SWD

# MATADOR PETROLEUM CORPORATION

SUITE 150, PECAN CREEK 8340 MEADOW ROAD DALLAS, TEXAS 75231-3751 (214) 987-3650 FAX: (214) 987-7123 74

June 4, 2002

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

Cooper "4" #1 RE:

Application for Authorization to Inject

Sec. 4, T20S, R37E

Lea County

### Gentlemen:

Please find enclosed the application for Authorization to Inject for the above-referenced well. The affidavit of publication will be forwarded to your office under separate cover.

If additional information is needed, please do not hesitate to contact me at (214) 987-7174.

Sincerely,

Sharon Cook

Regulatory Analyst

/sc

Hobbs Office/OCD cc:

Surface Owners/Offset Operators as listed

# **APPLICATION FOR AUTHORIZATION TO INJECT**

I.	PURPOSE: Secondary Recovery Pressure Maintenance X Disposal Storage Application qualifies for administrative approval? Yes No
II.	OPERATOR: Matador Operating Company
	ADDRESS: 310 W. Wall, Suite 906 Midland, TX 79701
	CONTACT PARTY: Russ Mathis PHONE: 915-687-5955
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:
	<ol> <li>Proposed average and maximum daily rate and volume of fluids to be injected;</li> <li>Whether the system is open or closed;</li> <li>Proposed average and maximum injection pressure;</li> <li>Sources and an appropriate analysis of injection fluid and compatibility with the receiving formation if other than reinjected produced water; and,</li> <li>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.).</li> </ol>
*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: Sharon Cook TITLE: Regulatory Analyst
	NAME: Sharon Cook TITLE: Regulatory Analyst  SIGNATURE: DATE: June 4, 2002
*	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:

### 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, 2040 South Pacheco, 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.

# INJECTION WELL DATA SHEET

Circ to DV Tool	Tubb @ 6552' $\frac{1}{4}$ 6800' cmt w/635 sx (1054 $\theta^3$ )	CIBP @ 6500' w/ 35' Cement	PBTD @ 6465'		Pkr @ 5230'			2-3/8" PIC J-55 Tbg.		DV @ 3862.44' cmt w/ 535 sx (1433 ft <sup>3</sup> ) Circ to Surface		1418			WELLBORE SCHEMATIC	FOOTAGE LOCATION	WELL LOCATION: 660 FNL & 1845 FWL	WELL NAME & NUMBER: Cooper 4 #1	OPERATOR: Matador Operating Company
(P)	5328		Total Depth: 6800'	Top of Cement: Sur	Cemented with:1160	Hole Size:7-7/8		Top of Cement:	Cemented with:	Hole Size:		Top of Cement: <u>Surface</u>	Cemented with: 640	Hole Size: 12-1/4		UNIT LETTER	С		
(Perforated or Open Hole; indicate which)	feet	<u>Injection Interval</u>		Surface	<u>sx.</u>		Production Casing		SX.		Intermediate Casing	ace	SX.		WELL CONSTRU	SECTION	4		
ole; indicate which)	to <u>5921</u>	nterval		Method Determined: _Circulated	or <u>2487</u>	Casing Size: 4-1/2	Casing	Method Determined:	or	Casing Size:	e Casing	Method Determined: Circulated	or 1174	Casing Size: 8-5/8	WELL CONSTRUCTION DATA Surface Casing	TOWNSHIP	20S		
				Circulated	f				f			Circulated	f			RANGE	37E		

# INJECTION WELL DATA SHEET

A COLD COLD COLD	
Tubh - 6552. Gravhurg - 3675	
Give the name and depths of any oil or gas zones underlying or overlying the proposed injection zone in this area:	5
from 6552-58, 6564-70, 6610-25. Plug w/ CIBP @ 6500' and cap with 35' of cement.	
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. Yes. Perforated Tubb	4.
Name of Field or Pool (if applicable): NA	ယ
Name of the Injection Formation: Glorieta, Paddock, Blinebry	2.
If no, for what purpose was the well originally drilled? Production	
Is this a new well drilled for injection? Yes X No	_
Additional Data	
Other Type of Tubing/Casing Seal (if applicable):	
Packer Setting Depth: 5230'	<b>—</b>
Type of Packer: Arrowset	ب
Tubing Size: 2-3/8 Lining Material: Plastic TK7	_

# APPLICATION FOR AUTHORIZATION TO INJECT COOPER "4" SWD, WELL #1

### ITEM I

The purpose of this application is for disposal

### **ITEM II**

Matador Operating Company 310 W. Wall, Ste. 906 Midland, TX 79701

### **ITEM III**

See attached Injection Well Data Sheet

### **ITEM IV**

This is not an expansion of an existing project.

### **ITEM V**

See map attached

### **ITEM VI**

See attached "Tabulation of Wells"

### **ITEM VII**

- 1. Daily average injection rate is expected to be 1000 BPD. Maximum daily injection rate would be approximately 2000 BWPD.
- 2. The system will be closed.
- 3. The proposed average and maximum injection pressure are both expected to be 1400 psi.
- 4. Attached are "Tubb" water analysis from six producing wells in the surrounding area of the proposed disposal. Also attached is one water analysis of the "Glorieta" from the Williams 34 #3 and a Drinkard water analysis from the Shelley 35 #2. Compatibility test were performed on the water from the Williams 34 #3 (Glorieta) and the Shelley 35 #2 (Drinkard), and the waters were compatible. The attached water analysis indicates that the Tubb waters are generally very similar to the Tubb waters and will be compatible with the Glorieta as well.
- 5. The Williams 34 #3 is producing from the Glorieta. The water analysis is attached. No water could be located from the Paddock and Blinebry. However, the overlying Glorieta is from the same Permian Age group and have similar depositional environments as the Paddock and Blinebry. The Paddock and Blinebry is therfore expected to have similar waters to the Glorieta.

### VIII.

Matador's Cooper lease is located in the Eunice-Monument area of southeastern Lea County, New Mexico on the western flank of the Central Basin Platform.

Matador has several wells that produce formation water from oil and gas completions in the Lower Permian Tubb and Drinkard reservoirs. Matador proposes to inject associated formation water from Tubb/Drinkard completions into the Upper Permian Glorieta, Paddock, and Blinebry Formations. The proposed zones of interest are all platform carbonates that are predominately porous dolomites. The top depth of proposed injection zone is the Glorieta Formation, at approximately 5300 feet measured depth. The lowest proposed zone of injection is in the Blinebry Formation, at approximately 5950 feet measured depth. The dolomites of the proposed zones are cryptocrystalline to course crystalline, with porosities ranging from 3-25%. Water saturations, calculated from open-hole logs, are high (60-100%) with high bulk volume water in the proposed zones of injection. The high water saturations combined with the high bulk volume water indicate highly mobile formation water.

Evaporites of the Rustler-Salado Formations overlie the Upper Permian stratigraphic section in the area. The top of the evaporites is found at approximately 1250 feet measured depth. All sources of drinking water are situated above the evaporites. No sources of drinking water are found below the top of the evaporites or below the proposed zones of injection.

<b>Proposed Zones on Injection</b>	<b>Gross Thickness</b>	<u>Lithology</u>	<u>Top</u>
U. Permian Glorieta Formation	100 ft.	Dolomite	5328'
U. Permian Paddock Formation	400 ft.	Dolomite	5411'
U. Permian Blinebry Formation	600 ft.	Dolomite	5820'

### **ITEM IX**

Each of the proposed intervals will be treated with acid.

### ITEM X

Logs and sundry notices for subsequent report of drilling operations are attached.

### **ITEM XI**

Attached are four water analysis from fresh water wells located near the proposed Cooper "4" SWD #1. Three (3) samples were collected from the Davis Ranch at each of the three (3) water wells. One (1) sample was collected from the Coombes Ranch Wind Mill pond.

### **ITEM XII**

The geological and engineering staff for Matador Petroleum Corporation have examined available geological and engineering data and have found no evidence of open faults or any other hydrological connection between the disposal zone and any underground souces of drinking water.

### **ITEM XIII**

A copy of the notice of application has been furnished to:

Jimmy Cooper P O Box 55 Monumnet, NM 88265-0055

Jimmie Baum Cooper P O Box 36 Monument, NM 88265-0036

Amerada Hess Corporation P O Box 2040 Houston, TX 77252-2040

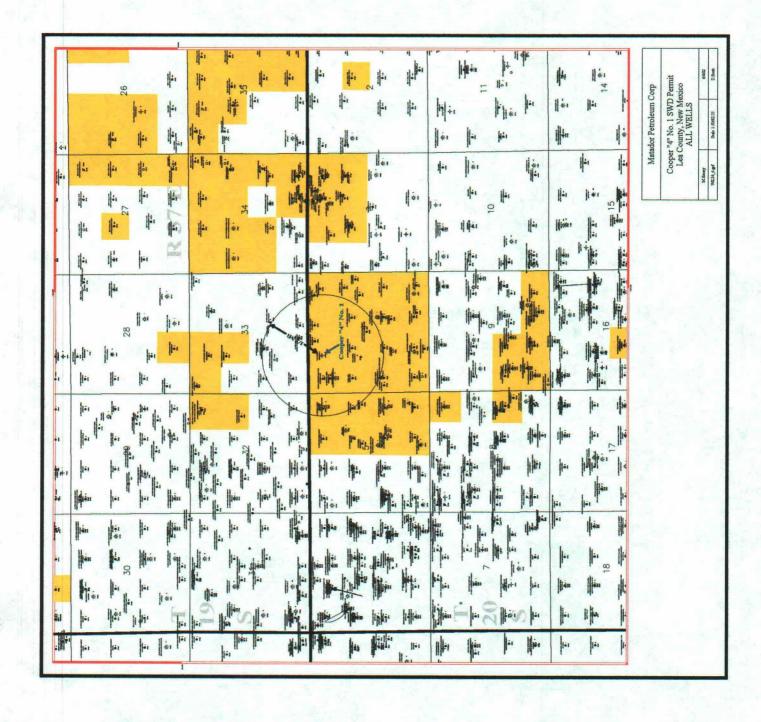
Chevron USA, Inc. P O Box 1150 Midland, TX 79702-1150

Exxon Mobil Corporation P O Box 4697 Houston, TX 77210-4697 Magnum Hunter Production, Inc. 600 Las Colinas Boulevard East, Suite 1100 Irving, TX 75039-5635

Occidental Permian Limited Partnership P O Box 50250 Midland, TX 79707-0250

Samson Resources Company Two West Second Street Tulsa, OK 74103-3103

Texaco Exploration and Production, Inc. P O Box 1150
Midland, TX 79702-1150



# Application for Authorization to Inject Cooper '4' #1 SWD Sec. 4 T20S R37E Lea County, New Mexico

Wells within the ½ mile radius (Area of Review) which penetrate the proposed injection zone.

<u>Well</u>	<u>Location</u>	<u>Status</u>	Prod Csg & Cmt	<u>Spud</u>	Comp	TD	Record of	
<u>Name</u>				<u>Date</u>	<u>Date</u>		<u>Completion</u>	
Laughlin	2310' FNL & 1820'	Producing	4 1/2 @ 6800 w/ 1455 sx	12/28/01	1/24/02	6800	PERF Tubb 6526-	
#6	FWL, Sec.4, T20S		_	1			6530, 6564-6568,	
2	R37E						6596-6600; Frac	
							w/ 214,000 lbs.	

Energy, Minerals and Natural Resources  Energy, Minerals and Natural Resources  WELL API NO. 30-025-35794  50 WELL API NO. 30-025-35794  51 Indicate Type of Lease  STATE	Submit 3 Copies To Appropriate District	State of ]	New Me	evico		Form C-103
Month   Mont	Office					
Solition   Consider Properties   Santa Fe, NM 87505   Santa Fe, NM 875		Ziioigj, iraiioidio		au resources		
South Pacheco   South Pachec		OIL CONSERV	ATION	DIVISION		
Santa Fe, NM 87505   Santa Fe, NM 87505   Santa Fe, NM 87505   Santa Fe, NM 87505   SUNDRY NOTICES AND REPORTS ON WELLS   SUNDRY NOTICES AND REPORTS ON WELLS   CONDITIONS ETHIS FORM FOR PROPOSALS TO DRILL OR TO DEPEND OR PLUG BACK TO A PROPOSALS TO DRILL OR TO DEPEND OR PLUG BACK TO A PROPOSALS TO DRILL OR TO DEPEND OR PLUG BACK TO A PROPOSALS TO DRILL OR TO DEPEND OR PLUG BACK TO A PROPOSALS TO DRILL OR TO DEPEND OR PLUG BACK TO A PROPOSALS TO DRILL OR TO DEPEND OR PLUG BACK TO A PROPOSALS TO DRILL OR TO DEPEND OR PLUG BACK TO A PROPOSALS TO DRILL OR TO DEPEND OR PLUG BACK TO A PROPOSALS TO DRILL OR TO DEPEND OR PLUG BACK TO A PROPOSALS TO DRILL OR TO DEPEND OR PLUG BACK TO A PROPOSALS TO DRILL OR TO DEPEND OR PLUG BACK TO A PROPOSALS TO DRILL OR TO DEPEND OR PLUG BACK TO A PROPOSALS TO DRILL OR TO DEPEND OR PLUG BACK TO A PROPOSALS TO DRILL OR TO DEPEND OR PLUG BACK TO A PROPOSALS TO DRILL OR TO DEPEND OR PLUG BACK TO A PROPOSALS TO DRILL OR TO DEPEND OR PLUG BACK TO A PROPOSALS TO DRILL OR TO DEPEND	88210	2040 So	uth Pacl	neco	1	<b>─</b>
Damist   Page   Damist   Damist   Page   Damist   Damist   Page   Damist		Santa Fe	, NM 8	7505		
SUNDRY NOTICES AND REPORTS ON WELLS  (DO NOT USE THIS FORM FOR REPORALS TO DALLO ROT DEEPERS NOR PLUG BACK TO A DIFFERENT RESERVOR. USE "APPLICATION FOR PERMIT" (FORM C-101) FOR SUCH PROPOSALS)  1. Type of Well:  2. Name of Operator Matadot Operating Company  3. Address of Operator 3340 Meadow Road #150, Dallas, TX 75231  4. Well Location  Unit Letter C: 660 feet from the North line and 1845 feet from the West line Section 4 Township 20S Range 37E NMPM Lea County  10. Elevation (Show whether DR, RKB, RT, GR, etc.) 3355' GR  11. Check Appropriate Box to Indicate Nature of Notice, Report or Other Data NOTICE OF INTENTION TO: PERFORM REMEDIAL WORK PLUG AND ABANDON REMEDIAL WORK ALTERINO CASING COMPLETION  TEMPORARILY ABANDON CHANGE PLANS  COMMENCE DRILLING OPNS. PLUG AND ABANDON ABANDON CEMENT JOB  OTHER:  12. Describe proposed or completed operations. (Clearly state all pertineal details, and give pertinent dates, including estimated date of starting any proposed work). SEE RULE 1103. For Multiple Completions: Attach wellbore diagram of proposed completion or recompilation.  • Drill 7-7/8" hole to 6800'. Logged well. Run #1-LLD Laterolog Deep-Full Waveform Sonic. Run #2-SGR Spectral Gamma Ray-DNL Porosity.  • Run 160 jts. 4-1/2" 11.6# N-80, LT& C casing on 2/14/02 (total 6818.52', set @ 6800'). Cement 1" stage w/635 sx Super "H" + 4/10% CFR.3 + 5/10% Halad-34 + 3/8 stalt (13 0 ppg - yield 1.69). Land plug w/600 over - release pressure. Float OK. Drop bomb - open DV Tool. Circulate 118 sx to pts. Cement 2" stage w/525 intentific "C" + Well Eleveled 14 Gillsonite + 2/10% Halad-322 (11.5 ppg - yield 2.73). Tail w/100 sx Class C Neat (14.8 ppg - yield 1.32). Land plug 16.00 over - release pressure. Float OK. Drop bomb - open DV Tool. Circulate 118 sx to pts. Cement 2" stage w/525 intentific "C" + Well Eleveled 14 Gillsonite + 2/10% Halad-322 (11.5 ppg - yield 1.73). Tail w/100 sx Class C Neat (14.8 ppg - yield 1.32). Land plug 16.00 over - release pressure. Float OK. Drop bomb - open DV Tool. Circulate 118 sx to pts.	District IV				0. State Off &	Gas Lease No.
COOPT USE THIS FORM FOR PROPOSALS TO DRILL OR TO DEEPEN OR PLUG BACK TO A DIFFERENT RESERVOIR. USE "APPLICATION FOR PERMIT" (FORM C-101) FOR SUCH PROPOSALS.)  1. Type of Well: Oil Well (X) Gas Well: Oil Well (X) Pool name or Wildcat Manador Operating Company  1. Address of Operator B340 Meadow Road #150, Dallas, TX 75231  4. Well Location Unit Letter (C): 660		S AND REPORTS ON	WELLS		7. Lease Name	or Unit Agreement Name:
PROPOSALS	(DO NOT USE THIS FORM FOR PROPOSAL	S TO DRILL OR TO DEEP	EN OR PL	JG BACK TO A		
1. Type of Well: Oil Well		ION FOR PERMIT" (FORM	и C-101) FC	OR SUCH		
2. Name of Operator Matador Operator Standard Company   3. Address of Operator Standard Operating Company   9. Pool name or Wildcat Standard Nonument; Drinkard   9. Pool name or Wildcat Standard Nonument; Drinkard   9. Pool name or Wildcat Monument; Drinkard   9. Pool name or Wildcat Monument; Drinkard   9. Pool name or Wildcat Monument; Drinkard   9. Pool name or Wildcat Nonument; Drinkard   9. Pool name or Nonument   9. Pool na	1. Type of Well:					
Matador Operating Company   1   3   Address of Operator   1340 Meadow Road #150, Dallas, TX 75231   9. Pool name or Wildcat   Monument; Drinkard   4. Well Location   Unit Letter   C   660   feet from the   North   line and   1845   feet from the   West   line   Section   4   Township   20S   Range   37E   NMPM   Lea   County   3555' GR   11. Check Appropriate BOX to Indicate Nature of Notice, Report or Other Data   NOTICE OF INTENTION TO:   SUBSEQUENT REPORT OF:   REMEDIAL WORK   PLUG AND ABANDON   REMEDIAL WORK   ALTERING CASING   MULTIPLE   COMPLETION   CEMENT JOB		Other			9 117-11 N-	
9. Pool name or Wildest   8340 Meadow Road #150, Dallas, TX 75231   9. Pool name or Wildest   8340 Meadow Road #150, Dallas, TX 75231   9. Pool name or Wildest   8340 Meadow Road #150, Dallas, TX 75231   9. Pool name or Wildest   8340 Meadow Road #150, Dallas, TX 75231   9. Pool name or Wildest   8340 Meadow Road #150, Dallas, TX 75231   9. Pool name or Wildest   8340 Meadow Road #150, Dallas, TX 75231   9. Pool name or Wildest   8340 Meadow Road #150, Dallas, TX 75231   9. Pool name or Wildest   8340 Meadow Road #150, Dallas, TX 75231   9. Pool name or Wildest   8340 Meadow Road #150, Dallas, TX 75231   9. Pool name or Wildest   8340 Meadow Road #150, Dallas, TX 75231   9. Pool name or Wildest   8340 Meadow Road #150, Dallas, TX 75231   9. Pool name or Wildest   8340 Meadow Road #150, Dallas, TX 75231   9. Pool name or Wildest   8340 Meadow Road #150, Dallas, TX 75231   9. Pool name or Wildest   8340 Meadow Road #150, Dallas, TX 75231   9. Pool name or Wildest   8340 Meadow Road #150, Dallas, TX 75231   9. Pool name or Wildest   8340 Meadow Road #150, Dallas, TX 75231   9. Pool name or Wildest   8340 Meadow Road #150, Dallas, TX 75231   9. Pool name of Wildest   8340 Meadow Road #150, Dallas, TX 75231   9. Pool name of Wildest   9. Pool name o	•				8. Well No.	
Well Location   Unit Letter   C					9. Pool name or	Wildcat
Unit Letter C 660 feet from the North line and 1845 feet from the West line  Section 4 Township 20S Range 37E NMPM Lea County  10. Elevation (Show whether DR, RKB, RT, GR, etc.)  3555 GR  11. Check Appropriate Box to Indicate Nature of Notice, Report or Other Data NOTICE OF INTENTION TO: PERFORM REMEDIAL WORK   PLUG AND ABANDON   REMEDIAL WORK   ALTERING CASING    TEMPORARILY ABANDON   CHANGE PLANS   COMMENCE DRILLING OPNS.   PLUG AND ABANDONNENT    PULL OR ALTER CASING   MULTIPLE   CASING TEST AND CEMENT JOB    OTHER:   OTHER:   OTHER:    12. Describe proposed or completed operations. (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work). SEE RULE 1103. For Multiple Completions: Attach wellbore diagram of proposed completion or recompilation.  • Drill 7-7/8" hole to 6800". Logged well. Run #1-LLD Laterolog Deep-Full Waveform Sonic. Run #2-SGR Spectral Gamma Ray-DNL Porosity.  • Run 160 jts. 4-1/2" 11.6# N-80, LT& C casing on 2/14/02 (total 6818.52", set @ 6800"). Cement 1" stage w/635 sx Super "H" +4/10% CFR-3 +5/10% Halad-344 +3# salt (13.0 ppg - yield 1.66). Land plug w/600 over - release pressure. Float OK. Drop bomb - open DV Tool. Circulate 118 xs to pit. Cement 2" stage w/635 sx Super "H" +4/10% CFR-3 +5/10% Halad-344 +3# salt (13.0 ppg - yield 1.69). Land plug w/600 over - release pressure (tool holding): had trace of cement 2" stage w/525 Interfill "C" +4/# Elocete-13# Gilsonite +2/10% Halad-322 (11.5 ppg - yield 2.73). Tail w/100 sx Class C Neat (14.8 ppg - yield 1.32). Land plug. *Robert 1.32		TX 75231			Monume	nt; Drinkard
Section 4 Township 20S Range 37E NMPM Lea County  10. Elevation (Show whether DR. RKB, RT. GR. etc.) 3555' GR  11. Check Appropriate Box to Indicate Nature of Notice, Report or Other Data NOTICE OF INTENTION TO: PERFORM REMEDIAL WORK   PLUG AND ABANDON   REMEDIAL WORK   ALTERING CASING    TEMPORARILY ABANDON   CHANGE PLANS   COMMENCE DRILLING OPNS.   PLUG AND ABANDONMENT    PULL OR ALTER CASING   MULTIPLE   CASING TEST AND CEMENT JOB    OTHER:   OTHER:   OTHER:    OTHER:   OTHER:   OTHER    12. Describe proposed or completed operations. (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work). SEE RULE 1103. For Multiple Completions: Attach wellbore diagram of proposed completion or recompilation.  • Drill 7-7/8" hole to 6800'. Logged well. Run #1-LLD Laterolog Deep-Full Waveform Sonic. Run #2-SGR Spectral Gamma Ray-DNL Porosity.  • Run 160 jts. 4-1/2" 11.6# N-80, LT& C casing on 2/14/02 (total 6818.52', set @ 6800'). Cement 1" stage w/635 sx Super "H" +4/10% CPR-3 +5/10% Halad-344 +3# salt (13.0 ppg - yield 1.66). Land plug w/600 over - release pressure. Float OK. Drop bomb - open DV Tool. Circulate 118 sx top it. Cement 2" stage w/525 Interfill "C" + 1/4 #2 Eleget-3-4 #3 #3 #3 #3 #3 #3 #3 #3 #3 #3 #3 #3 #3	4. Well Location					
Section 4 Township 20S Range 37E NMPM Lea County  10. Elevation (Show whether DR. RKB, RT. GR. etc.) 3555' GR  11. Check Appropriate Box to Indicate Nature of Notice, Report or Other Data NOTICE OF INTENTION TO: PERFORM REMEDIAL WORK   PLUG AND ABANDON   REMEDIAL WORK   ALTERING CASING    TEMPORARILY ABANDON   CHANGE PLANS   COMMENCE DRILLING OPNS.   PLUG AND ABANDONMENT    PULL OR ALTER CASING   MULTIPLE   CASING TEST AND CEMENT JOB    OTHER:   OTHER:   OTHER:    OTHER:   OTHER:   OTHER    12. Describe proposed or completed operations. (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work). SEE RULE 1103. For Multiple Completions: Attach wellbore diagram of proposed completion or recompilation.  • Drill 7-7/8" hole to 6800'. Logged well. Run #1-LLD Laterolog Deep-Full Waveform Sonic. Run #2-SGR Spectral Gamma Ray-DNL Porosity.  • Run 160 jts. 4-1/2" 11.6# N-80, LT& C casing on 2/14/02 (total 6818.52', set @ 6800'). Cement 1" stage w/635 sx Super "H" +4/10% CPR-3 +5/10% Halad-344 +3# salt (13.0 ppg - yield 1.66). Land plug w/600 over - release pressure. Float OK. Drop bomb - open DV Tool. Circulate 118 sx top it. Cement 2" stage w/525 Interfill "C" + 1/4 #2 Eleget-3-4 #3 #3 #3 #3 #3 #3 #3 #3 #3 #3 #3 #3 #3	Unit Letter C : 660	feet from the	North	line and 1845	feet from	the West line
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	Supproving it any.		PE	•		7 4 ZUUZ

Submit 3 Copies To Appropriate District Office		f New Me	<del>-</del>		Form C-103
District I	Energy, Mineral	s and Natu	ral Resources		Revised March 25, 1999
1625 N. French Dr., Hobbs, NM 87240				WELL API NO.	
District II 1301 W. Grand Avenue, Artesia, NM	OIL CONSER	VATION	DIVISION	30-025-35794	
88210	2040 S	outh Pack	neco	5. Indicate Type	
<u>District III</u> 1000 Rio Brazos Rd., Aztec, NM 87410	Santa F	Fe, NM 87	7505	STATE 6. State Oil &	Gas Lease No.
District IV 2040 South Pacheco, Santa Fe, NM 87505				0. State Off &	Cas Lease 140.
SUNDRY NOT	ICES AND REPORTS C	N WELLS	<del></del>	7. Lease Name	or Unit Agreement Name:
(DO NOT USE THIS FORM FOR PROPO DIFFERENT RESERVOIR. USE "APPLIC PROPOSALS.)  1. Type of Well;	SALS TO DRILL OR TO DE	EPEN OR PL	UG BACK TO A	Cooper "4"	
Oil Well Gas Well	Other				
2. Name of Operator				8. Well No.	
Matador Operating Company		<del></del>	<del></del>	1	
3. Address of Operator 8340 Meadow Road #150, Dal	llas, TX 75231			9. Pool name or Monumer	Wildcat nt; Drinkard
4. Well Location					
Unit Letter C:	660feet from the _	North	line and1845	feet from	the West line
Section 4	Township	20S	Range 37]		Lea County
	10. Elevation (Show 3555' G		R, KKB, RT, GR, etc		
11 Check A	Appropriate Box to Ir		ature of Notice.	Report or Other	Data
NOTICE OF IN		1010000 110		SEQUENT RE	
PERFORM REMEDIAL WORK		v 🗆	REMEDIAL WOR		ALTERING CASING
TEMPORARILY ABANDON	CHANGE PLANS		COMMENCE DRI	LLING OPNS.	PLUG AND ABANDONMENT
PULL OR ALTER CASING	MULTIPLE COMPLETION		CASING TEST AN CEMENT JOB	1D 💢	
OTHER:			OTHER:		
12. Describe proposed or complet of starting any proposed work) or recompilation.	). SEE RULE 1103. For	Multiple C	Completions: Attacl	ı wellbore diagran	of proposed completion
Spudded well on 2/20/02 @ 21:30 1420'). Cement w/440 sx Class "CaCl2(14.8 ppg, yield 1.34). Disp Circulate 141 sx to pits.	C" Lite $+ 6$ pps salt $+ 0$ .	.25 pps Floo	cele (12.5 ppg, yield	12.06). Tail w/200	) sx Class C + 2%
Test blind rams to 1000 psi.					
				(F)	2345678970775
				782930	311107
I hereby certify that the information	n above is true and comp	lete to the b	est of my knowled	ge and belief.	1415 E 7
I hereby certify that the information SIGNATURE	1. 1		pest of my knowled Regulatory Analyst	/	र्ट का सम्बद्धाः संदेशका सम्बद्धाः
SIGNATURE Shaw	1. 1			/	214-987-7174
SIGNATURE Shar	Cork		Regulatory Analyst	DA Telephone No.	214-987-7174
Type or print name Share (This space for State use)	Cork	NTLE	Regulatory Analyst	Telephone No.	214-987-7174  MARMAR4 02-02-2000
SIGNATURE Share Share	Cork		Regulatory Analyst	Telephone No.	214-987-7174

FFR 0 7 2002

# Pro-Kem, Inc.

# WATER ANALYSIS REPORT

# SAMPLE

Tubb

Formation

\*MEQ/L

Oil Co. : Matador Operating

Lease : Shellay St. 35

Well No.: # 1

Sample Loc. :

MG/L

Date Analyzed: 30-January-2002 Date Sampled : 11-January-2002

EO.

WT.

Lab No. : F:\ANALYSES\Jan3002.001

Dissolved Gasses

# ANALYSIS

1 . 2 .	pH Specific Gravity CaCO <sub>3</sub> Saturation	60/60	F.	_	6.	500 190
3.	CaCO3 Saturation	Index	<b>@</b> @	80	F.	+0.111

4.	Hydrogen Sulfide Carbon Dioxide Dissolved Oxygen	0
⊃,	carpou proxide	(180 "\
6.	Dissolved Oxygen	Not Determined

### Cations

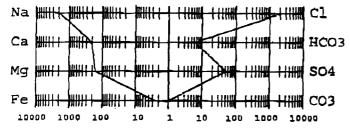
7.	Calcium	(Ca++)		4,136	/ 2	20.1 =	205.77
8.	Magnesium	(Ma++)		1.882	7 3	15.5	154.26
9.	Sodium	(Mg++) (Na+)	(Calculated)	1,882	1/3	23.0 =	1,892.48
10.	Barium	(Ba++)	Not De	+ A PRINTER	, -	~	£, 672.40

### Anions

11. 12. 13. 14. 15.	Hydroxyl (OH- Carbonate (CO- Bicarbonate (HCC Sulfate (SO4 Chloride (Cl	) <sub>3</sub> - )	0 366 2,350 77,982	/ 17.0 = / 30.0 = / 61.1 = / 48.8 = / 35.5 =	0.00 0.09 48.16 2.196.68
16. 17.	Total Dissolved Total Iron (Fe)	Solids	130,243	/ 18 2	•
ם ר	# # # # # # # # # # # # # # # # # # #	- 0-00	==	/ 10+2 =	2.47

Total Hardness As CaCO<sub>3</sub> Resistivity @ 75 F. (Calculated) 18,076 0.056 /cm.

### LOGARITHMIC WATER PATTERN \*meq/L.



# Calcium Sulfate Solubility Profile

3120			_	+-	<del></del>
3130					
3185				Ι	
2020					
9975 -	 	<b></b>			
2980 -	 <del> </del>		<del> </del> -	<del>-</del>	
3945 -	 <del></del>	├──	<del>-</del> -	+	<del></del>
3039 <b>-</b>	 -	-	+	<del>`\ -</del>	+
3015 -	 	<del>                                      </del>	<del> </del>	+	<del></del>
#2000 — F. 5° (cm)	 	<del> </del>	<del>}</del> 119	-	159 1

PROBABLE MINERAL COMPOSITION COMPOUND EQ. WT. X \* meg/L = mg/L.  $Ca(HCO_3)_2$ 81.04 5.99 485 CaSO<sub>4</sub> 68.07 48.16 3,278

CaCl<sub>2</sub> 55.50 151.63 8,415  $Mg(HCO_3)_2$ 73.17 0.00 0

MgSO<sub>4</sub> 60.19 0.00 0 MgCL<sub>2</sub> 47.62 154.26 7,346

NaHCOa 84.00 0.00 0

NaSO4 71.03 0.00 NaCl 58.46 1,890.79 110,535

\*Milli Equivalents per Liter

This water is slightly corrosive due to the pH observed on analysis. The corrosivity is increased by the content of mineral salts, and the presence of, CO2 in solution.

# Pro-Kem, Inc. WATER ANALYSIS REPORT

RECEIVED

MAR 1 9 2002

Tubb

\*MEO/L

Formation

# **SAMPLE**

Oil Co.:

**Matador Operating** 

11:28

Lease: Laughlin

Well No.: #6

Location: Attention: Date Sampled: 25-February-2002

Date Analyzed: 13-March-2002

Lab ID Number: Mar1302.001-6

Salesperson:

File Name: F:\ANALYSES\Mar1302.001

EO. WT.

**ANALYSIS** 

1. Ph

2. Specific Gravity 60/60 F.

3. CACO3 Saturation Index

1.053 @ 80F

@140F

**6.400** 

0.026 0.946

MG/L

0.145 /cm.

Dissolved Gasses

Hydrogen Sulfide 5. Carbon Dioxide

Dissolved Oxygen

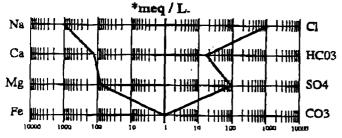
Not Determined

### **Cations**

124.63 74.75 977.30	
>11.3U	
0.00	
1,070.17	
• .	
0.71	
31,1	
	0.00 0.00 16.61 88.11 1,070.17

19. Resistivity @ 75 F. (Calculated)

# LOGARITHMIC WATER PATTERN



		~ ~~~~~	
COMPOUND	EQ. WT.	X *meq/L	= mg/L.
Ca(HCO3)2	81.04	16.61	1,346
CaSO4	68.07	88.11	5,998
CaC12	<i>55.</i> 50	19.90	1,104
Mg(HCO3)2	73.17	00,0	0
MgSO4	60,19	0.00	Ó
MgC12	47.62	74.75	3,560
NaHCO3	84.00	0.00	0
NaSO4	71.03	0.00	0
NaCl	58.46	975.51	57,029

		Cal	<u>dum</u>	Sulfat	<u>e Solul</u>	bility F	rofile	
	1350 — 1328 —				- t	<del>-   -</del>		_
	304 —				7			
	254 -	<del>                                     </del>	+-	<del>-</del>	-+-	<del>-</del>	-+-	
	263 — 1240 —							-
	218 —	<u> </u>						
	196	-	<del></del>		-+		$\overline{}$	
	174 — 163 —			1				
3	ــ ودر							
T	emp T	. 50	70	96	110	130	154	17

# Pro-Kem, Inc. WATER ANALYSIS REPORT

# MPLE

Tubb

Formation

Dil Co. : Matador Operating

Sample Loc. :

Lease : Cooper '5'

Date Analyzed: 13-July-2001

MG/L

Well No.: # 7

Date Sampled : 10-July-2001

Lab No : F:\ANALYSES\Jul1301.001

Dissolved Gasses

# ANALYSIS

Anions

pH Specific Gravity 60/60 F. CaCO<sub>3</sub> Saturation Index @

4. 5. 6.	Hydrogen Si Carbon Diox Dissolved C	lfide kide Xygen	Not Determin	0 00 ed		
7. 8. 9.	Calcium Magnesium Sodium Barium	(Ca++) (Mg++) (Na+) (Ba++)	2,0 7 (Calculated) 27,6 Not Determin	99 52 32 ed	/ 20.1 = / 12.2 = / 23.0 =	10 6 1,20

11.	Hydroxyl (OH-) Carbonate (CO <sub>3</sub> =) Bicarbonate (HCO <sub>3</sub> -) Sulfate (SO <sub>4</sub> -) Chloride (Cl-)	0	/ 17.0 =	0.00
12.		0	/ 30.0 =	0.00
13.		737	/ 61.1 =	12.06
4.		4,200	/ 48.8 =	86.07
15.		44,990	/ 35.5 =	1,267.32
16. 17.	Total Dissolved Solid	80,410 21	/ 18.2 =	1.15

Total Iron (Fe)
Total Hardness As CaCO2

<b>.</b>	Resistivity @	75	F.	(Calculated)	0.124	/cm.

				-med	<b>7</b> /L.				
Na		<del>      </del>	<b> </b>		11111	1111	1	11111	Cl
Ca	MIII 1	THINK	MIH-		11111	<b>₹</b>		11111	нсоз
Mg	<del>11111   1</del>		AKU-		1 1 1 1 1 1	1		11111	S04
Fe	<del> </del>	  - 		量	4	1111	1-1-1-15	1 11/18	CO3
15	000 1	000 1	•	10	1 1			-	

LOGARITHMIC WATER PATTERN

F@		10 1			
Calciu	m Sulf	ate Sc	<u>lubil</u>	ity P	rofile
3656					

0000	1000	100	10	1	10	100	1000	10000
lc:	Lum	Sulf	ate	80	lubi	111	y P	rofi
36							<u> </u>	<u></u>
90	<b>-</b> -							$\pm$
38	➡ →	=±					+-	#
, 35 , 35	<b>≫</b> →						*	#
34	二 土	_					+>	#
34 THE	u → 7. 35	78	90		10 ;	<del> </del>	1,50	170

,			
PROBABI COMPOUND	e Minera Eq. WT.	L COMPOSI X *meq/L	TION = mg/L.
Ca (HCO3) 2	81.04	12.06	978
CaSO4	68.07	86.07	5,858
CaCl <sub>2</sub>	55.50	6.30	350
Mg (HCO3) 2	73.17	0.00	0
MgSO4	60.19	0.00	0
MgCL2	47.62	61.64	2,935
NaHCO3	84.00	0.00	Ö
NaSO4	71.03	0.00	0
NaCl	58.46	1,199.38	70,116

\*Milli Equivalents per Liter water is slightly corrosive due to the pH observed on analysis.
The corrosivity is increased by the content of mineral salts, and the presence of, CO2 in solution. HECEIVED

# Pro-Kem, Inc.

# WATER ANALYSIS REPORT

# MPLE

Tubb

Oil Co. : Matador Operating

Sample Loc.

Formation

Lease : Laughlin

Date Analyzed: 13-July-2001

Well No.: # 1

Date Sampled: 10-July-2001

Lab No. : F:\ANALYSES\Jul1301.001

# **ANALYSIS**

pH Specific Gravity 60/60 F CaCO<sub>3</sub> Saturation Index @

Dissolved Gasses		MG/L	EQ. WT.	+MEQ/L	
<ol> <li>Hydrogen Sulfide</li> <li>Carbon Dioxide</li> <li>Dissolved Oxygen</li> </ol>	Not Dete	60 ermined			
Cations 7 Calcium (Ca++) 8 Magnesium (Mg++) 9 Sodium (Na+) (Ca++) 10 Barium (Ba++)	alculated) Not Dete	2,576 / 926 / 32,711 / ermined	7 20.1 = 7 12.2 = 7 23.0 =	128.16 75.90 1,422.22	
Anions  11. Hydroxyl (OH-) 12. Carbonate (CO <sub>3</sub> -) 13. Bicarbonate (HCO <sub>3</sub> -) 14. Sulfate (SO <sub>4</sub> -) 15. Chloride (Cl-)		0 / 0 / 542 / 3,250 / 54,988 /	17.0 = 30.0 = 61.1 = 48.8 = 35.5 =	0.00 0.00 8.87 66.60 1,548.96	
16. Total Dissolved Solids 17. Total Iron (Fe) 18. Total Hardness As CaCO 19. Resistivity @ 75 F. (C		94,993 131 10,243 .100 /cm.	18.2 =	7.20	
LOGARITHMIC WATER PATT	TDX	DDABAS	TE MINDE	LAL COMPOSI	WT CN
meq/L.	ENH	COMPOUND		X *meg/L:	
Na			EQ. WT.		
-meq/L.	#-11H# C1	COMPOUND	EQ. WT.	X *meq/L	= mg/L.
Na	H HHM HCO3	Ca (HCO <sub>3</sub> ) 2	EQ. WT.	X *meq/L :	= <b>mg/L</b> . 719
The Q/L.  Na	C1 H	Ca (HCO <sub>3</sub> ) 2	81.04 68.07 55.50	X *meq/L : 8.87 66.60	= mg/L. 719 4,533
The Q/L.  Na	C1 H-HHH HC03 H-HHH S04 H-HHH C03	Ca(HCO <sub>3</sub> ) <sub>2</sub> CaSO <sub>4</sub> CaCl <sub>2</sub>	81.04 68.07 55.50	8.87 66.60 52.69	= mg/L. 719 4,533 2,924
Theq/L.  Na	C1 H-HHH HC03 H-HHH S04 H-HHH C03	Ca(HCO <sub>3</sub> ) <sub>2</sub> CaSO <sub>4</sub> CaCl <sub>2</sub> Mg(HCO <sub>3</sub> ) <sub>2</sub>	81.04 68.07 55.50 73.17	8.87 66.60 52.69 0.00	# mg/L. 719 4,533 2,924
Na	C1 H-HHH HC03 H-HHH S04 H-HHH C03	COMPOUND  Ca (HCO <sub>3</sub> ) <sub>2</sub> CaSO <sub>4</sub> CaCl <sub>2</sub> Mg (HCO <sub>3</sub> ) <sub>2</sub>	81.04 68.07 55.50 73.17 60.19	8.87 66.60 52.69 0.00	mg/L. 719 4,533 2,924 0
Mg MHH WHI WHI WHI HIM HIM HIM HIM HIM HIM HIM HIM HIM H	C1 H-HHH HC03 H-HHH S04 H-HHH C03	COMPOUND  Ca (HCO <sub>3</sub> ) <sub>2</sub> CaSO <sub>4</sub> CaCl <sub>2</sub> Mg (HCO <sub>3</sub> ) <sub>2</sub> MgSO <sub>4</sub> MgCL <sub>2</sub>	81.04 68.07 55.50 73.17 60.19 47.62	*meg/L: 8.87 66.60 52.69 0.00 0.00	mg/L. 719 4,533 2,924 0 0 3,614

\*Milli Equivalents per Liter The swater is slightly corrosive due to the pH observed on analysis.

The corrosivity is increased by the content of mineral salts, and the presence of, CO2 in solution. RECEIVED

# Pro-Kem, Inc. WATER ANALYSIS REPORT

Tubb

\*MEQ/L

Formation

Oil Co. : Matador Operating

Sample Loc. :

MG/L

NaCl

Lease : Laughlin

Date Analyzed: 13-July-2001

EQ. WI.

Well No.: # 3

Date Sampled : 10-July-2001

Lab No. : F:\ANALYSES\Jull301.001

Dissolved Gasses

# ANALYSIS

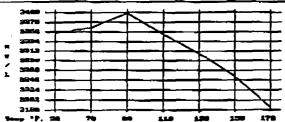
pH Specific Gravity 60/60 F. CaCO<sub>3</sub> Saturation Index @

4 · 5 · 6 ·	Hydrogen Sul Carbon Dioxi Dissolved Ox	fide de ygen	Not D	Determined				
7. 8. 9. 10.	ations Calcium Magnesium Sodium Barium	(Ca++) (Mg++) (Na+) (Ba++)	(Calculated) Not D	2,862 1,099 31,335 etermined	1/2	20.1 12.2 23.0	=======================================	142.39 90.08 1,362.39
11. 12. 13. 14. 15. 16. 17. 18.	nions  Hydroxyl Carbonate Bicarbonate Sulfate Chloride Total Dissol Total Iron Total Hardne Resistivity	(Fe)		0 542 3,100 53,988 92,926 2 11,672 0.103 /cm.		17.0 30.0 61.1 48.8 35.5		0.00 0.00 8.87 63.52 1,520.79

### LOGARITHMIC WATER PATTERN \*meq/L.

Na	<del>                                     </del>		MIH I		+++	1111	<del>                                     </del>	-	Cl
Са	matt t	MIII)	WHII I		11111	1	11111	<del>-11111</del>	нсоз
Mg				<b>M</b>	1110	1		<del>- 1 1 ) (((</del>	SO4
Fe			MIHH		THE	1 1111	+++	-14111	CO3
100	000 10	100 10	00	10 ;	1 10	10	0 100	0 100	900

# Calcium Sulfate Solubility Profile



PROBABLE MINERAL COMPOSITION EQ. WT. X \* meq/L = mg/L.  $Ca(HCO_3)_2$ 81.04 8.87 719 CaSO<sub>4</sub> 68.07 63.52 4,324 . CaCl<sub>2</sub> 55.50 69.99 3,885 Mg (HCO<sub>3</sub>)<sub>2</sub> 73.17 0.00 ۵ MgSO4 60.19 0.00 0 MgCL<sub>2</sub> 90.08 4,290 47.62 NaHCO3 0.00 84.00 0 NaSO<sub>4</sub> 71,03 0.00

\*Milli Equivalents per Liter The water is slightly corrosive due to the pH observed on analysis.

The corrosivity is increased by the content of mineral salts, and the presence of, CO2 in solution.

58.46

RECEIVED

1,360.71 79,547

# Pro-Kem

# WATER ANALYSIS REPORT

Tubb

Formation

Oil Co. : Matador Operating

Sample Loc. :

Lease : Cooper '5'

Date Analyzed: 30-October-2001

58.46

Well No.: 6

Date Sampled :

Lab No. : F:\ANALYSES\Oct3001.002

# ANALYSIS

pH Specific Gravity 60/60 F. 1.0 CaCO<sub>3</sub> Saturation Index @ 80 F. @ 140 F.

	@ 140 F. +1.60	16			
Dissolved Gasses	•	MG/L	EQ. WT.	*MEQ/L	
<ul><li>4. Hydrogen Sulfide</li><li>5. Carbon Dioxide</li><li>6. Dissolved Oxygen</li></ul>	Not Deter	0 40 mined			
Cations					
7. Calcium (Ca++) 8. Magnesium (Mg++) 9. Sodium (Na+) 10. Barium (Ba++)	(Calculated) Not Deter	1,908 / 984 / 8,078 / mined	20.1 = 12.2 = 23.0 =	94.93 80.66 351.22	
Anions		•			
11. Hydroxyl (OH-) 12. Carbonate (CO <sub>3</sub> =) 13. Bicarbonate (HCO <sub>3</sub> -) 14. Sulfate (SO <sub>4</sub> -) 15. Chloride (Cl <sup>2</sup> )	1	0 / 0 / 732 / 380 / 7,996 /	17.0 = 30.0 = 61.1 = 48.8 = 35.5 =	0.00 0.00 11.98 7.79 506.93	
16. Total Dissolved Sol 17. Total Iron (Fe) 18. Total Hardness As ( 19. Resistivity @ 75 F	7a(0)3	8.814	18.2 =	1.04	
logaritemic water i		PROBAB) OMPOUND	LE MINERAL EQ. WT. X	COMPOSITE meq/L =	ION mg/l.
Na <b>MHH MHH MHH HHM H</b> H	M HIIII C1	Ca (HCO3) 2	81.04	11.98	971
Ca WHI WHILL WHILL THINK TH	HCO3				
	11/1/11/11/11/11/11/11	CaSO4	68.07	7.79	530
Mg		CaCl <sub>2</sub>		7.79 75.16	
Mg <b>                                    </b>	##		55.50		
Mg <b>                                    </b>	HI	CaCl <sub>2</sub>	55.50	75.16	4,171
Mg	##	CaCl <sub>2</sub> Mg(HCO <sub>3</sub> ) <sub>2</sub>	55.50 73.17	75 <sup>°</sup> .16 0.00	4,171 0
Mg		CaCl <sub>2</sub> Mg(HCO <sub>3</sub> ) <sub>2</sub> MgSO <sub>4</sub>	55.50 73.17 60.19	75.16 0.00 0.00	4,171 0 0

\*Milli Equivalents per Liter This water is mildly corrosive due to the pH observed on analysis.

The corrosivity is increased by the content of mineral salts, and the presence of, CO2 in solution.

RECEIVED

351.12 20,526

Fresh

Water

\*MEO/L

# TIO-IZCITI, THE.

# WATER ANALYSIS REPORT

# **SAMPLE**

Oil Co.: Matador Operating
Leuse; Davis Ranch 'Corral'

Well No.: #3

Location: Sed 5, T20S, R37E, Unit E

Attention: Russ Mathis

Date Sampled:
Date Analyzed:

Mar. 2002

EO. WT.

28-May-2002

Lab ID Number: May2802.001-3

Salesperson: Max

MG/L

4.604 /cm.

File Name: F:\ANALYSES\May2802.001

# **ANALYSIS**

1.	Ph	7.390
2.	Specific Gravity 60/60 F.	1.006

# Dissolved Casses

4.	Hydrogen Sulfide	Not Present
	Carbon Dioxide	Not Determined
6.	Dissolved Oxygen	Not Determined

# Cations

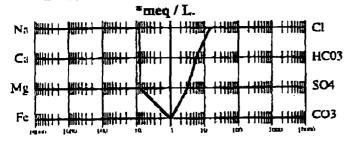
7.	Calcium	(C:1++)		<u>150</u>	/ 20.1 =	7.46
8.	Magnesium	(Mg++)		91	/ 12.2 =	7.46
9.	Sodium	(Na+)	(Calculated)	181	/ 23.0 =	7.87
10.	Barium	(Ba++)		Not Determined		
	Anions					

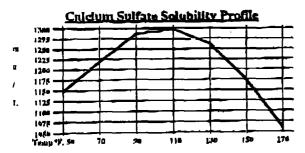
É	Anions				
11.	Hydroxyl	(OH+)	0	/ 17.0 =	6.00
12.	Carbonate	(CO3=)	0	/ 30.0 =	0.00
13.	Bicarbonate	(HCO3-)	342	/ 61.1 =	5.60
14.	Sulfate	(SO4=)	150	/ 48.8 =	3.07
15.	Chloride	(Cl-)	500	/ 35.5 =	14.08
16.	Total Dissolved	Solids	1,414		
17.	Total Iron	(Fe)	. 2	/ 18.2 =	0.1.1
	Tarillanduan e	- C-CO3	751		1

18. Total Hardness as CaCO3

19. Resistivity @ 75 F. (Calculated)

### LOGARITHMIC WATER PATTERN





# PROBABLE MINERAL COMPOSITION

COMPOUND	EQ. WT.	X	*meq/L =	mg/L.
Ca(HCO3)2	81.04	-	5.60	454
CaSO4	68,07	!	1.87	127
CaC12	55.50	i	0.00	ŋ
Mg(HCO3)2	73.17	-	0.00	0
MgSO4	60.19	i	1.21	73
MgCl2	47.62	-	6.25	298
NaHCO3	84.00	i	0.00	0
NuSO4	71.03	i	0.00	0
NaCl	58.46	į	7.83	458

# LIO-VEIII, THE

# WATER ANALYSIS REPORT

# SAMPLE

Oil Co.: **Matador Operating** Lease :

Davis Ranch 'Yard'

Well No.: #2

Location: sec 5, T2OS, R37E, Unit A

Attention: Russ Mathis Date Sampled:

Fresh Water

Date Analyzed: 28-May-2002 Lab ID Number: May2802.001-2

Salesperson: Max

4.608 /cm.

File Name: F:\ANALYSES\May2802.001

# **ANALYSIS**

7,090 1. Specific Gravity 60/60 F. 1.006 2.

@ 80F CACO3 Saturation Index 0.2433.

			@140F	0.943		
Ţ	dissolved Casses			MG/L.	EQ. WT.	•MEO/L
4. 5. 6.	Hydrogen Sulfide Carbon Dioxide Dissolved Oxygen			Not Present Not Determined Not Determined		
Ω	ations					
7.	Calcium	(Ca++)		180	/ 20.1 =	8.96
8.	Magnesium	(Mg++)		43	/ 12.2 =	3.52
9,	Sodium	(Na+)	(Calculated)	242	/ 23.0 =	10.52
10.	Barium	(Bu++)		Not Determined		
A	nions					
11.	Hydroxyl	(OH+)		0	/ I7.Q =	0.00
12.	Carbonate	(CO3=)		0	/ 30.0 =	0.00
13.	Bicarbonate	(HCO3-)		342	/ <b>61.1</b> =	5.60
14.	Sulface	(SO4=)		160	/ 48.8 =	3.28
15.	Chloride	(CI-)		500	/ 35.5 =	14.08
16,	Total Dissolved Soli	ids		1,467		
17.	Total Iron	(Fe)		3	/ 18.2 =	0.14
18.	Total Hardness as C	aCO3		626		

- 1
- 1
- Total Hardness as CaCO3 18.
- Resistivity @ 75 F. (Calculated) 19.

# PROBABLE MINERAL COMPOSITION

COMPOUND	EQ. WT.	X	*meq/L =	mg/L.
Ca(HCO3)2	81.04		5.60	454
CaSO4	6 <b>8.</b> 07		3.28	223
CaCl2	55.50		0.08	4
Mg(HCO3)2	73.17		<b>ΰ,00</b>	O
MgSO4	60.19		0.00	0
MgCl2	47.62		3.52	168
NaHCO3	84.00		0.00	0
NaSO4	71.03		0.00	0
NaCl	58.46		10.48	613

# \*meq/L HHIR HHIR CI HC03 **SO4** CO3

LOGARITHMIC WATER PATTERN

1360		<del></del>	_	+	1
1235		_	+		
1219			<del></del>	<del></del>	
I IRS			1	1	<del></del>
1					
1160			T		V
1136		<del></del>		7	
1110 -			1	_	
1000	_	$\overline{}$	+	_	+
1140			<del></del>	+-	+-
1805				<del></del>	+
1010	1 _	- 1			

# Lia.Vein' inc.

# WATER ANALYSIS REPORT

Fresh

Water

\*MEO/L

0.00

5.60

3.18

14.08

0.14

Oil Co. : **Matador Operating** 

Davis Ranch Lease :

Well No .:

Location: Sec 5, T20 S, R37E, Unit A

Russ Mathis Attention:

Date Sampled:

Date Analyzed:

28-May-2002 Lab ID Number: May2802.001-1

MG/L

0

342

155

500

3

4.606 /cm.

626

1,452

EO. WT.

/ 30.0 =

/ 61.1 =

/48.8 =

/ 35.5 =

/ 18.2 =

Salesperson: Max

File Name: F:\ANALYSES\May2802.001

# **ANALYSIS**

7.050 1. Ph 2. Specific Gravity 60/60 F. 1.008

CACO3 Saturation Index @ 80F 0.152@140F

0.852

DISSOLY	HZZ	2	
	~	300	

Not Present Hydrogen Sulfide Carbon Dioxide Not Determined 5. Dissolved Oxygen Not Determined

### **Cations**

7.	Calcium	(Ca++)		160	/ 20.1 =	7.96
8.	Magnesium	(Mg++)		55	/ 12.2 =	4.51
9.	Sodium	(Na+)	(Calculated)	240	/ 23.0 =	10.43
10.	Barium	(Ba++)		Not Determined		
Ė	Anions					
11.	Hydroxyl	(OH+)		0	/ 17.0 =	0.00

Carbonate (CO3=)12. (HCO3-) 13. Bicarbonate 14. Sulface (\$O4≈)

Chloride (CI-) 15.

Total Dissolved Solids 16. 17. Total from

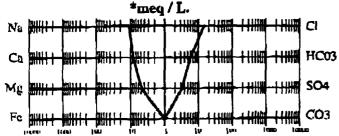
18. Total Hardness as CaCO3

19, Resistivity @ 75 F. (Calculated)

# PROBABLE MINERAL COMPOSITION

COMPOUND	EQ. WT.	X	*meq/L	=	mg/L
Ca(HCO3)2	81,04		5.60		454
CaSO4	68.07		2.36		161
CaC12	55.50		0,00		D
Mg(HCO3)2	73.17		0.00		0
MgSO4	60.19		0.81		49
MeCIZ	47.62		3.69		176
NaHCO3	84.00		0.00		0
NaSO4	71.03		0.00		0
NaCI	58,46		10.39		607
NaHCO3 NaSO4	84.00 71.03		0.00 00.0		0

# LOGARITHMIC WATER PATTERN



	cium Sulfate	Solubili	LY L'TO	
1270				
1254				
1201 1206				
1184				
1100			<del>                                     </del>	ــــــــــــــــــــــــــــــــــــــ
1134			<b>↓</b>	<b>~</b>
1112			<b>↓</b>	+
1044	_		<del></del>	
1844	_}		+	<del>  '</del>
		<del></del>	<del></del>	╄
1840 —	75 50	110	130	50

# LIO-Veni' mic.

# WATER ANALYSIS REPORT

Oil Co.: **Mutudor Operating** 

Coumbes Lease :

Well No.: N/A

Location: Sec 4, T2OS, R37E, Unit N

Attention: Russ Mathis Date Sampled: Date Analyzed:

Fresh Water

·MEO/L

28-May-2002 Lab ID Number: May2802.001-4

EO. WT.

Salesperson:

Max

File Name: F:\ANALYSES\May2802.001

# ANALYSIS

1. 7.150 1.003 2. Specific Gravity 60/60 F.

CACO3 Saturation Index @ 80F

@140F

0.204 0.904

Not Determined

2.992 /cm.

Dissolved Gasses

MG/L Not Present Hydrogen Sulfide Not Determined 5. Carbon Dioxide

Dissolved Oxygen

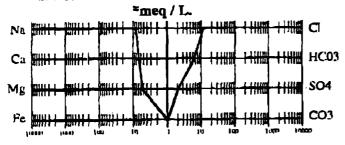
# **Cations**

7.	Calcium	(Ca++)	•	130	/ 20.1 =	6.47
8.	Magnesium	(Mg++)		61	/ 12.2 <del>=</del>	5.00
9.	Sodium	(Na+)	(Calculated)	184	/ 23.0 =	8.00
10.	Barium	(Ba++)		Not Determined		

£	<u> Anions</u>				
11.	Hydroxyl	(OH+)	0	/ 17.0 =	0.00
12.	Carbonate	(CO3=)	O	/ 30.0 =	0.00
13.	Bicarbonate	(HCO3-)	376	/ 61.1 =	6.15
14.	Sulfate	(SO4=)	100	/ 48.8 =	2.05
15	Chloride	(Cl-)	400	/ 35.5 =	11.27
16.	. Total Dissolved Solids		1,251		
17.	Total Iron	(Fe)	2	/ 18.2 =	0.08
18.	Total Hardness a	is CaCO3	576		

Resistivity @ 75 P. (Calculated) 19.

### LOGARITHMIC WATER PATTERN



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:105			S =	Ţ
145			1	+
ZW	<del></del>		<del></del>	: <del> </del>
20.5	<del> </del>		+	<del>/</del>
180				$\mathbf{X}$
135				
150				<del></del>
upto T			┵—	┺

### PROBABLE MINERAL COMPOSITION

I RODADES MINERALS COME CONTROL								
COMPOUND	EQ. WT.	X	™meq/L =	mg/l~				
Ca(HCO3)2	81.04		6.15	499				
CaSO4	68.07		0.31	21				
CzC12	<i>55.</i> <b>5</b> 0		0,00	O				
Mg(HCO3)2	73.17		0,00	0				
MgSO4	60,19		1.74	104				
MgC12	47.62		3.26	155				
NaHCO3	84.00		0.00	O				
NaSQ4	71.03		0.00	0				
NaCI	58.46	•	8,00	468				

# I IU-IXCIII, IIIC. WATER ANALYSIS REPORT

# **SAMPLE**

Glorieta Formation

Oil Co.: Matador Operating

11:31

Williams '34' Lease: Well No .: #3

Location:

Attention: Russ Mathis Date Sampled: 05-April-2002

Date Analyzed: 08-April-2002 Lab ID Number: Apr0802.001-1

Salesperson:

6,256

0.159 /cm.

File Name: F:\ANALYSES\Apr0802.001

# **NALYSIS**

6.420 1. ₽h 1.048 2. Specific Gravity 60/60 F.

CACO3 Saturation Index @ 80F -0.253 @140F 0.657

1	)issolved Gasses			MG/L	EO. WT.	*MEO/L
4. 5. 6.	Hydrogen Sulfide Carbon Dioxide Dissolved Oxygen			Present Not Determined Not Determined		
9	<u>Cations</u>					
7.	Calcium	(Ca++)		1,503	/ 20.1 =	74.78
8.	Magnesium	(Mg++)		608	/ 12.2 =	49.84
9.	Sodium	(Na+)	(Calculated)	21,609	/ 23.0 =	939.52
10.	Barium	(Ba++)		Not Determined		
E	Anions					
31.	Hydroxyl	(OH+)		0	/ 17.0 =	0.00
12.	Carbonate	(CO3=)		0	/ 30.0 =	0.00
13.	Bicarbonate	(HCO3-)		830	/ 61.1 =	13.58
14.	Sulfate	(SO4=)		5,800	/ 48.8 <b>=</b>	118.85
15.	Chloride	(CI-)		32,993	/ 35.5 =	929.38
16.	Total Dissolved Sol	ids		63,343		
17.	Total Iron	(Fe)		3	/ 18.2 =	0.14

### 1 Total Iron (Fe) 17.

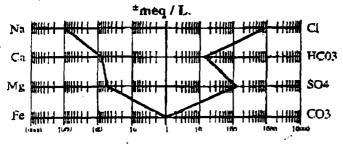
Total Hardness as CaCO3 18.

Resistivity @ 75 F. (Calculated) 19.

# PROBABLE MINERAL COMPOSITION

COMPOUND	EQ. WT.	X	‡meq/L	=	mg/l
Ca(FICO3)2	81.04		13.58		1,101
CaSO4	68.07		61.19		4.165
CaC12	55.50		0.00		0
Mg(HC03)2	73.17		0,00		Ω
MgSO4	60.19		49.84		3,000
MgC12	47.62		0.00		Ō
NaHCO3	84.00		Q. <b>00</b>		0
NaSO4	71,03		7.82		556
NeCl'	58.46		929.38		54,332

# LOGARITHMIC WATER PATTERN



<u>C</u>	alcium :	Sulfate	Solub	ility P	rofile	
17-0					$\perp$	_
1746				$\rightarrow$	-+-	
1722						_
2680					V	_
3484						_
3636		工	$\neg$			Ź
202	<del>-  -</del>	<del>-  </del>	<del>- j-</del>	<del></del>		}
1678 <del></del> 'Milly "V. 50	75	<del></del>	110	130	158	

# I IU-IXCIII, IIIC.

# WATER ANALYSIS REPORT

# SAMPLE

Oil Co.: Matador Operating Lease ! Shelley St. 35

Well No.: #2

Location:

Attention: Russ Mathis Date Sampled: Date Analyzed:

05-April-2002 08-April-2002

Drinkard Formation

\*MEO/L

Lab ID Number: Apr0802.001-2

Salesperson;

102,552

16,265

0.089 /cm.

File Name: F:\ANALYSES\Apr0802.001

# **ANALYSIS**

1.	Ph	6.620
2.	Specific Gravity 60/60 F.	1.078

3. CACO3 Saturation Index @ 80F 0.364@140F 1.299

### Dissolved Gasses MG/L EO. WI 4. Hydrogen Sulfide Not Present

Carbon Dioxide 5. Not Determined Dissolved Oxygen Not Determined

# Cations

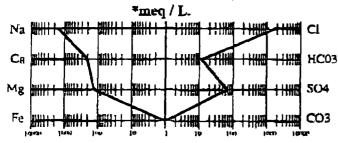
<u> </u>					
Calcium	(Ca++)		4,008	/ 20.1 =	199.40
Magnesium	(Mg++)		1,520	/ 12.2 =	124.59
Sodium	(Na+)	(Calculated)	33,195	/ 23.0 =	1,443.26
Burium	(Ba←+)		Not Determined		•
<u>nious</u>			•		
Hydroxyl	(OH+)		O	/ 17.0 <b>=</b>	0.00
Corponate	(CO3=)		0	/ 30.0 =	0.00
Bicarbonate	(HC()3-)		693	/61.1 =	11.34
Sulfate	(\$Q4 <b>=</b> )		3,150	/ 48.8 =	64.55
Chloride	(CI-)		<b>59,98</b> 6	/ 35.5 =	1,689.75
	Magnesium Sodium Burium nious Hydroxyl Carbonate Bicarbonate Sullate	Calcium (Ca++) Magnesium (Mg++) Sodium (Na+) Burium (Ba++)  nions Hydroxyl (OH+) Carbonate (CO3=) Bicarbonate (HCO3-) Sulfate (SO4=)	Calcium (Ca++)  Magnesium (Mg++)  Sodium (Na+) (Calculated)  Burium (Ba++)  nions  Hydroxyl (OH+)  Carbonate (CO3=)  Bicarbonate (HCO3-)  Sulfate (SO4=)	Calcium       (Ca++)       4,008         Magnesium       (Mg++)       1,520         Sodium       (Na+)       (Calculated)       33,195         Burium       (Ba++)       Not Determined         mions       Not Determined       0         Hydroxyl       (OH+)       0         Carbonate       (CO3=)       0         Bicarbonate       (HC()3-)       693         Sulfate       (SO4=)       3,150	Calcium       (Ca++)       4,008       / 20.1 =         Magnesium       (Mg++)       1,520       / 12.2 =         Sodium       (Na+)       (Calculated)       33,195       / 23.0 =         Burium       (Ba++)       Not Determined         mions         Hydroxyl       (OH+)       0       / 17.0 =         Carbonare       (CO3=)       0       / 30.0 =         Bicarbonare       (HCO3-)       693       / 61.1 =         Sulfate       (SO4=)       3,150       / 48.8 =

16. Total Dissolved Solids 17. Total Iron

18. Total Hardness as CaCO3

19. Resistivity @ 75 F. (Calculated)

### LOGARITHMIC WATER PATTERN



<u>C</u>	ildum	Sulfate	Soint	<u>rility P</u>	rofile	
2938			<del></del>	<del>- ī -</del>	<del></del>	$\rightarrow$
2912			eg-		$\rightarrow$	$\rightarrow$
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Z484	<del>-</del>				<del>-\</del> -	-
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2768		_+_				Y
2758			$-\!\!\!+\!\!\!\!-$			
Teinit P. 50	Ϋ́ø	M	110	134	160	176

### PROBABLE MINERAL COMPOSITION

0\_33

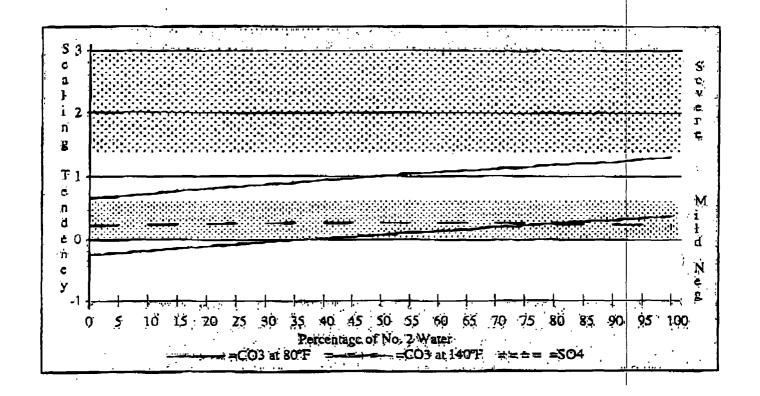
/18.2 =

COMPOUND	EO. WT.	X meg/L	=	mg/L
	-			_
Ca(HCO3)2	81.04	11.34		919
CaSO4	<b>68.07</b>	64.55		4,394
CaCl2	<i>5</i> 5.50	123.51		6,855
Mg(HCO3)2	7 <b>3.17</b>	0.00		0
MgSO4	60.19	0.00		0
MgCl2	47.62	124.59		5,933
NaHCO3	84.00	0.00		0
NaSO4	71.03	0.00		Ú
NECI	58.46	1.441.64	;	84,279

# CUMPALISUM DELMECH I MU 11 ALELS

Pro-Kem, Inc.				
Sample No. 1 Matador Operating Williams 34 # 3 08-April-2002	Compatibility Test	Sample No. 2 Matador Operating Shelley St. 35 # 2 08-April-2002		

Percent of				CaCO3 Saturation	Calcium Sulfate
#1 & #2	pН	TDS	SpGr	<b>@80°F</b> . @140°F.	Scaling Potential
100 - 00	6.420	63,343	1.048	-0.253 0.657	Mild to Moderate
95 <b>- 05</b>	6,430	65.303	1.050	-0.222 0.688	Mild to Moderate
90 - 10	6.440	67,264	1,051	<u>-0.183</u> 0.727	Mild to Moderate
85 - 1 <b>5</b>	6.450	69,224	1.053	-0.147 0.773	Mild to Moderate
80 - 20	6.460	71,185	1.054	-0.113 0.807	Mild to Moderate
75 - <b>25</b>	6.470	73.145	1.056	-0 <u>.080                                  </u>	Mild to Moderate
70 - 30	ნ,480	75,10 <del>6</del>	1.057	-0.047 0.871	Mild to Moderate
65 - 35	6,490	77,066	1.059	-0.017 0.901	Mild to Moderate
60 - 40	6.500	79,027	1.060	0.014 0.939	Mild to Moderate
55 - 45	6.510	80,987	1.062	0.041 0,966	Mild to Moderate
50 - 50	6,520	82. <b>94</b> 8	1.063	0.068 0.993	Mild to Moderate
45 - 55	6.530	84,908	1.065	0.108 1.038	Mild to Moderate
40 - 60	6.540	86,868	1.066	0.132 1.063	Mild to Moderate
35 <b>- 65</b>	6.550	88.829	1.068	0.156 1.086	Mild to Moderate
30 - <b>7</b> 0_	6.560_	90.789	1.069	0.199 1.119	Mild to Moderate
25 - 75	6.570	92,750	1.071	0.222 1.142	Mild to Moderate
20 - 80	6.580	94,710	1.072	0.263 1.183	Mild to Moderate
15 - 85	6.590	96,671	1.074	0.284 1.204	Mild to Moderate
10 - 90	6.600	98,631	1.075	0.305 1.225	Mild to Moderate
05 - 95	6.610	100.592	1.077	0.345 1.280	Mild to Moderate
00 - 100	6.620	102,552	1.078	0.364 1.299	Mild to Moderate



(310<sub>1</sub>W, Wall, Ste. 906 Midlard, TX 7920104 (915) 687-5955 (915) 687-4809 Fax

Diane Kuykendall Production Analyst Writer's Direct Line (915) 687-5957

June 18, 2002

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

RE: Cooper 4 #1 SWD

API #30-025-35794 Sec 4, T20S, R37E Lea County, NM

Dear Sir:

Attached is the affidavit of publication which should complete our application for injection on the above reference well.

If you have any further questions, please feel free to call.

Sincerely,

Diane Kuykendall

**Production Analyst** 

/dk

Attachment

### AFFIDAVIT OF PUBLICATION

State of New Mexico, County of Lea.

# I IZAMIH DE ADDEN

I, KATHI BEARDEN
Publisher
of the Hobbs News-Sun, a newspaper published at Hobbs, New Mexico, do solemnly swear that the clipping attached hereto was published once a week in the regular and entire issue of said paper, and not a supplement thereof for a period.
of1
weeks. Beginning with the issue dated
June 6
and ending with the issue dated
June 6 2002
Athi Busser
Publisher Sworn and subscribed to before
me this 6th day of
June 2002
Joan Herrson
Notary Public.

My Commission expires October 18, 2004 (Seal)

This newspaper is duly qualified to publish legal notices or advertisements within the meaning of Section 3, Chapter 167, Laws of 1937, and payment of fees for said publication has been made.

### **LEGAL NOTICE** June 6, 2002

Matador Operating Company, 310 W. Wall, Ste. 906, Midland, TX 79701 (915) 687-5955, Russ Mathis, Production Manager, is applying for authorization to inject into the Cooper \*4" #1 salt water disposal well-located 660' FNL and 1845' FWL; Section 4, Township 20S, Range 37E, Lea Comty, New Mexico. Dispesal will be in the Upper Periffan Glorieta, Paddock and Blinebry formations from 5300' to 5950' with a maximum injection rate of 2000 BWPD at a maximum pressure of 1400 psi. Persons wishing to object or request a hearing should contact Oil Conservation Division, 1220 St. Francis Dr., Santa Fe; NM 87504 within 15 days. #19023

01101892000 02556281 Matador Operating Company 310 W. Wall, Suite 906 Midland, TX 79701

SUITE 150, PECAN CREEK 8340 MEADOW ROAD DALLAS, TEXAS 75231-3751 (214) 987-3650 FAX: (214) 987-7123

June 4, 2002

Jimmy Cooper P O Box 55 Monument, NM 88265-0055

RE:

Cooper "4" #1

Sec. 4, T20S, R37E Lea County, NM

Dear Mr. Cooper:

Please find enclosed a copy of Matador Operating Company's Application for Authorization to Inject. Form C-108 requires notification to surface owners and operators within one-quarter mile of record.

Sincerely,	•
Shar Corn	
Sharon Cook	
Regulatory Analyst	
<del></del>	has no objection to Matador's Application for
<b>-</b>	ne Cooper "4" #1 well located in Sec. 4, T20S, R37E, Lea
County, New Mexico.	
Signature	Printed Name

SUITE 150, PECAN CREEK 8340 MEADOW ROAD DALLAS, TEXAS 75231-3751 (214) 987-3650 FAX: (214) 987-7123

June 4, 2002

Jimmie Baum Cooper			
P O Box 36	_		
Monument, NM	88265-0036		

RE:

Cooper "4" #1

Sec. 4, T20S, R37E Lea County, NM

Dear Mr. Cooper:

Please find enclosed a copy of Matador Operating Company's Application for Authorization to Inject. Form C-108 requires notification to surface owners and operators within one-quarter mile of record.

Sincerely,	
Span Corn	
Sharon Cook	
Regulatory Analyst	
	no objection to Matador's Application for
<del>-</del>	'#1 well located in Sec. 4, T20S, R37E, Lea
County, New Mexico.	
Signature	Printed Name

SUITE 150, PECAN CREEK 8340 MEADOW ROAD DALLAS, TEXAS 75231-3751 (214) 987-3650 FAX: (214) 987-7123

June 4, 2002

Amerada Hess Corporation P O Box 2040 Houston, TX 77252-2040

RE: Cooper "4" #1

Sec. 4, T20S, R37E Lea County, NM

### Gentlemen:

Please find enclosed a copy of Matador Operating Company's Application for Authorization to Inject. Form C-108 requires notification to surface owners and operators within one-quarter mile of record.

Sincerely,	
Sharon Cook Repulatory Application	
Regulatory Analyst	
	has no objection to Matador's Application for "4" #1 well located in Sec. 4, T20S, R37E, Lea
County, New Mexico.	7 #1 Wolf located in Occ. 4, 1205, 137L, Lea
Signature	Printed Name

SUITE 150, PECAN CREEK 8340 MEADOW ROAD DALLAS, TEXAS 75231-3751 (214) 987-3650 FAX: (214) 987-7123

June 4, 2002

Chevron USA, Inc. P O Box 1150 Midland, TX 79702-1150

RE:

Cooper "4" #1

Sec. 4, T20S, R37E Lea County, NM

### Gentlemen:

Please find enclosed a copy of Matador Operating Company's Application for Authorization to Inject. Form C-108 requires notification to surface owners and operators within one-quarter mile of record.

Sincerely,	•	
Shan Cork		
Sharon Cook		
Regulatory Analyst		
Authorization to Inject		no objection to Matador's Application for "#1 well located in Sec. 4, T20S, R37E, Lea
_	•	#1 well located in Sec. 4, 1205, R57E, Lea
County, New Mexico.	•	
Signature		Printed Name

SUITE 150, PECAN CREEK 8340 MEADOW ROAD DALLAS, TEXAS 75231-3751 (214) 987-3650 FAX: (214) 987-7123

June 4, 2002

Exxon Mobil Corporation P O Box 4697 Houston, TX 77210-4697

RE: Cooper "4" #1

Sec. 4, T20S, R37E Lea County, NM

### Gentlemen:

Please find enclosed a copy of Matador Operating Company's Application for Authorization to Inject. Form C-108 requires notification to surface owners and operators within one-quarter mile of record.

Sincerely,	•
Span Cort	•
Sharon Cook	
Regulatory Analyst	
	has no objection to Matador's Application for
Authorization to Inject into th	e Cooper "4" #1 well located in Sec. 4, T20S, R37E, Lea
County, New Mexico.	
Signature	Printed Name
Digitature	1 Illited 14dile

SUITE 150, PECAN CREEK 8340 MEADOW ROAD DALLAS, TEXAS 75231-3751 (214) 987-3650 FAX: (214) 987-7123

June 4, 2002

Magnum Hunter Production, Inc. 600 Las Colinas Boulevard East, Suite 1100 Irving, TX 75039-5635

RE:

Cooper "4" #1

Sec. 4, T20S, R37E Lea County, NM

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County, New Mexico.	
Signature	Printed Name

SUITE 150, PECAN CREEK 8340 MEADOW ROAD DALLAS, TEXAS 75231-3751 (214) 987-3650 FAX: (214) 987-7123

June 4, 2002

Occidental Permian Limited Partnership P O Box 50250 Midland, TX 79707-0250

RE:

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Sec. 4, T20S, R37E Lea County, NM

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Signature	Printed Name

SUITE 150, PECAN CREEK 8340 MEADOW ROAD DALLAS, TEXAS 75231-3751 (214) 987-3650 FAX: (214) 987-7123

June 4, 2002

Samson Resources Company Two West Second Street Tulsa, OK 74103-3103

RE:

Cooper "4" #1

Sec. 4, T20S, R37E Lea County, NM

### Gentlemen:

Please find enclosed a copy of Matador Operating Company's Application for Authorization to Inject. Form C-108 requires notification to surface owners and operators within one-quarter mile of record.

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Sharon Cook	
Regulatory Analyst	
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Signature	Printed Name

SUITE 150, PECAN CREEK 8340 MEADOW ROAD DALLAS, TEXAS 75231-3751 (214) 987-3650 FAX: (214) 987-7123

June 4, 2002

Texaco Exploration and Production, Inc	١.
P O Box 1150	
Midland, TX 79702-1150	

RE:

Cooper "4" #1

Sec. 4, T20S, R37E Lea County, NM

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Regulatory Analyst			
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County, New Mexico.			
Signature		Printed Name	

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Matador Petroleum Corp = Cooper "4" No. 1 SWD Permit Application	WELL NAME	30-025-05790 N MONUMENT G/SA UNIT #016	N MONUMENT G/SA UNIT #010		1	N MONUMENT G/SA UNIT #289	I	N MONUMENT G/SA UNIT #014			N MONUMENT G/SA UNIT #001.		N MONUMENT G/S/	N MONUMENT G/SA UNIT #003		N MONUMENT G/SA UNIT #004Y	EUMONT GAS COM NO 1 #004	N MONUMENT G/SA UNIT #005	1	7		N MONUMENT G/SA UNIT #007			N MONUMENT G/SA UNIT #008	COOPER 5 #007 6 LA PAR MATADOR		. 2	DE MONO IA	-	とうなってのと	MORUNA		アプイ			ろがろ	More	
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# NEW MEXICO ENERGY, MINERALS and NATURAL RESOURCES DEPARTMENT

GARY E. JOHNSON

Governor

Betty Rivera

Cabinet Secretary

Lori Wrotenbery
Director
Oil Conservation Division

Submice Cost Cost,	
Oil Conservation Division	
1220 S. Francis Drive	
Santa Fe, NM 87505	
RE: Proposed: MC	
DHC	
NSLNSP	
SWDWFX	
PMX	
Gentlemen:	
I have examined the application for the:	
Matador Operating Co Copper 4 1-C 4-205-37e Operator Lease & Well No. Unit S-T-R Api #30-025-:	
Operator Lease & Well No. Unit S-T-R Api #30-025-	35791
and my recommendations are as follows:	
and my recommendations are as follows:  The well have construction duta for we are ADR	ll
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_ in flor	
Yours very truly,	
Chri William	
thris Williams Supervisor, District l	