

**BW - 9**

**SUBSIDENCE  
MONITORING  
REPORTS**

**DATE:**

## Chavez, Carl J, EMNRD

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**From:** Chavez, Carl J, EMNRD  
**Sent:** Monday, December 15, 2008 8:43 AM  
**To:** 'Patterson, Bob'  
**Cc:** Price, Wayne, EMNRD  
**Subject:** RE: Key Energy Services, L.L.C. Status of Plug & Abandonment of BWs 9 API# 30-025-25525 (Lea County) & 19 API# 30-015-21842 (Eddy County)

Bob:

Re: PA of BW-9

Just keep us apprised on the date and time for PA of BW-9. The PA of the well has been on the OCD corrective action list for about 6 months now. Thank you.

Carl J. Chavez, CHMM  
New Mexico Energy, Minerals & Natural Resources Dept.  
Oil Conservation Division, Environmental Bureau  
1220 South St. Francis Dr., Santa Fe, New Mexico 87505  
Office: (505) 476-3491  
Fax: (505) 476-3462  
E-mail: [CarlJ.Chavez@state.nm.us](mailto:CarlJ.Chavez@state.nm.us)  
Website: <http://www.emnrd.state.nm.us/ocd/index.htm>  
(Pollution Prevention Guidance is under "Publications")

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**From:** Patterson, Bob [<mailto:bpatterson@keyenergy.com>]  
**Sent:** Saturday, December 13, 2008 11:44 AM  
**To:** Chavez, Carl J, EMNRD; Molleur, Loren  
**Cc:** Perry, Mark; Price, Wayne, EMNRD; Guye, Gerry, EMNRD; Hill, Larry, EMNRD  
**Subject:** RE: Key Energy Services, L.L.C. Status of Plug & Abandonment of BWs 9 API# 30-025-25525 (Lea County) & 19 API# 30-015-21842 (Eddy County)

Carl,  
I have BW-9 set up with Key's plugging department. They are currently working on a four well plugging package and will plug the BW-9 as soon as they complete that package, but cannot guarantee it will be before December 31. I have also contracted John West Engineering to provide a proposal for the NMOCD on subsidence monitoring for the BW-9 and BW-19.

Bob Patterson | Key Energy Services, LLC | Area Manager, Trucking Division | O: 575.394.2586 | C: 575.631.7597

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

**From:** Chavez, Carl J, EMNRD [<mailto:CarlJ.Chavez@state.nm.us>]  
**Sent:** Thursday, December 11, 2008 9:43 AM  
**To:** Molleur, Loren  
**Cc:** Patterson, Bob; Perry, Mark; Price, Wayne, EMNRD; Guye, Gerry, EMNRD; Hill, Larry, EMNRD  
**Subject:** Key Energy Services, L.L.C. Status of Plug & Abandonment of BWs 9 API# 30-025-25525 (Lea County) & 19 API# 30-015-21842 (Eddy County)

Mr. Molleur:

Re: BW-9 and BW-19 Final C-103 Plug & Abandonment Status

Owner/Operator	Well Name	BW	API#	Location	Co.	PA Statu
KEY ENERGY SERVICES, LLC	SIMS-MCCASLAND BRINE -EUNICE (GP-Sims #2)	BW-9	30-025-25525	(UL-A)32-21S-37E	Lea	PA: 11-308
EY ENERGY SERVICES, LLC.	KEY TRUCKERS BRINE -CARLSBAD	BW-19	30-015-21842	(UL-H)36-22S-26E	Eddy	Awaiting final C-103

Please find below the status of plug and abandonment (PA) on the above listed wells.

**BW-9:** OCD sent an e-mail dated 10/7/2008 w/ signed C-103 dated 10/7/2008 with conditions for approval of the PA to Mark Philliber of Key. On 12/4/2008, during our most recent telephone conference call, the OCD was informed that a sonar test could not be run. Under the OCD C-103 PA conditions of approval, "if a sonar test cannot be run, the OCD requires a closure plan for the facility including ground water (if applicable), seismic and subsidence monitoring for 30 years; time-frame for equipment decommissioning/site restoration; and financial assurance to ensure that the above is completed." In addition, "at least 290 sacks of Class "C" Cement from the CIBP setting depth of 1154 to surface is required." Based on the recent information provided by Key during the telephone conference call that the well could not be sonar tested, the OCD is currently waiting for the well to be PA'd before December 31, 2008 with submittal of a final C-103 addressing the OCD conditions of approval. The final C-103 is currently unapproved by the OCD until the conditions of approval are satisfied.

**BW-19:** According to the telephone conference call of 12/4/2008, the OCD was informed that the well had been PA'd and that the final C-103 dated 11/3/2008 was posted on the OCD website. The OCD was also informed that a sonar test could not be run. Under the OCD C-103 PA conditions of approval, "if a sonar cannot be run, then OCD will require seismic and subsidence monitoring and will require additional financial assurance." Based on the recent information provided by Key during the telephone conference call that the well could not be sonar tested, the OCD is currently waiting for Key to address the OCD final C-103 conditions of approval. The final C-103 is currently unapproved by the OCD until the conditions of approval are satisfied.

My Supervisor, Mr. Wayne Price will be in the office next week. Please contact me next week to discuss any questions you may have on obtaining a final OCD signed and approved C-103 PA for the above listed wells. I have forwarded some guidance on Monument Well construction to Mr. Bob Patterson for subsidence monitoring. I have requested from other brine well operators that they seek out information on seismic monitors and to propose a seismic monitoring program to the OCD.

Thank you.

Carl J. Chavez, CHMM  
New Mexico Energy, Minerals & Natural Resources Dept.  
Oil Conservation Division, Environmental Bureau  
1220 South St. Francis Dr., Santa Fe, New Mexico 87505  
Office: (505) 476-3491  
Fax: (505) 476-3462  
E-mail: [CarlJ.Chavez@state.nm.us](mailto:CarlJ.Chavez@state.nm.us)  
Website: <http://www.emnrd.state.nm.us/ocd/index.htm>  
(Pollution Prevention Guidance is under "Publications")

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This inbound email has been scanned by the MessageLabs Email Security System.

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## Chavez, Carl J, EMNRD

**From:** Chavez, Carl J, EMNRD  
**Sent:** Thursday, December 11, 2008 9:43 AM  
**To:** 'Molleur, Loren'  
**Cc:** 'Patterson, Bob'; 'Perry, Mark'; Price, Wayne, EMNRD; Guye, Gerry, EMNRD; Hill, Larry, EMNRD  
**Subject:** Key Energy Services, L.L.C. Status of Plug & Abandonment of BWs 9 API# 30-025-25525 (Lea County) & 19 API# 30-015-21842 (Eddy County)

Mr. Molleur:

Re: BW-9 and BW-19 Final C-103 Plug & Abandonment Status

Owner/Operator	Well Name	BW	API#	Location	Co.	PA Statu
KEY ENERGY SERVICES, LLC	SIMS-MCCASLAND BRINE -EUNICE (GP-Sims #2)	BW-9	30-025-25525	(UL-A)32-21S-37E	Lea	PA: 11-308
EY ENERGY SERVICES, LLC.	KEY TRUCKERS BRINE -CARLSBAD	BW-19	30-015-21842	(UL-H)36-22S-26E	Eddy	Awaiting final C-1C

Please find below the status of plug and abandonment (PA) on the above listed wells.

**BW-9:** OCD sent an e-mail dated 10/7/2008 w/ signed C-103 dated 10/7/2008 with conditions for approval of the PA to Mark Philliber of Key. On 12/4/2008, during our most recent telephone conference call, the OCD was informed that a sonar test could not be run. Under the OCD C-103 PA conditions of approval, "if a sonar test cannot be run, the OCD requires a closure plan for the facility including ground water (if applicable), seismic and subsidence monitoring for 30 years; time-frame for equipment decommissioning/site restoration; and financial assurance to ensure that the above is completed." In addition, "at least 290 sacks of Class "C" Cement from the CIBP setting depth of 1154 to surface is required." Based on the recent information provided by Key during the telephone conference call that the well could not be sonar tested, the OCD is currently waiting for the well to be PA'd before December 31, 2008 with submittal of a final C-103 addressing the OCD conditions of approval. The final C-103 is currently unapproved by the OCD until the conditions of approval are satisfied.

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My Supervisor, Mr. Wayne Price will be in the office next week. Please contact me next week to discuss any questions you may have on obtaining a final OCD signed and approved C-103 PA for the above listed wells. I have forwarded some guidance on Monument Well construction to Mr. Bob Patterson for subsidence monitoring. I have requested from other brine well operators that they seek out information on seismic monitors and to propose a seismic monitoring program to the OCD.

Thank you.

Carl J. Chavez, CHMM  
New Mexico Energy, Minerals & Natural Resources Dept.  
Oil Conservation Division, Environmental Bureau  
1220 South St. Francis Dr., Santa Fe, New Mexico 87505  
Office: (505) 476-3491

Fax: (505) 476-3462

E-mail: [CarlJ.Chavez@state.nm.us](mailto:CarlJ.Chavez@state.nm.us)

Website: <http://www.emnrd.state.nm.us/ocd/index.htm>

(Pollution Prevention Guidance is under "Publications")

**Chavez, Carl J, EMNRD**

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**From:** Chavez, Carl J, EMNRD  
**Sent:** Tuesday, October 07, 2008 3:57 PM  
**To:** 'Philliber, Mark'; Price, Wayne, EMNRD  
**Cc:** Shelton, Jack; Hill, Larry, EMNRD  
**Subject:** RE: Key Energy Brine well PA G.P. Sims No. 2 Brine Well (BW-9)  
**Attachments:** C-103 PA Final 10-7-2008.tif

Mark, Jack, et. al:

Please find attached the OCD's signed C-103 with conditions.

Please contact me if you have questions. Thank you.

Carl J. Chavez, CHMM  
New Mexico Energy, Minerals & Natural Resources Dept.  
Oil Conservation Division, Environmental Bureau  
1220 South St. Francis Dr., Santa Fe, New Mexico 87505  
Office: (505) 476-3491  
Fax: (505) 476-3462  
E-mail: [CarlJ.Chavez@state.nm.us](mailto:CarlJ.Chavez@state.nm.us)  
Website: <http://www.emnrd.state.nm.us/ocd/index.htm>  
(Pollution Prevention Guidance is under "Publications")

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**From:** Philliber, Mark [<mailto:mphilliber@keyenergy.com>]  
**Sent:** Monday, October 06, 2008 8:59 AM  
**To:** Chavez, Carl J, EMNRD; Price, Wayne, EMNRD  
**Cc:** Shelton, Jack  
**Subject:** FW: Key Energy Brine well PA

Carl,

In June, we had Sonarwire out here to run a sonar survey on the Sims well but encountered a tight spot in the casing at 1100'. We worked on the well for about a week and milled on the tight spot for several days but were unable to get past this point into the cavern so we were not able to run the survey.

Thank you,

**Mark Philliber** | [Key Energy Services](#) | **SWD Compliance Coordinator** | **Corporate Environmental**

6 Desta Drive, Suite 4400, Midland, TX 79705 | o: 432.571.7203 | c: 432.770.5064 | [e:mphilliber@keyenergy.com](mailto:e:mphilliber@keyenergy.com)

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

**From:** Chavez, Carl J, EMNRD [<mailto:CarlJ.Chavez@state.nm.us>]  
**Sent:** Monday, October 06, 2008 9:05 AM  
**To:** Shelton, Jack; Price, Wayne, EMNRD  
**Cc:** Philliber, Mark; Hill, Larry, EMNRD

10/7/2008

**Subject:** RE: Key Energy Brine well PA

Jack:

Once the OCD- Environmental Bureau (EB) receives the signed C-103, Wayne Price will sign it and approve it with conditions (see below). I will scan the signed C-103 and send it back to you upon receipt.

**C-103 G.P. Sims No. 2 (BW-9)**

**API# 30-025-25525**

**Conditions of Approval**

- 1) A sonar test of the salt cavern is required in advance of plugging and abandoning the well.
- 2) Cement must be circulated back to surface under adequate pressure.
- 3) At least 290 sks of Class "C" Cement from CIBP Setting Depth of 1154' to surface is required.
- 4) Install a plug and abandonment marker.
- 5) Final C-103 Form shall be submitted within 30 days of plug and abandonment with final construction details.

Please contact me if you have questions. Thank you.

Carl J. Chavez, CHMM  
New Mexico Energy, Minerals & Natural Resources Dept.  
Oil Conservation Division, Environmental Bureau  
1220 South St. Francis Dr., Santa Fe, New Mexico 87505  
Office: (505) 476-3491  
Fax: (505) 476-3462  
E-mail: [CarlJ.Chavez@state.nm.us](mailto:CarlJ.Chavez@state.nm.us)  
Website: <http://www.emnrd.state.nm.us/ocd/index.htm>  
(Pollution Prevention Guidance is under "Publications")

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**From:** Shelton, Jack [mailto:[jshelton@keyenergy.com](mailto:jshelton@keyenergy.com)]  
**Sent:** Monday, October 06, 2008 7:56 AM  
**To:** Chavez, Carl J, EMNRD; Price, Wayne, EMNRD  
**Cc:** Philliber, Mark; Hill, Larry, EMNRD  
**Subject:** RE: Key Energy Brine well PA

Mr. Chavez, I sent the signed copies Fed Ex on Friday to you, should be delivered today.

If I need to send to OCD in Hobbs I will but I talked to Buddy Hill with OCD and he told me to send them to you.

Thanks Jack

Jack Shelton | Key Energy Services | PA Manager | Po Box 1068 Andrews, Tx 79714 | O: 432.523.5155 | F: 432.523.6230 | C: 432.638.3756

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

10/7/2008

**From:** Chavez, Carl J, EMNRD [mailto:CarlJ.Chavez@state.nm.us]  
**Sent:** Friday, October 03, 2008 5:13 PM  
**To:** Price, Wayne, EMNRD  
**Cc:** Shelton, Jack; Philliber, Mark; Hill, Larry, EMNRD  
**Subject:** RE: Key Energy Brine well PA

Wayne:

The C-103 was not signed the Key Agent. The OCD needs a signed C-103. Thanks.

Carl J. Chavez, CHMM  
New Mexico Energy, Minerals & Natural Resources Dept.  
Oil Conservation Division, Environmental Bureau  
1220 South St. Francis Dr., Santa Fe, New Mexico 87505  
Office: (505) 476-3491  
Fax: (505) 476-3462  
E-mail: [CarlJ.Chavez@state.nm.us](mailto:CarlJ.Chavez@state.nm.us)  
Website: <http://www.emnrd.state.nm.us/oqd/index.htm>  
(Pollution Prevention Guidance is under "Publications")

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**From:** Price, Wayne, EMNRD  
**Sent:** Thursday, October 02, 2008 9:51 AM  
**To:** Chavez, Carl J, EMNRD  
**Subject:** FW: Key Energy Brine well PA

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**From:** Shelton, Jack [mailto:jshelton@keyenergy.com]  
**Sent:** Tuesday, September 30, 2008 1:01 PM  
**To:** Price, Wayne, EMNRD  
**Cc:** Philliber, Mark  
**Subject:** Key Energy Brine well PA

Hello Mr. Price, I have completed the C-103 and will mail hard copies to you for approval.

G.P. Sims Well # 2  
Brine well  
30-025-25525

Please confirm that I've sent this to the right office.

Thank you,

Jack Shelton | Key Energy Services | PA Manager | Po Box 1068 Andrews, Tx 79714 | O: 432.523.5155 | F: 432.523.6230 | C: 432.638.3756

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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. 30-025-25525
5. Indicate Type of Lease STATE <input type="checkbox"/> FEE <input checked="" type="checkbox"/>
6. State Oil & Gas Lease No.
7. Lease Name or Unit Agreement Name G.P. Sims
8. Well Number # 2
9. OGRID Number 19797
10. Pool name or Wildcat Saldo

**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  Gas Well  Other  Brine well

2. Name of Operator  
Key Energy Services

3. Address of Operator  
P.O Box 99 Eunice NM

4. Well Location  
 Unit Letter A 420 : feet from the N line and 210 feet from the E line  
 Section 32 Township 21 Range 37 NMPM County Lea

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

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  PLUG AND ABANDON   
 TEMPORARILY ABANDON  CHANGE PLANS   
 PULL OR ALTER CASING  MULTIPLE COMPL

**SUBSEQUENT REPORT OF:**  
 REMEDIAL WORK  ALTERING CASING   
 COMMENCE DRILLING OPNS.  P AND A   
 CASING/CEMENT JOB

OTHER: Casing test

OTHER: casing test

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.

12/10/2007--- RUPU, Install BOP 2 7/8 6" 900 series, with 7" larkin Flange, Tally in hole with bit and scraper to 1020' Stack out at 1020' Pull tbg and SION.

12/11/07----- RIH with 6 1/4 bit tag up at 1020' Pull out of hole and RIH with impression block, Possible Csg problems Rig up Reverse unit.

12/12/07-----POH with Bit and RIH with mill and mill to 1148' SION

12/13/07-----POH with mill and tbg, RIH with Packer and test csg.

12/14/2007--- Test csg with reverse unit, casing would not hold below 30' from surface.

Shut in and wait for orders from Midland Office.

RECEIVED

JAN 10 2008

HOBBS OCD

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 Sam Bliss TITLE District Manager DATE 1-2-08

Type or print name  
**For State Use Only**

E-mail address:

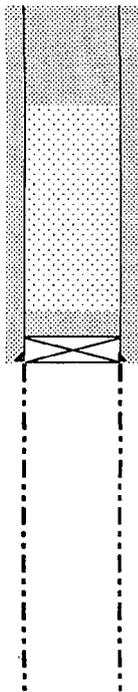
Telephone No.

APPROVED BY: Chris Williams TITLE OC DISTRICT SUPERVISOR/GENERAL MANAGER DATE JAN 17 2008

Conditions of Approval (if any): Must TR, PA or return to production by 4/15/08. Cll



Key Energy Services  
September 29, 2008  
Proposed Wellbore



RKB  
DF  
GL  
95 sks 500'-surface

8 3/4" hole.

7", 23#, J-55 Casing.  
Set @ 1,204', 300 sx cmt.  
Circ. TOC at surface.  
CIBP @ 1,154'  
Cap w/ 25 sks cmt

7 7/8" open hole  
1,204'-2,434'.

TD: 2,434'

Lease & Well No.: **G.P. Sims # 2**

Well Category: Status :  
Area: New Mexico  
Subarea: Eunice Field : G.P. Sims  
API Number: 30-025-25525  
Legal Description: "A" 420' FNL & 210' FEL Sec.32, T 21S, R 37E  
Lea County, New Mexico  
Spudded: 05/02/1977  
Completed: 05/05/1977

Well History:

- 5/77 Spud well on 5-2-77. TD 8 3/4" hole @ 1,204'.  
Ran 7" 23# K-55 casing to 1,204'. Cmt'd w/ 300 sks  
Circulated 15 sks to pit.  
Drill 7 7/8" hole to TD 2,434'.
- 12/81 Pulled tubing out of well. Found tbg parted @ 1,243'.  
Ran bit and tubing to 1,441', though salt section.
- 3/07 Pulled 1,229' of tubing from well. Ran 341' tubing in well.

Proposed plugging procedure

- Plug # 1 CIBP @ 1,154'. Circulate well w/  
plugging mud
- Plug # 2 20 sks on top of BP.
- Plug # 3 95 sks 500'-surface.

Cut off wellhead & anchors 3' BGL  
Install dry hole marker.

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  
 MAY 27 3 38 PM '04

WELL API NO. 30-025-25525
5. Indicate Type of Lease STATE <input type="checkbox"/> FEE <input checked="" type="checkbox"/>
6. State Oil & Gas Lease No.
7. Lease Name or Unit Agreement Name G.P. Sims
8. Well Number 2
9. OGRID Number
10. Pool name or Wildcat

**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  Gas Well  Other

2. Name of Operator  
**Key Energy Services**

3. Address of Operator  
**6 Desta Drive Suite 4400 Midland, Texas 79705**

4. Well Location  
 Unit Letter **A** : **420** feet from the **North** line and **210** feet from the **East** line  
 Section **32** Township **21-S** Range **37-E** NMPM **Lea** County

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

Pit or Below-grade Tank Application  or Closure

Pit type **Steel** 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

<p><b>NOTICE OF INTENTION TO:</b></p> <p>PERFORM REMEDIAL WORK <input type="checkbox"/> PLUG AND ABANDON <input checked="" type="checkbox"/></p> <p>TEMPORARILY ABANDON <input type="checkbox"/> CHANGE PLANS <input type="checkbox"/></p> <p>PULL OR ALTER CASING <input type="checkbox"/> MULTIPLE COMPL <input type="checkbox"/></p> <p>OTHER: <input type="checkbox"/></p>	<p><b>SUBSEQUENT REPORT OF:</b></p> <p>REMEDIAL WORK <input type="checkbox"/> ALTERING CASING <input type="checkbox"/></p> <p>COMMENCE DRILLING OPNS <input type="checkbox"/> P AND A <input type="checkbox"/></p> <p>CASING/CEMENT JOB <input type="checkbox"/></p> <p>OTHER: <input type="checkbox"/></p>
--	---

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.

1. Set 7" CIBP @ 1,154'.
2. Circulate well with plugging mud.
3. Spot 20 sks of c cement on top of BP.
4. Spot 95 sks of c cement 500'-surface.
5. Cut off wellhead and anchors 3' BCL. Cap well. Install dry hole marker.

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 [Signature] TITLE Agent DATE 9-30-2008

Type or print name Jack Shelton E-mail address: jshelton@keyenergy.com Telephone No. 432-523-5155

APPROVED BY: [Signature] TITLE EBC DATE 10/07/08  
 Conditions of Approval (if any)

SEE ATTACHED!  
 [Handwritten mark]

**C-103 G.P. Sims No. 2 (BW-9)**  
**API# 30-025-25525**  
**Conditions of Approval**

- 1) A sonar test of the salt cavern is required in advance of plugging and abandoning the brine well. If a Sonar test cannot be run, the OCD requires a closure plan for the facility including ground water (if applicable), seismic and subsidence monitoring for 30 years; time-frame for equipment decommissioning/site restoration; and financial assurance to ensure that the above is completed.
- 2) The cavern shall be filled with brine water (not fresh water) in advance of plugging operations.
- 3) Cement must be pressure grouted from above CIBP to surface.
- 4) At least 290 sks of Class "C" Cement from CIBP Setting Depth of 1154' to surface is required.
- 5) Install a plug and abandonment marker.
- 6) Final C-103 Form shall be submitted within 30 days of plug and abandonment with final construction details.

**Chavez, Carl J, EMNRD**

---

**From:** Chavez, Carl J, EMNRD  
**Sent:** Friday, November 14, 2008 4:38 PM  
**To:** 'ziatransports@gmail.com'; 'jrmillett@gmail.com'; 'rharrisnm@aim.com'; 'gandy2@leaco.net'; 'seay04@leaco.net'; 'iwcarlsbad@plateautel.net'; 'Patterson, Bob'; 'Dimas Herrera'; 'gil@mull.us'; 'David Pyeatt'; 'Wayne E Roberts'; Dennis L Shearer; 'garymschubert@aol.com'; 'dgibson@keyenergy.com'; 'Clay Wilson'; 'Prather, Steve'; Ronnie D Devore  
**Cc:** Hill, Larry, EMNRD; Gum, Tim, EMNRD; Price, Wayne, EMNRD  
**Subject:** Brine Well Moratorium Press Release Today.  
**Attachments:** PR-OCD Brine Well Moratorium.pdf

FYI, please see the attached NM OCD Press Release issued today. Thank you.

Carl J. Chavez, CHMM  
New Mexico Energy, Minerals & Natural Resources Dept.  
Oil Conservation Division, Environmental Bureau  
1220 South St. Francis Dr., Santa Fe, New Mexico 87505  
Office: (505) 476-3491  
Fax: (505) 476-3462  
E-mail: [CarlJ.Chavez@state.nm.us](mailto:CarlJ.Chavez@state.nm.us)  
Website: <http://www.emnrd.state.nm.us/oed/index.htm>  
(Pollution Prevention Guidance is under "Publications")



# New Mexico Energy, Minerals and Natural Resources Department

---

**Bill Richardson**  
Governor

**Joanna Prukop**  
Cabinet Secretary  
**Reese Fullerton**  
Deputy Cabinet Secretary

**Mark Fesmire**  
Division Director  
Oil Conservation Division



November 14, 2008

**NEWS RELEASE**

**Contact:** Jodi McGinnis Porter,  
Public Information Officer 505.476.3226

## **Energy, Minerals and Natural Resources Cabinet Secretary Prukop Orders a Six Month Moratorium on New Brine Wells** *Oil Conservation Division to Investigate Brine Well Collapses and Provide Recommendations*

SANTA FE, NM – Secretary Joanna Prukop today ordered the Oil Conservation Division to place a six month moratorium on any new brine well applications located in geologically sensitive areas. Secretary Prukop's action comes following the second brine well collapse in less than four months in southeastern New Mexico. The Secretary has also directed the Oil Conservation Division to work with the Environmental Protection Agency, other states, technical experts and oil and gas industry representatives to examine the causes of recent collapses, and provide a report with recommendations to the Oil Conservation Commission for a safe path forward. The report should be completed by May 1, 2009.

"I am deeply concerned by these two serious incidents and we are taking action to ensure the safety of our citizens and to protect the environment," stated Secretary Prukop.

Brine wells are an essential part of the oil and gas drilling industry, particularly in the southeastern part of the state. Oil and gas operators use brine water in the drilling process. Brine is saturated salt water which can be more salty than sea water. Brine is created by injecting fresh water into salt formations, allowing the water to absorb the salt and then pumping it out of the well. This method creates an underground cavity.

"The moratorium will provide time to properly evaluate the causes of the recent collapses and to discuss the development of new rules or guidelines to ensure the safety and stability of brine well systems," added Secretary Prukop.

The moratorium will only affect new wells and will not impact existing wells and facilities.

Below are photographs of the two recent collapses:



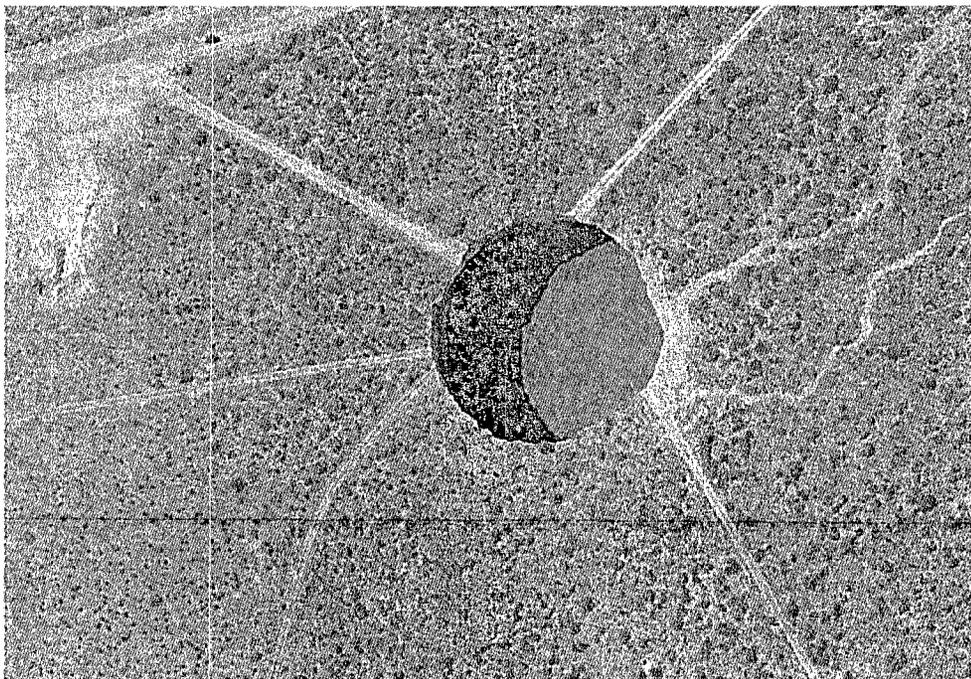
**Loco Hills brine well collapse, morning, November 7, 2008, sinkhole with fresh water pond in foreground.**  
Photo courtesy of Oil Conservation Division



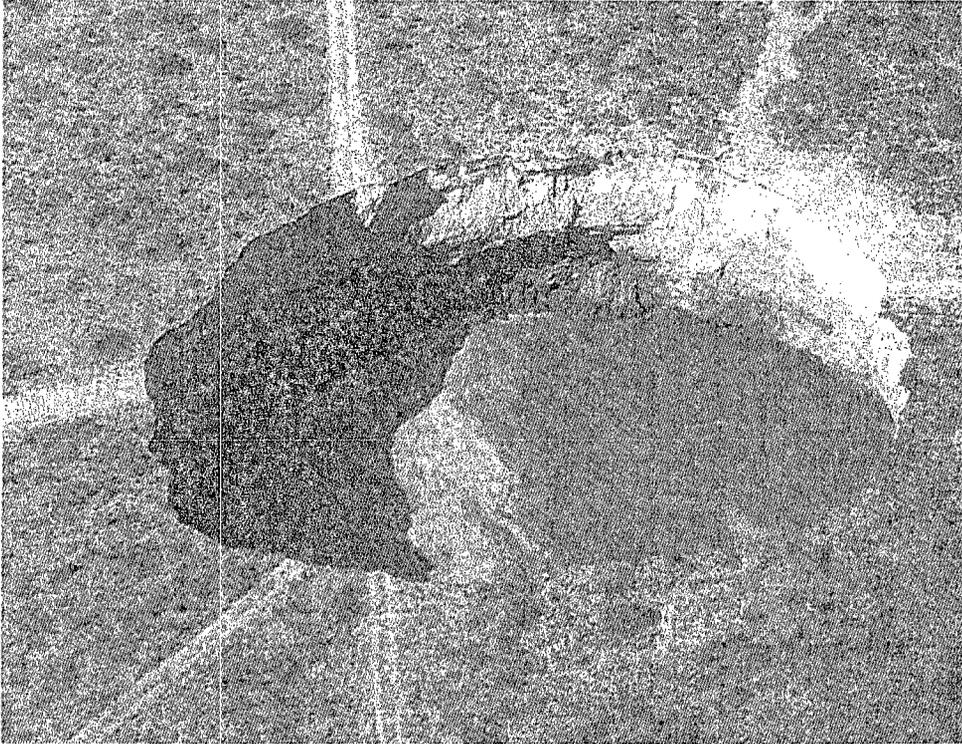
**Loco Hills brine well collapse, morning, November 7, 2008 sinkhole.**  
Photo courtesy of Oil Conservation Division



**Loco Hills brine well collapse**, morning, November 7, 2008 status of fresh water pond.  
Photo courtesy of Oil Conservation Division



**Artesia brine well collapse**, morning, July 20, 2008 at 10:44 am.  
Photo courtesy of National Cave and Karst Research Institute



**Artesia brine well collapse** morning, July 22, 2008  
Photo courtesy of National Cave and Karst Research Institute

#30#

*The Energy, Minerals and Natural Resources Department provides resource protection  
and renewable energy resource development services to the public and other state agencies.*

Oil Conservation Division  
1220 South St. Francis Drive • Santa Fe, New Mexico 87505  
Phone (505) 476-3440 • Fax (505) 476-3462 • [www.emnrd.state.nm.us/OCD](http://www.emnrd.state.nm.us/OCD)



**Chavez, Carl J, EMNRD**

---

**From:** Chavez, Carl J, EMNRD  
**Sent:** Wednesday, November 12, 2008 11:50 AM  
**To:** 'ziatransports@gmail.com'; 'jrmillett@gmail.com'; 'Patterson, Bob'; Philliber, Mark; 'rharrismn@aim.com'; 'gandy2@leaco.net'; 'David Pyeatt'; 'garymschubert@aol.com'  
**Cc:** Price, Wayne, EMNRD; Sanchez, Daniel J., EMNRD; Hill, Larry, EMNRD; Gum, Tim, EMNRD  
**Subject:** Brine Well Sonar Testing Requirement with this season's upcoming MIT Schedule 2009

Gentlemen:

Re: MITs and OCD Sonar Test Requirement

Good morning. It is that time of season when the OCD requests your proposed MIT schedule. The OCD is requiring a sonar test in addition to the MIT this season. The OCD objective is to complete the MITs on or before July 31, 2009. If circumstances require it, the deadline for MITs may be extended to on or before October 31, 2009. Please contact me within 30 days to schedule your MIT and sonar test with date and time that you prefer. Note that brine well operators scheduled for the annual OCD 4-hr. formation MIT may conduct the EPA 5-Yr. 30 minute MIT (+/- 10% to pass) at 300 – 500 psig on casing in lieu of the OCD annual formation MIT this season.

After reviewing the site files and your responses to the recent OCD questionnaire following the Jims Water Service (BW-5) brine well collapse SE of Artesia in Eddy County on 7/16/2008, and the more recent collapse at Loco Hills (BW-21) in Eddy County on 11/3/2008, the OCD is requiring Sonar Testing along with your MIT this season to assess the configuration of your brine well cavern and any threats to public health and safety in your areas. The OCD is focused on the maturity of brine wells and the "Calculation" from the recent questionnaire attempts to assess brine well maturity by comparing the total brine production relative to the depth of the brine well casing shoe. This is one of the reasons why fresh water and brine well production record reporting to the OCD is so critical. Any operators that are planning to plug and abandon their brine wells are required by the OCD to conduct a sonar test of the well in advance of plugging and abandonment. Also, the OCD requires that the brine cavern be filled with brine fluid as this adds structural stability to the cavern and well. This will be required in a C-103 approved with conditions by the OCD. Currently, 3 brine well operators have been required by the OCD to conduct sonar testing within 30 days due to the maturity issue mentioned above. The OCD is continuing to assess its EPA Class III Brine Well program and will keep you updated on improvements and/or changes as needed.

If you feel that your brine well is too new to require sonar testing or a sonar was recently completed at your brine well, please provide the basis for requesting an exemption to this OCD sonar test requirement ASAP for OCD approval.

Please contact me if you have questions. Thanks in advance for your cooperation in this matter.

Carl J. Chavez, CHMM  
New Mexico Energy, Minerals & Natural Resources Dept.  
Oil Conservation Division, Environmental Bureau  
1220 South St. Francis Dr., Santa Fe, New Mexico 87505  
Office: (505) 476-3491  
Fax: (505) 476-3462  
E-mail: [CarlJ.Chavez@state.nm.us](mailto:CarlJ.Chavez@state.nm.us)  
Website: <http://www.emnrd.state.nm.us/ocd/index.htm>  
(Pollution Prevention Guidance is under "Publications")

11/12/2008

# New Mexico Energy, Minerals and Natural Resources Department

**Bill Richardson**  
Governor

Joanna Prukop  
Cabinet Secretary  
Reese Fullerton  
Deputy Cabinet Secretary

Mark Fesmire  
Division Director  
Oil Conservation Division



## OIL CONSERVATION DIVISION BRINE WELL INFORMATION REQUEST

### GENERAL INFORMATION:

Operator Name Key Energy Services Well Name(s) G P Sims  
API Number 30 025 25525 Brine Well Permit # 09  
Date Permit Expires? August 2009

Location: Section 32 Ts 21 Rg 37E  
FNL 420 FSL \_\_\_\_\_ FEL 210 FWL \_\_\_\_\_  
GPS of well(s): Lat: N/A Long: N/A

Have you reviewed and understand all of your permit conditions? Yes  No   
Are you presently deficient of any condition in your permit? Yes  No  Don't know   
Do you operate below grade tanks or pits at the site? Yes  No   
Do all tanks, including fresh water tanks, have secondary containment? Yes  No   
Do you think you have the expertise, knowledge and general understanding of what causes a brine well to collapse? Yes  No   
Do you think OCD should provide guidelines on subsidence and collapse issues? Yes  No

### SITING INFORMATION: Please provide the following information and depict on 7.5 minute (1" = 2000') USGS Quad Map. Limit search to one mile radius.

Is the brine well located within a municipality or city limits? Yes  No

Distance and direction to nearest permanent structure, house, school, etc. if less than one mile:

House 500'

Distance and direction to nearest water well if less than one mile:

T/A Water Well on location

Distance to nearest watercourse(s), floodplain, playa lake(s), or man-made canal(s) or pond(s) if less than one mile:

N/A

Distance and direction to nearest known karst features or mines if less than one mile:

N/A



Distance and direction to nearest producing oil or gas well(s) if less than one mile:

Provide API Number:

West 200' Chevron McCrack #11 S32T21R37E

Distance and direction to nearest tank battery(ies) if less than one mile:

Stevens & Johnson East 1/2 mile Unit D S33T21SR37E

Distance and direction to nearest pipeline(s), including fresh water pipelines if less than one mile:

East 200' City Water Line

Distance and direction to nearest paved or maintained road or railroad if less than one mile:

East 100' Eunice Southeast truck bypass

Depth to ground water found above the Salado (salt section), regardless of yield:

Approx. 90'

Name of aquifer(s):

Alluvium

**WELL CONSTRUCTION:** Please provide the following information and attach a diagram depicting the brine well. Check box if attached:

Copy of a current well diagram: Attached

Copy of formation record with tops: Attached  information not available

Copy of geophysical well logs if available: Attached  If not, well logs within one mile

Depth of the top of the salt below ground surface (feet):

1204'

Depth to the bottom of the salt below ground surface (feet):

2434'

Depth(s) to and thickness(es) of any anhydrite section(s) (located above the salt):

Information not available

Depth of casing(s) shoe below ground surface (feet): 1204'

Is the casing shoe set in the anhydrite or other layer above the salt? Yes  No

Is the casing shoe set into the salt? Yes  No  If yes, how far into the salt? \_\_\_\_\_

Depth of tubing(s):

11690'

Do you suspect that your cavern has partially caved in? Yes  No  Don't know

**OPERATIONS:** Please provide the following information.

Start date of brine well operation:

May 1977

Total volume of fresh water injected into the brine well to date (bbls) and how determined:

From 1977-1981 Unknown

From 1982-2005 Approximately 3,500,000 from Sales & City Meter

Total volume of brine water produced (bbls) to date and how determined: From 1977-1981 estimated 635,545 bbls From 1982 to 2005 (Shutin) 3,449,808 from sales records	Estimated Total Volume 4,085,353
Have you ever lost casing or tubing? If yes, please provide details. Document attached <input checked="" type="checkbox"/>	
Do you maintain a surface pressure on your well during idle times? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> <i>Well is T/A</i>	
Have you noticed large amounts of air built up during cavity pressurization? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	
Have you ever noticed fluids or air/gas bubbling up around the casing during testing or normal operations? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	
<b>MONITORING: Please provide the following information.</b>	
Are you currently monitoring ground water contamination from your brine well or system? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> <i>Visual Only</i>	
Have you ever run a sonar log? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> If yes, please provide last date: <i>Attempted, but could not get tool through casing.</i>	
Provide cavern configuration (dimensions and volume) and method(s) used to estimate: If sonar report please attach <input type="checkbox"/> If other, please specify and provide a sketch of cavern: <input type="checkbox"/> <i>Data not available</i>	
Do you have a subsidence monitoring program in place? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> <i>Visual only</i>	
Do you have any geophysical monitoring devices, such as a seismic device positioned near your brine well? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	
Have you submitted all of your monthly, quarterly, or annual reports to the OCD? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
Have you failed a brine well mechanical integrity test (MIT)? If yes, please attach details and results. Attached <input type="checkbox"/> <i>Yes</i>	
Have you ever had a casing leak? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	
Have you ever had a cavern leak? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Don't know <input type="checkbox"/>	
Have you ever exceeded the cavern fracture pressure? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Don't know <input type="checkbox"/>	
Do you know how to calculate your maximum pressure? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Don't know <input type="checkbox"/>	
Have you routinely looked for cracks or fissures in the ground surface around your brine well? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
Do you have any minor or major cracks, fissures, tank settlement, line breakage from settlement or any minor subsidence. Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	
During operations have you experienced any ground vibration, ground movement, or well movement after opening or shunting valves, pump start-up, shut-down, etc.? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	

Have you ever experienced unexpected pressure gain or loss in the cavern? Yes  No   
If Yes, was there a difference in your normal flow rate? Yes  No

Anytime during the past 5 years, have you experienced a noticeable difference between fresh water volume pumped into the well verses brine water produced? Yes  No

Are you concerned about pulling the tubing due to the fact it may be difficult to re-enter the hole? Yes  No

Are you concerned about running a sonar tool in fear of losing tool because of debris in hole? Yes  No

Have you ever conducted a fly over of your well site? No  Yes  *if yes, please provide photo.*  
 *Photo(s) attached*

**Calculation:** Please divide your estimated total volume of produced brine by 180,000 and multiply by 50. **Example:** If you have produced a total of 18,000,000 bbls of brine in the life time of the well then your calculation would be  $18,000,000/180,000 = 100 \times 50 = 5000$ .

1. Provide the calculated number above here: 1134.82
2. Now provide the depth (ft) from the surface to your casing shoe: 1204'

Is the calculated number found in #1 above greater than #2? Yes  No

Comments or recommendations for OCD:

"I certify under penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information including the possibility of fine and imprisonment."

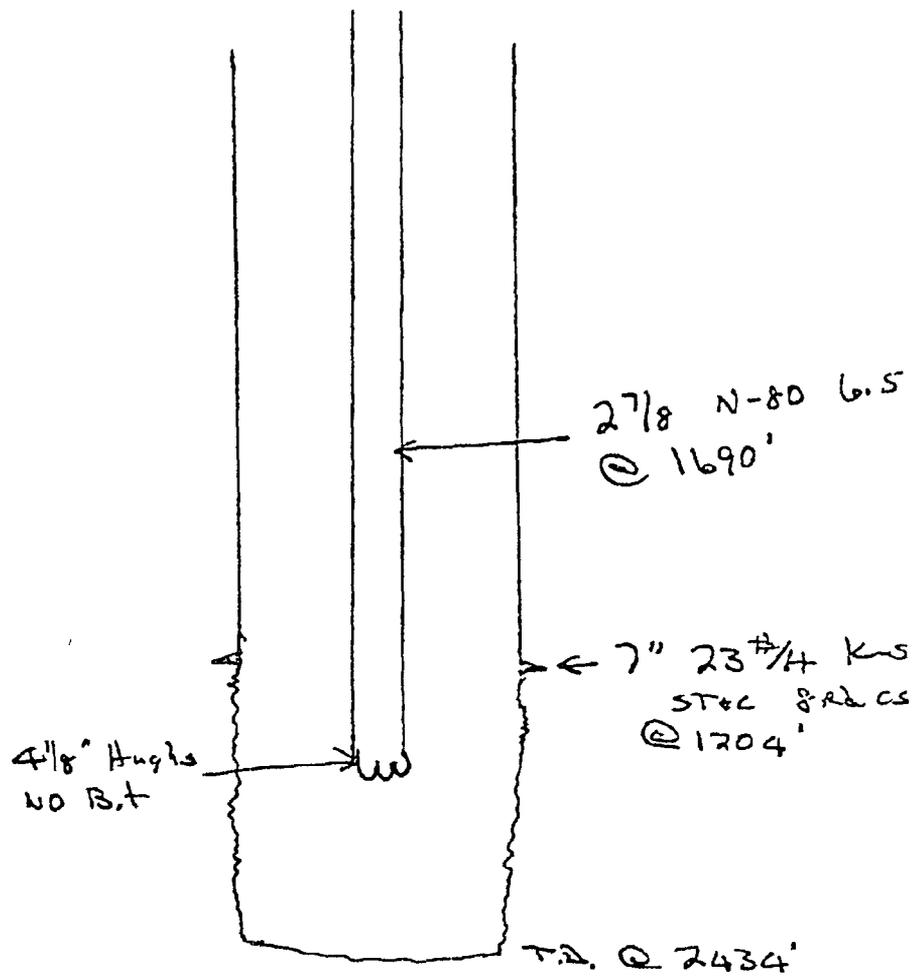
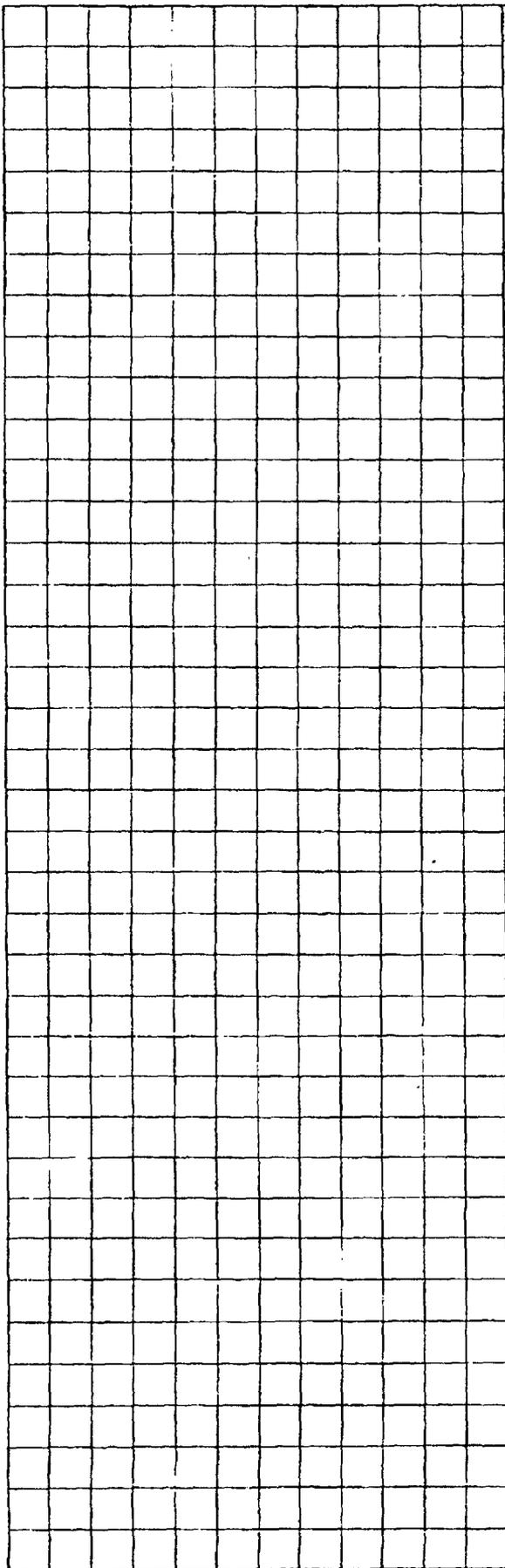
Key Energy Services  
Company Name-print name above

Bob Patterson  
Company Representative- print name

*Bob Patterson*  
Company Representative- Signature

Title Area Manager

Date: 11-3-8



Well was spudded on 5/2/77 TD 8 3/4" hc @ 1204', 7" 23 #/ft K-55 steel 8rd casing was then run to 1209' & cement w/ 300 sks "C" 2% CaCl<sub>2</sub> circulated 150k to surface woc Drill out 540c ft w/ 7 7/8" B.t Drill to TD @ 2434' on 5/5/77

\* = please attach pertinent documents

I. OPERATOR / LOCATION INFORMATION

Operator ESTATE OF G. P. SIMS  
 Address BOX 1046  
EMMIS, NM 88231 Phone \_\_\_\_\_  
 Well unit # A Location 42014 2101E  
 T. 31 R. 37 Sec. 32 NE 1/4 NE 1/4 NE 1/4  
 County \_\_\_\_\_ G. P. SIMS # 2  
 Purpose of well (brine supply, LPG storage, potash dissolution) \_\_\_\_\_  
BRINE SUPPLY

II. DRILLING / SITING INFORMATION

Contractor SPECTRA DRILLING CO.  
 Date drilling started 2 MAY 77 Date drilling completed 5 MAY 77  
 Drilling method ROTARY  
 Elevation of ground surface NA How measured BY TURNER  
 Date measured \_\_\_\_\_ Order of survey \_\_\_\_\_  
 Name of surveyor G. P. SIMS NA  
 Total depth of hole 2474'

Attach schematic of well ,include open hole interval, perforations, etc. \*  
 Type of drilling fluid \_\_\_\_\_  
 Type of drilling mud if used (brand if known) \_\_\_\_\_

List any additives to the drilling mud, or any other chemicals put down well:  
 \_\_\_\_\_  
 \_\_\_\_\_

Describe casing tests performed \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

Other tests \_\_\_\_\_  
 \_\_\_\_\_

\* = please attach pertinent documents

II. DRILLING / SITING (continued)

Casing, tubing, and cementing record (please attach copy)\*

Note: if a copy is not available detail casing record on back of this sheet using the following format. Include brand or type of cement if known.

From	To	Size of Hole	Size of Casing	Weight per Foot	Sacks of Cement	Estimated Top of cmt.
------	----	--------------	----------------	-----------------	-----------------	-----------------------

Was mudcake on bore wall removed before cementing production casing? \_\_\_\_\_

Was salt saturated cementing material used opposite salt formation? \_\_\_\_\_

Is site within 1/2 mile of another well? If so, use note to explain. \_\_\_\_\_

\_\_\_\_\_

Site preparation (concrete pad, graded dirt, pit, etc) \_\_\_\_\_

\_\_\_\_\_

Type of surface seal or well-head (locking security cap, welded, etc.) \_\_\_\_\_

\_\_\_\_\_

Comments (include problems encountered while drilling, loss of circulation, deviation of hole from vertical, centralizers used, tools lost or stuck, fracturing techniques used, etc.) \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_ (use back of sheet if more space is required)

From	To	Size of Hole	Size of Casing	Weight per Foot	Sacks of Cement	Estimated Top of cmt.
0-1204		8 $\frac{3}{4}$	7	25	350	surface
			depth?			

\* = please attach pertinent documents

III. FORMATION INFORMATION

Formation Record			
From	To	Thickness	Formation (name, description)

*NOT AVAILABLE*

Logs (specify type) *NONE*

Identify where logs are on file \_\_\_\_\_

NO. OF COPIES RECEIVED	
DISTRIBUTION	
SANTA FE	
FILE	
U.S.G.S.	
LAND OFFICE	
OPERATOR	

5a. Indicate Type of Lease  
State  Fee   
5. State Oil & Gas Lease No.

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.)

OIL WELL  GAS WELL  OTHER: Brine Well  
Name of Operator: Sims McCasland Water Station  
Address of Operator: PO Box 98 Eunice, NM 88231  
Location of Well: UNIT LETTER A 420 FEET FROM THE North LINE AND 210 FEET FROM THE East LINE, SECTION 32 - TOWNSHIP 21 RANGE 37 NMPM.

7. Unit Agreement Name: G.P. Sims  
8. Farm or Lease Name: 2  
9. Well No.:  
10. Field and Pool, or Wildcat:  
12. County: Lea

15. Elevation (Show whether DF, RT, CR, etc.)

Check Appropriate Box To Indicate Nature of Notice, Report or Other Data

NOTICE OF INTENTION TO:

SUBSEQUENT REPORT OF:

PERFORM REMEDIAL WORK  PLUG AND ABANDON  REMEDIAL WORK  ALTERING CASING   
TEMPORARILY ABANDON  CHANGE PLANS  COMMENCE DRILLING OPNS.  PLUG AND ABANDONMENT   
PULL OR ALTER CASING  OTHER  CASING TEST AND CEMENT JOB   
OTHER \_\_\_\_\_

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.

Rigged up pulling unit on 12/26/81. Pull tubing out of well, found tubing parted at 1243', run bit and tubing to 1441' through salt section.

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

Signed by: Louis R. Collier TITLE: Operations Manager DATE: 1/4/82

APPROVED BY: \_\_\_\_\_ TITLE: \_\_\_\_\_ DATE: JAN 1 1982  
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 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. 30-025-25525
5. Indicate Type of Lease STATE <input type="checkbox"/> FEE <input checked="" type="checkbox"/>
6. State Oil & Gas Lease No.

**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  Gas Well  Other  Brine well

2. Name of Operator  
Key Energy Services

3. Address of Operator  
P.O Box 99 Eunice NM

7. Lease Name or Unit Agreement Name  
G.P. Sims

8. Well Number # 2

9. OGRID Number 19797

10. Pool name or Wildcat Saldo

4. Well Location  
 Unit Letter A 420 : feet from the N line and 210 feet from the E line  
 Section 32 Township 21 Range 37 NMPM County Lea

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

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  PLUG AND ABANDON   
 TEMPORARILY ABANDON  CHANGE PLANS   
 PULL OR ALTER CASING  MULTIPLE COMPL

SUBSEQUENT REPORT OF:

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

OTHER: Casing test

OTHER: casing test

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.

- 12/10/2007--- RUPU, Install BOP 2 7/8 6" 900 series, with 7" larkin Flange, Tally in hole with bit and scraper to 1020' Stack out at 1020' Pull tbq and SION.
- 12/11/07----- RIH with 6 1/4 bit tag up at 1020' Pull out of hole and RIH with impression block, Possible Csg problems Rig up Reverse unit.
- 12/12/07-----POH with Bit and RIH with mill and mill to 1148' SION
- 12/13/07-----POH with mill and tbq , RIH with Packer and test csg.
- 12/14/2007--- Test csg with reverse unit , casing would not hold below 30' from surface.

Shut in and wait for orders from Midland Office.

RECEIVED

JAN 10 2008

HOBBS OCD

# New Mexico Energy, Minerals and Natural Resources Department

**Bill Richardson**

Governor

Joanna Prukop  
Cabinet Secretary  
Reese Fullerton  
Deputy Cabinet Secretary

Mark Fesmire  
Division Director  
Oil Conservation Division



Certified Receipt/Return Requested:

August 01, 2008

Attention Brine Well Operator(s):

One of the permitted brine wells has experienced a total collapse and created an enormous sinkhole. The well was located approximately 17 miles SE of Artesia, NM. on State Trust Land. The operator was Jim's Water Service and the brine well permit is BW-005. OCD has enclosed a press release with photos of the event.

The magnitude of this event warrants an immediate investigation of all brine wells in the state. Therefore, please find enclosed a "BRINE WELL INFORMATION REQUEST" form to be filled out and returned to this office no later than September 05, 2008. Failure to properly fill out and return the form in a timely manner may result in OCD requesting you shut down your operations until further notice. If you have any questions please do not hesitate to call me at 505-476-3490 or E-mail [wayne.price@state.nm.us](mailto:wayne.price@state.nm.us).

Sincerely,

A handwritten signature in black ink, appearing to be "Wayne Price", written over a horizontal line.

Wayne Price  
Environmental Bureau Chief  
Oil Conservation Division

Attachments: (2)

Cc: EMNRD Cabinet Secretary-Joanna Prukop  
OCD Director-Mark Fesmire  
NMSLO- Brian Henington SF, Jim Carr-Carlsbad  
BLM-Carlsbad Office- Dave Herrell  
Eddy Co. Emergency Management-Joel Arnwine  
NM State Police -Roswell Sgt. Les Clements  
National Cave and Karst Research Institute- Dr. George Veni  
NMOSE-John Stewart  
Solution Mining Research Institute-John Voigt

Oil Conservation Division \* 1220 South St. Francis Drive

\* Santa Fe, New Mexico 87505

\* Phone: (505) 476-3440 \* Fax (505) 476-3462\* <http://www.emnrd.state.nm.us>



## Price, Wayne, EMNRD

---

**From:** Porter, Jodi, EMNRD  
**Sent:** Wednesday, July 23, 2008 5:00 PM  
**Subject:** PR-Secretary Prukop Proposes Stricter Conditions on Brine Wells State-wide  
**Attachments:** PR-OCD.Brine.Wells07.23.08.pdf



## New Mexico Energy, Minerals and Natural Resources Department

---

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Cabinet Secretary  
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Deputy Cabinet Secretary

**Mark Fesmire**  
Division Director  
Oil Conservation Division



July 23, 2008

**NEWS RELEASE**

**Contact:** Jodi McGinnis Porter,  
Public Information Officer 505.476.3226

### **Energy, Minerals and Natural Resources Cabinet Secretary Joanna Prukop Proposes Stricter Conditions on Brine Wells State-wide**

#### **Artesia brine well collapse prompts statewide review**

SANTA FE, NM – Secretary Joanna Prukop has directed the Oil Conservation Division (OCD) to conduct a complete evaluation of the rules and regulations concerning brine wells, a method of creating saturated salt water used in oil and gas production. The OCD evaluation will include an internal audit and inspection of all existing brine wells in New Mexico. Secretary Prukop is considering strengthening oversight of brine wells to protect against well failures such as the recent collapse in Artesia that created a huge sinkhole and forced the closure of an Eddy County road.

“There are several brine wells in New Mexico and we must ensure that they are all properly monitored to ensure safety and stability,” stated Cabinet Secretary Joanna Prukop. “We have now seen that these wells can collapse and the extensive damage such a collapse can generate.”

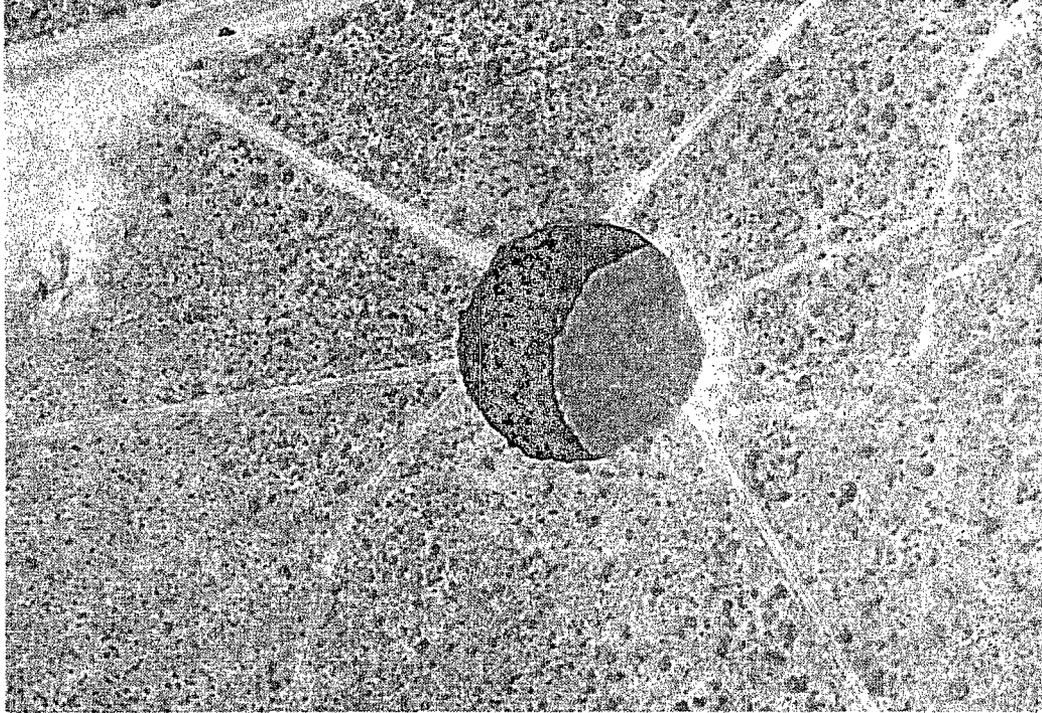
The Oil Conservation Division is continuing to monitor and investigate the collapse of the brine well, located on state trust land 17.3 miles southeast of Artesia, which is still active. The well is owned by Jim’s Water Service. County Road 217 remains closed as a safety precaution, and a command center is on site. Division engineers estimate that the well is approximately 300 to 400 feet in diameter, 70 feet to the water level, and the actual depth to the bottom is unknown.

Scientists from the Oil Conservation Division, the Bureau of Land Management, State Land Office, the New Mexico

Bureau of Geology and Mineral Resources, and the National Cave & Karst Research Institute are all working together to assess horizontal and vertical movements to project any future subsidence. Work on a protective fence and keep-out signage began yesterday with completion expected on Friday.

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Images provided on the brine well collapse are courtesy of National Cave and Karst Research Institute:



Morning, July 20, 2008 at 10:44 am.  
courtesy of National Cave and Karst Research Institute



# New Mexico Energy, Minerals and Natural Resources Department

**Bill Richardson**  
Governor

Joanna Prukop  
Cabinet Secretary  
Reese Fullerton  
Deputy Cabinet Secretary

Mark Fesmire  
Division Director  
Oil Conservation Division



## OIL CONSERVATION DIVISION BRINE WELL INFORMATION REQUEST

<b>GENERAL INFORMATION:</b>	
Operator Name _____	Well Name(s) _____
API Number _____	Brine Well Permit # _____
Date Permit Expires? _____	
Location: Section _____ Ts _____ Rg _____	
FNL _____	FSL _____ FEL _____ FWL _____
GPS of well(s): Lat: _____ Long: _____	
<p>Have you reviewed and understand all of your permit conditions? Yes <input type="checkbox"/> No <input type="checkbox"/></p> <p>Are you presently deficient of any condition in your permit? Yes <input type="checkbox"/> No <input type="checkbox"/> Don't know <input type="checkbox"/></p> <p>Do you operate below grade tanks or pits at the site? Yes <input type="checkbox"/> No <input type="checkbox"/></p> <p>Do all tanks, including fresh water tanks, have secondary containment? Yes <input type="checkbox"/> No <input type="checkbox"/></p> <p>Do you think you have the expertise, knowledge and general understanding of what causes a brine well to collapse? Yes <input type="checkbox"/> No <input type="checkbox"/></p> <p>Do you think OCD should provide guidelines on subsidence and collapse issues? Yes <input type="checkbox"/> No <input type="checkbox"/></p>	
<b>SITING INFORMATION: Please provide the following information and depict on 7.5 minute (1" = 2000') USGS Quad Map. Limit search to one mile radius.</b>	
Is the brine well located within a municipality or city limits? Yes <input type="checkbox"/> No <input type="checkbox"/>	
Distance and direction to nearest permanent structure, house, school, etc. if less than one mile:	
Distance and direction to nearest water well if less than one mile:	
Distance to nearest watercourse(s), floodplain, playa lake(s), or man-made canal(s) or pond(s) if less than one mile:	
Distance and direction to nearest known karst features or mines if less than one mile:	



Distance and direction to nearest producing oil or gas well(s) <i>if less than one mile:</i> Provide API Number:
Distance and direction to nearest tank battery(ies) <i>if less than one mile:</i>
Distance and direction to nearest pipeline(s), including fresh water pipelines <i>if less than one mile:</i>
Distance and direction to nearest paved or maintained road or railroad <i>if less than one mile:</i>
Depth to ground water found above the Salado (salt section), regardless of yield:
Name of aquifer(s):
<b>WELL CONSTRUCTION:</b> <i>Please provide the following information and attach a diagram depicting the brine well. Check box if attached:</i> Copy of a current well diagram: Attached <input type="checkbox"/> Copy of formation record with tops: Attached <input type="checkbox"/> Copy of geophysical well logs if available: Attached <input type="checkbox"/> If not, well logs within one mile <input type="checkbox"/>
Depth of the top of the salt below ground surface (feet):
Depth to the bottom of the salt below ground surface (feet):
Depth(s) to and thickness(es) of any anhydrite section(s) (located above the salt):
Depth of casing(s) shoe below ground surface (feet): _____ Is the casing shoe set in the anhydrite or other layer above the salt? Yes <input type="checkbox"/> No <input type="checkbox"/> Is the casing shoe set into the salt? Yes <input type="checkbox"/> No <input type="checkbox"/> If yes, how far into the salt? _____
Depth of tubing(s):
Do you suspect that your cavern has partially caved in? Yes <input type="checkbox"/> No <input type="checkbox"/> Don't know <input type="checkbox"/>
<b>OPERATIONS:</b> <i>Please provide the following information.</i>
Start date of brine well operation:
Total volume of fresh water injected into the brine well to date (bbls) and how determined:

Total volume of brine water produced (bbls) to date and how determined:
Have you ever lost casing or tubing? If yes, please provide details. Document attached <input type="checkbox"/>
Do you maintain a surface pressure on your well during idle times? Yes <input type="checkbox"/> No <input type="checkbox"/>
Have you noticed large amounts of air built up during cavity pressurization? Yes <input type="checkbox"/> No <input type="checkbox"/>
Have you ever noticed fluids or air/gas bubbling up around the casing during testing or normal operations? Yes <input type="checkbox"/> No <input type="checkbox"/>
<b>MONITORING: Please provide the following information.</b>
Are you currently monitoring ground water contamination from your brine well or system? Yes <input type="checkbox"/> No <input type="checkbox"/>
Have you ever run a sonar log? Yes <input type="checkbox"/> No <input type="checkbox"/> If yes, please provide last date: _____
Provide cavern configuration (dimensions and volume) and method(s) used to estimate: If sonar report please attach <input type="checkbox"/> If other, please specify and provide a sketch of cavern: <input type="checkbox"/>
Do you have a subsidence monitoring program in place? Yes <input type="checkbox"/> No <input type="checkbox"/>
Do you have any geophysical monitoring devices, such as a seismic device positioned near your brine well? Yes <input type="checkbox"/> No <input type="checkbox"/>
Have you submitted all of your monthly, quarterly, or annual reports to the OCD? Yes <input type="checkbox"/> No <input type="checkbox"/>
Have you failed a brine well mechanical integrity test (MIT)? If yes, please attach details and results. Attached <input type="checkbox"/>
Have you ever had a casing leak? Yes <input type="checkbox"/> No <input type="checkbox"/> Have you ever had a cavern leak? Yes <input type="checkbox"/> No <input type="checkbox"/> Don't know <input type="checkbox"/> Have you ever exceeded the cavern fracture pressure? Yes <input type="checkbox"/> No <input type="checkbox"/> Don't know <input type="checkbox"/> Do you know how to calculate your maximum pressure? Yes <input type="checkbox"/> No <input type="checkbox"/> Don't know <input type="checkbox"/>
Have you routinely looked for cracks or fissures in the ground surface around your brine well? Yes <input type="checkbox"/> No <input type="checkbox"/>
Do you have any minor or major cracks, fissures, tank settlement, line breakage from settlement or any minor subsidence. Yes <input type="checkbox"/> No <input type="checkbox"/>
During operations have you experienced any ground vibration, ground movement, or well movement after opening or shunting valves, pump start-up, shut-down, etc.? Yes <input type="checkbox"/> No <input type="checkbox"/>



**Chavez, Carl J, EMNRD**


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**From:** Chavez, Carl J, EMNRD  
**Sent:** Friday, July 25, 2008 4:21 PM  
**To:** Hansen, Edward J., EMNRD; Price, Wayne, EMNRD  
**Cc:** Sanchez, Daniel J., EMNRD  
**Subject:** RE: PR-Secretary Prukop Proposes Stricter Conditions on Brine Wells State-wide  
**Attachments:** image001.jpg; image007.jpg

Ed, Wayne, et. al:

Based on my records and knowledge of current activities at NMOCD BWs, my tally is as follows:

There are a total of 15 active UIC Class III Brine Well Permits (excluding BW-5 JWS & BW-6 I&W)

There are currently 13 active UIC Class III Brine Wells in operation (BW-2; BW-4; BW-8; BW-9; BW-12; BW-13; BW-22; BW-25; BW-27 Wells 1 & 2; BW-28; BW-30; and BW-31)

There are currently 6 brine wells that have actually been PA'd including: BW-5 JWS Collapse w/ Site Closure; BW-6 Eugenie #2; BW-21 Loco Hills Well #1 recently PA'd; BW-26 Salado Brine Sales; BW-29 Marbob; & William Brininstool.

There are currently 3 pending PAs of BWs including: BW-6 Eugenie #1 w/ Site Closure; BW-18 Key w/ redrill; and BW-19 Key w/ redrill.

There are currently 5 inactive brine wells (BW-5 Collapse w/ Site Closure; BW-6 needs PA Eugenie #1 w/ Site Closure; BW-18 needs PA w/ redrill; BW-19 needs PA w/ redrill; and BW21 needs redrill)

Let me know how we need to straighten RBDMS out. Please contact me if you have questions. Thanks.

Carl J. Chavez, CHMM  
 New Mexico Energy, Minerals & Natural Resources Dept.  
 Oil Conservation Division, Environmental Bureau  
 1220 South St. Francis Dr., Santa Fe, New Mexico 87505  
 Office: (505) 476-3491  
 Fax: (505) 476-3462  
 E-mail: [CarlJ.Chavez@state.nm.us](mailto:CarlJ.Chavez@state.nm.us)  
 Website: <http://www.emnrd.state.nm.us/ocd/index.htm>  
 (Pollution Prevention Guidance is under "Publications")

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**From:** Hansen, Edward J., EMNRD  
**Sent:** Wednesday, July 23, 2008 5:56 PM  
**To:** Price, Wayne, EMNRD  
**Cc:** Chavez, Carl J, EMNRD  
**Subject:** FW: PR-Secretary Prukop Proposes Stricter Conditions on Brine Wells State-wide

Wayne,  
 Jane and I tallied these numbers off of RBDMS (you may want to double check).

---

**From:** Hansen, Edward J., EMNRD  
**Sent:** Wednesday, July 23, 2008 5:54 PM  
**To:** Porter, Jodi, EMNRD  
**Subject:** RE: PR-Secretary Prukop Proposes Stricter Conditions on Brine Wells State-wide

Jodi,

We counted (from our database: RBDMS):

16 Active Brine Wells

11 Plugged and Abandoned Brine Wells

2 Inactive Brine Wells

7/29/2008

**From:** Porter, Jodi, EMNRD  
**Sent:** Wednesday, July 23, 2008 5:00 PM  
**Subject:** PR-Secretary Prukop Proposes Stricter Conditions on Brine Wells State-wide



## New Mexico Energy, Minerals and Natural Resources Department

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**Bill Richardson**  
 Governor

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 Cabinet Secretary  
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 Deputy Cabinet Secretary

**Mark Fesmire**  
 Division Director  
 Oil Conservation Division



July 23, 2008

**NEWS RELEASE**

**Contact:** Jodi McGinnis Porter,  
 Public Information Officer 505.476.3226

### **Energy, Minerals and Natural Resources Cabinet Secretary Joanna Prukop Proposes Stricter Conditions on Brine Wells State-wide**

#### **Artesia brine well collapse prompts statewide review**

SANTA FE, NM – Secretary Joanna Prukop has directed the Oil Conservation Division (OCD) to conduct a complete evaluation of the rules and regulations concerning brine wells, a method of creating saturated salt water used in oil and gas production. The OCD evaluation will include an internal audit and inspection of all existing brine wells in New Mexico. Secretary Prukop is considering strengthening oversight of brine wells to protect against well failures such as the recent collapse in Artesia that created a huge sinkhole and forced the closure of an Eddy County road.

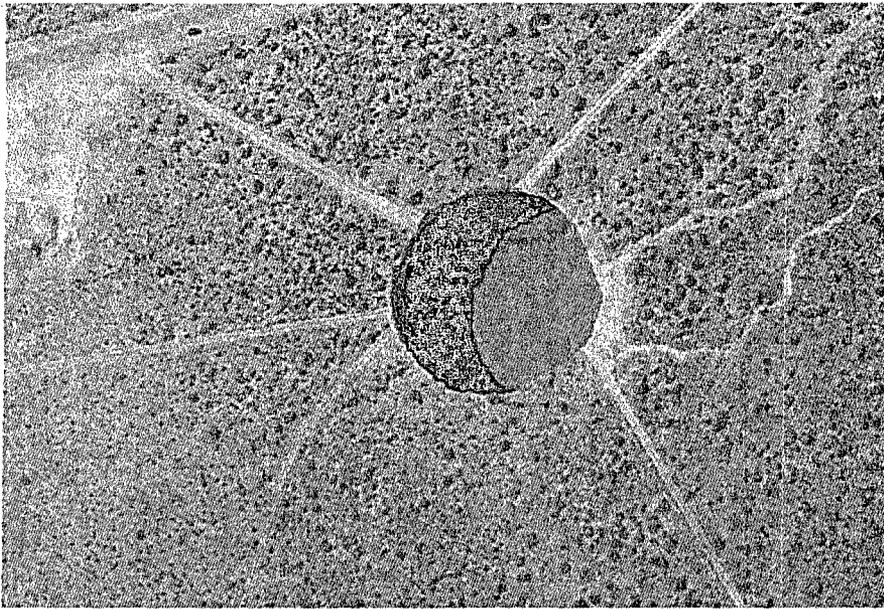
"There are several brine wells in New Mexico and we must ensure that they are all properly monitored to ensure safety and stability," stated Cabinet Secretary Joanna Prukop. "We have now seen that these wells can collapse and the extensive damage such a collapse can generate."

The Oil Conservation Division is continuing to monitor and investigate the collapse of the brine well, located on state trust land 17.3 miles southeast of Artesia, which is still active. The well is owned by Jim's Water Service. County Road 217 remains closed as a safety precaution, and a command center is on site. Division engineers estimate that the well is approximately 300 to 400 feet in diameter, 70 feet to the water level, and the actual depth to the bottom is unknown.

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Morning, July 20, 2008 at 10:44 am.  
courtesy of National Cave and Karst Research Institute



Morning, July 22, 2008  
courtesy of National Cave and Karst Research Institute

#30#

*The Energy, Minerals and Natural Resources Department provides resource protection and renewable energy resource development services to the public and other state agencies.*

Oil Conservation Division  
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Jodi

Jodi McGinnis Porter  
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7/29/2008

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