pursuant to NTL-2B, with the approval of a District Engineer, produced water may be temporarily disposed of into unlined pits for a period of up to 90 days. During the period so authorized, an application for approval of the permanent disposal method, along with the required water analysis and other information, must be submitted to the District Engineer.

Pursuant to NTL-4A, lessees or operators are authorized to vent/flare gas during initial well evaluation tests, not exceeding a period of 30 days or the production of 50 MMCF of gas, whichever occurs first. An application must be filed with the District Engineer and approval received, for any venting/flaring of gas beyond the initial 30 day or authorized test period.

A schematic facilities diagram as required by 43 CFR 3162.7-2, 3162.7-3, and 3162.7-4 shall be submitted to the appropriate District Office within 30 days of installation or first production, whichever occurs first. All site security regulations as specified in 43 CFR 3162.7 shall be adhered to. All product lines entering and leaving hydrocarbon storage tanks will be effectively sealed in accordance with 43 CFR 3162.7-4.

A first production conference will be scheduled within 15 days after receipt of the first production notice.

No well abandonment operations will be commenced without the prior approval of the AO. In the case of newly drilled dry holes or failures, and in emergency situations, oral approval will be obtained from the AO. A "Subsequent Report of Abandonment" Form 3160-5, will be filed with the AO within 30 days following completion of the well for abandonment. This report will indicate where plugs were placed and the current status of surface restoration. Final abandonment will not be approved until the surface reclamation work required by the approved APD or approved abandonment notice has been completed to the satisfaction of the AO or his representative, or the appropriate Surface Managing Agency.

Pursuant to Onshore Oil and Gas Order No. 1, lessees and operators have the responsibility to see that their exploration, development, production, and construction operations are conducted in a manner which conforms with applicable Federal laws and regulations and with State and local laws and regulations to the extent that such State and local laws are applicable to operations on Federal or Indian lands.

B. THIRTEEN POINT SURFACE USE PLAN

7. Planned Access Roads

a. Width: 18 foot driveable surface with any needed burrow ditches.
b. Maximum grades: Would be about 10 percent.
c. Turnouts: None required.
d. Drainage: The porous sand and gravel soils would absorb most runoff without significant drainage problems.
e. Surface materials (source): Are located on the lease.
f. Other: The road would be built along ridgetops in the area. Mostly of naturally occurring gravel. Local materials would provide excellent material for a natural roadbase.

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

8. Location of Tank Batteries and Production Facilities

All permanent (on site for six months or longer) structures constructed or installed (including oil well pumpjacks) will be painted a flat, non-reflective, earthtone color to match the standard environmental colors, as determined by the Rocky Mountain 5 State Interagency Committee. All facilities will be painted within 6 months of installation. Facilities required to comply with O.S.H.A. (Occupational Safety and Health Act) will be excluded.

If a tank battery is constructed on this lease, it will be surrounded by a dike of sufficient capacity to contain 1½ times the storage capacity of the battery.

Tank batteries will be placed on the northwest corner of the pad, or production might be piped to the No. 3 Brennan Federal tank battery (if such a flowline is to be used, an appropriate sundry notice requesting the flowline should be filed with us).

All loading lines will be placed inside the berm surrounding the tank battery.

All site security guidelines identified in 43 CFR 3162.7 regulations will be adhered to.

All off-lease storage, off-lease measurement, or commingling on-lease or off-lease will have prior written approval from the AO.

Gas meter runs for each gas producing well will be located within 500 feet of the wellhead. The gas flowline will be buried from the wellhead to the meter and anchored securely downstream of the meter. Meter runs will be housed and/or fenced.

The oil and gas measurement facilities will be installed on the well location. The oil and gas meters will be calibrated in place prior to any deliveries. Tests for meter accuracy will be conducted monthly for the first three months on new meter installations and at least quarterly thereafter. The AO 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 will be submitted to the Vernal District Office. All meter measurement facilities will conform with the API standards for liquid hydrocarbons and the AGA standard for natural gas measurement.

9. Source of Construction Material

Road surfacing and pad construction material will be obtained from natural materials located on lease.

The use of materials under BLM jurisdiction will conform to 43 CFR 3610.2-3.

10. Methods of Handling Waste Disposal

The reserve pit will be lined.

Burning will not be allowed. All trash must be contained and disposed of.

Produced waste water will be confined to a lined pit for a period not to exceed 90 days after initial production. During the 90 day period, an application for approval of a permanent disposal method and location, along with required water analysis, will be submitted for the AO's approval. Failure to file an application within the time allowed will be considered an incident of noncompliance, and will be grounds for issuing a shut-in order.

11. Well Site Layout

The reserve pit will be located as indicated in the layout diagram.

The stockpiled topsoil will be stored on the west side of the location. About 6" of topsoil will be stockpiled there.

Access to the well pad will be from the north side of the pad and will proceed about .4 mile to reach existing roads at the No. 3 Brennan Federal well on this same lease as indicated in the APD.

Reserve pits will be fenced with a wire mesh fence and topped with at least one strand of barbed wire.

12. Plans for Restoration of Surface

Immediately upon completion of drilling, the location and surrounding area will be cleared of all debris, materials, trash and junk not required for production. The reserve pit and that portion of the location and access road not needed for production or production facilities will be reclaimed.

Before any dirt work to restore the location takes place, the reserve pit must be completely dry and all cans, barrels, pipe, etc. will be removed.

If the wellsite is to be abandoned, then all disturbed areas will be recontoured to the approximate natural contours.

The stockpiled topsoil will be evenly distributed over the disturbed areas.

The BLM will be consulted for a suitable seed mixture for the reseeding of the location.

Prior to reseeding, all disturbed areas, including the access roads, will be scarified and left with a rough surface.

Seed will be broadcast or drilled at a time specified by the BIA. If broadcast, a harrow or some other implement will be dragged over the seeded area to assure seed coverage.

13. Other Information

In order to protect important seasonal wildlife habitat (antelope kidding area), exploration, drilling and other development activity will not be allowed between May 15 and July 20. This limitation does not apply to maintenance and operations of existing wells. Any exceptions must be authorized in writing by the Resource Area Manager, Bookcliffs Resource Area.

There will be no deviation from the proposed drilling and/or workover program without prior approval from the AO. Safe drilling and operating practices must be observed. All wells, whether drilling, producing, suspended, or abandoned will be identified in accordance with 43 CFR 3162.2.

"Sundry Notice and Report on Wells" (Form 3160-5) will be filed for approval for all changes of plans and other operations in accordance with 43 CFR 3164.

The dirt contractor will be provided with an approved copy of the surface use plan.

A cultural resource clearance will be required before any construction begins. If any cultural resources are found during construction, all work will stop and the AO will be notified.

This permit will be valid for a period of one year from the date of approval. After permit termination, a new application will be filed for approval for any future operations.

Gulf Oil Exploration and Production Company

R. C. Smith
Area Drilling Superintendent

P. O. Box 2619
Casper, WY 82602

July 16, 1984

RECEIVED
JUL 84
DIVISION OF OIL
GAS & MINING

State of Utah
Department of Natural Resources & Energy
Division of Oil, Gas, & Mining
Attention: Well Records
4241 State Office Building
Salt Lake City, Utah 84114

Attention: Arlene Sellis

Re: Gulf Oil Corporation
Brennan Federal #8
SW¼ SE¼ Section 17, Township 7
South, Range 21 East, Uintah
County, Utah

Dear Sir:

The referenced well location is outside the standard spacing pattern due to a sharp draw on the east edge of the drill pad area. Request is herewith made for approval of the unorthodox location under State Rule C-3-(C). Gulf holds all of Section 17 under lease which includes all lands within 660 feet of the wellsite as required by State Rule C-3-(C)(2).

Please address response or inquiry to the attention of W. L. Rohrer (307) 235-1311.

Sincerely,

R. C. Smith

DKT/cam

w/ok

DIVISION OF OIL, GAS AND MINING

SPUDDING INFORMATION

NAME OF COMPANY: GULF

WELL NAME: BRENNEN FEDERAL 8 43-047-31509

SECTION SWSE 17 TOWNSHIP 7S RANGE 21E COUNTY UINTAH

DRILLING CONTRACTOR BRINKERHOFF SIGNAL

RIG # 85

SPUDDED: DATE 7-31-84

TIME 7:00 PM

HOW ROTARY

DRILLING WILL COMMENCE

REPORTED BY DANNY WEATON

TELEPHONE #

DATE 8-1-84 SIGNED GL

Gulf Oil Exploration and Production Company

L. G. Rader
PRODUCTION MANAGER — CASPER AREA

P. O. Box 2619
Casper, WY 82602

July 31, 1984

RECEIVED
AUG 6 1984
DIVISION OF OIL
GAS & MINING

Bureau of Land Management
91 West Main Street
P. O. Box F
Vernal, Utah 84078

Re: Gulf Brennan Federal #8
SE¼ NE¼ Section 17, Township 7
South, Range 21 East, Uintah
County, Utah

Gentlemen:

Gulf Oil Exploration and Production Company, Division of Gulf Oil Corporation, requests all data submitted from the referenced well be kept confidential. It is requested that this confidentiality status be maintained for the maximum time allowed by the regulations under which the data are submitted. Efforts made to comply with this request will be gratefully appreciated.

Yours truly,

Eam c Kerr
for L. G. Rader 8-1-84

KEK/cam

cc: State of Utah ← THIS COPY FOR
Natural Resources
Oil, Gas & Mining
4241 Sate Office Building
Salt Lake City, Utah 84114

Form OGC-1b

SUBMIT IN TRIPLICATE*
(Other instructions on reverse side)

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

SUNDRY NOTICES AND REPORTS ON WELLS

(Do not use this form for proposals to drill or to deepen or plug back to a different reservoir. Use "APPLICATION FOR PERMIT—" for such proposals.)

5. LEASE DESIGNATION AND SERIAL NO.: SL-066409-A

6. IF INDIAN, ALLOTTEE OR TRIBE NAME:

7. UNIT AGREEMENT NAME:

8. FARM OR LEASE NAME: Brennan Federal

9. WELL NO.: 8

10. FIELD AND POOL, OR WILDCAT: Brennan Bottoms

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA: S17 T7S R21E

1. OIL WELL [X] GAS WELL [ ] OTHER

2. NAME OF OPERATOR: Gulf Oil Corporation

3. ADDRESS OF OPERATOR: P.O. Box 2619, Casper, WY 82602

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.* See also space 17 below.) At surface: 660'FSL, 2250'FEL

14. PERMIT NO.: 43-047-31509

15. ELEVATIONS (Show whether DF, RT, GR, etc.): 4767'GL

12. COUNTY OR PARISH: Uintah

13. STATE: Utah

16. Check Appropriate Box To Indicate Nature of Notice, Report, or Other Data

NOTICE OF INTENTION TO:				SUBSEQUENT REPORT OF:			
TEST WATER SHUT-OFF	[ ]	PULL OR ALTER CASING	[ ]	WATER SHUT-OFF	[ ]	REPAIRING WELL	[ ]
FRACTURE TREAT	[ ]	MULTIPLE COMPLETE	[ ]	FRACTURE TREATMENT	[ ]	ALTERING CASING	[ ]
SHOOT OR ACIDIZE	[ ]	ABANDON*	[ ]	SHOOTING OR ACIDIZING	[ ]	ABANDONMENT*	[ ]
REPAIR WELL	[ ]	CHANGE PLANS	[ ]	(Other) Monthly Drill Report 8/84			[X]
(Other)			[ ]	(NOTE: Report results of multiple completion on Well Completion or Recompletion Report and Log form.)			

17. DESCRIBE PROPOSED OR COMPLETED OPERATIONS (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)*

Spudded 7-31-84

See attached

RECEIVED
SEP 14 1984
DIVISION OF OIL GAS & MINING

CONFIDENTIAL

18. I hereby certify that the foregoing is true and correct

SIGNED [signature] TITLE _____ DATE 9-12-84

(This space for Federal or State office use)

APPROVED BY _____ TITLE _____ DATE _____

CONDITIONS OF APPROVAL, IF ANY:

*See Instructions on Reverse Side

WELL PROGRESS REPORT—Field
GUS 95368

Make reports complete, such as description of casing . . . Show, as soon as known, name of contractor, type of rig, and kind of fuel . . . In guide margin show casing (as, 7"), "Contractor," "Shot," "Acidized," etc.

GUIDE MARGIN	DATE	YEAR 1984	A. F. E. 83670	LEASE AND WELL BRENNAN FEDERAL 8 (UT)

dfs 5 COMPLETION 48 HOURS ENDING 08/29/84
field BRENNAN BOTTOMS location SEC 17, T7S,R21E oper CP
lse/blk **BRENNAN FEDERAL** county UINTAH state UT stat AC
well **#8** refno DC3530 gwi 100.0000% operator GULF
rig GIBSON WS #51 st date 08/24/84 supervis LARSON,J. /G
afe 83670 auth $495,000 cumul cost $361,918
csg 5 1/2 @ 6998 auth. depth 0

08-28-84 NEW COMPLETION-ETP. API #43-047-31509.PBTD 6957'.EOT @ 6805'.POH W /2-7/8" J-55,6.5# 8RD EUE TBG,5-1/2" CSG SCRAPER & 4-3/4" BIT.RU WELEX WL. RU HELLANBACK HOT OILER TO CSG FOR PRESS DURING LOGS.RIH W/WELEX TOOLS TO PBT @ 6946'.HAD SLIGHT PROBLEM @ VERY BTM OF HOLE.STARTED LOG @ 6930'.COULD NOT GET TOOLS TO WORK.POH & CHANGED OUT COMPLETE TOOL ASSY.TIH AGAIN TO PBTD.ALL LOGS EXCEPT CCL WERE CLEAR.TOTAL OF 6 HR DELAY.LOGGED 6930-5000' W /GR/CBL/VDL/TTC CURVES W/1000PSI ON CSG.FOUND TOC W/1000PSI @ 2700+-'.RAN STRIP ACROSS TOC F/3000-2500'.REL PRESS.RD REL HOT OILER.RIH W/PBTD & RAN GR/CBL/VDL/TTC F/6900-6600' W/NO CSG PRESS.WILL RUN GR/CCL IN AM 8/29/84 TO CORRECTLY IDENTIFY CL'S F/CORRELATION W/GR ON DUAL INDUCTION LOG DATED 813-84;F/6930-5000'.FAXED LOGS TO CASPER.POH W/TOOLS.RD WELEX TO CHANGE OUT TRUCKS.SION.
08-29-84 RU WELEX.RIH W/GR/CCL TOOLS TO PBTD.PU HOLE LOGGING F/6933-5000'. HAD GOOD SHOW OF COLLARS & GR.POH W/LOGGING TOOLS.RU & RIH W/15'-4"HSC PERF GUN.PERF'D 6876-91' W.2SPF,120 DEG PH,23 GM CHARGE UNDER FULL LUBRICATOR. POH W/GUN,ALL SHOTS FIRED.PU & RIH W/1-7' GUN TO SHOOT 4' INT 6846-50' & 1 10' GUN F/INT 6866-76'.PERF'D INTERVAL 6866-76,THEN PUH & PERF'D INT 6846-50'.ALL PERFS CORRELATE TO DUAL INDUCTION LOG DATED 8/13/84;2 SPF,120 DEG PH,23 GM CHARGE.POH W/GUNS.RD & RL WELEX.RU & RIH W/1 JT 2-7/8" J-55 6.5# 8RD EUE TAILPIPE,BAKER MDL R-3 DBL GRIP PKR,1 JT TBG,BAKER 'F' SN,&214 JTS

WELL PROGRESS REPORT—Field
GUS 95368

Make reports complete, such as description of casing . . . Show, as soon as known, name of contractor, type of rig, and kind of fuel . . . In guide margin show casing (as, 7"), "Contractor," "Shot," "Acidized," etc.

GUIDE MARGIN	DATE	YEAR 1984	A. F. E.	LEASE AND WELL BRENNAN FEDERAL 8-17G21 (UT)

dfs 19 DEVELOPMENT DRILLING 72 HOURS ENDING 08/18/84
field BRENNAN BOTTOM UNIT location SEC 17,T7S,R21E oper DD
lse/blk BRENNAN FEDERAL county UINTAH state UT stat AC
well 8-17G21 refno DC3530 gwi 100.0000% operator GULF
rig BRINKERHOFF #35 st date 07/30/84 supervis WHEATON /G
afe 83670 auth $495,000 cumul cost $348,084
csg 0 0/0 @ 0 auth. depth 6925

08-16-84 D,C,ETP. API #43-047-31509. 7000'. REL PRESS & WSH OUT CMT.SET SLIPS.ND BOP.NU WH & TST 2500# W/ERC. CSG & CMT DETAIL:RAN 172 JTS & 1 CUT JT 5-1/2" 17# L-80 LTC,SET @ 6998'.FLOAT COLLAR @ 6954'.9 CENTRALIZERS WERE RUN F/6998'-6300'.27 SCRATCHERS WERE RUN F/6998-6450'.PIPE WAS RECIPROCATED 20' F/35 HRS PRIOR TO CMTG.CMT AS FOLLOWS:10 BBLS HYDROLITE SPACER FOLLOWED BY 10 BBLS MUD CLEAN.LEAD:750 SX CL 'G' NEAT FOAMED TO 6.0PPG,FOLLOWED BY 120 SX CL 'G' NEAT FOAMED TO 9.0PPG.TAIL:255 SX CL 'G' .8% FLUID LOSS ADDITIVE + 3% KCL @ 15.9PPG.CAP:A 500' CAP SLURRY CONSISTING OF 65 SX CL 'G' W/10% GYP & 2% CACL2 @ 14.5PPG WAS BULLHEADED DN BACKSIDE & LEFT SI F/ 4 HRS.DISP RATE WAS 5 BBL/MIN.
08-17-84 7000'. 18TH. RDRT. PREP TO MOVE. HK 4-1/2" DP. 17 JTS CULLED.
08-18-84 WOCU.
08-24-84 NEW COMPLETION-ETP. API #43-047-31509.PBTD 695'. PREP LOCATION.SET RIG ANCHORS & TSTD TO 20,000# PULL.MI 400 BBL TST TANKS (2) & FILLED W/2% KCL WTR. WELL SI. WOR
08-25-84 PBTD 6957'.MIRU GIBSON WS #53.RI RIG PMP & FLAT TANK.DISPOSED OF WTR & MUD IN MUD PIT (LINED).HAULED TO DISPOSAL.
08-26-84 SDFS.
08-27-84 ND HW.NU BOP'S.WOP.UNLOADING TBG.PU & TIH W/4-3/4" BIT & 5-1/2" CSG SCRAPER ON 'A' 2-7/8" J-55 6.5#/FT,8RD EUE TBG TO PBTD.TAGGED SOLID @ 6946.31' KB.APPROX 11' HIGH TO DRLG PBTD @ 6957'.PU OFF BTM.RU PMP & CIRC HOLE W/150 BBLS 2% KCL WTR W/0.2% HALL LOSURF 259 NON EMUL.POH & LD 4 JTS TBG.EOT @ 6805'.SION.

WELL PROGRESS REPORT—Field
GUS 95368

Make reports complete, such as description of casing . . . Show, as soon as known, name of contractor, type of rig, and kind of fuel . . . In guide margin show casing (as, 7"), "Contractor," "Shot," "Acidized," etc.

GUIDE MARGIN	DATE	YEAR 1984	A. F. E. 83670	LEASE AND WELL Brennan Federal	Utah

dfs 7 DEVELOPMENT DRILLING 72 HOURS ENDING 08/06/84
field BRENNAN BOTTOM UNIT location SEC 17,T7S, R21E oper DD
lse/blk BRENNAN FEDERAL county UINTAH state UT stat AC
well 8-17G21 refno DX3530 gwi 100.0000% operator GULF
rig BRINKERHOFF #35 st date 07/30/84 supervis MECHAM /G
afe 83670 auth $495,000 cumul cost $105,131
csg 0 0/0 @ 0 auth. depth 6925

08-04-84 D,C & ETP. API #43-047-31509. 3190'. MADE 1240'. GREEN RIVER. MW/TYPE:8.4/KCL-POLYMER. V 27. 5TH. DRLG. WLS. DRLG. 1-1/2 DEGREE @ 3079'.
08-05-84 3865'. MADE 675'. GREEN RIVER. MW/TYPE:8.4/KCL-POLYMER. V 27. 6TH. DRLG. WLS. DRLG. 1-1/2 DEGREES @ 3323'.
08-06-84 4420'. MADE 555'. GREEN RIVER. MW/TYPE:8.4/KCL-POLYMER. V 27. 7TH. WLS. DRLG.

08-07-84 D,C & ETP. API #43-047-31509. 4830'. MADE 410'. GREEN RIVER. MW/TYPE:8.4/KCL-POLYMER. V 27. 8TH. DRLG. RTCB. DRLG.

08-08-84 D,C & ETP. API #43-047-31509. 5380'. MADE 550'. GREEN RIVER. MW/TYPE:8.5/KCL-POLYMER. V 27. 9TH. DRLG.

08-09-84 D,C & ETP. API #43-047-31509. 5970'. MADE 590'. GREEN RIVER. MW/TYPE:8.5/KCL-POLYMER. V 27. 10TH. DRLG.
08-10-84 6510'. MADE 540'. GREEN RIVER. MW/TYPE:8.5/KCL-POLYMER. V 27. 11TH. DRLG.

08-11-84 D,C & ETP. API #43-047-31509. 6868'. MADE 358'. GREEN RIVER. MW/TYPE:8.5/KCL-POLYMER. V 27. 12TH. DRLG. LOST PMP PRESS. PUMP SOFT LINE. TOH & LD BAD JT. TOH. PU NEW BIT. TIH.
08-12-84 7000'. MADE 27'. LOWER GREEN RIVER. MW/TYPE:8.5/KCL-POLYMER. V 27. 13TH. TIH/ WSH TO BTM. DRLG. LOST PMP PRESS. PMP SOFT LINE.TOH.LD BAD DRILL PIPE.TIH. DRLG TO 7000'. TOH. SLM.
08-13-84 7000'.MADE 0'. LOWER GR. MW/TYPE:9.2/KCL-POLYMER. V 49. 14TH. RU SCHMLB & ATTEMPT TO LOG. LOG STOPPED @ 1386'.TIH TO 2600' & POH.ATTEMPT TO LOG,STOPPED @ 1490'.TIH TO 1520.CCM.TIH TO 6500'.MIX MUD & BUILD VOLUME.TIH TO 6758'.WSH 242' TO BTM. ATTEMPT SHORT TRIP,HOLE SLOUGHING.CCM.SHT TRIP, 31 STDS OUT.

08-14-84 D,C,ETP. API #43-047-31509. 7000'. MADE 0'. LWR GR RIVER.MW/TYPE: 9.2/KCL POLYMER. V 58. 15TH. 15 STD SHORT TRIP. CCM. RU SCHLUMB & LOG.TIH. CCM. LD DP.
08-15-84 7000'. MADE 0'. MW/TYPE:9.2/KCL POLYMER. V 58. 16TH. FIN LD DP & DC'S.CHG RAMS IN BOP TO 5-1/2".RU & RUN 173 JTS 5-1/2" 17# L-80 LTC CSG.SET @ 6985'.CIRC CSG. RU BJ & TST LINES TO 2500PSI.CMT TO SURF USING FOAM CMT. (DETAILS TO FOLLOW ON NEXT REPORT.)

WELL PROGRESS REPORT—Field
GUS 95368

Make reports complete, such as description of casing . . . Show, as soon as known, name of contractor, type of rig, and kind of fuel . . . In guide margin show casing (as, 7"), "Contractor," "Shot," "Acidized," etc.

GUIDE MARGIN	DATE	YEAR	A. F. E.	LEASE AND WELL

dfs 5 DEVELOPMENT DRILLING 96 HOURS ENDING 08/04/84
field BRENNAN BOTTOM UNIT location SEC 17,T7S, R21E oper DD
lse/blk BRENNAN FEDERAL county UINTAH state UT stat AC
well 8-17G21 refno DX3530 gwi 100.0000% operator GULF
rig BRINKERHOFF #35 st date 07/30/84 supervis MECHAM /G
afe 83670 auth $495,000 cumul cost $84,213
csg 0 0/0 @ 0 auth. depth 6925

07-31-84 D,C & ETP. API #43-047-31509.NEW LOCATION.SEARCH FOR OIL & GAS. LOCATION:660' FSL, 2250' FEL, SWSE SEC 17, T7S, R21E, UINTAH CO., UT. ELEVATION:4767'GL. 63'. MADE 0'. MW/TYPE:KCL/POLY. 1ST. DRY WATCH. MIRT, (ALL OF RIG ON LOCATION).
08-01-84 420'. MADE 357'.UINTAH. MW/TYPE:8.4/FW. V 27. 2ND. DRY WATCH.RURT. PU BHA. DRLG. CCM. POH TO RUN SURF CSG. SPUD @ 21:30, 7-31-84.
08-02-84 420'. MADE 0'. SURFACE. MW/TYPE:8.4/FW. V 27. 3RD. RUN 8-5/8" CSG TO 420'. CMT. WOC. CUT OFF CSG & INSTALL 10"-3000# CSG HEAD. NU BOP & TST. TIH. DRL FLOAT & CMT TO SHOE. CSG:10 JTS 8-5/8" 24#,K-55 STC. SET @ 420'. FLOAT COLLAR @ 373'.CMT:280 SX CL 'G'W/2% CACL2,15.7PPG,1.17 FT3/SX YIELD.
08-03-84 1950'. MADE 1530'. UINTAH. MW/TYPE:8.3/FW. V 27. 4TH. DRLG.SURVEY: 3/4 DEGREE @ 1477'. DRLG.

Form 9-331
Dec. 1973

Form Approved.
Budget Bureau No. 42-R1424

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

SUNDRY NOTICES AND REPORTS ON WELLS

(Do not use this form for proposals to drill or to deepen or plug back to a different reservoir. Use Form 9-331-C for such proposals.)

1. oil well [X] gas well [ ] other

2. NAME OF OPERATOR
Gulf Oil Corporation, Attn: R. W. Huwaldt

3. ADDRESS OF OPERATOR
P. O. Box 2619, Casper, WY 82602-2619

4. LOCATION OF WELL (REPORT LOCATION CLEARLY. See space 17 below.)
AT SURFACE: 660' FSL & 2250' FEL
AT TOP PROD. INTERVAL:
AT TOTAL DEPTH:

5. LEASE

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

7. UNIT AGREEMENT NAME

8. FARM OR LEASE NAME
Brennan Federal

9. WELL NO.
#8

10. FIELD OR WILDCAT NAME
Brennan Bottoms

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA
Section 17-T7S-R21E

12. COUNTY OR PARISH: Uintah
13. STATE: UT

14. API NO.
43-047-31509

15. ELEVATIONS (SHOW DF, KDB, AND WD)
4780' KB 4779' DF 4767' GL

16. CHECK APPROPRIATE BOX TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

REQUEST FOR APPROVAL TO:		SUBSEQUENT REPORT OF:
TEST WATER SHUT-OFF	[ ]	[ ]
FRACTURE TREAT	[ ]	[ ]
SHOOT OR ACIDIZE	[ ]	[ ]
REPAIR WELL	[ ]	[ ]
PULL OR ALTER CASING	[ ]	[ ]
MULTIPLE COMPLETE	[ ]	[ ]
CHANGE ZONES	[ ]	[ ]
ABANDON*	[ ]	[ ]
(other)		

(NOTE: Report results of multiple completion or zone change on Form 9-330.)

17. DESCRIBE PROPOSED OR COMPLETED OPERATIONS (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)*

Drilling rig moved off location August 19, 1984.

Workover rig moved onto location August 25, 1984.

RECEIVED
SEP 28 1984
DIVISION OF OIL GAS & MINING

Subsurface Safety Valve: Manu. and Type _____ Set @ _____ Ft.

18. I hereby certify that the foregoing is true and correct

SIGNED J. R. Bocek TITLE Area Engineer DATE SEP 24 1984

(This space for Federal or State office use)

APPROVED BY _____ TITLE _____ DATE _____
CONDITIONS OF APPROVAL, IF ANY:

*See Instructions on Reverse Side

Form OGC-1b

SUBMIT IN TRIPLICATE*
(Other instructions on reverse side)

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

SUNDRY NOTICES AND REPORTS ON WELLS

(Do not use this form for proposals to drill or to deepen or plug back to a different reservoir. Use "APPLICATION FOR PERMIT—" for such proposals.)

5. LEASE DESIGNATION AND SERIAL NO.: SL-066409-A

6. IF INDIAN, ALLOTTEE OR TRIBE NAME:

1. OIL WELL [X] GAS WELL [ ] OTHER

7. UNIT AGREEMENT NAME:

2. NAME OF OPERATOR: Gulf Oil Corporation

8. FARM OR LEASE NAME: Brennan Federal

3. ADDRESS OF OPERATOR: P.O. Box 2619, Casper, WY 82602

9. WELL NO.: 8

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.* See also space 17 below.) At surface: 660'FSL, 2250'FEL

10. FIELD AND POOL, OR WILDCAT: Brennan Bottoms

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA: S17 T7S R21E

14. PERMIT NO.: 43-047-31509

15. ELEVATIONS (Show whether DF, RT, GR, etc.): 4767'GL

12. COUNTY OR PARISH: Uintah

13. STATE: Utah

16. Check Appropriate Box To Indicate Nature of Notice, Report, or Other Data

NOTICE OF INTENTION TO:				SUBSEQUENT REPORT OF:			
TEST WATER SHUT-OFF	[ ]	PULL OR ALTER CASING	[ ]	WATER SHUT-OFF	[ ]	REPAIRING WELL	[ ]
FRACTURE TREAT	[ ]	MULTIPLE COMPLETE	[ ]	FRACTURE TREATMENT	[ ]	ALTERING CASING	[ ]
SHOOT OR ACIDIZE	[ ]	ABANDON*	[ ]	SHOOTING OR ACIDIZING	[ ]	ABANDONMENT*	[ ]
REPAIR WELL	[ ]	CHANGE PLANS	[ ]	(Other) Monthly Drill Report 9/84			[X]
(Other)			[ ]	(NOTE: Report results of multiple completion on Well Completion or Recompletion Report and Log form.)			

17. DESCRIBE PROPOSED OR COMPLETED OPERATIONS (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.) *

Spudded 7-31-84

See attached

RECEIVED
OCT 25 1984
DIVISION OF OIL GAS & MINING

18. I hereby certify that the foregoing is true and correct

SIGNED R.W. Hummel TITLE Sr. Unit Supervisor DATE 10-16-84

(This space for Federal or State office use)

APPROVED BY _____ TITLE _____ DATE _____

CONDITIONS OF APPROVAL, IF ANY:

*See Instructions on Reverse Side

Make reports complete, such as description of casing . . . Show, as soon as known, name of contractor, type of rig, and kind of fuel . . . In guide margin show casing (as, 7"), "Contractor," "Shot," "Acidized," etc.

GUIDE MARGIN	DATE	YEAR 1984	A. F. E.	LEASE AND WELL BRENNAN FEDERAL #8 (UT)

dfs 39 COMPLETION 144 HOURS ENDING 10/02/84
field BRENNAN BOTTOMS location SEC 17, T7S,R21E oper CP
lse/blk BRENNAN FEDERAL county UINTAH state UT stat AC
well #8 refno DC3530 gwi 100.0000% operator GULF
rig GIBSON WS #51 st date 08/24/84 supervis KEBERT,S /G
afe 83670 auth $495,000 cumul cost $486,438
csg 5 1/2 @ 6998 auth. depth 0

09-27-84 NEW COMPLETION-ETP.PERFS/FMT:ZONES 1,2,3,& 4.SITP=100PSI.BEGAN LAYING FL TO BATTERY.WRKD ON TB SITE.SET ENGINE ON PMPG UNIT & STARTED WELL PMPG TO 400BBL TST TNKS @ 4:30PM @ 1-3/4" X 100" X 8.5SPM.1861 BLWTR.
09-28-84 14.5HR TST F/1630HRS,09-27 TO 100HRS,09-28.WELL MADE 110BF W/NO FREE WTR,MUCH GAS.FL @ 2525' ABOVE PMP.24HR RATE @ 182BFPD.WH SAMPLE SHOWED 30% BS & W,BUT NO FREE WTR IN TNK.GRAVITY @ 35.6DEG @ 120DEG CORR TO 31.2 DEG @ 60DEG F,W/30% WTR.24HR RATE @ 182BFPD W/127 BOPD & 55 BWPD.1861 BLWTR WELL PMPG TO 400BBL TST TNKS @ 1-3/4 X 9-3/4 X 100SPM.
09-29-84 19HR TST ENDING @ 12PM,09-29.PROD 144BF TTL.WH SAMPLES AVG 36%BS & W.GRAVITY 36 @ 124DEG;CORR TO 31.3DEG @ 60DEG F.24HR RATES @ 182BFPD,116 BOPD,& 66 BWPD.WELL PMPG TO 400BBL TST TNKS W/1-3/4" X 100" X 9.5SPM.1837 BLWTR.
09-30-84 24HR TST PROD:148BF TTL.WH SAMPLES AVG 50% BS & W.GRAVITY 35.4 @ 135DEG F.CORR TO 29.9 @ 60DEG F.PROD 74 BO & 74 BW.WELL PMPG TO 400BBL TST TNKS W/1-3/4" X 100" X 9.5SPM.1767 BLWTR.

Make reports complete, such as description of casing . . . Show, as soon as known, name of contractor, type of rig, and kind of fuel . . . In guide margin show casing (as, 7"), "Contractor," "Shot," "Acidized," etc.

GUIDE MARGIN	DATE	YEAR 1984	A. F. E.	LEASE AND WELL BRENNAN FEDERAL #8	(UT)

dfs 27 COMPLETION 48 HOURS ENDING 09/21/84
field BRENNAN BOTTOMS location SEC 17, T7S,R21E oper CP
lse/blk BRENNAN FEDERAL county UINTAH state UT stat AC
well #8 refno DC3530 gwi 100.0000% operator GULF
rig GIBSON WS #51 st date 08/24/84 supervis LARSON,J /G
afe 83670 auth $495,000 cumul cost $456,788
csg 5 1/2 @ 6998 auth. depth 0

09-20-84 NEW COMPLETION-ETP.PBTD 6790'.PERFS ZONES #3-4.SITP=0PSI.PU & RIH W/NEW 4-3/4" BIT,XO,3-3-1/2" DC'S & XO ON 2-7/8",J-55,6.5#,8RD,EUE TO CIBP @ 6790'.RU HYD STRIP HEAD & PWR SWVL.EST CIRC DN ANN & UP TBG;PMPG 4.5BPM & RETURNS @ 1.5BPM LOSING 3BPM TO FMT.REV CIRC DN TBG & UP ANN @ 4.5BPM.PMP RATE & RETURNS @ 2.5BPM,STILL LOSING 2BPM.STARTED DRLG ON PLUG.DRLD 2HRS & FELL THRU.CIRC OUT 5 BO F/ZONE 2.RIH W/TBG TO 6832' & TAGGED 10' FILL-UP ON CIBP.CIRC OUT FILL-UP.DRLD HARD F/1HR,MADE 6",NEXT HR EASY MADE 2'.DRLD VERY HARD NEXT 2HRS MAKING ONLY 6" W/PMP RATE @ 4.5BPM & RETURNS @ 3BPM DN TBG UP ANN.MADE 0' NEXT 2HRS W/SLIGHT CONT METAL RETURNS & MUCH RUBBER & FRAC BALLS.CIRC HOLE 45MIN W/OCCASIONAL TORQUE STOPPING SWVL-1800'#,SOME-THING BEHIND BIT-CAN'T CIRC OUT.RD SWVL.POH & LD 4JTS 2-7/8" TBG.HAD DRAG OF 15# 1ST JT,THEN PULLED FREE.SION.LOST 750 BW.1861 BLWTR.
09-21-84 POH W/2-7/8",J-55,6.5#,8RD,EUE TBG,XO,3-3-1/2" DC'S,XO & 4-3/4" MAGNET ASSY ON SNDLN TO 6842' & TAGGED TOP OF BP.POH ON 1ST RUN W/BIT CONE & ASSORT CHNKS OF METAL.MADE TTL OF 6 RUNS W/MAGNET.LAST 2 RUNS HAD SML 3/8 INCH PIECES OF METAL.RD MAGNET ASSY.PU & RIH W/4-3/4" FBM,CR SUB,SAFETY JT, 1JT TBG,CR SUB,20JTS TBG,CR SUB,MIRACLE TOOL,XO,2 CR SUBS & PORTED SUB (TTL TOOLS CLOSED POSITION @ 675.67') ON TBG TO TOP OF BP @ 6820'.RU PWR SWVL-PLUG CAME UP HOLE WHEN PULLED OUT W/BIT ON 09-20-84 ABOUT 20' & HUNG IN PERFS @ 6820';(STILL ONLY 2ND PLUG).MILLED & STROKED W/TOOL F/5HRS,CONT

09-21-84 NEW COMPLETION-ETP.PBTD 6842'.PERFS ZONES #4,3,2.EOT @ 6720'.SITP=50PSI.MAKING HOLE RATE OF 2' +/HR W/10' MADE @ END OF JT-FELL THRU.TOO DARK TO MAKE ANOTHER CONN.EOT FELL THRU @ 6830'.POH 40'.SION.1861 BLWTR.
09-22-84 PU 1JT TBG & RIH PUSHING BP DN HOLE TO 6837' & HUNG UP.ROTATED 45 MIN W/PWR SWVL & MILL & FELL THRU TO 6842'.TAGGED 3RD CIBP BTWN ZONES 1 & 2 MILLED & STROKED W/4 STARS MIRACLE TOOL MAKING 8'/3HRS.PUSHED DN HOLE & MILLED PERIODICALLY PAST BTM PERFS @ 6891'-PBTD @ 6952' & TAGGED SOLID.POH W/TBG & MIRACLE TOOL ASSY.HAD APPX 3JTS (93') TBG FILLED W/METAL,RUBBER,& FMT SND.LD TOOL ASSY.REL 4 STAR.PU & RIH W/PROD STRG OF 2-7/8" NOTCHED CL ON PERFED 2-7/8" MA & 2-1/4" SN ON 13JTS 2-7/8" TBG.EOT @ 437'.SION.1861 BLWTR.
09-23-84 SIOS.1861 BLWTR.
09-24-84 CONT RIH W/2-5/8",6.5#,8RD,J-55 TBG & BKR 5-1/2" ANCHOR CATCHER TO 6467'(SN) & SET ANCHOR W/18K-TENSION.LAND TBG.ND BOP.NU WH.PU & RIH W/1-3/4 IN X 17' RHBC PMP,22 PLAIN 1" 'A' RODS,71 PLAIN 3/4" 'A' RODS,44 PLAIN 7/8" 'A' RODS,40 SCRPRD 7/8" 'A' RODS,81 SCRPRD 1" 'A' RODS & ROD SEATED PMP, STACKED W/RIG.HUNG WELL OFF ON WH.RD & REL GIBSON #51.WOPE.
09-25-84 WRKD ON TB.PREP PU PAD.SION.
HOOKED UP WH EQPT & LNS TO 400BBL TNKS.SET PU EQPT.WO ENGINE.WRKD ON GRADE F/TB.SION.

REPORT—Field

Make reports complete, such as description of casing . . . Show, as soon as known, name of contractor, type of rig, and kind of fuel . . . In guide margin show casing (as, 7"), "Contractor," "Shot," "Acidized," etc.

GUIDE MARGIN	DATE	YEAR 1984	A. F. E.	LEASE AND WELL BRENNAN FEDERAL #8 (UT)

dfs 24 COMPLETION 96 HOURS ENDING 09/18/84
field BRENNAN BOTTOMS location SEC 17, T7S,R21E oper CP
lse/blk BRENNAN FEDERAL county UINTAH state UT stat AC
well #8 refno DC3530 gwi 100.0000% operator GULF
rig GIBSON WS #51 st date 08/24/84 supervis PETERSON,D/G
afe 83670 auth $495,000 cumul cost $442,618
csg 5 1/2 @ 6998 auth. depth 0

09-15-84 NEW COMPLETION-ETP.PBTD 6640'.PERFS 6544-50'.EOT @ 2830'.SITP=500. CONT'D: 259,THEN 500GAL OF 15% HCL W/10% GLACIAL ACETIC ACID,7-1/2% MUTUAL SOLV,1/2% ANTI-SLUDGING SURFACT,1/2% NON EMULS SURFACT,1/2% FINES SUSP SURF 0.2% CLA STAB,10#/1000GAL ERYTH ACID & INHIB F/8HRS @ 130DEG F.NO BALLS. FLUSHED TO PERFS (6544-50') W/42BBLS OF 2% KCL WTR W/LOSURF-259.PMPD @ 11-13 BPM,W/TP @ 250PSI.TBG FILLED AFTER 35BF TTL PMPD.AFTER 35BBLS,PR ROSE RAPIDLY TO 5000PSI.CUT BACK ON RATE TO 9BPM W/4300PSI.PR FELL TO 4100PSI WHEN ACID CONTACTED PERFS.TTL FLUID PMPD=66BBLS (10 PAD,14 ACID & 42 FLUSH) SD PMPS.ISIP=1450,1MIN=1230,2MIN=1050,3MIN=720,4MIN=70 & 5MIN=0PSI.RD & MO NOWSCO.RU TO SWB.66 BLWTR.25MIN AFTER PMP SD,FL @ 3500'.MADE 12 RUNS (4 RUN /HR.SWB TO PIT.FL=3500-4500'.PULLED F/5100-6200'.NO ENTRY.TTL FLUID SWBD:88 BBLS.APPX 12 BO & 76 BW.BLWTR=0.
09-16-84 SIFS.
09-17-84 RU TO SWB.FL IN 37HRS @ 4500'.ENTRY @ 1100'.MADE 3 RUNS/HR #1-7; 2 RUNS/HR #7-18.MADE 18 RUNS TTL.FL=4600-4700'.PULLED F/6425'(SN).ENTRY @ 1000' ON LAST RUN.SWBD TTL OF 133BF.PROD @ 86 BO & 47 BW.24HR AVG ON LAST 3 RUNS @ 208 BOPD & 112 BWPD W/65% OIL CUT.COULD NOT DRAIN ANY WTR F/TANK.
09-18-84 RU TO SWB.MADE 2 RUNS/HR.IFL=4700'.OVERNITE ENTRY=1000'.0 BLWTR. DRAINED 25 BW F/TNK PRIOR TO SWB.MADE 6 RUNS TTL.PULLED F/SN.ENTRY @ 1060' ON LAST RUN.SWB BACK TTL OF 43BF TO TNK.PROD 30 BO & 13 BW.BASED ON AVG
09-18-84 NEW COMPLETION-ETP.PBTD 6640'.PERFS 6544-50'.PKR @ 6461'.SN @ 6425 EOT @ 6457'.SITP=850PSI.CONT'D:RUNS 24HR AVG @ 344BFPD W/240 BOPD & 104BWPD RD SWB.RU TO PULL TBG.REL PKR.POH W/2-7/8",J-55,6.5#/FT,8RD,EUE TBG.BKR 'F' SN,1JT TBG,BKR MDL R-3 PKR & 1JT TBG W/NOTCHED COLLAR.PU & RIH W/4-3/4" BIT 5-1/2",17# SCRPR,XO,4-3-1/2" DC'S & XO(TTL TOOLS=124.89')ON TBG TO CIBP SET @ 6640'.TAGGED CIBP.PU OFF PLUG.RU PWR SWV & STRIP HEAD.HAULED IN 2% KCL W/ 0.2% HALL LOSURF-259 NON EMUL.PREP TO DO PLUGS IN AM.ZONE #4 50 BLWTR(REL PKR).SION.
09-19-84 REL PR.RU PMP & ATTEMPT TO CIRC HOLE DN BACKSIDE & UP TBG.PMPD 180 BW (2% KCL W/0.2% NON-EMUL),HOLE CAP @ 159BBLS,W/O CIRC,REV FLW DN TBG & UP ANN.EST CIRC W/IN 10BW.REV AGAIN DN CSG & UP TBG W/RETURNS @ 1-1/2BPM & PMP RATE OF 5BPM.DRLD ON CIBP @ 6640' F/1-1/2HR & FELL THRU.HAD ONLY TR OF METAL RETURNS.CIRC HOLE F/20MIN.PU & RIH W/2-7/8" TBG TO 2ND CIBP SET @ 6790'.EST CIRC & DRLD F/2HRS MAKING 1'/HR.RAN OUT OF WTR.WO TRKS/1HR.BEGAN DRLG AGAIN BUT BIT SOON PLUGGED OFF.CP AVG 600PSI WHEN CIRC & WENT TO 1000 PSI WHEN PLUGGED.PMPD REMAINING 60 BW IN FMT & MADE ANOTHER 1' DRLG.CONT'D DRLG DRY F/1HR BUT MADE NO HOLE.RD SWVL & STRIP HEAD.POH W/2-7/8" TBG,4-3-1/2" DC'S,CSG SCRAPER & 4-3/4" BIT.TBG WAS PLUGGED @ BIT W/METAL.SION.LOST 800 BW.HAD 311 BLWTR.TTL BLWTR @ 1111 BW.SOLD 295 BO F/TST TNK.DRAINED ONLY 11 BW.

REPORT—Field

Make reports complete, such as description of casing . . . Show, as soon as known, name of contractor, type of rig, and kind of fuel . . . In guide margin show casing (as, 7"), "Contractor," "Shot," "Acidized," etc.

GUIDE MARGIN | DATE | YEAR 1984 | A. F. E. | LEASE AND WELL BRENNAN FEDERAL #8 (UT)

dfs 19 COMPLETION 48 HOURS ENDING 09/13/84
field BRENNAN BOTTOMS location SEC 17, T7S,R21E oper CP
lse/blk BRENNAN FEDERAL county UINTAH state UT stat AC
well #8 refno DC3530 gwi 100.0000% operator GULF
rig GIBSON WS #51 st date 08/24/84 supervis LARSON,J. /G
afe 83670 auth $495,000 cumul cost $426,873
csg 5 1/2 @ 6998 auth. depth 0

09-12-84 NEW COMPLETION-ETP.PBTD 6790'.PERFS 6832-38,6796-822'.SITP=100PSI. PKR @ 6493'.SN @ 6457'.EOT @ 6525'.CONT'D: AVG PR.FLUSHED TO BTM PERF.ALL FLUIDS PRE-HEATED TO 100DEG F.IDIP=0PSI.RD.REL NOWSCO.RU TO SWB TBG W/ SLIGHT BLOW.160 BLWTR ACID JOB ONLY.MADE 19 RUNS.FL=2050-4064'.PULLED F/ 3500-5600'.ENTRY @ 1700' ON LAST RUN.FLUID CUT=6BF;35% OIL-VERY STRONG GAS ON LAST RUN.LAST RUN GRAVITY @ 32 @ 110DEG,CORR TO 28.5 @ 60DEG F;10MIN BLOW.SWB BACK TTL OF 125BF.APPX PROD @ 20 BO & 105BW.SWB 59 BW TO PIT,66 BF TO TNK.DRAINED & SWB TO PIT 61BW.PROD BASED ON LAST 3 RUNS @ 24HR AVG OF 368 BFPD & 129 BOPD & 239BW W/2460' ENTRY/HR.158 BLWTR.
09-13-84 SITP @ 900PSI.FL @ 2400'.ENTRY @ 2700'/13HRS.24HR AVG ENTRY @ 4984 FT/DAY.RU TO SWB.MADE 2 RUNS/HR AS STRONG GAS BLOW 10-15MIN/RUN.MADE 21 RUNS.FL=2400-4600'.PULLED F/4064'-SN.FLUID ENTRY F/2700-900'.FLUID CUT=5BF-70% OIL-STRONG GAS BLOW.SWB BACK TTL OF 152BF.BASED ON WH SAMPLES & OIL-WTR CUTS.PROD @ 92 BO & 60BW.DRAINED TTL OF 85BW F/TNK.73BLWTR.24HR PROD BASED ON LAST 4 RUNS @ 288BFPD W/201BOPD & 87BWPD W/ENTRY @ 2368'/HR AVG.73 BLWTR GRAVITY OF OIL RUN #9=34.2 @ 110DEG CORR TO 30.6 @ 60DEG.GRAVITY OF OIL RUN #21:34.6 @ 134DEG CORR TO 29.3 @ 60DEG.

09-12-84 NEW COMPLETION-ETP.PBTD 6790'.PERFS 6832-38,6796-822'.SITP=550PSI. PKR @ 6493'.SN @ 6457'.EOT @ 6525'.FL @ 3200'.ENTRY @ 2260'/14HRS.24HR AVG ENTRY @ 3880'.RU TO SWB AS FOLLOWS:MADE 9 RUNS @ 3 RUNS/HR.FL=3200-4060'. PULLED F/4500-5600'.FLUID ENTRY @ 1540 ON LAST RUN.FLUID CUT=5.0BBLS 44% OIL,56% WTR.SWBD BACK TTL OF 55BF.BASED ON WH SAMPLES & OIL-WTR CUTS,PROD @ 28BO & 27 BW.DRAINED TTL OF 19BW F/TNK.55 BLWTR.24HR PROD BASED ON LAST 4 RUNS @ 221 BFPD W/112 BOPD & 109 BWPD.BLWTR=55.GRAVITY RUN #9=34.4 @ 110DEG F CORR TO 30.7 @ 60DEG F.
09-14-84 POH W/207JTS 2-7/8" TBG,SN,1JT 2-7/8" TBG,MDL R-3 BKR PKR,1JT TBG, & NOTCHED COLLAR.MIRU WELEX.PU & RIH W/5-1/2",17# CIBP ON WL W/CCL & SET CIBP @ +/- 6640'.POH W/WL & CCL.PR CSG TO 1500PSI TO TST CIBP,OK.PU & RIH W/4" HSC PERF GUNS.TSTD LUBR TO 1000PSI,OK.PERFED INTERVAL F/6544-50'(2JSPF 120DEG PHASE,23GM) AFTER TAGGING CIBP & CORRELATING W/CCL LOG.POH W/WL,CCL, & 4" HSC.ALL SHOTS FIRED.PU & RIH W/NOTCHED COLLAR,1JT 2-7/8" TBG,BKR MDL R-3 PKR,1JT TBG,SN & 38JTS TBG.WELL BEGAN FLWG WTR.EOT @ 2850'.SION.
09-15-84 OPENED TBG TO PIT.WELL FLWD GAS 20MIN,THEN DIED.RIH W/59STDS 2-7/8 IN TBG.SET BKR MDL R-3 DG PKR @ 6461'.PR TBG-CSG ANN TO 1000PSI,OK.RU TO SWB WELL AS FOLLOWS:MADE 5 RUNS.FL=700-6300'.PULLED F/2000-6425'(SN).NO EN-TRY ON LAST 3 RUNS.TTL SWB OF 23BF-ALL WTR.FL @ 6000'.MIRU NOWSCO TO ACDZ. INITIAL CP=870PSI.TSTD LNS TO 7000PSI,OK.PMPD 10BBLS OF 2% KCL WTR W/LOSURF

REPORT—Field

Make reports complete, such as description of casing . . . Show, as soon as known, name of contractor, type of rig, and kind of fuel . . . In guide margin show casing (as, 7"), "Contractor," "Shot," "Acidized," etc.

GUIDE MARGIN	DATE	YEAR 1984	A. F. E.	LEASE AND WELL BRENNAN FEDERAL #8	(UT)

dfs 17 COMPLETION 72 HOURS ENDING 09/11/84
field BRENNAN BOTTOMS location SEC 17, T7S,R21E oper CP
lse/blk BRENNAN FEDERAL county UINTAH state UT stat AC
well #8 refno DC3530 gwi 100.0000% operator GULF
rig GIBSON WS #51 st date 08/24/84 supervis LARSON,J. /G
afe 83670 auth $495,000 cumul cost $411,393
csg 5 1/2 @ 6998 auth. depth 0

09-10-84 NEW COMPLETION-ETP.PBTD 6946'.PERFS 6832-38,6796-822'. PKR @ 6650' SN @ 6614'.EOT @ 6682'.SITP=650PSI.RU TO SWB.IFL=4130'.SI ENTRY F/39HRS @ 2190'.MADE 3 RUNS/HR WHILE WO WL.SITP=650PSI.GRAV OF TNK SAMPLE:34DEG @ 110 DEG F.CORR TO 30.4DEG @ 60DEG F.2% BS & W.MADE 12 RUNS.FL=4130-5600'.PULLED F/5600-SN.FLUID ENTRY @ 860' ON LAST 8 RUNS.SWB BACK TTL OF 61BF.PROD @ 24BO,37BW.24HR AVG,BASED ON LAST 6 RUNS & OIL CUT @ 126BOPD,234BWPD.HEATED TNK & DRAINED OFF WTR.RD SWB.POH W/212JTS 2-7/8",J-55,6.5#/FT,8RD EUE TBG, BAKER 'F' SN,1JT TBG,HALL RTTS PKR,& 2-7/8" TAILJT.RU WELEX.PU & RIH W/5-1/2" CIBP ON WL & SET @ 6790'.POH W/CL & RD WELEX.FILLED HOLE W/2% KCL WTR W/.2% NON-EMUL & PR TSTD HOLE TO 1000PSI.SDON.REL PKR,LOST 40BW.ZONE #2 111 BLWTR.

09-11-84 RU WELEX TO PERF.PU & RIH W/4" HSC GUN W/2SPF,120DEG PHASING & 23 GM CHGS.TAGGED CIBP @ 6780'.RAN ELL STRIP CORR TO DUAL IND LOG DATED 08-13-84.PERFED INT:6752-64.POH W/PERF GUN.MADE 2 MORE SEPRT RUNS.PERFED INT:6744-48,6719-29,6710-14,6696-700' & 6648-52',ALL 2SPF,120DEG PHASING & 2.3GM CHGS.ALL SHOTS FIRED.ALL RUNS CORR TO DUAL IND LOG.RD & REL WELEX.PU & RIH W/NOTCHED COLLAR ON 1JT 2-7/8" J-55,6.5#,8RD,EUE TBG ON BKR MOD 'R-3' DG PKR,1JT TBG & BKR 'F' SN ON 207JTS TBG.SET PKR @ 6993' W/20,000# COMP.EOT @ 6525'.SN @ 6457'.TSTD ANN TO 1000# & HELD.LOST 100BW FO FMT WHEN PERF'D. SOLD 224BO F/TST TNK.RU TO SWB BACK TO PIT.PULLED 3 RUNS/HR,MADE 6RUNS.6TH

09-11-84 NEW COMPLETION-ETP.PBTD 6790'.PERFS 6832-38,6796-822'.SITP=0PSI. CONT'D:CUT SHORT DUE TO STRONG RAINS & HIGH WINDS.MADE 6 SWB RUNS.FL=4064-5400'.PULLED F/5112-6000'.FLUID ENTRY @ 950 ON LAST 2 RUNS.FLUID CUT:3BF-95% WTR-5% OIL-GAS SHOW ON LAST 4 RUNS.SWB BACK TTL OF 31BF TO PIT:1BO,30BW ZONE 3;70 BLWTR.SION.

09-12-84 MADE 2 SWB RUNS,IFL=5110' ON.ENTRY @ 800'.PULLED 6BF-20% OIL,ENTRY ON NEXT RUN(30MIN) @ 700';5400'.PULLED 5BF -20% OIL.RD SWB.MIRU NOWSCO TO ACDZ WELL.5-1/2" ANN STILL & 1000PSI PR,MONITORED DURING ACID JOB.ACDZD DN TBG W/4500 GAL 15% HCL W/10% GLACIAL ACETIC ACID,7-1/2% MUTRAL SOLV,1/2% ANTI-SLUDG SURF,1/2% NON-EMUL SURF;1/2% FINES SUSP SURF,1/2% CLA STAB,10#/1000GAL ERYTH ACID & INHIB F/8HRS @ 130DEG F.HAD TROUBLE W/SUCTION TO PMPS CAUSING IRREGULAR PMP ACTION.HAD 10BBLS ACID PMPD,DEVELOPED LEAK IN LINES, THAT HAD BEEN TSTD TO 6000PSI W/ONLY 50PSI & 5BPM RATES.FIXED LEAK.PMPD 17 BBLS TTL ACID,ANOTHER LEAK.SD.FIXED.HAD 53BBLS ACID OF 117BBLS PMPD & DEV ANOTHER LEAK DUE TO LINES JUMPING @ 5BPM & ONLY 900PSI(JUST CAUGHT FLUID @ 36BBLS).SD 4MIN.STARTED PMPG AGAIN.BALLS HAD BEEN EVENLY DISP THRU ACID.DBL RATE ON BALL DROPPER @ THIS PT.PMPD REMAINING 64BBLS ACID.REMAINING BALLS IN 1ST 30BBLS PR WENT TO 3000PSI SLOWLY @ 83BPM.W/ALL ACID PMPD & 2BBLS FLUSH(2% KCL W/1/2% NON-EMUL & 0.3% CLA STA) IN,PR WENT TO 4850PSI,9BPM & BLEW ANOTHER LEAK.SD.FIXED IN 5MIN.PMPD REMAINING FLUSH @ 7BPM & 1400PSI

REPORT—Field

Make reports complete, such as description of casing . . . Show, as soon as known, name of contractor, type of rig, and kind of fuel . . . In guide margin show casing (as, 7"), "Contractor," "Shot," "Acidized," etc.

GUIDE MARGIN	DATE	YEAR 1984	A. F. E.	LEASE AND WELL BRENNAN FEDERAL #8	(UT)

dfs 12 COMPLETION 24 HOURS ENDING 09/06/84
field BRENNAN BOTTOMS location SEC 17, T7S,R21E oper CP
lse/blk BRENNAN FEDERAL county UINTAH state UT stat AC
well #8 refno DC3530 gwi 100.0000% operator GULF
rig GIBSON WS #51 st date 08/24/84 supervis LARSON,J. /G
afe 83670 auth $495,000 cumul cost $401,205
csg 5 1/2 @ 6998 auth. depth 0

09-06-84 NEW COMPLETION-ETP.PBTD 6496'.PERFS 6846-522';6866-91'.PKR @ 6650' SN @ 6614'.EOT @ 6682'.SITP=OPSI.RU PMP & ATTEMPT TO PR TST R-3 PKR.CONN W/ TBG.TRIED SEVERAL TIMES TO TST PKR.WOULD SET,BUT NOT PACK-OFF F/TST.ACHIEV-ED ONLY 300PSI & THEN COMM W/TBG.POH W/212JTS 2-7/8" J-55,6.5#/FT,8RD,EUE TBG,BAKER 'F'SN,1JT TBG,BAKER 'R-3'PKR & 1JT TBG.R-3 PKR HAD MIDDLE RUBBER TORN APART(ALL PIECES REC'D) & BENT HYD HOLD DN.BTM RUBBER HAD NOT BEEN USED OR PACKED-OFF.PU & RIH W/HOWCO 5-1/2" 13#-20# RTTS PKR ON 1JT TBG AS TAILJT,1JT ABOVE PKR,BAKER 'F'NIPPLE & 212JTS 2-7/8" TBG TO 6682'-90' EOT. PKR @ 6650' & SN @ 6614'.CIRC HOLE CLN,SOME CMT & SIGNS OF LCM.SET RTTS W/ 20#COMP.PR TSTD ANN TO 1000PSI & HELD THRU FOLLOWING ACID JOB.RU HOWCO ACDR TO ACDZ PERFS 6832-38'(2SPF) & 6796-6822'(2SPF).ACDZD DN TBG W/3000GAL 15% HCL W/300GAL RAW GLACIAL ACE C ACID,7-1/2% MUTUAL SOLV,1/2% ANTI-SLUDGE,1/2 % NON-EMUL SURF,1/2% FINES SUSP SURF,0.2% DA-STA,10#/GAL ERYTH ACID,INHIB F/8HRS @ 130DEG F.DROPPED 100 7/8" 1.1 RCN BALLS EVENLY THRU ACID.FLUSHED TO BTM PERF W/2%KCL WTR W/1/2% NON-EMUL & 0.2% CLAY STA.ALL FLUIDS & FLUSH PRE-HEATED TO 100DEG F.PMPD ACID @ 12.6BPM & 4700PSI.BALLED OFF @ 5000PSI W/50% ACID IN PERFS.RESUMED PMPG FLUSH @ AVG 3BPM.4850PSI W/MORE BALL ACTION.MAX RATE & PRESS OF 12.6 & 5000PSI.ISIP=800PSI,5MIN=410,10MIN=140,15 MIN=0PSI.PREV WTR=350BLWTR.ACID JOB-143BLWTR.TTL=493BLWTR.RD & REL HOWCO.RU TO SWB BACK.IFL=4114'--2500' OF FLUID IN HOLE.

09-06-84 NEW COMPLETION-ETP.PBTD 6496'.PERFS 6846-522';6866-91'.PKR @ 6650' SN @ 6614'.EOT @ 6682'.SITP=OPSI.CONT'D:SWB AS FOLLOWS:MADE 12 RUNS.FL=1300 -4360'.PULLED F/3500-5900'.FLUID ENTRY @ 1400' ON LAST RUN.FLUID CUT:8BF-10%-1/2BO W/VERY STRONG BLOW-10MIN ON LAST RUN.SWB BACK 97BF 0BO; ALL TO PIT.24HR AVG BASED ON LAST 3 RUNS @ 576BFPD & ENTRY OF 4200'/HR.RUN #4 UATG DN,PU ON TBG OT STRAIGHTEN TBG ST.HAVE 10K STILL ON PKR.F/ACID JOB:46BLWTR. TTL LOST WTR TO ZONE=396BLWTR.
09-07-84 RU TO SWB.MADE 3 RUNS/HR AVG.2 RUNS/HR BET RUNS 9-10 & 20-21 ONLY FLUID ENTRY @ 880'.SAMPLE F/WH TAKEN EVERY 3RD RUN.MADE 26 RUNS.FL=4860-5700',PULLED F/6080'-SN.SWBD BACK 151.5BF.PROD 27BO & 124.5BW/9HRS.BASED ON LAST 4HRS ,PROD AVG F/24HR @ 350BFPD W/70BOPD & 280BWPD & FLUID ENTRY OF 2524'/HR.F/ACID JOB:0BLWTR.TTL LOST WTR TO ZONE=317.5BLWTR.GRAV OF 1ST RUN SAMPLE @ 38.1 @ 121DEG.CORR TO 32.0 @ 60DEG W/GRINDOUT @ 1% BS & W(0.6% OF 1% BS.SION.
09-08-84 RU TO SWB.IFL=4364',0.N.ENTRY @ 500'.MADE 3 RUNS/HR I.E. WHEN SWB CUPS & OS RUBBERS CHNGD BET RUNS 7/8 & 17/18;2 RUNS/HR.MADE 22 RUNS.FL=4360 -5800'.PULLED F/5604'-6614'(SN).FLUID ENTRY @ 520' ON LAST RUN.SWBD BACK TTL OF 103BF.BASED ON LAST 5 RUNS:24HR AVG @ 216BFPD;W/25% OIL-PROD @ 54 BOPD & 162 BWPD.SWB PROD :36BO & 67BW.ALL BASED ON WH SAMPLES TAKEN EVERY

ORT—Field

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GUIDE MARGIN	DATE	YEAR 1984	A. F. E.	LEASE AND WELL BRENNAN FEDERAL #8	(UT)

dfs 10 COMPLETION 120 HOURS ENDING 09/04/84
field BRENNAN BOTTOMS location SEC 17, T7S,R21E oper CP
lse/blk BRENNAN FEDERAL county UINTAH state UT stat AC
well #8 refno DC3530 gwi 100.0000% operator GULF
rig GIBSON WS #51 st date 08/24/84 supervis LARSON,J. /G
afe 83670 auth $495,000 cumul cost $382,626
csg 5 1/2 @ 6998 auth. depth 0

09-01-84 SITP=100PSI.RU TO SWB.IFL=4850'.FLUID ENTRY OVERNITE @ 1700'.MADE 1 RUN EACH 30MIN.SWBG TO 400BBL TANK.MADE 17 RUNS.FL=4850-6100'.PULLED FROM 6000'-SN.FLUID ENTRY F/1700'-500'.SWB BACK 64BF/17 RUNS.AVG OF 3.76BFPR.AVG OF 7.5BFPH.24HR AVG BASED ON LAST 6 RUNS OF 144BFPD @ 115BOPD & 29BWPD.SWBD TTL OF 51BO & 13BW.ALL LOAD WTR REC.0 BLWTR.
09-02-84 SIOS.
09-03-84 SDF/HOLIDAY.
09-04-84 SITP=150PSI.RU HELLANBACK HOT OIL TO HEAT OIL & WTR IN TANK.RU TO SWB.IFL=5000'.FLUID ENTRY OVER WEEKEND @ 1625'.SWBG TO 400BBL TST TNK.30MIN SET RAMS,45MIN SET #2 & #3.CHNGD CUPS EVERY 5TH RUN,& ON 13TH RUN.MADE 14 RUNS.FL=500-5500'.PULLED F/6400-SN.ENTRY F/1625'-900'.

09-04-84 NEW COMPLETION-ETP.PBTD 6496'.PERFS 6846-522';6866-91'.PKR @ 6713' SN @ 6677'.EOT @ 6745'.SITP=150PSI.CONT'D: 1ST RUN WH SAMPLE HAD GRAVITY OF 35.1 @ 108DEG,CORR TO 31.6 @ 60DEG F W/GRINDOUT @ 0.2%.SWB TTL OF 49BF @ ABOVE OIL CUTS.PROD 45BO & 4BW/7HRS.24HR AVG RATE: 154BOPD & 13BWPD.0BLWTR. RD SWB.REL R-3 PKR.POH W/210JTS 2-7/8" TBG.EOT @ 193'.SION.
09-05-84 SITP=50PSI.CONT POH W/4JTS 2-7/8" J-55,6.5#/FT,8RD EUE TBG,BAKER 'F' SN,1JT TBG,BAKER MOD R-3 PKR & 1JT TBG,TAILPIPE W/NOTCHED CL.MIRU WELEX PU & RIH W/5-1/2",12# CIBP ON WL & SET @ 6842',BTM @ 6844.5'.POH W/WL.RU PMP.FILLED HOLE.ZONE #1 TOOK 50BW SINCE PKR REL 09-04-84.PRESS TSTD CIBP & WELEX LUB TO 1000PSI & HELD.PU & RIH W/4" HSC PERF GUNS & PERFED 6832-38', & 10' INT 6812-22'.POH.ALL SHOTS FIRED.INT 6832-38' & 6996-6822' PERFED @ 2 SPF,120DEG PHASING & 23GM CHG.RD WELEX.PU & RIH W/1JT 2-7/8" TAILJT,BAKER MOD R-3 PKR,1JT TBG,BAKER 'F'SN & 212JTS 2-7/8" TBG.EOT @ 6682'.SET PKR. FILLED ANN W/2% KCL WTR W/0.2% NON-EMUL.ATTEMPTED TO TST PKR TO 1000PSI.AT 400PSI,EST CIRC @ TBG.MOVED PKR DN HOLE 1JT & UP HOLE 2JTS.PKR SET,BUT WOULDN'T TST W/SAME RESULTS.POH W/TBG,SN & PKR.PU NEW BAKER MOD R-3 ON TBG & RIH W/SN 1JT ABOVE PKR & 212JTS ABOVE SN W/EOT @ 6682'.SET PKR @ 6650' W/ SN @ 6614'.COULDN'T PRESS.WO KCL WTR.SET PKR W/22,000# COMP.INSTALLED TIW VALVE.SION.ZONE #1 BLWTR=55BBLS(PKR REL).ZONE #2 BLWTR=100BBLS.

WELL PROGRESS REPORT—Field
US 95368

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GUIDE MARGIN	DATE	YEAR	A. F. E.	LEASE AND WELL

dfs 39 COMPLETION 144 HOURS ENDING 10/02/84
field BRENNAN BOTTOMS location SEC 17, T7S,R21E oper CP
lse/blk BRENNAN FEDERAL county UINTAH state UT stat AC
well #8 refno DC3530 gwi 100.0000% operator GULF
rig GIBSON WS #51 st date 08/24/84 supervis KEBERT,S /G
afe 83670 auth $495,000 cumul cost $486,438
csg 5 1/2 @ 6998 auth. depth 0

10-08-84 NEW COMPLETION-ETP.PERFS/FMT:ZONES 1,2,3,& 4.PBTD 6952'.SN @ 6464' EOT @ 6495'.24HR TST.PROD 127 BF,WH CUT @ 45%,NO GRAVITY.NO WTR DRAINED.24 HR PROD RATE @ 70 BOPD & 57 BWPD,1-3/4" X 100" X 11-1/2SPM.WELL PMPG.FL @ 4830' I.E. 1634' ABOVE PMP.1423 BLWTR.
10-09-84 21HR TST.PROD 130 BF,NO WH CUT.HEATED TNKS.FOR SALE.DRAINED.WELL PROD 60 BO & 70 BW/21HR TST.24HR AVG @ 69 BOPD & 80 BWPD;F/TTL OF 149 BFPD. BLED DN WELL.MIRU CANNON WS #2.POH W/RODS & PMP.REL AC & LWRD TBG STRG INTO HOLE.TAGGED PBTD @ 6952',NO FILL-UP.POH & SET AC OFF BTM W/EOT @ 6932'.SN 6901',AC @ 6463',PMP INTAKE 10' BELOW BTM PERF(6891').RIH W/NEW 1-3/4" X 21 RHBC.PMP ON RODS.LONGSTROKED WELL & PR TSTD TO 700PSI.COULD NOT GET ENGINE STARTED.WO MECHANIC TO HANG WELL OFF.SION.DRAINED TTL OF 402 BLW.1021 BLWTR
10-10-84 HUNG WELL ON & STARTED PMPG TO 400BBL TST TNK.1-3/4" X 8-1/2SPM X 100" CORR BLWTR DUE TO TBG FLUSH-1131 BLWTR.
10-12-84 NEW COMPLETION-ETP.PERFS/FMT:ZONES 1,2,3,& 4.PBTD 6952'.SN @ 6901' EOT @ 6932'.WELL PROD 240 BFPD/24HR TST ENDING 10:30 AM,10-12-84.WH SAMPLE @ 37% WTR.BASED ON WH SAMPLE,WELL MADE 151 BOPD & 89 BWPD.NO WTR DRAINED F/ TST TNK.SWITCHED TNKS.GRAVITY ON WH SAMPLE @ 34.0 @ 114DEG F,CORR TO 30.1 DEG @ 60DEG F.HOOKED UP TRAILER MOUNTED HORIZONTAL PHASE SEPARATOR.METERING WTR TO PIT W/OIL GOING TO 400BBL TST TNK.FL IN WELL DROPPED TO 1186' ABOVE PMP.WELL PMPG @ 1-3/4" X 100" X 8-1/2SPM.
10-13-84 WELL PROD 189 BFPD/24HR TST THRU PORT TRTR ENDING 11AM,10-14-84. PROD @ 125 BOPD & 64 BWPD F/TTL @ 189 BFPD.WTR DUMPED TO PIT.SAMPLE TAKEN F/TRTR HAD GRINDOUT @ 0.1% W/GRAV @ 37.2DEG @ 136DEG F,CORR TO 31.5DEG @ 60 DEG F.SWITCHED TNKS.ORIFICE GAS METER W/3/8" ORIFICE IN 2" RUN W/AVG 32PSI. VENTING-137 MCF/DAY & TRTR FIRED F/PROD GAS.WELL PMPG @ 1-3/4" X 100" X 9 SPM.794 BLWTR.DROP!

WELL PROGRESS REPORT—Field
GUS 95368

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GUIDE MARGIN	DATE	YEAR	A. F. E.	LEASE AND WELL

10-01-84 PROD:136 BF TTL.WH SAMPLES AVG 15% BS & W.GRAVITY 36DEG @ 136DEG F PROD 116 BO & 20 BW.PMPG FL @ 4271'.WELL PMPG TO 400BBL TST TNKS W/1-3/4" X 100" X 10SPM.1625 BLWTR.
10-02-84 24HR TST PROD:143BF TTL.WH SAMPLES AVG 31% BS & W.GRAVITY 35.2DEG @ 185DEG F,CORR TO 29.8DEG @ 60DEG F.PROD 99BO & 44BW.PMPG TO TST TNKS.
10-02-84 NEW COMPLETION-ETP.PERFS/FMT:ZONES 1,2,3,& 4.PBTD 6952'.SN @ 6464' EOT @ 6495'.CONT'D: 1-3/4" X 100" X 10SPM.1621 BLWTR.
10-03-84 24HR TST:PROD 137 BF TTL.WH SAMPLES AVG 45% BS & W.GRAVITY:32.8 @ 110DEG F.CORR TO 29.3 @ 60DEG F.PROD 75 BO & 62 BW.WELL PMPG TO 400BBL TST TNKS.1-3/4" X 100" X 10SPM.1566 BLWTR.
10-04-84 PROD 115 BF TTL.WH SAMPLES AVG 45% BS & W.GRAVITY 35.9 @ 139DEG F, CORR TO 30.1 @ 60DEG F.PROD 63 BO & 52 BW.WELL PMPG TO 400BBL TST TNKS. 1-3/4" X 100" X 10SPM.1487 BLWTR.
10-05-84 PROD 124 BF TTL.WH SAMPLES AVG 37% BS & W.GRAVITY 34.8 @ 137DEG F. CORR TO 29.3DEG @ 60DEG F.PROD 78 BO & 46 BW.WELL PMPG TO 400BBL TST TNKS. 1-3/4" X 100" X 10SPM.1486 BLWTR.
10-06-84 21HR TST.PROD 105 BF,WH CUT 70%.DRAINED 48 BW F/TST TNK.24HR RATE: PMPD 36 BOPD,84 BWPD,1-3/4" X 100" X 10SPM.SD UNIT TO SHOOT FL.FLUID @ 4560 FT.START UP UNIT.INCR SPEED F/10SPM-11-1/4SPM.WELL NOT PMPG.TAG PMP.STILL WOULD NOT PMP UP.SLOW DN UNIT TO 8-1/2SPM.WELL FINALLY PMPD UP.CONSIDERABLE GAS IN TBG STREAM.1438 BLWTR.
10-07-84 PROD 95 BF.WH CUT:45%.GRAVITY:30.1DEG API @ 60DEG F.DRAINED 15 BW F/TST TNK.24HR RATE:PMPD 52 BOPD,43 BWPD,1-3/4" X 100" X 8-1/2SPM.WELL PMPG FL @ 4530'.INCR SPEED F/8-1/2SPM TO 11-1/2SPM.WELL PR UP VERY SLOWLY.1423 BLWTR.

Form OGC-3

CONFIDENTIAL

SUBMIT IN DUPLICATE*
(See other instructions on reverse side)

56 64 01 15

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

WELL COMPLETION OR RECOMPLETION REPORT AND LOG*

1a. TYPE OF WELL: OIL WELL [X] GAS WELL [ ] DRY [ ] Other

b. TYPE OF COMPLETION: NEW WELL [X] WORK OVER [ ] DEEP-EN [ ] PLUG BACK [ ] DIFF. RESVR. [ ] Other

RECEIVED NOV 08 1984 DIVISION OF OIL GAS & MINING

2. NAME OF OPERATOR: Gulf Oil Corporation

3. ADDRESS OF OPERATOR: P. O. Box 2619, Casper, WY 82602-2619

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements)*
At surface: 660' FSL & 2250' FEL (SW SE)
At top prod. interval reported below: same
At total depth: same

5. LEASE DESIGNATION AND SERIAL NO.: SL-066409-A
6. IF INDIAN, ALLOTTEE OR TRIBE NAME:
7. UNIT AGREEMENT NAME:
8. FARM OR LEASE NAME: Brennan Federal
9. WELL NO.: #8
10. FIELD AND POOL, OR WILDCAT: Brennan Bottom
11. SEC., T., R., M., OR BLOCK AND SURVEY OR AREA: Section 17-T7S-R21E

14. PERMIT NO.: API #43-047-31509 | DATE ISSUED: 7-13-84
12. COUNTY OR PARISH: Uintah | 13. STATE: Utah

15. DATE SPUDDED	16. DATE T.D. REACHED	17. DATE COMPL. (Ready to prod.)	18. ELEVATIONS (DF, RKB, RT, GR, ETC.)*	19. ELEV. CASINGHEAD
7-31-84	8-12-84	10-12-84	4780' KB; 4767' GL	

20. TOTAL DEPTH, MD & TVD	21. PLUG, BACK T.D., MD & TVD	22. IF MULTIPLE COMPL., HOW MANY*	23. INTERVALS DRILLED BY	ROTARY TOOLS	CABLE TOOLS
7000' MD	6952'		→	0-TD	

24. PRODUCING INTERVAL(S), OF THIS COMPLETION—TOP, BOTTOM, NAME (MD AND TVD)*: Green River 6,544'- 6,891' (gross)

25. WAS DIRECTIONAL SURVEY MADE: No

26. TYPE ELECTRIC AND OTHER LOGS RUN: DIL-SFL (with GR & SP), FDC-CNL (with GR & CAL), Cyberlook, BHC Acs

27. WAS WELL CORED: No

28. CASING RECORD (Report all strings set in well)

CASING SIZE	WEIGHT, LB./FT.	DEPTH SET (MD)	HOLE SIZE	CEMENTING RECORD	AMOUNT PULLED
8-5/8"	24	420'	12-1/4"	280 sx	---
5-1/2"	17	6998'	7-7/8"	1005 sx	---

29. LINER RECORD

SIZE	TOP (MD)	BOTTOM (MD)	SACKS CEMENT*	SCREEN (MD)

30. TUBING RECORD

SIZE	DEPTH SET (MD)	PACKER SET (MD)
2-7/8"	6932'	None

31. PERFORATION RECORD (Interval, size and number): SEE ATTACHED

32. ACID, SHOT, FRACTURE, CEMENT SQUEEZE, ETC.

DEPTH INTERVAL (MD)	AMOUNT AND KIND OF MATERIAL USED
SEE ATTACHED.	

33.* PRODUCTION

DATE FIRST PRODUCTION	PRODUCTION METHOD (Flowing, gas lift, pumping—size and type of pump)	WELL STATUS (Producing or shut-in)
8-31-84	Pumping 1-3/4" rod pump	Producing

DATE OF TEST	HOURS TESTED	CHOKE SIZE	PROD'N. FOR TEST PERIOD	OIL—BBL.	GAS—MCF.	WATER—BBL.	GAS-OIL RATIO
10-11-84	24 hours	---	→	151	137	89	907:1

FLOW. TUBING PRESS.	CASING PRESSURE	CALCULATED 24-HOUR RATE	OIL—BBL.	GAS—MCF.	WATER—BBL.	OIL GRAVITY-API (CORR.)
---	30 psig	→	151	137	89	30.1

34. DISPOSITION OF GAS (Sold, used for fuel, vented, etc.): Vented

TEST WITNESSED BY:

35. LIST OF ATTACHMENTS: Perforations, Acidize, etc.

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

SIGNED: J. R. Bocek (DTM 10/31/84) TITLE: Area Engineer DATE: NOV 6 1984

*(See Instructions and Spaces for Additional Data on Reverse Side)

INSTRUCTIONS

General: This form is designed for submitting a complete and correct well completion report and log on all types of lands and leases to either a Federal agency or a State agency, or both, pursuant to applicable Federal and/or State laws and regulations. Any necessary special instructions concerning the use of this form and the number of copies to be submitted, particularly with regard to local, area, or regional procedures and practices, either are shown below or will be issued by, or may be obtained from, the local Federal and/or State office. See instructions on items 22 and 24, and 33, below regarding separate reports for separate completions.
If not filed prior to the time this summary record is submitted, copies of all currently available logs (drillers, geologists, sample and core analysis, all types electric, etc.), formation and pressure tests, and directional surveys, should be attached hereto, to the extent required by applicable Federal and/or State laws and regulations. All attachments should be listed on this form, see item 35.
Item 4: If there are no applicable State requirements, locations on Federal or Indian land should be described in accordance with Federal requirements. Consult local State or Federal office for specific instructions.
Item 18: Indicate which elevation is used as reference (where not otherwise shown) for depth measurements given in other spaces on this form and in any attachments.
Items 22 and 24: If this well is completed for separate production from more than one interval zone (multiple completion), so state in item 22, and in item 24 show the producing interval, or intervals, top(s), bottom(s) and name(s) (if any) for only the interval reported in item 33. Submit a separate report (page) on this form, adequately identified, for each additional interval to be separately produced, showing the additional data pertinent to such interval.
Item 29: *"Sacks Cement":* Attached supplemental records for this well should show the details of any multiple stage cementing and the location of the cementing tool.
Item 33: Submit a separate completion report on this form for each interval to be separately produced. (See instruction for items 22 and 24 above.)

37. SUMMARY OF POROUS ZONES:
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	BOTTOM	DESCRIPTION, CONTENTS, ETC.
L. Green River	6544'	6550'	Ostracodal Limestone
L. Green River	6648'	6652'	Ostracodal Limestone
L. Green River	6696'	6700'	Ostracodal Limestone/Dol. Shale
L. Green River	6710'	6714'	Ostracodal Limestone/Dol. Shale
L. Green River	6719'	6729'	Dolomitic Limestone & Shale
L. Green River	6744'	6748'	Ostracodal Limestone
L. Green River	6752'	6764'	Ostracodal Limestone
L. Green River	6796'	6822'	Ostracodal Limestone & Marl
L. Green River	6832'	6838'	Ostracodal Limestone & Marl
L. Green River	6846'	6850'	Sandstone/Ostracodal Limestone & Marl
L. Green River	6866'	6891'	Shaley Sandstone & Silt

38. GEOLOGIC MARKERS

NAME	TOP	
	MEAS. DEPTH	TRUE VERT. DEPTH
Green River	3405'	3405'
L. Green River	5794'	5794'
Wasatch	6875'	6875'

Perforations, Acidize, Etc.

8-29-84	Perf 6876'-6891', 6866'-6876', 6846'-6850' w/4" HSC gun, 2 JSPF, 23 gm. charges.
8-30-84	Acidize perfs w/3,000 gals 15% HCL w/10% Glacial Acetic Acid.
9-05-84	Set CIBP at 6842'. Perf 6832'-6838, 6812'-6822', 6796'-6812', w/4" HSC gun, 2 JSPF, 23 gm. charges.
9-06-84	Acidize perfs 6832'-6838', 6796'-6822' w/3,000 gals 15% HCL w/300 gals raw Glacial Acetic Acid.
9-10-84	Set CIBP at 6790'.
9-11-84	Perf 6752'-6764', 6744'-6748', 6719'-6729', 6710'-6714', 6696'-6700', 6648'-6652' w/4" HSC gun, 2 JSPF, 23 gm. charges.
9-12-84	Acidize perfs 6752'-6764', 6744'-6748', 6719'-6729', 6710'-6714', 6696'-6700', 6648'-6652' w/4,500 gals 15% HCL w/10% Glacial Acetic Acid.
9-14-84	Set CIBP at 6640'. Perf 6544'-6550' w/4" HSC gun, 2 JSPF, 23 gm. charges.
9-15-84	Acidize perfs 6544'-6550' w/500 gals 15% HCL w/10% Glacial Acetic Acid.
9-19-84	Drilled out CIBP set at 6640'.
9-20-84	Drilled out CIBP set at 6790'.
9-22-84	Drilled out CIBP set at 6842'.

Gulf Oil Exploration and Production Company

L. G. Rader
PRODUCTION MANAGER – CASPER AREA

July 2, 1985

P. O. Box 2619
Casper, WY 82602

State of Utah
Division of Oil, Gas and Mining
355 West North Temple
3 Triad Center, Suite 350
Salt Lake City, Utah 84180-1203

RECEIVED
JUL 05 1985
DIVISION OF
GAS & MI

Gentlemen:

Effective July 1, 1985, the corporate name of Gulf Oil Corporation was changed to Chevron U.S.A. Inc. This will be applicable to all operations, agreements, contracts, documents, and permits of Gulf Oil Corporation in the area of and/or under your jurisdiction.

The attached information is being furnished to facilitate the name change of appropriate records under your authority, and submitted as our understanding of the procedure required to accomplish the change.

Please advise this office or the office listed on the attachments should additional information be needed.

Sincerely,

L. G. Rader

KWR/mdb

Attachments

Lease Name	Field	Section	Township	Range	County	State
Anderson, Owen 1-28A2	Bluebell	28	1S	2W	Duchesne	UT
Antelope Draw Fed. 1-19-2C	Natural Buttes	19	8S	22W	Uintah	UT
Antelope Draw Fed. 2-17-4C	Undesignated	17	8S	22W	Uintah	UT
Antelope Draw Fed. 3-17-3C	Natural Buttes	17	8S	22W	Uintah	UT
Black Jack Ute 1-142D	Altamont	14	4S	6W	Duchesne	UT
Blue Bench/Ute 1-7C4	Altamont	7	3S	4W	Duchesne	UT
Bobo Ute 1-16B2	Altamont	16	4S	6W	Duchesne	UT
Brennan Federal #1	Brennan Bottoms	13	7S	20E	Uintah	UT
Brennan Federal #3	Brennan Bottoms	17	8S	22W	Uintah	UT
Brennan Federal #6	Brennan Bottoms	19	7S	21E	Uintah	UT
Brennan Federal #8	Brennan Bottoms	17	7S	21E	Uintah	UT
Campbell Ute/State 1-7B1	Bluebell	7	2S	1W	Duchesne	UT
Campbell,Darwod Ute 1-12B2	Bluebell	12	2S	2W	Duchesne	UT
Cheney 1-33-A2	Bluebell	33	1S	2W	Duchesne	UT
Cheney 2-33-A2	Bluebell	33	1S	2W	Duchesne	UT
Costas Federal 1-20-4B	Gypsum Hills	20	8S	21E	Uintah	UT
Costas Federal 2-20-3B	Undesignated	20	8S	21E	Uintah	UT
Costas Federal 3-21-1D	Undesignated	21	8S	21E	Uintah	UT
Dillman 2-2BA2	Bluebell	28	1S	2W	Duchesne	UT
Duchesne Co. Snyder 1-9C4	Altamont	9	3S	4W	Duchesne	UT
Duchesne Co. Tribal 1-3C4	Altamont	17	3S	4W	Duchesne	UT
Duchesne County 1-17C4	Altamont	17	3S	4W	Duchesne	UT
Evans Ute 1-17B3	Altamont	17	2S	3W	Duchesne	UT
Evans Ute 2-27B3	Altamont	17	2S	3W	Duchesne	UT
Fortune Ute Fed. 1-11C5	Altamont	11	3S	5W	Altamont	UT
Freston State 1-8B1	Bluebell	8	2S	1W	Duchesne	UT
Geritz Murphy 1-6C4	Altamont	6	3S	4W	Duchesne	UT
Gypsum Hills Unit Fed. #1	Gypsum Hills	17	8S	21E	Uintah	UT
Gypsum Hills Unit Fed. #3	Gypsum Hills	17	8S	21E	Uintah	UT
Gypsum Hills Unit Fed. #4	Gypsum Hills	19	8S	21E	Uintah	UT
Gypsum Hills Unit Fed. #6	Gypsum Hills	20	8S	21E	Uintah	UT
Hamblin 1-26A2	Bluebell	26	1S	2W	Duchesne	UT
Hamblin 2-26A2	Bluebell	26	1S	2W	Duchesne	UT
Holmes/Federal #1	Horseshoe Bend	5	7S	22E	Uintah	UT
Jenks Robertson Ute 1-1B1	Bluebell	1	2S	1W	Uintah	UT
Joan Federal #1	Undesignated	19	7S	21E	Uintah	UT
John 1-3B2	Bluebell	3	2S	2W	Duchesne	UT
John 2-3B2	Bluebell	3	2S	2W	Duchesne	UT

06/27/85
leases gulf operated/file2

Chevron

Chevron U.S.A. Inc.
Overthrust Area Office, P. O. Drawer AA, Evanston, WY 82930

RECEIVED
JUN 12 1986
DIVISION OF
OIL, GAS & MINING

T. L. Perryman
Area Operations Superintendent

June 9, 1986

cc: Board
DR Nielson
RJ Firth
JR Baza
MC Moench
BW Roberts

Request for Venting Approval
Under Rule 311.3
Brennan 8-17-G21
SW/4, SE/4, Section 17, T7S, R21E
Uintah County, Utah

Mr. Gregory P. Williams
Chairman, Utah Board of Oil, Gas & Mining
355 West North Temple
3 Triad Center - Suite 350
Salt Lake City, Utah 84180-1203

Dear Mr. Williams:

As you know, as a result of a recent merger Chevron acquired Gulf properties in Utah. We have been reviewing these properties. A production test of the captioned well on May 17, 1986 determined a GOR of 2.07 MCF/BBL oil and oil production of 50 BOPD, resulting in venting of an estimated 100 MCFD. Immediately upon this determination, Chevron cut back oil production in order to limit venting of gas to less than an average of 25 MCFD as required by Rule 311.3.

Chevron respectfully requests approval to vent approximately 100 MCFD of associated gas from the Brennan 8-17-G21 Well based on the following information:

1. The attached chemical analysis of the produced gas.

2. The estimated gas reserves have been calculated to be 210 MMCF. Of this total, it is estimated that 128 MMCF would be used as lease fuel and that 82 MMCF would be vented.

3. There is a Mountain Fuel pipeline approximately 2.5 miles from the well. Estimated construction cost of a pipeline, dehydrator and compressor to market the gas is $286,000. Assuming that Mountain Fuel could take the gas at $1.80/MCF, which they stated they would not do, the total value of the gas reserves of 82 MMCF is only $148,000.

4. The estimated gas price at the nearest market is $1.80/MCF based on current market value.

5. Reinjection of the gas would require drilling a new injection well at a cost of approximately $650,000, as compared to the total gas value of $148,000.

6. Chevron's Wonsits Valley Unit is approximately seven miles away. The estimated construction cost for a pipeline to take the gas to Wonsits for fuel gas is $300,000, as compared to the total gas value of $148,000.

Your early consideration and approval of this request would be appreciated. If you have any questions concerning this information, please contact me at (307) 789-5841.

Very truly yours,

T L Perryman/GHT

T. L. Perryman

JFN:gp
Attachment

UINTA RESEARCH AND ANALYTICAL SERVICES
231 E. 200 N. (801) 722-2532
ROOSEVELT, UTAH 84066

SAMPLE PRODUCED BY: CHEVRON USA INC

TOWNSHIP: RANGE: SECTION:
LOCATION: VERNAL UTAH ANALYSIS DATE: 5-21-86
SAMPLE #: GC 3504 CYL #:21
LINE PRESS: WELL #: BRENNAN FED # 3 & 8
CYL PRESS: SAMPLED BY: JS
DATE SAMPLED: 5-21-86 ANALYST:JS

RECEIVED
JUN 12 1986
DIVISION OF
OIL, GAS & MINING

BTU/CU FT (BASE PRESS DRY @ 14.73)= 1395.5
BTU/CU FT (BASE PRESS WET @ 14.73 = 1371.22
SPECIFIC GRAVITY/BASED ON ANALYSIS(VAPOR)= .809
SPECIFIC GRAVITY/BASED ON ANALYSIS(LIQUID)= 1.404
SPECIFIC GRAVITY/RANAREX FIELD OBSERVED-=.848

PSEUDOCRITICAL TEMPERATURE= 421 ,RANKIN
PSEUDOCRITICAL PRESSURE= 660 PSIA

ABSOLUTE VIS = 6.25828E-6 (LB MASS/FT SEC. @ 40 1 ATM)

COMPONENT	MOL %	LIQ VOL %	GAL/MCF
HYDROGEN SULFIDE	0	0	0
HYDROGEN	0	0	0
NITROGEN	.11	0	0
OXYGEN	0	0	0
METHANE	76.88	65.46	13
CARBON DIOXIDE	.46	0	0
CARBON MONOXIDE	0	0	0
ETHANE	6.9	9.84	1.65
ETHYLENE	0	0	0
PROPANE	7.33	10.2	2.02
PROPYLENE	0	0	0
ISOBUTANE	1.36	2.23	.45
N-BUTANE	3.2	5.07	1.01
BUTENE-1, I-BU	0	0	0
TRANS-BUTENE-2	0	0	0
CIS-BUTENE-2	0	0	0
ISOPENTANE	.95	1.7[illegible]	.35
N-PENTANE	1.43	2.6	.52
C5 UNSAT,C6 PLUS	1.38	2.85	.57
TOTAL	100	100	19.7[illegible]

REMARKS :

THANK YOU FOR THE BUSINESS

Form 3160-5
(November 1983)
(Formerly 9-331)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

SUBMIT IN TRIPLICATE*
(Other instructions on reverse side)

Form approved.
Budget Bureau No. 1004-0135
Expires August 31, 1985

5. LEASE DESIGNATION AND SERIAL NO. SL-066409-A POW

6. IF INDIAN, ALLOTTEE OR TRIBE NAME 051135

SUNDRY NOTICES AND REPORTS ON WELLS

(Do not use this form for proposals to drill or to deepen or plug back to a different reservoir. Use "APPLICATION FOR PERMIT—" for such proposals.)

RECEIVED
MAY 8 1987
DIV. OIL, GAS, MINING

1. OIL WELL [X] GAS WELL [ ] OTHER

2. NAME OF OPERATOR: Chevron U.S.A. Inc.

3. ADDRESS OF OPERATOR: P. O. Box 599, Denver, Colorado 80201

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.* See also space 17 below.) At surface: 660' FSL, 2250' FEL

7. UNIT AGREEMENT NAME: Brennan Bottom

8. FARM OR LEASE NAME: Brennan Federal

9. WELL NO.: 8

10. FIELD AND POOL, OR WILDCAT:

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA: S17, T7S, R21E

14. PERMIT NO. 43-047-31509

15. ELEVATIONS (Show whether DF, RT, GR, etc.): 4767'

12. COUNTY OR PARISH: Uintah

13. STATE: Utah

16. Check Appropriate Box To Indicate Nature of Notice, Report, or Other Data

NOTICE OF INTENTION TO:				SUBSEQUENT REPORT OF:			
TEST WATER SHUT-OFF	[ ]	PULL OR ALTER CASING	[ ]	WATER SHUT-OFF	[ ]	REPAIRING WELL	[ ]
FRACTURE TREAT	[ ]	MULTIPLE COMPLETE	[ ]	FRACTURE TREATMENT	[ ]	ALTERING CASING	[ ]
SHOOT OR ACIDIZE	[ ]	ABANDON*	[ ]	SHOOTING OR ACIDIZING	[ ]	ABANDONMENT*	[ ]
REPAIR WELL	[ ]	CHANGE PLANS	[ ]	(Other)			[ ]
(Other) gas sales			[ ]	(NOTE: Report results of multiple completion on Well Completion or Recompletion Report and Log form.)			

17. DESCRIBE PROPOSED OR COMPLETED OPERATIONS (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)*

By Sundry Notice dated June 30, 1986, Chevron U.S.A. Inc. requested permission to flare up to 25 MCF/D from this well.

Commencing Friday, April 24, 1987, this gas is now being sold to Pennacle Natural Gas.

3 - BLM
3 - State
1 - EEM
1 - MKD
1 - Cent. File
1 - File

18. I hereby certify that the foregoing is true and correct

SIGNED J K Watson TITLE Office Assistant DATE May 5, 1987

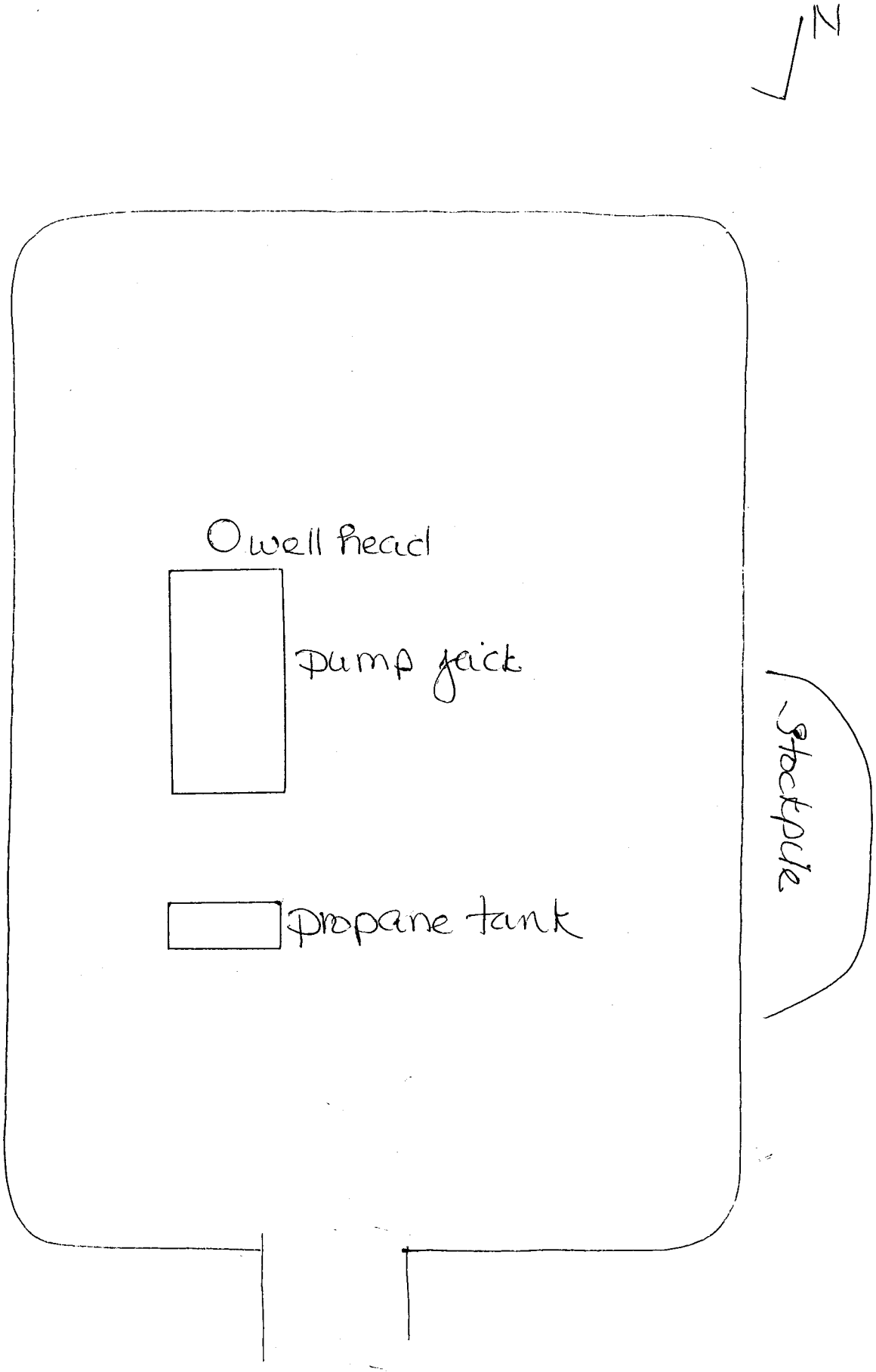
(This space for Federal or State office use)

APPROVED BY _____ TITLE _____ DATE _____
CONDITIONS OF APPROVAL, IF ANY:

*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 matter within its jurisdiction.

Gulf Brennan Fed 8 Sec 17, T7S, R31E Chubby 3/22/89



BEFORE THE BOARD OF OIL, GAS AND MINING
DEPARTMENT OF NATURAL RESOURCES
IN AND FOR THE STATE OF UTAH

---ooOoo--

IN THE MATTER OF GAS FLARING BY CHEVRON U.S.A., INC. FROM	:	FINDINGS AND CONCLUSIONS
THE BRENNAN 8-17-G21 WELL,	:	DOCKET NO. 86-018
LOCATED IN SECTION 21, TOWNSHIP 7 SOUTH, RANGE 21 EAST, UINTAH COUNTY, UTAH	:	CAUSE NO. 196-20

---ooOoo--

Pursuant to the Order to Show Cause issued by the Board of Oil, Gas and Mining, this matter came on for hearing before a Hearing Examiner appointed by the Board of Oil, Gas and Mining at 10:00 a.m. on Tuesday, July 29, 1986, in the office of the Division of Oil, Gas and Mining, 355 West North Temple, 3 Triad Center, Suite 350, Salt Lake City, Utah.

The following staff members were present:

Ronald J. Firth, Hearing Examiner
Marjorie L. Anderson, Secretary of the Board
John R. Baza, Petroleum Engineer

Appearances were made as follows:

Chevron U.S.A., Inc.:

W. M. Balkovatz, Attorney
B. J. Kilpatrick, Evanston Area Superintendent
D. F. Forsgren

Bureau of Land Management:

Howard Lemm, Chief, Branch of Fluid Minerals
Bob Hendicks, Petroleum Engineer
Allen McKee, Petroleum Engineer

Also present:

Robert G. Pruitt, Jr; John D. Steuble; and
David E. Taft, representing Lomax Exploration Company.

The representatives for Chevron testified as to why Chevron should be allowed to flare or vent a greater amount of produced gas from the Brennan 8-17-G21 well than allowed by Rule 311.3 of the Oil and Gas Conservation General Rules. No evidence of opposition to the Order to Show Cause was received prior to, or on the date scheduled for the hearing of this matter.

NOW, THEREFORE, the Hearing Examiner, having considered the testimony and statements presented and being fully advised in the premises, now makes and enters the following:

FINDINGS AND CONCLUSIONS

1. Due and regular notice of the time, place and purpose of the hearing was given to all interested parties as required by law and the rules of the Board.

2. The Board has jurisdiction over the matter covered by the Order to Show Cause and all parties interested therein and has jurisdiction to make and promulgate the order in this matter.

3. Rule 311.3 of the Oil and Gas Conservation General Rules, effective December 2, 1985, (formerly Rule C-27) describes the required procedures necessary for requesting Board approval to flare or vent produced gas in amounts greater than allowed by the rule.

4. By letter dated June 9, 1986, Chevron, in accordance with Rule 311.3 of the General Rules and Regulations, requested the approval of the Board of Oil, Gas and Mining to allow flaring of approximately 100 MCF of associated gas per day from the Brennan 8-17-G21 well. The Board reviewed the Chevron request and justification statements at the June 26, 1986, monthly briefing session. The Board designated Ronald J. Firth of the Division staff, as a Hearing Examiner, to conduct a hearing on the matter to be initiated by an Order to Show Cause, and in accordance with the Procedural Rules of the Board.

5. Mr. Balkovatz, Chevron's representative, by motion, requested that the Chevron letter dated June 9, 1986, which specifically detailed economic calculations, well production and decline, current oil and gas measurement results and marketing concerns, be made a part of the hearing record. The Hearing Examiner accepted and received the letter for the record. Chevron representatives, Mr. Balkovatz and Mr. Kilpatrick presented further information and testimony as substantiation and justification for consideration of the gas flaring approval including:

1) Lack of gas sales market.

2) Isolated location of the well renders it economically impractical to construct facilities for gathering gas.

3) Due to the characteristics of the produced crude oil, continuous operation of the well at maximum withdrawal rates is most practical and necessary.

4) Reduction in the oil production rate may or may not decrease the gas production rate and lower the GOR.

5) Reduction in gas production volume to 25 MCF/D, would affect the operating characteristics to the extent of causing possible premature abandonment of the well, thus constituting waste.

6. The Chevron Brennan 8-17-G21 well is presently producing 50 BOPD and venting approximately 100 MCF/D. Economic calculations based on these present production volumes indicate insufficient value would be available from the minimal remaining gas reserves to cover pipeline and facilities construction costs for the possible pipeline connections available and also the alternative, reinjection of the gas. These anticipated economic considerations, the remaining volume of gas reserves, and the volume of gas available for sale would also preclude Chevron from negotiating a favorable gas sales contract.

7. Mr. Howard Lemm, representing the Federal Bureau of Land Management, indicated that, given the information in the Chevron letter of June 9, 1986 and the additional testimony at the hearing, the BLM would grant approval of Chevron's flaring request upon receipt of a NTL-A request for flaring.

8. Pursuant to the foregoing Findings and Conclusions, and being advised in the premises by the Hearing Examiner, the Board has sufficient evidence available to promulgate an appropriate order in this matter.

DATED this 29th day of July, 1986.

HEARING EXAMINER

Ronald J. Firth

120103

BEFORE THE BOARD OF OIL, GAS AND MINING
DEPARTMENT OF NATURAL RESOURCES
IN AND FOR THE STATE OF UTAH

POW
43-047-31509
7s 21E Sec. 17

---ooOoo--

IN THE MATTER OF GAS FLARING BY CHEVRON U.S.A., INC. FROM THE BRENNAN 8-17-G21 WELL LOCATED IN SECTION 17, TOWNSHIP 7 SOUTH, RANGE 21 EAST, UINTAH COUNTY, UTAH	:	ORDER DOCKET NO. 86-018 CAUSE NO. 196-20

---ooOoo--

Pursuant to the Order to Show Cause issued by the Board of Oil, Gas and Mining, this matter came on for hearing before a Hearing Examiner appointed by the Board of Oil, Gas and Mining at 10:00 a.m. on Tuesday, July 29, 1986, in the office of the Division of Oil, Gas and Mining, 355 West North Temple, 3 Triad Center, Suite 350, Salt Lake City, Utah.

The following staff members were present:

Ronald J. Firth, Hearing Examiner
Marjorie L. Anderson, Secretary of the Board
John R. Baza, Petroleum Engineer

Appearances were made as follows:

Chevron U.S.A., Inc.:

W. M. Balkovatz, Attorney
B. J. Kilpatrick, Evanston Area Superintendent
D. F. Forsgren

Bureau of Land Management:

Howard Lemm, Chief, Branch of Fluid Minerals
Bob Hendicks, Petroleum Engineer
Allen McKee, Petroleum Engineer

Also present:

Robert G. Pruitt, Jr; John D. Steuble; and
David E. Taft, representing Lomax Exploration Company.

The representatives for Chevron testified as to why Chevron should be allowed to flare or vent a greater amount of produced gas from the Brennan 8-17-G21 well than allowed by Rule 311.3 of the Oil and Gas Conservation General Rules. No evidence of opposition to the Order to Show Cause was received prior to, or on the date scheduled for the hearing of this matter.

FINDINGS AND CONCLUSIONS

The Hearing examiner, having considered the testimony and statements presented and being fully advised in the premises, made and entered on July 29, 1986:

1. Due and regular notice of the time, place and purpose of the hearing was given to all interested parties as required by law and the rules of the Board.

2. The Board has jurisdiction over the matter covered by the Order to Show Cause and all parties interested therein and has jurisdiction to make and promulgate the order in this matter.

3. Rule 311.3 of the Oil and Gas Conservation General Rules, effective December 2, 1985, (formerly Rule C-27) describes the required procedures necessary for requesting Board approval to flare or vent produced gas in amounts greater than allowed by the rule.

4. By letter dated June 9, 1986, Chevron, in accordance with Rule 311.3 of the General Rules and Regulations, requested the approval of the Board of Oil, Gas and Mining to allow flaring of approximately 100 MCF of associated gas per day from the Brennan 8-17-G21 well. The Board reviewed the Chevron request and justification statements at the June 26, 1986, monthly briefing session. The Board designated Ronald J. Firth of the Division staff, as a Hearing Examiner, to conduct a hearing on the matter to be initiated by an Order to Show Cause, and in accordance with the Procedural Rules of the Board.

5. Mr. Balkovatz, Chevron's representative, by motion, requested that the Chevron letter dated June 9, 1986, which specifically detailed economic calculations, well production and decline, current oil and gas measurement results and marketing

concerns, be made a part of the hearing record. The Hearing Examiner accepted and received the letter for the record. Chevron representatives, Mr. Balkovatz and Mr. Kilpatrick presented further information and testimony as substantiation and justification for consideration of the gas flaring approval including:

1) Lack of gas sales market.

2) Isolated location of the well renders it economically impractical to construct facilities for gathering gas.

3) Due to the characteristics of the produced crude oil, continuous operation of the well at maximum withdrawal rates is most practical and necessary.

4) Reduction in the oil production rate may or may not decrease the gas production rate and lower the GOR.

5) Reduction in gas production volume to 25 MCF/D, would affect the operating characteristics to the extent of causing possible premature abandonment of the well, thus constituting waste.

6. The Chevron Brennan 8-17-G21 well is presently producing 50 BOPD and venting approximately 100 MCF/D. Economic calculations based on these present production volumes indicate insufficient value would be available from the minimal remaining gas reserves to cover pipeline and facilities construction costs for the possible pipeline connections available and also the alternative, reinjection of the gas. These anticipated economic considerations, the remaining volume of gas reserves, and the volume of gas available for sale would also preclude Chevron from negotiating a favorable gas sales contract.

7. Mr. Howard Lemm, representing the Federal Bureau of Land Management, indicated that, given the information in the Chevron letter of June 9, 1986 and the additional testimony at the hearing, the BLM would grant approval of Chevron's flaring request upon receipt of a NTL-A request for flaring.

ORDER

NOW, THEREFORE, the Board in accordance with the Finding and Conclusions of the Hearing Examiner and being fully advised in the premises, now makes and enters the following Order:

1. Associated gas from the Brennan 8-17-G21 well may be flared or vented as follows:

a.) The well may be fully produced and all gas produced therefrom may be flared or vented so long as the gas oil ratio (GOR) is 2000:1 or less;

b.) If the GOR exceeds 2000:1, the well may be produced at a restricted rate, the amount to be 100 MCF/day or as determined by the following formula, whichever is greater:

Reduced Rate=(2000/Actual GOR) X 100% Deliverability.

2. In any case, Chevron is directed to routinely and accurately measure the volume of flared or vented gas and report those volumes to the Division on the Monthly Oil and Gas Disposition Report, Form DOGM 56-64-22.

3. If the well conditions or circumstances change, either the Division staff or Chevron may apply to the Board for a revised Order or other relief as appropriate.

4. The Board retains continuing jurisdiction over the parties and concerns in the matter.

DATED this 31st day of July, 1986.

STATE OF UTAH
BOARD OF OIL, GAS AND MINING

Gregory P. Williams, Chairman

Approved As To Form:

Mark C. Moench
Assistant Attorney General

BEFORE THE BOARD OF OIL, GAS AND MINING
DEPARTMENT OF NATURAL RESOURCES
STATE OF UTAH

---ooOoo---

IN THE MATTER OF GAS FLARING BY CHEVRON U.S.A., INC. FROM THE BRENNAN 8-17-G21 WELL LOCATED IN SECTION 17, TOWNSHIP 7 SOUTH, RANGE 21 EAST, UINTAH COUNTY, UTAH	:	ORDER TO SHOW CAUSE DOCKET NO. 86-018 CAUSE NO. 196-20

---ooOoo---

THE STATE OF UTAH TO ALL OPERATORS, TAKERS OF PRODUCTION, MINERAL AND ROYALTY OWNERS, AND PARTICULARLY ALL PERSONS INTERESTED IN UINTAH COUNTY, UTAH.

Notice is hereby given that a Hearing Examiner appointed by the Board of Oil, Gas and Mining will conduct a hearing on Tuesday, July 29, 1986 at 10:00 a.m. in the office of the Division of Oil, Gas and Mining, 355 West North Temple, 3 Triad Center, Suite 350, Salt Lake City, Utah.

The purpose of this proceeding will be to allow Chevron U.S.A., Inc. ("Chevron") the opportunity to show further cause as to why Chevron should be allowed to flare or vent a greater amount of produced gas than allowed by Rule 311.3 of the Oil and Gas Conservation General Rules, from the Brennan 8-17-G21 well.

Persons interested in this matter may participate pursuant to the Procedural Rules of the Board.

DATED this 27th day of June, 1986.

STATE OF UTAH
BOARD OF OIL, GAS AND MINING

Marjorie L. Anderson
Secretary of the Board

Chevron gas flaring matter
Hearing examiner: R.J. Firth
July 29, 1986

Bill Balkovatz, Chevron
Refers to letter of June 9, 1986. Feels that justification stated in letter was adequate.

Mr. B.J. Kirkpatrick, Chevron, Area Superintendant.
Maximum prod. capability - 50 BOPD, 100 MCFD
Cutting back to 25 Mcf/D may not be possible by restricting production. Gas prod. will not decrease proportionally to cut back in oil prod.

Mr. Firth - questions:
1. Venting 100 Mcf/D (does not include fuel gas)

Howard Lemm, BLM
Feels that adequate justification is available for the venting of gas. State rules specify amt. of gas production rather than amounts actually being vented.

LAW OFFICES
PRUITT, GUSHEE & BACHTELL
SUITE 1850 BENEFICIAL LIFE TOWER
SALT LAKE CITY, UTAH 84111-1495
(801) 531-8446
TELECOPIER (801) 531-8468
E-MAIL: pgb.law@cwix.com

THOMAS W. BACHTELL
A. JOHN DAVIS, III
JOHN W. ANDERSON
FREDERICK M. MACDONALD
GEORGE S. YOUNG
JOHN F. WALDO
ANGELA L. FRANKLIN
JOHN S. FLITTON
MICHAEL S. JOHNSON
WILLIAM E. WARD

SENIOR COUNSEL:
ROBERT G. PRUITT, JR.
OLIVER W. GUSHEE, JR.

OF COUNSEL:
ROBERT G. PRUITT, III
BRENT A. BOHMAN

December 30, 1999

HAND DELIVERED

Mr. John R. Baza
Associate Director - Oil & Gas
Utah Division of Oil, Gas and Mining
1594 W. North Temple, Suite 1210
Salt Lake City, UT 84114-5801

Re: Sundry Notices
Change of Operator
Chevron U.S.A.Inc. to Shenendoah Energy Inc.

Dear John:

Enclosed for your offices further handling please find, in duplicate original, sundry notices evidencing the change of operator from Chevron U.S.A. Inc. to Shenendoah Energy Inc. ("Shenendoah") of numerous wells and units in the Uinta Basin. With respect to bonding, please be advised that Shenendoah has the following bonds:

- Federal (nationwide) Bond No. 124290364;
- State (SITLA) Bond No. 159261960;
- State (fee) Letter of Credit No. A5857; and
- EPA Bond No. 929126307.

Should you have any further questions, please advise. Thank you again for your cooperation and I wish you and the rest of the Division personnel a Happy New Year!

Very truly yours,

Frederick M. MacDonald

FMM:se
0725.83
Enclosures
cc: Sherri Way, Esq.
Charles F. Holmes

RECEIVED
DEC 30 1999
DIVISION OF OIL, GAS & MINING

Form 3160-5
(June 1990)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

FORM APPROVED
Budget Bureau No. 1004-0135
Expires: March 31, 1993

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill or to deepen or reentry to a different reservoir
Use "APPLICATION FOR PERMIT--" for such proposals

SUBMIT IN TRIPLICATE

5. Lease Designation and Serial No.: SL-066409L
6. If Indian, Allottee or Tribe Name: N/A
7. If Unit or CA, Agreement Designation:
8. Well Name and No.: BRENNAN FEDERAL 8
9. API Well No.: 43-047-31509
10. Field and Pool, or Exploratory Area: GREEN RIVER
11. County or Parish, State: UINTAH, UTAH

1. Type of Well: [X] Oil Well [ ] Gas Well [ ] Other
2. Name of Operator: CHEVRON U.S.A. INC.
3. Address and Telephone No.: 11002 E. 17500 S. VERNAL, UT 84078-8526 (801) 781-4300
4. Location of Well (Footage, Sec., T., R., M., or Survey Description): 660' FSL & 2250' FEL (SWNE), SECTION 17, T7S, R21E SLBM

12. CHECK APPROPRIATE BOX(s) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION	
[ ] Notice of Intent	[ ] Abandonment	[ ] Change of Plans
	[ ] Recompletion	[ ] New Construction
[X] Subsequent Report	[ ] Plugging Back	[ ] Non-Routine Fracturing
	[ ] Casing Repair	[ ] Water Shut-Off
[ ] Final Abandonment Notice	[ ] Altering Casing	[ ] Conversion to Injection
	[X] Other CHANGE OF OPERATOR	[ ] Dispose Water

(Note) Report results of multiple completion on Well Completion or Recompletion Report and Log form.)

13. Describe Proposed or Completed Operations (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work)

As of January 1, 2000 Chevron U.S.A. Inc. resigns as Operator of this well.

The successor operator for this well will be:
Shenandoah Energy Inc.
475 17th Street, Suite 1000
Denver, CO 80202

Agreed and accepted to this 29th day of December, 1999

Shenandoah Energy Inc.
By: Mitchell L. Solich
Mitchell L. Solich
President

RECEIVED
DEC 30 1999
DIVISION OF OIL, GAS & MINING

14. I hereby certify that the foregoing is true and correct.
Signed **A. E. Wacker** A. E. Wacker Title **Assistant Secretary** Date **12/29/99**

(This space for Federal or State office use)

Approved by: Title Date

Conditions of approval, if any

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 matter within its jurisdiction.

***See instruction on Reverse Side**

United States Department of the Interior

BUREAU OF LAND MANAGEMENT
Vernal District Office
170 South 500 East
Vernal, Utah 84078-2799
http://www.blm.gov/utah/vernal

Phone: (435) 781-4400
Fax: (435) 781-4410

IN REPLY REFER TO:
3162.3
UT08300

May 10, 2000

Shenandoah Energy Inc.
Attn: Terry Cox
475 17th Street, Suite 1000
Denver, Colorado 80202

Re: Well No. Brennan Federal 8
SWNE, Sec. 17, T7S, R21E
Lease UTSL-066409-A
Uintah County, Utah

Gentlemen:

This correspondence is in regard to the self-certification statement submitted requesting a change in operator for the referenced well. After a review by this office, the change in operator request is approved. Effective immediately, Shenandoah Energy Inc. is responsible for all operations performed on the referenced well. All liability will now fall under your bond, BLM Bond No. UT0969, for all operations conducted on the referenced well on the leased land.

PLEASE NOTE: Your Surety Bond No. 124290364 is a $25,000 Statewide Bond, not a Nationwide Bond as stated in your Sundry Notice.

If you have any other questions concerning this matter, please contact Margie Herrmann or Leslie Crinklaw of this office at (435) 781-4410.

Sincerely,

Ed Forsman
Petroleum Engineer
Minerals Resources

cc: Division Oil, Gas & Mining
Chevron U.S.A. Production Co.

Form 3160-5
(June 1990)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

FORM APPROVED
Budget Bureau No. 1004-0135
Expires: March 31, 1993

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill or to deepen or reentry to a different reservoir
Use "APPLICATION FOR PERMIT--" for such proposals

SUBMIT IN TRIPLICATE

5. Lease Designation and Serial No.: UTSL-066409A

6. If Indian, Allottee or Tribe Name: N/A

7. If Unit or CA, Agreement Designation:

1. Type of Well: [X] Oil Well [ ] Gas Well [ ] Other

8. Well Name and No.: BRENNAN FEDERAL 8

2. Name of Operator: SHENANDOAH ENERGY INC.

9. API Well No.: 43-047-31509

3. Address and Telephone No: 11002 E. 17500 S. VERNAL, UT 84078-8526 (801) 781-4341

10. Field and Pool, or Exploratory Area: GREEN RIVER

4. Location of Well (Footage, Sec., T., R., M., or Survey Description): 660' FSL 2250' FEL (SWNE) SECTION 17, T7S, R21E, SLBM

11. County or Parish, State: UINTAH, UTAH

12. CHECK APPROPRIATE BOX(s) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION	
[ ] Notice of Intent	[ ] Abandonment	[ ] Change of Plans
	[ ] Recompletion	[ ] New Construction
[X] Subsequent Report	[ ] Plugging Back	[ ] Non-Routine Fracturing
	[ ] Casing Repair	[ ] Water Shut-Off
[ ] Final Abandonment Notice	[ ] Altering Casing	[ ] Conversion to Injection
	[X] Other CHANGE OF OPERATOR	[ ] Dispose Water

(Note) Report results of multiple completion on Well Completion or Recompletion Report and Log form.)

13. Describe Proposed or Completed Operations (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work)

Please be advised that Shenandoah Energy Inc. is considered to be the operator of Well Number: Brennan Federal 8; SW ¼ NE ¼ Section 17, T7S, R21E, Uintah County, Utah; And is responsible undert the terms and conditions of the lease for the operations conducted upon the leased lands. Bond coverage is provided by State lease Bond #U-89-75-80-59.

14. I hereby certify that the foregoing is true and correct.
Signed John Busch — Title Operation Representative — Date 5/25/2000

(This space for Federal or State office use)

Approved by: — Title — Date

Conditions of approval, if any

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 matter within its jurisdiction.

***See instruction on Reverse Side**

Division of Oil, Gas and Mining

ROUTING:

1-[redacted]	4-KAS ✓
2-CDW ✓	5-SJ
3-JLT ✓	6-FILE

OPERATOR CHANGE WORKSHEET

Check each listed item when completed. Write N/A if item is not applicable.

X Change of Operator (Well Sold) ☐ Designation of Agent

☐ Operator Name Change Only ☐ Merger

The operator of the well(s) listed below has changed, **effective**: **1-1-00**

TO:(New Operator) SHENANDOAH ENERGY INC
Address: 11002 E. 17500 S.
VERNAL, UT 84078-8526
Phone: 1-(435)-781-4341
Account No. N4235

FROM:(Old Operator) CHEVRON USA INC
Address: 11002 E. 17500 S.
VERNAL, UT 84078-8526
Phone: 1-(303)-781-4300
Account No. N0210

WELL(S): **CA Nos.** _____ or _____ **Unit**

Name: STATE 1	API: 43-047-15128	Entity: 5878	S 36	T 07S	R 24E	Lease: ML-053
Name: KAYE STATE 1-16	API: 43-047-30609	Entity: 5395	S 16	T 10S	R 23E	Lease: ML-22186
Name: BRENNAN FEDERAL 8	API: 43-047-31509	Entity: 5290	S 17	T 07S	R 21E	Lease: SL-066409L
Name: PRINCE F. S. 4	API: 43-047-32677	Entity: 7035	S 03	T 07S	R 24E	Lease: SL-070932-A
Name: FZ-BB 1	API: 43-047-31805	Entity: 10952	S 20	T 07S	R 21E	Lease: U-0806
Name: PRINCE F. S. 1	API: 43-047-16199	Entity: 7035	S 10	T 07S	R 24E	Lease: UTSL-070932-A
Name: BRENNAN FEDERAL 3	API: 43-047-15419	Entity: 10750	S 17	T 07S	R 21E	Lease: U-066409-A

OPERATOR CHANGE DOCUMENTATION

YES 1. A **pending operator change file** has been set up.

YES 2. (R649-8-10) Sundry or other legal documentation has been received from the **FORMER** operator on 12-30-99.

YES 3. (R649-8-10) Sundry or other legal documentation has been received from the **NEW** operator on 5-31-00.

YES 4. The new company has been looked up in the **Department of Commerce, Division of Corporations Database** if the new operator above is not currently operating any wells in Utah. Is the operator registered with the State? **Yes**/No If yes, the company file number is 224885. If no, Division letter was mailed to the new operator on _____.

YES 5. **Federal and Indian Lease Wells.** The BLM or the BIA has approved the merger, name change or **operator change** for all wells listed above involving Federal or Indian leases on 5-10-00.

N/A 6. **Federal and Indian Units.** The BLM or the BIA has approved the successor of unit operator for all wells listed above involving unit operations on _____.

N/A 7. **Federal and Indian Communitization Agreements ("CA").** The BLM or the BIA has approved the operator change for all wells listed above involved in the CA on _____.

-OVER-

N/A 8. **Underground Injection Control ("UIC") Program.** The Division has approved UIC Form 5, Transfer of Authority to Inject, for the enhanced/secondary recovery unit/project and/or for the water disposal well(s) listed above.

YES 9. Changes have been entered in the **Oil and Gas Information System** for each well listed on 6-20-00.

YES 10. Changes have been included on the **Monthly Operator Change letter** on 6-20-00.

STATE BOND VERIFICATION

YES 1. State Well(s) covered by Bond No. U-89-75-80-59.

FEE WELLS - BOND VERIFICATION / LEASE INTEREST OWNER NOTIFICATION

N/A 1. (R649-3-1) The **NEW** operator of any fee lease well(s) listed above has furnished a proper bond.

N/A 2. A **copy of this form** has been placed in the **new and former operator's bond files** on _____.

N/A 3. The **FORMER** operator has requested a release of liability from their bond as of todays date _____? If yes, Division response was made to this request by letter dated _____. (see bond file).

N/A 4. (R649-2-10) The **Former** operator of any Fee lease wells listed above has been contacted and informed by letter dated _____, of their responsibility to notify all interest owners of this change.

N/A 5. Bond information added to **RBDMS** on _____.

N/A 6. Fee wells attached to bond in **RBDMS** on _____.

FILMING

_____ 1. All attachments to this form have been **microfilmed** on 3-26-01.

FILING

_____ 1. **Originals/Copies** of all attachments pertaining to each individual well have been filed in each **well file**.

_____ 2. The **original of this form** has been filed in the operator file and a copy in the old operator file.

COMMENTS

QUESTAR

Questar Exploration and Production Company
Independence Plaza
1050 17th Street, Suite 500
Denver, CO 80265
Tel 303 672 6900 • Fax 303 294 9632

Denver Division

May 28, 2003

Division of Oil, Gas, & Mining
1594 West North Temple, Suite 1210
P. O. Box 145801
Salt Lake City, Utah 84114-5801

Attention: John Baza/Jim Thompson

Gentlemen:

This will serve as notice that through the internal corporate changes described below, activities formerly conducted in the name of either Shenandoah Operating Company, LLC (SOC) and/or Shenandoah Energy, Inc. (SEI) will hereafter be conducted in the name of QEP Uinta Basin, Inc.: i) the Shenandoah entities were purchased in July, 2001 by Questar Market Resources, Inc., which is a mid-level holding company for the non-utility businesses of Questar Corporation, ii) Shenandoah Operating Company, LLC has now been merged into Shenandoah Energy, Inc. (SEI), iii) Shenandoah Energy, Inc. has now been re-named **QEP Uinta Basin, Inc.** pursuant to a State of Delaware Amended and Restated Certificate of Incorporation, iv) the same employees will continue to be responsible for operations of the former SOC and SEI properties, both in the field and in the office. Accordingly, the change involves only an internal corporate name change and no third party change of operator is involved. Please alter your records to reflect the entity name change. Attached is a spreadsheet listing all wells affected by this change.

Should you have any questions, please call me at 303 - 308-3056.

Yours truly,

Frank Nielsen
Division Landman

Enclosure

RECEIVED
JUN 02 2003
DIV. OF OIL, GAS & MINING

well_name	Sec	T	R	api	Entity	Lease Type
UTAH STATE 1	36	070S	240E	4304715128	5878	State
BRENNAN FED 3	17	070S	210E	4304715419	10750	Federal
FEDERAL 2-29-7-22	29	070S	220E	4304715423	5266	Federal
FS PRINCE GOVT 1	10	070S	240E	4304716199	7035	Federal
KAYE STATE 1-16	16	100S	230E	4304730609	5395	State
LEOTA FED 1	34	070S	210E	4304730879	5420	Federal
GULF BRENNAN FED 8	17	070S	210E	4304731509	5290	Federal
RFC 1	20	070S	210E	4304731805	10952	Federal
EAST COYOTE FED 14-4-8-25	04	080S	250E	4304732493	11630	Federal
F S PRINCE 4	03	070S	240E	4304732677	7035	Federal
GYPSUM HILLS 21	21	080S	210E	4304732692	11819	Federal
TOLL STATION ST 8-36-8-21	36	080S	210E	4304732724	12361	State
SAGE GROUSE FED 6-14-8-22	14	080S	220E	4304732746	11944	Federal
GYPSUM HILLS 22WG	22	080S	210E	4304732818	12336	Federal
GLEN BENCH ST 8A-36-8-21	36	080S	210E	4304733037	12377	State
GLEN BENCH ST 6-36-8-21	36	080S	210E	4304733038	12378	State
SAGE GROUSE 12A-14-8-22	14	080S	220E	4304733177	12524	Federal
OU GB 12W-20-8-22	20	080S	220E	4304733249	13488	Federal
GLEN BENCH ST 2-36-8-21	36	080S	210E	4304733252	12527	State
GBU 15-18-8-22	18	080S	220E	4304733364	12690	Federal
GLEN BENCH FED 3W-17-8-22	17	080S	220E	4304733513	12950	Federal
GLEN BENCH FED 5W-17-8-22	17	080S	220E	4304733514	12873	Federal
WV FED 9W-8-8-22	08	080S	220E	4304733515	13395	Federal
GB FED 9W-18-8-22	18	080S	220E	4304733516	12997	Federal
OU GB 3W-20-8-22	20	080S	220E	4304733526	13514	Federal
GHU 10W-19-8-21	19	080S	210E	4304733528	12736	Federal
GH 1W-32-8-21	32	080S	210E	4304733570	12797	State
GH 3W-32-8-21	32	080S	210E	4304733571	12796	State
GH 5W-32-8-21	32	080S	210E	4304733572	12828	State
GH 7W-32-8-21	32	080S	210E	4304733573	12872	State
GLEN BENCH 12W-30-8-22	30	080S	220E	4304733670	13380	Federal
GH 2W-32-8-21	32	080S	210E	4304733744	13029	State
GH 4W-32-8-21	32	080S	210E	4304733745	13035	State
GH 8W-32-8-21	32	080S	210E	4304733746	13030	State
GB 3W-16-8-22	16	080S	220E	4304733751	13577	State
GB 5W-16-8-22	16	080S	220E	4304733752	13570	State
GH 6W-32-8-21	32	080S	210E	4304733753	13036	State
GB 11W-16-8-22	16	080S	220E	4304733754	13582	State
GH 7W-21-8-21	21	080S	210E	4304733845	13050	Federal
GH 9W-21-8-21	21	080S	210E	4304733846	13074	Federal
GH 11W-21-8-21	21	080S	210E	4304733847	13049	Federal
GH 15W-21-8-21	21	080S	210E	4304733848	13051	Federal
GH 5G-32-8-21	32	080S	210E	4304733866	13037	State
WV 9W-23-8-21	23	080S	210E	4304733909	13160	Federal
GHU 14W-20-8-21	20	080S	210E	4304733915	13073	Federal
GB 1W-36-8-21	36	080S	210E	4304733944	13439	State
GB 4W-30-8-22	30	080S	220E	4304733945	13372	Federal
GB 9W-19-8-22	19	080S	220E	4304733946	13393	Federal
GB 10W-30-8-22	30	080S	220E	4304733947	13389	Federal
GB 12W-19-8-22	19	080S	220E	4304733948	13388	Federal
WV 5W-17-8-21	17	080S	210E	4304733954	13332	Federal
WV 7W-17-8-21	17	080S	210E	4304733956	13330	Federal
GB 9W-25-8-21	25	080S	210E	4304733960	13390	Federal
WV 1W-5-8-22	05	080S	220E	4304733985	13369	Federal
WV 3W-5-8-22	05	080S	220E	4304733987	13321	Federal
WV 7W-5-8-22	05	080S	220E	4304733988	13235	Federal
WV 9W-5-8-22	05	080S	220E	4304733990	13238	Federal
WV 11W-5-8-22	05	080S	220E	4304733992	13239	Federal
WV 13W-5-8-22	05	080S	220E	4304733994	13236	Federal
WV 15W-5-8-22	05	080S	220E	4304733996	13240	Federal
WV 8W-8-8-22	08	080S	220E	4304734005	13220	Federal
WV 14W-8-8-22	08	080S	220E	4304734007	13322	Federal
OU GB 6W-20-8-22	20	080S	220E	4304734018	13518	Federal
GB 5W-30-8-22	30	080S	220E	4304734025	13502	Federal
GB 11W-20-8-22	20	080S	220E	4304734039	13413	Federal

well_name	Sec	T	R	api	Entity	Lease Type
OU GB 4W-20-8-22	20	080S	220E	4304734043	13520	Federal
WV 7W-36-7-21	36	070S	210E	4304734065	13334	State
WV 9W-36-7-21	36	070S	210E	4304734066	13331	State
WV 3G-10-8-21	10	080S	210E	4304734106	13241	Federal
WV 15G-3-8-21	03	080S	210E	4304734109	13368	Federal
WV 16G-3-8-21	03	080S	210E	4304734110	13295	Federal
GB 6W-25-8-21	25	080S	210E	4304734121	13440	Fee
GB 7W-25-8-21	25	080S	210E	4304734122	13436	Fee
GH 5W-21-8-21	21	080S	210E	4304734147	13387	Federal
GH 6W-21-8-21	21	080S	210E	4304734148	13371	Federal
GH 8W-21-8-21	21	080S	210E	4304734149	13293	Federal
GH 9W-17-8-21	17	080S	210E	4304734150	13392	Federal
GH 10W-20-8-21	20	080S	210E	4304734151	13328	Federal
GH 10W-21-8-21	21	080S	210E	4304734152	13378	Federal
GH 12W-21-8-21	21	080S	210E	4304734153	13294	Federal
GH 14W-21-8-21	21	080S	210E	4304734154	13292	Federal
GH 16W-17-8-21	17	080S	210E	4304734156	13354	Federal
GH 16W-21-8-21	21	080S	210E	4304734157	13329	Federal
GB 5W-20-8-22	20	080S	220E	4304734209	13414	Federal
WV 6W-22-8-21	22	080S	210E	4304734272	13379	Federal
GH 1W-20-8-21	20	080S	210E	4304734327	13451	Federal
GH 2W-20-8-21	20	080S	210E	4304734328	13527	Federal
GH 3W-20-8-21	20	080S	210E	4304734329	13728	Federal
GH 7W-20-8-21	20	080S	210E	4304734332	13537	Federal
GH 9W-20-8-21	20	080S	210E	4304734333	13411	Federal
GH 11W-20-8-21	20	080S	210E	4304734334	13410	Federal
GH 15W-20-8-21	20	080S	210E	4304734335	13407	Federal
GH 16W-20-8-21	20	080S	210E	4304734336	13501	Federal
WV 12W-23-8-21	23	080S	210E	4304734343	13430	Federal
OU GB 13W-20-8-22	20	080S	220E	4304734348	13495	Federal
OU GB 14W-20-8-22	20	080S	220E	4304734349	13507	Federal
OU GB 11W-29-8-22	29	080S	220E	4304734350	13526	Federal
WV 11G-5-8-22	05	080S	220E	4304734388	13422	Federal
WV 13G-5-8-22	05	080S	220E	4304734389	13738	Federal
WV 15G-5-8-22	05	080S	220E	4304734390	13459	Federal
GB 11W-30-8-22	30	080S	220E	4304734392	13433	Fee
SU BRENNAN W 15W-18-7-22	18	070S	220E	4304734403	13442	Federal
STIRRUP U 16W-5-8-22	05	080S	220E	4304734446	13654	Federal
STIRRUP U 2W-5-8-22	05	080S	220E	4304734455	13700	Federal
WV 10W-5-8-22	05	080S	220E	4304734456	13540	Federal
WV 16W-8-8-22	08	080S	220E	4304734470	13508	Federal
GB 16WX-30-8-22	30	080S	220E	4304734506	13431	Federal
OU GB 1W-19-8-22	19	080S	220E	4304734512	13469	Federal
OU GB 2W-19-8-22	19	080S	220E	4304734513	13461	Federal
OU GB 5W-19-8-22	19	080S	220E	4304734514	13460	Federal
OU GB 7W-19-8-22	19	080S	220E	4304734515	13462	Federal
OU GB 8W-19-8-22	19	080S	220E	4304734516	13489	Federal
OU GB 11W-19-8-22	19	080S	220E	4304734517	13467	Federal
OU GB 16W-19-8-22	19	080S	220E	4304734522	13476	Federal
GB 1W-30-8-22	30	080S	220E	4304734528	13487	Federal
GB 3W-30-8-22	30	080S	220E	4304734529	13493	Federal
GB 6W-30-8-22	30	080S	220E	4304734530	13519	Federal
GB 7W-30-8-22	30	080S	220E	4304734531	13494	Federal
GB 8W-30-8-22	30	080S	220E	4304734532	13483	Federal
GB 9W-30-8-22	30	080S	220E	4304734533	13500	Federal
OU GB 6W-19-8-22	19	080S	220E	4304734534	13475	Federal
OU GB 10W-19-8-22	19	080S	220E	4304734535	13479	Federal
OU GB 13W-19-8-22	19	080S	220E	4304734536	13478	Federal
OU GB 14W-19-8-22	19	080S	220E	4304734537	13484	Federal
OU GB 15W-19-8-22	19	080S	220E	4304734538	13482	Federal
OU GB 12W-17-8-22	17	080S	220E	4304734542	13543	Federal
OU GB 6W-17-8-22	17	080S	220E	4304734543	13536	Federal
OU GB 13W-17-8-22	17	080S	220E	4304734544	13547	Federal
OU GB 6W-29-8-22	29	080S	220E	4304734545	13535	Federal
OU GB 3W-29-8-22	29	080S	220E	4304734546	13509	Federal

well_name	Sec	T	R	api	Entity	Lease Type
OU GB 13W-29-8-22	29	080S	220E	4304734547	13506	Federal
OU GB 4W-29-8-22	29	080S	220E	4304734548	13534	Federal
OU GB 5W-29-8-22	29	080S	220E	4304734549	13505	Federal
OU GB 14W-17-8-22	17	080S	220E	4304734550	13550	Federal
OU GB 11W-17-8-22	17	080S	220E	4304734553	13671	Federal
OU GB 14W-29-8-22	29	080S	220E	4304734554	13528	Federal
OU GB 2W-17-8-22	17	080S	220E	4304734559	13539	Federal
OU GB 7W-17-8-22	17	080S	220E	4304734560	13599	Federal
GH EXT 15W-17-8-21	17	080S	210E	4304734562	13674	Federal
OU GB 16W-18-8-22	18	080S	220E	4304734563	13559	Federal
OU GB 1W-29-8-22	29	080S	220E	4304734573	13562	Federal
OU GB 7W-29-8-22	29	080S	220E	4304734574	13564	Federal
OU GB 8W-29-8-22	29	080S	220E	4304734575	13609	Federal
OU GB 9W-29-8-22	29	080S	220E	4304734576	13551	Federal
OU GB 10W-29-8-22	29	080S	220E	4304734577	13594	Federal
OU GB 15W-29-8-22	29	080S	220E	4304734578	13569	Federal
OU GB 4W-16-8-22	16	080S	220E	4304734598	13579	State
OU GB 2W-20-8-22	20	080S	220E	4304734599	13664	Federal
OU GB 2W-29-8-22	29	080S	220E	4304734600	13691	Federal
OU GB 15W-17-8-22	17	080S	220E	4304734601	13632	Federal
OU GB 16W-17-8-22	17	080S	220E	4304734602	13639	Federal
OU GB 16W-29-8-22	29	080S	220E	4304734603	13610	Federal
OU GB 1W-20-8-22	20	080S	220E	4304734604	13612	Federal
OU GB 12W-16-8-22	16	080S	220E	4304734617	13697	State
OU GB 13W-16-8-22	16	080S	220E	4304734618	13611	State
OU GB 15W-16-8-22	16	080S	220E	4304734622	13595	State
OU GB 1W-17-8-22	17	080S	220E	4304734623	13701	Federal
OU GB 9W-17-8-22	17	080S	220E	4304734624	13663	Federal
OU GB 10W-17-8-22	17	080S	220E	4304734625	13684	Federal
OU GB 9W-20-8-22	20	080S	220E	4304734630	13637	Federal
OU GB 10W-20-8-22	20	080S	220E	4304734631	13682	Federal
OU GB 15W-20-8-22	20	080S	220E	4304734632	13616	Federal
OU WIH 13W-21-8-22	21	080S	220E	**4304734646**	13745	Federal
OU GB 13W-9-8-22	09	080S	220E	4304734654	13706	Federal
OU GB 2W-16-8-22	16	080S	220E	4304734657	13721	State
OU GB 6W-16-8-22	16	080S	220E	4304734658	13592	State
OU GB 7W-16-8-22	16	080S	220E	**4304734659**	13747	State
OU GB 14W-21-8-22	21	080S	220E	4304734664	13720	Federal
OU GB 12WX-29-8-22	29	080S	220E	4304734668	13555	Federal
OU WIH 10W-21-8-22	21	080S	220E	4304734681	13662	Federal
OU GB 3W-21-8-22	21	080S	220E	**4304734686**	13746	Federal
OU GB 16SG-30-8-22	30	080S	220E	4304734688	13593	Federal
OU WIH 7W-21-8-22	21	080S	220E	4304734689	13716	Federal
OU GB 5W-21-8-22	21	080S	220E	**4304734690**	13770	Federal
OU GB 7W-20-8-22	20	080S	220E	4304734705	13710	Federal
OU SG 10W-15-8-22	15	080S	220E	**4304734719**	13725	Federal
OU SG 9W-10-8-22	10	080S	220E	4304734783	13722	Federal

Division of Oil, Gas and Mining

OPERATOR CHANGE WORKSHEET

ROUTING
1. GLH
2. CDW
3. FILE

Change of Operator (Well Sold) — Designation of Agent/Operator

X Operator Name Change — Merger

The operator of the well(s) listed below has changed, effective: **2/1/2003**

FROM: (Old Operator):	**TO:** (New Operator):
N4235-Shenandoah Energy Inc 11002 E 17500 S Vernal, UT 84078-8526 Phone: (435) 781-4341	N2460-QEP Uinta Basin Inc 11002 E 17500 S Vernal, UT 84078-8526 Phone: (435) 781-4341

CA No. **Unit:**

WELL(S)

NAME	SEC	TWN	RNG	API NO	ENTITY NO	LEASE TYPE	WELL TYPE	WELL STATUS	Confid
BRENNAN FED 3	17	070S	210E	4304715419	10750	Federal	OW	P	
~~GULF BRENNAN FED 8~~	~~17~~	~~070S~~	~~210E~~	~~4304731509~~	5290	Federal	OW	P	
RFC 1	20	070S	210E	4304731805	10952	Federal	GW	TA	
LEOTA FED 1	34	070S	210E	4304730879	5420	Federal	OW	P	
FEDERAL 2-29-7-22	29	070S	220E	4304715423	5266	Federal	GW	TA	
F S PRINCE 4	03	070S	240E	4304732677	7035	Federal	OW	P	
FS PRINCE GOVT 1	10	070S	240E	4304716199	7035	Federal	GW	P	
GHU 10W-19-8-21	19	080S	210E	4304733528	12736	Federal	GW	P	
GYPSUM HILLS 21	21	080S	210E	4304732692	11819	Federal	GW	P	
GH 7W-21-8-21	21	080S	210E	4304733845	13050	Federal	GW	P	
GYPSUM HILLS 22WG	22	080S	210E	4304732818	12336	Federal	GW	P	
WV FED 9W-8-8-22	08	080S	220E	4304733515	13395	Federal	GW	P	
SAGE GROUSE FED 6-14-8-22	14	080S	220E	4304732746	11944	Federal	GW	S	
SAGE GROUSE 12A-14-8-22	14	080S	220E	4304733177	12524	Federal	GW	TA	
GLEN BENCH FED 3W-17-8-22	17	080S	220E	4304733513	12950	Federal	GW	P	
GLEN BENCH FED 5W-17-8-22	17	080S	220E	4304733514	12873	Federal	GW	P	
GBU 15-18-8-22	18	080S	220E	4304733364	12690	Federal	GW	P	
GB FED 9W-18-8-22	18	080S	220E	4304733516	12997	Federal	GW	P	
OU GB 12W-20-8-22	20	080S	220E	4304733249	13488	Federal	GW	P	C
OU GB 3W-20-8-22	20	080S	220E	4304733526	13514	Federal	GW	P	C
GLEN BENCH 12W-30-8-22	30	080S	220E	4304733670	13380	Federal	GW	P	
EAST COYOTE FED 14-4-8-25	04	080S	250E	4304732493	11630	Federal	OW	P	

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: 6/2/2003
2. (R649-8-10) Sundry or legal documentation was received from the **NEW** operator on: 6/2/2003
3. The new company was checked on the **Department of Commerce, Division of Corporations Database on:** 6/19/2003
4. Is the new operator registered in the State of Utah: YES Business Number: 5292864-0151

5. If **NO**, the operator was contacted contacted on: _____

6. (R649-9-2)Waste Management Plan has been received on: IN PLACE

7. **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: 7/21/2003

8. **Federal and Indian Units:**
The BLM or BIA has approved the successor of unit operator for wells listed on: 7/21/2003

9. **Federal and Indian Communization Agreements ("CA"):**
The BLM or BIA has approved the operator for all wells listed within a CA on: n/a

10. **Underground Injection Control ("UIC")** The 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: n/a

DATA ENTRY:

1. Changes entered in the **Oil and Gas Database on:** 8/27/2003
2. Changes have been entered on the **Monthly Operator Change Spread Sheet on:** 8/27/2003
3. Bond information entered in RBDMS on: n/a
4. Fee wells attached to bond in RBDMS on: n/a

STATE WELL(S) BOND VERIFICATION:

1. State well(s) covered by Bond Number: 965-003-032

FEDERAL WELL(S) BOND VERIFICATION:

1. Federal well(s) covered by Bond Number: 965-002-976

INDIAN WELL(S) BOND VERIFICATION:

1. Indian well(s) covered by Bond Number: 799446

FEE WELL(S) BOND VERIFICATION:

1. (R649-3-1) The **NEW** operator of any fee well(s) listed covered by Bond Number 965-003-033

2. The **FORMER** operator has requested a release of liability from their bond on: n/a
The Division sent response by letter on: n/a

LEASE INTEREST OWNER NOTIFICATION:

3. (R649-2-10) The **FORMER** 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:

JUL 0 7 2003

3104 (932.34)WF
Nationwide Bond ESB000024

NOTICE

QEP Uinta Basin, Inc. 1050 17th Street Suite 500 Denver, Colorado 80265	: : : :	Oil and Gas lease

Name Change Recognized

Acceptable evidence has been filed in this office concerning the name change of Shenandoah Energy Incorporated into QEP Uinta Basin, Incorporated. QEP Uinta Basin, Incorporated is the surviving entity. This name change is recognized effective April 17, 2003.

Eastern States will notify the Minerals Management Service and all applicable Bureau of Land Management offices of the change by a copy of this notice.

If you identify other leases in which the merging entity maintain an interest, please contact this office and we will appropriately document those files with a copy of this notice.

If you have any questions, please contact Bill Forbes at 703-440-1536.

S/Wilbert B. Forbes

Wilbert B. Forbes
Land Law Examiner
Branch of Use Authorization
Division of Resources Planning,
Use and Protection

bc: JFO,MMS, ES RF, 930 RF, 932.34 RF, E-932: wbf:07 /07/03:440-1536/ QEP Unita Basin
MFO

United States Department of the Interior

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

In Reply Refer To:
3106
(UT-924)

July 21, 2003

Memorandum

To: Vernal Field Office

From: ACTING Chief, Branch of Minerals Adjudication

Subject: Name Change Approval

Attached is an approved copy of the name change from BLM-Eastern States, which is recognized by the Utah State Office. We have updated our records to reflect:

The name change from Shenandoah Energy Incorporated into QEP Uinta Basin, Incorporated is effective July 23, 1999. The BLM Bond Number is ESB000024.

Mary Higgins
Mary Higgins
Acting Chief, Branch of
Minerals Adjudication

Enclosure
1. Eastern States Letter
2. List of leases

cc: MMS, James Sykes, PO Box 25165, M/S 357 B1, Denver CO 80225
State of Utah, DOGM, Earlene Russell (Ste. 1210), Box 145801, SLC UT 84114
Teresa Thompson (UT-922)
Joe Incardine (UT-921)

RECEIVED
JUL 29 2003
DIV. OF OIL, GAS & MINING

Exhibit of Leases

UTSL-065342
UTSL-065429
UTSL-066409-A
UTSL-066446
UTSL-066446-A
UTSL-066446-B
UTSL-066791
UTSL-069330
UTSL-070932-A
UTSL-071745
UTSL-071963
UTSL-071964
UTSL-071965

UTU-046
UTU-055
UTU-057
UTU-058
UTU-059
UTU-080
UTU-081
UTU-082
UTU-093
UTU-0116
UTU-0558
UTU-0559
UTU-0560
UTU-0561
UTU-0562
UTU-0566
UTU-0567
UTU-0568
UTU-0569
UTU-0570
UTU-0571
UTU-0572
UTU-0629
UTU-0802
UTU-0803
UTU0804
UTU0805
UTU0806
UTU0807
UTU0809
UTU0810
UTU-0823
UTU-0824
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UTU-0827
UTU-0828
UTU-0829
UTU-0830
UTU-0933
UTU-0971
UTU-0971-A
UTU-01089
UTU-02025
UTU-02030
UTU-02060
UTU-02148
UTU-02149
UTU-02510-A
UTU-09613
UTU-09617
UTU-09809
UTU-011225-B
UTU-011226
UTU-011226-B
UTU-012457
UTU-012457-A
UTU-018260-A
UTU-022158
UTU-025960
UTU-025962
UTU-025963
UTU-029649
UTU-65471
UTU-65472
UTU-103144
UTU-140740
UTU-14219
UTU-14639
UTU-16551
UTU-28652
UTU-42050
UTU-43915
UTU-43916
UTU-43917
UTU-43918
UTU-56947
UTU-65276
UTU-65404
UTU-65471
UTU-65472
UTU-65632
UTU-67844
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UTU-68218
UTU-68219
UTU-68220
UTU-68387
UTU-68620
UTU-69001
UTU-70853
UTU-70854
UTU-70855
UTU-70856
UTU-71416
UTU-72066
UTU-72109
UTU-72118
UTU-72598
UTU-72634
UTU-72649
UTU-73182
UTU-73443
UTU-73456
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UTU-73687
UTU-73698
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UTU-73700
UTU-73710
UTU-73914
UTU-73917
UTU-74401
UTU-74402
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UTU-76278
UTU-75760
UTU-75939
UTU-76039
UTU-76482
UTU-76507
UTU-76508
UTU-76721
UTU-76835
UTU-77063
UTU-77301
UTU-77308
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UTU-78216
UTU-80636
UTU-80637
UTU-80638
UTU-80639
UTU-80640

Division of Oil, Gas and Mining

OPERATOR CHANGE WORKSHEET

ROUTING
1. DJJ
2. CDW

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

The operator of the well(s) listed below has changed, effective: **1/1/2007**

FROM: (Old Operator):	**TO:** (New Operator):
N2460-QEP Uinta Basin, Inc.	N5085-Questar E&P Company
1050 17th St, Suite 500	1050 17th St, Suite 500
Denver, CO 80265	Denver, CO 80265
Phone: 1 (303) 672-6900	Phone: 1 (303) 672-6900

CA No. **Unit:** **BRENNAN BOTTOM UNIT**

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

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: 4/19/2007
2. (R649-8-10) Sundry or legal documentation was received from the **NEW** operator on: 4/16/2007
3. The new company was checked on the **Department of Commerce, Division of Corporations Database on:** 1/31/2005

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: IN PLACE

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

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

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 4/23/2007 BIA
7. **Federal and Indian Units:**
   The BLM or BIA has approved the successor of unit operator for wells listed on: 4/23/2007
8. **Federal and Indian Communization Agreements ("CA"):**
   The BLM or BIA has approved the operator for all wells listed within a CA on:
9. **Underground Injection Control ("UIC")** The 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:

DATA ENTRY:

1. Changes entered in the **Oil and Gas Database on:** 4/30/2007 and 5/15/2007
2. Changes have been entered on the **Monthly Operator Change Spread Sheet on:** 4/30/2007 and 5/15/2007
3. Bond information entered in RBDMS on: 4/30/2007 and 5/15/2007
4. Fee/State wells attached to bond in RBDMS on: 4/30/2007 and 5/15/2007
5. Injection Projects to new operator in RBDMS on: 4/30/2007 and 5/15/2007
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: 799446

3a. (R649-3-1) The **NEW** operator of any state/fee well(s) listed covered by Bond Number 965003033

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: THIS IS A COMPANY NAME CHANGE.
SOME WELL NAMES HAVE BEEN CHANGED AS REQUESTED

QEP Uinta Basin (N2460) to QUESTAR E and P (N5085)
BRENNAN BOTTOM UNIT

4/30/2007 and 5/15/2007

Original Well Name	Well Name & No.	Q/Q	SEC	TWP	RNG	API	Entity	Lease	Well Type	Status
BRENNAN FED 1	BRENNAN 1	NESE	13	070S	200E	4304715417	5261	Federal	OW	P
BRENNAN FED 3	BRENNAN 3	NESE	17	070S	210E	4304715419	10750	Federal	OW	P
BRENNAN FED 5	BRENNAN 5	SENW	18	070S	210E	4304715420	5261	Federal	WI	A
GULF BRENNAN FED 8	BRENNAN 8	SWSE	17	070S	210E	4304731509	5290	Federal	OW	P
BRENNAN FED 9	BRENNAN 9	NWSE	18	070S	210E	4304732477	5261	Federal	OW	P
BRENNAN FED 11	BRENNAN 11	SESW	18	070S	210E	4304732772	5261	Federal	WI	A
BRENNAN 14	BRENNAN 14	NWNW	18	070S	210E	4304732774	5261	Federal	OW	P
BRENNAN FED 12	BRENNAN 12	NWNE	18	070S	210E	4304732779	5261	Federal	OW	S
BBW 11G-20-7-21	BBW 11G-20-7-21	NESW	20	070S	210E	4304736516	15176	Federal	OW	P
BRENNAN FED 6	BRENNAN 6	NWNW	19	070S	210E	4304730109	5261	Fee	OW	P
BRENNAN FED 10	BRENNAN 10	NWNE	19	070S	210E	4304732771	5261	State	OW	P

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
8. WELL NAME and NUMBER: see attached
9. API NUMBER: attached
10. FIELD AND POOL, OR WILDCAT:

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

2. NAME OF OPERATOR: QUESTAR EXPLORATION AND PRODUCTION COMPANY

3. ADDRESS OF OPERATOR: 1050 17th Street Suite 500 CITY Denver STATE CO ZIP 80265 PHONE NUMBER: (303) 308-3068

4. LOCATION OF WELL
FOOTAGES AT SURFACE: attached
COUNTY: Uintah
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: 1/1/2007	☐ 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: 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 January 1, 2007 operator of record, QEP Uinta Basin, Inc., will hereafter be known as QUESTAR EXPLORATION AND PRODUCTION 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)
Utah State Bond Number: 965003033
Fee Land Bond Number: 965003033
Current operator of record, QEP UINTA BASIN, INC., hereby resigns as operator of the properties as described on the attached list.

Jay B. Neese, Executive Vice President, QEP Uinta Basin, Inc.

Successor operator of record, QUESTAR EXPLORATION AND PRODUCTION COMPANY, hereby assumes all rights, duties and obligations as operator of the properties as described on the attached list

Jay B. Neese, Executive Vice President
Questar Exploration and Production Company

NAME (PLEASE PRINT) Debra K. Stanberry TITLE Supervisor, Regulatory Affairs
SIGNATURE _____ DATE 3/16/2007

(This space for State use only)

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APR 19 2007
DIV. OF OIL, GAS & MINING

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

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
8. WELL NAME and NUMBER: see attached
9. API NUMBER: attached
10. FIELD AND POOL, OR WILDCAT:

1. TYPE OF WELL: OIL WELL ☐ GAS WELL ☐ OTHER _____
2. NAME OF OPERATOR: QUESTAR EXPLORATION AND PRODUCTION COMPANY
3. ADDRESS OF OPERATOR: 1050 17th Street Suite 500 CITY Denver STATE CO ZIP 80265 PHONE NUMBER: (303) 308-3068
4. LOCATION OF WELL
FOOTAGES AT SURFACE: attached
COUNTY: Uintah
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: 1/1/2007	☐ 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: Well Name Changes
	☐ CONVERT WELL TYPE	☐ RECOMPLETE - DIFFERENT FORMATION	

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

PER THE ATTACHED LIST OF WELLS, QUESTAR EXPLORATION AND PRODUCTION COMPANY REQUESTS THAT THE INDIVIDUAL WELL NAMES BE UPDATED IN YOUR RECORDS.

NAME (PLEASE PRINT) Debra K. Stanberry TITLE Supervisor, Regulatory Affairs
SIGNATURE _____ DATE 4/17/2007

(This space for State use only)

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APR 19 2007
DIV. OF OIL, GAS & MINING

(5/2000)

(See Instructions on Reverse Side)

United States Department of the Interior

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

TAKE PRIDE IN AMERICA

IN REPLY REFER TO
3180
UT-922

April 23, 2007

Questar Exploration and Production Company
1050 17th Street, Suite 500
Denver, Colorado 80265

Re: Brennan Bottom Unit
Uintah County, Utah

Gentlemen:

On April 12, 2007, we received an indenture dated April 6, 2007, whereby QEP Uinta Basin, Inc. resigned as Unit Operator and Questar Exploration and Production Company was designated as Successor Unit Operator for the Brennan Bottom Unit, Uintah County, Utah.

This indenture was executed by all required parties and the signatory parties have complied with Sections 5 and 6 of the unit agreement. The instrument is hereby approved effective April 23, 2007. In approving this designation, the Authorized Officer neither warrants nor certifies that the designated party has obtained all required approval that would entitle it to conduct operations under the Brennan Bottom Unit Agreement.

Your nationwide oil and gas bond No. ESB000024 will be used to cover all federal operations within the Brennan Bottom Unit.

It is requested that you notify all interested parties of the change in unit operator. Copies of the approved instruments are being distributed to the appropriate federal offices, with one copy returned herewith.

Sincerely,

/s/ Greg J. Noble

Greg J. Noble
Acting Chief, Branch of Fluid Minerals

Enclosure
bcc: Field Manager - Vernal (w/enclosure)
SITLA
Division of Oil, Gas & Mining
File - Brennan Bottom Unit (w/enclosure)
Agr. Sec. Chron
Reading File
Central Files
UT922:TAThompson:tt:4/23/07

RECEIVED
APR 30 2007
DIV. OF OIL, GAS & MINING

STATE OF UTAH

DEPARTMENT OF NATURAL RESOURCES

DIVISION OF OIL, GAS, AND MINING

FORM 3

APPLICATION FOR PERMIT TO DRILL

5. MINERAL LEASE NO: UTSL- 071745

6. SURFACE: FEDERAL

1A. TYPE OF WORK: DRILL ☐ ☐ REENTER ☑ DEEPEN

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

B. TYPE OF WELL ☑ OIL ☐ GAS OTHER _____ ☐ SINGLE ZONE ☑ MULTIPLE ZONE

8. UNIT or CA AGREEMENT NAME: BRENNAN BOTTOMS

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

9. WELL NAME and NUMBER: BRENNAN 8

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

PHONE NUMBER: 435-781-4301

10. FIELD AND POOL, OR WILDCAT: BRENNAN BOTTOMS 560

4. LOCATION OF WELL (FOOTAGES)

AT SURFACE: 660' FSL 2250' FEL, SWSE, SEC. 17, T7S, R21E

AT PROPOSED PRODUCING ZONE: 2000' FNL 500' FWL, LOT 3, SEC. 17, T7S, R21E

11. QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: 17 7S 21E

14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE: 29 + \ - MILES SOUTH OF VERNAL, UTAH

12. COUNTY: UINTAH

13. STATE: UTAH

15. DISTANCE TO NEAREST PROPERTY OR LEASE LINE(FEET): 500' + / -

16. NUMBER OF ACRES IN LEASE: 640

17. NUMBER OF ACRES ASSIGNED TO THIS WELL: 40

18. DISTANCE TO NEAREST WELL (DRILLING, COMPLETED, OR APPLIED FOR) ON THIS LEASE (FEET)

19. PROPOSED DEPTH: 10,070' MD

20. BOND DESCRIPTION: ESB000024

21. ELEVATIONS (SHOW WHETHER DF, RT, GR,ETC.): 4766.0' GL

22. APPROXIMATE DATE WORK WILL START: ASAP

23. ESTIMATED DURATION: 20 DAYS

24 **PROPOSED CASING AND CEMENTING PROGRAM**

SIZE OF HOLE	CASING SIZE, GRADE, AND WEIGHT PER FOOT			SETTING DEPTH	CEMENT TYPE, QUANTITY, YIELD, AND SLURRY WEIGHT
15"	10 3/4"	H-40	32.75 lb/ft (new) ST&C	594' MD	EXISTING
7 7/8"	5 1/2"	L-80	17.O lb/ft ST & C	6,998' MD	EXISTING
4 3/4"	3 1/2" flush	P-110	9.2 lb/ft LT&C	10, 070' MD	SEE ATTACHED 8-POINT DRILLING PLAN

25 **ATTACHMENTS**

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

☑ WELL PLAT OR MAP PREPARED BY LICENSED SURVEYOR OR ENGINEER

☑ COMPLETE DRILLING PLAN

☑ EVIDNECE OF DIVISION OF WATER RIGHTS APPROVAL FOR USE OF WATER

☐ FORM 5, IF OPERATOR IS PERSON OR COMPANY OTHER THAN THE LEASE OW

NAME (PLEASE PRINT) Laura Bills TITLE Regulatory Affairs

SIGNATURE Laura Bills DATE 5/22/08

(This space for State use only)

API NUMBER ASSIGNED: 43-047-31509

APPROVAL:

Approved by the Utah Division of Oil, Gas and Mining

(See Instruction on Reverse Side)

Date: 07-17-08

By: [signature]

(11/2001)

Federal Approval of this Action is Necessary

CONFIDENTIAL

RECEIVED

JUN 30 2008

DIV. OF OIL, GAS & MINING

Surf 621068X 4451365Y 40.20585 -109.57750

BHL 620245X 4452159Y 40.213123 -109.586968

Additional Operator Remarks

Questar Exploration & Production Co. proposes to drill a re-entry well to 10,070' to test the Green River. If productive, casing will be run and the well completed. If dry, the well will be plugged and abandoned as per BLM and State of Utah requirement.

See Onshore Order No. 1 attached

Please be advised that Questar Exploration & Production Co. agrees to be responsible under the terms and conditions of the lease for the operations conducted upon the lease lands.

Bond coverage for this well is provided by Bond No. ESB000024. The principal is Questar Exploration & Production Co. via surety as consent as provided for the 43 CFR 3104.2.

PLEASE FIND ATTACHED:

1. Re-Entry Procedure
2. Pathfinder Drilling Proposal
3. 8-point Program
4. Proposed Well Bore Diagram
5. Legal Plats / Map Prepared by UELS
6. Location Layout Refering to Reserve Pit

If additional Technical Information is required, Please contact Steve Hall, Questar Petroleum Engineer at 303-672-6919.

QUESTAR EXPLORATION AND PRODUCTION

Brennan 8
API: 43-047-31509
Summarized Re-Entry Procedure

1. Rig down pumping unit, clear location of all unnecessary equipment.
2. MIRU pulling unit.
3. ND tubing head, NU BOP's (3M).
4. Kill well if necessary.
5. Pull out of hole with 273 rods (3 - 1" x 4' plain, 1 – 1" x 6' plain, 107 – 1" plain, 94 - $^{7}/_{8}$" plain, & 72 - ¾" plain) and 2 ½" x 1 ½" x 16' x 19 x 20' RHBC pump.
6. Unseat tubing anchor and POOH with 221 jts 2 $^{7}/_{8}$" 6.5# J-55 tubing, TAC, PSN, and 2 pup joints.
7. PU bit and 5 1/2" casing scraper, RIH to 6,200'.
8. Roll hole with KCl or NaCl water, TOOH with bit and scraper.
9. RU wireline truck and RIH with CIBP.
10. Set **top** of CIBP @ +/- 6,088', 5' above nearest collar @ 6,093', POH.
11. ND BOP's
12. RD pulling unit, move off location.
13. MIRU drilling rig.
14. NU rig's 3,000 WP rated BOP.
15. RIH with whipstock, orient and set whipstock on top of CIBP set at 6,xxx' oriented at 315.71° ± azimuth. If it is off a little, it is better to be less (< 315.17 °) rather than greater (>315.71 °) due to the tendency for the bit to turn right as it comes out of the window. Plus or minus 2-3 ° is acceptable.
16. Shear setting pins and start milling operations, mill window in 5 1/2" casing @ 6,076' top, 6,082' bottom and pilot hole. Work mills in and out of window several times.
17. TOOH, PU directional BHA and gyro tool, TIH.
18. Gyro steer the well at a 315.71° azimuth with 12.00°/100' build rates to 45 to 60 feet or until the MWD tools have cleared the casing and are providing accurate readings.
19. Pull gryo tool and continue to drill with directional equipment to land in the G1 Lime formation at a TVD of +/- 6,559' TVD, +/- 6,820' MD.
20. Drill +/- 3,250' of lateral in the G1 Lime with a 1.45 ° apparent down dip angle.

a. Mud system to be a KCl or NaCl weighted water based mud, weights are expected to be in the 8.8 – 9.8 ppg range.

21. Circulate and condition hole, TOOH, LD 3,900' of drill pipe.

    a. PU 3,250' of 3 1/2" flush slotted liner, 738' of blank liner and liner dropping tool.

    b. RIH w/ liner and dropping tool, drop liner at 6,082', just outside window.

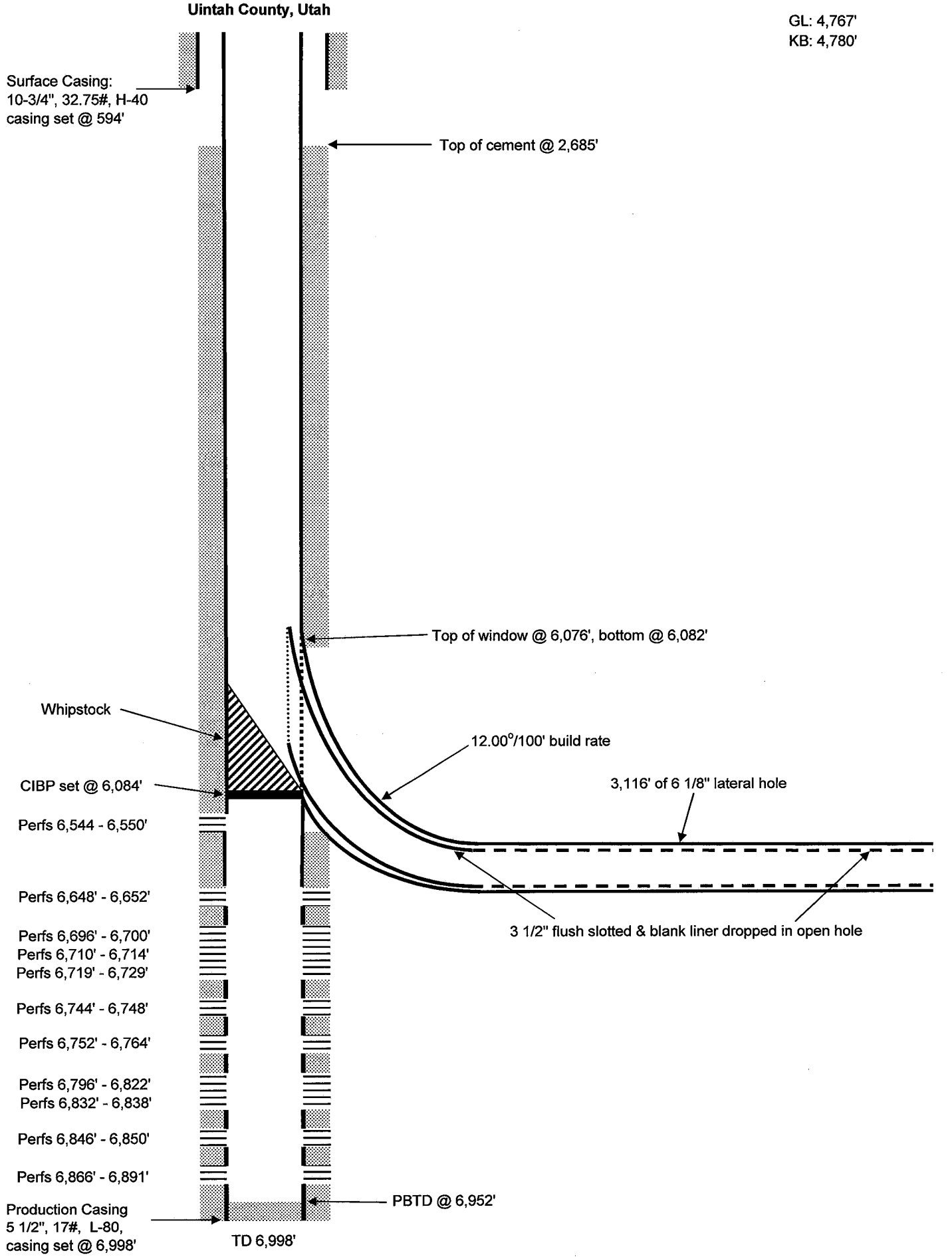
    c. TOOH laying down remainder of the drill pipe.

22. RIH and set CBP @ +/- 4,500' to isolate lateral.

23. ND BOP's.

24. RDMOL.

Brennan 8 Re-Entry Horizontal Well
Uintah County, Utah



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:

Formation	Depth, TVD	Depth, MD
Green River	3,405'	3,405'
Kick Off Point	6,082'	6,082'
Green River (G1 Lime)	6,544'	6,764'
TD	6,641'	10,070'

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:

Substance	Formation	Depth, TVD	Depth, MD
Oil/Gas	Green River (G1 Lime)	6,544'	6,764' – 10,070'

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

As this well is a re-entry of an existing well the surface and production casing strings are already in place as detailed below.

Hole Size	Casing Size	Depth, MD	Weight	Grade
15"	10 3/4"	594'	32.75	H-40
7 7/8"	5 1/2"	6,998'	17.0	L-80

The lateral portion of this wellbore will be cased with a slotted liner.

Hole Size	Casing Size	Top, MD	Bottom, MD	Weight	Grade
4 3/4"	3 1/2" flush	6,082'	10,070'	9.2	P-110

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

5. Cementing Program

As this is a re-entry well and the newly drilled lateral will be cased off with a slotted liner dropped in the open hole there will be no cement required to drill this well. Please refer to the attached wellbore diagram for existing casing and cement conditions.

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

Drilling the 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 less than 500 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. No high pressure or hydrocarbon bearing zones are anticipated at surface casing depth.

2. **Blooie line discharge 100' from well bore 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 ignitor or continuous pilot light on the blooie line.** A diffuser will be used rather than an automatic pilot/ignitor. Water/mist is injected into the compressed air and eliminates the need for the pilot light and the need for dust suppression equipment.

4. **Deduster** – Water/mist injected into compressed air eliminates the need for dust suppression equipment.

5. **Compressors located in the opposite direction from the blooie line a minimum of 100 feet from the well bore.** Compressors are rig mounted and are located 50 feet on the opposite side of the well bore from the blooie line discharge in order to minimize well pad size.
   The main compressor is 1250 CFM at 350 psi with 2000 psi booster. The secondary compressor is 1070 CFM at 350 psi with 2000 psi booster.
   Compressors will be used for drilling surface casing only.
   In addition, the following safety equipment will be in place 1) kill switch on the driller's console, 2) pressure relief valve on the compressor, 3) spark arrestors on the engines.

Drilling of the laterals will be done with fresh water NaCl based mud systems consisting primarily of fresh water, bentonite, lignite, caustic, lime, soda ash, polymers, and NaCl. 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 existing production casing to TD.

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

7. Testing, Logging, and Coring Program

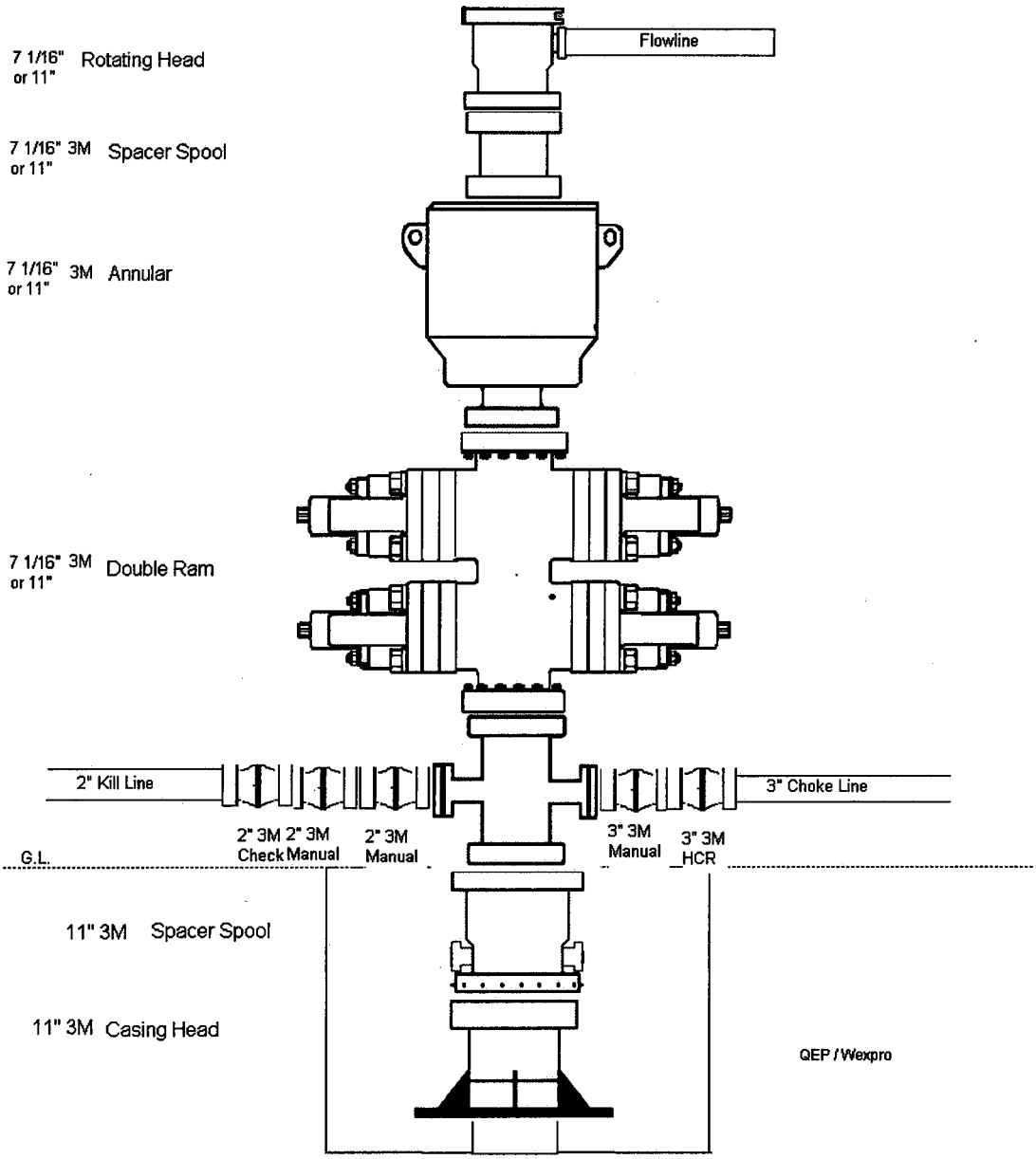
A. Cores – None Anticipated
B. DST – None Anticipated
C. Logging:
   i. Mud logging from casing exit to TD
   ii. MWD-GR will be utilized during drilling operations to aid in landing the curve and maintaining the lateral within the desired zone.
D. Formation and completion interval: G1 Lime interval, 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.

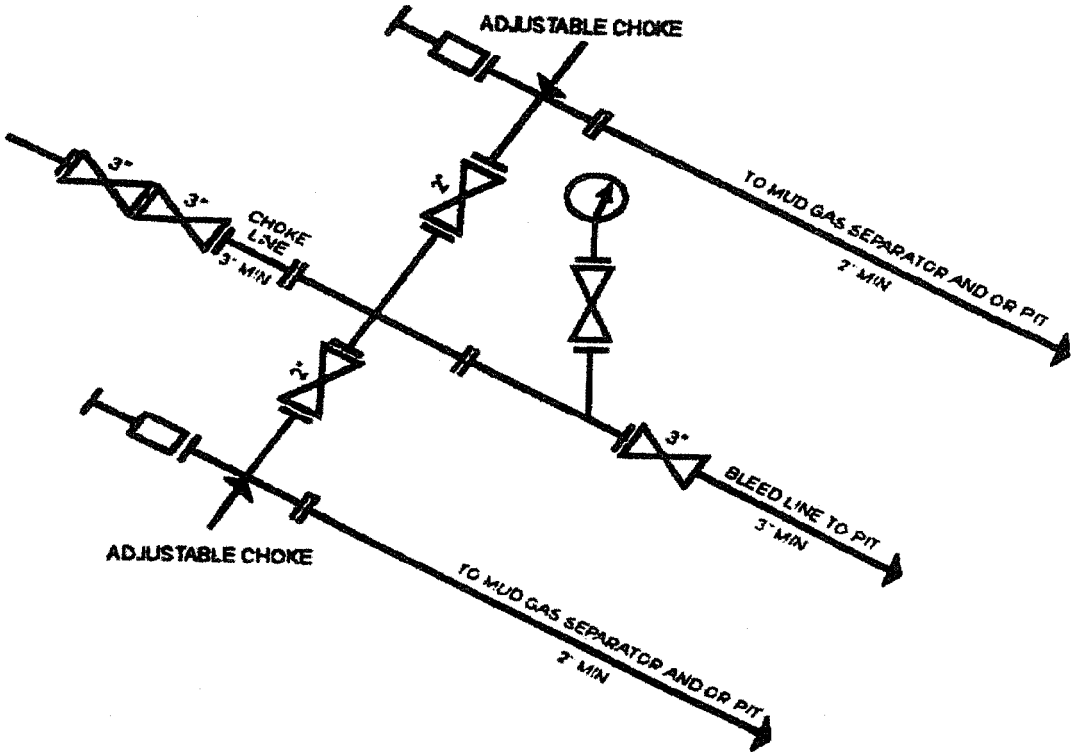
8. Cementing Program

As this is a re-entry well and the newly drilled lateral will be cased off with a slotted liner dropped in the open hole there will be no cement required to drill this well. Please refer to the attached wellbore diagram for existing casing and cement conditions.

9. 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 3,400 psi. Maximum anticipated bottom hole temperature is approximately 150°F.


7 1/16" or 11" Rotating Head
7 1/16" or 11" 3M Spacer Spool
7 1/16" or 11" 3M Annular
7 1/16" or 11" 3M Double Ram
Flowline
2" Kill Line
3" Choke Line
2" 3M Check
2" 3M Manual
2" 3M Manual
3" 3M Manual
3" 3M HCR
G.L.
11" 3M Spacer Spool
11" 3M Casing Head
QEP / Wexpro



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

QUESTAR

Questar Exploration & Production

Uintah Co., UT
Sec.17-T7S-R21E
Brennan Federal 8
Wellbore #1

Plan: Plan #1

Pathfinder Planning Report

03 January, 2008

PATHFINDER
ENERGY SERVICES

Database:	EDM 2003.16 Single User Db	**Local Co-ordinate Reference:**	Well Brennan Federal 8
Company:	Questar Exploration & Production	**TVD Reference:**	WELL @ 4780.0ft (Original Well Elev)
Project:	Uintah Co., UT	**MD Reference:**	WELL @ 4780.0ft (Original Well Elev)
Site:	Sec.17-T7S-R21E	**North Reference:**	True
Well:	Brennan Federal 8	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #1		

Project Uintah Co., UT

Map System:	US State Plane 1983	**System Datum:**	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	Utah Central Zone		

Site Sec.17-T7S-R21E

Site Position:		**Northing:**	7,250,854.73 ft	**Latitude:**	40° 12' 34.380 N
From:	Lat/Long	**Easting:**	2,178,704.17 ft	**Longitude:**	109° 34' 20.842 W
Position Uncertainty:	0.0 ft	**Slot Radius:**	"	**Grid Convergence:**	1.23 °

Well Brennan Federal 8

Well Position	**+N/-S**	0.0 ft	**Northing:**	7,249,449.98 ft	**Latitude:**	40° 12' 20.830 N
	+E/-W	0.0 ft	**Easting:**	2,177,156.05 ft	**Longitude:**	109° 34' 41.182 W
Position Uncertainty		0.0 ft	**Wellhead Elevation:**	ft	**Ground Level:**	4,767.0 ft

Wellbore Wellbore #1

Magnetics	**Model Name**	**Sample Date**	**Declination (°)**	**Dip Angle (°)**	**Field Strength (nT)**
	IGRF200510	1/3/2008	11.57	66.12	52,797

Design Plan #1

Audit Notes:

Version:	**Phase:**	PROTOTYPE	**Tie On Depth:**	0.0

Vertical Section:

Depth From (TVD) (ft)	**+N/-S (ft)**	**+E/-W (ft)**	**Direction (°)**
0.0	0.0	0.0	315.71

Plan Sections

Measured Depth (ft)	**Inclination (°)**	**Azimuth (°)**	**Vertical Depth (ft)**	**+N/-S (ft)**	**+E/-W (ft)**	**Dogleg Rate (°/100ft)**	**Build Rate (°/100ft)**	**Turn Rate (°/100ft)**	**TFO (°)**	**Target**
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.00	0.00	
6,081.7	0.00	0.00	6,081.7	0.0	0.0	0.00	0.00	0.00	0.00	
6,819.6	88.55	315.71	6,559.0	333.1	-325.0	12.00	12.00	0.00	315.71	PBHL Brennan Feder
10,069.7	88.55	315.71	6,641.3	2,658.9	-2,593.8	0.00	0.00	0.00	0.00	PBHL Brennan Feder

Database:	EDM 2003.16 Single User Db	**Local Co-ordinate Reference:**	Well Brennan Federal 8
Company:	Questar Exploration & Production	**TVD Reference:**	WELL @ 4780.0ft (Original Well Elev)
Project:	Uintah Co., UT	**MD Reference:**	WELL @ 4780.0ft (Original Well Elev)
Site:	Sec.17-T7S-R21E	**North Reference:**	True
Well:	Brennan Federal 8	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #1		

Planned Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
KOP / Start Build 12.00° - 5 1/2" Casing									
6,081.7	0.00	0.00	6,081.7	0.0	0.0	0.0	0.00	0.00	0.00
6,100.0	2.20	315.71	6,100.0	0.3	-0.2	0.4	12.00	12.00	0.00
6,125.0	5.20	315.71	6,124.9	1.4	-1.4	2.0	12.00	12.00	0.00
6,150.0	8.20	315.71	6,149.8	3.5	-3.4	4.9	12.00	12.00	0.00
6,175.0	11.20	315.71	6,174.4	6.5	-6.3	9.1	12.00	12.00	0.00
6,200.0	14.20	315.71	6,198.8	10.4	-10.2	14.6	12.00	12.00	0.00
6,225.0	17.20	315.71	6,222.9	15.3	-14.9	21.3	12.00	12.00	0.00
6,250.0	20.20	315.71	6,246.5	21.0	-20.5	29.4	12.00	12.00	0.00
6,275.0	23.20	315.71	6,269.8	27.6	-27.0	38.6	12.00	12.00	0.00
6,300.0	26.20	315.71	6,292.5	35.1	-34.2	49.0	12.00	12.00	0.00
6,325.0	29.20	315.71	6,314.6	43.4	-42.4	60.7	12.00	12.00	0.00
6,350.0	32.20	315.71	6,336.1	52.6	-51.3	73.4	12.00	12.00	0.00
6,375.0	35.20	315.71	6,356.9	62.5	-61.0	87.3	12.00	12.00	0.00
6,400.0	38.20	315.71	6,376.9	73.2	-71.4	102.2	12.00	12.00	0.00
6,425.0	41.20	315.71	6,396.2	84.6	-82.5	118.2	12.00	12.00	0.00
6,450.0	44.20	315.71	6,414.5	96.7	-94.4	135.1	12.00	12.00	0.00
6,475.0	47.20	315.71	6,432.0	109.5	-106.9	153.0	12.00	12.00	0.00
6,500.0	50.20	315.71	6,448.5	123.0	-120.0	171.8	12.00	12.00	0.00
6,525.0	53.20	315.71	6,464.0	137.0	-133.7	191.4	12.00	12.00	0.00
6,550.0	56.20	315.71	6,478.4	151.6	-147.9	211.8	12.00	12.00	0.00
6,575.0	59.20	315.71	6,491.8	166.8	-162.7	233.0	12.00	12.00	0.00
6,600.0	62.20	315.71	6,504.0	182.4	-177.9	254.8	12.00	12.00	0.00
6,625.0	65.20	315.71	6,515.1	198.4	-193.5	277.2	12.00	12.00	0.00
6,650.0	68.20	315.71	6,525.0	214.8	-209.6	300.1	12.00	12.00	0.00
6,675.0	71.20	315.71	6,533.7	231.6	-225.9	323.6	12.00	12.00	0.00
6,700.0	74.20	315.71	6,541.1	248.7	-242.6	347.4	12.00	12.00	0.00
6,725.0	77.20	315.71	6,547.3	266.0	-259.5	371.7	12.00	12.00	0.00
6,750.0	80.20	315.71	6,552.2	283.6	-276.6	396.2	12.00	12.00	0.00
G1 Lime Top Porosity									
6,764.0	81.88	315.71	6,554.4	293.5	-286.3	410.0	12.00	12.00	0.00
6,775.0	83.20	315.71	6,555.8	301.3	-293.9	420.9	12.00	12.00	0.00
6,800.0	86.20	315.71	6,558.1	319.1	-311.3	445.8	12.00	12.00	0.00
Start 3250.1 hold at 6819.6 MD									
6,819.6	88.55	315.71	6,559.0	333.1	-325.0	465.4	12.00	12.00	0.00
6,900.0	88.55	315.71	6,561.0	390.6	-381.1	545.7	0.00	0.00	0.00
7,000.0	88.55	315.71	6,563.6	462.2	-450.9	645.7	0.00	0.00	0.00
7,100.0	88.55	315.71	6,566.1	533.8	-520.7	745.7	0.00	0.00	0.00
7,200.0	88.55	315.71	6,568.6	605.3	-590.5	845.6	0.00	0.00	0.00
7,300.0	88.55	315.71	6,571.2	676.9	-660.3	945.6	0.00	0.00	0.00
7,400.0	88.55	315.71	6,573.7	748.4	-730.1	1,045.6	0.00	0.00	0.00
7,500.0	88.55	315.71	6,576.2	820.0	-799.9	1,145.5	0.00	0.00	0.00
7,600.0	88.55	315.71	6,578.8	891.6	-869.7	1,245.5	0.00	0.00	0.00
7,700.0	88.55	315.71	6,581.3	963.1	-939.5	1,345.5	0.00	0.00	0.00
7,800.0	88.55	315.71	6,583.8	1,034.7	-1,009.3	1,445.5	0.00	0.00	0.00
7,900.0	88.55	315.71	6,586.4	1,106.2	-1,079.2	1,545.4	0.00	0.00	0.00
8,000.0	88.55	315.71	6,588.9	1,177.8	-1,149.0	1,645.4	0.00	0.00	0.00
8,100.0	88.55	315.71	6,591.4	1,249.4	-1,218.8	1,745.4	0.00	0.00	0.00
8,200.0	88.55	315.71	6,593.9	1,320.9	-1,288.6	1,845.3	0.00	0.00	0.00
8,300.0	88.55	315.71	6,596.5	1,392.5	-1,358.4	1,945.3	0.00	0.00	0.00
8,400.0	88.55	315.71	6,599.0	1,464.0	-1,428.2	2,045.3	0.00	0.00	0.00
8,500.0	88.55	315.71	6,601.5	1,535.6	-1,498.0	2,145.2	0.00	0.00	0.00
8,600.0	88.55	315.71	6,604.1	1,607.1	-1,567.8	2,245.2	0.00	0.00	0.00

Database:	EDM 2003.16 Single User Db	**Local Co-ordinate Reference:**	Well Brennan Federal 8
Company:	Questar Exploration & Production	**TVD Reference:**	WELL @ 4780.0ft (Original Well Elev)
Project:	Uintah Co., UT	**MD Reference:**	WELL @ 4780.0ft (Original Well Elev)
Site:	Sec.17-T7S-R21E	**North Reference:**	True
Well:	Brennan Federal 8	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #1		

Planned Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
8,700.0	88.55	315.71	6,606.6	1,678.7	-1,637.6	2,345.2	0.00	0.00	0.00
8,800.0	88.55	315.71	6,609.1	1,750.3	-1,707.4	2,445.1	0.00	0.00	0.00
8,900.0	88.55	315.71	6,611.7	1,821.8	-1,777.2	2,545.1	0.00	0.00	0.00
9,000.0	88.55	315.71	6,614.2	1,893.4	-1,847.0	2,645.1	0.00	0.00	0.00
9,100.0	88.55	315.71	6,616.7	1,964.9	-1,916.8	2,745.0	0.00	0.00	0.00
9,200.0	88.55	315.71	6,619.2	2,036.5	-1,986.6	2,845.0	0.00	0.00	0.00
9,300.0	88.55	315.71	6,621.8	2,108.1	-2,056.4	2,945.0	0.00	0.00	0.00
9,400.0	88.55	315.71	6,624.3	2,179.6	-2,126.3	3,044.9	0.00	0.00	0.00
9,500.0	88.55	315.71	6,626.8	2,251.2	-2,196.1	3,144.9	0.00	0.00	0.00
9,600.0	88.55	315.71	6,629.4	2,322.7	-2,265.9	3,244.9	0.00	0.00	0.00
9,700.0	88.55	315.71	6,631.9	2,394.3	-2,335.7	3,344.8	0.00	0.00	0.00
9,800.0	88.55	315.71	6,634.4	2,465.8	-2,405.5	3,444.8	0.00	0.00	0.00
9,900.0	88.55	315.71	6,637.0	2,537.4	-2,475.3	3,544.8	0.00	0.00	0.00
10,000.0	88.55	315.71	6,639.5	2,609.0	-2,545.1	3,644.7	0.00	0.00	0.00
TD at 10069.7 - PBHL Brennan Federal 8 - PBHL Brennan Federal 8									
10,069.7	88.55	315.71	6,641.3	2,658.8	-2,593.7	3,714.4	0.00	0.00	0.00

Targets

Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (ft)	Easting (ft)	Latitude	Longitude
PBHL Brennan Federal 8 - plan hits target - Point	0.00	0.00	6,641.3	2,658.9	-2,593.8	7,252,052.51	2,174,505.75	40° 12' 47.105 N	109° 35' 14.617 W

Casing Points

Measured Depth (ft)	Vertical Depth (ft)	Name	Casing Diameter (")	Hole Diameter (")
420.0	420.0	8 5/8" Casing	8-5/8	12-1/4
6,081.7	6,081.7	5 1/2" Casing	5-1/2	7-7/8

Formations

Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)
3,405.0	3,405.0	Green River		1.45	315.71
6,764.0	6,544.0	G1 Lime Top Porosity		1.45	315.71
3,781.0	6,550.0	G1 Lime Bottom Porosity		1.45	315.71

Database:	EDM 2003.16 Single User Db	**Local Co-ordinate Reference:**	Well Brennan Federal 8
Company:	Questar Exploration & Production	**TVD Reference:**	WELL @ 4780.0ft (Original Well Elev)
Project:	Uintah Co., UT	**MD Reference:**	WELL @ 4780.0ft (Original Well Elev)
Site:	Sec.17-T7S-R21E	**North Reference:**	True
Well:	Brennan Federal 8	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #1		

Plan Annotations

Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates +N/-S (ft)	Local Coordinates +E/-W (ft)	Comment
6,081.7	6,081.7	0.0	0.0	KOP / Start Build 12.00°
6,819.6	6,559.0	333.1	-325.0	Start 3250.1 hold at 6819.6 MD
10,069.7	6,641.3	2,658.8	-2,593.7	TD at 10069.7

QUESTAR

Company: Questar Exploration & Production
Field: Uintah Co., UT
Location: Sec.17-T7S-R21E
Well: Brennan Federal 8
Wellbore #1
Plan: Plan #1 (Brennan Federal 8/Wellbore #1)

PATHFINDER ENERGY SERVICES

SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	DLeg	TFace	VSec	Target
1	0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.0	
2	6081.7	0.00	0.00	6081.7	0.0	0.0	0.00	0.00	0.0	
3	6819.6	88.55	315.71	6559.0	333.1	-325.0	12.00	315.71	465.4	PBHL Brennan Federal 8
4	10069.7	88.55	315.71	6641.3	2658.9	-2593.8	0.00	0.00	3714.5	PBHL Brennan Federal 8

WELL DETAILS: Brennan Federal 8

Ground Level: 4767.0

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot
0.0	0.0	7249449.98	2177156.05	40° 12' 20.830 N	109° 34' 41.182 W	

T M

Azimuths to True North
Magnetic North: 11.57°

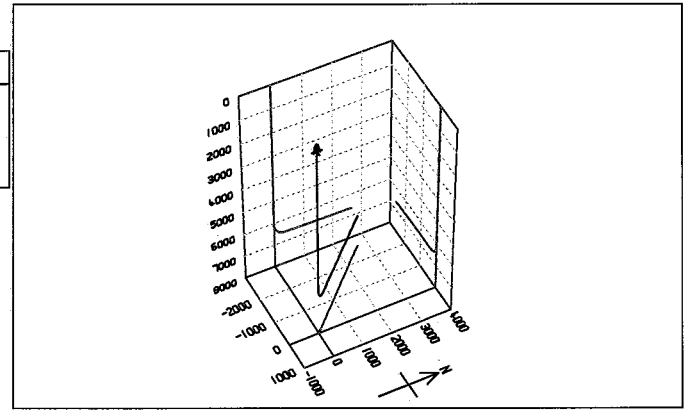
Magnetic Field
Strength: 52797.2snT
Dip Angle: 66.12°
Date: 1/3/2008
Model: IGRF200510

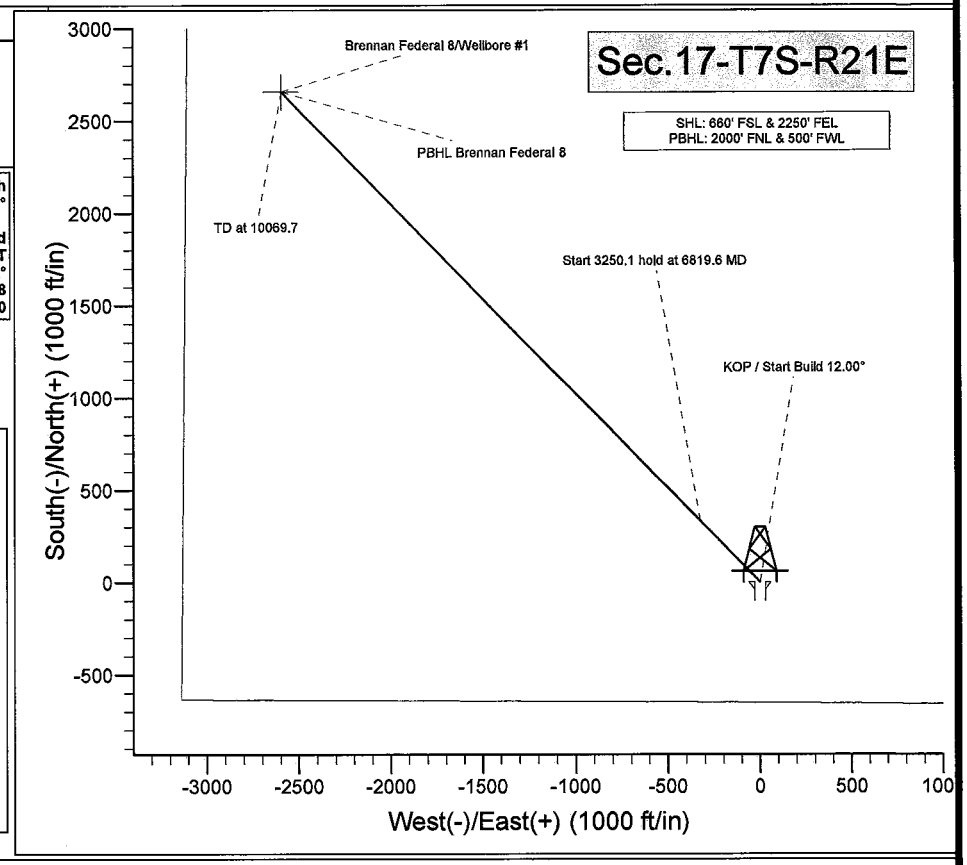
WELLBORE TARGET DETAILS

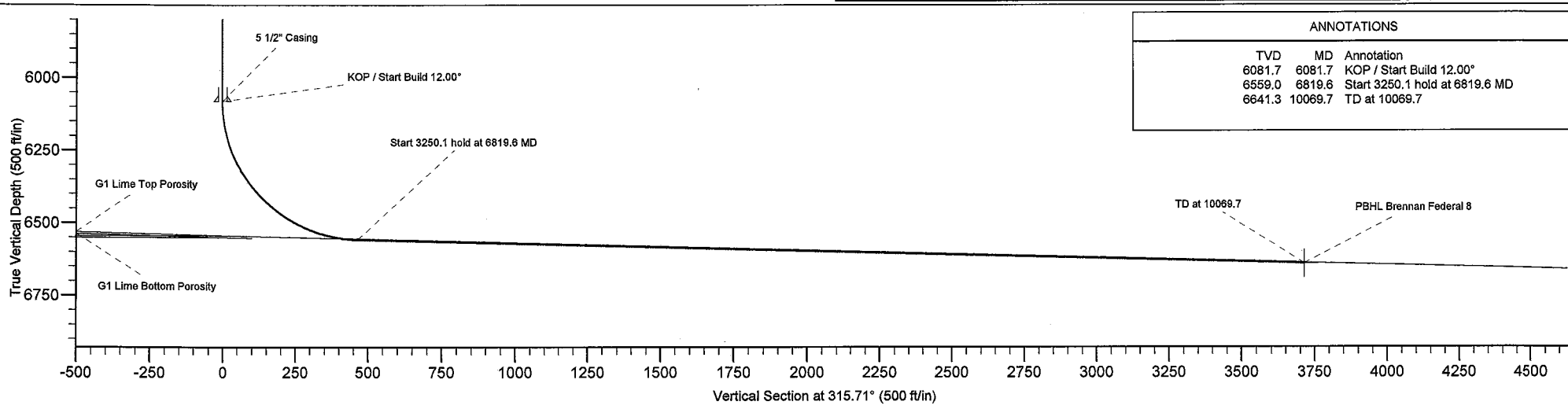
Name	TVD	+N/-S	+E/-W	Shape
PBHL Brennan Federal 8	6641.3	2658.9	-2593.8	Point

FORMATION TOP DETAILS

TVDPath	MDPath	Formation
		G1 Lime Bottom Porosity
3405.0	3405.0	Green River
6554.4	6764.0	G1 Lime Top Porosity







ANNOTATIONS

TVD	MD	Annotation
6081.7	6081.7	KOP / Start Build 12.00°
6559.0	6819.6	Start 3250.1 hold at 6819.6 MD
6641.3	10069.7	TD at 10069.7

SUT08818010

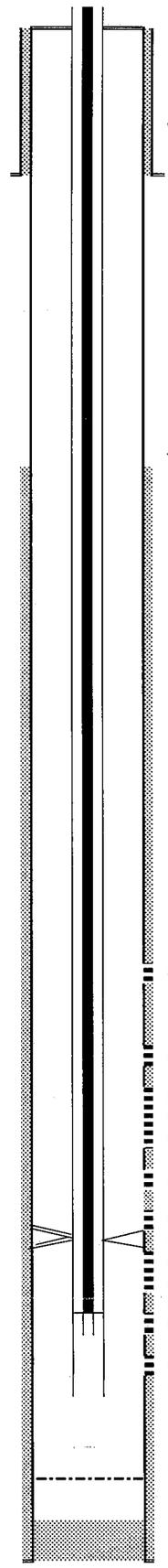
FIELD: Brennan Bottoms | GL: 4767' KBE: 4780' | Spud date: 8-84 | Last date worked on: 4-7-06

WELL NAME: Brennan Federal 8 | TD: 6998' PBTD: 6952' | Current Well Status: Pumping oil well

Location:
NE of SE SEC 17 TOWN 7S RANGE 21E
Uintah County, Utah

Reason for Pull/Workover:
Pump & Polish rod change

Wellbore Schematic



Surface casing
Size 10 3/4"
Weight 32.75#
Grade J-55
Cemented
W/ 438 SXS
Set @ 594'
HOLE SIZE 15.0"

Production casing
Size 5-1/2"
Weight 17#
Grade: L-80
CEMENTED
W/ 1005 SXS
SET @ 6998'
HOLE SIZE: 7-7/8"

Tubing Landing Detail:

Description	Size	Footage	Depth
KB		10.00	10.00
Stretch		2.00	12.00
217	2 7/8"	6767.07	6779.07
"T" anchor set w/15,000#	5-1/2"	2.63	6781.70
3 JTS	2-7/8"	96.14	6877.84
PSN	2-7/8"	1.10	6878.94
1 jt.	2-7/8"	32.43	6911.37
Perf. Pup	2-7/8"	4.04	6915.41
Pup jt.	2-7/8"	6.44	6921.85
Collar - EOT	2-7/8"	0.45	6922.30

TUBING INFORMATION 2-7/8" EUE 8RD
Condition:
New: ____ Used: ____ Rerun: X
Grade: J-55
Weight (#/ft): 6.50

Sucker Rod Detail:

Size	#Rods	Rod Type
1-1/2" x 26'		Polish Rod
3- 4', 1- 6' x 1"	4	Pony
		Pony
1"	107	Plain
7/8"	94	Plain
3/4"	72	Plain

Rod Information
Condition:
New: x Used: ____ Rerun: ____
Grade:
Manufacture:

Pump Information:
API Designation 2-1/2" x 1-1/2" x 16 x 19 x 20 RHAC Weatherfords
Example: 25 x 150 x RHAC X 20 X 6 X 2
PUMP SN# #1695
ORIGINAL RUN DATE
RERUN Rebuilt NEW RUN

Initial Completion 05/24/2001 **Last Workover** 06/15/2001
RIH and tag PBTD @ 5952'. Perf Mw4b and swab 0.5 BPH @ 0% oilcut, black water. Perf Lv5 and Gx3, swab Lv5 at FER = 0.1 @ 80% oilcut. Swab Gx3 at FER = 0.8 BPH @ 70% oilcut. Sand frac Gx3, Lv5 together w/ 7,100# in 4,700 gals at ATR = 4.5 BPM, ATP = 1475 psig, ISIP = 1330 psig. Circ out 10 BO next AM. Perf Fremont and swab at FER = 4.0 BPH @ 0% oilcut. Cement sqz w/ 50 sxs. DO cement and test squeeze OK. Perf Ew4 and Ex3, swab Ex3 at FER = 1.0 BPH @ 1% oil. Swab Ew4 at FER = 0.6 BPH @ 1% oilcut. Perf Ev5, Eu6. Swab Ev5 at FER = 1.0 BPH @ 0% oil, swab Eu6 @ 0.8 BPH @ 1% oilcut. POOH w/ tools and RIH w/ production tubing and rods. TWOTP.
Date of First Production = 06/21/2001. Well IPP @ 15 BOPD, 0 McfPD, 45 BWPD on 06/24/2001.

Wellhead Detail:
7 1/16" 2000#
7 1/16" 3000#
7 1/16" 5000#
Other: 10"
Hanger: Yes ____ No X

SUMMARY
6/30/03 Change Pump TBG. Tested Good (RGD)
6/30/04 HIT, JTS# 209 & 211 Pin Holes, Replaced # 208-211
4-7-06 Pump & Polish Rod change.

Prepared By: Todd Seiffert Date: 4-7-06

Lessee's or Operator's Representative:

Jan Nelson
Red Wash Rep.
Questar Exploration & Production Co.
11002 East 17500 South
Vernal, Utah 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 & Gas Orders, the approved plan of operations, and any applicable Notice to Lessees.

Questar Exploration & Production Co. will be fully responsible for the actions of their 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.

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

Laura Bills
Laura Bills
Red Wash Representative

5/22/08
Date

QUESTAR EXPLR. & PROD.

BB#8

LOCATED IN UINTAH COUNTY, UTAH
SECTION 17, T7S, R21E, S.L.B.&M.

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

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

- Since 1964 -

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

LOCATION PHOTOS	11 MONTH	01 DAY	07 YEAR	PHOTO
TAKEN BY: D.A.	DRAWN BY: Z.L.	REVISED: 00-00-00		

QUESTAR EXPLR. & PROD.

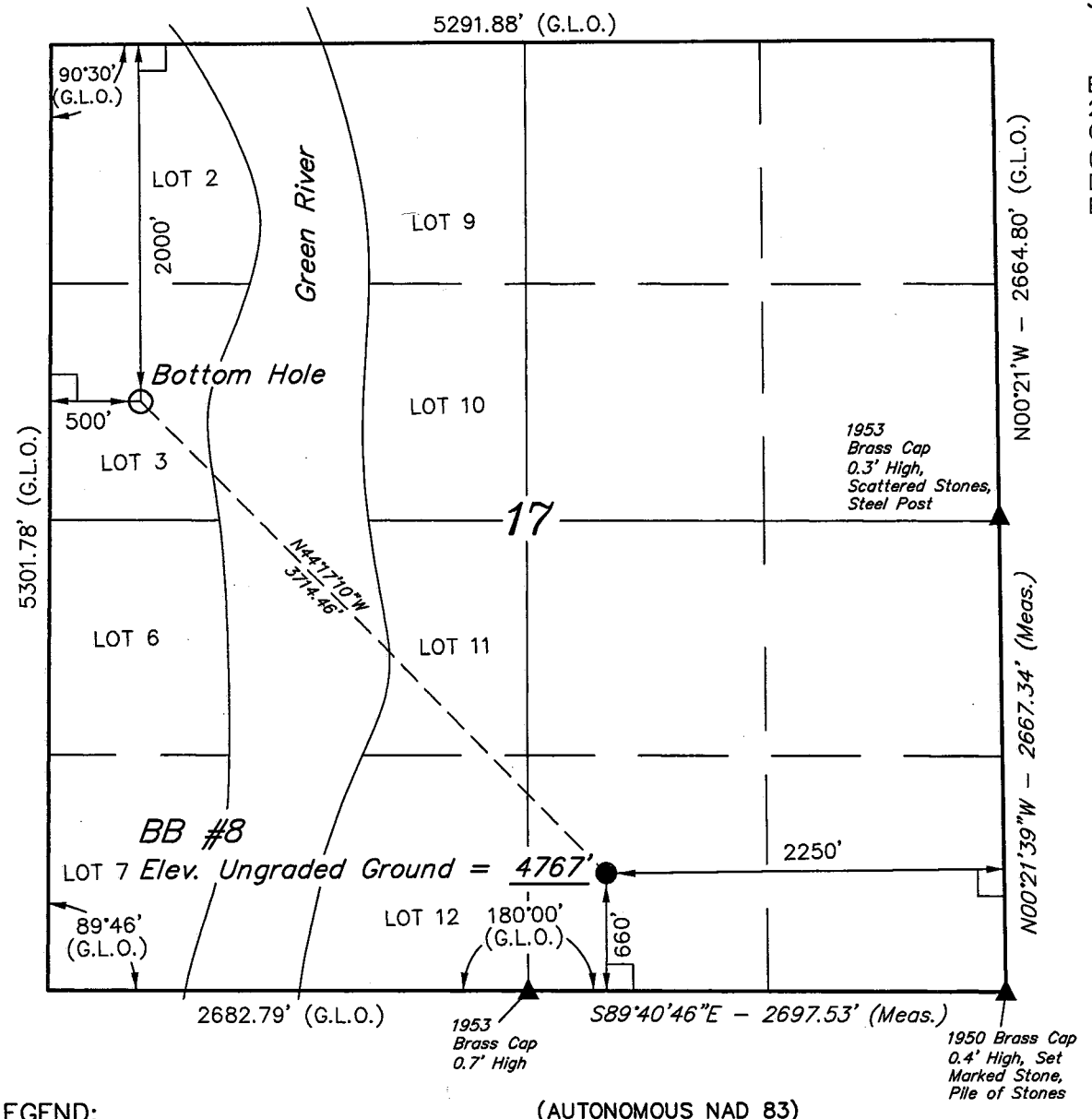
Well location, BB #8, located as shown in the SW 1/4 SE 1/4 of Section 17, T7S, R21E, S.L.B.&M., Uintah County, Utah.

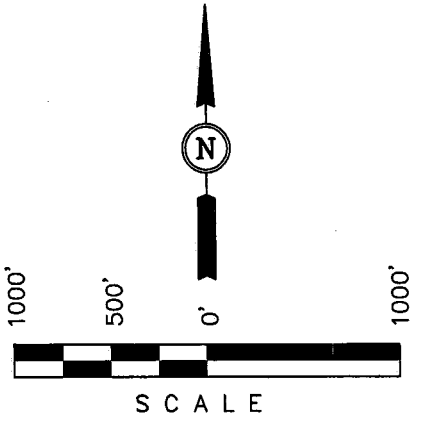
BASIS OF ELEVATION

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.

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 ROBERT L. KAY No. 161319 STATE OF UTAH

LEGEND:

└ = 90° SYMBOL

● = PROPOSED WELL HEAD.

▲ = SECTION CORNERS LOCATED.

(AUTONOMOUS NAD 83)
LATITUDE = 40°12'20.83" (40.205786)
LONGITUDE = 109°34'41.18" (109.578106)
(AUTONOMOUS NAD 27)
LATITUDE = 40°12'20.96" (40.205822)
LONGITUDE = 109°34'38.69" (109.577414)

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

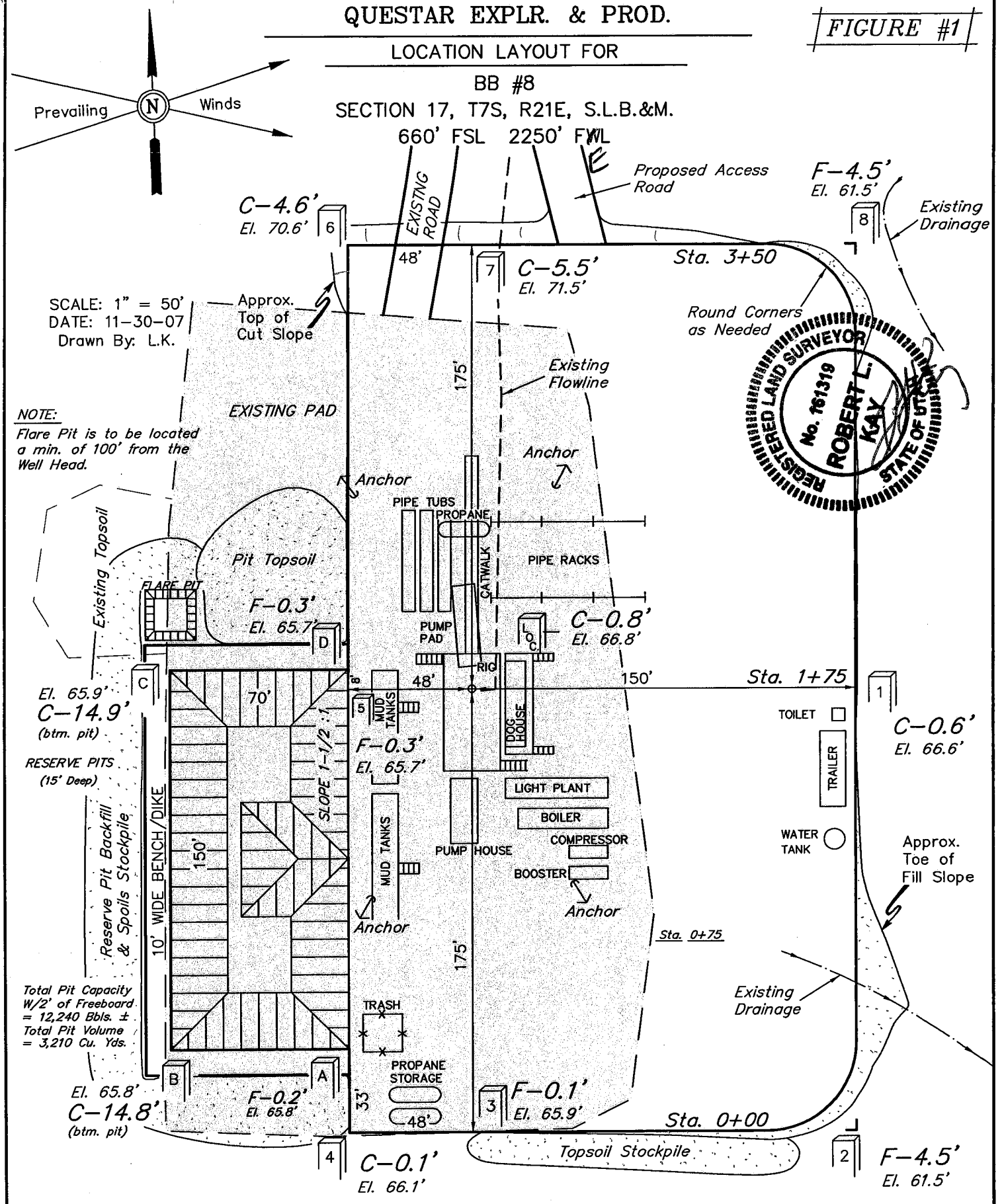
SCALE 1" = 1000'	DATE SURVEYED: 10-31-07	DATE DRAWN: 11-29-07
PARTY D.A. T.M. L.K.	REFERENCES G.L.O. PLAT	
WEATHER COLD	FILE QUESTAR EXPLR. & PROD.	

QUESTAR EXPLR. & PROD.

LOCATION LAYOUT FOR

BB #8
SECTION 17, T7S, R21E, S.L.B.&M.
660' FSL 2250' FWL

FIGURE #1



NOTES:

Elev. Ungraded Ground At #8 Loc. Stake = 4766.8'
FINISHED GRADE ELEV. AT #8 LOC. STAKE = 4766.0'

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

QUESTAR EXPLR. & PROD.

TYPICAL CROSS SECTIONS FOR

BB #8
SECTION 17, T7S, R21E, S.L.B.&M.
660' FSL 2250' F~~W~~E L

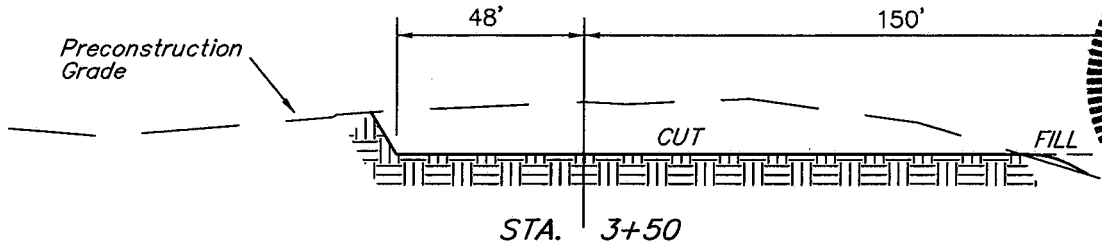
FIGURE #2

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

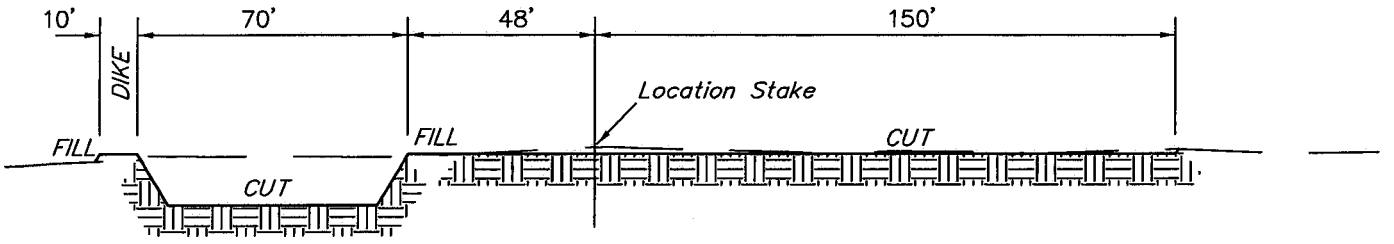
DATE: 11-30-07
Drawn By: L.K.

* NOTE:
FILL QUANTITY INCLUDES 5% FOR COMPACTION

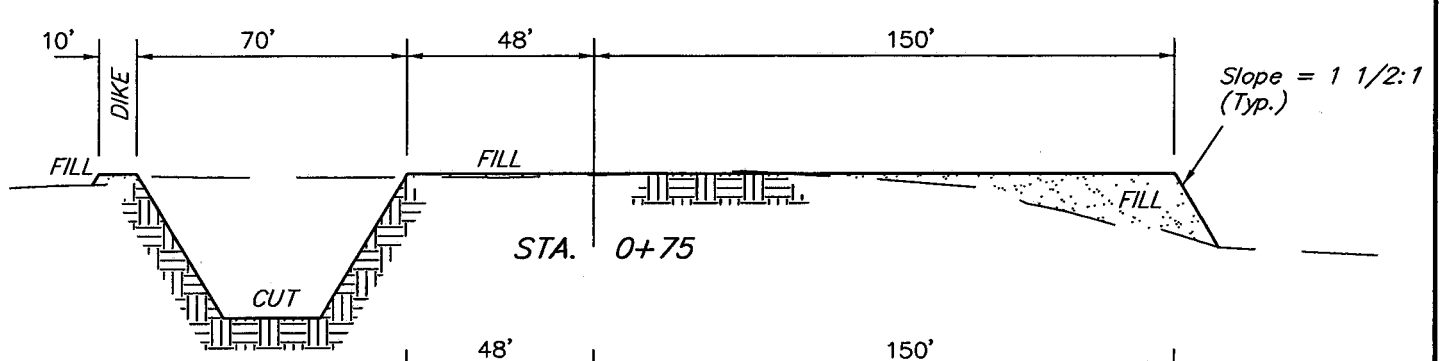
REGISTERED LAND SURVEYOR No. 161319 ROBERT L. KAY STATE OF UTAH



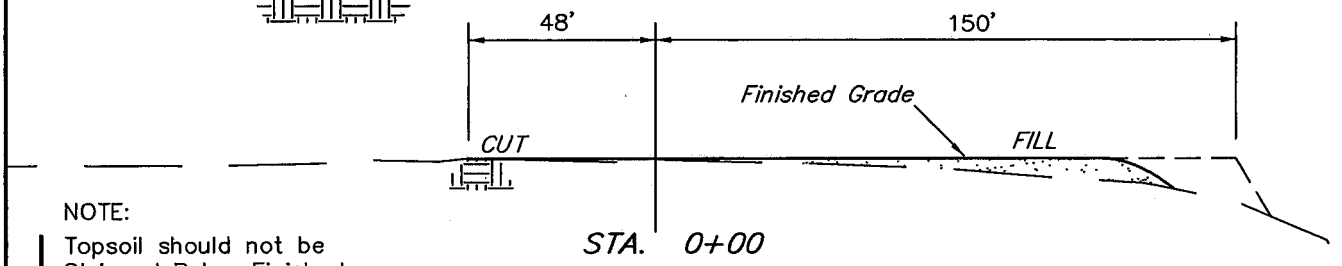
STA. 3+50



STA. 1+75



STA. 0+75



STA. 0+00

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

APPROXIMATE ACREAGES

WELL SITE DISTURBANCE = ±1.972 ACRES
ACCESS ROAD DISTURBANCE = ±0.130 ACRES
TOTAL = ±2.102 ACRES

APPROXIMATE YARDAGES

CUT
(6") Topsoil Stripping = 730 Cu. Yds.
(New Construction Only)
Remaining Location = 4,590 Cu. Yds.

TOTAL CUT = 5,320 CU.YDS.
FILL = 1,550 CU.YDS.

Excess Material = 3,770 Cu. Yds.
Topsoil & Pit Backfill = 2,340 Cu. Yds.
(1/2 Pit Vol.)
EXCESS UNBALANCE = 1,430 Cu. Yds.
(After Interim Rehabilitation)

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

QUESTAR EXPLR. & PROD.

INTERIM RECLAMATION PLAN FOR

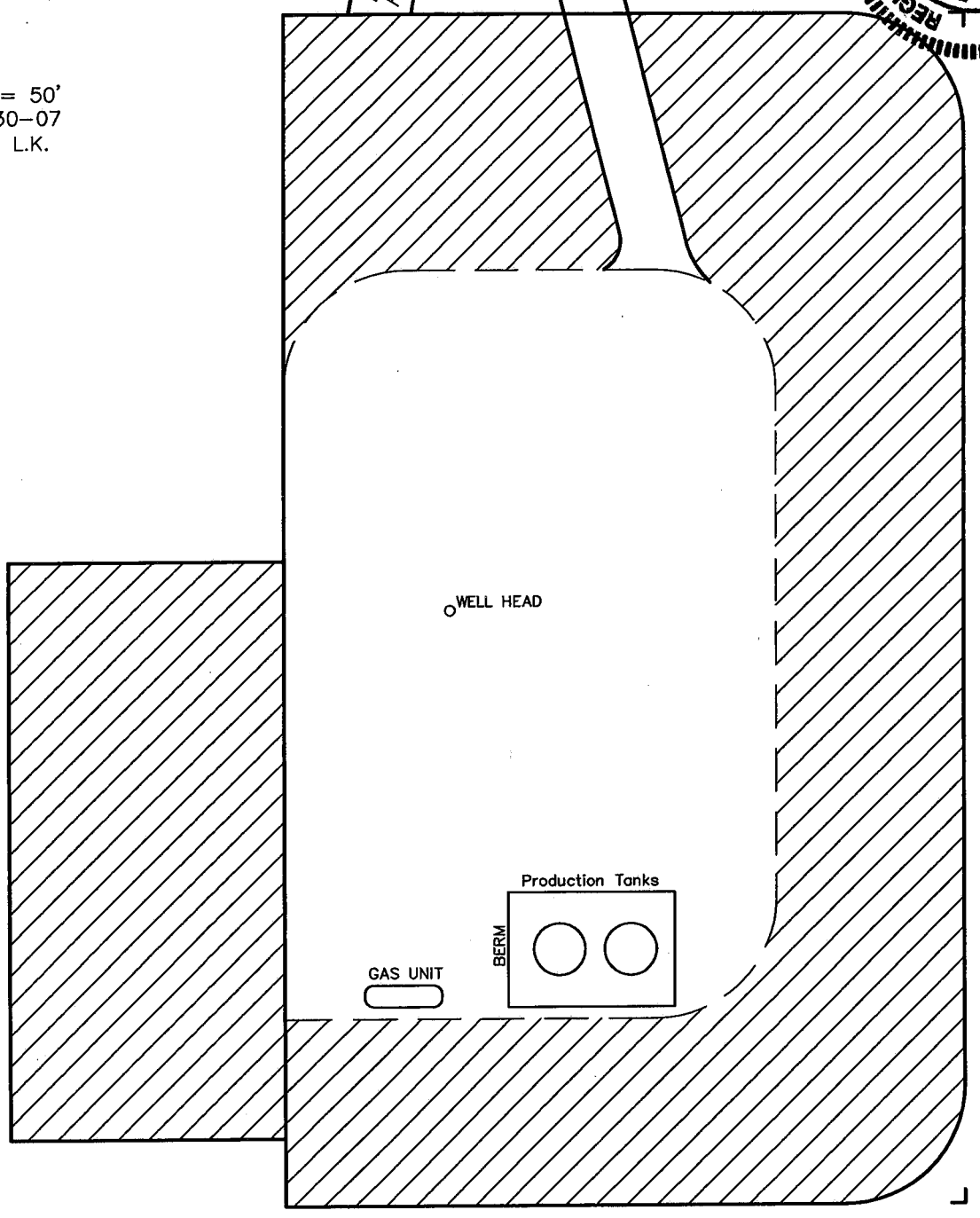
BB #8

SECTION 17, T7S, R21E, S.L.B.&M.

660' FSL 2250' FWL

FIGURE #3

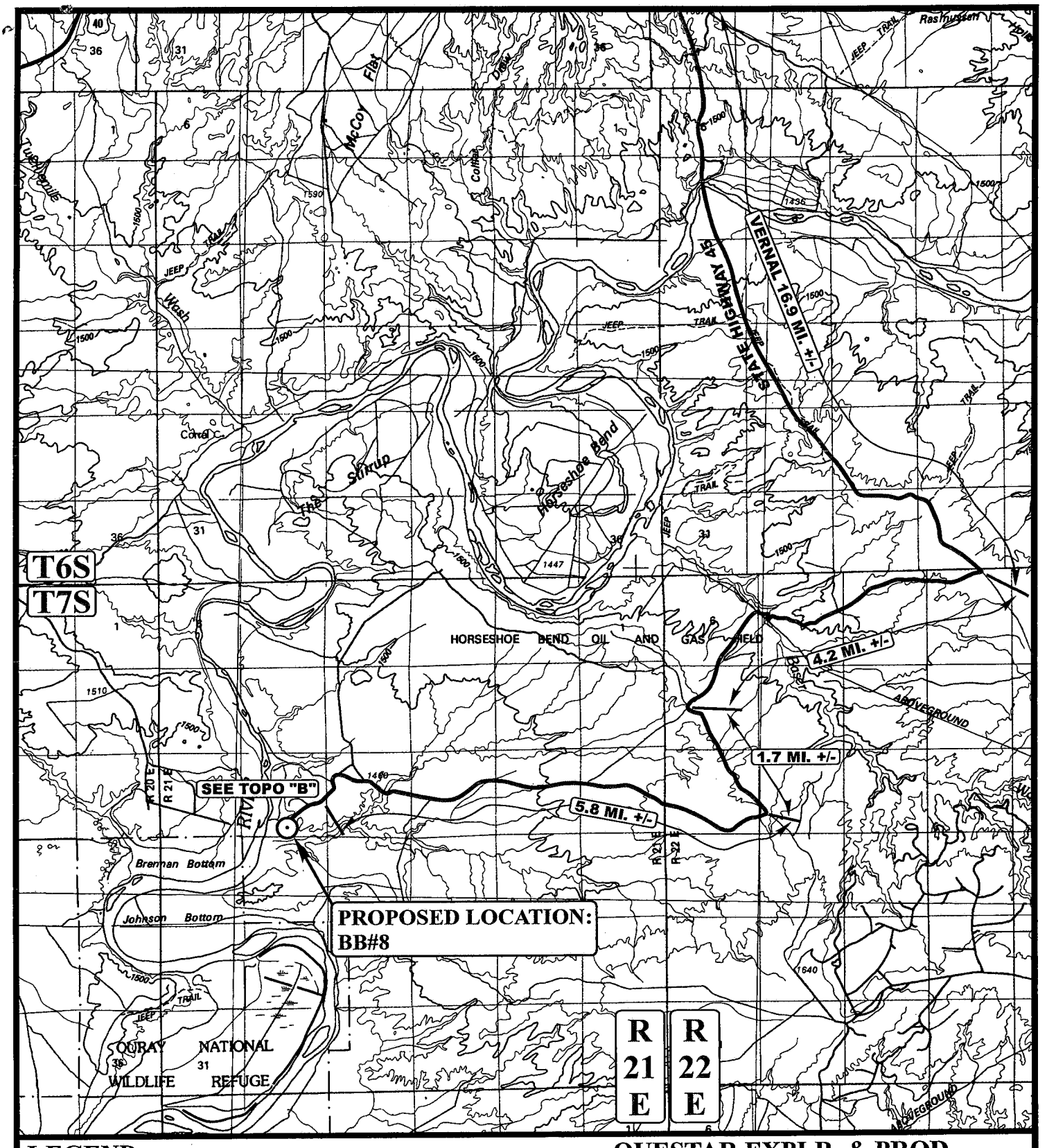
SCALE: 1" = 50'
DATE: 11-30-07
Drawn By: L.K.



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

INTERIM RECLAMATION

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



LEGEND:

⊙ PROPOSED LOCATION

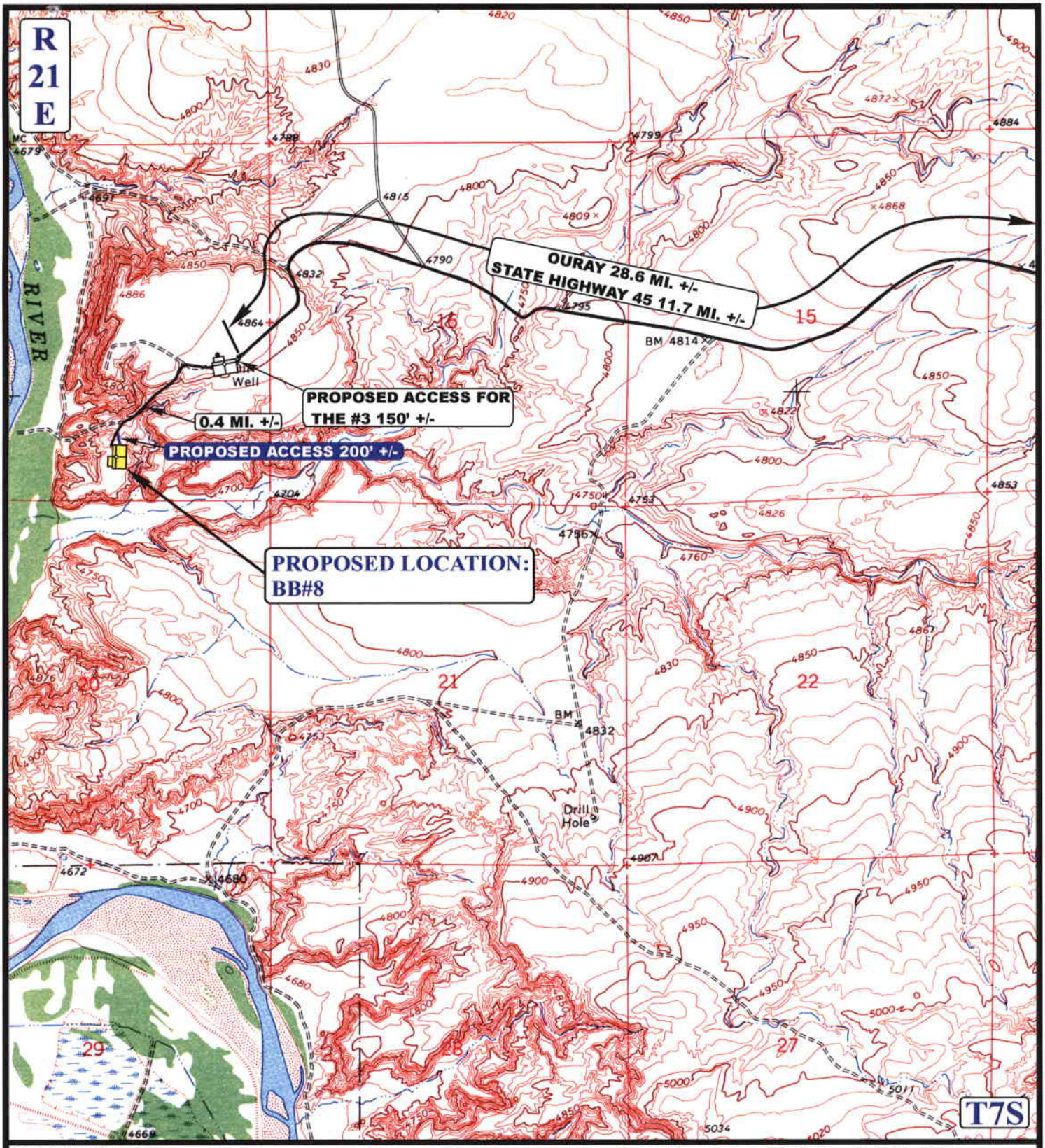
N

QUESTAR EXPLR. & PROD.

BB#8
SECTION 17,T7S, R21E, S.L.B.&M.
660' FSL 2250' FEL

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

TOPOGRAPHIC MAP	11 MONTH	01 DAY	07 YEAR	A TOPO
SCALE: 1:100,000	DRAWN BY: Z.L.	REVISED: 00-00-00		



LEGEND:

PROPOSED ACCESS ROAD
EXISTING ROAD

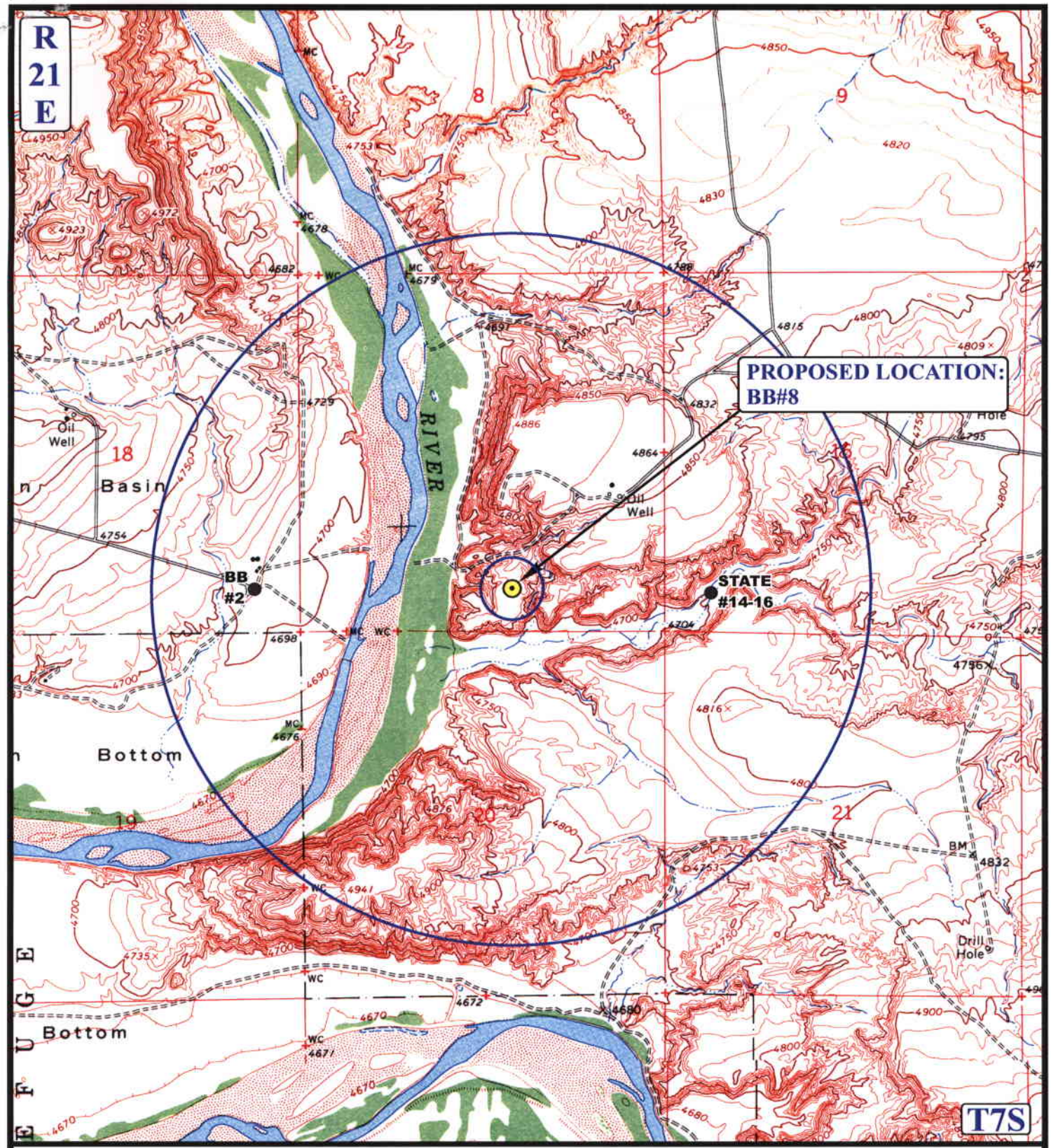
N

QUESTAR EXPLR. & PROD.

BB#8
SECTION 17,T7S, R21E, S.L.B.&M.
660' FSL 2250' FEL

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

TOPOGRAPHIC MAP	11 MONTH	01 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.

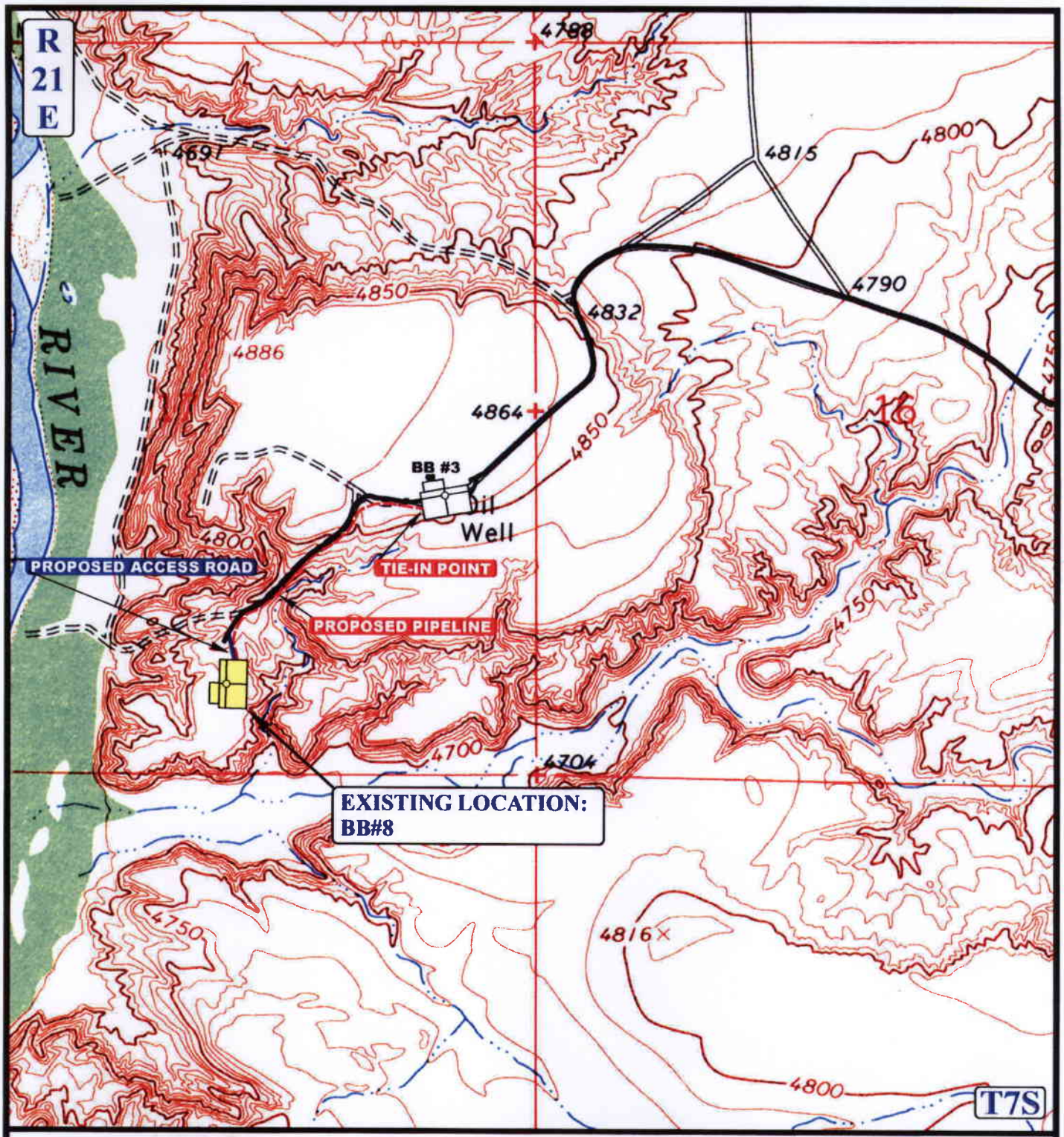
BB#8

SECTION 17,T7S, R21E, S.L.B.&M.

660' FSL 2250' FEL

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

TOPOGRAPHIC MAP	11 MONTH	01 DAY	07 YEAR	C TOPO
SCALE: 1" = 2000'	DRAWN BY: Z.L.	REVISED: 00-00-00		



APPROXIMATE TOTAL PIPELINE DISTANCE = 1,986' +/-

LEGEND:

- PROPOSED ACCESS ROAD
- EXISTING PIPELINE
- PROPOSED PIPELINE

N

QUESTAR EXPLR. & PROD.

BB#8

SECTION 17,T7S, R21E, S.L.B.&M.

660' FSL 2250' FEL

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

TOPOGRAPHIC MAP	03 MONTH	04 DAY	08 YEAR	D TOPO
SCALE: 1" = 1000'	DRAWN BY: Z.L.	REVISED: 00-00-00		

WORKSHEET
APPLICATION FOR PERMIT TO DRILL

APD RECEIVED: 06/30/2008

API NO. ASSIGNED: 43-047-31509

WELL NAME: BRENNAN 8
OPERATOR: QUESTAR EXPLORATION & (N5085)
CONTACT: LAURA BILLS

PHONE NUMBER: 435-781-4301

PROPOSED LOCATION:
SWSE 17 070S 210E
SURFACE: 0660 FSL 2250 FEL
BOTTOM: 2000 FNL 0500 FWL
COUNTY: UINTAH
LATITUDE: 40.20585 LONGITUDE: -109.5775
UTM SURF EASTINGS: 621068 NORTHINGS: 4451365
FIELD NAME: BRENNAN BOTTOM (560)

INSPECT LOCATN BY: / /

Tech Review	Initials	Date
Engineering		
Geology		
Surface		

LEASE TYPE: 1 - Federal
LEASE NUMBER: SL-066409A
SURFACE OWNER: 1 - Federal

PROPOSED FORMATION: GRRV
COALBED METHANE WELL? NO

RECEIVED AND/OR REVIEWED:

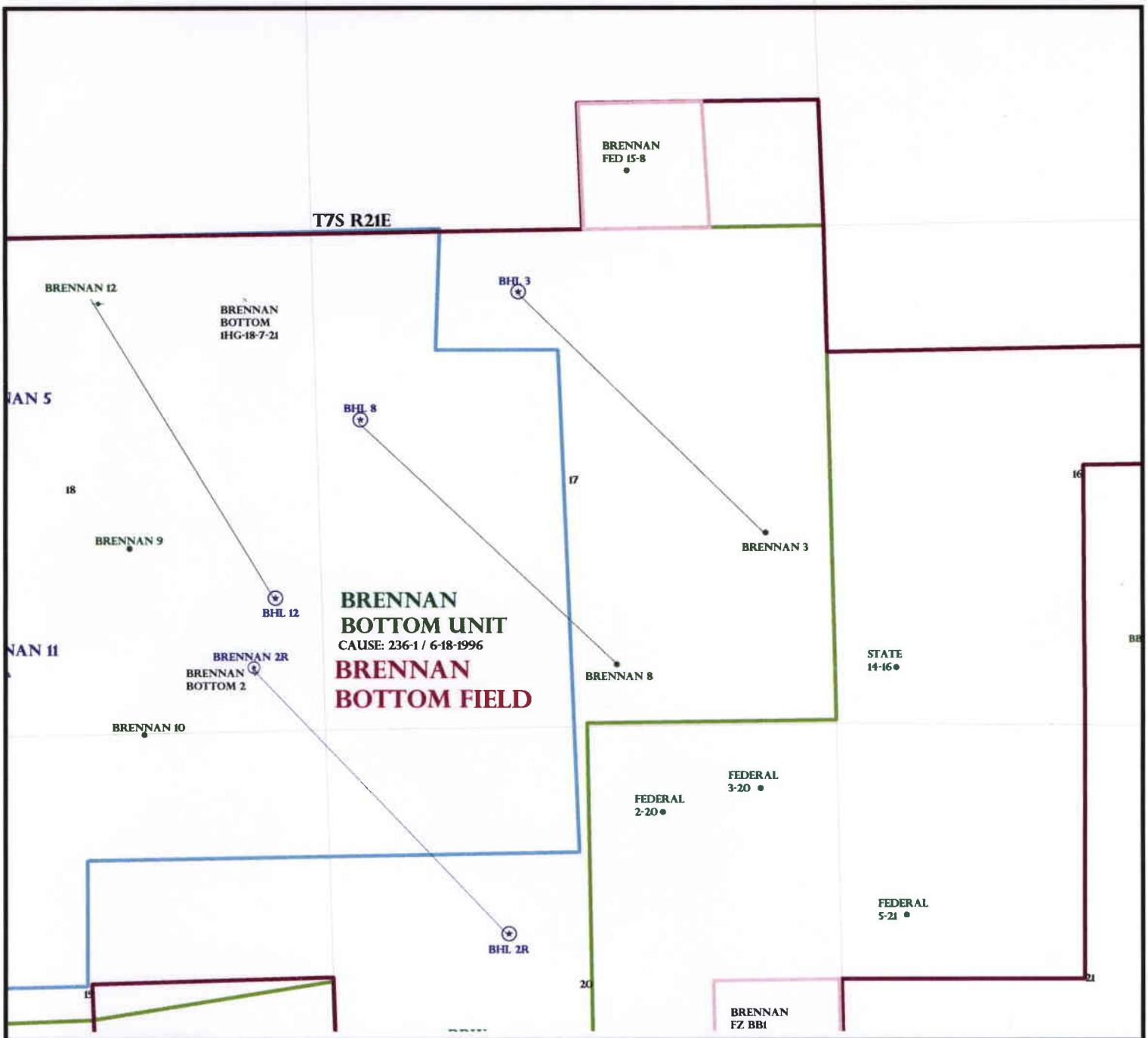
✓ Plat
✓ Bond: Fed[1] Ind[] Sta[] Fee[]
(No. ESB000024)
N Potash (Y/N)
N Oil Shale 190-5 (B) or 190-3 or 190-13
✓ Water Permit
(No. 49-2153)
N RDCC Review (Y/N)
(Date:)
NA Fee Surf Agreement (Y/N)
NA Intent to Commingle (Y/N)

LOCATION AND SITING:

____ R649-2-3. * Horizontal
Unit: BRENNAN BOTTOM
____ R649-3-2. General
Siting: 460 From Qtr/Qtr & 920' Between Wells
____ R649-3-3. Exception
✓ Drilling Unit
Board Cause No: 236-1
Eff Date: 6-18-1996
Siting: 1 Does Not Suspend Gen. Siting
____ R649-3-11. Directional Drill

COMMENTS:

STIPULATIONS: 1- Federal Approval
2- Within 30 days following drilling and testing of this well, if successful, the operator will file a Request for Agency Action with the Board of Oil, Gas and Mining to amend the Order in Cause No. 236-01.
per GH



OPERATOR: QUESTAR EXPL & PROD (N5085)

SEC: 17 T.7S R. 21E

FIELD: BRENNAN BOTTOM (560)

COUNTY: UINTAH

CAUSE: 236-1 / 6-18-1996

Field Status
- ABANDONED
- ACTIVE
- COMBINED
- INACTIVE
- PROPOSED
- STORAGE
- TERMINATED

Unit Status
- EXPLORATORY
- GAS STORAGE
- NF PP OIL
- NF SECONDARY
- PENDING
- PI OIL
- PP GAS
- PP GEOTHERML
- PP OIL
- SECONDARY
- TERMINATED

Wells Status
- GAS INJECTION
- GAS STORAGE
- LOCATION ABANDONED
- NEW LOCATION
- PLUGGED & ABANDONED
- PRODUCING GAS
- PRODUCING OIL
- SHUT-IN GAS
- SHUT-IN OIL
- TEMP. ABANDONED
- TEST WELL
- WATER INJECTION
- WATER SUPPLY
- WATER DISPOSAL
- DRILLING

UTAH DNR OIL, GAS & MINING

N W E S

PREPARED BY: DIANA MASON
DATE: 17-JULY-2008

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 17, 2008

Memorandum

To: Assistant District Manager Minerals, Vernal District

From: Michael Coulthard, Petroleum Engineer

Subject: 2008 Plan of Development Brennan Bottom Unit, Uintah County, Utah.

Pursuant to email between Diana Whitney, Division of Oil, Gas and Mining, and Mickey Coulthard, Utah State Office, Bureau of Land Management, the following well will be re-entered and completed horizontally in calendar year 2008 within the Brennan Bottom Unit, Uintah County, Utah

API #	WELL NAME	LOCATION
(Proposed PZ Green River)		
43-047-31509	Brennan 8	Sec 17 T07S R21E 0660 FSL 2250 FEL
	Lat #1 8	Sec 17 T07S R21E 2000 FNL 0500 FWL

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

/s/ Michael L. Coulthard

bcc: File - Brennan Bottom
Division of Oil Gas and Mining
Central Files
Agr. Sec. Chron
Fluid Chron

MCoulthard:mc:7-17-08

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

July 17, 2008

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

Re: Brennan 8 Well, Surface Location 660' FSL, 2250' FEL, SW SE, Sec. 17, T. 7 South, R. 21 East, Bottom Location 2000' FNL, 500' FWL, SW NW, Sec. 17, 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 43-047-31509.

Sincerely,

Gil Hunt
Associate Director

pab
Enclosures

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

1594 West North Temple, Suite 1210, PO Box 145801, Salt Lake City, UT 84114-5801
telephone (801) 538-5340 • facsimile (801) 359-3940 • TTY (801) 538-7458 • *www.ogm.utah.gov*

UTAH DNR
OIL, GAS & MINING

Operator: Questar Exploration & Production, Co.
Well Name & Number Brennan 8
API Number: 43-047-31509
Lease: UTSL-071745

Surface Location: SW SE **Sec.** 17 **T.** 7 South **R.** 21 East
Bottom Location: SW NW **Sec.** 17 **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 within 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 (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. Within 30 days following drilling and testing of this well, if successful, the operator will file a Request for Agency Action with the Board of Oil, Gas and Mining to amend the Order in Cause No. 236-01.

API Well No: 43047315090000

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

FORM 9

5.LEASE DESIGNATION AND SERIAL NUMBER: SL-066409A

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: BRENNAN BOTTOM

1. TYPE OF WELL Oil Well

8. WELL NAME and NUMBER: BRENNAN 8

2. NAME OF OPERATOR: QUESTAR EXPLORATION & PRODUCTION CO

9. API NUMBER: 43047315090000

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: 0660 FSL 2250 FEL
QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: Qtr/Qtr: SWSE Section: 17 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: 7/14/2010	☐ 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.

The operator hereby requests a one year extension on the APD for the above captioned location.

Approved by the Utah Division of Oil, Gas and Mining

Date: July 15, 2009

By: [signature]

NAME (PLEASE PRINT)	PHONE NUMBER	TITLE
Jan Nelson	435 781-4331	Permit Agent
SIGNATURE N/A		**DATE** 7/14/2009

RECEIVED July 14, 2009

The Utah Division of Oil, Gas, and Mining

- State of Utah
- Department of Natural Resources

Electronic Permitting System - Sundry Notices

Request for Permit Extension Validation Well Number 43047315090000

API: 43047315090000
Well Name: BRENNAN 8
Location: 0660 FSL 2250 FEL QTR SWSE SEC 17 TWNP 070S RNG 210E MER S
Company Permit Issued to: QUESTAR EXPLORATION & PRODUCTION CO
Date Original Permit Issued: 7/17/2008

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

- **If located on private land, has the ownership changed, if so, has the surface agreement been updated?** ○ **Yes** ◉ **No**
- **Have any wells been drilled in the vicinity of the proposed well which would affect the spacing or siting requirements for this location?** ○ **Yes** ◉ **No**
- **Has there been any unit or other agreements put in place that could affect the permitting or operation of this proposed well?** ○ **Yes** ◉ **No**
- **Have there been any changes to the access route including ownership, or rightof- way, which could affect the proposed location?** ○ **Yes** ◉ **No**
- **Has the approved source of water for drilling changed?** ○ **Yes** ◉ **No**
- **Have there been any physical changes to the surface location or access route which will require a change in plans from what was discussed at the onsite evaluation?** ○ **Yes** ◉ **No**
- **Is bonding still in place, which covers this proposed well?** ◉ **Yes** ○ **No**

Approved by the Utah Division of Oil, Gas and Mining

Signature: Jan Nelson **Date:** 7/14/2009
Title: Permit Agent **Representing:** QUESTAR EXPLORATION & PRODUCTION CO

Date: July 15, 2009

By:

RECEIVED July 14, 2009

T07S R21E S-17 43 047 31509

CONFIDENTIAL

Questar E & P

Operations Summary Report

Legal Well Name:	BRENNAN 8 (17-7S-21E)				
Common Well Name:	BRENNAN 8 (17-7S-21E)				Spud Date: 7/31/1984
Event Name:	RE-COMPLETION	Start:	9/15/2009	End:	
Contractor Name:	Rocky Mtn Well Service	Rig Release:	11/26/2008	Group:	
Rig Name:	ROCKY MTN WS	Rig Number:	3		

Date	From - To	Hours	Code	Sub Code	Phase	Description of Operations
9/16/2009	07:00 - 16:00	9.00	BOP	1		PREP FOR DRILLING On 9/15/09 @ 7:00 AM - Spot rig & RU. Hot oiler had 200 bbls water down csg, well did not circulate. Unhang rods, lay down H-head, long stroke pump from 200 to 800 psi in 3 strokes, good test, good pump action. Unseat pump. Flush tbg w/ 50 bbls chemical water. POOH laying down rods on trailer. When the last rod was pulled the pump was missing, it appears to have come unscrewed while pulling out of the hole. X-over to tbg equipment, ND WH, unland tbg, release TAC. NU BOP's, RU rig floor, POOH w/ 217 points 2-7/8" tbg, 5-1/2" B-2 TAC, 3 jts 2-7/8" tbg, PSN, 1 jt tbg w/ B-N-C. Lay down TAC & PSN w/ rod pump inside. RIH w/ 4-3/4" bit, bit sub, 5-1/2" csg scraper, 101 jts 2-7/8" tbg. Secure well. SDFN. Csg Size: 5-1/2" 17# L-80 Csg Depth: 6998' 24 Hour Forecast: POOH w/ bit & scraper, lay down tbg, set CIBP.
9/17/2009	07:00 - 20:00	13.00	LOG	4		PREP FOR DRILLING On 9/16/09 @ 7:00 AM - 0 psi on well. RIH w/ tbg & csg scraper to 6896', hot oiler pumped 100 bbls chemical water down csg, well did not circulate. POOH w/ tbg & csg scraper. RU wireline, RIH w/ 5-1/2" CIBP & set @ 6168'. RD wireline. RIH w/ tbg & tag plug, lay down one jt & fill csg w/ 110 bbls 2% KCL, circulate 20 bbls out flowline. Spot tbg trailer, POOH & lay down 145 jts tbg. SDFN @ 8:00 PM. Csg Size: 5-1/2" 17# L-80 Csg Depth: 6998' 24 Hour Forecast: Finish laying down tbg.
9/18/2009	06:00 - 16:00	10.00	TRP	5		Prep For Drilling On 9-17-09 7:00AM 0 psi on well. Continue to POOH and lay down tubing on trailer. LD rig floor, NU WH, X-over to rod equipment, RDMO. Leave well shut-in, waiting on drilling rig. Note: Hauled rods and tubing to Brennan #3, parked tailers on location FINAL REPORT Casing Size: 5 -1/2" 17# L-80 Casing depth: 6998'

RECEIVED
SEP 2 1 2009
DIV. OF OIL, GAS & MINING

Form 3160-5
(August 2007)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

FORM APPROVED
OMB No. 1004-0137
Expires: July 31, 2010

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill or to re-enter an abandoned well. Use Form 3160-3 (APD) for such proposals.

SUBMIT IN TRIPLICATE – Other instructions on page 2.

CONFIDENTIAL

5. Lease Serial No.
UTSL-066409A

6. If Indian, Allottee or Tribe Name
N/A

7. If Unit of CA/Agreement, Name and/or No.
BRENNAN BOTTOM

1. Type of Well
☑ Oil Well ☐ Gas Well ☐ Other

8. Well Name and No.
BRENNAN 8

2. Name of Operator
QUESTAR EXPLORATION AND PRODUCTION COMPANY

9. API Well No.
43-047-31509

3a. Address
11002 EAST 17500 SOUTH
VERNAL, UT 84078

3b. Phone No. *(include area code)*
435-781-4331

10. Field and Pool or Exploratory Area
Brennan Bottom 560

4. Location of Well *(Footage, Sec., T., R., M., or Survey Description)*
660' FSL 2250' FEL SWSE, SECTION 17, T7S, R21E (SURFACE)
2000' FNL 500' FWL, SWNW, SECTION 17, T7S, R21E (BHL)

11. Country or Parish, State

12. CHECK THE APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION			
☑ Notice of Intent	☐ Acidize	☐ Deepen	☐ Production (Start/Resume)	☐ Water Shut-Off
	☐ Alter Casing	☐ Fracture Treat	☐ Reclamation	☐ Well Integrity
☐ Subsequent Report	☐ Casing Repair	☐ New Construction	☐ Recomplete	☑ Other EXTEND TD
	☐ Change Plans	☐ Plug and Abandon	☐ Temporarily Abandon	
☐ Final Abandonment Notice	☐ Convert to Injection	☐ Plug Back	☐ Water Disposal	

13. Describe Proposed or Completed Operation: Clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or recomplete horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the Bond under which the work will be performed or provide the Bond No. on file with BLM/BIA. Required subsequent reports must be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompletion in a new interval, a Form 3160-4 must be filed once testing has been completed. Final Abandonment Notices must be filed only after all requirements, including reclamation, have been completed and the operator has determined that the site is ready for final inspection.)

Questar Exploration and Production Company (QEP) has determined that the target for the TD needs to be extended 330 more feet than the orginal TD was permitted for. Therefore, QEP is requesting permission to change the TD from the approved 10, 070' MD to 10,400 MD.

The new bottom hole footages are: 2270' FNL 50' FWL

620111X 40.212389
4452076Y -109.588565

COPY SENT TO OPERATOR
Date: 11.12.2009
Initials: KS

Federal Approval of this Action is Necessary

RECEIVED
OCT 26 2009
DIV. OF OIL, GAS & MINING

14. I hereby certify that the foregoing is true and correct. Name *(Printed/Typed)*
Jan Nelson

Title Permit Agent

Signature Jan Nelson

Date 10/26/2009

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved by Bradley G. Hill

Title BRADLEY G. HILL ENVIRONMENTAL MANAGER

Office

Date 11-05-09

Conditions of approval, if any, are attached. Approval of this notice does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make 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 matter within its jurisdiction.

(Instructions on page 2)

QUESTAR EXPLR. & PROD.

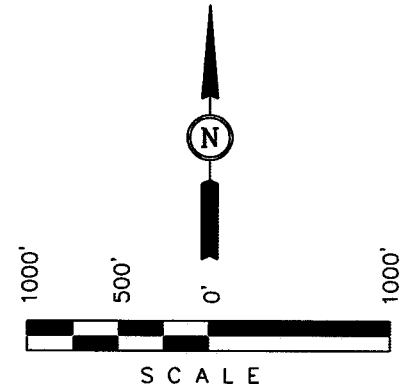
Well location, BB #8, located as shown in the SW 1/4 SE 1/4 of Section 17, T7S, R21E, S.L.B.&M., Uintah County, Utah.

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.

BASIS OF BEARINGS

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



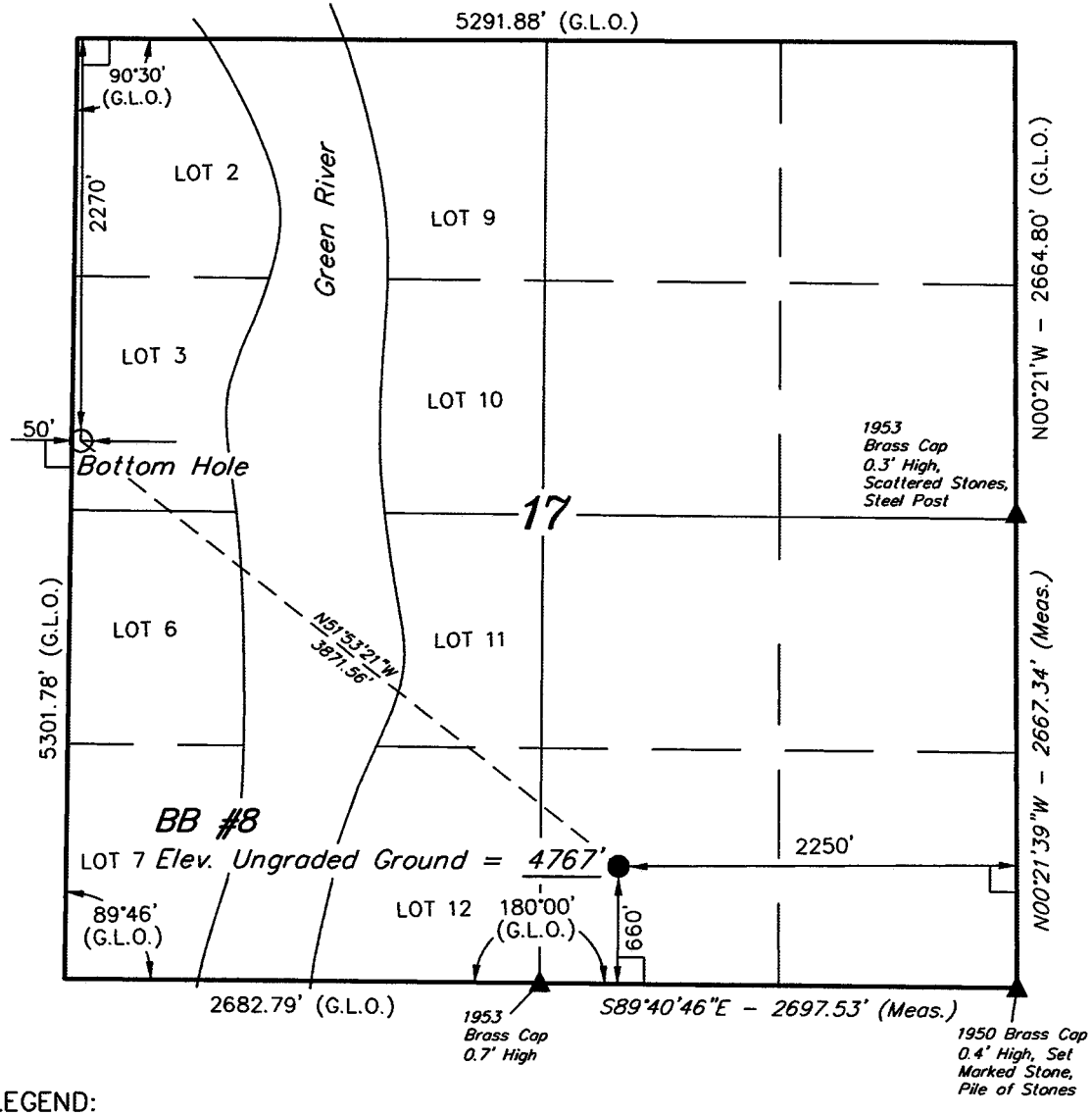
CERTIFICATE

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

REVISED: 11-02-09

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



LEGEND:

└ = 90° SYMBOL

● = PROPOSED WELL HEAD.

▲ = SECTION CORNERS LOCATED.

(AUTONOMOUS) NAD 83 (TARGET BOTTOM HOLE)	(AUTONOMOUS) NAD 83 (SURFACE LOCATION)
LATITUDE = 40°12'44.42" (40.212339)	LATITUDE = 40°12'20.83" (40.205786)
LONGITUDE = 109°35'20.45" (109.589014)	LONGITUDE = 109°34'41.18" (109.578106)
NAD 27 (TARGET BOTTOM HOLE)	NAD 27 (SURFACE LOCATION)
LATITUDE = 40°12'44.55" (40.212375)	LATITUDE = 40°12'20.96" (40.205822)
LONGITUDE = 109°35'17.96" (109.588322)	LONGITUDE = 109°34'38.69" (109.577414)

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

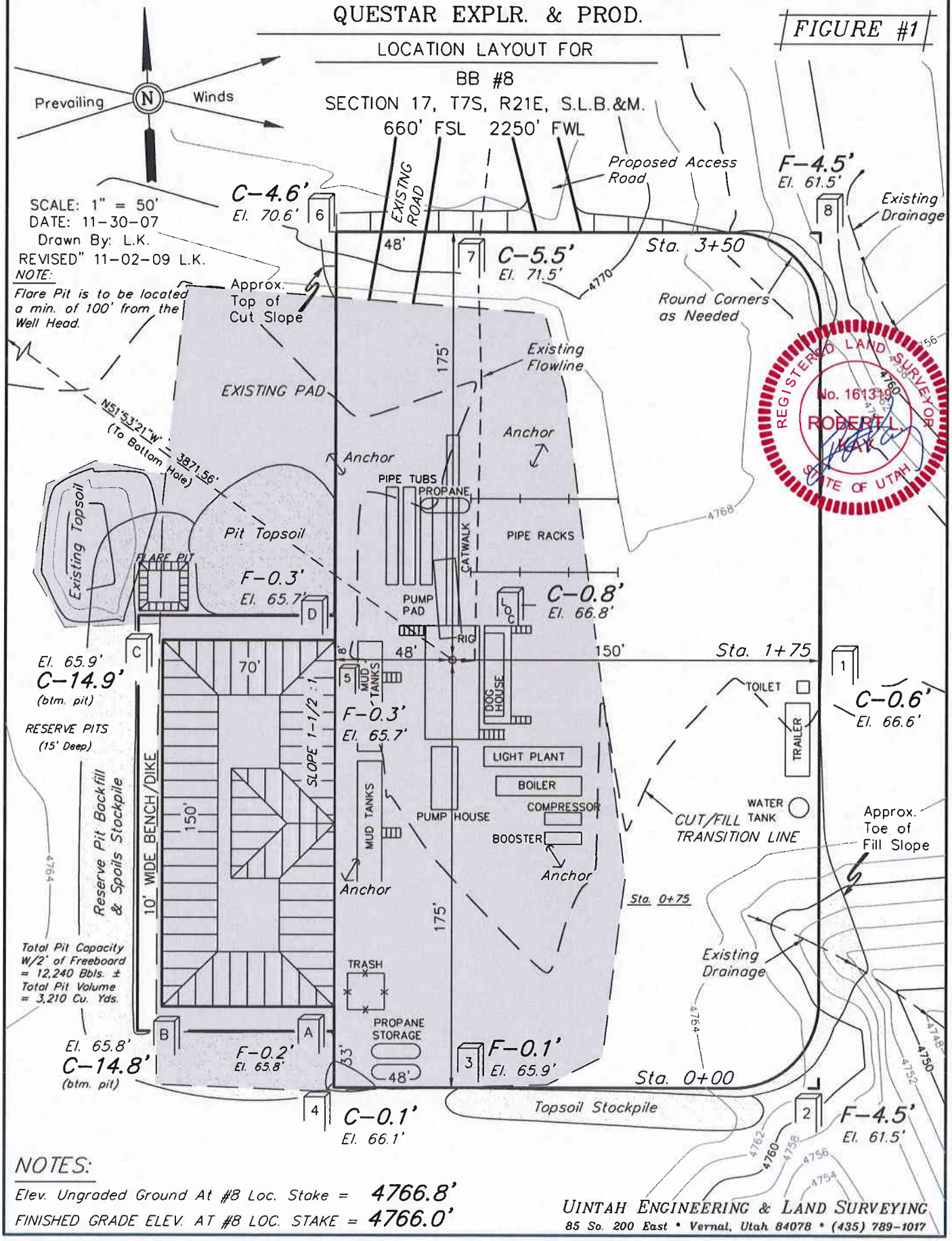
SCALE 1" = 1000'	DATE SURVEYED: 10-31-07	DATE DRAWN: 11-29-07
PARTY D.A. T.M. L.K.	REFERENCES G.L.O. PLAT	
WEATHER COLD	FILE QUESTAR EXPLR. & PROD.	

QUESTAR EXPLR. & PROD.

LOCATION LAYOUT FOR

BB #8
SECTION 17, T7S, R21E, S.L.B.&M.
660' FSL 2250' FWL

FIGURE #1

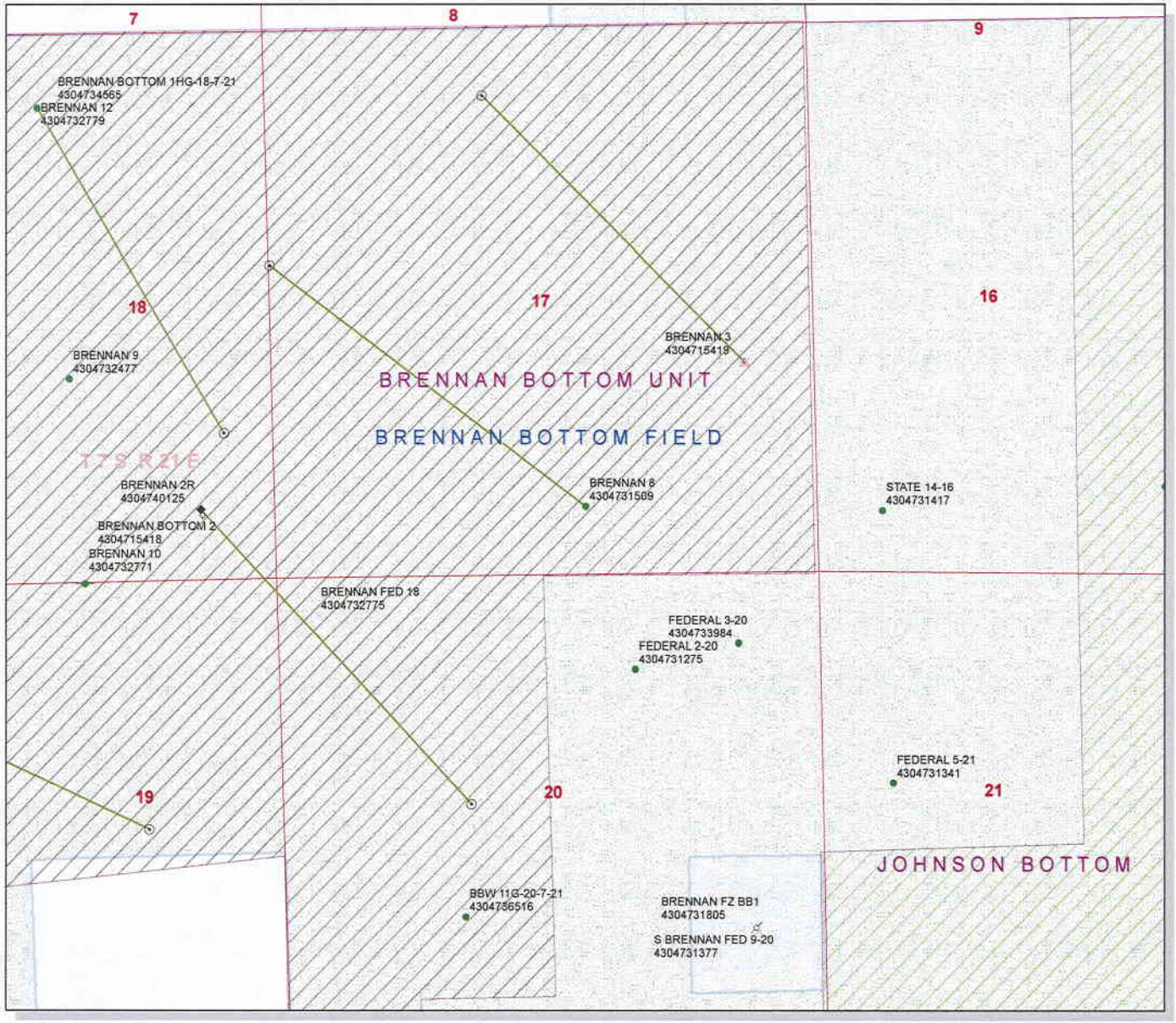


NOTES:

Elev. Ungraded Ground At #8 Loc. Stake = **4766.8'**

FINISHED GRADE ELEV. AT #8 LOC. STAKE = **4766.0'**

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



API Number: 4304731509

Well Name: BRENNAN 8

Township 07.0 S Range 21.0 E Section 17

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
Unknown
ABANDONED
ACTIVE
COMBINED
INACTIVE
STORAGE
TERMINATED
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

1,250 625 0 1,250 Feet

1:12,000

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

CONFIDENTIAL

AMENDED REPORT ☐ (highlight changes)

FORM 8

WELL COMPLETION OR RECOMPLETION REPORT AND LOG

5. LEASE DESIGNATION AND SERIAL NUMBER: U-066409A - (UTSL)

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

7. UNIT or CA AGREEMENT NAME: N/A

8. WELL NAME and NUMBER: BRENNAN 8

9. API NUMBER: 4304731509

10 FIELD AND POOL, OR WILDCAT: BRENNAN BOTTOMS

11. QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: SWSE 17 7 21

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

2. NAME OF OPERATOR: QUESTAR EXPLORATION & PRODUCTION COMPANY

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

PHONE NUMBER: (435) 781-4342

4. LOCATION OF WELL (FOOTAGES)

AT SURFACE: 660' FSL, 2250' FEL SWSE S17 T7S R21E

AT TOP PRODUCING INTERVAL REPORTED BELOW: 660' FSL 2250 FEL SWSE S17 T7S R21E

AT TOTAL DEPTH: 2218 FNL 2248 FEL SENE SEC 18 T7S R21E

per HSM review

14. DATE SPUDDED:

15. DATE T.D. REACHED: 10/27/2009

16. DATE COMPLETED: 11/12/2009 ABANDONED ☐ READY TO PRODUCE ☑

17. ELEVATIONS (DF, RKB, RT, GL): 10' KB

18. TOTAL DEPTH: MD 10,410 TVD 10054

19. PLUG BACK T.D.: MD 10,311 TVD 10004

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)

NO LOGS

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
4.75	3.5	9.2	6,147	10,311	0	0 0	0	0	0

25. TUBING RECORD

SIZE	DEPTH SET (MD)	PACKER SET (MD)	SIZE	DEPTH SET (MD)	PACKER SET (MD)	SIZE	DEPTH SET (MD)	PACKER SET (MD)
2.875	6,044							

26. PRODUCING INTERVALS

FORMATION NAME	TOP (MD)	BOTTOM (MD)	TOP (TVD)	BOTTOM (TVD)
(A) GREEN RIVER	6,950	10,220		
(B)				
(C)				
(D)				

27. PERFORATION RECORD

INTERVAL (Top/Bot - MD)	SIZE	NO. HOLES	PERFORATION STATUS
			Open ☐ Squeezed ☐
			Open ☐ Squeezed ☐
			Open ☐ Squeezed ☐
			Open ☐ Squeezed ☐

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

DEPTH INTERVAL	AMOUNT AND TYPE OF MATERIAL
GREEN RIVER	ACIDIZED W/ 35,200 GALS 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: Completed

(5/2000)

(CONTINUED ON BACK)

RECEIVED

CONFIDENTIAL

JAN 04 2010

DIV. OF OIL, GAS & MINING

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:
11/13/2009		11/15/2009		24			302	0	11	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:
	120	70								Producing

INTERVAL B (As shown in item #26)

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

INTERVAL C (As shown in item #26)

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

INTERVAL D (As shown in item #26)

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

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

Sold

33. SUMMARY OF POROUS ZONES (Include Aquifers):

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

34. FORMATION (Log) MARKERS:

Formation	Top (MD)	Bottom (MD)	Descriptions, Contents, etc.	Name	Top (Measured Depth)

35. ADDITIONAL REMARKS (Include plugging procedure)

RE-ENTRY HORIZONTAL - GREEN RIVER

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

NAME (PLEASE PRINT) DAWN CALDWELL TITLE OFFICE ADMINISTRATOR

SIGNATURE Dawn Caldwell DATE 12/30/2009

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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Questar E & P

Deviation Summary

RECEIVED JAN 04 2010

Well Name: BRENNAN 8 (17-7S-21E)
TMD: 10,360.0 (ft) TVD: 6,650.28 (ft)
Closure Distance: 3,888.6 (ft) Closure Direction: 308.24 (°)

Location: 17- 7-S 21-E 26
Spud Date: 7/31/1984
Calculation Method: Minimum Curvature

S/T #	V.S. AZI (°)
OH	0.00
01	316.15

S/T #	TMD (ft)	Angle (°)	Azimuth (°)	CTM	TVD (ft)	N/-S (ft)	E/-W (ft)	Vert. Section (ft)	DLS (°/100ft)	BUR (°/100ft)	Type
01	6,100.0	1.65	191.07	NYN	6,098.62	-92.34	24.58	-83.62	0.00	0.00	GYR
01	6,178.0	2.29	316.00	YNN	6,176.60	-92.32	23.28	-82.71	4.49	0.82	MWD
01	6,210.0	9.69	313.00	YNN	6,208.40	-90.02	20.86	-79.37	23.14	23.13	MWD
01	6,241.0	15.94	310.25	YNN	6,238.61	-85.49	15.70	-72.53	20.25	20.16	MWD
01	6,273.0	22.26	311.29	YNN	6,268.84	-78.64	7.79	-62.11	19.78	19.75	MWD
01	6,304.0	24.13	313.02	YNN	6,297.33	-70.44	-1.26	-49.93	6.42	6.03	MWD
01	6,336.0	27.56	316.64	YNN	6,326.13	-60.59	-11.13	-35.99	11.79	10.72	MWD
01	6,368.0	31.81	318.52	YNN	6,353.92	-48.89	-21.80	-20.15	13.59	13.28	MWD
01	6,396.0	36.75	319.14	YNN	6,377.05	-37.02	-32.18	-4.40	17.69	17.64	MWD
01	6,428.0	41.69	316.39	YNN	6,401.84	-22.06	-45.79	15.81	16.36	15.44	MWD
01	6,459.0	45.81	315.52	YNN	6,424.22	-6.66	-60.69	37.24	13.43	13.29	MWD
01	6,491.0	50.19	317.88	YNN	6,445.63	10.65	-76.98	61.01	14.74	13.69	MWD
01	6,522.0	53.63	320.07	YNN	6,464.76	29.06	-92.99	85.37	12.41	11.10	MWD
01	6,554.0	56.75	319.14	YNN	6,483.02	49.06	-110.01	111.60	10.04	9.75	MWD
01	6,585.0	60.88	317.77	YNN	6,499.07	68.90	-127.60	138.09	13.85	13.32	MWD
01	6,617.0	65.70	317.25	YNN	6,513.45	89.97	-146.91	166.66	15.13	15.06	MWD
01	6,648.0	69.88	317.39	YNN	6,525.16	111.07	-166.36	195.35	13.49	13.48	MWD
01	6,680.0	71.50	318.27	YNN	6,535.75	133.45	-186.63	225.53	5.69	5.06	MWD
01	6,712.0	74.44	319.02	YNN	6,545.12	156.42	-206.84	256.10	9.46	9.19	MWD
01	6,743.0	76.94	319.27	YNN	6,552.78	179.14	-226.49	286.09	8.10	8.06	MWD
01	6,775.0	80.69	318.64	YNN	6,558.98	202.81	-247.10	317.44	11.88	11.72	MWD
01	6,807.0	85.38	316.76	YNN	6,562.86	226.29	-268.47	349.18	15.77	14.66	MWD
01	6,838.0	89.10	314.69	YNN	6,564.36	248.45	-290.09	380.14	13.73	12.00	MWD
01	6,870.0	88.63	314.39	YNN	6,564.99	270.90	-312.89	412.12	1.74	-1.47	MWD
01	6,901.0	88.50	314.26	YNN	6,565.77	292.55	-335.06	443.09	0.59	-0.42	MWD
01	6,933.0	89.13	314.39	YNN	6,566.43	314.90	-357.95	475.07	2.01	1.97	MWD
01	6,961.0	88.94	313.89	YNN	6,566.90	334.40	-378.04	503.05	1.91	-0.68	MWD
01	6,996.0	88.38	313.64	YNN	6,567.72	358.60	-403.31	538.01	1.75	-1.60	MWD
01	7,028.0	87.69	314.02	YNN	6,568.82	380.75	-426.38	569.96	2.46	-2.16	MWD
01	7,059.0	88.50	314.27	YNN	6,569.85	402.33	-448.61	600.93	2.73	2.61	MWD
01	7,091.0	89.75	314.14	YNN	6,570.34	424.64	-471.55	632.90	3.93	3.91	MWD
01	7,122.0	90.88	314.02	YNN	6,570.17	446.20	-493.81	663.88	3.67	3.65	MWD
01	7,154.0	91.63	313.64	YNN	6,569.46	468.36	-516.89	695.85	2.63	2.34	MWD

CONFIDENTIAL

Deviation Summary

Well Name: BRENNAN 8 (17-7S-21E)
TMD: 10,360.0 (ft) TVD: 6,650.28 (ft)
Closure Distance: 3,888.6 (ft) Closure Direction: 308.24 (°)

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Spud Date: 7/31/1984
Calculation Method: Minimum Curvature

S/T #	V.S. AZI (°)
OH	0.00
01	316.15

S/T #	TMD (ft)	Angle (°)	Azimuth (°)	CTM	TVD (ft)	N/-S (ft)	E/-W (ft)	Vert. Section (ft)	DLS (°/100ft)	BUR (°/100ft)	Type
01	7,185.0	90.00	314.51	YNN	6,569.02	489.92	-539.16	726.82	5.96	-5.26	MWD
01	7,216.0	89.73	315.87	YNN	6,569.10	511.91	-561.01	757.82	4.47	-0.87	MWD
01	7,248.0	88.13	317.52	YNN	6,569.69	535.19	-582.95	789.81	7.18	-5.00	MWD
01	7,280.0	88.80	320.02	YNN	6,570.55	559.25	-604.03	821.76	8.09	2.09	MWD
02	7,055.0	88.21	313.88	NYN	6,569.78	399.46	-445.75	596.88	0.00	0.00	MWD
02	7,086.0	86.88	315.08	YNN	6,571.11	421.16	-467.85	627.83	5.78	-4.29	MWD
02	7,118.0	87.98	316.90	YNN	6,572.54	444.15	-490.06	659.80	6.64	3.44	MWD
02	7,149.0	90.43	317.35	YNN	6,572.97	466.86	-511.15	690.79	8.04	7.90	MWD
02	7,181.0	91.45	316.69	YNN	6,572.45	490.27	-532.96	722.78	3.80	3.19	MWD
02	7,212.0	89.91	316.01	YNN	6,572.08	512.70	-554.35	753.78	5.43	-4.97	MWD
02	7,244.0	88.15	315.68	YNN	6,572.62	535.65	-576.64	785.77	5.60	-5.50	MWD
02	7,275.0	87.35	314.50	YNN	6,573.84	557.59	-598.51	816.74	4.60	-2.58	MWD
02	7,307.0	86.78	313.75	YNN	6,575.48	579.84	-621.45	848.68	2.94	-1.78	MWD
02	7,339.0	88.94	313.23	YNN	6,576.67	601.85	-644.65	880.62	6.94	6.75	MWD
02	7,369.0	89.63	312.50	YNN	6,577.05	622.25	-666.63	910.57	3.35	2.30	MWD
02	7,401.0	86.67	311.12	YNN	6,578.08	643.57	-690.47	942.46	10.20	-9.25	MWD
02	7,432.0	88.26	311.26	YNN	6,579.45	663.97	-713.77	973.31	5.15	5.13	MWD
02	7,460.0	89.57	313.05	YNN	6,579.98	682.76	-734.53	1,001.23	7.92	4.68	MWD
02	7,491.0	87.53	311.55	YNN	6,580.77	703.61	-757.45	1,032.15	8.17	-6.58	MWD
02	7,523.0	87.35	311.29	YNN	6,582.19	724.76	-781.42	1,064.01	0.99	-0.56	MWD
02	7,554.0	88.94	312.75	YNN	6,583.20	745.50	-804.43	1,094.91	6.96	5.13	MWD
02	7,586.0	88.89	312.89	YNN	6,583.80	767.25	-827.90	1,126.85	0.46	-0.16	MWD
02	7,617.0	87.74	311.49	YNN	6,584.72	788.06	-850.86	1,157.76	5.84	-3.71	MWD
02	7,648.0	86.60	311.17	YNN	6,586.25	808.50	-874.11	1,188.62	3.82	-3.68	MWD
02	7,680.0	87.11	311.89	YNN	6,588.00	829.69	-898.03	1,220.46	2.75	1.59	MWD
02	7,712.0	87.75	312.66	YNN	6,589.44	851.19	-921.68	1,252.36	3.13	2.00	MWD
02	7,743.0	88.60	312.86	YNN	6,590.42	872.23	-944.43	1,283.29	2.82	2.74	MWD
02	7,775.0	88.94	313.06	YNN	6,591.11	894.03	-967.84	1,315.23	1.23	1.06	MWD
02	7,806.0	89.34	313.03	YNN	6,591.58	915.19	-990.50	1,346.18	1.29	1.29	MWD
02	7,838.0	89.06	312.67	YNN	6,592.02	936.95	-1,013.95	1,378.12	1.43	-0.88	MWD
02	7,870.0	90.31	313.32	YNN	6,592.20	958.77	-1,037.36	1,410.07	4.40	3.91	MWD
02	7,901.0	89.23	312.77	YNN	6,592.32	979.93	-1,060.01	1,441.03	3.91	-3.48	MWD
02	7,933.0	88.09	312.72	YNN	6,593.07	1,001.64	-1,083.51	1,472.96	3.57	-3.56	MWD

CONFIDENTIAL

Deviation Summary

Well Name: BRENNAN 8 (17-7S-21E)
TMD: 10,360.0 (ft) TVD: 6,650.28 (ft)
Closure Distance: 3,888.6 (ft) Closure Direction: 308.24 (°)

Location: 17- 7-S 21-E 26
Spud Date: 7/31/1984
Calculation Method: Minimum Curvature

S/T #	V.S. AZI (°)
OH	0.00
01	316.15

S/T #	TMD (ft)	Angle (°)	Azimuth (°)	CTM	TVD (ft)	N/-S (ft)	E/-W (ft)	Vert. Section (ft)	DLS (°/100ft)	BUR (°/100ft)	Type
02	7,964.0	87.17	311.75	YNN	6,594.35	1,022.46	-1,106.44	1,503.86	4.31	-2.97	MWD
02	7,996.0	88.60	312.61	YNN	6,595.53	1,043.93	-1,130.13	1,535.76	5.21	4.47	MWD
02	8,027.0	88.95	312.53	YNN	6,596.20	1,064.90	-1,152.96	1,566.70	1.16	1.13	MWD
02	8,059.0	87.58	311.59	YNN	6,597.17	1,086.32	-1,176.71	1,598.60	5.19	-4.28	MWD
02	8,090.0	87.24	311.31	YNN	6,598.57	1,106.82	-1,199.92	1,629.46	1.42	-1.10	MWD
02	8,122.0	87.12	310.94	YNN	6,600.14	1,127.84	-1,223.99	1,661.30	1.21	-0.38	MWD
02	8,153.0	87.75	310.71	YNN	6,601.53	1,148.09	-1,247.43	1,692.14	2.16	2.03	MWD
02	8,185.0	88.32	311.08	YNN	6,602.63	1,169.03	-1,271.60	1,723.98	2.12	1.78	MWD
02	8,217.0	88.60	311.03	YNN	6,603.49	1,190.04	-1,295.72	1,755.84	0.89	0.88	MWD
02	8,248.0	88.72	310.65	YNN	6,604.21	1,210.30	-1,319.17	1,786.70	1.29	0.39	MWD
02	8,280.0	88.77	310.78	YNN	6,604.91	1,231.17	-1,343.42	1,818.55	0.44	0.16	MWD
02	8,311.0	89.12	310.57	YNN	6,605.48	1,251.37	-1,366.93	1,849.41	1.32	1.13	MWD
02	8,343.0	88.94	309.99	YNN	6,606.02	1,272.06	-1,391.34	1,881.23	1.90	-0.56	MWD
02	8,375.0	87.29	309.73	YNN	6,607.08	1,292.56	-1,415.88	1,913.02	5.22	-5.16	MWD
02	8,406.0	86.83	309.74	YNN	6,608.67	1,312.35	-1,439.69	1,943.79	1.48	-1.48	MWD
02	8,438.0	87.63	309.83	YNN	6,610.21	1,332.80	-1,464.25	1,975.55	2.52	2.50	MWD
02	8,469.0	87.51	309.54	YNN	6,611.53	1,352.58	-1,488.09	2,006.33	1.01	-0.39	MWD
02	8,501.0	87.74	308.73	YNN	6,612.85	1,372.76	-1,512.89	2,038.06	2.63	0.72	MWD
02	8,532.0	89.12	309.72	YNN	6,613.70	1,392.35	-1,536.89	2,068.82	5.48	4.45	MWD
02	8,564.0	89.86	309.24	YNN	6,613.99	1,412.70	-1,561.59	2,100.60	2.76	2.31	MWD
02	8,596.0	89.63	308.52	YNN	6,614.13	1,432.78	-1,586.50	2,132.35	2.36	-0.72	MWD
02	8,627.0	90.09	309.65	YNN	6,614.21	1,452.33	-1,610.56	2,163.11	3.94	1.48	MWD
02	8,659.0	87.75	309.45	YNN	6,614.81	1,472.70	-1,635.23	2,194.89	7.34	-7.31	MWD
02	8,690.0	87.46	308.85	YNN	6,616.10	1,492.25	-1,659.25	2,225.63	2.15	-0.94	MWD
02	8,722.0	88.32	308.50	YNN	6,617.28	1,512.24	-1,684.22	2,257.34	2.90	2.69	MWD
02	8,753.0	88.03	307.30	YNN	6,618.27	1,531.27	-1,708.67	2,288.00	3.98	-0.94	MWD
02	8,785.0	88.50	306.85	YNN	6,619.24	1,550.55	-1,734.18	2,319.59	2.03	1.47	MWD
02	8,817.0	90.60	307.14	YNN	6,619.49	1,569.81	-1,759.74	2,351.18	6.62	6.56	MWD
02	8,848.0	89.63	305.84	YNN	6,619.43	1,588.24	-1,784.66	2,381.73	5.23	-3.13	MWD
02	8,879.0	87.29	304.89	YNN	6,620.26	1,606.17	-1,809.93	2,412.17	8.15	-7.55	MWD
02	8,911.0	87.47	304.53	YNN	6,621.72	1,624.38	-1,836.21	2,443.50	1.26	0.56	MWD
02	8,942.0	87.64	303.69	YNN	6,623.05	1,641.75	-1,861.85	2,473.79	2.76	0.55	MWD
02	8,974.0	88.15	303.59	YNN	6,624.22	1,659.46	-1,888.48	2,505.01	1.62	1.59	MWD

CONFIDENTIAL

Deviation Summary

Well Name: BRENNAN 8 (17-7S-21E)
TMD: 10,360.0 (ft) TVD: 6,650.28 (ft)
Closure Distance: 3,888.6 (ft) Closure Direction: 308.24 (°)

Location: 17- 7-S 21-E 26
Spud Date: 7/31/1984
Calculation Method: Minimum Curvature

S/T #	V.S. AZI (°)
OH	0.00
01	316.15

S/T #	TMD (ft)	Angle (°)	Azimuth (°)	CTM	TVD (ft)	N/-S (ft)	E/-W (ft)	Vert. Section (ft)	DLS (°/100ft)	BUR (°/100ft)	Type
02	9,006.0	88.49	303.08	YNN	6,625.16	1,677.04	-1,915.20	2,536.20	1.91	1.06	MWD
02	9,038.0	88.95	303.13	YNN	6,625.87	1,694.51	-1,942.00	2,567.37	1.45	1.44	MWD
02	9,069.0	88.60	302.91	YNN	6,626.54	1,711.40	-1,967.98	2,597.55	1.33	-1.13	MWD
02	9,100.0	89.12	302.56	YNN	6,627.15	1,728.16	-1,994.06	2,627.70	2.02	1.68	MWD
02	9,132.0	87.92	301.10	YNN	6,627.98	1,745.03	-2,021.23	2,658.69	5.90	-3.75	MWD
02	9,164.0	88.49	301.04	YNN	6,628.98	1,761.54	-2,048.63	2,689.58	1.79	1.78	MWD
02	9,195.0	88.89	300.76	YNN	6,629.69	1,777.45	-2,075.22	2,719.48	1.57	1.29	MWD
02	9,226.0	88.38	299.93	YNN	6,630.43	1,793.11	-2,101.97	2,749.30	3.14	-1.65	MWD
02	9,258.0	88.49	297.92	YNN	6,631.30	1,808.58	-2,129.96	2,779.85	6.29	0.34	MWD
02	9,289.0	88.61	297.91	YNN	6,632.09	1,823.09	-2,157.35	2,809.28	0.39	0.39	MWD
02	9,321.0	88.54	300.30	YNN	6,632.88	1,838.65	-2,185.30	2,839.87	7.47	-0.22	MWD
02	9,352.0	88.89	301.60	YNN	6,633.58	1,854.59	-2,211.87	2,869.77	4.34	1.13	MWD
02	9,384.0	88.26	300.72	YNN	6,634.38	1,871.14	-2,239.25	2,900.67	3.38	-1.97	MWD
02	9,415.0	88.84	302.78	YNN	6,635.16	1,887.45	-2,265.60	2,930.69	6.90	1.87	MWD
02	9,447.0	89.06	303.48	YNN	6,635.75	1,904.93	-2,292.39	2,961.86	2.29	0.69	MWD
02	9,478.0	88.77	303.93	YNN	6,636.33	1,922.13	-2,318.18	2,992.13	1.73	-0.94	MWD
02	9,510.0	89.52	304.55	YNN	6,636.81	1,940.13	-2,344.63	3,023.43	3.04	2.34	MWD
02	9,541.0	89.40	303.74	YNN	6,637.10	1,957.53	-2,370.28	3,053.75	2.64	-0.39	MWD
02	9,573.0	88.37	303.09	YNN	6,637.73	1,975.15	-2,396.99	3,084.96	3.81	-3.22	MWD
02	9,605.0	89.35	304.65	YNN	6,638.36	1,992.98	-2,423.55	3,116.22	5.76	3.06	MWD
02	9,636.0	90.20	305.87	YNN	6,638.48	2,010.88	-2,448.86	3,146.66	4.80	2.74	MWD
02	9,668.0	90.20	305.80	YNN	6,638.37	2,029.61	-2,474.81	3,178.14	0.22	0.00	MWD
02	9,889.0	88.66	305.03	YNN	6,640.57	2,157.67	-2,654.90	3,395.26	0.78	-0.70	MWD
02	9,920.0	90.03	305.31	YNN	6,640.93	2,175.52	-2,680.24	3,425.69	4.51	4.42	MWD
02	9,952.0	89.51	304.51	YNN	6,641.05	2,193.84	-2,706.48	3,457.07	2.98	-1.63	MWD
02	9,983.0	88.15	303.14	YNN	6,641.69	2,211.09	-2,732.23	3,487.35	6.23	-4.39	MWD
02	10,015.0	89.01	302.89	YNN	6,642.48	2,228.52	-2,759.05	3,518.50	2.80	2.69	MWD
02	10,047.0	90.14	302.81	YNN	6,642.72	2,245.88	-2,785.93	3,549.64	3.54	3.53	MWD
02	10,078.0	88.55	301.64	YNN	6,643.07	2,262.40	-2,812.15	3,579.73	6.37	-5.13	MWD
02	10,110.0	88.09	301.26	YNN	6,644.01	2,279.09	-2,839.44	3,610.67	1.86	-1.44	MWD
02	10,173.0	87.92	301.19	YNN	6,646.20	2,311.73	-2,893.28	3,671.51	0.29	-0.27	MWD
02	10,205.0	88.10	300.80	YNN	6,647.31	2,328.20	-2,920.70	3,702.37	1.34	0.56	MWD
02	10,236.0	88.72	300.75	YNN	6,648.17	2,344.06	-2,947.32	3,732.25	2.01	2.00	MWD

CONFIDENTIAL

Questar E & P

Deviation Summary

Well Name: BRENNAN 8 (17-7S-21E)
TMD: 10,360.0 (ft) TVD: 6,650.28 (ft)
Closure Distance: 3,888.6 (ft) Closure Direction: 308.24 (°)

Location: 17- 7-S 21-E 26
Spud Date: 7/31/1984
Calculation Method: Minimum Curvature

S/T #	V.S. AZI (°)
OH	0.00
01	316.15

S/T #	TMD (ft)	Angle (°)	Azimuth (°)	CTM	TVD (ft)	N/-S (ft)	E/-W (ft)	Vert. Section (ft)	DLS (°/100ft)	BUR (°/100ft)	Type
02	10,299.0	88.77	300.49	YNN	6,649.55	2,376.14	-3,001.52	3,792.94	0.42	0.08	MWD
02	10,360.0	89.86	300.37	YNN	6,650.28	2,407.03	-3,054.11	3,851.65	1.80	1.79	MWD

QUESTAR

QUESTAR EXPLORATION AND PRODUCTION

UINTAH COUNTY, UTAH
BRENNAN #8
BRENNAN #8

BRENNAN #8

Survey: Survey #3 ST

Standard Survey Report

28 October, 2009

Weatherford®

QUESTAR

Weatherford®

Project: UINTAH COUNTY, UTAH
Site: BRENNAN #8
Well: BRENNAN #8
Wellbore: BRENNAN #8
Design: BRENNAN #8
Latitude: 40° 12' 20.830 N
Longitude: 109° 34' 41.182 W
GL: 4767.00
KB: WELL @ 4781.00ft (AZTEC 777)

WELLBORE TARGET DETAILS (LAT/LONG)

Name	TVD	+N/-S	+E/-W	Latitude	Longitude	Shape
PBHL BRENNAN #8	6647.50	2679.57	-2573.89	40° 12' 47.310 N	109° 35' 14.362 W	Point

WELL DETAILS: BRENNAN #8

Ground Level: 4767.00

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot
0.00	0.00	7249450.02	2177156.02	40° 12' 20.830 N	109° 34' 41.182 W	

SECTION DETAILS

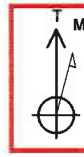
MD	Inc	Azi	TVD	+N/-S	+E/-W	DLeg	TFace	VSec	Annotation
6100.00	1.65	191.07	6098.62	-92.34	24.58	0.00	0.00	-83.62	TIE ON POINT START HOLD 57.58'
6157.58	1.65	191.07	6156.18	-93.97	24.26	0.00	0.00	-84.58	Start DLS 14.60 TFO 125.96
6770.04	88.45	317.01	6555.00	179.09	-242.70	14.60	125.96	297.29	Start 3419.85 hold at 6770.04 MD
10189.89	88.45	317.01	6647.50	2679.57	-2573.89	0.00	0.00	3715.51	TD at 10189.89

LEGEND

- BRENNAN #8, BRENNAN #8, Design #1 V0
- BRENNAN #8
- Survey #3 ST

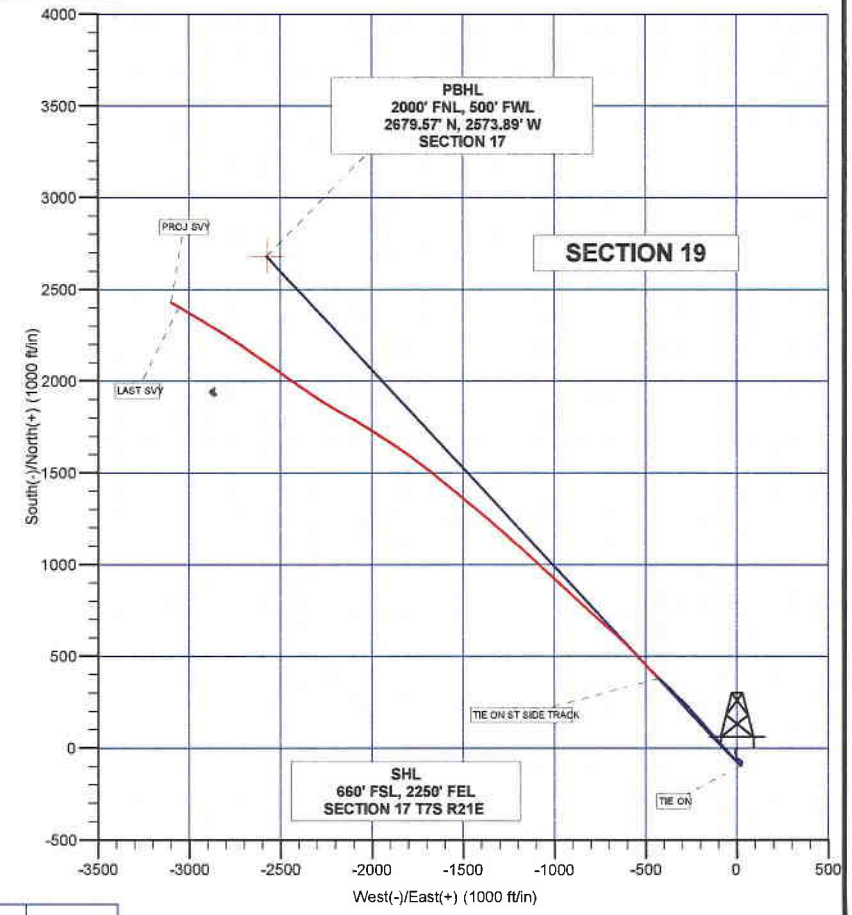
FORMATION TOP DETAILS

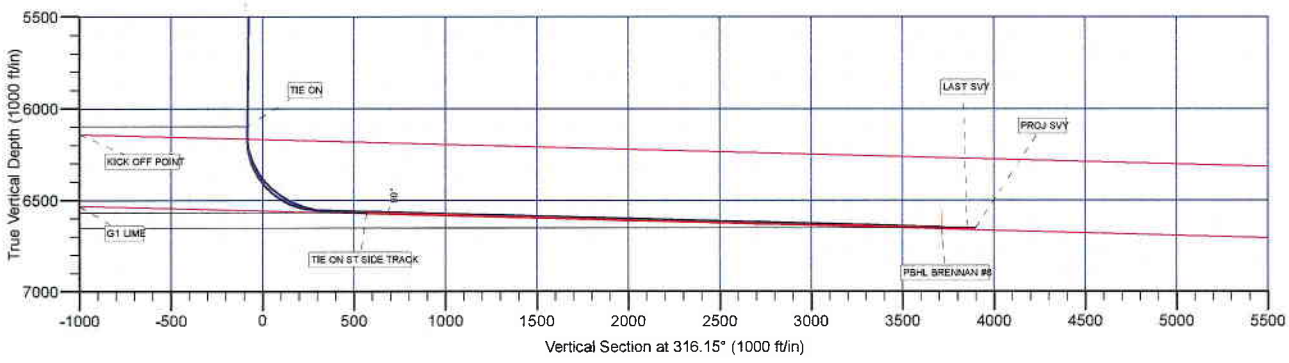
TVDPath	MDPath	Formation
3407.58	3408.00	GREEN RIVER
6156.18	6157.58	KICK OFF POINT
6555.00	6770.00	G1 LIME

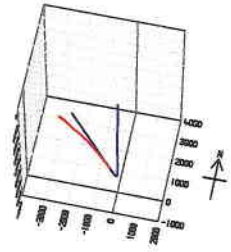


Azimuths to True North
Magnetic North: 11.39°

Magnetic Field
Strength: 52609.5snT
Dip Angle: 66.08°
Date: 10/9/2009
Model: BGGM2009







Survey: Survey #3 ST (BRENNAN #8/BRENNAN #8)

Created By: TRACY WILLIAMS Date: 9:11, October 28 2009

QUESTAR

Weatherford International Ltd.

Survey Report

Weatherford

Company:	QUESTAR EXPLORATION AND PRODUCTION	**Local Co-ordinate Reference:**	Well BRENNAN #8
Project:	UINTAH COUNTY, UTAH	**TVD Reference:**	WELL @ 4781.00ft (AZTEC 777)
Site:	BRENNAN #8	**MD Reference:**	WELL @ 4781.00ft (AZTEC 777)
Well:	BRENNAN #8	**North Reference:**	True
Wellbore:	BRENNAN #8	**Survey Calculation Method:**	Minimum Curvature
Design:	BRENNAN #8	**Database:**	EDM 2003.21 Single User Db

Project UINTAH COUNTY, UTAH

Map System:	US State Plane 1983	**System Datum:**	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	Utah Central Zone		

Site BRENNAN #8

Site Position:		**Northing:**	7,249,450.02 ft	**Latitude:**	40° 12' 20.830 N
From:	Lat/Long	**Easting:**	2,177,156.02 ft	**Longitude:**	109° 34' 41.182 W
Position Uncertainty:	0.00 ft	**Slot Radius:**	"	**Grid Convergence:**	1.23 °

Well BRENNAN #8

Well Position	**+N/-S**	0.00 ft	**Northing:**	7,249,450.02 ft	**Latitude:**	40° 12' 20.830 N
	+E/-W	0.00 ft	**Easting:**	2,177,156.02 ft	**Longitude:**	109° 34' 41.182 W
Position Uncertainty		0.00 ft	**Wellhead Elevation:**	ft	**Ground Level:**	4,767.00 ft

Wellbore BRENNAN #8

Magnetics	**Model Name**	**Sample Date**	**Declination (°)**	**Dip Angle (°)**	**Field Strength (nT)**
	BGGM2009	10/9/2009	11.39	66.08	52,609

Design BRENNAN #8

Audit Notes:

Version:	1.0	**Phase:**	ACTUAL	**Tie On Depth:**	0.00

Vertical Section:	**Depth From (TVD) (ft)**	**+N/-S (ft)**	**+E/-W (ft)**	**Direction (°)**
	0.00	0.00	0.00	316.15

Survey Program **Date** 10/28/2009

From (ft)	**To (ft)**	**Survey (Wellbore)**	**Tool Name**	**Description**
100.00	6,100.00	Survey #1 (BRENNAN #8)	NS-GYRO-MS	North sensing gyrocompassing m/s
6,178.00	7,028.00	Survey #2 (BRENNAN #8)	MWD	MWD - Standard
7,055.00	10,410.00	Survey #3 ST (BRENNAN #8)	MWD	MWD - Standard

Survey

Measured Depth (ft)	**Inclination (°)**	**Azimuth (°)**	**Vertical Depth (ft)**	**+N/-S (ft)**	**+E/-W (ft)**	**Vertical Section (ft)**	**Dogleg Rate (°/100ft)**	**Build Rate (°/100ft)**	**Turn Rate (°/100ft)**
TIE ON ST SIDE TRACK									
7,028.00	87.69	314.02	6,568.82	380.79	-426.37	569.98	0.00	0.00	0.00
7,055.00	88.21	313.88	6,569.79	399.52	-445.80	596.95	1.99	1.93	-0.52
7,086.00	86.88	315.08	6,571.11	421.22	-467.89	627.90	5.78	-4.29	3.87
7,118.00	87.98	316.90	6,572.55	444.21	-490.10	659.87	6.64	3.44	5.69
7,149.00	90.43	317.35	6,572.98	466.92	-511.19	690.86	8.04	7.90	1.45
7,181.00	91.45	316.69	6,572.45	490.33	-533.00	722.85	3.80	3.19	-2.06
7,212.00	89.91	316.01	6,572.09	512.76	-554.40	753.85	5.43	-4.97	-2.19
7,244.00	88.15	315.68	6,572.63	535.71	-576.69	785.84	5.60	-5.50	-1.03
7,275.00	87.35	314.50	6,573.84	557.65	-598.55	816.81	4.60	-2.58	-3.81
7,307.00	86.78	313.75	6,575.48	579.90	-621.49	848.75	2.94	-1.78	-2.34

Company:	QUESTAR EXPLORATION AND PRODUCTION	**Local Co-ordinate Reference:**	Well BRENNAN #8
Project:	UINTAH COUNTY, UTAH	**TVD Reference:**	WELL @ 4781.00ft (AZTEC 777)
Site:	BRENNAN #8	**MD Reference:**	WELL @ 4781.00ft (AZTEC 777)
Well:	BRENNAN #8	**North Reference:**	True
Wellbore:	BRENNAN #8	**Survey Calculation Method:**	Minimum Curvature
Design:	BRENNAN #8	**Database:**	EDM 2003.21 Single User Db

Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
7,339.00	88.94	313.23	6,576.68	601.90	-644.69	880.69	6.94	6.75	-1.63
7,369.00	89.63	312.50	6,577.05	622.31	-666.68	910.64	3.35	2.30	-2.43
7,401.00	86.67	311.20	6,578.09	643.65	-690.50	942.53	10.10	-9.25	-4.06
7,432.00	88.26	311.26	6,579.46	664.06	-713.79	973.38	5.13	5.13	0.19
7,460.00	89.57	313.05	6,579.99	682.85	-734.54	1,001.31	7.92	4.68	6.39
7,491.00	87.53	311.55	6,580.77	703.70	-757.46	1,032.22	8.17	-6.58	-4.84
7,523.00	87.35	311.29	6,582.20	724.85	-781.43	1,064.08	0.99	-0.56	-0.81
7,554.00	88.94	312.75	6,583.20	745.59	-804.45	1,094.99	6.96	5.13	4.71
7,586.00	88.89	312.89	6,583.81	767.34	-827.92	1,126.93	0.46	-0.16	0.44
7,617.00	87.74	311.49	6,584.72	788.14	-850.88	1,157.84	5.84	-3.71	-4.52
7,648.00	86.60	311.17	6,586.25	808.59	-874.13	1,188.69	3.82	-3.68	-1.03
7,680.00	87.11	311.89	6,588.01	829.78	-898.05	1,220.54	2.75	1.59	2.25
7,712.00	87.75	312.66	6,589.44	851.28	-921.70	1,252.43	3.13	2.00	2.41
7,743.00	88.60	312.86	6,590.43	872.32	-944.45	1,283.36	2.82	2.74	0.65
7,775.00	88.94	313.06	6,591.12	894.12	-967.86	1,315.30	1.23	1.06	0.63
7,806.00	89.34	313.03	6,591.58	915.28	-990.51	1,346.25	1.29	1.29	-0.10
7,838.00	89.06	312.67	6,592.03	937.04	-1,013.97	1,378.20	1.43	-0.88	-1.13
7,870.00	90.31	313.32	6,592.20	958.86	-1,037.38	1,410.15	4.40	3.91	2.03
7,901.00	89.23	312.77	6,592.33	980.02	-1,060.03	1,441.10	3.91	-3.48	-1.77
7,933.00	88.09	312.72	6,593.08	1,001.73	-1,083.52	1,473.04	3.57	-3.56	-0.16
7,964.00	87.17	311.75	6,594.36	1,022.55	-1,106.46	1,503.94	4.31	-2.97	-3.13
7,996.00	88.60	312.61	6,595.54	1,044.02	-1,130.15	1,535.84	5.21	4.47	2.69
8,027.00	88.95	312.53	6,596.20	1,064.99	-1,152.98	1,566.77	1.16	1.13	-0.26
8,059.00	87.58	311.59	6,597.17	1,086.41	-1,176.72	1,598.67	5.19	-4.28	-2.94
8,090.00	87.24	311.31	6,598.57	1,106.91	-1,199.93	1,629.54	1.42	-1.10	-0.90
8,122.00	87.12	310.94	6,600.15	1,127.93	-1,224.01	1,661.37	1.21	-0.38	-1.16
8,153.00	87.75	310.71	6,601.53	1,148.18	-1,247.44	1,692.21	2.16	2.03	-0.74
8,185.00	88.32	311.08	6,602.63	1,169.12	-1,271.62	1,724.05	2.12	1.78	1.16
8,217.00	88.60	311.03	6,603.49	1,190.13	-1,295.74	1,755.92	0.89	0.88	-0.16
8,248.00	88.72	310.65	6,604.22	1,210.39	-1,319.19	1,786.78	1.29	0.39	-1.23
8,280.00	88.77	310.78	6,604.92	1,231.26	-1,343.44	1,818.62	0.44	0.16	0.41
8,311.00	89.12	310.57	6,605.49	1,251.46	-1,366.94	1,849.48	1.32	1.13	-0.68
8,343.00	88.94	309.99	6,606.03	1,272.15	-1,391.35	1,881.30	1.90	-0.56	-1.81
8,375.00	87.29	309.73	6,607.08	1,292.65	-1,415.90	1,913.09	5.22	-5.16	-0.81
8,406.00	86.83	309.74	6,608.67	1,312.44	-1,439.71	1,943.86	1.48	-1.48	0.03
8,438.00	87.63	309.83	6,610.22	1,332.89	-1,464.27	1,975.62	2.52	2.50	0.28
8,469.00	87.51	309.54	6,611.53	1,352.67	-1,488.11	2,006.40	1.01	-0.39	-0.94
8,501.00	87.74	308.73	6,612.86	1,372.85	-1,512.91	2,038.13	2.63	0.72	-2.53
8,532.00	89.12	309.72	6,613.71	1,392.44	-1,536.91	2,068.89	5.48	4.45	3.19
8,564.00	89.86	309.24	6,613.99	1,412.79	-1,561.61	2,100.67	2.76	2.31	-1.50
8,596.00	89.63	308.52	6,614.14	1,432.87	-1,586.52	2,132.42	2.36	-0.72	-2.25
8,627.00	90.09	309.65	6,614.21	1,452.42	-1,610.58	2,163.18	3.94	1.48	3.65
8,659.00	87.75	309.45	6,614.81	1,472.79	-1,635.25	2,194.96	7.34	-7.31	-0.63
8,690.00	87.46	308.85	6,616.11	1,492.34	-1,659.27	2,225.70	2.15	-0.94	-1.94
8,722.00	88.32	308.50	6,617.29	1,512.33	-1,684.23	2,257.41	2.90	2.69	-1.09
8,753.00	88.03	307.30	6,618.28	1,531.36	-1,708.68	2,288.07	3.98	-0.94	-3.87
8,785.00	88.50	306.85	6,619.24	1,550.64	-1,734.20	2,319.65	2.03	1.47	-1.41
8,817.00	90.60	307.14	6,619.50	1,569.90	-1,759.76	2,351.24	6.62	6.56	0.91
8,848.00	89.63	305.84	6,619.43	1,588.33	-1,784.68	2,381.80	5.23	-3.13	-4.19
8,879.00	87.29	304.89	6,620.27	1,606.26	-1,809.95	2,412.24	8.15	-7.55	-3.06
8,911.00	87.47	304.53	6,621.73	1,624.47	-1,836.23	2,443.57	1.26	0.56	-1.13
8,942.00	87.74	303.69	6,623.03	1,641.84	-1,861.87	2,473.86	2.84	0.87	-2.71
8,974.00	88.15	303.59	6,624.17	1,659.55	-1,888.49	2,505.08	1.32	1.28	-0.31
9,006.00	88.49	303.08	6,625.11	1,677.13	-1,915.22	2,536.27	1.91	1.06	-1.59

Company:	QUESTAR EXPLORATION AND PRODUCTION	**Local Co-ordinate Reference:**	Well BRENNAN #8
Project:	UINTAH COUNTY, UTAH	**TVD Reference:**	WELL @ 4781.00ft (AZTEC 777)
Site:	BRENNAN #8	**MD Reference:**	WELL @ 4781.00ft (AZTEC 777)
Well:	BRENNAN #8	**North Reference:**	True
Wellbore:	BRENNAN #8	**Survey Calculation Method:**	Minimum Curvature
Design:	BRENNAN #8	**Database:**	EDM 2003.21 Single User Db

Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
9,038.00	88.95	303.13	6,625.83	1,694.60	-1,942.02	2,567.44	1.45	1.44	0.16
9,069.00	88.60	302.91	6,626.49	1,711.49	-1,968.00	2,597.62	1.33	-1.13	-0.71
9,100.00	89.12	302.56	6,627.11	1,728.25	-1,994.07	2,627.77	2.02	1.68	-1.13
9,132.00	87.92	301.10	6,627.93	1,745.12	-2,021.25	2,658.76	5.90	-3.75	-4.56
9,164.00	88.49	301.04	6,628.93	1,761.63	-2,048.65	2,689.64	1.79	1.78	-0.19
9,195.00	88.89	300.76	6,629.64	1,777.54	-2,075.24	2,719.54	1.57	1.29	-0.90
9,226.00	88.38	299.93	6,630.38	1,793.20	-2,101.99	2,749.36	3.14	-1.65	-2.68
9,258.00	88.49	297.92	6,631.26	1,808.67	-2,129.98	2,779.92	6.29	0.34	-6.28
9,289.00	88.61	297.91	6,632.04	1,823.18	-2,157.37	2,809.35	0.39	0.39	-0.03
9,321.00	88.54	300.30	6,632.84	1,838.74	-2,185.31	2,839.93	7.47	-0.22	7.47
9,352.00	88.89	301.60	6,633.53	1,854.68	-2,211.89	2,869.84	4.34	1.13	4.19
9,384.00	88.26	300.72	6,634.33	1,871.23	-2,239.27	2,900.74	3.38	-1.97	-2.75
9,415.00	88.84	302.78	6,635.11	1,887.54	-2,265.62	2,930.75	6.90	1.87	6.65
9,447.00	89.06	303.48	6,635.70	1,905.02	-2,292.41	2,961.92	2.29	0.69	2.19
9,478.00	88.77	303.93	6,636.28	1,922.22	-2,318.20	2,992.19	1.73	-0.94	1.45
9,510.00	89.52	304.55	6,636.76	1,940.22	-2,344.65	3,023.50	3.04	2.34	1.94
9,541.00	89.40	303.74	6,637.05	1,957.62	-2,370.30	3,053.82	2.64	-0.39	-2.61
9,573.00	88.37	303.09	6,637.68	1,975.24	-2,397.01	3,085.02	3.81	-3.22	-2.03
9,605.00	89.35	304.65	6,638.31	1,993.07	-2,423.57	3,116.28	5.76	3.06	4.88
9,636.00	90.20	305.87	6,638.44	2,010.97	-2,448.88	3,146.72	4.80	2.74	3.94
9,668.00	90.20	305.80	6,638.32	2,029.70	-2,474.82	3,178.21	0.22	0.00	-0.22
9,699.00	90.54	305.77	6,638.12	2,047.83	-2,499.97	3,208.70	1.10	1.10	-0.10
9,731.00	89.46	304.60	6,638.12	2,066.27	-2,526.12	3,240.11	4.98	-3.38	-3.66
9,762.00	87.24	304.71	6,639.02	2,083.89	-2,551.61	3,270.48	7.17	-7.16	0.35
9,794.00	87.53	304.71	6,640.48	2,102.09	-2,577.89	3,301.81	0.91	0.91	0.00
9,826.00	87.53	304.17	6,641.86	2,120.17	-2,604.26	3,333.11	1.69	0.00	-1.69
9,857.00	87.81	304.33	6,643.12	2,137.60	-2,629.86	3,363.42	1.04	0.90	0.52
9,889.00	88.66	305.03	6,644.10	2,155.80	-2,656.16	3,394.77	3.44	2.66	2.19
9,920.00	90.03	305.31	6,644.46	2,173.66	-2,681.50	3,425.20	4.51	4.42	0.90
9,952.00	89.51	304.51	6,644.58	2,191.97	-2,707.74	3,456.58	2.98	-1.63	-2.50
9,983.00	88.15	303.14	6,645.22	2,209.22	-2,733.49	3,486.86	6.23	-4.39	-4.42
10,015.00	89.01	302.89	6,646.01	2,226.65	-2,760.31	3,518.01	2.80	2.69	-0.78
10,047.00	90.14	302.81	6,646.25	2,244.01	-2,787.19	3,549.15	3.54	3.53	-0.25
10,078.00	88.55	301.64	6,646.60	2,260.54	-2,813.42	3,579.24	6.37	-5.13	-3.77
PBHL BRENNAN #8									
10,092.31	88.34	301.47	6,646.99	2,268.02	-2,825.61	3,593.08	1.86	-1.44	-1.19
10,110.00	88.09	301.26	6,647.54	2,277.23	-2,840.70	3,610.18	1.86	-1.44	-1.19
10,173.00	87.92	301.19	6,649.73	2,309.86	-2,894.54	3,671.01	0.29	-0.27	-0.11
10,205.00	88.10	300.80	6,650.84	2,326.33	-2,921.96	3,701.88	1.34	0.56	-1.22
10,236.00	88.72	300.75	6,651.70	2,342.19	-2,948.58	3,731.76	2.01	2.00	-0.16
10,299.00	88.77	300.49	6,653.08	2,374.27	-3,002.78	3,792.44	0.42	0.08	-0.41
LAST SVY									
10,360.00	89.86	300.37	6,653.81	2,405.16	-3,055.38	3,851.16	1.80	1.79	-0.20
PROJ SVY									
10,410.00	89.86	300.37	6,653.94	2,430.44	-3,098.52	3,899.27	0.00	0.00	0.00

Company:	QUESTAR EXPLORATION AND PRODUCTION	**Local Co-ordinate Reference:**	Well BRENNAN #8
Project:	UINTAH COUNTY, UTAH	**TVD Reference:**	WELL @ 4781.00ft (AZTEC 777)
Site:	BRENNAN #8	**MD Reference:**	WELL @ 4781.00ft (AZTEC 777)
Well:	BRENNAN #8	**North Reference:**	True
Wellbore:	BRENNAN #8	**Survey Calculation Method:**	Minimum Curvature
Design:	BRENNAN #8	**Database:**	EDM 2003.21 Single User Db

Wellbore Targets

Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (ft)	Easting (ft)	Latitude	Longitude
PBHL BRENNAN #8	0.00	0.00	6,647.50	2,679.57	-2,573.89	7,252,073.67	2,174,525.16	40° 12' 47.310 N	109° 35' 14.362 W
- survey misses target center by 482.42ft at 10092.31ft MD (6646.99 TVD, 2268.02 N, -2825.61 E)									
- Point									

Formations

Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)
3,408.00	3,408.26	GREEN RIVER		1.55	317.01
6,157.58	6,158.46	KICK OFF POINT		1.55	317.01
6,770.00	6,549.71	G1 LIME		1.55	317.01

Survey Annotations

Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates +N/-S (ft)	Local Coordinates +E/-W (ft)	Comment
7,028.00	6,568.82	380.79	-426.37	TIE ON ST SIDE TRACK
10,360.00	6,653.81	2,405.16	-3,055.38	LAST SVY
10,410.00	6,653.94	2,430.44	-3,098.52	PROJ SVY

Checked By: _____ Approved By: _____ Date: _____

Weatherford®

Drilling Services

43 047 31509
7S 21E 17

END OF WELL REPORT

QUESTAR

QUESTAR EXPLORATION AND PRODUCTION

BRENNAN #8

UINTAH COUNTY, UT

PLAN 1

OCTOBER 28, 2009

Weatherford International Ltd.
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Weatherford®

FINAL SURVEYS.....SEC.1

DAYS vs DEPTH.....SEC.2

DAILY ACTIVITY.....SEC.3

BHA REPORTS.....SEC.4

MOTOR REPORTS SEC.5

SLIDE REPORT.....SEC.6

Drilling Services-Casper, WY

FINAL SURVEYS

QUESTAR

Weatherford®

Project: UINTAH COUNTY, UTAH
Site: BRENNAN #8
Well: BRENNAN #8
Wellbore: BRENNAN #8
Design: BRENNAN #8
Latitude: 40° 12' 20.830 N
Longitude: 109° 34' 41.182 W
GL: 4767.00
KB: WELL @ 4781.00ft (AZTEC 777)

WELLBORE TARGET DETAILS (LAT/LONG)

Name	TVD	+N/-S	+E/-W	Latitude	Longitude	Shape
PBHL BRENNAN #8	6647.50	2679.57	-2573.89	40° 12' 47.310 N	109° 35' 14.362 W	Point

WELL DETAILS: BRENNAN #8

Ground Level: 4767.00

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot
0.00	0.00	7249450.02	2177156.02	40° 12' 20.830 N	109° 34' 41.182 W	

SECTION DETAILS

MD	Inc	Azi	TVD	+N/-S	+E/-W	DLeg	TFace	VSec	Annotation
6100.00	1.65	191.07	6098.62	-92.34	24.58	0.00	0.00	-83.62	TIE ON POINT START HOLD 57.58'
6157.58	1.65	191.07	6156.18	-93.97	24.26	0.00	0.00	-84.58	Start DLS 14.60 TFO 125.96
6770.04	88.45	317.01	6555.00	179.09	-242.70	14.60	125.96	297.29	Start 3419.85 hold at 6770.04 MD
10189.89	88.45	317.01	6647.50	2679.57	-2573.89	0.00	0.00	3715.51	TD at 10189.89

LEGEND

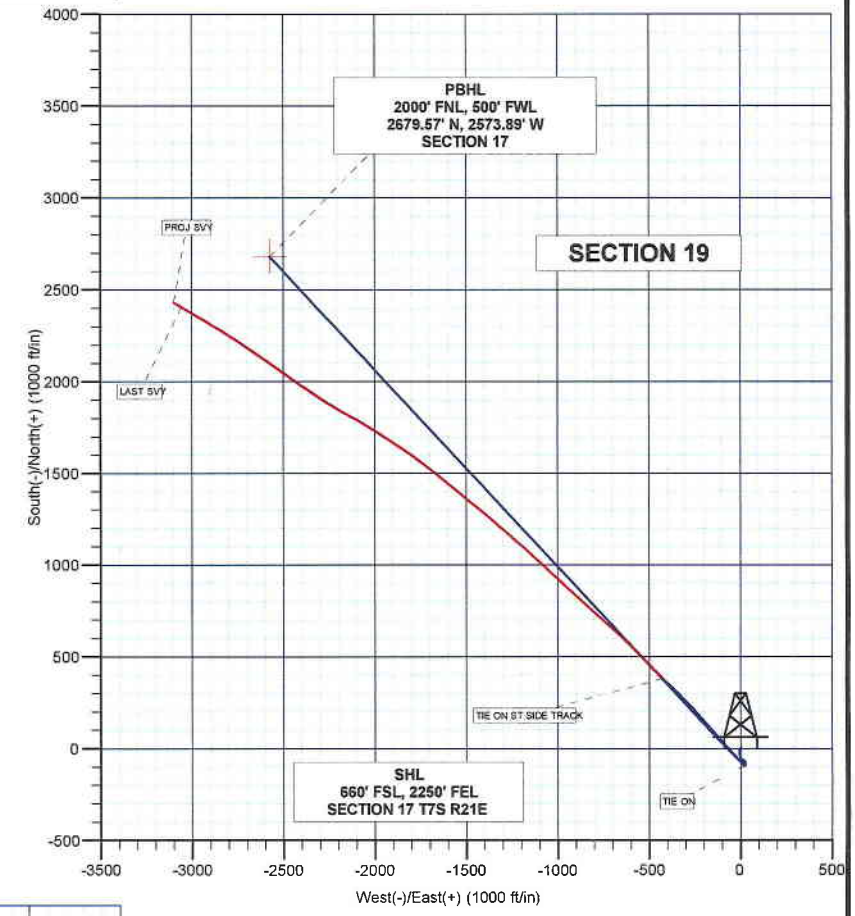
- BRENNAN #8, BRENNAN #8, Design #1 V0
- BRENNAN #8
- Survey #3 ST

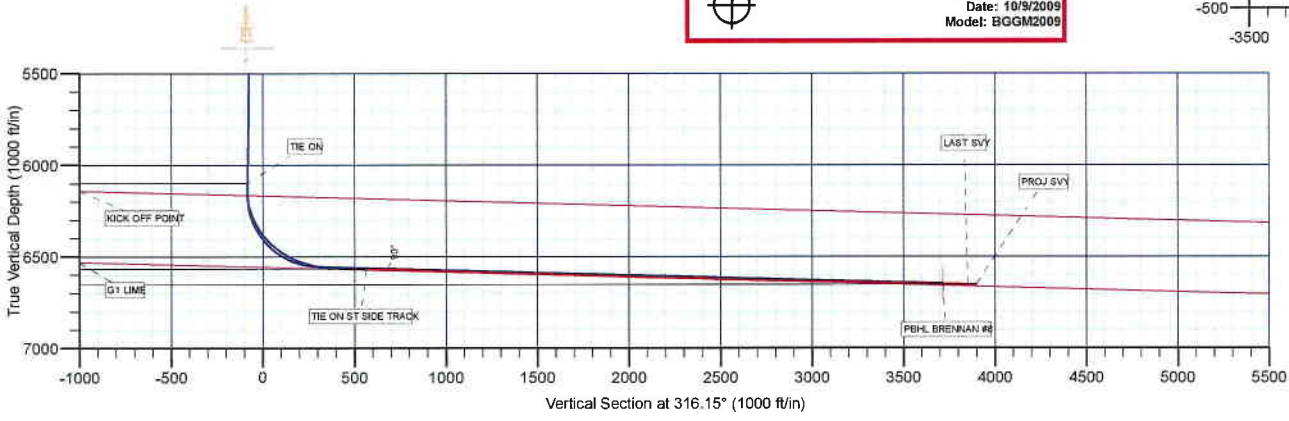
FORMATION TOP DETAILS

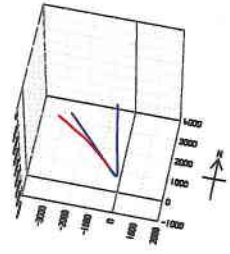
TVDPath	MDPath	Formation
3407.58	3408.00	GREEN RIVER
6156.18	6157.58	KICK OFF POINT
6555.00	6770.00	G1 LIME

Azimuths to True North
Magnetic North: 11.39°

Magnetic Field
Strength: 52609.5snT
Dip Angle: 66.08°
Date: 10/9/2009
Model: BGGM2009







Survey: Survey #3 ST (BRENNAN #8/BRENNAN #8)

Created By: TRACY WILLIAMS Date: 9:11, October 28 2009

QUESTAR

QUESTAR EXPLORATION AND PRODUCTION

UINTAH COUNTY, UTAH
BRENNAN #8
BRENNAN #8

BRENNAN #8

Survey: Survey #3 ST

Standard Survey Report

28 October, 2009

Weatherford®

Weatherford International Ltd.

Survey Report

Company:	QUESTAR EXPLORATION AND PRODUCTION	**Local Co-ordinate Reference:**	Well BRENNAN #8
Project:	UINTAH COUNTY, UTAH	**TVD Reference:**	WELL @ 4781.00ft (AZTEC 777)
Site:	BRENNAN #8	**MD Reference:**	WELL @ 4781.00ft (AZTEC 777)
Well:	BRENNAN #8	**North Reference:**	True
Wellbore:	BRENNAN #8	**Survey Calculation Method:**	Minimum Curvature
Design:	BRENNAN #8	**Database:**	EDM 2003.21 Single User Db

Project UINTAH COUNTY, UTAH

Map System:	US State Plane 1983	**System Datum:**	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	Utah Central Zone		

Site BRENNAN #8

Site Position:		**Northing:**	7,249,450.02 ft	**Latitude:**	40° 12' 20.830 N
From:	Lat/Long	**Easting:**	2,177,156.02 ft	**Longitude:**	109° 34' 41.182 W
Position Uncertainty:	0.00 ft	**Slot Radius:**	"	**Grid Convergence:**	1.23 °

Well BRENNAN #8

Well Position	**+N/-S**	0.00 ft	**Northing:**	7,249,450.02 ft	**Latitude:**	40° 12' 20.830 N
	+E/-W	0.00 ft	**Easting:**	2,177,156.02 ft	**Longitude:**	109° 34' 41.182 W
Position Uncertainty		0.00 ft	**Wellhead Elevation:**	ft	**Ground Level:**	4,767.00 ft

Wellbore BRENNAN #8

Magnetics	**Model Name**	**Sample Date**	**Declination (°)**	**Dip Angle (°)**	**Field Strength (nT)**
	BGGM2009	10/9/2009	11.39	66.08	52,609

Design BRENNAN #8

Audit Notes:

Version:	1.0	**Phase:**	ACTUAL	**Tie On Depth:**	0.00

Vertical Section:	**Depth From (TVD) (ft)**	**+N/-S (ft)**	**+E/-W (ft)**	**Direction (°)**
	0.00	0.00	0.00	316.15

Survey Program **Date** 10/28/2009

From (ft)	**To (ft)**	**Survey (Wellbore)**	**Tool Name**	**Description**
100.00	6,100.00	Survey #1 (BRENNAN #8)	NS-GYRO-MS	North sensing gyrocompassing m/s
6,178.00	7,028.00	Survey #2 (BRENNAN #8)	MWD	MWD - Standard
7,055.00	10,410.00	Survey #3 ST (BRENNAN #8)	MWD	MWD - Standard

Survey

Measured Depth (ft)	**Inclination (°)**	**Azimuth (°)**	**Vertical Depth (ft)**	**+N/-S (ft)**	**+E/-W (ft)**	**Vertical Section (ft)**	**Dogleg Rate (°/100ft)**	**Build Rate (°/100ft)**	**Turn Rate (°/100ft)**
TIE ON ST SIDE TRACK									
7,028.00	87.69	314.02	6,568.82	380.79	-426.37	569.98	0.00	0.00	0.00
7,055.00	88.21	313.88	6,569.79	399.52	-445.80	596.95	1.99	1.93	-0.52
7,086.00	86.88	315.08	6,571.11	421.22	-467.89	627.90	5.78	-4.29	3.87
7,118.00	87.98	316.90	6,572.55	444.21	-490.10	659.87	6.64	3.44	5.69
7,149.00	90.43	317.35	6,572.98	466.92	-511.19	690.86	8.04	7.90	1.45
7,181.00	91.45	316.69	6,572.45	490.33	-533.00	722.85	3.80	3.19	-2.06
7,212.00	89.91	316.01	6,572.09	512.76	-554.40	753.85	5.43	-4.97	-2.19
7,244.00	88.15	315.68	6,572.63	535.71	-576.69	785.84	5.60	-5.50	-1.03
7,275.00	87.35	314.50	6,573.84	557.65	-598.55	816.81	4.60	-2.58	-3.81
7,307.00	86.78	313.75	6,575.48	579.90	-621.49	848.75	2.94	-1.78	-2.34

Company:	QUESTAR EXPLORATION AND PRODUCTION	**Local Co-ordinate Reference:**	Well BRENNAN #8
Project:	UINTAH COUNTY, UTAH	**TVD Reference:**	WELL @ 4781.00ft (AZTEC 777)
Site:	BRENNAN #8	**MD Reference:**	WELL @ 4781.00ft (AZTEC 777)
Well:	BRENNAN #8	**North Reference:**	True
Wellbore:	BRENNAN #8	**Survey Calculation Method:**	Minimum Curvature
Design:	BRENNAN #8	**Database:**	EDM 2003.21 Single User Db

Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
7,339.00	88.94	313.23	6,576.68	601.90	-644.69	880.69	6.94	6.75	-1.63
7,369.00	89.63	312.50	6,577.05	622.31	-666.68	910.64	3.35	2.30	-2.43
7,401.00	86.67	311.20	6,578.09	643.65	-690.50	942.53	10.10	-9.25	-4.06
7,432.00	88.26	311.26	6,579.46	664.06	-713.79	973.38	5.13	5.13	0.19
7,460.00	89.57	313.05	6,579.99	682.85	-734.54	1,001.31	7.92	4.68	6.39
7,491.00	87.53	311.55	6,580.77	703.70	-757.46	1,032.22	8.17	-6.58	-4.84
7,523.00	87.35	311.29	6,582.20	724.85	-781.43	1,064.08	0.99	-0.56	-0.81
7,554.00	88.94	312.75	6,583.20	745.59	-804.45	1,094.99	6.96	5.13	4.71
7,586.00	88.89	312.89	6,583.81	767.34	-827.92	1,126.93	0.46	-0.16	0.44
7,617.00	87.74	311.49	6,584.72	788.14	-850.88	1,157.84	5.84	-3.71	-4.52
7,648.00	86.60	311.17	6,586.25	808.59	-874.13	1,188.69	3.82	-3.68	-1.03
7,680.00	87.11	311.89	6,588.01	829.78	-898.05	1,220.54	2.75	1.59	2.25
7,712.00	87.75	312.66	6,589.44	851.28	-921.70	1,252.43	3.13	2.00	2.41
7,743.00	88.60	312.86	6,590.43	872.32	-944.45	1,283.36	2.82	2.74	0.65
7,775.00	88.94	313.06	6,591.12	894.12	-967.86	1,315.30	1.23	1.06	0.63
7,806.00	89.34	313.03	6,591.58	915.28	-990.51	1,346.25	1.29	1.29	-0.10
7,838.00	89.06	312.67	6,592.03	937.04	-1,013.97	1,378.20	1.43	-0.88	-1.13
7,870.00	90.31	313.32	6,592.20	958.86	-1,037.38	1,410.15	4.40	3.91	2.03
7,901.00	89.23	312.77	6,592.33	980.02	-1,060.03	1,441.10	3.91	-3.48	-1.77
7,933.00	88.09	312.72	6,593.08	1,001.73	-1,083.52	1,473.04	3.57	-3.56	-0.16
7,964.00	87.17	311.75	6,594.36	1,022.55	-1,106.46	1,503.94	4.31	-2.97	-3.13
7,996.00	88.60	312.61	6,595.54	1,044.02	-1,130.15	1,535.84	5.21	4.47	2.69
8,027.00	88.95	312.53	6,596.20	1,064.99	-1,152.98	1,566.77	1.16	1.13	-0.26
8,059.00	87.58	311.59	6,597.17	1,086.41	-1,176.72	1,598.67	5.19	-4.28	-2.94
8,090.00	87.24	311.31	6,598.57	1,106.91	-1,199.93	1,629.54	1.42	-1.10	-0.90
8,122.00	87.12	310.94	6,600.15	1,127.93	-1,224.01	1,661.37	1.21	-0.38	-1.16
8,153.00	87.75	310.71	6,601.53	1,148.18	-1,247.44	1,692.21	2.16	2.03	-0.74
8,185.00	88.32	311.08	6,602.63	1,169.12	-1,271.62	1,724.05	2.12	1.78	1.16
8,217.00	88.60	311.03	6,603.49	1,190.13	-1,295.74	1,755.92	0.89	0.88	-0.16
8,248.00	88.72	310.65	6,604.22	1,210.39	-1,319.19	1,786.78	1.29	0.39	-1.23
8,280.00	88.77	310.78	6,604.92	1,231.26	-1,343.44	1,818.62	0.44	0.16	0.41
8,311.00	89.12	310.57	6,605.49	1,251.46	-1,366.94	1,849.48	1.32	1.13	-0.68
8,343.00	88.94	309.99	6,606.03	1,272.15	-1,391.35	1,881.30	1.90	-0.56	-1.81
8,375.00	87.29	309.73	6,607.08	1,292.65	-1,415.90	1,913.09	5.22	-5.16	-0.81
8,406.00	86.83	309.74	6,608.67	1,312.44	-1,439.71	1,943.86	1.48	-1.48	0.03
8,438.00	87.63	309.83	6,610.22	1,332.89	-1,464.27	1,975.62	2.52	2.50	0.28
8,469.00	87.51	309.54	6,611.53	1,352.67	-1,488.11	2,006.40	1.01	-0.39	-0.94
8,501.00	87.74	308.73	6,612.86	1,372.85	-1,512.91	2,038.13	2.63	0.72	-2.53
8,532.00	89.12	309.72	6,613.71	1,392.44	-1,536.91	2,068.89	5.48	4.45	3.19
8,564.00	89.86	309.24	6,613.99	1,412.79	-1,561.61	2,100.67	2.76	2.31	-1.50
8,596.00	89.63	308.52	6,614.14	1,432.87	-1,586.52	2,132.42	2.36	-0.72	-2.25
8,627.00	90.09	309.65	6,614.21	1,452.42	-1,610.58	2,163.18	3.94	1.48	3.65
8,659.00	87.75	309.45	6,614.81	1,472.79	-1,635.25	2,194.96	7.34	-7.31	-0.63
8,690.00	87.46	308.85	6,616.11	1,492.34	-1,659.27	2,225.70	2.15	-0.94	-1.94
8,722.00	88.32	308.50	6,617.29	1,512.33	-1,684.23	2,257.41	2.90	2.69	-1.09
8,753.00	88.03	307.30	6,618.28	1,531.36	-1,708.68	2,288.07	3.98	-0.94	-3.87
8,785.00	88.50	306.85	6,619.24	1,550.64	-1,734.20	2,319.65	2.03	1.47	-1.41
8,817.00	90.60	307.14	6,619.50	1,569.90	-1,759.76	2,351.24	6.62	6.56	0.91
8,848.00	89.63	305.84	6,619.43	1,588.33	-1,784.68	2,381.80	5.23	-3.13	-4.19
8,879.00	87.29	304.89	6,620.27	1,606.26	-1,809.95	2,412.24	8.15	-7.55	-3.06
8,911.00	87.47	304.53	6,621.73	1,624.47	-1,836.23	2,443.57	1.26	0.56	-1.13
8,942.00	87.74	303.69	6,623.03	1,641.84	-1,861.87	2,473.86	2.84	0.87	-2.71
8,974.00	88.15	303.59	6,624.17	1,659.55	-1,888.49	2,505.08	1.32	1.28	-0.31
9,006.00	88.49	303.08	6,625.11	1,677.13	-1,915.22	2,536.27	1.91	1.06	-1.59

Company:	QUESTAR EXPLORATION AND PRODUCTION	**Local Co-ordinate Reference:**	Well BRENNAN #8
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Site:	BRENNAN #8	**MD Reference:**	WELL @ 4781.00ft (AZTEC 777)
Well:	BRENNAN #8	**North Reference:**	True
Wellbore:	BRENNAN #8	**Survey Calculation Method:**	Minimum Curvature
Design:	BRENNAN #8	**Database:**	EDM 2003.21 Single User Db

Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
9,038.00	88.95	303.13	6,625.83	1,694.60	-1,942.02	2,567.44	1.45	1.44	0.16
9,069.00	88.60	302.91	6,626.49	1,711.49	-1,968.00	2,597.62	1.33	-1.13	-0.71
9,100.00	89.12	302.56	6,627.11	1,728.25	-1,994.07	2,627.77	2.02	1.68	-1.13
9,132.00	87.92	301.10	6,627.93	1,745.12	-2,021.25	2,658.76	5.90	-3.75	-4.56
9,164.00	88.49	301.04	6,628.93	1,761.63	-2,048.65	2,689.64	1.79	1.78	-0.19
9,195.00	88.89	300.76	6,629.64	1,777.54	-2,075.24	2,719.54	1.57	1.29	-0.90
9,226.00	88.38	299.93	6,630.38	1,793.20	-2,101.99	2,749.36	3.14	-1.65	-2.68
9,258.00	88.49	297.92	6,631.26	1,808.67	-2,129.98	2,779.92	6.29	0.34	-6.28
9,289.00	88.61	297.91	6,632.04	1,823.18	-2,157.37	2,809.35	0.39	0.39	-0.03
9,321.00	88.54	300.30	6,632.84	1,838.74	-2,185.31	2,839.93	7.47	-0.22	7.47
9,352.00	88.89	301.60	6,633.53	1,854.68	-2,211.89	2,869.84	4.34	1.13	4.19
9,384.00	88.26	300.72	6,634.33	1,871.23	-2,239.27	2,900.74	3.38	-1.97	-2.75
9,415.00	88.84	302.78	6,635.11	1,887.54	-2,265.62	2,930.75	6.90	1.87	6.65
9,447.00	89.06	303.48	6,635.70	1,905.02	-2,292.41	2,961.92	2.29	0.69	2.19
9,478.00	88.77	303.93	6,636.28	1,922.22	-2,318.20	2,992.19	1.73	-0.94	1.45
9,510.00	89.52	304.55	6,636.76	1,940.22	-2,344.65	3,023.50	3.04	2.34	1.94
9,541.00	89.40	303.74	6,637.05	1,957.62	-2,370.30	3,053.82	2.64	-0.39	-2.61
9,573.00	88.37	303.09	6,637.68	1,975.24	-2,397.01	3,085.02	3.81	-3.22	-2.03
9,605.00	89.35	304.65	6,638.31	1,993.07	-2,423.57	3,116.28	5.76	3.06	4.88
9,636.00	90.20	305.87	6,638.44	2,010.97	-2,448.88	3,146.72	4.80	2.74	3.94
9,668.00	90.20	305.80	6,638.32	2,029.70	-2,474.82	3,178.21	0.22	0.00	-0.22
9,699.00	90.54	305.77	6,638.12	2,047.83	-2,499.97	3,208.70	1.10	1.10	-0.10
9,731.00	89.46	304.60	6,638.12	2,066.27	-2,526.12	3,240.11	4.98	-3.38	-3.66
9,762.00	87.24	304.71	6,639.02	2,083.89	-2,551.61	3,270.48	7.17	-7.16	0.35
9,794.00	87.53	304.71	6,640.48	2,102.09	-2,577.89	3,301.81	0.91	0.91	0.00
9,826.00	87.53	304.17	6,641.86	2,120.17	-2,604.26	3,333.11	1.69	0.00	-1.69
9,857.00	87.81	304.33	6,643.12	2,137.60	-2,629.86	3,363.42	1.04	0.90	0.52
9,889.00	88.66	305.03	6,644.10	2,155.80	-2,656.16	3,394.77	3.44	2.66	2.19
9,920.00	90.03	305.31	6,644.46	2,173.66	-2,681.50	3,425.20	4.51	4.42	0.90
9,952.00	89.51	304.51	6,644.58	2,191.97	-2,707.74	3,456.58	2.98	-1.63	-2.50
9,983.00	88.15	303.14	6,645.22	2,209.22	-2,733.49	3,486.86	6.23	-4.39	-4.42
10,015.00	89.01	302.89	6,646.01	2,226.65	-2,760.31	3,518.01	2.80	2.69	-0.78
10,047.00	90.14	302.81	6,646.25	2,244.01	-2,787.19	3,549.15	3.54	3.53	-0.25
10,078.00	88.55	301.64	6,646.60	2,260.54	-2,813.42	3,579.24	6.37	-5.13	-3.77
PBHL BRENNAN #8									
10,092.31	88.34	301.47	6,646.99	2,268.02	-2,825.61	3,593.08	1.86	-1.44	-1.19
10,110.00	88.09	301.26	6,647.54	2,277.23	-2,840.70	3,610.18	1.86	-1.44	-1.19
10,173.00	87.92	301.19	6,649.73	2,309.86	-2,894.54	3,671.01	0.29	-0.27	-0.11
10,205.00	88.10	300.80	6,650.84	2,326.33	-2,921.96	3,701.88	1.34	0.56	-1.22
10,236.00	88.72	300.75	6,651.70	2,342.19	-2,948.58	3,731.76	2.01	2.00	-0.16
10,299.00	88.77	300.49	6,653.08	2,374.27	-3,002.78	3,792.44	0.42	0.08	-0.41
LAST SVY									
10,360.00	89.86	300.37	6,653.81	2,405.16	-3,055.38	3,851.16	1.80	1.79	-0.20
PROJ SVY									
10,410.00	89.86	300.37	6,653.94	2,430.44	-3,098.52	3,899.27	0.00	0.00	0.00

Company:	QUESTAR EXPLORATION AND PRODUCTION	**Local Co-ordinate Reference:**	Well BRENNAN #8
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Site:	BRENNAN #8	**MD Reference:**	WELL @ 4781.00ft (AZTEC 777)
Well:	BRENNAN #8	**North Reference:**	True
Wellbore:	BRENNAN #8	**Survey Calculation Method:**	Minimum Curvature
Design:	BRENNAN #8	**Database:**	EDM 2003.21 Single User Db

Wellbore Targets

Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (ft)	Easting (ft)	Latitude	Longitude
PBHL BRENNAN #8	0.00	0.00	6,647.50	2,679.57	-2,573.89	7,252,073.67	2,174,525.16	40° 12' 47.310 N	109° 35' 14.362 W
- survey misses target center by 482.42ft at 10092.31ft MD (6646.99 TVD, 2268.02 N, -2825.61 E)									
- Point									

Formations

Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)
3,408.00	3,408.26	GREEN RIVER		1.55	317.01
6,157.58	6,158.46	KICK OFF POINT		1.55	317.01
6,770.00	6,549.71	G1 LIME		1.55	317.01

Survey Annotations

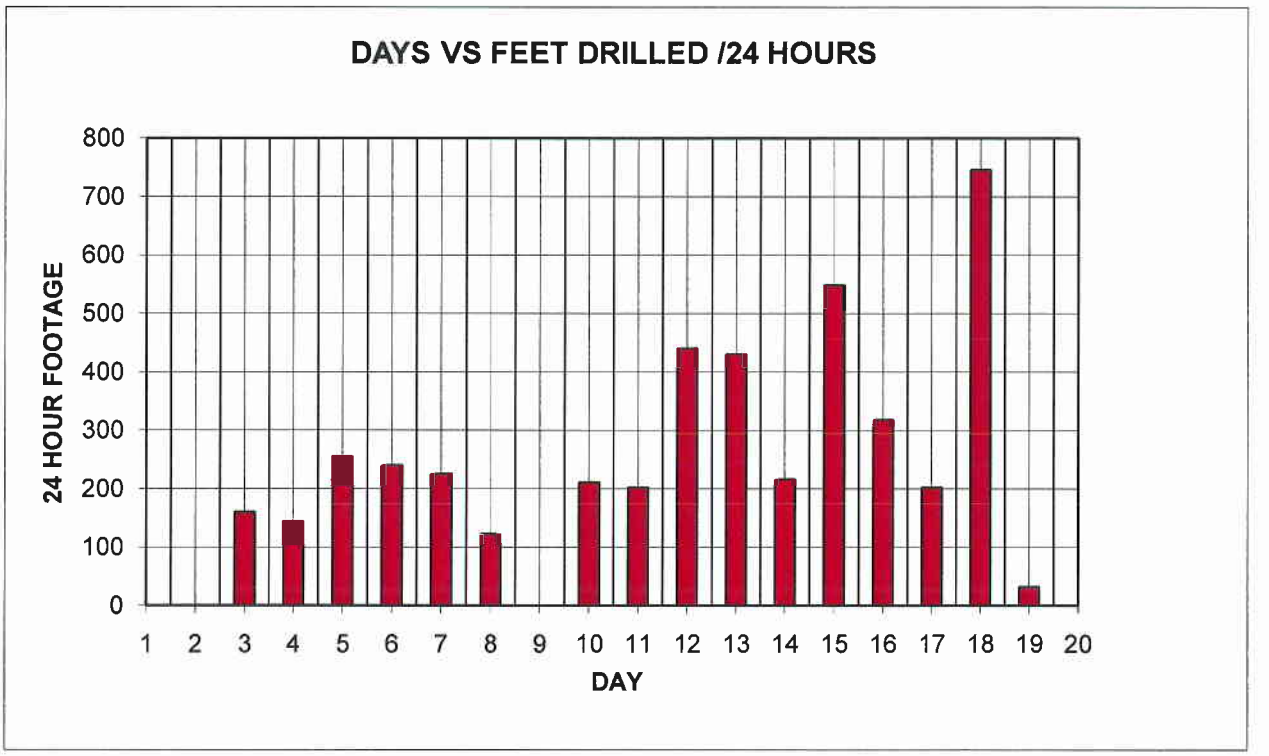
Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates +N/-S (ft)	Local Coordinates +E/-W (ft)	Comment
7,028.00	6,568.82	380.79	-426.37	TIE ON ST SIDE TRACK
10,360.00	6,653.81	2,405.16	-3,055.38	LAST SVY
10,410.00	6,653.94	2,430.44	-3,098.52	PROJ SVY

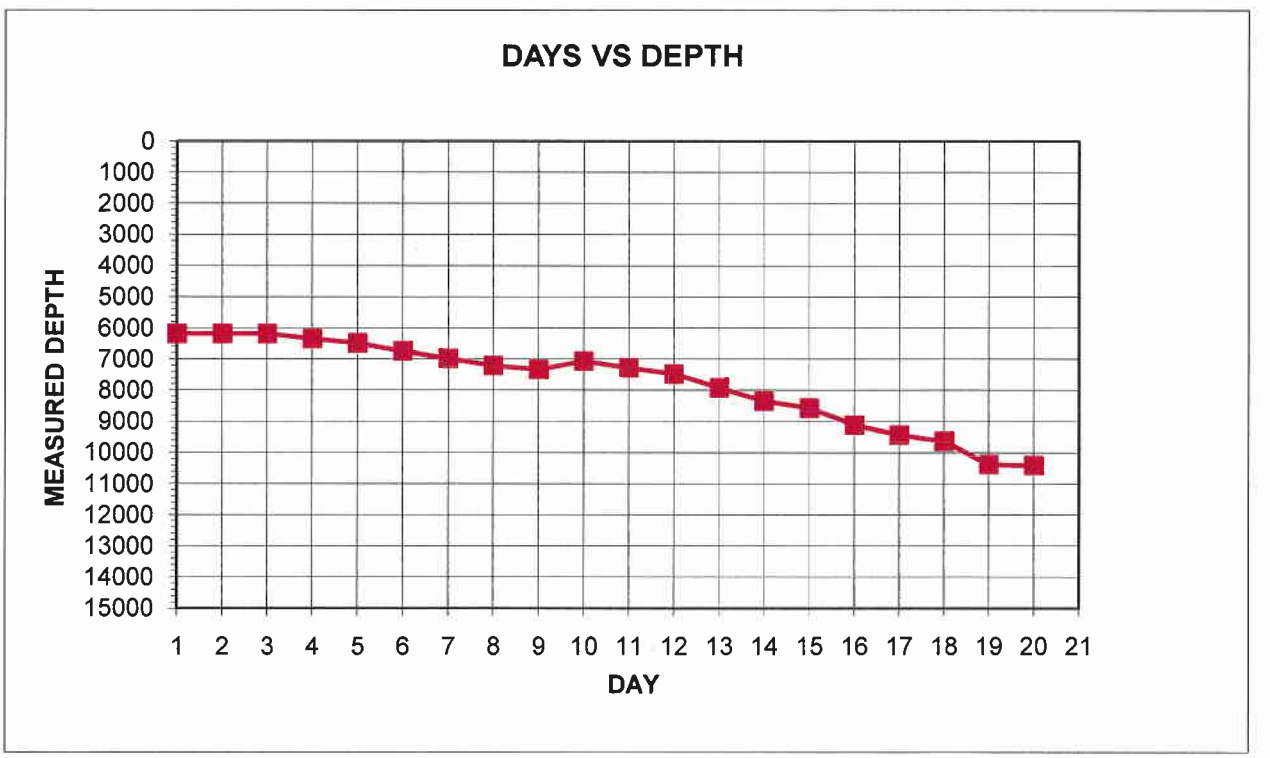
Checked By: _____ Approved By: _____ Date: _____

DAYS vs DEPTH

Questar Exploration and Production_Brennan #8 Uintah County, UT

Weatherford





DAILY ACTIVITY

Daily Activity Report

Day 1 - 2009/10/10

Weatherford

Drilling Services
v4.2.2674

FILE #: 4017734
JOB TYPE: Horizontal
RIG & NO: Aztec 777

WELL NAME: Brennan #8
COMPANY: Questar Exploration and Production
SURFACE LOCATION:

SERVICE CO.: Weatherford Directional
SURVEY TYPE: Electromagnetic MWD
FIELD / LOCATION: Uintah County / Utah / USA

DIR Supervisor: Herschell Gaddy, Charlie Billings
MWD Supervisor: Tyler Cluff, Kelly Petit

GROUND ELEV: 4767 ft
KB ELEV: 4781 ft

START DEPTH: 6179.0 ft
END DEPTH: 6179.0 ft

PROGRESS: 0.0 ft
AVG. ROP.: 0.0 ft/hr

DAILY COST: USD$
PREVIOUS COST: USD$
TOTAL COST: USD$

WORK STATUS: Standby *(All units are imperial.)*

TIME	DAILY ACTIVITY	HRS	DPTH	BHA	TIME	DAILY ACTIVITY	HRS	DPTH	BHA
00:00-09:00	Travel To Job	9.00	6179	n/a	17:00-17:30	Rig Service	0.50	6179	n/a
09:00-11:00	Undefined - See Comments - rig up & strap tools	2.00	6179	n/a	17:30-18:00	RIH - See Comments - p/u whipstock	0.50	6179	n/a
11:00-12:00	RIH - trip in w/scrapper	1.00	6179	n/a	18:00-22:30	RIH - 6163'	4.50	6179	n/a
12:00-12:30	Other - See Comments - rig dw lay dw truck	0.50	6179	n/a	22:30-22:45	Safety Meeting - wire-line	0.25	6179	n/a
12:30-13:00	Circulating - tag bridge plug 6179	0.50	6179	n/a	22:45-23:00	Rig Up - wire-line unit	0.25	6179	n/a
13:00-15:00	Circulating - See Comments - hot oiler	2.00	6179	n/a	23:00-24:00	Undefined - See Comments - wire-line orient	1.00	6179	n/a
15:00-17:00	POOH - See Comments - L/D bit & scrapper	2.00	6179	n/a			0.00		

TIME SUMMARY (hrs):

MOTOR DRILL:	0.00	**ORIENTING HRS:**	0.00	**ROTARY DRILL:**	0.00
TIME DRILL:	0.00	**ROTATING HRS:**	0.00	**MOTOR HRS:**	0.00
MOTOR REAM:	0.00			**TRIP:**	8.00
CIRC:	0.00	**ROTARY DRILL:**	0.00	**OTHER:**	16.00
MOTOR HRS:	0.00	**DRILL HRS:**	0.00	**TOTAL HRS:**	24.00

DRILLING PARAMETERS:

ROTARY TORQUE:		**STRING WEIGHT**	0 lbs
WOB SLIDING (HI):	0 lbf	**WOB ROTATE (HI):**	0 lbf
WOB SLIDING (LO):	0 lbf	**WOB ROTATE (LO):**	0 lbf
RPM (ROTARY):		**DRAG UP:**	0 lbf
RPM (MOTOR):		**DRAG DN:**	0 lbf

BHA / MOTOR / BIT INFORMATION:

BHA: **HOLE SIZE:** **SECTION TYPE:** **SURVEY TYPE:**
MANFCT.: **STABILIZER:** **SERIAL#:** **MODEL:** **LOBE CFG.:**
SETTING: **KICKPAD:** **SIZE:** **MTR HRS THIS DAY:** **MTR HRS TO DATE:**
MANFCT: **BIT TYPE:** **TYPE:** **NOZZLES:**
IADC BIT GRADE:

PUMP PARAMETERS

PRESSURE ON BTM: 0 **PRESSURE OFF BTM:** 0 **TOTAL FLOW RATE:** 0.00 gal/min

PUMP 1:	**TYPE:** F-1000	**EFF.:** 95.0%	**SPM:** 0.00	**LINER:** 0.00 in	**STROKE VOL.:** 0.0000 gal/stk
PUMP 2:	**TYPE:** F-1000	**EFF.:** 95.0%	**SPM:** 0.00	**LINER:** 0.00 in	**STROKE VOL.:** 0.0000 gal/stk
PUMP 3:	**TYPE:**	**EFF.:** 100.0%	**SPM:** 0.00	**LINER:** 0.00 in	**STROKE VOL.:** 0.0000 gal/stk

MUD RECORD

MUD TYPE: **VISC:** 0 sec/qt **WTR LOSS:** 0 cc/30min **PV:** 0 cP **YP:** 0 lb/100 ft² **pH:** 0
DENSITY: 0 lb/gal **GEL 0/10:** 0.00 lb/100 ft² **SAND:** 0 **SOLIDS:** 0 **OIL:** 0 **TEMP:** 0 °F
LIQUID BASE: **LIQUID RATE:** 0 gal/min **GAS TYPE:** **GAS RATE:** 0 cu ft/min

COMMENTS:

Arrive @ rig and rig up,

CUSTOMER SIGNATURE: _____

Daily Activity Report

Drilling Services
v4.2.2674

Day 2 - 2009/10/11

FILE #: 4017734
JOB TYPE: Horizontal
RIG & NO: Aztec 777

WELL NAME: Brennan #8
COMPANY: Questar Exploration and Production
SURFACE LOCATION:

SERVICE CO.: Weatherford Directional
SURVEY TYPE: Electromagnetic MWD
FIELD / LOCATION: Uintah County / Utah / USA

DIR Supervisor: Herschell Gaddy, Charlie Billings
MWD Supervisor: Tyler Cluff, Kelly Petit

GROUND ELEV: 4767 ft
KB ELEV: 4781 ft

START DEPTH: 6179.0 ft
END DEPTH: 6179.0 ft

PROGRESS: 0.0 ft
AVG. ROP.: 0.0 ft/hr

DAILY COST: USD$
PREVIOUS COST: USD$
TOTAL COST: USD$

WORK STATUS: Operating *(All units are imperial.)*

TIME	DAILY ACTIVITY	HRS	DPTH	BHA	TIME	DAILY ACTIVITY	HRS	DPTH	BHA
00:00-00:15	Other - See Comments - set whip stock @316	0.25	6179	n/a	14:00-14:30	Rig Service	0.50	6179	n/a
00:15-01:30	Undefined - See Comments - pull wire-line	1.25	6179	n/a	14:30-17:30	PU Directional Tools	3.00	6179	1
01:30-02:15	Unplug Nozzles - unplug drill string	0.75	6179	n/a	17:30-17:45	Circulating - See Comments - test motor	0.25	6179	1
02:15-11:00	Mill Window	8.75	6179	n/a	17:45-22:00	RIH With New BHA - to 6164'	4.25	6179	1
11:00-12:00	Circ Bottoms Up - high vis.	1.00	6179	n/a	22:00-22:15	Circulating - See Comments - fill pipe	0.25	6179	1
12:00-14:00	POOH For Directional	2.00	6179	n/a	22:15-24:00	Other - See Comments - rig up gyro	1.75	6179	1

TIME SUMMARY (hrs):

MOTOR DRILL:	0.00	**ORIENTING HRS:**	0.00	**ROTARY DRILL:**	0.00
TIME DRILL:	0.00	**ROTATING HRS:**	0.00	**MOTOR HRS:**	0.50
MOTOR REAM:	0.00			**TRIP:**	6.25
CIRC:	0.50	**ROTARY DRILL:**	0.00	**OTHER:**	17.25
MOTOR HRS:	0.50	**DRILL HRS:**	0.00	**TOTAL HRS:**	24.00

DRILLING PARAMETERS:

ROTARY TORQUE:		**STRING WEIGHT**	0 lbs
WOB SLIDING (HI):	0 lbf	**WOB ROTATE (HI):**	0 lbf
WOB SLIDING (LO):	0 lbf	**WOB ROTATE (LO):**	0 lbf
RPM (ROTARY):		**DRAG UP:**	0 lbf
RPM (MOTOR):		**DRAG DN:**	0 lbf

BHA / MOTOR / BIT INFORMATION:

BHA: 1 **HOLE SIZE:** 4.75 in **SECTION TYPE:** Curve **SURVEY TYPE:** Electronic Multishot
MANFCT.: weatherford **STABILIZER:** No **SERIAL#:** 375-2525 **MODEL:** 3.8 STG. **LOBE CFG.:** 5/6
SETTING: 1.89 ° **KICKPAD:** No **SIZE:** 3 3/4" (95mm) **MTR HRS THIS DAY:** 0.5 **MTR HRS TO DATE:** 0.5
MANFCT: Smith **BIT TYPE:** Tri-Cone Bit **TYPE:** XR-15 **NOZZLES:** 12, 12, 12, n/a: 0.331 in² TFA
IADC BIT GRADE: 1 / 3 / LT / M / E / I / LT / PR

PUMP PARAMETERS

PRESSURE ON BTM: 0 **PRESSURE OFF BTM:** 0 **TOTAL FLOW RATE:** 122.46 gal/min

PUMP 1:	**TYPE:** F-1000	**EFF.:** 95.0%	**SPM:** 0.00	**LINER:** 4.00 in	**STROKE VOL.:** 1.5531 gal/stk
PUMP 2:	**TYPE:** F-1000	**EFF.:** 95.0%	**SPM:** 83.00	**LINER:** 4.00 in	**STROKE VOL.:** 1.5531 gal/stk
PUMP 3:	**TYPE:**	**EFF.:** 100.0%	**SPM:** 0.00	**LINER:** 0.00 in	**STROKE VOL.:** 0.0000 gal/stk

MUD RECORD

MUD TYPE: Gelchem **VISC:** 36 sec/qt **WTR LOSS:** 9.4 cc/30min **PV:** 5 cP **YP:** 4 lb/100 ft² **pH:** 11.7
DENSITY: 8.55 lb/gal **GEL 0/10:** 3.00 lb/100 ft² **SAND:** 0 **SOLIDS:** 1 **OIL:** 0 **TEMP:** 0 °F
LIQUID BASE: Water **LIQUID RATE:** 0 gal/min **GAS TYPE:** **GAS RATE:** 0 cu ft/min

COMMENTS:

Mill window, circulate trip out lay down mills P/U directional bha #1 trip in to top of window and rig up gyro.

CUSTOMER SIGNATURE:

Daily Activity Report

Day 3 - 2009/10/12

Weatherford

Drilling Services
v4.2.2674

FILE #: 4017734
JOB TYPE: Horizontal
RIG & NO: Aztec 777

WELL NAME: Brennan #8
COMPANY: Questar Exploration and Production
SURFACE LOCATION:

SERVICE CO.: Weatherford Directional
SURVEY TYPE: Electromagnetic MWD
FIELD / LOCATION: Uintah County / Utah / USA

DIR Supervisor: Herschell Gaddy, Charlie Billings
MWD Supervisor: Tyler Cluff, Kelly Petit

GROUND ELEV: 4767 ft
KB ELEV: 4781 ft

START DEPTH: 6179.0 ft
END DEPTH: 6339.0 ft

PROGRESS: 160.0 ft
AVG. ROP.: 13.3 ft/hr

DAILY COST: USD$
PREVIOUS COST: USD$
TOTAL COST: USD$

WORK STATUS: Operating *(All units are imperial.)*

TIME	DAILY ACTIVITY	HRS	DPTH	BHA	TIME	DAILY ACTIVITY	HRS	DPTH	BHA
00:00-00:30	Other - See Comments - rig up gyro	0.50	6179	1	09:00-12:30	Orienting With Motor - 317 GTF0	3.50	6215	1
00:30-01:00	Undefined - See Comments - run gyro tag @3662'	0.50	6179	1	12:30-14:15	Other - See Comments - TRIP GYRO FOR CONN.	1.75	6215	1
01:00-01:15	Circulating	0.25	6179	1	14:15-18:45	Orienting With Motor	4.50	6278	1
01:15-01:30	Undefined - See Comments - run gyro tag @3662'	0.25	6179	1	18:45-20:00	Other - See Comments - RIG DW GYRO	1.25	6278	1
01:30-02:15	Undefined - See Comments - pull & rig dw gyro	0.75	6179	1	20:00-21:00	Orienting With Motor - 15' @ 20R	1.00	6293	1
02:15-04:30	POOH - See Comments - remove corr ring	2.25	6179	1	21:00-21:45	Rotating With Motor	0.75	6310	1
04:30-08:30	RIH	4.00	6179	1	21:45-23:30	Orienting With Motor - 20' @ 20 R	1.75	6330	1
08:30-09:00	Back Reaming	0.50	6179	1	23:30-24:00	Rotating With Motor	0.50	6339	1

TIME SUMMARY (hrs):

MOTOR DRILL:	12.00	**ORIENTING HRS:**	10.75	**ROTARY DRILL:**	0.00
TIME DRILL:	0.00	**ROTATING HRS:**	1.25	**MOTOR HRS:**	12.75
MOTOR REAM:	0.00			**TRIP:**	6.25
CIRC:	0.75	**ROTARY DRILL:**	0.00	**OTHER:**	5.00
MOTOR HRS:	12.75	**DRILL HRS:**	12.00	**TOTAL HRS:**	24.00

DRILLING PARAMETERS:

ROTARY TORQUE:		**STRING WEIGHT**	72 lbs
WOB SLIDING (HI):	11 lbf	**WOB ROTATE (HI):**	12 lbf
WOB SLIDING (LO):	5 lbf	**WOB ROTATE (LO):**	0 lbf
RPM (ROTARY):	20 rpm	**DRAG UP:**	3000 lbf
RPM (MOTOR):		**DRAG DN:**	3000 lbf

BHA / MOTOR / BIT INFORMATION:

BHA: 1 **HOLE SIZE:** 4.75 in **SECTION TYPE:** Curve **SURVEY TYPE:** Electronic Multishot
MANFCT.: weatherford **STABILIZER:** No **SERIAL#:** 375-2525 **MODEL:** 3.8 STG. **LOBE CFG.:** 5/6
SETTING: 1.89 ° **KICKPAD:** No **SIZE:** 3 3/4" (95mm) **MTR HRS THIS DAY:** 12.75 **MTR HRS TO DATE:** 13.25
MANFCT: Smith **BIT TYPE:** Tri-Cone Bit **TYPE:** XR-15 **NOZZLES:** 12, 12, 12, n/a: 0.331 in² TFA
IADC BIT GRADE: 1 / 3 / LT / M / E / I / LT / PR

PUMP PARAMETERS

PRESSURE ON BTM: 1800 **PRESSURE OFF BTM:** 1700 **TOTAL FLOW RATE:** 140.16 gal/min

PUMP 1:	**TYPE:** F-1000	**EFF.:** 95.0%	**SPM:** 95.00	**LINER:** 4.00 in	**STROKE VOL.:**	1.5531 gal/stk
PUMP 2:	**TYPE:** F-1000	**EFF.:** 95.0%	**SPM:** 0.00	**LINER:** 4.00 in	**STROKE VOL.:**	1.5531 gal/stk
PUMP 3:	**TYPE:**	**EFF.:** 100.0%	**SPM:** 0.00	**LINER:** 0.00 in	**STROKE VOL.:**	0.0000 gal/stk

MUD RECORD

MUD TYPE: Gelchem **VISC:** 38 sec/qt **WTR LOSS:** 8.4 cc/30min **PV:** 8 cP **YP:** 7 lb/100 ft² **pH:** 11
DENSITY: 8.5 lb/gal **GEL 0/10:** 4.00 lb/100 ft² **SAND:** 0 **SOLIDS:** 1.5 **OIL:** 0 **TEMP:** 0 °F
LIQUID BASE: Water **LIQUID RATE:** 0 gal/min **GAS TYPE:** **GAS RATE:** 0 cu ft/min

COMMENTS:

rig up and run gyro tag @ 3662' pull back with gyro to circulate, attempt to run in again and tag @ 3662' rig down gyro and trip to remove obstruction in pipe. remove corrosion ring and trip back in. drill from 6179' to 6339'.

CUSTOMER SIGNATURE:

Daily Activity Report

Weatherford

Drilling Services
v4.2.2674

Day 4 - 2009/10/13

FILE #: 4017734
JOB TYPE: Horizontal
RIG & NO: Aztec 777

WELL NAME: Brennan #8
COMPANY: Questar Exploration and Production
SURFACE LOCATION:

SERVICE CO.: Weatherford Directional
SURVEY TYPE: Electromagnetic MWD
FIELD / LOCATION: Uintah County / Utah / USA

DIR Supervisor: Herschell Gaddy, Charlie Billings
MWD Supervisor: Tyler Cluff, Kelly Petit

GROUND ELEV: 4767 ft
KB ELEV: 4781 ft

START DEPTH: 6339.0 ft
END DEPTH: 6484.0 ft

PROGRESS: 145.0 ft
AVG. ROP.: 9.7 ft/hr

DAILY COST: USD$
PREVIOUS COST: USD$
TOTAL COST: USD$

WORK STATUS: Operating *(All units are imperial.)*

TIME	DAILY ACTIVITY	HRS	DPTH	BHA	TIME	DAILY ACTIVITY	HRS	DPTH	BHA
00:00-00:15	Rotating With Motor	0.25	6341	1	14:00-14:15	Circulating - See Comments - test motor	0.25	6426	2
00:15-09:30	Orienting With Motor - 64' HS	9.25	6426	1	14:15-17:45	RIH	3.50	6426	2
09:30-10:00	Circulating	0.50	6426	1	17:45-18:30	Wash To Bottom - pump sweep	0.75	6426	2
10:00-12:00	POOH For Bit	2.00	6426	1	18:30-19:30	Rotating With Motor	1.00	6433	2
12:00-12:45	Handle Directional Tools - L/D motor & bit	0.75	6426	1	19:30-22:00	Orienting With Motor - 24' @ 10L	2.50	6457	2
12:45-13:15	BOP Drill - Rig service	0.50	6426	1	22:00-22:45	Rotating With Motor	0.75	6465	2
13:15-14:00	Handle Directional Tools - P/U motor & bit	0.75	6426	2	22:45-24:00	Orienting With Motor - 19' @ 10R	1.25	6484	2

TIME SUMMARY (hrs):

MOTOR DRILL:	15.00	**ORIENTING HRS:**	9.25	**ROTARY DRILL:**	0.00		
TIME DRILL:	0.00	**ROTATING HRS:**	0.25	**MOTOR HRS:**	16.50		
MOTOR REAM:	0.00			**TRIP:**	5.50		
CIRC:	1.50	**ROTARY DRILL:**	0.00	**OTHER:**	2.00		
MOTOR HRS:	16.50	**DRILL HRS:**	15.00	**TOTAL HRS:**	24.00		

DRILLING PARAMETERS:

ROTARY TORQUE:	800 ft-lb	**STRING WEIGHT**	72 lbs
WOB SLIDING (HI):	12 lbf	**WOB ROTATE (HI):**	12 lbf
WOB SLIDING (LO):	4 lbf	**WOB ROTATE (LO):**	12 lbf
RPM (ROTARY):	30 rpm	**DRAG UP:**	5 lbf
RPM (MOTOR):	264 rpm	**DRAG DN:**	5 lbf

BHA / MOTOR / BIT INFORMATION:

BHA: 1 **HOLE SIZE:** 4.75 in **SECTION TYPE:** Curve **SURVEY TYPE:** Electronic Multishot
MANFCT.: weatherford **STABILIZER:** No **SERIAL#:** 375-2525 **MODEL:** 3.8 STG. **LOBE CFG.:** 5/6
SETTING: 1.89 ° **KICKPAD:** No **SIZE:** 3 3/4" (95mm) **MTR HRS THIS DAY:** 10 **MTR HRS TO DATE:** 23.25
MANFCT: Smith **BIT TYPE:** Tri-Cone Bit **TYPE:** XR-15 **NOZZLES:** 12, 12, 12, n/a: 0.331 in² TFA
IADC BIT GRADE: 1 / 3 / LT / M / E / I / LT / PR

BHA: 2 **HOLE SIZE:** 4.75 in **SECTION TYPE:** Curve **SURVEY TYPE:** Electromagnetic MWD
MANFCT.: **STABILIZER:** No **SERIAL#:** 375-2512 **MODEL:** weatherford **LOBE CFG.:** 5/6
SETTING: 1.89 ° **KICKPAD:** No **SIZE:** 3 3/4" (95mm) **MTR HRS THIS DAY:** 6.5 **MTR HRS TO DATE:** 6.5
MANFCT: Smith **BIT TYPE:** Tri-Cone Bit **TYPE:** XR-20 **NOZZLES:** 11, 11, 11, n/a: 0.278 in² TFA
IADC BIT GRADE: 3 / 3 / WT / A / E / I / ER / HR

PUMP PARAMETERS

PRESSURE ON BTM: 1900 **PRESSURE OFF BTM:** 1700 **TOTAL FLOW RATE:** 135.74 gal/min

PUMP 1:	**TYPE:** F-1000	**EFF.:** 95.0%	**SPM:** 92.00	**LINER:** 4.00 in	**STROKE VOL.:**	1.5531 gal/stk
PUMP 2:	**TYPE:** F-1000	**EFF.:** 95.0%	**SPM:** 0.00	**LINER:** 4.00 in	**STROKE VOL.:**	1.5531 gal/stk
PUMP 3:	**TYPE:**	**EFF.:** 100.0%	**SPM:** 0.00	**LINER:** 0.00 in	**STROKE VOL.:**	0.0000 gal/stk

MUD RECORD

MUD TYPE: Gelchem **VISC:** 43 sec/qt **WTR LOSS:** 7.6 cc/30min **PV:** 11 cP **YP:** 10 lb/100 ft² **pH:** 11.3
DENSITY: 9 lb/gal **GEL 0/10:** 5.00 lb/100 ft² **SAND:** 0.15 **SOLIDS:** 3.5 **OIL:** 0 **TEMP:** 0 °F
LIQUID BASE: Water **LIQUID RATE:** 0 gal/min **GAS TYPE:** **GAS RATE:** 0 cu ft/min

COMMENTS:

Drill from 6339' to 6426' target change @ 6,426' md. 10am 10/13/09 to 6571' @ 300' vs trip out and change bit and motor P/U jars and push pipe trip back in drill from 6426' to 6484'.

CUSTOMER SIGNATURE:

Daily Activity Report

Weatherford

Drilling Services
v4.2.2674

Day 5 - 2009/10/14

FILE #: 4017734
JOB TYPE: Horizontal
RIG & NO: Aztec 777

WELL NAME: Brennan #8
COMPANY: Questar Exploration and Production
SURFACE LOCATION:

SERVICE CO.: Weatherford Directional
SURVEY TYPE: Electromagnetic MWD
FIELD / LOCATION: Uintah County / Utah / USA

DIR Supervisor: Herschell Gaddy, Charlie Billings
MWD Supervisor: Tyler Cluff, Kelly Petit

GROUND ELEV: 4767 ft
KB ELEV: 4781 ft

START DEPTH: 6484.0 ft
END DEPTH: 6740.0 ft

PROGRESS: 256.0 ft
AVG. ROP.: 10.9 ft/hr

DAILY COST: USD$
PREVIOUS COST: USD$
TOTAL COST: USD$

WORK STATUS: Operating *(All units are imperial.)*

TIME	DAILY ACTIVITY	HRS	DPTH	BHA	TIME	DAILY ACTIVITY	HRS	DPTH	BHA
00:00-00:30	Orienting With Motor - 5' @10R	0.50	6489	2	13:15-13:45	Rig Service	0.50	6622	2
00:30-01:15	Orienting With Motor	0.75	6496	2	13:45-15:30	Orienting With Motor	1.75	6643	2
01:15-02:45	Orienting With Motor - 22' @10R	1.50	6518	2	15:30-17:00	Rotating With Motor	1.50	6669	2
02:45-03:45	Rotating With Motor	1.00	6528	2	17:00-17:45	Orienting With Motor - HSTF	0.75	6674	2
03:45-06:00	Orienting With Motor - 20' @ HS	2.25	6548	2	17:45-18:30	Rotating With Motor	0.75	6685	2
06:00-07:00	Rotating With Motor	1.00	6559	2	18:30-20:15	Orienting With Motor - 15' @ HS	1.75	6700	2
07:00-09:30	Orienting With Motor - 20L	2.50	6559	2	20:15-21:30	Rotating With Motor	1.25	6717	2
09:30-10:15	Rotating With Motor	0.75	6591	2	21:30-23:45	Orienting With Motor - 15' @ HS	2.25	6732	2
10:15-13:00	Orienting With Motor - 10L	2.75	6615	2	23:45-24:00	Rotating With Motor	0.25	6740	2
13:00-13:15	Rotating With Motor	0.25	6622	2			0.00		

TIME SUMMARY (hrs):

MOTOR DRILL:	23.50	**ORIENTING HRS:**	16.75	**ROTARY DRILL:**	0.00		
TIME DRILL:	0.00	**ROTATING HRS:**	6.75	**MOTOR HRS:**	23.50		
MOTOR REAM:	0.00			**TRIP:**	0.00		
CIRC:	0.00	**ROTARY DRILL:**	0.00	**OTHER:**	0.50		
MOTOR HRS:	23.50	**DRILL HRS:**	23.50	**TOTAL HRS:**	24.00		

DRILLING PARAMETERS:

ROTARY TORQUE:	10000 ft-lb	**STRING WEIGHT**	73 lbs
WOB SLIDING (HI):	20 lbf	**WOB ROTATE (HI):**	12 lbf
WOB SLIDING (LO):	12 lbf	**WOB ROTATE (LO):**	6 lbf
RPM (ROTARY):	36 rpm	**DRAG UP:**	5 lbf
RPM (MOTOR):	279 rpm	**DRAG DN:**	8 lbf

BHA / MOTOR / BIT INFORMATION:

BHA: 2 **HOLE SIZE:** 4.75 in **SECTION TYPE:** Curve **SURVEY TYPE:** Electromagnetic MWD
MANFCT.: **STABILIZER:** No **SERIAL#:** 375-2512 **MODEL:** weatherford **LOBE CFG.:** 5/6
SETTING: 1.89 ° **KICKPAD:** No **SIZE:** 3 3/4" (95mm) **MTR HRS THIS DAY:** 23.5 **MTR HRS TO DATE:** 30
MANFCT: Smith **BIT TYPE:** Tri-Cone Bit **TYPE:** XR-20 **NOZZLES:** 11, 11, 11, n/a: 0.278 in² TFA
IADC BIT GRADE: 3 / 3 / WT / A / E / I / ER / HR

PUMP PARAMETERS

PRESSURE ON BTM: 1875 **PRESSURE OFF BTM:** 1700 **TOTAL FLOW RATE:** 132.79 gal/min

PUMP 1:	**TYPE:** F-1000	**EFF.:** 95.0%	**SPM:** 90.00	**LINER:** 4.00 in	**STROKE VOL.:**	1.5531 gal/stk
PUMP 2:	**TYPE:** F-1000	**EFF.:** 95.0%	**SPM:** 0.00	**LINER:** 4.00 in	**STROKE VOL.:**	1.5531 gal/stk
PUMP 3:	**TYPE:**	**EFF.:** 100.0%	**SPM:** 0.00	**LINER:** 0.00 in	**STROKE VOL.:**	0.0000 gal/stk

MUD RECORD

MUD TYPE: Gelchem **VISC:** 43 sec/qt **WTR LOSS:** 0 cc/30min **PV:** 13 cP **YP:** 9 lb/100 ft² **pH:** 11
DENSITY: 8.9 lb/gal **GEL 0/10:** 5.00 lb/100 ft² **SAND:** 0 **SOLIDS:** 3 **OIL:** 0 **TEMP:** 70 °F
LIQUID BASE: Water **LIQUID RATE:** 0 gal/min **GAS TYPE:** **GAS RATE:** 0 cu ft/min

COMMENTS:

Drill from 6484' to 6740'. Geologist @ 22:00 came over and gave us a new TVD of 6562.5 for the top @ MD of 6800 to 6830.

CUSTOMER SIGNATURE:

Daily Activity Report

Day 6 - 2009/10/15

Weatherford

Drilling Services
v4.2.2674

FILE #: 4017734
JOB TYPE: Horizontal
RIG & NO: Aztec 777

WELL NAME: Brennan #8
COMPANY: Questar Exploration and Production
SURFACE LOCATION:

SERVICE CO.: Weatherford Directional
SURVEY TYPE: Electromagnetic MWD
FIELD / LOCATION: Uintah County / Utah / USA

DIR Supervisor: Herschell Gaddy, Charlie Billings
MWD Supervisor: Tyler Cluff, Kelly Petit

GROUND ELEV: 4767 ft
KB ELEV: 4781 ft

START DEPTH: 6740.0 ft
END DEPTH: 6980.0 ft

PROGRESS: 240.0 ft
AVG. ROP.: 18.8 ft/hr

DAILY COST: USD$
PREVIOUS COST: USD$
TOTAL COST: USD$

WORK STATUS: Operating *(All units are imperial.)*

TIME	DAILY ACTIVITY	HRS	DPTH	BHA	TIME	DAILY ACTIVITY	HRS	DPTH	BHA
00:00-00:15	Rotating With Motor	0.25	6745	2	11:30-12:00	Rotating With Motor	0.50	6749	3
00:15-00:45	Circulating - See Comments - Pump dry-job	0.50	6745	2	12:00-14:30	Orienting With Motor - 10L	2.50	6770	3
00:45-04:30	POOH For Bit - L/D bit	3.75	6745	2	14:30-15:15	Rotating With Motor	0.75	6780	3
04:30-05:15	Change Bit	0.75	6745	3	15:15-17:00	Orienting With Motor	1.75	6804	3
05:15-05:30	Circulating - See Comments - test motor "good"	0.25	6745	3	17:00-17:30	Rotating With Motor	0.50	6812	3
05:30-07:00	Slip And Cut	1.50	6745	3	17:30-18:45	Orienting With Motor - 10L	1.25	6832	3
07:00-11:00	RIH With Directional	4.00	6745	3	18:45-24:00	Rotating With Motor	5.25	6980	3
11:00-11:30	Wash To Bottom	0.50	6745	3			0.00		

TIME SUMMARY (hrs):

MOTOR DRILL:	12.75	**ORIENTING HRS:**	0.00	**ROTARY DRILL:**	0.00
TIME DRILL:	0.00	**ROTATING HRS:**	0.25	**MOTOR HRS:**	14.00
MOTOR REAM:	0.00			**TRIP:**	7.75
CIRC:	1.25	**ROTARY DRILL:**	0.00	**OTHER:**	2.25
MOTOR HRS:	14.00	**DRILL HRS:**	12.75	**TOTAL HRS:**	24.00

DRILLING PARAMETERS:

ROTARY TORQUE:	1000 ft-lb	**STRING WEIGHT**	73 lbs
WOB SLIDING (HI):	20 lbf	**WOB ROTATE (HI):**	15 lbf
WOB SLIDING (LO):	15 lbf	**WOB ROTATE (LO):**	12 lbf
RPM (ROTARY):	36 rpm	**DRAG UP:**	10 lbf
RPM (MOTOR):	260 rpm	**DRAG DN:**	15 lbf

BHA / MOTOR / BIT INFORMATION:

BHA: 2 **HOLE SIZE:** 4.75 in **SECTION TYPE:** Curve **SURVEY TYPE:** Electromagnetic MWD
MANFCT.: **STABILIZER:** No **SERIAL#:** 375-2512 **MODEL:** weatherford **LOBE CFG.:** 5/6
SETTING: 1.89 ° **KICKPAD:** No **SIZE:** 3 3/4" (95mm) **MTR HRS THIS DAY:** 0.75 **MTR HRS TO DATE:** 30.75
MANFCT: Smith **BIT TYPE:** Tri-Cone Bit **TYPE:** XR-20 **NOZZLES:** 11, 11, 11, n/a: 0.278 in² TFA
IADC BIT GRADE: 3 / 3 / WT / A / E / I / ER / HR

BHA: 3 **HOLE SIZE:** 4.75 in **SECTION TYPE:** Curve **SURVEY TYPE:** Electromagnetic MWD
MANFCT.: **STABILIZER:** No **SERIAL#:** 375-2512 **MODEL:** weatherford **LOBE CFG.:** 5/6
SETTING: 1.89 ° **KICKPAD:** No **SIZE:** 3 3/4" (95mm) **MTR HRS THIS DAY:** 13.25 **MTR HRS TO DATE:** 44
MANFCT: Smith **BIT TYPE:** Tri-Cone Bit **TYPE:** XR-20 **NOZZLES:** 11, 11, 11, n/a: 0.278 in² TFA
IADC BIT GRADE: 4 / 4 / WT / M / E / I / WT / PP

PUMP PARAMETERS

PRESSURE ON BTM: 1650 **PRESSURE OFF BTM:** 1400 **TOTAL FLOW RATE:** 125.41 gal/min

PUMP 1:	**TYPE:** F-1000	**EFF.:** 95.0%	**SPM:** 85.00	**LINER:** 4.00 in	**STROKE VOL.:** 1.5531 gal/stk
PUMP 2:	**TYPE:** F-1000	**EFF.:** 95.0%	**SPM:** 0.00	**LINER:** 4.00 in	**STROKE VOL.:** 1.5531 gal/stk
PUMP 3:	**TYPE:**	**EFF.:** 100.0%	**SPM:** 0.00	**LINER:** 0.00 in	**STROKE VOL.:** 0.0000 gal/stk

MUD RECORD

MUD TYPE: Gelchem **VISC:** 45 sec/qt **WTR LOSS:** 7.2 cc/30min **PV:** 14 cP **YP:** 10 lb/100 ft² **pH:** 10.2
DENSITY: 8.95 lb/gal **GEL 0/10:** 5.00 lb/100 ft² **SAND:** 0 **SOLIDS:** 3.5 **OIL:** 0 **TEMP:** 70 °F
LIQUID BASE: Water **LIQUID RATE:** 0 gal/min **GAS TYPE:** **GAS RATE:** 0 cu ft/min

COMMENTS:

Drill to 6745' circulate and trip for bit. Inspected motor at surface and P/U new bit, tested mud motor. Cut and slip drlg line. trip back to btm drill from 6745' to 6980'. in zone

CUSTOMER SIGNATURE:

Daily Activity Report

Weatherford

Drilling Services
v4.2.2674

Day 7 - 2009/10/16

FILE #: 4017734
JOB TYPE: Horizontal
RIG & NO: Aztec 777

WELL NAME: Brennan #8
COMPANY: Questar Exploration and Production
SURFACE LOCATION:

SERVICE CO.: Weatherford Directional
SURVEY TYPE: Electromagnetic MWD
FIELD / LOCATION: Uintah County / Utah / USA

DIR Supervisor: Herschell Gaddy, Charlie Billings
MWD Supervisor: Tyler Cluff, Kelly Petit

GROUND ELEV: 4767 ft
KB ELEV: 4781 ft

START DEPTH: 6980.0 ft
END DEPTH: 7205.0 ft

PROGRESS: 225.0 ft
AVG. ROP.: 17.0 ft/hr

DAILY COST: USD$
PREVIOUS COST: USD$
TOTAL COST: USD$

WORK STATUS: Operating *(All units are imperial.)*

TIME	DAILY ACTIVITY	HRS	DPTH	BHA	TIME	DAILY ACTIVITY	HRS	DPTH	BHA
00:00-00:45	Rotating With Motor	0.75	6998	3	07:30-08:45	Change Bit And Motor	1.25	7041	4
00:45-01:00	Rig Service	0.25	6998	3	08:45-09:15	Rig Service	0.50	7041	4
01:00-02:15	Rotating With Motor	1.25	7031	3	09:15-12:45	Trip In	3.50	7041	4
02:15-02:30	Orienting With Motor - 2' @ 165L	0.25	7033	3	12:45-13:15	Wash To Bottom	0.50	7041	4
02:30-02:45	Rotating With Motor	0.25	7041	3	13:15-19:30	Rotating With Motor	6.25	7179	4
02:45-04:00	Circ & Condition Hole - pump dry-job	1.25	7041	3	19:30-23:15	Orienting With Motor - 17' @ 170R	3.75	7196	4
04:00-07:30	POOH For Bit	3.50	7041	3	23:15-24:00	Rotating With Motor	0.75	7205	4

TIME SUMMARY (hrs):

MOTOR DRILL:	13.25	**ORIENTING HRS:**	0.25	**ROTARY DRILL:**	0.00
TIME DRILL:	0.00	**ROTATING HRS:**	2.25	**MOTOR HRS:**	15.00
MOTOR REAM:	0.00			**TRIP:**	7.00
CIRC:	1.75	**ROTARY DRILL:**	0.00	**OTHER:**	2.00
MOTOR HRS:	15.00	**DRILL HRS:**	13.25	**TOTAL HRS:**	24.00

DRILLING PARAMETERS:

ROTARY TORQUE:	100 ft-lb	**STRING WEIGHT**	73 lbs
WOB SLIDING (HI):	25 lbf	**WOB ROTATE (HI):**	15 lbf
WOB SLIDING (LO):	5 lbf	**WOB ROTATE (LO):**	5 lbf
RPM (ROTARY):	34 rpm	**DRAG UP:**	0 lbf
RPM (MOTOR):	260 rpm	**DRAG DN:**	0 lbf

BHA / MOTOR / BIT INFORMATION:

BHA: 3 **HOLE SIZE:** 4.75 in **SECTION TYPE:** Curve **SURVEY TYPE:** Electromagnetic MWD
MANFCT.: **STABILIZER:** No **SERIAL#:** 375-2512 **MODEL:** weatherford **LOBE CFG.:** 5/6
SETTING: 1.89 ° **KICKPAD:** No **SIZE:** 3 3/4" (95mm) **MTR HRS THIS DAY:** 3.75 **MTR HRS TO DATE:** 47.75
MANFCT: Smith **BIT TYPE:** Tri-Cone Bit **TYPE:** XR-20 **NOZZLES:** 11, 11, 11, n/a: 0.278 in² TFA
IADC BIT GRADE: 4 / 4 / WT / M / E / I / WT / PP

BHA: 4 **HOLE SIZE:** 4.75 in **SECTION TYPE:** Lateral 1 **SURVEY TYPE:** Electromagnetic MWD
MANFCT.: wenzel **STABILIZER:** No **SERIAL#:** 350-M6-010 **MODEL:** 7/8 3:8 **LOBE CFG.:** 7/8
SETTING: 1.69 ° **KICKPAD:** No **SIZE:** 3.5 **MTR HRS THIS DAY:** 11.25 **MTR HRS TO DATE:** 11.25
MANFCT: Hughes **BIT TYPE:** Tri-Cone Bit **TYPE:** STX-20 **NOZZLES:** 11, 11, 11, n/a: 0.278 in² TFA
IADC BIT GRADE: 1 / 1 / ER / A / E / I / WT / PP

PUMP PARAMETERS

PRESSURE ON BTM: 1750 **PRESSURE OFF BTM:** 1450 **TOTAL FLOW RATE:** 122.46 gal/min

PUMP 1:	**TYPE:** F-1000	**EFF.:** 95.0%	**SPM:** 83.00	**LINER:** 4.00 in	**STROKE VOL.:**	1.5531 gal/stk
PUMP 2:	**TYPE:** F-1000	**EFF.:** 95.0%	**SPM:** 0.00	**LINER:** 4.00 in	**STROKE VOL.:**	1.5531 gal/stk
PUMP 3:	**TYPE:**	**EFF.:** 100.0%	**SPM:** 0.00	**LINER:** 0.00 in	**STROKE VOL.:**	0.0000 gal/stk

MUD RECORD

MUD TYPE: Gelchem **VISC:** 43 sec/qt **WTR LOSS:** 7.2 cc/30min **PV:** 12 cP **YP:** 10 lb/100 ft² **pH:** 11
DENSITY: 9 lb/gal **GEL 0/10:** 5.00 lb/100 ft² **SAND:** 0 **SOLIDS:** 3.5 **OIL:** 0 **TEMP:** 70 °F
LIQUID BASE: Water **LIQUID RATE:** 0 gal/min **GAS TYPE:** **GAS RATE:** 0 cu ft/min

COMMENTS:

Drill from 6980' to 7041' Co-man was concerned, about pressure spikes while rotating, had DD go up and slide down to see if motor would stall was able to slide 2' no problems with motor, not stalling went back rotating spiked again while drilling p/u off btm cir and trip for bit.
New target 6559.7 @ 323vs,with 1.7 dip. Pulled out and change out bit and motor trip back in drilled from 7041' to 7205'. @ survey 7122' talk with co-man of wanting to slide down to stay in zone was told to rotate and he will watch it, says it wil deflect of the top, P- rate slowed and differental increased had to back w.t off because of pressure increase samples showed us @ the top co-man decided after rotating another 17' to let us slide after talking with geologist

Daily Activity Report

Day 8 - 2009/10/17

Weatherford

Drilling Services
v4.2.2674

FILE #: 4017734
JOB TYPE: Horizontal
RIG & NO: Aztec 777

WELL NAME: Brennan #8
COMPANY: Questar Exploration and Production
SURFACE LOCATION:

SERVICE CO.: Weatherford Directional
SURVEY TYPE: Electromagnetic MWD
FIELD / LOCATION: Uintah County / Utah / USA

DIR Supervisor: Herschell Gaddy, Charlie Billings
MWD Supervisor: Tyler Cluff, Kelly Petit

GROUND ELEV: 4767 ft
KB ELEV: 4781 ft

START DEPTH: 7205.0 ft
END DEPTH: 7328.0 ft

PROGRESS: 123.0 ft
AVG. ROP.: 7.7 ft/hr

DAILY COST: USD$
PREVIOUS COST: USD$
TOTAL COST: USD$

WORK STATUS: Operating *(All units are imperial.)*

TIME	DAILY ACTIVITY	HRS	DPTH	BHA	TIME	DAILY ACTIVITY	HRS	DPTH	BHA
00:00-00:30	Rotating With Motor	0.50	7210	4	10:30-13:15	Rotating With Motor	2.75	7313	4
00:30-01:30	Orienting With Motor - 5' @ 145R	1.00	7215	4	13:15-17:00	Orienting With Motor - 180	3.75	7328	4
01:30-03:30	Rotating With Motor	2.00	7237	4	17:00-18:00	Circ & Condition Hole - pump sweep	1.00	7328	4
03:30-07:30	Orienting With Motor - 145 r	4.00	7262	4	18:00-23:30	POOH - See Comments - L/D motor & mwd, bit	5.50	7328	4
07:30-09:30	Rotating With Motor	2.00	7291	4	23:30-24:00	Change Bit And Motor - P/u new mwd	0.50	7328	5
09:30-10:30	Rig Repair - brake assist	1.00	7291	4			0.00		

TIME SUMMARY (hrs):

MOTOR DRILL:	16.00	**ORIENTING HRS:**	8.75	**ROTARY DRILL:**	0.00
TIME DRILL:	0.00	**ROTATING HRS:**	7.25	**MOTOR HRS:**	17.00
MOTOR REAM:	0.00			**TRIP:**	5.50
CIRC:	1.00	**ROTARY DRILL:**	0.00	**OTHER:**	1.50
MOTOR HRS:	17.00	**DRILL HRS:**	16.00	**TOTAL HRS:**	24.00

DRILLING PARAMETERS:

ROTARY TORQUE:	1000 ft-lb	**STRING WEIGHT**	73 lbs
WOB SLIDING (HI):	25 lbf	**WOB ROTATE (HI):**	14 lbf
WOB SLIDING (LO):	15 lbf	**WOB ROTATE (LO):**	10 lbf
RPM (ROTARY):	36 rpm	**DRAG UP:**	10 lbf
RPM (MOTOR):	206 rpm	**DRAG DN:**	20 lbf

BHA / MOTOR / BIT INFORMATION:

BHA: 4 **HOLE SIZE:** 4.75 in **SECTION TYPE:** Lateral 1 **SURVEY TYPE:** Electromagnetic MWD
MANFCT.: wenzel **STABILIZER:** No **SERIAL#:** 350-M6-010 **MODEL:** 7/8 3:8 **LOBE CFG.:** 7/8
SETTING: 1.69 ° **KICKPAD:** No **SIZE:** 3.5 **MTR HRS THIS DAY:** 17 **MTR HRS TO DATE:** 28.25
MANFCT: Hughes **BIT TYPE:** Tri-Cone Bit **TYPE:** STX-20 **NOZZLES:** 11, 11, 11, n/a: 0.278 in² TFA
IADC BIT GRADE: 1 / 1 / ER / A / E / I / WT / PP

BHA: 5 **HOLE SIZE:** 4.75 in **SECTION TYPE:** Lateral 1 **SURVEY TYPE:** Positive Pulse MWD
MANFCT.: wenzel **STABILIZER:** No **SERIAL#:** 350-10 -016 **MODEL:** **LOBE CFG.:** 7/8
SETTING: 1.69 ° **KICKPAD:** No **SIZE:** 3.5 **MTR HRS THIS DAY:** 0 **MTR HRS TO DATE:** 0
MANFCT: Smith **BIT TYPE:** Tri-Cone Bit **TYPE:** XR 20 **NOZZLES:** 11, 11, 11, n/a: 0.278 in² TFA
IADC BIT GRADE: 1 / 2 / WT / G / E / I / NO / HR

PUMP PARAMETERS

PRESSURE ON BTM: 0 **PRESSURE OFF BTM:** 0 **TOTAL FLOW RATE:** 126.89 gal/min

PUMP 1:	**TYPE:** F-1000	**EFF.:** 95.0%	**SPM:** 86.00	**LINER:** 4.00 in	**STROKE VOL.:**	1.5531 gal/stk
PUMP 2:	**TYPE:** F-1000	**EFF.:** 95.0%	**SPM:** 0.00	**LINER:** 4.00 in	**STROKE VOL.:**	1.5531 gal/stk
PUMP 3:	**TYPE:**	**EFF.:** 100.0%	**SPM:** 0.00	**LINER:** 0.00 in	**STROKE VOL.:**	0.0000 gal/stk

MUD RECORD

MUD TYPE: Gelchem **VISC:** 43 sec/qt **WTR LOSS:** 7 cc/30min **PV:** 11 cP **YP:** 9 lb/100 ft² **pH:** 11.2
DENSITY: 8.9 lb/gal **GEL 0/10:** 4.00 lb/100 ft² **SAND:** 3 **SOLIDS:** 0 **OIL:** 0 **TEMP:** 0 °F
LIQUID BASE: Water **LIQUID RATE:** 0 gal/min **GAS TYPE:** **GAS RATE:** 0 cu ft/min

COMMENTS:

Drill from 7205' to 7328' out of zone. circulate and trip out for side track. L/D bit, motor, and mwd tool,

CUSTOMER SIGNATURE: _____

Daily Activity Report

Weatherford

Drilling Services
v4.2.2674

Day 9 - 2009/10/18

FILE #: 4017734
JOB TYPE: Horizontal
RIG & NO: Aztec 777

WELL NAME: Brennan #8
COMPANY: Questar Exploration and Production
SURFACE LOCATION:

SERVICE CO.: Weatherford Directional
SURVEY TYPE: Electromagnetic MWD
FIELD / LOCATION: Uintah County / Utah / USA

DIR Supervisor: Herschell Gaddy, Charlie Billings
MWD Supervisor: Tyler Cluff, Kelly Petit

GROUND ELEV: 4767 ft
KB ELEV: 4781 ft

START DEPTH: 7328.0 ft
END DEPTH: 7069.0 ft

PROGRESS: 0.0 ft
AVG. ROP.: 0.0 ft/hr

DAILY COST: USD$
PREVIOUS COST: USD$
TOTAL COST: USD$

WORK STATUS: Operating *(All units are imperial.)*

TIME	DAILY ACTIVITY	HRS	DPTH	BHA	TIME	DAILY ACTIVITY	HRS	DPTH	BHA
00:00-01:00	PU Directional Tools	1.00	7328	5	15:00-17:00	Time Drill - @ xx min/inch	2.00	7147	5
01:00-02:00	Wait On MWD Tools - Re Program computer	1.00	7328	5	17:00-18:15	Time Drill - @ xx min/inch	1.25	7163	5
02:00-02:15	Circulating - See Comments - test mwd, test good.	0.25	7328	5	18:15-19:00	Back Ream - P/U to 7141 to 7152	0.75	7152	5
02:15-06:45	RIH - trip to 7133'	4.50	7122	5	19:00-20:00	Time Drill - @ xx min/inch	1.00	7154	5
06:45-07:15	Build Trough - 10' for 30min	0.50	7122	5	20:00-21:30	Time Drill - @ xx min/inch	1.50	7159	5
07:15-07:45	Build Trough - 5' plus 1"	0.50	7122	5	21:30-22:45	Time Drill - @ xx min/inch	1.25	7163	5
07:45-08:15	Build Trough - 3' plus 2"	0.50	7122	5	22:45-23:00	Other - See Comments - try to set w.t dw	0.25	7163	5
08:15-09:45	Time Drill - @ xx min/inch	1.50	7136	5	23:00-23:30	POOH - See Comments - L/D 2 jts	0.50	7059	5
09:45-10:00	Undefined - See Comments - P/U to 7140'	0.25	7140	5	23:30-24:00	Build Trough - start@7059' to 7069'	0.50	7069	5
10:00-15:00	Time Drill - @ xx min/inch	5.00	7144	5			0.00		

TIME SUMMARY (hrs):

MOTOR DRILL:	0.00	**ORIENTING HRS:**	0.00	**ROTARY DRILL:**	0.00
TIME DRILL:	15.50	**ROTATING HRS:**	0.00	**MOTOR HRS:**	16.50
MOTOR REAM:	0.75			**TRIP:**	5.00
CIRC:	0.25	**ROTARY DRILL:**	0.00	**OTHER:**	2.50
MOTOR HRS:	16.50	**DRILL HRS:**	0.00	**TOTAL HRS:**	24.00

DRILLING PARAMETERS:

ROTARY TORQUE:		**STRING WEIGHT**	0 lbs
WOB SLIDING (HI):	0 lbf	**WOB ROTATE (HI):**	0 lbf
WOB SLIDING (LO):	0 lbf	**WOB ROTATE (LO):**	0 lbf
RPM (ROTARY):		**DRAG UP:**	0 lbf
RPM (MOTOR):		**DRAG DN:**	0 lbf

BHA / MOTOR / BIT INFORMATION:

BHA: 5
HOLE SIZE: 4.75 in
SECTION TYPE: Lateral 1
SURVEY TYPE: Positive Pulse MWD
MANFCT.: wenzel
STABILIZER: No
SERIAL#: 350-10 -016
MODEL:
LOBE CFG.: 7/8
SETTING: 1.69 °
KICKPAD: No
SIZE: 3.5
MTR HRS THIS DAY: 16.5
MTR HRS TO DATE: 16.5
MANFCT: Smith
BIT TYPE: Tri-Cone Bit
TYPE: XR 20
NOZZLES: 11, 11, 11, n/a: 0.278 in² TFA
IADC BIT GRADE: 1 / 2 / WT / G / E / I / NO / HR

PUMP PARAMETERS

PRESSURE ON BTM: 1326
PRESSURE OFF BTM: 0
TOTAL FLOW RATE: 106.23 gal/min

PUMP 1:	**TYPE:** F-1000	**EFF.:** 95.0%	**SPM:** 72.00	**LINER:** 4.00 in	**STROKE VOL.:**	1.5531 gal/stk
PUMP 2:	**TYPE:** F-1000	**EFF.:** 95.0%	**SPM:** 0.00	**LINER:** 4.00 in	**STROKE VOL.:**	1.5531 gal/stk
PUMP 3:	**TYPE:**	**EFF.:** 100.0%	**SPM:** 0.00	**LINER:** 0.00 in	**STROKE VOL.:**	0.0000 gal/stk

MUD RECORD

MUD TYPE: Gelchem
VISC: 43 sec/qt
WTR LOSS: 7 cc/30min
PV: 13 cP
YP: 9 lb/100 ft²
pH: 10.7
DENSITY: 8.95 lb/gal
GEL 0/10: 4.00 lb/100 ft²
SAND: 0
SOLIDS: 3.5
OIL: 0
TEMP: 0 °F
LIQUID BASE: Water
LIQUID RATE: 0 gal/min
GAS TYPE:
GAS RATE: 0 cu ft/min

COMMENTS:

P/u bha #5 trip to 7122' attempt side track trough from 7112' to 7122' time drill no go pulled back to 7152' attempt side track no go, would not take any w.t. pulled back to 7069 and start #3 attempt side track. trough from 7059' to 7069'.

CUSTOMER SIGNATURE: _____

Daily Activity Report

Day 10 - 2009/10/19

Weatherford

Drilling Services
v4.2.2674

FILE #: 4017734
JOB TYPE: Horizontal
RIG & NO: Aztec 777

WELL NAME: Brennan #8
COMPANY: Questar Exploration and Production
SURFACE LOCATION:

SERVICE CO.: Weatherford Directional
SURVEY TYPE: Electromagnetic MWD
FIELD / LOCATION: Uintah County / Utah / USA

DIR Supervisor: Herschell Gaddy, Charlie Billings
MWD Supervisor: Tyler Cluff, Kelly Petit

GROUND ELEV: 4767 ft
KB ELEV: 4781 ft

START DEPTH: 7069.0 ft
END DEPTH: 7280.0 ft

PROGRESS: 211.0 ft
AVG. ROP.: 15.6 ft/hr

DAILY COST: USD$
PREVIOUS COST: USD$
TOTAL COST: USD$

WORK STATUS: Operating *(All units are imperial.)*

TIME	DAILY ACTIVITY	HRS	DPTH	BHA	TIME	DAILY ACTIVITY	HRS	DPTH	BHA
00:00-01:00	Build Trough - 7059' to 7069'	1.00	7069	5	16:00-18:30	Rotating With Motor	2.50	7199	5
01:00-02:45	Time Drill - @ xx min/inch	1.75	7071	5	18:30-20:30	Orienting With Motor - 15' @ LS	2.00	7214	5
02:45-09:30	Time Drill - @ xx min/inch	6.75	7084	5	20:30-20:45	Rotating With Motor	0.25	7222	5
09:30-10:30	Time Drill - @ xx min/inch	1.00	7090	5	20:45-21:15	Orienting With Motor - 5' @ LS	0.50	7227	5
10:30-12:00	Rotating With Motor	1.50	7105	5	21:15-21:30	Rotating With Motor	0.25	7231	5
12:00-13:00	Orienting With Motor - 45 R	1.00	7115	5	21:30-22:15	Rotating With Motor	0.75	7250	5
13:00-14:15	Rotating With Motor	1.25	7136	5	22:15-22:45	Orienting With Motor - 5' @ LS	0.50	7255	5
14:15-15:45	Orienting With Motor - 20R	1.50	7146	5	22:45-24:00	Rotating With Motor	1.25	7280	5
15:45-16:00	Rotating With Motor	0.25	7168	5			0.00		

TIME SUMMARY (hrs):

MOTOR DRILL:	13.50	**ORIENTING HRS:**	5.50	**ROTARY DRILL:**	0.00
TIME DRILL:	10.50	**ROTATING HRS:**	8.00	**MOTOR HRS:**	24.00
MOTOR REAM:	0.00			**TRIP:**	0.00
CIRC:	0.00	**ROTARY DRILL:**	0.00	**OTHER:**	0.00
MOTOR HRS:	24.00	**DRILL HRS:**	13.50	**TOTAL HRS:**	24.00

DRILLING PARAMETERS:

ROTARY TORQUE:	1000 ft-lb	**STRING WEIGHT**	75 lbs
WOB SLIDING (HI):	20 lbf	**WOB ROTATE (HI):**	12 lbf
WOB SLIDING (LO):	15 lbf	**WOB ROTATE (LO):**	10 lbf
RPM (ROTARY):	36 rpm	**DRAG UP:**	10 lbf
RPM (MOTOR):	188 rpm	**DRAG DN:**	15 lbf

BHA / MOTOR / BIT INFORMATION:

BHA: 5 **HOLE SIZE:** 4.75 in **SECTION TYPE:** Lateral 1 **SURVEY TYPE:** Positive Pulse MWD
MANFCT.: wenzel **STABILIZER:** No **SERIAL#:** 350-10 -016 **MODEL:** **LOBE CFG.:** 7/8
SETTING: 1.69 ° **KICKPAD:** No **SIZE:** 3.5 **MTR HRS THIS DAY:** 24 **MTR HRS TO DATE:** 40.5
MANFCT: Smith **BIT TYPE:** Tri-Cone Bit **TYPE:** XR 20 **NOZZLES:** 11, 11, 11, n/a: 0.278 in² TFA
IADC BIT GRADE: 1 / 2 / WT / G / E / I / NO / HR

PUMP PARAMETERS

PRESSURE ON BTM: 2110 **PRESSURE OFF BTM:** 1900 **TOTAL FLOW RATE:** 125.41 gal/min

PUMP 1:	**TYPE:** F-1000	**EFF.:** 95.0%	**SPM:** 85.00	**LINER:** 4.00 in	**STROKE VOL.:**	1.5531 gal/stk
PUMP 2:	**TYPE:** F-1000	**EFF.:** 95.0%	**SPM:** 0.00	**LINER:** 4.00 in	**STROKE VOL.:**	1.5531 gal/stk
PUMP 3:	**TYPE:**	**EFF.:** 100.0%	**SPM:** 0.00	**LINER:** 0.00 in	**STROKE VOL.:**	0.0000 gal/stk

MUD RECORD

MUD TYPE: Gelchem **VISC:** 43 sec/qt **WTR LOSS:** 7.2 cc/30min **PV:** 11 cP **YP:** 8 lb/100 ft² **pH:** 11.5
DENSITY: 8.9 lb/gal **GEL 0/10:** 4.00 lb/100 ft² **SAND:** 0 **SOLIDS:** 3 **OIL:** 0 **TEMP:** 70 °F
LIQUID BASE: Water **LIQUID RATE:** 0 gal/min **GAS TYPE:** **GAS RATE:** 0 cu ft/min

COMMENTS:

Trough for 3rd attempt side track from 7059' to 7069' time drill to 7090' confirm side track,drill rotate and slide from 7090' to 7280'.

CUSTOMER SIGNATURE:

Daily Activity Report

Day 11 - 2009/10/20

Weatherford

Drilling Services
v4.2.2674

FILE #: 4017734
JOB TYPE: Horizontal
RIG & NO: Aztec 777

WELL NAME: Brennan #8
COMPANY: Questar Exploration and Production
SURFACE LOCATION:

SERVICE CO.: Weatherford Directional
SURVEY TYPE: Electromagnetic MWD
FIELD / LOCATION: Uintah County / Utah / USA

DIR Supervisor: Herschell Gaddy, Charlie Billings
MWD Supervisor: Tyler Cluff, Kelly Petit, Lee Harns

GROUND ELEV: 4767 ft
KB ELEV: 4781 ft

START DEPTH: 7280.0 ft
END DEPTH: 7482.0 ft

PROGRESS: 202.0 ft
AVG. ROP.: 15.5 ft/hr

DAILY COST: USD$
PREVIOUS COST: USD$
TOTAL COST: USD$

WORK STATUS: Operating *(All units are imperial.)*

TIME	DAILY ACTIVITY	HRS	DPTH	BHA	TIME	DAILY ACTIVITY	HRS	DPTH	BHA
00:00-01:45	Rotating With Motor	1.75	7322	5	13:30-17:00	Change Bit And Motor	3.50	7482	5
01:45-05:00	Orienting With Motor - HS	3.25	7337	5	17:00-18:00	Change Bit And Motor	1.00	7482	5
05:00-08:30	Rotating With Motor	3.50	7429	5	18:00-19:30	Change Bit And Motor - load mwd tool	1.50	7482	6
08:30-11:00	Orienting With Motor - 45R	2.50	7439	5	19:30-19:45	Circulating - See Comments - test mwd and motor	0.25	7482	6
11:00-13:00	Rotating With Motor	2.00	7482	5	19:45-23:45	RIH	4.00	7482	6
13:00-13:30	Circ & Condition Mud - for trip	0.50	7482	5	23:45-24:00	Wash To Bottom	0.25	7482	6

TIME SUMMARY (hrs):

MOTOR DRILL:	13.00	**ORIENTING HRS:**	5.75	**ROTARY DRILL:**	0.00
TIME DRILL:	0.00	**ROTATING HRS:**	7.25	**MOTOR HRS:**	14.00
MOTOR REAM:	0.00			**TRIP:**	4.00
CIRC:	1.00	**ROTARY DRILL:**	0.00	**OTHER:**	6.00
MOTOR HRS:	14.00	**DRILL HRS:**	13.00	**TOTAL HRS:**	24.00

DRILLING PARAMETERS:

ROTARY TORQUE:	1000 ft-lb	**STRING WEIGHT**	75 lbs
WOB SLIDING (HI):	24 lbf	**WOB ROTATE (HI):**	13 lbf
WOB SLIDING (LO):	5 lbf	**WOB ROTATE (LO):**	5 lbf
RPM (ROTARY):	36 rpm	**DRAG UP:**	10 lbf
RPM (MOTOR):	188 rpm	**DRAG DN:**	15 lbf

BHA / MOTOR / BIT INFORMATION:

BHA: 5 **HOLE SIZE:** 4.75 in **SECTION TYPE:** Lateral 1 **SURVEY TYPE:** Positive Pulse MWD
MANFCT.: wenzel **STABILIZER:** No **SERIAL#:** 350-10 -016 **MODEL:** **LOBE CFG.:** 7/8
SETTING: 1.69 ° **KICKPAD:** No **SIZE:** 3.5 **MTR HRS THIS DAY:** 13.5 **MTR HRS TO DATE:** 54
MANFCT: Smith **BIT TYPE:** Tri-Cone Bit **TYPE:** XR 20 **NOZZLES:** 11, 11, 11, n/a: 0.278 in² TFA
IADC BIT GRADE: 1 / 2 / WT / G / E / I / NO / HR

BHA: 6 **HOLE SIZE:** 4.75 in **SECTION TYPE:** Lateral 1 **SURVEY TYPE:** Positive Pulse MWD
MANFCT.: wenzel **STABILIZER:** No **SERIAL#:** 350-10-009 **MODEL:** **LOBE CFG.:** 7/8
SETTING: 1.69 ° **KICKPAD:** No **SIZE:** 3.5 **MTR HRS THIS DAY:** 0.5 **MTR HRS TO DATE:** 0.5
MANFCT: Smith **BIT TYPE:** Tri-Cone Bit **TYPE:** XR20 **NOZZLES:** 11, 11, 11, n/a: 0.278 in² TFA
IADC BIT GRADE: 4 / 4 / WT / A / E / 1 / ? / HR

PUMP PARAMETERS

PRESSURE ON BTM: 2075 **PRESSURE OFF BTM:** 1780 **TOTAL FLOW RATE:** 123.93 gal/min

PUMP 1:	**TYPE:** F-1000	**EFF.:** 95.0%	**SPM:** 84.00	**LINER:** 4.00 in	**STROKE VOL.:**	1.5531 gal/stk
PUMP 2:	**TYPE:** F-1000	**EFF.:** 95.0%	**SPM:** 0.00	**LINER:** 4.00 in	**STROKE VOL.:**	1.5531 gal/stk
PUMP 3:	**TYPE:**	**EFF.:** 100.0%	**SPM:** 0.00	**LINER:** 0.00 in	**STROKE VOL.:**	0.0000 gal/stk

MUD RECORD

MUD TYPE: Gelchem **VISC:** 42 sec/qt **WTR LOSS:** 7.2 cc/30min **PV:** 10 cP **YP:** 8 lb/100 ft² **pH:** 11.7
DENSITY: 9 lb/gal **GEL 0/10:** 4.00 lb/100 ft² **SAND:** 0 **SOLIDS:** 4 **OIL:** 0 **TEMP:** 0 °F
LIQUID BASE: Water **LIQUID RATE:** 0 gal/min **GAS TYPE:** **GAS RATE:** 0 cu ft/min

COMMENTS:

Drill from 7280' to 7482' circulated and trip out for new bit, and motor trip back to btm.

CUSTOMER SIGNATURE: _____

Daily Activity Report

Day 12 - 2009/10/21

Weatherford

Drilling Services
v4.2.2674

FILE #: 4017734
JOB TYPE: Horizontal
RIG & NO: Aztec 777

WELL NAME: Brennan #8
COMPANY: Questar Exploration and Production
SURFACE LOCATION:

SERVICE CO.: Weatherford Directional
SURVEY TYPE: Electromagnetic MWD
FIELD / LOCATION: Uintah County / Utah / USA

DIR Supervisor: Herschell Gaddy, Charlie Billings
MWD Supervisor: Tyler Cluff, Lee Harns

GROUND ELEV: 4767 ft
KB ELEV: 4781 ft

START DEPTH: 7482.0 ft
END DEPTH: 7922.0 ft

PROGRESS: 440.0 ft
AVG. ROP.: 23.2 ft/hr

DAILY COST: USD$
PREVIOUS COST: USD$
TOTAL COST: USD$

WORK STATUS: Operating

(All units are imperial.)

TIME	DAILY ACTIVITY	HRS	DPTH	BHA	TIME	DAILY ACTIVITY	HRS	DPTH	BHA
00:00-00:15	Wash To Bottom	0.25	7482	6	14:30-15:00	Rig Service	0.50	7822	6
00:15-02:15	Rotating With Motor	2.00	7541	6	15:00-16:15	Rotating With Motor	1.25	7856	6
02:15-03:30	Orienting With Motor - 8' @ 42R	1.25	7549	6	16:15-16:45	Orienting With Motor - 40r	0.50	7856	6
03:30-09:00	Rotating With Motor	5.50	7682	6	16:45-19:45	Rotating With Motor	3.00	7922	6
09:00-10:00	Orienting With Motor - 39R	1.00	7687	6	19:45-21:00	POOH - See Comments - trip to shoe	1.25	7922	6
10:00-11:00	Rotating With Motor	1.00	7735	6	21:00-22:00	Work on Top Drive - swivel packing	1.00	7922	6
11:00-11:30	Orienting With Motor - 40r	0.50	7739	6	22:00-23:00	RIH - See Comments - 7182 tight	1.00	7922	6
11:30-14:30	Rotating With Motor	3.00	7822	6	23:00-24:00	Wash To Bottom - 7205	1.00	7922	6

TIME SUMMARY (hrs):

MOTOR DRILL:	19.00	**ORIENTING HRS:**	3.25	**ROTARY DRILL:**	0.00		
TIME DRILL:	0.00	**ROTATING HRS:**	15.75	**MOTOR HRS:**	20.25		
MOTOR REAM:	0.00			**TRIP:**	2.25		
CIRC:	1.25	**ROTARY DRILL:**	0.00	**OTHER:**	1.50		
MOTOR HRS:	20.25	**DRILL HRS:**	19.00	**TOTAL HRS:**	24.00		

DRILLING PARAMETERS:

ROTARY TORQUE:	1000 ft-lb	**STRING WEIGHT**	73 lbs
WOB SLIDING (HI):	20 lbf	**WOB ROTATE (HI):**	12 lbf
WOB SLIDING (LO):	15 lbf	**WOB ROTATE (LO):**	12 lbf
RPM (ROTARY):	36 rpm	**DRAG UP:**	15 lbf
RPM (MOTOR):	223 rpm	**DRAG DN:**	15 lbf

BHA / MOTOR / BIT INFORMATION:

BHA: 6 **HOLE SIZE:** 4.75 in **SECTION TYPE:** Lateral 1 **SURVEY TYPE:** Positive Pulse MWD
MANFCT.: wenzel **STABILIZER:** No **SERIAL#:** 350-10-009 **MODEL:** **LOBE CFG.:** 7/8
SETTING: 1.69 ° **KICKPAD:** No **SIZE:** 3.5 **MTR HRS THIS DAY:** 20.25 **MTR HRS TO DATE:** 20.75
MANFCT: Smith **BIT TYPE:** Tri-Cone Bit **TYPE:** XR20 **NOZZLES:** 11, 11, 11, n/a: 0.278 in² TFA
IADC BIT GRADE: 4 / 4 / WT / A / E / 1 / ? / HR

PUMP PARAMETERS

PRESSURE ON BTM: 3000 **PRESSURE OFF BTM:** 2750 **TOTAL FLOW RATE:** 125.41 gal/min

PUMP 1:	**TYPE:** F-1000	**EFF.:** 95.0%	**SPM:** 85.00	**LINER:** 4.00 in	**STROKE VOL.:**	1.5531 gal/stk
PUMP 2:	**TYPE:** F-1000	**EFF.:** 95.0%	**SPM:** 0.00	**LINER:** 4.00 in	**STROKE VOL.:**	1.5531 gal/stk
PUMP 3:	**TYPE:**	**EFF.:** 100.0%	**SPM:** 0.00	**LINER:** 0.00 in	**STROKE VOL.:**	0.0000 gal/stk

MUD RECORD

MUD TYPE: Gelchem **VISC:** 41 sec/qt **WTR LOSS:** 7 cc/30min **PV:** 11 cP **YP:** 8 lb/100 ft² **pH:** 11.8
DENSITY: 9 lb/gal **GEL 0/10:** 8.00 lb/100 ft² **SAND:** 0 **SOLIDS:** 3.5 **OIL:** 0 **TEMP:** 70 °F
LIQUID BASE: Water **LIQUID RATE:** 0 gal/min **GAS TYPE:** **GAS RATE:** 0 cu ft/min

COMMENTS:

Wash to btm and drill from 7482' to 7922' p/u to window and change out swivel packing trip back in.

CUSTOMER SIGNATURE: _____

Daily Activity Report

Day 13 - 2009/10/22

Weatherford

Drilling Services
v4.2.2674

FILE #: 4017734
JOB TYPE: Horizontal
RIG & NO: Aztec 777

WELL NAME: Brennan #8
COMPANY: Questar Exploration and Production
SURFACE LOCATION:

SERVICE CO.: Weatherford Directional
SURVEY TYPE: Electromagnetic MWD
FIELD / LOCATION: Uintah County / Utah / USA

DIR Supervisor: Herschell Gaddy, Charlie Billings
MWD Supervisor: Tyler Cluff, Lee Harns

GROUND ELEV: 4767 ft
KB ELEV: 4781 ft

START DEPTH: 7922.0 ft
END DEPTH: 8352.0 ft

PROGRESS: 430.0 ft
AVG. ROP.: 22.9 ft/hr

DAILY COST: USD$
PREVIOUS COST: USD$
TOTAL COST: USD$

WORK STATUS: Operating *(All units are imperial.)*

TIME	DAILY ACTIVITY	HRS	DPTH	BHA	TIME	DAILY ACTIVITY	HRS	DPTH	BHA
00:00-00:15	Circulating - See Comments - in old hole	0.25	7922	6	09:15-10:15	Work On MWD - Computer Lock up	1.00	8054	6
00:15-01:30	POOH - See Comments - p/u to side track	1.25	7922	6	10:15-14:30	Rotating With Motor	4.25	8162	6
01:30-02:15	Trip In	0.75	7922	6	14:30-15:30	Orienting With Motor - 45r	1.00	8167	6
02:15-03:15	Rotating With Motor	1.00	7943	6	15:30-17:00	Rotating With Motor	1.50	8203	6
03:15-04:15	Circ Sample	1.00	7943	6	17:00-18:00	Rig Service	1.00	8203	6
04:15-07:15	Rotating With Motor	3.00	8007	6	18:00-24:00	Rotating With Motor	6.00	8352	6
07:15-09:15	Rotating With Motor	2.00	8054	6			0.00		

TIME SUMMARY (hrs):

MOTOR DRILL:	18.75	**ORIENTING HRS:**	1.00	**ROTARY DRILL:**	0.00
TIME DRILL:	0.00	**ROTATING HRS:**	17.75	**MOTOR HRS:**	20.00
MOTOR REAM:	0.00			**TRIP:**	2.00
CIRC:	1.25	**ROTARY DRILL:**	0.00	**OTHER:**	2.00
MOTOR HRS:	20.00	**DRILL HRS:**	18.75	**TOTAL HRS:**	24.00

DRILLING PARAMETERS:

ROTARY TORQUE:	1000 ft-lb	**STRING WEIGHT**	75 lbs
WOB SLIDING (HI):	15 lbf	**WOB ROTATE (HI):**	13 lbf
WOB SLIDING (LO):	10 lbf	**WOB ROTATE (LO):**	10 lbf
RPM (ROTARY):	36 rpm	**DRAG UP:**	10 lbf
RPM (MOTOR):	223 rpm	**DRAG DN:**	20 lbf

BHA / MOTOR / BIT INFORMATION:

BHA: 6
HOLE SIZE: 4.75 in
SECTION TYPE: Lateral 1
SURVEY TYPE: Positive Pulse MWD
MANFCT.: wenzel
STABILIZER: No
SERIAL#: 350-10-009
MODEL:
LOBE CFG.: 7/8
SETTING: 1.69 °
KICKPAD: No
SIZE: 3.5
MTR HRS THIS DAY: 20
MTR HRS TO DATE: 40.75
MANFCT: Smith
BIT TYPE: Tri-Cone Bit
TYPE: XR20
NOZZLES: 11, 11, 11, n/a: 0.278 in² TFA
IADC BIT GRADE: 4 / 4 / WT / A / E / 1 / ? / HR

PUMP PARAMETERS

PRESSURE ON BTM: 2950
PRESSURE OFF BTM: 2600
TOTAL FLOW RATE: 123.93 gal/min

PUMP 1:	**TYPE:** F-1000	**EFF.:** 95.0%	**SPM:** 0.00	**LINER:** 4.00 in	**STROKE VOL.:**	1.5531 gal/stk
PUMP 2:	**TYPE:** F-1000	**EFF.:** 95.0%	**SPM:** 84.00	**LINER:** 4.00 in	**STROKE VOL.:**	1.5531 gal/stk
PUMP 3:	**TYPE:**	**EFF.:** 100.0%	**SPM:** 0.00	**LINER:** 0.00 in	**STROKE VOL.:**	0.0000 gal/stk

MUD RECORD

MUD TYPE: Gelchem
VISC: 44 sec/qt
WTR LOSS: 6.8 cc/30min
PV: 12 cP
YP: 7 lb/100 ft²
pH: 11.4
DENSITY: 9 lb/gal
GEL 0/10: 12.00 lb/100 ft²
SAND: 0
SOLIDS: 4
OIL: 0
TEMP: 80 °F
LIQUID BASE: Water
LIQUID RATE: 0 gal/min
GAS TYPE:
GAS RATE: 0 cu ft/min

COMMENTS:

trip back in to btm drill 7922' to 8352'.

CUSTOMER SIGNATURE: _____

Daily Activity Report

Day 14 - 2009/10/23

Weatherford

Drilling Services
v4.2.2674

FILE #: 4017734
JOB TYPE: Horizontal
RIG & NO: Aztec 777

WELL NAME: Brennan #8
COMPANY: Questar Exploration and Production
SURFACE LOCATION:

SERVICE CO.: Weatherford Directional
SURVEY TYPE: Electromagnetic MWD
FIELD / LOCATION: Uintah County / Utah / USA

DIR Supervisor: Herschell Gaddy, Charlie Billings
MWD Supervisor: Tyler Cluff, Lee Harns

GROUND ELEV: 4767 ft
KB ELEV: 4781 ft

START DEPTH: 8352.0 ft
END DEPTH: 8568.0 ft

PROGRESS: 216.0 ft
AVG. ROP.: 19.6 ft/hr

DAILY COST: USD$
PREVIOUS COST: USD$
TOTAL COST: USD$

WORK STATUS: Operating *(All units are imperial.)*

TIME	DAILY ACTIVITY	HRS	DPTH	BHA	TIME	DAILY ACTIVITY	HRS	DPTH	BHA
00:00-00:45	Rotating With Motor	0.75	8365	6	16:00-16:30	Rig Service	0.50	8551	6
00:45-01:30	Orienting With Motor - 5' @ 135R	0.75	8370	6	16:30-17:00	Change Bit And Motor	0.50	8551	7
01:30-04:30	Rotating With Motor	3.00	8434	6	17:00-20:45	RIH - 4796'	3.75	8551	7
04:30-05:30	Orienting With Motor - 5'@ 62R	1.00	8439	6	20:45-21:00	Circulating - See Comments - fill pipe	0.25	8551	7
05:30-08:30	Rotating With Motor	3.00	8508	6	21:00-22:15	RIH	1.25	8551	7
08:30-09:30	Orienting With Motor - 50r	1.00	8514	6	22:15-22:30	Circulating - See Comments - orient tool face	0.25	8551	7
09:30-10:30	Rotating With Motor	1.00	8551	6	22:30-23:15	RIH	0.75	8551	7
10:30-11:30	Circulating	1.00	8551	6	23:15-23:30	Wash To Bottom	0.25	8551	7
11:30-15:30	POOH For Bit	4.00	8551	6	23:30-24:00	Rotating With Motor	0.50	8568	7
15:30-16:00	Lay Down Directional Tools	0.50	8551	6			0.00		

TIME SUMMARY (hrs):

MOTOR DRILL:	11.00	**ORIENTING HRS:**	2.75	**ROTARY DRILL:**	0.00
TIME DRILL:	0.00	**ROTATING HRS:**	7.75	**MOTOR HRS:**	12.75
MOTOR REAM:	0.00			**TRIP:**	9.75
CIRC:	1.75	**ROTARY DRILL:**	0.00	**OTHER:**	1.50
MOTOR HRS:	12.75	**DRILL HRS:**	11.00	**TOTAL HRS:**	24.00

DRILLING PARAMETERS:

ROTARY TORQUE:	1000 ft-lb	**STRING WEIGHT**	75000 lbs
WOB SLIDING (HI):	15 lbf	**WOB ROTATE (HI):**	13 lbf
WOB SLIDING (LO):	8 lbf	**WOB ROTATE (LO):**	10 lbf
RPM (ROTARY):	36 rpm	**DRAG UP:**	10000 lbf
RPM (MOTOR):	223 rpm	**DRAG DN:**	20000 lbf

BHA / MOTOR / BIT INFORMATION:

BHA: 6 **HOLE SIZE:** 4.75 in **SECTION TYPE:** Lateral 1 **SURVEY TYPE:** Positive Pulse MWD
MANFCT.: wenzel **STABILIZER:** No **SERIAL#:** 350-10-009 **MODEL:** **LOBE CFG.:** 7/8
SETTING: 1.69 ° **KICKPAD:** No **SIZE:** 3.5 **MTR HRS THIS DAY:** 11.5 **MTR HRS TO DATE:** 52.25
MANFCT: Smith **BIT TYPE:** Tri-Cone Bit **TYPE:** XR20 **NOZZLES:** 11, 11, 11, n/a: 0.278 in² TFA
IADC BIT GRADE: 4 / 4 / WT / A / E / 1 / ? / HR

BHA: 7 **HOLE SIZE:** 4.75 in **SECTION TYPE:** Lateral 1 **SURVEY TYPE:** Positive Pulse MWD
MANFCT.: Wenzel **STABILIZER:** No **SERIAL#:** 350-10-035 **MODEL:** adj. **LOBE CFG.:** 7/8
SETTING: 1.69 ° **KICKPAD:** No **SIZE:** 3.5 **MTR HRS THIS DAY:** 1.25 **MTR HRS TO DATE:** 1.25
MANFCT: Smith **BIT TYPE:** Tri-Cone Bit **TYPE:** XR20 **NOZZLES:** 11, 11, 11, n/a: 0.278 in² TFA
IADC BIT GRADE: 4 / 4 / WT / A / F / 1 / TR / PR

PUMP PARAMETERS

PRESSURE ON BTM: 3000 **PRESSURE OFF BTM:** 2680 **TOTAL FLOW RATE:** 120.98 gal/min

PUMP 1:	**TYPE:** F-1000	**EFF.:** 95.0%	**SPM:** 82.00	**LINER:** 4.00 in	**STROKE VOL.:**	1.5531 gal/stk
PUMP 2:	**TYPE:** F-1000	**EFF.:** 95.0%	**SPM:** 0.00	**LINER:** 4.00 in	**STROKE VOL.:**	1.5531 gal/stk
PUMP 3:	**TYPE:**	**EFF.:** 100.0%	**SPM:** 0.00	**LINER:** 0.00 in	**STROKE VOL.:**	0.0000 gal/stk

MUD RECORD

MUD TYPE: Gelchem **VISC:** 41 sec/qt **WTR LOSS:** 8 cc/30min **PV:** 9 cP **YP:** 8 lb/100 ft² **pH:** 11.7
DENSITY: 8.95 lb/gal **GEL 0/10:** 14.00 lb/100 ft² **SAND:** 0 **SOLIDS:** 4 **OIL:** 0 **TEMP:** 80 °F
LIQUID BASE: Water **LIQUID RATE:** 0 gal/min **GAS TYPE:** **GAS RATE:** 0 cu ft/min

COMMENTS:

Drill from 8352' to 8551' circulate and trip out L/D bit and Motor. P/U new bit and motor trip back in. drill to 8568'.

CUSTOMER SIGNATURE:

Daily Activity Report

Day 15 - 2009/10/24

Weatherford

Drilling Services
v4.2.2674

FILE #: 4017734
JOB TYPE: Horizontal
RIG & NO: Aztec 777

WELL NAME: Brennan #8
COMPANY: Questar Exploration and Production
SURFACE LOCATION:

SERVICE CO.: Weatherford Directional
SURVEY TYPE: Electromagnetic MWD
FIELD / LOCATION: Uintah County / Utah / USA

DIR Supervisor: Herschell Gaddy, Charlie Billings
MWD Supervisor: Tyler Cluff, Lee Harns

GROUND ELEV: 4767 ft
KB ELEV: 4781 ft

START DEPTH: 8568.0 ft
END DEPTH: 9116.0 ft

PROGRESS: 548.0 ft
AVG. ROP.: 24.1 ft/hr

DAILY COST: USD$
PREVIOUS COST: USD$
TOTAL COST: USD$

WORK STATUS: Operating *(All units are imperial.)*

TIME	DAILY ACTIVITY	HRS	DPTH	BHA	TIME	DAILY ACTIVITY	HRS	DPTH	BHA
00:00-01:15	Rotating With Motor	1.25	8598	7	11:30-12:00	Rotating With Motor	0.50	8860	7
01:15-01:45	Orienting With Motor - 4' @ 135R	0.50	8602	7	12:00-13:00	Orienting With Motor - 150R	1.00	8665	7
01:45-03:30	Rotating With Motor	1.75	8650	7	13:00-18:45	Rotating With Motor	5.75	9001	7
03:30-04:45	Orienting With Motor - 6' @ 130R	1.25	8656	7	18:45-19:00	Circ Sample - per mud logger	0.25	9001	7
04:45-10:30	Rotating With Motor	5.75	8828	7	19:00-24:00	Rotating With Motor	5.00	9116	7
10:30-11:30	Circulating - MWD COMPUTER DOWN	1.00	8828	7			0.00		

TIME SUMMARY (hrs):

MOTOR DRILL:	22.75	**ORIENTING HRS:**	2.75	**ROTARY DRILL:**	0.00
TIME DRILL:	0.00	**ROTATING HRS:**	20.00	**MOTOR HRS:**	24.00
MOTOR REAM:	0.00			**TRIP:**	0.00
CIRC:	1.25	**ROTARY DRILL:**	0.00	**OTHER:**	0.00
MOTOR HRS:	24.00	**DRILL HRS:**	22.75	**TOTAL HRS:**	24.00

DRILLING PARAMETERS:

ROTARY TORQUE:	10000 ft-lb	**STRING WEIGHT**	74 lbs
WOB SLIDING (HI):	0 lbf	**WOB ROTATE (HI):**	14 lbf
WOB SLIDING (LO):	0 lbf	**WOB ROTATE (LO):**	10 lbf
RPM (ROTARY):	36 rpm	**DRAG UP:**	10 lbf
RPM (MOTOR):	218.71 rpm	**DRAG DN:**	20 lbf

BHA / MOTOR / BIT INFORMATION:

BHA: 7 **HOLE SIZE:** 4.75 in **SECTION TYPE:** Lateral 1 **SURVEY TYPE:** Positive Pulse MWD
MANFCT.: Wenzel **STABILIZER:** No **SERIAL#:** 350-10-035 **MODEL:** adj. **LOBE CFG.:** 7/8
SETTING: 1.69 ° **KICKPAD:** No **SIZE:** 3.5 **MTR HRS THIS DAY:** 24 **MTR HRS TO DATE:** 25.25
MANFCT: Smith **BIT TYPE:** Tri-Cone Bit **TYPE:** XR20 **NOZZLES:** 11, 11, 11, n/a: 0.278 in² TFA
IADC BIT GRADE: 4 / 4 / WT / A / F / 1 / TR / PR

PUMP PARAMETERS

PRESSURE ON BTM: 3050 **PRESSURE OFF BTM:** 2800 **TOTAL FLOW RATE:** 122.46 gal/min

PUMP 1:	**TYPE:** F-1000	**EFF.:** 95.0%	**SPM:** 83.00	**LINER:** 4.00 in	**STROKE VOL.:** 1.5531 gal/stk
PUMP 2:	**TYPE:** F-1000	**EFF.:** 95.0%	**SPM:** 0.00	**LINER:** 4.00 in	**STROKE VOL.:** 1.5531 gal/stk
PUMP 3:	**TYPE:**	**EFF.:** 100.0%	**SPM:** 0.00	**LINER:** 0.00 in	**STROKE VOL.:** 0.0000 gal/stk

MUD RECORD

MUD TYPE: Gelchem **VISC:** 12 sec/qt **WTR LOSS:** 8 cc/30min **PV:** 12 cP **YP:** 6 lb/100 ft² **pH:** 11.6
DENSITY: 8.95 lb/gal **GEL 0/10:** 12.00 lb/100 ft² **SAND:** 0 **SOLIDS:** 4 **OIL:** 0 **TEMP:** 80 °F
LIQUID BASE: Water **LIQUID RATE:** 0 gal/min **GAS TYPE:** **GAS RATE:** 0 cu ft/min

COMMENTS:

Drill from 8568' to 9116' in zone.

CUSTOMER SIGNATURE:

Daily Activity Report

Day 16 - 2009/10/25

Weatherford

Drilling Services
v4.2.2674

FILE #: 4017734
JOB TYPE: Horizontal
RIG & NO: Aztec 777

WELL NAME: Brennan #8
COMPANY: Questar Exploration and Production
SURFACE LOCATION:

SERVICE CO.: Weatherford Directional
SURVEY TYPE: Electromagnetic MWD
FIELD / LOCATION: Uintah County / Utah / USA

DIR Supervisor: Herschell Gaddy, Charlie Billings
MWD Supervisor: Tyler Cluff, Lee Harns

GROUND ELEV: 4767 ft
KB ELEV: 4781 ft

START DEPTH: 9116.0 ft
END DEPTH: 9434.0 ft

PROGRESS: 318.0 ft
AVG. ROP.: 14.5 ft/hr

DAILY COST: USD$
PREVIOUS COST: USD$
TOTAL COST: USD$

WORK STATUS: Operating *(All units are imperial.)*

TIME	DAILY ACTIVITY	HRS	DPTH	BHA	TIME	DAILY ACTIVITY	HRS	DPTH	BHA
00:00-07:30	Rotating With Motor	7.50	9276	7	13:15-14:30	Rotating With Motor	1.25	9323	7
07:30-08:30	Circulating - See Comments - pump slug	1.00	9276	7	14:30-16:00	Orienting With Motor - 80r	1.50	9333	7
08:30-09:30	Wiper Trip	1.00	9276	7	16:00-18:45	Rotating With Motor	2.75	9386	7
09:30-12:15	Rotating With Motor	2.75	9288	7	18:45-20:45	Orienting With Motor - 10' @ 90R	2.00	9396	7
12:15-13:15	Orienting With Motor - 90r	1.00	9298	7	20:45-24:00	Rotating With Motor	3.25	9434	7

TIME SUMMARY (hrs):

MOTOR DRILL:	22.00	**ORIENTING HRS:**	4.50	**ROTARY DRILL:**	0.00
TIME DRILL:	0.00	**ROTATING HRS:**	17.50	**MOTOR HRS:**	23.00
MOTOR REAM:	0.00			**TRIP:**	1.00
CIRC:	1.00	**ROTARY DRILL:**	0.00	**OTHER:**	0.00
MOTOR HRS:	23.00	**DRILL HRS:**	22.00	**TOTAL HRS:**	24.00

DRILLING PARAMETERS:

ROTARY TORQUE:	1000 ft-lb	**STRING WEIGHT**	74 lbs
WOB SLIDING (HI):	15 lbf	**WOB ROTATE (HI):**	13 lbf
WOB SLIDING (LO):	8 lbf	**WOB ROTATE (LO):**	10 lbf
RPM (ROTARY):	36 rpm	**DRAG UP:**	18 lbf
RPM (MOTOR):	218 rpm	**DRAG DN:**	20 lbf

BHA / MOTOR / BIT INFORMATION:

BHA: 7
HOLE SIZE: 4.75 in
SECTION TYPE: Lateral 1
SURVEY TYPE: Positive Pulse MWD
MANFCT.: Wenzel
STABILIZER: No
SERIAL#: 350-10-035
MODEL: adj.
LOBE CFG.: 7/8
SETTING: 1.69 °
KICKPAD: No
SIZE: 3.5
MTR HRS THIS DAY: 23
MTR HRS TO DATE: 48.25
MANFCT: Smith
BIT TYPE: Tri-Cone Bit
TYPE: XR20
NOZZLES: 11, 11, 11, n/a: 0.278 in² TFA
IADC BIT GRADE: 4 / 4 / WT / A / F / 1 / TR / PR

PUMP PARAMETERS

PRESSURE ON BTM: 3050
PRESSURE OFF BTM: 2850
TOTAL FLOW RATE: 123.93 gal/min

PUMP 1:	**TYPE:** F-1000	**EFF.:** 95.0%	**SPM:** 0.00	**LINER:** 4.00 in	**STROKE VOL.:**	1.5531 gal/stk
PUMP 2:	**TYPE:** F-1000	**EFF.:** 95.0%	**SPM:** 84.00	**LINER:** 4.00 in	**STROKE VOL.:**	1.5531 gal/stk
PUMP 3:	**TYPE:**	**EFF.:** 100.0%	**SPM:** 0.00	**LINER:** 0.00 in	**STROKE VOL.:**	0.0000 gal/stk

MUD RECORD

MUD TYPE: Gelchem
VISC: 43 sec/qt
WTR LOSS: 8 cc/30min
PV: 12 cP
YP: 8 lb/100 ft²
pH: 11.7
DENSITY: 8.95 lb/gal
GEL 0/10: 9.00 lb/100 ft²
SAND: 0
SOLIDS: 4
OIL: 0
TEMP: 90 °F
LIQUID BASE: Water
LIQUID RATE: 0 gal/min
GAS TYPE:
GAS RATE: 0 cu ft/min

COMMENTS:

Drill from 9116' to 9276' perform short trip, to shoe, and back to btm. Drill 9276' to 9434'.

CUSTOMER SIGNATURE:

Daily Activity Report

Day 17 - 2009/10/26

Weatherford

Drilling Services
v4.2.2674

FILE #: 4017734
JOB TYPE: Horizontal
RIG & NO: Aztec 777

WELL NAME: Brennan #8
COMPANY: Questar Exploration and Production
SURFACE LOCATION:

SERVICE CO.: Weatherford Directional
SURVEY TYPE: Electromagnetic MWD
FIELD / LOCATION: Uintah County / Utah / USA

DIR Supervisor: Herschell Gaddy, Charlie Billings
MWD Supervisor: Tyler Cluff, Lee Harns

GROUND ELEV: 4767 ft
KB ELEV: 4781 ft

START DEPTH: 9434.0 ft
END DEPTH: 9636.0 ft

PROGRESS: 202.0 ft
AVG. ROP.: 18.8 ft/hr

DAILY COST: USD$
PREVIOUS COST: USD$
TOTAL COST: USD$

WORK STATUS: Operating *(All units are imperial.)*

TIME	DAILY ACTIVITY	HRS	DPTH	BHA	TIME	DAILY ACTIVITY	HRS	DPTH	BHA
00:00-00:30	Rotating With Motor	0.50	9444	7	10:45-11:30	PU Directional Tools - bha # 8	0.75	9487	8
00:30-02:30	Orienting With Motor - 10' @ 90R	2.00	9454	7	11:30-17:00	RIH With Directional	5.50	9487	8
02:30-04:45	Rotating With Motor	2.25	9487	7	17:00-18:00	Work Tight Hole & Circ	1.00	9487	8
04:45-05:15	Circulating - See Comments - pump dry-job	0.50	9487	7	18:00-22:30	Rotating With Motor	4.50	9604	8
05:15-09:00	POOH For Bit	3.75	9487	7	22:30-23:15	Orienting With Motor - 10' @ 90R	0.75	9614	8
09:00-09:45	Change Bit And Motor	0.75	9487	8	23:15-24:00	Rotating With Motor	0.75	9636	8
09:45-10:45	Other - See Comments - unload casing	1.00	9487	8			0.00		

TIME SUMMARY (hrs):

MOTOR DRILL:	10.75	**ORIENTING HRS:**	2.00	**ROTARY DRILL:**	0.00
TIME DRILL:	0.00	**ROTATING HRS:**	2.75	**MOTOR HRS:**	12.25
MOTOR REAM:	0.00			**TRIP:**	9.25
CIRC:	1.50	**ROTARY DRILL:**	0.00	**OTHER:**	2.50
MOTOR HRS:	12.25	**DRILL HRS:**	10.75	**TOTAL HRS:**	24.00

DRILLING PARAMETERS:

ROTARY TORQUE:	1000 ft-lb	**STRING WEIGHT**	73 lbs
WOB SLIDING (HI):	22 lbf	**WOB ROTATE (HI):**	14 lbf
WOB SLIDING (LO):	15 lbf	**WOB ROTATE (LO):**	11 lbf
RPM (ROTARY):	36 rpm	**DRAG UP:**	20 lbf
RPM (MOTOR):	231 rpm	**DRAG DN:**	20 lbf

BHA / MOTOR / BIT INFORMATION:

BHA: 7 **HOLE SIZE:** 4.75 in **SECTION TYPE:** Lateral 1 **SURVEY TYPE:** Positive Pulse MWD
MANFCT.: Wenzel **STABILIZER:** No **SERIAL#:** 350-10-035 **MODEL:** adj. **LOBE CFG.:** 7/8
SETTING: 1.69 ° **KICKPAD:** No **SIZE:** 3.5 **MTR HRS THIS DAY:** 5.25 **MTR HRS TO DATE:** 53.5
MANFCT: Smith **BIT TYPE:** Tri-Cone Bit **TYPE:** XR20 **NOZZLES:** 11, 11, 11, n/a: 0.278 in² TFA
IADC BIT GRADE: 4 / 4 / WT / A / F / 1 / TR / PR

BHA: 8 **HOLE SIZE:** 4.75 in **SECTION TYPE:** Lateral 1 **SURVEY TYPE:** Positive Pulse MWD
MANFCT.: Wenzel **STABILIZER:** No **SERIAL#:** 350-10-034 **MODEL:** 7/8 3:8 **LOBE CFG.:** 7/8
SETTING: 1.69 ° **KICKPAD:** No **SIZE:** 3.5 **MTR HRS THIS DAY:** 7 **MTR HRS TO DATE:** 7
MANFCT: Hughes **BIT TYPE:** Tri-Cone Bit **TYPE:** STX-20 **NOZZLES:** 12, 12, 12, n/a: 0.331 in² TFA
IADC BIT GRADE: ? / ? / ? / ? / ? / ? / ? / ? / TD

PUMP PARAMETERS

PRESSURE ON BTM: 2950 **PRESSURE OFF BTM:** 2750 **TOTAL FLOW RATE:** 123.93 gal/min

PUMP 1:	**TYPE:** F-1000	**EFF.:** 95.0%	**SPM:** 84.00	**LINER:** 4.00 in	**STROKE VOL.:** 1.5531 gal/stk
PUMP 2:	**TYPE:** F-1000	**EFF.:** 95.0%	**SPM:** 0.00	**LINER:** 4.00 in	**STROKE VOL.:** 1.5531 gal/stk
PUMP 3:	**TYPE:**	**EFF.:** 100.0%	**SPM:** 0.00	**LINER:** 0.00 in	**STROKE VOL.:** 0.0000 gal/stk

MUD RECORD

MUD TYPE: Gelchem **VISC:** 40 sec/qt **WTR LOSS:** 7.6 cc/30min **PV:** 10 cP **YP:** 6 lb/100 ft² **pH:** 11.9
DENSITY: 9 lb/gal **GEL 0/10:** 6.00 lb/100 ft² **SAND:** 0 **SOLIDS:** 4 **OIL:** 0 **TEMP:** 90 °F
LIQUID BASE: Water **LIQUID RATE:** 0 gal/min **GAS TYPE:** **GAS RATE:** 0 cu ft/min

COMMENTS:

Drill from 9434' to 9487' circulate and trip for bit. change out bit and mud motor, trip back to btm drill from 9487' to 9636'.

CUSTOMER SIGNATURE:

Daily Activity Report

Day 18 - 2009/10/27

Weatherford

Drilling Services
v4.2.2674

FILE #: 4017734
JOB TYPE: Horizontal
RIG & NO: Aztec 777

WELL NAME: Brennan #8
COMPANY: Questar Exploration and Production
SURFACE LOCATION:

SERVICE CO.: Weatherford Directional
SURVEY TYPE: Electromagnetic MWD
FIELD / LOCATION: Uintah County / Utah / USA

DIR Supervisor: Herschell Gaddy, Charlie Billings
MWD Supervisor: Tyler Cluff, Lee Harns, Josh Monroe

GROUND ELEV: 4767 ft
KB ELEV: 4781 ft

START DEPTH: 9636.0 ft
END DEPTH: 10382.0 ft

PROGRESS: 746.0 ft
AVG. ROP.: 31.1 ft/hr

DAILY COST: USD$
PREVIOUS COST: USD$
TOTAL COST: USD$

WORK STATUS: Operating *(All units are imperial.)*

TIME	DAILY ACTIVITY	HRS	DPTH	BHA	TIME	DAILY ACTIVITY	HRS	DPTH	BHA
00:00-03:45	Rotating With Motor	3.75	9727	8	09:00-09:45	Orienting With Motor - 45r	0.75	9886	8
03:45-04:15	Orienting With Motor - 6' @ LS	0.50	9733	8	09:45-24:00	Rotating With Motor	14.25	10382	8
04:15-09:00	Rotating With Motor	4.75	9881	8			0.00		

TIME SUMMARY (hrs):

MOTOR DRILL:	24.00	**ORIENTING HRS:**	1.25	**ROTARY DRILL:**	0.00		
TIME DRILL:	0.00	**ROTATING HRS:**	22.75	**MOTOR HRS:**	24.00		
MOTOR REAM:	0.00			**TRIP:**	0.00		
CIRC:	0.00	**ROTARY DRILL:**	0.00	**OTHER:**	0.00		
MOTOR HRS:	24.00	**DRILL HRS:**	24.00	**TOTAL HRS:**	24.00		

DRILLING PARAMETERS:

ROTARY TORQUE:	1000 ft-lb	**STRING WEIGHT**	74 lbs
WOB SLIDING (HI):	20 lbf	**WOB ROTATE (HI):**	14 lbf
WOB SLIDING (LO):	5 lbf	**WOB ROTATE (LO):**	5 lbf
RPM (ROTARY):	36 rpm	**DRAG UP:**	20 lbf
RPM (MOTOR):	231 rpm	**DRAG DN:**	20 lbf

BHA / MOTOR / BIT INFORMATION:

BHA: 8 **HOLE SIZE:** 4.75 in **SECTION TYPE:** Lateral 1 **SURVEY TYPE:** Positive Pulse MWD
MANFCT.: Wenzel **STABILIZER:** No **SERIAL#:** 350-10-034 **MODEL:** 7/8 3:8 **LOBE CFG.:** 7/8
SETTING: 1.69 ° **KICKPAD:** No **SIZE:** 3.5 **MTR HRS THIS DAY:** 24 **MTR HRS TO DATE:** 31
MANFCT: Hughes **BIT TYPE:** Tri-Cone Bit **TYPE:** STX-20 **NOZZLES:** 12, 12, 12, n/a: 0.331 in² TFA
IADC BIT GRADE: ? / ? / ? / ? / ? / ? / ? / ? / TD

PUMP PARAMETERS

PRESSURE ON BTM: 3150 **PRESSURE OFF BTM:** 2850 **TOTAL FLOW RATE:** 123.93 gal/min

PUMP 1:	**TYPE:** F-1000	**EFF.:** 95.0%	**SPM:** 84.00	**LINER:** 4.00 in	**STROKE VOL.:**	1.5531 gal/stk
PUMP 2:	**TYPE:** F-1000	**EFF.:** 95.0%	**SPM:** 0.00	**LINER:** 4.00 in	**STROKE VOL.:**	1.5531 gal/stk
PUMP 3:	**TYPE:**	**EFF.:** 100.0%	**SPM:** 0.00	**LINER:** 0.00 in	**STROKE VOL.:**	0.0000 gal/stk

MUD RECORD

MUD TYPE: Gelchem **VISC:** 42 sec/qt **WTR LOSS:** 8 cc/30min **PV:** 12 cP **YP:** 6 lb/100 ft² **pH:** 11.6
DENSITY: 8.9 lb/gal **GEL 0/10:** 8.00 lb/100 ft² **SAND:** 0 **SOLIDS:** 3.8 **OIL:** 0 **TEMP:** 90 °F
LIQUID BASE: Water **LIQUID RATE:** 0 gal/min **GAS TYPE:** **GAS RATE:** 0 cu ft/min

COMMENTS:

Drill from 9636' to 10382'.

CUSTOMER SIGNATURE:

Daily Activity Report

Weatherford

Drilling Services
v4.2.2674

Day 19 - 2009/10/28

FILE #: 4017734
JOB TYPE: Horizontal
RIG & NO: Aztec 777

WELL NAME: Brennan #8
COMPANY: Questar Exploration and Production
SURFACE LOCATION:

SERVICE CO.: Weatherford Directional
SURVEY TYPE: Electromagnetic MWD
FIELD / LOCATION: Uintah County / Utah / USA

DIR Supervisor: Herschell Gaddy, Charlie Billings
MWD Supervisor: Tyler Cluff, Josh Monroe

GROUND ELEV: 4767 ft
KB ELEV: 4781 ft

START DEPTH: 10382.0 ft
END DEPTH: 10410.0 ft

PROGRESS: 28.0 ft
AVG. ROP.: 37.3 ft/hr

DAILY COST: USD$
PREVIOUS COST: USD$
TOTAL COST: USD$

WORK STATUS: Operating *(All units are imperial.)*

TIME	DAILY ACTIVITY	HRS	DPTH	BHA	TIME	DAILY ACTIVITY	HRS	DPTH	BHA
00:00-00:45	Rotating With Motor	0.75	10410	8	02:00-03:15	POOH - See Comments - short trip 1000'	1.25	10410	8
00:45-02:00	Circulating - See Comments - pump 20 bbl sweep	1.25	10410	8	03:15-04:15	Circulating	1.00	10410	8

TIME SUMMARY (hrs):

MOTOR DRILL:	0.75	**ORIENTING HRS:**	0.00	**ROTARY DRILL:**	0.00
TIME DRILL:	0.00	**ROTATING HRS:**	0.75	**MOTOR HRS:**	3.00
MOTOR REAM:	0.00			**TRIP:**	1.25
CIRC:	2.25	**ROTARY DRILL:**	0.00	**OTHER:**	0.00
MOTOR HRS:	3.00	**DRILL HRS:**	0.75	**TOTAL HRS:**	4.25

DRILLING PARAMETERS:

ROTARY TORQUE:	1000 ft-lb	**STRING WEIGHT**	74 lbs
WOB SLIDING (HI):	0 lbf	**WOB ROTATE (HI):**	14 lbf
WOB SLIDING (LO):	0 lbf	**WOB ROTATE (LO):**	5 lbf
RPM (ROTARY):	36 rpm	**DRAG UP:**	20 lbf
RPM (MOTOR):	231 rpm	**DRAG DN:**	20 lbf

BHA / MOTOR / BIT INFORMATION:

BHA: 8
HOLE SIZE: 4.75 in
SECTION TYPE: Lateral 1
SURVEY TYPE: Positive Pulse MWD
MANFCT.: Wenzel
STABILIZER: No
SERIAL#: 350-10-034
MODEL: 7/8 3:8
LOBE CFG.: 7/8
SETTING: 1.69 °
KICKPAD: No
SIZE: 3.5
MTR HRS THIS DAY: 3
MTR HRS TO DATE: 34
MANFCT: Hughes
BIT TYPE: Tri-Cone Bit
TYPE: STX-20
NOZZLES: 12, 12, 12, n/a: 0.331 in² TFA
IADC BIT GRADE: ? / ? / ? / ? / ? / ? / ? / ? / TD

PUMP PARAMETERS

PRESSURE ON BTM: 0
PRESSURE OFF BTM: 0
TOTAL FLOW RATE: 123.93 gal/min

PUMP 1:	**TYPE:** F-1000	**EFF.:** 95.0%	**SPM:** 0.00	**LINER:** 4.00 in	**STROKE VOL.:**	1.5531 gal/stk
PUMP 2:	**TYPE:** F-1000	**EFF.:** 95.0%	**SPM:** 84.00	**LINER:** 4.00 in	**STROKE VOL.:**	1.5531 gal/stk
PUMP 3:	**TYPE:**	**EFF.:** 100.0%	**SPM:** 0.00	**LINER:** 0.00 in	**STROKE VOL.:**	0.0000 gal/stk

MUD RECORD

MUD TYPE: Gelchem
VISC: 0 sec/qt
WTR LOSS: 0 cc/30min
PV: 0 cP
YP: 0 lb/100 ft²
pH: 0
DENSITY: 0 lb/gal
GEL 0/10: 0.00 lb/100 ft²
SAND: 0
SOLIDS: 0
OIL: 0
TEMP: 0 °F
LIQUID BASE: Water
LIQUID RATE: 0 gal/min
GAS TYPE:
GAS RATE: 0 cu ft/min

COMMENTS:

Drill from 10382' to 10410' T.D. pump 20 bbl sweep, around and spot 5sx nutplug sweep on btm short trip 1000' and back to btm no problems, circulate on btm.

CUSTOMER SIGNATURE: _____

BHA REPORTS

BHA Report

BHA 1 - Curve Section

Weatherford

Drilling Services
v4.2.2674

FILE #: 4017734
JOB TYPE: Horizontal
RIG & NO: Aztec 777

WELL NAME: Brennan #8
COMPANY: Questar Exploration and Production
SURFACE LOCATION:

SERVICE CO.: Weatherford Directional
SURVEY TYPE: Electromagnetic MWD
FIELD / LOCATION: Uintah County / Utah / USA

DIR Supervisor: Herschell Gaddy, Charlie Billings
MWD Supervisor: Tyler Cluff, Kelly Petit

BHA SURVEY TYPE: Electronic Multishot **HOLE SIZE:** 4.75 in

QTY	COMPONENT	MANFCT.	SERIAL #	MODEL	O.D.	I.D.	F.N.	BOT. CONN.	TOP CONN.	LEN.	C.LEN.
1	Tri-Cone Bit	Smith	PN4463	XR-15	4.75	0	0		2 7/8" REG Pin	0.50 ft	0.50 ft
1	Drilling Motor	weatherford	375-2525	3.8 STG.	3.94	0	1.75	2 7/8" REG Box	2 7/8" REG Box	13.44 ft	13.94 ft
1	Non-Mag Float Sub	Weatherford	35001AP	Non-Mag	3.5	0	0	2 7/8" REG Pin	2 7/8" SA Box	2.39 ft	16.33 ft
1	NM Muleshoe Sub	Weatherford	350-012	Non-Mag	3.5	1.75	0	2 7/8" SA Pin	2 7/8" SA Box	3.93 ft	20.26 ft
1	MWD Tool Carrier	Weatherford	35026010	Non-Mag	3.75	2.1875	0	2 7/8" SA Pin	2 7/8" SA Box	19.99 ft	40.25 ft
1	MWD Emitter Sub	Weatherford	306007	Non-Mag	3.3125	2.1875	0	2 7/8" SA Pin	2 7/8" SA Box	6.75 ft	47.00 ft
1	NMDC	Weatherford	Comp 621	Non-Mag	3.5	2.25	0	2 7/8" SA Pin	2 7/8" SA Box	31.11 ft	78.11 ft
1	NMDC	Weatherford	350-05JW	Non-Mag	3.44	2.19	0	2 7/8" SA Pin	2 7/8" SA Box	26.95 ft	105.06 ft
1	X/O Sub	Weatherford	225841		3.5625	2.25	0	2 7/8" SA Pin	2 7/8" AOH Box	1.43 ft	106.49 ft
1	Gyro Mule Shoe	Scientific	TS-350-006	Steel	3.1875	2.0625	0	2 7/8" AOH Pin	2 7/8" AOH Box	2.12 ft	108.61 ft
1	X/O Sub	Rig	Rig	Steel	3.8125	2.1253	0	2 7/8" H-90 Pin	2 7/8" AOH Box	2.97 ft	111.58 ft
75	HWDP	Rig	Rig	Steel	3.75	2.06	0	2 7/8" H90 Pin	2 7/8" H90 Box	2314.14	2425.72 ft
1	X/O Sub	Rig	questar	Steel	3.8125	2.125	0	2 7/8" H-90 Pin	2 7/8" AOH Box	3.17 ft	2428.89 ft

(O.D. units are in; I.D. units are in; FNeck units are ft)

GENERAL INFORMATION

DATES RUN:	2009/10/11 TO 2009/10/13		
DEPTH IN:	6179.00 ft	**ANGLE IN:**	0.00 °
DEPTH OUT:	6426.00 ft	**ANGLE OUT:**	31.81 °
DRILL HRS:	21.50	**BUILD:**	31.81 °
ORIENTING HRS:	20.00	**HOLE MADE:**	247.00 ft
ROTATING HRS:	1.50	**AVG R.O.P.:**	11.49 ft/hr

MOTOR INFORMATION

MANFCT.	weatherford	**SETTING:**	1.89 °
SERIAL #:	375-2525	**KICK PAD:**	No
MODEL:	3.8 STG.	**STABILIZER:**	No
LOBE CFG:	5/6	**MOTOR HRS:**	23.25
BIT TO BEND:	3.5		

PUMP INFORMATION

PUMPS	PUMP 1	PUMP 2	PUMP 3
EFFICIENCY:	95.0%	95.0%	100.0%
S.P.M.:	92	0	0
STROKE VOLUME:	1.5531 gal/stk	1.5531 gal/stk	0.0 gal/stk
TOTAL FLOW RATE:	135.73786 gal/min		
PUMP PRESSURE:	**OFF BTM:** 1700 psi	**ON BTM:** 1900 psi	

MUD INFORMATION

MUD TYPE:	Gelchem	**LIQUID BASE:**	Water		
DENSITY:	9 lb/gal	**TEMP:**	0 °F		
VISCOSITY:	43 sec/qt	**pH:**	11.3		
WTR LOSS:	7.6 cc/30min	**SAND:**	0.15	**LIQUID RATE:**	0 gal/min
PLAST VISC:	11 cP	**SOLIDS:**	3.5	**GAS TYPE:**	
YIELD PT:	10 lb/100 ft²	**OIL:**	0	**GAS RATE:**	0 cu ft/min

BIT INFORMATION

MANFCT: Smith **TYPE:** XR-15 **IADC BIT GRADE:** 1 / 3 / LT / M / E / I / LT / PR
NOZZLES: 12, 12, 12, n/a: 0.331 in² TFA

REASON FOR BHA CHANGE

poor penetration

FORMATION CHARACTERISTICS

MWD COMMENTS

SIDETRACKING PROCEDURE COMMENTS

RUN SUMMARY

BHA Report

BHA 2 - Curve Section

Drilling Services
v4.2.2674

FILE #: 4017734
JOB TYPE: Horizontal
RIG & NO: Aztec 777

WELL NAME: Brennan #8
COMPANY: Questar Exploration and Production
SURFACE LOCATION:

SERVICE CO.: Weatherford Directional
SURVEY TYPE: Electromagnetic MWD
FIELD / LOCATION: Uintah County / Utah / USA

DIR Supervisor: Herschell Gaddy, Charlie Billings
MWD Supervisor: Tyler Cluff, Kelly Petit

BHA SURVEY TYPE: Electromagnetic MWD **HOLE SIZE:** 4.75 in

QTY	COMPONENT	MANFCT.	SERIAL #	MODEL	O.D.	I.D.	F.N.	BOT. CONN.	TOP CONN.	LEN.	C.LEN.
1	Tri-Cone Bit	Smith	PK7900	XR-20	4.75	0	0		2 7/8" REG Pin	0.50 ft	0.50 ft
1	Drilling Motor		375-2512	weatherford	3.96	0	1.75	2 3/8" REG Box	2 7/8" REG Box	13.40 ft	13.90 ft
1	Non-Mag Float Sub	Weatherford	35001AP	Non-Mag	3.5	0	0	2 7/8" REG Pin	2 7/8" SA Box	2.39 ft	16.29 ft
1	NM Muleshoe Sub	Weatherford	350-012	Non-Mag	3.5	1.75	0	2 7/8" SA Pin	2 7/8" SA Box	3.93 ft	20.22 ft
1	MWD Tool Carrier	Weatherford	35026010	Non-Mag	3.75	2.1875	0	2 7/8" SA Pin	2 7/8" SA Box	19.99 ft	40.21 ft
1	MWD Emitter Sub	Weatherford	306007	Non-Mag	3.3125	2.1875	0	2 7/8" SA Pin	2 7/8" SA Box	6.75 ft	46.96 ft
1	NMDC	Weatherford	Comp 621	Non-Mag	3.5	2.25	0	2 7/8" SA Pin	2 7/8" SA Box	31.11 ft	78.07 ft
1	NMDC	Weatherford	350-05JW	Non-Mag	3.44	2.19	0	2 7/8" SA Pin	2 7/8" SA Box	26.95 ft	105.02 ft
1	X/O Sub	Weatherford	225841		3.5625	2.25	0	2 7/8" SA Pin	2 7/8" AOH Box	1.43 ft	106.45 ft
10	Push Pipe	Rig	Rig	S-135	3.88	2.19	0	2 7/8" AOH Pin	2 7/8" AOH Box	316.06 ft	422.51 ft
1	X/O Sub	Rig	Rig	Steel	3.8125	2.1253	0	2 7/8" H-90 Pin	2 7/8" AOH Box	2.97 ft	425.48 ft
50	HWDP	Rig			3.75	2.19	0	2 7/8" H-90	2 7/8" H-90	1542.68	1968.16 ft
1	X/O Sub	Questar	Bottom	Steel	3.75	1.5	0	2 7/8" H90 Pin	2 3/8" IF Box	2.94 ft	1971.10 ft
1	Jar	Smith	9872A	Steel	3.38	1.5	0	2 3/8" IF Pin	2 3/8" IF Box	24.37 ft	1995.47 ft
1	X/O Sub	Questar	top	Steel	3.75	1.5	0	2 3/8" IF Pin	2 7/8" H90 Box	3.02 ft	1998.49 ft
25	HWDP	Rig			3.75	2.19	0	2 7/8" H-90	2 7/8" H-90	771.34 ft	2769.83 ft
1	X/O Sub	Questar		steel	3.8125	2.125	0	2 7/8" H90 Pin	2 7/8" AOH Box	3.17 ft	2773.00 ft

(O.D. units are in; I.D. units are in; FNeck units are ft)

GENERAL INFORMATION

DATES RUN:	2009/10/13 TO 2009/10/15		
DEPTH IN:	6426.00 ft	**ANGLE IN:**	36.75 °
DEPTH OUT:	6745.00 ft	**ANGLE OUT:**	71.50 °
DRILL HRS:	29.25	**BUILD:**	34.75 °
ORIENTING HRS:	20.50	**HOLE MADE:**	319.00 ft
ROTATING HRS:	8.75	**AVG R.O.P.:**	10.91 ft/hr

MOTOR INFORMATION

MANFCT.		**SETTING:**	1.89 °
SERIAL #:	375-2512	**KICK PAD:**	No
MODEL:	weatherford	**STABILIZER:**	No
LOBE CFG:	5/6	**MOTOR HRS:**	30.75
BIT TO BEND:	3.5		

PUMP INFORMATION

PUMPS	PUMP 1	PUMP 2	PUMP 3
EFFICIENCY:	95.0%	95.0%	100.0%
S.P.M.:	85	0	0
STROKE VOLUME:	1.5531 gal/stk	1.5531 gal/stk	0.0 gal/stk
TOTAL FLOW RATE:	125.40998 gal/min		
PUMP PRESSURE:	**OFF BTM:** 1400 psi	**ON BTM:** 1650 psi	

MUD INFORMATION

MUD TYPE:	Gelchem	**LIQUID BASE:**	Water		
DENSITY:	8.95 lb/gal	**TEMP:**	70 °F		
VISCOSITY:	45 sec/qt	**pH:**	10.2		
WTR LOSS:	7.2 cc/30min	**SAND:**	0	**LIQUID RATE:**	0 gal/min
PLAST VISC:	14 cP	**SOLIDS:**	3.5	**GAS TYPE:**	
YIELD PT:	10 lb/100 ft²	**OIL:**	0	**GAS RATE:**	0 cu ft/min

BIT INFORMATION

MANFCT: Smith **TYPE:** XR-20 **IADC BIT GRADE:** 3 / 3 / WT / A / E / I / ER / HR
NOZZLES: 11, 11, 11, n/a: 0.278 in² TFA

REASON FOR BHA CHANGE

Hours on bit

FORMATION CHARACTERISTICS

MWD COMMENTS

signal strength .296 noise level .015 tool amperage 1/2 amp down hole temp, 125 battery consumption 8.32.

SIDETRACKING PROCEDURE COMMENTS

RUN SUMMARY

Average build rates were achieved, ran back in with same BHA just change bit. bit was worn out

BHA Report

BHA 3 - Curve Section

Weatherford

Drilling Services
v4.2.2674

FILE #: 4017734
JOB TYPE: Horizontal
RIG & NO: Aztec 777

WELL NAME: Brennan #8
COMPANY: Questar Exploration and Production
SURFACE LOCATION:

SERVICE CO.: Weatherford Directional
SURVEY TYPE: Electromagnetic MWD
FIELD / LOCATION: Uintah County / Utah / USA

DIR Supervisor: Herschell Gaddy, Charlie Billings
MWD Supervisor: Tyler Cluff, Kelly Petit

BHA SURVEY TYPE: Electromagnetic MWD **HOLE SIZE:** 4.75 in

QTY	COMPONENT	MANFCT.	SERIAL #	MODEL	O.D.	I.D.	F.N.	BOT. CONN.	TOP CONN.	LEN.	C.LEN.
1	Tri-Cone Bit	Smith	PK7903	XR-20	4.75	0	0		2 7/8" REG Pin	0.50 ft	0.50 ft
1	Drilling Motor		375-2512	weatherford	3.96	0	1.75	2 3/8" REG Box	2 7/8" REG Box	13.40 ft	13.90 ft
1	Non-Mag Float Sub	Weatherford	35001AP	Non-Mag	3.5	0	0	2 7/8" REG Pin	2 7/8" SA Box	2.39 ft	16.29 ft
1	NM Muleshoe Sub	Weatherford	350-012	Non-Mag	3.5	1.75	0	2 7/8" SA Pin	2 7/8" SA Box	3.93 ft	20.22 ft
1	MWD Tool Carrier	Weatherford	35026010	Non-Mag	3.75	2.1875	0	2 7/8" SA Pin	2 7/8" SA Box	19.99 ft	40.21 ft
1	MWD Emitter Sub	Weatherford	306007	Non-Mag	3.3125	2.1875	0	2 7/8" SA Pin	2 7/8" SA Box	6.75 ft	46.96 ft
1	NMDC	Weatherford	Comp 621	Non-Mag	3.5	2.25	0	2 7/8" SA Pin	2 7/8" SA Box	31.11 ft	78.07 ft
1	NMDC	Weatherford	350-05JW	Non-Mag	3.44	2.19	0	2 7/8" SA Pin	2 7/8" SA Box	26.95 ft	105.02 ft
1	X/O Sub	Weatherford	225841		3.5625	2.25	0	2 7/8" SA Pin	2 7/8" AOH Box	1.43 ft	106.45 ft
16	Push Pipe	Rig	Rig	S-135	3.88	2.19	0	2 7/8" AOH Pin	2 7/8" AOH Box	505.53 ft	611.98 ft
1	X/O Sub	Rig	Rig	Steel	3.8125	2.1253	0	2 7/8" H-90 Pin	2 7/8" AOH Box	2.97 ft	614.95 ft
50	HWDP	Rig			3.75	2.19	0	2 7/8" H-90	2 7/8" H-90	1542.68	2157.63 ft
1	X/O Sub	Questar	Bottom	Steel	3.75	1.5	0	2 7/8" H90 Pin	2 3/8" IF Box	2.94 ft	2160.57 ft
1	Jar	Smith	9872A	Steel	3.38	1.5	0	2 3/8" IF Pin	2 3/8" IF Box	24.37 ft	2184.94 ft
1	X/O Sub	Questar	top	Steel	3.75	1.5	0	2 3/8" IF Pin	2 7/8" H90 Box	3.02 ft	2187.96 ft
25	HWDP	Rig			3.75	2.19	0	2 7/8" H-90	2 7/8" H-90	771.34 ft	2959.30 ft
1	X/O Sub	Questar		steel	3.8125	2.125	0	2 7/8" H90 Pin	2 7/8" AOH Box	3.17 ft	2962.47 ft

(O.D. units are in; I.D. units are in; FNeck units are ft)

GENERAL INFORMATION

DATES RUN:	2009/10/15 TO 2009/10/16		
DEPTH IN:	6745.00 ft	**ANGLE IN:**	71.50 °
DEPTH OUT:	7041.00 ft	**ANGLE OUT:**	88.38 °
DRILL HRS:	15.00	**BUILD:**	16.88 °
ORIENTING HRS:	5.75	**HOLE MADE:**	296.00 ft
ROTATING HRS:	9.25	**AVG R.O.P.:**	19.73 ft/hr

MOTOR INFORMATION

MANFCT.		**SETTING:**	1.89 °
SERIAL #:	375-2512	**KICK PAD:**	No
MODEL:	weatherford	**STABILIZER:**	No
LOBE CFG:	5/6	**MOTOR HRS:**	17.00
BIT TO BEND:	3.5		

PUMP INFORMATION

PUMPS	PUMP 1	PUMP 2	PUMP 3
EFFICIENCY:	95.0%	95.0%	100.0%
S.P.M.:	83	0	0
STROKE VOLUME:	1.5531 gal/stk	1.5531 gal/stk	0.0 gal/stk
TOTAL FLOW RATE:	122.45915 gal/min		
PUMP PRESSURE:	**OFF BTM:** 1450 psi	**ON BTM:** 1750 psi	

MUD INFORMATION

MUD TYPE:	Gelchem	**LIQUID BASE:**	Water		
DENSITY:	9 lb/gal	**TEMP:**	70 °F		
VISCOSITY:	43 sec/qt	**pH:**	11		
WTR LOSS:	7.2 cc/30min	**SAND:**	0	**LIQUID RATE:**	0 gal/min
PLAST VISC:	12 cP	**SOLIDS:**	3.5	**GAS TYPE:**	
YIELD PT:	10 lb/100 ft²	**OIL:**	0	**GAS RATE:**	0 cu ft/min

BIT INFORMATION

MANFCT: Smith **TYPE:** XR-20 **IADC BIT GRADE:** 4 / 4 / WT / M / E / I / WT / PP
NOZZLES: 11, 11, 11, n/a: 0.278 in² TFA

REASON FOR BHA CHANGE

pressure spikes

BHA 3 - Curve Section

FORMATION CHARACTERISTICS

MWD COMMENTS

SIDETRACKING PROCEDURE COMMENTS

RUN SUMMARY

BHA Report

BHA 4 - Lateral 1 Section

Weatherford

Drilling Services
v4.2.2674

FILE #: 4017734
JOB TYPE: Horizontal
RIG & NO: Aztec 777

WELL NAME: Brennan #8
COMPANY: Questar Exploration and Production
SURFACE LOCATION:

SERVICE CO.: Weatherford Directional
SURVEY TYPE: Electromagnetic MWD
FIELD / LOCATION: Uintah County / Utah / USA

DIR Supervisor: Herschell Gaddy, Charlie Billings
MWD Supervisor: Tyler Cluff, Kelly Petit

BHA SURVEY TYPE: Electromagnetic MWD **HOLE SIZE:** 4.75 in

QTY	COMPONENT	MANFCT.	SERIAL #	MODEL	O.D.	I.D.	F.N.	BOT. CONN.	TOP CONN.	LEN.	C.LEN.
1	Tri-Cone Bit	Hughes	5149469	STX-20	4.75	0	0		2 7/8" REG Pin	0.00 ft	0.00 ft
1	Drilling Motor	wenzel	350-M6-010	7/8 3:8	3.75	0	0	2 7/8" REG Box	2 7/8" REG Box	16.36 ft	16.36 ft
1	Non-Mag Float Sub	Weatherford	35001AP	Non-Mag	3.5	0	0	2 7/8" REG Pin	2 7/8" SA Box	2.39 ft	18.75 ft
1	NM Muleshoe Sub	Weatherford	350-012	Non-Mag	3.5	1.75	0	2 7/8" SA Pin	2 7/8" SA Box	3.93 ft	22.68 ft
1	MWD Tool Carrier	Weatherford	35026010	Non-Mag	3.75	2.1875	0	2 7/8" SA Pin	2 7/8" SA Box	19.99 ft	42.67 ft
1	MWD Emitter Sub	Weatherford	306007	Non-Mag	3.3125	2.1875	0	2 7/8" SA Pin	2 7/8" SA Box	6.75 ft	49.42 ft
1	NMDC	Weatherford	Comp 621	Non-Mag	3.5	2.25	0	2 7/8" SA Pin	2 7/8" SA Box	31.11 ft	80.53 ft
1	NMDC	Weatherford	350-05JW	Non-Mag	3.44	2.19	0	2 7/8" SA Pin	2 7/8" SA Box	26.95 ft	107.48 ft
1	X/O Sub	Weatherford	225841		3.5625	2.25	0	2 7/8" SA Pin	2 7/8" AOH Box	1.43 ft	108.91 ft
26	Push Pipe	Rig	Rig	S-135	3.88	2.19	0	2 7/8" AOH Pin	2 7/8" AOH Box	821.36 ft	930.27 ft
1	X/O Sub	Rig	Rig	Steel	3.8125	2.1253	0	2 7/8" H-90 Pin	2 7/8" AOH Box	2.97 ft	933.24 ft
50	HWDP	Rig			3.75	2.19	0	2 7/8" H-90	2 7/8" H-90	1542.68	2475.92 ft
1	X/O Sub	Questar	Bottom	Steel	3.75	1.5	0	2 7/8" H90 Pin	2 3/8" IF Box	2.94 ft	2478.86 ft
1	Jar	Smith	9872A	Steel	3.38	1.5	0	2 3/8" IF Pin	2 3/8" IF Box	24.37 ft	2503.23 ft
1	X/O Sub	Questar	top	Steel	3.75	1.5	0	2 3/8" IF Pin	2 7/8" H90 Box	3.02 ft	2506.25 ft
25	HWDP	Rig			3.75	2.19	0	2 7/8" H-90	2 7/8" H-90	771.34 ft	3277.59 ft
1	X/O Sub	Questar		steel	3.8125	2.125	0	2 7/8" H90 Pin	2 7/8" AOH Box	3.17 ft	3280.76 ft

(O.D. units are in; I.D. units are in; FNeck units are ft)

GENERAL INFORMATION

DATES RUN:	2009/10/16 TO 2009/10/17		
DEPTH IN:	7041.00 ft	**ANGLE IN:**	87.69 °
DEPTH OUT:	7328.00 ft	**ANGLE OUT:**	88.80 °
DRILL HRS:	26.75	**BUILD:**	1.11 °
ORIENTING HRS:	12.50	**HOLE MADE:**	287.00 ft
ROTATING HRS:	14.25	**AVG R.O.P.:**	10.73 ft/hr

MOTOR INFORMATION

MANFCT.	wenzel	**SETTING:**	1.69 °
SERIAL #:	350-M6-010	**KICK PAD:**	No
MODEL:	7/8 3:8	**STABILIZER:**	No
LOBE CFG:	7/8	**MOTOR HRS:**	28.25
BIT TO BEND:	3.07		

PUMP INFORMATION

PUMPS	PUMP 1	PUMP 2	PUMP 3
EFFICIENCY:	95.0%	95.0%	100.0%
S.P.M.:	86	0	0
STROKE VOLUME:	1.5531 gal/stk	1.5531 gal/stk	0.0 gal/stk
TOTAL FLOW RATE:	126.88539 gal/min		
PUMP PRESSURE:	**OFF BTM:** 0 psi	**ON BTM:** 0 psi	

MUD INFORMATION

MUD TYPE:	Gelchem	**LIQUID BASE:**	Water		
DENSITY:	8.9 lb/gal	**TEMP:**	0 °F		
VISCOSITY:	43 sec/qt	**pH:**	11.2		
WTR LOSS:	7 cc/30min	**SAND:**	3	**LIQUID RATE:**	0 gal/min
PLAST VISC:	11 cP	**SOLIDS:**	0	**GAS TYPE:**	
YIELD PT:	9 lb/100 ft²	**OIL:**	0	**GAS RATE:**	0 cu ft/min

BIT INFORMATION

MANFCT: Hughes **TYPE:** STX-20 **IADC BIT GRADE:** 1 / 1 / ER / A / E / I / WT / PP
NOZZLES: 11, 11, 11, n/a: 0.278 in² TFA

REASON FOR BHA CHANGE

pull out to side track well.

BHA 4 - Lateral 1 Section

FORMATION CHARACTERISTICS

MWD COMMENTS

SIDETRACKING PROCEDURE COMMENTS

RUN SUMMARY

BHA Report

BHA 5 - Lateral 1 Section

Weatherford

Drilling Services
v4.2.2674

FILE #: 4017734
JOB TYPE: Horizontal
RIG & NO: Aztec 777

WELL NAME: Brennan #8
COMPANY: Questar Exploration and Production
SURFACE LOCATION:

SERVICE CO.: Weatherford Directional
SURVEY TYPE: Electromagnetic MWD
FIELD / LOCATION: Uintah County / Utah / USA

DIR Supervisor: Herschell Gaddy, Charlie Billings
MWD Supervisor: Tyler Cluff, Kelly Petit

BHA SURVEY TYPE: Positive Pulse MWD **HOLE SIZE:** 4.75 in

QTY	COMPONENT	MANFCT.	SERIAL #	MODEL	O.D.	I.D.	F.N.	BOT. CONN.	TOP CONN.	LEN.	C.LEN.
1	Tri-Cone Bit	Smith	PL6508	XR 20	4.75	0	0		2 7/8" REG Pin	0.50 ft	0.50 ft
1	Drilling Motor	wenzel	350-10 -016		3.75	0	0	2 7/8" REG Box	2 7/8" REG Box	17.85 ft	18.35 ft
1	Non-Mag Float Sub	Weatherford	35001AP	Non-Mag	3.5	0	0	2 7/8" REG Pin	2 7/8" SA Box	2.39 ft	20.74 ft
1	NM Muleshoe Sub	Weatherford	AES 350-22114	Non-Mag	3.5	0	0	2 7/8" SA Pin	2 7/8" SA Box	3.63 ft	24.37 ft
1	Flex NMDC	Weatherford	375-99-82	Non-Mag	3.5625	2.25	3	2 7/8" SA Pin	2 7/8" SA Box	31.02 ft	55.39 ft
1	NMDC	Weatherford	Comp 621	Non-Mag	3.5	2.25	0	2 7/8" SA Pin	2 7/8" SA Box	31.11 ft	86.50 ft
1	NMDC	Weatherford	350-05JW	Non-Mag	3.44	2.19	0	2 7/8" SA Pin	2 7/8" SA Box	26.95 ft	113.45 ft
1	X/O Sub	Weatherford	225841		3.5625	2.25	0	2 7/8" SA Pin	2 7/8" AOH Box	1.43 ft	114.88 ft
36	Push Pipe	Rig	Rig	S-135	3.88	2.19	0	2 7/8" AOH Pin	2 7/8" AOH Box	1136.95	1251.83 ft
1	X/O Sub	Rig	Rig	Steel	3.8125	2.1253	0	2 7/8" H-90 Pin	2 7/8" AOH Box	2.97 ft	1254.80 ft
50	HWDP	Rig			3.75	2.19	0	2 7/8" H-90	2 7/8" H-90	1542.68	2797.48 ft
1	X/O Sub	Questar	Bottom	Steel	3.75	1.5	0	2 7/8" H90 Pin	2 3/8" IF Box	2.94 ft	2800.42 ft
1	Jar	Smith	9872A	Steel	3.38	1.5	0	2 3/8" IF Pin	2 3/8" IF Box	24.37 ft	2824.79 ft
1	X/O Sub	Questar	top	Steel	3.75	1.5	0	2 3/8" IF Pin	2 7/8" H90 Box	3.02 ft	2827.81 ft
25	HWDP	Rig			3.75	2.19	0	2 7/8" H-90	2 7/8" H-90	771.34 ft	3599.15 ft
1	X/O Sub	Questar		steel	3.8125	2.125	0	2 7/8" H90 Pin	2 7/8" AOH Box	3.17 ft	3602.32 ft

(O.D. units are in; I.D. units are in; FNeck units are ft)

GENERAL INFORMATION

DATES RUN:	2009/10/17 TO 2009/10/20		
DEPTH IN:	7328.00 ft	**ANGLE IN:**	88.80 °
DEPTH OUT:	7482.00 ft	**ANGLE OUT:**	88.26 °
DRILL HRS:	26.50	**BUILD:**	-0.54 °
ORIENTING HRS:	11.25	**HOLE MADE:**	413.00 ft
ROTATING HRS:	15.25	**AVG R.O.P.:**	15.58 ft/hr

MOTOR INFORMATION

MANFCT.	wenzel	**SETTING:**	1.69 °
SERIAL #:	350-10 -016	**KICK PAD:**	No
MODEL:		**STABILIZER:**	No
LOBE CFG:	7/8	**MOTOR HRS:**	54.00
BIT TO BEND:	4.3		

PUMP INFORMATION

PUMPS	PUMP 1	PUMP 2	PUMP 3
EFFICIENCY:	95.0%	95.0%	100.0%
S.P.M.:	84	0	0
STROKE VOLUME:	1.5531 gal/stk	1.5531 gal/stk	0.0 gal/stk
TOTAL FLOW RATE:	123.93456 gal/min		
PUMP PRESSURE:	**OFF BTM:** 1780 psi	**ON BTM:** 2075 psi	

MUD INFORMATION

MUD TYPE:	Gelchem	**LIQUID BASE:**	Water		
DENSITY:	9 lb/gal	**TEMP:**	0 °F		
VISCOSITY:	42 sec/qt	**pH:**	11.7		
WTR LOSS:	7.2 cc/30min	**SAND:**	0	**LIQUID RATE:**	0 gal/min
PLAST VISC:	10 cP	**SOLIDS:**	4	**GAS TYPE:**	
YIELD PT:	8 lb/100 ft²	**OIL:**	0	**GAS RATE:**	0 cu ft/min

BIT INFORMATION

MANFCT: Smith **TYPE:** XR 20 **IADC BIT GRADE:** 1 / 2 / WT / G / E / I / NO / HR
NOZZLES: 11, 11, 11, n/a: 0.278 in² TFA

REASON FOR BHA CHANGE

Hrs, on bit

FORMATION CHARACTERISTICS

MWD COMMENTS

SIDETRACKING PROCEDURE COMMENTS

RUN SUMMARY

BHA Report

BHA 6 - Lateral 1 Section

Weatherford

Drilling Services
v4.2.2674

FILE #: 4017734
JOB TYPE: Horizontal
RIG & NO: Aztec 777

WELL NAME: Brennan #8
COMPANY: Questar Exploration and Production
SURFACE LOCATION:

SERVICE CO.: Weatherford Directional
SURVEY TYPE: Electromagnetic MWD
FIELD / LOCATION: Uintah County / Utah / USA

DIR Supervisor: Herschell Gaddy, Charlie Billings
MWD Supervisor: Tyler Cluff, Kelly Petit, Lee Harns

BHA SURVEY TYPE: Positive Pulse MWD **HOLE SIZE:** 4.75 in

QTY	COMPONENT	MANFCT.	SERIAL #	MODEL	O.D.	I.D.	F.N.	BOT. CONN.	TOP CONN.	LEN.	C.LEN.
1	Tri-Cone Bit	Smith	PL7681	XR20	4.75	0	0		2 7/8" REG Pin	0.50 ft	0.50 ft
1	Drilling Motor	wenzel	350-10-009		3.75	0	0	2 7/8" REG Box	2 7/8" REG Box	17.88 ft	18.38 ft
1	Non-Mag Float Sub	Weatherford	35001AP	Non-Mag	3.5	0	0	2 7/8" REG Pin	2 7/8" SA Box	2.39 ft	20.77 ft
1	NM Muleshoe Sub	Weatherford	AES 350-22114	Non-Mag	3.5	0	0	2 7/8" SA Pin	2 7/8" SA Box	3.63 ft	24.40 ft
1	NMDC	Weatherford	Comp 621	Non-Mag	3.5	2.25	0	2 7/8" SA Pin	2 7/8" SA Box	31.11 ft	55.51 ft
1	NMDC	Weatherford	350-05JW	Non-Mag	3.44	2.19	0	2 7/8" SA Pin	2 7/8" SA Box	26.95 ft	82.46 ft
1	Short NMDC	Weatherford	comp 527	NM	3.5	2.19	0	2 7/8" SA Pin	2 7/8" SA Box	9.59 ft	92.05 ft
1	X/O Sub	Weatherford	225841		3.5625	2.25	0	2 7/8" SA Pin	2 7/8" AOH Box	1.43 ft	93.48 ft
26	Push Pipe	Rig	Rig	S-135	3.88	2.19	0	2 7/8" AOH Pin	2 7/8" AOH Box	821.13 ft	914.61 ft
1	Agitator	Smith	375-0009	Jackson type	3.76	1.5	1.2	2 7/8" AOH Pin	2 3/8 IF Box	12.47 ft	927.08 ft
1	Shock Sub	Smith	n/a		3.5	1	0	2 3/8 IF Pin	2 7/8 AOH Box	4.55 ft	931.63 ft
16	Drill Pipe	Rig		2 7/8 AOH	3.75	2.19	0	27/8 AOH Pin	2 7/8" AOH Box	504.33 ft	1435.96 ft
1	X/O Sub	Rig	Rig	Steel	3.8125	2.1253	0	2 7/8" H-90 Pin	2 7/8" AOH Box	2.97 ft	1438.93 ft
50	HWDP	Rigs			3.75	2.19	0	2 7/8" H90 Pin	2 7/8" H90 Box	1545.13	2984.06 ft
1	X/O Sub	Questar	Bottom	Steel	3.75	1.5	0	2 7/8" H90 Pin	2 3/8" IF Box	2.94 ft	2987.00 ft
1	Jar	H.E.	9872A		3.38	1.5	1.87	2 3/8" IF Pin	2 3/8" IF Box	24.37 ft	3011.37 ft
1	X/O Sub	Questar	top	Steel	3.75	1.5	0	2 3/8" IF Pin	2 7/8" H90 Box	3.02 ft	3014.39 ft
25	HWDP	Rig			3.75	2.19	0	2 7/8" H90 Box	2 7/8" H90 Box	768.89 ft	3783.28 ft
1	X/O Sub	Questar		steel	3.8125	2.125	0	2 7/8" H90 Pin	2 7/8" AOH Box	3.17 ft	3786.45 ft

(O.D. units are in; I.D. units are in; FNeck units are ft)

GENERAL INFORMATION

DATES RUN:	2009/10/20 TO 2009/10/23		
DEPTH IN:	7482.00 ft	**ANGLE IN:**	88.26 °
DEPTH OUT:	8551.00 ft	**ANGLE OUT:**	87.74 °
DRILL HRS:	48.25	**BUILD:**	-0.52 °
ORIENTING HRS:	7.00	**HOLE MADE:**	1069.00 ft
ROTATING HRS:	41.25	**AVG R.O.P.:**	22.16 ft/hr

MOTOR INFORMATION

MANFCT.	wenzel	**SETTING:**	1.69 °
SERIAL #:	350-10-009	**KICK PAD:**	No
MODEL:		**STABILIZER:**	No
LOBE CFG:	7/8	**MOTOR HRS:**	52.25
BIT TO BEND:	0		

PUMP INFORMATION

PUMPS	PUMP 1	PUMP 2	PUMP 3
EFFICIENCY:	95.0%	95.0%	100.0%
S.P.M.:	82	0	0
STROKE VOLUME:	1.5531 gal/stk	1.5531 gal/stk	0.0 gal/stk
TOTAL FLOW RATE:	120.98374 gal/min		
PUMP PRESSURE:	**OFF BTM:** 2680 psi	**ON BTM:** 3000 psi	

MUD INFORMATION

MUD TYPE:	Gelchem	**LIQUID BASE:**	Water		
DENSITY:	8.95 lb/gal	**TEMP:**	80 °F		
VISCOSITY:	41 sec/qt	**pH:**	11.7		
WTR LOSS:	8 cc/30min	**SAND:**	0	**LIQUID RATE:**	0 gal/min
PLAST VISC:	9 cP	**SOLIDS:**	4	**GAS TYPE:**	
YIELD PT:	8 lb/100 ft²	**OIL:**	0	**GAS RATE:**	0 cu ft/min

BIT INFORMATION

MANFCT: Smith **TYPE:** XR20 **IADC BIT GRADE:** 4 / 4 / WT / A / E / 1 / ? / HR
NOZZLES: 11, 11, 11, n/a: 0.278 in² TFA

REASON FOR BHA CHANGE

QUESTAR

FORMATION CHARACTERISTICS

MWD COMMENTS

SIDETRACKING PROCEDURE COMMENTS

RUN SUMMARY

BHA Report

BHA 7 - Lateral 1 Section

Weatherford

Drilling Services
v4.2.2674

FILE #: 4017734
JOB TYPE: Horizontal
RIG & NO: Aztec 777

WELL NAME: Brennan #8
COMPANY: Questar Exploration and Production
SURFACE LOCATION:

SERVICE CO.: Weatherford Directional
SURVEY TYPE: Electromagnetic MWD
FIELD / LOCATION: Uintah County / Utah / USA

DIR Supervisor: Herschell Gaddy, Charlie Billings
MWD Supervisor: Tyler Cluff, Lee Harns

BHA SURVEY TYPE: Positive Pulse MWD **HOLE SIZE:** 4.75 in

QTY	COMPONENT	MANFCT.	SERIAL #	MODEL	O.D.	I.D.	F.N.	BOT. CONN.	TOP CONN.	LEN.	C.LEN.
1	Tri-Cone Bit	Smith	PL7681	XR20	4.75	0	0		2 7/8" REG Pin	0.50 ft	0.50 ft
1	Drilling Motor	Wenzel	350-10-035	adj.	3.875	0	1.37	2 7/8" REG Box	2 7/8" REG Box	17.85 ft	18.35 ft
1	Non-Mag Float Sub	Weatherford	35001AP	Non-Mag	3.5	0	0	2 7/8" REG Pin	2 7/8" SA Box	2.39 ft	20.74 ft
1	NM Muleshoe Sub	Weatherford	AES 350-22114	Non-Mag	3.5	0	0	2 7/8" SA Pin	2 7/8" SA Box	3.63 ft	24.37 ft
1	NMDC	Weatherford	Comp 621	Non-Mag	3.5	2.25	0	2 7/8" SA Pin	2 7/8" SA Box	31.11 ft	55.48 ft
1	NMDC	Weatherford	350-05JW	Non-Mag	3.44	2.19	0	2 7/8" SA Pin	2 7/8" SA Box	26.95 ft	82.43 ft
1	Short NMDC	Weatherford	comp 527	NM	3.5	2.19	0	2 7/8" SA Pin	2 7/8" SA Box	9.59 ft	92.02 ft
1	X/O Sub	Weatherford	225841		3.5625	2.25	0	2 7/8" SA Pin	2 7/8" AOH Box	1.43 ft	93.45 ft
38	Drill Pipe	Rig		s-135	3.875	2.19	0	2 7/8"AOH Pin	2 7/8"AOH Box	1199.80	1293.25 ft
1	Agitator	Smith	375-0009	Jackson type	3.76	1.5	1.2	2 7/8" AOH Pin	2 3/8 IF Box	12.47 ft	1305.72 ft
1	Shock Sub	Smith	n/a		3.5	1	0	2 3/8 IF Pin	2 7/8 AOH Box	4.55 ft	1310.27 ft
36	Drill Pipe	Rig		s-135	3.88	2.19	0	2 7/8" AOH Pin	2 7/8" AOH Box	1135.35	2445.62 ft
1	X/O Sub	Rig	Rig	Steel	3.8125	2.1253	0	2 7/8" H-90 Pin	2 7/8" AOH Box	2.97 ft	2448.59 ft
50	HWDP	Rigs			3.75	2.19	0	2 7/8" H90 Pin	2 7/8" H90 Box	1545.13	3993.72 ft
1	X/O Sub	Questar	Bottom	Steel	3.75	1.5	0	2 7/8" H90 Pin	2 3/8" IF Box	2.94 ft	3996.66 ft
1	Jar	Smith	9872A	Steel	3.38	1.5	0	2 3/8" IF Pin	2 3/8" IF Box	24.37 ft	4021.03 ft
1	X/O Sub	Questar	top	Steel	3.75	1.5	0	2 3/8" IF Pin	2 7/8" H90 Box	3.02 ft	4024.05 ft
25	HWDP	Rig			3.75	2.19	0	2 7/8" H90 Box	2 7/8" H90 Box	768.89 ft	4792.94 ft
1	X/O Sub	Questar		steel	3.8125	2.125	0	2 7/8" H90 Pin	2 7/8" AOH Box	3.17 ft	4796.11 ft

(O.D. units are in; I.D. units are in; FNeck units are ft)

GENERAL INFORMATION

DATES RUN:	2009/10/23 TO 2009/10/26		
DEPTH IN:	8551.00 ft	**ANGLE IN:**	87.74 °
DEPTH OUT:	9487.00 ft	**ANGLE OUT:**	88.84 °
DRILL HRS:	50.00	**BUILD:**	1.10 °
ORIENTING HRS:	9.25	**HOLE MADE:**	936.00 ft
ROTATING HRS:	40.75	**AVG R.O.P.:**	18.72 ft/hr

MOTOR INFORMATION

MANFCT.	Wenzel	**SETTING:**	1.69 °
SERIAL #:	350-10-035	**KICK PAD:**	No
MODEL:	adj.	**STABILIZER:**	No
LOBE CFG:	7/8	**MOTOR HRS:**	53.50
BIT TO BEND:	4.1		

PUMP INFORMATION

PUMPS	PUMP 1	PUMP 2	PUMP 3
EFFICIENCY:	95.0%	95.0%	100.0%
S.P.M.:	84	0	0
STROKE VOLUME:	1.5531 gal/stk	1.5531 gal/stk	0.0 gal/stk
TOTAL FLOW RATE:	123.93456 gal/min		
PUMP PRESSURE:	**OFF BTM:** 2750 psi	**ON BTM:** 2950 psi	

MUD INFORMATION

MUD TYPE:	Gelchem	**LIQUID BASE:**	Water		
DENSITY:	9 lb/gal	**TEMP:**	90 °F		
VISCOSITY:	40 sec/qt	**pH:**	11.9		
WTR LOSS:	7.6 cc/30min	**SAND:**	0	**LIQUID RATE:**	0 gal/min
PLAST VISC:	10 cP	**SOLIDS:**	4	**GAS TYPE:**	
YIELD PT:	6 lb/100 ft²	**OIL:**	0	**GAS RATE:**	0 cu ft/min

BIT INFORMATION

MANFCT: Smith **TYPE:** XR20 **IADC BIT GRADE:** 4 / 4 / WT / A / F / 1 / TR / PR
NOZZLES: 11, 11, 11, n/a: 0.278 in² TFA

REASON FOR BHA CHANGE

pull for P.R.

FORMATION CHARACTERISTICS

MWD COMMENTS

SIDETRACKING PROCEDURE COMMENTS

RUN SUMMARY

BHA Report

BHA 8 - Lateral 1 Section

Weatherford

Drilling Services
v4.2.2674

FILE #: 4017734
JOB TYPE: Horizontal
RIG & NO: Aztec 777

WELL NAME: Brennan #8
COMPANY: Questar Exploration and Production
SURFACE LOCATION:

SERVICE CO.: Weatherford Directional
SURVEY TYPE: Electromagnetic MWD
FIELD / LOCATION: Uintah County / Utah / USA

DIR Supervisor: Herschell Gaddy, Charlie Billings
MWD Supervisor: Tyler Cluff, Lee Harns

BHA SURVEY TYPE: Positive Pulse MWD **HOLE SIZE:** 4.75 in

QTY	COMPONENT	MANFCT.	SERIAL #	MODEL	O.D.	I.D.	F.N.	BOT. CONN.	TOP CONN.	LEN.	C.LEN.
1	Tri-Cone Bit	Hughes	5128873	STX-20	4.75	0	0		2 3/8" REG Pin	0.50 ft	0.50 ft
1	Drilling Motor	Wenzel	350-10-034	7/8 3:8	3.75	0	0.62	2 7/8" REG Box	2 7/8" REG Box	17.87 ft	18.37 ft
1	Non-Mag Float Sub	Weatherford	35001AP	Non-Mag	3.5	0	0	2 7/8" REG Pin	2 7/8" SA Box	2.39 ft	20.76 ft
1	NM Muleshoe Sub	Weatherford	AES 350-22114	Non-Mag	3.5	0	0	2 7/8" SA Pin	2 7/8" SA Box	3.63 ft	24.39 ft
1	NMDC	Weatherford	Comp 621	Non-Mag	3.5	2.25	0	2 7/8" SA Pin	2 7/8" SA Box	31.11 ft	55.50 ft
1	NMDC	Weatherford	350-05JW	Non-Mag	3.44	2.19	0	2 7/8" SA Pin	2 7/8" SA Box	26.95 ft	82.45 ft
1	Short NMDC	Weatherford	comp 527	NM	3.5	2.19	0	2 7/8" SA Pin	2 7/8" SA Box	9.59 ft	92.04 ft
1	X/O Sub	Weatherford	225841		3.5625	2.25	0	2 7/8" SA Pin	2 7/8" AOH Box	1.43 ft	93.47 ft
38	Drill Pipe	Rig		s-135	3.875	2.19	0	2 7/8"AOH Pin	2 7/8"AOH Box	1199.80	1293.27 ft
1	Agitator	National	ATF-334-03	rev. AI	3.75	1.5	1.15	2 7/8 AOH Pin	2 3/8 IF Box	12.46 ft	1305.73 ft
1	Shock Sub	National	375-001		3.5	1	0	2 3/8 IF Pin	2 7/8"AOH Box	4.40 ft	1310.13 ft
70	Drill Pipe	Rig		S-135	3.88	2.19	0	2 7/8"AOH Pin	2 7/8"AOH Box	2207.84	3517.97 ft
1	X/O Sub	Rig	Rig	Steel	3.8125	2.1253	0	2 7/8" H-90 Pin	2 7/8" AOH Box	2.97 ft	3520.94 ft
50	HWDP	Rigs			3.75	2.19	0	2 7/8" H90 Pin	2 7/8" H90 Box	1545.13	5066.07 ft
1	X/O Sub	Questar	Bottom	Steel	3.75	1.5	0	2 7/8" H90 Pin	2 3/8" IF Box	2.94 ft	5069.01 ft
1	Jar	Smith	9872A	Steel	3.38	1.5	0	2 3/8" IF Pin	2 3/8" IF Box	24.37 ft	5093.38 ft
1	X/O Sub	Questar	top	Steel	3.75	1.5	0	2 3/8" IF Pin	2 7/8" H90 Box	3.02 ft	5096.40 ft
25	HWDP	Rig			3.75	2.19	0	2 7/8" H90 Box	2 7/8" H90 Box	768.89 ft	5865.29 ft
1	X/O Sub	Questar		steel	3.8125	2.125	0	2 7/8" H90 Pin	2 7/8" AOH Box	3.17 ft	5868.46 ft

(O.D. units are in; I.D. units are in; FNeck units are ft)

GENERAL INFORMATION

DATES RUN:	2009/10/26 TO 2009/10/28		
DEPTH IN:	9487.00 ft	**ANGLE IN:**	88.84 °
DEPTH OUT:	10410.00 ft	**ANGLE OUT:**	89.86 °
DRILL HRS:	30.75	**BUILD:**	1.02 °
ORIENTING HRS:	2.00	**HOLE MADE:**	923.00 ft
ROTATING HRS:	28.75	**AVG R.O.P.:**	30.02 ft/hr

MOTOR INFORMATION

MANFCT.	Wenzel	**SETTING:**	1.69 °
SERIAL #:	350-10-034	**KICK PAD:**	No
MODEL:	7/8 3:8	**STABILIZER:**	No
LOBE CFG:	7/8	**MOTOR HRS:**	34.00
BIT TO BEND:	4.25		

PUMP INFORMATION

PUMPS	PUMP 1	PUMP 2	PUMP 3
EFFICIENCY:	95.0%	95.0%	100.0%
S.P.M.:	0	84	0
STROKE VOLUME:	1.5531 gal/stk	1.5531 gal/stk	0.0 gal/stk
TOTAL FLOW RATE:	123.93456 gal/min		
PUMP PRESSURE:	**OFF BTM:** 0 psi	**ON BTM:** 0 psi	

MUD INFORMATION

MUD TYPE:	Gelchem	**LIQUID BASE:**	Water		
DENSITY:	0 lb/gal	**TEMP:**	0 °F		
VISCOSITY:	0 sec/qt	**pH:**	0		
WTR LOSS:	0 cc/30min	**SAND:**	0	**LIQUID RATE:**	0 gal/min
PLAST VISC:	0 cP	**SOLIDS:**	0	**GAS TYPE:**	
YIELD PT:	0 lb/100 ft²	**OIL:**	0	**GAS RATE:**	0 cu ft/min

BIT INFORMATION

MANFCT: Hughes **TYPE:** STX-20 **IADC BIT GRADE:** ? / ? / ? / ? / ? / ? / ? / ? / TD
NOZZLES: 12, 12, 12, n/a: 0.331 in² TFA

REASON FOR BHA CHANGE

T.D

BHA 8 - Lateral 1 Section

FORMATION CHARACTERISTICS

in Zone 100%

MWD COMMENTS

15 deg orifice, pulse size 14, noise level 0.

SIDETRACKING PROCEDURE COMMENTS

N/A

RUN SUMMARY

stayed 100% in zone with mininal amounts of slides.

MOTOR REPORTS

Motor / RSS Evaluation Report

Weatherford

Drilling Services
v4.2.2674

BHA 1 - Curve Section, Motor #375-2525

FILE #: 4017734
JOB TYPE: Horizontal
RIG & NO: Aztec 777

WELL NAME: Brennan #8
COMPANY: Questar Exploration and Production
SURFACE LOCATION:

SERVICE CO.: Weatherford Directional
SURVEY TYPE: Electromagnetic MWD
FIELD / LOCATION: Uintah County / Utah / USA

DIR Supervisor: Herschell Gaddy, Charlie Billings
MWD Supervisor: Tyler Cluff, Kelly Petit

BHA SURVEY TYPE: Electronic Multishot
HOLE SIZE: 4.75 in

GENERAL INFORMATION:

BHA #:	1	**START DEPTH:**	6179.00 ft
DATE IN:	2009/10/11	**END DEPTH:**	6426.00 ft
DATE OUT:	2009/10/13	**HOLE MADE:**	247.00 ft
ANGLE IN:	0.00 °	**AVG ROP:**	11.49 ft/hr
ANGLE OUT:	31.81 °		
ORIENTING HRS:	20.00	**ROTATING HRS:**	1.50

MOTOR INFORMATION:

MANFCT:	weatherford		
SERIAL #:	375-2525		
MODEL:	3.8 STG.		
LOBE:	5/6	**BIT TO BEND:**	3.5 ft
SETTING:	1.89 °	**KICKPAD:**	No
		STABILIZER:	No

DRILLING INFORMATION:

BIT TYPE: XR-15
IADC BIT GRADE: 1 / 3 / LT / M / E / I / LT / PR
BIT PRESS DROP: 140.00 psi
TOTAL FLOW RATE: 135.74 gal/min
PUMP PRESS: **(OFF)** 1700.00 psi
MTR PRESS DROP: 150.00 psi
NOZZLES: 12, 12, 12, n/a: 0.331 in² TFA
(ON) 1900.00 psi

MUD INFORMATION:

(All units are imperial.)

MUD TYPE:	Gelchem	**LIQUID BASE:**	Water		
DENSITY:	9 lb/gal	**VISCOSITY:**	43 sec/qt		
SAND:	0.150	**WATER LOSS:**	7.60 cc/30min	**LIQUID RATE:**	0.00 gal/min
SOLIDS:	3.500	**PLASTIC VISC:**	11.0 cP	**GAS TYPE:**	
OIL:	0.000	**YIELD POINT:**	10.0 lb/100 ft²	**GAS RATE:**	0.00 cu ft/min
TEMP:	0 °F	**pH:**	11.3		

TIME INFORMATION:

CIRCULATING HOURS:	1.75
REAMING HOURS:	0.00
TIME DRILL HOURS:	0.00
MOTOR DRILL HOURS:	21.50
MOTOR HOURS THIS RUN:	23.25
PREVIOUS HOURS:	0.00
TOTAL MOTOR HOURS:	23.25
TOTAL BRT HOURS:	23.25

MOTOR EVALUATION COMMENTS:

REASON FOR BHA CHANGE:

poor penetration

COMMENTS FROM LAST DAY RAN:

Drill from 6339' to 6426' target change @ 6,426' md. 10am 10/13/09 to 6571' @ 300' vs trip out and change bit and motor P/U jars and push pipe trip back in drill from 6426' to 6484'.

Motor / RSS Evaluation Report

Weatherford

Drilling Services
v4.2.2674

BHA 2 - Curve Section, Motor #375-2512

FILE #: 4017734
JOB TYPE: Horizontal
RIG & NO: Aztec 777

WELL NAME: Brennan #8
COMPANY: Questar Exploration and Production
SURFACE LOCATION:

SERVICE CO.: Weatherford Directional
SURVEY TYPE: Electromagnetic MWD
FIELD / LOCATION: Uintah County / Utah / USA

DIR Supervisor: Herschell Gaddy, Charlie Billings
MWD Supervisor: Tyler Cluff, Kelly Petit

BHA SURVEY TYPE: Electromagnetic MWD
HOLE SIZE: 4.75 in

GENERAL INFORMATION:

BHA #:	2	**START DEPTH:**	6426.00 ft
DATE IN:	2009/10/13	**END DEPTH:**	6745.00 ft
DATE OUT:	2009/10/15	**HOLE MADE:**	319.00 ft
ANGLE IN:	36.75 °	**AVG ROP:**	10.91 ft/hr
ANGLE OUT:	71.50 °		
ORIENTING HRS:	20.50	**ROTATING HRS:**	8.75

MOTOR INFORMATION:

MANFCT:			
SERIAL #:	375-2512		
MODEL:	weatherford		
LOBE:	5/6	**BIT TO BEND:**	3.5 ft
SETTING:	1.89 °	**KICKPAD:**	No
		STABILIZER:	No

DRILLING INFORMATION:

BIT TYPE: XR-20
IADC BIT GRADE: 3 / 3 / WT / A / E / I / ER / HR
BIT PRESS DROP: 140.00 psi
TOTAL FLOW RATE: 125.41 gal/min
PUMP PRESS: (OFF) 1400.00 psi
MTR PRESS DROP: 150.00 psi
NOZZLES: 11, 11, 11, n/a: 0.278 in² TFA
(ON) 1650.00 psi

MUD INFORMATION:

(All units are imperial.)

MUD TYPE:	Gelchem	**LIQUID BASE:**	Water		
DENSITY:	9 lb/gal	**VISCOSITY:**	45 sec/qt		
SAND:	0.000	**WATER LOSS:**	7.20 cc/30min	**LIQUID RATE:**	0.00 gal/min
SOLIDS:	3.500	**PLASTIC VISC:**	14.0 cP	**GAS TYPE:**	
OIL:	0.000	**YIELD POINT:**	10.0 lb/100 ft²	**GAS RATE:**	0.00 cu ft/min
TEMP:	70 °F	**pH:**	10.2		

TIME INFORMATION:

CIRCULATING HOURS:	1.50
REAMING HOURS:	0.00
TIME DRILL HOURS:	0.00
MOTOR DRILL HOURS:	29.25
MOTOR HOURS THIS RUN:	30.75
PREVIOUS HOURS:	0.00
TOTAL MOTOR HOURS:	30.75
TOTAL BRT HOURS:	30.75

MOTOR EVALUATION COMMENTS:

Motor perform as expected with build rates of 20's will rerun on next bha.

REASON FOR BHA CHANGE:

Hours on bit

COMMENTS FROM LAST DAY RAN:

Drill to 6745' circulate and trip for bit. Inspected motor at surface and P/U new bit, tested mud motor. Cut and slip drlg line. trip back to btm drill from 6745' to 6980'. in zone

Motor / RSS Evaluation Report

Weatherford

Drilling Services
v4.2.2674

BHA 3 - Curve Section, Motor #375-2512

FILE #: 4017734
JOB TYPE: Horizontal
RIG & NO: Aztec 777

WELL NAME: Brennan #8
COMPANY: Questar Exploration and Production
SURFACE LOCATION:

SERVICE CO.: Weatherford Directional
SURVEY TYPE: Electromagnetic MWD
FIELD / LOCATION: Uintah County / Utah / USA

DIR Supervisor: Herschell Gaddy, Charlie Billings
MWD Supervisor: Tyler Cluff, Kelly Petit

BHA SURVEY TYPE: Electromagnetic MWD
HOLE SIZE: 4.75 in

GENERAL INFORMATION:

BHA #:	3	**START DEPTH:**	6745.00 ft
DATE IN:	2009/10/15	**END DEPTH:**	7041.00 ft
DATE OUT:	2009/10/16	**HOLE MADE:**	296.00 ft
ANGLE IN:	71.50 °	**AVG ROP:**	19.73 ft/hr
ANGLE OUT:	88.38 °		
ORIENTING HRS:	5.75	**ROTATING HRS:**	9.25

MOTOR INFORMATION:

MANFCT:			
SERIAL #:	375-2512		
MODEL:	weatherford		
LOBE:	5/6	**BIT TO BEND:**	3.5 ft
SETTING:	1.89 °	**KICKPAD:**	No
		STABILIZER:	No

DRILLING INFORMATION:

BIT TYPE: XR-20
IADC BIT GRADE: 4 / 4 / WT / M / E / I / WT / PP
BIT PRESS DROP: 140.00 psi
TOTAL FLOW RATE: 122.46 gal/min
PUMP PRESS: **(OFF)** 1450.00 psi
MTR PRESS DROP: 150.00 psi
NOZZLES: 11, 11, 11, n/a: 0.278 in² TFA
(ON) 1750.00 psi

MUD INFORMATION:

(All units are imperial.)

MUD TYPE:	Gelchem	**LIQUID BASE:**	Water		
DENSITY:	9 lb/gal	**VISCOSITY:**	43 sec/qt		
SAND:	0.000	**WATER LOSS:**	7.20 cc/30min	**LIQUID RATE:**	0.00 gal/min
SOLIDS:	3.500	**PLASTIC VISC:**	12.0 cP	**GAS TYPE:**	
OIL:	0.000	**YIELD POINT:**	10.0 lb/100 ft²	**GAS RATE:**	0.00 cu ft/min
TEMP:	70 °F	**pH:**	11.0		

TIME INFORMATION:

CIRCULATING HOURS:	2.00
REAMING HOURS:	0.00
TIME DRILL HOURS:	0.00
MOTOR DRILL HOURS:	15.00
MOTOR HOURS THIS RUN:	17.00
PREVIOUS HOURS:	30.75
TOTAL MOTOR HOURS:	47.75
TOTAL BRT HOURS:	17.00

MOTOR EVALUATION COMMENTS:

REASON FOR BHA CHANGE:

pressure spikes

COMMENTS FROM LAST DAY RAN:

Drill from 6980' to 7041' Co-man was concerned, about pressure spikes while rotating, had DD go up and slide down to see if motor would stall was able to slide 2' no problems with motor, not stalling went back rotating spiked again while drilling p/u off btm cir and trip for bit.
New target 6559.7 @ 323vs,with 1.7 dip. Pulled out and change out bit and motor trip back in drilled from 7041' to 7205'. @ survey 7122' talk with co-man of wanting to slide down to stay in zone was told to rotate and he will watch it, says it wil deflect of the top, P-rate slowed and differental increased had to back w.t off because of pressure increase samples showed us @ the top co-man

decided after rotating another 17' to let us slide after talking with geologist

Motor / RSS Evaluation Report

Weatherford

Drilling Services
v4.2.2674

BHA 4 - Lateral 1 Section, Motor #350-M6-010

FILE #: 4017734
JOB TYPE: Horizontal
RIG & NO: Aztec 777

WELL NAME: Brennan #8
COMPANY: Questar Exploration and Production
SURFACE LOCATION:

SERVICE CO.: Weatherford Directional
SURVEY TYPE: Electromagnetic MWD
FIELD / LOCATION: Uintah County / Utah / USA

DIR Supervisor: Herschell Gaddy, Charlie Billings
MWD Supervisor: Tyler Cluff, Kelly Petit

BHA SURVEY TYPE: Electromagnetic MWD
HOLE SIZE: 4.75 in

GENERAL INFORMATION:

BHA #:	4	**START DEPTH:**	7041.00 ft
DATE IN:	2009/10/16	**END DEPTH:**	7328.00 ft
DATE OUT:	2009/10/17	**HOLE MADE:**	287.00 ft
ANGLE IN:	87.69 °	**AVG ROP:**	10.73 ft/hr
ANGLE OUT:	88.80 °		
ORIENTING HRS:	12.50	**ROTATING HRS:**	14.25

MOTOR INFORMATION:

MANFCT:	wenzel		
SERIAL #:	350-M6-010		
MODEL:	7/8 3:8		
LOBE:	7/8	**BIT TO BEND:**	3.07 ft
SETTING:	1.69 °	**KICKPAD:**	No
		STABILIZER:	No

DRILLING INFORMATION:

BIT TYPE: STX-20
IADC BIT GRADE: 1 / 1 / ER / A / E / I / WT / PP
BIT PRESS DROP: 0.00 psi
TOTAL FLOW RATE: 126.89 gal/min
PUMP PRESS: (OFF) 0.00 psi
MTR PRESS DROP: 0.00 psi
NOZZLES: 11, 11, 11, n/a: 0.278 in² TFA
(ON) 0.00 psi

MUD INFORMATION:

(All units are imperial.)

MUD TYPE:	Gelchem	**LIQUID BASE:**	Water		
DENSITY:	9 lb/gal	**VISCOSITY:**	43 sec/qt		
SAND:	3.000	**WATER LOSS:**	7.00 cc/30min	**LIQUID RATE:**	0.00 gal/min
SOLIDS:	0.000	**PLASTIC VISC:**	11.0 cP	**GAS TYPE:**	
OIL:	0.000	**YIELD POINT:**	9.0 lb/100 ft²	**GAS RATE:**	0.00 cu ft/min
TEMP:	0 °F	**pH:**	11.2		

TIME INFORMATION:

CIRCULATING HOURS:	1.50
REAMING HOURS:	0.00
TIME DRILL HOURS:	0.00
MOTOR DRILL HOURS:	26.75
MOTOR HOURS THIS RUN:	28.25
PREVIOUS HOURS:	0.00
TOTAL MOTOR HOURS:	28.25
TOTAL BRT HOURS:	28.25

MOTOR EVALUATION COMMENTS:

Motor had increase diff @ dept of 7162

REASON FOR BHA CHANGE:

pull out to side track well.

COMMENTS FROM LAST DAY RAN:

Drill from 7205' to 7328' out of zone. circulate and trip out for side track. L/D bit, motor, and mwd tool,

Motor / RSS Evaluation Report

Weatherford

Drilling Services
v4.2.2674

BHA 5 - Lateral 1 Section, Motor #350-10 -016

FILE #: 4017734
JOB TYPE: Horizontal
RIG & NO: Aztec 777

WELL NAME: Brennan #8
COMPANY: Questar Exploration and Production
SURFACE LOCATION:

SERVICE CO.: Weatherford Directional
SURVEY TYPE: Electromagnetic MWD
FIELD / LOCATION: Uintah County / Utah / USA

DIR Supervisor: Herschell Gaddy, Charlie Billings
MWD Supervisor: Tyler Cluff, Kelly Petit

BHA SURVEY TYPE: Positive Pulse MWD
HOLE SIZE: 4.75 in

GENERAL INFORMATION:

BHA #:	5	**START DEPTH:**	7328.00 ft
DATE IN:	2009/10/17	**END DEPTH:**	7482.00 ft
DATE OUT:	2009/10/20	**HOLE MADE:**	413.00 ft
ANGLE IN:	88.80 °	**AVG ROP:**	15.58 ft/hr
ANGLE OUT:	88.26 °		
ORIENTING HRS:	11.25	**ROTATING HRS:**	15.25

MOTOR INFORMATION:

MANFCT:	wenzel		
SERIAL #:	350-10 -016		
MODEL:			
LOBE:	7/8	**BIT TO BEND:**	4.3 ft
SETTING:	1.69 °	**KICKPAD:**	No
		STABILIZER:	No

DRILLING INFORMATION:

BIT TYPE: XR 20
IADC BIT GRADE: 1 / 2 / WT / G / E / I / NO / HR
BIT PRESS DROP: 170.00 psi
TOTAL FLOW RATE: 123.93 gal/min
PUMP PRESS: (OFF) 1780.00 psi
MTR PRESS DROP: 150.00 psi
NOZZLES: 11, 11, 11, n/a: 0.278 in² TFA
(ON) 2075.00 psi

MUD INFORMATION:

(All units are imperial.)

MUD TYPE:	Gelchem	**LIQUID BASE:**	Water		
DENSITY:	9 lb/gal	**VISCOSITY:**	42 sec/qt		
SAND:	0.000	**WATER LOSS:**	7.20 cc/30min	**LIQUID RATE:**	0.00 gal/min
SOLIDS:	4.000	**PLASTIC VISC:**	10.0 cP	**GAS TYPE:**	
OIL:	0.000	**YIELD POINT:**	8.0 lb/100 ft²	**GAS RATE:**	0.00 cu ft/min
TEMP:	0 °F	**pH:**	11.7		

TIME INFORMATION:

CIRCULATING HOURS:	0.75
REAMING HOURS:	0.75
TIME DRILL HOURS:	26.00
MOTOR DRILL HOURS:	26.50
MOTOR HOURS THIS RUN:	54.00
PREVIOUS HOURS:	0.00
TOTAL MOTOR HOURS:	54.00
TOTAL BRT HOURS:	54.00

MOTOR EVALUATION COMMENTS:

motor ran fine no problems.

REASON FOR BHA CHANGE:

Hrs, on bit

COMMENTS FROM LAST DAY RAN:

Drill from 7280' to 7482' circulated and trip out for new bit, and motor trip back to btm.

Motor / RSS Evaluation Report

Weatherford

Drilling Services
v4.2.2674

BHA 6 - Lateral 1 Section, Motor #350-10-009

FILE #: 4017734
JOB TYPE: Horizontal
RIG & NO: Aztec 777

WELL NAME: Brennan #8
COMPANY: Questar Exploration and Production
SURFACE LOCATION:

SERVICE CO.: Weatherford Directional
SURVEY TYPE: Electromagnetic MWD
FIELD / LOCATION: Uintah County / Utah / USA

DIR Supervisor: Herschell Gaddy, Charlie Billings
MWD Supervisor: Tyler Cluff, Kelly Petit, Lee Harns

BHA SURVEY TYPE: Positive Pulse MWD
HOLE SIZE: 4.75 in

GENERAL INFORMATION:

BHA #:	6	**START DEPTH:**	7482.00 ft
DATE IN:	2009/10/20	**END DEPTH:**	8551.00 ft
DATE OUT:	2009/10/23	**HOLE MADE:**	1069.00 ft
ANGLE IN:	88.26 °	**AVG ROP:**	22.16 ft/hr
ANGLE OUT:	87.74 °		
ORIENTING HRS:	7.00	**ROTATING HRS:**	41.25

MOTOR INFORMATION:

MANFCT:	wenzel		
SERIAL #:	350-10-009		
MODEL:			
LOBE:	7/8	**BIT TO BEND:**	0 ft
SETTING:	1.69 °	**KICKPAD:**	No
		STABILIZER:	No

DRILLING INFORMATION:

BIT TYPE: XR20
IADC BIT GRADE: 4 / 4 / WT / A / E / 1 / ? / HR
BIT PRESS DROP: 176.00 psi
TOTAL FLOW RATE: 120.98 gal/min
PUMP PRESS: (OFF) 2680.00 psi
MTR PRESS DROP: 150.00 psi
NOZZLES: 11, 11, 11, n/a: 0.278 in² TFA
(ON) 3000.00 psi

MUD INFORMATION:

(All units are imperial.)

MUD TYPE:	Gelchem	**LIQUID BASE:**	Water		
DENSITY:	9 lb/gal	**VISCOSITY:**	41 sec/qt		
SAND:	0.000	**WATER LOSS:**	8.00 cc/30min	**LIQUID RATE:**	0.00 gal/min
SOLIDS:	4.000	**PLASTIC VISC:**	9.0 cP	**GAS TYPE:**	
OIL:	0.000	**YIELD POINT:**	8.0 lb/100 ft²	**GAS RATE:**	0.00 cu ft/min
TEMP:	80 °F	**pH:**	11.7		

TIME INFORMATION:

CIRCULATING HOURS:	4.00
REAMING HOURS:	0.00
TIME DRILL HOURS:	0.00
MOTOR DRILL HOURS:	48.25
MOTOR HOURS THIS RUN:	52.25
PREVIOUS HOURS:	0.00
TOTAL MOTOR HOURS:	52.25
TOTAL BRT HOURS:	52.25

MOTOR EVALUATION COMMENTS:

Motor ran strong no problems.

REASON FOR BHA CHANGE:

QUESTAR

COMMENTS FROM LAST DAY RAN:

Drill from 8352' to 8551' circulate and trip out L/D bit and Motor. P/U new bit and motor trip back in. drill to 8568'.

Motor / RSS Evaluation Report

Weatherford

Drilling Services
v4.2.2674

BHA 7 - Lateral 1 Section, Motor #350-10-035

FILE #: 4017734
JOB TYPE: Horizontal
RIG & NO: Aztec 777

WELL NAME: Brennan #8
COMPANY: Questar Exploration and Production
SURFACE LOCATION:

SERVICE CO.: Weatherford Directional
SURVEY TYPE: Electromagnetic MWD
FIELD / LOCATION: Uintah County / Utah / USA

DIR Supervisor: Herschell Gaddy, Charlie Billings
MWD Supervisor: Tyler Cluff, Lee Harns

BHA SURVEY TYPE: Positive Pulse MWD
HOLE SIZE: 4.75 in

GENERAL INFORMATION:

BHA #:	7	**START DEPTH:**	8551.00 ft
DATE IN:	2009/10/23	**END DEPTH:**	9487.00 ft
DATE OUT:	2009/10/26	**HOLE MADE:**	936.00 ft
ANGLE IN:	87.74 °	**AVG ROP:**	18.72 ft/hr
ANGLE OUT:	88.84 °		
ORIENTING HRS:	9.25	**ROTATING HRS:**	40.75

MOTOR INFORMATION:

MANFCT:	Wenzel		
SERIAL #:	350-10-035		
MODEL:	adj.		
LOBE:	7/8	**BIT TO BEND:**	4.1 ft
SETTING:	1.69 °	**KICKPAD:**	No
		STABILIZER:	No

DRILLING INFORMATION:

BIT TYPE: XR20
IADC BIT GRADE: 4 / 4 / WT / A / F / 1 / TR / PR
BIT PRESS DROP: 177.00 psi
TOTAL FLOW RATE: 123.93 gal/min
PUMP PRESS: (OFF) 2750.00 psi
MTR PRESS DROP: 150.00 psi
NOZZLES: 11, 11, 11, n/a: 0.278 in² TFA
(ON) 2950.00 psi

MUD INFORMATION:

(All units are imperial.)

MUD TYPE:	Gelchem	**LIQUID BASE:**	Water		
DENSITY:	9 lb/gal	**VISCOSITY:**	40 sec/qt		
SAND:	0.000	**WATER LOSS:**	7.60 cc/30min	**LIQUID RATE:**	0.00 gal/min
SOLIDS:	4.000	**PLASTIC VISC:**	10.0 cP	**GAS TYPE:**	
OIL:	0.000	**YIELD POINT:**	6.0 lb/100 ft²	**GAS RATE:**	0.00 cu ft/min
TEMP:	90 °F	**pH:**	11.9		

TIME INFORMATION:

CIRCULATING HOURS:	3.50
REAMING HOURS:	0.00
TIME DRILL HOURS:	0.00
MOTOR DRILL HOURS:	50.00
MOTOR HOURS THIS RUN:	53.50
PREVIOUS HOURS:	0.00
TOTAL MOTOR HOURS:	53.50
TOTAL BRT HOURS:	53.50

MOTOR EVALUATION COMMENTS:

Motor ran fine no problems

REASON FOR BHA CHANGE:

pull for P.R.

COMMENTS FROM LAST DAY RAN:

Drill from 9434' to 9487' circulate and trip for bit. change out bit and mud motor, trip back to btm drill from 9487' to 9636'.

Motor / RSS Evaluation Report

Weatherford

Drilling Services
v4.2.2674

BHA 8 - Lateral 1 Section, Motor #350-10-034

FILE #: 4017734
JOB TYPE: Horizontal
RIG & NO: Aztec 777

WELL NAME: Brennan #8
COMPANY: Questar Exploration and Production
SURFACE LOCATION:

SERVICE CO.: Weatherford Directional
SURVEY TYPE: Electromagnetic MWD
FIELD / LOCATION: Uintah County / Utah / USA

DIR Supervisor: Herschell Gaddy, Charlie Billings
MWD Supervisor: Tyler Cluff, Lee Harns

BHA SURVEY TYPE: Positive Pulse MWD
HOLE SIZE: 4.75 in

GENERAL INFORMATION:

BHA #:	8	**START DEPTH:**	9487.00 ft
DATE IN:	2009/10/26	**END DEPTH:**	10410.00 ft
DATE OUT:	2009/10/28	**HOLE MADE:**	923.00 ft
ANGLE IN:	88.84 °	**AVG ROP:**	30.02 ft/hr
ANGLE OUT:	89.86 °		
ORIENTING HRS:	2.00	**ROTATING HRS:**	28.75

MOTOR INFORMATION:

MANFCT:	Wenzel		
SERIAL #:	350-10-034		
MODEL:	7/8 3:8		
LOBE:	7/8	**BIT TO BEND:**	4.25 ft
SETTING:	1.69 °	**KICKPAD:**	No
		STABILIZER:	No

DRILLING INFORMATION:

BIT TYPE: STX-20
IADC BIT GRADE: ? / ? / ? / ? / ? / ? / ? / ? / TD
BIT PRESS DROP: 0.00 psi
TOTAL FLOW RATE: 123.93 gal/min
PUMP PRESS: (OFF) 0.00 psi
MTR PRESS DROP: 0.00 psi
NOZZLES: 12, 12, 12, n/a: 0.331 in² TFA
(ON) 0.00 psi

MUD INFORMATION:

(All units are imperial.)

MUD TYPE:	Gelchem	**LIQUID BASE:**	Water		
DENSITY:	0 lb/gal	**VISCOSITY:**	0 sec/qt		
SAND:	0.000	**WATER LOSS:**	0.00 cc/30min	**LIQUID RATE:**	0.00 gal/min
SOLIDS:	0.000	**PLASTIC VISC:**	0.0 cP	**GAS TYPE:**	
OIL:	0.000	**YIELD POINT:**	0.0 lb/100 ft²	**GAS RATE:**	0.00 cu ft/min
TEMP:	0 °F	**pH:**	0.0		

TIME INFORMATION:

CIRCULATING HOURS:	3.25
REAMING HOURS:	0.00
TIME DRILL HOURS:	0.00
MOTOR DRILL HOURS:	30.75
MOTOR HOURS THIS RUN:	34.00
PREVIOUS HOURS:	0.00
TOTAL MOTOR HOURS:	34.00
TOTAL BRT HOURS:	34.00

MOTOR EVALUATION COMMENTS:

REASON FOR BHA CHANGE:

T.D

COMMENTS FROM LAST DAY RAN:

Drill from 10382' to 10410' T.D. pump 20 bbl sweep, around and spot 5sx nutplug sweep on btm short trip 1000' and back to btm no problems, circulate on btm.

SLIDE REPORT

Slide Sheet Report

Weatherford

Drilling Services
v4.2.2674

BHA 1 - 2009/10/11 TO 2009/10/13

FILE #: 4017734
JOB TYPE: Horizontal
RIG & NO: Aztec 777

WELL NAME: Brennan #8
COMPANY: Questar Exploration and Production
SURFACE LOCATION:

SERVICE CO.: Weatherford Directional
SURVEY TYPE: Electromagnetic MWD
FIELD / LOCATION: Uintah County / Utah / USA

DIR Supervisor: Herschell Gaddy, Charlie Billings
MWD Supervisor: Tyler Cluff, Kelly Petit

BHA NO: 1 **DATES RUN:** 2009/10/11 TO 2009/10/13 **SECTION:** Curve **TOOLFACE OFFSET:** 309.2 ° **SURVEY OFFSET:** 37 ft
MOTOR SETTING: 1.89 ° **KICKPAD:** No **STABILIZER:** No **MODEL:** 3.8 STG. **SERIAL NO:** 375-2525 **BHA SURVEY TYPE:** Electronic Multishot

(Distances are shown in feet.)

BIT DEPTH	DRILLED	SURVEY DEPTH	INC	AZM	TF	ORIENTING FROM	ORIENTING TO	ORIENTING FEET	ROTATING FROM	ROTATING TO	ROTATING FEET	SLIDE SEEN	BUR /ft	BUR /100ft	COMMENTS
6179.00	36.00	6142.00	0.00	0.00	317 GTF	6179.00	6215.00	36.00	6215.00	6215.00	0.00	0.00	0.00	0.00	
6215.00	63.00	6178.00	2.29	316.00	317 GTF	6215.00	6278.00	63.00	6278.00	6278.00	0.00	0.00	0.00	6.36	running of gyro, interp.
6278.00	32.00	6241.00	15.94	310.25	20R	6278.00	6293.00	15.00	6293.00	6310.00	17.00	62.00	0.22	21.67	
6310.00	31.00	6273.00	22.26	311.29	20R	6310.00	6330.00	20.00	6330.00	6341.00	11.00	32.00	0.20	19.75	
6341.00	32.00	6304.00	27.56	316.64	15L	6341.00	6373.00	32.00	6373.00	6373.00	0.00	20.00	0.26	17.10	
6373.00	32.00	6336.00	31.81	318.52	15L	6373.00	6405.00	32.00	6405.00	6405.00	0.00	20.00	0.21	13.28	
6405.00	21.00	6368.00	31.81	318.52	15L	6405.00	6426.00	21.00	6426.00	6426.00	0.00	27.00	0.00	0.00	

Totals:	219.00 ft	28.00 ft
Percentages:	88.7%	11.3%
Time:	20.00 hrs	1.50 hrs
Percentages:	93.0%	7.0%

Slide Sheet Report

BHA 2 - 2009/10/13 TO 2009/10/15

Weatherford

Drilling Services
v4.2.2674

FILE #: 4017734
JOB TYPE: Horizontal
RIG & NO: Aztec 777

WELL NAME: Brennan #8
COMPANY: Questar Exploration and Production
SURFACE LOCATION:

SERVICE CO.: Weatherford Directional
SURVEY TYPE: Electromagnetic MWD
FIELD / LOCATION: Uintah County / Utah / USA

DIR Supervisor: Herschell Gaddy, Charlie Billings
MWD Supervisor: Tyler Cluff, Kelly Petit

BHA NO: 2 **DATES RUN:** 2009/10/13 TO 2009/10/15 **SECTION:** Curve **TOOLFACE OFFSET:** 342.7 ° **SURVEY OFFSET:** 37 ft
MOTOR SETTING: 1.89 ° **KICKPAD:** No **STABILIZER:** No **MODEL:** weatherford **SERIAL NO:** 375-2512 **BHA SURVEY TYPE:** Electromagnetic MWD

(Distances are shown in feet.)

BIT DEPTH	DRILLED	SURVEY DEPTH	INC	AZM	TF	ORIENTING FROM	ORIENTING TO	ORIENTING FEET	ROTATING FROM	ROTATING TO	ROTATING FEET	SLIDE SEEN	BUR /ft	BUR /100ft	COMMENTS
6433.00	32.00	6396.00	36.75	319.14	10L	6433.00	6445.00	12.00	6445.00	6465.00	20.00	0.00	0.00	0.00	
6465.00	31.00	6428.00	41.69	316.39	10L	6465.00	6484.00	19.00	6484.00	6496.00	12.00	0.00	0.00	0.00	
6496.00	32.00	6459.00	45.81	315.52	10L	6496.00	6518.00	22.00	6518.00	6528.00	10.00	0.00	0.00	0.00	
6528.00	31.00	6491.00	50.19	317.88	15L	6528.00	6548.00	20.00	6548.00	6559.00	11.00	0.00	0.00	0.00	
6559.00	32.00	6522.00	53.63	320.07	10L	6559.00	6584.00	25.00	6584.00	6591.00	7.00	22.00	0.16	11.10	
6591.00	31.00	6554.00	56.75	319.40	10R	6591.00	6615.00	24.00	6615.00	6622.00	7.00	20.00	0.16	9.75	
6622.00	32.00	6585.00	60.88	317.77	10R	6622.00	6643.00	21.00	6643.00	6654.00	11.00	25.00	0.17	13.32	
6654.00	15.00	6617.00	65.70	317.25	Rot	6654.00	6654.00	0.00	6654.00	6669.00	15.00	0.00	0.00	0.00	
6669.00	16.00	6632.00	0.00	0.00	HS	6669.00	6674.00	5.00	6674.00	6685.00	11.00	10.00	-6.57	-438.00	
6685.00	32.00	6648.00	69.88	317.39	HS	6685.00	6700.00	15.00	6700.00	6717.00	17.00	11.00	6.35	436.75	
6717.00	28.00	6680.00	71.50	318.27	HS	6717.00	6732.00	15.00	6732.00	6745.00	13.00	5.00	0.32	5.06	

Totals:	178.00 ft	134.00 ft
Percentages:	57.1%	42.9%
Time:	20.50 hrs	8.75 hrs
Percentages:	70.1%	29.9%

Slide Sheet Report

BHA 3 - 2009/10/15 TO 2009/10/16

Weatherford

Drilling Services
v4.2.2674

FILE #: 4017734
JOB TYPE: Horizontal
RIG & NO: Aztec 777

WELL NAME: Brennan #8
COMPANY: Questar Exploration and Production
SURFACE LOCATION:

SERVICE CO.: Weatherford Directional
SURVEY TYPE: Electromagnetic MWD
FIELD / LOCATION: Uintah County / Utah / USA

DIR Supervisor: Herschell Gaddy, Charlie Billings
MWD Supervisor: Tyler Cluff, Kelly Petit

BHA NO: 3 **DATES RUN:** 2009/10/15 TO 2009/10/16 **SECTION:** Curve **TOOLFACE OFFSET:** 342.7 ° **SURVEY OFFSET:** 37 ft
MOTOR SETTING: 1.89 ° **KICKPAD:** No **STABILIZER:** No **MODEL:** weatherford **SERIAL NO:** 375-2512 **BHA SURVEY TYPE:** Electromagnetic MWD

(Distances are shown in feet.)

BIT DEPTH	DRILLED	SURVEY DEPTH	INC	AZM	TF	ORIENTING FROM	ORIENTING TO	ORIENTING FEET	ROTATING FROM	ROTATING TO	ROTATING FEET	SLIDE SEEN	BUR /ft	BUR /100ft	COMMENTS
6745.00	4.00	6708.00	71.50	318.27		6745.00	6745.00	0.00	6745.00	6749.00	4.00	0.00	0.00	0.00	
6749.00	31.00	6712.00	74.44	319.02	15L	6749.00	6770.00	21.00	6770.00	6780.00	10.00	0.00	0.00	73.50	
6780.00	32.00	6743.00	76.94	319.27	10L	6780.00	6804.00	24.00	6804.00	6812.00	8.00	0.00	0.00	8.06	
6812.00	32.00	6775.00	80.69	318.64	10L	6812.00	6832.00	20.00	6832.00	6844.00	12.00	21.00	0.18	11.72	
6844.00	31.00	6807.00	85.38	316.76	Rot	6844.00	6844.00	0.00	6844.00	6875.00	31.00	24.00	0.20	14.66	
6875.00	32.00	6838.00	89.10	314.69	Rot	6875.00	6875.00	0.00	6875.00	6907.00	32.00	20.00	0.19	12.00	
6907.00	31.00	6870.00	88.63	314.39	Rot	6907.00	6907.00	0.00	6907.00	6938.00	31.00	0.00	0.00	-1.47	
6938.00	32.00	6901.00	88.50	314.26	Rot	6938.00	6938.00	0.00	6938.00	6970.00	32.00	0.00	0.00	-0.42	
6970.00	32.00	6933.00	89.13	314.39	Rot	6970.00	6970.00	0.00	6970.00	7002.00	32.00	0.00	0.00	1.97	
7002.00	29.00	6965.00	88.94	313.89	Rot	7002.00	7002.00	0.00	7002.00	7031.00	29.00	0.00	0.00	-0.59	
7031.00	2.00	6994.00	0.00	0.00	165L	7031.00	7031.00	0.00	7031.00	7033.00	2.00	0.00	0.00	-306.69	
7033.00	8.00	6996.00	88.38	313.64	Rot	7033.00	7033.00	0.00	7033.00	7041.00	8.00	0.00	0.00	4419.00	

	Orienting	Rotating
Totals:	65.00 ft	231.00 ft
Percentages:	22.0%	78.0%
Time:	5.75 hrs	9.25 hrs
Percentages:	38.3%	61.7%

Slide Sheet Report

Weatherford

Drilling Services
v4.2.2674

BHA 4 - 2009/10/16 TO 2009/10/17

FILE #: 4017734
JOB TYPE: Horizontal
RIG & NO: Aztec 777

WELL NAME: Brennan #8
COMPANY: Questar Exploration and Production
SURFACE LOCATION:

SERVICE CO.: Weatherford Directional
SURVEY TYPE: Electromagnetic MWD
FIELD / LOCATION: Uintah County / Utah / USA

DIR Supervisor: Herschell Gaddy, Charlie Billings
MWD Supervisor: Tyler Cluff, Kelly Petit

BHA NO: 4 **DATES RUN:** 2009/10/16 TO 2009/10/17 **SECTION:** Lateral 1 **TOOLFACE OFFSET:** 142.3 ° **SURVEY OFFSET:** 40 ft
MOTOR SETTING: 1.69 ° **KICKPAD:** No **STABILIZER:** No **MODEL:** 7/8 3:8 **SERIAL NO:** 350-M6-010 **BHA SURVEY TYPE:** Electromagnetic MWD

(Distances are shown in feet.)

BIT DEPTH	DRILLED	SURVEY DEPTH	INC	AZM	TF	ORIENTING FROM	ORIENTING TO	ORIENTING FEET	ROTATING FROM	ROTATING TO	ROTATING FEET	SLIDE SEEN	BUR /ft	BUR /100ft	COMMENTS
7036.00	32.00	6996.00	87.69	314.02		7036.00	7036.00	0.00	7036.00	7068.00	32.00	0.00	0.00	0.00	
7068.00	31.00	7028.00	87.69	314.02	Rot	7068.00	7068.00	0.00	7068.00	7099.00	31.00	0.00	0.00	0.00	
7099.00	32.00	7059.00	88.50	314.27	Rot	7099.00	7099.00	0.00	7099.00	7131.00	32.00	0.00	0.00	2.61	
7131.00	31.00	7091.00	89.75	31.14	Rot	7131.00	7131.00	0.00	7131.00	7162.00	31.00	0.00	0.00	3.91	
7162.00	17.00	7122.00	90.88	314.02	Rot	7162.00	7162.00	0.00	7162.00	7179.00	17.00	0.00	0.00	3.65	
7179.00	15.00	7139.00	0.00	0.00	170R	7179.00	7194.00	15.00	7194.00	7194.00	0.00	0.00	0.00	-534.59	
7194.00	16.00	7154.00	91.63	313.64	170R	7194.00	7196.00	2.00	7196.00	7210.00	14.00	0.00	0.00	610.87	
7210.00	15.00	7170.00	0.00	0.00	130R	7210.00	7215.00	5.00	7215.00	7225.00	10.00	0.00	0.00	-572.69	
7225.00	12.00	7185.00	90.00	314.51	Rot	7225.00	7225.00	0.00	7225.00	7237.00	12.00	6.00	15.00	600.00	
7237.00	20.00	7197.00	0.00	0.00	165R	7237.00	7257.00	20.00	7257.00	7257.00	0.00	11.00	-8.18	-750.00	
7257.00	31.00	7217.00	89.73	315.87	165R	7257.00	7262.00	5.00	7262.00	7288.00	26.00	0.00	0.00	0.00	
7288.00	25.00	7248.00	88.13	317.52	Rot	7288.00	7288.00	0.00	7288.00	7313.00	25.00	11.00	-0.15	-5.16	
7313.00	15.00	7273.00	88.80	320.02	180	7313.00	7328.00	15.00	7328.00	7328.00	0.00	14.00	0.05	2.68	

	Orienting	Rotating
Totals:	62.00 ft	230.00 ft
Percentages:	21.2%	78.8%
Time:	12.50 hrs	14.25 hrs
Percentages:	46.7%	53.3%

Slide Sheet Report

Weatherford

Drilling Services
v4.2.2674

BHA 5 - 2009/10/17 TO 2009/10/20

FILE #: 4017734
JOB TYPE: Horizontal
RIG & NO: Aztec 777

WELL NAME: Brennan #8
COMPANY: Questar Exploration and Production
SURFACE LOCATION:

SERVICE CO.: Weatherford Directional
SURVEY TYPE: Electromagnetic MWD
FIELD / LOCATION: Uintah County / Utah / USA

DIR Supervisor: Herschell Gaddy, Charlie Billings
MWD Supervisor: Tyler Cluff, Kelly Petit

BHA NO: 5 **DATES RUN:** 2009/10/17 TO 2009/10/20 **SECTION:** Lateral 1 **TOOLFACE OFFSET:** 270.7 ° **SURVEY OFFSET:** 50 ft
MOTOR SETTING: 1.69 ° **KICKPAD:** No **STABILIZER:** No **MODEL:** **SERIAL NO:** 350-10 -016 **BHA SURVEY TYPE:** Positive Pulse MWD

(Distances are shown in feet.)

BIT DEPTH	DRILLED	SURVEY DEPTH	INC	AZM	TF	ORIENTING FROM	ORIENTING TO	ORIENTING FEET	ROTATING FROM	ROTATING TO	ROTATING FEET	SLIDE SEEN	BUR /ft	BUR /100ft	COMMENTS
7069.00	21.00	7019.00	88.80	0.00	LS	7069.00	7090.00	21.00	7090.00	7090.00	0.00	0.00	0.00	0.00	
7090.00	15.00	7040.00	0.00	0.00	Rot	7090.00	7090.00	0.00	7090.00	7105.00	15.00	0.00	0.00	-422.86	
7105.00	10.00	7055.00	88.21	313.88	49R	7105.00	7115.00	10.00	7115.00	7115.00	0.00	0.00	0.00	588.07	
7115.00	21.00	7065.00	0.00	0.00	Rot	7115.00	7115.00	0.00	7115.00	7136.00	21.00	0.00	0.00	-882.10	
7136.00	10.00	7086.00	86.88	315.08	20R	7136.00	7146.00	10.00	7146.00	7146.00	0.00	17.00	5.11	413.71	
7146.00	22.00	7096.00	0.00	0.00	Rot	7146.00	7146.00	0.00	7146.00	7168.00	22.00	4.00	-21.72	-868.80	
7168.00	31.00	7118.00	87.98	316.90	Rot	7168.00	7168.00	0.00	7168.00	7199.00	31.00	10.00	8.80	399.91	
7199.00	23.00	7149.00	90.43	317.35	LS	7199.00	7214.00	15.00	7214.00	7222.00	8.00	10.00	0.25	7.90	
7222.00	9.00	7172.00	0.00	0.00	LS	7222.00	7227.00	5.00	7227.00	7231.00	4.00	0.00	0.00	-393.17	
7231.00	19.00	7181.00	91.45	316.69	Rot	7231.00	7231.00	0.00	7231.00	7250.00	19.00	0.00	0.00	1016.11	
7250.00	12.00	7200.00	0.00	0.00	LS	7250.00	7255.00	5.00	7255.00	7262.00	7.00	1.00	-91.45	-481.32	
7262.00	32.00	7212.00	89.91	316.01	Rot	7262.00	7262.00	0.00	7262.00	7294.00	32.00	12.00	7.49	749.25	
7294.00	0.00	7244.00	88.15	315.68	Rot	7294.00	7294.00	0.00	7294.00	7294.00	0.00	7.00	-0.25	-5.50	
7294.00	28.00	7244.00	87.35	314.50	HS	7294.00	7294.00	0.00	7294.00	7322.00	28.00	0.00	0.00	0.00	
7322.00	32.00	7272.00	86.78	313.75	HS	7322.00	7334.00	12.00	7334.00	7354.00	20.00	5.00	-0.11	-2.04	
7354.00	35.00	7304.00	88.94	313.23	Rot	7354.00	7354.00	0.00	7354.00	7389.00	35.00	0.00	0.00	6.75	
7389.00	30.00	7339.00	88.94	313.23	Rot	7389.00	7389.00	0.00	7389.00	7419.00	30.00	12.00	0.00	0.00	
7419.00	10.00	7369.00	89.63	312.50	Rot	7419.00	7419.00	0.00	7419.00	7429.00	10.00	0.00	0.00	2.30	
7429.00	22.00	7379.00	0.00	0.00	40R	7429.00	7439.00	10.00	7439.00	7451.00	12.00	0.00	0.00	-896.30	
7451.00	31.00	7401.00	86.67	311.20	Rot	7451.00	7451.00	0.00	7451.00	7482.00	31.00	0.00	0.00	393.95	
7482.00	0.00	7432.00	88.26	311.26		7482.00	7482.00	0.00	7482.00	7482.00	0.00	3.00	0.53	5.13	

Totals:	88.00 ft	325.00 ft
Percentages:	21.3%	78.7%
Time:	11.25 hrs	15.25 hrs
Percentages:	42.5%	57.5%

Slide Sheet Report

BHA 6 - 2009/10/20 TO 2009/10/23

Weatherford

Drilling Services
v4.2.2674

FILE #: 4017734
JOB TYPE: Horizontal
RIG & NO: Aztec 777

WELL NAME: Brennan #8
COMPANY: Questar Exploration and Production
SURFACE LOCATION:

SERVICE CO.: Weatherford Directional
SURVEY TYPE: Electromagnetic MWD
FIELD / LOCATION: Uintah County / Utah / USA

DIR Supervisor: Herschell Gaddy, Charlie Billings
MWD Supervisor: Tyler Cluff, Kelly Petit, Lee Harns

BHA NO: 6 **DATES RUN:** 2009/10/20 TO 2009/10/23 **SECTION:** Lateral 1 **TOOLFACE OFFSET:** 50.85 ° **SURVEY OFFSET:** 50 ft
MOTOR SETTING: 1.69 ° **KICKPAD:** No **STABILIZER:** No **MODEL:** **SERIAL NO:** 350-10-009 **BHA SURVEY TYPE:** Positive Pulse MWD

(Distances are shown in feet.)

BIT DEPTH	DRILLED	SURVEY DEPTH	INC	AZM	TF	ORIENTING FROM	ORIENTING TO	ORIENTING FEET	ROTATING FROM	ROTATING TO	ROTATING FEET	SLIDE SEEN	BUR /ft	BUR /100ft	COMMENTS
7482.00	0.00	7432.00	88.26	311.26		7482.00	7482.00	0.00	7482.00	7482.00	0.00	0.00	0.00	0.00	
7482.00	28.00	7432.00	0.00	0.00	Rot	7482.00	7482.00	0.00	7482.00	7510.00	28.00	0.00	0.00	0.00	
7510.00	31.00	7460.00	89.67	313.05	Rot	7510.00	7510.00	0.00	7510.00	7541.00	31.00	0.00	0.00	320.25	
7541.00	32.00	7491.00	87.53	311.05	42R	7541.00	7549.00	8.00	7549.00	7573.00	24.00	0.00	0.00	-6.90	
7573.00	31.00	7523.00	87.35	311.29	Rot	7573.00	7573.00	0.00	7573.00	7604.00	31.00	0.00	0.00	-0.56	
7604.00	32.00	7554.00	88.94	312.75	Rot	7604.00	7604.00	0.00	7604.00	7636.00	32.00	8.00	0.20	5.13	
7636.00	31.00	7586.00	88.89	312.89		7636.00	7636.00	0.00	7636.00	7667.00	31.00	0.00	0.00	-0.16	
7667.00	15.00	7617.00	87.74	311.49		7667.00	7667.00	0.00	7667.00	7682.00	15.00	0.00	0.00	-3.71	
7682.00	16.00	7632.00	0.00	0.00		7682.00	7687.00	5.00	7687.00	7698.00	11.00	0.00	0.00	-584.93	
7698.00	32.00	7648.00	87.11	311.89		7698.00	7698.00	0.00	7698.00	7730.00	32.00	0.00	0.00	544.44	
7730.00	5.00	7680.00	0.00	0.00		7730.00	7730.00	0.00	7730.00	7735.00	5.00	0.00	0.00	-272.22	
7735.00	27.00	7685.00	0.00	0.00	40R	7735.00	7739.00	4.00	7739.00	7762.00	23.00	3.00	0.00	0.00	
7762.00	31.00	7712.00	87.75	313.06		7762.00	7762.00	0.00	7762.00	7793.00	31.00	2.00	43.88	325.00	
7793.00	32.00	7743.00	88.60	312.86		7793.00	7793.00	0.00	7793.00	7825.00	32.00	4.00	0.21	2.74	
7825.00	31.00	7775.00	88.94	313.06		7825.00	7825.00	0.00	7825.00	7856.00	31.00	0.00	0.00	1.06	
7856.00	32.00	7806.00	89.34	313.03	40R	7856.00	7860.00	4.00	7860.00	7888.00	28.00	0.00	0.00	1.29	
7888.00	32.00	7838.00	89.06	312.67	Rot	7888.00	7888.00	0.00	7888.00	7920.00	32.00	0.00	0.00	-0.88	
7920.00	31.00	7870.00	90.31	313.32	Rot	7920.00	7920.00	0.00	7920.00	7951.00	31.00	4.00	0.31	3.91	
7951.00	32.00	7901.00	88.09	312.72		7951.00	7951.00	0.00	7951.00	7983.00	32.00	0.00	0.00	-7.16	
7983.00	31.00	7933.00	88.09	312.72		7983.00	7983.00	0.00	7983.00	8014.00	31.00	0.00	0.00	0.00	
8014.00	32.00	7964.00	87.17	311.75		8014.00	8014.00	0.00	8014.00	8046.00	32.00	0.00	0.00	-2.97	
8046.00	31.00	7996.00	88.60	312.61		8046.00	8046.00	0.00	8046.00	8077.00	31.00	0.00	0.00	4.47	
8077.00	32.00	8027.00	88.95	312.53		8077.00	8077.00	0.00	8077.00	8109.00	32.00	0.00	0.00	1.13	
8109.00	31.00	8059.00	87.58	311.59		8109.00	8109.00	0.00	8109.00	8140.00	31.00	0.00	0.00	-4.28	
8140.00	22.00	8090.00	87.12	310.94		8140.00	8140.00	0.00	8140.00	8162.00	22.00	0.00	0.00	-1.48	

Slide Sheet Report

Weatherford

Drilling Services
v4.2.2674

BHA 6 - 2009/10/20 TO 2009/10/23

(Distances are shown in feet.)

BIT DEPTH	DRILLED	SURVEY DEPTH	INC	AZM	TF	ORIENTING FROM	ORIENTING TO	ORIENTING FEET	ROTATING FROM	ROTATING TO	ROTATING FEET	SLIDE SEEN	BUR /ft	BUR /100ft	COMMENTS
8162.00	10.00	8112.00	0.00	0.00	45r	8162.00	8167.00	5.00	8167.00	8172.00	5.00	0.00	0.00	-396.00	
8172.00	31.00	8122.00	87.12	310.94		8172.00	8172.00	0.00	8172.00	8203.00	31.00	0.00	0.00	871.20	
8203.00	0.00	8153.00	0.00	0.00		8203.00	8203.00	0.00	8203.00	8203.00	0.00	0.00	0.00	-281.03	
8203.00	32.00	8153.00	87.75	310.71	Rot	8203.00	8203.00	0.00	8203.00	8235.00	32.00	0.00	0.00	0.00	
8235.00	32.00	8185.00	88.32	311.08	Rot	8235.00	8235.00	0.00	8235.00	8267.00	32.00	5.00	0.11	1.78	
8267.00	31.00	8217.00	88.60	311.03	Rot	8267.00	8267.00	0.00	8267.00	8298.00	31.00	0.00	0.00	0.88	
8298.00	32.00	8248.00	88.72	310.65	Rot	8298.00	8298.00	0.00	8298.00	8330.00	32.00	0.00	0.00	0.39	
8330.00	31.00	8280.00	88.77	310.78	Rot	8330.00	8330.00	0.00	8330.00	8361.00	31.00	0.00	0.00	0.16	
8361.00	4.00	8311.00	89.12	310.57	Rot	8361.00	8361.00	0.00	8361.00	8365.00	4.00	0.00	0.00	1.13	
8365.00	28.00	8315.00	0.00	0.00	135R	8365.00	8370.00	5.00	8370.00	8393.00	23.00	0.00	0.00	-2228.00	
8393.00	32.00	8343.00	88.94	309.99	Rot	8393.00	8393.00	0.00	8393.00	8425.00	32.00	0.00	0.00	317.64	
8425.00	9.00	8375.00	87.29	309.73	Rot	8425.00	8425.00	0.00	8425.00	8434.00	9.00	5.00	-0.33	-5.16	
8434.00	22.00	8384.00	0.00	0.00	62R	8434.00	8439.00	5.00	8439.00	8456.00	17.00	0.00	0.00	-969.89	
8456.00	32.00	8406.00	86.83	309.74		8456.00	8456.00	0.00	8456.00	8488.00	32.00	0.00	0.00	394.68	
8488.00	20.00	8438.00	87.63	309.83	Rot	8488.00	8488.00	0.00	8488.00	8508.00	20.00	4.00	0.20	2.50	
8508.00	11.00	8458.00	87.51	309.54	50R	8508.00	8514.00	6.00	8514.00	8519.00	5.00	1.00	-0.12	-0.60	
8519.00	32.00	8469.00	87.51	309.54	Rot	8519.00	8519.00	0.00	8519.00	8551.00	32.00	0.00	0.00	0.00	
8551.00	0.00	8501.00	87.74	308.73		8551.00	8551.00	0.00	8551.00	8551.00	0.00	0.00	0.00	0.72	

Totals:	42.00 ft	1027.00 ft
Percentages:	3.9%	96.1%
Time:	7.00 hrs	41.25 hrs
Percentages:	14.5%	85.5%

Slide Sheet Report

Drilling Services
v4.2.2674

BHA 7 - 2009/10/23 TO 2009/10/26

FILE #: 4017734
JOB TYPE: Horizontal
RIG & NO: Aztec 777

WELL NAME: Brennan #8
COMPANY: Questar Exploration and Production
SURFACE LOCATION:

SERVICE CO.: Weatherford Directional
SURVEY TYPE: Electromagnetic MWD
FIELD / LOCATION: Uintah County / Utah / USA

DIR Supervisor: Herschell Gaddy, Charlie Billings
MWD Supervisor: Tyler Cluff, Lee Harns

BHA NO: 7 **DATES RUN:** 2009/10/23 TO 2009/10/26 **SECTION:** Lateral 1 **TOOLFACE OFFSET:** 105.1 ° **SURVEY OFFSET:** 50 ft
MOTOR SETTING: 1.69 ° **KICKPAD:** No **STABILIZER:** No **MODEL:** adj. **SERIAL NO:** 350-10-035 **BHA SURVEY TYPE:** Positive Pulse MWD

(Distances are shown in feet.)

BIT DEPTH	DRILLED	SURVEY DEPTH	INC	AZM	TF	ORIENTING FROM	ORIENTING TO	ORIENTING FEET	ROTATING FROM	ROTATING TO	ROTATING FEET	SLIDE SEEN	BUR /ft	BUR /100ft	COMMENTS
8551.00	0.00	8501.00	87.74	308.73		8551.00	8551.00	0.00	8551.00	8551.00	0.00	0.00	0.00	0.00	
8551.00	31.00	8501.00	87.74	308.73	Rot	8551.00	8551.00	0.00	8551.00	8582.00	31.00	0.00	0.00	0.00	
8582.00	16.00	8532.00	89.12	309.72	Rot	8582.00	8582.00	0.00	8582.00	8598.00	16.00	0.00	0.00	4.45	
8598.00	16.00	8548.00	0.00	0.00	135R	8598.00	8602.00	4.00	8602.00	8614.00	12.00	0.00	0.00	-557.00	
8614.00	32.00	8564.00	89.86	309.24	Rot	8614.00	8614.00	0.00	8614.00	8646.00	32.00	0.00	0.00	561.63	
8646.00	4.00	8596.00	89.63	308.52	Rot	8646.00	8646.00	0.00	8646.00	8650.00	4.00	0.00	0.00	-0.72	
8650.00	27.00	8600.00	0.00	0.00	130R	8650.00	8656.00	6.00	8656.00	8677.00	21.00	2.00	-44.82	-2240.75	
8677.00	32.00	8627.00	90.09	309.65	Rot	8677.00	8677.00	0.00	8677.00	8709.00	32.00	2.00	45.05	333.67	
8709.00	31.00	8659.00	87.75	309.45	Rot	8709.00	8709.00	0.00	8709.00	8740.00	31.00	6.00	-0.39	-7.31	
8740.00	32.00	8690.00	87.46	308.85	Rot	8740.00	8740.00	0.00	8740.00	8772.00	32.00	0.00	0.00	-0.94	ROT
8772.00	31.00	8722.00	88.32	308.50	Rot	8772.00	8772.00	0.00	8772.00	8803.00	31.00	0.00	0.00	2.69	
8803.00	32.00	8753.00	88.03	307.30	Rot	8803.00	8803.00	0.00	8803.00	8835.00	32.00	0.00	0.00	-0.94	
8835.00	25.00	8785.00	88.50	306.85	Rot	8835.00	8835.00	0.00	8835.00	8860.00	25.00	0.00	0.00	1.47	
8860.00	7.00	8810.00	0.00	0.00	150 R	8860.00	8865.00	5.00	8865.00	8867.00	2.00	0.00	0.00	-354.00	
8867.00	31.00	8817.00	90.60	307.14	Rot	8867.00	8867.00	0.00	8867.00	8898.00	31.00	0.00	0.00	1294.29	
8898.00	31.00	8848.00	89.63	305.84	Rot	8898.00	8898.00	0.00	8898.00	8929.00	31.00	0.00	0.00	-3.13	
8929.00	32.00	8879.00	87.29	304.89	Rot	8929.00	8929.00	0.00	8929.00	8961.00	32.00	5.00	-0.47	-7.55	
8961.00	31.00	8911.00	87.47	304.53	Rot	8961.00	8961.00	0.00	8961.00	8992.00	31.00	0.00	0.00	0.56	
8992.00	32.00	8942.00	87.74	303.69	Rot	8992.00	8992.00	0.00	8992.00	9024.00	32.00	0.00	0.00	0.87	
9024.00	32.00	8974.00	88.15	303.59	Rot	9024.00	9024.00	0.00	9024.00	9056.00	32.00	0.00	0.00	1.28	
9056.00	31.00	9006.00	88.49	303.08	Rot	9056.00	9056.00	0.00	9056.00	9087.00	31.00	0.00	0.00	1.06	
9087.00	32.00	9037.00	88.95	303.13	Rot	9087.00	9087.00	0.00	9087.00	9119.00	32.00	0.00	0.00	1.48	
9119.00	31.00	9069.00	88.60	302.91	Rot	9119.00	9119.00	0.00	9119.00	9150.00	31.00	0.00	0.00	-1.09	
9150.00	32.00	9100.00	89.12	302.56	Rot	9150.00	9150.00	0.00	9150.00	9182.00	32.00	0.00	0.00	1.68	
9182.00	32.00	9132.00	87.92	301.10	Rot	9182.00	9182.00	0.00	9182.00	9214.00	32.00	0.00	0.00	-3.75	

Slide Sheet Report

Weatherford

Drilling Services
v4.2.2674

BHA 7 - 2009/10/23 TO 2009/10/26

(Distances are shown in feet.)

BIT DEPTH	DRILLED	SURVEY DEPTH	INC	AZM	TF	ORIENTING FROM	ORIENTING TO	ORIENTING FEET	ROTATING FROM	ROTATING TO	ROTATING FEET	SLIDE SEEN	BUR /ft	BUR /100ft	COMMENTS
9214.00	31.00	9164.00	88.49	301.04	Rot	9214.00	9214.00	0.00	9214.00	9245.00	31.00	0.00	0.00	1.78	
9245.00	31.00	9195.00	88.89	300.76	Rot	9245.00	9245.00	0.00	9245.00	9276.00	31.00	0.00	0.00	1.29	
9276.00	12.00	9226.00	88.38	299.93	Rot	9276.00	9276.00	0.00	9276.00	9288.00	12.00	0.00	0.00	-1.65	
9288.00	20.00	9238.00	0.00	0.00	90R	9288.00	9298.00	10.00	9298.00	9308.00	10.00	0.00	0.00	-736.50	
9308.00	15.00	9258.00	88.49	297.92	Rot	9308.00	9308.00	0.00	9308.00	9323.00	15.00	0.00	0.00	442.45	
9323.00	16.00	9273.00	0.00	0.00	80R	9323.00	9333.00	10.00	9333.00	9339.00	6.00	0.00	0.00	-589.93	
9339.00	32.00	9289.00	88.61	297.91	Rot	9339.00	9339.00	0.00	9339.00	9371.00	32.00	1.00	88.61	553.81	
9371.00	15.00	9321.00	88.54	300.30	Rot	9371.00	9371.00	0.00	9371.00	9386.00	15.00	9.00	-0.01	-0.22	
9386.00	16.00	9336.00	0.00	0.00	90R	9386.00	9396.00	10.00	9396.00	9402.00	6.00	10.00	-8.85	-590.27	
9402.00	32.00	9352.00	88.89	301.60	Rot	9402.00	9402.00	0.00	9402.00	9434.00	32.00	0.00	0.00	555.56	
9434.00	10.00	9384.00	88.26	300.72	Rot	9434.00	9434.00	0.00	9434.00	9444.00	10.00	0.00	0.00	-1.97	
9444.00	21.00	9394.00	0.00	0.00	90R	9444.00	9454.00	10.00	9454.00	9465.00	11.00	8.00	-11.03	-882.60	
9465.00	22.00	9415.00	88.84	302.78	Rot	9465.00	9465.00	0.00	9465.00	9487.00	22.00	2.00	44.42	423.05	

Totals:	55.00 ft	881.00 ft
Percentages:	5.9%	94.1%
Time:	9.25 hrs	40.75 hrs
Percentages:	18.5%	81.5%

Slide Sheet Report

Weatherford

Drilling Services
v4.2.2674

BHA 8 - 2009/10/26 TO 2009/10/28

FILE #: 4017734
JOB TYPE: Horizontal
RIG & NO: Aztec 777

WELL NAME: Brennan #8
COMPANY: Questar Exploration and Production
SURFACE LOCATION:

SERVICE CO.: Weatherford Directional
SURVEY TYPE: Electromagnetic MWD
FIELD / LOCATION: Uintah County / Utah / USA

DIR Supervisor: Herschell Gaddy, Charlie Billings
MWD Supervisor: Tyler Cluff, Lee Harns

BHA NO: 8 **DATES RUN:** 2009/10/26 TO 2009/10/28 **SECTION:** Lateral 1 **TOOLFACE OFFSET:** 294.9 ° **SURVEY OFFSET:** 50 ft
MOTOR SETTING: 1.69 ° **KICKPAD:** No **STABILIZER:** No **MODEL:** 7/8 3:8 **SERIAL NO:** 350-10-034 **BHA SURVEY TYPE:** Positive Pulse MWD

(Distances are shown in feet.)

BIT DEPTH	DRILLED	SURVEY DEPTH	INC	AZM	TF	ORIENTING FROM	ORIENTING TO	ORIENTING FEET	ROTATING FROM	ROTATING TO	ROTATING FEET	SLIDE SEEN	BUR /ft	BUR /100ft	COMMENTS
9487.00	0.00	9437.00	88.84	302.78		9487.00	9487.00	0.00	9487.00	9487.00	0.00	0.00	0.00	0.00	survey @ 9415'
9487.00	10.00	9437.00	0.00	0.00	Rot	9487.00	9487.00	0.00	9487.00	9497.00	10.00	0.00	0.00	0.00	
9497.00	31.00	9447.00	89.06	303.48	Rot	9497.00	9497.00	0.00	9497.00	9528.00	31.00	0.00	0.00	890.60	
9528.00	32.00	9478.00	88.77	303.93	Rot	9528.00	9528.00	0.00	9528.00	9560.00	32.00	0.00	0.00	-0.94	
9560.00	31.00	9510.00	89.52	304.55	Rot	9560.00	9560.00	0.00	9560.00	9591.00	31.00	0.00	0.00	2.34	
9591.00	13.00	9541.00	89.40	303.74	Rot	9591.00	9591.00	0.00	9591.00	9604.00	13.00	0.00	0.00	-0.39	
9604.00	19.00	9554.00	0.00	0.00	90 R	9604.00	9614.00	10.00	9614.00	9623.00	9.00	0.00	0.00	-687.69	
9623.00	32.00	9573.00	88.37	303.09	Rot	9623.00	9623.00	0.00	9623.00	9655.00	32.00	0.00	0.00	465.11	
9655.00	31.00	9605.00	89.35	304.65	Rot	9655.00	9655.00	0.00	9655.00	9686.00	31.00	1.00	0.98	3.06	
9686.00	32.00	9636.00	90.20	305.87	Rot	9686.00	9686.00	0.00	9686.00	9718.00	32.00	9.00	0.09	2.74	
9718.00	9.00	9668.00	90.20	305.80	Rot	9718.00	9718.00	0.00	9718.00	9727.00	9.00	0.00	0.00	0.00	
9727.00	22.00	9677.00	0.00	0.00	LS	9727.00	9733.00	6.00	9733.00	9749.00	16.00	0.00	0.00	-1002.22	
9749.00	32.00	9699.00	90.54	305.77	Rot	9749.00	9749.00	0.00	9749.00	9781.00	32.00	0.00	0.00	411.55	
9781.00	31.00	9731.00	89.46	304.60	Rot	9781.00	9781.00	0.00	9781.00	9812.00	31.00	4.00	-0.27	-3.38	
9812.00	32.00	9762.00	87.24	304.71	rot	9812.00	9812.00	0.00	9812.00	9844.00	32.00	2.00	-1.11	-7.16	
9844.00	32.00	9794.00	87.53	304.71	rot	9844.00	9844.00	0.00	9844.00	9876.00	32.00	0.00	0.00	0.91	
9876.00	5.00	9826.00	87.53	304.17	rot	9876.00	9876.00	0.00	9876.00	9881.00	5.00	0.00	0.00	0.00	
9881.00	26.00	9831.00	0.00	0.00	Rot	9881.00	9886.00	5.00	9886.00	9907.00	21.00	0.00	0.00	-1750.60	
9907.00	32.00	9857.00	87.81	304.33	Rot	9907.00	9907.00	0.00	9907.00	9939.00	32.00	0.00	0.00	337.73	
9939.00	31.00	9889.00	88.66	305.03	Rot	9939.00	9939.00	0.00	9939.00	9970.00	31.00	5.00	0.17	2.66	
9970.00	32.00	9920.00	90.03	305.31	Rot	9970.00	9970.00	0.00	9970.00	10002.00	32.00	0.00	0.00	4.42	
10002.00	31.00	9952.00	89.51	304.51	Rot	10002.00	10002.00	0.00	10002.00	10033.00	31.00	0.00	0.00	-1.62	
10033.00	32.00	9983.00	88.15	303.14	Rot	10033.00	10033.00	0.00	10033.00	10065.00	32.00	0.00	0.00	-4.39	
10065.00	32.00	10015.00	89.01	302.59	Rot	10065.00	10065.00	0.00	10065.00	10097.00	32.00	0.00	0.00	2.69	
10097.00	31.00	10047.00	90.14	302.81	Rot	10097.00	10097.00	0.00	10097.00	10128.00	31.00	0.00	0.00	3.53	

Slide Sheet Report

Weatherford

Drilling Services
v4.2.2674

BHA 8 - 2009/10/26 TO 2009/10/28

(Distances are shown in feet.)

BIT DEPTH	DRILLED	SURVEY DEPTH	INC	AZM	TF	ORIENTING FROM	ORIENTING TO	ORIENTING FEET	ROTATING FROM	ROTATING TO	ROTATING FEET	SLIDE SEEN	BUR /ft	BUR /100ft	COMMENTS
10128.00	32.00	10078.00	88.55	301.64	Rot	10128.00	10128.00	0.00	10128.00	10160.00	32.00	0.00	0.00	-5.13	
10160.00	31.00	10110.00	88.09	301.26	Rot	10160.00	10160.00	0.00	10160.00	10191.00	31.00	0.00	0.00	-1.44	
10191.00	32.00	10141.00	0.00	0.00	Rot	10191.00	10191.00	0.00	10191.00	10223.00	32.00	0.00	0.00	-284.16	
10223.00	32.00	10173.00	87.92	301.19	Rot	10223.00	10223.00	0.00	10223.00	10255.00	32.00	0.00	0.00	274.75	
10255.00	31.00	10205.00	88.10	300.80	Rot	10255.00	10255.00	0.00	10255.00	10286.00	31.00	0.00	0.00	0.56	
10286.00	32.00	10236.00	88.72	300.75	Rot	10286.00	10286.00	0.00	10286.00	10318.00	32.00	0.00	0.00	2.00	
10318.00	31.00	10268.00	0.00	0.00	Rot	10318.00	10318.00	0.00	10318.00	10349.00	31.00	0.00	0.00	-277.25	
10349.00	32.00	10299.00	88.77	300.49	Rot	10349.00	10349.00	0.00	10349.00	10381.00	32.00	0.00	0.00	286.35	
10381.00	29.00	10331.00	0.00	0.00	Rot	10381.00	10381.00	0.00	10381.00	10410.00	29.00	0.00	0.00	-277.41	T.D
10410.00	0.00	10360.00	89.86	300.37		10410.00	10410.00	0.00	10410.00	10410.00	0.00	0.00	0.00	309.86	

Totals:	21.00 ft	902.00 ft
Percentages:	2.3%	97.7%
Time:	2.00 hrs	28.75 hrs
Percentages:	6.5%	93.5%

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:** **BRENNAN 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

8. WELL NAME and NUMBER: See attached

9. API NUMBER: Attached

10. FIELD AND POOL, OR WILDCAT: See attached

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

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

3. ADDRESS OF OPERATOR: 1050 17th Street, Suite 500 CITY Denver STATE CO ZIP 80265 PHONE NUMBER: (303) 672-6900

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: 6/14/2010	☐ 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: 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~~ 965010695
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)
BRENNAN BOTTOM
effective June 14, 2010

well_name	sec	twp	rng	api	entity	mineral lease	type
BRENNAN 1	13	070S	200E	4304715417	5261	Federal	OW
BRENNAN 3	17	070S	210E	4304715419	10750	Federal	OW
BRENNAN 6	19	070S	210E	4304730109	5261	Federal	OW
BRENNAN 8	17	070S	210E	4304731509	5290	Federal	OW
BRENNAN 9	18	070S	210E	4304732477	5261	Federal	OW
BRENNAN 10	19	070S	210E	4304732771	5261	State	OW
BRENNAN 14	18	070S	210E	4304732774	5261	Federal	OW
BRENNAN 12	18	070S	210E	4304732779	5261	Federal	OW
BBW 11G-20-7-21	20	070S	210E	4304736516	15176	Federal	OW
BRENNAN 2R	18	070S	210E	4304740125		Federal	OW
BRENNAN 7R	13	070S	200E	4304740197	17632	Federal	OW
BRENNAN 15	13	070S	200E	4304740198	5261	Federal	OW

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

State of Utah
Division of Oil, Gas and Mining

ENTITY ACTION FORM - FORM 6

OPERATOR: QEP Energy Company
ADDRESS: 11002 East 17500 South
Vernal, Utah 84078 (435)781-4342

OPERATOR ACCT. No. N-3700

C

Action Code	Current Entity No.	New Entity No.	API Number	Well Name	QQ	SC	TP	RG	County	Spud Date	Effective Date
C	5290	5261	43-047-31509	Brennan 8	SWSE	17	7S	21E	Uintah		2/06

WELL 1 COMMENTS:
FROM 5290 GRRV TO 5261 GRRV – EXPANDED PARTICIPATING AREA

CONFIDENTIAL 9/30/10

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)

CONFIDENTIAL
RECEIVED
SEP 28 2010
DIV. OF OIL, GAS & MINING

Signature

Permit Agent 9/28/2010
Title Date

Phone No. (435)781-4342

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: SL-066409A

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: BRENNAN BOTTOM

1. TYPE OF WELL Oil Well

8. WELL NAME and NUMBER: BRENNAN 8

2. NAME OF OPERATOR: QEP ENERGY COMPANY

9. API NUMBER: 43047315090000

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: 0660 FSL 2250 FEL
QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: Qtr/Qtr: SWSE Section: 17 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 BRENNAN 8 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 Brennan 8 by adding additional perforations to the Green River formation as follows:

1. Set a CFP at 6135'.
2. Stage 1:
    a. 6110'-6113', 3spf, frac with crosslink fluid.
    b. 6096'-6097', 3spf, frac with crosslink fluid.
    c. 6070'-6071', 3spf, frac with crosslink fluid.
    d. 5960'-5962', 3spf, frac with crosslink fluid.
    e. 5950'-5951', 3spf, frac with crosslink fluid.
    f. 5908'-5911', 3spf, frac with crosslink fluid.
    g. 5862'-5863', 3spf, frac with crosslink fluid.
    h. 5842'-5844', 3spf, frac with crosslink fluid.
    i. 5826'-5828', 3spf, frac with crosslink fluid.
3. Flow well.
4. Drill up frac plug (6135') after the frac fluid is recovered to restore existing production.

RECEIVED: Oct. 28, 2014