



COQUINA OIL CORPORATION
P. O. DRAWER 2960
MIDLAND, TEXAS 79702

July 21, 1978

JUL 24 1978

CONSERVATION (915) 682-6271

DHC # 255
Due 8/14/78

Department of Energy and Minerals
Oil Conservation Division
P. O. Box 2088
Santa Fe, New Mexico 87501

Re: Downhole Commingling
Vivian No. 1 Well

Attention: Mr. Joe D. Ramey
Secretary Director

Gentlemen:

Coquina Oil Corporation respectfully requests administrative approval to commingle production from the Drinkard and Wantz Granite Wash Pools in the wellbore of its Vivian No. 1 well in accordance with New Mexico Oil Conservation Commission Rule 303-C and that its earlier request for multiple completion be cancelled. ✓

Approval to downhole commingle the Drinkard and Wantz Granite Wash Pools has been previously obtained for Texaco's A.H. Blinebry Federal (NCT-1) Well No. 38 under NMOCC Order No. R-5657.

Coquina had requested dual completion on subject well with a hearing held before examiner Mr. Nutter. By telephone conversation with Mr. Nutter on June 12, 1978, testing of the shut-in Drinkard zone was required to evaluate its status as either a flowing oil or flowing gas zone. After setting a tubing plug to exclude Granite Wash production, a sliding sleeve was opened for testing of the Drinkard through tubing. A 24 hr. test on July 1, 1978, at the end of a 72 hr. flow period, flowed 17.9 BO, 6 BW, 503 MCF (GOR 28100) and reflected flowing oil well status and commingling potential with the Granite Wash flowing oil zone.

The attached "Data Sheet for Wellbore Commingling" provides the data required by NMOCC Rule 303-C-2(a,b,f,g, and h). Form C-116's are attached showing test data for the Granite Wash just prior to shut-in on June 22, 1978 to test the Drinkard, and for the Drinkard test on July 1, 1978. Production data tabulations and decline curves for each zone are attached as are a well and lease plat and wellbore diagrams for existing and proposed completion.

Department of Energy & Minerals
July 21, 1978
Page 2

This well was operated as a single completion from the Drinkard until recompletion as a single from the Granite Wash in December 1977. The Drinkard production history decline curve appears to offer a more stabilized basis for commingling than the July 1, 1978 test which probably reflects "flush" rates after six months shut-in.

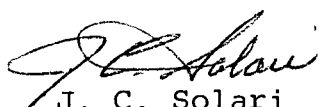
Coquina proposes to pull tubing and packer and rerun tubing with a tubing anchor to accommodate commingled flowing oil production from both zones now and artificial lift when later required.

It is recommended that 41% of the commingled oil and 62% of the gas be assigned to the Drinkard zone with 59% of the oil and 38% of the gas assigned to the Wantz Granite Wash in accordance with decline curve and test data.

Ownership of the two zones is common throughout. Static bottom hole pressure for the zones are in the same range and both zones are flowing oil status with the commingled oil rate less than 50 BOPD. Commingling will not jeopardize efficiency of any secondary recovery operations. All off-set operators have been notified of this application by copy of this letter.

Yours very truly,

COQUINA OIL CORPORATION



J. C. Solari
Manager of Reservoir

JCS:kyr
attachments

cc: Off-set Operators
(see attached list)

Mr. Jason Kellihan
P. O. Box 1769
Santa Fe, New Mexico 87501

NMOCC
P. O. Box 1980
Hobbs, New Mexico 88240

$$\begin{array}{r} D_n \quad 13.5 \text{ BO } 41\% \quad 329 \text{ mcf } 62\% \\ 2_n W \quad 19.4 \text{ BO } 59\% \quad \frac{205}{534} \quad 38\% \\ \hline 32.9 \end{array}$$

Bottom ff: 7284 max prod = 50 BOPD

Wantz Gr W GOR = 2000

DATA SHEET FOR WELLBORE COMMINGLING

Operator: Coquina Oil Corporation
Address: P. O. Drawer 2960, Midland, Texas 79702
Lease and Well No.: Vivian No. 1
Location: Unit F, 1,787' FNL, & 1,787' FWL, Section 30, Township 22S,
Range 38E, Lea County, New Mexico.

WELL DATA:

Name of Pool	<u>Pool</u>		<u>Pool</u>
	<u>Drinkard</u>		<u>Wantz (Granite Wash)</u>
Producing Method	<u>Flow</u>		<u>Flow</u>
BHP (Static @ Mid-Perf)	<u>603 PSIG to 725 PSIG⁽¹⁾</u>		<u>634 PSIG to 745 PSIG⁽²⁾</u>
Type Crude	<u>Sweet</u>		<u>Sweet</u>
Gravity	<u>41.4 API</u>		<u>36.3 API</u>
GOR Limit	<u>6,000</u>		<u>2,000</u>
Completion Interval	<u>6,391'-6,448'</u>		<u>7,256'-7,284'</u>
Current Test Date	<u>7-1-78</u>	<u>Prod'n History⁽³⁾</u>	<u>6-22-78</u>
Oil BO/D	<u>17.9</u>	<u>13.5</u>	<u>19.4</u>
Water BW/D	<u>6</u>	<u>-</u>	<u>0</u>
Gas MCF/D	<u>503</u>	<u>329</u>	<u>205</u>
GOR	<u>28100</u>	<u>24370</u>	<u>10600</u>
Oil Price \$/BB1	<u>15.27</u>		<u>15.27</u>
Gas Price \$/MCF	<u>0.338</u>		<u>0.65</u>
Daily Income \$/Day	<u>Shut-In</u>		<u>\$429/Day</u>

COMMINGLED DATA:

Gravity of Oil	<u>38.4⁰ API</u>	
Commingled Product Prices	<u>Oil \$15.27/BB1</u>	<u>Gas \$0.34 & \$.65/MCF</u>
Daily Gross Income	<u>32.9 BO X 15.27 + 329 M/D X .338 + 205 MCF/D X</u> <u>.65 = \$747/day.</u>	

NOTES:

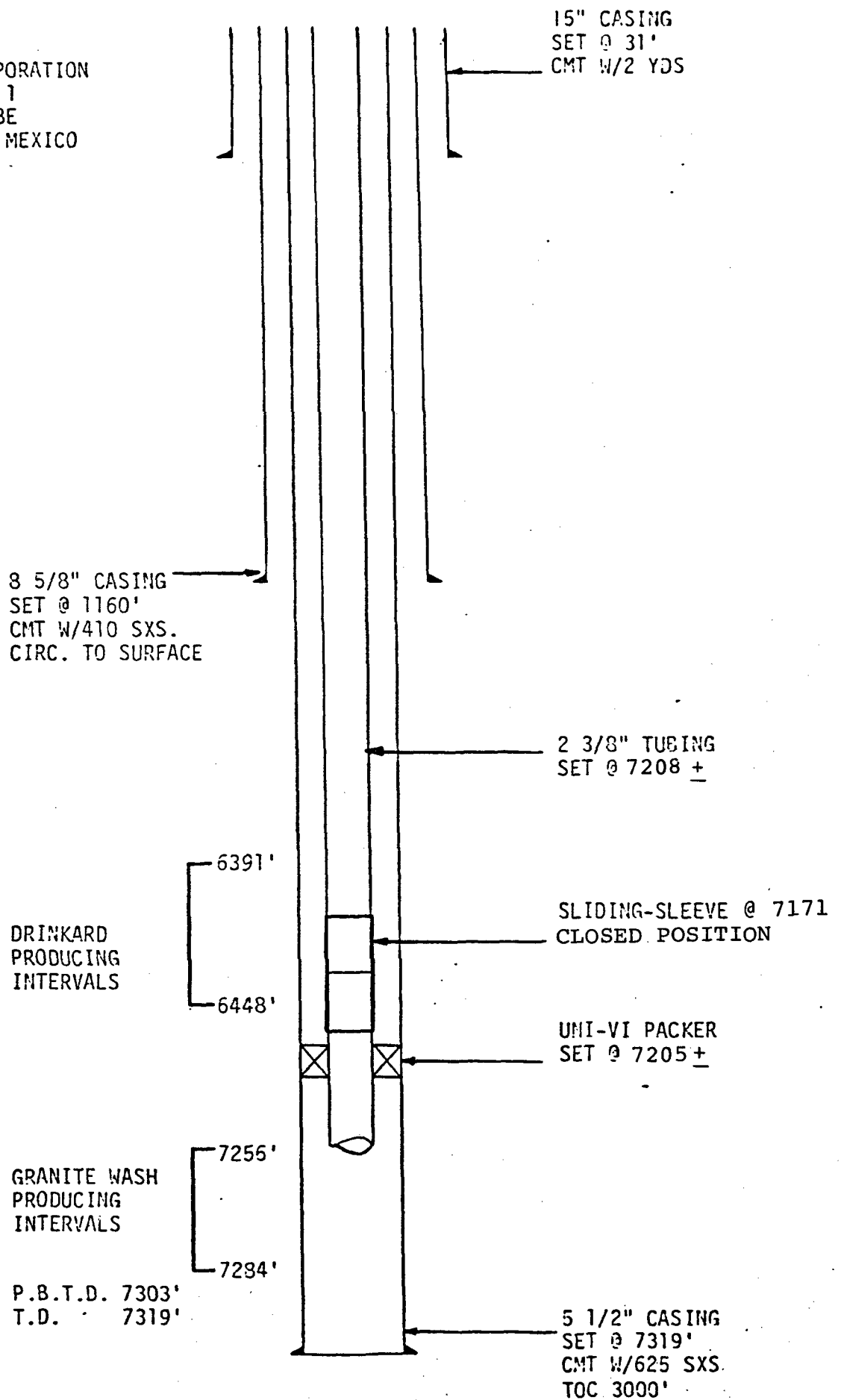
(1) See attached pressure survey dated 6-26-78.

(2) See attached pressure survey dated 6-22/23-78.

(3) Attached Drinkard Production Test Data on 7-1-78 was for the last 24 hrs of 72 hr flow period. The zone had been S. I. for about six months and probably is a flush rate, as compared to stabilized flow data from attached Production Decline Curve Historical Data. The historical decline data appears better for commingling basis.

EXISTING COMPLETION

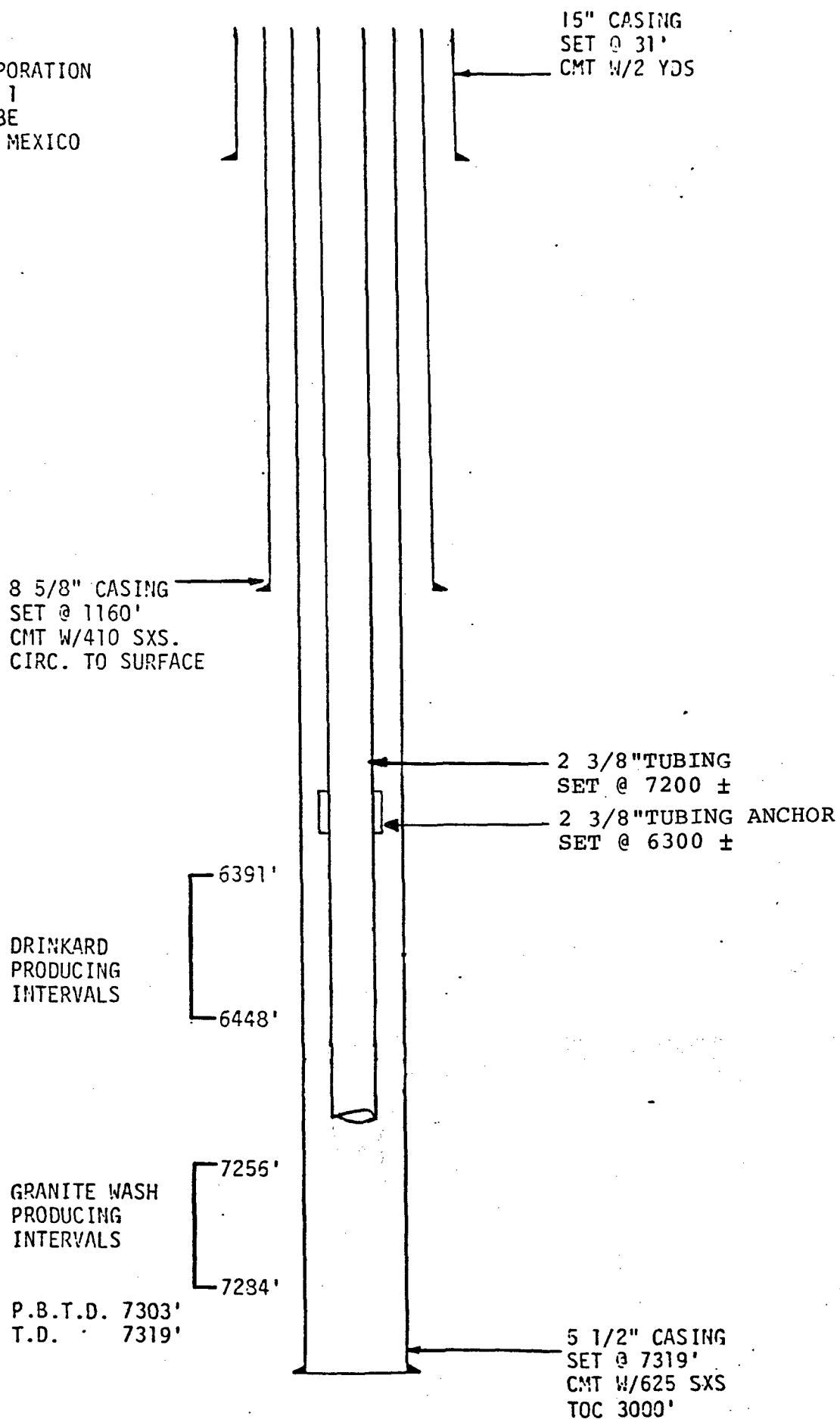
COQUINA OIL CORPORATION
VIVIAN WELL NO. 1
SEC. 30, 22S, 38E
LEA COUNTY, NEW MEXICO



DIAGRAMMATIC SKETCH

PROPOSED COMMINGLED COMPLETION

COQUINA OIL CORPORATION
VIVIAN WELL NO. 1
SEC. 30, 22S, 38E
LEA COUNTY, NEW MEXICO



DIAGRAMMATIC SKETCH

CALCULATIONS OF COMMINGLING RATIOS

COQUINA VIVIAN #1

Drinkard and Wantz (Granite Wash) Pools

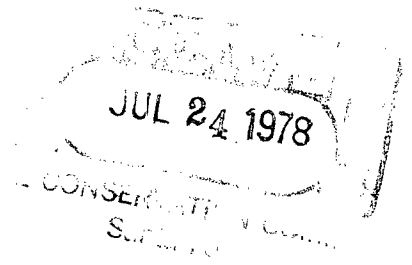
TEST DATA	DRINKARD Production History	WANTZ GRANITE WASH 6-22-78	COMMINGLED -
Oil BOPD	13.5	19.4	32.9
% Commingled	41.0%	59.0%	100.0%
Gas MCFPD	329	205	534
% Commingled	62%	38%	100%

Water production from only Drinkard zone.

COQUINA OIL CORPORATION

VIVIAN WELL NO. 1

Sec. 30, 22S, 38E
Lea County, New Mexico



LIST OF OFFSET OPERATORS

Texaco, Inc.
P. O. Box 728
Hobbs, New Mexico 88240

Gulf Oil Co., U. S.
P. O. Box 670
Hobbs, New Mexico 88240

Hanson Oil Corp.
P. O. Box 1515
Roswell, New Mexico 88201

Summit Energy, Inc.
1925 Mercantile Dallas Bldg.
Dallas, Texas 72501

NEW MEXICO OIL CONSERVATION COMMISSION
GAS-OIL RATIO TESTS

C-116
Revised 1-1-65

Operator		Pool		County	
Coquina Oil Corporation		Drinkard		Lea	
Address P. O. Drawer 2960, Midland, Texas 79702				TYPE OF TEST - (X) ☐ Scheduled ☒ Special	
LEASE NAME		WELL NO.		DATE OF TEST	
Vivian		1 F 30 22 38		7/1/78 F 24/64 130 -0- 24	
		LOCATION U S T R		CHOKE SIZE TBG. PRESS. DAILY ALLOW-ABLE LENGTH OF TEST HOURS	
				WATER BBL.S. GRAV. OIL BBL.S. GAS M.C.F. GAS - OIL RATIO CU.FT./BBL.	
				6 41.4 17.9 503 28100	

NOTE: Above test conducted after discussion w/Mr. Nutter (NMOCC) on 6/12/78 to determine classification of well as Oil or Gas in response to a request for dual completion or proposal to commingle. A tubing plug was set to blank off Wantz (Granite Wash) and a sliding sleeve was opened to permit flow from Drinkard perforations for a through tubing flow test. The above 24 hr test was at the end of a 72 hr flow period of which the NMOCC, Hobbs office, had been notified. This zone had been shut-in since 12/77.

JUL 24 1978

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.

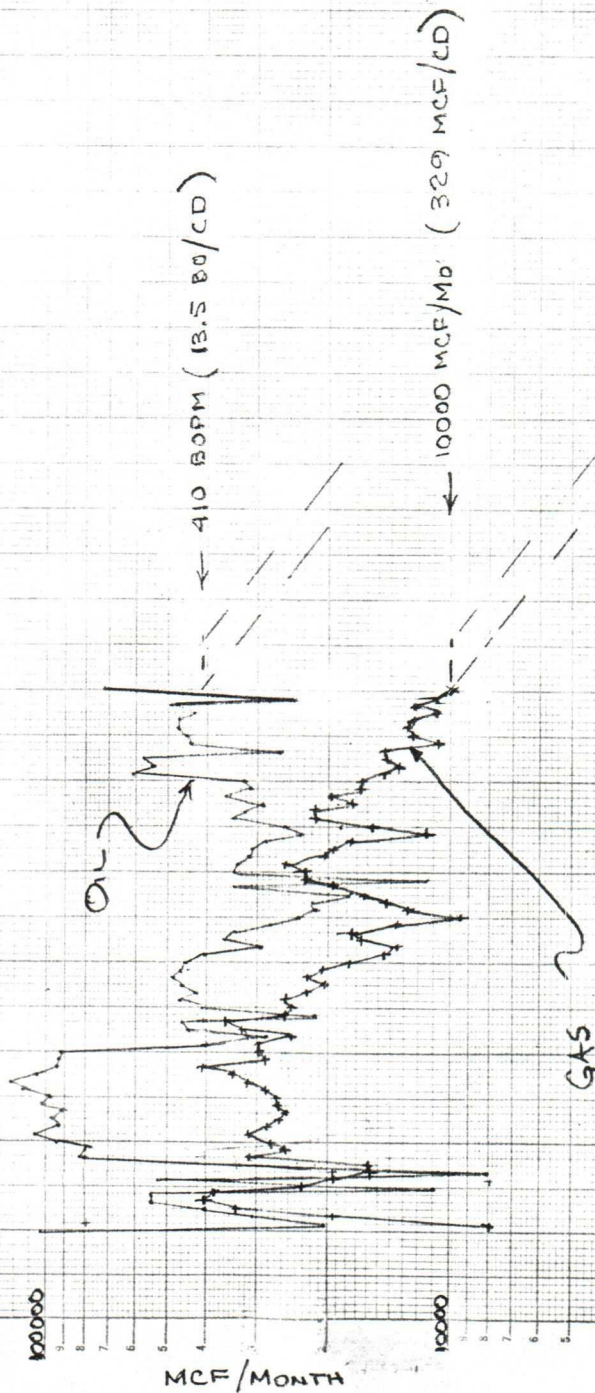

(Signature)
Manager of Reservoirs
(Title)
July 20, 1978
(Date)



RYDER SCOTT COMPANY
PETROLEUM ENGINEERS

OPERATOR CAQUINA OIL CORPORATION
LEASE #1 VIVIAN #1
FIELD DRINKARD
ACRES 40.00 DRINKARD
COUNTY Lea New Mexico

SHUT-IN TO TEST GRANITE WASH



1000

BOIL/MONTH

100

RS

State New Mexico

Date	Oil or Condensate - Bbls.			Gas - MCF			Water Prod.		GOR or Yield	Remarks
	Monthly	Year to Date	Cumulative	Monthly	Year to Date	Cumulative	Bbls.			
1/77	610		30711	14,491		1,372,467				
2	552			13,205						
3	573			14,371						
4	735			14,445						
5	440			10,639						
6	457			12,436						
7	478			12,845						
8	471			12,441						
9	426			10,828						
10	491			12,015						
11	345			10,822						
12	714			1874						WS STOPPED 12-27-77
Total	5732		36443	148489		1,520,956				

[illegible][illegible]

Operator CoquinaLease Viggo 1Field DEINKARDCounty LeaState New Mexico

RS

Date	Oil or Condensate - Bbls.			Gas - MCF			Water Prod.		GOR or Yield	Remarks
	Monthly	Year to Date	Cumulative	Monthly	Year to Date	Cumulative	Bbls.			
1/74	408		15705	29729		655,251				
2	285			24685						
3	444			32537						
4	461			35706						
5	218			25564						
6	411			24545						
7	462			25226						
8	428			22601						
9	461			20099						
10	482			22312						
11	462			20775						
12	447			17720						
Total	4967		23674	301725		956,976				

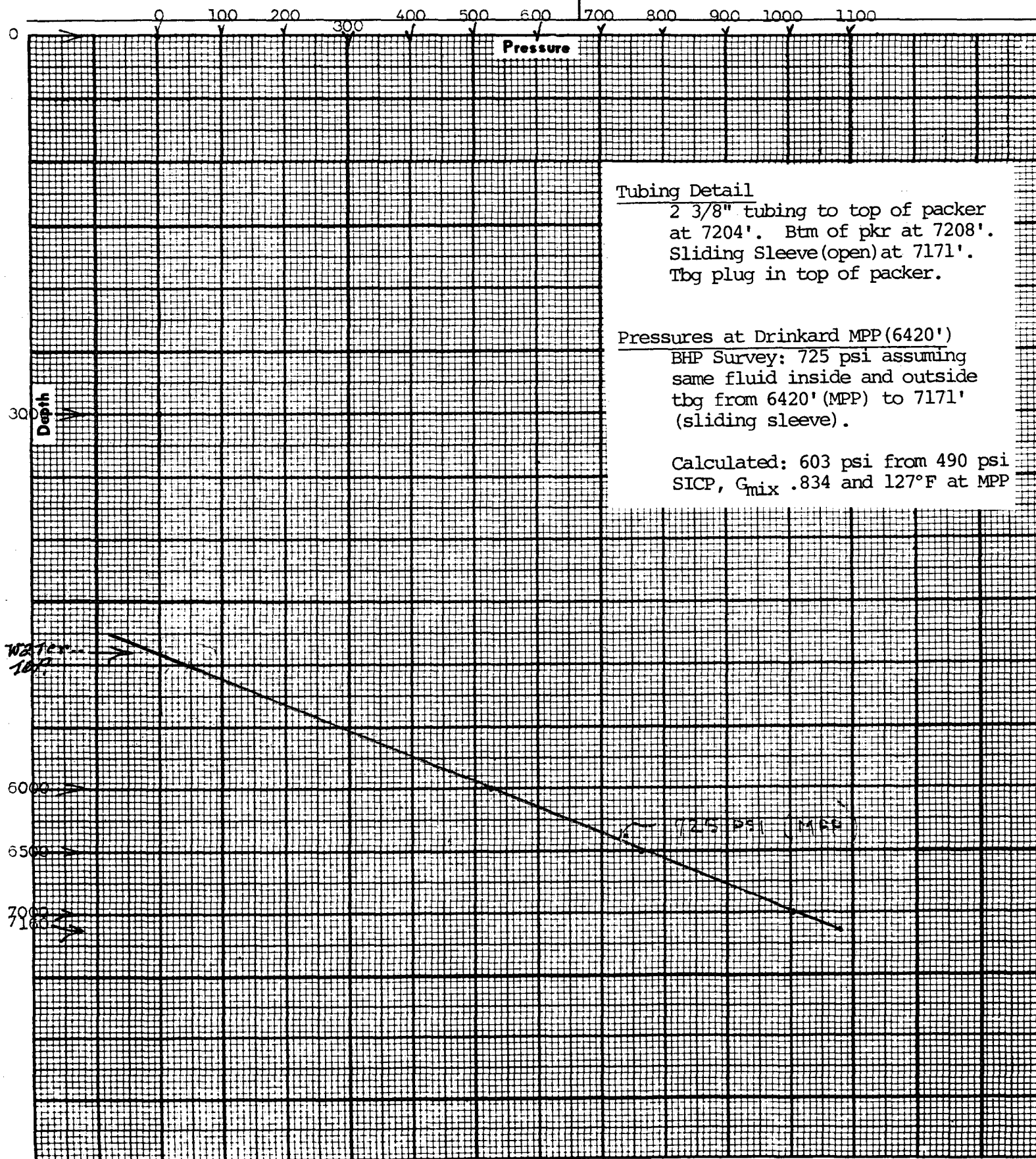
1/75	400			14508						
2	208			13414						
3	362			16583						
4	341			17563						
5	379			13649						
6	237			9459						
7	214			12772						
8	218			14122						
9	178			16317						
10	342			19446						
11	113			21925						
12	343			22862						
Total	3334		27008	192,620		1,149,596				

1/76	337			25460						
2	316			20259						
3	311			17021						
4	285			17545						
5	234			11412						
6	259			15524						
7	344			21489						
8	322			21436						
9	271			17357						
10	363			19,990						
11	319			16,586						
12	322			16,492						
Total	3703		30711	222,871		1,372,467				

BOTTOM HOLE PRESSURE SURVEY REPORT

OPERATOR COQUINA OIL CORPORATION
LEASE Vivian Drinkard
WELL NO. 1
FIELD _____
DATE 6/26/78 TIME 5:30 PM.
STATUS Shut-in TEST DEPTH 7160 Ft.
TIME S.I. 48 Hrs. LAST TEST DATE _____
CAS. PRES. 490 Lbs. BHP LAST TEST _____
TUB. PRES. 0 BHP CHANGE _____
ELEV. _____ FLUID TOP _____
DATUM _____ WATER TOP 4900 Ft.
TEMP BH. 109 RUN BY Bennett
CLOCK NO. _____ GAUGE NO. _____
ELEMENT NO. 9526

DEPTH	PRESSURE	GRADIENT
		Lbs./100 Ft.
0 Ft.	00 Lbs.	
3000 "	00 "	
6000 "	524 "	17.5
6500 "	763 "	47.8
7000 "	1002 "	47.8
7160 "	1079 "	48.1
6420 " (MPP)	725 "	



BOTTOM HOLE PRESSURE SURVEY REPORT

OPERATOR COQUINA OIL CORPORATION
LEASE Vivian Drinkard
WELL NO. 1
FIELD _____
DATE 6/26 & 27 /78 TIME 13.5 Hrs. BHP build-up
STATUS Shut-in TEST DEPTH 7160 Ft.
TIME S.I. 50 Hrs. LAST TEST DATE _____
CAS. PRES. 490 Lbs BHP LAST TEST _____
TUB. PRES. 0 BHP CHANGE _____
ELEV. _____ FLUID TOP _____
DATUM _____ WATER TOP _____
TEMP 109 RUN BY Bennett
CLOCK NO. _____ GAUGE NO. _____
ELEMENT NO. 9526

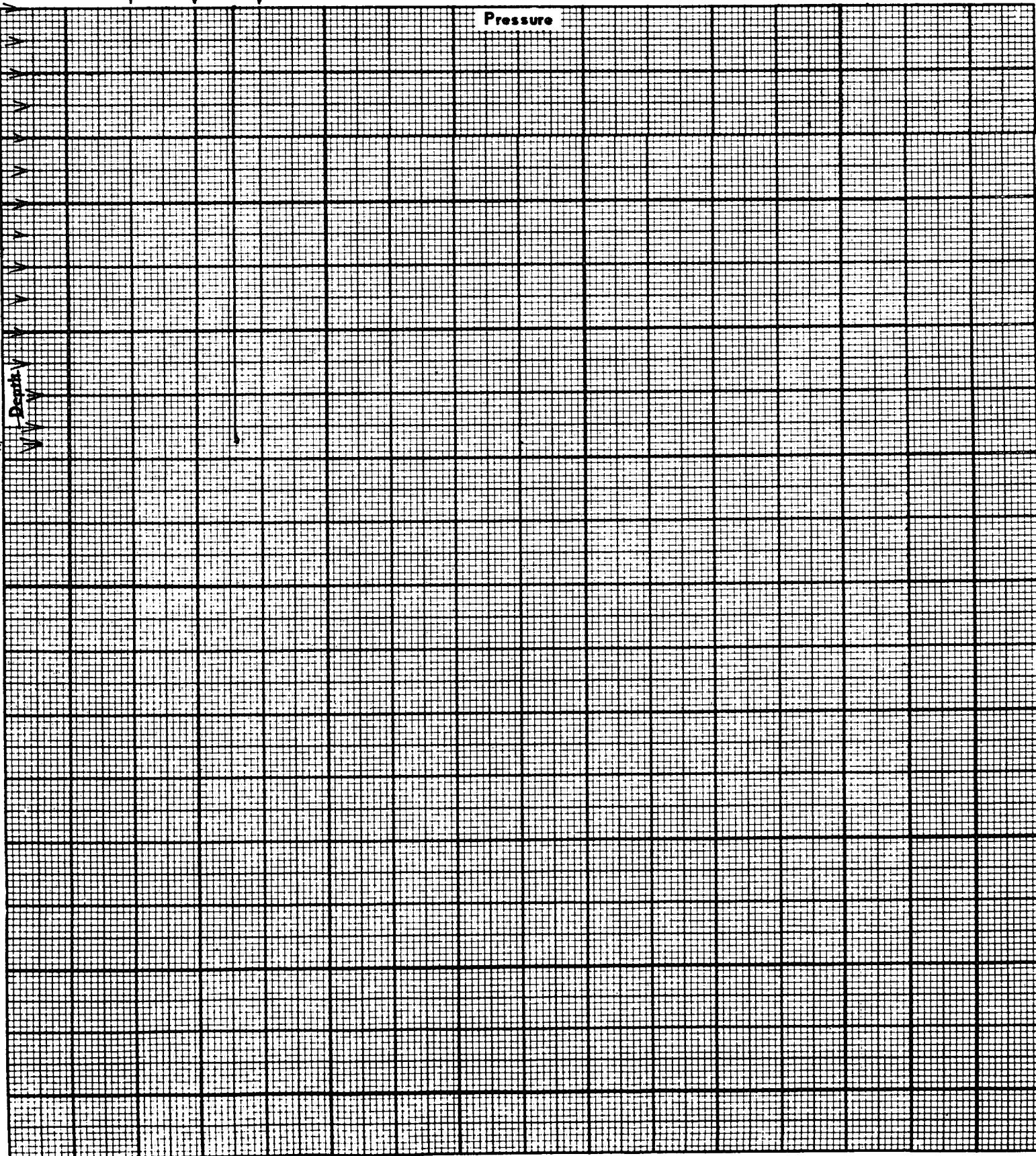
DEPTH PRESSURE GRADIENT

BH. pressure @ start of 13.5 hr. test was 1079 Lbs.

Pressure was stabilized through the 13.5 hrs, 1079 Lbs. @ end.

1000 1050 1100

Pressure



COQUINA OIL CORP.
 VIVIAN #1
 WANTZ
 GRANITE WASH
 LEA N. MEX

SI 6/22 TO TEST DEPLETED

6/22/78 TEST RATE 205 M/D (6232 MCF/MO)

6/22/78 TEST RATE 19.4 BOPD (590 BOPM)

OIL
 B/MONTH

10000

1000

100

19 77 19 78 19 79

Operator COQUINA

Lease Kuon

Field WANTZ (GRANITE WASH)

County

LEA Co

State

N.M.

Re

[illegible]

1/									
2									
3									
4									
5									
6									
7									
8									
9									
10									
11									
12									
Total									

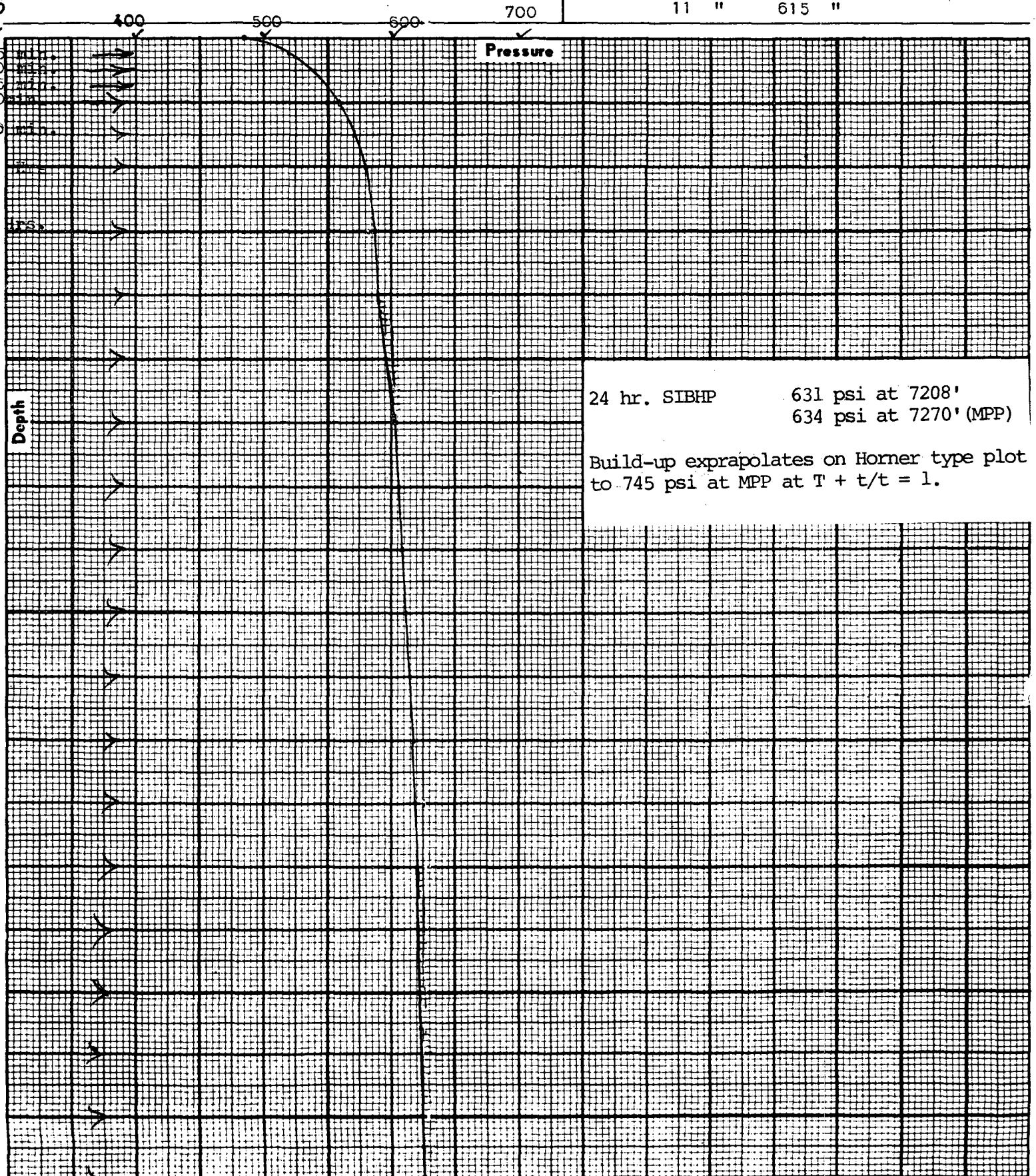
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Bennett Wire Line Service
305 McArthur Ave. Ph. (505) 746 - 3281
Artesia, New Mexico - 88210

BOTTOM HOLE PRESSURE SURVEY REPORT

OPERATOR COQUINA OIL CORP.
LEASE Vivian / Granite Wash
WELL NO. 1
FIELD _____
DATE 6/22, 23/78 TIME 24 Hrs. Pressure Build up
STATUS _____ TEST DEPTH 7208 Ft.
TIME S.I. _____ LAST TEST DATE _____
CAS. PRES. _____ BHP LAST TEST _____
TUB. PRES. _____ BHP CHANGE _____
ELEV. _____ FLUID TOP _____
DATUM _____ WATER TOP _____
TEMP _____ RUN BY _____
CLOCK NO. _____ GAUGE NO. _____
ELEMENT NO. _____

DEPTH	PRESSURE	XX	XX
7208 Ft. Flow.	485	Lbs.	12 Hrs. 618
Si. 15 min.	520	"	13 " 620
30 "	540	"	14 " 621
45 "	550	"	15 " 621
60 "	560	"	16 " 622
90 "	570	"	17 " 624
2 Hrs.	580	"	18 " 625
3 "	585	"	19 " 626
4 "	590	"	20 " 627
5 "	595	"	21 " 628
6 "	600	"	22 " 629
7 "	603	"	23 " 630
8 "	606	"	24 " 631
9 "	609	"	
10 "	612	"	
11 "	615	"	



C-116
Revised 1-1-65

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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.


(Signature)

Manager of Reservoirs

July 20, 1978

(Date)

BOTTOM HOLE PRESSURE SURVEY REPORT

OPERATOR COQUINA OIL CORP.
LEASE Vivian / Granite Wash
WELL NO. 1
FIELD _____
DATE _____ TIME _____
STATUS _____ TEST DEPTH _____
TIME S.I. _____ LAST TEST DATE _____
CAS. PRES. _____ BHP LAST TEST _____
TUB. PRES. _____ BHP CHANGE _____
ELEV. _____ FLUID TOP _____
DATUM _____ WATER TOP _____
TEMP _____ RUN BY _____
CLOCK NO. _____ GAUGE NO. _____
ELEMENT NO. _____

DEPTH

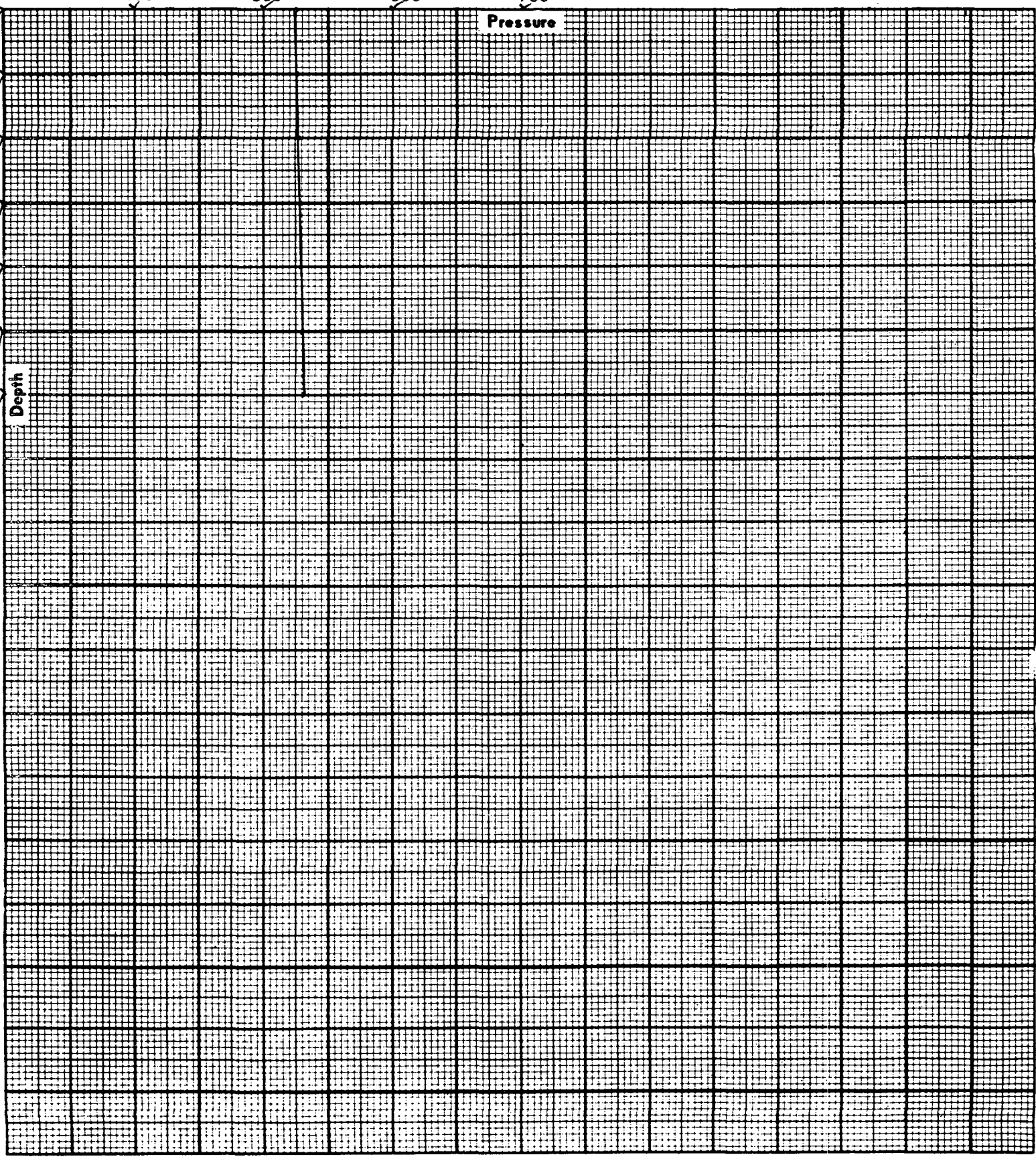
PRESSURE

GRADIENT

PAGE NO. 2

400 500 600 700
Pressure

Depth



COQUINA OIL CORPORATION

VIVIAN WELL NO. 1

Sec. 30, 22S, 38E
Lea County, New Mexico

LIST OF OFFSET OPERATORS

Texaco, Inc.
P. O. Box 728
Hobbs, New Mexico 88240

Gulf Oil Co., U. S.
P. O. Box 670
Hobbs, New Mexico 88240

Hanson Oil Corp.
P. O. Box 1515
Roswell, New Mexico 88201

Summit Energy, Inc.
1925 Mercantile Dallas Bldg.
Dallas, Texas 72501

OIL CONSERVATION COMMISSION
Hobbs DISTRICT

OIL CONSERVATION COMMISSION
BOX 2088
SANTA FE, NEW MEXICO

DATE July 24, 1978

RE: Proposed MC _____
Proposed DHC X _____
Proposed NSL _____
Proposed SWD _____
Proposed WFX _____
Proposed PMX _____

JUL 27 1978

Gentlemen:

I have examined the application dated _____
for the Coquina Oil Corp. Vivian #1-F 30-22-38
Operator Lease and Well No. Unit, S-T-R

and my recommendations are as follows:

O.K.---J. S.

Yours very truly,

