

Ken Bush
NMOCD CASE #8946

BUSCH EXHIBIT #1

CORE LABORATORIES, INC.
Reservoir Fluid Analysis

Page 6 of 12
File ARFL-860042
Well Bette No. 1
COPY

DIFFERENTIAL VAPORIZATION AT 170°F.

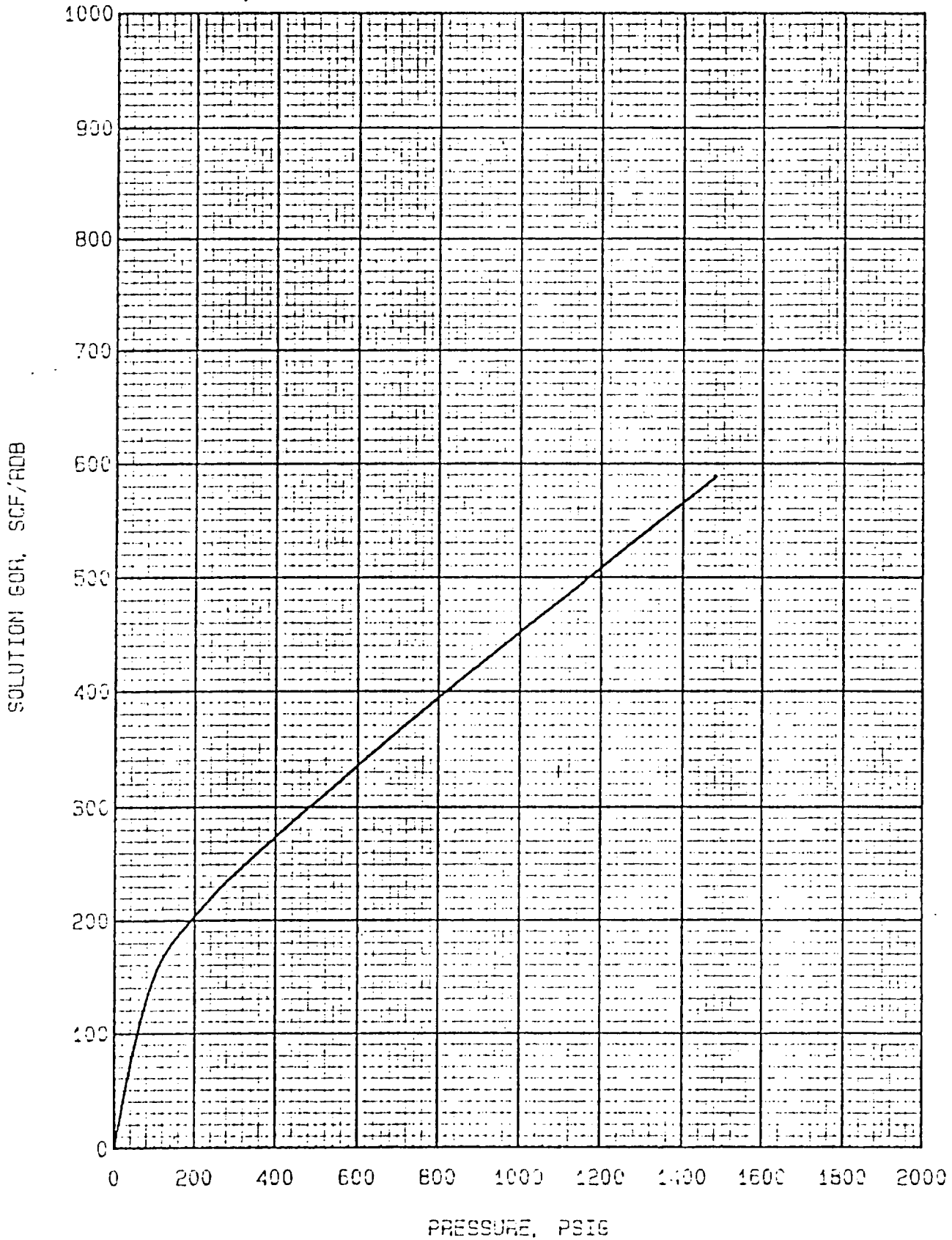
Pressure, PSIG	Solution Gas/Oil Ratio(1)	Relative Oil Volume(2)	Relative Total Volume(3)	Oil Density, Gm/Cc	Deviation Factor, Z	Gas Formation Volume Factor(4)	Incremental Gas Gravity
1482	588	1.380	1.380	0.6991			
1300	537	1.358	1.465	0.7045	0.852	0.01179	0.711
1100	480	1.333	1.605	0.7113	0.865	0.01412	0.721
900	423	1.307	1.824	0.7160	0.878	0.01747	0.731
700	365	1.281	2.184	0.7252	0.896	0.02281	0.757
500	305	1.253	2.881	0.7327	0.914	0.03231	0.794
300	241	1.222	4.576	0.7411	0.939	0.05426	0.888
153	184	1.192	8.692	0.7489	0.962	0.10424	1.032
90	142	1.166	14.566	0.7558	0.973	0.16868	1.231
0	0	1.055		0.7769			1.921
		at 60°F. = 1.000					

Gravity of Residual Oil = 40.9°API @ 60°F.

- (1) Cubic feet of gas at 15.025 psia and 60°F. per barrel of residual oil at 60°F.
- (2) Barrels of oil at indicated pressure and temperature per barrel of residual oil at 60°F.
- (3) Barrels of oil plus liberated gas at indicated pressure and temperature per barrel of residual oil at 60°F.
- (4) Cubic feet of gas at indicated pressure and temperature per cubic foot at 15.025 psia and 60°F.

These analyses, opinions or interpretations are based on observations and material supplied by the client to whom, and for whose exclusive and confidential use, this report is made. The interpretations or opinions expressed represent the best judgment of Core Laboratories, Inc. (all errors and omissions excepted); but Core Laboratories, Inc. and its officers and employees, assume no responsibility and make no warranty or representations as to the productivity, proper operation, or profitability of any oil, gas or other mineral well or land in connection with which such report is used or relied upon.

SOLUTION GAS/OIL RATIO DURING DIFFERENTIAL VAPORIZATION



R3W

R2W

R1W

R1E

A: SUN
 HOMESTEAD RANCH #2, M-34-25N-2W
 B: MOBIL
 LINDRITH B UNIT #37, G-4-24N-2W
 C: MALLON
 HOWARD FED. 1 #8, H-1-25N-2W
 D: MALLON
 FISHER FED. 2 #1, A-2-25N-2W
 E: B-M-G
 COU #31 (N-31), N-31-26N-1W
 F: B-M-G
 COU #30 (F-30), F-30-25N-1W
 G: B-M-G
 COU #13 (L-27), L-27-26N-1W
 H: B-M-G
 COU #25 (B-32), B-32-25N-1W
 I: AMOCO
 SCHMITZ ANTICLINE FED. #1, K-25-24N-1W
 J: AMOCO
 STATE CC #1, J-26-24N-1W
 K: NASSAU
 WISHING WELL #7, G-35-24N-1W
 L: AMOCO
 HILL TRUST FED. COM. #1, F-5-25N-2W
 M: AMOCO
 BEAR CANYON UNIT #1, G-15-26N-2W
 N: AMOCO
 BEAR CANYON UNIT #2, C-10-26N-2W
 O: AMOCO
 BEAR CANYON UNIT #3, C-11-26N-2W
 P: SUEX
 MOBIL FED. #1, J-36-24N-1W

 Boulder
 Mancos

 T
 28
 N

 East Puerto
 Chiquito Mancos

 T
 27
 N

 N
 O

SANTA

 T
 26
 N

 West Puerto
 Chiquito Mancos

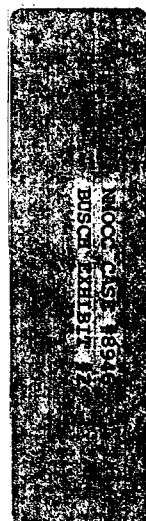
 Gavilan
 Mancos

 T
 25
 N

FOREST

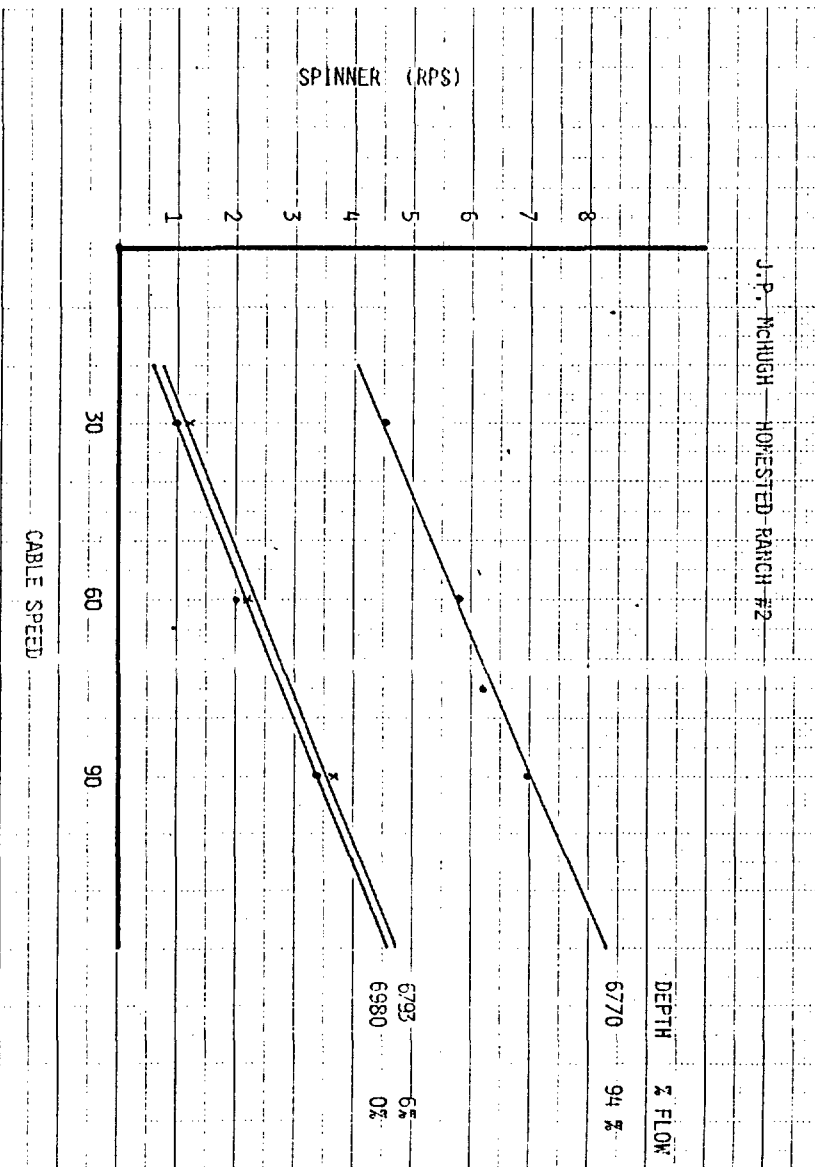
 T
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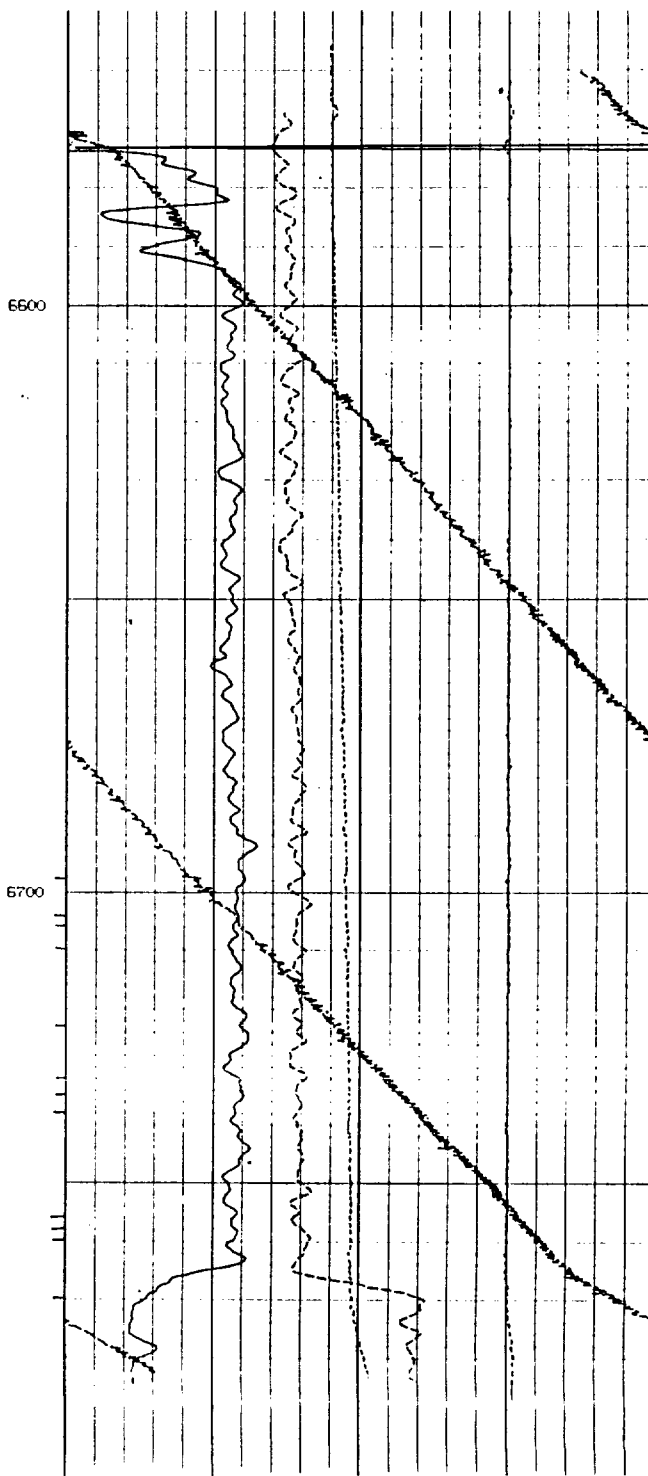
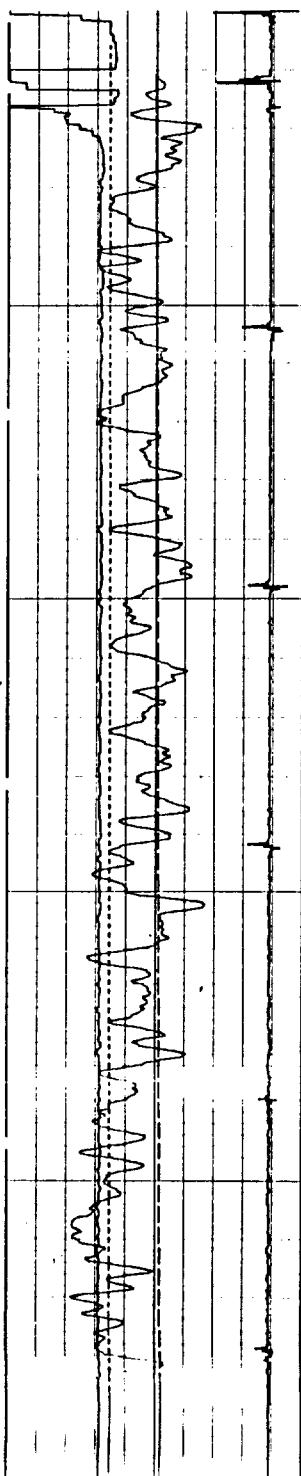
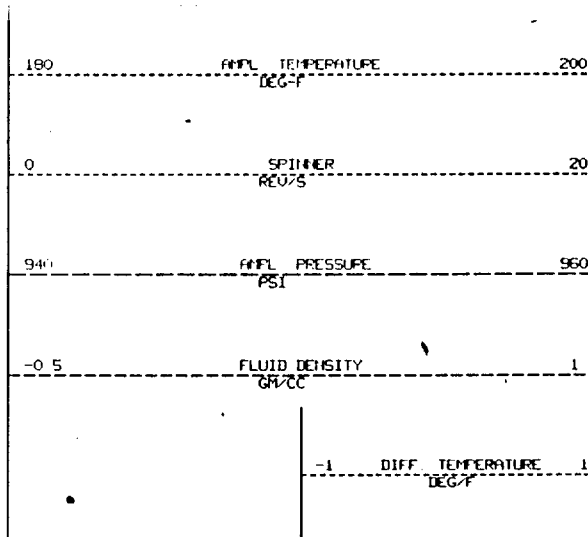
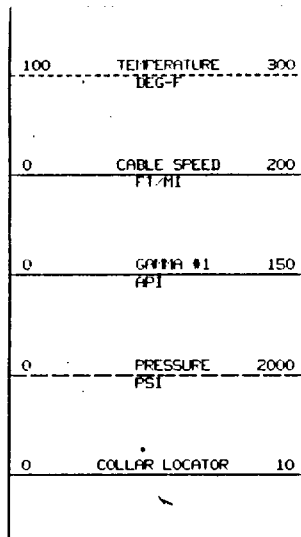
 Regina
 Gallup

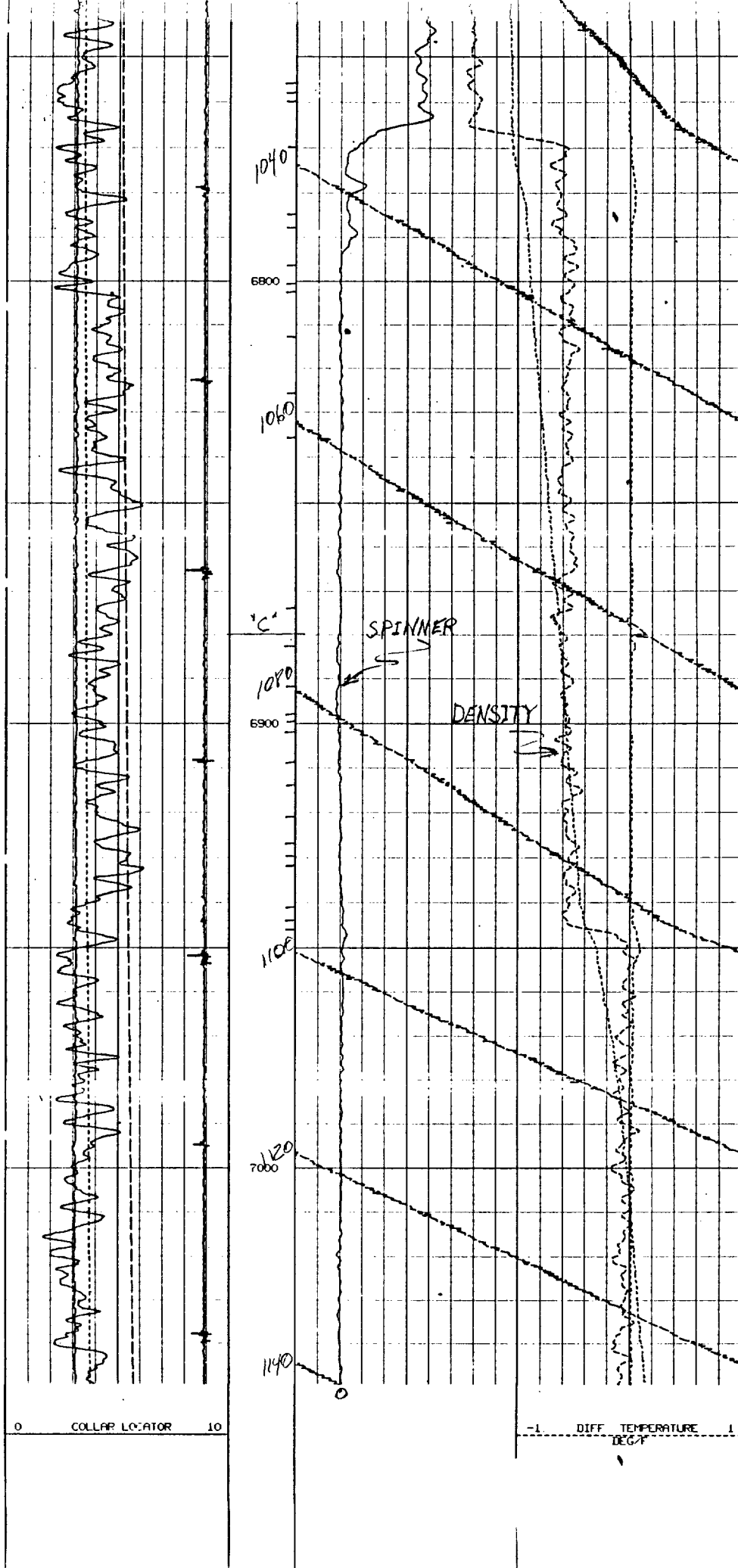
 T
 23
 N


COMBINATION
PRODUCTION
LOG

NONE







MOORE CASE #8946
BUSCH EXHIBIT #4

WELLEX

CRSSED HOLE

COMBINATION
PRODUCTION
LOG

COMP. MOBIL PRODUCING TEXAS, INC.
WELL LINDRITH B-37
FIELD GAVILAN MANCOS
COUNTY RIO ARriba ST. N. H.
SEC. 4 TWP. 24N RGE. 2W
C.L. ELEV. 7120.0
LOG MEASURED FROM K.B. 14.0 FT. ABOVE PERM. DATUM
C.L. 7120.0
DATE 03/20/87
RUN NO. ONE
DEPTH-OUTLET 6558 PERD
DEPTH-WELEX 6860.0
31M LOG INTER 6859.0
OP LOG INTER 6490.0
TYPE FLUID IN HOLE WATER, GAS, OIL
SR. INT. PER HALL N/A
DENSITY N/A
LEVEL FULL
MAX REC TEMP 117.1 DEGREES
OPERATING REC TIME NONE
EQUIPMENT LOCATION 2887 GILLETTE
RECORDED BY LILLY
WITNESSED BY Mr. Hammer
TIME OF DAY 12:30 PM
BOREHOLE RECORD
FROM TO SIZE NOT FROM TO
5.5 15.5 0 6831.0
4.0 10.6 6244.0 6565.0
2 3/8 0 6780.0

SERVICE TICKET NO.: 818922-2				RPT. SERIAL NO.:				PCN VERSION: VPLX4 11/25/86							
EQUIPMENT DATA															
GRAMA				NEUTRON				TEMPERATURE							
RUN NO.		ONE		RUN NO.				RUN NO.		ONE					
SERIAL NO.		108697		SERIAL NO.				SERIAL NO.		108697					
MODEL NO.		P000 LOG		MODEL NO.				MODEL NO.		P000 LOG					
DIAMETER		1 11/16		DIAMETER				DIAMETER		1 11/16					
DETECTOR MODEL NO.		N/A		LOG TYPE											
TYPE		G.M.		SOURCE TYPE											
LENGTH		18 IN.		SERIAL NO.											
DISTANCE TO SOURCE		N/A		STRENGTH											
LOGGING DATA															
GENERAL					GRAMA			TEMPERATURE			NEUTRON				
RUN NO.	DEPTHS		SPEED	TOOL	POSITION	TC/FL	SCALE		TC/FL	SCALE		TC/FL	SCALE		MTR
	FROM	TO					L	P		L	P		L	P	
1	6477.0	6079.0	30	CENT	2	0	150	2	100	300					
2	6450.0	6040.0	60	CENT	2	0	150	2	100	300					
3	6450.0	6795.0	90	CENT	2	0	150	2	100	300					
4	6823.0	6494.0	30	CENT	2	0	150	2	100	300					
5	6827.0	6491.0	60	CENT	2	0	150	2	100	300					
6	6820.0	6490.0	90	CENT	2	0	150	2	100	300					

WELLEX DOES NOT GUARANTEE THE ACCURACY OF ANY INTERPRETATION OF LOG DATA. CONVERSION OF LOG DATA TO PHYSICAL PROPERTIES, PERCENTAGES, OR RECOMMENDATIONS WHICH MAY BE GIVEN BY WELLEX PERSONNEL OR WHICH MAY APPEAR ON THE LOG OR IN ANY OTHER FORM, ANY USER OF SUCH DATA, INTERPRETATIONS, OR CONVERSIONS OR RECOMMENDATIONS AGREES THAT WELLEX IS NOT RESPONSIBLE, EXCEPT WHERE DUE TO GROSS NEGLIGENCE OR WILLFUL MISCONDUCT FOR ANY LOSS, DAMAGES, OR EXPENSES RESULTING FROM THE USE THEREOF.

A' - 6624 - 6684
B' - 6654 - 6504
C' - 6804 - 6874

Mobil Producing Texas and NM
Lindrith B-37

Induction Log Interpretation

Purpose: Identify hydrocarbons entering the wellbore and quantify the percentage of total production coming from each set of perforations.

Reported Production: 280 BW/D
833 MCF/D
0 PS/D

Method: Use the combination production logging tool at 30, 60, and 90 FPM up and down. The Fluid Density and Pressure readings will be more accurate on Pass 4 logged 30 FPM up. The temperature will be most sensitive on Pass 1 logged 30 FPM down. The well was flowing at 500 PSI tubing pressure on all passes. All sensors were recorded simultaneously. The well had been producing 24 hrs. before these logs were run. Previously it was shut-in for 5 days.

Interpretation: ID was found to be 6878'. A rising water column was found near ID. On Run 1 the oil-water contact was at 6860' and on Run 6 the contact was found at 6818' three hours later. There are perfs open below ID that could be producing this water. The well was reported as making no water, so this water column may reach equilibrium below significant production.

significant production.

For Spinner Interpretation the water column was considered near static. Flow percentages are calculated above the water column. The three down passes were used to calculate flow contribution from each zone. The two pass techniques were also used and the two were averaged for the final results.

The Fluid Density Measurement was used in calculating the percentages of oil and gas in the wellbore fluid. Fluid Density of oil and gas used in the computations were .74 g/cc and .065 g/cc, respectively.

From 6761' to the oil-water contact there appears to be a stagnant or a slow moving oil column. The Fluid Density indicates no gas is in the oil. The Spinner computations indicate 8% of the total production is coming from the perfs at 6828'-36'. This could be from the water column rising, pushing the oil up.

There is a fluid entry at 6764' making 2.25% of the total production. The wellbore fluids above these perfs is 95% oil and 5% gas.

The perfs from 6745'-48' do not appear to be open.

The perfs from 6729'-34' are making 3% of the total production from 6734'. The wellbore fluid is now 91% oil and 9% gas.

There is a fluid entry at 6724' making 16% of the total production. The wellbore fluid is now 62% oil and 38% gas.

The perfs from 6715'-21' is making 27% of the total production from 6713'. The wellbore fluid is now 21% oil and 79% gas.

Mobil Producing Texas and NM
Linchith B-37
Induction Log Interpretation
Page 2

The perfs at 6706' and 6702' do not appear to be open.

The perf at 6696' is making 6.75% of the total production from 6698'. Wellbore fluid is now 81% gas and 19% oil. This is probably a gas entry.

There is a fluid entry at 6690' contributing 17.5% of the total production. Wellbore fluid is now 73% gas and 27% oil.

The perf at 6684' is contributing 19.5% of the total production. Wellbore fluid contains 73% gas and 27% oil.

The perfs from 6676'-79' and 6664'-71' do not appear to be open.

The log was correlated to a Schlumberger CNL log.

Mobil Producing Texas and NM
Lundrith B-37

REPORTED PERFORATIONS	ENTRY	% OF TOTAL PRODUCTION		ZONE		CUMULATIVE		FLUID DENSITY		% GAS	% OIL	% WATER
		DOWN	Δ FPS	DOWN	Δ FPS	AVERAGE	AVERAGE	30 FPM UP				
6664-71'		0	0	101	100	0	100	.245		73	27	0
6676-79'		20	19	100.5	100	0	100	.245		73	27	0
6684'		18	17	80.5	81	19.5	100	.245		73	27	0
6696'		6.5	7	62.5	64	17.5	80.5	.245		73	27	0
6702'		0	0	56	57	6.75	63	.19		81	19	0
6706'		0	0	56	57	0	56.25	.205		79	21	0
6713-21'		27	47	56	57	0	56.25	.205		79	21	0
6729-34'		16	*	29	*	27	29.25	.48		38	62	0
6734'		3	*	13	*	16	13.25	.68		9	91	0
6745-18'		0	0	0	10	3	10.25	.705		5	95	0
6806-20'		3.5	1	10.5	10	2.25	10.25	.705		5	95	0
6828-36'		0	0	7	9	0	8	.74		0	100	0
6847-50'		0	0	0	0	0	0	.98		0	0	100

* Interval contribution underestimates from 2 pass technique
Fluid entry at 6713', 24' and 34' Total 47% using 2 Pass technique and 46% using down runs. The down values were used.

Spinner (RPS)

1.5
1.5
1.5
1.5
1.5

Spinner interpretation

% FLOW

13

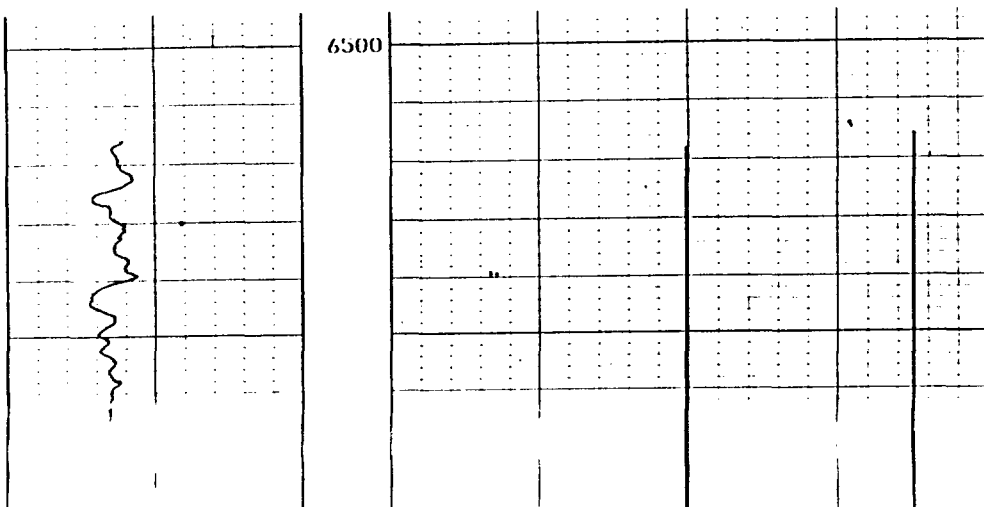
6.5
-27-

15

6735
6754
6824
6850

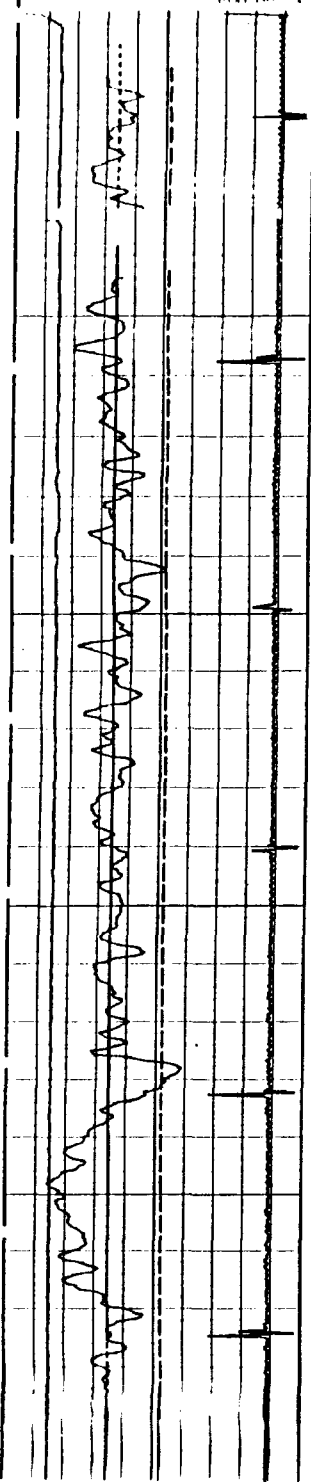
WATER

100

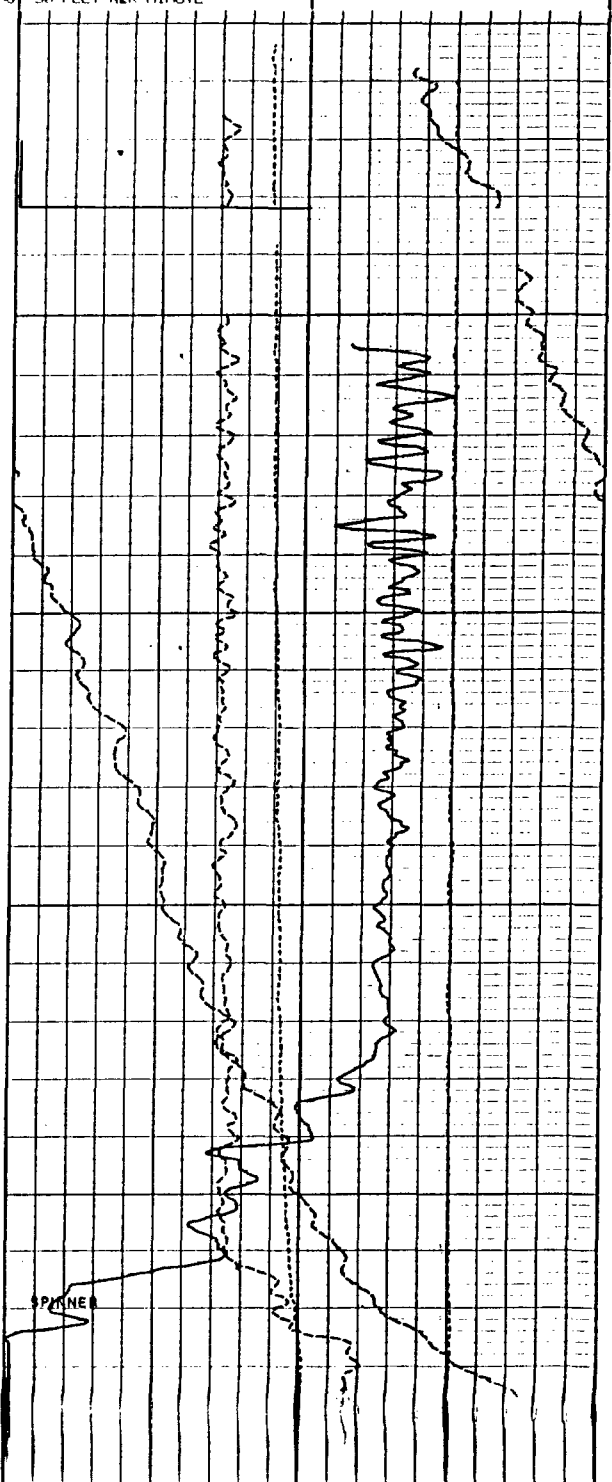


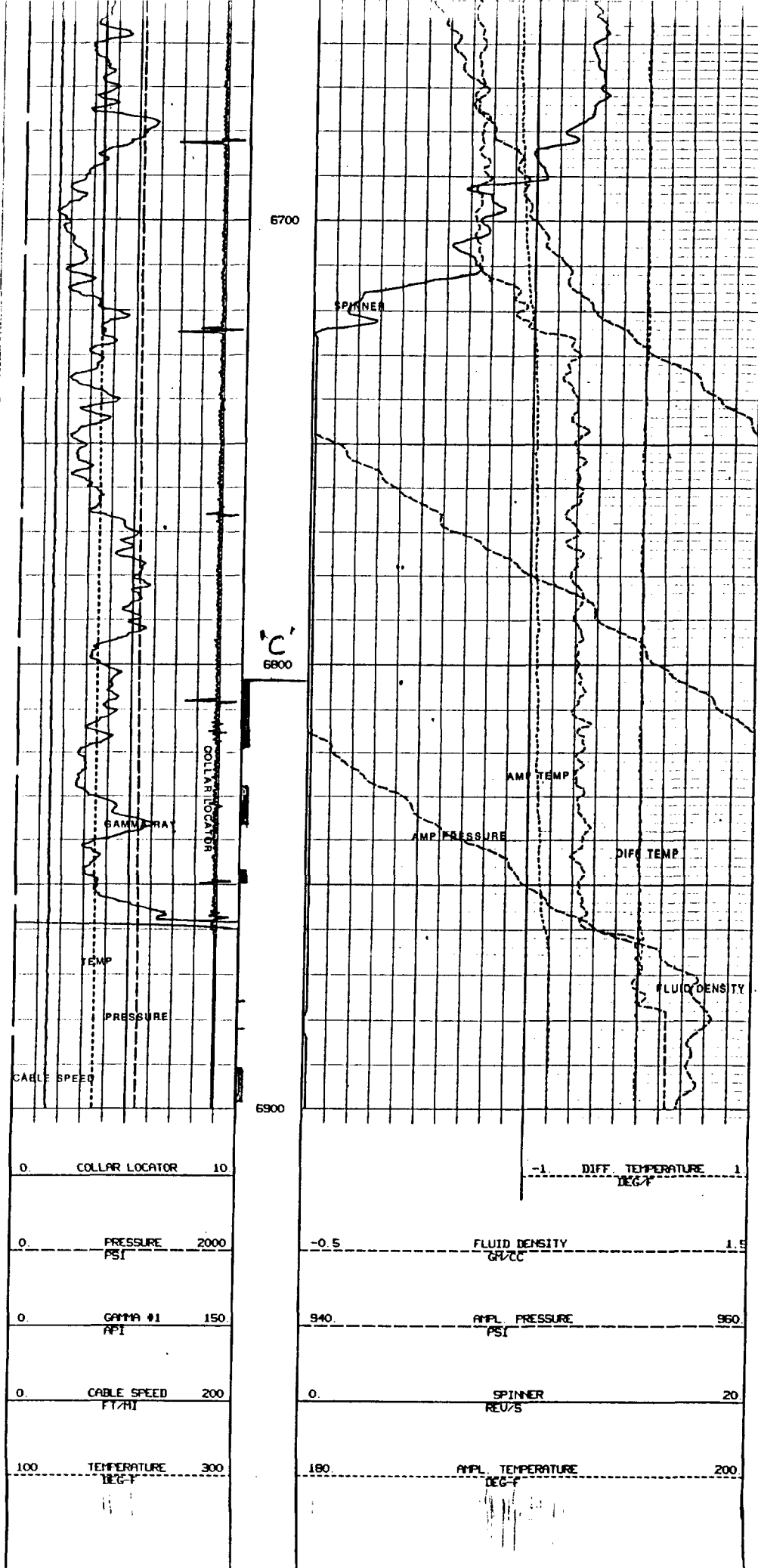
100	TEMPERATURE DEG F	300
0	CORR SPEED FT/HR	200
0	CORR #1 FT	150
0	DIFF. TEMP DEG F	2000
0	COLOR LOGGING	10

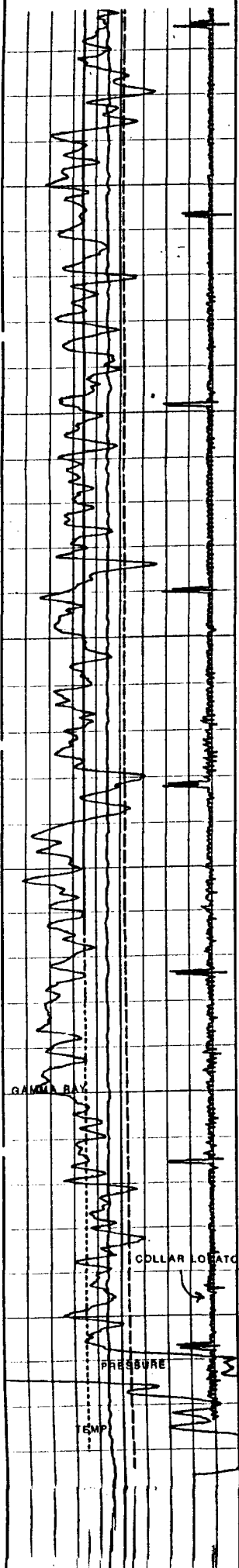
180	AMPL. TEMPERATURE DEG F	200
0	SPINNER REV/S	20
940	AMPL. PRESSURE PSI	960
-0.5	FLUID DENSITY G/CC	1.5
RECORDED 20' SHALLOW		-1 DIFF. TEMPERATURE DEG F



DOWN LOG
30 FEET PER MINUTE



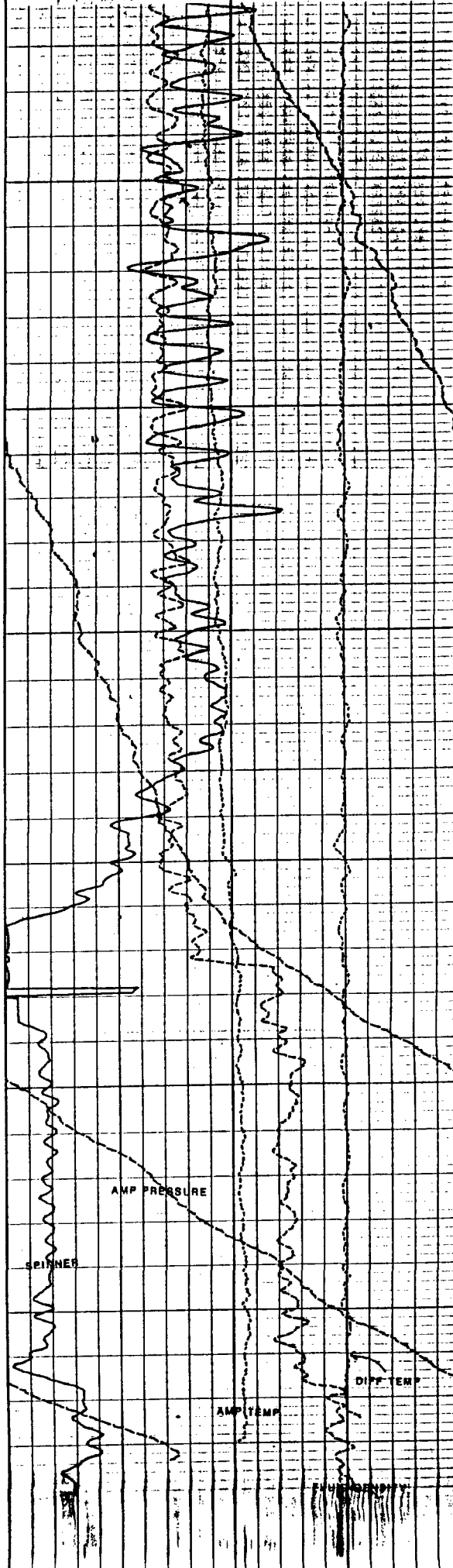




6600

6700

6800



UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

SUBMIT IN DUPLICATE*

(See other instructions on reverse side)

Form approved.
Budget Bureau No. 1004-0137
Expires August 31, 1985

WELL COMPLETION OR RECOMPLETION REPORT AND LOG *

1a. TYPE OF WELL: OIL WELL ☒ GAS WELL ☐ DRY ☐ Other ☐		2. NAME OF OPERATOR Mobil Producing TX & NM Inc.		3. ADDRESS OF OPERATOR 9 Greenway Plaza - Suite 2700 - Houston, TX 77046		4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements)* At surface 1850 FNL & FEL At top prod. interval reported below At total depth Same		5. LEASE DESIGNATION AND SERIAL NO. SF-078907		6. IF INDIAN, ALLOTTEE OR TRIBE NAME		7. UNIT AGREEMENT NAME Lindrith "B" Unit		8. FARM OR LEASE NAME			
15. DATE STUDDED 10-8-85		16. DATE T.D. REACHED 11-5-85		17. DATE COMPL. (Ready to prod.) 1-23-86		18. ELEVATIONS (DF, RKB, RT, OR, ETC.)* KB-7134		19. ELEV. CASINGHEAD 7120		12. COUNTY OR PARISH Rio Arriba		13. STATE NM		9. WELL NO. 37			
20. TOTAL DEPTH, MD & TVD 7100		21. PLUG, BACK T.D., MD & TVD 6958		22. IF MULTIPLE COMPL., HOW MANY*		23. INTERVALS DRILLED BY →		ROTARY TOOLS X		CABLE TOOLS		10. FIELD AND POOL, OR WILDCAT West Lindrith-Gallup/Dakota		11. SEC. T. R., M., OR BLOCK AND SURVEY OR AREA 2 Sec. 4, T-24N, R-8W			
24. PRODUCING INTERVAL(S), OF THIS COMPLETION—TOP, BOTTOM, NAME (MD AND TVD)* 6664-6746, 6804-6897 Gallup										25. WAS DIRECTIONAL SURVEY MADE No							
26. TYPE ELECTRIC AND OTHER LOGS RUN Dual Ind/SFL, BHC Sonic, CN, CH-CN										27. WAS WELL CORED No							
28. CASING RECORD (Report all strings set in well)																	
CASING SIZE		WEIGHT, LB./FT.		DEPTH SET (MD)		HOLE SIZE		CEMENTING RECORD				AMOUNT PULLED					
9-5/8		36#		409		12-1/4		400x C1 B (468 cf)				circ 75x					
5-1/2		15.5#		6831		8-3/4		405x 1-1 TALC + 2000x TWT Lite (4126 cf)				TOC 2330					
29. LINER RECORD																	
SIZE		TOP (MD)		BOTTOM (MD)		BACKS CEMENT*		SCREEN (MD)		30. TUBING RECORD		SIZE		DEPTH SET (MD)		PACKER SET (MD)	
										2-3/8		6150		6150			
31. PERFORATION RECORD (Interval, size and number) Perf Gallup w/182 JSPF @ 6804-18, 6826-33, 6844-47, 6876, 82, 6891-97 (34 holes) Perf Gallup w/182 JSPF @ 6664-71, 6675-78, 6684, 96, 6701, 6706-15, 6720, 6728-33, 6744-46 (39 holes)																	
32. ACID, SHOT, FRACTURE, CEMENT SQUEEZE, ETC.																	
DEPTH INTERVAL (MD)								AMOUNT AND KIND OF MATERIAL USED									
6804-6897								Bkdn w/6800 gal 2% KCL Filter + 68 RNCBS. SWF w/84272 gal 40# GWX07 gel + 117,500# 20/40 Ottawa sand.									
33. PRODUCTION (SEE REVERSE)																	
DATE FIRST PRODUCTION 1-23-86		PRODUCTION METHOD (Flowing, gas lift, pumping—size and type of pump) flowing								WELL STATUS (Producing or shut-in) shut-in							
DATE OF TEST 1-29-86		HOURS TESTED 24		CHOKER SIZE 16/64		PROD'N. FOR TEST PERIOD →		OIL—BBL. 240		GAS—MCF 320		WATER—BBL. 8		GAS-OIL RATIO 1333			
FLOW. TUBING PRESS. 460		CASING PRESSURE pkc		CALCULATED 24-HOUR RATE →		OIL—BBL.		GAS—MCF.		WATER—BBL.		OIL GRAVITY-API (CORR.) 43.0 @ 60°					
34. DISPOSITION OF GAS (Sold, used for fuel, vented, etc.) Sold - pending gas connection										TEST WITNESSED BY K. D. Jones							
35. LIST OF ATTACHMENTS logs																	
36. I hereby certify that the foregoing and attached information is complete and correct as determined from all available records																	
SIGNED		Nancy Lewis				TITLE				Authorized Agent				DATE		2-5-86	

(See Instructions and Spaces for Additional Data on Reverse Side)

Title 18 U.S.C. Section 1001, makes it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

MOCC CASE #8946
BUSCH EXHIBIT #5

COMBINATION
PRODUCTION
LOOS

COMP. HEALING OIL COMPANY
WELL HOWARD NO 1-8
FIELD BAKIN DAKOTA-UNDESIGNATE
COUNTY PLO ARIZONA STATE N. MEX.

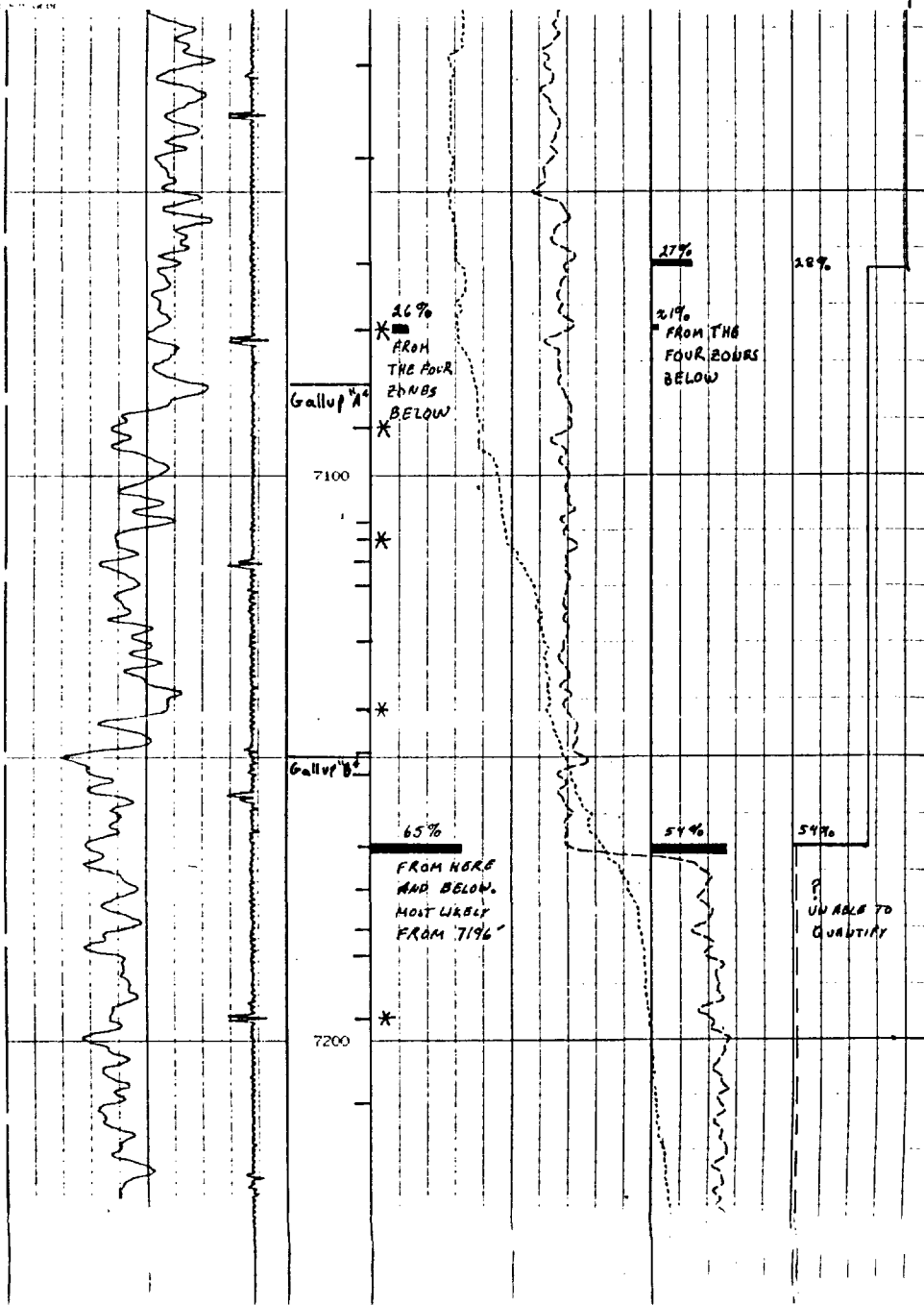
COMPANY	MILLON OIL COMPANY
WELL	HOMARD NO 1-8
FIELD	BASIN DKT-DT-A-UNDERS
COUNTY	RIO ARriba
API NO.	
LOCATION	1650 FWL / 870
SEC. 1	TWP. 25N

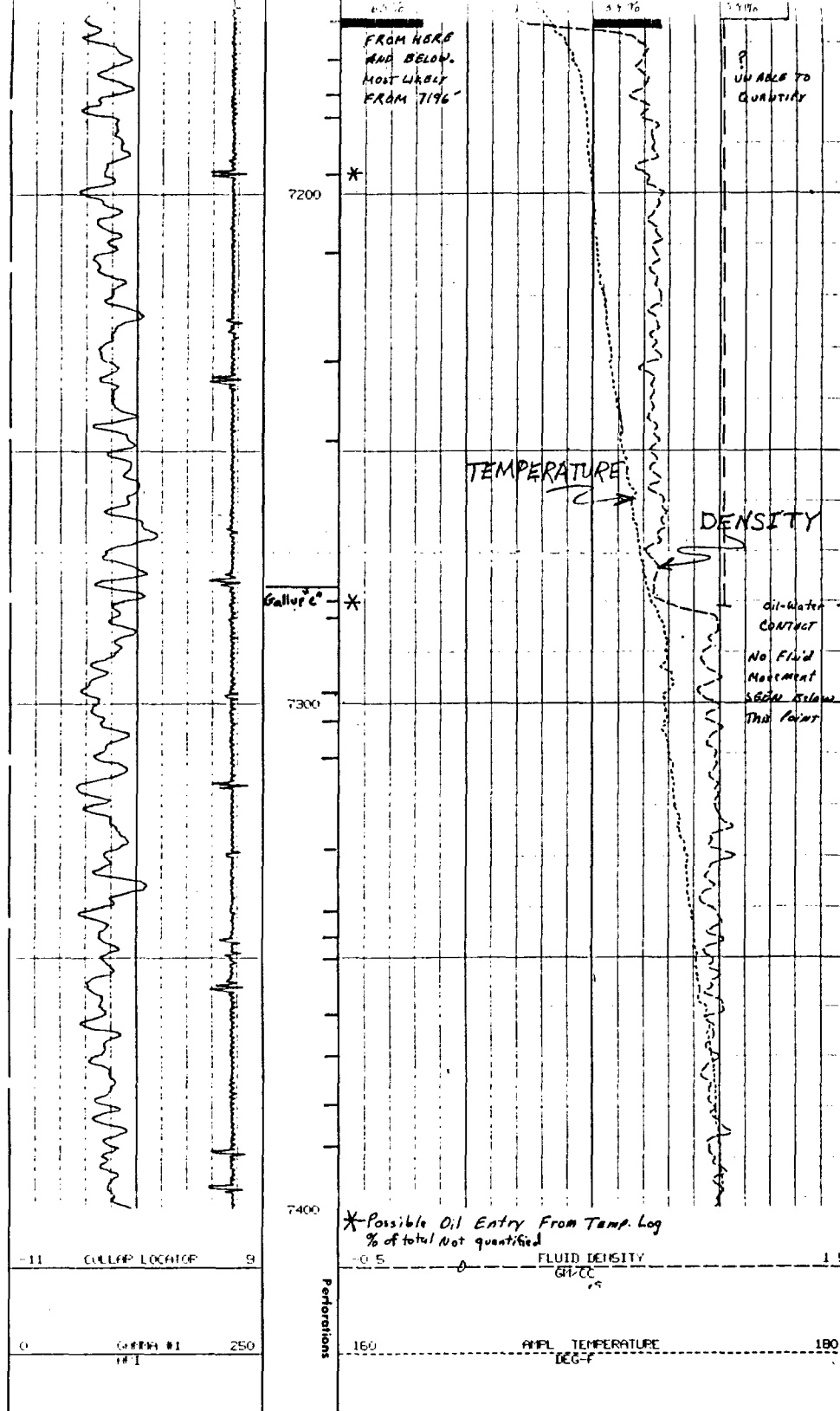
DONATED CALLUP	
STATE	N MEX
OTHER SERVICES	
REL	NONE
RCF	2M

	ELEV	7511		ELEV	A B	7523
GROUND LEVEL						
KELLY BUSHING	12 FT	ABOVE FERM	DATUM	D F		7522
KELLY BUSHING				G L		7511

B	7523
D F	7522
G L	7511

RECEIVED
MAY 17 1988
OIL CON. DIV.
DIST. 3

[illegible]



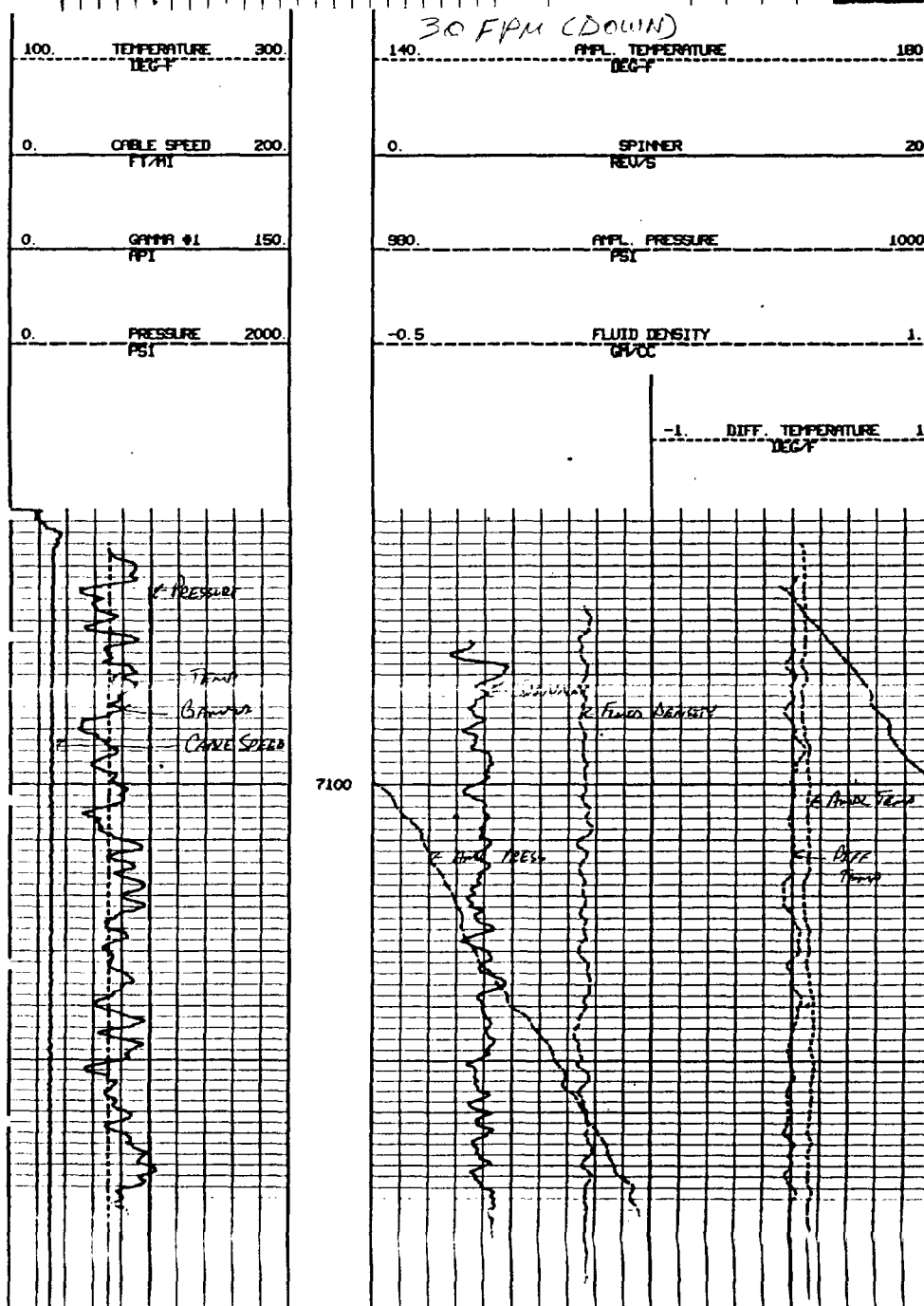
DOWN LOG AT 38 P.M.

100	TEMPERATURE	300	140	APPL. TEMPERATURE	180
	DEG-F			DEG-F	
0	CABLE SPEED	200	0	SPINNER	40
	FT/MIN			REV/S	
0	GREEN #1	250	-0.5	FLUID DENSITY	1.5
	FT			GR/CC	

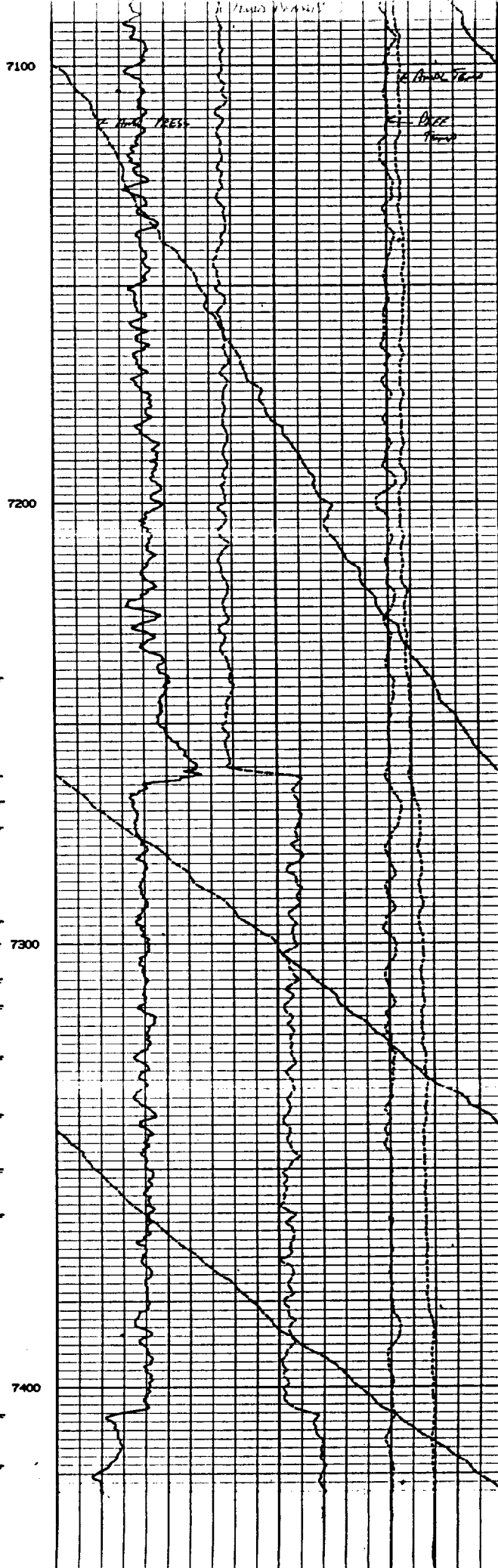
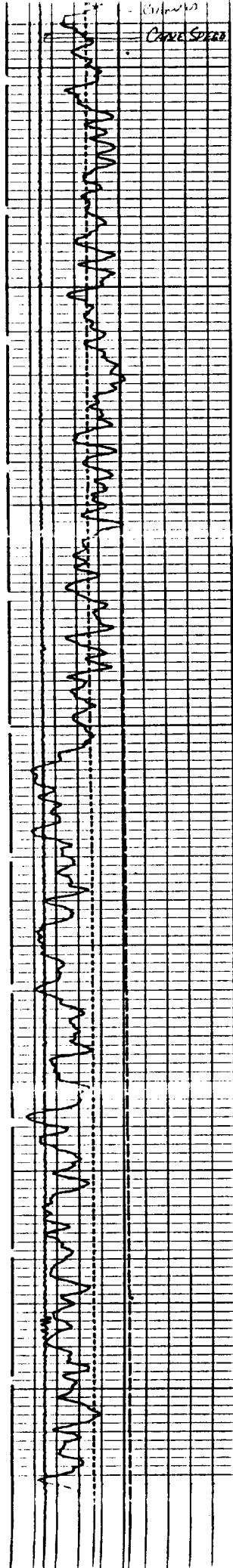


COMBILIN 100
PRODUCT INFORMATION
1996

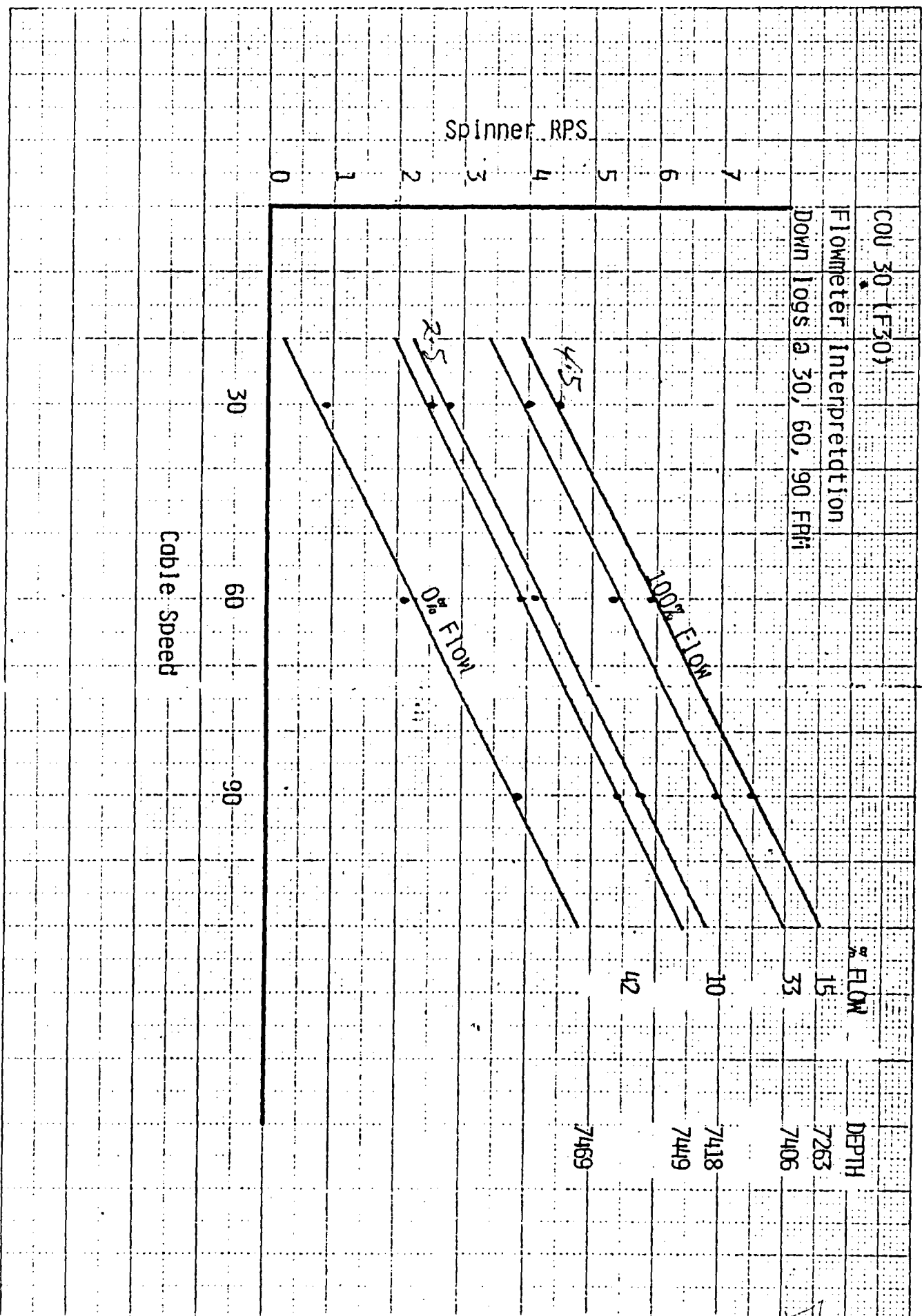
COMPANY		BENSON MOTIV GREER DRILLING CORP.	
WELL		CANADA OILTOS UNIT NO 30	
FIELD		CALLUP	
COUNTY	RIO ARriba	STATE	N M
WPT NO.	SE/NA	OTHER SERVICES	
LOCATION	1755 PUL AND 2418 PUL	FLUID TRAVEL	
SEC. 30	TWP. 25N	R. 01W	
GROUND LEVEL	ELEV. 7671		
ACQUIRED FROM	KELLY BUSHING	12	FT. ABOVE PERM. DRILTM
INC. MEASURED FROM	KELLY BUSHING		
DATE	03/05/87		
DRILLER	ONE		
MECH	7959		
LOG INTER.	7924		
LOG INTER.	6870		
FLUID IN HOLE	OIL. CRS		
WITNESS	N/A		
WITNESS	N/A		
REC. TEMP	180		
TESTING RIG TIME	2.5 HRS		
WELL LOCATION	2887 101LETTE		
TESTED BY	MCCLARKE, KESLER		
TESTED BY	VARBERG, MC CONNELL		
CHK. CHAMBERS			
CHK. GPH. RECD	1530		
BOREROLE RECORD		Casing and Tubing Record	
FROM	TO	SIZE	WT.
SURF	535	9.625	585
535	8050	5.5	23
		2.875	6.5
			SURF
			6857



NMOC CASE #8946
 BUSCH EXHIBIT #8







$$\frac{3}{4.5} = .66$$

INMCC CASE #8946
BOSCH EXHIBIT #9

Production Logging Services



COMPANY BENSON-MONTAGNER DRILLING CORPORATION
WELL CANFORA OILFIS UNIT NO. 13 (L-27)
FIELD CANFORA OILFIS UNIT
COUNTY RIO ARriba STATE NEW MEXICO

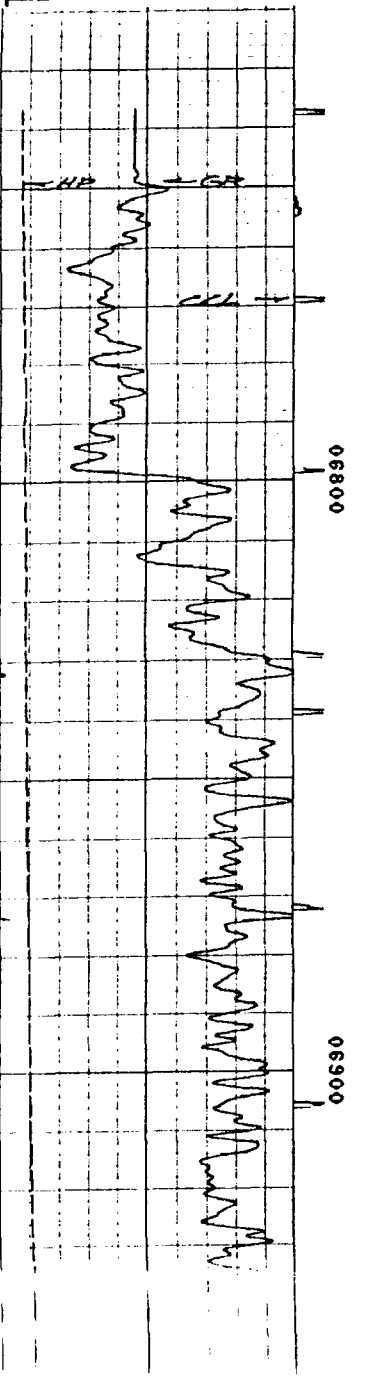
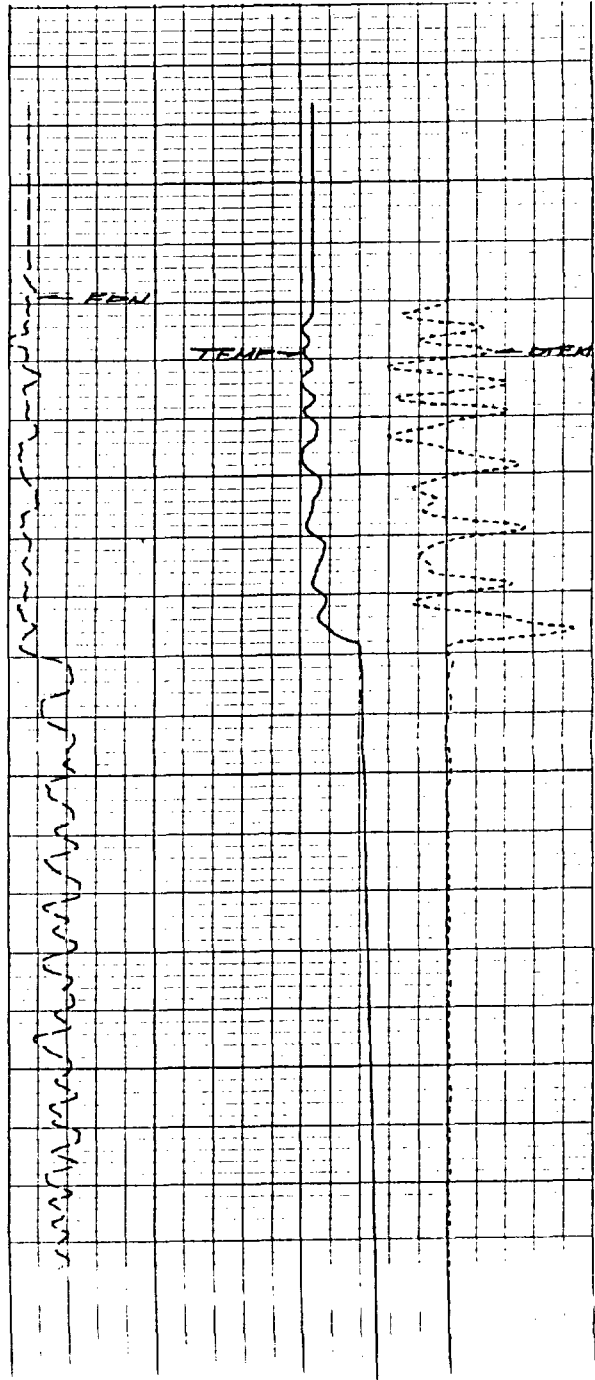
LOCATION:
1415' FS. & 740' FUL 12
SEC 27 TWP 26N RGE 14

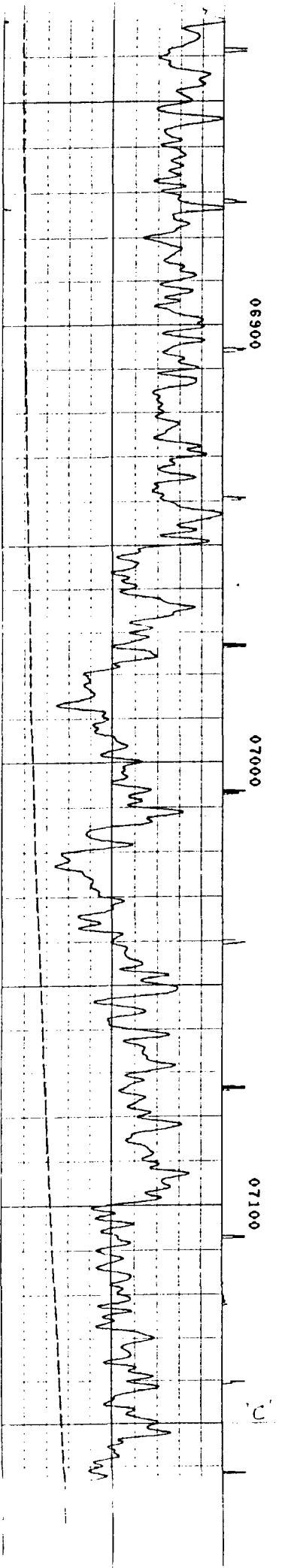
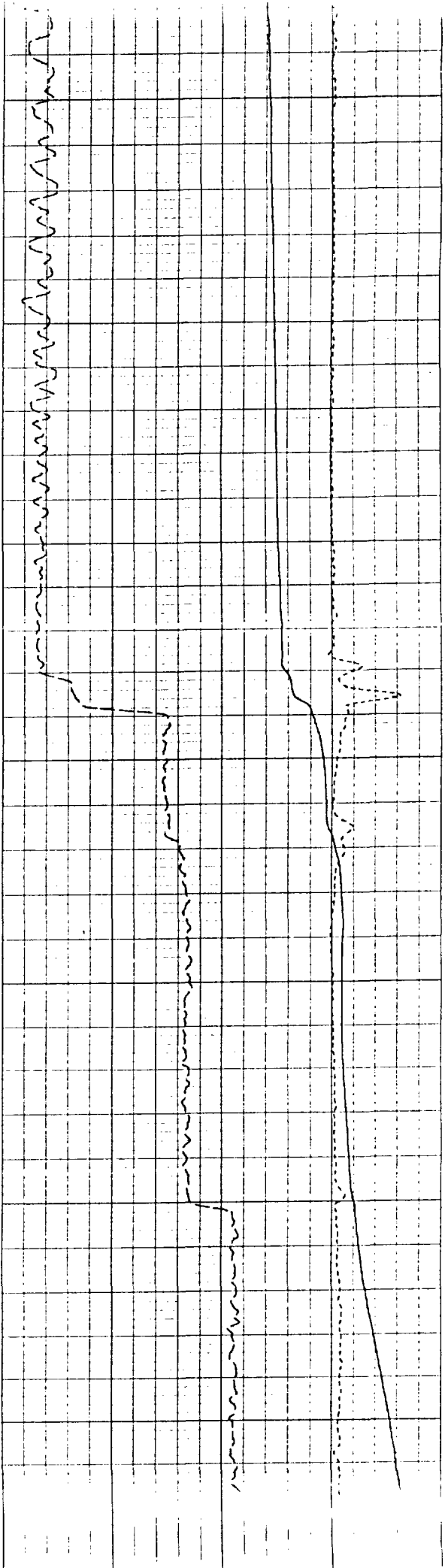
OTHER SERVICES
PCM HP
CON HP
TEMP FMTR
ELEVATIONS
NS 7455'
DE 7444'
E 7451'

GROUND LEVEL ELEV. 7451'
LOGGING MEASURED FROM K.B. 14 FT. ABOVE P.O.
LOGGING MEASURED FROM K.B.

WELL ORDER 147033
7 1/2" DRILLER 7218'
7 1/2" LOGGER 7199'
7 1/2" LOGGED INTERVAL 7199'-
7 1/2" LOGGED INTERVAL 6600'-
7 1/2" FLUID IN HOLE 6600'/OIL/WATER
7 1/2" INITIALLY FILL OIL 20000
7 1/2" SENSITIVITY LB/FT. SEE LOG
7 1/2" REC. TEMP. DEG. F 114
7 1/2" RIG TIME FIRST
7 1/2" LOG NO. / LOC. HP 6395 HOBBS NM
7 1/2" LOGGED BY CHRISTIE/STANLEY
7 1/2" LOGGED BY MR. MILLER
7 1/2" LOGGED BY BOREHOLE RECORD

RECEIVED
OIL CON. DIV.
DIST. 3
AUG 24 1987





NOTE REGARDING ATLAS WELL SERVICE TERMINOLOGY
OF PRODUCTION LOG

On the facing page, the column headings are abbreviated:

<u>DEP</u>	<u>FMTR</u>	<u>FDN</u>	<u>TEMP</u>	<u>HPCP</u>
Depth	Flow Meter	Fluid Density	Temperature	Hewlett Packard Continuous Pressure

Depth of Instruments

In bold handwritten figures are depths of the instruments at each setting (from 10 to 20 readings taken at each depth and averaged).

DEP: Depth: This is depth signal sent to computer. To get more than one reading at a set depth, the computer is told it is at a new depth.

FMTR: Flow Meter: Readings are in revolutions per second.

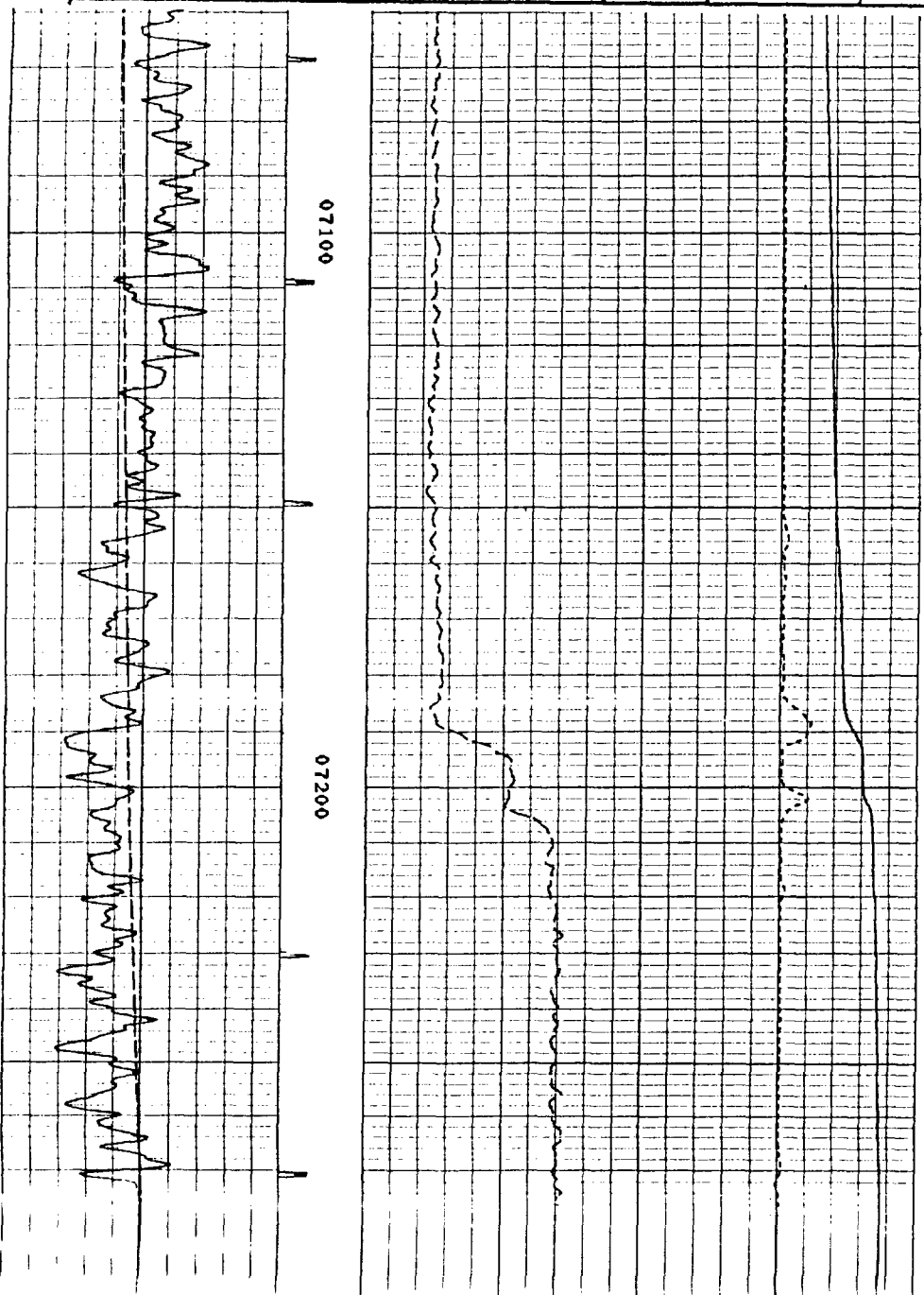
FDN: Density of flow stream in gmc/cc.

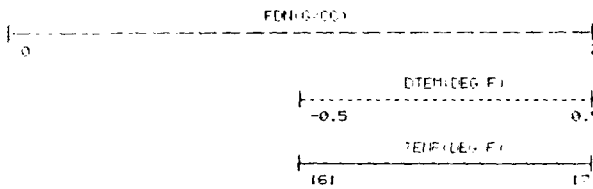
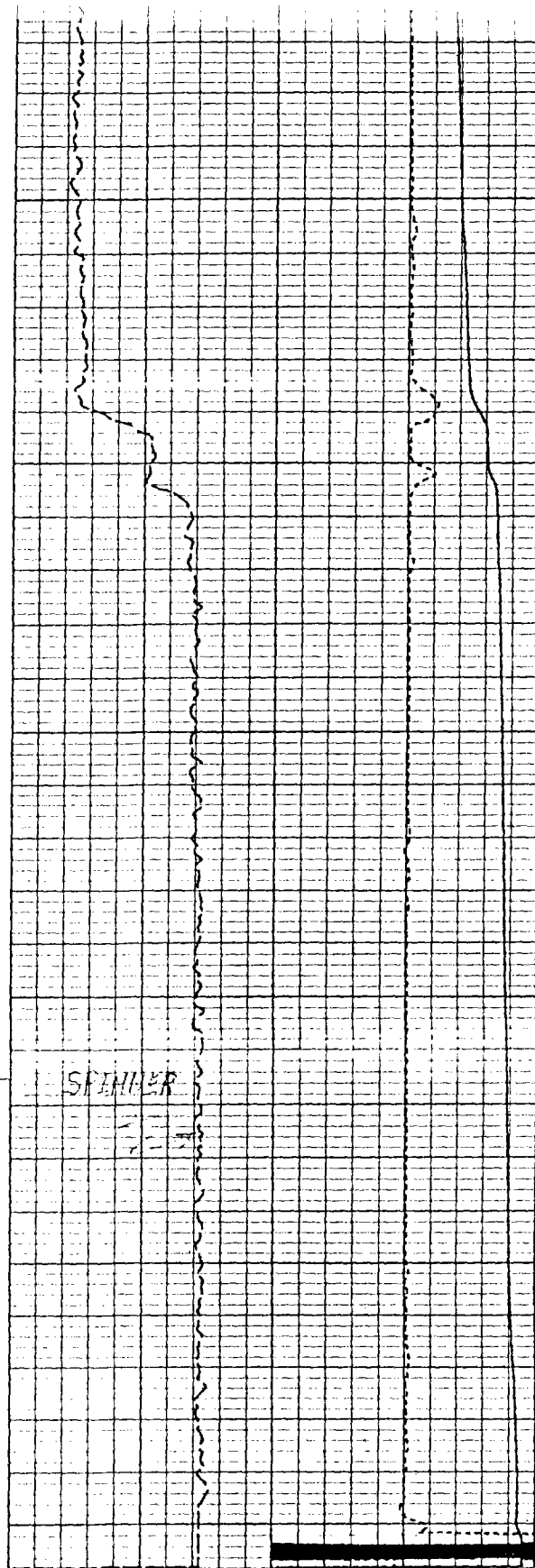
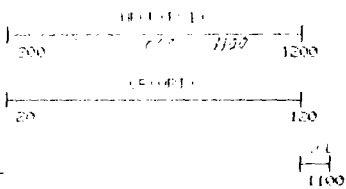
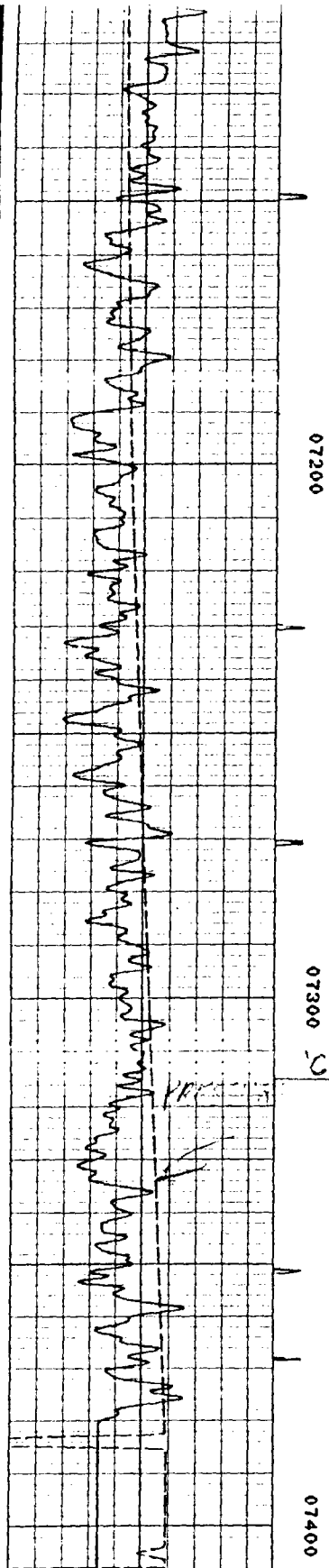
TEMP: Temperature in degrees F.

HPCP: Hewlett Packard continuous pressure: pressure in psia.



[REDACTED]





NOTE REGARDING ATLAS WELL SERVICE TERMINOLOGY
OF PRODUCTION LOG

On the facing page, the column headings are abbreviated:

<u>DEP</u>	<u>FMTR</u>	<u>FDN</u>	<u>TEMP</u>	<u>HPCP</u>
Depth	Flow Meter	Fluid Density	Temperature	Hewlett Packard Continuous Pressure

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FMTR: Flow Meter: Readings are in revolutions per second.

FDN: Density of flow stream in gmc/cc.

TEMP: Temperature in degrees F.

HPCP: Hewlett Packard continuous pressure: pressure in psia.

SERVICE TABLE ***A 433E***

FILE LABEL # 6

TAPE LEVEL SPACING : 0.25 TAPE STARTING DEPTH : 7400.00
PRINT LEVEL SPACING : 0.00 TAPE ENDING DEPTH : 99999.00

*** UNITS OF MEASURE ***

DEPTH FT
ACOUSTIC US/FT
CALIPER IN
TENSION LBS
TEMPERATURE F
PRESSURE PSI
VOLUME FT3

*** END OF LIST ***

1000

DEPTH	FMTR	FDN	TEMP	HPCE
7405.00	7.62	0.72	170.67	1037.62
7410.00	7.55	0.73	170.67	1037.57
7420.00	7.35	0.72	170.67	1037.52
7430.00	7.07	0.73	170.66	1037.70
7440.00	7.15	0.72	170.67	1037.75
7450.00	7.22	0.75	170.67	1037.70
7460.00	7.56	0.73	170.67	1037.70
7470.00	7.77	0.71	170.67	1037.65
7480.00	7.24	0.70	170.66	1037.57
7490.00	7.64	0.73	170.66	1037.54
7500.00	7.25	0.70	170.66	1037.48
7510.00	7.64	0.73	170.67	1037.46
7520.00	7.92	0.72	170.67	1037.43
7530.00	7.66	0.71	170.67	1037.41
7540.00	7.51	0.73	170.67	1037.31
7550.00	7.57	0.75	170.67	1037.24

FMTR 7405'
FDN 7400'

*** INTERNAL AVERAGES ***

0.00	7.52	0.72	170.67	1037.53
------	------	------	--------	---------

7360.00	15.15	0.73	170.15	1023.11
7370.00	15.07	0.71	170.14	1023.07
7380.00	15.10	0.71	170.13	1023.04
7390.00	15.33	0.72	170.13	1023.00
7400.00	15.24	0.73	170.13	1022.96
7410.00	15.10	0.73	170.12	1022.86
7420.00	15.11	0.71	170.12	1022.82
7430.00	15.00	0.72	170.12	1022.82
7440.00	15.31	0.74	170.12	1022.72
7450.00	15.25	0.73	170.12	1022.68
7460.00	15.25	0.73	170.12	1022.73

FMTR 7360'
FDN 7355'

ILLEGIBLE

*** INTERNAL AVERAGES ***

0.00	15.01	0.73	170.13	1022.83
------	-------	------	--------	---------

DEP	FMTF	FDN	TEMP	HPCP
7540.00	16.65	0.68	169.92	1008.49
7550.00	17.19	0.67	169.92	1008.47
7560.00	17.34	0.68	169.92	1008.43
7570.00	17.17	0.68	169.91	1008.45
7580.00	17.03	0.73	169.91	1008.48
7590.00	16.33	0.71	169.90	1008.42
7600.00	16.34	0.70	169.90	1008.38
7610.00	16.65	0.72	169.90	1008.41
7620.00	16.54	0.73	169.90	1008.39
7630.00	16.50	0.71	169.89	1008.35

FATR 7315'
FDN 7310'

** INTERVAL AVERAGES

0.00	16.93	0.71	169.91	1008.42
------	-------	------	--------	---------

7667.00	15.40	0.67	169.83	1001.06
7670.00	15.51	0.67	169.83	1001.06
7680.00	15.33	0.69	169.82	1001.05
7690.00	15.62	0.70	169.81	1001.07
7700.00	15.36	0.70	169.81	1001.08
7710.00	15.73	0.63	169.80	1001.04
7720.00	15.83	0.62	169.80	1001.03
7730.00	15.99	0.63	169.79	1000.96
7740.00	15.87	0.63	169.79	1000.92
7750.00	15.93	0.66	169.79	1000.88
7757.00	16.17	0.67	169.79	1000.86

FATR 7290'
FDN 7285'

** INTERVAL AVERAGES

0.00	15.81	0.63	169.80	1001.00
------	-------	------	--------	---------

7805.00	16.53	0.66	169.69	990.55
7810.00	16.79	0.66	169.69	990.49
7820.00	16.79	0.63	169.68	990.44
7830.00	16.77	0.65	169.67	990.42
7840.00	17.04	0.67	169.67	990.34
7850.00	16.57	0.66	169.67	990.29
7860.00	16.94	0.63	169.66	990.27
7870.00	16.62	0.71	169.66	990.26
7880.00	16.72	0.67	169.66	990.24
7890.00	16.73	0.67	169.66	990.23
7900.00	16.83	0.67	169.66	990.23
7905.00	16.74	0.70	169.65	990.25

FATR 7235'
FDN 7250'

** INTERVAL AVERAGES

0.00	16.38	0.67	169.67	990.33
------	-------	------	--------	--------

7945.00	16.04	0.66	169.58	984.47
7950.00	16.14	0.65	169.58	984.47
7960.00	16.23	0.67	169.57	984.47
7970.00	16.47	0.64	169.57	984.47
7980.00	16.46	0.66	169.56	984.47
7990.00	16.34	0.69	169.56	984.45
8000.00	16.57	0.69	169.56	984.41
8010.00	16.39	0.69	169.56	984.42
8020.00	16.37	0.65	169.56	984.39
8030.00	16.63	0.65	169.56	984.35
8040.00	16.33	0.67	169.55	984.32
8045.00	16.49	0.69	169.56	984.25

FATR 7235'
FDN 7230'

** INTERVAL AVERAGES

0.00	16.42	0.67	169.56	984.43
------	-------	------	--------	--------

Western Atlas International

A Litton/Dresser Company

2-4-88

Atlas Wireline Services

Western Geophysical
Atlas Wireline Services
Core Laboratories
LRS
Aero Service
Downhole Seismic Service
J S Nolen & Associates

~~Benson-Montin-Greer~~, Canada Ojitos Unit Well B-32
(intervals numbered from top downward)

Surface Rates

648 BOPD
894.24 MSCFD
39 API
0.7 gas gravity
960 psi downhole
166 °F downhole

Downhole Rates

805 BOPD
1920 BOPD
56.7 basket RPS** in total flow
56.7/2725 = .0208 RPS/BPD

Interval one (7150-7170)

240 BOPD (13% of total free gas)
*RPS = 5

Interval two (7190-7210)

1682 BOPD (87% of total free gas)
*RPS = 35

Interval three (7362-7382)

409 BOPD (53% of total oil)
*RPS = 8.5

Interval four (7436-7456)

361 BOPD (47% of total oil)
*RPS = 7.5

* Indicates differential RPS across interval.

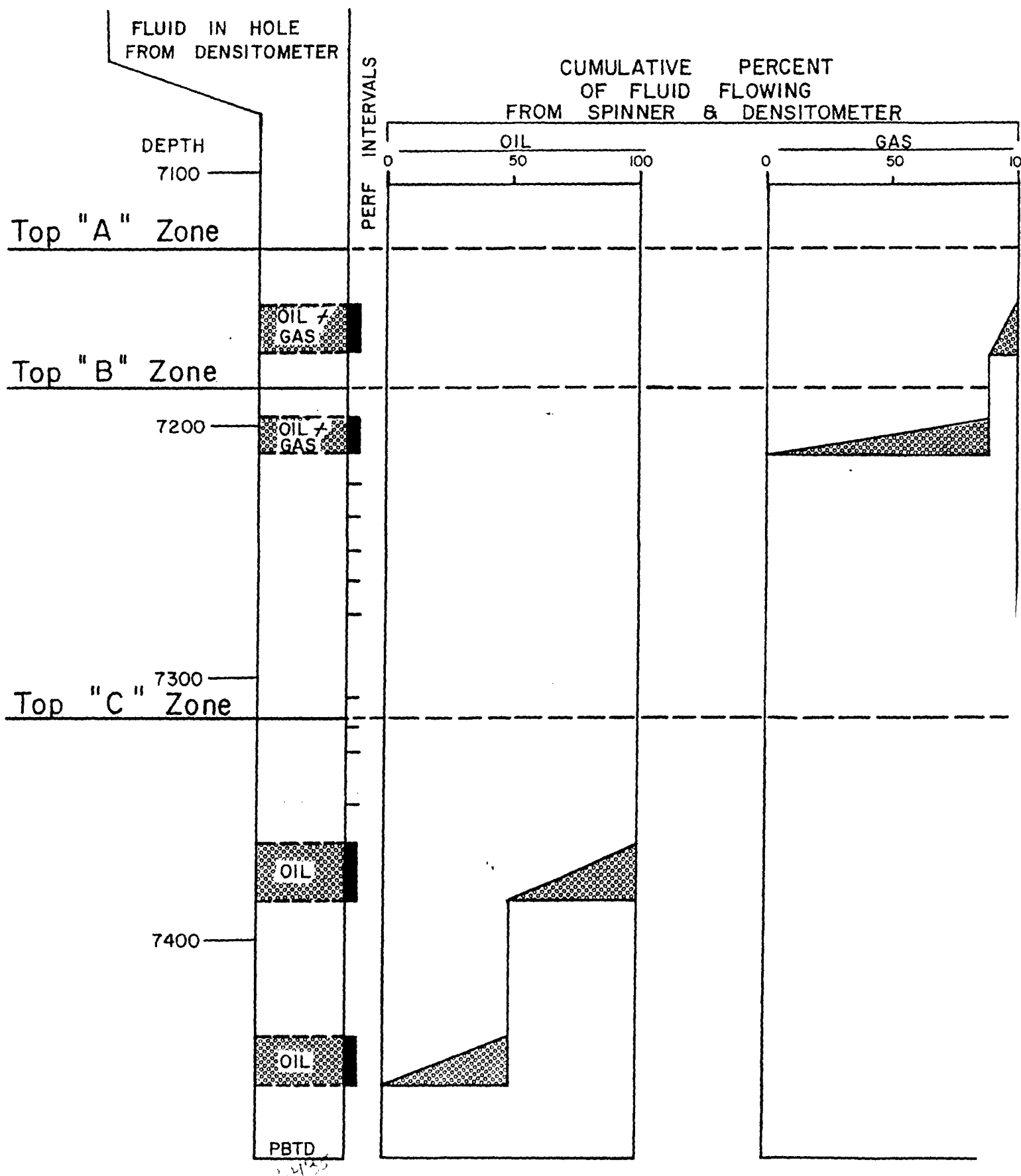
** Stationary data are presented at bottom of log, with recording depths shown handwritten at right. Each line of data corresponds to a single stationary recording; the column headed "DEP" does not indicate recording depth. Average of Fluid Density data recorded stationary is more representative than data recorded with tool moving, which comprise the Fluid Density curve shown by the composite presentation.

Volumetric flow rates apply to downhole conditions and are not adjusted to surface.

Downhole rates determined from formation volume factors based on COU L-11 fluid sample analysis, as furnished by Benson-Montin-Greer.

SUMMARY OF
PRODUCTION LOG
8-10-87

COU B-32
Sec. 32-T25N-R1W



1.
2.
3.

CRSED HOLE

OPEN/EX

COMMISSION
PRODUCTION
LOAN

WELL CANADA OILIOS UNIT NO.

FIELD GALLS

COUNTY RIO ARriba ST. N.M.

COMPANY	BENSON MOBILE CREEP DETAILING CORP.
WEILL	CANADIAN CUTLERS UNIT NO. 31 N-31
FIELD	GALLUP
COUNTY	RIO ARriba
API NO.	STATE
LOCATION	900 FSL AND 1650 FAL
SEC	31
CORNO	14
FEET	260
TYPE	260
ELEV	3650
RECE	01M

OTHER SERVICES
FLUID TRAVEL

WENT DRIUM	GROUND LEVEL	ELEV. 7569	ELEV. X.B. 7581
MEASURED FROM	KELLY BUSHING	12 FT. ABOVE PERM. DRIUM	D.F. 7580
LINE MEASURED FROM	KELLY BUSHING		G.L. 7569
03/08/83			

NO	ONE		
----	-----	--	--

H-MELEX	7820	1/15/80
---------	------	---------

LOW INTER.	7844	54
LOW INTER.	6980	54

INITIAL	FLUID IN HOLE	OIL, GAS
88M	Oil	MAH 2
88C1	Oil	MAH 2

SENSITIVITY	N/A	NO	2
-------------	-----	----	---

REC TEMP	180	10/27/31	10/27/31
----------	-----	----------	----------

PARENT: LOCATION	2887 COLLETT	:	:
CHANGING RIG LINE	2.5 HRS	:	:

ORDERED BY	MCCARTER, MULLEN	KESLER, MCCONNELL
APPROVED BY	AND ALLEN	

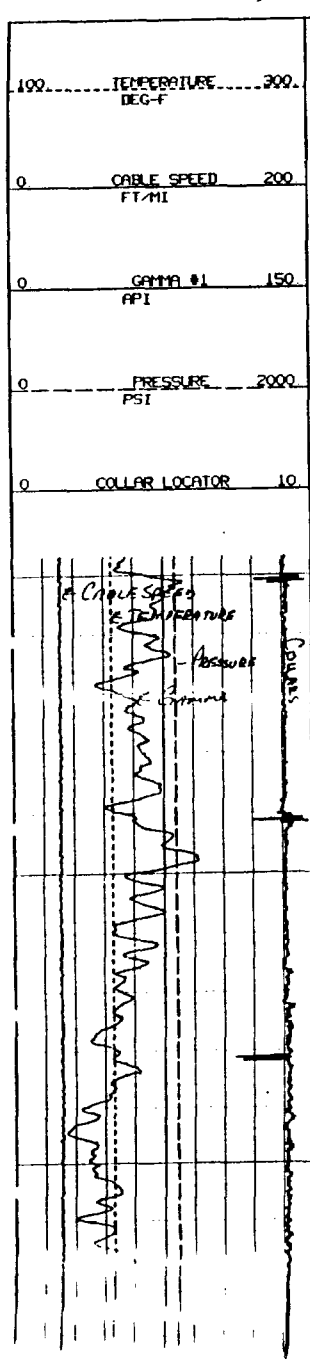
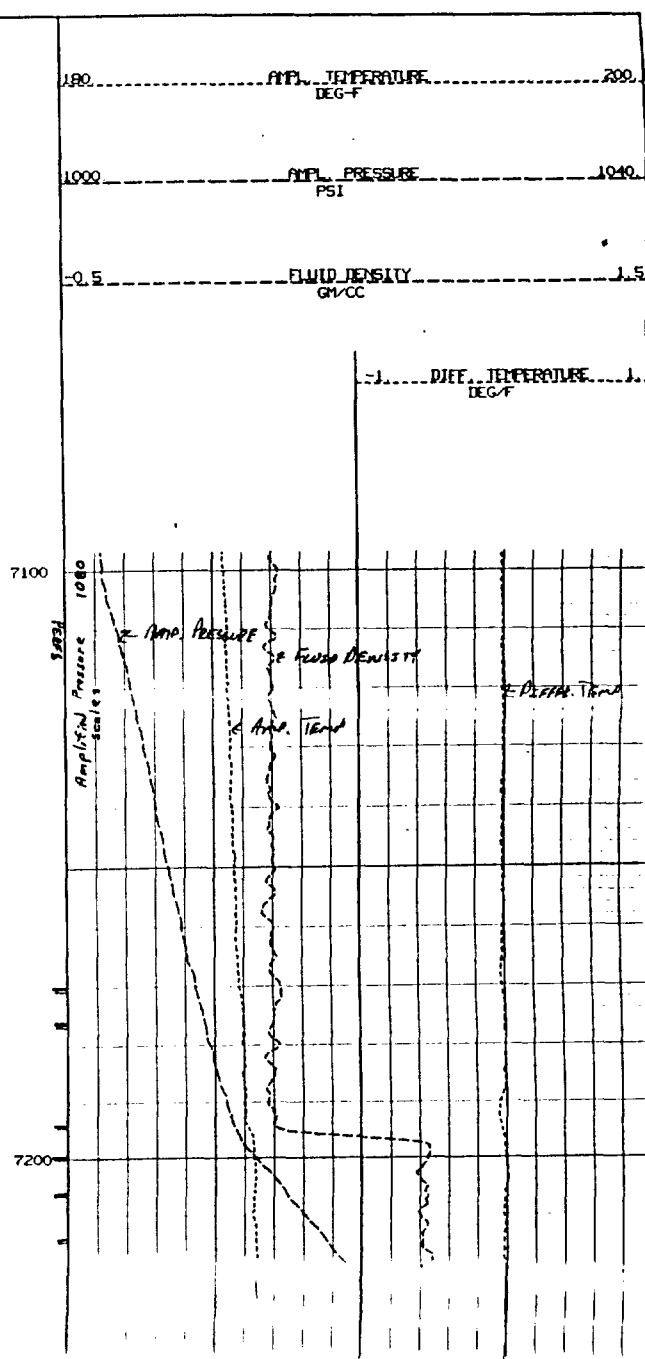
EMMAX DPTH REACH	1600		
------------------	------	--	--

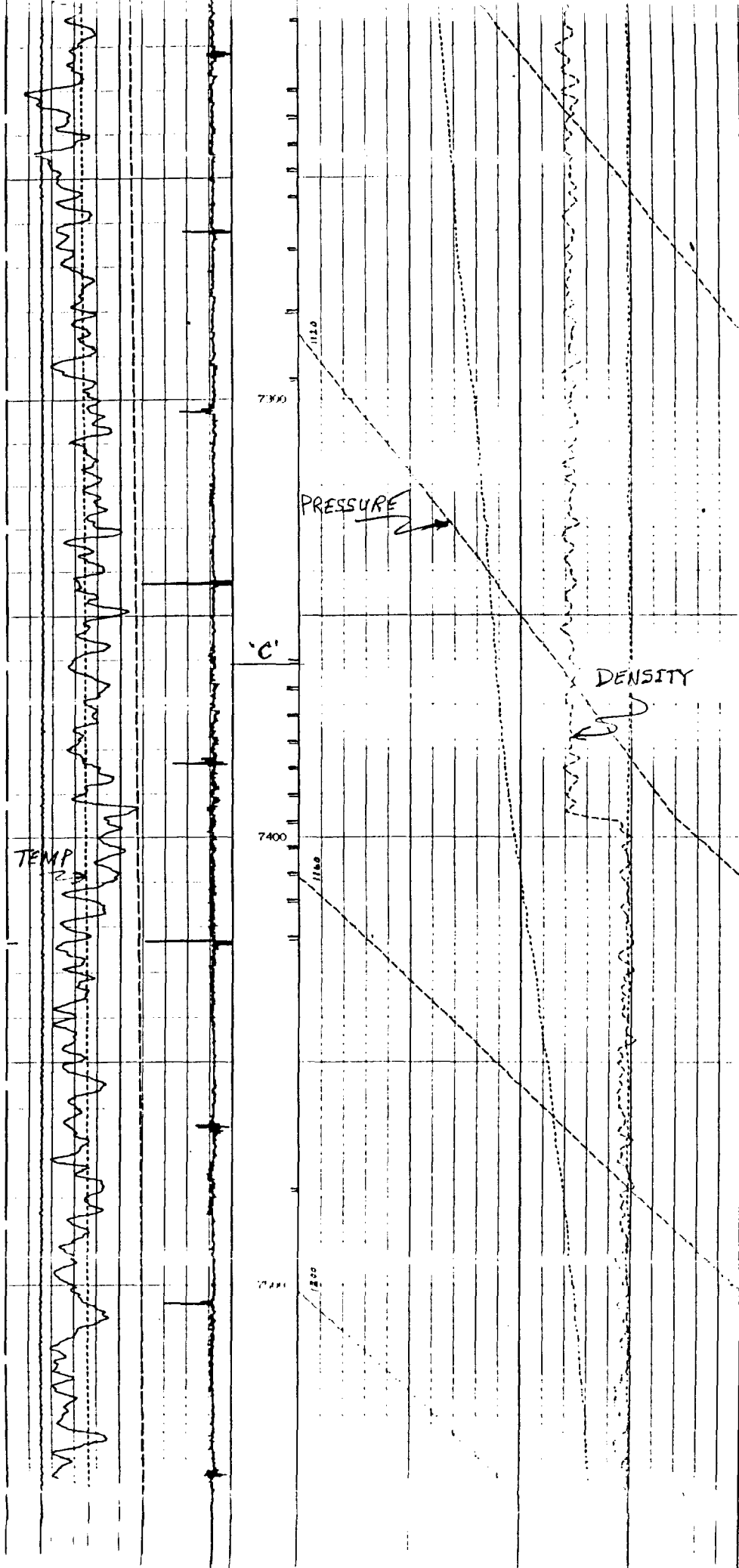
NO.	BIT	FROM	TO	SIZE	HGT	FROM
		BURNHOLE RECORD			CHSING MND TUBING RECORD	

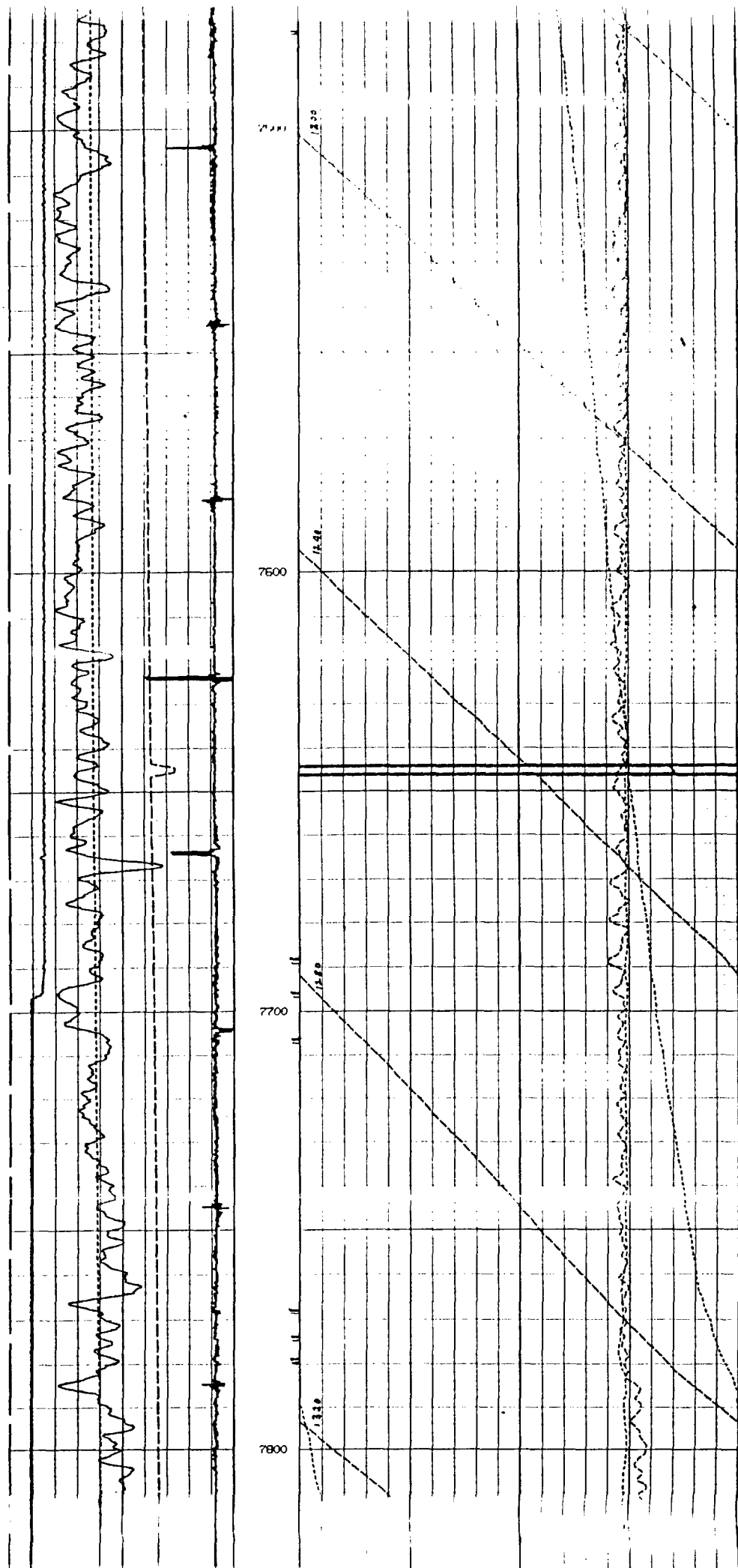
---	SURF	500	9.625	---	SURF	500
7.025	END	7000	1.1	33	END	7000

[illegible][illegible][illegible]

1. *Journal of the American Medical Association*, 1997; 277: 1039-1043.







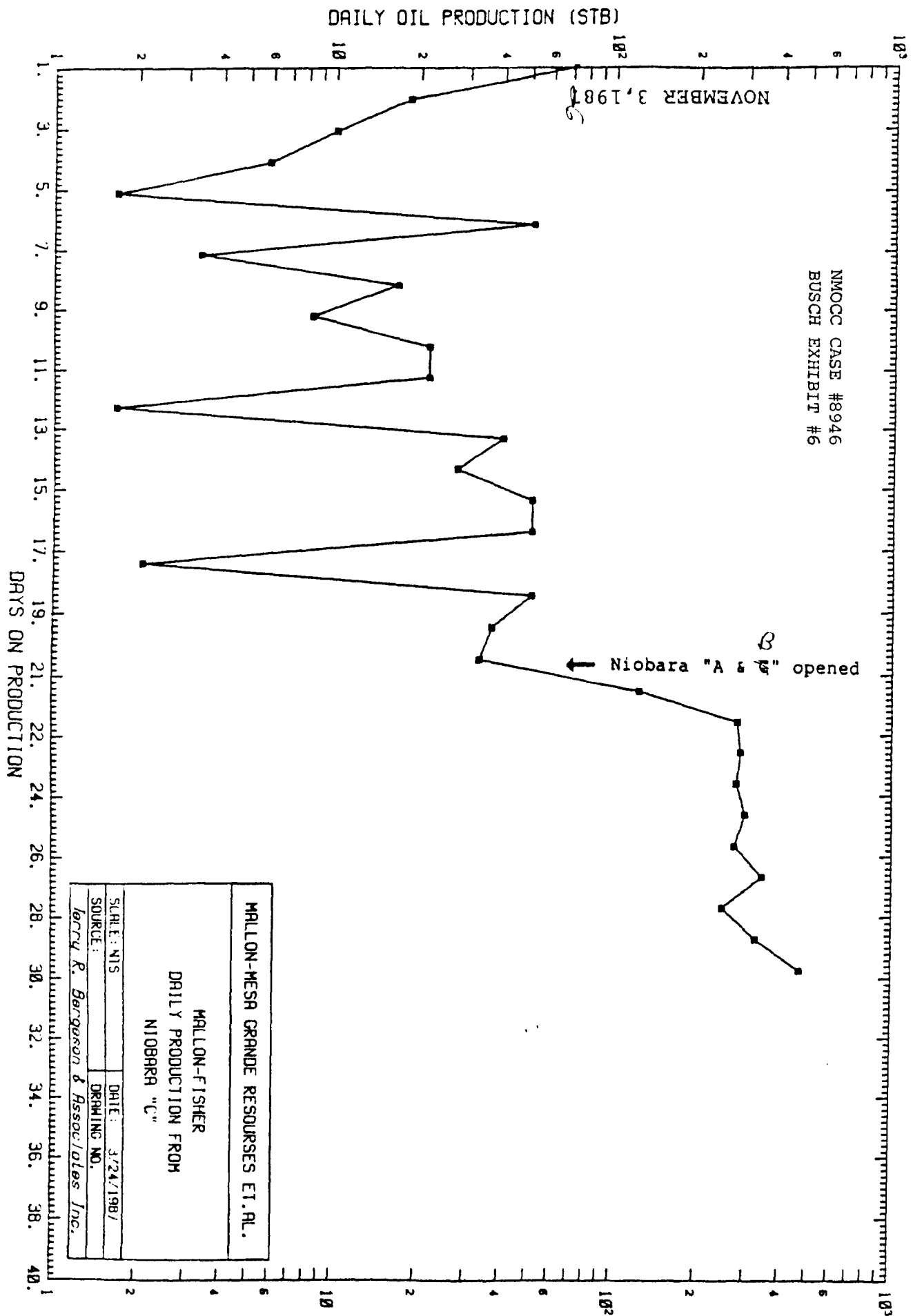


FIGURE 16

STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT

OIL CONSERVATION DIVISION

P. O. BOX 2088

SANTA FE, NEW MEXICO 87501

WELL COMPLETION OR RECOMPLETION REPORT AND LOG

NO. OF COPIES RECEIVED	
DISTRIBUTION	
SANTA FE	
FILE	
U.S.G.S.	
LAND OFFICE	
OPERATOR	

3d. Indicate Type of Lease
State ☐ Fee ☒

5. State Oil & Gas Lease No.

Unit Agreement Name

8. Form or Lease Name

Wishing Well 35

9. Well No.

17

10. Field and Pool, or Wildcat

West Puerto Chiquito

Mancos

12. County

Rio Arriba

10. TYPE OF WELL

OIL WELL ☒GAS WELL ☐DRY ☐OTHER ☐

11. TYPE OF COMPLETION

NEW WELL ☒HORN OVER ☐DEEPEN ☐PLUG BACK ☐DIFF. RESVR. ☐OTHER ☐

1. Name of Operator

NASSAU RESOURCES, INC.

2. Address of Operator

P O Box 809 Farmington, N.M. 87499

4. Location of well

UNIT LETTER G LOCATED 2210 FEET FROM THE North LINE AND 2310 FEET FROM

THE East LINE OF SEC. 35

TWP. 24North R. 1West N.M.P.M.

15. Date Spudded

12-20-87

16. Date T.D. Reached

1-8-88

17. Date Compl. (Ready to Prod.)

3-5-88

18. Elevations (DF, RKB, RT, GR, etc.)

7255' GL 7267' KB

19. Elev. Casinghead

7255' GL

20. Total Depth

7850'

21. Plug Back T.D.

7780'

22. If Multiple Compl., How Many

1

23. Intervals Drilled By

Rotary Tools

Cable Tools

TD

--

24. Producing Interval(s), of this completion - Top, Bottom, Name

6344-6597' Mancos

25. Was Directional Survey Made

Yes

26. Type Electric and Other Logs Run

Oriented Micro Resistivity, CN-FD, GR (temperature log) Continuous Dipmeter

27. Was Well Cared

No

28. CASING RECORD (Report all strings set in well)

CASING SIZE	WEIGHT LB./FT.	DEPTH SET	HOLE SIZE	CEMENTING RECORD	AMOUNT PULLED
9-5/8"	36#	304' KB	12-1/4"	180 sx of class "B" w/2% CaCL (212 cu.ft.)	---
5-1/2"	17# & 15.5	7819'	7-7/8"	Total of 2821 cu.ft. in 3 stages. See attached.	----

29. LINER RECORD

SIZE	TOP	BOTTOM	SACKS CEMENT	SCREEN	SIZE	DEPTH SET	PACKER SET
N/A					2-7/8"	6613' KB	----

31. Perforation Record (Interval, size and number)

6344, 48, 53, 60, 67, 69, 73, 80, 86, 90
 6400, 23, 28, 38, 40, 43, 48, 50, 53, 55, 67,
 80, 85, 89, 94, 99
 6505, 70, 74, 75, 81, 84, 89, 94, 97
 Total of 35 holes.

32. ACID, SHOT, FRACTURE, CEMENT SQUEEZE, ETC.

DEPTH INTERVAL	AMOUNT AND KIND MATERIAL USED
6344-6597'	1500 gal. 15% HCL Acid
	200,000 # of 20/40 sand
	3904 bbls. SLK water

33. PRODUCTION

Date First Production 2-22-88*		Production Method (Flowing, gas lift, pumping - Size and type pump) Flowing							Well Status (Prod. or Shut-in) SI	
Date of Test 3-5-88	Hours Tested 24	Choke Size 27/64"	Prod'n. For Test Period →	Oil - Bbl. 402	Gas - MCF 359	Water - Bbl. 20 (frac)	Gas - Oil Ratio 893			
Flow Tubing Press. 300 psi	Casing Pressure 810 psi	Calculated 24- Hour Rate	Oil - Bbl. 402 BOPD	Gas - MCF 359 MCFD	Water - Bbl. 20 (frac wtr)	Oil Gravity - API (Corr.) 41.6°				

34. Disposition of Gas (Sold, used for fuel, vented, etc.)

Vented during test; to be sold

Test Witnessed By

Erasue

35. List of Attachments

Cement detail.

36. I hereby certify that the information shown on both sides of this form is true and complete to the best of my knowledge and belief.

SIGNED James S. Hazen James S. Hazen TITLE Field Supt. DATE 3/8/88NMOCC CASE #8946
BUSCH EXHIBIT #13

Schlumberger

DUAL INDUCTION - SFL WITH LINEAR CORRELATION LOG

COMPANY NASSUA RESOURCES, INCORPORATED

WELL WISHING WELL 35 #7

FIELD WPUERTO CHICUITO MAN-DAK.

COUNTY RIO ARriba STATE NEW MEXICO

LOCATION 2310' FEL & 2210' FHL

Other Services
FDC/CHT
M/T

AM SERIAL NO. 35
UNAVAIL. 35
TYP. 24 N
RANGE 1 W

Permanent Datum Log Measured From KB KB 12.0 F above Perm. Datum

Date 06-JAN-88

Run No. ONE

Depth Logger 7860.0 F

Run Log Interval 7780.0 F

Top Log Interval 260.0 F

Catalog-Logger 300.0 F

Bit Size 12.25 IN 7.875 IN

Type Fluid in Hole GEL CHEM

Dens. Visc. 8.10 LB/G 66.0 S

pH PHL Loss 9.0 60 CS

Source of Sample MUD TANK

Run @ Meas. Temp. 4280 CHAM @ 66.0 DEG

Run @ Meas. Temp. 3880 CHAM @ 66.0 DEG

Run @ Meas. Temp. 7180 CHAM @ 66.0 DEG

Source: Run @ Meas. Temp. MEASURED CALCULATED

Run @ Meas. Temp. 1682 CHAM @ 66.0 DEG

Run @ Meas. Temp. 7100 1/8

Logger on Section 600 1/8

Max. Rec. Temp. 80. DEG

Equip. Location 691 FARMINGTON 334

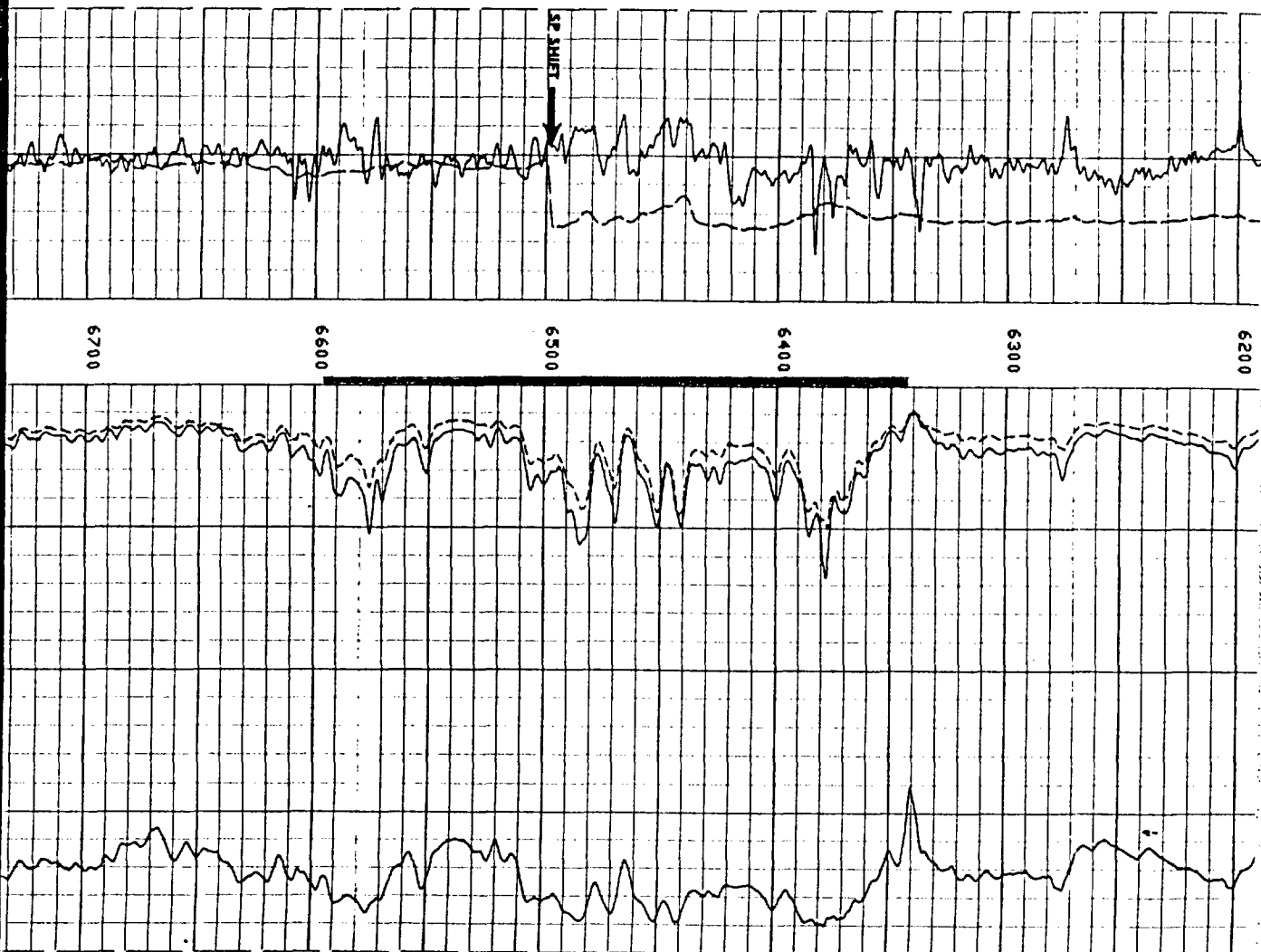
Recorded By AYRES

Witnessed By BRASUEL

JAN 12 1988

The well name, location and borehole reference data were furnished by the customer

FOLD HERE



UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

SUBMIT IN DUPLICATE

Form approved
Budget Bureau No. 1004-0137
Expires August 31, 1985

WELL COMPLETION OR RECOMPLETION REPORT AND LOGBOOK

1. TYPE OF WELL: ☒ OIL WELL ☐ GAS WELL ☐ DRY ☐ OTHER ☐
2. TYPE OF COMPLETION: ☒ NEW WELL ☐ WORK OVER ☐ REPAIR ☐ REPERFORATE ☐ REGRIND ☐ REGRIND AND REPERFORATE ☐
3. NAME OF OPERATOR: Amoco Production Company
4. ADDRESS OF OPERATOR: 2325 East 30th Street, Farmington, NM 87401

5. LOCATION OF WELL (Report location clearly and in accordance with instructions on reverse side)
At surface: 1660' FNL x 1680' FWL
At top prod. interval reported below: Same
At total depth: Same

6. PERMIT NO.: 14. PERMIT NO.: DATE ISSUED: 15. DATE REFILED: 16. DATE T.D. REACHED: 17. DATE COMED (Ready to prod): 18. ELEVATION (SURF., BND., RT., GR., ETC.): 19. CEMENT CEMENTED: 20. TOTAL DEPTH, MD & TVD: 21. PLUG BACK T.D., MD & TVD: 22. IF MULTIPLE COMPL., HOW MANY: 23. INTERVAL: 24. PRODUCING INTERVAL(S), OF THIS COMPLETION—TOP, BOTTOM, NAME (MD AND TVD): 25. WAS DIRECTIONAL SURVEY MADE: 26. TYPE ELECTRIC AND OTHER LOGS RUN: 27. WAS WELL CORED:

28. CASING RECORD (Report all strings set in well)
29. LINER RECORD
30. TUBING RECORD
31. PERFORATION RECORD (Interval, size and number)
32. ACID, SHOT, FRACTURE, CEMENT SQUEEZE, ETC.

33. PRODUCTION
34. DISPOSITION OF GAS (Solubility, vented, etc.)
35. LINE OF ATTACHMENT
36. I hereby certify that the foregoing information is complete and correct as determined from all available records.

37. SIGNED: [Signature] TITLE: Adm. Supervisor DATE: MAR 1 1988
38. Title 16 U.S.C. Section 1001, makes it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

39. NMOCC CASE #8946
40. BUSCH EXHIBIT #14

FINAL PRINT
Schlumberger

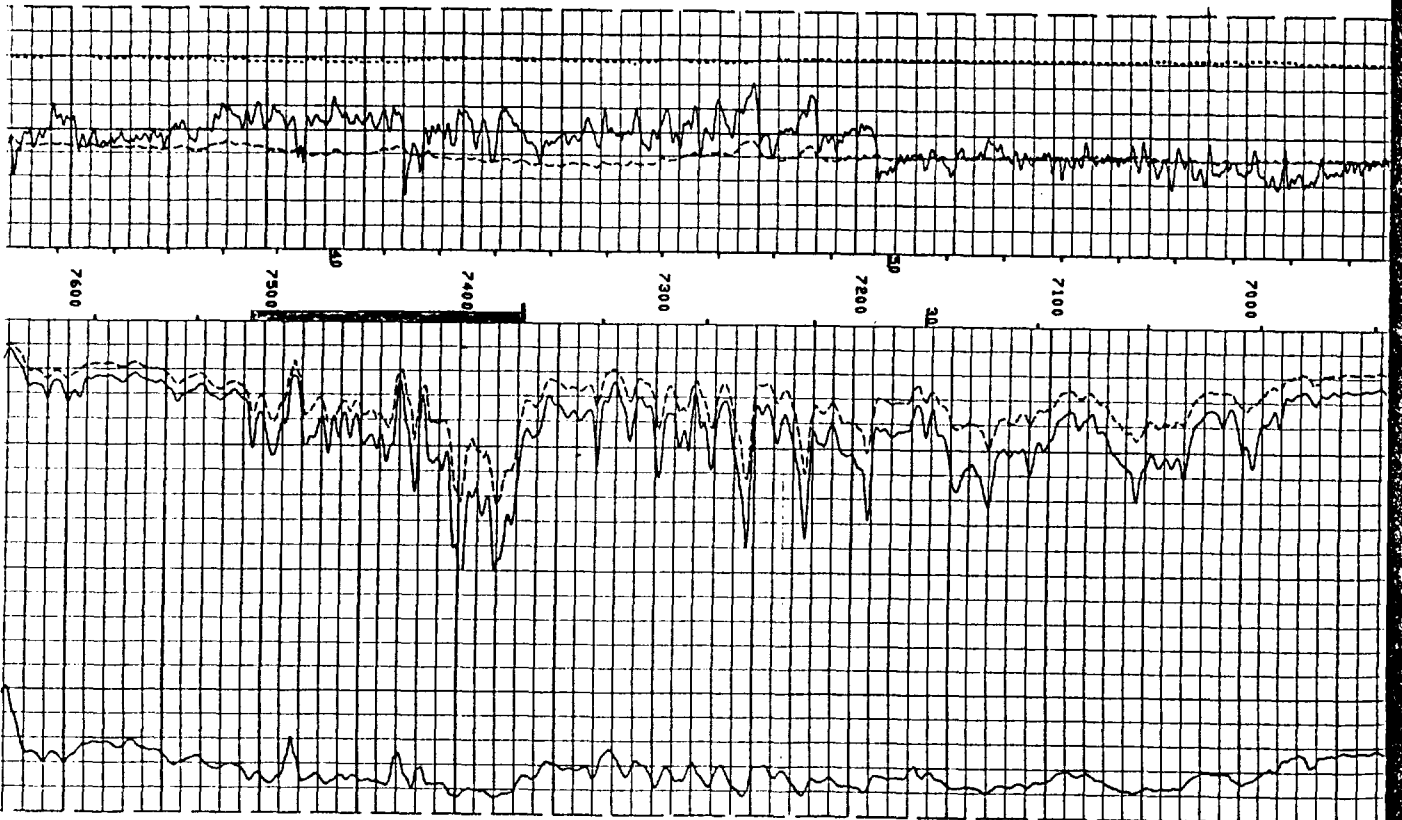
DUAL INDUCTION - SFL
WITH LINEAR CORRELATION LOG

COUNTY		NO ARRA	
FIELD		W LINDRITH GALLUP DAKOTA	
LOCATION		SE NW	
WELL		HILL TRUST FEDERAL COM #1	
COMPANY		AMOCO PRODUCTION	
WELL		HILL TRUST FEDERAL COM #1	
FIELD		W LINDRITH GALLUP DAKOTA	
COUNTY		NO ARRA	
STATE		NEW MEXICO	
LOCATION		SE NW	
AP SERIAL NO. SECT.		5	
TEMP.		25N	
RANGE		2W	
Other Services		DL RCC-CH BATT	
Permitment Datum		Q. Elev. 7360.0 F	
Log Measured From		KB 13.0 F above Perm. Datum	
Drilling Measured From		KB	
Date		NOV 10, 1987	
Run No.		ONE	
Depth Driller		8401.0 F	
Depth Logger (Suhl)		8404.0 F	
Blm. Log Interval		8398.0 F	
Top Log Interval		3200 F	
Casing-Driller		8 5/8 @ 3200 F	
Casing-Logger		3200 F	
Bit Size		7 7/8 IN	
Type Fluid in Hole		POLYCEL	
Dens. Visc.		8.00 LB/G 72.0 S	
pH		9.0	
Source of Sample		FLOWLINE	
Run @ Meas. Temp.		4.320 OHM @ 58.0 DEG	
Run @ Meas. Temp.		3.980 OHM @ 58.0 DEG	
Run @ Meas. Temp.		4.850 OHM @ 58.0 DEG	
Source: Run/ Runo		MEASURED CALCULATED	
Run @ BHT		1.638 OHM @ 57 DEG	
Circulation Ended		11:40 @ 0900	
Logger on Bottom		10:11 @ 1600	
Meas. Rec. Temp.		87 DEG	
Equip.		8774 FARMINGTON	
Recorded By		STTON	
Witnessed By		THOMAS	

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DIST. 3

FIELD HERE The well name, location and borehole reference data were furnished by the customer



Amoco Production Co.
Hill Trust Federal #1
5-25N-2W

February
date bopd mcf gor
C" zone only

3 15 20 1535
4 13 20 1538
5 12 20 1667
6 7 20 2857
7 6 20 3335
8 10 20 2000
28 20 20 1000
total 85 140 1687

March
date bopd mcf gor
A&B only

2 47 20 426
3 68 25 368
4 70 20 286
5 70 20 286
6 90 21 235
7 97 130 1340
8 85 130 1529
9 104 106 1019
10 85 106 1247
A, B, & C
21 60 78 1300
22 90 78 867
23 107 56 523
24 123 56 455
25 172 85 494
26 231 115 498
27 184 117 636
28 221 115 520
29 176 115 653
30 163 58 356
31 211 113 536
total 2454 1564 637

April
date bopd mcf gor

1 193 113 585
2 273 113 414
3 199 113 568
4 185 113 611
5 185 111 600
6 203 111 547
7 216 123 569
8 173 123 711
9 83 56 675
10 187 96 513
11 228 117 513
12 134 30 224
13 155 30 194
14 216 90 417
15 80 31 388
16 234 110 470
17 100 121 535
18 226 123 621
19 198 123 631
20 195 123 439
21 280 123 624
22 197 123 603
23 204 123 462
24 253 117 646
25 181 70 308
26 227 72 411
27 175 72 326
28 218 71 326
29 221 72 326
30 5818 2969 510
total 5818 2969 510

May
date bopd mcf gor

1 208 79 380
2 213 72 338
3 194 64 330
4 0 0
5 0 0
6 134 43 321
7 212 70 330
8 277 91 329
9 246 77 313
10 129 70 543
11 272 70 257
12 75 70 933
13 227 104 458
14 230 104 452
15 227 104 458
16 159 76 478
17 223 80 359
18 285 80 281
19 170 21 124
20 204 111 544
21 205 108 527
22 198 108 545
23 215 108 502
24 178 74 416
25 0 0
26 261 98 375
27 323 117 362
28 150 117 780
total 5215 2116 406

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OPERATOR	

NEW MEXICO OIL CONSERVATION COMMISSION
WELL COMPLETION OR RECOMPLETION REPORT (LAND LOG)

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**OIL CON. DIV.
DIST. 3**

Form C-105
Revised 11-1-80

5a. Indicate Type of Lease Lease ☒ Fee ☐
5b. Oil & Gas Lease No. D-2385
7. Unit Agreement Name
8. Farm or Lease Name State CC
9. Well No. 1
10. Field and Pool, or Wildcat W Puerto Chiquito Mancos
11. County Rio Arriba
18. Elevations (DF, RAN, RT, GR, etc.) 7292' GR
19. Elev. Casinghead 7305'
23. Interval Drilled By O-TD
25. Was Directional Survey Made Yes
27. Was Well Cored No

10. TYPE OF WELL OIL WELL ☒ GAS WELL ☐ DRY ☐ OTHER ☐					
11. TYPE OF COMPLETION NEW WELL ☒ WORK OVER ☐ DEEPEN ☐ PLUG BACK ☐ DIFF. RESVR. ☐ OTHER ☐					
2. Name of Operator Amoco Production Company					
3. Address of Operator 2325 East 30th Street Farmington, NM 87401					
4. Location of Well UNIT LETTER J LOCATED 1650 FEET FROM THE South LINE AND 2100 FEET FROM THE East LINE OF SEC. 26 TWP. 24N RGE. 1W NMPW					
15. Date Spudded 11-4-87	16. Date T.D. Reached 11-14-87	17. Date Compl. (Ready to Prod.) 1-5-88	18. Elevations (DF, RAN, RT, GR, etc.) 7292' GR	19. Elev. Casinghead 7305'	
20. Total Depth 6860'	21. Plug Back T.D. 6795'	22. If Multiple Compl., How Many Single	23. Interval Drilled By O-TD	24. Producing Interval(s), of this completion - Top, Bottom, Name 6662' - 6736' Mancos	25. Was Directional Survey Made Yes
26. Type Electric and Other Logs Run CNL-FDC, DIL-SFL-GR					27. Was Well Cored No
32. CASING RECORD (Report all strings set in well)					
CASING SIZE	WEIGHT LB./FT.	DEPTH SET	HOLE SIZE	CEMENTING RECORD	AMOUNT PULLED
9-5/8"	36 # KSS	317'	12-1/4"	260 cf Class B Ideal	
5-1/2"	15.5 # KSS	6859'	7-7/8"	665 cf Class B 50:50 ppz.	
				1192 cf Class B 65:35 ppz.	
				117 cf Class B Ideal	
30. LINER RECORD					
SIZE	TOP	BOTTOM	SACKS CEMENT	SCREEN	PACKER SET
				2-7/8"	6752'
31. Perforation Record (Interval, size and number) 6662'-6676', 6676'-6696', 6696'-6716', 6716'-6736', 2 japt, .45" in diameter, for a total of 148 holes					
32. ACID, SHOT, FRACTURE, CEMENT SQUEEZE, ETC.					
DEPTH INTERVAL		AMOUNT AND KIND MATERIAL USED			
6662'-6736'		85,000 gals 30# gel surf. per 1000 gals 2% KCL, 87,500 # 20-40 mesh Brady sand			
33. PRODUCTION					
Date First Production 1-5-88		Production Method (Flowing, gas lift, pumping - Size and type pump) Pumping - 2x2x20 RHBCT-TS			Well Status (Prod. or Shut-in) Producing
Date of Test 1-30-88	Hours Tested 24 hrs	Choke Size	Prod'n. for Test Period Oil - Bbl. 325	Gas - MCF 0	Water - Bbl. 27
Flow Tubing Press. 90 psig	Casing Pressure 90 psig	Calculated 24-Hour Rate Oil - Bbl. 325	Gas - MCF 0	Water - Bbl. 27	Oil Gravity - API (Corr.) 41.2
34. Disposition of Gas (Sold, used for fuel, vented, etc.) Vented or used for fuel					Test Witnessed By Albert Salazar
35. List of Attachments					
36. I hereby certify that the information shown on both sides of this form is true and complete to the best of my knowledge and belief.					
SIGNED BAShaw		TITLE Adm Supervisor		DATE 2-4-88	

NMOCC CASE #8946
BUSCH EXHIBIT #12

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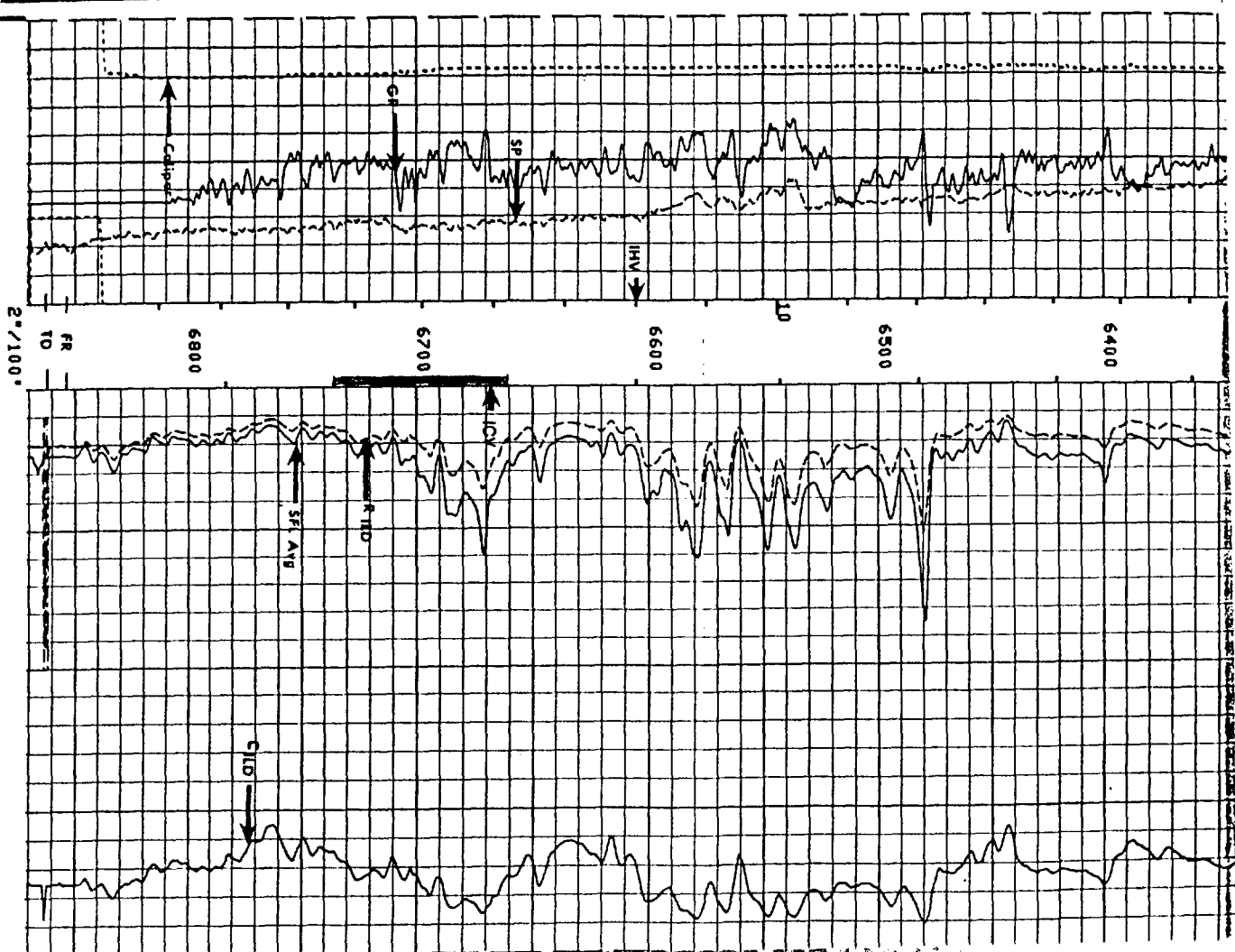
FINAL PRINT
Schlumberger

DUAL INDUCTION - SFL
WITH LINEAR CORRELATION LOG

COUNTY		RIO ARriba	
FIELD		W. PUERTO CHOQUITO MANCOS	
LOCATION		1680' FB. & 2100' FB.	
WELL		STATE CC #1	
COMPANY		AMOCO PRODUCTION COMPANY	
WELL		STATE CC #1	
FIELD		W. PUERTO CHOQUITO MANCOS	
COUNTY		RIO ARriba	
STATE		NEW MEXICO	
LOCATION		1680' FB. & 2100' FB.	
API SERIAL NO.	26	TRIP	24N
RECT.		RANGE	1W
Permanent Datum		Q.	
Log Measured From		KB	
Drilling Measured From		KB	
Date	14-MAY-87		
Run No.	ONE		
Depth Driller	6861.0 F		
Depth Logger (80m)	6861.0 F		
Sum Log Interval	6855.0 F		
Top Log Interval	6855.0 F		
Casing-Driller	6855.0 F		
Casing-Logger	6855.0 F		
Bit Size	7.875		
Type Fluid in Hole	L.S.M.D.		
Chem.	8.80 LB/G		
pH	8.5		
Source of Sample	TANK		
Run @ Meas. Temp.	6.420 OHM @ 65.0 DEG		
Run @ Meas. Temp.	4.870 OHM @ 68.0 DEG		
Run @ Meas. Temp.	8.130 OHM @ 65.0 DEG		
Source: Pmt	WELLS		
Run @ Meas. Temp.	2.266 OHM @ 96.0 DEG		
Run @ Meas. Temp.	2000 TVS		
Log on Bottom	2.45 TVS		
Max. Rec. Temp.	96.0 DEG		
Equip.	874		
Recorded By	GAMER/STTON		
Witnessed By	D. DEL VENTHAL		

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The well name, location and borehole reference data were furnished by the customer.



STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT

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

Form C-118
Revised 10-1-78

GAS - OIL RATIO TESTS

Operator Amoco Production Well Puerto Chiquito County Rio Arriba
Address 2325 east 30th Street Farmington, NM 87401 Type of Test West Schedule ☐ ☒ Completion ☒ ☐ Serial ☐

LEASE NAME	WELL NO.	LOCATION				DATE OF TEST	CHOKER SIZE	T.B.C. PRESS	DAILY ALLOW. ADLE	TEST OF HOURS	PROD. DURING TEST				GAS - OIL RATIO CU. FT. BBL
		U	S	T	R						WATER BBL'S.	GRAV. OIL BBL'S.	GAS M.C.F.		
State Com CC	1	3	26	N24	W01	2/6/58	P			24	0	626	100	160	

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OIL CON. DIV.
DIST. 3

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OIL CON. DIV.
DIST. 3

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 allowable when authorized by the Division.

Gas volumes must be reported in SICP measured at a pressure base of 15.023 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.

Must submit and one copy of this report to the district office of the New Mexico Oil Conservation Division in accordance with Rule 331 and appropriate pool rules.

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

[Signature]
By W. H. 5072
6-7-88

DATE OF COMPLETION	
DISTRIBUTION	
FILE	
NAME	
LOCATION	
OPERATOR	

WELL COMPLETION OR RECOMPLETION REPORT AND LOG

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1. TYPE OF WELL OIL WELL ☒ GAS WELL ☐ HOT ☐		2. TYPE OF COMPLETION NEW WELL ☒ MOD OVER ☐ DEEPEN ☐ PLUG BACK ☐ DIFF. LEVEL ☐ OTHER ☐		3. Name of Operator Amoco Production Co.		4. Address of Operator 501 Airport Drive, Farmington, N M 87401		5. Location of Well West Line of Sec. 25 Twp. 24N Rge. 1W		6. Unit Agreement Name Schmitz Anticline			
7. Date of Completion 4-20-84		8. Date T.D. Reached 5-14-84		9. Date Compl. (Ready to Prod.) 7-24-84		10. Elevations (D.F., H.A.I., R.T., G.N., etc.) 7274' KB		11. Elev. Casinghead 7262' GR		12. Well No. 1			
13. Total Depth 7744'		14. Plug Back T.D. 7700'		15. Multiple Compl., How Many Two		16. Intervenor History Tools Drilled By: O-TD		17. Cable Tools		18. Field and Pool or Hydraulic Manco			
19. Producing Interval(s), of this completion - Top, Bottom, Name 6420'-6510' Gallup										20. Was Directional Survey Made Yes			
21. Type Electric and Other Logs Run DIL-SP-GR; Lithodensity-GR; Dipmeter; Lss-Volan; EPT										22. Was Well Cored No			
23. CASING RECORD (Report all strings set in well)													
Casing Size		Weight Lb./Ft.		Depth Set		Hole Size		Cementing Record		Amount Pulled			
8-5/8"		24# K55		332'		12-1/4"		318 cf Class II Neat					
5-1/2"		15.5# K55		7744'		7-7/8"		955 cf Class B Neat		1247 cf Class B Neat			
24. LINER RECORD													
Size		Top		Bottom		Sacks Cement		Screen		Packer Set			
25. TUBING RECORD													
Size		Depth Set		Packer Set									
2-7/8"		6509'											
26. Perforation Record (Interval, size and number)													
5790'-5830', 5890'-5920', 5990'-6030', 6120'-6200', 6250'-6380', 6420'-6510', 1 jsfpf, .33", 205 holes.													
27. ACID, SHOT, FRACTURE, CEMENT SQUEEZE, ETC.													
Depth Interval		Amount and Kind Material Used											
6250'-6510'		102,000 gal 30# gel and 99,600 # 20-40 Sand											
5790'-6200'		141,000 gal 30# gel and 111,200 # 30-40 Sand (Over)											
28. PRODUCTION													
First Production 7-24-84		Production Method (Flowing, gas lift, pumping - size and type pump) Pumping 2" x 1-1/2" x 20' pump						Well Status (Prod. or Shut-in) Shut-in					
Date of Test 7-25-84		Hours Tested 3 hrs		Choke Size open		Pressure, Flow Test Period 5.4		Oil - Bbl. 3		Water - Bbl. 4.4		Gas - Oil Ratio 558	
Flowing Pressure 0 psig		Casing Pressure 145 psig		Calculated 24-Hour Rate 43		Oil - Bbl. 24		Gas - MCF 35		Water - Bbl. 35		Oil Gravity - API (Curr.)	
29. Disposition of Gas (Sold, used for fuel, vented, etc.) vented and lease use										Test Witnessed by Hollis Vaughn			
30. List of Attachments None													
I hereby certify that the information shown on both sides of this form is true and complete to the best of my knowledge and belief.													
SIGNED: <u>BS Shaw</u>				TITLE: <u>Adm. Supervisor</u>				DATE: <u>7-25-85</u>					

Note - 32. 5790'-6380' squeezed with 767 cf Class B, 2% CaCl₂, .8% D-60

This form is to be filed with the appropriate District Office of the Division not later than 20 days after the completion of any newly drilled or recompleted well. It shall be accompanied by two copies of all charts and logs run in the well and a summary of all reported test results. In the case of a shut-in well, all depth reports shall be run and depth, in the case of a directionally drilled well, two vertical depths shall be reported. The form shall be completed, from top through bottom, for each zone. The form is to be filed in duplicate in the appropriate district office, where the original is required, for Rule 1135.

INDICATE FORMATION TOPS IN CONFORMANCE WITH GEOGRAPHICAL SECTION OF STATE

Southeastern New Mexico				Northwestern New Mexico			
T. Anhy	T. Canyon	T. Ojo Alamo	1910	T. Penn. "H"			
T. Salt	T. Strawn	T. Rutland-Fruitland	2200	T. Penn. "C"			
H. Salt	T. Alaka	T. Pictured Cliffs	2360	T. Penn. "D"			
T. Yates	T. Miss	T. Cliff House	4550	T. Leadville			
T. 2 Rivers	T. Devonian	T. Hecles	4760	T. Madison			
	T. Permian	T. Permian	4910	T. Tuff			

NMOCC CASE #8946
BUSCH EXHIBIT #11

DUAL INDUCTION - SFL

CSU

4

COMPANY: AMOCO PRODUCTION COMPANY
WELL: AMOCO FEB, SCHMITZ ANTICLINE #1
FIELD: BASIN DAKOTA W, PUERTO CHIQUITO MANCOS
COUNTY: RIO ARRIJA
STATE: NEW MEXICO

LOCATION: 1980 FWL
1650 FSL
SEC: 25
TWP: 24 N
RGE: 1 W

PERMANENT DATUM: G. L.
ELEV. OF PERM. DATUM: 7262.0 F
LOG MEASURED FROM: K. 3.
12.0 F ABOVE PERM. DATUM
DRLG. MEASURED FROM: K. 3.

DATE: 13 MAY 84
RUN NO: 1

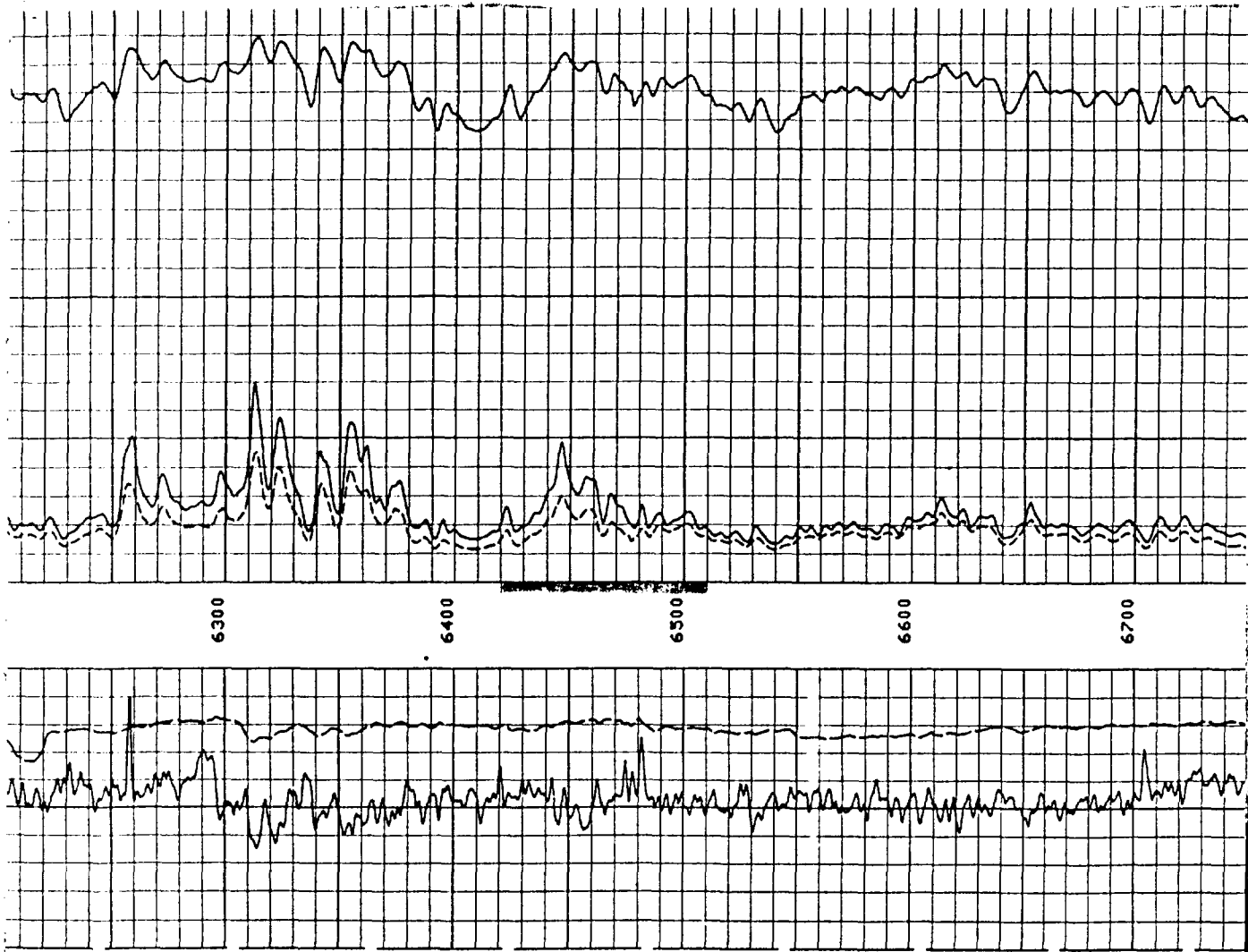
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DEPTH-DRILLER: 7743.0 F
DEPTH-LOGGER: 7744.0 F
BTH. LOG INTERVAL: 7733.0 F
TOP LOG INTERVAL:

CASING-DRILLER: 336 F
CASING-LOGGER: 333 F
CASING: 8.625

SIZE: 7.875

OIL CON. DIV.
DIST. 3



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NEW MEXICO OIL CONSERVATION COMMISSION
WELL COMPLETION OR RECOMPLETION REPORT AND LOG

Form C-105
Revised 10-1-86

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OIL CON. DIV.
DIST. 3

10. TYPE OF WELL OIL WELL ☒ GAS WELL ☐ DRY ☐ OTHER ☐		5a. Indicate Type of Lease State ☐ Free ☒	
b. TYPE OF COMPLETION NEW WELL ☒ WORK OVER ☐ DEEPEN ☐ PLUS BACK ☐ DIFF. RESVR. ☐		5. State Oil & Gas Lease No.	
2. Name of Operator Amoco Production Company		7. Unit Agreement Name Bear Canyon Unit	
3. Address of Operator 2325 E. 30th Farmington, NM 87401		8. Form or Lease Name	
4. Location of Well		9. Well No. 1	
UNIT LETTER <u>G</u> LOCATED <u>1680</u> FEET FROM THE <u>North</u> LINE AND <u>1780</u> FEET FROM THE <u>East</u> LINE OF SEC. <u>15</u> TWP. <u>26N</u> RGE. <u>2W</u>		10. Field and Pool, or Wildcat Gavilan - Mancos Ext.	
15. Date Spudded 05-23-87		12. County Rio Arriba	
16. Date T.D. Reached 06-25-87		13. Elev. Casinghead GR 7395'	
17. Date Compl. (Ready to Prod.) 07-30-87		14. Interventions (DF, RKB, RT, GR, etc.) KB 7418'	
20. Total Depth 8316'		21. Flowback T.D. 8256'	
22. If Multiple Compl., How Many One		23. Interval Drilled By O-Td	
24. Producing Interval(s) of this completion - Top, Bottom, Thru 7346' - 7442' Gavilan Mancos Ext.		25. Was Directional Survey Made Yes	
26. Type Electric and Other Logs Run BHC, CAL, GR; ZDL, CN, CAL, GR; CALOG/ORIEN; CDL, SL, CAL, GR		27. Was Well Cored No	
28. CASING RECORD (Report all strings set in well)			
CASING SIZE	WEIGHT LB. FT.	DEPTH SET	CEMENTING RECORD
9-5/8"	36# J55	361'	295 cf Class B Ideal
5-1/2"	17# & 15.5#	8316'	1408 cf Class B Ideal
	N-80 & J55		
29. LINER RECORD		30. TUBING RECORD	
SIZE	TOP	BOTTOM	PACKER SET
			2-7/8"
31. Perforation Record (Interval, size and number) 7346' - 7442' 2 jsfp .51" dia. 192 holes		32. ACID, SHOT, FRACTURE, CEMENT SQUEEZE, ETC.	
		DEPTH INTERVAL	
		7346' - 7442'	
		AMOUNT AND KIND MATERIAL USED	
		162988 gal 30# xlink gel	
		143600# 20-40 mesh brady sand	
33. PRODUCTION			
Date First Production 07-30-87	Production Method (Flowing, gas lift, pumping - Size and type pump) Pumping 2" x 2" x 28' RWBC		Well Status (Prod. or Shut-in) Shut-in
Date of Test 08-23-87	Hours Tested 24	Flow Rate 167	Water - Bbl. 77
Flow Tubing Press. 70	Casing Pressure 80	Calculated 24-Hour Rate 167	Gas - Bbl. 2
34. Disposition of Gas (Sold, used for fuel, vented, etc.) To be sold		Test Witnessed By M. McClelland	
35. List of Attachments None			
36. I hereby certify that the information shown on both sides of this form is true and complete to the best of my knowledge and belief.			
SIGNED <u>BSShaw</u>		TITLE <u>Adm. Supervisor</u> DATE <u>November 16, 1987</u>	

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NMOCC CASE #8946
BUSCH EXHIBIT #15

CONFIDENTIAL

Dresser Atlas

DRESSER

DUAL INDUCTION FOCUSED LOG

GRAMMA RAY

FILE NO.

COMPANY MOCO PRODUCTION COMPANY

WELL NO.

WELL 9559 CANYON UNIT NO. 1

APPROX. NO.

FIELD CAULLEN MANCOS

STATE NEW MEXICO

TIGHT HOLE!

LOCATION: SEC 15 TWP 26-N RGE 2-E

OTHER SERVICES

PERMITS DRILLING FROM 13.0' FT. ABOVE P.O.

ELEVATIONS

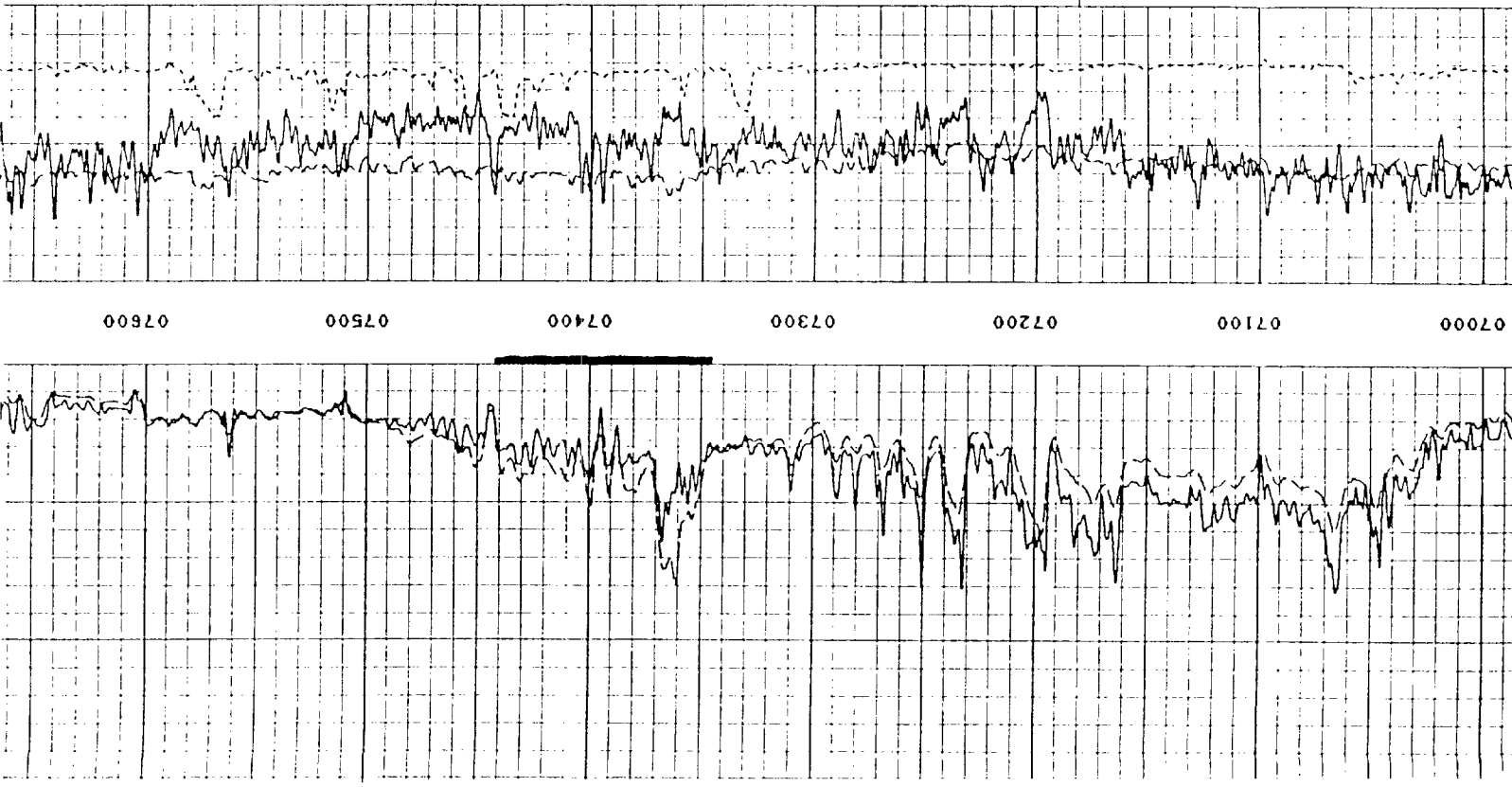
DATE JUNE 23, 1987

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AUG 12 1987

OIL CON. DIV. / DIST. 3

SERVICE ORDER	1	121639	
DEPTH-DRILLER	8315'		
DEPTH-LOGGER	8304'		
BOTTOM LOGGED INTERVAL	8302'		
TOP LOGGED INTERVAL	2802'		
CASING - DRILLER	9 5/8"	0 362'	
CASING - LOGGER	362'		
BIT SIZE	1 7/8"		
TYPE FLUID IN HOLE	LSND/COF	73	
DENSITY / VISCOSITY	8.7		
PH / FLUID LOSS	8.5	5.6	
SOURCE OF SAMPLE	FROM LINE		
RM AT WEAS. TEMP.	1.36	0 72	
RM AT WEAS. TEMP.	1.04	0 70	
RM AT WEAS. TEMP.	1.72	0 70	
SOURCE OF RM / GWC	MEAS. REC	MEASURED	
RM AT WEAS. TEMP.	2.56	0 168	
LINE SINCE CIRCULATION	6 NO. 25		
MAX. REC. TEMP. DEG. F	165		
WELL NO. / LOC.	9559-383	DOSSER, TX.	
DRILLING & LOGGING	DRILLING & LOGGING		
LOGGING & LOGGING	LOGGING & LOGGING		



Amoco Production Co.
Bear Canyon Unit #1
15-26N-2W

January				February				March				April				May			
date	bopd	mcf	gor	date	bopd	mcf	gor	date	bopd	mcf	gor	date	bopd	mcf	gor	date	bopd	mcf	gor
6	327	20	61	1	360	252	700	1	369	40	108	1	355	40	113	12	334	40	120
7	154	20	130	2	274	221	807	2	365	40	110	2	330	40	121	13	334	40	120
8	382	20	52	3	311	45	145	3	305	40	131	3	309	40	129	14	429	40	93
9	121	20	165	4	320	80	250	4	307	40	130	4	327	40	122	15	401	40	100
10	303	20	66	5	333	20	60	5	336	40	119	total	1321	160	121	16	247	40	162
11	316	20	63	6	330	60	182	6	342	40	117					17	196	36	184
12	326	20	61	7	284	20	70	7	287	40	139					18	440	30	68
13	365	20	55	8	314	20	64	8	330	40	121					19	252	35	139
14	316	327	1035	9	197	20	102	9	321	40	125					20	330	36	109
15	338	310	917	10	303	20	66	10	365	40	110					21	402	36	90
16	354	20	56	11	262	20	76	11	347	40	115					22	414	36	87
17	474	109	230	12	302	20	66	12	346	40	116					23	401	41	102
18	364	20	55	13	368	20	54	13	343	40	117					24	0	0	ERR
19	354	20	56	14	308	20	65	14	304	40	132					25	213	36	169
20	355	20	56	15	366	20	55	15	300	40	133					26	372	61	164
21	324	20	62	16	334	20	60	16	350	40	114					27	427	95	222
22	358	20	56	17	272	20	74	17	309	40	129					28	412	75	182
23	316	20	63	18	373	20	54	18	350	40	114					29	296	45	152
24	309	20	65	19	317	20	63	19	327	40	122					30	384	73	190
25	334	20	60	20	310	20	65	20	373	40	107					31	772	49	63
26	267	20	75	21	0	0		21	336	40	119					total	7056	884	125
27	46	20	435	22	0	0		22	309	40	129								
28	273	47	172	23	0	0		23	338	40	118								
29	374	90	241	24	0	0		24	321	40	125								
30	370	90	243	25	320	20	63	25	343	40	117								
31	353	201	569	26	127	20	157	26	305	40	131								
total	8173	1554	190	27	33	20	606	27	309	40	129								
				28	271	20	74	28	401	40	100								
				29	308	20	65	29	99	40	404								
				total	7297	1058	145	30	365	40	110								
								31	359	40	111								
								total	10161	1240	122								

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

SUBMIT IN DUPLICATE*

Form approved.
Budget: Bureau No. 1004-0137
Expires August 31, 1985

WELL COMPLETION OR RECOMPLETION REPORT AND LOG*

1. TYPE OF WELL: ☒ OIL WELL ☐ GAS WELL ☐ DRY ☐ (Other) 88 MAR 24 AM 11:23

2. TYPE OF COMPLETION: ☒ NEW WELL ☐ REPAIR ☐ PATCH ☐ PATCH ☐ PATCH ☐ PATCH ☐ PATCH

3. NAME OF OPERATOR: Amoco Production Company

4. ADDRESS OF OPERATOR: 2325 E. 30th, Farmington, NM 87401

5. LOCATION OF WELL (Report location clearly and in accordance with applicable requirements):
At surface: 880 FNL x 2280 FWL
At top prod. interval reported below: Same
At total depth: Same

6. PERMIT NO.: 10 DATE ISSUED: MAR 30

7. UNIT SURVEYMENT NAME: Pear Canyon Unit

8. FARM OR LEASE NAME: FARMINGTON RESOURCE AREA

9. WELL NO.: 2

10. WELL NAME: Wildcat Dakota and Gavilan Mancos Ext.

11. NE 1/4, T. 1 N., R. 1 E., S. 4 SW, BLK. 20, T26N R2W

12. COUNTY OR PARISH: Rio Arriba STATE: NM

13. DATE SPUNNER: 11/20/87 14. DATE T.D. REACHED: 01/03/88 15. DATE COMPL. (ready to prod.): 02/03/88 16. ELEVATION (IDF, RAB, RT, GL, ETC.): KB 7208' 17. ELEV. CAPPING: GR 7195'

18. TOTAL DEPTH, MD & TVD: 7510' 19. PLUG, BACK T.D., MD & TVD: 7461' 20. IF MULTIPLE COMPL., HOW MANY? 1 21. INTERVAL UNILLED BY: O-TD 22. NOTARY TOOLS: CABLE TOOLS

23. PRODUCING INTERVAL(S) OF THIS COMPLETION—TOP, BOTTOM, NAME (MD AND TVD): 7194'-7338' Gallup 24. WAY DIRECTIONAL SURVEY MADE: Yes

25. TYPE ELECTRIC AND OTHER LOGS R/A: DIL-GR-SP, BHIV 26. WAS WELL CORRE: No

27. CASING RECORD (Report all strings set on well):

CASING SIZE	WEIGHT, LB./FT.	DEPTH RET (MD)	HOLE SIZE	CEMENTING RECORD	AMOUNT PULLED
9-5/8"	36# K55	305'	12-1/4"	236 cf Class B	
5-1/2"	17# K55	7510'	7-7/8"	825 cf Class B	
				1200 cf Class B	

28. LINER RECORD:

SIZE	TOP (MD)	BOTTOM (MD)	BACKER CEMENT	SCREEN (MD)

29. TUBING RECORD:

SIZE	DEPTH RET (MD)	PACKER RET (MD)
2-7/8"	7381'	

30. PERFORATION RECORD (Interval, size and number): 7194'-7338', 2jspf, .5" dia, 288 holes

31. ACID, SHOT, FRACTURE, CEMENT SQUEEZE, ETC.

DEPTH INTERVAL (MD)	AMOUNT AND KIND OF MATERIAL USED
7194'-7338'	96350 gal 30# xlink gel
	110000# 20-40 mesh brady sand

32. PRODUCTION

DATE FIRST PRODUCTION: 2/3/88 PRODUCTION METHOD (Flowing, gas lift, pumping—size and type of pump): Pumping 2-1/2" x 2" x 30' RHBC WELL STATUS (Producing or shut-in): Shut-in

DATE OF TEST: 2/15/88 HOUR TESTED: 24 CHOKER SIZE: 288 PROD. VOL TEST PERIOD: 60 OIL—BBL: 7 WATER—BBL: 208 GAS—MCF: 208

FLOW, TUBING PRESS. 100 CASING PRESSURE 100 CALCULATED 24-HOUR RATE 288 OIL—BBL: 60 GAS—MCF: 7 WATER—BBL: 208 OIL GRAVITY-AP: (CORR.)

33. DISPOSITION OF GAS (Sole, used for fuel, vented, etc.): To be sold TEST WITNESSED BY: Floyd Thomas

34. LIST OF ATTACHMENTS: None

35. I, BS Shaw, certify that the foregoing and attached information is complete and correct as furnished from all available sources.

SIGNED: BS Shaw DATE: March 21, 1988

APPROVED: Adrian Supervisor DATE: March 21, 1988

*(See instructions and spaces for Additional Data on Reverse Side)

False or misleading information furnished to the Bureau of Land Management is a crime under the provisions of the Federal Criminal Code, 18 U.S.C. Section 1001, and may result in the suspension or revocation of the permit to drill or produce oil or gas within the jurisdiction of the Bureau.

NMOCC CASE #8946
BUSCH EXHIBIT #1

Final Print
Schlumberger

DUAL INDUCTION - SFL

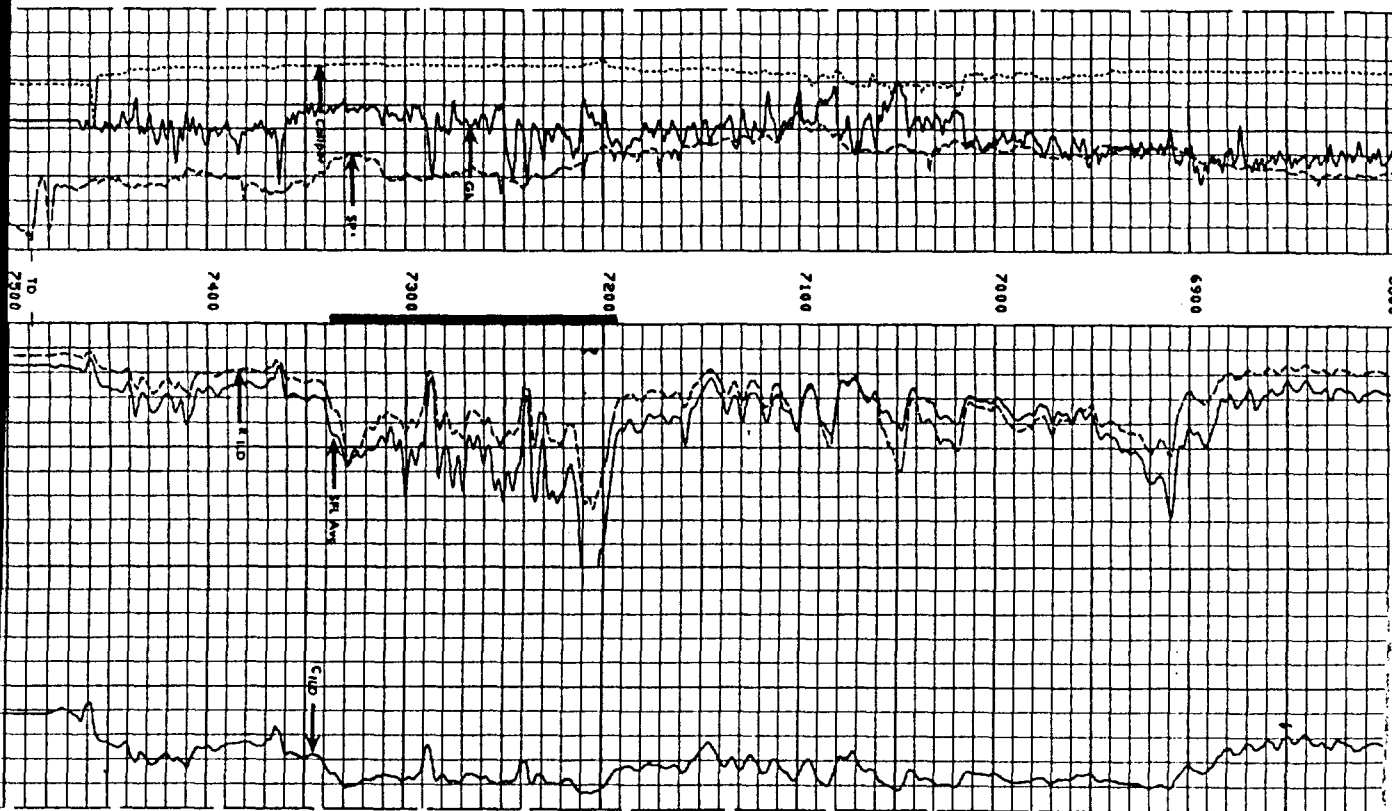
COUNTY		NO ARIBA	
FIELD		GAVLAN MANCOS EXTENSION	
LOCATION		800' PHL & 2280' PHL	
WELL		BEAR CANYON UNIT #2	
COMPANY		AMOCO PRODUCTION COMPANY	
WELL		BEAR CANYON UNIT #2	
FIELD		GAVLAN MANCOS EXTENSION	
COUNTY		NO ARIBA	
STATE		NEW MEXICO	
LOCATION		800' PHL & 2280' PHL	
NE/SE		NW/NE	
AP SERIAL NO.		10	
TWP.		26N	
RANGE		21W	
DATE		30-DEC-87	
PERMANENT DATUM		QZ	
LOG MEASURED FROM		13	
DRAINING MEASURED FROM		13	
DATE		30-DEC-87	
RUN NO.		1	
DEPTH DRILLING		7600.0 F	
DEPTH LOGGED (feet)		7480.0 F	
BIRM. LOG INTERVAL		7481.0 F	
TOP LOG INTERVAL		304.0 F	
Casing-Drill		4445 8000.0'	
Casing-Log		304.0 F	
BIT SIZE		7 7/8	
TYPE PUMP IN HOSE		QZL CHEM/CH	
VISC.		680 LB/G	
PH		6.0	
PH		6.0	
SOURCE OF SAMPLE		FLOW LINE	
RUN @ Meas. Temp.		2120 O-ALM @ 67.0 DEGF	
RUN @ Meas. Temp.		1770 O-ALM @ 67.0 DEGF	
RUN @ Meas. Temp.		2190 O-ALM @ 67.0 DEGF	
SOURCE: RUN / RUN		NEAS / CALC	
RUN @ BIT		1008 O-ALM @ 14.8 DEGF	
CHECKSUM INDEX		1430 12/30/87	
LOGGED ON BOTTOM		230 17/18	
MEAS. RUN TEMP.		14.8 DEGF	
LOGG. LOCATION		FARMINGTON	
RECORDED BY		M. BUECK	
WITNESSED BY		D. DAVERTHAL	

CONFIDENTIAL
DECEMBER
FEB 1 8 1988

OIL CON. DIV.
DIS. 2

FOLD HERE

The well name, location and borehole reference data were furnished by the customer.



Amoco Production Co.
 Bear Canyon Unit #2
 10-26N-2W

February				March				April			
date	bopd	scf	gor	date	bopd	scf	gor	date	bopd	scf	gor
8	288	0	0	1	352	70	199	1	454	0	0
16	292	54	185	2	294	70	238	2	424	26	61
17	372	60	161	3	258	78	302	3	427	82	192
18	92	69	750	4	330	83	252	4	315	82	260
19	182	79	434	5	365	83	227	5	411	82	200
20	256	76	297	6	280	78	279	6	339	82	242
21	70	32	457	7	278	73	263	7	431	82	190
22	12	11	917	8	318	78	245	8	311	74	238
23	376	54	144	9	174	32	184	total	3112	510	164
24	309	63	204	10	366	81	221				
25	275	129	469	11	265	32	121				
26	246	104	423	12	331	32	97				
27	267	67	251	13	38	32	842				
28	176	70	398	14	111	73	658				
29	208	70	337	15	388	0	0				
total	3421	938	274	16	406	38	94				
				17	378	44	116				
				18	157	44	280				
				19	467	44	94				
				20	332	44	133				
				21	390	44	113				
				22	337	44	131				
				23	359	93	259				
				24	304	56	184				
				25	400	38	95				
				26	367	82	223				
				27	327	82	251				
				28	291	82	282				
				29	295	82	278				
				30	319	82	257				
				31	383	82	214				
				total	9660	1876	194				

30)

UNITED STATES

SUBMIT IN DUPLICATE

Form approved.
Budget: Bureau No. 1004-0137
Expires August 31, 1985

DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

RECEIVED
BLM MAIL ROOM

WELL COMPLETION OR RECOMPLETION REPORT AND LOG*

1. TYPE OF WELL: OIL ☒ GAS ☐ DRY ☐
2. TYPE OF COMPLETION: NEW ☒ WORK OVER ☐ DEEP ☐ DEEP ☐ DIFF. CEMENT ☐
3. NAME OF OPERATOR: Amoco Production Co.
4. ADDRESS OF OPERATOR: 2325 East 30th Farmington NM 87401
5. LOCATION OF WELL (Report location clearly and in accordance with any State requirements):
At surface: 1820' FSL x 970' FWL
At top prod. interval reported below: Same
At total depth: Same

FARMINGTON RESOURCE AREA
FARMINGTON, NEW MEXICO

7. LEAD DESIGNATION AND SERIAL NO.
Nm-66506
8. IF INDIAN, ALLOTTEE OR TRIBE NAME

9. UNIT AGREEMENT NAME
Bear Canyon Unit
10. FIELD AND POOL OR WILDCAT
Wildcat Dakota and
Gavilan Mancos Ext.

11. NW 1/4, S. 1/4, E. 1/4, SECTION, T. 1N, R. 1E, S. 10E
NW/SE Sec 11
T26N R2W

12. COUNTY OR PARISH
Rio Arriba NM
13. STATE

15. DATE STUDIED: 1-5-88
16. DATE T.D. REACHED: 2-10-88
17. DATE COMPLETION (Ready to prod.): 4-21-88
18. ELEVATIONS (D.F., H.B., RT, GR, ETC.): Kb 7366', Gr 7353'

19. TOTAL DEPTH, MD & TVD: 8411'
20. PLUG BACK T.D., MD & TVD: 7610'
21. IF MULTIPLE COMPLETIONS, HOW MANY?
22. INTERESTED PARTIES: 0-7d
23. HORIZONTAL SURVEY MADE: Yes

24. PRODUCING INTERVALS OF THIS COMPLETION—TOP, BOTTOM, NAME (MD AND TVD): 7326'-7470' Gallup
25. TYPE ELECTRIC AND OTHER LOGS RUN: OIL-FDC-CNL-BHTV-GR-SP-CAL
26. WAS WELL CORRECTION MADE: No

27. CASING RECORD (Report all strings set in well)
28. LINER RECORD
29. TUBING RECORD

CASING SIZE	WEIGHT, LB./FT.	DEPTH SET (MD)	HOLE SIZE	CEMENTING RECORD	AMOUNT PULLED
9-5/8"	36# K55	308'	12-1/4"	236 cf Class B	
7"	23# N80	6898'	8-3/4"	116 cf Class B	
				118 cf Class B	
				11617 cf Class B	118 cf Class B

SIZE	TOP (MD)	BOTTOM (MD)	BACKER CEMENT	SCREEN (MD)	SIZE	DEPTH SET (MD)	PACKER SET (MD)
4-1/2"	6564'	8401'	570 cf		2-7/8"	7310'	
					BP	7610'	

30. PERFORATION RECORD (Interval, size and number): 8170'-8222', 4 jsp, .50" dia, 208 holes, 7326'-7470', 2 jsp, .50" dia, 288 holes
31. ACID, SHOT, FRACTURE, CEMENT SQUEEZE, ETC.
32. DEPTH INTERVAL (MD): 8170'-8222', 8100', 6464'-6475'
33. AMOUNT AND KIND OF MATERIAL USED: 60,000 gal 30# xlink gel, 85,000# 20-40 mesh Brady's, CIBP 2 x cement, 130 sx Class B cement (over)

34. DATE FIRST PRODUCTION: 04-21-88
35. PRODUCTION METHOD (Flowing, gas lift, pumping—size and type of pump): Pumping
36. WELL STATUS (Producing or shut-in): Shut-in

37. DATE OF TEST: 4-26-88
38. HOLES TESTED: 24
39. CHOKER SIZE: 50
40. PROPS FOR TEST PERIOD: 7STM
41. OIL—BRL: 86
42. GAS—MCF: 86
43. WATER—BRL: 86
44. OIL GRAVITY-API (COBR.): 86

45. DISPOSITION OF GAS (Sold, used for fuel, vented, etc.): To be sold
46. TEST WITNESSED BY: Ron Sanson
47. ACCEPTED FOR RECORD

48. LIST OF ATTACHMENTS: None
49. I hereby certify that the foregoing and attached information is complete and correct as far as it is derived from all available records
50. SIGNED: BSShaw
51. TITLE: Admin. Supervisor
52. DATE: MAY 25 1988
53. DATE: April 29, 1988

*(See Instructions and Spaces for Additional Data on Reverse Side) FARMINGTON RESOURCE AREA

Title 18 U.S.C. Section 1001, makes it a crime for any person to knowingly and willfully to make to a Federal agency or agency of the Department of the Interior a false statement or to omit material information in any matter within its jurisdiction.

NMOCC CASE #8946
BUSCH EXHIBIT #17

STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT

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

Form C-116
Revised 10-1-78

GAS-OIL RATIO TESTS

Operator		Pool		County										
Amoco Production Company		Gavilan Mangos Ext.		Rio Arriba										
Address		2325 East 30th Street Farmington, NM 87401		TYPE OF TEST - (X) ☒ SCHEDULED ☐										
LEASE NAME	WELL NO.	LOCATION			DATE OF TEST	CHOKE SIZE	TBG. PRESS	DAILY ALLOWABLE	DURATION OF TEST HOURS	PROD. DURING TEST			GAS - OIL RATIO CU.FT./BBL.	
		U	S	T						R	WATER BBL.	GRAV. OIL BBL.		GAS M.C.F.
Bear Canyon	3	L	11	26N	2W	05-23-88	P		24			346	100	289

RECEIVED
MAY 25 1988
OIL CON. DIV.
DIST. 3

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 allowable when authorized by the Division.

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 Division in accordance with Rule 331 and appropriate pool rules.

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

B. Shaw

Admin. Supervisor
5-23-88 (lid)

FINAL PRINT
5-11-1987

DUAL INDUCTION/SFL - GR



COMPANY: AMOCO PRODUCTION COMPANY

WELL: BEAR CANYON UNIT #3

FIELD: GAVILAN MANCDS
COUNTY: RIO ARriba
STATE: NEW MEXICO

LOCATION: NE SW

SEC: 11 TWP: 26 N RGE: 2 W

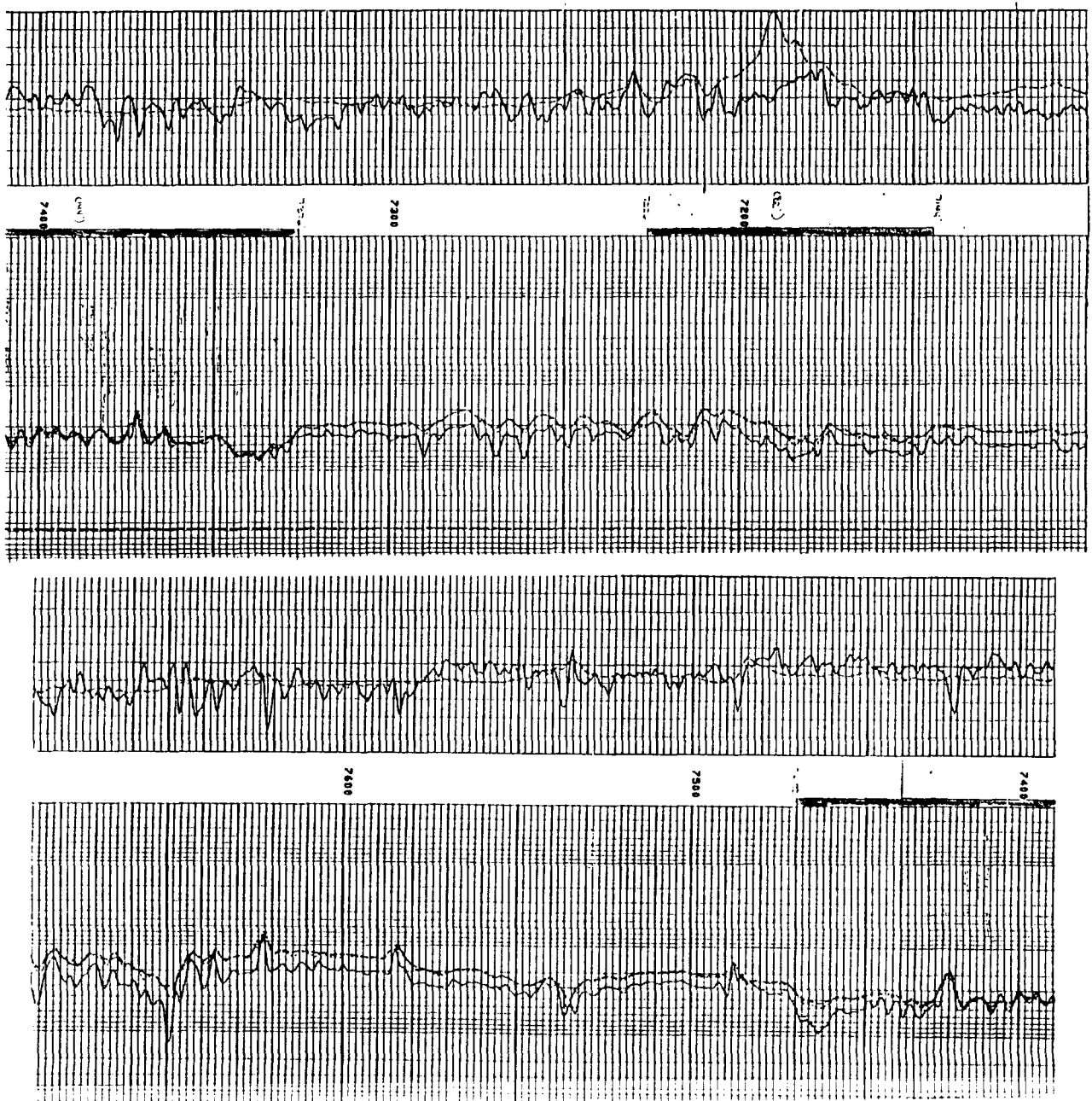
PERMANENT DATUM: GL
ELEV. OF PERM. DATUM: 7350.0 F
LOG MEASURED FROM: KB
13.0 F ABOVE PERM. DATUM
DRUG. MEASURED FROM: KB

ELEVATIONS-
KB: 7363.0 F
DF: 7362.0 F
GL: 7350.0 F

DATE: 9 FEB 88
RUN NO: 1

DEPTH-DRILLER: 8408.0 F
DEPTH-LOGGER: 8369.0 F
BTM. LOG INTERVAL: 8363.0 F
TOP LOG INTERVAL: 8880.0 F
CASING-DRILLER: 6898.0 F
CASING-LOGGER: 6880.0 F
WEIGHT: 7"
BIT SIZE: 23.0000 LB/F
DEPTH: 6 1/4

TIGHT
HOLE



UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

SUBMIT IN DUPLICATE*

(See other in-
structions on
reverse side)Form approved
Budget Bureau No. 42-K355.8

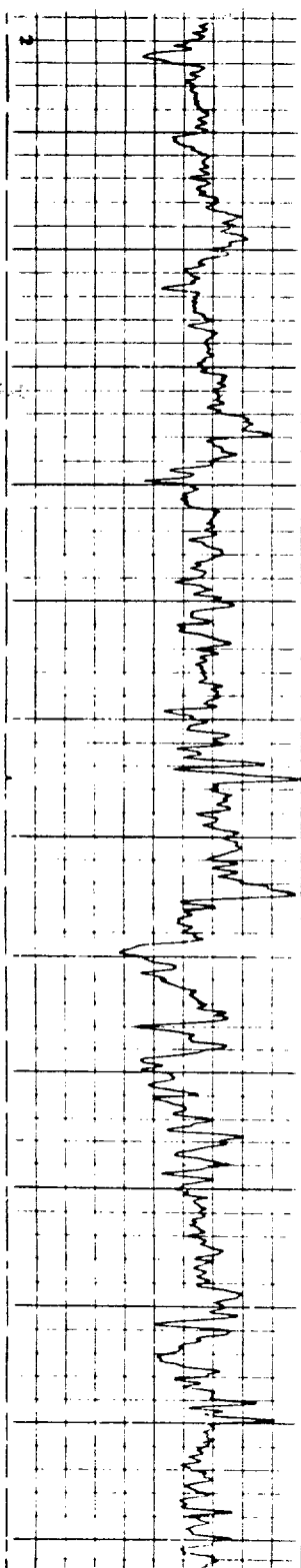
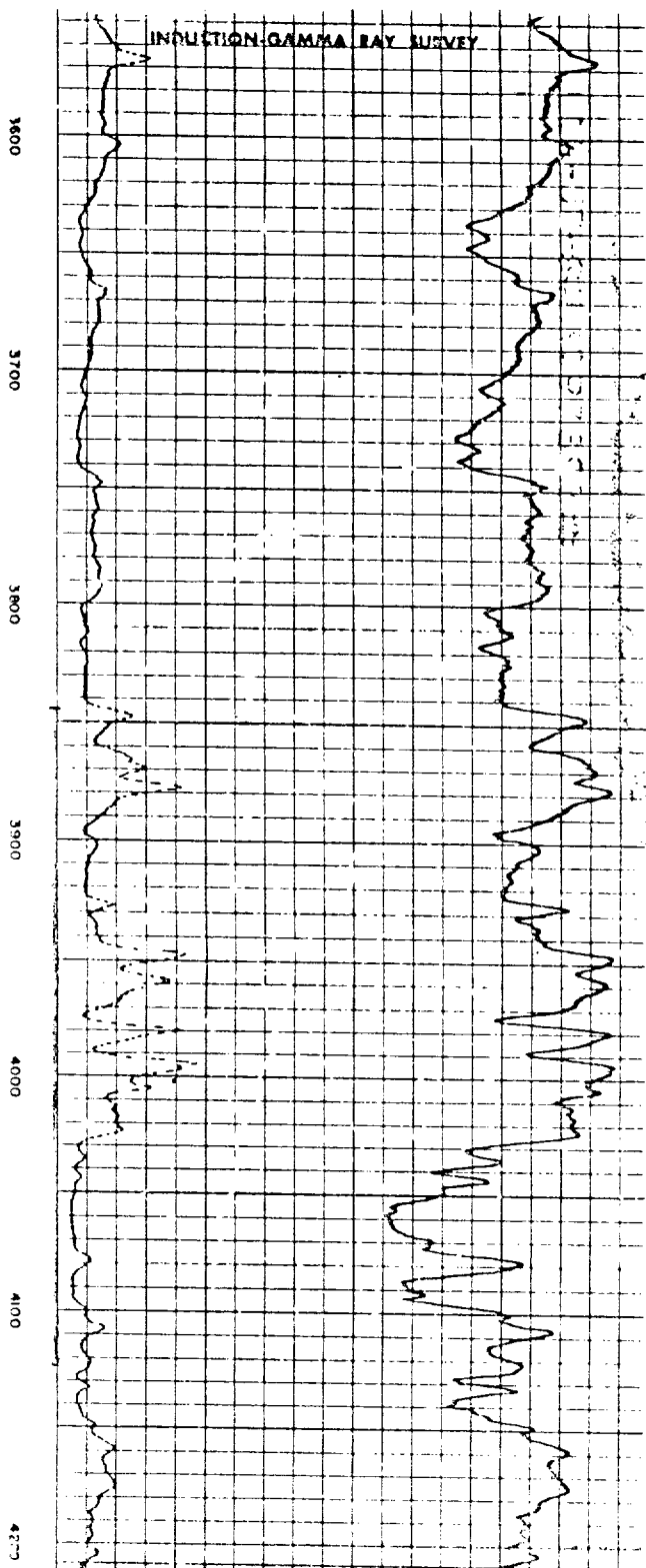
WELL COMPLETION OR RECOMPLETION REPORT AND LOG *

1a. TYPE OF WELL:		OIL WELL ☒	GAS WELL ☐	DRY ☐	Other ☐		
b. TYPE OF COMPLETION:		NEW WELL ☐	WORK OVER ☒	DEEP-EN ☐	PLUG BACK ☐	DIFF. ESTER. ☐	Other ☐
2. NAME OF OPERATOR Southern Union Exploration Company							
3. ADDRESS OF OPERATOR Suite 1800 First International Bldg, Dallas, Texas 75270							
4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements): At surface 1980' FSL & 1980' FEL At top prod. interval reported below Same At total depth Same							
14. PERMIT NO. 11-11212				DATE ISSUED 11-11-79			
15. DATE SPUDDED 11-13-64		16. DATE T.D. REACHED 12-2-64		17. DATE COMPL. (Ready to prod.) 6-12-79		18. ELEVATION (DF, REB, BT, OR, ETC.) GL 7200'	
19. ELEV. CASINGHEAD 7200'		20. TOTAL DEPTH, MD & TVD 4664		21. PLUG, BACK T.D., MD & TVD 4174		22. IF MULTIPLE COMPL., HOW MANY?	
23. INTERVALS DRILLED BY 0-4664							
24. PRODUCING INTERVAL(S), OF THIS COMPLETION—TOP, BOTTOM, NAME (MD AND TVD)* 3845 - 4123 Gallup							
25. WAS DIRECTIONAL SURVEY MADE No							
26. TYPE ELECTRIC AND OTHER LOGS RUN Induction - Gamma Ray (originally)							
27. WAS WELL CORED No							
28. CASING RECORD (Report all strings set in well)							
CASING SIZE		WEIGHT, LB./FT.		DEPTH SET (MD)		HOLE SIZE	
10 3/4"		32.75		100'		13 3/4"	
7"		20-23		2530'			
29. LINER RECORD							
SIZE		TOP (MD)		BOTTOM (MD)		BACKS CEMENT*	
4 1/2"		3347		4174			
30. TUBING RECORD							
SIZE		DEPTH SET (MD)		PACKER SET (MD)			
1 1/2 x 2 3/8"		3960.84		4' x 7"			
31. PERFORATION RECORD (Interval, size and number)							
3845'-3873', 3929'-3957', 3981'-4004', 4104', 4121', 4123', (31 js)							
32. ACID, SHOT, FRACTURE, CEMENT SQUEEZE, ETC.							
DEPTH INTERVAL (MD)				AMOUNT AND KIND OF MATERIAL USED			
3845-4123				1025 Bbls oil, 25,000# sand			
33. PRODUCTION							
DATE FIRST PRODUCTION 6-12-79		PRODUCTION METHOD (Flowing, gas lift, pumping—size and type of pump) Flowing				WELL STATUS (Producing or shut-in) Producing	
DATE OF TEST 6-15-79		HOURS TESTED 24		CHOKE SIZE 11/64		PROD'N. FOR TEST PERIOD	
FLOW. TUBING PRESS. 120		CARING PRESSURE 309		CALCULATED 24-HOUR RATE 6		OIL—BBL. 6	
						GAS—MCF. 108	
						WATER—BBL. 0	
						OIL GRAVITY-API (CORR.) 51°	
34. DISPOSITION OF GAS (Sold, used for fuel, vented, etc.) Vented							
35. LIST OF ATTACHMENTS Variable choke, separator, orifice tester							
36. I hereby certify that the foregoing and attached information is complete and correct as determined from reliable records.							
SIGNED <i>Ronald D. Smith</i>				TITLE <i>Drill & Production Engineer</i>			
				DATE <i>10/2/79</i>			

*(See Instructions and Spaces for Additional Data on Reverse Side)

NMOCC CASE #8946
BUSCH EXHIBIT #18

INDUCTION-GAMMA RAY SURVEY



FILE# RVIPRID OUTPUT A

VM/SP CONVERSATIONAL MONITOR SYSTEM

PAGE 00001

PLANT CASE (W/CYCLING)
HISTORY AND FORECAST

Case No. 916
March 13, 1988

VV	VV	IIII	PPPPPP	CCCCC	00000	RRRRR	EEEEEE
V	V	II	PP	CC	CC	RR	EE
VV	VV	II	PP	CC	CC	RR	EE
V	V	II	PPPPPP	-----	CC	RRRRR	EEEEEE
VVV	II	PP	CC	CC	CC	RR	EE
VV	II	PP	CC	CC	CC	RR	EE
VV	IIII	PP	CCCCC	00000	RR	RR	EEEEEE

VECTORIZED IMPLICIT PROGRAM

MODULES DEFINED:

- VIP-COMP
- VIP-ENCORE
- VIP-DUAL

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CREATED 07/13/87

VERSION 1.5R

[illegible]

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ALL RIGHTS RESERVED

NYMAX	NUMBER OF GRID BLOCKS IN THE Y (THETA) DIRECTION	50
NZMAX	NUMBER OF GRID BLOCKS IN THE Z DIRECTION	50
NBMAX	TOTAL NUMBER OF GRID BLOCKS	2502
NRLGMX	NUMBER OF OUTPUT REGIONS (REGIONS)	40
NEULMX	NUMBER OF EQUILIBRIUM REGIONS (EQUIL)	15
NSATMX	NUMBER OF UNIQUE SATURATION REGIONS (ISAT)	15
NSATNT	MAX NO OF ENTRIES IN EACH SAT TABLE INPUT	30
NSWOLM	NUMBER OF SW ENTRIES IN A SINGLE RECONSTRUCTED WATER SATURATION TABLE	51
NSGOIM	NUMBER OF SG ENTRIES IN A SINGLE RECONSTRUCTED GAS SATURATION TABLE	51
NTAB	MAXIMUM NUMBER OF UNIQUE PVT REGIONS (PVT)	4
NTOTP	NUMBER OF PRESSURE ENTRIES IN A SINGLE RECONSTRUCTED OIL PVT TABLE	200
	TIMES NUMBER OF OIL PVT TABLES	3
NTABCM	MAXIMUM NUMBER OF COMPACTION REGIONS (ICMT)	150
NTOTC	NUMBER OF PRESSURE ENTRIES IN A SINGLE RECONSTRUCTED COMPACTION TABLE	15
	TIMES NUMBER OF COMPACTION TABLES	8
NCOPMX	MAX NUMBER OF DEPTH VALUES	5
NCMPMX	MAX NUMBER OF COMPONENTS	600
NINFMX	MAX NO OF DISTINCT INFLUX REGIONS	100
NINFBL	MAX NO OF TOTAL INFLUX BLOCKS	7.11E-15
NINFID	MAX NO OF ENTRIES IN EACH CARTER-TRACY TO PD INFLUX TABLE	
	FLOATING POINT PRECISION	

CARD IMAGES OF THE DATA

INIT
 TITLE1 CANADA, DJITOS UNIT
 TITLE2 MID ARriba CO., MN
 TITLE3 GAS PLANT STUDY
 DATE 11 1963
 CROSS
 PRINT NONE
 NX NY NZ NCOMP
 7 1 3 6
 DMB BWI VW CM CR
 1.000 1.000 0.450 2.8E-06 10.0E-06 162.00 60.00 15.025
 TABLES
 IEQUIL PINIT DEPTH PCWOC WNL PCGOC PSAT
 1 1534.00 45.0 0.00 5000.00 0.00 45.00 1534.00
 SWT 1
 SW KRW KROM PCWU
 0.1000 0.0000 1.0000 0.00
 0.9000 0.0000 0.00
 1.0000 1.0000 0.0000
 C
 SGT 1
 SG KRG KROG PCGU
 0.0000 0.0000 1.0000 0.00
 0.0100 0.0000 0.9999 0.00
 0.0500 0.0460 0.6599 0.00
 0.1000 0.1030 0.3800 0.00
 0.1500 0.1590 0.2100 0.00
 0.2000 0.2160 0.1107 0.00
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 0.3000 0.3300 0.0257 0.00
 0.3500 0.3870 0.0111 0.00

0.0000 0.6720 0.0002 0.00
 0.7000 0.7860 0.0001 0.00
 0.8000 0.9000 0.0000 0.00
 0.9000 1.0000 0.0000 0.00
 C PVT PROPERTIES
 C CANADA OJITOS UNIT
 C PENG-ROBINSON EQUATION OF STATE
 C PSEUDO COMPONENTS
 C P1 - N2+G1
 C P2 - C2
 C P3 - CO2+C3-NC4
 C P4 - IC5-NC6
 C P5 - H1-H2
 C P6 - H3

EOS PR
 COMPONENTS
 P1 P2 P3 P4 P5 P6
 PROPERTIES
 COMP MW TC PC ZC
 P1 16.10 -117.3 666.9 .2875
 P2 30.07 90.1 707.8 .2841
 P3 50.58 246.9 591.5 .2822
 P4 79.62 418.3 461.4 .2640
 P5 167.75 495.8 319.0 .2567
 P6 408.21 1012.0 158.5 .2035
 DJK P1
 P2 -.0001
 P3 .0079
 P4 .2226
 P5 .0725
 P6 -.1006
 DJK P2
 P3 .0
 P4 .0
 P5 .0
 P6 .0
 DJK P3
 P4 .0
 P5 .0
 P6 .0
 DJK P4
 P5 .0
 P6 .0
 DJK P5
 P6 .0
 ENDEOS
 OILMF .2649
 GASMF .0686 .1188 .0843 .3839 .0795

ACENTRIC
 .0127
 .0974
 .1754
 .2726
 .4566
 .9799
 OMEGA
 .4566
 .4574
 .4621
 .3916
 .4483
 .3512
 OMEGAB
 .0777
 .0773
 .0797
 .0938
 .0571
 .0754

X X X X X X
 CON
 5280.
 OY CON
 42240.0
 UZ VALUE
 7530.0 7540.0
 DEPTH LAYER
 1400. 1325. 1175. 925. 500. 0.
 POR CON
 0.00300
 KX XVAR
 100. 100. 100. 100. 100. 100.
 KY YVAR

0.00005% 0.00005%
1 SAT
1
END
1

CONSTANT VALUES AND PROGRAM OPTIONS

CANADA OJITOS UNIT
RIO ARRIBA CO., NM
GAS PLANT STUDY P L A N T C A S E

VIP-CURE

THE SYSTEM IS BEING DESCRIBED USING A RECTANGULAR GRID.

NX NUMBER OF GRID BLOCKS, X DIRECTION 7
NY NUMBER OF GRID BLOCKS, Y DIRECTION 1
NZ NUMBER OF GRID BLOCKS, Z DIRECTION 3
NB NUMBER OF GRID BLOCKS, TOTAL 21
NCOMP NUMBER OF COMPONENTS 6
DWB STOCK TANK WATER DENSITY, GM/CC 1.000
BWI WATER VOLUME FACTOR AT PINIT, RB/SIR 1.000
VW WATER VISCOSITY, CP 0.450
CW WATER COMPRESSIBILITY, 1/PSI 0.280E-05
CR ROCK COMPRESSIBILITY, 1/PSI 0.100E-04
TRES RESERVOIR TEMPERATURE, DEGREES F 162.
TS STANDARD TEMPERATURE, DEGREES F 60.
PS STANDARD PRESSURE, PSIA 15.02
DATE INITIAL DATE, DAY/MO/YR 1/ 1/63
NLINES MAXIMUM NUMBER OF LINES PRINTED PER PAGE 60

METRIC ALL DATA IS INPUT IN METRIC UNITS F
CROSS A CROSS-SECTIONAL STUDY IS BEING PERFORMED T
GBC GRID-BLOCK-CENTER INITIALIZATION T
VEVO WATER-OIL VERTICAL EQUILIBRIUM F
VEGO GAS-OIL VERTICAL EQUILIBRIUM F
JFUNC J-FUNCTION MODIFICATION F
STONE THREE-PHASE RELATIVE PERMEABILITY OPTION 2
NONEQ NON-EQUILIBRIUM INITIALIZATION F
IDEP TEMPERATURE DEPENDENCY IN RESERVOIR F
TRACK COMPONENT TRACKING F
DUAL DUAL POROSITY/PERMEABILITY F
COMPAC ROCK MATRIX COMPACTION OPTION F
FLOW360 FULL 360-DEGREE RADIAL FLOW OPTION F
CORNER CORNER POINT GRID DATA OPTION F
LRP WRITE LIFEFFECTIVE RELATIVE PERM DATA FILE F
MAP WRITE MAP ARRAYS TO A FILE F
***** ARRAY DATA ERRORS *****

1
0
END ERRORS OCCURRED
1

INITIAL FLUIDS IN PLACE

CANADA OJITOS UNIT
RIO ARRIBA CO., NM

0 MOLES IN PLACE BY COMPONENT

COMPONENT	MOLES
P1	0.57486E+08
P2	0.13520E+08
P3	0.22623E+08
P4	0.16081E+08
P5	0.71416E+08
P6	0.14786E+08
TOTAL MOLES	0.19591E+09
SURFACE VOLUME	

0

FLUID	UNITS	TOTAL	LIQUID PHASE	VAPOR PHASE
OIL (INSTB)		47042.	47036.	6.5800
GAS (MHKCF)		37988.	34305.	3693.1
WATER (INSTB)		8380.8		

0

FLUID	UNITS	TOTAL
OIL (MRB)		68915.
GAS (MHKCF)		36.123
WATER (MRB)		8372.2

IRUN TERMINATED AT END OF INPUT DATA

A RESTART RECORD WAS WRITTEN FOR VIP-EXFC
REC LENGTH = 762 WORDS

NUMBER OF ACTIVE GRID BLOCKS = 21

NUMBER OF COMPONENTS = 6

THOUSANDS OF GRID BLOCK TIME STEPS = 0.021

JOB STATISTICS

* CANADA OJITOS UNIT
* RIO ARRIBA CO., NM
* GAS PLANT STUDY P L A N T C A S E
*

VIP-CORE

NX: 7 NY: 1 NZ: 3 COMPONENTS: 6
TOTAL BLOCKS: 21 ACTIVE BLOCKS: 21

FAULT CONNECTIONS: 0

ROYALTY = \$ 1.00 (FOR ROYALTY CUSTOMERS ONLY)

TIME SIMULATED:	0.00	TIME STEPS:	1	AVERAGE	TIME STEP:	0.0000
*****						*****
***** FOR ROYALTY CHARGES, INITIALIZATION IS CONSIDERED 1 TIME STEP. *****						

EEEEEE	XX	XX	EEEEEE	CCCC	UU	UU	TTTTTT	IIII	VV	VV	EEEEEE
EE	XX	XX	EE	CC	UU	UU	TT	II	V	V	EE
EE	XXXX	EE	CC	UU	UU	UU	TT	II	VV	VV	EE
EEEEEE	XX	EEFE	CC	UU	UU	UU	TT	II	V	V	EEEE
EE	XXXX	EF	CC	UU	UU	UU	TT	II	VVVV		EE
EE	XX	XX	EF	CC	UU	UU	TT	II	VV	VV	EE
EEEEEE	XX	EEEEEE	CCCC	UUUUUU	UUUUUU	UUUUUU	TTTT	IIII	VV	VV	EEEEEE

VECTORIZED IMPLICIT PROGRAM

MODULES DEFINED:

vip-camp

VIP-FNCURE

VIP-DUAL

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JJ	SSSS	N	NN	0000	LL	EEEEEE	N	NN
JJ	SS	NN	NN	00	LL	EE	NN	NN
JJ	SS	NNN	NN	00	LL	EE	NNN	NN
JJ	SSSSS	NN	N	00	LL	EEEE	NN	NN
JJ	SS	NN	NNN	00	LL	EE	NN	NNN
JJ JJ	SS SS	NN	NN	00	LL	EE	NN	NN
JJJJ	SSSS	NN	N	0000	LLLLLL	EEEEEE	NN	N
AAAAA	SSSSS	SSSSS	00000	CCCCC	TTTTT	EEEEEE	SSSSS	
AA	AA	SS	SS	SS	00	00	CC	CC
AA	AA	SS	SS	SS	00	00	CC	CC
AAAAAAA	SSSSS	SSSSS	00	00	00	CC	TTTTT	EEEEEE
AA	AA	SS	SS	SS	00	00	CC	CC
AA	AA	SS	SS	SS	00	00	CC	CC
AA	AA	SS	SS	SS	00	00	CC	CC
AA	AA	SSSSS	SSSSS	00000	CCCCC	TTTTT	AAAAA	SSSSS

CARD IMAGES OF THE DATA

RESTART 0 3
TTTT
CANADA OJTIOS UNIT
TTTT
TIME-DEPENDENT DATA

GT - 1961 200.01 1.1
OUTPUT SG P
PRINT WELLS ARRAYS SEPS TIME

SEPARATOR	1	2	TEMP	PRES	VFRAC	VDEST	LFRAC	LDEST
STAGE								
1			74.0	150.000	1.0	GAS	1.0	2
2			74.0	15.025	1.0	GAS	1.0	OIL
OMEGAS	1							
0.39283	0.39332	0.55453	0.45890	0.35876	0.28104			
OMEGBS	1							
0.09335	0.09336	0.06914	0.11265	0.06256	0.09052			
OMEGAS	2							
0.39283	0.39332	0.455453	0.45890	0.35876	0.28104			
OMEGBS	2							
0.09335	0.09336	0.06914	0.11265	0.06256	0.09052			

WELL N 1 J 16C 18AT

PROD O STD 1 2 3 4 5
WT 1 2 3 4 5
50 50 50 50 50
PERF 1 2 3 4 5

PERF 1 400

PERF 3 400

PERF 4 400

OUTSEP 1 2 3 4 5

BMP 1 2 3 4 5
500 800 500 500 500
0. 925. 1325 1400. 1400.

QMAX 1 2 3 4 5

DATE 1 1 1964

QMAX 1 2 3 4 5

DATE 1 1 1965

QMAX 1 2 3 4 5

DATE 1 1 1966

QMAX 1 2 3 4 5

DATE 1 1 1967

QMAX 1 2 3 4 5

DATE 1 1 1968

INJ G FSTD 1

PERF 1 2 3 4 5

WT 1 2 3 4 5

300. 300. 400.

WT 1 2 3 4 5

0.5

QMAX	1	2	3	
	0.66	598.	467.	
DATE	1	1	1969	
VINJMK GATHER 1				
	1.00	0.0	0.0	0.00 0.00 0.00
GASMKP	GATHER	1	FPROD	0.45
QMAX	1	2	3	
	0.94	363.	1040.	
DATE	1	1	1970	
GASMKP	GATHER	1	FPROD	0.27
QMAX	1	2	3	
	0.94	430.	1547.	
DATE	1	1	1971	
GASMKP	GATHER	1	FPROD	0.76
QMAX	1	2	3	
	0.94	20.	2095.	
DATE	1	1	1972	
GASMKP	GATHER	1	FPROD	1.07
QMAX	1	2	3	
	0.94	6.	1690.	
DATE	1	1	1973	
GASMKP	GATHER	1	FPROD	0.62
QMAX	1	2	3	
	0.94	54.	1301.	
DATE	1	1	1974	
GASMKP	GATHER	1	FPROD	0.54
QMAX	1	2	3	
	0.94	46.	1124.	
DATE	1	1	1975	
GASMKP	GATHER	1	FPROD	0.53
QMAX	1	2	3	
	0.94	34.	810.	
DATE	1	1	1976	
GASMKP	GATHER	1	FPROD	0.30
QMAX	1	2	3	
	0.94	24.	796.	
DATE	1	1	1977	
GASMKP	GATHER	1	FPROD	0.36
QMAX	1	2	3	
	0.94	17.	791.	
DATE	1	1	1978	
GASMKP	GATHER	1	FPROD	0.17
QMAX	1	2	3	
	0.94	18.	631.	
DATE	1	1	1979	
GASMKP	GATHER	1	FPROD	0.12
QMAX	1	2	3	
	0.94	14.	586.	
DATE	1	1	1980	
GASMKP	GATHER	1	FPROD	0.13
QMAX	1	2	3	
	0.94	9.6	596.	
DATE	1	1	1981	
GASMKP	GATHER	1	FPROD	0.00
QMAX	1	2	3	
	0.94	7.4	589.	
DATE	1	1	1982	
QMAX	1	2	3	
	0.94	5.5	579.	
DATE	1	1	1983	
PERF	5	1	2	3
		300.	300.	400.

DATE 1 1 1984
 QMAX 1 2 3 4 5
 0.94 3.3 571. 8. 100.
 DATE 1 1 1985
 W1 5
 0.75
 PERF 4
 1 2 3
 20. 20. 400.
 QMAX 1 2 3 4 5
 0.94 2.0 501. 490. 200.
 DATE 1 1 1986
 QMAX 1 2 3 4 5
 0.94 1.3 333. 1887. 400.
 DATE 1 1 1987
 QMAX 1 2 3 4 5
 0.56 0. 352. 1756. 800.
 DATE 1 1 1988
 C *****
 C F D R E C A S T
 C *****
 W1 1 3 4
 5.8 10.0 10.0
 PROD G STD 3 4
 QMAX 1 3 4
 0.92 3000. 7000.
 QMAX 5
 480.
 C SHRINKAGE = 62 PROD FACILITIES * 2% PLT FUEL
 RECAP
 0.00 0.70 0.93 1.0 1.0 1.0
 DATE 1 1 1989
 QMAX 5
 0.
 DATE 1 1 1990
 DATE 1 1 1991
 DATE 1 1 1992
 DATE 1 1 1993
 DATE 1 1 1994
 DATE 1 1 1995
 DATE 1 1 1996
 DATE 1 1 1997
 DATE 1 1 1998
 C *****
 C BEGIN BLOWDOWN
 C *****
 QMAX 1
 0.00
 W1 3 4
 100.00 100.
 BHP 3 4
 100 100
 1325. 1400.
 DATE 1 1 1999
 DATE 1 1 2000
 DATE 1 1 2001
 DATE 1 1 2002
 STUP
 END

DIMENSIONS OF THIS MODEL FOLLOW:

X-DIRECTION GRID INCREMENTS 7
 Y-DIRECTION GRID INCREMENTS 1

NUMBER OF COMPUTERS 1
 NUMBER OF OUTPUT REGIONS 1
 NUMBER OF KICK TYPES 1
 MAXIMUM NUMBER OF WELLS 10
 MAXIMUM NUMBER OF GATHERING CENTERS 5
 MAXIMUM NUMBER OF FLUM STATIONS 5
 MAXIMUM NUMBER OF AREAS 5
 MAXIMUM NUMBER OF WELL PERFORATIONS 5
 MAXIMUM NUMBER OF TOTAL PERFORATIONS 25
 MAXIMUM NUMBER OF SEPARATOR BATTERIES 5
 MAXIMUM NUMBER OF STAGLS PER BATTERY 5
 MAXIMUM NUMBER OF BHP CORR. TABLES 3
 MAXIMUM NUMBER OF VALUES/CARD PER TABLE 5
 MAXIMUM NUMBER OF BHP VALUES PER TABLE 300
 MAXIMUM NUMBER OF OPTIMUM GLR TABLES 1
 MAXIMUM NUMBER OF VALUES/CARD PER TABLE 5
 MAXIMUM NUMBER OF GLR VALUES PER TABLE 100
 MAXIMUM NUMBER OF TUB. DIAMS. PER WELL 8
 MAXIMUM NUMBER OF DELIVERABILITY OPTNS. 20

USER SELECTED OPTIONS IN EFFECT:

IMPACT SOLUTION OPTION IS ON F
 PREDICTIVE WELL MANAGEMENT IS ON F
 METRIC UNITS FOR ALL INPUT DATA F
 ARRAYS PRINTED BY CROSS-SECTIONS T
 WATER-OIL VERTICAL EQUILIBRIUM F
 GAS-OIL VERTICAL EQUILIBRIUM F
 ADJUSTION MODIFICATION F
 STONE 3-PHASE REL. PERM. OPTION 2
 NON-EQUILIBRIUM INITIALIZATION F
 TEMPERATURE DEPENDENCY IN RESERVOIR F
 FAULTS DEFINED F
 DUAL POROSITY/PERMEABILITY F
 COMPOSITIONAL DEPENDENCE T
 COMPONENT TRACKING F
 COMPACTON F

STORAGE ALLOCATION
 TOTAL LENGTH OF BLANK COMMON.... 700000
 LENGTH OF RESTART RECORDS..... 6367
 TOTAL ARRAY SPACE REQUIRED..... 14140
 MATRIX SOLUTION SPACE AVAILABLE. 688574
 FLOATING POINT PRECISION..... 7.11E-15

THE TITLE OF THIS PROBLEM IS:
 CANADA OJITOS UNIT
 TIME-DEPENDENT DATA
 GAS PLANT STUDY P L A N T C A S E

ILUCO CARD-

UNKNOWN	LPITER	CORR OPTION	NORTHM	RTUL
PRESSURE	F	2	10	0.00100

DT CARD-

ITEM	VALUE
DT	-1.000
DTMIN	0.1000
DTMAX	90.00
DPMAX	200.0 PSIA
DSMAX	0.0100
DVMAX	0.1000
DZMAX	0.1000

OUTPUT CARD- IT FOR PRINT: F FOR OMIT

P	- T	PSAT	- F	RS	- F
GOR	- F	MCUT	- F		
SO	- F	SW	- F	SG	- T
VISO	- F	VISC	- F	OENO	- F
SHFTOG	- F	SHFTM	- F		- F
PV	- F	TX	- F	TY	- F
TSSUM	- F				- F

PRINT CARD-

REPORT	TIME	TNEXT	FREQ
WELL	T	F	F
ARRAY	I	F	F
SEP	T	F	F

SEPARATOR CARD-

SEPARATOR CONDITIONS - BATTERY 1

STAGE NO.	TEMP F	PRES PSIA	VAPOR FRAC	VAPOR DEST	LIO FRAC	LIO DEST
1	74.0	150.0	1.000	GAS	1.000	2
2	74.0	15.0	1.000	GAS	1.000	UTL

SEPARATOR CARD-

SEPARATOR CONDITIONS - BATTERY 2

STAGE NO.	TEMP F	PRES PSIA	VAPOR FRAC	VAPOR DEST	LIO FRAC	LIO DEST
1	74.0	150.0	1.000	GAS	1.000	2
2	74.0	15.0	1.000	GAS	1.000	UTL

PROD CARD-

WELL	FLUID	RATE	LEVEL
1	0	STD	N/A
2	0	STD	N/A
3	0	STD	N/A
4	0	STD	N/A
5	0	STD	N/A

WT CARD-

WELL	WT DIMENSIONLESS
1	5.000
2	5.000
3	5.000
4	7.000
5	0.2500

PERF CARD-

WELL	PERF	LAYER	PERM-THICKNESS MD-FT	ISAT
1	1	3	400.00	1
2	1	3	400.00	1
3	1	3	400.00	1
4	1	3	400.00	1

OUTSEP CARD-

BATTERIES TO BE REPORTED	
1	2

DWP CARD-

WELL	BOTTOMHOLE PRESSURE (PSIA)	DATUM DEPTH (FT)
1	500.	0.
2	500.	925.
3	500.	1325.
4	500.	1400.
5	500.	1400.

QMAX CARD-

WELL	MAXIMUM DAILY RATE	VOLUME UNITS
------	-----------------------	-----------------

NEXT DATA WILL BE READ AT TIME (DAYS) = 365.00 1 DAY/MO/YR = 1/ 1/1964

VIP-EXEC REGION SUMMARY

DAY/MO/YR: 1/ 1/63

TIME: 0.0000 DAYS

TOTAL

0 FLUIDS IN PLACE

P1 0.2934
P2 0.0690
P3 0.1155
P4 0.0821
P5 0.3645
P6 0.0755
TOTAL MOLES 295911411.
WATER (MSTB) 8301.

VIP-EXEC TIME STEP SUMMARY

TIME STEP PRODUCTION INJECTION AVG MASS BALANCES MAX SATN CHANGE MAX COMP GRADIENT MAX PRESS GRADIENT TIME STEP

NO.	DAYS	OIL STB/D	GAS MSCF/D	WATER STB/D	GAS MSCF/D	WATER STB/D	PRES PSIA	H/C	WATER	I	J	R	DSMAX	I	R	DTMAX	I	R
1	1.0000	91.0000	38.9174	0.00000	0.00000	0.00000	1898.	7.E-10	3.E-11	5	1	3	0.0000	7	1	2	0.0000	
2	6.0000	91.0000	38.9174	0.00006	0.00000	0.00000	1898.	1.E-09	4.E-11	7	1	3	0.0000	7	1	2	0.0000	
3	31.0000	91.0000	38.9174	0.00023	0.00000	0.00000	1897.	3.E-10	1.E-11	7	1	3	0.0000	7	1	2	0.0000	
4	121.0000	91.0000	38.9174	0.00041	0.00000	0.00000	1893.	3.E-11	2.E-11	6	1	3	0.0000	7	1	3	0.0000	
5	211.0000	91.0000	38.9189	0.00230	0.00000	0.00000	1891.	5.E-11	5.E-11	7	1	3	0.0009	7	1	3	0.0002	
6	301.0000	91.0000	38.9128	0.00275	0.00000	0.00000	1889.	4.E-11	1.E-11	7	1	3	0.0012	7	1	3	0.0002	
7	365.0000	91.0000	38.9022	0.00302	0.00000	0.00000	1888.	5.E-11	9.E-11	7	1	3	0.0009	7	1	3	0.0002	

VIP-EXEC PRODUCTION WFLI SUMMARY

DAY/MO/YR: 1/ 1/64

TIME: 365.0 DAYS

WELL DAILY PRODUCTION CUMULATIVE PRODUCTION PRESSURES, PSIA

PERF LOCATION										OIL		GAS		WATER		GUR		WATER		OIL		GAS		WATER		GRID		RHP		TMP					
-----										STB/D		STB/D		STB/D		SCF/		CUT		MSTR		MMSCF		MSTB		BLOCK		DATUM		L					
NO.		NAME		I		J		LAYER		STAT		OIL		GAS		WATER		STB/D		SCF/		CUT		MSTR		MMSCF		MSTB		GRID		RHP		TMP	
				1		J						STB/D		MSCF/D		STB/D		SCF/		CUT		MSTR		MMSCF		MSTB		BLOCK		DATUM		L			

0	1	7	1	3- 3	QMAX	32.00	13.67	0.0009	427	0.000	11.68	4.99386	0.00024	1492	1483	0	0.	0.
0	2	5	1	3- 3	QMAX	59.00	25.23	0.0021	427	0.000	21.53	9.20973	0.00049	1847	1829	0	0.	0.

GATHERING CENTER TOTALS

0. 0. 0. 0. 0. 0. 0.

FLOW STATION TOTALS

91.00 38.90 0.0070 427 0.000 33.21 14.20 0.00073

VIP-EXEC SEPARATOR REPORT

DAY/MO/YR: 1/ 1/64

TIME: 365.0 DAYS

BATTERY = 1

STOCK TANK

STOCK TANK PRESSURE = 15.02 PSIA
 STOCK TANK TEMPERATURE = 74.00 DEG F
 STOCK TANK LIQUID RATE = 91.00 STB/DAY
 STOCK TANK VAPOR RATE = 38.90 MCF/DAY
 STOCK TANK VENT GAS RATE = 0.00 MCF/DAY
 STOCK TANK TOTAL GAS RATE = 38.90 MCF/DAY
 STOCK TANK GAS-DIL RATIO = 427.50 SCF/STB
 STOCK TANK OIL-GAS RATIO = 2339.20 BBL/SCF
 STOCK TANK LIQ. DENSITY = 0.8396 GM/CC
 STOCK TANK GAS GRAVITY = 0.9768 LAIR=1.1

COMPOSITIONS

COMPONENT	FEED	LIQUID	VAPOR	VENT
P1	0.26481	0.00143	0.66228	0.00000
P2	0.06860	0.00390	0.16624	0.00000
P3	0.11881	0.14466	0.07980	0.00000
P4	0.08431	0.08934	0.07671	0.00000
P5	0.38396	0.62849	0.01494	0.00000
P6	0.07951	0.13218	0.00004	0.00000

PRESSURE, PSIA

CANADA OJITOS UNIT

TIME-DEPENDENT DATA

GAS PLANT STUDY P L A N T C A S E

VIP-EXEC

DAY/MO/YR: 1/ 1/64

TIME: 365.0 DAYS

J = 1

1 1 2 3 4 5 6 7

2047.8

2018.7

1960.3

1863.9

1699.9

1522.8

GAS SATURATION, FRACTION

CANADA UNITUS UNIT
TIME-DEPENDENT DATA
GAS PLANT STUDY P L A N T C A S E

VIP-FXEC

DAY/MU/YR: 1/ 1/64
TIME: 365.0 DAYS

J = 1

K	1	2	3	4	5	6	7
1	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.9000
2	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.8999
3	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0031

DATA READ AT TIME (DAYS) = 365.00 (DAY/MU/YR = 1/ 1/1964)

QMAX CARD

WELL	MAXIMUM DAILY RATE	VOLUME UNITS
1	71.000	STB (OIL)
2	364.00	STB (OIL)

ODATE CARD READ

NEXT DATA WILL BE READ AT TIME (DAYS) = 731.00 (DAY/MU/YR = 1/ 1/1965)

VIP-FXEC TIME STEP SUMMARY

TIME STEP	PRODUCTION	INJECTION	AVG MASS BALANCES	MAX SATN	CHANGE	MAX COMP	CHANGE	MAX PRES	CHANGE	TIME IT
NO.	DAYS	OIL STB/D	GAS MSCF/D	WATER STB/D	GAS MSCF/D	WATER STB/D	H/C	I J K	DSMAX I J K	DPMAX CUTS

8	455.000	435.00	185.98	0.01594	0.00000	0.00000	1800.	9.1-11	3.1-10	7 1 3 0.0067	7 1 3 0.0010	5 1 3 -15.83	0 2
9	545.000	435.00	185.81	0.02974	0.00000	0.00000	1874.	1.1-10	4.1-10	7 1 3 0.0071	7 1 3 0.0013	1 1 3 -8.87	0 2
10	635.000	435.00	200.00	0.03731	0.00000	0.00000	1850.	1.1-10	8.1-10	7 1 3 0.0072	7 1 3 0.0014	1 1 3 -7.27	0 2
11	731.000	435.00	210.36	0.04413	0.00000	0.00000	1801.	1.1-11	9.1-10	7 1 3 0.0077	7 1 3 0.0015	1 1 3 -7.31	0 2

VIP-FXEC PRODUCTION WELL SUMMARY

DAY/MU/YR: 1/ 1/65
TIME: 731.0 DAYS

I	1	2	3	4	5	6	7
K							
1	2029.6	2000.6	1942.5	1845.3	1681.9	1507.3	
2	2033.1	2004.1	1946.0	1849.3	1685.3	1503.9	
3	2027.5	1997.4	1938.3	1840.2	1681.1	1493.7	
	GAS SATURATION, FRACTION						
	CANADA OJITOS UNIT						
	TIME-DEPENDENT DATA						
	GAS PLANT STUDY P L A N T C A S E						
	DAY/MO/YR: 1/ 1/65						
	TIME: 731.0 DAYS						
	VIP-EXEC						

GAS SATURATION, FRACTION

CANADA OJITOS UNIT
TIME-DEPENDENT DATA
GAS PLANT STUDY PLANT C A S F

VIP-EXEC

TIME: 731.0 DAYS

25

DAY/MO/YR: 1/ 1/65

111

[illegible]

QMAX CARD-

WELL	MAXIMUM DAILY RATE	VOLUME UNITS
1	5.0000	STB (OIL)
2	650.00	STB (OIL)

DDATE CARD READ

 NEXT DATA WILL BE READ AT TIME (DAYS) = 1096.0 (DAY/MO/YR = 1/ 1/1966)

VIP-FXFL	TIME	STEP	SUMMARY
1	00:00	1	Start of the first step
2	00:05	2	End of the first step
3	00:10	3	Start of the second step
4	00:15	4	End of the second step
5	00:20	5	Start of the third step
6	00:25	6	End of the third step
7	00:30	7	Start of the fourth step
8	00:35	8	End of the fourth step
9	00:40	9	Start of the fifth step
10	00:45	10	End of the fifth step
11	00:50	11	Start of the sixth step
12	00:55	12	End of the sixth step
13	01:00	13	Start of the seventh step
14	01:05	14	End of the seventh step
15	01:10	15	Start of the eighth step
16	01:15	16	End of the eighth step
17	01:20	17	Start of the ninth step
18	01:25	18	End of the ninth step
19	01:30	19	Start of the tenth step
20	01:35	20	End of the tenth step
21	01:40	21	Start of the eleventh step
22	01:45	22	End of the eleventh step
23	01:50	23	Start of the twelfth step
24	01:55	24	End of the twelfth step
25	02:00	25	Start of the thirteenth step
26	02:05	26	End of the thirteenth step
27	02:10	27	Start of the fourteenth step
28	02:15	28	End of the fourteenth step
29	02:20	29	Start of the fifteenth step
30	02:25	30	End of the fifteenth step
31	02:30	31	Start of the sixteenth step
32	02:35	32	End of the sixteenth step
33	02:40	33	Start of the seventeenth step
34	02:45	34	End of the seventeenth step
35	02:50	35	Start of the eighteenth step
36	02:55	36	End of the eighteenth step
37	03:00	37	Start of the nineteenth step
38	03:05	38	End of the nineteenth step
39	03:10	39	Start of the twentieth step
40	03:15	40	End of the twentieth step
41	03:20	41	Start of the twenty-first step
42	03:25	42	End of the twenty-first step
43	03:30	43	Start of the twenty-second step
44	03:35	44	End of the twenty-second step
45	03:40	45	Start of the twenty-third step
46	03:45	46	End of the twenty-third step
47	03:50	47	Start of the twenty-fourth step
48	03:55	48	End of the twenty-fourth step
49	04:00	49	Start of the twenty-fifth step
50	04:05	50	End of the twenty-fifth step
51	04:10	51	Start of the twenty-sixth step
52	04:15	52	End of the twenty-sixth step
53	04:20	53	Start of the twenty-seventh step
54	04:25	54	End of the twenty-seventh step
55	04:30	55	Start of the twenty-eighth step
56	04:35	56	End of the twenty-eighth step
57	04:40	57	Start of the twenty-ninth step
58	04:45	58	End of the twenty-ninth step
59	04:50	59	Start of the thirtieth step
60	04:55	60	End of the thirtieth step
61	05:00	61	Start of the thirty-first step
62	05:05	62	End of the thirty-first step
63	05:10	63	Start of the thirty-second step
64	05:15	64	End of the thirty-second step
65	05:20	65	Start of the thirty-third step
66	05:25	66	End of the thirty-third step
67	05:30	67	Start of the thirty-fourth step
68	05:35	68	End of the thirty-fourth step
69	05:40	69	Start of the thirty-fifth step
70	05:45	70	End of the thirty-fifth step
71	05:50	71	Start of the thirty-sixth step
72	05:55	72	End of the thirty-sixth step
73	06:00	73	Start of the thirty-seventh step
74	06:05	74	End of the thirty-seventh step
75	06:10	75	Start of the thirty-eighth step
76	06:15	76	End of the thirty-eighth step
77	06:20	77	Start of the thirty-ninth step
78	06:25	78	End of the thirty-ninth step
79	06:30	79	Start of the fortieth step
80	06:35	80	End of the fortieth step
81	06:40	81	Start of the forty-first step
82	06:45	82	End of the forty-first step
83	06:50	83	Start of the forty-second step
84	06:55	84	End of the forty-second step
85	07:00	85	Start of the forty-third step
86	07:05	86	End of the forty-third step
87	07:10	87	Start of the forty-fourth step
88	07:15	88	End of the forty-fourth step

N	TIME STEP	PRODUCTION	INJECTION	Avg	MASS BALANCE	MAX SATN CHANGE	MAX COMP CHANGE	MAX PRES CHANGE	TIME IT
				PV					STEP

PI 0.21117 0.00144 2.61185 0.00000

```

*****
P3 0.11717 0.14528 0.07743 0.00000
P4 0.08335 0.08957 0.07445 0.00000
P5 0.37554 0.62733 0.01440 0.00000
P6 0.07776 0.13206 0.00003 0.00000
*****
                                PRESSURE, PSIA
*****
* CANADA OJITOS UNIT
* TIME-DEPENDENT DATA
* GAS PLANT STUDY P L A N T C A S F
*
* VIP-EXEC
* DAY/MO/YR: 1/ 1/66
* P
* TIME: 1096.0 DAYS
*****

```

J = 1

	1	2	3	4	5	6	7
1998.6	1998.6	1969.5	1911.5	1814.9	1651.0	1480.6	
1997.3	1997.3	1968.3	1910.2	1813.6	1649.8	1475.0	
1980.9	1980.4	1950.3	1800.6	1791.8	1637.0	1460.3	

GAS SATURATION, FRACTION

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*****
* CANADA OJITOS UNIT
* TIME-DEPENDENT DATA
* GAS PLANT STUDY P L A N T C A S F
*
* VIP-EXEC
* DAY/MO/YR: 1/ 1/66
* SG
* TIME: 1096.0 DAYS
*****

```

J = 1

	1	2	3	4	5	6	7
0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.8999	
0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.8998	
0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0744	

DATA READ AT TIME (DAYS) = 1096.0 (DAY/MO/YR = 1/ 1/1966)

OMAX CARD-

WELL	MAXIMUM DAILY RATE	VOLUME	
		UNITS	
1	0.00000	STB	(OIL)
2	912.00	STB	(OIL)
3	21.000	STB	(OIL)

OMAX CARD READ

NEW DATA WILL BE READ AT TIME (DAYS) = 1461.0 (DAY/MO/YR = 1/1/1967)

TIME STEP PRODUCTION INJECTION AVG MASS BALANCE MAX SATN CHANGE MAX COMP CHANGE MAX PRES CHANGE TIME IT STEP

NO.	DAYS	OIL STB/D	GAS MSCF/D	WATER STB/D	GAS MSCF/D	WATER STB/D	PRES PSIA	W/C	WATER	I	J	K	DSMAX	I	J	K	DZMAX	I	J	K	OPMAX	CUTS
17	1180.5	932.00	398.57	0.21355	0.00000	0.00000	1810.	2.E-10	5.F-09	7	1	3	0.0135	7	1	3	0.0030	5	1	3	-21.45	0
18	1243.2	932.00	398.56	0.25647	0.00000	0.00000	1801.	2.E-10	5.E-09	7	1	3	0.0101	7	1	3	0.0024	1	1	3	-12.63	0
19	1305.2	932.00	398.55	0.28114	0.00000	0.00000	1792.	2.E-10	6.F-09	7	1	3	0.0100	7	1	3	0.0024	1	1	3	-11.45	0
20	1367.2	932.00	398.54	0.30397	0.00000	0.00000	1783.	2.E-10	6.F-09	7	1	3	0.0100	7	1	3	0.0025	1	1	3	-10.70	0
21	1429.0	932.00	398.53	0.32550	0.00000	0.00000	1773.	2.E-10	6.F-09	7	1	3	0.0100	7	1	3	0.0025	1	1	3	-10.37	0
22	1461.0	932.00	398.51	0.34670	0.00000	0.00000	1768.	2.E-10	6.F-09	7	1	3	0.0050	7	1	3	0.0013	6	1	3	-8.50	0

VIP-EXEC PRODUCTION WFLI SUMMARY
DAY/MO/YR: 1/1/67
TIME: 1461.0 DAYS
CUMULATIVE PRODUCTION PRESSURES, PSIA

NO.	NAME	I	J	LAYER	STAT	OIL STB/D	GAS STB/D	WATER STB/D	GUR SCF/D	WATER CUT	OIL FRAC.	MSTR	MMSCF	WATER	GRID BLOCK	BMP	DATE	TIME	LIFT RATE MSCF/D	LIFT GAS	LIFT STAT
-----	------	---	---	-------	------	-----------	-----------	-------------	-----------	-----------	-----------	------	-------	-------	------------	-----	------	------	------------------	----------	-----------

GC # 1	7	1	3-3	UMAX	0.	0.	0.	0.	0.	0.	0.	39.49	23.86	0.00192	0	0	0	0	0.	0.	0.
2	5	1	3-3	QMAX	912.00	389.96	0.3303	427	0.000	724.99	310.00	0.15050	1688	1421	0	0	0	0	0.	0.	0.
3	3	1	3-3	QMAX	20.00	8.5533	0.0074	427	0.000	7.30000	3.12194	0.00214	1848	1842	0	0	0	0	0.	0.	0.
GATHERING CENTER TOTALS				TOTALS	932.00	398.51	0.3467	427	0.000	771.68	336.98	0.15457							0.	0.	0.

GC # 2				TOTALS	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
--------	--	--	--	--------	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----

FLOW STATION TOTALS				TOTALS	932.00	398.51	0.3467	427	0.000	771.68	336.98	0.15457							0.	0.	0.
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VIP-EXEC SEPARATOR REPORT
DAY/MO/YR: 1/1/67
TIME: 1461.0 DAYS

BATTERY - I
STOCK TANK

STOCK TANK PRESSURE = 17.82 PSIA
 STOCK TANK TEMPERATURE = 74.00 DEG F
 STOCK TANK LIQUID RATE = 932.00 STR/DAY
 STOCK TANK VAPOR RATE = 398.51 MCF/DAY
 STOCK TANK VENT GAS RATE = 0.00 MCF/DAY
 STOCK TANK TUAL GAS RATE = 398.51 MCF/DAY
 STOCK TANK GAS-OIL RATIO = 427.59 SCF/STR
 STOCK TANK OIL-GAS RATIO = 2338.68 RBLS/MNSCF
 STOCK TANK LIQ. DENSITY = 0.8396 GM/CC
 STOCK TANK GAS GRAVITY = 0.9767 (AIR=1.0)

COMPOSITIONS

COMPONENT	FEED	LIQUID	VAPOR	VENT
P1	0.26486	0.00143	0.66232	0.00000
P2	0.06860	0.00390	0.16622	0.00000
P3	0.11880	0.14466	0.07979	0.00000
P4	0.08430	0.08934	0.07670	0.00000
P5	0.38393	0.62849	0.01494	0.00000
P6	0.07951	0.13218	0.00004	0.00000

PRESSURE, PSIA

CANADA OJITOS UNIT
 TIME-DEPENDENT DATA
 GAS PLANT STUDY P L A N T C A S E

VIP-EXEC
 DAY/MO/YR: 1/ 1/67
 TIME: 1461.0 DAYS

J = 1

	2	3	4	5	6	7
1951.8	1922.8	1864.8	1768.2	1604.5	1445.2	
1943.6	1914.6	1856.5	1760.0	1596.4	1437.6	
1910.1	1879.4	1819.2	1719.6	1568.5	1418.3	

GAS SATURATION, FRACTION

CANADA OJITOS UNIT
 TIME-DEPENDENT DATA
 GAS PLANT STUDY P L A N T C A S E

VIP-EXEC
 DAY/MO/YR: 1/ 1/67
 TIME: 1461.0 DAYS

J = 1

	2	3	4	5	6	7
1951.8	1922.8	1864.8	1768.2	1604.5	1445.2	
1943.6	1914.6	1856.5	1760.0	1596.4	1437.6	
1910.1	1879.4	1819.2	1719.6	1568.5	1418.3	

TIME-DEPENDENT DATA
 GAS PLANT STUDY P L A N T C A S E
 VIP-FXEC
 DAY/MU/YR: 1/ 1/68
 TIME: 1826.0 DAYS
 SG

J = 1

	1	2	3	4	5	6	7
1	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.8998
2	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.8997
3	0.0000	0.0000	0.0000	0.0000	0.0000	0.0022	0.1876

DATA READ AT TIME (DAYS) = 1826.0 (DAY/MU/YR = 1/ 1/1968)

INJ CARD-

WELL	FLUID	RATE	LEVEL
1	G	FSTD	GATHER

PERF CARD-

WELL	PERF	LAYER	PERM-THICKNESS MD-FT	ISAT
1	1	1	300.00	1
	2	2	300.00	1
	3	3	400.00	1

WI CARD-

WELL	WI	DIMENSIONLESS
1	0.5000	

BHP CARD-

WELL	BOTTOMHOLE PRESSURE (PSIA)	DATUM DEPTH (FT)
1	2000.	0.

QMAX CARD-

WELL	MAXIMUM DAILY RATE	VOLUME UNITS
1	0.6600	FSTD GC (GAS)
2	5.98.00	STB (OIL)
3	467.00	STB (OIL)

QDATE CARD READ

*** GC # 2

*** GATHERING CENTER TOTALS

*** FLOW STATION TOTALS

* VIP-EXEC SEPARATOR REPORT *
* DAY/MO/YR: 1/ 1/69 *
* TIME: 2192.0 DAYS *

BATTERY = 1

STOCK TANK

STOCK TANK PRESSURE = 15.02 PSIA
STOCK TANK TEMPERATURE = 74.00 DEG F *
STOCK TANK LIQUID RATE = 1065.00 STB/DAY
STOCK TANK VAPOR RATE = 454.97 MCF/DAY
STOCK TANK VENT GAS RATE = 0.00 MCF/DAY
STOCK TANK TOTAL GAS RATE = 454.97 MCF/DAY
STOCK TANK GAS-OIL RATIO = 427.20 SCF/STB
STOCK TANK OIL-GAS RATIO = 2340.81 RBLS/MMSCF
STOCK TANK LIQ. DENSITY = 0.8396 GM/CC
STOCK TANK GAS GRAVITY = 0.9769 LAIR=1.1

COMPOSITIONS

COMPONENT	FEED	LIQUID	VAPOR	VENT
P1	0.26465	0.00143	0.66215	0.00000
P2	0.06860	0.00390	0.16630	0.00000
P3	0.11883	0.14465	0.07983	0.00000
P4	0.08432	0.08934	0.07674	0.00000
P5	0.38407	0.62850	0.01495	0.00000
P6	0.07954	0.13218	0.00004	0.00000

PRESSURE, PSIA

CANADA OJITOS UNIT

TIME-DEPENDENT DATA

GAS PLANT STUDY P I A N T C A S E

VIP-EXEC

* DAY/MO/YR: 1/ 1/69 *
* TIME: 2192.0 DAYS *

J : 1

1769.8 1794.1 1000.0
 CANADA OJITOS UNIT
 TIME-DEPENDENT DATA
 GAS PLANT STUDY P I A N T C A S I
 DAY/MO/YR: 1/ 1/69
 TIME: 2192.0 DAYS
 SC
 J = 1

K	1	2	3	4	5	6	7
1	0.0000	0.0000	0.0000	0.0000	0.0000	0.0056	0.8998
2	0.0000	0.0000	0.0000	0.0000	0.0000	0.0117	0.8996
3	0.0000	0.0000	0.0000	0.0000	0.0000	0.0182	0.2354

DATA READ AT TIME (DAYS) = 2192.0 (DAY/MO/YR = 1/ 1/1969)
 DATA READ AT TIME (DAYS) = 2192.0 (DAY/MO/YR = 1/ 1/1969)

WINDUP CARD

MAKEUP GAS MOLE FRACTIONS FOR GATHER 1

COMPONENT	MOLE FRACTION
P1	1.00000
P2	0.00000
P3	0.00000
P4	0.00000
P5	0.00000
P6	0.00000

GASHP CARD

LEVEL	NUMBER	MAKEUP GAS RATE	DAILY RATE	UNIT	OPTION
GATHER	1	0.45000			FPRON

QMAX CARD

WELL	MAXIMUM DAILY RATE	VOLUME UNITS
1	0.94000	FSD GC (GAS)
2	363.00	STB (OIL)
3	1040.0	STB (OIL)

ODATE CARD READ

NEXT DATA WILL BE READ AT TIME (DAYS) = 2557.0 (DAY/MO/YR = 1/ 1/1970)
 NEXT DATA WILL BE READ AT TIME (DAYS) = 2557.0 (DAY/MO/YR = 1/ 1/1970)

TIME STEP PRODUCTION INJECTION AVE. MASS BALANCES MAX SATN CHANGE MAX COMP CHANGE MAX PRES CHANGE TIME STEP

NO.	DAYS	OIL STB/D	GAS MSCF/D	WATER STB/D	GAS MSCF/D	WATER STB/D	PPES PSIA	H/C	WATER	I	J	K	DSMAX	I	J	K	OPMAX	EDITS					
34	2264.6	1403.00	599.65	0.97845	817.32	0.00000	1653.	1.1-10	9.1-09	7	1	3	0.0099	7	1	3	0.0051	3	1	3	-33.28	0	2
35	2337.9	1403.00	599.50	1.06335	817.12	0.00000	1645.	1.1-10	9.1-09	7	1	3	0.0092	7	1	3	0.0038	6	1	2	-17.15	0	3
36	2417.7	1403.00	599.31	1.09116	816.85	0.00000	1638.	1.1-10	9.1-09	6	1	3	0.0110	6	1	3	0.0038	6	1	1	-13.54	0	2
37	2489.9	1403.00	599.08	1.10501	816.55	0.00000	1634.	1.1-10	9.1-09	6	1	3	0.0113	6	1	3	0.0039	6	1	1	-13.04	0	3
38	2557.0	1403.00	598.89	1.11530	816.28	0.00000	1631.	1.1-10	9.1-09	6	1	3	0.0110	6	1	3	0.0039	1	1	1	-7.84	0	3

VIP-EXEC

WELL
VIP-EXEC PRODUCTION WFL SUMMARY
DAY/MO/YR: 1/ 1/70
TIME: 2557.0 DAYS
CUMULATIVE PRODUCTION PRESSURES, PSIA

NO.	NAME	I	J	LAYER	STAT	OIL STB/D	GAS MSCF/D	WATER STB/D	GOR SCF/STB	WATER CUT	DIL	GAS	WATER	GRID BLOCK	DATUM	GRID BLOCK	DATUM	WSTB	MMSCF	LIFT RATE MSCF/D	CUR LIFT MSCF	LIFT STATUS
5	1	3	3	QMAX	963.00	154.12	0.2692	424	0.001	1368.98	585.04	0.50214	1528	1424	1424	1424	1424	0	0	0	0	0
3	1	3	3	QMAX	1040.	444.77	0.8461	427	0.001	604.91	258.70	0.42075	1451	1348	1348	1348	1348	0	0	0	0	0
7	1	1	1	GINJ	0.	0.	0.	0	0.	39.69	23.86	0.00192										
GATHERING CENTER TOTALS																						
1403. 598.89 1.1153 426 0.001 2013.38 867.60 0.92481																						

WELL
VIP-EXEC INJECTION WFL SUMMARY
DAY/MO/YR: 1/ 1/70
TIME: 2557.0 DAYS
CUMULATIVE INJECTION PRESSURES, PSIA

NO.	NAME	I	J	LAYER	STAT	GAS MSCF/D	WATER STB/D	GAS	WATER	GRID BLOCK	DATUM	GRID BLOCK	DATUM	WSTB	MMSCF	LIFT RATE MSCF/D	CUR LIFT MSCF	LIFT STATUS
7	1	1	3	QMAX	816.28	0.	0.	408.10	0.	1424	1466	1424	1466	0	0	0	0	0
GATHERING CENTER TOTALS																		
816.28 0. 408.10 0.																		

WELL
PERF LOCATION
NO. NAME I J LAYER STAT GAS MSCF/D WATER STB/D GOR SCF/STB WSTB MMSCF

FLOW STATION TOTALS

816.28 0. 40d.10 0.

VIP-EXEC SEPARATOR REPORT

TIME: 2557.0 DAYS

DAY/MO/YR: 1/ 1/70

BATTERY = 1

STUCK TANK

STOCK TANK PRESSURE = 15.02 PSIA
 STOCK TANK TEMPERATURE = 74.00 DEG. F
 STOCK TANK LIQUID RATE = 1403.00 STB/DAY
 STOCK TANK VAPOR RATE = 598.99 MCF/DAY
 STOCK TANK VENT GAS RATE = 0.00 MCF/DAY
 STOCK TANK TOTAL GAS RATE = 598.89 MCF/DAY
 STOCK TANK GAS-OIL RATIO = 426.86 SCF/STB
 STOCK TANK OIL-GAS RATIO = 2342.69 RBLS/MMSCF
 STOCK TANK LIQ. DENSITY = 0.8396 GM/CC
 STOCK TANK GAS GRAVITY = 0.9771 (AIR=1.0)

COMPOSITIONS

COMPONENT	FEED	LIQUID	VAPOR	VENT
P1	0.26447	0.00143	0.66200	0.00000
P2	0.06859	0.00390	0.16637	0.00000
P3	0.11845	0.14564	0.07987	0.00000
P4	0.08433	0.08933	0.07678	0.00000
P5	0.38420	0.62851	0.01495	0.00000
P6	0.07956	0.13218	0.00004	0.00000

PRESSURE, PSIA

CANADA OJITOS UNIT

TIME-DEPENDENT DATA

GAS PLANT STUDY P L A N T C A S E

VIP-EXEC

TIME: 2557.0 DAYS

DAY/MO/YR: 1/ 1/70

J = 1

	1	2	3	4	5	6	7
K							
1	1808.4	1779.9	1722.1	1627.3	1464.7	1440.2	
2	1788.4	1761.2	1705.3	1611.4	1450.8	1431.1	
3	1714.2	1682.4	1640.7	1559.6	1428.9	1410.6	

CANADA OJITOS UNIT

TIME-DEPENDENT DATA

GAS PLANT STUDY P I A N T C A S F

VIP-EXFC

DAY/MU/YR: 1/ 1/70

TIME: 2557.0 DAYS

J = 1

	1	2	3	4	5	6	7
K							
1	0.0000	0.0000	0.0000	0.0000	0.0000	0.0198	0.8997
2	0.0000	0.0000	0.0000	0.0000	0.0000	0.0240	0.8995
3	0.0000	0.0000	0.0000	0.0000	0.0000	0.0644	0.2758

DATA READ AT TIME (DAYS) = 2557.0 (DAY/MU/YR = 1/ 1/1970)

GASUMP CARD-

LEVEL	NUMBER	MAKEUP GAS RATE	UNIT	OPTION
GATHER	1	0.27000		FPROD

CHRG CARD-

WELL	MAXIMUM DAILY RATE	VOLUME UNITS
1	0.94000	FSTO GC (GAS)
2	430.00	STB (OIL)
3	1547.0	STB (OIL)

ODATE CARD READ

NEAT DATA WILL BE READ AT TIME (DAYS) = 2922.0 (DAY/MU/YR = 1/ 1/1971)

TIME STEP CUT DUE TO EXCEEDING MAXIMUM CHANGES:

CURRENT SIZE= 60.7851 OSMAX = 0.150976-01 (6, 1, 3) CUT FACTOR= 1.50976

VIP-EXFC TIME STEP SUMMARY

TIME STEP	PRODUCTION	INJECTION	AVG	MASS BALANCES	MAX SATN	CHANGE	MAX COMP	CHANGE	MAX PRES	CHANGE	TIME IT
N											STEP

NO.	DAYS	OIL STB/D	GAS MSCF/D	WATER STB/D	GAS MSCF/D	WATER STB/D	PRES PSIA	H/C	WATER	T	J	K	OSMAX	T	J	K	D7MAX	T	J	K	DPMAX	CUTS	
39	2597.3	1977.00	843.95	1.59118	1007.50	0.00000	1624.	1.0-10	3.8-09	6	1	3	0.0095	6	1	3	0.0031	3	1	3	-23.52	1	2
40	2639.6	1977.00	843.80	1.67620	1007.33	0.00000	1620.	1.0-10	7.8-09	6	1	3	0.0111	6	1	3	0.0035	1	1	3	-13.00	0	3
41	2677.7	1977.00	843.63	1.72244	1007.13	0.00000	1617.	1.0-10	7.8-09	6	1	3	0.0102	6	1	3	0.0033	1	1	3	-9.07	0	2
42	2715.3	1977.00	843.48	1.75827	1006.95	0.00000	1614.	1.0-10	6.8-09	6	1	3	0.0100	6	1	3	0.0033	5	1	3	-8.71		

BATTERY =

STOCK TANK

STOCK TANK PRESSURE = 15.02 PSTA
STOCK TANK TEMPERATURE = 74.00 DEG F
STOCK TANK LIQUID RATE = 1977.00 STR/DAY
STOCK TANK VAPOR RATE = 840.67 MCF/DAY
STOCK TANK VENT GAS RATE = 0.00 MCF/DAY
STOCK TANK TOTAL GAS RATE = 840.67 MCF/DAY
STOCK TANK GAS-OIL RATIO = 425.23 SCF/STR
STOCK TANK OIL-GAS RATIO = 2351.70 BBL/MSCF
STOCK TANK LIQ. DENSITY = 0.8397 GM/CC
STOCK TANK GAS GRAVITY = 0.9781 (AIR=1.0)

COMPOSITIONS

COMPONENT	FEED	LIQUID	VAPOR	VENT
P1	0.26357	0.00143	0.66126	0.00000
P2	0.06859	0.00391	0.16671	0.00000
P3	0.11895	0.14460	0.08005	0.00000
P4	0.08440	0.08932	0.07695	0.00000
P5	0.38480	0.62856	0.01500	0.00000
P6	0.07969	0.13219	0.00004	0.00000

PRESSURE, PSIA

CANADA OJITOS UNIT
TIME-DEPENDENT DATA
GAS PLANT STUDY P L A N T C A S E

DAY/MO/YR: 1/ 1/ 71

TIME: 2922.0 DAYS

VIP-EXEC

J = 1

	1	2	3	4	5	6	7
1795.9							
1771.1		1796.4	1768.5	1712.2	1617.9	1457.1	1437.2
1629.6				1691.4	1600.7	1447.1	1427.5
				1595.1	1484.2	1425.5	1407.3

GAS SATURATION, FRACTION

CANADA OJITOS UNIT
TIME-DEPENDENT DATA
GAS PLANT STUDY P L A N T C A S E

DAY/MO/YR: 1/ 1/ 71

TIME: 2922.0 DAYS

VIP-EXEC

GC # 1
2 5 1 3-3 QMAX 20.00 29.65 0.0229 192 0.001 133.23 657.25 0.63962 1445 1438 0 0 0
3 3 1 3-3 QMAX 2095.83552 2.1731 427 0.001 134.24 827.11 1.76602 1510 912 0 0 0
7 1 1 GINJ 0.0 0.0 0 0 39.49 23.86 0.00192
GATHERING CENTER TOTALS 2115.92517 2.3460 437 0.001 356.96 1508.21 2.40756 0 0

GC # 2
GATHERING CENTER TOTALS 0.0 0.0 0 0 0.0 0.0 0.0 0.0 0.0 0.0

FLOW STATION TOTALS 2115.92517 2.3460 437 0.001 3506.96 1508.21 2.40756 0 0

VIP-EXLC INJECTION WELL SUMMARY
DAY/MO/YR: 1/ 1/72
TIME: 3287.0 DAYS

PERF LOCATION		DAILY INJECTION		CUMULATIVE INJECTION		PRESSURES PSIA	
NO.	NAME	I	J	LAYER	STAT	GAS	WATER
						MSCF/D	STG/D

GRID		BOTTOM		TUBING	
BLOCK		MOLE		HEAD	
DATUM		DATUM		DATUM	

GC # 1
1 7 1 1-3 QMAX 1530.59 0.0 1326.19 0.0 1439 1517 0
GATHERING CENTER TOTALS 1530.59 0.0 1326.19 0.0
GC # 2
GATHERING CENTER TOTALS 0.0 0.0 0.0 0.0

FLOW STATION TOTALS 1530.59 0.0 1326.19 0.0

VIP-EXLC SEPARATOR REPORT
DAY/MO/YR: 1/ 1/72
TIME: 3287.0 DAYS

BATTERY = 1
STOCK TANK

STOCK TANK PRESSURE 15.02 PSIA
STOCK TANK TEMPERATURE 74.00 DEG F
STOCK TANK LIQUID RATE 2115.20 STR/DAY
STOCK TANK VAPOR RATE 924.95 MCF/DAY
STOCK TANK VENT GAS RATE 0.00 MCF/DAY
STOCK TANK TOTAL GAS RATE 924.95 MCF/DAY
STOCK TANK GAS-OIL RATIO 437.29 STE/STR

COMPOSITIONS

COMPONENT	FEED	LIQUID	VAPOR	VENT
-----------	------	--------	-------	------

P1	0.27095	0.00143	0.66641	0.00000
P2	0.00069	0.00386	0.16435	0.00000
P3	0.11820	0.14692	0.07877	0.00000
P4	0.09390	0.08944	0.07573	0.00000
P5	0.39039	0.62821	0.01471	0.00000
P6	0.07877	0.13213	0.00003	0.00000

PRESSURE, PSIA

CANADA UJITOS UNIT

TIME-DEPENDENT DATA

GAS PLANT STUDY P L A N T C A S E

VIP-EXEC

DAY/MO/YR: 1/ 1/72 P TIME: 3287.0 DAYS

J = 1

	2	3	4	5	6	7
1810.9	1783.6	1728.3	1635.2	1476.9	1456.8	
1773.2	1748.4	1696.8	1608.7	1466.1	1446.3	
1574.5	1541.4	1514.9	1458.7	1443.4	1425.6	

GAS SATURATION, FRACTION

CANADA UJITOS UNIT

TIME-DEPENDENT DATA

GAS PLANT STUDY P L A N T C A S E

VIP-EXEC

DAY/MO/YR: 1/ 1/72 SG TIME: 3287.0 DAYS

J = 1

	1	2	3	4	5	6	7
0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.8997
0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0013	0.8988
0.0000	0.0000	0.0000	0.0000	0.0000	0.0011	0.0002	0.5162

DATA READ AT TIME (DAYS) = 3287.0 (DAY/MO/YR = 1/ 1/1972)

* VIP-EXEC INJECTION WELL SUMMARY *
* DAY/MO/YR: 1/ 1/73 *
* TIME: 3653.0 DAYS *

WELL
DAILY INJECTION CUMULATIVE INJECTION PRESSURES, PSIA

PERF LOCATION						GRID BOTTOM TURING						
NO.	NAME	I	J	LAYER	STAT	GAS MSCF/D	WATER STB/D	GAS MMSCF	WATER MSB	BLUCK UATUM	HOLE DATUM	HEAD
GC # 1		7	1	1-3	QMAX	1466.72	0.	1855.04	0.	1459	1532	0

*** GATHERING CENTER TOTALS

*** GC # 2

*** GATHERING CENTER TOTALS

FLOW STATION TOTALS

VIP-EXEC SEPARATOR REPORT

DAY/MO/YR: 1/ 1/73

GAS PLANT STUDY PLANT CASE

VIP-EXEC

 DAY/MO/YR: 1/ 1/73
 TIME: 3653.0 DAYS

J = 1

	1	2	3	4	5	6	7
K							
1	1824.0	1824.9	1797.8	1742.6	1649.8	1493.3	1473.1
2	1781.6	1783.5	1758.3	1706.3	1617.7	1484.3	1464.4
3	1595.1	1593.1	1560.3	1526.9	1482.5	1466.7	1448.2

GAS SATURATION, FRACTION

CANADA OJITOS UNIT
 TIME-DEPENDENT DATA
 GAS PLANT STUDY PLANT CASE

VIP-EXEC

TIME: 3653.0 DAYS

SG

DAY/MO/YR: 1/ 1/73

J = 1

	1	2	3	4	5	6	7
K							
1	0.0000	0.0000	0.0000	0.0000	0.0000	0.0645	0.8990
2	0.0000	0.0000	0.0000	0.0000	0.0000	0.1311	0.8986
3	0.0000	0.0000	0.0000	0.0000	0.0994	0.2513	0.3308

DATA READ AT TIME (DAYS) = 3653.0 (DAY/MO/YR = 1/ 1/1973)

GASMP CARD-

LEVEL	NUMBER	MAKEUP GAS RATE	DAILY RATE	UNIT	OPTION
GATHER	1	0.62000			FPROD

QMAX CARD-

WELL	MAXIMUM DAILY RATE	VOLUME UNITS
1	0.94000	FSTD GC (GAL)
2	54.000	STG (OIL)
3	1301.0	STG (OIL)

QDATE CARD READ

*** GATHERING CENTER TOTALS ***

0. 0. 0. 2436.97 0.

VIP-LXLC SEPARATOR REPORT

TIME: 4018.0 DAYS

BATTERY = 1

STOCK TANK

STOCK TANK PRESSURE = 15.02 PSTA
STOCK TANK TEMPERATURE = 74.00 DEG F
STOCK TANK LIQUID RATE = 1364.17 STB/DAY
STOCK TANK VAPOR RATE = 1250.18 MCF/DAY
STOCK TANK VENT GAS RATE = 0.00 MCF/DAY
STOCK TANK TOTAL GAS RATE = 1250.18 MCF/DAY
STOCK TANK GAS-OIL RATIO = 916.44 SCF/STB
STOCK TANK OIL-GAS RATIO = 1091.17 HBLS/MMSCF
STOCK TANK LIQ. DENSITY = 0.8367 GM/CC
STOCK TANK GAS GRAVITY = 0.8523 LAIR=1.0

COMPOSITIONS

COMPONENT	FEED	LIQUID	VAPOR	VENT
P1	0.44415	0.00154	0.75788	0.00000
P2	0.07159	0.00297	0.12022	0.00000
P3	0.09793	0.15508	0.05742	0.00000
P4	0.07039	0.09245	0.05476	0.00000
P5	0.26184	0.61757	0.00970	0.00000
P6	0.05411	0.13940	0.00003	0.00000

PRESSURE, PSIA

CANADA UJITUS UNIT

TIME-DEPENDENT DATA

GAS PLANT STUDY P L A N T C A F

VIP-FXFC

OAY/MO/YR: 1/ 1/74

P

TIME: 4018.0 DAYS

I	1	2	3	4	5	6	7
K	1830.7	1839.8	1812.9	1758.1	1665.8	1512.6	1492.1
	1789.0	1790.7	1765.1	1712.5	1622.3	1502.2	1482.0

GAS SATURATION, FRACTION

CANADA OJITOS UNIT
TIME-DEPENDENT DATA
GAS PLANT STUDY P L A N T C A S E

VIP-EXFC
DAY/MO/YR: 1/ 1/74
TIME: 4018.0 DAYS

J = 1

	1	2	3	4	5	6
1	0.0000	0.0000	0.0000	0.0000	0.0000	0.0841
2	0.0000	0.0000	0.0000	0.0000	0.0000	0.1667
3	0.0000	0.0000	0.0000	0.0000	0.1361	0.2717

DATA READ AT TIME (DAYS) = 4018.0 10DAY/MO/YR = 1/ 1/1974

GASIMP CORR-

WELL	NUMBER	DAILY RATE	UNIT	OPTION
1	1	0.54008		FPROD

MAX RATE

WELL	DAILY RATE	VOLUME UNITS
1	0.54000	FSTD GC (GAS)
2	0.54000	STB (OIL)
3	1.124.0	STB (OIL)

DATE CARD READ

NEXT DATA WELL BE READ AT TIME (DAYS) = 4383.0 10DAY/MO/YR = 1/ 1/1975

VIP-EXFC TIME STEP SUMMARY

TIME STEP PRODUCTION INJECTION AVG MASS BALANCES MAX SATN CHANGE MAX CORP CHANGE MAX PRES CHANGE TIME IN

NO. DAYS OIL STB/D GAS MSCF/U WATER STB/D GAS MSCF/U WATER H/L PRES PSIA

NO.	DAYS	OIL STB/D	GAS MSCF/U	WATER STB/D	GAS MSCF/U	WATER STB/D	PRES PSIA	AVG	MAX SATN	CHANGE	MAX CORP	CHANGE	MAX PRES	CHANGE	TIME IN							
66	4108.0	1170.00	1116.41	1.29218	1616.17	0.00000	1629.	5.E-11	2.E-09	6	1	2	0.0084	6	1	2	0.0097	3	1	3	9.11	0
67	4198.0	1170.00	1216.78	1.27605	1761.41	0.00000	1631.	4.E-11	2.E-09	6	1	2	0.0080	6	1	2	0.0038	6	1	1	4.70	0
68	4298.0	1170.00	1324.11	1.27536	1916.71	0.00000	1634.	4.E-11	2.E-09	6	1	2	0.0078	6	1	2	0.0039	6	1	1	5.88	0

STOCK TANK PRESSURE = 15.02 PSIA
 STOCK TANK TEMPERATURE = 74.00 DEG F
 STOCK TANK LIQUID RATE = 1192.16 STB/DAY
 STOCK TANK VAPOR RATE = 1441.25 MCF/DAY
 STOCK TANK VENT GAS RATE = 0.00 MCF/DAY
 STOCK TANK TOTAL GAS RATE = 1441.25 MCF/DAY
 STOCK TANK GAS-OIL RATIO = 1219.17 SCF/STB
 STOCK TANK OIL-GAS RATIO = 820.23 RBLS/MMSCF
 STOCK TANK LIQ. DENSITY = 0.8353 GM/CC
 STOCK TANK GAS GRAVITY = 0.8277 (AIR=1.0)

COMPOSITIONS

COMPONENT	FEED	LIQUID	VAPOR	VENT
-----------	------	--------	-------	------

P1 0.50716 0.00154 0.77741 0.00000
 P2 0.07265 0.00273 0.11003 0.00000
 P3 0.09056 0.16002 0.05343 0.00000
 P4 0.06549 0.09356 0.05048 0.00000
 P5 0.21895 0.61248 0.00862 0.00000
 P6 0.04518 0.12967 0.00002 0.00000

PRESSURE, PSIA

CANADA QUITOS UNIT
 TIME-DEPENDENT DATA
 GAS PLANT STUDY PLANT CASE

DAY/MO/YR: 1/1/75

TIME: 4383.0 DAYS

VIP-EXEC

J = 1

	2	3	4	5	6	7
1855.4	1828.8	1774.4	1682.6	1533.9	1513.3	
1798.1	1772.4	1719.4	1629.5	1521.9	1501.6	
1613.6	1580.9	1537.5	1504.3	1489.7	1471.9	

GAS SATURATION, FRACTION

CANADA QUITOS UNIT
 TIME-DEPENDENT DATA
 GAS PLANT STUDY PLANT CASE

DAY/MO/YR: 1/1/75

TIME: 4383.0 DAYS

VIP-EXEC

J = 1


```

*****
P4 0.06152 0.00450 0.04776 0.00000
P5 0.18444 0.03757 0.00789 0.00000
P6 0.03800 0.01702 0.00032 0.00000
*****
PRESSURE, PSIA
*****
CANADA OJITOS UNIT
TIME-DEPENDENT DATA
GAS PLANT STUDY P L A N T C A S E
*****
VIP-EXEC
DAY/MO/YR: 1/ 1/76
TIME: 4748.0 DAYS
*****

```

J = 1

	1	2	3	4	5	6	7
K 1	1867.3	1808.4	1841.8	1787.4	1695.5	1550.9	1530.1
2	1809.2	1810.5	1784.1	1730.2	1639.0	1539.9	1519.3
3	1652.1	1659.5	1618.5	1570.5	1524.3	1509.3	1491.0

GAS SATURATION, FRACTION

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*****
CANADA OJITOS UNIT
TIME-DEPENDENT DATA
GAS PLANT STUDY P L A N T C A S E
*****
VIP-EXEC
DAY/MO/YR: 1/ 1/76
SG
TIME: 4748.0 DAYS
*****

```

J = 1

	1	2	3	4	5	6	7
K 1	0.0000	0.0000	0.0000	0.0000	0.0000	0.1308	0.8985
2	0.0000	0.0000	0.0000	0.0000	0.0000	0.2252	0.8781
3	0.0000	0.0000	0.0000	0.0000	0.1776	0.2989	0.3624

DATA READ AT TIME (DAYS) = 4748.0 10DAY/MO/YR = 1/ 1/1976

GASMKP CARD-

LEVEL		NUMBER		MAKEUP GAS RATE		DAILY RATE		UNIT		OPTION	
GATHER		1		0.10000						FPROD	

NO.	NAME	I	J	LAYER	STAT	GAS MSCF/D	WATER STB/D	GAS MMSCF	WATER MSTB	BLOCK DATUM	WELL DATUM	HEAD																																			
0	GC # 1	1	7	1	1-3 QMAX	1585.79	0.	4313.83	0.	1514	1592	0																																			
0	GATHERING CENTER TOTALS					1585.79	0.	4313.83	0.																																						
0	GC # 2																																														
0	GATHERING CENTER TOTALS																																														
1	FLOW STATION TOTALS					1585.79	0.	4313.83	0.																																						
0	***** * VIP-EXEC SEPARATOR REPORT * * DAY/MO/YR: 1/1/77 * * TIME: 5114.0 DAYS * ***** BATTERY = 1 ***** STOCK TANK *****																																														
0	STOCK TANK PRESSURE = 15.02 PSIA STOCK TANK TEMPERATURE = 74.00 DEG F STOCK TANK LIQUID RATE = 831.63 STB/DAY STOCK TANK VAPOR RATE = 1287.91 MCF/DAY STOCK TANK VERT GAS RATE = 0.00 MCF/DAY STOCK TANK TOTAL GAS RATE = 1287.91 MCF/DAY STOCK TANK GAS-OIL RATIO = 1542.64 SCF/STB STOCK TANK LIQ-GAS RATIO = 648.24 RBLS/MMSCF STOCK TANK LIQ. DENSITY = 0.8341 GM/CC STOCK TANK GAS GRAVITY = 0.8126 (AIR=1.1)																																														
0	COMPOSITIONS ----- <table border="1"> <thead> <tr> <th>COMPONENT</th> <th>FLUO</th> <th>LIQUID</th> <th>VAPOR</th> <th>VENT</th> </tr> </thead> <tbody> <tr> <td>P1</td> <td>0.55501</td> <td>0.00154</td> <td>0.78944</td> <td>0.00000</td> </tr> <tr> <td>P2</td> <td>0.07349</td> <td>0.00256</td> <td>0.10154</td> <td>0.00000</td> </tr> <tr> <td>P3</td> <td>0.09488</td> <td>0.16443</td> <td>0.05118</td> <td>0.00000</td> </tr> <tr> <td>P4</td> <td>0.06173</td> <td>0.02443</td> <td>0.04788</td> <td>0.00000</td> </tr> <tr> <td>P5</td> <td>0.18647</td> <td>0.50797</td> <td>0.00793</td> <td>0.00000</td> </tr> <tr> <td>P6</td> <td>0.03842</td> <td>0.12703</td> <td>0.00002</td> <td>0.00000</td> </tr> </tbody> </table> -----												COMPONENT	FLUO	LIQUID	VAPOR	VENT	P1	0.55501	0.00154	0.78944	0.00000	P2	0.07349	0.00256	0.10154	0.00000	P3	0.09488	0.16443	0.05118	0.00000	P4	0.06173	0.02443	0.04788	0.00000	P5	0.18647	0.50797	0.00793	0.00000	P6	0.03842	0.12703	0.00002	0.00000
COMPONENT	FLUO	LIQUID	VAPOR	VENT																																											
P1	0.55501	0.00154	0.78944	0.00000																																											
P2	0.07349	0.00256	0.10154	0.00000																																											
P3	0.09488	0.16443	0.05118	0.00000																																											
P4	0.06173	0.02443	0.04788	0.00000																																											
P5	0.18647	0.50797	0.00793	0.00000																																											
P6	0.03842	0.12703	0.00002	0.00000																																											
1	***** * PRESSURE, PSIA * ***** * CANADA OILIOS UNIT * * TIME-DEPENDENT DATA * * GAS PLANT STUDY PLANT C A S I * * DAY/MO/YR: 1/1/77 * * TIME: 5114.0 DAYS * ***** VIP-EXEC																																														

K	1	2	3	4	5	6	7
1	1865.8	1866.9	1840.1	1785.4	1693.3	1553.7	1532.5
2	1806.4	1807.5	1780.7	1726.2	1634.3	1544.2	1523.5
3	1654.3	1652.7	1620.5	1572.1	1532.2	1516.7	1497.9

GAS SATURATION FRACTION

CANADA OJITUS UNIT
TIME-DEPENDENT DATA
GAS PLANT STUDY P I A N T C A S E

VIP-EXEL

TIME: 5114.0 DAYS

SG

DAY/MO/YR: 1/ 1/77

J = 1

K	1	2	3	4	5	6	7
1	0.0000	0.0000	0.0000	0.0000	0.0000	0.1548	0.8984
2	0.0000	0.0000	0.0000	0.0000	0.0000	0.2479	0.8979
3	0.0000	0.0000	0.0000	0.0000	0.1921	0.3078	0.3693

DATA READ AT TIME (DAYS) = 5114.0 (DAY/MO/YR = 1/ 1/1977)

GASMP CARD-

LEVEL	NUMBER	MAKEUP GAS RATE	DAILY RATE	UNIT	OPTION
GATHER	1	0.36000			FPRUD

OMAX CARD-

WELL	MAXIMUM DAILY RATE	VOLUME UNITS
1	0.94000	FSTD GC (GAS)
2	17.000	STB (OIL)
3	791.00	STB (OIL)

ODATE CARD READ

NEXT DATA WILL BE READ AT TIME (DAYS) = 5479.0 (DAY/MO/YR = 1/ 1/1978)

VIP-EXEL TIME STEP SUMMARY

[illegible]

DAY/MO/YR: 1/ 1/78

TIME: 5479.0 DAYS

QUALITY: 1

STOCK TANK

STOCK TANK PRESSURE = 15.02 PSIA
STOCK TANK TEMPERATURE = 74.00 DEG F
STOCK TANK LIQUID RATE = 820.17 STR/DAY
STOCK TANK VAPOR RATE = 1296.88 MCF/DAY
STOCK TANK VENT GAS RATE = 0.00 MCF/DAY
STOCK TANK TOTAL GAS RATE = 1296.88 MCF/DAY
STOCK TANK GAS-OIL RATIO = 1581.23 SCF/STR
STOCK TANK OIL-GAS RATIO = 632.42 BBL/STR
STOCK TANK LIQ. DENSITY = 0.8339 GM/CC
STOCK TANK GAS GRAVITY = 0.8112 (AIR=1.0)

COMPOSITIONS

COMPONENT	FEED	LIQUID	VAPOR	VENT
P1	0.55975	0.0154	0.79048	0.00000
P2	0.07363	0.00255	0.10301	0.00000
P3	0.08429	0.16487	0.05097	0.00000
P4	0.06135	0.09651	0.04765	0.00000
P5	0.19324	0.60752	0.00787	0.00000
P6	0.03775	0.12902	0.00002	0.00000

PRESSURE, PSIA

CANADA OJITOS UNIT
TIME-DEPENDENT DATA
GAS PLANT STUDY P L A N T C A S E

VIP-EXEC

DAY/MO/YR: 1/ 1/78

TIME: 5479.0 DAYS

I	1	2	3	4	5	6	7
K	1863.8	1864.9	1838.2	1783.9	1691.2	1562.3	1541.3
1	1801.2	1802.2	1775.3	1720.6	1628.5	1553.4	1532.6
2	1650.1	1648.5	1616.3	1567.9	1541.5	1525.9	1507.1

GAS SATURATING FRACTION

CANADA OJITOS UNIT
TIME-DEPENDENT DATA
GAS PLANT STUDY P L A N T C A S E

VIP-EXEC

	1	2	3	4	5	6	7
K							
1	0.0000	0.0000	0.0000	0.0000	0.0000	0.1793	0.8982
2	0.0000	0.0000	0.0000	0.0000	0.0000	0.2675	0.8977
3	0.0000	0.0000	0.0000	0.0000	0.2076	0.3162	0.3756

DATA READ AT TIME (DAYS) = 5479.0 (DAY/MO/YR = 1/ 1/1978)

GASMAK CARD-

LEVEL	NUMBER	MAKEUP GAS RATE	DAILY RATE	UNIT	OPTION
GATHER	1	0.17000			FPROD

CHAK CARD-

WELL	MAXIMUM DAILY RATE	VOLUME UNITS
1	0.94000	FSTD GC (GAS)
2	1.04000	STB (OIL)
3	0.94000	STB (OIL)

UPDATE CARD READ

 NEXT DATA WILL BE READ AT TIME (DAYS) = 5844.0 (DAY/MO/YR = 1/ 1/1979)

 VIP-FXFC TIME STEP SUMMARY

TIME STEP	PRODUCTION	INJECTION	AVG	MASS BALANCES	MAX SATN CHANGE	MAX COMP CHANGE	MAX PRES CHANGE	TIME I
NO.	DAYS	OIL STB/D	GAS MSCF/D	WATER STB/D	H/C	WATER I	J K DSMAX I J K DZMAX I J K BPMAX CUTS	STEP
82	5569.0	649.00	1390.29	0.66329	1529.04	0.00000	1661.0 3.0-11 2.0-F-09 6 1 1 0.0062 6 1 1 0.0025 3 1 3 11.04 0	
83	5659.0	649.00	1454.82	0.64999	1600.01	0.00000	1661.0 3.0-11 2.0-F-09 6 1 1 0.0060 6 1 1 0.0025 1 1 3 14.32 0	
84	5749.0	649.00	1511.26	0.64608	1662.09	0.00000	1661.0 3.0-11 2.0-F-09 6 1 1 0.0059 6 1 1 0.0025 5 1 1 1.58 0	
85	5844.0	649.00	1567.95	0.64522	1724.43	0.00000	1650.0 3.0-11 2.0-F-09 6 1 1 0.0062 6 1 1 0.0027 5 1 1 2.04 0	
***** VIP-XFLC PRODUCTION WELL SUMMARY *****								
***** DAY/MO/YR: 1/ 1/79 TIME: 5844.0 DAYS *****								
***** DAILY PRODUCTION***** CUMULATIVE PRODUCTION PRESSURES, PSIA *****								
***** GAS LIFT *****								

 VIP-FXFC PRODUCTION WELL SUMMARY

 DAY/MO/YR: 1/ 1/79
 TIME: 5844.0 DAYS

 DAILY PRODUCTION

 CUMULATIVE PRODUCTION PRESSURES, PSIA

 GAS LIFT

NO.	NAME	DATE	LAYER	STRT	STB/D	MSCF/D	STB	FRAC.	MSB	MMSCF	MSB	DATUM	DATE
000	GC # 1												
0	2	5	1	3-3	UMAX	18.00	12.99	0.0021	72176	0.000	1605.90	2544.27	0.70240
0	3	3	1	3-3	UMAX	631.00	268.00	0.0026	425	0.001	4543.92	1949.42	4.56276
0	1	7	1	GINJ		0.	0.	0.	0.	0.	39.49	23.96	0.00192
000	GATHERING CENTER TOTALS	649.00	1568.	0.6452	2415	0.001	6189.31	4508.55	5.26708				
000	GC # 2												
000	GATHERING CENTER TOTALS	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
000	FLOW STATION TOTALS	649.00	1568.	0.6452	2415	0.001	6189.31	4508.55	5.26708				
000	DAY/MO/YR: 1/ 1/79												
000	WELL												
000	PERF LOCATION												
000	NO. NAME	1	3	LAYER	STAT	GAS	WATER	WATER	GAS	WATER	GRID	BOTTOM	TUBING
000	GC # 1	7	1	1-3	UMAX	1724.43	0.	0.	5468.13	0.	1525	1809	0
000	GATHERING CENTER TOTALS	1724.43	0.	0.	0.	0.	0.	0.	5468.13	0.			
000	GC # 2												
000	GATHERING CENTER TOTALS	0.	0.	0.	0.	0.	0.	0.	0.	0.			
000	FLOW STATION TOTALS	1724.43	0.	0.	0.	0.	0.	0.	5468.13	0.			
000	VIP-EXLC												
000	SEPARATOR REPORT												
000	DAY/MO/YR: 1/ 1/79												
000	BATTERY												
000	STOCK TANK												
000	STOCK TANK PRESSURE								15.02	PSIA			
000	STOCK TANK TEMPERATURE								74.00	DEG F			
000	STOCK TANK LIQUID RATE								602.69	STB/DAY			
000	STOCK TANK VAPOR RATE								1550.19	MCF/DAY			
000	STOCK TANK VENT GAS RATE								0.00	MCF/DAY			
000	STOCK TANK TOTAL GAS RATE								1550.19	MCF/DAY			

STOCK TANK LIQ. DENSITY = 0.8315 GM/CC
STOCK TANK GAS DENSITY = 0.7960 (AIR=1.0)

COMPOSITIONS

COMPONENT	FEED	LIQUID	VAPOR	VENT
P1	0.62797	0.00151	0.00376	0.00000
P2	0.07695	0.00232	0.00535	0.00000
P3	0.07695	0.17316	0.04903	0.00000
P4	0.05006	0.09598	0.04485	0.00000
P5	0.13677	0.59485	0.00702	0.00000
P6	0.02800	0.12801	0.00002	0.00000

PRESSURE, PSIA

CANADA UJITOS UNIT
TIME-DEPENDENT DATA
GAS PLANT STUDY P L A N T C A S E

VIP-EXEC

TIME: 5844.0 DAYS

J = 1

	1	2	3	4	5	6	7
1859.0							
1799.9			1833.2	1778.5	1686.3	1567.2	1546.1
1662.8			1772.7	1717.5	1624.6	1556.3	1535.4
			1629.4	1578.5	1537.8	1522.7	1504.1

GAS SATURATION, FRACTION

CANADA UJITOS UNIT
TIME-DEPENDENT DATA
GAS PLANT STUDY P L A N T C A S E

VIP-EXEC

TIME: 5844.0 DAYS

J = 1

	1	2	3	4	5	6	7
0.0000							
0.0000			0.0000	0.0000	0.0000	0.2036	0.8981
0.0000			0.0000	0.0000	0.0000	0.2367	0.8975
			0.0000	0.0000	0.2170	0.3247	0.3814

DATA READ AT TIME (DAYS) = 5844.0 (DAY/MU/YR = 1/ 1/1979)

[illegible]

VIP-EXEC INJECTION WELL SUMMARY

DAY/MO/YR: 1/ 1/80

TIME: 6209.0 DAYS

WELL DAILY INJECTION CUMULATIVE INJECTION PRESSURE, PSIA

PERF LOCATION
NO. NAME I J LAYER STAT GAS WATER GAS WATER GRID BOTTOM TUBING
MSCF/D STB/D MMSCF MSTB BLOCK MOLE HEAD
DATUM DATUM

GC # 1
1 7 1 1- 3 UMAX 1528.10 0. 5998.10 0. 1523 1597 0

GATHERING CENTER TOTALS
1528.10 0. 5998.10 0.

GC # 2

GATHERING CENTER TOTALS
0. 0. 0. 0.

FLOW STATION TOTALS
1528.10 0. 5998.10 0.

VIP-EXEC SEPARATOR REPORT

DAY/MO/YR: 1/ 1/80

TIME: 6209.0 DAYS

BATTERY = 1

STOCK TANK

STOCK TANK PRESSURE = 15.02 PSIA
STOCK TANK TEMPERATURE = 74.00 DEG F
STOCK TANK LIQUID RATE = 612.87 STB/DAY
STOCK TANK VAPOR RATE = 1434.79 MCF/DAY
STOCK TANK VENT GAS RATE = 0.00 MCF/DAY
STOCK TANK TOTAL GAS RATE = 1434.79 MCF/DAY
STOCK TANK GAS-OIL RATIO = 2341.11 SCF/STB
STOCK TANK OIL-GAS RATIO = 427.15 RBLS/MMSCF
STOCK TANK LIQ. DENSITY = 0.9315 GM/CC
STOCK TANK GAS GRAVITY = 0.7947 (AIR=1.)

COMPOSITIONS
COMPONENT FEED LIQUID VAPOR VENT
P1 0.62797 0.00150 0.80359 0.00000
P2 0.07508 0.02332 0.09549 0.00000
P3 0.07524 0.17330 0.04902 0.00000
P4 0.00606 0.00000 0.04435 0.00000
P5 0.13669 0.59496 0.00702 0.00000
P6 0.02006 0.12001 0.00002 0.00000

PRESSURE, PSIA

***** VIP-EXEC *****
 * DAY/MO/YR: 1/ 1/80 *
 * TIME: 6209.0 DAYS *

J = 1

I	P	2	3	4	5	6	7
K							
1	1846.1	1847.0	1820.0	1765.1	1672.6	1563.9	1542.7
2	1789.1	1789.9	1762.4	1706.8	1613.5	1553.8	1532.8
3	1663.1	1661.7	1630.0	1578.6	1537.9	1522.4	1503.6

GAS SATURATION, FRACTION

***** CANADA OJITOS UNIT *****
 * TIME-DEPENDENT DATA *
 * GAS PLANT STUDY P L A N T C A S E *

***** VIP-EXEC *****
 * DAY/MO/YR: 1/ 1/80 *
 * TIME: 6209.0 DAYS *

J = 1

I	P	2	3	4	5	6	7
K							
1	0.0000	0.0000	0.0000	0.0000	0.0000	0.2266	0.8979
2	0.0000	0.0000	0.0000	0.0000	0.0000	0.2994	0.8973
3	0.0000	0.0000	0.0000	0.0000	0.2246	0.3318	0.3860

***** DATA READ AT TIME (DAYS) = 6209.0 (DAY/MO/YR = 1/ 1/1980) *****

GASHKP CARD-

LEVEL	NUMBER	MAKEUP GAS RATE	UNIT	OPTION
GATHER	1	0.13000		FPR00

OMAX CARD-

WELL	MAXIMUM DAILY RATE	VOLUME UNITS
1	0.94000	ESTD G/L (GAS)
2	9.6000	STB (OIL)
3	596.00	STB (OIL)

***** ODATE CARD READ *****

TIME STEP	PRODUCTION	INJECTION	AVG. MASS BALANCE'S	MAX SATN CHANGE	MAX COMP CHANGE	MAX PRES CHANGE	TIME IT
							STEP

[illegible]

```
*****  
#          VIP-EXC     PRODUCTION    WELL      SUMMARY  
*****  
# DAY/MO/YR:   1/ 1/81                TIME: 0975-0 DAYS *  
*****  
#          DAILY     PRODUCTION    CUMULATIVE    PRODUCTION PRESSURES. PSIA  
*****  
WELL
```

[illegible][illegible][illegible]

605.60	12.98.	0.6035	214.	0.001	6629.76	5452.98	5.70458	0.	0.
FLOW STATION TOTALS									

[illegible]

WELL		DAILY INJECTION		CUMULATIVE INJECTION		PRESSURES		PSIA				
PERF LOCATION												
NO.	NAME	I	J	LAYER	STAT	GAS MSCF/D	WATER GAL/D	GAS MSTB	WATER MSTB	GRID BLOCK DATUM	BOTTOM HOLE DATUM	TURING HEAD
0	see GC # 1	7	1	1-	3 QMAX	1378.37	0.	6466.50	0.	1521	1588	0
0	see GATHERING CENTER TOTALS					1378.37	0.	6466.50	0.			

*** GATHERING CENTER TOTALS

*** FLOW STATION TOTALS 1379.37 0. 6466.58 0.

***** VIP-EXEC SEPARATOR REPORT *****

*** DAY/MO/YR: 1/ 1/81 TIME: 6575.0 DAYS ***

BATTERY = 1

----- STOCK TANK -----

STOCK TANK PRESSURE = 15.02 PSIA
STOCK TANK TEMPERATURE = 74.00 DEG F
STOCK TANK LIQUID RATE = 617.66 STB/DAY
STOCK TANK VAPOR RATE = 1282.14 MCF/DAY
STOCK TANK VENT GAS RATE = 0.00 MCF/DAY
STOCK TANK TOTAL GAS RATE = 1282.14 MCF/DAY
STOCK TANK GAS-OIL RATIO = 2075.79 SCF/STB
STOCK TANK OIL-GAS RATIO = 481.74 BBL/MMSCF
STOCK TANK LIQ. DENSITY = 0.8323 GM/CC
STOCK TANK GAS GRAVITY = 0.7991 (AIR=1.0)

COMPOSITIONS

COMPONENT	FEED	LIQUID	VAPOR	VENT
P1	0.60833	0.00152	0.80003	0.00000
P2	0.07482	0.00239	0.09770	0.00000
P3	0.07850	0.17053	0.04943	0.00000
P4	0.05758	0.09557	0.04557	0.00000
P5	0.14996	0.60167	0.00725	0.00000
P6	0.03082	0.12832	0.00002	0.00000

PRESSURE, PSIA

***** CANADA OJITOS UNIT *****
*** TIME-DEPENDENT DATA *****
*** GAS PLANT STUDY P L A N T C A S E *****

VIP-EXEC

*** DAY/MO/YR: 1/ 1/81 TIME: 6575.0 DAYS ***

J = 1

I	1	2	3	4	5	6	7
K	1828.3	1829.2	1802.0	1740.8	1654.1	1559.7	1538.6
1	1774.3	1775.5	1748.0	1692.3	1598.9	1551.2	1530.3
2	1653.7	1652.4	1620.7	1569.5	1539.7	1524.0	1504.9

GAS SATURATION, FRACTION

CANADA OJITUS UNIT
 TIME-DEPENDENT DATA
 GAS PLANT STUDY P L A N T C A S T

VIP-EXEC

DAY/MO/YR: 1/ 1/81

SG

TIME: 6575.0 DAYS

J = 1

1	2	3	4	5	6	7
0.0000	0.0000	0.0000	0.0000	0.0000	0.2481	0.8978
0.0000	0.0000	0.0000	0.0000	0.0000	0.3122	0.8978
0.0000	0.0000	0.0000	0.0000	0.0000	0.3379	0.3901

DATA READ AT TIME (DAYS) = 6575.0 (DAY/MO/YR = 1/ 1/1981)

GASMP CARD-

LEVEL	NUMBER	MAKEUP GAS RATE	DAILY RATE	UNIT	OPTION
GATHER	1	0.00000			FPRD

OMAX CARD-

WELL	MAXIMUM DAILY RATE	VOLUME UNITS
1	0.94000	FSTD GC (GAS)
2	1.4000	STB (OIL)
3	309.00	STB (OIL)

DATE CARD READ

NEXT DATA WILL BE READ AT TIME (DAYS) = 6940.0 (DAY/MO/YR = 1/ 1/1982)

VIP-EXEC TIME STEP SUMMARY

TIME STEP	PRODUCTION	INJECTION	AVG MASS BALANCES	MAX SATN	CHANGE	MAX COMP	CHANGE	MAX PRES	CHANGE	TIME STEP
			PV							

94	6665.0	596.40	1124.24	0.59786	1056.79	0.00000	1642.	2.1-11	2.1-09	6	1	1	0.0051	6	1	1	0.0017	5	1	1	-5.33	0
95	6755.0	596.40	1196.18	0.59886	1124.41	0.00000	1638.	2.1-11	2.1-09	6	1	1	0.0049	6	1	1	0.0017	5	1	1	-5.67	0
96	6845.0	596.40	1280.45	0.60162	1203.62	0.00000	1634.	2.1-11	2.1-09	6	1	1	0.0048	6	1	1	0.0018	5	1	1	-5.88	0
97	6940.0	596.40	1358.79	0.60566	1277.45	0.00000	1630.	2.1-11	1.1-09	6	1	1	0.0050	6	1	1	0.0019	5	1	1	-6.06	0

[illegible]

STOCK TANK PRESSURE = 15.02 PSIA
 STOCK TANK TEMPERATURE = 74.00 DEG F
 STOCK TANK LIQUID RATE = 608.95 STR/DAY
 STOCK TANK VAPOR RATE = 1342.82 MCF/DAY
 STOCK TANK VENT GAS RATE = 0.00 MCF/DAY
 STOCK TANK TOTAL GAS RATE = 1342.82 MCF/DAY
 STOCK TANK GAS-OIL RATIO = 2205.14 SCF/STR
 STOCK TANK OIL-GAS RATIO = 453.49 BBL/SCF
 STOCK TANK LIQ. DENSITY = 0.8319 GM/CC
 STOCK TANK GAS GRAVITY = 0.7970 (AIR=1.0)

COMPOSITIONS

COMPONENT	FEED	LIQUID	VAPOR	VENT
P1	0.61811	0.00151	0.80162	0.00000
P2	0.07514	0.00236	0.09680	0.00000
P3	0.07733	0.17187	0.04920	0.00000
P4	0.05683	0.09582	0.04522	0.00000
P5	0.14317	0.60027	0.00714	0.00000
P6	0.02941	0.12817	0.00002	0.00000

PRESSURE, PSIA

CANADA OJITOS UNIT
 TIME-DEPENDENT DATA
 GAS PLANT STUDY P L A N T C A S E

VIP-EXEC

DAY/MO/YR: 1/ 1/82

TIME: 6940.0 DAYS

J = 1

6

5

4

3

7

6

5

4

3

2

1

0

1

2

3

4

5

6

7

GAS SATURATION, FRACTION

CANADA OJITOS UNIT
 TIME-DEPENDENT DATA
 GAS PLANT STUDY P L A N T C A S E

VIP-EXEC

DAY/MO/YR: 1/ 1/82

TIME: 6940.0 DAYS

J = 1

6

5

4

3

2

1

0

1

2

3

4

5

6

7

* VIP-EXIC INJECTION WELL SUMMARY *

* DAY/MO/YR: 1/ 1/83 *

* TIME: 7305.0 DAYS *

* CUMULATIVE INJECTION *

* PRESSURES, PSIA *

PERF LOCATION						GRID BOTTOM TUBING									
NO.	NAME	I	J	LAYER	STAT	GAS		WATER		BLOCK		MOLE		TURING	HEAD
						MSCF/D	STB/D	MMSCF	MSIB	DATUM	DATUM				

*** GC # 1
7 1 1-3 QMAX 1286.05 0. 7321.62 0. 1506 1569 0

*** GATHERING CENTER TOTALS
1286.05 0. 7321.62 0.

*** GC # 2

*** GATHERING CENTER TOTALS

*** FLOW STATION TOTALS
1286.05 0. 7321.62 0.

* VIP-EXIC SEPARATOR REPORT *

* DAY/MO/YR: 1/ 1/83 *

* TIME: 7305.0 DAYS *

BATTERY = I

STUCK TANK

STOCK TANK PRESSURE = 15.02 PSIA
STOCK TANK TEMPERATURE = 74.00 DEG F
STOCK TANK LIQUID RATE = 596.81 STB/DAY
STOCK TANK VAPOR RATE = 1352.18 MCF/DAY
STOCK TANK VENT GAS RATE = 0.00 MCF/DAY
STOCK TANK TOTAL GAS RATE = 1352.18 MCF/DAY
STOCK TANK GAS-OIL RATIO = 2265.68 SCF/STB
STOCK TANK OIL-GAS RATIO = 441.37 BBL/MSCF
STOCK TANK LIQ. DENSITY = 0.8317 GM/CC
STOCK TANK GAS GRAVITY = 0.7962 (AIR=1.1)

COMPOSITIONS

COMPONENT	FEED	LIQUID	VAPOR	VENT
-----------	------	--------	-------	------

P1 0.67227 0.00151 0.80214 0.00000
P2 0.07538 0.00235 0.09655 0.00000
P3 0.07683 0.17247 0.04912 0.00000
P4 0.05652 0.09595 0.04509 0.00000
P5 0.14020 0.59992 0.00709 0.00000
P6 0.02810 0.12810 0.00007 0.00000

CANADA OJITOS UNIT
 TIME-DEPENDENT DATA
 GAS PLANT STUDY PLANT CASE
 DAY/MO/YR: 1/ 1/83
 TIME: 7305.0 DAYS
 VIP-EXEC

J = 1

	1	2	3	4	5	6	7
K							
1	1781.0	1781.8	1754.4	1698.9	1605.6	1545.0	1524.0
2	1733.5	1734.1	1706.6	1650.8	1557.4	1536.1	1515.3
3	1618.3	1616.9	1585.2	1533.7	1523.2	1507.7	1488.7

GAS SATURATION, FRACTION

CANADA OJITOS UNIT
 TIME-DEPENDENT DATA
 GAS PLANT STUDY PLANT CASE

VIP-EXEC

DAY/MO/YR: 1/ 1/83

TIME: 7305.0 DAYS

J = 1

	1	2	3	4	5	6	7
K							
1	0.0000	0.0000	0.0000	0.0000	0.0000	0.2863	0.8974
2	0.0000	0.0000	0.0000	0.0000	0.0000	0.3359	0.8967
3	0.0000	0.0000	0.0000	0.0000	0.2583	0.3492	0.3965

DATA READ AT TIME (DAYS) = 7305.0 (DAY/MO/YR = 1/ 1/1983)
 PERM-THICKNESS

PERF CARD-

WELL	PERF	LAYER	MD-FI	ISAT
5	1	1	300.00	1
	2	2	300.00	1
	3	3	400.00	1

QMAX CARD-

WELL	MAXIMUM DAILY RATE	VOLUME UNITS	FSTO GC (GAS)	STB (OIL)
1	0.94000			
2	4.0000			

NEXT DATA WILL BE READ AT TIME (DAYS) = 7670.0 (JULY/MO/YR = 1/ 1/1984)

VIP-EXEC TIME STEP SUMMARY

TIME STEP PRODUCTION INJECTION AVG MASS BALANCES MAX SATN CHANGE MAX COMP CHANGE MAX PRES CHANGE TIME STEP

NO.	DAYS	OIL STB/D	GAS MSCF/D	WATER STB/D	GAS MSCF/D	WATER STB/D	INJECTION	AVG PRES PSIA	H/C	WATER	I	J	K	OSMAX	I	J	K	OZMAX	I	J	K	DPMAX	CUTS
102	7395.0	573.00	1129.65	0.60076	1061.87	0.00000	1609.2	2.0-11	1.0-09	6	1	1	0.0014	6	1	1	0.0014	5	1	1	0.0014	0	2
103	7489.0	573.00	1187.46	0.60004	1116.22	0.00000	1605.2	2.0-11	1.0-09	6	1	1	0.0034	6	1	1	0.0034	5	1	1	0.0034	0	3
104	7579.0	573.00	1238.68	0.60103	1164.36	0.00000	1602.2	2.0-11	1.0-09	6	1	1	0.0039	6	1	1	0.0039	5	1	1	0.0039	0	3
105	7670.0	573.00	1289.46	0.60117	1212.09	0.00000	1598.2	2.0-11	1.0-09	6	1	1	0.0039	6	1	1	0.0039	5	1	1	0.0039	0	2

VIP-EXEC PRODUCTION WELL SUMMARY

DAY/MO/YR: 1/ 1/84
TIME: 7670.0 DAYS

DAILY PRODUCTION CUMULATIVE PRODUCTION PRESSURES, PSIA

NO.	NAME	I	J	LAYER	STAT	OIL STB/D	GAS MSCF/D	WATER STB/D	GUP SCF/	WATER STB	FRAC.	MSTB	MMSCF	WATER MSTB	GRID BLOCK	DATE	DATUM	TIME	CON RATE MSCF/D	LIFT GAS LIFT	STATUS	
5	1	3	3	QMAX	4.0000	1047.0	0.0018	99999	0.001	1620.69	4386.77	0.70605	1510	1488	0	0.0	0.0	0.0	0.0	0.0	0.0	
3	1	3	3	QMAX	569.00	242.39	0.5974	475	0.001	5609.95	2394.50	5.65543	1545	1381	0	0.0	0.0	0.0	0.0	0.0	0.0	
7	1	1	1	GINJ	0.0	0.0	0.0	0	0.0	39.49	23.86	0.00192										
*** GATHERING CENTER TOTALS																						
573.00 1289.0 6012 2250 0.001 7270.13 6805.13 6.36341																						

*** GC # 2

0	2	5	1	3	3	QMAX	4.0000	1047.0	0.0018	99999	0.001	1620.69	4386.77	0.70605	1510	1488	0	0.0	0.0	0.0	0.0
0	3	3	1	3	3	QMAX	569.00	242.39	0.5974	475	0.001	5609.95	2394.50	5.65543	1545	1381	0	0.0	0.0	0.0	0.0
0	1	7	1	1	1	GINJ	0.0	0.0	0.0	0	0.0	39.49	23.86	0.00192							

*** GATHERING CENTER TOTALS

0	2	5	1	3	3	QMAX	4.0000	1047.0	0.0018	99999	0.001	1620.69	4386.77	0.70605	1510	1488	0	0.0	0.0	0.0	0.0
0	3	3	1	3	3	QMAX	569.00	242.39	0.5974	475	0.001	5609.95	2394.50	5.65543	1545	1381	0	0.0	0.0	0.0	0.0
0	1	7	1	1	1	GINJ	0.0	0.0	0.0	0	0.0	39.49	23.86	0.00192							

*** GATHERING CENTER TOTALS

0	2	5	1	3	3	QMAX	4.0000	1047.0	0.0018	99999	0.001	1620.69	4386.77	0.70605	1510	1488	0	0.0	0.0	0.0	0.0
0	3	3	1	3	3	QMAX	569.00	242.39	0.5974	475	0.001	5609.95	2394.50	5.65543	1545	1381	0	0.0	0.0	0.0	0.0
0	1	7	1	1	1	GINJ	0.0	0.0	0.0	0	0.0	39.49	23.86	0.00192							

*** GATHERING CENTER TOTALS

0	2	5	1	3	3	QMAX	4.0000	1047.0	0.0018	99999	0.001	1620.69	4386.77	0.70605	1510	1488	0	0.0	0.0	0.0	0.0
0	3	3	1	3	3	QMAX	569.00	242.39	0.5974	475	0.001	5609.95	2394.50	5.65543	1545	1381	0	0.0	0.0	0.0	0.0
0	1	7	1	1	1	GINJ	0.0	0.0	0.0	0	0.0	39.49	23.86	0.00192							

*** GATHERING CENTER TOTALS 1212.09 0. 7737.59 0.

*** GC # 2

*** GATHERING CENTER TOTALS 0. 0. 0. 0.

*** PLDM STATION TOTALS 1212.09 0. 7737.59 0.

***** VIP-EXEC SEPARATOR REPORT *****

***** DAY/MO/YR: 1/ 1/84 ***** TIME: 7670.0 DAYS *****

BATTERY = 1

STOCK TANK

STOCK TANK PRESSURE = 15.02 PSIA
STOCK TANK TEMPERATURE = 74.00 DEG F
STOCK TANK LIQUID RATE = 584.35 STB/DAY
STOCK TANK VAPOR RATE = 1274.66 MCF/DAY
STOCK TANK VENT GAS RATE = 0.00 MCF/DAY
STOCK TANK TOTAL GAS RATE = 1274.66 MCF/DAY
STOCK TANK GAS-OIL RATIO = 2181.34 SCF/STB
STOCK TANK OIL-GAS RATIO = 458.43 BBL/SCF
STOCK TANK LIQ. DENSITY = 0.8319 GM/CC
STOCK TANK GAS GRAVITY = 0.7977 AIR=1.0

COMPOSITIONS

COMPONENT	FEED	LIQUID	VAPOR	VENT
P1	0.61594	0.00151	0.80076	0.00000
P2	0.07546	0.00238	0.09744	0.00000
P3	0.07756	0.17162	0.04927	0.00000
P4	0.05703	0.09585	0.04535	0.00000
P5	0.14436	0.60045	0.00716	0.00000
P6	0.02966	0.12819	0.00002	0.00000

PRESSURE, PSIA

***** CANADA OJITOS UNIT *****
***** TIME-DEPENDENT DATA *****
***** GAS PLANT STUDY P L A N T C A S E *****

VIP-EXEC

***** DAY/MO/YR: 1/ 1/84 ***** TIME: 7670.0 DAYS *****

0
S
0
1
0

WELL
PERF LOCATION
NO. NAME I J LAYER STAT OIL GAS WATER STB/D MSCF/D GAS STB/D MSCF/D WATER SEC/ CUP FRAC. MSTB MMSCF PRODUCTION PRESSURES, PSIA TIME: 8036.0 DAYS

GC # 1
5 1 3- 3 QMAX 3.3000 1037. 0.0038 99999 0.001 1621.90 4743.09 0.70735 1501 1461 0 0- 0- 0-
3 1 3- 3 QMAX 571.00 243.29 0.5992 426 0.001 5818.93 2483.54 5.87482 1534 1370 0 0- 0- 0-
4 1 1 3- 3 QMAX 8.0000 3.4213 0.0075 427 0.001 2.92800 1.25220 0.00273 1566 1564 0 0- 0- 0-
7 1 1 GINJ 0. 0. 0. 0 0- 39.49 23.86 0.00192 0 0- 0- 0-
GATHERING CENTER TOTALS 582.30 1284. 0.6106 2205 0.001 7483.75 7251.73 6.58683 0 0- 0- 0-

GC # 2
5 1 1- 3 QMAX 100.00 42.77 0.0779 427 0.001 36.60 15.65 0.02796 1647 1413 0 0- 0- 0-
GATHERING CENTER TOTALS 100.00 42.77 0.0779 427 0.001 36.60 15.65 0.02796 0 0- 0- 0-
STATION TOTALS 682.30 1327. 0.6885 1944 0.001 7519.85 7267.39 6.61479 0 0- 0- 0-

WELL
PERF LOCATION
NO. NAME I J LAYER STAT GAS STB/D MSCF/D WATER STB/D STB/D GAS MMSCF MSTB CUMULATIVE INJECTION PRESSURES, PSIA TIME: 8036.0 DAYS

GC # 1
7 1 1- 3 QMAX 1207.06 1207.06 0. 8157.40 0. 1487 1546 0 0- 0- 0-
GATHERING CENTER TOTALS 1207.06 1207.06 0. 8157.40 0. 0 0- 0- 0-
GC # 2
GATHERING CENTER TOTALS 0. 0. 0. 0. 0. 0 0- 0- 0-

FLOW STATION TOTALS 1207.06 0. 8157.40 0. 0-
VIP-EXEC SEPARATOR REPORT
DAY/MO/YR: 1/ 1/85 TIME: 8036.0 DAYS

BATTERY = 1

STOCK TANK PRESSURE = 15.02 PSIA
 STOCK TANK TEMPERATURE = 74.00 DEG F
 STOCK TANK LIQUID RATE = 593.33 STB/DAY
 STOCK TANK VAPOR RATE = 1269.63 MCF/DAY
 STOCK TANK TOTAL GAS RATE = 0.00 MCF/DAY
 STOCK TANK GAS-OIL RATIO = 1269.63 SCF/STB
 STOCK TANK OIL-GAS RATIO = 2139.84 BBL/MSCF
 STOCK TANK LIQ. DENSITY = 467.33 GM/CC
 STOCK TANK GAS GRAVITY = 0.8320 (AIR=1.0)
 STOCK TANK GAS GRAVITY = 0.7987 (AIR=1.0)

COMPOSITIONS

COMPONENT	FEED	LIQUID	VAPOR	VENT
-----------	------	--------	-------	------

P1	0.61257	0.00151	0.79991	0.00000
P2	0.07558	0.00239	0.09802	0.00000
P3	0.07794	0.17119	0.04935	0.00000
P4	0.05730	0.09582	0.04550	0.00000
P5	0.14649	0.60086	0.00720	0.00000
P6	0.03011	0.12824	0.00002	0.00000

 BATTERY = 2

STOCK TANK

STOCK TANK PRESSURE = 15.02 PSIA
 STOCK TANK TEMPERATURE = 74.00 DEG F
 STOCK TANK LIQUID RATE = 100.00 STB/DAY
 STOCK TANK VAPOR RATE = 42.77 MCF/DAY
 STOCK TANK TOTAL GAS RATE = 0.00 MCF/DAY
 STOCK TANK GAS-OIL RATIO = 427.66 SCF/STB
 STOCK TANK OIL-GAS RATIO = 2338.29 BBL/MSCF
 STOCK TANK LIQ. DENSITY = 0.8396 GM/CC
 STOCK TANK GAS GRAVITY = 0.9767 (AIR=1.0)

COMPOSITIONS

COMPONENT	FEED	LIQUID	VAPOR	VENT
-----------	------	--------	-------	------

P1	0.26490	0.00143	0.66235	0.00000
P2	0.06850	0.00390	0.16621	0.00000
P3	0.11890	0.14667	0.07978	0.00000
P4	0.08430	0.08934	0.07669	0.00000
P5	0.38330	0.62869	0.01493	0.00000
P6	0.07950	0.13214	0.00004	0.00000

PRESSURE, PSIA

 CANADA OJITOS UNIT
 TIME-DEPENDENT DATA
 GAS PLANT STUDY PLANT CASE

 DAY/MU/YR: 1/1/15
 TIME: 8036.0 DAYS
 VIP-EXEC *****

J = 1

```

*****
K      1      2      3      4      5      6      7
1      1726.9    1728.3    1701.2    1645.7    1552.1    1525.5    1504.8
2      1702.7    1704.5    1678.4    1624.5    1533.5    1515.8    1495.2
3      1596.9    1596.3    1565.5    1515.2    1504.9    1489.5    1470.6
*****
          GAS SATURATION FRACTION
*****
          CANADA OJITOS UNIT
          TIME-DEPENDENT DATA
          GAS PLANT STUDY P L A N T C A S E
          VIP-EXEC
          DAY/MO/YR: 1/1/85
          SG
          TIME: 8036.0 DAYS
*****

```

J = 1

```

*****
K      1      2      3      4      5      6      7
1      0.0000    0.0000    0.0000    0.0000    0.0000    0.3175    0.8971
2      0.0000    0.0000    0.0000    0.0000    0.0135    0.3548    0.8964
3      0.0000    0.0000    0.0000    0.0142    0.2776    0.3584    0.4021
*****

```

DATA READ AT TIME (DAYS) = 8036.0 (DAY/MO/YR = 1/1/1985)

WI CARD-

WELL	WI	DIMENSIONLESS
5	0.7500	

PERF CARD-

WELL	PERF	LAYER	PERM-THICKNESS MD-FT	ISAT
4	1	1	20.000	1
	2	2	20.000	1
	3	3	400.00	1

QMAX CARD-

WELL	MAXIMUM DAILY RATE	VOLUME UNITS
1	0.94000	15 TD CC (GAS)
2	2.00000	STD (OIL)
3	501.00	STD (OIL)
4	490.00	STD (OIL)

NEXT DATA WILL BE READ AT TIME (DAYS) = 8401.0 (DAY/MO/YR = 1/ 1/1986)

VIP-EXEC TIME STEP SUMMARY

TIME STEP PRODUCTION INJECTION AVG MASS BALANCES MAX SATN CHANGE MAX COMP CHANGE MAX PRES CHANGE TIME IT
STEP

NO.	DAYS	OIL STB/D	GAS MSCF/D	WATER STB/D	GAS MSCF/D	WATER STB/D	PRES PSIA	H/C	WATER I	J	K	DSMAX I	J	K	DSMAX I	J	K	DPMAX CUTS					
110	8126.0	1193.00	1166.48	1.12320	1016.09	0.00000	1575.	2.E-11	1.E-09	4	1	3	0.0086	4	1	3	0.0028	1	1	3	19.72	0	3
111	8216.0	1193.00	1192.31	1.15220	1060.37	0.00000	1571.	2.E-11	1.E-09	4	1	3	0.0096	4	1	3	0.0028	1	1	3	17.00	0	3
112	8306.0	1193.00	1221.05	1.16166	1067.37	0.00000	1567.	2.E-11	1.E-09	4	1	3	0.0097	4	1	3	0.0028	3	1	3	14.68	0	2
113	8401.0	1193.00	1251.23	1.17045	1075.76	0.00000	1563.	2.E-11	1.E-09	4	1	3	0.0103	4	1	3	0.0024	3	1	3	13.31	0	2

VIP-EXEC PRODUCTION WELL SUMMARY

* DAY/MO/YR: 1/ 1/86

WELL DAILY PRODUCTION CUMULATIVE PRODUCTION PRESSURES, PSIA GAS LIFT

PERF LOCATION	GOR	WATER SCF / STB	WATER CUT FRAC.	OIL	GAS	WATER	GRID BLOCK	BNP DATUM	TIME	8401.0 DAYS
NO. NAME I J LAYER STAT	OIL STB/D	GAS MSCF/D	STB/D	STB/D	MSCF/D	STB/D	MSCF	MSTB	DATUM	TIME

GC # 1
5 1 3- 3 QMAX 2.0000 742.70 0.0010 99999 0.001 1622.63 4998.52 0.70832 1490 1462 0 0. 0. 0.
0 2 3 1 3- 3 QMAX 501.00 213.45 0.5285 426 0.001 6001.80 2561.45 6.06744 1513 1370 0 0. 0. 0.
0 3 1 1- 3 QMAX 490.00 209.55 0.4729 427 0.001 181.78 77.74 0.17076 1543 1452 0 0. 0. 0.
0 4 1 1 GINJ 0. 0. 0. 0. 0. 39.49 23.86 0.00192
0 5 1 1 GINJ 0. 0. 0. 0. 0. 7661.57 6.94845
*** GATHERING CENTER TOTALS 993.00 1166. 1.0044 1173 0.001 7845.70 7661.57 6.94845

GC # 2
5 1 1- 3 QMAX 200.00 85.53 0.1661 427 0.001 109.60 46.87 0.08688 1615 1460 0 0. 0. 0.
0 5 1 1- 3 QMAX 200.00 85.53 0.1661 427 0.001 109.60 46.87 0.08688
*** GATHERING CENTER TOTALS 200.00 85.53 0.1661 427 0.001 109.60 46.87 0.08688

FLOW STATION TOTALS 1193. 1251. 1.1704 1068 0.001 7055.10 7708.44 7.03533

VIP-EXEC INJECTION WELL SUMMARY

* DAY/MO/YR: 1/ 1/86

WELL DAILY INJECTION CUMULATIVE INJECTION PRESSURES, PSIA

PERF LOCATION GRID BLOCK BOTTOM TUBING
HOLE HEAD

COMPOSITIONS

COMPONENT	FEED	LIQUID	VAPOR	VENT
-----------	------	--------	-------	------

P1	0.26490	0.01143	0.66235	0.00000
P2	0.06850	0.03390	0.16621	0.00000
P3	0.11880	0.14667	0.07978	0.00000
P4	0.08430	0.06934	0.07669	0.00000
P5	0.38390	0.62849	0.01493	0.00000
P6	0.07950	0.13218	0.00004	0.00000

PRESSURE, PSIA

CANADA OJITOS UNIT

TIME-DEPENDENT DATA

GAS PLANT STUDY P L A N T C A S E

VIP-EXEC

TIME: 8401.0 DAYS

DAY/MO/YR: 1/ 1/86

J = 1

	1	2	3	4	5	6	7
1	1692.3						
2	1675.3	1671.4	1618.2	1526.9	1509.2	1488.7	
3	1562.1	1679.5	1655.9	1604.5	1517.7	1500.4	1480.0
		1568.3	1544.3	1503.8	1494.0	1478.4	1459.5

GAS SATURATION, FRACTION

CANADA OJITOS UNIT

TIME-DEPENDENT DATA

GAS PLANT STUDY P L A N T C A S E

VIP-EXEC

TIME: 8401.0 DAYS

DAY/MO/YR: 1/ 1/86

J = 1

	1	2	3	4	5	6	7
K							
1	0.0000	0.0000	0.0000	0.0000	0.0000	0.3313	0.8969
2	0.0000	0.0000	0.0000	0.0000	0.0421	0.3626	0.8961
3	0.0000	0.0000	0.0000	0.0524	0.2256	0.3623	0.4041

DATA READ AT TIME (DAYS) = 8401.0 (DAY/MO/YR = 1/ 1/1986)

[illegible]

 * VIP-EXEC INJECTION WFLI SUMMARY *
 * DAY/MO/YR: 1/ 1/87 *
 * TIME: 8766.0 DAYS *
 * CUMULATIVE INJECTION *
 * PRESSURES, PSIA *

NO.	NAME	I	J	LAYER	STAT	PERF LOCATION		GAS		WATER		GAS		WATER		GRIO		BLOCK		TUBING	
								MSCF/D		STB/D		MMSCF		MSTB		DATUM		DATUM		MOLE	HEAD

7 1 2-3 QMAX 1871.16 0. 0. 9111.45 0. 1459 1953 0

*** GATHERING CENTER TOTALS

*** GC # 1

*** GC # 2

*** GATHERING CENTER TOTALS

*** GC # 1

*** GC # 2

*** FLOW STATION TOTALS

*** GC # 1

*** GC # 2

 * VIP-EXEC SEPARATOR REPORT *
 * DAY/MO/YR: 1/ 1/87 *
 * TIME: 8766.0 DAYS *

BATTERY = 1

STOCK TANK

STOCK TANK PRESSURE = 15.02 PSIA
 STOCK TANK TEMPERATURE = 74.00 DEG F
 STOCK TANK LIQUID RATE = 2229.91 STB/DAY
 STOCK TANK VAPOR RATE = 1979.61 MCF/DAY
 STOCK TANK VENT GAS RATE = 0.00 MCF/DAY
 STOCK TANK TOTAL GAS RATE = 1979.61 MCF/DAY
 STOCK TANK GAS-OIL RATIO = 887.75 SCF/STB
 STOCK TANK OIL-GAS RATIO = 1126.44 BBL/SCF
 STOCK TANK LIQ. DENSITY = 0.8368 GM/CC
 STOCK TANK GAS GRAVITY = 0.8563 (AIR=1.0)

COMPOSITIONS

COMPONENT	FEED	LIQUID	VAPOR	VENT
P1	0.43633	0.00153	0.75437	0.00000
P2	0.07175	0.00302	0.12237	0.00000
P3	0.09875	0.15447	0.05799	0.00000
P4	0.07101	0.09236	0.05540	0.00000
P5	0.26682	0.61813	0.00985	0.00000
P6	0.05514	0.13049	0.00003	0.00000

BATTERY = 2

STOCK TANK

STOCK TANK PRESSURE = 15.02 PSIA
STOCK TANK TEMPERATURE = 74.00 DEG F
STOCK TANK LIQUID RATE = 400.00 STR/DAY
STOCK TANK VAPOR RATE = 183.59 MCF/DAY
STOCK TANK VENT GAS RATE = 0.00 MCF/DAY
STOCK TANK TOTAL GAS RATE = 183.59 MCF/DAY
STOCK TANK GAS-OIL RATIO = 458.97 SCF/STR
STOCK TANK OIL-GAS RATIO = 2178.78 BBL/MMSCF
STOCK TANK LIQ. DENSITY = 0.8394 GM/CC
STOCK TANK GAS GRAVITY = 0.9600 AIR=1.0

COMPOSITIONS

COMPONENT	FLO	LIQ	VAPOR	VENT
-----------	-----	-----	-------	------

P1	0.28131	0.00144	0.67492	0.00000
P2	0.06848	0.00379	0.16042	0.00000
P3	0.11649	0.14549	0.07667	0.00000
P4	0.08303	0.08965	0.07372	0.00000
P5	0.37271	0.62761	0.01423	0.00000
P6	0.07717	0.13202	0.00003	0.00000

PRESSURE, PSIA

CANADA OJITOS UNIT

TIME-DEPENDENT DATA

GAS PLANT STUDY P L A N T C A S E

VIP-EXEC

DAY/MO/YR: 1/1/87

TIME: 8766.0 DAYS

J = 1

	1	2	3	4	5	6	7
K							
1	1660.9	1668.8	1648.3	1599.3	1515.3	1498.2	1477.9
2	1631.9	1640.4	1621.4	1574.7	1504.5	1487.6	1467.5
3	1493.8	1483.4	1484.3	1482.0	1474.2	1459.7	1441.7

GAS SATURATION, FRACTION

CANADA OJITOS UNIT

TIME-DEPENDENT DATA

GAS PLANT STUDY P L A N T C A S E

VIP-EXEC

DAY/MO/YR: 1/1/87

TIME: 8766.0 DAYS

J = 1

QMAX CARD-									
WELL		MAXIMUM DAILY RATE		VOLUME UNITS					
1		0.56000	FSID GL (GAS)	STB (OIL)					
2		0.00000	STB (OIL)	STB (OIL)					
3		352.00	STB (OIL)	STB (OIL)					
4		1756.0	STB (OIL)	STB (OIL)					
5		800.00	STB (OIL)	STB (OIL)					
ODATE/CARD READ									
DATA READ AT TIME (DAYS) = 8766.0 (DAY/MO/YR = 1/ 1/1987)									
NEXT DATA WILL BE READ AT TIME (DAYS) = 9131.0 (DAY/MO/YR = 1/ 1/1988)									
VIP-EXFC TIME STEP SUMMARY									

P1 0.57365 0.00151 0.77618 0.00000
P2 0.07493 0.00263 0.09970 0.00000
P3 0.09077 0.15002 0.05326 0.00000
P4 0.05005 0.00555 0.06662 0.00000
P5 0.15917 0.60225 0.00762 0.00000
P6 0.04275 0.12533 0.00002 0.00000

BATTERY 2

STOCK TANK

STOCK TANK PRESSURE = 15.02 PSIA
STOCK TANK TEMPERATURE = 76.00 DEG F
STOCK TANK LIQUID RATE = 800.00 STR/DAY
STOCK TANK VAPOR RATE = 530.10 MCF/DAY
STOCK TANK VENT GAS RATE = 0.00 MCF/DAY
STOCK TANK TOTAL GAS RATE = 530.10 MCF/DAY
STOCK TANK GAS-OIL RATIO = 662.62 SCF/STR
STOCK TANK OIL-GAS RATIO = 1509.16 BBL/MMSCF
STOCK TANK LIQ. DENSITY = 0.8380 GM/CC
STOCK TANK GAS GRAVITY = 0.8931 (AIR=1.0)

COMPOSITIONS

COMPONENT	FEED	LIQUID	VAPOR	VENT
P1	0.36782	0.00150	0.72584	0.00000
P2	0.07061	0.00332	0.13638	0.00000
P3	0.17692	0.15034	0.06448	0.00000
P4	0.07637	0.09121	0.06187	0.00000
P5	0.31343	0.62236	0.01140	0.00000
P6	0.06484	0.13116	0.00003	0.00000

PRESSURE, PSIA

CANADA UJITOS UNIT
TIME-DEPENDENT DATA
GAS PLANT STUDY PLANT CASE

DAY/MO/YR: 1/ 1/90

VIP-EXEC

TIME: 9131.0 DAYS

K	1	2	3	4	5	6	7
1	1598.5	1609.8	1592.7	1547.1	1478.8	1462.3	1442.6
2	1560.4	1572.1	1550.3	1512.7	1469.7	1448.4	1428.8
3	1376.0	1406.5	1412.9	1399.0	1415.7	1403.7	1387.5

GAS SATURATION, FRACTION

CANADA UJITOS UNIT
TIME-DEPENDENT DATA

J = 1

	1	2	3	4	5	6	7
1	0.0000	0.0000	0.0000	0.0000	0.0901	0.3527	0.8963
2	0.0000	0.0000	0.0000	0.0036	0.1466	0.3768	0.8953
3	0.0395	0.0421	0.0957	0.1778	0.3019	0.3718	0.4093

DATA READ AT TIME (DAYS) = 9131.0 (DAY/MU/YR = 1/ 1/1988)

WT CARD-

WELL	DIMENSIONLESS
1	5.000
3	10.00
4	10.00

PROD CARD-

WELL	FLUID	RATE	LEVEL
3	G	STD	N/A
4	G	STD	N/A

UMAX CARD-

WELL	MAXIMUM DAILY RATE	VOLUME UNITS
1	0.92000	FSTD GC (GAS)
3	3000.0	MSCF (GAS)
4	7000.0	MSCF (GAS)
5	400.00	STB (OIL)

RECFA CARD-

GAS PLANT LIQUID RECOVERY FACTORS	
COMPONENT	RECOVERY FACTOR
P1	0.00000
P2	0.70000
P3	0.93000
P4	1.00000
P5	1.00000
P6	1.00000

ODATE CARD READ

STOP TIME STEP REMOVED DUE TO IMPRES STABILITY LIMIT VIOLATION:
CURRENT SIZE= 514528 DTMIN = 0.100000 CUT FACTOR= 2.79935

* VIP-EXEC TIME STEP SUMMARY *

TIME STEP PRODUCTION INJECTION AVG MASS BALANCES MAX SATN CHANGE MAX COMP CHANGE MAX PRES CHANGE TIME IT STEP

NO.	DAYS	DIL STB/D	GAS MSCF/D	WATER STB/D	GAS MSCF/D	WATER STB/D	PREF PSIA	H/C	WATER	I	J	K	DSMAX	I	J	K	OZMAX	I	J	K	OPMAX	CUTS
130	9149.4	5172.64	9434.43	10.8660	6978.94	0.00000	1468.	7-E-08 1-E-07	1	1	3	0.0119	7	1	3	0.0037	1	1	3	-49.75	0	3
131	9164.8	4931.78	10253.	10.6991	7647.07	0.00000	1464.	7-E-08 1-E-07	2	1	3	0.0065	1	1	3	0.0030	1	1	3	-30.27	0	3
132	9184.0	4462.09	10257.	10.3991	7663.95	0.00000	1460.	7-E-08 1-E-07	2	1	3	0.0067	7	1	3	0.0024	1	1	3	-20.62	0	2
133	9204.0	4184.88	10259.	10.2375	7672.33	0.00000	1457.	6-E-08 1-E-07	2	1	3	0.0054	7	1	3	0.0023	2	1	3	-13.01	0	2
134	9224.5	3996.83	10261.	10.0560	7677.84	0.00000	1454.	6-E-08 1-E-07	2	1	3	0.0044	7	1	3	0.0024	2	1	3	-9.62	0	2
135	9245.3	3829.57	10264.	9.84115	7683.14	0.00000	1451.	6-E-08 1-E-07	3	1	3	0.0040	7	1	3	0.0024	2	1	3	-7.37	0	2
136	9266.6	3672.78	10267.	9.60884	7688.37	0.00000	1448.	6-E-08 1-E-07	5	1	1	0.0039	7	1	3	0.0025	3	1	3	-6.18	0	2
137	9288.3	3526.48	10271.	9.37473	7693.38	0.00000	1444.	6-E-08 1-E-07	5	1	1	0.0040	7	1	3	0.0026	3	1	3	-5.45	0	2
138	9310.5	3388.49	10276.	9.14837	7698.05	0.00000	1441.	6-E-08 1-E-07	5	1	1	0.0041	7	1	3	0.0026	3	1	3	-4.90	0	2
139	9333.2	3261.31	10279.	8.93386	7702.29	0.00000	1438.	6-E-08 1-E-07	5	1	1	0.0041	7	1	3	0.0027	4	1	3	-4.35	0	2
140	9356.3	3143.53	10283.	8.73366	7706.15	0.00000	1435.	6-E-08 1-E-07	5	1	1	0.0041	7	1	3	0.0027	4	1	3	-3.80	0	2
141	9379.9	3034.53	10288.	8.54860	7709.62	0.00000	1432.	5-E-08 1-E-07	5	1	1	0.0041	7	1	3	0.0027	4	1	3	-3.25	0	2
142	9403.9	2934.08	10292.	8.37873	7712.72	0.00000	1429.	5-E-08 1-E-07	5	1	1	0.0039	7	1	3	0.0027	4	1	3	-2.70	0	2
143	9428.4	2842.53	10297.	8.22149	7715.44	0.00000	1426.	5-E-08 1-E-07	5	1	1	0.0038	7	1	3	0.0027	4	1	3	-2.15	0	2
144	9453.2	2757.59	10301.	8.07669	7717.86	0.00000	1423.	5-E-08 1-E-07	5	1	1	0.0036	7	1	3	0.0027	4	1	3	-1.60	0	2
145	9478.5	2678.68	10306.	7.94414	7720.00	0.00000	1420.	5-E-08 1-E-07	5	1	1	0.0036	7	1	3	0.0026	4	1	3	-1.05	0	2
146	9493.0	2605.29	10310.	7.82228	7721.86	0.00000	1418.	5-E-08 1-E-07	5	1	1	0.0025	7	1	3	0.0019	4	1	3	-0.50	0	2

* VIP-EXEC PRODUCTION WELL SUMMARY *

* DAY/MO/YR: 1/ 1/89 *

TIME: 9497.0 DAYS *

PERF LOCATION	NO.	NAME	I	J	LAYER	STAT	OIL STB/D	GAS STB/D	WATER STB/D	GOR SCF/ STB	WATER CUT	PRODUC. PRODUCTION	CUMULATIVE PRODUCTION	PRESSURE	PSIA

NO.	NAME	I	J	LAYER	STAT	OIL STB/D	GAS STB/D	WATER STB/D	GOR SCF/ STB	WATER CUT	PRODUC. PRODUCTION	CUMULATIVE PRODUCTION	PRESSURE	PSIA
5	1	3-3	QMAX	0.	0.	0.	0.	1623.10	5196.72	0.70930	0	0	0	0.
3	1	3-3	QMAX	173.56	3000.	0.8703	3000.	6354.28	4096.23	6.84350	1304	1182	0	0.
4	1	1-3	QMAX	2032.	7001.	6.4005	1445	0.001	2548.46	3456.88	4.69804	1232	722	0.
1	7	1	GINJ	0.	0.	0.	0.	39.49	23.86	0.00192				0.

* GATHERING CENTER TOTALS *

* GC # 2 *

* GATHERING CENTER TOTALS *

* FLOW STATION TOTALS *

* FLOW STATION TOTALS *

* FLOW STATION TOTALS *

STOCK TANK PRESSURE 15.02 PSIA
STOCK TANK TEMPERATURE 74.00 DEG F
STOCK TANK LIQUID RATE 390.99 STR/DAY
STOCK TANK VAPOR RATE 303.48 MCF/DAY
STOCK TANK VENT GAS RATE 0.00 MCF/DAY
STOCK TANK TOTAL GAS RATE 303.48 MCF/DAY
STOCK TANK GAS-OIL RATIO 773.71 SCF/STR
STOCK TANK P10-GAS RATIO 1292.47 BBL S/MNSCF
STOCK TANK LIQ. DENSITY 0.8372 GM/CC
STOCK TANK GAS GRAVITY 0.8742 (AIR=1.0)

COMPOSITIONS

COMPONENT	FEED	LIQUID	VAPOR	VENT
-----------	------	--------	-------	------

P1	0.40306	0.00151	0.73980	0.00000
P2	0.07209	0.00317	0.12988	0.00000
P3	0.10312	0.13309	0.06121	0.00000
P4	0.07383	0.09205	0.05854	0.00000
P5	0.28829	0.61950	0.01054	0.00000
P6	0.05962	0.13068	0.00003	0.00000

PRESSURE, PSIA

CANADA OJITOS UNIT

TIME-DEPENDENT DATA

GAS PLANT STUDY P L A N T C A S E

VIP-EXEC

DAY/MO/YR: 1/ 1/89

TIME: 9497.0 DAYS

J = 1

	1	2	3	4	5	6	7
K	1	1557.0	1569.3	1509.5	1464.9	1468.4	1429.0
	2	1510.7	1505.4	1460.4	1450.2	1434.2	1415.8
	3	1224.6	1308.3	1335.9	1348.4	1349.4	1344.5

GAS SATURATION, FRACTION

CANADA OJITOS UNIT

TIME-DEPENDENT DATA

GAS PLANT STUDY P L A N T C A S E

VIP-EXEC

DAY/MO/YR: 1/ 1/89

TIME: 9497.0 DAYS

J = 1

	1	2	3	4	5	6	7
K	1	1557.0	1569.3	1509.5	1464.9	1468.4	1429.0
	2	1510.7	1505.4	1460.4	1450.2	1434.2	1415.8
	3	1224.6	1308.3	1335.9	1348.4	1349.4	1344.5

GC # 2

1 1-3 QMAX 0.0 0.0 0.0 694.01 371.56 0.74615 0 0 0 0.0 0.0

*** GATHERING CENTER TOTALS 0.0 0.0 0.0 694.01 371.56 0.74615 0.0 0.0

1 FLOW STATION TOTALS 1671.10001 6.2690 5983 0.004 11947.16795 15.43 0.0

***** VTP-LXEC INJECTION WELL SUMMARY *****

***** DAY/MO/YR: 1/1/90 ***** TIME: 9862.0 DAYS *****

***** WELL DAILY INJECTION CUMULATIVE INJECTION PRESSURES, PSIA *****

PERF LOCATION

NO. NAME I J LAYER STAT GAS MISC/D WATER STR/D WATER MSTB GRID BLOCK TUBING

1 1 7 1 1-3 QMAX 7733.00 0.0 15219.05 0.0 1357 1399 0

*** GATHERING CENTER TOTALS 7733.00 0.0 15219.05 0.0

GC # 2

*** GATHERING CENTER TOTALS 0.0 0.0 0.0

1 FLOW STATION TOTALS 7733.00 0.0 15219.05 0.0

***** VIP-EXEC SEPARATOR REPORT *****

***** DAY/MO/YR: 1/1/90 ***** TIME: 9862.0 DAYS *****

***** BATTERY = 1 *****

STUCK TANK

STUCK TANK PRESSURE = 15.02 PSIA
STUCK TANK TEMPERATURE = 74.00 DEG F
STUCK TANK LIQUID RATE = 1676.75 STG/DAY
STUCK TANK VAPOR RATE = 9992.16 MCF/DAY
STUCK TANK VENT GAS RATE = 0.00 MCF/DAY
STUCK TANK TOTAL GAS RATE = 9992.16 MCF/DAY
STUCK TANK GAS-OIL RATIO = 5059.23 SCF/STG
STUCK TANK LIQ-GAS RATIO = 167.91 GALS/MMSCF
STUCK TANK LIQ DENSITY = 0.8226 GM/CC
STUCK TANK GAS GRAVITY = 0.7638 (AIR=1.0)

COMPOSITIONS

COMPONENT LIQD LIQUID VAPOR VENT

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*****
P3 0.06598 0.00107 0.05077 0.00000
P4 0.06904 0.10063 0.04327 0.00000
P5 0.06262 0.06933 0.00576 0.00000
P6 0.01269 0.12570 0.00000 0.00000
*****
PRESSURE, PSIA
*****
CANADA OJITOS UNIT
TIME-DEPENDENT DATA
GAS PLANT STUDY P L A N T C A S E
*****
VIP-FXEC
DAY/MO/YR: 1/ 1/90
TIME: 9862.0 DAYS
*****

```

J = 1

	1	2	3	4	5	6	7
K							
1	1531.9	1539.0	1518.0	1466.6	1431.8	1415.3	1396.4
2	1484.1	1490.9	1470.6	1424.9	1414.4	1398.8	1381.4
3	1202.6	1247.9	1274.5	1299.4	1311.2	1312.0	1307.9

GAS SATURATION, FRACTION

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*****
CANADA OJITOS UNIT
TIME-DEPENDENT DATA
GAS PLANT STUDY P L A N T C A S E
*****
VIP-FXEC
DAY/MO/YR: 1/ 1/90
TIME: 9862.0 DAYS
*****

```

J = 1

	1	2	3	4	5	6	7
K							
1	0.0000	0.0000	0.0025	0.0147	0.1879	0.3690	0.8964
2	0.0162	0.0129	0.0126	0.0382	0.2356	0.3914	0.8958
3	0.1023	0.1164	0.1718	0.2348	0.3310	0.4158	0.4961

DATA READ AT TIME (DAYS) = 9862.0 (DAY/MO/YR = 1/ 1/1990)

ODATE CARD READ

NEXT DATA WILL BE READ AT TIME (DAYS) = 10227. (DAY/MO/YR = 1/ 1/1991)

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*****
VIP-FXEC
TIME STEP SUMMARY
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NO.	DAYS	OIL STB/D	GAS MSCF/D	WATER STB/D	WATER MSCF/D	GAS STB/D	WATER STB/D	PROD PSIA	H/L	WATER T	J	K	USMAX	I	J	K	D7MAX	I	J	K	OPMAX	CUTS	
160	9891.8	1645.72	10001.0	6.21069	7733.65	0.00000	1382.4	4.1-03	1.1-07	5	1	1	0.0029	7	1	3	0.0018	2	1	2	-4.08	0	2
161	9921.8	1619.64	10001.0	6.15157	7734.40	0.00000	1379.4	4.1-03	1.1-07	5	1	1	0.0028	7	1	3	0.0017	1	1	2	-4.20	0	3
162	9952.0	1594.34	10001.0	6.09350	7735.20	0.00000	1377.4	4.1-03	1.1-07	5	1	1	0.0027	7	1	3	0.0016	1	1	2	-4.30	0	2
163	9982.4	1568.54	10001.0	6.03543	7736.11	0.00000	1374.4	4.1-03	1.1-07	4	1	2	0.0028	6	1	3	0.0016	1	1	2	-4.34	0	2
164	10013.0	1542.63	10001.0	5.97885	7737.11	0.00000	1372.4	3.1-08	1.1-07	4	1	2	0.0030	6	1	3	0.0016	1	1	2	-4.30	0	3
165	10044.0	1516.71	10001.0	5.92409	7738.21	0.00000	1369.4	3.1-08	1.1-07	4	1	2	0.0032	6	1	3	0.0016	1	1	2	-4.18	0	3
166	10075.0	1491.63	10001.0	5.87064	7739.37	0.00000	1367.4	3.1-08	1.1-07	4	1	2	0.0033	6	1	3	0.0016	1	1	2	-4.04	0	2
167	10106.0	1467.21	10001.0	5.81868	7740.61	0.00000	1364.4	3.1-08	9.1-08	4	1	2	0.0034	6	1	3	0.0016	1	1	2	-3.89	0	2
168	10138.0	1443.33	10001.0	5.76831	7741.95	0.00000	1362.4	3.1-08	9.1-08	4	1	2	0.0035	6	1	3	0.0016	1	1	2	-3.75	0	2
169	10169.0	1419.95	10001.0	5.71952	7743.39	0.00000	1359.4	3.1-08	9.1-08	4	1	2	0.0035	6	1	3	0.0015	1	1	2	-3.61	0	2
170	10201.0	1397.04	10001.0	5.67210	7744.95	0.00000	1357.4	3.1-08	9.1-08	4	1	2	0.0036	6	1	3	0.0015	1	1	2	-3.48	0	2
171	10227.0	1374.67	10001.0	5.62626	7746.67	0.00000	1355.4	3.1-08	9.1-08	4	1	2	0.0029	6	1	3	0.0012	1	1	2	-2.72	0	2

VIP-EXEC PRODUCTION WELL SUMMARY

DAY/MO/YR: 1/ 1/91
TIME: 1027.0 DAYS

WELL
DAILY PRODUCTION CUMULATIVE PRODUCTION PRESSURES, PSIA

PERF LOCATION	OIL STB/D	GAS MSCF/D	WATER STB/D	WATER SCF/ CUT	OIL STB	WATER STB	GAS MSCF	WATER MSTB	GRID BLOCK	DHP DATUM	TMP DATUM	LIFT RATE MSCF/D	CUM LIFT MSCF	STATUS
NO. NAME I J LAYER STAT														
5 1 3-3 QMAX	0.	0.	0.	0	0	0	5196.72	0.70930	0	0	0	0	0.	0.
3 1 3-3 QMAX	76.21	3000.	0.5308	39363	0.008	6438.42	6286.23	7.55502	1245	7146	0	0	0.	0.
1 1 1-3 QMAX	1298.	7001.	5.0354	5391	0.004	3701.76	8567.31	8.77582	1190	785	0	0	0.	0.
7 1 1-3 QMAX	0.	0.	0.	0	0	39.49	23.96	0.00192						
GATHERING CENTER TOTALS	1375.	10001.	5.6263	7274	0.004	11803.	20074.	16.84						

DC # 2	5	1	1	1-3	QMAX	0.	0.	0.	0	0	0	0	0.	0.
GATHERING CENTER TOTALS	0.	0.	0.	0.	0.	0.	371.56	0.74615	0	0	0	0	0.	0.

FLOW STATION TOTALS	1375.	10001.	5.6263	7274	0.004	12497.	20446.	17.59						
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VIP-EXEC INJECTION WELL SUMMARY

DAY/MO/YR: 1/ 1/91
TIME: 1027.0 DAYS

WELL
DAILY INJECTION CUMULATIVE INJECTION PRESSURES, PSIA

PERF LOCATION	GAS MSCF/D	WATER STB/D	GAS MSCF	WATER MSTB	GRID BLOCK	ROTATION HOLF	TUBING HEAD
NO. NAME I J LAYER STAT							
1 1 1-3 QMAX	0.	0.	0.	0	0	0	0.
GATHERING CENTER TOTALS	0.	0.	0.	0	0	0	0.

1437.3 1427.7 1393.6 1389.5 1353.2
1224.8 1248.9 1271.6 1282.5 1279.3
1183.7
GAS SATURATION FRACTION
CANADA OJITOS UNIT
TIME-DEPENDENT DATA
GAS PLANT STUDY P L A N T C A S E
VIP-EXEC
DAY/MO/YR: 1/ 1/91
TIME: 10227.0 DAYS
J = 1
K 1 2 3 4 5 6 7
1 0.0089 0.0058 0.0113 0.0149 0.2168 0.3762 0.8964
2 0.0227 0.0132 0.0142 0.0741 0.2584 0.4000 0.8960
3 0.1133 0.1293 0.1901 0.2568 0.3531 0.4416 0.5142
DATA READ AT TIME (DAYS) = 10227. (DAY/MO/YR = 1/ 1/1991)
DATE CARD READ
NEXT DATA WILL BE READ AT TIME (DAYS) = 10592. (DAY/MO/YR = 1/ 1/1992)
VIP-EXEC TIME STEP SUMMARY
TIME STEP PRODUCTION INJECTION AVG MASS BALANCES MAX SATN CHANGE MAX COMP CHANGE MAX PRES CHANGE TIME IT STEP
NO. DAYS OIL STB/D GAS MSCF/D WATER STB/D GAS MSCF/D WATER STB/D H/C PRES PSIA PV
172 10259. 1356.94 10001. 5.58986 7748.08 0.00000 1352. 3.1-08 8.F-08 4 1 2 0.0036 6 1 3 0.0015 1 1 2 -3.29 0 2
173 10292. 1335.02 10001. 5.54599 7749.98 0.00000 1350. 3.1-08 8.F-08 4 1 2 0.0036 6 1 3 0.0015 3 1 2 -3.22 0 2
174 10324. 1312.72 10001. 5.49995 7752.09 0.00000 1347. 2.1-08 8.F-08 4 1 2 0.0036 6 1 3 0.0015 3 1 2 -3.20 0 2
175 10357. 1290.15 10001. 5.45223 7754.40 0.00000 1345. 2.1-08 8.F-08 4 1 2 0.0036 6 1 3 0.0014 4 1 1 -3.23 0 2
176 10390. 1267.91 10001. 5.40532 7756.88 0.00000 1342. 2.1-08 7.F-08 4 1 2 0.0035 6 1 3 0.0014 2 1 1 -3.50 0 2
177 10423. 1245.76 10001. 5.35888 7759.53 0.00000 1340. 2.1-08 7.F-08 4 1 2 0.0035 6 1 3 0.0014 2 1 1 -3.96 0 2
178 10457. 1223.54 10001. 5.31265 7762.36 0.00000 1337. 2.1-08 7.F-08 4 1 2 0.0034 6 1 3 0.0014 2 1 1 -4.17 0 2
179 10491. 1201.89 10001. 5.26677 7765.39 0.00000 1335. 2.1-08 7.F-08 4 1 2 0.0034 6 1 3 0.0014 1 1 1 -4.30 0 2
180 10525. 1180.61 10001. 5.22134 7768.61 0.00000 1332. 2.1-08 7.F-08 4 1 2 0.0034 6 1 3 0.0013 1 1 1 -4.47 0 2
181 10559. 1159.49 10001. 5.17652 7772.00 0.00000 1330. 1.1-08 6.F-08 4 1 2 0.0034 6 1 3 0.0013 1 1 1 -4.58 0 2
182 10592. 1138.16 10001. 5.13265 7775.57 0.00000 1327. 1.1-08 6.F-08 4 1 2 0.0033 6 1 3 0.0012 1 1 1 -4.46 0 2
VIP-EXEC PRODUCTION SUMMARY
DAY/MO/YR: 1/ 1/92
TIME: 10592.0 DAYS

PERF LOCATION																		
NO.	NAME	I	J	LAYER	STAT	OIL STB/D	GAS MSCF/D	WATER STB/D	GUP SCF/D	WATER CUT	UILL	GAS MMSCF	WATER MSTR	GRID BLOCK DATUM	THP	LIFT RATE MSCF/D	CUM LIFT GAS MMSCF	STATUS
GC # 1																		
0	2	5	1	3-3	QMAX	0.	0.	0.	0	0.	1623.10	5196.72	0.70930	0	0	0	0.	0.
0	3	3	1	3-3	QMAX	49.69	3000.	0.5275	60377	0.011	6460.51	7381.23	7.55768	1222	1130	0	0.	0.
0	4	1	1	1-3	QMAX	1088.	7001.	4.6052	6431	0.004	4136.28	11123.	10.53	1172	799	0	0.	0.
0	1	7	1	1	GINJ	0.	0.	0.	0	0.	39.49	23.86	0.00192					
GC GATHERING CENTER TOTALS																		
					TOTALS	1138.	10001.	5.1326	8786	0.004	12757.	23724.	18.80			0.	0.	0.
GC # 2																		
0	5	1	1	1-3	QMAX	0.	0.	0.	0	0.	694.01	371.56	0.74615	0	0	0	0.	0.
GC GATHERING CENTER TOTALS																		
					TOTALS	0.	0.	0.	0	0.	694.01	371.56	0.74615			0.	0.	0.
FLOW STATION TOTALS																		
					TOTALS	1138.	10001.	5.1326	8786	0.004	12951.	24096.	19.56			0.	0.	0.

VIP-EXEC INJECTION WELL SUMMARY																		

DAY/MO/YR: 1/ 1/92 TIME: 10592.0 DAYS																		

DAILY INJECTION CUMULATIVE INJECTION PRESSURES, PSIA																		

PERF LOCATION																		
NO.	NAME	I	J	LAYER	STAT	GAS MSCF/D	WATER STB/D	GAS MMSCF	WATER MSTR	GRID BLOCK DATUM	BOTTOM HOLE DATUM	TUBING HEAD						
GC # 1																		
1	7	1	1-3	QMAX	7775.57	0.	0.	20876.49	0.	1306	1350	0						
GC GATHERING CENTER TOTALS																		
				TOTALS	7775.57	0.	0.	20876.49	0.									
GC # 2																		
GC GATHERING CENTER TOTALS																		
				TOTALS	0.	0.	0.	0.	0.									
FLOW STATION TOTALS																		
				TOTALS	7775.57	0.	0.	20876.49	0.									

VIP-EXEC SEPARATOR REPORT																		

DAY/MO/YR: 1/ 1/92 TIME: 10592.0 DAYS																		

BATTERY = 1																		

STOCK TANK																		

STOCK TANK LIQUID RATE = 1142.84 STR/DAY
 STOCK TANK VAPOR RATE = 9993.26 MCF/DAY
 STOCK TANK VENT GAS RATE = 0.00 MCF/DAY
 STOCK TANK TOTAL GAS RATE = 9993.26 MCF/DAY
 STOCK TANK GAS-OIL RATIO = 3746.23 SCF/STR
 STOCK TANK OIL-GAS RATIO = 114.36 RBLS/MMSCF
 STOCK TANK LIO. DENSITY = 0.8186 GM/CC
 STOCK TANK GAS GRAVITY = 0.7790 (AIR=1.0)

COMPOSITIONS

COMPONENT	FEED	LIQUID	VAPOR	VENT
-----------	------	--------	-------	------

P1	0.75936	0.00128	0.81713	0.00000
P2	0.07710	0.00175	0.08285	0.00000
P3	0.06290	0.21020	0.09166	0.00000
P4	0.04705	0.10203	0.04286	0.00000
P5	0.04462	0.55851	0.00543	0.00000
P6	0.00896	0.12623	0.00002	0.00000

PRESSURE, PSIA

CANADA OJITOS UNIT
 TIME-DEPENDENT DATA
 GAS PLANT STUDY P L A N T C A S F

VIP-EXEC

TIME: 10592.0 DAYS

J = 1

7

6

5

4

3

2

1

1471.0	1449.1	1400.6	1380.4	1366.3	1346.4
1411.9	1393.1	1367.5	1348.8	1346.4	1328.8
1203.3	1225.5	1246.4	1256.7	1257.6	1255.0

GAS SATURATION, FRACTION

CANADA OJITOS UNIT
 TIME-DEPENDENT DATA
 GAS PLANT STUDY P L A N T C A S F

VIP-EXEC

TIME: 10592.0 DAYS

J = 1

7

6

5

4

3

2

1

0.0139	0.0139	0.0251	0.2392	0.3825	0.8954
0.0127	0.0150	0.1124	0.2756	0.4091	0.8962

 NEXT DATA WILL BE READ AT TIME (DAYS) = 10958. (DAY/MN/YR) = 1/ 1/1993

* STEP	TIME	SUMMARY
1	00:00:00	START
2	00:00:05	INITIALIZE
3	00:00:10	LOAD DATA
4	00:00:15	PROCESS DATA
5	00:00:20	SAVE RESULTS
6	00:00:25	END

TIME STEP	PRODUCTION	INJECTION	AVG MASS BALANCE	MAX SATN CHANGE	MAX COMP CHANGE	MAX PRES CHANGE	TIME IT
			PV				STEP

[illegible]

```

*****
#          VIP-EXC          PRODUCTION      WFL      SUMMARY      *
#          1/ 1/93          *****          *****          *****
#          DAY/MQ/YR2          TIME: 10958.0 DAYS
*****

```

Well

NO.	NAME	PERF LOCATION		OIL		GAS		WATER		GOR SCF / STB	WATER CUT FRAC.	DTI	GAS MMSCF	WATER MSTR	GRID BLOCK DATUM	TMP	LIFT RATE MSCF/D	LIFT GAS MMSCF	CUM
		1	J	LAYER	STAT	STB/D	MSCF/D	STB/D	SCF/D										
*** GC # 1																			
0		5	1	3-	3	QMAX	0.	0.	0.	0	0.	1623.10	5196.72	0.70930	0	0	0.	0.	
0		2																	
0		3	1	3-	3	QMAX	30.33	3000.	0.4729	99908	0.015	6475.01	8479.23	7.74010	1201	1115	0	0.	
0		4	1	1-	3	QMAX	902.67	7001.	4.2582	7755	0.005	4495.49	13685.	12.14	1154	808	0	0.	
0		1	7	1		GINJ	0.	0.	0.	0	0.	39.49	23.86	0.00192				0.	
*** GATHERING CENTER TOTALS																			
						TOTALS	933.00	10001.	4.7311	19718	0.005	12633.	27385.	20.60			0.	0.	

2 2 7 555

[illegible]

*** GATHERING CENTER TOTALS

VIP-EXEC INJECTION WELL SUMMARY

DAY/MO/YR: 1/ 1/93 TIME: 10958.0 DAYS

WELL NO. NAME I J LAYER STAT

PERF LOCATION

GAS MSCF/D WATER STB/D GAS MMSCF WATER MSTB

DAILY INJECTION CUMULATIVE INJECTION PRESSURES, PSIA

GRID BLOCK DATUM

ROTATION HOLE DATUM

TUBING HEAD

GC # 1

7 1 1- 3 QMAX

7824.88 0. 23731.09 0. 1284 1329 0

GATHERING CENTER TOTALS

GC # 2

7824.88 0. 23731.09 0.

GATHERING CENTER TOTALS

FLOW STATION TOTALS

7824.88 0. 23731.09 0.

VIP-EXEC SEPARATOR REPORT

DAY/MO/YR: 1/ 1/93 TIME: 10958.0 DAYS

BATTERY = 1

STOCK TANK

STOCK TANK PRESSURE = 15.02 PSIA

STOCK TANK TEMPERATURE = 74.00 DEG F

STOCK TANK LIQUID RATE = 936.69 STB/DAY

STOCK TANK VAPOR RATE = 9994.85 MCF/DAY

STOCK TANK VENT GAS RATE = 0.00 MCF/DAY

STOCK TANK TOTAL GAS RATE = 9994.85 MCF/DAY

STOCK TANK GAS-OIL RATIO = 10670.34 SCF/STB

STOCK TANK OIL-GAS RATIO = 93.72 BBL/STB

STOCK TANK LIQ. DENSITY = 0.8164 GM/CC

STOCK TANK GAS GRAVITY = 0.7743

COMPOSITIONS

COMPONENT FEED LIQUID VAPOR VENT

P1 0.77614 0.00129 0.82449 0.00000

P2 0.07154 0.00160 0.07591 0.00000

P3 0.04138 0.21362 0.05188 0.00000

P4 0.04593 0.10246 0.04240 0.00000

P5 0.03752 0.55180 0.00530 0.00000

P6 0.00749 0.12723 0.00002 0.00000

PRESSURE, PSIA

CANADA OILTUS UNIT

VIP-EXEC
DAY/MO/YR: 1/ 1/93
TIME: 10958.0 DAYS

J = 1

K
1 1423.9 1430.5 1410.1 1366.9 1356.7 1341.2 1323.9
2 1372.4 1379.3 1359.8 1341.9 1335.5 1321.5 1306.6
3 1148.6 1183.8 1204.2 1223.6 1233.4 1234.7 1232.7

GAS SATURATION, FRACTION

CANADA OJITOS UNIT
TIME-DEPENDENT DATA
GAS PLANT STUDY P L A N T C A S E

VIP-EXEC
DAY/MO/YR: 1/ 1/93
TIME: 10958.0 DAYS

J = 1

K
1 0.0261 0.0129 0.0131 0.0518 0.2586 0.3884 0.8965
2 0.0231 0.0128 0.0184 0.1471 0.2896 0.4185 0.8964
3 0.1351 0.1540 0.2251 0.3014 0.3954 0.4770 0.5324

DATA READ AT TIME (DAYS) = 10958. (DAY/MO/YR = 1/ 1/1993)
DATE CARD READ

NEXT DATA WILL BE READ AT TIME (DAYS) = 11323. (DAY/MO/YR = 1/ 1/1994)

VIP-EXEC
STEP SUMMARY

TIME STEP	PRODUCTION			INJECTION			AVG. MASS BALANCES	MAX. SATN CHANGE			MAX. COMP. CHANGE			MAX. PRES. CHANGE			TIME IT						
	NO.	DAYS	OIL STB/D	GAS MSCF/D	WATER STB/D	GAS MSCF/D		WATER STB/D	PROD. PSES	INJ. PSES	WATER P/C	J	K	OSMAX	I	J		K	D7MAX	I	J	K	DPMAX
PV																							
STEP																							
194	10995.	928.28	10001.	4.72168	7826.35	0.00000	1297.	3.0-09	4.8-08	4	1	2	0.0033	5	1	3	0.0011	2	1	2	-3.37	0	2
195	11032.	912.26	10001.	4.69208	7831.74	0.00000	1297.	2.0-09	3.8-08	4	1	2	0.0032	5	1	3	0.0011	3	1	2	-3.35	0	0

WELL	PERF LOCATION	NO. NAME	I	J	LAYER	STAT	OIL	GAS	WATER	GUR	WATER	UTL	GAS	WATER	GRID	BHP	TMP	LIFT	CUM	LIFT	GAS	LIFT	STATUS	
							STB/D	MSCF/D	STB/D	SCF/	CUT	FRAC.	MSTR	MMSCF	MSTR	DATUM	DATUM	MSCF/D	MMSCF	MMSCF	MMSCF	STATUS		
10001	4.60777	7848.83	0.00000	1288.	4.6-10	3.5-08	4	1	0.0031	5	1	0.0010	5	1	0.0031	5	1	0.0010	5	1	0.0031	5	1	0.0010
10001	4.58101	7854.82	0.00000	1246.	1.6-10	3.5-08	4	1	0.0031	5	1	0.0010	5	1	0.0031	5	1	0.0010	5	1	0.0031	5	1	0.0010
10001	4.55466	7860.96	0.00000	1283.	3.2-11	3.5-08	4	1	0.0031	5	1	0.0010	5	1	0.0031	5	1	0.0010	5	1	0.0031	5	1	0.0010
10001	4.52907	7867.25	0.00000	1283.	4.0-10	3.5-08	4	1	0.0031	5	1	0.0010	5	1	0.0031	5	1	0.0010	5	1	0.0031	5	1	0.0010
10001	4.50419	7873.59	0.00000	1277.	1.6-10	3.5-08	4	1	0.0031	5	1	0.0010	5	1	0.0031	5	1	0.0010	5	1	0.0031	5	1	0.0010
10001	4.48007	7880.23	0.00000	1277.	1.6-10	3.5-08	4	1	0.0031	5	1	0.0010	5	1	0.0031	5	1	0.0010	5	1	0.0031	5	1	0.0010
10001	4.48007	7880.23	0.00000	1277.	1.6-10	3.5-08	4	1	0.0031	5	1	0.0010	5	1	0.0031	5	1	0.0010	5	1	0.0031	5	1	0.0010
10001	4.48007	7880.23	0.00000	1277.	1.6-10	3.5-08	4	1	0.0031	5	1	0.0010	5	1	0.0031	5	1	0.0010	5	1	0.0031	5	1	0.0010
10001	4.48007	7880.23	0.00000	1277.	1.6-10	3.5-08	4	1	0.0031	5	1	0.0010	5	1	0.0031	5	1	0.0010	5	1	0.0031	5	1	0.0010
10001	4.48007	7880.23	0.00000	1277.	1.6-10	3.5-08	4	1	0.0031	5	1	0.0010	5	1	0.0031	5	1	0.0010	5	1	0.0031	5	1	0.0010
10001	4.48007	7880.23	0.00000	1277.	1.6-10	3.5-08	4	1	0.0031	5	1	0.0010	5	1	0.0031	5	1	0.0010	5	1	0.0031	5	1	0.0010
10001	4.48007	7880.23	0.00000	1277.	1.6-10	3.5-08	4	1	0.0031	5	1	0.0010	5	1	0.0031	5	1	0.0010	5	1	0.0031	5	1	0.0010
10001	4.48007	7880.23	0.00000	1277.	1.6-10	3.5-08	4	1	0.0031	5	1	0.0010	5	1	0.0031	5	1	0.0010	5	1	0.0031	5	1	0.0010
10001	4.48007	7880.23	0.00000	1277.	1.6-10	3.5-08	4	1	0.0031	5	1	0.0010	5	1	0.0031	5	1	0.0010	5	1	0.0031	5	1	0.0010
10001	4.48007	7880.23	0.00000	1277.	1.6-10	3.5-08	4	1	0.0031	5	1	0.0010	5	1	0.0031	5	1	0.0010	5	1	0.0031	5	1	0.0010
10001	4.48																							

DAY/MO/YR: 1/ 1/74 TIME: 11323.0 DAYS

RATTERY I
STOCK TANK

STOCK TANK PRESSURE = 15.02 PSIA
STOCK TANK TEMPERATURE = 74.00 DEG F
STOCK TANK LIQUID RATE = 804.53 STR/DAY
STOCK TANK VAPOR RATE = 9998.45 MCF/DAY
STOCK TANK VENT GAS RATE = 0.00 MCF/DAY
STOCK TANK TOTAL GAS RATE = 9998.45 MCF/DAY
STOCK TANK GAS-OIL RATIO = 12427.68 SCF/STB
STOCK TANK OIL-GAS RATIO = 80.47 BBL/STB
STOCK TANK LIQ. DENSITY = 0.8149 GM/CC
STOCK TANK GAS GRAVITY = 0.7690 (AIR=1.0)

COMPOSITIONS

COMPONENT	FEED	LIQUID	VAPOR	VENT
P1	0.79020	0.00132	0.83234	0.00000
P2	0.06544	0.00147	0.06886	0.00000
P3	0.06006	0.21504	0.05178	0.00000
P4	0.04485	0.10244	0.04178	0.00000
P5	0.03291	0.55114	0.00522	0.00000
P6	0.00654	0.12860	0.00002	0.00000

PRESSURE, PSIA

CANADA OJITOS UNIT
TIME-DEPENDENT DATA
GAS PLANT STUDY P L A N T C A S E

VIP-EXEC

DAY/MO/YR: 1/ 1/94 TIME: 11323.0 DAYS

J = 1

	1	2	3	4	5	6	7
1395.7	1402.4	1381.7	1342.7	1333.6	1318.5	1301.7	
1340.6	1347.4	1328.1	1320.0	1312.0	1298.5	1294.2	
1129.1	1162.3	1181.5	1199.9	1209.5	1211.3	1209.9	

GAS SATURATION, FRACTION

CANADA OJITOS UNIT
TIME-DEPENDENT DATA
GAS PLANT STUDY P L A N T C A S E

VIP-EXEC


```

*****
P2 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000
P3 0.05841 0.21465 0.05120 0.00000
P4 0.06343 0.11184 0.14077 0.00000
P5 0.07033 0.55000 0.00518 0.00000
P6 0.00572 0.11001 0.00002 0.00000
*****
          PRESSURE, PSIA
*****
CANADA OJITOS UNIT
TIME-DEPENDENT DATA
GAS PLANT STUDY P L A N T C A S E
VIP-EXEC
*****
DAY/MO/YR: 1/ 1/95
TIME: 11688.0 DAYS
*****

```

J = 1

K	1	2	3	4	5	6	7
1	1369.5	1375.5	1354.2	1320.8	1311.9	1297.0	1280.8
2	1313.6	1320.2	1301.9	1276.7	1249.0	1276.0	1262.4
3	1108.6	1140.0	1158.3	1175.9	1185.6	1188.0	1187.2

GAS SATURATION, FRACTION

```

*****
CANADA OJITOS UNIT
TIME-DEPENDENT DATA
GAS PLANT STUDY P L A N T C A S E
VIP-EXEC
*****

```

TIME: 11688.0 DAYS

J = 1

K	1	2	3	4	5	6	7
1	0.0230	0.0123	0.0135	0.1097	0.2870	0.3994	0.8966
2	0.0227	0.0123	0.0383	0.1999	0.3116	0.4174	0.8967
3	0.1562	0.1791	0.2605	0.3416	0.4269	0.4955	0.5411

DATA READ AT TIME (DAYS) = 11688. (DAY/MO/YR = 1/ 1/1995)

ODATE CARD READ

NEXT DATA WILL BE READ AT TIME (DAYS) = 12053. (DAY/MO/YR = 1/ 1/1996)

VIP-EXEC TIM. STEP SUMMARY

GC # 2

GATHERING CENTER TOTALS

0. 0. 0. 0.

FLOW STATION TOTALS

8011.87 0. 32399.02 0.

VIP-EXEC SEPARATOR REPORT
DAY/MO/YR: 1/1/96
TIME: 12053.0 DAYS

BATTERY = 1

STOCK TANK

STOCK TANK PRESSURE = 15.02 PSIA
STOCK TANK TEMPERATURE = 74.00 DEG F
STOCK TANK LIQUID RATE = 608.33 STB/DAY
STOCK TANK VAPOR RATE = 10011.85 MCF/DAY
STOCK TANK VENT GAS RATE = 0.00 MCF/DAY
STOCK TANK TOTAL GAS RATE = 10011.85 MCF/DAY
STOCK TANK GAS-OIL RATIO = 16457.81 SCF/STB
STOCK TANK OIL-GAS RATIO = 60.76 BBL/MSCF
STOCK TANK LIQ. DENSITY = 0.8125 GM/CC
STOCK TANK GAS GRAVITY = 0.7556 TATR=1.21

COMPOSITIONS

COMPONENT	FEED	LIQUID	VAPOR	VENT
P1	0.81728	0.00144	0.84977	0.00000
P2	0.05296	0.00123	0.05502	0.00000
P3	0.05667	0.21240	0.05046	0.00000
P4	0.04189	0.10071	0.03955	0.00000
P5	0.02607	0.55068	0.00518	0.00000
P6	0.00513	0.13354	0.00002	0.00000

PRESSURE, PSIA

CANADA OJITOS UNIT
TIME-DEPENDENT DATA
GAS PLANT STUDY P L A N T C A S E

VIP-EXEC

DAY/MO/YR: 1/1/96

TIME: 12053.0 DAYS

J = 1

1	1	2	3	4	5	6	7
1342.5	1348.3	1376.5	1299.5	1290.4	1276.2	1260.4	

NO.	NAME	I	J	LAYER	STAT	STB/D	MSCF/D	STB	PAC.	MSTB	MMSCF	MSTB	DATUM	DATUM	MSCF/D	MMSCF	STATUS
=====																	
GC # 1																	
0	2	5	1	3	QMAX	0.	0.	0.	1623.10	5195.72	0.75230	0	0	0	0.	0.	0.
0	3	3	1	3	QMAX	4.5079	3000.	0.3679	99.99	0.176	6693.56	12.002	9.33777	1111	1039	0	0.
0	4	1	1	3	QMAX	538.01	1001.	3.6129	13.01	0.017	5415.77	23.913	17.83	1072	786	0	0.
0	1	7	1	1	GINJ	0.	0.	0.	0.	0.	32.69	23.86	0.00192				
=====																	
GC GATHERING CENTER TOTALS	542.51	10001.	3.9738	18.33	0.007	13672.	41995.	26.88							0.	0.	
=====																	
GC # 2																	
0	5	1	1	3	QMAX	0.	0.	0.	0.	0.	594.01	371.56	0.74615	0	0	0.	0.
=====																	
GC GATHERING CENTER TOTALS	0.	0.	0.	0	0.	0.	694.01	371.56	0.74615						0.	0.	
=====																	
FLOW STATION TOTALS	542.51	10001.	3.9738	18.33	0.007	14366.	42367.	27.62							0.	0.	
=====																	
WELL																	
=====																	
VIP-EXIC INJECTION WELL SUMMARY																	
=====																	
* DAY/MO/YR: 1/ 1/97																	
=====																	
DAILY INJECTION CUMULATIVE INJECTION PRESSURES, PSIA																	
=====																	
PERF LOCATION																	
=====																	
NO.	NAME	I	J	LAYER	STAT	GAS	WATER	GAS	WATER	GRID	BOTTOM	TURING					
						MSCF/D	STB/D	MMSCF	MSTB	DATUM	DATUM	HEAD					
GC # 1																	
1		7	1	1	3	QMAX	8081.44	0.	0.	35345.13	0.	1198	1248	0			
=====																	
GC GATHERING CENTER TOTALS	8081.44	0.	0.	0.	0.	35345.13											
=====																	
GC # 2																	
=====																	
GC GATHERING CENTER TOTALS	0.	0.	0.	0.	0.	0.	0.	0.	0.								
=====																	
FLOW STATION TOTALS	8081.44	0.	0.	0.	0.	35345.13	0.										
=====																	
VIP-EXIC SEPARATOR REPORT																	
=====																	
* DAY/MO/YR: 1/ 1/97																	
=====																	
TIME: 12419.0 DAYS																	
=====																	
BATTERY - 1																	
=====																	
STOCK TANK																	
=====																	
STOCK TANK PRESSURE = 15.02 PSIA																	
STOCK TANK TEMPERATURE = 74.00 DEG F																	
STOCK TANK LIQUID RATE = 525.27 STB/DAY																	
STOCK TANK VAPOR RATE = 10018.29 M3/DAY																	


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S DAY/MU/YR: 1/1/96          TIME: 12784.0 DAYS

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S DAY/MU/YR: 1/1/96          TIME: 12784.0 DAYS

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[illegible]

127

K	1	2	3	4	5	6	7
1	0.0477	0.0363	0.0798	0.2149	0.3203	0.4245	0.4896
2	0.0581	0.0483	0.1294	0.3642	0.5379	0.6702	0.8071
3	0.2076	0.2348	0.3260	0.3953	0.4598	0.5115	0.5521

DATA READ AT TIME (DAYS) = 13149. (DAY/MON/YR = 1/1/1999)

QUAYE CARU READ

NEXT DATA WILL BE READ AT TIME (DAYS) = 13514. (DAY/MIN/YR = 1/ 1/2000)

VIP-1 XCC	TIME	STEP	SUMMARY
1	0.00	1	INITIALIZE
2	0.00	2	READ INPUT
3	0.00	3	CALCULATE
4	0.00	4	WRITE OUTPUT
5	0.00	5	STOP

	TIME STEP	PRODUCTION	INJECTION	Avg MASS BALANCE	MAX SATN CHANGE	MAX COMP CHANGE	MAX PRES CHANGE	TIME IT
N								STEP
07								

[illegible][illegible]

```
*** TIME STEP REDUCED DUE TO IMPLS STABILITY LIMIT VIOLATION :
CURRENT SIZE= 58.4735      UMIN = 0.100000
```

	934.24	1000.	9.16769	(0.0000)	(0.0000)	0.0000	7	3-0.0075	1	3 -24.55
255	13504.	1000.	9.48210	(0.0000)	(0.0000)	0.0000	3	3-0.0015	1	3 -5.17
256	13514.	1000.	9.48210	(0.0000)	(0.0000)	0.0000	3	3-0.0015	1	3 -5.17

—

GAS SATURATION, FRACTION

—

DATA READ AT TIME (DAYS) = 13880 (DAY/MO/YR - 1 / 1 / 2011)
DATE CARD READ

6 VOLUME 11 NUMBER 1 JUNE 1978

[illegible]

—

GAS PLANT STUDY P L A N T C A S I
VJP-FXFC
TIME: 14245.0 DAYS

J I

K	I						
	1	2	3	4	5	6	7
1	0.1182	0.1150	0.1975	0.2927	0.3725	0.4592	0.8967
2	0.1289	0.1265	0.2157	0.3173	0.3952	0.4723	0.8971
3	0.2700	0.2853	0.3646	0.4195	0.4746	0.5211	0.5599

DATA READ AT TIME (DAYS) = 14245. (DAY/MU/YR = 1/ 1/2002)

RUN WAS TERMINATED BY A STOP CARD AT TIME (DAYS) = 14245. (DAY/MU/YR = 1/ 1/2002)

===== RESTART RECORDS WRITTEN AT THE FOLLOWING TIME(S) =====

TIME STEP	DAYS
0	0.000

NUMBER OF ACTIVE GRID BLOCKS = 21

THOUSANDS OF GRID BLOCK TIME STEPS = 5.017

SIMULATION STATISTICS

CANADA UJITUS UNIT
TIME-DEPENDENT DATA
GAS PLANT STUDY P L A N T C A S I

STIMULATOR
VJP-COMP
IMPFS
THUC

CASE 7 NYE 1 NYE 3

TOTAL GRIDBLOCKS: 21
ACTIVE GRIDBLOCKS: 21
CUMULATIVE TIME: 14245.0000
WELLS: 5
PERFORMANCES: 11

PERFORMANCE STATISTICS

CUMULATIVE	
TIME SIMULATED (DAYS)	14245.0000
NUMBER OF SUCCESSFUL TIME STEPS	276
NUMBER OF OTHER TIME STEPS	617
NUMBER OF UNACCEPTED TIME STEPS	2
NUMBER OF UNACCEPTED TIME STEPS	0
CUMULATIVE / ACTIVE GRIDBLOCK TIME STEP	0.0063918