Form OGC-1a

CONFIDENTIAL - TIGHT HOLE

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

(Other instructions on reverse side)

5. Lease Designation and Serial No.: Fee

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

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

1a. Type of Work: DRILL [XX] DEEPEN [ ] PLUG BACK [ ]

7. Unit Agreement Name: N/A

b. Type of Well: Oil Well [ ] Gas Well [ ] Other Coalbed Methane Single Zone [XX] Multiple Zone [ ]

8. Farm or Lease Name: Shimmin Trust

2. Name of Operator: PG & E Resources Company 214/750-8888

9. Well No.: #10-11

3. Address of Operator: Permitco Inc. - Agent
5950 Berkshire Lane, #600
Dallas, TX 75225
13585 Jackson Drive
Denver, CO 80241

10. Field and Pool, or Wildcat: Wildcat

4. Location of Well (Report location clearly and in accordance with any State requirements.*)
At surface: 1999' FSL and 2006' FEL
At proposed prod. zone: Sec. 11 NWSE

11. Sec., T., R., M., or Blk. and Survey or Area: Sec. 11, T12S - R10E

14. Distance in miles and direction from nearest town or post office*: 15 miles north of Price, Utah

12. County or Parrish: Carbon 13. State: Utah

15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drlg. line, if any): 1999'

16. No. of acres in lease: 800

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.: 1700'

19. Proposed depth: 5165'

20. Rotary or cable tools: Rotary

21. Elevations (Show whether DF, RT, GR, etc.): 7252' GR

22. Approx. date work will start*: Immediately upon approval of this application.

23. PROPOSED CASING AND CEMENTING PROGRAM

Size of Hole	Size of Casing	Weight per Foot	Setting Depth	Quantity of Cement
12-1/4"	9-5/8"	36#	500'	265 sx or suffic to circ to surf.
8-3/4"	7" *	26#	5165'	475 sx, stage tool at 3200'

PG & E Resources Company proposes to drill a well to 5165' to test the Blackhawk and Star Point Coals for coalbed methane. If productive, casing will be run and the well compelted. If dry, the well will be plugged and abandoned as per State of Utah. requirements.

TECHNICAL REVIEW
Engr.
Geol. 8/18/92
Surface 8/12/92

See Drilling Program attached.

Bond coverage for this well is provided under Bond No. 8063-38-07 and 8057-26-00.

* This well may be considered in the future for possible use as a water disposal well. If so, the appropriate UIC application will be filed with the Division of Oil, Gas & Mining.

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: Lisa L Smith Title: Consultant for PG & E Resources Company Date: 8/6/92

(This space for Federal or State office use)

Permit No. 43-007-30167 Approval Date

APPROVED BY THE STATE OF UTAH DIVISION OF OIL, GAS, AND MINING
DATE: 8/14/92
BY:
WELL SPACING: R649-3-2

Approved by Title

Conditions of approval, if any:

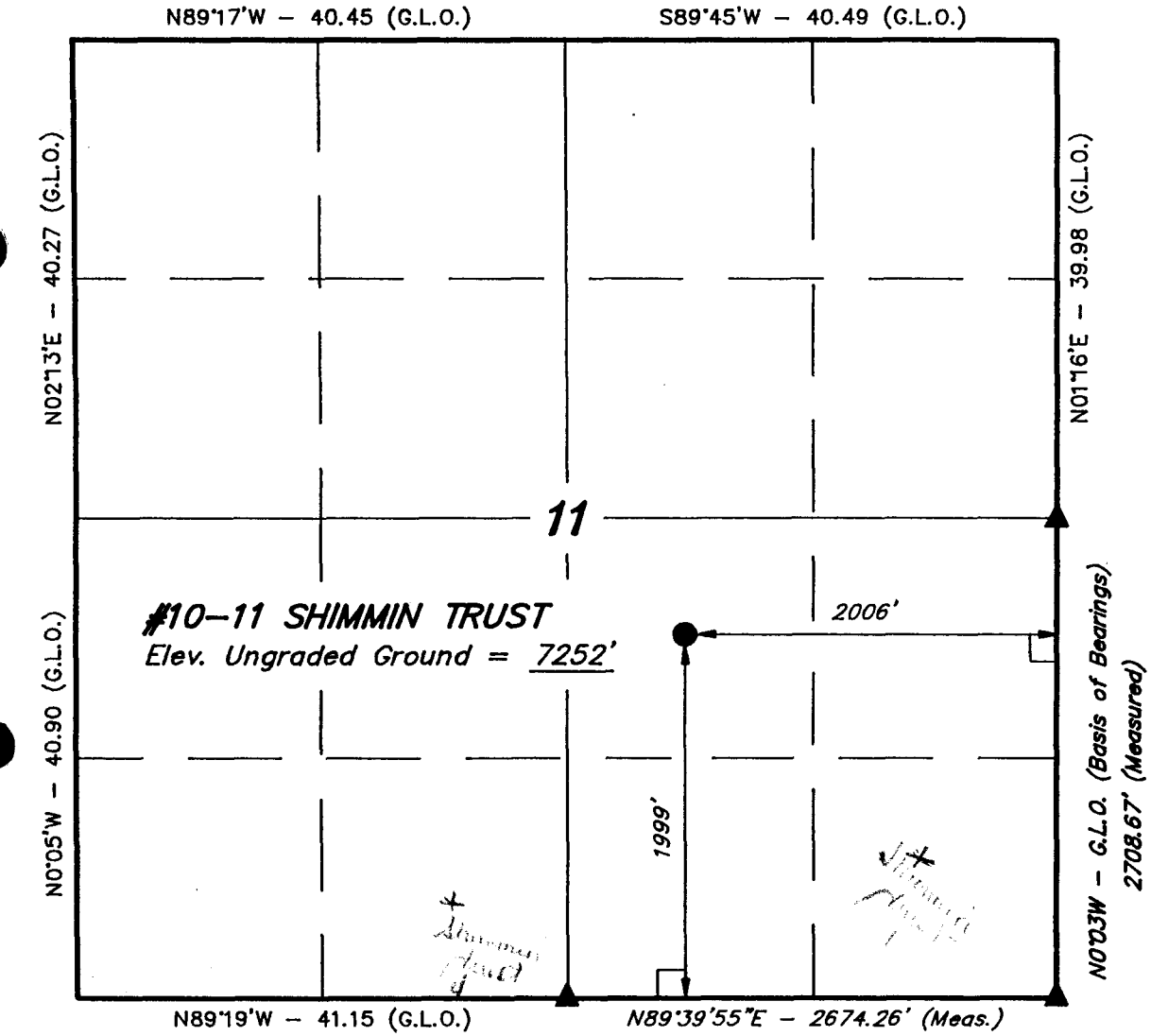
*See Instructions On Reverse Side

RECEIVED
AUG 10 1992
DIV. OIL, GAS, MINING

PG&E RESOURCES COMPANY

Well location, #10–11 SHIMMIN TRUST, located as shown in the NW 1/4 SE 1/4 of Section 11, T12S, R10E, S.L.B.&M. Carbon County, Utah.

T12S, R10E, S.L.B.&M.



LEGEND:

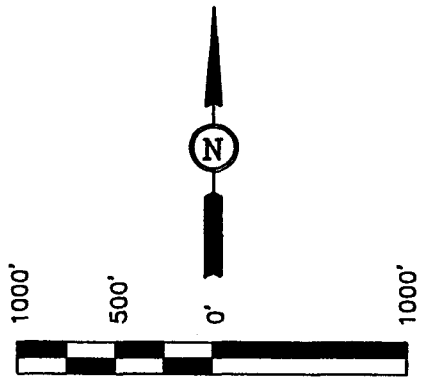
└ = 90° SYMBOL

● = PROPOSED WELL HEAD.

▲ = SECTION CORNERS LOCATED. *(1923 Brass Caps)*

BASIS OF ELEVATION

BENCH MARK 265 (1934) LOCATED IN THE NE 1/4 OF SECTION 10, T12S, R10E, S.L.B.&M. TAKEN FROM THE MATTS SUMMIT QUADRANGLE, UTAH, 7.5 MINUTE QUAD. (TOPOGRAPHIC MAP) PUBLISHED BY THE UNITED STATES DEPARTMENT OF THE INTERIOR, GEOLOGICAL SURVEY. SAID ELEVATION IS MARKED AS BEING 7131 FEET.



CERTIFICATE

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

Robert L. Kay

REGISTERED LAND SURVEYOR
REGISTRATION NO. 5709
STATE OF UTAH

UINTAH ENGINEERING & LAND SURVEYING
85 SOUTH 200 EAST – VERNAL, UTAH 84078
(801) 789–1017

SCALE: 1" = 1000'	DATE SURVEYED: 7–15–92	DATE DRAWN: 7–17–92
PARTY: D.A. K.K. J.L.G.	REFERENCES: G.L.O. PLAT	
WEATHER: HOT	FILE: PG&E RESOURCES	

CONFIDENTIAL - TIGHT HOLE

#10-11 SHIMMIN TRUST
1999' FSL and 2006' FEL
NW SE Sec. 11, T12S - R10E
Carbon County, Utah

Prepared For:

PG & E RESOURCES COMPANY

By:

PERMITCO INC.
13585 Jackson Drive
Denver, Colorado 80241
303/452-8888

Copies Sent To:

3 - Division of Oil, Gas & Mining
1 - PG & E Resources Co. - Vernal, Utah
3 - PG & E Resources Co. - Dallas, TX

Permitco

Permitco Incorporated
A Petroleum Permitting Company

Application for Permit to Drill
P G & E Resources Company
#10-11 SHIMMIN TRUST
1999' FSL and 2006 FELL
NW SE Sec. 11, T12S - R10E
Carbon County, Utah

CONFIDENTIAL - TIGHT HOLE

The subject well is being drilled to test the Blackhawk and Star Point Coals for Coalbed Methane. If this well is productive, it may also be considered for use as a water disposal well. If so, the required UIC application will be filed with the Division of Oil, Gas & Mining.

1. Formation Tops

The estimated tops of important geologic markers are as follows:

Formation	Depth
Flagstaff	Surface
Price River	2892'
Castlegate	3369'
Blackhawk	3663'
Kenilworth (S.P. I)	4382'
Aberdeen (S.P. II)	4585'
T.D.	5165'

2. Casing Program

The proposed casing program will be as follows:

Purpose	Depth	Hole Size	O.D.	Weight	Grade
Surface	0-500'	12-1/4"	9-5/8"	36#	K-55
Produc.	0-5165'	8-3/4"	7"	26#	N-80

Casing design subject to revision based on geologic conditions encountered.

3. Cement Program

The cement program will be as follows:

Surface	Type and Amount
0-500'	Cement to surface with 265 sx Premium Cement + 2% CaCl2 + 0.25 #/sk Flocele (or equivalent). Centralizers will be run on bottom 3 joints plus every 4th joint to surface.
Production	Type and Amount
	Two stage cement to surface w/stage tool at 3200'. First Stage: 300 sx 50/50 Pozmix + 2% Gel + .25% Flocele. Second Stage: 175 sx Silica Lite + 4% Gel + 4% CaCl2.

4. Drilling Fluids

The proposed circulating mediums to be employed in drilling are as follows:

Interval	Mud Type	Mud Wt.	Visc.	FL	PH
0-500'	Air/Spud Mud	8.4-9.0	32-50	N/C	8.0-9.0
500-3500'	FW w/Gel Sweeps	8.4-8.8	28-32	N/C	8.0-9.0
3500-5165'	FW-LSND	8.6-9.0	34-45	10-15	8.0-9.0

5. Testing, Logging and Coring

The anticipated type and amount of testing, logging and coring are as follows:

a. No drill stem tests are planned.

b. The logging program will consist of a Cased Hole Dual Spaced Neutron w/Gamma Ray, 2" & 5" from T.D. to Base of Surface Casing and an Acoustic CBL/CCL, - 5" from T. D. to Base of Surface casing.

c. No cores are anticipated.

6. Spud Date/Drilling Time

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

b. It is anticipated that the drilling of this well will take approximately 20 days (4 days - Spudder rig; 16 days Drill rig).

7. Road Use/Water Source

a. All access is located on Private or County Roads. The Carbon County Road Department has been contacted for use of County Roads. Surface use agreements will be reached with the other land owners for use of access roads and drillsite.

b. Produced water from five producing wells in the immediate area will be used for drilling. The location of the existing water pits are as follows:

1) N 540' E 1900' from SW cor.. Sec. 11, T12S - R10E
2) N 793' W 780' from SE cor., Sec. 11, T12S - R10E
3) S 1980' E 1780' from NW cor.. Sec. 14, T12S - R10E
4) S 660' W 2340' from NE cor.. Sec. 14, T12S - R10E
5) S 1980' W 800' from NE cor.. Sec. 14, T12S - R10E

The proposed water sources are located on private lands. A Temporary Change application (#t92-91-12) is on file with the Utah Division of Water Rights for use of these water sources.

8. BOP Requirements

PG & E's minimum specifications for pressure control equipment are as follows:
Ram Type: 10" Hydraulic double, 2000 psi w.p.

Ram type preventers and associated equipment shall be tested to approved stack working pressure if isolated by test plug or to 70 percent of internal yield pressure of casing. Pressure shall be maintained for at least 10 minutes or until requirements of test are met, whichever is longer. If a test plug is utilized, no bleed-off pressure is acceptable. For a test not utilizing a test plug, if a decline in pressure of more than 10 percent in 30 minutes occurs, the test shall be considered to have failed. Valve on casing head below test plug shall be open during test of BOP stack.

As a minimum, the above test shall be performed:

a. when initially installed;
b. whenever any seal subject to test pressure is broken
c. following related repairs; and
d. at 30-day intervals

Valves shall be tested from working pressure side during BOPE tests with all down stream valves open.

When testing the kill line valve(s) the check valve shall be held open or the ball removed.

Pipe and blind rams shall be activated each trip, however, this function need not be performed more than once a day.

Pressure tests shall apply to all related well control equipment.

All of the above described tests and/or drills shall be recorded in the drilling log.

BOP systems shall be consistent with API RP53. Pressure tests will be conducted before drilling out from under casing strings which have been 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 will be recorded on the daily drilling report. Preventers will be pressure tested before drilling casing cement plugs.

a. The size and rating of the BOP stack is shown on the attached diagram.

b. A choke line and a kill line are to be properly installed. The kill line is not to be used as a fill-up line.

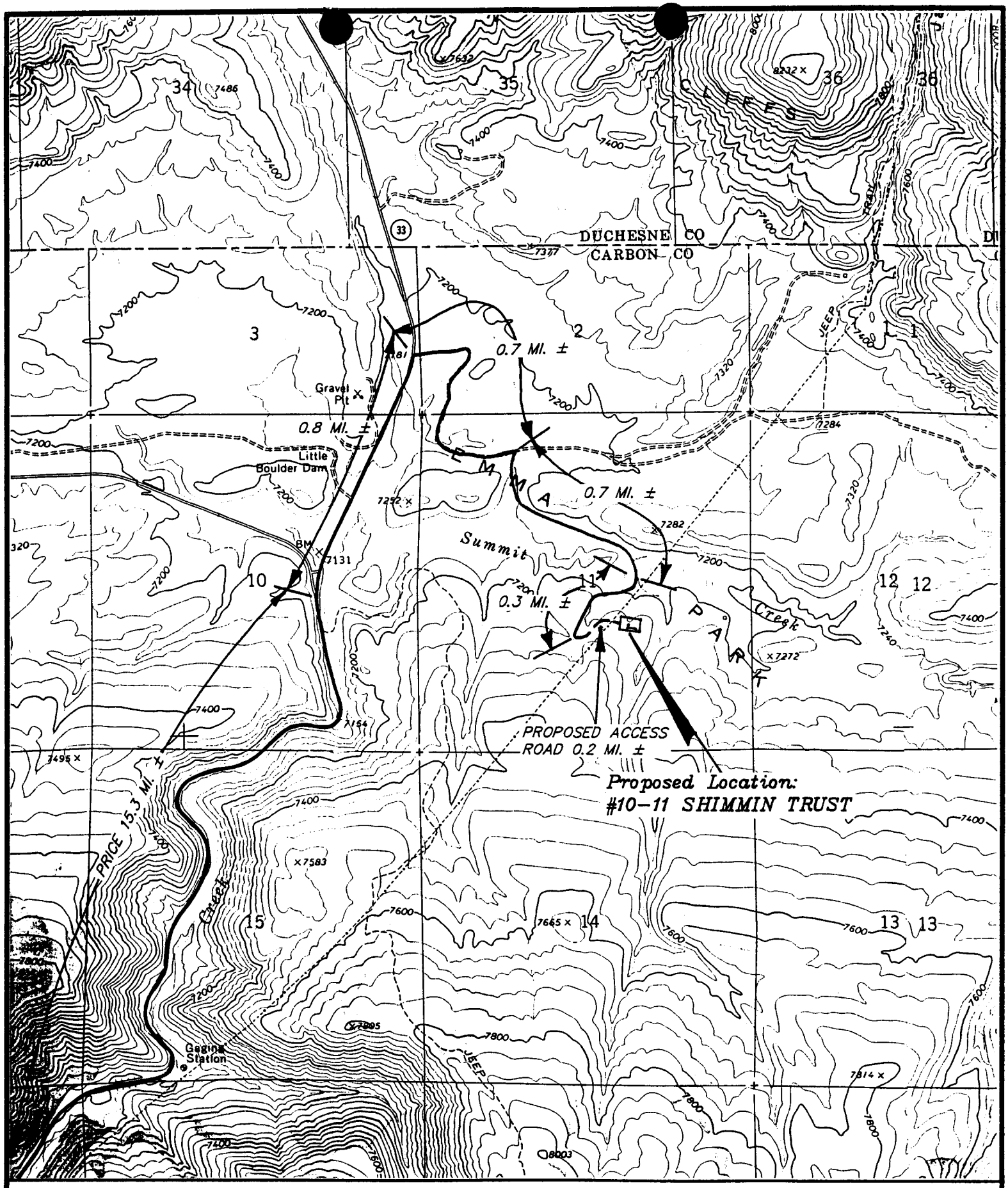
c. The accumulator system shall have a pressure capacity to provide for repeated operation of hydraulic preventers.

d. Drill string safety valve(s), to fit all tools in the drill string, are to be maintained on the rig floor while drilling operations are in progress.

9. Anticipated Pressures

a. The expected maximum bottom hole pressure is 2242 psi (.434 psi/ft). The maximum surface pressure is 1105 psi (based on partially evacuated hole at 0.22 psi/ft.)

b. No hydrogen sulfide gas or abnormal pressures are anticipated.



TOPOGRAPHIC

MAP "B"

SCALE: 1" = 2000'

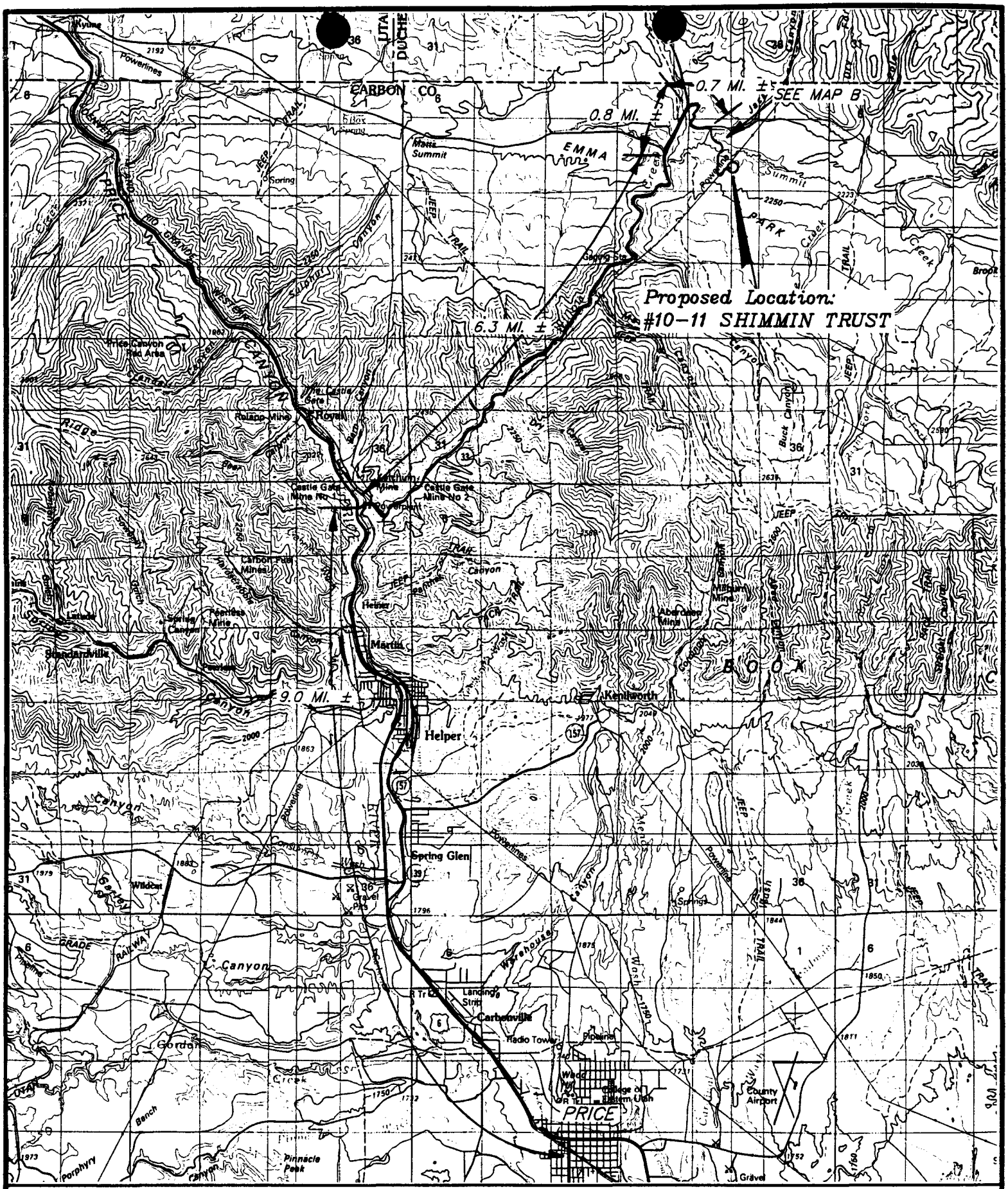
DATE 7-17-92 J.L.G.

PG&E RESOURCES COMPANY

#10-11 SHIMMIN TRUST

SECTION 11, T12S, R10E, S.L.B.&M.

1999' FSL 2006' FEL



TOPOGRAPHIC
MAP "A"

DATE 7-17-92 J.L.G.

N

PG&E RESOURCES COMPANY

#10-11 SHIMMIN TRUST
SECTION 11, T12S, R10E, S.L.B.&M.
1999' FSL 2006' FEL

Permitco

August 6, 1992

Division of Oil, Gas & Mining
3 Triad Center, Suite 350
Salt Lake City, UT 84180-1203

Attn: Tammi Searing

Re: PG & E Resources Company
Castlegate Prospect
Application for Temporary Change of Water
Carbon County, Utah

Dear Tammi,

Enclosed please find one copy of the Application for Temporary Change of Water for PG & E's Castlegate Prospect in Carbon County, Utah.

As you know, several Applications for Permit to Drill have already been submitted and several additional applications will be forthcoming.

In future applications I will reference the Change Application Number (t92-91-12 (91 Area), rather than send additional copies of this application.

If you should need additional information, please feel free to contact me.

Sincerely,

PERMITCO INC.

Lisa L. Smith
Consultant for:
PG & E Resources Company

Enc.

cc: PG & E Resources - Dallas, TX
PG & E Resources - Vernal, UT

Permitco Incorporated
A Petroleum Permitting Company

13585 Jackson Drive Denver, Colorado 80241 (303) 452-8888

APPLICATION FOR TEMPORARY CHANGE OF WATER

RECEIVED
JUL 31 1992
WATER RIGHTS

AUG 10 1992
DIV. OIL, GAS, MINING

Rec. by
Fee Paid $
Receipt #
Microfilmed
Roll #

STATE OF UTAH

For the purpose of obtaining permission to make a temporary change of water in the State of Utah, application is hereby made to the State Engineer, based upon the following showing of facts, submitted in accordance with the requirements of Section 73-3-3 Utah Code Annotated 1953, as amended.

*WATER RIGHT NO. 91 - Area _____ *APPLICATION NO. t 92 - 91 - 12

Changes are proposed in (check those applicable)
X point of diversion. X place of use. X nature of use. X period of use.

1. OWNER INFORMATION
Name: West Hazmat Oil Field Services Inc. *Interest: ___%
Address: East Highway 40
City: Roosevelt State: Utah Zip Code: 84066

2. *PRIORITY OF CHANGE: July 31, 1992 *FILING DATE: July 31, 1992
*Is this change amendatory? (Yes/No): No

3. RIGHT EVIDENCED BY: 91-366, Cert.#a229, Morse Decree First Class

Prior Approved Temporary Change Applications for this right: t91-91-09; t92-91-03; t92-91-04; t92-91-05; t92-91-09; t92-91-10.

********** HERETOFORE **********

4. QUANTITY OF WATER: 7.98 cfs and/or _____ ac-ft.
5. SOURCE: Price River
6. COUNTY: Carbon
7. POINT(S) OF DIVERSION:
S. 560 ft. & E. 680 ft. from N¼ Cor. Sec. 1, T14S, R9E, SLB&M.

Description of Diverting Works: Concrete diversion dam, earthen ditches

8. POINT(S) OF REDIVERSION
The water has been rediverted from _____ at a point:

Description of Diverting Works:

9. POINT(S) OF RETURN
The amount of water consumed is 7.98 cfs or ___ ac-ft.
The amount of water returned is ___ cfs or ___ ac-ft.
The water has been returned to the natural stream/source at a point(s):

*These items are to be completed by the Division of Water Rights.

STATE OF UTAH
NATURAL RESOURCES
Water Rights

Norman H. Bangerter, Governor
Dee C. Hansen, Executive Director
Robert L. Morgan, State Engineer

Southeastern Area • 453 S. Carbon Avenue • P.O. Box 718 • Price, UT 84501-0718 • 801-637-1303

July 31, 1992

West Hazmat Oil Field Services Inc.
Attn: Dale Price
East Highway 40
Roosevelt, Utah 84066

Re: Temporary Change Application #t92-91-12
Expiration Date: November 30, 1992

Dear Mr. Price:

The above referenced Temporary Change Application is hereby approved, and a copy is enclosed for your information and records.

If you have any questions, please feel free to contact me.

Sincerely,

William A. Wemmick

for Mark P. Page
Regional Engineer

cc: Bob Davis - Price River Commissioner

Enclosures
MPP/mjk

RECEIVED
AUG 10 1992
DIV. OIL, GAS, MINING

10. NATURE AND PERIOD OF USE
Irrigation: From March 1 to November 30
Stockwatering: From ____ to ____
Domestic: From ____ to ____
Municipal: From ____ to ____
Mining: From ____ to ____
Power: From ____ to ____
Other: From ____ to ____

11. PURPOSE AND EXTENT OF USE
Irrigation: 12,576.07 acres. Sole supply of 488.10 acres.
Stockwatering (number and kind): ____
Domestic: ____ Families and/or ____ Persons.
Municipal (name): ____
Mining: ____ Mining District in the ____ Mine.
Ores mined: ____
Power: Plant name: ____ Type: ____ Capacity: ____
Other (describe): ____

12. PLACE OF USE
Legal description of place of use by 40 acre tract(s): Carbon Canal Delivery System

13. STORAGE
Reservoir Name: ____ Storage Period: from ____ to ____
Capacity: ____ ac-ft. Inundated Area: ____ acres.
Height of dam: ____ feet.
Legal description of inundated area by 40 tract(s): ____

********** THE FOLLOWING CHANGES ARE PROPOSED **********

14. QUANTITY OF WATER: ____ cfs and/or 13.0 ac-ft.
15. SOURCE: 1) Willow Creek 2) Underground Exploratory Wells
Balance of the water will be abandoned: ____, or will be used as heretofore: X
16. COUNTY: Carbon
17. POINT(S) OF DIVERSION: See Attached Sheet
Description of Diverting Works: 1) Portable pump to tank truck 2) Existing 5½" casing, 4425 to 4667 feet deep
*COMMON DESCRIPTION: 10 miles NE of Helper Matts Summit Quad

18. POINT(S) OF REDIVERSION
The water will be rediverted from ____ at a point: ____
Description of Diverting Works: ____

19. POINT(S) OF RETURN
The amount of water to be consumed is ____ cfs or 13.0 ac-ft.
The amount of water to be returned is ____ cfs or ____ ac-ft.
The water will be returned to the natural stream/source at a point(s): ____

20. NATURE AND PERIOD OF USE

Irrigation: From __/__/__ to __/__/__
Stockwatering: From __/__/__ to __/__/__
Domestic: From __/__/__ to __/__/__
Municipal: From __/__/__ to __/__/__
Mining: From __/__/__ to __/__/__
Power: From __/__/__ to __/__/__
Other: From 7/31/92 to 11/30/92

21. PURPOSE AND EXTENT OF USE

Irrigation: _____ acres. Sole supply of _____ acres.
Stockwatering (number and kind): _____
Domestic: _____ Families and/or _____ Persons.
Municipal (name): _____
Mining: _____ Mining District at the _____ Mine.
Ores mined: _____
Power: Plant name: _____ Type: _____ Capacity: _____
Other (describe): Exploration drilling, road construction, dust suppression

22. PLACE OF USE

Legal description of place of use by 40 acre tract(s): See Attached Sheet

23. STORAGE

Reservoir Name: _____ Storage Period: from _____ to _____
Capacity: _____ ac-ft. Inundated Area: _____ acres.
Height of dam: _____ feet.
Legal description of inundated area by 40 tract(s): _____

24. EXPLANATORY

The following is set forth to define more clearly the full purpose of this application. Include any supplemental water rights used for the same purpose. (Use additional pages of same size if necessary):
This Temporary Change Application is being filed to replace t91-91-09 & t92-91-10 to correct the points of diversion and place of use. To date approximately 0.77 AF has been utilized under t91-91-09.

****

The undersigned hereby acknowledges that even though he/she/they may have been assisted in the preparation of the above-numbered application through the courtesy of the employees of the Division of Water Rights, all responsibility for the accuracy of the information contained herein, at the time of filing, rests with the applicant(s).

Dale Price

Signature of Applicant(s)

West Hazmat Oil Field Services Inc.
Temporary Change Application
#t92-91-12 (91 Area)
July 31, 1992

#17 Points of Diversion:

Willow Creek:
N. 320 ft. & W. 290 ft. from SE Cor. Sec. 3, T12S, R20E, SLB&M.

Shimmin Trust Wells:
Shimmin Trust #1: N. 793 ft. & W. 780 ft. from SE Cor. Sec. 11;
Shimmin Trust #2: S. 1980 ft. & W. 800 ft. from NE Cor. Sec. 14;
Shimmin Trust #3: S. 1980 ft. & E. 1780 ft. from NW Cor. Sec. 14;
Shimmin Trust #4: N. 540 ft. & E. 1900 ft. from SW Cor. Sec. 11;
Shimmin Trust #5: S. 660 ft. & W. 2340 ft. from NE Cor. Sec. 14;
all T12S, R10E, SLB&M.

#22 Place of Use:

1210-0806: S. 2400 ft. & E. 1769 ft. from NW Cor. Sec. 8 (SE4NW4)
#7-9 Federal: S. 2109 ft. & W. 2038 ft. from NE Cor. Sec. 9 (SW4NE4)
#4-15 Federal: S. 660 ft. & E. 450 ft. from NW Cor. Sec. 15 (NW4NW4)
#4-13 Federal: S. 1174 ft. & E. 1168 ft. from NW Cor. Sec. 13 (NW4NW4)
#9-10 Jensen: N. 2500 ft. & W. 1020 ft. from SE Cor. Sec. 10 (NE4SE4)
#2-16 State: S. 780 ft. & W. 1971 ft. from NE Cor. Sec. 16 (NW4NE4)
#9-16 State: N. 1993 ft. & W. 702 ft. from SE Cor. Sec. 16 (NE4SE4)
#11-10 Jensen: N. 1650 ft. & E. 1650 ft. from SW Cor. Sec. 10 (NE4SW4)
#5-10 Jensen: S. 1680 ft. & E. 660 ft. from NW Cor. Sec. 10 (SW4NW4)
#16-10 Jensen: N. 330 ft. & W. 330 ft. from SE Cor. Sec. 10 (SE4SE4)
#7-15 Jensen: S. 1650 ft. & W. 1650 ft. from NE Cor. Sec. 15 (SW4NE4)
#11-11 Shimmin Trust: N. 2350 ft. & E. 1500 ft. from SW Cor. Sec. 11 (NE4SW4)
#10-11 Shimmin Trust: N. 2300 ft. & W. 1850 ft. from SE Cor. Sec. 11 (NW4SE4)
#12-12 Shimmin Trust: N. 2310 ft. & E. 990 ft. from SW Cor. Sec. 12 (NW4SW4)
#14-12 Shimmin Trust: N. 660 ft. & E. 1980 ft. from SW Cor. Sec. 12 (SE4SW4)
#11-15 Jensen: N. 1850 ft. & E. 1650 ft. from SW Cor. Sec. 15 (NE4SW4)
#16-9 Jensen: N. 1150 ft. & W. 1150 ft. from SE Cor. Sec. 9 (SE4SE4)
#16-15 Federal: N. 990 ft. & W. 990 ft. from SE Cor. Sec. 15 (SE4SE4)
#14-14 Federal: N. 990 ft. & E. 1650 ft. from SW Cor. Sec. 14 (SE4SW4)
#14-16 Federal: N. 990 ft. & W. 990 ft. from SE Cor. Sec. 14 (SE4SE4)
#14-13 Federal: N. 990 ft. & E. 1650 ft. from SW Cor. Sec. 13 (SE4SW4)
All T12S, R10E, SLB&M.

Alternate Wells:
#12-9 Jensen: N. 2054 ft. & E. 592 ft. from SW Cor. Sec. 9 (NW4SW4)
#14-9 Jensen: N. 675 ft. & E. 2170 ft. from SW Cor. Sec. 9 (SE4SW4)
#4-16 State: S. 922 ft. & E. 750 ft. from NW Cor. Sec. 16 (NW4NW4)
#11-16 State: N. 1980 ft. & E. 1980 ft. from SW Cor. Sec. 16 (NE4SW4)
All T12S, R10E, SLB&M.

STATE ENGINEER'S ENDORSEMENT

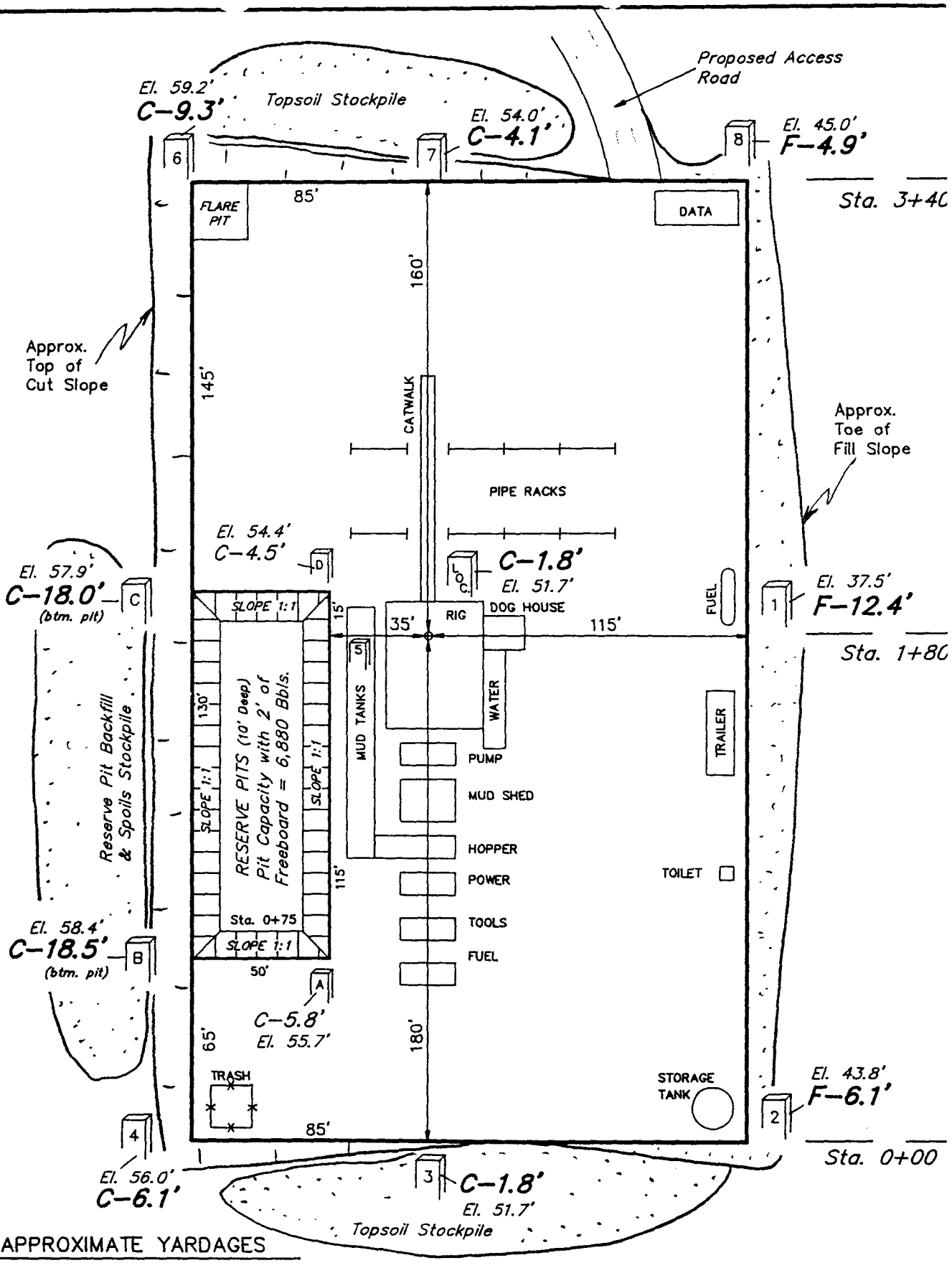
TEMPORARY CHANGE APPLICATION NUMBER: t92-91-12

1. July 31, 1992 Change Application received by BW.
2. July 31, 1992 Application designated for APPROVAL by MP.
3. Comments:

Conditions:
This application is hereby APPROVED, dated July 31, 1992, subject to prior rights and this application will expire on November 30, 1992.

William A. Wisnewski

for Mark Page, Area Engineer
for
Robert L. Morgan, State Engineer



APPROXIMATE YARDAGES

CUT

(6") Topsoil Stripping	=	1,260 Cu. Yds.
Remaining Location	=	8,220 Cu. Yds.
TOTAL CUT	=	9,480 CU.YDS.
FILL	=	6,960 CU.YDS.

EXCESS MATERIAL AFTER 5% COMPACTION	=	2,150 Cu. Yds.
Topsoil & Pit Backfill (1/2 Pit Vol.)	=	2,150 Cu. Yds.
EXCESS UNBALANCE (After Rehabilitation)	=	0 Cu. Yds.

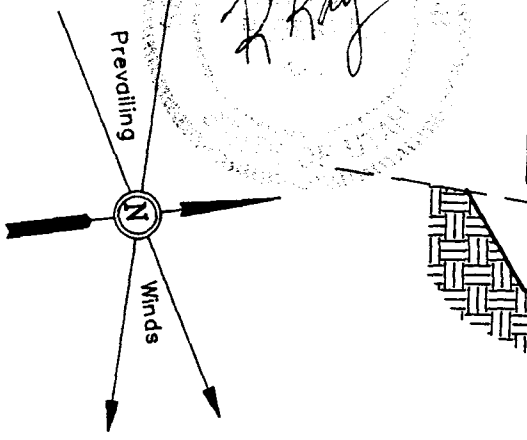
P.G.&E. RESOURCES CO.

LOCATION LAYOUT FOR

#10–11 SHIMMIN TRUST

SECTION 11, T12S, R10E, S.L.B.&M.

1999' FSL 2006' FEL

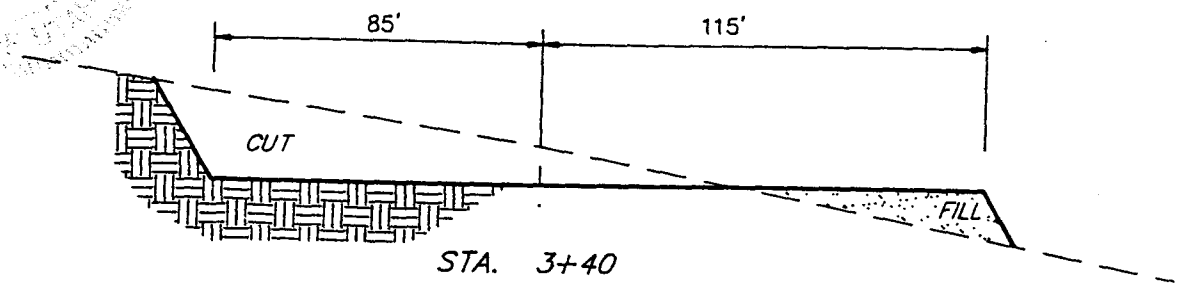


SCALE: 1" = 50'
DATE: 7–17–92
Drawn By: R.E.H.

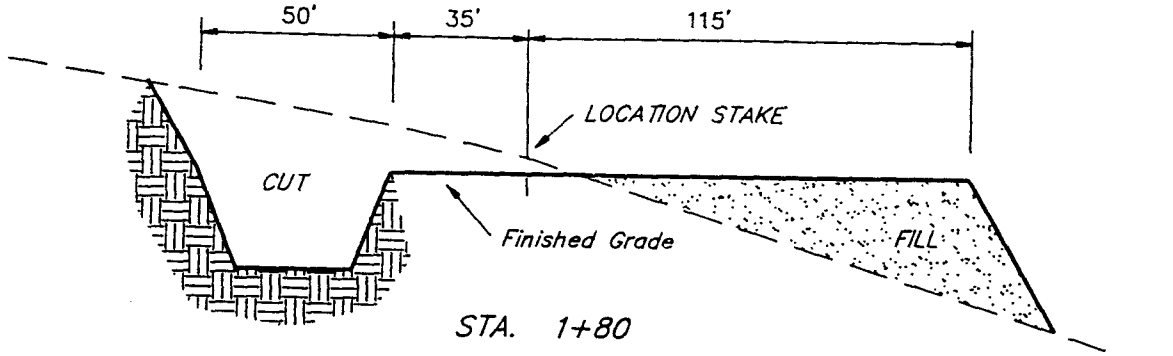
1" = 20'
X–Section
Scale
1" = 50'

TYP. LOCATION LAYOUT

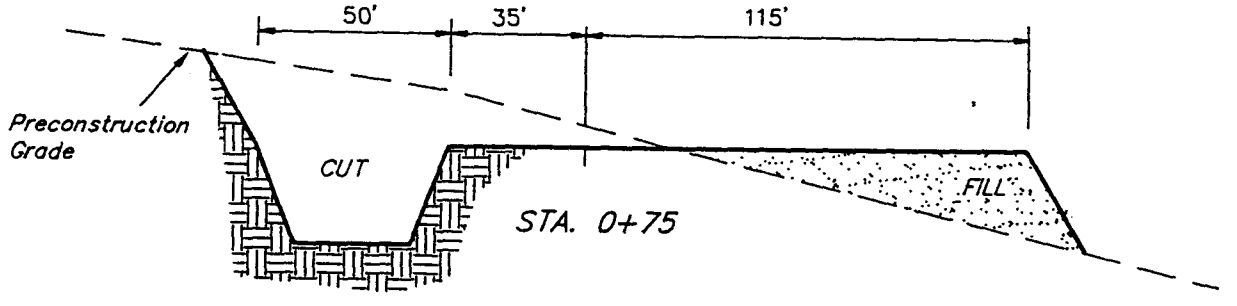
TYP. CROSS SECTIONS



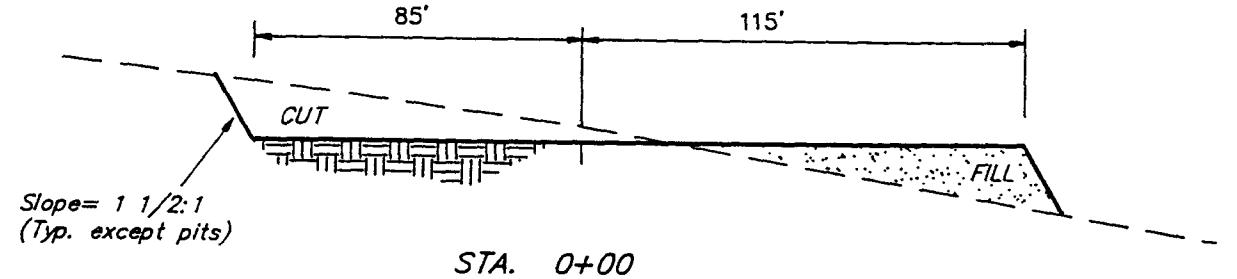
STA. 3+40



STA. 1+80



STA. 0+75



STA. 0+00

V. UNGRADED GROUND AT LOC. STAKE = **7251.7'**

V. GRADED GROUND AT LOC. STAKE = **7249.9'**

UINTAH ENGINEERING & LAND SURVEYING
85 So. 200 East Vernal, Utah

STATE ACTIONS

Mail to:
RDCC Coordinator
116 State Capitol
Salt Lake City, Utah 84114

1. ADMINISTERING STATE AGENCY
OIL, GAS AND MINING
355 West North Temple
3 Triad Center, Suite 350
Salt Lake City, Utah 84180-1203

2. STATE APPLICATION IDENTIFIER NUMBER:
(assigned by State Clearinghouse)

3. APPROXIMATE DATE PROJECT WILL START:
Upon approval

4. AREAWIDE CLEARING HOUSE(s) RECEIVING STATE ACTIONS:
(to be sent out by agency in block 1)
Southeastern Utah Association of Governments

5. TYPE OF ACTION: /_/ Lease /X/ Permit /_/ License /_/ Land Acquisition
/_/ Land Sale /_/ Land Exchange /_/ Other _____

6. TITLE OF PROPOSED ACTION:
Application for Permit to Drill

7. DESCRIPTION:
PG & E Resources Company proposes to drill a wildcat well, the Shimmin #10-11 well on a private lease in Carbon County, Utah. This action is being presented to RDCC for consideration of resource issues affecting state interests. The DOGM is the primary administrative agency in this case and must issue approval to drill before operations can commence.

8. LAND AFFECTED (site location map required) (indicate county)
NW/4, SE/4, Section 11, Township 12 South, Range 10 East, Carbon County, Utah

9. HAS THE LOCAL GOVERNMENT(s) BEEN CONTACTED?
Unknown

10. POSSIBLE SIGNIFICANT IMPACTS LIKELY TO OCCUR:
No significant impacts are likely to occur

11. NAME AND PHONE NUMBER OF DISTRICT REPRESENTATIVE FROM YOUR AGENCY NEAR PROJECT SITE, IF APPLICABLE:

12. FOR FURTHER INFORMATION, CONTACT:
Frank R. Matthews
PHONE: 538-5340

13. SIGNATURE AND TITLE OF AUTHORIZED OFFICIAL
DATE: 8-14-92
Petroleum Engineer

WOI152

DRILLING LOCATION ASSESSMENT

State of Utah
Division of Oil, Gas and Mining

OPERATOR: PG&E RESOURCES CO. WELL NAME: #10-11 SHIMMIN TRUST
SECTION: 11 TWP: 12S RNG: 10E LOC: 1999 FSL 2006 FEL
QTR/QTR NE/SW COUNTY: CARBON FIELD: COALBED METHANE
SURFACE OWNER: SHIMMIN TRUST
SPACING: 460 F SECTION LINE 460 F QTR/QTR LINE 920 F ANOTHER WELL
GEOLOGIST: BRAD HILL DATE AND TIME: 7/20/92 15:00

PARTICIPANTS: Lisa Smith-Permitco, Dean Shimmin-Landowner, Robert Kay-Uintah Engineering

REGIONAL SETTING/TOPOGRAPHY: The proposed location is on the western edge of the Book Cliffs physiographic province. It is located on the Flagstaff dipslope. The uphill side of the location is flat and the downhill side is sloped.
LAND USE:

CURRENT SURFACE USE: Domestic grazing and wildlife habitat.

PROPOSED SURFACE DISTURBANCE: The proposed pad is rectangular in shape with approximate dimensions of 340'X 200' including a 130'X 50' reserve pit. Approximately .2 miles of new road will be constructed for access.

AFFECTED FLOODPLAINS AND/OR WETLANDS: None

FLORA/FAUNA: Sage, Rabbitbrush, Bunch grass, Lupine, Skyrocket Gillia/Cows, Deer, Elk, Rabbits, Rodents, Birds

ENVIRONMENTAL PARAMETERS

SURFACE GEOLOGY

SOIL TYPE AND CHARACTERISTICS: Clayey-silt with abundant limestone fragments.

SURFACE FORMATION & CHARACTERISTICS: Quaternary alluvium and Flagstaff Limestone.

EROSION/SEDIMENTATION/STABILITY: No active erosion or sedimentation at present. Location should be stable.

PALEONTOLOGICAL POTENTIAL: None observed.

SUBSURFACE GEOLOGY

OBJECTIVES/DEPTHS: Blackhawk-3663', Kenilworth-4382', Aberdeen-4585'

ABNORMAL PRESSURES-HIGH AND LOW: None anticipated.

CULTURAL RESOURCES/ARCHAEOLOGY: NA

CONSTRUCTION MATERIALS: Onsite materials will be used for construction.

SITE RECLAMATION: As per land owner instructions.

RESERVE PIT

CHARACTERISTICS: A rectangular reserve pit will be constructed with approximate dimensions of 130'X 50'X 10'.

LINING: The reserve pit is to be evaluated after construction to determine if a synthetic liner is required.

MUD PROGRAM: 0-500'-air/spud mud; 500'-3500'-FW w/Gel Sweeps; 3500'-5165'-FW-LSND

DRILLING WATER SUPPLY: Drilling water will be from the existing Shimmins Trust wells.

STIPULATIONS FOR APD APPROVAL

The reserve pit is to be evaluated after construction.
The down hill side of the location is to be bermed to prevent run off from the location.

ATTACHMENTS
Photographs will be placed on file.

SOUTHEASTERN UTAH ASSOCIATION OF LOCAL GOVERNMEN

WILLIAM D. HOWELL
Executive Director

P. O. Drawer 1106 • Price, Utah 84501 • Telephone 637-5444

AREAWIDE CLEARINGHOUSE A-95 REVIEW

14 01 07

NOI___ Preapp___ App ___ State Plan ___ State Action X Subdivision ___ (ASP # 8-819-15,16,17,18,19,20,21,22,23

Other (indicate) _____ SAI Number UT920-XIX-010-080

Applicant (Address, Phone Number):

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

Federal Funds:
Requested: _____

RECEIVED
SEP 0 2 1992
DIVISION OF
OIL, GAS & MINING

Title:

APPLICATION FOR PERMIT TO DRILL

- ☒ No comment
- ☐ See comments below
- ☐ No action taken because of insufficient information
- ☐ Please send your formal application to us for review. Your attendance is requested ☐

The applicant should forward any written review comments to the funding agency. Any written response to those comments should be forwarded to the State Clearinghouse and also to the funding agency.

Comments:

Marilyn Thor Wagner
Authorizing Official

8-31-92
Date

REGIONAL CLEARINGHOUSE

FYI
- FRM
- TAS
- LWP

V. PRIVATE ENTITIES

16. UT920901-010 — Hercules Aerospace Company: Open Burning of Titan IV Solid Rocket Motor - Utah Test And Training Range - Environmental Assessment. This is not the complete document; if additional information is needed, please contact OPB. Please note! Due to the short turnaround please have comments to OPB no later than 9-18-92.

VI. LOCAL GOVERNMENT

17. UT920826-010 — Wasatch Front Regional Council/Salt Lake County: 5600 West Draft Environmental Impact Statement - Proposed improvements to a 12-mile section of 5600 West. Comments due 9-15-92.

VII. SHORT TURNAROUND

***Please Note! Due to the short turnaround please comment directly to the Agency with a copy to OPB.**

A. State

18. UT920828-030 — Division of Oil, Gas & Mining/Tooele County: Application for Permit to Drill - Proposal to drill a wildcat well, the Clegg 1-1 well, on a private lease (Sec. 1, T3S, R5W). Comments due 9-11-92.

Frontier Exploration

19. UT920828-020 — Division of Oil, Gas & Mining/Carbon County: Application for Permit to Drill - Proposal to drill a wildcat well, the Federal No. 16-15 well, on federal lease UTU-65949 (Sec. 15, T12S, R10E). Comments due 9-11-92.

PG & E

WORKSHEET
APPLICATION FOR PERMIT TO DRILL

DATE RECEIVED: 08/10/92

OPERATOR: PG & E RESOURCES COMPANY OPERATOR ACCT NO: N- 0595
WELL NAME: SHIMMIN TRUST 10-11

API NO. ASSIGNED: 43-007-30167 CONFIDENTIAL

LEASE TYPE: FEE LEASE NO: fee
LOCATION: NWSE 11 - T12S - R10E CARBON COUNTY
FIELD: WILDCAT FIELD CODE: 001

RECEIVED AND/OR REVIEWED:

- ✓ Plat
- ✓ Bond (Number U-1870145 80,000)
- ✓ Potash (Y/(N))
- ✓ Oil shale (Y/(N))
- ✓ Water permit (Number #90-91-10 91-owm)
- ___ RDCC Review (Y/N) (Date: 8-13-90)

LOCATION AND SITING:

- ___ R649-2-3. Unit: _____
- ✓ R649-3-2. General.
- ___ R649-3-3. Exception.
- ___ Drilling Unit. Board Cause no: _____ Date: _____

COMMENTS: two addl wells within Sec 11.
Private 8-13-90 (Geology review) 8-18-90

STIPULATIONS:

1. fee stipulation
2. ✓ The reserve pit should be ~~inspected~~ inspected after construction to determine if a synthetic liner is required.
3. The downhill side of the location should be bermed to prevent runoff from the location

Norman H. Bangerter
Governor
Dee C. Hansen
Executive Director
Dianne R. Nielson, Ph.D.
Division Director

State of Utah

DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

355 West North Temple
3 Triad Center, Suite 350
Salt Lake City, Utah 84180-1203
801-538-5340

September 9, 1992

PG & E Resources Company
5950 Berkshire Lane #600
Dallas, Texas 75225

Gentlemen:

Re: Shimmin Trust #10-11 Well, 1999 feet from the south line, 2006 feet from the east line, NW 1/4 SE 1/4, Section 11, Township 12 South, Range 10 East, Carbon County, Utah

Pursuant to Utah Admin. R. 649-3-2, Location and Siting of Wells and Utah Admin. R. 649-3-4, Permitting of Wells to be Drilled, Deepened or Plugged-Back, approval to drill the referenced well is hereby granted.

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

1. PG & E Resources Company, as designated operator, is the bonded principal in reference to this Application for Permit to Drill. Should this designation change or a transfer of ownership occur, liability will remain with the designated operator until the division is notified by letter of a new bonded principal.

2. The reserve pit should be inspected after construction to determine if a synthetic liner is required.

3. The downhill side of the location should be bermed to prevent runoff from the location.

4. Compliance with the requirements of Utah Admin. R. 649-1 et seq., Oil and Gas Conservation General Rules.

5. Notification within 24 hours after drilling operations commence.

6. Submittal of Entity Action Form, Form 6, within five working days following commencement of drilling operations and whenever a change in operations or interests necessitates an entity status change.

7. Submittal of the Report of Water Encountered During Drilling, Form 7.

8. Prompt notification prior to commencing operations, if necessary, to plug and abandon the well. Notify Frank R. Matthews, Petroleum Engineer, (Office) (801)538-5340, (Home) (801)476-8613, or R.J. Firth, Associate Director, (Home) (801)571-6068.

9. Compliance with the requirements of Utah Admin. R. 649-3-20, Gas Flaring or Venting, if the well is completed for production.

Trash and sanitary waste should be properly contained and transported to approved disposal locations, not retained in or disposed of in pits on location or downhole. Prior to the commencement of drilling operations, the operator should consult the local/county sanitarian and/or the Department of Environmental Quality, Division of Drinking Water/Sanitation, regarding appropriate disposal of sanitary waste.

This approval shall expire one year after date of issuance unless substantial and continuous operation is underway or a request for an extension is made prior to the approval expiration date. The API number assigned to this well is 43-007-30167.

Sincerely,

R.J. Firth
Associate Director, Oil and Gas

ldc
Enclosures
cc: Bureau of Land Management
J.L. Thompson
WOI1

DIVISION OF OIL, GAS AND MINING

SPUDDING INFORMATION

NAME OF COMPANY: PG & E 43-007-30167

WELL NAME: SHIMMN TRUST 10-11

Section 11 Township 12S Range 10E County CARBON

Drilling Contractor

Rig #

SPUDDED: Date 9/14/92

Time

How DRY HOLE

CONFIDENTIAL

Drilling will commence

Reported by JAKE NEVES

Telephone # 1-637-1835

Date 9/14/92 SIGNED FRM

STATE OF UTAH
DIVISION OF OIL, GAS AND MINING

ENTITY ACTION FORM - FORM 6

OPERATOR PG&E Resources Company

OPERATOR ACCT. NO. N 0595

ADDRESS 6688 N. Central Expressway, Ste 1000
Dallas, TX 75206-3922

ACTION CODE	CURRENT ENTITY NO.	NEW ENTITY NO.	API NUMBER	WELL NAME	WELL LOCATION QQ	SC	TP	RG	COUNTY	SPUD DATE	EFFECTIVE DATE
A	99999	11419	43-007-30167	Shimmin Trust #10-11	NWSE	11	12S	10E	Carbon	9/24/92	9/24/92

WELL 1 COMMENTS: Entity added 9-30-92. jlr

This well was spud 9/24/92

WELL 2 COMMENTS:

WELL 3 COMMENTS:

WELL 4 COMMENTS:

WELL 5 COMMENTS:

RECEIVED
SEP 30 1992
DIVISION OF
OIL GAS & MINING

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)

Ava Hurst
Signature
Regulatory Affairs 9/28/92
Title Date

Phone No. (214) 750-3958

PG&E Resources Company

3688 N. Central Expressway, Suite 1000
Dallas, Texas 75206-3922
Telephone 214/750-3800
FAX 214/750-3883

October 6, 1992

State of Utah
355 West North Temple
3 Triad Center, Suite 350
Salt Lake City, UT 84180-1203

Re: **Shimmin Trust #10-11**
Jensen #16-10
Shimmin Trust #14-12
Castlegate Area
Carbon County, Utah

Gentlemen:

Enclosed is Form9, Sundry Notice for each of the wells referenced above.

If you should require additional information, please contact the undersigned at (214) 750-3958.

Yours very truly,

Ava Hurst

Ava Hurst
Regulatory Affairs

/ah

Enclosures

Form 9

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

6. Lease Designation and Serial Number

7. Indian Allottee or Tribe Name: N/A

8. Unit or Communitization Agreement: N/A

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill new wells, deepen existing wells, or to reenter plugged and abandoned wells.
Use APPLICATION FOR PERMIT— for such proposals

1. Type of Well: ☐ Oil Well ☐ Gas Well ☒ Other (specify) Coalbed Methane

9. Well Name and Number: Shimmin Trust #10-11

2. Name of Operator: PG&E Resources Company

10. API Well Number: 43-007-30167

3. Address of Operator: 6688 N. Central Expressway, Dallas, TX 75206

4. Telephone Number: (214) 750-3958

11. Field and Pool, or Wildcat:

5. Location of Well
Footage : 1999' FSL & 2006' FEL
QQ, Sec, T., R., M. : NW SE, Sec. 11, T12S-R10E
County : Carbon
State : UTAH

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

NOTICE OF INTENT (Submit in Duplicate)		SUBSEQUENT REPORT (Submit Original Form Only)	
☐ Abandonment	☐ New Construction	☐ Abandonment *	☐ New Construction
☐ Casing Repair	☐ Pull or Alter Casing	☐ Casing Repair	☐ Pull or Alter Casing
☐ Change of Plans	☐ Recompletion	☐ Change of Plans	☐ Shoot or Acidize
☐ Conversion to Injection	☐ Shoot or Acidize	☐ Conversion to Injection	☐ Vent or Flare
☐ Fracture Treat	☐ Vent or Flare	☐ Fracture Treat	☐ Water Shut-Off
☐ Multiple Completion	☐ Water Shut-Off	☐ Other _____	
☒ Other Spud/Set Casing			
Approximate Date Work Will Start _____		Date of Work Completion _____	

Report results of Multiple Completions and Recompletions to different reservoirs on WELL COMPLETION OR RECOMPLETION AND LOG form.
* Must be accompanied by a cement verification report.

13. DESCRIBE PROPOSED OR COMPLETED OPERATIONS (Clearly state all pertinent details, and give pertinent dates. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)

PG&E Resources Company spud the above referenced well 9/24/92. Ran 9 5/8", 36#, K-55 and set at 476' GL. Cement w/275 sx Class "G".

RECEIVED
OCT 08 1992
DIVISION OF
OIL GAS & MINING

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

Name & Signature Ava Hurst Ava Hurst Title Production Administrator Regulatory Affairs Date 10/6/92

(State Use Only)

Form 9

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

6. Lease Designation and Serial Number	Fee
7. Indian Allottee or Tribe Name	N/A
8. Unit or Communitization Agreement	N/A
9. Well Name and Number	Shimmin Trust #10-11
10. API Well Number	43-007-30167 (43-007-30167)
11. Field and Pool, or Wildcat	Wildcat

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill new wells, deepen existing wells, or to reenter plugged and abandoned wells.
Use APPLICATION FOR PERMIT— for such proposals.

1. Type of Well: ☐ Oil Well ☐ Gas Well ☒ Other (specify) Coalbed Methane

2. Name of Operator: PG&E Resources Company

3. Address of Operator: 6688 N. Central Expressway, Dallas, TX 75206

4. Telephone Number: (214) 750-3958

5. Location of Well
Footage : ~~1980'~~ 1999' FSL & ~~1980'~~ 2006' FEL (Exception)
QQ, Sec, T., R., M. : ~~SE SE~~ NW/SE Sec. 11, T12S-R10E
County : Carbon
State : UTAH

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

NOTICE OF INTENT (Submit in Duplicate)		SUBSEQUENT REPORT (Submit Original Form Only)	
☐ Abandonment	☐ New Construction	☐ Abandonment *	☐ New Construction
☐ Casing Repair	☐ Pull or Alter Casing	☐ Casing Repair	☐ Pull or Alter Casing
☐ Change of Plans	☐ Recompletion	☐ Change of Plans	☐ Shoot or Acidize
☐ Conversion to Injection	☐ Shoot or Acidize	☐ Conversion to Injection	☐ Vent or Flare
☐ Fracture Treat	☐ Vent or Flare	☐ Fracture Treat	☐ Water Shut-Off
☐ Multiple Completion	☐ Water Shut-Off	☒ Other Well History	
☐ Other			

Approximate Date Work Will Start _____

Date of Work Completion _____

Report results of Multiple Completions and Recompletions to different reservoirs on WELL COMPLETION OR RECOMPLETION AND LOG form.

* Must be accompanied by a cement verification report.

13. DESCRIBE PROPOSED OR COMPLETED OPERATIONS (Clearly state all pertinent details, and give pertinent dates. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)

Attached is the well history for the above referenced well.

RECEIVED
OCT 13 1992
DIVISION OF
OIL GAS & MINING

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

Name & Signature Ava Hurst Ava Hurst Title Regulatory Affairs Date 10/7/92

(State Use Only)

WELL HISTORY

10-11 Shimmin Trust
Castlegate Area
Carbon County, Utah

09-30-92 Drlg 609', day 1, MW 8.4, Visc 29, WL N/C. Tst BOPE, TIH & drl out cmt. CC $58,580.

10-01-92 Drlg 1220', day 2, 611'/19 hrs, MW 8.5, Visc 29, WL N/C. Trip for BHA, srvy 3° @ 570'. CC $67,474.

10-02-92 Drlg 2042', day 3, 882'/23.5 hrs, MW 8.5, Visc 28, WL N/C. Srvy 3.25° @ 1600'. CC $74,057.

10-03-92 Drlg 2830', day 4, 788'/22.5 hrs, MW 8.4, Visc 29, WL N/C. Srvy 3.75° @ 2157'; 4° @ 2630.

10-04-92 Drlg 3437', day 5, 607'/23 hrs, MW 8.4, Visc 29, WL N/C. Srvy 4.5° @ 3111'.

10-05-92 Depth 3845, Trip F/Bit, 408'/21.5 hrs, MW 8.6, Visc 30, WL 16.8. Trip F/Bit. CC $95,224.

10-06-92 Drlg 4165', day 7, 320'/17.5 hrs, MW 8.8, Visc 31, WL 15.8. Fin trip for bit, drl. Srvy 5.5° @ 4079', CC $100,998.

10-07-92 Drlg 4550', day 8, 385'/24 hrs, MW 8.8, Visc 31, WL 15.8. CC $116,302.

WELL HISTORY

10-11 Shimmin Trust
Castlegate Area
Carbon County, Utah

09-10-92 Begin bldg road & loc.

09-11-92 Bldg location.

09-12-92 Fin loc & pit.

09-13-92 WO spudder rig.

09-14-92 WO spudder rig.

09-15-92 Loc & pit complete, WO spudder rig.
09-16-92 WO spudder rig.
09-17-92 WO spudder rig.
09-18-92 WO spudder rig.
09-19-92 WO spudder rig.
09-20-92 WO spudder rig.

09-21-92 MI spudder rig. **Spud 12-1/4" hole @ 10:00pm 9-20-92.** Drl to 185'.

09-24-92 Drld 12-1/4" hole to 485' w/ spudder rig, prep to run csg.

09-23-92 Depth 395', TOH & found air hammer had twisted off, fished air hammer & repair same. Prep to TIH & fin 12-1/4" hole w/ spudder rig.

09-25-92 Ran 9-5/8", 36#, J-55, ST&C & set @ 476' GL. Cmtd w/ 275 sx Class G, circ cmt to surf, will drill RH & MH today.

09-26-92 Drl RH & MH, rig dn spudder rig.

09-27-92 WO Adcor Rig #36.

09-28-92 MI Adcor Rig #36.
09-29-92 MIRU Adcor, NU BOPE, will tst BOPE this morning.

Form 9

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

6. Lease Designation and Serial Number: Fee

7. Indian Allottee or Tribe Name: N/A

8. Unit or Communitization Agreement: N/A

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill new wells, deepen existing wells, or to reenter plugged and abandoned wells.
Use APPLICATION FOR PERMIT— for such proposals

1. Type of Well: ☐ Oil Well ☐ Gas Well ☒ Other (specify) CBM

9. Well Name and Number: Shimmin Trust #10-11

2. Name of Operator: PG&E Resources Company

10. API Well Number: 43-007-30167

3. Address of Operator: 6688 N. Central Expressway, Dallas, TX 75206

4. Telephone Number: (214) 750-3958

11. Field and Pool, or Wildcat: Wildcat

5. Location of Well
Footage : 1999' FSL & 2006' FEL
QQ, Sec, T., R., M. : NW SE, Sec 11, T12S-R10E
County : Carbon
State : UTAH

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

NOTICE OF INTENT (Submit in Duplicate)		SUBSEQUENT REPORT (Submit Original Form Only)	
☐ Abandonment	☐ New Construction	☐ Abandonment *	☐ New Construction
☐ Casing Repair	☐ Pull or Alter Casing	☐ Casing Repair	☐ Pull or Alter Casing
☐ Change of Plans	☐ Recompletion	☐ Change of Plans	☐ Shoot or Acidize
☐ Conversion to Injection	☐ Shoot or Acidize	☐ Conversion to Injection	☐ Vent or Flare
☐ Fracture Treat	☐ Vent or Flare	☐ Fracture Treat	☐ Water Shut-Off
☐ Multiple Completion	☐ Water Shut-Off	☒ Other Temporary Abandon	
☐ Other			

Approximate Date Work Will Start: _____

Date of Work Completion: _____

Report results of Multiple Completions and Recompletions to different reservoirs on WELL COMPLETION OR RECOMPLETION AND LOG form.

* Must be accompanied by a cement verification report.

13. DESCRIBE PROPOSED OR COMPLETED OPERATIONS (Clearly state all pertinent details, and give pertinent dates. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)

PG&E Resources Company has temporarily abandoned this well as of 10/10/92.

PG&E Resources Company intends to re-enter and complete the well in early 1993, at which time a Sundry Notice will be filed reflecting the proposed work for Division of Oil, Gas and Mining approval.

RECEIVED
OCT 30 1992
DIVISION OF
OIL, GAS & MINING

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

Name & Signature: Ava Hurst Ava Hurst Title: Regulatory Affairs Date: 10/27/92

(State Use Only)

PG&E Resources Company

6688 N. Central Expressway, Suite 1000
Dallas, Texas 75206-3922
Telephone 214/750-3800
FAX 214/750-3883

January 29, 1993

John F. Marshall Trustee
for Dean Carlyle Shimmin Trust
1495 East 2050 North
Provo, Utah 84604

RE: UIC Form 1 Application
Shimmin Trust #10-11
Castlegate CBM Project
Carbon County, Utah

Gentlemen:

In compliance with the requirement of R615-5-2(2.12) of the State of Utah - Department of Natural Resources - Division of Oil, Gas and Mining - Underground Injection Control regulations, which requires that a copy of UIC Form 1 be provided to all surface owners within a one-half mile radius of the proposed disposal well, please find attached a copy of the UIC Form 1 application to dispose salt water into the referenced well.

If you have any questions, please contact the undersigned at (214) 750-3988.

Sincerely,

Jim LaFevers

Jim LaFevers
Supervisor,
Regulatory Affairs

JBL/mp

Enclosure

PG&E Resources Company

6688 N. Central Expressway Suite 1000
Dallas, Texas 75206-3922
Telephone 214/750-3800
FAX 214/750-3883

January 29, 1993

Mona L. Marsing
4300 East 8900 South
Price, Utah 84501

RE: UIC Form 1 Application
Shimmin Trust #10-11
Castlegate CBM Project
Carbon County, Utah

Madam:

In compliance with the requirement of R615-5-2(2.12) of the State of Utah - Department of Natural Resources - Division of Oil, Gas and Mining - Underground Injection Control regulations, which requires that a copy of UIC Form 1 be provided to all surface owners within a one-half mile radius of the proposed disposal well, please find attached a copy of the UIC Form 1 application to dispose salt water into the referenced well.

If you have any questions, please contact the undersigned at (214) 750-3988.

Sincerely,

Jim LaFevers
Supervisor,
Regulatory Affairs

JBL/mp

Enclosure

STATE OF UTAH
DIVISION OF OIL, GAS AND MINING

APPLICATION FOR INJECTION WELL - UIC FORM 1

OPERATOR PG&E Resources Company
ADDRESS 6688 North Central Expressway
Suite 1000
Dallas, Texas 75206

Well name and number: Shimmin Trust #10-11

Field or Unit name: Castlegate CBM Project Lease no. Fee

Well location: QQ NWSE section 11 township 12S range 10E county Carbon

Is this application for expansion of an existing project? . . Yes [ ] No [X]

Will the proposed well be used for: Enhanced Recovery? . . Yes [ ] No [X]
Disposal? . . . . . Yes [X] No [ ]
Storage? . . . . . Yes [ ] No [X]

Is this application for a new well to be drilled? . . . . . Yes [ ] No [X]

If this application is for an existing well,
has a casing test been performed on the well? . . . . . Yes [ ] No [X]
Date of test: _____
API number: 43-007-30167

Proposed injection interval: from 4,730' to 4,808'

Proposed maximum injection: rate 6,500 bpd pressure 2,000 psig

Proposed injection zone contains [ ] oil, [ ] gas, and/or [ ] fresh water within ½ mile of the well. (salt water)

IMPORTANT: Additional information as required by R615-5-2 should accompany this form.

List of Attachments: _____

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

Name Jim LaFevers Signature Jim LaFevers
Title Supervisor, Regulatory Affairs Date February 1, 1993
Phone No. (214) 750-3988

(State use only)
Application approved by _____ Title _____
Approval Date _____

Comments:

(3/89)

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

---ooOoo---

IN THE MATTER OF THE APPLICATION OF PG & E RESOURCES COMPANY FOR ADMINISTRATIVE APPROVAL OF THE JENSEN 16-10, JENSEN 9-10, SHIMMIN TRUST 11-11, AND SHIMMIN TRUST 10-11 WELLS LOCATED IN SECTIONS 10 AND 11, TOWNSHIP 12 SOUTH, RANGE 10 EAST, S.L.M., CARBON COUNTY, UTAH, AS CLASS II INJECTION WELLS	:	NOTICE OF AGENCY ACTION CAUSE NO. UIC-131

---ooOoo---

THE STATE OF UTAH TO ALL PERSONS INTERESTED IN THE ABOVE ENTITLED MATTER.

Notice is hereby given that the Division is commencing an informal adjudicative proceeding to consider the application of PG & E Resources Company for administrative approval of the Jensen 16-10, Jensen 9-10, Shimmin Trust 11-11, and Shimmin Trust 10-11 Wells, located in Sections 10 and 11, Township 12 South, Range 10 East, Carbon County, Utah, for conversion to Class II injection wells. The proceeding will be conducted in accordance with Utah Admin. R.649-10, Administrative Procedures.

The interval from 4730 feet to 4869 feet (Spring Canyon Sand of the Mesa Verde Group) will be selectively perforated for water disposal. The average injection pressure is estimated to be 1500 psig or less with a maximum requested injection pressure of 2000 psig. The estimated injection volume will be approximately 6500 barrels of water per day.

Any person desiring to object to the application or otherwise intervene in the proceeding, must file a written protest or notice of intervention with the Division within fifteen days of the date of publication of this notice. If such a protest or notice of intervention is received, a hearing may be scheduled before the Board of Oil, Gas and Mining. Protestants and/or intervenors should be prepared to demonstrate at the hearing how this matter affects their interests.

DATED this 17th day of February, 1993.

STATE OF UTAH
DIVISION OF OIL, GAS AND MINING

R.J. Firth
Associate Director, Oil and Gas

WUI101

PG & E RESOURCES COMPANY
JENSEN 16-10, JENSEN 9-10,
SHIMMIN TRUST 11-11, AND SHIMMIN TRUST 10-11 WELLS
CAUSE NO. UIC-131

Newspaper Agency Corporation
Legal Advertising
157 Regent Street
Salt Lake City, Utah 84110

Sun Advocate
Box 1870
76 West Main
Price, Utah 84501

Bureau of Land Management
Price District Office
P.O. Drawer AB
Price, Utah 84501

Jim LaFevers
PG & E Resources Company
6688 N. Central Expressway, Suite 1000
Dallas, Texas 75206-3922

James T., Jerry J. and Dix Jensen
c/o Jensen Law Office
190 North Carbon Avenue
Price, Utah 84051

John F. Marshall
1495 East 2050 North
Provo, Utah 84604

Dan Jackson
Environmental Protection Agency
Region VIII
999 18th Street, Suite 500
Denver, Colorado 80202-2466

Lisa D. Clement

Lisa D. Clement, Administrative Secretary
February 18, 1993

Norman H. Bangerter
Governor
Dee C. Hansen
Executive Director
Dianne R. Nielson, Ph.D.
Division Director

State of Utah

DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

355 West North Temple
3 Triad Center, Suite 350
Salt Lake City, Utah 84180-1203
801-538-5340

February 18, 1993

Newspaper Agency Corporation
Legal Advertising
157 Regent Street
Salt Lake City, Utah 84110

Gentlemen:

Re: Notice of Agency Action - Cause No. UIC-131

Enclosed is a copy of the referenced Notice of Agency Action. Please publish the Notice, once only, as soon as possible. Please send proof of publication and billing to the Division of Oil, Gas and Mining, 355 West North Temple, 3 Triad Center, Suite 350, Salt Lake City, Utah 84180-1203.

Sincerely,

Lisa D. Clement

Lisa D. Clement
Administrative Secretary

ldc
Enclosure
WUI45

Norman H. Bangerter
Governor
Dee C. Hansen
Executive Director
Dianne R. Nielson, Ph.D.
Division Director

State of Utah

DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

355 West North Temple
3 Triad Center, Suite 350
Salt Lake City, Utah 84180-1203
801-538-5340

February 18, 1993

Sun Advocate
Box 1870
76 West Main
Price, Utah 84501

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Sincerely,

Lisa D. Clement

Lisa D. Clement
Administrative Secretary

ldc
Enclosure
WUI45

2J820070

NOTICE OF AGENCY ACTION
CAUSE NO. UIC-131
BEFORE THE DIVISION OF OIL, GAS AND MINING
DEPARTMENT OF NATURAL RESOURCES, STATE OF UTAH

IN THE MATTER OF THE APPLICATION OF PG & E RESOURCES COMPANY FOR ADMINISTRATIVE APPROVAL OF THE JENSEN 16-10, JENSEN 9-10, SHIMMIN TRUST 11-11, AND SHIMMIN TRUST 10-11 WELLS LOCATED IN SECTIONS 10 AND 11, TOWNSHIP 12 SOUTH, RANGE 10 EAST, S.L.M., CARBON COUNTY, UTAH, AS CLASS II INJECTION WELLS

THE STATE OF UTAH TO ALL PERSONS INTERESTED IN THE ABOVE ENTITLED MATTER.

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Any person desiring to object to the application or otherwise intervene in the proceeding, must file a written protect or notice of intervention with the Division within fifteen days of the date of publication of this notice. If such a protest or notice of intervention is received, a hearing may be scheduled before the Board of Oil, Gas and Mining. Protestants and/or intervenors should be prepared to demonstrate at the hearing how his matter affects their interests.

DATED this 17th day of February, 1993.

STATE OF UTAH
DIVISION OF OIL, GAS AND MINING
/s/ R. J. Firth
Associate Director
2J820070

2-23-93
SLT

AFFIDAVIT OF PUBLICATION

STATE OF UTAH)
ss.
County of Carbon,)

I, Dan Stockburger, on oath, say that I am the Publisher of the Sun Advocate, a twice-weekly newspaper of general circulation, published at Price, State and County aforesaid, and that a certain notice, a true copy of which is hereto attached, was published in the full issue of such newspaper for One (1) .....consecutive issues, and that the first publication was on the

23rd .....day of February ,19 93

and that the last publication of such notice was in the issue of such newspaper dated the

.....day of.....,19.....

Subscribed and sworn to before me this

...23rd.....day of..February.....,19..93

.....
Notary Public

My Commission expires January 10, 1995

Residing at Price, Utah

Publication fee, $.....32.00.....

NOTICE OF AGENCY ACTION
CAUSE NO. UIC-131
BEFORE THE DIVISION OF OIL, GAS AND MINING
DEPARTMENT OF NATURAL RESOURCES
STATE OF UTAH

IN THE MATTER OF THE APPLICATION OF PG&E RESOURCES COMPANY FOR ADMINISTRATIVE APPROVAL OF THE JENSEN 16-10, JENSON 9-10, SHIMMIN TRUST 11-11, AND SHIMMIN TRUST 10-11 WELLS LOCATED IN SECTIONS 10 AND 11, TOWNSHIP 12 SOUTH, RANGE 10 EAST, S.L.M., CARBON COUNTY, UTAH AS CLASS II INJECTION WELLS

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DATED this 17th day of February, 1993.

STATE OF UTAH
DIVISION OF OIL, GAS AND MINING
-s-R.J. Firth
Associate Director, Oil and Gas

Published in the Sun Advocate February 23, 1993.

STATE OF TEXAS
COUNTY OF DALLAS

Before me, the undersigned authority, on this day personally appeared Jim LaFevers, the Regulatory Affairs Supervisor for PG&E Resources Company, who being by me duly sworn, deposes and says that a copy of the UIC Form 1 for the Shimmin Trust #10-11 well was mailed to each of the people listed below on the following date, to wit: January 29, 1993.

Jim LaFevers
Regulatory Affairs Supervisor
PG&E Resources Company

Subscribed and sworn to before me this 5th day of February, 1993, to certify which witness my hand and seal of office.

Cynthia R. Keister
Notary Public in and for Dallas
County, Texas

OFFSET OPERATORS:

None

SURFACE OWNERS:

John F. Marshall Trustee
for Dean Carlyle Shimmin Trust
1495 East 2050 North
Provo, Utah 84604

Mona L. Marsing
4300 East 8900 South
Price, Utah 84501

STATE OF UTAH
DIVISION OF OIL, GAS AND MI

APPLICATION FOR INJECTION WELL - UIC FORM 1

OPERATOR PG&E Resources Company
ADDRESS 6688 North Central Expressway
Suite 1000
Dallas, Texas 75206

Well name and number: Shimmin Trust #10-11

Field or Unit name: Castlegate CBM Project Lease no. Fee

Well location: QQ NWSE section 11 township 12S range 10E county Carbon

Is this application for expansion of an existing project? . . Yes [ ] No [X]

Will the proposed well be used for: Enhanced Recovery? . . Yes [ ] No [X]
Disposal? . . . . . Yes [X] No [ ]
Storage? . . . . . Yes [ ] No [X]

Is this application for a new well to be drilled? . . . . . Yes [ ] No [X]

If this application is for an existing well,
has a casing test been performed on the well? . . . . . Yes [ ] No [X]
Date of test:
API number: 43-007-30167

Proposed injection interval: from 4,730' to 4,808'

Proposed maximum injection: rate 6,500 bpd pressure 2,000 psig

Proposed injection zone contains [ ] oil, [ ] gas, and/or [ ] fresh water within ¼ mile of the well. (salt water)

IMPORTANT: Additional information as required by R615-5-2 should accompany this form.

List of Attachments:

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

Name Jim LaFevers Signature Jim LaFevers
Title Supervisor, Regulatory Affairs Date February 1, 1993
Phone No. (214) 750-3988

(State use only)
Application approved by Title
Approval Date

Comments:

(3/89)

PG&E Resources C[illegible]any

[illegible]8 N. Central Expressway, Suite 1000
[illegible]as, Texas 75206-3922
Telephone 214/750-3800
FAX 214/750-3883

February 1, 1993

State of Utah
Department of Natural Resources
Division of Oil, Gas and Mining
Underground Injection Control Section
355 West North Temple
3 Triad Center, Suite 350
Salt Lake City, Utah 84180-1203

Attention: Mr. Gil Hunt,
Manager

RE: Application for Water Disposal Wells
Jensen and Shimmin Trust Leases
Castlegate CBM Project
Carbon County, Utah

Dear Mr. Hunt:

PG&E Resources Company respectfully requests approval to utilize the following wells for salt water disposal:

- Jensen #9-10,
- Jensen #16-10,
- Shimmin Trust #10-11,
- Shimmin Trust #11-11.

The enclosed applications have been prepared in accordance with R615-5-2 and are being submitted for your review and approval. If you have any questions or need additional information, please contact the undersigned at (214) 750-3988 or Michael Pierson at (214) 706-3641.

Sincerely,

Jim LaFevers
Supervisor,
Regulatory Affairs

Enclosures

cc: W. Sutton/Central File
M. Pierson
Regulatory File

UTAH OIL AND GAS CONSERVATION COMMISSION

REMARKS: WELL LOG _____ ELECTRIC LOGS _____ X _____ WATER SANDS _____ LOCATION INSPECTED _____ SUB. REPORT/abd. _____

* (DUAL COMPLETION SEE 2150 SWD)
OPER CHANGE EFF. 8-1-94
CONFIDENTIAL STATUS EXPIRED 8-30-94

DATE FILED **8-10-92**

LAND: FEE & PATENTED **X** STATE LEASE NO. _____ PUBLIC LEASE NO. _____ INDIAN _____

DRILLING APPROVED: **9-9-92**

SPUDDED IN: 9-14-90

COMPLETED: 7-30-93 PGW PUT TO PRODUCING: 8-3-93

INITIAL PRODUCTION: 9 MCF; 508 BWPD

GRAVITY A.P.I. _____

GOR _____

PRODUCING ZONES: 4147-4571 (MVDCL)

TOTAL DEPTH: 4990'

WELL ELEVATION: 7271 KB

DATE ABANDONED: _____

FIELD: **WILDCAT**

UNIT: _____

COUNTY: **CARBON**

WELL NO. **SHIMMIN TRUST 10-11** **API NO. 43-007-30167**

LOCATION **1999' FSL** FT. FROM (N) (S) LINE, **2006' FEL** FT. FROM (E) (W) LINE. **NW SE** 1/4 – 1/4 SEC. **11**

TWP.	RGE.	SEC.	OPERATOR	TWP.	RGE.	SEC.	OPERATOR
							ANADARKO

QUATERNARY	Star Point	Chinle	Molas
Alluvium	Wahweap	Shinarump	Manning Canyon
Lake beds	Masuk	Moenkopi	Mississippian
Pleistocene	Colorado	Sinbad	Humbug
Lake beds	Sego	PERMIAN	Brazer
TERTIARY	Buck Tongue	Kaibab	Pilot Shale
Pliocene	Castlegate	Coconino	Madison
Salt Lake	Mancos	Cutler	Leadville
Oligocene	Upper	Hoskinnini	Redwall
Norwood	Middle	DeChelly	DEVONIAN
Eocene	Lower	White Rim	Upper
Duchesne River	Emery	Organ Rock	Middle
Uinta	Blue Gate	Cedar Mesa	Lower
Bridger	Ferron	Halgaite Tongue	Ouray
Green River	Frontier	Phosphoria	Elbert
	Dakota	Park City	McCracken
	Burro Canyon	Rico (Goodridge)	Aneth
	Cedar Mountain	Supai	Simonson Dolomite
	Buckhorn	Wolfcamp	Sevy Dolomite
	JURASSIC	CARBON I FEROUS	North Point
Wasatch	Morrison	Pennsylvanian	SILURIAN
Stone Cabin	Salt Wash	Oquirrh	Laketown Dolomite
Colton	San Rafeal Gr.	Weber	ORDOVICIAN
Flagstaff	Summerville	Morgan	Eureka Quartzite
North Horn	Bluff Sandstone	Hermosa	Pogonip Limestone
Almy	Curtis		CAMBRIAN
Paleocene	Entrada	Pardox	Lynch
Current Creek	Moab Tongue	Ismay	Bowman
North Horn	Carmel	Desert Creek	Tapeats
CRETACEOUS	Glen Canyon Gr.	Akah	Ophir
Montana	Navajo	Barker Creek	Tintic
Mesaverde	Kayenta		PRE - CAMBRIAN
Price River	Wingate	Cane Creek	
Blackhawk	TRIASSIC		

3680'

APPLICATION FOR WATER DISPOSAL WELLS
JENSEN AND SHIMMIN TRUST LEASES
CASTLEGATE CBM PROJECT
CARBON COUNTY, UTAH

I. OVERVIEW

II. JENSEN #9-10

- A. UIC FORM 1
- B. PLATS
- C. WELL LOGS
- D. CEMENT BOND LOG
- E. CASING PROGRAM
- F. CASING TEST PROGRAM
- G. INJECTION FLUID
- H. INJECTION PRESSURES
- I. REVIEW OF WELLS WITHIN 1/2 MILE RADIUS
- J. GEOLOGIC DATA
- K. WELLBORE DIAGRAM
- L. INJECTIVITY DATA
- M. LABORATORY TESTS
- N. AFFIDAVIT OF NOTIFICATION

III. JENSEN #16-10

- A. UIC FORM 1
- B. PLATS

C. WELL LOGS

D. CEMENT BOND LOG

E. CASING PROGRAM

F. CASING TEST PROGRAM

G. INJECTION FLUID

H. INJECTION PRESSURES

I. REVIEW OF WELLS WITHIN 1/2 MILE RADIUS

J. GEOLOGIC DATA

K. WELLBORE DIAGRAM

L. INJECTIVITY DATA

M. LABORATORY TESTS

N. AFFIDAVIT OF NOTIFICATION

IV. SHIMMIN TRUST #10-11

A. UIC FORM 1

B. PLATS

C. WELL LOGS

D. CEMENT BOND LOG

E. CASING PROGRAM

F. CASING TEST PROGRAM

G. INJECTION FLUID

H. INJECTION PRESSURES

I. REVIEW OF WELLS WITHIN 1/2 MILE RADIUS

J. GEOLOGIC DATA

K. WELLBORE DIAGRAM

L. INJECTIVITY DATA

M. LABORATORY TESTS

N. AFFIDAVIT OF NOTIFICATION

V. SHIMMIN TRUST #11-11

A. UIC FORM 1

B. PLATS

C. WELL LOGS

D. CEMENT BOND LOG

E. CASING PROGRAM

F. CASING TEST PROGRAM

G. INJECTION FLUID

H. INJECTION PRESSURES

I. REVIEW OF WELLS WITHIN 1/2 MILE RADIUS

J. GEOLOGIC DATA

K. WELLBORE DIAGRAM

L. INJECTIVITY DATA

M. LABORATORY TESTS

N. AFFIDAVIT OF NOTIFICATION

I. OVERVIEW

The purpose of the Castlegate CBM Project is to develop and exploit the Coal Bed Methane associated with the Blackhawk Coal in Carbon County, Utah. The Methane will be produced through twenty five (25) wells which have already been drilled. Of these twenty five (25) wells, only seven (7) have been completed to date. Six (6) wells have been completed in the Blackhawk Coal as producers and one (1) well has been completed in the Spring Canyon Sand as an injection well. This well was utilized for injectivity testing. The remaining eighteen (18) wells are scheduled to be completed in 1993, at which time the project will be put on production.

Exploitation of the Methane from the Blackhawk Coal requires that the coal be dewatered. As the water is removed from the coal, the Methane will begin to disassociate and will be produced. The dewatering process will result in the initial production of approximately eighteen thousand seven hundred fifty (18,750) barrels of saltwater per day or seven hundred fifty (750) barrels per day per producing well. This water must then be disposed. The two options available for disposal of the water are to reduce the amount of Total Dissolved Solids (TDS) in the water and then discharge the water into the surface waters or to dispose the water into the Spring Canyon Sand through disposal wells.

PG&E Resources intends to inject the produced water into the Spring Canyon Sand. This would be accomplished by dually completing four (4) of the wells. These wells will produce from the Blackhawk through the upper tubing string and inject into the Spring Canyon Sand through the lower tubing string. The produced water will be filtered prior to injection to remove any coal fragments which may be present. Water Analysis of the produced water (6,500+ mg/l TDS) and Spring Canyon Sand formation water (10,520 mg/l TDS) indicate that the waters are compatible.

The success of the Castlegate CBM Project is dependent upon receiving authorization to use disposal wells to dispose of the produced water.

IV. SHIMMIN TRUST #10-11

DIVISION OF OIL, GAS AND MINING
UNDERGROUND INJECTION CONTROL PROGRAM

PERMIT
DECISION DOCUMENT

Applicant: PG&E Resources Location: Castle Gate, Carbon County

Well: Jensen 16-10, Jensen 9-10,
Shimmin Trust 10-11, Shimmin Trust 11-11

Ownership Issues: The proposed project is located in sections 10 and 11, township 12 south, range 10 east Carbon County, Utah. Surface ownership within the entire area is held by private individuals, except for a small parcel of land owned by the State of Utah. Mineral interests are held by private individuals, the State of Utah, and the federal government. PG&E Resources has submitted an affidavit stating that a copy of UIC form 1 was sent as notice to all surface owners within a 1/2 mile radius of each of the proposed injection wells.

Well Integrity: The four wells proposed for conversion to injection all have surface casing set at approximately 500 feet ± 30 feet, and were all cemented to surface. Production casing was set at a depth of approximately 6000 feet ± 75 feet, and were all cemented in two stages to surface. Cement bond logs will be run and submitted to the Division when the wells are converted to injection. The interval from 4730 feet to 4869 feet (Spring Canyon Sand of the Mesa Verde Group) will be selectively perforated for water disposal. All four wells will be dually completed. Production will be from the Blackhawk Formation through the upper 2 7/8" tubing and disposal will be into the Spring Canyon Sand through the lower 2 1/16" tubing and packer assembly. There are a total of 9 producing wells in the 1/2 mile area of review. All wells in the AOR have sufficient cement behind the production string and have adequate surface casing to prevent migration of fluid up the hole. At the time of conversion a retrievable packer will be set above the blackhawk perforations and the casing will be pressure tested. Casing/tubing annulus pressure will be monitored on a daily basis and reported on a monthly basis thereafter. Additional casing pressure tests shall be run every five years or whenever the tubing and packer assemblies are pulled for workover purposes.

Ground Water Protection: Surface geology of the area consists of Quaternary alluvium, Colton Formation, and Flagstaff Limestone. Ground water occurs in the alluvium, and in the sands and gravel of the Colton Formation. There are several springs located on the dip slope of the Flagstaff Formation and are probably seasonal depending on the amount of upgradient recharge. Water analysis reports indicate that the quality of the water is less than 10,000 mg/l down through the Blachawk coals. Analyses of waters from the Spring Canyon Sand indicate an increase to over 11,000 mg/l. Existing casing and cement programs in the proposed injection wells and surrounding wells are adequate to protect any USDW's. The upper confining interval above the injection zone is composed of

interbedded sand, shale and siltstones of the Aberdeen and Kenilworth Formations. The lower confining zone is the Mancos Shale. A stress test was run on shales in both the upper and lower confining zones. Results of these tests indicate that the upper shales have a fracture gradient of .63 psi/ft, and the lower shales have a fracture gradient of .54 psi/ft. A steprate/falloff test on the Spring Canyon Sand indicated a fracture gradient of .51 psi/ft. A comparison of the above fracture gradients indicates that the Spring Canyon Sand will be bound by the shales above and below. Cross sections provided by PGE Resources show that the lateral extent of the confining intervals and the injection zone include the entire project area.

Oil/Gas & Other Mineral Resources Protection: PG&E Resources owns all mineral leases in the area of review. Injection of water into the Spring Canyon Sand should have no adverse affect on any other mineral interests.

Bonding: PG&E Resources is the operator of all wells within the project and has provided a statewide bond coverage in the amount of $80,000.

Actions Taken and Further Approvals Needed: A public notice was published in both the Salt Lake Tribune and the Sun Advocate on 2-23-93. No objections were received in the 15 day comment period. Administrative approval was granted to convert the wells in accordance with conditions of the permit on 03-12-93.

DJJ	03-17-93
Reviewers	Date

SHIMMIN TRUST NO. 10-11

Castlegate Field

Carbon County, Utah

PROPOSED TEMPORARY COMPLETION

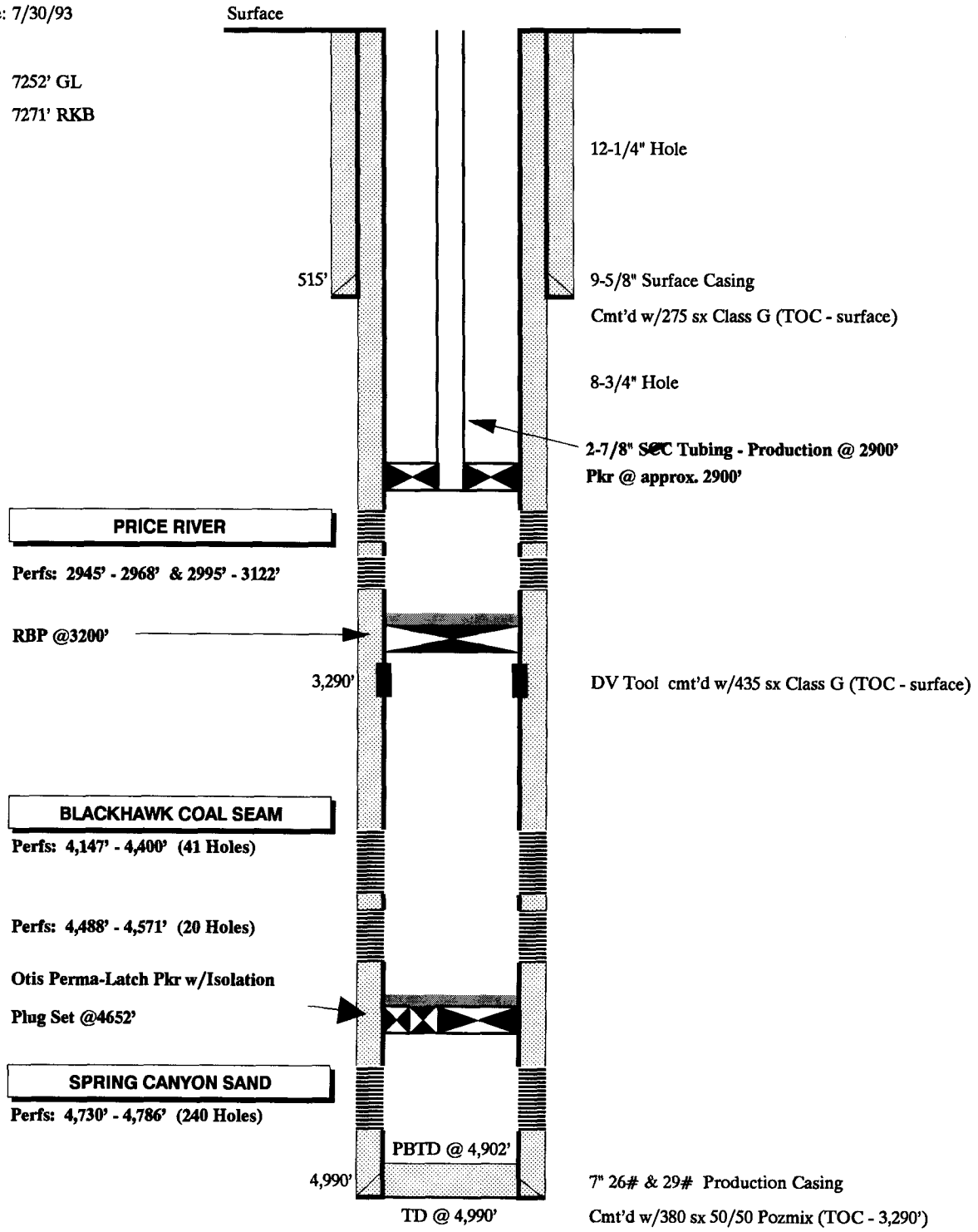
Spud Date: 9/20/92

Compl. Date: 7/30/93

Sec 11-T12S-R10E

Elev. 7252' GL

7271' RKB



SHIMMIN TRUST NO. 10-11

Castlegate Field

Carbon County, Utah

PROPOSED FINAL COMPLETION

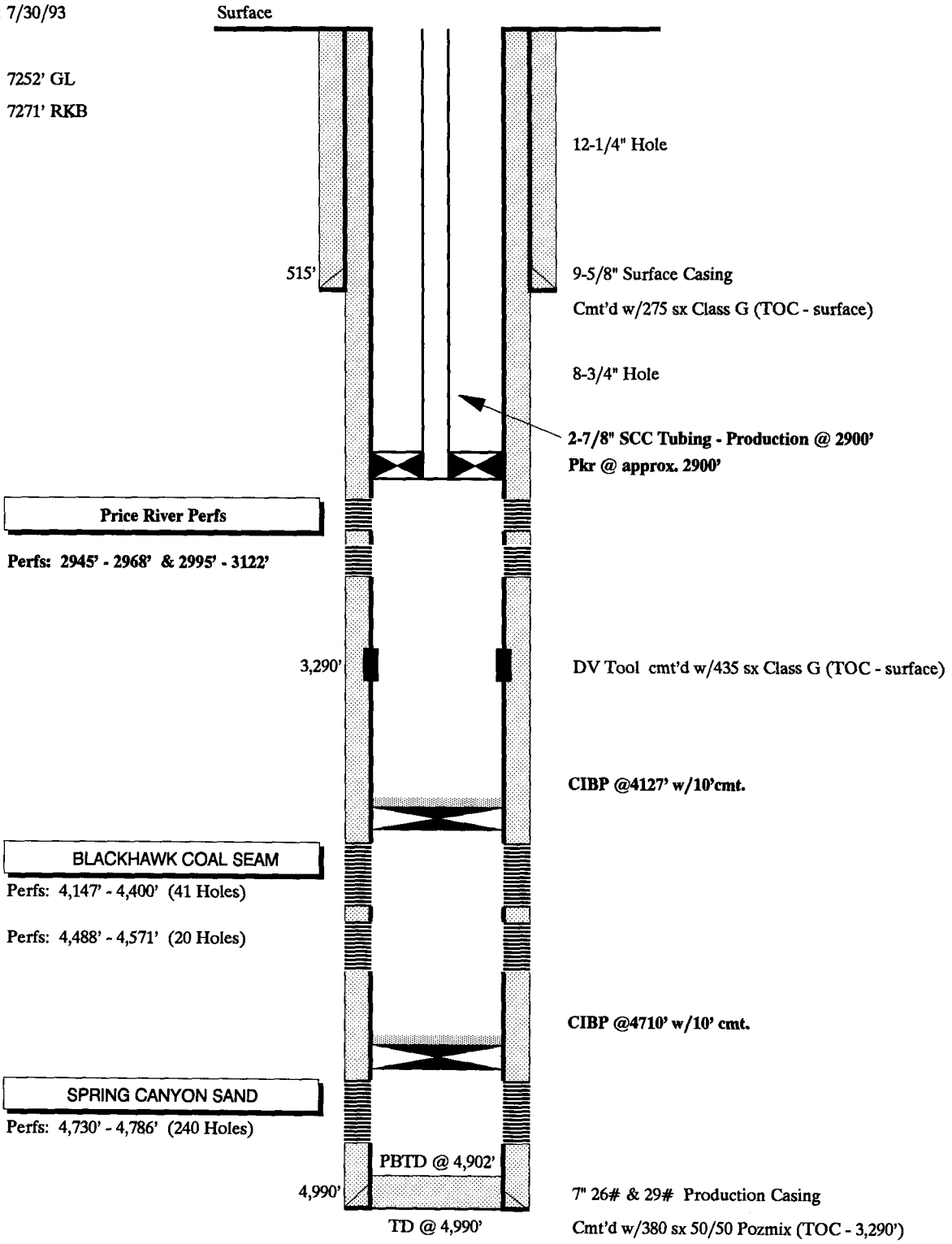
Spud Date: 9/20/92

Compl. Date: 7/30/93

Sec 11-T12S-R10E

Elev. 7252' GL

7271' RKB



A. UIC FORM 1

B. PLATS

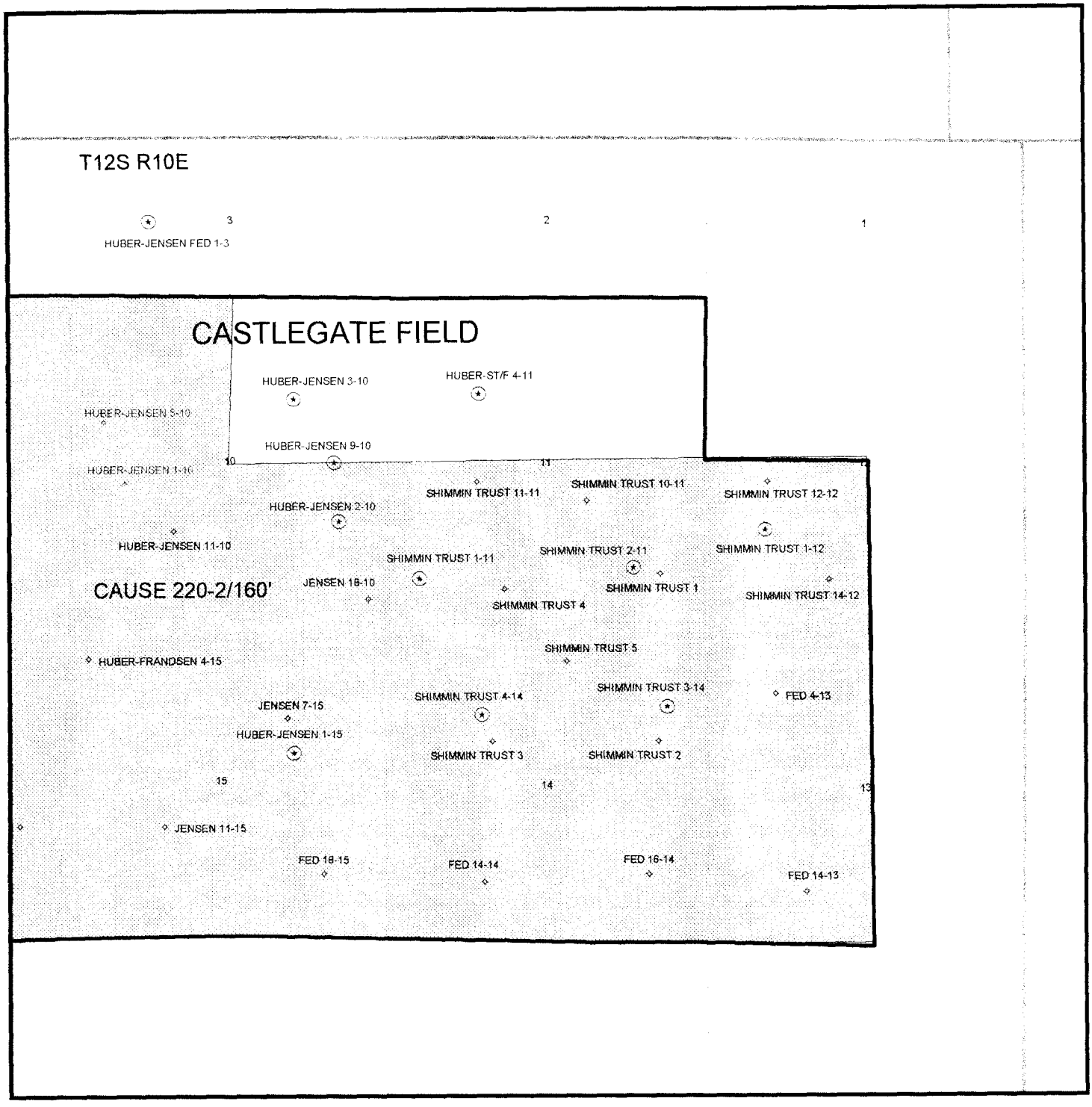
Utah Oil Gas and Mining

OPERATOR: JM HUBER CORP (N2380)

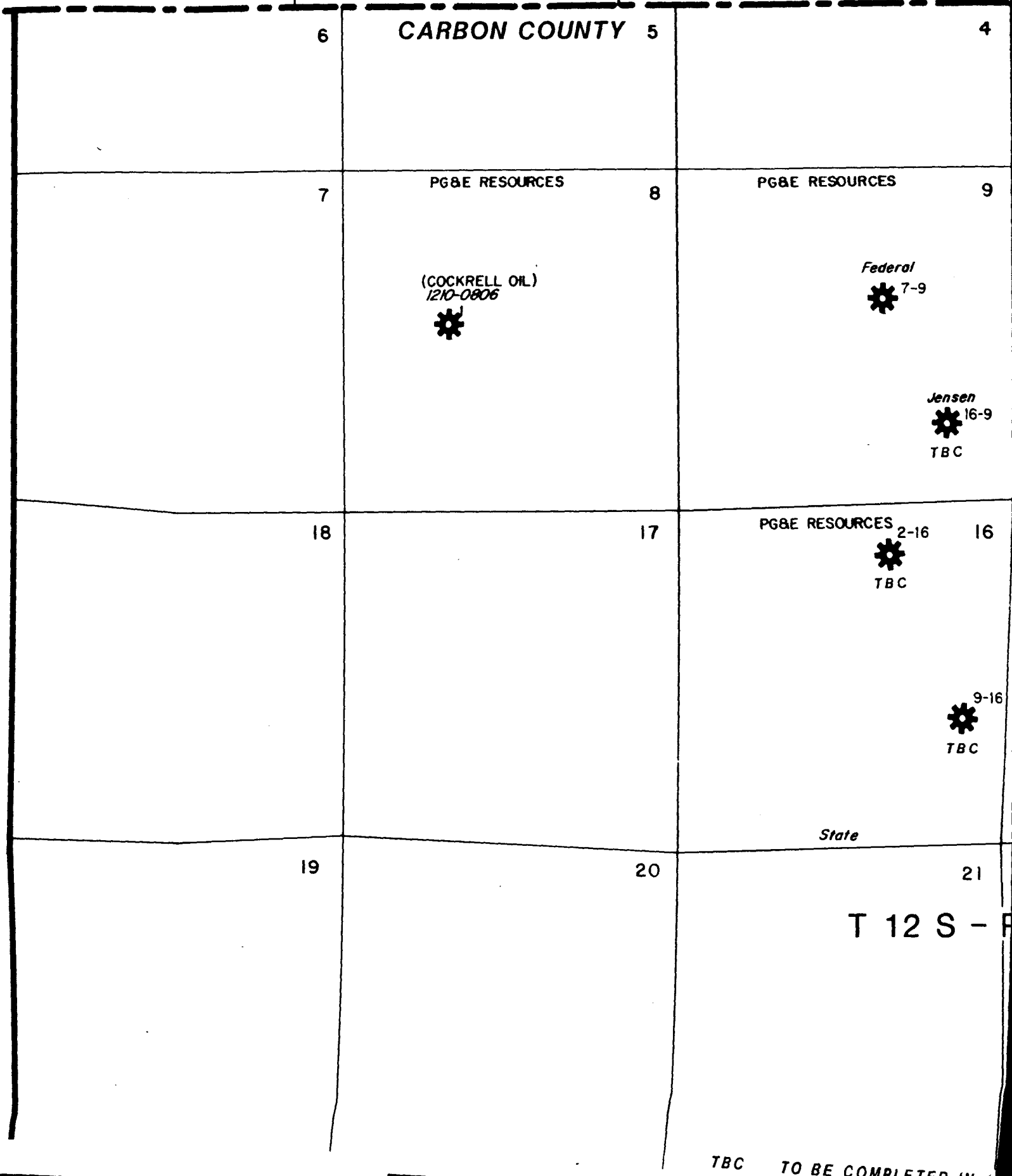
FIELD: CASTLEGATE (013)

SEC. 11, T12S, R10E,

COUNTY: CARBON SPACING: R649-3-2 (WDW)



PREPARED BY: LCORDOVA
DATE: 16-NOVEMBER-2000


CARBON COUNTY
6
5
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PG&E RESOURCES
8
PG&E RESOURCES
9
(COCKRELL OIL)
1210-0806
Federal
7-9
Jensen
16-9
TBC
18
17
PG&E RESOURCES
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State
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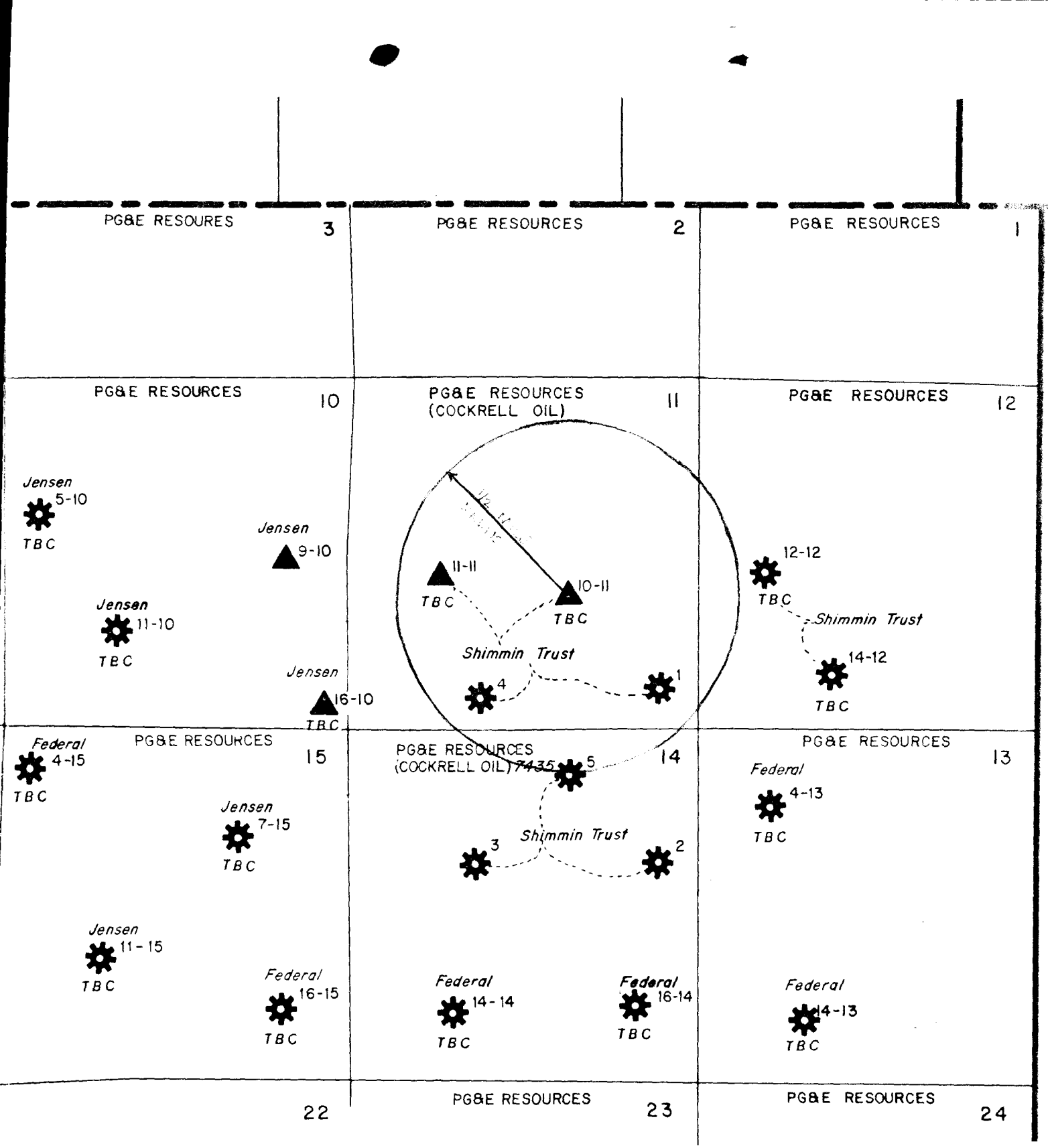
TO BE COMPLETED IN 1



R 10 E

LEGEND

- PRODUCING WELLS
- SALT WATER DISPOSAL WELLS (PROPOSED)

PG&E Resources Company

6688 NORTH CENTRAL EXPRESSWAY SUITE #1000
DALLAS, TEXAS 75206 (214) 750-3800

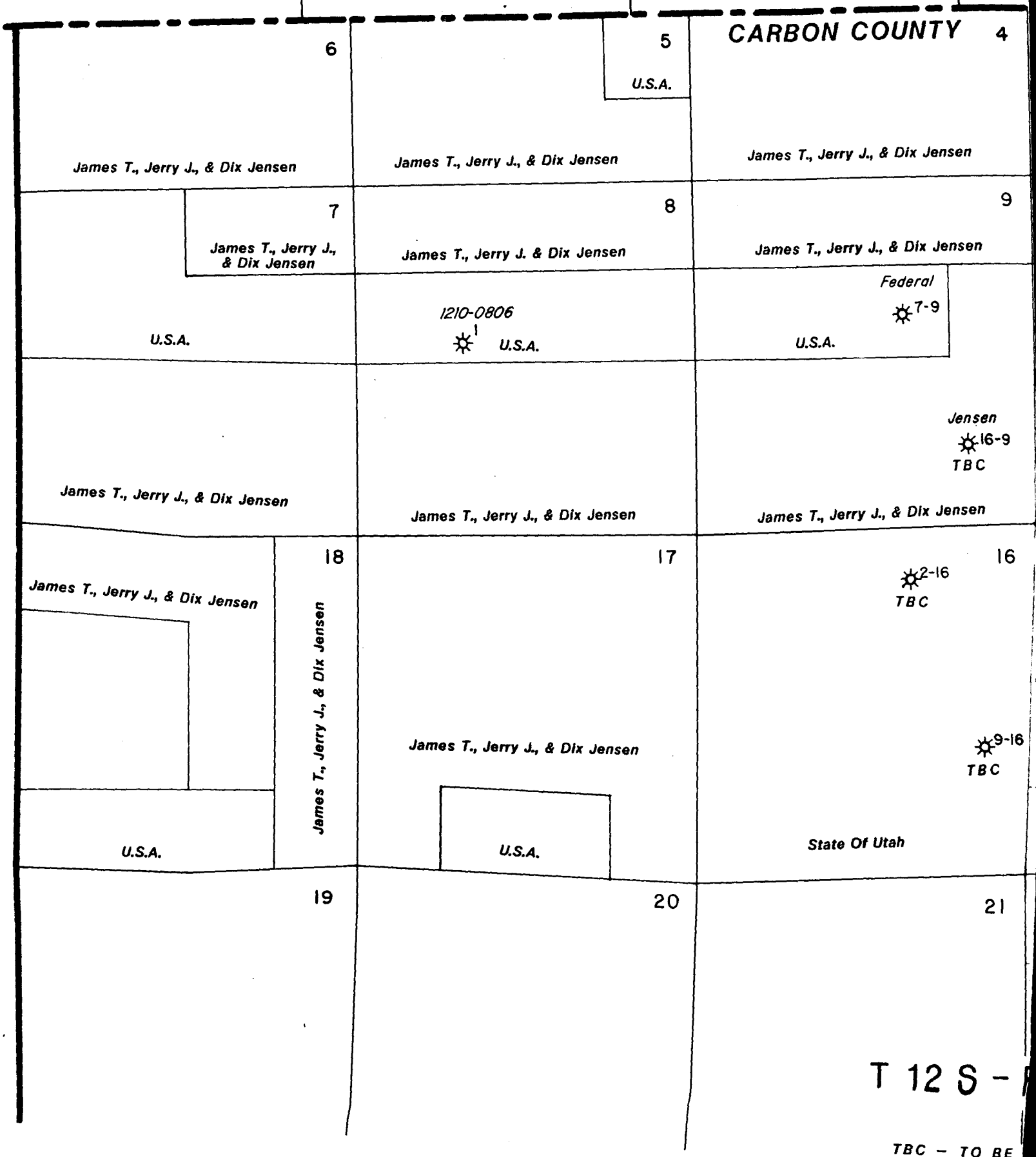
CASTLEGATE CBM PROJECT
CARBON COUNTY, UTAH

APPLICATION FOR SALT WATER DISPOSAL WELLS

0 2000 4000
SCALE IN FEET

GEOLOGY BY:
DATE: DECEMBER 9, 1992
CONTOUR INTERVAL:
REVISION: 12-18-92

1993


CARBON COUNTY
6
James T., Jerry J., & Dix Jensen
5
U.S.A.
James T., Jerry J., & Dix Jensen
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James T., Jerry J., & Dix Jensen
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James T., Jerry J., & Dix Jensen
U.S.A.
8
James T., Jerry J. & Dix Jensen
1210-0806
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U.S.A.
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James T., Jerry J., & Dix Jensen
Federal
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U.S.A.
James T., Jerry J., & Dix Jensen
James T., Jerry J., & Dix Jensen
Jensen
16-9
TBC
James T., Jerry J., & Dix Jensen
18
James T., Jerry J., & Dix Jensen
U.S.A.
James T., Jerry J., & Dix Jensen
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James T., Jerry J., & Dix Jensen
U.S.A.
16
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TBC
9-16
TBC
State Of Utah
19
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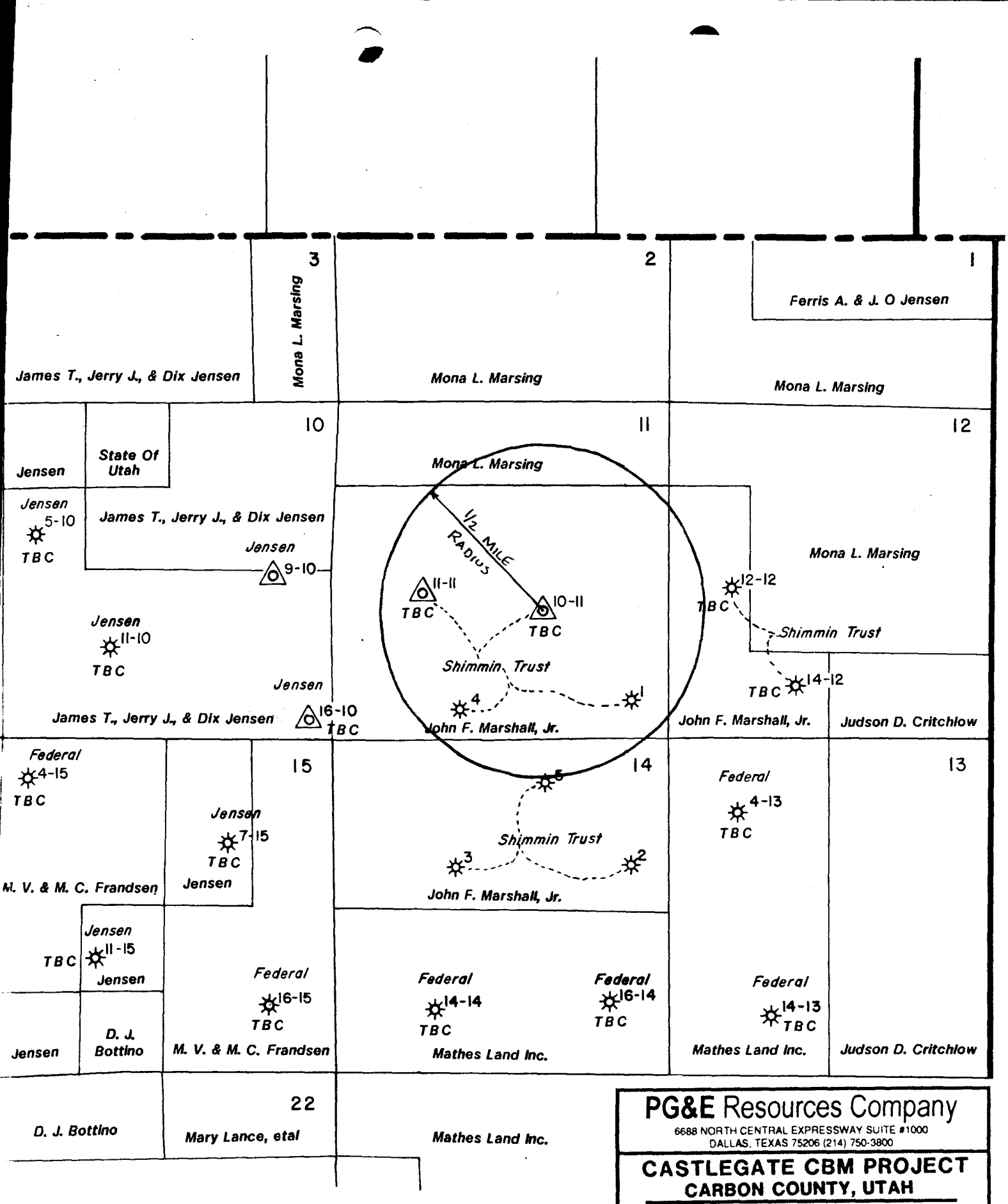
21
T 12 S -
TBC – TO BE



R 10 E

COMPLETED IN 1993

LEGEND

- PRODUCING WELLS
- SALT WATER DISPOSAL WELLS (PROPOSED)

PG&E Resources Company

6688 NORTH CENTRAL EXPRESSWAY SUITE #1000
DALLAS, TEXAS 75206 (214) 750-3800

CASTLEGATE CBM PROJECT
CARBON COUNTY, UTAH

SURFACE OWNERSHIP

0 2000 4000

SCALE IN FEET

GEOLOGY BY:
DATE: DECEMBER 9, 1992
CONTOUR INTERVAL:
REVISION: 12-18-92

INJECTION WELL APPLICATION

REVIEW SUMMARY

Applicant: P G E Resources Well: Shimmin Trust #10-11

Location: section 11 township 12 S range 10 E

API #: 43-007-30167 Well Type: disp. X enhanced recov. ___

If enhanced recovery has project been approved by the Board ? NA

Lease Type: Fee Surface Ownership: Shimmin Trust

Field: Wildcat Unit: — Indian Country: N

UIC Form 1: Yes Plat: Yes Wells in AOR: 4 Producing

Logs Available: Yes Bond Log: no

Casing Program: 9 5/8 C 476', 7" C 4990' Both string cemented to surface

Integrity Test: RAT will be run

Injection Fluid: H_2O

Geologic Information: Spring Canyon ss. Injection Zone.

Analyses of Injection Fluid: Y Formation Fluid: Y Compat. Y

Fracture Gradient Information: .5 psi/ft Parting Pressure ~ 2300 psi

Affidavit of Notice to Owners: needs notary.

Fresh Water Aquifers in Area: need info

Depth Base of Moderately Saline Water: ??

Confining Interval: Mancos shale below, Aberdeen Above

Reviewer: D. Jarvis Date: 2-4-93

Comments & Recommendation

Norman H. Bangerter
Governor
Dee C. Hansen
Executive Director
Dianne R. Nielson, Ph.D.
Division Director

State of Utah

DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

355 West North Temple
3 Triad Center, Suite 350
Salt Lake City, Utah 84180-1203
801-538-5340

March 12, 1993

PG&E Resources Company
6688 North Central Expressway
Dallas Texas 75206

Gentlemen:

Re: Conversion of the Jensen 16-10, Jensen 9-10, Shimmin Trust 11-11, and Shimmin Trust 10-11 wells located in Sections 10 and 11, Township 12 South, Range 10 East, Carbon County, Utah, to Water Disposal Wells

In accordance with Utah Admin. R. 649-5-3-3, administrative approval for conversion of the referenced wells to Class II injection wells is granted.

The following actions are necessary to fully comply with this approval:

1. Compliance with the UIC requirements for operation, maintenance and reporting for Class II injection wells.

2. Conformance with all conditions of the submitted applications.

If you have any questions regarding this approval or the necessary requirements, please contact this office.

Sincerely,

R.J. Firth
Associate Director, Oil and Gas

cc: BLM, Price
R.J. Firth
WUI229

Norman H. Bangerter
Governor
Dee C. Hansen
Executive Director
Dianne R. Nielson, Ph.D.
Division Director

State of Utah

DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

355 West North Temple
3 Triad Center, Suite 350
Salt Lake City, Utah 84180-1203
801-538-5340

March 12, 1993

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6688 North Central Expressway
Dallas Texas 75206

Gentlemen:

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Division Director

State of Utah

DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

355 West North Temple
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Salt Lake City, Utah 84180-1203
801-538-5340

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6688 North Central Expressway
Dallas Texas 75206

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Sincerely,

R.J. Firth
Associate Director, Oil and Gas

cc: BLM, Price
R.J. Firth
WUI229

PG&E Resources Company

6688 N. Central Expressway, Suite 1000
Texas 75206-3922
Phone 214/750-3800
FAX 214/750-3883

April 20, 1993

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

Attention: Mr. Frank Mathews

RE: Castlegate CBM Project
Carbon County, Utah

Gentlemen:

Attached is an original and one (1) copy of Form 9 "Sundry Notices and Reports on Wells," completion procedure and a schedule of the wells for the referenced project.

If you have any questions or need further information, please contact the undersigned at 214/706-3640.

Very truly yours,

Cindy Keister

Cindy Keister
Regulatory Analyst

CRK/ck

Attachments

Form 9

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

CONFIDENTIAL

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill new wells, deepen existing wells, or to reenter plugged and abandoned wells.
Use APPLICATION FOR PERMIT— for such proposals.

6. Lease Designation and Serial Number: See Attached Schedule "A"

7. Indian Allottee or Tribe Name: NA

8. Unit or Communitization Agreement: NA

1. Type of Well: ☐ Oil Well ☒ Gas Well ☐ Other (specify)

9. Well Name and Number: See Attached Schedule "A"

2. Name of Operator: PG&E Resources Company

10. API Well Number: See Attached Schedule "A"

3. Address of Operator: 6688 N. Central Expwy., Dallas, TX 75206

4. Telephone Number: 214/750-3800

11. Field and Pool, or Wildcat: Wildcat

5. Location of Well
Footage : See Attached Schedule "A" Shimmin Trust 10-11 43-007-30167 Sec 11, T12S, R10E
QQ, Sec, T., R., M. :
County : Carbon
State : UTAH

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

NOTICE OF INTENT (Submit in Duplicate)		SUBSEQUENT REPORT (Submit Original Form Only)	
☐ Abandonment	☐ New Construction	☐ Abandonment *	☐ New Construction
☐ Casing Repair	☐ Pull or Alter Casing	☐ Casing Repair	☐ Pull or Alter Casing
☐ Change of Plans	☐ Recompletion	☐ Change of Plans	☐ Shoot or Acidize
☐ Conversion to Injection	☐ Shoot or Acidize	☐ Conversion to Injection	☐ Vent or Flare
☐ Fracture Treat	☐ Vent or Flare	☐ Fracture Treat	☐ Water Shut-Off
☐ Multiple Completion	☐ Water Shut-Off	☐ Other _____	
☒ Other Complete Wells			

Approximate Date Work Will Start: 05/01/93

Date of Work Completion: _____

Report results of Multiple Completions and Recompletions to different reservoirs on WELL COMPLETION OR RECOMPLETION AND LOG form.

* Must be accompanied by a cement verification report.

13. DESCRIBE PROPOSED OR COMPLETED OPERATIONS (Clearly state all pertinent details, and give pertinent dates. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)

PG&E Resources Company requests approval for the attached Completion Procedure for the wells listed on Schedule "A". Daily reports will be furnished when completion operations commence.

RECEIVED
APR 21 1993
DIVISION OF
OIL GAS & MINING

APPROVED BY THE STATE
OF UTAH DIVISION OF
OIL, GAS AND MINING
DATE: 4-22-93
BY: [signature]

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

Name & Signature: Cindy Keister Cindy Keister Title: Regulatory Analyst Date: 04/20/93

(State Use Only)

CASTLEGATE

SCHEDULE "A"

WELL NAME	LEASE SERIAL NO.	API NUMBER	Location	Qtr Sec.	Sec	Twnshp	Range	County
State 2-16	UTU-65949	43-007-30133	780' FNL & 1971' FEL	NE NE	16	12S	10E	Carbon
Federal 4-13	UTU-65949	43-007-30126	1174' FNL & 1168' FWL	NW NW	13	12S	10E	Carbon
Federal 4-14	UTU-65949	43-007-30138	660' FNL & 450' FWL	NW NW	15	12S	10E	Carbon
Jensen 5-10	433396	43-007-30162	2065' FNL & 570' FWL	SW NW	10	12S	10E	Carbon
Jensen 7-15	FEE	43-007-30165	1650' FNL & 1650' FEL	SW NE	15	12S	10E	Carbon
Jensen 9-10	433396	43-007-30159	2559' FSL & 909' FEL	NE SE	10	12S	10E	Carbon
State 9-16	UTU-65949	43-007-30132	1993' FSL & 702' FEL	NE SE	16	12S	10E	Carbon
Shimmin Trust 10-11	FEE	43-007-30167	1999' FSL & 2006' FEL	NW SE	11	12S	10E	Carbon
Jensen 11-10	433396	43-007-30164	1735' FWL & 1461' FSL	NE SW	10	12S	10E	Carbon
Shimmin Trust 11-11	FEE	43-007-30166	2313' FSL & 1501' FWL	NE SW	11	12S	10E	Carbon
Jensen 11-15	FEE	43-007-30175	1896' FSL & 1709' FWL	NE SW	15	12S	10E	Carbon
Shimmin Trust 12-12	FEE	43-007-30168	2340' FSL & 1033' FWL	NW SW	12	12S	10E	Carbon
Shimmin Trust 14-12	FEE	43-007-30169	721' FSL & 2047' FWL	SE SW	12	12S	10E	Carbon
Federal 14-13	UTU-65949	43-007-30177	914' FSL & 1677' FWL	SE SW	13	12S	10E	Carbon
Federal 14-14	UTU-65949	43-007-30173	990' FSL & 1649' FWL	SE SW	14	12S	10E	Carbon
Jensen 16-9	FEE	43-007-30163	1198' FSL & 1059' FEL	SE SE	9	12S	10E	Carbon
Jensen 16-10	FEE	43-007-30161	330' FSL & 330' FEL	SE SE	10	12S	10E	Carbon
Federal 16-14	UTU-65949	43-007-30174	1124' FSL & 964' FEL	SE SE	14	12S	10E	Carbon
Federal 16-15	UTU-65949	43-007-30176	1091' FSL & 1043' FEL	SE SE	15	12S	10E	Carbon

APRIL 20, 1993

CASTLEGATE PROJECT

TYPICAL PRODUCING WELL COMPLETION PROCEDURE

(5-1/2", 17#, N-80 CSG)

1. MIRU WELL SERVICE UNIT.

2. GIH W/RB ON 2-7/8" TBG & D.O. DV TOOL.

3. CIRC HOLE CLEAN - TEST CSG TO 5000 PSI.

4. RUN CBL (IF REQUIRED).

5. PERFORATE LOWER STAR POINT COAL SECTION (TYPICALLY AROUND 4750' FOR ABOUT 60' OF GROSS INTERVAL, APPROX 20-30 HOLES).

6. TREAT LOWER COAL SEAM PERFS DOWN CSG W/1500 GALS 15% FE ACID W/ BALL SEALERS (TO OPEN ALL PERFS).

7. TREAT LOWER COAL SEAM PERFS DOWN CSG W/APPROX 60,000 GALS OF CMHEC CLEAN GEL SYSTEM W/90,000# 20/40 SD & 35,000# OF 100 MESH SD. EXPECT TO TREAT @ 60 BPM X 6000 PSI.

8. FORCE CLOSE FRAC.

9. FLOWBACK LOAD WATER.

10. SET RBP ON WL OVER LOWER COAL SEAM INTERVAL.

11. PERFORATE & TREAT UPPER COAL SEAM INTERVAL (TYPICALLY 4450' +/- SPREAD OVER 200'-300',35 TOTAL HOLES).

12. DO BD ACID JOB AND FRAC AS BEFORE ON THE LOWER INTERVAL.

13. FORCE CLOSE FRACTURE.

14. FLOWBACK FRAC LOAD UP THE CSG.

15. RETRIEVE RBP W/TBG.

16. RUN MOYNO PRODUCTION PUMPING EQUIPMENT ON 2-7/8" N-80 TBG.

17. COMMENCE DE-WATERING OPERATIONS.

01/18/94 D E T A I L W E L L D A T A menu: opt 00

api num: 4300730167 prod zone: MVDCL sec 11 twnshp 12.0 S range 10.0 E qr-qr NWSE
entity: 11419 : SHIMMIN TRUST 10-11
well name: SHIMMIN TRUST 10-11
operator: N0595 : PG&E RESOURCES COMPANY meridian: S
field: 1 : WILDCAT
confidential flag: C confidential expires: 940830 alt addr flag:
* * * application to drill, deepen, or plug back * * *
lease number: FEE lease type: 4 well type: GW
surface loc: 1999 FSL 2006 FEL unit name:
prod zone loc: 1999 FSL 2006 FEL depth: 5165 proposed zone: MVDCL
elevation: 7271' KB apd date: 920909 auth code: R649-3-2
* * completion information * * date recd: 930902 la/pa date:
spud date: 920914 compl date: 930730 total depth: 4990'
producing intervals: 4147-4571'
bottom hole: 1999 FSL 2006 FEL first prod: 930830 well status: SGW
24hr oil: 24hr gas: 9 24hr water: 508 gas/oil ratio:
* * well comments: api gravity:
920930 ENTITY ADDED:(DUAL COMPL SEE ALSO SWD):

opt: 21 api: 4300730167 zone: date(yymm): enty acct:

01/18/94 D E T A I L W E L L D A T A menu: opt 00

api num: 4300730167 prod zone: MVRD sec 11 twnshp 12.0 S range 10.0 E qr-qr NWSE
entity: 99990 : NO PROD/SERVICE WELL
well name: SHIMMIN TRUST 10-11
operator: N0595 : PG&E RESOURCES COMPANY meridian: S
field: 1 : WILDCAT
confidential flag: C confidential expires: 940830 alt addr flag:
* * * application to drill, deepen, or plug back * * *
lease number: FEE lease type: 4 well type: GW
surface loc: 1999 FSL 2006 FEL unit name:
prod zone loc: 1999 FSL 2006 FEL depth: 5165 proposed zone:
elevation: 7271' KB apd date: 920902 auth code: R649-3-2
* * completion information * * date recd: la/pa date:
spud date: 920914 compl date: 930730 total depth: 4990'
producing intervals: 4730-86'
bottom hole: 1999 FSL 2006 FEL first prod: well status: WDW
24hr oil: 24hr gas: 24hr water: gas/oil ratio:
* * well comments: api gravity:
940113 1ST INJ 10/23/93:DUAL COMPL SEE ALSO GAS WELL:(INJ/SPRING CANYON)

opt: 21 api: 4300730167 zone: date(yymm): enty acct:

* ALL Materials filed in GAS Well file in Records Room (one file)

STATE OF UTAH

DIVISION OF OIL, GAS AND MINING

INJECTION WELL - PRESSURE TEST
****

TEST DATE: 5-25-93 WELL OWNER/OPERATOR: PG&E Resources

DISPOSAL WELL: V ENHANCED RECOVERY WELL: _____ OTHER: production

API NO: 43-_____ WELL NAME/NUMBER: Shimmin Trust #16-11

SECTION: 11 TOWNSHIP: 12S RANGE: 10E

INITIAL CONDITIONS:

TUBING - rate: SI pressure: N/A

CASING/TUBING ANNULUS - pressure: 0

CONDITIONS DURING TEST:

TUBING pressure: N/A psi for _____ minutes

CASING/TUBING ANNULUS pressure: 560 psi

annulus pressure drop during test: None psi

CONDITIONS AFTER TEST:

TUBING pressure: N/A psi

CASING/TUBING ANNULUS pressure: 0 psi Bled off

REMARKS: Dual Completion

Harold Adkins
OPERATOR REPRESENTATIVE

John R. Baza
DOGM WITNESS

FIELD
45M
1 HR.
COMPANY
TICKET NUMBER
45M
1 HR.
MARTIN - DECKER COMPANY
SANTA ANA, CALIF.
MADE IN U.S.A.
Y 45A
CHART
POLES, SUBDIVISIONS

PG&E Resources Company

[redacted] N. Central Expressway, Suite 1000
[redacted], Texas 75206-3922
Telephone 214/750-3800
FAX 214/750-3883

August 31, 1993

State of Utah Dept. of Natural Resources
Division of Oil, Gas & Mining
355 West Temple
3 Triad Center, Suite 350
Salt Lake City, UT 84186

SHIMMIN

RE: ~~Jensen~~ 10-11
Section 11, T12S-R10E
Carbon County, Utah

Gentlemen:

Attached is an original and two copies of Form 8 "Well Completion or Recompletion Report and Log" for each completion. The Jensen 10-11 has been completed as a gas well in the Blackhawk Coal Seam and as a SWD well in the Spring Canyon.

If you have any questions or need further information, please contact the undersigned at (214) 706-3640.

Very truly yours,

Cindy R. Keister

Cindy R. Keister
Sr. Regulatory Analyst

CRK/ck

Attachments

cc: Regulatory File
Central Files

FORM 8

STATE OF UTAH

DIVISION OF OIL, GAS AND MINING

CONFIDENTIAL

WELL COMPLETION OR RECOMPLETION REPORT AND LOG

RECEIVED
SEP 02 1993
DIVISION OF OIL, GAS & MINING

5. LEASE DESIGNATION AND SERIAL NO.: Fee

6. IF INDIAN, ALLOTTEE OR TRIBE NAME: NA

7. UNIT AGREEMENT NAME: NA

8. FARM OR LEASE NAME: Shimmin Trust

9. WELL NO.: 10-11

10. FIELD AND POOL, OR WILDCAT: Wildcat

11. SEC., T., R., M., OR BLOCK AND SURVEY OR AREA: Sec. 11, T12S-R10E

1a. TYPE OF WELL: OIL WELL ☐ GAS WELL ☒ DRY ☐ Other

b. TYPE OF COMPLETION: NEW WELL ☒ WORK OVER ☐ DEEP-EN ☐ PLUG BACK ☐ DIFF. RESVR ☐ Other

2. NAME OF OPERATOR: PG&E Resources Company

3. ADDRESS OF OPERATOR: 6688 N. Central Expwy., Suite 1000, Dallas, TX 75206

4. LOCATION OF (Report location clearly and in accordance with any State requirements)*

At surface: 1999' FSL & 2006' FEL NW/4 SE/4 Sec. 11

At top prod. interval reported below: Same

At total depth: Same

14. API NO.	DATE ISSUED	12. COUNTY	13. STATE
43-007-30167	09/09/92	Carbon	Utah

15. DATE SPUDDED	16. DATE T.D. REACHED	17. DATE COMPL. (Ready to prod.) or (Plug & Abd.)	18. ELEVATIONS (DF, RKB, RT, GR, ETC.)	19. ELEV. CASINGHEAD
09/24/92	10/09/92	07/30/93	7271' RKB	

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
4990'	4902'	2	→	X	

24. PRODUCING INTERVAL(S), OF THIS COMPLETION--TOP, BOTTOM, NAME (MD AND TVD): Blackhawk Coal Seam 4,147' - 4,571'

25. WAS DIRECTIONAL SURVEY MADE: No

26. TYPE ELECTRIC AND OTHER LOGS RUN: Dual Ind Guard/Spectral Density Dual Spaced Neutron/GR/CBL (QUICKLOOK 12-3-92)

27. WAS WELL CORED YES ☐ NO ☒ (Submit analysis)
DRILL STEM TEST YES ☐ NO ☒ (See reverse side)

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

CASING SIZE	WEIGHT, LB./FT.	DEPTH SET (MD)	HOLE SIZE	CEMENTING RECORD	AMOUNT PULLED
9-5/8"	36#	515'	12-1/4"	275sx Class "G"	0
7"	26# & 29#	4990'	8-3/4"	380sx 50/50 Poz	0
		DV Tool 3290'		385sx Class "G" + 50sx Class "G"	

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"	4124'	4652' Dual Pkr.

31. PERFORATION RECORD (Interval, size and number)

4147-4400'	0.45"	41 holes
4488-4494'	0.45"	5 holes
4511-4518'	0.45"	7 holes
4560-4571'	0.45"	8 holes

32. ACID, SHOT, FRACTURE, CEMENT

DEPTH INTERVAL (MD)	AMOUNT AND KIND OF MATERIAL USED
4147-4400'	2500 gals 7-1/2% FE Acid + 714 bbl CMHEC XL gel + 36000# 100 mesh + 103,000# 16/30 sand

33. PRODUCTION

DATE FIRST PRODUCTION	PRODUCTION METHOD (Flowing, gas lift, pumping--size and type of pump)	WELL STATUS (Producing or shut-in)
08/03/93	Pumping - Hyland 3-1/2" OD Model 120 progressive Cavity Pump	Producing

DATE OF TEST	HOURS TESTED	CHOKE SIZE	PROD'N. FOR TEST PERIOD →	OIL--BBL.	GAS--MCF.	WATER--BBL.	GAS-OIL RATIO
08/11/93	24	NA		0	9	508	NA

FLOW. TUBING PRESS.	CASING PRESSURE	CALCULATED 24-HOUR RATE →	OIL--BBL.	GAS--MCF.	WATER--BBL.	OIL GRAVITY-API (CORR.)
NA	150		0	9	508	NA

34. DISPOSITION OF GAS (Sold, used for fuel, vented, etc.): Well not producing measurable gas, currently dewatering.

TEST WITNESSED BY: Mike McMican

35. LIST OF ATTACHMENTS

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

SIGNED Cindy Keister TITLE Sr. Regulatory Analyst DATE 08/30/1993

See Spaces for Additional Data on Reverse Side

PG&E Resources Company

6688 N. Central Expressway, Suite 1000
Dallas, Texas 75206-3922
Telephone 214/750-3800
FAX 214/750-3883

August 31, 1993

State of Utah Dept. of Natural Resources
Division of Oil, Gas & Mining
355 West Temple
3 Triad Center, Suite 350
Salt Lake City, UT 84186

RE: Jensen 10-11
Section 11, T12S-R10E
Carbon County, Utah

Gentlemen:

Attached is an original and two copies of Form 8 "Well Completion or Recompletion Report and Log" for each completion. The Jensen 10-11 has been completed as a gas well in the Blackhawk Coal Seam and as a SWD well in the Spring Canyon.

If you have any questions or need further information, please contact the undersigned at (214) 706-3640.

Very truly yours,

Cindy R. Keister

Cindy R. Keister
Sr. Regulatory Analyst

CRK/ck

Attachments

cc: Regulatory File
Central Files

FORM 8

STATE OF UTAH

DIVISION OF OIL, GAS AND MINING

WELL COMPLETION OR RECOMPLETION REPORT AND LOG

1a. TYPE OF WELL: OIL WELL ☐ GAS WELL ☐ DRY ☐ Other SWD

b. TYPE OF COMPLETION: NEW WELL ☒ WORK OVER ☐ DEEP-EN ☐ PLUG BACK ☐ DIFF. RESVR ☐ Other

RECEIVED

SEP 02 1993

DIVISION OF OIL, GAS & MINING

2. NAME OF OPERATOR: PG&E Resources Company

3. ADDRESS OF OPERATOR: 6688 N. Central Expwy., Suite 1000, Dallas, TX 75206

4. LOCATION OF (Report location clearly and in accordance with any State requirements)*

At surface: 1999' FSL & 2006' FEL NW/4 SE/4 Sec. 11

At top prod. interval reported below: Same

At total depth: Same

5. LEASE DESIGNATION AND SERIAL NO.: Fee

6. IF INDIAN, ALLOTTEE OR TRIBE NAME: NA

7. UNIT AGREEMENT NAME: NA

8. FARM OR LEASE NAME: Shimmin Trust

9. WELL NO.: 10-11

10. FIELD AND POOL, OR WILDCAT: Wildcat

11. SEC., T., R., M., OR BLOCK AND SURVEY OR AREA: Sec. 11, T12S-R10E

14. API NO.	DATE ISSUED	12. COUNTY	13. STATE
43-007-30167	09/09/92	Carbon	Utah

15. DATE SPUDDED	16. DATE T.D. REACHED	17. DATE COMPL. (Ready to prod.) or (Plug & Abd.)	18. ELEVATIONS (DF, RKB, RT, GR, ETC.)	19. ELEV. CASINGHEAD
09/24/92	10/09/92	07/30/93	7271' RKB	

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
4990'	4902'	2	→	X	

24. PRODUCING INTERVAL(S), OF THIS COMPLETION--TOP, BOTTOM, NAME (MD AND TVD): Spring Canyon 4730' - 4786'

25. WAS DIRECTIONAL SURVEY MADE: No

26. TYPE ELECTRIC AND OTHER LOGS RUN: Dual Ind Guard/Spectral Density Dual Spaced Neutron/GR/CBL

27. WAS WELL CORED YES ☐ NO ☒ (Submit analysis)

DRILL STEM TEST YES ☐ NO ☒ (See reverse side)

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

CASING SIZE	WEIGHT, LB./FT.	DEPTH SET (MD)	HOLE SIZE	CEMENTING RECORD	AMOUNT PULLED
9-5/8"	36#	515'	12-1/4"	275sx Class "G"	0
7"	26# & 29#	4990'	8-3/4"	380sx 50/50 Poz	0
		DV Tool 3290'		385sx Class "G" + 50sx Class "G"	

29. LINER RECORD

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

30. TUBING RECORD

SIZE	DEPTH SET (MD)	PACKER SET (MD)
2-1/16"	4652'	4652' Dual Pkr.

31. PERFORATION RECORD (Interval, size and number)

4730-66'	0.45"	148 Holes
4770-86'	0.45"	92 Holes

32. ACID, SHOT, FRACTURE, CEMENT

DEPTH INTERVAL (MD)	AMOUNT AND KIND OF MATERIAL USED

33. PRODUCTION

DATE FIRST PRODUCTION	PRODUCTION METHOD (Flowing, gas lift, pumping--size and type of pump)	WELL STATUS (Producing or shut-in)
08/03/93		Producing

DATE OF TEST	HOURS TESTED	CHOKE SIZE	PROD'N. FOR TEST PERIOD →	OIL--BBL.	GAS--MCF.	WATER--BBL.	GAS-OIL RATIO

FLOW. TUBING PRESS.	CASING PRESSURE	CALCULATED 24-HOUR RATE →	OIL--BBL.	GAS--MCF.	WATER--BBL.	OIL GRAVITY-API (CORR.)

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

TEST WITNESSED BY

35. LIST OF ATTACHMENTS

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

SIGNED Cindy Beistle TITLE Sr. Regulatory Analyst DATE 08/30/1993

See Spaces for Additional Data on Reverse Side

PG&E Resources Company

6688 N. Central Expressway, Suite 1000
Dallas, Texas 75206-3922
Telephone 214/750-3800
FAX 214/750-3883

December 8, 1993

State of Utah Dept. of Natural Resources
Division of Oil, Gas and Mining
Underground Injection Control Section
355 West North Temple
3 Triad Center, Suite 350
Salt Lake City, Utah 84180-1203

Attention: Mr. Dan Jarvis

RE: Jensen 9-10, Jensen 16-10
Shimmin Trust 10-11 &
Shimmin Trust 11-11
Carbon County, Utah

Dear Mr. Jarvis:

Attached is an original and two (2) copies of Form 9 "Sundry Notices and Reports on Wells", subsequent report , showing the date of first injection for the referenced salt water disposal wells.

If you have any questions or need additional information, please contact the undersigned at (214) 706-3640.

Sincerely,

Cindy R. Keister

Cindy R. Keister
Sr. Regulatory Analyst

CRK/ck

Attachments

cc: Central File
Regulatory File

Form 9

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

6. Lease Designation and Serial Number: Fee	
7. Indian Allotee or Tribe Name: NA	
8. Unit or Communization Agreement: NA	
9. Well Name and Number: Shimmin Trust 10-11	
10. API Well Number: 43-007-30167	
11. Field and Pool, or Wildcat: Wildcat	

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill new wells, deepen existing wells, or to reenter plugged and abandoned wells. Use APPLICATION FOR PERMIT--for such proposals.

1. Type of Well: ☐ Oil Well ☐ Gas Well ☒ Other (Specify) SWD

2. Name of Operator: PG&E Resources Company

3. Address of Operator: 6688 N. Central Expwy., Suite 1000, Dallas, TX 75206

4. Telephone Number: (214) 750-3800

5. Location of Well
Footage : 1999' FSL & 2006' FEL
QQ. Sec, T., R., M. : NW/4 SE/4 Sec. 11, T12S-R10E
County : Carbon
State : UTAH

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

NOTICE OF INTENT
(Submit in Duplicate)

- ☐ Abandonment
- ☐ Casing Repair
- ☐ Change of Plans
- ☐ Conversion to Injection
- ☐ Fracture Treat
- ☐ Multiple Completion
- ☐ Other _____
- ☐ New Construction
- ☐ Pull or Alter Casing
- ☐ Recompletion
- ☐ Shoot or Acidize
- ☐ Vent or Flare
- ☐ Water Shut-Off

Approximate Date Work Will Start _____

SUBSEQUENT REPORT
(Submit in Duplicate)

- ☐ Abandonment *
- ☐ Casing Repair
- ☐ Change of Plans
- ☐ Conversion to Injection
- ☐ Fracture Test
- ☒ Other First Injection
- ☐ New Construction
- ☐ Pull or Alter Casing
- ☐ Shoot or Acidize
- ☐ Vent or Flare
- ☐ Water Shut-Off

Date of Work Completion _____

Report results of Multiple Completions and Recompletions to different reservoirs on WELL COMPLETION OR RECOMPLETION AND LOG form.
* Must be accompanied by a cement verification report.

13. DESCRIBE PROPOSED OR COMPLETED OPERATIONS (Clearly state all pertinent details, and give pertinent dates. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)

PG&E Resources Company began injecting into the Spring Canyon formation on October 23, 1993.

RECEIVED
DEC 13 1993
DIVISION OF
OIL, GAS & MINING

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

Name & Signature Cindy R. Keister Title Sr. Regulatory Analyst Date 12/08/1993

(State Use Only)

See Instructions on Reverse Side

Form 9

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

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Use APPLICATION FOR PERMIT--for such proposals.

1. Type of Well: ☐ Oil Well ☐ Gas Well ☒ Other (Specify) SWD

2. Name of Operator: PG&E Resources Company

3. Address of Operator: 6688 N. Central Expwy., Suite 1000, Dallas, TX 75206

4. Telephone Number: (214) 750-3800

5. Location of Well
Footage : 1999' FSL & 2006' FEL
QQ. Sec, T., R., M. : NW/4 SE/4 Sec. 11, T12S-R10E
County : Carbon
State : UTAH

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

NOTICE OF INTENT (Submit in Duplicate)		SUBSEQUENT REPORT (Submit in Duplicate)	
☐ Abandonment	☐ New Construction	☐ Abandonment *	☐ New Construction
☐ Casing Repair	☐ Pull or Alter Casing	☐ Casing Repair	☐ Pull or Alter Casing
☐ Change of Plans	☐ Recompletion	☐ Change of Plans	☐ Shoot or Acidize
☐ Conversion to Injection	☐ Shoot or Acidize	☐ Conversion to Injection	☐ Vent or Flare
☐ Fracture Treat	☐ Vent or Flare	☐ Fracture Test	☐ Water Shut-Off
☐ Multiple Completion	☐ Water Shut-Off	☒ Other First Injection	
☐ Other _____			

Approximate Date Work Will Start _____

Date of Work Completion _____

Report results of Multiple Completions and Recompletions to different reservoirs on WELL COMPLETION OR RECOMPLETION AND LOG form.
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Name & Signature Cindy R. Keister Title Sr. Regulatory Analyst Date 12/08/1993

(State Use Only)

See Instructions on Reverse Side

PG&E Resources Co[illegible]ny

[illegible]N. Central Expressway, Suite 1000
[illegible], Texas 75206-3922
Telephone 214/750-3800
FAX 214/750-3883

December 12, 1993

State of Utah Dept. of Natural Resources
Division of Oil, Gas and Mining
Underground Injection Control Section
355 West North Temple
3 Triad Center, Suite 350
Salt Lake City, Utah 84180-1203

Attention: Mr. Dan Jarvis

RE: Shimmin Trust 10-11
Section 11-T12S-R10 E
Carbon County, Utah

Dear Mr. Jarvis:

Attached is an original and two (2) copies of Form 9 "Sundry Notices and Reports on Wells", subsequent report for the referenced well. PG&E Resources Company ran a tracer survey on December 9, 1993 and a copy is attached for your records.

If you have any questions or need additional information, please contact the undersigned at (214) 706-3640.

Sincerely,

Cindy R. Keister
Sr. Regulatory Analyst

CRK/ck

Attachments

cc: Central File
Regulatory File

Form 9

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

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9. Well Name and Number: Shimmin Trust 10-11	
10. API Well Number: 43-007-30167	
11. Field and Pool, or Wildcat: Wildcat	

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill new wells, deepen existing wells, or to reenter plugged and abandoned wells. Use APPLICATION FOR PERMIT--for such proposals.

1. Type of Well: ☐ Oil Well ☐ Gas Well ☒ Other (Specify) SWD

2. Name of Operator: PG&E Resources Company

3. Address of Operator: 6688 N. Central Expwy., Suite 1000, Dallas, TX 75206

4. Telephone Number: (214) 750-3800

5. Location of Well
Footage : 1999' FSL & 2006' FEL
QQ. Sec, T., R., M. : NW/4 SE/4 Sec. 11, T12S-R10E
County : Carbon
State : UTAH

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

NOTICE OF INTENT
(Submit in Duplicate)

- ☐ Abandonment
- ☐ Casing Repair
- ☐ Change of Plans
- ☐ Conversion to Injection
- ☐ Fracture Treat
- ☐ Multiple Completion
- ☐ Other
- ☐ New Construction
- ☐ Pull or Alter Casing
- ☐ Recompletion
- ☐ Shoot or Acidize
- ☐ Vent or Flare
- ☐ Water Shut-Off

Approximate Date Work Will Start _____

SUBSEQUENT REPORT
(Submit in Duplicate)

- ☐ Abandonment *
- ☐ Casing Repair
- ☐ Change of Plans
- ☐ Conversion to Injection
- ☐ Fracture Test
- ☒ Other Ran R/A Tracer Survey
- ☐ New Construction
- ☐ Pull or Alter Casing
- ☐ Shoot or Acidize
- ☐ Vent or Flare
- ☐ Water Shut-Off

Date of Work Completion 12/09/1993

Report results of Multiple Completions and Recompletions to different reservoirs on WELL COMPLETION OR RECOMPLETION AND LOG form.
* Must be accompanied by a cement verification report.

13. DESCRIBE PROPOSED OR COMPLETED OPERATIONS (Clearly state all pertinent details, and give pertinent dates. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)

PG&E Resources Company RU Production Logging Services and ran a Temperature R/A Tracer Survey on the referenced well. A copy of the log is attached for your records.

RECEIVED
DEC 17 1993
DIVISION OF
OIL, GAS & MINING

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

Name & Signature Cindy R. Keister Title Sr. Regulatory Analyst Date 12/14/1993

(State Use Only)

See Instructions on Reverse Side

Form 9

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

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PG&E Resources Company RU Production Logging Services and ran a Temperature R/A Tracer Survey on the referenced well. A copy of the log is attached for your records.

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DIVISION OF OIL, GAS AND MINING

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SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill new wells, deepen existing wells, or to reenter plugged and abandoned wells. Use APPLICATION FOR PERMIT–for such proposals.

1. Type of Well: [ ] Oil Well [ ] Gas Well [X] Other (Specify) SWD

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QQ. Sec, T., R., M. : NW/4 SE/4 Sec. 11, T12S-R10E
County : Carbon
State : UTAH

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NOTICE OF INTENT
(Submit in Duplicate)

- [ ] Abandonment
- [ ] Casing Repair
- [ ] Change of Plans
- [ ] Conversion to Injection
- [ ] Fracture Treat
- [ ] Multiple Completion
- [ ] Other
- [ ] New Construction
- [ ] Pull or Alter Casing
- [ ] Recompletion
- [ ] Shoot or Acidize
- [ ] Vent or Flare
- [ ] Water Shut-Off

Approximate Date Work Will Start _____

SUBSEQUENT REPORT
(Submit in Duplicate)

- [ ] Abandonment *
- [ ] Casing Repair
- [ ] Change of Plans
- [ ] Conversion to Injection
- [ ] Fracture Test
- [X] Other Ran R/A Tracer Survey
- [ ] New Construction
- [ ] Pull or Alter Casing
- [ ] Shoot or Acidize
- [ ] Vent or Flare
- [ ] Water Shut-Off

Date of Work Completion 12/09/1993

Report results of Multiple Completions and Recompletions to different reservoirs on WELL COMPLETION OR RECOMPLETION AND LOG form.
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PG&E Resources Company RU Production Logging Services and ran a Temperature R/A Tracer Survey on the referenced well. A copy of the log is attached for your records.

RECEIVED
DEC 17 1993
DIVISION OF
OIL, GAS & MINING

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

Name & Signature Cindy R. Keister Title Sr. Regulatory Analyst Date 12/14/1993

(State Use Only)

See Instructions on Reverse Side

INSTRUCTIONS

This form should be completed in compliance with the Utah Oil and Gas Conservation General Rules If not filed prior to this time, all logs, tests, and directional surveys as required by Utah Rules should be attached and submitted with this report.
ITEM 18: Indicate which elevation is used as reference for depth measurements given in other spaces on this form and on 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) 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.
Black Hawk	3680'	4399'	Natural gas

38. GEOLOGIC MARKERS

Name	Top	
	Meas. Depth	True Vert. Depth
Price River ss		2914'
Castlegate ss		3378'
Black Hawk		3680'
Kenilworth ss		4400'
Aberdeen ss		4597'
Spring Canyon		4728'

E. WELL LOGS

The following well logs were run on the subject well by Halliburton Logging Services, Inc. and have been previously submitted to the Division of Oil, Gas and Mining:

Date Logged	Type of Log
October 9, 1992	Spectral Density - Dual Spaced Neutron Log
October 9, 1992	Dual Induction Guard Log

F. CEMENT BOND LOG

An Acoustic Cement Bond Log was run and has been previously submitted to the Division of Oil, Gas and Mining.

G. CASING PROGRAM

This well was drilled, casing was set and dually completed on July 30, 1993.

	Surface Casing	Production Casing	DV Tool
Hole Size	12-1/4"	8-3/4"	8-3/4"
Casing Size	9-5/8"	7"	7"
Weight (lbs/ft)	6	26 & 29	
Grade	J-55	N-80	
Setting Depth	476'	4,990'	3,290'
Amount of Cement	275 sacks	380 sacks	435 sacks
Type of Cement	Class G	50/50 Pozmix Class G	
Slurry Volume	327.25	501.6	1,435.3
Top of Cement	Surface	3,290'	Surface
Date Set	9-25-92	10-10-92	10-11-92
PBTD		4,902'	

H. CASING TEST PROGRAM

Before injection begins, the casing outside the tubing shall be tested to 1000 psi as required in R615-5-5.

I. INJECTION FLUID

The injection fluid will consist of produced water containing an average of 9,000 mg/l TDS. The saltwater is a byproduct of gas production from the Blackhawk Coal formation. The proposed daily injection rates are: maximum - 8,000 barrels per day, average -5,000 barrels per day.

J. INJECTION PRESSURES

The proposed injection pressures are: maximum - 2,000 psig, average - 1,500 psig.

K. REVIEW OF WELLS WITHIN 1/2 MILE RADIUS

Listed below is a review of the casing and cement programs for the four (4) offset wells which are located within a one-half (1/2) mile radius of the Shimmin Trust #10-11 well. All of these wells have been cased and cemented in a manner which will prevent migration of the injection fluids up or down the wellbore and will prevent entry of injection fluids into improper zones.

Shimmin Trust 1

	Surface Casing	Production Casing	DV Tool
Hole Size	12-1/4"	7-7/8"	7-7/8"
Casing Size	8-5/8"	5-1/2"	5-1/2"
Weight (lbs/ft)	23	17	
Grade	WC-50	WC-70	
Setting Depth	552'	4,674'	3,620'
Amount of Cement	445 sacks	260 sacks	300/80
Type of Cement	Premium	50/50 Pozmix	Silica Lite/Pozmix
Slurry Volume	525	332.8	1,275.4
Top of Cement	Surface	3,620'	Surface
Date Set	7-4-90	7-27-90	7-27-90
PBTD		4,630'	

Shimmin Trust 4

	Surface Casing	Production Casing	DV Tool
Hole Size	12-1/4"	7-7/8"	7-7/8"
Casing Size	8-5/8"	5-1/2"	5-1/2"
Weight (lbs/ft)	23	17	
Grade	WC-50	WC-70	
Setting Depth	627'	4,630'	3,562'
Amount of Cement	450/25	320 sacks	310 sacks
Type of Cement	Premium/Pozmix	50/50 Pozmix	Silica Lite
Slurry Volume	563.25	409.6	1,212.1
Top of Cement	Surface	3,562'	Surface
Date Set	7-22-90	9-15-90	9-15-90
PBTD		4,583'	

Shimmin Trust 5

	Surface Casing	Production Casing	DV Tool
Hole Size	12-1/4"	7-7/8"	7-7/8"
Casing Size	8-5/8"	5-1/2"	5-1/2"
Weight (lbs/ft)	23	17	
Grade	WC-50	WC-50	
Setting Depth	595'	4,485'	3,348'
Amount of Cement	390/25	300 sacks	370 sacks
Type of Cement	Premium/Pozmix	50/50 Pozmix	Silica Lite
Slurry Volume	492.45	384	1,446.7
Top of Cement	Surface	3,348'	Surface
Date Set	8-9-90	9-8-90	9-8-90
PBTD		4,432'	

Shimmin Trust 11-11

	Surface Casing	Prod. Casing	DV Tool
Hole Size	12-1/4"	8-3/4"	8-3/4"
Casing Size	9-5/8"	7"	7"
Weight (lbs/ft)	36	26 & 29	
Grade	J-55	N-80	
Setting Depth	529'	4,997'	3,293'
Amount of Cement	275 sacks	400 sacks	350 sacks
Type of Cement	Class G	50/50 Pozmix	Class G
Slurry Volume	327.25	528	1,131
Top of Cement	Surface	3,293'	Surface
Date Set	9-7-92	9-25-92	9-25-92
PBTD		4,908'	

L. GEOLOGIC DATA

The proposed injection zone for the produced water from the Blackhawk Coal section using the Shimmin Trust No. 10-11 Well is in the Price River sandstone. The Price River is a Cretaceous age sandstone, siltstone and shale sequence of the Mesaverde Group that consists of fine to medium grained, sub-angular to sub-rounded, moderately to well sorted, slightly calcareous sand deposited in a fluvial environment. Sand thickness is approximately 150 feet over all, from 2945' - 3122' using a density porosity cut off of eight percent (8%). Confinement is provided by the massive Castlegate sandstone below, a very fine to fine grained fluvial sand and above, by the North Horn formation, a very fine to fine grained interbedded sand, shale, siltstone and mudstone deposited in a fluvial environment.

With the current well control, the lateral extent of the Price River sandstone includes the entire project area, (T12S-R10E).

At this time, there appears to be no structural or stratigraphic limitations which would effect the conveyance and/or storage of the injected water.

M. INJECTIVITY DATA

A Step Rate Test will be performed.

N. AFFIDAVIT OF NOTIFICATION

To whom it may concern:

Copies of the UIC Form 1 application for the Shimmin Trust #10-11 well have been mailed to the following on January 5, 1994.

OFFSET OPERATORS:

None

SURFACE OWNERS:

John F. Marshall Trustee
for Dean Carlyle Shimmin Trust
1495 East 2050 North
Provo, Utah 84604

Mona L. Marsing
4300 East 8900 South
Price, Utah 84501

Signature

Cindy R. Keister
Name

Sr. Regulatory Analyst
Title

(214) 706-7640
Telephone

January 4, 1994
Date

EXXON CHEMICAL COMPANY
P.O. Box 4321 Houston, Texas 77210-4321
Tel. (713) 680-8800 Telex: 4942225 ENCHOU

EXXON CHEMICALS

8940122

WATER ANALYSIS REPORT

SHEET NUMBER

COMPANY: PG&E — DATE: 01-16-94

FIELD: CASTLEGATE — COUNTY OR PARISH: CARBON — STATE: UTAH

LEASE OR UNIT: 10-11 SHIMMIN — SAMPLE SOURCE: SWAB — --- — WATER SOURCE FORMATION: PRICE RIVER

DEPTH FT.	INT. °	SAMPLE SOURCE	TEMP., °	WATER BBL/DAY	OIL BBL/DAY	GAS, MMCF/DAY

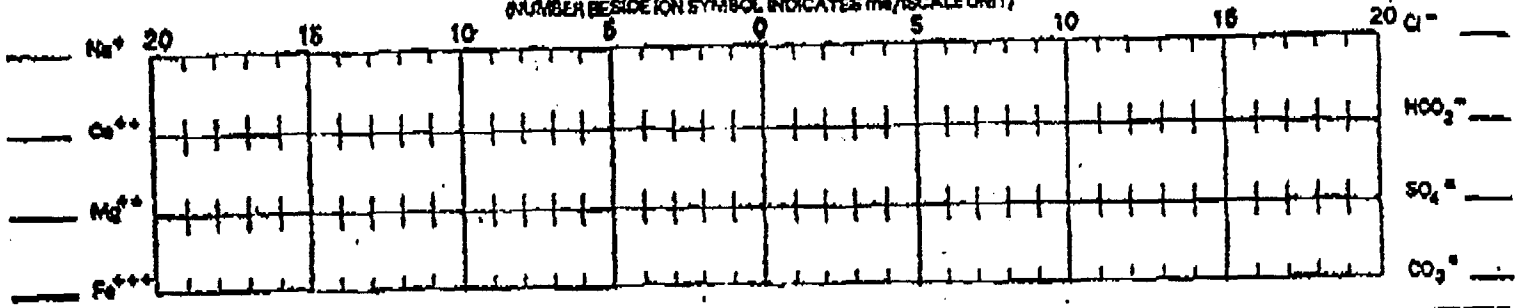
DATE SAMPLED: 01-16-94

TYPE OF WATER: ☒ PRODUCED ☐ SUPPLY ☐ WATERFLOOD ☐ SALTWATER DISPOSAL

TYPE OF PRODUCTION: ☐ PRIMARY ☐ WATERFLOOD ☐ CO_2 FLOOD ☐ POLYMER FLOOD ☐ STEAMFLOOD

WATER ANALYSIS PATTERN

(NUMBER BESIDE ION SYMBOL INDICATES me/l SCALE UNIT)



DISSOLVED SOLIDS

CATIONS	me/l	mg/l
TOTAL HARDNESS	2.6	
CALCIUM, Ca^{++}	1.4	28
MAGNESIUM, Mg^{++}	1.2	14.64
IRON (TOTAL) Fe^{+++}	.035	.65
BARIUM, Ba^{++}	.23	16
SODIUM, Na^{+} (CALC.)	502	11,555
ANIONS	**me/l**	**mg/l**
CHLORIDE, Cl^{-}	479	17,000
SULFATE, $SO_4^{=}$	6.25	300
CARBONATE, $CO_3^{=}$	16	480
BICARBONATE, HCO_3^{-}	0	0
HYDROXYL, OH^{-}	4	68
SULFIDE, $S^{=}$	1.4	22
PF/MF	.6/1.0	

DISSOLVED GASES

HYDROGEN SULFIDE, H_2S	mg/l
CARBON DIOXIDE, CO_2	mg/l
OXYGEN, O_2	mg/l

PHYSICAL PROPERTIES

pH	10.5
Eh (REDOX POTENTIAL)	MV
SPECIFIC GRAVITY	
TURBIDITY, FTU UNITS	
TOTAL DISSOLVED SOLIDS (CALC.)	29,484 mg/l
STABILITY INDEX @ °F	
@ °F	
@ °F	
$CaSO_4$ SOLUBILITY @ °F	mg/l
@ °F	mg/l
MAX. $CaSO_4$ POSSIBLE (CALC.)	mg/l
MAX. $BaSO_4$ POSSIBLE (CALC.)	mg/l
RESIDUAL HYDROCARBONS	ppm (Vol/Vol)

SUSPENDED SOLIDS (QUALITATIVE) ☐ IRON SULFIDE ☐ IRON OXIDE ☐ CALCIUM CARBONATE ☐ CALCIUM SULFATE ☐ ACID INSOLUBLE

REMARKS AND RECOMMENDATIONS:

ENGINEER	DIST. NO.	ADDRESS	OFFICE PHONE	HOME PHONE
Greg Wilkins	832	1299 E. 1500 S.	789-2069	
ANALYZED BY	DATE	DISTRIBUTION		
	01-16-94	☐ CUSTOMER ☐ REGION ☐ DISTRICT ☐ BC ENGINEER ☐		

Spring Canyon Sample

PETROLEUM LABORATORY
AND GAS ENGINEERING
401 N.E. 46th Oklahoma City, Ok. 73105-3338
(405) 528-8255

LABORATORY REPORT NO. 64512

WATER ANALYSIS

PACIFIC GAS & ELECTRIC RESOURCES
CASTLEGATE PROSPECT
JENSEN 9-10
STATION NO. SWAB SAMPLE
VERNAL, UTAH

SAMPLED BY: PG&ER
DATE SAMPLED: 10-00-92
DATE RUN 10-26-92
COLOR BEFORE FILTRATION: LIGHT BROWN
COLOR AFTER FILTRATION: LIGHT YELLOW

***** CHEMICAL CHARACTERISTICS *****

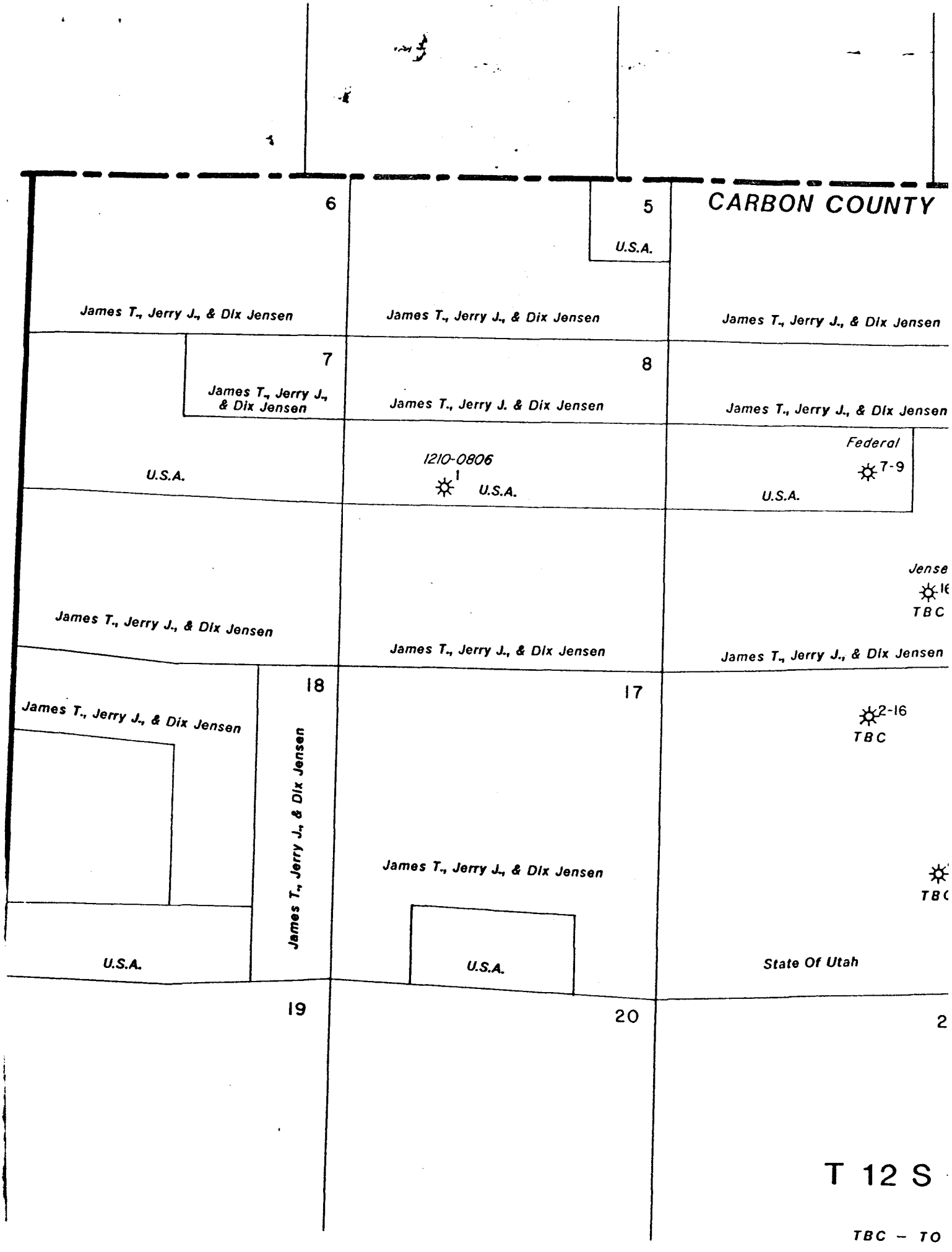
	mg/l
CALCIUM (Ca)	10
MAGNESIUM (Mg)	6
SODIUM (Na)	3,860
POTASSIUM (K)	2
BARIUM (Ba)	<1
IRON (Fe)	0.4
SILICA (SiO2)	10
*BICARBONATE (HCO3)	2,122
**CARBONATE (CO3)	1,628
HYDROXIDE (OH)	0
SULFATE (SO4)	280
CHLORIDE (Cl)	2,610

	mg/l
"P" ALKALINITY (AS CaCO3)	1,360
"M" ALKALINITY (AS CaCO3)	3,100
TOTAL HARDNESS (AS CaCO3)	50
TOTAL DISSOLVED SOLIDS	10,520

RESISTIVITY @ 77 DEG. F.	0.645
SPECIFIC GRAVITY @ 75 DEG. F.	1.014
pH VALUE	10.32

NOTES:

DATE RECEIVED: 10-26-92
BORON (MG/L): 4.6
THIS WATER WILL BE COMPATIBLE
WITH THE "INJECTION" WATER
*BICARBONATE as CaCO3: 1740
**CARBONATE as CaCO3: 2720
ZINC (MG/L): 0.07
CHROMIUM (MG/L): <0.05
STRONTIUM (MG/L): 0.48


CARBON COUNTY
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5
U.S.A.
James T., Jerry J., & Dix Jensen
James T., Jerry J., & Dix Jensen
James T., Jerry J., & Dix Jensen
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James T., Jerry J., & Dix Jensen
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State Of Utah
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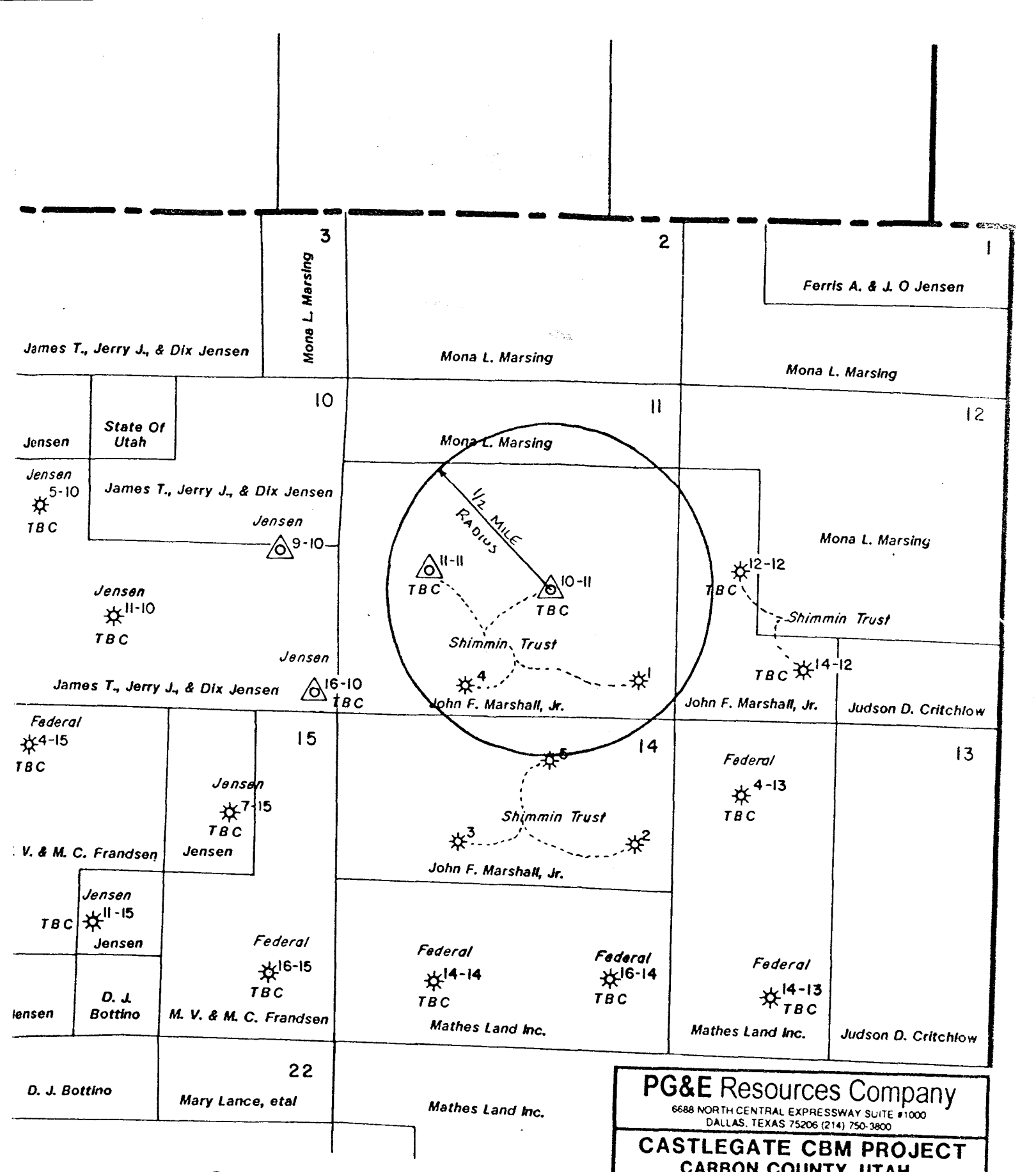


10 E

)MPLETED IN 1993

LEGEND

- PRODUCING WELLS
- SALT WATER DISPOSAL WELLS (PROPOSED)

PG&E Resources Company

6688 NORTH CENTRAL EXPRESSWAY SUITE #1000
DALLAS, TEXAS 75206 (214) 750-3800

CASTLEGATE CBM PROJECT
CARBON COUNTY, UTAH

SURFACE OWNERSHIP

0 2000 4000

SCALE IN FEET

GEOLOGY BY:
DATE: DECEMBER 9, 1992
CONTOUR INTERVAL:
REVISION: 12-16-92

O. LABORATORY TESTS

Laboratory analyses have been performed on the following water samples and copies are attached:

Shimmin Trust #1 - Blackhawk produced water
Shimmin Trust #2 - Blackhawk produced water
Shimmin Trust #3 - Blackhawk produced water
Shimmin Trust #4 - Blackhawk produced water
Shimmin Trust #5 - Blackhawk produced water
Jensen #9-10 - Blackhawk produced water (injection sample)
Shimmin Trust #10-11 - Blackhawk produced water
Jensen #9-10 (7/21/93) - Blackhawk produced water

A water analysis on the Price River Formation and a compatibility analysis will be furnished.

LABORATORY REPORT NO. 63647

JULY 28 1992

PACIFIC GAS & ELECTRIC RESOURCES
SHIMMIN TRUST WELLS

SAMPLED JULY 15 1992

ANALYSES OF 6 WATER SAMPLES *INCLUDING ZINC, BORON AND CHROMIUM*

SAMPLE #1 (pH = 7.1/21 C)
SAMPLE #2 (pH = 7.0/24 C)
SAMPLE #3 (pH = 7.7/19 C)
SAMPLE #4 (pH = 7.7/17 C)
SAMPLE #5 (pH = 7.6/23 C)
SAMPLE RO PERMEATE (pH = 5.3/30 C)

1 - PACIFIC GAS & ELECTRIC RESOURCES - DALLAS TX

PETROLEUM LABORATORY
AND GAS ENGINEERING
401 N.E. 46th Oklahoma City, Ok. 73105-3338
(405) 528-8255

LABORATORY REPORT NO. 63647

WATER ANALYSIS

PACIFIC GAS & ELECTRIC RESOURCES
SHIMMIN TRUST WELLS
SAMPLE #1 (pH = 7.1/21°C)

SAMPLED BY: PG&E
DATE SAMPLED: 07-15-92
DATE RUN 07-24-92
COLOR BEFORE FILTRATION: COLORLESS
COLOR AFTER FILTRATION: COLORLESS

***** CHEMICAL CHARACTERISTICS *****

	mg/l
CALCIUM (Ca)	36
MAGNESIUM (Mg)	15.6
SODIUM (Na)	2,660
POTASSIUM (K)	1
BARIUM (Ba)	<1
IRON (Fe)	0.1
SILICA (SiO2)	15
*BICARBONATE (HCO3)	5,490
CARBONATE (CO3)	0
HYDROXIDE (OH)	0
SULFATE (SO4)	1
CHLORIDE (Cl)	1,020

	mg/l
"P" ALKALINITY (AS CaCO3)	0
"M" ALKALINITY (AS CaCO3)	4,500
TOTAL HARDNESS (AS CaCO3)	155
TOTAL DISSOLVED SOLIDS	9,225

RESISTIVITY @ 77 DEG. F.	0.746
SPECIFIC GRAVITY @ 74 DEG. F.	1.010
pH VALUE	8.01

NOTES:

ZINC: <0.01
BORON: 12.2
CHROMIUM: <0.05
CANNOT TEST FOR STRONTIUM AT PRESENT. WILL BE ABLE TO RUN THE TEST IN THE FUTURE.
*BICARBONATE as CaCO3: 4500

PETROLEUM LABORATORY
AND GAS ENGINEERING
401 N.E. 46th Oklahoma City, Ok. 73105-3338
(405) 528-8255

LABORATORY REPORT NO. 63647

WATER ANALYSIS

PACIFIC GAS & ELECTRIC RESOURCES
SHIMMIN TRUST WELLS
SAMPLE #2 (pH = 7.0/24°C)

SAMPLED BY: PG&E
DATE SAMPLED: 07-15-92
DATE RUN 07-24-92
COLOR BEFORE FILTRATION: COLORLESS
COLOR AFTER FILTRATION: COLORLESS

***** CHEMICAL CHARACTERISTICS *****

	mg/l
CALCIUM (Ca)	52
MAGNESIUM (Mg)	7.2
SODIUM (Na)	2,185
POTASSIUM (K)	1
BARIUM (Ba)	<1
IRON (Fe)	0.2
SILICA (SiO2)	13
*BICARBONATE (HCO3)	5,182
CARBONATE (CO3)	0
HYDROXIDE (OH)	0
SULFATE (SO4)	1
CHLORIDE (Cl)	470

	mg/l
'P' ALKALINITY (AS CaCO3)	0
'M' ALKALINITY (AS CaCO3)	4,250
TOTAL HARDNESS (AS CaCO3)	160
TOTAL DISSOLVED SOLIDS	7,900

RESISTIVITY @ 77 DEG. F.	0.873
SPECIFIC GRAVITY @ 74 DEG. F.	1.007
pH VALUE	7.98

NOTES:

ZINC: <0.01
BORON: 12.0
CHROMIUM: <0.05
CANNOT TEST FOR STRONTIUM AT PRESENT. WILL BE ABLE TO RUN THE TEST IN THE FUTURE.
*BICARBONATE as CaCO3: 4250

PETROLEUM LABORATORY
AND GAS ENGINEERING
401 N.E. 46th Oklahoma City, Ok. 73105-3338
(405) 528-8255

LABORATORY REPORT NO. 63647

WATER ANALYSIS

PACIFIC GAS & ELECTRIC RESOURCES
SHIMMIN TRUST WELLS
SAMPLE #3 (pH = 7.7/19°C)

SAMPLED BY: PG&E
DATE SAMPLED: 07-15-92
DATE RUN 07-24-92
COLOR BEFORE FILTRATION: COLORLESS
COLOR AFTER FILTRATION: COLORLESS

***** CHEMICAL CHARACTERISTICS *****

	mg/l
CALCIUM (Ca)	48
MAGNESIUM (Mg)	7.2
SODIUM (Na)	1,815
POTASSIUM (K)	1
BARIUM (Ba)	<1
IRON (Fe)	0.2
SILICA (SiO2)	15
*BICARBONATE (HCO3)	4,285
CARBONATE (CO3)	0
HYDROXIDE (OH)	0
SULFATE (SO4)	1
CHLORIDE (Cl)	415

	mg/l
"P" ALKALINITY (AS CaCO3)	0
"M" ALKALINITY (AS CaCO3)	3,515
TOTAL HARDNESS (AS CaCO3)	150
TOTAL DISSOLVED SOLIDS	6,575

RESISTIVITY @ 77 DEG. F.	1.020
SPECIFIC GRAVITY @ 74 DEG. F.	1.008
pH VALUE	6.29

NOTES:

ZINC: <0.01
BORON: 6.5
CHROMIUM: <0.05
CANNOT TEST FOR STRONTIUM AT PRESENT. WILL BE ABLE TO RUN THE TEST IN THE FUTURE.
*BICARBONATE as CaCO3: 3515

PETROLEUM LABORATORY
AND GAS ENGINEERING
401 N.E. 46th Oklahoma City, Ok. 73105-3338
(405) 528-8255

LABORATORY REPORT NO. 63647

WATER ANALYSIS

PACIFIC GAS & ELECTRIC RESOURCES
SHIMMIN TRUST WELLS
SAMPLE #4 (pH = 7.7/17°C)

SAMPLED BY: FG&E
DATE SAMPLED: 07-15-92
DATE RUN 07-24-92
COLOR BEFORE FILTRATION: COLORLESS
COLOR AFTER FILTRATION: COLORLESS

***** CHEMICAL CHARACTERISTICS *****

	mg/l
CALCIUM (Ca)	32
MAGNESIUM (Mg)	9.6
SODIUM (Na)	2,415
POTASSIUM (K)	1
BARIUM (Ba)	<1
IRON (Fe)	0.5
SILICA (SiO2)	14
*BICARBONATE (HCO3)	5,427
CARBONATE (CO3)	0
HYDROXIDE (OH)	0
SULFATE (SO4)	1
CHLORIDE (Cl)	650

	mg/l
'P' ALKALINITY (AS CaCO3)	0
'M' ALKALINITY (AS CaCO3)	4,450
TOTAL HARDNESS (AS CaCO3)	120
TOTAL DISSOLVED SOLIDS	8,535

RESISTIVITY @ 77 DEG. F.	0.796
SPECIFIC GRAVITY @ 74 DEG. F.	1.009
pH VALUE	8.26

NOTES:

ZINC: <0.01
BORON: 10.5
CHROMIUM: <0.05
CANNOT TEST FOR STRONTIUM AT PRESENT. WILL BE ABLE TO RUN THE TEST IN THE FUTURE.
*BICARBONATE as CaCO3: 4450

PETROLEUM LABORATORY
AND GAS ENGINEERING
401 N.E. 46th Oklahoma City, Ok. 73105-3338
(405) 528-8255

LABORATORY REPORT NO. 63647

WATER ANALYSIS

PACIFIC GAS & ELECTRIC RESOURCES
SHIMMIN TRUST WELLS
SAMPLE #5 (pH = 7.6/23°C)

SAMPLED BY: PG&E
DATE SAMPLED: 07-15-92
DATE RUN 07-24-92
COLOR BEFORE FILTRATION: COLORLESS
COLOR AFTER FILTRATION: COLORLESS

***** CHEMICAL CHARACTERISTICS *****

	mg/l
CALCIUM (Ca)	28
MAGNESIUM (Mg)	3
SODIUM (Na)	2,195
POTASSIUM (K)	1
BARIUM (Ba)	<1
IRON (Fe)	0.6
SILICA (SiO2)	13
*BICARBONATE (HCO3)	4,780
CARBONATE (CO3)	0
HYDROXIDE (OH)	0
SULFATE (SO4)	1
CHLORIDE (Cl)	675

	mg/l
"P" ALKALINITY (AS CaCO3)	0
"M" ALKALINITY (AS CaCO3)	3,920
TOTAL HARDNESS (AS CaCO3)	104
TOTAL DISSOLVED SOLIDS	7,690

RESISTIVITY @ 77 DEG. F.	0.847
SPECIFIC GRAVITY @ 74 DEG. F.	1.009
pH VALUE	8.36

NOTES:

ZINC: <0.01
BORON: 6.0
CHROMIUM: <0.05
CANNOT TEST FOR STRONTIUM AT PRESENT. WILL BE ABLE TO RUN THE TEST IN THE FUTURE.
*BICARBONATE as CaCO3: 3920

PETROLEUM LABORATORY
AND GAS ENGINEERING
401 N.E. 46th Oklahoma City, Ok. 73105-3338
(405) 528-8255

LABORATORY REPORT NO. 63647

WATER ANALYSIS

PACIFIC GAS & ELECTRIC RESOURCES
SHIMMIN TRUST WELLS
SAMPLE RO PERMEATE (pH = 5.3/30°C)

SAMPLED BY: PG&E
DATE SAMPLED: 07-15-92
DATE RUN 07-24-92
COLOR BEFORE FILTRATION: COLORLESS
COLOR AFTER FILTRATION: COLORLESS

***** CHEMICAL CHARACTERISTICS *****

	mg/l
CALCIUM (Ca)	2
MAGNESIUM (Mg)	0.8
SODIUM (Na)	35
POTASSIUM (K)	<1
BARIUM (Ba)	<1
IRON (Fe)	<0.1
SILICA (SiO2)	8
*BICARBONATE (HCO3)	43
CARBONATE (CO3)	0
HYDROXIDE (OH)	0
SULFATE (SO4)	1
CHLORIDE (Cl)	35

	mg/l
'P' ALKALINITY (AS CaCO3)	0
'M' ALKALINITY (AS CaCO3)	35
TOTAL HARDNESS (AS CaCO3)	8
TOTAL DISSOLVED SOLIDS	117

RESISTIVITY @ 77 DEG. F.	41.670
SPECIFIC GRAVITY @ 74 DEG. F.	1.000
pH VALUE	6.01

NOTES: *CHROMIUM: <0.05*
ZINC: <0.01
BORON: 1.2
CANNOT TEST FOR STRONTIUM AT PRESENT, WILL BE ABLE TO RUN THE TEST IN THE FUTURE.
*BICARBONATE as CaCO3: 35

Oilab
PETROLEUM LABORATORY
AND GAS ENGINEERING
401 N.E. 46th Oklahoma City, Ok. 73105-3338
(405) 528-8255

PACIFIC GAS & ELECTRIC RESOURCES

FOLLOWING ARE THE METHOD NUMBERS AND DETECTION LIMITS FOR EACH OF THE PARAMETER TESTED

PARAMETER	METHOD	DETECTION LIMIT (MG/
pH	*4500-H^+-B	0.1 UNIT
BICARBONATES (HCO3)	2320-B	1.0
CARBONATE (CO3)	2320-B	1.0
ALKALINITY	310.1	1.0
CALCIUM	EPA 215.1	0.01
MAGNESIUM	EPA 242.1	0.001
POTASSIUM	EPA 258.1	0.01
SODIUM	EPA 273.1	0.002
TDS	*2540-C	1.0
IRON	236.1	0.03
SILICA	*4500-Si-E	0.1
BARIUM	208.1	0.1
BORON	*4500-B-C	0.1
CHROMIUM	EPA-218.1	0.05
ZINC	EPA 289.1	0.005

*STANDARD METHODS OF WATER AND WASTEWATER (17th EDITION)

PETROLEUM LABORATORY
AND GAS ENGINEERING
401 N.E. 46th Oklahoma City, Ok. 73105-3338
(405) 528-8255

LABORATORY REPORT NO. 63953

AUGUST 28, 1992

PACIFIC GAS & ELECTRIC RESOURCES

ANALYSES OF (A) 6 WATER SAMPLES FOR STRONTIUM ANALYSIS

SHIMMIN TRUST WELLS
(07-15-92)

ANALYSIS: (RESULTS IN MG/L)

	SAMPLE	STRONTIUM
(1)	PG&ER (RO PERMEATE)	<0.1
(2)	PG&ER #1	0.80
(3)	PG&ER #2	0.68
(4)	PG&ER #3	1.04
(5)	PG&ER #4	0.97
(6)	PG&ER #5	1.03

ANALYSES OF (B) 2 WATER SAMPLES

SHIMMIN TRUST #2
(08-02-92)

ANALYSIS: (RESULTS IN MG/L)

	SAMPLE	STRONTIUM
(1)	INJECTED WATER (TANKS COMINGLED 2 BBLS/m)	0.70
(2)	SWAB SAMPLE	0.90

NOTE: METHOD EPA 7780

1 - PACIFIC GAS & ELECTRIC RESOURCES - DALLAS, TX

LABORATORY REPORT NO. 64512

OCTOBER 28, 1992

PACIFIC GAS & ELECTRIC RESOURCES
CASTLEGATE PROSPECT

SAMPLED OCTOBER 1992: SAMPLES RECEIVED AT OILAB, OCTOBER 26, 1992

ANALYSES OF 2 WATER SAMPLES INCLUDING BORON, ZINC, CHROMIUM, AND STRONTIUM

JENSEN 9-10	INJECTION WATER
JENSEN 9-10	SWAB SAMPLE

1 - WAYNE SUTTON - DALLAS, TX

PETROLEUM LABORATORY
AND GAS ENGINEERING
401 N.E. 46th Oklahoma City, Ok. 73105-3338
(405) 528-8255

LABORATORY REPORT NO. 64512

WATER ANALYSIS

PACIFIC GAS & ELECTRIC RESOURCES
CASTLEGATE PROSPECT
JENSEN 9-10
STATION NO. INJECTION WATER
VERNAL, UTAH

SAMPLED BY: PG&ER
DATE SAMPLED: 10-00-92
DATE RUN 10-26-92
COLOR BEFORE FILTRATION: COLORLESS
COLOR AFTER FILTRATION: COLORLESS

***** CHEMICAL CHARACTERISTICS *****

	mg/l
CALCIUM (Ca)	18
MAGNESIUM (Mg)	13
SODIUM (Na)	2,460
POTASSIUM (K)	3
BARIUM (Ba)	<1
IRON (Fe)	0.3
SILICA (SiO2)	11
*BICARBONATE (HCO3)	4,475
CARBONATE (CO3)	0
HYDROXIDE (OH)	0
SULFATE (SO4)	115
CHLORIDE (Cl)	1,165

	mg/l
'P' ALKALINITY (AS CaCO3)	0
'M' ALKALINITY (AS CaCO3)	3,670
TOTAL HARDNESS (AS CaCO3)	96
TOTAL DISSOLVED SOLIDS	8,250

RESISTIVITY @ 77 DEG. F.	0.869
SPECIFIC GRAVITY @ 75 DEG. F.	1.010
pH VALUE	8.28

NOTES:

DATE RECEIVED: 10-26-92
BORON (MG/L): 9.2
ZINC (MG/L): 0.02
CHROMIUM (MG/L): <0.05
STRONTIUM (MG/L): 0.88
THIS WATER WILL BE COMPATIBLE
WITH THE "SWAB" SAMPLE
*BICARBONATE as CaCO3: 3670

PG&E Resources Company

8 N. Central Expressway, Suite 1000
as, Texas 75206-3922
Telephone 214/750-3800
FAX 214/750-3883

CONFIDENTIAL

RECEIVED

DEC 13 1993

DIVISION OF
OIL, GAS & MINING

December 8, 1993

State of Utah Dept. of Natural Resources
Division of Oil, Gas and Mining
Underground Injection Control Section
355 West North Temple
3 Triad Center, Suite 350
Salt Lake City, Utah 84180-1203

Attention: Mr. Dan Jarvis

RE: Shimmin Trust 10-11
Section 11-T12S-R10
Carbon County, Utah

Dear Mr. Jarvis:

PG&E Resources Company hereby requests approval to run a tracer survey on the referenced water disposal well. Attached is an original and two (2) copies of Form 9 "Sundry Notices and Reports on Wells" for the Shimmin Trust 10-11.

If you have any questions or need additional information, please contact the undersigned at (214) 706-3640.

Sincerely,

Cindy R. Keister

Cindy R. Keister
Sr. Regulatory Analyst

CRK/ck

Attachments

cc: Central File
Regulatory File

Form 9

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

CONFIDENTIAL

6. Lease Designation and Serial Number: Fee	
7. Indian Allotee or Tribe Name: NA	
8. Unit or Communization Agreement: NA	
9. Well Name and Number: Shimmin Trust No. 10-11	
10. API Well Number: 43-007-30167	
11. Field and Pool, or Wildcat: Wildcat	

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill new wells, deepen existing wells, or to reenter plugged and abandoned wells. Use APPLICATION FOR PERMIT--for such proposals.

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

2. Name of Operator: PG&E Resources Company

3. Address of Operator: 6688 N. Central Expwy., Suite 1000, Dallas, TX 75206

4. Telephone Number: (214) 750-3800

5. Location of Well
Footage : 1999' FSL & 2006' FEL
QQ. Sec, T., R., M. : NW/4 SE/4 Section 11, T12S-R10E
County : Carbon
State : UTAH

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

NOTICE OF INTENT
(Submit in Duplicate)

- [ ] Abandonment
- [ ] Casing Repair
- [ ] Change of Plans
- [ ] Conversion to Injection
- [ ] Fracture Treat
- [ ] Multiple Completion
- [ ] New Construction
- [ ] Pull or Alter Casing
- [ ] Recompletion
- [ ] Shoot or Acidize
- [ ] Vent or Flare
- [ ] Water Shut-Off
- [X] Other Run RA Tracer Log

Approximate Date Work Will Start 12/15/1993

SUBSEQUENT REPORT
(Submit in Duplicate)

- [ ] Abandonment *
- [ ] Casing Repair
- [ ] Change of Plans
- [ ] Conversion to Injection
- [ ] Fracture Test
- [ ] Other
- [ ] New Construction
- [ ] Pull or Alter Casing
- [ ] Shoot or Acidize
- [ ] Vent or Flare
- [ ] Water Shut-Off

Date of Work Completion

Report results of Multiple Completions and Recompletions to different reservoirs on WELL COMPLETION OR RECOMPLETION AND LOG form.
* Must be accompanied by a cement verification report.

13. DESCRIBE PROPOSED OR COMPLETED OPERATIONS (Clearly state all pertinent details, and give pertinent dates. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)

PG&E Resources Company requests approval to run a RA Tracer Log as follows:

1. RU Production Logging, Vernal, Utah
2. GIH w/1" RA Source Tool in tandem w/G-R CCL Logging Tool (RIH on 2-1/16" injection tbg.)
3. Move tools into position and establish injection rate w/produced coal seam water @1.5 BPM x 720 psi (est); release tracer material; attempt to chase slug w/drag runs; check for packer leakage.
4. Report results.
5. Porduce field and final print logs.
6. Remedial work to be recommended pending results of survey.

RECEIVED
DEC 13 1993
DIVISION OF
OIL, GAS & MINING

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

Name & Signature Cindy R. Keister Title Sr. Regulatory Analyst Date 12/07/1993

(State Use Only)

See Instructions on Reverse Side

Form 9

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

6. Lease Designation and Serial Number: Fee

7. Indian Allotee or Tribe Name: NA

8. Unit or Communization Agreement: NA

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill new wells, deepen existing wells, or to reenter plugged and abandoned wells.
Use APPLICATION FOR PERMIT--for such proposals.

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

9. Well Name and Number: Shimmin Trust 10-11

2. Name of Operator: PG&E Resources Company

10. API Well Number: 43-007-30167

3. Address of Operator: 6688 N. Central Expwy., Suite 1000, Dallas, TX 75206

4. Telephone Number: (214) 750-3800

11. Field and Pool, or Wildcat: Wildcat

5. Location of Well
Footage : 1999' FSL & 2006' FEL
QQ, Sec, T., R., M. : NW/4 SE/4 Sec. 11, T12S-R10E
County : Carbon
State : UTAH

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

NOTICE OF INTENT (Submit in Duplicate)		SUBSEQUENT REPORT (Submit in Duplicate)	
[ ] Abandonment	[ ] New Construction	[ ] Abandonment *	[ ] New Construction
[ ] Casing Repair	[ ] Pull or Alter Casing	[ ] Casing Repair	[ ] Pull or Alter Casing
[ ] Change of Plans	[ ] Recompletion	[ ] Change of Plans	[ ] Shoot or Acidize
[ ] Conversion to Injection	[ ] Shoot or Acidize	[ ] Conversion to Injection	[ ] Vent or Flare
[ ] Fracture Treat	[ ] Vent or Flare	[ ] Fracture Test	[ ] Water Shut-Off
[ ] Multiple Completion	[ ] Water Shut-Off	[ ] Other _____	
[X] Other NTL-2B			

Approximate Date Work Will Start _____

Date of Work Completion _____

Report results of Multiple Completions and Recompletions to different reservoirs on WELL COMPLETION OR RECOMPLETION AND LOG form.
* Must be accompanied by a cement verification report.

13. DESCRIBE PROPOSED OR COMPLETED OPERATIONS (Clearly state all pertinent details, and give pertinent dates. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)

PG&E Resources Company requests approval to dispose of produced water from the referenced well into off-lease injection well(s) located in Section 10 and 11 of T12S-R10E, Carbon County, Utah. The produced water will flow via a gathering line to a central processing facility (CPF) where it will be consolidated with other produced water from the field prior to entering the injection header for disposal into one of the four injection wells. A copy of the State of Utah, UIC Permit is included for your review.

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

Name & Signature Cindy R. Keister Title Sr. Regulatory Analyst Date 12/20/1993

(State Use Only)

See Instructions on Reverse Side

Form 9

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

6. Lease Designation and Serial Number: Fee

7. Indian Allotee or Tribe Name: NA

8. Unit or Communization Agreement: NA

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill new wells, deepen existing wells, or to reenter plugged and abandoned wells.
Use APPLICATION FOR PERMIT--for such proposals.

RECEIVED
DEC 27 1993
DIVISION OF
OIL, GAS & MINING

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

9. Well Name and Number: Shimmin Trust 10-11

2. Name of Operator: PG&E Resources Company

10. API Well Number: 43-007-~~30167~~ 31067

3. Address of Operator: 6688 N. Central Expwy., Suite 1000, Dallas, TX 75206

4. Telephone Number: (214) 750-3800

11. Field and Pool, or Wildcat: Wildcat

5. Location of Well
Footage : 1999' FSL & 2006' FEL
QQ. Sec, T., R., M. : NW/4 SE/4 Sec. 11, T12S-R10E
County : Carbon
State : UTAH

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

NOTICE OF INTENT
(Submit in Duplicate)

- [ ] Abandonment
- [ ] Casing Repair
- [ ] Change of Plans
- [ ] Conversion to Injection
- [ ] Fracture Treat
- [ ] Multiple Completion
- [ ] New Construction
- [ ] Pull or Alter Casing
- [ ] Recompletion
- [ ] Shoot or Acidize
- [ ] Vent or Flare
- [ ] Water Shut-Off
- [X] Other NTL-2B

Approximate Date Work Will Start _____

SUBSEQUENT REPORT
(Submit in Duplicate)

- [ ] Abandonment *
- [ ] Casing Repair
- [ ] Change of Plans
- [ ] Conversion to Injection
- [ ] Fracture Test
- [ ] Other _____
- [ ] New Construction
- [ ] Pull or Alter Casing
- [ ] Shoot or Acidize
- [ ] Vent or Flare
- [ ] Water Shut-Off

Date of Work Completion _____

Report results of Multiple Completions and Recompletions to different reservoirs on WELL COMPLETION OR RECOMPLETION AND LOG form.
* Must be accompanied by a cement verification report.

13. DESCRIBE PROPOSED OR COMPLETED OPERATIONS (Clearly state all pertinent details, and give pertinent dates. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)

PG&E Resources Company requests approval to dispose of produced water from the referenced well into off-lease injection well(s) located in Section 10 and 11 of T12S-R10E, Carbon County, Utah. The produced water will flow via a gathering line to a central processing facility (CPF) where it will be consolidated with other produced water from the field prior to entering the injection header for disposal into one of the four injection wells. A copy of the State of Utah, UIC Permit is included for your review.

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

Name & Signature Cindy R. Keister Cindy R. Keister Title Sr. Regulatory Analyst Date 12/20/1993

(State Use Only)

See Instructions on Reverse Side

D. WELLBORE DIAGRAMS

SHIMMIN TRUST NO. 10-11

Castlegate Field

Carbon County, Utah

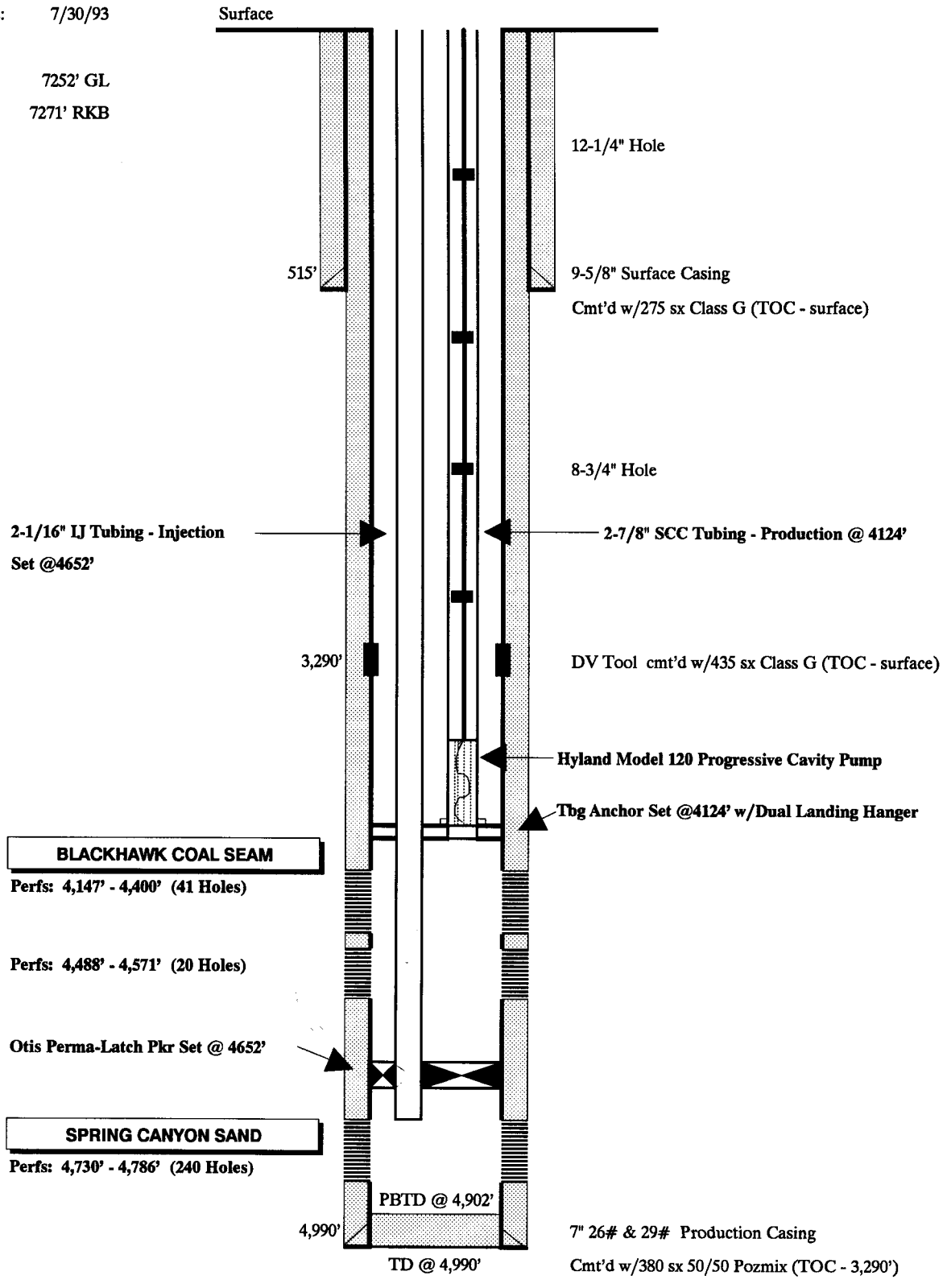
Spud Date: 9/20/92

Compl. Date: 7/30/93

Sec 11-T12S-R10E

Elev. 7252' GL

7271' RKB



SHTR1011.WBD

CRK 08/30/93

OF UTAH
SION OF OIL, GAS AND MINING

APPLICATION FOR INJECTION WELL - UIC FORM 1

OPERATOR PG&E Resources Company
ADDRESS 6688 N. Central Expressway, Suite 1000
Dallas, TX 75206-3922

Well name and number: Shimmin Trust 10-11

Field or Unit name: Castlegate CBM Project Lease no. Fee

Well location: QQ NWSE section 11 township 12S range 10E county Carbon

Is this application for expansion of an existing project? . . Yes [X] No [ ]

Will the proposed well be used for: Enhanced Recovery? . . Yes [ ] No [X]
Disposal? . . . . . Yes [X] No [ ]
Storage? . . . . . Yes [ ] No [X]

Is this application for a new well to be drilled? . . . . . Yes [ ] No [X]

If this application is for an existing well,
has a casing test been performed on the well? . . . . . Yes [X] No [ ]
Date of test: 5/25/93 (will be tested again prior to injection)
API number: 43-007-30167

Proposed injection interval: from 2945' to 2968'

Proposed maximum injection: rate 8000 bpd pressure 2000 psig

Proposed injection zone contains [ ] oil, [ ] gas, and/or [ ] fresh water within ½ mile of the well. (salt water)

IMPORTANT: Additional information as required by R615-5-2 should accompany this form.

List of Attachments:

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

Name Cindy R. Keister
Title Sr. Regulatory Analyst
Phone No. (214) 750-3800

Signature Cindy R. Keister
Date 1/4/94

(State use only)
Application approved by Title
Approval Date

Comments:

(3/89)

Form 9

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

6. Lease Designation and Serial Number	Fee
7. Indian Allotee or Tribe Name	NA
8. Unit or Communization Agreement	NA
9. Well Name and Number	Shimmin Trust 10-11
10. API Well Number	43-007-30167
11. Field and Pool, or Wildcat	Wildcat

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill new wells, deepen existing wells, or to reenter plugged and abandoned wells. Use APPLICATION FOR PERMIT--for such proposals.

1. Type of Well: ☐ Oil Well ☐ Gas Well ☒ Other (Specify) SWD

2. Name of Operator: PG&E Resources Company

3. Address of Operator: 6688 N. Central Expwy., Suite 1000, Dallas, TX 75206

4. Telephone Number: (214) 750-3800

5. Location of Well
Footage : 1999' FSL & 2006' FEL
QQ. Sec, T., R., M. : NW/4 SE/4 Sec. 11, T12S-R10E
County : Carbon
State : UTAH

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

NOTICE OF INTENT (Submit in Duplicate)		SUBSEQUENT REPORT (Submit in Duplicate)	
☐ Abandonment	☐ New Construction	☐ Abandonment *	☐ New Construction
☐ Casing Repair	☐ Pull or Alter Casing	☐ Casing Repair	☐ Pull or Alter Casing
☐ Change of Plans	☐ Recompletion	☐ Change of Plans	☐ Shoot or Acidize
☐ Conversion to Injection	☐ Shoot or Acidize	☐ Conversion to Injection	☐ Vent or Flare
☐ Fracture Treat	☐ Vent or Flare	☐ Fracture Test	☐ Water Shut-Off
☐ Multiple Completion	☐ Water Shut-Off	☐ Other _____	
☒ Other Injection Testing			

Approximate Date Work Will Start _____

Date of Work Completion _____

Report results of Multiple Completions and Recompletions to different reservoirs on WELL COMPLETION OR RECOMPLETION AND LOG form.
* Must be accompanied by a cement verification report.

13. DESCRIBE PROPOSED OR COMPLETED OPERATIONS (Clearly state all pertinent details, and give pertinent dates. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)

PG&E Resources Company respectfully requests approval to run an injection test into the Price River formation for sixty (60) days. This testing will be conducted to gather data regarding the injection potential of the Price River formation by monitoring daily injection rates and surface pressures. This data will be recorded and used to evaluate further injection potential.

*APPROVED BY THE STATE OF UTAH DIVISION OF OIL, GAS, AND MINING
DATE: 1-31-94
BY: [signature]

RECEIVED
JAN 05 1994
DIVISION OF OIL, GAS & MINING

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

Name & Signature Cindy R. Keister [signature] Title Sr. Regulatory Analyst Date 01/04/1993

(State Use Only)
* Attached conditions.

See Instructions on Reverse Side

Utah Division of Oil, Gas and Mining

Attachment to **Sundry Notice and Report on Wells**
dated January 4, 1994.

Subject: Request of PG&E Resources Company for permission to perform injection testing on the **Shimmin Trust 10-11** well, sec. 11, T12S, R10E, Carbon, County.
API = 43-007-30167

Conditions of Approval:

- Test period will be for **30 days**. At the end of 30 days the information gathered will be reviewed with the Division, and if necessary, a request for an extension of the testing period will be made at that time.

Form 9

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

6. Lease Designation and Serial Number	Fee
7. Indian Allotee or Tribe Name	NA
8. Unit or Communization Agreement	NA

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill new wells, deepen existing wells, or to reenter plugged and abandoned wells.
Use APPLICATION FOR PERMIT--for such proposals.

1. Type of Well: [ ] Oil Well [ ] Gas Well [X] Other (Specify) SWD

9. Well Name and Number: Shimmin Trust 10-11

2. Name of Operator: PG&E Resources Company

10. API Well Number: 43-007-30167

3. Address of Operator: 6688 N. Central Expwy., Suite 1000, Dallas, TX 75206

4. Telephone Number: (214) 750-3800

11. Field and Pool, or Wildcat: Wildcat

5. Location of Well
Footage : 1999' FSL & 2006' FEL
QQ. Sec, T., R., M. : NW/4 SE/4 Sec. 11, T12S-R10E
County : Carbon
State : UTAH

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

NOTICE OF INTENT
(Submit in Duplicate)

- [ ] Abandonment
- [ ] Casing Repair
- [ ] Change of Plans
- [ ] Conversion to Injection
- [ ] Fracture Treat
- [ ] Multiple Completion
- [ ] Other
- [ ] New Construction
- [ ] Pull or Alter Casing
- [X] Recompletion
- [ ] Shoot or Acidize
- [ ] Vent or Flare
- [ ] Water Shut-Off

Approximate Date Work Will Start _____

SUBSEQUENT REPORT
(Submit in Duplicate)

- [ ] Abandonment *
- [ ] Casing Repair
- [ ] Change of Plans
- [ ] Conversion to Injection
- [ ] Fracture Test
- [ ] Other
- [ ] New Construction
- [ ] Pull or Alter Casing
- [ ] Shoot or Acidize
- [ ] Vent or Flare
- [ ] Water Shut-Off

Date of Work Completion _____

Report results of Multiple Completions and Recompletions to different reservoirs on WELL COMPLETION OR RECOMPLETION AND LOG form.
* Must be accompanied by a cement verification report.

13. DESCRIBE PROPOSED OR COMPLETED OPERATIONS (Clearly state all pertinent details, and give pertinent dates. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)

PG&E Resources Company requests approval to recomplete the Shimmin Trust 10-11 to the Price River formation as shown on the attached procedure and wellbore diagrams.

* APPROVED BY THE STATE OF UTAH DIVISION OF OIL, GAS, AND MINING
DATE: 1-5-94
BY:

RECEIVED
JAN 05 1994
DIVISION OF
OIL, GAS & MINING

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

Name & Signature Cindy R. Keister Title Sr. Regulatory Analyst Date 01/04/1993

(State Use Only)
* See attached conditions.

See Instructions on Reverse Side

Utah Division of Oil, Gas and Mining

Attachment to **Sundry Notice and Report on Wells**
dated January 4, 1994.

Subject: Request of PG&E Resources Company for permission to recomplete and test for possible injection into the **Shimmin Trust 10-11** well, sec. 11, T12S, R10E, Carbon, County.
API = 43-007-30167

Conditions of Approval:

1) DOGM will be contacted prior to casing test and swabbing sample in #4 to allow opportunity for duplicate sample, testing and witnessing.

2) Results of testing must be provided to the Division. No injection will take place until water quality test results are obtained and discussed with appropriate DOGM staff.

CASTLEGATE PROJECT
CHANGE OF DISPOSAL ZONE
SUMMARY OF WORKOVER PROCEDURES
DECEMBER 30, 1993

Shallow Zone Injection utilizing the Shimmin Trust No. 10-11.

PROCEDURE

1. MIRU Service Rig. Set isolation plug in the packer at 4652'. POOH w/ short and long strings.
2. RIH w/ work string; spot sand on packer. POOH. Run RBP and set at 3200'. Spot sand on the RBP; test RBP and casing to 1000 psi (give the Utah DOGM 24 hrs notice of test). Swab well to 2000'. POOH.
3. Perforate the Price River Sand from 2945' to 68' (23') and from 2995' to 3122' (127') at 2 spf using 4" casing guns.
4. RIH w/ test packer and work string; set packer at 2900'+/-. Test casing to 1000 psi. Swab well to obtain water sample.
5. Upon DOGM approval to inject water, acidize the Price River Sand with 3750 gal of 15% HCL.
6. Perform step rate test; continue injection for long term test (30 days).
7. Upon completion of the long term test and UIC permit approval, pull tubing, packer, and RBP. Retrieve the packer from 4652'.
8. Set CIBPs at 4710' and 4127'; dump 10' of cement on each CIBP.
9. Set the Otis Perma-Latch packer at 2900'+/- with the 2 7/8" work string. POOH.
10. RIH w/ 2 7/8" internally coated tubing and On-Off tool. Pressure test tubing and On-Off tool to 2500 psi. Pressure test the casing to 1000 psi. File casing integrity test form. Place well on injection.

SHIMMIN TRUST NO. 10-11

Castlegate Field

Carbon County, Utah

PROPOSED TEMPORARY COMPLETION

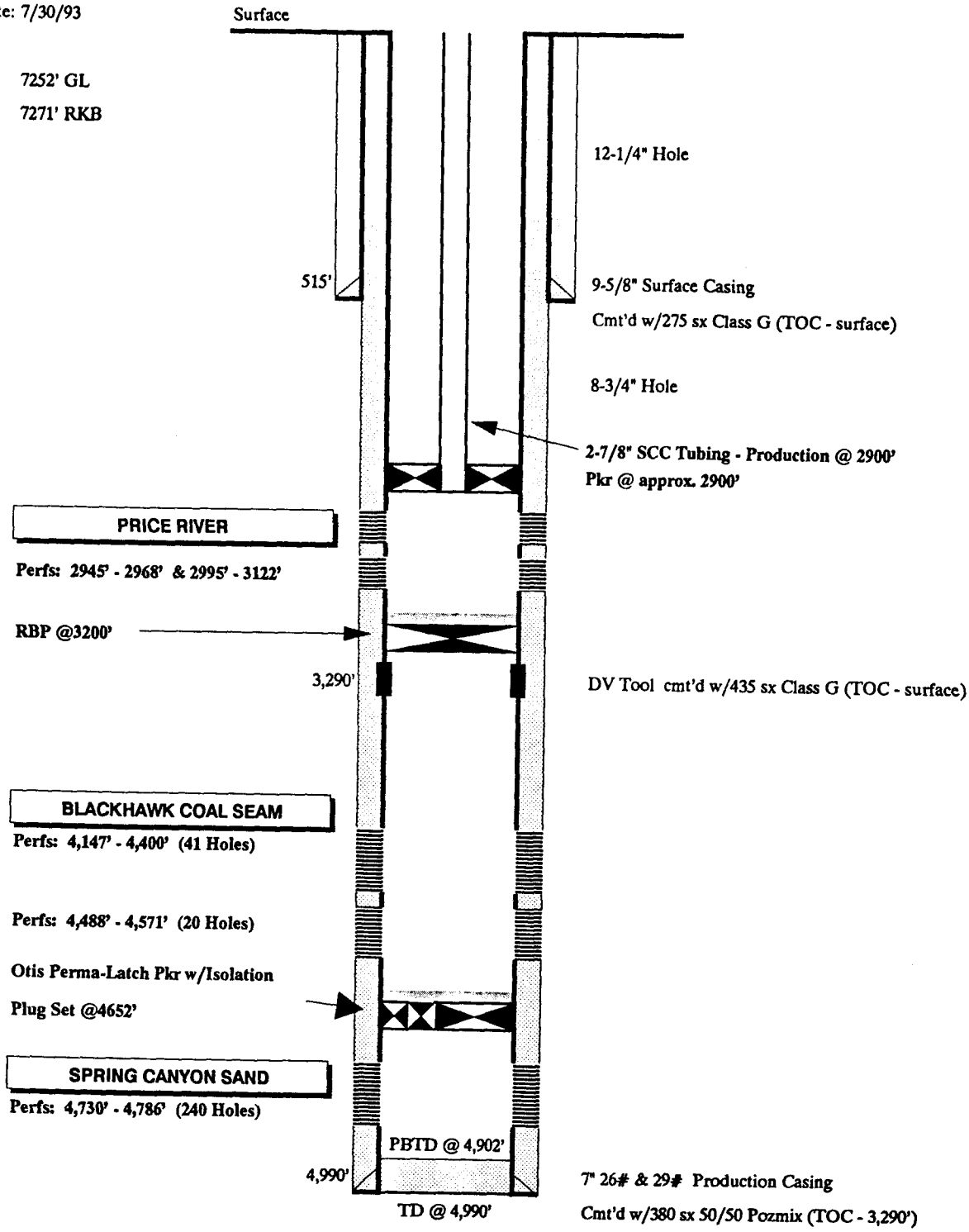
Spud Date: 9/20/92

Compl. Date: 7/30/93

Sec 11-T12S-R10E

Elev. 7252' GL

7271' RKB



SHIMMIN TRUST NO. 10-11

Castlegate Field

Carbon County, Utah

PROPOSED FINAL COMPLETION

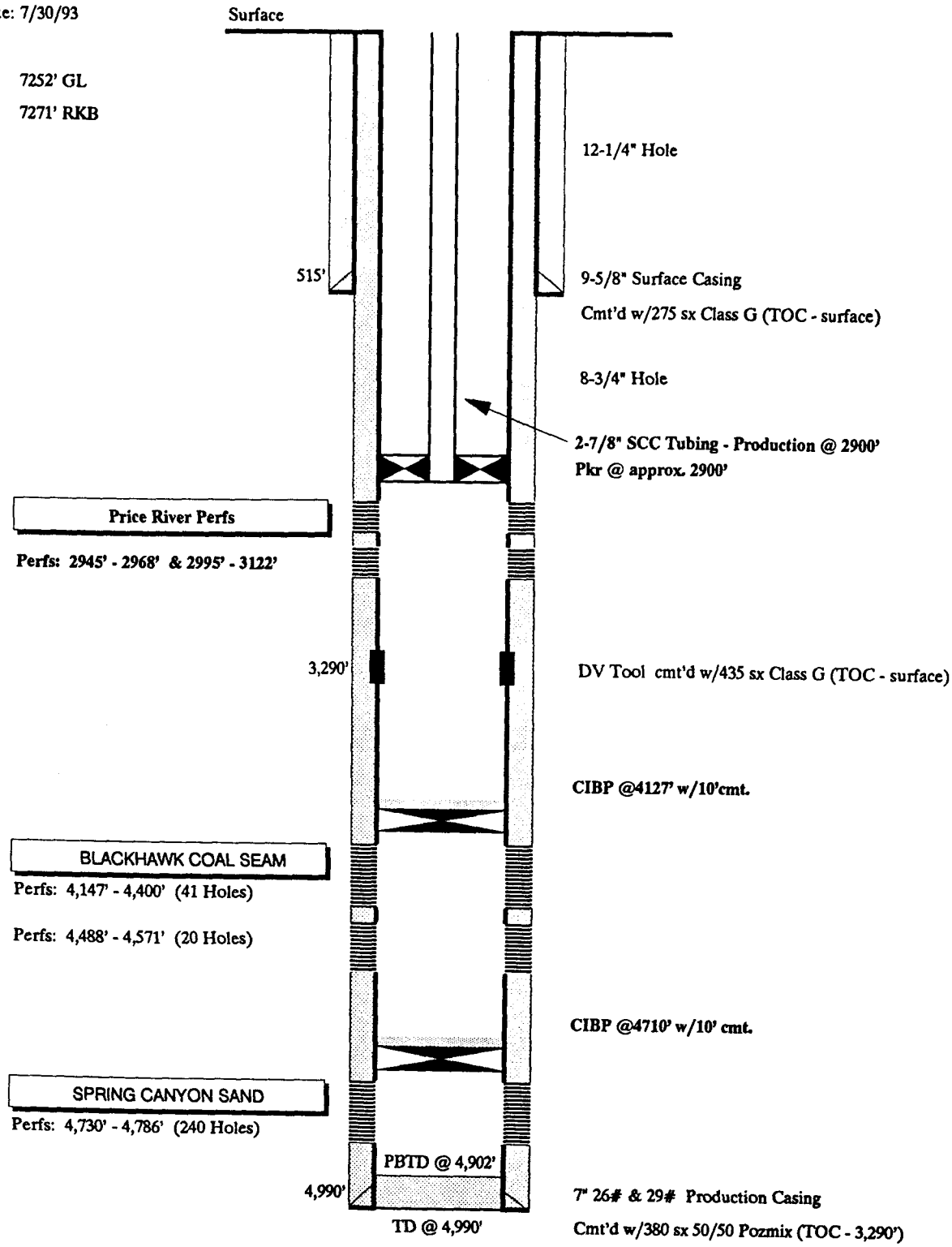
Spud Date: 9/20/92

Compl. Date: 7/30/93

Sec 11-T12S-R10E

Elev. 7252' GL

7271' RKB



SH1011P2.XLS

CRK 01/03/94

PG&E Resources Company

8888 N. Central Expressway, Suite 1000
Dallas, Texas 75206-3922
Telephone 214/750-3800
FAX 214/750-3883

February 8, 1994

State of Utah Dept. of Natural Resources
Division of Oil, Gas & Mining
355 West Temple
3 Triad Center, Suite 350
Salt Lake City, UT 84186

RE: Shimmin Trust No. 10-11 SWD
Section 11, T12S-R10E
Carbon County, Utah

Gentlemen:

Attached is the following information in triplicate as required for completion of the referenced well:

1. Form 8 "Well Completion or Recompletion Report and Log"
2. Form 9 "Sundry Notices and Reports on Wells" (Subsequent Report)
3. Daily well history
4. Wellbore Sketch
5. Step Rate Test

If you have any questions or need further information, please contact the undersigned at (214) 706-3640.

Very truly yours,

Cindy R. Keister

Cindy R. Keister
Sr. Regulatory Analyst

CRK/ck

Attachments

cc: Regulatory File
Central Files

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

---ooOoo---

IN THE MATTER OF THE APPLICATION OF PG & E RESOURCES COMPANY FOR ADMINISTRATIVE APPROVAL OF THE SHIMMIN TRUST 11-10 WELL LOCATED IN SECTION 11, TOWNSHIP 12 SOUTH, RANGE 10 EAST, S.L.M., CARBON COUNTY, UTAH, FOR CONVERSION TO A CLASS II INJECTION WELL	:	NOTICE OF AGENCY ACTION CAUSE NO. UIC-146

---ooOoo---

THE STATE OF UTAH TO ALL PERSONS INTERESTED IN THE ABOVE ENTITLED MATTER.

Notice is hereby given that the Division of Oil, Gas and Mining ("Division") is commencing an informal adjudicative proceeding to consider the application of PG & E Resources Company ("PG & E") for administrative approval of the Shimmin Trust 11-10 Well, located in Section 11, Township 12 South, Range 10 East, Carbon County, Utah, for conversion to a Class II injection well. The proceeding will be conducted in accordance with Utah Admin. R.649-10, Administrative Procedures.

PG & E has proposed to inject fluids into the Price River Formation interval from 2,945 to 3,122 feet in the Shimmin Trust 11-10 disposal well. The injection fluid is water produced in conjunction with the extraction of coal bed methane gas from the Mesaverde Blackhawk Formation in the Castlegate Field area.

PG & E has perforated the Price River Formation interval and performed swab testing operations to obtain a water sample. The water analysis indicated the total dissolved solids (TDS) content of the Price River Formation water to be approximately 26,000 milligrams per liter (mg/l). Therefore, the disposal interval does not constitute an underground source of drinking water (USDW) and an aquifer exemption is not necessary.

The maximum allowable injection pressure and rate will be determined after conducting step-rate pressure testing following conversion of the well.

Any person desiring to object to the application or otherwise intervene in the proceeding, must file a written protest or notice of intervention with the Division within fifteen days following publication of this notice. If such a protest or notice of intervention is received, a hearing will be scheduled before the Board of Oil, Gas and Mining. Protestants and/or intervenors should be prepared to demonstrate at the hearing how this matter affects their interests.

DATED this 3rd day of February, 1994.

STATE OF UTAH
DIVISION OF OIL, GAS AND MINING

R.J. Firth
Associate Director

WUI101

PG & E Resources Company
Shimmin Trust #11-10 Well
Cause No. UIC-146

Publication Notices were sent to the following:

Newspaper Agency Corporation
Legal Advertising
157 Regent Street
Salt Lake City, Utah 84110

Sun Advocate
Box 1870
76 West Main
Price, Utah 84501

Bureau of Land Management
Price District Office
900 North 700 East
Price, Utah 84501

PG & E Resources Company
6688 N. Central Expressway, #1000
Dallas, Texas 75206-3922

Dan Jackson
U.S. Environmental Protection Agency
Region VIII
999 18th Street
Denver, Colorado 80202-2466

Lisa D. Clement
Administrative Secretary
February 4, 1994

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)

February 4, 1994

Newspaper Agency Corporation
Legal Advertising
157 Regent Street
Salt Lake City, Utah 84110

Re: Notice of Agency Action - Cause No. UIC-146

Gentlemen:

Enclosed is a copy of the referenced Notice of Agency Action. Please publish the Notice, once only, as soon as possible. Please send proof of publication and billing to the Division of Oil, Gas and Mining, 355 West North Temple, 3 Triad Center, Suite 350, Salt Lake City, Utah 84180-1203.

Sincerely,

Lisa D. Clement

Lisa D. Clement
Administrative Secretary

Enclosure
WOI168

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)

February 4, 1994

Sun Advocate
Box 1870
76 West Main
Price, Utah 84501

Re: Notice of Agency Action - Cause No. UIC-146

Gentlemen:

Enclosed is a copy of the referenced Notice of Agency Action. Please publish the Notice, once only, as soon as possible. Please send proof of publication and billing to the Division of Oil, Gas and Mining, 355 West North Temple, 3 Triad Center, Suite 350, Salt Lake City, Utah 84180-1203.

Sincerely,

Lisa D. Clement

Lisa D. Clement
Administrative Secretary

Enclosure
WOI168

Form 9

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

6. Lease Designation and Serial Number: Fee

7. Indian Allotee or Tribe Name: NA

8. Unit or Communization Agreement: NA

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill new wells, deepen existing wells, or to reenter plugged and abandoned wells.
Use APPLICATION FOR PERMIT--for such proposals.

1. Type of Well: [ ] Oil Well [ ] Gas Well [X] Other (Specify) SWD

9. Well Name and Number: Shimmin Trust 10-11

2. Name of Operator: PG&E Resources Company

10. API Well Number: 43-007-30167

3. Address of Operator: 6688 N. Central Expwy., Suite 1000, Dallas, TX 75206

4. Telephone Number: (214) 750-3800

11. Field and Pool, or Wildcat: Wildcat

5. Location of Well
Footage : 1999' FSL & 2006' FEL
QQ. Sec, T., R., M. : NW/4 SE/4 Sec. 11, T12S-R10E
County : Carbon
State : UTAH

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

NOTICE OF INTENT
(Submit in Duplicate)

- [ ] Abandonment
- [ ] Casing Repair
- [ ] Change of Plans
- [ ] Conversion to Injection
- [ ] Fracture Treat
- [ ] Multiple Completion
- [ ] Other _____
- [ ] New Construction
- [ ] Pull or Alter Casing
- [ ] Recompletion
- [ ] Shoot or Acidize
- [ ] Vent or Flare
- [ ] Water Shut-Off

Approximate Date Work Will Start _____

SUBSEQUENT REPORT
(Submit in Duplicate)

- [ ] Abandonment *
- [ ] Casing Repair
- [ ] Change of Plans
- [ ] Conversion to Injection
- [ ] Fracture Test
- [X] Other Recomplete
- [ ] New Construction
- [ ] Pull or Alter Casing
- [ ] Shoot or Acidize
- [ ] Vent or Flare
- [ ] Water Shut-Off

Date of Work Completion 01/28/1994

Report results of Multiple Completions and Recompletions to different reservoirs on WELL COMPLETION OR RECOMPLETION AND LOG form.
* Must be accompanied by a cement verification report.

13. DESCRIBE PROPOSED OR COMPLETED OPERATIONS (Clearly state all pertinent details, and give pertinent dates. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)

PG&E Resources Company has plugged off the Spring Canyon and Blackhawk formations and recompleted the Shimmin Trust 10-11 in the Price River formation as shown on the attached daily report. Also attached is a copy of the required Step Rate Test for the Price River. As shown on the daily report, the annulus was tested to 1000 psi for 30 minutes on 01/28/94. First injection into the Price River upon final completion was 1/28/94.

RECEIVED
FEB 14 1994
DIVISION OF
OIL GAS & MINING

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

Name & Signature Cindy R. Keister Title Sr. Regulatory Analyst Date 02/08/1994

(State Use Only)

See Instructions on Reverse Side

WELL HISTORY

10-11 Shimmin Trust
Castlegate Area
Carbon County, Utah
(PG&ER Operated)

01-25-94	TOH with Perma-Latch on/off over shot - no recovery. PU 5-3/4" wash pipe, TIH, wash over additional 2' of pkr. Circ clean, TOH. PU on/off over shot, bumper sub, jars & 2 4-5/8" DC's. TIH, latch on to pkr, jar on pkr & work free. TOH 12 stands & SDFN.
01-26-94	Fin POOH with Perma-Latch & on/off tool, recovered Perma-Latch pkr. RU Schlumberger, run 5.76" gauge ring with junk basket to 4800', POOH with no recovery. Run CIBP, set at 4710' & spot 2 sx cmt on top (top of cmt at 4699'). Run CIBP, set at 4127' & spot 2 sx cmt on top (top of cmt at 4116' KB).
01-27-94	Start rig, could not get on/off over shot on Perma-Latch pkr - had to send pkr to shop in Vernal. SDFN, WO pkr.
01-28-94	Run Otis 5-7/8" Perma-Latch pkr with 1.5" profile & on/off tool on 2-7/8" coated tbg to 2936' & displace down ann with 100 bbl of pkr fluid. Remove BOP's, set Perma-Latch at 2912' KB, set pkr in 4000# compression & NU well head. Press test ann to 1000 psi for 30 min, no bleed off. **RR at 5:00pm 1-28.**
01-29-94	Inj 24 hrs, 600 psi TP, 3167 BWPD. FINAL REPORT.

PG&E Resources Company

6688 N. Central Expressway, Suite 1000
Dallas, Texas 75206-3922
Telephone 214/750-3800
FAX 214/750-3883

January 4, 1994

State of Utah
Department of Natural Resources
Division of Oil, Gas and Mining
Underground Injection Control Section
355 West North Temple
3 Triad Center, Suite 350
Salt Lake City, Utah 84180-1203

Attention: Mr. Gil Hunt,
Manager

RE: Application for Water Disposal Well
Shimmin Trust 10-11
Castlegate CBM Project
Carbon County, Utah

Dear Mr. Hunt:

PG&E Resources Company respectfully requests approval to utilize the referenced well for salt water disposal.

The enclosed application has been prepared in accordance with R615-5-2 and is being submitted for your review and approval. If you have any questions or need additional information, please contact the undersigned at (214) 706-7640 or Jim LaFevers at (214) 750-3988.

Sincerely,

Cindy R. Keister
Sr. Regulatory Analyst

Enclosures

cc: W. Sutton
J. LaFevers
Regulatory File
Central File

APPLICATION FOR WATER DISPOSAL WELL
SHIMMIN TRUST 10-11
CASTLEGATE CBM PROJECT
CARBON COUNTY, UTAH

A. OVERVIEW

B. UIC FORM 1

C. PLAT

D. WELLBORE DIAGRAMS

E. WELL LOGS

F. CEMENT BOND LOG

G. CASING PROGRAM

H. CASING TEST PROGRAM

I. INJECTION FLUID

J. INJECTION PRESSURES

K. REVIEW OF WELLS WITHIN 1/2 MILE RADIUS

L. GEOLOGIC DATA

M. INJECTIVITY DATA

N. AFFIDAVIT OF NOTIFICATION

O. LABORATORY TESTS

A. OVERVIEW

The purpose of the Castlegate CBM Project is to develop and exploit the Coal Bed Methane associated with the Blackhawk Coal in Carbon County, Utah. The Methane will be produced through twenty five (25) wells which have been drilled and completed. Exploitation of the Methane from the Blackhawk Coal requires that the coal be dewatered. As the water is removed from the coal, the Methane will begin to disassociate and will be produced. PG&E Resources intends to inject the produced water into the Price River Sand. This would be accomplished by plugging off the Spring Canyon Sand and the Blackhawk perforations and perforating the Price River Sand.

B. UIC FORM 1

STATE OF UTAH
DIVISION OF OIL, GAS AND MINING

APPLICATION FOR INJECTION WELL - UIC FORM 1

OPERATOR PG&E Resources Company
ADDRESS 6688 N. Central Expressway, Suite 1000
Dallas, TX 75206-3922

Well name and number: Shimmin Trust 10-11

Field or Unit name: Castlegate CBM Project Lease no. Fee

Well location: QQ NWSE section 11 township 12S range 10E county Carbon

Is this application for expansion of an existing project? . . Yes [X] No [ ]

Will the proposed well be used for: Enhanced Recovery? . . Yes [ ] No [X]
Disposal? . . . . . Yes [X] No [ ]
Storage? . . . . . Yes [ ] No [X]

Is this application for a new well to be drilled? . . . . . Yes [ ] No [X]

If this application is for an existing well,
has a casing test been performed on the well? . . . . . Yes [X] No [ ]
Date of test: 5/25/93 (will be tested again prior to injection)
API number: 43-007-30167

Proposed injection interval: from 2945' to 2968'

Proposed maximum injection: rate 8000 bpd pressure 2000 psig

Proposed injection zone contains [ ] oil, [ ] gas, and/or [ ] fresh water within ½ mile of the well. (salt water)

IMPORTANT: Additional information as required by R615-5-2 should accompany this form.

List of Attachments:

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

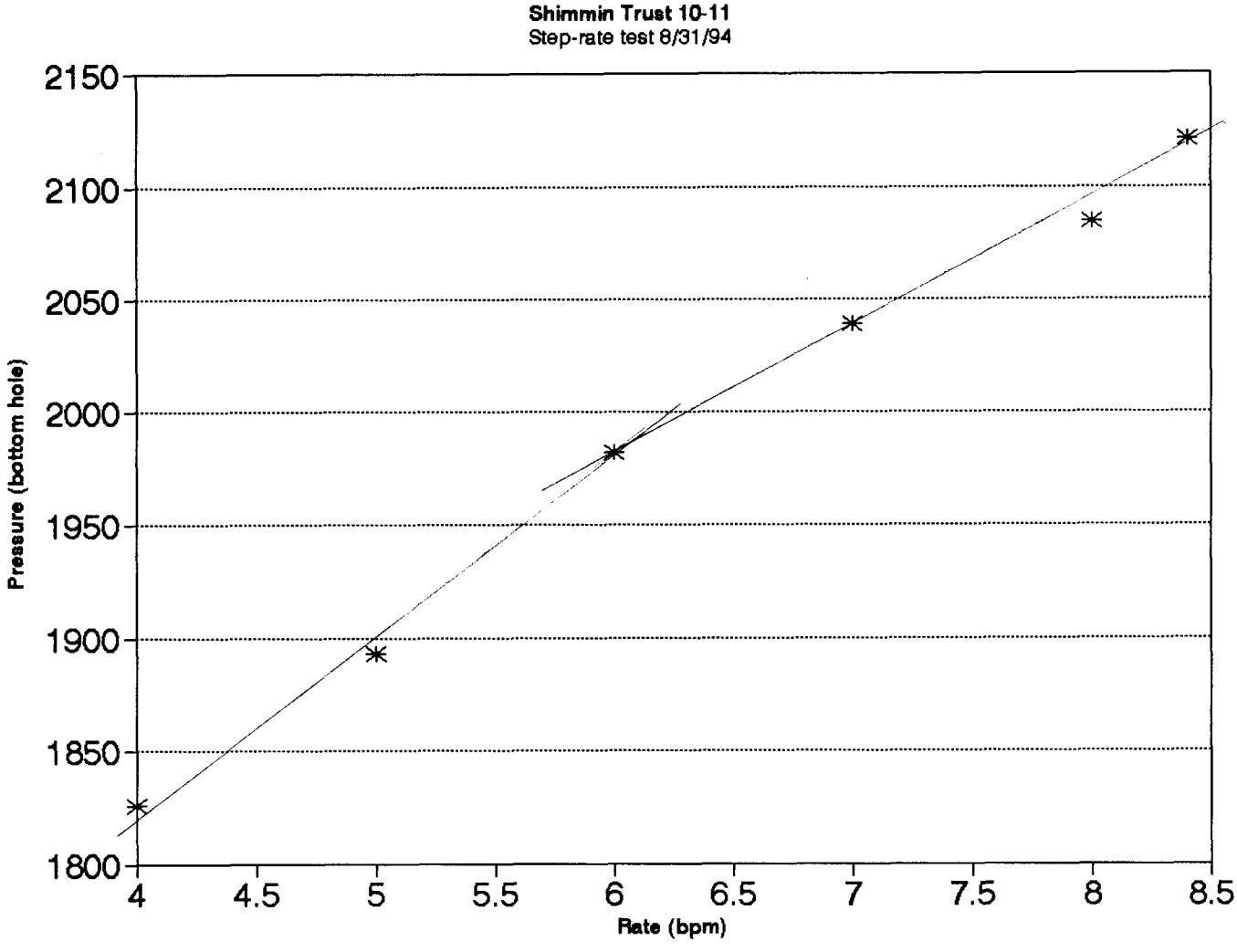
Name Cindy R. Keister Signature Cindy R. Keister
Title Sr. Regulatory Analyst Date 1/4/94
Phone No. (214) 750-3800

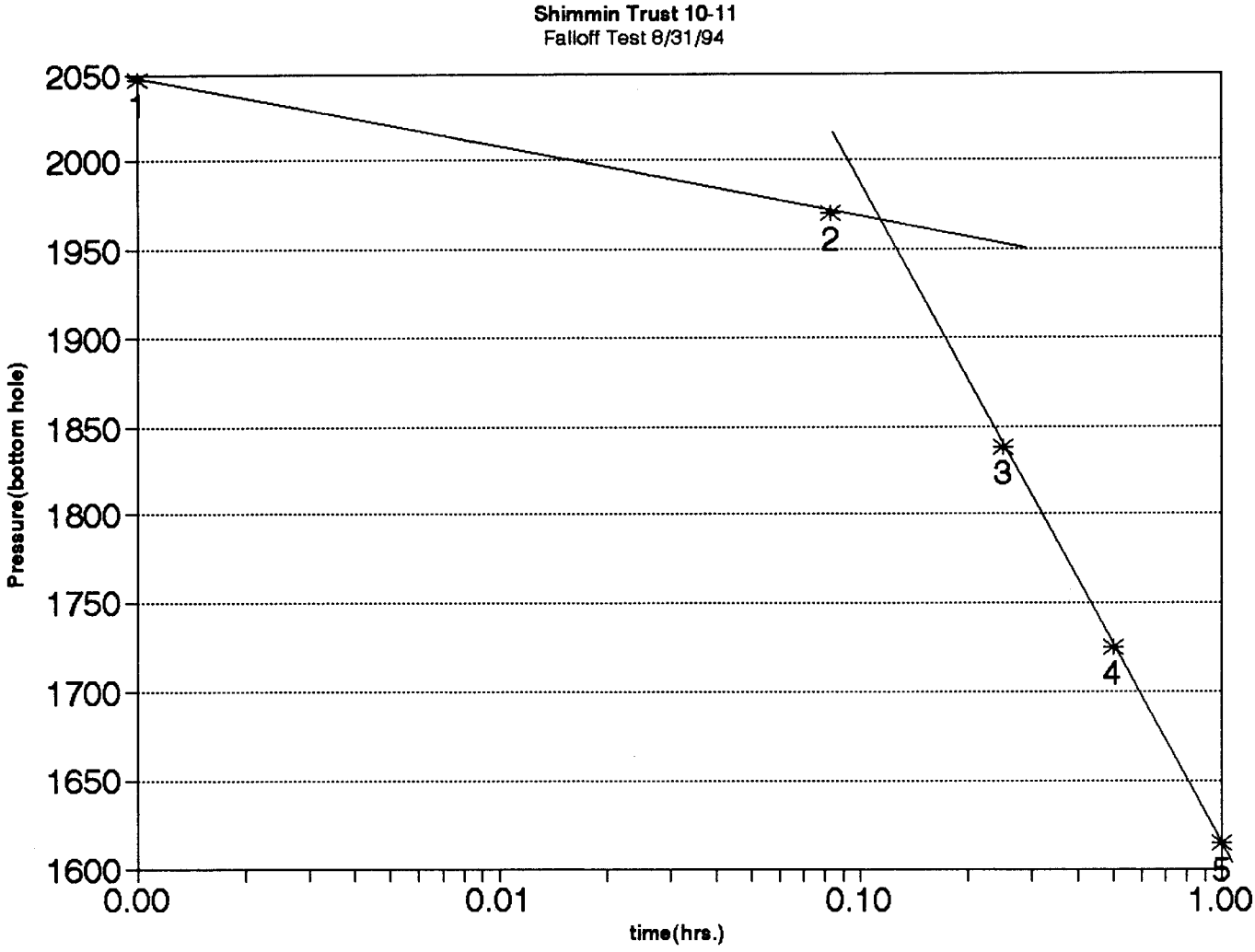
(State use only)
Application approved by _____ Title _____
Approval Date _____

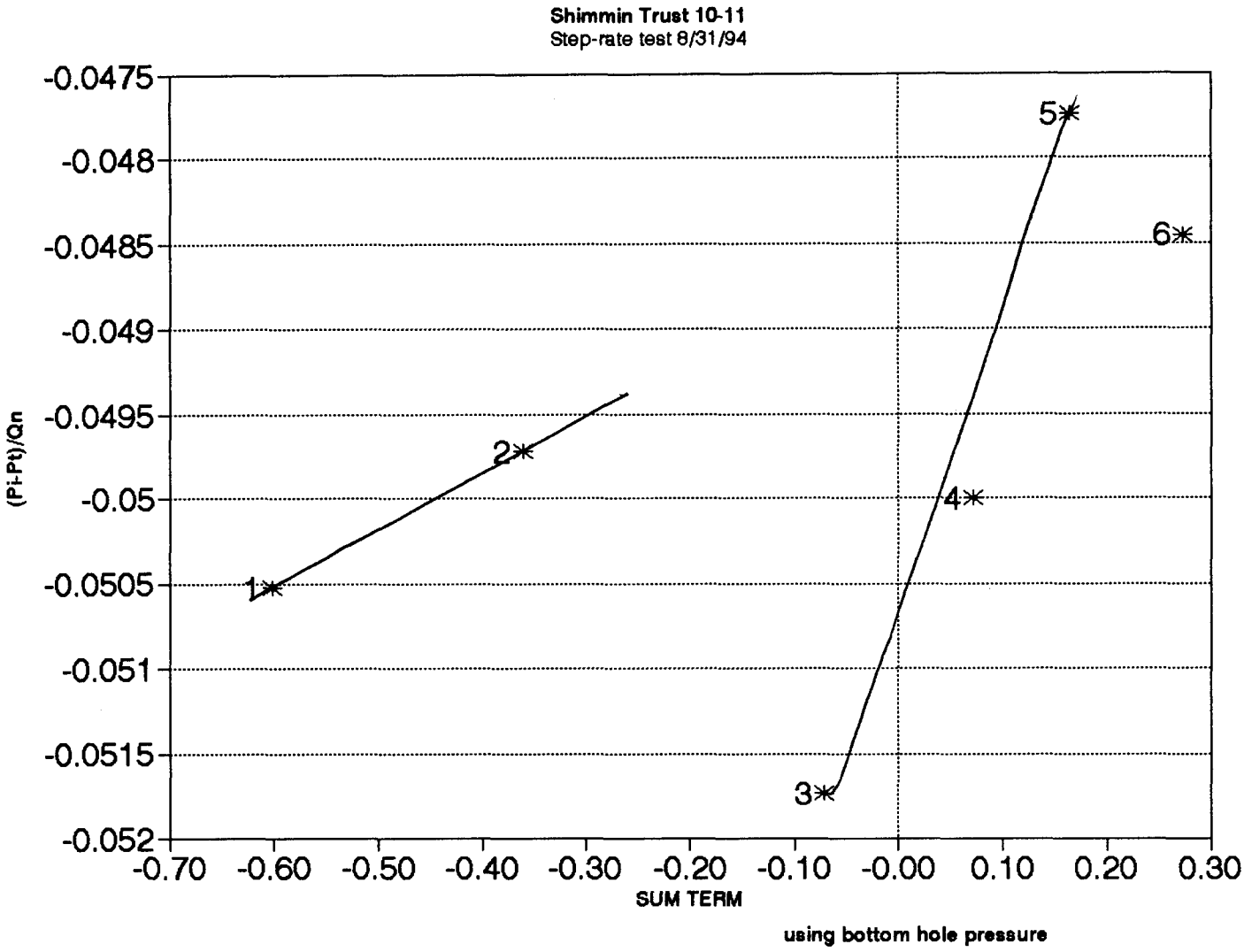
Comments:

(3/89)

C. PLAT


Shimmin Trust 10-11
Step-rate test 8/31/94
Pressure (bottom hole)
2150
2100
2050
2000
1950
1900
1850
1800
4
4.5
5
5.5
6
6.5
7
7.5
8
8.5
Rate (bpm)


Shimmin Trust 10-11
Falloff Test 8/31/94
Pressure(bottom hole)
2050
2000
1950
1900
1850
1800
1750
1700
1650
1600
0.00
0.01
0.10
1.00
time(hrs.)
1
2
3
4
5


Shimmin Trust 10-11
Step-rate test 8/31/94
-0.0475
-0.048
-0.0485
-0.049
-0.0495
-0.05
-0.0505
-0.051
-0.0515
-0.052
(Pi-Pt)/Qn
1
2
3
4
5
6
-0.70
-0.60
-0.50
-0.40
-0.30
-0.20
-0.10
-0.00
0.10
0.20
0.30
SUM TERM
using bottom hole pressure

BH

NUMBER	TIME	Q	Ptf(psi)	Σ TERM	DELTA PSI
0	0.00	0	1535		
1	0.25	5760	1826	-0.60195	-0.05052
2	0.50	7200	1893	-0.36117	-0.04972
3	1.00	8640	1982	-0.07098	-0.05174
4	1.50	10080	2039	0.07145	-0.05000
5	2.00	11520	2085	0.16525	-0.04774
6	2.50	12096	2121	0.27384	-0.04845

Press Enter to continue ?

BH

NUMBER	TIME	Q	Ptf(psi)	Σ TERM	DELTA PSI
0	0.00	0	1535		
1	0.25	5760	1826	-0.60195	-0.05052
2	0.50	7200	1893	-0.36117	-0.04972
3	1.00	8640	1982	-0.07098	-0.05174
4	1.50	10080	2039	0.07145	-0.05000
5	2.00	11520	2085	0.16525	-0.04774
6	2.50	12096	2121	0.27384	-0.04845

Press Enter to continue ?

NUMBER	TIME	Q	Ptf(psi)	Σ TERM	DELTA PSI
0	0.00	0	1535		
1	0.25	5760	1826	-0.60195	-0.05052
2	0.50	7200	1893	-0.36117	-0.04972
3	1.00	8640	1982	-0.07098	-0.05174
4	1.50	10080	2039	0.07145	-0.05000

Surf.

NUMBER	TIME	Q	Ptf(psi)	Σ TERM	DELTA PSI
0	0.00	0	240		
1	0.25	5760	900	-0.60195	-0.11458
2	0.50	7200	1170	-0.36117	-0.12917
3	1.00	8640	1460	-0.07098	-0.14120
4	1.50	10080	1760	0.07145	-0.15079
5	2.00	11520	2080	0.16525	-0.15972
6	2.50	12096	2180	0.27384	-0.16038

Press Enter to continue ?

Surf.

NUMBER	TIME	Q	Ptf(psi)	Σ TERM	DELTA PSI
0	0.00	0	240		
1	0.25	5760	900	-0.60195	-0.11458
2	0.50	7200	1170	-0.36117	-0.12917
3	1.00	8640	1460	-0.07098	-0.14120
4	1.50	10080	1760	0.07145	-0.15079
5	2.00	11520	2080	0.16525	-0.15972
6	2.50	12096	2180	0.27384	-0.16038

Press Enter to continue ?

NUMBER	TIME	Q	Ptf(psi)	Σ TERM	DELTA PSI
0	0.00	0	240		
1	0.25	5760	900	-0.60195	-0.11458
2	0.50	7200	1170	-0.36117	-0.12917
3	1.00	8640	1460	-0.07098	-0.14120
4	1.50	10080	1760	0.07145	-0.15079

Shimmin Trust 10-11 8/31/94

Step	Time		Rate	Rate(pd)	initial=240 Pressure(surf.)	initial=1535 Pressure(BH)
1	.25	0.25	4	5760	900	1826
2	.50	0.25	5	7200	1170	1893
3	1.0	0.5	6	8640	1460	1982
4	1.5	0.5	7	10080	1760	2039
5	2.0	0.5	8	11520	2080	2085
6	3.5	0.5	8.4	12096	2180	2121

PG&E Resources Company
Castlegate Prospect
Price, Utah
(801) 637-1857
FAX - (801) 637-1908

FAX COVER SHEET

TO: Frank Mathews @ _____ @ FAX # 359-3940
TO: _____ @ _____ @ FAX # _____
TO: _____ @ _____ @ FAX # _____

FROM: Jeff Duncan PG&E Resources Date: 5-3-94

TOTAL NO. OF PAGES: _____ (does not include cover page)

MESSAGE

#10-11 Shimmin Trust Step Rate test.
43-007-30167

IF YOU DO NOT RECEIVE ALL OF THIS TRANSMITTAL, PLEASE NOTIFY _____ @ (801) 637-1857.

PG&E Resources Company — WAYNE SUTTON — **COMPLETION/WORKOVER REPORT**

AFE 92-1238

Rig Phone # 637-7686
801-637-8880 Rm. 172

Well Name	Sidetrack #	C/W RPT#	Time	ID	PBTD	Date:
SHERMAN TRUST #10-11			— —	H990	4720	11 20 94

C/W Day	CUM Job Days	Rig	C/W Fluid Type
11	42	WELL TECK #565	PRODUCED WATER

Fluid Wt.	SUP	Daily Comp $	CUM Comp $	CUM Well $
8.4	ER Jurykowsky	13,622	560,362	776,607

Operating Summary: RAN STEP RATE INJECTION TEST IN THE PRICE RIVER SAND, PERFS. 2946'-68' AND 2995' TO 3122', RATES AS RELOW.
NOTE: WORKING ON LUBICATOR TO FREE PRONG FROM 2205 HRS TO 2245 HRS, 40 MINS PUMPING DOWN TBG @ 3 B/M 950 TO 750 PSI. PRONG SET @ 2245 HRS, PRESSURE UP TO 2500 PSI + HOLD PRESSURE, AT 0100 HRS TBG SHUT IN PRESSURE 2500 PSI.
VENDORS USED: WELL TECK, INC.
OIL FIELD RENTALS
MILLER PACKER
HALLIBURTON SERVICES

~~0000~~ To 0530	Hrs.	Activity Log	Accidents (Y/N): N	Pollution (Y/N): N
0700	1½	CREW TRAVEL TO LOCATION.		
1200	5	RU HES WIRELINE, RAN PRESSURE BOMBS IN "XN" NIPPLE @ 2883', RAN PX PLUG BODY IN "X" NIPPLE @ 2819'.		
		RU HALLIBURTON PUMP TRUCK TO WELL, PRESSURED UP ANNULAS 400 PSI & HELD, TEST LINES TO 4000 PSI - OK, RAN STEP RATE TEST WITH FILTERED		
2400	12	PRODUCED WATER PER THE FOLLOWING SCHEDULE.		

STEP	HRS	(RATE BPM)	(VOLUME BBLS)	(FINAL PSI)	(ANNULAS PSI)
1	1	.25	15	66	325
2	1	.50	30	178	275
3	1	1.0	60	300	150
4	1	2.0	120	540	100
5	1	3.0	180	760	80
6	1	4.0	240	1080	80
7	1	5.0	300	1430	100
8	3	5.5	990	1620	100 @ 2205 HRS.

PRONG FROZE IN LUBICATOR, LOST 40 MINS, PUMP DOWN TBG 3 B/M w/ 950 TO 750 PSI, SET PRONG PRESSURE UP

01/18/94 D E T A I L W E L L D A T A menu: opt 00

api num: 4300730167 prod zone: MVDCL sec twnshp range qr-qr
entity: 11419 : SHIMMIN TRUST 10-11 11 12.0 S 10.0 E NWSE
well name: SHIMMIN TRUST 10-11
operator: N0595 : PG&E RESOURCES COMPANY meridian: S
field: 1 : WILDCAT
confidential flag: C confidential expires: 940830 alt addr flag:
* * * application to drill, deepen, or plug back * * *
lease number: FEE lease type: 4 well type: GW
surface loc: 1999 FSL 2006 FEL unit name:
prod zone loc: 1999 FSL 2006 FEL depth: 5165 proposed zone: MVDCL
elevation: 7271' KB apd date: 920909 auth code: R649-3-2
* * completion information * * date recd: 930902 la/pa date:
spud date: 920914 compl date: 930730 total depth: 4990'
producing intervals: 4147-4571'
bottom hole: 1999 FSL 2006 FEL first prod: 930830 well status: SGW
24hr oil: 24hr gas: 9 24hr water: 508 gas/oil ratio: TA'Z
* * well comments: api gravity:
920930 ENTITY ADDED:(DUAL COMPL SEE ALSO SWD):

opt: 21 api: 4300730167 zone: date(yymm): enty acct:

01/18/94 D E T A I L W E L L D A T A menu: opt 00

api num: 4300730167 prod zone: MVRD sec twnshp range qr-qr
entity: 99990 : NO PROD/SERVICE WELL 11 12.0 S 10.0 E NWSE
well name: SHIMMIN TRUST 10-11
operator: N0595 : PG&E RESOURCES COMPANY meridian: S
field: 1 : WILDCAT
confidential flag: C confidential expires: 940830 alt addr flag:
* * * application to drill, deepen, or plug back * * *
lease number: FEE lease type: 4 well type: GW
surface loc: 1999 FSL 2006 FEL unit name:
prod zone loc: 1999 FSL 2006 FEL depth: 5165 proposed zone:
elevation: 7271' KB apd date: 920902 auth code: R649-3-2
* * completion information * * date recd: la/pa date:
spud date: 920914 compl date: 930730 total depth: 4990'
producing intervals: 4730-86'
bottom hole: 1999 FSL 2006 FEL first prod: well status: WDW
24hr oil: 24hr gas: 24hr water: gas/oil ratio:
* * well comments: api gravity:
940113 1ST INJ 10/23/93:DUAL COMPL SEE ALSO GAS WELL:(INJ/SPRING CANYON)

opt: 21 api: 4300730167 zone: date(yymm): enty acct:

Effective 1/28/94
This well was converted
to disposal. — no longer dual
completion. Injection zone Price River
Formation.

09/01/94 D E T A I L W E L L D A T A menu: opt 00

api num: 4300730167 prod zone: MVDCL sec 11 twnshp 12.0 S range 10.0 E qr-qr NWSE
entity: 11419 : SHIMMIN TRUST 10-11
well name: SHIMMIN TRUST 10-11
operator: N0035 : ANADARKO PETROLEUM CORP meridian: S
field: 13 : CASTLEGATE
confidential flag: confidential expires: alt addr flag:
* * * application to drill, deepen, or plug back * * *
lease number: FEE lease type: 4 well type: GW
surface loc: 1999 FSL 2006 FEL unit name:
prod zone loc: 1999 FSL 2006 FEL depth: 5165 proposed zone: MVDCL
elevation: 7271' KB apd date: 920909 auth code: R649-3-2
* * completion information * * date recd: 930902 la/pa date:
spud date: 920914 compl date: 930730 total depth: 4990'
producing intervals: 4147-4571'
bottom hole: 1999 FSL 2006 FEL first prod: 930830 well status: TAZ
24hr oil: 24hr gas: 9 24hr water: 508 gas/oil ratio:
* * well comments: directionl: api gravity:
920930 ENTY ADDED:(DUAL COMPL SEE ALSO SWD):940510 FLD CHG FR 001:940815 OPER FR N0595 EFF 8/1/94:NO LONGER DUAL COMPL-INJ PRRV FORMATION EFF 1/28/94:CONF STAT EXP 8/30/94:
opt: 21 api: 4300730167 zone: MVDCL date(yymm): enty acct:

09/01/94 D E T A I L W E L L D A T A menu: opt 00

api num: 4300730167 prod zone: PRRV sec 11 twnshp 12.0 S range 10.0 E qr-qr NWSE
entity: 99990 : NO PROD/SERVICE WELL
well name: SHIMMIN TRUST 10-11
operator: N0035 : ANADARKO PETROLEUM CORP meridian: S
field: 13 : CASTLEGATE
confidential flag: confidential expires: alt addr flag:
* * * application to drill, deepen, or plug back * * *
lease number: FEE lease type: 4 well type: GW
surface loc: 1999 FSL 2006 FEL unit name:
prod zone loc: 1999 FSL 2006 FEL depth: 5165 proposed zone:
elevation: 7271' KB apd date: 920902 auth code: R649-3-2
* * completion information * * date recd: 940214 la/pa date:
spud date: 920914 compl date: 940128 total depth: 4990'
producing intervals: 2945-3122'
bottom hole: 1999 FSL 2006 FEL first prod: well status: WDW
24hr oil: 24hr gas: 24hr water: gas/oil ratio:
* * well comments: directionl: api gravity:
940113 1ST INJ 10/23/93:DUAL COMPL SEE ALSO GAS WELL:(INJ/SPRING CANYON)
940510 FLD CHG FR 001:940815 OPER FR N0595 EFF 8/1/94:NO LONGER DUAL COMPL CHG MVRD PZ EFF 1/28/94:CONF STAT EXP 8/30/94:
opt: 21 api: 4300730167 zone: PRRV date(yymm): enty acct:

PG&E RESOURCES COMPANY

DAILY COMPLETION REPORT

PROSPECT	WELL NAME & NO.	SEC	TWP	RNG	COUNTY	STATE
Castlegate	#10-11 Shimmin	11	12S	10E	Carbon	Utah

PBTD	TODAYS OPERATION
4116	

DAYS	PERFS	TBG	PKR/~~ANCHOR~~	CSG	CONTRACTOR
1	4147-4488	2 7/8 6.5# @ 2912	Perma Latch @ 2912	7" 26# @ 4990	Otis / Howsco

YESTERDAYS OPERATIONS:

Shut down injection into # 10-11 Shimmin, Ru otis wireline RIH w/ Tandem electronic gauges to mid-perf @ 3034' Ru Haliburton perform step rate test w/ Filtered produced water. recrd PSI @ Surface at end of each interval.

Step	Duration	Rate	volume	Surface Pressure	Bottom Hole Pressures
1	60°F 0.5 hrs	1.0 Bpm	30 BBls	270 PSI	1474 - 1568
2	60° 0.5	2.0	60	470	1568 - 1715
3	60° 0.5	2.5	75	570	1715 - 1782
4	60° 0.5	3.0	90	660	1782 - 1831
5	60° 0.5	3.5	105	760	1831 - 1878
6	60° 0.5	4.0	120	860	1878 - 1918
7	60° 0.5	5.0	150	1050	1918 - 1978
8	60° 0.5	6.0	180	1240	1978 - 2071

ISIP 670# @ 1336 hrs Off Btm 1524
190# @ 1436 hrs Arrival @ Surf. 180#

R.D. HES Begin Injection @ 5500 bpd 875 PSI Tubing

COST DETAIL	DAILY	CUMULATIVE	COST DETAIL	DAILY	CUMULATIVE
Location & Roads			Casing		
Rig			Tubing		
Downhole Equipment HES	4572		Wellhead		
Water			Production Equipment		
Tanks	180				
Supervision					
BOP Rental					
Wireline					
Trucking	675				
Treatment HES	3240				
Surface Equipment Rental					
Cement			TOTAL COSTS	8667	596654

PG&E Resources Company — WAYNE SUTTON — **COMPLETION/WORKOVER REPORT**

AFE #92-1238

Rig Phone # 637-7685
801-637-8880 Rm. 172

Well Name	Sidetrack #	C/W Time RPT#	TD	PBTD	Date:
SHIMMIN TRUST #10-11		:--	4990	4720	1/16/94

C/W Day	CUM Job Days	Rig	C/W Fluid Type
7	38	WELL TECK #565	PRODUCED WATER

Fluid Wt.	SUP	Daily Comp $	CUM Comp $	CUM Well $
8.4	E.K. Turykousky	8861	540,577	756,822

Operating Summary: TESTING PRICE RIVER FOR WATER DISPOSAL ZONE
PERFORATIONS PRICE RIVER SANDS: 2945'-68' / 2995'-3122' KB.
SWAB TOTAL 190 BBLS DIRTY WTR, INITIAL FLUID LEVEL @ 450',
FINAL SWAB RATE 60 B/HR. FL @ 1500' PULL FROM 2500'.
(SENDS WATER SAMPLE TO EXXON IN VERNAL FOR ANALYSIS)

VENDORS USED: WELL TEC, INC., OIL FIELD RENTALS,
JIM NEBEKER, MILLER PACKER, SCHLUMBERGER

0600 To 0530	Hrs.	Activity Log	Accidents (Y/N): N	Pollution (Y/N): N
0700	1½	CREW TRAVEL FROM VERNAL		
1030	3½	HELD SAFETY MEETING, SCHLUMBERGER PERFORATED THE PRICE RIVER SANDS FROM 2945'-68' / 2995'-3122' KB. USING 4" HEGS PORTLESS CSG. GUN, 180° PHASE .45" DIAM HOLE, 22.7 GM CHG. 21.5" T.P., w/ 2 SPF. TOTAL 300 HOLES, ALL SHOTS FIRED. (MONITORED FLUID ENTER PER RUN AS FOLLOWS.)		
GUN	#1 -	3122'-3104' - FLUID LEVEL 1890' NO ENTER		
"	#2 -	3104'-3085' " " 1730' ENTER 5.7 BBLS		
"	#3 -	3085'-3066' " " 1530' " 7.6 " RATE 839 B/D		
"	#4 -	3066'-3047' " " 1370' " 6.1 " —		
"	#5 -	3047'-3030' " " 1200' " 6.5 " —		
"	#6 -	3030'-3013' " " 1050' " 5.7 " —		
"	#7 -	3013'-2995' " " 920 " 4.9 " RATE 542 B/D		
"	#8 -	2968'-2945' " " - START SWAB w/ FLUID LEVEL @ 450' KB.		
1230	2	T/H w/ MILLER "FB" TENSION PKR, SET @ 2898' - TEST TO 1000 PSI - HELD OK		
1700	4½	R/U SWAB RIG FL. 450' REC. 190 BBLS. FINAL RATE 60 B/HR.		

PG&E Resources Company
Castlegate Prospect
Price, Utah
(801) 637-1857
FAX - (801) 637-1908

FAX COVER SHEET

TO: Frank Mathews @ _____ @ FAX # 359-3940
TO: _____ @ _____ @ FAX # _____
TO: _____ @ _____ @ FAX # _____

FROM: Jeff Duncan PG&E Resources Date: 3-3-94

TOTAL NO. OF PAGES: _____ (does not include cover page)

MESSAGE

#10-11 Shimmin Trust Step Rate test.

IF YOU DO NOT RECEIVE ALL OF THIS TRANSMITTAL, PLEASE NOTIFY _____ @ (801) 637-1857.

PG&E RESOURCES COMPANY

DAILY COMPLETION REPORT

PROSPECT	WELL NAME & NO.	SEC	TWP	RNG	COUNTY	STATE
Castlegate	#10-11 Shimmin	11	12S	10E	Carbon	Utah

PBTD	TODAYS OPERATION
4116	43-007-30167 / WDW

DAYS	PERFS	TBG	PKR/~~ANCHOR~~	CSG	CONTRACTOR
1	4147-4488	2 7/8 6.5# @ 2912	Perma Latch @ 2912	7" @ 26# 4990	Otis / Howsco

YESTERDAYS OPERATIONS:

Shut down injection into #10-11 Shimmin, Ru otis wireline RIH w/ Tandem electronic gauges to mid-perf @ 3034' Ru Haliburton perform step rate test w/ Filtered produced water. record PSI @ Surface at end of each interval.

Step	Duration	Rate	volume	Surface Pressure	Bottom Hole Pressures
1	60°F 0.5 hrs	1.0 Bpm	30 BBls	270 PSI	1474 - 1568
2	60° 0.5	2.0	60	470	1568 - 1715
3	60° 0.5	2.5	75	570	1715 - 1782
4	60° 0.6	3.0	90	660	1782 - 1831
5	60° 0.5	3.5	105	760	1831 - 1878
6	60° 0.5	4.0	120	860	1878 - 1918
7	60° 0.5	5.0	150	1050	1918 - 1978
8	60° 0.6	6.0	180	1240	1978 - 7071

ISIP 670# @ 1336 hrs — Off Btm 1524

190# @ 1436 hrs — Arrival @ Surf. 180#

R.D. HES Begin Injection @ 5500 bpd 875 PSI Tubing

COST DETAIL	DAILY	CUMULATIVE	COST DETAIL	DAILY	CUMULATIVE
Location & Roads			Casing		
Rig			Tubing		
Downhole Equipment HES	4572		Wellhead		
Water			Production Equipment		
Tanks	180				
Supervision					
BOP Rental					
Wireline					
Trucking	675				
Treatment HES	3240				
Surface Equipment Rental					
Cement			TOTAL COSTS	8667	596654

WELL SITE REPRESENTATIVE [redacted] DATE 3/3/94

PG&E Resources Company — DAYNE SUTTON — **COMPLETION/WORKOVER REPORT**

AFE 92-1238

Rig Phone # 637-7686
801-637-8880 Rm. 172

Well Name	Sidetrack	C/W Time	TD	PBTD	Date:
SHIMMIN TRUST #10-11	#	RPT# :--	4990	4720	11 20 94

C/W Day	CUM Job Days	Rig	C/W Fluid Type
11	42	WELL TECK #565	PRODUCED WATER

Fluid Wt.	SUP	Daily Comp $	CUM Comp $	CUM Well $
8.4	ES Jurykovsky	13,622	560,362	776,607

Operating Summary: RAN STEP RATE INJECTION TEST IN THE PRICE RIVER SAND, PERFS. 2946'-68' AND 2995' TO 3122', RATES AS BELOW.
NOTE: WORKING ON LUBRICATOR TO FREE PRONG FROM 2205' HRS TO 2245' HRS, 40 MINS PUMPING DOWN TBG @ 3 B/M 950 TO 750 PSI. PRONG SET @ 2245 HRS, PRESSURE UP TO 2600 PSI @ HRS PRESSURE, AT 0100 HRS TBG SHUT IN PRESSURE 2500 PSI.
VENDORS USED: WELL TECK, INC.
OIL FIELD RENTALS
MILLER PACKER
HALLIBURTON SERVICES

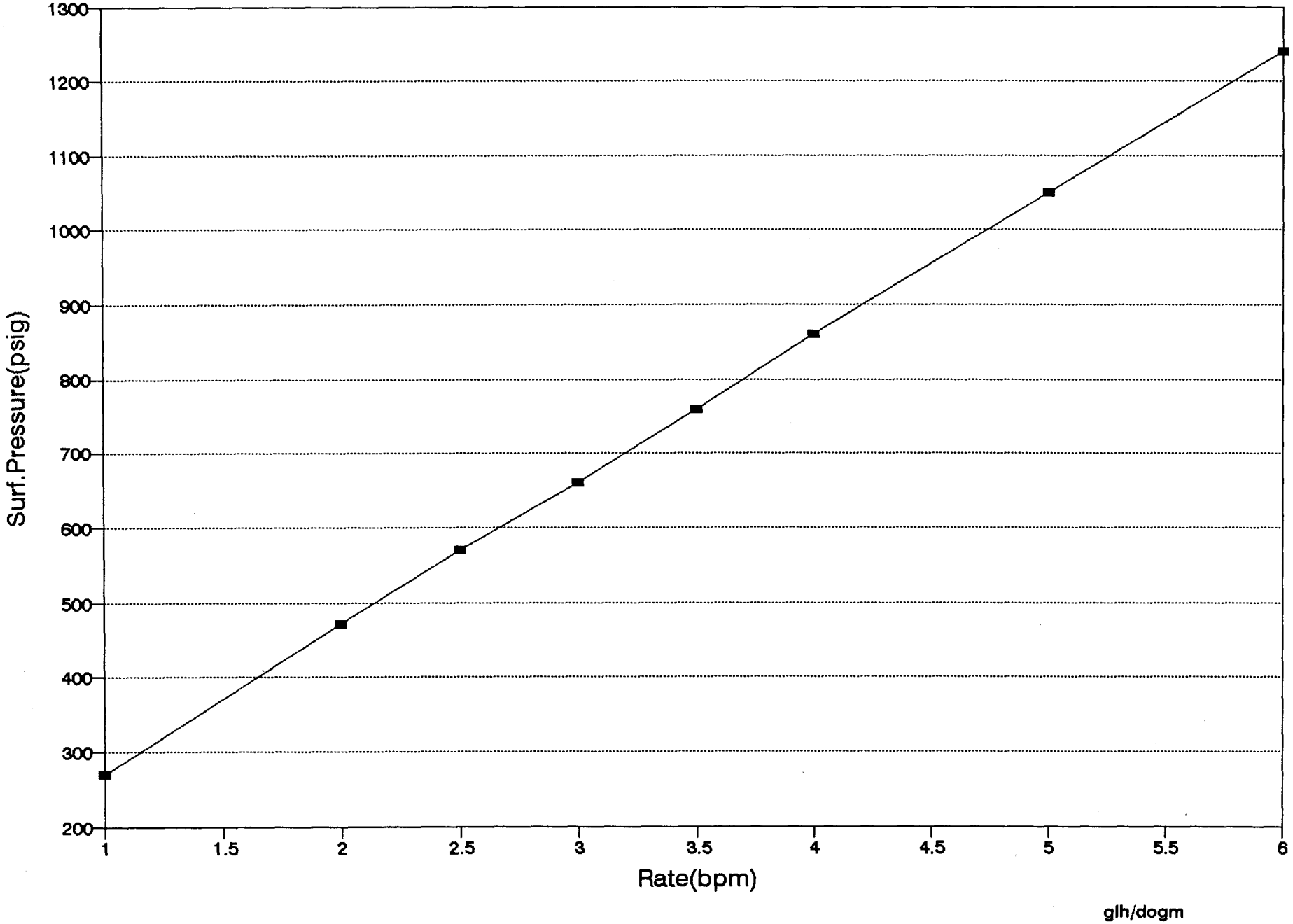
0600 To 0530	Hrs.	Activity Log	Accidents (Y/N): N	Pollution (Y/N): N
0700	1½	CREW TRAVEL TO LOCATION.		
1200	5'	RU HES WIRE LINE, RAN PRESSURE BOMBS IN "XN" NIPPLE @ 2883', RAN PX PLUG BODY IN "X" NIPPLE @ 2819.		
		RU HALLIBURTON PUMP TRUCK TO WELL, PRESSURED UP ANNULAS 400 PSI & HELD, TEST LINES TO 4000 PSI-OK, RAN STEP RATE TEST WITH FILTERED		
2400	12	PRODUCED WATER PER THE FOLLOWING SCHEDULE.		

STEP	HRS	(RATE BPM)	(VOLUME BBLS)	(FINAL PSI)	(ANNULAS PSI)
1	1	.25'	15'	66	325'
2	1	.50	30	178	275'
3	1	1.0	60	300	150
4	1	2.0	120	540	100
5'	1	3.0	180	760	80
6	1	4.0	240	1080	80
7	1	5.0	300	1430	100
8	3	5.5'	990	1620	100 @ 2205' HRS.

PRONG FROZE IN LUBRICATOR, LOST 40 MINS, Pump Down TBG 3 B/M w/ 950 TO 750 PSI, SET PRONG PRESSURE UP 2600 PSI @ HRS

PG&E Resources

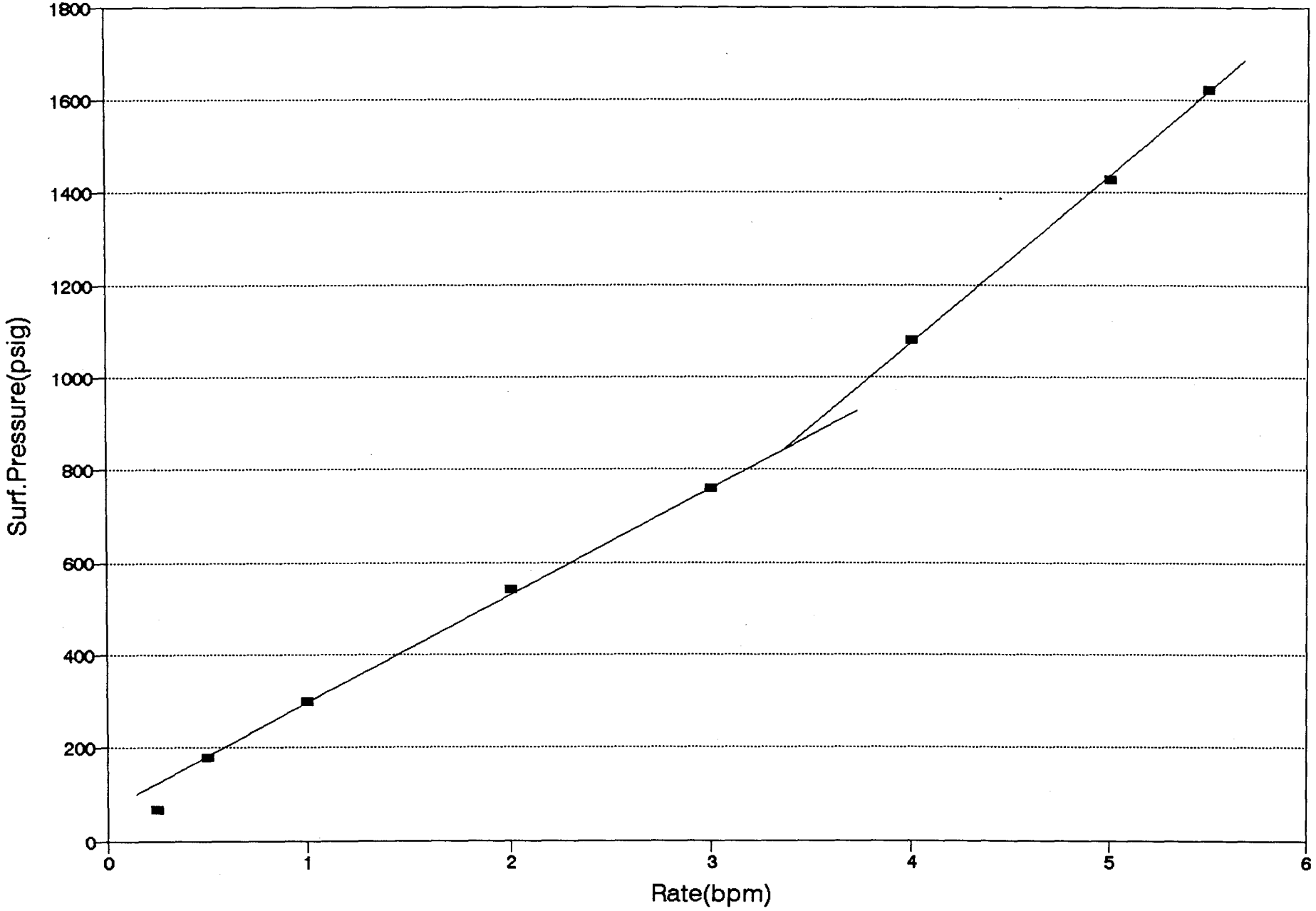
Shimmin Trust #10-11 (2nd test)



glh/dogm

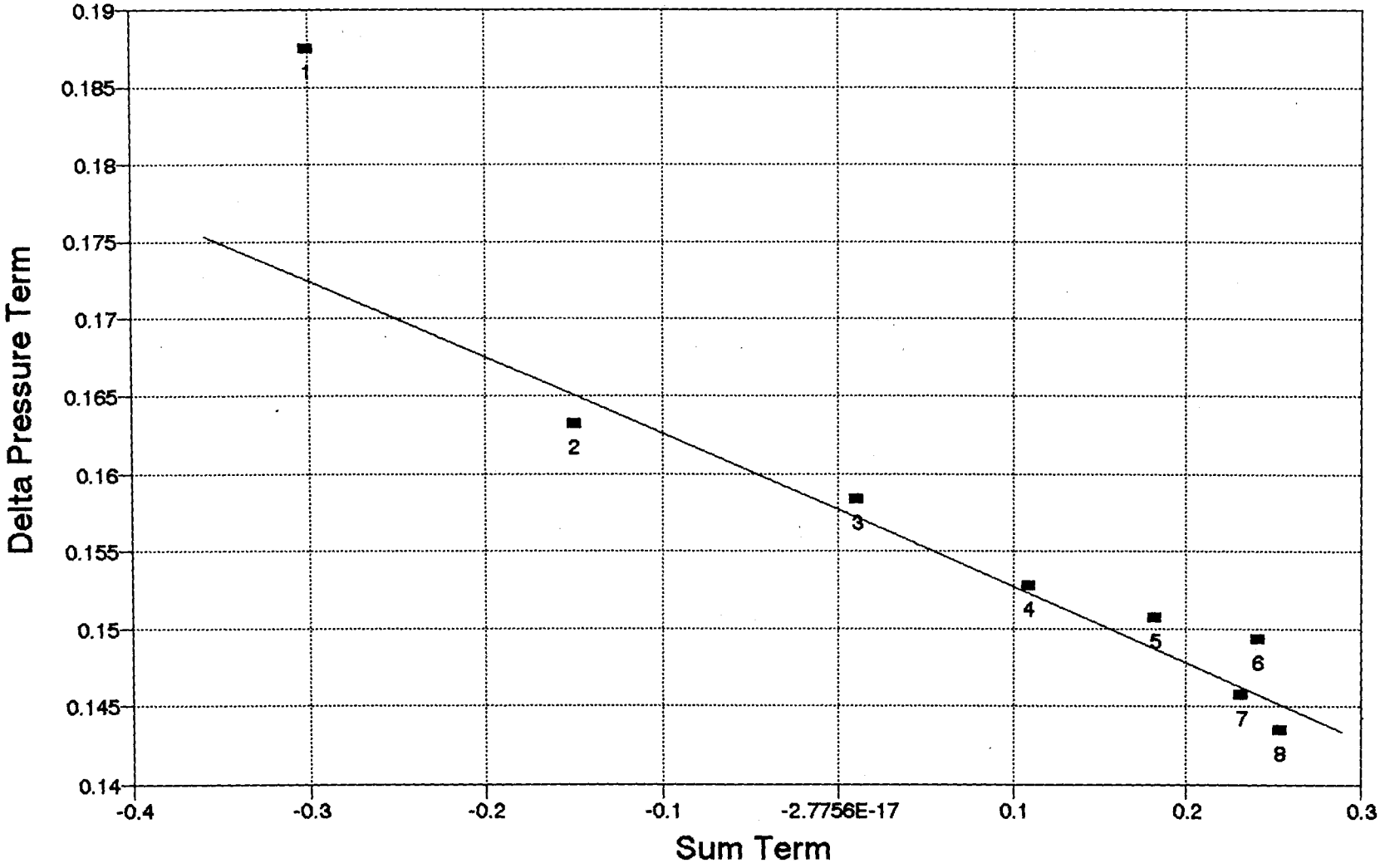
PG&E Resources

Shimmin Trust #10-11 (1st test)



glh/dogm

PG&E Resources
Shimmin Trust #10-11 (2nd test)



Multiple-rate type plot
after Felsenthal

glh/dogm

NUMBER	TIME	Q	Ptf(psi)	Σ TERM	DELTA PSI
0	0.00	0	0		
1	0.50	-1440	270	-0.30098	0.18750
2	1.00	-2880	470	-0.15049	0.16319
3	1.50	-3600	570	0.01023	0.15833
4	2.00	-4320	660	0.10885	0.15278
5	2.50	-5040	760	0.18182	0.15079
6	3.00	-5760	860	0.24073	0.14931
7	3.50	-7200	1050	0.23150	0.14583
8	4.00	-8640	1240	0.25349	0.14352

Press Enter to continue ?

SHIMMIN TRUST No. 10-11
NE, NW, Sec. 11, T12S, R10E
CASTLEGATE FIELD
Carbon Co., Utah
AFE No. 92-1238

STEP RATE TEST DETAIL

PROCEDURE:

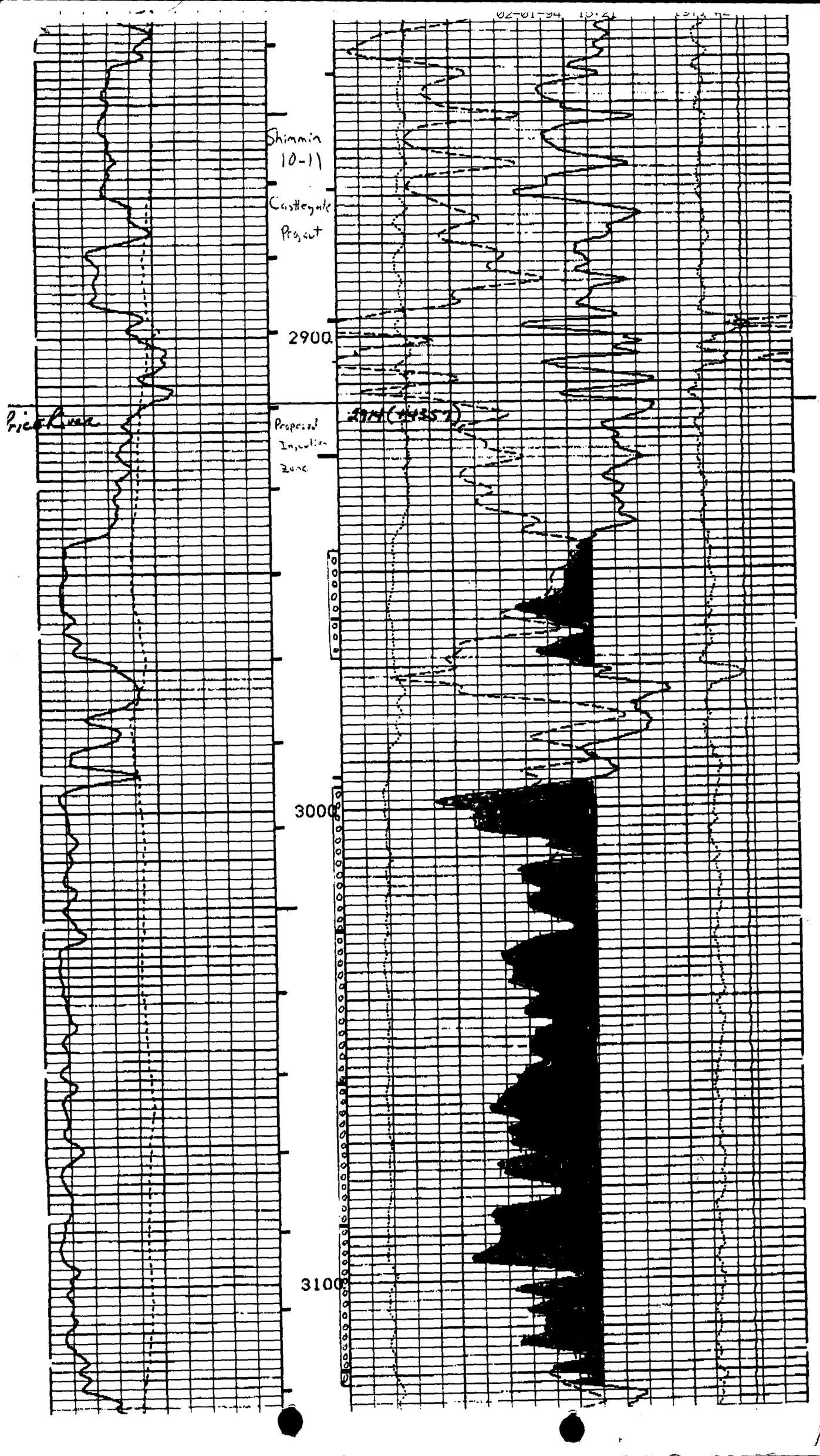
1. POOH. RIH w/ 2 7/8" "XN" nipple, packer, two joints of tubing, "X" nipple, and tubing. Set packer at 2900' +/-. Hang pressure bombs in "XN" nipple. Run "PN" plug body and set in "N" nipple.

2. Perform step rate test with filtered produced water per the following schedule:

STEP	DURATION (HR)	RATE (bpm)	VOLUME (BBL)
1	1	0.25	15
2	1	0.5	30
3	1	1.0	60
4	1	2.0	120
5	1	3.0	180
6	1	4.0	240
7	1	5.0	300
8	3	5.5	990
	10		1935

3. On final rate, RIH with prong for "PN" plug; shut well in with plug for 48 hour falloff test. Pressure up on top of the plug to 1000 psi over final injection pressure. Monitor tubing pressure for 48 hrs.

4. Pull bombs; evaluate data and report results to DOGM.


02-01-94 15:21
Shimmin
10-11
Castlegate
Project
2900
Proposed
Injection
Zone
3000
3100

Shimmin 10-11 Log Analysis
Price River Injection Zone
ϕ cutoff 8.0 %

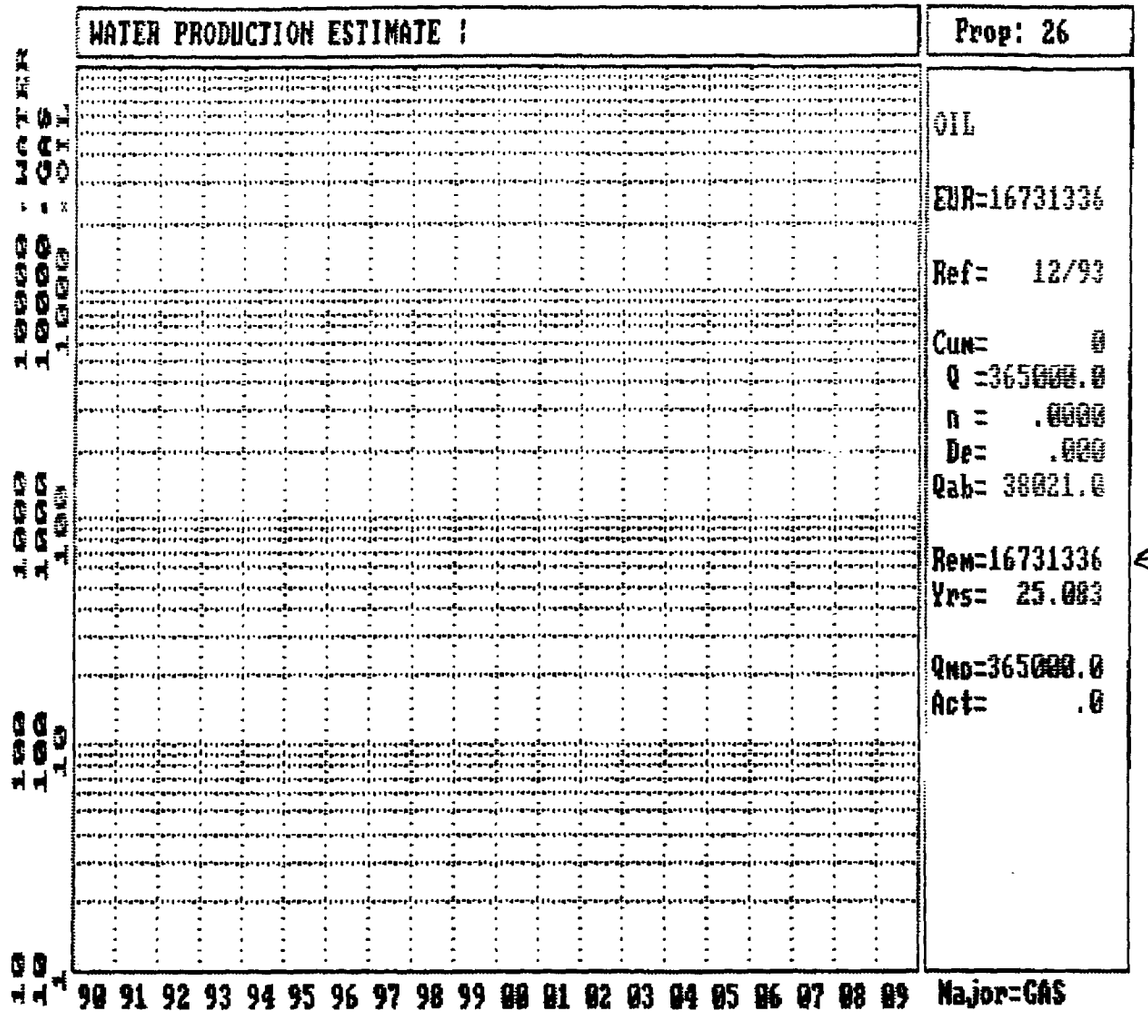
	Depth Interval	H	ϕ	ϕh	
	2944 - 46	2	.09	.18	
	46 - 48	2	.095	.19	
UPPER	48 - 50	2	.10	.20	
INTERVAL	50 - 54	4	.105	.42	
	54 - 56	2	.11	.22	
	56 - 58	2	.14	.28	
	58 - 60	2	.13	.26	
	60 - 62	2	.11	.22	
	62 - 64	2	.09	.18	
	TOTAL	20'		2.15	AVG ϕ .1075
	2944 - 46	2	12	24	
LOWER	46 - 48	2	185	.37	
INTERVAL	48 - 3000	2	.21	.42	
AGE I	00 - 04	4	.18	.72	
	04 - 06	2	.16	32	
	06 - 08	2	.12	24	
	08 - 10	2	.10	20	
	10 - 12	2	.11	.22	
	12 - 16	4	.145	.58	
	16 - 18	2	.13	.26	
	18 - 20	2	.14	.28	
	20 - 22	2	.135	.27	
	22 - 24	2	.115	.23	
	24 - 26	2	10	.20	
	26 - 28	2	13	.26	
	28 - 30	2	.15	.30	
	30 - 32	2	.16	.32	
	32 - 38	6	.15	.90	
	38 - 40	2	.13	.26	
	Subtotal	46'		6.59	

	Depth Interval	H	ϕ	ϕh
OWER	40 - 44	4	.14	.56
NTERVAL	44 - 46	2	.12	.24
CONT.)	46 - 48	2	135	27
	48 - 52	4	.14	.56
	52 - 54	2	13	26
	54 - 56	2	145	.29
	56 - 58	2	.15	.30
	58 - 60	2	.16	.32
	60 - 62	2	165	.33
	62 - 64	2	.17	.34
	64 - 66	2	.15	.30
	66 - 70	4	.155	.62
	70 - 72	2	.150	.30
	72 - 74	2	.145	.29
	74 - 78	4	165	.66
	78 - 80	2	.13	.26
	80 - 82	2	.115	.23
	82 - 84	2	.135	.27
	84 - 88	4	.17	.68
	88 - 92	4	.165	.66
	92 - 94	2	.175	.35
	94 - 96	2	.19	.38
	96 - 98	2	.14	.28
	98 - 3100	2	.095	.19
	3100 - 04	4	.14	.56
	04 - 06	2	.13	.26
	06 - 08	2	.14	.28
	08 - 10	2	.125	.25
	10 - 12	2	.13	.26
	12 - 14	2	.15	.30
	14 - 16	2	.12	.24
	16 - 18	2	.095	.19
	18 - 20	2	.115	.23
	20 - 22	2	09	.18

TOTALS THIS PAGE
82FT 11.69 ϕh

TOTAL FOR LOWER ZONE
128FT 18.28 ϕh
AVG ϕ 14.28 %

TOTAL FOR BOTH ZONES
148FT 20.43 ϕh
AVG ϕ 13.80 %



← EST WTR Produced over project life BOLs

02-01-94 15:22 [971 #5

Double check of ARIES Estimate

2 mos @ 12000 BWPD = 730500 BBL produced

Decline avg over 1st 4 yrs ± 40%

a nom decline factor = $-\ln(1-d)$

$= -\ln .6$

$= .51083$

$Q = Q_0 e^{-at}$

$= 12000\, e^{-.51(4)} = 1555$

$$\text{Cum Prod} = \frac{(12000 - 1555)\,365.25}{.51}$$

$= 7480460$ BBLs

plus flat for 20 yrs @ 50 B/D

$50\ \text{B/D} \times 365.25 \times 20\ \text{yrs} \times 25\ \text{wells}$

$= 9131250$ BBLs

TOTAL FIELD Cum Production

$= 9131250 + 7480460 + 730500$

$= 17342210$ BBL

Close enough to ARIES EST of

16730000 BBLs

$$\text{Vol} = \frac{7758\, A\, (\phi h)\, S_w}{B_w}$$

Assume $S_w = 100\%$

$B_w = 1$

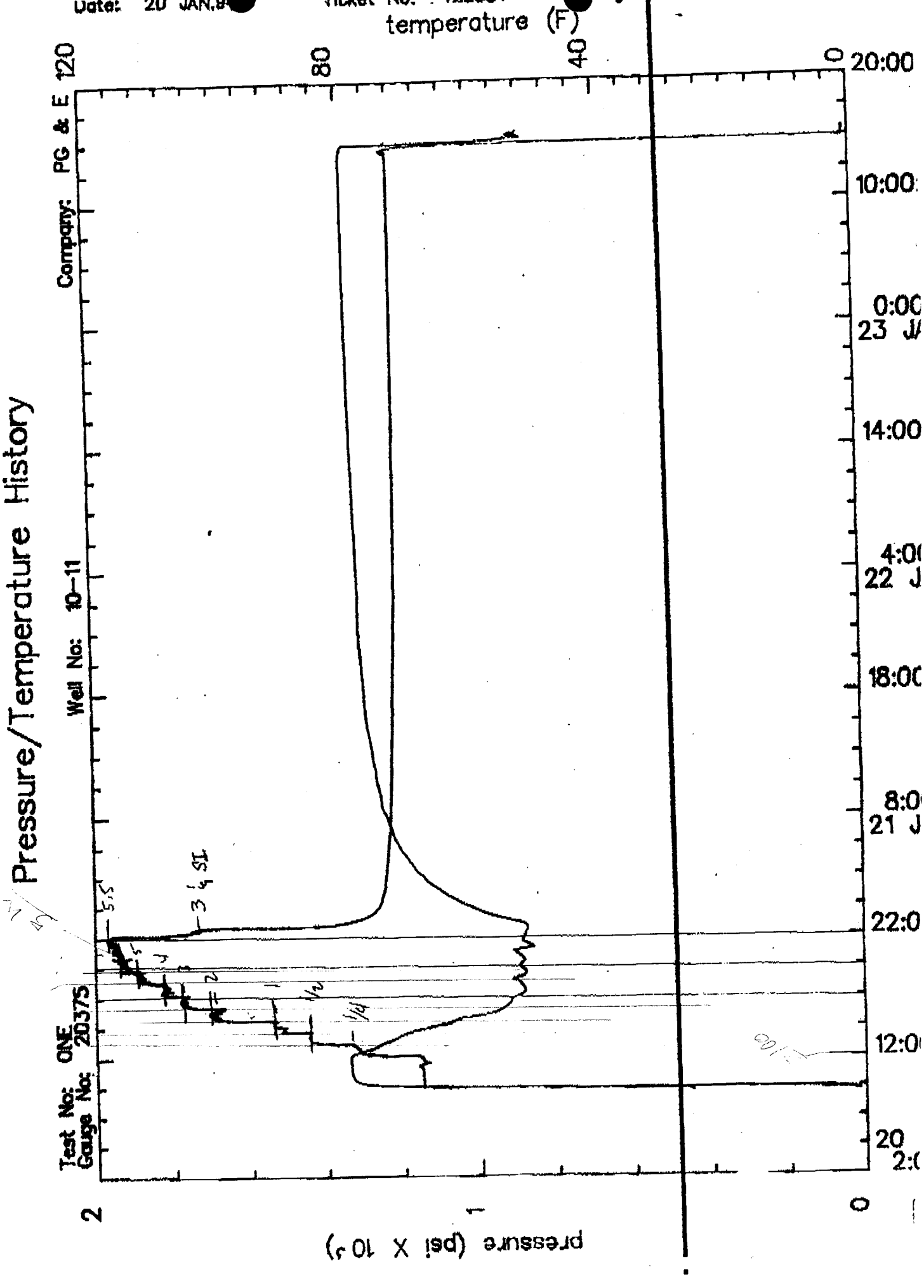
$$\frac{16731336 \times 1.0}{7758\,(2043)(1.0)} = A = 105.5 \text{ Acres}$$

(B_w; ϕh; S_w)

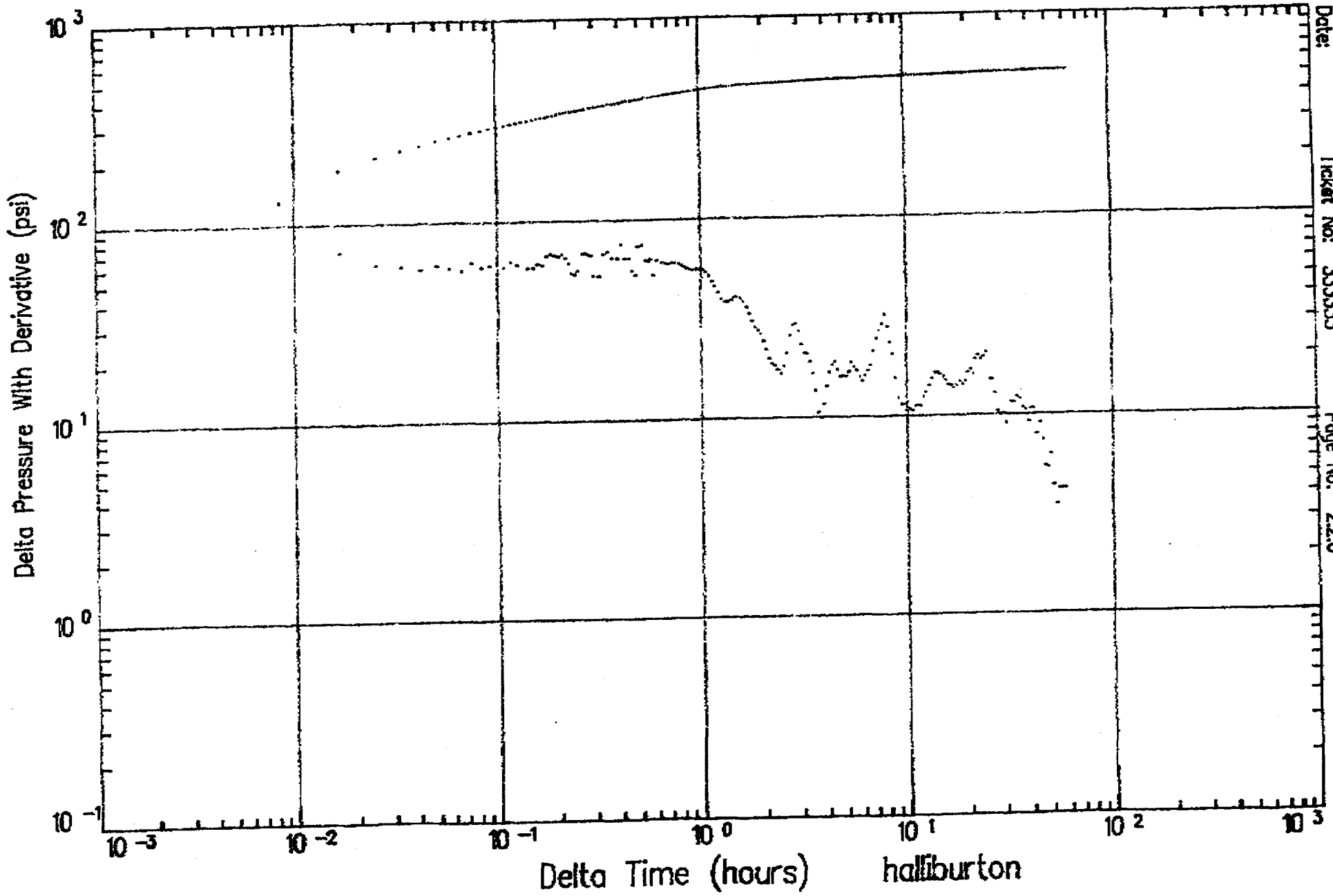
$$r = \sqrt{\frac{A \times 43560}{\pi}} = 1210 \text{ FT}$$

Assuming 100% displacement of pore space

Date: 20 JAN.94 Ticket No:- 422551 Page No: 1.3



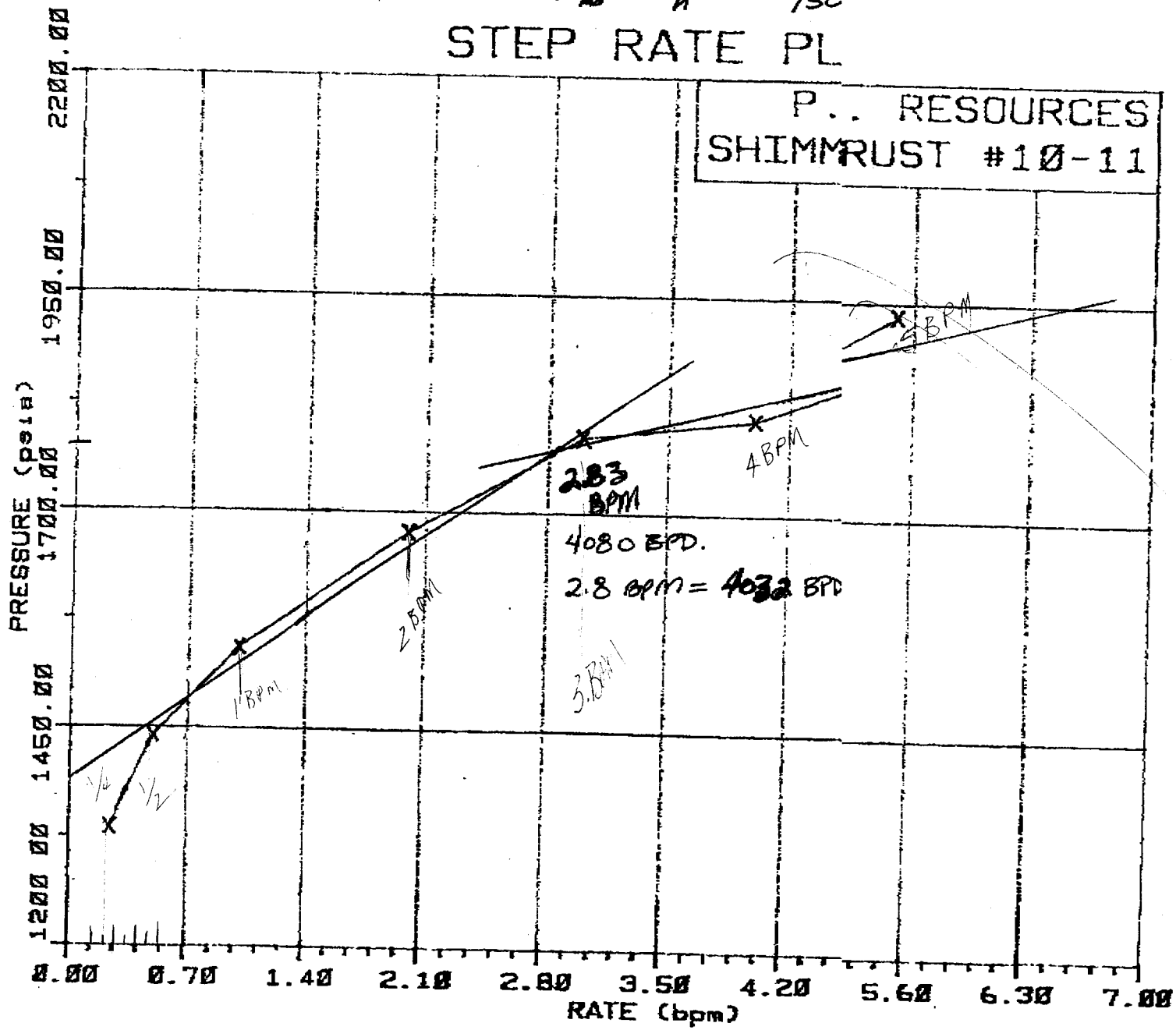
DERIVATIVE LOG-LOG PLOT



$FC = 3233$ md

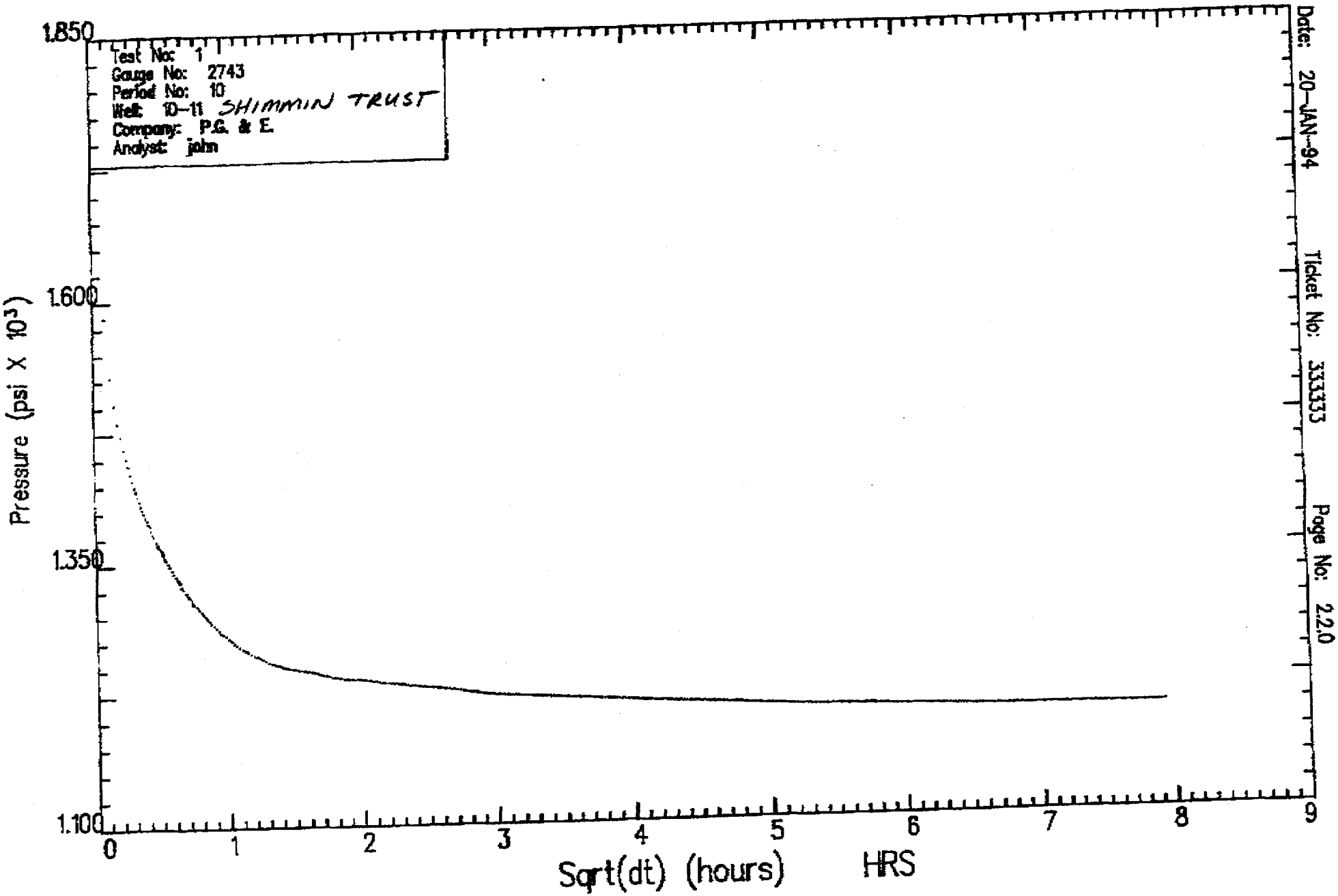
$h = 150'\pm$

$K_{md} = \frac{Fc}{h} = \frac{3233}{150}.6$ md



frac gradient 0.58 psi/ft

Pressure Vs Sqrt(dt)



PG&E Resources Company
6688 N. Central Expressway, Suite 1000
Dallas, Texas 75206-3922
(214) 750-3800

FAX COVER SHEET

PG&E Resources Fax Numbers

___	Acquisition/Development (4th Flr)	(214) 750-3954
___	Business Development/Legal (10th Flr)	(214) 750-3166
___	Data Processing (2nd Flr)	(214) 750-3159
___	Drilling (5th Flr)	(214) 750-3845
___	Executive (10th Flr.)	(214) 750-3803
___	Exploration-Offshore (5th Flr)	(214) 750-3163
___	Exploration-Onshore (6th Flr)	(214) 750-3993
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___	Human Resources (10th Flr.)	(214) 750-3165
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___	Main Fax (2nd Flr)	(214) 750-3883
___	Marketing (10th Flr)	(214) 750-3994
___	Operations-Offshore/Materials (5th Flr)	(214) 750-3189
X	Operations-Onshore (6th Flr)	(214) 750-3164
___	Production/Revenue Acctg (3rd Flr)	(214) 750-3162

This transmittal was sent from the Fax # checked above

TO: FRANK MATTHEWS @ UDOGM @ FAX # _____
TO: _____ @ _____ @ FAX # _____
TO: _____ @ _____ @ FAX # _____

FROM: WAYNE SUTTON Date: 1/26/94

TOTAL NO. OF PAGES: 4 (does not include cover page)

MESSAGE

FRANK,
FROM THE P vs. LOG(Δt) PLOT, RESULTS INDICATE THAT THE 3 BPM RATE PRIOR TO SHUTIN WAS BELOW FRACTURE RATE.
FULL REPORT WILL FOLLOW.
THANKS.
Wayne

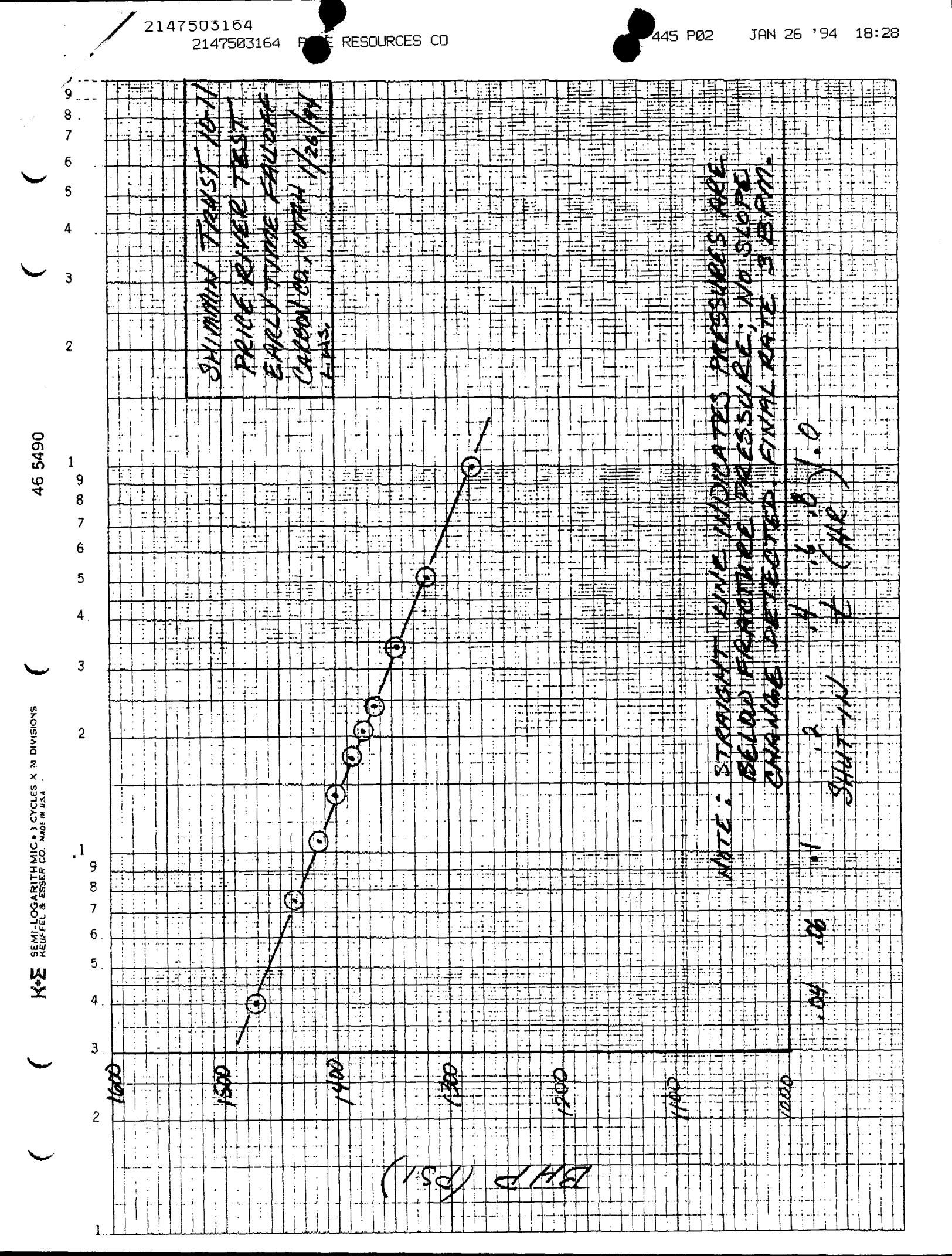
IF YOU DO NOT RECEIVE ALL OF THIS TRANSMITTAL, PLEASE NOTIFY _____ @ (214) 750-_____

PAGE 1

PRESSURE VS TIME

PANEX Gauge No.: 2743 Gauge Depth: 3000.00 ft
Memory Recorder No.: 2743

TIME HH:MM:SS	D TIME ~~(min)~~ HR	PRESSURE (psi)	TEMP (F)	COMMENTS
20-Jan-94		Data Print Frequency: 4		RATE 5.5 BPM
		*** Start of Period 9 ***		REDUCED TO 3BPM
22:12:00	0.0084	1893.510	52.7	
22:14:00	0.0417	1814.290	52.7	
22:16:00	0.0750	1797.320	52.7	
22:18:00	0.1084	1778.670	52.6	
22:20:00	0.1417	1783.860	52.6	
22:22:00	0.1750	1759.910	52.5	
22:24:00	0.2084	1767.810	52.5	
22:26:00	0.2417	1754.940	52.4	
22:28:00	0.2750	1758.120	52.4	
22:30:00	0.3084	1754.260	52.4	
22:32:00	0.3417	1742.320	52.3	
22:34:00	0.3750	1749.400	52.3	
22:36:00	0.4084	1744.920	52.3	
22:38:00	0.4417	1731.490	52.3	
22:40:00	0.4750	1728.790	52.3	
22:42:00	0.5084	1727.720	52.3	
22:44:00	0.5417	1721.360	52.3	
22:46:00	0.5750	1712.550	52.3	
22:48:00	0.6084	1717.880	52.3	
22:50:00	0.6417	1714.480	52.3	
22:51:00				SEAT PLUG TO START FALL-OFF
22:51:00	0.6584	1715.940		
		*** End of Period 9 ***		


SHUTMAN TRUST 10-11
PRICE RIVER TEST
EARLY TIME FAILURE
CARBON CO., UTAH 1/26/94
t, hrs.
BHP (PSI)
NOTE: STRAIGHT LINE INDICATES PRESSURES ARE BELOW FRACTURE PRESSURE; NO SLOPE CHANGE INDICATES RADIAL FLOW ESTABLISHED; FINAL RATE 3 BOPH.
Shut-in
K+E SEMI-LOGARITHMIC • 3 CYCLES X 70 DIVISIONS
KEUFFEL & ESSER CO. MADE IN U.S.A.
46 5490

PRESSURE VS TIME

PAGE 2

PANEX Gauge No.: 2743
Memory Recorder No.: 2743

Gauge Depth: 3000.00 ft

TIME HH:MM:SS	D TIME (~~min~~ HR)	PRESSURE (psi)	TEMP (F)	COMMENTS
20-Jan-94		Data Print Frequency: 4 *** Start of Period 10 ***		
22:51:30	0.0083	1585.370	52.4	
22:53:30	0.0416	1472.290	52.4	
22:55:30	0.0750	1436.840	52.5	
22:57:30	0.1083	1415.650	52.7	
22:59:30	0.1416	1399.970	52.8	
23:01:30	0.1750	1386.940	53.0	
23:03:30	0.2083	1375.130	53.2	
23:05:30	0.2416	1365.880	53.4	
23:07:30	0.2750	1356.880	53.6	
23:09:30	0.3083	1349.640	53.8	
23:11:30	0.3416	1344.690	54.1	
23:13:30	0.3750	1338.600	54.4	
23:15:30	0.4083	1333.220	54.6	
23:17:30	0.4416	1326.330	54.9	
23:19:30	0.4750	1323.290	55.1	
23:21:30	0.5083	1318.840	55.3	
23:23:30	0.5416	1313.200	55.6	
23:25:30	0.5750	1310.950	55.8	
23:27:30	0.6083	1307.330	56.1	
23:29:30	0.6416	1304.020	56.3	
23:31:30	0.6750	1301.070	56.6	
23:33:30	0.7083	1298.160	56.8	
23:35:30	0.7416	1295.390	57.1	
23:37:30	0.7750	1292.670	57.3	
23:39:30	0.8083	1290.180	57.5	
23:41:30	0.8416	1287.870	57.7	
23:43:30	0.8750	1283.970	57.9	
23:45:30	0.9083	1283.660	58.1	
23:47:30	0.9416	1281.630	58.2	
23:49:30	0.9750	1279.690	58.4	
23:51:30	1.0083	1277.820	58.6	
23:53:30	1.0416	1275.960	58.8	
23:55:30	1.0750	1274.270	59.0	
23:57:30	1.1083	1272.710	59.2	
23:59:30	1.1416	1271.300	59.4	
21-Jan-94				
00:01:30	1.1750	1269.930	59.6	
00:03:30	1.2083	1268.700	59.7	
00:05:30	1.2416	1267.570	59.8	
00:07:30	1.2750	1266.530	60.0	
00:09:30	1.3083	1265.620	60.1	
00:11:30	1.3416	1264.710	60.3	
00:13:30	1.3750	1263.750	60.4	
00:15:30	1.4083	1262.840	60.6	
00:17:30	1.4416	1261.850	60.7	

PRESSURE VS TIME

PANEX Gauge No.: 2743 Gauge Depth: 3000.00 ft
Memory Recorder No.: 2743

TIME HH:MM:SS	D TIME (Hrs)	PRESSURE (psi)	TEMP (F)	COMMENTS
21-Jan-94		Data Print Frequency: 4		
00:19:30	1.4750	1260.900	60.8	
00:21:30	1.5083	1259.990	61.0	
00:23:30	1.5416	1259.130	61.1	
00:25:30	1.5750	1258.270	61.2	
00:27:30	1.6083	1257.440	61.4	
00:29:30	1.6416	1256.650	61.5	
00:31:30	1.6750	1255.960	61.7	
00:33:30	1.7083	1255.300	61.9	
00:35:30	1.7416	1254.700	62.0	
00:37:30	1.7750	1254.180	62.2	
00:39:30	1.8083	1253.630	62.3	
00:41:30	1.8416	1253.170	62.4	
00:43:30	1.8750	1252.710	62.5	
00:45:30	1.9083	1252.200	62.7	
00:47:30	1.9416	1251.740	62.8	
00:49:30	1.9750	1251.240	62.9	
00:51:30	2.0083	1250.780	63.0	
00:53:30	2.0416	1250.340	63.1	
00:55:30	2.0750	1250.020	63.2	
00:57:30	2.1083	1249.720	63.3	
00:59:30	2.1416	1249.500	63.4	
01:01:30	2.1750	1249.230	63.5	
01:03:30	2.2083	1248.960	63.6	
01:05:30	2.2416	1248.690	63.7	
01:07:30	2.2750	1248.430	63.8	
01:09:30	2.3083	1248.100	63.9	
01:11:30	2.3416	1247.830	64.0	
01:13:30	2.3750	1247.540	64.1	
01:15:30	2.4083	1247.290	64.3	
01:17:30	2.4416	1247.050	64.4	
01:19:30	2.4750	1246.900	64.5	
01:21:30	2.5083	1246.710	64.7	
01:23:30	2.5416	1246.570	64.7	
01:25:30	2.5750	1246.350	64.8	
01:27:30	2.6083	1246.130	64.9	
01:29:30	2.6416	1245.830	65.0	
01:31:30	2.6750	1245.480	65.1	
01:33:30	2.7083	1245.080	65.2	
01:35:30	2.7416	1244.680	65.3	
01:37:30	2.7750	1244.280	65.4	
01:39:30	2.8083	1243.830	65.5	
01:41:30	2.8416	1243.430	65.6	
01:43:30	2.8750	1243.030	65.6	
01:45:30	2.9083	1242.680	65.7	
01:47:30	2.9416	1242.420	65.8	
01:48:00	2.9500	1242.330	65.8	

DATA SHEET 1

SCALING TENDENCIES OF WATERS

COMPANY: PACIFIC GAS & ELECTRIC
SAMPLE POINT: SHIMMIN 10-11 PH 8.5
LOCATION: CASTLE GATE PROJECT UTAH
DATE: 10-12-93

WATER ANALYSIS (MG/L):

SODIUM	2337.0
CALCIUM	116.0
MAGNESIUM	28.6
CHLORIDE	4358.0
SULFATE	47.0
BICARBONATE	2197.0
IRON	12.5
BARIUM	11.1
STRONTIUM	2.5
TDS	9109.7
PH:	8.5
IONIC STRENGTH =	0.1406

INDEX VALUES GREATER THAN ZERO INDICATE SCALING CONDITIONS
INDEX VALUES OF ZERO OR LESS INDICATE A STABLE WATER

TEMP.	CALCITE INDEX	GYPSUM INDEX	ANHYDRITE INDEX	BARITE INDEX	STRONTIUM INDEX
60	1.69	-2.39	-2.65	1.43	-1.00
80	1.80	-2.44	-2.58	1.29	-1.00
100	1.93	-2.46	-2.51	1.17	-1.00
120	2.07	-2.46	-2.42	1.07	-1.00
140	2.22	-2.45	-2.33	0.99	-1.00
160	2.39	-2.43	-2.22	0.92	-1.00
180	2.59	-2.41	-2.11	0.88	-0.99
200	2.80	-2.38	-1.98	0.85	-0.99
220	3.03	-2.34	-1.84	0.84	-0.99
240	3.29	-2.31	-1.70	0.86	-0.99
260	3.57	-2.27	-1.54	0.92	-0.98

DATA SHEET 17

SCALING TENDENCIES OF WATERS

COMPANY: PACIFIC GAS AND ELECTRIC
SAMPLE POINT: JENSEN 9-10 WELL HEAD PH 8.0
LOCATION: SOLDIERS FIELD UTAH
DATE: 7/21/93

WATER ANALYSIS (MG/L):

SODIUM	1342.8
CALCIUM	120.0
MAGNESIUM	70.0
CHLORIDE	800.0
SULFATE	0.0
BICARBONATE	2904.0
IRON	0.0
BARIUM	0.0
STRONTIUM	0.0
TDS	5236.8
PH:	8.0
IONIC STRENGTH =	0.0760

INDEX VALUES GREATER THAN ZERO INDICATE SCALING CONDITIONS
INDEX VALUES OF ZERO OR LESS INDICATE A STABLE WATER

TEMP.	CALCITE INDEX	GYPSUM INDEX	ANHYDRITE INDEX	BARITE INDEX	STRONTIUM INDEX
60	1.50	****.**	****.**	-40.97	-1.00
80	1.62	****.**	****.**	-41.11	-1.00
100	1.74	****.**	****.**	-41.23	-1.00
120	1.87	****.**	****.**	-41.33	-1.00
140	2.01	****.**	****.**	-41.40	-1.00
160	2.16	****.**	****.**	-41.46	-1.00
180	2.33	****.**	****.**	-41.49	-1.00
200	2.51	****.**	****.**	-41.52	-1.00
220	2.70	****.**	****.**	-41.52	-1.00
240	2.92	****.**	****.**	-41.50	-1.00
260	3.15	****.**	****.**	-41.44	-1.00

WELL HISTORY

10-11 Shimmin Trust
Castlegate Area
Carbon County, Utah
(PG&ER Operated)

01-10-94 RU rig, RD drive head, well flowing 130 BPH. LD 1" rods, final flow rate 110 BPH. Hook up 2-1/16" inj line to ann & flowing both to plant overnight.

01-11-94 100 psi SIP, bled off gas, well dead. Ran 1.5" GR to Otis Perma Latch pkr at 4652', TOH, ran in with 1.5" Otis 'PN' plug & set at 4652'. Test plug to 1500 psi (ok). No flow on 2-1/16", 2-7/8" tbg flowing gas & wtr, slight vac on csg. Pump 20 bbl wtr down csg to displace gas in 2-7/8" tbg, 2-1/16" started to flow. Pump 10 bbl wtr down 2-1/16" tbg at 2 BPM with 500 psi, no surf returns. TIH with prong over shot, rec'd loose prong (pin sheared). Fish plug & redress same. Re-run plug, test to 1500 psi (ok), no flow back.

01-12-94 Thaw out wellhead, check PN plug in 2-1/16" string - no flow back. Displace well down 2-7/8" tbg with 150 bbl produced wtr, still flowing at 50 BPH with 100 psi SIP. 2-1/16" tbg started to flow 5 min after pumping down 2-7/8" tbg. Press up on 2-1/16" to 1000 psi (ok), bleed off press & flow back at 24 BPH. WO WL.

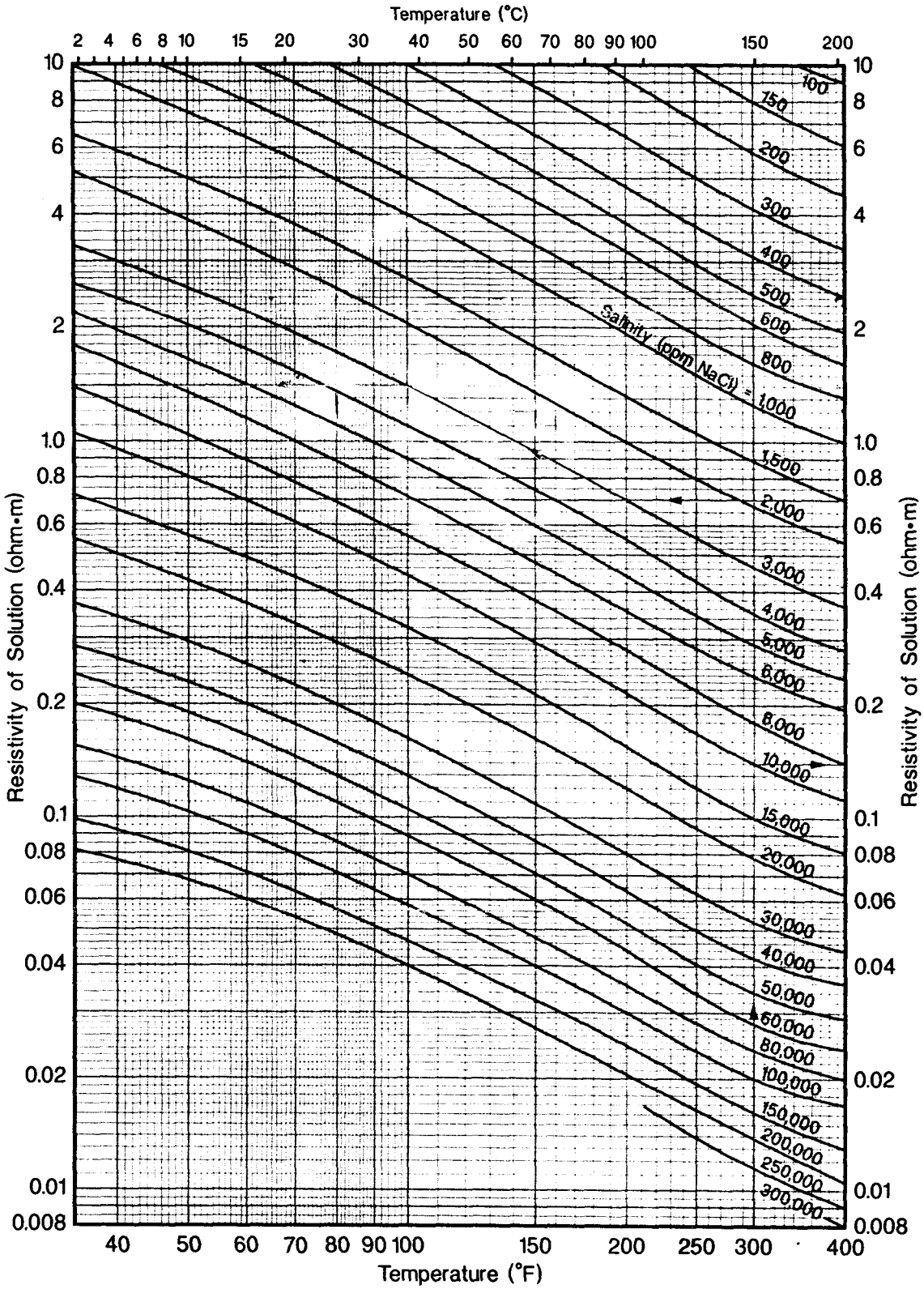
01-13-94 2-1/16" tbg, 150 psi, 2-7/8" & csg 100 psi - SIP. TIH, recovered equalizer prong - took 150# to come loose, recovered "N" plug, re-dressed "PN" plug & set in Perma-Latch pkr at 4652'. Pressure test to 1000 psi - held OK, bled off, no flow back. Displaced hole down 2-7/8"tbg w/130 bbls brine wtr, 10 #/gal. Well dead. NU BOP, Un-J short string & LD same, SDFN.

01-14-94 Un J at 2-1/16" overshot, LD 2-1/16" tbg. PU & tally 149 jts 2-7/8" workstring & SDFN.

01-15-94 Spot 1 sack sand on pkr at 4652' & TOH with work string. PU Miller cup type RBP, TIH & set at 3215' KB. Press test csg & RBP to 1000 psi (ok). Spot 1 sack sand on RBP, displace hole with produced wtr. Swab well down to 2000', POOH. RU to perf & SDFN.

HALLIBURTON
LOGGING SERVICES

Resistivity-Salinity-Temperature Conversions of NaCl Solutions



GEN-5

WELL HISTORY

10-11 Shimmin Trust
Castlegate Area
Carbon County, Utah
(PG&ER Operated)

01-16-94 Perf Price River Sand 2945-68' & 2995-3122' using a 4" csg gun, 180° phase, .45" diam hole, 22.7 gram charge with 2 SPF. IFL 1890', initial entry rate estimated at 839 BPD, start swab with FL at 450' KB. TIH with pkr, set at 2898', test to 1000 psi (ok). Swab, FL at 450', rec'd 190 bbl, final rate 60 BPH. Sample preliminary TDS 29,484 ppm. SDFN.

01-17-94 Prep rods for storage. Step rate test scheduled for 1-20.

01-18-94 Unseat pkr, TOH & TIH. Set bottom of "FB" pkr at 2890' with 26,000 lbs tension, XN nip at 2883' & X nip at 2819'. Press test ann to 1000 psi for 30 min, ok. Estab inj rate in Price River Sand at 3 BPM with 300 psi for 20 bbl of filtered produced wtr with rig pump. Fill frac tanks with filtered produced wtr & SDFN.

01-19-94 WO Halliburton to run step rate test. Rig shut down for day.

01-20-94 Run press bombs in XN nip at 2883', run PX plug body in X nip at 2819'. Press up ann to 400 psi, test lines to 4000 psi (ok), run step rate test with filtered produced wtr. Final rate: 5.5 BPM (7920 BPD), 1620 psi. SI for fall-off test. Note: Water sample confirmation by Ford Labs indicated TDS at 26,640 MPL.

01-21-94 Well on Step Rate Fall-Off test, 2300 psi SITP, 100 psi SICP.

01-22-94 Well on Step Rate Fall-Off test, 1250 psi SITP, 375 psi SICP.

01-23-94 500 psi SITP, 375 psi SICP. Recover PX plug & press bombs. SDFN.

01-24-94 TOH with pkr, TIH & recover RBP. TIH, circ 45' to top pkr, circ BU. Latch on pkr at 4652', could not pull pkr loose, tbg came free. TOH with 20 stands & SDFN.

SHIMMIN TRUST NO. 10-11 SWD

Castlegate Field

Carbon County, Utah

Spud Date: 9/20/92

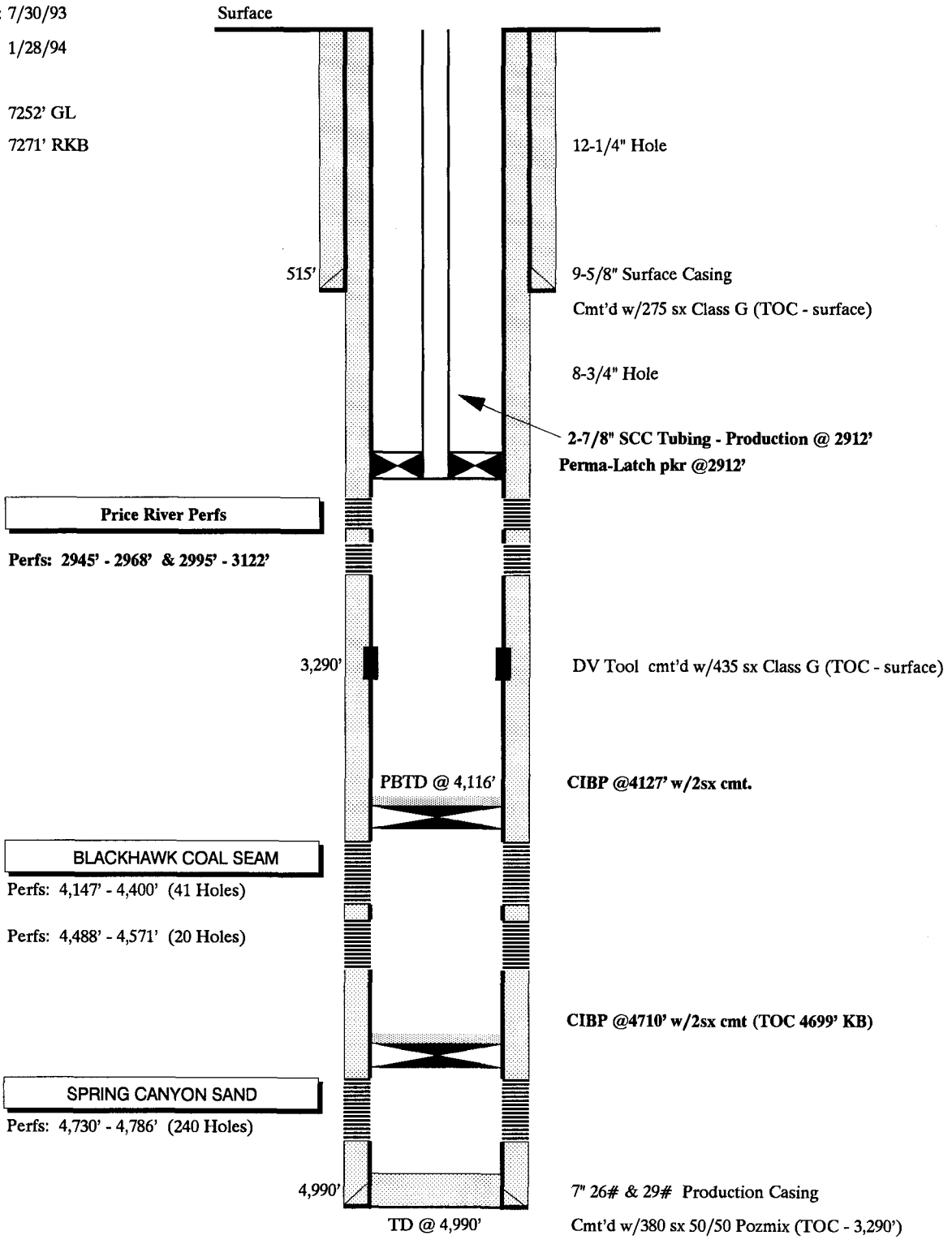
Compl. Date: 7/30/93

Recompl Dt: 1/28/94

Elev. 7252' GL

7271' RKB

Sec 11-T12S-R10E



SHTR1011.WBD

CRK 02/08/94

COMPANY: P. G. & E.

WELL: SHIMMIN TRUST #10-11

AREA: PRICE, UTAH

TEST: STEP RATE TEST

DATE: JANUARY 20 - 23 1994

HALLIBURTON
RESERVOIR
SERVICES

REPORT TICKET NO: 333333
MEMORY GAUGE TICKET NO: 333333
DATE: 20-JAN-94
HALLIBURTON CAMP: EVANSTON
TESTER: TOM CASHEN
WITNESS: UNKNOWN

DRILLING CONTRACTOR:
LEGAL LOCATION:

OPERATOR: P.G. & E.
LEASE NAME: SHIMMIN TRUST
WELL NO: 10-11
TEST NO: 1
TESTED INTERVAL:

FIELD AREA:
COUNTY/LSD:
STATE/PROVINCE: UTAH
COUNTRY: USA

HALLIBURTON ENERGY SERVICES
WELL TEST REPORT DISTRIBUTION LIST

COPIES OF THIS REPORT HAVE BEEN SENT TO THE FOLLOWING INDIVIDUALS OR COMPANIES:

COPIES	RECIPIENT
3	MR. WAYNE SUTTON P.G. & E. RESOURCES 5950 BERKSHIRE LANE SUITE 600 DALLAS, TEXAS 75225
1	JOHN SCHERLIN HALLIBURTON ENERGY SERVICES 290 S. PAYLOAD RD. EVANSVILLE, WYO. 82636

TABLE OF CONTENTS

SUMMARY OF TEST

Lease Owner: P.G. & E.
Lease Name: SHIMMIN TRUST
Well No.: 10-11
Test No.: 1
County/LSD:
State/Province: UTAH
Country: USA
Formation Tested: UNKNOWN
Hole Temp: 120.00 F
Total Depth: ft
Net Pay: 150.00 ft
Gross Tested Interval: ft
Perforated Interval (ft):

RECOVERY:

CALCULATED PARAMETERS FOR LIQUID WELL USING SEMI-LOG ANALYSIS:

Gauge No: 2743 Gauge Depth: 3000.00 ft Period No.: 10 Period Type: FO

X-axis Function.....	Xj
Y-axis Function.....	Pressure
Production Rate (bbl/D).....	-4320.0
Pressure Intercept (psi).....	1107.54
Flow Capacity (md-ft).....	3232.59
Permeability (md).....	21.55
Skin Factor.....	-2.135
Delta P due to Skin.....	-223.770
Damage Ratio.....	0.731
Flow Efficiency.....	1.368
Radius of Investigation (ft).....	151.64
at Transient Time (hr).....	0.95

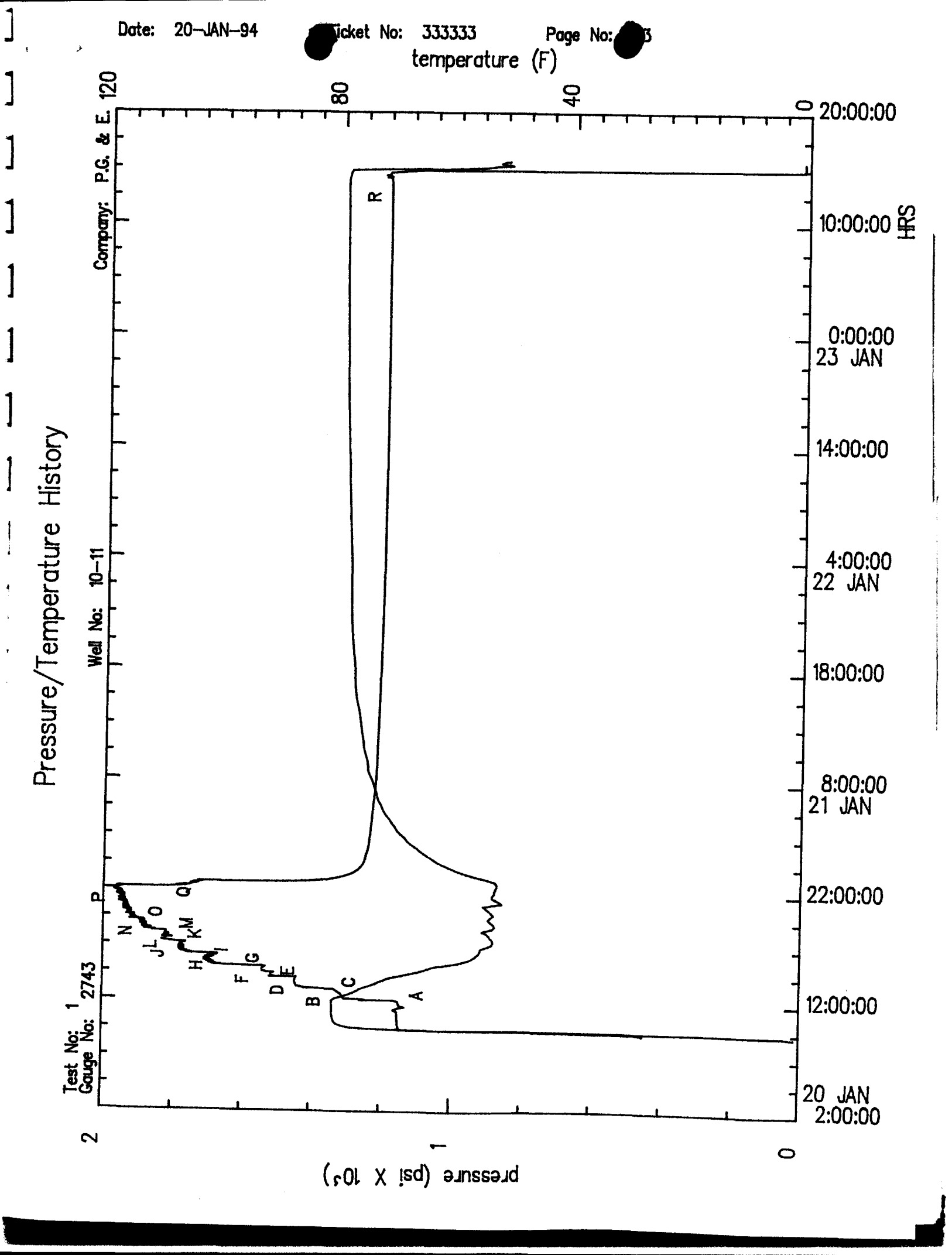
REMARKS: FRIABLE SANDSTONE.
THE STEP-RATE TEST DID NOT CONCLUSIVELY DEFINE THE PARTING PRESSURE OF THE INJECTED FORMATION. THE LARGE PERFORATED INTERVAL MOST LIKELY RESULTED IN A COMBINATION OF INDUCED FRACTURE FLOW AND RADIAL MATRIX FLOW. THE SUPERPOSITION OF THE TWO TYPES OF FLOW REGIME TEND TO CONFUSE THE INTERPRETATION OF THE STEP-RATE PLOT. A BEST FIT OF THE STEP RATE PLOT WOULD YIELD A RATE OF 3.0 BPM AT 1730 PSI.

TEST PERIOD SUMMARY

Gauge No.: 2743 Depth: 3000.00 ft Blanked off: No

ID	PERIOD	DESCRIPTION	PRESSURE (psi)	DURATION (min)
A	1	Start Injection	1150.58	
B		End Injection	1335.74	64.50
C	2	Start Injection	1344.18	
D		End Injection	1440.46	60.00
E	3	Start Injection	1520.10	
F		End Injection	1542.74	59.50
G	4	Start Injection	1622.30	
H		End Injection	1676.32	59.50
I	5	Start Injection	1711.36	
J		End Injection	1788.50	67.50
K	6	Start Injection	1789.12	
L		End Injection	1810.44	50.00
M	7	Start Injection	1813.95	
N		End Injection	1881.36	61.00
O	8	Start Injection	1903.81	
P		End Injection	1960.03	179.00
P	9	Start Injection	1960.03	
Q		End Injection	1715.94	39.50
Q	10	Start Fall-off	1715.94	
R		End Fall-off	1198.56	3769.00

NOTE: for Pressure vs. Time Plot, see next page.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Page No:
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120
80
40
0
Company: P.G. & E.
Well No: 10-11
Test No: 1
Gauge No: 2743
Pressure/Temperature History
20:00:00
10:00:00 HRS
0:00:00
23 JAN
14:00:00
4:00:00
22 JAN
18:00:00
8:00:00
21 JAN
22:00:00
12:00:00
20 JAN
2:00:00
R
Q
P
O
N
M
L
K
J
I
H
G
F
E
D
C
B
A
2
1
0
pressure (psi X 10³)

TEST AND FORMATION DATA

Formation Tested: UNKNOWN
All Depths Measured From:
Elevation: ft
Total Depth: ft
Net Pay: 150.00 ft
Hole or Casing Size: 5.500 in
Gross Tested Interval: ft
Perforated Interval (ft):

HOLE FLUID

Type:
Weight: lbm/gal
Viscosity: cp

HOLE TEMPERATURE

Depth: ft
Estimated: F
Actual: 120.00 F

HYDROCARBON PROPERTIES

Oil Gravity (API): @ 60 F
Gas/Oil ratio (ScF/STB):
Gas Gravity (SG):

CUSHION DATA

TYPE	AMOUNT	WEIGHT

FLUID PROPERTIES FOR RECOVERED MUD AND WATER

SOURCE	RESISTIVITY	CHLORIDES	SG	PH
	@ F			
	@ F			
	@ F			
	@ F			
	@ F			
	@ F			

SAMPLER DATA

Surface Pressure: psi
Volume of Gas: ft3
Volume of Oil: cc
Volume of Water: cc
Volume of Mud: cc
Total Liquids: cc

REMARKS:

FRIABLE SANDSTONE.

RATE HISTORY TABLE

Period No	Test Type	j	Prod Rate q(j) (bbl/D)	Duration (hrs)	Cum. Time t(j) (hrs)
		0	0.0	0.00	0.00
1	IN	1	-360.0	1.08	1.08
2	IN	2	-720.0	1.00	2.08
3	IN	3	-1440.0	0.99	3.07
4	IN	4	-2880.0	0.99	4.06
5	IN	5	-4320.0	1.13	5.18
6	IN	6	-5760.0	0.83	6.02
7	IN	7	-7200.0	1.02	7.03
8	IN	8	-7920.0	2.98	10.02
9	IN	9	-4320.0	0.66	10.68
10	FO	10	0.0	62.82	73.49

Test No: 1

OPERATOR JOB LOG

Type of Flow Measuring Device: COMPUPAC

TIME HH:MM:SS	CHOKE SIZE (in)	SURFACE PRESSURE (psi)	GAS RATE (Mscf/D)	LIQUID RATE (bbl/D)	REMARKS
20-Jan-94					
11:00:00					HOLD SAFETY MEETING
11:40:00		4000.00			PRIME AND TEST
12:10:00		20.00			START 0.25 BPM RATE
13:10:00		66.00			START 0.5 BPM RATE
14:10:00		117.00			END 0.5 BPM RATE
14:11:00		178.00			START 1.0 BPM RATE
15:10:00		250.00			END 1.0 BPM RATE
15:11:00		300.00			START 2.0 BPM RATE
16:10:00		500.00			END 2.0 BPM RATE
16:11:00		540.00			START 3.0 BPM RATE
17:10:00		760.00			END 3.0 BPM RATE
17:11:00		1060.00			START 4.0 BPM RATE
18:10:00		1080.00			END 4.0 BPM RATE
18:11:00		1350.00			START 5.0 BPM RATE
19:10:00		1430.00			END 5.0 BPM RATE
19:11:00		1580.00			START 5.5 BPM RATE
20:11:00		1610.00			CONTINUE 5.5 BPM RATE
21:11:00		1620.00			CONTINUE 5.5 BPM RATE
21:11:00		950.00			DECREASE TO 3 BPM RATE
22:51:00		2750.00			SEAT PLUG TO START FALL-OFF

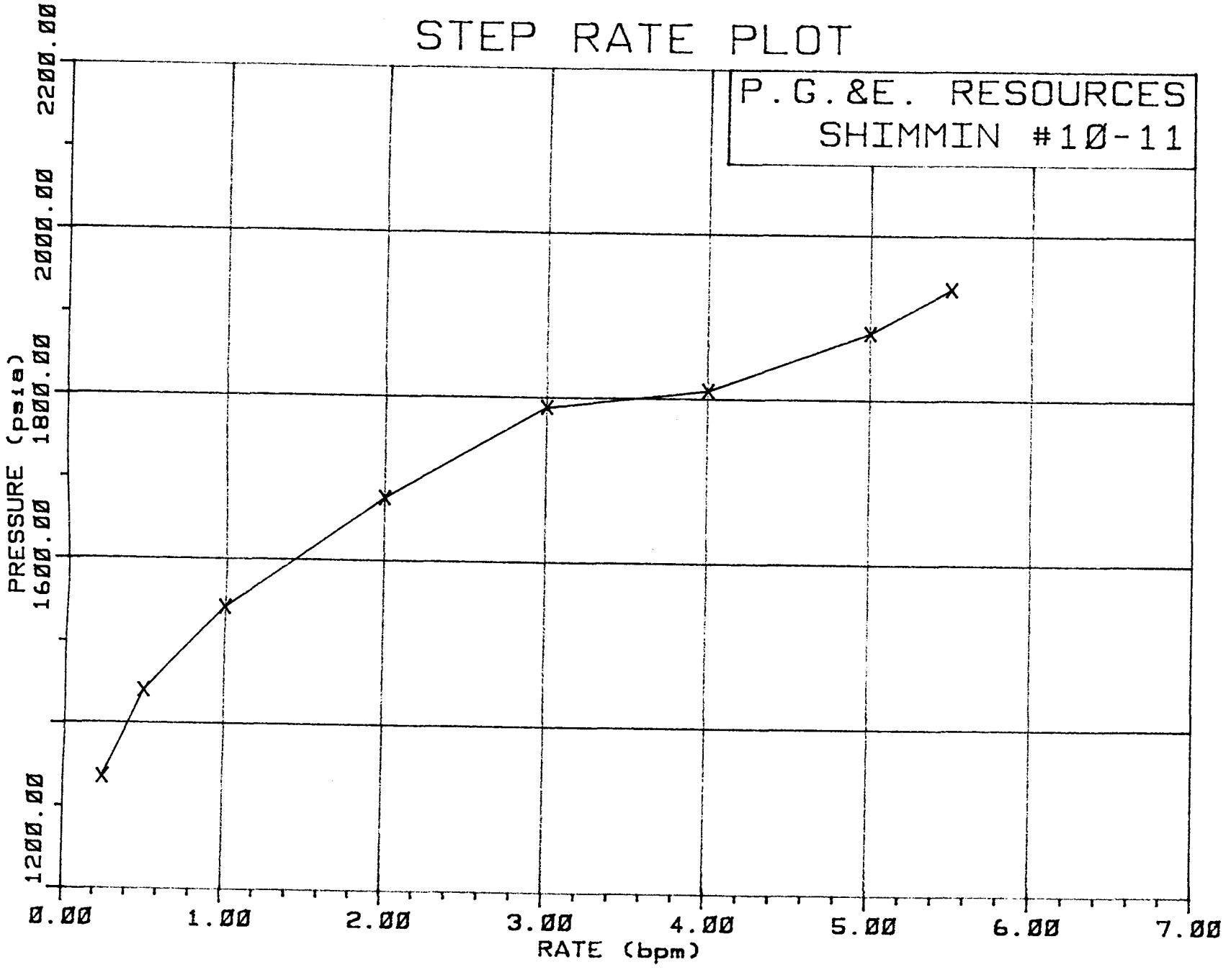
RESERVOIR PARAMETERS
USING SEMI-LOG METHOD FOR LIQUID WELLS

Oil Gravity:	API @ 60 F
Gas Gravity:	SG
Gas/Oil Ratio:	ScF/STB
Well Bore Radius:	0.3333 ft
Net Pay:	150.00 ft
Porosity:	15.00 %
Water Salinity:	0.00 % SALT
Fluid Properties Reference:	2000.0 psi
Formation Temperature:	120.00 F
Viscosity:	0.549 cp
Formation Volume Factor:	1.011 Rvol/Svol
Total System Compressibility:	7.125 x 10^-6 vol/vol/psi
Bubble Point:	psi

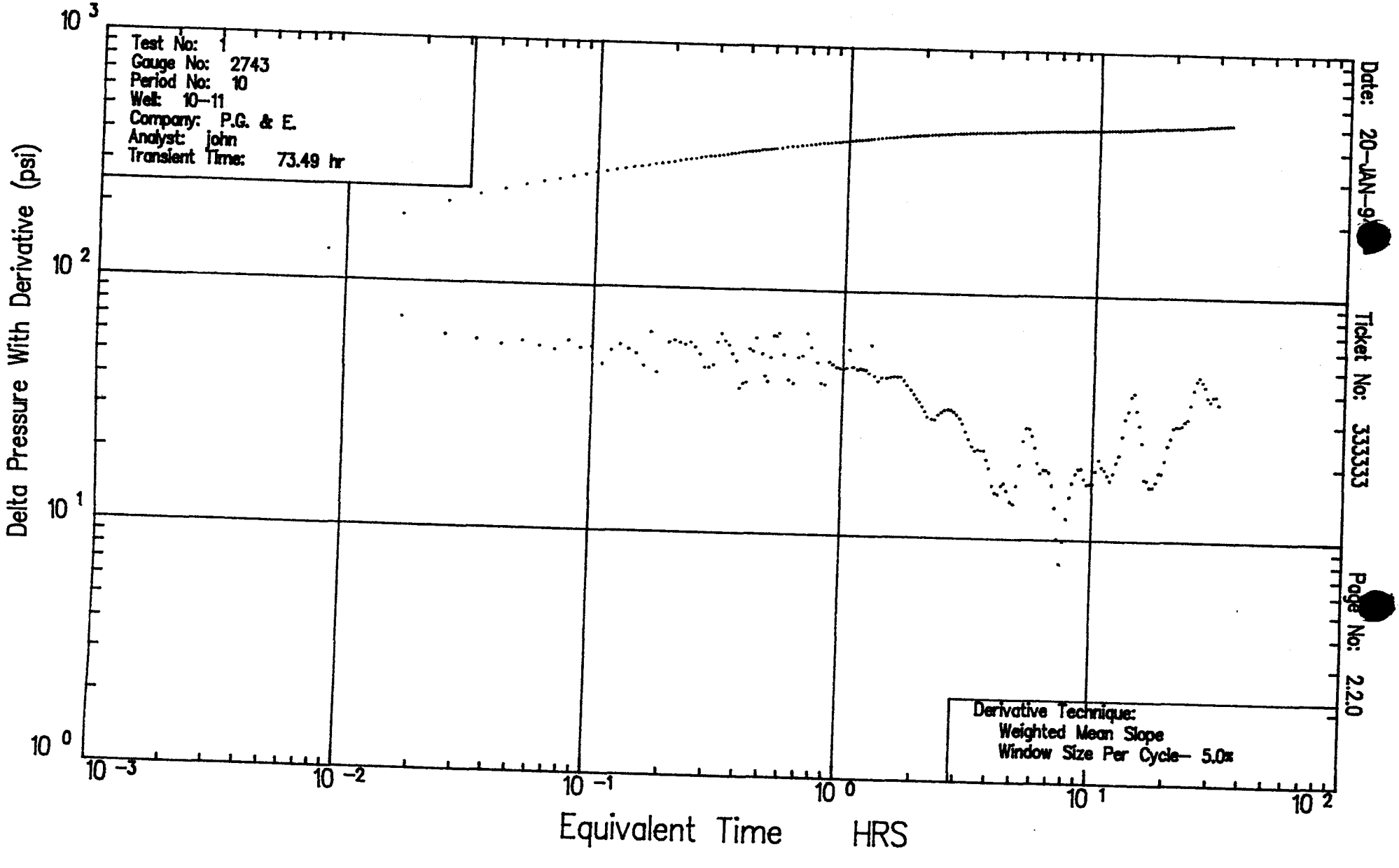
Gauge number:	2743
Gauge Depth (ft):	3000.00
Test Period:	10
Period Type:	Fall-off
X-axis Function:	Xj
Y-axis Function:	Pressure
Period Start Press. (psi):	1715.94
Y Intercept (#1 Units):	1107.541
Pressure Intercept (psi):	1107.541
Slope (#2 Units):	120.671
Sy (#1 Units):	1.132
Production Rate (bbl/D):	-4320.0
Flow Capacity (md-ft):	3232.59
Permeability (md):	21.55
Skin Factor:	-2.135
Delta P due to Skin (psi):	-223.770
Damage Ratio:	0.731
Flow Efficiency:	1.368
Theoretical Rate (bbl/D):	
Rad. of Investigation (ft):	151.64
at Transient Time (hr):	0.95

Note: #1 Units = psi for Pressure Y-axis function.
#1 Units = psi/bbl/D for dp/dq Y-axis function.
#2 Units = psi/cy for Pressure Y-axis function.
#2 Units = psi/cy/bbl/D for dp/dq Y-axis function.

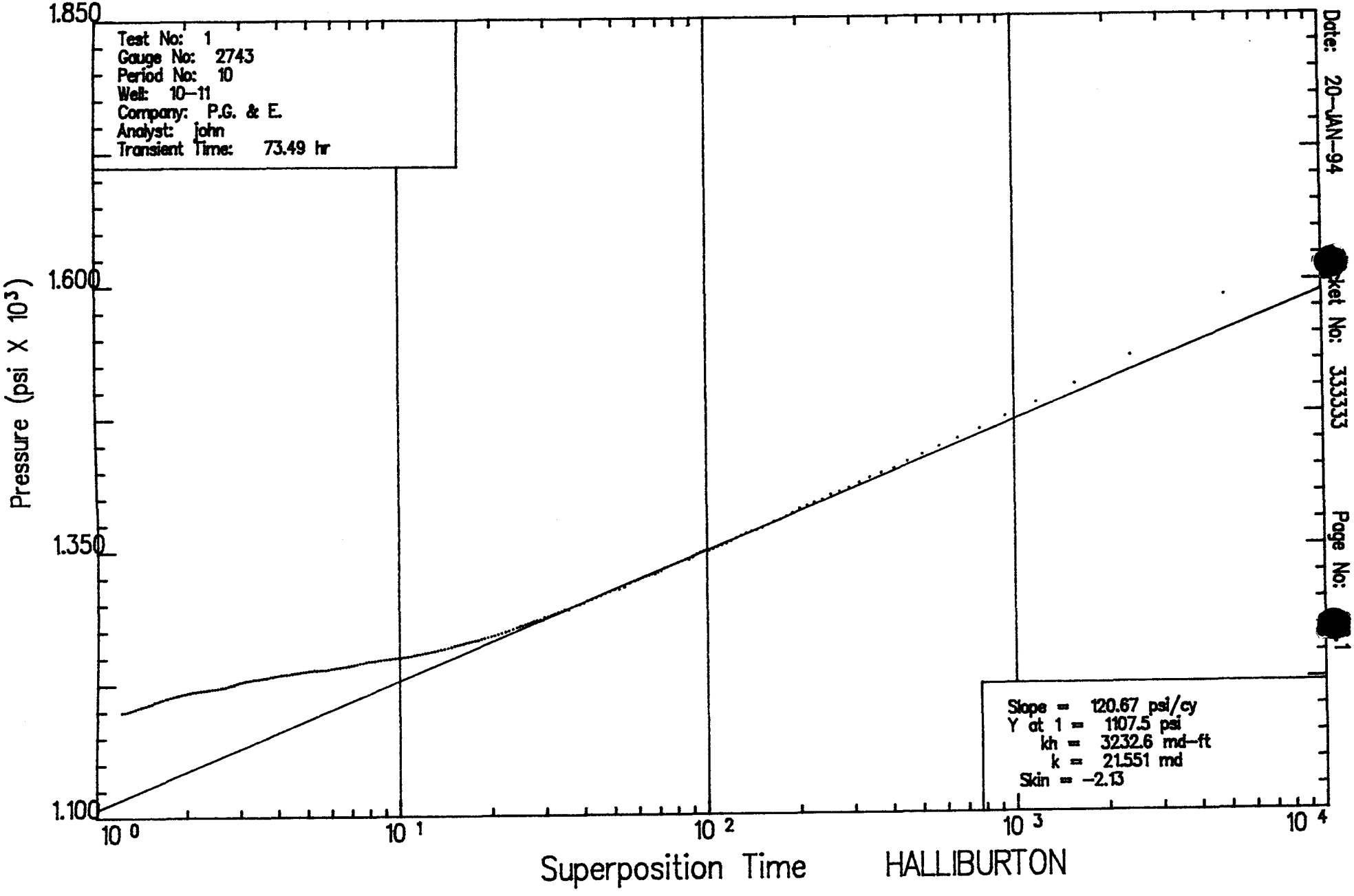
REMARKS: THE STEP-RATE TEST DID NOT CONCLUSIVELY DEFINE THE PARTING PRESSURE OF THE INJECTED FORMATION. THE LARGE PEFORATED INTERVAL MOST LIKELY RESULTED IN A COMBINATION OF INDUCED FRACTURE FLOW AND RADIAL MATRIX FLOW. THE SUPERPOSITION OF THE TWO TYPES OF FLOW REGIME TEND TO CONFUSE THE INTERPRETATION OF THE STEP-RATE PLOT. A BEST FIT OF THE STEP RATE PLOT WOULD YIELD A RATE OF 3.0 BPM AT 1730 PSI.


STEP RATE PLOT
P.G.&E. RESOURCES
SHIMMIN #10-11
PRESSURE (psia)
2200.00
2000.00
1800.00
1600.00
1200.00
0.00
1.00
2.00
3.00
4.00
5.00
6.00
7.00
RATE (bpm)

DERIVATIVE LOG–LOG PLOT



SEMI–LOG PLOT

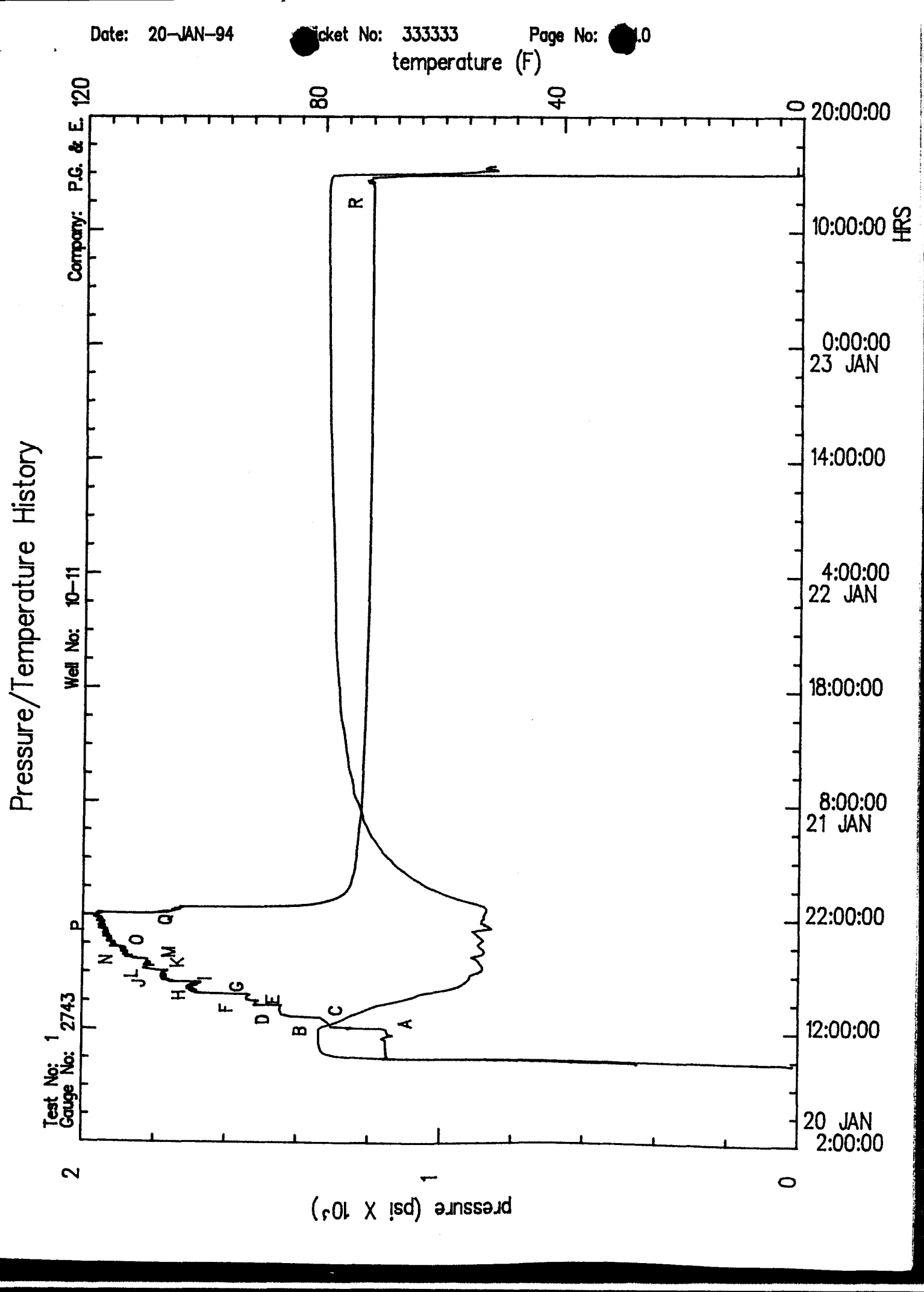


TEST PERIOD SUMMARY

Gauge No.: 2743 Depth: 3000.00 ft Blanked off: No

ID	PERIOD	DESCRIPTION	PRESSURE (psi)	DURATION (min)
A	1	Start Injection	1150.58	
B		End Injection	1335.74	64.50
C	2	Start Injection	1344.18	
D		End Injection	1440.46	60.00
E	3	Start Injection	1520.10	
F		End Injection	1542.74	59.50
G	4	Start Injection	1622.30	
H		End Injection	1676.32	59.50
I	5	Start Injection	1711.36	
J		End Injection	1788.50	67.50
K	6	Start Injection	1789.12	
L		End Injection	1810.44	50.00
M	7	Start Injection	1813.95	
N		End Injection	1881.36	61.00
O	8	Start Injection	1903.81	
P		End Injection	1960.03	179.00
P	9	Start Injection	1960.03	
Q		End Injection	1715.94	39.50
Q	10	Start Fall-off	1715.94	
R		End Fall-off	1198.56	3769.00

NOTE: for Pressure vs. Time Plot, see next page.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80
40
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20:00:00
10:00:00 HRS
0:00:00
23 JAN
14:00:00
4:00:00
22 JAN
18:00:00
8:00:00
21 JAN
22:00:00
12:00:00
20 JAN
2:00:00
R
Q
P
O
N
M
L
K
J
I
H
G
F
E
D
C
B
A
2
1
0
pressure (psi X 10³)

PRESSURE VS TIME

PANEX Gauge No.: 2743 Gauge Depth: 3000.00 ft
Memory Recorder No.: 2743

TIME HH:MM:SS	D TIME (min)	PRESSURE (psi)	TEMP (F)	COMMENTS
20-Jan-94		Data Print Frequency:	4	
09:10:00		14.500	26.8	
09:12:00		14.500	26.8	
09:14:00		14.500	26.7	
09:16:00		44.960	27.9	
09:18:00		113.950	35.0	
09:20:00		245.590	40.6	
09:22:00		418.390	45.7	
09:24:00		629.590	50.6	
09:26:00		820.730	55.5	
09:28:00		1033.180	60.6	
09:30:00		1150.390	65.5	
09:32:00		1155.790	69.5	
09:34:00		1154.760	72.0	
09:36:00		1154.180	73.7	
09:38:00		1147.080	75.1	
09:40:00		1145.920	76.1	
09:42:00		1149.080	77.2	
09:44:00		1148.700	77.9	
09:46:00		1149.530	78.0	
09:48:00		1149.720	78.5	
09:50:00		1149.880	78.7	
09:52:00		1150.080	79.0	
09:54:00		1150.200	79.2	
09:56:00		1150.340	79.3	
09:58:00		1150.500	79.5	
10:00:00		1150.620	79.6	
10:02:00		1150.710	79.7	
10:04:00		1150.810	79.7	
10:06:00		1150.870	79.8	
10:08:00		1150.970	79.9	
10:10:00		1151.040	79.9	
10:12:00		1151.060	79.9	
10:14:00		1151.140	80.0	
10:16:00		1151.160	80.0	
10:18:00		1151.240	80.0	
10:20:00		1151.310	80.1	
10:22:00		1151.350	80.1	
10:24:00		1151.430	80.1	
10:26:00		1151.510	80.1	
10:28:00		1151.630	80.1	
10:30:00		1151.710	80.1	
10:32:00		1151.790	80.2	
10:34:00		1151.880	80.2	
10:36:00		1151.910	80.2	
10:38:00		1151.990	80.2	
10:40:00		1152.020	80.2	

PRESSURE VS TIME

PANEX Gauge No.: 2743
Memory Recorder No.: 2743

Gauge Depth: 3000.00 ft

TIME HH:MM:SS	D TIME (min)	PRESSURE (psi)	TEMP (F)	COMMENTS
20-Jan-94		Data Print Frequency:	4	
10:42:00		1152.110	80.2	
10:44:00		1152.190	80.3	
10:46:00		1152.220	80.3	
10:48:00		1152.300	80.3	
10:50:00		1152.340	80.3	
10:52:00		1152.380	80.3	
10:54:00		1152.470	80.3	
10:56:00		1152.510	80.3	
10:58:00		1152.550	80.3	
11:00:00				HOLD SAFETY MEETING
11:00:00		1152.590	80.3	
11:02:00		1152.640	80.3	
11:04:00		1152.760	80.3	
11:06:00		1152.810	80.3	
11:08:00		1152.900	80.3	
11:10:00		1153.780	80.3	
11:12:00		1152.940	80.3	
11:14:00		1153.030	80.3	
11:16:00		1164.270	80.3	
11:18:00		1168.290	80.3	
11:20:00		1172.570	80.3	
11:22:00		1170.100	80.3	
11:24:00		1167.380	80.3	
11:26:00		1167.380	80.3	
11:28:00		1147.950	80.3	
11:30:00		1146.400	80.3	
11:32:00		1145.740	80.3	
11:34:00		1132.480	80.3	
11:36:00		1132.070	80.3	
11:38:00		1147.140	80.3	
11:40:00				PRIME AND TEST
11:40:00		1147.400	80.3	
11:42:00		1147.970	80.3	
11:44:00		1147.970	80.3	
11:46:00		1148.270	80.3	
11:48:00		1148.490	80.3	
11:50:00		1148.790	80.3	
11:52:00		1149.010	80.4	
11:54:00		1149.230	80.4	
11:56:00		1149.490	80.4	
11:58:00		1149.800	80.4	
12:00:00		1150.060	80.4	
12:02:00		1150.280	80.4	
12:04:00		1151.610	80.4	
12:06:00		1150.570	80.3	

PRESSURE VS TIME

PANEX Gauge No.: 2743 Gauge Depth: 3000.00 ft
Memory Recorder No.: 2743

TIME HH:MM:SS	D TIME (min)	PRESSURE (psi)	TEMP (F)	COMMENTS
20-Jan-94		Data Print Frequency: 4		
		*** Start of Period 1 ***		
12:07:00	0.0000	1150.580	80.3	
12:09:00	0.0334	1158.410	80.2	
12:10:00				START 0.25 BPM RATE
12:11:00	0.0667	1246.040	80.2	
12:13:00	0.1000	1258.610	80.1	
12:15:00	0.1334	1242.230	80.0	
12:17:00	0.1667	1263.490	79.8	
12:19:00	0.2000	1301.040	79.6	
12:21:00	0.2334	1307.540	79.4	
12:23:00	0.2667	1308.620	79.2	
12:25:00	0.3000	1307.460	79.0	
12:27:00	0.3334	1308.150	78.7	
12:29:00	0.3667	1308.470	78.5	
12:31:00	0.4000	1309.010	78.3	
12:33:00	0.4334	1309.780	78.1	
12:35:00	0.4667	1310.580	77.9	
12:37:00	0.5000	1311.500	77.8	
12:39:00	0.5334	1312.560	77.6	
12:41:00	0.5667	1313.710	77.4	
12:43:00	0.6000	1315.120	77.2	
12:45:00	0.6334	1316.670	77.1	
12:47:00	0.6667	1318.080	76.9	
12:49:00	0.7000	1321.380	76.7	
12:51:00	0.7334	1320.880	76.6	
12:53:00	0.7667	1322.280	76.4	
12:55:00	0.8000	1323.580	76.3	
12:57:00	0.8334	1324.570	76.2	
12:59:00	0.8667	1325.820	76.1	
13:01:00	0.9000	1327.190	75.9	
13:03:00	0.9334	1328.780	75.9	
13:05:00	0.9667	1330.420	75.8	
13:07:00	1.0000	1332.060	75.6	
13:09:00	1.0334	1334.770	75.5	
13:10:00				START 0.5 BPM RATE
13:11:00	1.0667	1335.370	75.4	
13:11:30	1.0750	1335.740		
		*** End of Period 1 ***		

PRESSURE VS TIME

PANEX Gauge No.: 2743
Memory Recorder No.: 2743

Gauge Depth: 3000.00 ft

TIME HH:MM:SS	D TIME (min)	PRESSURE (psi)	TEMP (F)	COMMENTS
20-Jan-94		Data Print Frequency: 4		
		*** Start of Period 2 ***		
13:12:00	0.0000	1344.180	75.3	
13:14:00	0.0333	1417.520	75.2	
13:16:00	0.0666	1424.310	75.0	
13:18:00	0.1000	1430.140	74.8	
13:20:00	0.1333	1435.850	74.6	
13:22:00	0.1666	1442.140	74.4	
13:24:00	0.2000	1445.560	74.2	
13:26:00	0.2333	1435.340	74.0	
13:28:00	0.2666	1438.830	73.8	
13:30:00	0.3000	1440.720	73.6	
13:32:00	0.3333	1442.250	73.5	
13:34:00	0.3666	1444.090	73.3	
13:36:00	0.4000	1445.400	73.2	
13:38:00	0.4333	1448.350	73.0	
13:40:00	0.4666	1449.040	72.9	
13:42:00	0.5000	1447.440	72.8	
13:44:00	0.5333	1447.550	72.6	
13:46:00	0.5666	1447.530	72.5	
13:48:00	0.6000	1447.470	72.4	
13:50:00	0.6333	1447.320	72.2	
13:52:00	0.6666	1446.960	72.1	
13:54:00	0.7000	1446.640	71.9	
13:56:00	0.7333	1446.200	71.8	
13:58:00	0.7666	1445.620	71.6	
14:00:00	0.8000	1444.740	71.4	
14:02:00	0.8333	1443.580	71.3	
14:04:00	0.8666	1442.770	71.1	
14:06:00	0.9000	1441.880	71.0	
14:08:00	0.9333	1440.550	70.8	
14:10:00				END 0.5 BPM RATE
14:10:00	0.9666	1440.160	70.6	
14:11:00				START 1.0 BPM RATE
14:12:00	1.0000	1440.460	70.4	
14:12:00	1.0000	1440.460		
		*** End of Period 2 ***		

PRESSURE VS TIME

PANEX Gauge No.: 2743 Gauge Depth: 3000.00 ft
Memory Recorder No.: 2743

TIME HH:MM:SS	D TIME (min)	PRESSURE (psi)	TEMP (F)	COMMENTS
20-Jan-94		Data Print Frequency: 4		
		*** Start of Period 3 ***		
14:12:30	0.0000	1520.100	70.3	
14:14:30	0.0333	1512.010	70.1	
14:16:30	0.0667	1518.990	69.8	
14:18:30	0.1000	1519.330	69.5	
14:20:30	0.1333	1519.910	69.1	
14:22:30	0.1667	1520.250	68.8	
14:24:30	0.2000	1515.260	68.5	
14:26:30	0.2333	1516.740	68.2	
14:28:30	0.2667	1516.480	67.9	
14:30:30	0.3000	1515.840	67.7	
14:32:30	0.3333	1510.340	67.4	
14:34:30	0.3667	1510.000	67.1	
14:36:30	0.4000	1503.610	66.8	
14:38:30	0.4333	1534.410	66.6	
14:40:30	0.4667	1539.390	66.3	
14:42:30	0.5000	1541.970	66.1	
14:44:30	0.5333	1543.210	65.8	
14:46:30	0.5667	1541.740	65.6	
14:48:30	0.6000	1542.170	65.4	
14:50:30	0.6333	1540.130	65.1	
14:52:30	0.6667	1544.290	64.9	
14:54:30	0.7000	1540.810	64.7	
14:56:30	0.7333	1540.290	64.5	
14:58:30	0.7667	1539.230	64.3	
15:00:30	0.8000	1537.410	64.1	
15:02:30	0.8333	1536.950	64.0	
15:04:30	0.8667	1534.880	63.9	
15:06:30	0.9000	1530.110	63.7	
15:08:30	0.9333	1538.520	63.6	
15:10:00				END 1.0 BPM RATE
15:10:30	0.9667	1540.110	63.5	
15:11:00				START 2.0 BPM RATE
15:12:00	0.9917	1542.740		
		*** End of Period 3 ***		

PRESSURE VS TIME

PANEX Gauge No.: 2743
Memory Recorder No.: 2743

Gauge Depth: 3000.00 ft

TIME HH:MM:SS	D TIME (min)	PRESSURE (psi)	TEMP (F)	COMMENTS
20-Jan-94		Data Print Frequency: 4		
		*** Start of Period 4 ***		
15:12:30	0.0000	1622.300	63.2	
15:14:30	0.0333	1674.680	63.4	
15:16:30	0.0667	1684.360	62.6	
15:18:30	0.1000	1689.160	62.2	
15:20:30	0.1333	1686.470	61.7	
15:22:30	0.1667	1699.850	61.2	
15:24:30	0.2000	1680.490	60.8	
15:26:30	0.2333	1679.570	60.4	
15:28:30	0.2667	1684.290	60.0	
15:30:30	0.3000	1702.670	59.6	
15:32:30	0.3333	1686.060	59.2	
15:34:30	0.3667	1692.110	58.9	
15:36:30	0.4000	1712.400	58.6	
15:38:30	0.4333	1706.160	58.3	
15:40:30	0.4667	1700.350	58.1	
15:42:30	0.5000	1695.770	57.8	
15:44:30	0.5333	1704.170	57.6	
15:46:30	0.5667	1702.470	57.4	
15:48:30	0.6000	1691.740	57.1	
15:50:30	0.6333	1685.620	57.0	
15:52:30	0.6667	1684.020	56.8	
15:54:30	0.7000	1690.280	56.6	
15:56:30	0.7333	1678.530	56.5	
15:58:30	0.7667	1691.880	56.4	
16:00:30	0.8000	1691.570	56.3	
16:02:30	0.8333	1683.120	56.2	
16:04:30	0.8667	1683.060	56.2	
16:06:30	0.9000	1670.880	56.1	
16:08:30	0.9333	1676.710	56.0	
16:10:00				END 2.0 BPM RATE
16:10:30	0.9667	1668.040	55.9	
16:11:00				START 3.0 BPM RATE
16:12:00	0.9917	1676.320		
		*** End of Period 4 ***		

PRESSURE VS TIME

PANEX Gauge No.: 2743 Gauge Depth: 3000.00 ft

Memory Recorder No.: 2743

TIME HH:MM:SS	D TIME (min)	PRESSURE (psi)	TEMP (F)	COMMENTS
20-Jan-94		Data Print Frequency: 4		
		*** Start of Period 5 ***		
16:12:30	0.0000	1711.360	55.8	
16:14:30	0.0333	1743.030	55.7	
16:16:30	0.0667	1746.820	55.6	
16:18:30	0.1000	1749.800	55.5	
16:20:30	0.1333	1765.360	55.4	
16:22:30	0.1667	1774.820	55.4	
16:24:30	0.2000	1762.230	55.3	
16:26:30	0.2333	1766.000	55.3	
16:28:30	0.2667	1771.630	55.2	
16:30:30	0.3000	1773.790	55.1	
16:32:30	0.3333	1777.950	55.1	
16:34:30	0.3667	1779.210	55.1	
16:36:30	0.4000	1781.180	55.1	
16:38:30	0.4333	1766.120	55.0	
16:40:30	0.4667	1772.080	55.0	
16:42:30	0.5000	1768.700	55.0	
16:44:30	0.5333	1780.520	55.0	
16:46:30	0.5667	1766.300	55.0	
16:48:30	0.6000	1781.590	55.0	
16:50:30	0.6333	1768.240	55.0	
16:52:30	0.6667	1776.570	54.9	
16:54:30	0.7000	1772.550	55.1	
16:56:30	0.7333	1765.460	54.5	
16:58:30	0.7667	1777.610	54.4	
17:00:30	0.8000	1760.920	54.2	
17:02:30	0.8333	1760.680	54.0	
17:04:30	0.8667	1774.730	53.8	
17:06:30	0.9000	1777.410	53.6	
17:08:30	0.9333	1763.120	53.5	
17:10:00				END 3.0 BPM RATE
17:10:30	0.9667	1775.650	53.3	
17:11:00				START 4.0 BPM RATE
17:12:30	1.0000	1778.830	53.2	
17:14:30	1.0333	1785.020	53.1	
17:16:30	1.0667	1784.080	53.0	
17:18:30	1.1000	1784.030	53.0	
17:20:00	1.1250	1788.500		
		*** End of Period 5 ***		

PRESSURE VS TIME

PANEX Gauge No.: 2743 Gauge Depth: 3000.00 ft
Memory Recorder No.: 2743

TIME HH:MM:SS	D TIME (min)	PRESSURE (psi)	TEMP (F)	COMMENTS
20-Jan-94		Data Print Frequency: 4		
		*** Start of Period 6 ***		
17:20:30	0.0000	1789.120	52.9	
17:22:30	0.0334	1811.910	52.9	
17:24:30	0.0667	1812.320	52.9	
17:26:30	0.1000	1827.850	52.9	
17:28:30	0.1334	1816.200	52.9	
17:30:30	0.1667	1818.150	52.9	
17:32:30	0.2000	1818.590	52.9	
17:34:30	0.2334	1824.000	52.9	
17:36:30	0.2667	1822.920	52.9	
17:38:30	0.3000	1823.780	53.0	
17:40:30	0.3334	1822.600	53.0	
17:42:30	0.3667	1818.390	53.1	
17:44:30	0.4000	1819.070	53.1	
17:46:30	0.4334	1825.570	53.2	
17:48:30	0.4667	1811.840	53.3	
17:50:30	0.5000	1811.800	53.3	
17:52:30	0.5334	1825.330	53.4	
17:54:30	0.5667	1813.340	53.4	
17:56:30	0.6000	1819.050	53.5	
17:58:30	0.6334	1819.610	53.5	
18:00:30	0.6667	1822.210	53.6	
18:02:30	0.7000	1824.110	53.6	
18:04:30	0.7334	1823.330	53.6	
18:06:30	0.7667	1812.680	53.7	
18:08:30	0.8000	1818.350	53.7	
18:10:00				END 4.0 BPM RATE
18:10:30	0.8334	1810.440	53.8	
18:11:00				START 5.0 BPM RATE
18:10:30	0.8334	1810.440		
		*** End of Period 6 ***		

PRESSURE VS TIME

PANEX Gauge No.: 2743
Memory Recorder No.: 2743

Gauge Depth: 3000.00 ft

TIME HH:MM:SS	D TIME (min)	PRESSURE (psi)	TEMP (F)	COMMENTS
20-Jan-94		Data Print Frequency: 4		
		*** Start of Period 7 ***		
18:11:00	0.0000	1813.950	53.8	
18:13:00	0.0333	1858.810	53.9	
18:15:00	0.0667	1851.380	54.0	
18:17:00	0.1000	1851.800	54.1	
18:19:00	0.1333	1857.560	54.2	
18:21:00	0.1667	1866.430	54.3	
18:23:00	0.2000	1862.710	54.4	
18:25:00	0.2333	1868.820	54.6	
18:27:00	0.2667	1879.980	54.6	
18:29:00	0.3000	1872.640	54.9	
18:31:00	0.3333	1871.030	54.8	
18:33:00	0.3667	1880.300	54.2	
18:35:00	0.4000	1879.510	53.9	
18:37:00	0.4333	1885.910	53.6	
18:39:00	0.4667	1887.930	53.3	
18:41:00	0.5000	1884.760	53.1	
18:43:00	0.5333	1885.570	52.9	
18:45:00	0.5667	1887.240	52.8	
18:47:00	0.6000	1882.180	52.7	
18:49:00	0.6333	1877.410	52.7	
18:51:00	0.6667	1882.370	52.6	
18:53:00	0.7000	1882.910	52.6	
18:55:00	0.7333	1882.420	52.6	
18:57:00	0.7667	1890.230	52.6	
18:59:00	0.8000	1888.430	52.7	
19:01:00	0.8333	1883.430	52.7	
19:03:00	0.8667	1895.370	52.7	
19:05:00	0.9000	1892.770	52.8	
19:07:00	0.9333	1897.360	52.8	
19:09:00	0.9667	1882.910	52.9	
19:10:00				END 5.0 BPM RATE
19:11:00				START 5.5 BPM RATE
19:11:00	1.0000	1883.750	53.0	
19:12:00	1.0167	1881.360		
		*** End of Period 7 ***		

PRESSURE VS TIME

PANEX Gauge No.: 2743
Memory Recorder No.: 2743

Gauge Depth: 3000.00 ft

TIME HH:MM:SS	D TIME (min)	PRESSURE (psi)	TEMP (F)	COMMENTS
20-Jan-94		Data Print Frequency: 4		
		*** Start of Period 8 ***		
19:12:30	0.0000	1903.810	53.1	
19:14:30	0.0333	1899.080	53.2	
19:16:30	0.0667	1909.160	53.3	
19:18:30	0.1000	1908.450	53.4	
19:20:30	0.1333	1912.850	53.4	
19:22:30	0.1667	1910.330	53.5	
19:24:30	0.2000	1908.430	53.6	
19:26:30	0.2333	1909.500	53.6	
19:28:30	0.2667	1917.110	53.7	
19:30:30	0.3000	1914.730	53.7	
19:32:30	0.3333	1924.610	53.8	
19:34:30	0.3667	1908.720	53.8	
19:36:30	0.4000	1914.750	53.8	
19:38:30	0.4333	1921.820	53.8	
19:40:30	0.4667	1919.840	54.0	
19:42:30	0.5000	1919.460	53.5	
19:44:30	0.5333	1923.110	53.4	
19:46:30	0.5667	1923.200	53.2	
19:48:30	0.6000	1926.150	53.0	
19:50:30	0.6333	1923.450	52.9	
19:52:30	0.6667	1923.220	52.9	
19:54:30	0.7000	1921.520	52.8	
19:56:30	0.7333	1918.900	52.8	
19:58:30	0.7667	1929.600	52.8	
20:00:30	0.8000	1928.910	52.9	
20:02:30	0.8333	1925.230	52.9	
20:04:30	0.8667	1942.160	53.0	
20:06:30	0.9000	1929.350	53.1	
20:08:30	0.9333	1925.740	53.2	
20:10:30	0.9667	1936.630	53.3	
20:11:00				CONTINUE 5.5 BPM RATE
20:12:30	1.0000	1932.360	53.4	
20:14:30	1.0333	1924.800	53.5	
20:16:30	1.0667	1942.330	53.5	
20:18:30	1.1000	1930.380	53.6	
20:20:30	1.1333	1931.010	53.6	
20:22:30	1.1667	1937.240	53.7	
20:24:30	1.2000	1930.220	53.8	
20:26:30	1.2333	1934.670	53.9	
20:28:30	1.2667	1936.850	53.9	
20:30:30	1.3000	1937.650	54.0	
20:32:30	1.3333	1932.980	54.1	
20:34:30	1.3667	1938.580	54.2	
20:36:30	1.4000	1941.160	54.2	
20:38:30	1.4333	1936.490	54.3	

PRESSURE VS TIME

PANEX Gauge No.: 2743 Gauge Depth: 3000.00 ft
Memory Recorder No.: 2743

TIME HH:MM:SS	D TIME (min)	PRESSURE (psi)	TEMP (F)	COMMENTS
20-Jan-94		Data Print Frequency:	4	
20:40:30	1.4667	1939.560	54.4	
20:42:30	1.5000	1936.630	54.5	
20:44:30	1.5333	1945.600	54.4	
20:46:30	1.5667	1935.460	54.7	
20:48:30	1.6000	1945.920	54.5	
20:50:30	1.6333	1933.810	53.8	
20:52:30	1.6667	1938.050	53.5	
20:54:30	1.7000	1935.180	53.0	
20:56:30	1.7333	1948.080	52.6	
20:58:30	1.7667	1940.300	52.3	
21:00:30	1.8000	1937.610	52.0	
21:02:30	1.8333	1949.470	51.4	
21:04:30	1.8667	1940.860	51.3	
21:06:30	1.9000	1937.510	51.5	
21:08:30	1.9333	1938.060	51.6	
21:10:30	1.9667	1943.770	51.7	
21:11:00				CONTINUE 5.5 BPM RATE
21:11:00				DECREASE TO 3 BPM RATE
21:12:30	2.0000	1945.880	51.8	
21:14:30	2.0333	1943.570	52.0	
21:16:30	2.0667	1951.490	52.1	
21:18:30	2.1000	1940.120	52.3	
21:20:30	2.1333	1948.880	52.4	
21:22:30	2.1667	1937.370	52.6	
21:24:30	2.2000	1960.670	52.7	
21:26:30	2.2333	1943.650	52.9	
21:28:30	2.2667	1950.730	53.0	
21:30:30	2.3000	1941.810	53.1	
21:32:30	2.3333	1942.240	53.2	
21:34:30	2.3667	1945.660	53.3	
21:36:30	2.4000	1955.880	53.4	
21:38:30	2.4333	1956.200	53.4	
21:40:30	2.4667	1946.900	53.6	
21:42:30	2.5000	1949.220	53.5	
21:44:30	2.5333	1951.160	53.2	
21:46:30	2.5667	1964.560	53.1	
21:48:30	2.6000	1950.290	52.9	
21:50:30	2.6333	1957.810	52.8	
21:52:30	2.6667	1956.560	52.7	
21:54:30	2.7000	1961.610	52.7	
21:56:30	2.7333	1955.620	52.7	
21:58:30	2.7667	1962.560	52.7	
22:00:30	2.8000	1949.250	52.7	
22:02:30	2.8333	1960.310	52.7	
22:04:30	2.8667	1953.410	52.7	
22:06:30	2.9000	1957.760	52.7	

PRESSURE VS TIME

PANEX Gauge No.: 2743 Gauge Depth: 3000.00 ft
Memory Recorder No.: 2743

TIME HH:MM:SS	D TIME (min)	PRESSURE (psi)	TEMP (F)	COMMENTS
20-Jan-94		Data Print Frequency: 4		
22:08:30	2.9333	1963.000	52.7	
22:10:30	2.9667	1951.850	52.7	
22:11:30	2.9833	1960.030		
		*** End of Period 8 ***		

PRESSURE VS TIME

PANEX Gauge No.: 2743 Gauge Depth: 3000.00 ft
Memory Recorder No.: 2743

TIME HH:MM:SS	D TIME (min)	PRESSURE (psi)	TEMP (F)	COMMENTS
20-Jan-94		Data Print Frequency: 4		
		*** Start of Period 9 ***		
22:12:00	0.0084	1893.510	52.7	
22:14:00	0.0417	1814.290	52.7	
22:16:00	0.0750	1797.320	52.7	
22:18:00	0.1084	1778.670	52.6	
22:20:00	0.1417	1783.860	52.6	
22:22:00	0.1750	1759.910	52.5	
22:24:00	0.2084	1767.810	52.5	
22:26:00	0.2417	1754.940	52.4	
22:28:00	0.2750	1758.120	52.4	
22:30:00	0.3084	1754.260	52.4	
22:32:00	0.3417	1742.320	52.3	
22:34:00	0.3750	1749.400	52.3	
22:36:00	0.4084	1744.920	52.3	
22:38:00	0.4417	1731.490	52.3	
22:40:00	0.4750	1728.790	52.3	
22:42:00	0.5084	1727.720	52.3	
22:44:00	0.5417	1721.360	52.3	
22:46:00	0.5750	1712.550	52.3	
22:48:00	0.6084	1717.880	52.3	
22:50:00	0.6417	1714.480	52.3	
22:51:00				SEAT PLUG TO START FALL-OFF
22:51:00	0.6584	1715.940		
		*** End of Period 9 ***		

PRESSURE VS TIME

PANEX Gauge No.: 2743 Gauge Depth: 3000.00 ft
Memory Recorder No.: 2743

TIME HH:MM:SS	D TIME (min)	PRESSURE (psi)	TEMP (F)	COMMENTS
20-Jan-94		Data Print Frequency: 4		
		*** Start of Period 10 ***		
22:51:30	0.0083	1585.370	52.4	
22:53:30	0.0416	1472.290	52.4	
22:55:30	0.0750	1436.840	52.5	
22:57:30	0.1083	1415.650	52.7	
22:59:30	0.1416	1399.970	52.8	
23:01:30	0.1750	1386.940	53.0	
23:03:30	0.2083	1375.130	53.2	
23:05:30	0.2416	1365.880	53.4	
23:07:30	0.2750	1356.880	53.6	
23:09:30	0.3083	1349.640	53.8	
23:11:30	0.3416	1344.690	54.1	
23:13:30	0.3750	1338.600	54.4	
23:15:30	0.4083	1333.220	54.6	
23:17:30	0.4416	1326.330	54.9	
23:19:30	0.4750	1323.290	55.1	
23:21:30	0.5083	1318.840	55.3	
23:23:30	0.5416	1313.200	55.6	
23:25:30	0.5750	1310.950	55.8	
23:27:30	0.6083	1307.330	56.1	
23:29:30	0.6416	1304.020	56.3	
23:31:30	0.6750	1301.070	56.6	
23:33:30	0.7083	1298.160	56.8	
23:35:30	0.7416	1295.390	57.1	
23:37:30	0.7750	1292.670	57.3	
23:39:30	0.8083	1290.180	57.5	
23:41:30	0.8416	1287.870	57.7	
23:43:30	0.8750	1283.970	57.9	
23:45:30	0.9083	1283.660	58.1	
23:47:30	0.9416	1281.630	58.2	
23:49:30	0.9750	1279.690	58.4	
23:51:30	1.0083	1277.820	58.6	
23:53:30	1.0416	1275.960	58.8	
23:55:30	1.0750	1274.270	59.0	
23:57:30	1.1083	1272.710	59.2	
23:59:30	1.1416	1271.300	59.4	
21-Jan-94				
00:01:30	1.1750	1269.930	59.6	
00:03:30	1.2083	1268.700	59.7	
00:05:30	1.2416	1267.570	59.8	
00:07:30	1.2750	1266.530	60.0	
00:09:30	1.3083	1265.620	60.1	
00:11:30	1.3416	1264.710	60.3	
00:13:30	1.3750	1263.750	60.4	
00:15:30	1.4083	1262.840	60.6	
00:17:30	1.4416	1261.850	60.7	

PRESSURE VS TIME

PANEX Gauge No.: 2743 Gauge Depth: 3000.00 ft
Memory Recorder No.: 2743

TIME HH:MM:SS	D TIME (min)	PRESSURE (psi)	TEMP (F)	COMMENTS
21-Jan-94		Data Print Frequency:	4	
00:19:30	1.4750	1260.900	60.8	
00:21:30	1.5083	1259.990	61.0	
00:23:30	1.5416	1259.130	61.1	
00:25:30	1.5750	1258.270	61.2	
00:27:30	1.6083	1257.440	61.4	
00:29:30	1.6416	1256.650	61.5	
00:31:30	1.6750	1255.960	61.7	
00:33:30	1.7083	1255.300	61.9	
00:35:30	1.7416	1254.700	62.0	
00:37:30	1.7750	1254.180	62.2	
00:39:30	1.8083	1253.630	62.3	
00:41:30	1.8416	1253.170	62.4	
00:43:30	1.8750	1252.710	62.5	
00:45:30	1.9083	1252.200	62.7	
00:47:30	1.9416	1251.740	62.8	
00:49:30	1.9750	1251.240	62.9	
00:51:30	2.0083	1250.780	63.0	
00:53:30	2.0416	1250.340	63.1	
00:55:30	2.0750	1250.020	63.2	
00:57:30	2.1083	1249.720	63.3	
00:59:30	2.1416	1249.500	63.4	
01:01:30	2.1750	1249.230	63.5	
01:03:30	2.2083	1248.960	63.6	
01:05:30	2.2416	1248.690	63.7	
01:07:30	2.2750	1248.430	63.8	
01:09:30	2.3083	1248.100	63.9	
01:11:30	2.3416	1247.830	64.0	
01:13:30	2.3750	1247.540	64.1	
01:15:30	2.4083	1247.290	64.3	
01:17:30	2.4416	1247.050	64.4	
01:19:30	2.4750	1246.900	64.5	
01:21:30	2.5083	1246.710	64.7	
01:23:30	2.5416	1246.570	64.7	
01:25:30	2.5750	1246.350	64.8	
01:27:30	2.6083	1246.130	64.9	
01:29:30	2.6416	1245.830	65.0	
01:31:30	2.6750	1245.480	65.1	
01:33:30	2.7083	1245.080	65.2	
01:35:30	2.7416	1244.680	65.3	
01:37:30	2.7750	1244.280	65.4	
01:39:30	2.8083	1243.830	65.5	
01:41:30	2.8416	1243.430	65.6	
01:43:30	2.8750	1243.030	65.6	
01:45:30	2.9083	1242.680	65.7	
01:47:30	2.9416	1242.420	65.8	
01:48:00	2.9500	1242.330	65.8	

PRESSURE VS TIME

PANEX Gauge No.: 2743 Gauge Depth: 3000.00 ft
Memory Recorder No.: 2743

TIME HH:MM:SS	D TIME (min)	PRESSURE (psi)	TEMP (F)	COMMENTS
21-Jan-94		Data Print Frequency:	4	
01:50:00	2.9833	1242.070	65.9	
01:52:00	3.0166	1241.850	66.0	
01:54:00	3.0500	1241.590	66.0	
01:56:00	3.0833	1241.330	66.1	
01:58:00	3.1166	1241.120	66.2	
02:00:00	3.1500	1240.950	66.3	
02:02:00	3.1833	1240.780	66.4	
02:04:00	3.2166	1240.600	66.4	
02:06:00	3.2500	1240.370	66.5	
02:08:00	3.2833	1240.190	66.6	
02:10:00	3.3166	1239.960	66.8	
02:12:00	3.3500	1239.730	66.9	
02:14:00	3.3833	1239.500	67.0	
02:16:00	3.4166	1239.280	67.1	
02:18:00	3.4500	1239.050	67.2	
02:20:00	3.4833	1238.840	67.2	
02:22:00	3.5166	1238.670	67.3	
02:24:00	3.5500	1238.590	67.4	
02:26:00	3.5833	1238.460	67.5	
02:28:00	3.6166	1238.430	67.5	
02:30:00	3.6500	1238.340	67.6	
02:32:00	3.6833	1238.300	67.7	
02:34:00	3.7166	1238.260	67.8	
02:36:00	3.7500	1238.220	67.9	
02:38:00	3.7833	1238.140	67.9	
02:40:00	3.8166	1238.100	68.0	
02:42:00	3.8500	1238.030	68.1	
02:44:00	3.8833	1237.950	68.1	
02:46:00	3.9166	1237.840	68.2	
02:48:00	3.9500	1237.730	68.2	
02:50:00	3.9833	1237.630	68.2	
02:52:00	4.0166	1237.480	68.3	
02:54:00	4.0500	1237.320	68.3	
02:56:00	4.0833	1237.170	68.4	
02:58:00	4.1166	1237.050	68.4	
03:00:00	4.1500	1236.890	68.5	
03:02:00	4.1833	1236.770	68.6	
03:04:00	4.2166	1236.600	68.6	
03:06:00	4.2500	1236.480	68.7	
03:08:00	4.2833	1236.350	68.8	
03:10:00	4.3166	1236.220	68.9	
03:12:00	4.3500	1236.090	68.9	
03:14:00	4.3833	1235.960	69.0	
03:16:00	4.4166	1235.780	69.1	
03:18:00	4.4500	1235.650	69.2	
03:20:00	4.4833	1235.480	69.3	

PRESSURE VS TIME

PANEX Gauge No.: 2743 Gauge Depth: 3000.00 ft
Memory Recorder No.: 2743

TIME HH:MM:SS	D TIME (min)	PRESSURE (psi)	TEMP (F)	COMMENTS
21-Jan-94		Data Print Frequency: 4		
04:54:00	6.0500	1230.490	71.5	
04:56:00	6.0833	1230.370	71.6	
04:58:00	6.1166	1230.310	71.6	
05:00:00	6.1500	1230.230	71.7	
05:02:00	6.1833	1230.170	71.7	
05:04:00	6.2166	1230.100	71.7	
05:06:00	6.2500	1229.990	71.8	
05:08:00	6.2833	1229.930	71.8	
05:10:00	6.3166	1229.870	71.9	
05:12:00	6.3500	1229.810	71.9	
05:14:00	6.3833	1229.700	71.9	
05:16:00	6.4166	1229.640	72.0	
05:18:00	6.4500	1229.540	72.0	
05:20:00	6.4833	1229.430	72.0	
05:22:00	6.5166	1229.330	72.1	
05:24:00	6.5500	1229.260	72.1	
05:26:00	6.5833	1229.160	72.1	
05:28:00	6.6166	1229.050	72.2	
05:30:00	6.6500	1228.950	72.2	
05:32:00	6.6833	1228.840	72.2	
05:34:00	6.7166	1228.740	72.3	
05:36:00	6.7500	1228.640	72.3	
05:38:00	6.7833	1228.540	72.3	
05:40:00	6.8166	1228.440	72.3	
05:42:00	6.8500	1228.350	72.3	
05:44:00	6.8833	1228.250	72.4	
05:46:00	6.9166	1228.150	72.4	
05:48:00	6.9500	1228.090	72.4	
05:50:00	6.9833	1227.990	72.4	
05:52:00	7.0166	1227.890	72.5	
05:54:00	7.0500	1227.790	72.5	
05:56:00	7.0833	1227.730	72.5	
05:58:00	7.1166	1227.620	72.6	
06:00:00	7.1500	1227.560	72.6	
06:02:00	7.1833	1227.450	72.6	
06:04:00	7.2166	1227.340	72.7	
06:06:00	7.2500	1227.230	72.7	
06:08:00	7.2833	1227.080	72.8	
06:10:00	7.3166	1226.880	72.8	
06:12:00	7.3500	1226.730	72.8	
06:14:00	7.3833	1226.580	72.9	
06:16:00	7.4166	1226.430	72.9	
06:18:00	7.4500	1226.280	72.9	
06:20:00	7.4833	1226.140	73.0	
06:22:00	7.5166	1225.990	73.0	
06:24:00	7.5500	1225.840	73.0	

PRESSURE VS TIME

PANEX Gauge No.: 2743 Gauge Depth: 3000.00 ft
Memory Recorder No.: 2743

TIME HH:MM:SS	D TIME (min)	PRESSURE (psi)	TEMP (F)	COMMENTS
21-Jan-94		Data Print Frequency:	4	
06:26:00	7.5833	1225.700	73.1	
06:28:00	7.6166	1225.550	73.1	
06:30:00	7.6500	1225.410	73.1	
06:32:00	7.6833	1225.310	73.1	
06:34:00	7.7166	1225.170	73.1	
06:36:00	7.7500	1225.040	73.1	
06:38:00	7.7833	1224.890	73.2	
06:40:00	7.8166	1224.760	73.2	
06:42:00	7.8500	1224.620	73.2	
06:44:00	7.8833	1224.530	73.2	
06:46:00	7.9166	1224.430	73.2	
06:48:00	7.9500	1224.340	73.2	
06:50:00	7.9833	1224.250	73.2	
06:52:00	8.0166	1224.110	73.2	
06:54:00	8.0500	1223.970	73.2	
06:56:00	8.0833	1223.830	73.3	
06:58:00	8.1166	1223.650	73.3	
07:00:00	8.1500	1223.510	73.3	
07:02:00	8.1833	1223.360	73.3	
07:04:00	8.2166	1223.220	73.3	
07:06:00	8.2500	1223.070	73.4	
07:08:00	8.2833	1222.930	73.4	
07:10:00	8.3166	1222.830	73.4	
07:12:00	8.3500	1222.730	73.4	
07:14:00	8.3833	1222.670	73.5	
07:16:00	8.4166	1222.620	73.5	
07:18:00	8.4500	1222.560	73.5	
07:20:00	8.4833	1222.460	73.5	
07:22:00	8.5166	1222.410	73.5	
07:24:00	8.5500	1222.350	73.6	
07:26:00	8.5833	1222.250	73.6	
07:28:00	8.6166	1222.250	73.6	
07:30:00	8.6500	1222.190	73.6	
07:32:00	8.6833	1222.180	73.7	
07:34:00	8.7166	1222.130	73.7	
07:36:00	8.7500	1222.070	73.7	
07:38:00	8.7833	1222.020	73.7	
07:40:00	8.8166	1221.970	73.7	
07:42:00	8.8500	1221.910	73.7	
07:44:00	8.8833	1221.860	73.8	
07:46:00	8.9166	1221.850	73.8	
07:48:00	8.9500	1221.750	73.8	
07:50:00	8.9833	1221.690	73.8	
07:52:00	9.0166	1221.640	73.9	
07:54:00	9.0500	1221.580	73.9	
07:56:00	9.0833	1221.520	73.9	

PRESSURE VS TIME

PANEX Gauge No.: 2743
Memory Recorder No.: 2743

Gauge Depth: 3000.00 ft

TIME HH:MM:SS	D TIME (min)	PRESSURE (psi)	TEMP (F)	COMMENTS
21-Jan-94		Data Print Frequency:	4	
07:58:00	9.1166	1221.510	73.9	
08:00:00	9.1500	1221.500	74.0	
08:02:00	9.1833	1221.430	74.0	
08:04:00	9.2166	1221.420	74.0	
08:06:00	9.2500	1221.360	74.1	
08:08:00	9.2833	1221.290	74.1	
08:10:00	9.3166	1221.270	74.2	
08:12:00	9.3500	1221.250	74.2	
08:14:00	9.3833	1221.190	74.2	
08:16:00	9.4166	1221.180	74.3	
08:18:00	9.4500	1221.110	74.3	
08:20:00	9.4833	1221.050	74.3	
08:22:00	9.5166	1221.040	74.4	
08:24:00	9.5500	1221.020	74.4	
08:26:00	9.5833	1220.960	74.4	
08:28:00	9.6166	1220.940	74.5	
08:30:00	9.6500	1220.930	74.5	
08:32:00	9.6833	1220.870	74.5	
08:34:00	9.7166	1220.820	74.5	
08:36:00	9.7500	1220.800	74.6	
08:38:00	9.7833	1220.750	74.6	
08:40:00	9.8166	1220.730	74.6	
08:42:00	9.8500	1220.680	74.6	
08:44:00	9.8833	1220.620	74.7	
08:46:00	9.9166	1220.610	74.7	
08:48:00	9.9500	1220.610	74.7	
08:50:00	9.9833	1220.550	74.7	
08:52:00	10.0166	1220.540	74.7	
08:54:00	10.0500	1220.490	74.7	
08:56:00	10.0833	1220.440	74.8	
08:58:00	10.1166	1220.390	74.8	
09:00:00	10.1500	1220.340	74.8	
09:02:00	10.1833	1220.290	74.8	
09:04:00	10.2166	1220.240	74.8	
09:06:00	10.2500	1220.200	74.8	
09:08:00	10.2833	1220.150	74.8	
09:12:00	10.3500	1220.050	74.8	
09:16:00	10.4166	1220.010	74.8	
09:20:00	10.4833	1219.960	74.8	
09:24:00	10.5500	1219.910	74.9	
09:28:00	10.6166	1219.860	74.9	
09:32:00	10.6833	1219.810	74.9	
09:36:00	10.7500	1219.710	74.9	
09:40:00	10.8166	1219.660	74.9	
09:44:00	10.8833	1219.560	74.9	
09:48:00	10.9500	1219.510	75.0	

PRESSURE VS TIME

PANEX Gauge No.: 2743 Gauge Depth: 3000.00 ft
Memory Recorder No.: 2743

TIME HH:MM:SS	D TIME (min)	PRESSURE (psi)	TEMP (F)	COMMENTS
21-Jan-94		Data Print Frequency: 4		
09:52:00	11.0166	1219.450	75.0	
09:56:00	11.0833	1219.390	75.0	
10:00:00	11.1500	1219.330	75.0	
10:04:00	11.2166	1219.270	75.1	
10:08:00	11.2833	1219.210	75.1	
10:12:00	11.3500	1219.150	75.1	
10:16:00	11.4166	1219.080	75.2	
10:20:00	11.4833	1218.980	75.2	
10:24:00	11.5500	1218.910	75.3	
10:28:00	11.6166	1218.850	75.3	
10:32:00	11.6833	1218.780	75.3	
10:36:00	11.7500	1218.670	75.4	
10:40:00	11.8166	1218.610	75.4	
10:44:00	11.8833	1218.510	75.5	
10:48:00	11.9500	1218.440	75.5	
10:52:00	12.0166	1218.380	75.5	
10:56:00	12.0833	1218.330	75.5	
11:00:00	12.1500	1218.270	75.6	
11:04:00	12.2166	1218.220	75.6	
11:08:00	12.2833	1218.170	75.6	
11:12:00	12.3500	1218.120	75.6	
11:16:00	12.4166	1218.110	75.6	
11:20:00	12.4833	1218.060	75.6	
11:24:00	12.5500	1217.970	75.7	
11:28:00	12.6166	1217.920	75.7	
11:32:00	12.6833	1217.820	75.7	
11:36:00	12.7500	1217.730	75.7	
11:40:00	12.8166	1217.630	75.7	
11:44:00	12.8833	1217.540	75.7	
11:48:00	12.9500	1217.440	75.7	
11:52:00	13.0166	1217.390	75.8	
11:56:00	13.0833	1217.330	75.8	
12:00:00	13.1500	1217.230	75.8	
12:04:00	13.2166	1217.180	75.8	
12:08:00	13.2833	1217.080	75.9	
12:12:00	13.3500	1217.020	75.9	
12:16:00	13.4166	1216.920	75.9	
12:20:00	13.4833	1216.820	75.9	
12:24:00	13.5500	1216.730	75.9	
12:28:00	13.6166	1216.630	76.0	
12:32:00	13.6833	1216.530	76.0	
12:36:00	13.7500	1216.480	76.0	
12:40:00	13.8166	1216.380	76.0	
12:44:00	13.8833	1216.330	76.0	
12:48:00	13.9500	1216.230	76.1	
12:52:00	14.0166	1216.130	76.1	

PRESSURE VS TIME

PANEX Gauge No.: 2743
Memory Recorder No.: 2743

Gauge Depth: 3000.00 ft

TIME HH:MM:SS	D TIME (min)	PRESSURE (psi)	TEMP (F)	COMMENTS
21-Jan-94		Data Print Frequency:	4	
12:56:00	14.0833	1216.080	76.1	
13:00:00	14.1500	1215.980	76.1	
13:04:00	14.2166	1215.930	76.1	
13:08:00	14.2833	1215.880	76.1	
13:12:00	14.3500	1215.780	76.1	
13:16:00	14.4166	1215.690	76.2	
13:20:00	14.4833	1215.640	76.2	
13:24:00	14.5500	1215.540	76.2	
13:28:00	14.6166	1215.490	76.2	
13:32:00	14.6833	1215.440	76.2	
13:36:00	14.7500	1215.340	76.2	
13:40:00	14.8166	1215.290	76.3	
13:44:00	14.8833	1215.240	76.3	
13:48:00	14.9500	1215.140	76.3	
13:52:00	15.0166	1215.090	76.3	
13:56:00	15.0833	1215.030	76.3	
14:00:00	15.1500	1214.970	76.4	
14:04:00	15.2166	1214.880	76.4	
14:08:00	15.2833	1214.820	76.4	
14:12:00	15.3500	1214.760	76.4	
14:16:00	15.4166	1214.710	76.5	
14:20:00	15.4833	1214.600	76.5	
14:24:00	15.5500	1214.540	76.5	
14:28:00	15.6166	1214.490	76.5	
14:32:00	15.6833	1214.380	76.6	
14:36:00	15.7500	1214.330	76.6	
14:40:00	15.8166	1214.270	76.6	
14:44:00	15.8833	1214.160	76.7	
14:48:00	15.9500	1214.110	76.7	
14:52:00	16.0166	1214.050	76.7	
14:56:00	16.0833	1214.040	76.7	
15:00:00	16.1500	1214.020	76.8	
15:04:00	16.2166	1213.970	76.8	
15:08:00	16.2833	1213.910	76.8	
15:12:00	16.3500	1213.850	76.8	
15:16:00	16.4166	1213.800	76.9	
15:20:00	16.4833	1213.740	76.9	
15:24:00	16.5500	1213.690	76.9	
15:28:00	16.6166	1213.640	76.9	
15:32:00	16.6833	1213.580	77.0	
15:36:00	16.7500	1213.520	77.0	
15:40:00	16.8166	1213.470	77.0	
15:44:00	16.8833	1213.420	77.0	
15:48:00	16.9500	1213.410	77.0	
15:52:00	17.0166	1213.360	77.0	
15:56:00	17.0833	1213.300	77.1	

PRESSURE VS TIME

PANEX Gauge No.: 2743 Gauge Depth: 3000.00 ft
Memory Recorder No.: 2743

TIME HH:MM:SS	D TIME (min)	PRESSURE (psi)	TEMP (F)	COMMENTS
21-Jan-94		Data Print Frequency: 4		
16:00:00	17.1500	1213.210	77.1	
16:04:00	17.2166	1213.160	77.1	
16:08:00	17.2833	1213.100	77.1	
16:12:00	17.3500	1213.060	77.1	
16:16:00	17.4166	1213.000	77.1	
16:20:00	17.4833	1212.910	77.1	
16:24:00	17.5500	1212.860	77.2	
16:28:00	17.6166	1212.810	77.2	
16:32:00	17.6833	1212.760	77.2	
16:36:00	17.7500	1212.710	77.2	
16:40:00	17.8166	1212.660	77.2	
16:44:00	17.8833	1212.610	77.2	
16:48:00	17.9500	1212.560	77.2	
16:52:00	18.0166	1212.520	77.2	
16:56:00	18.0833	1212.470	77.2	
17:00:00	18.1500	1212.420	77.2	
17:04:00	18.2166	1212.380	77.2	
17:08:00	18.2833	1212.330	77.2	
17:12:00	18.3500	1212.280	77.3	
17:16:00	18.4166	1212.230	77.3	
17:20:00	18.4833	1212.190	77.3	
17:24:00	18.5500	1212.140	77.3	
17:28:00	18.6166	1212.090	77.3	
17:32:00	18.6833	1212.010	77.3	
17:36:00	18.7500	1211.960	77.3	
17:40:00	18.8166	1211.910	77.3	
17:44:00	18.8833	1211.860	77.3	
17:48:00	18.9500	1211.810	77.3	
17:52:00	19.0166	1211.730	77.3	
17:56:00	19.0833	1211.680	77.3	
18:00:00	19.1500	1211.580	77.3	
18:04:00	19.2166	1211.500	77.3	
18:08:00	19.2833	1211.450	77.3	
18:12:00	19.3500	1211.400	77.3	
18:16:00	19.4166	1211.350	77.4	
18:20:00	19.4833	1211.300	77.4	
18:24:00	19.5500	1211.250	77.4	
18:28:00	19.6166	1211.200	77.4	
18:32:00	19.6833	1211.150	77.4	
18:36:00	19.7500	1211.150	77.4	
18:40:00	19.8166	1211.140	77.4	
18:44:00	19.8833	1211.090	77.4	
18:48:00	19.9500	1211.040	77.4	
18:52:00	20.0166	1210.990	77.4	
18:56:00	20.0833	1210.940	77.5	
19:00:00	20.1500	1210.850	77.5	

PRESSURE VS TIME

PANEX Gauge No.: 2743 Gauge Depth: 3000.00 ft
Memory Recorder No.: 2743

TIME HH:MM:SS	D TIME (min)	PRESSURE (psi)	TEMP (F)	COMMENTS
21-Jan-94		Data Print Frequency: 4		
19:04:00	20.2166	1210.800	77.5	
19:08:00	20.2833	1210.750	77.5	
19:12:00	20.3500	1210.700	77.5	
19:16:00	20.4166	1210.650	77.5	
19:20:00	20.4833	1210.590	77.5	
19:24:00	20.5500	1210.550	77.6	
19:28:00	20.6166	1210.500	77.6	
19:32:00	20.6833	1210.400	77.6	
19:36:00	20.7500	1210.350	77.6	
19:40:00	20.8166	1210.300	77.6	
19:44:00	20.8833	1210.250	77.6	
19:48:00	20.9500	1210.190	77.6	
19:52:00	21.0166	1210.100	77.6	
19:56:00	21.0833	1210.050	77.7	
20:00:00	21.1500	1209.960	77.7	
20:04:00	21.2166	1209.910	77.7	
20:08:00	21.2833	1209.860	77.7	
20:12:00	21.3500	1209.810	77.7	
20:16:00	21.4166	1209.720	77.7	
20:20:00	21.4833	1209.710	77.7	
20:24:00	21.5500	1209.660	77.7	
20:28:00	21.6166	1209.610	77.8	
20:32:00	21.6833	1209.560	77.8	
20:36:00	21.7500	1209.470	77.8	
20:40:00	21.8166	1209.420	77.8	
20:44:00	21.8833	1209.320	77.8	
20:48:00	21.9500	1209.280	77.8	
20:52:00	22.0166	1209.230	77.8	
20:56:00	22.0833	1209.180	77.8	
21:00:00	22.1500	1209.170	77.8	
21:04:00	22.2166	1209.130	77.8	
21:08:00	22.2833	1209.120	77.8	
21:12:00	22.3500	1209.080	77.8	
21:16:00	22.4166	1209.030	77.9	
21:20:00	22.4833	1208.980	77.9	
21:24:00	22.5500	1208.970	77.9	
21:28:00	22.6166	1208.920	77.9	
21:32:00	22.6833	1208.920	77.9	
21:36:00	22.7500	1208.880	77.9	
21:40:00	22.8166	1208.830	77.9	
21:44:00	22.8833	1208.780	77.9	
21:48:00	22.9500	1208.690	77.9	
21:52:00	23.0166	1208.600	77.9	
21:56:00	23.0833	1208.460	77.9	
22:00:00	23.1500	1208.320	77.9	
22:04:00	23.2166	1208.190	77.9	

PRESSURE VS TIME

PANEX Gauge No.: 2743 Gauge Depth: 3000.00 ft
Memory Recorder No.: 2743

TIME HH:MM:SS	D TIME (min)	PRESSURE (psi)	TEMP (F)	COMMENTS
21-Jan-94		Data Print Frequency:	4	
22:08:00	23.2833	1208.100	78.0	
22:12:00	23.3500	1207.960	78.0	
22:16:00	23.4166	1207.870	78.0	
22:20:00	23.4833	1207.820	78.0	
22:24:00	23.5500	1207.730	78.0	
22:28:00	23.6166	1207.680	78.0	
22:32:00	23.6833	1207.640	78.0	
22:36:00	23.7500	1207.590	78.0	
22:40:00	23.8166	1207.550	78.0	
22:44:00	23.8833	1207.550	78.0	
22:48:00	23.9500	1207.500	78.0	
22:52:00	24.0166	1207.450	78.0	
22:56:00	24.0833	1207.400	78.0	
23:00:00	24.1500	1207.400	78.0	
23:04:00	24.2166	1207.400	78.0	
23:08:00	24.2833	1207.350	78.0	
23:12:00	24.3500	1207.310	78.0	
23:16:00	24.4166	1207.260	78.0	
23:20:00	24.4833	1207.210	78.0	
23:24:00	24.5500	1207.170	78.0	
23:28:00	24.6166	1207.130	78.0	
23:32:00	24.6833	1207.080	78.1	
23:36:00	24.7500	1206.990	78.1	
23:40:00	24.8166	1206.940	78.1	
23:44:00	24.8833	1206.900	78.1	
23:48:00	24.9500	1206.850	78.1	
23:52:00	25.0166	1206.760	78.1	
23:56:00	25.0833	1206.760	78.1	
22-Jan-94				
00:00:00	25.1500	1206.720	78.1	
00:04:00	25.2166	1206.680	78.1	
00:08:00	25.2833	1206.580	78.1	
00:12:00	25.3500	1206.540	78.1	
00:16:00	25.4166	1206.490	78.1	
00:20:00	25.4833	1206.450	78.1	
00:24:00	25.5500	1206.410	78.1	
00:28:00	25.6166	1206.360	78.1	
00:32:00	25.6833	1206.320	78.1	
00:36:00	25.7500	1206.270	78.1	
00:40:00	25.8166	1206.220	78.1	
00:44:00	25.8833	1206.180	78.1	
00:48:00	25.9500	1206.140	78.1	
00:52:00	26.0166	1206.140	78.1	
00:56:00	26.0833	1206.090	78.1	
01:00:00	26.1500	1206.050	78.1	
01:04:00	26.2166	1206.000	78.1	

PRESSURE VS TIME

PANEX Gauge No.: 2743 Gauge Depth: 3000.00 ft
Memory Recorder No.: 2743

TIME HH:MM:SS	D TIME (min)	PRESSURE (psi)	TEMP (F)	COMMENTS
22-Jan-94		Data Print Frequency:	4	
01:08:00	26.2833	1205.960	78.1	
01:12:00	26.3500	1205.910	78.1	
01:16:00	26.4166	1205.870	78.1	
01:20:00	26.4833	1205.820	78.1	
01:24:00	26.5500	1205.780	78.1	
01:28:00	26.6166	1205.780	78.1	
01:32:00	26.6833	1205.740	78.1	
01:36:00	26.7500	1205.730	78.1	
01:40:00	26.8166	1205.690	78.1	
01:44:00	26.8833	1205.640	78.1	
01:48:00	26.9500	1205.640	78.1	
01:52:00	27.0166	1205.640	78.1	
01:56:00	27.0833	1205.600	78.1	
02:00:00	27.1500	1205.550	78.1	
02:04:00	27.2166	1205.550	78.1	
02:08:00	27.2833	1205.510	78.1	
02:12:00	27.3500	1205.510	78.1	
02:16:00	27.4166	1205.510	78.1	
02:20:00	27.4833	1205.460	78.1	
02:24:00	27.5500	1205.460	78.1	
02:28:00	27.6166	1205.410	78.1	
02:32:00	27.6833	1205.370	78.1	
02:36:00	27.7500	1205.370	78.1	
02:40:00	27.8166	1205.320	78.1	
02:44:00	27.8833	1205.280	78.1	
02:48:00	27.9500	1205.230	78.1	
02:52:00	28.0166	1205.230	78.1	
02:56:00	28.0833	1205.230	78.1	
03:00:00	28.1500	1205.180	78.1	
03:04:00	28.2166	1205.140	78.1	
03:08:00	28.2833	1205.090	78.1	
03:12:00	28.3500	1205.090	78.2	
03:16:00	28.4166	1205.090	78.2	
03:20:00	28.4833	1205.050	78.2	
03:24:00	28.5500	1205.040	78.2	
03:28:00	28.6166	1205.040	78.2	
03:32:00	28.6833	1205.000	78.2	
03:36:00	28.7500	1204.990	78.2	
03:40:00	28.8166	1204.950	78.2	
03:44:00	28.8833	1204.940	78.2	
03:48:00	28.9500	1204.940	78.2	
03:52:00	29.0166	1204.900	78.2	
03:56:00	29.0833	1204.890	78.2	
04:00:00	29.1500	1204.850	78.2	
04:04:00	29.2166	1204.810	78.2	
04:08:00	29.2833	1204.800	78.2	

PRESSURE VS TIME

PANEX Gauge No.: 2743 Gauge Depth: 3000.00 ft
Memory Recorder No.: 2743

TIME HH:MM:SS	D TIME (min)	PRESSURE (psi)	TEMP (F)	COMMENTS
22-Jan-94		Data Print Frequency: 4		
04:12:00	29.3500	1204.800	78.2	
04:16:00	29.4166	1204.750	78.2	
04:20:00	29.4833	1204.750	78.2	
04:24:00	29.5500	1204.750	78.2	
04:28:00	29.6166	1204.750	78.2	
04:32:00	29.6833	1204.750	78.2	
04:36:00	29.7500	1204.740	78.2	
04:40:00	29.8166	1204.740	78.2	
04:44:00	29.8833	1204.740	78.2	
04:48:00	29.9500	1204.740	78.2	
04:52:00	30.0166	1204.730	78.2	
04:56:00	30.0833	1204.690	78.2	
05:00:00	30.1500	1204.650	78.2	
05:04:00	30.2166	1204.600	78.3	
05:08:00	30.2833	1204.550	78.3	
05:12:00	30.3500	1204.550	78.3	
05:16:00	30.4166	1204.500	78.3	
05:20:00	30.4833	1204.460	78.3	
05:24:00	30.5500	1204.450	78.3	
05:28:00	30.6166	1204.410	78.3	
05:32:00	30.6833	1204.360	78.3	
05:36:00	30.7500	1204.360	78.3	
05:40:00	30.8166	1204.350	78.3	
05:44:00	30.8833	1204.310	78.3	
05:48:00	30.9500	1204.260	78.3	
05:52:00	31.0166	1204.260	78.3	
05:56:00	31.0833	1204.210	78.3	
06:00:00	31.1500	1204.210	78.3	
06:04:00	31.2166	1204.210	78.3	
06:08:00	31.2833	1204.160	78.3	
06:12:00	31.3500	1204.160	78.3	
06:16:00	31.4166	1204.110	78.3	
06:20:00	31.4833	1204.110	78.4	
06:24:00	31.5500	1204.060	78.4	
06:28:00	31.6166	1204.060	78.4	
06:32:00	31.6833	1204.060	78.4	
06:36:00	31.7500	1204.010	78.4	
06:40:00	31.8166	1204.010	78.4	
06:44:00	31.8833	1204.010	78.4	
06:48:00	31.9500	1204.010	78.4	
06:52:00	32.0166	1203.960	78.4	
06:56:00	32.0833	1203.910	78.4	
07:00:00	32.1500	1203.910	78.4	
07:04:00	32.2166	1203.910	78.4	
07:08:00	32.2833	1203.860	78.4	
07:12:00	32.3500	1203.860	78.4	

PRESSURE VS TIME

PANEX Gauge No.: 2743 Gauge Depth: 3000.00 ft
Memory Recorder No.: 2743

TIME HH:MM:SS	D TIME (min)	PRESSURE (psi)	TEMP (F)	COMMENTS
22-Jan-94		Data Print Frequency:	4	
07:16:00	32.4166	1203.860	78.4	
07:20:00	32.4833	1203.860	78.4	
07:24:00	32.5500	1203.860	78.4	
07:28:00	32.6166	1203.850	78.4	
07:32:00	32.6833	1203.850	78.4	
07:36:00	32.7500	1203.850	78.4	
07:40:00	32.8166	1203.800	78.4	
07:44:00	32.8833	1203.800	78.5	
07:48:00	32.9500	1203.750	78.5	
07:52:00	33.0166	1203.710	78.5	
07:56:00	33.0833	1203.660	78.5	
08:00:00	33.1500	1203.620	78.5	
08:04:00	33.2166	1203.610	78.5	
08:08:00	33.2833	1203.610	78.5	
08:12:00	33.3500	1203.560	78.5	
08:16:00	33.4166	1203.520	78.5	
08:20:00	33.4833	1203.510	78.5	
08:24:00	33.5500	1203.470	78.5	
08:28:00	33.6166	1203.420	78.5	
08:32:00	33.6833	1203.380	78.5	
08:36:00	33.7500	1203.330	78.5	
08:40:00	33.8166	1203.330	78.5	
08:44:00	33.8833	1203.330	78.5	
08:48:00	33.9500	1203.280	78.5	
08:52:00	34.0166	1203.240	78.5	
08:56:00	34.0833	1203.190	78.5	
09:00:00	34.1500	1203.190	78.5	
09:04:00	34.2166	1203.190	78.5	
09:08:00	34.2833	1203.140	78.5	
09:12:00	34.3500	1203.100	78.5	
09:16:00	34.4166	1203.050	78.5	
09:20:00	34.4833	1203.050	78.5	
09:24:00	34.5500	1203.040	78.5	
09:28:00	34.6166	1203.000	78.5	
09:32:00	34.6833	1203.000	78.5	
09:36:00	34.7500	1203.000	78.6	
09:40:00	34.8166	1203.000	78.6	
09:44:00	34.8833	1202.950	78.6	
09:48:00	34.9500	1202.940	78.6	
09:52:00	35.0166	1202.900	78.6	
09:56:00	35.0833	1202.890	78.6	
10:00:00	35.1500	1202.850	78.6	
10:04:00	35.2166	1202.810	78.6	
10:08:00	35.2833	1202.800	78.6	
10:12:00	35.3500	1202.760	78.6	
10:16:00	35.4166	1202.750	78.6	

Date: 20-JAN-94 Ticket No: [illegible] Page No: [illegible]

PRESSURE VS TIME

PANEX Gauge No.: 2743
Memory Recorder No.: 2743

Gauge Depth: 3000.00 ft

TIME HH:MM:SS	D TIME (min)	PRESSURE (psi)	TEMP (F)	COMMENTS
22-Jan-94		Data Print Frequency:	4	
10:20:00	35.4833	1202.750	78.6	
10:24:00	35.5500	1202.700	78.6	
10:28:00	35.6166	1202.660	78.6	
10:32:00	35.6833	1202.650	78.6	
10:36:00	35.7500	1202.610	78.6	
10:40:00	35.8166	1202.610	78.6	
10:44:00	35.8833	1202.600	78.6	
10:48:00	35.9500	1202.560	78.6	
10:52:00	36.0166	1202.510	78.7	
10:56:00	36.0833	1202.510	78.7	
11:00:00	36.1500	1202.460	78.7	
11:04:00	36.2166	1202.460	78.7	
11:08:00	36.2833	1202.410	78.7	
11:12:00	36.3500	1202.410	78.7	
11:16:00	36.4166	1202.370	78.7	
11:20:00	36.4833	1202.320	78.7	
11:24:00	36.5500	1202.320	78.7	
11:28:00	36.6166	1202.310	78.7	
11:32:00	36.6833	1202.270	78.7	
11:36:00	36.7500	1202.270	78.7	
11:40:00	36.8166	1202.260	78.7	
11:44:00	36.8833	1202.220	78.7	
11:48:00	36.9500	1202.170	78.7	
11:52:00	37.0166	1202.170	78.7	
11:56:00	37.0833	1202.170	78.7	
12:00:00	37.1500	1202.120	78.7	
12:04:00	37.2166	1202.120	78.7	
12:08:00	37.2833	1202.120	78.7	
12:12:00	37.3500	1202.110	78.7	
12:16:00	37.4166	1202.110	78.7	
12:20:00	37.4833	1202.110	78.7	
12:24:00	37.5500	1202.110	78.7	
12:28:00	37.6166	1202.100	78.8	
12:32:00	37.6833	1202.060	78.8	
12:36:00	37.7500	1202.010	78.8	
12:40:00	37.8166	1202.010	78.8	
12:44:00	37.8833	1202.010	78.8	
12:48:00	37.9500	1201.960	78.8	
12:52:00	38.0166	1201.960	78.8	
12:56:00	38.0833	1201.960	78.8	
13:00:00	38.1500	1201.950	78.8	
13:04:00	38.2166	1201.910	78.8	
13:08:00	38.2833	1201.860	78.8	
13:12:00	38.3500	1201.860	78.8	
13:16:00	38.4166	1201.860	78.8	
13:20:00	38.4833	1201.810	78.8	

PRESSURE VS TIME

PANEX Gauge No.: 2743 Gauge Depth: 3000.00 ft
Memory Recorder No.: 2743

TIME HH:MM:SS	D TIME (min)	PRESSURE (psi)	TEMP (F)	COMMENTS
22-Jan-94		Data Print Frequency: 4		
13:24:00	38.5500	1201.810	78.8	
13:28:00	38.6166	1201.810	78.8	
13:32:00	38.6833	1201.810	78.8	
13:36:00	38.7500	1201.800	78.8	
13:40:00	38.8166	1201.800	78.8	
13:44:00	38.8833	1201.800	78.8	
13:48:00	38.9500	1201.800	78.8	
13:52:00	39.0166	1201.790	78.9	
13:56:00	39.0833	1201.750	78.9	
14:00:00	39.1500	1201.740	78.9	
14:04:00	39.2166	1201.700	78.9	
14:08:00	39.2833	1201.700	78.9	
14:12:00	39.3500	1201.650	78.9	
14:16:00	39.4166	1201.610	78.9	
14:20:00	39.4833	1201.560	78.9	
14:24:00	39.5500	1201.560	78.9	
14:28:00	39.6166	1201.550	78.9	
14:32:00	39.6833	1201.510	78.9	
14:36:00	39.7500	1201.500	78.9	
14:40:00	39.8166	1201.460	78.9	
14:44:00	39.8833	1201.420	78.9	
14:48:00	39.9500	1201.410	78.9	
14:52:00	40.0166	1201.410	78.9	
14:56:00	40.0833	1201.360	78.9	
15:00:00	40.1500	1201.360	78.9	
15:04:00	40.2166	1201.360	78.9	
15:08:00	40.2833	1201.360	78.9	
15:12:00	40.3500	1201.360	78.9	
15:16:00	40.4166	1201.350	78.9	
15:20:00	40.4833	1201.350	78.9	
15:24:00	40.5500	1201.350	78.9	
15:28:00	40.6166	1201.350	78.9	
15:32:00	40.6833	1201.350	78.9	
15:36:00	40.7500	1201.340	79.0	
15:40:00	40.8166	1201.340	79.0	
15:44:00	40.8833	1201.340	79.0	
15:48:00	40.9500	1201.340	79.0	
15:52:00	41.0166	1201.340	79.0	
15:56:00	41.0833	1201.330	79.0	
16:00:00	41.1500	1201.330	79.0	
16:04:00	41.2166	1201.330	79.0	
16:08:00	41.2833	1201.330	79.0	
16:12:00	41.3500	1201.330	79.0	
16:16:00	41.4166	1201.280	79.0	
16:20:00	41.4833	1201.280	79.0	
16:24:00	41.5500	1201.240	79.0	

PRESSURE VS TIME

PANEX Gauge No.: 2743 Gauge Depth: 3000.00 ft
Memory Recorder No.: 2743

TIME HH:MM:SS	D TIME (min)	PRESSURE (psi)	TEMP (F)	COMMENTS
22-Jan-94		Data Print Frequency:	4	
16:28:00	41.6166	1201.190	79.0	
16:32:00	41.6833	1201.190	79.0	
16:36:00	41.7500	1201.140	79.0	
16:40:00	41.8166	1201.100	79.0	
16:44:00	41.8833	1201.090	79.0	
16:48:00	41.9500	1201.050	79.0	
16:52:00	42.0166	1201.010	79.0	
16:56:00	42.0833	1200.960	79.0	
17:00:00	42.1500	1200.960	79.0	
17:04:00	42.2166	1200.960	79.0	
17:08:00	42.2833	1200.910	79.0	
17:12:00	42.3500	1200.910	79.0	
17:16:00	42.4166	1200.910	79.0	
17:20:00	42.4833	1200.860	79.0	
17:24:00	42.5500	1200.860	79.0	
17:28:00	42.6166	1200.820	79.0	
17:32:00	42.6833	1200.770	79.0	
17:36:00	42.7500	1200.770	79.1	
17:40:00	42.8166	1200.720	79.1	
17:44:00	42.8833	1200.680	79.1	
17:48:00	42.9500	1200.670	79.1	
17:52:00	43.0166	1200.670	79.1	
17:56:00	43.0833	1200.630	79.1	
18:00:00	43.1500	1200.630	79.1	
18:04:00	43.2166	1200.590	79.1	
18:08:00	43.2833	1200.540	79.1	
18:12:00	43.3500	1200.540	79.1	
18:16:00	43.4166	1200.540	79.1	
18:20:00	43.4833	1200.490	79.1	
18:24:00	43.5500	1200.490	79.1	
18:28:00	43.6166	1200.490	79.1	
18:32:00	43.6833	1200.490	79.1	
18:36:00	43.7500	1200.480	79.1	
18:40:00	43.8166	1200.480	79.1	
18:44:00	43.8833	1200.440	79.1	
18:48:00	43.9500	1200.430	79.1	
18:52:00	44.0166	1200.390	79.1	
18:56:00	44.0833	1200.390	79.1	
19:00:00	44.1500	1200.390	79.1	
19:04:00	44.2166	1200.350	79.1	
19:08:00	44.2833	1200.350	79.1	
19:12:00	44.3500	1200.340	79.1	
19:16:00	44.4166	1200.340	79.1	
19:20:00	44.4833	1200.340	79.1	
19:24:00	44.5500	1200.340	79.1	
19:28:00	44.6166	1200.340	79.1	

PRESSURE VS TIME

PANEX Gauge No.: 2743 Gauge Depth: 3000.00 ft
Memory Recorder No.: 2743

TIME HH:MM:SS	D TIME (min)	PRESSURE (psi)	TEMP (F)	COMMENTS
22-Jan-94		Data Print Frequency:	4	
19:32:00	44.6833	1200.340	79.1	
19:36:00	44.7500	1200.340	79.1	
19:40:00	44.8166	1200.340	79.1	
19:44:00	44.8833	1200.340	79.1	
19:48:00	44.9500	1200.330	79.1	
19:52:00	45.0166	1200.330	79.1	
19:56:00	45.0833	1200.330	79.1	
20:00:00	45.1500	1200.330	79.1	
20:04:00	45.2166	1200.330	79.1	
20:08:00	45.2833	1200.330	79.1	
20:12:00	45.3500	1200.330	79.1	
20:16:00	45.4166	1200.330	79.1	
20:20:00	45.4833	1200.330	79.1	
20:24:00	45.5500	1200.330	79.1	
20:28:00	45.6166	1200.320	79.1	
20:32:00	45.6833	1200.320	79.1	
20:36:00	45.7500	1200.320	79.1	
20:40:00	45.8166	1200.320	79.1	
20:44:00	45.8833	1200.320	79.1	
20:48:00	45.9500	1200.320	79.2	
20:52:00	46.0166	1200.320	79.2	
20:56:00	46.0833	1200.320	79.2	
21:00:00	46.1500	1200.320	79.2	
21:04:00	46.2166	1200.320	79.2	
21:08:00	46.2833	1200.310	79.2	
21:12:00	46.3500	1200.310	79.2	
21:16:00	46.4166	1200.310	79.2	
21:20:00	46.4833	1200.310	79.2	
21:24:00	46.5500	1200.310	79.2	
21:28:00	46.6166	1200.310	79.2	
21:32:00	46.6833	1200.260	79.2	
21:36:00	46.7500	1200.220	79.2	
21:40:00	46.8166	1200.220	79.2	
21:44:00	46.8833	1200.220	79.2	
21:48:00	46.9500	1200.180	79.2	
21:52:00	47.0166	1200.180	79.2	
21:56:00	47.0833	1200.130	79.2	
22:00:00	47.1500	1200.080	79.2	
22:04:00	47.2166	1200.080	79.2	
22:08:00	47.2833	1200.080	79.2	
22:12:00	47.3500	1200.030	79.2	
22:16:00	47.4166	1200.030	79.2	
22:20:00	47.4833	1200.030	79.2	
22:24:00	47.5500	1200.030	79.2	
22:28:00	47.6166	1200.030	79.2	
22:32:00	47.6833	1200.030	79.2	

PRESSURE VS TIME

PANEX Gauge No.: 2743 Gauge Depth: 3000.00 ft
Memory Recorder No.: 2743

TIME HH:MM:SS	D TIME (min)	PRESSURE (psi)	TEMP (F)	COMMENTS
22-Jan-94		Data Print Frequency: 4		
22:36:00	47.7500	1200.030	79.2	
22:40:00	47.8166	1200.030	79.2	
22:44:00	47.8833	1200.030	79.2	
22:48:00	47.9500	1200.020	79.2	
22:52:00	48.0166	1200.020	79.2	
22:56:00	48.0833	1199.980	79.2	
23:00:00	48.1500	1199.980	79.2	
23:04:00	48.2166	1199.940	79.2	
23:08:00	48.2833	1199.940	79.2	
23:12:00	48.3500	1199.930	79.2	
23:16:00	48.4166	1199.890	79.2	
23:20:00	48.4833	1199.890	79.2	
23:24:00	48.5500	1199.890	79.2	
23:28:00	48.6166	1199.890	79.2	
23:32:00	48.6833	1199.890	79.2	
23:36:00	48.7500	1199.890	79.2	
23:40:00	48.8166	1199.880	79.2	
23:44:00	48.8833	1199.840	79.2	
23:48:00	48.9500	1199.840	79.2	
23:52:00	49.0166	1199.800	79.2	
23:56:00	49.0833	1199.790	79.2	
23-Jan-94				
00:00:00	49.1500	1199.790	79.2	
00:04:00	49.2166	1199.750	79.2	
00:08:00	49.2833	1199.750	79.2	
00:12:00	49.3500	1199.750	79.2	
00:16:00	49.4166	1199.750	79.2	
00:20:00	49.4833	1199.750	79.2	
00:24:00	49.5500	1199.740	79.3	
00:28:00	49.6166	1199.740	79.3	
00:32:00	49.6833	1199.740	79.3	
00:36:00	49.7500	1199.740	79.3	
00:40:00	49.8166	1199.740	79.3	
00:44:00	49.8833	1199.740	79.3	
00:48:00	49.9500	1199.740	79.3	
00:52:00	50.0166	1199.740	79.3	
00:56:00	50.0833	1199.740	79.3	
01:00:00	50.1500	1199.740	79.3	
01:04:00	50.2166	1199.740	79.3	
01:08:00	50.2833	1199.740	79.3	
01:12:00	50.3500	1199.690	79.3	
01:16:00	50.4166	1199.690	79.3	
01:20:00	50.4833	1199.640	79.3	
01:24:00	50.5500	1199.640	79.3	
01:28:00	50.6166	1199.640	79.3	
01:32:00	50.6833	1199.600	79.3	

PRESSURE VS TIME

PANEX Gauge No.: 2743 Gauge Depth: 3000.00 ft
Memory Recorder No.: 2743

TIME HH:MM:SS	D TIME (min)	PRESSURE (psi)	TEMP (F)	COMMENTS
22-Jan-94		Data Print Frequency: 4		
22:36:00	47.7500	1200.030	79.2	
22:40:00	47.8166	1200.030	79.2	
22:44:00	47.8833	1200.030	79.2	
22:48:00	47.9500	1200.020	79.2	
22:52:00	48.0166	1200.020	79.2	
22:56:00	48.0833	1199.980	79.2	
23:00:00	48.1500	1199.980	79.2	
23:04:00	48.2166	1199.940	79.2	
23:08:00	48.2833	1199.940	79.2	
23:12:00	48.3500	1199.930	79.2	
23:16:00	48.4166	1199.890	79.2	
23:20:00	48.4833	1199.890	79.2	
23:24:00	48.5500	1199.890	79.2	
23:28:00	48.6166	1199.890	79.2	
23:32:00	48.6833	1199.890	79.2	
23:36:00	48.7500	1199.890	79.2	
23:40:00	48.8166	1199.880	79.2	
23:44:00	48.8833	1199.840	79.2	
23:48:00	48.9500	1199.840	79.2	
23:52:00	49.0166	1199.800	79.2	
23:56:00	49.0833	1199.790	79.2	
23-Jan-94				
00:00:00	49.1500	1199.790	79.2	
00:04:00	49.2166	1199.750	79.2	
00:08:00	49.2833	1199.750	79.2	
00:12:00	49.3500	1199.750	79.2	
00:16:00	49.4166	1199.750	79.2	
00:20:00	49.4833	1199.750	79.2	
00:24:00	49.5500	1199.740	79.3	
00:28:00	49.6166	1199.740	79.3	
00:32:00	49.6833	1199.740	79.3	
00:36:00	49.7500	1199.740	79.3	
00:40:00	49.8166	1199.740	79.3	
00:44:00	49.8833	1199.740	79.3	
00:48:00	49.9500	1199.740	79.3	
00:52:00	50.0166	1199.740	79.3	
00:56:00	50.0833	1199.740	79.3	
01:00:00	50.1500	1199.740	79.3	
01:04:00	50.2166	1199.740	79.3	
01:08:00	50.2833	1199.740	79.3	
01:12:00	50.3500	1199.690	79.3	
01:16:00	50.4166	1199.690	79.3	
01:20:00	50.4833	1199.640	79.3	
01:24:00	50.5500	1199.640	79.3	
01:28:00	50.6166	1199.640	79.3	
01:32:00	50.6833	1199.600	79.3	

PRESSURE VS TIME

PANEX Gauge No.: 2743
Memory Recorder No.: 2743

Gauge Depth: 3000.00 ft

TIME HH:MM:SS	D TIME (min)	PRESSURE (psi)	TEMP (F)	COMMENTS
23-Jan-94		Data Print Frequency:	4	
01:36:00	50.7500	1199.600	79.3	
01:40:00	50.8166	1199.600	79.3	
01:44:00	50.8833	1199.600	79.3	
01:48:00	50.9500	1199.600	79.3	
01:52:00	51.0166	1199.600	79.3	
01:56:00	51.0833	1199.600	79.3	
02:00:00	51.1500	1199.600	79.3	
02:04:00	51.2166	1199.600	79.3	
02:08:00	51.2833	1199.600	79.3	
02:12:00	51.3500	1199.600	79.3	
02:16:00	51.4166	1199.600	79.3	
02:20:00	51.4833	1199.590	79.3	
02:24:00	51.5500	1199.590	79.3	
02:28:00	51.6166	1199.590	79.3	
02:32:00	51.6833	1199.590	79.3	
02:36:00	51.7500	1199.590	79.3	
02:40:00	51.8166	1199.590	79.3	
02:44:00	51.8833	1199.590	79.3	
02:48:00	51.9500	1199.590	79.3	
02:52:00	52.0166	1199.590	79.3	
02:56:00	52.0833	1199.590	79.3	
03:00:00	52.1500	1199.590	79.3	
03:04:00	52.2166	1199.590	79.3	
03:08:00	52.2833	1199.590	79.3	
03:12:00	52.3500	1199.590	79.3	
03:16:00	52.4166	1199.590	79.3	
03:20:00	52.4833	1199.590	79.3	
03:24:00	52.5500	1199.580	79.3	
03:28:00	52.6166	1199.580	79.3	
03:32:00	52.6833	1199.580	79.3	
03:36:00	52.7500	1199.580	79.3	
03:40:00	52.8166	1199.580	79.3	
03:44:00	52.8833	1199.580	79.3	
03:48:00	52.9500	1199.530	79.3	
03:52:00	53.0166	1199.490	79.3	
03:56:00	53.0833	1199.490	79.3	
04:00:00	53.1500	1199.490	79.3	
04:04:00	53.2166	1199.440	79.3	
04:08:00	53.2833	1199.440	79.3	
04:12:00	53.3500	1199.440	79.3	
04:16:00	53.4166	1199.440	79.3	
04:20:00	53.4833	1199.440	79.3	
04:24:00	53.5500	1199.440	79.3	
04:28:00	53.6166	1199.440	79.3	
04:32:00	53.6833	1199.440	79.3	
04:36:00	53.7500	1199.440	79.3	

PRESSURE VS TIME

PANEX Gauge No.: 2743 Gauge Depth: 3000.00 ft
Memory Recorder No.: 2743

TIME HH:MM:SS	D TIME (min)	PRESSURE (psi)	TEMP (F)	COMMENTS
23-Jan-94		Data Print Frequency:	4	
04:40:00	53.8166	1199.440	79.3	
04:44:00	53.8833	1199.430	79.3	
04:48:00	53.9500	1199.430	79.3	
04:52:00	54.0166	1199.430	79.3	
04:56:00	54.0833	1199.430	79.3	
05:00:00	54.1500	1199.430	79.3	
05:04:00	54.2166	1199.430	79.3	
05:08:00	54.2833	1199.430	79.3	
05:12:00	54.3500	1199.430	79.3	
05:16:00	54.4166	1199.430	79.3	
05:20:00	54.4833	1199.430	79.3	
05:24:00	54.5500	1199.430	79.3	
05:28:00	54.6166	1199.430	79.3	
05:32:00	54.6833	1199.430	79.4	
05:36:00	54.7500	1199.430	79.4	
05:40:00	54.8166	1199.430	79.4	
05:44:00	54.8833	1199.430	79.4	
05:48:00	54.9500	1199.430	79.4	
05:52:00	55.0166	1199.430	79.4	
05:56:00	55.0833	1199.430	79.4	
06:00:00	55.1500	1199.420	79.4	
06:04:00	55.2166	1199.420	79.4	
06:08:00	55.2833	1199.420	79.4	
06:12:00	55.3500	1199.380	79.4	
06:16:00	55.4166	1199.330	79.4	
06:20:00	55.4833	1199.330	79.4	
06:24:00	55.5500	1199.330	79.4	
06:28:00	55.6166	1199.290	79.4	
06:32:00	55.6833	1199.290	79.4	
06:36:00	55.7500	1199.280	79.4	
06:40:00	55.8166	1199.280	79.4	
06:44:00	55.8833	1199.280	79.4	
06:48:00	55.9500	1199.280	79.4	
06:52:00	56.0166	1199.280	79.4	
06:56:00	56.0833	1199.280	79.4	
07:00:00	56.1500	1199.280	79.4	
07:04:00	56.2166	1199.280	79.4	
07:08:00	56.2833	1199.280	79.4	
07:12:00	56.3500	1199.280	79.4	
07:16:00	56.4166	1199.280	79.4	
07:20:00	56.4833	1199.270	79.4	
07:24:00	56.5500	1199.270	79.4	
07:28:00	56.6166	1199.270	79.4	
07:32:00	56.6833	1199.270	79.4	
07:36:00	56.7500	1199.270	79.4	
07:40:00	56.8166	1199.270	79.4	

PRESSURE VS TIME

PANEX Gauge No.: 2743 Gauge Depth: 3000.00 ft
Memory Recorder No.: 2743

TIME HH:MM:SS	D TIME (min)	PRESSURE (psi)	TEMP (F)	COMMENTS
23-Jan-94		Data Print Frequency: 4		
07:44:00	56.8833	1199.270	79.4	
07:48:00	56.9500	1199.270	79.4	
07:52:00	57.0166	1199.270	79.4	
07:56:00	57.0833	1199.230	79.4	
08:00:00	57.1500	1199.190	79.4	
08:04:00	57.2166	1199.190	79.4	
08:08:00	57.2833	1199.190	79.4	
08:12:00	57.3500	1199.140	79.4	
08:16:00	57.4166	1199.140	79.4	
08:20:00	57.4833	1199.140	79.4	
08:24:00	57.5500	1199.140	79.4	
08:28:00	57.6166	1199.130	79.4	
08:32:00	57.6833	1199.130	79.4	
08:36:00	57.7500	1199.130	79.4	
08:40:00	57.8166	1199.130	79.4	
08:44:00	57.8833	1199.130	79.4	
08:48:00	57.9500	1199.130	79.4	
08:52:00	58.0166	1199.090	79.4	
08:56:00	58.0833	1199.050	79.4	
09:00:00	58.1500	1199.050	79.4	
09:04:00	58.2166	1199.050	79.4	
09:08:00	58.2833	1199.010	79.4	
09:12:00	58.3500	1199.010	79.4	
09:16:00	58.4166	1199.010	79.4	
09:20:00	58.4833	1199.010	79.4	
09:24:00	58.5500	1199.020	79.4	
09:28:00	58.6166	1199.020	79.4	
09:32:00	58.6833	1199.020	79.4	
09:36:00	58.7500	1199.020	79.4	
09:40:00	58.8166	1199.020	79.4	
09:44:00	58.8833	1199.020	79.4	
09:48:00	58.9500	1199.020	79.4	
09:52:00	59.0166	1199.020	79.4	
09:56:00	59.0833	1199.020	79.4	
10:00:00	59.1500	1199.020	79.4	
10:04:00	59.2166	1199.020	79.4	
10:08:00	59.2833	1199.020	79.4	
10:12:00	59.3500	1199.010	79.4	
10:16:00	59.4166	1199.010	79.4	
10:20:00	59.4833	1199.010	79.4	
10:24:00	59.5500	1199.010	79.4	
10:28:00	59.6166	1199.010	79.4	
10:32:00	59.6833	1199.010	79.4	
10:36:00	59.7500	1199.010	79.4	
10:40:00	59.8166	1199.010	79.4	
10:44:00	59.8833	1199.010	79.4	

FORM 8

STATE OF UTAH

DIVISION OF OIL, GAS AND MINING

WELL COMPLETION OR RECOMPLETION REPORT AND LOG

RECEIVED
FEB 14 1994
DIVISION OF OIL GAS & MINING

5. LEASE DESIGNATION AND SERIAL NO.: Fee

6. IF INDIAN, ALLOTTEE OR TRIBE NAME: NA

7. UNIT AGREEMENT NAME: NA

8. FARM OR LEASE NAME: Shimmin Trust

9. WELL NO.: 10-11

10. FIELD AND POOL, OR WILDCAT: Wildcat

11. SEC., T., R., M., OR BLOCK AND SURVEY OR AREA: Sec. 11, T12S-R10E

1a. TYPE OF WELL: OIL WELL ☐ GAS WELL ☐ DRY ☐ Other SWD

b. TYPE OF COMPLETION: NEW WELL ☐ WORK OVER ☐ DEEP-EN ☐ PLUG BACK ☒ DIFF. RESVR ☐ Other

2. NAME OF OPERATOR: PG&E Resources Company

3. ADDRESS OF OPERATOR: 6688 N. Central Expwy., Suite 1000, Dallas, TX 75206

4. LOCATION OF (Report location clearly and in accordance with any State requirements)*
At surface: 1999' FSL & 2006' FEL NW/4 SE/4 Sec. 11
At top prod. interval reported below: Same
At total depth: Same

14. API NO.	DATE ISSUED	12. COUNTY	13. STATE
43-007-30167	09/09/92	Carbon	Utah

15. DATE SPUDDED	16. DATE T.D. REACHED	17. DATE COMPL. (Ready to prod.) or (Plug & Abd.)	18. ELEVATIONS (DF, RKB, RT, GR, ETC.)	19. ELEV. CASINGHEAD
09/24/92	10/09/92	01/28/94	7271' RKB	

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
4990'	4116'		→	X	

24. PRODUCING INTERVAL(S), OF THIS COMPLETION--TOP, BOTTOM, NAME (MD AND TVD): Price River 2945' - 3122'

25. WAS DIRECTIONAL SURVEY MADE: No

26. TYPE ELECTRIC AND OTHER LOGS RUN: Dual Ind Guard/Spectral Density Dual Spaced Neutron/GR/CBL

27. WAS WELL CORED YES ☐ NO ☒ (Submit analysis)
DRILL STEM TEST YES ☐ NO ☒ (See reverse side)

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

CASING SIZE	WEIGHT, LB./FT.	DEPTH SET (MD)	HOLE SIZE	CEMENTING RECORD	AMOUNT PULLED
9-5/8"	36#	515'	12-1/4"	275sx Class "G"	0
7"	26# & 29#	4990'	8-3/4"	380sx 50/50 Poz	0
		DV Tool 3290'		385sx Class "G" + 50sx Class "G"	

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"	2912'	2912'

31. PERFORATION RECORD (Interval, size and number)

2945' - 2968'	0.45"	46 Holes
2995' - 3122'	0.45"	127 Holes

32. ACID, SHOT, FRACTURE, CEMENT

DEPTH INTERVAL (MD)	AMOUNT AND KIND OF MATERIAL USED
4730-86'	CIBP @4127' w/2sx cmt on top.
4147' - 4571'	CIBP @4710' w/2sx cmt on top

33. PRODUCTION

DATE FIRST PRODUCTION	PRODUCTION METHOD (Flowing, gas lift, pumping--size and type of pump)	WELL STATUS (Producing or shut-in)
01/28/94		Producing

DATE OF TEST	HOURS TESTED	CHOKE SIZE	PROD'N. FOR TEST PERIOD →	OIL--BBL.	GAS--MCF.	WATER--BBL.	GAS-OIL RATIO

FLOW. TUBING PRESS.	CASING PRESSURE	CALCULATED 24-HOUR RATE →	OIL--BBL.	GAS--MCF.	WATER--BBL.	OIL GRAVITY-API (CORR.)

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

TEST WITNESSED BY:

35. LIST OF ATTACHMENTS:

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

SIGNED Cindy B. Keister TITLE Sr. Regulatory Analyst DATE 02/08/1994

See Spaces for Additional Data on Reverse Side

INSTRUCTIONS

This form should be completed in compliance with the Utah Oil and Gas Conservation General Rules If not filed prior to this time, all logs, tests, and directional surveys as required by Utah Rules should be attached and submitted with this report.
ITEM 18: Indicate which elevation is used as reference for depth measurements given in other spaces on this form and on 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) 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.
Black Hawk	3680'	4399'	Natural gas

38. GEOLOGIC MARKERS

Name	Top	
	Meas. Depth	True Vert. Depth
Price River ss		2914'
Castlegate ss		3378'
Black Hawk		3680'
Kenilworth ss		4400'
Aberdeen ss		4597'
Spring Canyon		4728'

Michael O. Leavitt
Governor
Ted Stewart
Executive Director
James W. Carter
Division Director

State of Utah

DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

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)

March 2, 1994

PG &E Resources Company
6688 N. Central Expressway, Suite 1000
Dallas, Texas 75206-3922

Re: Shimmin Trust 10-11 Well, Section 11, Township 12 South, Range 10 East, Carbon County, Utah

Gentlemen:

Pursuant to Utah Admin. Code R649-5-3-3, the Division of Oil, Gas and Mining (the "Division") issues its administrative approval for conversion of the referenced well to a Class II injection well. Accordingly, the following stipulations shall apply for full compliance with this approval:

1. Compliance with all applicable requirements for the operation, maintenance and reporting for Underground Injection Control ("UIC") Class II injection wells pursuant to Utah Admin. Code R649-1 et seq.

2. Conformance with all conditions and requirements of the complete application submitted by PG & E Resources Company.

3. Submittal of water quality data representative of the overlying formations.

4. Conduct additional step-rate testing to determine fracture gradient information.

Following completion of the well conversion work, pressure testing and other operations and submittal of the required documents to the Division, a final UIC permit will be issued. If you have any questions regarding this approval or the necessary requirements, please contact Dan Jarvis at this office.

Sincerely,

R.J. Firth
Associate Director

ldc
cc: Dan Jackson, Environmental Protection Agency
Bureau of Land Management, Price Office
Bureau of Land Management, Moab Office
W602

PG&E Resources Company

[redacted] N. Central Expressway, Suite 1000
Dallas, Texas 75206-3922
Telephone 214/750-3800
FAX 214/750-3883

February 25, 1994

State of Utah
Department of Natural Resources
Division of Oil, Gas and Mining
Underground Injection Control Section
355 West North Temple
3 Triad Center, Suite 350
Salt Lake City, Utah 84180-1203

Attention: Mr. Dan Jarvis

RE: Application for Water Disposal Well
Shimmin Trust 10-11
Castlegate CBM Project
Carbon County, Utah

Dear Mr. Jarvis:

Per your request, the following information is supplied for the referenced water disposal application.

Springs in the project area were identified by Waddell et al (1981). The springs are located in the NENE Section 20, T12S, R11E and the NENW and SWNE of Section 21, T12S, R11E, Carbon County, Utah. The total dissolved solids were 420 and 386 respectively. Attached is a water analysis for a spring recently located in the SWNE of Section 11, T12S, R11E, Carbon County, Utah.

There were two (2) water wells identified in the project area. PG&E drilled a water well in the NESW of Section 11, T12S, R11E , Carbon County, Utah. The well was drilled to a total depth of 365'. The second water well in the area is located in the SESW Section 12, T12S, R11E, Carbon County, Utah. This well was drilled to approximately 80'. Also attached are water analysis for the water wells.

Other springs and water wells that exist in Carbon and Emma Counties were researched by Mark Page with Utah Water Rights Division but no other sources of ground water were found in the immediate project area.

Very Truly yours,

Cindy R. Keister

Cindy R. Keister
Sr. Regulatory Analyst

CRK/ck

Attachments

cc: W. Sutton
Regulatory File
Central File

Michael O. Leavitt
Governor
Ted Stewart
Executive Director
James W. Carter
Division Director

State of Utah

DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

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)

UNDERGROUND INJECTION CONTROL

PERMIT

Cause No.: UIC-146

API No.: 43-007-30167

Well Name/Number: Shimmin Trust 10-11

Operator: PG&E Resources Company

Well Type: Disposal

Location: Section 11 , **Township** 12S, **Range** 10E, **County:** Carbon

Approval Date: March 30, 1994

PERMIT CONDITIONS

Maximum Allowed Injection Pressure: 1200 psig

Maximum Allowed Injection Rate (if applicable): 8000 bbls per day

Stipulations of Approval

None

Approved:

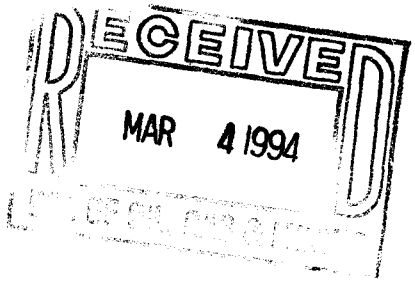
R.J. Firth

Date 30 March 1994

R.J. Firth, Associate Director, Oil and Gas

PG&E Resources Company

8888 N. Central Expressway, Suite 1000
Dallas, Texas 75206-3922
Telephone 214/750-3800
FAX 214/750-3883



March 2, 1994

Mr. Dan Jarvis
State of Utah
Natural Resources
Oil & Gas Mining
3 Triad Center, Suite 350
Salt Lake City, Utah 84180-1203

Dear Dan:

As you have requested, the following log calculations are submitted using the PG&E Resources #10-11 Shimmin Trust well located in Section 11-T12S-R10E, NE-NW, Carbon County, Utah.

Using Archie's Equation of $Sw = \sqrt{\frac{F \cdot R_w}{R_T}}$, where Sw = water saturation, $F = \frac{1}{\phi^2}$, Rwa = resistivity of the formation water which equals $\frac{\phi^m \cdot R_T}{a}$ with the assumption that Sw = 100%, RT = the measured resistivity from the open hole logs using the deep induction curve, ϕ = the measured density porosity from the open hole log, m = cementation exponent which = 2, and a = the lithology constant of 1.

Perforations in the Price River sandstone are from 2945' - 2968' and 2995' - 3122'. After selecting several points in these intervals to calculate the Rw, the Halliburton log charts, Gen-2b and Gen-5 can be used to estimate the Total Sodium Chloride concentration. Bottom hole temperature in the Shimmin Trust #10-11 is 118°F at 4992'.

Depth	ϕ	RT	F	Rwa	Sw	Temp	NaCl Concentration
2952'-2954'	.10	55	100.00	.55	100	90°F	9000ppm
2966'-2968'	.13	45	59.17	.76	100	90°F	6100ppm
3030'-3032'	.16	55	39.06	1.41	100	90°F	3500ppm
3062'-3064'	.17	70	34.60	2.02	100	90°F	2300ppm
3094'-3096'	.19	55	27.70	1.99	100	90°F	2300ppm

Mr. Dan Jarvis
March 2, 1994

From the low values of NaCl concentrations it can be determind that the log calculations are much lower and possibly erroneous when compared to the actual sample of produced water measured in the lab. (see attached report).

When asked to run through similar calculations for potential water bearing sands in the shallower North Horn formation, the following results were found.

Depth	ϕ	RT	F	Rwa	Sw	Temp	NaCl Concentration
1140'-1142'	.14	120	51.02	2.35	100	65°F	2700ppm
1848'-1850'	.18	45	30.86	1.46	100	74°F	4100ppm
1950'-1952'	.13	82	59.17	1.39	100	76°F	4200ppm
2070'-2072'	.14	60	51.02	1.18	100	77°F	5100ppm

Results from these calculations show lower NaCl concentrations as is expected due to the shallower depths. However, the results are questionable as was the case with the Price River sandstone calculations and should be used only for comparison. The actual values should come from an obtained sample in the formation and be analyzed in the lab.

Very truly yours,

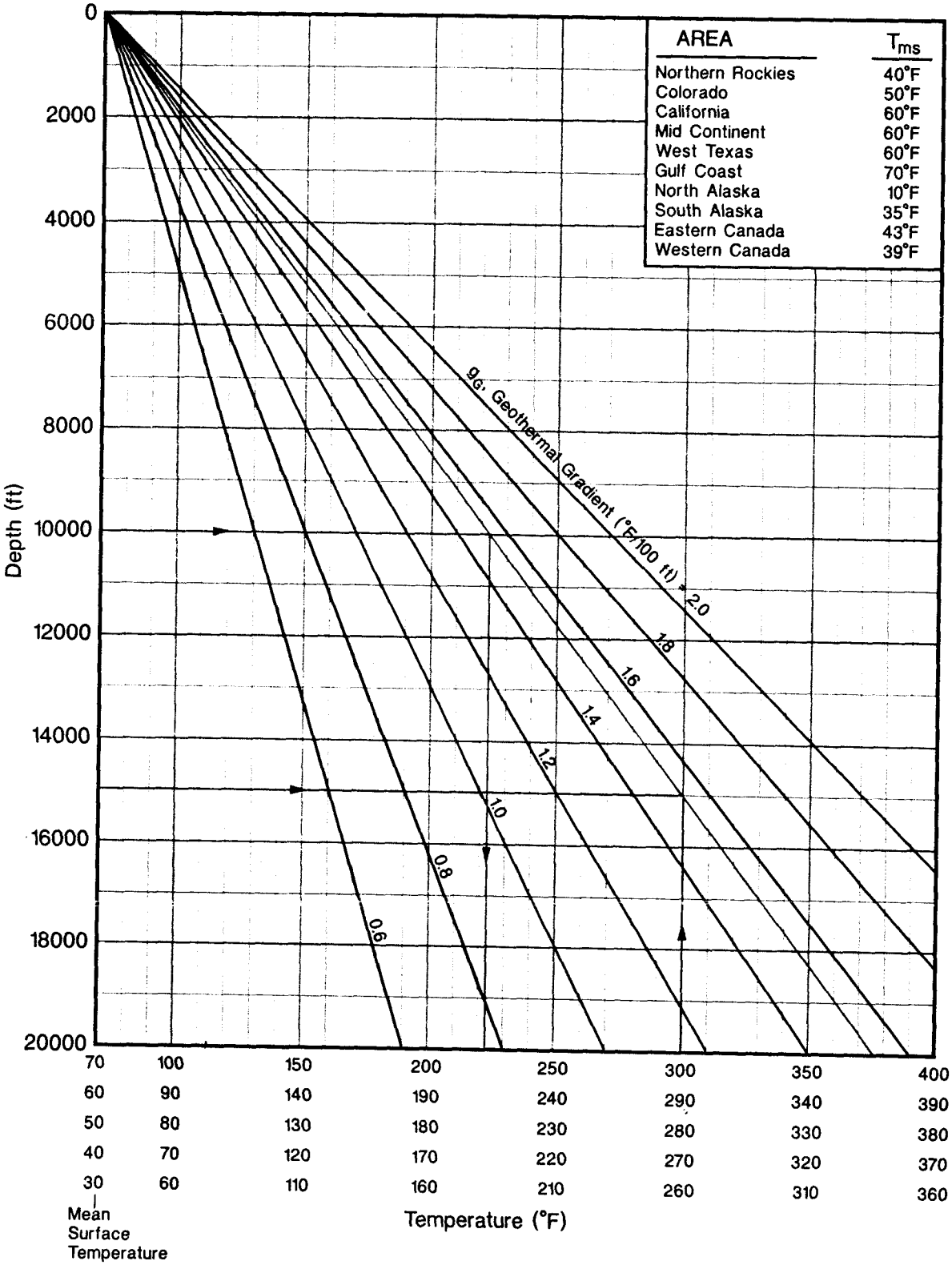
Jeff Hart

Jeff Hart
Geologist

JDH:lkd
Encl.

Depth – Temperature – Geothermal Gradient

North America



GEN-2b

PETROLEUM LABORATORY
AND GAS ENGINEERING
401 N.E. 46th Oklahoma City, Ok. 73105-3338
(405) 528-8255

LABORATORY REPORT NO. 64512

WATER ANALYSIS

PACIFIC GAS & ELECTRIC RESOURCES
CASTLEGATE PROSPECT
JENSEN 9-10
STATION NO. INJECTION WATER
VERNAL, UTAH

SAMPLED BY: PG&ER
DATE SAMPLED: 10-00-92
DATE RUN 10-26-92
COLOR BEFORE FILTRATION: COLORLESS
COLOR AFTER FILTRATION: COLORLESS

***** CHEMICAL CHARACTERISTICS *****

	mg/l
CALCIUM (Ca)	18
MAGNESIUM (Mg)	13
SODIUM (Na)	2,460
POTASSIUM (K)	3
BARIUM (Ba)	<1
IRON (Fe)	0.3
SILICA (SiO2)	11
*BICARBONATE (HCO3)	4,475
CARBONATE (CO3)	0
HYDROXIDE (OH)	0
SULFATE (SO4)	115
CHLORIDE (Cl)	1,165

	mg/l
"P" ALKALINITY (AS CaCO3)	0
"M" ALKALINITY (AS CaCO3)	3,670
TOTAL HARDNESS (AS CaCO3)	96
TOTAL DISSOLVED SOLIDS	8,250

RESISTIVITY @ 77 DEG. F.	0.869
SPECIFIC GRAVITY @ 75 DEG. F.	1.010
PH VALUE	8.28

NOTES:

DATE RECEIVED: 10-26-92
BORON (MG/L): 9.2
ZINC (MG/L): 0.02
CHROMIUM (MG/L): <0.05
STRONTIUM (MG/L): 0.88
THIS WATER WILL BE COMPATIBLE
WITH THE "SWAB" SAMPLE
*BICARBONATE as CaCO3: 3670

CONFIDENTIAL

EXXON CHEMICAL COMPANY
P.O. Box 4321 Houston, Texas 77210-4321
Tel. (713) 480-6900 Telex: 4942225 ENCEHOU

EXXON CHEMICALS

894-0122

WATER ANALYSIS REPORT

SHEET NUMBER

COMPANY: PG&E

DATE: 01-16-94

FIELD: CASTLEGATE

COUNTY OR PARISH: CARBON

STATE: UTAH

LEASE OR UNIT: 10-11 SHIMMIN

SAMPLE SOURCE: SWAB

WATER SOURCE FORMATION: PRICE RIVER

DEPTH, FT.	BHT, °F	SAMPLE SOURCE	TEMP., °F	WATER, BBL/DAY	OIL, BBL/DAY	GAS, MMCF/DAY

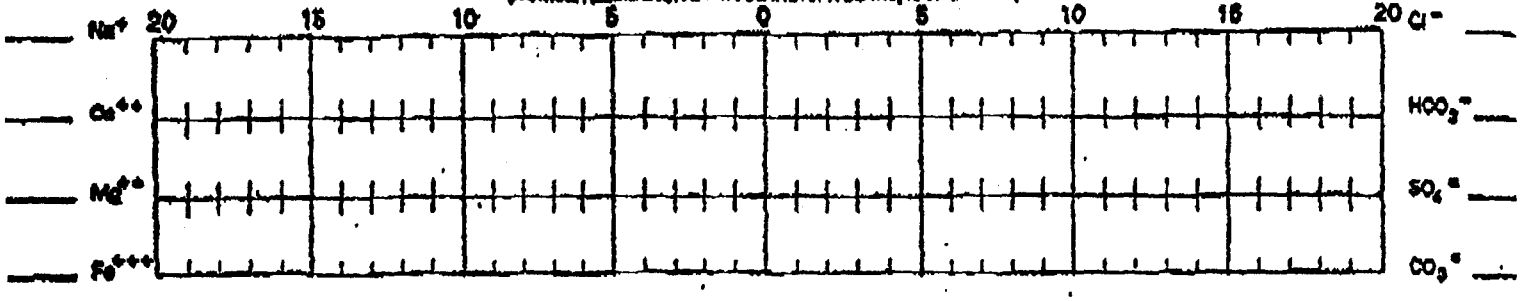
DATE SAMPLED: 01-16-94

TYPE OF WATER: ☒ PRODUCED ☐ SUPPLY ☐ WATERFLOOD ☐ SALTWATER DISPOSAL

TYPE OF PRODUCTION: ☐ PRIMARY ☐ WATERFLOOD ☐ CO_2 FLOOD ☐ POLYMER FLOOD ☐ STEAMFLOOD

WATER ANALYSIS PATTERN

(NUMBER BESIDE ION SYMBOL INDICATES me/l SCALE UNIT)



DISSOLVED SOLIDS

CATIONS	me/l	mg/l
TOTAL HARDNESS	2.6	
CALCIUM, Ca^{++}	1.4	28
MAGNESIUM, Mg^{++}	1.2	14.64
IRON (TOTAL) Fe^{+++}	.035	.65
BARIUM, Ba^{++}	.23	16
SODIUM, Na^{+} (CALC.)	502	11,555
ANIONS	**me/l**	**mg/l**
CHLORIDE, Cl^{-}	479	17,000
SULFATE, $SO_4^{=}$	6.25	300
CARBONATE, $CO_3^{=}$	16	480
BICARBONATE, HCO_3^{-}	0	0
HYDROXYL, OH^{-}	4	68
SULFIDE, $S^{=}$	1.4	22
PF/mF	.6/1.0	

DISSOLVED GASES

HYDROGEN SULFIDE, H_2S	mg/l
CARBON DIOXIDE, CO_2	mg/l
OXYGEN, O_2	mg/l

PHYSICAL PROPERTIES

pH	10.5
Eh (REDOX POTENTIAL)	MV
SPECIFIC GRAVITY	
TURBIDITY, FTU UNITS	
TOTAL DISSOLVED SOLIDS (CALC.)	29,484 mg/l
STABILITY INDEX @ °F	
@ °F	
@ °F	
$CaSO_4$ SOLUBILITY @ °F	mg/l
@ °F	mg/l
MAX. $CaSO_4$ POSSIBLE (CALC.)	mg/l
MAX. $BaSO_4$ POSSIBLE (CALC.)	mg/l
RESIDUAL HYDROCARBONS	ppm (Vol/Vol)

SUSPENDED SOLIDS (QUALITATIVE) ☐ IRON SULFIDE ☐ IRON OXIDE ☐ CALCIUM CARBONATE ☐ CALCIUM SULFATE ☐ ACID INSOLUBLE

REMARKS AND RECOMMENDATIONS:

CC ENGINEER	DIST. NO.	ADDRESS	OFFICE PHONE	HOME PHONE
Greg Wiklins	832	1299 E. 1500 S.	789-2069	
ANALYZED BY	DATE	DISTRIBUTION		
	01-16-94	☐ CUSTOMER ☐ REGION ☐ DISTRICT ☐ BC ENGINEER		

Wayne

FIELD SERVICE REPORT

EXXON CHEMICAL COMPANY
P.O. Box 4321, Houston, Texas 77210-4321
Tel. (713) 460-6800 Telex:4942225 ENCEHOU

EXXON CHEMICALS

COMPANY PG & E Resources DATE 2/24/94

FIELD OR PLANT Castlegate LOCATION Price River FORMATION

REPORT SUBMITTED TO Price, Vernal, Dallas, File

TYPE OF SYSTEM

PURPOSE OF REPORT Resistivity

SAMPLING POINT	TEST CONDUCTED	RESULT	CONTROL LIMITS/OBSERVATIONS
From Formation	Resistivity	.258	Test conducted by Schlumberger wireline

REMARKS OR RECOMMENDATIONS

CHEMICAL TREATING PROGRAM

_____ PPM _____ GALS/DAY

_____ /DAY

_____ /DAY

ENGINEER

Creg Wilkins
NAME

Vernal, Utah
ADDRESS

(801)789-2069
PHONE

834-0125

FORD ANALYTICAL LABORATORIES

CHEMICAL AND BACTERIOLOGICAL ANALYSIS

DATE: 12/16/93 CERTIFICATE OF ANALYSIS

UINTAH ENG & LAND
SURVEYING
85 SO. 200 E.
VERNAL, UT 84078

93-257500

SAMPLE: WATER SAMPLE FROM #1 CPF SITE COLLECTED 11-23-93
RECEIVED 11-23-93 FOR ANALYSIS.

	Results	Method Detection Limit
Calcium Ca mg/l EPA 200.7	51.5	.100
Chloride Total mg/l EPA 330.5	.1	.05
Hardness,CaCO3 mg/l EPA 130.2	276	1.0
Iron Fe mg/l EPA 236.1	.218	.010
Magnesium Mg mg/l EPA 200.7	35.7	.100
Sodium Na mg/l EPA 200.7	316	.500
Tot.Dis.Solids mg/l EPA 160.1	1120	10.0
Temp. deg C at Receipt	21	
pH at Receipt - Satisfactory		

FORD ANALYTICAL LABORATORIES

* ND - INDICATES NONE DETECTED *
** < - INDICATES THE SMALLEST QUANTITY DETECTABLE DUE TO REQUIRED DILUTION **

50 West Louise Avenue • Salt Lake City, Utah 84115 • PHONE (801) 466-8761 • FAX (801) 466-8763

* Utah State

EXXON CHEMICAL COMPANY
P.O. Box 4321 Houston, Texas 77210-4321
Tel. (713) 480-6800 Telex: 4942225 ENGEHOU

EXXON CHEMICALS

894-0122

WATER ANALYSIS REPORT

SHEET NUMBER

COMPANY: PG&E

DATE: 9-20-93

FIELD: Castle Gate

COUNTY OR PARISH: Carbon

STATE: Utah

LEASE OR UNIT: Sec. 14-12½

SAMPLE SOURCE: water well SHIMMIN'S

WATER SOURCE FORMATION:

DEPTH FT.	BHT. °F	SAMPLE SOURCE	TEMP., °F	WATER, BBL/DAY	OIL, BBL/DAY	GAS, MMCF/DAY
				20 gal/min		

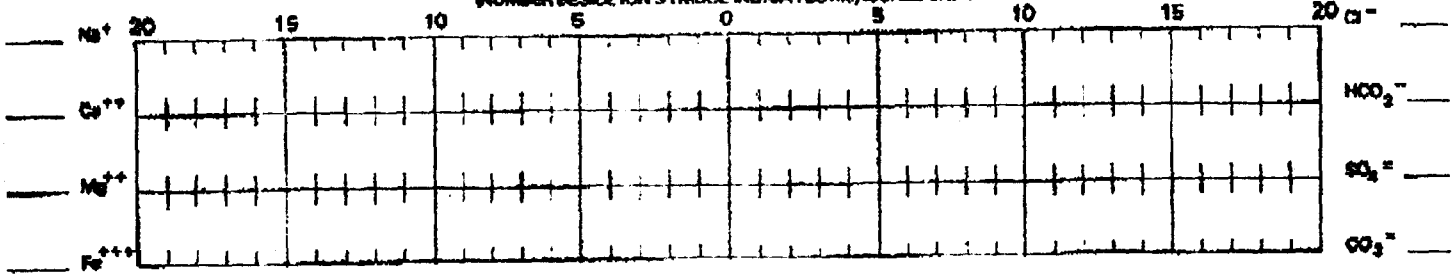
DATE SAMPLED: 9-20-93

TYPE OF WATER: ☐ PRODUCED ☐ SUPPLY ☑ WATERFLOOD ☐ SALTWATER DISPOSAL

TYPE OF PRODUCTION: ☐ PRIMARY ☐ WATERFLOOD ☐ CO_2 FLOOD ☐ POLYMER FLOOD ☐ STEAMFLOOD

WATER ANALYSIS PATTERN

(NUMBER BESIDE ION SYMBOL INDICATES me/SCALE UNIT)



DISSOLVED SOLIDS

CATIONS	me/l	mg/l
TOTAL HARDNESS	6	104
CALCIUM, Ca^{++}	4	80
MAGNESIUM, Mg^{++}	2	24.4
IRON (TOTAL) Fe^{+++}	.2	37.5
BARIUM, Ba^{++}	.6	40
SODIUM, Na^{+} (CALC.)	9.4	216
ANIONS	**me/l**	**mg/l**
CHLORIDE, Cl^{-}	8.5	300
SULFATE, $SO_4^{=}$	3	150
CARBONATE, $CO_3^{=}$	24	720
BICARBONATE, HCO_3^{-}	4	240
HYDROXYL, OH^{-}	0	0
SULFIDE, $S^{=}$	0	0
PF/MF	-2/6	

DISSOLVED GASES

HYDROGEN SULFIDE, H_2S	mg/l
CARBON DIOXIDE, CO_2	mg/l
OXYGEN, O_2	mg/l

PHYSICAL PROPERTIES

pH	8.0
Eh (REDOX POTENTIAL)	MV
SPECIFIC GRAVITY	
TURBIDITY, FTU UNITS	
TOTAL DISSOLVED SOLIDS (CALC.)	1,867 mg/l
STABILITY INDEX @ °F	
@ °F	
@ °F	
$CaSO_4$ SOLUBILITY @ °F	mg/l
@ °F	mg/l
MAX. $CaSO_4$ POSSIBLE (CALC.)	mg/l
MAX. $BaSO_4$ POSSIBLE (CALC.)	mg/l
RESIDUAL HYDROCARBONS	ppm (Vol/Vol)

SUSPENDED SOLIDS (QUALITATIVE) ☐ IRON SULFIDE ☐ IRON OXIDE ☐ CALCIUM CARBONATE ☐ CALCIUM SULFATE ☐ ACID INSOLUBLE

REMARKS AND RECOMMENDATIONS:

EC ENGINEER: C Wilkins

DIST. NO.: 832

ADDRESS: Vernal, Utah

OFFICE PHONE: 789-2069

HOME PHONE: 789-4484

ANALYZED BY: C Wilkins

DATE:

DISTRIBUTION ☐ CUSTOMER ☐ REGION ☑ DISTRICT ☐ EC ENGINEER ☐ _____

EXXON CHEMICAL COMPANY
P.O. Box 4321 Houston, Texas 77210-4321
Tel. (713) 480-6600 Telex: 4942225 EXCHOU

EXXON CHEMICALS

WATER ANALYSIS REPORT

DATE: 9-20-93

COMPANY: PG&E

STATE: Utah

FIELD: Castle Gate

COUNTY OR PARISH: Carbon

LEASE OR UNIT:

SAMPLE SOURCE: Water well @ Office

WATER SOURCE FORMATION:

WATER BBL/DAY:

OIL BBL/DAY:

GAS MCF/DAY:

OPTION:

WELL #:

SAMPLE SOURCE:

TEMP. °F:

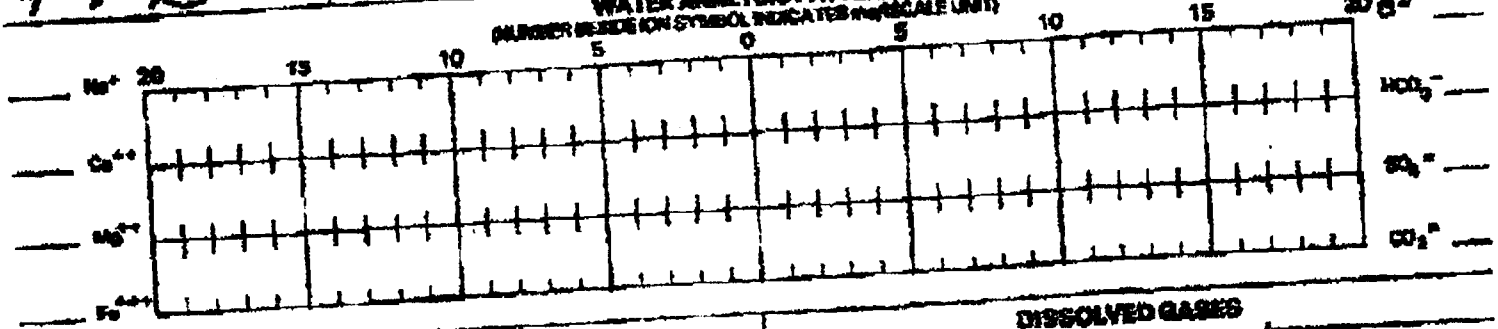
DATE SAMPLED: 9-9-93

TYPE OF WATER: ☐ PRODUCED ☐ SUPPLY ☐ WATERFLOOD ☐ SALTWATER DISPOSAL

TYPE OF PRODUCTION: ☐ PRIMARY ☐ WATERFLOOD ☐ CO_2 FLOOD ☐ POLYMER FLOOD ☐ STEAMFLOOD

WATER ANALYSIS PATTERN

(NUMBER BESIDE ION SYMBOL INDICATES me/SCALE UNIT)



DISSOLVED SOLIDS

CATIONS	me/l	mg/l
TOTAL HARDNESS	4	
CALCIUM, Ca^{++}	3	60
MAGNESIUM, Mg^{++}	1	12
IRON (TOTAL) Fe^{++}	2	37.5
BARIUM, Ba^{++}	.2	9.6
SODIUM, Na^{+} (CALC.)	7.3	168
ANIONS	**me/l**	**mg/l**
CHLORIDE, Cl^{-}	8.5	300
SULFATE, $SO_4^{=}$	1	48
CARBONATE, $CO_3^{=}$	0	0
BICARBONATE, HCO_3^{-}	9	548
HYDROXYL, OH^{-}	0	0
SULFIDE, $S^{=}$	0	0
PE/IMF	0.1.4	

SUSPENDED SOLIDS (QUALITATIVE) ☐ IRON SULFIDE ☐ IRON OXIDE ☐ CALCIUM CARBONATE ☐ CALCIUM SULFATE ☐ ACID SOLUBLE

DISSOLVED GASES

	mg/l
HYDROGEN SULFIDE, H_2S	
CARBON DIOXIDE, CO_2	
OXYGEN, O_2	

PHYSICAL PROPERTIES

pH	7.5
ORP (REDOX POTENTIAL)	
SPECIFIC GRAVITY	
TURBIDITY, FTU UNITS	
TOTAL DISSOLVED SOLIDS (CALC.)	1123 mg
STABILITY INDEX @ °F	
@ °F	
@ °F	
$CaSO_4$ SOLUBILITY @ °F	
@ °F	
MAX. $CaSO_4$ POSSIBLE (CALC.)	
MAX. $BaSO_4$ POSSIBLE (CALC.)	
RESIDUAL HYDROCARBONS	ppm (vol/vol)

REMARKS AND RECOMMENDATIONS:

RECOMMENDED: C Williams — DIST. NO.: 832 — ADDRESS: Vernalpet. — TELEPHONE: 789-2069 — HOME PHONE: 789-484

SURVEYED BY: C Williams — DATE: — DISTRIBUTION: ☐ CUSTOMER ☐ SC ENGINEER ☐ REGION ☐ DISTRICT ☐

EXXON CHEMICAL COMPANY
P.O. Box 4221 Houston, Texas 77210-4321
Tel. (713) 480-6800 Telex: 4942225 ENCEHOU

EXXON CHEMICALS

WATER ANALYSIS REPORT

SHEET NUMBER

DATE 10-1-93

COMPANY PG&E

STATE Utah

FIELD Castle Gate

COUNTY OR PARISH Carbon

WATER SOURCE (FORMATION) Spring Creek office

LEASE OR UNIT

SAMPLE SOURCE

GAS, MMCF/DAY

DEPTH, FT. | BHT, °F | SAMPLE SOURCE | TEMP., °F | WATER, BBL/DAY | OIL, BBL/DAY

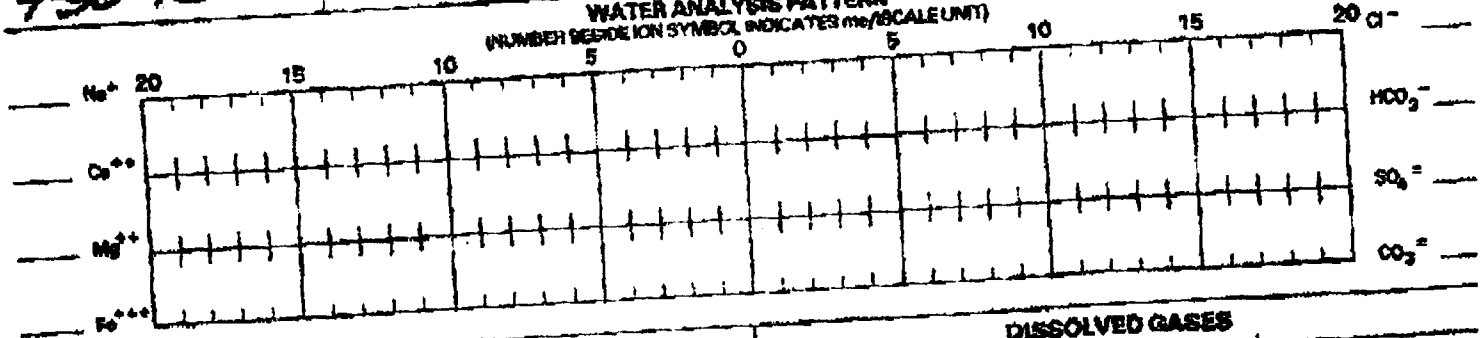
DATE SAMPLED 9-30-93

TYPE OF WATER: ☐ PRODUCED ☐ SUPPLY ☐ WATERFLOOD ☐ SALTWATER DISPOSAL

TYPE OF PRODUCTION: ☐ PRIMARY ☐ WATERFLOOD ☐ CO_2 FLOOD ☐ POLYMER FLOOD ☐ STEAMFLOOD

WATER ANALYSIS PATTERN

(NUMBER BESIDE ION SYMBOL INDICATES me/l/SCALE UNIT)



DISSOLVED SOLIDS

CATIONS	me/l	mg/l
TOTAL HARDNESS	10	
CALCIUM, Ca^{++}	6	120
MAGNESIUM, Mg^{++}	4	48.8
IRON (TOTAL) Fe^{+++}	.0032	.06
BARIUM, Ba^{++}	.086	6
SODIUM, Na^{+} (CALC.)	6.9	159
ANIONS	**me/l**	**mg/l**
CHLORIDE, Cl^{-}	8.4	300
SULFATE, $SO_4^{=}$	.54	26
CARBONATE, $CO_3^{=}$	0	0
BICARBONATE, HCO_3^{-}	8	488
HYDROXYL, OH^{-}	0	0
SULFIDE, $S^{=}$	0	0
pH of F	.0/.4	

DISSOLVED GASES

	mg/l
HYDROGEN SULFIDE, H_2S	mg/l
CARBON DIOXIDE, CO_2	mg/l
OXYGEN, O_2	mg/l

PHYSICAL PROPERTIES

pH	8.0
Eh (REDOX POTENTIAL)	
SPECIFIC GRAVITY	
TURBIDITY, FTU UNITS	
TOTAL DISSOLVED SOLIDS (CALC.)	1,148 m
STABILITY INDEX @ °F	
@ °F	
@ °F	
$CaSO_4$ SOLUBILITY @ °F	
@ °F	
MAX. $CaSO_4$ POSSIBLE (CALC.)	
MAX. $BaSO_4$ POSSIBLE (CALC.)	
RESIDUAL HYDROCARBONS	ppm (Vol

SUSPENDED SOLIDS (QUALITATIVE) ☐ IRON SULFIDE ☐ IRON OXIDE ☐ CALCIUM CARBONATE ☐ CALCIUM SULFATE ☐ ACID INSOLUBL

REMARKS AND RECOMMENDATIONS

EC ENGINEER C. Wilkins

ANALYZED BY C. Wilkins

DIST. NO. 832

DATE 10-7-93

ADDRESS Vernal Utah

OFFICE PHONE 789-2069

HOME PHONE 789-4

DISTRIBUTION ☐ CUSTOMER ☐ EC ENGINEER ☐ REGION ☐ DISTRICT ☐

DIVISION OF OIL, GAS AND MINING
UNDERGROUND INJECTION CONTROL PROGRAM

PERMIT
DECISION DOCUMENT

Applicant: PGE Resources Co. **Well:** Shimmin Trust 11-10

Location: Sec. 11, T.12 S., R.10 E., Carbon County

Ownership Issues:
The proposed well is located in section 11, township 12 south, range 10 east, Carbon County, Utah. The surface location is owned by the Shimmin Trust Estate. Minerals are also owned by the Shimmin Estate. PGE Resources is the operator of all leases in the 1/2 mile radius. An affidavit has been filed stating that all surface and mineral owners in the 1/2 mile radius have been noticed.

Well Integrity:
The well proposed for injection is the Shimmin Trust 11-10. This well has a 9 5/8" surface casing set at 515 feet and is cemented to surface. A 7" production casing was set from surface to 4990 feet and cemented in two stages to surface and verified by cement bond log. The new zone of injection lies within the Price River Formation at a depth of 2945-3122 feet. A 2 7/8" tubing will be set in a packer at 2900 feet. There are 2 producing wells and an existing injection well in the 1/2 mile area of review. All the wells in the area of review have sufficient casing and cement or proper plug placement to adequately protect any usdw's. A casing test should be performed at the time of conversion and a casing/tubing pressure test should be performed prior to injection.

Ground Water Protection:
Fresh water in the area of the project may occur in the Flagstaff and North Horn Formation. PGE Resources has been requested to submit information as to any water wells or springs in the area, additionally it was requested that log calculations be performed to estimate the quality of the water in the overlying North Horn.

Oil Gas & Other Mineral Resources Protection:
Injection into this well should have no adverse affects on any offsetting production. There are no other known mineral interests of concern. Coals located in the Mesa Verde are the source of the gas being extracted.

Bonding:
PGE has a statewide bond in the amount of $80,000 dollars.

Actions Taken and Further Approvals Needed:
A public notice for the injection well was published in both the Salt Lake Tribune and the Carbon County newspaper. The permittee needs to run a second step rate test to verify a previously run test. Approval should be granted if no objections are received.

DJJ
Reviewers

02-09-94
Date

INJECTION WELL APPLICATION

REVIEW SUMMARY

Applicant: PGE Resources Company Well: Shimmin Trust 10-11

Location: section NWSE 11 township 12 S range 10E

API #: 43-007-30167 Well Type: disp. X enhanced recov. ___

If enhanced recovery has project been approved by the Board ? NA

Lease Type: Fee Surface Ownership: Fee

Field: Castlegate Unit: — Indian Country: N

UIC Form 1: Yes Plat: Yes Wells in AOR: 1 I 1 P

Logs Available: Yes Bond Log: Yes.

Casing Program: 9 5/8" @ 515 cmt to surface. 7" @ 4990 TOC 3290 (DV Tool @ 3290 cmt to surface.

Integrity Test: Casing test run 1/30/94 Csg/Tub. to be run.

Injection Fluid: Produced water.

Geologic Information: Price River Injection Interval TDS 26,000
2945-2968 & 2995-3122

Analyses of Injection Fluid: Yes Formation Fluid: Yes Compat. NO.

Fracture Gradient Information: Yes Step Rate Test run 1/26/94 Parting Pressure ___
Information to follow.

Affidavit of Notice to Owners: Yes.

Fresh Water Aquifers in Area: Possibly Flagstaff and North Horn.

Depth Base of Moderately Saline Water: North Horn

Confining Interval: North Horn above.

Reviewer: D. JARVIS Date: 2/1/94

Comments & Recommendation Additional Step Rate Data should be run need geologic + hydrologic information.

143 SOUTH MAIN ST.
P.O. BOX 45838
SALT LAKE CITY, UTAH 84145
FED. TAX I.D. # 87-0217663

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The Salt Lake Tribune (NA) DESERET NEWS

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PUBLISHED ON FEB 10 1994

SIGNATURE

DATE 02/11/94

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DIV OF OIL, GAS & MINING			801-538-5340
SCHEDULE			AD NUMBER
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SALT LAKE CITY, UTAH 84145
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PUBLISHED ON FEB 10 1994

SIGNATURE

02/11/94
DATE

NOTICE OF AGENCY ACTION
CAUSE NO. UIC-146
BEFORE THE DIVISION OF OIL, GAS AND MINING
DEPARTMENT OF NATURAL RESOURCES, STATE OF UTAH

IN THE MATTER OF THE APPLICATION OF PG & E RESOURCES COMPANY FOR ADMINISTRATIVE APPROVAL OF THE SHIMMIN TRUST 11-10 WELL LOCATED IN SECTION 11, TOWNSHIP 12 SOUTH, RANGE 10 EAST, S.L.M., CARBON COUNTY, UTAH, FOR CONVERSION TO A CLASS II INJECTION WELL

THE STATE OF UTAH TO ALL PERSONS INTERESTED IN THE ABOVE ENTITLED MATTER.

Notice is hereby given that the Division of Oil, Gas and Mining (the "Division") is commencing an informal adjudicative proceeding to consider the application of PG & E Resources Company ("PG & E") for administrative approval of the Shimmin Trust 11-10 Well, located in Section 11, Township 12 South, Range 10 East, Carbon County, Utah, for conversion to a Class II injection well. The proceeding will be conducted in accordance with Utah Admin. R.649-10, Administrative Procedures.

PG & E has proposed to inject fluids into the Price River Formation interval from 2,945 to 3,122 feet in the Shimmin Trust 11-10 disposal well. The injection fluid is water produced in conjunction with the extraction of coal bed methane gas from the Mesaverde Blackhawk Formation in the Castlegate Field area.

PG & E has perforated the Price River Formation interval and performed swab testing operations to obtain a water sample. The water analysis indicated the total dissolved solids (TDS) content of the Price River Formation water to be approximately 26,000 milligrams per liter (mg/l). Therefore, the disposal interval does not constitute an underground source of drinking water (USDW) and an aquifer exemption is not necessary.

The maximum allowable injection pressure and rate will be determined after conducting step-rate pressure testing following conversion of the well.

Any person desiring to object to the application or otherwise intervene in the proceeding, must file a written protest or notice of intervention with the Division within fifteen days following publication of this notice. If such a protest or notice of intervention is received, a hearing will be scheduled before the Board of Oil, Gas and Mining. Protestants and/or intervenors should be prepared to demonstrate at the hearing how this matter affects their interests.

DATED this 3rd day of February, 1994.

STATE OF UTAH
DIVISION OF OIL, GAS AND MINING
/s/ R. J. Firth, Associate Director
27820080

ACCOUNT NAME	TELEPHONE
IG	801-538-5340
SCHEDULE	AD NUMBER
	27820080
CAPTION	MISC. CHARGES
OTICE OF AGENCY ACTIONCAUSE NO. UIC-146BEFOR	.00

	TIMES	RATE	AD CHARGE
N	1	1.64	186.96

IPT OF THIS INVOICE — TOTAL AMOUNT DUE: 186.96

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C. WELL LOGS

The following well logs were run on the subject well by Halliburton Logging Services, Inc. and have been previously submitted to the Division of Oil, Gas and Mining:

Date Logged	Type of Log
October 9, 1992	Spectral Density - Dual Spaced Neutron Log
October 9, 1992	Dual Induction Guard Log

D. CEMENT BOND LOG

An Acoustic Cement Bond Log will be run on the subject well in early 1993 and will be submitted to the Division of Oil, Gas and Mining at that time.

E. CASING PROGRAM

This well was drilled, casing was set and the well temporarily abandoned on October 11, 1992. The well will be dually completed in early 1993. Production will be from the Blackhawk formation through the upper 2-7/8" tubing and disposal of salt water will be into the Spring Canyon Sand through the lower 2-1/16" tubing (contingent upon receiving a disposal permit).

	Surface Casing	Production Casing	DV Tool
Hole Size	12-1/4"	8-3/4"	8-3/4"
Casing Size	9-5/8"	7"	7"
Weight (lbs/ft)	36	26 & 29	
Grade	J-55	N-80	
Setting Depth	476'	4,990'	3,290'
Amount of Cement	275 sacks	380 sacks	435 sacks
Type of Cement	Class G	50/50 Pozmix	Class G
Slurry Volume	327.25	501.6	1,435.3
Top of Cement	Surface	3,290'	Surface
Date Set	9-25-92	10-10-92	10-11-92
PBTD		4,902'	

F. CASING TEST PROGRAM

In lieu of a conventional Mechanical Integrity Test (MIT), a Radioactive Tracer Survey will be performed. The radioactive isotope will be injected down the 2-1/16" tubing to verify the path taken by the injection fluids. This will insure that the injection fluids cannot enter any strata other than the Spring Canyon Sand and also

insure integrity of the tubing and packer.

G. INJECTION FLUID

The injection fluid will consist of saltwater containing in excess of 6,500 mg/l TDS. The saltwater is a byproduct of gas production from the Blackhawk Coal formation. The proposed daily injection rates are: maximum - 6,500 barrels per day, average - 5,000 barrels per day.

H. INJECTION PRESSURES

The proposed injection pressures are: maximum - 2,000 psig, average - 1,500 psig.

I. REVIEW OF WELLS WITHIN 1/2 MILE RADIUS

Listed below is a review of the casing and cement programs for the four (4) offset well which are located within a one-half (1/2) mile radius of the Shimmin Trust # 10-11 well. All of these wells have been cased and cemented in a manner which will prevent migration of the injection fluids up or down the wellbore and will prevent entry of injection fluids into improper zones.

Shimmin Trust 1

	Surface Casing	Production Casing	DV Tool
Hole Size	12-1/4"	7-7/8"	7-7/8"
Casing Size	8-5/8"	5-1/2"	5-1/2"
Weight (lbs/ft)	23	17	
Grade	WC-50	WC-70	
Setting Depth	552'	4,674'	3,620'
Amount of Cement	445 sacks	260 sacks	300/80
Type of Cement	Premium	50/50 Pozmix	Silica Lite/Pozmix
Slurry Volume	525	332.8	1,275.4
Top of Cement	Surface	3,620'	Surface
Date Set	7-4-90	7-27-90	7-27-90
PBTD		4,630'	

Shimmin Trust 4

	Surface Casing	Production Casing	DV Tool
Hole Size	12-1/4"	7-7/8"	7-7/8"
Casing Size	8-5/8"	5-1/2"	5-1/2"

Weight (lbs/ft)	23	17	
Grade	WC-50	WC-70	
Setting Depth	627'	4,630'	3,562'
Amount of Cement	450/25	320 sacks	310 sacks
Type of Cement	Premium/Pozmix	50/50 Pozmix	Silica Lite
Slurry Volume	563.25	409.6	1,212.1
Top of Cement	Surface	3,562'	Surface
Date Set	7-22-90	9-15-90	9-15-90
PBTD		4,583'	

Shimmin Trust 5

	Surface Casing	Production Casing	DV Tool
Hole Size	12-1/4"	7-7/8"	7-7/8"
Casing Size	8-5/8"	5-1/2"	5-1/2"
Weight (lbs/ft)	23	17	
Grade	WC-50	WC-50	
Setting Depth	595'	4,485'	3,348'
Amount of Cement	390/25	300 sacks	370 sacks
Type of Cement	Premium/Pozmix	50/50 Pozmix	Silica Lite
Slurry Volume	492.45	384	1,446.7
Top of Cement	Surface	3,348'	Surface
Date Set	8-9-90	9-8-90	9-8-90
PBTD		4,432'	

Shimmin Trust 11-11

	Surface Casing	Prod. Casing	DV Tool
Hole Size	12-1/4"	8-3/4"	8-3/4"
Casing Size	9-5/8"	7"	7"
Weight (lbs/ft)	36	26 & 29	
Grade	J-55	N-80	
Setting Depth	529'	4,997'	3,293'
Amount of Cement	275 sacks	400 sacks	350 sacks
Type of Cement	Class G	50/50 Pozmix	Class G
Slurry Volume	327.25	528	1,131
Top of Cement	Surface	3,293'	Surface
Date Set	9-7-92	9-25-92	9-25-92
PBTD		4,908'	

J. GEOLOGIC DATA

The proposed injection zone is the Spring Canyon sandstone, which occurs at a depth

of 4,473 to 4,869 feet. The Spring Canyon is a Cretaceous age sandstone of the Mesaverde Group that consists of fine to medium grained, sub-angular to sub-rounded marine sand, interbedded with siltstone and shale. Minor fractures are also believed to exist in the Spring Canyon. Sand thickness is 58 to 129 feet, based on a minimum density porosity cutoff of 8 percent. Confinement is provided by the Mancos shale below, and the interbedded sand, shale, and siltstone of the Aberdeen and Kenilworth formations above.

With the current well control, the lateral extent of the Spring Canyon includes the entire project area, (T12S-R10E). Although not every well was drilled to the Spring Canyon, the wells that did penetrate the sand showed a thickening to the east.

At this time, there appears to be no structural or stratigraphic limitations which would effect the conveyance and/or storage of the injected water.

K. WELLBORE DIAGRAM

The attached wellbore diagram indicates the configuration of the wellbore and downhole equipment once completion operations are finished in 1993.

L. INJECTIVITY DATA

Step Rate/Falloff Tests have been performed on the Jensen #9-10 and Shimmin Trust #2 wells. The results of these tests are attached.

M. LABORATORY TESTS

Laboratory analyses have been performed on the following water samples and copies are attached:

Shimmin Trust #1 - Blackhawk produced water
Shimmin Trust #2 - Blackhawk produced water
Shimmin Trust #3 - Blackhawk produced water
Shimmin Trust #4 - Blackhawk produced water
Shimmin Trust #5 - Blackhawk produced water
Jensen #9-10 - Blackhawk produced water (injection sample)
Jensen #9-10 - Spring Canyon formation water (swab sample)

Oilab Petroleum Laboratory and Gas Engineering, the laboratory which performed these analyses, has indicated on the Jensen #9-10 reports that the Blackhawk and Spring Canyon waters are compatible.

N. AFFIDAVIT OF NOTIFICATION

To whom it may concern:

Copies of the UIC Form 1 application for the Shimmin Trust #10-11 well have been mailed to the following on January 29, 1993.

OFFSET OPERATORS:

None

SURFACE OWNERS:

John F. Marshall Trustee
for Dean Carlyle Shimmin Trust
1495 East 2050 North
Provo, Utah 84604

Mona L. Marsing
4300 East 8900 South
Price, Utah 84501

Jim LaFevers
Signature

Jim LaFevers
Name

Supervisor, Regulatory Affairs
Title

(214) 750-3988
Telephone

February 1, 1993
Date

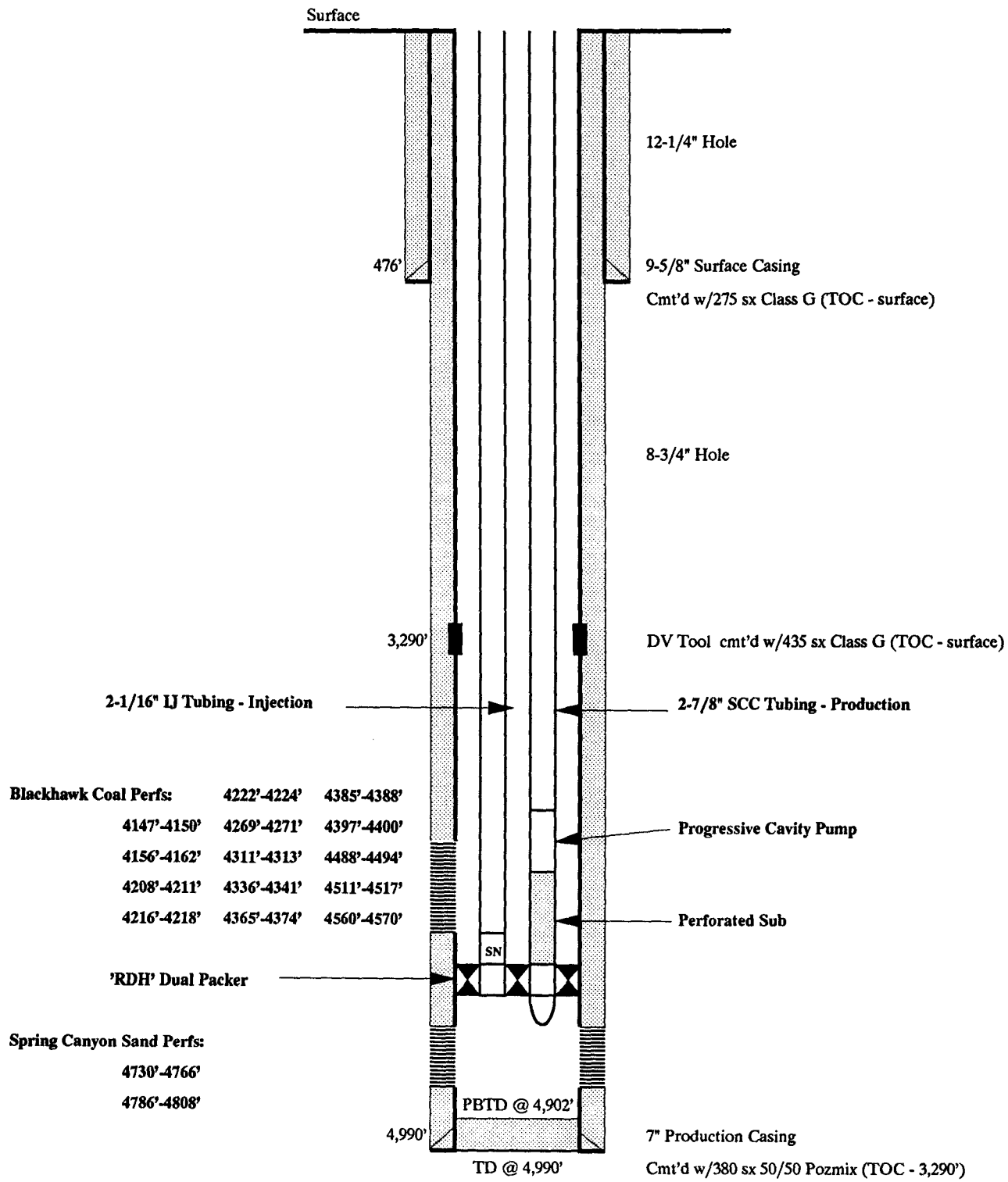
SHTR1011.WBD

SHIMMIN TRUST NO. 10-11

Castlegate Field

Carbon County, Utah

Sec 11-T12S-R10E



JMP 12-17-92

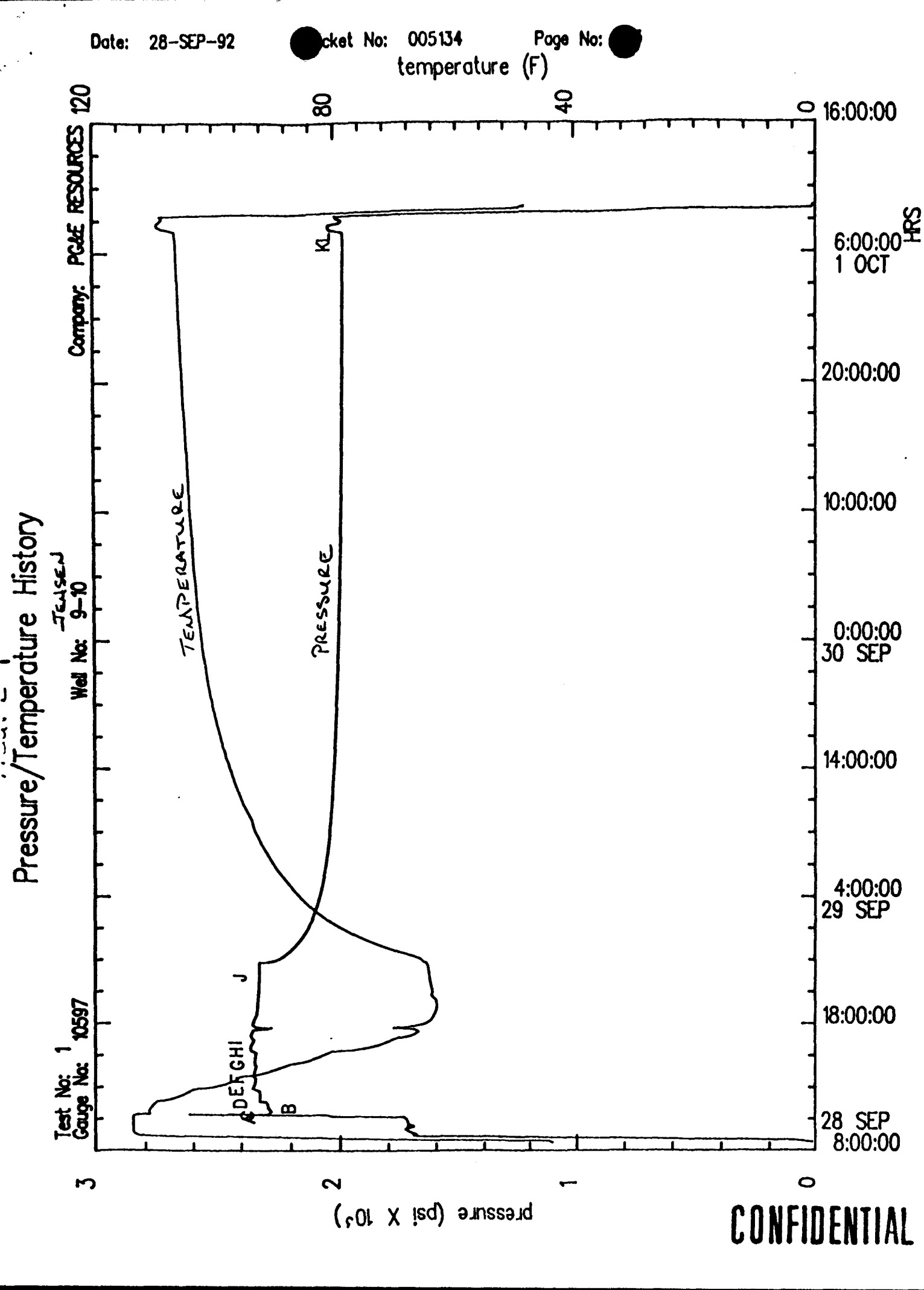
Jensen #9-10
Steprate/Falloff Testing Results (Spring Canyon sand)
Castlegate Field
Carbon County, Utah

The Jensen No. 9-10 was perforated in the Spring Canyon sand from 4705'-46' and 4753'-74' (CNL) at 2 spf for a steprate/falloff test. A general description of the results follows and copies of pertinent graphs are attached.

A swab sample was obtained from 4705'-74'. Comparison of the Spring Canyon water analysis from the swab sample to the analysis of the coal bed produced water sample which was used for injection tests indicated the TDS is slightly higher in the Spring Canyon, 10520 mg/l vs. 8250 mg/l. Chlorides in the Spring Canyon were measured at 2610 mg/l. The waters are very similar in composition and are compatible. A complete analysis of each sample is attached.

Results from the steprate/falloff test on the Spring Canyon sand indicated a closure pressure of 2299 psi. Horner evaluation of the falloff indicated permeability of 13.2 md, skin of -5.7, and a radius of investigation of 1541 feet. Average reservoir pressure was determined to be 1953 psi.. Closure pressure and average reservoir pressure were corrected to mid-perf. The final rate of the steprate test was 3.5 bbl/min or 5040 bbl/day with surface pressure of 815 psi. A total of 1512 bbls of water were injected into the Spring Canyon.

Comparison of the fracture gradients from the above closure pressures indicated that the Spring Canyon sand (0.51 psi/ft) will be bound by the shale above and below the zone which have fracture gradients (as determined from the Shimmin Trust No. 2 testing) of 0.63 psi/ft and 0.54 psi/ft, respectively.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Ticket No: 005134
Page No:
temperature (F)
120
80
40
0
16:00:00
Company: PG&E RESOURCES
6:00:00 HRS
1 OCT
20:00:00
10:00:00
0:00:00
30 SEP
14:00:00
4:00:00
29 SEP
18:00:00
28 SEP
8:00:00
Pressure/Temperature History
Tensed
Well No: 9-10
Test No: 1
Gauge No: 10597
TEMPERATURE
PRESSURE
K
J
A
DE
GHI
B
3
2
1
0
pressure (psi X 10³)
CONFIDENTIAL

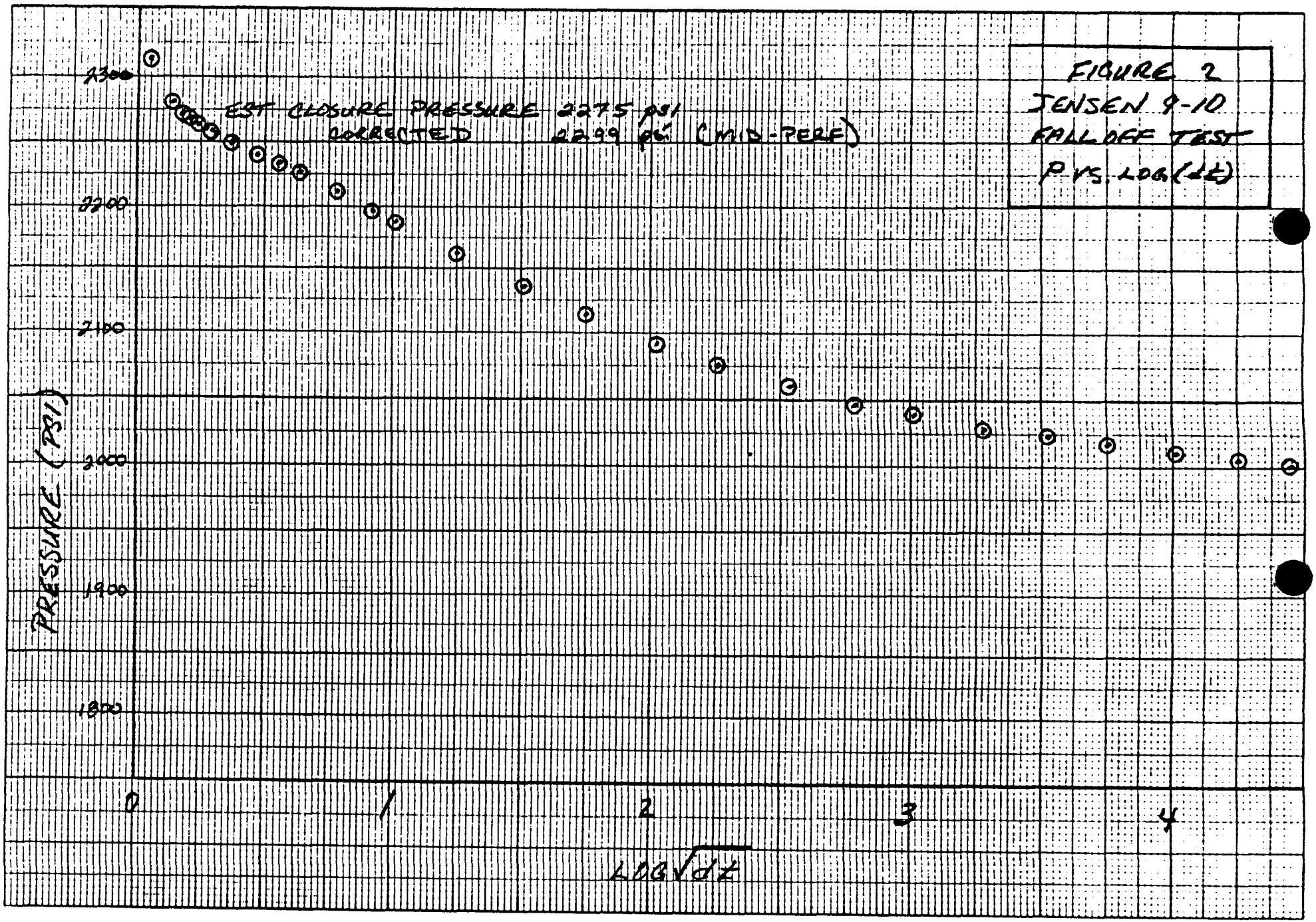
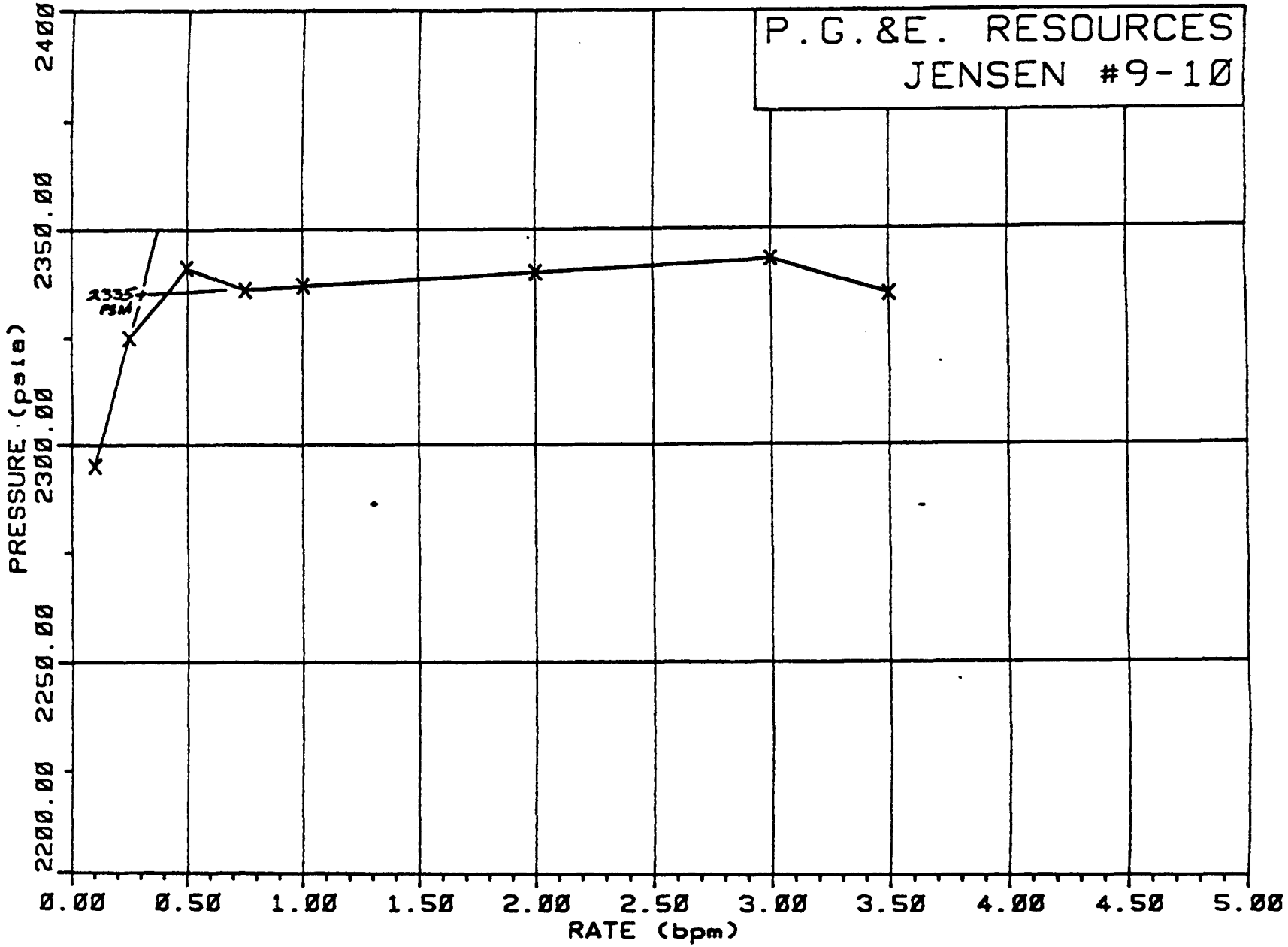


FIGURE 3

SPRING CANYON SAND

PERFS: 4705'-46' & 4753'-74'

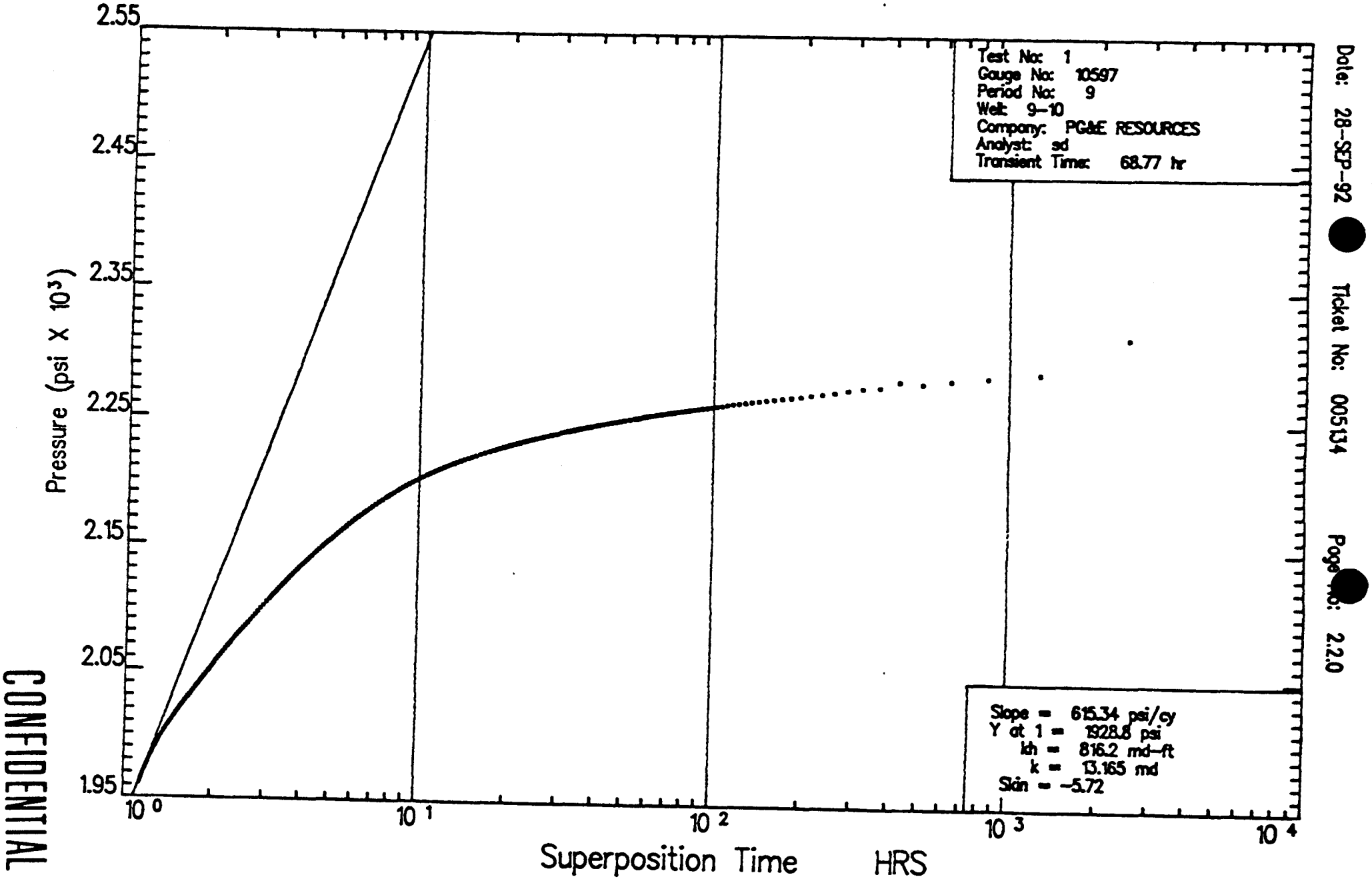
STEP RATE PLOT



CONFIDENTIAL

FIGURE 4

SEMI–LOG PLOT



CONFIDENTIAL

PETROLEUM LABORATORY
AND GAS ENGINEERING
401 N.E. 46th Oklahoma City, Ok. 73105-3338
(405) 528-8255

LABORATORY REPORT NO. 64512

WATER ANALYSIS

PACIFIC GAS & ELECTRIC RESOURCES
CASTLEGATE PROSPECT
JENSEN 9-10
STATION NO. INJECTION WATER
VERNAL, UTAH

SAMPLED BY: PG&ER
DATE SAMPLED: 10-00-92
DATE RUN 10-26-92
COLOR BEFORE FILTRATION: COLORLESS
COLOR AFTER FILTRATION: COLORLESS

***** CHEMICAL CHARACTERISTICS *****

	mg/l
CALCIUM (Ca)	18
MAGNESIUM (Mg)	13
SODIUM (Na)	2,460
POTASSIUM (K)	3
BARIUM (Ba)	<1
IRON (Fe)	0.3
SILICA (SiO2)	11
*BICARBONATE (HCO3)	4,475
CARBONATE (CO3)	0
HYDROXIDE (OH)	0
SULFATE (SO4)	115
CHLORIDE (Cl)	1,165

	mg/l
'P' ALKALINITY (AS CaCO3)	0
'M' ALKALINITY (AS CaCO3)	3,670
TOTAL HARDNESS (AS CaCO3)	96
TOTAL DISSOLVED SOLIDS	8,250

RESISTIVITY @ 77 DEG. F.	0.869
SPECIFIC GRAVITY @ 75 DEG. F.	1.010
pH VALUE	8.28

NOTES:

DATE RECEIVED: 10-26-92
BORON (MG/L): 9.2
ZINC (MG/L): 0.02
CHROMIUM (MG/L): <0.05
STRONTIUM (MG/L): 0.88
THIS WATER WILL BE COMPATIBLE
WITH THE 'SWAB" SAMPLE
*BICARBONATE as CaCO3: 3670

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PETROLEUM LABORATORY
AND GAS ENGINEERING
401 N.E. 46th Oklahoma City, Ok. 73105-3338
(405) 528-8255

LABORATORY REPORT NO. 64512

WATER ANALYSIS

PACIFIC GAS & ELECTRIC RESOURCES
CASTLEGATE PROSPECT
JENSEN 9-10
STATION NO. SWAB SAMPLE
VERNAL, UTAH

SAMPLED BY: PG&ER
DATE SAMPLED: 10-00-92
DATE RUN 10-26-92
COLOR BEFORE FILTRATION: LIGHT BROWN
COLOR AFTER FILTRATION: LIGHT YELLOW

***** CHEMICAL CHARACTERISTICS *****

	mg/l
CALCIUM (Ca)	10
MAGNESIUM (Mg)	6
SODIUM (Na)	3,860
POTASSIUM (K)	2
BARIUM (Ba)	<1
IRON (Fe)	0.4
SILICA (SiO2)	10
*BICARBONATE (HCO3)	2,122
**CARBONATE (CO3)	1,628
HYDROXIDE (OH)	0
SULFATE (SO4)	280
CHLORIDE (Cl)	2,610

	mg/l
'P' ALKALINITY (AS CaCO3)	1,360
'M' ALKALINITY (AS CaCO3)	3,100
TOTAL HARDNESS (AS CaCO3)	50
TOTAL DISSOLVED SOLIDS	10,520

RESISTIVITY @ 77 DEG. F.	0.645
SPECIFIC GRAVITY @ 75 DEG. F.	1.014
pH VALUE	10.32

NOTES:

DATE RECEIVED: 10-26-92
BORON (MG/L): 4.6
THIS WATER WILL BE COMPATIBLE
WITH THE 'INJECTION' WATER
*BICARBONATE as CaCO3: 1740
**CARBONATE as CaCO3: 2720
ZINC (MG/L): 0.07
CHROMIUM (MG/L): <0.05
STRONTIUM (MG/L): 0.48

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PG&E RESOURCES
JENSEN No. 9-10
INJECTION HISTORY

DATE	TBG PRESS (PSI)	VOLUME (BBLS)	CUMLATIVE BBLS
3-Nov	350	1600	1600
4-Nov	350	3100	4700
5-Nov	350	3500	8200
6-Nov	350	3300	11500
7-Nov	350	2000	13500
8-Nov	350	2000	15500
9-Nov	0	0	15500
10-Nov	0	0	15500
11-Nov	0	0	15500
12-Nov	0	0	15500
13-Nov	350	1600	17100
14-Nov	0	0	17100
15-Nov	0	0	17100
16-Nov	0	0	17100
17-Nov	0	0	17100
18-Nov	0	0	17100
19-Nov	0	0	17100
20-Nov	0	0	17100
21-Nov	0	0	17100
22-Nov	0	0	17100
23-Nov	0	0	17100
24-Nov	0	0	17100
25-Nov	0	0	17100
26-Nov	0	0	17100
27-Nov	0	0	17100
28-Nov	0	0	17100
29-Nov	0	0	17100
30-Nov	0	0	17100
1-Dec	0	0	17100
2-Dec	0	0	17100
3-Dec	0	0	17100
4-Dec	0	0	17100
5-Dec	0	0	17100
6-Dec	0	0	17100
7-Dec	0	0	17100
8-Dec	0	0	17100
9-Dec	0	0	17100
10-Dec	0	0	17100
11-Dec	0	0	17100

12-Dec	0		0		17100		
13-Dec	0		0		17100		
14-Dec	0		0		17100		
15-Dec	0		0		17100		
17-Dec	0		0		17100		
18-Dec	0		0		17100		
19-Dec	0		0		17100		
20-Dec	0		0		17100		
21-Dec	0		0		17100		
22-Dec	0		0		17100		
23-Dec	0		0		17100		
24-Dec	0		0		17100		
25-Dec	0		0		17100		
26-Dec	0		0		17100		
27-Dec	0		0		17100		
28-Dec	0		0		17100		
29-Dec	0		0		17100		
30-Dec	0		0		17100		
31-Dec	200		1400		18500		
1-Jan	0		0		18500		
2-Jan	0		0		18500		
3-Jan	0		0		18500		
4-Jan	0		0		18500		
5-Jan	250		1310		19810		
6-Jan	250		3490		23300		
7-Jan	250		1200		24500		
8-Jan	250		1200		25700		
9-Jan	250		3000		28700		

Shimmin Trust No. 2
Step-rate/Fallout Testing Results (Sand Canyon sand)
Castlegate Field
Carbon County, Utah

The Shimmin Trust No. 2 was perforated in the Spring Canyon sand from 4440' - 4528' (CNL) at 2 spf for a step-rate/fallout test. Shales above and below the Spring Canyon were also perforated at 4390' (2 holes) and 4575' (2 holes) to obtain stress tests. A general description of the results follows: copies of pertinent graphs are attached for your files.

A swab sample was obtained from 4440'-4528'. Comparison of the Spring Canyon water analysis from the swab sample to the analysis of the coal bed produced water sample which was used for the injection tests indicated the TDS is slightly higher in the Spring Canyon, 10206 mg/l vs. 8755 mg/l. Chlorides in the Spring Canyon were measured at 3208 mg/1. The waters are very similar in composition and are compatible. A complete analysis of each sample is attached.

Each of the shale intervals was isolated for a stress test. The zone at 4575' did not indicate a clearly defined fracture closure pressure. However, the best estimate from the third pump-in is 2460 psi. Evaluation of the closure pressure tests at 4390' indicated good repeatability with results of 2790 psi and 2780 psi (corrected to depth), a different of less than one percent.

Results from the step-rate/fallout test on the Spring Canyon sand indicated a closure pressure of 2005 psia. Horner evaluation of the falloff indicated permeability of 2.7 md, skin of -4.2, and a radius of investigation of 522 feet. Average reservoir pressure was determined to be 1280 psia. Closure pressure and average reservoir pressure were corrected to mid-perf. The final rate of the step-rate test was 3.5 bbl/min or 5040 bbl/day with surface pressure of 325 psi. A total of 908 bbls of water were injected into the Spring Canyon.

Comparison of the fracture gradients from the above closure pressures indicates that the Spring Canyon sand (0.45 psi/ft) will be bound by the shale above and below the zone which have a fracture gradients of 0.63 psi/ft and 0.54 psi/ft, respectively.

All of the data obtained indicates the Spring Canyon sand injection to be the most economic way of disposing of the produced water from the Castlegate project. Drilling has incorporated 7" casing in four wells to allow dual completion of the coals and injection interval.

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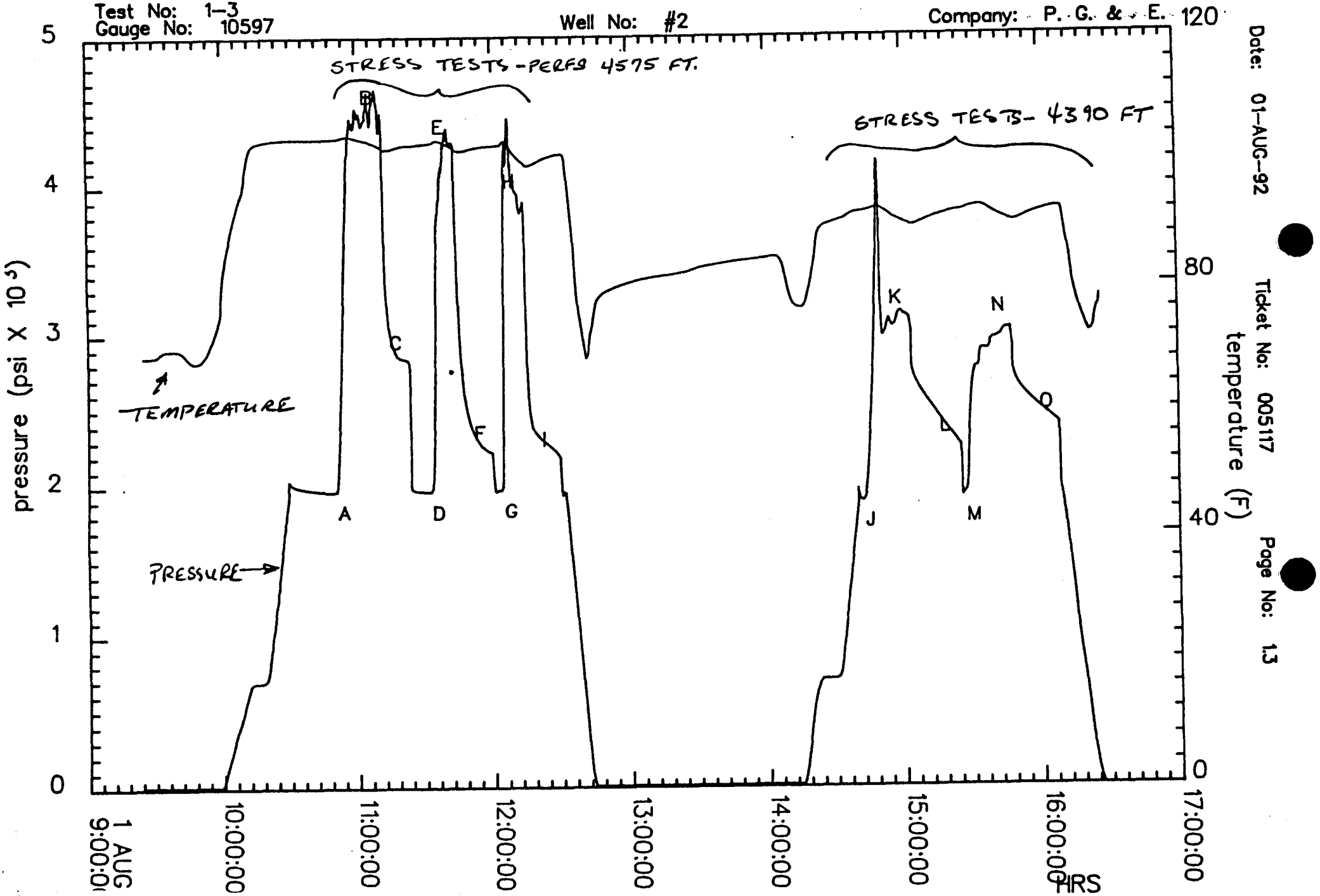
Pressure/Temperature History

CONFIDENTIAL

Test No: 1-3
Gauge No: 10597

Well No: #2

Company: P. G. & E.



Date: 01-AUG-92

Ticket No: 005117

Page No: 1.3

Pressure Vs Sqrt(dt)

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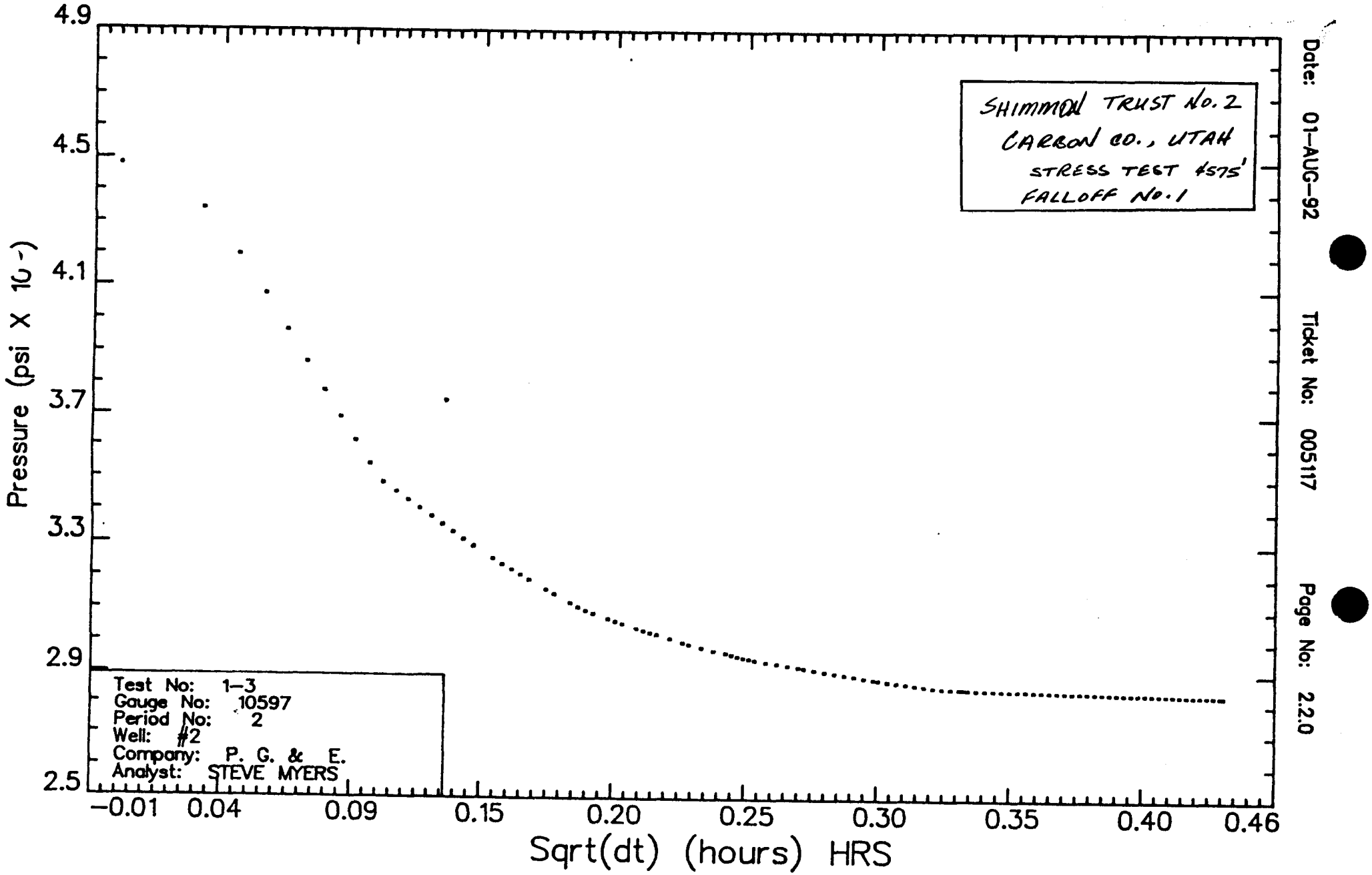
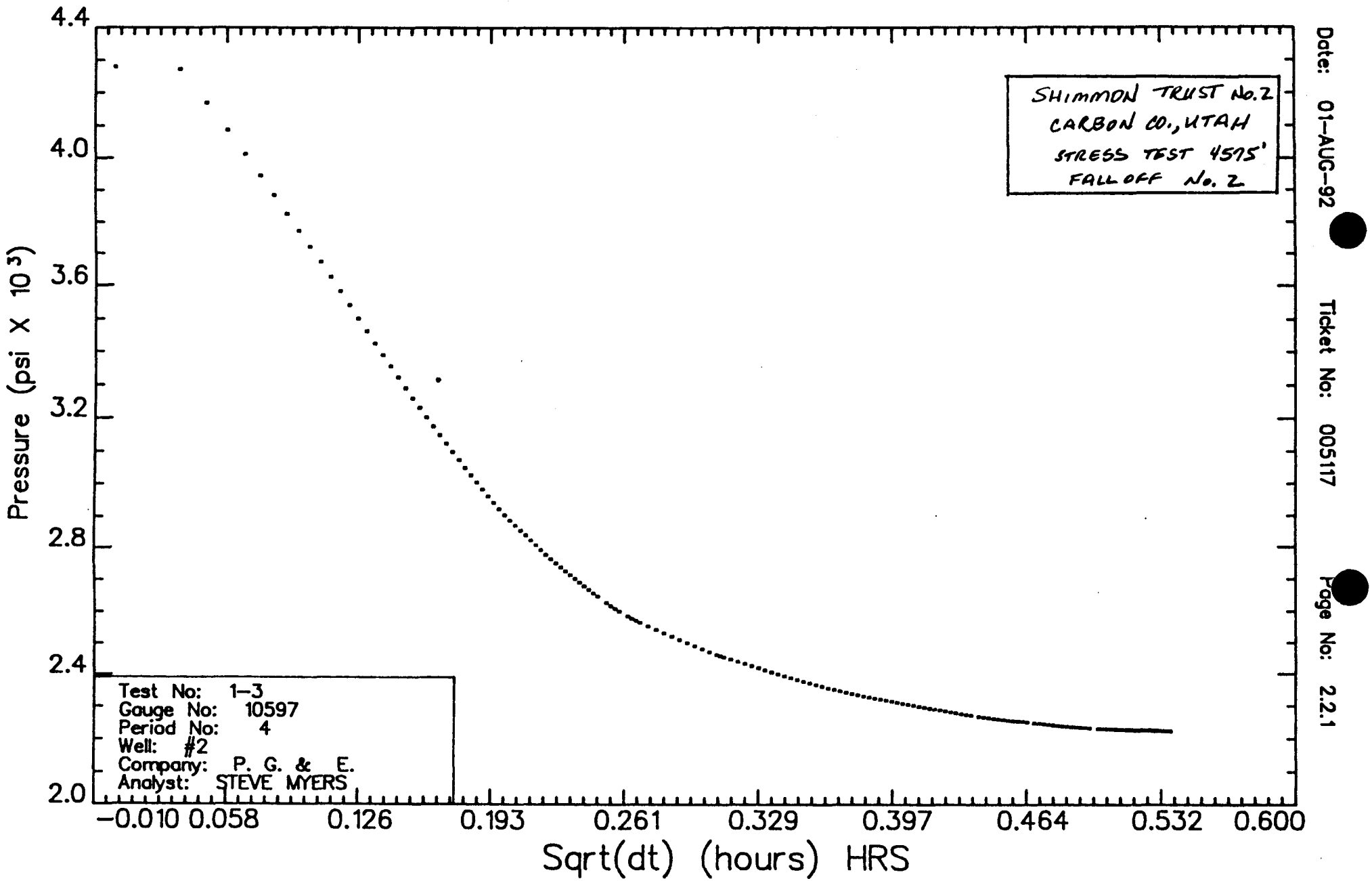


Pressure Vs Sqrt(dt)

CONFIDENTIAL



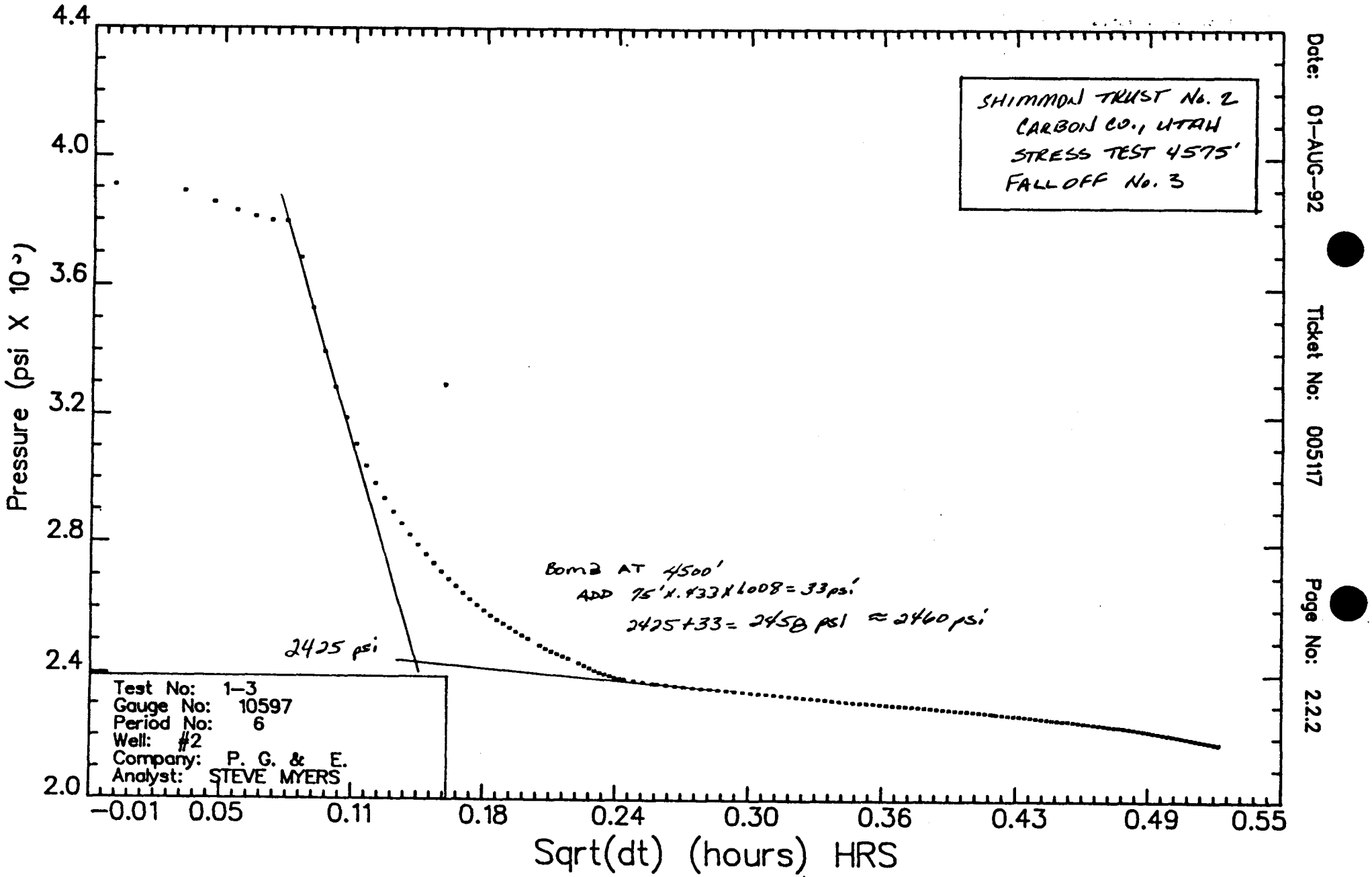
Date: 01-AUG-92

Ticket No: 005117

Page No: 2.2.1

Pressure Vs Sqrt(dt)

CONFIDENTIAL



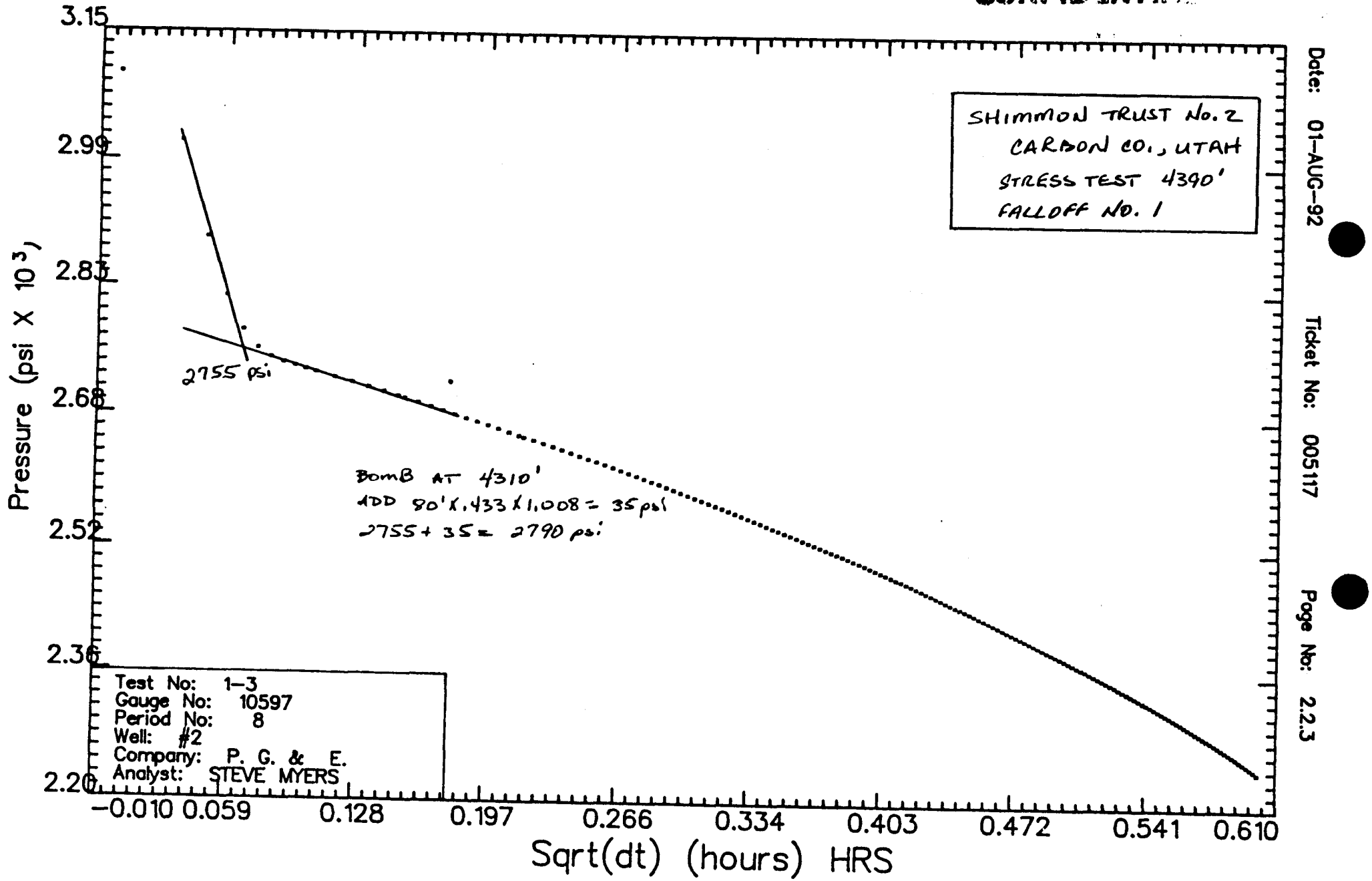
Date: 01-AUG-92

Ticket No: 005117

Page No: 2.2.2

Pressure Vs Sqrt(dt)

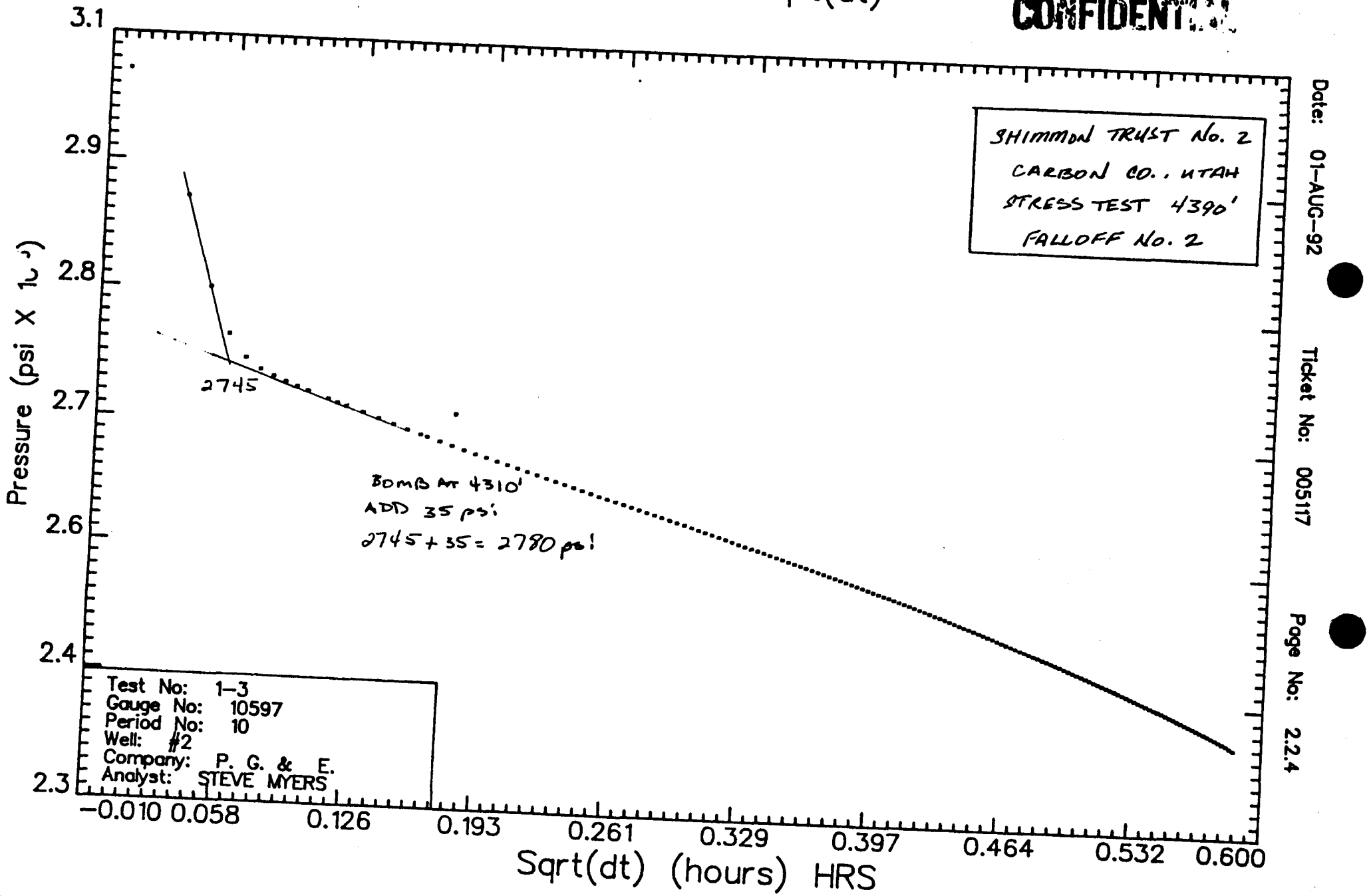
CONFIDENTIAL



Date: 01-AUG-92 Ticket No: 005117 Page No: 2.2.3

Pressure Vs Sqrt(dt)

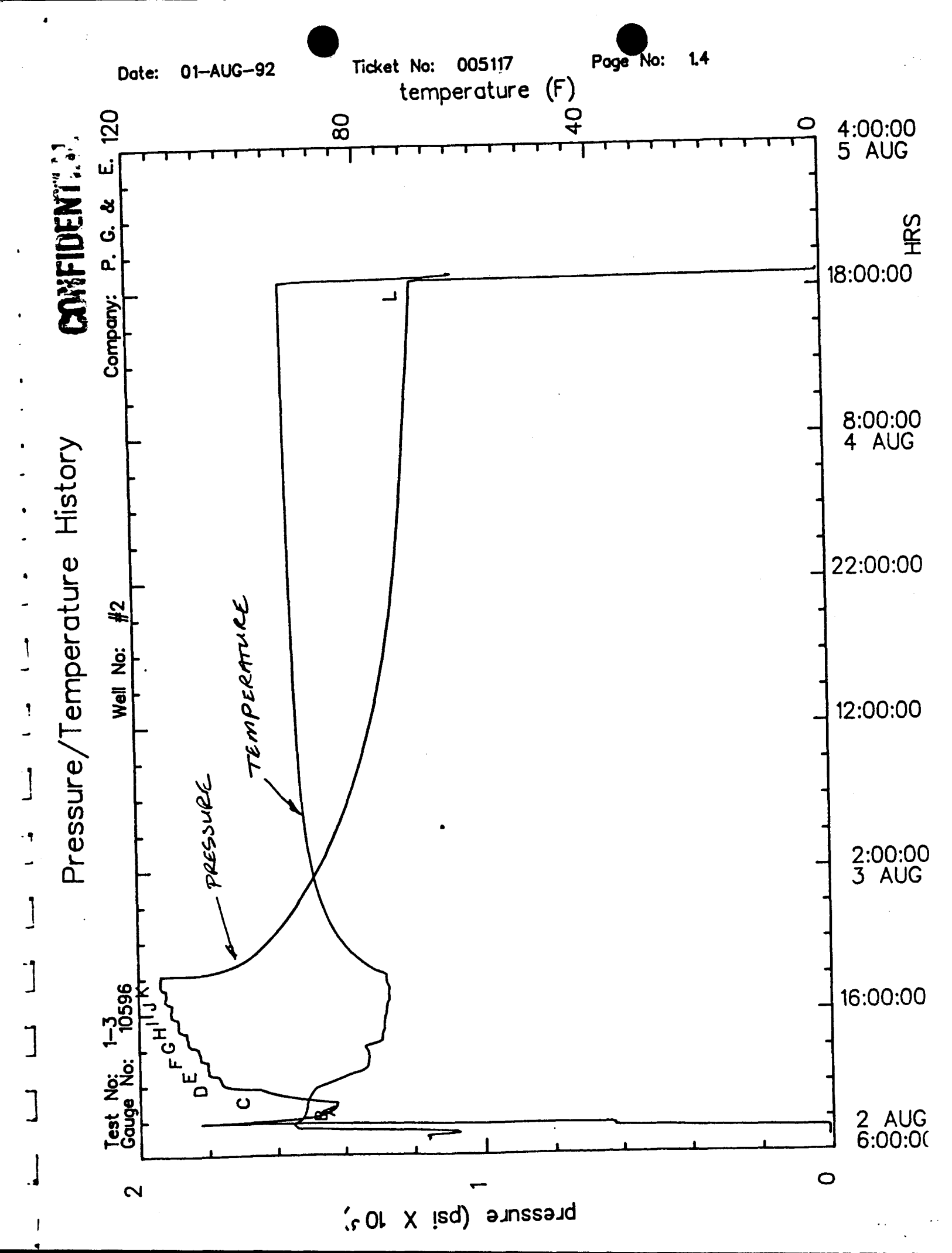
CONFIDENTIAL



Date: 01-AUG-92

Ticket No: 005117

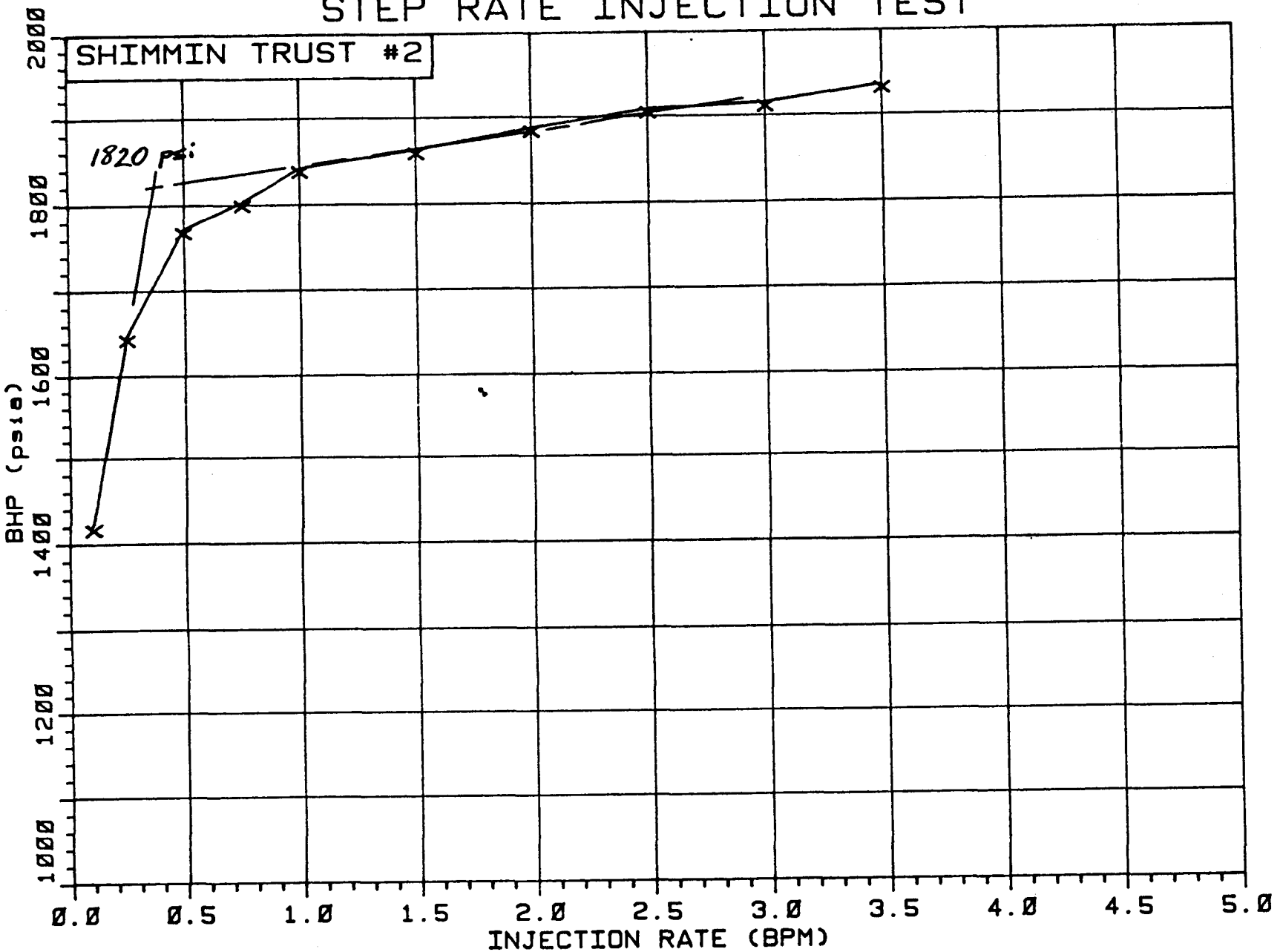
Page No: 2.2.4


Date: 01-AUG-92
Ticket No: 005117
Page No: 1.4
temperature (F)
120
80
40
0
CONFIDENTIAL
Company: P. G. & E.
Pressure/Temperature History
Well No: #2
Test No: 1-3
Gauge No: 10596
PRESSURE
TEMPERATURE
A
B
C
D
E
F
G
H
I
J
K
L
4:00:00
5 AUG
HRS
18:00:00
8:00:00
4 AUG
22:00:00
12:00:00
2:00:00
3 AUG
16:00:00
2 AUG
6:00:00
2
1
0
pressure (psi X 10³)

PERFS: 4440' - 4528'

CONFIDENTIAL

STEP RATE INJECTION TEST



Date: 01-AUG-92

Ticket No: 005117

Page No: 1.8

- ADJUST TO MIDPERF 4484'
- BOMB AT 4060'

ADD (4484'-4060')(.433)(1.008) = 185 psi

1820 + 185 = 2005 psia

Pressure Vs Sqrt(dt)

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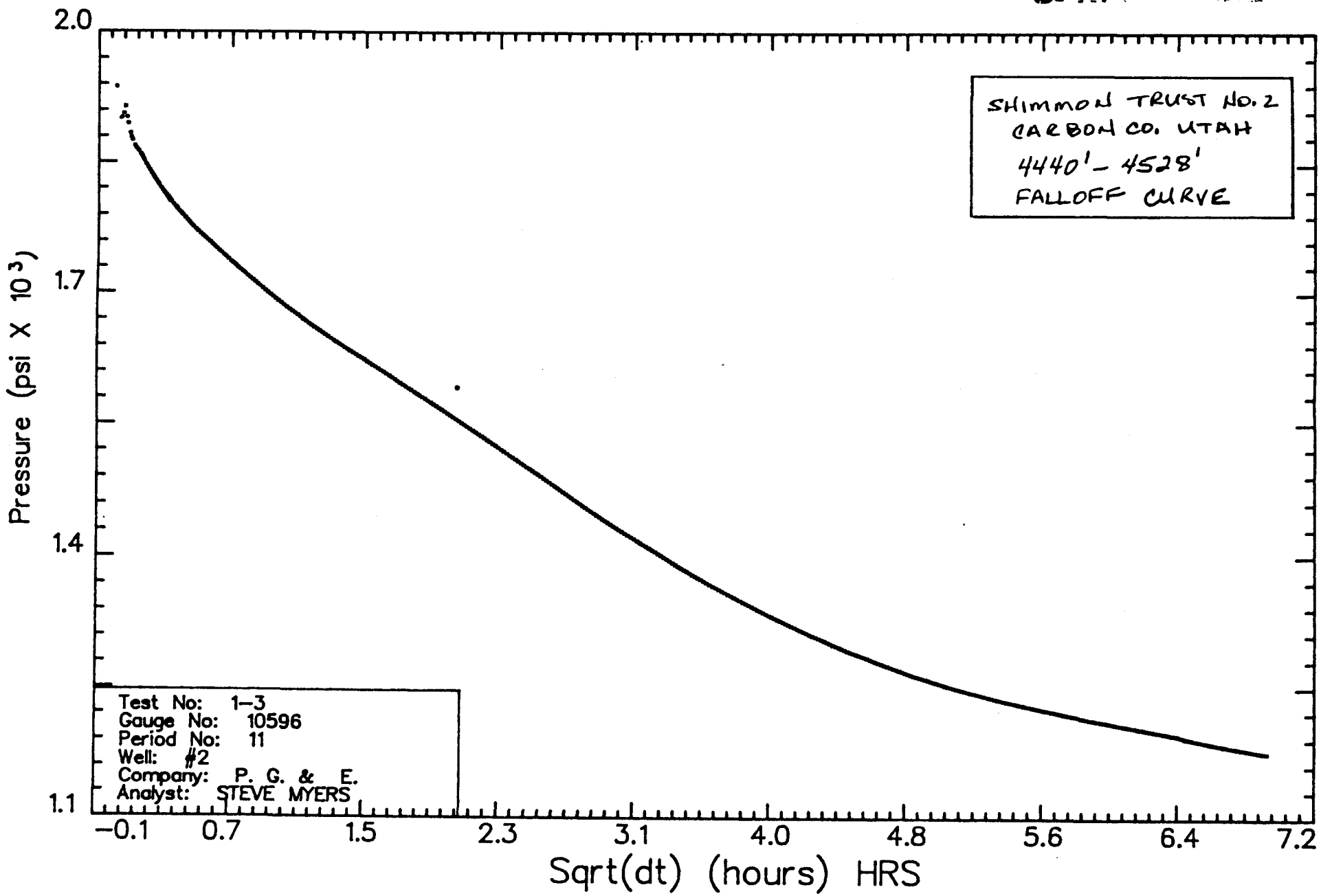


Date: 01-AUG-92

Ticket No: 005117

Page No: 2.2.5

LABORATORY REPORT NO. 63647

JULY 28 1992

PACIFIC GAS & ELECTRIC RESOURCES
SHIMMIN TRUST WELLS

SAMPLED JULY 15 1992

ANALYSES OF 6 WATER SAMPLES *INCLUDING ZINC, BORON AND CHROMIUM*

SAMPLE #1 (pH = 7.1/21 C)
SAMPLE #2 (pH = 7.0/24 C)
SAMPLE #3 (pH = 7.7/19 C)
SAMPLE #4 (pH = 7.7/17 C)
SAMPLE #5 (pH = 7.6/23 C)
SAMPLE RO PERMEATE (pH = 5.3/30 C)

1 - PACIFIC GAS & ELECTRIC RESOURCES - DALLAS TX

Oilab

PETROLEUM LABORATORY
AND GAS ENGINEERING
401 N.E. 46th Oklahoma City, Ok. 73105-3338
(405) 528-8255

LABORATORY REPORT NO. 63647

WATER ANALYSIS

PACIFIC GAS & ELECTRIC RESOURCES
SHIMMIN TRUST WELLS
SAMPLE #1 (pH = 7.1/21°C)

SAMPLED BY: PG&E
DATE SAMPLED: 07-15-92
DATE RUN 07-24-92
COLOR BEFORE FILTRATION: COLORLESS
COLOR AFTER FILTRATION: COLORLESS

***** CHEMICAL CHARACTERISTICS *****

	mg/l
CALCIUM (Ca)	36
MAGNESIUM (Mg)	15.6
SODIUM (Na)	2,660
POTASSIUM (K)	1
BARIUM (Ba)	<1
IRON (Fe)	0.1
SILICA (SiO2)	15
*BICARBONATE (HCO3)	5,490
CARBONATE (CO3)	0
HYDROXIDE (OH)	0
SULFATE (SO4)	1
CHLORIDE (Cl)	1,020

	mg/l
"P" ALKALINITY (AS CaCO3)	0
"M" ALKALINITY (AS CaCO3)	4,500
TOTAL HARDNESS (AS CaCO3)	155
TOTAL DISSOLVED SOLIDS	9,225

RESISTIVITY @ 77 DEG. F.	0.746
SPECIFIC GRAVITY @ 74 DEG. F.	1.010
pH VALUE	8.01

NOTES:

ZINC: <0.01
BORON: 12.2
CHROMIUM: <0.05
CANNOT TEST FOR STRONTIUM AT PRESENT. WILL BE ABLE TO RUN THE TEST IN THE FUTURE.
*BICARBONATE as CaCO3: 4500

PETROLEUM LABORATORY
AND GAS ENGINEERING
401 N.E. 46th Oklahoma City, Ok. 73105-3338
(405) 528-8255

LABORATORY REPORT NO. 63647

WATER ANALYSIS

PACIFIC GAS & ELECTRIC RESOURCES
SHIMMIN TRUST WELLS
SAMPLE #2 (pH = 7.0/24°C)

SAMPLED BY: PG&E
DATE SAMPLED: 07-15-92
DATE RUN 07-24-92
COLOR BEFORE FILTRATION: COLORLESS
COLOR AFTER FILTRATION: COLORLESS

***** CHEMICAL CHARACTERISTICS *****

	mg/l
CALCIUM (Ca)	52
MAGNESIUM (Mg)	7.2
SODIUM (Na)	2,185
POTASSIUM (K)	1
BARIUM (Ba)	<1
IRON (Fe)	0.2
SILICA (SiO2)	13
*BICARBONATE (HCO3)	5,182
CARBONATE (CO3)	0
HYDROXIDE (OH)	0
SULFATE (SO4)	1
CHLORIDE (Cl)	470

	mg/l
'P' ALKALINITY (AS CaCO3)	0
'M' ALKALINITY (AS CaCO3)	4,250
TOTAL HARDNESS (AS CaCO3)	160
TOTAL DISSOLVED SOLIDS	7,900

RESISTIVITY @ 77 DEG. F.	0.873
SPECIFIC GRAVITY @ 74 DEG. F.	1.007
pH VALUE	7.98

NOTES:

ZINC: <0.01
BORON: 12.0
CHROMIUM: <0.05
CANNOT TEST FOR STRONTIUM AT PRESENT. WILL BE ABLE TO RUN THE TEST IN THE FUTURE.
*BICARBONATE as CaCO3: 4250

PETROLEUM LABORATORY
AND GAS ENGINEERING
401 N.E. 46th Oklahoma City, Ok. 73105-3338
(405) 528-8255

LABORATORY REPORT NO. 63647

WATER ANALYSIS

PACIFIC GAS & ELECTRIC RESOURCES
SHIMMIN TRUST WELLS
SAMPLE #3 (pH = 7.7/19°C)

SAMPLED BY: PG&E
DATE SAMPLED: 07-15-92
DATE RUN 07-24-92
COLOR BEFORE FILTRATION: COLORLESS
COLOR AFTER FILTRATION: COLORLESS

***** CHEMICAL CHARACTERISTICS *****

	mg/l
CALCIUM (Ca)	48
MAGNESIUM (Mg)	7.2
SODIUM (Na)	1,815
POTASSIUM (K)	1
BARIUM (Ba)	<1
IRON (Fe)	0.2
SILICA (SiO2)	15
*BICARBONATE (HCO3)	4,285
CARBONATE (CO3)	0
HYDROXIDE (OH)	0
SULFATE (SO4)	1
CHLORIDE (Cl)	415

	mg/l
"P" ALKALINITY (AS CaCO3)	0
"M" ALKALINITY (AS CaCO3)	3,515
TOTAL HARDNESS (AS CaCO3)	150
TOTAL DISSOLVED SOLIDS	6,575

RESISTIVITY @ 77 DEG. F.	1.020
SPECIFIC GRAVITY @ 74 DEG. F.	1.008
pH VALUE	6.29

NOTES:

ZINC: <0.01
BORON: 6.5
CHROMIUM: <0.05
CANNOT TEST FOR STRONTIUM AT PRESENT. WILL BE ABLE TO RUN THE TEST IN THE FUTURE.
*BICARBONATE as CaCO3: 3515

PETROLEUM LABORATORY
AND GAS ENGINEERING
401 N.E. 46th Oklahoma City, Ok. 73105-3338
(405) 528-8255

LABORATORY REPORT NO. 63647

WATER ANALYSIS

PACIFIC GAS & ELECTRIC RESOURCES
SHIMMIN TRUST WELLS
SAMPLE #4 (pH = 7.7/17°C)

SAMPLED BY: PG&E
DATE SAMPLED: 07-15-92
DATE RUN 07-24-92
COLOR BEFORE FILTRATION: COLORLESS
COLOR AFTER FILTRATION: COLORLESS

***** CHEMICAL CHARACTERISTICS *****

	mg/l
CALCIUM (Ca)	32
MAGNESIUM (Mg)	9.6
SODIUM (Na)	2,415
POTASSIUM (K)	1
BARIUM (Ba)	<1
IRON (Fe)	0.5
SILICA (SiO2)	14
*BICARBONATE (HCO3)	5,427
CARBONATE (CO3)	0
HYDROXIDE (OH)	0
SULFATE (SO4)	1
CHLORIDE (Cl)	650

	mg/l
"P" ALKALINITY (AS CaCO3)	0
"M" ALKALINITY (AS CaCO3)	4,450
TOTAL HARDNESS (AS CaCO3)	120
TOTAL DISSOLVED SOLIDS	8,535

RESISTIVITY @ 77 DEG. F.	0.796
SPECIFIC GRAVITY @ 74 DEG. F.	1.009
pH VALUE	8.26

NOTES:

ZINC: <0.01
BORON: 10.5
CHROMIUM: <0.05
CANNOT TEST FOR STRONTIUM AT PRESENT, WILL BE ABLE TO RUN THE TEST IN THE FUTURE.
*BICARBONATE as CaCO3: 4450

PETROLEUM LABORATORY
AND GAS ENGINEERING
401 N.E. 46th Oklahoma City, Ok. 73105-3338
(405) 528-8255

LABORATORY REPORT NO. 63647

WATER ANALYSIS

PACIFIC GAS & ELECTRIC RESOURCES
SHIMMIN TRUST WELLS
SAMPLE #5 (pH = 7.6/23°C)

SAMPLED BY: PG&E
DATE SAMPLED: 07-15-92
DATE RUN 07-24-92
COLOR BEFORE FILTRATION: COLORLESS
COLOR AFTER FILTRATION: COLORLESS

***** CHEMICAL CHARACTERISTICS *****

	mg/l
CALCIUM (Ca)	28
MAGNESIUM (Mg)	8
SODIUM (Na)	2,195
POTASSIUM (K)	1
BARIUM (Ba)	<1
IRON (Fe)	0.6
SILICA (SiO2)	13
*BICARBONATE (HCO3)	4,780
CARBONATE (CO3)	0
HYDROXIDE (OH)	0
SULFATE (SO4)	1
CHLORIDE (Cl)	675

	mg/l
"P" ALKALINITY (AS CaCO3)	0
"M" ALKALINITY (AS CaCO3)	3,920
TOTAL HARDNESS (AS CaCO3)	104
TOTAL DISSOLVED SOLIDS	7,690

RESISTIVITY @ 77 DEG. F.	0.847
SPECIFIC GRAVITY @ 74 DEG. F.	1.009
pH VALUE	8.36

NOTES:
ZINC: <0.01
BORON: 6.0
CHROMIUM: <0.05
CANNOT TEST FOR STRONTIUM AT PRESENT. WILL BE ABLE TO RUN THE TEST IN THE FUTURE.
*BICARBONATE as CaCO3: 3920

PETROLEUM LABORATORY
AND GAS ENGINEERING
401 N.E. 46th Oklahoma City, Ok. 73105-3338
(405) 528-8255

LABORATORY REPORT NO. 63647

WATER ANALYSIS

PACIFIC GAS & ELECTRIC RESOURCES
SHIMMIN TRUST WELLS
SAMPLE RO PERMEATE (pH = 5.3/30°C)

SAMPLED BY: PG&E
DATE SAMPLED: 07-15-92
DATE RUN 07-24-92
COLOR BEFORE FILTRATION: COLORLESS
COLOR AFTER FILTRATION: COLORLESS

***** CHEMICAL CHARACTERISTICS *****

	mg/l
CALCIUM (Ca)	2
MAGNESIUM (Mg)	0.8
SODIUM (Na)	35
POTASSIUM (K)	<1
BARIUM (Ba)	<1
IRON (Fe)	<0.1
SILICA (SiO2)	8
*BICARBONATE (HCO3)	43
CARBONATE (CO3)	0
HYDROXIDE (OH)	0
SULFATE (SO4)	1
CHLORIDE (Cl)	35

	mg/l
'P' ALKALINITY (AS CaCO3)	0
'M' ALKALINITY (AS CaCO3)	35
TOTAL HARDNESS (AS CaCO3)	8
TOTAL DISSOLVED SOLIDS	117

RESISTIVITY @ 77 DEG. F.	41.670
SPECIFIC GRAVITY @ 74 DEG. F.	1.000
pH VALUE	6.01

NOTES: *CHROMIUM: <0.05*
ZINC: <0.01
BORON: 1.2
CANNOT TEST FOR STRONTIUM AT PRESENT. WILL BE ABLE TO RUN THE TEST IN THE FUTURE.
*BICARBONATE as CaCO3: 35

PETROLEUM LABORATORY
AND GAS ENGINEERING
401 N.E. 46th Oklahoma City, Ok. 73105-3338
(405) 528-8255

PACIFIC GAS & ELECTRIC RESOURCES

FOLLOWING ARE THE METHOD NUMBERS AND DETECTION LIMITS FOR EACH OF THE PARAMETER TESTED

PARAMETER	METHOD	DETECTION LIMIT (MG/L)
pH	*4500-H^+-B	0.1 UNIT
BICARBONATES (HCO3)	2320-B	1.0
CARBONATE (CO3)	2320-B	1.0
ALKALINITY	310.1	1.0
CALCIUM	EPA 215.1	0.01
MAGNESIUM	EPA 242.1	0.001
POTASSIUM	EPA 258.1	0.01
SODIUM	EPA 273.1	0.002
TDS	*2540-C	1.0
IRON	236.1	0.03
SILICA	*4500-Si-E	0.1
BARIUM	208.1	0.1
BORON	*4500-B-C	0.1
CHROMIUM	EPA-218.1	0.05
ZINC	EPA 289.1	0.005

*STANDARD METHODS OF WATER AND WASTEWATER (17th EDITION)

PETROLEUM LABORATORY
AND GAS ENGINEERING
401 N.E. 46th Oklahoma City, Ok. 73105-3338
(405) 528-8255

LABORATORY REPORT NO. 63953

AUGUST 28, 1992

PACIFIC GAS & ELECTRIC RESOURCES

ANALYSES OF (A) 6 WATER SAMPLES FOR STRONTIUM ANALYSIS

SHIMMIN TRUST WELLS
(07-15-92)

ANALYSIS: (RESULTS IN MG/L)

	SAMPLE	STRONTIUM
(1)	PG&ER (RO PERMEATE)	<0.1
(2)	PG&ER #1	0.80
(3)	PG&ER #2	0.68
(4)	PG&ER #3	1.04
(5)	PG&ER #4	0.97
(6)	PG&ER #5	1.03

ANALYSES OF (B) 2 WATER SAMPLES

SHIMMIN TRUST #2
(08-02-92)

ANALYSIS: (RESULTS IN MG/L)

	SAMPLE	STRONTIUM
(1)	INJECTED WATER (TANKS COMINGLED 2 BBLs/m)	0.70
(2)	SWAB SAMPLE	0.90

NOTE: METHOD EPA 7780

1 - PACIFIC GAS & ELECTRIC RESOURCES - DALLAS, TX

LABORATORY REPORT NO. 64512

OCTOBER 28, 1992

PACIFIC GAS & ELECTRIC RESOURCES
CASTLEGATE PROSPECT

SAMPLED OCTOBER 1992: SAMPLES RECEIVED AT OILAB, OCTOBER 26, 1992

ANALYSES OF 2 WATER SAMPLES INCLUDING BORON, ZINC, CHROMIUM, AND STRONTIUM

JENSEN 9-10	INJECTION WATER
JENSEN 9-10	SWAB SAMPLE

1 - WAYNE SUTTON - DALLAS, TX

PETROLEUM LABORATORY
AND GAS ENGINEERING
401 N.E. 46th Oklahoma City, Ok. 73105-3338
(405) 528-8255

LABORATORY REPORT NO. 64512

WATER ANALYSIS

PACIFIC GAS & ELECTRIC RESOURCES
CASTLEGATE PROSPECT
JENSEN 9-10
STATION NO. INJECTION WATER
VERNAL, UTAH

SAMPLED BY: PG&ER
DATE SAMPLED: 10-00-92
DATE RUN 10-26-92
COLOR BEFORE FILTRATION: COLORLESS
COLOR AFTER FILTRATION: COLORLESS

***** CHEMICAL CHARACTERISTICS *****

	mg/l
CALCIUM (Ca)	18
MAGNESIUM (Mg)	13
SODIUM (Na)	2,460
POTASSIUM (K)	3
BARIUM (Ba)	<1
IRON (Fe)	0.3
SILICA (SiO2)	11
*BICARBONATE (HCO3)	4,475
CARBONATE (CO3)	0
HYDROXIDE (OH)	0
SULFATE (SO4)	115
CHLORIDE (Cl)	1,165

	mg/l
"P" ALKALINITY (AS CaCO3)	0
"M" ALKALINITY (AS CaCO3)	3,670
TOTAL HARDNESS (AS CaCO3)	96
TOTAL DISSOLVED SOLIDS	8,250

RESISTIVITY @ 77 DEG. F.	0.869
SPECIFIC GRAVITY @ 75 DEG. F.	1.010
pH VALUE	8.28

NOTES:

DATE RECEIVED: 10-26-92
BORON (MG/L): 9.2
ZINC (MG/L): 0.02
CHROMIUM (MG/L): <0.05
STRONTIUM (MG/L): 0.88
THIS WATER WILL BE COMPATIBLE
WITH THE "SWAB" SAMPLE
*BICARBONATE as CaCO3: 3670

PETROLEUM LABORATORY
AND GAS ENGINEERING
401 N.E. 46th Oklahoma City, Ok. 73105-3338
(405) 528-8255

LABORATORY REPORT NO. 64512

WATER ANALYSIS

PACIFIC GAS & ELECTRIC RESOURCES
CASTLEGATE PROSPECT
JENSEN 9-10
STATION NO. SWAB SAMPLE
VERNAL, UTAH

SAMPLED BY: PG&ER
DATE SAMPLED: 10-00-92
DATE RUN 10-26-92
COLOR BEFORE FILTRATION: LIGHT BROWN
COLOR AFTER FILTRATION: LIGHT YELLOW

***** CHEMICAL CHARACTERISTICS *****

	mg/l
CALCIUM (Ca)	10
MAGNESIUM (Mg)	6
SODIUM (Na)	3,860
POTASSIUM (K)	2
BARIUM (Ba)	<1
IRON (Fe)	0.4
SILICA (SiO2)	10
*BICARBONATE (HCO3)	2,122
**CARBONATE (CO3)	1,628
HYDROXIDE (OH)	0
SULFATE (SO4)	280
CHLORIDE (Cl)	2,610

	mg/l
"P" ALKALINITY (AS CaCO3)	1,360
"M" ALKALINITY (AS CaCO3)	3,100
TOTAL HARDNESS (AS CaCO3)	50
TOTAL DISSOLVED SOLIDS	10,520

RESISTIVITY @ 77 DEG. F.	0.645
SPECIFIC GRAVITY @ 75 DEG. F.	1.014
pH VALUE	10.32

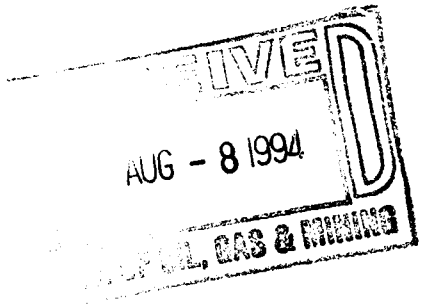
NOTES:

DATE RECEIVED: 10-26-92
BORON (MG/L): 4.6
THIS WATER WILL BE COMPATIBLE
WITH THE "INJECTION" WATER
*BICARBONATE as CaCO3: 1740
**CARBONATE as CaCO3: 2720
ZINC (MG/L): 0.07
CHROMIUM (MG/L): <0.05
STRONTIUM (MG/L): 0.48

PG&E Resources Company

N. Central Expressway, Suite 1000
Dallas, Texas 75206-3922
Telephone 214/750-3800
FAX 214/750-3883

August 2, 1994



STATE OF UTAH
Division of Oil Gas & Mining
355 W. North Temple
3 Triad Center - Suite 350
Salt Lake City, UT 84180

ATTENTION: Lisha Cordova

RE: Change of Operator
Castlegate Wells
Carbon County, Utah

Dear Lisha:

Enclosed please find the following documents in connection with the above captioned transfer of operations to Anadarko Petroleum Corporation effective as of August 1, 1994.

1) Copies of 8 BLM Sundry Notices (Form 3160-5)
2) Originals of 21 Utah Sundry Notices (Form 9)
3) Originals of 4 Transfers of Authority to Inject (UIC Form 5)

If additional information is needed in this regard, please contact the undersigned or Mr. L. Steve Hamilton with Anadarko at (405) 475-7000.

Sincerely,

Rejahna Barrow

Rejahna Barrow
Sr. Proration Analyst
(214) 750-3120

Enclosures (33)

cc: Mr. L. Steve Hamilton
Anadarko Petroleum Corporation
Oklahoma City, OK

Note: Please furnish both Operators a copy of the approved Sundry.

Form 9

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

6. Lease Designation and Serial Number

7. Indian Allottee or Tribe Name: N/A

8. Unit or Communitization Agreement: N/A

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill new wells, deepen existing wells, or to reenter plugged and abandoned wells.
Use APPLICATION FOR PERMIT — for such proposals

1. Type of Well: ☐ Oil Well ☐ Gas Well ☒ Other (specify) SWD

9. Well Name and Number: Shimmin Trust 10-11

2. Name of Operator: Anadarko Petroleum Corporation

10. API Well Number: 43-007-30167

3. Address of Operator: 9400 N. Broadway - Suite 700, Oklahoma City, OK 73114

4. Telephone Number: (405) 475-7000

11. Field and Pool, or Wildcat: Wildcat

5. Location of Well
Footage : 1999' FSL & 2006' FEL
QQ, Sec, T., R., M. : NW/4 SE/4, Sec. 11, T12S, R10E
County : Carbon
State : UTAH

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

NOTICE OF INTENT
(Submit in Duplicate)

- ☐ Abandonment
- ☐ Casing Repair
- ☐ Change of Plans
- ☐ Conversion to Injection
- ☐ Fracture Treat
- ☐ Multiple Completion
- ☐ New Construction
- ☐ Pull or Alter Casing
- ☐ Recompletion
- ☐ Shoot or Acidize
- ☐ Vent or Flare
- ☐ Water Shut-Off
- ☒ Other Change of Operator

Approximate Date Work Will Start _____

SUBSEQUENT REPORT
(Submit Original Form Only)

- ☐ Abandonment *
- ☐ Casing Repair
- ☐ Change of Plans
- ☐ Conversion to Injection
- ☐ Fracture Treat
- ☐ Other _____
- ☐ New Construction
- ☐ Pull or Alter Casing
- ☐ Shoot or Acidize
- ☐ Vent or Flare
- ☐ Water Shut-Off

Date of Work Completion _____

Report results of Multiple Completions and Recompletions to different reservoirs on WELL COMPLETION OR RECOMPLETION AND LOG form.

* Must be accompanied by a cement verification report.

13. DESCRIBE PROPOSED OR COMPLETED OPERATIONS (Clearly state all pertinent details, and give pertinent dates. 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 PG&E Resources Company is hereby transferring operations and Anadarko Petroleum Corporation is hereby assuming operations and will be responsible for the above described well effective as of August 1, 1994.

Bond coverage for this well is provided by Anadarko Petroleum Corporation's Statewide Blanket Bond #224351

PG&E Resources Company hereby agrees to the foregoing transfer.

By: _____, Sr. Proration Analyst, August 1, 1994

ACCEPTED BY THE STATE OF UTAH DIVISION OF OIL, GAS, AND MINING

DATE: Aug. 11, 1994

BY: Lisha Cordova

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AUG - 8 1994

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

Name & Signature: L. Stuart Hamilton Title: Division Admin. Mgr. Date: 8/1/94

(State Use Only)

See Instructions on Reverse Side

STATE OF UTAH
DIVISION OF OIL, GAS AND MINING

TRANSFER OF AUTHORITY TO INJECT - UIC FORM 5

Well name and number: Shimmin Trust 10-11

Field or Unit name: Wildcat API no. 43-007-30167

Well location: QQ NW SE section 11 township 12S range 10E county Carbon

Effective Date of Transfer: August 1, 1994

CURRENT OPERATOR

Transfer approved by:

Name Rejahna Barrow Company PG&E Resources Company

Signature Rejahna Barrow Address 6688 N. Central Expwy, Suite 1000

Title Sr. Proration Analyst Dallas, Texas 75206

Date August 1, 1994 Phone (214) 750-3800

Comments:

NEW OPERATOR

Transfer approved by:

Name L. Steve Hamilton Company Anadarko Petroleum Corporation

Signature L. Steve Hamilton Address 9400 N. Broadway, Suite 700

Title Division Administrative Manager Oklahoma City, Oklahoma 73114

Date August 1, 1994 Phone (405) 475-7000

Comments:

RECEIVED
AUG - 8

(State use only)
Transfer approved by A. Hunt Title Petroleum Engineer

Approval Date 8-10-94

(3/89)

Michael O. Leavitt
Governor
Ted Stewart
Executive Director
James W. Carter
Division Director

State of Utah

DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

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)

August 19, 1994

Ms. Rejahna Barrow
PG & E Resources Company
6688 N. Central Expressway #1000
Dallas, Texas 75206-3922

Re: Notification of Sale or Transfer of Fee Lease Interest - Carbon County, Utah

Dear Ms. Barrow:

The division has received notification of a change of operator from PG & E Resources Company to Anadarko Petroleum Corporation for the following wells which are located on fee leases.

Jensen 7-15	Section 15, T.12S., R.10E	API No. 43-007-30165
Shimmin Trust 11-11	Section 11, T.12S., R.10E.	API No. 43-007-30166
Jensen 16-9	Section 9, T.12S., R.10E.	API No. 43-007-30163
Shimmin Trust 12-12	Section 12, T.12S., R.10E.	API No. 43-007-30168
Jensen 11-15	Section 15, T.12S., R.10E.	API No. 43-007-30175
Shimmin Trust 14-12	Section 12, T.12S., R.10E.	API No. 43-007-30169
Shimmin Trust 10-11	Section 11, T.12S., R.10E.	API No. 43-007-30167
Shimmin Trust 3	Section 14, T.12S., R.10E.	API No. 43-007-30119
Shimmin Trust 1	Section 11, T.12S., R.10E.	API No. 43-007-30120
Shimmin Trust 2	Section 14, T.12S., R.10E.	API No. 43-007-30121
Shimmin Trust 5	Section 14, T.12S., R.10E.	API No. 43-007-30122
Shimmin Trust 4	Section 11, T.12S., R.10E.	API No. 43-007-30123
Jensen 16-10	Section 10, T.12S., R.10E.	API No. 43-007-30161
Jensen 9-10	Section 10, T.12S., R.10E.	API No. 43-007-30159
Jensen 11-10	Section 10, T.12S., R.10E.	API No. 43-007-30164
Jensen 5-10	Section 10, T.12S., R.10E.	API No. 43-007-30162

Rule R.649-2-10 of the Utah Oil and Gas Conservation General Rules, requires that the owner of a lease provide notification to any person with an interest in such lease (working interest or royalty interest), when all or part of that interest in the lease is sold or transferred.

This letter is written to advise PG & E Resources Company of its responsibility to notify all individuals with an interest in these leases of the change of operator. Please provide written documentation of this notification to the division no later than September 9, 1994.

Sincerely,

Don Staley
Administrative Manager
Oil and Gas

ldc
cc: R.J. Firth
WOI201

Division of Oil, Gas and Mining
OPERATOR CHANGE WORKSHEET

Routing:

1-LEC	~~1-[illegible]~~
2-LWP	7-PL
3-~~DTS~~	8-SJ
4-VLC	9-FILE
5-RJF	✓
6-LWP	✓

Attach all documentation received by the division regarding this change.
Initial each listed item when completed. Write N/A if item is not applicable.

XXX Change of Operator (well sold) ☐ Designation of Agent
☐ Designation of Operator ☐ Operator Name Change Only

The operator of the well(s) listed below has changed (EFFECTIVE DATE: 8-01-94)

TO (new operator) ANADARKO PETROLEUM CORP.
(address) 9400 N BROADWAY STE 700
OKLAHOMA CITY OK 73114-7403
L. STEVE HAMILTON, MGR
phone (405) 475-7000
account no. N 0035

FROM (former operator) PG&E RESOURCES COMPANY
(address) 6688 N CENTRAL EXP #1000
DALLAS TX 75206-3922
REJAHNA BARROW
phone (214) 750-3922
account no. N0595

Well(s) (attach additional page if needed):

Name: **SEE ATTACHMENT**	API: 007-30167	Entity:	Sec	Twp	Rng	Lease Type:
Name:	API:	Entity:	Sec	Twp	Rng	Lease Type:
Name:	API:	Entity:	Sec	Twp	Rng	Lease Type:
Name:	API:	Entity:	Sec	Twp	Rng	Lease Type:
Name:	API:	Entity:	Sec	Twp	Rng	Lease Type:
Name:	API:	Entity:	Sec	Twp	Rng	Lease Type:
Name:	API:	Entity:	Sec	Twp	Rng	Lease Type:

OPERATOR CHANGE DOCUMENTATION

Lec 1. (Rule R615-8-10) Sundry or other legal documentation has been received from former operator (Attach to this form). (Rec'd 8-8-94)

Lec 2. (Rule R615-8-10) Sundry or other legal documentation has been received from new operator (Attach to this form). (Rec'd 8-8-94)

N/A 3. The Department of Commerce has been contacted if the new operator above is not currently operating any wells in Utah. Is company registered with the state? (yes/no) _____ If yes, show company file number: _____.

N/A 4. **(For Indian and Federal Wells ONLY)** The BLM has been contacted regarding this change (attach Telephone Documentation Form to this report). Make note of BLM status in comments section of this form. Management review of **Federal and Indian** well operator changes should take place prior to completion of steps 5 through 9 below.

Lwp 5. Changes have been entered in the Oil and Gas Information System (Wang/IBM) for each well listed above. 8-15-94

Lwp 6. Cardex file has been updated for each well listed above. 8-12-94

Lwp 7. Well file labels have been updated for each well listed above. 8-12-94

Lec 8. Changes have been included on the monthly "Operator, Address, and Account Changes" memo for distribution to State Lands and the Tax Commission. (8-11-94)

Lec 9. A folder has been set up for the Operator Change file, and a copy of this page has been placed there for reference during routing and processing of the original documents.

– OVER –

OPERATOR CHANGE WORKSHEET (CONTINUED) Initial each item when completed. Write N/A if item is not applicable.

ENTITY REVIEW

Lec 1. (Rule R615-8-7) Entity assignments have been reviewed for all wells listed above. Were entity changes made? (yes/no) ___ (If entity assignments were changed, attach copies of Form 6, Entity Action Form).

N/A 2. State Lands and the Tax Commission have been notified through normal procedures of entity changes.

BOND VERIFICATION (Fee wells only)

Lec 1. (Rule R615-3-1) The new operator of any fee lease well listed above has furnished a proper bond. Surety # 22435I / $80,000 "Seaboard Surety Company"

___ 2. A copy of this form has been placed in the new and former operators' bond files.

Lec 3. The former operator has requested a release of liability from their bond (yes/no) ___. Today's date Aug. 8, 1994. If yes, division response was made by letter dated _____ 19___.

LEASE INTEREST OWNER NOTIFICATION RESPONSIBILITY

DTS 1. (Rule R615-2-10) The former operator/lessee of any fee lease well listed above has been notified by letter dated 8/19 19 94, of their responsibility to notify any person with an interest in such lease of the change of operator. Documentation of such notification has been requested. by 9/9/94

DTS 2. Copies of documents have been sent to State Lands for changes involving State leases. 8/18/94 to Ed Bonner

FILMING

___ 1. All attachments to this form have been microfilmed. Date: _____ 19___.

FILING

___ 1. Copies of all attachments to this form have been filed in each well file.

___ 2. The original of this form and the original attachments have been filed in the Operator Change file.

COMMENTS

940809 Trust Lands / Ed Bonner (State 2-16 & 9-16 / ML-44437 Anadarko bonding in place.
* Federal Lease wells on separate chg. This change Fee, State, WDW only.

FORM 10

STATE OF UTAH
DIVISION OF OIL, GAS AND MINING
355 West North Temple, 3 Triad, Suite 350, Salt Lake City, UT 84180-1203

MONTHLY OIL AND GAS PRODUCTION REPORT

OPERATOR NAME AND ADDRESS:

PRODUCTION DEPT
PG&E RESOURCES COMPANY
6688 N CENTRAL EXP #1000
DALLAS TX 75206-3922

UTAH ACCOUNT NUMBER: N0595

REPORT PERIOD (MONTH/YEAR): 6 / 94

AMENDED REPORT ☐ **(Highlight Changes)**

Well Name / API Number	Entity	Location	Producing Zone	Well Status	Days Oper	Production Volumes OIL(BBL)	GAS(MCF)	WATER(BBL)
JENSEN 7-15 ✓ 4300730165 ✓	11407	12S 10E 15	✓ MVDCL			— FEE		
SHIMMIN TRUST 11-11 4300730166 ✓	11410	12S 10E 11	✓ MVDCL			— (Dual Compl/Also WDW)		— FEE
JENSEN 16-9 4300730163 ✓	11418	12S 10E 9	✓ MVDCL			— FEE		
SHIMMIN TRUST 12-12 4300730168 ✓	11420	12S 10E 12	✓ MVDCL			— FEE		
JENSEN 11-15 ✓ 4300730175 ✓	11425	12S 10E 15	✓ MVDCL			— FEE		
SHIMMIN TRUST 14-12 4300730169 ✓	11432	12S 10E 12	✓ MVDCL			— FEE		
FEDERAL 14-13 4300730177	11434	12S 10E 13	MVDCL			— UTU65949		
FEDERAL 16-14 4300730174	11435	12S 10E 14	MVDCL			— UTU65949		
FEDERAL 14-14 4300730173	11436	12S 10E 14	MVDCL			— UTU65949		
FEDERAL 16-15 4300730176	11440	12S 10E 15	MVDCL			— UTU65949		
FEDERAL 13-24B 4304732418	11507	09S 19E 24	GRRV					
FEDERAL 15-24B 4304732420	11509	09S 19E 24	GRRV					
FEDERAL 5-24B 4304732447	11585	09S 19E 24	GRRV					
[redacted] ✓	99990	12S 10E 11	✓ MVRD		TOTALS	— FEE/WDW		

43-007-30167 X

COMMENTS: _____

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

Name and Signature: _____ Telephone Number: _____

12/93)

FORM 9

STATE OF UTAH
DIVISION OF OIL, GAS AND MINING

RECEIVED
NOV - 1 1994
DIV OF OIL, GAS & MINING

5. Lease Designation and Serial Number:

6. If Indian, Allottee or Tribe Name:

7. Unit Agreement Name:

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill new wells, deepen existing wells, or to reenter plugged and abandoned wells.
Use APPLICATION FOR PERMIT TO DRILL OR DEEPEN form for such proposals.

1. Type of Well: OIL ☐ GAS ☐ OTHER: Salt Water Disposal

8. Well Name and Number: Shimmin Trust 10-11

2. Name of Operator: Anadarko Petroleum Corporation

9. API Well Number: 43-007-30167

3. Address and Telephone Number: 9400 N. Broadway, Ste. 700 Oklahoma City, OK 73114 (405) 475-7000

10. Field and Pool, or Wildcat: Wildcat

4. Location of Well
Footages: 1999' FSL & 2006' FEL Sec. 11-12S-10E
County: Carbon
QQ, Sec., T., R., M.: NW SE
State: Utah

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

NOTICE OF INTENT (Submit in Duplicate)		SUBSEQUENT REPORT (Submit Original Form Only)	
☐ Abandonment	☐ New Construction	☐ Abandonment *	☐ New Construction
☐ Casing Repair	☐ Pull or Alter Casing	☐ Casing Repair	☐ Pull or Alter Casing
☐ Change of Plans	☐ Recompletion	☐ Change of Plans	☐ Shoot or Acidize
☐ Conversion to Injection	☐ Shoot or Acidize	☐ Conversion to Injection	☐ Vent or Flare
☐ Fracture Treat	☐ Vent or Flare	☐ Fracture Treat	☐ Water Shut-Off
☐ Multiple Completion	☐ Water Shut-Off	☒ Other Increase Injection Rates	
☐ Other			
Approximate date work will start		Date of work completion N/A	

Report results of Multiple Completions and Recompletions to different reservoirs on WELL COMPLETION OR RECOMPLETION AND LOG form.

* Must be accompanied by a cement verification report.

12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS (Clearly state all pertinent details, and give pertinent dates. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)

Attached is a detailed analysis of the step rate test on 8/30/94. The original sundry was dated 10/4/94 and only included surface pressure. Since friction pressures were as high as 1500 psi, a BHP analysis should have been submitted. Figure 1 shows BHP vs rate. These points were selected in the field. Figures 2 and 3 show the actual gauge data (on 10 sec intervals) and the recorded rate data (on 1 min intervals) after time corrections were made and the data was put on the same scale. Note that the 4 and 5 BPM steps were only run for about 15 minutes while the 6, 7, 8, and 8.4 BPM steps were held for 30 minutes (recommended minimum time). Average injection rates were calculated and the final most stabilized pressure was picked and shown on Figure 4. Figure 5 shows the same points cross plotted with a best fit line indicating a PI of 21.7 BPD/PSI. The final average rate of 8.35 BPM and 2124.3 psi (2184 surface) indicates a minimum gradient of 0.7 psi/ft. Since the Price River formation is a fluvial system that is medium to fine grained, well consolidated with quartz overgrowths and silicious cement, this is reasonable. Figure 6 shows separate fits from 4-6 and 6-8.35. These fits are not believed to be correct due to the difference in injection times. The slope differences are also too small to indicate fracture creation; 19.2 vs 23.9 BPD/PSI. Finally, the fall off data on Figure 7 does not indicate an open fracture. Therefore, Anadarko requests that the current UIC permit maximums of 8000 BWPD and 1200 psi be increased accordingly.

13.
Name & Signature: Bill Savage Title: Senior Prod. Engr. Date: 10-31-94

(This space for State use only)
See attached conditions of approval and limitations.
SIP = 1450#

APPROVED BY THE STATE OF UTAH DIVISION OF OIL, GAS, AND MINING
DATE: 11-8-94
BY:

(11/93) (See Instructions on Reverse Side)

Utah Division of Oil, Gas and Mining

Attachment to **Sundry Notice and Report on Wells** dated October 31, 1994.

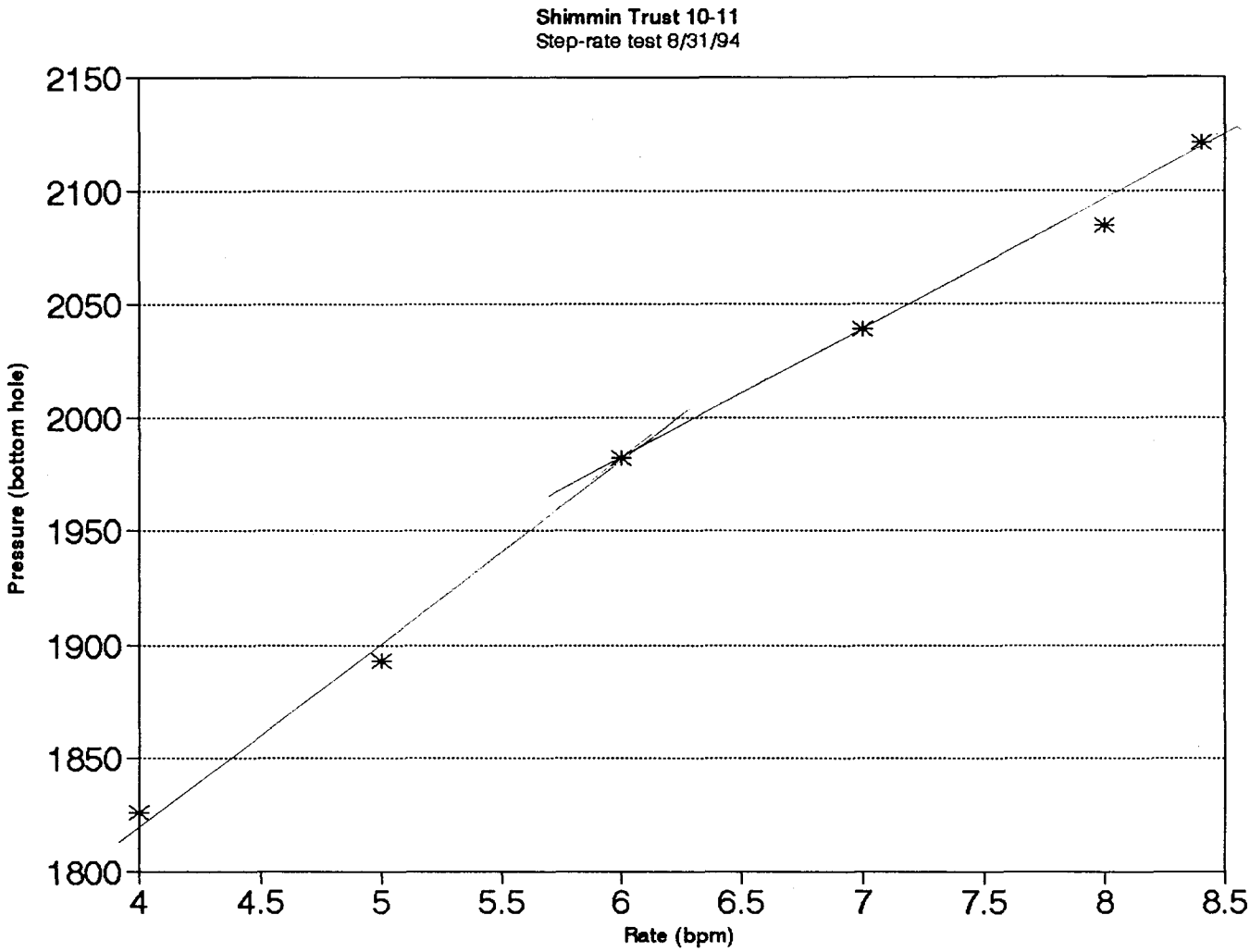
Subject: Request by Anadarko Petroleum Corp. for increase in maximum allowable injection pressure and rate. **Shimmin Trust 10-11** well, sec. 11, T12S, R10E, Carbon, County.

API = 43-007-30167

Conditions of Approval:

- A maximum surface injection pressure of 1450 psig at the well is approved. The maximum injection rate is not defined or limited, other than by the pressure limit at this time. Should any mechanical changes be made, such as changing tubing size, which alter the current surface to bottom hole pressure relationship, another step-rate test must be performed which will be designed to determine the formation parting pressure.

Figure 1


Shimmin Trust 10-11
Step-rate test 8/31/94
Pressure (bottom hole)
2150
2100
2050
2000
1950
1900
1850
1800
4
4.5
5
5.5
6
6.5
7
7.5
8
8.5
Rate (bpm)

SHIMMIN TRUST #10-11, STEP RATE TEST 8/30/94

TIME CORRECT BOTH GAUGES AND RECORDED INJECTION RATE

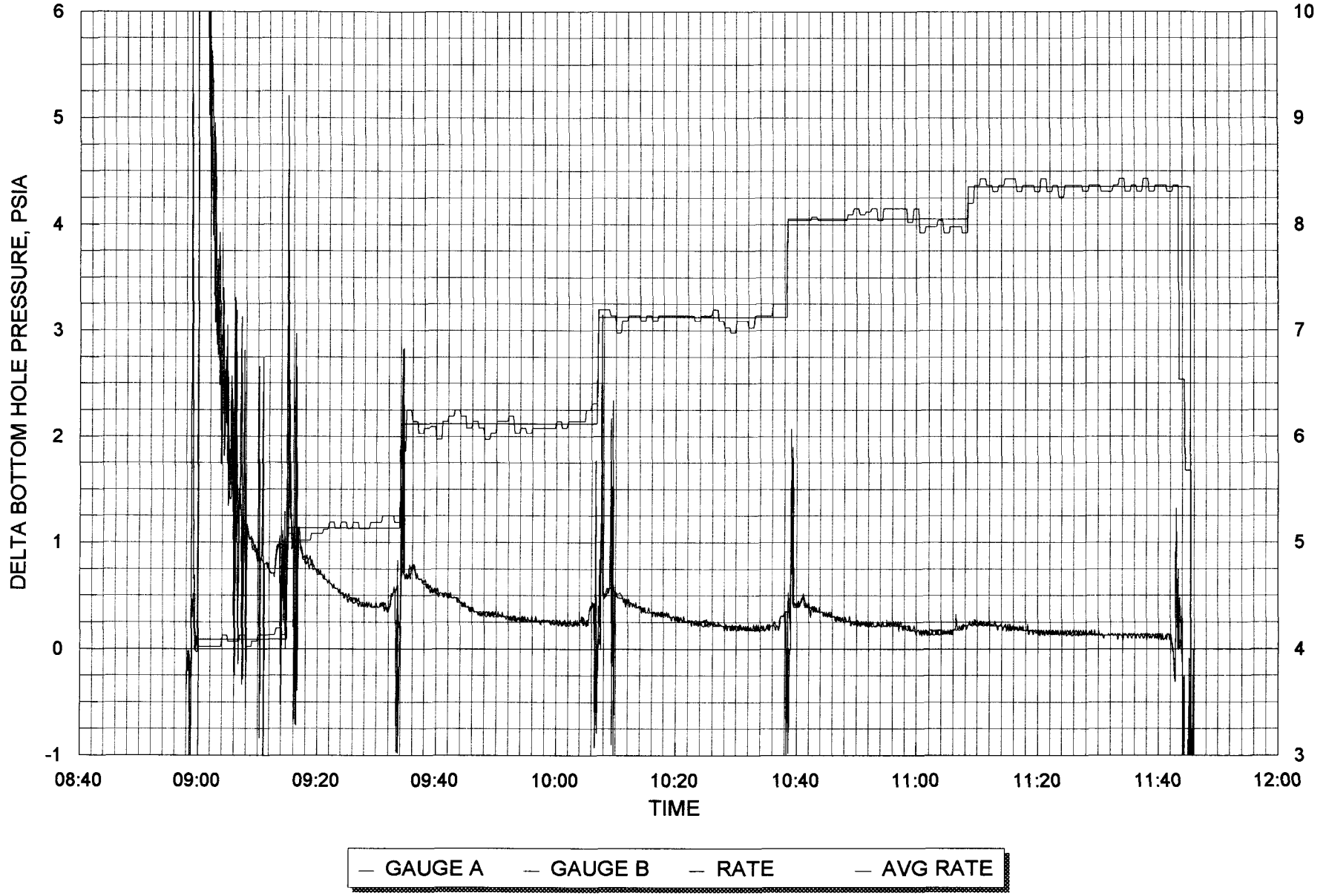


Figure 8

SHIMMIN TRUST #10-11, STEP RATE TEST 8/30/94

TIME CORRECT BOTH GAUGES AND RECORDED INJECTION RATE

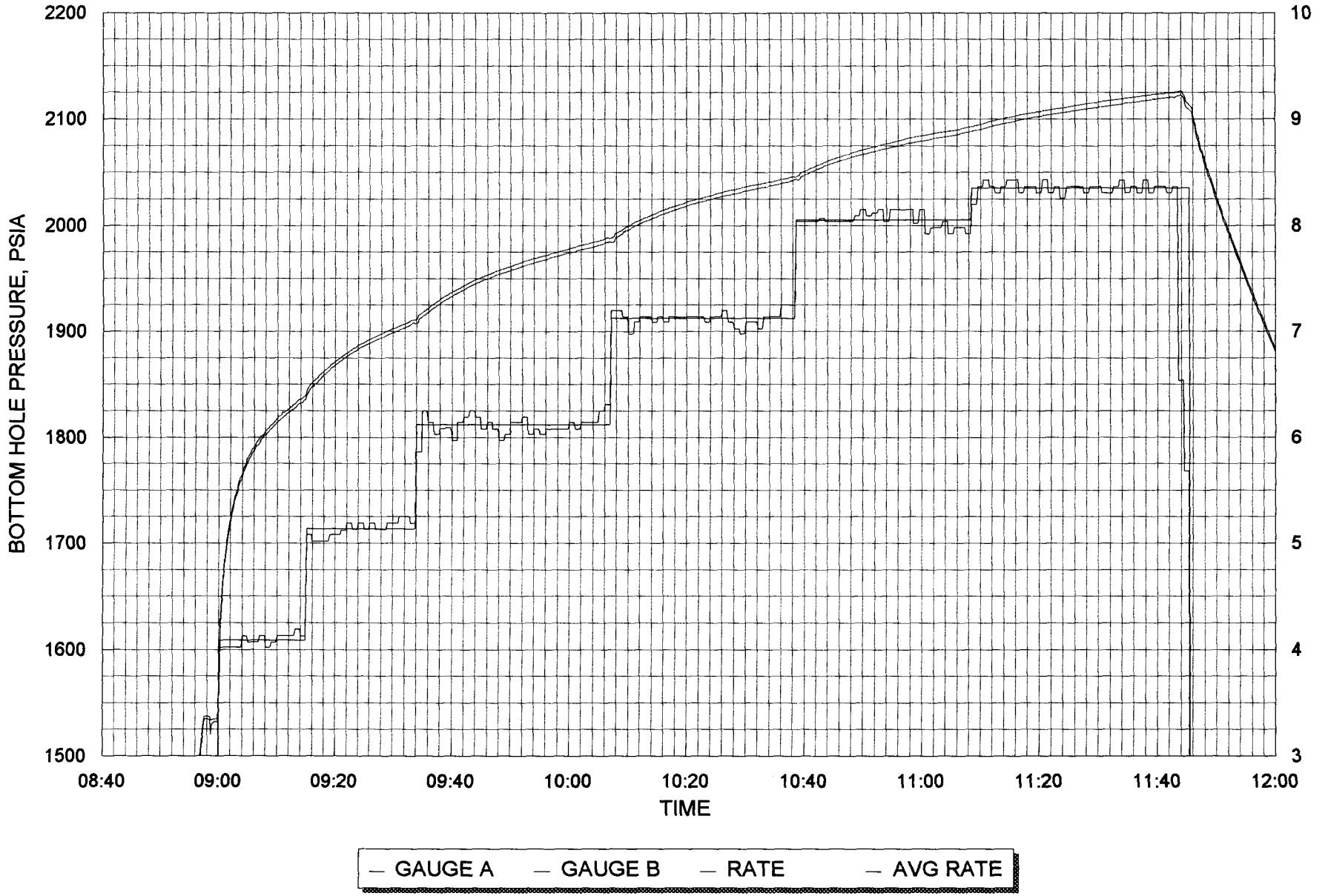


Figure 3

SHIMMIN TRUST #10-11, STEP RATE TEST 8/30/94

SELECTED DATA POINTS AND AVERAGE INJECTION RATES

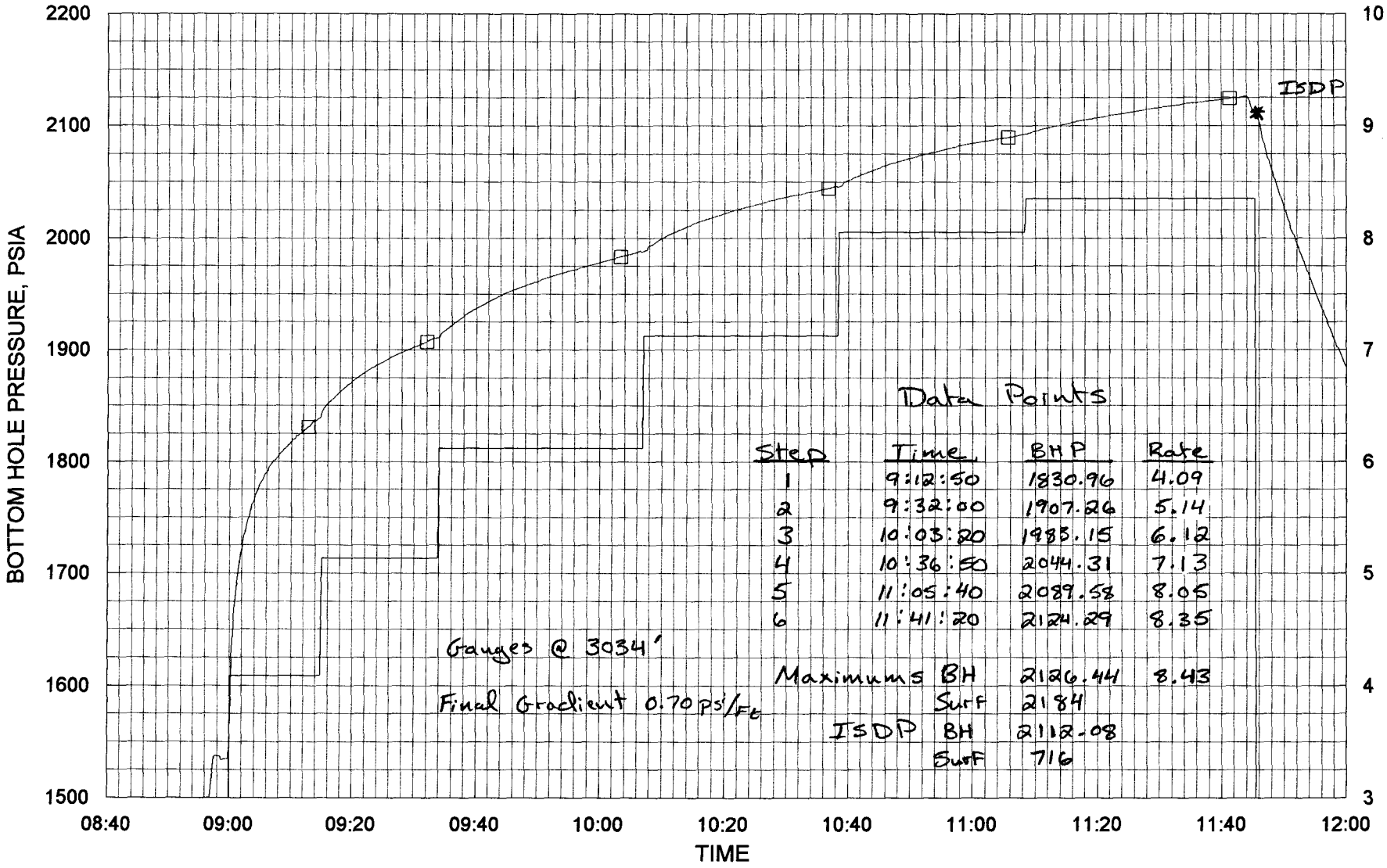


Figure 4

SHIMMIN TRUST #10-11, STEP RATE TEST 8/30/94

FINAL BOTTOM HOLE PRESSURE VS. AVERAGE INJECTION RATE

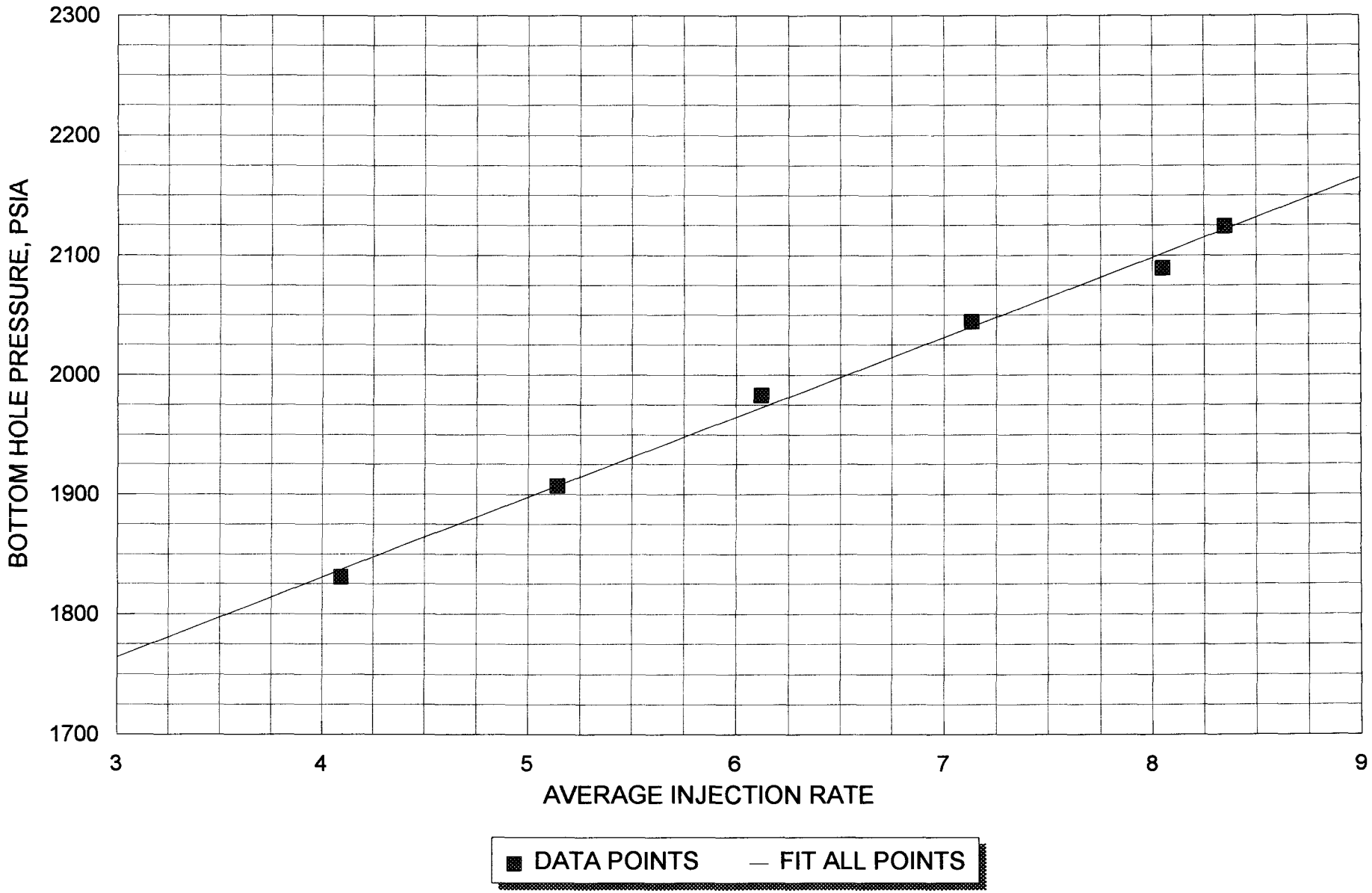


Figure 5

SHIMMIN TRUST #10-11, STEP RATE TEST 8/30/94

FINAL BOTTOM HOLE PRESSURE VS. AVG INJECTION RATE

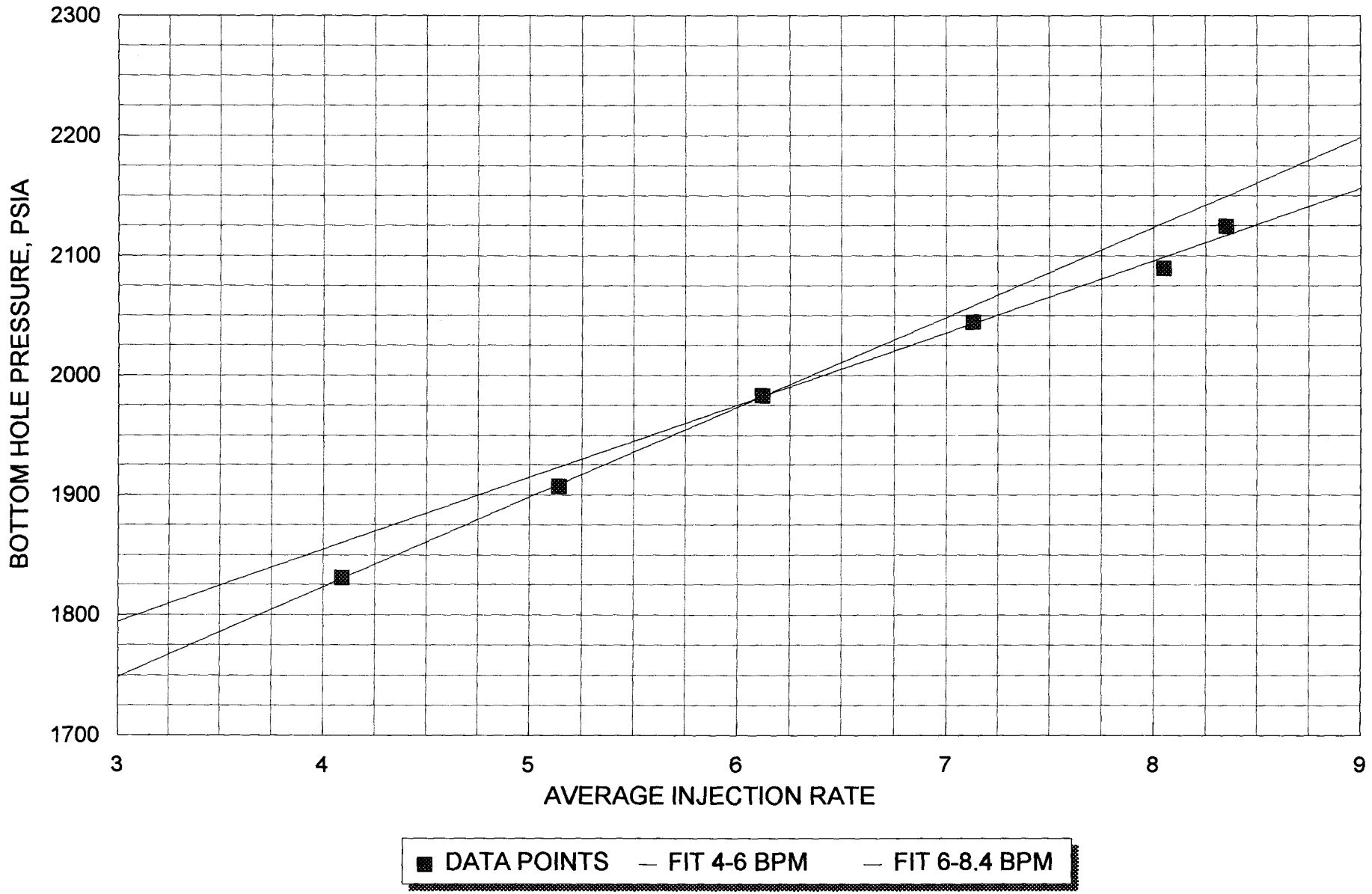


Figure 6

SHIMMIN TRUST #10-11, STEP RATE TEST 8/30/94

PRESSURE FALL OFF, ISIP 2112 PSIA BOTTOM HOLE

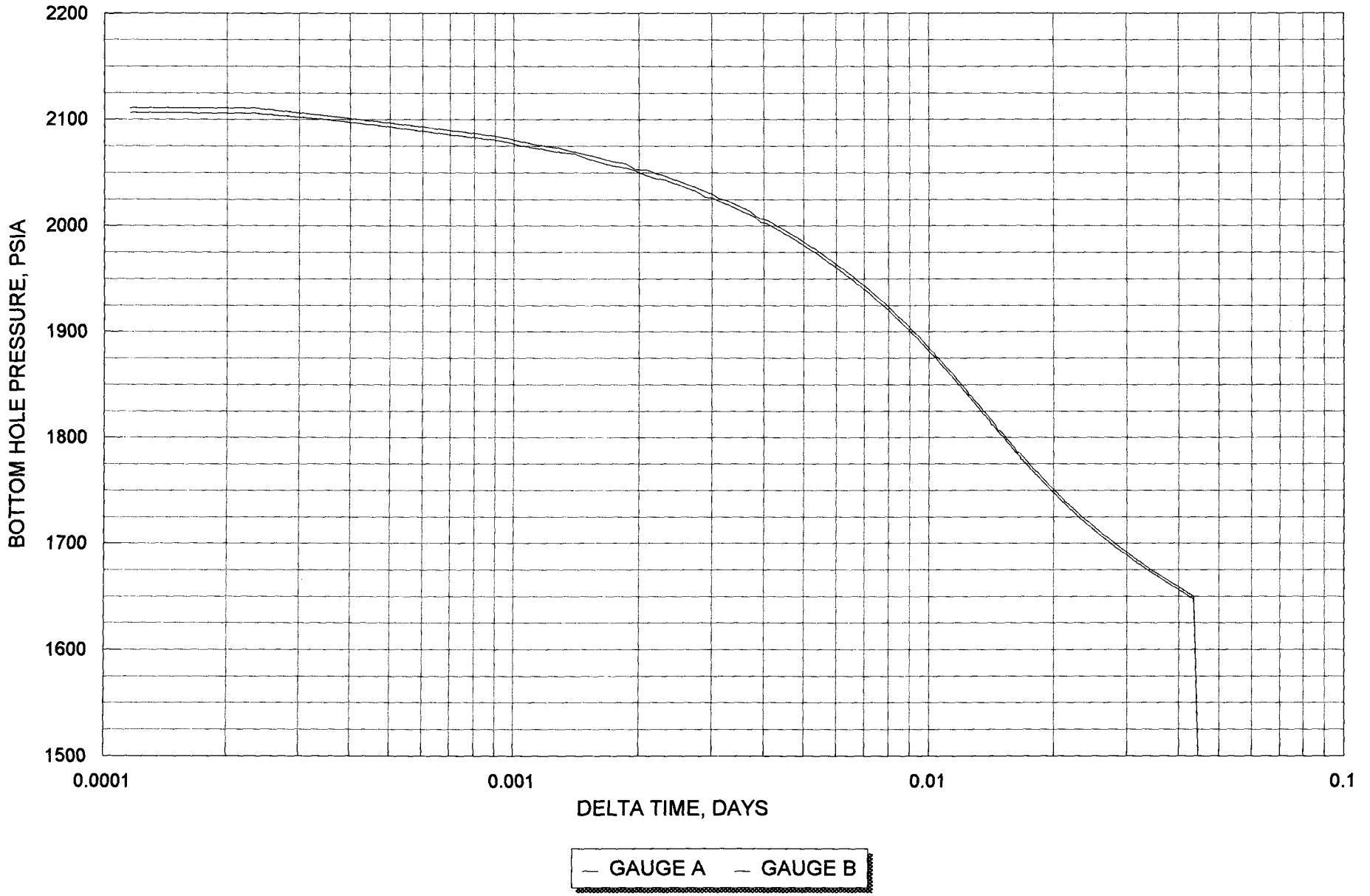


Figure 7

HALLIBURTON

JOB LOG 39-5

REGION: North America	NWA/COUNTRY: RMNWA	TICKET #: 3978	TICKET DATE: 6-23-98
MBU ID / EMP #: VE0108 C1986	EMPLOYEE NAME: Carl W Parrack	BDA / STATE: Utah	COUNTY: Carbon
LOCATION: 055685	COMPANY: Anadarko	PSL DEPARTMENT: 5001	
TICKET AMOUNT:	WELL TYPE: 02	CUSTOMER REP / PHONE: Richard Dietz	
WELL LOCATION: Castle Gate	DEPARTMENT: 5001	API / UWI #: 43-007-30167	
LEASE / WELL #: Shimmin Trust #10-11	SEC / TWP / RNG: S-11 T-12S R-10E	JOB PURPOSE CODE:	

HES EMP NAME/EMP#/(EXPOSURE HOURS)	HRS	HES EMP NAME/EMP#/(EXPOSURE HOURS)	HRS	HES EMP NAME/EMP#/(EXPOSURE HOURS)	HRS	HES EMP NAME/EMP#/(EXPOSURE HOURS)	H
C Parrack C1986	5						
		A Leigh J 3410	5				
M Haely H 7051	5						

CHART NO.	TIME	RATE (BPM)	VOLUME (BBL)(GAL)	PUMPS T	PUMPS C	PRESS. (psi) Tbg	PRESS. (psi) Csg	JOB DESCRIPTION / REMARKS
	5:00							Callout
	7:00							on location, safety, setup
	7:15							Safety meeting with all personal on loc
	7:25							Coil Tubing start in Hole
	8:34	.3	0			700		start Fresh
	8:56	.3	7			1300		End
	8:13	1	0			4600		Start cement @ 15.6# 1.18 ft³ 5.2 gal CIBP 289
		1	3					End 15 sks
	8:16	1	0			4700		Start poz @ 9# 2.7 ft³ 54 gal
	8:22	1	6					circulation 64 sk
	9:49	1	87					End poz
	9:43	1	0			3500		Start cement @ 15.6# 1.18 ft³ 5.2 gal 9 sk
	9:45	1	2					End 540'
	9:45	1	0			4300		Start poz @ 9# 2.7 ft³ 54 gal 13 sks
	10:02	1	17					End
	10:02	1	0			3200		Start cement @ 5.6# 1.18 ft³ 5.2 gals 9 sk
	10:04	1	2					End 50'
	10:04	.5	0			3300		Start Displace with H²O
	10:14	.5	5			1500		End
								wait to have cut off
								coil Tubing RIH To 100' Between 7" & 9⅝
								Hole Full
	11:02	.5	0			1500		Start cement @ 15.6# 1.18 ft³ 5.2 gal 14 sks
	11:05	.5	1.6			1490		End
	11:05	.5	0			1490		Start Displace with H²O
	11:15	.5	5			1400		End cement to surface
								weld cap on
								Thank
								Cold Crew

PRESSURE VS TIME

PANEX Gauge No.: 2743
Memory Recorder No.: 2743

Gauge Depth: 3000.00 ft

TIME HH:MM:SS	D TIME (min)	PRESSURE (psi)	TEMP (F)	COMMENTS
23-Jan-94		Data Print Frequency:	4	
13:41:00		1199.970	79.4	
13:45:00		1200.200	79.4	
13:49:00		1200.340	79.4	
13:53:00		1200.880	79.3	
13:57:00		1200.280	79.3	
14:01:00		1200.110	79.3	
14:05:00		1203.700	79.3	
14:09:00		1214.950	79.2	
14:13:00		1201.400	79.2	
14:17:00		1198.520	79.1	
14:21:00		1207.920	79.1	
14:25:00		1202.340	79.1	
14:29:00		1201.790	79.0	
14:33:00		1201.360	79.0	
14:37:00		1201.370	78.9	
14:41:00		1205.150	79.0	
14:45:00		1200.410	79.0	
14:49:00		882.250	77.8	
14:53:00		394.920	72.3	
14:57:00		14.500	63.4	
15:01:00		14.500	58.0	
15:05:00		14.500	55.4	
15:09:00		14.500	54.1	
15:13:00		14.500	52.7	
15:17:00		14.500	50.7	
15:21:00		14.500	51.9	
15:25:00		14.500	53.1	
15:29:00		14.500	53.4	
15:33:00		14.500	53.0	
15:37:00		14.500	52.1	
15:38:00		14.500	51.6	

PRESSURE VS TIME

PANEX Gauge No.: 2743
Memory Recorder No.: 2743

Gauge Depth: 3000.00 ft

TIME HH:MM:SS	D TIME (min)	PRESSURE (psi)	TEMP (F)	COMMENTS
23-Jan-94		Data Print Frequency:	4	
01:36:00	50.7500	1199.600	79.3	
01:40:00	50.8166	1199.600	79.3	
01:44:00	50.8833	1199.600	79.3	
01:48:00	50.9500	1199.600	79.3	
01:52:00	51.0166	1199.600	79.3	
01:56:00	51.0833	1199.600	79.3	
02:00:00	51.1500	1199.600	79.3	
02:04:00	51.2166	1199.600	79.3	
02:08:00	51.2833	1199.600	79.3	
02:12:00	51.3500	1199.600	79.3	
02:16:00	51.4166	1199.600	79.3	
02:20:00	51.4833	1199.590	79.3	
02:24:00	51.5500	1199.590	79.3	
02:28:00	51.6166	1199.590	79.3	
02:32:00	51.6833	1199.590	79.3	
02:36:00	51.7500	1199.590	79.3	
02:40:00	51.8166	1199.590	79.3	
02:44:00	51.8833	1199.590	79.3	
02:48:00	51.9500	1199.590	79.3	
02:52:00	52.0166	1199.590	79.3	
02:56:00	52.0833	1199.590	79.3	
03:00:00	52.1500	1199.590	79.3	
03:04:00	52.2166	1199.590	79.3	
03:08:00	52.2833	1199.590	79.3	
03:12:00	52.3500	1199.590	79.3	
03:16:00	52.4166	1199.590	79.3	
03:20:00	52.4833	1199.590	79.3	
03:24:00	52.5500	1199.580	79.3	
03:28:00	52.6166	1199.580	79.3	
03:32:00	52.6833	1199.580	79.3	
03:36:00	52.7500	1199.580	79.3	
03:40:00	52.8166	1199.580	79.3	
03:44:00	52.8833	1199.580	79.3	
03:48:00	52.9500	1199.530	79.3	
03:52:00	53.0166	1199.490	79.3	
03:56:00	53.0833	1199.490	79.3	
04:00:00	53.1500	1199.490	79.3	
04:04:00	53.2166	1199.440	79.3	
04:08:00	53.2833	1199.440	79.3	
04:12:00	53.3500	1199.440	79.3	
04:16:00	53.4166	1199.440	79.3	
04:20:00	53.4833	1199.440	79.3	
04:24:00	53.5500	1199.440	79.3	
04:28:00	53.6166	1199.440	79.3	
04:32:00	53.6833	1199.440	79.3	
04:36:00	53.7500	1199.440	79.3	

PRESSURE VS TIME

PANEX Gauge No.: 2743 Gauge Depth: 3000.00 ft
Memory Recorder No.: 2743

TIME HH:MM:SS	D TIME (min)	PRESSURE (psi)	TEMP (F)	COMMENTS
23-Jan-94		Data Print Frequency:	4	
04:40:00	53.8166	1199.440	79.3	
04:44:00	53.8833	1199.430	79.3	
04:48:00	53.9500	1199.430	79.3	
04:52:00	54.0166	1199.430	79.3	
04:56:00	54.0833	1199.430	79.3	
05:00:00	54.1500	1199.430	79.3	
05:04:00	54.2166	1199.430	79.3	
05:08:00	54.2833	1199.430	79.3	
05:12:00	54.3500	1199.430	79.3	
05:16:00	54.4166	1199.430	79.3	
05:20:00	54.4833	1199.430	79.3	
05:24:00	54.5500	1199.430	79.3	
05:28:00	54.6166	1199.430	79.3	
05:32:00	54.6833	1199.430	79.4	
05:36:00	54.7500	1199.430	79.4	
05:40:00	54.8166	1199.430	79.4	
05:44:00	54.8833	1199.430	79.4	
05:48:00	54.9500	1199.430	79.4	
05:52:00	55.0166	1199.430	79.4	
05:56:00	55.0833	1199.430	79.4	
06:00:00	55.1500	1199.420	79.4	
06:04:00	55.2166	1199.420	79.4	
06:08:00	55.2833	1199.420	79.4	
06:12:00	55.3500	1199.380	79.4	
06:16:00	55.4166	1199.330	79.4	
06:20:00	55.4833	1199.330	79.4	
06:24:00	55.5500	1199.330	79.4	
06:28:00	55.6166	1199.290	79.4	
06:32:00	55.6833	1199.290	79.4	
06:36:00	55.7500	1199.280	79.4	
06:40:00	55.8166	1199.280	79.4	
06:44:00	55.8833	1199.280	79.4	
06:48:00	55.9500	1199.280	79.4	
06:52:00	56.0166	1199.280	79.4	
06:56:00	56.0833	1199.280	79.4	
07:00:00	56.1500	1199.280	79.4	
07:04:00	56.2166	1199.280	79.4	
07:08:00	56.2833	1199.280	79.4	
07:12:00	56.3500	1199.280	79.4	
07:16:00	56.4166	1199.280	79.4	
07:20:00	56.4833	1199.270	79.4	
07:24:00	56.5500	1199.270	79.4	
07:28:00	56.6166	1199.270	79.4	
07:32:00	56.6833	1199.270	79.4	
07:36:00	56.7500	1199.270	79.4	
07:40:00	56.8166	1199.270	79.4	

PRESSURE VS TIME

PANEX Gauge No.: 2743 Gauge Depth: 3000.00 ft
Memory Recorder No.: 2743

TIME HH:MM:SS	D TIME (min)	PRESSURE (psi)	TEMP (F)	COMMENTS
23-Jan-94		Data Print Frequency: 4		
07:44:00	56.8833	1199.270	79.4	
07:48:00	56.9500	1199.270	79.4	
07:52:00	57.0166	1199.270	79.4	
07:56:00	57.0833	1199.230	79.4	
08:00:00	57.1500	1199.190	79.4	
08:04:00	57.2166	1199.190	79.4	
08:08:00	57.2833	1199.190	79.4	
08:12:00	57.3500	1199.140	79.4	
08:16:00	57.4166	1199.140	79.4	
08:20:00	57.4833	1199.140	79.4	
08:24:00	57.5500	1199.140	79.4	
08:28:00	57.6166	1199.130	79.4	
08:32:00	57.6833	1199.130	79.4	
08:36:00	57.7500	1199.130	79.4	
08:40:00	57.8166	1199.130	79.4	
08:44:00	57.8833	1199.130	79.4	
08:48:00	57.9500	1199.130	79.4	
08:52:00	58.0166	1199.090	79.4	
08:56:00	58.0833	1199.050	79.4	
09:00:00	58.1500	1199.050	79.4	
09:04:00	58.2166	1199.050	79.4	
09:08:00	58.2833	1199.010	79.4	
09:12:00	58.3500	1199.010	79.4	
09:16:00	58.4166	1199.010	79.4	
09:20:00	58.4833	1199.010	79.4	
09:24:00	58.5500	1199.020	79.4	
09:28:00	58.6166	1199.020	79.4	
09:32:00	58.6833	1199.020	79.4	
09:36:00	58.7500	1199.020	79.4	
09:40:00	58.8166	1199.020	79.4	
09:44:00	58.8833	1199.020	79.4	
09:48:00	58.9500	1199.020	79.4	
09:52:00	59.0166	1199.020	79.4	
09:56:00	59.0833	1199.020	79.4	
10:00:00	59.1500	1199.020	79.4	
10:04:00	59.2166	1199.020	79.4	
10:08:00	59.2833	1199.020	79.4	
10:12:00	59.3500	1199.010	79.4	
10:16:00	59.4166	1199.010	79.4	
10:20:00	59.4833	1199.010	79.4	
10:24:00	59.5500	1199.010	79.4	
10:28:00	59.6166	1199.010	79.4	
10:32:00	59.6833	1199.010	79.4	
10:36:00	59.7500	1199.010	79.4	
10:40:00	59.8166	1199.010	79.4	
10:44:00	59.8833	1199.010	79.4	

PRESSURE VS TIME

PANEX Gauge No.: 2743
Memory Recorder No.: 2743

Gauge Depth: 3000.00 ft

TIME HH:MM:SS	D TIME (min)	PRESSURE (psi)	TEMP (F)	COMMENTS
23-Jan-94		Data Print Frequency:	4	
13:41:00		1199.970	79.4	
13:45:00		1200.200	79.4	
13:49:00		1200.340	79.4	
13:53:00		1200.880	79.3	
13:57:00		1200.280	79.3	
14:01:00		1200.110	79.3	
14:05:00		1203.700	79.3	
14:09:00		1214.950	79.2	
14:13:00		1201.400	79.2	
14:17:00		1198.520	79.1	
14:21:00		1207.920	79.1	
14:25:00		1202.340	79.1	
14:29:00		1201.790	79.0	
14:33:00		1201.360	79.0	
14:37:00		1201.370	78.9	
14:41:00		1205.150	79.0	
14:45:00		1200.410	79.0	
14:49:00		882.250	77.8	
14:53:00		394.920	72.3	
14:57:00		14.500	63.4	
15:01:00		14.500	58.0	
15:05:00		14.500	55.4	
15:09:00		14.500	54.1	
15:13:00		14.500	52.7	
15:17:00		14.500	50.7	
15:21:00		14.500	51.9	
15:25:00		14.500	53.1	
15:29:00		14.500	53.4	
15:33:00		14.500	53.0	
15:37:00		14.500	52.1	
15:38:00		14.500	51.6	

FORM 9

STATE OF UTAH
DIVISION OF OIL, GAS AND MINING

5. Lease Designation and Serial Number: Fee

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill new wells, deepen existing wells, or to reenter plugged and abandoned wells.
Use APPLICATION FOR PERMIT TO DRILL OR DEEPEN form for such purposes

6. Indian, Allottee or Tribe Name:

7. Unit Agreement Name:

1. Type of Well: OIL ☐ GAS ☐ OTHER: Coalbed Methane

8. Well Name and Number: Shimmin Trust 10-11

2. Name of Operator: Anadarko Petroleum Corporation

9. API Well Number: 43-007-30167

3. Address and Telephone Number: 17001 Northchase Dr., Houston, Texas 77060 281-875-1101

10. Field and Pool, or Wildcat: Castlegate

4. Location of Well
Footages: 1999' FSL & 2006' FEL
QQ,Sec., T., R., M.: Sec. 11-T12S-R10E
County: Carbon
State: Utah

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

NOTICE OF INTENT (Submit in Duplicate)		SUBSEQUENT REPORT (Submit Original Form Only)	
☒ Abandon	☐ New Construction	☐ Abandon*	☐ New Construction
☐ Repair Casing	☐ Pull or Alter Casing	☐ Repair Casing	☐ Pull or Alter Casing
☐ Change of Plans	☐ Recomplete	☐ Change of Plans	☐ Perforate
☐ Convert to Injection	☐ Perforate	☐ Convert to Injection	☐ Vent or Flare
☐ Fracture Treat or Acidize	☐ Vent or Flare	☐ Fracture Treat or Acidize	☐ Water Shut-Off
☐ Multiple Completion	☐ Water Shut-Off	☐ Other	
☐ Other		Date of work completion	
Approximate date work will start: Summer		Report results of **Multiple Completions** and **Recompletions** to different reservoirs on WELL COMPLETION OR RECOMPLETION REPORT AND LOG form.	
		* Must be accompanied by a cement verification report.	

12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS (Clearly state all pertinent details, and give pertinent dates. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)

Please see attached "Well Diagram" for all wellbore information and geological markers.

13. Name & Signature: Shad Frazier Title: Engineer Date: 05/28/98

(This space for State use only)

APPROVED BY THE STATE OF UTAH DIVISION OF OIL, GAS, AND MINING
DATE: 6-3-98
BY:

(5/94) (See Instructions on Reverse Side)

RECEIVED
MAY 28 1998
DIV. OF OIL, GAS & MINING

Anadarko
Petroleum Corporation

Plugging Procedure

Shimmin Trust #10-11 SWD **AFE: 501501**
Sec. 11-T12S-R10E 1999' FSL & 2006' FEL **WI: 100%**
Carbon County, Utah **API # 43-007-30167**

Purpose: Plug and Abandon Castlegate field

Surf: 8-5/8", 24# K-55 @ 515
Prod: 5-1/2", 17# N-80 @ 4990 (Drift = 4.767")
PBTD: 4116'

Wireline: **Halliburton, Vernal 801-789-2550**
Cementing: **Halliburton, Vernal 801-789-2550**

Procedure:

1. Notify Don Stephens at the Price office 435-636-3608 and Dan Jarvis 801-538-5340 at least 24 hours prior to commencing operations.

2. RDWH, NUBOP, BD casing pressure. MIRUWL. TIH W/ GR/JB to 2945. POH w/ GR/JB and pick up CIBP. Trip in hole and set CIBP @ +/- 2900 (Do not set in collars). RDWL and move to next location.

3. MIRU Coiled Tubing equipment and cement unit

4. Mix and pump a minimum of 5 sacks class G cement and spot on top of CIBP @ +/- 2900.

5. POH to bottom of surface casing @ 515 and spot a 50 ft. plug.

6. Pull up hole to within 50 ft of surface and spot 50 ft plug.

7. Cut production casing off and mix and pump a 100 ft cement plug between csg and prod csg. NDBOP.

8. Reclaim location and install 4 ft. dead man marker with lease name, number, company name, and legal description.

* all displacement fluid will be 9 lb. Poz-gel from Halliburton.

Prepared: _____ 5/25/98

Approved: _____

Castelgate plugging.doc

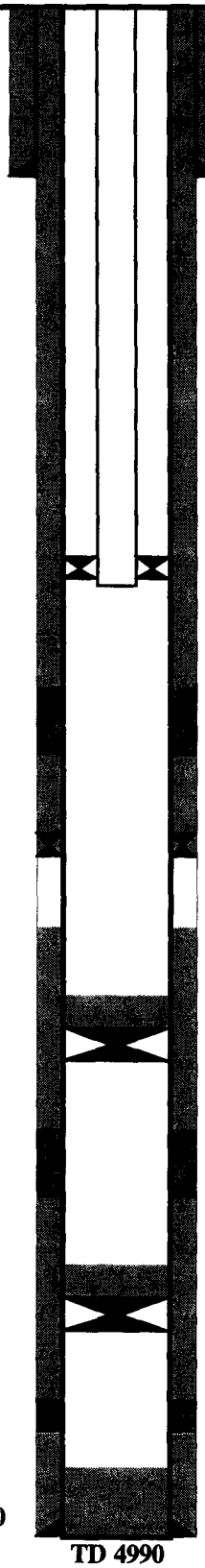
cc: Steve Pearson
Alan O'Donnell
Kendall Madden
Shad Frazier
Tom Rushing
WF – Shimmin Trust #10-11,Carbon County, Utah

SHIMMIN TRUST #10-11 SWD

NW SE 1999' FSL & 2006' FEL: SEC 11 T12S-R10E
43-007-30167

	SPUD	RIG OFF
SURFACE	09/20/1992	
PRODUCTION		07/30/1993

7252 GL 19 KB 7271



12-1/4" Hole
9-5/8" 36# J-55 — 515
w/275 sxs cmt
TOC @ Surface

Perma-Latch Pkr — 2912
w/ On-Off Tool

Price River SS Perfs

?	2945 - 2968	
?	2995 - 3122	
(?)	Total Holes	

DV Tool — 3244
w/435 sxs cmt

TOC — 4000

CMT — 4116
CIBP — 4127

Blackhawk Coal Perfs

(41)	4147 - 4400	
(20)	4488 - 4571	
(61)	Total Holes	

CMT — 4699
CIBP — 4710

Spring Canyon SS Perfs

(240)	4730 - 4786	

8-3/4" Hole — 4905
7", 26&29# N-80 — 4990
w/380 sxs cmt — TD 4990

WELL WORK HISTORY

TUBING: 2-7/8" w/ special clearance collars & 5 mil internal "Cerama-Coat" coating

NOTES: 1-1/2" "N" Profile Nipple @ Packer
Packer fluid in tbg-csg annulus

TUBING BREAKDOWN

2-7/8"	JTS
TA	
2-7/8"	JTS
3-1/2"	JTS
SN	
TAG BAR	
2-7/8"	JTS
NC	
EOT	

ROD BREAKDOWN

PONIES	
1"	
7/8"	
3/4"	
1"	
1.5"	
PUMP	

DEVIATION ANGLE

FORMATION	TOP
PRICE RIVER	
CASTLEGATE	
BLACKHAWK	
KENILWORTH	
ABERDEEN	
SPRING CANYON	

LAST REVISED: 05/28/1998

FORM 9

STATE OF UTAH
DIVISION OF OIL, GAS AND MINING

5. Lease Designation and Serial Number

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill new wells, deepen existing wells, or to reenter plugged and abandoned wells.
Use APPLICATION FOR PERMIT TO DRILL OR DEEPEN form for such purposes

6. Indian, Allottee or Tribe Name:

7. Unit Agreement Name:

1. Type of Well: OIL ☐ GAS ☐ OTHER: SALT WATER DISPOSAL

8. Well Name and Number: Shimmin Trust 10-11 SWD

2. Name of Operator: Anadarko Petroleum Corporation

9. API Well Number: 43-007-30167

3. Address and Telephone Number: 17001 Northchase Dr., Houston, Texas 77060

10. Field and Pool, or Wildcat: Castlegate Field

4. Location of Well

Footages: 1999' FSL & 2006' FEL
QQ,Sec., T., R., M.: NW SE Sec. 11-T12S-R10E

County: Carbon
State: Utah

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

NOTICE OF INTENT (Submit in Duplicate)		SUBSEQUENT REPORT (Submit Original Form Only)	
☐ Abandon	☐ New Construction	☐ Abandon*	☐ New Construction
☐ Repair Casing	☐ Pull or Alter Casing	☐ Repair Casing	☐ Pull or Alter Casing
☐ Change of Plans	☐ Recomplete	☐ Change of Plans	☐ Reperforate
☐ Convert to Injection	☐ Reperforate	☐ Convert to Injection	☐ Vent or Flare
☐ Fracture Treat or Acidize	☐ Vent or Flare	☐ Fracture Treat or Acidize	☐ Water Shut-Off
☐ Multiple Completion	☐ Water Shut-Off	☐ Other	
☐ Other			

Approximate date work will start: _____

Date of work completion: 06/23/98

Report results of **Multiple Completions** and **Recompletions** to different reservoirs on WELL COMPLETION OR RECOMPLETION REPORT AND LOG form.

* Must be accompanied by a cement verification report.

12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS (Clearly state all pertinent details, and give pertinent dates. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)

SEE ATTACHED WELLBORE DIAGRAM AND DETAILED FIELD REPORT.

RECEIVED
AUG 20 1998
DIV. OF OIL, GAS & MINING

13. Name & Signature: Shad Frazier Title: Engineer Date: 08/12/98

(This space for State use only)

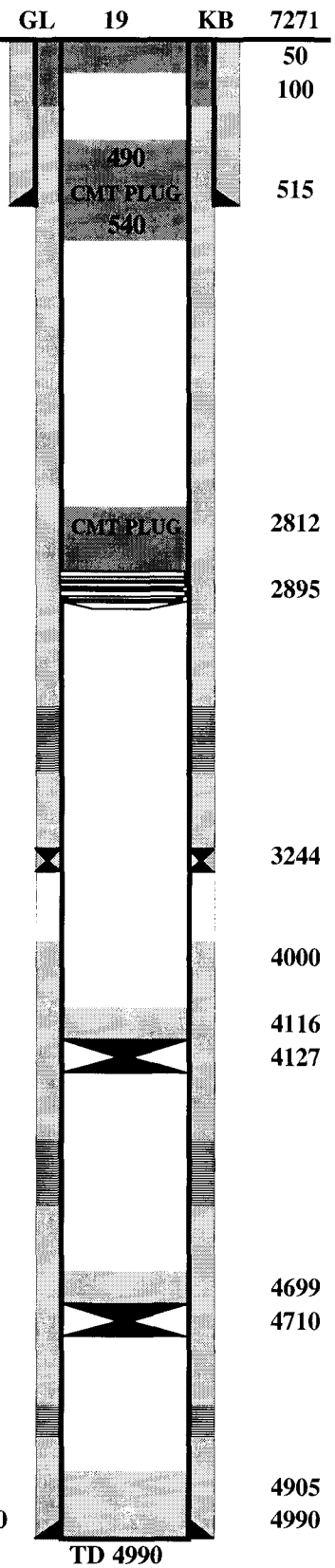
(See Instructions on Reverse Side)

SHIMMIN TRUST #10-11 SWD

NW SE 1999' FSL & 2006' FEL: SEC 11 T12S-R10E

API NO. ??

	SPUD	RIG OFF
SURFACE	09/20/1992	
PRODUCTION		07/30/1993



WELL WORK HISTORY

TUBING: 2-7/8" w/ special clearance collars & 5 mil internal "Cerama-Coat" coating

NOTES: 1-1/2" "N" Profile Nipple @ Packer
Packer fluid in tbg-csg annulus

TUBING BREAKDOWN

2-7/8"	JTS	
TA		
2-7/8"	JTS	
3-1/2"	JTS	
SN		
TAG BAR		
2-7/8"	JTS	
NC		
EOT		

ROD BREAKDOWN

PONIES	
1"	
7/8"	
3/4"	
1"	
1.5"	
PUMP	

DEVIATION ANGLE

FORMATION	TOP
PRICE RIVER	
CASTLEGATE	
BLACKHAWK	
KENILWORTH	
ABERDEEN	
SPRING CANYON	

LAST REVISED: 07/21/1998

HALLIBURTON

COIL TUBING JOB LOG 4191

DATE	PAGE NO.
6-23-98	1

CUSTOMER	WELL NO.	LEASE	JOB TYPE	TICKET NO.
Anadarko	Shumway Trust 10-11	Shumway	P&A	433730

TIME	RATE BPM	N2 RATE scf	VOLUME	PUMP PSI	ANN PSI	TUBING PSI	CASING PSI	DESCRIPTION OF JOB
07:00								On Loc, Rig up
07:05								Safty Meeting
07:20								R.I.H.
07:36				960	600	0	0	Wt @ 1500'
08:05				2500	1300	0	0	Wt @ 2895' Tag @ 2895'
08:08	1.0		3					Start pumping C.MT Down C.T @ 2890'
08:14	1.0		87			4800	0	Start pumping Paz Down C.T. @ 2890'
08:16						4300	0	Have Return @ Surface
9:43	1.0		2.			3400	0	Start C.MT Down C.T. @ 685'
9:45	1.0		17			3400	0	Start pumping Paz Down C.T. @ 640'
10:00	1.0		2			3800		Start pumping C.MT Down C.T. @ 160'
10:02	.5		5			2100	0	Start besplace C.MT Down C.T. @ 100'
10:15								On Surface prepar to pump Down Back Side (95/8" 37")
10:36								Rig up on Back - R.I.H.
10:54								Tag up at 56'
11:00	.5		1.5					Start C.MT Down Back side through C.T. (56')
11:09	.5			1300				Start besplace C.MT From 56'-0')
11:12								On Surface Rig Down Move to new loc
								Thank You

ANADARKO PETROLEUM CORPORATION 17001 NORTHCHASE DRIVE • P.O. BOX 1330 • HOUSTON, TEXAS 77251-1330
TEL (281) 875-1101

Anadarko

August 13, 1998

State of Utah
Division of Oil, Gas and Mining
1594 West North Temple, Suite 1210
P.O. Box 145801
Salt Lake City, Utah 84414-5801

Re: State Form 9
Castlegate Field
Carbon County, Utah

Gentlemen:

Please find enclosed, Sundry Notices and Reports on Wells (Form 9) outlining the plugging and abandoning procedures performed for the following wells:

SHIMMIN TRUST 1 fr SGW to PA	JENSEN 11-15 fr SGW to PA
SHIMMIN TRUST 2 " " "	JENSEN 16-9 " " "
SHIMMIN TRUST 3 " " "	JENSEN 16-10 " " "
SHIMMIN TRUST 4 " " "	FEDERAL 4-13 fr SGW to PA
SHIMMIN TRUST 5 " " "	FEDERAL 4-15 " " "
SHIMMIN TRUST 10-11 fr WIW to PA	FEDERAL 6-8 " " "
SHIMMIN TRUST 11-11 fr SGW to PA	FEDERAL 7-9 " " "
SHIMMIN TRUST 12-12 " " "	FEDERAL 14-13 " " "
SHIMMIN TRUST 14-12 " " "	FEDERAL 14-14 " " "
JENSEN 5-10 fr SGW to PA	FEDERAL 16-14 " " "
JENSEN 7-15 " " "	FEDERAL 16-15 " " "
JENSEN 9-10 " " "	STATE 2-16 fr SGW to PA
JENSEN 11-10 " " "	STATE 9-16 " " "

Should you have any questions or require additional information, please contact me at (281) 873-1276.

Best regards,

ANADARKO PETROLEUM CORPORATION

Gail Rupert

Gail A. Rupert
Engineering Technician

Enclosures

cc: Bureau of Land Management
Moab District Office
P.O. Box 970
Moab, Utah 84532

Bureau of Land Management
Price River Resources Area
900 North, 700 East
Price, Utah 84501

GAR
SMF
TRC – Well File

Microfilmed

to this point

HUBER
A Family of Solutions

ENERGY

J.M. Huber Corporation

1050-17th Street
Suite 1850
Denver, CO 80265
phone: (303) 825-7900
fax: (303) 825-8300
e-mail: dv_cptrs@huber.co
www.huber.com

January 10, 2001

Ms. Lisha Cordova
Utah Division of Oil, Gas and Mining
1594 West North Temple, Suite 1210
Salt Lake City, Utah 84114-5801

Dear Lisha:

Enclosed is the original signed affadavit of completion of surface use agreement between J. M. Huber Corporation and Dean Shimmin for the Huber-Shimmin 10-11 WDW and Huber-Shimmin 14-12 WDW wells located in Carbon County, Utah.

Thank you for your assistance in this matter. If you have any questions, please call me at (303) 825-7900.

Sincerely,

T. Reed Scott
Consulting Engineer

Attachment

FORM 3

STATE OF UTAH
DIVISION OF OIL, GAS AND MINING

5. Lease Designation and Serial Number: PRIVATE

APPLICATION FOR PERMIT TO DRILL OR DEEPEN

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

1A. Type of Work: DRILL ☑ DEEPEN ☐

7. Unit Agreement Name: N/A

B. Type of Well: OIL ☐ GAS ☐ OTHER: DISPOSAL WELL SINGLE ZONE ☐ MULTIPLE ZONE ☐

8. Farm or Lease Name: HUBER-SHIMMIN TRUST WDW

2. Name of Operator: J. M. HUBER CORPORATION (303) 825-7900

9. Well Number: 10-11

3. Address and Telephone Number: 1050 17TH ST., SUITE ~~1850~~ 700, DENVER, CO. 80265

10. Field and Pool, or Wildcat: CASTLEGATE

4. Location of Well (Footages)
At Surface: 1999' FSL & 2006' FEL
At Proposed Producing Zone: SAME

11. Qtr/Qtr, Section, Township, Range, Meridian: NWSE 11-12S-10E SLBM

14. Distance in miles and direction from nearest town or post office: 10 AIR MILES NE OF HELPER

12. County: CARBON

13. State: UTAH

15. Distance to nearest property or lease line (feet):	16. Number of acres in lease:	17. Number of acres assigned to this well:
641'	800	N/A

18. Distance to nearest well, drilling, completed, or applied for, on this lease (feet):	19. Proposed Depth:	20. Rotary or cable tools:
1360'	4,127'	ROTARY

21. Elevations (show whether DF, RT, GR, etc.): 7,250' GRADED

22. Approximate date work will start: JAN. 31, 2001

23. PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	GRADE, SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
12-1/4"	9-5/8"	36#	515'	275 sx Class G
8-3/4"	7"	26&29#	4,990'	815 sx (DV @ 3,290')

DESCRIBE PROPOSED PROGRAM: If proposal is to deepen, 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.

Well was orignally drilled and completed by PG&E (API # 43-007-30167) and later P&A.
Will re-enter and convert to eater disposal well.
UIC application filed separately.

24.

Name & Signature: Brian Wood (505) 466-8120 Title: CONSULTANT Date: 11-11-00

(This space for State use only)

API Number Assigned: 43-007-30167

Approval

cc: Scott

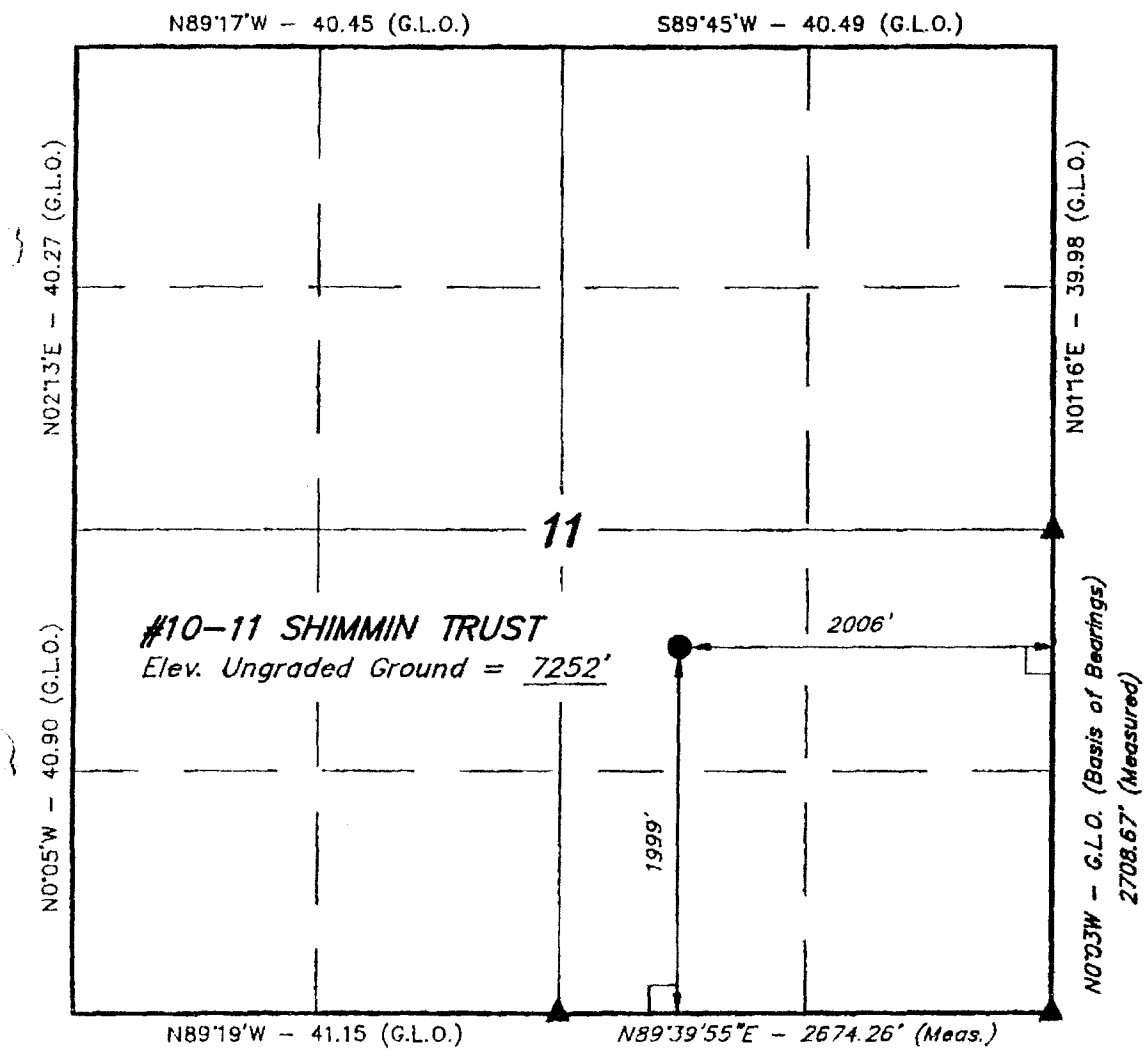
(1\93)

(See Instructions on Reverse Side)

PG&E RESOURCES COMPANY

Well location, #10-11 SHIMMIN TRUST, located as shown in the NW 1/4 SE 1/4 of Section 11, T12S, R10E, S.L.B.&M. Carbon County, Utah.

T12S, R10E, S.L.B.&M.



LEGEND:

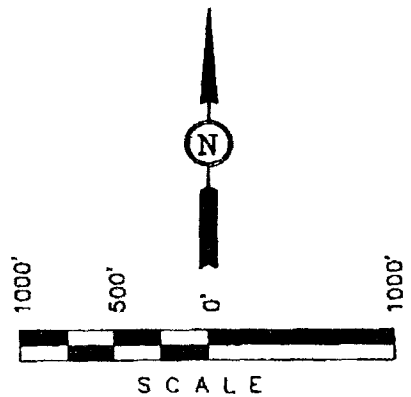
└ = 90° SYMBOL

● = PROPOSED WELL HEAD.

▲ = SECTION CORNERS LOCATED. *(1923 Brass Caps)*

BASIS OF ELEVATION

BENCH MARK 265 (1934) LOCATED IN THE NE 1/4 OF SECTION 10, T12S, R10E, S.L.B.&M. TAKEN FROM THE MATTS SUMMIT QUADRANGLE, UTAH, 7.5 MINUTE QUAD. (TOPOGRAPHIC MAP) PUBLISHED BY THE UNITED STATES DEPARTMENT OF THE INTERIOR, GEOLOGICAL SURVEY. SAID ELEVATION IS MARKED AS BEING 7131 FEET.



CERTIFICATE

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

Robert L Kay

REGISTERED LAND SURVEYOR
REGISTRATION NO. 5709
STATE OF UTAH

UINTAH ENGINEERING & LAND SURVEYING
85 SOUTH 200 EAST – VERNAL, UTAH 84078
(801) 789-1017

SCALE: 1" = 1000'	DATE SURVEYED: 7-15-92	DATE DRAWN: 7-17-92
PARTY: D.A. K.K. J.L.G.	REFERENCES: G.L.O. PLAT	
WEATHER: HOT	FILE: PG&E RESOURCES	

J. M. Huber Corporation
Huber-Shimmin Trust WDW 10-11
1999' FSL & 2006' FEL
Sec. 11, T. 12 S., R. 10 E.
Carbon County, Utah

Drilling Program

1. Formation Name

Formation Name	Depth from GL	Depth from KB	Subsea Depth
Flagstaff Ls	0'	12'	+7,250'
North Horn Fm	400'	412'	+6,850'
Price River Ss	2,902'	2,914'	+4,348'
Castlegate Ss	3,362'	3,378'	+3,888'
Black Hawk	3,680'	3,692'	+3,570'
Total Depth	4,127'	4,139'	+3,123'

(All depths are based on a graded ground level of 7,250')

2. NOTABLE ZONES

Sandstones are the goals. No oil or gas zones are expected. Flagstaff and North Horn are anticipated water zones.

3. PRESSURE CONTROL (Also see "5." on PAGE 2)

A ≈10" x 2,000 psi double ram BOP with 2,000 psi choke manifold will be used from bottom of surface casing to TD. (A typical 2,000 psi BOP is on Page 3. Actual model will not be known until the bid is let.) BOP system will be tested to 70% of the minimum internal yield before drilling the surface casing shoe. Tests will be recorded in the driller's log. BOPs will be inspected and operated daily to assure good mechanical working order.

4. CASING & CEMENTING

Hole Size	O.D.	Weight	≈Setting Depth
12-1/4"	9-5/8"	36	515'
8-3/4"	7"	26 & 29	4,990'

Surface casing was circulated to surface with 275 sx Class G cement. Long string was cemented to surface with DV tool set at ≈3,290'. PG&E used 380 sx 50-50 poz with additives + 385 sx Class G + 50 sx Class G.

5. MISCELLANEOUS

Projected spud date is January 31, 2001. It will take ≈2 weeks to drill out the plugs and CIBP at 2895, clean out well to 4127', run CBL, squeeze cement behind pipe as necessary to isolate Price River from the Black Hawk, stimulate as necessary, and recomplete the well. Will perforate the following intervals:

2438' - 2556'
2942' - 2970'
2995' - 3122'

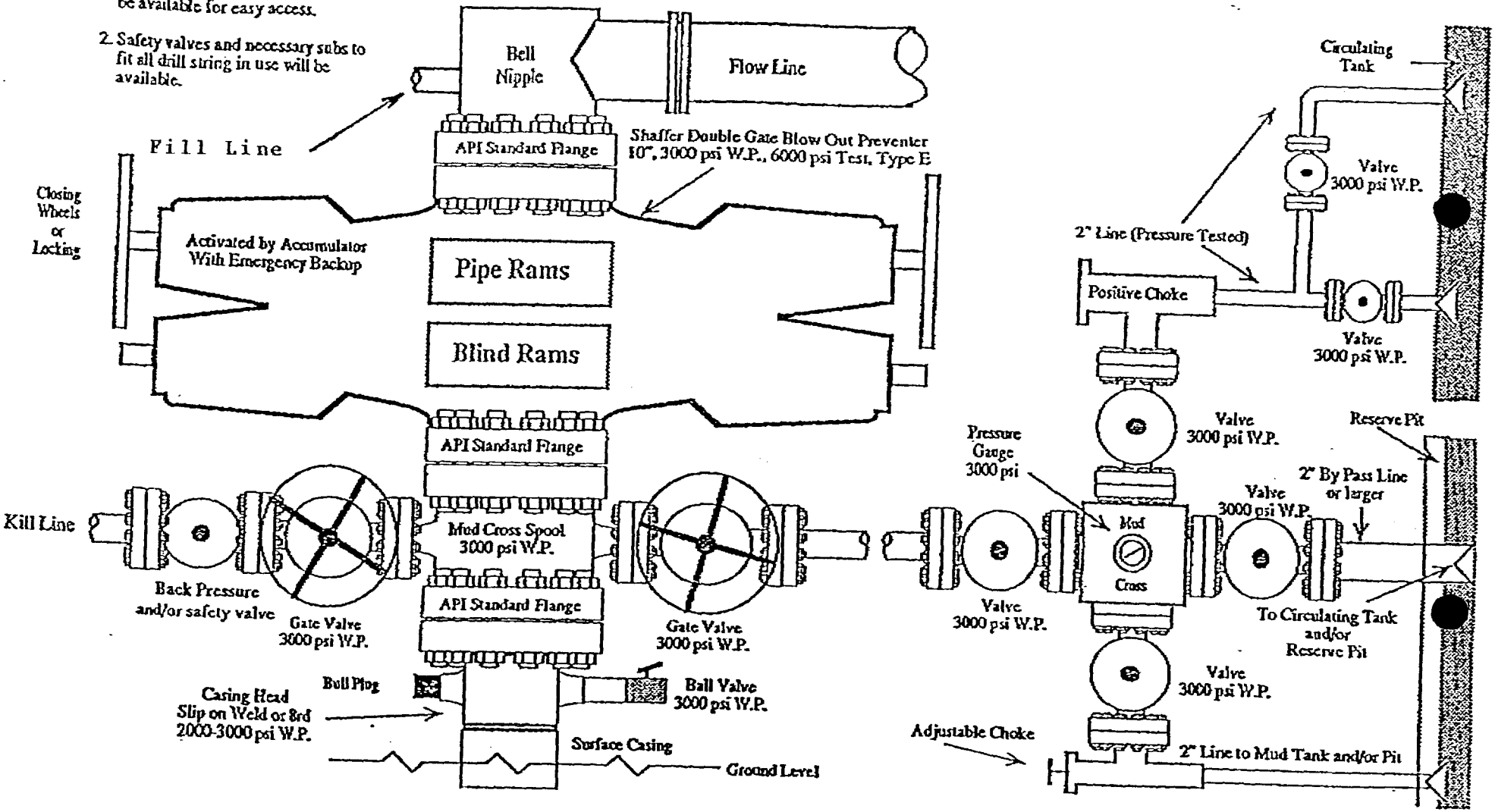
Maximum anticipated bottom hole pressure is ≈1,650 psi. No abnormal pressures, temperatures, or hydrogen sulfide are expected.

Pressure Control Equipment

Minimum 2" Choke Line.
Minimum 2" Kill Line.
At Least One 2" Minimum Kill Line Valve.

Note: 1. An upper Kelly cock valve will be utilized during drilling. Handle will be available for easy access.

2. Safety valves and necessary subs to fit all drill string in use will be available.



Note: This equipment is designed to meet requirements for a 2-M rating standard per 43 CFR part 3160 (amended). Proper operation and testing of equipment will be caried out per standard. 2,000 psi equipment can be substituted in the drawing to meet minimum requirements per standard.

Surface Use Plan

1. EXISTING ROADS & DIRECTIONS (See PAGES 7 & 8)

From the junction of US 6 and US 191 north of Helper, Utah ...
Go NE 8.3 miles on US 191 to the equivalent of Milepost 165.75
Then turn right and go S and E 0.8 mi. on the Emma Park/9 Mile Cutoff Road
Then turn right and go Sand E 0.5 mi. on a field road
Then turn right and go SW 0.3 mi. on a field road
Then turn left and go NE 0.1 mi. on a field road onto the pad

2. ROAD TO UPGRADED

The existing road will be graded to remove ruts and graveled where needed. Road location and dimensions will not change.

3. EXISTING WELLS

There are 9 P&A wells, 3 gas wells, and 2 water wells within a mile radius. There are no existing oil, injection, or disposal wells within a mile.

4. PROPOSED PRODUCTION FACILITIES

Well will tie into existing pipeline on southwest side of pad.

5. WATER SUPPLY

Water will be trucked from an existing water well (right #91-4983) at Huber's central production facility in Section 11, from town, or from

produced water from Huber's wells.

6. CONSTRUCTION MATERIALS & METHODS

At the land owner's request, PG&E left the P&A well unreclaimed and ready for use. A diversion ditch will be built south of the pad. Steel tanks will be used instead of a pit. Gravel will be brought from town.

7. WASTE DISPOSAL

All trash will be placed in a trash cage. When full, it will be hauled to a state approved landfill. There will be no trash burning or disposal of trash in the reserve pit. Chemical toilets will be used for human waste. Their contents will be disposed of in state approved facilities.

8. ANCILLARY FACILITIES

There will be no airstrip or formal camp. Camper trailers will be on site for the company man, roughnecks, mud logger, tool pusher, etc.

9. WELL SITE LAYOUT

See PAGES 9 & 10 for depictions of the well pad, cross sections, cut and fill diagrams, reserve pit, burn pit, access road onto the pad, parking, living facilities, and rig orientation.

10. RECLAMATION

After completing drilling, the well site and immediate area will be cleared of

all debris and material not needed for future use. Ruts will be graded and the pad left graveled for the land owner's use.

11. SURFACE OWNER

The well site is on private land owned by John Marshall, Trustee in Trust for the Dean Shimmin Trust. Contact is Dean Shimmin @ (801) 375-2002.

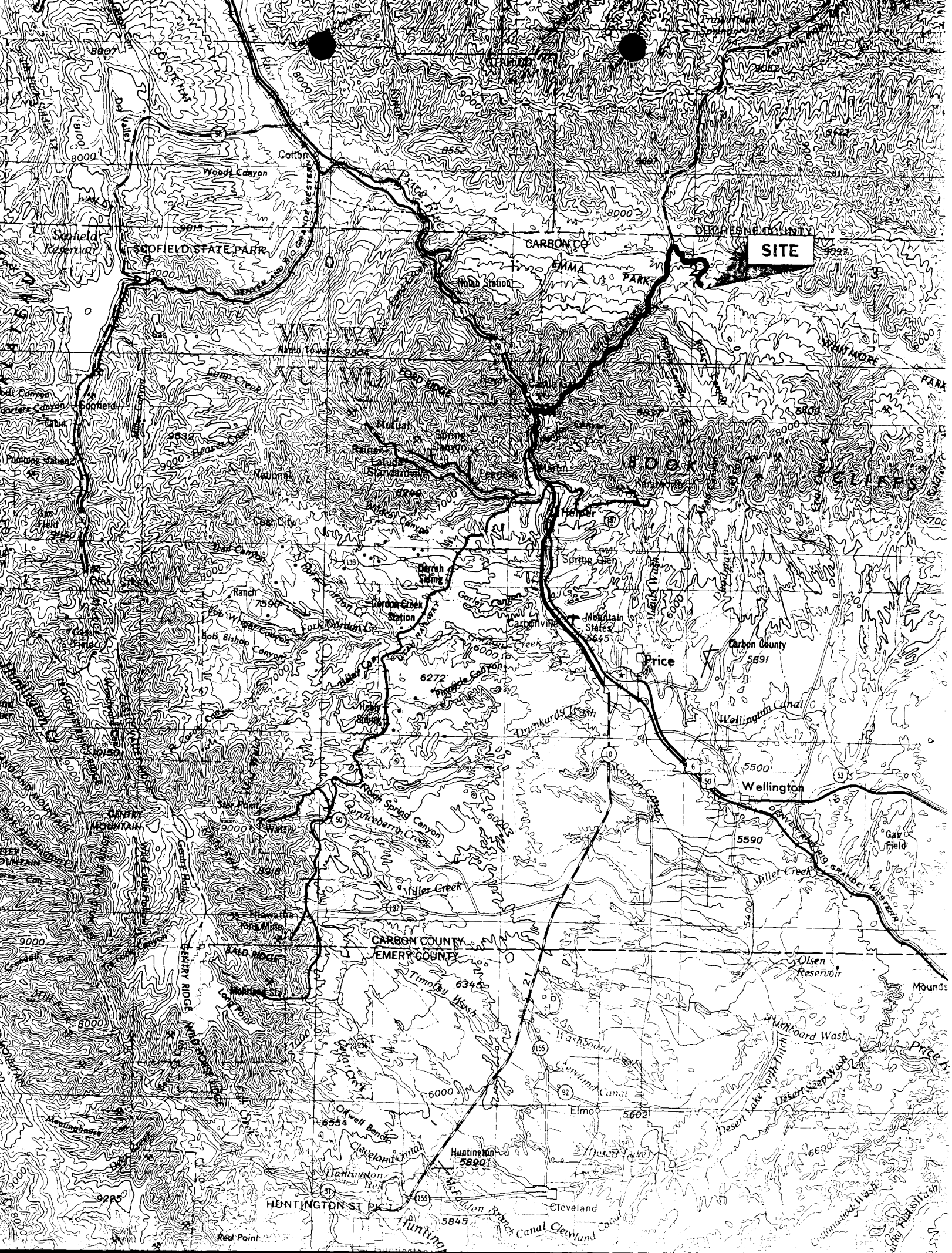
12. REPRESENTATION

Anyone having questions concerning the APD should contact:

Brian Wood
Permits West, Inc.
37 Verano Loop
Santa Fe, NM 87505
(505) 466-8120 FAX: (505) 466-9682 Mobile: (505) 699-2276

The field representative during drilling will be:

Larry Sessions
J. M. Huber Corporation
c/o Holiday Inn - Room 140
838 Westwood Blvd., Price, Ut. 84501
(435) 637-8880 FAX (435) 637-7707
(temporary address & phones until office established)


SITE
SCOFIELD STATE PARK
Scofield Reservoir
CARBON CO
EMMA PARK
DUCHESNE COUNTY
WHITMORE PARK
CLIFFS
Helper
Spring Glen
Price
Carbon County
Wellington
Wellington Canal
Drunkards Wash
Carbon Canal
Olsen Reservoir
Mounds
Huntington
Cleveland
Elmo
Huntington Canal
Cleveland Canal
Desert Lake North Ditch
Desert Seep Wash
Washboard Wash
Miller Creek
Huntington Creek
Cedar Creek
Meetinghouse Canyon
Mud Springs Canyon
Huntington Reservoir
Scofield Reservoir
Scofield
Clear Creek
Bob Bishop Canyon
Gordon Creek
Gordon Creek Station
Carbonville
Mountain States
Carbon Canal
Timothy Wash
Offwell Bench
Cleveland Canal
Huntington Canal
Cottonwood Wash
Red Point
Hawatha Pond Mine
Gas Field
Oil Field
Ranch
Cabin
Radio Towers
Tipple
Mine
Station
Siding
Canyon
Creek
Wash
Ridge
Mountain
Reservoir
Canal
Ditch
Cemetery
Church
School
Tank
Well
Spring
Pipeline
Power Line
Railroad
Highway
Road
Trail
Bridge
Dam
Levee
Pond
Lake
Swamp
Meadow
Orchard
Vineyard
Fence
Boundary
Contour
Elevation
Benchmark
Triangulation
Survey
Township
Range
Section
Quadrangle
Scale
Legend
Index
Key
Title
Author
Publication
Date
Edition
Revision
Projection
Datum
Coordinates
Latitude
Longitude
Grid
Magnetic
True
North
South
East
West
Northeast
Northwest
Southeast
Southwest
Up
Down
Left
Right
Center
Edge
Corner
Intersection
Junction
Crossing
Fork
Branch
Tributary
Confluence
Source
Mouth
Headwaters
Drainage
Basin
Divide
Watershed
Floodplain
Terrace
Bluff
Cliff
Slope
Grade
Steep
Gentle
Flat
Level
Rolling
Hilly
Mountainous
Desert
Forest
Woodland
Grassland
Shrubland
Cropland
Pasture
Urban
Suburban
Rural
Industrial
Commercial
Residential
Public
Private
Federal
State
County
Municipal
Tribal
Military
Airport
Runway
Heliport
Helipad
Hangar
Terminal
Control Tower
Beacon
Windsock
Wind Direction
Wind Speed
Temperature
Precipitation
Rain
Snow
Ice
Fog
Haze
Smoke
Dust
Storm
Lightning
Thunder
Wind
Calm
Gust
Squall
Tornado
Hurricane
Typhoon
Cyclone
Anticyclone
Front
Cold Front
Warm Front
Occluded Front
Stationary Front
Pressure
High Pressure
Low Pressure
Barometer
Thermometer
Hygrometer
Anemometer
Rain Gauge
Weather Station
Observatory
Meteorology
Climate
Seasons
Spring
Summer
Autumn
Winter
Solstice
Equinox
Daylight
Darkness
Twilight
Dawn
Dusk
Noon
Midnight
Hour
Minute
Second
Time
Date
Calendar
Year
Month
Week
Day
Today
Yesterday
Tomorrow
Past
Present
Future
Historical
Prehistoric
Archaeological
Geological
Paleontological
Mineralogical
Petrological
Stratigraphic
Sedimentary
Igneous
Metamorphic
Fossil
Mineral
Rock
Soil
Clay
Sand
Gravel
Silt
Loam
Peat
Coal
Oil
Gas
Natural Gas
Petroleum
Refinery
Pipeline
Well
Drilling
Mining
Quarry
Pit
Tunnel
Shaft
Adit
Ore
Metal
Iron
Copper
Gold
Silver
Lead
Zinc
Uranium
Coal
Oil Shale
Tar Sands
Geothermal
Hot Spring
Geyser
Fumarole
Mud Pot
Volcano
Crater
Caldera
Lava
Ash
Pumice
Obsidian
Basalt
Andesite
Rhyolite
Granite
Limestone
Dolomite
Sandstone
Shale
Conglomerate
Breccia
Tuff
Gneiss
Schist
Slate
Quartzite
Marble
Fault
Fault Line
Earthquake
Seismograph
Epicenter
Focus
Magnitude
Intensity
Richter Scale
Mercalli Scale
Tsunami
Landslide
Avalanche
Rockfall
Erosion
Weathering
Deposition
Sedimentation
Glacier
Moraine
Cirque
Arete
Horn
Col
Pass
Saddle
Ridge
Peak
Summit
Valley
Canyon
Gorge
Ravine
Gulch
Arroyo
Wash
Creek
River
Stream
Brook
Rivulet
Spring
Waterfall
Rapids
Cascade
Delta
Estuary
Bay
Gulf
Sea
Ocean
Lake
Reservoir
Pond
Marsh
Swamp
Bog
Fen
Wetland
Riparian
Aquatic
Terrestrial
Alpine
Tundra
Boreal
Temperate
Tropical
Subtropical
Arctic
Antarctic
Polar
Equatorial
Coastal
Inland
Island
Peninsula
Isthmus
Cape
Bay
Harbor
Port
Dock
Pier
Wharf
Jetty
Breakwater
Lighthouse
Beacon
Buoy
Channel
Strait
Sound
Inlet
Lagoon
Atoll
Reef
Shoal
Sandbar
Beach
Dune
Cliff
Bluff
Headland
Promontory
Mesa
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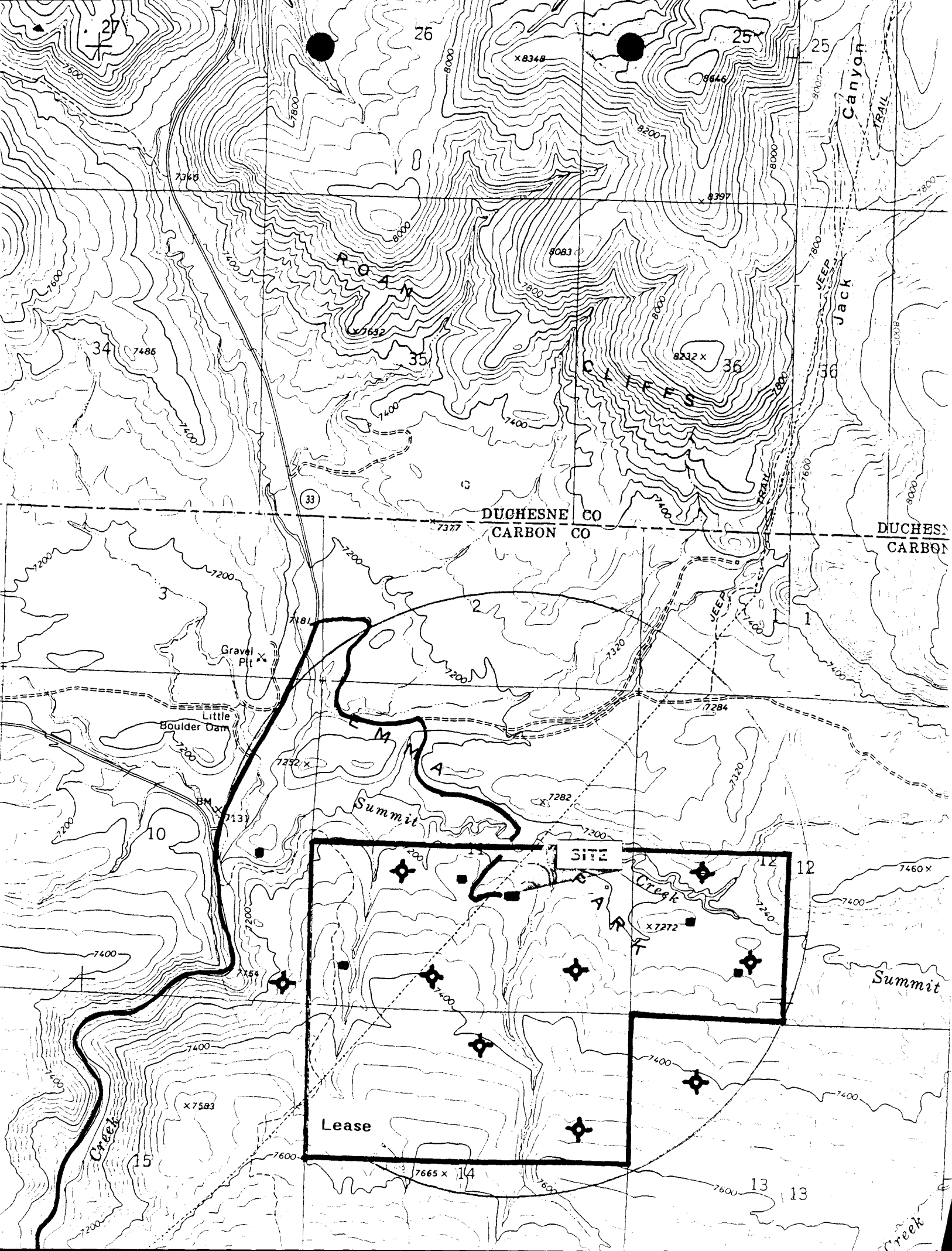
Tableland
Badlands


DUCHESNE CO
CARBON CO
SITE
Lease
Gravel Pit
Little Boulder Dam
Summit
Creek
Canyon
Jack
ROAN
CLIFFS
JEEP TRAIL
BM
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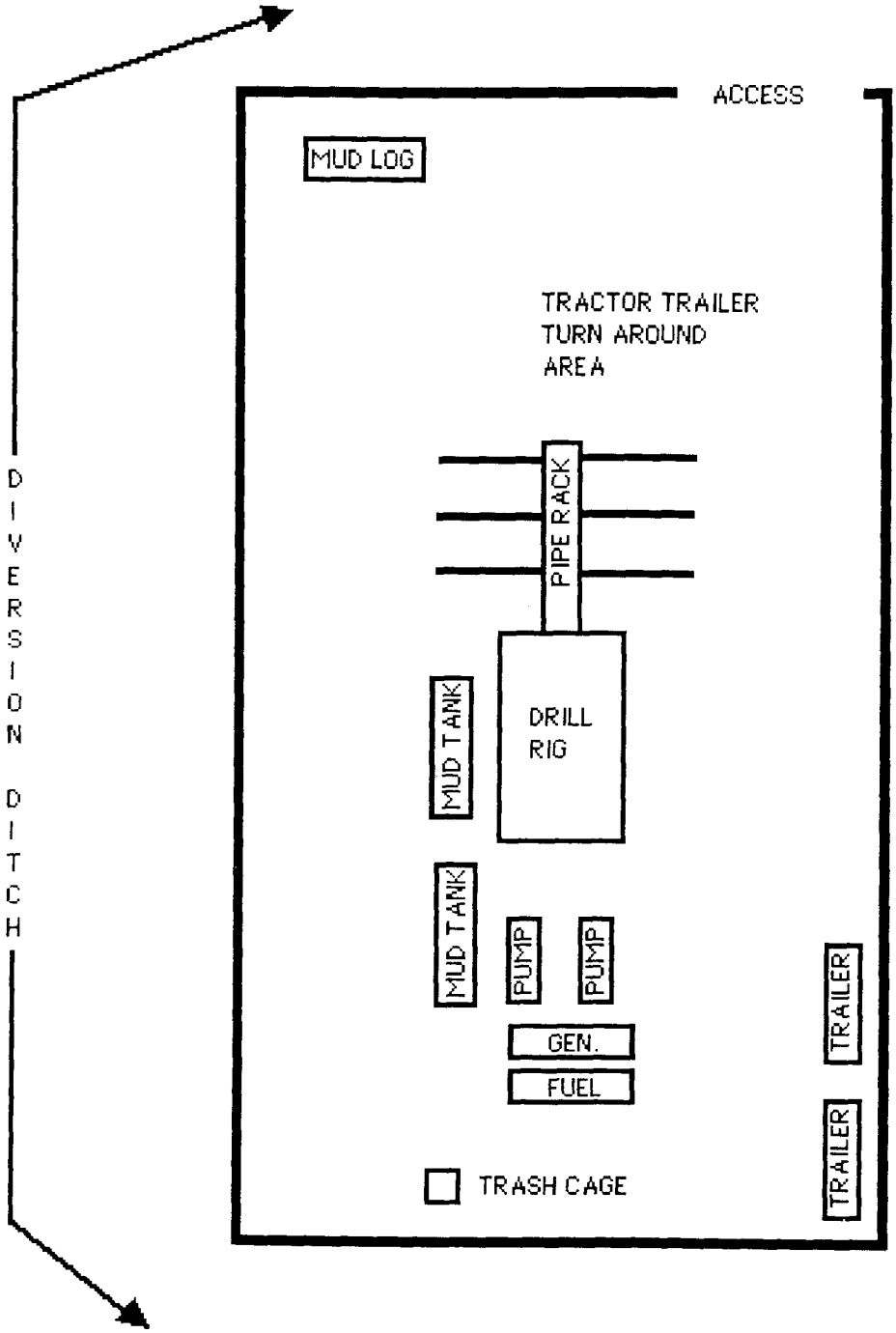
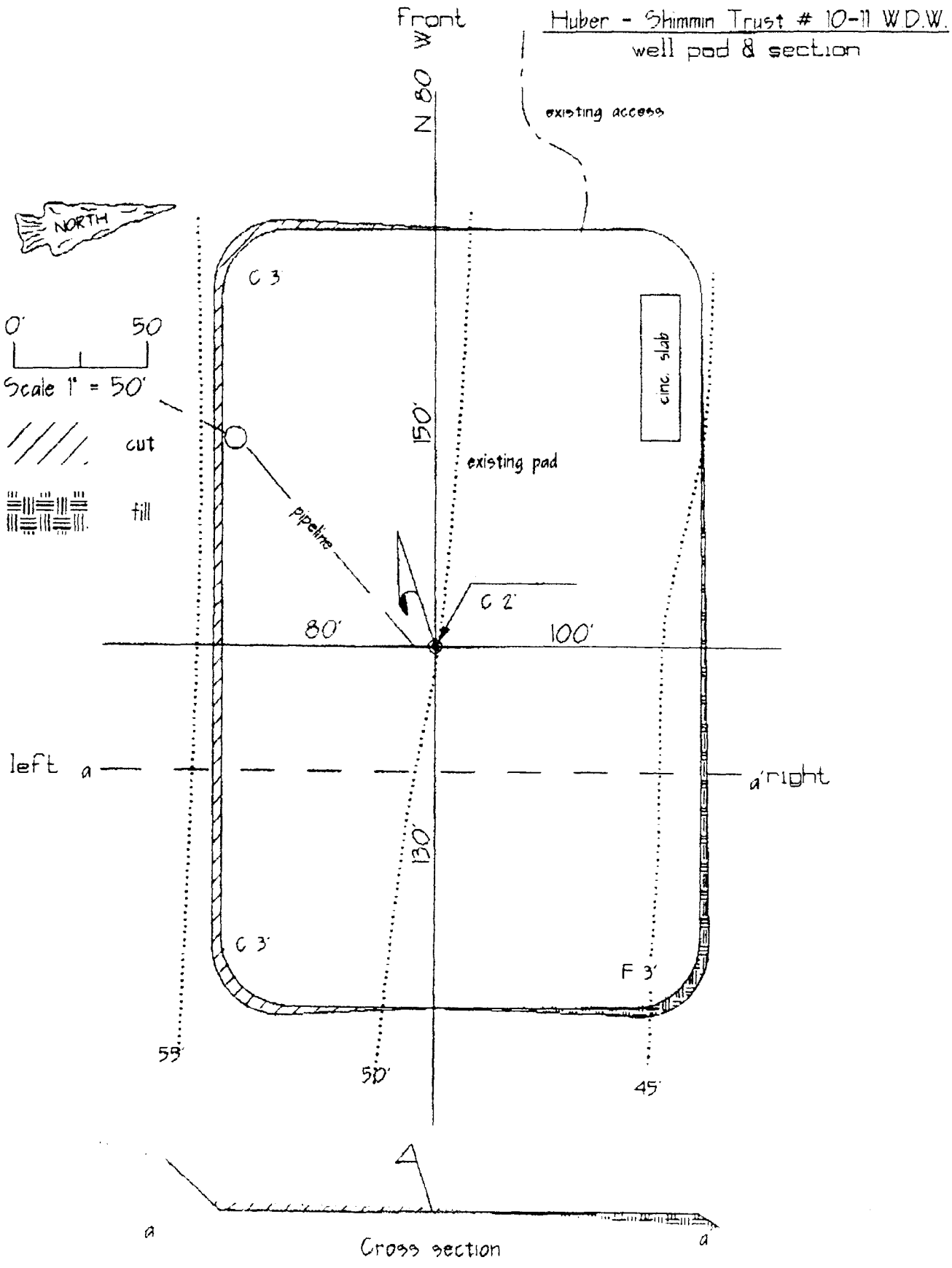

ACCESS
MUD LOG
TRACTOR TRAILER
TURN AROUND
AREA
PIPE RACK
DRILL
RIG
MUD TANK
MUD TANK
PUMP
PUMP
GEN.
FUEL
TRAILER
TRAILER
TRASH CAGE
DIVERSION DITCH
1" = 50'
NORTH


Front
Huber - Shimmin Trust # 10-11 W.D.W.
well pad & section
existing access
N 80 W
NORTH
C 3
0' 50
Scale 1" = 50'
cut
fill
150'
conc. slab
existing pad
pipeline
C 2'
80'
100'
left a
a' right
130'
C 3'
F 3'
55'
50'
45'
a
a'
Cross section

AFFIDAVIT OF PUBLICATION

GJ
RJ

OF... COPY

STATE OF UTAH)
ss.
County of Carbon,)

I, Kevin Ashby, on oath, say that I am the Publisher of the Sun Advocate, a twice-weekly newspaper of general circulation, published at Price, State and County aforesaid, and that a certain notice, a true copy of which is hereto attached, was published in the full issue of such newspaper for .....One (1).....consecutive issues, and that the first publication was on the

.....8th.....day of.....February.....,19.....94

and that the last publication of such notice was in the issue of such newspaper dated the

.....day of.....,19.....

Kevin Ashby

Subscribed and sworn to before me this

8th February 94

.....day of.....,19.....

Linda Thayn
Notary Public

My Commission expires January 10, 1995

Residing at Price, Utah

Publication fee, $.....62.40.....

NOTARY PUBLIC
LINDA THAYN
811 NORTH 10TH EAST
PRICE, UT 84501
My Commission Expires Jan. 10, 1995
State of Utah

NOTICE OF AGENCY ACTION
CAUSE NO. UIC-146

BEFORE THE DIVISION OF OIL, GAS AND MINING DEP MENT OF NATURAL RESOURCES STATE OF UTAH IN THE TER OF THE APPLICATION OF PG & E RESOURCES COMPAY ADMINISTRATIVE APPROVAL OF THE SHIMMIN TRUST WELL LOCATED IN SECTION 11, TOWNSHIP 12 SOUTH, RAN EAST, S.L.M., CARBON COUNTY, UTAH, FOR CONVERSION CLASS II INJECTION WELL

THE STATE OF UTAH TO ALL PERSONS INTERESTED IN ABOVE ENTITLED MATTER.

Notice is hereby given that the Division of Oil, Gas and Mining (" sion") is commencing an informal adjudicative proceeding to consid application of PG & E Resources Company ("PG & E") for administr approval of the Shimmin Trust 11-10 Well, located in Section 11, T ship 12 South, Range 10 East, Carbon County, Utah, for conversio Class II injection well. The proceeding will be conducted in accor with Utah Admin. R.649-10, Administrative Procedures.

PG & E has proposed to inject fluids into the Price River Form interval from 2,945 to 3,122 feet in the Shimmin Trust 11-10 dis well. The injection fluid is water produced in conjunction with the ex tion of coal bed methane gas from the Mesaverde Blackhawk Form in the Castlegate Field area.

PG & E has perforated the Price River Formation interval and formed swab testing operations to obtain a water sample. The analysis indicated the total dissolved solids (TDS) content of the River Formation water to be approximately 26,000 milligrams per (mg/l). Therefore, the disposal interval does not constitute an u ground source of drinking water (USDW) and an aquifer exempti not necessary.

The maximum allowable injection pressure and rate will be d mined after conducting step-rate pressure testing following conve of the well.

Any person desiring to object to the application or otherwise inter in the proceeding, must file a written protest or notice of interve with the Division within fifteen days following publication of this n If such a protest or notice of intervention is received, a hearing w scheduled before the Board of Oil, Gas and Mining. Protestants a intervenors should be prepared to demonstrate at the hearing how matter affects their interests.

DATED this 3rd day of February, 1994.

STATE OF U
DIVISION OF OIL, GAS AND MIN
-s- R. J.
Associate Dir

Published in the Sun Advocate February 8, 1994.

WORKSHEET
APPLICATION FOR PERMIT TO DRILL

APD RECEIVED: / /

API NO. ASSIGNED: 43-007-30167

WELL NAME: SHIMMIN TRUST 10-11 (Re Entry)

OPERATOR: J M HUBER CORPORATION (N2380)

CONTACT: BRIAN WOOD, AGENT

PHONE NUMBER: 505-466-8120

PROPOSED LOCATION:

NWSE 11 120S 100E

SURFACE: 1999 FSL 2006 FEL

BOTTOM: 1999 FSL 2006 FEL

CARBON

CASTLEGATE (13)

INSPECT LOCATN BY: / /

Tech Review	Initials	Date
Engineering		
Geology		
Surface		

LEASE TYPE: 4 - Fee

LEASE NUMBER: FEE

SURFACE OWNER: 4 - Fee

PROPOSED FORMATION: PRRV

RECEIVED AND/OR REVIEWED:

✓ Plat

✓ Bond: Fed[] Ind[] Sta[] Fee[4]
(No. 929103265)

N Potash (Y/N)

N Oil Shale (Y/N) *190 - 5 (B)

✓ Water Permit
(No. 91-4983)

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

Y Fee Surf Agreement (Y/N) ✗ Rec'd 12-20-01

LOCATION AND SITING:

___ R649-2-3. Unit

✓ R649-3-2. General

Siting:

___ R649-3-3. Exception

___ Drilling Unit

Board Cause No:

Eff Date:

Siting:

___ R649-3-11. Directional Drill

COMMENTS: Red Rock (Approved 12-18-2001)

STIPULATIONS:

DIVISION OF OIL, GAS AND MINING

APPLICATION FOR PERMIT TO DRILL
STATEMENT OF BASIS

Operator Name: J. M. Huber
Name & Number: Huber-Shimmin Trust 10-11
API Number: 43-007-30167
Location: 1/4,1/4 NW SE Sec. 11 T. 12 S R. 10 E County Carbon

Geology/Ground Water:

The setting depth of the surface casing in this well is proposed for 475' cemented back to surface with 275 sx of pemium class G cement. There are 78 points of diversion within 1 mile of this location, which were developed by parties drilling in the area, some have priority dates back to 1860, most of these are municipal and the majority are wells that are completed in the Blackhawk coal. The previous injection zone in this well is the Price River Formation. A search made of the records at water rights showed that no water from active water wells is being produced from below 385', and that the 475' of surface casing covered this zone. The several springs and diversions along Willow Creek will not be impacted by new work on this well, and are protected by the surface casing and the cement at the bottom of the long string.

Reviewer: K. Michael Hebertson **Date:** 12/December/2000

Surface:

The surface owner was has been contacted and expressed no concerns about the use of [illegible] location. Overall he was happy with the operators' proposal. The surface owner was also made aware of the winter range and habitat concerns expressed by DWR and the active Sage Grouse strutting area that has been identified by DWR. He was not sympathetic to their request and has no interested in holding up work for the time frames requested. This is a previously drilled well site and no new surface disturbance will be required to reenter this well. As currently agreed to there is no provision in the surface use agreement for an injection well at this location, or anywhere on the Shimmin Trust lands.

Reviewer: K. Michael Hebertson **Date:** 12/December /2000

Supplemental Review: K. Michael Hebertson **Date:** 18/December/2000

Conditions of Approval/Application for Permit to Drill:

1. Existing culverts will be cleaned and maintained and new culverts of sufficient size and length will be installed and maintained so as not to inhibit natural water flow, where necessary.

2. Water samples from the Price River Formation will be required from this well.