

ABOVE THIS LINE FOR DIVISION USE ONLY

NEW MEXICO OIL CONSERVATION DIVISION

- Engineering Bureau -

759

ADMINISTRATIVE APPLICATION COVERSHEET

THIS COVERSHEET IS MANDATORY FOR ALL ADMINISTRATIVE APPLICATIONS FOR EXCEPTIONS TO DIVISION RULES AND REGULATIONS

Application Acronyms:

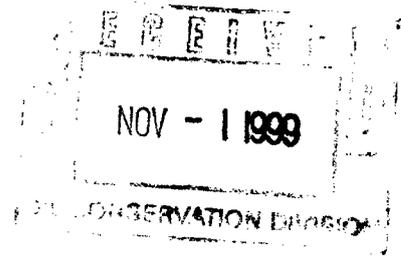
- [NSP-Non-Standard Proration Unit] [NSL-Non-Standard Location]
- [DD-Directional Drilling] [SD-Simultaneous Dedication]
- [DHC-Downhole Commingling] [CTB-Lease Commingling] [PLC-Pool/Lease Commingling]
- [PC-Pool Commingling] [OLS - Off-Lease Storage] [OLM-Off-Lease Measurement]
- [WFX-Waterflood Expansion] [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 - Directional Drilling
 NSL NSP DD 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



[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

[3] **INFORMATION / DATA SUBMITTED IS COMPLETE** - Statement of Understanding

I hereby certify that I, or personnel under my supervision, have read and complied with all applicable Rules and Regulations of the Oil Conservation Division. Further, I assert that the attached application for administrative approval is accurate and complete to the best of my knowledge and where applicable, verify that all interest (WI, RI, ORRI) is common. I further verify that all applicable API Numbers are included. I understand that any omission of data, information or notification is cause to have the application package returned with no action taken.

JAMES BRUCE
 P.O. BOX 1056
 SANTA FE, NM 87504

Note: Statement must be completed by an individual with supervisory capacity.

James Bruce
 Signature

Attorney for Applicant
 Title

11/1/99
 Date

Print or Type Name

APPLICATION FOR AUTHORIZATION TO INJECT

- ✓ I. PURPOSE: Secondary Recovery Pressure Maintenance Disposal Storage
Application qualifies for administrative approval? Yes No
- ✓ II. OPERATOR: Mallon Oil Company
Suite 1700, 999 18th Street, Denver, Colorado 80202
ADDRESS: _____
CONTACT PARTY: Ray E. Jones PHONE: (303) 293-2333
- ✓ III. WELL DATA: Complete the data required on the reverse side of this form for each well processed 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 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 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: Ray E. Jones TITLE: V.P. - Engineering

SIGNATURE: *Ray E. Jones* DATE: 25 OCT 99

* 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 circumstance of the earlier submittal. _____

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. (Notice letter attached)

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:

(TO BE SUBMITTED LATER)

- (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, PO Box 2088, Santa Fe, NM 87504-2088 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.

W # 30-025-32783

MALLON OIL COMPANY

MALLON 34 FEDERAL NO. 8
1980' FSL & 1980' FEL, Unit J
Sec. 34, T19S, R34E
Lea County, NM

III. Injection Well Data:

Surface Casing: Hole size: 14-3/4" and 13-1/2", Casing: 9-5/8" @ 1510'
Cemented: 850 sx, circ to surface

Intermediate Casing: Hole size: 8-3/4", Casing: 5-1/2" @ 6296'
Cemented: 650 sx, circulated to surface

Total Depth: 6300'

Tubing: 2-7/8" tubing with packer at 5550'

Name of Injection Formation: Delaware

Field: Lea, NE

Injection Interval: Cased hole, 5645'-5930', gross interval

Original Well Purpose: The well was drilled by Mallon Oil Company in 1995 and completed as a Delaware producer

Perforated Intervals:
5645' – 5665'
5772' – 5806'
CIBP @ 5872
5884' – 5908'

Depth and name of overlying and/or underlying oil and gas zones in this area:
Grayburg 5586'
San Andres 5931'

Delaware is also expected below the San Andres in this area but the well was not drilled through the San Andres.

MALLON OIL COMPANY

ENGINEERING CHART

SHEET NO. _____ OF _____

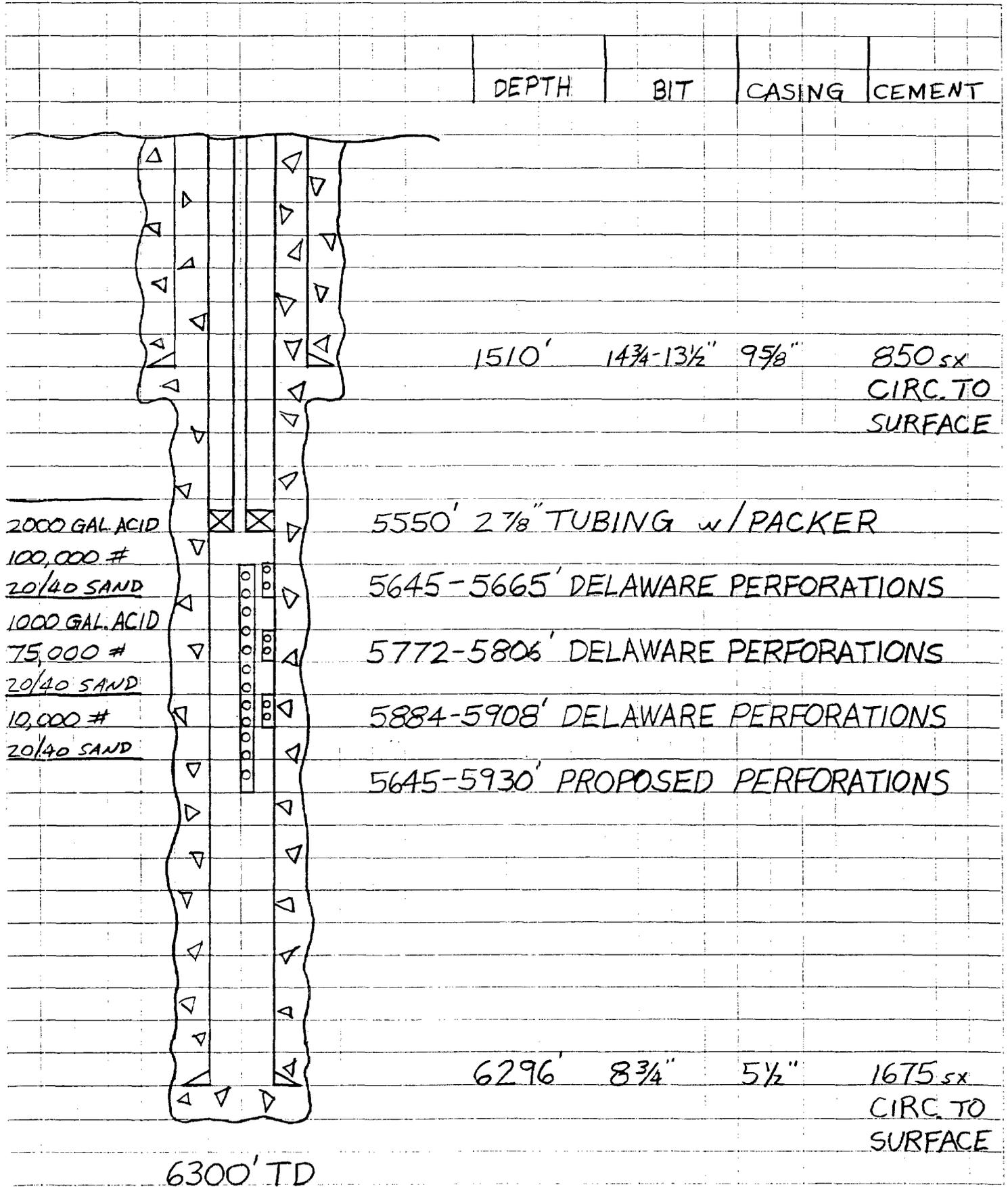
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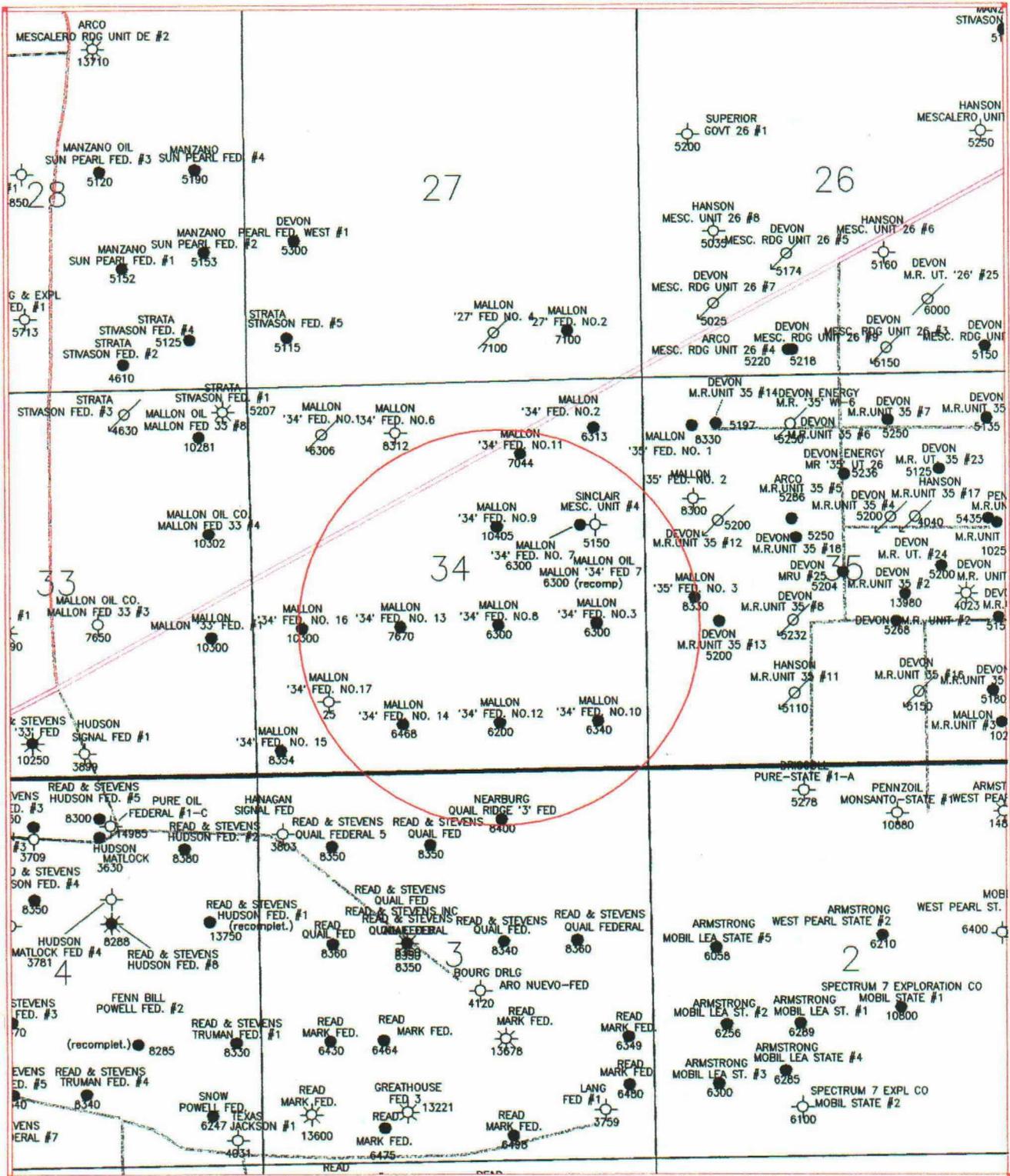
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DATE 10/13/99

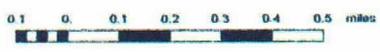
BY RHB

SUBJECT MALLON 34 FEDERAL NO. 8
PROPOSED COMPLETION FOR INJECTION





Scale 1:24000.



Mallon Oil Company		
Mallon '34' Fed. No. 8 Half Mile Radius Map Lea County, New Mexico		
J. Moore	Scale 1:24000	10/25/1999

Insert

Color Page/Photo

Here

VI. Tabulation of Data on all Wells in Review Area

Well: Mallon 34 Federal No. 3
Location: 1980' FNL & 660' FEL, Unit I, Sec. 34 T19S-R34E, Lea County, NM
Depth: 6300'
Type Well: Oil producer
Construction: 9-5/8" @ 1535' w/ 800sx - circ
5-1/2" @ 6300' w/ 1250 sx, cement top 860' from surface by acoustic cement log
DV Tool @ 4984'
Date Drilled: 10/2/94 to 10/19/94
Record of Completion: 5842'-5882' Delaware Perforations
6245' CIBP
6250' San Andres Perforation

Well: Mallon 34 Federal No. 7
Location: 1980' FNL & 860' FEL, Unit H, Sec. 34 T19S-R34E, Lea County, NM
Depth: 6300'
Type Well: Oil producer
Construction: 9-5/8" @ 1512' w/ 850 sx circ
5-1/2" @ 6300' w/ 1550 sx circ
DV Tool @ 5452'
Date Drilled: 2/10/95 to 3/3/95
Record of Completion: 5094'-5104', 5236'-5244' Grayburg Perforations
5400' CIBP
5926'-5936', 5966'-5994', 5846'-5880' Delaware Perforations

Well: Mallon 34 Federal No. 9
Location: 1980' FNL & 1980' FEL, Unit G, Sec. 34 T19S-R34E, Lea County, NM
Depth: 10405'
Type Well: Oil producer
Construction: 9-5/8" @ 1502' w/ 875 sx -circ
5-1/2" @ 10395' w/ 3190 sx - circ
DV Tool @ 7600'
Date Drilled: 4/11/95 to 5/22/95
Record of Completion: 5816'-5826', 5874'-5894', 6426'-6436' Delaware Perforations
6560'-6580'
6900' CIBP
7466'-7476' Delaware Perforations

Well: Mallon 34 Federal No. 10
Location: 660' FSL & 660' FEL, Unit P, Sec. 34 T19S-R34E, Lea County, NM
Depth: 6340'
Type Well: Oil producer
Construction: 9-5/8" @ 1508' w/ 850sx - circ
5-1/2" @ 6306' w/ 1615 sx -circ
Date Drilled: 3/3/95 to 3/23/95
Record of Completion: 5580'-5594', 5608'-5628', 5730'-5750' Delaware Perforations
5764'-5784', 6032'-6052', 6057'-6077'

Well: Mallon 34 Federal No. 11
Location: 990' FNL & 1650' FEL, Unit B, Sec. 34 T19S-R34E, Lea County, NM
Depth: 7044'
Type Well: Oil producer
Construction: 9-5/8" @ 1510' w/ 875sx - circ
5-1/2" @ 7044' w/ 980 sx , cement top @ 3060' by temperature log.
Date Drilled: 5/8/96 to 6/2/96
Record of Completion: 5782'-5792', 5844'-5854', 5930'-5946' Delaware Perforations
6710' CIBP
6810'-6816' Delaware Perforations

Well: Mallon 34 Federal No. 12
Location: 660' FSL & 1980' FEL, Unit O, Sec. 34 T19S-R34E, Lea County, NM
Depth: 6200'
Type Well: Oil producer
Construction: 9-5/8" @ 1513' w/ 650sx - circ
5-1/2" @ 6200' w/ 1190 sx, cmt top @ 1350' by temperature log.
DV Tool @ 4841'
Date Drilled: 12/28/94 to 1/18/95
Record of Completion: 5664'-5692', 5725'-5738', 5741'-5744' Delaware Perforations
5780'-5796', 5816'-5832', 5884'-5916'

Well: Mallon 34 Federal No. 13
Location: 1980' FSL & 1980' FWL, Unit K, Sec. 34 T19S-R34E, Lea County, NM
Depth: 7670'
Type Well: Oil producer
Construction: 9-5/8" @ 1512' w/ 875 sx - circ
5-1/2" @ 7665' w/ 628 sx, cement top at 3730' by temperature log.
Date Drilled: 3/26/95 to 4/13/95 and 12/01/95 to 12/08/95
Record of Completion: 5758'-5778' Delaware Perforations

Well: Mallon 34 Federal No. 14
Location: 660' FSL & 1980' FWL, Unit N, Sec. 34 T19S-R34E, Lea County, NM
Depth: 6468'
Type Well: Oil producer
Construction: 9-5/8" @ 1489' w/ 850sx - circ
5-1/2" @ 6468' w/ 1450 sx - circ
Date Drilled: 2/27/95 to 3/17/95
Record of Completion: 5658'-5680', 5702'-5722', 5800'-5808' Delaware Perforations
5816'-5836', 5842'-5852', 5854'-5858'
6210' CIBP
6271-6281' San Andres Perforations

Well: Mallon 34 Federal No. 16
Location: 1980' FSL & 660' FWL, Unit L, Sec. 34 T19S-R34E, Lea County, NM
Depth: 10,300'
Type Well: Oil producer
Construction 9-5/8" @ 1485' w/ 850sx, cement top @ 28' by temperature log.
5-1/2" @ 10300' w/ 2575 sx, cement top @ 2110' by temperature log.
DV Tool @ 2757'
Date Drilled: 11/8/96 to 12/03/96 and 7/21/97 to 8/4/97
Record of Completion: 10144'-10164' Bone Spring Perforations

Well: Mallon 34 Federal No. 17
Location: 990' FSL & 990' FWL, Unit M, Sec 34 T19S-R34E, Lea County, NM
Depth: 40'
Type Well: D&A
Construction: 16" @ 40' conductor, cemented to surface
Date Drilled: 5/31/96
Record of Completion: N.A.

Well: Mescalero Ridge Unit No. 4
Location: 1980' FNL & 660' FEL, Unit H, Sec. 34 T19S-R34E, Lea County, NM
Depth: 5,150'
Type Well: D&A
Construction: 8-5/8" @ 200', 100 sx - circ
Date Drilled: 6/10/66 to 6/23/66
Record of Completion: N.A.

Well: Quail Ridge 3 Federal No. 1
Location: 660' FNL & 1980' FEL, Unit B, Sec. 3 T20S-R34E, Lea County, NM
Depth: 8,400'
Type Well: Oil producer
Construction: 13-3/8" @ 1520' w/ 1234sx - circ
5-1/2" @ 8400' w/ 5250 sx - circ
Date Drilled: 9/20/95 to 10/17/95
Record of Completion: 8126'-8241.5' Delaware Perforations

Well: Mallon 35 Federal No. 3

Location: 2310' FSL & 660' FWL, Unit L, Sec 35 T19S-R34E, Lea County, NM

Depth: 8330'

Type Well: Oil producer

Construction: 9-5/8" @ 1502' w/ 1050 sx - circ
5-1/2" @ 8330' w/ 2755 sx , cement top @ 1132' by calculation
DV Tool @ 6474'

Date Drilled: 1/19/97 to 2/09/97

Record of Completion: 5719'-5723', 5766'-5772', 5792'-5810' Delaware Perforations

MALLON OIL COMPANY

ENGINEERING CHART

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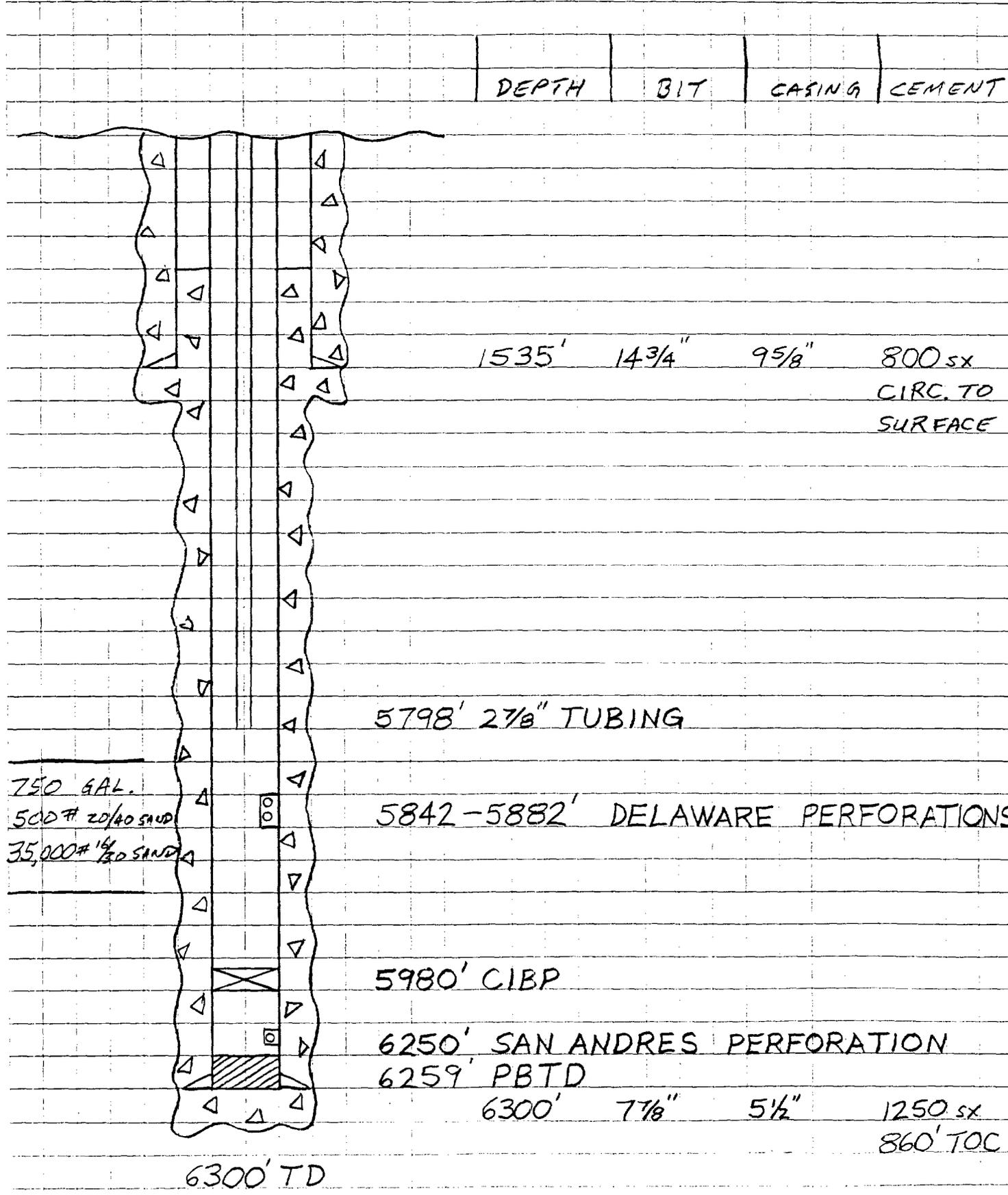
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DATE 10/13/99

BY R4B

SUBJECT MALLON 34 FEDERAL NO. 3
COMPLETION DATE 11/23/94



MALLON OIL COMPANY

ENGINEERING CHART

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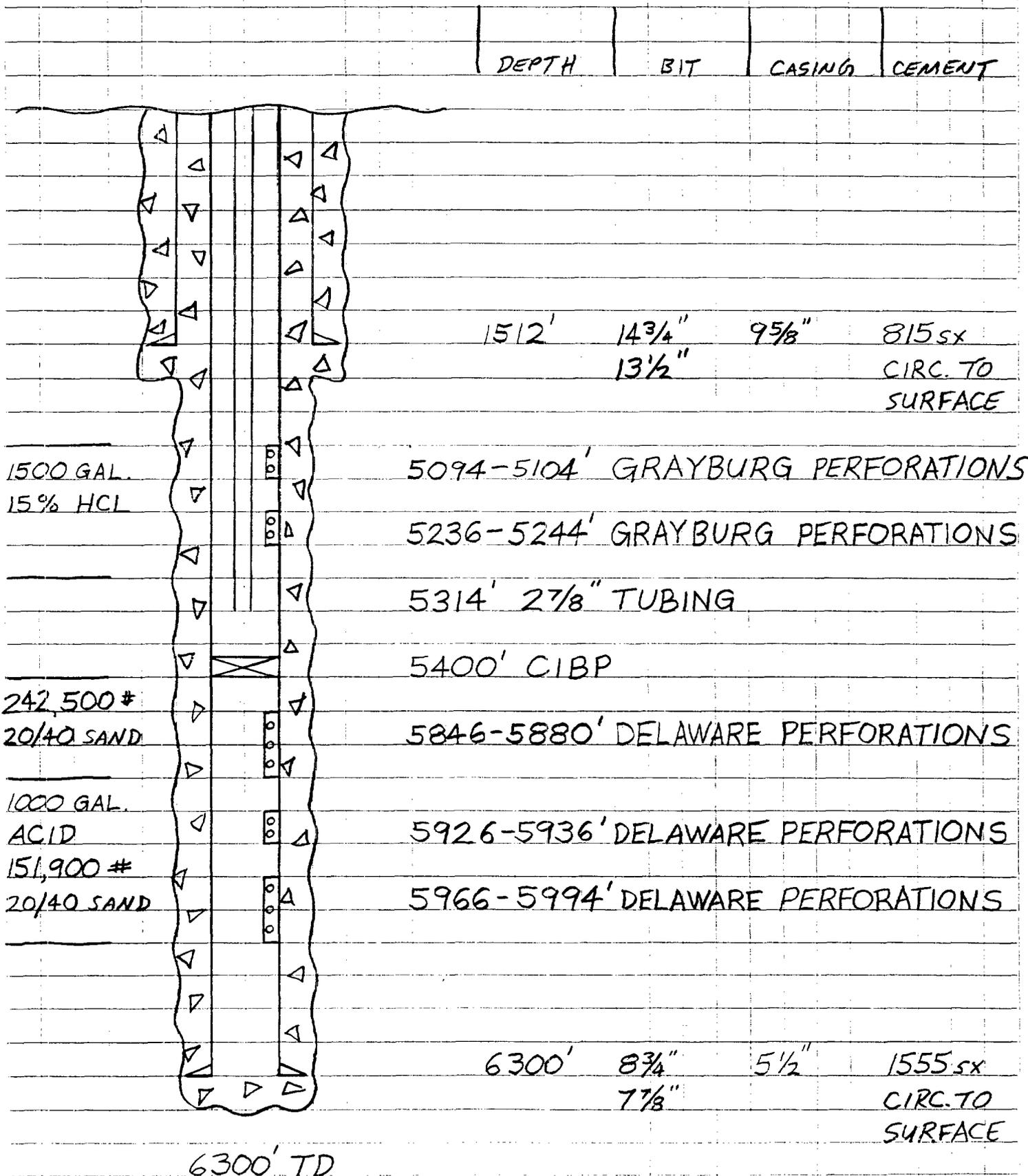
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SUBJECT MALLON 34 FEDERAL NO. 7

DATE 10/13/99

COMPLETION DATE 5/5/97

BY RHB



MALLON OIL COMPANY

ENGINEERING CHART

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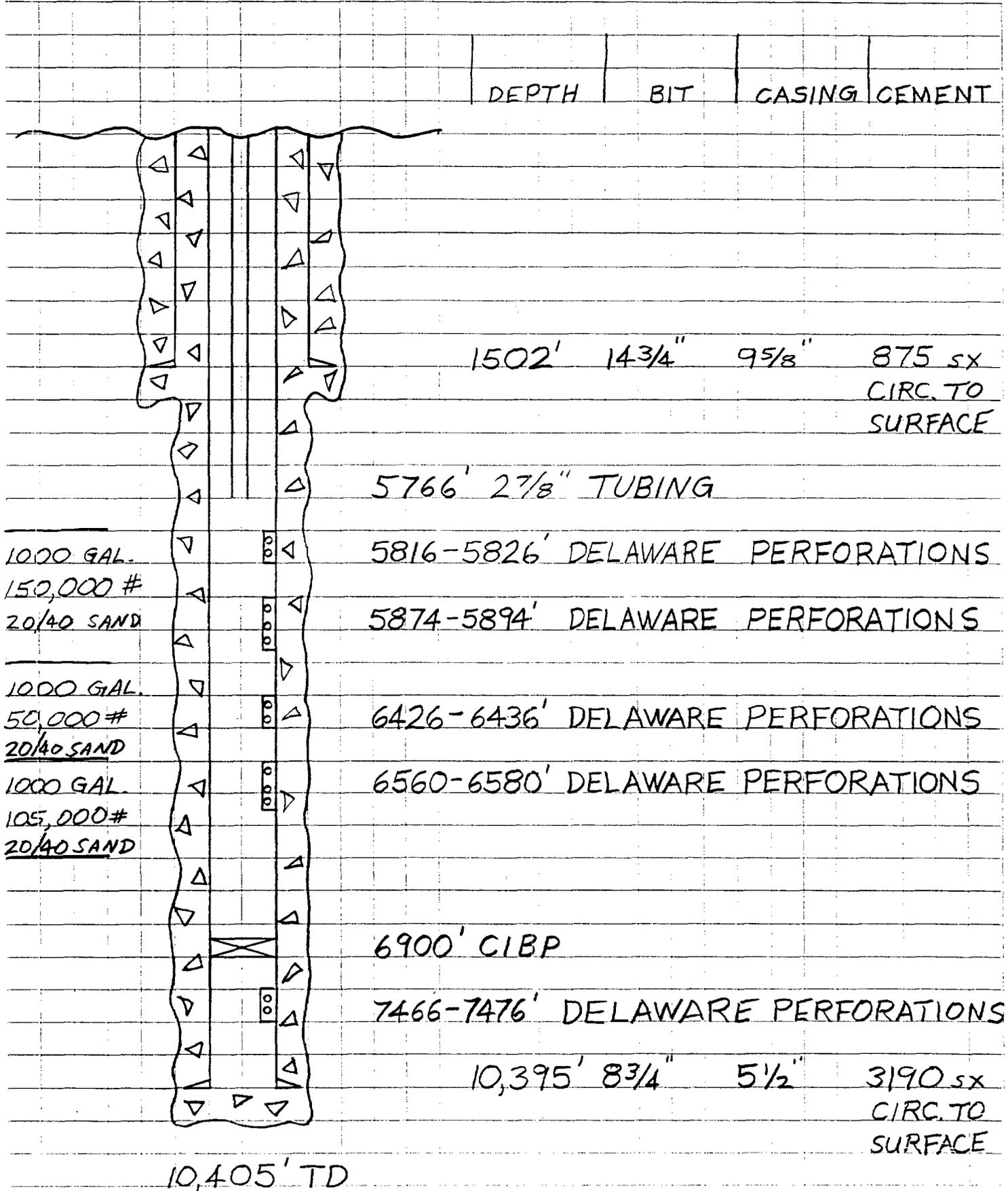
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DATE 10/13/99

BY RHB

SUBJECT MALLON 34 FEDERAL NO. 9
COMPLETION DATE 7/5/95



MALLON OIL COMPANY

ENGINEERING CHART

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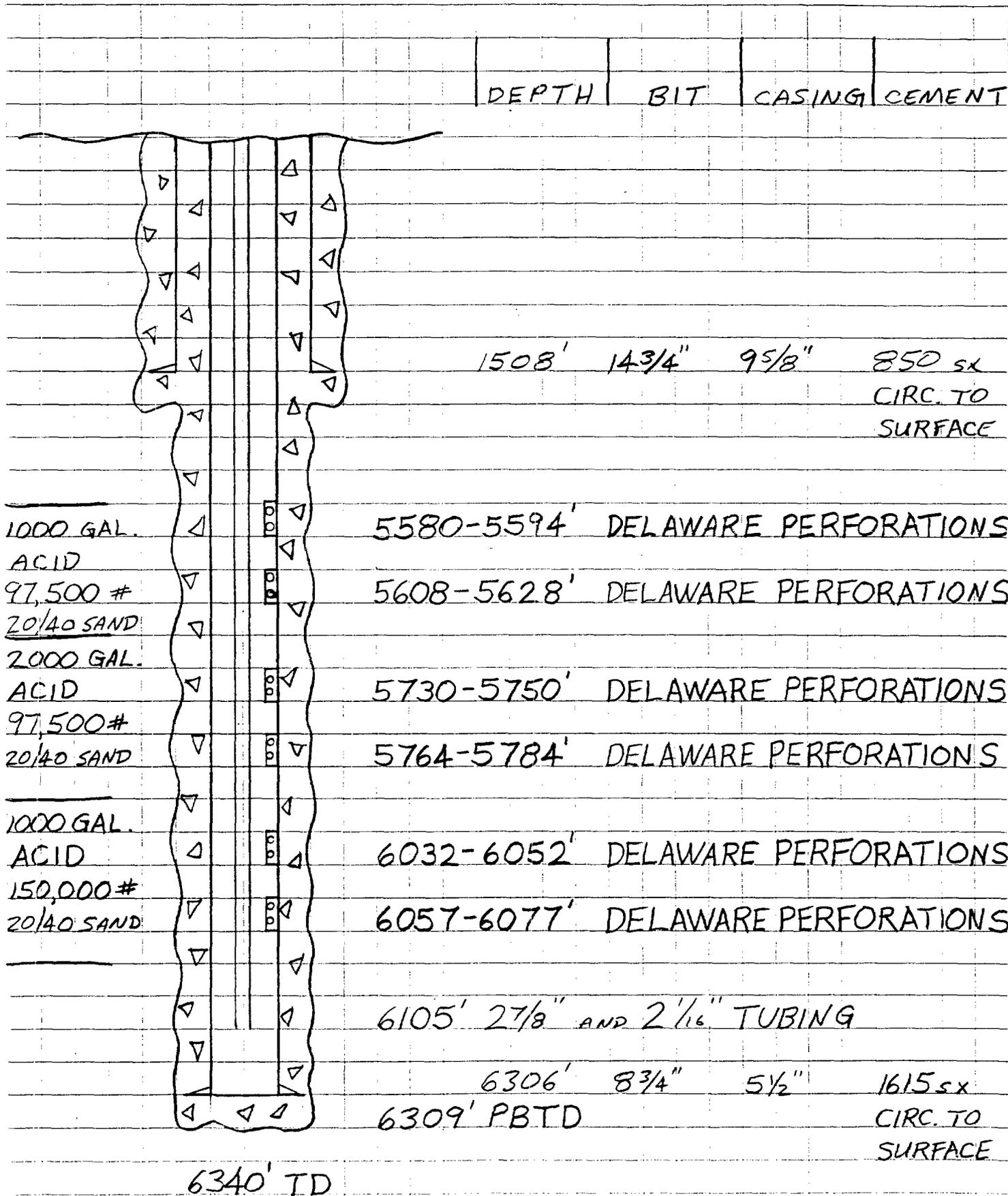
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DATE 10/13/99

BY RHB

SUBJECT MALLON 34 FEDERAL NO. 10

COMPLETION DATE



MALLON OIL COMPANY

ENGINEERING CHART

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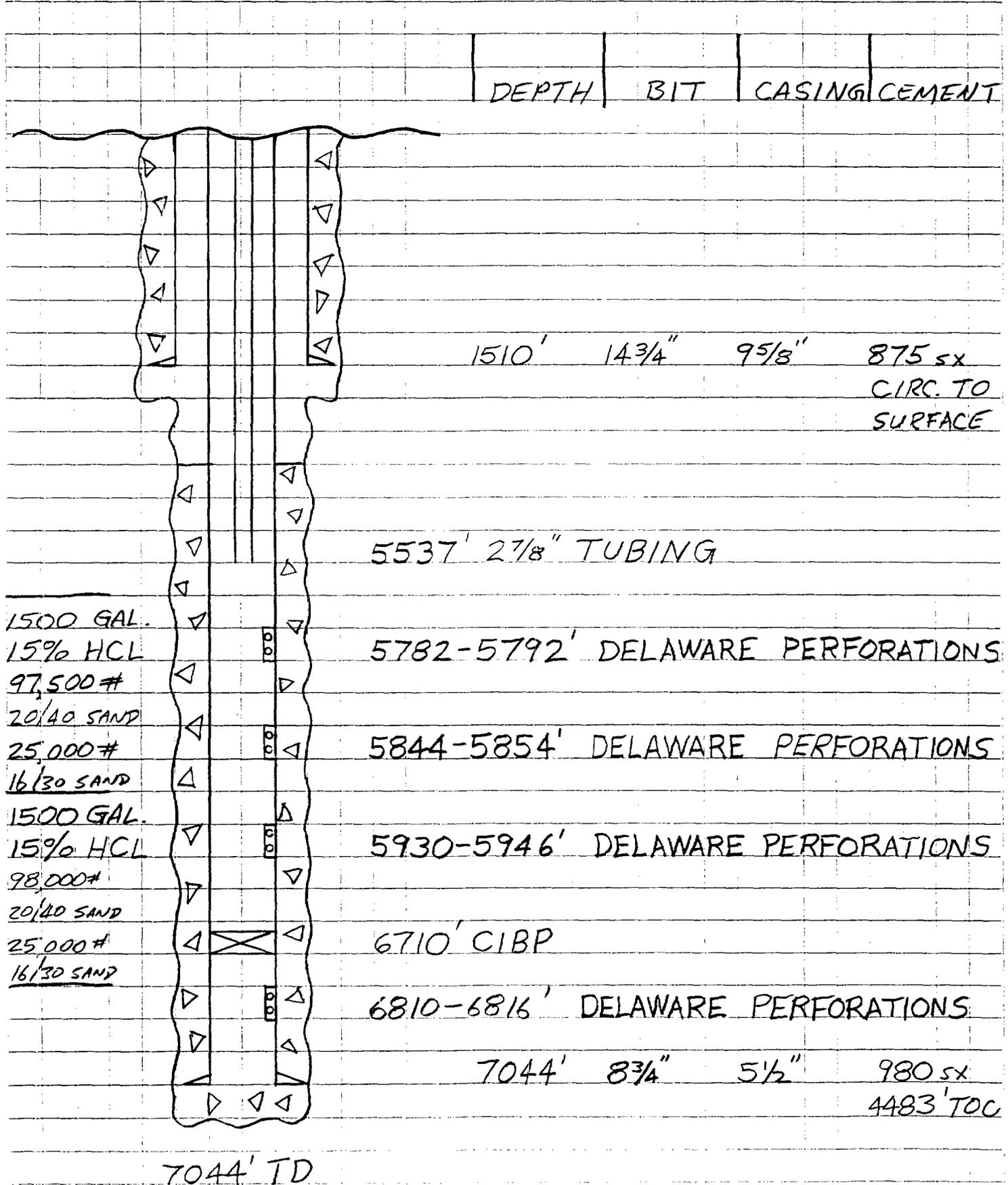
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DATE 10/13/99

BY RHB

SUBJECT MALLON 34 FEDERAL NO. 11
COMPLETION DATE 6/29/96



MALLON OIL COMPANY

ENGINEERING CHART

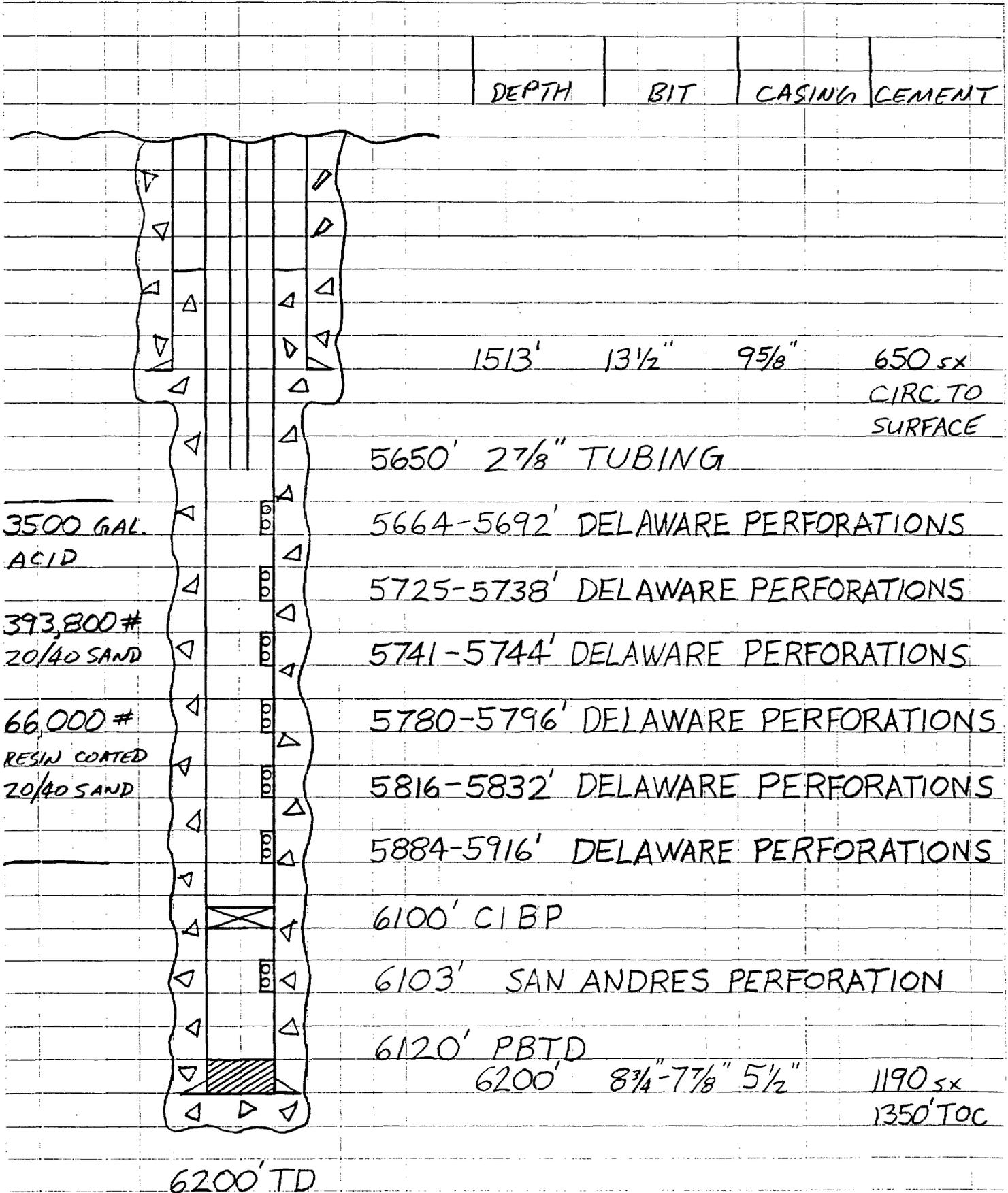
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FILE _____

APPN _____

SUBJECT MALLON 34 FEDERAL NO. 12
COMPLETION DATE 3/5/95

DATE 10/13/99
 BY RHB



MALLON OIL COMPANY

ENGINEERING CHART

SHEET NO. _____ OF _____

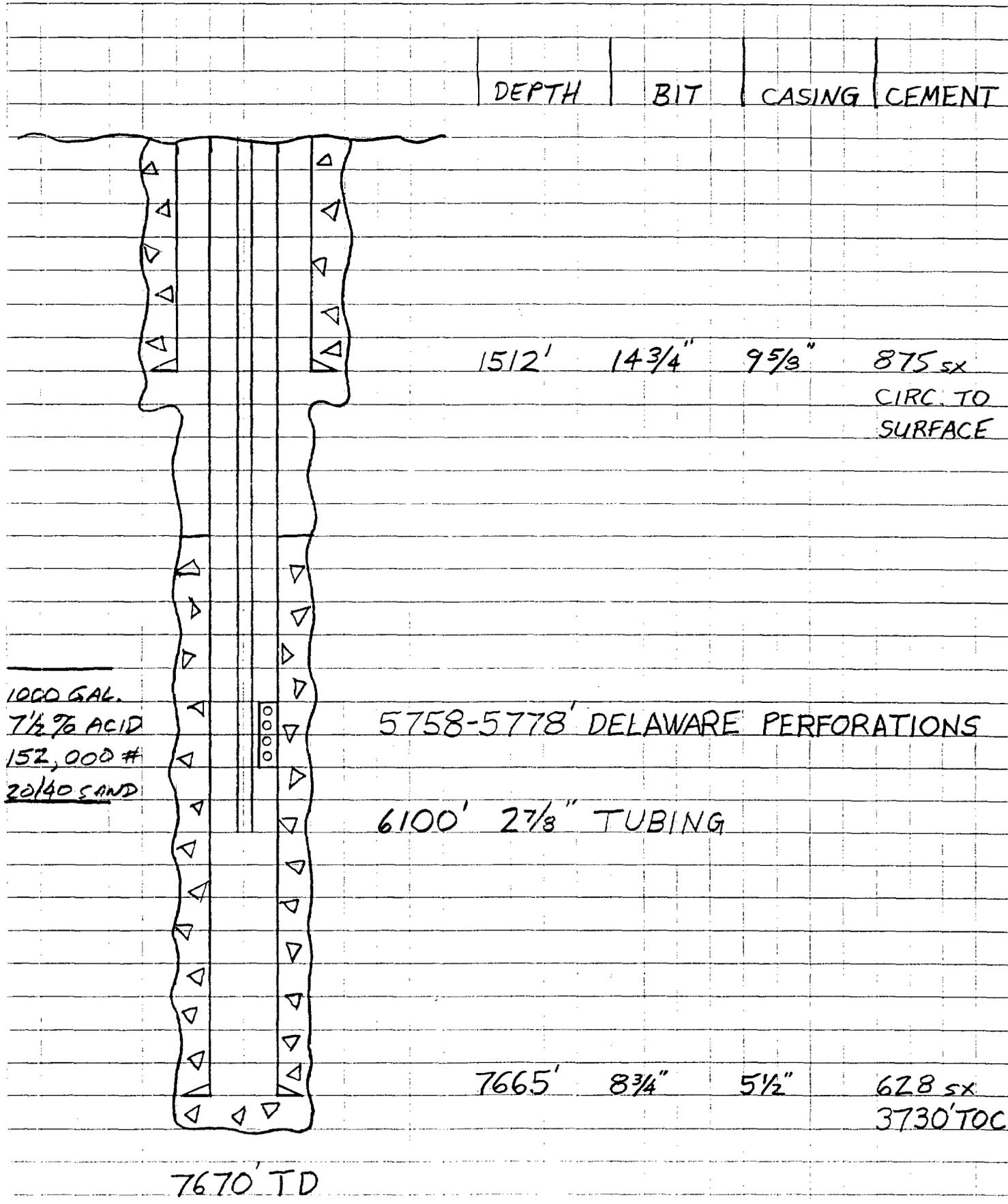
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SUBJECT MALLON 34 FEDERAL NO. 13
COMPLETION DATE 12/30/95

DATE 10/13/99

BY RHB



MALLON OIL COMPANY

ENGINEERING CHART

SHEET NO. _____ OF _____

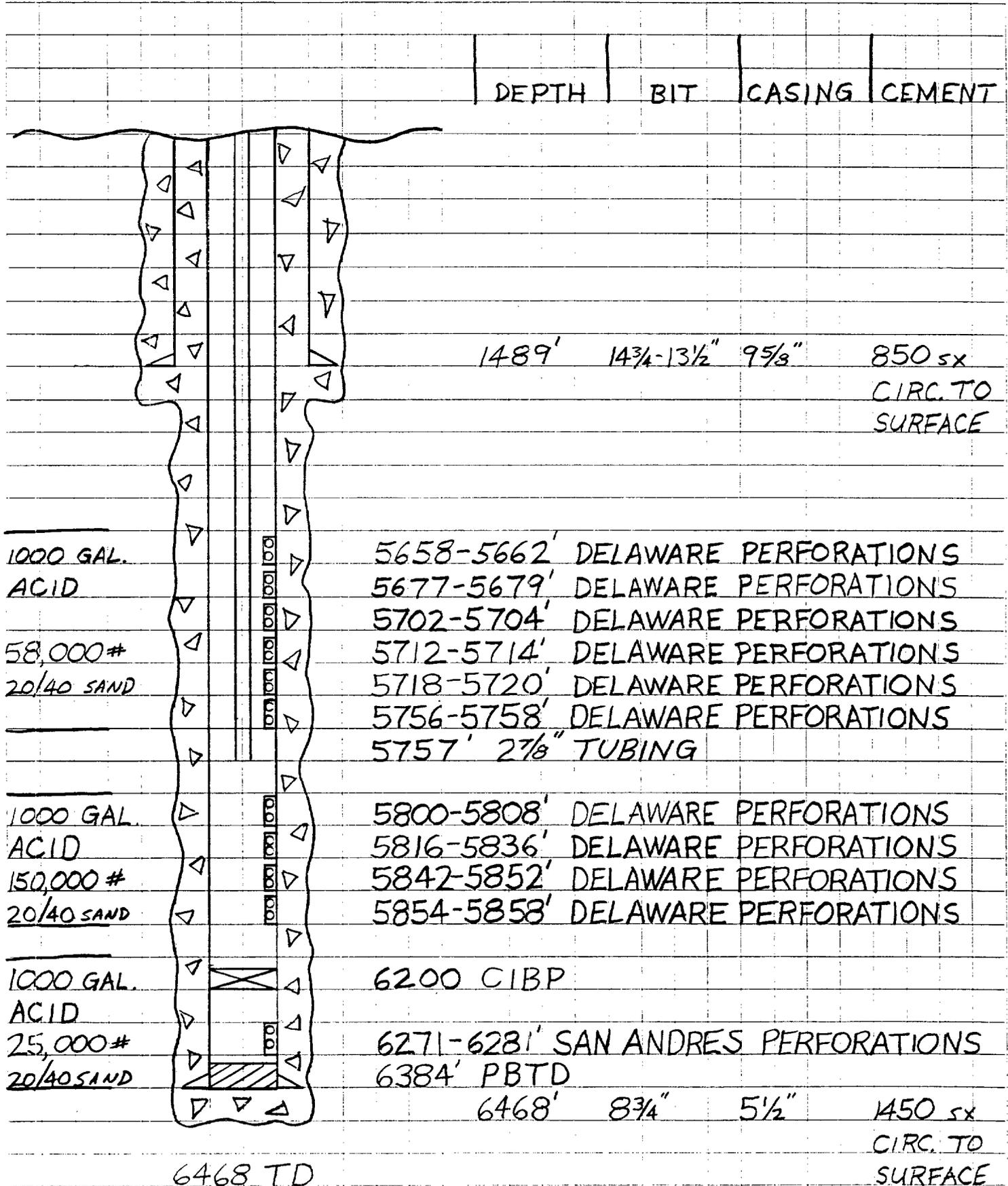
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SUBJECT MALLON 34 FEDERAL NO. 14
COMPLETION DATE 4/16/95

DATE 10/13/99

BY RHB



MALLON OIL COMPANY

ENGINEERING CHART

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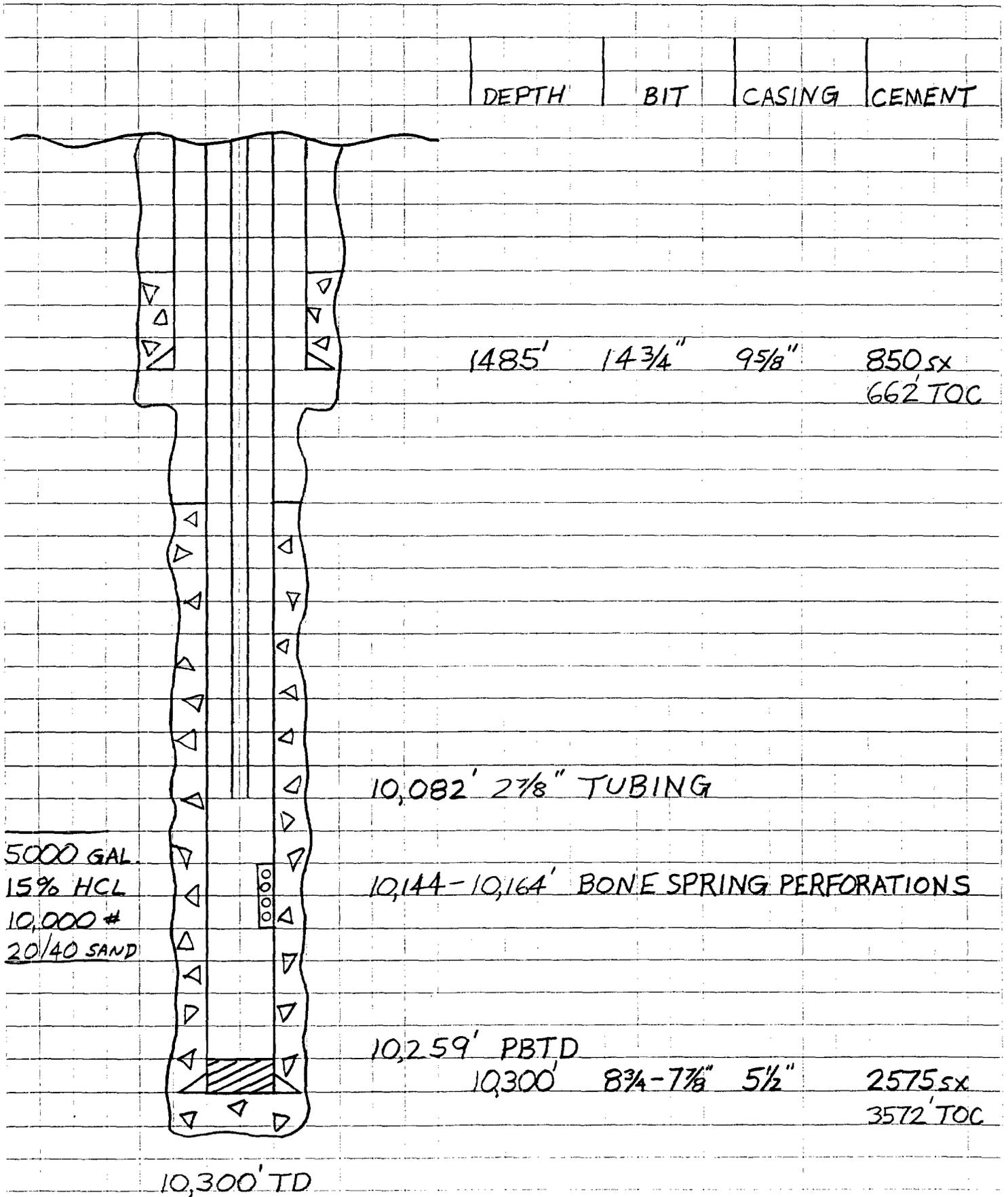
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SUBJECT MALLON 34 FEDERAL NO. 16
COMPLETION DATE 9/25/97

DATE 10/13/99

BY R43



MALLON OIL COMPANY

ENGINEERING CHART

SHEET NO.

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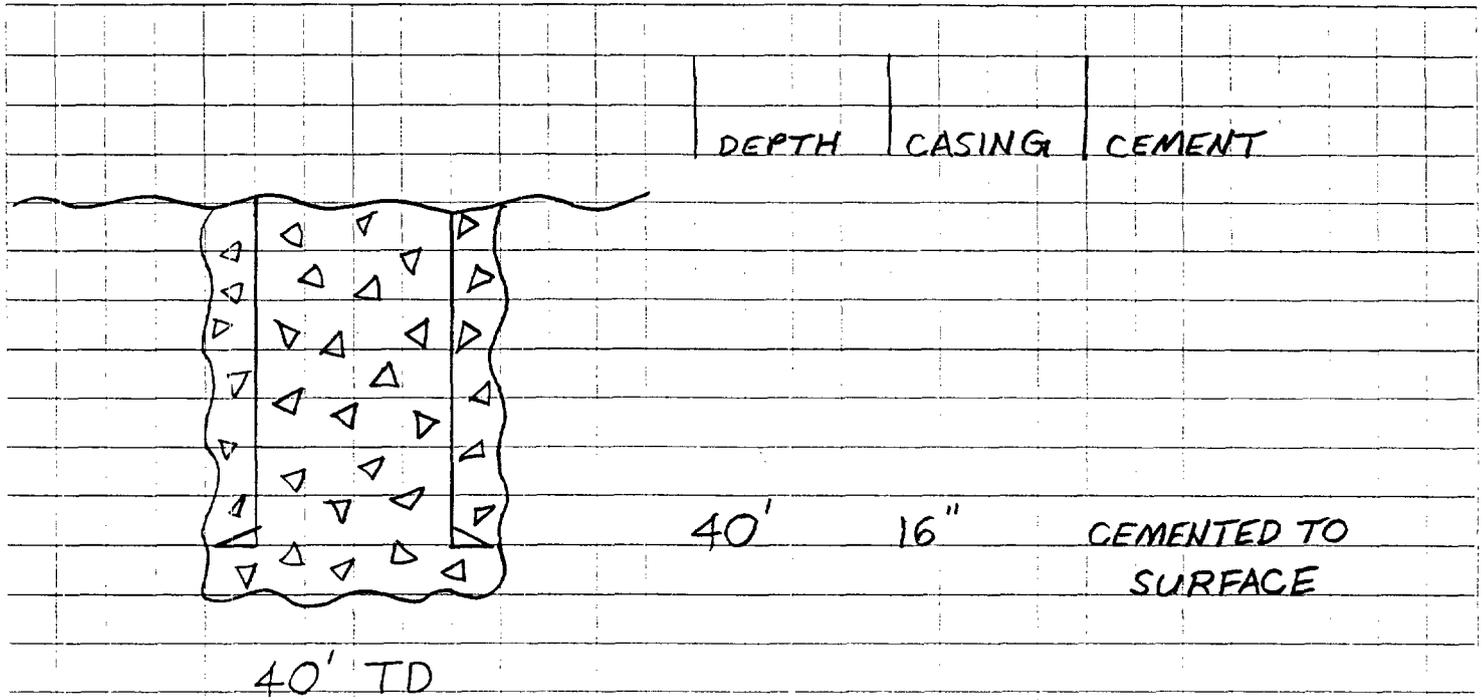
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DATE 10/25/99

BY RHB

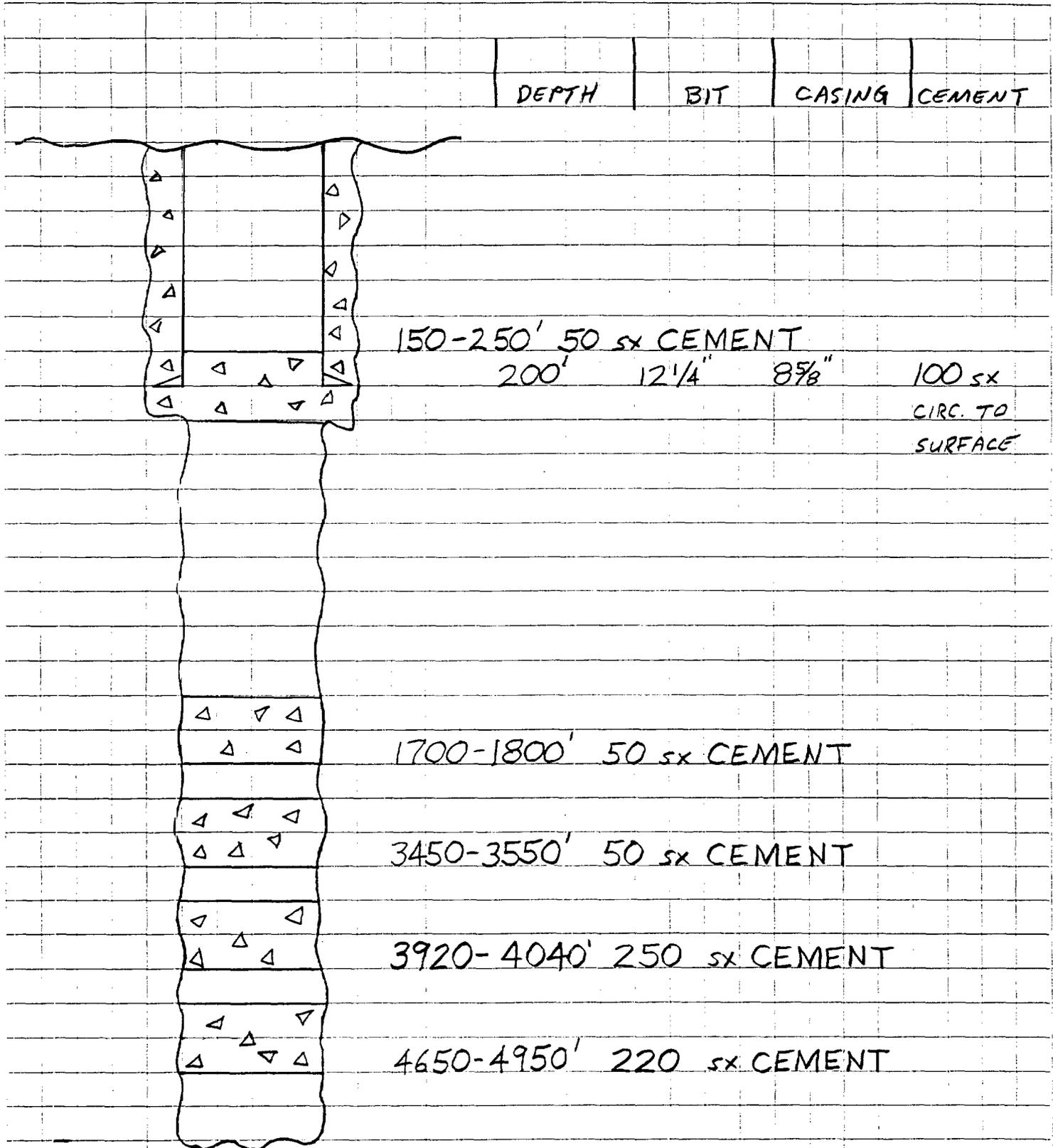
SUBJECT MALLON 34 FEDERAL NO. 17



MALLON OIL COMPANY
ENGINEERING CHART

SHEET NO. _____ CF
FILE _____
APPN _____
DATE 10/13/99
BY RHB

SUBJECT MESCALERO RIDGE UNIT NO. 4
DRY AND ABANDONED 6/29/66



5150' TD

MALLON OIL COMPANY

ENGINEERING CHART

SHEET NO. _____ OF _____

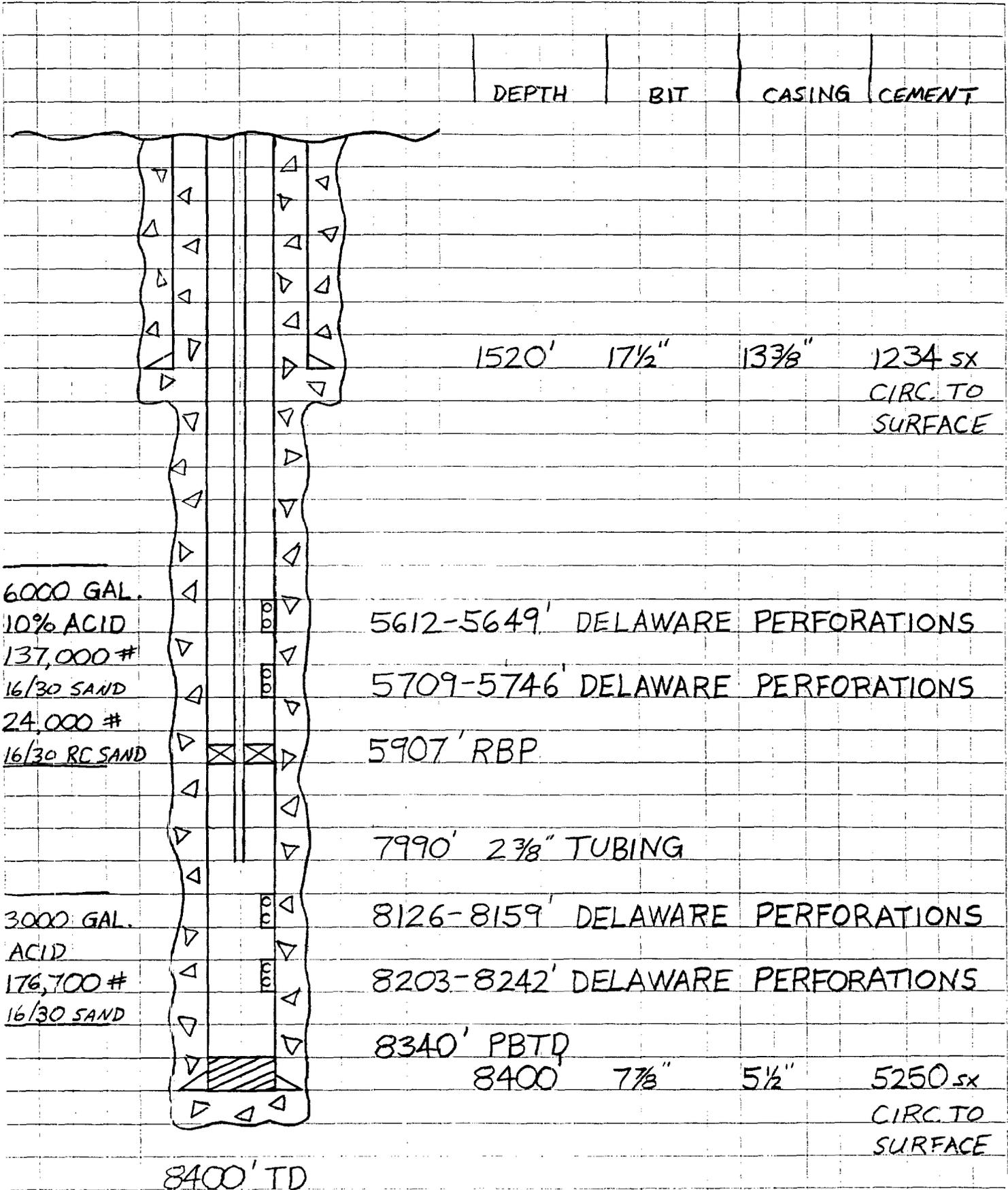
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DATE 10/13/99

BY RHB

SUBJECT QUAIL RIDGE 3 FEDERAL NO. 1
COMPLETION DATE 12/20/95



MALLON OIL COMPANY

ENGINEERING CHART

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OF _____

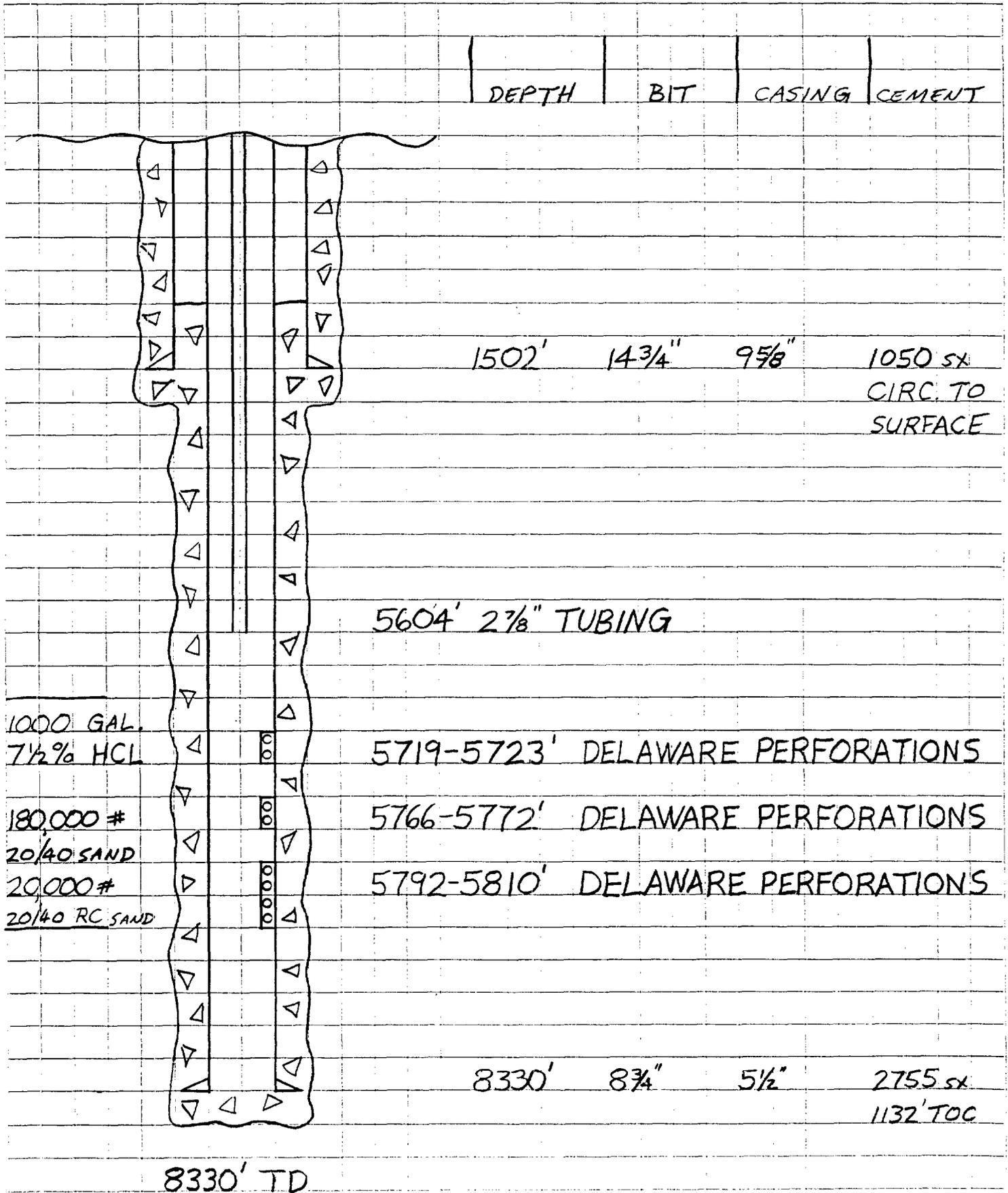
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DATE 10/13/99

BY RHB

SUBJECT MALLON 35 FEDERAL NO. 3
COMPLETION DATE 3/17/97



VII. Proposed Operation

A powered salt water disposal pump will be located on the wellsite. A salt water gathering system will transport from our tank battery, located at our Mallon '34' Federal No. 2 well, 660' FNL 660' FEL Sec 34 T19S R34E. At the present time, 13 wells produce approximately 400 BWPD. If the well's disposal capacity is such to handle additional water, other operators' wells in the area may be trucked in to the storage tanks.

The average injection rate is estimated at 470 BWPD and will be subject to pressure limitation.

The proposed maximum injection rate is 1000 BWPD and will be subject to pressure limitation.

The system will be open.

The proposed average injection pressure is 1129 psi or as determined by step rate test and approved by state.

The proposed maximum injection pressure is 1129 psi or as determined by step rate test and approved by state.

The sources of injected water will be from the Delaware and Morrow.

VIII. Geologic Data

Geological Name: Delaware

Lithological Detail: Very fine to fine grained sandstone

Formation Top: 5586'

Thickness: Thickness of the Delaware is approximately 1750' at this well.

Depth: Well reached total depth while in San Andres limestone at 6300'

Geological Data of Drinking Water Zone: The underground source of drinking water overlying the zone of disposal is the Ogalla, which occurs 65 to 150 feet in this area and is approximately 100-200' thick.

IX. Proposed Stimulation Program

None proposed at this time.

X. Log and Test Data:

Logs were previously filed by operator, Mallon Oil Company.

XI. Analysis of fresh water well attached:

No known fresh water wells within 1 mile of this proposed injection well.

XII.

After examining all available geological and engineering data, we find no evidence of open faults or any other hydrologic connection between the disposal zone and any underground source of drinking water.

XIII.

A copy of our application has been furnished by certified mail to the surface owner and to each leasehold operator within one-half mile of our proposed injection well. See listing on Exhibit -C-.

JAMES BRUCE

ATTORNEY AT LAW

POST OFFICE BOX 1056
SANTA FE, NEW MEXICO 87504

3304 CAMINO LISA
SANTA FE, NEW MEXICO 87501

(505) 982-2043
(505) 982-2151 (FAX)

November 1, 1999

**CERTIFIED MAIL
RETURN RECEIPT REQUESTED**

Bureau of Land Management
P.O. Box 1778
Carlsbad, New Mexico 88221

Nearburg Exploration Company, L.L.C.
Building 2, Suite 120
3300 North A Street
Midland, Texas 79705

Ladies and Gentlemen:

Enclosed is a copy of an administrative application for a salt water disposal well, filed with the New Mexico Oil Conservation Division by Mallon Oil Company, regarding the Federal 34 Well No. 8, located in the NW $\frac{1}{4}$ SE $\frac{1}{4}$ of Section 34, Township 19 South, Range 34 East, NMPM, Lea County, New Mexico. If you object to the application, you must notify the Division in writing no later than Tuesday, November 16, 1999. The Division's address is 2040 South Pacheco Street, Santa Fe, New Mexico 87505 (attention: David R. Catanach). Failure to object will preclude you from contesting this matter at a later date.

Very truly yours,


James Bruce
Attorney for Mallon Oil Company



STATE OF NEW MEXICO
ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT

OIL CONSERVATION DIVISION
HOBBS DISTRICT OFFICE

11/3/99

POST OFFICE BOX 1980
HOBBS, NEW MEXICO 88241-1980
(505) 393-6161

GOVERNOR

OIL CONSERVATION DIVISION
P. O. BOX 2088
SANTA FE, NEW MEXICO 87501

RE: Proposed:

MC	_____
DHC	_____
NSL	_____
NSP	_____
SWD	<u> X </u>
WFX	_____
PMX	_____

Gentlemen:

I have examined the application for the:

<u>Mallon Oil Co</u>	<u>Mallon 34 Federal</u>	<u># 8-J-34-19s-34e</u>
Operator	Lease & Well No.	Unit S-T-R

and my recommendations are as follows:

OK

Yours very truly,

Chris Williams
Supervisor, District 1

/ed