•		
DATE IN	SUSPENSE	ENGINEER

LOGGED IN 1/17.11

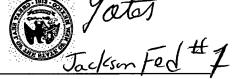
Swp)

APP NO. // 32/58659

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 30-025-28242

T	HIS CHECKLIST IS M			S FOR EXCEPTIONS TO DIVISION RULE VISION LEVEL IN SANTA FE	S AND REGULATIONS
Applic	cation Acronym	s:			
	[DHC-Dowler   PC-Pa	nhole Commingling]  [C] ool Commingling]  [OLS - [WFX-Waterflood Expansion	「B-Lease Commi Off-Lease Stora on]  [PMX-Pres		nmingling] ement]
	[EOR-Qua	lified Enhanced Oil Recov			Response]
[1]	TYPE OF AP [A]	PPLICATION - Check The Location - Spacing Unit NSL NSP	- Simultaneous D		
	Check [B]	One Only for [B] or [C] Commingling - Storage - DHC CTB	Measurement PLC	PC OLS OLM	
	[C]	Injection - Disposal - Pre WFX PMX			
	[D]	Other: Specify			
[2]	NOTIFICAT [A]	ION REQUIRED TO: - C		ch Apply, or Does Not Apply Interest Owners	ly
	[B]	X Offset Operators, Lea	aseholders or Sur	face Owner	
	[C]	X Application is One Wh	nich Requires Pul	olished Legal Notice	
	[D]	Notification and/or Ou.s. Bureau of Land Managem	Concurrent Appro	oval by BLM or SLO olic Lands, State Land Office	
	[E]	For all of the above,	Proof of Notifica	ation or Publication is Attached,	and/or,
	[F]	Waivers are Attache	ed		
[3]		CURATE AND COMPLIATION INDICATED ABO		TION REQUIRED TO PRO	CESS THE TYPE
	val is <mark>accurate</mark> a		my knowledge. I	submitted with this application also understand that <b>no action</b> mitted to the Division.	
	Note:	Statement must be completed	by an individual will	h managerial and/or supervisory cap	acity.
Marg	rethe F. Hotter	IL K	uffult	Area Engineer	9/23/11
Print o	or Type Name	Signature	yo	Title	Date
		, ,	-	mhotter@yatespetroleum.co	om

MARTIN YATES, III 1912-1985

FRANK W. YATES 1936-1986

S.P. YATES 1914-2008

2011 NOV 17 P 10: 38

105 SOUTH FOURTH STREET ARTESIA, NEW MEXICO 88210-2118

TELEPHONE (575) 748-147-1

JOHN A. YATES CHAIRMAN OF THE BOARD

JOHN A. YATES JR. PRESIDENT

SCOTT M. YATES VICE PRÉSIDENT

JAMES S. BROWN CHIEF OPERATING OFFICER

JOHN D. PERINI CHIEF FINANCIAL OFFICER

November 11, 2011

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

Re: Jackson Federal #1 SWD

Dear Sirs:

Enclosed please find copies of form C-108 (Application for Authority to Inject) on said well located in Section 26 T24S, R32E of Lea County, New Mexico.

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

Sincerely,

Mærgrethe Hotter Area Engineer

# C-108 Application for Authorization to Inject Yates Petroleum Corporation Jackson Federal #1 SWD Unit D, 660' FNL & 660' FWL, Sec. 26, T24S, R32E Lea County, New Mexico

I. The purpose of re-entering this well is to make a disposal well for produced Bone Springs and Delaware water into the Delaware Sand formation.

Yates Petroleum Corporation plans to re-enter 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 two wells within the area of review, one is an inactive SWD and the other one is P&A; neither of them penetrates 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 1170 psi.
  - 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 5,300'-6,424'.

- 2. Possible Fresh water zones overlie the proposed injection formations at depths to approximately 600' 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 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 Jackson Federal #1 SWD D-26-T24S-R32E Lea County, New Mexico

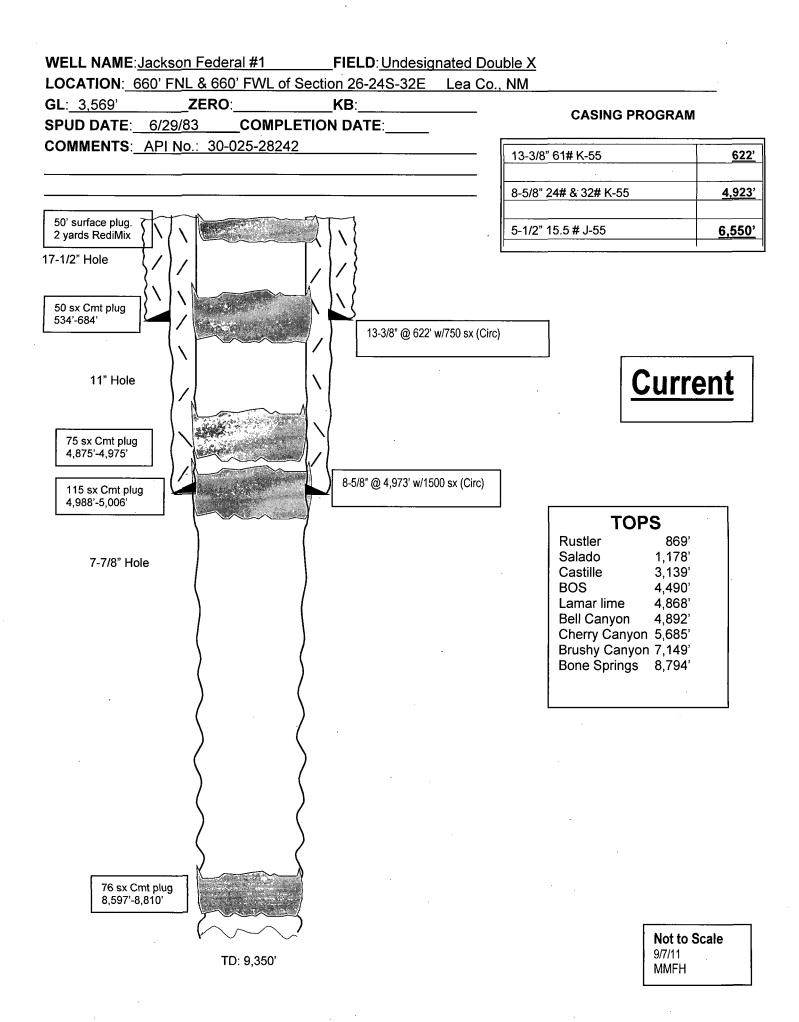
#### Attachment A

#### III. Well Data

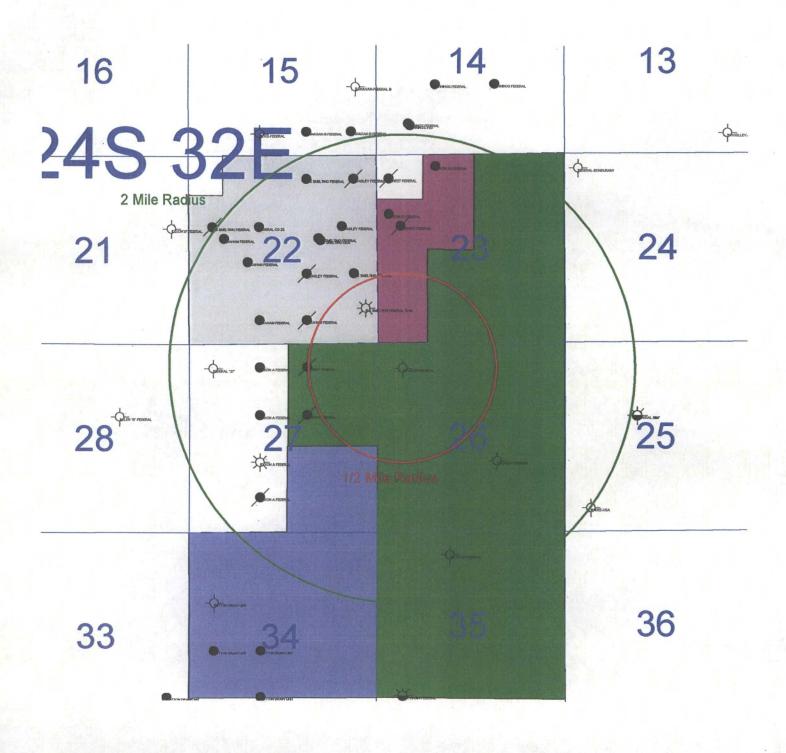
A. 1. Lease Name/Location
Jackson Federal #1 SWD
(Prev. Jackson Federal #1)
D-26-T24S-R32E
660' FNL & 660' FWL
API: 30-025-28242

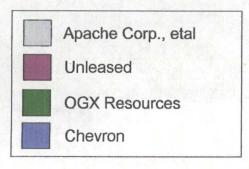
#### 2. Casing Strings:

- Present well condition
  13 3/8", 61# K-55 @ 622' w/750 sx (circ)
  8 5/8", 24# & 32# K-55 @ 4,923' w/1500 sx (circ).
  Cement plugs:
  8597'-8810' (76 sxs), 4988'-5006' (115 sxs)
  4875'-4975' (75 sxs), 534'-684' (50 sxs)
  50' to surface, RediMix
  Casing cut 3' below ground level w metal plate welded on top.
- Present Status:
   P&A. Spudded by Exxon Corporation in June 1983, and plugged by Exxon Corporation in July 1983.
- Proposed well condition:
   13 3/8" and 8 5/8" casings same as above.
   Spot a 50 sx cement plug in open hole from 6,550'-6,650'
   Set 15.5# J-55 casing @ 6,550' and circ cement to surface.
   Perforate porous sands between 5300'-6424'
   3 ½" 9.3 J55 or 2-7/8" 6.5 J55 plastic-coated injection tubing @ 5,200'
- 4. Propose to use Guiberson or Baker plastic-coated or nickel-plated packer set at 5,200'.
- B. 1. Injection Formation: Delaware Sands
  - 2. Injection Interval will be through perforations from approximately 5,300'-6424' gross interval.
  - 3. Well was originally drilled as a Bone Springs and Delaware oil well. Well will be a Delaware water disposal well when work is completed.
  - 4. Perforations: High porosity sands between 5220'-6460'.
  - 5. Next higher (shallower) oil or gas zone within 2 miles- Bell Canyon. Next lower (deeper) oil or gas zone within 2 miles- Brushy Canyon



WELL NAME: Jackson Federal #1 SWD FIELD: Undesignated Double X LOCATION: 660' FNL & 660' FWL of Section 26-24S-32E Lea Co., NM GL: 3,569' ZERO: KB: **CASING PROGRAM SPUD DATE**: 6/29/83 COMPLETION DATE: **COMMENTS**: API No.: 30-025-28242 13-3/8" 61# K-55 622' 8-5/8" 24# & 32# K-55 4,923' 6,550' 5-1/2" 15.5 # J-55 17-1/2" Hole 13-3/8" @ 622' w/750 sx (Circ) 11" Hole After 8-5/8" @ 4,973' w/1500 sx (Circ) Nickle plated injection packer @ 5,200' **TOPS** Rustler 869' Salado 1,178' 7-7/8" Hole 3,139' Castille **BOS** 4,490' Injection interval: Lamar lime 4.868' poreous sands Bell Canyon 4.892' between 5,300' and Cherry Canyon 5,685' 6,424' Brushy Canyon 7,149' Bone Springs 8,794' 5-1/2" @ 6,550' w/ cmt circ to surface 50 sx Cmt plug 6,550'-6,650 75 sx Cmt plug 8,597'-8,810 Not to Scale 9/6/11 TD: 9,350' **MMFH** 



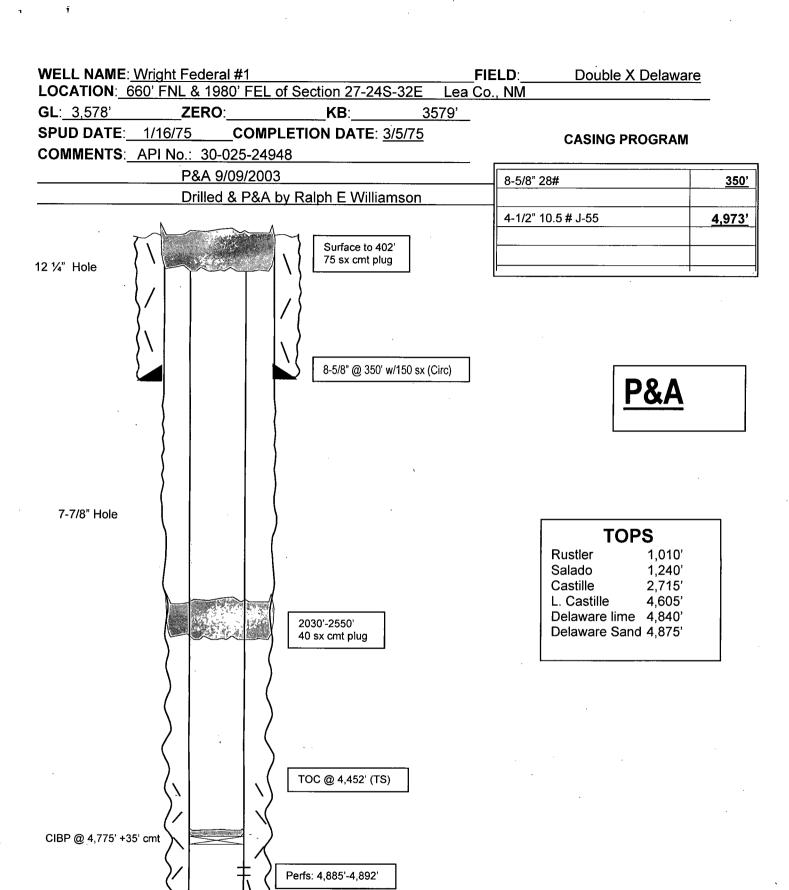


	Yates Petrole	um Corporation
	Jackson Fe	ounty, NM deral #1 SWD - 24S-32E
Author: Kevin K.		Date: 7 September, 2011
		Permian Basin – dw M Jackson Fed #1 SWD

Jacksom Federal #1 SWD Form C-108 Tabulation of data on wells within area of review

				Producing		
Well Name	Operator	Type	Spud	Spud Total Depth Zone	Perforations	Completion Information
Wright Federal #1	Ralph E. Williamson	P&A	1/16/1975	4937 Delaware	4885-4892	8 5/8" @ 350' Cmtd w/150 sx (Circ)
660' FNI & 1980' FEL						4 1/2" @ 4,937' Cmtd w/150 sx
Sec 27 24S 32E		ш.	P&A 9/09/03			TOC @ 4452' (TS)
						See attached P&A sketch
						CIBP @ 4775' w 35' cmt
	-					Cmt plug: 2030'-2550' (40 sxs)
						Surface -402' (75 sxs)
						•
U.S. Smelting Federal SWD #5	Marks & Garner Prod	SWD	10/4/1962	(4995 Delaware	4913	8 5/8" @ 346" Cmtd w/225 sx (circ)
2310' FSL & 660' FEL						5 1/2" @ 8,994' Cmtd w/200 sx
Sec 22 24S 32E						TOC @ 4100' (TS)
					,	Well is inactive. There is an approved
						P&A procedure from Dec 2009.
						Find no records that well was plugged.

?



4-1/2" @ 4,973' w/ 150 sxs

TD: 8,710'

**Not to Scale** 9/22/11

MMFH

# 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 #:

561768

Lease/Platform:

**CHEVRON DOT** 

Analysis ID #:

112209

Entity (or well #):

1 H

Analysis Cost:

\$90.00

Formation:

UNKNOWN

Sample Point:

**WELLHEAD** 

Summary		An	alysis of Sa	mple 561768 @ 75	F	
Sampling Date: 09/02/11	Anions	mg/l	meq/l	Cations	mg/l	meq/l
Analysis Date: 09/13/11	Chloride:	77585.0	2188.39	Sodium:	48953.6	2129.36
Analyst: SANDRA GOMEZ	Bicarbonate:	1049.0	17.19	Magnesium:	201.0	16.54
TDS (mg/l or g/m3): 130774.7	Carbonate:	0.0	0.	Calcium:	1177.0	58.73
	Sulfate:	973.0	20.26	Strontium:	166.0	3.79
Density (g/cm3, tonne/m3): 1.082 Anion/Cation Ratio: 1	Phosphate:			Barium:	0.5	0.01
Amon/Cation Ratio:	Borate:			Iron:	27.0	0.98
	Silicate:			Potassium:	642.0	16.42
,				Aluminum:		
Carbon Dioxide: 180 PPM	Hydrogen Sulfide:		0 PPM	Chromium:		
Oxygen:				Copper:		
Comments:	pH at time of sampling:		6.6	Lead:		
	pH at time of analysis:			Manganese:	0.6	0.02
RESISTIVITY 0.06 OHM-M @ 75F	pH used in Calculation	:	6.6	Nickel:		
	-					
•						

Cond	itions		Values C	<u>alculated</u>	at the Give	n Conditi	ons - Amoı	ınts of Sc	ale in lb/10	00 bbl		
Temp	Gauge Press.		alcite aCO3		sum 4*2H20		nydrite aSO4		estite SO4		rite SO4	CO2 Press
F	psi	Index	Amount	Index	Amount	Index	Amount	Index	Amount	Index	Amount	psi
80	0	0.43	58.24	-0.90	0.00	-0.90	0.00	0.00	0.00	0.59	0.31	2.11
100	0	0.52	72.41	-0.97	0.00	-0.91	0.00	-0.03	0.00	0.39	0.31	2.67
120	0	0.61	87.20	-1.02	0.00	-0.88	0.00	-0.05	0.00	0.21	0.00	3.28
140	0	0.70	102.61	-1.07	0.00	-0.84	0.00	-0.05	0.00	0.06	0.00	3.94

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.

# Water Analysis Report by Baker Petrolite

Company: YATES PETROLEUM INC

Sales RDT: 33514.1

Account Manager: TONY HERNANDEZ (575) 910-7135

Region:

PERMIAN BASIN

Sample #:

561784

Area:

ARTESIA, NM

Analysis ID #:

112531

Lease/Platform:

BE BOP BPE STATE COM

Analysis Cost:

\$90.00

Entity (or well #):
Formation:

UNKNOWN

Sample Point:

**FWKO** 

1 H

Summary		, <b>A</b> i	nalysis of Sa	mple 561784 @ 75	°F	
Sampling Date: 09/09/11	Anions	mg/l	meq/l	Cations	mg/l	meq/l
Analysis Date: 09/21/11	Chloride:	63081.0	1779.29	Sodium:	40586.3	1765.4
Analyst: SANDRA GOMEZ	Bicarbonate:	2318.0	37.99	Magnesium:	193.0	15.88
TDC ( 11 1 2). 400404.0	Carbonate:	0.0	0.	Calcium:	1031.0	51.45
TDS (mg/l or g/m3): 109484.9	Sulfate:	1587.0	33.04	Strontium:	87.0	1.99
Density (g/cm3, tonne/m3): 1.073	Phosphate:			Barium:	0.4	0.01
Anion/Cation Ratio: 1	Borate:			Iron:	21.0	0.76
	Silicate:			Potassium:	580.0	14.83
				Aluminum:		
Carbon Dioxide: 550 PPM	Hydrogen Sulfide:	•	0 PPM	Chromium:	•	
Oxygen:	all at time of camplings		7	Copper:	•	
Comments:	pH at time of sampling:		′	Lead:		
RESISTIVITY 0.075 OHM-M @ 75°F	pH at time of analysis:			Manganese:	0.2	0.01
1251311V111 0.0/3 OFIN-M @ /3F	pH used in Calculation	:	7	Nickel:		

Cond	itions		Values C	alculated	at the Give	n Conditi	ons - Amou	unts of Sc	ale in lb/10	00 bbl		
Temp	Gauge Press.		alcite aCO3		osum 04*2H20		ydrite aSO4		estite SO4		rite SO4	CO2 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.

# 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 #:

561785

Lease/Platform:

FARBER 'BOB' FEDERAL

Analysis ID #:

112532

Entity (or well #):

Analysis Cost:

\$90.00

Formation:

UNKNOWN

Sample Point:

WATER TANK

Summa	ry		An	alysis of Sa	mple <b>561785</b> @ 75	ፑ	
Sampling Date:	09/09/11	Anions	mg/l	meq/I	Cations	mg/l	meq/l
Analysis Date:	09/21/11	Chloride:	100163.0	2825.23	Sodium:	62777.3	2730.66
<b>Analyst:</b> SA	NDRA GOMEZ	Bicarbonate:	732.0	12.	Magnesium:	477.0	39.24
TDC (	160505.0	Carbonate:	0.0	0.	Calcium:	1914.0	95.51
TDS (mg/l or g/m3):	169505.2	Sulfate:	2501.0	52.07	Strontium:	97.0	2.21
Density (g/cm3, tonne/i	n3): 1.113	Phosphate:			Barium:	0.2	0.
Anion/Cation Ratio:	1	Borate:			Iron:	9.0	0.33
		Silicate:			Potassium:	834.0	21.33
					Aluminum:		
Carbon Dioxide:	400 PPM	Hydrogen Sulfide:		0 PPM	Chromium:		
Oxygen:		11 (P			Copper:		
Comments:		pH at time of sampling:		6.5	Lead:		
		pH at time of analysis:			Manganese:	0.7	0.03
RESISTIVITY 0.052 OHI	VI-IVI @ 75F	pH used in Calculatio	n:	6.5	Nickel:		

Cond	itions		Values C	alculated	at the Give	n Conditi	ons - Amou	nts of Sc	ale in lb/10	00 bbl		
Temp	Gauge Press.	1	alcite aCO3		sum 4*2H20	1	ydrite aSO4		estite SO4		rite SO4	CO2 Press
F	psi	Index	Amount	Index	Amount	Index	Amount	Index	Amount	Index	Amount	psi
80	0	0.41	40.41	-0.34	0.00	-0.32	0.00	0.06	8.02	0.49	0.00	1.78
100	0	0.50	49.92	-0.41	0.00	-0.33	0.00	0.03	4.16	0.28	0.00	2.21
120	0	0.58	59.72	-0.48	0.00	-0.32	0.00	0.01	1.49	0.10	0.00	2.67
140	0	0.67	69.82	-0.53	0.00	-0.28	0.00	0.00	0.30	-0.05	0.00	3.16

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.

# Water Analysis Report by Baker Petrolite

YATES PETROLEUM INC Company:

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 #):

Analysis Cost:

\$90.00

Formation:

UNKNOWN

Sample Point:

HEATER TREATER

Summary			An	alysis of Sa	mple 561782 @ 75	Ŧ	
Sampling Date:	09/09/11	Anions	mg/l	meq/I	Cations	mg/l	meq/l
Analysis Date:	09/21/11	Chloride:	105349.0	2971.51	Sodium:	63429.1	2759.01
Analyst: SAND	RA GOMEZ	Bicarbonate:	1220.0	19.99	Magnesium:	736.0	60.55
TDS (mg/l or g/m3):	176734.1	Carbonate:	0.0	0.	Calcium:	3390.0	169.16
		Sulfate:	1367.0	28.46	Strontium:	247.0	5.64
Density (g/cm3, tonne/m3 Anion/Cation Ratio:	j: 1.110 1	Phosphate:			Barium:	0.7	0.01
Amon/Cation Ratio:		Borate:			Iron:	14.0	0.51
		Silicate:			Potassium:	981.0	25.09
	ï	· ·			Aluminum:		
Carbon Dioxide:	600 PPM	Hydrogen Sulfide:		0 PPM	Chromium:		
Oxygen:		mid of time of committee			Copper:		
Comments:		pH at time of sampling		6.5	Lead:		
RESISTIVITY 0.048 OHM-I	4 @ 75°E	pH at time of analysis:			Manganese:	0.3	0.01
RESISTIVIT 1 0.046 OFINI-1	VI (W 15.F	pH used in Calculation	on:	6.5	Nickel:		

Cond	itions		Values C	alculated	at the Give	n Conditi	ons - Amou	ints of Sc	ale in lb/10	ldd 00		
Temp	Gauge Press.		alcite aCO3		sum 4*2H20		nydrite aSO4		estite SO4		rite SO4	CO2 Press
F	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,

# 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 #:

561787

Lease/Platform:

QUITOTE BQJ STATE COM

Analysis ID #:

112534

Entity (or well #):

1 H

Analysis Cost:

\$90.00

Formation:

UNKNOWN

**FWKO** Sample Point:

Summ	ary	Analysis of Sample 561787 @ 75 F								
Sampling Date:	09/09/11	Anions	mg/l	meq/l	Cations	mg/l	meq/l			
Analysis Date:	09/21/11	Chloride:	178889.0	5045.81	Sodium:	80707.5	3510.58			
Analyst: S	ANDRA GOMEZ	Bicarbonate:	61.0	1.	Magnesium:	3713.0	305.45			
TDC /mar/l on m/m2\.	289832	Carbonate:	0.0	0.	Calcium:	23375.0	1166.42			
TDS (mg/l or g/m3):		Sulfate:	248.0	5.16	Strontium:	1190.0 6.5	27.16			
Density (g/cm3, tonne Anion/Cation Ratio:	//ms): 1.100	Phosphate:			Barium:		0.09			
Amon/Cation Ratio:	'	Borate:			Iron:	20.0	0.72			
		Silicate:			Potassium:	1615.0	41.3			
	·				Aluminum:					
Carbon Dioxide:	500 PPM	Hydrogen Sulfide:		0 PPM	Chromium:					
Oxygen:		all of time of a smaller		6.5	Copper:					
Comments:		pH at time of sampling:			Lead:					
		pH at time of analysis:			Manganese:	7.0	0.25			
		pH used in Calculatio	n:	6.5	Nickel:					
		•								

Cond	itions		Values Calculated at the Given Conditions - Amounts of Scale in lb/1000 bbl											
Gauge Temp Press.		Calcite CaCO3		Gypsum CaSO4*2H20		Anhydrite CaSO4		Celestite SrSO4		Barite BaSO4		CO2 Press		
F	psi	Index	Amount	Index	Amount	Index	Amount	Index	Amount	Index	Amount	psi		
80	0	0.45	2.38	-0.38	0.00	-0.31	0.00	-0.17	0.00	0.65	2.65	0.09		
100	0	0.51	2.91	-0.46	0.00	-0.33	0.00	-0.20	0.00	0.46	2.12	0.11		
120	0	0.56	3.18	-0.54	0.00	-0.33	0.00	-0.21	0.00	0.29	1.59	0.14		
140	0	0.61	3.71	-0.60	0.00	-0.30	0.00	-0.20	0.00	0.14	0.79	0.16		

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.

# 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 #:

561786

Lease/Platform:

RENEGADE BPG FEDERAL

Analysis ID #:

112535

Entity (or well #):

Analysis Cost:

\$90.00

Formation:

UNKNOWN

Sample Point:

**FWKO** 

Summa	nry	Analysis of Sample 561786 @ 75 F								
Sampling Date:	09/09/11	Anions	mg/l	meq/l	Cations	mg/l	meq/l			
Analysis Date: Analyst: SA	09/21/11 ANDRA GOMEZ	Chloride: Bicarbonate:	156230.0 122.0	4406.68 2.	Sodium: Magnesium:	77861.6 2676.0	3386.79 220.14			
TDS (mg/l or g/m3): Density (g/cm3, tonne/ Anion/Cation Ratio:	254753.1 ( <b>m3):</b> 1.166	Carbonate: Sulfate: Phosphate: Borate: Silicate:	0.0 617.0	0. 12.85	Calcium: Strontium: Barium: Iron: Potassium: Aluminum:	15436.0 772.0 2.0 14.0 1019.0	770.26 17.62 0.03 0.51 26.06			
Carbon Dioxide: Oxygen: Comments:	300 PPM	Hydrogen Sulfide: pH at time of sampling: pH at time of analysis: pH used in Calculation		0 PPM 6	Chromium: Copper: Lead: Manganese: Nickel:	3.5	0.13			
Comments:		pH at time of analysis:		6	Manganese:	3.5				

Cond	itions	ns Values Calculated at the Given Conditions - Amounts of Scale in lb/1000 bbl										
Gauge Press.		Calcite CaCO3		Gypsum CaSO4*2H20		Anhydrite CaSO4		Celestite SrSO4		Barite BaSO4		CO2 Press
F	psi	Index	Amount	Index	Amount	Index	Amount	Index	Amount	Index	Amount	psi
80	0	0.07	1.37	-0.14	0.00	-0.09	0.00	0.11	50.40	0.63	0.82	0.69
100	0	0.15	3.01	-0.23	0.00	-0.11	0.00	0.09	39.99	0.43	0.55	0.82
120	0	0.23	4.38	-0.30	0.00	-0.10	0.00	0.08	35.34	0.25	0.55	0.94
140	0	0.31	6.03	-0.36	0.00	-0.07	0.00	0.08	35.61	0.10	0.27	1.06

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.

#### **Attachment E**

#### Certified Notification letters sent to:

#### 1. Surface owner:

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

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

Apache Corp 2000 Post Oak Blvd STE 100 Houston TX 77056-4400

Chisos LTD 670 Dona Ana Rd SW Deming NM 88030

Pure Energy Group INC 700 N ST Mary's St #1925 San Antonio, TX 78205

Las Animas Prod Co 3300 N A St Bldg 2 Midland, TX 79705-5421

Exxon Mobil Oil Corp P.O. Box 4358 Houston, TX 77210-4358

BWB Partners PO Box 51407 Midland, TX 79702

OGX Resources LLC 400 N Marienfeld #200 Midland, TX 79701

Devon Energy Prod Co LP 20 N Broadway #1500 Oklahoma City, OK 73102

Chevron USA Inc 15 Smith Rd Midland, TX 79705

OXY USA Inc P.O. Box 27570 Houston, TX 77227-7570 Burlington Mobil Oil Corp P.O. Box 51810 Houston, TX 79710-1810

EOG Resources Inc P.O. Box 4362 Houston, TX 77210-4362

FRANK W. YATES 1936-1986

S.P. YATES



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

JOHN A. YATES
CHAIRMAN OF THE BOARD

JOHN A. YATES JR.

SCOTT M. YATES

JAMES S. BROWN CHIEF OPERATING OFFICER

JOHN D. PERINI

November 4<sup>th</sup>, 2011

Pure Energy Group INC 700 N ST Mary's St #1925 San Antonio, TX 78205

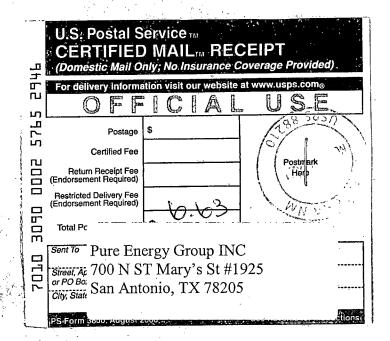
Re: Jackson Federal #1 SWD

Dear Sirs:

Enclosed please find copies of form C-108 (Application for Authority to Inject) on said well located in Section 26 T24S, R32E of Lea County, New Mexico.

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

Margrethe Hotter Area Engineer



FRANK W. YATES 1936-1986

> 5.P. YATES 1914-2008



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

JOHN A. YATES

JOHN A. YATES JR. PRESIDENT

SCOTT M. YATES

JAMES S. BROWN CHIEF OPERATING OFFICER

JOHN D. PERINI CHIEF FINANCIAL OFFICER

November 4th, 2011

Chisos LTD 670 Dona Ana Rd SW Deming NM 88030

Re: Jackson Federal #1 SWD

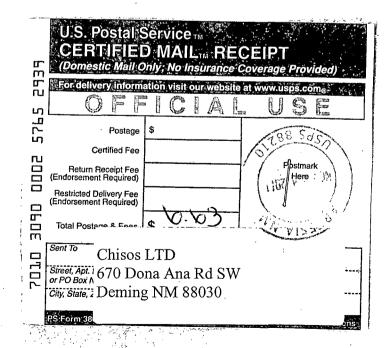
Dear Sirs:

Enclosed please find copies of form C-108 (Application for Authority to Inject) on said well located in Section 26 T24S, 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



MARTIN YATES, III 1912-1985

FRANK W. YATES 1936-1986

> 5.P. YATES 1914-2008



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

JOHN A. YATES CHAIRMAN OF THE BOARD

JOHN A. YATES JR.

SCOTT M. YATES

JAMES S. BROWN .
CHIEF OPERATING OFFICER

JOHN D. PERINI CHIEF FINANCIAL OFFICER

November 4<sup>th</sup>, 2011

Apache Corp 2000 Post Oak Blvd STE 100 Houston TX 77056-4400

Re: Jackson Federal #1 SWD

Dear Sirs:

Enclosed please find copies of form C-108 (Application for Authority to Inject) on said well located in Section 26 T24S, R32E of Lea County, New Mexico.

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

Sincerely,

Margiethe Hotter

Area Engineer



FRANK W. YATES

S.P. YATES 1914-2008



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

JOHN A. YATES CHAIRMAN OF THE BOARD

JOHN A. YATES JR.
PRESIDENT

SCOTT M. YATES

JAMES S. BROWN CHIEF OPERATING OFFICER

JOHN D. PERINI

September 23, 2011

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

Re: Jackson Federal #1 SWD

Dear Sirs:

Enclosed please find copies of form C-108 (Application for Authority to Inject) on said well located in Section 26 T24S, 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



FRANK W. YATES 1936-1986

> S.P. YATES 1914-2008



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

JOHN A. YATES CHAIRMAN OF THE BOARD

JOHN A. YATES JR.

SCOTT M. YATES

JAMES S. BROWN
CHIEF OPERATING OFFICER

JOHN D. PERINI CHIEF FINANCIAL OFFICER

September 23, 2011

Marks and Garner Production PO Box 70 Lovington, NM 88260

Re: Jackson Federal #1 SWD

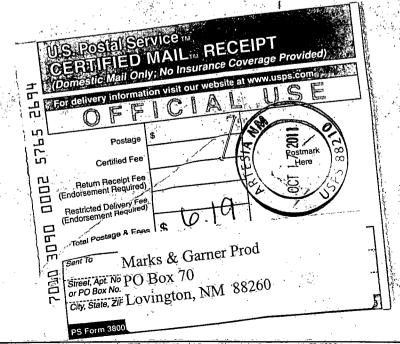
Dear Sirs:

Enclosed please find copies of form C-108 (Application for Authority to Inject) on said well located in Section 26 T24S, 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



FRANK W. YATES 1936-1986

S.P. YATES



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

JOHN A. YATES CHAIRMAN OF THE BOARD

JOHN A. YATES JR.

SCOTT M. YATES

JAMES S. BROWN CHIEF OPERATING OFFICER

JOHN D. PERINI CHIEF FINANCIAL OFFICER

September 23, 2011

Las Animas Production Co 1031 Andrew Hwy 209 Midland, TX 79401

Re: Jackson Federal #1 SWD

Dear Sirs:

Enclosed please find copies of form C-108 (Application for Authority to Inject) on said well located in Section 26 T24S, R32E of Lea County, New Mexico.

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

1/1/1/2.

Margrethe Hotter Area Engineer



FRANK W. YATES

S.P. YATES



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

JOHN A. YATES

JOHN A. YATES JR.

PRESIDENT

SCOTT M. YATES

JAMES S. BROWN CHIEF OPERATING OFFICER

JOHN D. PERINI

September 23, 2011

Exxon Mobil Oil Corp P.O. Box 4358 Houston, TX 77210-4358

Re: Jackson Federal #1 SWD

Dear Sirs:

Enclosed please find copies of form C-108 (Application for Authority to Inject) on said well located in Section 26 T24S, 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



FRANK W. YATES 1936-1986

> S.P. YATES 1914-2008



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

JOHN A. YATES CHAIRMAN OF THE BOARD

JOHN A. YATES JR.

SCOTT M. YATES VICE PRESIDENT

JAMES S. BROWN CHIEF OPERATING OFFICER

JOHN D. PERINI CHIEF FINANCIAL OFFICER

September 23, 2011

BWB Partners PO Box 51407 Midland, TX 79702

Re: Jackson Federal #1 SWD

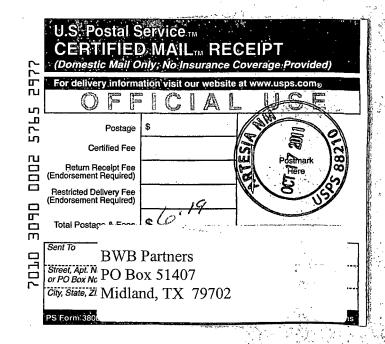
Dear Sirs:

Enclosed please find copies of form C-108 (Application for Authority to Inject) on said well located in Section 26 T24S, R32E of Lea County, New Mexico.

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

Margrethe Hotter

Area Engineer



FRANK W. YATES

S.P. YATES 1914-2008



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

JOHN A. YATES

JOHN A. YATES JR.

ECUIT M VATES

SCOTT M. YATES

JAMES S. BROWN
CHIEF OPERATING OFFICER

JOHN D. PERINI CHIEF FINANCIAL OFFICER

September 23, 2011

OGX Resources LLC 400 N Marienfeld #200 Midland, TX 79701

Re: Jackson Federal #1 SWD

Dear Sirs:

Enclosed please find copies of form C-108 (Application for Authority to Inject) on said well located in Section 26 T24S, 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



MARTIN YATES, III 1912-1985

FRANK W. YATES 1936-1986

S.P. YATES



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

JOHN A. YATES

JOHN A. YATES JR. PRESIDENT

SCOTT M. YATES VICE PRESIDENT

JAMES S. BROWN CHIEF OPERATING OFFICER

JOHN D. PERINI CHIEF FINANCIAL OFFICER

September 23, 2011

Devon Energy Prod Co LP 20 N Broadway #1500 Oklahoma City, OK 73102

Re: Jackson Federal #1 SWD

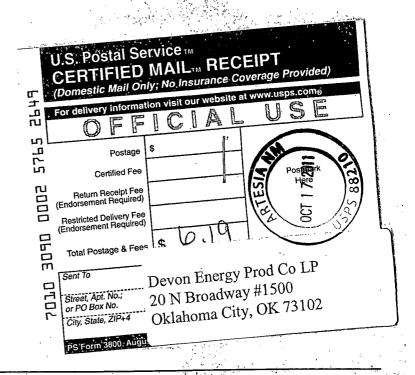
Dear Sirs:

Enclosed please find copies of form C-108 (Application for Authority to Inject) on said well located in Section 26 T24S, R32E of Lea County, New Mexico.

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

Sincere

Margeethe Hotter Area Engineer



MARTIN YATES, III 1912-1985

FRANK W. YATES

5.P. YATES 1914-2008



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

JOHN A. YATES

JOHN A. YATES JR.

SCOTT M. YATES

JAMES S. BROWN CHIEF OPERATING OFFICER

JOHN D. PERINI CHIEF FINANCIAL OFFICER

September 23, 2011

Chevron USA Inc 15 Smith Rd Midland, TX 79705

Re: Jackson Federal #1 SWD

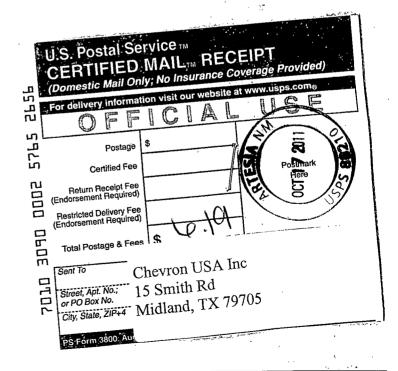
Dear Sirs:

Enclosed please find copies of form C-108 (Application for Authority to Inject) on said well located in Section 26 T24S, R32E of Lea County, New Mexico.

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

Sincerely,

Maygrethe Hotter Area Engineer



MARTIN YATES, III 1912-1985 , FRANK W. YATES 1936-1986

> S.P. YATES 1914-2008



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

JOHN A. YATES

JOHN A. YATES JR.

SCOTT M. YATES

JAMES S. BROWN CHIEF OPERATING DEFICER

JOHN D. PERINI CHIEF FINANCIAL OFFICER

September 23, 2011

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

Re: Jackson Federal #1 SWD

Dear Sirs:

Enclosed please find copies of form C-108 (Application for Authority to Inject) on said well located in Section 26 T24S, R32E of Lea County, New Mexico.

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

Sincerely,

Marg ethe Hotter

Area Engineer



MARTIN YATES, III 1912-1985

FRANK W. YATES 1936-1986

> S.P. YATES 1914-2008



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

JOHN A. YATES
CHAIRMAN OF THE BOARD

JOHN A. YATES JR.

SCOTT M. YATES

JAMES S. BROWN CHIEF OPERATING OFFICER

JOHN D. PERINI CHIEF FINANCIAL OFFICER

September 23, 2011

Burlington Mobil Oil Corp P.O. Box 51810 Houston, TX 79710-1810

Re: Jackson Federal #1 SWD

Dear Sirs:

Enclosed please find copies of form C-108 (Application for Authority to Inject) on said well located in Section 26 T24S, 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



1912-1985

FRANK W. YATES

S.P. YATES 1914-2008



105 SOUTH FOURTH STREET

ARTESIA, NEW MEXICO 88210-2118

TELEPHONE (575) 748-1471

JOHN A. YATES

JOHN A. YATES JR.

SCOTT M. YATES
VICE PRESIDENT

JAMES S. BROWN CHIEF OPERATING OFFICER

JOHN D. PERINI

September 23, 2011

EOG Resources Inc P.O. Box 4362 Houston, TX 77210-4362

Re: Jackson Federal #1 SWD

Dear Sirs:

Enclosed please find copies of form C-108 (Application for Authority to Inject) on said well located in Section 26 T24S, 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



## **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
October 19, 2011
and ending with the issue dated
October 19, 2011

(PUBLISHER

Sworn and subscribed to before me

this 24th day of October, 2011

Notary Public

My commission expires February 09, 2013

(Seal)

WALLE OF NEW METALITY

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

LEGAL

LEGAL

Legal Notice OCTOBER 19, 2011

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 Jackson Federal #1.SWD, located 660 FNL & 660 FWL, Unit D, Section 26, Township 24 South, Range 32 East of Lea 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 5,300 6424 with a maximum pressure of 1170psi and a maximum rate of 5000 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.

#26930

01101029

00081842

ATTN: MARGRETHE F. HOTTER YATES PETROLEUM CORPORATION P.O. BOX 97 ARTESIA, NM 88210

Attachment F

#### **Attachment G**

C-108 Application for Authorization to Inject Yates Petroleum Corporation Jackson Federal #1 SWD

> Unit D, Section 26-T24S-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.

Sterling Fly Geologist

Yates Petroleum Corporation

1/23/20

Date

#### Jones, William V., EMNRD

From:

Margrethe Hotter [Margreth@yatespetroleum.com]

Sent:

Thursday, November 17, 2011 3:17 PM

To:

Jones, William V., EMNRD

Subject:

RE: Disposal application from Yates Petroleum Corporation: Jackson Federal SWD #1

30-025-28242 Delaware

Hello,

Yes, they were. NM-113966 of section 23 24S 32E was notified to BWB Partners, PO Box 51407, Midland, TX 79702. They should be on the notification list and also with a copy of the letter and certified mail receipt.

This well is in the same area as the Allen Fed SWD #1 we recently got approved and OGX's Turquois SWD (SWD-1203), proposing to inject into those same sand intervals.

All production in this area is/was from the upper Bell Canyon of the Delaware. It isn't and never was very good, only with minor oil and very high water production. There are two injection wells just west of this Jackson Federal SWD #1, the Exxon A Fed #2 and US Smelting Fed #5, both injecting into perfs in the Bell Canyon interval that is/was produced in their surrounding wells.

The water saturation in the proposed injection interval is high, in the sands 60-75% with very high porosity, 20-28%. This interval is non productive in this area and surrounding townships. This was a dry hole, nothing was found during the drilling phase worth testing, and production casing was not set. Only surface and intermediate was set. We do not see any productive potential in the injection interval of this well; the re-entry will be for injection only.

I hope this answer your questions.

Hope everything is fine up there in Santa Fe. Have a great Thanksgiving!

#### Margrethe F. Hotter

Area Engineer Yates Petroleum Corp 105 S. 4th St Artesia, NM, 88210 Tel.: 575-748-4165 (office)

Tel.: 575-703-0749 (cell) Fax: 575-748-4585

From: Jones, William V., EMNRD [mailto:William.V.Jones@state.nm.us]

Sent: Thursday, November 17, 2011 2:42 PM

To: Margrethe Hotter

Cc: Ezeanyim, Richard, EMNRD; Gonzales, Elidio L, EMNRD

Subject: Disposal application from Yates Petroleum Corporation: Jackson Federal SWD #1 30-025-28242 Delaware

Hello Margrethe,

Just got this application in and looked it over and see a couple of questions,

Who are the unleased owners within the Delaware depths in the W/2 SW/4 of Section 23 and were they noticed?

I see in this well file that this was a Bone Spring test that may have considered trying the Delaware, but the records don't say which depths within the Delaware were proposed for testing or if they were actually tested.

Would you please send a statement about the hydrocarbon prospects of the proposed disposal interval – what the water saturation looks like, etc?

#### Thank You,

William V Jones, P.E.
Engineering, Oil Conservation Division
1220 South St. Francis Drive, Santa Fe, NM 87505
Tel 505.476.3448 ~ Fax 505.476.3462

Page 1 of 1

Request Sent

Reply:

SWD\_Checklist.xls/ReviewersList

Issues:

11/8/2011/6:12 PM