DATE IN	SUSPENSE	ENGINEER	LOGGED IN	TYPE	APP NO.
2/17/2014		PRG	2/18/2014	SWD 1499	pMAM1404860446

ABOVE THIS LINE FOR DIVISION USE ONLY

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

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 X SWD ☐ IPI ☐ EOR ☐ PPR

[D] Other: Specify _____

-SWD
-YATES Petroleum Corp
25575
well
-Satchmo SWD#1
30-015-Pending

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

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

[B] X Offset Operators, Leaseholders or Surface Owner

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

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

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

[F] ☐ Waivers are Attached

Pool
-SWD Delaware

[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.

Margrethe F. Hotter		Area Engineer	2/5/14
Print or Type Name	Signature	Title	Date

mhotter@yatespetroleum.com
e-mail Address

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: _____Secondary Recovery _____Pressure Maintenance _____x___Disposal _____Storage
Application qualifies for administrative approval? _____x_____Yes _____No

II. OPERATOR: _____Yates Petroleum Corporation_____

ADDRESS: ____105 S. 4th St, Artesia, NM 88210_____

CONTACT PARTY: ____Margrethe F. Hotter_____PHONE: __575-748-4165_____

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: _____Margrethe F. Hotter_____TITLE: __Area Engineer_____

SIGNATURE: _____DATE: _1/31/14_____

E-MAIL ADDRESS: ____mhotter@yatespetroleum.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

Side 2

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.

C-108 Application for Authorization to Inject
Yates Petroleum Corporation
Satchmo SWD St #1
Unit B, 330' FNL & 1980' FEL, Sec. 36, T25S, R31E
Eddy County, New Mexico

I. **The purpose of drilling this well is to make a disposal well for produced Bone Springs and Delaware water into the Delaware Sand formation. The Application qualifies for administrative approval.**

Yates Petroleum Corporation plans to drill this well as a water disposal well into the Delaware Sand.

II. **Operator:** **Yates Petroleum Corporation**
105 South Fourth Street
Artesia, NM 88210
Margrethe Hotter (575) 748-4165

III. **Well Data:** **See Attachment A**

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

V. **See attached map, Attachment B.**

VI. **There are no other wells within the area of review.**

VII. **1. Proposed average daily injection volume approximately 5000 BWPD. Maximum daily injection volume approximately 10000 BWPD.**

2. This will be a closed system.

3. Proposed average injection pressure –unknown.
Proposed maximum injection pressure – 990 psi. 900psig/with 0.2 gradient

4. Sources of injected water would be produced water from the Delaware and Bone Springs. (Attachment D)

VIII. **1. The proposed injection interval is the portion of the Delaware Sand formation consisting of porous Sandstone from 4,500'-6,770.**

Ground water maps over the area indicate that fresh water sources have been encountered in aquifers down to a depth of 300'-400'. There are no fresh water zones underlying the formation.

IX. The proposed disposal interval may be acidized with 7-1/2% HCL acid, or proppant fractured.

X. Well logs will be filed with the Division after well is drilled. GR Neutron will be run from TD to surface. Density and Laterolog will be run from TD to Intermediate casing shoe. CBL log will be run after casing is set and cemented.

XI. There are no windmills or water wells within a one-mile radius of the subject location.

XII. Yates Petroleum Corporation has examined geologic and engineering data and has found that there is no evidence of faulting in the proposed interval. (Attachment G)

XIII. Proof of notice.

A. Certified letters sent to the surface owner and offset operators attached (Attachment E)

B. Copy of legal advertisement attached. (Attachment F)

XIV. Certification is signed.

Yates Petroleum Corporation
Satchmo SWD St #1
B-36-T25S-R31E
Eddy County, New Mexico

Attachment A

III. Well Data

A. 1. Lease Name/Location
Stachmo SWD St #1
B-36-T25S-R31E
330' FNL & 1980' FEL
Will apply for APD when C-108 is approved.

2. Casing Strings:
a. 13 3/8" 48# J-55 ST&C @t +/-1165' w 880 sxs (circ)
9 5/8" 36# & 40# J-55 LT&C @ +/-4,450' w/1465 sxs (circ)
7" 26# L-80 LT&C @ 6,900' w/730 sx (circ).

b. Present Status:
Not yet drilled.

3. Proposed well condition:
Plan to drill well and set casing as described above.
Perforate porous sands between 4,500'-6,770'
3 ½" 9.3 J55 plastic-coated injection tubing @ 4,400'

4. Propose to use Guiberson or Baker plastic-coated or nickel-plated packer set at 4,400'.

B. 1. Injection Formation: Delaware Bell and Cherry Canyon Sands

2. Injection Interval will be through perforations from approximately 4,500'-6,770' gross interval. & Bone Spring

3. Well will be a Delaware water disposal well when work is completed.

4. Perforations: High porosity sands between 4,500'-6,770'.

5. Next higher (shallower) oil or gas zone within 2 miles- no shallower production within 2 miles
Next lower (deeper) oil or gas zone within 2 miles- Bone Springs

WELL NAME: Satchmo SWD St #1 **FIELD**: Delaware SWD well

LOCATION: 330' FNL & 1980' FEL of Section 36-25S-31E Eddy Co., NM

GL: 3,312' (est) **ZERO**: **KB**: 3,337' (est)

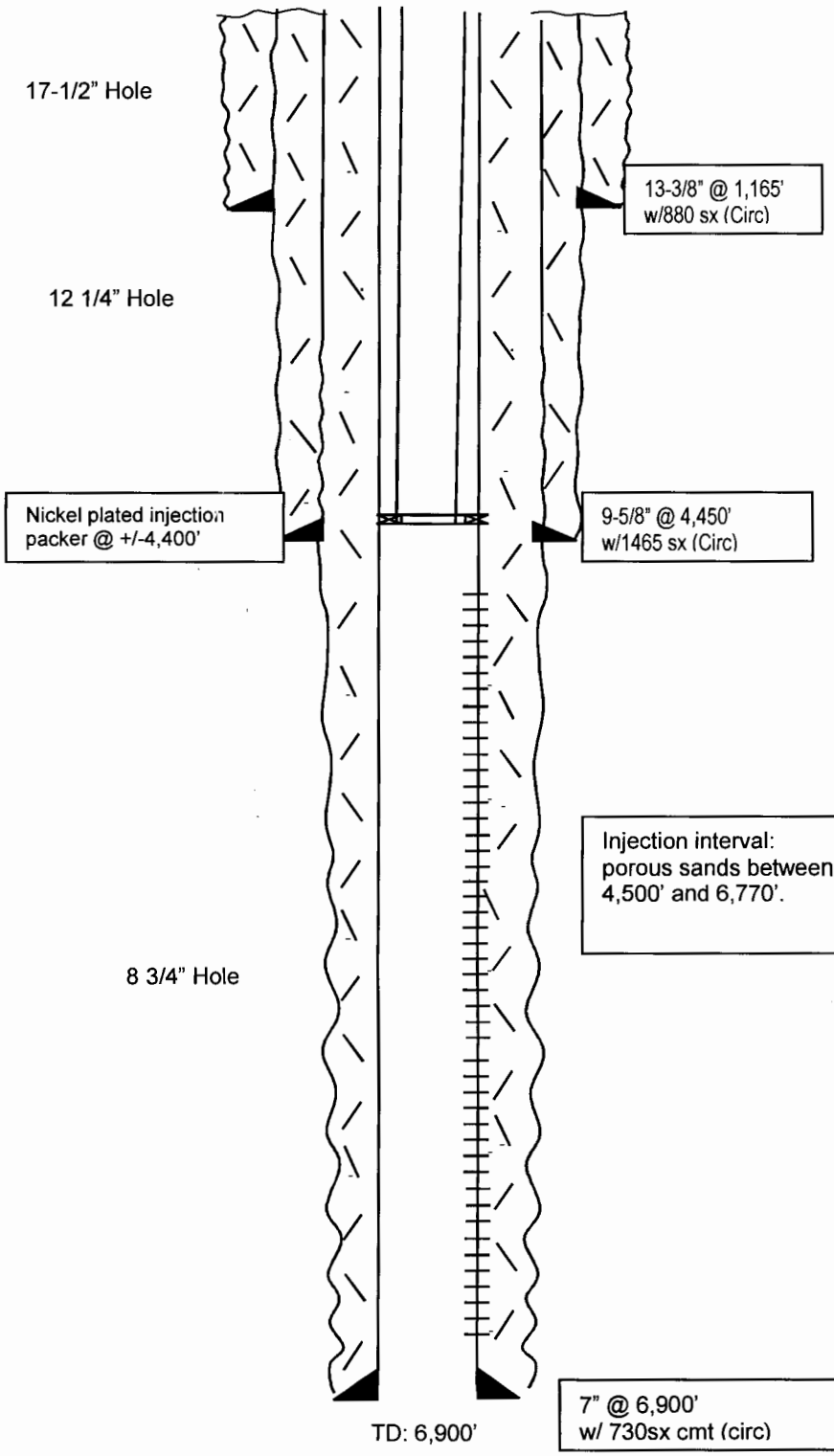
SPUD DATE: **COMPLETION DATE**:

COMMENTS: New drill.

APD application will be filed after approval of C-108

CASING PROGRAM

13-3/8"48# J-55 ST&C	**1,165'**
9-5/8" 36# & 40# J-55 LT&C	**4,450'**
7" 26 # L-80 LT&C	**6,900'**



Proposed

Bebop BPE St

30-015-37551

TOPS	
Rustler	1,140'
Salado	1,460'
BOS	4,205'
Lamar	4,440'
Bell Canyon	4,460'
Cherry Canyon	5,430'

4060 (145)

4337 (123)

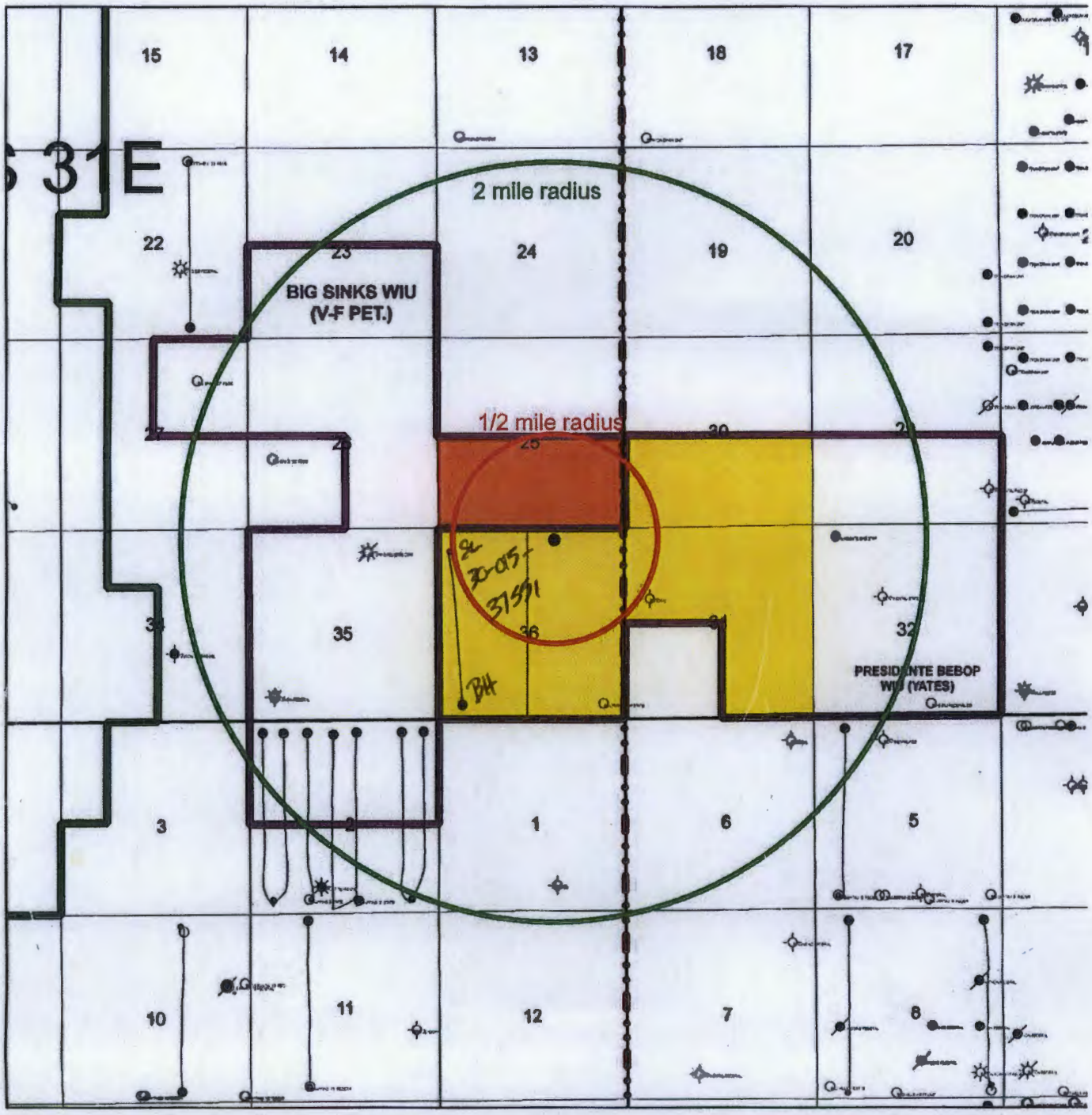
5301 (129)

Brushy + bell BS 8357

30-015-37551

36

Not to Scale
1/31/14
MMFH



Yates Petroleum Corporation

V.F. Petroleum Inc.,

Yates Petroleum Corporation		
Eddy County, NM Plat: 36 – 25S – 31E		
Author: Nick M.		Date: 9 January, 2014
Vp	Scale:	Permian Basin- vpnm 36-25-31.

Attachment B

North Permian Basin Region
P.O. Box 740
Sundown, TX 79372-0740
(806) 229-8121
Lab Team Leader - Sheila Hernandez
(432) 681-8300

Water Analysis Report by Baker Petrolite

Company:	YATES PETROLEUM INC	Sales RDT:	33514.1
Region:	PERMIAN BASIN	Account Manager:	TONY HERNANDEZ (575) 910-7135
Area:	ARTESIA, NM	Sample #:	661516
Lease/Platform:	JEFE "BSJ" FED COM	Analysis ID #:	139373
Entity (or well #):	1H	Analysis Cost:	$90.00
Formation:	UNKNOWN BONE SPRING SAND		
Sample Point:	SEPARATOR		

Summary	
Sampling Date:	01/13/14
Analysis Date:	01/16/14
Analyst:	SANDRA SANCHEZ
TDS (mg/l or g/m3):	131962.5
Density (g/cm3, tonne/m3):	1.096
Anion/Cation Ratio:	0.9153422
Carbon Dioxide:	150 PPM
Oxygen:	
Comments:	

Analysis of Sample 661516 @ 75 °F

Anions	mg/l	meq/l	Cations	mg/l	meq/l
Chloride:	**82781.0**	**2334.95**	**Sodium:**	**39201.0**	**1705.15**
Bicarbonate:	**170.0**	**2.79**	**Magnesium:**	**877.0**	**72.15**
Carbonate:	**0.0**	**0.**	**Calcium:**	**6860.0**	**342.32**
Sulfate:	**725.0**	**15.09**	**Strontium:**	**479.0**	**10.93**
Phosphate:			**Barium:**	**4.0**	**0.06**
Borate:			**Iron:**	**84.0**	**3.04**
Silicate:			Potassium:	779.0	19.92
			Aluminum:		
Hydrogen Sulfide:		0 PPM	Chromium:		
pH at time of sampling:		5.3	Copper:		
pH at time of analysis:			Lead:		
pH used in Calculation:		**5.3**	Manganese:	2.500	0.09
			Nickel:		

Conditions		Values Calculated at the Given Conditions - Amounts of Scale in lb/1000 bbl										
Temp	Gauge Press.	Calcite $CaCO_3$		Gypsum $CaSO_4*2H_2O$		Anhydrite $CaSO_4$		Celestite $SrSO_4$		Barite $BaSO_4$		CO_2 Press
°F	psi	Index	Amount	Index	Amount	Index	Amount	Index	Amount	Index	Amount	psi
80	0	-0.98	0.00	-0.34	0.00	-0.35	0.00	0.25	93.42	1.28	2.16	6.07
100	0	-0.89	0.00	-0.40	0.00	-0.34	0.00	0.23	88.18	1.09	1.85	7.57
120	0	-0.79	0.00	-0.44	0.00	-0.31	0.00	0.23	86.33	0.93	1.85	9.08
140	0	-0.68	0.00	-0.48	0.00	-0.25	0.00	0.23	87.56	0.78	1.85	10.54
160	0	-0.57	0.00	-0.50	0.00	-0.17	0.00	0.24	91.26	0.66	1.85	11.9
180	0	-0.44	0.00	-0.52	0.00	-0.08	0.00	0.26	96.50	0.56	1.54	13.09
200	0	-0.31	0.00	-0.54	0.00	0.03	19.42	0.28	102.97	0.48	1.54	14.08
240	10	-0.03	0.00	-0.56	0.00	0.27	148.91	0.33	116.85	0.36	1.23	15.39

Note 1: When assessing the severity of the scale problem, both the saturation index (SI) and amount of scale must be considered.

Note 2: Precipitation of each scale is considered separately. Total scale will be less than the sum of the amounts of the five scales.

Note 3: The reported CO2 pressure is actually the calculated CO2 fugacity. It is usually nearly the same as the CO2 partial pressure.

Attachment D: Examples of water to be injected

Avalon Shale

North Permian Basin Region
P.O. Box 740
Sundown, TX 79372-0740
(806) 229-8121
Lab Team Leader - Sheila Hernandez
(432) 495-7240

Water Analysis Report by Baker Petrolite

Company:	YATES PETROLEUM INC	Sales RDT:	33514.1
Region:	PERMIAN BASIN	Account Manager:	TONY HERNANDEZ (575) 910-7135
Area:	ARTESIA, NM	Sample #:	561784
Lease/Platform:	BE BOP BPE STATE COM	Analysis ID #:	112531
Entity (or well #):	1 H	Analysis Cost:	$90.00
Formation:	UNKNOWN BONESPRING AVALON SHALE		
Sample Point:	FWKO		

Summary	
Sampling Date:	09/09/11
Analysis Date:	09/21/11
Analyst:	SANDRA GOMEZ
TDS (mg/l or g/m3):	109484.9
Density (g/cm3, tonne/m3):	1.073
Anion/Cation Ratio:	1
Carbon Dioxide:	550 PPM
Oxygen:	
Comments:	
RESISTIVITY 0.075 OHM-M @ 75F	

Analysis of Sample 561784 @ 75 F

Anions	mg/l	meq/l	Cations	mg/l	meq/l
Chloride:	**63081.0**	**1779.29**	**Sodium:**	**40586.3**	**1765.4**
Bicarbonate:	**2318.0**	**37.99**	**Magnesium:**	**193.0**	**15.88**
Carbonate:	**0.0**	**0.**	**Calcium:**	**1031.0**	**51.45**
Sulfate:	**1587.0**	**33.04**	**Strontium:**	**87.0**	**1.99**
Phosphate:			**Barium:**	**0.4**	**0.01**
Borate:			**Iron:**	**21.0**	**0.76**
Silicate:			Potassium:	580.0	14.83
			Aluminum:		
Hydrogen Sulfide:		0 PPM	Chromium:		
pH at time of sampling:		7	Copper:		
pH at time of analysis:			Lead:		
pH used in Calculation:		**7**	Manganese:	0.200	0.01
			Nickel:		

Conditions		Values Calculated at the Given Conditions - Amounts of Scale in lb/1000 bbl										
Temp	Gauge Press.	Calcite $CaCO_3$		Gypsum $CaSO_4*2H_2O$		Anhydrite $CaSO_4$		Celestite $SrSO_4$		Barite $BaSO_4$		CO_2 Press
F	psi	Index	Amount	Index	Amount	Index	Amount	Index	Amount	Index	Amount	psi
80	0	1.07	237.63	-0.72	0.00	-0.74	0.00	-0.02	0.00	0.76	0.31	1.91
100	0	1.14	262.81	-0.78	0.00	-0.73	0.00	-0.04	0.00	0.56	0.31	2.56
120	0	1.20	289.25	-0.83	0.00	-0.70	0.00	-0.06	0.00	0.39	0.00	3.37
140	0	1.26	316.32	-0.87	0.00	-0.65	0.00	-0.06	0.00	0.25	0.00	4.38

Note 1: When assessing the severity of the scale problem, both the saturation index (SI) and amount of scale must be considered.

Note 2: Precipitation of each scale is considered separately. Total scale will be less than the sum of the amounts of the five scales.

Note 3: The reported CO2 pressure is actually the calculated CO2 fugacity. It is usually nearly the same as the CO2 partial pressure.

/Avalon shale

North Permian Basin Region
P.O. Box 740
Sundown, TX 79372-0740
(806) 229-8121
Lab Team Leader - Sheila Hernandez
(432) 495-7240

Water Analysis Report by Baker Petrolite

Company:	YATES PETROLEUM INC	Sales RDT:	33514.1
Region:	PERMIAN BASIN	Account Manager:	TONY HERNANDEZ (575) 910-7135
Area:	ARTESIA, NM	Sample #:	561782
Lease/Platform:	PRESEDENTE BPO STATE	Analysis ID #:	112533
Entity (or well #):	1 H	Analysis Cost:	$90.00
Formation:	UNKNOWN BONE SPRING AVALON SHALE		
Sample Point:	HEATER TREATER		

Summary	
Sampling Date:	09/09/11
Analysis Date:	09/21/11
Analyst:	SANDRA GOMEZ
TDS (mg/l or g/m3):	176734.1
Density (g/cm3, tonne/m3):	1.118
Anion/Cation Ratio:	1
Carbon Dioxide:	600 PPM
Oxygen:	
Comments:	
RESISTIVITY 0.048 OHM-M @ 75℉	

Analysis of Sample 561782 @ 75 ℉

Anions	mg/l	meq/l	Cations	mg/l	meq/l
Chloride:	**105349.0**	**2971.51**	**Sodium:**	**63429.1**	**2759.01**
Bicarbonate:	**1220.0**	**19.99**	**Magnesium:**	**736.0**	**60.55**
Carbonate:	**0.0**	**0.**	**Calcium:**	**3390.0**	**169.16**
Sulfate:	**1367.0**	**28.46**	**Strontium:**	**247.0**	**5.64**
Phosphate:			**Barium:**	**0.7**	**0.01**
Borate:			**Iron:**	**14.0**	**0.51**
Silicate:			Potassium:	981.0	25.09
			Aluminum:		
Hydrogen Sulfide:		0 PPM	Chromium:		
pH at time of sampling:		6.5	Copper:		
pH at time of analysis:			Lead:		
pH used in Calculation:		**6.5**	Manganese:	0.300	0.01
			Nickel:		

Conditions		Values Calculated at the Given Conditions - Amounts of Scale in lb/1000 bbl										
Temp	Gauge Press.	Calcite $CaCO_3$		Gypsum $CaSO_4 * 2H_2O$		Anhydrite $CaSO_4$		Celestite $SrSO_4$		Barite $BaSO_4$		CO_2 Press
℉	psi	Index	Amount	Index	Amount	Index	Amount	Index	Amount	Index	Amount	psi
80	0	0.88	139.88	-0.37	0.00	-0.35	0.00	0.18	48.40	0.74	0.30	2.86
100	0	0.96	152.86	-0.45	0.00	-0.36	0.00	0.15	41.61	0.54	0.30	3.55
120	0	1.04	166.14	-0.51	0.00	-0.35	0.00	0.13	37.48	0.36	0.30	4.28
140	0	1.12	179.72	-0.57	0.00	-0.31	0.00	0.13	35.41	0.20	0.00	5.06

Note 1: When assessing the severity of the scale problem, both the saturation index (SI) and amount of scale must be considered.

Note 2: Precipitation of each scale is considered separately. Total scale will be less than the sum of the amounts of the five scales.

Note 3: The reported CO2 pressure is actually the calculated CO2 fugacity. It is usually nearly the same as the CO2 partial pressure.

North Permian Basin Region
P.O. Box 740
Sundown, TX 79372-0740
(806) 229-8121
Lab Team Leader - Sheila Hernandez
(432) 681-8300

Water Analysis Report by Baker Petrolite

Company:	YATES PETROLEUM INC	Sales RDT:	33514.1
Region:	PERMIAN BASIN	Account Manager:	TONY HERNANDEZ (575) 910-7135
Area:	ARTESIA, NM	Sample #:	661517
Lease/Platform:	BOMBAY "BSB" FED COM	Analysis ID #:	139377
Entity (or well #):	1 H	Analysis Cost:	$90.00
Formation:	UNKNOWN BRUSHY CANYON		
Sample Point:	SEPARATOR		

Summary	
Sampling Date:	01/13/14
Analysis Date:	01/16/14
Analyst:	SANDRA SANCHEZ
TDS (mg/l or g/m3):	215674
Density (g/cm3, tonne/m3):	1.152
Anion/Cation Ratio:	0.8869451
Carbon Dioxide:	250 PPM
Oxygen:	
Comments:	

Analysis of Sample 661517 @ 75 ℉

Anions	mg/l	meq/l	Cations	mg/l	meq/l
Chloride:	**138352.0**	**3902.41**	**Sodium:**	**57697.0**	**2509.68**
Bicarbonate:	**207.0**	**3.39**	**Magnesium:**	**2172.0**	**178.68**
Carbonate:	**0.0**	**0.**	**Calcium:**	**14634.0**	**730.24**
Sulfate:	**460.0**	**9.58**	**Strontium:**	**820.0**	**18.72**
Phosphate:			**Barium:**	**3.0**	**0.04**
Borate:			**Iron:**	**127.0**	**4.59**
Silicate:			Potassium:	1198.0	30.64
			Aluminum:		
Hydrogen Sulfide:		68 PPM	Chromium:		
pH at time of sampling:		5.4	Copper:		
pH at time of analysis:			Lead:		
pH used in Calculation:		**5.4**	Manganese:	4.000	0.15
			Nickel:		

Conditions		Values Calculated at the Given Conditions - Amounts of Scale in lb/1000 bbl										
Temp	Gauge Press.	Calcite $CaCO_3$		Gypsum $CaSO_4*2H_2O$		Anhydrite $CaSO_4$		Celestite $SrSO_4$		Barite $BaSO_4$		CO_2 Press
℉	psi	Index	Amount	Index	Amount	Index	Amount	Index	Amount	Index	Amount	psi
80	0	-0.42	0.00	-0.31	0.00	-0.28	0.00	0.08	30.77	0.74	1.14	4.91
100	0	-0.34	0.00	-0.38	0.00	-0.28	0.00	0.06	22.79	0.55	1.14	5.94
120	0	-0.25	0.00	-0.44	0.00	-0.26	0.00	0.05	19.94	0.38	0.85	6.93
140	0	-0.16	0.00	-0.48	0.00	-0.22	0.00	0.05	20.80	0.23	0.57	7.84
160	0	-0.06	0.00	-0.52	0.00	-0.16	0.00	0.06	24.79	0.11	0.28	8.64
180	0	0.05	2.56	-0.56	0.00	-0.08	0.00	0.08	30.77	0.00	0.00	9.3
200	0	0.17	8.26	-0.58	0.00	0.02	6.84	0.10	38.17	-0.09	0.00	9.8
240	10	0.43	18.80	-0.63	0.00	0.23	81.48	0.15	54.41	-0.21	0.00	10.32

Note 1: When assessing the severity of the scale problem, both the saturation index (SI) and amount of scale must be considered.

Note 2: Precipitation of each scale is considered separately. Total scale will be less than the sum of the amounts of the five scales.

Note 3: The reported CO2 pressure is actually the calculated CO2 fugacity. It is usually nearly the same as the CO2 partial pressure.

Attachment E

Certified Notification letters sent to:

1. **Surface owner:**

State of New Mexico
Commissioner of Public Lands
P.O. Box 1148
Santa Fe, New Mexico 87504-1148

2. **Operators within ½ mile radius:**

V-F Petroleum, Inc.
P.O. Box 1889
Midland, Tx, 79702

YATES PETROLEUM CORPORATION

105 SOUTH FOURTH STREET
ARTESIA, NEW MEXICO 88210-2118
TELEPHONE (575) 748-1471
www.yatespetroleum.com

February 10th, 2014

V-F Petroleum, Inc.
P.O. Box 1889
Midland, TX 79702

Re: Satchmo SWD St #1

Dear Sirs:

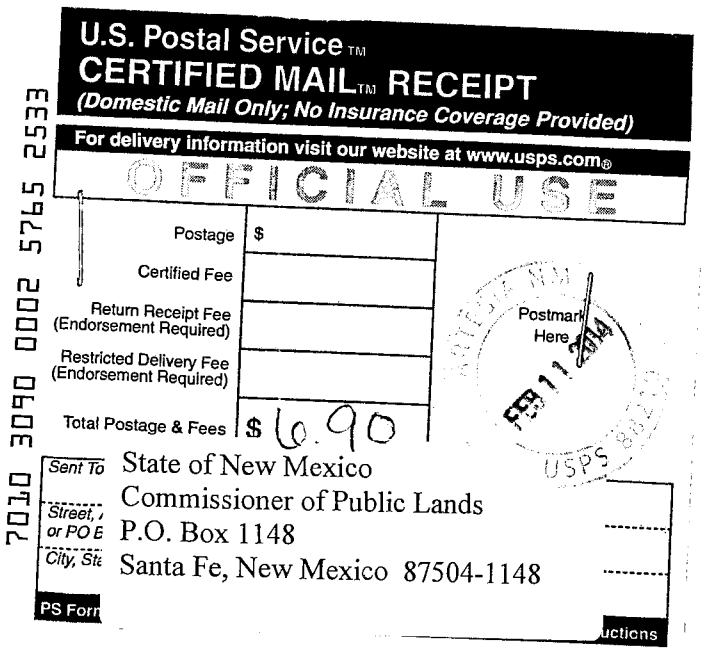
Enclosed please find copies of form C-108 (Application for Authority to Inject) on said well located in Section 36 T25S, R31E of Eddy County, New Mexico.

If you have any questions or need additional information, please call me at (575) 748-4165.

Sincerely,

Margrethe Hotter
Area Engineer

Enclosures



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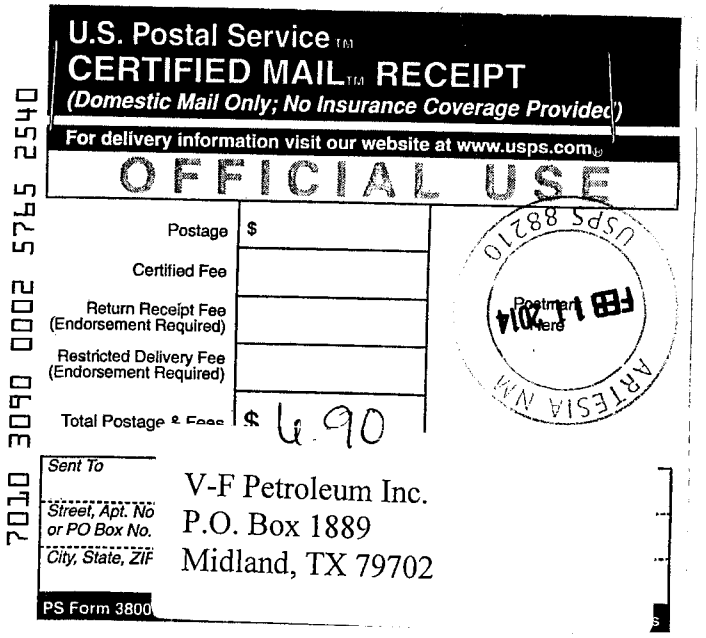
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For delivery information visit our website at www.usps.com®
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Postage $
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USPS 88210
Postmark Here
FEB 10 2014
ARTESIA NM
7010 3090 0002 5765 2540
Sent To
Street, Apt. No. or PO Box No.
City, State, ZIP
V-F Petroleum Inc.
P.O. Box 1889
Midland, TX 79702
PS Form 3800

Affidavit of Publication

No. 22847

State of New Mexico

County of Eddy:

Danny Scott

being duly sworn, sayes that he is the **Publisher**

of the Artesia Daily Press, a daily newspaper of General circulation, published in English at Artesia, said county and state, and that the hereto 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

1 Consecutive weeks/day on the same day as follows:

First Publication	February 2, 2014
Second Publication	
Third Publication	
Fourth Publication	
Fifth Publication	

Subscribed ans sworn before me this

2nd day of February 2014

OFFICIAL SEAL
Latisha Romine
NOTARY PUBLIC-STATE OF NEW MEXICO
My commission expires: 5/12/2015

Latisha Romine

Latisha Romine

Notary Public, Eddy County, New Mexico

Copy of Publication:

LEGAL NOTICE

Yates Petroleum Corporation, 105 south Fourth Street, Artesia, NM 88210, has filed form C-108 (Application for Authorization to Inject) with the New Mexico Oil Conservation Division seeking administrative approval for an injection well. The proposed well the Satchmo SWD St #1, located 330' FNL & 1980' FEL, Unit B, Section 36, Township 25 South, Range 31 East of Eddy County, New Mexico, will be used for saltwater disposal. Produced waters from the Bone Springs and Delaware will be re-injected into the Delaware Sand at a depth of 4,500'-6,770' with a maximum pressure of 990 psi and a maximum rate of 5,000 BWPD.

All interested parties opposing the aforementioned must file objections or requests for a hearing with the Oil Conservation Division, 1220 South Saint Francis Drive, Santa Fe, New Mexico 87505-5472, within 15 days. Additional information can be obtained by contacting Margrethe Hotter at (575) 748-4165.

Published in the Artesia Daily Press, Artesia, N.M., Feb. 2, 2014 Legal No 22847.

Attachment F

Attachment G

C-108 Application for Authorization to Inject
Yates Petroleum Corporation
Satchmo SWD St #1

Unit B, Section 36-T25S-R31E
Eddy County New Mexico.

Available engineering and geological data have been examined and no evidence of open faults of hydrologic connection between the disposal zone and any underground sources of drinking water has been found.

Sterling Fly
Geologist
Yates Petroleum Corporation

2/10/2014
Date

YATES PETROLEUM CORPORATION

105 SOUTH FOURTH STREET
ARTESIA, NEW MEXICO 88210-2118
TELEPHONE (575) 748-1471
www.yatespetroleum.com

February 10th, 2014

State of New Mexico
Oil Conservation Division
Attn: Philip Goetze
1220 S. Saint Francis Drive
Santa Fe, NM 87505

Re: Application for Authorization to Inject
Satchmo SWD St #1
330'FNL& 1980FEL, sec 36 25S 31E
Eddy County, New Mexico

Dear Mr. Philip Goetze

Yates Petroleum Corporation respectfully requests administrative approval for authorization to inject for the Satchmo SWD St #1well as referenced above.

Attached, for your review, is a copy of the C-108 application.

Please don't hesitate to contact me at (575) 748 4165 if you have any questions or need additional information.

Sincerely,

Margrethe Hotter
Area Engineer

Enclosures

C-108 Review Checklist: Received 2/11/14 Add. Request: _____ Reply Date: _____ Suspended: _____ [Ver 13]

PERMIT TYPE: WFX / PMX / SWD Number: 1472 Permit Date: 04/08/14 Legacy Permits/Orders: None

Well No. 1 Well Name(s): Satchmo SWD State

API : 30-0 15-Pending Spud Date: TBD New or Old: New (**UIC Class II Primacy 03/07/1982**)

Footages 330 FNL / 1980 FEL Lot — or Unit B Sec 36 Tsp 25S Rge 31E County Eddy

General Location: 16m North of TX border/along Eddy/Lea Co. Line Pool: SWD Delaware - Bell/Cherry Pool No.: 96802

BLM 100K Map: Jal Operator: Yates Petroleum Corp. OGRID: 25575 Contact: M. Hotter

COMPLIANCE RULE 5.9: Total Wells: 2294 Inactive: 10 Fincl Assur: Yes Compl. Order? No **IS 5.9 OK?** Yes **Date:** 04/08/14

WELL FILE REVIEWED ✓ Current Status: NA - no file/API pending approval

WELL DIAGRAMS: NEW: Proposed ✓ or **RE-ENTER:** Before Conv. ○ After Conv. ○ Logs in Imaging: NA Proposed GR-Neutron: surf to TD; Density/LL: 4430 to TD

Planned Rehab Work to Well: NA - new well

Well Construction Details:	Sizes (in) Borehole / Pipe	Setting Depths (ft)	Stage Tool	Cement Sx or Cf	Cement Top and Determination Method
Planned ✓ or Existing — **Surface**	17½ / 13⅜	0 to 1165		880	Cir. to Surf
Planned ✓ or Existing — **Interm/Prod**	12¼ / 9⅝	0 to 4450	None	1465	Cir. to surf (CBL proposed in WB)
Planned ✓ or Existing — **Interm/Prod**	8¾ / 7	0 to 6700	None	730	Cir. to Surf
Planned — or Existing — **Prod/Liner**	—	—	—	—	—
Planned — or Existing — **Liner**	—	—	—	—	—
Planned ✓ or Existing — **OH / PERF**	8¾ / 7	4500' to 6770'	In Length 2270		

Injection Stratigraphic Units:	Depths (ft)	Injection or Confining Units	Tops
Adjacent Unit: Litho. Struc. Por.		Salado	—
Confining Unit: Litho. Struc. Por.	+40'	Lamar	4440
Proposed Inj Interval TOP:	4500' Del	Bell Canyon	4460
Proposed Inj Interval BOTTOM:	6770' MCY	Cherry Canyon	5430
Confining Unit: Litho. Struc. Por.	± 30'	Brushy Canyon	~6800
Adjacent Unit: Litho. Struc. Por.		Bone Spring fm	

Completion/Operation Details:

Drilled TD 6900 PBTD 6900

NEW TD NA NEW PBTD NA

NEW Open Hole ○ or NEW Perfs ✓

Tubing Size 3½ in. Inter.Coated? Yes

Proposed Packer Depth 4400 ft

Min. Packer Depth 4400 (100-ft limit)

Proposed Max. Surface Press. 990 psi

Admin. Inj. Press. 900 (0.2 psi per ft)

AOR: Hydrologic and Geologic Information

POTASH: R-111-P No Noticed? NA **BLM Sec Ord** No **WIPP** No Noticed? NA **SALT** SALADO T: 1460 B: 4205 **CLIFF HOUSE** NA

FRESH WATER: Aquifer Alluvial/minor bedrock Max Depth ±600 ft **HYDRO AFFIRM STATEMENT By Qualified Person** ✓

NMOSE Basin: Carlsbad **CAPITAN REEF:** thru ○ adj ○ NA ✓ **No. Wells within 1-Mile Radius?** No FW Analysis NA

T 26 South — in township to South

Disposal Fluid: Formation Source(s) Bone Spring & Delaware Analysis? Yes On Lease ○ Operator Only ✓ or Commercial ○

Disposal Int: Inject Rate (Avg/Max BWPD): 5000/10000 Protectable Waters? No Source: Water Sample System: Closed ✓ or Open ○

HC Potential: Producing Interval? No Formerly Producing? No Method: Logs/DST/P&A/Other Logs proposed 2-Mile Radius Pool Map NA

AOR Wells: 1/2-M Radius Map? Yes Well List? NA Total No. Wells Penetrating Interval: 0 Horizontals? 0

Penetrating Wells: No. Active Wells 0 Num Repairs? ____ on which well(s)? _____ Diagrams? NA

Penetrating Wells: No. P&A Wells 0 Num Repairs? ____ on which well(s)? _____ Diagrams? NA

NOTICE: Newspaper Date 02/02/14 Mineral Owner SLO Surface Owner SLO N. Date 02/11/14

RULE 26.7(A): Identified Tracts? Yes Affected Persons: VF Petroleum N. Date 02/11/14

Permit Conditions: Issues: Mudlog-Neutron → Log sufficient / Injection Profile

Add Permit Cond: Injection Survey