

UTAH OIL AND GAS CONSERVATION COMMISSION

REMARKS: LOG ELECTRIC LOGS FILE X WATER SANDS LOCATION INS: 0 SUB. REPORT/abd.

DATE FILED APRIL 3, 1995

LAND. FEE & PATENTED STATE LEASE NO. ML-38666 PUBLIC LEASE NO. INDIAN

DRILLING APPROVED MAY 19, 1995

SPUDDED IN:

COMPLETED: PUT TO PRODUCING:

INITIAL PRODUCTION:

GRAVITY API

GOR

PRODUCING ZONES:

TOTAL DEPTH: Confidential

WELL ELEVATION

DATE ABANDONED: LOCATION ABANDONED PER OPERATOR'S REQUEST EFF. FEBRUARY 15, 1996

FIELD: UNDESIGNATED FIELD

UNIT: NA

COUNTY: CARBON

WELL NO. UTAH 17-101 API NO. 43-007-30276

LOCATION 460' FNL FT. FROM (N) (S) LINE. 2180' FEL FT. FROM (E) (W) LINE. NW NE 1/4 - 1/4 SEC. 17

TWP.	RGE.	SEC.	OPERATOR	TWP.	RGE.	SEC.	OPERATOR
15S	10E	17	RIVER GAS CORPORATION				



**RIVER GAS CORPORATION**

511 Energy Center Blvd.  
Northport, Alabama 35476  
Phone (205) 759-3282  
Fax (205) 759-3188

COPY

February 21, 1995

EXHIBIT "A"  
Page 1 of 2

Mr. Boyd Marsing  
P. O. Box 806  
Price, UT 84501

RE: Grazing Permit-22930

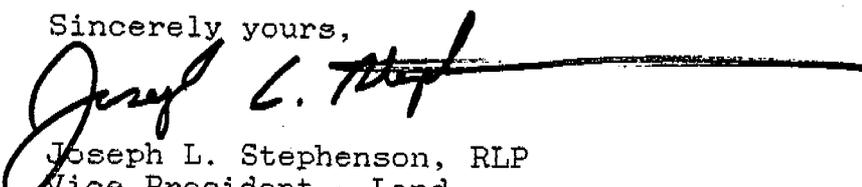
Dear Mr. Marsing:

Attached is a map which shows well locations we propose to drill this year where you have a grazing permit with the State. I don't know if the proposed sites have been staked in the field yet.

We are in the process of having the wells we propose to drill surveyed. We would then submit APDs to the Division of Oil, Gas and Mining ("DOG M"). When DOGM conducts their field inspection of the proposed sites, we may have to make changes in the locations due to topography, etc. in the process of obtaining approval for the drilling permits.

This year, we hope to begin site construction work around April 1 with drilling activity starting around June 1. If this 1995 plan conflicts with your present use of the surface under your grazing permit, please contact Mr. Michael J. Farrens or Mr. Steven Prince at our office in Price. That telephone number is 637-4455. They could meet you on the property for a more detailed explanation of the proposed development.

Sincerely yours,

  
Joseph L. Stephenson, RLP  
Vice President - Land

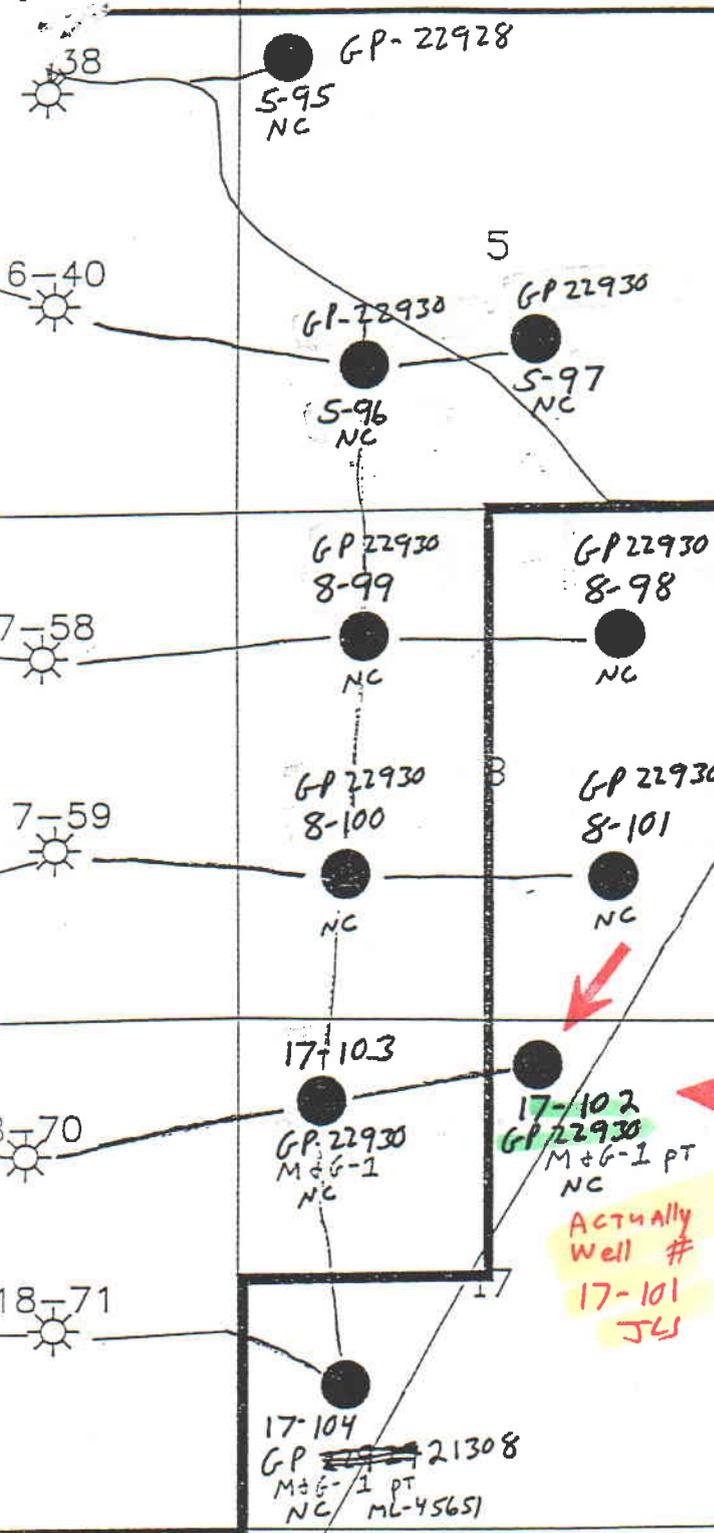
Enc.

cc: Mr. Edward W. Bonner, SITLA  
Mr. Michael J. Farrens, RGC

PROPOSED ROAD

SCALE: 1"=200'

EXHIBIT "A"  
Page 2 of 2



Actually  
Well #  
17-101  
JLS

15S 10E

COPY

RANCHO ENERGY  
CHIARETTA CATHERINE

BENSON-MONTIN-GREER  
20 U S A

21

UTAH-PENN  
CHIARETTA

ASSOCIATED ENERGY CORP  
A E C MILLER CREEK

R  
C

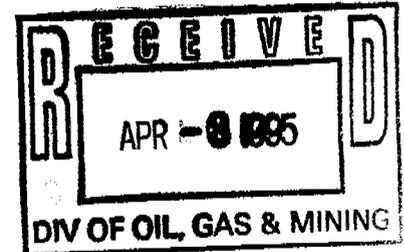


**RIVER GAS CORPORATION**

511 Energy Center Blvd.  
Northport, Alabama 35476  
Phone (205) 759-3282  
Fax (205) 759-3188

March 31, 1995

Mr. Michael Hebertson  
Utah Board of Oil, Gas, and Mining  
Suite 350, 3 Triad Center  
355 West North Temple  
Salt Lake City, Utah 84180-1203



RE: Application for Permit to Drill -  
Utah 17-101, NW 1/4 of NE 1/4, Sec. 17, T15S, R10E  
S.L.B. & M., Carbon County, Utah

Dear Mr. Hebertson:

Enclosed is an original and one copy of an "Application for Permit to Drill" the well described above. Attached to the APD is the following information:

- Attachment #1 - Copy of survey plat of proposed well site
- Attachment #2 - Information regarding use of water at the site
- Attachment #3 - Schematic of B.O.P.
- Attachment #4 - Portion of topographic map indicating proposed well site
- Attachment #5 - Additional drilling information furnished according to State regulations
- Attachment #6 - Typical road cross-section
- Attachment #7 - Well location map
- Attachment #8 - Evidence of bond sent to State Lands and Forestry Division

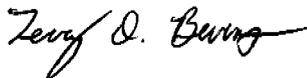
Page Two

Through communication with your office, we realize that, because this proposed location lies in an area of designated spacing, the well site should be within the 400' "window" of the quarter-section's center, and should be  $\geq$  1000' from the nearest lease line. Due to the location of State Highway 10 through the section, the well site has been proposed outside of the "window". We would appreciate an exception to the ruling so we can place the well on the northwest side of the highway, where our gathering lines and current production exists.

Also, please accept this letter as our request that all information regarding this permit be kept confidential, if said information is eligible for such consideration. This request is made in accordance with State of Utah Oil and Gas rule # R649-2-11.

Thank you for your assistance. Please feel free to contact me if you have questions.

Sincerely,



Terry D. Burns

Geologist

cc: Mr. Edward W. Bonner, Utah Department of Natural Resources  
Mr. Eric Jones, BLM in Moab, Utah  
Mr. Dean Nyffler, BLM in Price, Utah  
Mr. Robert A. Hendricks, BLM in Salt Lake City, Utah  
Mr. J.R. French, Texaco  
Mr. R.A. Lamarre, Texaco  
Mr. Gee Lake, Jr., Dominion Reserves

STATE OF UTAH  
DIVISION OF OIL, GAS AND MINING

RECEIVED  
APR - 3 1995  
DIV OF OIL, GAS & MINING

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

1a. Type of Work  
 DRILL       DEEPEN       PLUG BACK

b. Type of Well  
 Oil Well       Gas Well       Other Coalbed Methane       Single Zone       Multiple Zone

2. Name of Operator  
River Gas Corporation

3. Address of Operator  
511 Energy Center Boulevard Northport, Al. 35476

4. Location of Well (Report location clearly and in accordance with any State requirements.)  
 At surface 2180' FEL, 460' FNL, Sec. 17, T15S, R10E  
 At proposed prod. zone same

14. Distance in miles and direction from nearest town or post office\*  
4 miles south of Price, Ut.

15. Distance from proposed\* location to nearest property or lease line, ft. (Also to nearest drlg. line, if any) 460'

16. No. of acres in lease 921.98

17. No. of acres assigned to this well 160

18. Distance from proposed location\* to nearest well, drilling, completed, or applied for, on this lease, ft. 2300'

19. Proposed depth 2600'

20. Rotary or cable tools Rotary

21. Elevations (Show whether DF, RT, GR, etc.)  
5631' GR surveyed

22. Approx. date work will start\*  
July 1, 1995

5. Lease Designation and Serial No.  
ML-38666

6. Allottee or Tribe Name

7. Unit Agreement Name  
N/A

8. Farm or Lease Name  
Utah

9. Well No.  
17-101

10. Field and Pool, or Wildcat  
Wildcat

11. 00, Sec., T., R., M., or Blk. and Survey or Area  
NW/NE Sec. 17, T15S, R10E

12. County or Parrish  
Carbon

13. State  
Ut.

PROPOSED CASING AND CEMENTING PROGRAM

Size of Hole	Size of Casing	Weight per Foot	Setting Depth	Quantity of Cement
11"	8-5/8"	24#	300'	110 sx
7-7/8"	5-1/2"	17#	2570'	265 sx

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. I hereby certify that this report is true and complete to the best of my knowledge.

Signed Terry D. Burns *Terry D. Burns* Title Geologist Date March 30, 1995

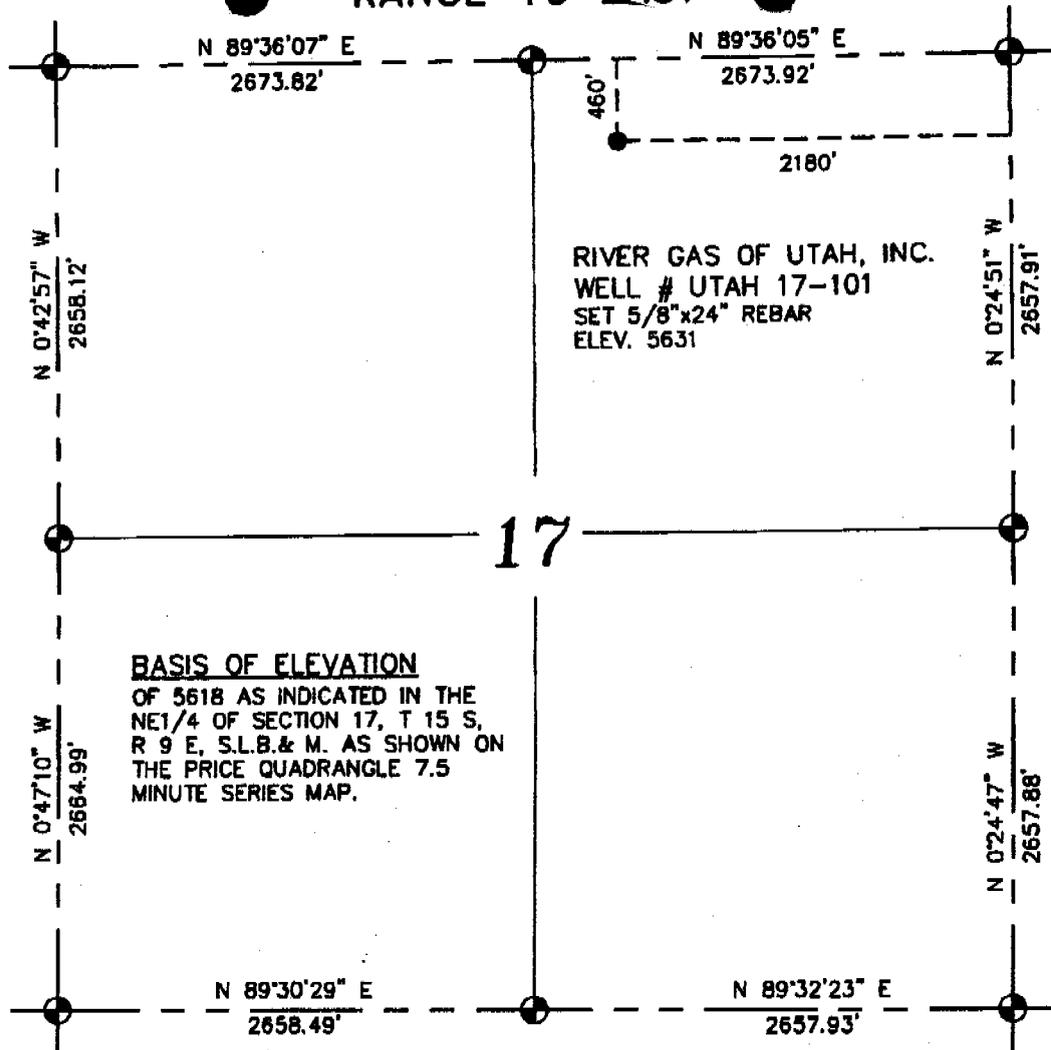
(This space for Federal or State office use)

API NO. 43-007-30276

Approved by J.P. Matthews *J.P. Matthews* Title Production Engineer Date 5/19/95

TOWNSHIP 15 SOUTH

RANGE 10 EAST



**BASIS OF ELEVATION**  
 OF 5618 AS INDICATED IN THE  
 NE1/4 OF SECTION 17, T 15 S,  
 R 9 E, S.L.B. & M. AS SHOWN ON  
 THE PRICE QUADRANGLE 7.5  
 MINUTE SERIES MAP.

**LEGEND**

- FOUND BRASS CAP
- SEARCHED FOR BUT NOT FOUND
- ◇ FOUND ROCK CORNER

**BASIS OF BEARING**

BASIS OF BEARING N 89°36'05" E MEASURED  
 BETWEEN THE N1/4 CORNER AND THE NE CORNER  
 OF SECTION 17, TOWNSHIP 15 SOUTH, RANGE 10  
 EAST, SALT LAKE BASE AND MERIDIAN.



**ENGINEER'S CERTIFICATE**

I, EVAN E. HANSEN, DO HEREBY CERTIFY THAT I AM A REGISTERED LAND SURVEYOR AND PROFESSIONAL ENGINEER HOLDING CERTIFICATE NO. 145656 AS PRESCRIBED UNDER THE LAWS OF THE STATE OF UTAH. I FURTHER CERTIFY THAT I HAVE MADE A SURVEY OF THE TRACT OF GROUND SHOWN AND THAT IT IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE.

*Evan E. Hansen* 3/25/95  
 EVAN E. HANSEN DATE

NW1/4 NE1/4 SEC. 17, T 15 S, R 10 E, S.L.B. & M.

**Empire Engineering**

1665 E. Sagewood Rd. Price, Utah 84501

RIVER GAS OF UTAH, INC.  
WELL # UTAH 17-101

Drawn By: THK	Approved By: EEH	Drawing No. EEOG-95-13
Date: 3-18-95	Scale: 1"=1000'	SHEET 1 OF 2

C:\EMPIRE\ENERGAS\RG-9513 03/25/95 2:39



**RIVER GAS CORPORATION**

511 Energy Center Blvd.  
Northport, Alabama 35476  
Phone (205) 759-3282  
Fax (205) 759-3188

May 9, 1995

MAY 15 1995

Mr. Michael Hebertson  
Utah Board of Oil, Gas, and Mining  
Suite 350, 3 Triad Center  
Salt Lake City, Utah 84180-1203

Dear Mr. Hebertson:

The archaeological and "paleo" studies covering our area of 1995 development are complete. Please find enclosed the additions to the 10 permits that were filed around the 1st of April. If you have any questions, please give me a call.

Sincerely,

A handwritten signature in cursive script, appearing to read 'Terry', is written over a diagonal line.

Terry D. Burns

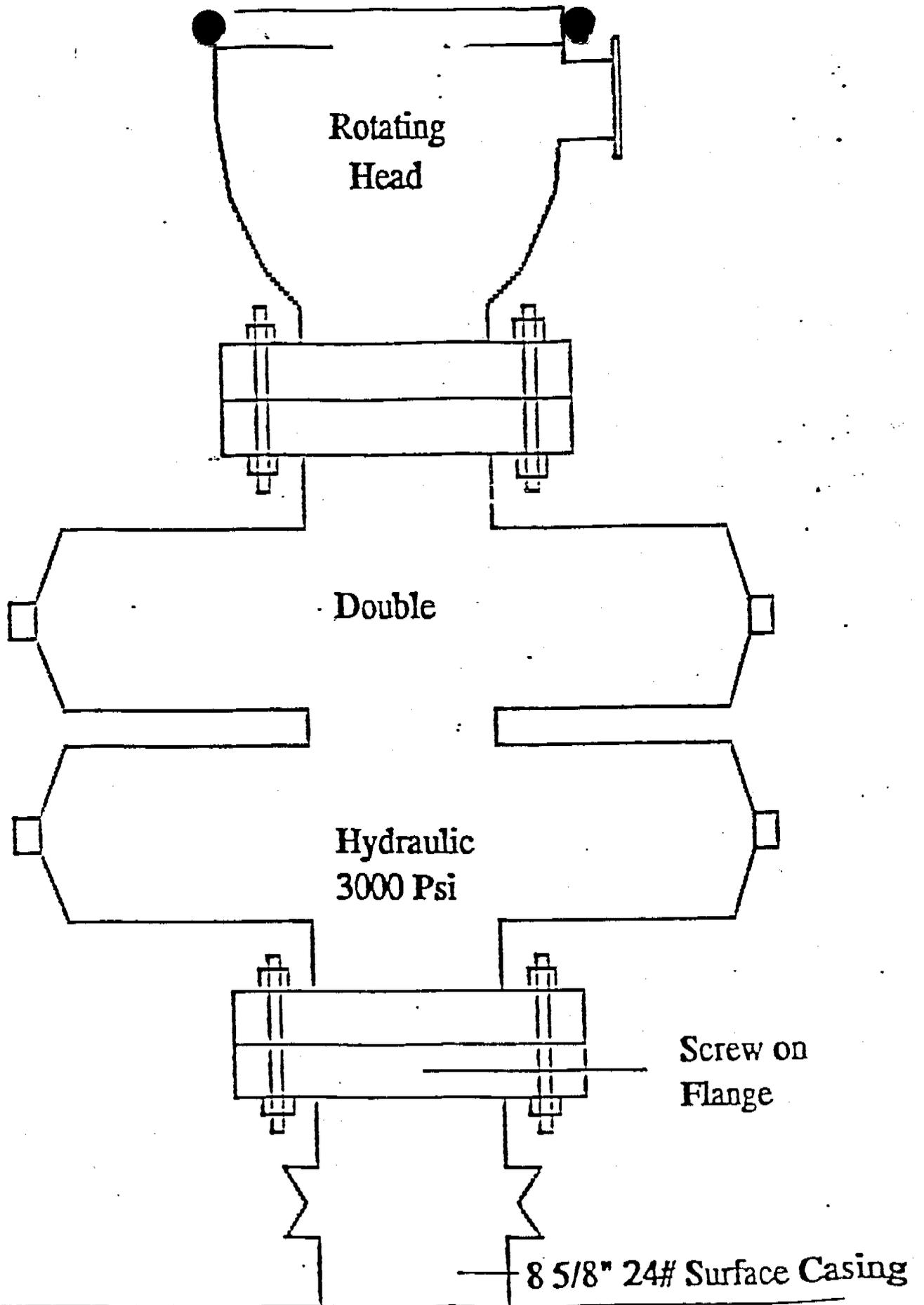
cc: Mr. Edward W. Bonner, S.I.T.L.A., Salt Lake City  
Mr. Robert A. Hendricks, BLM in Salt Lake City

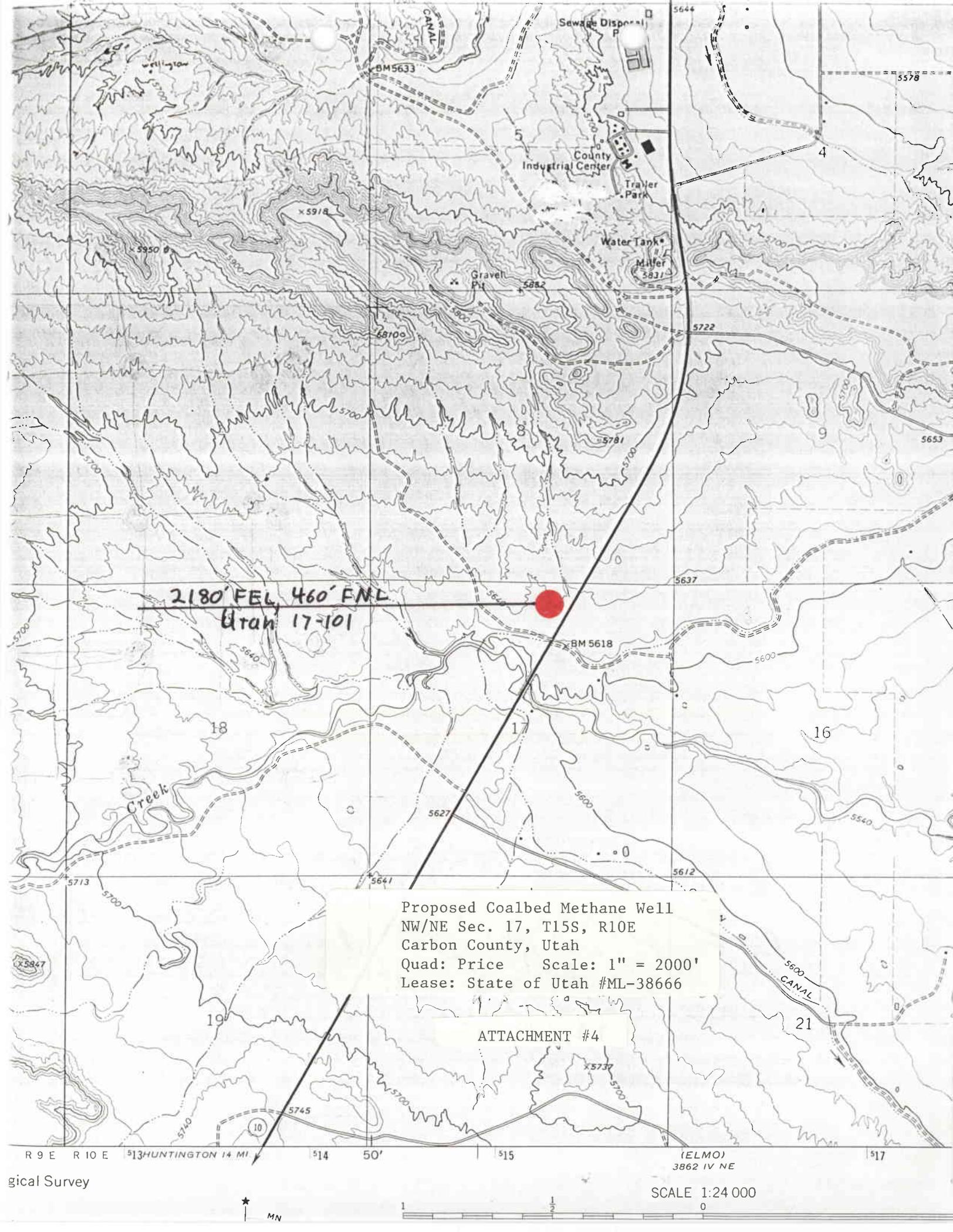
RIVER GAS CORPORATION

ATTACHMENT #2

RE: Use of Water During Drilling Operations

As stated, water which we will be using is to be purchased from the Price River Water Improvement District (Tel. 801-637-6350). This has been arranged by Mr. Michael J. Farrens, Drilling Supervisor for River Gas of Utah, Inc. He has been in contact with Mr. Phillip Palmer. Mr. Farrens has discussed this arrangement with Mark Page of the Division of Water Rights (Tel. 801-637-1303) over the telephone. The Division of Water Rights is to furnish the Oil & Gas Division with a letter of approval concerning this matter.





2180' FEL 460' FNL  
Utah 17-101

Proposed Coalbed Methane Well  
NW/NE Sec. 17, T15S, R10E  
Carbon County, Utah  
Quad: Price Scale: 1" = 2000'  
Lease: State of Utah #ML-38666

ATTACHMENT #4

R 9 E R 10 E 13 HUNTINGTON 14 MI. 14 50' 15 (ELMO) 3862 IV NE 17

gical Survey



**RIVER GAS CORPORATION**  
Additional Drilling Information

Utah 17-101

2180' FEL & 460' FNL  
Section 17, Township 15 South, Range 10 East

**R649-3-4 Permitting of Wells to be Drilled, Deepened or Plugged Back**

2.1 Telephone numbers for additional information:

Steven L. Prince Operations Manager	(801)637-8876 Office (801)650-1211 Mobile
Fred Passarella Pumper	(801)637-8876 Office (801)650-1296 Mobile
Randy Nairemore	(801)637-8876 Office (801)650-1210 Mobile
Michael J. Farrens Vice President	(205)759-3282 Office (205)758-8535 Home (801)650-1162 Mobile

2.2 Lease: State of Utah ML-38666

2.3 This gas well will be drilled approx. 500' outside the southeast boundary of the Drunkards Wash Unit ( UTU 67921X).

2.4 Survey Plat: See Attachment #1

2.5 Water will be purchased from Price River Water Improvement District:  
See Attachment #2.

2.6 Drilling program.

2.6.1 The following geologic units are expected to be penetrated in the well.

<u>Formation/Unit</u>	<u>Depth (ft)</u>
Upper Mancos Shale	Surface
Blue Gate/Ferron Sandstone	1350
Ferron/Tununk Shale	1625
TD	2600

2.6.2 The Ferron coals within the Ferron Sandstone will be the target gas and water bearing formations at approx. 1390' and 1520'. 5-1/2" 17# WC75 casing will be run and cemented with approximately 200 sacks 50/50 Pozmix cement and tail-in with 65 sacks "RFC".

2.6.3 A double gate 3000 psi BOPE will be used with a rotating head. This equipment will be tested to 2100 psi or 70% of the minimum internal yield pressure. All tests will be recorded in a Driller's Report Book. Physical operation of BOP's will be checked on each trip. See Attachment #3 for Schematic.

2.6.4 None.

2.6.5 Mud Program:

Depth

0-300	11" hole	Drill with air, will mud-up if necessary.
300-2600	7-7/8" hole	Drill with air. 400 psi @ 1500-1800 Scf.

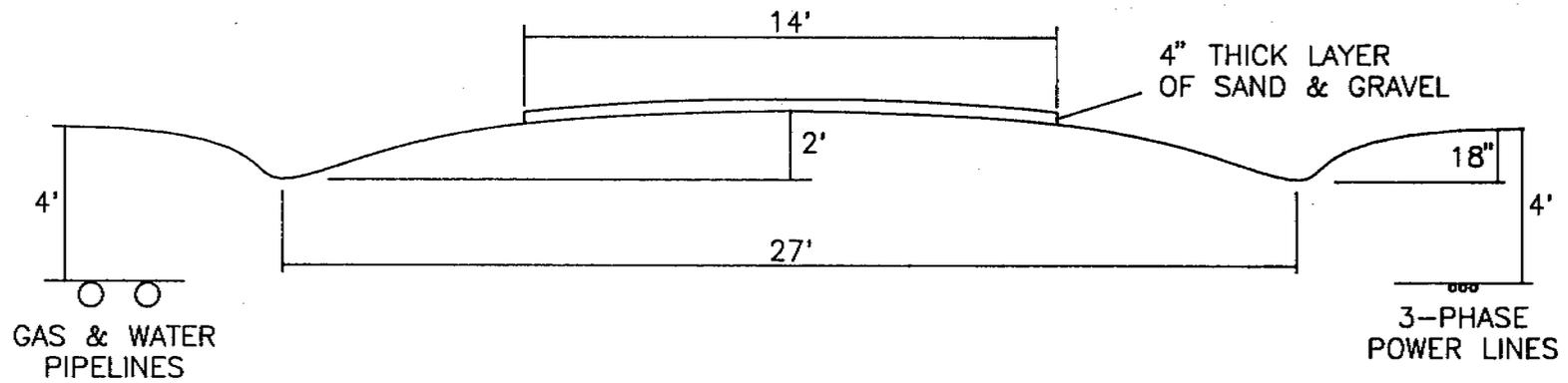
2.6.6 Logging Program:

Depth

0-300	Gamma Ray
300-2600	Gamma Ray, Density, Neutron porosity, Induction, Caliper

2.6.7 We expect 1100 psi for bottom hole pressure.  
No hazards are expected.

# RIVER GAS CORPORATION



## TYPICAL ROAD CROSS-SECTION

NOT TO SCALE

3/23/95

ATTACHMENT #6

AmSouth Bank N.A.  
1900 5th Avenue North  
Birmingham, Alabama 35203-2610 USA

International Department

TELEX: 8827189  
Cable: AMSOUBKBHM  
S.W.I.F.T. AMSB US 44

AMENDMENT NUMBER: 003  
TO LETTER OF CREDIT NUMBER: S304606  
DATE: DECEMBER 29, 1993

BENEFICIARY:  
STATE OF UTAH, DEPARTMENT OF  
NATURAL RESOURCES, DIVISION OF  
STATE LANDS AND FORESTRY  
#3 TRIAD CENTER SUITE 400  
355 WEST TEMPLE  
SALT LAKE CITY, UTAH 84160-1204

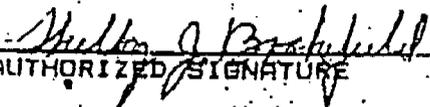
AT THE REQUEST OF RIVER GAS OF UTAH, INC.  
AND FOR THE ACCOUNT OF SAME  
WE HEREBY AMEND OUR LETTER OF CREDIT NUMBER S304606  
DATED DECEMBER 14, 1990  
OPENED IN YOUR FAVOR AS FOLLOWS:

ACCOUNT PARTY'S ADDRESS IS NOW TO READ:  
3600 WATERMELON ROAD, SUITE 204, NORTHPORT, ALABAMA 35476.

-LATEST NEGOTIATION DATE IS EXTENDED TO DECEMBER 13, 1994.

-ADD: THIS LETTER OF CREDIT WILL BE AUTOMATICALLY RENEWED  
WITHOUT AMENDMENT FOR SUCCESSIVE PERIODS OF ONE (1) YEAR EACH,  
UNLESS AT LEAST 60 DAYS PRIOR TO THE INITIAL EXPIRATION DATE  
OR ANY SUCCESSIVE EXPIRATION DATE THE ISSUING BANK GIVES THE  
BENEFICIARY NOTICE BY REGISTERED LETTER TO THE ADDRESS ABOVE  
THAT THE ISSUING BANK ELECTS NOT TO HAVE THIS LETTER OF CREDIT  
RENEWED FOR SUCH ADDITIONAL ONE YEAR PERIOD.

ALL OTHER TERMS AND CONDITIONS REMAIN UNCHANGED.  
THIS AMENDMENT BECOMES AN INTEGRAL PART OF THE ORIGINAL LETTER OF  
CREDIT AND IS TO BE ATTACHED THERETO.

  
AUTHORIZED SIGNATURE

  
AUTHORIZED SIGNATURE

RIVER GAS OF UTAH, INC.  
ATTACHMENT #8

AmSouth Bank N.A.  
1900 5th Avenue North  
Birmingham, Alabama 35203-2610 USA

International Department

TELEX: 6827189  
Cable: AMSOUBKBHM  
S.W.I.F.T. AMSB US 44

AMENDMENT NUMBER: 004  
TO LETTER OF CREDIT NUMBER: S304606  
DATE: JANUARY 24, 1995

BENEFICIARY:  
STATE OF UTAH, DEPARTMENT OF  
NATURAL RESOURCES, DIVISION OF  
STATE LANDS AND FORESTRY  
#3 TRIAD CENTER SUITE 400  
355 WEST TEMPLE  
SALT LAKE CITY, UTAH 84180-1204

AT THE REQUEST OF RIVER GAS OF UTAH, INC. 3600 WATERMELON ROAD  
SUITE 204 NORTHPORT, ALABAMA 35476  
AND FOR THE ACCOUNT OF SAME  
WE HEREBY AMEND OUR LETTER OF CREDIT NUMBER S304606  
DATED DECEMBER 14, 1990  
OPENED IN YOUR FAVOR AS FOLLOWS:

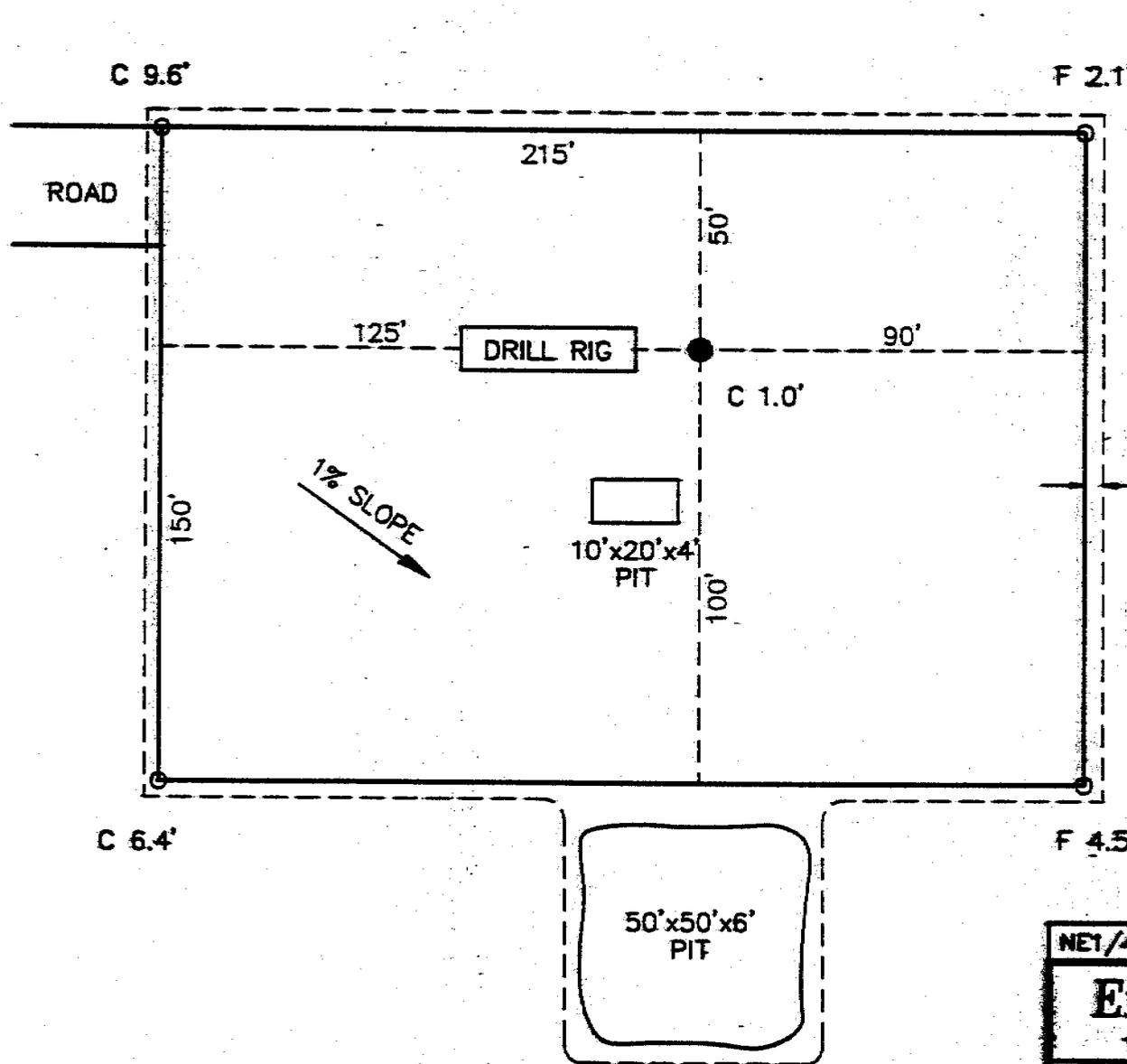
★ -ACCOUNT PARTY'S NAME IS NOW CHANGED TO:  
RIVER GAS CORPORATION

-THE NAME OF THE ISSUING BANK IS CHANGED FROM AMSOUTH BANK N.A.  
TO AMSOUTH BANK OF ALABAMA.

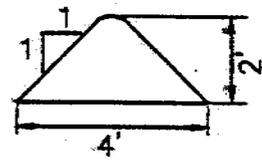
\*\*REFERENCES HEREIN TO AMSOUTH BANK N.A. SHALL BE DEEMED TO REFER  
TO AMSOUTH BANK OF ALABAMA.

ALL OTHER TERMS AND CONDITIONS REMAIN UNCHANGED.  
THIS AMENDMENT BECOMES AN INTEGRAL PART OF THE ORIGINAL LETTER OF  
CREDIT AND IS TO BE ATTACHED THERETO.

  
\_\_\_\_\_  
AUTHORIZED SIGNATURE



SCALE: 1" = 40'



TYP. BERM SURROUNDING PAD

○ INDICATES 1"x2"x24" WOOD STAKE

REVISED: 5-8-95

NE1/4 SEC. 17, T 15 S, R 10 E, S.L.B. & M.

**Empire Engineering**

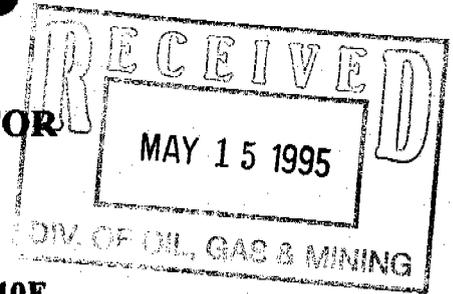
1665 E. Sagewood Rd. Price, Utah 84501

**RIVER GAS CORPORATION**  
WELL # UTAH 17-101

Drawn By: THK	Approved By: EEH	Drawing No.
Date: 4-15-95	Scale: 1" = 40'	EEOG-95-13 Sheet: 2 of 2

**ADDENDUM TO APPLICATION FOR  
PERMIT TO DRILL:**

**UTAH 17-101  
2180' FEL, 460' FNL SEC. 17, T15S, R10E**



**Selected Points to be Addressed in On-site Pre-drill Evaluation**

**Drilling Program**

- Point #2. Expected Depths of Water and Gas Zones - The only water and gas - bearing zones expected in the well will be from the sandstones and coals within the Ferron Sandstone member of the Mancos Shale. Expected interval: 1350-1520'. No near - surface water is expected to be encountered.
- Point #4. Cement used for surface casing will be Class "G" with 2% Calcium Chloride. Density: 15.80 lbs/gal

**Surface Use Plan**

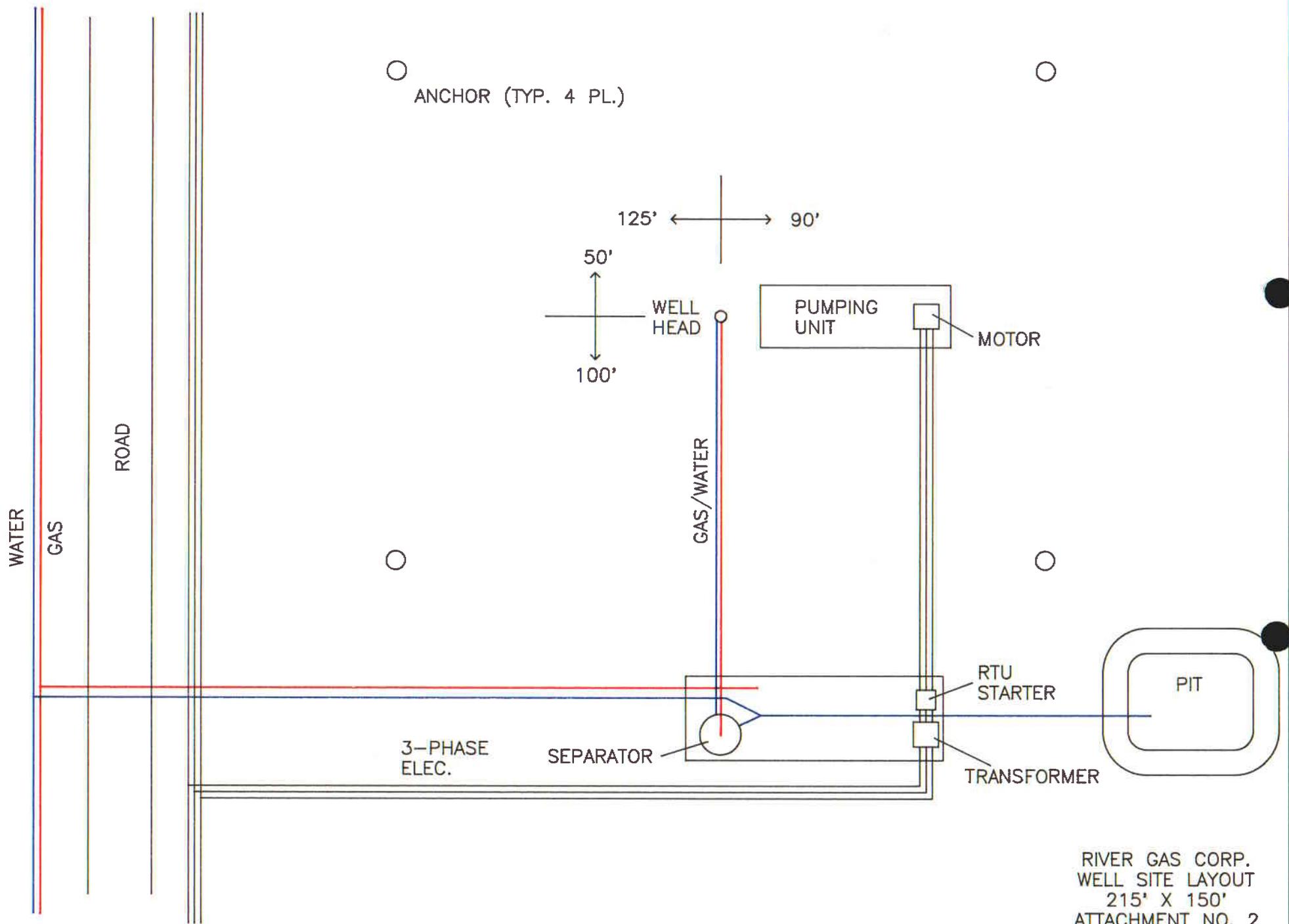
Current Surface Use - Grazing permit # GP 22929 Leased to Richard Borrell

- Point #2 Planned Access Roads - A new road will be constructed, approx. 2500' in length, eastward from proposed well # 17-102 (see Attachment #1).
- Point #3 Wells within 1-mile radius of proposed location - One producing gas well operated by River Gas Corporation is located approx. 1 mile west of proposed location (See Attachment #1)
- Point #4 Location of Production Facilities and Pipelines - see Attachment #1
- Point #6 Source of Construction Material - Other than native Mancos Shale, sand and gravel will be purchased from a local construction company
- Point #7 Waste Management Plan - All drill cuttings will be diverted to pit, as well as fluids encountered. Afterwards, the fluids will be allowed to evaporate and cuttings will be buried. Also, a portable bathroom facility will be provided during drilling operations
- Point #9 Well Site Layout - The separator will be located on the "cut" side of the location (See Attachment #2)

**Other Observations**

Archaeological/Paleontological report - see Attachment #3





RIVER GAS CORP.  
 WELL SITE LAYOUT  
 215' X 150'  
 ATTACHMENT NO. 2

PRELIMINARY REPORT OF THE CULTURAL RESOURCE INVENTORY  
FOR RIVER GAS OF UTAH'S 1995 DRILLING SEASON NEAR  
PRICE, CARBON COUNTY, UTAH, ON STATE, PRIVATE AND FEDERAL

### *INTRODUCTION*

Baseline Data, Inc., has completed a cultural and paleontological resource inventory of 32 new well locations and associated access corridors in Carbon County, for River Gas Company of Utah, Inc. The inventory was requested by Mr. Steve Prince of River Gas.

Field conditions for the inventory were excellent. Ground visibility was near 100%, hampered only by sparse native vegetation. The inventory was carried out under Utah State Project Authorization No. U95-BS-118bsp, and Federal Antiquities Permit No. 93UT576532.

The preliminary report provides information on the surveyed well locations and associated Utility Corridors. All location information has been summarized in Tables 1 and 2. The Utility Corridors may serve as access roads, water, or gas pipelines. The well locations and access corridors are found on the attached U.S.G.S. maps.

### *Inventory Methods*

Two different methods were employed to accomplish the inventory. Access roads were flagged down the center line by River Gas prior to the inventory or followed existing roads marked on U.S.G.S. maps. A corridor approximately 20 m wide (10+ meters on each side of the center line) was examined by walking zig-zag transects, along the center of each line. Each well location is about 75 x 75 m and were examined by completing several transects over the location, spaced about 15 m apart.

Sites and isolated artifacts were plotted on a U.S.G.S. map and were noted on field recording forms. No artifacts from any of the sites were collected. Photographs were taken of the sites and field maps were drawn. None of the isolated artifacts were unique enough to be collected or photographed. Notes on the general flora, fauna and geology were completed as the survey progressed.

Table 2 Utility Corridor Location

Utility Corridor	Beginning	End	Distance
UC-1	SE1/4 NE1/4 SE1/4 NE1/4 Sec. 36 T.15 R.9E	NW1/4 NW1/4 NE1/4 NE1/4 Sec. 1 T. 16S R. 9E	2.6 km
UC-2	NE1/4 SE1/4 SE1/4 NW1/4 Sec. 36 T. 15S R. 9E	SE1/4 SE1/4 SE1/4 NW1/4 Sec. 36 T. 15S R. 9E	.15 km
UC-3	SE1/4 SE1/4 SW1/4 SE1/4 Sec. 17 T. 15S R. 10E	SE1/4 SE 1/4 NW 1/4 SE1/4 Sec. 17 T. 15S R. 10E	.42 km
UC-4	SW1/4 SW1/4 SW1/4 SE1/4 Sec. 17 T. 15S R. 10E	SE1/4 SW1/4 NW1/4 SW1/4 Sec. 17 T. 15S R. 10E	.8 km
UC-5	SW1/4 NW1/4 SW1/4 NW1/4 Sec. 21 T. 15S R. 10E	SE1/4 SW1/4 NW1/4 SW1/4 Sec. 17 T. 15S R. 10E	1.5 km
UC-6	SE1/4 SW1/4 NW1/4 SW1/4 Sec. 17 T. 15S R. 10E	SW1/4 SW1/4 NE1/4 NW1/4 Sec. 8 T. 15S R. 10E	3.9 km
UC-7	NW1/4 SE1/4 NW1/4 NW1/4 Sec. 17 T. 15S R. 10E	NE1/4 SW1/4 SW1/4 NE1/4 Sec. 17 T. 15S R. 10E	.75 km
UC-8	SE1/4 SE1/4 NW1/4 SW1/4 Sec. 8 T. 15S R. 10E	SE1/4 SE1/4 NW1/4 SE1/4 Sec. 8 T. 15S R. 10E	.77 km
UC-9	NW1/4 NW1/4 SE1/4 NE1/4 Sec. 8 T. 15S R. 10E	SE1/4 SE1/4 NW1/4 NW1/4 Sec. 7 T. 15S R. 10E	2.5 km
UC-10	SE1/4 SE1/4 NW1/4 NW1/4 Sec. 7 T. 15S R. 10E	SW1/4 NW1/4 NE1/4 NW1/4 Sec. 1 T. 15S R. 10E	2.4 km
UC-11	NW1/4 NE1/4 NW1/4 SE1/4 Sec. 6 T. 15S R. 10E	NE1/4 SW1/4 NW1/4 SE1/4 Sec. 5 T. 15S R. 10E	1.6 km
UC-12	SW1/4 SW1/4 SW1/4 SE1/4 Sec. 19 T. 14S R. 10E	NW1/4 NE1/4 NE1/4 NE1/4 Sec. 30 T. 14S R. 10E	.7 km
UC-13	SW1/4 SE1/4 SW1/4 SW1/4 Sec. 18 T. 14S R. 10E	SW1/4 NE1/4 NW1/4 SE1/4 Sec. 13 T. 14S R. 9E	1.2 km
UC-14	NW1/4 NE1/4 SW1/4 SW1/4 Sec. 13 T. 14S R. 9E	SW1/4 NE1/4 SW1/4 SW1/4 Sec. 13 T. 14S R. 9E	.05 km
UC-15	NE1/4 SE1/4 SW1/4 NW1/4 Sec. 13 T. 14S R. 9E	SE1/4 NE1/4 SW1/4 NW1/4 Sec. 13 T. 14S R. 9E	.09 km
UC-16	NE1/4 NE1/4 SW1/4 SW1/4 Sec. 19 T. 15S R. 10E	NW1/4 SW1/4 SE1/4 SW1/4 Sec. 18 T. 15S R. 10E	1.5 km
UC-17	SE1/4 SE1/4 NW1/4 NW1/4 Sec. 19 T. 15S R. 10E	SW1/4 SW1/4 NE1/4 NE1/4 Sec. 24 T. 15S R. 9E	.85 km
UC-18	SW1/4 SW1/4 NE1/4 NE1/4 Sec. 24 T. 15S R. 9E	NE1/4 NE1/4 NW1/4 SE1/4 Sec. 24 T. 15S R. 9E	.54 km
UC-19	NW1/4 SE1/4 SW1/4 SW1/4 Sec. 18 T. 15S R. 10E	NW1/4 SE1/4 SW1/4 SW1/4 Sec. 18 T. 15S R. 10E	.03 km
UC-20	NE1/4 SW1/4 NE1/4 NE1/4 Sec. 24 T. 15S R. 9E	NW1/4 SE1/4 NE1/4 NW1/4 Sec. 24 T. 15S R. 9E	.7 km
UC-21	NW1/4 SE1/4 NE1/4 NW1/4 Sec. 23 T. 15S R. 9E	NW1/4 SE1/4 SE1/4 SW1/4 Sec. 14 T. 15S R. 9E	.36 km
UC-22	NW1/4 NW1/4 SE1/4 SW1/4 Sec. 14 T. 15S R. 9E	NW1/4 SW1/4 NE1/4 SE1/4 Sec. 14 T. 15S R. 9E	1.3 km
UC-23	NW1/4 NE1/4 NW1/4 SE1/4 Sec. 19 T. 14S R. 9E	NE1/4 NE1/4 SW1/4 NE1/4 Sec. 19 T. 14S R. 9E	.45 km
UC-24	SW1/4 SE1/4 SW1/4 SW1/4 Sec. 18 T. 14S R. 9E	SW1/4 NE1/4 SW1/4 SW1/4 Sec. 18 T. 14S R. 9E	.3 km
UC-25	SW1/4 NW1/4 SW1/4 SW1/4 Sec. 14 T. 14S R. 9E	NE1/4 NE1/4 SW1/4 SW1/4 Sec. 14 T. 14S R. 9E	.3 km
UC-26	SW1/4 NW1/4 SW1/4 SE1/4 Sec. 14 T. 14S R. 9E	NE1/4 NW1/4 SW1/4 SE1/4 Sec. 14 T. 14S R. 9E	.12 km
UC-27	NW1/4 SE1/4 NE1/4 NW1/4 Sec. 22 T. 14S R. 9E	NW1/4 SE1/4 NE1/4 NW1/4 Sec. 22 T. 14S R. 9E	.03 km
UC-28	SE1/4 NE1/4 NE1/4 NE1/4 Sec. 5 T. 15S R. 10E	SE1/4 NW1/4 NW1/4 NW1/4 Sec. 5 T. 15S R. 10E	.21 km
UC-29	SE1/4 NW1/4 SW1/4 SW1/4 Sec. 14 T. 14S R. 9E	SE1/4 NW1/4 SW1/4 SW1/4 Sec. 14 T. 14S R. 9E	.02 km
<b>TOTAL DISTANCE</b>			<b>26.14</b>

**Inventory Results**

Baseline recorded a total of seven new cultural resource sites and four new paleontology localities. Each is briefly summarized below.

Site 42Cb 1009 is a light scatter of historic trash found near Well No. 17-103. It is on private land in the NW1/4 NE1/4 SW1/4 SW1/4 of Section 17, T.15S R.10E. The site consists of a scatter of crushed cans, a galvanized wash tub, several fragments of porcelain dinnerware, Mason jar glass fragments, and a 1935 auto licence plate. There are no features or depth at the site. The site is not eligible for the National Register and no mitigation is recommended.

Site 42Cb 1010 is an abandoned collector ditch or irrigation system. It is found about 50 m west of Well No. 17-103 on private land. The feature is about 1.5 m wide and averages about .70 m deep. It has been breached in several locations and alluvial fill has covered the ditch in others. Greasewood growing in the ditch is more than 1 m high. It appears to be a collector system that drained water north into Miller Creek. The site is no eligible for the National Register and no mitigation is recommended.

Site 42Cb 1011 is a large scatter of trash found near Well No. 8-99 on private land. The site is on the slope of a ridge and scatters over an area of nearly 150 x 150 M in the SE1/4 SE1/4 NW1/4 SW1/4 and the NE1/4 NE1/4 SW1/4 SW1/4 of Section 8, T. 15S R.10E.. It consists of crushed cans, fragments from a wood burning stove, porcelain dinnerware, earthenware crockery, and amethyst glass fragments. There are no features or depth at the site. The site is no eligible for the National Register and no mitigation is recommended.

Site 42Cb 1012 is a light scatter of historic trash found on the east side of Well No. 5-94. It is in the NE1/4 SW1/4 NW1/4 SE1/4 of Section 5, T.15S R.10E, and is on private land. The trash consists of crushed cans, a fragment of milled wood and a single Dr. Nunn's Black Oil Healing Baslam bottle. The bottle is made from a light amethyst glass and was blown into a wood mold. The neck and cork stop were hand finished. There are no features or depth at the site. The material is in a high erosion environment and the wash the site is on is scattering artifacts south toward the Carbon Canal. The site is not eligible for the National Register and no mitigation is recommended.

Site 42Cb 1013 is a possible prehistoric camp site or storage site. It is found near Core Well No. 18-7. It is found in the SE1/4 NE1/4 SW1/4 SW1/4 of Section 18, T.14S R.9E, and is on land administered by the Bureau of Land Management. The site consists of several interior secondary chert flakes, three fragments of basin metates, a possible one-handed mano and the remains of what may be a slab-lined cist. The cist area has several fragment of thin limestone slabs and discolored soil. The entire surface of the site has been impacted by chaining. The artifacts were noted in the bottom of small erosions channels. The impact from chaining has made the site difficult to evaluated for the National Register. It is suggested that the site be avoided until the site can be properly evaluated. River Gas has dropped plans for drilling this core well and the site will not be impacted by River Gas.

Site 42Cb 1014 is along Utility Corridor No. 12 in SE1/4 SW1/4 SW1/4 SE1/4 Section 19, T.14S R.10E. The site is a non-significant historic trash scatter consisting mostly of tins cans and a few fragments of milled lumber. The site covers an area of about 30 X 30 m on private land. There are no significant features or artifacts associated with this site and it is not eligible for the National Register.

Site 42Cb 1015 is located within Well Location No. 13-92 in SW1/4 NE1/4 NW1/4 SE1/4 of Section 13, T.14S R.9E. This site is a historic trash scatter covering an area of 40 x 20 m and is located on private land. The site consists of 100+ solder sealed tin cans, most of which have been knife cut. There are 80+ fragments of clear glass, two pieces of white china, 40 fragments of green glass and 40+ fragments of brown beverage bottle glass. Most of the glass is modern with some being of an undetermined age. None of the artifacts are significant and there are no features or structure associated with this site. It is not eligible for the National Register. No mitigation is recommended at the site.

*Paleontological Sites-* A total of four paleontological sites were noted during the inventory, two of which are sensitive, one may be and the other is not sensitive.

Site 95RG-1 is located along the east edge of the proposed Well No. 30-78 in the SW1/4 NE1/4 NE1/4 Section 30 T. 14S R. 10E. The site is found on a small rise and covers an area of about 40 X 40 on privately owned land. The site consists of invertebrate marine fossils that are sensitive enough to be avoided. The well location only needs to be moved 125 feet to the west to avoid any paleontological disturbance.

Site 95RG-2 is along Utility Corridor No. 8 just west of the proposed Well No. 8-100. The site covers an area of about 50 x 50 and is in the NE1/4 SE1/4 NW1/4 SE1/4, Section 8 T. 15S R. 10E. The site is located on State owned land. This site consists of invertebrate marine fossils that are sensitive enough to avoid. To avoid the site it is recommended that the utility corridor be bent about 70 feet north around a small ravine. This should avoid any disturbance of the paleontological site.

Site 95RG-3 was noted near a proposed Utility Corridor No. 11 just west of Well No. 5-95. The site is found on the side of a ridge in the NE1/4 SW1/4 NW1/4 SE1/4 of Section 5, T.15S R.10E. It is on private land. The site consists of invertebrate marine fossils that may be sensitive. The existing access road will be used for the utility corridor and will not disturb any of the observed fossils. No mitigation is recommended.

Site 95RG-4 is a deposit of non-sensitive marine fossils found near Well Location 36-109 Alt. The site is found along the top of a ridge in the C, N1/2 NE1/4 SW1/4 of Section 36, T. 16S R.9E. It is on land administered by the State of Utah. The site will not be impacted by the well location or access road. No mitigation is recommended for this site.

### *RECOMMENDATIONS*

Prehistoric site 42Cb 1013 has not been evaluated for the national Register. The site surface is too disturbed to adequately assess the site. The proposed well will not be drilled and the site will not be impacted. None of the other cultural resource sites are eligible for the National Register and no mitigation is recommended for those sites. Paleontological site 95RG-1 is sensitive. It can be avoided by moving Well No. 30-78 about 125 feet to the west. Site 95RG-2 is a sensitive locality found on Utility corridor No. 8 just west of Well No. 8-100. The site can be easily avoided by moving the utility corridor about 70 m north around the edge of a small wash.



STATE OF ALABAMA )  
 )  
 ) :ss.  
COUNTY OF TUSCALOOSA )

**AFFIDAVIT CONCERNING NOTIFICATION  
TO GRAZING PERMITTEE**

**JOSEPH L. STEPHENSON**, being first duly sworn upon his oath, deposes and states:

1. I am Vice President - Land of River Gas Corporation ("RGC"), an Alabama corporation duly authorized to transact business in the State of Utah, and am authorized to execute this Affidavit on behalf of said corporation.

2. As Vice President - Land, I am responsible for supervision of lease records and reviewing title records and legal opinions affecting lands where RGC proposes to conduct operations.

3. RGC owns an interest in Oil, Gas and Hydrocarbon Lease ML-38666 on which RGC proposes to drill a coalbed methane gas well named the Utah 17-101, the surface of said lands being owned by the School and Institutional Trust Lands Administration.

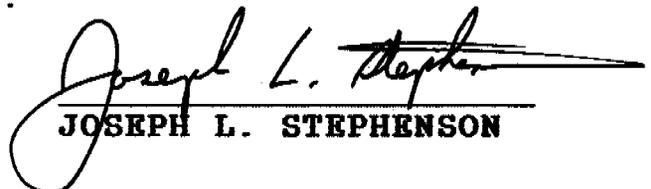
4. While reviewing title records associated with the above described Oil, Gas and Hydrocarbon Lease, it was noted that RGC's proposed well and its access road and associated production facilities would affect lands which were subject to Grazing Permit GP-22930 held by Boyd Marsing.

5. As evidenced by copy of letter dated February 21, 1995 attached hereto as Exhibit "A", and by this reference incorporated herein, RGC notified the above described grazing permittee of RGC's proposed activities and requested the grazing permittee to contact RGC if the proposed activity would conflict with his present use of the surface.

6. To the best of my knowledge, the grazing permittee has not contacted RGC regarding any conflict that the proposed activity has with his use of the surface.

7. The matters stated herein are true of my own knowledge, except to any matters stated herein upon information and belief, and, as to those matters, I believe them to be true.

DATED this 16th day of May, 1995.

  
**JOSEPH L. STEPHENSON**

Subscribed, sworn and acknowledged to and by Joseph L. Stephenson before me this 16th day of May, 1995.

  
**NOTARY PUBLIC**  
Residing at:



State of Utah  
DEPARTMENT OF NATURAL RESOURCES  
DIVISION OF OIL, GAS AND MINING

Michael O. Leavitt  
Governor

Ted Stewart  
Executive Director

James W. Carter  
Division Director

355 West North Temple  
3 Triad Center, Suite 350  
Salt Lake City, Utah 84180-1203  
801-538-5340  
801-359-3940 (Fax)  
801-538-5319 (TDD)

May 19, 1995

River Gas Corporation  
511 Energy Center Boulevard  
Northport, Alabama 35476

Re: Amended Approval  
Utah 17-101 Well, 460' FNL, 2180' FEL, NW NE, Sec. 17, T. 15 S., R. 10 E.,  
Carbon 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 43-007-30276.

Sincerely,

R. J. Firth  
Associate Director

ldc

Enclosures

cc: Carbon County Assessor

Bureau of Land Management, Salt Lake District Office

WAPD



Operator: River Gas Corporation  
Well Name & Number: Utah 17-101  
API Number: 43-007-30276  
Lease: ML-38666  
Location: NW NE Sec. 17 T. 15 S. R. 10 E.

### 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 following spudding the well or commencing drilling operations. Contact Jimmie Thompson at (801)538-5340.

Notify the Division prior to commencing operations to plug and abandon the well. Contact Frank Matthews or Mike Hebertson at (801)538-5340.

3. Reporting Requirements

All required reports, forms and submittals shall 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. Onsite Inspection

Compliance with the requirements and stipulations of the On-site Pre-drill Evaluation and Review.

**STATE OF UTAH**

<b>Operator: RIVER GAS CORPORATION</b>	<b>Well Name: UTAH 17-101</b>
<b>Project ID: 43-007-30276</b>	<b>Location: SEC. 17 - T15S - R10E</b>

Design Parameters:

Mud weight ( 8.14 ppg) : 0.423 psi/ft  
 Shut in surface pressure : 1033 psi  
 Internal gradient (burst) : 0.025 psi/ft  
 Annular gradient (burst) : 0.000 psi/ft  
 Tensile load is determined using buoyed weight  
 Service rating is "Sweet"

Design Factors:

Collapse : 1.125  
 Burst : 1.00  
 8 Round : 1.80 (J)  
 Buttress : 1.60 (J)  
 Other : 1.50 (J)  
 Body Yield : 1.50 (B)

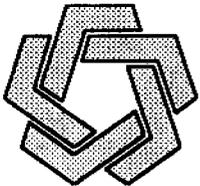
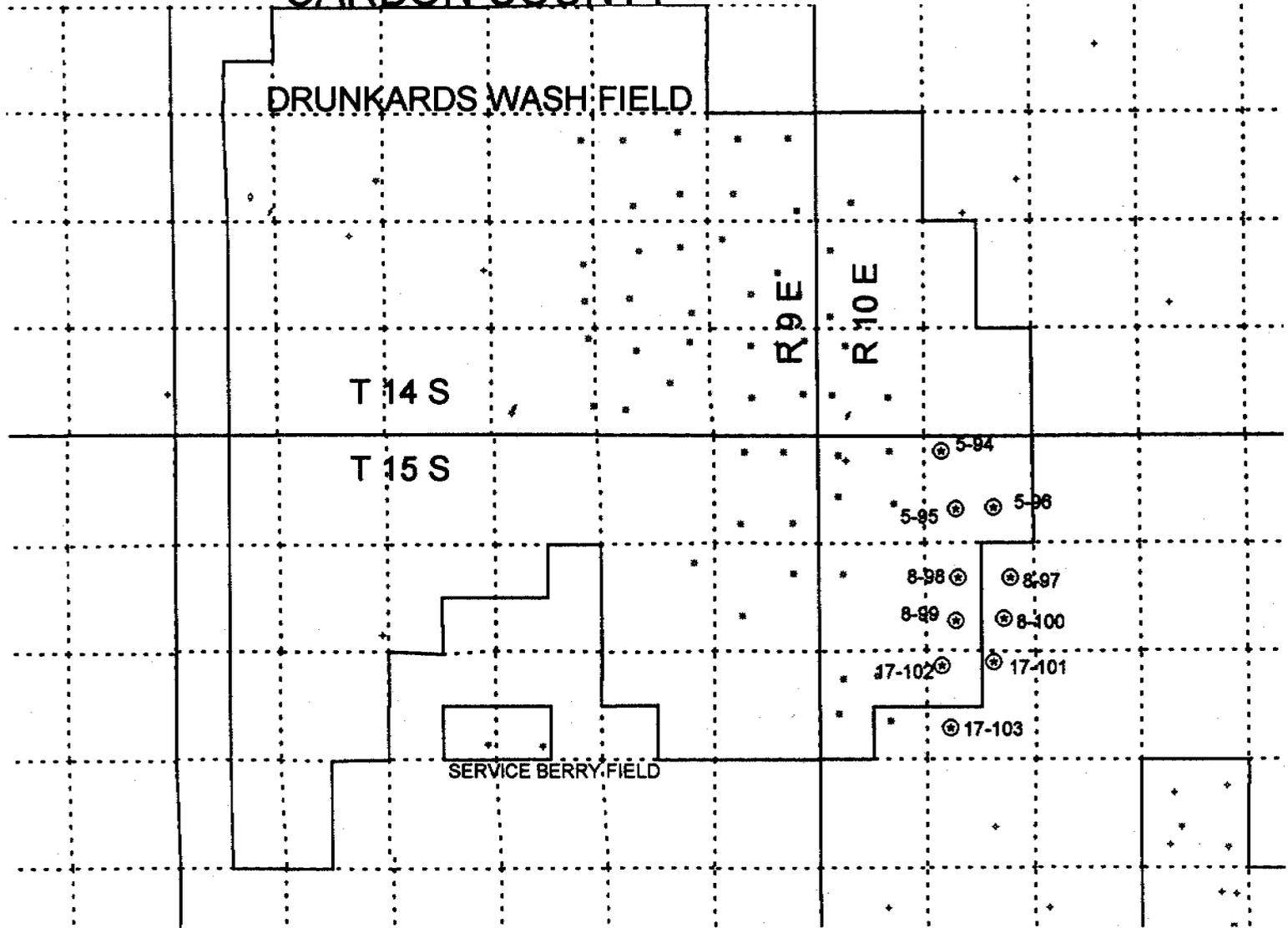
Length (feet)	Size (in.)	Weight (lb/ft)	Grade	Joint	Depth (feet)	Drift (in.)	Cost		
1	2,600	5.500	17.00	WC-75	LT&C	2,600	4.767		
	<b>Load (psi)</b>	<b>Collapse Strgth (psi)</b>	<b>S.F.</b>	<b>Burst Load (psi)</b>	<b>Min Int Strgth (psi)</b>	<b>Yield S.F.</b>	<b>Tension Load (kips)</b>	<b>Strgth (kips)</b>	<b>S.F.</b>
1	1099	6040	5.497	1099	7300	6.64	38.70	327	8.45 J

Prepared by : FRM, Salt Lake City, UT  
 Date : 05-18-1995  
 Remarks :

Minimum segment length for the 2,600 foot well is 1,000 feet.  
 SICP is based on the ideal gas law, a gas gravity of 0.69, and a mean gas temperature of 87°F (Surface 74°F , BHT 100°F & temp. gradient 1.000°/100 ft.)  
 The mud gradient and bottom hole pressures (for burst) are 0.423 psi/ft and 1,099 psi, respectively.

**NOTE:** The design factors used in this casing string design are as shown above. As a general guideline, Lone Star Steel recommends using minimum design factors of 1.125 - Collapse (with evacuated casing), 1.0 - Burst, 1.8 - 8 Round Tension, 1.6 - Buttress Tension, and 1.5 - Body Yield. Collapse strength under axial tension was calculated based on the Westcott, Dunlop and Kemler curve. Engineering responsibility for use of this design will be that of the purchaser. Costs for this design are based on a 1987 pricing model. (Version 1.06)

RIVER GAS CORP  
COAL GAS DEVELOPMENT  
SEC. 5, 8, 17, T 15 S, R 9 E  
CARBON COUNTY



STATE OF UTAH  
DIVISION OF OIL, GAS & MINING (OGM)  
ON-SITE PREDRILL EVALUATION AND REVIEW

OPERATOR: River Gas Corporation

WELL NO: Utah 17 - 101 LEASE NO: ML - 38666

API NUMBER: 43 - 007 - 30276 LEASE TYPE: STATE Y FEE     

PROPOSED LOCATION: C O N F I D E N T I A L

SURFACE: 460 FNL 2180 FEL

SURFACE: QTR/QTR: NW/NE SEC: 17 TWP: 15 S RNG: 10 E

BOTTOM HOLE: Same as Above

BOTTOM HOLE: QTR/QTR:      SEC:      TWP:      RNG:     

COUNTY: CARBON FIELD: CODE/NAME: 002 Undesignated

GPS COORDINATES: 4375032 N 515253 E

SURFACE OWNER: State of Utah SURFACE AGREEMENT (Y/N): Y

LOCATION AND SITING:

Y Plat      R649-2-3. Unit:     

Y Bond Sta Y Fee      R649-3-2. General

Number: Letter of credit      R649-3-3. Exception

N Potash (Y/N) X UCA 40-6-6. Drilling Unit

N Oil Shale (Y/N) Cause No: 137-2B

Y Water Permit City of Price Date: 25 Feb 1982

N RDCC Review     

ARCHEOLOGICAL AND PALEONTOLOGY SURVEY RECEIVED: (Y/N) Y

SITE PROBLEMS:

Onsite Participants: Larry Jensen-dirt contractor, Michael Hebertson, Jimmie Thompson-DOGM

Regional Setting/Topography: Northwest flank of the San Rafael Swell and east of the central Utah thrust belt. Mancos badlands with overlying sandstone cliffs of Mesa Verde formation. The area is dominated by rolling hill lowlands, steep sided moderately incised gullies, and well defined sandstone cliffs.

**DRILLING PROGRAM:**

1. Surface Formation and Estimated Tops/Geologic Markers			
Mancos Shale	Surface	-	1350'
Blue Gate/Ferron SS	1350'	-	1625'
Ferron/Tununk Shale	1625'	-	2600'
T.D.	2600'		

2. Estimated Depths of Anticipated Water, Oil, Gas or other Mineral Bearing Zones

Substance	Formation	Depth
Oil/Gas	Blue Gate/Ferron	1390 - 1520'
Oil		
Water	Blue Gate/Ferron	1390 - 1520'
Other		

All fresh water sands encountered during drilling shall be recorded and reported to the Division on Form 7.

3. Well Control Equipment & Testing Procedures  
Double Gate 3000 PSI BOPE tested to 2100 PSI.  
See Attached Diagram.

4. Proposed Casing and Cementing Program

8 5/8	24#/FT	300'	110 SX CLASS G NEAT 2% CaCl
5 1/2	17#/FT	2570'	200 SX 50/50 POS LEAD
			65 SX RFC TAIL
ALL CEMENT WILL HAVE A 15.8 LB/GAL WEIGHT			

5. Mud Program and Circulating Medium - include mud components and weights, when drilling with air also include length and location of bloopie line

0 - 300'	Air or air mist, natural mud if necessary.
300 - 2600'	Air of air mist @ 400 PSI 1500 - 1800 CFM.

6. Coring, Logging, and Testing Program  
No cores will be taken from this well.

0 - 300' Gamma Ray  
300 - 2600' Gamma Ray, Density, Porosity, Induction

7. Abnormal Conditions, Bottom Hole Pressures and Potential Hazards, also list anticipated lost circulation zones, abnormal temperature zones and possible hydrogen sulfide bearing zones  
Bottom hole pressure will be about 1100 PSI.

No other hazards are expected.

**SURFACE USE PLAN:**

Current Surface Use: Cattle grazing under permit NO GP 22929.  
Land is normally not in use.

Proposed Surface Disturbance: The location pad will be 200' X 215' including the pit.

1. Existing Roads  
Main surface roads to the location are state road 10 and several maintained field roads south of the city of Price.
2. Planned Access Roads - include length of new road, length of existing road to be upgraded, maximum disturbed and travel surface widths, maximum grades, turnouts, surface materials, drainage, cattleguards  
A new road will be constructed about 2300 feet from the field road to the location. 5 culverts will be installed along road.

3. Location of existing wells within one-mile radius of proposed location, include water, injection, producing, drilling with present status of each well  
See the attached map included with the APD.
- 
- 
- 

4. Location of Production Facilities and Pipelines  
This well will be a field production well that will be used to delineate the field extent. the pipeline will follow the existing and proposed roads and field production facilities already exist.
- 
- 

5. Location and Type of Water Supply (include Division of Water Rights approval or identifying number)  
Water will be purchased from an existing agreement with the City of Price
- 
- 

6. Source of Construction Material  
Natural soils and spoil from the construction of the pad will be used. extra material and top soil will be stock piled on the (N S E W) edge of the location.
- 
- 

7. Waste Management Plan  
All of the drill cuttings will be diverted to the pit along with all the drilling fluids generated while drilling. The cuttings will be buried after the pit is dry. A Porta-Potty and trash basket will be used for human and other solid wastes.
- 
- 

8. Ancillary Facilities  
None.
- 
- 

9. Well Site Layout  
See the attachment in the APD.
- 
- 
-

10. Surface Restoration Plans

Unless otherwise agreed to the surface will be restored to the condition as found and all cuts slopes and drainages will be re-established. The vegetation seed mixtures and methods of planting will follow the standards that are current at the time of abandonment

**ENVIRONMENTAL PARAMETERS:**

Affected Floodplain and/or Wetlands:

Is a 404 dredge and fill permit required? (Any activity which will change the bottom elevation of the "waters of the United States" including wetlands, natural and artificially created waters, and even some drainages may require a permit from the Army Corps of Engineers)

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Flora/Fauna:

Briefly describe the flora found on the proposed site and the fauna evidenced or sighted on or near the proposed location. This area serves as a minor deer and elk winter range. Some raptor species, coyote, rabbits, lizards, cattle, snakes. The vegetation is Upper Sonoran Transitional Flora and Fauna with a dominance of sagebrush and various types of grasses.

**SURFACE GEOLOGY**

Soil Type and Characteristics: The soils are made up of decomposed clays and sands of the Mancos Shale and the overlying Mesa Verde sandstone cliffs. The whole weathers to a light tan with gypsum flakes and small pebbles of chert.

Surface Formation & Characteristics: Light tan clay and sand about 75% clay and 25% other. Very low porosity due to the clay content but medium permeability due to the fractures and surface jointing.

Erosion/Sedimentation/Stability: This area is not highly active with water or erosion from runoff. There are many small drainages that exist and runoff is of a sheeting nature that is active during thunder storms or high water cycles.

Paleontological Potential Observed: None

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RESERVE PIT

Characteristics: The reserve pit will be 50' x 50' x 10'  
and will be included as part of the pad.

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Lining (Site ranking form attached): No liner will be  
necessary. See the site ranking form attached.

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OTHER OBSERVATIONS

Cultural Resources/Archaeology (if proposed location is on State  
land, has an archaeology clearance been obtained?): Clearance has  
been completed, but not submitted to DOGM.

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Comments: Well location is approximately 350' west of Highway 10.  
Wellbore will be approximately 200' from highway right-of-way. A  
prairie dog town is located, where the location will be built.

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J. Thompson/M. Hebertson

5/10/95 2:45 pm

OGM Representative

Date and Time

**STATEMENTS OF BASIS**

OGM Review of Application for Permit to Drill (APD)

**ENGINEERING/LOCATION and SITING:**

The proposed location meets the location and siting requirements of UCA 40-6-6. The application and proposed casing and drilling plan appear to be consistent with accepted industry standards of practice and sound engineering design. A casing design safety check is attached. Blow out prevention contingency plans are adequate. No H2S has been found in this area.

Signature F. R. Matthews Date 5/18/95

**GEOLOGY/GROUND WATER:**

There are no USDW's in the area. The proposed casing and cement program will adequately protect ground water.

Signature D. Jarvis Date 5/15/95

**SURFACE:**

The onsite investigation was conducted on 5/10/95. The Division met with a representative from River Gas of Utah. The location construction was discussed. Empire Engineering from Price, Utah has surveyed the proposed location. Cut and fill diagrams and a location plat were provided. No major drainages were noted near the location. All minor drainages are away from the location. A pit lining evaluation was conducted, and it was determined a pit liner was not necessary. Construction of the location should cause no adverse environmental issues.

Signature J. Thompson/M. Hebertson Date 5/10/95

**STIPULATIONS for APD Approval:**

1. Right-of-way may be required for the proposed access road. Contact State Lands.

**ATTACHMENTS:**

Pictures 4,5,6 roll 2

**Evaluation Ranking Criteria and Ranking Score  
For Reserve and Onsite Pit Liner Requirements**

Site-Specific Factors	Ranking Score	Final Ranking Score
<b>Distance to Groundwater (feet)</b>  >200 100 to 200 75 to 100 25 to 75 <25 or recharge area	0 5 10 15 20	0
<b>Distance to Surf. Water (feet)</b>  >1000 300 to 1000 200 to 300 100 to 200 < 100	0 2 10 15 20	0
<b>Distance to Nearest Municipal Well (feet)</b>  >5280 1320 to 5280 500 to 1320 <500	0 5 10 20	0
<b>Distance to Other Wells (feet)</b>  >1320 300 to 1320 <300	0 10 20	0
<b>Native Soil Type</b>  Low permeability Mod. permeability High permeability	0 10 20	10

<b>Fluid Type</b> Air/mist Fresh Water TDS >5000 and <10000 TDS >10000 or Oil Base Mud  Fluid containing significant levels of hazardous constituents	0 5 10 15  20	0
<b>Drill Cuttings</b>  Normal Rock Salt or detrimental	0 10	0
<b>Annual Precipitation (inches)</b>  <10 10 to 20 >20	0 5 10	2
<b>Affected Populations</b>  <10 10 to 30 30 to 50 >50	0 6 8 10	0
<b>Presence of Nearby Utility Conduits</b>  Not Present Unknown Present	0 10 15	0
<b>Final Score</b>		12

The summation of all of the above ranking scores will yield one value which shall be used to determine the appropriate type of containment, on a case-by-case basis. The sensitivity levels are as follows:

- Level I Sensitivity: For scores totaling  $\geq 20$
- Level II Sensitivity: For scores totaling 15 to 19
- Level III Sensitivity: For scores totaling <15

**Containment Requirements According to Sensitivity Level**

Level I: Requires total containment by synthetic liner, concrete structure or other type of total containment structure or

material.

**Level II:** Bentonite or other compatible lining is discretionary depending on the fluid to be contained and environmental sensitivity.

**Level III:** No specific lining requirements.

OTHER GUIDELINES FOR PITS

1. Unlined pits shall not be constructed on areas of fill materials.
2. A pit shall not be constructed in a drainages or floodplain of flowing or intermittent streams.
3. Synthetic liners used for lining reserve pits, shall be of 12 mil thickness or greater and shall be compatible with the fluid to be contained. Synthetic liners used for lining onsite pits with a longer expected life shall be a minimum of 30 mil thickness or as approved by the Division.
4. Synthetic liners shall be installed over smooth fill material which is free of pockets, loose rocks or other materials which could damage the liner.
5. Monitoring systems for pits or closed mud systems may be required for drilling in sensitive areas.



State of Utah  
DEPARTMENT OF NATURAL RESOURCES  
DIVISION OF OIL, GAS AND MINING

Michael O. Leavitt  
Governor

Ted Stewart  
Executive Director

James W. Carter  
Division Director

355 West North Temple  
3 Triad Center, Suite 350  
Salt Lake City, Utah 84180-1203  
801-538-5340  
801-359-3940 (Fax)  
801-538-5319 (TDD)

May 19, 1995

River Gas Corporation  
511 Energy Center Boulevard  
Northport, Alabama 35476

Re: Utah 17-101 Well, 460' FNL, 2180' FEL, NW NE, Sec. 17, T. 15 S., R. 10 E.,  
Carbon 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 43-015-30276.

Sincerely,

R. J. Firth  
Associate Director

ldc

Enclosures

cc: Carbon County Assessor

Bureau of Land Management, Salt Lake District Office

WAPD

Operator: River Gas Corporation

Well Name & Number: Utah 17-101

API Number: 43-015-30276

Lease: ML-38666

Location: NW NE Sec. 17 T. 15 S. R. 10 E.

### 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 following spudding the well or commencing drilling operations. Contact Jimmie Thompson at (801)538-5340.

Notify the Division prior to commencing operations to plug and abandon the well. Contact Frank Matthews or Mike Hebertson at (801)538-5340.

3. Reporting Requirements

All required reports, forms and submittals shall 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. Onsite Inspection

Compliance with the requirements and stipulations of the On-site Predrill Evaluation and Review.

STATE OF UTAH  
DIVISION OF OIL, GAS AND MINING

DIV. OF OIL, GAS & MINING

MAY 26 1995

Lease Designation and Serial No.

ML 38666

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

6. If Indian, Allottee or Tribe Name

7. Unit Agreement Name

N/A

8. Farm or Lease Name

Utah

9. Well No.

17-101

10. Field and Pool, or Wildcat

Wildcat

11. CO, Sec., T., R., N., or S14.

and Survey or Area  
NW/NE Sec. 17, T15S, R10E

12. County or Parish

Carbon

13. State

Ut.

1a. Type of Work

DRILL

DEEPEN

PLUG BACK

b. Type of Well

Oil Well

Gas Well

Other Coalbed Methane

Single Zone

Multiple Zone

2. Name of Operator

River Gas Corporation

3. Address of Operator

511 Energy Center Boulevard Northport, Al. 35476

4. Location of Well (Report location clearly and in accordance with any State requirements.)

At surface 2180' FEL, 460' FNL, Sec. 17, T15S, R10E

At proposed prod. zone

same

14. Distance in miles and direction from nearest town or post office

4 miles south of Price, Ut.

15. Distance from proposed location to nearest property or lease line, ft. (Also to nearest drig. line, if any)

460'

16. No. of acres in lease

921.98

17. No. of acres assigned to this well

160

18. Distance from proposed location to nearest well, drilling, completed, or applied for, on this lease, ft.

2300'

19. Proposed depth

2600'

20. Rotary or cable tools

Rotary

21. Elevations (Show whether DF, RT, GR, etc.)

5631' GR surveyed

22. Approx. date work will start

July 1, 1995

PROPOSED CASING AND CEMENTING PROGRAM

Size of Hole

Size of Casing

Weight per Foot

Setting Depth

Quantity of Cement

11"

8-5/8"

24#

300'

110 sx

7-7/8"

5-1/2"

17#

2570'

265 sx

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.

23. I hereby certify that this report is true and complete to the best of my knowledge.

Signature Terry D. Burns *Terry D. Burns* Title Geologist

Date March 30, 1995

(This space for general or State office use)

API No. 43-007-30276

**ACCEPTED**

Approval Date  
Branch of Fluid Minerals  
Moab District

MAY 22 1995

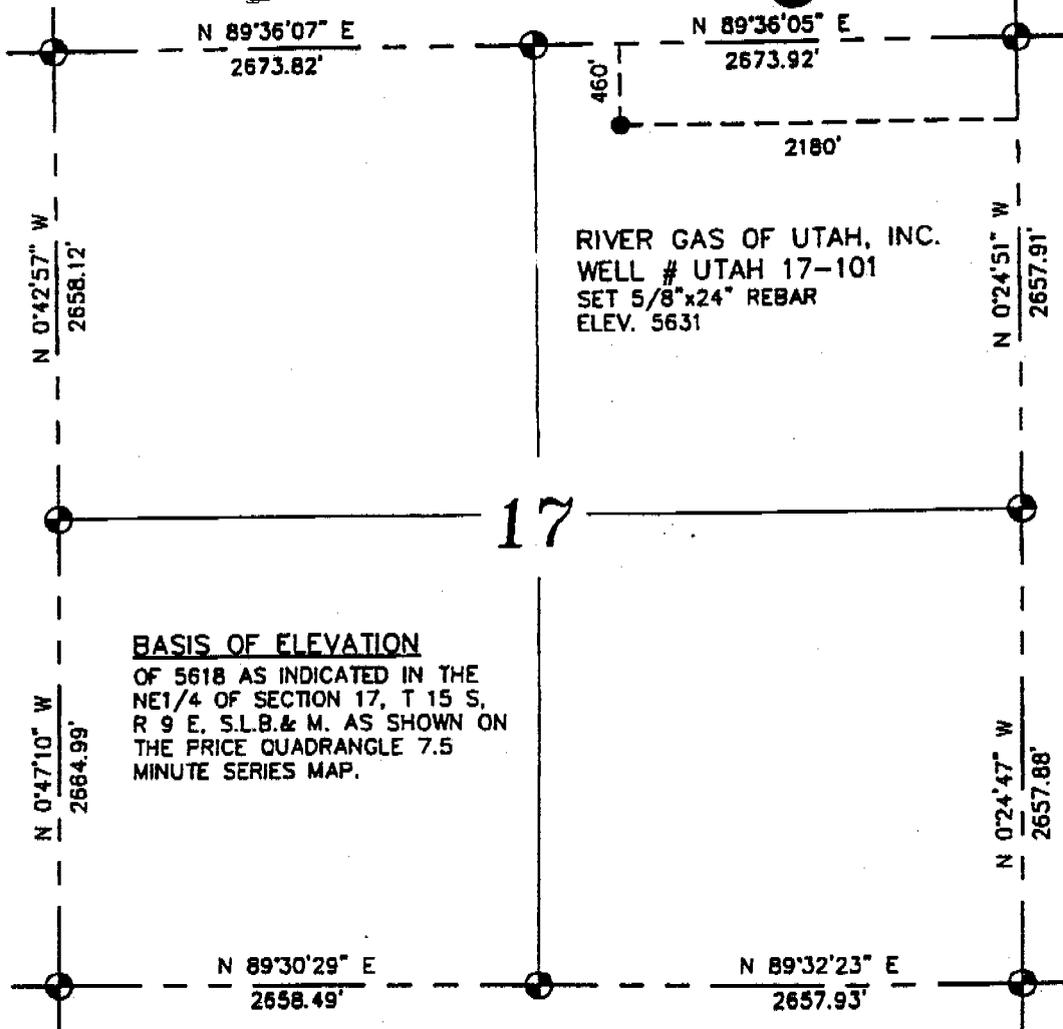
Approved by \_\_\_\_\_  
Consultants of approval, if any: \_\_\_\_\_

Date \_\_\_\_\_

\*See Instructions On Reverse Side

TOWNSHIP 15 SOUTH

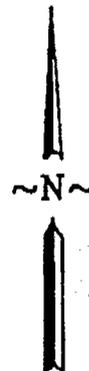
RANGE 10 EAST



RIVER GAS OF UTAH, INC.  
 WELL # UTAH 17-101  
 SET 5/8"x24" REBAR  
 ELEV. 5631

**BASIS OF ELEVATION**

OF 5618 AS INDICATED IN THE  
 NE1/4 OF SECTION 17, T 15 S,  
 R 9 E, S.L.B.& M. AS SHOWN ON  
 THE PRICE QUADRANGLE 7.5  
 MINUTE SERIES MAP.



**LEGEND**

- FOUND BRASS CAP
- SEARCHED FOR BUT NOT FOUND
- ◊ FOUND ROCK CORNER

**BASIS OF BEARING**

BASIS OF BEARING N 89°36'05" E MEASURED  
 BETWEEN THE N1/4 CORNER AND THE NE CORNER  
 OF SECTION 17, TOWNSHIP 15 SOUTH, RANGE 10  
 EAST, SALT LAKE BASE AND MERIDIAN.



**ENGINEER'S CERTIFICATE**

I, EVAN E. HANSEN, DO HEREBY CERTIFY THAT I AM A REGISTERED LAND SURVEYOR AND PROFESSIONAL ENGINEER HOLDING CERTIFICATE NO. 145656 AS PRESCRIBED UNDER THE LAWS OF THE STATE OF UTAH. I FURTHER CERTIFY THAT I HAVE MADE A SURVEY OF THE TRACT OF GROUND SHOWN AND THAT IT IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE.

*Evan E. Hansen* 3/25/95  
 EVAN E. HANSEN DATE

NW1/4 NE1/4 SEC. 17, T 15 S, R 10 E, S.L.B.& M.

**Empire Engineering**

1665 E. Sagewood Rd. Price, Utah 84501

**RIVER GAS OF UTAH, INC.  
WELL # UTAH 17-101**

Drawn By: THK	Approved By: EEH	Drawing No. EEOG-95-13
Date: 3-18-95	Scale: 1"=1000'	SHEET 1 OF 2



**RIVER GAS CORPORATION**

511 Energy Center Blvd.  
Northport, Alabama 35476  
Phone (205) 759-3282  
Fax (205) 759-3188 (Accounting)  
Fax (205) 758-5309 (Corporate)

February 9, 1996

Mr. Mike Hebertson  
State of Utah  
Department of Natural Resources  
Division of Oil, Gas, and Mining  
3 Triad Center, Suite 350  
Salt Lake City, UT 84180-1203

RE: APD Withdrawal

Dear Mr. Hebertson:

Attached is a list of wells River Gas has filed APD's on that we would like to withdraw. Please contact me at your convenience if I may be of any assistance.

Best regards,

A handwritten signature in cursive script, appearing to read "Charles P. Willis".

Charles P. Willis, P.E.  
Vice President, Special Projects

cc: Mike Farrens

1	UTAH D-3A	43-007-30391	WIW
2	TELONIS 21-90	43-007-30307	
3	UTAH 17-101	43-007-30276	
4	MARSING 25-134	43-007-30329	
5	UTAH 36-135	43-007-30325	
6	UTAH 36-136	43-007-30326	
7	UTAH 36-137	43-007-30330	
8	UTAH 02-138	43-015-30282	
9	UTAH 02-139	43-015-30281	
10	UTAH 02-140	43-015-30283	
11	UTAH 02-141	43-015-30284	
12	TELONIS 15-142	43-007-30297	
13	FAUSETT 16-143	43-007-30338	
14	FAUSETT 16-144	43-007-30298	
15	TELONIS 16-145	43-007-30299	
16	PAAR 16-146	43-007-30300	
17	CHRISTIANSEN 17-147	43-007-30301	
18	CHRISTIANSEN 17-148	43-007-30311	
19	BIRKINSHAW 18-149	43-007-30302	
20	TELONIS 20-152	43-007-30314	
21	TELONIS 21-153	43-007-30315	
22	TELONIS 29-154	43-007-30316	
23	TELONIS 29-155	43-007-30317	
24	TELONIS 30-157	43-007-30319	
25	UTAH 32-158	43-007-30320	
26	UTAH 32-159	43-007-30321	
27	UTAH 32-160	43-007-30322	
28	UTAH 32-161	43-007-30337	
29	UTAH 36-162	43-007-30208	
30	UTAH 36-163	43-007-30309	
31	UTAH 36-164	43-007-30310	
32	UTAH 36-165	43-007-30336	
33	UTAH 02-166	43-007-30323	
34	UTAH 02-167	43-007-30324	
35	UTAH 02-168	43-007-30335	

1982



See 17, T155; R10K.

This is the only APD that DOGM has approved.

DTS  
2/15/96



**State of Utah**  
DEPARTMENT OF NATURAL RESOURCES  
DIVISION OF OIL, GAS AND MINING

Michael O. Leavitt  
Governor

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3 Triad Center, Suite 350  
Salt Lake City, Utah 84180-1203  
801-538-5340  
801-359-3940 (Fax)  
801-538-5319 (TDD)

February 15, 1996

Mr. Charles P. Willis  
River Gas Corporation  
511 Energy Center Blvd.  
Northport, Alabama 35476

Re: Utah 17-101 Well, Sec. 17, T. 15 S., R. 10 E., Carbon County, Utah,  
API No. 43-007-30276

Dear Mr. Willis:

Per your request, approval to drill the above referenced well is hereby rescinded. A new Application for Permit to Drill must be filed with this office for approval, prior to the commencement of any future work on the subject location.

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

Sincerely,

A handwritten signature in cursive script that reads "Don Staley".

Don Staley  
Administrative Manager  
Oil and Gas

lwp

cc: R. J. Firth  
Well file

WOI139





METT # 11-101



