

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

OCD-HOBBS

FORM APPROVED  
OMB No. 1004-0137  
Expires March 31, 2007

**SUNDRY NOTICES AND REPORTS ON WELLS**

**Do not use this form for proposals to drill or to re-enter an abandoned well. Use Form 3160-3 (APD) for such proposals.**

**SUBMIT IN TRIPLICATE- Other instructions on reverse side.**

1. Type of Well  
☒ Oil Well ☐ Gas Well ☐ Other

2. Name of Operator **Ram Energy, Inc.** /

3a. Address  
**5100 East Skelly Drive, Suite 650, Tulsa, OK 74135-6549**

3b. Phone (include area code)  
**918-663-2800**

4. Location of Well (Footage, Sec., T., R., M., or Survey Description)  
**660 'FNL & 660' FEL Sec. 11-T9S-R36E** /

**Unit A**

5. Lease Serial No.  
**NM 57713**

6. If Indian, Allottee or Tribe Name  
**NA**

7. If Unit or CA/Agreement, Name and/or No.  
**NA**

8. Well Name and No.  
**El Zorro C Federal #2** /

9. API Well No.  
**30-025-03568** /

10. Field and Pool, or Exploratory Area  
**Allison San Andres** /

11. County or Parish, State  
**Lea, NM** /

**12. CHECK APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA**

| TYPE OF SUBMISSION                                    | TYPE OF ACTION                                |   |  |   |
|---|---|---|--|---|
| <input type="checkbox"/> Notice of Intent             | <input type="checkbox"/> Acidize              | <input type="checkbox"/> Deepen           | <input type="checkbox"/> Production (Start/Resume) | <input type="checkbox"/> Water Shut-Off |
| <input checked="" type="checkbox"/> Subsequent Report | <input type="checkbox"/> Alter Casing         | <input type="checkbox"/> Fracture Treat   | <input type="checkbox"/> Reclamation               | <input type="checkbox"/> Well Integrity |
| <input type="checkbox"/> Final Abandonment Notice     | <input type="checkbox"/> Casing Repair        | <input type="checkbox"/> New Construction | <input type="checkbox"/> Recomplete                | <input type="checkbox"/> Other          |
|   | <input type="checkbox"/> Change Plans         | <input type="checkbox"/> Plug and Abandon | <input type="checkbox"/> Temporarily Abandon       |   |
|   | <input type="checkbox"/> Convert to Injection | <input type="checkbox"/> Plug Back        | <input checked="" type="checkbox"/> Water Disposal |   |

13. Describe Proposed or Completed Operation (clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or recomplate horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the Bond under which the work will be performed or provide the Bond No. on file with BLM/BIA. Required subsequent reports must be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recomplate in a new interval, a Form 3160-4 must be filed once testing has been completed. Final Abandonment Notices must be filed only after all requirements, including reclamation, have been completed, and the operator has determined that the site is ready for final inspection.)

The subject well produces from the San Andres formation through perforations at 8958-9672'. This well produces approximately 105 BWPD which is stored in a steel tank at the tank battery and transported via pipeline to the Fox State A WIW#5 well (API No. 30-025-31343) located in the SW/4 NW/4 Sec 2-T9S-R36E. A copy of the State issued WIW permit is attached.

A water analysis on the El Zorro C Federal #3 is being processed and will be submitted to your office soon.  
A Site Facility Diagram is attached.  
A Site Security Plan has been established and resides at RAM Energy office at the above address.

Ram Energy, Inc. will be responsible for compliance under the lease terms and conditions for that portion of the leases associated with this notice.

Ram Energy, Inc. will be responsible for compliance under all Federal and State rules and regulations governing oil and gas operations.

14. I hereby certify that the foregoing is true and correct  
Name (Printed/Typed)

**Dennis L. Goins**

Title **Sr. Operations Engineer**

Signature

Date

**THIS SPACE FOR FEDERAL OR STATE OFFICE USE**

Approved by

Conditions of approval, if any, are attached. Approval of this notice does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.

**OC DISTRICT SUPERVISOR**

Office

**ACCEPTED FOR RECORD**

**MAY 19 2008**

**/s/ JD Whitlock Jr**

**BUREAU OF LAND MANAGEMENT  
CARLSBAD FIELD OFFICE**

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction

(Instructions on page 2)

**STATE OF NEW MEXICO  
ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT  
OIL CONSERVATION DIVISION**

**RECEIVED  
JUL 16 1997  
CAMPBELL, CARR, et. al.**

**IN THE MATTER OF THE HEARING  
CALLED BY THE OIL CONSERVATION  
DIVISION FOR THE PURPOSE OF  
CONSIDERING:**

**Case No. 11784  
Order No. R-10846**

**APPLICATION OF LAYTON ENTERPRISES  
INC. FOR A WATERFLOOD PROJECT,  
LEA COUNTY, NEW MEXICO.**

**ORDER OF THE DIVISION**

**BY THE DIVISION:**

This cause came on for hearing at 8:15 a.m. on June 12, 1997, at Santa Fe, New Mexico, before Examiner David R. Catanach.

NOW, on this 16<sup>th</sup> day of July, 1997, the Division Director, having considered the testimony, the record, and the recommendations of the Examiner, and being fully advised in the premises,

**FINDS THAT:**

(1) Due public notice having been given as required by law, the Division has jurisdiction of this cause and the subject matter thereof.

(2) The applicant, Layton Enterprises Inc., seeks authority to institute a pilot waterflood project within an area comprising all of Sections 1 and 2, the N/2 of Section 11 and the SE/4 NE/4 of Section 10, Township 9 South, Range 36 East, NMPM, Lea County, and the S/2 and NW/4 of Section 36, Township 8 South, Range 36 East, NMPM, Roosevelt County, by the injection of water into the Bough "C" member of the Pennsylvanian formation, Allison-Pennsylvanian Pool, through the gross perforated interval from approximately 9,648 feet to 9,666 feet in its Fox "A" State Well No. 5 located 2310 feet from the North line and 2070 feet from the West line (Unit F) of Section 2.

(3) The applicant further seeks authority to utilize Devonian formation water as source water for its proposed pilot project by completing its Fox "A" State Well No. 5 in the following unconventional manner:

(7) The producing wells within the pilot project area are in an advanced state of depletion within the Bough "C" interval of the Allison-Pennsylvanian Pool. Applicant testified that current production within the Bough "C" interval averages approximately 2 BOPD.

(8) Applicant estimates that if the proposed pilot project is successful, an additional 1-3 million barrels of oil may be recovered from the Bough "C" interval within the proposed project area.

(9) Applicant presented geologic testimony which indicates that the proposed pilot project area is located within the southwest portion of the Allison-Pennsylvanian Pool. Applicant further testified that the project area appears to be isolated from the main portion of the pool by a porosity barrier which lies just northeast of the proposed pilot project area and traverses the pool in a northwest to southeast direction.

(10) Although the Devonian formation is productive in some areas in Township 9 South, Range 36 East, (i.e. Allison-Devonian Pool, Crossroads-Devonian Pool, North Crossroads-Devonian Pool, etc.), the applicant has determined by well test that it is non-productive within the Fox "A" State Well No. 5.

(11) Applicant testified that the bottomhole pressure within the Devonian formation is approximately 4,740 psi, and that fluid entry into the Bough "C" interval should occur at a bottomhole pressure of approximately 3,400 psi.

(12) The engineering evidence indicates that injection of water into the Bough "C" interval at a bottomhole pressure of 3,400 psi will not cause fracturing of the injection formation or confining strata.

(13) Applicant estimates that injection into the Bough "C" interval should initially occur at volumes of approximately 2000-2500 barrels of water per day.

(14) Applicant further estimates that it will take approximately 10-12 million barrels of water to achieve reservoir fillup within the Bough "C" interval.

(15) The proposed pilot waterflood project should result in the recovery of otherwise unrecoverable oil, thereby preventing waste.

(16) The pilot waterflood project area should be initially limited to all of Section 2.

(17) Prior to commencing injection operations into the proposed injection well, the casing should be pressure tested throughout the interval from the surface down to the proposed packer setting depth, to assure the integrity of such casing.

**IT IS THEREFORE ORDERED THAT:**

(1) The applicant, Layton Enterprises Inc., is hereby authorized to institute a pilot waterflood project within all of Section 2, Township 9 South, Range 36 East, NMPM, Lea County, by the injection of water into the Bough "C" member of the Pennsylvanian formation, Allison-Pennsylvanian Pool, through the gross perforated interval from approximately 9,648 feet to 9,666 feet in its Fox "A" State Well No. 5 located 2310 feet from the North line and 2070 feet from the West line (Unit F) of Section 2.

(2) The applicant is further authorized to utilize Devonian formation water as source water for its proposed project by completing its Fox "A" State Well No. 5 in the following unconventional manner:

Complete the well utilizing 2 7/8 inch fiberglass-lined tubing installed in a packer set at 9,600 feet. Utilize existing Devonian and Bough "C" perforations from approximately 12,450 feet to 12,492 feet and 9,648 feet to 9,666 feet, respectively, and allow Devonian formation water to freely flow within the wellbore into the Bough "C" interval, thereby expediting reservoir fillup.

(3) The applicant shall take all steps necessary to ensure that the injected water enters only the proposed injection interval and is not permitted to escape to other formations or onto the surface from injection, production, or plugged and abandoned wells.

(4) The casing-tubing annulus in the Fox "A" State Well No. 5 shall be filled with an inert fluid and equipped with an approved pressure gauge or attention-attracting leak detection device.

(5) In the event the applicant injects fluid from the surface within the Fox "A" State Well No. 5, the pressurization system shall be initially equipped with a pressure control device or acceptable substitute which will limit the surface injection pressure to no more than 1930 psi.

(6) The Division Director shall have the authority to administratively authorize a pressure limitation in excess of the above upon a showing by the operator that such higher pressure will not result in the fracturing of the injection formation or confining strata.

(7) Prior to commencing injection operations, the casing within the Fox "A" State Well No. 5 shall be pressure-tested throughout the interval from the surface down to the proposed packer setting depth, to assure the integrity of such casing.



# NEW MEXICO ENERGY, MINERALS and NATURAL RESOURCES DEPARTMENT

**BILL RICHARDSON**

Governor

**Joanna Prukop**

Cabinet Secretary

**Mark E. Fesmire, P.E.**

Director

Oil Conservation Division

## *Underground Injection Control Program*

*"Protecting Our Underground Sources of Drinking Water"*

04-Jan-2007

**LAYTON ENTERPRISES INC**

13178

3103 - 79T ST.

LUBBOCK TX 79423-

Dear Sirs:

Our records indicate that the following well(s) are due for the type of mechanical integrity test indicated. If the required test is a pressure test, please have the necessary equipment on location and ready to commence the test at the specified time. For all types of tests, please have a representative on location to operate any valves or other equipment as necessary. Your representative should meet our inspector at the meeting place indicated below for the entire inspection group.

### Scheduled Inspections / MITs

Meeting Place for this Inspection Group: First Well on the List

**Scheduled Date: 4/18/2007 11:30:00 AM**

| <i>UL S-T-R</i>                   | <i>API Well No.</i> | <i>Well No.</i> | <i>Type Insp/MIT</i> |
|-----------------------------------|---------------------|-----------------|----------------------|
| <b>Property Name: FOX A STATE</b> |                     |                 |                      |
| F 2 9S 36E                        | 30-025-31343-00-00  | 005             | <b>Bradenhead</b>    |

If you have any questions or need to reschedule any test, please call Ms. Sylvia Dickey at 505-393-6161 at the Hobbs district office between 7:00 am and 4:00 pm, at least two weeks prior to the indicated schedule date.

Sincerely,

Hobbs OCD District Office

OK  
INSPECTED 4-18-07  
BY SYLVIA DICKEY - OCD  
& DARIN

E1 Zorro C Federal Lease

Page #1

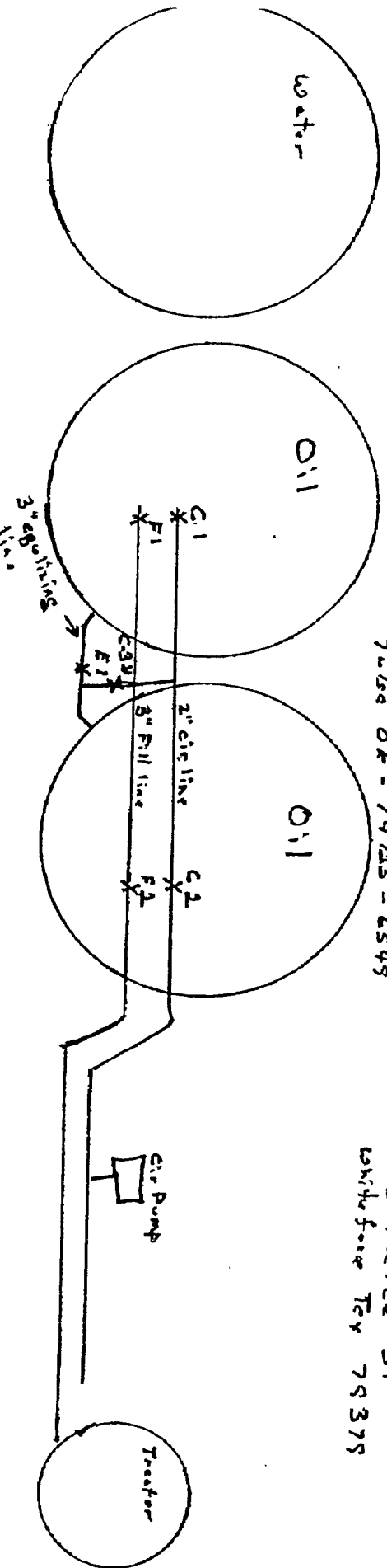
NW 57713 Tank Battery #1

NE NW 4 Sec. 11, T9S, R36E  
Lea Co N.M.

Top of  
Tanks

This plan is subject to the site security plan for  
N.M. New Mexico Operations. The plan is located at  
RAM Energy Resources Inc  
Meridian Tower, Suite 650  
5100 East Skyway Drive  
Tulsa OK - 74155-6549

RAM Energy Resources Inc  
313 Pierce St  
Whitefish Tex 79379



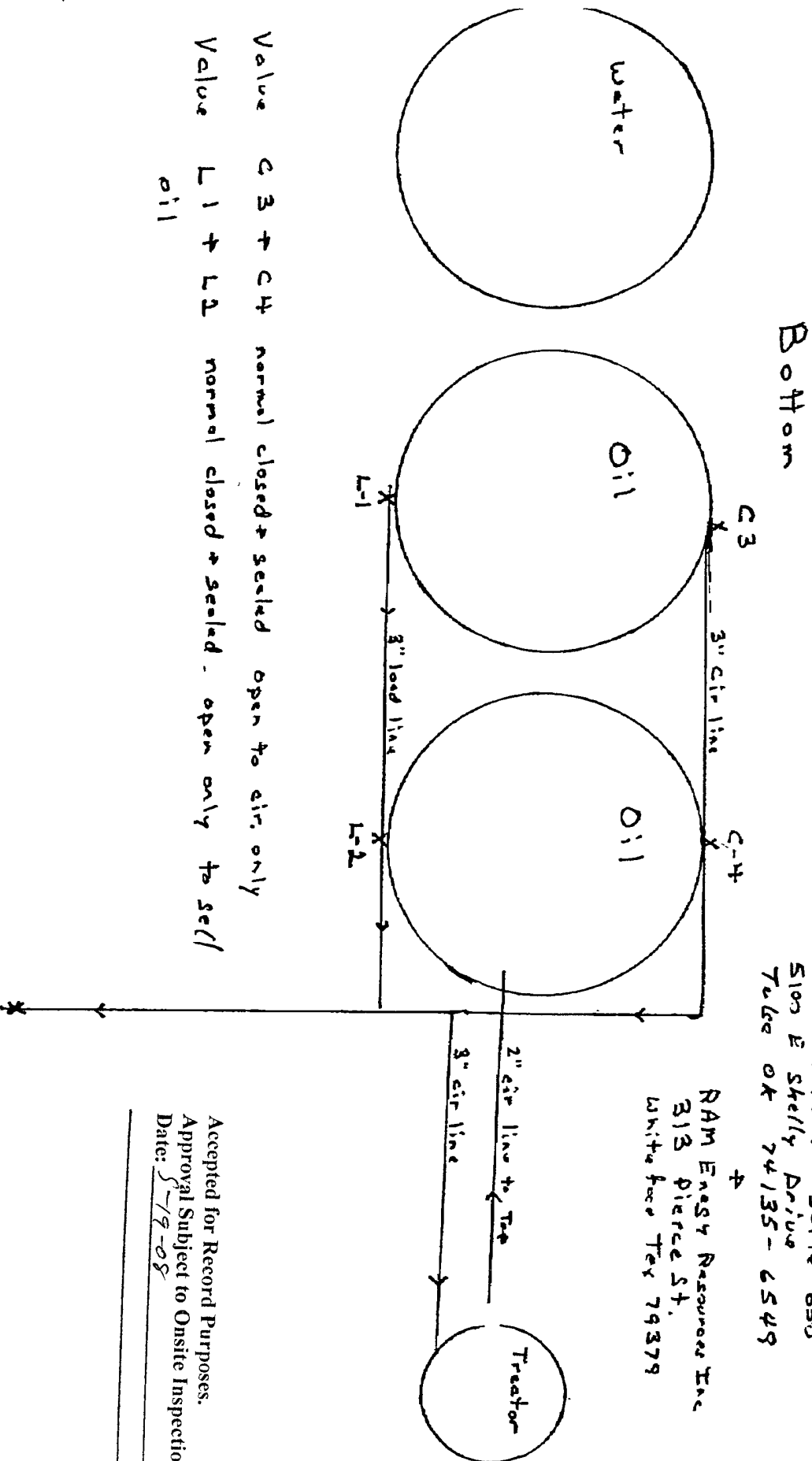
Value C #1 + C #2 normal closed & sealed open only to air C #3 closed  
Value E #1 closed & sealed for sales - open when filling tank  
Value F #1 + F #2 opened to fill oil tank from treator closed for sales &  
Sales tank & sealed

Accepted for Record Purposes.  
Approval Subject to Onsite Inspections.  
Date: 5-15-08

E1 Zorro C Federal Lease  
NM 57713 Tank Battery #1  
NE NW 4 Seall, TQS, R36E  
Lea Co NM.

This lease is subject to the site security plan for  
New Mexico Operations. The plan is located  
at  
RAM Energy Resources Inc.  
Meridian Tower Suite 650  
5100 E Shelly Drive  
Tulsa OK 74135-6549

RAM Energy Resources Inc  
313 Pierce St.  
Whiteface Tex 79379



Value C3 + C4 normal closed + sealed open to air only  
Value L1 + L2 normal closed + sealed open only to seal  
oil

Accepted for Record Purposes.  
Approval Subject to Onsite Inspections.  
Date: 5-19-08

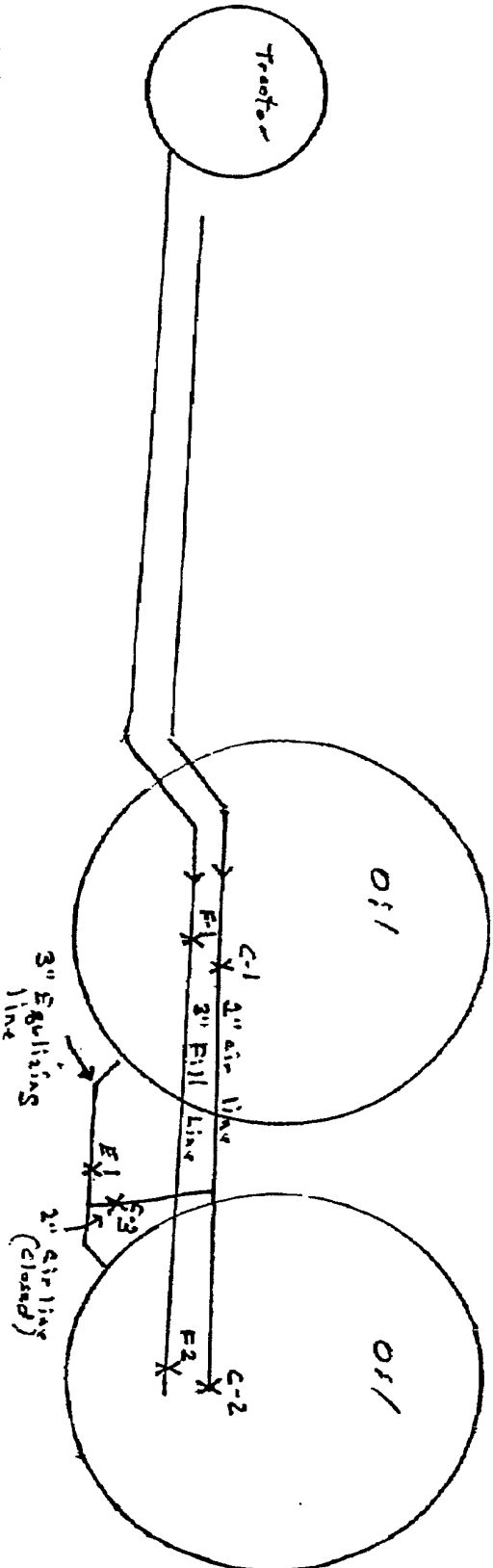
Accepted for Record Purposes.  
Approval Subject to Onsite Inspections.  
Date: 5-19-08

# Top of Tanks

RAM Energy Resources Inc.  
E1 Zorro C Federal Lease  
NM 57713 Tank Battery #2  
NE NW 4 Seall, T9S, R 36E  
Lee Co. Mexico

This plan is subject to the site security plan for  
NW, New Mexico. The plan is located at  
RAM Energy Resources Inc.  
Meridian Tower, Suite 650  
5100 E Shelly Drive  
Tulsa OK 74135-6549

RAM Energy Resources Inc  
313 Pierce St  
Whiteface Tex 79379



- Value C-1 + C-2 normal closed + sealed open only to air C-3 closed
- Value E-1 closed + sealed for sales - open when filling tank
- Value F-1 + F-2 Opened to fill oil tank from treater. closed + sealed on sales tank when selling oil



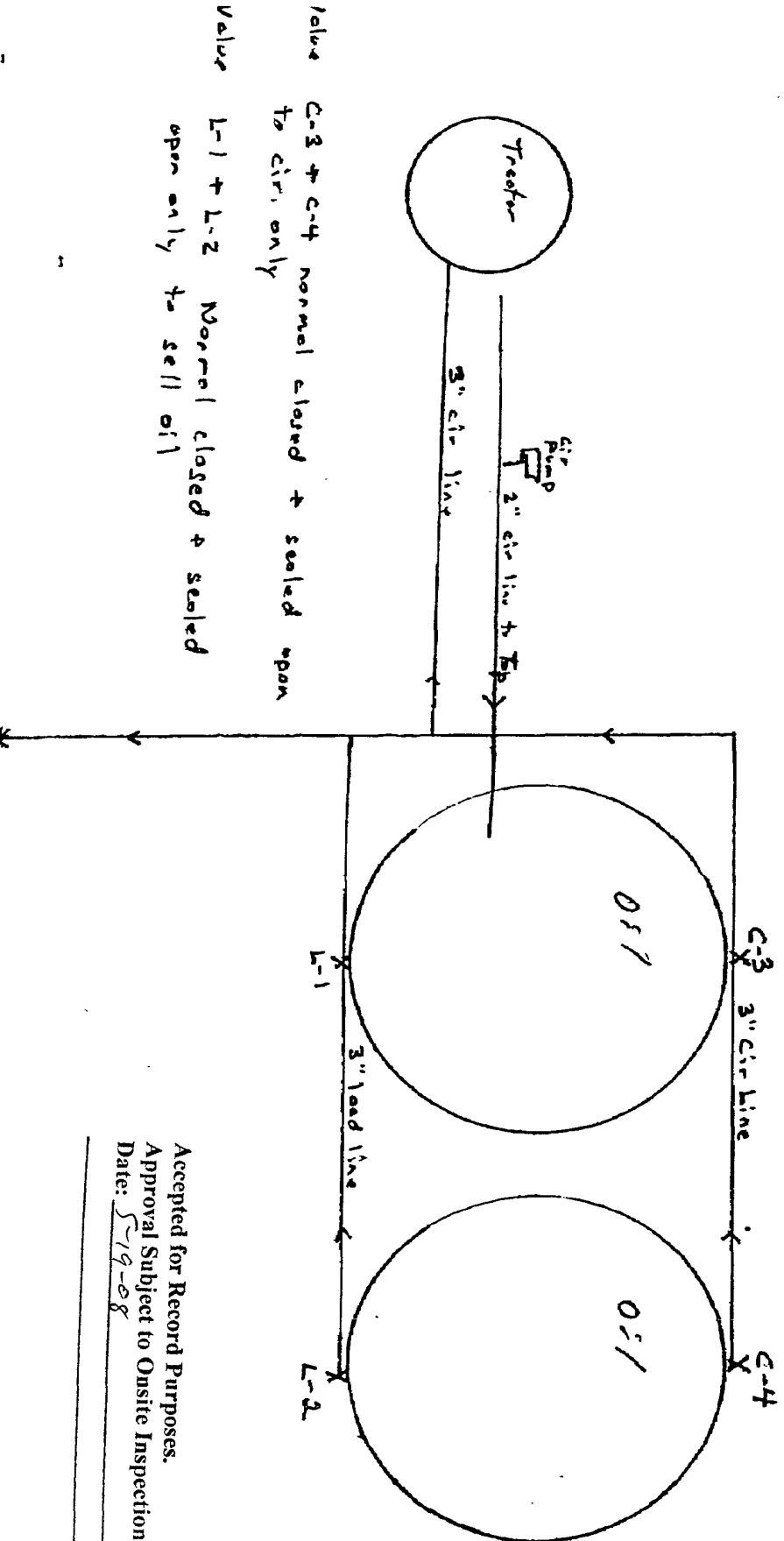
RAM Energy Resources Inc.

Page # 4

E1 Zorro C Federal Lease  
 NM 57713 Tank Battery #2  
 NE NW 4 Sall, T9S, R36E  
 Lea Co, Mexico

This plan is subject to the site Security Plan for  
 NW, New Mexico. The plan is located at  
 RAM Energy Resources Inc  
 Meridian Tower, Suite 650  
 5100 E Shelly Drive  
 Tulsa OK 74135-6549  
 RAM Energy Resources Inc  
 313 Pierce St  
 White House Tex 79379

# Bottom of Tanks



Accepted for Record Purposes.  
 Approval Subject to Onsite Inspections.  
 Date: 5-19-08

Page # 5

El Zorro Fed. C #1 + C #2

Targa gas meter # 9528

Pipe line was SI 1-31-08 (Approx)

Targa picked up gas meter on 3-19-08

# Chem Tech Services WATER ANALYSIS REPORT

## SAMPLE

Oil Co.: Ram  
Lease: El Zorro C Fed  
Well No.: # 2  
Location:  
Attention: *San andres.*

Date Sampled:  
Date Analyzed: 02-May-2008  
Lab ID Number: May0208.001- 8  
Salesperson:  
File Name: May0208.001

## ANALYSIS

1. Ph 5.530
2. Specific Gravity 60/60 F. 1.159
3. CACO3 Saturation Index @ 80F  
@ 140F

### Dissolved Gasses

4. Hydrogen Sulfide
5. Carbon Dioxide
6. Dissolved Oxygen

0.411 Mild  
1.771 Severe  
MG/L. EQ. WT. \*MEQ/L  
Present  
Not Determined  
Not Determined

### Cations

7. Calcium (Ca++)
8. Magnesium (Mg++)
9. Sodium (Na+) (Calculated)
10. Barium (Ba++)

10,621 / 20.1 = 528.41  
5,166 / 12.2 = 423.44  
60,304 / 23.0 = 2,621.91  
Not Determined

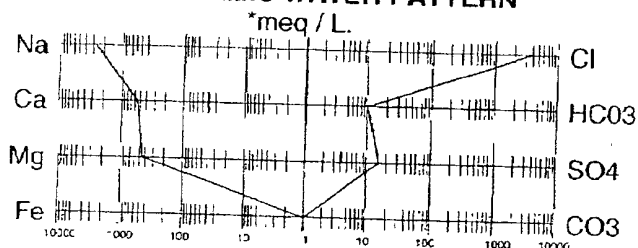
### Anions

11. Hydroxyl (OH-)
12. Carbonate (CO3=)
13. Bicarbonate (HCO3-)
14. Sulfate (SO4=)
15. Chloride (Cl-)
16. Total Dissolved Solids
17. Total Iron (Fe)
18. Manganese (Mn++)
19. Total Hardness as CaCO3
20. Resistivity @ 75 F. (Calculated)

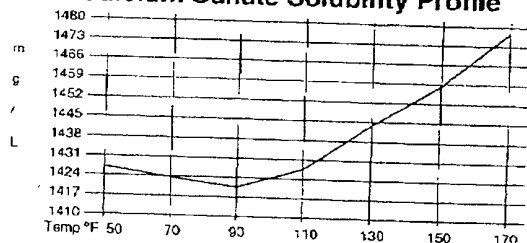
0 / 17.0 = 0.00  
0 / 30.0 = 0.00  
595 / 61.1 = 9.74  
725 / 48.8 = 14.86  
125,972 / 35.5 = 3,548.51  
203,383  
1.50 / 18.2 = 0.08  
Not Determined  
47,793

0.001 Ohm - meters

### LOGARITHMIC WATER PATTERN



### Calcium Sulfate Solubility Profile



### PROBABLE MINERAL COMPOSITION

| COMPOUND  | *meq/L   | X | EQ. WT. | = | mg/L    |
|-----------|----------|---|---------|---|---------|
| Ca(HCO3)2 | 9.74     |   | 81.04   |   | 789     |
| CaSO4     | 14.86    |   | 68.07   |   | 1,011   |
| CaCl2     | 503.81   |   | 55.50   |   | 27,962  |
| Mg(HCO3)2 | 0.00     |   | 73.17   |   | 0       |
| MgSO4     | 0.00     |   | 60.19   |   | 0       |
| MgCl2     | 423.44   |   | 47.62   |   | 20,164  |
| NaHCO3    | 0.00     |   | 84.00   |   | 0       |
| NaSO4     | 0.00     |   | 71.03   |   | 0       |
| NaCl      | 2,621.25 |   | 58.46   |   | 153,238 |

\* milliequivalents per Liter

Kevin Byrne, Analyst