Form 3160-5
(June 1990)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

FORM APPROVED
Budget Bureau No. 1004-0135
Expires: March 31, 1993

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill or to deepen or reentry to a different reservoir.
Use "APPLICATION FOR PERMIT - " for such proposals

5. Lease Designation and Serial No.: NM - 012711

6. If Indian, Allottee or Tribe Name:

7. If Unit or CA, Agreement Designation:

1. Type of Well: ☐ Oil Well ☒ Gas Well ☐ Other

8. Well Name and No.: FLORANCE G #3

2. Name of Operator: AMOCO PRODUCTION COMPANY
Attention: Nancy I. Whitaker

9. API Well No.: 3004527551

3. Address and Telephone No.: P.O. BOX 800 DENVER, COLORADO 80201 303-830-5039

10. Field and Pool, or Exploratory Area: BASIN FRUITLAND COAL GAS

4. Location of Well (Footage, Sec., T., R., M., or Survey Description)
910 FEL 2250 FNL Sec. 3 T 30N R 8W UNIT H

11. County or Parish, State: San Juan New Mexico

12. CHECK APPROPRIATE BOX(s) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION	
☒ Notice of Intent	☐ Abandonment	☐ Change of Plans
☐ Subsequent Report	☐ Recompletion	☐ New Construction
☐ Final Abandonment Notice	☐ Plugging Back	☐ Non-Routine Fracturing
	☐ Casing Repair	☐ Water Shut-Off
	☐ Altering Casing	☐ Conversion to Injection
	☒ Other DEEPEN RAT HOLE - C/O	☐ Dispose Water

(Note: Report results of multiple completion on Well Completion or Recompletion Report and Log form.)

13. Describe Proposed or Completed Operations (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)*

AMOCO PRODUCTION COMPANY REQUESTS PERMISSION TO DEEPEN THE RAT HOLE, AND UNDERREAM OPEN HOLE SECTION ACCORDING TO THE ATTACHED PROCEDURES.

FOR TECHNICAL INFORMATION CONTACT MIKE KUTAS AT 303-830-5139.

Maximum Total Depth -- 3156'

RECEIVED
MAR 13 1997
OIL CON. DIV.
DIST. 3

14. I hereby certify that the foregoing is true and correct

Signed Nancy I. Whitaker Title Staff Assistant Date 03-05-1997

(This space for Federal or State office use)

Approved by /s/ Duane W. Spencer Title _____ Date MAR 14 1997

Conditions of approval, if any:

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, ficticious, or fraudulent statements or representations as to any matter within its jurisdiction.

* See Instructions on Reverse Side

NMOCD

SJOET Well Work Procedure

Florance G 3

Version: #1
Date: March 4, 1997
Budget: Well Repair
Work Type: **Deepen/ c/o /run-perf liner**

Objectives:

1. C/O wellhead,C/O fill, deepen for rat hole, underream open hole section
2. Run and perf liner, Replace 4 1/2" TBG w/2 7/8" TBG
3. Place well back on production

Pertinent Information:

Location:	2250' FNL x 910' FEL; Sect 3H-T30N-R08W	Horizon:	FT
County:	San Juan	API #:	30-045-27551
State:	New Mexico	Engr:	Kutas
Lease:	BLM; NM-012711	Phone:	H--(303)840-3700
Well Flac:	70304201		W-(303)830-5159
			P--(303)553-6334

Economic Information:

APC WI:	50%	Prod. Before Repair:	5900MCFD
Estimated Cost:	$120,000	Anticipated Prod.:	7400MCFD
Payout:	3 Month		
Max Cost -12 Mo. P.O.	> $600M		
PV15:			
Max Cost PV15:			

Note: **Economics will be run on all projects that have a payout exceeding ONE year.**

Formation Tops: (Estimated formation tops)

Nacimento:		Mesaverde:	
Ojo Alamo:		Point Lookout:	
Kirtland Shale:		Mancos Shale:	
Fruitland:	2867-3143'	Gallup:	
Pictured Cliffs:	3168' (est'd-Florance G 36 PC)	Graneros:	
Cliff House:		Dakota:	
		Morrison:	

Bradenhead Test Information:

Test Date: 5/96 **Tubing:** 127 **Casing:** 183 **BH:** 0 psi

Time	BH	CSG	INT	CSG
5 min				
10 min				
15 min				

Comments:

Florance G 3:

Current wellbore info: 7 5/8" CSA 2933', OH at 2930-3143', 4 1/2" TSA 2905', Fill at 2970'KB
Current flow info: 5900 MCFD, FTP=n/a psi, FCP=n/a psi, LP=90 psi; Producing tubing and casing; Well has original TBG head and is currently through both 2 1/8" CSG valves (1.5" ID).

General observations:
1. Well produces 100+ BWPD and has experiences loading problems
2. Well was cavitated in 1/90 and recavitated in 6/93, but not underreamed.
3. Ledge and sloughing problems were encounterd both times at approx. 2960-3000'
4. Conoco offset experienced similar hole instability problems

Short term plans:
1. Replace WH, C/O, deepen and underream well, run liner; replace tubing

Long term plans:
1. Place on artificial lift (if needed); Rathole will be added for gas separation

1. MIRURT
2. ND tree, rig up BOP's w/cavitation capability, complete with venturies on blooie lines. Test BOE. Set plug in F-nipple in 4 1/2" TBG (2.75" F-nipple sa 1 jt off btm, at approx. 2865'). TOH and lay down 4 1/2" tubing
3. Set wireline EZSV in 7" at 2850'. Load csg and pressure test. NDBOE and change out TBG head to allow hanging 2 7/8" TBG (w/full opening 3 1/8" casing valves
4. Pick up 4.750" drill collars and 3.500" drill pipe with 6.250" bit, dry hole, drill up EZSV, clean out fill from 2,970' to total depth (3143') using air and foam. Drill out to a total depth of ~~3168-73'~~ 3150', C/O and stibilize hole. Underream open hole section from 6 1/4" to 9 1/2". Stabilize hole as quickly as possible to allow running liner (after reaching TD, trip out to casing shoe and wait for 4-6 hours and check to determine amount of fill and how difficult it is to clean up.
5. Run a blank 5.500" flush joint liner (Hydril 511) from TD back to approx. 2,750'. Install a tricone bit on bottom with a float immediately above bit and a Baker Model SLR-P Liner Hanger Packer. Strip in hole and drill to bottom with power swivel if necessary. Hang liner, lay down drill pipe
6. RU HES, RUN GR-CCL to identify correct coal seam depths; TIH and perforate liner as follows:

COAL ZONES		PERFORATIONS		
Ignacio	2,958 to 2,980'	2,958 to 2,980'	4 jspf	88 holes
Cottonwood	3,047 to 3,065'	3,047 to 3,065'	4 jspf	72 holes
Cahn	3,105 to 3,143'	3,105 to 3,143'	4 jspf	152 holes
		Total		**312 holes**

7. Pick up and run 2 7/8"TBG as follows:
   1) 10' tbg sub
   2) 10' tbg subs; w/ 5/8" hole in middle
   3) 2 7/8" std. SN (2.280" ID)with retrievable plug in place
   4) remainder 2 7/8" TBG

Land bottom of TBG at approximately 3165'(approx. 5' above liner PB). Pull retrievable plug. RDMODU. **Turn well over to production. Note: bring well on slowly, well may need swabbing in order to RTP.**

Dependent on speed of hole stabilization, I estimate this procedure to require approximately 5-6 days and to cost approximately $120,000 (see attached AFE form).

If problems are encountered, please contact:

Mike Kutas

(W) (303) 830-5159
(H) (303)840-3700
(P) (303)553-6334

Repair Well Cost Detail

Property - FLORANCE /G/, Well# 003H03

SAN JUAN County, NM Property FLAC - 698060 Well FLAC - 703042
Operating Field - BASIN-DAKOTA-GAS
Amoco Production Company

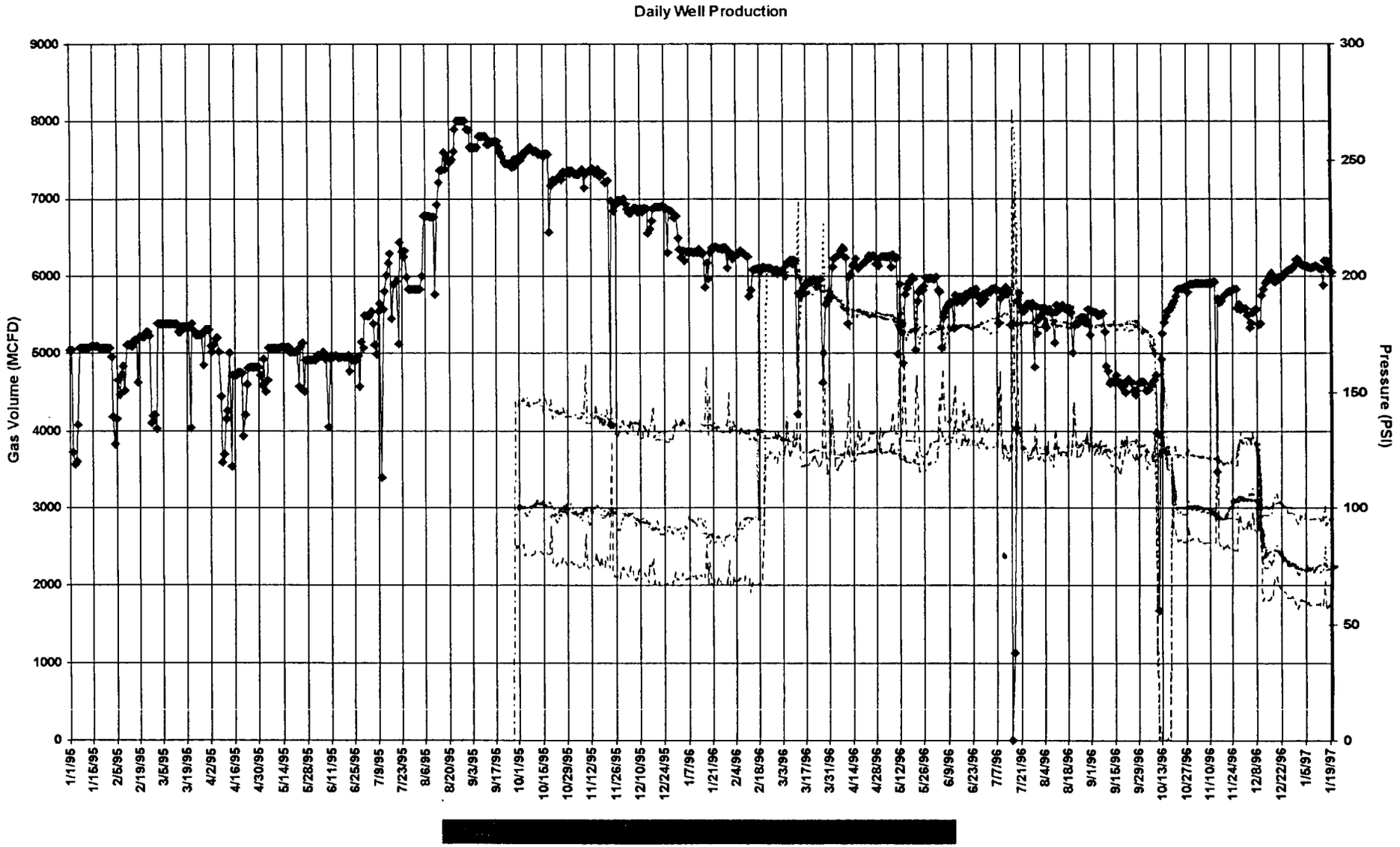
Ownership Code: 00 3, 36, 36A, 36E

Intangibles	
Rig Cost	$65,500
Equipment Rental	$0
Circulating Media	$0
Cement and Service	$0
Packers and Equipment	$0
Perforate, Log, Wireline	$7,000
Stimulation	$0
Labor	$8,500
Special Equipment	$0
Fishing	$0
Other Intangibles	$11,100
Total Intangibles	$92,100

Tangibles	
Casing	$11,600
Tubing	$7,800
Wellhead	$8,500
Other	$0
Total Tangibles	$27,900

	Net	Gross
Total This Request	$60,000	$120,000
Previous Estimate	$0	$0
Total to Date Estimate	$60,000	$120,000

Wellname: **FLORANCE G 003 - FT** Flacwell: **70304201** Amoco - OIDB/Synergy Data

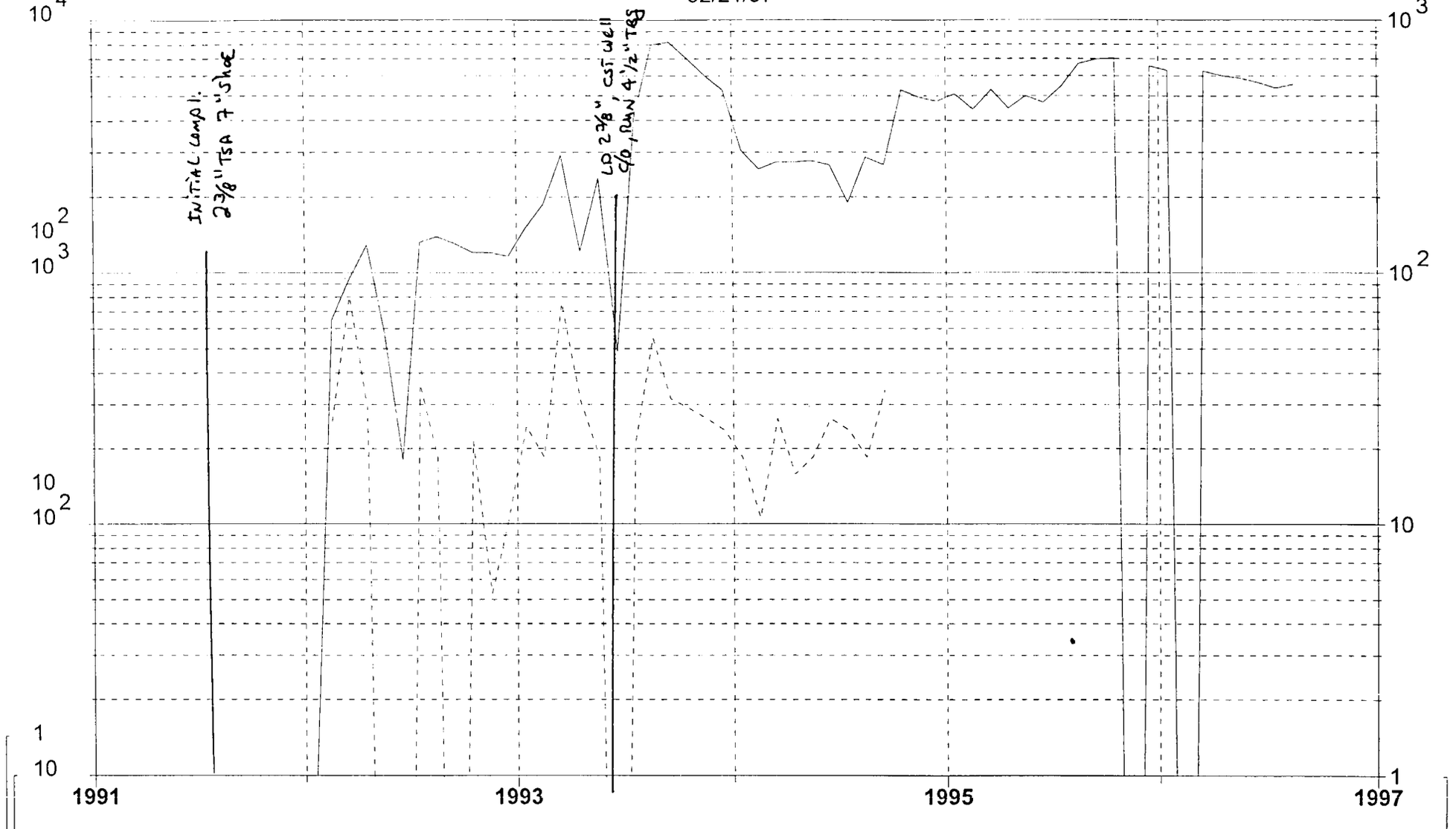


Dwights

Lease: FLORANCE G (3)

02/21/97

Retrieval Code: 251,045,30N08W03H00FT



Gas (mcf/day) ——— Oil (bbl/day) - - - - - - Water (bbl/day) - - - - - -

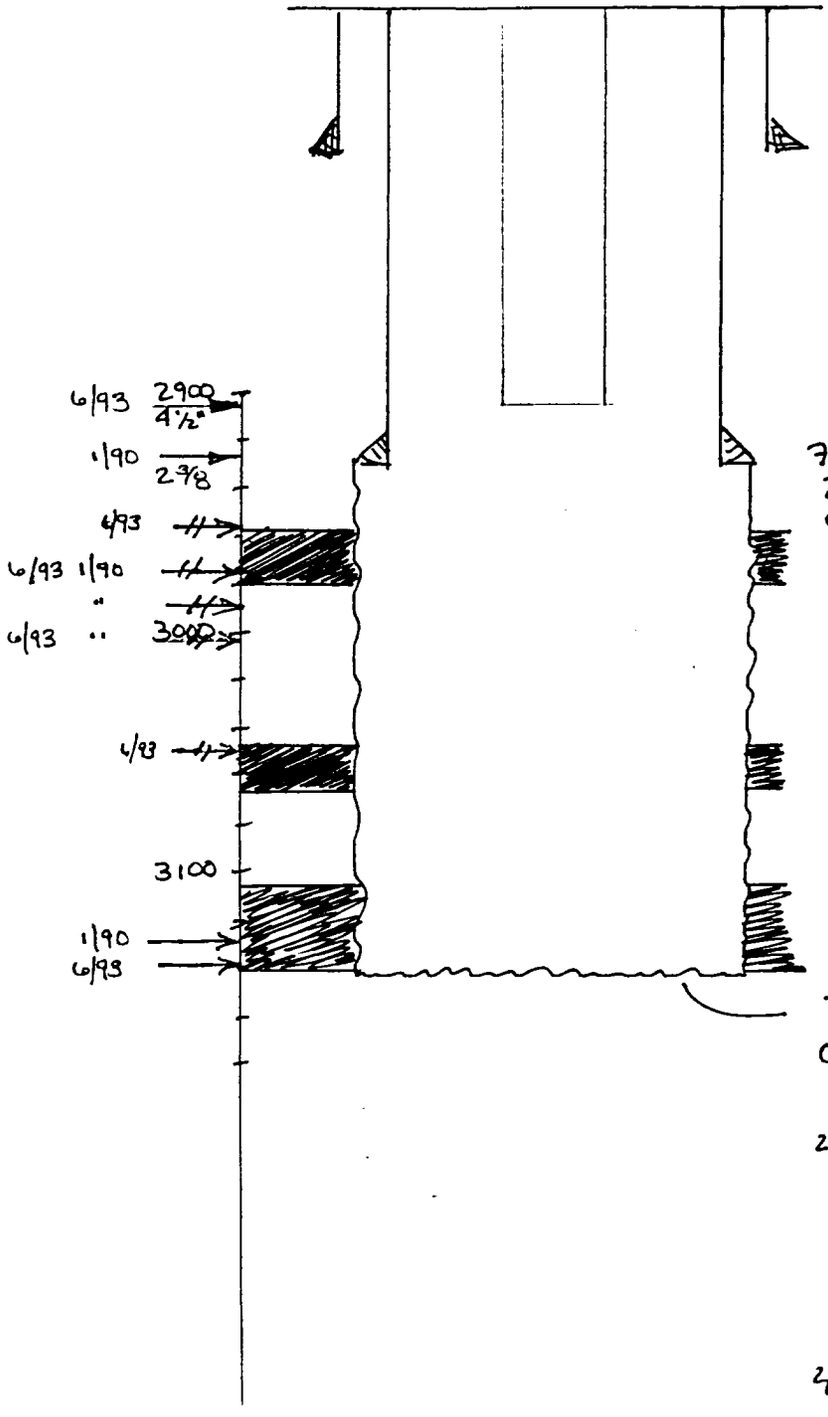
County: SAN JUAN, NM	F.P. Date: 01/92
Field: BASIN (FRUITLAND COAL) FT	Oil Cum: 0 bbl
Reservoir: FRUITLAND COAL	Gas Cum: 6132 mmcf
Operator: AMOCO PRODUCTION CO	Location: 3H 30N 8W

Amoco Production Company

ENGINEERING CHART

Sheet No ____ Of ____
File ____
Appn ____
Date 2/21/97
By GMK

SUBJECT Florance G 3



2/13/96 TAG i GRAd., TAG Fill @ 2948' GL

Depth	DLBS	GRAd
0	144	-
1000	170	.026
2000	196	.027
2500	209	.026
2940	224	.031

2/97 TAG INFO; TAG Fill @ 2955' GL, 2970' KB

Form 371-1-86

Amoco Production Company

ENGINEERING CHART

Sheet No | Of

File

Appn

SUBJECT FLORANCE G 3

Date 2-21-97

By GMK

10 3/4" CSA 284', 40.5# K55, CMT circ'd — SPUD: 12/17/89

7 5/8" CSA 2930, 26.4# N80, CMT circ'd — RREL: 12/21/89

COAL INTERV.	Depth
IGNACIO	2958-80'
CW	3047-65
CAHN	3105-30+ N/A

TD = 3143'

1/4/90 - MIRUSU, PU x TIH x BIT & DP
- D.O. CMT 2847-2930'
- D.O. TO 2999, GAS to SURF, Kill w/mud
- mix Mud, 11.5 ppg, Kill well
- c/o 2' Bridge @ 2961-63, D.O. TO 3052', CORE CW, 3017-3072' (Core #3 19-43')
- TOH w/core, DRL TO 3108', CORE #2, 3107-19'
- RUN HRLDT 3140-2900', ML 3128-2900', NGRS 3133-2900'
- TIH & c/o 13' Fill; FLOW TEST: 2HRS, 3/4", 120 → 210psi, 3045 MCFD 0 BWPD STARTED MAKING WTR, CPF INC to 260 psi w/ 6446 BWPD; TIH x c/o 15' Fill
- CST #1 x 4, 1200psi; TIH, c/o & TAG Fill @ 3130', CIRC ON BTM - REC lg VOL COAL
- R x R 3112-3143', HOLE UNSTABLE @ this depth; HOLE tight @ 2975-90', CIRC
- FLOW TEST: 75min, 3/4", 260psi (as high as 320psi), HEAVY MIST - PUT OUT FLARE
- CST #2 x 4, 1200 psi, HEAVY to DECR COAL RET's, REAM & DRILL FROM 2975-90' HEAVY COAL RETURNS @ 3052-3112', CIRC ON BTM
- WORK THRU BRIDGE @ 2967-85', c/o 13' Fill ON BTM, HOLE HEAVING, 60-80' FLARE
- c/o 13' Fill, FLOWTEST: + 3.5 MMCFD w/ HEAVY MIST, 260psi. c/o BRIDGE @ 2927' SAW FLARE INCR, c/o Bridge @ 2985-90' & 3001' + 13' Fill, CIRC ON BTM FLOW TEST; 3/4", 220 psig, 3190 MCFD
- SNUB OUT OF HOLE w/ DP, SNUB IN HOLE w/ 2 3/8" TBG; TSA 2927'
  1.78" Nipple w/ EXP CHECK & 1/2 MULESHOE, 1 jt, 1.78" F Nipple 4.7# JJJ PUMP OUT EXP CHECK SITP/CP = 1375/1410 psi.
- RDSU 1/20/90
- FLOW TEST: 24 HRS, 753 BW, FTP/FCP = 470/830 psi., 1719 MCFD

6/10/93 - MIRUSU, SICP = 475psi
- TOH w/ 2 3/8" TBG, SET CIBP @ 2610', PRS TEST BOP, etc
- D.O. CIBP, TAG up @ 2990', c/o from 2990'-3020', R & R @ 3143' - HEAVY COAL RETURNS; FLW TEST; 4.5 HRS, 3/4" ch, 80-360 psi, 5.2 MMCFD; SI 3.5 HRS, CP = 89 psi
  CST #1 X ?, 500-840psi, REC GAS & WTR
- TIH, TAG @ 2951', C.O. TO 3143'; FLW TEST 2.25 HRS, 3/4", 100 → 425psi, 6.1 MMCFD
  CST #2 x ?, 800 psi.
- TIH, TAG @ 2990' c/o TO 3143', R & R, FLOW TEST 2 HRS, 3/4", 120-450psi, 6.5 MM
- CST #3 x ?, 820-850 psi.

Amoco Production Company

ENGINEERING CHART

File

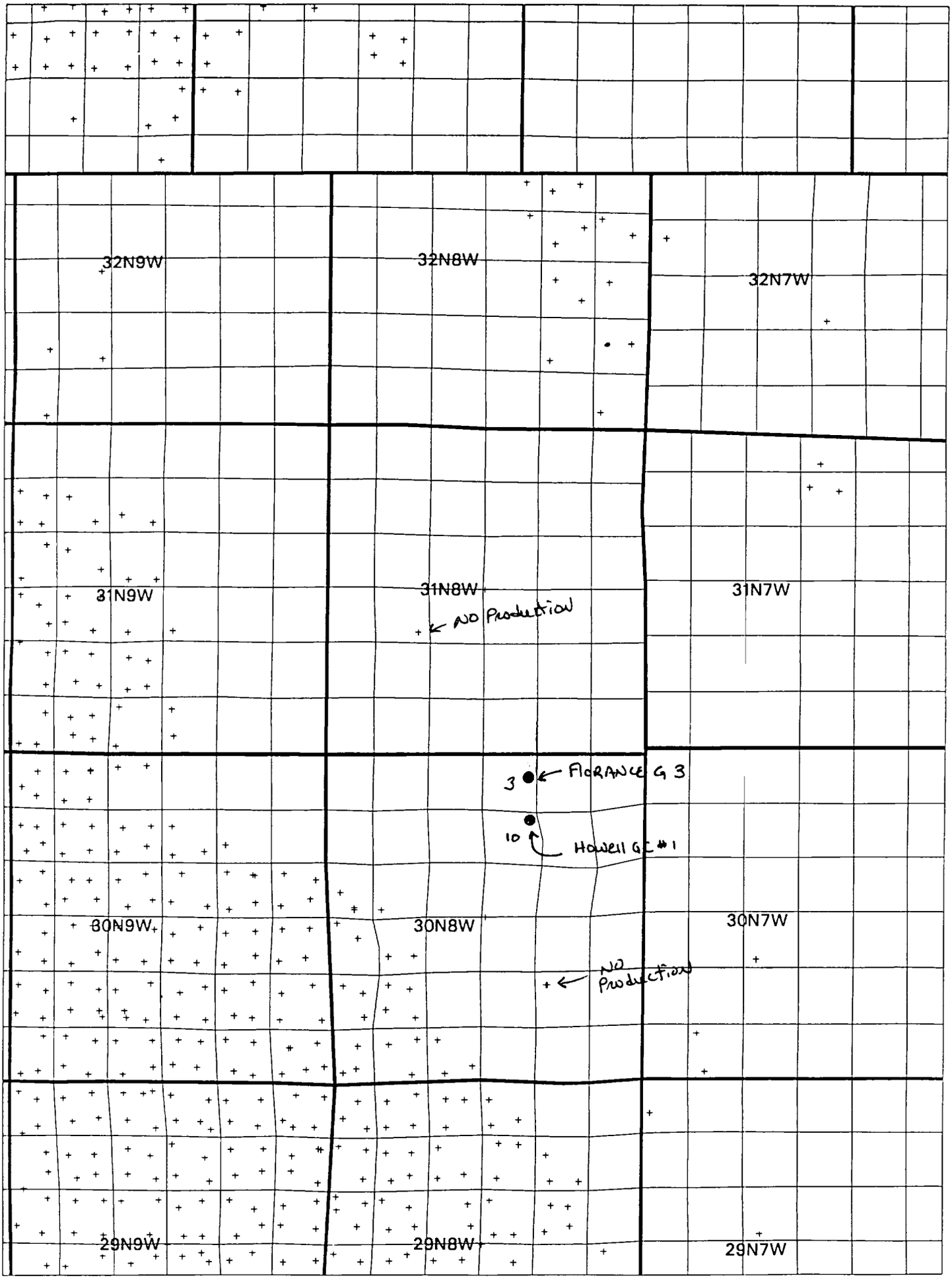
Appn

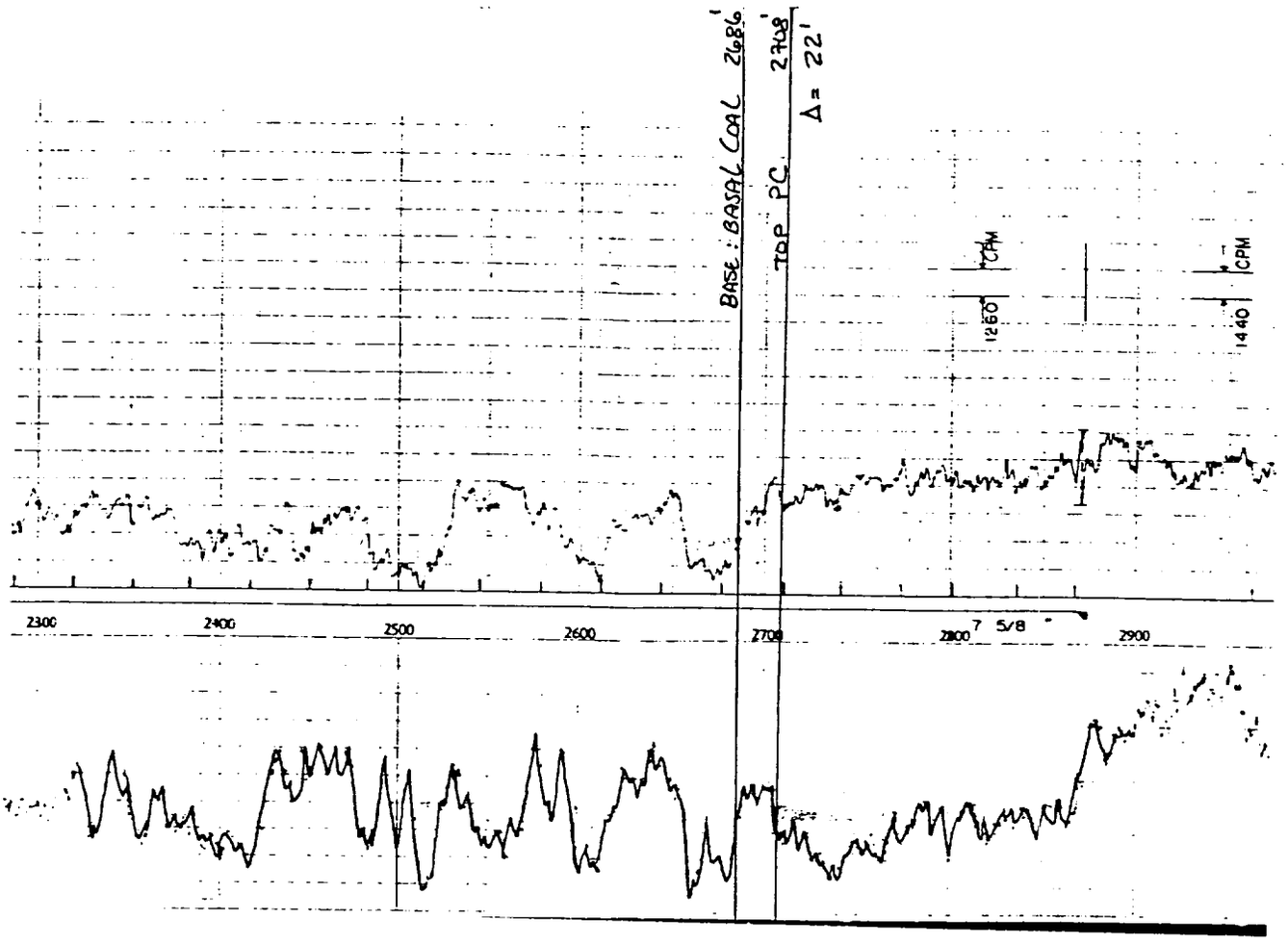
SUBJECT FLORANCE G #3

Date

By

- TIH, c/o 2956 - Bridge 3143, R/R @ 3143'; FLOW TEST 21 HRS, 155-520psi, 0.75"ch, 7540 MCF CST #4 x ?, 850-900psi
- TIH x TAG Bridge @ 2956'; c/o, R/R @ 3143' - CLEANED up, HOLE got tight @ 3097-3127', R/R @ 3143'; CST #5 x ? 820psi, Lt COAL, MST
- FINISH CST, FLOW TEST: 3/4"ch, 250-635psi, 9200 MCFD; TIH, TAG Bridge @ 297 R/R @ 3143'; CST #6 x 8, 780psi; TIH, TAG & c/o Bridges @ 3048; 3130' - UNLOAD TREMENDOUS AMT COAL w/ SOAP SWEEPS
- FLOW TEST, 3/4"ch, 190-620psi, 8990 MCFD, DRY GAS; CST #7, 715psi
- FINISH CST, c/o Bridge @ 2990' & 7' FILL, R/R @ 3143'; FLOW TEST 3 HRS, 3/4"ch 240-620psi, 8990 MCF; TIH, TAG & c/o Bridge @ 2990' & 4' FILL, FLOW, TAG & c/o 4' FILL - NO COAL RETURNS
- R/R @ 3143', DRY up HOLE, FLOW TEST; 3 HRS, 315 → 595psi, 8627 MCFD; TAG & c/o 4'
- R/R @ 3143', SICP 720psi; SNUB OUT OF HOLE w/ DP & BIT; SNUB IN HOLE w/ 4½" TBG: MULE SHOE w/ 2.75" F NIPPLE @ 1 JT OFF BTM - SNUB PRS @ 795psi
- FINISH SNUBBING TBG; TSA 2905', F NIPPLE @ 2865'(?); PULL PLUG & FLOW WELL; 650 psi - 9,425 MCFD, 3/4" ch
- RD & MO SU; 6/24/93


32N9W
32N8W
32N7W
31N9W
31N8W
← NO Production
31N7W
3
← FLORANCE G 3
10
HOWELL GC #1
30N9W
30N8W
30N7W
← NO Production
29N9W
29N8W
29N7W



LANE WELLS *Radioactivity Log*

COMPANY
WELL Howell 2 MW
FIELD
COUNTY STATE
LOCATION 10-T30N-R8W

16

LOG MEAS FROM
DRLG MEAS FROM
PERM DATUM

NEUTRON
MULTI-SPACED
RADIATION INTENSITY INCREASES

LANE RADIOACTIVITY LOG WELLS COMPANY

FILE NO. 17605

Location of Well	
	COMPANY: [illegible] OIL CORPORATION
	WELL: FLORENCE No. 36
	FIELD: [illegible]
	COUNTY: SAN JUAN STATE: N. M.
	LOCATION: SEC. 3-30N-R8W 8
1850' FR N & 990' FR E LINE	1850' FR N & 990' FR E LINE

COMPANY: [illegible] OIL CORPORATION
WELL: FLORENCE No. 36
FIELD: [illegible]
COUNTY: SAN JUAN STATE: N. M.
LOCATION: SEC. 3-30N-8W
1850' FR N & 990' FR E LINE

LOG MEAS. FROM	K. B.	ELEV. 6205
DRLG. MEAS. FROM	K. B.	ELEV. 6205
PERM. DATUM	G. L.	ELEV. 6272

	GAMMA RAY	NEUTRON
[illegible]	1	1
DATE	6-25-54	6-25-54
[illegible]	0	0
[illegible] DEPTH	3,00	3,00
[illegible] INTERVAL	3,00	3,00
[illegible] INTERVAL	3,00	3,00
TYPE OF FLUID IN HOLE	DRY	DRY
FLUID LEVEL	NONE	NONE
MAXIMUM RECORDED TEMP.	-	7,00
NEUTRON SOURCE STRENGTH & TYPE	-	0.25
SOURCE SPACING - IN.	-	
LENGTH OF MEASURING DEVICE - IN.	36	9
O.D. OF INSTRUMENT - IN.	3 3/8	3 3/8
TIME CONSTANT - SECONDS	5	5
LOGGING SPEED FT. MIN.	38	38
STATISTICAL VARIATION - IN.	-	-
SENSITIVITY REFERENCE	.74	275
RECORDED BY	[illegible]	[illegible]
WITNESSED BY	[illegible]	[illegible]

R.E.C.
SEP [illegible]
U. S. GEOLOGICAL SURVEY
FARMINGTON, N. M.

CASING RECORD

RUN NO.	BIT SIZE	CASING	WEIGHT	FROM	WELL RECORD	FROM R. A. LOG
1	6 1/2	4 1/2	11	4095	TO SURF.	TO
1	3 7/8	OPEN HOLE		4095	TO 5600	TO
					TO	TO
					TO	TO
					TO	TO

REMARKS OR OTHER DATA

GAMMA RAY — RADIATION INTENSITY INCREASES →

NEUTRON — RADIATION INTENSITY INCREASES →