

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 SWD IPI EOR PPR
- [D] Other: Specify _____
- [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] 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

-SWD 1334-A
 -CO9 OPERATING ILC
 229137

Well
 -Pinesprings 2
 SWD#2
 30-015-21081
Pool

-SWD; Delaware
 96100

[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.

BRIAN COLLINS
 Print or Type Name

Brian Collins
 Signature

SENIOR OPERATIONS ENGINEER
 Title

13 Feb 2014
 Date

bcollins@concho.com
 e-mail Address



RECEIVED COG

FEB 13 10 33 AM '14

February 13, 2014

New Mexico Oil Conservation Division
Attn: Phillip Goetze
1220 South St. Francis Drive
Santa Fe, NM 87505

RE: **Application For Authorization To Inject**
Pine Springs 2 State SWD #2
Township 26 South, Range 25 East, N.M.P.M.
Section 2: 1980' FSL & 1980' FEL
Eddy County, New Mexico

Dear Mr. Goetze:

COG Operating LLC respectfully requests administrative approval for authorization to inject for the referenced well. Attached, for your review, is a copy of the C-108 application. Once we receive the newspaper publication and all certified return receipts, I will send you a copy.

We would like to terminate Administrative Order SWD-1334, issued May 17, 2012, for this same well bore under the name Chelsi Well No. 1. This well has not been converted to SWD service and is still plugged and abandoned. We purchased Three Rivers Operating Company's southeast New Mexico properties and now operate this lease. The current order is for injection into the Upper Pennsylvanian formation from 9830 feet to 9992 feet. We're proposing to reenter this well bore and make it into a Delaware Sand open hole SWD well from 2655' to 4200'.

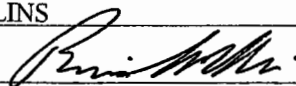
Please do not hesitate to contact me at (575) 748-6940 should you have any questions.

Sincerely,

Brian Collins
Senior Operations Engineer

BC/sw
Enclosures

APPLICATION FOR AUTHORIZATION TO INJECT

- I. PURPOSE: _____ Secondary Recovery _____ Pressure Maintenance _____ Disposal _____ Storage
Application qualifies for administrative approval? _____ Yes _____ No
- II. OPERATOR: _____ COG OPERATING LLC _____
ADDRESS: _____ 2208 W. Main Street, ARTESIA, NM 88210 _____
CONTACT PARTY: _____ BRIAN COLLINS _____ PHONE: _____ 575-748-6940 _____
- 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 _____ 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: _____ BRIAN COLLINS _____ TITLE: _____ Senior Operations Engineer _____
SIGNATURE: _____  _____ DATE: _____ 13 Feb 2014 _____
- E-MAIL ADDRESS: _____ bcollins@concho.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: _____

C-108 Application for Authorization to Inject
PINE SPRINGS 2 STATE SWD 2
1980' FSL, 1980' FEL
Unit J, Sec 2, T26S, R25E
Eddy County, NM

COG Operating, LLC, proposes to reenter the captioned well, clean out the well across the Delaware Sand, plug back to 4200' with cement and dispose of produced water into the Delaware Sand open hole interval from 2655' to 4200'.

- V. Map is attached.
- VI. No wells currently penetrate the proposed injection zone within the ½ mile radius area of review. One well lies just outside the ½ mile radius area of review and another well may be drilled within the area of review in the future. Well bore schematics for both are attached.
- VII.
 1. Proposed average daily injection rate = 5,000 BWPD
Proposed maximum daily injection rate = 10,000 BWPD
 2. Closed system
 3. Proposed maximum injection pressure = 531 psi
(0.2 psi/ft. x 2655 ft.)
 4. Source of injected water will be Delaware Sand, Bone Spring and Wolfcamp produced water. No compatibility problems are expected (we've seen no compatibility issues in numerous Delaware Sand SWDs located in T25S R28E and T26s R28e that take the same produced water as the proposed SWD well). Analyses of Delaware, Bone Spring and Wolfcamp waters are attached.
- VIII. The injection zone is the Delaware Sand from 2655' to 4200'. The proposed injection formation is composed of fine grained sandstone. Any underground water sources will be shallower than 150' per Office of State Engineer website.
- IX. The Delaware Sand injection interval will be acidized with approximately 10,000 gals of 7.5% HCl acid and possibly fracture treated with approximately 200,000 lbs. of sand.
- X. Well logs, if run, will be filed with the Division. A portion of the original Welex Guard log across the proposed injection interval is attached.
- XI. There are no fresh water wells within a mile of the proposed SWD well.
- XII. After examining the available geologic and engineering data, no evidence was found of open faults or any other hydrologic connection between the disposal zone and any underground sources of drinking water.
- XIII. Proof of Notice is attached.

III.

WELL DATA

INJECTION WELL DATA SHEET

OPERATOR: COG Operating, LLC

WELL NAME & NUMBER: Pine Springs 2 State SWD No. 2 (Formerly Target Unit 1 & Chelsi 1)

WELL LOCATION: 1980' FSL 1980' FEL

UNIT LETTER: J

SECTION: 2

TOWNSHIP: 26s

RANGE: 25e

WELLBORE SCHEMATIC

WELL CONSTRUCTION DATA
Surface Casing

Hole Size: 17 1/2" Casing Size: 13 3/8" @ 199'
Cemented with: 200 sx. or - ft³
Top of Cement: Surface Method Determined: Circ 25sx

See Attached Before & After
Schematics

Intermediate Casing

Hole Size: 12 1/4" Casing Size: 9 5/8" @ 2655'
Cemented with: 900 sx. or - ft³
Top of Cement: Surface Method Determined: Circulated

Production Casing

Hole Size: _____ Casing Size: _____
Cemented with: - sx. or _____ ft³
Top of Cement: _____ Method Determined: _____

Total Depth: _____

Injection Interval

8 3/4" OH 2655' feet to 4200'

(Perforated or Open Hole indicate which)

INJECTION WELL DATA SHEET

Tubing Size: 4 1/2" Lining Material: Glassbore / Duoline 20
 Type of Packer: Nickel plated 10K retrievable double grip
 Packer Setting Depth: ± 2600'
 Other Type of Tubing/Casing Seal (if applicable): N/A

Additional Data

1. Is this a new well drilled for injection? Yes No
 If no, for what purpose was the well originally drilled? Oil & Gas

2. Name of the Injection Formation: Delaware Sand

3. Name of Field or Pool (if applicable): Cottonwood Spring

4. Has the well ever been perforated in any other zone(s)? List all such perforated intervals and give plugging detail, i.e. sacks of cement or plug(s) used. Yes - See wellbore schematic

5. Give the name and depths of any oil or gas zones underlying or overlying the proposed injection zone in this area:
Overlying: None
Underlying: Bone Spring 5580-8300'±, Wolfcamp 8500-9600'±
Upper Permian 9800-10250'±, Morrow 11350-11675'±

30-015-21081

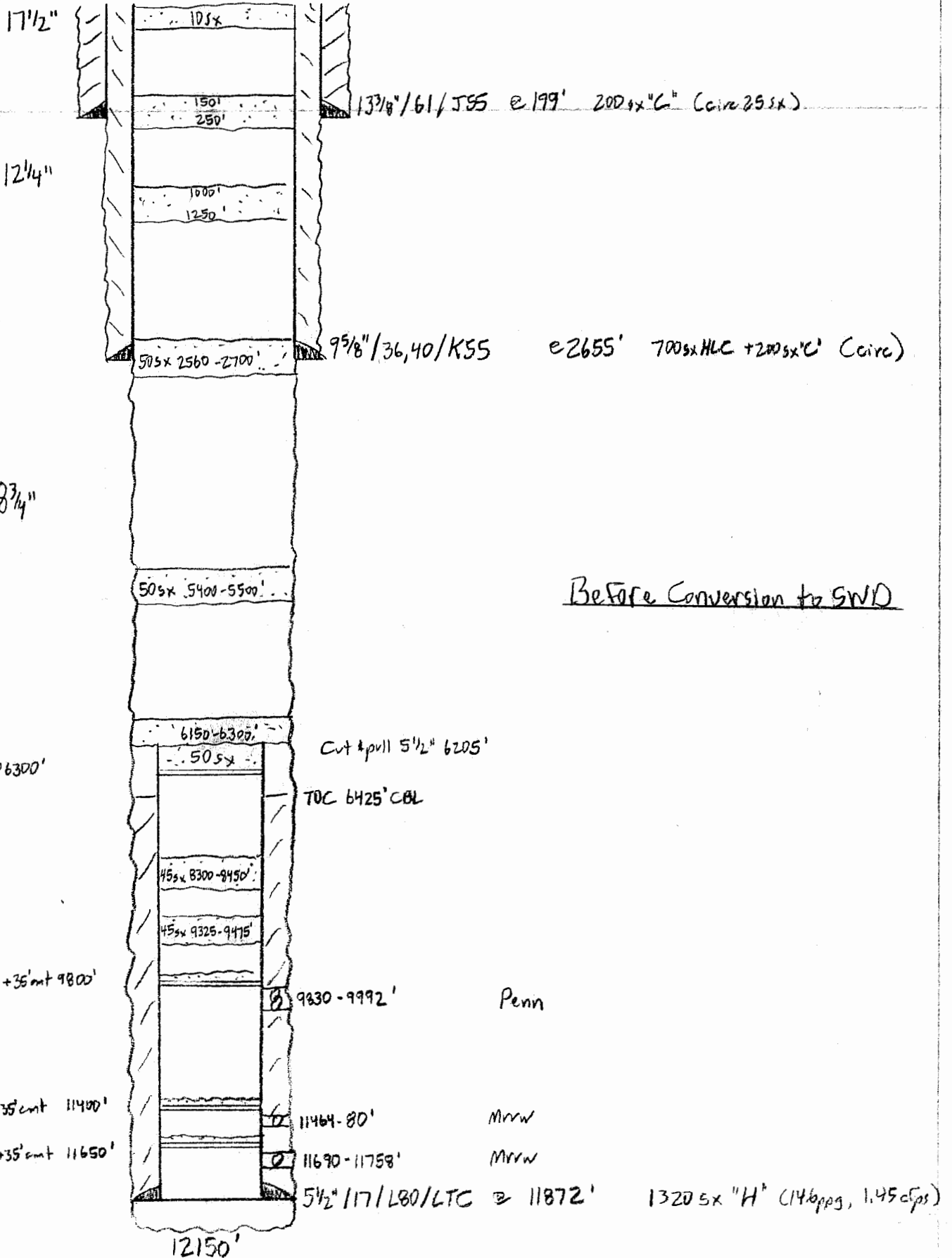
(Formerly Target Unit 1, Chelbi 1)

1980'FSL, 1980'FEL

J-2-269-25e

Eddy NM

GL: 3587.2'



30-015-21081

(Formerly Target Unit 1, Chelbi 1)

1980' FSL, 1980' FEL

J-2-265-25e

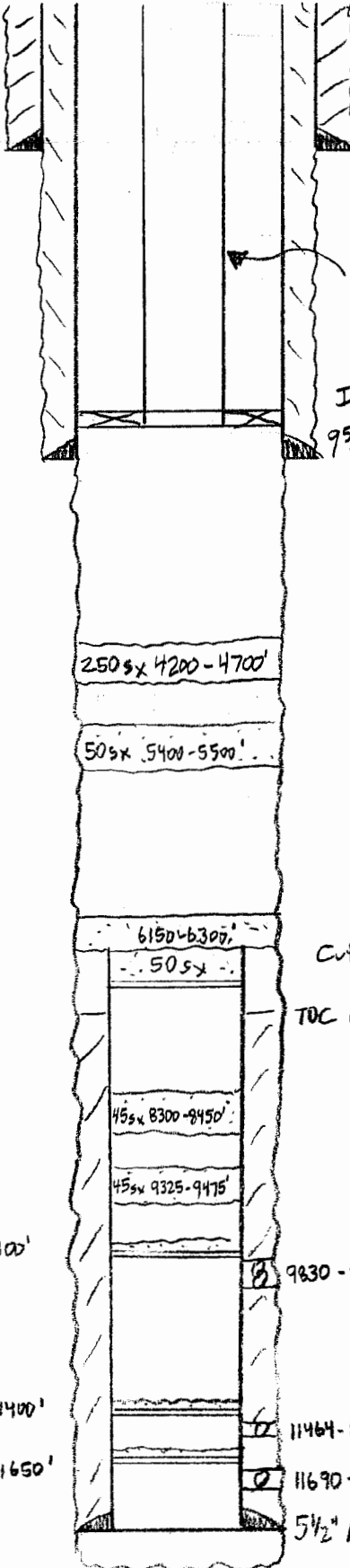
Eddy NM

GL: 3587.2'

17 1/2"

12 1/4"

8 3/4"



13 3/8" / 61 / JSS @ 199' 200sx"C" (Circ 25sx)

4 1/2" Inj Tbg

Inj PKr ± 2600'

9 5/8" / 36,40 / KSS

@ 2655' 700sx HLC + 200sx "C" (Circ)

Delaware OH 2655-4200'

250sx 4200-4700'

50sx 5400-5500'

AFTER Conversion to SWD

6150-6300'

50sx

Cut & pull 5 1/2" 6205'

C10P 6300'

TOC 6425' CBZ

45sx 8300-8450'

45sx 9325-9475'

C10P + 35' cont 9800'

9830-9992'

Penn

C10P + 35' cont 11400'

11464-80'

Mrrw

C10P + 35' cont 11650'

11690-11758'

Mrrw

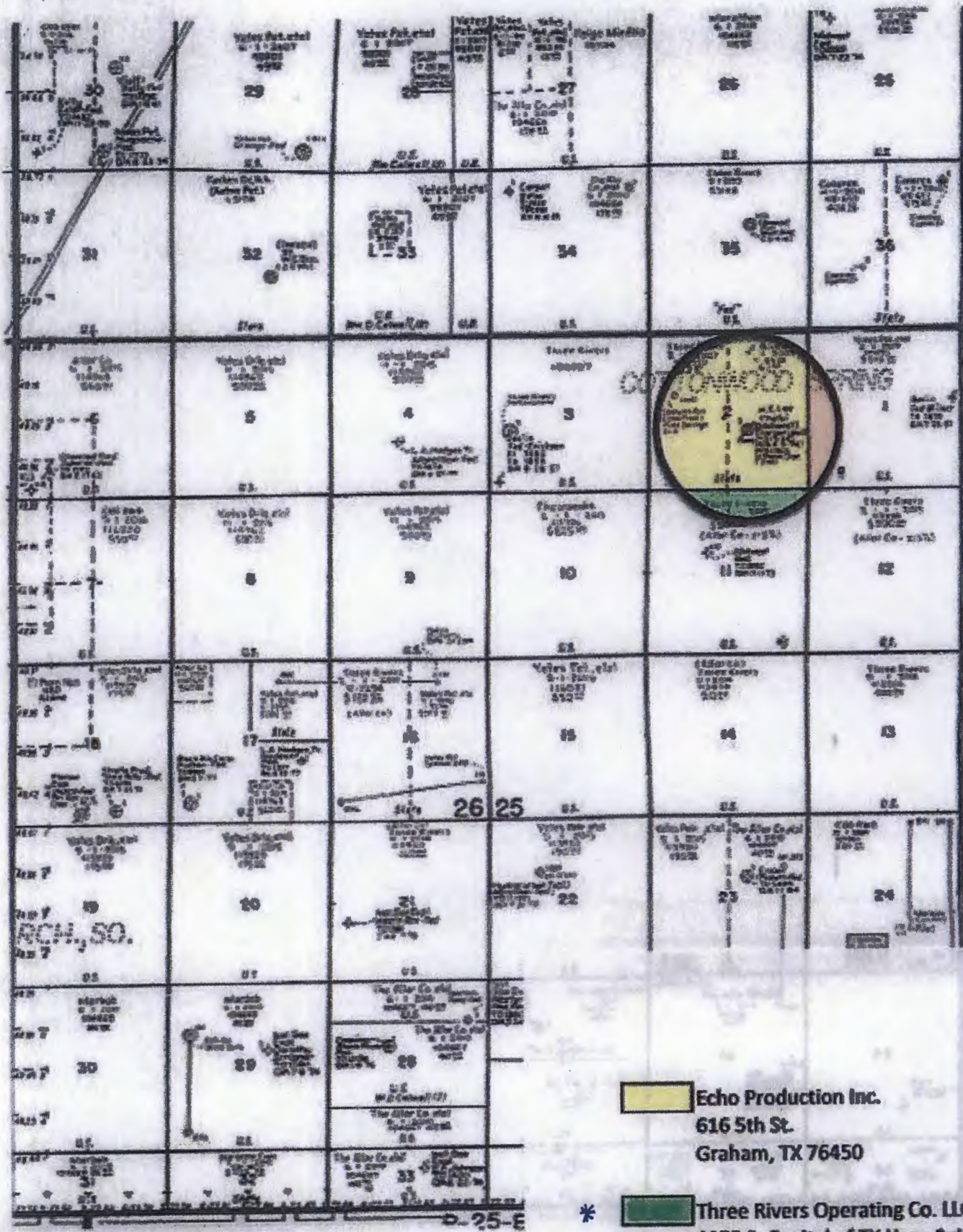
5 1/2" / 17 / L80 / LTC @ 11872'

1320sx "H" (14 bpps, 1.45 cfps)


12150'


V.


MAP



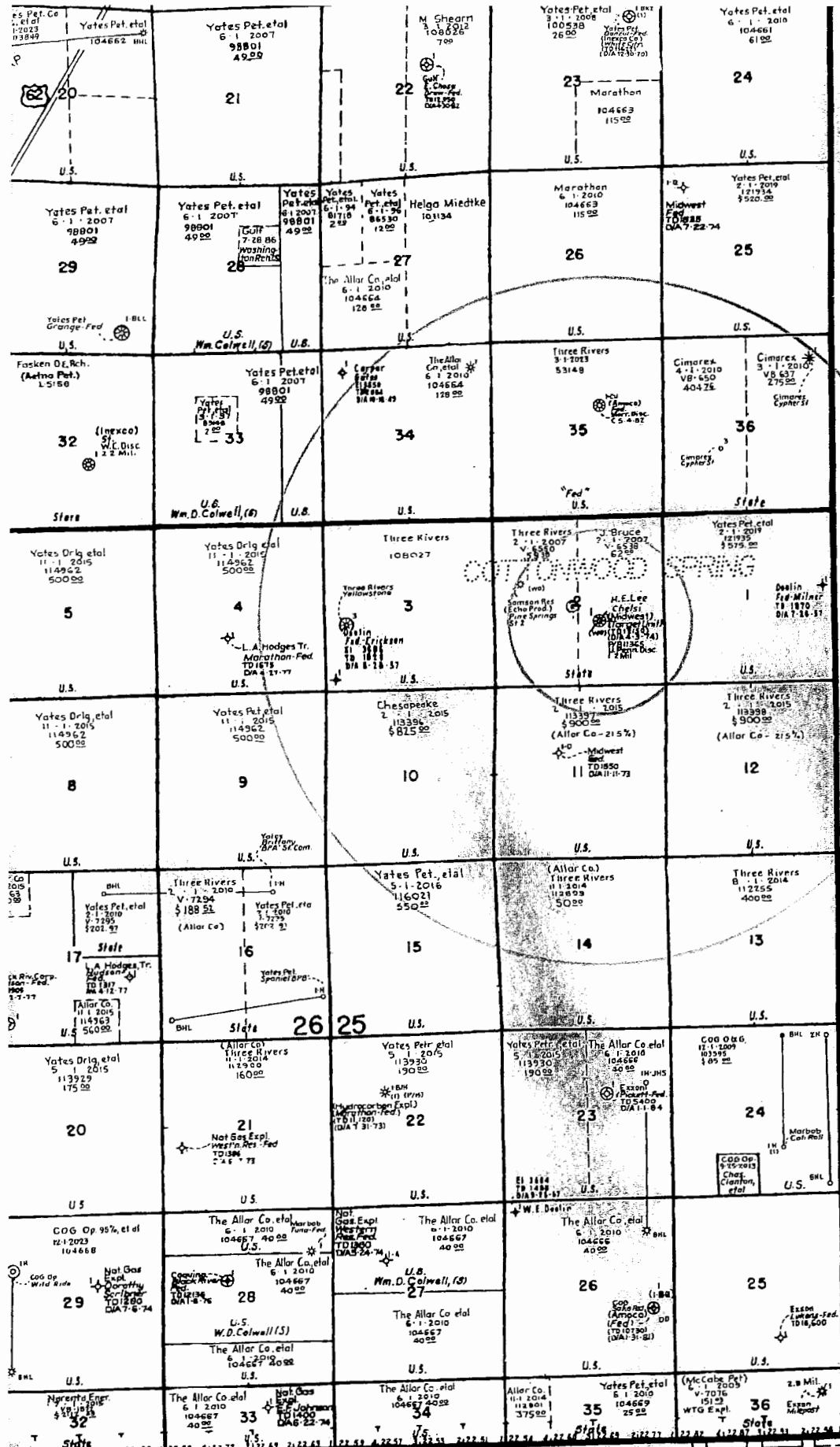
Pine Springs 2 State SWD No.2
 1980' FSL, 1980' FEL
 Unit J, Section 2, T26S, R25E
 Eddy County, NM

 Echo Production Inc.
 616 5th St.
 Graham, TX 76450

*  Three Rivers Operating Co. LLC
 1122 S. Capital of TX Hwy. Suite 325
 Austin, TX 78746

 Yates Petroleum Corporation
 105 S. 4th St.
 Artesia, NM 88210

* COG Operating, LLC purchased
 Three Rivers Operating properties in 2012.



R-25-E

Ownership Map West Part Of

VI.

Wells Penetrating Proposed Disposal Interval Within Half Mile Area of Review

30-015-

Pine Springs 2 State SWD 1
2500' FSL, 2500' FWL
K-Z-269-25e
Eddy, N/A

26"

20" / / / @ ± 200' ± 600 CF Cmt.

17 1/2"

TOC 1200' Design
13 3/8" / / / @ ± 1700' ± 2300 CF Cmt.

12 1/4"

Within 1/2 Mile Area of Review
Proposed Well Bore Schematic
(Not Drilled Yet)

4 1/2" Inj Tbg.

2 7/8"

9 5/8" / / / @ ± 8500' ± 3400 CF Cmt.

Inj Pkr ± 12400'

7" / / / Liner ± 8200' - 12450' ± 950 CF Cmt.

6 1/8"

Devonian Silurian Ordovician
OH Inj. Interval ± 12450' - ± 14000'

± 14,000'

30-D15-33562

Pine Springs 2 State No. 1
1980' FML, 810' FWL
E-2-269-250
Eddy, NM

GL: 3584'

17 1/2"

12 1/4"

TOC 5017'
CBL

8 3/4"

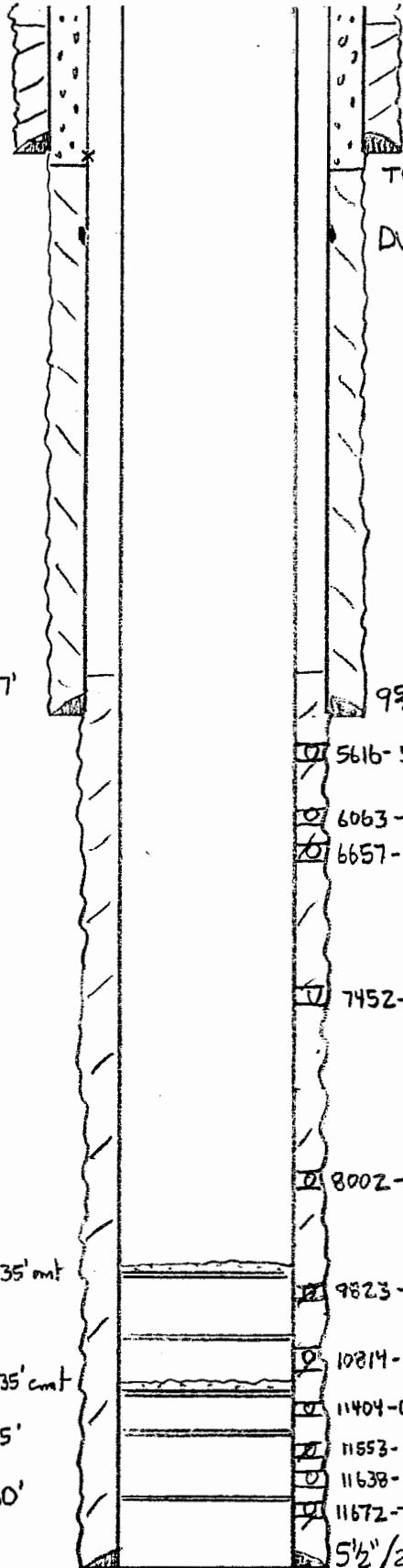
CIBP 9800' +35' cmt

CIBP 10784'

CIBP 11380' +35' cmt

CIBP 11515'

CIBP 11660'



13 3/8" / 48 / H40 / STC @ 403' 450sx "C" (TDC 42')
TOC 550' Perf 520' cmt 510sx "C" (cirt)

DV 1500'

Just Outside 1/2 Mile Area of Review

9 5/8" / 40 / N80 / BTC @ 5227' (2 stg) 3635sx cmt

5616-5904' Avalon

6063-6310'

6657-6851'

1st BSS (Proposed to sqz 1 1/2" (366) perfs)

7452-7528' 2nd BSS

8002-8234' 3rd BSS

9823-9971' WC

10814-11014' Atoka (sqzd)

11404-06'

11553-57'

11638-40' Mrrw

11672-74'

5 1/2" / 20 / P110 / LTC @ 11900' 1455 sx.

11900'

VII.

Water Analysis Produced and Receiving Formation Water

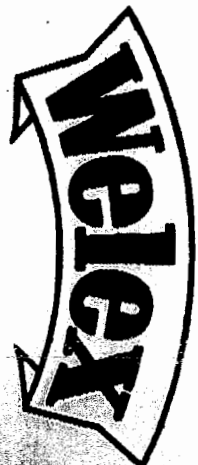
WATER SAMPLES REPRESENTATIVE OF WATER BEING INJECTED INTO THE PROPOSED SWD WELL												
State	Lease	Location	Salesman	Date Out	Sample Date	Specific Gravity	Ionic Strength	TDS	pH	conductivity	Ca (mg/L)	Mg (mg/L)
Delaware	Sly Hawk State	1	William D Polk	9/28/2011	9/13/2011	1.17	4.06	256802.26	6.50		26180.00	4101.14
one Spring	Boyles	24 1H	William D Polk	4/16/2012	4/3/2012	1.13	3.41	206441.81	6.69		3700.86	841.87
Wolfcamp	Augustus 10	1H	Salesman	3/15/2012	3/8/2012	1.06	1.46	89771.55	6.60		3963.30	639.83

Delaware sample representative of water in receiving formation.

H (CaCO3) 83379.63	Na (mg/L) 62970.16	K (mg/L) 1133.12	Zn (mg/L) 38.78	Fe (mg/L) 20.06	Ba (mg/L) 1.64	Sr (mg/L) 905.03	Mn (mg/L) 9.33	Resistivity	HCO3 (mg/L) 73.00	CO3 (mg/L) 0.00	OH (mg/L)	SO4 (mg/L) 70.00	Cl (mg/L) 161300.00	CO2 (mg/L) 360.00	H2S (mg/L) 0.00
H (CaCO3) 13271.35	Na (mg/L) 69386.15	K (mg/L) 1109.30	Zn (mg/L) 0.00	Fe (mg/L) 17.57	Ba (mg/L) 0.00	Sr (mg/L) 483.07	Mn (mg/L) 0.00	Resistivity	HCO3 (mg/L) 1403.00	CO3 (mg/L) 0.00	OH (mg/L)	SO4 (mg/L) 700.00	Cl (mg/L) 128800.00	CO2 (mg/L) 400.00	H2S (mg/L) 0.00
H (CaCO3) 13352.51	Na (mg/L) 28320.32	K (mg/L) 350.70	Zn (mg/L) 0.00	Fe (mg/L) 17.85	Ba (mg/L) 1.77	Sr (mg/L) 707.79	Mn (mg/L) 0.00	Resistivity	HCO3 (mg/L) 220.00	CO3 (mg/L) 0.00	OH (mg/L)	SO4 (mg/L) 950.00	Cl (mg/L) 54600.00	CO2 (mg/L) 60.00	H2S (mg/L) 0.00

X.

**Log Across Proposed
Delaware Sand
Injection Interval**



GUARD LOG

COMPANY Midwest Oil Corporation
 WELL Target Unit # 1
 FIELD Wildcat
 County Eddy State N.M.

COMPANY MIDWEST OIL CORPORATION
 WELL TARGET UNIT # 1
 FIELD WILDCAT
 COUNTY EDDY STATE NEW MEXICO
 Location 1980' FSL & 1980' FEL
 Sec. 2 Twp 26-S Rge 25-E
 Other Services:
 Density G/R - N/G

Permanent Datum Ground Level Elev. 3589'
 Log Measured From K. B. - 18 Ft. Above Perm. Datum
 Drilling Measured From Kelly Bushing Elev.: K.B. 3607'
 D.F. 3606'
 G.L. 3589'

Date	3/26/74		
Run No.	- One -		
Depth-Driller	12, 150		
Depth-Welex	12, 135		
Btm. Log Inter.	12, 130		
Top Log Inter.	2, 640		
Casing-Driller	9-5/8" @ 2, 655	@	@
Casing-Welex			
Bit Size	8-3/4"		
Type Fluid in Hole	Salt Mud		
Dens. Visc.	10.1 137		
pH Fluid Loss	9.5 3.4 ml		
Source of Sample	Circulated		
R _{in} @ Meas. Temp.	.060 @ 64°F	@	@
R _{out} @ Meas. Temp.	.055 @ 64°F	@	@
R _{in} @ Meas. Temp.	@	@	@
Source R _{in} R _{out}	Measured		
R _{in} @ BHT	.023 @ 182°F	@	@
Time Since Circ.			
Max. Rec. Temp.	182°F @ B.H.	°F @	°F @

Ticket No. 082272. Remarks:

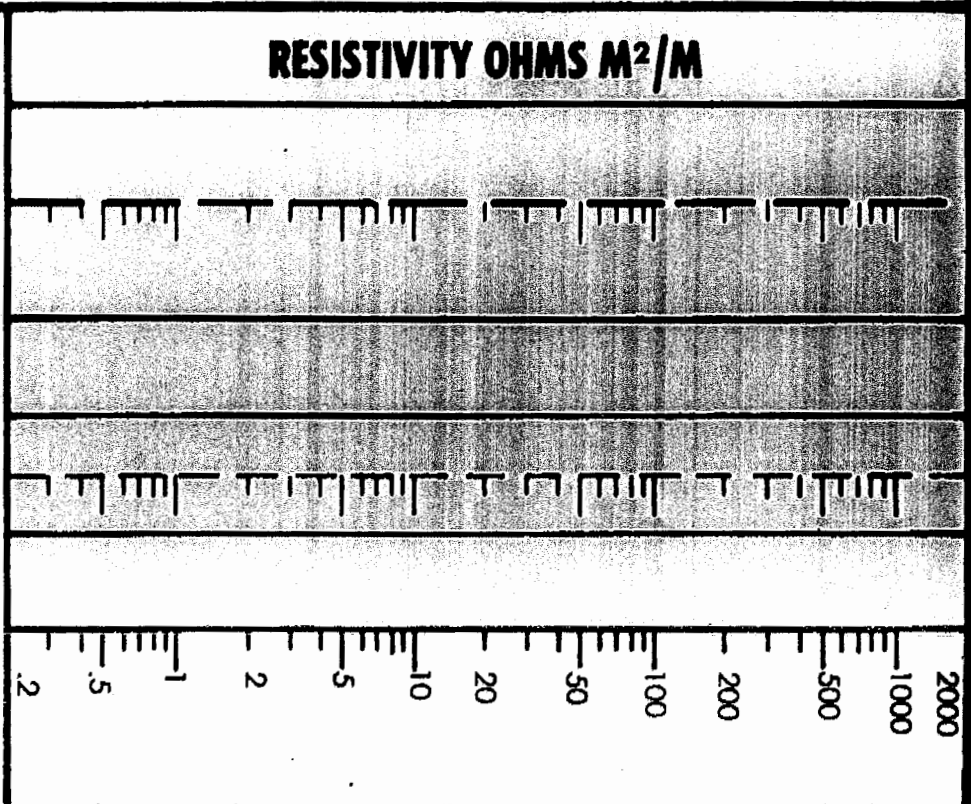
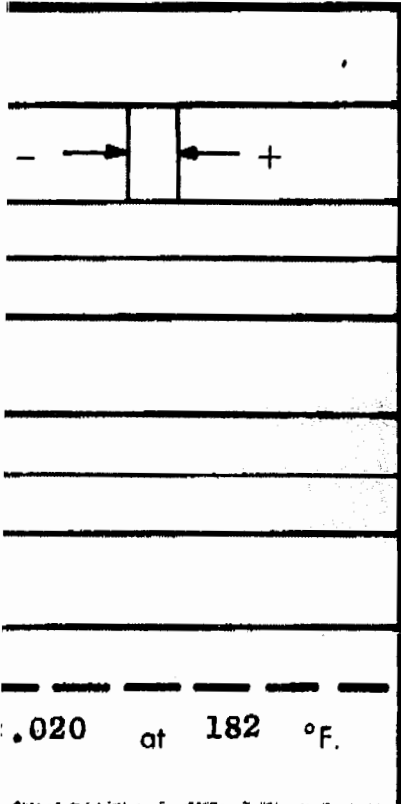
in Mud Type or Additional Samples		SCALE CHANGES			
Sample No.		Type Log	Depth	Scale Up Hole	Scale Down Hole
Driller					
Fluid in Hole					
Visc.					
Fluid Loss	ml				
Source of Sample					
EQUIPMENT DATA					
Meas. Temp.		Run No.	Tool Type and No.	Pad Type	Tool Position
@ °F	@ °F	-1-	Guard 12049		Free
@ °F	@ °F				
@ °F	@ °F				
@ °F	@ °F				
@ °F	@ °F				
@ °F	@ °F				

does not guarantee the accuracy of any interpretation of log data, conversion of log data to physical rock parameters, or recommendations which may be by Welex personnel or which may appear on the log or in any other form. Any user of such data, interpretations, conversions, or recommendations agrees that

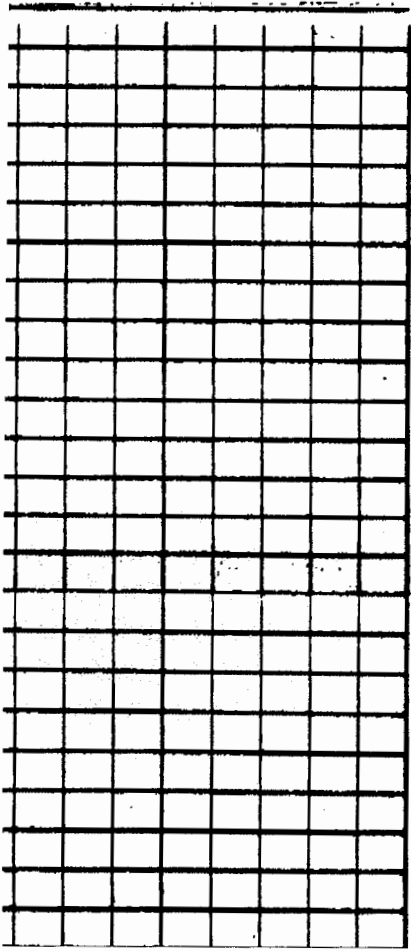
by Welox personnel or which may appear on the log or in any other form. Any user of such data, interpretations, conversions, or recommendations agrees that is not responsible, except where due to gross negligence or willful misconduct, for any loss, damages, or expenses resulting from the use thereof.

2" -100'

RESISTIVITY OHMS M²/M

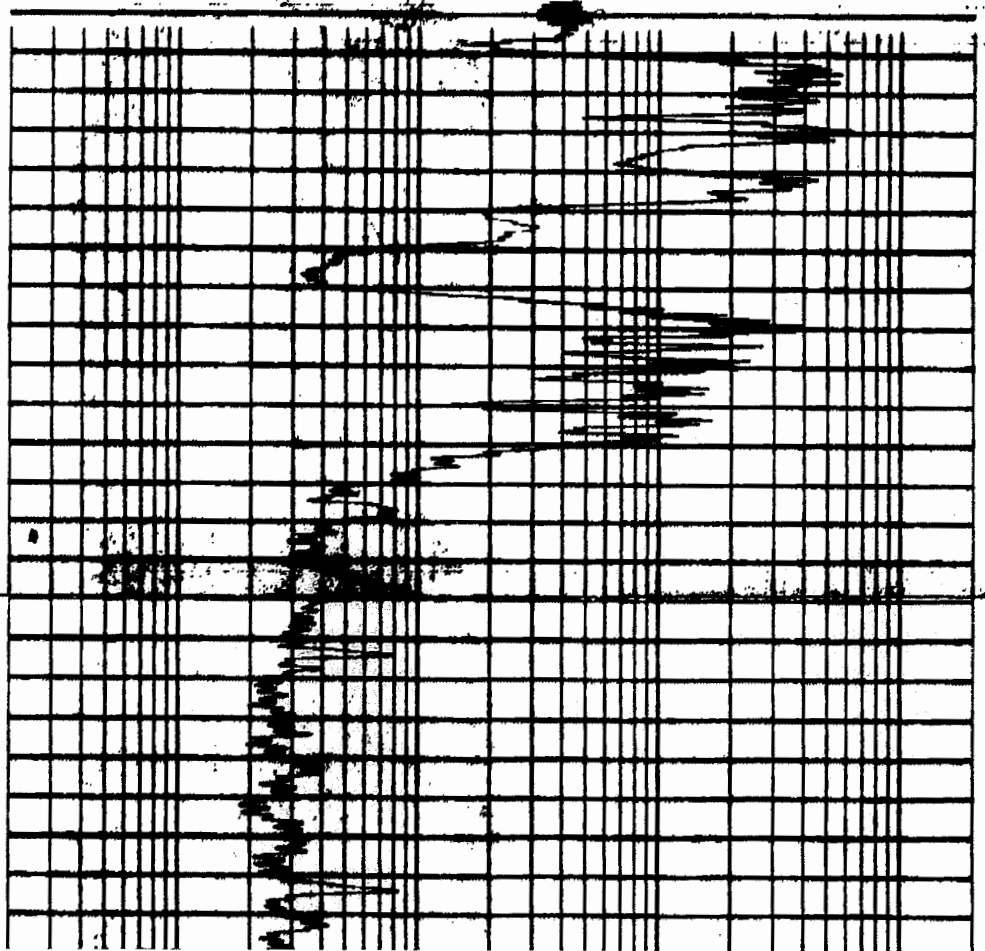


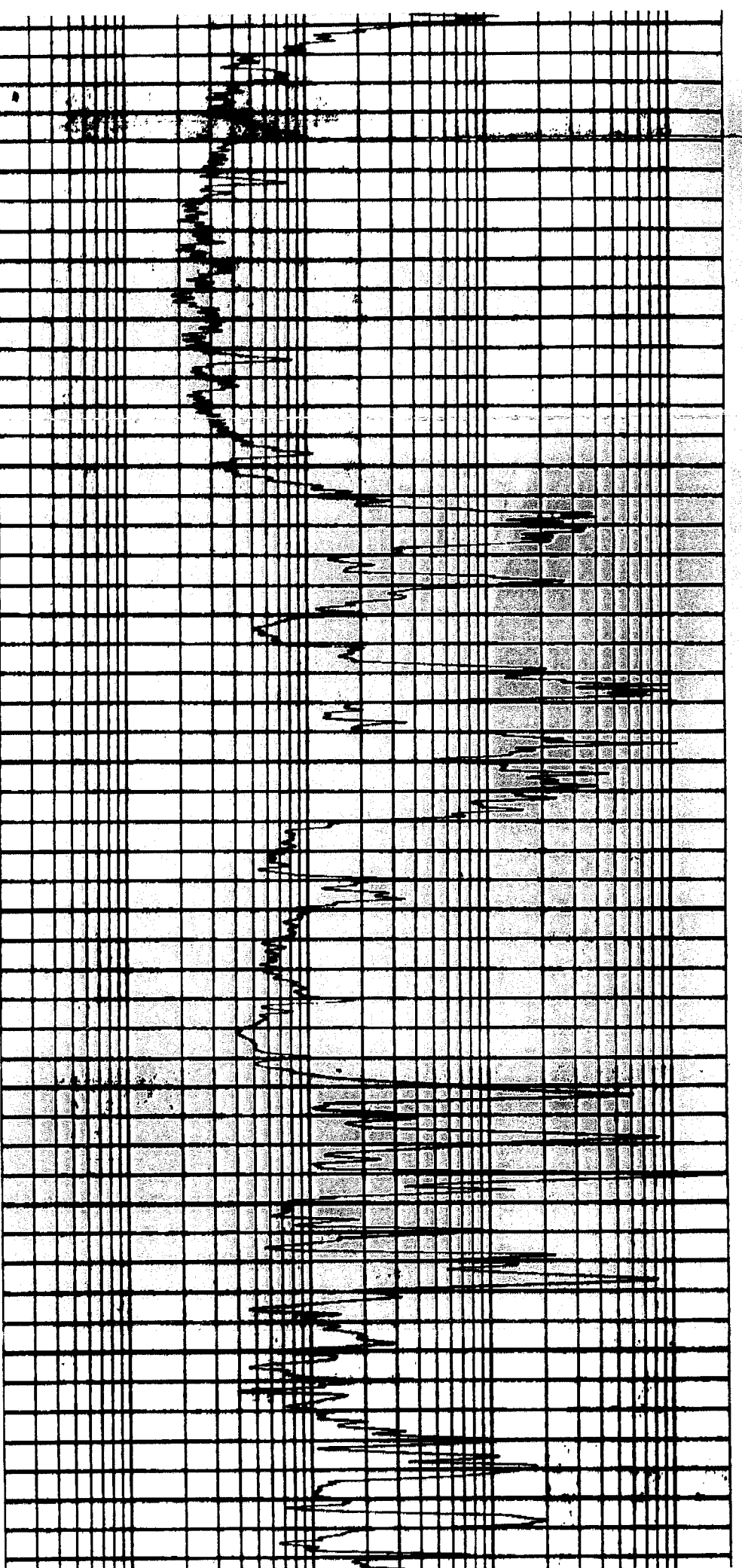
9 5/8" CSG-2655



2700

2800





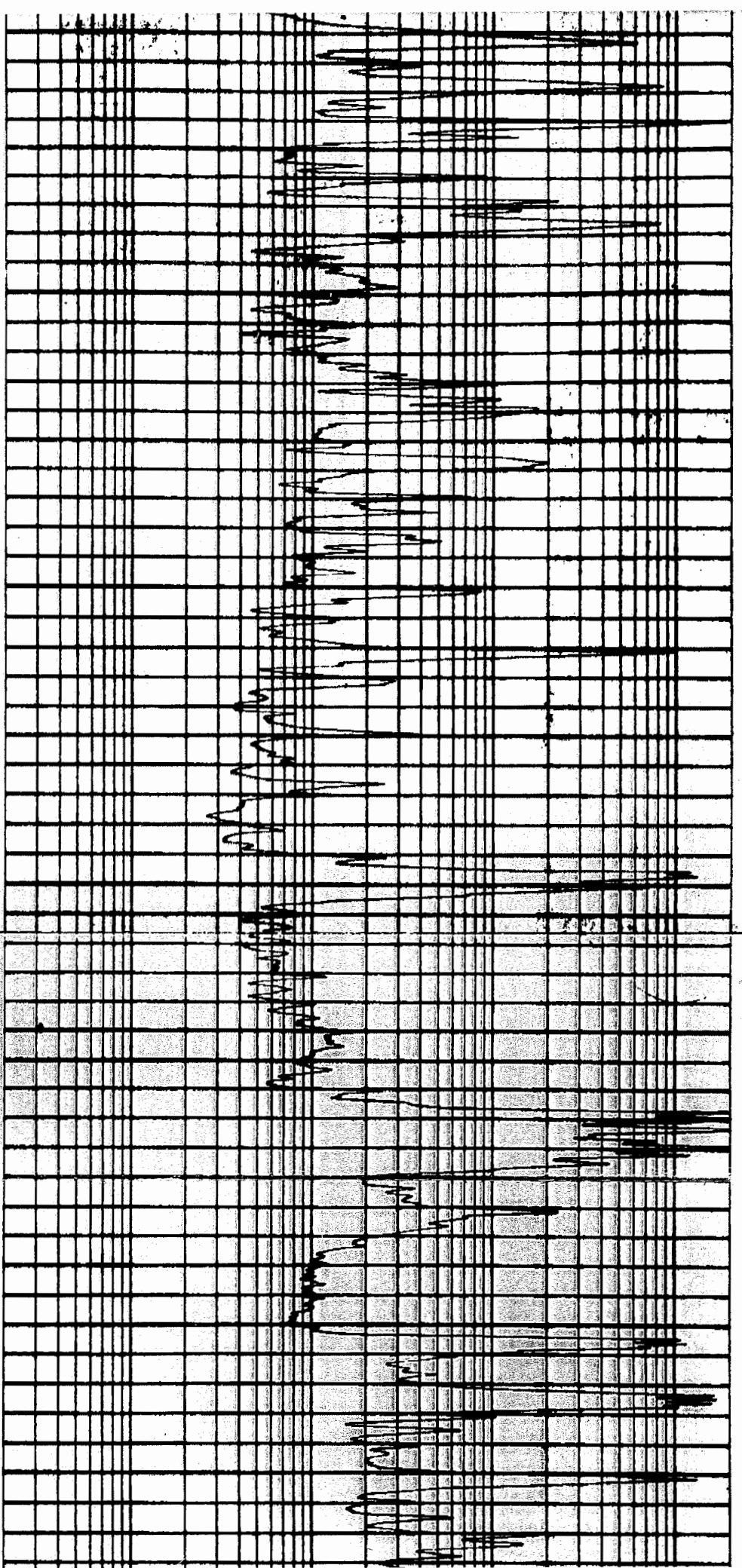
2800

2900

3000

3100

3200



00

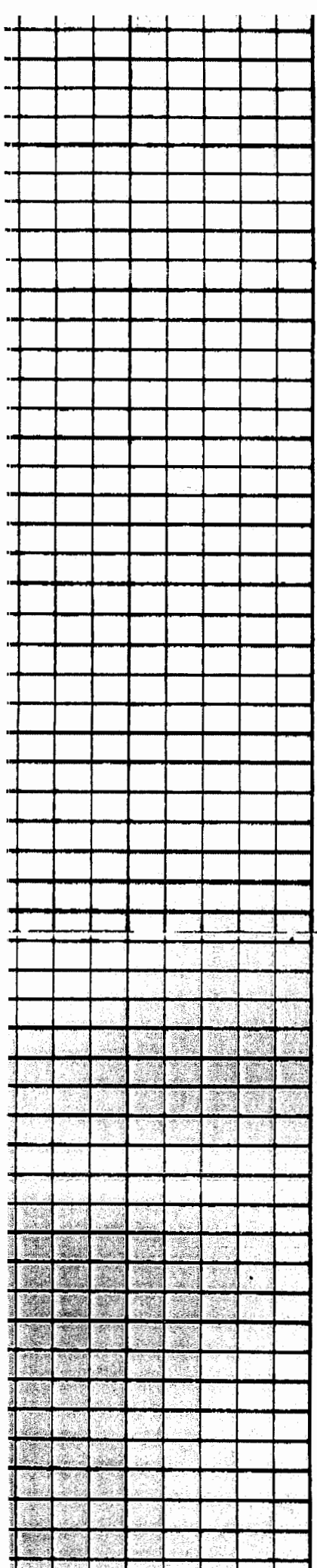
3200

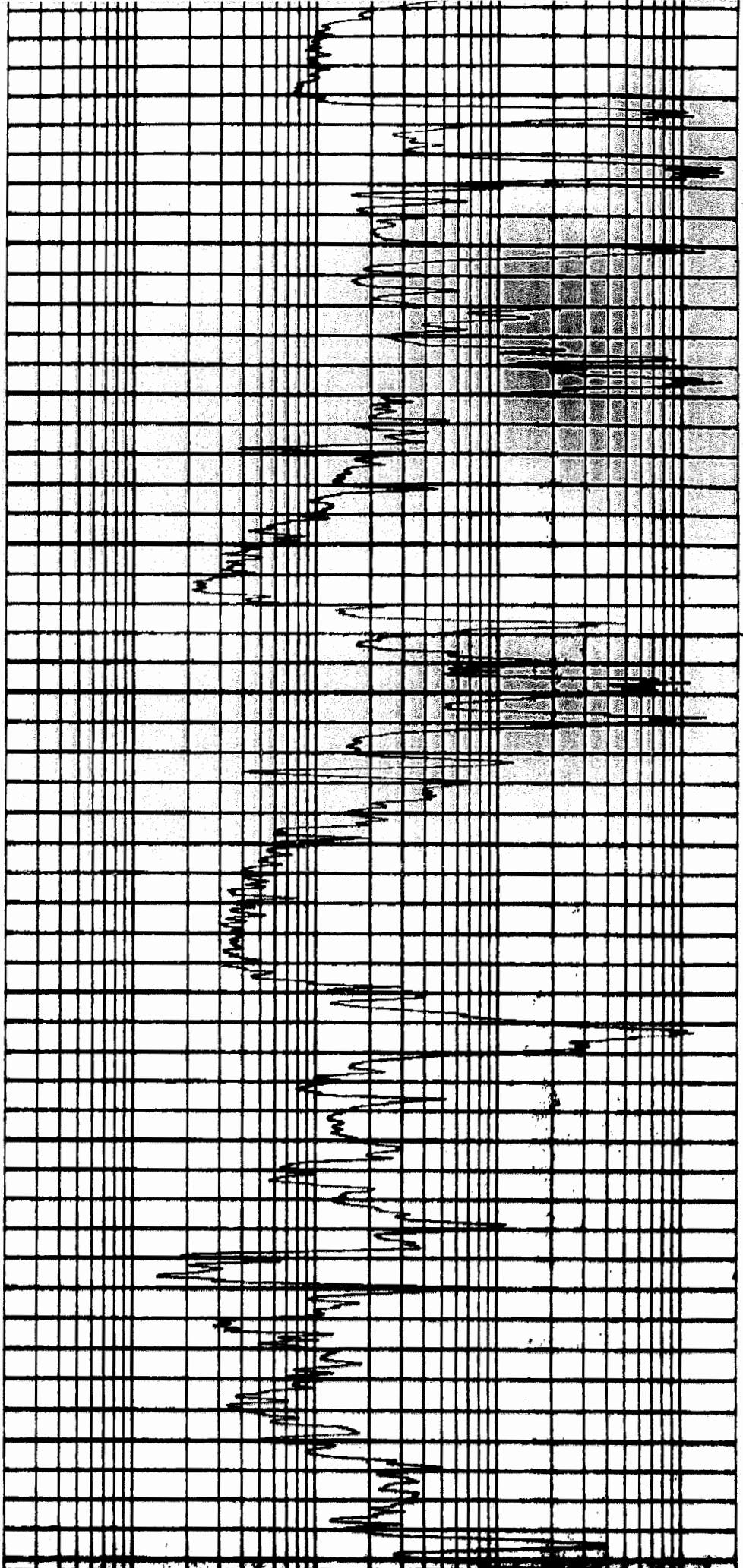
3300

3400

3500

3600





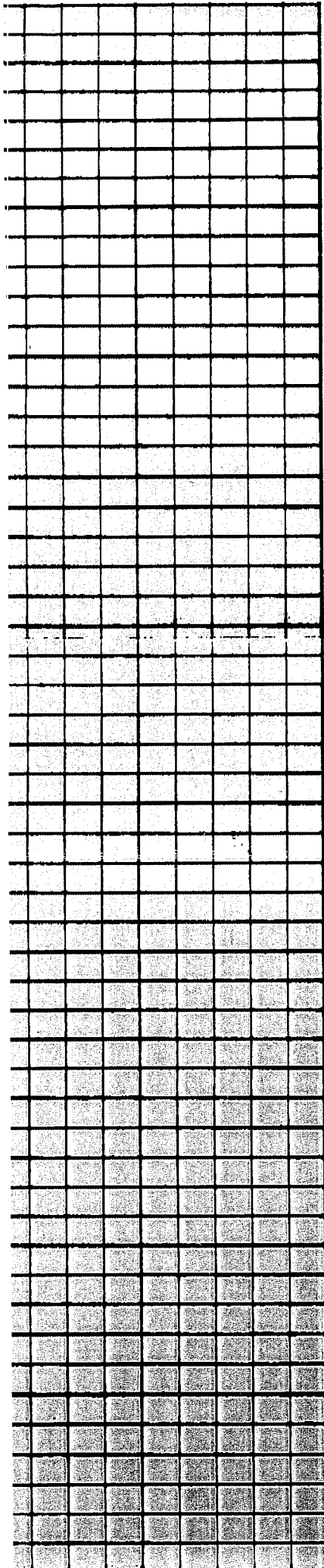
3600

3700

3800

3900

4000



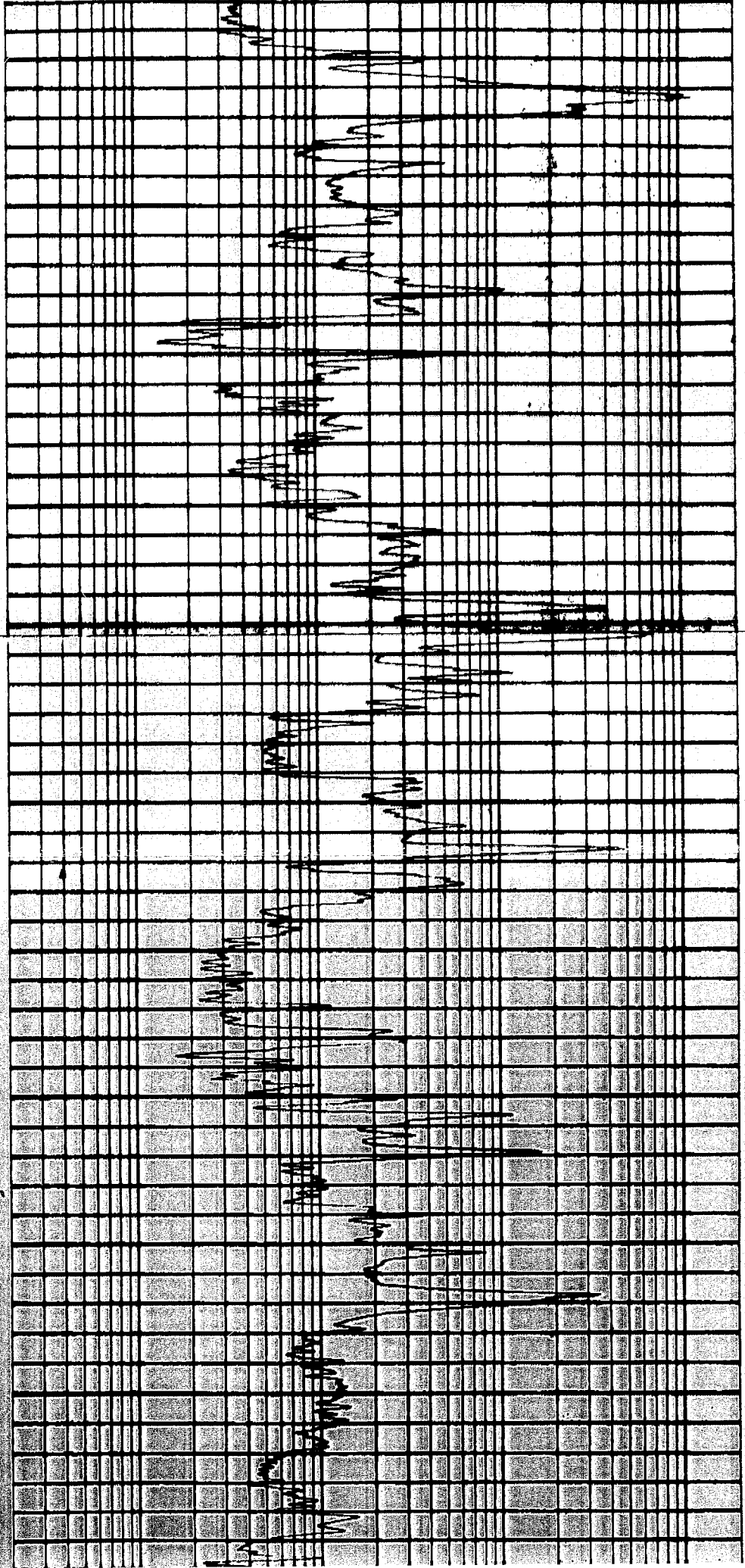
3900

4000

4100

↑
Bottom
Injection
Interval
4200'

4300



XI.

**Fresh Water Sample
Analyses**



New Mexico Office of the State Engineer

Active & Inactive Points of Diversion

(with Ownership Information)

(R=POD has been replaced and no longer serves this file, (quarters are 1=NW 2=NE 3=SW 4=SE)
 C=the file is closed) (quarters are smallest to largest) (NAD83 UTM in meters)

File Nbr	Sub	basin	Use	Diversion	Owner	County	POD Number	Code Grant	Source	q	q	q	Sec	Tws	Rng	X	Y
13783			STK	3	JOHN W. AND ANNE V. DUTTON	ED	SD 03783	> 1 mile away	6416	4	4	4	36	25S	25E	562110	3549490*

ord Count: 1

PLSS Search:

Section(s): 34, 35, 36

Township: 25S

Range: 25E

Sorted by: File Number

Location was derived from PLSS - see Help

data is furnished by the NMOSE/ISC and is accepted by the recipient with the expressed understanding that the OSE/ISC make no warranties, expressed or implied, concerning the accuracy, completeness, ability, usability, or suitability for any particular purpose of the data.



New Mexico Office of the State Engineer
Water Column/Average Depth to Water

No records found.

PLSS Search:

Section(s): 34, 35, 36

Township: 25S

Range: 25E

The data is furnished by the NMOSE/ISC and is accepted by the recipient with the expressed understanding that the OSE/ISC make no warranties, expressed or implied, concerning the accuracy, completeness, reliability, usability, or suitability for any particular purpose of the data.



New Mexico Office of the State Engineer
Active & Inactive Points of Diversion
(with Ownership Information)

PLSS Search:

Section(s): 1, 2, 3

Township: 26S

Range: 25E

No PODs found.



New Mexico Office of the State Engineer
Water Column/Average Depth to Water

No records found.

PLSS Search:

Section(s): 1, 2, 3

Township: 26S

Range: 25E

The data is furnished by the NMOSE/ISC and is accepted by the recipient with the expressed understanding that the OSE/ISC make no warranties, expressed or implied, concerning the accuracy, completeness, reliability, usability, or suitability for any particular purpose of the data.



New Mexico Office of the State Engineer

Active & Inactive Points of Diversion

(with Ownership Information)

(R=POD has been replaced and no longer serves this file, (quarters are 1=NW 2=NE 3=SW 4=SE)
 C=the file is closed) (quarters are smallest to largest) (NAD83 UTM in meters)

File Nbr	Sub	basin	Use	Diversion	Owner	County	POD Number	Code	Grant	Source	q	q	q	Sec	Tws	Rng	X	Y
366	CUB	PLS	3	GUARANTY	TITLE	ED	C 02366	>	1 mile away	6416	4	4	12	26S	25E	562027	3546345*	
321	C	STK	3	GARY	LOVELADY	ED	C 03321		Dry Hole	Shallow	4	1	1	11	26S	25E	559375	3547431

ord Count: 2

PLSS Search:

Section(s): 10, 11, 12 Township: 26S Range: 25E

Sorted by: File Number

All location was derived from PLSS - see Help
 data is furnished by the NMOSE/ISC and is accepted by the recipient with the expressed understanding that the OSE/ISC make no warranties, expressed or implied, concerning the accuracy, completeness, reliability, usability, or suitability for any particular purpose of the data.



New Mexico Office of the State Engineer

Water Column/Average Depth to Water

(A CLW##### in the POD suffix indicates the POD has been replaced & no longer serves a water right file.)

(R=POD has been replaced, O=orphaned, C=the file is closed)

(quarters are 1=NW 2=NE 3=SW 4=SE)

(quarters are smallest to largest) (NAD83 UTM in meters)

(In feet)

POD Number	POD Sub-Code	basin	County	Q Q Q				Rng	X	Y	Depth Well	Depth Water	Water Column
				64	16	4	Sec						
C 02366	CUB	ED	4	4	12	26S	25E	562027	3546345*	80	150	-70	
C 03321	C	ED	4	1	11	26S	25E	559375	3547431	150	23	127	

Average Depth to Water: **86 feet**

Minimum Depth: **23 feet**

Maximum Depth: **150 feet**

Record Count: 2

PLSS Search:

Section(s): 10, 11, 12

Township: 26S

Range: 25E

*UTM location was derived from PLSS - see Help

The data is furnished by the NMOSE/ISC and is accepted by the recipient with the expressed understanding that the OSE/ISC make no warranties, expressed or implied, concerning the accuracy, completeness, reliability, usability, or suitability for any particular purpose of the data.



February 13, 2014

New Mexico Oil Conservation Division
Attn: Phillip Goetze
1220 South St. Francis Drive
Santa Fe, NM 87505

RE: Application For Authorization To Inject
Pine Springs 2 State SWD #2
Township 26 South, Range 25 East, N.M.P.M.
Section 2: 1980' FSL & 1980' FEL
Eddy County, New Mexico

Dear Mr. Goetze:

COG Operating LLC respectfully requests administrative approval for authorization to inject for the referenced well. Attached, for your review, is a copy of the C-108 application. Once we receive the newspaper publication and all certified return receipts, I will send you a copy.

We would like to terminate Administrative Order SWD-1334, issued May 17, 2012, for this same well bore under the name Chelsi Well No. 1. This well has not been converted to SWD service and is still plugged and abandoned. We purchased Three Rivers Operating Company's southeast New Mexico properties and now operate this lease. The current order is for injection into the Upper Pennsylvanian formation from 9830 feet to 9992 feet. We're proposing to reenter this well bore and make it into a Delaware Sand open hole SWD well from 2655' to 4200'.

Please do not hesitate to contact me at (575) 748-6940 should you have any questions.

Sincerely,

A handwritten signature in black ink that reads "Brian Collins".

Brian Collins
Senior Operations Engineer

BC/sw
Enclosures



February 13, 2014

Oil Conservation Division
Attn: Richard Inge
811 South 1st St.
Artesia, NM 88210

RE: Application For Authorization To Inject
Pine Springs 2 State SWD #2
Township 26 South, Range 25 East, N.M.P.M.
Section 2: 1980' FSL & 1980' FEL
Eddy County, New Mexico

Dear Mr. Inge:

COG Operating LLC respectfully requests administrative approval for authorization to inject for the referenced well. Attached, for your review, is a copy of the C-108 application. Once we receive the newspaper publication and all certified return receipts, I will send you a copy.

We would like to terminate Administrative Order SWD-1334, issued May 17, 2012, for this same well bore under the name Chelsi Well No. 1. This well has not been converted to SWD service and is still plugged and abandoned. We purchased Three Rivers Operating Company's southeast New Mexico properties and now operate this lease. The current order is for injection into the Upper Pennsylvanian formation from 9830 feet to 9992 feet. We're proposing to reenter this well bore and make it into a Delaware Sand open hole SWD well from 2655' to 4200'.

Please do not hesitate to contact me at (575) 748-6940 should you have any questions.

Sincerely,

A handwritten signature in black ink, appearing to read "Brian Collins".

Brian Collins
Senior Operations Engineer

BC/sw
Enclosures



February 13, 2014

New Mexico State Land Office
310 Old Santa Fe Trail,
Santa Fe, NM 87501

Re: Application For Authorization To Inject
Pine Springs 2 State SWD #2
Township 26 South, Range 25 East, N.M.P.M.
Section 2: 1980' FSL & 1980' FEL
Eddy County, New Mexico

To Whom It May Concern:

Enclosed for your review is a copy of COG Operating LLC's C-108 Application to Inject for the above referenced well. We plan to reenter this well for SWD service if our C-108 is approved. As a requirement of the New Mexico Oil Conservation Division, we are notifying you because you have been identified as an operator or surface owner. Any objections must be submitted in writing to NMOCD, 1220 S. St. Francis Drive, Santa Fe, New Mexico 87505. Objections must be received within fifteen (15) days of receipt of this letter.

This well will not be a commercial SWD well. Please do not hesitate to contact us at 575-748-6940 should you have any questions.

Sincerely,

A handwritten signature in black ink that reads "Brian Collins".

Brian Collins
Senior Operations Engineer

BC/bg
Enclosures



February 13, 2014

Yates Petroleum Corporation
105 S 4th St.
Artesia, NM 88210

RE: Application For Authorization To Inject
Pine Springs 2 State SWD #2
Township 26 South, Range 25 East, N.M.P.M.
Section 2: 1980' FSL & 1980' FEL
Eddy County, New Mexico

To Whom It May Concern:

Enclosed for your review is a copy of COG Operating LLC's C-108 Application to Inject for the above referenced well. We plan to reenter this well for SWD service if our C-108 is approved. As a requirement of the New Mexico Oil Conservation Division, we are notifying you because you have been identified as the surface owner or an operator within a half mile radius area of review. Any objections must be submitted in writing to NMOCD, 1220 S. St. Francis Drive, Santa Fe, New Mexico 87505. Objections must be received within fifteen (15) days of receipt of this letter.

Please do not hesitate to contact us at 575-748-6940 should you have any questions.

Sincerely,

A handwritten signature in black ink, appearing to read "Brian Collins".

Brian Collins
Senior Operations Engineer

BC/sw
Enclosures



February 13, 2014

Echo Production Inc.
616 5th St.
Graham, TX 76450

**RE: Application For Authorization To Inject
Pine Springs 2 State SWD #2
Township 26 South, Range 25 East, N.M.P.M.
Section 2: 1980' FSL & 1980' FEL
Eddy County, New Mexico**

To Whom It May Concern:

Enclosed for your review is a copy of COG Operating LLC's C-108 Application to Inject for the above referenced well. We plan to reenter this well for SWD service if our C-108 is approved. As a requirement of the New Mexico Oil Conservation Division, we are notifying you because you have been identified as the surface owner or an operator within a half mile radius area of review. Any objections must be submitted in writing to NMOCD, 1220 S. St. Francis Drive, Santa Fe, New Mexico 87505. Objections must be received within fifteen (15) days of receipt of this letter.

Please do not hesitate to contact us at 575-748-6940 should you have any questions.

Sincerely,

A handwritten signature in black ink, appearing to read "Brian Collins".

Brian Collins
Senior Operations Engineer

BC/sw
Enclosures



February 13, 2014

Artesia Daily Press
P. O. Box 190
Artesia, NM 88211-0190

**Re: Legal Notice
Salt Water Disposal Well
Pine Springs 2 State SWD #2**

To Whom It May Concern:

Enclosed is a legal notice regarding New Mexico Oil Conservation Division C-108 Application for Authorization to Inject for a salt water disposal well.

Please run this notice and return the proof of notice to the undersigned at:

COG Operating LLC, 2208 W. Main St., Artesia, NM 88210

Sincerely,

A handwritten signature in black ink, appearing to read "Brian Collins".

Brian Collins
Senior Operations Engineer

BC/sw
Enclosures

ARTESIA DAILY PRESS
LEGAL NOTICES

COG Operating LLC, 2208 W. Main 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 a salt water disposal well. The proposed well, the Pine Springs 2 State SWD No. 2 is located 1980' FSL & 1980' FEL, Section 2, Township 26 South, Range 25 East, Eddy County, New Mexico. Disposal water will be sourced from area wells producing from the Delaware, Bone Spring and Wolfcamp formations. The disposal water will be injected into the Delaware Sand formation at a depth of 2655' to 4200' at a maximum surface pressure of 531 psi and a maximum rate of 10,000 BWPD. The proposed SWD well is located approximately 7 miles south of White's City. Any interested party who has an objection to this must give notice in writing to the Oil Conservation Division, 1220 S. St. Francis Drive, Santa Fe, New Mexico 87505, within fifteen (15) days of this notice. Any interested party with questions or comments may contact Brian Collins at COG Operating LLC, 2208 W. Main Street, Artesia, NM 88210, or call 575-748-6940.

Published in the Artesia Daily Press, Artesia, New Mexico
_____, 2014.

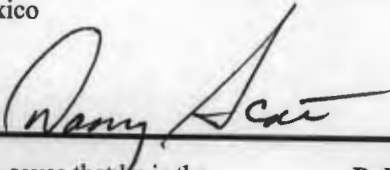
Affidavit of Publication

No. 22865

State of New Mexico

County of Eddy:

Danny Scott



being duly sworn, says 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	<u>February 19, 2014</u>
Second Publication	<u></u>
Third Publication	<u></u>
Fourth Publication	<u></u>
Fifth Publication	<u></u>

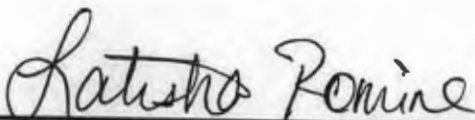
Subscribed and sworn before me this

19th day of February 2014



OFFICIAL SEAL
Latisha Romine
NOTARY PUBLIC-STATE OF NEW MEXICO

My commission expires: 5/12/2015



Latisha Romine

Notary Public, Eddy County, New Mexico

Copy of Publication:

LEGAL NOTICE

COG Operating LLC, 2208 W. Main 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 a salt water disposal well. The proposed well, the Pine Springs 2 State SWD No. 2 is located 1980' FSL & 1980' FEL, Section 2, Township 26 South, Range 25 East, Eddy County, New Mexico. Disposal water will be sourced from area wells producing from the Delaware, Bone Spring and Wolfcamp formations. The disposal water will be injected into the Delaware Sand formation at a depth of 2655' to 4200' at a maximum surface pressure of 531 psi and a maximum rate of 10,000 BWPD. The proposed SWD well is located approximately 7 miles south of White's City. Any interested party who has an objection to this must give notice in writing to the Oil Conservation Division, 1220 S. St. Francis Drive, Santa Fe, New Mexico 87505, within fifteen (15) days of this notice. Any interested party with questions or comments may contact Brian Collins at COG Operating LLC, 2208 W. Main Street, Artesia, NM 88210, or call 575-748-6940.

Published in the Artesia Daily Press, Artesia, N.M., Feb. 19, 2014 Legal No 22865.

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:

Yates Petroleum Corporation
105 South 4th Street
Artesia, NM 88210
Cottonwood 2 State SWD #2 C108

Pine Springs 2 State SWD # 2

2. Article Number
(Transfer from service label)
PS Form 3811, July 2013

7013 3020 0000 8750 4031
Domestic Return Receipt

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:

Echo Production, Inc.
616 5th Street
Graham, TX 76450
Pine Springs 2 State SWD #2 C108

2. Article Number
(Transfer from service label)
PS Form 3811, July 2013

7013 3020 0000 8750 4048
Domestic Return Receipt

SENDER: COMPLETE THIS SECTION

COMPLETE THIS SECTION ON DELIVERY

- Signature *A. Cooper* Agent
- Received by (Printed Name) *A. Cooper* Address
- Date of Delivery *2/18/14* No
- Is delivery address different from item 1? Yes No

3. Service Type
 Certified Mail Priority Mail Express™
 Registered Return Receipt for Merchandise
 Insured Mail Collect on Delivery

4. Restricted Delivery? (Extra Fee) Yes No

COMPLETE THIS SECTION ON DELIVERY

- Signature *Steph Doyke* Agent
- Received by (Printed Name) *Steph Doyke* Address
- Date of Delivery *2/19/14* No
- Is delivery address different from item 1? Yes No

3. Service Type
 Certified Mail Priority Mail Express™
 Registered Return Receipt for Merchandise
 Insured Mail Collect on Delivery

4. Restricted Delivery? (Extra Fee) Yes No

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:

New Mexico Oil Conservation Division
Attn: Phillips Goetze
1220 South St. Francis Drive
Santa Fe, NM 87505
Cottonwood 2 State SWD #2 C108

Pine Springs 2 State SWD # 2

2. Article Number
(Transfer from service label)
PS Form 3811, July 2013

7013 3020 0000 8750 4000
Domestic Return Receipt

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:

Oil Conservation Division
Attn: Richard Inge
811 South 1st Street
Artesia, NM 88210
Cottonwood 2 State SWD #2 C108

2. Article Number
(Transfer from service label)
PS Form 3811, July 2013

7013 3020 0000 8750 4017
Domestic Return Receipt

SENDER: COMPLETE THIS SECTION

COMPLETE THIS SECTION ON DELIVERY

- Signature *Phillips Goetze* Agent
- Received by (Printed Name) *Phillips Goetze* Address
- Date of Delivery *FEB 18 2014* No
- Is delivery address different from item 1? Yes No

3. Service Type
 Certified Mail Priority Mail Express™
 Registered Return Receipt for Merchandise
 Insured Mail Collect on Delivery

4. Restricted Delivery? (Extra Fee) Yes No

COMPLETE THIS SECTION ON DELIVERY

- Signature *Richard Inge* Agent
- Received by (Printed Name) *Richard Inge* Address
- Date of Delivery *2/19/14* No
- Is delivery address different from item 1? Yes No

3. Service Type
 Certified Mail Priority Mail Express™
 Registered Return Receipt for Merchandise
 Insured Mail Collect on Delivery

4. Restricted Delivery? (Extra Fee) Yes No

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:

New Mexico State Land Office
310 Old Santa Fe Trail
Santa Fe, NM 87501
Cottonwood 2 State SWD #2 C108

Pine Springs 2 State SWD # 2

2. Article Number
(Transfer from service label)
PS Form 3811, July 2013

7013 3020 0000 8750 4024
Domestic Return Receipt

SENDER: COMPLETE THIS SECTION

COMPLETE THIS SECTION ON DELIVERY

- Signature *[Signature]* Agent
- Received by (Printed Name) *[Name]* Address
- Date of Delivery *[Date]* No
- Is delivery address different from item 1? Yes No

3. Service Type
 Certified Mail Priority Mail Express™
 Registered Return Receipt for Merchandise
 Insured Mail Collect on Delivery

4. Restricted Delivery? (Extra Fee) Yes No

COMPLETE THIS SECTION ON DELIVERY

- Signature *[Signature]* Agent
- Received by (Printed Name) *[Name]* Address
- Date of Delivery *[Date]* No
- Is delivery address different from item 1? Yes No

3. Service Type
 Certified Mail Priority Mail Express™
 Registered Return Receipt for Merchandise
 Insured Mail Collect on Delivery

4. Restricted Delivery? (Extra Fee) Yes No



C-108 Review Checklist: Received 02/19/14 Add. Request: — Reply Date: — Suspended: — [Ver 13]

PERMIT TYPE: WFX / PMX / SWD Number: 1334-A Permit Date: 05/05/14 Legacy Permits/Orders: SWD-1334

Well No. 2 Well Name(s): Pine Springs 2 State SWD [Target Unit #1] [Chals: #1] in effect / P injector

API: 30-018-21081 Spud Date: 02/01/1974 New or Old: old (UIC Class II Primacy 03/07/1982)

Footages 1980 F&L / 1980 FEL Lot — or Unit J Sec 2 Tsp 26S Rge 25E County Eddy

General Location: North of Bea Slaughter Draw / 5 miles N of NM TX border Pool: Wildcat; Penn Pool No.: —

BLM 100K Map: Curtsbad Operator: COG Operating, LLC OGRID: 229137 Contact: Brian Collins

COMPLIANCE RULE 5.9: Total Wells: 3680 Inactive: 7 Fincl Assur: OK one - NA - old database problem Compl. Order? No IS 5.9 OK? Yes Date: 05/05/14

WELL FILE REVIEWED Current Status: P&A Penn wildcat; wt 5 1/2" casing & plugged

WELL DIAGRAMS: NEW: Proposed or RE-ENTER: Before Conv. After Conv. Logs in Imaging: CDL / Quadlog / GR

Planned Rehab Work to Well: well was to be rehabed for TP; no to add ent to plug TD & open hole

Well Construction Details:	Sizes (in) Borehole / Pipe	Setting Depths (ft)	Cement Sx or Cf	Cement Top and Determination Method
Planned <input type="checkbox"/> or Existing <input checked="" type="checkbox"/> Surface	17 1/2 / 13 3/8	0 to 199	200	Cir. to surf
Planned <input type="checkbox"/> or Existing <input checked="" type="checkbox"/> Interm/Prod	12 1/4 / 9 5/8	0 to 2655	960	Cir. to surface
Planned <input type="checkbox"/> or Existing <input checked="" type="checkbox"/> Interm/Prod	8 3/4	0 to 11872	1320	CBL / 6425
Planned <input type="checkbox"/> or Existing <input type="checkbox"/> Prod/Liner	—	—	—	(5 1/2 cot at 6205' - 1992 P&A)
Planned <input type="checkbox"/> or Existing <input type="checkbox"/> Liner	—	—	—	—
Planned <input checked="" type="checkbox"/> or Existing <input checked="" type="checkbox"/> OH PERF	8 3/4	2655 to 4200	Inj Length 1545	Completion/Operation Details:
Injection Stratigraphic Units:	Depths (ft)	Injection or Confining Units	Tops	Drilled TD <u>12150</u> PBTD <u>11832</u>
Adjacent Unit: Litho. Struc. Por.		Lamy	—	NEW TD <u>—</u> NEW PBTD <u>4200</u>
Confining Unit: Litho. Struc. Por.	±2485	Delaware/Bell C	1720	NEW Open Hole <input checked="" type="checkbox"/> or NEW Perfs <input type="checkbox"/>
Proposed Inj Interval TOP:	2655	Delaware/Chernic	—	Tubing Size <u>4 1/2</u> in. Inter Coated? <u>Yes</u>
Proposed Inj Interval BOTTOM:	4200	Delaware/Bushy C	—	Proposed Packer Depth <u>2600</u> ft
Confining Unit: Litho. Struc. Por.	±195	Bone Spring	5395	Min. Packer Depth <u>2555</u> (100-ft limit)
Adjacent Unit: Litho. Struc. Por.		WC	—	Proposed Max. Surface Press. <u>531</u> psi
Admin. Inj. Press. <u>531</u> (0.2 psi per ft)				
AOR: Hydrologic and Geologic Information				
POTASH: R-111-P <input checked="" type="checkbox"/> Noticed? <u>NA</u> BLM Sec Ord <input checked="" type="checkbox"/> WIPP <input checked="" type="checkbox"/> Noticed? <u>NA</u> SALT/SALADO T: <u>1200</u> B: <u>1450</u> CLIFF HOUSE <u>NA</u>				
FRESH WATER: Aquifer <u>Alluvial / nonconsolidated</u> Max Depth <u><200'</u> HYDRO AFFIRM STATEMENT By Qualified Person <input checked="" type="checkbox"/>				
NMOSE Basin: <u>Curtsbad</u> CAPITAN REEF: thru <input type="checkbox"/> adj <input type="checkbox"/> NA <input checked="" type="checkbox"/> No. Wells within 1-Mile Radius? <u>0</u> FW Analysis <u>NA</u>				
Disposal Fluid: Formation Source(s) <u>Delaware/BS/Wolfcamp</u> Analysis? <u>Yes</u> On Lease <input type="checkbox"/> Operator Only <input checked="" type="checkbox"/> or Commercial <input type="checkbox"/>				
Disposal Int: Inject Rate (Avg/Max BWPD): <u>—</u> Protectable Waters? <u>NO</u> Source: <u>Samples</u> System: Closed <input checked="" type="checkbox"/> or Open <input type="checkbox"/>				
HC Potential: Producing Interval? <u>NO</u> Formerly Producing? <u>NO</u> Method: <u>LOG/DST/P&A/Other</u> 2-Mile Radius Pool Map <input type="checkbox"/>				
AOR Wells: 1/2-M Radius Map? <u>Yes</u> Well List? <u>NA</u> Total No. Wells Penetrating Interval: <u>0</u> Horizontals? <u>0</u>				
Penetrating Wells: No. Active Wells <u>0</u> Num Repairs? <u>0</u> on which well(s)? <u>—</u> Diagrams? <u>NA</u>				
Penetrating Wells: No. P&A Wells <u>0</u> Num Repairs? <u>0</u> on which well(s)? <u>—</u> Diagrams? <u>NA</u>				
NOTICE: Newspaper Date <u>02/19/14</u> Mineral Owner <u>SLO</u> Surface Owner <u>SLO</u> N. Date <u>02/18/14</u>				
RULE 26.7(A): Identified Tracts? <u>Yes</u> Affected Persons: <u>Echo Production / Yates Pet / —</u> N. Date <u>02/18/14</u>				

Permit Conditions: Issues: - None / requested injection survey

Add Permit Cond: Injection survey within 2 years.