Shell Western E&P Inc.
An Affiliate of Shell Oil Company

P.O. Box 576
Houston, TX 77001

AUGUST 26, 1991

CERTIFIED MAIL

State of New Mexico
Energy, Minerals and Natural Resources Department
Oil Conservation Division
P. O. Box 2088
Santa Fe, NM 87504-2088

Gentlemen:

SUBJECT: EXPANSION OF PRESSURE MAINTENANCE PROJECT
SWEPI - NORTH HOBBS (GRAYBURG/SAN ANDRES) UNIT
HOBBS (GRAYBURG/SAN ANDRES) POOL
TOWNSHIP 18 SOUTH, RANGE 38 EAST
LEA COUNTY, NEW MEXICO

Shell Western E&P Inc. hereby requests administrative approval to convert three North Hobbs (Grayburg/San Andres) Unit wells to water injection. Administrative Order No. R-6199, dated November 30, 1979, authorized Shell Western to operate the North Hobbs (Grayburg/San Andres) Unit pressure maintenance project within the subject pool.

The wells to be converted are the North Hobbs (GSA) Unit (NHU) No. 20-121, Section 20, T18S, R38E; the NHU 28-211, Section 28, T18S, R38E; and the NHU 19-442, Section 19, T18S, R38E, Lea County, New Mexico. Form C-108 and the necessary documentation to obtain the injection permits are attached.

As required, a copy of this application, complete with all attachments, has been sent to the surface owners. Because the Area of Review is wholly within the North Hobbs (GSA) Unit boundaries, no offset operator notification was necessary.

If you have any questions concerning this application or any attachment, please contact Ellyn Schade at (713) 870-3016.

Very truly yours,

W. F. N. Kelldorf
Division Environmental Engineer - HS&E
Western Division

EMS:rlb

Attachments

MB008702.EMS

cc: (w/attachments)
State of New Mexico
Energy, Minerals and Natural Resources Department
Oil Conservation Division
P. O. Box 2088
Santa Fe, NM 87504-2088 (original and 1 copy)

State of New Mexico
Energy, Minerals and Natural Resources Department
Oil Conservation Division
P. O. Box 1980
Hobbs, NM 88240

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: Shell Western E&P Inc.

Address: P. O. Box 576, Houston, Texas 77001

Contact party: Ellyn Schade Phone: (713) 870-3016

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 R-6199, November 30, 1979

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: W. F. N. Kelldorf Title Division Environmental Engineer

Signature: W. F. N. Kelldorf Date: 8/26/91

* 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. See attached information sheet.

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

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.

Form C-108 Required Information
North Hobbs (Grayburg/San Andres) Unit
Three-well Convert to Water Injection Program
NHU 19-442, NHU 20-121, and NHU 28-211

III. Well Data - See attached injection well data sheets. This includes well data requested in Part III. A. and III. B.

V. See attached Area of Review (AOR) map for location of well with a one-half mile radius circle identifying the area of review.

VI. The attached tabulation of well data supplements well data previously submitted. Please reference the listed orders for previously submitted data:

Order No.	Date
R-6199	11/30/79
PMX-87	08/26/80
PMX-109	08/13/81
R-6199-A	08/04/83
PMX-131	10/25/84
PMX-133	01/11/85
PMX-151	01/27/88
PMX-156	05/23/90
PMX-157	07/30/90

We have also included wellbore schematics to illustrate plugging details of the following plugged and abandoned wells that were included in well tabulation:

McKinley A - Shell #1	P&A	02/63
McKinley A - Shell #8	P&A	04/63
McKinley B - Sun #1	P&A	02/47
Gulf-Grimes-Runnels #1	P&A	05/73
Gulf-Grimes-Runnels #2	P&A	03/73
Grimes - Gulf #4	P&A	02/49
Grimes - Shell #8	P&A	10/53
Grimes-Continental #6	P&A	01/71
Grimes-Repollo #2	P&A	04/59
Grimes-Repollo #6	P&A	12/47
Grimes-Sinclair #5	P&A	08/50
Bowers-Federal-Humble #1	P&A	12/71
Bowers A-B-Humble #1	P&A	11/48
Boxers-Federal-Humble #33	P&A	10/72

VII. Proposed Operating Data:

	19-442	20-121	28-211
1) Average injection rate	800 BWPD	300 BWPD	800 BWPD
Maximum injection volume	1000 BWPD	400 BWPD	1000 BWPD

2) This system is closed and is reinjecting North Hobbs (Grayburg/San Andres) Unit produced water.

	19-442	20-121	28-211
3) Average injection pressure	800 psi	800 psi	775 psi
Maximum injection pressure	841 psi	843 psi	807 psi

Injection will be into the unitized Grayburg/San Andres at injection intervals of approximately 4000 feet to 4300 feet. Surface injection pressure for each well will be limited to 0.2 psi per foot gradient to the top perforation or to the top of the open-hole interval, in accordance with Rule 11 of Order No. R-6199.

VIII. Previously submitted for earlier referenced orders.

IX. The proposed stimulation programs are included on the Injection Well Data Sheets.

X. Logs from the original oil well completions were previously released.

Test data for each well follows:

NHU 19-442:

Potential test - During a 24 hr. potential test on 12/23/84, the well pumped at a rate of 22 BOPD, 245 BWPD and 53 MCFD from perforations at 4205-4283 ft. The tubing and casing pressure were 40 psi.

1990 Production - Averaged 4 BOPD and 471 BWPD with a GOR of 1560 SCF/Bbl.

NHU 20-121 (Old The California Company McKinley No. 2):

Proration Test - During a 1-hour proration test on 4/25/33, the well flowed at a rate of 2851 BOPD and 3316 MCFD through open 2 1/2 in. tubing from open hole from 4054-4241 ft. The tubing pressure was 20 psi. The well flowed at a rate of 5508 BOPD and 6437 MCFD through open 2 1/2 in. tubing and 7 in. casing. The oil cut showed 0.2% BS&W. The tubing pressure varied between 400 psi and 25 psi.

First 24 Hr Test - The well flowed 77 BOPD on a 9/64 in. positive choke on 5/8/33. The tubing pressure was 280-480 psi and the casing pressure was 40-75 psi.

1990 Production - Averaged 3 BOPD and 92 BWPD with a GOR of 982 SCF/Bbl.

NHU 28-211 (Old Repollo Oil Co. W. D. Grimes No. 4):

Potential Test - During a 5 hr. potential test on 9/18/35, the well flowed at a rate of 24,000 BOPD from 4180-4220 ft.

1990 Production - Averaged 3 BOPD and 756 BWPD with a GOR of 737 SCF/Bbl.

XI. Enclosed are chemical analyses of fresh water from fresh water wells within one mile of the proposed injectors. The list was obtained from the State Engineer's Office. Water wells that apply to this application would be those located in Section 28, T18S-R38E (six wells); Section 20, T18S-R38E (1 well); Section 19, T18S-R38E (3 wells); and N 1/2 Section 30, T18S-R38E (3 wells).

XII. Does not apply.

XIII. A copy of this application and attachments have been mailed, as required by "Proof of Notice" section, to each surface owner. A copy of the cover letter to each surface owner is included. Because the AORs for all three wells are within the Unit, no offset operator notice is required.

Enclosed is the legal notice and affidavit of publication from the Hobbs Daily News-Sun, a daily newspaper published at Hobbs, New Mexico.

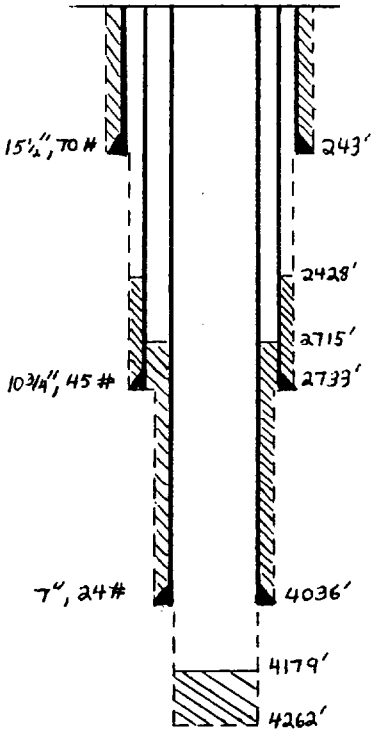
EMS:rlb

III.

INJECTION WELL DATA SHEET

Shell Western E&P Inc.		North Hobbs Unit		
OPERATOR		LEASE		
28-211	990' FNL & 2310' FWL	28	18S	38E
WELL NO.	FOOTAGE LOCATION	SECTION	TOWNSHIP	RANGE

Schematic



Tabular Data

Surface Casing

Size 15½" (70#) " Cemented with 300 sx.

TOC Surface feet determined by Circulation

Hole size 18" (EST)

Intermediate Casing

Size 10-3/4" (45#)" Cemented with 200 sx.

TOC 2428 feet determined by Calculation

Hole size 15" (EST)

Long string

Size 7" (24#) " Cemented with 680 sx.

TOC 2715 feet determined by Temp Survey

Hole size 8-3/4" (EST)

Total depth 4262'

Injection interval

4036 feet to 4262 feet

(perforated or open-hole, indicate which)

(IX) Proposed Stimulation Program

1. Drill out PBTD 4179' to TD 4262'.
2. Acidize openhole w/4000 gal. 15% HCl in 4 stages w/3-500# graded rock salt between stages.
3. Run injection equipment.

Tubing size 2-7/8" lined with Fiberglass (material) set in a

Guiberson UNI-VI (brand and model) packer at 4000 feet

(or describe any other casing-tubing seal).

Other Data

1. Name of the injection formation Grayburg/San Andres
2. Name of Field or Pool (if applicable) Hobbs
3. Is this a new well drilled for injection? /7 Yes /X7 No

   If no, for what purpose was the well originally drilled? Oil Production
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) No
5. Give the depth to and name of any overlying and/or underlying oil or gas zones (pools) in this area. Next higher zone - Queen, 3375'

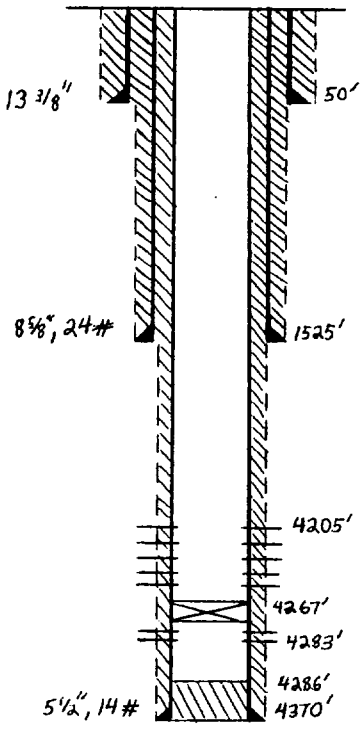
   Next lower zone - Paddock, 5380'

III.

INJECTION WELL DATA SHEET

Shell Western E&P Inc.	North Hobbs Unit			
OPERATOR	LEASE			
19-442	1100' FSL & 380' FEL	19	18S	38E
WELL NO.	FOOTAGE LOCATION	SECTION	TOWNSHIP	RANGE

Schematic



Tabular Data

Surface Casing

Size 13-3/8 " Cemented with NA sx.

TOC Surface feet determined by Assumption

Hole size 17" (EST)

Intermediate Casing

Size 8-5/8" (24#) " Cemented with 620 sx.

TOC Surface feet determined by Circulation

Hole size 11" (EST)

Long string

Size 5½" (14#) " Cemented with 1320 sx.

TOC Surface feet determined by Circulation

Hole size 7-7/8" (EST)

Total depth 4370'

Injection interval

4205 feet to 4283 feet

(perforated or open-hole, indicate which)

(X) Proposed Stimulation Program

1. Drill out CIBP (4267') to PBTD at 4286'.
2. Acidize perfs 4205-83' w/4000 gal 15% HCl in 4 stages w/3-500# graded rock salt between stages.
3. Run injection equipment.

Tubing size 2-7/8" lined with Fiberglass (material) set in a

Guiberson UNI-VI (brand and model) packer at 4100 feet

(or describe any other casing-tubing seal).

Other Data

1. Name of the injection formation Grayburg/San Andres
2. Name of Field or Pool (if applicable) Hobbs
3. Is this a new well drilled for injection? / Yes /X/ No

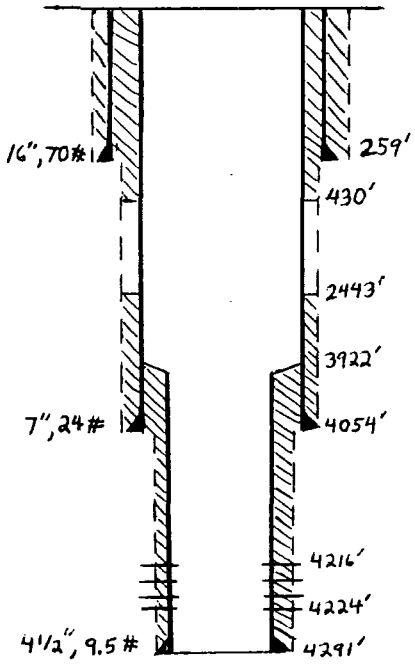
   If no, for what purpose was the well originally drilled? Oil Production
4. Has the well ever been perforated in any other zone(s)? List all such perforated intervals and give plugging detail (sacks of cement or bridge plug(s) used) No
5. Give the depth to and name of any overlying and/or underlying oil or gas zones (pools) in this area. Next higher zone - Queen, 3375'
   Next lower zone - Paddock, 5380'

III.

INJECTION WELL DATA SHEET

Shell Western E&P Inc.	North Hobbs Unit			
OPERATOR	LEASE			
20-121	1980' FNL & 660' FWL	20	18S	38E
WELL NO.	FOOTAGE LOCATION	SECTION	TOWNSHIP	RANGE

Schematic



Tabular Data

Surface Casing

Size 16" (70#) " Cemented with 225 sx.

TOC Surface feet determined by Circulation

Hole size 19-3/4" (EST)

Intermediate Casing

Size 7" (24#) " Cemented with 275 sx.

TOC 2443 feet determined by Calculation

Hole size 8-5/8" (EST) (Also cemented 300 SX surface to 430' calculated depth)

Long string (LINER)

Size 4½" (9.5#) " Cemented with 90 sx.

TOC 3922 feet determined by Circulation

Hole size 6-3/4" (EST)

Total depth 4291'

Injection interval

4216 feet to 4224 feet

(perforated or open-hole, indicate which)

(IX.) Proposed Stimulation Program

1. Acidize perfs 4216-24 w/4000 gal 15% HCl using ball sealers as diverter.
2. Run injection equipment.

Tubing size 2-7/8" lined with Fiberglass (material) set in a

Guiberson UNI-VI (brand and model) packer at 4000 feet

(or describe any other casing-tubing seal).

Other Data

1. Name of the injection formation Grayburg/San Andres
2. Name of Field or Pool (if applicable) Hobbs
3. Is this a new well drilled for injection? ☐ Yes ☒ No

   If no, for what purpose was the well originally drilled? Oil Production
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) No
5. Give the depth to and name of any overlying and/or underlying oil or gas zones (pools) in this area. Next higher zone - Queen, 3375'

   Next higher zone - Paddock, 5380'

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VI.

SHELL WESTERN E&P INC.
NORTH HOBBS GRAYBURG/SAN ANDRES UNIT
N.M.O.C.D. ORDER NO. R-6199
AREA OF REVIEW NHU 19-442, 20-121, 28-211
MAY 1991

LOCATION S-T-R FOOTAGE	OPERATOR WELL #	ELEV.	DATE DRILLED	TD PBTD	WELL TYPE	CASING DETAIL SIZE	WEIGHT (LB/FT)	DEPTH (FT)	CEMENT (SACKS)	TOC (FT)	DTMND BY	HOLE SIZE	COMPLETION INTERVAL
19-T18S-R38E	SHELL	3661 DF	9/30	4256	OIL -	12 1/2"	50	253	200	0	CALC	16" *	3980-4215'
2310' FSL & 2310' FEL	19-331			4104	G/SA	9 5/8"	36	2750	600	864	CALC	12" *	
OF MCKINLEY A LEASE						7"	24	3975	225	3182	CBL	8 3/4" *	
						5 1/2"	15.5	4255	100	3934	CBL	6 1/4" *	
						(LINER - TOL @ 2923)							
19-T18S-R38E	SHELL	3657 GL	6/85	4370	INJ -	13 3/8"		40	REDIMIX	0	CIRC	17 1/2"*	3958-4346'
1430' FSL & 2535' FEL	19-332W			4316	G/SA	9 5/8"	36	1510	625	0	CIRC	12 1/4"*	
OF MCKINLEY A LEASE						7"	20	4368	955	84	CBL	8 3/4" *	
19-T18S-R38E	SHELL	3650 GL	9/30	4246	OIL -	12 1/2"	50	236	200	0	CIRC	16" *	4078-4198'
330' FSL & 2310' FEL	19-341			4244	S.A.	9 5/8"	36	2750	600	650	CALC	12" *	
OF MCKINLEY A LEASE						7"	24	3975	225	3299	CBL	8 3/4" *	
						5 1/2"	15.5	4245	100	3937	CIRC	6 1/4" *	
						(LINER - TOL @ 3937)							
19-T18S-R38E	SHELL	3650 GL	2/33	4342	INJ -	12 1/2"	50	226	200	0	CIRC	18 1/4"	4013-4312'
1300' FNL & 1300' FEL	19-411W			4335	G/SA	7"	36	3966	700	2524	CBL	8 3/4"	
OF B HARDIN LEASE						4 1/2"	10.5	4342	100	3867	CBL	6 1/4"	
						(LINER - TOL @ 3867)							
19-T18S-R38E	SHELL	3665 GL	11/30	4310	OIL -	12 1/2"	50	217	200	0	CIRC	16"	4112-4234'
2310' FNL & 1305' FEL	19-421				S.A.	9 5/8"	36	2743	600	541	CALC	11 3/4"	
OF B HARDIN LEASE						7"	24	3948	300	3000	CBL	8 3/4" *	
						5"	15	4309	100	3791	CALC	6 1/4" *	
						(LINER - TOL @ 3791)							
19-T18S-R38E	SHELL	3663 DF	7/68	4286	OIL -	7 7/8"	26.4	277	200	0	CIRC	12 1/4"	4116-4262'
1650' FSL & 990' FEL	19-431W			4281	S.A.	4 1/2"	10.5	4285	435	2537	CBL	7 7/8"	
OF MCKINLEY A LEASE													
19-T18S-R35E	SHELL	3657 DF	12/32	4242	OIL -	15 1/2"	70	221	200	0	CALC	18" *	4185-4236'
330' FSL & 330' FEL	19-441			4240	S.A.	9"	34/40	2775	600	0	CIRC	12 1/4"*	
OF MCKINLEY A LEASE						6 5/8"	24	3982	200	3090	CBL	8 3/4" *	
						5"	11.5/13	4241	100	3040	CBL	6 1/4" *	
						(LINER - TOL @ 3949)							
20-T18S-R38E	SHELL	3662 DF	10/32	4365	OIL -	12 1/2"	50	213	200	0	CIRC	16"	4082-4220'
990' FNL & 330' FWL	20-111				G/SA	9"	34	2796	500	1335	CALC	11 3/4"	
OF H D MCKINLEY LEASE						7"	24	4040	200	2831	CALC	8 3/4"	
						5"	15	4238	395	0	CIRC	6 1/4"	
						3 1/2"	7.7	4364	50	3977	CALC	4 3/4"	
						(LINER - TOL @ 3977)							

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VI.

SHELL WESTERN E&P INC.
NORTH HOBBS GRAYBURG/SAN ANDRES UNIT
N.M.O.C.D. ORDER NO. R-6199
AREA OF REVIEW NHU 19-442, 20-121, 28-211
MAY 1991

LOCATION S-T-R FOOTAGE	OPERATOR WELL #	ELEV.	DATE DRILLED	TD PBTD	WELL TYPE	CASING DETAIL SIZE	WEIGHT (LB/FT)	DEPTH (FT)	CEMENT (SACKS)	TOC (FT)	DTMND BY	HOLE SIZE		COMPLETION INTERVAL
20-T18S-R38E 1980' FNL & 660' FWL OF H D MCKINLEY LEASE	SHELL 20-121	3648 GL	4/33	5391	OIL - S.A.	16" 7" 4 1/2" (LINER - TOL @ 3922) NOTE: THIS WELL ALSO HAS 300 SX BEHIND 7" FROM SURF TO 430' (CALCULATED) DONE IN 1975	70 24 9.5	259 4054 4241	225 275 90	0 2443 3922	CIRC CALC CIRC	19 3/4 8 5/8 6 1/4		4152-4268'
20-T18S-R38E 1650' FSL & 330' FWL OF MCKINLEY B LEASE	SHELL 20-131W	3662 DF	7/69	4276 4269	INJ - G/SA	8 5/8" 5 1/2"	24 15.5	292 4266	300 600	0 4226	CIRC CBL	12 1/4 7 7/8		4052-4242'
20-T18S-38E 330' FSL & 330' FWL OF MCKINLEY B LEASE	SHELL 20-141	3647 GL	11/32	4252	OIL - S.A.	12 1/2" 9 5/8" 7" 5" (LINER - TOL @ 3929)	50 36 24 15	223 2797 3980 4228	200 600 200 44	0 911 2809 3929	CALC CALC CALC CALC	16" 12" 8 3/4" 6 1/4"	* * * *	4144-4182'
20-T18S-R38E 2310 FNL & 1320' FWL OF H D MCKINLEY LEASE	SHELL 20-221	3644 GL	10/30	4290 4275	OIL - G/SA	13 3/8" 9 5/8" 7" 4 1/2" (LINER - TOL @ 3900)	54.5 36 24 12.24	237 2770 4026 4290	142 700 150 50	79 570 3072 4290	CALC CALC CALC CALC	18" 12" 8 5/8" 6 1/8"		4077-4220'
20-T18S-R38E 2310' FSL & 1320' FWL OF MCKINLEY B LEASE	SHELL 20-231	3657 DF	10/30	4210 4129	OIL - G/SA	12 1/2" 9 5/8" 7"	50 36 24	242 2810 4025	200 600 200	0 0 3248	CALC CALC CBL	16" 12" 8 3/4"	* * *	3908-4227'
20-T18S-R38E 1325' FSL & 1325' FWL OF MCKINLEY B LEASE	SHELL 20-232	3656 DF	7/33	4330 4280	OIL - G/SA	15 1/2" 9 5/8" 7" 5" (LINER - TOL @ 3853)	70 36 24 15	243 1615 4089 4329	150 75 250 55	0 1397 2577 3853	CIRC CALC CALC CALC	18" 12 1/4" 8 3/4" 6 1/4"		4067-4276'
20-T18S-R38E 1610' FSL & 1850' FWL OF MCKINLEY B LEASE	SHELL 20-233W	3643 GL	7/81	4510 4476	INJ - G/SA	16" 8 5/8" 5 1/2"	COND 24 14	40 1500 4510	40 850 1050	0 0 0	CONST. CIRC CIRC	 12 1/4" 7 7/8"		3866-4464'
21-T18S-R38E 330' FSL & 330' FWL OF GRIMES C LEASE	SHELL 21-141	3650 GL	1/35	4219 4150	OIL - G/SA	13 3/8" 8 1/4"	54.5 32	270 4067	200 650	0 3140	CIRC CBL	17" 12 1/4"		3890-4257'

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VI.

SHELL WESTERN E&P INC.
NORTH HOBBS GRAYBURG/SAN ANDRES UNIT
N.M.O.C.D. ORDER NO. R-6199
AREA OF REVIEW NHU 19-442, 20-121, 28-211
MAY 1991

LOCATION S-T-R FOOTAGE	OPERATOR WELL #	ELEV.	DATE DRILLED	TD PBTD	WELL TYPE	CASING DETAIL SIZE	WEIGHT (LB/FT)	DEPTH (FT)	CEMENT (SACKS)	TOC (FT)	DTMND BY	HOLE SIZE	COMPLETION INTERVAL
21-T18S-R38E	SHELL	3645 DF	10/35	4225	OIL -	13"	48	281	225	0	CIRC	15 1/2"	4176-4203'
330' FSL & 1650' FWL	21-241			4210	S.A.	7"	24	4109	1300	0	CIRC	8 3/4" *	
OF GRIMES C LEASE						5 1/2"	14	4221	250	0	CIRC	6 1/4"	
21-T18S-R38S	SHELL	3639 GL	2/36	4260	OIL -	12 1/5"	50	252	200	0	CIRC	16"	4066-4260'
330' FSL & 2310' FEL	21-341				G/SA	7"	24	4048	468	1236	CALC	8 3/4"	
OF MORRIS A LEASE						4 1/2"	9.5	4015	400	3700	CBL	6 1/4"	
21-T18S-R38E	SHELL	3647 DF	12/37	4244	OIL -	10 3/4"	36	259	175	0	CIRC	13 1/2"	4080-4244'
230' FSL & 1090' FEL	21-441				G/SA	7"	24	4097	400	2014	CALC	9"	
OF MORRIS B LEASE						4 1/2"	9.5	4072	400	395	CBL	6 1/4"	
28-T18S-R38E	SHELL	3646 GL	7/34	4288	INJ -	15 1/2"	70	296	200	0	CIRC	18"	4024-4215
990' FNL & 330' FWL	28-111W			4288	G/SA	10"	45	2704	150	2304	CALC	12 3/4"	
OF W D GRIMES LEASE						7"	26	3956	250	3094	CALC	8 3/4"	
						4 1/2"	11.6	4234	50	3913	CALC	6 1/4"	
						(LINER - TOL @ 3913)							
28-T18S-R38E	SHELL	3643 GL	9/30	4250	OIL -	12 1/2"	50	228	245	0	CIRC	16"	4069-4196'
2310' FNL & 330' FWL	28-121			4247	G/SA	9 5/8"	36	2750	700	181	CALC	11 3/4"	
OF W D GRIMES LEASE						7"	24	3942	300	3065	CBL	8 3/4"	
						4 1/2"	11.6	4250	65	3893	CIRC	6 1/4"	
						(LINER - TOL @ 3893)							
28-T18S-R38E	SHELL	3646 GL	2/59	4318	INJ -	10 3/4"	32.75	581	600	0	CIRC	15"	4012-4220'
1910' FNL & 1650' FWL	28-221W			4318	G/SA	7"	20, 23	4242	682	0	CBL	8 3/4"	
OF W D GRIMES LEASE													
28-T18S-R38E	SHELL	3640 GL	7/35	4264	INJ -	12 1/2"	50	235	150	0	CIRC	16"	* 3895-4188'
1315' FNL & 2310' FEL	28-311W			4264	G/SA	7"	23	4103	500	2820	CBL	6 1/8"	
OF MOON A LEASE													
28-T18S-R38E	SHELL	3647 GL	2/35	4260	OIL -	12 1/2"	50	2591	150	2323	CALC	16"	4017-4227'
2310' FNL & 2310' FEL	28-321			4260	G/SA	7"	24	4000	500	2688	CBL	8 3/4"	
OF MOON A LEASE													

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MAY 1991

LOCATION S-T-R FOOTAGE	OPERATOR WELL #	ELEV.	DATE DRILLED	TD PBTD	WELL TYPE	CASING DETAIL SIZE	WEIGHT (LB/FT)	DEPTH (FT)	CEMENT (SACKS)	TOC (FT)	DTMND BY	HOLE SIZE	COMPLETION INTERVAL
28-T18S-R38E	SHELL	3645 GL	4/36	4225	OIL -	12 1/2"	50	227	160	0	CIRC	16" *	4132-4210'
1315' FNL & 1120' FEL	28-411			4223	S.A.	7"	22	4133	750	2550	CBL	8 3/4" *	
OF MOON B LEASE													
28-T18S-R38E	SHELL	3648 GL	5/35	4262	OIL -	12 1/2"	50	235	150	0	CIRC	16"	4050-4264'
2310' FNL & 1120' FEL	28-421			4242	G/SA	7"	23	4020	500	2677	CBL	8 3/4"	
OF MOON B LEASE													
29-T18S-R38E	SHELL	3662 DF	12/71	4331	OIL -	13 3/4"	COND	21	2 YDS	0	CONST.		3814-4244
990' FNL & 330' FWL	29-111			4287	G/SA	8 5/8"	24	310	150	0	CIRC	11	
OF BOWERS-FED LEASE						5 1/2"	14	3905	300	2440	CBL	7 7/8	
30-T18S-R38E	SHELL	3658 GL	8/30	4302	OIL -	12 12"	50	245	200	0	CIRC	16	4051-4231
330' FNL & 2310' FEL	30-311			4059	S.A.	9 5/8"	36	2753	600	551		11 3/4	
OF H D MCKINLEY LEASE						7"	24	3998	250	3154	CBL	8 3/4	
30-T18S-R38E	SHELL	3659 GL	12/32	4329	OIL -	12 1/2"	50	247	250	0	CIRC	18	3819-4287
330' FNL & 330' FEL	30-411			4150	G/SA	9 5/8"	40	2756	600	554	CALC	11 3/4	
OF H D MCKINLEY LEASE						6 5/8"	24	4042	250	3210	CBL	8 1/4	
						4 1/2"	10.5	4300	75	3883	CIRC	5 3/4	
						(LINER - TOL @ 3883)							
30-T18S-R38E	SHELL	3659 DF	1/70	7108	OIL -	13 3/8"	48	329	400	0	CIRC	17 1/2"	2962-4404
760' FNL & 550' FEL	30-412			4163	G/SA	9 5/8"	40	3848	1200	75	CALC	12 1/4"	
OF H D MCKINLEY LEASE						7"	23,26	7106	865	0	CIRC	8 3/4"	
19-T18S-R38E	SHELL	3655	8/62	9500	PA	13 3/8"	48	351	350	0	CIRC	17"	3260-3306'
2310' FSL & 1650' FEL	1					9 5/8"	36/40	4487	2500	0	CIRC	12"	
OF MCKINLEY A LEASE						7" (EST) HOLE DRILLED TO TD							
19-T18S-R38E	SHELL	3659	11/30	4270	PA	12 1/2"	50	235	300	0	CALC	16" *	4237-4270'
2310' FSL & 1320' FEL	8			4240		9 5/8"	36	2810	600	924	CALC	12" *	
OF MCKINLEY A LEASE						7"	24	3970	225	2652	CALC	8 3/4" *	
						4 1/2"	11.6	4237	70	3850	CALC	6 1/4"	
						(LINER - TOL @ 3850)							
						3 1/2" (EST) HOLE DRILLED TO TD							

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MAY 1991

LOCATION S-T-R FOOTAGE	OPERATOR WELL #	ELEV.	DATE DRILLED	TD PBTD	WELL TYPE	CASING DETAIL SIZE	WEIGHT (LB/FT)	DEPTH (FT)	CEMENT (SACKS)	TOC (FT)	DTMND BY	HOLE SIZE	COMPLETION INTERVAL
20-T18S-R38E	SUN	3660	4/36	8010	PA	13"	50	285	150	129	CALC	18"	* 7543-8010'
330' FSL & 330' FWL	1					7"	24	4135	875	0	CALC	8 3/4" *	
OF MCKINLEY B LEASE			PROD STRING OF		------>	5 1/2"	15.5	3920	NA			7 7/8" *	
			5" & 5 1/2" CSG		------>	5"	18	7543	NA			7 7/8" *	
21-T18S-R38E	RUNNELS	3642	7/68	320	PA	7"	17	212	10	143	CALC	8 1/2" *	282-320'
330' FSL & 2175' FWL	1					5 1/2"	14	282	15	61	CALC	6 1/4" *	
OF GULF-GRIMES LEASE						4 1/2" (EST) HOLE DRILLED TO TD							
						DOES NOT PENETRATE INJECTION ZONE. NOT NEEDED IN AOR TABULATION.							
21-T18S-R38E	RUNNELS	3643	7/68	420	PA	5 1/2"	14	283	25 (NOT SURF)			8 1/2" *	283-420'
330' FSL & 990' FWL	2					4 1/2" (EST) HOLE DRILLED TO TD							
OF GULF-GRIMES LEASE						DOES NOT PENETRATE INJECTION ZONE. NOT NEEDED IN AOR TABULATION.							
21-T18S-R38E	RUNNELS		1/69	400	OIL -	NA							
505' FSL & 2310' FWL	4				TA'D	DOES NOT PENETRATE INJECTION ZONE. NOT NEEDED IN AOR TABULATION.							
OF GULF-GRIMES LEASE													
21-T18S-R38E	GULF	3645	4/36	4223	PA	13"	40	247	250	0	CALC	18"	* 3930-4223'
1350' FSL & 1350' FWL	4					7"	24	4126	1300	0	CALC	9 7/8" *	
OF W D GRIMES LEASE						5 1/2" (EST) HOLE DRILLED TO TD							
28-T18S-R38E	SHELL	3646	8/47	3230	PA	8 5/8"	32	415	200	0	CIRC	11"	* 3180-3230'
1980' FSL & 1980' FWL	8					4 1/2"	9.5	3180	850	0	CALC	7 7/8" *	
OF W D GRIMES LEASE						3 1/2" (EST) HOLE DRILLED TO TD							
28-T18S-R38E	CONTINEN	3642	12/47	3255	PA	10 3/4	32.75	421	200	0	CALC	12 1/4"	* 3236-3249'
1980' FSL & 1980' FEL	6					7	24	3253	600	0	CALC	8 3/4" *	
OF W D GRIMES LEASE													
28-T18S-R38E	REPOLLO	3647	11/32	4268	PA	15 1/2"	70	238	200	0	CALC	18"	* 4006-4268'
2310' FNL & 1650' FWL	2					10 3/4"	45	2710	700	0	CALC	12 1/4" *	
OF W D GRIMES LEASE						6 5/8"	24	4006	250	0	CALC	8 1/4" *	
						5" (EST) HOLE DRILLED TO TD							
28-T18S-R38E	REPOLO	3654	11/47	3325	DRY	9 5/8"	33.6	441	300	0	CALC	12 1/2"	* 3190-3325'
1980' FNL & 1980' FWL	6				PA	7"	23	3190	800	0	CALC	8 3/4" *	
OF W D GRIMES LEASE						5" 1/2 (EST) HOLE DRILLED TO TD							
28-T18S-R38E	SINCLAIR	3653	10/47	3231	PA	9 5/8"	36	441	300	0	CALC	12 1/2"	* 3183-3231'
1980' FNL & 660' FWL	5					7"	23	3183	600	0	CALC	8 3/4" *	
OF W D GRIMES LEASE						5" 1/2 (EST) HOLE DRILLED TO TD							

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LOCATION S-T-R FOOTAGE	OPERATOR WELL #	ELEV.	DATE DRILLED	TD PBTD	WELL TYPE	CASING DETAIL SIZE	WEIGHT (LB/FT)	DEPTH (FT)	CEMENT (SACKS)	TOC (FT)	DTMND BY	HOLE SIZE	COMPLETION INTERVAL
29-T18S-R38E	HUMBLE		11/32	4221	PA	15 1/2"	70	235	225	0	CALC	18" *	3987-4221'
330' FNL & 330' FWL	1					9 5/8"	36	2715	650	888	CALC	12 1/4"*	
OF BOWERS-FED LEASE						7"	26	3987	300	2230	CALC	8 3/4" *	
29-T18S-R38E	HUMBLE	3659	10/48	3238	PA	8 5/8"	24.7	259	150	0	CALC	11" *	3179-3238'
660' FNL & 660' FWL	1					5 1/2"	14	3179	1050	0	CALC	7 5/8" *	
OF BOWERS A-B LEASE													
29-T18S-R38E	HUMBLE		1/67	35	PA	CORE TEST - ONLY 35 FT DEEP.							
929' FNL & 730' FWL	CT25					DOES NOT PENETRATE INJECTION ZONE							
OF BOWERS-FED LEASE						NOT NEEDED IN AOR TABULATION							
29-T18S-R38E	HUMBLE	3657	7/69	6000	PA	13 3/8"	48	416	400	0	CALC	17" *	4144-5953'
800' FNL & 600' FWL	33					9 5/8"	36	3836	550	1550	TEMP	12 1/4"*	
OF BOWERS-FED LEASE						7"	23	5988	550	2766	CALC	8 3/4" *	
30-T18S-R38E	MARATHON		7/47	3224	OIL -								
330' FNL & 1650' FEL	7												
OF H D MCKINLEY LEASE													
30-T18S-R38E	GETTY	3657	11/69	6050	OIL -	13 3/8"	48	387	400	0	CIRC	17 1/2"*	5806-5951'
405' FNL & 2272' FEL	10				TA'D	8 5/8"	24/32	3849	1250	600	TEMP	11" *	
OF MCKINLEY H LEASE						5 1/2"	15.5	6047	570	1500	TEMP	7 7/8" *	

ABBREVIATIONS

* - ESTIMATED
CIRC - CIRCULATED
CBL - CEMENT BOND LOG
TS - TEMPERATURE SURVEY
SQZ - SQEEZED CEMENT TO SURFACE
TOL - TOP OF LINER
GB - GRAYBURG
SA - SAN ANDRES
GL - GROUND LEVEL
DF - DERRICK FLOOR
KB - KELLY BUSHING
MD - MEASURED DEPTH
NA - NOT AVAILABLE

Record	BASIN	FILE_NO	FIL_SUF	REF_BAS	REF_NO	REF_SUF	OWNERSHIP	DEPTH	WBF	DATECLTD	CLTR	USE	LOCATION	LSELEV	PT_CLTN	CHLORIDES	CONDUCT	TEMP	ADD_DATA	CARD_DATE	SOURCE	DPN	METER
17240	L							0	TOG	79/10/17	SED	STK	18S.37E.23.131333	3688.00	DP	24	619	67			25-12677	0
17241	L							100	TOG	57/08/14	SED	NOT	18S.37E.23.441234	3672.00	BLR	80	0	0			25-11845	0
17242	L							100	TOG	76/11/24	SED	OWD	18S.37E.23.441234	3672.00	TS33	58	3001	62	ABDN		25-11845	0
17243	L	03016						100	TOG	85/02/07	SED	OWD	18S.37E.23.441234	3672.00	TS82	54	585	0	0385		25-11845	0
24450	L	03016					YATES JOHN	100	TOG	90/07/10	SED	OWD	18S.37E.23.441234	3673.00	TS80	85	366	0	1190		25-11845	0
17244	L							0	TOG	79/10/17	SED	IRR	18S.37E.32.21223	0.00	DP	34	617	66				0
17245	L							0	TOG	79/10/17	SED	STK	18S.37E.33.221443	3696.00	DP	40	632	68			25-11852	0
17246	L							0	TOG	84/11/09	SED	STK	18S.37E.33.221443	3696.00	DP	42	657	65	1284		25-11852	0
24451							LINAM VIRGIL	0	TOG	90/07/12	SED	STK	18S.37E.33.221443	3697.00	DP	55	606	66	1190		25-11852	0
24452								0		90/07/12	SED	STK	18S.37E.35.44343	0.00	DP	55	739	66	1190			0
17247	L	07693						0	TOG	79/10/12	SED	DTC	18S.37E.36.34333	0.00	DP	194	1244	68				0
17248	L	07693						0	TOG	84/11/16	SED	DTC	18S.37E.36.34333	0.00	YT	986	3555	0	1284			0
17249	L	02742	S3					0	TOG	79/10/03	SED	IRR	18S.38E.01.41344	0.00	DP	162	1434	66				0
17250	L							0	TOG	77/04/12	SED	DOM	18S.38E.02.311241	0.00	YT	28	616	0				0
17251	L							0	TOG	85/02/14	SED	DOM	18S.38E.02.311241	0.00	YT	56	730	0	0385			0
24453							CASTLEMAN BOBBY	0	TOG	90/06/12	SED	DOM	18S.38E.02.311241	3648.00	DP	145	915	0	1190			0
17252	L	02318						0	TOG	42/07/15	USG	REC	18S.38E.04.232222	0.00		48	716	0 X	ABDN	U		0
24454	L	04770						0	TOG	90/06/12	SED	IRR	18S.38E.09.223333	3653.00	SPRKLR	96	679	69	1190			0
17253								0	TOG	70/04/22	SED	DOM	18S.38E.10.114334	0.00	YT	45	708	0				0
17254	L							0	TOG	77/01/26	SED	DOM	18S.38E.10.114334	0.00	YT	45	733	59				0
17255	L							0	TOG	85/02/14	SED	DOM	18S.38E.10.114334	0.00	YT	49	770	0	0385			0
17256	L							0	TOG	79/10/02	SED	IRR	18S.38E.10.21133	0.00	DP	32	585	67				0
17257	L	01409						170	TOG	79/10/02	SED	IRR	18S.38E.12.121221	3662.00	DP	56	679	66			25-11869	0
17258	L	01409						170	TOG	84/09/19	SED	IRR	18S.38E.12.121221	3662.00	DP	105	869	67	1084		25-11869	0
24455	L	01409					XPERT WELL SERVICE	170	TOG	90/06/12	SED	IRR	18S.38E.12.121221	3662.00	SPRKLR	167	999	70	1190		25-11869	0
17259	L	00145	A					102	TOG	58/09/05	SED	IRR	18S.38E.15.24111	3637.00	DP	225	1640	0 X	ABDN	U	25-10246	0
17263	L	00145	A					121	TOG	71/08/18	SED	IRR	18S.38E.15.241113	3637.00	DP	89	933	66			25-11872	0
17264	L	00145	A					121	TOG	77/08/02	SED	IRR	18S.38E.15.241113	3637.00	DP	95	1063	65	0186		25-11872	0
17260	L	00145						107	TOG	51/09/21	USG	IRR	18S.38E.15.24111A	3637.00		75	812	0 X		U		0
17261	L	00145						107	TOG	54/05/07	USG	IRR	18S.38E.15.24111A	3637.00	DP	152	1130	66 X		U		0
17262	L	00145						107	TOG	55/05/30	USG	IRR	18S.38E.15.24111A	3637.00	DP	206	1350	0 X		U		0
17265	L	04009	S3					0	TOG	79/10/02	SED	IRR	18S.38E.16.22122	0.00	DP	50	848	66				0
17266	L	03128						120	TOG	59/06/11	SED	REC	18S.38E.17.232242	3656.00	DP	845	4070	65 X		U	25-11875	0
17267	L	03128						120	TOG	59/10/22	SED	REC	18S.38E.17.232242	3656.00	DP	475	2760	0		U	25-11875	0
17268	L	03128						120	TOG	77/08/02	SED	REC	18S.38E.17.232242	3656.00	DP	126	1052	64	0186		25-11875	0
17269	L							43	TOG	79/10/23	SED	DOM	18S.38E.18.222323	3671.00	DP	56	824	66			25-11876	0
17270	L	06109						43	TOG	84/11/30	SED	DOM	18S.38E.18.222323	3671.00	YT	52	765	0	1284		25-11876	0
24456	L	06109					SEED CHARLEY	43		90/07/10	SED	DOM	18S.38E.18.222323	3671.00	YT	85	840	0	1190		25-11876	0
17271	L							0	TOG	79/10/17	SED	DOM	18S.38E.18.34222	0.00	YT	40	674	66				0
17272	L							0	TOG	84/11/30	SED	DOM	18S.38E.18.34222	0.00	YT	72	909	0	1284			0
17273	L							0	TOG	76/11/24	SED	OWD	18S.38E.19.333124	3661.00	TS40	85	558	62	ABDN		25-13071	0
17274	L	00502	S					110	TOG	61/02/07	OCC	IRR	18S.38E.19.413212	3657.00	DP	1070	0	0 X		P	25-10247	0
17275	L	00502	S					110	TOG	64/06/04	OCC	IRR	18S.38E.19.413212	3657.00	DP	1775	0	0 X		P	25-10247	0
17276	L							142	TOG	76/11/24	SED	IRR	18S.38E.20.11210	3658.00	TR63	121	1038	64	ABDN		25-13072	0
17277	L	01804						0	TOG	71/08/24	SED	MUN	18S.38E.23.42112	0.00	DP	113	923	66				0
17278	L	01804		WW	00024			0	TOG	77/08/03	SED	MUN	18S.38E.23.42112	0.00	DP	55	636	64	0186			0
17279								227	TOG	55/09/24	USG	MUN	18S.38E.26.12422	3621.00	YT	30	572	0 X		U	25-13063	0
17290	L	00128						0	TOG	42/07/13	USG	IRR	18S.38E.26.14342	0.00	DP	47	618	0 X		U		0
17281	L	01804						212	TOG	54/07/15	USG	MUN	18S.38E.27.11433	3630.00	YT	41	613	66 X		U	25-10251	0
17282	L	01779						0	TOG	53/05/29	USG	MUN	18S.38E.27.43144	0.00	DP	44	607	0 X		U		0
17283	L							0	TOG	79/10/23	SED	DTC	18S.38E.28.111312	0.00	DP	36	663	65				0
17284	L							0	TOG	84/11/16	SED	DTC	18S.38E.28.111312	0.00	YT	52	696	0	1284			0
24457	L	08009					HOBBS DIESEL	167		90/08/21	SED	DOM	18S.38E.28.111312	3640.00	YT	75	830	0	1190			0
17285	L							0	TOG	57/08/13	SED	DOM	18S.38E.28.21111	0.00	YT	112	0	0				0
17286	L	02992						0	TOG	57/08/13	SED	DOM	18S.38E.28.21224	0.00	YT	104	0	0				0
17287	L	02790						0	TOG	57/08/13	SED	DOM	18S.38E.28.221421	0.00	YT	56	0	0				0
17288	L	03136						0	TOG	57/08/13	SED	DOM	18S.38E.30.212223	0.00	YT	80	0	0				0
17289	L	03136						0	TOG	76/11/24	SED	DOM	18S.38E.30.212223	0.00	YT	115	1231	0				0
17290	L	01835	B					0	TOG	57/08/13	SED	IRR	18S.38E.30.221134	0.00	YT	80	0	0				0
17291	L	01835	B					0	TOG	76/11/24	SED	DOM	18S.38E.30.221134	0.00	YT	115	1146	0				0

Shell Western E&P Inc.
An Affiliate of Shell Oil Company

P.O. Box 576
Houston, TX 77001

XIII.

AUGUST 26, 1991

CERTIFIED MAIL

W. M. & D. W. Blocker
P. O. Box 1456
Hobbs, NM 88240

Gentlemen:

SUBJECT: FORM C-108 AND ATTACHMENTS
APPLICATION FOR AUTHORIZATION TO INJECT
NORTH HOBBS (GRAYBURG/SAN ANDRES) UNIT NO. 28-211
990' FNL & 2310' FWL
SECTION 28, T18S, R38E
LEA COUNTY, NEW MEXICO

It is our intent to convert the subject well to water injection service for pressure maintenance in the near future. The New Mexico Oil Conservation Division requires that the surface owner of the tract on which a proposed injector is located be furnished a copy of the application to inject.

Accordingly, enclosed is a copy of our application. Included are Form C-108, Application for Authorization to Inject, and all attachments that were submitted to the State of New Mexico in support of the application.

If you need additional information, please contact Ellyn Schade at (713) 870-3016.

Very truly yours,

W. F. N. Kelldorf
Division Environmental Engineer - HS&E
Western Division

EMS:rlb

Enclosures

cc: (w/o attachments)
State of New Mexico
Energy, Minerals and Natural Resources Department
Oil Conservation Division
P. O. Box 2088
Santa Fe, NM 87504-2088

BNND9117006 - 0001.0.0

Shell Western E&P Inc.
An Affiliate of Shell Oil Company

P.O. Box 576
Houston, TX 77001

XIII.

AUGUST 26, 1991

CERTIFIED MAIL

Mr. Alfred P. Johnson
3526 Trevino
Hobbs, NM 88240

Dear Mr. Johnson:

SUBJECT: FORM C-108 AND ATTACHMENTS
APPLICATION FOR AUTHORIZATION TO INJECT
NORTH HOBBS (GRAYBURG/SAN ANDRES) UNIT NO. 19-442
1100' FSL & 380' FEL
SECTION 19, T18S, R38E
LEA COUNTY, NEW MEXICO

It is our intent to convert the subject well to water injection service for pressure maintenance in the near future. The New Mexico Oil Conservation Division requires that the surface owner of the tract on which a proposed injector is located be furnished a copy of the application to inject.

Accordingly, enclosed is a copy of our application. Included are Form C-108, Application for Authorization to Inject, and all attachments that were submitted to the State of New Mexico in support of the application.

If you need additional information, please contact Ellyn Schade at (713) 870-3016.

Very truly yours,

W. F. N. Kelldorf
Division Environmental Engineer - HS&E
Western Division

EMS:rlb

Enclosures

cc: (w/o attachments)
State of New Mexico
Energy, Minerals and Natural Resources Department
Oil Conservation Division
P. O. Box 2088
Santa Fe, NM 87504-2088

BNND9117005 - 0001.0.0

Shell Western E&P Inc.
An Affiliate of Shell Oil Company

P.O. Box 576
Houston, TX 77001

XIII.

AUGUST 26, 1991

CERTIFIED MAIL

Chevron U.S.A. Inc.
P. O. Box 599
Denver, CO 80201

Gentlemen:

SUBJECT: FORM C-108 AND ATTACHMENTS
APPLICATION FOR AUTHORIZATION TO INJECT
NORTH HOBBS (GRAYBURG/SAN ANDRES) UNIT NO. 20-121
1980' FNL & 660' FWL
SECTION 20, T18S, R38E
LEA COUNTY, NEW MEXICO

It is our intent to convert the subject well to water injection service for pressure maintenance in the near future. The New Mexico Oil Conservation Division requires that the surface owner of the tract on which a proposed injector is located be furnished a copy of the application to inject.

Accordingly, enclosed is a copy of our application. Included are Form C-108, Application for Authorization to Inject, and all attachments that were submitted to the State of New Mexico in support of the application.

If you need additional information, please contact Ellyn Schade at (713) 870-3016.

Very truly yours,

W. F. N. Kelldorf
Division Environmental Engineer - HS&E
Western Division

EMS:rlb

Enclosures

cc: (w/o attachments)
State of New Mexico
Energy, Minerals and Natural Resources Department
Oil Conservation Division
P. O. Box 2088
Santa Fe, NM 87504-2088

BNND9117007 - 0001.0.0

XIII.

AFFIDAVIT OF PUBLICATION

State of New Mexico,
County of Lea.

I, Kathi Bearden

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

of

One weeks.
Beginning with the issue dated

April 17, 1991
and ending with the issue dated

April 17, 1991

Kathi Bearden
General Manager

Sworn and subscribed to before me this 24 day of April, 1991

Rhonda Copeland
Notary Public.

My Commission expires

July 24, 1991
(Seal)

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

LEGAL NOTICE
April 17, 1991

Notice is hereby given of the application of Shell Western E&P Inc., P.O. Box 576, Houston TX 77001, to the Oil Conservation Division, New Mexico Energy & Minerals Department, for the approval of the following injection wells for the purpose of pressure maintenance and enhanced recovery.

Well Nos. 19-442W, 20-121W and 28-211W

Lease/Unit Name: North Hobbs (Grayburg/San Andes) Unit

All wells are conversions to water injection service and are located in T18S, R38E of Lea County, New Mexico. The injection formation will be the unitized Grayburg-San Andres formation of Permian Age located at depths between approximately 3700 ft and 4500 ft.

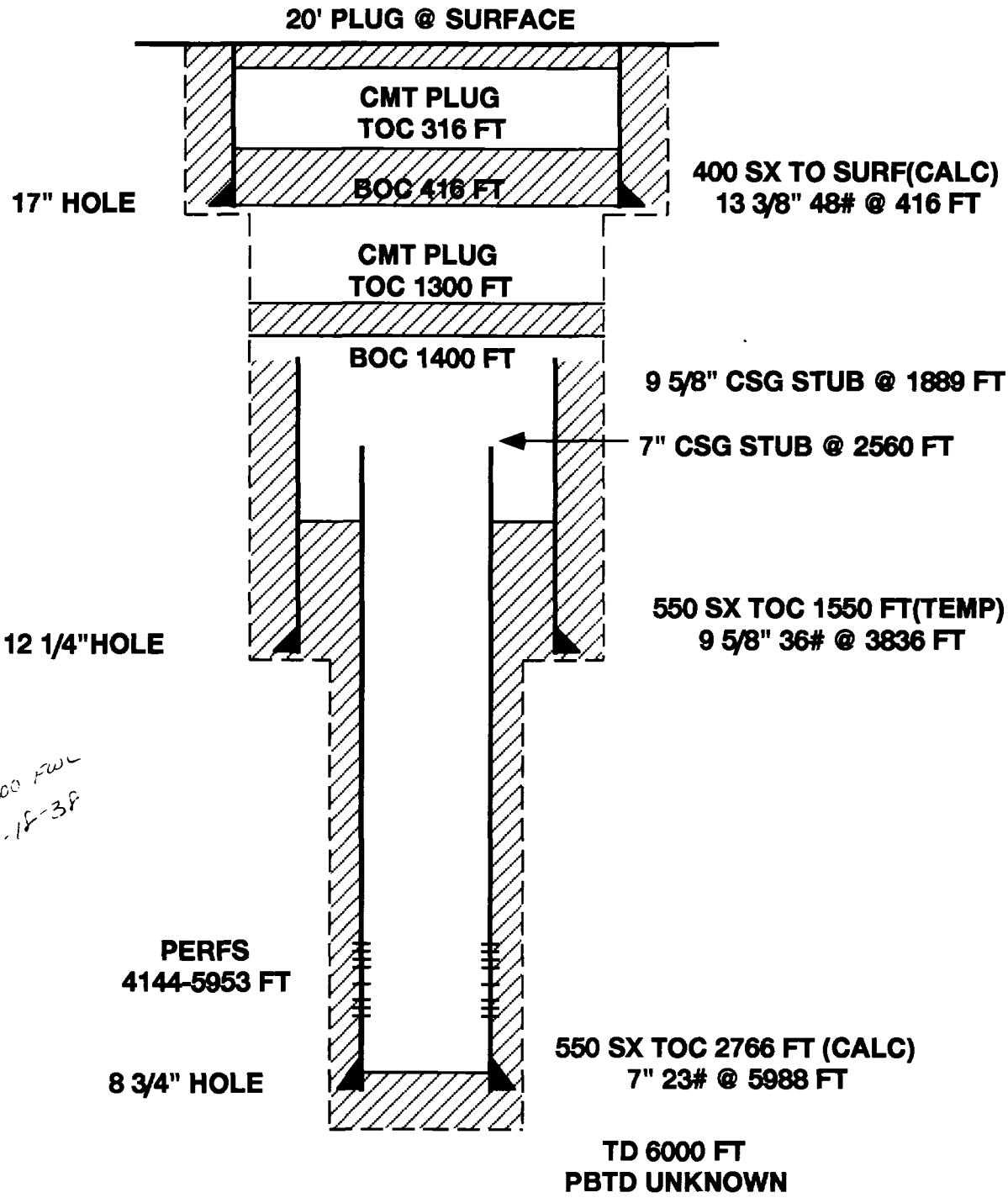
The 19-442W, located 1100' FSL & 380' FEL of Sec. 19, has an expected maximum injection rate of approximately 1000 barrels of water per day and an expected maximum injection pressure of approximately 841 psi.

The 20-121W, located 1980' FNL & 660' FWL of Sec. 20, has an expected maximum injection rate of approximately 400 barrels of water per day and an expected maximum injection pressure of approximately 843 psi.

The 28-211W, located 990' FNL & 330' FWL of Sec. 28, has an expected maximum injection rate of approximately 1000 barrels of water per day and an expected maximum injection pressure of approximately 807 psi.

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

BOWERS-FEDERAL
HUMBLE #33
29-T18S-R38E



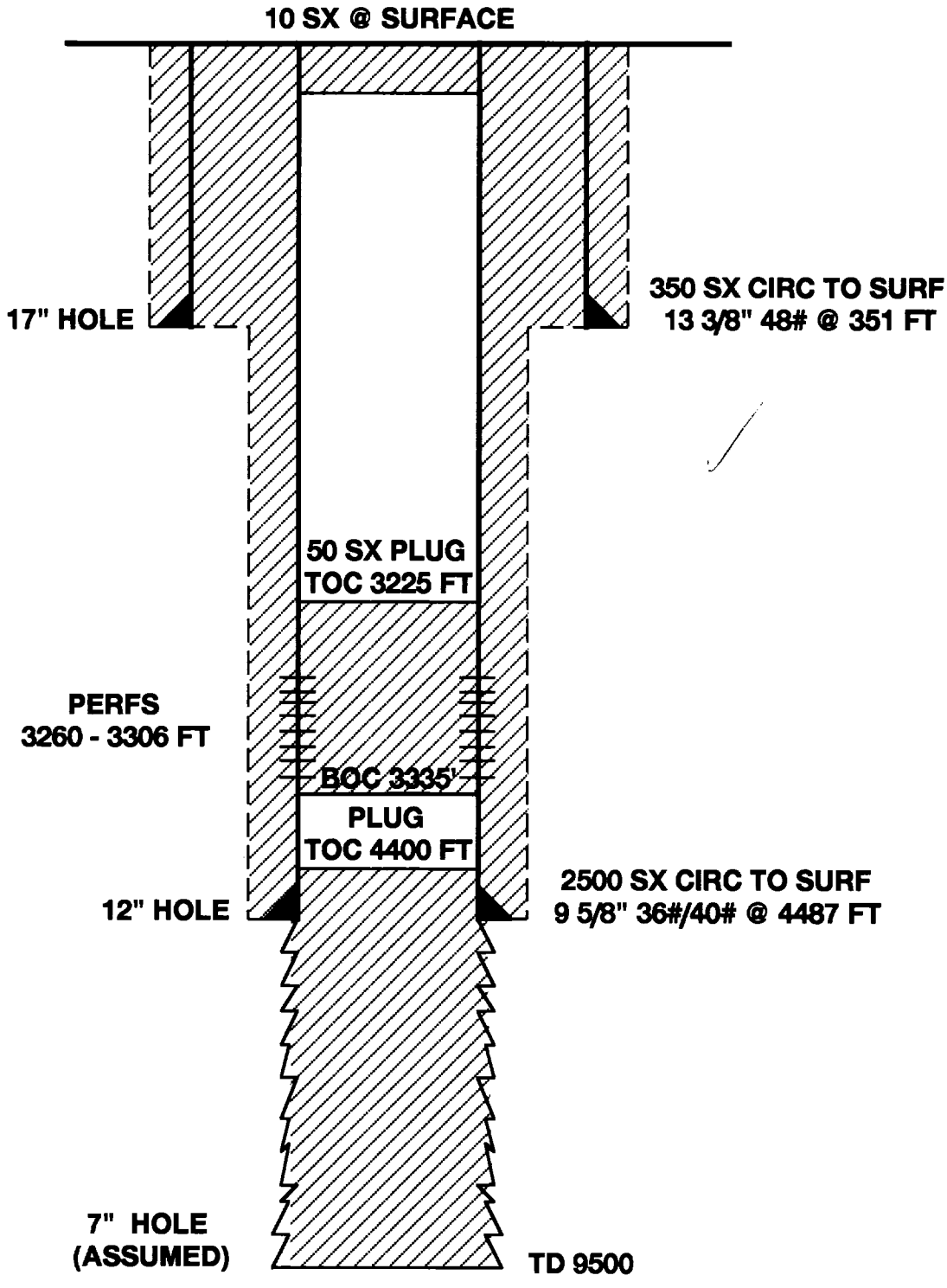
800' FNL & 600' FWL
D 29-18-38

P&A 10/72

B0491014.108C

BASE

McKINLEY A.
SHELL #1
19-T18S-R38E

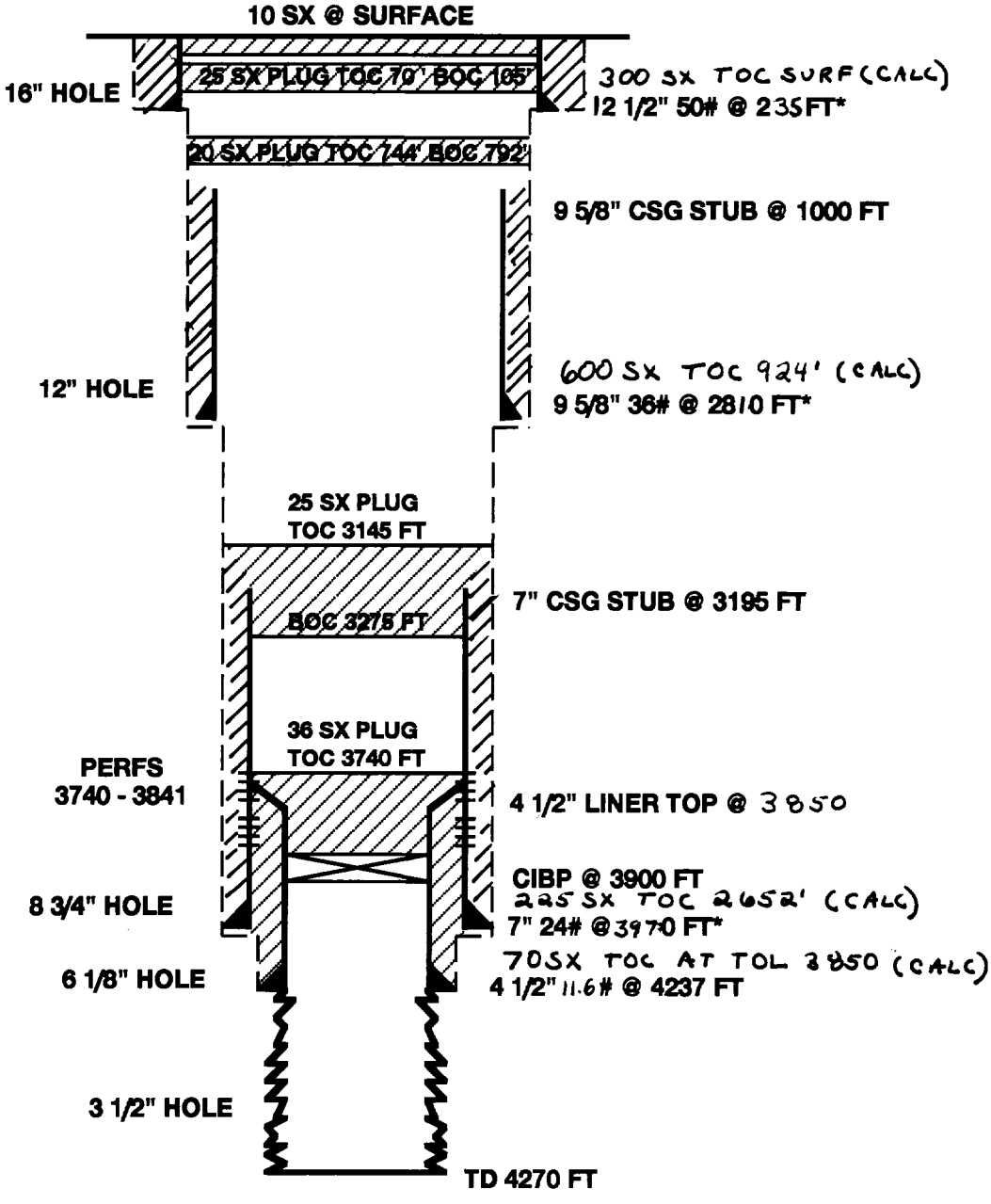


P&A 2/63

B0491003.108C

BASE

McKINLEY A
SHELL #8
19-T18S-R38E



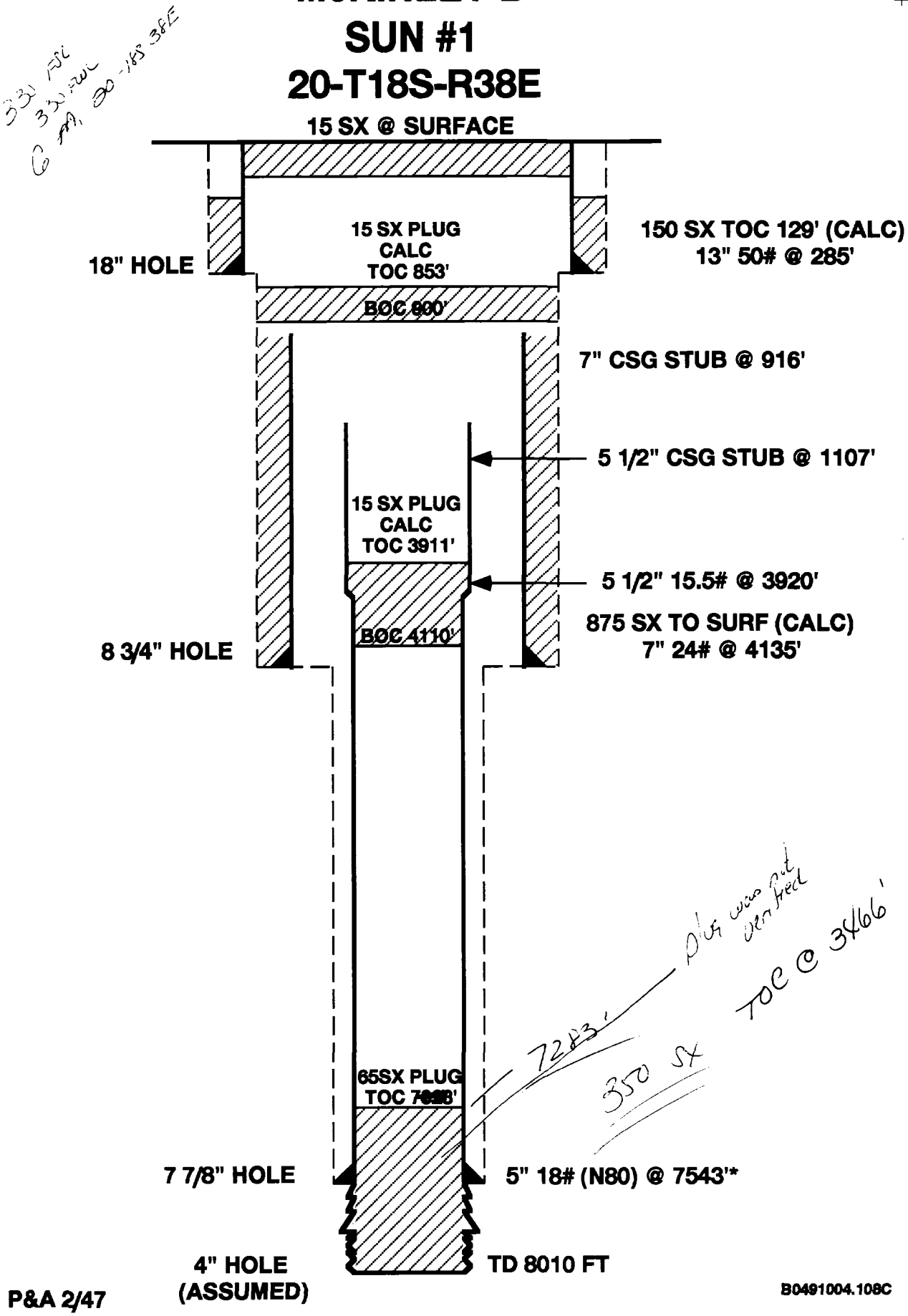
P&A 4/63

HOLE SIZES ASSUMED

B0491012.108C

BASE

McKINLEY B
SUN #1
20-T18S-R38E



P&A 2/47

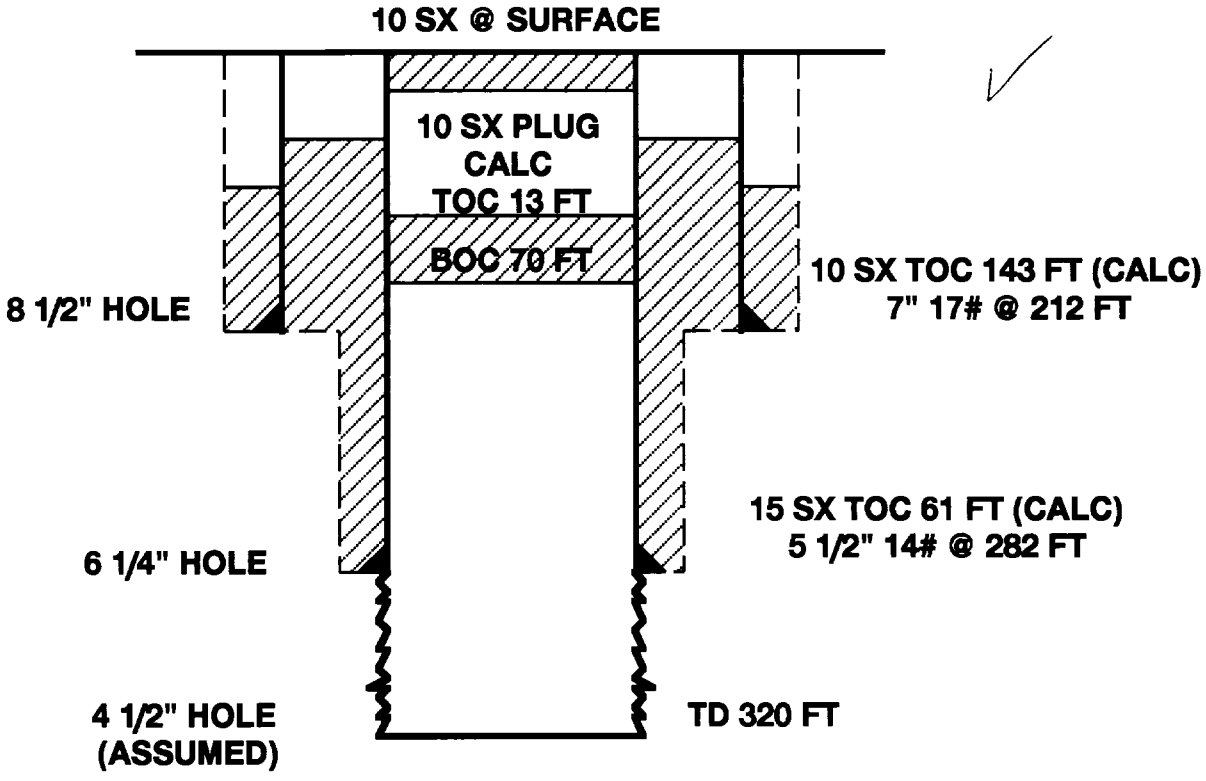
BASE

HOLE SIZES ASSUMED

* NO CEMENT DATA AVAILABLE FOR 5" CSG

B0491004.108C

GULF-GRIMES
RUNNELS #1
21-T18S-R38E

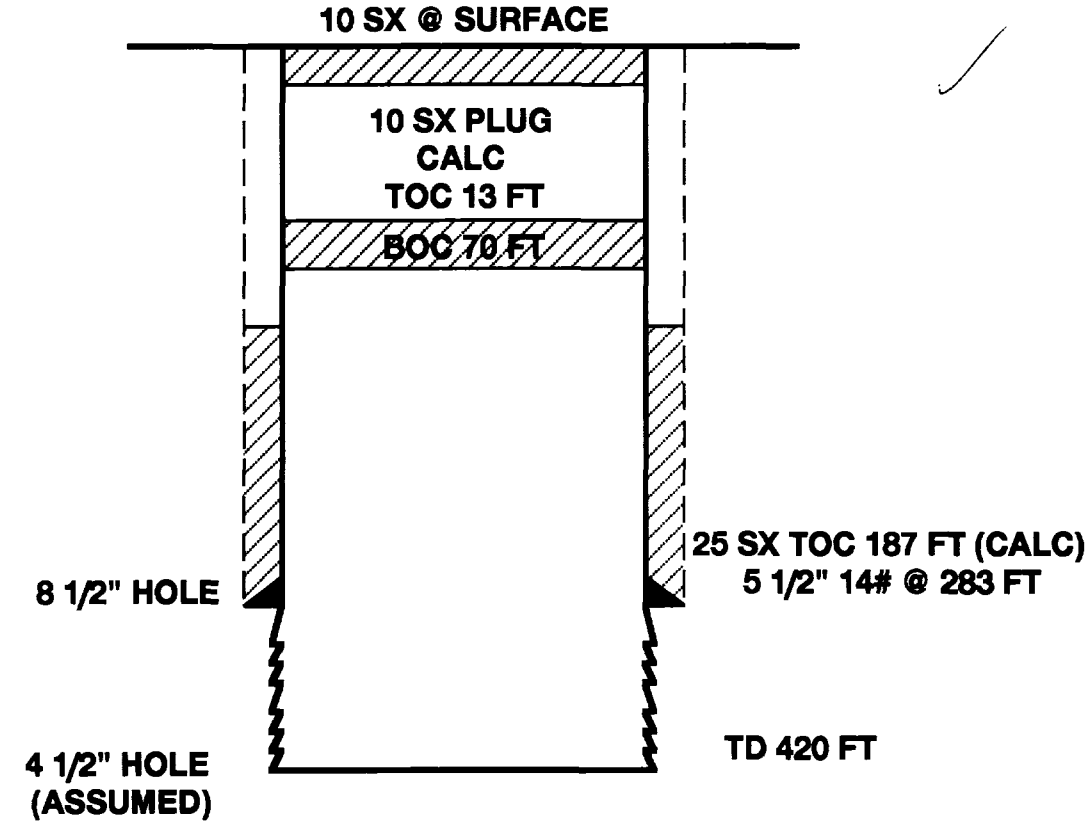


P&A 5/73

B0491007.108C

BASE

GULF GRIMES
RUNNELS #2
21-T18S-R38E

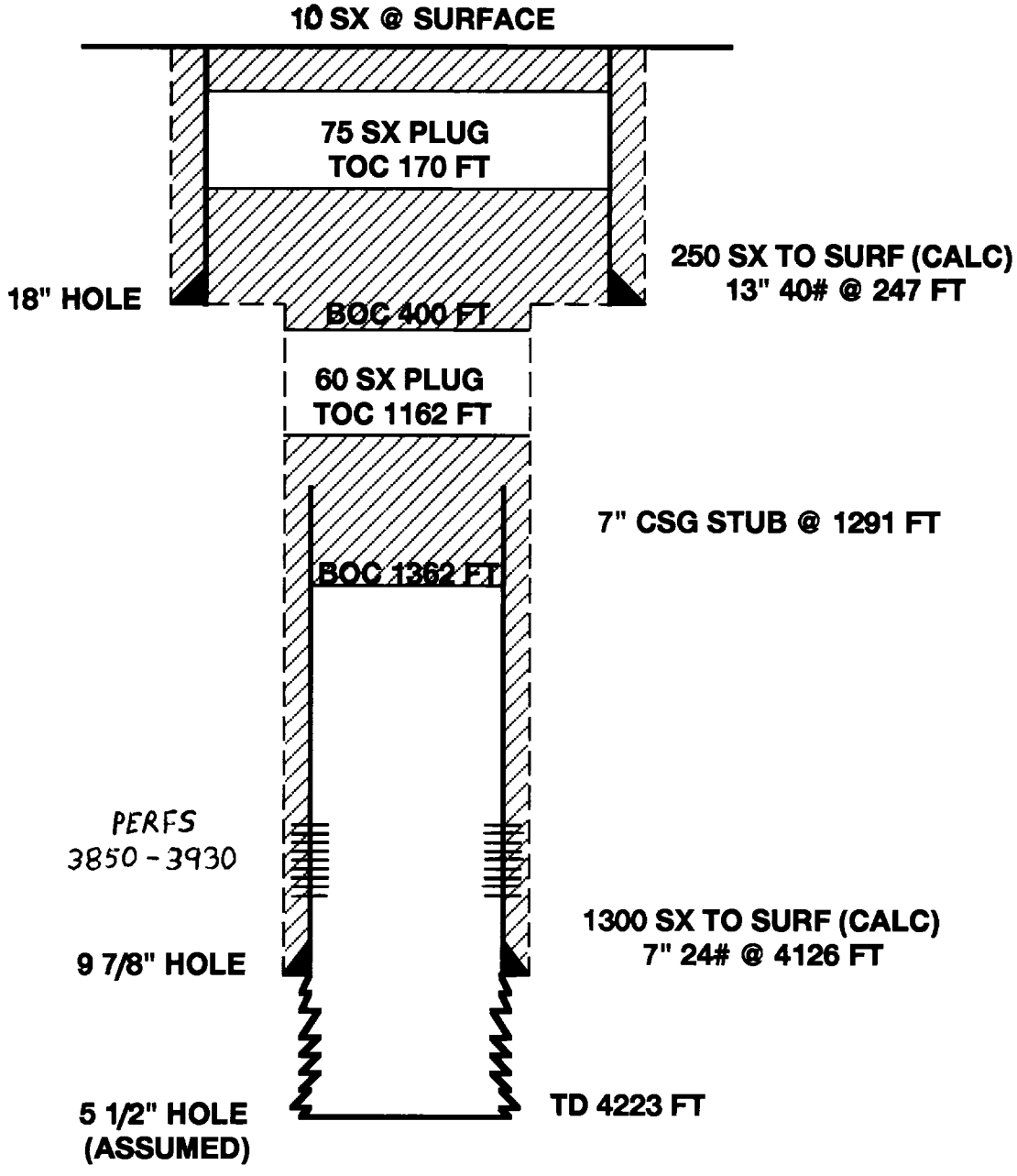


P&A 3/73

B0491006.108C

BASE

W.D. GRIMES
GULF #4
21-T18S-R38E

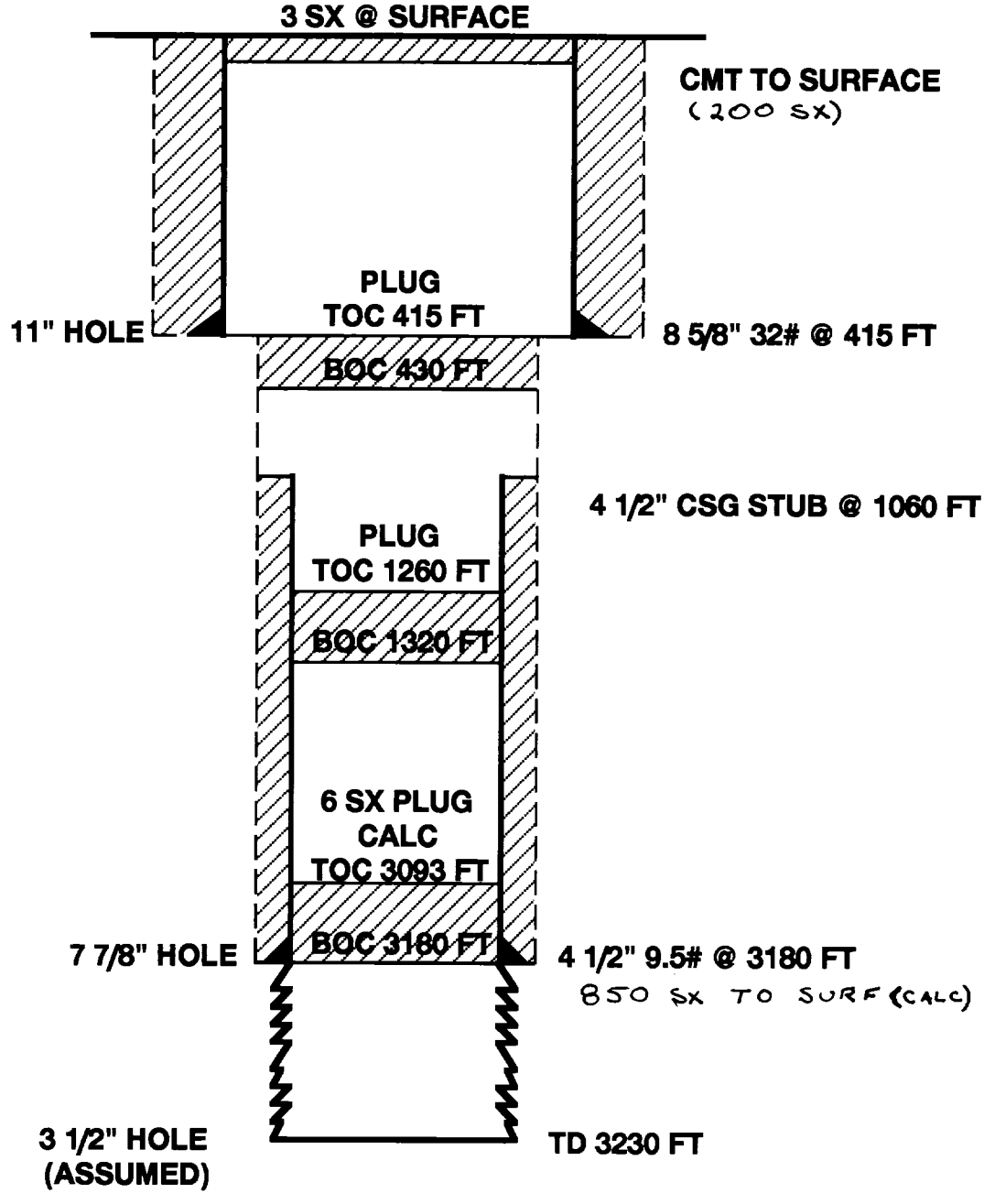


P&A 2/49

B0491005.108C

BASE

W D GRIMES
SHELL #8
28-T18S-R38E

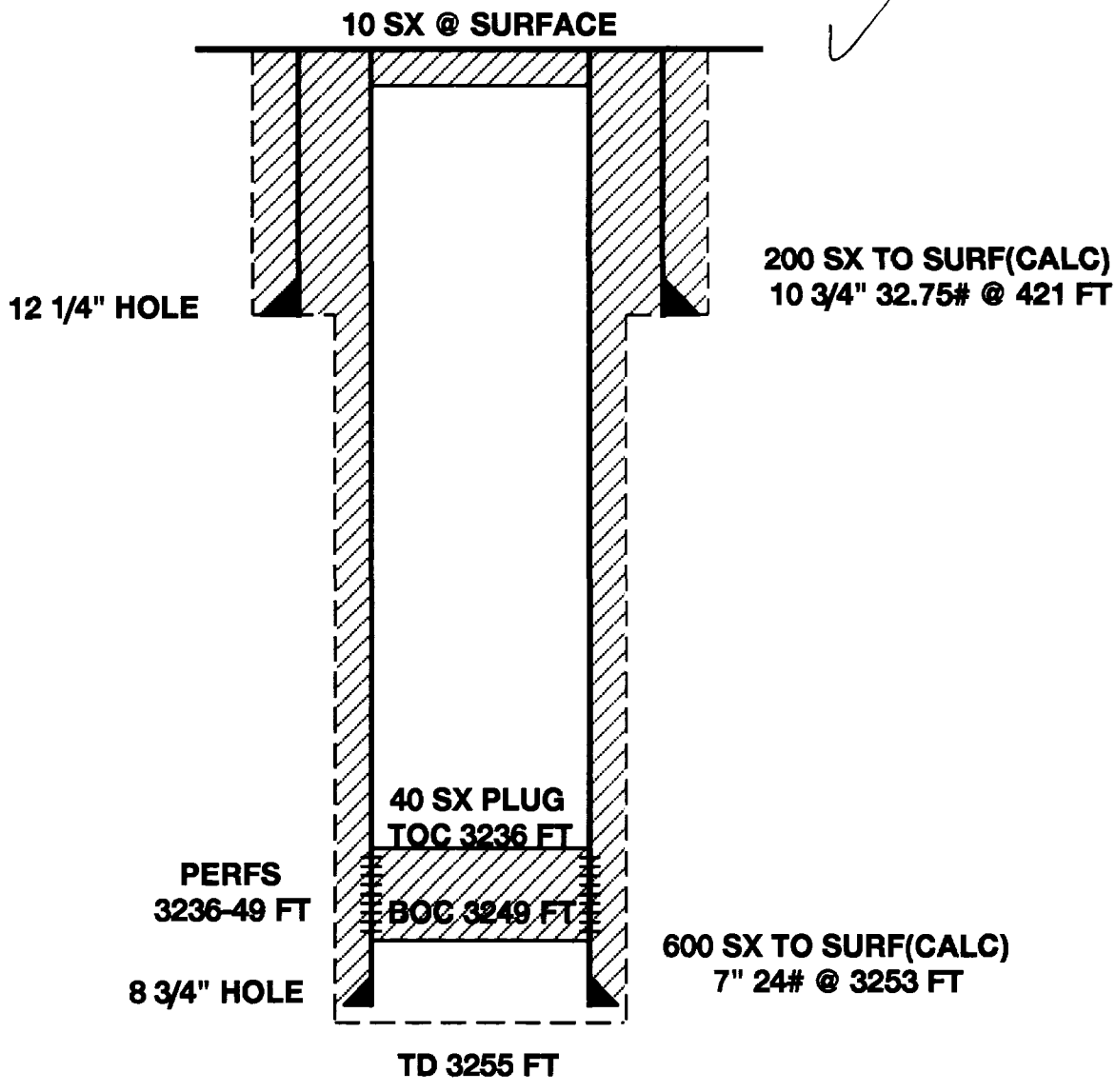


P&A 10/53

B0491013.108C

BASE

W. D. GRIMES
CONTINENTAL #6
28-T18S-R38E

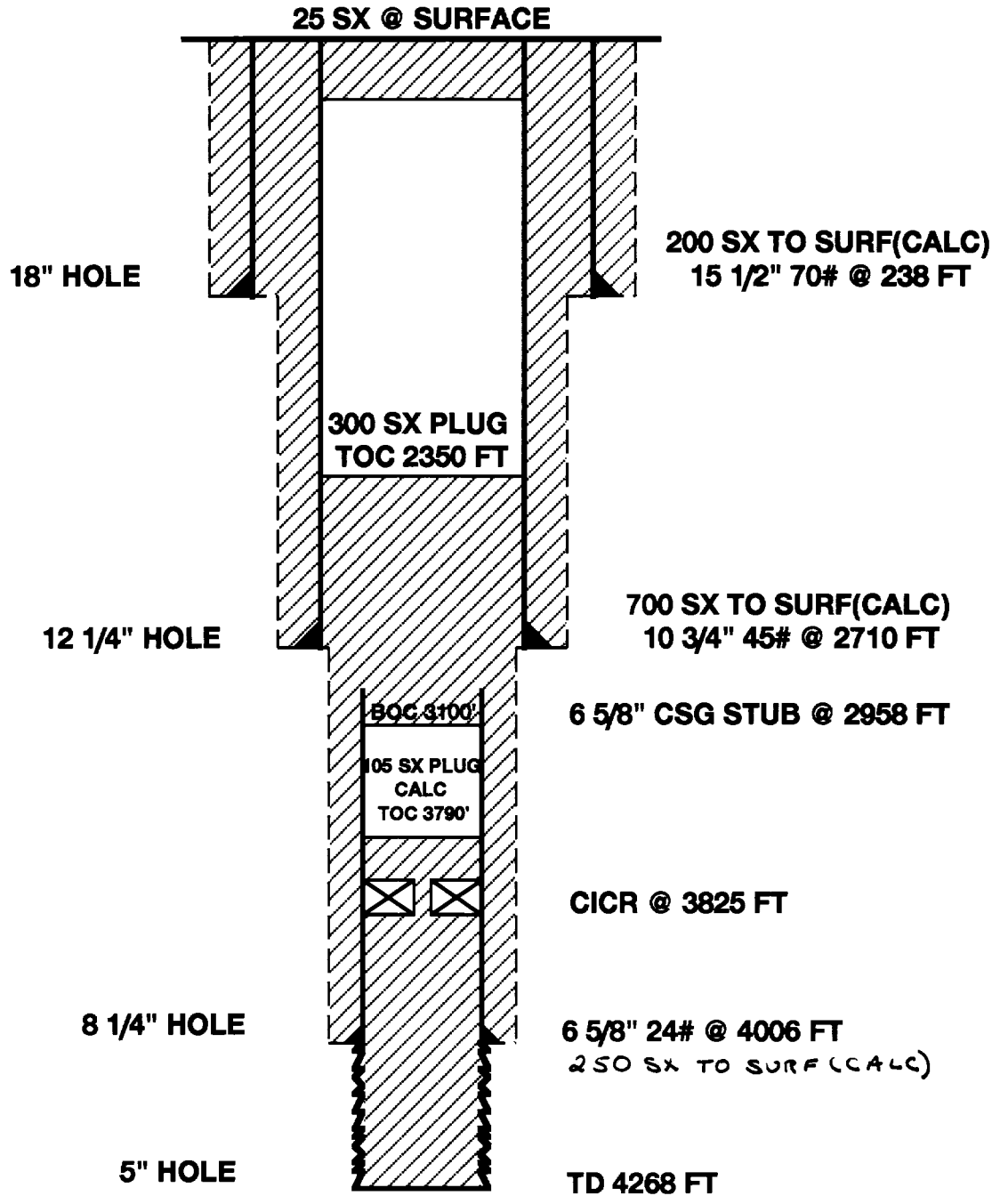


P&A 1/71

B0491011.108C

BASE

W D GRIMES
REPOLLO #2
28-T18S-R38E



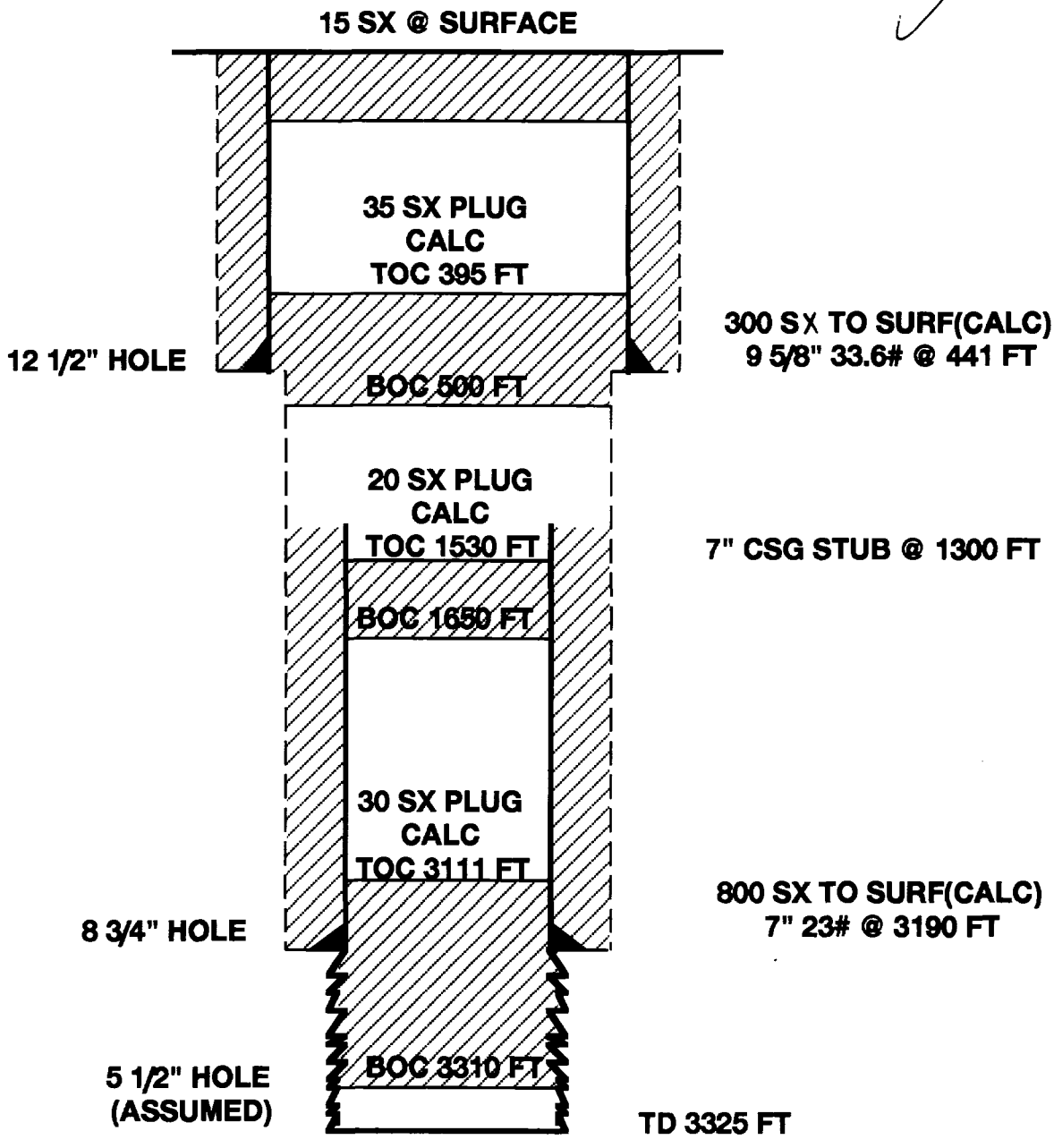
P&A 4/59

HOLE SIZES ASSUMED

B0491010.108C

BASE

W D GRIMES
REPOLLO #6
28-T18S-R38E



P&A 12/47

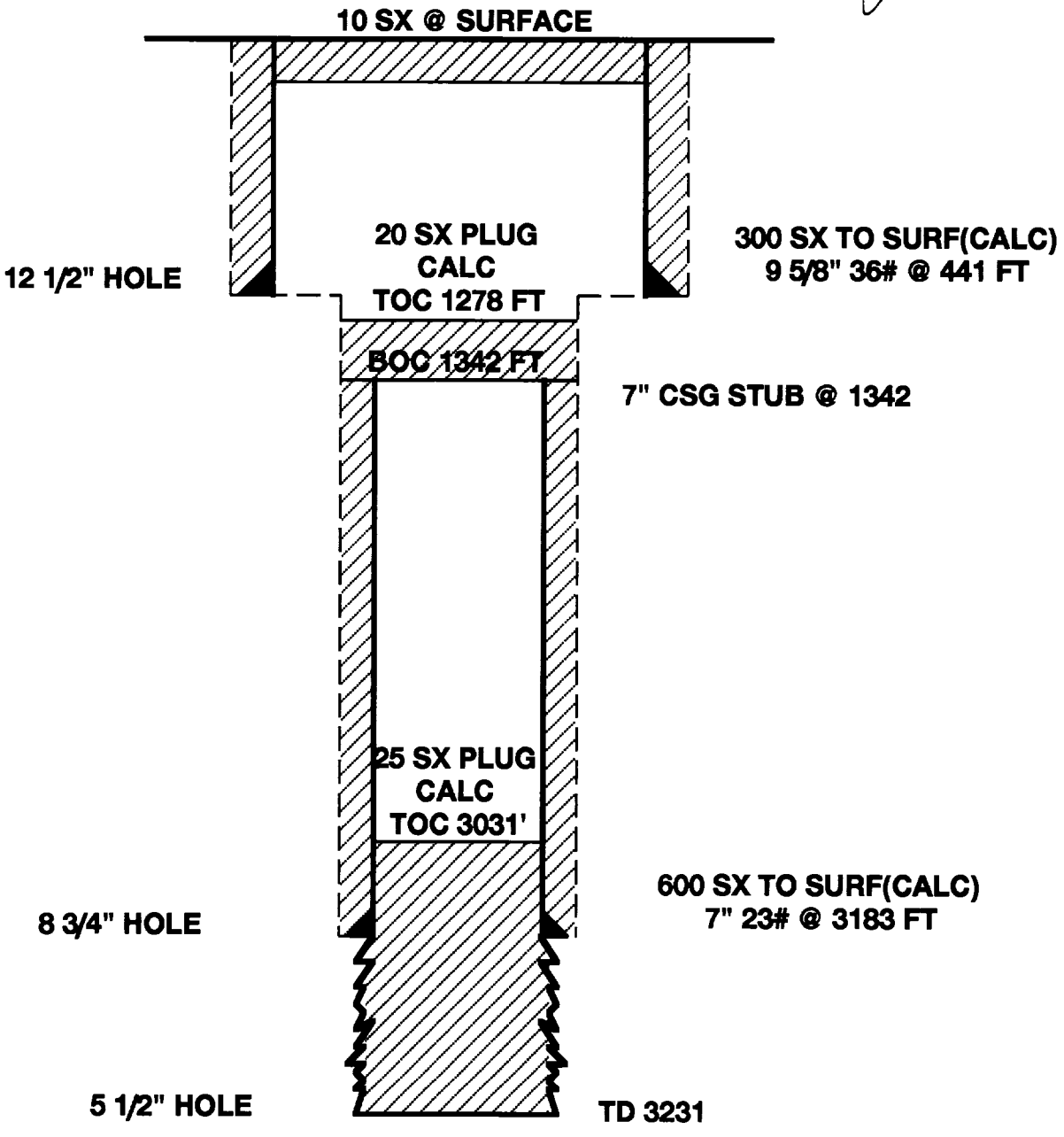
B0491009.108C

BASE

VI.

W D GRIMES

SINCLAIR #5
28-T18S-R38E

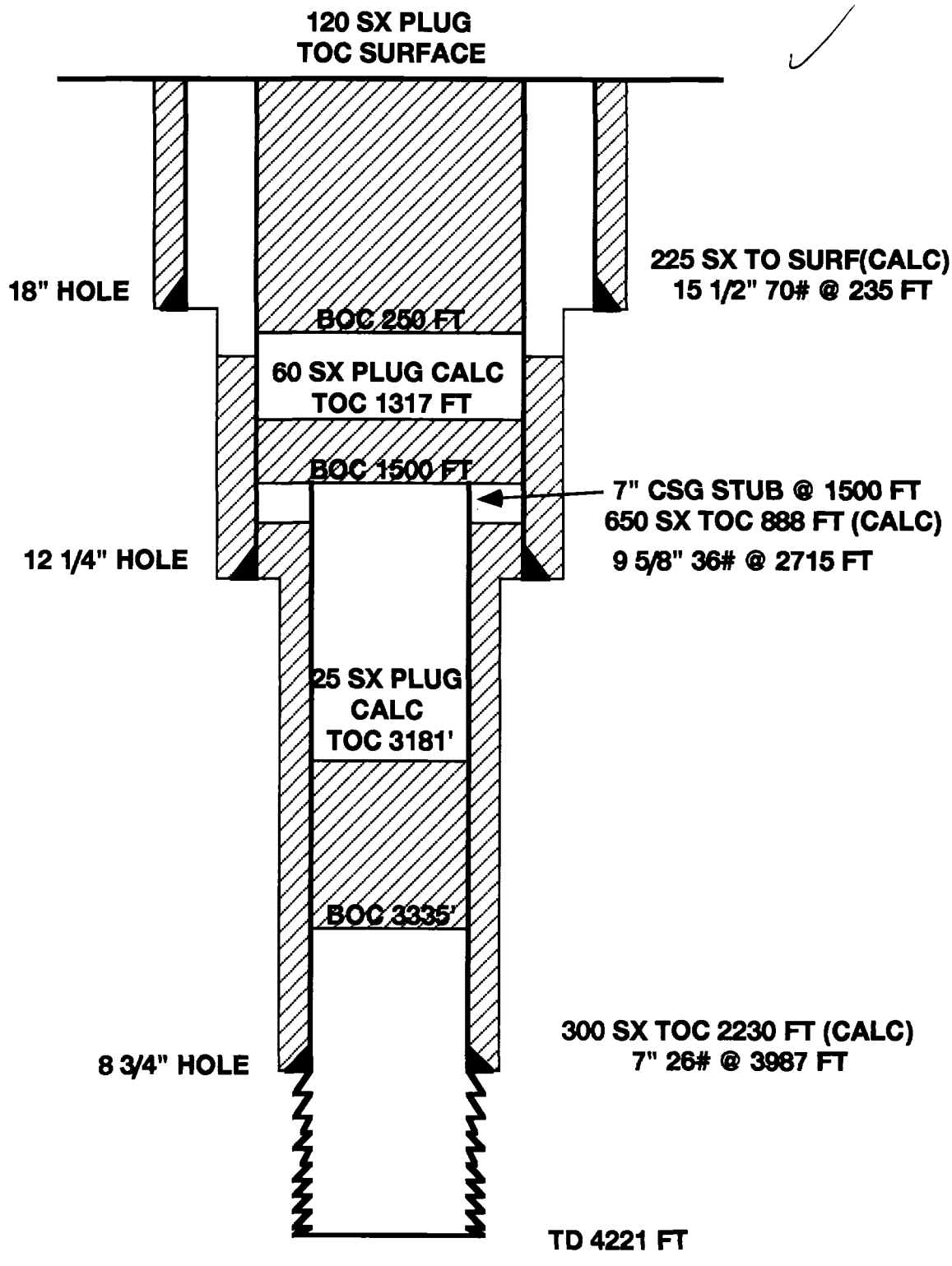


P&A 8/50
HOLE SIZES ASSUMED

B0491008.108C

BASE

BOWERS FEDERAL
HUMBLE #1
29-T18S-R38E



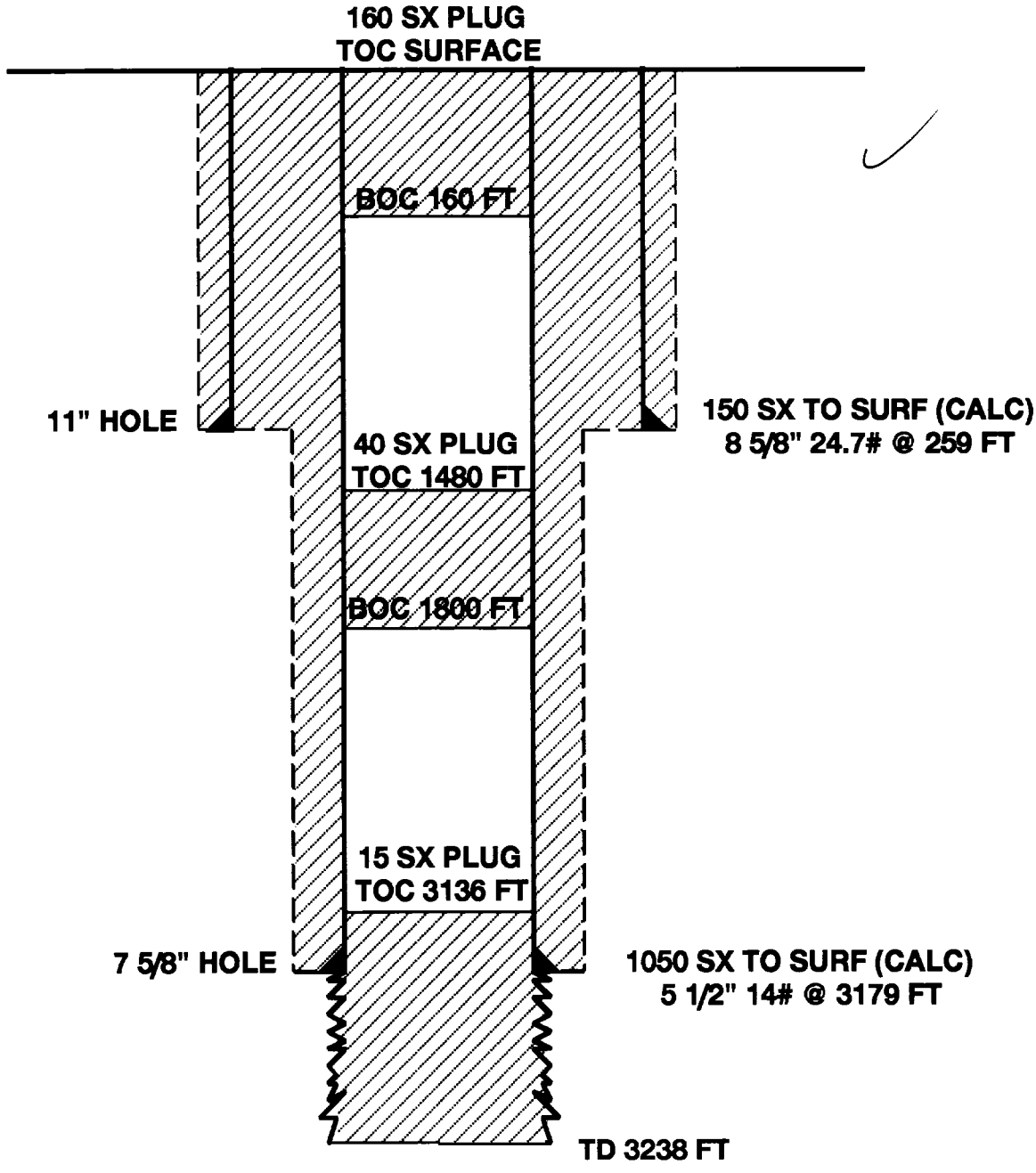
P&A 12/71

HOLE SIZES ASSUMED

B0491015.108C

BASE

BOWERS A-B
HUMBLE #1
29-T18S-R38E



P&A 11/48

B0491002.108C

BASE