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OIL CONSERVATION DIV.  
SANTA FE

*Southern*

*Rockies*

*Business*

*Unit*

DHC 5-1-96

1255

April 8, 1996

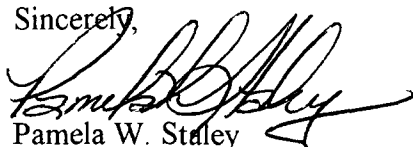
Mr. William J. LeMay, Director  
New Mexico Oil Conservation Division  
2040 S. Pacheco Street  
P. O. Box 6429  
Santa Fe, NM 87505

**Corrected Application for Exception to Rule 303-C**  
**Downhole Commingling**  
**Russell LS #3 Well**  
**Unit M Section 23-T28N-R8W**  
**Blanco Mesaverde and South Blanco Pictured Cliffs Pools**  
**San Juan County, New Mexico**

Enclosed please find an administrative application form (C-107-A) and attachments for downhole commingling for the captioned well. This application was formerly sent to you with the captioned wellname on the cover letter of Russell LS #1. The correct wellname as reflected in the rest of the information you received is the Russell LS #3. I apologize for any inconvenience that this may have caused you. All other information enclosed is unchanged.

Should you have questions concerning this matter, please contact me at (303) 830-5344.

Sincerely,



Pamela W. Staley

Enclosures

cc: Mark Rothenberg  
Patty Haefele  
Wellfile  
Proration file

Frank Chavez, Supervisor  
NMOCD District III  
1000 Rio Brazos Road  
Aztec, NM 87410

Duane Spencer  
Bureau of Land Management  
1235 La Plata Hwy.  
Farmington, NM 87401

Amoco Production Company		P.O. Box 800 Denver, CO 80201	
Operator	Well No.	Address	County
Russell LS	3	M-23-28N-8W	San Juan
Lease	Unit Ltr. - Sec Twp - Rge		
Spacing Unit Lease Types: (check 1 or more)			
OGRID NO.	Property Code	API NO.	Federal State (and/or) Fee
000778	001000	3004507242	x

The following facts are submitted in support of downhole commingling:	Upper Zone	Intermediate Zone	Lower Zone
1. Pool Name and Pool Code	SOUTH BLANCO PICTURED CLIFFS 72439		BLANCO MESAVERDE 72319
2. Top and Bottom of Pay Section (Perforations)	2338' - 2432'		4009' - 4726'
3. Type of production (Oil or Gas)	GAS		GAS
4. Method of Production (Flowing or Artificial Lift)	FLOWING		FLOWING
5. Bottomhole Pressure Oil Zones - Artificial Lift: Estimated Current Gas & Oil - Flowing: Measured Current All Gas Zones: Estimated or Measured Original	a. (Current) 445 PSI b. (Original) 1152 PSI	a. b.	a. 855 PSI b. 1248 PSI
6. Oil Gravity (" API) or Gas BTU Content	1149 BTU		1280 BTU / 49 DEG API
7. Producing or Shut-In?	PRODUCING		PRODUCING
Production Marginal? (yes or no)	YES		YES
• If Shut-In, give data and oil/gas/water rates of last production  Note: For new zones with no production history, applicant shall be required to attach production estimates and supporting data	Date: Rates:	Date: Rates:	Date: Rates:
• If Producing, give date and oil/gas/water rates of recent test (within 60 days)	1/96 32 MCFD 0 BCPD 0 BWPD	Date: Rates:	1/96 53 MCFD 0.35 BCPD 0 BWPD
8. Fixed Percentage Allocation Formula -% for each zone	Oil: 0 % Gas 20 % ##	Oil: % Gas %	Oil: 100 % Gas 80 % ##

9. If allocation formula is based upon something other than current or past production, or is based upon some other method, submit attachments with supporting data and/or explaining method and providing rate projections or other required data.
10. Are all working, overriding, and royalty interests identical in all commingled zones?  
If not, have all working, overriding, and royalty interests been notified by certified mail?  
Have all offset operators been given written notice of the proposed downhole commingling?

☒ Yes ☐ No

☐ Yes ☐ No

☒ Yes ☐ No
11. Will cross-flow occur? ☐ Yes ☒ No If yes, are fluids compatible, will the formations not be damaged, will any cross-flowed production be recovered, and will the allocation formula be reliable. ☐ Yes ☐ No (If No, attach explanation)
12. Are all produced fluids from all commingled zones compatible with each other? ☒ Yes ☐ No
13. Will the value of production be decreased by commingling? ☐ Yes ☒ No (If Yes, attach explanation)
14. If this well is on, or communitized with, state or federal lands, either the Commissioner of Public Lands or the United States Bureau of Land Management has been notified in writing of this application. ☒ Yes ☐ No SF-078499 NM-013860-A COM 14-08-001-4706
15. NMOCD Reference Cases for Rule 303(D) Exceptions: ORDER NO(S).
16. ATTACHMENTS:
  - \* C-102 for each zone to be commingled showing its spacing unit and acreage dedication.
  - \* Production curve for each zone for at least one year. (If not available, attach explanation.)
  - \* For zones with no production history, estimated production rates and supporting data.
  - \* Data to support allocation method or formula. ## SEE ATTACHED
  - \* Notification list of all offset operators.
  - \* Notification list of working, overriding, and royalty interests for uncommon interest cases.
  - \* Any additional statements, data, or documents required to support commingling.

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

SIGNATURE

TITLE REGULATORY AFFAIRS REP

DATE 4/4/96

TYPE OR PRINT NAME PAMELA W. STALEY

TELEPHONE NO. ( 303 ) 830-5344

## Well Location and Acreage Dedication Plat

## Section A.

Date **FEBRUARY 24, 1958**

Operator **EL PASO NATURAL GAS COMPANY** Lease **RUSSELL** NM **013860-A**  
 Well No. **3(PM)** Unit Letter **M** Section **23** Township **28-N** Range **8-W** NMPM  
 Located **090** Feet From **SOUTH** Line, **1140** Feet From **WEST** Line  
 County **SAN JUAN** G. L. Elevation **5065** Dedicated Acreage **320 & 160** Acres  
 Name of Producing Formation **MESA VERDE & PICTURED CLIFF** Pool **MV - BLANCO, PC - WILDCAT**

1. Is the Operator the only owner in the dedicated acreage outlined on the plat below?

Yes ☒ No

2. If the answer to question one is "no", have the interests of all the owners been consolidated by communitization agreement or otherwise? Yes No If answer is "yes", Type of Consolidation.

3. If the answer to question two is "no", list all the owners and their respective interests below:

Owner

Land Description

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MAR 4 1958

U. S. GEO. SURV. DIST. 1  
FARMINGTON, NEW MEXICO

## Section B.

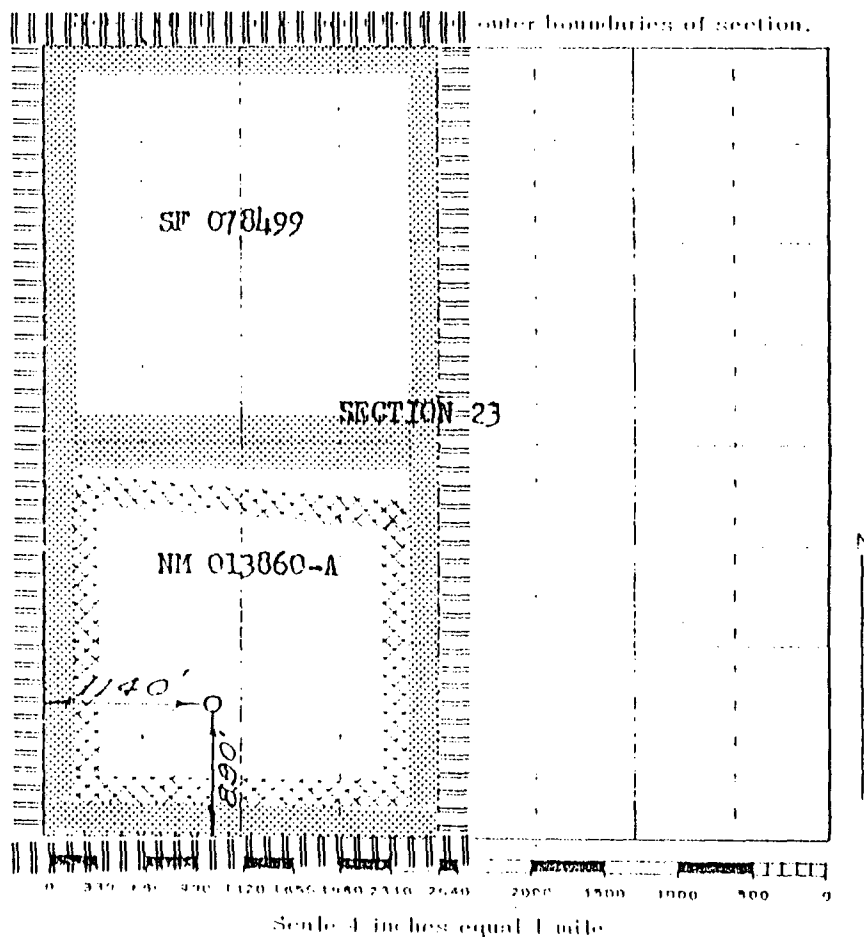
This is to certify that the information  
in Section A above is true and complete  
to the best of my knowledge and belief.

**El Paso Natural Gas Company**  
(Operator)

**Original Signed D. C. Johnson**  
(Representative)

**Box 997**  
(Address)

**Farmington, New Mexico**



This is to certify that the above plat was prepared from field notes of actual surveys made by me or under my supervision and that the same are true and correct to the best of my knowledge and belief.

(Seal)

Farmington, New Mexico

Date Surveyed **OCTOBER 23, 1957**

*David A. Johnson*  
Registered Professional Engineer and Geologist

Engr: zmer16

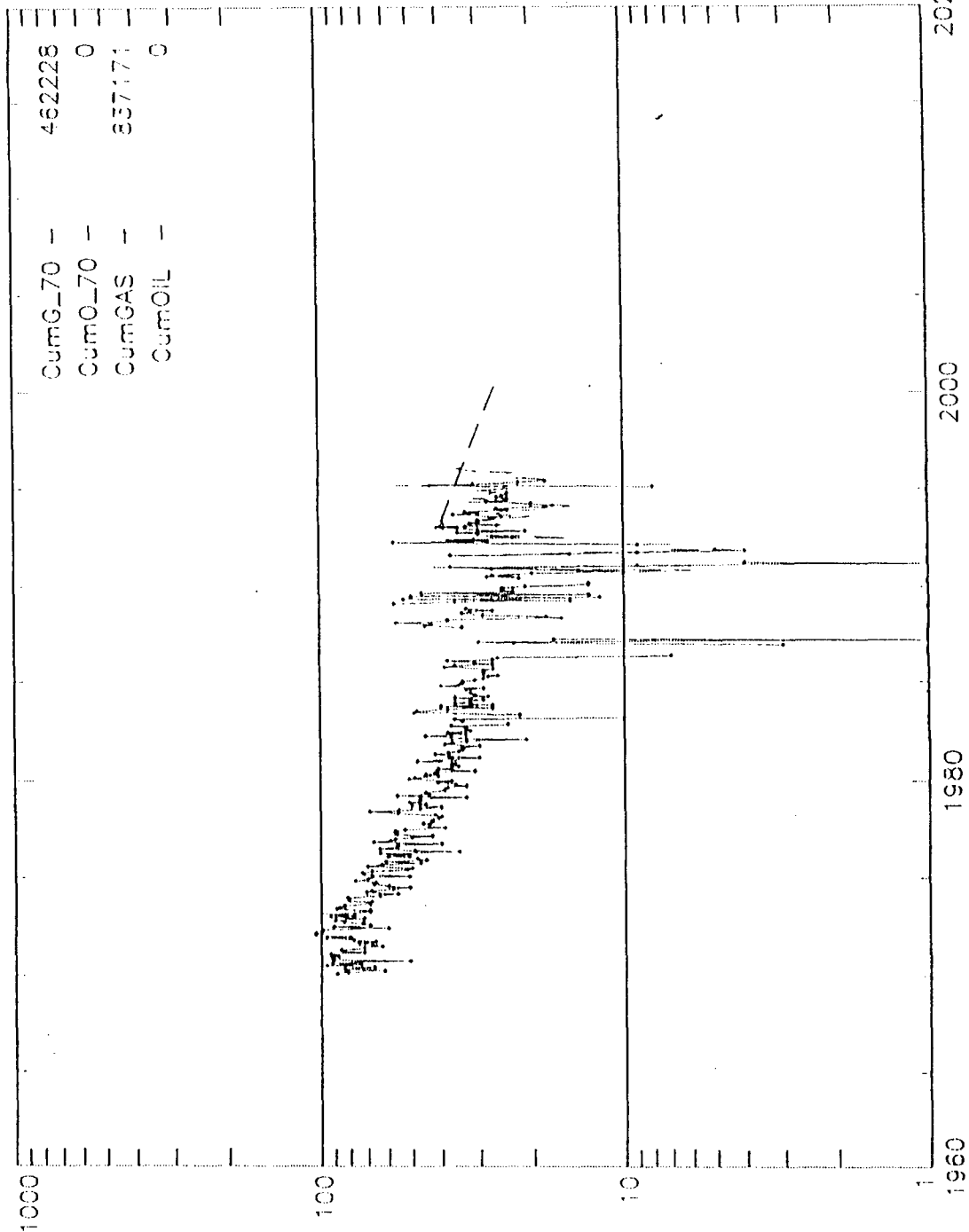
RUSSELL LS 3

Operator- AMOCO PRODUCTION CO

300450724200PC

M232808-003 PC

APC\_WI - 1.0000000



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CurrQ  
RemRes  
EUR  
Fitdate

DCLN  
CurrQ  
RemRes  
EUR  
Fitdate

New\_fit

Engr: zmer16

RUSSELL LS 3

Operator- AMOCO PRODUCTION CO

300450724200MV

M232808-003 MV

APC\_WI - 1.00000000

CumG_70	-	263421
CumO_70	-	412
CumGAS	-	585582
CumOIL	-	952

DCLN  
CurrQ  
RemRes  
EUR  
Fit\_date

New\_fit

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RemRes  
EUR  
Fit\_date

1960 1980 2000 2020

**METHOD OF ALLOCATION**  
**RUSSELL LS #3**

This well has a significant Cliffhouse zone in the Mesaverde which has never been completed. The pay additions will more than double the perforations in the Mesaverde. (See attached logs and Work Procedure) As a result of the Mesaverde pay additions, we feel that the Mesaverde will increase significantly in production and recommend allocating 80% of gas production to the Mesaverde and 20% of gas production to the Dakota. Liquid allocations are not expected to change.



## SJOET Well Work Procedure

Wellname: Russell LS 3  
Version: #1  
Date: Feb. 15, 1996  
Budget: Repair  
Workover Type: Pay Add

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### Objectives:

1. Remove/Mill out packer
  2. Recomplete the Cliffhouse.
  3. Establish gas rates and shut-in pressures on the CH.
  4. Place well on production and commingle PC and MV.
- 

### Pertinent Information:

Location:	890' FSL, 1140' FWL, M23-28N-8W	Horizon:	PC/MV dual
County:	San Juan	API #:	30-045-07242
State:	New Mexico	Engr:	Mark Rothenberg
Lease:	Federal # NM-013860	Phone:	W--(303)830-5612
Well Flac:	9785390		H--(303)696-7309
Lease Flac	698779/698761		P--(303)553-6448

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### Economic Information:

APC WI:	100%	PC Prod. Before:	35 MCFD
Estimated Cost:	\$100,000	PC Anticipated Prod:	35 MCFD
Payout:	4.9 years	MV Prod. Before:	40 MCFD
PV15:	\$14.6M	MV Anticipated Prod:	140 MCFD
		TOTAL Anticipated Prod:	175 MCFD

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NOTE: Repair will be done as this is a positive PV(15) job. This is best payadd opportunity from geological study.

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### Formation Tops: (Estimated formation tops)

Kirtland Shale:	1520
Fruitland:	2100
Pictured Cliffs:	2336
Lewis Shale:	2438
Cliffhouse:	3949
Menefee:	4095
Point Lookout:	4577
Mancos Shale:	4752

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### Bradenhead Test Information:

Test Date: 9/27/92    Tubing: 284-PC    Casing: 309    BH: 0

Time	BH	CSG	INT	CSG
5 min	0	309		
10 min	0	309		
15 min	0	309		
20 min	0	309		

---

Comments: MV tubing pressure 288.

**Wellname: Russell LS 3**

Page 2

2/16/96

**Suggested Procedure:**

1. Check location for anchors. Install if necessary. Test anchors.
2. MIRUSU. Record SITPs and CP. Blow down well. Kill only if necessary with water.
3. NDWH. NUBOP.
4. Circulate hole above packer clean. TOH with short string.
5. TOH with long string, and seal assembly. If packer cannot be retrieved, mill out packer.
6. RHH with tbg and RBP, set RBP at 4500'. Circulate hole clean, spot 10' of sand on RBP.
7. Run CBL/CCL/GR from RBP to top of liner at 2442' to determine condition of cement behind pipe. Relay CBL info to Mark Rothenberg in Denver (continuous fax # 303-830-4264) to verify if remedial cement squeezes will be needed prior to any frac treatment.
8. Correlate to Schlumberger Gamma Ray-Induction log (4/20/58) for depth control. Perf select fire 23 shots at:  

**4009, 4023, 4039, 4047, 4049, 4051, 4057, 4059, 4061, 4063, 4065  
4073, 4075, 4083, 4085, 4087, 4089, 4091, 4093, 4095, 4243, 4285, 4397**
9. Frac well down tubing according to attached frac procedure.  
NOTE: Set packer/frac string below TOL.
10. Flow well back as soon as possible to tank on a 1/4" choke for 8 hours, then increase choke to 1/2".
11. Once sand production has stopped, RHH with tubing and packer and set packer at 3950' to establish and record gas, water, oil rates and producing and shut-in TP and Cps. Obtain water and as samples.  
NOTE: We would like an accurate flow test of the Cliffhouse and Menefee only. This is why we would like to flow up tubing and a packer.
12. RHH with bit and scraper for 4.5" csg and c/o sand to RBP at 4500'. Retrieve RBP and TOOH.
13. THH with 2" production string, tag for fill and clean out if necessary, and land openended at original depth of 4715 (1/2 mule shoe on btm and a SN 1 JT off btm). RDMOSU
14. Place well on production.

***If problems are encountered, please contact:***  
**MARK ROTHENBERG**  
**(W) (303) 830-5612**  
**(H) (303) 696-7309**  
**(P) (303) 553-6448**



# SCHLUMBERGER WELL SURVEYING CORPORATION BOSTON, MASS.

WELL FILE DOCUMENTS



Gamma Ray-IND.

COUNTY  
FIELD or  
LOCATION  
WELL  
COMPANY

COMPANY El Paso Natural Gas Co.  
WELL Russell #3 (PM)  
FIELD Blanco M.V.  
LOCATION Sec 23-28N-6W  
590/S-4 1140/W  
COUNTY SAN JUAN  
STATE New Mexico

Location of Well

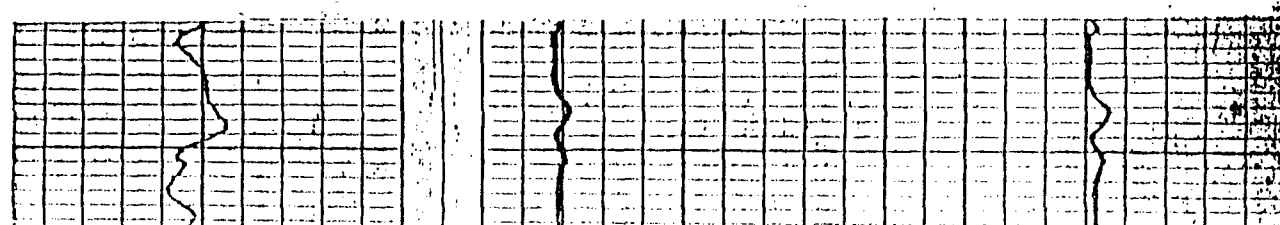
Elevation: D.F. 5876  
K.B. 5877  
or G.L. 5867  
FILING No. \_\_\_\_\_

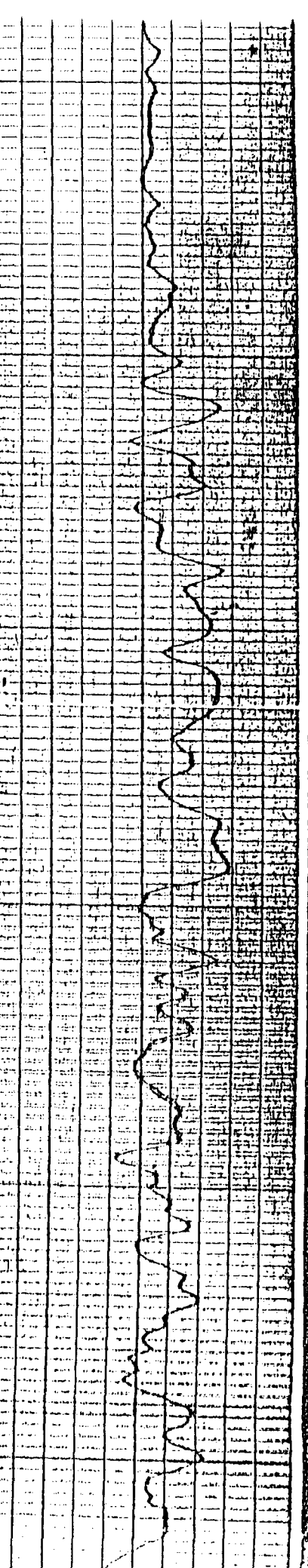
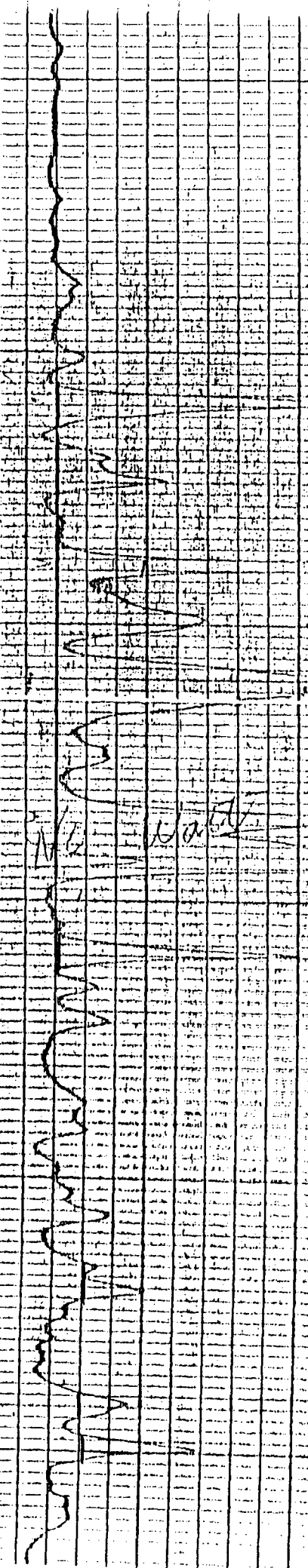
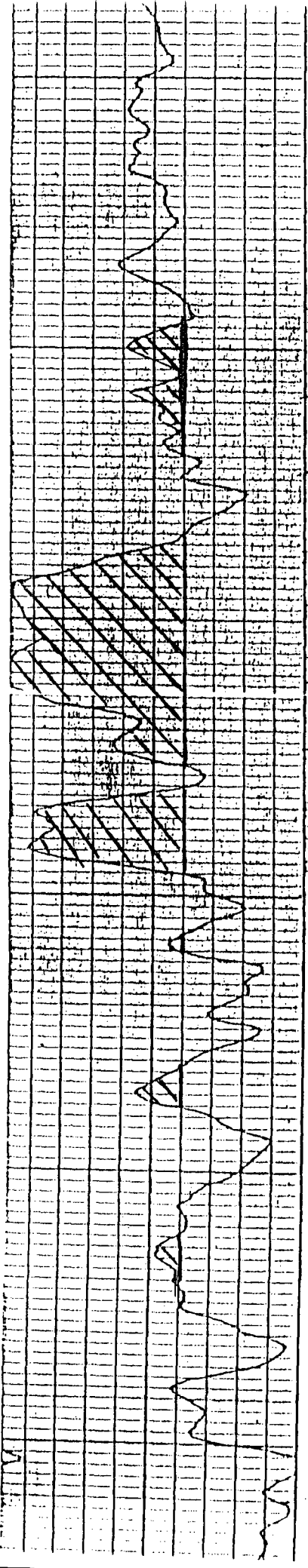
RUN No. CR ONE IND ONE  
Date 4-20-58 4-20-58  
First Reading 4502  
Last Reading 2100 2533  
Feet Measured 2702 2265  
Csg. Sp. 2532 2533  
Csg. Driller 2532 2532  
Dip. Rec. 4865 4502  
Bottom Driller 4797 4797  
Depth Datum 150  
Mud Net Gas Drilled  
Density \_\_\_\_\_  
Viscosity \_\_\_\_\_  
Resist. 16 16 16 16  
Rel. BHT 16 16 16 16  
PH 16 16 16 16  
Wtr. Loss CC 30 min. CC 30 min.  
Max. Temp. 11  
Bit Size 3 7/8 from Csg. To T.D.  
Log. Speed 3600/hr. 3600/hr.  
Log. Tape Seal G  
Coring Time 1 1/2 hr. 1 hr.  
Truck No. 1535 1539  
Recorded by Elliott Elliott  
Witness \_\_\_\_\_

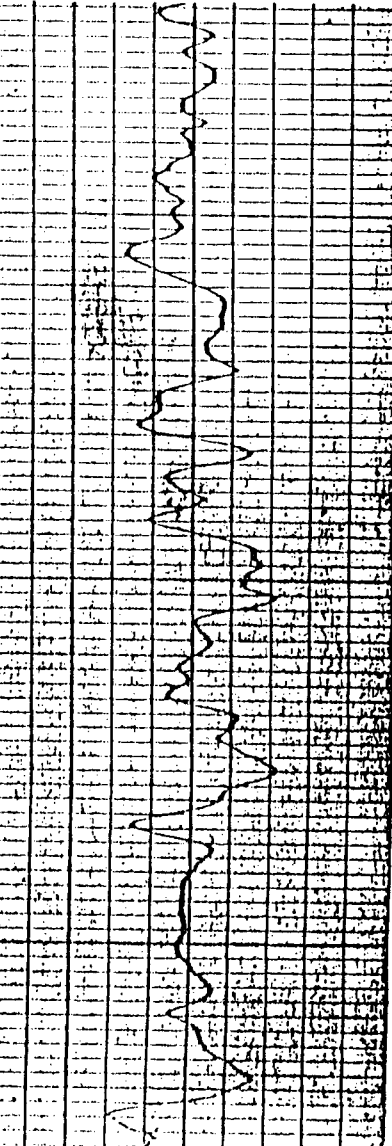
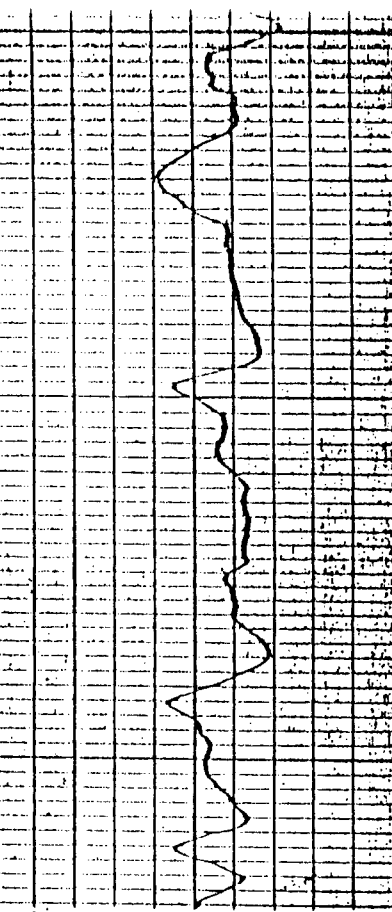
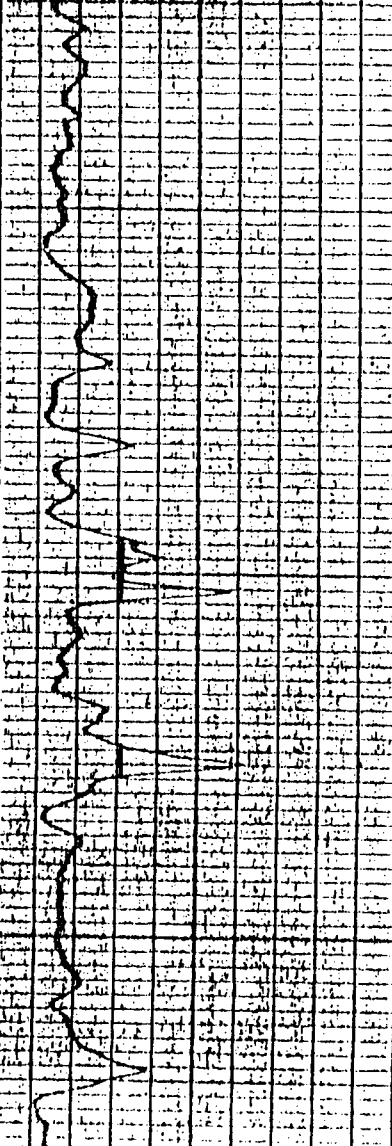
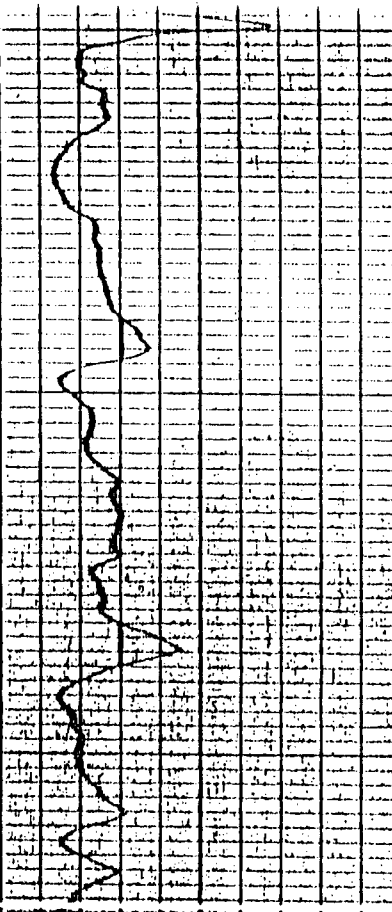
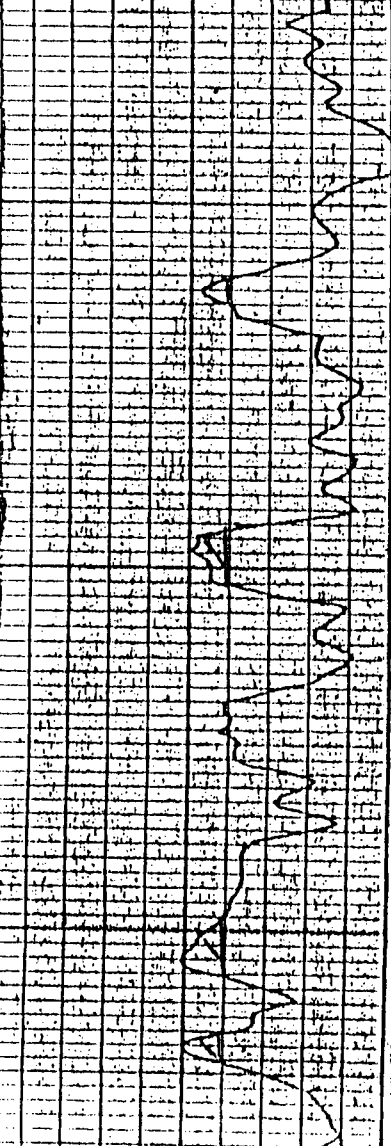
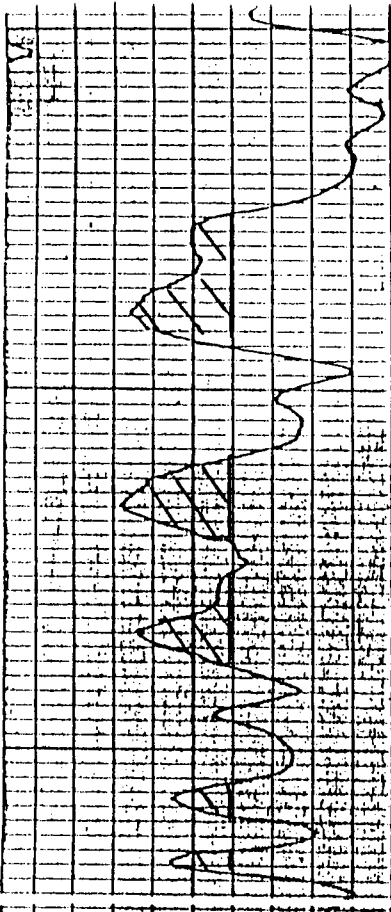
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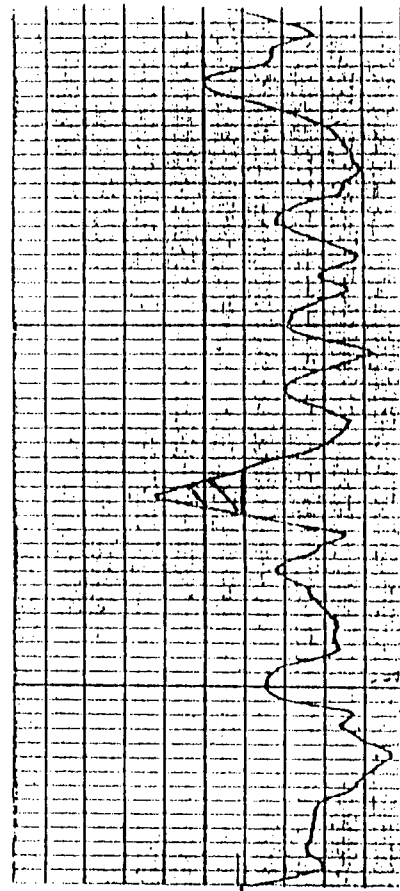
REMARKS IRP-880 GRB 148-460-100-400  
IRC-280 GR Zero to 2div left from 2100 To T.D.  
ILS-G-19

Gamma Ray	Reactivity	Count
Gamma Ray Zero to 0 div. left		
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6	0	
12	0	

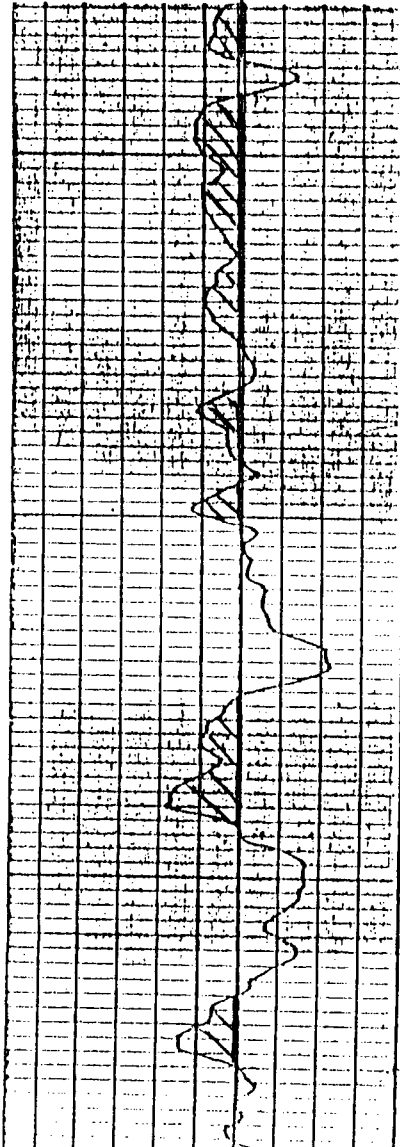




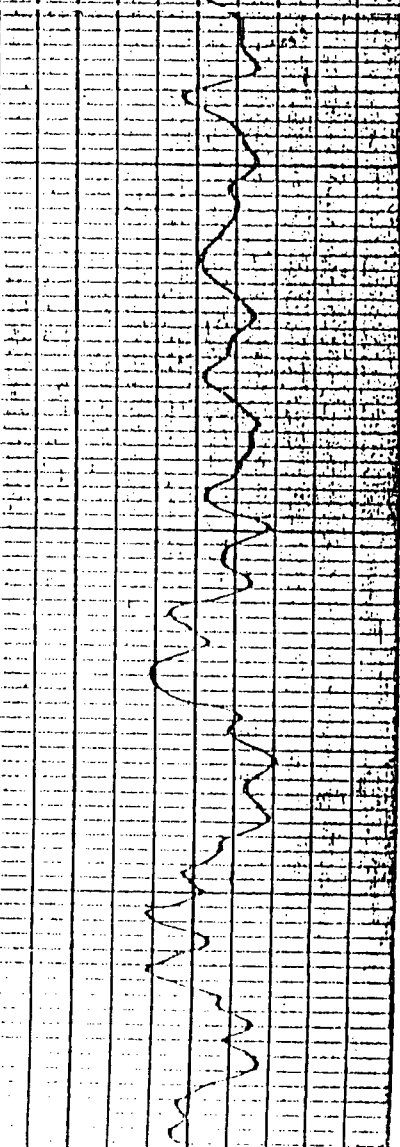
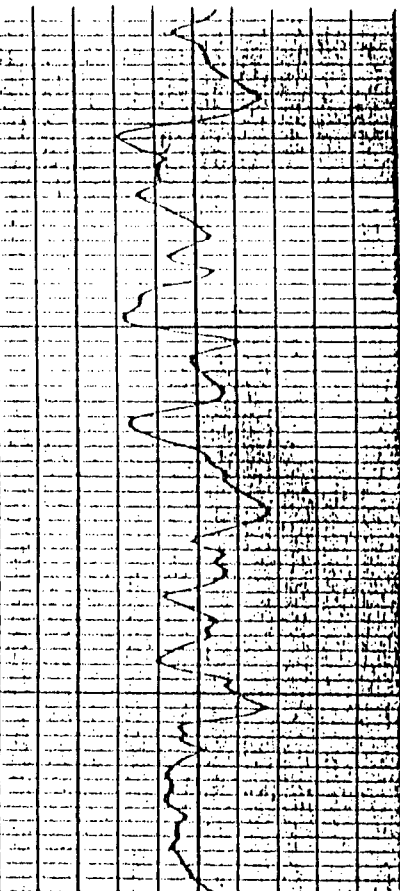
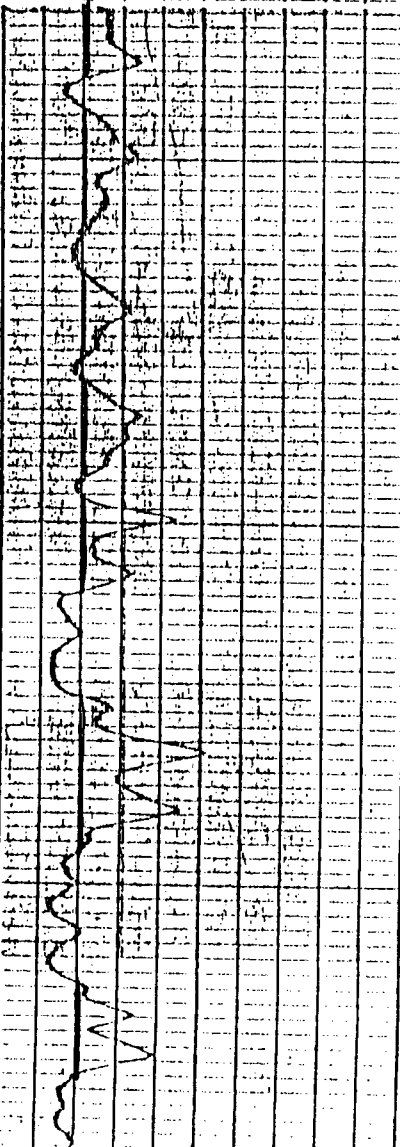
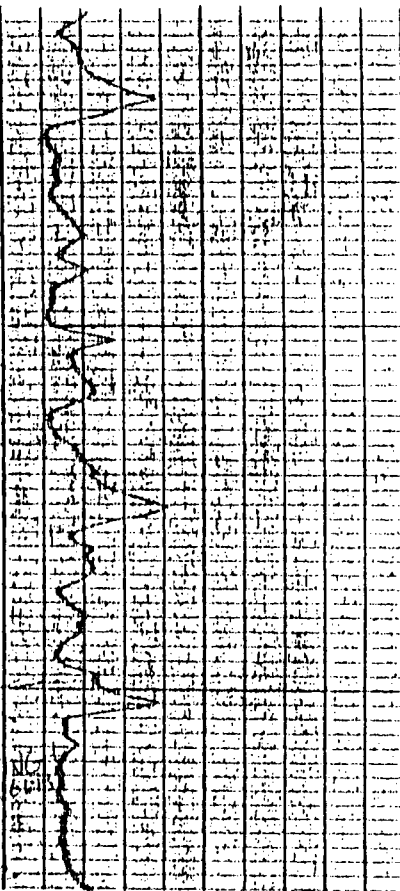




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**LIST OF OFFSET OPERATORS**  
**Russell LS #1**

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