3·10·95

LAW OFFICES
LOSEE, CARSON, HAAS & CARROLL, P.A.
300 YATES PETROLEUM BUILDING
P. O. BOX 1720
ARTESIA, NEW MEXICO 88211-1720

TELEPHONE
(505) 746-3505
TELECOPY
(505) 746-6316

MARY LYNN BOGLE
ERNEST L. CARROLL
JOEL M. CARSON
DEAN B. CROSS
JAMES E. HAAS
A. J. LOSEE
BARRY D. GEWEKE

February 21, 1995

Mr. William J. LeMay
Oil Conservation Division
2040 S. Pacheco
Santa Fe, NM 87504

Re: Application of Mack Energy Corporation for Water Disposal Well/Federal 18 #4 Well, Section 18, Township 19 South, Range 33 East, N.M.P.M., Lea County, New Mexico

Dear Mr. LeMay:

I am submitting herewith the Application for Authorization to Injection of Mack Energy Corporation, as captioned above, with the request that it be considered for administrative approval. Enclosed is an original of the application and one copy, with a copy being provided to the Hobbs district office. Proof of notice, both by publication and by mail, will be provided once all return receipt cards are returned and the affidavit of publication is received.

If you have any questions, do not hesitate to contact me.

Very truly yours,

LOSEE, CARSON, HAAS & CARROLL, P.A.

Ernest L. Carroll

ELC:kth
Encl.

xc w/encl: OCD, Hobbs Division
Jim Brown, Mack Energy Corporation

INJECTION WELL DATA SHEET

Mack Energy Corporation	Federal 18			
OPERATOR	LEASE			
4	1980' FNL, 660' FEL	18	T19S	R33E
WELL NO.	FOOTAGE LOCATION	SECTION	TOWNSHIP	RANGE

Schematic

Tabular Data

Surface Casing

Size 8 5/8" 24# " Cemented with 150 sx.

TOC 19 feet determined by calculation

Hole size 12 1/4

Intermediate Casing

Size _____ " Cemented with _____ sx.

TOC _____ feet determined by _____

Hole size _____

Long string

Size 5 1/2 " Cemented with 40 sx.

TOC 3130 feet determined by calculation

Hole size 7 7/8

Total depth 3350'

Injection interval

3350 feet to 3450' open hole feet
(perforated or open-hole, indicate which)

Tubing size 2 7/8 lined with plastic (material) set in a

Baker AD-1 (brand and model) packer at 3250 feet

(or describe any other casing-tubing seal).

Other Data

1. Name of the injection formation Seven Rivers

2. Name of Field or Pool (if applicable) Tonto Yates Seven Rivers West

3. Is this a new well drilled for injection? [ ] Yes [X] No

   If no, for what purpose was the well originally drilled? oil producing well

4. Has the well ever been perforated in any other zone(s)? List all such perforated intervals and give plugging detail (sacks of cement or bridge plug(s) used) Perfs 3282'-3310'

   Perfs will be squeezed with 100 sacks of Class C cement. Drill out cement and drill to 3450' and put on for disposal.

5. Give the depth to and name of any overlying and/or underlying oil or gas zones (pools) in this area. 3010' - Tonto Yates Seven Rivers West

III. Well Data: Injection Well Data Sheet Attached

STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT

OIL CONSERVATION DIVISION
POST OFFICE BOX 2088
STATE LAND OFFICE BUILDING
SANTA FE, NEW MEXICO 87501

FORM C-108
Revised 7-1-81

APPLICATION FOR AUTHORIZATION TO INJECT

I. Purpose: ☐ Secondary Recovery ☐ Pressure Maintenance ☒ Disposal ☐ Storage
Application qualifies for administrative approval? ☐ yes ☐ no

II. Operator: Mack Energy Corporation

Address: P.O. Box 960, Artesia, New Mexico 88211-0960

Contact party: Jim Brown Phone: (505) 748-1288

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 geological data on the injection zone including appropriate lithologic detail, geological name, thickness, and depth. Give the geologic name, and depth to bottom of all underground sources of drinking water (aquifers containing waters with total dissolved solids concentrations of 10,000 mg/l or less) overlying the proposed injection zone as well as any such source known to be immediately underlying the injection interval.

IX. Describe the proposed stimulation program, if any.

* 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 source of drinking water.

XIII. Applicants must complete the "Proof of Notice" section on the reverse side of this form.

XIV. Certification

I hereby certify that the information submitted with this application is true and correct to the best of my knowledge and belief.

Name: Robert C. Chase Title Field Supervisor

Signature: Robert C. Chase Date: 2-1-95

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

DISTRIBUTION: Original and one copy to Santa Fe with one copy to the appropriate Division district office.

III. WELL DATA

A. The following well data must be submitted for each injection well covered by this application. The data must be both in tabular and schematic form and shall include:

(1) Lease name; Well No.; location by Section, Township, and Range; and footage location within the section.

(2) Each casing string used with its size, setting depth, sacks of cement used, hole size, top of cement, and how such top was determined.

(3) A description of the tubing to be used including its size, lining material, and setting depth.

(4) The name, model, and setting depth of the packer used or a description of any other seal system or assembly used.

Division District offices have supplies of Well Data Sheets which may be used or which may be used as models for this purpose. Applicants for several identical wells may submit a "typical data sheet" rather than submitting the data for each well.

B. The following must be submitted for each injection well covered by this application. All items must be addressed for the initial well. Responses for additional wells need be shown only when different. Information shown on schematics need not be repeated.

(1) The name of the injection formation and, if applicable, the field or pool name.

(2) The injection interval and whether it is perforated or open-hole.

(3) State if the well was drilled for injection or, if not, the original purpose of the well.

(4) Give the depths of any other perforated intervals and detail on the sacks of cement or bridge plugs used to seal off such perforations.

(5) Give the depth to and name of the next higher and next lower oil or gas zone in the area of the well, if any.

XIV. PROOF OF NOTICE

All applicants must furnish proof that a copy of the application has been furnished, by certified or registered mail, to the owner of the surface of the land on which the well is to be located and to each leasehold operator within one-half mile of the well location.

Where an application is subject to administrative approval, a proof of publication must be submitted. Such proof shall consist of a copy of the legal advertisement which was published in the county in which the well is located. The contents of such advertisement must include:

(1) The name, address, phone number, and contact party for the applicant;

(2) the intended purpose of the injection well; with the exact location of single wells or the section, township, and range location of multiple wells;

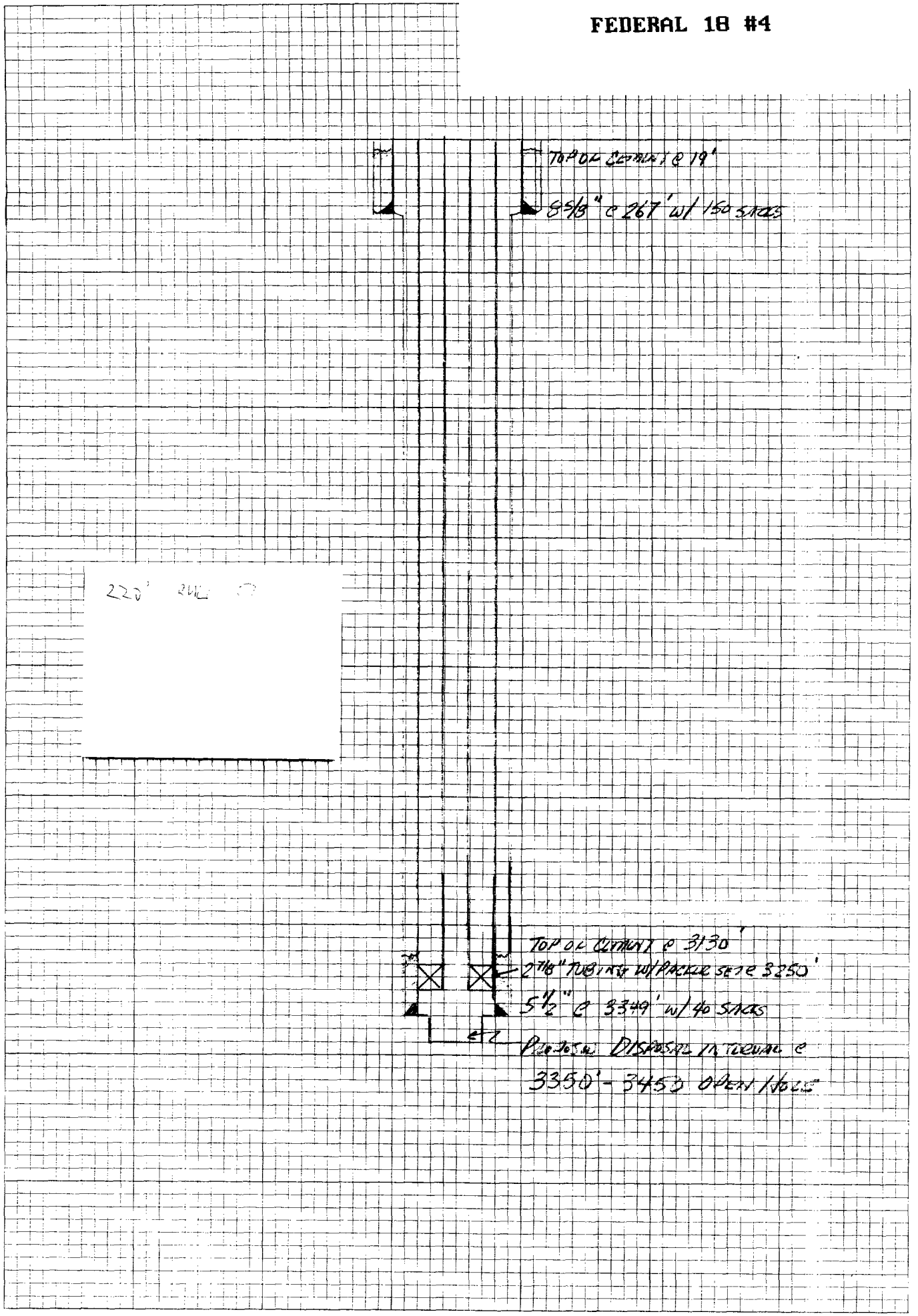
(3) the formation name and depth with expected maximum injection rates and pressures; and

(4) a notation that interested parties must file objections or requests for hearing with the Oil Conservation Division, P. O. Box 2088, Santa Fe, New Mexico 87501 within 15 days.

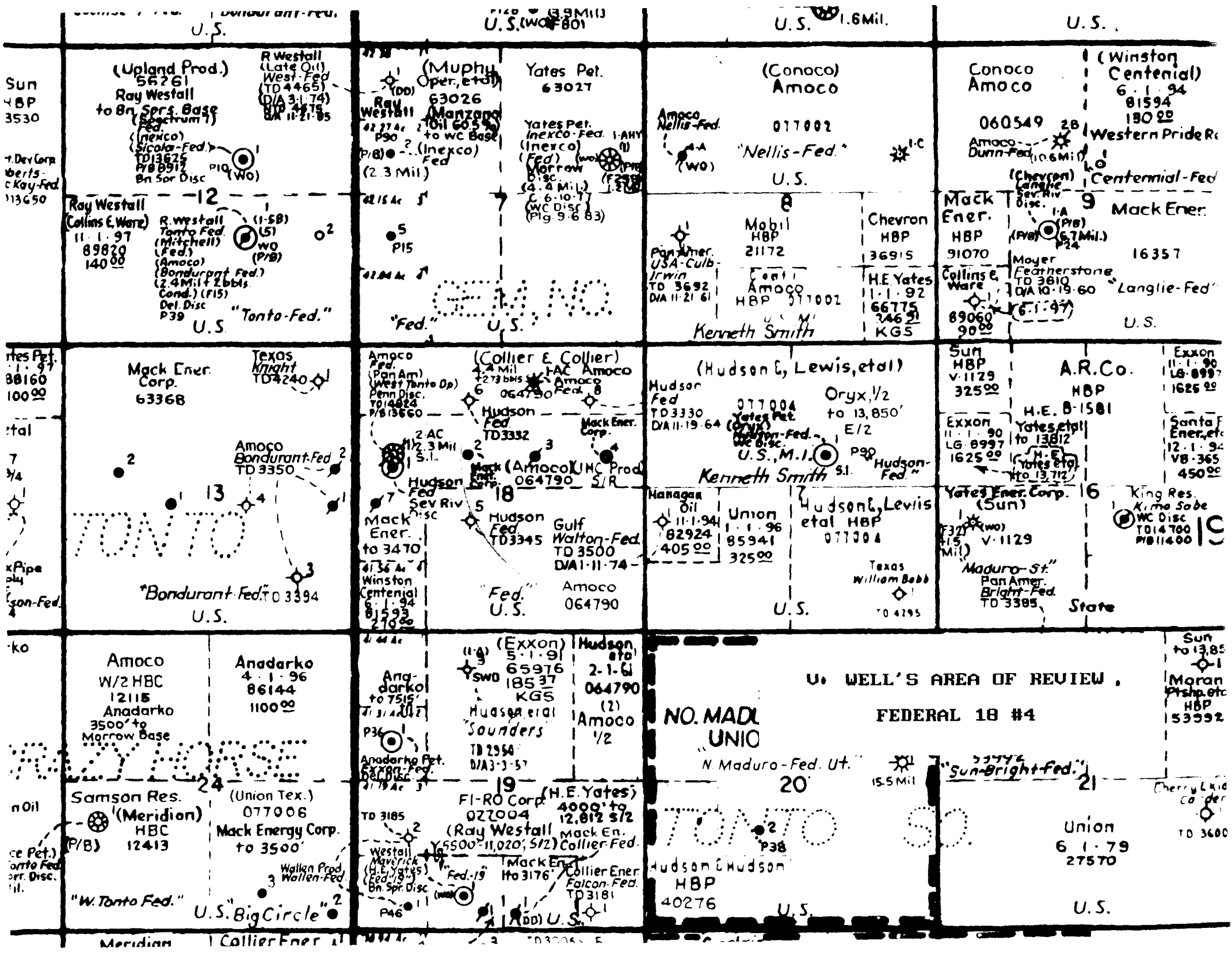
NO ACTION WILL BE TAKEN ON THE APPLICATION UNTIL PROPER PROOF OF NOTICE HAS BEEN SUBMITTED.

NOTICE: Surface owners or offset operators must file any objections or requests for hearing of administrative applications within 15 days from the date this application was mailed to them.

FEDERAL 18 #4



V. Map Attached


U. WELL'S AREA OF REVIEW,
FEDERAL 18 #4
NO. MADI
UNIO
N. Maduro-Fed. Ut.
"Sun-Bright-Fed."
"Nellis-Fed."
"Tonto-Fed."
"Bondurant-Fed."
"W. Tonto Fed."
"Fed."
"Maduro St."
"Langlie-Fed"
U.S.
State
U.S. Big Circle
(Upland Prod.) 56261 Ray Westall to Bn Spr's Base (Spectrum 7) Fed (Inexco) (Sicola-Fed.) TD13625 P/B 9912 Bn Spr Disc
R Westall (Late Oil) West-Fed (TD 4465) (D/A 3-1-74) TD 4475 D/A 11-21-85
Ray Westall (Collins & Ware) 11-1-97 89820 140 00
R. Westall Tonto Fed (Mitchell) (Fed.) (Amoco) (Bondurant Fed.) (2.4 Mil + 2 bbls Cond.) (F15) Del. Disc P39
(Muphy Oper, etal) 63026 (Manzano Oil 60.5%) to WC Base
Ray Westall 42.27 Ac P90
(Inexco) Fed (2.3 Mil)
Yates Pet. 63027
Yates Pet. Inexco-Fed. (Inexco) (Fed) Morrow Disc (4.4 Mil.) C 6-10-77 (WC Disc) (Plg 9-6 83)
(Conoco) Amoco
Amoco Nellis-Fed. 017002
Mobil HBP 21172
Pan Amer. USA-Culb-Irwin TD 3692 D/A 11-21-61
Cont'l Amoco HBP 017002
Chevron HBP 36915
H.E. Yates 1-1-92 66775 246 25 KGS
Kenneth Smith
Conoco Amoco 060549
Amoco Dunn-Fed (10.6 Mil)
(Winston Centenial) 6-1-94 81594 180 00
Western Pride Re
Centennial-Fed
Mack Ener. HBP 91070
Collins & Ware 89060 90 00
Chevron Sev. Riv Disc.
Mack Ener. 16357
Moyer Featherstone TD 3810 D/A 10-19-60
Langlie-Fed
(6-1-97)
Mack Ener. Corp. 63368
Texas Knight TD4240
Amoco Bondurant-Fed TD 3350
"Bondurant-Fed." TD 3394
Amoco Fed. (Pan Am) (West Tonto Dp) Penn Disc. TD 14824 P/B 13660
(Collier & Collier) 4.4 Mil + 273 bbls
HAC Amoco 064790
Amoco Fed. 8
Hudson Fed TD3332
Mack Ener. Corp.
2-AC 1 1/2 2.3 Mil S.I.
Hudson Fed Sev Riv Disc
Mack Ener. to 3470
Winston Centenial 8-1-94 81593 270 00
(Amoco) UNC Prod 064790 S/R
Hudson Fed TD3345
Gulf Walton-Fed TD 3500 D/A 1-11-74
Amoco 064790
(Hudson & Lewis, etal)
Hudson Fed TD 3330 D/A 11-19-64
017004 Yates Pet. (Oryx) Morrow-Fed. (WC Disc)
Oryx 1/2 to 13,850' E/2
U.S., M.I. P90 S.I. Hudson-Fed.
Kenneth Smith
Hanagan Oil 11-1-94 82924 405 00
Union 1-1-96 85941 325 00
Hudson & Lewis etal HBP 017004
Texas William Bobb TD 4295
Sun HBP V-1129 325 00
A.R.Co. HBP
H.E. B-1581
Yates etal to 13812
H.E. Yates etal to 13,712
Exxon 11-1-90 LG 8997 1625 00
Exxon 11-1-90 LG 8997 1625 00
Santa Fe Ener, etc 12-1-94 VB-365 450 00
Yates Ener. Corp. (Sun) V-1129
(F32) (F15 Mil)
King Res. Kimo Sobe WC Disc TD 14700 P/B 11400
Pan Amer. Bright-Fed. TD 3385
Amoco W/2 HBC 12115 Anadarko 3500' to Morrow Base
Anadarko 4-1-96 86144 1100 00
Samson Res. (Meridian) HBC 12413 (P/B)
(Union Tex.) 017006 Mack Energy Corp. to 3500'
Wallen Prod. Wallen-Fed.
(Exxon) 5-1-91 65976 1853 7 KGS
Hudson etal "Sounders" TD 2950 D/A 3-3-57
Anadarko to 7515'
Anadarko Pet. Exxon-Fed. Del. Disc
Hudson etal 2-1-61 064790 (2) Amoco 1/2
Fl-RO Corp 027004 (Ray Westall) (7500'-11,020', S/2)
(H.E. Yates) 4000' to 12,812 S/2
Mack En. Collier-Fed.
Westall Maverick (H.E. Yates) (Fed.-19) Bn. Spr. Disc
Mack Ener. to 3176'
Collier Ener. Falcon-Fed. TD 3181
TD 3185
Hudson & Hudson HBP 40276
Union 6-1-79 2750
Sun to 13,85
Moran Ptnshp. etc HBP 53992
TD 3600

VI. Tabulation of Well Data

DATE PREPARED BY WORK PAPER NO.

REVIEWED BY

Federal 18 Lease
Tonto Yates Seven Rivers, West
Lea County, New Mexico

	1 Federal 18 Wells	2 Location	3	4 Status	5 Date Spudded	6 Total Depth	7 Completion Interval & Date	8	9
1	#1 AC	Unit E, Sec. 18, T19S, R33E		P&A	4/13/60	3281'	3259'-63'	5/23/60	
2		2180' FNL, 690' FWL		10/25/75					
3									
4	#2	Unit F, Sec. 18, T19S, R33E		Producing	5/28/60	3306'	3247'-56'	6/6/60	
5		1980' FNL, 2039' FWL							
6									
7	#3	Unit G, Sec. 18, T19S, R33E		P&A	6/15/60	3283'	3250'-70'	6/23/60	
8		1980' FNL, 1980' FEL		11/4/74					
9									
10	#4	Unit H, Sec. 18, T19S, R33E		Shut-In	6/23/60	3346'	3282'-85'	6/30/60	
11		1980' FNL, 660' FEL					3287'-90'		
12							3293'-3300'		
13							3305'-10'		
14									
15	#5	Unit K, Sec. 18, T19S, R33E		P&A	7/4/60	3345'	D&A	7/12/60	
16		1980' FSL, 2039' FWL		7/12/60					
17									
18	#6	Unit C, Sec. 18, T19S, R33E		P&A	7/14/60	3332'	D&A	7/22/60	
19		990' FNL, 2045' FWL		7/22/60					
20									
21									
22									
23									
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25									
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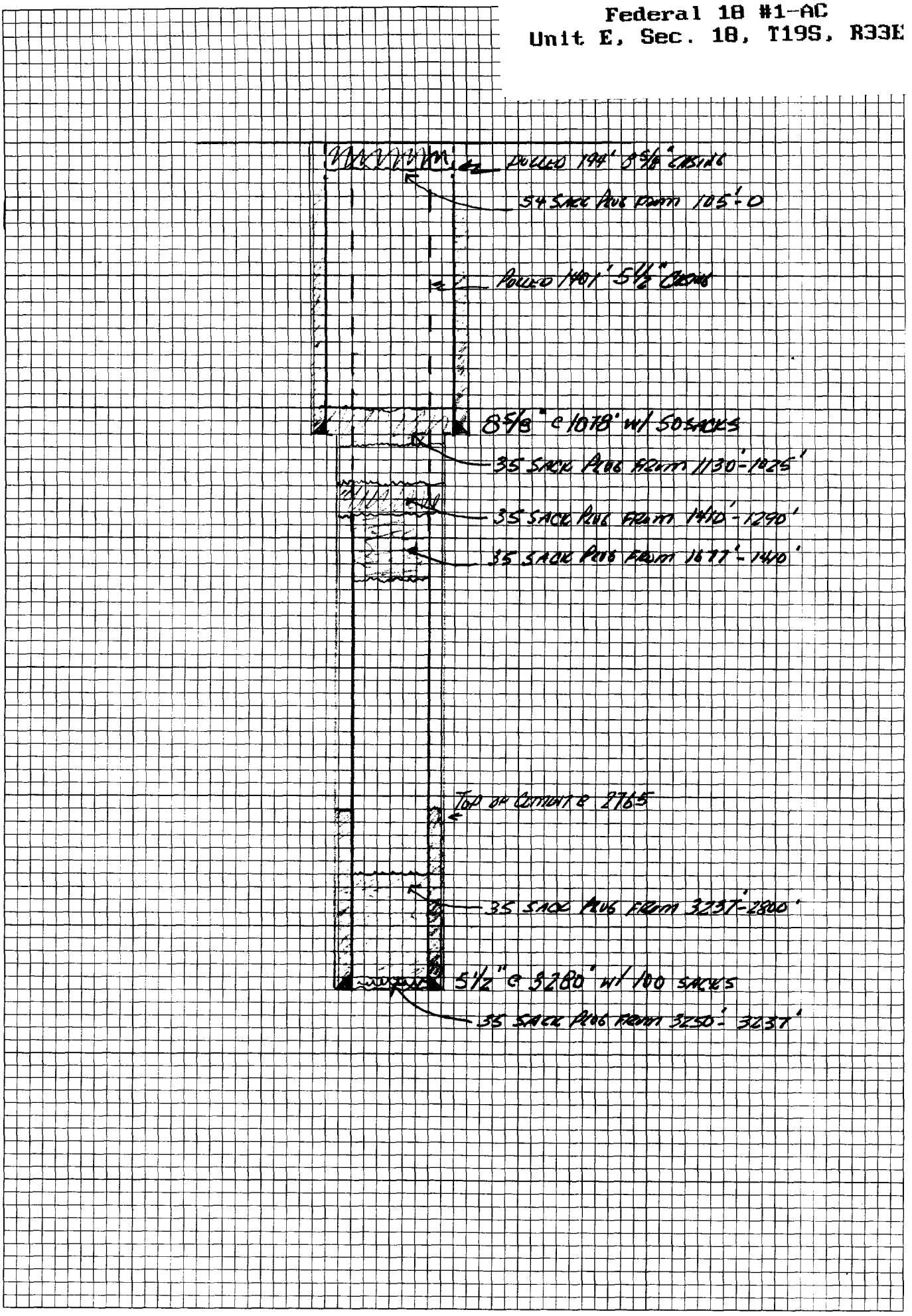
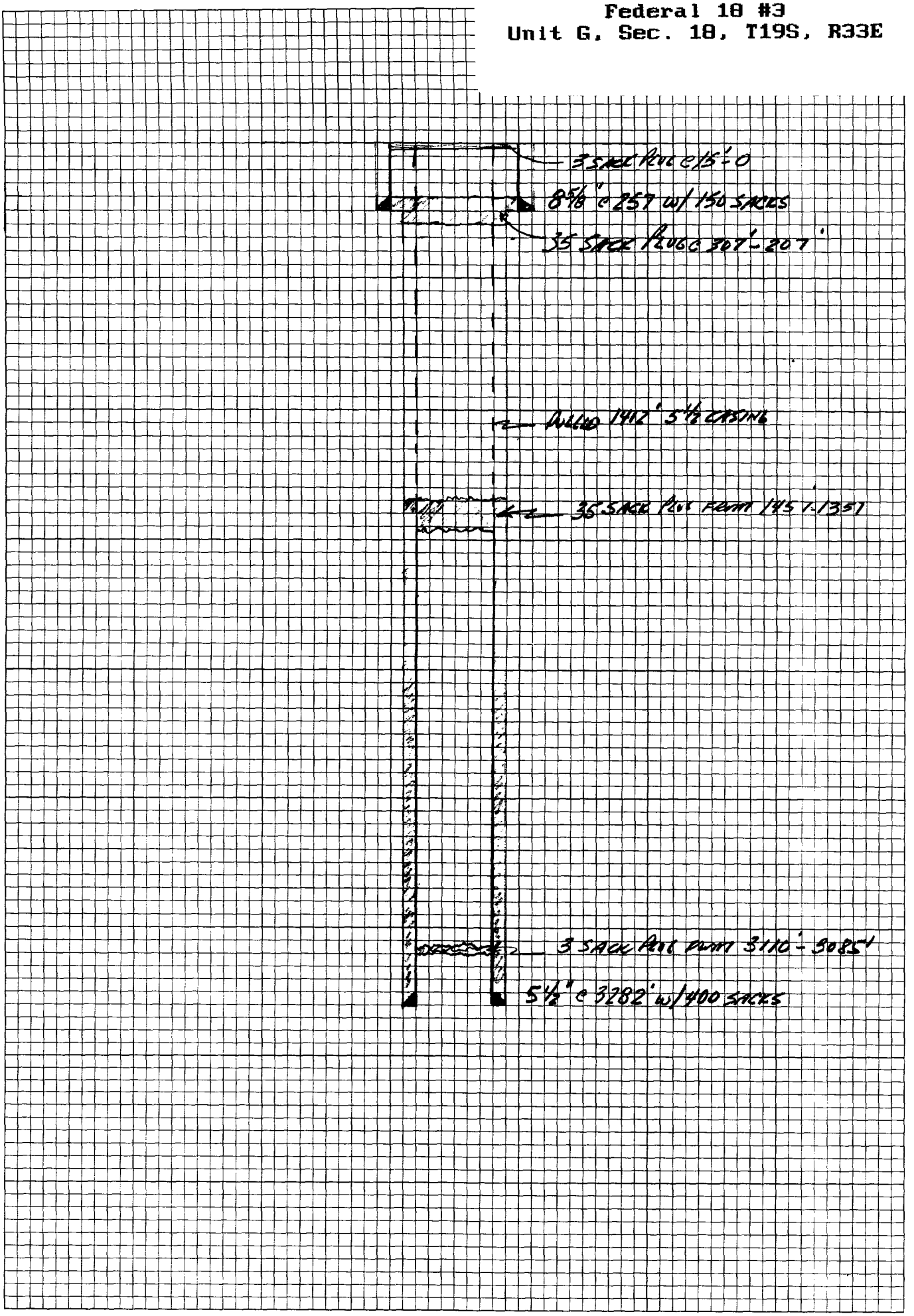
38									
39									
40									

Federal 18 #1-AC
Unit E, Sec. 18, T19S, R33E



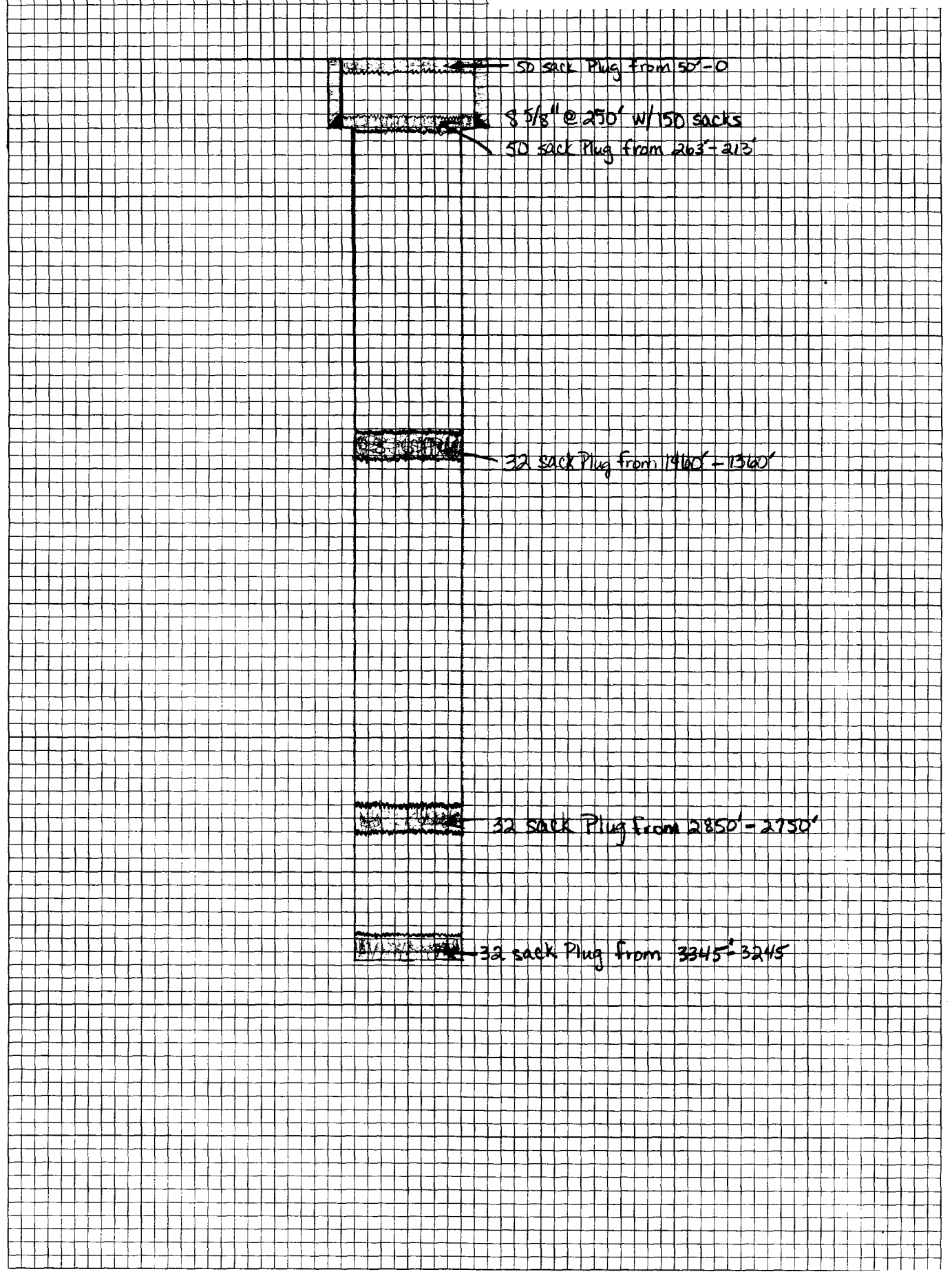
Federal 18 #3
Unit G, Sec. 18, T19S, R33E



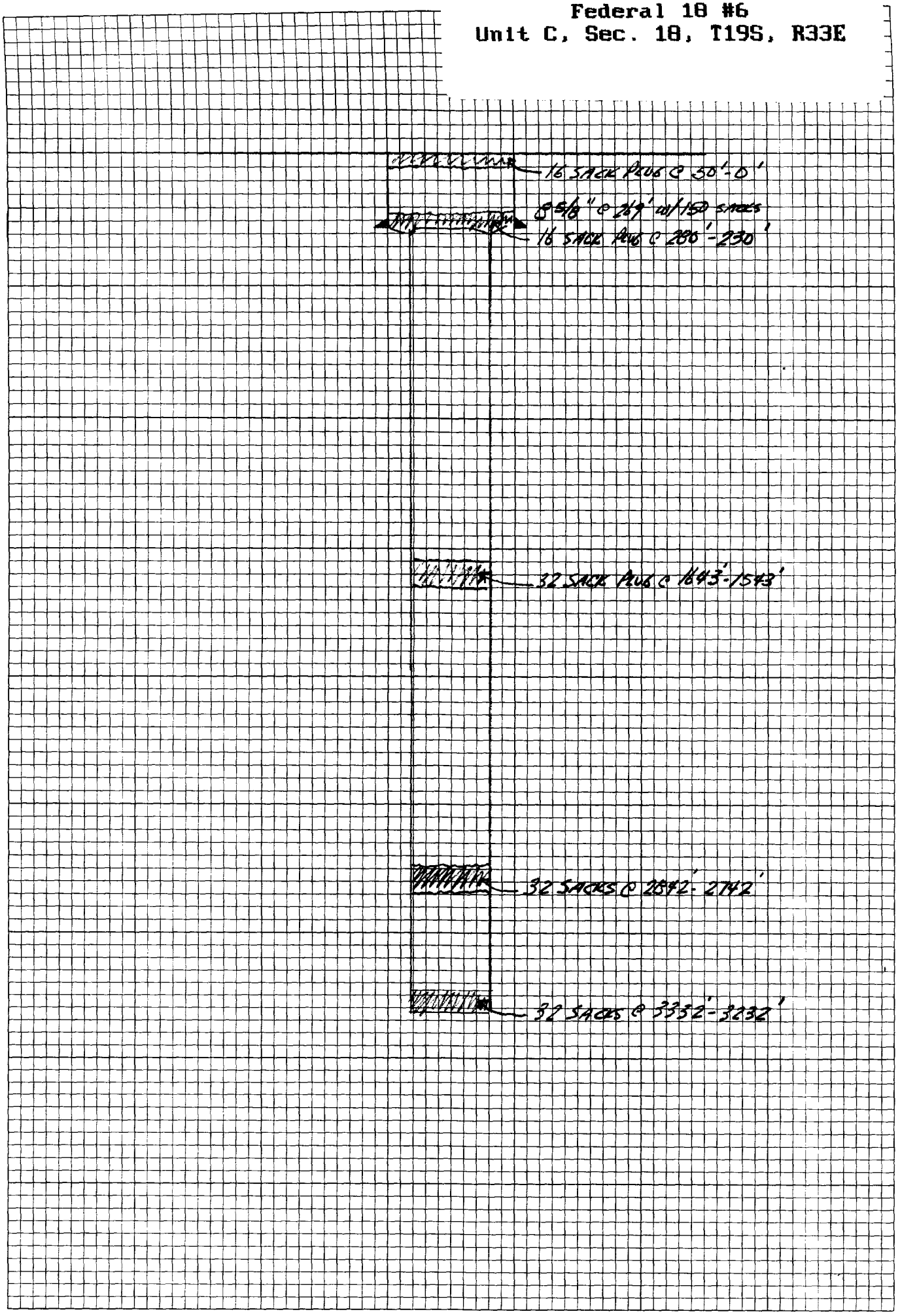
46 0700

10 X 10 TO THE INCH • 7 X 10 INCHES
KEUFFEL & ESSER CO. MADE IN U.S.A.

Federal 18 #5
Unit K, Sec. 18, T19S, R33E



Federal 18 #6
Unit C, Sec. 18, T19S, R33E



VII DATA SHEET: PROPOSED OPERATIONS

1. Proposed average and maximum daily rate and volume of fluids to be injected; **Respectively, 1800 BWPD and 2000 BWPD.**

2. The system is **closed.**

3. Proposed average and maximum injection pressure; **Vacuum - 100#**

4. Sources and an appropriate analysis of injection fluid and compatibility with the receiving formation if other than reinjected produced water; **See attached Analysis dated 10/24/94.**

PETROLITE

Petrolite Corporation
510 West Texas
Artesia, NM 88210-2041

TRETOLITE DIVISION

(505) 746-3588
Fax (505) 746-3580

Reply to:
P.O. Box FF
Artesia, NM
88211-7531

WATER ANALYSIS REPORT

Company : MACK ENERGY
Address : ARTESIA, NEW MEXICO
Lease : FEDERAL
Well : #18
Sample Pt. : WELLHEAD

Date : 10/24/94
Date Sampled : 10/24/94
Analysis No. : 1238

	ANALYSIS		mg/L		* meq/L
1.	pH	7.0			
2.	H2S	130 PPM			
3.	Specific Gravity	1.010			
4.	Total Dissolved Solids		17346.8		
5.	Suspended Solids		NR		
6.	Dissolved Oxygen		NR		
7.	Dissolved CO2		125 PPM		
8.	Oil In Water		NR		
9.	Phenolphthalein Alkalinity (CaCO3)				
10.	Methyl Orange Alkalinity (CaCO3)		600.0		
11.	Bicarbonate	HCO3	732.0	HCO3	12.0
12.	Chloride	Cl	8171.6	Cl	230.5
13.	Sulfate	SO4	2300.0	SO4	47.9
14.	Calcium	Ca	1090.2	Ca	54.4
15.	Magnesium	Mg	418.1	Mg	34.4
16.	Sodium (calculated)	Na	4634.9	Na	201.6
17.	Iron	Fe	NR		
18.	Barium	Ba	NR		
19.	Strontium	Sr	NR		
20.	Total Hardness (CaCO3)		4444.0		

PROBABLE MINERAL COMPOSITION

*milli equivalents per Liter

54	*Ca <----- *HCO3	12
	/------->	
34	*Mg -----> *SO4	48
	<---------/	
202	*Na -----> *Cl	231

Compound	Equiv wt	X meq/L	= mg/L
Ca(HCO3)2	81.0	12.0	972
CaSO4	68.1	42.4	2886
CaCl2	55.5		
Mg(HCO3)2	73.2		
MgSO4	60.2	5.5	331
MgCl2	47.6	28.9	1376
NaHCO3	84.0		
Na2SO4	71.0		
NaCl	58.4	201.6	11782

Saturation Values Dist. Water 20 C

CaCO3	13 mg/L
CaSO4 * 2H2O	2090 mg/L
BaSO4	2.4 mg/L

REMARKS:
C. CULP

Petrolite Oilfield Chemicals Group

Respectfully submitted,
ROZANNE JOHNSON

PETROLITE

SCALE TENDENCY REPORT

Company	: MACK ENERGY	Date	: 10/24/94
Address	: ARTESIA, NEW MEXICO	Date Sampled	: 10/24/94
Lease	: FEDERAL	Analysis No.	: 1238
Well	: #18	Analyst	: ROZANNE JOHNSON
Sample Pt.	: WELLHEAD		

STABILITY INDEX CALCULATIONS
(Stiff-Davis Method)
CaCO3 Scaling Tendency

S.I. =	0.8	at	60	deg. F or	16	deg. C
S.I. =	0.8	at	80	deg. F or	27	deg. C
S.I. =	0.8	at	100	deg. F or	38	deg. C
S.I. =	0.9	at	120	deg. F or	49	deg. C
S.I. =	0.9	at	140	deg. F or	60	deg. C

****

CALCIUM SULFATE SCALING TENDENCY CALCULATIONS
(Skillman-McDonald-Stiff Method)
Calcium Sulfate

S =	3395	at	60	deg. F or	16	deg C
S =	3541	at	80	deg. F or	27	deg C
S =	3610	at	100	deg. F or	38	deg C
S =	3622	at	120	deg. F or	49	deg C
S =	3620	at	140	deg. F or	60	deg C

Petrolite Oilfield Chemicals Group

Respectfully submitted,
ROZANNE JOHNSON

VIII. See "Other Data" on Injection Well Data Sheet

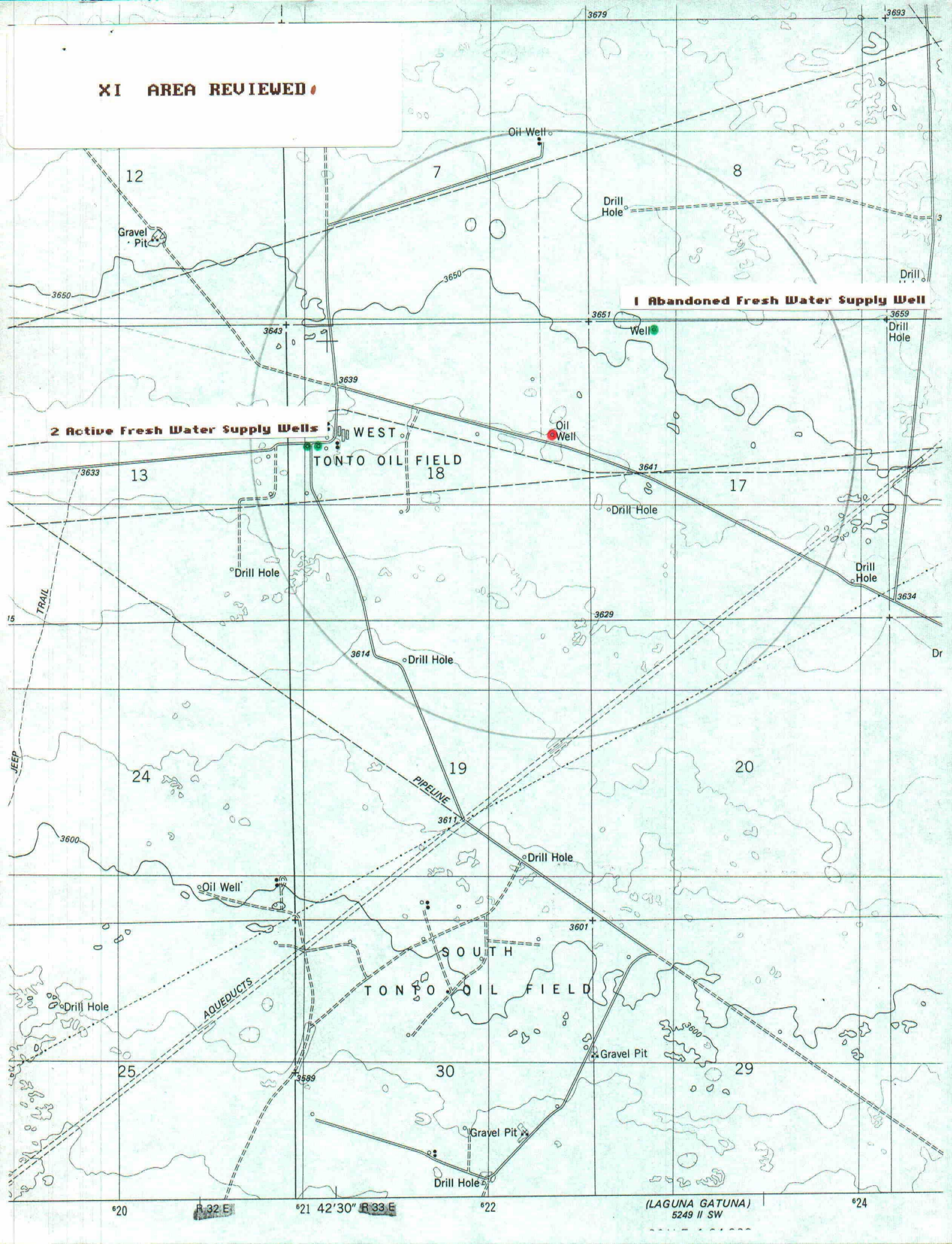
IX PROPOSED STIMULATION PROGRAM

To be treated with 1000 gallons 15% Acid.

X. Well Logs

XI. Chemical Analysis of Fresh Water Wells - water is coming from both of the two adjacent wells shown

XI AREA REVIEWED



PETROLITE

Petrolite Corporation
200 North Loraine, Suite 1100
Midland, TX 79701-4736

TRETOLITE DIVISION

(915) 682-4301
Fax (915) 684-7873

Reply to:
P.O. Box 60180
Midland, TX 79711-0180

WATER ANALYSIS REPORT

Company : MACK ENERGY
Address : ARTESIA, NEW MEXICO
Lease : FRESH WATER
Well :
Sample Pt. : COW TROUGH

Date : 2-3-95
Date Sampled : 1-26-95
Analysis No. : 1089

	ANALYSIS		mg/L		* meq/L
1.	pH	8.3			
2.	H2S	0 PPM			
3.	Specific Gravity	1.001			
4.	Total Dissolved Solids		1646.8		
5.	Suspended Solids				
6.	Dissolved Oxygen				
7.	Dissolved CO2		0 PPM		
8.	Oil In Water				
9.	Phenolphthalein Alkalinity (CaCO3)				
10.	Methyl Orange Alkalinity (CaCO3)				
11.	Bicarbonate	HCO3	406.3	HCO3	6.7
12.	Chloride	Cl	300.0	Cl	8.5
13.	Sulfate	SO4	422.0	SO4	8.8
14.	Calcium	Ca	34.0	Ca	1.7
15.	Magnesium	Mg	31.0	Mg	2.6
16.	Sodium (calculated)	Na	452.0	Na	19.7
17.	Iron	Fe	0.5		
18.	Barium	Ba	0.0		
19.	Strontium	Sr	1.0		
20.	Total Hardness (CaCO3)		213.0		

PROBABLE MINERAL COMPOSITION

*milli equivalents per Liter

2	*Ca <----- *HCO3	7
	/------->	
3	*Mg ------> *SO4	9
	<---------/	
20	*Na -----> *Cl	8

Saturation Values Dist. Water 20 C

CaCO3	13 mg/L
CaSO4 * 2H2O	2090 mg/L
BaSO4	2.4 mg/L

Compound	Equiv wt	X meq/L	= mg/L
Ca(HCO3)2	81.0	1.7	138
CaSO4	68.1		
CaCl2	55.5		
Mg(HCO3)2	73.2	2.6	187
MgSO4	60.2		
MgCl2	47.6		
NaHCO3	84.0	2.4	203
Na2SO4	71.0	8.8	624
NaCl	58.4	8.5	495

REMARKS: CULP - ARTESIA OFFICE - FILE

Petrolite Oilfield Chemicals Group

Respectfully submitted,
SHEILA DEARMAN

PETROLITE

TRETOLITE DIVISION

Petrolite Corporation
200 North Loraine, Suite 1100
Midland, TX 79701-4736

(915) 682-4301
Fax (915) 684-7873

Reply to:
P.O. Box 60160
Midland, TX 79711-0160

SCALE TENDENCY REPORT

Company	: MACK ENERGY	Date	: 2-3-95
Address	: ARTESIA, NEW MEXICO	Date Sampled	: 1-26-95
Lease	: FRESH WATER	Analysis No.	: 1089
Well	:	Analyst	: SHEILA DEARMAN
Sample Pt.	: COW TROUGH		

STABILITY INDEX CALCULATIONS
(Stiff-Davis Method)
CaCO3 Scaling Tendency

S.I. = 0.8 at 80 deg. F or 27 deg. C
S.I. = 0.9 at 120 deg. F or 49 deg. C

****

CALCIUM SULFATE SCALING TENDENCY CALCULATIONS
(Skillman-McDonald-Stiff Method)
Calcium Sulfate

S = 1111 at 80 deg. F or 27 deg C
S = 1094 at 120 deg. F or 49 deg C

Petrolite Oilfield Chemicals Group

Respectfully submitted,
SHEILA DEARMAN

MACK ENERGY CORPORATION

Post Office Box 1359
Artesia, New Mexico 88211-1359
(505) 748-1288 / FAX (505) 746-2362

XII AFFIRMATIVE STATEMENT

RE: Federal 18 #4

We have examined the available geologic and engineering data and find no evidence of open faults or any other hydrologic connection between the disposal zone and any underground source of drinking water.

Date: 2/7/95

Robert C. Chase

Robert C. Chase

Title: Field Supervisor

FORM 578

LANE WELLS COMPANY

A DIVISION OF DRESSER INDUSTRIES, INC

GAMMA RAY NEUTRON

FILE NO.

COMPANY WILLIAM A. AND EDWARD R. HUDSON

WELL FEDERAL "18" NO. 4

FIELD UNDESIGNATED

COUNTY LEA STATE N. MEXICO

LOCATION:

SEC _____ TWP _____ RGE _____

Other Services

Permanent Datum GROUND LEVEL Elev. _____

Log Measured from K.B. 10 Ft. Above Permanent Datum

Drilling Measured from K.B.

Elevations:
KB *
DF *
GL *

Date	7-1-60	7-1-60	
Run No.	1-NW	1-NW	
Type Log	Gamma Ray	N/NEUTRON	
Depth-Driller	3350	3350	
Depth-Logger	3346	3346	
Bottom Logged Interval	3333	3345	
Top Logged Interval	SURFACE	SURFACE	
Type Fluid in Hole	Mud	Mud	
Salinity Ppm Cl.			
Density Lb./Gal.			
Level			
Max. Rec. Temp. Deg. F			
Opr. Rig Time	2 hrs.	2 hrs.	
Recorded By	GRANT	GRANT	
Witnessed By	MILLER	MILLER	

Run No.	Bore Hole Record Bit	From	To	Casing Record Size	Wgt.	From	To
1	12 1/4	SURFACE	270	8 5/8		SURFACE	270
1	7 7/8	270	3350	OH		270	3350

MACK ENERGY CORPORATION

P.O. Box 960
Artesia, NM 88211-0960
(505) 748-1288 / FAX (505) 746-2362

VIA FACSIMILE TRANSMITTAL

TO: Mr. Ben Stone
OCD

FROM: Jim Brown
DATE: 3/13/95

RE: Federal 18 SWD

Per your request:

Lease Name	Unit	Hole Size	Casing Size	Depth	Cement
Walton Fed. #1 17-19S-33E	L	12 1/4"	8 5/8"	257'	200 sx
Federal 18 #8 18-19S-33E	A	12 1/4"	8 5/8"	273'	200 sx
Federal AC #1 18-19S-33E	B	17 1/2" 12 1/4" 8 3/4"	13 3/8" 9 5/8" 5 1/2"	455' 5002' 13670'	450 sx 2350 sx 1800 sx
Federal 18 #2 18-19S-33E	F	12 1/4" 7 7/8"	9 5/8" 5 1/2"	267' 3280'	250 sx 400 sx

If you have any questions, please don't hesitate to call.

Sincerely,

Mack Energy Corporation

Jim Brown

JB/ss