

1R - 394

**GENERAL  
CORRESPONDENCE**

**YEAR(S):**  
2003 - 2003

Federal Seny approx 0900

line coming from separator  
unusual reserve pit

0930

          
Larry

1140

          
Tony Hall - Made Energy

Olson, William

---

**From:** Wrotenbery, Lori  
**Sent:** Tuesday, December 16, 2003 6:52 PM  
**To:** Prukop, Joanna; Mills, Tom  
**Cc:** Olson, William  
**Subject:** FW: Hobbs News-Sun.htm



Hobbs  
News-Sun.htm

YI. I've already gotten a call from Bob Gallagher about this action, and I'm sure we'll be hearing more from the industry. It appears no one in the industry knew that it was imminent.

We didn't know that either, which is irritating because Bill Olson specifically inquired about the status of the proposed ordinance Friday before last when he made a courtesy visit to Pat Wise's office. Pat was evasive, and now we know why.

We are continuing with our review of the oil and gas operations in the well field.

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

**From:** Olson, William  
**Sent:** Tuesday, December 16, 2003 2:54 PM  
**To:** Anderson, Roger; Wrotenbery, Lori  
**Subject:** Hobbs News-Sun.htm

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## HEADLINES

### Lovington acts to protect water

- Homepage
- Local News
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- Lifestyle

RICHARD TROUT

NEWS-SUN

LOVINGTON -- Tatum and Crossroads rancher Carl Johnson proudly got to his feet after Lovington mayor Troy Harris asked if there was any public comment regarding ordinance No. 449.

## OPINION

- Viewpoint
- Email the Editor

On Monday the Lovington City Commission adopted the ordinance protecting the city's water field.

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No one was sure if Johnson was about to cry foul or blast the Lovington commission for starting a bureaucratic boondoggle.

He did neither, choosing to praise the commission instead.

"We, personally, from Jal to Crossroads and east and west, know of many, many, many, many water wells that are already polluted by the oil and gas business, and we think this is one of the best moves by any entity in Lea County that's been made in my lifetime," Johnson said.

"I think this is the start of trying to get the oil industry to do us right, and not harm other people by doing their business. And we appreciate your taking the lead on this thing."

Ordinance No. 449 was designed by the Lovington commission to prevent the city's water field from being contaminated by oil leaks or spills. After becoming frustrated with the Oil Conservation Division's slow response time to oil spills near the city's water supply, city manager Pat Wise and the commission felt it was necessary to draft its own regulations.

There are about 1,900 acres south of Lovington with 17 water wells that provide 100 percent of the city's water supply

The meeting was quite unlike the commission's Sept. 14 gathering, when the oil industry showed up en masse to stall the progress of the water field ordinance.

At the September meeting, about six representatives from the oil and gas industry told the commission the new ordinance would only complicate

## OIL PRICES



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## POLL

How long ha you been a N Sun subscrib

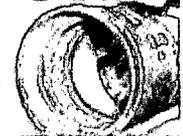
- Under a y
- 1-2 years
- 2-5 years
- 5-10 year
- Over 10 y

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Previous Polls

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## PRINT

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matters, as the industry is already regulated by the OCD and Bureau of Land Management.



Three months later, the only public comment was uttered by one grateful rancher surrounded by several other ranchers who appeared equally pleased.

According to the ordinance, it is now unlawful for any person to begin a drilling operation or re-entry within the confines of the city's water field without having been issued a permit from the city. If a leak or spill does occur on the water field, the operator must report it to the city engineer within 15 days.

Lovington attorney Lewis Cox explained the changes to the ordinance on Monday.

In the section called "permit required," a line was added stating the application for a permit shall be filed with the Lovington city engineer, and should include such items as the type of activity for which the permit is sought and the site of the proposed activity.

In another section called "reporting requirements," Cox said a list of minimal information regarding a leak or spill was added to the ordinance. This information includes items such as the name of the operator, the date and time of the leak or spill and identification of the spilled material.

The commission also adopted a new section in the ordinance called "leakage surveys." At least once each calendar year, any operator of a well on the Lovington water field must conduct a leakage survey for that well and file the results with the city engineer. It is unlawful to fail to provide the annual survey report to the city engineer within 30 days after it was performed, or should have been performed, the section states.

Each day of failure after the first offense will be considered a separate offense, with the offender subject to a maximum fine of \$500 per day that the report remains unfiled.

A final addition to the ordinance was a section banning the drilling of disposal wells, or the conversion of existing wells into disposal wells.



Libelous statements will not be allowed on the guestbook.

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Olson, William

---

**From:** Sheeley, Paul  
**Sent:** Thursday, January 29, 2004 12:14 PM  
**To:** Olson, William; Williams, Chris  
**Cc:** Johnson, Larry  
**Subject:** Mack

Photos: 2091-2097      Unlined drilling pit with line draining evidence... **Monsanto 30 State #5, API 30-Q25-35781**  
          2098-2104      Associated tanks & plumbing.

On January 23, 2004 Gary Wink-OCD, Paul Sheeley-OCD and Steve Perrin-City of Lovington inspected the facility referenced above. It is apparent that produced water from a blue fiberglass tank (PIX 2102-3), with a 3" poly line running about 1000' to the west (PIX 2097 & 99) to the Monsanto 30 State #5 drilling location, was draining into the unlined pit. (Pix 2092-3, 2096). The pit is stained on the walls about 1-2' and the floor has light colored crystalline salt (pix 2093-4). 1-barrel a day would not produce this.  
I would say 15 barrels might.

Paul Sheeley



DCP\_2091.JPG



DCP\_2092.JPG



DCP\_2093.JPG



DCP\_2094.JPG



DCP\_2095.JPG



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DCP\_2103.JPG



DCP\_2104.JPG

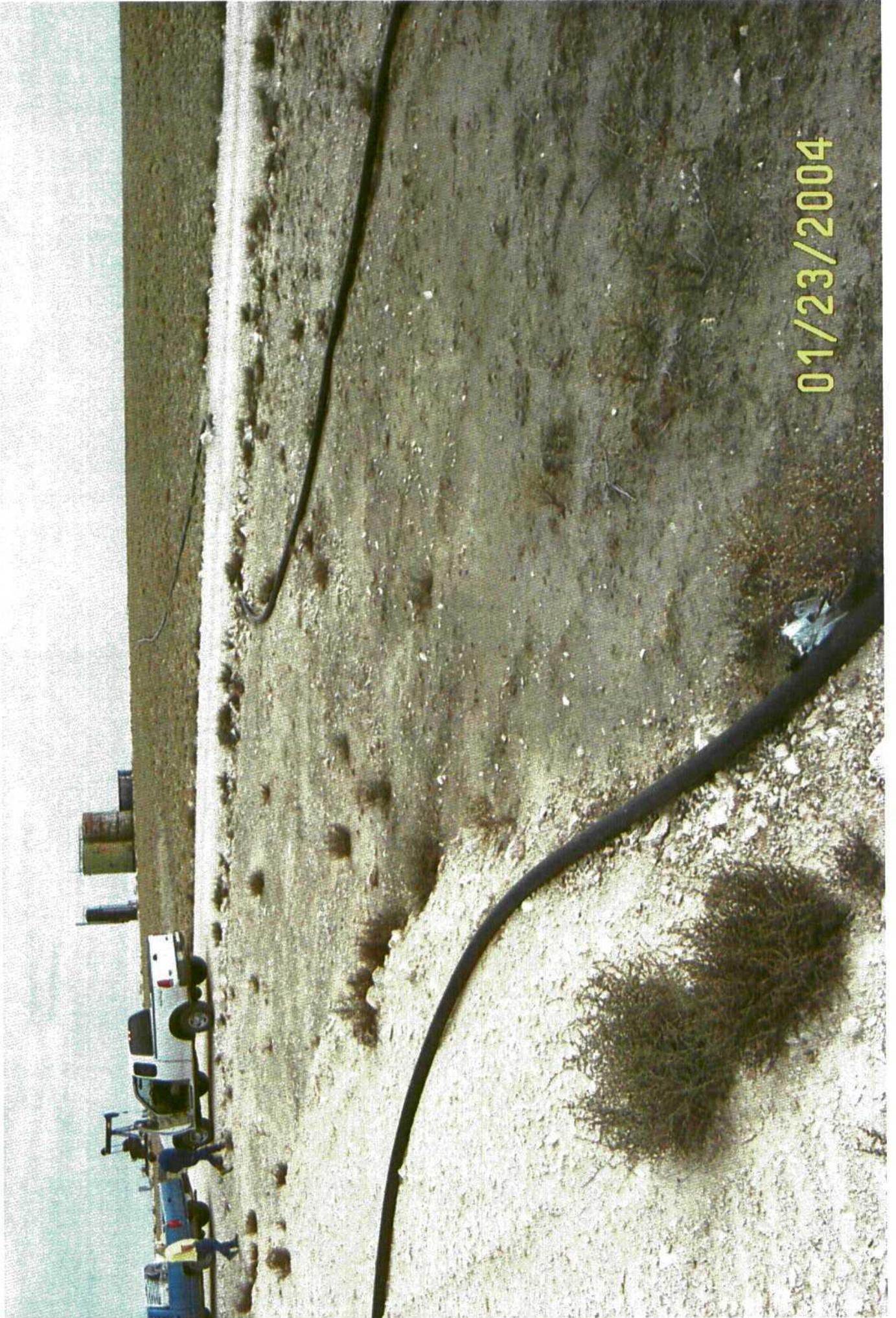
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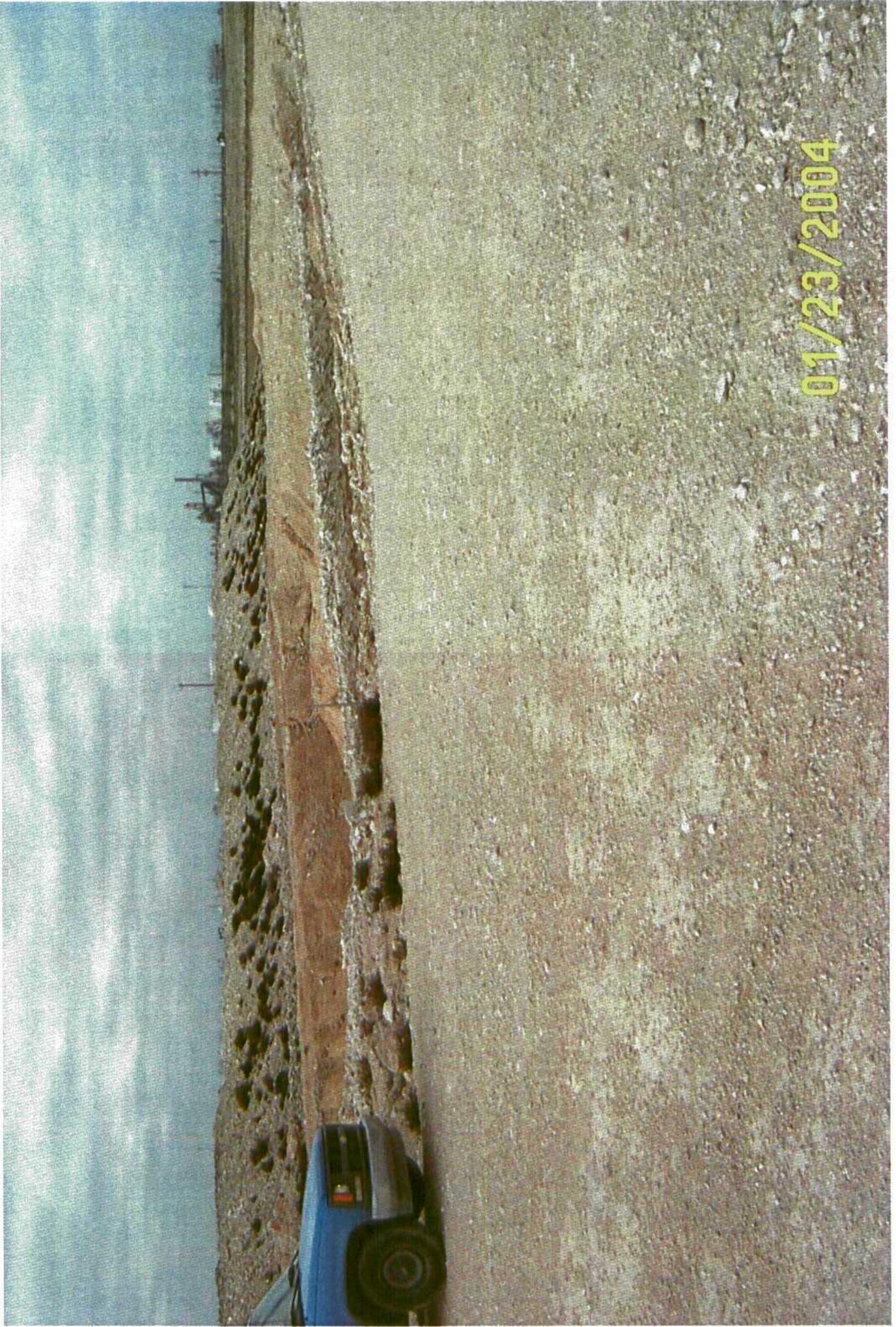


01/23/2004

MACK ENERGY CORPORATION  
MONSANTO 30 STATE #5  
330' FSL & 2310' FEL  
SEC. 30, T16S, R37E  
LEA COUNTY V-603  
API #30-Q25-35781

01/23/2004

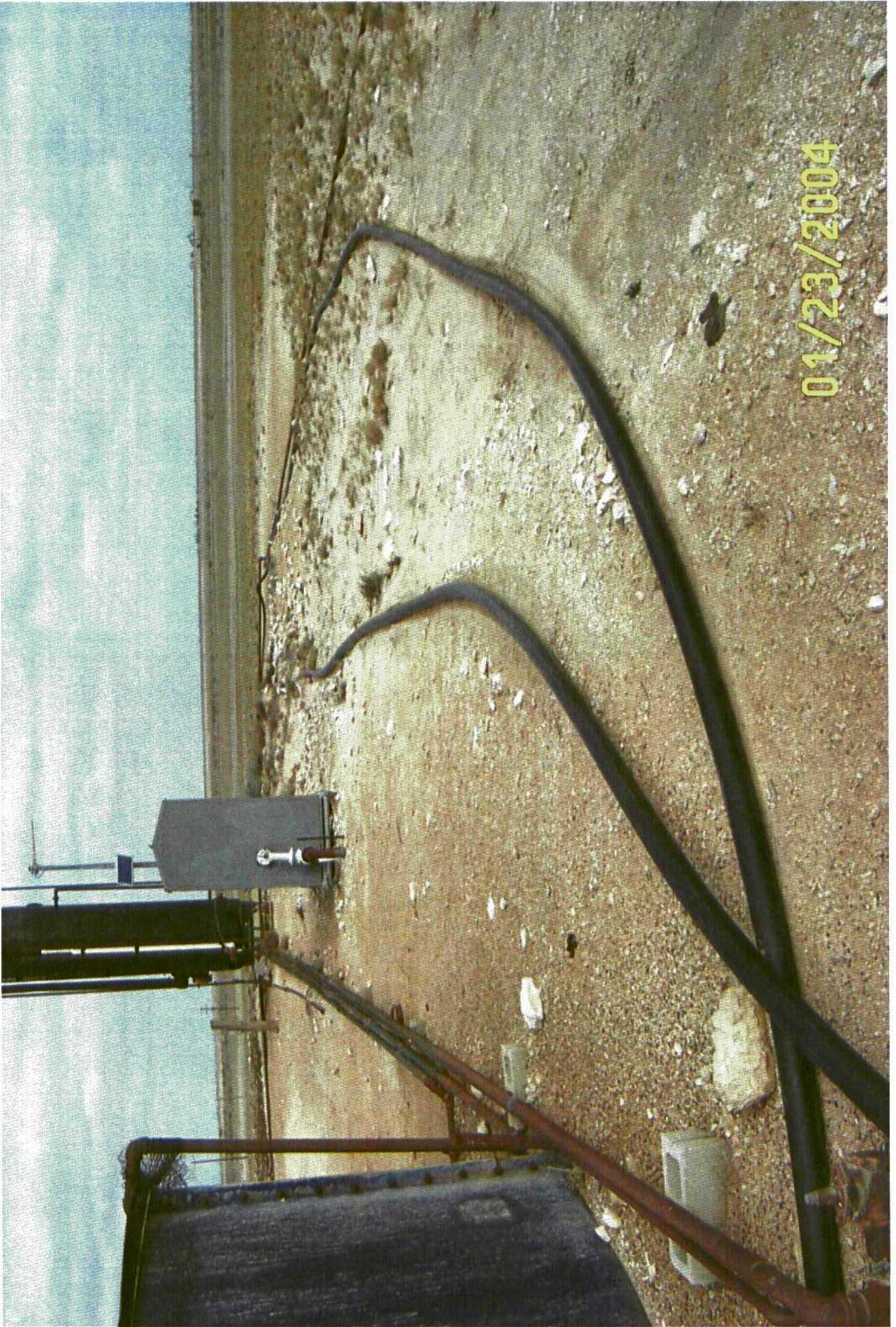
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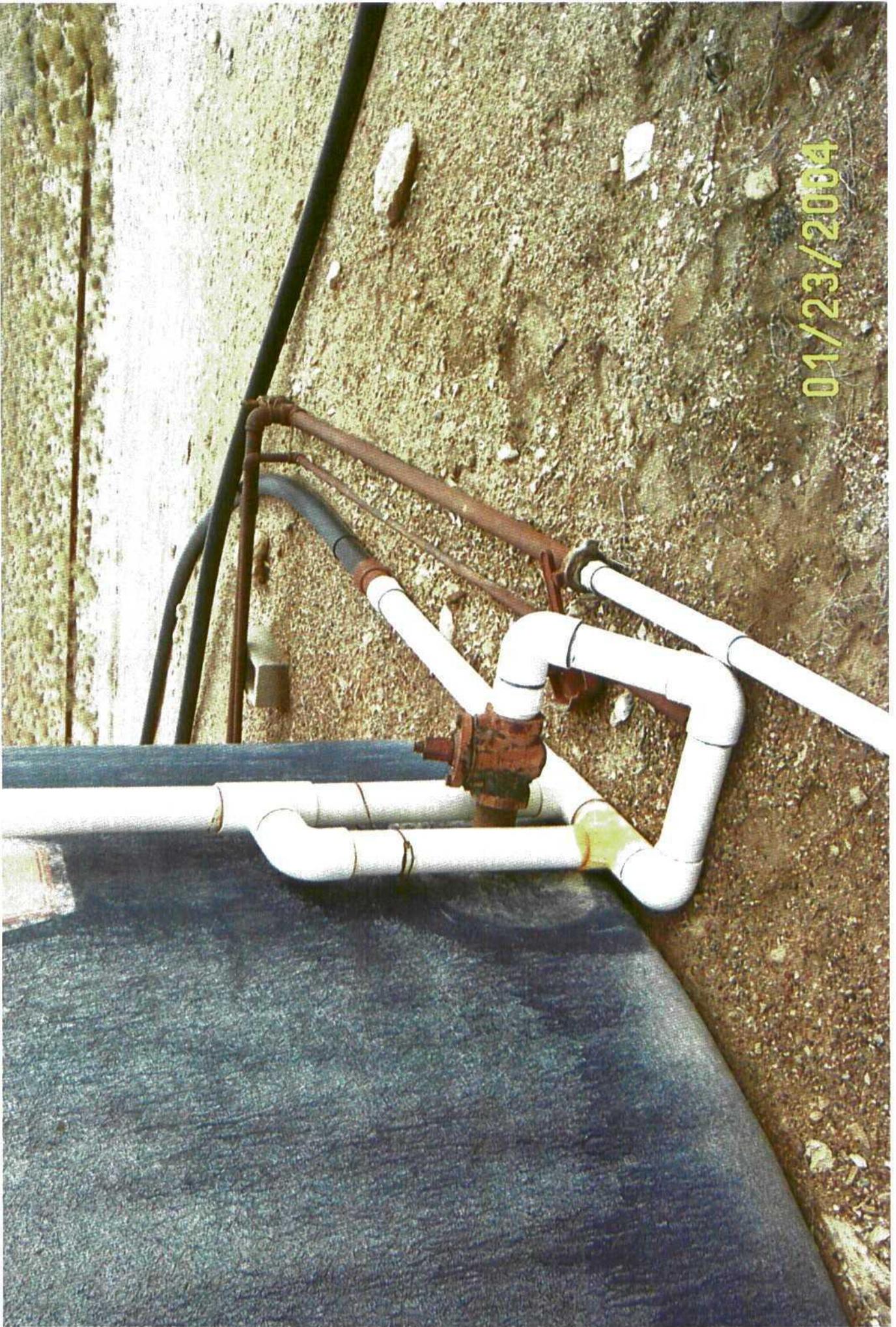
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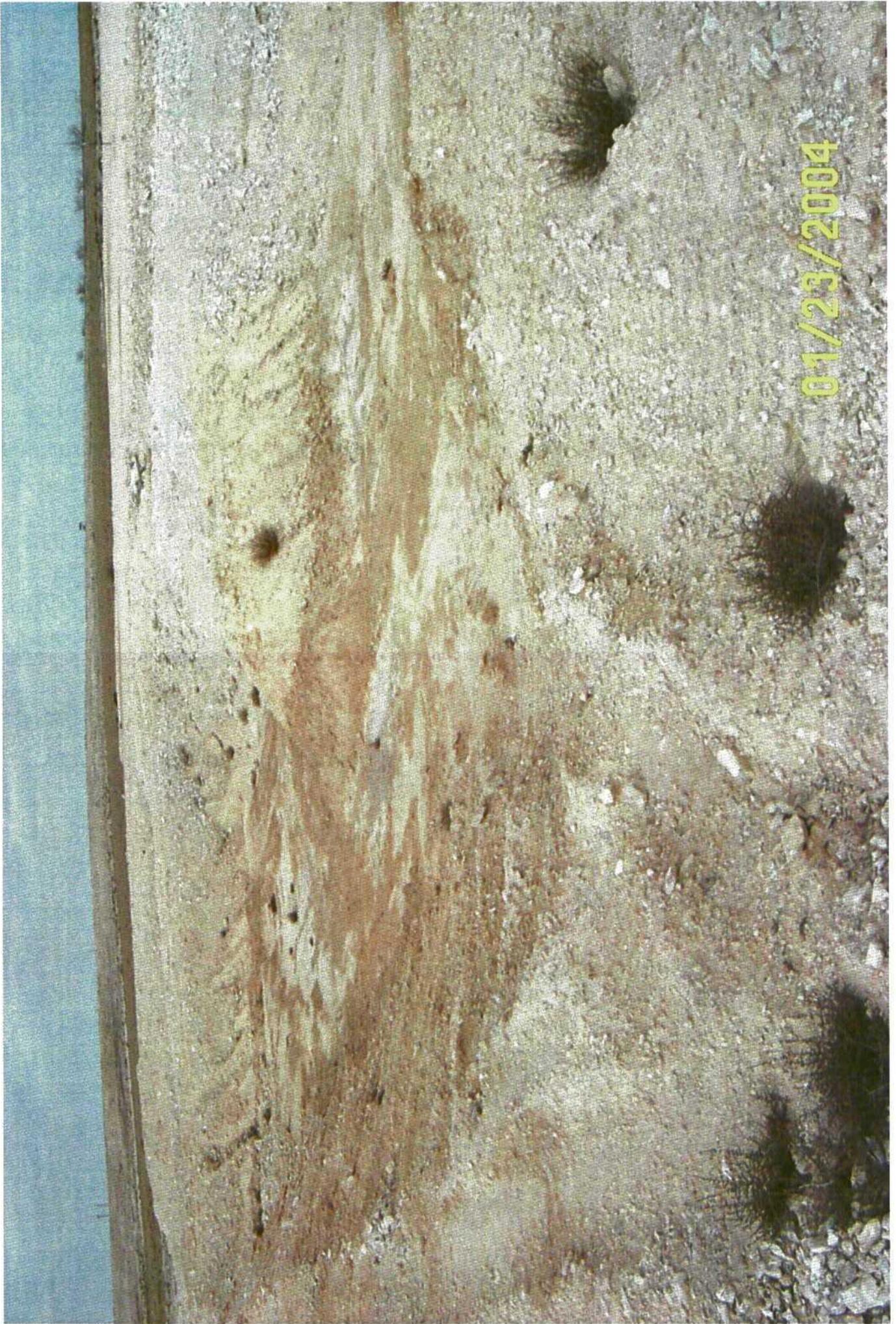
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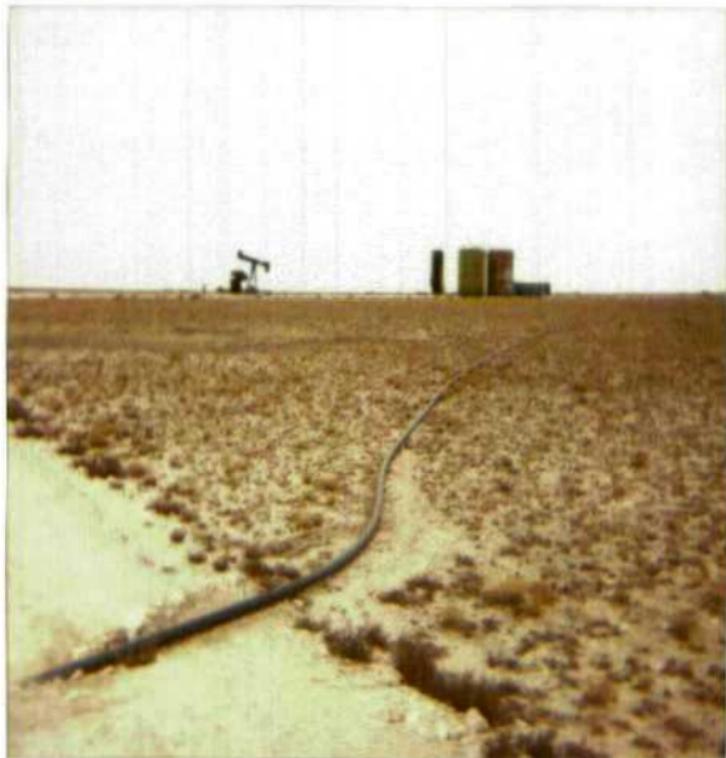


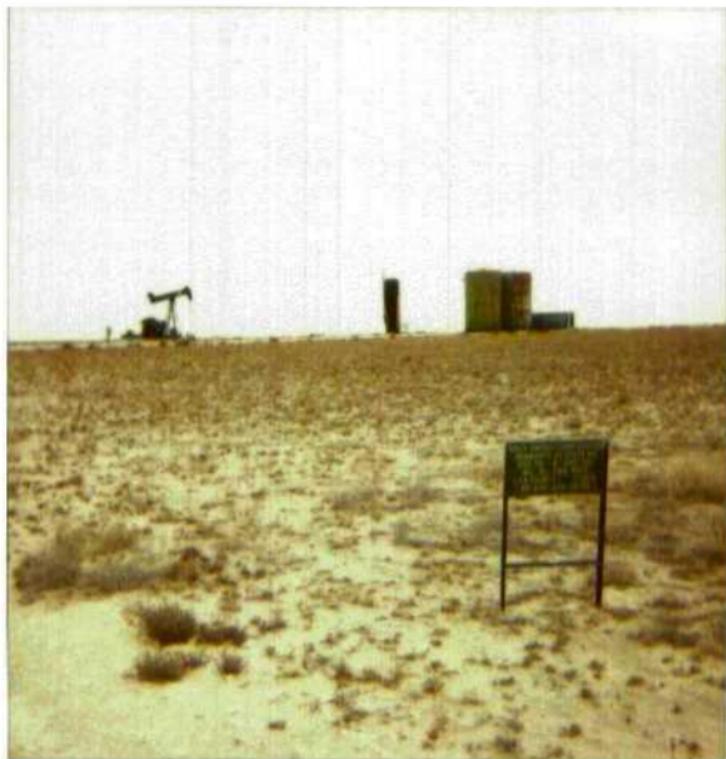




MACK ENERGY CORPORATION  
MONSANTO 30 STATE #0  
330 FSL & 2310 FEL  
SEC. 30, T16S, R37E  
LEA COUNTY V-603  
API #30-Q25-35781







City's northern border  
is at fence line.

See H-braces on each  
side of Caliche road.



# ARDINAL LABORATORIES

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ANALYTICAL RESULTS FOR  
EDDIE SEAY CONSULTING  
ATTN: EDDIE SEAY  
601 W. ILLINOIS  
HOBBS, NM 88242  
FAX TO:

Receiving Date: 01/15/04  
Reporting Date: 01/16/04  
Project Number: MACK #4  
Project Name: NOT GIVEN  
Project Location: LOVINGTON WATER FIELD

Analysis Date: 01/16/04  
Sampling Date: 01/15/04  
Sample Type: SOIL  
Sample Condition: COOL & INTACT  
Sample Received By: BC  
Analyzed By: AH

LAB NUMBER	SAMPLE ID	Cl <sup>-</sup> (mg/Kg)
H8366-1	MACK 4-1	30790
Quality Control		980
True Value QC		1000
% Recovery		98.0
Relative Percent Difference		3.0

METHOD: Standard Methods	4500-Cl <sup>-</sup> B
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Note: Analysis performed on a 1:4 w:v aqueous extract.

Amy Hill  
Chemist

1/16/04  
Date

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H8366

Mack has been caught  
doing this same thing  
in the past.



State of New Mexico  
**ENVIRONMENT DEPARTMENT**

**Drinking Water Bureau**  
726 E. Michigan Suite 165  
Hobbs, NM 88240  
(505) 393-4302  
(505) 393-0906 fax



**BILL RICHARDSON**  
GOVERNOR

**RON CURRY**  
SECRETARY  
**DERRITH WATCHMAN-MOORE**  
DEPUTY SECRETARY

January 8, 2004

Mr. Fernando Martinez, Drinking Water Bureau Chief  
New Mexico Environment Department - Drinking Water Bureau  
525 Camino de los Marquez, Suite 1  
Santa Fe, NM 87502

**Subject: City of Lovington Water Well Field Contamination Update**

Dear Mr. Martinez:

Enclosed is an update of the progress the City of Lovington is making with the Protection Ordinance for the City's drinking water well field. As suspected the Oil and Gas Industry resented the steps that the City of Lovington took by adopting the ordinance and controversy seems to be on the way.

Included is a copy of the latest article from the Lovington Leader, a copy of an email that the New Mexico Oil and Gas Association (NMOGA) has put out to all of their members and a copy of the City of Lovington's Ordinance Number 449. NMOGA is planning to meet with state officials in attempt to solicit support against the ordinance and will meet latter this month to decide if litigation will be their course of action. I thought you might need to know about this due to the possibility of questions that may be raised by upper management.

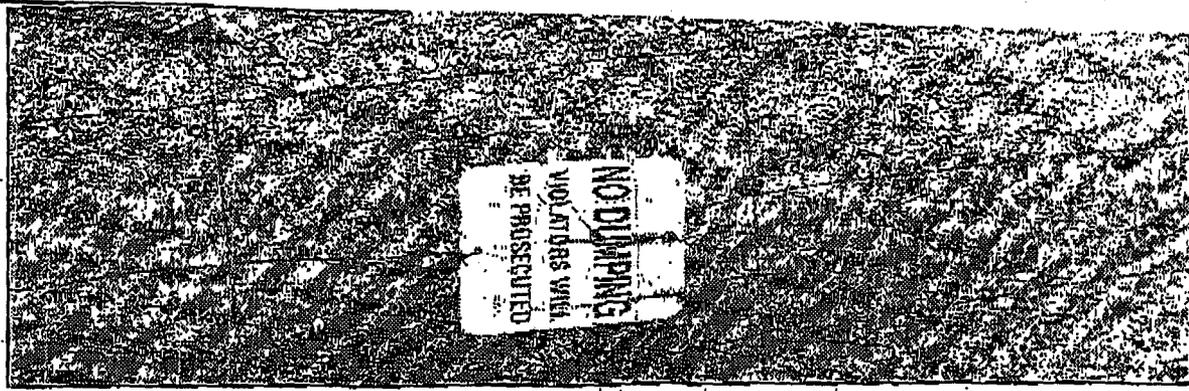
Should you have any questions or need additional information concerning this matter or any matters pertaining to the Drinking Water Program in Lea or Eddy counties, please contact me at (505) 393-4302 in the Hobbs Field Office.

Sincerely,  
*New Mexico Environmental Department - Drinking Water Bureau*  
*Rozanne Johnson*  
Rozanne Johnson, Hydrologist

Enclosure: Lovington Leader - Article - December 28<sup>th</sup>, 2003  
Email from Marie Gutierrez with the New Mexico Oil and Gas Association (NMOGA)  
Copy of the City of Lovington's Ordinance Number 449

Photo Copy: Ana Marie Ortiz, NMED-FOD Director  
City of Lovington - Hobbs File -- Drinking Water Bureau

highway was closed two hours before at 4 p.m. Forecasters said scattered rain showers and snow showers will come west to east. Up to 6 inches of snow likely in the west-central and west mountains by evening. The system is to move through New Mexico quickly. Weekend will be brisk as a broad trough of low pressure settles in over the state. Isolated to scattered snow showers will be to the northwest corner of the state. Snow showers were widespread in the northern half of the state overnight while clearing up across the edge.



**IRONY**  
 A new dumping site for the...  
 The city of Lovington is...  
 The city is proposing a new right-of-way...

# City Making Progress On Water Field Cleanup

By GINGER GRANATH

Over ten years ago, a lined pit full of black, oily sludge was abandoned in the City of Lovington's 1,800 acre water well field south of town.

Today, the city may be a little closer to getting it cleaned up, and it wouldn't be a moment too soon for City Manager Pat Wise, whose larger concern is the city's fresh water aquifer barely 55 to 60 feet below it.

Navajo Refinery offered to clean up the pit, at the company's own expense, two years ago. But when the city and refinery couldn't agree on a right-of-way contract onto the city's property, the negotiations fell by the wayside.

Now, with a new city manager and legal counsel at the helm, the city is proposing a new right-of-way agreement.

"There's a draft right-of-way agreement that we sent out to Artesia," Patrick McMahon, the city's legal counsel, said Tuesday.

If it's reasonable, Mark Plake, vice president of human resources and government affairs with Holly Corporation (Navajo's parent company), says the refinery is still willing to take on the job.

"As long as the other terms of the access agreement" are fair, Plake said Tuesday from his Dallas office, "it's something we're volunteering to do. We like to believe we're a good member of the community there."

Plake says the cleanup would not yield any marketable crude, and would be a "pure expense for us. There's absolutely nothing we gain from that, other

Cleanup

5

LOVINGTON DAILY LEADER, SUNDAY, DECEMBER 28, 2003

State  
 Affairs

Holidays  
 at N.M.  
 Food Bank

FA FE (AP) — New  
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# Scabs May Reveal Smallpox Secrets

FREDERICK, Md. (AP) — Government health researchers plan to conduct tests next year on the contents of a yellowed envelope apparently filled with scabs from 19th-century smallpox victims.

The scabs, found in a New Mexico university library, could shed light on the development of American smallpox vaccines, an official at the federal Centers for Disease Control and Prevention said.

There's also a slim chance, researchers say, that the scabs could yield live smallpox virus, which is believed to produce only two fatalities in the world.

Smallpox, in the general public, was eradicated a generation ago, but it is often mentioned as a potentially devastating biological weapon.

"This could lead to a greater, revolutionary understanding of the smallpox vaccine we're using in the U.S.," Jager Dunton, chief of

the CDC's virus group, told The Washington Post. "It all depends on what's in there."

Researchers believe the scabs are either from smallpox vaccine patients or from victims, whose scabs were used in early inoculation procedures.

The scab packet, found tucked between pages of a library book in Santa Fe, N.M., now rests in a freezer at the CDC, thanks in part to the Mexican government of Chihuahua.

It was found March 31 by a librarian at the University of New Mexico. An inscription on the envelope reads, "Scabs from vaccination of W.B. Yarrington's children," was signed by Dr. W.D. Kelly, the book's author.

Dunton realized the Frederick man had the same day, asking, "Would these be dangerous?" Her second question: would the museum want them?

# Cleanup . . . . . continued from page 1

then having it cleaned up. It's much more for the community. Usuals for us."

According to public records obtained from the New Mexico Oil Conservation Division, the disposal well facility owned and operated by Arriba, Inc. (now owned by Arriba, Inc. owned by Donny Ramirez) from 1974 to 1993.

A pipeline connected the refinery (then owned by Farnham, then Southern Doherty, and now Hedy Corporation) to the disposal well, and in 1974, and again in 1986, the disposal well was permitted to accept up to 16,000 barrels of the refinery's waste water a day.

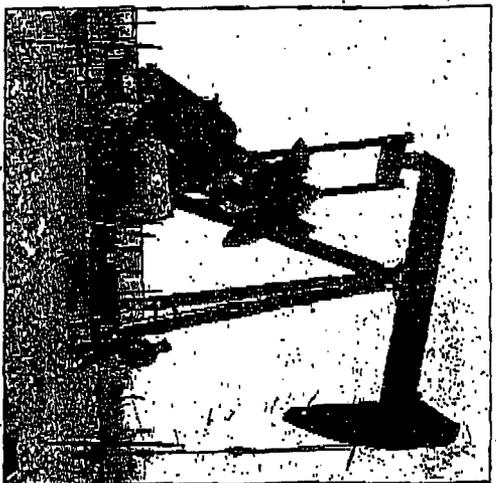
"Unfortunately, I don't know anything about the pipeline," said Platt, who offered to research it further. "I can't comment on something I'm not sure of."

In 1993, the disposal well was plugged. According to OGD, there is no bid on the Arriba, Inc. to pay for the cleanup of the abandoned site, leaving the cleanup cost, which will run hundreds-of-thousands of dollars, on the shoulders of the OGD.

No doubt, the OGD will be pleased if Navajo and city can reach an agreement. The OGD did begin exploring the four abandoned tank batteries connected to the well, and according to Lori Whittleberry, OGD Director, the state regulatory agency has already spent over \$120,000 in cleanup costs.

The good news for Whig, and the city, is that all evidence shows the liner in the pit is holding.

"Another well was drilled, and loose water was drilled and this liner so far is intact and it holds," Bill Olson of the OGD



OIL, WATER DON'T MIX

The New Mexico Oil Conservation Division recently drew up a plan to study the city's 1,800 acre water field south of town. The City of Lovington draws 100 percent of its water from 17 wells in the field, and allows rights-of-way in the field to 22 different oil and gas companies. Pictured above, Bill Olson of the OGD happens a pump back on city property during a November tour of the city's water field.

explained to a group who toured the city's water well field in November, "and we do have good clean water under the pit, so we're not fortunate of that."

On November 7, Whig, OGD representatives, and other agency representatives from around the state toured the city's water field. The City of Lovington draws 100 percent of its water from 17 wells on 1,800 acres south of town — and allows rights-of-way in the field to 22 different oil and gas companies. Water in the well field is not currently contaminated, but it was shut-in after contamination was found.

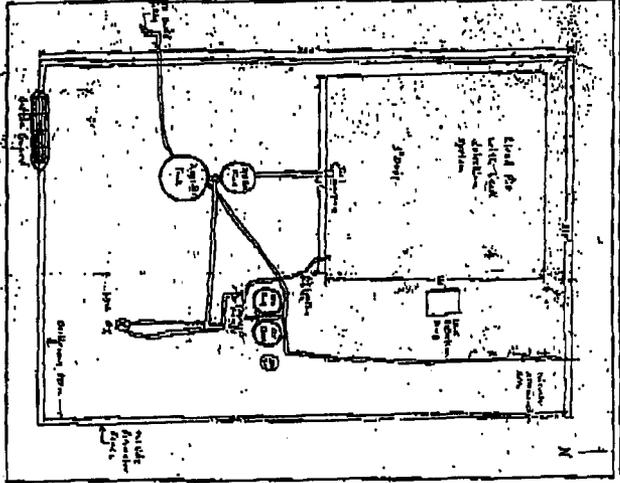
Following the November tour, the OGD issued a preliminary report of the city's water field. Here are the findings:

— A 200 barrel spill of produced water from a Pure Resources facility is being excavated by the company. When completed, results of the remediation will be submitted to the OGD. Pure Resources is also working with the OGD to clean up an unlined production pit near a city water well.

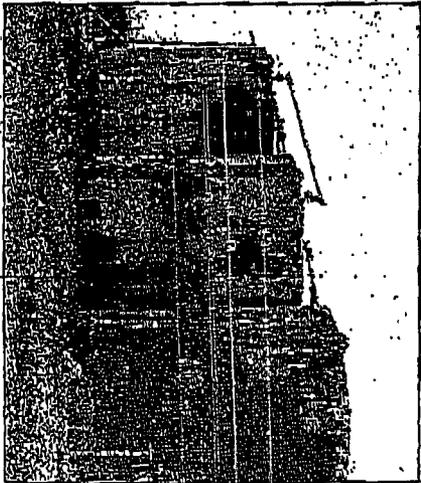
— Two problem facilities owned by Sage Resources have finally been addressed. Sage must submit a work plan for investigation and remediation of an abandoned tank battery under the water disposal facility. A history of spills from the two facilities must also be submitted to the OGD.

"Based upon the relatively shallow depth in ground water and the estimate number of city water wells in the area, the NMOCD will be conducting a study of the city prior well field to assess if additional measures are necessary to protect ground water resources in this area," Whittleberry wrote in a November 21 letter. "We will keep the city informed of the results of this study."

To further protect the city's fresh water supply, the city commission adopted city ordinance 449 on December 13, which requires oil and gas operators to comply with strict regulations when speaking in the city water field.



This hand-drawn map of the Arriba, Inc. disposal well facility is on file with the state Oil Conservation Division. It shows a six inch pipeline that runs north to connect the Navajo Refinery (then Southern United) to the well. The well was permitted to accept up to 16,000 barrels of waste water a day from the plant. The well was plugged and the site abandoned over ten years ago.



OLD AGE

Abandoned pipes, which corrode, risk seal leak, are just one of the problems at the site.

Section 1 Page 6 Lovington Daily Leader, Sunday, December 28, 2002

From: Marie Gutierrez [marieg@nmoga.org]  
 Sent: Monday, January 05, 2004 4:23 PM  
 To: NMOGA Membership  
 Cc: seligman@nmoga.org  
 Subject: Lovington Water Protection Ordinance



LovingtonOrdinanceATT01280.bct (259  
 .pdf (762 KB... B)

I have attached for your review and information a final copy of the Water Protection Ordinance adopted by the Lovington City Commission on December 15, 2003. By law, this ordinance is effective five (5) days after its publication, which has already occurred. I would recommend a careful, detailed review of what falls under this ordinance prior to commencing any work in the 1800 acres that apply to this ordinance.

We have begun a series of meetings with state officials in an attempt to solicit their support of our position that this ordinance is in violation of state statutes. We anticipate continuing these meetings and review for the next couple of weeks and will have a recommendation concerning any action ready for our Executive Committee Meeting on January 29, 2004. If litigation against the city of Lovington is the chosen action, I would anticipate that occurring immediately following the Executive Committee Meeting and that it would include a request for a temporary injunction prohibiting the city of Lovington from enforcing this ordinance while the case is in litigation.

If litigation is the course of action chosen we would solicit specific companies to undertake the cost of litigation and as such if your company would be interested in participating or receiving more information about this course of action, please contact me.

As always should you have any questions or require additional information, do not hesitate to contact me.



# NEW MEXICO ENERGY, MINERALS and NATURAL RESOURCES DEPARTMENT

**BILL RICHARDSON**

Governor

**Joanna Prukop**  
Cabinet Secretary

**Lori Wrotenbery**

Director

**Oil Conservation Division**

November 21, 2003

Mr. Pat Wise, City Manager

City of Lovington

P.O. Box 1269

Lovington, New Mexico 88260

**RE: LOVINGTON CITY WATER WELL FIELD**

Dear Mr. Wise:

On November 7, 2003, staff members of the New Mexico Oil Conservation Division (NMOCD) and I met with you, Mayor Harris, Mayor Pro-Tem Shipp and other officials of the City of Lovington to tour oilfield activities within the city water well field south of Lovington, New Mexico. During the tour, you expressed concerns about some spill sites and two former pit locations within the bounds of the water well field. At that time, I informed you that NMOCD would look into the matter and respond to you. Below you will find specific information for each site and actions that the NMOCD is taking or has previously taken at these sites. The sites are listed in the order of the stops that were made during the tour.

Stop 1

This stop was the site of a produced water spill on January 26, 2003 from the Pure Resources Lovington Paddock Unit Well #21 injection line. Approximately 230 barrels (bbls) of produced water were spilled and 130 bbls were recovered. Pure Resources reported the spill to the NMOCD on January 26, 2003 and subsequently submitted a project plan/site investigation report. The NMOCD has reviewed this document and found the preliminary investigations and proposed work plan to be satisfactory. As observed during the inspections, Pure Resources has currently excavated the spill area. The NMOCD, by letter, has directed Pure Resources to submit the results of the excavation work and their proposal for completing site remediation to the OCD for approval. Attached is a copy of the NMOCD inspection report and letter to Pure Resources.

Stop 2

According to Pure Resources, this stop is the site of a produced water line leak connected to Pure Resources' Lovington Paddock Unit Well # 106 where approximately two barrels of produced water were spilled. Pure Resources stated that since the volume of the spill was below the NMOCD reporting requirements of Rule 116, the spill was not reported to NMOCD. The line

Mr. Pat Wise  
November 21, 2003  
Page 2

was replaced, and the spill was not remediated. NMOCD has sent a letter directing Pure Resources to provide information regarding the spill and, due to its location within the city water well field, submit a work plan for investigation and remediation of the site. Attached is a copy of the NMOCD inspection report and letter to Pure Resources.

### Stop 3

During the tour, this stop was noted to be an oilfield tank battery. A sign indicated it was operated by Penroc Oil Corporation and called the State AE Tank Battery. Oil spills were noted on the ground surface around the tank battery facility. We have determined that Saga Petroleum currently owns the site. According to Saga Petroleum, the tanks have been emptied and the site is no longer operational. NMOCD has sent a letter directing Saga Petroleum to provide information regarding spills and, due to the location within the city water well field, submit a work plan for investigation and remediation of the site. Attached is a copy of the NMOCD inspection report and letter to Saga Petroleum.

### Stop 4

This stop was the site of the Apollo Salt Water Disposal Facility operated by Saga Petroleum. Produced water spills were noted on the ground surface around the injection pump and outside the tank battery berms. NMOCD has sent a letter directing Saga Petroleum to provide information regarding spills and, due to the location within the city water well field, submit a work plan for investigation and remediation of the site. Attached is a copy of the NMOCD inspection report and letter to Saga Petroleum.

### Stop 5

This stop involved the Araho, Inc. site, a former injection well disposal facility, which has a single-lined evaporation pit containing oily wastes. An NMOCD Phase I cleanup and investigation, using the state oil and gas reclamation fund, was completed on October 20, 2003. Phase I included the removal of the tank fluids, tanks, equipment, above and below grade pipe and trash. It also involved an investigation to determine the nature and extent of subsurface soil contamination. NMOCD's contractor is currently finalizing a report that will give an estimated volume of remaining soil contamination, a proposal for a cost effective Phase II investigation and cleanup, and a cost estimate for the Phase II plan. The NMOCD has so far expended approximately \$121,000 of the reclamation fund at this site. In 2002, Navajo Refining offered to clean up the lined evaporation/holding pit that is at the site. Navajo's preliminary sampling indicated that underlying ground water has not been impacted by the pit. They have not yet begun the cleanup effort because they are in the process of negotiating an access agreement with the City of Lovington.

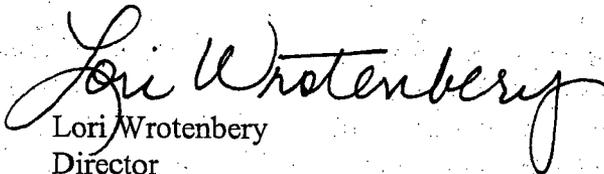
Mr. Pat Wise  
November 21, 2003  
Page 3

An area of concern that the city discussed, but was not included in the tour, was Pure Resources former unlined production pit at the Lovington Paddock/Lovington San Andres Unit ATB 1-1 site located south of the Araho site. Pure Resources has been working with the OCD to investigate and remediate this site. Soil and ground water investigations are ongoing at the site pursuant to NMOCD rules. We will copy the city on all future NMOCD correspondence regarding the site so that you are kept informed on clean-up activities at the site.

We appreciate you spending time to show the NMOCD your concerns within the city water well field. Based upon the relatively shallow depth to ground water and the extensive number of city water wells in this area, the NMOCD will be conducting a study of the city water well field to assess if additional measures are necessary to protect ground water resources in this area. We will keep the city informed of the results of this study. Please let us know if you have other sites of immediate concern regarding the city water well field.

If you have any questions, please call me at (505) 476-3458 or Bill Olson at (505) 476-3491.

Sincerely,



Lori Wrotenberg  
Director

Attachments

LW/wco

Cc: Mayor Troy Harris, City of Lovington  
Mayor Pro-Tem Bill Shipp, City of Lovington  
Chris Williams, NMOCD Hobbs District Office  
Roger Anderson, NMOCD Environmental Bureau



# NEW MEXICO ENERGY, MINERALS and NATURAL RESOURCES DEPARTMENT

**BILL RICHARDSON**

*Governor*

**Joanna Prukop**

*Cabinet Secretary*

November 21, 2003

**Lori Wrotenberg**

*Director*

**Oil Conservation Division**

Mr. Mike Northcutt  
Pure Resources  
P.O. Box 609  
Lovington, New Mexico 88260

**Subject: Contamination from Oil Field Operations**

The New Mexico Oil Conservation Division (OCD) recently received a complaint from the City of Lovington New Mexico concerning surface contamination at two Pure Resources (Pure) facilities, the Lovington Paddock well #21 and well #106 flow line leak sites located in Sec 36-Ts 16s-R 36e. The city owns approximately 1800 acres of land in this area where its fresh water wells are located.

At the request of the City, the OCD conducted a joint inspection with City of Lovington officials and noted several deficiencies (see attached inspection report). Based on the following findings, OCD requires Pure Resources to perform corrective actions as listed below.

**A. Well site # 21 located in SW/4 NE/4 Sec 36-Ts 16s-R 36e:**

*Finding:*

Pure was performing corrective actions on this site.

*Additional Corrective Action Required:*

Pure Resources shall submit a closure plan for OCD approval by December 03, 2003. This plan shall be submitted and approved by OCD before Pure backfills any remaining excavated areas. The plan shall include bottom and side wall soil sample analysis for TPH, BTEX and chlorides. The plan shall describe in detail all activities to date, including the disposal of any contaminated soils.

**B. Well site # 106 located in UL E Sec 36-Ts 16s-R 36e:**

*Findings:*

1. Visual contamination that exhibited gross oil staining was noted on the ground surface. The soil exhibited a strong hydrocarbon odor. The spill had been covered with sand.
2. Another disturbed area in close proximity to the one mentioned above was noted. It appeared that some surface bioremediation had taken place.

Corrective Action Required:

1. Pure Resources shall make notification and perform corrective actions on all future leaks and spills pursuant to 19.15.C.116 NMAC and abide by all OCD rules and regulations.
2. Pure Resources shall immediately stop all releases of oilfield products or waste, make repairs to equipment to prevent future releases, and install best management practices where feasible.
3. Pure Resources shall submit an action plan for OCD approval by December 15, 2003. The plan shall describe how Pure Resources plans to correct the problems OCD found, including a clean up and remediation plan, and a plan to determine the extent of contamination at the site.
4. Pure Resources shall submit evidence that OCD Rule 118 (Hydrogen Sulfide) H<sub>2</sub>S is being adhered too.

If you have any questions please do not hesitate to contact me at 505-476-3487 or [WPRICE@state.nm.us](mailto:WPRICE@state.nm.us).

Sincerely;



Wayne Price-Pet. Engineer

cc: OCD Hobbs Office

Attachments-2



Picture #1220 Initial excavation looking NNE.



Picture #1500 View of west excavation from west side looking east.



Picture #1221 Initial excavation looking West.



Picture # 1501 View looking east across center excavation to east excavation.



Picture # 1489- Flow line leak site 300 feet west of Lovington City water well #18. Picture looking west. At time of visit soil had a distinct hydrocarbon odor and exhibited gross staining. Most of the spill area was covered with sand.



Picture # 1492- Lovington city water well #18.



Picture # 1490 - From 35 feet south of abandoned flow line and clamp next to flow line. Area has been covered with sand.



Picture # 1493-View of flow line from west side of city well #18 looking west.



Picture 1491- From 300 feet west of Lovington city water well #18 looking WNW.



Picture # 1494 - Flow line comes from this well.



# NEW MEXICO ENERGY, MINERALS and NATURAL RESOURCES DEPARTMENT

**BILL RICHARDSON**  
Governor  
**Joanna Prukop**  
Cabinet Secretary

**Lori Wrotenbery**  
Director  
Oil Conservation Division

November 21, 2003

Mr. Chuck Farmer  
Saga Petroleum  
415 W. Wall Suite 1900  
Midland Texas 79701

Subject: **Contamination from Oil Field Operations**

The New Mexico Oil Conservation Division (OCD) recently received a complaint from the City of Lovington New Mexico concerning surface contamination at two Saga Petroleum (Saga) facilities, the Apollo Salt Water Disposal (SWD) system and the State AE abandoned (old Penroc) tank battery site located in Sec 1-Ts 17s-R 36e and Sec 36-Ts 16s-R 36e, respectively. The city owns approximately 1800 acres of land in this area where its fresh water wells are located.

At the request of the City, the OCD conducted a joint inspection with City of Lovington officials and noted several deficiencies (see attached inspection report). Based on the following findings, OCD requires Saga to perform corrective actions as listed below.

**A. State AE abandoned (old Penroc) tank battery site located in Sec 36-Ts 16s-R 36e:**

*Finding:*

Visual contamination that exhibited gross staining was noted on the ground surface and around the abandoned tanks.

*Corrective Action Required:*

Saga shall submit an action plan for OCD approval by December 15, 2003. The plan shall describe how Saga plans to correct the problems OCD found, including plans to remove sources of contamination, determine the extent of contamination, and clean up and remediate the site.

**B. Apollo Salt Water Disposal (SWD) system site located in Sec 1-Ts 17s-R 36e.**

*Findings:*

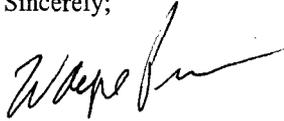
1. Visual contamination that exhibited gross oil and salt staining was noted on the ground surface.
2. Water from pumps was being discharged to the ground surface at time of visit.
3. The sign did not identify the legal location.
4. Part of the location has been abandoned.
5. There is an old pit located on-site that requires proper closure.

Corrective Action Required:

1. Saga shall make notification and perform corrective actions on all future leaks and spills pursuant to 19.15.C.116 NMAC and abide by all OCD rules and regulations.
2. Saga shall immediately stop all releases of oilfield products or waste, make repairs to equipment to prevent future releases, and install best management practices where feasible.
3. Saga shall submit an action plan for OCD approval by December 15, 2003. The plan shall describe how Saga plans to correct the problems OCD found, including a clean up and remediation plan, and a plan to determine the extent of contamination at the site.
4. Saga shall submit evidence that OCD Rule 118 (Hydrogen Sulfide) H<sub>2</sub>S is being complied with.

If you have any questions please do not hesitate to contact me at 505-476-3487 or [WPRICE@state.nm.us](mailto:WPRICE@state.nm.us).

Sincerely;



Wayne Price-Pet. Engineer

cc: OCD Hobbs Office

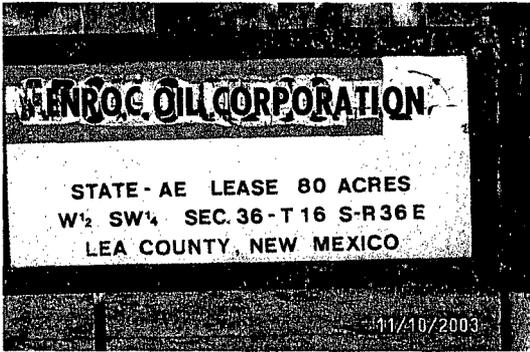
Attachments-2



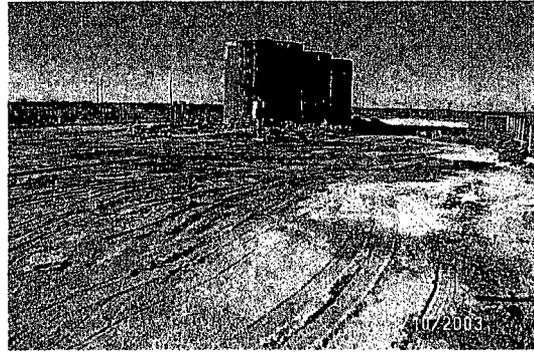
Picture # 1474- Abandoned battery from south looking north.



Picture # 1477- Inside battery fence. Picture taken from southwest side looking NE.



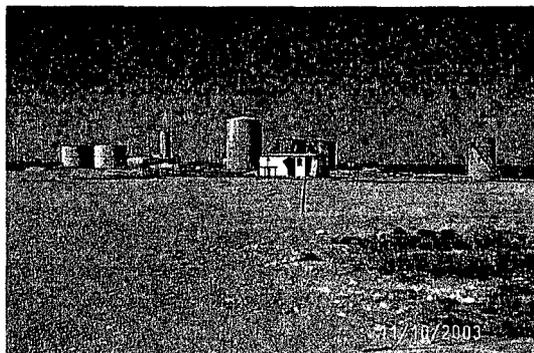
Picture # 1475- Facility sign.



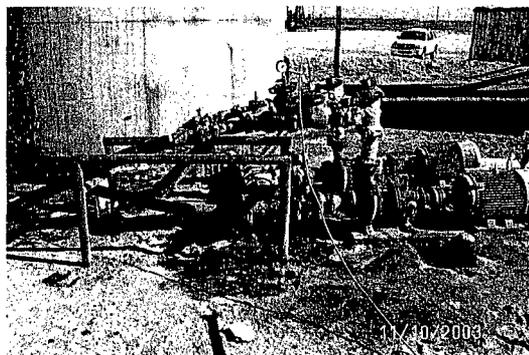
Picture # 1478- Inside battery fence. Picture taken from South West corner looking North East.



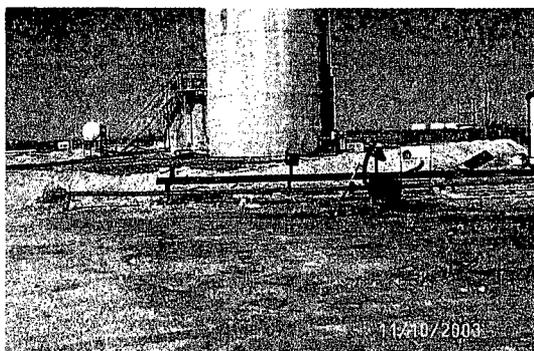
Picture # 1476- Stain area inside battery fence. Picture taken from west side looking SE.



Picture # 1429- Abandoned battery on left side of picture, active salt water disposal tanks and pumps on right side. Picture taken from south side looking north.



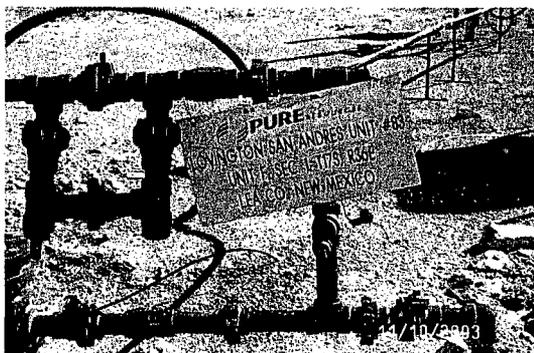
Picture # 1435- Saga SWD tanks and centrifugal pumps inside of berm. Picture taken from west side looking SE. At time of site visit these pumps were leaking water onto the ground surface.



Picture #1430- Active SWD south side looking north.



Picture # 1436- North side of pumps looking south. Soil is wet and gross salt water staining observed.



Picture #1431- Active well located approximately 150 feet SE of Saga SWD facility.



Picture # 1437- Cattle tracks observed inside of SWD berm on NE side.



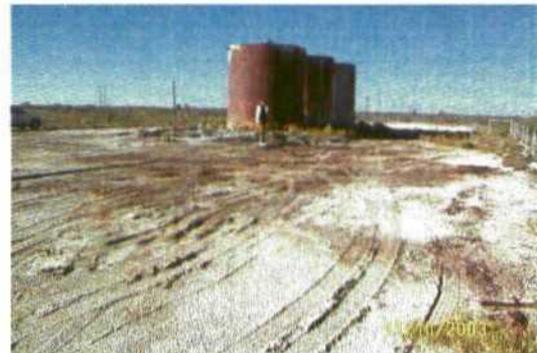
Picture # 1474- Abandoned battery from south looking north.



Picture # 1477- Inside battery fence. Picture taken from southwest side looking NE.



Picture # 1475- Facility sign.



Picture # 1478- Inside battery fence. Picture taken from South West corner looking North East.



Picture # 1476- Stain area inside battery fence. Picture taken from west side looking SE.



Picture # 1429- Abandoned battery on left side of picture, active salt water disposal tanks and pumps on right side. Picture taken from south side looking north.



Picture # 1435- Saga SWD tanks and centrifugal pumps inside of berm. Picture taken from west side looking SE. At time of site visit these pumps were leaking water onto the ground surface.



Picture #1430- Active SWD south side looking north.



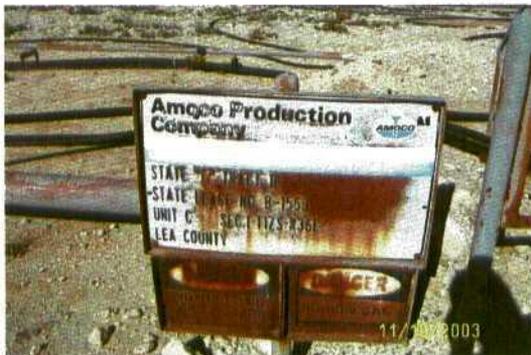
Picture # 1436- North side of pumps looking south. Soil is wet and gross salt water staining observed.



Picture #1431- Active well located approximately 150 feet SE of Saga SWD facility.



Picture # 1437- Cattle tracks observed inside of SWD berm on NE side.



Picture # 1438- Facility sign located between SWD tanks and abandoned production header and vessels.



Picture # 1448- Looking inside of pit.



Picture # 1445- NE corner of SWD berm area. Salt water stains observed.



Picture # 1461- Apparent abandoned unplugged water source well used to fill pit.



Picture # 1447 Old fresh water pit located approximately 200 feet ENE from Saga facility. Picture taken SW looking NE. Navajo Oil Refinery in background.



Picture # 1462- Pit identification sign on NE corner.

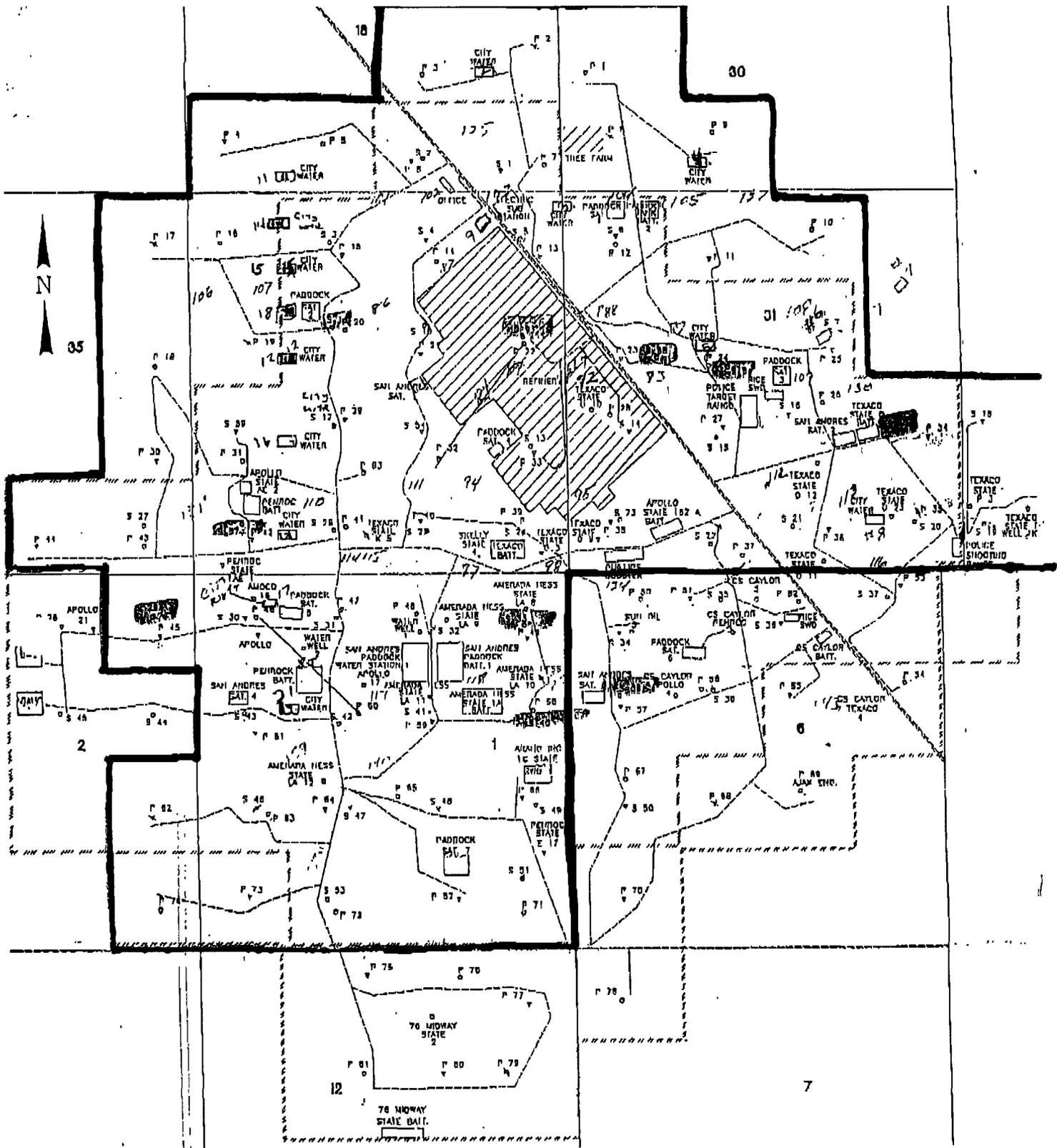


Picture # 1463- Pit NE corner looking west.  
Saga Apollo SWD facility show in background.



Picture # 1464- Low lying area located 150 feet  
east of pit.





LEGEND

- EXISTING FACILITY
- PROPOSED FACILITY
- FEED
- MAJOR ROAD
- LEASE ROAD
- PRODUCTION WELL
- INJECTION WELL
- PERMANENTLY ABANDONED WELL
- TEMPORARILY ABANDONED WELL
- PROPOSED PRODUCTION WELL
- PROPOSED INJECTION WELL
- RENTIES SANTA ANTONIO STATE
- RENTIES PADDOCK WELL

GREENHILL PETROLEUM

LOVINGTON PADDOCK UNIT  
 LOVINGTON SANTA ANTONIO UNIT  
 FIELD MAP  
 LEA Co., NEW MEXICO

DATE: 12-31-86	DRAWN: J.G.	REV. DATE: 12-31-86	BY:
SCALE:	1" = 1000'		

## Price, Wayne

---

**From:** Rice Operating [riceswd@leaco.net]  
**Sent:** Thursday, October 30, 2003 2:22 PM  
**To:** Price, Wayne  
**Subject:** Re: Lovington well field

Wayne,

>  
> Hope this list will satisfy your request. Please don't hesitate to call  
if  
> you have questions or would like clarification. Carolyn

> **1** Closed projects at the ROC-operated ABO SWD System:  
> Leak site from 1997 - GW impact Case # 1R0220 closed 5-25-01  
> COL #6 well and 2 monitor wells plugged Oct 2001  
> 14,000 feet of Pipeline Replacement

> **2** Applied for Closure:  
> Leak site from pump hose failure (occurred 2-7-03; delineated site  
> with electrical conductivity survey and excavation to confirm depth of  
> impact at <20 feet BGS - remediated surface, seeded and applied for  
closure)

> **3** Pit closed at F-31 SWD Facility - continue to monitor groundwater

> Current Projects:  
> **X** Leak discovered Oct 18, 2003 - reported as major accidental  
> discharge - appears to be a site of historical discharges (scheduled to  
> bore for delineation on Nov 10) - will submit remediation plan for  
approval  
> when developed.

> Completed Major Housekeeping at SWD Facilities - removal of  
> extraneous parts, paint refurbishment, fence and site security  
improvement,  
> secondary containment for all chemical, lubricating oils, pump excretions,  
> etc.

> **5** Pipeline replacement for 5000 feet - 1st and 2nd quarter 2004  
> Set overflow tank at SWD Facility C-2 - second quarter 2004

> Standard Operation Practices: (abbreviated for simplicity)  
> Monitor SWD Wells and Pump Stations DAILY for:  
> Disposal Volume  
> Casing and tubing pressure  
> Pump operations, conditions, run time  
> Visual safety and environmental checklist of facilities  
> Monitor SWD System Weekly for:  
> Chemical usage  
> Oil accumulation on tanks (skim if needed)  
> H2S concentration at tank thief hatches  
> Monitor SWD System Monthly for:  
> Pipeline integrity (physically inspect all pipeline Right

of  
> Ways)

> System Partner Disposal Volumes  
> Maximum injection test for SWD Well



**Price, Wayne**

---

**From:** Olson, William  
**Sent:** Thursday, November 20, 2003 10:19 AM  
**To:** Price, Wayne  
**Subject:** FW: Lovington Brief for Activity Report

FYI.

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

**From:** Olson, William  
**Sent:** Friday, November 14, 2003 9:04 AM  
**To:** Davidson, Florene  
**Cc:** Anderson, Roger  
**Subject:** Lovington Brief for Activity Report

Florene,

Below is the information you requested for the activitiy report:

On Friday November 7, OCD Director Lori Wrotenbery, BillOlson and Wayne Price of the OCD Environmental Bureau, and Gary Wink of the OCD Hobbs District Office attended a meeting in Lovington, New Mexico with the Mayor and City Manager of the City of Lovington. The purpose of the meeting was to tour the city water well field south of Lovington. The city pointed out several prior oilfield spill areas, one lined oilfield pit location and one former unlined oilfield pit location that they were concerned with regarding potential contamination of the city water well field. The meeting also included representatives of the Hobbs News Sun, Lovington Daily Leader, and the Oil & Gas Accountability Project. The OCD briefed the city on ongoing cleanup actions related to the 2 pit sites and informed that the city that the OCD would investigate the remaining sites and report back to the city within 2 weeks.

If you have any questions please let me know.

Sincerely,

William C. Olson  
Hydrologist  
New Mexico Oil Conservation Division  
1220 South St. Francis Dr.  
Santa Fe, NM 87505  
(505) 476-3491

11/7/03 Meeting

Pat Wise

City

CHARLES KELLEY

"

Michelle Fox

Hobbs News-Sun

WAYNE PRICE

OCD

Jennifer Goldman

Oil & Gas Accountability Project

STEVE DALY

BLM-CARLSBAD FIELD OFFICE

GARY W. WINK

OCD

PATRICK B. McMAHON

City

Bill Olson

NMOC/O

Bob Gallagher

NMOGA

MICHAEL WELLS

City

Lori Wrotenberg

NM Oil Conservation Dir

Bill Shupp

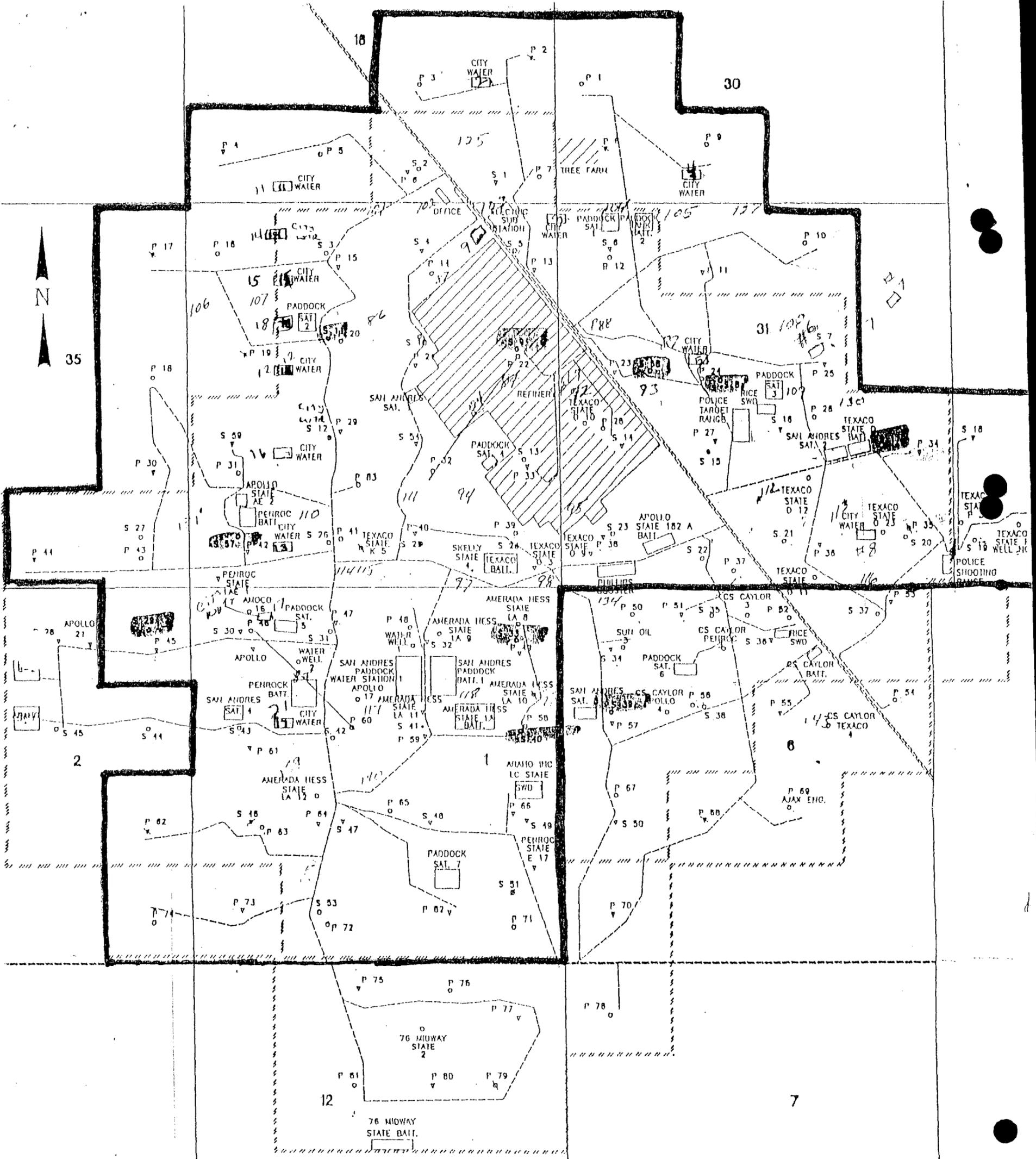
lit

Ginger Warratt

Leader

Troy Davies

City



LEGEND

- EXISTING FACILITY
- PROPOSED FACILITY
- FENCE
- MAJOR ROAD
- LEASE ROAD
- PRODUCTION WELL
- INJECTION WELL
- PERMANENTLY ABANDONED WELL
- TEMPORARILY ABANDONED WELL
- PROPOSED PRODUCTION WELL
- PROPOSED INJECTION WELL
- S 53 DENOTES SAN ANDRES WELL
- P 72 DENOTES PADDOCK WELL

**GREENHILL PETROLEUM**

LOVINGTON PADDOCK UNIT  
LOVINGTON SAN ANDRES UNIT  
FIELD MAP  
LEA Co., NEW MEXICO

DATE: 12-21-88	DRAWN: M.F.G.	REV. DATE: 12-21-88	DRY
SCALE:	JOB # 88908		

393-9174

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### Officials tour Lovington water field

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MICHELLE A. FOX

NEWS-SUN

It was a cold and stormy morning when Pat Wise and Lovington city attorney Patrick McMahon took state officials and others on a tour of the water field that provides Lovington with its water -- and to show the damage oil companies have done to it.

## OPINION

- Viewpoint
- Email the Editor

At the last Lovington City Commission meeting, a discussion took place between the commission and Chris Williams of the New Mexico Oil Conservation District. A major problem with the oil production sites in the water field is spills and abandoned equipment and pipelines. During the course of the talks, issues of notification of spills and not being able to keep track of which companies own what equipment came up as most important

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One site that experienced a spill of produced water was owned by Pure Energy. Having reported the incident, remediation on the area had already begun to clean up the site.

According to Wise, Pure is one of the few companies that have notified them about spills.

In contrast, a site where oil had been spilled and sand was simply put on top of the crude was not reported. The spill was found by city workers assigned to cover the water field.

"Two-thirds of what we saw today, the city found," Wise said.

Digging into the oil-soaked ground yielded large clumps of gooey black dirt that smelled of turpentine. A few hundred feet away is other evidence of a spill and an attempt of remediation. It is still unknown who is responsible for either site.

"They just left it," Wise said. "They didn't report anything."

What no one knows is how deep the oil continues beneath the



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surface or if it goes deep enough to contaminate groundwater.

Contaminated groundwater is a problem in the water field. According to McMahon, there are several sites where the groundwater has been contaminated.

One site of concern and currently going through remediation is the Araho site.

The results for test run on the groundwater under the enormous 11-year-old pit of sludge came back showing no contamination, according to Bill Olsen of the NMOCD. There had been concern that the liner at the bottom of the pit was no longer intact.

A snag in remediating the pit is the value of the sludge it contains. More often than not, sludge will contain enough oil to be valuable to other oil companies. When this occurs, the company interested in the product will also pay for the remediation.

In the case of the Araho pit, the sludge is made of very little oil and has very little value to other companies. Remediation will be the responsibility of the government.

Something that was easy to notice while walking through the oilfields was the life cycle of oil equipment. Amid the operating batteries and pumpjacks were many rusting tanks, pipelines and metal scraps dead where they once were used regularly.

One site had a large tank with its insulation corroding off the outside. There were exposed wires and pieces of piping strewn around the tank.

"This is a violation," said Gary Wayne of NMOCD. "But the property changes hands so quickly on us anymore, you do not know whose it is one day to the next."

Not all left the Lovington School bus to go on the field. Bob Gallagher, chairman of the New Mexico Oil and Gas association, did not look at any of the visited sites.

After returning to City Hall, it was decided that the NMOCD would compile the data collected with previous data and present it to the City of Lovington at a later date.

Olson, William

---

**From:** Chavez, Frank  
**Sent:** Monday, November 10, 2003 11:44 AM  
**To:** Wrotenbery, Lori; Olson, William; Williams, Chris; Wink, Gary  
**Subject:** Lovington Water

This article was in this morning's Farmington Daily Times.



Untitled.tif

# Officials tour polluted water field

LOVINGTON (AP) — City Manager Pat Wise and City Attorney Patrick McMahon took state officials and others on a tour this week of the area that provides the city with water.

They pointed out what they said was damage done to the water field by oil companies. They talked about spills and abandoned equipment and pipelines.

Lovington officials have said notification of spills and not being able to keep track of which companies own what equipment in the area have become important issues.

One site that experienced a spill of produced water was owned by Pure Energy. The company reported the incident and cleanup has begun, but Wise said

Pure is one of the few companies that notifies the city about spills.

"Two-thirds of what we saw today, the city found," Wise said during Friday's tour.

Digging into the oil-soaked ground yielded large clumps of goeey black dirt that smelled of turpentine. A few hundred feet away was other evidence of a spill and an attempt of remediation.

Wise said it's unknown who was responsible for either site.

"They just left it," he said. "They didn't report anything."

What city officials don't know is how deep the oil continues beneath the surface.

At one site — an 11-year-old pit of sludge known as the Araho site — the results of test on the groundwater showed no contami-

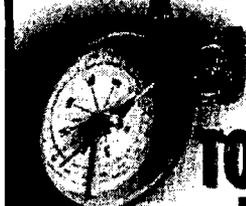
nation, said Bill Olsen of the New Mexico Oil Conservation District. Officials had been concerned that the liner at the bottom of the pit was no longer intact.

McMahon added there are several other sites where the groundwater has been contaminated.

While walking through the oilfields, those on the tour also noticed old batteries, pumpjacks, rusting tanks and metal scraps. At one site, there was a large tank with corroded insulation and exposed wires.

"This is a violation," said Gary Wayne of conservation district. "But the property changes hands so quickly on us anymore, you do not know whose it is one day to the next."

## Hope for your Future —



**JOURNEY  
TO BETTER**

San Juan Regional Medical Center and  
San Juan College are partnering to present  
Hope for Your Future - Journey to Better Health.  
Thursday, Nov. 13, from 7 a.m. to 1 p.m.,

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ATTN:  
Bill  
Olson

Charles Keller, Lovington city manager, and Lon Wright, WSAE EGD director, inspect a leak in a pipeline during the city's water field test today. Also pictured: Wayne Pines, EGO (left), WSAE Director Paul Gallagher (center), and Mike Newell (right).



Lovington city manager Paul Wink watches Gary Wink of the city turn a pipe black to inspect for a leak near an abandoned pipeline. Bill Olson (center) is one of the city's water field test operators. At the front of the picture is a new pipe recently applied to the pipe. City officials were not sure who the responsible operator was, how long the leak had occurred, and how deep the contamination was.



Bill Gibson (left) and Wayne Pace of the New Mexico Oil Conservation Division walk away from an abandoned pit of hardened black sludge. After explaining to Friday's group that the fresh water under the lined pit tested clean.



Patrick McManis (left) and Mike Havel of the Oriskany Group visit with Jennifer Coleman of the Grand Gas Accountability Project in front of two abandoned gas boilers in the Black Mesa Water field.

## **State Officials Get Close Look At Contamination Threat**

# Locating Former Operators Difficult

By GINGER GRANATH

It seems City Manager Pat Wise may have finally gotten the attention of the New Mexico Oil Conservation Division (OCD). Friday, Wise arranged a bus tour into the city's 1,800 acre water field south of town to show everyone the oil spills plaguing the land. Four OCD representatives attended, including Director Lori Wrotenbery.

Bob Gallagher, director of New Mexico Oil and Gas Association; Steve Daly with the Bureau of Land Management; Mayor Troy Harris; Mayor Pro-Tem Bill Shipp; Charles Kelley, assistant city manager; Patrick McMahon and Mike Newell, the city's legal counsel; and Jennifer Goldman of the New Mexico Oil and Gas Accountability Project rounded out the group.

Loaded up in a yellow school bus, Wise showed the group five problem areas and pointed out the city's 17 water wells.

At each stop, Wayne Price, Gary Wink, and Bill Olson of OCD walked each site, listed the irresponsible operators, and made field notes.

"Yeah, it's pretty obvious there's something that's there because of the hydrocarbon smell," said Price after examining blackened soil near a poorly repaired pipeline. It appeared someone tried to cover the spill with sand; it wasn't immediately clear to the OCD staff or city officials who the responsible party was for the spill.

The dark soil encompassed a large area that was just upstream

**Well Field** 5

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## Well Field . . . continued from page 1

from one of the city's water wells. "The gradient is headed right toward that municipal well," Wise said pointing to the well just southeast of the spill.

What isn't known is whether or not any of these surface problems have reached the fresh water aquifer 50 to 55 feet below the surface. The City of Lovington draws 100 percent of its water from 17 wells on 1,800 acres south of town — and allows rights-of-way in the field to 22 different oil and gas companies. Water in the well field is not currently contaminated, but in the past one of the city's wells was shut-in after contamination was found.

"What you have is leak upon leak upon leak upon leak," said McMahon pointing to a hardpan area where black soil snaked around two leaky tank batteries, "and what should happen is they should come out here and drill down to the ground water and see how far this stuff goes. It's possible it goes ten feet down and stops, but in their experience I bet they're going to tell you there's a good probability the ground water is going to be impacted."

"Until we check into it further, we really can't comment on the seriousness of it," said Wrotenbery after viewing the first two sites. "What we do plan to do is take a look at this whole area and put together a report for the city on what we find, document what has happened in the past, and what work has been done."

One site, the Arahó site, was abandoned over 11 years ago with tank batteries and a lined pit full of black sludge left behind. At Wise's persistence, the OCD has begun cleaning up that site, removing the corroded tanks. The pit is still there, and Olson said his staff has drilled monitor wells around it. "Monitor wells were drilled, bore wells were drilled and this liner so far is intact and is holding," he explained to the group, "and we do have good clean water under this pit, so we're real fortunate of that." According to Wise, the surety bond on the site was released from the state back to the oil company years ago, leaving the cleanup

cost, which will run hundreds-of-thousands of dollars, in the hands of the OCD.

The first step when a person sees an apparent leak is to notify the operator, who is supposed to have the company name and contact number clearly marked. A person can also contact OCD to report the leak. Olson explained the district's role: "The first thing we do is try to find a responsible party" when there is a problem. "It's their responsibility for environmental cleanups, unless the site is truly abandoned." In those instances, OCD often has to foot the bill: "We try to work with monies we have to clean up sites."

It's not always that easy, though, said Olson pointing to an apparently abandoned facility with a Penrock sign in front. "Penrock is still a viable company, the sign says Penrock, [but] sometimes they're sold and the signs aren't changed."

This past year, when numerous calls to operators and the OCD failed to produce results, Wise became worried. He asked the city's legal counsel to draft ordinance 449, a city ordinance which would regulate oil and gas operations in the city's 1,800 acre water field. There is a New Mexico state statute that allows a city to pass ordinances to protect its municipal water, which is the legal portal for the city's ordinance.

Prior to introducing the ordinance at the September 15 city commission meeting, several representatives of the oil and gas industry got wind of it, and showed up en masse to voice strong opposition. Some industry representatives suggested that by passing the ordinance, the city would subject itself to costly litigation. Since then, two organizations, the New Mexico Cattle Growers Association and the Oil and Gas Accountability Project, along with several farmers and ranchers have publicly supported the ordinance. (The city commission has not adopted the ordinance yet, which is in its second draft.)

"We need a lot better enforcement," said Goldman, who joined Friday's tour from the OGAP's office north of Taos, "although a lot of the problems are the regulations." According to its mission statement, OGAP was created in 1999 to "advocate for greater corporate and governmental accountability, responsibility, and respect for people and places in the course of oil and gas development."

Goldman took a great deal of interest in the apparent damage on the surface of the land, snapping pictures and taking notes, while conversely, Gallagher, the director of NMOGA, the largest organization of New Mexico producers, referred to the tour as a "media circus" and did not leave the bus to view the final three sites.

The tour concluded after about an hour-and-a-half. Wrotenbery and her staff stayed around at City Hall to discuss issues with Wise, McMahon, Harris and Shipp.

Last night, Wise briefed the city commission on the day, saying he was pleased with the progress.

"I thought it went wonderfully," he said. "We took them to five different sites, existing batteries, abandoned batteries, pipeline blowouts. ... I think they understand our pain now, I certainly hope so."

**ORDINANCE NO. 449**

An ordinance of the City of Lovington, New Mexico, amending and adding to Section 8.30.290 Proximity of Pipelines to Water Well and Requirements for Other Construction, of Chapter 8.30, Oil and Gas Wells and Pipelines, of the Lovington Municipal Code, and enacting new provisions of Chapter 8.30 Oil and Gas Wells and Pipelines, of the Municipal Code of the City of Lovington, New Mexico.

WHEREAS, the City of Lovington owns property outside its municipal boundary which contains water facilities for the City's municipal water supply; and,

WHEREAS, the territory occupied by the water facilities may be crossed from time to time by pipelines carrying hydrocarbons and other liquids related to oil and gas exploration and production, and other construction related to oil and gas activity may occur from time to time; and,

WHEREAS, the City is empowered under N.M.S.A 1978, §3-27-3 to enact ordinances to protect its water facilities from pollution.

NOW, THEREFORE, BE IT ORDAINED BY THE GOVERNING BODY OF THE CITY OF LOVINGTON, NEW MEXICO, that:

An addition to Section 8.30.290 Proximity of Pipelines to Water Well and Requirements for other Construction, Chapter 8.30, Oil and Gas Wells and Pipelines, of the Lovington Municipal Code of the City of Lovington, New Mexico, in the following form, is hereby enacted:

**Amendment to § 8.30.290**

It shall be unlawful for any person to construct any pipeline not in compliance with this section 8.30.290. It shall be a separate offense for each day that a pipeline constructed in violation of this ordinance remains out of compliance, and upon conviction thereof, the offender shall be subject to a maximum fine of \$500.00 for each violation.

NOW, THEREFORE, BE IT ORDAINED BY THE GOVERNING BODY OF THE CITY OF LOVINGTON, NEW MEXICO, that:

New Provisions of Chapter 8.30, Oil and Gas Wells and Pipelines, of the Lovington Municipal Code of the City of Lovington, New Mexico, being Section 8.30.300 through 8.30.520, in the following form, are hereby enacted:

**8.30.300. Permit Required**

It shall be unlawful for any person to commence any drilling operation, any re-entry or

workover, or any other construction, operation, or activity within the confines of the water facilities field without first having been issued a permit from the City Commission pursuant to the applicable provisions of Chapter 8.30 of the Lovington Municipal Code. Provided, however, no permits shall be required for routine daily operations which do not disturb the surface of the field. Any operations commenced without issuance of a permit shall be considered an offense punishable by a maximum fine of \$500.00 per day for each day that such operation exists without first having obtained the required permit.

**8.30.310. Maintenance of Facilities**

All facilities constructed within the confines of the water facilities field, including without limitation, pipelines, tank batteries, pumping stations, compressor, drilling operations, well heads and other operations, shall be maintained using a prudent operator standard consistent with reasonable business practices within the oil and gas industry.

**8.30.320. Reporting of Spills and Leaks**

Any person operating a facility shall report any and all leaks or spills occurring within the confines of the water facilities field to the City Engineer immediately upon discovery, but in any event, such leak or spill shall be reported not more than fifteen (15) days from the occurrence.

Any such leak or spill shall be remediated in a manner acceptable to the City Engineer. Any such leak or spill shall be remediated as soon as is reasonably practicable, but in no event shall remediation operations be commenced later than thirty (30) days from the date the occurrence is first discovered and reported.

It shall be unlawful for any person to fail to report a leak or spill under this Section 8.30.320. It shall be unlawful to fail to take action to remediate any spill or leak as required by this Section 8.30.320. If remediation operations are not commenced within thirty (30) days from the date such spill or leak is first discovered and reported, it shall be a separate offense for each day after said thirty (30) days until the remediation operation is commenced, and upon conviction thereof, the offender shall be subject to a maximum fine of \$500.00 per day for each day after said thirty (30) days until the remediation operation is commenced.

Any operator, or employee, servant, agent or representative of an operator, who has knowledge of a spill or leak, and fails to report same to the City Engineer within the times specified herein shall be guilty of a misdemeanor and subject to a fine of \$500.00 or ninety (90) days in jail or both.

**8.30.330. Reporting Requirements**

An accident report is required for each leak or spill in a facility subject to this chapter in which

there is a release of liquid resulting in any of the following:

- (a) Explosion or fire not intentionally set by the operator
- (b) Release of Five (5) gallons or more of liquid, except that no report is required for a release of less than five (5) barrels resulting from a maintenance activity if the release is:
  - (1) Not otherwise reportable under this Chapter;
  - (2) Confined to company property or right of way; and
  - (3) Cleaned up promptly.
- (c) Death of any person.
- (d) Personal injury necessitating hospitalization;
- (e) Estimated property damage, including cost of clean-up and recovery, value of lost product, and damage to the property of operator or others, or both, exceeding \$5,000.

**8.30.340. Leakage Surveys**

Each operator must conduct a leakage survey with leak detector equipment within the confines of the water facilities field at intervals not exceeding fifteen (15) months, but at least once each calendar year. The results of each such survey shall be filed with the City Engineer within thirty (30) days of the completion of the survey.

It shall be unlawful to fail to provide an annual survey report to the City Engineer within thirty (30) days from the date the survey was performed, or should have been performed, and each day of failure thereafter shall be considered a separate offense, and upon conviction thereof the offender shall be subject to a maximum fine of \$500.00 per day that the report remains unfiled.

**8.30.350. Definitions**

The following definitions shall apply to any activity within the confines of the water facilities field.

- (a) Brine means all nonpotable water resulting, obtained, or produced from the exploration, drilling, or production of oil or gas, or both.

- (b) Central production facility means production equipment which has been consolidated at a central location that provides for the commingling of oil or gas production, or both , from 2 or more prorated wells or production units.
- (c) City Engineer means that individual designated by ordinance, statute or the City Commission as the City Engineer together with any individual authorized to act on behalf of the City Engineer.
- (d) Drilling operations means all of the physical and mechanical aspects of constructing a well for the exploration or production of oil or gas, or both, for injection of fluids associated with the production of oil or gas, or both, or the storage of natural hydrocarbons or liquified petroleum gas derived from oil or gas, and includes all of the following:
  - (i) moving drilling equipment onto the drill site.
  - (ii) penetration of the ground by the drill bit and drilling of the well bore.
  - (iii) casing and sealing of the well bore.
  - (iv) constructions of well sites and access roads.
  - (v) workovers and recompletions.
- (e) Facility means any operation conducted within the confines of the water facilities field, including without limitation, pipelines, drilling operations, re-entry or workovers, tanks, holding facilities, treatment facilities, pumping and compressor stations, and any other facility used in the exploration for and production of oil and gas.
- (f) Operation of oil and gas well means the process of producing oil or gas, or both, or the storage of natural hydrocarbons or liquified petroleum gas, including all of the following:
  - (i) production, pumping, and flowing.
  - (ii) processing.
  - (iii) gathering.
  - (iv) compressing.

- (v) treating.
  - (vi) transporting.
  - (vii) conditioning.
  - (viii) brine removal and disposal.
  - (ix) separating.
  - (x) storing.
  - (xi) injecting.
  - (xii) testing.
  - (xiii) reporting.
  - (xiv) maintenance and use of surface facilities.
  - (xv) secondary recovery.
- (g) Operations means any activity conducted within the confines of the water facilities field and includes “drilling operations” and “operation of oil and gas wells”.
- (h) Operator means any person who conducts operations.
- (i) Permit means a permit issued to an operator by the City Commission for operations within the Water Facilities Field.
- (j) Person means any individual, firm, joint venture, partnership, corporation, association, cooperative association, a joint stock association, and including any trustee, receiver, assignee, or personal representative thereof.
- (k) Pipe means any pipe or tubing used in the movement or transportation of gases, petroleum products, brine water and any other substance, and includes pipe-type holders.
- (l) Pipeline means all parts of those physical facilities through which substances move in the water facilities field, including pipe, valves, and other appurtenances attached to pipe, compressor units, metering

stations, regulator stations, delivery stations, holders, and fabricated assemblies.

- (m) Surface facility means a facility used in the injection of fluids or in the production, processing, or treatment of oil or gas, or both, including any of the following:
  - (i) pumping equipment.
  - (ii) fluid disposal equipment.
  - (iii) facility piping.
  - (iv) load outs.
  - (v) separators.
  - (vi) storage tanks.
  - (vii) treatment equipment.
  - (viii) compressors.
  
- (n) Waste, in addition to its ordinary meaning, includes all of the following.
  - (i) the definition of waste promulgated by the New Mexico Oil Conservation Division as found at 19 NMAC 15.A (83) as amended from time to time.
  - (ii) damage to underground fresh or mineral waters, natural brines, or other mineral deposits from operations for the discovery, development, and production and handling of oil and gas.
  - (iii) the unnecessary damage to or destruction of the surface, soils, animal, property, or other environmental values from or by oil and gas operations.
  
- (iv) the unnecessary endangerment of public health, safety, or welfare from or by oil and gas operations.

- (o) Water Facilities Field means the area described in Section 8.30.290 of this chapter, together with any other real property which may be designated as such by the City Commission from time to time.

**8.30.360. Material Safety Data Sheets.**

Any operator conducting operations within the confines of the water facilities field shall file with the City Engineer Material Safety Data Sheets (MSDS) for any and all substances used, produced, transported and otherwise present in operations conducted in the Water Facilities Field.

**8.30.370. Disposal Wells.**

From and after the effective date of this ordinance, no person shall drill a disposal well, or convert an existing well into a disposal well, within the confines of the Water Facilities Field.

**8.30.380. Preventing Waste.**

Every person who conducts operations within the confines of the Water Facilities Field shall use every reasonable precaution to prevent waste.

**8.30.390. Drilling Mud Pits.**

Any person who conducts operations in the Water Facilities Field shall use a closed system. All cuttings and fluids will be removed from the site and properly disposed of.

**8.30.400. Well Records, Service Company Records.**

- (A). A person who drills, deepens, changes well status, or completes a well after the effective date of this ordinance, shall keep and preserve at the well, during drilling, deepening, changes in well status, or completion operations, accurate records recording all geologic strata penetrated, casing and cement used, and other information as may be requested by the City Engineer in connection with the drilling of the well.
- (B). When requested by the City Engineer, an operator of a well shall file a copy of service company records, including records of all the following:
  - (i) mudding, cementing, and squeeze operations.
  - (ii) acidizing.
  - (iii) perforating.

- (iv) fracturing.
- (v) shooting.
- (vi) temperature surveys.
- (vii) bond logs.
- (viii) caliper surveys.
- (ix) wireline borehole and strata evaluation logs.

The City Engineer may request the records directly from the service company.

- (C). An operator of a well shall make all records and information available to the City Engineer at all times. An operator shall protect the records from damage or destruction due to a preventable cause. All well data provided to the City Engineer, as required by these rules shall be held confidential commencing with the receipt of a written request from the operator, and shall remain confidential for ninety (90) days after drilling completion. Information on volumes, concentrations, and times of releases, spills, or leaks of gas, brine, crude oil, oil or gas field waste, or products and chemicals used in association with oil and gas exploration, production, disposal, or development is not subject to confidentiality.

**8.30.410. Oil Brine, or Associated Oil or Gas Field Waste; Storage.**

An operator shall not retain oil, brine, or associated oil or gas field waste in earthen reservoirs or open receptacles.

**8.30.420. Well Sites and Surface Facilities.**

A person shall use every reasonable precaution to stop and prevent waste. All wells, surface facilities, gathering lines, and flow lines shall be constructed and operated so that the materials contained in the facilities do not cause waste. An oil and gas operation shall not be commenced or continued at a location where it is likely that a substance may escape in a quantity sufficient to pollute the air, soil, surface waters, or ground waters, or to cause unnecessary endangerment of public health, safety, or welfare until the operator has complied with the methods and means to prevent pollution or eliminate the unnecessary endangerment of public health, safety, or welfare as specified by the City Engineer.

**8.30.430. Prevention of Pollution, Contamination, or Danger.**

The storage, transportation, or disposal of brine, crude oil, or oil or gas field waste that results in, or that the City Engineer determines may result in, pollution is prohibited. All operators shall ensure that wastes and brine are stored, transported and disposed of in a manner acceptable to the City Engineer and consistent with all applicable state and federal laws and regulations.

**8.30.440. Monitoring of Injection and Disposal Wells.**

- (A). The operator of a brine disposal well shall, on a weekly basis, monitor and record the injection pressure, injection rate, and cumulative volume of fluids injected. The operator shall report this data monthly to the City Engineer unless the City Engineer informs the operators in writing that said reports may be submitted on a less frequent basis. The data shall be submitted in a form approved by the City Engineer.
- (B). Operators of brine disposal injection wells shall file an annual monitoring report summarizing the data of the monitoring required in subsection (A) of this section, on or before March 1 of the year for the previous calendar year.
- (C). The operator of a secondary recovery injection well shall, on a monthly basis, monitor and record the injection pressure, injection rate, and cumulative volume of the fluid injected. An operator of a secondary recovery injection well may conduct the monitoring and recording, required by this section, on a field or project basis by manifold monitoring, rather than on an individual well basis, if more than one (1) secondary recovery injection well operates with a single manifold, and if the operator demonstrates that manifold monitoring is comparable to individual well monitoring. The operator shall report the data annually to the City Engineer in a form approved by the City Engineer, on or before March 1 of each year for the previous calendar year.
- (D). The operators of an injection well shall not operate an injection well unless the annual report is filed by March 1 for the previous year, and injection may not continue after failure to file on March 1 until the required report is submitted and written approval for resumed injection is received from the City Engineer.
- (E). All injection well records shall be retained by the operator for a period of three (3) years.

- (F). An operator of an injection well shall verbally notify the City Engineer, of any pressure test failure, significant pressure changes, or other evidence of a leak in an injection well, within 24 hours of the test failure, pressure change or evidence of a leak. If there is evidence that an injection well is not, or may not be, directing the injected fluid into the permitted injection strata, the operator shall immediately cease injection.
- (G). An operator shall submit written notice of the pressure test failure or other evidence of a leak to the City Engineer, within five (5) days of the occurrence. If injection has ceased pursuant to subsection (F) above, an operator shall not resume injection until the operator has tested or repaired the well, or both.
- (H). Nothing contained in this Section 8.30.440 shall be construed to permit the drilling of a brine disposal well, or conversion of an existing well into a brine disposal well, after the effective date of this ordinance.
- (I). Failure to file any of the reports required by this Section 8.30.440 shall be an offense. Operation of a well contrary to the terms of this Section 8.30.440 shall be an offense. For each day that a well is operated in violation of any of the terms of this Section 8.30.440 it shall be a separate offense punishable by a maximum fine of \$500.00 per day.

**8.30.450. Well Sites and Surface Facilities; Flammable and Combustible Material.**

An operator of a well or other facility shall insure that the area around the well and surface facilities is kept clear of flammable and combustible material stored within a radius of 75 feet, or as approved by the City Engineer, using the well or dike wall as the point of measurement. The City Engineer, if conditions warrant, may also require construction of a fire line around the outer edge of the cleared area. An operator shall ensure that the disposal of material resulting from the clearing operations is consistent with all applicable state and federal laws and regulations.

**8.30.460. Secondary Containment Requirements and Construction Standards.**

- (A). All wellheads and pump jacks installed after the effective date of this ordinance and surface facilities constructed after the effective date of this ordinance, shall provide for secondary containment pursuant to the requirements of this section. The City Engineer may require surface facilities for hydrocarbon, gas, brine injection, or brine handling constructed before the effective date of this ordinance to be upgraded to meet the requirements of this section if the facility is

substantially reconstructed.

- (B). An operator shall submit secondary containment plans to the City Engineer for approval before construction of the facility. The secondary containment plans shall consist of a plot plan of the proposed facility and cross sections showing construction details of the sidewalls and floor or floors of all secondary containment areas, including the proposed overall dimensions of the facility. The City Engineer shall approve or disapprove the secondary containment plans within 30 days of receipt of the plans.
- (C). An operator shall comply with all of the following minimum construction standards to meet the secondary containment requirements of this rule:
  - (1) An operator shall be required to prepare a hydrogeological investigation of the facility area to establish local background groundwater quality. The hydrogeological investigation shall include all of the following:
    - (i) Water quality sampling pursuant to the parameters established in the New Mexico Water Quality Control Act.
    - (ii) A determination of the direction of groundwater flow and depth to the groundwater in the uppermost aquifer.
    - (iii) A chemical analysis showing the concentrations of benzene, ethylbenzene, toluene, and xylene.
    - (iv) A geologic description of earth materials, both horizontally and vertically, in the immediate vicinity of the proposed facility.
  - (2) Each facility shall be required to have 1 of the following monitoring systems to detect leakage from hydrocarbon or brine storage secondary containment areas:
    - (i) A minimum of 1 groundwater monitoring well downgradient which is in close proximity to all hydrocarbon or brine storage secondary containment areas.

- (ii) Tertiary containment underlying the secondary containment, which shall be constructed and sealed in a manner to capture any hydrocarbons or brine that may leak or seep through the secondary containment. A layer of permeable material and a monitoring tube shall be placed between the secondary and tertiary containment to allow monitoring to determine the presence of any leakage or seepage through the secondary containment.
- (3) A vessel that contains hydrocarbons or brine, or both, shall be elevated and placed on impervious pads or constructed so that any leakage can be easily detected. A vessel that is to be used on-site for 30 days or less shall, at a minimum, be placed on leak-resistant material.
- (4) A hydrocarbon and brine storage vessel, including oil heating and treating equipment, shall be located in a secondary containment area and the containment volume shall be in compliance with the following minimum requirements, as applicable.
  - (i) Containment areas shall be constructed to contain 150% of the largest storage vessel.
  - (ii) Precipitation shall be taken into consideration in the design of the secondary containment area.
- (5) The sidewalls and floor of the secondary containment and spill containment areas shall be constructed and sealed in a manner to prevent the seepage of hydrocarbons or brine, or both into the surrounding soils, surface waters, or groundwater.
- (6) A hydrocarbon and brine storage vessel shall not be erected, enclosed, or maintained closer than 200 feet from any drilling producing well.
- (7) Oil heating or treating equipment shall not be erected, enclosed, or maintained closer than 75 feet from any drilling or producing well or oil storage tank or tank battery.
- (8) Dikes shall be maintained and the enclosure kept free of all of the following:

- (i) Oil.
  - (ii) Emulsions.
  - (iii) Tank bottoms.
  - (iv) Brine.
  - (v) Water.
  - (vi) Vegetation.
  - (vii) Debris.
  - (viii) Any flammable or combustible material.
- (9) The hydrocarbon and brine truck loading and unloading areas located outside of hydrocarbon or brine storage secondary containment areas shall have a spill containment capacity equal to double the volume of the hoses used to connect the truck to the tanks, but not less than a capacity of 5 barrels. The spill containment shall be constructed and sealed in a manner that prevents the seepage of hydrocarbons or brine, or both, into the surrounding soils, surface waters, or groundwater.
- (10) Brine disposal well truck unloading areas and commercial brine truck loading and unloading areas located outside of hydrocarbon or brine storage secondary containment areas shall be constructed and sealed in a manner that prevents the seepage of hydrocarbons or brine, or both, into the surrounding soils, surface waters, or groundwater. In addition, a ramp shall be constructed to contain the unloading vehicle, its hoses, and connections within the ramp area. The ramp area shall contain a sump and be connected to a secondary containment area so that any spillage drains into the sump and into the secondary containment area. The spill containment ramp and sump shall have a combined capacity of not less than 20 barrels.
- (11) Sumps shall be constructed of materials impervious to hydrocarbons and brines and resistant to damage and deterioration during use. Sumps shall be connected to the ramp area and the secondary containment area in a manner that prevents leakage.
- (12) Surface facilities for hydrocarbon and brine handling shall be constructed to meet all of the following minimum requirements:

- (i) All transfer and injection pumps shall have leak containment.
- (ii) All brine and hydrocarbon flow lines to a facility are considered part of that facility and are subject to the following requirements:
  - (a) All flow lines shall be pressure tested pursuant to the provisions of paragraph (iii) (a), (b), (c), (e), and (g) of this subdivision.
  - (b) An operator may elect to not perform the pressure testing of the flow lines, except flow lines that transport brine only, if the operator performs visual inspection of the entire flow line corridor every 3 months, and reports the results of the inspections to the City Engineer annually by January 31 of each year for the previous calendar year.
- (iii) All buried facility piping for the transport of liquids shall be pressure-tested pursuant to the following provision, as applicable:
  - (a) Piping made of noncorrodible or corrosion-protected material shall be pressure-tested every 3 years.
  - (b) All piping other than piping specified in subparagraph (a) of this paragraph shall be pressure-tested every 12 months.
  - (c) If buried piping is excavated for repair or relocation, then the disturbed portion shall be pressure-tested immediately pursuant to subparagraphs (d) and (e) of his paragraph.
  - (d) The pressure test shall be 100% of the normal oil and gas separator operating pressure. The pressure shall be stabilized at 90% of test pressure, at a minimum, and shall hold for a period of 15 minutes.
  - (e) An operator shall provide certification to the City Engineer, within 30 days of a pressure test, that a pressure test was conducted and the facility piping

passed the pressure test. If a facility's piping does not pass the pressure test, the City Engineer shall be notified by the operator within 48 hours after the test. If the pressure test indicated that the facility's piping leaked, then the piping shall be repaired and tested before putting the piping back in service. After the repair of the piping, the operator shall report the repair to the City Engineer and provide certification that the piping has been retested and is not leaking.

- (f) Single-phase gas lines are not subject to the pressure test requirements if the lines are protected by a liquid phase trap.
  - (g) The City Engineer may approve or require other pressure testing or leak detection methods in place of the pressure testing required in this paragraph.
  - (iv) At production or injection well facilities, all piping shall be routed above the ground and kept within the secondary containment area where practical. Piping that cannot be routed above the ground shall have its location marked with posts or with other location-identifying markers approved by the City Engineer so that the buried piping can be easily located.
  - (v) Brine injection wells shall have a working check valve on the flow line at or near the wellhead to avoid backflow.
  - (vi) All hydrocarbon and brine loading and unloading facility transfer lines that are not in use shall be secured to prevent spillage. A shutoff valve shall be installed at the truck connect point and at the storage vessels. At connect points, impermeable drip containment vessels shall be used and shall be an adequate size to contain all spillage and precipitation to avoid overflow.
- (13) Wellheads, flare pits, vents, and flare stacks shall have secondary containment and spill containment areas constructed in a manner to prevent the seepage of hydrocarbons or brine, or both, into the

surrounding soils, surface waters, or groundwater. Secondary containment at the wellhead shall be constructed in a manner to capture any leakage of liquid that may occur. In addition, if the wellhead is provided with a pump jack or is converted to a pump jack equipped with a gasoline or diesel-powered engine, then the engine shall also have secondary containment that is sufficient to prevent the seepage of any machine oils or fuels into the surrounding soils, surface waters, or groundwater.

- (D) Upon completion of the construction of the facility, but before its use, an operator shall certify, to the City Engineer, that the secondary containment area was constructed according to the approved plan. An operator shall ensure that an approved spill or loss response and remedial action plan is also on file with the City Engineer before a facility is used.
- (E) Before any significant modification of the secondary containment area occurs, an operator of a well shall notify the City Engineer and receive approval before making the modification. The City Engineer shall approve or deny the request within 10 days of receipt of the request.
- (F) An operator of a well shall perform inspections at the facility at a frequency that is sufficient to ensure that the throughput of fluids in the system does not exceed the primary and secondary containment capacity between inspections. The operator shall perform at least 1 inspection per week.
- (G) The City Engineer shall require the installation of an automatic facility shutdown system if the facility has a throughput of liquids in a 24-hour period that exceeds the containment volume of secondary containment area. The automatic shutdown system shall be designed to prevent liquids from overflowing the secondary containment area. A facility shall be exempt from the requirement of an automatic shutdown system if the facility has staff present 24 hours per day and is equipped with alarm systems on the tank or the tanks of the tank battery.
- (H) The monitoring system required by 8.30.460. (C) (2) shall be kept in a functional condition so that water samples can be collected and water level measurements can be taken every 6 months. The water samples shall be tested for specific conductance as an indicator of dissolved solids, concentrations of chloride, and chemical analysis pursuant to subsection (C) (1) (iii) of this section, except the chemical analysis provided by subsection (C) (1) (iii) of this section shall not be

required at monitoring systems at surface facilities where liquid hydrocarbons are not handled. The results of the sample analysis shall be provided to the City Engineer as soon as the results are available. If the samples taken by the operator show substantial increases above background water quality, then the operator shall, at a minimum, increase monitoring. If the samples confirm that hydrocarbons are present at levels above background, then the operator shall immediately take remedial action in the form of containment and removal.

- (I) An operator shall provide a right of entry to the facility for monitoring at all times to the City Engineer.
- (J) Failure to comply with any of the provisions of this Section 8.30.460 shall be an offense. For each day that a facility is operated in violation of this Section 8.30.460, it shall be a separate offense punishable by a maximum fine of \$500.00 per day.

**8.30.470. Restoration of Well Site; Filling and Leveling of Cellars, Pits, and Excavations;**

An operator of a well shall fill and level the cellar and all pits and excavations, remove or eliminate debris, minimize erosion, and restore the well site as nearly as practicable to the original land contour or to a condition approved by the City Engineer as soon as practical after the completion of plugging to the surface, but not more than 6 months after the completion of plugging to the surface.

**8.30.480. Safety Measures.**

If hazards to life or property, or both, exist, then an operator of a well shall post safety signs in conspicuous places around the well or surface facility. The City Engineer may require the installation of fences, gates, or other safety measures.

**8.30.490. Use of Pits to Collect Waste Oil and Tank Bottoms Prohibited; Conveying, Storing, or Disposing of Waste Oil and Tank Bottoms.**

An operator of a well shall not use earthen pits to collect waste oil and tank bottoms. An operator shall not convey, store, or dispose of waste oil and tank bottoms in a manner that causes waste.

**8.30.500. Cleanup and Disposal of Losses.**

An operator shall clean up and dispose of, in a manner consistent with this chapter and all

applicable state and federal laws and regulations, losses of oil, gas or brine from wells, flow lines, and associated surface facilities.

**8.30.510. Enforcement.**

The City shall have the right to enforce the provisions of Chapter 8.30 through both its civil or criminal jurisdiction in both the Municipal Court of the City of Lovington or the District Courts of the State of New Mexico. In the event of a violation of this Chapter 8.30, the appropriate authorities of the City, in addition to other available remedies, may institute injunction, mandamus or other appropriate action or proceeding to prevent, enjoin or remedy such violation. A separate offense shall be deemed committed for each day during or on which a violation of this Chapter 8.30 occurs or continues to occur.

**8.30.520. Severability.**

If any part or application of this Chapter 8.30 is held invalid, the remainder or its application to other situations or persons shall not be affected.