#### STATE OF NEW MEXICO ENERGY AND MINERALS DEPARTMENT

I

## **GIL CONSERVATION DIVISION**

POST OFFICE BOX 2088 STATE LAND OFFICE BUILDING SANTA PE. NEW MEXICO 97501

E'L ODMSERV	FORM C-108 REVISEDON-1-81 69
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ADDI	TCATION	EOB	AUTHORIZATION TO IN	1FCT
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PLIC	ATION FOR AL	ITHORIZATION TO INJECT	111 871 3 BM 8 50 J°
ı.	Purpose: Applica	Secondary Recovery Pressure	Maintenance X Disposal Storage proval? X yes Inu
II.	Operator:	Phillips Petroleum Company	
	Address:	4001 Penbrook Street, Odessa, Te	xas 79762
	Contact pa	rty: Larry M. Sanders	Phone: (915) 368-1488
11.	Well data:		reverse side of this form for each well sheets may be attached if necessary.
IV.		expansion of an existing project? we the Division order number authoriz	
٧.	Attach a m	and that identifies all wells and leas	ses 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:
  - Proposed average and maximum daily rate and volume of fluids to be injected;
  - Whether the system is open or closed;
  - 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
  - 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 geological data on the injection zone including appropriate lithologic detail, geological 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  $10,000 \, \text{mg/l}$  or less) overlying the proposed injection zone as well as any such source known to be immediately underlying the injection interval.
  - IX. Describe the proposed stimulation program, if any.
- Attach appropriate logging and test data on the well. (If well logs have been filed Χ. 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 source 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. \_ Title Supv., Regulation & Proration Name: L. M. Sanders Date: July 1, 1991 Signature:

\* If the information required under Sections VI, VIII, X, and XI above has been previously submitted, it need not be duplicated and resubmitted. Please show the date and circumstance 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:
  - 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.

- 8. 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 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, P. O. Box 2088, Santa Fe, New Mexico 87501 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.

## APPLICATION FOR AUTHORIZATION TO INJECT

## PHILLIPS PETROLEUM COMPANY Livingston Ridge Well No. 9W

## III. WELL DATA (existing)

A. Name, Location, and Wellbore Data

1. Original Name: This well was originally the

Troporo Cabana No. 1. The well was P&A'd in July, 1978 after an unsuccessful plugback attempt from the Strawn to the Bell Canyon (Delaware).

Well location: 990' FSL & 1980' FWL

Sec. 1, T-22-S, R-30-E Eddy County, New Mexico

Proposed Name: Livingston Ridge No. 9W

2. Casing: Surface 13-3/8", 48 lb/ft, H-40, ST&C

set at 475'. (17-1/2" hole.) Cemented with 250 sx Halliburton Lite plus 150 sx Class "C" with

2% CaCl2. Cement circulated.

Intermediate 10-3/4", 51 lb/ft, P-110 set at 3748. (12-1/4" hole.) Cemented

with 1500 sx Halliburton Lite plus 200 sx Class "C". Cement

circulated.

7-5/8" Liner Top to bottom: B&W liner hanger (10') with 7-5/8" tieback at

3663'; 29.7 lb/ft N-80 (4762');
33 lb/ft N-80 (434'); 37 & 39
lb/ft N-80 (1478'); plug
catcher, double float, & guide
shoe (3') at 10,350'. Total
length (3663'-10,350') = 6687'.
(9-1/2" hole.) Cemented with
1250 sx Halliburton Lite with
5# Gilsonite & 1/4 lb Flosal per
sack followed with 200 sx Class
"C" with 1/4 lb Flosal per sack
plus 1% CFR-2. Cement circ-

ulated.

Production Liner Top to bottom: B&W liner hanger

with 5-1/2" tieback a 10,170';

Phillips Petroleum Co. Livingston Ridge No. 9W Proposed Water Disposal Well June 24, 1991 Page 2

> 5-1/2" 17 lb/ft 8rd (781'); 5-1/2" 20 lb/ft X-line (1413'); 4-1/2" 13.5 lb/ft FJ Hydril (1496'). Total length (10,170'-13,950') = 3780'. (6-1/2" hole.) Cemented with 500 sx Halad 22 with 1/4# Flocele per sack & 3# KCl per sack. Cement circulated.

15 sx 0 1 - 15' Cement Plugs 425' - 525' 65 sx 2050' - 2150' 65 sx 65 sx 3588' - 3738' 4839' - 5150' 50 sx 50 sx 7439' - 7650' 10,037' - 10,300' 50 sx 50 sx 11,763' - 12,170'

Bridge Plugs 7-5/8" at 4,950' 5-1/2" at 13,510' 5-1/2" at 13,802'

## (proposed)

3. Injection Tubing: 2-7/8", 6.5 lb/ft, J-55 (internally plastic coated) set at ±12,300'.

4. Injection Packer: Baker Loc-Set Retrievable packer with Baker Model "FL" On/Off tool set at ±12,300'.

## B. Reservoir Data

1. Injection Formation: Strawn

Field Name: Cabin Lake

2. Proposed Injection

Interval: Strawn perfs 12,357'-12,370'

3. Original Intent: oil producer

4. Other Perforated Zones:

Bell Canyon 3884'-3888' 3896'-3900' 3907'-3911' Phillips Petroleum Co. Livingston Ridge No. 9W Proposed Water Disposal Well June 24, 1991 Page 3

Morrow

13,543'-13,556 13,660'-13,670 13,893'-13,905'

5. Productive Zones:

Next Higher

Brushy Canyon ±7450'-±7510'

Next Lower

Morrow

13,543'-13,670'

VI. There are no wells within the 1/2 mile Area of Review which penetrate the proposed injection formation (Strawn):

#### VII. PROPOSED INJECTIONS OPERATIONS

1. Injection Rate:

Average = 500 bwpd

Maximum = to be determined with

a step-rate test.

2. Injection System:

Closed

3. Injection Pressure:

Average = 500 psi

Maximum = 200 psi below

fracture pressure (to be determined with a step-rate

test)

4. Injection Fluid:

Produced water from Phillips' James "A", James "E", Peak View, and Livingston Ridge leases. Chemical analysis of produced water from the James "A", James "E", and Livingston Ridge leases is attached. Also attached is the chemical analysis of a 50/50 mixture of the produced Delaware water and the Strawn formation water from the James "A" No. 1.

## VIII. Geologic Data

- A. Injection Zone
  - 1. Name:

Strawn

Phillips Petroleum Co. Livingston Ridge No. 9W Proposed Water Disposal Well June 24, 1991 Page 4

## 2. Description:

Injection will be into the Strawn formation through perforations 12,357'-12,370'. The Strawn is a limestone formation with a gross thickness of 92' and a net porosity thickness of 13'. The depth to the top of the Strawn is 12,356'.

#### B. Fresh Water Sources

There are no underground sources of drinking water above or below the Strawn formation.

#### IX. PROPOSED STIMULATION PROGRAM

The Strawn formation will be treated through perforations 12,357'-12,370' with approximately 1,500 gallons of 15% NEFe HCl acid.

## X. LOGGING DATA

Well logs for this well have been filed with the Division.

#### XI. FRESH WATER ANALYSIS

There are no underground sources of fresh water within 1 mile of the Livingston Ridge No. 9W well location.

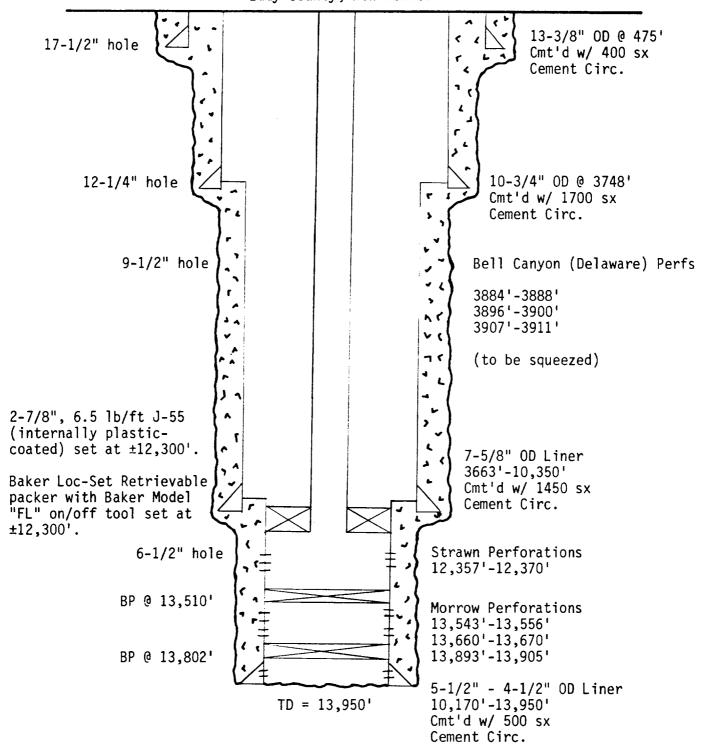
## XII. PROOF OF NOTICE

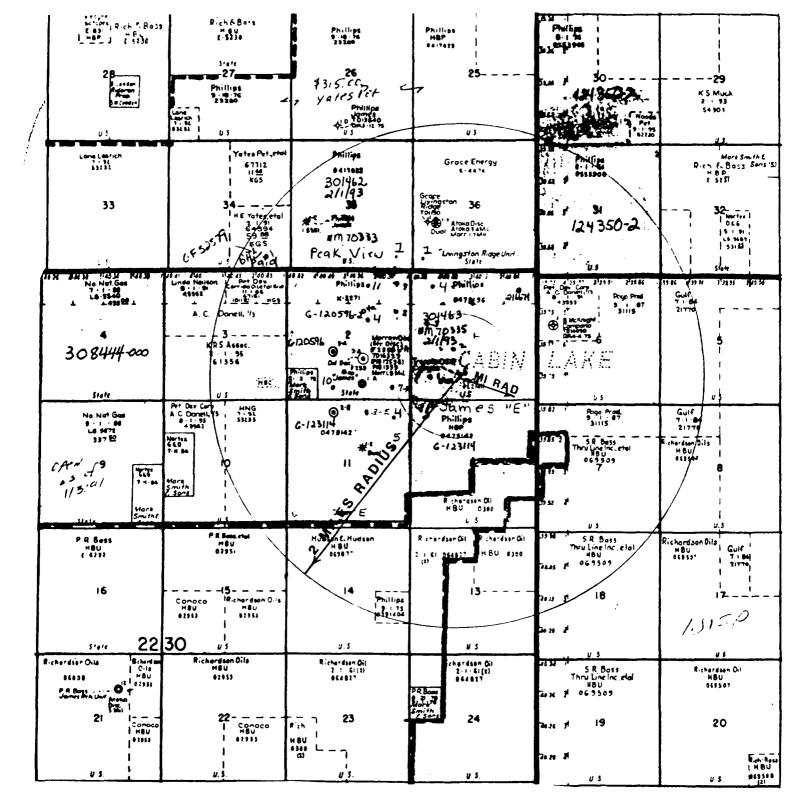
A copy of this application has been furnished to the land owner (Bureau of Land Management) of the land on which the Livingston Ridge No. 9W is located.

## ATTACHMENT NO. 1

## PHILLIPS PETROLEUM COMPANY

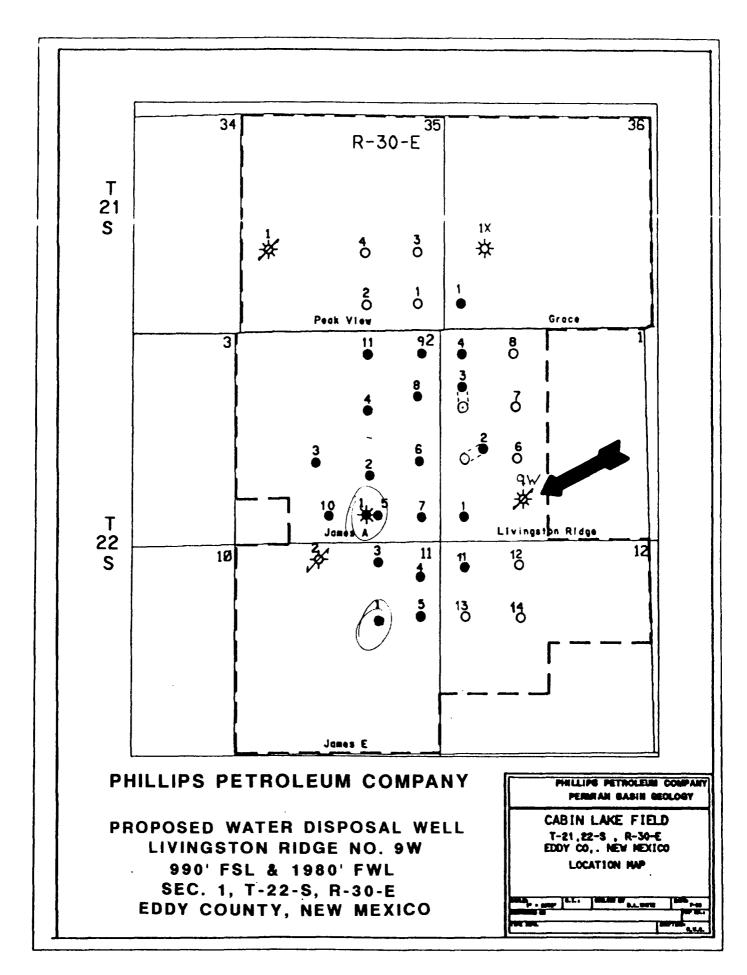
Livingston Ridge No. 9W Proposed Water Disposal Well 990' FSL & 1980' FWL Section 1, T22S, R30E Eddy County, New Mexico





2 MILE RADIUS
OF PROPOSED WATER DISPOSAL

PHILLIPS PETROLEUM COMPANY
LIVINGSTON RIDGE NO. 9W



ATTACHMENT NO. 3

## ATTACHMENT NO. 4



## Petrolite Oil Field Chemicals Group

16010 Barker's Point Lane • Houston, Texas 77079 (713) 558-5200 • Telex 4620346 • Fax (713) 588-4737

Reply to: P.O. Box 5250

Hobbs, New Mexico 88241

Phone: (505) 392-6711 Fax: (505) 392-3759

## WATER ANALYSIS REPORT

: PHILLIPS PETROLEUM Company Address

Date : 05/23/91

: JAMES A Lease

Date Sampled: 05/22/91 Analysis No.: 1

: BATTERY (PROD) Well

: HEATER Sample Pt.

	ANALYSIS		mg/L		* meq/L
1.	рн_ 5.5				
2.	H2S 0				
3.	Specific Gravity 1.185				
4.	Total Dissolved Solids		267561.9		
5.	Suspended Solids				
6.	Dissolved Oxygen				
7.	Dissolved CO2		280		
8.	Oil In Water				
9.	Phenolphthalein Alkalinity	(CaCO3)			
10.	Methyl Orange Alkalinity (C	acos)			
11.	Bicarbonate	HCO3	61.0	HCO3	1.0
12.	Chloride	Cl	171039.0	Cl	4824.8
13.	Sulfate	S04	1875.0	504	39.0
14.	Calcium	Ca	61240.0	Ca	3055.9
15.	Magnesium	Mg	9246.0	Mg	760.7
16.	Sodium (calculated)	Na	24099.9	Na	1048.3
17.	Iroņ	Fe	1.0		
18.	Barium	Ba	0.0		
19.	Strontium	Sr	0.0		
20.	Total Hardness (CaCO3)		191000.0		

## PROBABLE MINERAL COMPOSITION

*milli equivalents per Liter	,	Compound	Equiv wt	X meq/L	= mg/L
3056 *Ca < *HCO3 /> 761 *Mg> *S04 // 1048 *Na> *Cl Saturation Values Dist. Water	39 4825	Ca (HCO3) 2 CaSO4 CaC12 Mg (HCO3) 2 MgSO4 MgC12 NaHCO3	81.0 68.1 55.5 73.2 60.2 47.6 84.0	1.0 39.0 3015.8 760.7	81 2657 167349 36212
CaSO4 * 2H2O 2090 mg	//L	Na2SO4 NaCl	71.0 58.4	1048.3	61261

REMARKS:

S. HOLLINGER / R. ALLISON / FILE

Petrolite Oilfield Chemicals Group

Respectfully submitted, STEVE TIGERT



## Petrolite Oil Field Chemicals Group

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Reply to: P.O. Box 5250 Hobbs, New Mexico 88241

Phone: (505) 392-6711 Fax: (505) 392-3759

## WATER ANALYSIS REPORT -----

Company : PHILLIPS PETROLEUM Date : 05/23/91 Date Sampled : 05/22/91 Analysis No. : 1 Address Lease : JAMES E

Well : BATTERY (PROD) : HEATER

Sample Pt.

	ANALYSIS		mg/L		* meq/L
1.	рН 5,9				
2.	H2S 2 PPM				
3.	Specific Gravity 1,195				
4. 5.	Total Dissolved Solids		266928.2		
5.	Suspended Solids				
6. 7.	Dissolved Oxygen				
/•	Dissolved CO2		200		
8.	Oil In Water  Bhanolabthalain Alkalinian				
10.	Phenolphthalein Alkalinity (Camethyl Orange Alkalinity (Ca	(Cacos)			
11.	Bicarbonate		110 0		
12.	Chloride	HCO3 Cl	110.0 171891.0	нсоз	1.8
	Sulfate	504	1875.0	Cl 504	4848.8 39.0
14.	Calcium	Ca	65080.0	Ca	3247.5
15.	Magnesium	Mg	11045.9	Mg	908.8
16.	Sodium (calculated)	Na	16861.3	Na	733.4
17.	Iron	Fe	65.0		, , , , ,
18.	Barium	Ba	0.0		
19.	Strontium (Second	Sr	0.0		
20.	Total Hardness (CaCO3)		208000.0		

# PROBABLE MINERAL COMPOSITION

*milli equivalents per Liter	Compound	Equiv wt	X meq/L	= mg/L
3248	Ca (HCO3) 2 Ca5O4 CaC12 Mg (HCO3) 2 MgSO4	81.0 68.1 55.5 73.2 60.2	1.8 39.0 3206.7	146 2657 177937
Saturation Values Dist. Water 20 C CaCO3 13 mg/L	MGC12 NaHCO3 Na2SO4	47.6 84.0 71.0	908.8	43261
CaSO4 * 2H2O 2090 mg/L BaSO4 2.4 mg/L	NaCl	58.4	733.4	42861

REMARKS:

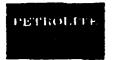
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----- 8. HOLLINGER / R. ALLISON / FILE

Petrolite Oilfield Chemicals Group

Respectfully submitted, STEVE TIGERT

TREFOLITE " Chemicals and Service



## Petrolite Oil Field Chemicals Group

18010 Barker's Point Lane • Houston, Texas 77079 (713) 558-5200 • Telex 4820348 • Fax (713) 588-4737

Reply to: P.O. Box 5250

Hobbs, New Mexico 88241

Phone: (505) 392-6711 Fax: (505) 392-3759

## WATER ANALYSIS REPORT

: PHILLIPS PETROLEUM Date : 05/23/91 Company Address Date Sampled: 05/22/91 : LIVINGSTON RIDGE Analysis No. : 1

Lease : BATTERY (PROD) Well

: HEATER Sample Pt.

	ANALYSIS		mg/L		* meq/L
1.	pH 6.7 H2S 4 PPM				
3.	Specific Gravity 1.070				
4.	Total Dissolved Solids		107667.8		
4. 5. 6.	Suspended Solids Dissolved Oxygen				
7.	Dissolved CO2		140		
8.	Oil In Water		2		
9.	Phenolphthalein Alkalinity	(CaCO3)			
10. 11.	Methyl Orange Alkalinity (Ca Bicarbonate	HCO3	134.0	нсоз	2.2
	Chloride	Cl	66456.0	Cl	1874.6
13.	Sulfate	<b>504</b>	3500.0	<b>5</b> 04	72.9
14.	Calcium	Ca	22960.0	Ca V~	1145.7
15. 16.	Magnesium Sodium (calculated)	Mg Na	4338.6 10278.3	Mg Na	356.9 447.1
17.	Iron	Fe	0.9		44775
18.	Barium	Ba	0.0		
19.	Strontium	sr	0.0		
20.	Total Hardness (CaCO3)		75200.0		

## PROBABLE MINERAL COMPOSITION

*milli equivalents per Liter	Compound	Equiv wt	X meq/L	= mg/L
1146 *Ca < *HCO3 2 357 *Mg> *SO4 73 447 *Na> *Cl 1875  Saturation Values Dist. Water 20 C CaCO3 13 mg/L	Ca (HCO3) 2 CaSO4 CaC12 Mg (HCO3) 2 MgSO4 MgC12 NaHCO3 Na2SO4	81.0 68.1 55.5 73.2 60.2 47.6 84.0 71.0	2.2 72.9 1070.6	178 4961 59409
CaSO4 * 2H2O 2090 mg/L BaSO4 2.4 mg/L	NaCl	58.4	447.1	26127

REMARKS:

s. Hollinger / R. Allison / File

Petrolite Oilfield Chemicals Group

Respectfully submitted, STEVE TIGERT



## Petrolite Oil Field Chemicals Group

16010 Barker's Point Lane • Houston, Texas 77079 (713) 558-5200 • Telex 4620348 • Fax (713) 589-4737

Reply to: P.O. Box 5250 Hobbs, New Mexico 88241

Phone: (505) 392-6711 Fax: (505) 392-3759

## WATER ANALYSIS REPORT

Company : PHILLIPS PETROLEUM : 05/23/91 Date Address Date Sampled: 05/22/91 Lease Analysis No. : 1

: JAMES A, E, & : LIVINGSTON RIDG COM Well

Sample Pt. : HEATER (ALL)

	ANALYSIS		mg/L		* meg/L
1.	pH_ 5.9				_,,
2. 3.	H28 1 PPM				
4.	Specific Gravity 1.150 Total Dissolved Solids		229079.1		
3.	Suspended Solids		229079.1		
6.	Dissolved Oxygen				
7.	Dissolved CO3		160		
8. 9.	Oil In Water  Bhanolphthelein Alkalinitus	'a- aaa			
10.	Phenolphthalein Alkalinity (Methyl Orange Alkalinity (Ca	Cacos)			
11.	Bicarbonate	HC03	98.0	HCO3	1.6
12.	Chloride	Cl	139941.0	Cl	3947.6
13.	Sulfate	SO4	2250.0	<u>5</u> 04	46.9
14. 15.	Calcium Magnesium	Ca	72600.0	Ca	3622.8
16.	Sodium (calculated)	Mg Na	-6290.8 20479.9	Mg Na	-517.5 890.8
17.	Iron	Fe	1.0	•••	090.0
18.	Barium	Ba	0.0		
19.	Strontium	sr	0.0		
20.	Total Hardness (CaCO3)		155400.0		

## PROBABLE MINERAL COMPOSITION

*milli equivalents per Liter		Compound	Equiv wt	X meq/L	- mg/L
3623	2 47 3948	Ca (HCO3) 2 CaSO4 CaC12 Mg (HCO3) 2 MgSO4 MgC12	81.0 68.1 55.5 73.2 60.2 47.6	1.6 46.9 3574.3	130 3189 198338
Saturation Values Dist. Water CaCO3 13 mg/I CaSO4 * 2H2O 2090 mg/I BaSO4 2.4 mg/I	ن د	NaHCO3 Na2SO4 NaCl	84.0 71.0 58.4	373.3	21814

REMARKS:

S. HOLLINGER / R. ALLISON / FILE

Petrolite Oilfield Chemicals Group

Respectfully submitted, STEVE TIGERT



. 1

## Petrolite Oil Field Chemicals Group

16010 Barker's Point Lane • Houston, Texas 77079 (713) 558-5200 • Telex 4620346 • Fax (713) 589-4737

Reply to: P.O. Box 5250

Hobbs, New Mexico 88241

Phone: (505) 392-6711 Fax: (505) 392-3759

# WATER ANALYSIS REPORT

: PHILLIPS PETROLEUM Date : 05/23/91 Company Address Lease

Date Sampled : 05/23/91 Analysis No. : 1

: JAMES A, E, A #1, : LIVINGSTON RIDG COM

Well Sample Pt. : HEATER

	ANALYSIS		mg/L		* meq/L
1.	pH 5.5 H2s 0				
3.	Specific Gravity 1.18	0			/
4.	Total Dissolved Solids Suspended Solids	•	176602.1		
5. 6.	Dissolved Oxygen				
7.	Dissolved CO2		200		
8.	Oil In Water				
9.	Phenolphthalein Alkalinity	(CaCO3)			
10.	Methyl Orange Alkalinity (	CaCO3)			
11.	Bicarbonate	HCO3	61.0	HCO3	1.0
11. 12. 13.	Chloride	Cl	113316.0	Cl	3196.5
13.	Sulfate	804	2250.0	804	46.9
14. 15. 16.	Calcium	Ca	38680.0	Ca	1930.1
15.	Magnesium	Mg	8939.5	Mg	735.5
16.	Sodium (calculated)	Na	13305.6	Na	578.8
17. 18.	Iron	F•	50.0		
18.	Barium	Ba	0.0		
19.	strontium	sr	0.0		
20.	Total Hardness (CaCO3)		133400.0		

## PROBABLE MINERAL COMPOSITION

*milli equivalents per Liter	Compound	Equiv wt	X meq/L	= mg/L
1930 *Ca < *HCO3 1	Ca (HCO3) 2 CaSO4	81.0 68.1	1.0 46.9	81 3189
735 *Mg> *S04 47> 579 *Na> *C1 3197	CaCl2 Mg (HCO3) 2 MgSO4	55.5 73.2 60.2	1882.3	104448
Saturation Values Dist. Water 20 C	MgCl2 NaHCO3	47.6 84.0	735.5	35012
CaCO3 13 mg/L CaSO4 * 2H2O 2O90 mg/L BaSO4 2.4 mg/L	Na2SO4 NaCl	71.0 58.4	578.8	33823

**REMARKS:** 

S. HOLLINGER / R. ALLISON / FILE

Petrolite Oilfield Chemicals Group

Respectfully submitted, STEVE TIGERT

TREFCLIFE " Chemicals and Service

# Affidavit of Publication

No	<b>No.</b> 13560		
STATE OF NEW MEXICO,			
County of Eddy:			
Gary D. Scott	being duly		
sworn, says: That he is the Publishe	rof The		
Artesia Daily Press, a daily newspaper	of general circulation,		
published in English at Artesia, said cou	inty and state, and that		
the hereto attached Legal Notice	<u> </u>		
was published in a regular and entire is Daily Press, a daily newspaper duly que within the meaning of Chapter 167 of th	alissed for that purpose		
the state of New Mexico for 1	days consecutive weeks on		
the same day as follows:			
First Publication_ June 7, 1991			
Second Publication			
Third Publication			
Fourth Publication	?		
Many WX	lott		
Subscribed and sworn to before me this	7th day		
of	<u>June 1991</u>		
	,		

My Commission expires September 23, 1991

Notary Public, Eddy County, New Mexico

# Copy of Publication

#### LEGAL NOTICE

Notice is hereby given of the application of Phillips Petroleum Company, 4001 Penbrook Street, Odessa, Texas, 79762, Attention L.M. Sanders, 915/368-1488, to the Oil Conservation-Division, New Mexico Energy and Mineral Department, for approval of the following disposal well authorisation for the purpose of salt water disposal:

Well Name: Livingston Ridge Well No. 9W

Location: 990 feet from the south line and 1980 feet from the west line, Sec. 1, T-22-S, R-30-E, Eddy County, New Mexico

The disposal formation is Strawn at a depth of 12357'-12370' below the surface of the ground.

Expected maximum injection rate is 2000 bbls. water, per day and expected maximum injection pressure is 2000 pounds per sonare inch.

pounds per square inch.
Interested parties must file objections or requests for hearing with the Oil Conservation Division, P.O. Box 2088, Santa Fe, New Mexico, 87501 within fifteen (15) days.
Published in the Artesia Daily

Published in the Artesia Daily Press, Artesia, N.M. June 7, 1991.

Legal 13560

Reserved

'JUN 1 0 1991

P.B.R. Regulatory Section

# ATTACHMENT NO. 5 Notification

I hereby certify that a complete copy of this application was sent by certified mail to the below listed persons on July 1, 1991.

Signed:

Name: Title:

Date:

. M. Sanders

Supervisor, Regulation & Proration

Offset Operator:

Yates Petroleum Corporation 105 S. Fourth St. Artesia, NM 88210

Surface Owner:

United States Department of the Interior Bureau of Land Management P. O. Box 1397 Roswell, NM 88201

PS Form 3811, July 1983 447-845	Put your address in the "RETURN TO" space on the reverse side. Failure to do this will prevent this card from being returned to you. The return receipt fee will provide you the name of the person delivered to and the date of delivery. For additional fees the following services are available. Consult postmaster for fees and check box(es) for service(s) requested.  1. XXShow to whom, date and address of delivery.  2. Restricted Delivery.				
45	3. Article Addressed to: Yates Petroleum Corporation 105 S. Fourth St. Artesia, New Mexico 88210				
	4. Type of Service:	Article Number			
	Registered Insured  XX Certified COD  Express Mail	P-512 089 421			
	Always obtain signature of ac DATE DELIVERED.	rs obtain signature of addressee or agent and EDELIVERED.			
DOM	5. Signature – Addressee X				
ESTIC	6. Signature - Agent X				
RETU	7. Date of Delivery				
DOMESTIC RETURN RECEIPT	8. Addressee's Address (ONLY if requested and fee paid)				

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Yates Petroleum Corp. 105 S. Fourth St. Artesia, New Mexico 88210

P-512 DA9 421

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S	SENDER: Complete items 1, 2, 3 and 4.					
PS Form 3811, July 1983 447-845	Put your address in the "RETURN TO" space on the reverse side. Failure to do this will prevent this card from being returned to you. The return receipt fee will provide you the name of the person delivered to and the date of delivery. For additional fees the following services are available. Consult postmaster for fees and check box(es) for service(s) requested.					
983	1. XX Show to whom, date and address of delivery.					
447-8	2. Restricted Delivery.					
45	3. Article Addressed to: United States Dept Bureau of Land Man P. O. Box 1397 Roswell, New Mexic	nagement				
	4. Type of Service:	Article Number				
	Registered Insured X Certified COD Express Mail	P-512 089 422				
	Always obtain signature of addressee or agent and DATE OFLIVERED.					
DOM	5. Signature – Addressee X					
DOMESTIC	6. Signature - Agent X					
RETU	7. Date of Delivery					
RETURN RECEIPT	8. Addressee's Address (ONLY if requested and fee paid)					

Bureau Of Land Management P. O. Box 1397 Roswell, N.M. 88201

P-512 087 422

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