

|                    |          |                      |                      |            |                            |
|--------------------|----------|----------------------|----------------------|------------|----------------------------|
| DATE IN<br>2/19/08 | SUSPENSE | ENGINEER<br>W. Jones | LOGGED IN<br>2/20/08 | IPI<br>IPI | APPROVAL<br>DKVR0805145493 |
|--------------------|----------|----------------------|----------------------|------------|----------------------------|

6/2/08

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 COVERSHEET

THIS COVERSHEET 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

#### [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

#### SUBMITTED IS COMPLETE - Certification

I, under my supervision, have reviewed the applicable Rules and Regulations of the Bureau. I assert that the attached application for administrative approval is accurate and complete and where applicable, verify that all interest (WI, RI, ORRI) is common. In the event of data (including API numbers, pool codes, etc.), pertinent information is missing, it is cause to have the application package returned with no action taken.

This certification is to be completed by an individual with managerial and/or supervisory capacity.

*[Signature]*  
 Signature

Regulatory Agent  
 Title

2-19-08  
 Date

ann.ritchie@utor.net  
 e-mail Address

OCD- Santa Fe,  
 I mistakenly sent  
 this to Richard Inge  
 at District OCD.

Thank you,  
 Ann Ritchie

Artemis; QM G SA Pool (2230)  
 R-11720-A

30-015-02541  
 Artemis UMTA 46

Melroe OP. Co.  
 (GGRID 184860)

Submit 3 Copies To Appropriate  
District Office  
District I  
1625 N. French Dr., Hobbs, NM 88240  
District II  
1301 W. Grand Ave., Artesia, NM 88210  
District III  
1000 Rio Brazos Rd., Aztec, NM 87410  
District IV  
1220 S. St. Francis Dr., Santa Fe, NM  
87505

State of New Mexico  
Energy, Minerals and Natural Resources

Form C-103  
Revised June 10, 2003

OIL CONSERVATION DIVISION  
1220 South St. Francis Dr.  
Santa Fe, NM 87505

|   |  |  |
|---|--|--|
| <b>SUNDRY NOTICES AND REPORTS ON WELLS</b><br>(DO NOT USE THIS FORM FOR PROPOSALS TO DRILL OR TO DEEPEN OR PLUG BACK TO A DIFFERENT RESERVOIR. USE "APPLICATION FOR PERMIT" (FORM C-101) FOR SUCH PROPOSALS.)             |  | WELL API NO.<br>30 015 02541   |
| 1. Type of Well:<br>Oil Well      Gas Well      Other (Injection) <input checked="" type="checkbox"/>   |  | 5. Indicate Type of Lease<br>STATE <input checked="" type="checkbox"/> FEE |
| 2. Name of Operator<br>Melrose Operating Company  |  | 6. State Oil & Gas Lease No.   |
| 3. Address of Operator<br>c/o P.O. Box 953, Midland, TX 79702   |  | 7. Lease Name or Unit Agreement Name<br>Artesia Unit                       |
| 4. Well Location (Surface)<br>Unit Letter <u>F</u> : <u>2310</u> feet from the <u>North</u> line and <u>2267</u> feet from the <u>West</u> line<br>Section <u>3</u> Township <u>18S</u> Range <u>28E</u> NMPM Eddy County |  | 8. Well Number<br>46   |
| 11. Elevation (Show whether DR, RKB, RT, GR, etc.): <u>GR</u>   |  | 9. OGRID Number<br>184860  |
|   |  | 10. Pool name or Wildcat<br>Artesia: Queen-Gray-San Andres 3230            |

12. Check Appropriate Box to Indicate Nature of Notice, Report or Other Data

NOTICE OF INTENTION TO:

PERFORM REMEDIAL WORK ☐ PLUG AND ABANDON

TEMPORARILY ABANDON ☐ CHANGE PLANS

PULL OR ALTER CASING ☐ MULTIPLE COMPLETION ☐

OTHER: Scheduled Step Rate Test ☒

SUBSEQUENT REPORT OF:

REMEDIAL WORK ☐ ALTERING CASING ☐

COMMENCE DRILLING OPNS ☐ PLUG AND ABANDONMENT

CASING TEST AND CEMENT JOB

OTHER:

13. Describe proposed or completed operations. (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work). SEE RULE 1103. For Multiple Completions: Attach wellbore diagram of proposed completion or recompletion.

The Artesia Unit, Well #46 is out of compliance due to an average injection pressure of 500 psi. The permitted injection pressure is 425 psi. Well is shut-in as per NMOCD compliance. Well is scheduled for a step rate test on January 17, 2008 at 9 am.

I hereby certify that the information above is true and complete to the best of my knowledge and belief.

SIGNATURE [Signature] TITLE Regulatory Agent DATE: 12-27-07

Type or print name Ann E. Ritchie E-mail address: ann.ritchie@wtor.net Telephone No. 432 684-6381

(This space for State use)

APPROVED BY Richard Inge TITLE Compliance Officer DATE 1/8/08  
Conditions of approval, if any:

February 15, 2008

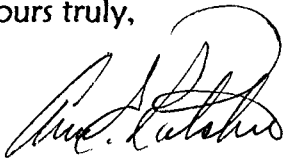
New Mexico Oil Conservation Division  
1220 S. St. Francis Dr.  
Hobbs, NM 88240

RE: Melrose Operating Company, Artesia Unit, Well #46, API # 30 015 01541,  
Section 3, T18S, R28E, Eddy County, New Mexico

Please see attached the Step Rate Test performed by Cardinal Surveys Company on the above referenced well, for your review. We are respectfully requesting an administrative injection pressure increase for this well from the standard permitted injection pressure, to reflect the current status of the field as revealed in the Step Rate Test, to approximately 900 psi. We anticipate the daily injection rate to be approximately 350 bbls per day, with a maximum of 550 bbls per day.

Please let us know if you need any further information regarding this administrative request. Thank you.

Yours truly,

A handwritten signature in black ink, appearing to read "Ann E. Ritchie". The signature is fluid and cursive, with a large loop at the end.

Ann E. Ritchie, Regulatory Agent  
Melrose Operating Company  
c/o P.O. Box 953  
Midland, TX 79702  
432 684-6381

Cc: Melrose Operating Company, Mike Corjay/Oklahoma City, OK

Submit 3 Copies To Appropriate  
District Office  
District I  
1625 N. French Dr., Hobbs, NM 88240  
District II  
1301 W. Grand Ave., Artesia, NM 88210  
District III  
1000 Rio Brazos Rd., Aztec, NM 87410  
District IV  
1220 S. St. Francis Dr., Santa Fe, NM  
87505

State of New Mexico  
Energy, Minerals and Natural Resources

Form C-103  
Revised June 10, 2003

OIL CONSERVATION DIVISION  
1220 South St. Francis Dr.  
Santa Fe, NM 87505

|   |  |  |
|---|--|--|
| <b>SUNDRY NOTICES AND REPORTS ON WELLS</b><br>(DO NOT USE THIS FORM FOR PROPOSALS TO DRILL OR TO DEEPEN OR PLUG BACK TO A DIFFERENT RESERVOIR. USE "APPLICATION FOR PERMIT" (FORM C-101) FOR SUCH PROPOSALS.)             |  | WELL API NO.<br>30 015 02541   |
| 1. Type of Well:<br>Oil Well      Gas Well      Other (Injection) <input checked="" type="checkbox"/>   |  | 5. Indicate Type of Lease<br>STATE <input checked="" type="checkbox"/> FEE |
| 2. Name of Operator<br>Melrose Operating Company  |  | 6. State Oil & Gas Lease No.   |
| 3. Address of Operator<br>c/o P.O. Box 953, Midland, TX 79702   |  | 7. Lease Name or Unit Agreement Name<br>Artesia Unit                       |
| 4. Well Location (Surface)<br>Unit Letter <u>F</u> : <u>2310</u> feet from the <u>North</u> line and <u>2267</u> feet from the <u>West</u> line<br>Section <u>3</u> Township <u>18S</u> Range <u>28E</u> NMPM Eddy County |  | 8. Well Number<br>46   |
| 11. Elevation (Show whether DR, RKB, RT, GR, etc.): <u>GR</u>   |  | 9. OGRID Number<br>184860  |
|   |  | 10. Pool name or Wildcat<br>Artesia: Queen-Gray-San Andres 3230            |

|  |   |
|--|---|
| 12. Check Appropriate Box to Indicate Nature of Notice, Report or Other Data               |   |
| <b>NOTICE OF INTENTION TO:</b>   | <b>SUBSEQUENT REPORT OF:</b>                                |
| PERFORM REMEDIAL WORK <input type="checkbox"/> PLUG AND ABANDON                            | REMEDIAL WORK      ALTERING CASING <input type="checkbox"/> |
| TEMPORARILY ABANDON <input type="checkbox"/> CHANGE PLANS                                  | COMMENCE DRILLING OPNS      PLUG AND ABANDONMENT            |
| PULL OR ALTER CASING <input type="checkbox"/> MULTIPLE COMPLETION <input type="checkbox"/> | CASING TEST AND CEMENT JOB                                  |
| OTHER: Scheduled Step Rate Test      XX  | OTHER:  |

13. Describe proposed or completed operations. (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work). SEE RULE 1103. For Multiple Completions: Attach wellbore diagram of proposed completion or recompletion.

The Artesia Unit, Well #46 is out of compliance due to an average injection pressure of 500 psi. The permitted injection pressure is 425 psi. Well is shut-in as per NMOCD compliance. Well is scheduled for a step rate test on January 17, 2008 at 9 am.

I hereby certify that the information above is true and complete to the best of my knowledge and belief.

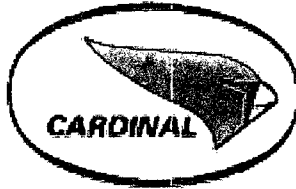
SIGNATURE [Signature] TITLE Regulatory Agent DATE: 12-27-07

Type or print name Ann E. Ritchie E-mail address: ann.ritchie@wtor.net Telephone No. 432 684-6381

(This space for State use)

APPROVED BY Richard Inge TITLE Compliance Officer DATE 1/8/08  
Conditions of approval, if any:

## Step Rate Test



### Cardinal Surveys Company

January 14, 2008

Melrose Operating  
Artesia Unit # 46  
Field:  
Eddy County, NM  
SC 56730  
File # 18423

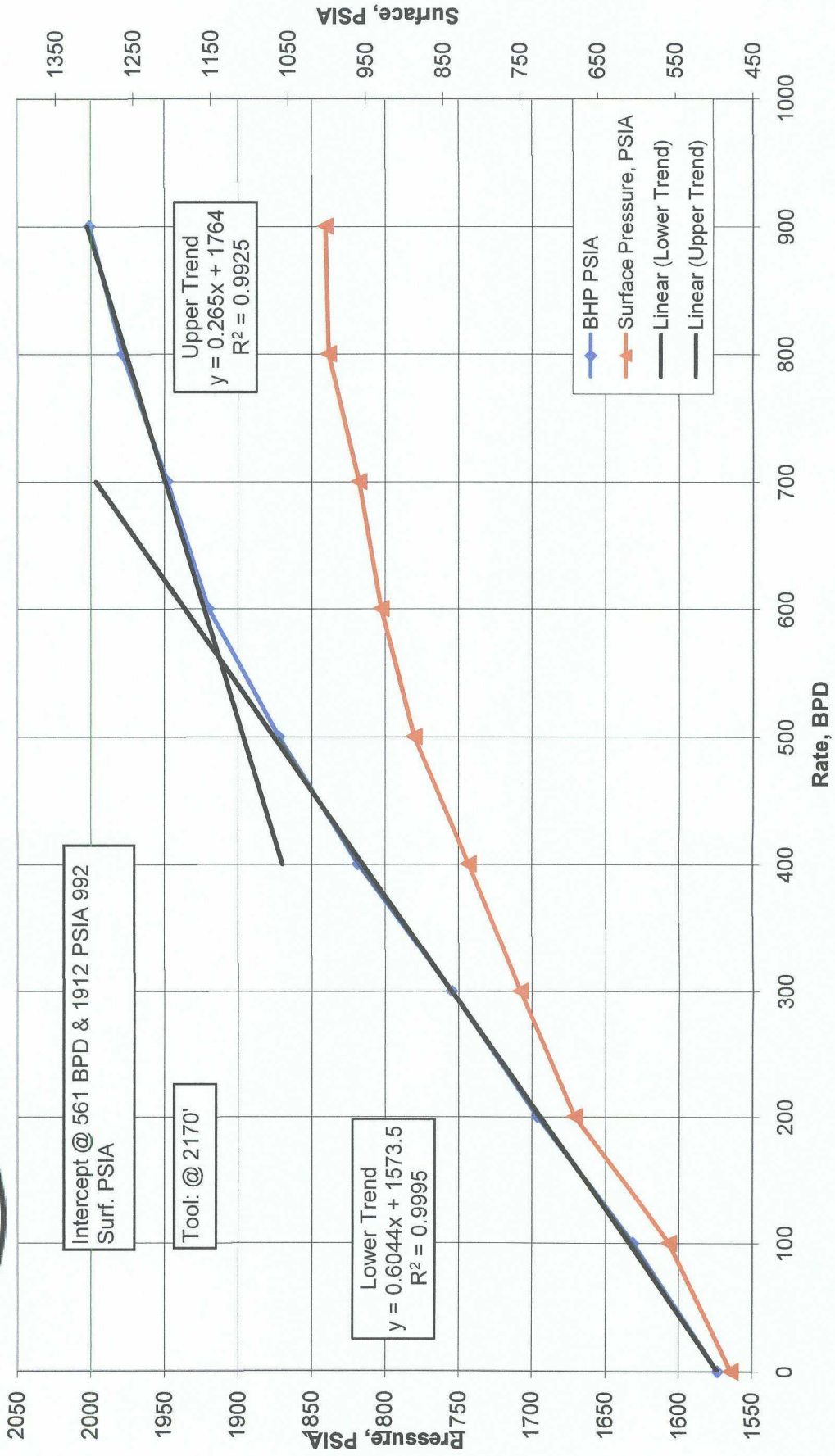
Intercept @ 561 BPD &  
1912 PSIA, 992 Surf.  
PSIA

Downhole PSI Tool Ser. No.  
Surface PSI Gauge Ser. No.  
Tool @ 2170'

|    | Start<br>Time | End<br>Time | Rate<br>BPD | Comments |
|----|---------------|-------------|-------------|----------|
| 1  | 9:48 AM       | 10:15 AM    | 0           |          |
| 2  | 10:15 AM      | 10:45 AM    | 100         |          |
| 3  | 10:45 AM      | 11:15 AM    | 200         |          |
| 4  | 11:15 AM      | 11:45 AM    | 300         |          |
| 5  | 11:45 AM      | 12:15 PM    | 400         |          |
| 6  | 12:15 PM      | 12:45 PM    | 500         |          |
| 7  | 12:45 PM      | 1:15 PM     | 600         |          |
| 8  | 1:15 PM       | 1:45 PM     | 700         |          |
| 9  | 1:45 PM       | 2:15 PM     | 800         |          |
| 10 | 2:15 PM       | 2:45 PM     | 900         |          |
| 11 | 2:45 PM       | 3:00 PM     | 0           |          |



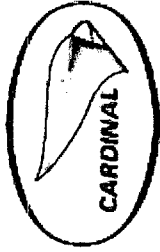
Melrose Operating Artesia Unit # 46  
Step Rate Test 01-14-2008



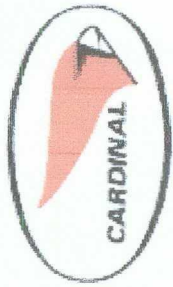
900 - 550 = 350 PSI  
SAFETY

# Step Rate Test

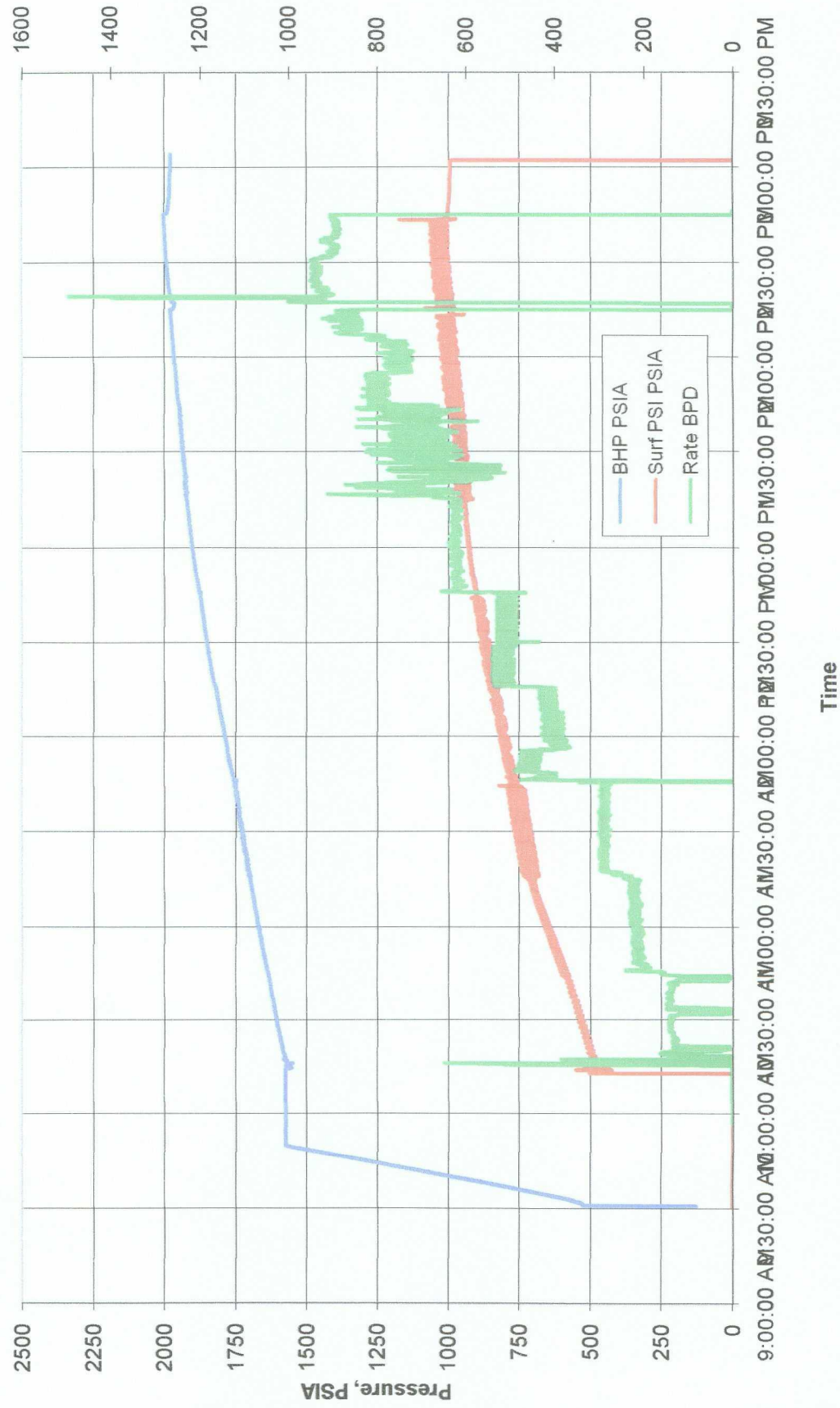
Melrose Operating  
Artesia Unit # 46  
Field:  
Eddy Co. NM



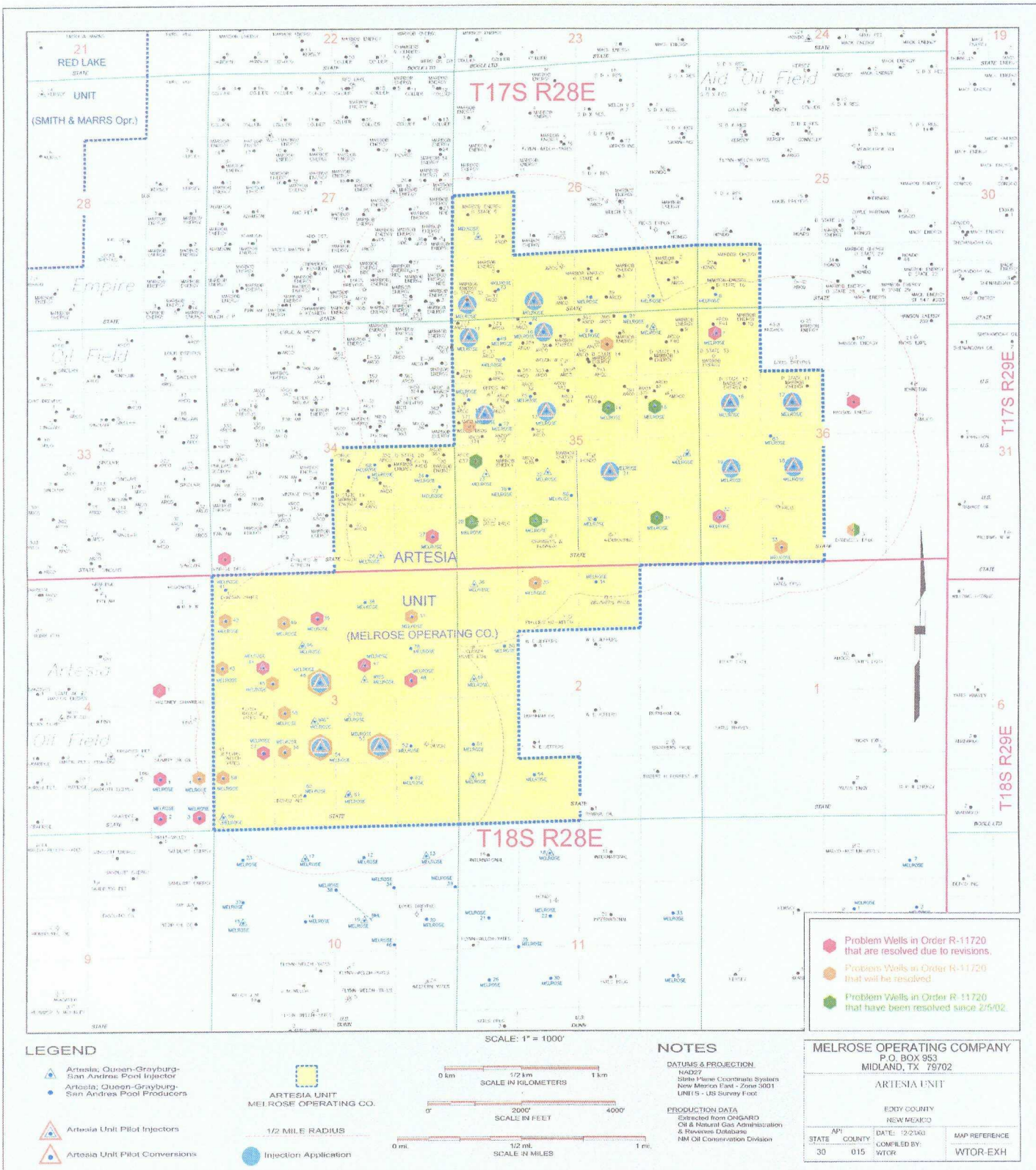
|            | S Time   | E Time   | D Time | Last Rate | Step | B. H. Pressure | Surf   | Cum  | Delta | Avg. | Lower           | Upper  |
|------------|----------|----------|--------|-----------|------|----------------|--------|------|-------|------|-----------------|--------|
|            |          |          | Min    | BPD       | BPD  | PSIA           | PSIA   | BBL  | BBL   | BPD  | Trend           | Trend  |
| 1          | 9:48 AM  | 10:15 AM | 27     | 0         | 0    | 1573.5         | 477.5  | 0    | 0     | 0    | 1573.5          |        |
| 2          | 10:15 AM | 10:45 AM | 30     | 100       | 100  | 1631.6         | 558.5  | 2.7  | 2.7   | 130  | 1631.6          |        |
| 3          | 10:45 AM | 11:15 AM | 30     | 200       | 100  | 1696.3         | 679.9  | 7.2  | 4.5   | 216  | 1696.3          | 679.9  |
| 4          | 11:15 AM | 11:45 AM | 30     | 300       | 100  | 1754.8         | 750.4  | 13.2 | 6     | 288  | 1754.8          | 750.4  |
| 5          | 11:45 AM | 12:15 PM | 30     | 400       | 100  | 1818.7         | 817.8  | 21.7 | 8.5   | 408  | 1818.7          | 817.8  |
| 6          | 12:15 PM | 12:45 PM | 30     | 500       | 100  | 1872.6         | 887.5  | 32.3 | 10.6  | 509  | 1872.6          | 887.5  |
| 7          | 12:45 PM | 1:15 PM  | 30     | 600       | 100  | 1920.2         | 930.1  | 45.1 | 12.8  | 614  |                 | 1948.2 |
| 8          | 1:15 PM  | 1:45 PM  | 30     | 700       | 100  | 1948.2         | 958.7  | 58   | 12.9  | 619  |                 |        |
| 9          | 1:45 PM  | 2:15 PM  | 30     | 800       | 100  | 1978.7         | 998.4  | 74.6 | 16.6  | 797  |                 | 998.4  |
| 10         | 2:15 PM  | 2:45 PM  | 30     | 900       | 100  | 2001.2         | 1002.6 | 92.4 | 17.8  | 854  |                 | 1002.6 |
|            | 2:45 PM  | 3:00 PM  | 15     | 0         | -900 | 1978.4         | 981.2  | 92.4 | 0     | 0    |                 |        |
| int point: |          |          |        |           |      |                |        |      |       |      | 0.6044          | 1573.5 |
|            |          |          |        |           |      |                |        |      |       |      | 0.265           | 1764   |
|            |          |          |        |           |      |                |        |      |       |      | 0.6902          | 542.33 |
|            |          |          |        |           |      |                |        |      |       |      | 0.042           | 964.8  |
|            |          |          |        |           |      |                |        |      |       |      | 651.758716 BPD  |        |
|            |          |          |        |           |      |                |        |      |       |      | 1912.7404 Psia  |        |
|            |          |          |        |           |      |                |        |      |       |      | 992.173866 Psia |        |



Melrose Operating Artesia Unit # 46  
Step Rate Test 01-14-2008







**Jones, William V., EMNRD**

**From:** Jones, William V., EMNRD  
**Sent:** Wednesday, March 12, 2008 9:53 AM  
**To:** 'Ann Ritchie'  
**Cc:** Ezeanyim, Richard, EMNRD; Brooks, David K., EMNRD; Inge, Richard, EMNRD; Bratcher, Mike, EMNRD  
**Subject:** IPI application for Melrose Operating Company's Artesia Unit Well No. 46 API No. 30-015-02541 Unit F Sec 3 T18S R28E Eddy County

Hello Ann:

The permit to inject I found for this well (R-11720-A) allows injection into the Grayburg from 2125 to 2419. The OCD wellfile may be missing something because it only shows the original Queen/Grayburg/SA perfs starting around 1800 feet.

Please ask your client to submit Sundry's (to Artesia with copy to the engineering bureau in Santa Fe) verifying those upper perfs are squeezed or locate some other order allowing injection into those upper perfs. Also ask Melrose to look in its well file for this well and send copies of all electric logs to the OCD office in Hobbs for scanning - the OCD file shows only the CBL run recently.

Let me know the progress on this, I will hold this proposed pressure increase pending the correction of the wellfile or other clarification.

Thanks,

William V. Jones PE  
New Mexico Oil Conservation Division  
1220 South St. Francis  
Santa Fe, NM 87505  
505-476-3448

Cancelled  
3/12/08  
Pending action by  
Melrose  
Re-Activated  
6/2/08

3/12/2008

Submit 3 Copies To Appropriate District  
Office  
District I  
1625 N. French Dr., Hobbs, NM 88240  
District II  
1301 W. Grand Ave., Artesia, NM 88210  
District III  
1000 Rio Brazos Rd., Aztec, NM 87410  
District IV  
1220 S. St. Francis Dr., Santa Fe, NM  
87505

State of New Mexico  
Energy, Minerals and Natural Resources

Form C-103  
May 27, 2004

OIL CONSERVATION DIVISION  
1220 South St. Francis Dr.  
Santa Fe, NM 87505

|   |
|---|
| WELL API NO.<br>30 015 02541                            |
| 5. Indicate Type of Lease<br>STATE FEE X                |
| 6. State Oil & Gas Lease No.                            |
| 7. Lease Name or Unit Agreement Name<br>Artesia Unit    |
| 8. Well Number 46                                       |
| 9. OGRID Number 184860                                  |
| 10. Pool name or Wildcat<br>Artesia: Queen-Gray-SA 3230 |

SUNDRY NOTICES AND REPORTS ON WELLS  
(DO NOT USE THIS FORM FOR PROPOSALS TO DRILL OR TO DEEPEN OR PLUG BACK TO A  
DIFFERENT RESERVOIR. USE "APPLICATION FOR PERMIT" (FORM C-101) FOR SUCH  
PROPOSALS.)

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

2. Name of Operator  
Melrose Operating Company

3. Address of Operator  
c/o P.O. Box 953, Midland, TX 79702

4. Well Location

Unit Letter F : 2310 feet from the North line and 2267 feet from the West line  
Section 3 Township 18S Range 28E NMPM Eddy County

MAR 31 2008  
OCD-ARTESIA

11. Elevation (Show whether DR, RKB, RT, GR, etc.) 3602 GR

Pit or Below-grade Tank Application ☐ or Closure ☐

Pit type \_\_\_\_\_ Depth to Groundwater \_\_\_\_\_ Distance from nearest fresh water well \_\_\_\_\_ Distance from nearest surface water \_\_\_\_\_

Pit Liner Thickness: \_\_\_\_\_ mil Below-Grade Tank: Volume \_\_\_\_\_ bbls; Construction Material \_\_\_\_\_

12. Check Appropriate Box to Indicate Nature of Notice, Report or Other Data

NOTICE OF INTENTION TO:

PERFORM REMEDIAL WORK X PLUG AND ABANDON ☐  
TEMPORARILY ABANDON ☐ CHANGE PLANS ☐  
PULL OR ALTER CASING ☐ MULTIPLE COMPL ☐

OTHER: ☐

SUBSEQUENT REPORT OF:

REMEDIAL WORK ALTERING CASING ☐  
COMMENCE DRILLING OPNS P AND A ☐  
CASING/CEMENT JOB

OTHER: \_\_\_\_\_

13. Describe proposed or completed operations. (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work). SEE RULE 1103. For Multiple Completions: Attach wellbore diagram of proposed completion or recompletion.

As per notice from NMOCD this well is permitted under R-11720-A, allowing injection into the Grayburg formation from 2125-2419'. This well was perforated @ 1800' by a previous operator. Melrose will rig up and confirm what perforations are open in this well; in the event perforation are open above 2125', they will be squeezed by setting a retainer 50' above the perforations and squeezing with 100 sx CI C cement. Melrose will WOC, then pressure test squeeze.

I hereby certify that the information above is true and complete to the best of my knowledge and belief. I further certify that any pit or below-grade tank has been/will be constructed or closed according to NMOCD guidelines X, a general permit ☐ or an (attached) alternative OCD-approved plan ☐.

SIGNATURE Ann E. Ritchie TITLE Regulatory Agent DATE 3-20-08

Type or print name: Ann E. Ritchie E-mail address: ann.ritchie@wtor.net  
For State Use Only

Telephone No. 432 684-6381

ACCEPTED FOR RECORD

APPROVED BY: \_\_\_\_\_ TITLE \_\_\_\_\_ DATE \_\_\_\_\_

Conditions of Approval (if any):

APR 9 - 2008

Gerry Guye, Deputy Field Inspector  
NMOCD-District II ARTESIA

**Subject:** RE: IPI application for Melrose Operating Company's Artesia Unit Well No. 46 API No. 30-015-02541 Unit F Sec 3 T18S R28E Eddy County

Thanks Ann:

It appeared to me that the upper interval was excluded from the waterflood which was certified after notice and examiner hearing - so if this well IS open and injecting into that interval without a valid permit, Melrose should immediately shut that well in and ask the OCD for advice on what to do.

Melrose could come to hearing again to raise the top of the waterflooding interval. One option is for you to start with the C-108 submitted administratively in order for the notices to go out AND for us to look at it in more detail. But I would prepare Melrose for the fact they may need to come to hearing for this - and if they are injecting out of the permitted waterflood injection interval, that would be an enforcement event - for Daniel Sanchez and his group.

You (and they) should keep researching this, because I could have missed something. If the certified waterflooding interval DOES include this upper interval, then you can then submit a C-108 for a WFX ("Waterflood Expansion") order to raise the permitted injection interval for that particular well. And Melrose can look at other wells to see if they are consistent with the waterflood order also.

William V. Jones PE  
New Mexico Oil Conservation Division  
1220 South St. Francis  
Santa Fe, NM 87505  
505-476-3448

---

**From:** Ann Ritchie [mailto:ann.ritchie@wtor.net]

**Sent:** Tuesday, March 18, 2008 6:40 AM

**To:** Jones, William V., EMNRD

**Subject:** Re: IPI application for Melrose Operating Company's Artesia Unit Well No. 46 API No. 30-015-02541 Unit F Sec 3 T18S R28E Eddy County

Will,

We sent the logs from the file to be reproduced and they should be ready today - we will send to OCD office in Hobbs. I am waiting on the engineer for the status of the perforations, and reviewing all data we have concerning orders on this unit/well. In the event the upper perms are open, I will file the C-108 - for an amended interval filing, do I file it as if it is a new well? Newspaper notice, etc.?

Thank you for your help,

Ann Ritchie

WEST TEXAS OIL REPORTS

P.O. Box 953

Midland, TX 79702

[ann.ritchie@wtor.net](mailto:ann.ritchie@wtor.net)

432 684-6381;682-1458-fax

----- Original Message -----

**From:** Jones, William V., EMNRD

**To:** Ann Ritchie

**Cc:** [Ezeanyim, Richard, EMNRD](#) ; [Brooks, David K., EMNRD](#) ; [Inge, Richard, EMNRD](#) ; [Bratcher, Mike, EMNRD](#)

**Sent:** Wednesday, March 12, 2008 10:53 AM

**Subject:** IPI application for Melrose Operating Company's Artesia Unit Well No. 46 API No. 30-015-02541 Unit F Sec 3 T18S R28E Eddy County

Hello Ann:

The permit to inject I found for this well (R-11720-A) allows injection into the Grayburg from 2125 to 2419. The OCD wellfile may be missing something because it only shows the original Queen/Grayburg/SA perms starting around 1800 feet.

6/2/2008

Please ask your client to submit Sundry's (to Artesia with copy to the engineering bureau in Santa Fe) verifying those upper perfs are squeezed or locate some other order allowing injection into those upper perfs. Also ask Melrose to look in its well file for this well and send copies of all electric logs to the OCD office in Hobbs for scanning - the OCD file shows only the CBL run recently.

Let me know the progress on this, I will hold this proposed pressure increase pending the correction of the wellfile or other clarification.

Thanks,

William V. Jones PE  
New Mexico Oil Conservation Division  
1220 South St. Francis  
Santa Fe, NM 87505  
505-476-3448

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6/2/2008

1625 N. French Dr., Hobbs, NM 88240

1301 W. Grand Ave., Artesia, NM 88210

1000 Rio Brazos Rd., Aztec, NM 87410

1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico  
Energy, Minerals and Natural Resources

OIL CONSERVATION DIVISION  
1220 South St. Francis Dr.  
Santa Fe, NM 87505

May 27, 2004

|   |  |   |
|---|--|---|
| <b>SUNDRY NOTICES AND REPORTS ON WELLS</b><br>(DO NOT USE THIS FORM FOR PROPOSALS TO DRILL OR TO DEEPEN OR PLUG BACK TO A DIFFERENT RESERVOIR. USE "APPLICATION FOR PERMIT" (FORM C-101) FOR SUCH PROPOSALS.) |  | WELL API NO.<br>30 015 02541  |
| 1. Type of Well: Oil Well <input checked="" type="checkbox"/> Gas Well <input type="checkbox"/> Other <input type="checkbox"/>  |  | 5. Indicate Type of Lease<br>STATE <input type="checkbox"/> FEE <input checked="" type="checkbox"/> |
| 2. Name of Operator<br>Melrose Operating Company  |  | 6. State Oil & Gas Lease No.  |
| 3. Address of Operator<br>c/o Box 953, Midland, TX 79702  |  | 7. Lease Name or Unit Agreement Name<br>Artesia Unit  |
| 4. Well Location<br>Unit Letter <u>F</u> : _____ feet from the <u>North</u> line and _____ feet from the <u>West</u> line<br>Section <u>3</u> Township <u>18S</u> Range <u>28E</u> NMPM <u>Eddy</u> County    |  | 8. Well Number: 46  |
| 11. Elevation (Show whether DR, RKB, RT, GR, etc.)  |  | 9. OGRID Number: 184860   |
| Pit or Below-grade Tank Application <input type="checkbox"/> or Closure <input type="checkbox"/>  |  |   |
| Pit type _____ Depth to Groundwater _____ Distance from nearest fresh water well _____ Distance from nearest surface water _____  |  |   |
| Pit Liner Thickness: _____ mil Below-Grade Tank: Volume _____ bbls; Construction Material _____   |  |   |

12. Check Appropriate Box to Indicate Nature of Notice, Report or Other Data

**NOTICE OF INTENTION TO:**

PERFORM REMEDIAL WORK ☐ PLUG AND ABANDON ☐  
 TEMPORARILY ABANDON ☐ CHANGE PLANS ☐  
 PULL OR ALTER CASING ☐ MULTIPLE COMPL ☐

OTHER: ☐

**SUBSEQUENT REPORT OF:**

REMEDIAL WORK ☒ ALTERING CASING ☐  
 COMMENCE DRILLING OPNS. ☐ P AND A ☐  
 CASING/CEMENT JOB ☐

OTHER: ☐

13. Describe proposed or completed operations. (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work). SEE RULE 1103. For Multiple Completions: Attach wellbore diagram of proposed completion or recompletion.

Remedial work that has not been posted to OCD:

11-12-05: Rigged up wireline; TIH log top cement @ 1646'. TIH to squeeze @ 1590'. TIH w/RBP & plug set RBP @ 1820', tested to 500 psi. Set packer @ 1485'. Pumped 160 bbls did not break circulation. Unset packer, TIH to top of RBP, dropped 2 sx sand. Pulled up hole to 1228'.

11-13-05: Rigged up BJ cementers. Pumped 400 sx 35/65 poz C cement & 300 sx CI C 2% CaCl cement @ 4 bbl/min, 700 psi.

11-14-05: Rigged up Precision wireline TIH tag top cement @ 1452' log top cement @ 300'. Shot squeeze holes @ 270', closed BOP pumped down casing 340 bbls fluid. SI.

11-15-05: TIH testing tubing. Ran in hole w/packer @ 92', BOP, waiting on cementers.

11-22-05: Rigged up, BJ services pumped 300 sx BJ lite 3.06 ft/cu sks and 200 sx CI C 2% CaCl w/CaCl added 4%. Pumped 4 bbls displacement. Did not circulate cmt. TIH tagged top cement inside casing 220', waiting on temp survey.

11-23-05: TIH tag top cmt inside 5 1/2" 220', drilled out of cement @ 280. TIH tag top cement @ 1450', drilled out to 1630'.

12-5-05: Bond log showed cement @ 280', pumped additional 500 sx cement. Cement to 140'.

2-1-06: Attempted MIT - did not hold. Rigged up BJ, cemented w/300 sx CI C w/5% gilsonite, 1/4# flocele 2% CaCl. WOC. 2-2-06: Drilled to 215' soft cement.

2-3-06: Drilled hard cement to 282'. TIH w/packer test casing 249-280, pump into @ 2 bbls/min 500 psi. BJ pumped 150 sx thix-o-tropic & 200 sx CI C 2# w/5\* gilsonite & 5# celoflack, 4% CaCl. WOC. 2-6-06: Drilled good cmt to 275'. 2-7-06: Drilled out cement, RIH w/AD-I packer to 1800', tested casing to 570# for 30 minutes-held.

I hereby certify that the information above is true and complete to the best of my knowledge and belief. I further certify that any pit or below grade tank has been/will be constructed or closed according to NMOCD guidelines X, a general permit ☐ or an (attached) alternative OCD-approved plan ☐.

SIGNATURE Ann E. Ritchie TITLE: Regulatory Agent DATE: 4-17-08

Type or print name Ann E. Ritchie E-mail address: ann.ritchie@wtor.net Telephone No. 432 684-6381

**For State Use Only**

APPROVED BY: \_\_\_\_\_ TITLE \_\_\_\_\_ DATE \_\_\_\_\_

Conditions of Approval (if any):



Submit 3 Copies To Appropriate District Office  
District I  
1625 N. French Dr. Hobbs, NM 88240  
District II  
1301 W. Grand Ave., Artesia, NM 88210  
District III  
1000 Rio Brazos Rd., Aztec, NM 87410  
District IV  
1220 & St. Francis Dr., Santa Fe, NM 87505

State of New Mexico  
Energy, Minerals and Natural Resources

Form C-103  
May 27, 2004

OIL CONSERVATION DIVISION  
1220 South St. Francis Dr.  
Santa Fe, NM 87505

|  |  |   |
|--|--|---|
| SUNDRY NOTICES AND REPORTS ON WELLS<br>(DO NOT USE THIS FORM FOR PROPOSALS TO DRILL OR TO DEEPEN OR PLUG BACK TO A DIFFERENT RESERVOIR. USE "APPLICATION FOR PERMIT" (FORM C-101) FOR SUCH PROPOSALS.) |  | WELL API NO.<br>30 015 02541  |
| 1. Type of Well: Oil Well <input checked="" type="checkbox"/> Gas Well <input type="checkbox"/> Other <input type="checkbox"/>   |  | 5. Indicate Type of Lease<br>STATE <input type="checkbox"/> FEE <input checked="" type="checkbox"/> |
| 2. Name of Operator<br>Melrose Operating Company   |  | 6. State Oil & Gas Lease No.  |
| 3. Address of Operator<br>C/o P.O. Box 953, Midland, TX 79702  |  | 7. Lease Name or Unit Agreement Name<br>Artesia Unit  |
| 4. Well Location<br>Unit Letter F 2310' feet from the North line and 2267' feet from the West line<br>Section 3 Township 13S Range 28E NMPM Eddy County  |  | 8. Well Number 46   |
| 11. Elevation (Show whether DI~ RKB, RT GR, etc)<br>3602' GR   |  | 9. OGRID Number<br>184860   |
| Pit or Below-grade Tank Application <input type="checkbox"/> or Closure <input type="checkbox"/>   |  |   |
| Pit type _____ Depth to Groundwater _____ Distance from nearest fresh water well _____ Distance from nearest surface water _____   |  |   |
| Pit Liner Thickness: _____ Inil Below-Grade Tank: Volume _____ bbls; Construction Material _____   |  |   |

12. Check Appropriate Box to Indicate Nature of Notice, Report or Other Data

NOTICE OF INTENTION TO:

PERFORM REMEDIAL WORK ☐ PLUG AND ABANDON ☐  
TEMPORARILY ABANDON ☐ CHANGE PLANS ☐  
PULL OR ALTER CASING ☐ MULTIPLE COMPL ☐

OTHER: ☐

SUBSEQUENT REPORT OF:

REMEDIAL WORK ☐ ALTERING CASING ☐  
COMMENCE DRILLING OPNS. ☐ P AND A ☐  
CASING/CEMENT JOB ☐

OTHER: Squeeze upper perforations ☒

13. Describe proposed or completed operations. (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work). SEE RULE 1103. For Multiple Completions: Attach wellbore diagram of proposed completion or recompletion.

NMOCD R-11720-A.

3-26-08: MIRU, release packer and TOH w/plastic coated tubing.

3-27-08: Set RBP @ 1940' & test to 1000 psi-held. Dumped 2 sx sand on RBP. TOH to 1746', set packer. Pumped down tubing 2 1/2 bbls per minute @ 1000 psi. Released packer & POH, RIH w/retainer to 1746' & set.

3-28-08: Halliburton pumped 100 sx CI C w/3% CaCl @ 14.8#, 2 bbl wtr spacer pumped 500 gals flowchek; pumped 200 sx CI C cement w/3% CaCl at 14.8#/gal. Pressured up to 2300 psi, fell back to 1000 psi. Stig out of tool, reverse out, recovered 1/2 bbl cement to pit. TOH w/tubing.

3-31-08: GIH w/4 3/4" bit mill; tag cement @ 1734', drill on retainer @ 1746'. Circulated hole.

4-1-08: Tag top cement 1746', pick up swivel, drilling on retainer to 1866'. Closed BOP pressured up on csg to 500#-pressure held 24 hrs.

4-2-08: Latched onto RBP, POH. Ran plastic coated 2 3/8" tubing w/ AD-1 packer to 1875'. Top perforation @ 1946'.

I hereby certify that the information above is true and complete to the best of my knowledge and belief. I further certify that any pit or below-grade tank has been/will be constructed or closed according to NMOCD guidelines ☒ a general permit ☐ or an (attached) alternative OCD-approved plan ☐

SIGNATURE Ann E. Ritchie TITLE Regulatory Agent DATE 4-14-08

Type or print name Ann E. Ritchie E-mail address: ann.ritchie@wtor.net Telephone No. 432 684-6381  
For State Use Only

APPROVED BY: \_\_\_\_\_ TITLE \_\_\_\_\_ DATE \_\_\_\_\_  
Conditions of Approval (if any): \_\_\_\_\_

Submit 3 Copies To Appropriate District Office  
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1301 W. Grand Ave., Artesia, NM 88210  
District III  
1000 Rio Brazos Rd., Aztec, NM 87410  
District IV  
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico  
Energy, Minerals and Natural Resources

Form C-103  
May 27, 2004

OIL CONSERVATION DIVISION  
1220 South St. Francis Dr.  
Santa Fe, NM 87505

|  |
|--|
| WELL API NO.<br>30 015 02541                                   |
| 5. Indicate Type of Lease<br>STATE FEE X                       |
| 6. State Oil & Gas Lease No.                                   |
| 7. Lease Name or Unit Agreement Name<br>Artesia Unit           |
| 8. Well Number: 46   |
| 9. OGRID Number: 184860  |
| 10. Pool name or Wildcat<br>Artesia: Queen-Grayburg-San Andres |

|  |  |
|--|--|
| SUNDRY NOTICES AND REPORTS ON WELLS<br>(DO NOT USE THIS FORM FOR PROPOSALS TO DRILL OR TO DEEPEN OR PLUG BACK TO A DIFFERENT RESERVOIR. USE "APPLICATION FOR PERMIT" (FORM C-101) FOR SUCH PROPOSALS.) |  |
| 1. Type of Well: Oil Well Gas Well <input type="checkbox"/> Other X  |  |
| 2. Name of Operator<br>Melrose Operating Company   |  |
| 3. Address of Operator<br>c/o Box 953, Midland, TX 79702   |  |
| 4. Well Location<br>Unit Letter F : feet from the North line and feet from the West line<br>Section 3 Township 18S Range 28E NMPM Eddy County  |  |
| 11. Elevation (Show whether DR, RKB, RT, GR, etc.)   |  |
| Pit or Below-grade Tank Application <input type="checkbox"/> or Closure <input type="checkbox"/>   |  |
| Pit type Depth to Groundwater Distance from nearest fresh water well Distance from nearest surface water   |  |
| Pit Liner Thickness: mil Below-Grade Tank: Volume bbls Construction Material   |  |

12. Check Appropriate Box to Indicate Nature of Notice, Report or Other Data

NOTICE OF INTENTION TO:

PERFORM REMEDIAL WORK ☐ PLUG AND ABANDON ☐  
TEMPORARILY ABANDON CHANGE PLANS ☐  
PULL OR ALTER CASING MULTIPLE COMPL ☐

OTHER: ☐

SUBSEQUENT REPORT OF:

REMEDIAL WORK X ALTERING CASING  
COMMENCE DRILLING OPNS. ☐ P AND A ☐  
CASING/CEMENT JOB ☐

OTHER: ☐

13. Describe proposed or completed operations. (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work). SEE RULE 1103. For Multiple Completions: Attach wellbore diagram of proposed completion or recompletion.

4-30-08: Rigged up. Flowed well back. Release Baker AD-1 packer. TOH RIH & set RBP @ 1902'.  
5-1-08: TIH w/packer & test RBP. Dumped 2 sx sand. TIH to 1862', Halliburton pumped 25 sx MicroMatrix cement. Spot across perfs @ 1840-1850'.  
300' cement in casing. Pulled up to 1400'. Closed BOP. Pressured up casing to 2000 psi bled to 1900 psi & held after 30 minutes. Will shut in till 5/5/08.  
5-5-08: TIH w/bit, tagged cement @ 1680', drilled out to 1875'. Closed BOP & pressure test to 500 psi, would not hold.  
5-6-08: TIH wash sand off RBP, pick up overshot for RBP. Milling.  
5-7-08: Milled across perfs from 1900-1800'. TOH w/string mill.  
5-9-08: TIH w/5 1/2" casing patch & setting tools. Coat patch running in. Patch 1825-65', stroke through patch w/setting tool. TOH, shut-in.  
5-10-08: TIH w/AD-1 coated packer & 2 3/8" plastic coated tubing & set @ 1875'. Load & tested casing to 500 psi for 30 minutes. Held. Rigged down and cleaned location.  
Work performed to comply with WFX.

I hereby certify that the information above is true and complete to the best of my knowledge and belief. I further certify that any pit or below grade tank has been/will be constructed or closed according to NMOC guidelines X, a general permit ☐ or an (attached) alternative OCD-approved plan ☐.

SIGNATURE Ann E. Ritchie TITLE: Regulatory Agent DATE: 6-2-08

Type or print name Ann E. Ritchie E-mail address: ann.ritchie@wtor.net Telephone No. 432 684-6381/214 762 0830  
For State Use Only

APPROVED BY: TITLE DATE  
Conditions of Approval (if any):



Submit 3 Copies To Appropriate District  
Office  
District I  
1625 N. French Dr., Hobbs, NM 88240  
District II  
1301 W. Grand Ave., Artesia, NM 88210  
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1220 S. St. Francis Dr., Santa Fe, NM  
87505

State of New Mexico  
Energy, Minerals and Natural Resources

OIL CONSERVATION DIVISION  
1220 South St. Francis Dr.  
Santa Fe, NM 87505

Form C-103  
Revised June 10, 2003

|   |
|---|
| WELL API NO.<br>30 015 02541  |
| 5. Indicate Type of Lease<br>STATE <input checked="" type="checkbox"/> FEE <input type="checkbox"/> |
| 6. State Oil & Gas Lease No.  |
| 7. Lease Name or Unit Agreement Name<br>Artesia Unit  |
| 8. Well Number<br>Well # 46   |
| 9. OGRID Number<br>184860   |
| 10. Pool name or Wildcat<br>Artesia, Queen, Gray, SA  |

|  |  |
|--|--|
| <b>SUNDRY NOTICES AND REPORTS ON WELLS</b><br>(DO NOT USE THIS FORM FOR PROPOSALS TO DRILL OR TO DEEPEN OR PLUG BACK TO A DIFFERENT RESERVOIR. USE "APPLICATION FOR PERMIT" (FORM C-101) FOR SUCH PROPOSALS.)        |  |
| 1. Type of Well:<br>Oil Well <input checked="" type="checkbox"/> Gas Well <input type="checkbox"/> Other (Injection) <input type="checkbox"/>  |  |
| 2. Name of Operator<br>Melrose Operating Company   |  |
| 3. Address of Operator<br>c/o P.O. Box 953, Midland, TX 79702  |  |
| 4. Well Location<br>Unit Letter <u>F</u> <u>2310</u> feet from the <u>North</u> line and <u>2267</u> feet from the <u>West</u> line<br>Section <u>3</u> Township <u>18S</u> Range <u>28E</u> NMPM <u>Eddy</u> County |  |
| 11. Elevation (Show whether DR, RKB, RT, GR, etc.)<br>3662' GR   |  |

RECEIVED

DEC 15 2005

OCU-ARTESIA

RECEIVED

JAN 23 2006

OCU-ARTESIA

12. Check Appropriate Box to Indicate Nature of Notice, Report or Other Data

NOTICE OF INTENTION TO:

- PERFORM REMEDIAL WORK ☐ PLUG AND ABANDON ☐  
TEMPORARILY ABANDON ☐ CHANGE PLANS ☐  
PULL OR ALTER CASING ☐ MULTIPLE COMPLETION ☐  
OTHER: ☐

SUBSEQUENT REPORT OF:

- REMEDIAL WORK ☒ ALTERING CASING ☐  
COMMENCE DRILLING OPNS. ☐ PLUG AND ABANDONMENT ☐  
CASING TEST AND CEMENT JOB ☐  
OTHER: Cement Bond Log ☒

13. Describe proposed or completed operations. (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work). SEE RULE 1103. For Multiple Completions: Attach wellbore diagram of proposed completion or recompletion.

11-14-05: Rigged up Precision Energy Services, ran CBL, CCL log as per Artesia Unit Waterflood Order No. R-11720-A. Log attached. Estimated cement top @ 284'.

I hereby certify that the information above is true and complete to the best of my knowledge and belief.

SIGNATURE [Signature] TITLE Regulatory Agent DATE 12-05-05

Type or print name Ann E. Ritchie E-mail address: ann.ritchie@wtor.net Telephone No. 432 684-6381

(This space for State use)

APPROVED BY [Signature] TITLE [Signature] DATE [Signature]  
Conditions of approval, if any:

Accepted for record - NMOCB