

DATE IN 6.15.11	SUSPENSE	ENGINEER WJT	LOGGED IN 6.15.11	TYPE SWD	APP NO 1116654022
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ABOVE THIS LINE FOR DIVISION USE ONLY

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



Yates Pet. 25575
Lotus SWD #2

ADMINISTRATIVE APPLICATION CHECKLIST

30-025-31694

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]

12519

Lea State

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

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

Check One Only for [B] or [C]

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

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

[D] Other: Specify _____

12519

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

[A] ☐ Working, Royalty or Overriding Royalty Interest Owners
[B] ☒ Offset Operators, Leaseholders or Surface Owner
[C] ☒ X Application is One Which Requires Published Legal Notice
[D] ☐ Notification and/or Concurrent Approval by BLM or SLO
U.S. Bureau of Land Management - Commissioner of Public Lands, State Land Office
[E] ☐ For all of the above, Proof of Notification or Publication is Attached, and/or,
[F] ☐ Waivers are Attached

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

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

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

Margrethe Hotter

Area Engineer

5/11/11

Print or Type Name

Signature

Title

Date

mholler@yatespetroleum.com
e-mail Address

MARTIN YATES, III
1912-1985

FRANK W. YATES
1936-1986

S.P. YATES
1914-2008

RECEIVED OCD
2011 JUN 15 A 11:50



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

JOHN A. YATES
CHAIRMAN OF THE BOARD

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CHIEF OPERATING OFFICER

JOHN D. PERINI
CHIEF FINANCIAL OFFICER

June 14, 2011

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

Re: Lotus SWD #2

Dear Sirs:

Enclosed please find copies of form C-108 (Application for Authority to Inject) on said well located in Section 32T22S, R32E of Lea 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

**C-108 Application for Authorization to Inject
Yates Petroleum Corporation
Lotus SWD #2
Unit G, 1980' FNL & 1980' FEL, Sec. 32, T22S, R32E
Lea County, New Mexico**

- I. The purpose of completing this well is to make a disposal well for produced Delaware Sand water into the Delaware Sand formation.**

Yates Petroleum Corporation plans to convert this well to 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 3 wells within the area of review that penetrate the proposed injection zone (See Attachment C).**
- VII. 1. Proposed average daily injection volume approximately 2500 BWPd. Maximum daily injection volume approximately 5000 BWPd.**
- 2. This will be a closed system.**
- 3. Proposed average injection pressure –unknown.
Proposed maximum injection pressure – 1150 psi.**
- 4. Sources of injected water would be produced water from the Delaware Sand. (Attachment D)**
- VIII. 1. The proposed injection interval is the portion of the Delaware Sand formation consisting of porous Sandstone from 5750'-6500'.**

**Application for Authorization to Inject
Lotus SWD #2
-2-**

- 2. Possible Fresh water zones overlie the proposed injection formations at depths to approximately 850' or less. 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. Logs were filed at your office when the well was drilled.**
- XI. There are no windmills 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
Lotus SWD #2
G-32-T22S-R32E
Lea County, New Mexico**

Attachment A

30-025-31694

III. Well Data

- A.**
1. Lease Name/Location
Lotus SWD #2
(Prev. Lotus ALT St #2)
G-32-T22S-R32E
1980' FNL & 1980' FEL
 2. Casing Strings:
 - a. Present well condition
13 3/8", 48# H-40 @ 858' w/825 sx (circ)
8 5/8", 32# J-55 @ 4,418' w/1450 sx (TOC @ 800').
5 1/2", 15.5# & 17#, J-55 & N-80 @ 9,250' w/DV tool @ 8,712',
7,587'
Stage 1: 800sx (circ)
Stage 2: 450sx (circ)
Stage 3: 800sx TOC @ 3,826' (CBL)
 - b. Present Status:
Non-commercial completion in Delaware at 6716'-6,888', 7,003-
7,186', 8,006'-8,016', 8,326'-8,339', 8,414'-8,430'
RBP @ 8,100'
 3. Proposed well condition:
Casing same as above. 100' cement plug across both DV tools.
CIBP @ 6,666' and cap with 35' cement.
3 1/2" 9.3 J55 or 2-7/8" 6.5 J55 plastic-coated injection tubing @ 5650'
 4. Propose to use Guiberson or Baker plastic-coated or nickel-plated packer
set at 5650'.
- B.**
1. Injection Formation: Delaware Sands
 2. Injection Interval will be through perforations from approximately
5750'-6500' gross interval.
 3. Well was originally drilled as a Delaware oil well. Well will be a Delaware
water disposal well when work is completed.
 4. Perforations: High porosity sands between 5750'-6500'.
 5. Next higher (shallower) oil or gas zone within 2 miles-None.
Next lower (deeper) oil or gas zone within 2 miles- Brushy Canyon

WELL NAME: Lotus ALT State #2

FIELD:

LOCATION: 1980' FNL & 1980' FEL of Section 32-22S-32E

Lea Co., NM

GL: 3,538

ZERO:

KB:

SPUD DATE: 9/19/92

COMPLETION DATE:

COMMENTS: API No.: 30-025-31694

CASING PROGRAM

13-3/8" 54.5# J-55	858'
8-5/8" 32# HC-80& J-55	4,418'
5-1/2" 15.5#&17# J-55 & N-80	9,250'

17-1/2"
Hole

TOC 800' (TS)

13-3/8" @ 858' w/
825 sx cmt (Circ)

TOC @ 3826' (CBL)

11" Hole

8-5/8" @ 4,418' w/
1,450' sx cmt (TOC @ 800' TS)

Current

TOPS

Rustler 850'
Base of Salt 4,316'
Bell Canyon 4,583'
Cherry Canyon 5,557'
Brushy Canyon 7,265'
BS 8,528'

7 7/8" Hole

DV Tool @ 7,587'

RBP @ 8,100'

DV Tool @ 8,712'

Delaware perms: 6,716'-6,888'

Delaware perms: 7,003'-7,186'

Delaware perms: 8,006'-8,016'

Delaware perms: 8,326'-8,339'

Delaware perms: 8,414'-8,430'

5-1/2" @ 9,250' w/
1st Stage: 100 sx (Circ)
2nd Stage: 225 sx (Circ)
3rd Stage: 800 sx (TOC @ 3826' CBL)

FC: 9,205'
TD: 9,250'

Not to Scale
5/10/11
MMFH

WELL NAME: Lotus SWD #2

FIELD:

LOCATION: 1980' FNL & 1980' FEL of Section 32-22S-32E

Lea Co., NM

GL: 3,538

ZERO:

KB:

SPUD DATE: 9/19/92

COMPLETION DATE:

COMMENTS: API No.: 30-025-31694

CASING PROGRAM

13-3/8" 54.5# J-55	858'
8-5/8" 32# HC-80& J-55	4,418'
5-1/2" 15.5#&17# J-55 & N-80	9,250'

17-1/2"
Hole

TOC 800' (TS)

13-3/8" @ 858' w/
825 sx cmt (Circ)

TOC @ 3826' (CBL)

11" Hole

Nickel plated pkr @ 5650'
3 1/2" or 2 7/8" PC tbg

7 7/8" Hole

8-5/8" @ 4,418' w/
1,450' sx cmt (TOC @ 800' TS)Injection interval: Porous Delaware
sands between 5750'-6500'

TOPS

Rustler 850'
Base of Salt 4,316'
Bell Canyon 4,583'
Cherry Canyon 5,557'
Brushy Canyon 7,265'
BS 8,528'

CIBP @ 6,666
+35' cmt'Cmt plug across DV
tool, 7,537'-7,637'
DV Tool @ 7,587'Cmt plug across DV
tool, 8,662'-8,762'
DV Tool @ 8,712'

Delaware perms: 6,716'-6,888'

Delaware perms: 7,003'-7,186'

Delaware perms: 8,006'-8,016'

Delaware perms: 8,326'-8,339'

Delaware perms: 8,414'-8,430'

5-1/2" @ 9,250' w/
1st Stage: 100 sx (Circ)
2nd Stage: 225 sx (Circ)
3rd Stage: 800 sx (TOC @ 3826' CBL)

FC: 9,205'
TD: 9,250'**AFTER**

Not to Scale
5/10/11
MMFH

Attachment "C"

Lotus SWD #2
Form C-108

Tabulation of data on wells within area of review

Well Name	Operator	Type	Spud	Total Depth	Producing Zone	Perforations	Completion Information
Lotus ALT St #3 660FNL & 1980FWL Sec 32 22S 32E	Yates Petroleum Corp	Oil	11/3/2002	8600'	Delaware	6706'-8398'	13 3/8" @ 842' Cmt'd w/700 sx (circ) 8 5/8" @ 4,489' Cmt'd w/1250 sx (circ) 5 1/2" @ 8,600' Cmt'd w/ Stage 1: 555 sx (TOC 5608') Stage 2: 550 sx (circ) ✓
Lotus SWD #1 660FNL & 660FEL Sec 32 22S 32E	Yates Petroleum Corp	Oil	1/30/2003	8620'	Delaware	Inj interval: 6744-8518	13 3/8" @ 846' Cmt'd w/700 sx (circ) 8 5/8" @ 4,510' Cmt'd w/1250 sx (circ) 5 1/2" @ 8,780' Cmt'd w/ Stage 1: 575 sx (TOC 5556') Stage 2: 550 sx (circ)
Lotus SWD #12 330FNL & 2310FEL Sec 32 22S 32E	Yates Petroleum Corp <i>SWD 1198</i>	Oil	7/6/2006	8600'	Delaware	Inj. interval: 5754'-6500' CIBP @ 6720' + 35' cmt 6772'-8386'	13 3/8" @ 865' Cmt'd w/780 sx (circ) 8 5/8" @ 4,528' Cmt'd w/1310 sx (circ) 5 1/2" @ 8,600' Cmt'd w/ Stage 1: 800'sx (circ) Stage 2: 450 sx (TOC 2650')

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
Region:	PERMIAN BASIN	Account Manager:	REGGIE GUY (575) 910-9391
Area:	ARTESIA, NM	Sample #:	354147
Lease/Platform:	LOTUS 'ALT' STATE UNIT	Analysis ID #:	94689
Entity (or well #):	4	Analysis Cost:	\$90 00
Formation:	UNKNOWN		
Sample Point:	WELLHEAD		

Summary		Analysis of Sample 354147 @ 75 °F					
Sampling Date:	9/15/09	Anions	mg/l	meq/l	Cations	mg/l	meq/l
Analysis Date:	9/23/09	Chloride:	142320.0	4014.33	Sodium:	69489.4	3022.62
Analyst:	LEAH DURAN	Bicarbonate:	36.6	0.6	Magnesium:	2815.0	231.57
TDS (mg/l or g/m3):	231647.5	Carbonate:	0.0	0.	Calcium:	14251.0	711.13
Density (g/cm3, tonne/m3):	1.15	Sulfate:	350.0	7.29	Strontium:	1225.0	27.96
Anion/Cation Ratio:	1	Phosphate:			Barium:	87.0	1.27
		Borate:			Iron:	15.0	0.54
		Silicate:			Potassium:	1053.0	26.93
Carbon Dioxide:	280 PPM	Hydrogen Sulfide:		0 PPM	Aluminum:		
Oxygen:		pH at time of sampling:		5.7	Chromium:		
Comments:		pH at time of analysis:			Copper:		
		pH used in Calculation:		5.7	Lead:		
					Manganese:	5 500	0.2
					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 ₂ O		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	-0.83	0.00	-0.43	0.00	-0.39	0.00	0.11	37.23	2.06	44.50	0.43
100	0	-0.74	0.00	-0.50	0.00	-0.40	0.00	0.08	29.67	1.86	44.22	0.51
120	0	-0.66	0.00	-0.57	0.00	-0.38	0.00	0.07	26.31	1.69	43.94	0.59
140	0	-0.57	0.00	-0.62	0.00	-0.35	0.00	0.08	26.59	1.54	43.39	0.67

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
Example of water to be disposed into
SWD well

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
Region:	PERMIAN BASIN	Account Manager:	REGGIE GUY (575) 910-9391
Area:	ARTESIA, NM	Sample #:	354157
Lease/Platform:	KIWI 'AKX' STATE LEASE	Analysis ID #:	94687
Entity (or well #):	3	Analysis Cost:	\$90.00
Formation:	UNKNOWN		
Sample Point:	WELLHEAD		

Summary		Analysis of Sample 354157 @ 75 °F					
Sampling Date:	9/15/09	Anions	mg/l	meq/l	Cations	mg/l	meq/l
Analysis Date:	9/23/09	Chloride:	177816.0	5015.54	Sodium:	81444.2	3542.62
Analyst:	LEAH DURAN	Bicarbonate:	73.2	1.2	Magnesium:	3828.0	314.91
TDS (mg/l or g/m3):	289080.9	Carbonate:	0.0	0.	Calcium:	22006.0	1098.1
Density (g/cm3, tonne/m3):	1.192	Sulfate:	774.0	16.11	Strontium:	1226.0	27.98
Anion/Cation Ratio:	1	Phosphate:			Barium:	2.5	0.04
		Borate:			Iron:	28.0	1.01
		Silicate:			Potassium:	1879.0	48.05
Carbon Dioxide:	430 PPM	Hydrogen Sulfide:		0 PPM	Aluminum:		
Oxygen:		pH at time of sampling:		5.5	Chromium:		
Comments:		pH at time of analysis:			Lead:		
		pH used in Calculation:		5.5	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 ₂ O		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	-0.49	0.00	0.09	74.08	0.15	94.78	0.34	175.23	0.74	1.06	1.14
100	0	-0.41	0.00	0.00	2.12	0.13	84.16	0.31	165.14	0.54	0.80	1.33
120	0	-0.33	0.00	-0.07	0.00	0.14	87.62	0.30	161.43	0.37	0.80	1.51
140	0	-0.24	0.00	-0.13	0.00	0.17	103.02	0.31	163.02	0.22	0.53	1.66

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
Example of water to be disposed
into SWD well

North Permian Basin Region
P O Box 740
Sundown, TX 79372-0740
(806) 229-8121
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(432) 495-7240

Water Analysis Report by Baker Petrolite

Company:	YATES PETROLEUM INC	Sales RDT:	33514
Region:	PERMIAN BASIN	Account Manager:	REGGIE GUY (575) 910-9391
Area:	ARTESIA, NM	Sample #:	354152
Lease/Platform:	LOTUS 'ALT' STATE UNIT	Analysis ID #:	94688
Entity (or well #):	3	Analysis Cost:	\$90.00
Formation:	UNKNOWN		
Sample Point:	WELLHEAD		

Summary		Analysis of Sample 354152 @ 75 °F					
Sampling Date:	9/15/09	Anions	mg/l	meq/l	Cations	mg/l	meq/l
Analysis Date:	9/23/09	Chloride:	181989.0	5133.25	Sodium:	77172.6	3356.82
Analyst:	LEAH DURAN	Bicarbonate:	48.8	0.8	Magnesium:	4720.0	388.29
TDS (mg/l or g/m3):	294549.4	Carbonate:	0.0	0.	Calcium:	26148.0	1304.79
Density (g/cm3, tonne/m3):	1.197	Sulfate:	541.0	11.26	Strontium:	1946.0	44.42
Anion/Cation Ratio:	1	Phosphate:			Barium:	3.5	0.05
		Borate:			Iron:	24.0	0.87
		Silicate:			Potassium:	1952.0	49.92
Carbon Dioxide:	400 PPM	Hydrogen Sulfide		0 PPM	Aluminum:		
Oxygen:		pH at time of sampling:		5.2	Chromium:		
Comments:		pH at time of analysis:			Copper:		
		pH used in Calculation:		5.2	Lead:		
					Manganese:	4 500	0 16
					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 ₂ O		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	-0.93	0.00	-0.01	0.00	0.05	24.84	0.36	151.42	0.70	1.32	1.41
100	0	-0.84	0.00	-0.10	0.00	0.03	16.38	0.34	144.28	0.51	1.32	1.65
120	0	-0.76	0.00	-0.17	0.00	0.04	20.61	0.33	142.17	0.34	1.06	1.86
140	0	-0.67	0.00	-0.23	0.00	0.07	35.15	0.33	144.02	0.19	0.53	2.05

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
Example of water to be
disposed into SWD well

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
Region:	PERMIAN BASIN	Account Manager:	REGGIE GUY (575) 910-9391
Area:	ARTESIA, NM	Sample #:	354158
Lease/Platform:	KIWI 'AKX' STATE LEASE	Analysis ID #:	94686
Entity (or well #):	1	Analysis Cost:	\$90.00
Formation:	UNKNOWN		
Sample Point:	WELLHEAD		

Summary		Analysis of Sample 354158 @ 75 °F					
Sampling Date:	9/15/09	Anions	mg/l	meq/l	Cations	mg/l	meq/l
Analysis Date:	9/23/09	Chloride:	139881.0	3945.53	Sodium:	61614.9	2680.1
Analyst:	LEAH DURAN	Bicarbonate:	85.4	1.4	Magnesium:	3256.0	267.85
		Carbonate:	0.0	0.	Calcium:	18604.0	928.34
TDS (mg/l or g/m3):	227088.3	Sulfate:	404.0	8.41	Strontium:	1504.0	34.33
Density (g/cm3, tonne/m3):	1.152	Phosphate:			Barium:	3.0	0.04
Anion/Cation Ratio:	1	Borate:			Iron:	23.0	0.83
		Silicate:			Potassium:	1709.0	43.71
					Aluminum:		
Carbon Dioxide:	480 PPM	Hydrogen Sulfide:		0 PPM	Chromium:		
Oxygen:		pH at time of sampling:		5.1	Copper:		
Comments:		pH at time of analysis:			Lead:		
		pH used in Calculation:		5.1	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 ₂ O		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	-1.01	0.00	-0.29	0.00	-0.25	0.00	0.24	85.83	0.63	1.13	3.69
100	0	-0.92	0.00	-0.36	0.00	-0.26	0.00	0.22	80.20	0.44	0.84	4.43
120	0	-0.84	0.00	-0.42	0.00	-0.24	0.00	0.21	78.23	0.27	0.84	5.15
140	0	-0.75	0.00	-0.46	0.00	-0.19	0.00	0.22	79.64	0.13	0.28	5.8

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
Example of water to
be disposed into SWD well

U.S. Postal Service CERTIFIED MAIL (Domestic Mail Only; No Inland)		SENDER: COMPLETE THIS SECTION		COMPLETE THIS SECTION ON DELIVERY	
For delivery information visit usps.com		■ Complete items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired. ■ Print your name and address on the reverse so that we can return the card to you. ■ Attach this card to the back of the mailpiece, or on the front if space permits.		A. Signature X <i>Mike Hall</i>	
HOUSTON TX 77227		B. Received by (Printed Name) <i>Mike Hall</i>		C. Date of Delivery	
Postage \$ Certified Fee \$ Return Receipt Fee (Endorsement Required) \$ Restricted Delivery Fee (Endorsement Required) \$ Total \$		1. Article Addressed to: Oxy USA, Inc. P.O. Box 27570 Houston TX 77227-7570		D. Is delivery address different from item 1? <input type="checkbox"/> Yes If YES, enter delivery address below: <input type="checkbox"/> No	
Sent To Oxy USA, Inc. P.O. Box 27570 Houston TX 77227-7570		2. Article Number (Transfer from service label)		3. Service Type <input type="checkbox"/> Certified Mail <input type="checkbox"/> Express Mail <input type="checkbox"/> Registered <input type="checkbox"/> Return Receipt for Merchandise <input type="checkbox"/> Insured Mail <input type="checkbox"/> C.O.D.	
PS Form 3800, August 2006		7007 1490 0002 7972 4889		4. Restricted Delivery? (Extra Fee) <input type="checkbox"/> Yes	
May 11, 2011		PS Form 3811, February 2004		Domestic Return Receipt	

OXY USA, Inc.
 P.O. Box 27570
 Houston, TX 77227-7570

Re: Lotus SWD #2

Dear Sirs:

Enclosed please find copies of form C-108 (Application for Authority to Inject) on said well located in Section 32T22S, R32E of Lea 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

MARTIN YATE
1912-198
FRANK W. Y
1936-198
S.P. YATE
1914-200

7007 1490 0002 7972 4902

U.S. Postal Service

CERTIFIED MAIL

(Domestic Mail Only; No

For delivery information visit

SANTA FE NM 87504

Postage \$

Certified Fee

Return Receipt Fee
(Endorsement Required)

Restricted Delivery Fee
(Endorsement Required)

Total

Sent To

Street, or PO

City, State, ZIP

PS Form 3800, August 2006

SENDER: COMPLETE THIS SECTION

- Complete items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired.
- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, the front if space permits.

Addressed to:

of New Mexico
Commissioner of Public Lands
Box 1148
Santa Fe, NM 87504-1148

2. Article Number
(Transfer from service label)

7007 1490 0002 7972 4902

PS Form 3811, February 2004

COMPLETE THIS SECTION ON DELIVERY

A. Signature

X

☐ Agent

☐ Addressee

B. Received by (Printed Name)

C. Date of Delivery

D. Is delivery address different from item 1? ☐ Yes
If YES, enter delivery address below: ☐ No

MAY 18 2011

3. Service Type

☐ Certified Mail

☐ Express Mail

☐ Registered

☐ Return Receipt for Merchandise

☐ Insured Mail

☐ C.O.D.

4. Restricted Delivery? (Extra Fee)

☐ Yes

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

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Margrethe Hotter
Area Engineer

Enclosures

KATHY H. PORTER
SECRETARY

DENNIS G. KINSEY
TREASURER

MARTIN Y
1912
FRANK V
1936
S.P. Y
1914

U.S. Postal Service™
CERTIFIED MAIL™
(Domestic Mail Only; No Insured Mail)

For delivery information visit our website at usps.com

CARLSBAD, NM 88220

Postage	\$	\$1.00
Certified Fee		\$2.00
Return Receipt Fee (Endorsement Required)		\$2.00
Restricted Delivery (Endorsement)		\$0.00
Total Postage		\$5.00

Sent To: Bureau of Land Management
620 E. Greene Street
Carlsbad, NM 88220

Street, Apt. No. or PO Box No.
City, State, ZIP+4

PS Form 3800, August 2006

SENDER: COMPLETE THIS SECTION

- Complete items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired.
- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to:

Bureau of Land Management
620 E. Greene Street
Carlsbad, NM 88210

2. Article Number
(Transfer from service label)

7007 1490 0002 7972 4896

PS Form 3811, February 2004

Domestic Return Receipt

102595-02-M-11

COMPLETE THIS SECTION ON DELIVERY

A. Signature

X

☒ Agent

☐ Address

B. Received by (Printed Name)

C. Date of Delivery

D. Is delivery address different from item 1? If YES, enter delivery address below:

☐ Yes

☒ No

3. Service Type

☐ Certified Mail

☐ Express Mail

☐ Registered

☐ Return Receipt for Merchandise

☐ Insured Mail

☐ C.O.D.

4. Restricted Delivery? (Extra Fee)

☐ Yes

Bureau of Land Management
620 E. Greene Street
Carlsbad, NM 88220

Re: Lotus SWD #2

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Sincerely,

Margrethe Hotter
Area Engineer

Enclosures

KATHY H. PORTER
SECRETARY

DENNIS G. KINSEY
TREASURER

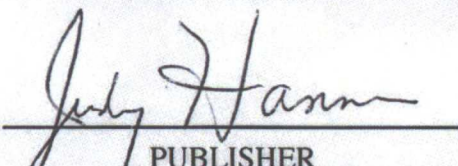
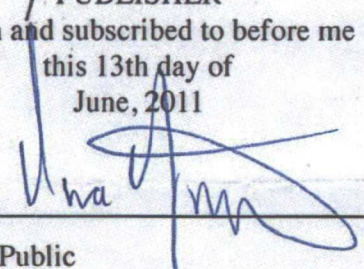
Affidavit of Publication

State of New Mexico,
County of Lea.

I, JUDY HANNA
PUBLISHER

of the Hobbs News-Sun, a
newspaper published at Hobbs, New
Mexico, do solemnly swear that the
clipping attached hereto was
published in the regular and entire
issue of said newspaper, and not a
supplement thereof for a period

of 1 issue(s).
Beginning with the issue dated
May 14, 2011
and ending with the issue dated
May 14, 2011


PUBLISHER
Sworn and subscribed to before me
this 13th day of
June, 2011


Notary Public

My commission expires
February 09, 2013
(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	LEGAL
<p>Legal Notice MAY 14, 2011</p> <p>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 Lotus SWD #2 located 1980' FNL & 1980' FEL, Unit G, Section 32, Township 22 South, Range 32 East of Lea County, New Mexico, will be used for saltwater disposal. Produced waters from the Delaware Sand will be re-injected into the Delaware Sand at a depth of 5750'-6500' with a maximum pressure of 1150 psi and a maximum rate of 5000 BWPD.</p> <p>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.</p> <p>#26596</p>	

01101029

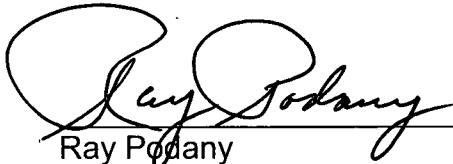
00072604

ATTN: DEBBIE CHAVEZ
YATES PETROLEUM CORPORATION
P.O. BOX 97
ARTESIA, NM 88210

Attachment G

C-108 Application for Authorization to Inject
Yates Petroleum Corporation
Lotus SWD #2
Unit G, Section 32-T22S-R32E
Lea 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.



Ray Podany
Geologist
Yates Petroleum Corporation

5-11-2011
Date

Injection Permit Checklist (11/15/2010)

WFX _____ PMX _____ SWD 1295 Permit Date 7/16/11 UIC Qtr (J/AS)

Wells 1 Well Name(s): LOTUS SWD #2

API Num: 30-0 25-31694 Spud Date: 9/19/92 New/Old: N (UIC primacy March 7, 1982)

Footages 1980 FNL/FEL Unit G Sec 32 Tsp 225 Rge 32E County Lea

General Location: 4 mi EAST of WIPP

Operator: Y.P.C. Contact Margaret Hester

OGRID: 2550 RULE 5.9 Compliance (Wells) 3/23/15 (Finan Assur) OK IS 5.9 OK? OK

Well File Reviewed ✓ Current Status: NOO - Gamma DEL 676-8430

Planned Work to Well: PLUG BACK, 12/11

Diagrams: Before Conversion ✓ After Conversion ✓ Elogs in Imaging File: ✓

Well Details:	Sizes		Setting Depths	Stage Tool	Cement Sx or Cf	Determination Method
	Hole.....	Pipe				
New <u>✓</u> Existing <u> </u> Surface	<u>17 1/2</u>	<u>13 7/8</u>	<u>858</u>	<u>—</u>	<u>825X</u>	<u>CIRC</u>
New <u>✓</u> Existing <u> </u> Intern	<u>11</u>	<u>8 5/8</u>	<u>4418</u>	<u>—</u>	<u>1450</u>	<u>TOC 800</u>
New <u>✓</u> Existing <u> </u> LongSt	<u>7 1/8</u>	<u>5 1/2</u>	<u>9250</u>	<u>8 1/2 2587</u>		<u>TOC 3826</u>
New <u> </u> Existing <u> </u> Liner						
New <u> </u> Existing <u> </u> OpenHole						

Depths/Formations:

	Depths, Ft.	Formation	Tops?
Formation(s) Above			
Injection TOP:	<u>5750</u>	<u>(Sherry C.)</u>	Max. PS <u>1150</u>
Injection BOTTOM:	<u>6500</u>	<u>Del</u>	Tubing Size <u>3 1/2 278</u>
Formation(s) Below	<u>7265</u>	<u>Brucy C.</u>	<u>✓</u>

See offpally - SWD in SAME interval SWD 1198

Capitan Reef? (Potash? Noticed?) [WIPP? Noticed?] Salado Top/Not 925-436 Cliff House?

Fresh Water: Depths: <850' Formation Wells? None Analysis? Affirmative Statement ✓

Disposal Fluid Analysis? ✓ Sources: Del

Disposal Interval: Analysis? ✓ Production Potential/Testing: Wet Sale on LOGS

Notice: Newspaper Date 5/14/11 Surface Owner BDA SLO Mineral Owner(s)

RULE 26 7(A) Affected Persons: USA/OXY

AOR: Maps? ✓ Well List? ✓ Producing in Interval? NO Wellbore Diagrams?

.....Active Wells 3 Repairs? Which Wells?

.....P&A Wells 0 Repairs? Which Wells?

Issues: Request Sent Reply: