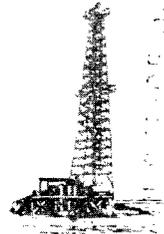


DEPCO, Inc.

Exploration & Production



1970 JUL 17 AM 8 16

800 Central
ODESSA, TEXAS 79760

July 15, 1970

New Mexico Oil Conservation Commission
P. O. Box 871
Santa Fe, New Mexico

Subject: Administrative Approval
to Inject Water into Artesia
Unit Wells No. 20, 23, 36, 66,
and 67

Field: Artesia
County and State: Eddy, New Mexico

Gentlemen:

DEPCO, Inc. requests administrative approval to inject water into their Artesia Unit Wells No. 20, 23, 36, 66 and 67 located as follows:

- Well No. 20 -- Unit I, 2310' FSL and 330 FEL of Section 35,
T.17S., R.28E., Eddy County, New Mexico
- Well No. 23 -- Unit L, 660' FWL and 1980' FSL of Section 35,
T.17S., R.28E., Eddy County, New Mexico
- Well No. 36 -- Unit D, 330' FNL and FWL of Section 2,
T.18S., R.28E., Eddy County, New Mexico
- Well No. 66 -- Unit F, 1950' FWL and 1550' FNL of Section 3,
T.18S., R.28E., Eddy County, New Mexico
- Well No. 67 -- Unit K, 2200' FWL & FSL of Section 3,
T.18S., R.28E., Eddy County, New Mexico

Wells No. 20, 23, and 36 are presently unit producing wells and Wells No. 66 and 67 are proposed new wells to be drilled.

The Artesia Unit Waterflood was initially approved as the Highway Waterflood operated by International Oil and Gas Corporation by Order No. R-2876 dated March 5, 1965, by injection of water into two wells located in Sections 25 and 36, Township 17 South, Range 28 East. This waterflood was expanded and renamed the Artesia Unit, by Order No. R-3311 dated September 6, 1967, and operated by DEPCO, Inc. as successor to International Oil and Gas Corporation.

Administrative Approval to Inject Water
Into Artesia Unit Wells No. 20, 23, 36, 66 and 67
Page 2
July 15, 1970

Attached as set forth in Rule 701-B are the following exhibits:

1. Exhibit 1 -- "A plat showing the location of the proposed injection wells and the location of all other wells within a radius of two miles"
2. Exhibit 2 -- Logs are attached for Artesia Unit Wells No. 20, 23 and 36. Logs are not available on Wells No. 66 and 67 since these are presently undrilled locations.
3. Exhibit 3 -- Diagrammatic Sketches for these proposed injectors.
4. Exhibit 4 -- Form C-116 showing response at the proposed injector or at an offset well.

Injection will be into an interval at the base of the Grayburg formation which is locally named the Premier Sand at an approximate depth range 2300 to 2400 feet. Approximately 500 BWPd will be injected into each of the proposed injectors. Water for this project is purchased from Double Eagle Corporation.

Very truly yours,



W. C. Smith
District Engineer

WCS:jm

Attachments

cc: NMOCC - Artesia
Kincaid & Watson - Artesia (without attachments)
Burnham Oil Co. - Artesia (without attachments)

Exhibit 2 - Logs



RADIOACTIVITY LOG

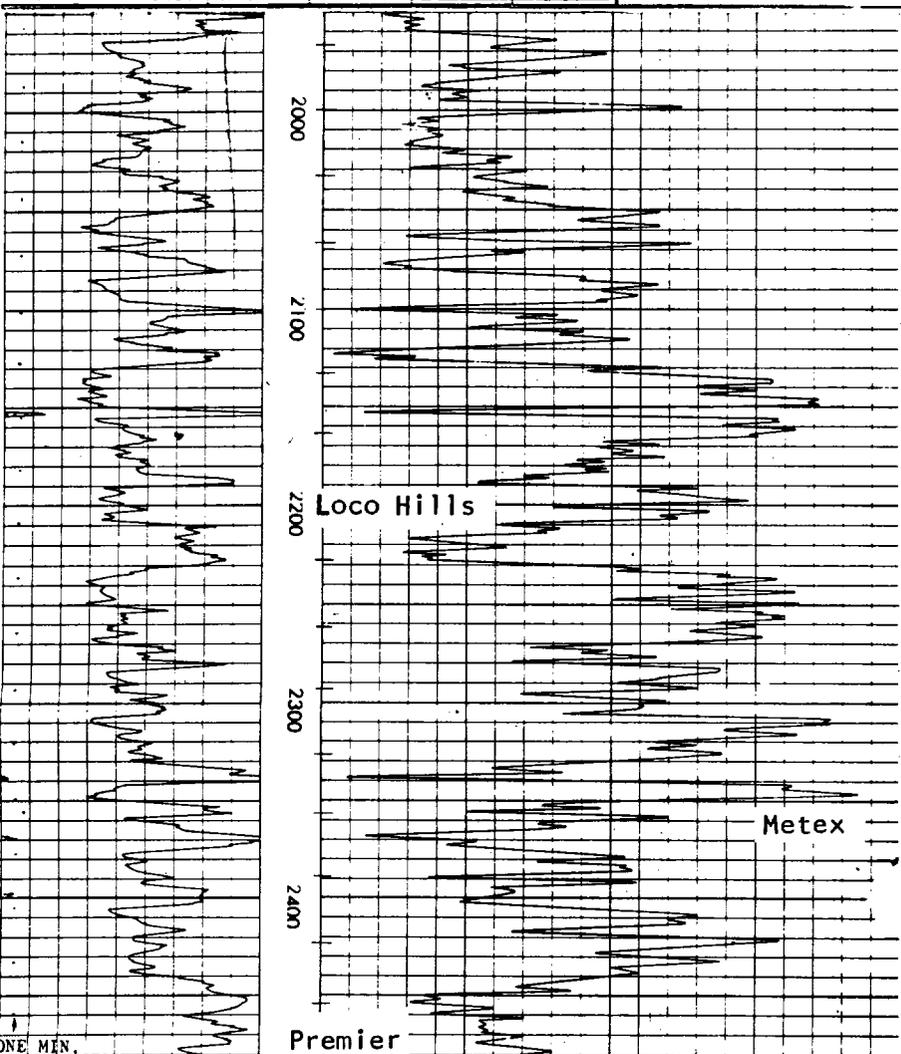
URAL GAMMA RADIATION INDUCED GAMMA RADIATION

ARTESIA UNIT
Well No. 20.

COMPANY WESTERN - YATES	FILE # 138	Location
	STATE # 138	2310' from S L
	FIELD Artesia	330' from E L
	County Eddy State N.M.	Sec. 35
	WELL STATE # 138	Twp. 17-S
	FIELD Artesia	Rge. 28-E
	COUNTY Eddy STATE New Mex	GR-NG
	SEC. 35 TWP. 17-S RGE 28-E	Elev. D.F. 3560'
	SURVEY	K.B. N.A.
		Grd. 3558'

Log Measured From	Derrick floor	Elevation	3560'
Drilling Measured From	Derrick floor	Elevation	3560'
Permanent Datum	Ground Level	Elevation	3558'

Type Log	GAMMA	N. GAMMA	
Run No.	ONE	ONE	
Date	2-14-57	2-14-57	
Footage Logged	2512'	2512'	
Total Depth, Drift	2525'	2525'	
Total Depth, Logged	2502'	2512'	
Type of Fluid in Hole	Oil	Oil	
Fluid Level		160	
Max. Temp.	86 F	86 F	F F
Neutron Source Strength		400mg	
Source to Center of Counter	in.	19 in.	in. in.
Length Meas. Device in	29 in	14 in	
O.D. of Instrument in	3 5/8"	3 5/8"	
Time Constant -sec.	2	2	
Logging Speed Ft. min.	See Remarks		
Neutron Source Code	Purple		
Truck No.	4132	4132	
Recorded by	G.E. Ayres		
Witnessed by	L. Evans		





Halliburton

OIL WELL CEMENTING CO.

RADIOACTIVITY LOG

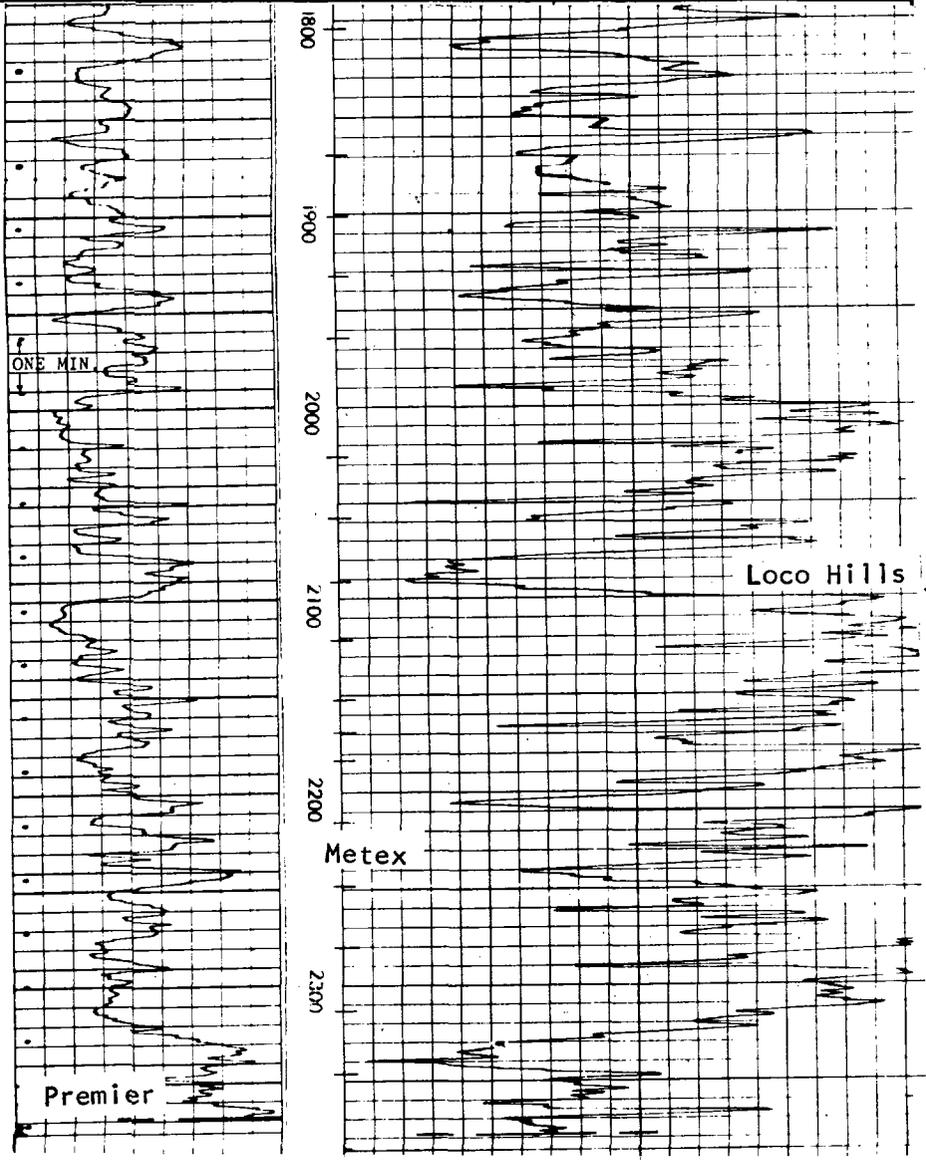
NATURAL GAMMA RADIATION INDUCED GAMMA RADIATION

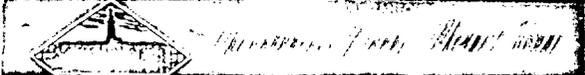
COMPARTMENTS FILE WELL STATE #135 FIELD ARTESIA County Eddy State N.M.	COMPANY RESLER & YATES		Location
	FILE		1980' fr. S/L
	WELL STATE #135		660' fr. W/L
	FIELD Artesia		Sec. 35
	COUNTY Eddy STATE New Mex.		Twp. 17-S
	SEC. 35 TWP. 17-S RGE. 28-E		Rge. 28-E
SURVEY			GR-NG
			Elev. D.F. N.A.
			K.B. N.A.
			Grd. N.A.

ARTESIA UNIT Well No. 23

Log Measured From	Floor 3' above	Elevation	G. Level
Drilling Measured From	Floor 3' above	Elevation	G. Level
Permanent Datum	Ground Level	Elevation	N.A.

Type Log	GAMMA	N. GAMMA		
Run No.	ONE	ONE		
Date	12-22-56	12-22-56		
Footage Logged	2378'	2378'		
Total Depth, Driller	2376'	2376'		
Total Depth, Logged	2368'	2378'		
Type of Fluid in Hole	Oil			
Fluid Level	145'			
Max. Temp.	87 °F	87 °F	°F	°F
Neutron Source Strength	400mg.			
Source to Center of Counter	in.	19 in.	in.	in.
Length Meas. Device in	29 in.	14 in.		
O.D. of Instrument in	3 5/8"	3 5/8"		
Time Constant - sec.	2	2		
Logging Speed Ft. min.	SEE REMARKS			
Neutron Source Code	Purple			
Truck No.	4018			
Recorded by	P.C. Harris			
Witnessed by	Bill Sheldon			





COUNTY Eddy FIELD or LOCATION Artesia WELL Hanson State # 4 COMPANY Hanson Oil Company	COMPANY <u>HANSON OIL</u>	Location of Well NW NW
	COMPANY _____	
	WELL <u>HANSON STATE # 4</u>	
	FIELD <u>ARTESIA</u>	
	LOCATION <u>SEC. 2-18S-28E</u>	
COUNTY <u>EDDY</u>	Elevation: D.F. _____ K.B. _____ or G.L. _____	
STATE <u>NEW MEXICO</u>	FILING No. _____	

ARTESIA UNIT
Well No. 36

RUN NO. _____	
Date	<u>10-19-56</u>
Depth Reference	<u>Floor 2' Abv. G.</u>
First Reading	<u>2556</u>
Last Reading	<u>50</u>
Footage Measured	<u>2506</u>
Max. Depth Reached	<u>2557</u>
Bottom Driller	<u>2556</u>
Maximum Temp. °F.	<u>Less than 100</u>
Mud, Nature	<u>Water</u>
" Density	
" Viscosity	
" Resistivity	① "F. ② "F.
Casing Size & Weight	1 7" to ID to to
Open Hole	1 to to to
Fluid Level	2 to to
Recording Speed (ft/hr)	<u>2000' & 4000'</u>
Sensitivity Top	<u>GR) 100 (N) 300 (GR) (N)</u>
Time Constant	<u>172 172</u>
Panel	<u>GRP-C # 69</u>
Oper. Rig Time	<u>2 Hrs.</u>
Spade Size & Type	<u>3 5/8"</u>
Truck No.	<u>574-Artesia</u>
Observer	<u>Reinders</u>

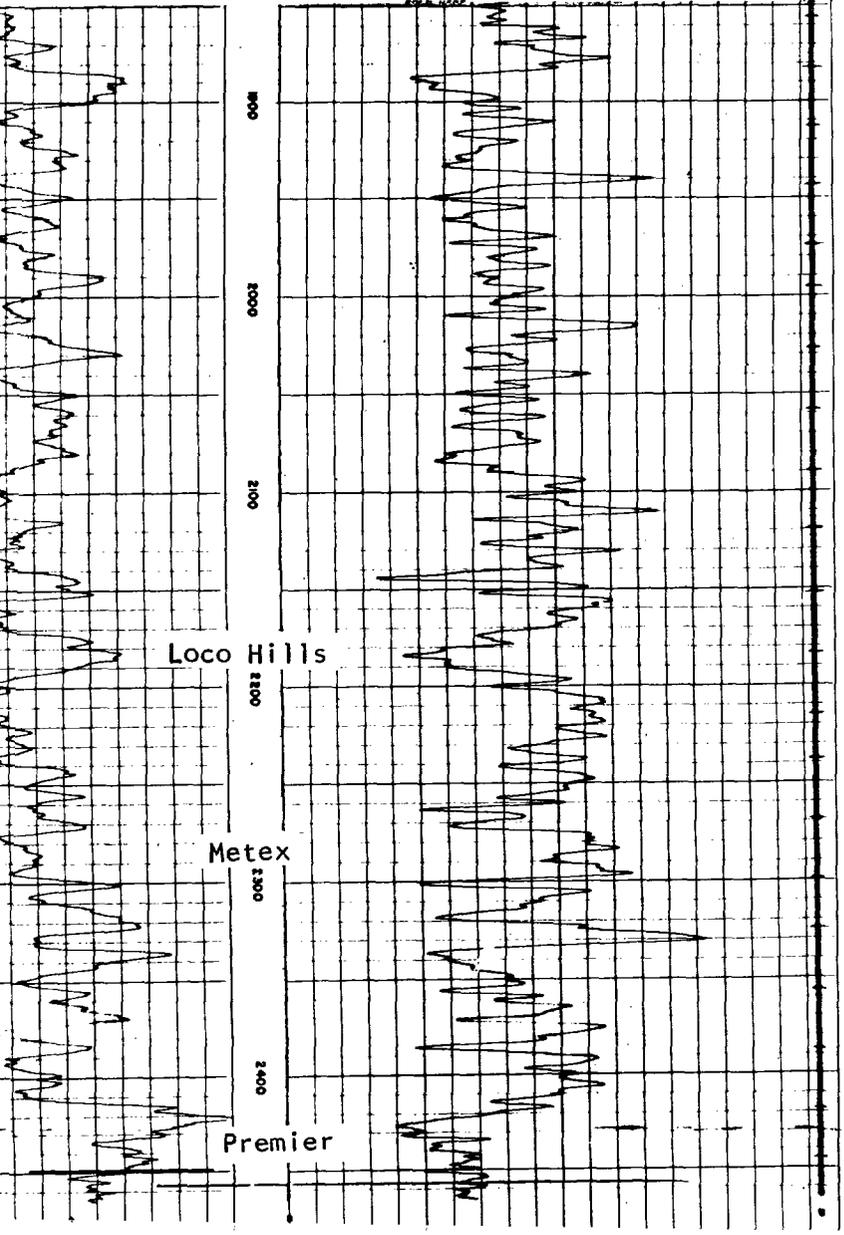
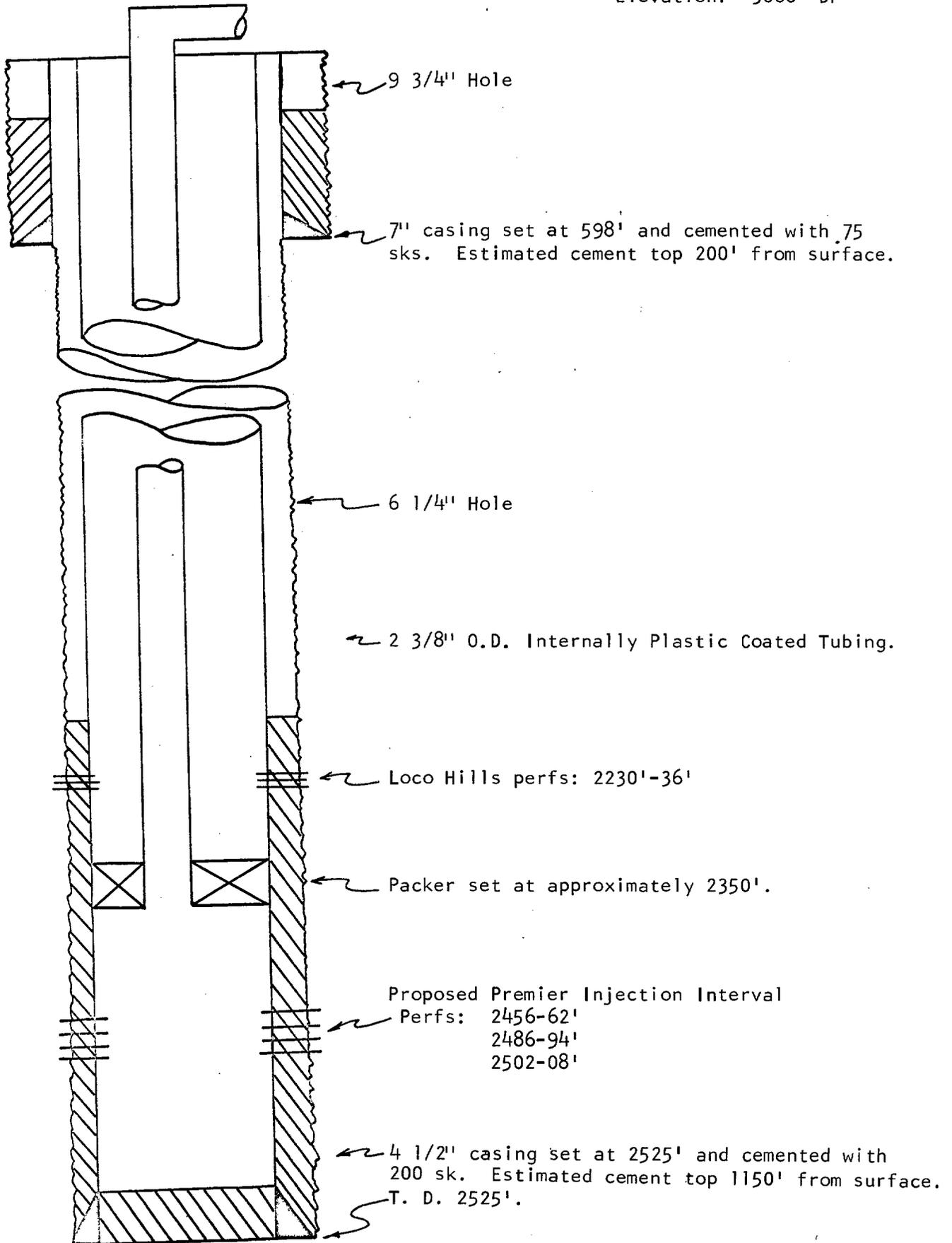


Exhibit 3 - Diagrammatic Sketches

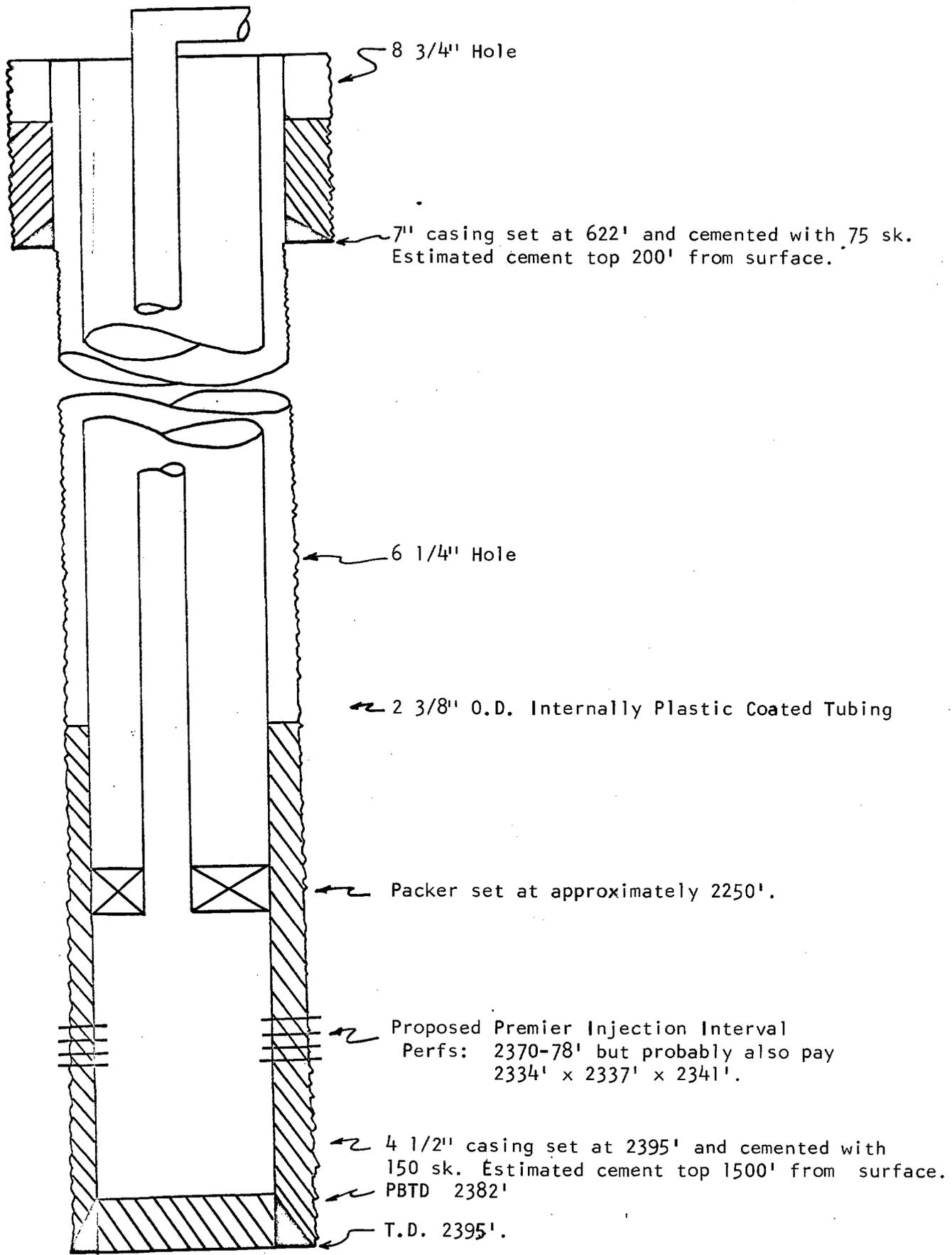
DIAGRAMMATIC SKETCH
PROPOSED WELL CONDITIONS
ARTESIA UNIT WELL NO. 20

Elevation: 3666' DF



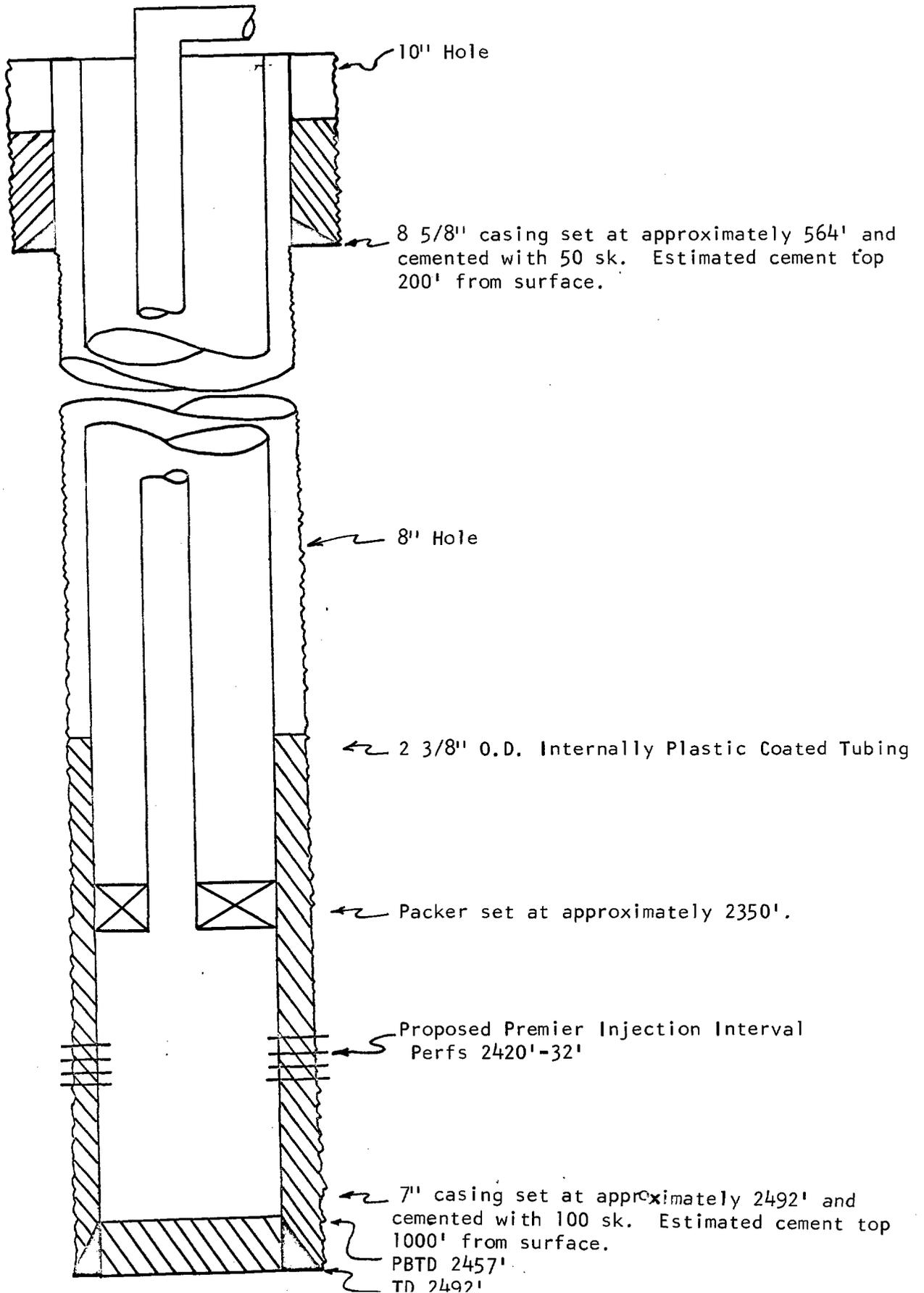
DIAGRAMMATIC SKETCH
PROPOSED WELL CONDITIONS
ARTESIA UNIT WELL NO. 23

Elevation: 3683 D.F.



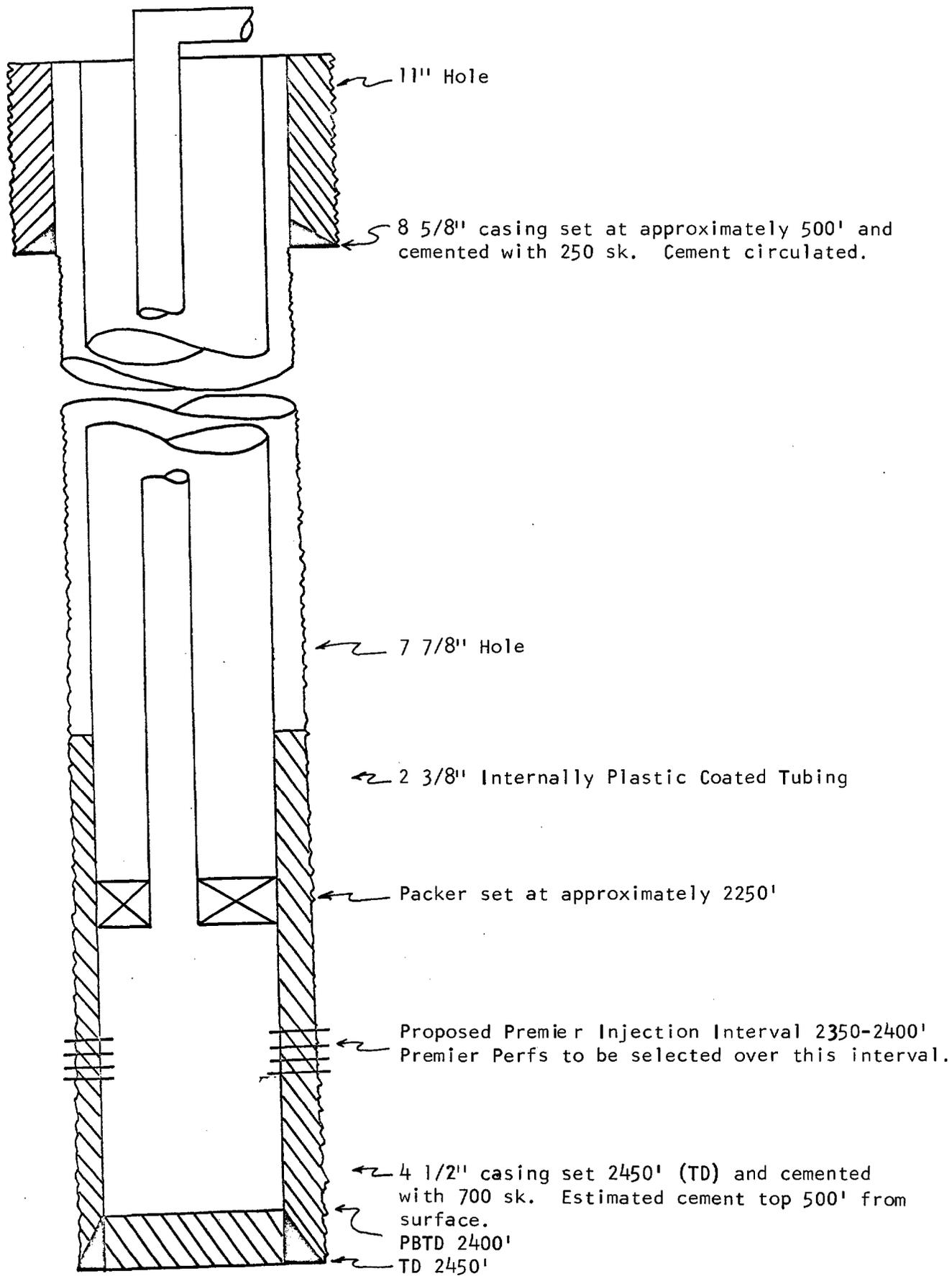
DIAGRAMMATIC SKETCH
PROPOSED WELL CONDITIONS
ARTESIA UNIT WELL NO. 36

Elevation: 3658 D. F.



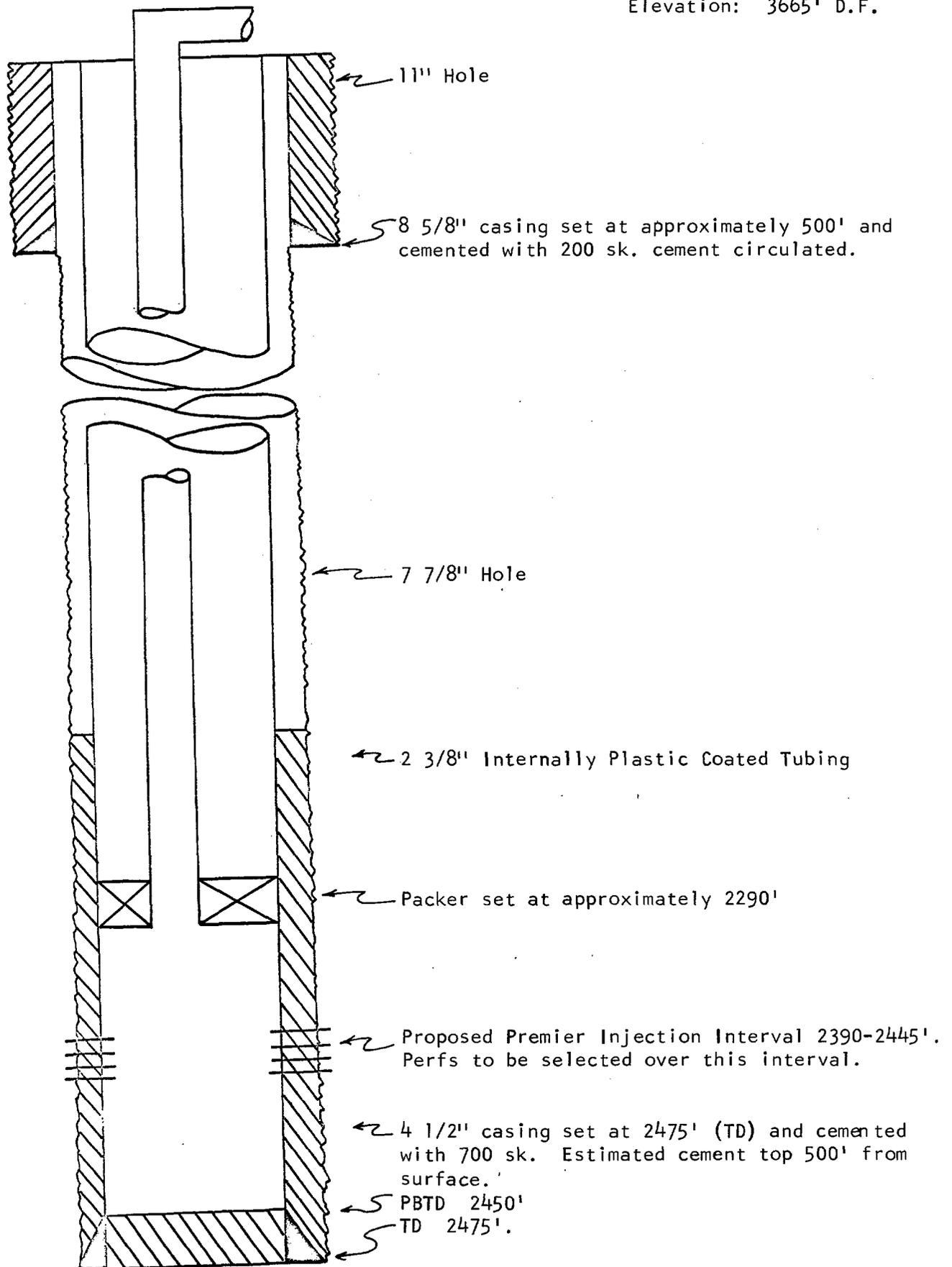
DIAGRAMMATIC SKETCH
PROPOSED WELL CONDITIONS
ARTESIA UNIT WELL NO. 66

Elevation: 3670' DF



DIAGRAMMATIC SKETCH
PROPOSED WELL CONDITIONS
ARTESIA UNIT WELL NO. 67

Elevation: 3665' D.F.



NEW MEXICO OIL CONSERVATION COMMISSION
GAS-OIL RATIO TESTS

C-116
Revised 1-1-65

Operator **DEPCO, Inc.** Pool **Artesia** County **Eddy**

Address **800 Central, Odessa, Texas 79760** TYPE OF TEST -- (X) Scheduled Special

LEASE NAME	WELL NO.	LOCATION			DATE OF TEST	TYPE OF TEST	CHOKE SIZE	TBG. PRESS.	DAILY ALLOWABLE	LENGTH OF TEST HOURS	PROD. DURING TEST			GAS M.C.F.	GAS - OIL RATIO CU.FT./BBL
		U	S	T							WATER BBLs.	GRAV. OIL	OIL BBLs.		
ARTESIA UNIT															
Offset to Well No. 20	17	F	36	17	28	1-68	P --	--	--	24	0	35-37	12	35.90	2990
						6-15-70	P --	--	--	24	0	35-37	24	7.75	323
No response to date but offset well does show response.	20	I	35	17	28	1-68	S --	--	--	24	--	35-37	1	0.50	500
	23	L	35	17	28	1-68	P --	--	--	24	0	35-37	4	1.75	1750
						4-19-70	P --	--	--	24	60	35-37	1	1.75	1750
	36	D	2	18	28	1-68	P --	--	--	24	0	35-37	1	1.74	1740
						5-20-70	P --	--	--	24	89	35-37	8	1.74	1740

No well will be assigned an allowable greater than the amount of oil produced on the official test.
 During gas-oil ratio test, each well shall be produced at a rate not exceeding the top unit allowable for the pool in which well is located by more than 25 percent. Operator is encouraged to take advantage of this 25 percent tolerance in order that well can be assigned increased allowables when authorized by the Commission.
 Gas volumes must be reported in MCF measured at a pressure base of 15,025 psia and a temperature of 60° F. Specific gravity base will be 0.60.

Report casing pressure in lieu of tubing pressure for any well producing through casing.
 Mail original and one copy of this report to the district office of the New Mexico Oil Conservation Commission in accordance with Rule 301 and appropriate pool rules.

I hereby certify that the above information is true and complete to the best of my knowledge and belief.

W. C. Smith
 W. C. Smith
 (Signature)

District Engineer
 (Title)

July 15, 1970
 (Date)