

DATE IN 1-20-05	SUSPENSE	ENGINEER <i>Cafanach</i>	LOGGED IN 1-20-05	TYPE <i>IPC</i>	PERMIT NO <i>0502037729</i>
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ABOVE THIS LINE FOR DIVISION USE ONLY

**NEW MEXICO OIL CONSERVATION DIVISION**  
**- Engineering Bureau -**  
 1220 South St. Francis Drive, Santa Fe, NM 87505



**ADMINISTRATIVE APPLICATION CHECKLIST**

THIS CHECKLIST IS MANDATORY FOR ALL ADMINISTRATIVE APPLICATIONS FOR EXCEPTIONS TO DIVISION RULES AND REGULATIONS WHICH REQUIRE PROCESSING AT THE DIVISION LEVEL IN SANTA FE

**Application Acronyms:**

**[NSL-Non-Standard Location] [NSP-Non-Standard Proration Unit] [SD-Simultaneous Dedication]**  
**[DHC-Downhole Commingling] [CTB-Lease Commingling] [PLC-Pool/Lease Commingling]**  
**[PC-Pool Commingling] [OLS - Off-Lease Storage] [OLM-Off-Lease Measurement]**  
**[WFX-Waterflood Expansion] [PMX-Pressure Maintenance Expansion]**  
**[SWD-Salt Water Disposal] [IPI-Injection Pressure Increase]**  
**[EOR-Qualified Enhanced Oil Recovery Certification] [PPR-Positive Production Response]**

**[1] TYPE OF APPLICATION - Check Those Which Apply for [A]**

**[A] Location - Spacing Unit - Simultaneous Dedication**  
☐ NSL ☐ NSP ☐ SD

Check One Only for [B] or [C]

**[B] Commingling - Storage - Measurement**  
☐ DHC ☐ CTB ☐ PLC ☐ PC ☐ OLS ☐ OLM

**[C] Injection - Disposal - Pressure Increase - Enhanced Oil Recovery**  
☐ WFX ☐ PMX ☐ SWD ☒ IPI ☐ EOR ☐ PPR

**[D] Other: Specify** \_\_\_\_\_

**[2] NOTIFICATION REQUIRED TO: - Check Those Which Apply, or ☐ Does Not Apply**

- [A]** ☐ Working, Royalty or Overriding Royalty Interest Owners
- [B]** ☐ Offset Operators, Leaseholders or Surface Owner
- [C]** ☐ Application is One Which Requires Published Legal Notice
- [D]** ☐ Notification and/or Concurrent Approval by BLM or SLO  
U.S. Bureau of Land Management - Commissioner of Public Lands, State Land Office
- [E]** ☐ For all of the above, Proof of Notification or Publication is Attached, and/or,
- [F]** ☐ Waivers are Attached

**[3] SUBMIT ACCURATE AND COMPLETE INFORMATION REQUIRED TO PROCESS THE TYPE OF APPLICATION INDICATED ABOVE.**

**[4] CERTIFICATION:** I hereby certify that the information submitted with this application for administrative approval is **accurate** and **complete** to the best of my knowledge. I also understand that **no action** will be taken on this application until the required information and notifications are submitted to the Division.

**Note:** Statement must be completed by an individual with managerial and/or supervisory capacity.

Print or Type Name _____	Signature _____	Title _____	Date _____
e-mail Address _____			

RECEIVED

DEC 20 2005  
JAN  
Oil Conservation Division  
1220 S. Saint Francis Drive  
Santa Fe, NM 87505

**MEWBOURNE OIL COMPANY**

P. O. BOX 7698  
TYLER, TEXAS 75711  
(903) 561-2900  
FAX (903) 561-1870

January 17, 2005

New Mexico Oil Conservation Commission  
1220 S. St. Francis Drive  
Santa Fe, New Mexico 87505

Att: Mr. David Catanach

Re: *Application for Increased Surface Pressure*  
Querecho Plains Bone Spring Waterflood Project  
Lea County, New Mexico

Dear Mr. Catanach:

Mewbourne Oil Company requests administrative approval to increase surface injection pressure for the following wells at the referenced project (see attached step-rate graphs). Step rate tests were conducted in December 2004 to bring wells in compliance with permit pressures.

	<u>Well</u>	<u>Permit Pressure</u>	<u>Frac Pressure</u>	<u>Requested Pressure</u>
30-025-30583	QPBSSU No. 2A-1	2300	2450	2430 psig
30-025-29679	QPBSSU No. 13-2	2250	2400	2380 psig

Administrative approval is requested as interpreted in Division Order No. R-10151 and Division Rule 704.C. The attached step-rate tests demonstrate that the subject wells can inject at the requested surface pressures without propagating the existing fracture stimulation out of the Bone Spring formation.

The step-rate tests, as represented on the graphs, have water gravity, friction factors and depth to top perforation incorporated in the calculations. Stabilization times between test were held constant.

Waterflood production from the Bone Spring formation is in the later state of depletion. As a result of continued pore volume pressure increasing the fracture pressure and difficulty in maintaining injectivity is increasing. The fracture pressure is directly proportional to the pore volume pressure plus other rock matrix stress relationships. Prior approved injection pressure in Order No. R-9737-B of May 2, 1996 approved a pressure 20 psig below the average fracture pressure as shown on the step-rate test curves provided. Fracture pressure is a continually moving target. By the time that approval is obtained, fracture pressures will have

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New Mexico Oil Conservation Commission

Mr. David Catanach

January 17, 2005

progressed above the current request. For this reason, I respectfully request the approval of the requested pressure. If you have any questions, please contact me at the above number. Thank you for your consideration in this matter.

Yours truly,

MEWBOURNE OIL COMPANY

A handwritten signature in black ink, appearing to read "K. M. Calvert", written in a cursive style.

K. M. Calvert

KMC/sh

Attachments: Step-Rate Graphs

cc: Arthur Boice

Mr. Chris Williams

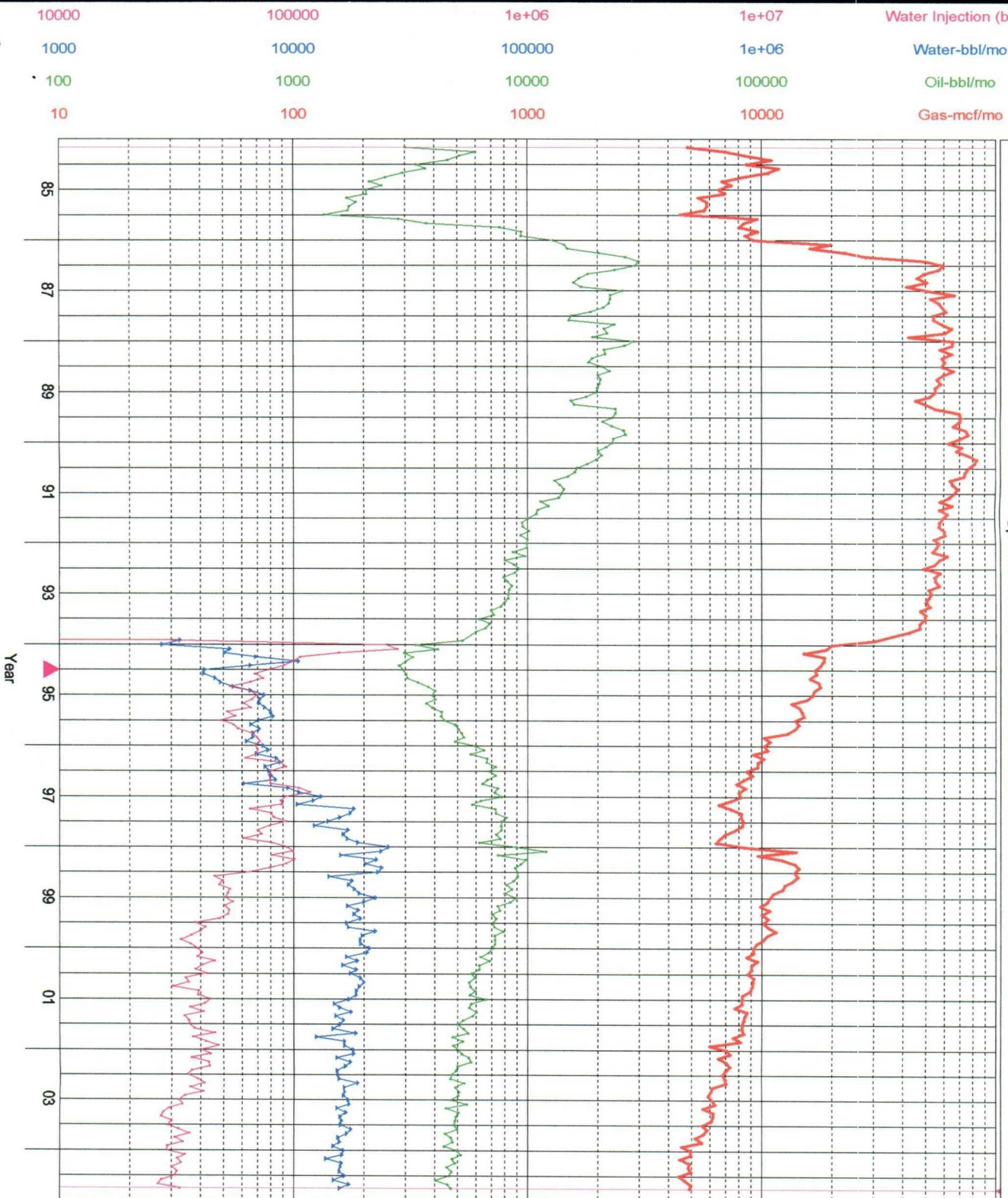
New Mexico Oil Conservation Division

1625 N. French Drive

Hobbs, NM 88241

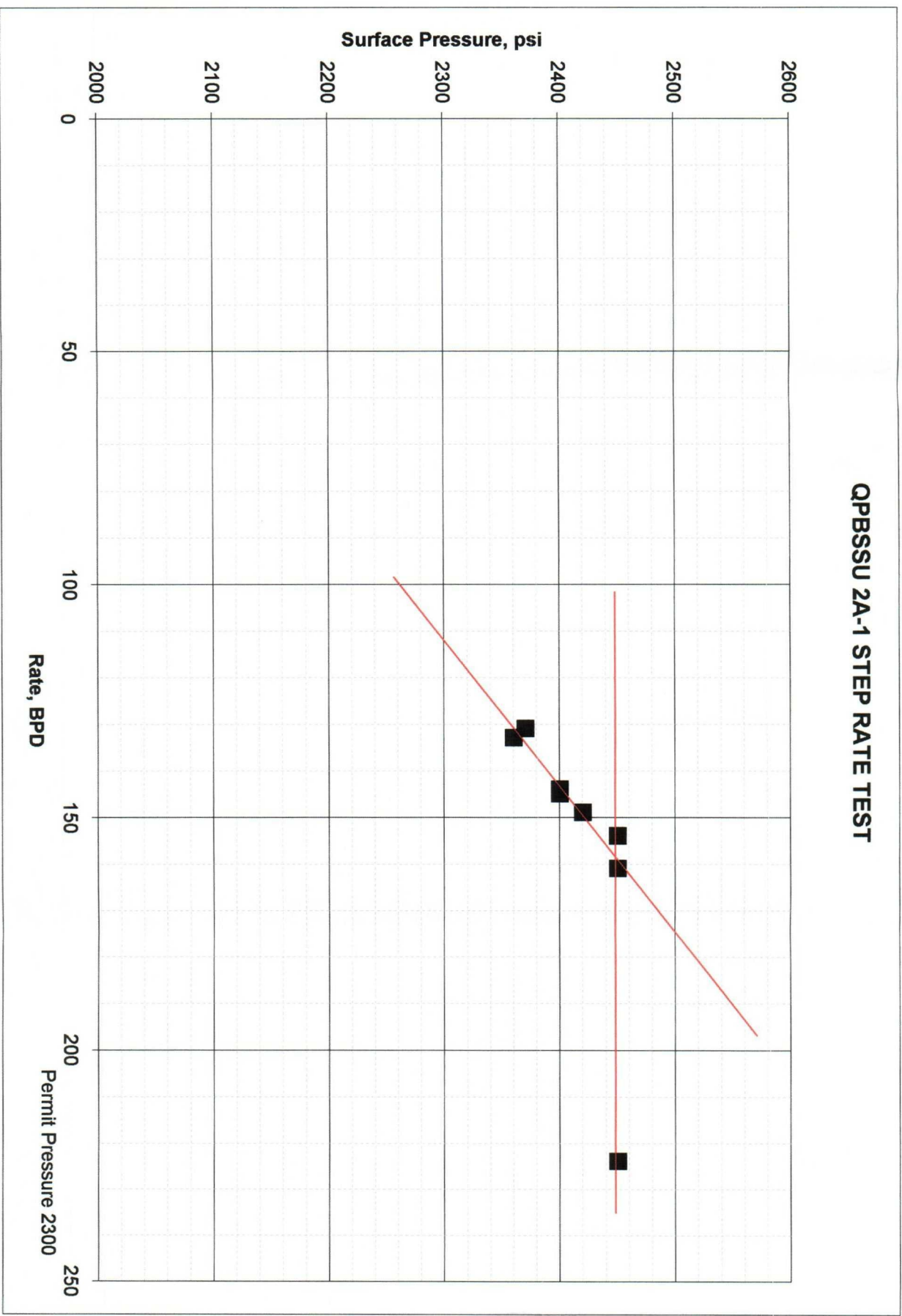
# Lease: QPBSSU

Location: UPPER BONE SPRING  
 Reservoir: QUERECHO PLAINS  
 City/St: LEA, NM  
 Operator: MEWBOURNE OIL COMPANY

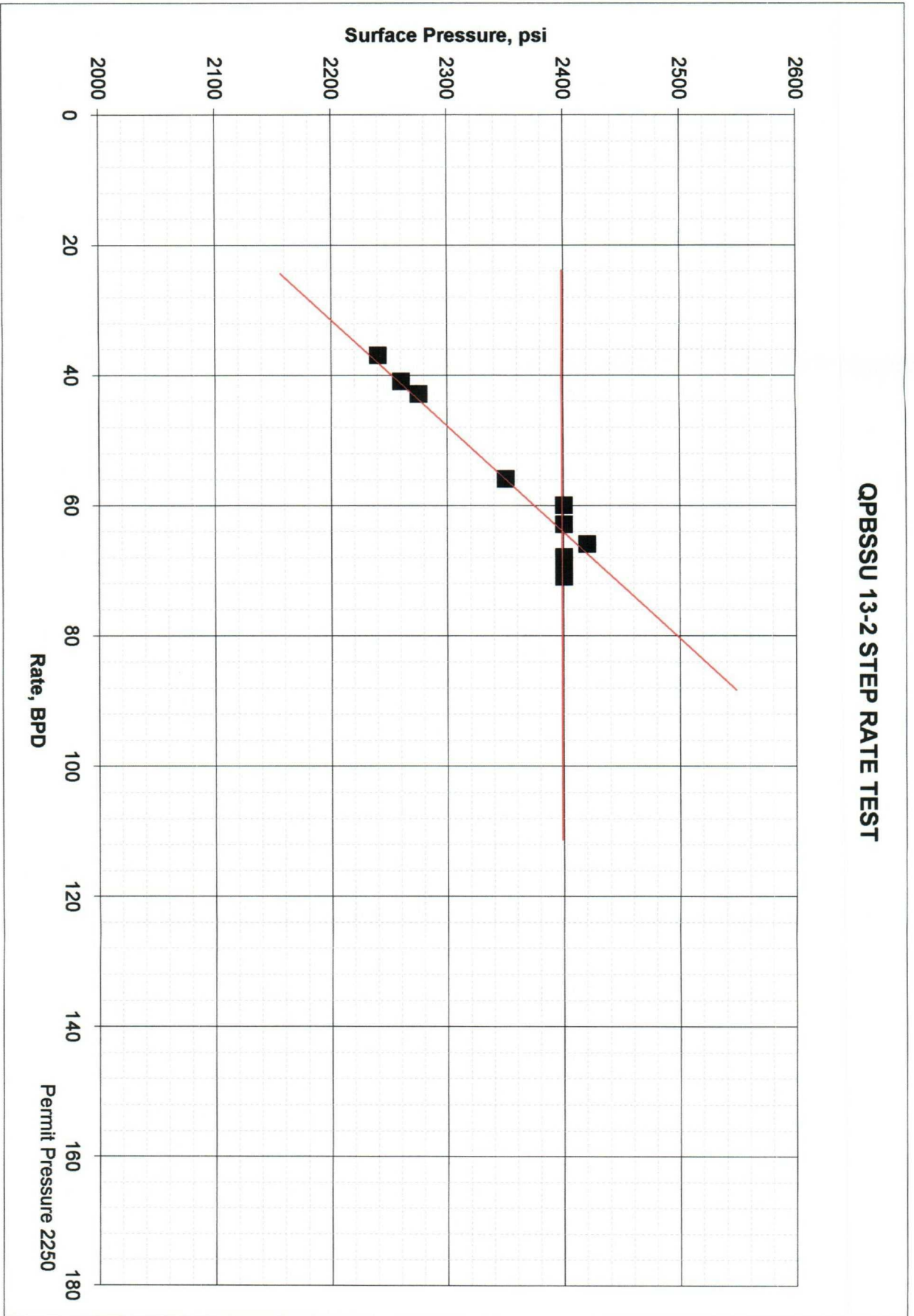


Gas-mcf/mo 10/2004  
 Ref= 6824375  
 Cum= 2379656  
 Oil-bbl/mo 10/2004  
 Ref= 1872280  
 Cum= 7592002  
 Water-bbl/mo 10/2004  
 Ref= 1872280  
 Cum= 7592002  
 Water Inject 10/2004  
 Ref= 7592002  
 Cum= 7592002

# QPBSSU 2A-1 STEP RATE TEST



# QPBSSU 13-2 STEP RATE TEST





# RBDMS New Mexico 2004

[Edit](#)
[Inquiry](#)
[Switchboard](#)
[User Queries](#)
[Refresh Data](#)


API Well Number :

OGRID Name :

Property Name :

Pool Name :

County :

Well Type :

Well Status :

Permit :

Section

Land:

Township

Dir.

Range

Dir.

Company



Inspections



Well Master

Scheduler

Mech. Int. Tests

Well History

Data Action

Inactive Detail

Env. Inspections

Admin Permits

Inactive Mat.

Incidents



Hearing Orders

R

U

N

G

I

S

Pool Master

Compliance

Surf Facilities

 Close all  
Functions  
and Exit  
RBDMS

Clear Criteria Fields

 Make User Table for  
Group Inspection, 'Sync',  
Schedule Prevent, Etc!

 Quick  
Print

Apply Selection Criteria

## WELL FILTER SUB FORM

Active API Record Below is Carried Throughout RBDMS for Inspections, Compliance, MITs, W

API WELL #	Well	Well #	Op	Typ	Sta	Coun	Su	UL	Sec	Tw	N/S	Rng	W/E	Feet	NS	Ft	EW	Last Insp	Order No
30-025-24564-00-00	QU	002	ME	I	A	Lea	F	C	26	18	S	32	E	660	N	1980	W	1/12/2005	R-9737-A
30-025-25894-00-00	QU	001	ME	I	A	Lea	F	K	27	18	S	32	E	1980	S	1980	W	1/14/2005	IPI-151
30-025-29227-00-00	QU	001	ME	I	A	Lea	F	D	26	18	S	32	E	660	N	660	W	1/12/2005	R-9737-A
30-025-29252-00-00	QU	010	ME	I	A	Lea	F	G	27	18	S	32	E	2310	N	2310	E	1/12/2005	R-9737-A
30-025-29516-00-00	QU	011	ME	I	A	Lea	F	A	27	18	S	32	E	660	N	530	E	1/12/2005	R-9737-A
30-025-29679-00-00	QU	002	ME	I	A	Lea	F	N	23	18	S	32	E	760	S	2310	W	1/12/2005	WFX-776
30-025-29749-00-00	QU	002	ME	I	A	Lea	F	K	23	18	S	32	E	1950	S	1980	W	1/12/2005	R-9737-A
30-025-29770-00-00	QU	002	ME	I	A	Lea	F	J	23	18	S	32	E	2310	S	2030	E	1/12/2005	R-9737-A
30-025-29828-00-00	QU	003	ME	I	A	Lea	F	L	23	18	S	32	E	1980	S	990	W	1/12/2005	R-9737-A
30-025-30129-00-00	QU	004	ME	I	A	Lea	F	B	23	18	S	32	E	660	N	1650	E	1/12/2005	R-9737-A
30-025-30570-00-00	QU	003	ME	I	A	Lea	P	J	14	18	S	32	E	1980	S	1980	E	11/8/2004	R-9737-A
30-025-30583-00-00	QU	001	ME	I	A	Lea	P	D	24	18	S	32	E	660	N	660	W	11/8/2004	R-9737-A
30-025-30643-00-00	QU	004	ME	I	A	Lea	F	I	14	18	S	32	E	1980	S	660	E	11/8/2004	R-9737-A
30-025-31115-00-00	QU	161	ME	I	A	Lea	F	L	24	18	S	32	E	2310	S	330	W	12/1/2004	WFX-686