

in 1/26/06 2/10/06
pwr 50603854855

LANCE OIL & GAS COMPANY, INC.

P.O. Box 70 • Kirtland, New Mexico 87417
(505) 598-5601 Ext. 43 • Fax (505) 598-0064

January 25, 2006

New Mexico Energy, Minerals and Natural Resources Department
Oil Conservation Division
1220 South St Francis Drive
Santa Fe, NM 87505

Attn: Mr. William Jones

RE: Salty Dog #5
NE/4 Section 16, T29N – R14W
San Juan County, New Mexico
Administrative Order SWD - 971

Dear Mr. Jones:

Lance Oil and Gas Company, Inc. respectively requests modifications to previously approved Administrative Order SWD – 971 dated March 4, 2005. The perforation intervals after drilling along with the Maximum Allowable Operating Pressure (MAOP) require modifications prior to first injection. The MAOP modification from 1,325 psig to 2,000 psig is well below the formation parting pressure as detailed below.

Perforation Intervals

The well was perforated in the Entrada Formation from 6,514' – 44' KB, 6,564' – 94' KB and 6,614' – 44' KB. The three 30 foot intervals were perforated with two 20 foot intervals in-between left unperforated to facilitate isolation if ever required. A copy of the composite log is attached with the perforated intervals noted. The Entrada formation looks like a very good water disposal interval with porosity averaging greater than 21%. Lance requests a modification to the previously approved Administrative Order SWD – 971 dated March 4, 2005. The original permit authorizes *"the injection of produced water for disposal purposes into the Entrada formation through perforations from 6,625 feet to 6,750' through plastic-lined tubing set with a packer located within 100 feet of the top of the injection interval"*. Lance perceived the permit to be specific to the Entrada formation and not the perforation intervals. The NMOCD Aztec Division is aware of the error pursuant to conversation Erwin / Perrin / Hayden on 12/16/05. Notice of Intents are attached as appropriate including the Affidavit of Publication and the 15 day notice dated December 22, 2005.

Step-Rate Test

A Salty Dog #5 step-rate injection test (SRT) was conducted on December 17, 2005 to ascertain the formation breakdown pressure. The SRT was pumped down 2-3/8" tubing with a packer set at 6,461' KB and Tefteller bottomhole gauges set at 6,580' KB. The maximum injection rate achieved during the SRT was 5-3/4 bwpm with a corresponding surface injection pressure of 4,060 psig. Lance believes the matrix leak-off is very large and thus has not parted or fractured the Entrada formation at 5-3/4 bwpm and 4,060 psig. The 2-3/8" tubing exacerbates friction pressure with the friction pressure increasing rapidly during the higher injection rates. The surface injection pressure and bottomhole pressure down 2-3/8" tubing is presented in Attachment #1.

Attachment #1 also indicates the surface injection pressure versus rate without friction down 2-3/8" tubing. As you would expect the surface pressure without friction pressure and bottomhole pressures are parallel

with only the hydrostatic pressure gradient of water between the two curves. Both curves are very flat indicating to Lance that the formation is able to accept very large volumes of water without increasing the bottom hole pressures. It seems reasonable to expect that 150 foot Entrada sandstone could not be fractured with only 5-3/4 bwpm.

Attachment #1 also graphically represents the 2-7/8" plastic-lined tubing friction added into the surface pressure. Lance requests a MAOP of 2,000 psig with 2-7/8" internally coated tubing which Lance believes is well below the formation parting pressure. The original SRT digital data as recorded with Tefteller, Inc. bottom hole gauges is included as an attachment for your perusal. The digital data has been used to prepare Table 1 indicating the bottom hole pressures with and without friction pressures. Since the bottom hole pressure data was obtained down 2-3/8" tubing, Lance has corrected for friction down 2-7/8" plastic-lined tubing. A table is attached with the original bottomhole pressures down 2-3/8" tubing, corrected for no friction down 2-3/8" tubing and finally corrected back to friction down 2-7/8" internally coated tubing. Again, it appears that the formation has not reached the formation parting pressure.

Your timely approval would be appreciated. Pls feel free to call Tom Erwin (505-598-5601 Ext 63) if you have any questions.

Sincerely,
LANCE OIL AND GAS COMPANY, INC.



Thomas M. Erwin, P.E.
Senior Petroleum Engineer

Attachments

Cc: Mr. Charlie Perrin - NMOCD
Mr. Dave Gomendi - Lance Oil & Gas

Lance Salty Dog 5 Perforation Recommendations

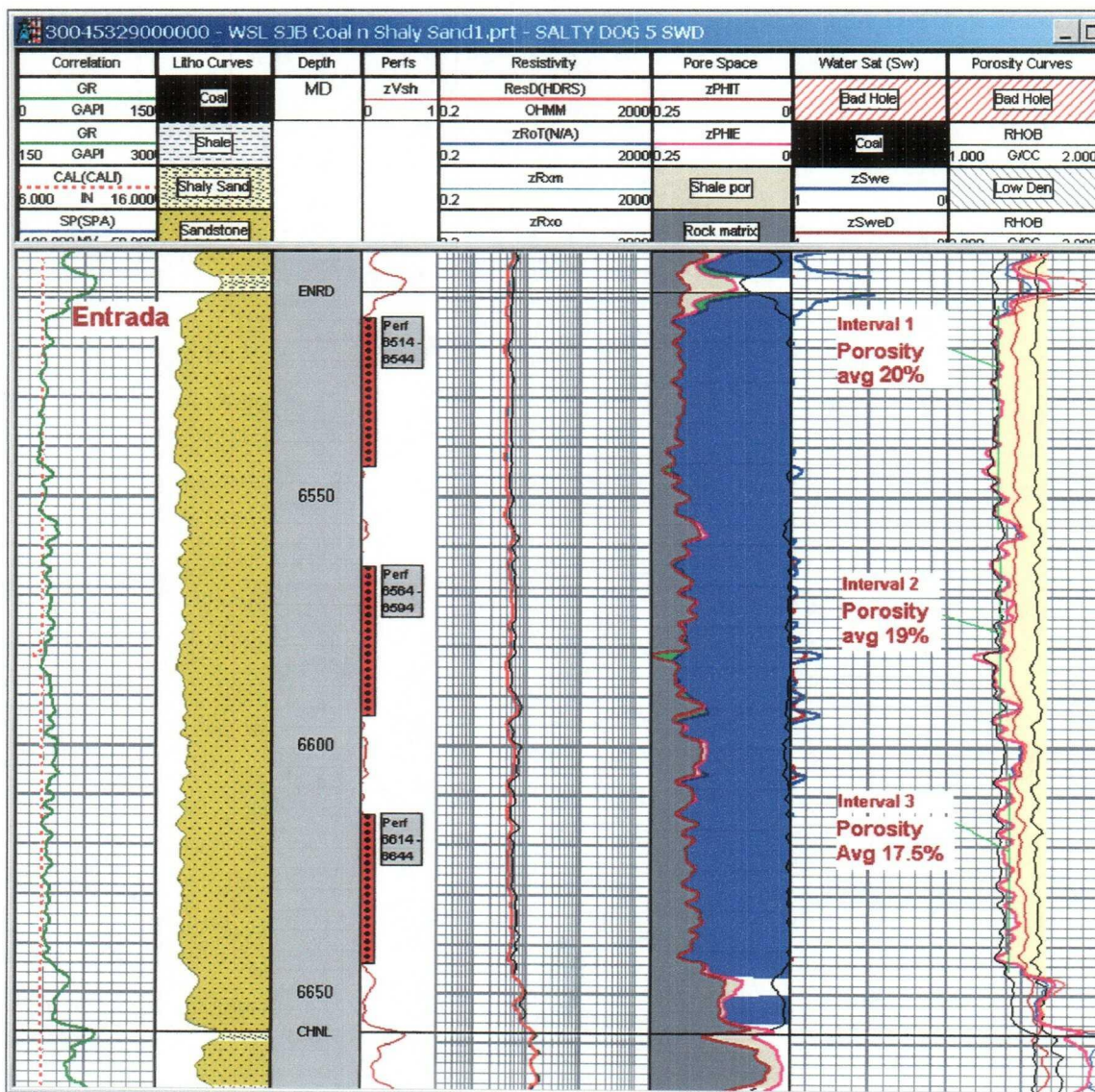
Complete the Entrada Sandstone for water disposal over 3 intervals.

The Entrada has nearly 150 ft of continuous, high porosity from 6514 to 6656 that should make for an excellent water disposal zone. The interval will be perforated in three sections within this porosity as shown below. That arrangement will facilitate setting bridge plugs between perforation sets at later times should isolation testing of individual perforation intervals ever be necessary.

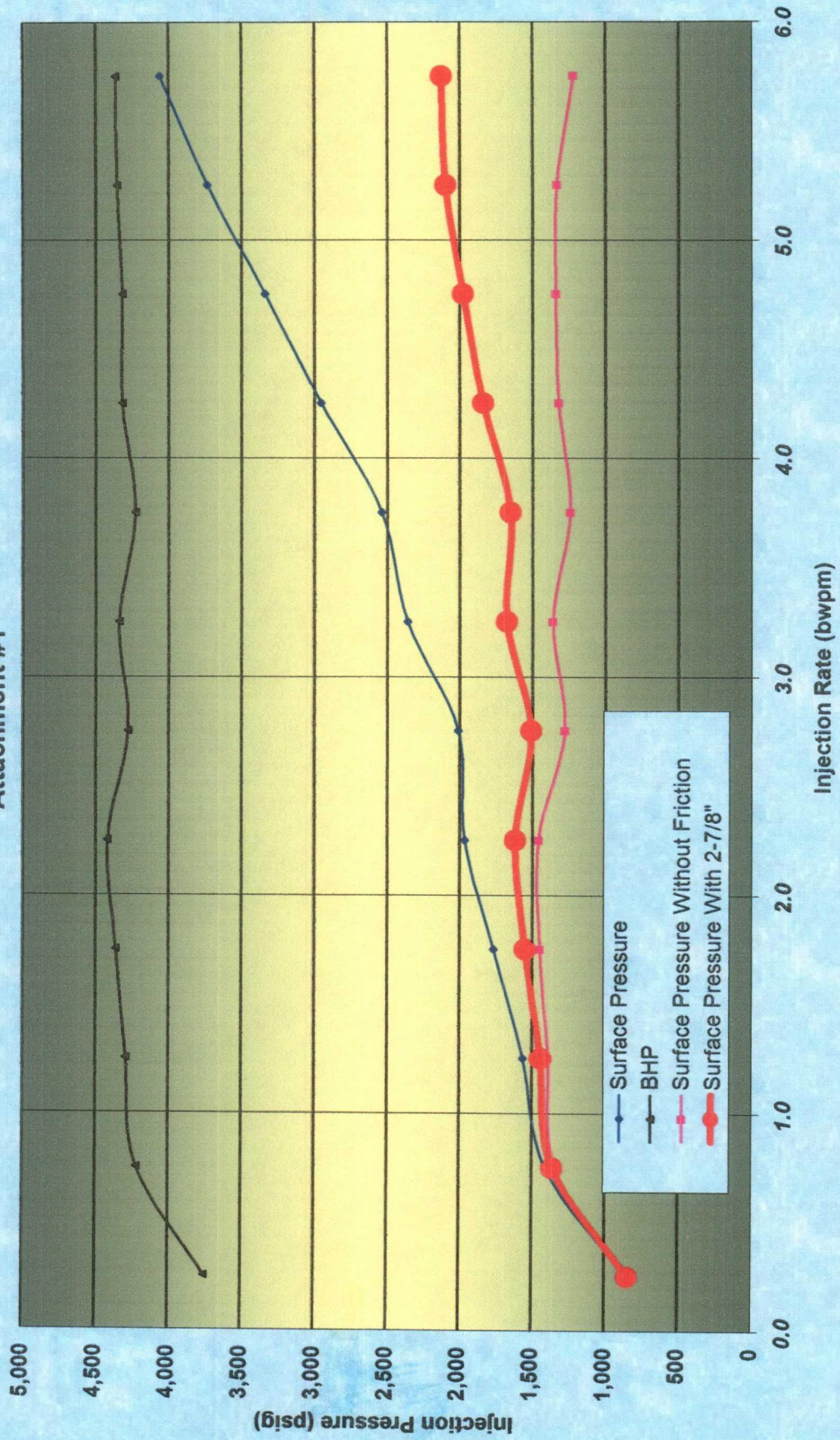
The perforations should receive an acid clean-up, however, stimulation of the zone by frac'ing is probably not going to be necessary.

Stage 1, Entrada Sandstone – 360 total shots

Perforation Interval 1	Total Ft	Density	# Shots	Shot Dia.	Phasing
6514 - 44	30 ft	4 SPF	120 Shots	.42	120 Deg
Perforation Interval 2	Total Ft	Density	# Shots	Shot Dia.	Phasing
6564 - 94	30 ft	4 SPF	120 Shots	.42	120 Deg
Perforation Interval 3	Total Ft	Density	# Shots	Shot Dia.	Phasing
6614 - 44	30 ft	4 SPF	120 Shots	.42	120 Deg



**SALTY DOG #5
Step Rate Test #2
Attachment #1**



Lance Oil & Gas Company, Inc.

Salty Dog #5

Step Rate Test #2 - 12/17/05

Table #1

Fresh Water Injection Rate (bwpm)	Actual Down 2-3/8" Tubing		Calculated Down 2-3/8" Tubing Without Friction		Calculated Down 2-7/8" Internally Coated Tubing With Friction	
	Surface Injection Pressure (psig)	Tefteller, Inc. Bottom Hole Pressure (psig)	Total Friction Pressure ** (psig)	Calculated Surface Injection Pressure (psig)	Total Friction Pressure ** (psig)	Calculated Surface Injection Pressure (psig)
0.25	856.0	3,754.0	9.0	847.0	2.7	849.7
0.75	1,410.0	4,221.0	67.5	1,342.5	20.9	1,363.4
1.25	1,565.0	4,292.0	172.4	1,392.6	53.8	1,446.4
1.75	1,770.0	4,363.0	319.7	1,450.3	100.3	1,550.6
2.25	1,968.0	4,421.0	507.1	1,460.9	159.7	1,620.6
2.75	2,014.0	4,280.0	733.0	1,281.0	231.5	1,512.5
3.25	2,360.0	4,340.0	996.1	1,363.9	315.4	1,679.3
3.75	2,539.0	4,226.0	1,295.5	1,243.5	410.9	1,654.4
4.25	2,955.0	4,317.0	1,630.1	1,324.9	518.0	1,842.9
4.75	3,341.0	4,319.0	1,999.5	1,341.5	636.4	1,977.9
5.25	3,736.0	4,355.0	2,402.8	1,333.2	765.8	2,099.0
5.75	4,060.0	4,367.0	2,839.6	1,220.4	906.2	2,126.6

** See Attached Halliburton Friction Curve for 2-3/8" Tubing and Tuboscopes Friction Curve for 2-7/8" Internally Coated Tubing.

AFFIDAVIT OF PUBLICATION

Ad No. 52718

STATE OF NEW MEXICO County of San Juan:

CONNIE PRUITT, being duly sworn says:
That she is the ADVERTISING MANAGER of
THE DAILY TIMES, a daily newspaper of
general circulation published in English at
Farmington, said county and state, and that
the hereto attached Legal Notice was
published in a regular and entire issue of the
said DAILY TIMES, a daily newspaper duly
qualified for the purpose within the meaning of
Chapter 167 of the 1937 Session Laws of the
State of New Mexico for publication and
appeared in the Internet at The Daily Times
web site on the following day(s):

Thursday, December 22, 2005.

And the cost of the publication is \$63.13.

Connie Pruitt

ON 12/23/05 CONNIE PRUITT
appeared before me, whom I know personally
to be the person who signed the above
document.

Wynell Corey
My Commission Expires November 17, 2008.

COPY OF PUBLICATION

918 Legals

NOTICE OF INTENT
Drill Salt Water
Disposal Well and
Inject Produced Water

Contact Party: Lance Oil & Gas Company, Inc. PO
Box 70, Kirland, NM 87417, Ann Paul Lehman,
(505) 598-5601 Ex 57

Well Name and Legal Description
Sally Dog #5 SWD
1030 FNL & 1365 FEL
Section 16, Township 27 North, Range 14 West,
NMPM
San Juan County, New Mexico

Lance Oil & Gas Company, Inc. is making application
with the New Mexico Oil Conservation Commission
for a C-108 Authorization to inject. Intended pur-
pose of the application will be to complete the Sally
Dog #5 salt water disposal well. The formation
name and depth will be the Entrada (6514'-6544',
6564'-6594', and 6614'-6644'). Maximum injection
rate will be approximately 2,500 BWPD. Maximum
injection pressure will be approximately 1,325 PSI.
Interested parties must file their objections or re-
quests for hearings with the Oil Conservation Divi-
sion, 1220 South Central Express Drive, Santa Fe, New
Mexico 87505, within 15 days.

Legal No. 52718 published in The Daily Times, Farm-
ington, New Mexico on Thursday, December 22,
2005.

AFFIDAVIT OF PUBLICATION

Ad No. 52718

STATE OF NEW MEXICO County of San Juan:

CONNIE PRUITT, being duly sworn says:
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ON 12/23/05 CONNIE PRUITT
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to be the person who signed the above
document.

Wynell Corey
My Commission Expires November 17, 2008.

COPY OF PUBLICATION

918 Legals

NOTICE OF INTENT
Drill Salt Water
Disposal Well and
Inject Produced Water

Contact Party: Lance Oil & Gas Company, Inc. P.O.
Box 70, Kirtland, NM 87417. Attn: Paul Lahman.
(505) 598-5601 E: 570.70.1316

Well Name and Legal Description:
Salty Dog #5 SWD
1030' FNL & 1365' FEL
Section 16, Township 29 North, Range 14 West,
NMPM
San Juan County, New Mexico

Lance Oil & Gas Company, Inc. is making application
with the New Mexico Oil Conservation Commission
for a 108' Authorization to Inject. Attached but
part of the Application will be to complete the Salty
Dog #5 SWD saltwater disposal well. The formation
name and depth will be the equivalent of 6514-6544,
6564-6594, and 6614-6644. Maximum injection
rate will be approximately 2500 BWPD. Maximum
injection pressure will be approximately 1325 PSI.
Interested parties must file their objections or re-
quest for hearings with the Oil Conservation Divi-
sion, 1220 South St. Francis Drive, Santa Fe, New
Mexico 87505, within 15 days.

Legal No. 52718 published in The Daily Times, Farm-
ington, New Mexico on Thursday, December 22,
2005.

LANCE OIL & GAS COMPANY, INC.

PO Box 70



December 19, 2005

CERTIFIED MAIL 7002 3150 0002 0908 2908

Mr. Dave Poage
Energen Resources Corp.
2198 Bloomfield Hwy
Farmington, NM 87401

Re: C-108 Authorization to Inject
SWD Permit 971 Dated 3/4/2005
Salty Dog #5 SWD Well
Township 29 North, Range 14 West, NMPM
1030' FNL & 1365" FEL
Section 16: NE/4
San Juan County, New Mexico

Dear Mr. Poage:

As required by New Mexico Oil Conservation (NMOCD) Rules, this letter will serve to notify you of the following application (C-108/Authorization to Inject) for a salt water disposal well. This letter is a notice only. No action is required on your part unless you have objections or would like to request a hearing. Any objections or hearing requests must be filed in writing within 15 days of receipt of the application by the NMOCD.

The NMOCD approved a SWD in the subject location with perforations to be in the Entrada between 6625'-6750'. However, when the well was drilled and logged the perforations were to be located 6514'-6544', 6564-6594', and 6614'-6644'. This letter will serve as notification of change of perforation intervals within the Entrada. Should you have any objections or would like to request a hearing concerning this change please submit to the New Mexico Oil Conservation Division, whose address is 1220 South St. Francis Drive, Santa Fe, New Mexico 87505. Their phone number is 505/476-3440.

Thank you for your consideration in this matter. Should you have any questions please contact me at (505) 598-5601 extension 62.

Yours truly,

Anne Jones

Phone (505) 598-5601

LANCE OIL & GAS COMPANY, INC.
PO Box 70
Kirtland, New Mexico 87417

December 19, 2005

CERTIFIED MAIL 7002 3150 0002 0908 2892

Mr. Tom Scarbrough
Conoco/Phillips
3070 WL PO Box 2197
Houston, TX 77252

Re: C-108 Authorization to Inject
SWD Permit 971 Dated 3/4/2005
Salty Dog #5 SWD Well
Township 29 North, Range 14 West, NMPM
1030' FNL & 1365" FEL
Section 16: NE/4
San Juan County, New Mexico

Dear Mr. Scarbrough:

As required by New Mexico Oil Conservation (NMOCD) Rules, this letter will serve to notify you of the following application (C-108/Authorization to Inject) for a salt water disposal well. This letter is a notice only. No action is required on your part unless you have objections or would like to request a hearing. Any objections or hearing requests must be filed in writing within 15 days of receipt of the application by the NMOCD.

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Thank you for your consideration in this matter. Should you have any questions please contact me at (505) 598-5601 extension 62.

Yours truly,

Anne Jones

Phone (505) 598-5601

LANCE OIL & GAS COMPANY, INC.
PO Box 70
Kirtland, New Mexico 87417

December 19, 2005

CERTIFIED MAIL 7002 3150 0002 0908 2861

Mr. Ron Lanning
Chase Oil Corporation
PO Box 1767
Artesia, NM 88211

Re: C-108 Authorization to Inject
SWD Permit 971 Dated 3/4/2005
Salty Dog #5 SWD Well
Township 29 North, Range 14 West, NMPM
1030' FNL & 1365" FEL
Section 16: NE/4
San Juan County, New Mexico

Dear Mr. Lanning:

As required by New Mexico Oil Conservation (NMOCD) Rules, this letter will serve to notify you of the following application (C-108/Authorization to Inject) for a salt water disposal well. This letter is a notice only. No action is required on your part unless you have objections or would like to request a hearing. Any objections or hearing requests must be filed in writing within 15 days of receipt of the application by the NMOCD.

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Thank you for your consideration in this matter. Should you have any questions please contact me at (505) 598-5601 extension 62.

Yours truly,

Anne Jones

Phone (505) 598-5601

LANCE OIL & GAS COMPANY, INC.

PO Box 70



December 19, 2005

CERTIFIED MAIL 7002 3150 0002 0908 2878

Mr. Frank Schilling
Burlington Resources Oil & Gas Corp.
PO Box 4289
Farmington, NM 87499

Re: C-108 Authorization to Inject
SWD Permit 971 Dated 3/4/2005
Salty Dog #5 SWD Well
Township 29 North, Range 14 West, NMPM
1030' FNL & 1365" FEL
Section 16: NE/4
San Juan County, New Mexico

Dear Mr. Schilling:

As required by New Mexico Oil Conservation (NMOCD) Rules, this letter will serve to notify you of the following application (C-108/Authorization to Inject) for a salt water disposal well. This letter is a notice only. No action is required on your part unless you have objections or would like to request a hearing. Any objections or hearing requests must be filed in writing within 15 days of receipt of the application by the NMOCD.

The NMOCD approved a SWD in the subject location with perforations to be in the Entrada between 6625'-6750'. However, when the well was drilled and logged the perforations were to be located 6514'-6544', 6564-6594', and 6614'-6644'. This letter will serve as notification of change of perforation intervals within the Entrada. Should you have any objections or would like to request a hearing concerning this change please submit to the New Mexico Oil Conservation Division, whose address is 1220 South St. Francis Drive, Santa Fe, New Mexico 87505. Their phone number is 505/476-3440.

Thank you for your consideration in this matter. Should you have any questions please contact me at (505) 598-5601 extension 62.

Yours truly,

Anne Jones

Phone (505) 598-5601

LANCE OIL & GAS COMPANY, INC.
PO Box 70
Kirtland, New Mexico 87417

December 19, 2005

CERTIFIED MAIL 7002 3150 0002 0908 2885

Ms. Judith Barr
Evco Development
PO Box 245
Sausalito, CA 94966

Re: C-108 Authorization to Inject
SWD Permit 971 Dated 3/4/2005
Salty Dog #5 SWD Well
Township 29 North, Range 14 West, NMPM
1030' FNL & 1365" FEL
Section 16: NE/4
San Juan County, New Mexico

Dear Ms. Barr:

As required by New Mexico Oil Conservation (NMOCD) Rules, this letter will serve to notify you of the following application (C-108/Authorization to Inject) for a salt water disposal well. This letter is a notice only. No action is required on your part unless you have objections or would like to request a hearing. Any objections or hearing requests must be filed in writing within 15 days of receipt of the application by the NMOCD.

The NMOCD approved a SWD in the subject location with perforations to be in the Entrada between 6625'-6750'. However, when the well was drilled and logged the perforations were to be located 6514'-6544', 6564-6594', and 6614'-6644'. This letter will serve as notification of change of perforation intervals within the Entrada. Should you have any objections or would like to request a hearing concerning this change please submit to the New Mexico Oil Conservation Division, whose address is 1220 South St. Francis Drive, Santa Fe, New Mexico 87505. Their phone number is 505/476-3440.

Thank you for your consideration in this matter. Should you have any questions please contact me at (505) 598-5601 extension 62.

Yours truly,

Anne Jones

Phone (505) 598-5601

SENDER: COMPLETE THIS SECTION

Complete items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired.
 Print your name and address on the reverse so that we can return the card to you.
 Attach this card to the back of the mailpiece, or on the front if space permits.

Article Addressed to:

Mr. Ron Lanning
 Haoc Oil Corp.
 PO Box 1767
 Artesia, NM 88201

COMPLETE THIS SECTION ON DELIVERY

A. Signature *[Signature]* ☒ Agent ☐ Addressee
 B. Received by (Printed Name) *[Signature]* Date of Delivery *DEC 26 2005*
 D. Is delivery address different from item 1? ☐ Yes ☒ No
 If YES, enter delivery address below:

3. Service Type
☒ Certified Mail ☐ Express Mail
☐ Registered ☒ Return Receipt for Merchandise
☐ Insured Mail ☐ C.O.D.
 4. Restricted Delivery? (Extra Fee) ☐ Yes ☒ No

Article Number *7002 3150 0002 0908 2861*
 Domestic Return Receipt *SWD 5*
 PS Form 3811, February 2004 102595-02-M-1540

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 Print your name and address on the reverse so that we can return the card to you.
 Attach this card to the back of the mailpiece, or on the front if space permits.

Article Addressed to:

Franc Schilling
 Inling Resources
 PO Box 4289
 Arming ton, NM 87499

COMPLETE THIS SECTION ON DELIVERY

A. Signature *[Signature]* ☒ Agent ☐ Addressee
 B. Received by (Printed Name) *[Signature]* Date of Delivery *12-20-05*
 D. Is delivery address different from item 1? ☐ Yes ☒ No
 If YES, enter delivery address below:

3. Service Type
☒ Certified Mail ☐ Express Mail
☐ Registered ☒ Return Receipt for Merchandise
☐ Insured Mail ☐ C.O.D.
 4. Restricted Delivery? (Extra Fee) ☐ Yes ☒ No

Article Number *7002 3150 0002 0908 2878*
 Domestic Return Receipt *SWD 5*
 PS Form 3811, February 2004 102595-02-M-1540

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 Print your name and address on the reverse so that we can return the card to you.
 Attach this card to the back of the mailpiece, or on the front if space permits.

Article Addressed to:

Mr. Don Scarborough
 Conoco/Phillips
 3070 W
 PO Box 2197
 Houston, TX 77252

COMPLETE THIS SECTION ON DELIVERY

A. Signature *[Signature]* ☒ Agent ☐ Addressee
 B. Received by (Printed Name) *[Signature]* Date of Delivery *DEC 26 2005*
 D. Is delivery address different from item 1? ☐ Yes ☒ No
 If YES, enter delivery address below:

3. Service Type
☒ Certified Mail ☐ Express Mail
☐ Registered ☒ Return Receipt for Merchandise
☐ Insured Mail ☐ C.O.D.
 4. Restricted Delivery? (Extra Fee) ☐ Yes ☒ No

Article Number *7002 3150 0002 0908 2892*
 Domestic Return Receipt *SWD 5*
 PS Form 3811, February 2004 102595-02-M-1540

SENDER: COMPLETE THIS SECTION

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 Print your name and address on the reverse so that we can return the card to you.
 Attach this card to the back of the mailpiece, or on the front if space permits.

Article Addressed to:

Ms. Judith Barr
 Ecco Development
 PO Box 245
 Sausalito, CA 94964

COMPLETE THIS SECTION ON DELIVERY

A. Signature *[Signature]* ☒ Agent ☐ Addressee
 B. Received by (Printed Name) *[Signature]* Date of Delivery *12/28/05*
 D. Is delivery address different from item 1? ☐ Yes ☒ No
 If YES, enter delivery address below:

3. Service Type
☒ Certified Mail ☐ Express Mail
☐ Registered ☒ Return Receipt for Merchandise
☐ Insured Mail ☐ C.O.D.
 4. Restricted Delivery? (Extra Fee) ☐ Yes ☒ No

Article Number *7002 3150 0002 0908 2885*
 Domestic Return Receipt *SWD 5*
 PS Form 3811, February 2004 102595-02-M-1540

SENDER: COMPLETE THIS SECTION

- Complete items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired.
- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to:

Mr. Dave Poag
Energen Resources
2198 Blomfield Hwy
Farmington, NM
87401

2. Article Number
(Transfer from service label)

7002 3150 0002 0908 2908

PS Form 3811, February 2004

Domestic Return Receipt **SND**

102595-02-M-1540

COMPLETE THIS SECTION ON DELIVERY**A. Signature****X***Melicia K. Chavez*☐ Agent☐ Addressee**B. Received by (Printed Name)***Melicia K. Chavez***C. Date of Delivery****D. Is delivery address different from item 1? ☐ Yes**If YES, enter delivery address below: ☐ No**3. Service Type**☒ Certified Mail☐ Express Mail☐ Registered☒ Return Receipt for Merchandise☐ Insured Mail☐ C.O.D.**4. Restricted Delivery? (Extra Fee)**☐ Yes

Tom Erwin

From: Lauer,Robert [Robert.Lauer@nov.com]
Sent: Wednesday, January 25, 2006 11:49 AM
To: Tom Erwin; lmassoletti@nov.com
Subject: RE: Western Gas Resources- Friction Loss Through 2 7/8" TK-15

For coated tubing:

Rate (bpm)	Ftotal (psi)
0.25	2.7
0.75	20.9
1.25	53.8
1.75	100.3
2.25	159.7
2.75	231.5
3.25	315.4
3.75	410.9
4.25	518
4.75	636.4
5.25	765.8
5.75	906.2
6.25	1057.3

*TUBOSCOPE FRICTION CURVE
 FOR 2-7/8" INTERNALLY COATED
 TUBING.*

Tom Erwin 1/25/06

26461'?

Hope this helps.

Robert S. Lauer
 Director Coating Technical Support
 Office - +1-713-799-4571
 Cell - +1-713-819-5306

CONFIDENTIALITY NOTICE: The information contained in this e-mail and attached document(s) may contain confidential information that is intended only for the addressee(s). If you are not the intended recipient, you are hereby advised that any disclosure, copying, distribution or the taking of any action in reliance upon the information is prohibited. If you have received this e-mail in error, please immediately notify the sender and delete it from your system.

From: Tom Erwin [mailto:terwin@westerngas.com]
Sent: Tuesday, January 24, 2006 4:13 PM
To: lmassoletti@nov.com
Cc: Lauer,Robert
Subject: FW: Western Gas Resources- Friction Loss Through 2 7/8" TK-15

Les,

I've filled out the sheet as best as I could. We don't have much of the information requested. The friction curve does not need to be that difficult. I've also attached the Halliburton Friction curve for 2-7/8" regular tubing from 0.25 bpm to 5.75 bpm. Let me know if you need anything else.

Thanks,

Tom Erwin

1/25/2006

Tubing Friction

Halliburton Fluid Friction v1.23.0.9

29-Dec-05 16:44:09

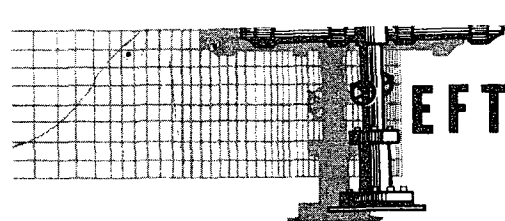
Fluid Name: Fresh Water
Base Fluid: Fresh Water
Power Law Index n' : 1
Consistency Index k' , $lb*s^n'/ft^2$: $1.934e-005$

String: 1
Inj Path: Pipe
Pid, in: 1.995
Tod, in: 0.000
Cid, in: 0.000
Len, ft: 6461.00

Rate (bpm)	Ftotal (psi)
0.25	9.0
0.75	67.5
1.25	172.4
1.75	319.7
2.25	507.1
2.75	733.0
3.25	996.1
3.75	1295.5
4.25	1630.1
4.75	1999.5
5.25	2402.8
5.75	2839.6
6.25	3309.3
6.75	3811.6
7.25	4345.9
7.75	4912.0

HALLIBURTON FRICTION CURVE
FOR 2 $\frac{3}{8}$ " TUBING

Tom Quinn 1/25/06



EFTELLER, INC.

reservoir engineering data

FARMINGTON, NEW MEXICO/
GRAND JUNCTION, COLORADO

P. O. Box 1198
Farmington, New Mexico 87499
(505) 325-1731
Fax (505) 325-1148

2332 Interstate Ave., Ste. A
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LANCE OIL AND GAS CO., INC.

SALTY DOG SWD NO. 5

DECEMBER 17, 2005

Serving the Rocky Mountain Area

WELL NAME : SALTY DOG SWD NO. 5

DATE : 12/19/05

WELL LOCATION : SAN JUAN COUNTY, NM

FILE REF: F259C19.RED

Date MM/DD	Time hh:mm:ss	Test Time mmmmmmmm.mmmmm	Pressure Psig	Temp Deg F	deltaP Psi	Comment Ga. Press Ref. to 14.7 Psi Atm.
12/17	08:26:00	.0000	.01	61.01		
12/17	08:28:15	2.2500	.01	61.01	.00	
12/17	08:58:00	32.0000	1.72	43.21	1.71	PRESSURED UP LUBRICATOR
12/17	08:59:00	33.0000	26.17	42.92	24.45	
12/17	08:59:15	33.2500	49.56	42.92	23.39	
12/17	08:59:30	33.5000	82.55	43.48	32.98	
12/17	08:59:45	33.7500	128.64	44.03	46.09	
12/17	09:00:00	34.0000	179.20	44.58	50.55	
12/17	09:00:15	34.2500	222.76	45.13	43.57	
12/17	09:00:30	34.5000	255.51	45.69	32.75	
12/17	09:00:45	34.7500	284.20	46.24	28.69	
12/17	09:01:00	35.0000	310.85	46.79	26.65	
12/17	09:01:15	35.2500	336.22	47.35	25.37	
12/17	09:01:30	35.5000	360.84	47.90	24.62	
12/17	09:01:45	35.7500	387.75	48.46	26.91	
12/17	09:02:00	36.0000	413.38	49.01	25.63	
12/17	09:02:15	36.2500	437.14	49.93	23.76	
12/17	09:02:30	36.5000	458.55	50.97	21.40	
12/17	09:02:45	36.7500	481.35	52.01	22.80	
12/17	09:03:00	37.0000	504.79	53.05	23.44	
12/17	09:03:15	37.2500	529.75	54.09	24.96	
12/17	09:03:30	37.5000	554.58	55.14	24.83	
12/17	09:03:45	37.7500	580.93	56.18	26.36	
12/17	09:04:00	38.0000	607.79	57.22	26.86	
12/17	09:04:15	38.2500	637.82	58.27	30.03	
12/17	09:04:30	38.5000	665.82	59.31	27.99	
12/17	09:04:45	38.7500	685.03	60.36	19.21	
12/17	09:05:00	39.0000	702.08	61.42	17.05	
12/17	09:05:15	39.2500	716.43	62.51	14.35	
12/17	09:05:30	39.5000	729.92	63.56	13.49	
12/17	09:05:45	39.7500	744.05	64.60	14.12	
12/17	09:06:00	40.0000	759.18	65.64	15.14	
12/17	09:06:15	40.2500	773.81	66.68	14.63	
12/17	09:06:30	40.5000	788.82	67.72	15.01	
12/17	09:06:45	40.7500	802.80	68.77	13.98	
12/17	09:07:00	41.0000	817.67	69.81	14.87	
12/17	09:07:15	41.2500	831.90	70.86	14.23	
12/17	09:07:30	41.5000	846.64	71.91	14.73	
12/17	09:07:45	41.7500	861.24	72.95	14.61	
12/17	09:08:00	42.0000	875.58	74.01	14.34	
12/17	09:08:15	42.2500	890.49	74.95	14.91	
12/17	09:08:30	42.5000	905.08	75.78	14.59	
12/17	09:08:45	42.7500	920.43	76.61	15.35	
12/17	09:09:00	43.0000	937.80	77.44	17.37	
12/17	09:09:15	43.2500	954.78	78.28	16.98	
12/17	09:09:30	43.5000	971.25	79.11	16.47	
12/17	09:09:45	43.7500	988.86	79.94	17.61	
12/17	09:10:00	44.0000	1008.11	80.77	19.25	
12/17	09:10:15	44.2500	1027.98	81.61	19.87	
12/17	09:10:30	44.5000	1046.33	82.44	18.35	
12/17	09:10:45	44.7500	1065.94	83.28	19.60	
12/17	09:11:00	45.0000	1085.03	84.12	19.09	
12/17	09:11:15	45.2500	1106.57	84.87	21.55	
12/17	09:11:30	45.5000	1126.21	85.63	19.64	
12/17	09:11:45	45.7500	1147.22	86.40	21.01	
12/17	09:12:00	46.0000	1171.78	87.16	24.55	
12/17	09:12:15	46.2500	1198.60	87.92	26.82	
12/17	09:12:30	46.5000	1222.12	88.69	23.52	
12/17	09:12:45	46.7500	1248.30	89.45	26.18	
12/17	09:13:00	47.0000	1279.00	90.22	30.71	
12/17	09:13:15	47.2500	1312.36	90.99	33.35	
12/17	09:13:30	47.5000	1346.84	91.75	34.49	
12/17	09:13:45	47.7500	1385.10	92.52	38.26	
12/17	09:14:00	48.0000	1424.24	93.29	39.14	
12/17	09:14:15	48.2500	1466.46	94.13	42.22	

COMPANY: LANCE OIL & GAS CO., INC.

PAGE 2 OF 9

WELL NAME : SALTY DOG SWD NO. 5

DATE : 12/19/05

WELL LOCATION : SAN JUAN COUNTY, NM

FILE REF: F259C19.RED

Date MM/DD	Time hh:mm:ss	Test Time mmmmmm.mmmmm	Pressure Psig	Temp Deg F	deltaP Psi	Comment Ga. Press Ref. to 14.7 Psi Atm.
12/17	09:14:30	48.5000	1509.03	95.19	42.56	
12/17	09:14:45	48.7500	1554.72	96.25	45.70	
12/17	09:15:00	49.0000	1599.77	97.31	45.05	
12/17	09:15:15	49.2500	1645.94	98.36	46.17	
12/17	09:15:30	49.5000	1693.60	99.43	47.65	
12/17	09:15:45	49.7500	1743.77	100.48	50.17	
12/17	09:16:00	50.0000	1796.04	101.55	52.28	
12/17	09:16:15	50.2500	1849.57	102.61	53.52	
12/17	09:16:30	50.5000	1903.82	103.68	54.25	
12/17	09:16:45	50.7500	1958.56	104.74	54.74	
12/17	09:17:00	51.0000	2009.87	105.80	51.31	
12/17	09:17:15	51.2500	2064.74	107.10	54.87	
12/17	09:17:30	51.5000	2121.43	108.73	56.69	
12/17	09:17:45	51.7500	2179.09	110.36	57.66	
12/17	09:18:00	52.0000	2237.46	111.99	58.37	
12/17	09:18:15	52.2500	2291.51	113.62	54.05	
12/17	09:18:30	52.5000	2349.93	115.25	58.42	
12/17	09:18:45	52.7500	2405.51	116.90	55.59	
12/17	09:19:00	53.0000	2457.55	118.54	52.03	
12/17	09:19:15	53.2500	2511.56	120.18	54.01	
12/17	09:19:30	53.5000	2567.65	121.82	56.09	
12/17	09:19:45	53.7500	2625.84	123.46	58.19	
12/17	09:20:00	54.0000	2683.36	125.10	57.52	
12/17	09:20:15	54.2500	2743.62	127.09	60.25	
12/17	09:20:30	54.5000	2794.37	129.10	50.76	
12/17	09:20:45	54.7500	2843.82	131.11	49.45	
12/17	09:21:00	55.0000	2893.08	133.13	49.26	
12/17	09:21:15	55.2500	2944.43	135.15	51.34	
12/17	09:21:30	55.5000	2996.47	137.16	52.04	
12/17	09:21:45	55.7500	3031.78	139.20	35.31	
12/17	09:22:15	56.2500	3044.21	143.25	12.43	TANDEM ELEC. MEMORY INST. @ 6580'
12/17	09:22:45	56.7500	3045.21	147.31	1.00	
12/17	09:23:15	57.2500	3046.30	151.17	1.08	
12/17	09:24:00	58.0000	3049.58	155.38	3.28	
12/17	09:24:45	58.7500	3051.95	159.60	2.37	
12/17	09:25:30	59.5000	3053.17	163.83	1.22	
12/17	09:25:45	59.7500	3029.26	165.25	-23.91	
12/17	09:26:00	60.0000	2980.75	166.66	-48.51	
12/17	09:26:30	60.5000	2986.68	168.44	5.93	
12/17	09:26:45	60.7500	3016.02	169.19	29.34	
12/17	09:27:15	61.2500	3036.17	170.69	20.14	
12/17	09:27:30	61.5000	3040.39	171.44	4.23	
12/17	09:28:30	62.5000	3048.21	174.45	7.81	
12/17	09:29:45	63.7500	3052.55	177.23	4.34	
12/17	09:31:00	65.0000	3055.16	179.12	2.60	
12/17	09:32:15	66.2500	3057.05	180.90	1.90	
12/17	09:33:30	67.5000	3059.15	181.86	2.10	
12/17	09:34:30	68.5000	3060.50	182.62	1.35	
12/17	09:34:45	68.7500	2947.50	182.81	-112.99	
12/17	09:35:00	69.0000	2869.04	183.00	-78.46	
12/17	09:35:30	69.5000	2853.81	183.23	-15.23	
12/17	09:35:45	69.7500	2923.90	183.32	70.09	
12/17	09:36:00	70.0000	2980.49	183.42	56.59	
12/17	09:36:15	70.2500	3006.62	183.52	26.13	
12/17	09:36:45	70.7500	3026.95	183.71	20.33	
12/17	09:37:00	71.0000	3032.41	183.81	5.46	
12/17	09:38:15	72.2500	3047.24	184.26	14.83	
12/17	09:39:30	73.5000	3055.37	184.51	8.13	
12/17	09:40:45	74.7500	3061.64	184.76	6.27	
12/17	09:42:00	76.0000	3067.26	184.93	5.62	
12/17	09:43:15	77.2500	3072.80	185.06	5.54	
12/17	09:44:30	78.5000	3076.40	185.16	3.60	
12/17	09:45:45	79.7500	3081.92	185.23	5.52	
12/17	09:47:00	81.0000	3086.59	185.30	4.68	
12/17	09:48:15	82.2500	3090.57	185.34	3.97	

COMPANY: LANCE OIL & GAS CO., INC.

PAGE 3 OF 9

WELL NAME : SALTY DOG SWD NO. 5

DATE : 12/19/05

WELL LOCATION : SAN JUAN COUNTY, NM

FILE REF: F259C19.RED

Date MM/DD	Time hh:mm:ss	Test Time mmmmmmmm.mmmmm	Pressure Psig	Temp Deg F	deltaP Psi	Comment Ga. Press Ref. to 14.7 Psi Atm.
12/17	09:49:30	83.5000	3093.92	185.38	3.35	
12/17	09:50:45	84.7500	3096.49	185.40	2.57	
12/17	09:52:00	86.0000	3098.69	185.42	2.21	
12/17	09:53:15	87.2500	3100.56	185.43	1.87	
12/17	09:54:30	88.5000	3102.04	185.45	1.48	
12/17	09:55:45	89.7500	3103.31	185.45	1.27	
12/17	09:57:00	91.0000	3104.68	185.46	1.37	
12/17	09:58:15	92.2500	3105.81	185.47	1.12	
12/17	09:59:30	93.5000	3106.81	185.48	1.00	
12/17	10:00:45	94.7500	3107.75	185.48	.95	
12/17	10:02:00	96.0000	3108.38	185.48	.63	
12/17	10:03:15	97.2500	3109.36	185.48	.98	
12/17	10:04:30	98.5000	3110.22	185.48	.85	
12/17	10:05:45	99.7500	3111.03	185.49	.81	
12/17	10:06:45	100.7500	3111.73	185.49	.70	
12/17	10:07:00	101.0000	2851.05	185.49	-260.67	
12/17	10:07:15	101.2500	3058.56	185.49	207.51	
12/17	10:07:30	101.5000	3085.54	185.49	26.98	
12/17	10:08:45	102.7500	3104.98	185.49	19.43	
12/17	10:10:00	104.0000	3107.84	185.49	2.86	
12/17	10:11:15	105.2500	3109.90	185.49	2.06	
12/17	10:12:30	106.5000	3111.51	185.49	1.61	
12/17	10:13:45	107.7500	3112.72	185.49	1.21	
12/17	10:15:00	109.0000	3113.50	185.49	.79	
12/17	10:16:15	110.2500	3114.37	185.49	.87	
12/17	10:18:00	112.0000	3115.14	185.49	.77	
12/17	10:20:00	114.0000	3116.20	185.49	1.06	
12/17	10:22:00	116.0000	3117.12	185.48	.93	
12/17	10:24:00	118.0000	3118.06	185.48	.93	
12/17	10:26:00	120.0000	3118.95	185.48	.89	
12/17	10:27:00	121.0000	3119.10	185.48	.16	
12/17	10:28:00	122.0000	2927.65	185.48	-191.46	BEGAN PUMP TEST
12/17	10:28:15	122.2500	3078.62	185.48	150.98	
12/17	10:28:30	122.5000	3102.02	185.48	23.39	
12/17	10:29:00	123.0000	3111.66	185.49	9.64	
12/17	10:29:15	123.2500	3823.41	185.49	711.75	
12/17	10:29:30	123.5000	3368.56	185.50	-454.86	
12/17	10:29:45	123.7500	3242.62	185.50	-125.93	
12/17	10:30:00	124.0000	3194.95	185.51	-47.68	
12/17	10:30:15	124.2500	3466.14	185.51	271.20	
12/17	10:30:30	124.5000	3496.49	185.51	30.35	
12/17	10:30:45	124.7500	3506.52	185.51	10.03	
12/17	10:31:00	125.0000	3533.04	185.51	26.51	
12/17	10:31:30	125.5000	3547.38	185.53	14.35	
12/17	10:31:45	125.7500	3555.79	185.54	8.41	
12/17	10:33:00	127.0000	3577.19	185.57	21.39	
12/17	10:34:15	128.2500	3582.72	185.60	5.54	
12/17	10:34:45	128.7500	3597.95	185.61	15.23	
12/17	10:35:00	129.0000	3605.01	185.61	7.06	
12/17	10:36:15	130.2500	3613.42	185.62	8.41	
12/17	10:37:30	131.5000	3633.52	185.60	20.10	
12/17	10:38:45	132.7500	3643.69	185.50	10.17	
12/17	10:40:00	134.0000	3663.66	185.39	19.97	
12/17	10:41:15	135.2500	3670.24	185.29	6.58	
12/17	10:42:30	136.5000	3679.30	185.18	9.06	
12/17	10:43:45	137.7500	3686.66	185.09	7.36	
12/17	10:45:00	139.0000	3703.47	185.00	16.81	
12/17	10:46:15	140.2500	3710.28	184.91	6.81	
12/17	10:47:30	141.5000	3713.01	184.82	2.72	
12/17	10:48:45	142.7500	3720.68	184.74	7.67	
12/17	10:50:00	144.0000	3729.20	184.66	8.52	
12/17	10:51:15	145.2500	3728.59	184.57	-.61	
12/17	10:52:30	146.5000	3739.50	184.48	10.91	
12/17	10:53:45	147.7500	3744.93	184.39	5.44	
12/17	10:55:00	149.0000	3755.59	184.31	10.66	

WELL NAME : SALTY DOG SWD NO. 5

DATE : 12/19/05

WELL LOCATION : SAN JUAN COUNTY, NM

FILE REF: F259C19.REQ

Date MM/DD	Time hh:mm:ss	Test Time mmmmmmmm.mmmmm	Pressure Psig	Temp Deg F	deltaP Psi	Comment Ga. Press Ref. to 14.7 Psi Atm.
12/17	10:56:15	150.2500	3750.65	184.21	-4.95	
12/17	10:57:30	151.5000	3755.08	184.13	4.44	
12/17	10:58:45	152.7500	3753.65	184.05	-1.44	
12/17	11:00:00	154.0000	3767.72	183.96	14.07	
12/17	11:01:15	155.2500	3771.43	183.88	3.71	
12/17	11:02:00	156.0000	3778.79	183.85	7.37	
12/17	11:02:15	156.2500	3924.66	183.83	145.86	
12/17	11:02:30	156.5000	4103.57	183.82	178.92	
12/17	11:02:45	156.7500	4184.48	183.81	80.90	
12/17	11:03:00	157.0000	4224.84	183.79	40.36	
12/17	11:03:15	157.2500	4175.46	183.78	-49.38	
12/17	11:03:30	157.5000	4160.60	183.76	-14.86	
12/17	11:03:45	157.7500	4152.05	183.75	-8.55	
12/17	11:05:00	159.0000	4150.81	183.67	-1.25	
12/17	11:06:15	160.2500	4138.14	183.59	-12.67	
12/17	11:07:30	161.5000	4138.02	183.50	-.12	
12/17	11:08:45	162.7500	4143.90	183.38	5.88	
12/17	11:10:00	164.0000	4142.96	183.26	-.94	
12/17	11:11:15	165.2500	4152.20	183.05	9.24	
12/17	11:12:30	166.5000	4151.95	182.80	-.26	
12/17	11:13:45	167.7500	4155.23	182.51	3.28	
12/17	11:15:00	169.0000	4169.87	182.17	14.65	
12/17	11:16:15	170.2500	4170.15	181.81	.28	
12/17	11:17:30	171.5000	4179.49	181.45	9.34	
12/17	11:18:45	172.7500	4182.02	181.08	2.53	
12/17	11:20:00	174.0000	4187.78	180.71	5.76	
12/17	11:21:15	175.2500	4192.06	180.33	4.28	
12/17	11:22:30	176.5000	4201.78	179.97	9.72	
12/17	11:23:45	177.7500	4202.38	179.62	.60	
12/17	11:25:00	179.0000	4208.37	179.27	5.98	
12/17	11:26:15	180.2500	4216.13	178.92	7.76	
12/17	11:27:30	181.5000	4215.65	178.57	-.48	
12/17	11:28:45	182.7500	4220.75	178.23	5.10	
12/17	11:30:00	184.0000	4229.44	177.87	8.69	
12/17	11:31:15	185.2500	4231.67	177.52	2.23	
12/17	11:32:30	186.5000	4232.07	177.15	.40	
12/17	11:33:45	187.7500	4253.98	176.78	21.91	
12/17	11:35:00	189.0000	4250.13	176.39	-3.85	
12/17	11:36:15	190.2500	4247.04	176.00	-3.09	
12/17	11:37:30	191.5000	4249.38	175.60	2.33	
12/17	11:38:45	192.7500	4251.51	175.17	2.13	
12/17	11:40:00	194.0000	4254.67	174.74	3.16	
12/17	11:41:15	195.2500	4257.66	174.18	3.00	
12/17	11:42:30	196.5000	4261.17	173.61	3.50	
12/17	11:43:45	197.7500	4262.75	172.96	1.59	
12/17	11:45:00	199.0000	4264.77	172.27	2.02	
12/17	11:46:15	200.2500	4268.04	171.58	3.27	
12/17	11:47:30	201.5000	4268.63	170.85	.59	
12/17	11:48:45	202.7500	4272.40	170.11	3.77	
12/17	11:50:00	204.0000	4275.85	169.36	3.45	
12/17	11:51:15	205.2500	4275.50	168.66	-.35	
12/17	11:52:30	206.5000	4279.38	167.94	3.88	
12/17	11:53:45	207.7500	4281.74	167.23	2.36	
12/17	11:55:00	209.0000	4284.60	166.53	2.86	
12/17	11:56:15	210.2500	4285.06	165.83	.46	
12/17	11:57:30	211.5000	4288.98	165.14	3.92	
12/17	11:58:45	212.7500	4291.88	164.46	2.91	
12/17	12:00:00	214.0000	4296.29	163.80	4.41	
12/17	12:01:15	215.2500	4295.11	163.12	-1.19	
12/17	12:02:30	216.5000	4297.58	162.49	2.47	
12/17	12:03:45	217.7500	4300.12	161.86	2.55	
12/17	12:04:45	218.7500	4321.83	161.36	21.71	
12/17	12:05:00	219.0000	4322.34	161.23	.51	
12/17	12:06:15	220.2500	4324.88	160.62	2.54	
12/17	12:07:30	221.5000	4325.40	160.01	.52	

WELL NAME : SALTY DOG SWD NO. 5

DATE : 12/19/05

WELL LOCATION : SAN JUAN COUNTY, NM

FILE REF: F259C19.RED

Date MM/DD	Time hh:mm:ss	Test Time mmmmmm.mmmmm	Pressure Psig	Temp Deg F	deltaP Psi	Comment Ga. Press Ref. to 14.7 Psi Atm.
12/17	12:08:45	222.7500	4328.53	159.40	3.13	
12/17	12:10:00	224.0000	4331.68	158.79	3.15	
12/17	12:11:15	225.2500	4332.89	158.07	1.20	
12/17	12:12:30	226.5000	4335.26	157.33	2.38	
12/17	12:13:45	227.7500	4337.96	156.49	2.70	
12/17	12:15:00	229.0000	4341.18	155.57	3.22	
12/17	12:16:15	230.2500	4343.45	154.63	2.26	
12/17	12:17:30	231.5000	4346.64	153.64	3.19	
12/17	12:18:45	232.7500	4348.46	152.65	1.82	
12/17	12:20:00	234.0000	4351.49	151.67	3.03	
12/17	12:21:15	235.2500	4353.29	150.70	1.79	
12/17	12:23:00	237.0000	4356.60	149.35	3.31	
12/17	12:25:00	239.0000	4359.18	147.85	2.58	
12/17	12:27:00	241.0000	4363.47	146.37	4.29	
12/17	12:28:15	242.2500	4363.13	145.45	- .33	
12/17	12:29:30	243.5000	4365.99	144.57	2.86	
12/17	12:30:45	244.7500	4368.39	143.69	2.40	
12/17	12:32:00	246.0000	4371.17	142.82	2.77	
12/17	12:33:15	247.2500	4373.81	141.96	2.65	
12/17	12:34:30	248.5000	4375.61	141.10	1.80	
12/17	12:35:45	249.7500	4389.79	140.26	14.18	
12/17	12:37:00	251.0000	4393.02	139.41	3.23	
12/17	12:38:15	252.2500	4395.54	138.62	2.52	
12/17	12:39:30	253.5000	4397.18	137.83	1.64	
12/17	12:41:00	255.0000	4398.56	136.85	1.38	
12/17	12:43:00	257.0000	4401.86	135.33	3.31	
12/17	12:45:00	259.0000	4403.72	133.69	1.86	
12/17	12:47:00	261.0000	4406.34	131.78	2.62	
12/17	12:49:00	263.0000	4408.50	129.86	2.16	
12/17	12:51:00	265.0000	4411.25	127.93	2.75	
12/17	12:53:00	267.0000	4413.82	126.03	2.57	
12/17	12:55:00	269.0000	4416.56	124.20	2.74	
12/17	12:57:00	271.0000	4418.77	122.40	2.21	
12/17	12:59:00	273.0000	4421.04	120.71	2.28	
12/17	13:01:00	275.0000	4423.22	119.05	2.17	
12/17	13:02:00	276.0000	4423.94	118.25	.73	
12/17	13:03:00	277.0000	4252.68	117.44	-171.26	
12/17	13:03:15	277.2500	4235.96	117.21	-16.73	
12/17	13:03:30	277.5000	4222.38	116.98	-13.57	
12/17	13:04:15	278.2500	4204.42	116.28	-17.96	
12/17	13:04:30	278.5000	4199.45	116.04	-4.97	
12/17	13:05:45	279.7500	4187.82	114.87	-11.63	
12/17	13:07:00	281.0000	4197.90	113.53	10.09	
12/17	13:08:15	282.2500	4199.62	112.12	1.71	
12/17	13:09:30	283.5000	4198.26	110.66	-1.36	
12/17	13:10:45	284.7500	4202.37	109.11	4.12	
12/17	13:12:00	286.0000	4208.08	107.57	5.71	
12/17	13:13:15	287.2500	4205.41	106.14	-2.67	
12/17	13:14:30	288.5000	4210.96	104.73	5.54	
12/17	13:16:00	290.0000	4219.35	103.17	8.39	
12/17	13:17:15	291.2500	4226.46	102.07	7.10	
12/17	13:18:30	292.5000	4233.20	101.00	6.74	
12/17	13:19:45	293.7500	4240.65	100.03	7.46	
12/17	13:21:00	295.0000	4246.15	99.14	5.50	
12/17	13:22:15	296.2500	4252.28	98.27	6.13	
12/17	13:23:30	297.5000	4258.43	97.52	6.15	
12/17	13:24:45	298.7500	4263.65	96.78	5.22	
12/17	13:26:00	300.0000	4268.54	96.08	4.89	
12/17	13:27:15	301.2500	4273.30	95.42	4.76	
12/17	13:28:30	302.5000	4277.02	94.79	3.72	
12/17	13:29:45	303.7500	4280.43	94.20	3.40	
12/17	13:31:00	305.0000	4283.84	93.60	3.42	
12/17	13:32:15	306.2500	4286.67	93.07	2.82	
12/17	13:33:30	307.5000	4289.66	92.54	3.00	
12/17	13:34:45	308.7500	4292.40	92.03	2.73	

WELL NAME : SALTY DOG SWD NO. 5

DATE : 12/19/05

WELL LOCATION : SAN JUAN COUNTY, NM

FILE REF: F259C19.RED

Date	Time	Test Time	Pressure	Temp	deltaP	Comment
MM/DD	hh:mm:ss	mmmmmmmm.mmmmm	Psig	Deg F	Psi	Ga. Press Ref. to 14.7 Psi Atm.
12/17	13:36:00	310.0000	4294.87	91.56	2.47	
12/17	13:37:15	311.2500	4296.05	91.07	1.19	
12/17	13:38:30	312.5000	4292.04	90.64	-4.01	
12/17	13:39:45	313.7500	4305.73	90.20	13.69	
12/17	13:41:00	315.0000	4311.96	89.79	6.23	
12/17	13:42:15	316.2500	4314.92	89.39	2.95	
12/17	13:43:30	317.5000	4317.40	88.91	2.49	
12/17	13:44:45	318.7500	4319.35	88.26	1.95	
12/17	13:46:00	320.0000	4320.12	87.62	.77	
12/17	13:47:15	321.2500	4320.30	86.94	.18	
12/17	13:48:30	322.5000	4322.04	86.24	1.74	
12/17	13:50:00	324.0000	4324.16	85.46	2.12	
12/17	13:52:00	326.0000	4327.04	84.50	2.88	
12/17	13:54:00	328.0000	4334.73	83.58	7.69	
12/17	13:55:15	329.2500	4334.27	83.09	-.46	
12/17	13:56:30	330.5000	4336.12	82.61	1.85	
12/17	13:57:45	331.7500	4338.00	82.16	1.89	
12/17	13:59:00	333.0000	4340.36	81.72	2.35	
12/17	14:00:15	334.2500	4342.34	81.29	1.99	
12/17	14:01:30	335.5000	4344.32	80.90	1.98	
12/17	14:02:45	336.7500	4346.65	80.51	2.33	
12/17	14:04:00	338.0000	4349.17	80.16	2.52	
12/17	14:05:15	339.2500	4351.29	79.82	2.12	
12/17	14:06:30	340.5000	4353.50	79.49	2.21	
12/17	14:07:45	341.7500	4355.34	79.19	1.84	
12/17	14:09:00	343.0000	4357.52	78.89	2.18	
12/17	14:10:15	344.2500	4347.65	78.72	-9.87	
12/17	14:10:30	344.5000	4314.55	78.70	-33.10	
12/17	14:10:45	344.7500	4253.92	78.67	-60.63	
12/17	14:11:00	345.0000	4211.52	78.64	-42.40	
12/17	14:11:15	345.2500	4190.91	78.61	-20.61	
12/17	14:11:30	345.5000	4177.55	78.59	-13.36	
12/17	14:12:15	346.2500	4156.16	78.58	-21.40	
12/17	14:12:30	346.5000	4152.82	78.60	-3.34	
12/17	14:13:45	347.7500	4149.99	78.68	-2.83	
12/17	14:15:00	349.0000	4155.54	78.76	5.56	
12/17	14:16:15	350.2500	4163.80	78.38	8.26	
12/17	14:17:30	351.5000	4171.96	77.78	8.16	
12/17	14:18:45	352.7500	4179.61	77.18	7.65	
12/17	14:20:00	354.0000	4186.80	76.54	7.19	
12/17	14:21:15	355.2500	4193.89	75.88	7.09	
12/17	14:22:30	356.5000	4200.65	75.28	6.76	
12/17	14:23:45	357.7500	4206.58	74.75	5.93	
12/17	14:25:00	359.0000	4212.37	74.21	5.79	
12/17	14:26:15	360.2500	4216.34	73.79	3.97	
12/17	14:27:30	361.5000	4220.75	73.38	4.41	
12/17	14:28:45	362.7500	4226.24	73.03	5.49	
12/17	14:30:00	364.0000	4231.02	72.73	4.78	
12/17	14:31:15	365.2500	4235.58	72.45	4.57	
12/17	14:32:30	366.5000	4239.90	72.21	4.32	
12/17	14:33:45	367.7500	4244.02	71.98	4.12	
12/17	14:35:00	369.0000	4248.04	71.78	4.01	
12/17	14:36:15	370.2500	4251.65	71.59	3.62	
12/17	14:37:30	371.5000	4255.48	71.40	3.82	
12/17	14:38:45	372.7500	4259.39	71.23	3.92	
12/17	14:40:00	374.0000	4262.98	71.06	3.59	
12/17	14:41:15	375.2500	4266.56	70.91	3.58	
12/17	14:42:30	376.5000	4259.22	70.76	-7.34	
12/17	14:43:45	377.7500	4274.93	70.63	15.71	
12/17	14:45:00	379.0000	4281.61	70.52	6.68	
12/17	14:46:15	380.2500	4286.69	70.39	5.08	
12/17	14:47:30	381.5000	4291.11	70.17	4.42	
12/17	14:48:45	382.7500	4294.78	69.94	3.67	
12/17	14:50:00	384.0000	4297.95	69.70	3.17	
12/17	14:51:15	385.2500	4301.85	69.44	3.90	

WELL NAME : SALTY DOG SWD NO. 5

DATE : 12/19/05

WELL LOCATION : SAN JUAN COUNTY, NM

FILE REF: F259C19.RED

Date MM/DD	Time hh:mm:ss	Test Time mmmmmmmm.mmmmm	Pressure Psig	Temp Deg F	deltaP Psi	Comment Ga. Press Ref. to 14.7 Psi Atm.
12/17	14:52:30	386.5000	4304.82	69.22	2.97	
12/17	14:53:45	387.7500	4307.51	69.01	2.69	
12/17	14:55:00	389.0000	4310.46	68.80	2.95	
12/17	14:56:15	390.2500	4309.90	68.62	-1.55	
12/17	14:57:30	391.5000	4313.72	68.45	3.81	
12/17	14:58:45	392.7500	4316.90	68.30	3.19	
12/17	15:00:00	394.0000	4319.86	68.18	2.95	
12/17	15:01:15	395.2500	4322.64	68.05	2.79	
12/17	15:02:30	396.5000	4325.19	67.95	2.55	
12/17	15:03:45	397.7500	4327.71	67.84	2.52	
12/17	15:05:00	399.0000	4328.84	67.74	1.13	
12/17	15:06:15	400.2500	4331.26	67.65	2.42	
12/17	15:07:30	401.5000	4334.22	67.57	2.96	
12/17	15:08:45	402.7500	4336.03	67.51	1.80	
12/17	15:10:00	404.0000	4338.52	67.45	2.50	
12/17	15:11:15	405.2500	4340.76	67.41	2.24	
12/17	15:12:30	406.5000	4343.03	67.38	2.27	
12/17	15:13:45	407.7500	4345.31	67.34	2.28	
12/17	15:15:00	409.0000	4351.48	67.32	6.17	
12/17	15:16:15	410.2500	4355.60	67.29	4.12	
12/17	15:17:30	411.5000	4357.88	67.22	2.28	
12/17	15:18:45	412.7500	4348.82	67.14	-9.06	
12/17	15:20:00	414.0000	4335.55	67.02	-13.27	
12/17	15:21:15	415.2500	4328.56	66.89	-6.99	
12/17	15:22:30	416.5000	4324.02	66.78	-4.54	
12/17	15:23:45	417.7500	4321.38	66.65	-2.64	
12/17	15:25:00	419.0000	4319.89	66.52	-1.49	
12/17	15:26:15	420.2500	4319.45	66.42	-.44	
12/17	15:27:30	421.5000	4319.43	66.31	-.02	
12/17	15:28:45	422.7500	4319.44	66.22	.01	
12/17	15:30:00	424.0000	4320.19	66.14	.75	
12/17	15:32:00	426.0000	4321.75	66.02	1.56	
12/17	15:34:00	428.0000	4323.62	65.91	1.87	
12/17	15:36:00	430.0000	4326.45	65.82	2.83	
12/17	15:38:00	432.0000	4328.25	65.73	1.80	
12/17	15:40:00	434.0000	4330.54	65.64	2.29	
12/17	15:42:00	436.0000	4332.76	65.55	2.22	
12/17	15:44:00	438.0000	4334.85	65.46	2.10	
12/17	15:45:15	439.2500	4340.62	65.42	5.77	
12/17	15:46:30	440.5000	4343.96	65.37	3.33	
12/17	15:47:45	441.7500	4345.53	65.32	1.57	
12/17	15:49:00	443.0000	4346.85	65.23	1.32	
12/17	15:50:15	444.2500	4348.07	65.13	1.22	
12/17	15:51:30	445.5000	4349.22	65.02	1.15	
12/17	15:52:45	446.7500	4350.30	64.90	1.08	
12/17	15:54:00	448.0000	4351.44	64.80	1.15	
12/17	15:55:15	449.2500	4352.55	64.69	1.11	
12/17	15:56:30	450.5000	4353.68	64.60	1.13	
12/17	15:57:45	451.7500	4354.88	64.50	1.21	
12/17	15:59:00	453.0000	4356.03	64.41	1.15	
12/17	16:00:15	454.2500	4357.24	64.32	1.21	
12/17	16:01:30	455.5000	4358.42	64.24	1.17	
12/17	16:02:45	456.7500	4359.61	64.15	1.19	
12/17	16:04:00	458.0000	4360.68	64.06	1.07	
12/17	16:05:15	459.2500	4362.09	63.98	1.41	
12/17	16:06:30	460.5000	4363.97	63.89	1.88	
12/17	16:07:45	461.7500	4364.96	63.81	.98	
12/17	16:09:00	463.0000	4366.33	63.72	1.38	
12/17	16:10:15	464.2500	4367.35	63.64	1.02	
12/17	16:11:30	465.5000	4367.94	63.55	.59	
12/17	16:12:45	466.7500	4368.46	63.47	.52	
12/17	16:14:00	468.0000	4369.04	63.42	.58	
12/17	16:16:00	470.0000	4371.31	63.36	2.27	
12/17	16:17:15	471.2500	4372.00	63.36	.69	
12/17	16:18:30	472.5000	4369.74	63.37	-2.27	

WELL NAME : SALTY DOG SWD NO. 5

DATE : 12/19/05

WELL LOCATION : SAN JUAN COUNTY, NM

FILE REF: F259C19.RED

Date	Time	Test Time	Pressure	Temp	deltaP	Comment
MM/DD	hh:mm:ss	mmmmmmmm.mmmmm	Psig	Deg F	Psi	Ga. Press Ref. to 14.7 Psi Atm.
12/17	16:18:45	472.7500	4366.70	63.37	-3.04	
12/17	16:19:00	473.0000	4334.23	63.37	-32.47	
12/17	16:19:15	473.2500	4295.38	63.37	-38.85	
12/17	16:19:30	473.5000	4271.44	63.40	-23.94	
12/17	16:20:30	474.5000	4250.17	63.56	-21.27	
12/17	16:20:45	474.7500	4248.58	63.60	-1.59	
12/17	16:22:00	476.0000	4245.61	63.78	-2.97	
12/17	16:23:15	477.2500	4245.13	63.85	-.48	
12/17	16:24:30	478.5000	4247.49	63.88	2.36	
12/17	16:25:45	479.7500	4249.11	63.85	1.62	
12/17	16:27:00	481.0000	4252.05	63.75	2.93	
12/17	16:28:15	482.2500	4253.37	63.64	1.32	
12/17	16:28:45	482.7500	4251.98	63.62	-1.39	
12/17	16:29:00	483.0000	4216.88	63.61	-35.10	
12/17	16:29:15	483.2500	4195.81	63.60	-21.07	
12/17	16:29:30	483.5000	4182.27	63.59	-13.53	
12/17	16:30:00	484.0000	4161.61	63.56	-20.66	
12/17	16:30:15	484.2500	4153.06	63.56	-8.55	
12/17	16:30:45	484.7500	4137.50	63.53	-15.56	
12/17	16:31:00	485.0000	4130.61	63.52	-6.89	
12/17	16:31:45	485.7500	4111.88	63.69	-18.73	
12/17	16:32:00	486.0000	4106.44	63.76	-5.45	
12/17	16:33:00	487.0000	4086.52	64.07	-19.92	
12/17	16:33:15	487.2500	4081.82	64.15	-4.70	
12/17	16:34:30	488.5000	4060.55	64.74	-21.27	
12/17	16:35:45	489.7500	4041.65	65.79	-18.90	
12/17	16:37:00	491.0000	4025.05	66.86	-16.60	
12/17	16:38:15	492.2500	4010.08	68.47	-14.97	
12/17	16:39:30	493.5000	3997.35	70.13	-12.73	
12/17	16:40:45	494.7500	3985.61	71.91	-11.74	
12/17	16:42:00	496.0000	3975.95	73.77	-9.67	
12/17	16:43:15	497.2500	3966.78	75.63	-9.17	
12/17	16:44:30	498.5000	3958.02	77.36	-8.76	
12/17	16:45:45	499.7500	3949.53	79.08	-8.50	
12/17	16:47:00	501.0000	3941.75	80.63	-7.78	
12/17	16:48:15	502.2500	3934.21	82.11	-7.53	
12/17	16:49:30	503.5000	3926.68	83.53	-7.54	
12/17	16:50:45	504.7500	3920.38	84.78	-6.30	
12/17	16:52:00	506.0000	3913.38	86.03	-7.00	
12/17	16:53:15	507.2500	3907.30	87.10	-6.08	
12/17	16:54:30	508.5000	3901.20	88.15	-6.10	
12/17	16:55:45	509.7500	3895.27	89.14	-5.93	
12/17	16:57:00	511.0000	3889.67	90.05	-5.59	
12/17	16:58:15	512.2500	3884.32	90.97	-5.35	
12/17	16:59:30	513.5000	3878.78	91.79	-5.54	
12/17	17:00:45	514.7500	3873.67	92.61	-5.11	
12/17	17:02:00	516.0000	3868.42	93.41	-5.25	
12/17	17:03:15	517.2500	3863.35	94.20	-5.07	
12/17	17:04:30	518.5000	3858.53	94.95	-4.82	
12/17	17:05:45	519.7500	3842.01	95.69	-16.52	
12/17	17:06:00	520.0000	3805.79	95.84	-36.22	
12/17	17:06:15	520.2500	3783.77	95.99	-22.01	
12/17	17:06:30	520.5000	3746.16	96.14	-37.61	
12/17	17:06:45	520.7500	3703.61	96.29	-42.55	
12/17	17:07:00	521.0000	3660.82	96.43	-42.79	
12/17	17:07:15	521.2500	3616.80	96.55	-44.02	
12/17	17:07:30	521.5000	3572.28	96.46	-44.53	
12/17	17:07:45	521.7500	3525.73	96.37	-46.55	
12/17	17:08:00	522.0000	3477.92	96.27	-47.81	
12/17	17:08:15	522.2500	3428.59	96.18	-49.33	
12/17	17:08:30	522.5000	3379.90	96.08	-48.69	
12/17	17:08:45	522.7500	3329.70	95.99	-50.20	
12/17	17:09:00	523.0000	3280.63	95.89	-49.07	
12/17	17:09:15	523.2500	3234.35	95.80	-46.28	
12/17	17:09:30	523.5000	3188.59	95.70	-45.76	

T.O.H. W/ TANDEM ELEC. MEMORY INST.

WELL NAME : SALTY DOG SWD NO. 5

DATE : 12/19/05

WELL LOCATION : SAN JUAN COUNTY, NM

FILE REF: F259C19.RED

Date MM/DD	Time hh:mm:ss	Test Time mmmmmm.mmmmm	Pressure Psig	Temp Deg F	deltaP Psi	Comment Ga. Press Ref. to 14.7 Psi Atm.
12/17	17:09:45	523.7500	3140.29	95.61	-48.30	
12/17	17:10:00	524.0000	3092.75	95.52	-47.54	
12/17	17:10:15	524.2500	3044.00	95.15	-48.75	
12/17	17:10:30	524.5000	2995.02	94.63	-48.98	
12/17	17:10:45	524.7500	2946.81	94.10	-48.21	
12/17	17:11:00	525.0000	2898.72	93.57	-48.09	
12/17	17:11:15	525.2500	2853.53	93.04	-45.18	
12/17	17:11:30	525.5000	2808.33	92.52	-45.20	
12/17	17:11:45	525.7500	2762.63	91.99	-45.70	
12/17	17:12:00	526.0000	2716.40	91.47	-46.23	
12/17	17:12:15	526.2500	2669.80	90.94	-46.60	
12/17	17:12:30	526.5000	2626.60	90.42	-43.20	
12/17	17:12:45	526.7500	2583.91	89.89	-42.69	
12/17	17:13:00	527.0000	2541.33	89.37	-42.58	
12/17	17:13:15	527.2500	2492.63	88.75	-48.70	
12/17	17:13:30	527.5000	2442.97	88.07	-49.67	
12/17	17:13:45	527.7500	2393.17	87.39	-49.80	
12/17	17:14:00	528.0000	2343.23	86.71	-49.94	
12/17	17:14:15	528.2500	2291.88	86.03	-51.34	
12/17	17:14:30	528.5000	2240.39	85.36	-51.49	
12/17	17:14:45	528.7500	2189.28	84.68	-51.11	
12/17	17:15:00	529.0000	2138.41	84.01	-50.88	
12/17	17:15:15	529.2500	2086.39	83.33	-52.02	
12/17	17:15:30	529.5000	2033.60	82.65	-52.79	
12/17	17:15:45	529.7500	1980.66	81.97	-52.94	
12/17	17:16:00	530.0000	1925.06	81.30	-55.60	
12/17	17:16:15	530.2500	1869.37	80.56	-55.69	
12/17	17:16:30	530.5000	1813.68	79.80	-55.69	
12/17	17:16:45	530.7500	1758.73	79.05	-54.95	
12/17	17:17:00	531.0000	1709.74	78.29	-48.99	
12/17	17:17:15	531.2500	1666.06	77.54	-43.69	
12/17	17:17:30	531.5000	1616.91	76.79	-49.15	
12/17	17:17:45	531.7500	1566.35	76.04	-50.56	
12/17	17:18:00	532.0000	1515.78	75.29	-50.57	
12/17	17:18:15	532.2500	1465.19	74.54	-50.58	
12/17	17:18:30	532.5000	1413.96	73.79	-51.23	
12/17	17:18:45	532.7500	1363.23	73.04	-50.73	
12/17	17:19:00	533.0000	1311.09	72.29	-52.14	
12/17	17:19:15	533.2500	1258.05	71.53	-53.04	
12/17	17:19:30	533.5000	1203.64	70.73	-54.42	
12/17	17:19:45	533.7500	1149.45	69.94	-54.18	
12/17	17:20:00	534.0000	1094.25	69.14	-55.21	
12/17	17:20:15	534.2500	1042.20	68.35	-52.05	
12/17	17:20:30	534.5000	993.82	67.55	-48.38	
12/17	17:21:00	535.0000	972.71	65.97	-21.11	
12/17	17:21:15	535.2500	963.30	65.17	-9.41	
12/17	17:21:45	535.7500	946.13	63.59	-17.18	
12/17	17:22:00	536.0000	939.76	62.80	-6.37	
12/17	17:23:00	537.0000	941.12	59.63	1.36	
12/17	17:24:00	538.0000	937.91	56.49	-3.21	
12/17	17:24:30	538.5000	918.56	54.92	-19.35	
12/17	17:24:45	538.7500	771.68	54.15	-146.88	
12/17	17:25:00	539.0000	633.34	53.36	-138.34	
12/17	17:25:15	539.2500	505.76	52.68	-127.58	
12/17	17:25:30	539.5000	.01	52.12	-505.75	
12/17	17:26:45	540.7500	1.88	49.35	1.87	

 *
 * EVENT SUMMARY *
 *

COMPANY : LANCE OIL & GAS CO., INC.

PAGE : B1

WELL NAME : SALTY DOG SWD NO. 5

DATE : 12/19/05

WELL LOCATION : SAN JUAN COUNTY, NM

FILE REF: F259C19.RED

Date	Time	Test Time	Key Event	Pressure	Temp
MM/DD	hh:mm:ss	mmmmmm.mmmmm		Psig	Deg F
12/17	08:58:00	32.0000	PRESSURED UP LUBRICATOR	1.72	43.21
12/17	09:22:15	56.2500	TANDEM ELEC. MEMORY INST. @ 6580'	3044.21	143.25
12/17	10:28:00	122.0000	BEGAN PUMP TEST	2927.65	185.48
12/17	17:06:00	520.0000	T.O.H. W/ TANDEM ELEC. MEMORY INST.	3805.79	95.84

LANCE OIL & GAS CO., INC.

Pressure vs dt

SALTY DOG SMD NO. 5
SAN JUAN COUNTY, NM
F259C19.REB

TEFTLELLER, INC.
12-17-85
ATTEMPTED STEP RATE TEST

