WFX-875

DATE IN 10/20/10	SUSPENSE 10/31/10	ENGINEER TGW	LOGGED IN 10.20.10	TYPE WFX	APP NO. ITGW1029352195

ABOVE THIS LINE FOR DIVISION USE ONLY

NEW MEXICO OIL CONSERVATION DIVISION
- Engineering Bureau -
1220 South St. Francis Drive, Santa Fe, NM 87505

Chi Operating 4378
Muchkin Fed #2
30-015-31778
Muchkin Fed #12
-35791

ADMINISTRATIVE APPLICATION CHECKLIST

THIS CHECKLIST IS MANDATORY FOR ALL ADMINISTRATIVE APPLICATIONS FOR EXCEPTIONS TO DIVISION RULES AND REGULATIONS WHICH REQUIRE PROCESSING AT THE DIVISION LEVEL IN SANTA FE

Application Acronyms:

[NSL-Non-Standard Location] [NSP-Non-Standard Proration Unit] [SD-Simultaneous Dedication]
[DHC-Downhole Commingling] [CTB-Lease Commingling] [PLC-Pool/Lease Commingling]
[PC-Pool Commingling] [OLS - Off-Lease Storage] [OLM-Off-Lease Measurement]
[WFX-Waterflood Expansion] [PMX-Pressure Maintenance Expansion]
[SWD-Salt Water Disposal] [IPI-Injection Pressure Increase]
[EOR-Qualified Enhanced Oil Recovery Certification] [PPR-Positive Production Response]

[1] **TYPE OF APPLICATION** - Check Those Which Apply for [A]

[A] Location - Spacing Unit - Simultaneous Dedication
☐ NSL ☐ NSP ☐ SD

Check One Only for [B] or [C]

[B] Commingling - Storage - Measurement
☐ DHC ☐ CTB ☐ PLC ☐ PC ☐ OLS ☐ OLM

[C] Injection - Disposal - Pressure Increase - Enhanced Oil Recovery
☒ WFX ☐ PMX ☐ SWD ☐ IPI ☒ EOR ☐ PPR

[D] Other: Specify _____

NSL 5706

[2] **NOTIFICATION REQUIRED TO:** - Check Those Which Apply, or Does Not Apply

[A] ☐ Working, Royalty or Overriding Royalty Interest Owners

[B] ☐ Offset Operators, Leaseholders or Surface Owner

[C] ☐ Application is One Which Requires Published Legal Notice

[D] ☐ Notification and/or Concurrent Approval by BLM or SLO
U.S. Bureau of Land Management - Commissioner of Public Lands, State Land Office

[E] ☐ For all of the above, Proof of Notification or Publication is Attached, and/or,

[F] ☐ Waivers are Attached

[3] **SUBMIT ACCURATE AND COMPLETE INFORMATION REQUIRED TO PROCESS THE TYPE OF APPLICATION INDICATED ABOVE.**

[4] **CERTIFICATION:** I hereby certify that the information submitted with this application for administrative approval is **accurate** and **complete** to the best of my knowledge. I also understand that **no action** will be taken on this application until the required information and notifications are submitted to the Division.

Note: Statement must be completed by an individual with managerial and/or supervisory capacity.

James Bruce
P.O. Box 1056
Santa Fe, New Mexico 87504

James Bruce — Signature
Attorney for Applicant — Title
10/13/10 — Date
jamesbruc@aol.com — e-mail Address

JAMES BRUCE
ATTORNEY AT LAW

POST OFFICE BOX 1056
SANTA FE, NEW MEXICO 87504

369 MONTEZUMA, NO. 213
SANTA FE, NEW MEXICO 87501

(505) 982-2043 (Phone)
(505) 660-6612 (Cell)
(505) 982-2151 (Fax)

jamesbruc@aol.com

October 13, 2010

case 9696

Hand Delivered

William V. Jones
Oil Conservation Division
1220 South St. Francis Drive
Santa Fe, New Mexico 87505

Re: Chi Operating, Inc./Injection application

Dear Will:

Enclosed is an injection application filed on behalf of Chi Operating, Inc. This application was originally filed April, and you had requested additional information. In addition, since then the acreage has been unitized (see enclosed order), and the order allows for administrative approval of additional injection wells (even though it is a secondary recovery application).

Your e-mail of April 26th to Chi requested some additional information (see attachment to this letter). The answers are as follows:

a. The P&A'd wells are above 4600 feet.

b. The waterflood is in the Brushy Canyon.

c. The wellbore diagrams are in the C-108.

d. Electric logs have been filed with the Division.

e & f. See attached e-mail.

g. Rate plots are in the C-108.

h. General well information is in the C-108. The location of the No. 12 well is affected by bike trails in the Hackberry OHV Area.

i. Newspaper ad was corrected and is in the C-108.

I gave new notice to all the offsets/surface owner/potash lessee. If you want the green cards I will get them to you when they come in.

Call if you need anything else.

Very truly yours,

James Bruce

Attorney for Chi Operating, Inc.

a. Your map shows some P&Aed wells in the AOR, are these shallower than the 4600 feet top of disposal? If not, then wellbore diagrams will be needed for the P&Aed wells.
b. What members of the Delaware Mountain Group are involved in this proposed disposal interval(s)?
c. Please send before-conversion and after-conversion wellbore diagrams of both the #2 and the #12 well. Make sure the DV tool depths are on the diagrams and all cement tops below and above these stage tools. Also show any Queen perforations that were shot and then squeezed.
d. Please send copies of your electric logs for the #12 well to the Hobbs district office for scanning into the Division's log records. We have no logs on this well and the well was drilled in 2007.
e. The #12 well is in the R-111-P defined Potash area. How does the casing and cement on this well protect the Potash? Have you received any concerns from Intrepid or the BLM on converting these two wells to disposal?
f. Does the existing casing of the #12 well adequately protect the Capitan Reef?
g. Please send Rate (oil, gas, water) vs Time plots for both these depleted oil wells.
h. What is the general location of these wells? What surface features are nearby – are these wells near a recreation area? This was referred to in a NSL application but not defined in this C-108.
i. The newspaper notice says that new wells are being drilled for disposal – but both of these wells are existing producers.

Robin Askew

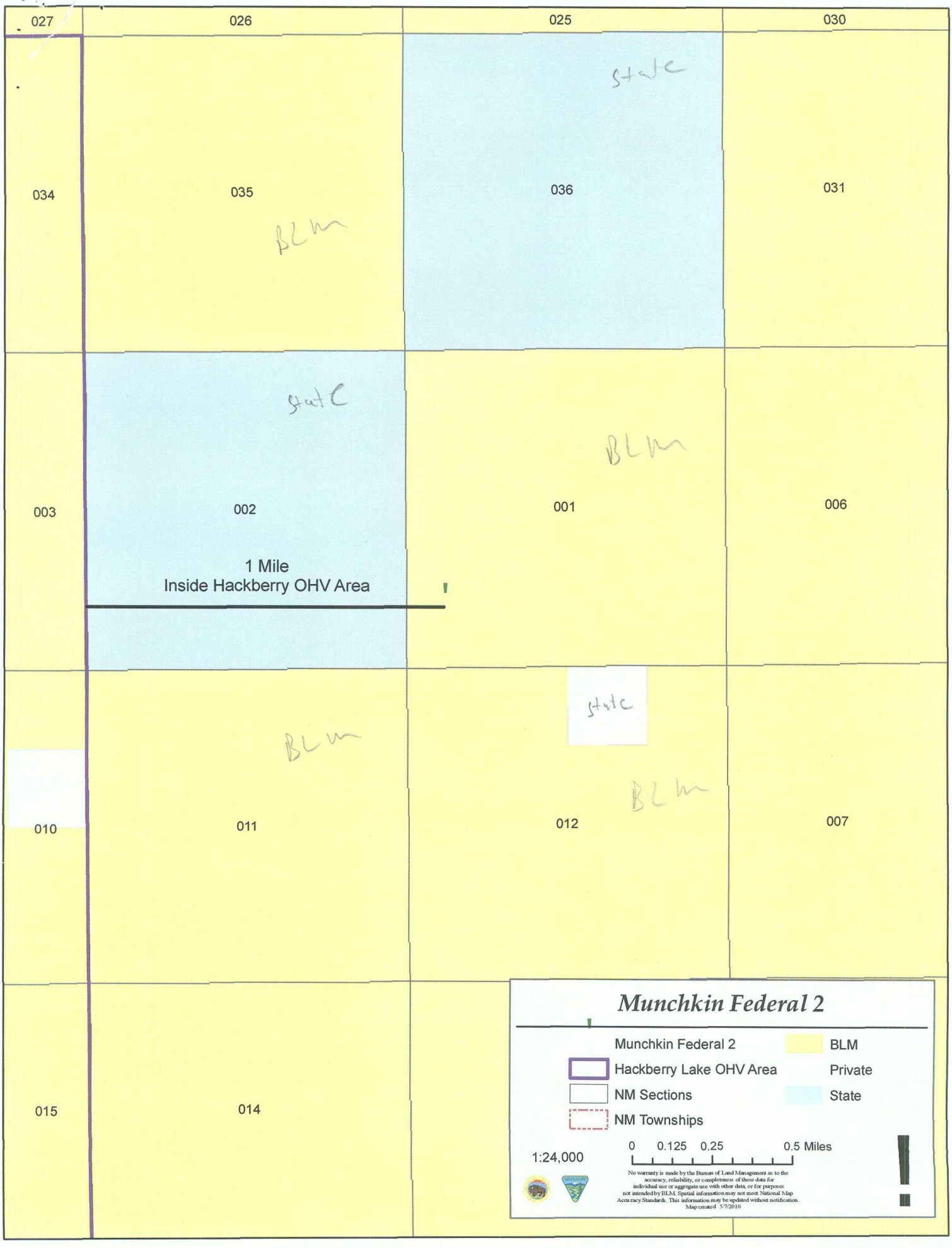
From: Gary Womack [garyw@chienergyinc.com]
Sent: Wednesday, April 28, 2010 10:15 AM
To: 'Robin Askew'
Cc: 'Pam Corbett'
Subject: Munchkin 12 - NMOCD Questions
Attachments: Munchkin 12 Existing wellbore.xls; Munchkin Federal No. 12 - Convert to Water Injection.xls

In regards to item (e) and (f) in email dated 4/26/2010 from William V. Jones at the NMOCD:

(e) How does the casing and cement protect the R-111-P potash area?

(f) How does the existing casing of the #12 well adequately protect the capitan reef?

This well was permitted and drilled in 2007 with approval from the BLM and NMOCD. Since it is in the defined potash area, three (3) strings of casing were required by the Carlbad BLM office to protect the potash and capitan reef (see wellbore diagram).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No warranty is made by the Bureau of Land Management as to the accuracy, reliability, or completeness of these data for individual use or aggregate use with other data, or for purposes not intended by BLM. Spatial information may not meet National Map Accuracy Standards. This information may be updated without notification.
Map created 5/7/2010

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

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

CASE NO. 14353

APPLICATION OF CHI ENERGY, INC. FOR APPROVAL OF A SECONDARY RECOVERY PROJECT AND TO QUALIFY THE PROJECT FOR THE RECOVERED OIL TAX RATE, EDDY COUNTY, NEW MEXICO.

CASE NO. 14354

APPLICATION OF CHI ENERGY, INC. FOR STATUTORY UNITIZATION, EDDY COUNTY, NEW MEXICO.

ORDER NO. R-13262

ORDER OF THE DIVISION

BY THE DIVISION:

These cases came on for hearing at 8:15 a.m. on November 12, 2009, at Santa Fe, New Mexico, before Examiner Richard I. Ezeanyim.

NOW, on this 21st day of May, 2010, the Division Director, having considered the testimony, the record and the recommendations of the Examiner,

FINDS THAT:

(1) Due public notice has been given, and the Division has jurisdiction of these cases and their subject matter.

(2) Cases No. 14353 and 14354 were consolidated for hearing. Because the cases involve the same property and subject matter, a single order is being issued for both cases.

(3) In Case No. 14354, Chi Energy, Inc. ("Applicant") seeks statutory unitization, pursuant to NMSA 1978 Sections 70-7-1 through 70-7-21, as amended ("the Statutory Unitization Act"), of 560 acres, more or less, of federal lands for the purpose of instituting secondary recovery operations in the Brushy Canyon member of the Delaware formation, Benson-Delaware Pool (97083), to be called the **Benson Delaware Unit**, and

approval of the Unit Agreement and the Unit Operating Agreement, which were submitted as Applicant's Exhibits No. 2 and 3 in these cases.

(4) In Case No. 14353, Applicant seeks approval of a secondary recovery project involving the injection of water into the Brushy Canyon member of the Delaware formation within the Benson Delaware Unit Area through nine injection wells, to be drilled at the following locations, all in Township 19 South, Range 30 East, NMPM, in Eddy County, New Mexico:

Well Name	Surface Location	Bottom Hole Location
Munchkin #22W	900 FNL & 1980 FWL, C-12	930 FNL & 2620 FWL, C-12
Munchkin #21W		1050 FNL &1150 FWL D-12
Munchkin #20W	1400 FNL & 400 FWL, D-12	1350 FNL & 20 FWL, D-12
Munchkin #19W	2300 FNL & 400 FEL, B-11	1300 FNL &1000 FEL, A-11
Munchkin #18W		1500 FSL & 2200 FEL, J-1
Munchkin #17W		1700 FSL & 1500 FWL, K-1
Munchkin #16W		300 FSL & 1650 FEL, O-1
Munchkin #15W		300 FSL & 1550FWL, N-1
Munchkin #14W	330 FNL & 500 FWL, D-12	330 FNL & 330 FWL, D-12

(5) The proposed Unit Area consists of the following described lands:

TOWNSHIP 19 SOUTH, RANGE 30 EAST, NMPM

Section 1:	NE/4 and S/2 of the SW/4, and W/2 of the SE/4
Section 11:	E/2 and SW/4 of the NE/4
Section 12:	NW/4 and the N/2 of the SW/4

(6) The vertical extent of the proposed Unitized Formation is the stratigraphic equivalent of the interval within the Delaware formation from 4370 feet to 5300 feet below the surface, as shown by the Density Neutron Log for the Munchkin Federal Well No. 9 **(API No. 30-015-34293)**, located 990 feet from the North line and 300 feet from the East line of Section 11, Township 19 South, Range 30 East, NMPM, Eddy County, New Mexico.

(7) All owners of interests within the proposed unit, and all affected persons in all spacing units within the area of review of each of the proposed injectors, were notified of these applications and of the hearing. No party appeared at the hearing to oppose these applications, or otherwise signified any opposition. The Oil Conservation Division appeared at the hearing though counsel and protested the application in Case No. 14353 because Chi Operating, Inc., the proposed operator of the Unit was out of compliance with Division Rule 5.9. The Division, however, has subsequently withdrawn its protest, signifying that Chi Operating, Inc. is now in compliance.

(8) Applicant appeared at the hearing through counsel and presented the following land testimony:

(a) The proposed Unit Area consists entirely of federal lands, and working interest ownership is uniform throughout the Unit Area. The Unit Area is divided into seven tracts based on lease boundaries and differences in overriding royalty ownership.

(b) There are 11 working interest owners in the Unit Area, one royalty owner, and eight overriding royalty owners. 100% of the working interest owners have executed ratifications of the Unit Agreement and Unit Operating Agreement. The United States Bureau of Land Management, as the representative of the only royalty owner, has issued preliminary approval of the Unit Agreement and Unit Operating Agreement. All but one of the owners of overriding royalty interests in the Unit Area have approved the Unit Agreement in writing. The owner of the only remaining, uncommitted overriding royalty interest has given verbal approval.

(c) Applicant has requested that Chi Operating, Inc., an affiliate of Applicant, be designated operator of the Unit.

(9) Applicant presented the following geological testimony:

(a) The Delaware formation underlying the Unit Area is made up of multiple sands, not all of which are productive. Applicant has identified three intervals that are generally productive of oil in the Unit Area.

(b) The area that Applicant proposes to unitize is a well-defined structural high, with a strong dip to the east, and a fairly strong dip to the south and west. The structure is effectively closed by areas of reduced porosity. A cumulative isopach map of the three productive sand intervals, based on an 18% porosity cut-off, shows the Effective Pay Limit corresponding generally with the horizontal boundaries of the proposed Unit Area.

(c) This is a tight oil reservoir that is trapping oil, and hence will be a good, tight feature to sweep by water injection.

(d) The Unit Area has been defined by development. The Isopach Map shows that the entire unitized interval should contribute reserves to the Unit.

(e) There are no faults connecting the proposed unitized interval to any fresh water zone.

(10) Applicant presented the following engineering testimony:

(a) There are presently eight producing wells in the proposed Unit Area, producing a total of 515 barrels of oil per day, 615 mcf per day of natural gas, and 687 barrels per day of water. Cumulative production from the proposed Unit Area, at the end of June, 2009, was 1.268 million barrels of oil, 941 mmcf of natural gas, and 1.776 million barrels of water.

(b) Applicant seeks Division approval to inject into the injection interval by means of nine new injection wells, which it proposes to drill, though it may produce some of these wells prior to commencing injection. The proposed injection wells are arranged as a modified five-spot to take advantage of the pinch-out to the northwest. Applicant may subsequently apply to convert some of the producing wells in the Unit Area to injection. Each of the two proposed injection wells will inject an average of 200 to 400 barrels of water per day.

(c) The source of the injection water will be purchased, produced water from the Yates-Seven Rivers formation from Shackleford Oil Co. wells south of the Unit Area. These waters are compatible with the formation waters.

(d) Initial injection pressures will not exceed 0.2 psig per foot of depth to the depth of the uppermost perforation in each injection well. If a higher injection pressure is required, a subsequent administrative application will be filed.

(e) There are no fresh water sources within one mile of the proposed Unit Area. All plugged and abandoned wells within the half-mile area of review (AOR) of each proposed initial injection wells are properly plugged and abandoned, and no remedial work is required on these wells to enable safe operation of the project.

(f) Applicant proposes to allocate production to the various tracts within the Unit Area on a straight acreage basis. Allocation in this manner, although unusual for secondary recovery projects, is fair and reasonable in this project because of the uniformity of working and royalty interest ownership, and because all owners of all interests have agreed to that allocation method, either in writing or verbally.

(g) Unitized management of this pool is necessary to effectively implement and carry on the proposed secondary recovery operations.

(h) The proposed secondary recovery operation is economically and technically feasible. Analogous secondary recovery projects in the Delaware in the same general area have been successful.

(i) This pool is ripe for implementation of secondary recovery notwithstanding that there is significant remaining primary production.

This is a gas solution drive reservoir that has not reached the bubble point, and it is prudent to implement water injection before the reservoir reaches the bubble point.

(j) The ultimate primary production from the proposed Unit Area is estimated to be approximately 3.553 million barrels of oil. Incremental recovery through secondary operations is forecast to be 4.62 million barrels of oil. The estimated total value of incremental revenue, discounted at a 40% rate of return will be approximately $56.2 million.

(k) The estimated total costs of operation of the proposed secondary recovery project are approximately $11.5 million, and the project will be economic based on estimated costs and estimated incremental recovery.

The Division concludes as follows:

(11) The provisions of the proposed Unit Agreement and Unit Operating Agreement are fair, reasonable and equitable, contain satisfactory provisions with respect to all of the matters required by NMSA 1978 Section 70-7-7, as amended, and should be incorporated by reference into this order. The participation formula contained in the Unit Agreement allocates the produced and saved, unitized hydrocarbons to the separately owned tracts in the Unit Area on a fair, reasonable and equitable basis.

(12) This Order creating a unit comprising the Unit Area and providing for the unitization and unitized operation of the unit area upon the terms and conditions approved herein is necessary to protect and safeguard the respective rights and obligations of the working interest owners and the royalty interest owners in the Unit Area.

(13) Applicant has made a good faith effort to secure voluntary unitization of the Unitized Formation within the Unit Area.

(14) Chi Operating, Inc. **(OGRID No. 147179)**, an operating affiliate of Applicant, should be designated as the operator of the unit.

(15) As of the hearing date, owners of all of the working interest had voluntarily committed to the unit verbally. This order should be made contingent upon final, written approval of the plan of unit operations by the owners of at least seventy-five percent of the production or proceeds thereof that will be credited to interests which are free of cost, including royalties, overriding royalties.

(16) Unitized management, operation and further development of the Unit Area is necessary to effectively carry on secondary recovery operations, to substantially increase the ultimate recovery of oil from the Unit Area. Unitization and implementation of secondary recovery operations by water injection in the Unit Area will benefit the

working interest and royalty interest owners within the proposed Unit Area, and will prevent waste and protect correlative rights of all parties.

(17) The proposed **Benson Delaware Unit** should be approved for statutory unitization.

(18) The applicant proposes to institute a secondary recovery project by water injection within the Benson Delaware Unit Area. The project area should comprise the entire area approved for statutory unitization as described in this Order. The Delaware reservoir within the Unit Area has not been depleted. However, it is prudent to commence water injection operations at this time to extend the life of the reservoir and to maximize the ultimate recovery of crude oil from this reservoir. This application for secondary recovery operations has not been prematurely filed either for economic or technical reasons.

(19) The proposed unitized method of secondary recovery operations within the Unit Area is feasible, and will result, with reasonable probability, in the recovery of substantially more oil from the unitized portion of the pool than would otherwise be recovered. The estimated additional costs of the proposed operations will not exceed the estimated value of the additional oil recovered plus a reasonable profit.

(20) An examination of all wellbores within one half-mile of each of the proposed nine injection wells indicates that all Area of Review ("AOR") wells are properly cased and cemented to prevent vertical migration of injected fluids. The proposed injection operation will not pose a threat to protectable underground sources of drinking water.

(21) The proposed secondary recovery project by water injection will prevent waste, protect correlative rights, should be called the **Benson Delaware Secondary Recovery Project**, and should be approved.

(22) The evidence establishes that the proposed secondary recovery project meets all the criteria for certification by the Division as a qualified "Enhanced Oil Recovery (EOR) Project" pursuant to the "Enhanced Oil Recovery Act" [NMSA 1978 Sections 7-29A-1 through 7-29A-5].

(23) The certified project area should initially comprise the entire Unit Area.

(24) The project area within the Unit Area and/or the producing wells within such area eligible for the recovered oil tax rate may be contracted and reduced dependent upon the evidence presented by the Applicant in its demonstration of the occurrence of a positive production response.

IT IS THEREFORE ORDERED THAT:

(1) The application of Chi Energy, Inc. for the statutory unitization of 560 acres, more or less, in Eddy County, New Mexico, to be known as the Benson Delaware Unit, is hereby approved pursuant to the Statutory Unitization Act, NMSA 1978, Sections 70-7-1 through 70-7-21.

(2) The Benson Delaware Unit shall comprise the following described federal lands located in Eddy County, New Mexico:

TOWNSHIP 19 SOUTH, RANGE 30 EAST, NMPM

Section 1:	NE/4 and S/2 of the SW/4, and W/2 of the SE/4
Section 11:	E/2 and SW/4 of the NE/4
Section 12:	NW/4 and N/2 of the SW/4

(3) The Unitized Formation shall consist of the stratigraphic equivalent of the interval within the Delaware formation from 4370 feet to 5300 feet below the surface, as shown by the Density Neutron Log for the Munchkin Federal Well No. 9 **(API No. 30-015-34293),** located 990 feet from the North line and 300 feet from the East line of Section 11, Township 19 South, Range 30 East, NMPM, Eddy County, New Mexico.

(4) The persons owning the required statutory minimum percentage of the working interest have verbally ratified the Unit Agreement and the Unit Operating Agreement. However, this Order shall not be effective until the plan of unit operations provided herein has been approved in writing by the owners of at least seventy-five percent of the production or proceeds thereof that will be credited to interests which are free of cost [NMSA 1978, §70-7-8 (1975)], and the Division has made a finding in a supplemental order that the plan for unit operations has been so approved.

(5) The proposed UNIT AGREEMENT and the UNIT OPERATING AGREEMENT, admitted as EXHIBITS 2 and 3, respectively, at the hearing of these cases, are hereby incorporated into this Order by reference.

(6) Chi Operating, Inc. **(OGRID 4378)** is hereby designated the operator of the Benson Delaware Unit.

(7) The operator shall notify the Division in writing of its removal or the substitution of any other working interest owner within the Unit Area as operator.

(8) The unit established hereby shall terminate upon the plugging and abandonment of the last well in the Unit Area completed in the Unitized Formation.

IT IS FURTHER ORDERED THAT:

(9) Chi Operating, Inc. (Operator) is hereby authorized to institute secondary recovery operations within the Unit Area initially by the injection of water into the Unitized Formation of the Benson-Delaware Pool, in the interval from 4470 to 5200 feet below the surface, through the following nine wells to be located in Township 19 South, Range 30 East, NMPM, in Eddy County, New Mexico:

Well Name	Surface Location	Bottom Hole Location
Munchkin #22W	900 FNL & 1980 FWL, C-12	930 FNL & 2620 FWL, C-12
Munchkin #21W		1050 FNL &1150 FWL D-12
Munchkin #20W	1400 FNL & 400 FWL, D-12	1350 FNL & 20 FWL, D-12
Munchkin #19W	2300 FNL & 400 FEL, B-11	1300 FNL &1000 FEL, A-11
Munchkin #18W		1500 FSL & 2200 FEL, J-1
Munchkin #17W		1700 FSL & 1500 FWL, K-1
Munchkin #16W		300 FSL & 1650 FEL, O-1
Munchkin #15W		300 FSL & 1550FWL, N-1
Munchkin #14W	330 FNL & 500 FWL, D-12	330 FNL & 330 FWL, D-12

(10) No fresh water shall be used as make-up water or otherwise injected pursuant to the injection authorization herein provided.

(11) Operator 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.

(12) Injection into each of the wells identified above shall be accomplished through 2 7/8 inch plastic lined or fiberglass lined tubing installed in a packer located within 100 feet of the uppermost injection perforations or casing shoe. The casing-tubing annulus shall be filled with an inert fluid, and a gauge or approved leak-detection device shall be attached to the annulus in order to determine leakage in the casing, tubing, or packer.

(13) The injection wells or pressurization system shall be equipped with a pressure control device or acceptable substitute that will limit the surface injection pressure to no more than 860 pounds per square inch.

(14) The Division Director may 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.

(15) The Division Director may administratively authorize additional injection wells within the Unit Area as provided in Division Rule 19.15.26.8.A NMAC.

(16) Prior to commencement of injection operations, the casing in each well shall be pressure tested throughout the interval from the surface down to the proposed packer setting depth to assure the integrity of such casing. Mechanical integrity tests (MITs) shall be conducted at least once every five years thereafter.

(17) The Operator shall give at least 48 hours advance notice to the supervisor of the Division's Artesia District Office of the date and time (i) injection equipment will be installed, and (ii) the mechanical integrity pressure tests will be conducted on each proposed injection well, so that these operations may be witnessed.

(18) The Operator shall immediately notify the supervisor of the Division's Artesia District Office of any failure of the tubing, casing or packer in any of the injection wells, or the leakage of water, oil or gas from or around any producing or plugged and abandoned well within the project area, and shall promptly take all steps necessary to correct such failure or leakage.

(19) The Operator shall conduct injection operations in accordance with Division Rules No. 19.15.26.1 through 19.15.26.15 NMAC, and shall submit monthly progress reports in accordance with Division Rules No. 19.15.26.11.B, and 19.15.7.8.D.

(20) The injection authority granted herein for the injection wells shall terminate one year after the date of this order if the Operator has not commenced injection operations into at least one of the wells; provided, however, the Division, upon written request filed with the Division's Santa Fe Office prior to the termination date herein provided, may grant an extension for good cause. The injection authority shall also terminate ***ipso facto***, one year after injection operations into all the wells have ceased.

(21) The secondary recovery project authorized by this order shall be known as the **Benson Delaware Secondary Recovery Project**.

(22) The injection authority granted under this order is **not** transferable except upon Division approval. The Division may require the operator to demonstrate mechanical integrity of each injection well that will be transferred prior to approving transfer of authority to inject.

(23) The Division may revoke this injection permit at any time after notice and hearing if the operator is in violation of Rule 19.15.5.9 NMAC.

(24) The Benson Delaware Secondary Recovery Project is hereby **certified** to the New Mexico Taxation and Revenue Department as an "Enhanced Oil Recovery Project" pursuant to the "Enhanced Oil Recovery Act" (NMSA 1978 Sections 7-29A-1 through 7-29A-5). The project area shall comprise the entire Benson Delaware Unit, described in Ordering Paragraph No. 2; provided the area and/or the producing wells eligible for the enhanced oil recovery (EOR) tax rate may be contracted and reduced based upon the evidence presented by the unit operator in its demonstration of a positive production response.

(25) At such time as a positive production response occurs, and within five years from the date the project was certified to the New Mexico Taxation and Revenue Department, the unit operator shall apply to the Division for certification of a positive production response. This application shall identify the area benefiting from enhanced oil recovery operations and the specific wells eligible for the EOR tax rate. The Division may review the application administratively or set it for hearing. Based upon the evidence presented, the Division will certify to the New Mexico Taxation and Revenue Department those wells that are eligible for the EOR tax rate.

(26) This order does not relieve the Operator of responsibility should its operations cause any damage or threat of damage to protectable fresh water, human health or the environment, nor does it relieve the operator of responsibility for complying with applicable Division rules or other federal, state or local laws or regulations.

(27) Upon failure of the Operator to conduct operations (1) in such manner as will protect fresh water or (2) in a manner consistent with the requirements in this Order, the Division may, after notice and hearing, (or without notice and hearing in event of an emergency, subject to the provisions of NMSA 1978 Section 70-2-23), terminate the injection authority granted herein.

(28) Jurisdiction is hereby retained for the entry of such further orders as the Division may deem necessary.

DONE at Santa Fe, New Mexico, on the day and year hereinabove designated.

STATE OF NEW MEXICO
OIL CONSERVATION DIVISION

MARK E. FESMIRE, P. E.
Acting Director

SEAL

STATE OF NEW MEXICO
ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT

Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, New Mexico 87505

FORM C-108
Revised June 10, 2003

APPLICATION FOR AUTHORIZATION TO INJECT

I. PURPOSE: ___X___Secondary Recovery _____Pressure Maintenance ____X__Disposal _____Storage
Application qualifies for administrative approval? ___[redacted]____Yes _____No

II. OPERATOR: __CHI OPERATING, INC. _____

ADDRESS: ____P.O. BOX 1799, MIDLAND, TEXAS 79702_____

CONTACT PARTY: _____GARY WOMACK_____PHONE: __432-685-5001_____

III. WELL DATA: Complete the data required on the reverse side of this form for each well proposed for injection. Additional sheets may be attached if necessary.

IV. Is this an expansion of an existing project? _____Yes ___X_____No
If yes, give the Division order number authorizing the project: _____

V. Attach a map that identifies all wells and leases within two miles of any proposed injection well with a one-half mile radius circle drawn around each proposed injection well. This circle identifies the well's area of review.

VI. Attach a tabulation of data on all wells of public record within the area of review which penetrate the proposed injection zone. Such data shall include a description of each well's type, construction, date drilled, location, depth, record of completion, and a schematic of any plugged well illustrating all plugging detail.

VII. Attach data on the proposed operation, including:

1. Proposed average and maximum daily rate and volume of fluids to be injected;
2. Whether the system is open or closed;
3. Proposed average and maximum injection pressure;
4. Sources and an appropriate analysis of injection fluid and compatibility with the receiving formation if other than reinjected produced water; and,
5. If injection is for disposal purposes into a zone not productive of oil or gas at or within one mile of the proposed well, attach a chemical analysis of the disposal zone formation water (may be measured or inferred from existing literature, studies, nearby wells, etc.).

*VIII. Attach appropriate geologic data on the injection zone including appropriate lithologic detail, geologic name, thickness, and depth. Give the geologic name, and depth to bottom of all underground sources of drinking water (aquifers containing waters with total dissolved solids concentrations of 10,000 mg/l or less) overlying the proposed injection zone as well as any such sources known to be immediately underlying the injection interval.

IX. Describe the proposed stimulation program, if any.

*X. Attach appropriate logging and test data on the well. (If well logs have been filed with the Division, they need not be resubmitted).

*XI. Attach a chemical analysis of fresh water from two or more fresh water wells (if available and producing) within one mile of any injection or disposal well showing location of wells and dates samples were taken.

XII. Applicants for disposal wells must make an affirmative statement that they have examined available geologic and engineering data and find no evidence of open faults or any other hydrologic connection between the disposal zone and any underground sources of drinking water.

XIII. Applicants must complete the "Proof of Notice" section on the reverse side of this form.

XIV. Certification: I hereby certify that the information submitted with this application is true and correct to the best of my knowledge and belief.

NAME: _____ROBIN ASKEW_____TITLE: ___REGULATORY CLERK_____

SIGNATURE: _____DATE: ____3-15-2010_____

E-MAIL ADDRESS: _____robina@chienergyinc.com_____

* If the information required under Sections VI, VIII, X, and XI above has been previously submitted, it need not be resubmitted. Please show the date and circumstances of the earlier submittal: _____

DISTRIBUTION: Original and one copy to Santa Fe with one copy to the appropriate District Office

III. WELL DATA

A. The following well data must be submitted for each injection well covered by this application. The data must be both in tabular and schematic form and shall include:

(1) Lease name; Well No.; Location by Section, Township and Range; and footage location within the section.

(2) Each casing string used with its size, setting depth, sacks of cement used, hole size, top of cement, and how such top was determined.

(3) A description of the tubing to be used including its size, lining material, and setting depth.

(4) The name, model, and setting depth of the packer used or a description of any other seal system or assembly used.

Division District Offices have supplies of Well Data Sheets which may be used or which may be used as models for this purpose. Applicants for several identical wells may submit a "typical data sheet" rather than submitting the data for each well.

B. The following must be submitted for each injection well covered by this application. All items must be addressed for the initial well. Responses for additional wells need be shown only when different. Information shown on schematics need not be repeated.

(1) The name of the injection formation and, if applicable, the field or pool name.

(2) The injection interval and whether it is perforated or open-hole.

(3) State if the well was drilled for injection or, if not, the original purpose of the well.

(4) Give the depths of any other perforated intervals and detail on the sacks of cement or bridge plugs used to seal off such perforations.

(5) Give the depth to and the name of the next higher and next lower oil or gas zone in the area of the well, if any.

XIV. PROOF OF NOTICE

All applicants must furnish proof that a copy of the application has been furnished, by certified or registered mail, to the owner of the surface of the land on which the well is to be located and to each leasehold operator within one-half mile of the well location.

Where an application is subject to administrative approval, a proof of publication must be submitted. Such proof shall consist of a copy of the legal advertisement which was published in the county in which the well is located. The contents of such advertisement must include:

(1) The name, address, phone number, and contact party for the applicant;

(2) The intended purpose of the injection well; with the exact location of single wells or the Section, Township, and Range location of multiple wells;

(3) The formation name and depth with expected maximum injection rates and pressures; and,

(4) A notation that interested parties must file objections or requests for hearing with the Oil Conservation Division, 1220 South St. Francis Dr., Santa Fe, New Mexico 87505, within 15 days.

NO ACTION WILL BE TAKEN ON THE APPLICATION UNTIL PROPER PROOF OF NOTICE HAS BEEN SUBMITTED.

NOTICE: Surface owners or offset operators must file any objections or requests for hearing of administrative applications within 15 days from the date this application was mailed to them.

Side 1

INJECTION WELL DATA SHEET

OPERATOR: CHI OPERATING, INC.

WELL NAME & NUMBER: MUNCHKIN FEDERAL #2

WELL LOCATION: 990' FSL & 660' FWL (BHL) M 1 19S 30E
FOOTAGE LOCATION | UNIT LETTER | SECTION | TOWNSHIP | RANGE

WELLBORE SCHEMATIC

30-015-31778

WELL CONSTRUCTION DATA

Surface Casing

Hole Size: 12 1/4" Casing Size: 9 5/8"

Cemented with: 425 sx. *or* _____ ft³

Top of Cement: SURFACE Method Determined: CIRCULATED

Intermediate Casing

Hole Size: _____ Casing Size: _____

Cemented with: _____ sx. *or* _____ ft³

Top of Cement: _____ Method Determined: _____

Production Casing

Hole Size: 7 7/8" Casing Size: 5 ½"

Cemented with: 1825 sx. *or* _____ ft³

Top of Cement: ±1500 Method Determined: Calcutated

Total Depth: Liner top

Injection Interval

4600 feet to 5158

(Perforated or Open Hole; indicate which)

Side 2

INJECTION WELL DATA SHEET

Tubing Size: 2 7/8 Lining Material: CEMENT

Type of Packer: _____

Packer Setting Depth: _____

Other Type of Tubing/Casing Seal (if applicable): _____

Additional Data

1. Is this a new well drilled for injection? Yes X No

   If no, for what purpose was the well originally drilled? Oil well

2. Name of the Injection Formation: DELAWARE

3. Name of Field or Pool (if applicable): _____

4. Has the well ever been perforated in any other zone(s)? List all such perforated intervals and give plugging detail, i.e. sacks of cement or plug(s) used.

   Queen 3790-3794" Squeeze under retainer

5. Give the name and depths of any oil or gas zones underlying or overlying the proposed injection zone in this area:

   QUEEN 2914' (OVERLYING)

   BONE SPRING LS 6090' (UNDERLYING)

30-015-31778

General Information
Chi Operating, Inc.
Munchkin Federal No.2
Eddy County, New Mexico

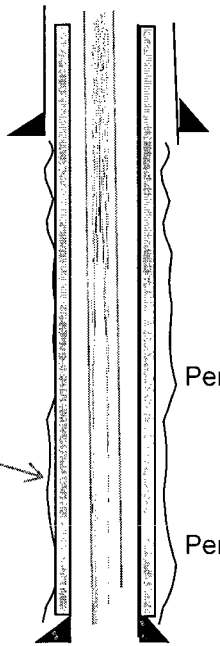
LEGALS/LOCATION: 990 FWL & 660 FSL, Section 1 - 19S - 30E

ELEVATION: GL-3523' KB-3535' – 12'.

LOCATED: From intersection of Hwy 360 & Co. Rd. 222, take Co. Rd 222 approx. 12 miles. Turn left/west on Co.Rd 250/Grubbs Rd (blacktop). Go approx 2.3 miles. Turn left/south on lease rd. Go approx. .8 mile. Turn right for approx. .2 mile, turn left/south for approx. .3 mile thru CG continue south approx .3 mile, turn right/west for approx. .25 mile. Turn left /south .2 mile, turn right to location.

Munchkin Federal No. 2
Existing Wellbore

990 FWL & 660 FSL
Section 1, T19S R30E



9-5/8" 36# J55 @483'
cmt at surface (circ)

DV tool @ 4100'

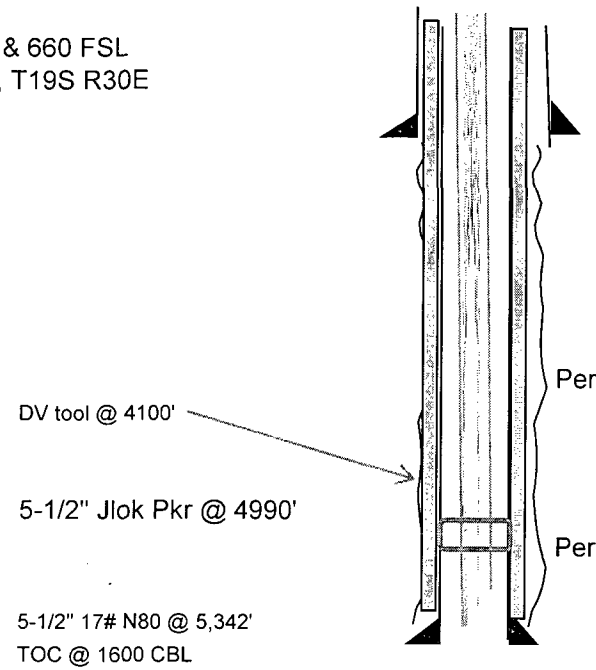
Perfs: Queen 3790-3794"
(squeezed under retainer)

Perfs: Delaware 5,090-5,110', 5,145-5,158',

5-1/2" 17# N80 @ 5,342'
TOC @ 1600 CBL

Munchkin Federal No. 2
(Set up for water injection)

990 FWL & 660 FSL
Section 1, T19S R30E



2-7/8 6.5# lined injection tubing

9-5/8" 36# J55 @483'
cmt at surface (circ)

Perfs: Queen 3790-3794"
(squeezed under retainer)

Perfs: Delaware 5,090-5,110', 5,145-5,158',

Proposed Injection Conversion Procedure:

POOH w/pump,rods, and tubing

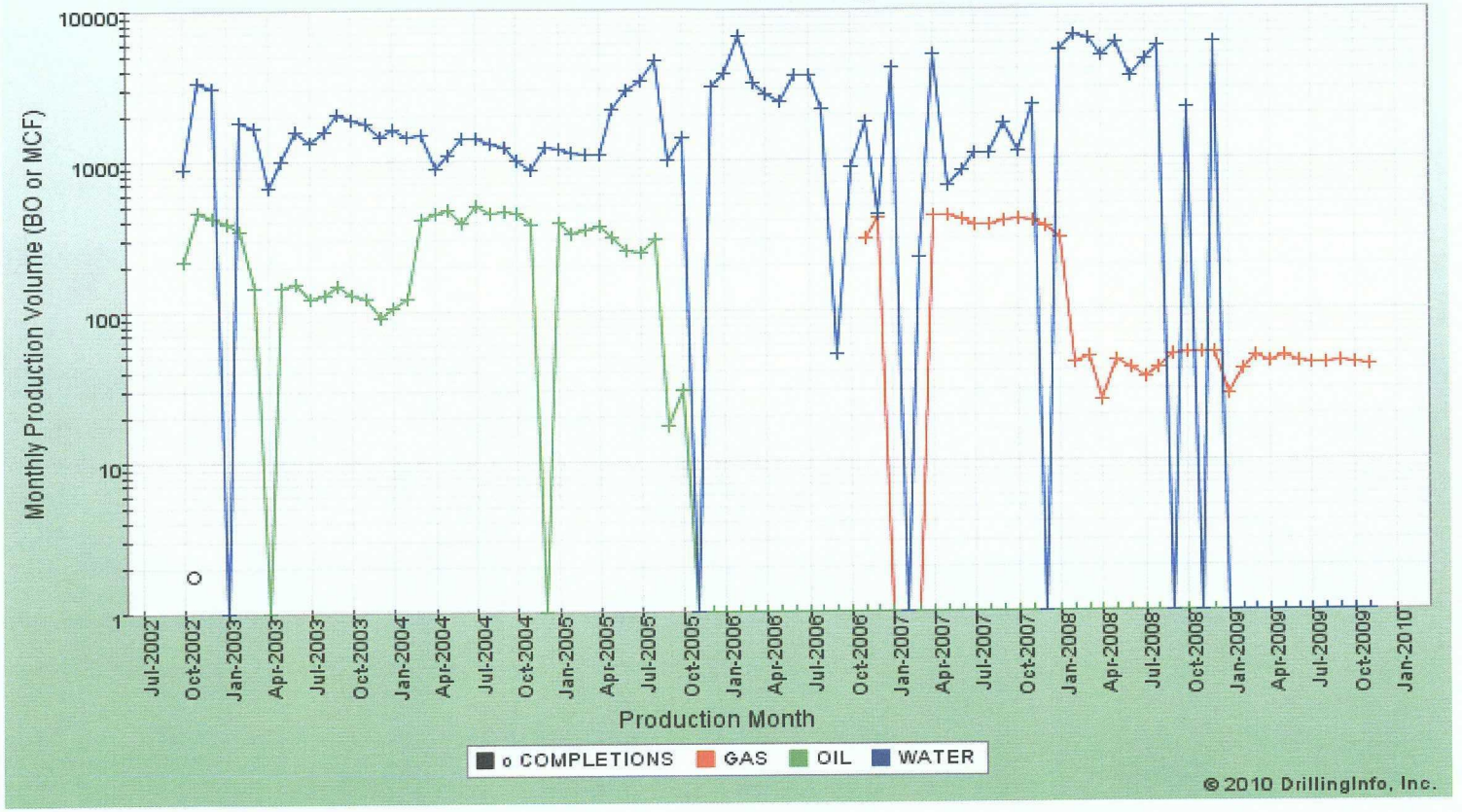
PU packer on production tubing. RIH below squeeze perfs at approximatley 4000'.
Pressure annulus to 500 psi. (chart)
PU injection packer on plastic lined injection tubing. Set packer at approximatley 4990'.
Start produced water injection.

Oil and Casinghead Gas Production

Munchkin Federal #2

Monthly Production Volume (Logarithmic) vs. Time

Lease Number: 027108 - EDDY County, New Mexico



C108 Application
CHI Operating, Inc.
Munchkin Federal #2
API # 3001531778 990' FSL & 660' FWL (Unit M)
Section 1, T-19S-30E, Eddy County, New Mexico

I. The purpose of the application is to request approval to convert the Munchkin Fed. #2 to a produced water injection well in the Delaware formation.

II. CHI Operating, Inc.
c/o P.O. Box 1799
Midland, Texas 79702
Contact: Gary Womack, Engineer

III. Injection well data sheet is attached. In addition, wellbore schematic diagrams are attached showing the current and proposed wellbore configurations.

IV. This is ~~not~~ an expansion of an existing project.

V. A map showing all wells/leases within a 2-mile radius of the Munchkin Fed. #2 is attached. Also attached is a map showing all wells within a ½ mile radius of the Munchkin Fed. #2.

VI. Area of review well data is attached. As shown in the table, there is only five existing wells within the AOR, that penetrated the proposed injection zone and all are operated by CHI Operating, Inc. These wells are adequately cased and cemented so as to preclude the migration of injected fluid from the proposed injection interval.

VII. 1. The average injection rate is anticipated to be approx. 4000 BWPD.
2. This will be a closed system.
3. The proposed average and maximum injection pressure will be 1400#.
4. Produced water from the Delaware formation originating from wells that CHI Operating, Inc. operates in this area will be injected into the subject well.
5. N/A

VIII. Geological Data
1. Lithologic Detail; Sandstone
2. Geological Name; Benson Delaware
3. Thickness; 900'
4. Depth; 4600-5158' 5090'-5158

IX. The proposed stimulation program will be 5000gal Acid, 30,000# Sand.

X. Logs were filed at the time of drilling.

XI. There are no fresh water wells within 1 mile of the injection well.

XII. We have examined the available geologic and engineering data and find no evidence of open faults or any other hydraulic connection between the disposal zone and any underground source of drinking water.

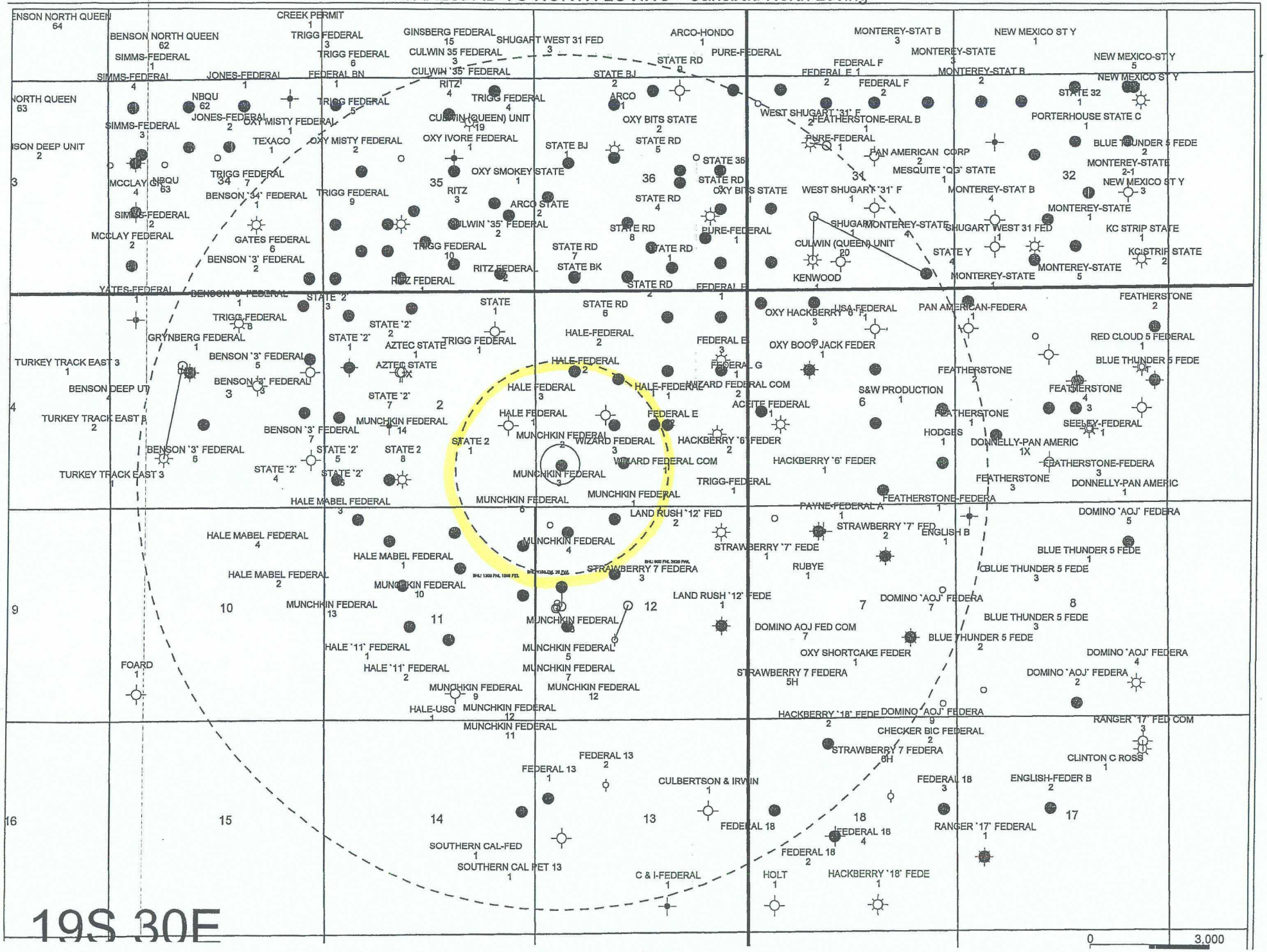
XIII. Proof of notice is attached.

Chi Operating, Inc.

Date: 3-15-10

Gary Womack, Engineer

CARLSBAD TO NORTH LOVING - Carlsbad North Loving



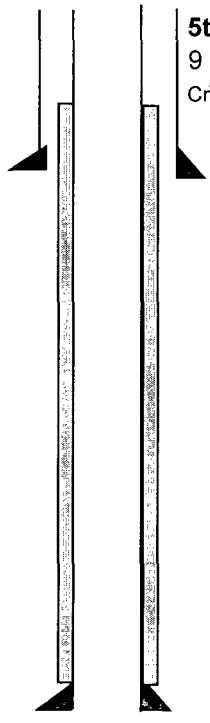
Munchkin Federal #3
Sec. 1-19S-30E
2230' FSL & 1750' FWL

4th plug: 550-450'

3rd plug: 2078-1978'

2nd plug: 4105-4005'
45sks

1st plug: 6393-6293'
50sks



5th plug:60-0'
9 5/8" 36# J55 @ 500'
Cmtd w/500sks & circ 100sks

Date: 4/27/2010
Time: 9:35 AM

PI/Dwights PLUS on CD Well Summary Report

General Information

State	:	NEW MEXICO	Final Status	:	D&A
County	:	EDDY	Drill Total Depth	:	3485
Field	:		Log Total Depth	:	
Operator Name	:	WESTWATER CORP	True Vertical Depth	:	
Lease Name	:	STATE 2			
Well Number	:	1	Spud Date	:	APR 01, 1960
API Number	:	30015045880000	Comp Date	:	MAY 09, 1960
Regulatory API	:				
Init Lahee Class	:	WF	Hole Direction	:	VERTICAL
Final Lahee Class	:	WF	Reference Elevation	:	3527 DF
Permit Number	:		Ground Elevation	:	
Geologic Province	:	PERMIAN BASIN	KB Elevation	:	
Formation at TD	:	000UNKWN UNKNOWN			
Oldest Age Pen	:	453 PERMIAN GUADALUPIAN			
Township	:	19 S	Section	:	2 SEC
Range	:	30 E	Spot	:	
Base Meridian	:	NEW MEXICO			

Additional Location Information

Footage Location	:	1980 FSL 660 FEL CONGRESS SECTION			
Latitude	:	32.6874684	Latitude (Bot)	:	
Longitude	:	-103.9357922	Longitude (Bot)	:	
Lat./Long. Source	:	IH			

Formations

Form Code	Form Name	Top Depth	Top TVD	Base Depth	Base TVD	Source	Lithology
453YTES	YATES	2210				LOG	
453QUEN	QUEEN	3072				LOG	
453PNRS	PENROSE/SD/	3312				LOG	

Log Data

Run No	Log Type	Top	Base	Log MD	Max Temp
01	NE				
01	CEM				
401	SPL				

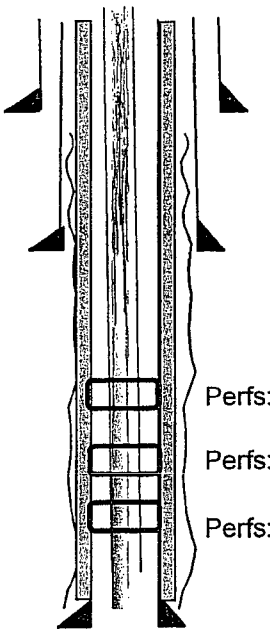
Casing Data

Size	Base Depth	Cement	Unit
8 5/8 IN	750	50	SACK

Wells in review area that penatrated injection zone

WELL NAME	WELL TYPE	CONSTRUCTION	DATE DRILLED	LOCATION	DEPTH	COMPLETION
Munchkin Fed. #4	Active oil well	9 5/8" J55/36# @ 506' Cmtd w/450sx C, circ 300sx to surf 5 1/2" 17# J55 @ 5526' Cmtd 1stg 400sx C, circ 63sx; 2stg 650sx, circ 53sx to surf	1/21/2004	12-19S-30E 330' FNL & 1980' FWL	5526'	2/26/2004
Munchkin Fed. #6	Active oil well	9 5/8" J55/36# @ 510' Cmtd w/400sx C, circ 20sx to surf 5 1/2" 17# J55 @ 5400' Cmtd 1stg 375sx C, circ 20sx; 2stg 730sx C, circ 125sx	1/1/2005	12-19S-30E 660' FNL &8100' FWL	5400'	2/22/2005
Munchkin Fed. #9	Active oil well	9 5/8" J55/36# @ 497' Cmtd w/375sx C, circ 129sx to surf 5 1/2" J55/17# & 5233' Cmtd 1stg 400sx C, circ 90sx; 2stg L-1050sx C, T-50sx didn't circ	5/4/2006	11-19S-30E 990' FNL & 300' FEL	5233'	8/18/2006
Munchkin Fed. #1	Active oil well	9 5/8" J55/36# @ 494' Cmtd w/L-275sx C, T-100sx C, circ 170sx to surf 5 1/2" J55/15.5# @ 6707' Cmtd 1stg 500sx C; 2stg L-500sx C, T-200sx C	1/25/2001	1-19S-30E 1060' FSL& 2210' FWL	6707'	2/16/2000
Wizard #3	Active oil well	9 5/8" J55/36# @ 480' Cmtd w/475sx C, circ to surf 5 1/2" J55/15/5# @ 5500' Cmtd 1stg 300sx C; 2stg 800sx, circ 81sx to surf	5/12/2001	1-19S-30E 1980' FSL&2310' FEL	5500'	10/16/2002

Munchkin Federal No. 4
(current wellbore)
API # 30-015-31779
330' FNL & 1980' FWL
Section 12, T19S R30E



2-7/8 6.5# lined injection tubing

9 5/8" 36/48# J55 @ 506'
450sx C, circ 300sx to surface

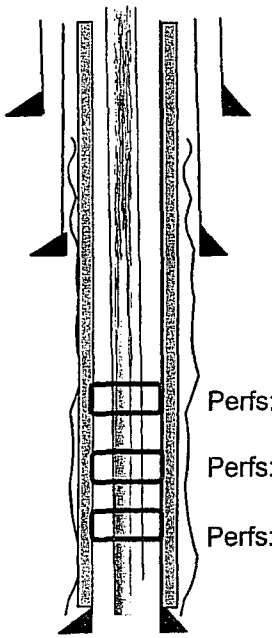
5-1/2" 17# J55 @ 5526"
1stg 400sx C, circ 63sx; 2stg 650sx C, circ 53sx to surface
TOC @ surface
DV Tool @ 3921'

Perfs: **4806-10'; 4818-30'; 4831-56' (2spf)**

Perfs: **4940-45'; 4952-62' (2spf)**

Perfs: **5030-45'; 5010-16' (2 spf)**

Munchkin Federal No. 6
(current wellbore)
API # 30-015-33881
660' FNL & 810' FWL
Section 12, T19S R30E



2-7/8 6.5# lined injection tubing

9 5/8" 36# J55 @ 510'
400sx C, circ 20sx, cmt at surface

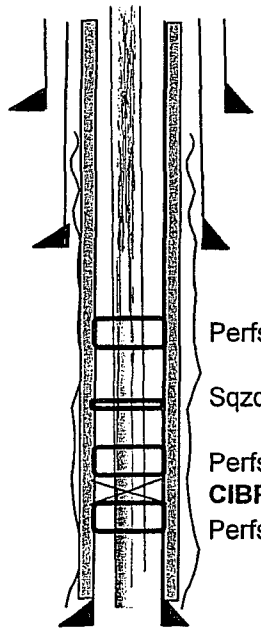
5-1/2" 17# J55 @ 5400"
1stg 375sx C, circ 20sx; 2stg 730sx C; circ 125sx.
TOC @ 3686'
DV Tool @ 3458'

Perfs: **4542-80' (2spf)**

Perfs: **4776-80'; 4818-24'; 4839-44'; 4874-79'; 4892-95' (2spf)**

Perfs: **5008-10'; 5028-40';5055-60' (2 spf)**

Munchkin Federal No. 9
(current wellbore)
API # 30-015-34293
990' FNL & 300' FEL
Section 11, T19S R30E



2-7/8 6.5# lined injection tubing

9 5/8" 36# J55 @ 497'
375sx C, circ 129sx, cmt at surface

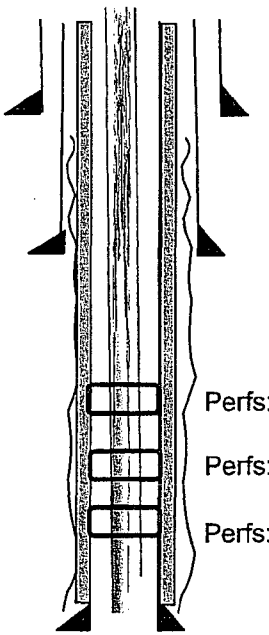
5-1/2" 17# J55 @ 5233"
1stg 400sx C, circ 90sx; 2stg Lead 1050sx C, Tail 50sx; didn't circ.
TOC @ 600'
DV Tool @ 3675'

Perfs: **4488-4510' (2spf)**

Sqzd Perfs: **4567-88'**

Perfs: **4826-38'; 4850-60 (2spf)**
CIBP: 5000'
Perfs: **5092,5091,5075,5074,5073,5072,5065,5064,5060,5059,5043,5035' (2 spf)**

Munchkin Federal No. 1
(current wellbore)
API # 30-015-30715
1060' FSL & 2210' FWL
Section 1, T19S R30E



2-7/8 6.5# lined injection tubing

9 5/8" 36# J55 @ 494'
Lead 275sx C, Tail 100sx C, circ 170sx, cmt at surface

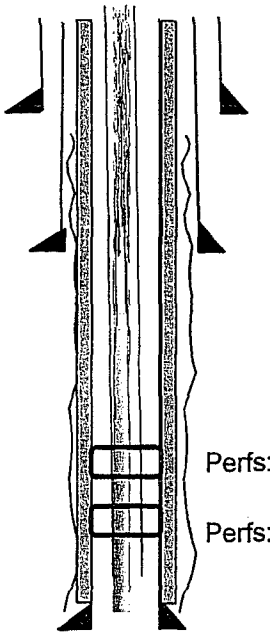
5-1/2" 15.5# J55 @ 6707"
1stg 500sx C(TOC 4170); 2stg Lead-500sx C, Tail-200sx C(TOC 330')
DV Tool @ 3479'

Perfs: **4725-4740 (2spf)**

Perfs: **4922-41; 4954-74' (2spf)**

Perfs: **5086-5122' (2 spf) 72 holes**

Wizard Federal No. 3
(current wellbore)
API # 30-015-32210
1980' FSL & 2310' FWL
Section 1, T19S R30E



2-7/8 6.5# lined injection tubing

9 5/8" 36# J55 @ 480'
475sx C,Circ 160sx, cmt at surface

5-1/2" 17# J55 @ 5500"
1stg 300sx C; 2stg 800sx C, Circ 81sx, cmt to surface
TOC @ 3800'
DV Tool @ 3965'

Perfs: **4962-68; 4969-88; 5050-54; 5062-74' (2spf)**

Perfs: **5100-104'; 5118-124'; 5138-142' (4spf)**

Side 1

INJECTION WELL DATA SHEET

OPERATOR: CHI OPERATING, INC.

WELL NAME & NUMBER: MUNCHKIN FEDERAL #12

WELL LOCATION: SHL: 2547' FNL & 519' FWL / BHL: 2310' FSL & 800' FWL — L — E — 12 — 19S — 30E

FOOTAGE LOCATION — UNIT LETTER — SECTION — TOWNSHIP — RANGE

WELLBORE SCHEMATIC

WELL CONSTRUCTION DATA

Surface Casing

Hole Size: 17 1/2" Casing Size: 13 3/8"

Cemented with: 600 sx. *or* _____ ft³

Top of Cement: SURFACE Method Determined: CIRCULATED

Intermediate Casing

Hole Size: 11" Casing Size: 8 5/8"

Cemented with: 625 sx. *or* _____ ft³

Top of Cement: SURFACE Method Determined: CIRCULATED

Production Casing

Hole Size: 7 7/8" Casing Size: 5 ½"

Cemented with: 625 sx. *or* _____ ft³

Top of Cement: 200 Method Determined: CBL

Total Depth: Liner top

Injection Interval

4600 feet to 5158

(Perforated or Open Hole; indicate which)

Side 2

INJECTION WELL DATA SHEET

Tubing Size: 2 7/8 Lining Material: CEMENT

Type of Packer:

Packer Setting Depth:

Other Type of Tubing/Casing Seal (if applicable):

Additional Data

1. Is this a new well drilled for injection? Yes X No

   If no, for what purpose was the well originally drilled? Oil well

2. Name of the Injection Formation: DELAWARE

3. Name of Field or Pool (if applicable):

4. Has the well ever been perforated in any other zone(s)? List all such perforated intervals and give plugging detail, i.e. sacks of cement or plug(s) used.

   Queen 3790-3794" Squeeze under retainer

5. Give the name and depths of any oil or gas zones underlying or overlying the proposed injection zone in this area:

   QUEEN 2914' (OVERLYING)

   BONE SPRING LS 6090' (UNDERLYING)

General Information
Chi Operating, Inc.
Munchkin Federal No. 12
Eddy County, New Mexico
API #: 30-015-35791

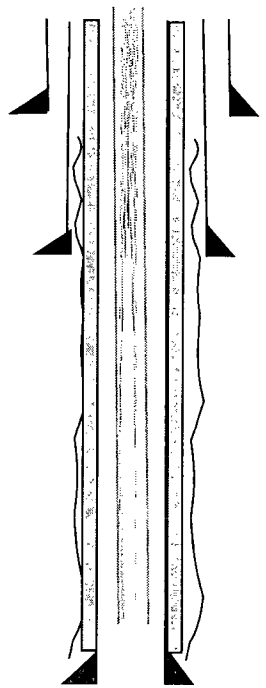
E-

LEGALS/LOCATION: **SHL:** 2547' FNL & 519' FWL, Section 12 -19S -30E
BHL: 2310' FSL & 800' FWL, Section 12-19S-30E

ELEVATION: GL-3424' KB-3436'

LOCATED: From intersection of Hwy 360 & Co. Rd. 222, take Co. Rd 222 approx. 12 miles. Turn left/west on Co.Rd 250/blacktop. Go approx 2.5 miles, go through cattle guard in backtop. Turn left (south) on lease rd. Go approx.. .8 mile, turn right just past injection station. Go approx .2 mile, turn left at fork for appprox. .6 mile. Turn right approx .2 mile, left approx .2 mile, right approx .2 mile, left approx .4 mile to Munchkin Fed #4 location, right approx. .2 mile to Munchkin Fed #5 location, continue south to location.

Munchkin Federal No. 12
(existing wellbore)
API # 30-015-35791
2547' FNL & 519 FWL
Section 12, T19S R30E



13-3/8" 48# J55 @ 511'
cmt at surface (circ)

8-5/8" 24# J55 @2051'
cmt at surface (circ)

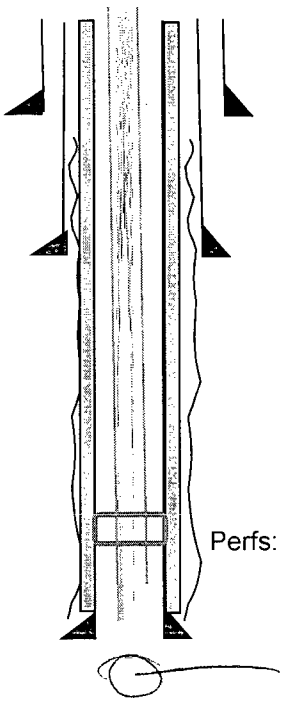
####### 77

Oper @ Report Time: No psi on well this am, TOH w/Kill string, RU w/l, PU 5½ CIBP, TIH, set plug @ 11,598', TOH w/setting tool, PU 3½ cmt dump bailer, made 2 runs, Dump 35' on cmt on top of plug, LD bailer, PU 3 1/8 perforating guns, perf new zone @ 10,198-10,214(64 holes) 9624-9632(32 holes) 9234-9238(16 holes), RD w/l, Layed 36jts off of derrick, PU 5½ HD Pkr w/Ts plug, TIH t/1900', left tools hanging, well started kicking a little gas w/fluid, SWION.
Est Costs: $19,650

Oper @ Report Time: Going to bled well dwn, CIH w/tools.

#######

Munchkin Federal No. 12
(setup for water injection)
API # 30-015-35791
2547' FNL & 519 FWL
Section 12, T19S R30E



2-7/8 6.5# lined injection tubing

13-3/8" 48# J55 @ 511'
cmt at surface (circ)

8-5/8" 24# J55 @2051'
cmt at surface (circ)

DV tool @ 3700'

perf 4494' – 4888'

5-1/2" Jlok inj pkr @ 4450'

Perfs: **4870-88' (2 sfp), 4590-4604', 4613-4615' (2 spf)**
4494-4515 (2 spf)

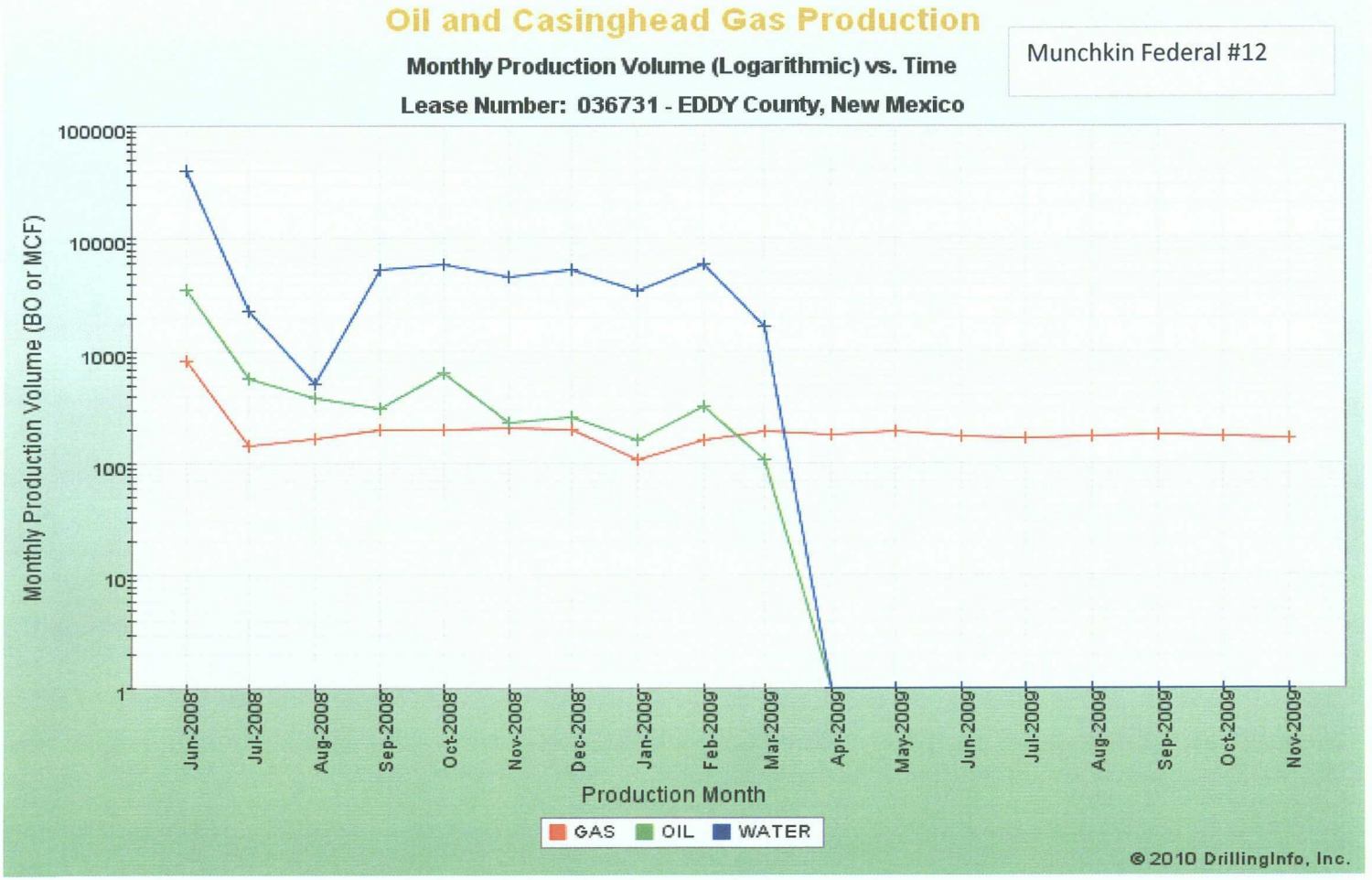
5-1/2" 15.5# J55 @ 5,415'
Cmt to Surface

where is 11,598' ?

Proposed Injection Conversion Procedure:

POOH w/pump and tubing
Sting out or retainer and reverse circ. Shut down.
PU injection packer on plastic lined injection tubing. Set packer at approximatley 4450'.
Pressure test annulus at 500 psi for 30 minutes (draw chart)
Start produced water injection.

Munchkin Federal #12



C108 Application
CHI Operating, Inc.
Munchkin Federal #12
API # 3001535791 SHL: 2547' FNL & 519' FWL
BHL: 2310' FSL & 800' FWL
Section 12, T-19S-30E, Eddy County, New Mexico

I. The purpose of the application is to request approval to convert the Munchkin Fed. #12 to a produced water injection well in the Delaware formation.

II. CHI Operating, Inc.
c/o P.O. Box 1799
Midland, Texas 79702
Contact: Gary Womack, Engineer

III. Injection well data sheet is attached. In addition, wellbore schematic diagrams are attached showing the current and proposed wellbore configurations.

IV. This is not an expansion of an existing project.

V. A map showing all wells/leases within a 2-mile radius of the Munchkin Fed. #12 is attached. Also attached is a map showing all wells within a ½ mile radius of the Munchkin Fed. #12.

VI. Area of review well data is attached. As shown in the table, there is only five existing wells within the AOR, all are operated by CHI Operating, Inc. These wells are adequately cased and cemented so as to preclude the migration of injected fluid from the proposed injection interval.

VII. 1. The average injection rate is anticipated to be approx. 4000 BWPD.
2. This will be a closed system.
3. The proposed average and maximum injection pressure will be 1400#.
4. Produced water from the Delaware formation originating from wells that CHI Operating, Inc. operates in this area will be injected into the subject well.
5. N/A

VIII. Geological Data
1. Lithologic Detail; Sandstone
2. Geological Name; Benson Delaware
3. Thickness; 900'
4. Depth; 4600-5158'

IX. The proposed stimulation program will be 5000gal Acid, 30,000# Sand.

X. Logs were filed at the time of drilling.

XI. There are no fresh water wells within 1 mile of the Injection well.

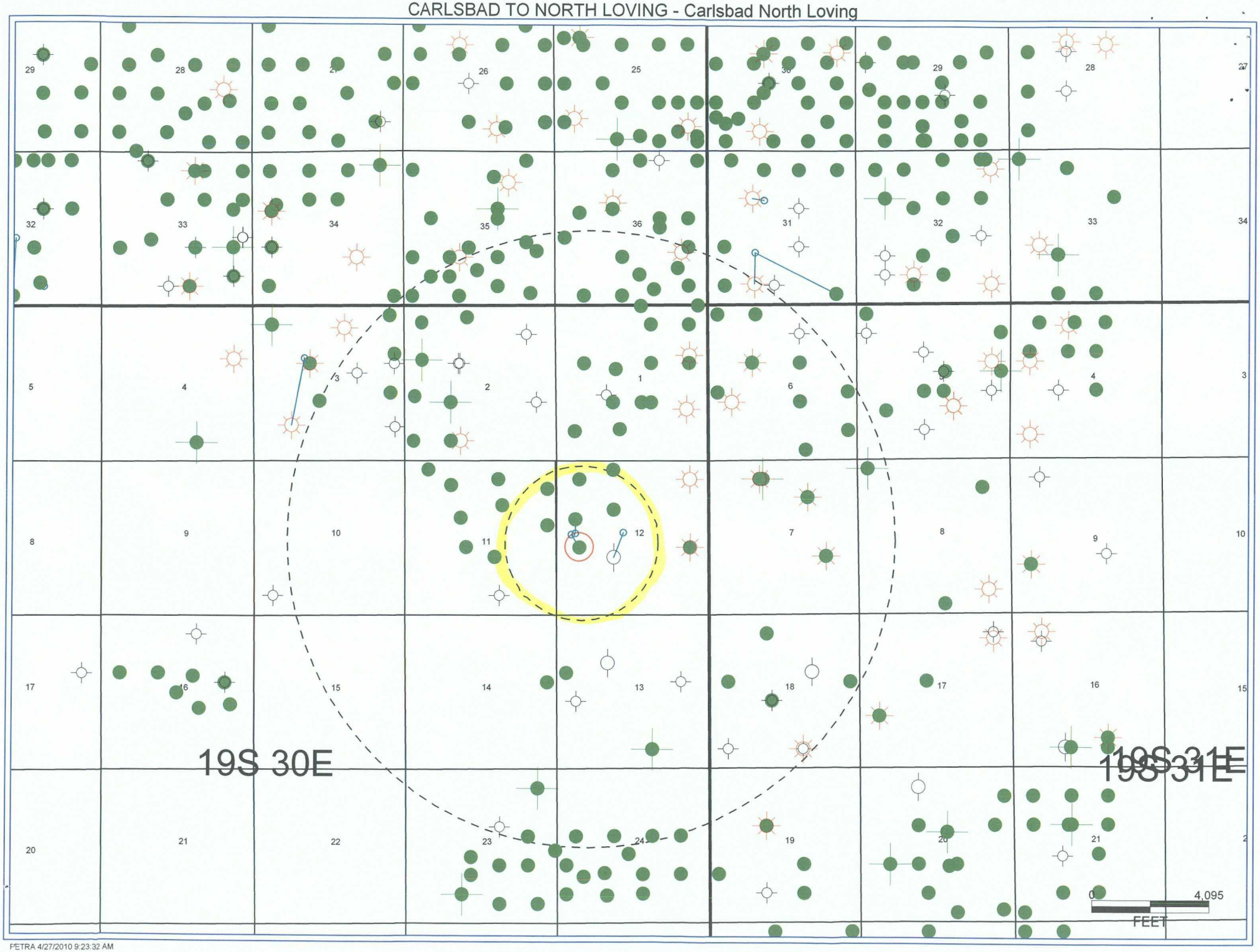
XII. We have examined the available geologic and engineering data and find no evidence of open faults or any other hydraulic connection between the disposal zone and any underground source of drinking water.

XIII. Proof of notice is attached.

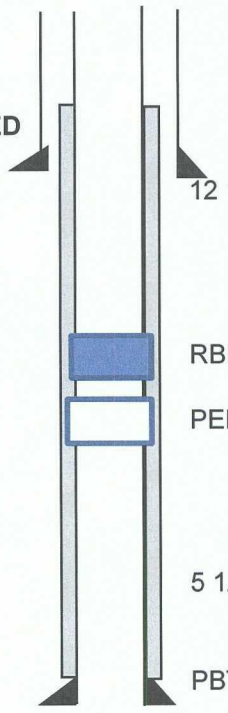
Chi Operating, Inc.

Date: 3-15-10

Gary Womack, Engineer


CARLSBAD TO NORTH LOVING - Carlsbad North Loving
19S 30E
19S 31E
0
4,095
FEET
PETRA 4/27/2010 9:23:32 AM

Munchkin Federal #7
Sec. 12-19S-30E
SHL: 2475' FNL & 2310' FWL
BHL: 1980' FSL & 1980' FWL
TEMPORARILY ABANDONED



12 1/4" csg @ 526' w/600sx H&C

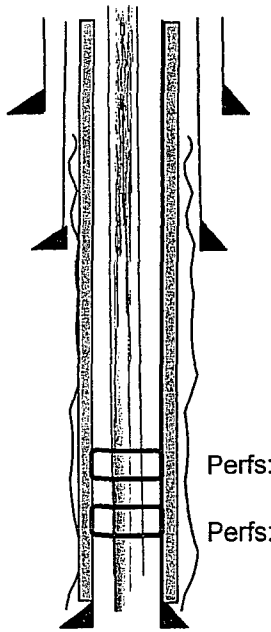
RBP @ 4900'

PERFS: 4993-5000

5 1/2" csg @ 5366' MD & 5228' TVD W/1000sx C

PBTD: 5434'

Munchkin Federal No. 8
(current wellbore)
API # 30-015-34816
SHL: 2500' FNL & 660' FWL
BHL: 1980' FNL & 660' FWL
Section 12, T19S R30E



2-7/8 6.5# lined injection tubing

13 3/8" 48# J55 @ 511'
500sx C, circ 60sx to surface

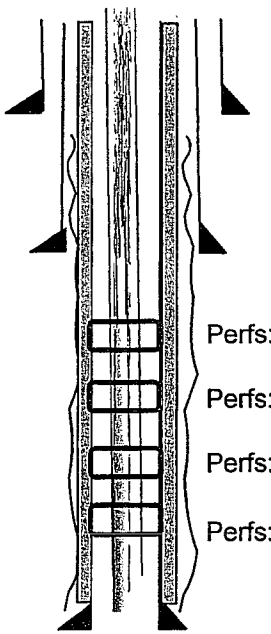
8 5/8" 24# J55 @ 1910'
505sx C, circ 65sx to surface

5-1/2" 15.5# J55 @ 5351'
1675sx, circ to surface
TOC @ surface
DV Tool @ 3688'

Perfs: **4830,4832,4840,4841,4853,4854,4855,4870,4871,4872' (1spf)**

Perfs: **5066-5081' (2 spf)**

Munchkin Federal No. 10
(current wellbore)
API # 30-015-35085
2200' FNL & 330' FEL
Section 11, T19S R30E



2-7/8 6.5# lined injection tubing

9 5/8" 36# J55 @ 519'
200sx H,300sx C, didn't circ

5-1/2" 17# J55 @ 4078", 15.5# J55 @ 5258'
1stg 300sx C, 2stg 1100sx C; circ 187sx, to surface
TOC @ surface
DV Tool @ 3711'

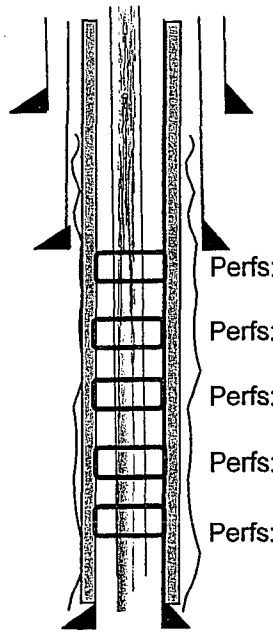
Perfs: **4600-4606;4618-25' (4spf)**

Perfs: **4700,4795,4797,4803,4804,4814' (2spf)**

Perfs: **4825,4831,4832,4836,4838,4846,4847,4851,4852' (2spf)**

Perfs: **5002-5035' (2 spf)**

Munchkin Federal No. 5
(current wellbore)
API # 30-015-33725
1700' FNL & 1980' FWL
Section 12, T19S R30E



2-7/8 6.5# lined injection tubing

9 5/8" 36# J55 @ 525'
300sx C, circ 108sx, cmt at surface

5-1/2" 15.5# J55 @ 5400"
1stg 200sx C, 2stg 750sx C; circ 199x.
TOC @ 1450'
DV Tool @ 4242'

Perfs: **4605-10; 4618-21'(2spf)**

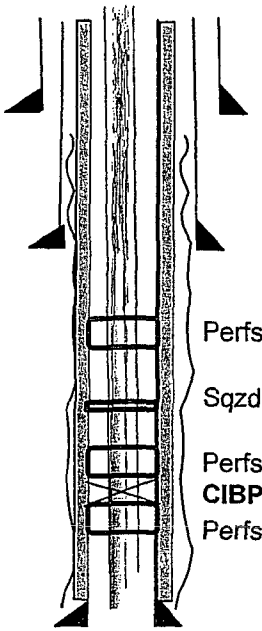
Perfs: **4653-58' (1spf)**

Perfs: **4844-39; 4835-33;4821-20;4802-01;4797-94' (1spf)**

Perfs: **4955-60'; 4965-72'; 5006-08';5012-15' (2spf)**

Perfs: **5053-58'; 5036-44' (2 spf)**

Munchkin Federal No. 9
(current wellbore)
API # 30-015-34293
990' FNL & 300' FEL
Section 11, T19S R30E



2-7/8 6.5# lined injection tubing

9 5/8" 36# J55 @ 497'
375sx C, circ 129sx, cmt at surface

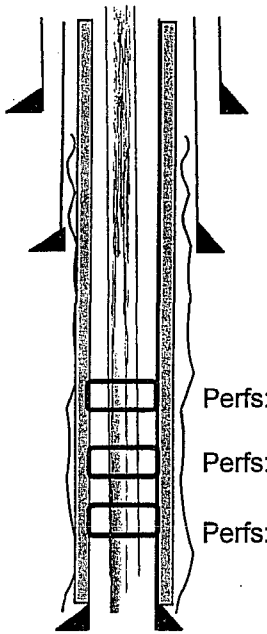
5-1/2" 15.5# J55 @ 5233"
1stg 400sx C, circ 90sx; 2stg Lead 1050sx C, Tail 50sx; didn't circ.
TOC @ 600'
DV Tool @ 3675'

Perfs: **4488-4510' (2spf)**

Sqzd Perfs: **4567-88'**

Perfs: **4826-38'; 4850-60 (2spf)**
CIBP: 5000'
Perfs: **5092,5091,5075,5074,5073,5072,5065,5064,5060,5059,5043,5035' (2 spf)**

Munchkin Federal No. 6
(current wellbore)
API # 30-015-33881
660' FNL & 810' FWL
Section 12, T19S R30E



2-7/8 6.5# lined injection tubing

9 5/8" 36# J55 @ 510'
400sx C, circ 20sx, cmt at surface

5-1/2" 15.5# J55 @ 5400"
1stg 375sx C, circ 20sx; 2stg 730sx C; circ 125sx.
TOC @ 3686'
DV Tool @ 3458'

Perfs: **4542-80' (2spf)**

Perfs: **4776-80'; 4818-24'; 4839-44'; 4874-79'; 4892-95' (2spf)**

Perfs: **5008-10'; 5028-40';5055-60' (2 spf)**

Wells in review area that penatrated injection zone

WELL NAME	WELL TYPE	CONSTRUCTION	DATE DRLD	LOCATION	DEPTH	COMPLETION
Munchkin Fed. #6	Active oil	9 5/8" J55/36# @ 510' Cmtd w/400sx C, circ 20sx to surf 5 1/2" J55/17# @ 5400' Cmtd 1stg 375sx C, circ 20sx; 2stg 730sx C, circ 125sx	1/1/2005	12-19S-30E 660' FNL & 810' FWL	5400'	2/22/2005
Munchkin Fed. #9	Active oil	9 5/8" J55/36# @ 497' Cmtd w/375sx C, circ 129sx to surf 5 1/2" J55/17@ 5233' Cmtd 400sx C, circ 90sx; 2stg L-1050sx C, T-50sx	5/4/2006	11-19S-30E 990' FNL & 300' FEL	5233'	8/18/2006
Munchkin Fed. #5	Active oil	9 5/8" J55/36# @ 525' Cmtd w/300sx C, circ 108sx to surf 5 1/2" J55/15.5@ 5400' Cmtd 1stg 200sx C, 2stg 750sx C, circ 199sx	12/17/2004	12-19S-30E 1700'FNL & 1980' FWL	5400'	2/4/2005
Munchkin Fed. #10	Active oil	9 5/8" J55/36# @ 519' Cmtd w/200sx H, 300sx C 5 1/2" J55/17@ 4078' 5 1/2" J55 15.5# @ 5258' Cmtd 1stg 300sx C, 2stg 1100sx C, circ 187sx to surf	8/31/2006	11-19S-30E 220' FNL & 330' FEL	5258'	11/17/2006
Munchkin Fed. #8	Active oil	13 3/8" J55 48# @ 511' Cmtd w/500sx C, Circ 60sx to surf 8 5/8" J55 24# @ 1910' Cmtd w/505sx C, circ 65sx to surf 5 1/2" J55 15.5# @ 5351' Cmtd w/1675sx C, circ to surf	4/15/2006	12-19S-30E 2500' FNL & 660'FWL (SHL) 1980' FNL & 660' FWL (BHL)	TMD 5351' TVD 5299'	7/15/2006

NOTIFICATION LIST

Offset Operators/Lessees

1. Section 2.
   Chesapeake Operating, Inc.
   P.O. Box 18496
   Oklahoma City, Oklahoma 73154-0496

2. Sections 1 and 11-13.
   Cimarex Energy Co.
   Suite 600
   600 North Marienfeld
   Midland, Texas 79701

   Chi Operating, Inc.

Surface Owner

Bureau of Land Management
620 East Greene
Carlsbad, New Mexico 88220

Potash Lessee

Intrepid Potash, Inc.
Suite 4200
707 17th Street
Denver, Colorado 88202

JAMES BRUCE
ATTORNEY AT LAW

POST OFFICE BOX 1056
SANTA FE, NEW MEXICO 87504

369 MONTEZUMA, NO. 213
SANTA FE, NEW MEXICO 87501

(505) 982-2043 (Phone)
(505) 660-6612 (Cell)
(505) 982-2151 (Fax)

jamesbruc@aol.com

October 13, 2010

Certified Mail - Return Receipt Requested

To: Persons on Exhibit 1

Ladies and gentlemen:

Chi Operating, Inc. has filed an application with the New Mexico Oil Conservation Division to convert the following two wells to injection (to be used as injection wells for applicant's Benson Delaware Unit):

Township 19 South, Range 30 East, N.M.P.M., Eddy County, New Mexico

Munchkin Fed. Well No. 2: 990 feet FSL & 660 feet FWL of Section 1

Munchkin Fed. Well No. 12: 2547 feet FNL & 519 feet FWL of Section 12 (SHL)
2310 feet FSL & 800 feet FWL of Section 12 (BHL)

Injection will be into the Delaware (Brushy Canyon) formation. A copy of the application is enclosed. If you object to the application, you must notify the Division in writing no later than 15 days from the date of this letter (the Division's address is 1220 South St. Francis Drive, Santa Fe, New Mexico 87505). Failure to object will preclude you from contesting this matter at a later date.

Very truly yours,

James Bruce

James Bruce

Attorney for Chi Operating, Inc.

EXHIBIT 1

Offset operators

Chesapeake Operating, Inc.
P.O. Box 18496
Oklahoma City, Oklahoma 73154-0496

Cimarex Energy Co.
Suite 600
600 North Marienfeld
Midland, Texas 79701

Surface Owner

Bureau of Land Management
620 East Greene
Carlsbad, New Mexico 88220

Potash Lessee

Intrepid Potash, Inc.
Suite 4200
707 17th Street
Denver, Colorado 88202

Affidavit of Publication

NO. 21131

STATE OF NEW MEXICO

County of Eddy:

GARY D. SCOTT being duly

sworn,says: That he is the PUBLISHER of The

Artesia Daily Press, a daily newspaper of general

circulation, published in English at Artesia, said county

and county and state, and that the here to attached

Legal Notice

was published in a regular and entire issue of the said

Artesia Daily Press,a daily newspaper duly qualified

for that purpose within the meaning of Chapter 167 of

the 1937 Session Laws of the state of New Mexico for

2 Consecutive week/days on the same

day as follows:

First Publication April 29, 2010

Second Publication May 6, 2010

Third Publication

Fourth Publication

Fifth Publication

Gary D. Scott

Subscribed and sworn to before me this

7 Day May 2010

OFFICIAL SEAL
Jo Morgan
NOTARY PUBLIC-STATE OF NEW MEXICO
My commission expires: 6/16/2012

Jo Morgan

Jo Morgan
Notary Public, Eddy County, New Mexico

Copy of Publication:

LEGAL NOTICE

Notice of Application for Fluid Injection Well Permit Chi Operating, Inc., c/o Gary Womack 432-685-5001, P.O. Box 1799, Midland, TX 79702 is applying to the NMOCD for a permit for a Water Injection Well into a formation which is production of oil and gas. The applicant proposes to convert 2 existing Delaware oil wells (Munchkin Fed. #2 & #12) into Water Injection wells. The proposed injection wells are located in Section 1 & 12, T19S, R30E in, Eddy Co., NM. Fluid will be injected into strata in the subsurface depth interval from 4494-4615' in section 12 and 4600-5158' in section 1. Interested parties must file objections or requests for hearing with the Oil Conservation Division, 1220 South St. Francis Dr., Santa Fe, New Mexico 87505, within 15 days.
Published in the Artesia Daily Press, Artesia, NM April 29, May 6, 2010.
Legal No. 21131.

4494 - 4615
4600 - 5158