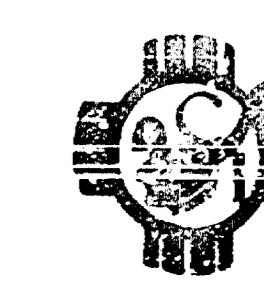


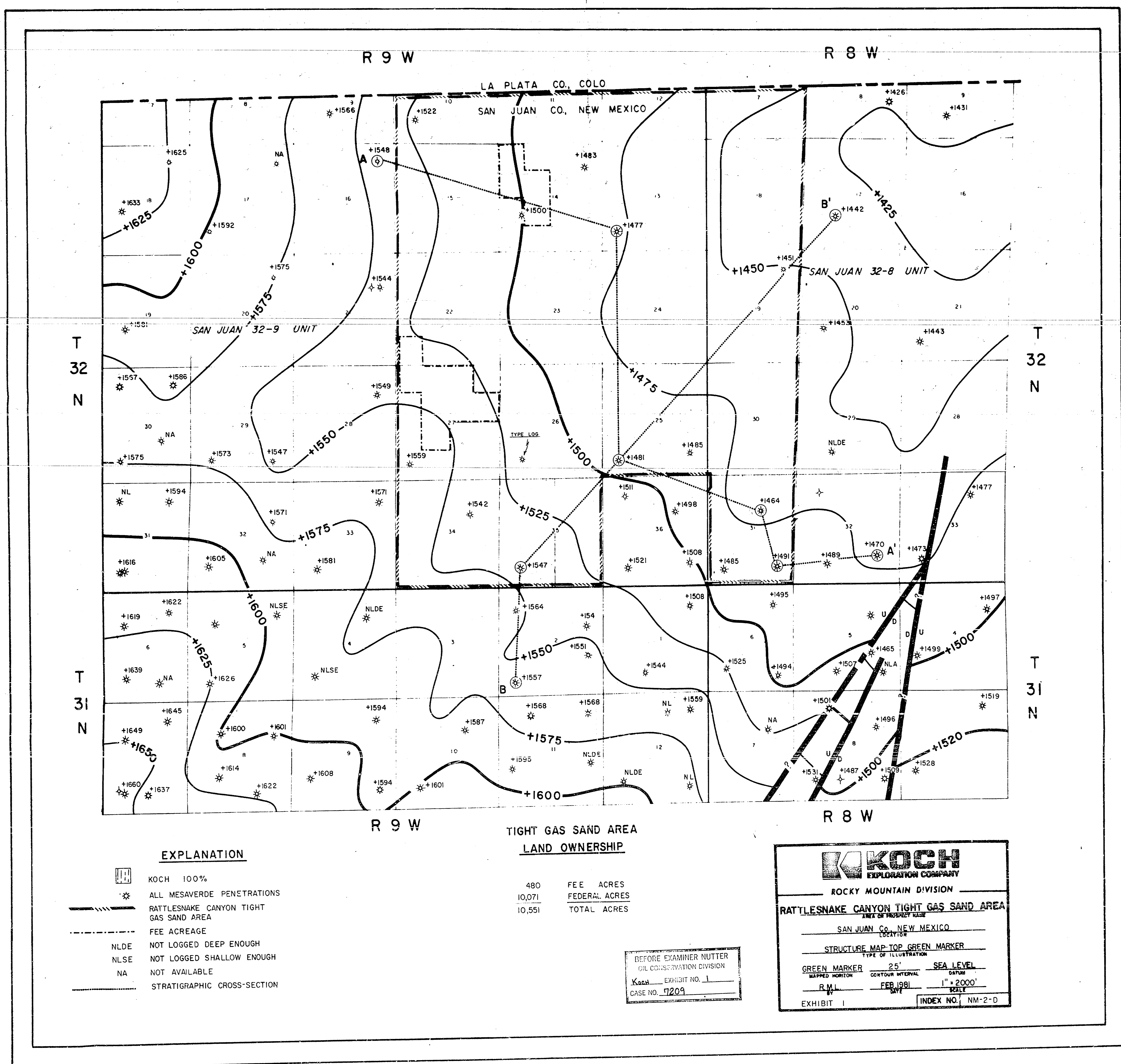
Case No
7209

Large Exhibits

U.S. AIR MAIL



POST OFFICE PERMIT NO. 1000 NEW YORK, N.Y.



EXPLANATION

- KOCH 100%
- ALL MESAVERDE PENETRATIONS
- RATTLESNAKE CANYON TIGHT GAS SAND AREA
- FEE ACREAGE
- NLDE NOT LOGGED DEEP ENOUGH
- NLSE NOT LOGGED SHALLOW ENOUGH
- NA NOT AVAILABLE
- STRATIGRAPHIC CROSS-SECTION

**TIGHT GAS SAND AREA
LAND OWNERSHIP**

480	FEE ACRES
10,071	FEDERAL ACRES
10,551	TOTAL ACRES

BEFORE EXAMINER MUTTER
OIL COLLECTOR DIVISION
Koch EXHIBIT NO. 1
CASE NO. 7205

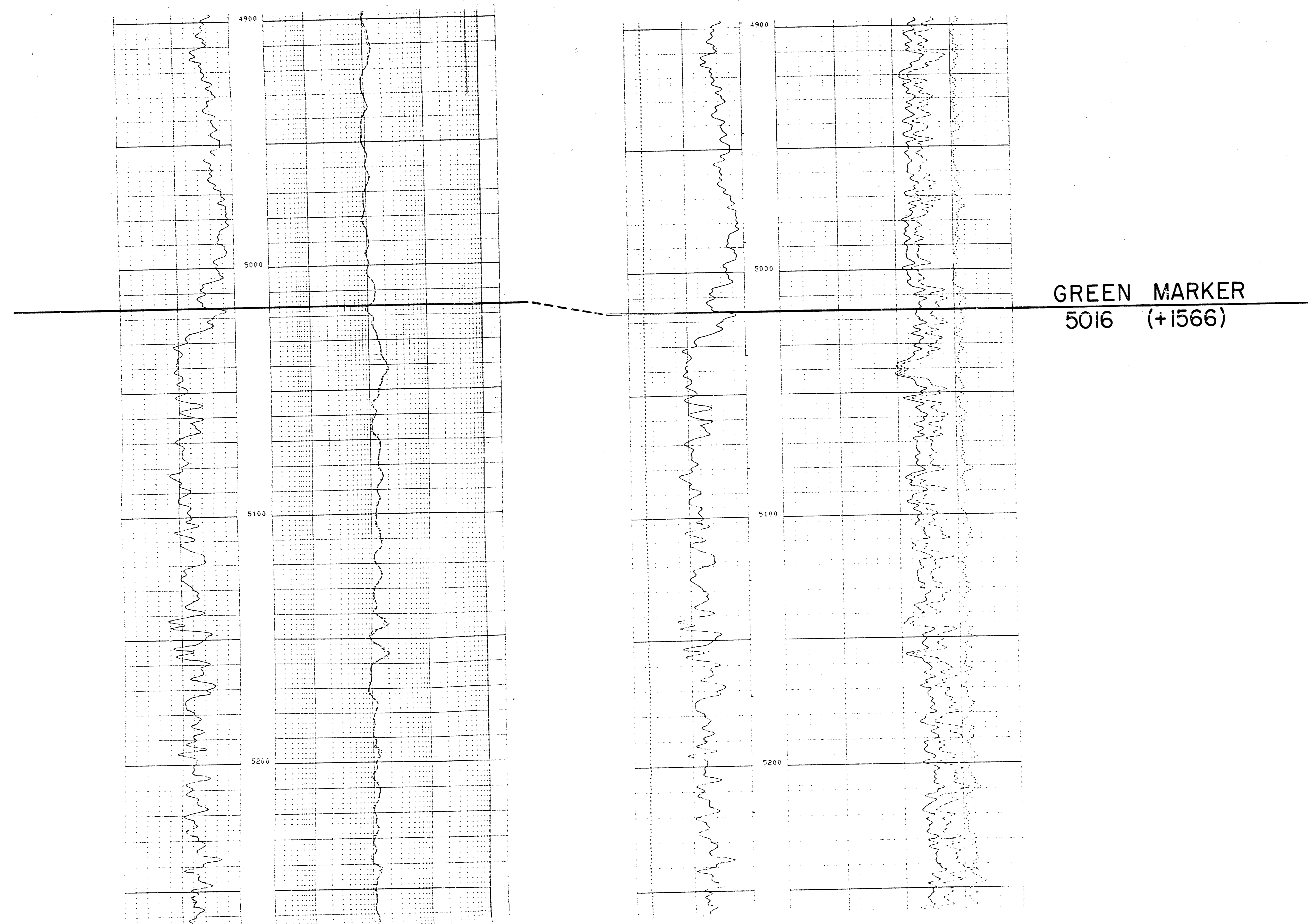
KOCH
EXPLORATION COMPANY
ROCKY MOUNTAIN DIVISION
RATTLESNAKE CANYON TIGHT GAS SAND AREA
LIMIT OF PROPERTY SHOWN
SAN JUAN Co. NEW MEXICO
LOCATION
STRUCTURE MAP TOP GREEN MARKER
TYPE OF ILLUSTRATION
GREEN MARKER 25' SEA LEVEL
MAPPED BY DATE FEB 1981 1" = 2000'
SCALE
EXHIBIT 1 INDEX NO. NM-2-D



TYPE LOG MESAVERDE
RATTLESNAKE CANYON TIGHT FORMATION AREA
BLANCO MESAVERDE FIELD
SAN JUAN CO., NEW MEXICO

EXHIBIT NO. 2

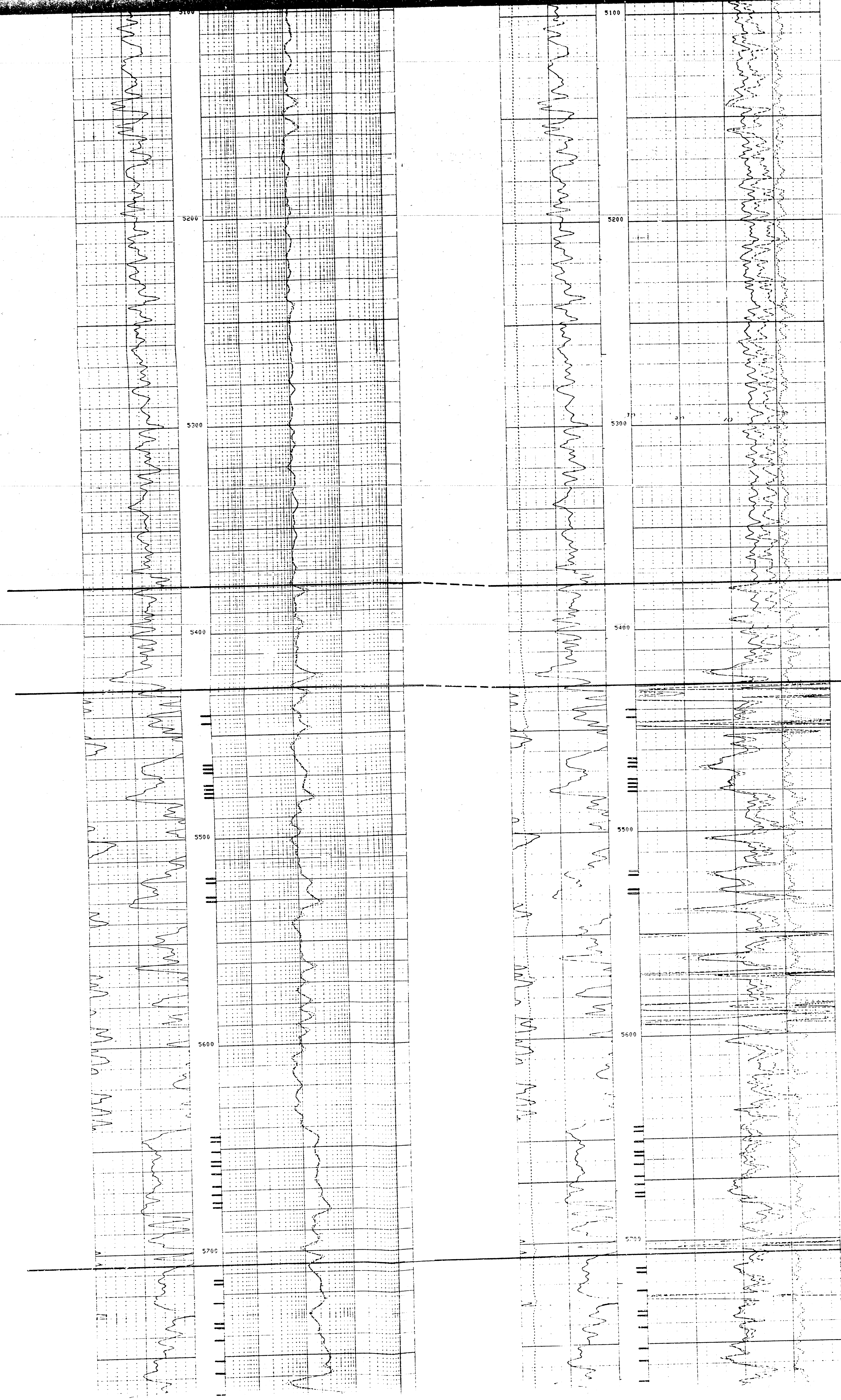
KOCH EXPLORATION
GARDNER NO. 5
SW/4, SEC. 26-T32N-R9W
KB 6582 IP 1800 MCF



V.P.C.F. MICROFILMS



BEST AVAILABLE COPY



CLIFF HOUSE
5377 (+1205)

MENEFEE
5427 (+1155)

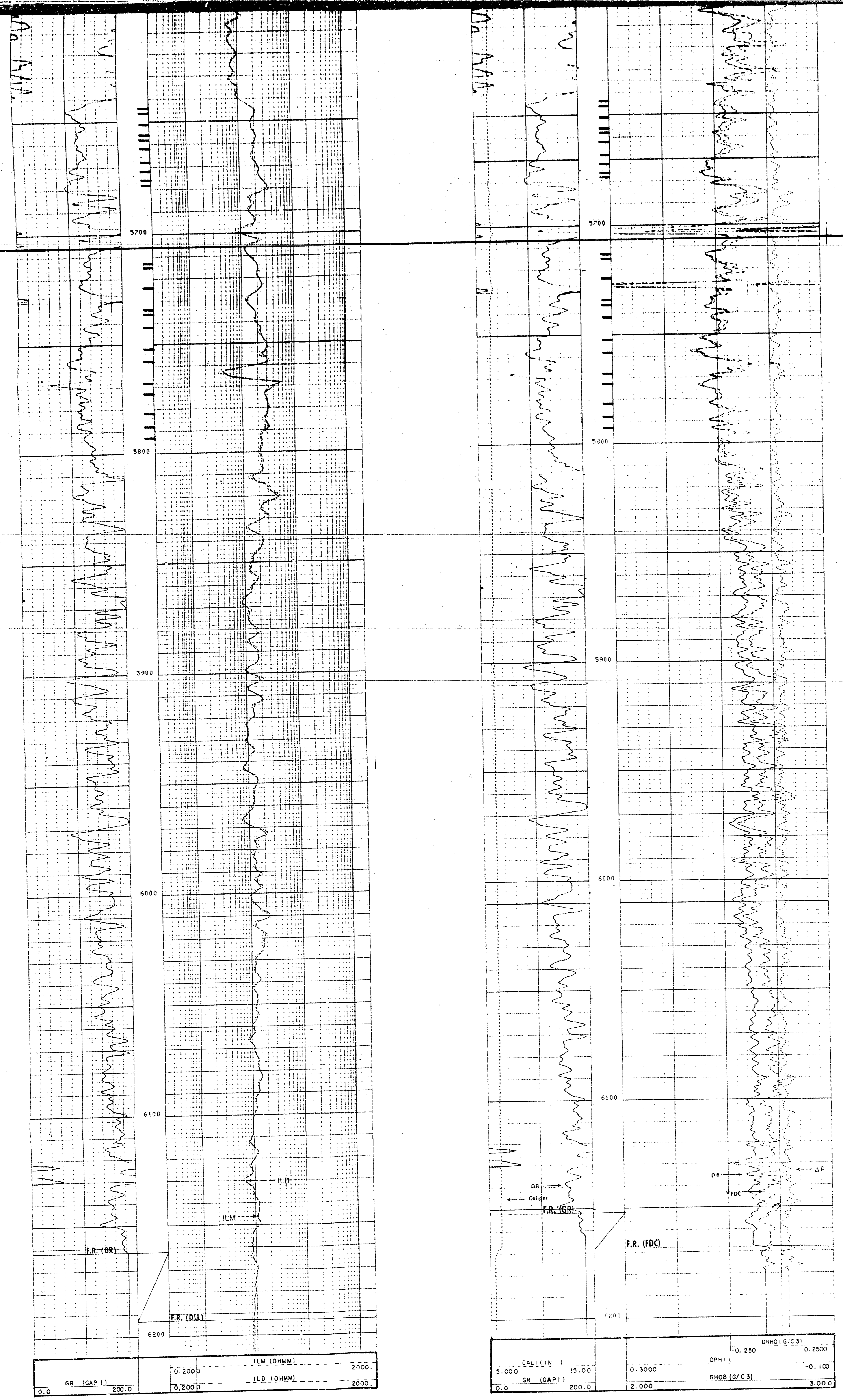
POINT LOOKOUT
5706 (+876)

U.S.G.P. MICROGRAPHS



BEST AVAILABLE COPY

POINT LOOKOUT
5706 (+876)

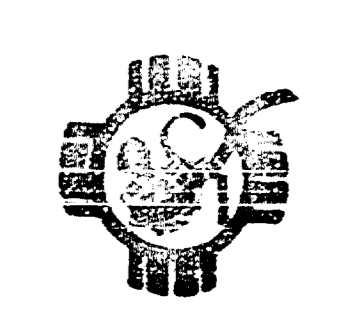


GR (GAP I) 0.0 200.0
 ILM (OHMM) 0.200 200.0
 ILM (OHMM) 0.200 200.0

GR (GAP I) 0.0 200.0
 ILM (OHMM) 0.200 200.0
 ILM (OHMM) 0.200 200.0
 GR (GAP I) 0.0 200.0
 ILM (OHMM) 0.200 200.0

DEFENSE EXAMINER NUTTER
 MIDDLEBURY COLLEGE
 CASE NO. 7209

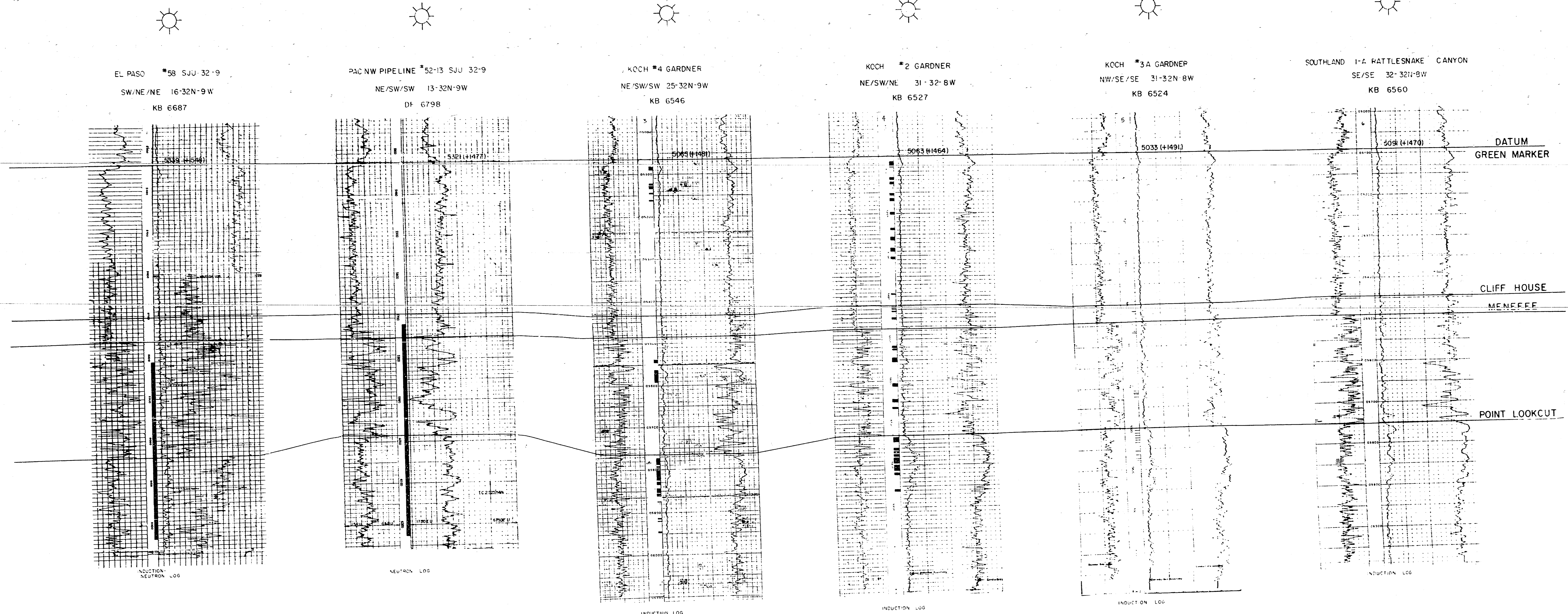
KOCH
 EXPLORATION COMPANY
 MIDCONTINENT DIVISION
 RATTLESNAKE CANYON TIGHT FORMATION AREA
 SAN JUAN CO., NEW MEXICO
 TYPE LOG MESAVERDE
 1" = 20'
 FEB. 1981
 DATE



POST ATLAS COPY

A
WEST

A'
EAST



KOCH
EXPLORATION COMPANY
ROCKY MOUNTAIN DIVISION

RATTLESNAKE CANYON TIGHT FORMATION AREA
DATE OF SURVEY NAME

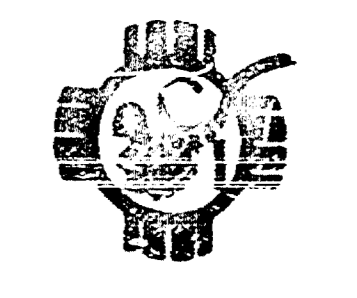
LOG DATA: S.W. 16-32N-9W

STATION: PAC NW PIPELINE #52-13 SJJ 32-9
TYPE OF STATION

MAPPED POINT: GREEN MARKER
DATE: C.D.M.

EXHIBIT NO. 3 INDEX NO.

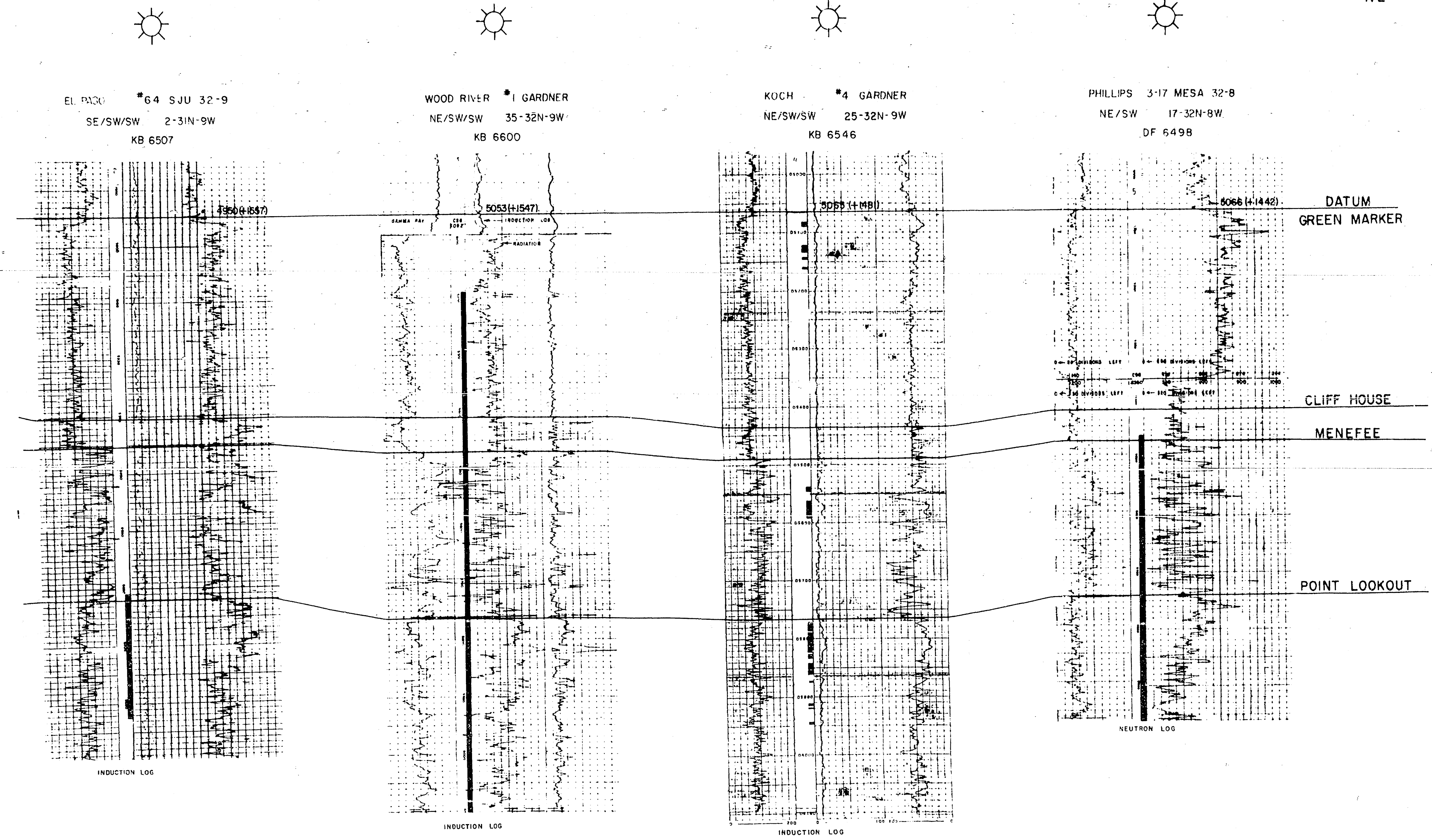
WELLS: FOSBER RUTTER
C.D.M. 11/20/57
Koch EL PASO FIG. 3
CASE NO. 7209



API ATLAS 1957

B
SW

B'
NE



BEFORE EXAMINER MUTTER
OIL CONSERVATION DIVISION
Koch EXHIBIT NO. 4
CASE NO. 7209

KOCH
EXPLORATION COMPANY

ROCKY MOUNTAIN DIVISION

RATTLESNAKE CANYON TIGHT FORMATION AREA
AREA OR DISTRICT NAME

SAN JUAN Co. NEW MEXICO
LOCATION

STRATIGRAPHIC CROSS-SECTION B-B'
TYPE OF ILLUSTRATION

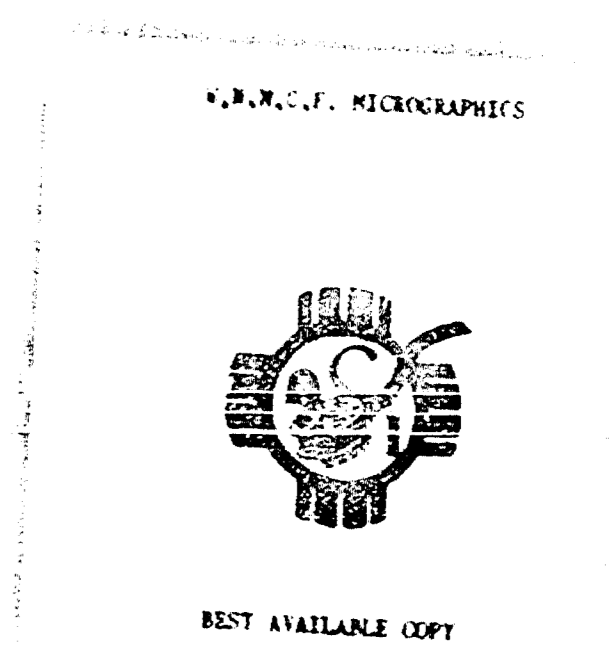
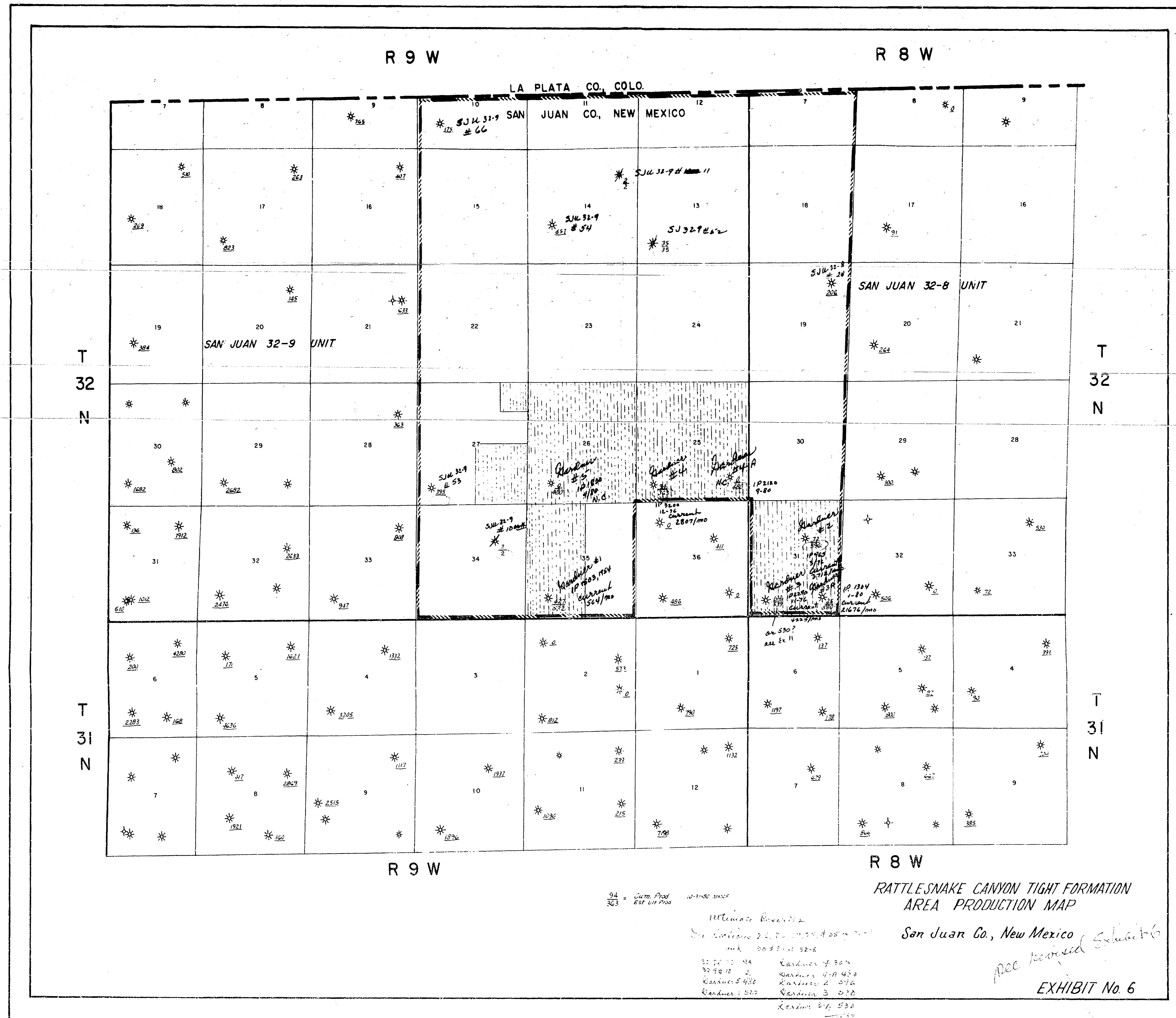
MAPPED HORIZON: GREEN MARKER
C. D. M. DATE: Ver. 1"=100' Horizontal
SCALE

EXHIBIT NO. 4 INDEX NO.

V.P.A.C. RECORD NO.



RECYCLED COPY



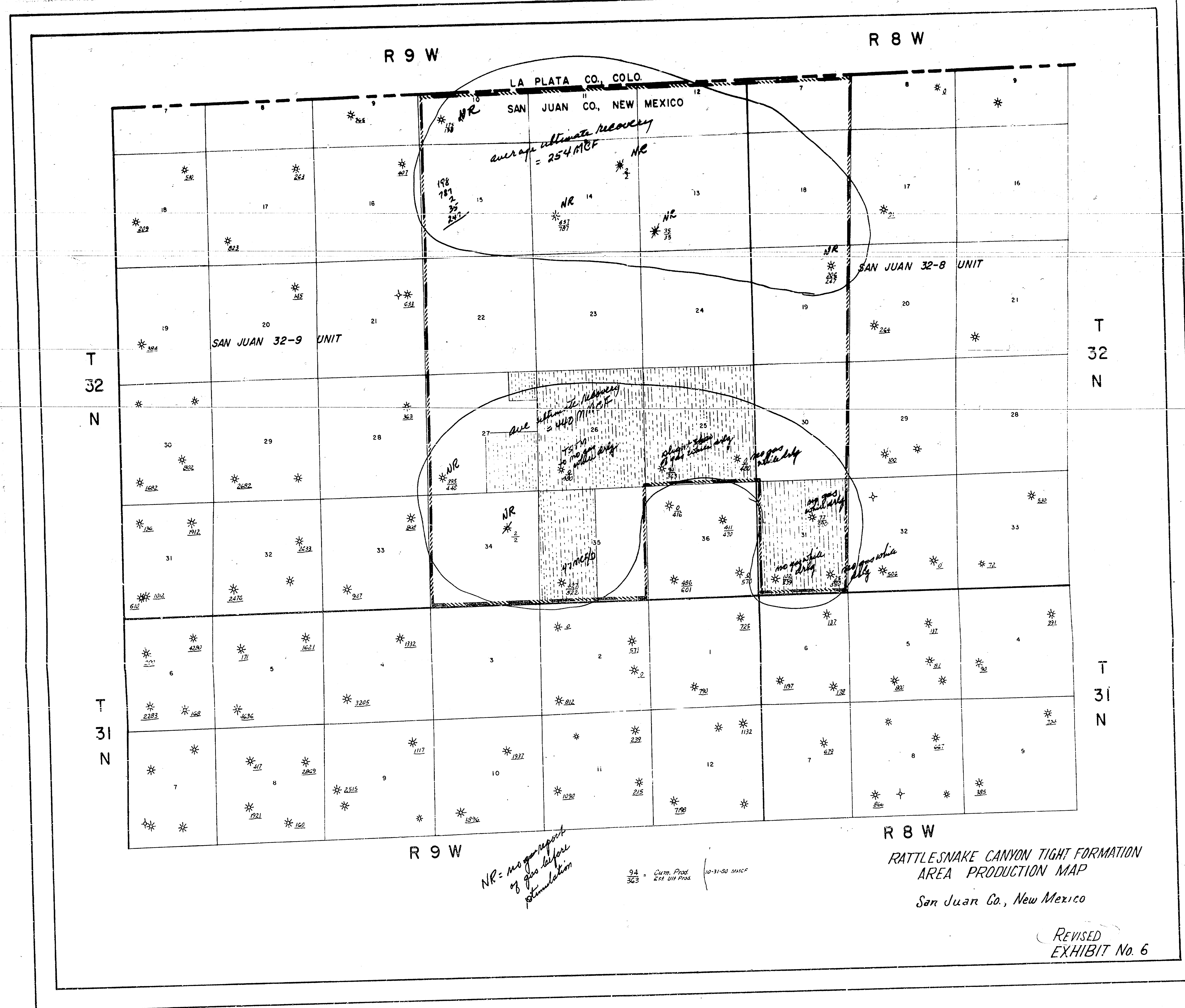
REVISED EXHIBIT NO. 6

Exhibit No. 6 has been revised to show estimated ultimate production from all wells in the proposed tight formation area and in Section 36 Township 32 North, Range 9 West. Anticipated ultimate production is based on an economic limit established by Section 102 gas prices.

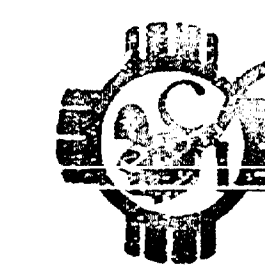
W.A.C. J. MEMORANDUM



NOT AVAILABLE COPY



U.S. GEOLOGICAL SURVEY



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INVESTMENT REQUIRED

YEAR	LAND	REPRICABLE	REPLETABLE	WORKING CAP	CONCRETE	PIPE	WATER	SEWER	STORM	STREET	PROJECT	TOT
0	0	96,600	201,700	0	0	0	0	0	0	0	298,300	0
1	0	96,600	201,700	0	0	0	0	0	0	0	298,300	0

LAND REQUIRED

YEAR	PRINCIPAL	PRINCIPAL	INTEREST	DEBT	PAYMENT
TOTAL	0	0	0	0	0

DEBT WARRANTS

YEAR	PRINCIPAL	INTEREST	TOTAL
0	0	0	0
1	0	0	0

REVENUE & COST ESTIMATES

YEAR	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	TOTAL
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
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7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
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25	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

NET CASH INVESTMENT REQUIRED

DCF RATE OF RETURN 5.08 PER CENT

PAYBACK PERIOD 10.37 YEARS

DCF RATE OF RETURN 6.98 PER CENT

PAYBACK PERIOD 9.42 YEARS

W.P.C. ENGINEERING



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EXHIBIT NO. 13
ECONOMIC CALCULATIONS
RATTLESNAKE CANYON TIGHT FORMATION AREA
BLANCO MESA MINEFIELD, T. FIELD
SAN JUAN COUNTY, NEW MEXICO

CURRENT DATE 02/04/81
DIMENSION ANALYSIS QUANTITIES AREA WELL LOG, AT MINIMUM 1000-1000-1000-1000 PROJECT LIFE 25 YEARS TAX RATE .4800 PER 100

DISCOUNT RATE 10.00%

YEAR	LAND	DEPRECIABLE	DEPLETABLE	MINING CAP	CONVULS	SALV	INVEST TAX CREDIT	PROJECT ITC
0	0	96,000	300,000	0	0	400,000	4	25.0
1-25	0	96,000	300,000	0	0	400,000	4	25.0

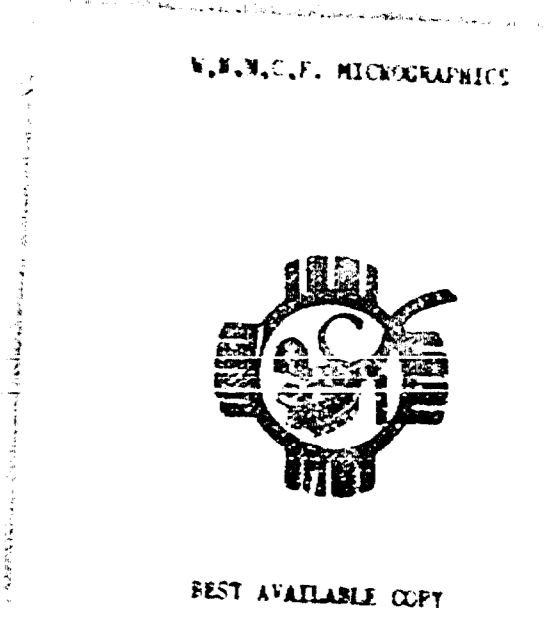
LOANS REQUIRED

YEAR	PRINCIPAL	INTEREST PERIOD	DEBT RATE	PAIDMENT	REMAINING
TOTAL	0				

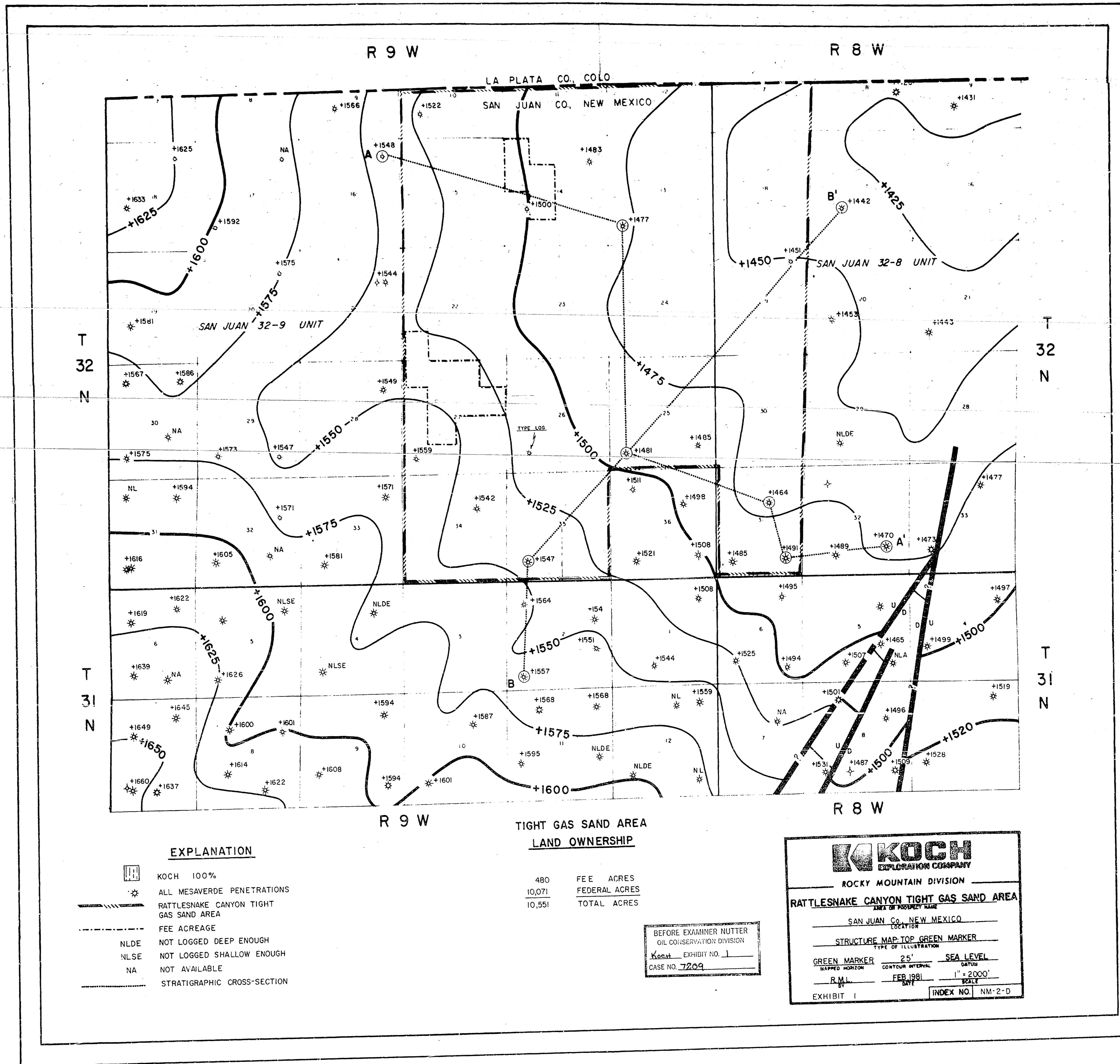
INPUT VARIABLES - WORKING INTEREST 0.00
FISCAL INTEREST 0.00
PRODUCTION TAX RATES GAS .060000
PRINCIPAL PRODUCE GAS .000000

REVENUE & COST ESTIMATIONS

YEAR	QTY	PRICE	REVENUE	OPERATING COST	PRODUCTION TAX	OVERHEAD COST
0-1	95	29,778	2,830	71,135	4,800	5,454
1-2	95	29,810	2,830	71,145	4,800	5,464
2-3	95	29,842	2,830	71,155	4,800	5,474
3-4	95	29,874	2,830	71,165	4,800	5,484
4-5	95	29,906	2,830	71,175	4,800	5,494
5-6	95	29,938	2,830	71,185	4,800	5,504
6-7	95	29,970	2,830	71,195	4,800	5,514
7-8	95	30,002	2,830	71,205	4,800	5,524
8-9	95	30,034	2,830	71,215	4,800	5,534
9-10	95	30,066	2,830	71,225	4,800	5,544
10-11	95	30,098	2,830	71,235	4,800	5,554
11-12	95	30,130	2,830	71,245	4,800	5,564
12-13	95	30,162	2,830	71,255	4,800	5,574
13-14	95	30,194	2,830	71,265	4,800	5,584
14-15	95	30,226	2,830	71,275	4,800	5,594



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EXPLANATION

	KOCH 100%
	ALL MESAVERDE PENETRATIONS
	RATTLESNAKE CANYON TIGHT GAS SAND AREA
	FEE ACREAGE
	NOT LOGGED DEEP ENOUGH
	NOT LOGGED SHALLOW ENOUGH
	NOT AVAILABLE
	STRATIGRAPHIC CROSS-SECTION

**TIGHT GAS SAND AREA
LAND OWNERSHIP**

480	FEE ACRES
10,071	FEDERAL ACRES
10,551	TOTAL ACRES

BEFORE EXAMINER NUTTER
OIL CONSERVATION DIVISION
Koch EXHIBIT NO. 1
CASE NO. 7209

KOCH
EXPLORATION COMPANY
ROCKY MOUNTAIN DIVISION

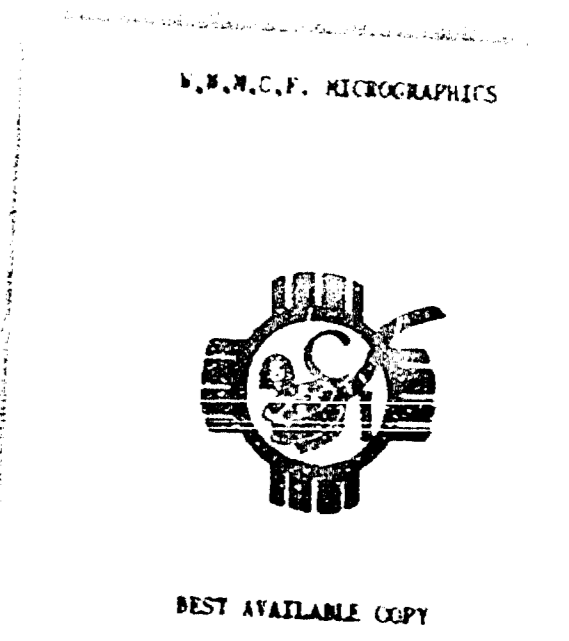
RATTLESNAKE CANYON TIGHT GAS SAND AREA
SAN JUAN Co. NEW MEXICO

STRUCTURE MAP-TOP GREEN MARKER
TYPE OF ILLUSTRATION

GREEN MARKER 25' SEA LEVEL
DATE

R.M.L. FEB 1981 1" = 2000'
DATE

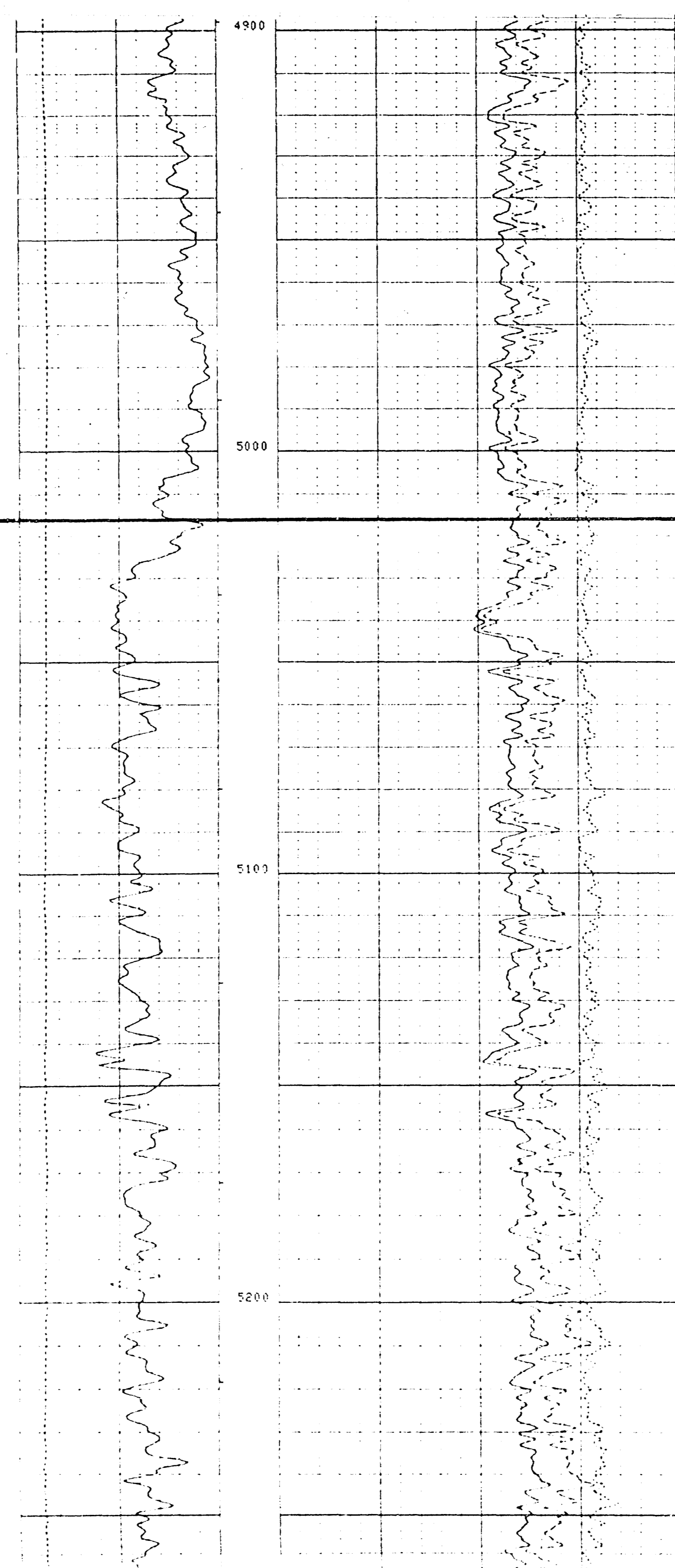
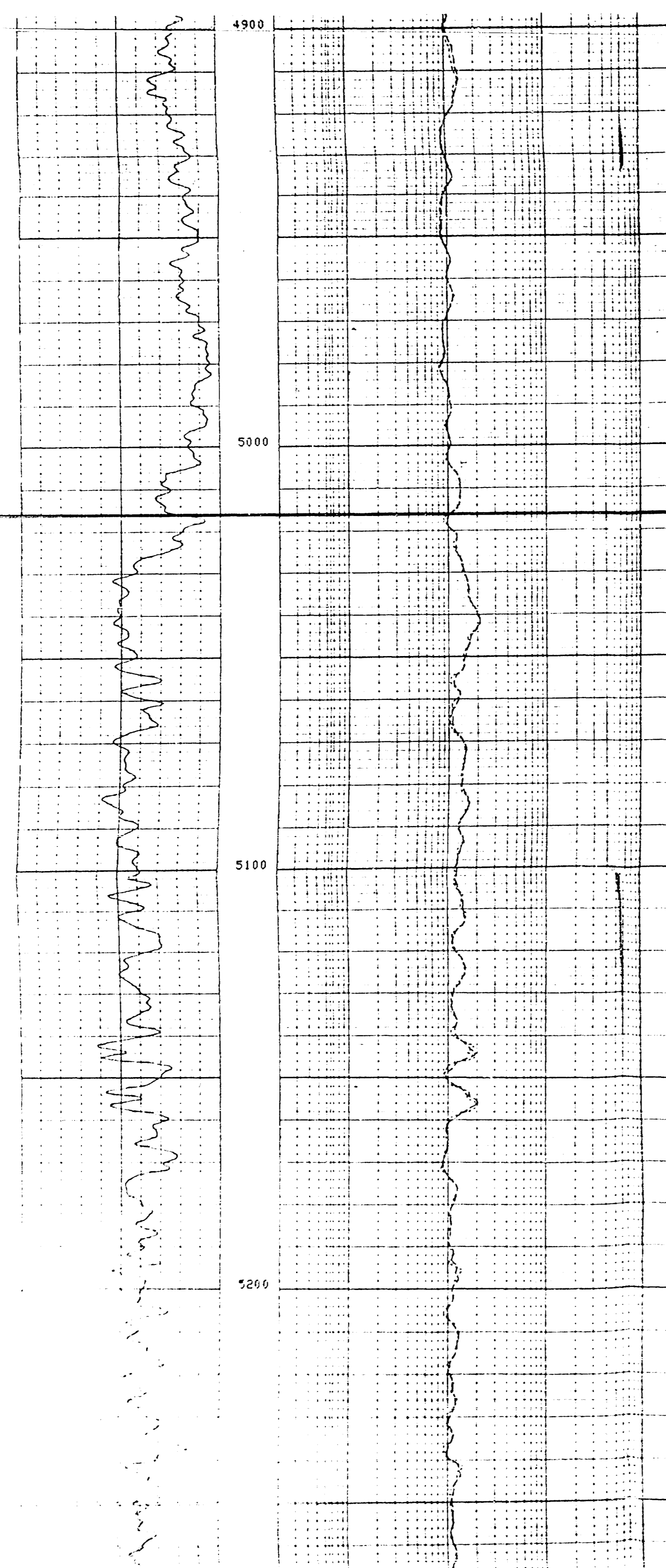
EXHIBIT 1 INDEX NO. NM-2-D



TYPE LOG MESAVERDE
RATTLESNAKE CANYON TIGHT FORMATION AREA
BLANCO MESAVERDE FIELD
SAN JUAN CO., NEW MEXICO

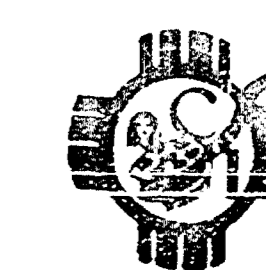
EXHIBIT NO. 2

KOCH EXPLORATION
GARDNER NO. 5
SW/4, SEC. 26-T32N-R9W
KB 6582 IP 1800 MCF

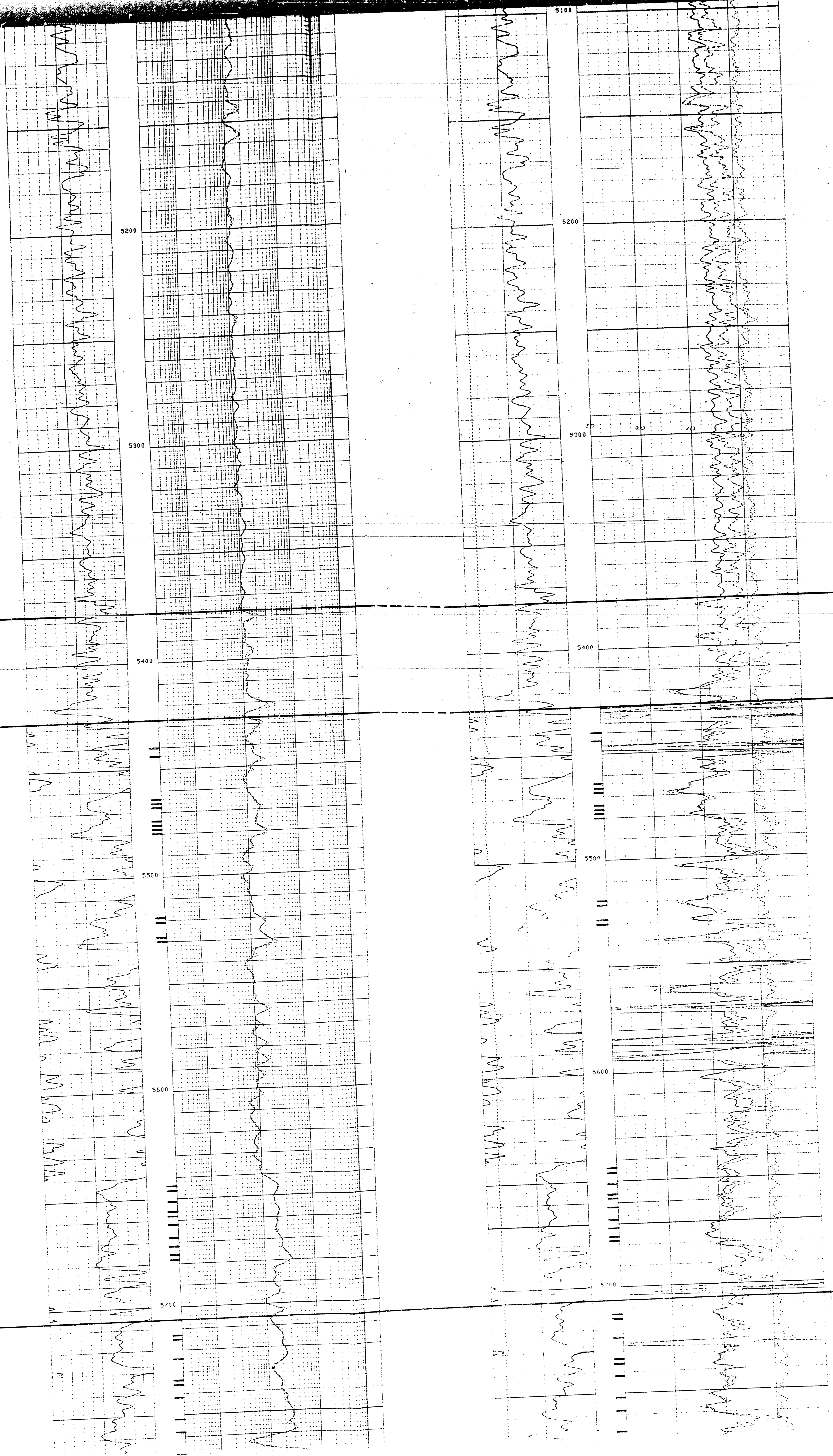


GREEN MARKER
5016 (+1566)

U.S.G.P. MICROFILMS



BEST AVAILABLE COPY



CLIFF HOUSE
5377 (+1205)

MENEFEE
5427 (+1155)

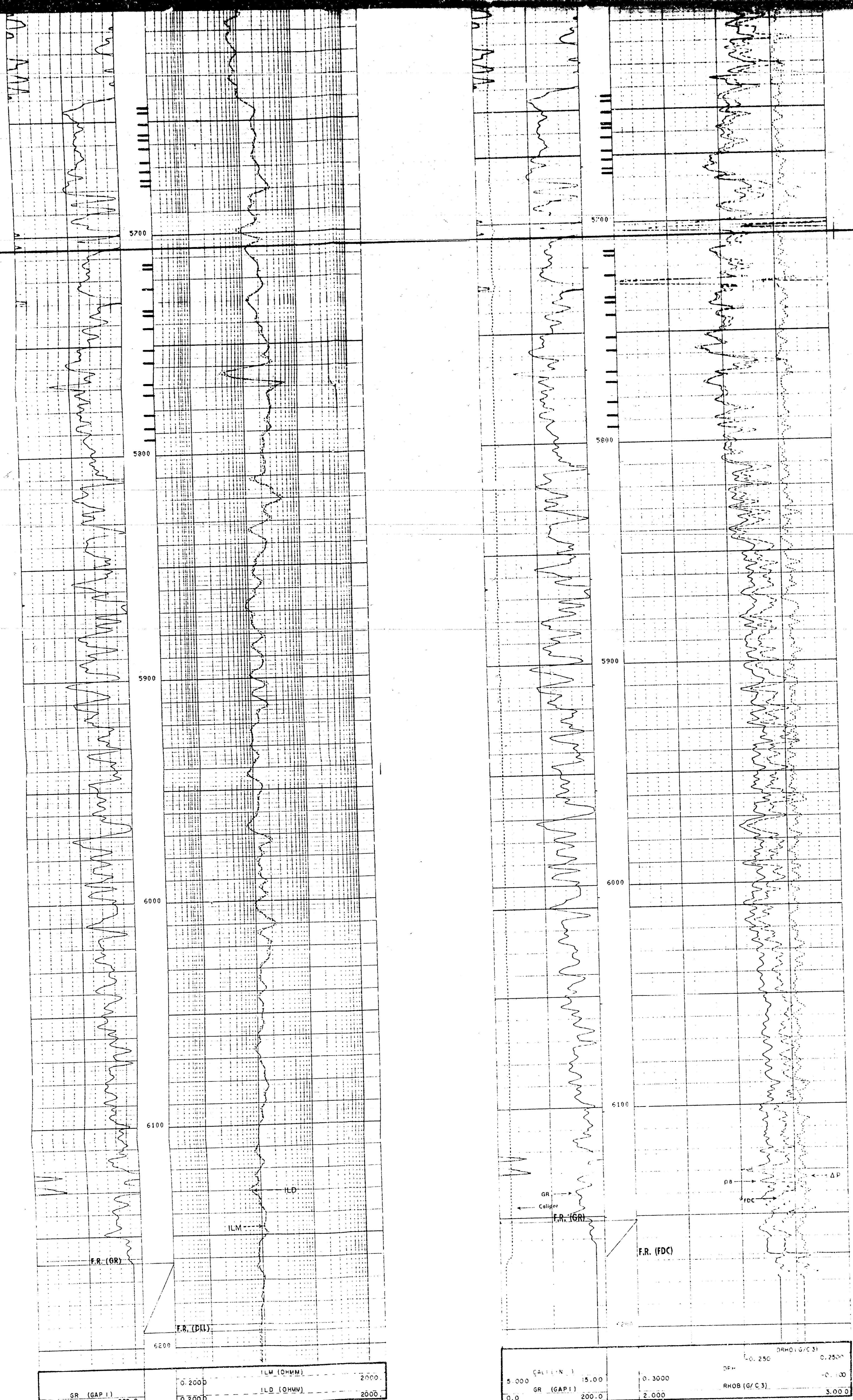
POINT LOOKOUT
5706 (+876)

V.F.W. J. MICROGRAPHICS



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POINT LOOKOUT
5706 (+876)

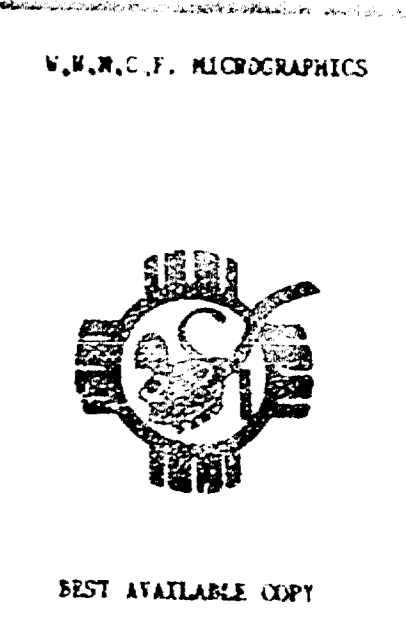


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 ILM (OHMM) 0.200 2000
 L.D. (OHMM) 0.200 2000

GR (GAP.1) 0.0 200.0
 ILM (OHMM) 0.250 2500
 L.D. (OHMM) 0.250 2500
 DE 0.300 3000
 RHOB (G/C.S.) 2.000 3.000

BEFORE EXAMINER NUTTER
 CIL CORRELATION DIVISION
 KOCH - ENHANCE NO. 2
 CASE NO. 7209

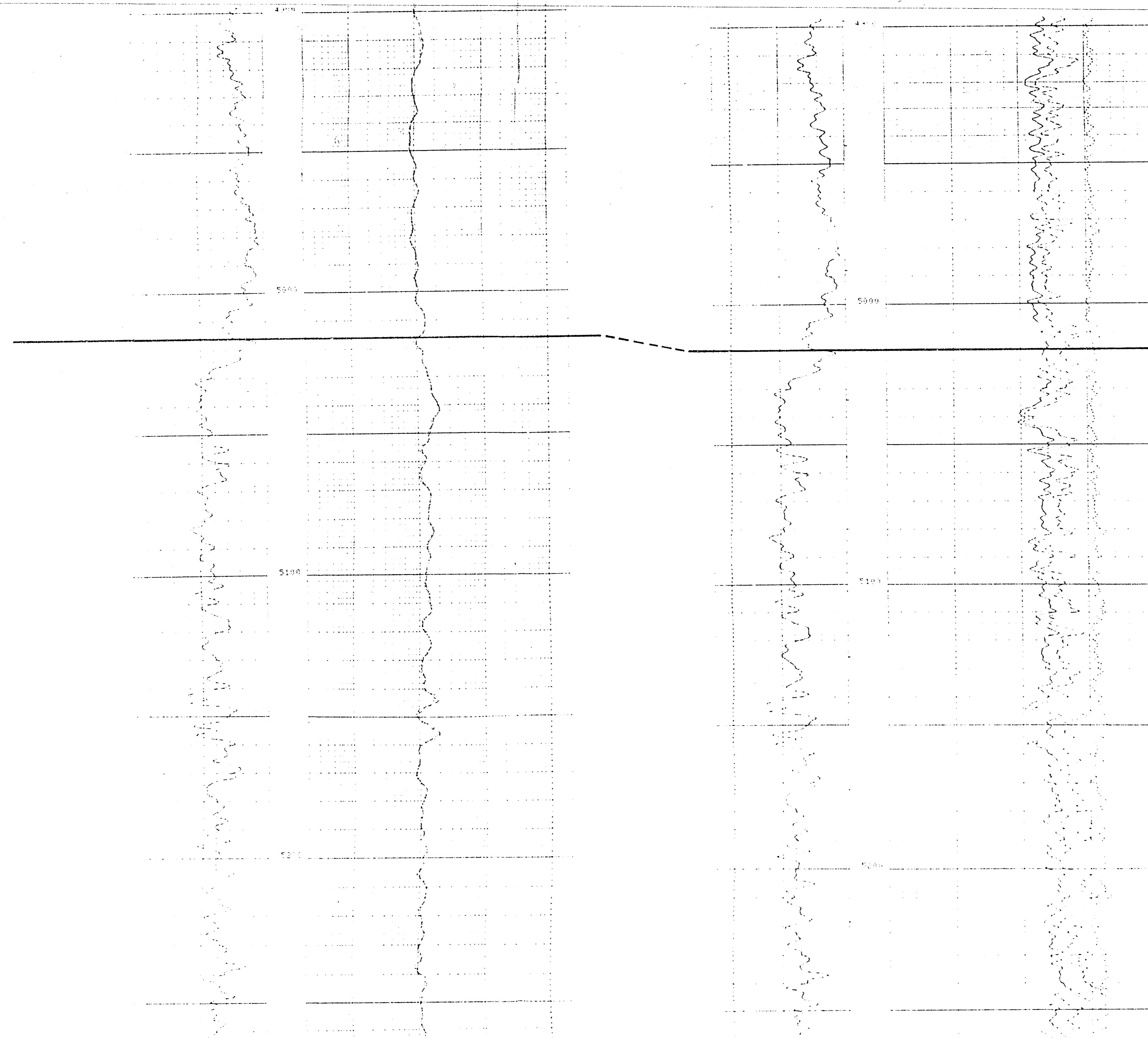
KOCH
 EXPLORATION COMPANY
 MIDCONTINENT DIVISION
 RATTLESNAKE CANYON TIGHT FORMATION AREA
 SAN JUAN CO. NEW MEXICO
 TYPE LOG MESAVERDE
 SCALE 1" = 20'
 DATE FEB. 1981



TYPE LOG MESAVERDE
RATTLESNAKE CANYON TIGHT FORMATION AREA
BLANCO MESAVERDE FIELD
SAN JUAN CO., NEW MEXICO

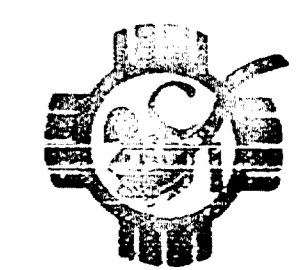
EXHIBIT NO. 2

KOCH EXPLORATION
GARDNER NO 5
SW/4, SEC. 26 T32N-R9W
KB 6582 IP 1800 MCF

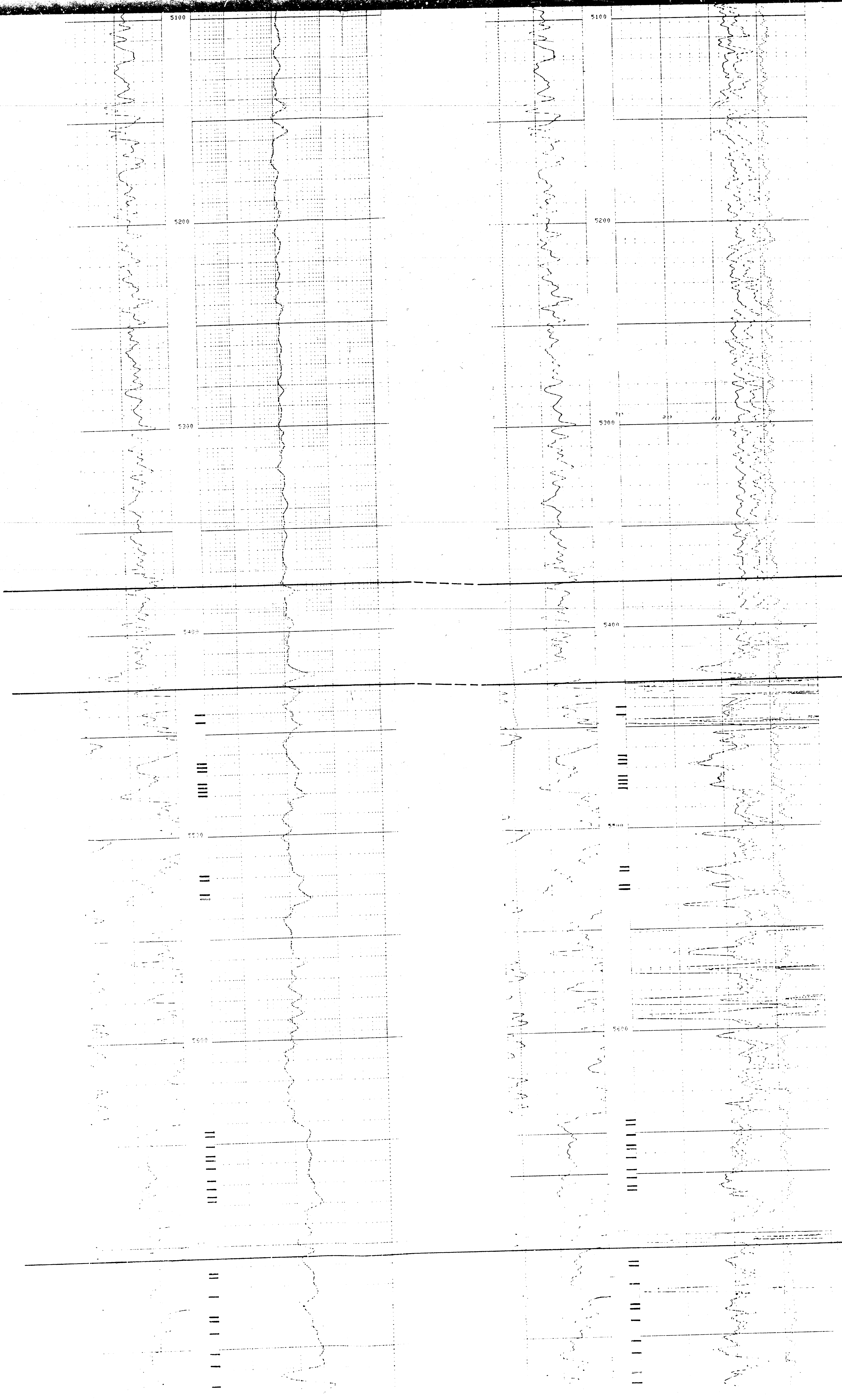


GREEN MARKER
5016 (+1566)

AMERICAN PHOTOGRAPHY



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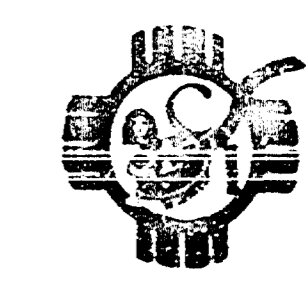


CLIFF HOUSE
5377 (+1205)

MENEFEE
5427 (+1155)

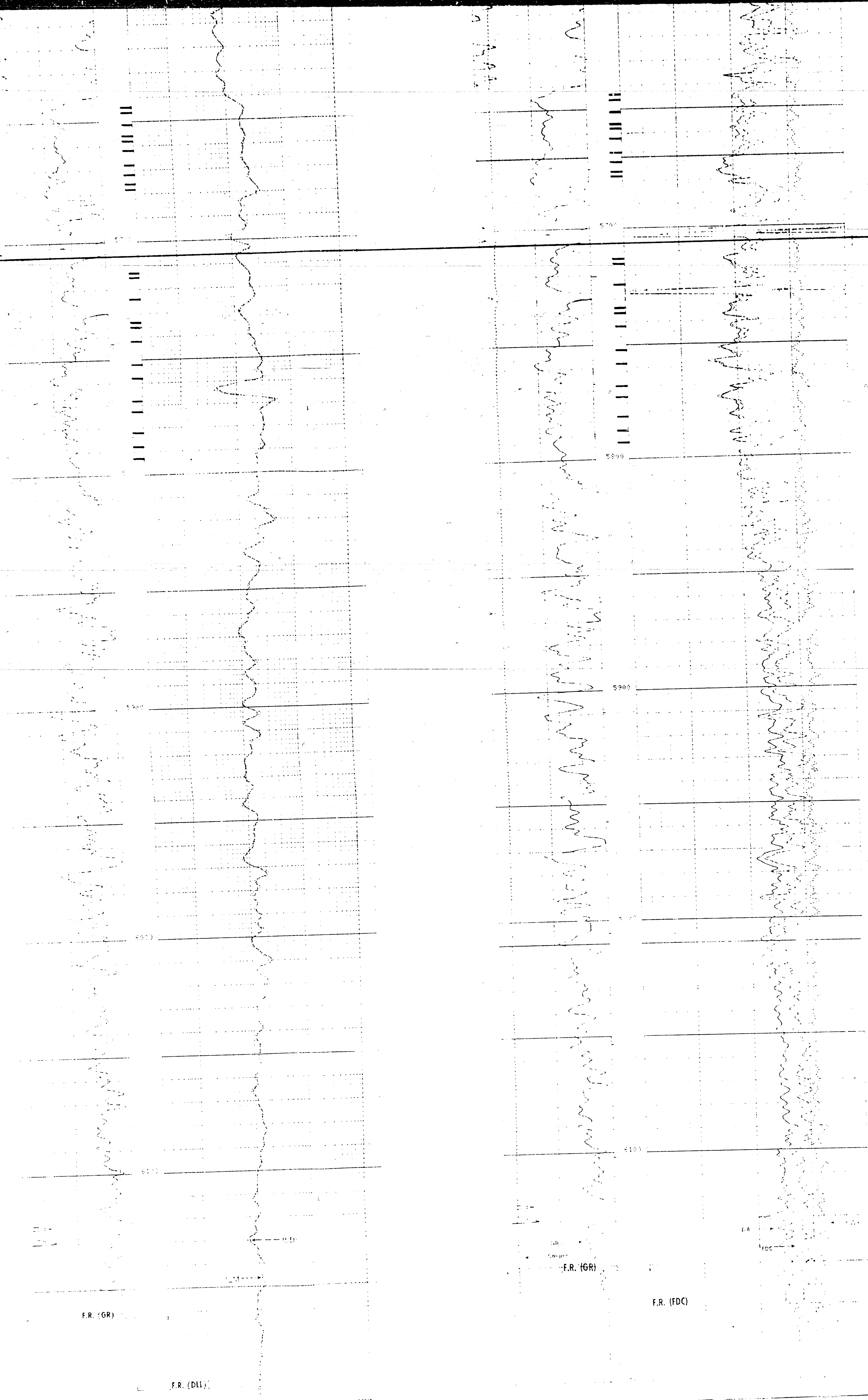
POINT LOOKOUT
5706 (+876)

U.S. GEOLOGICAL SURVEY



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POINT LOOKOUT
5706 (+876)

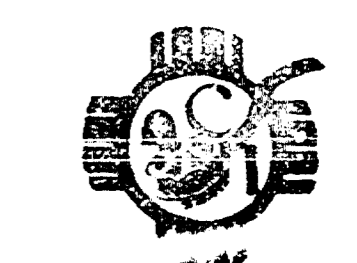


GR (GAP)	200.0	0.200	LD (MM)	25.00
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GR (GAP)	200.0	2.000	RHOB (G/CM3)	3.000
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KOCH
EXPLORATION COMPANY
MIDCONTINENT DIVISION
RATTLESNAKE CANYON TIGHT FORMATION AREA
SAN JUAN CO., NEW MEXICO
TYPE LOG MESAVERDE
FEB. 1981

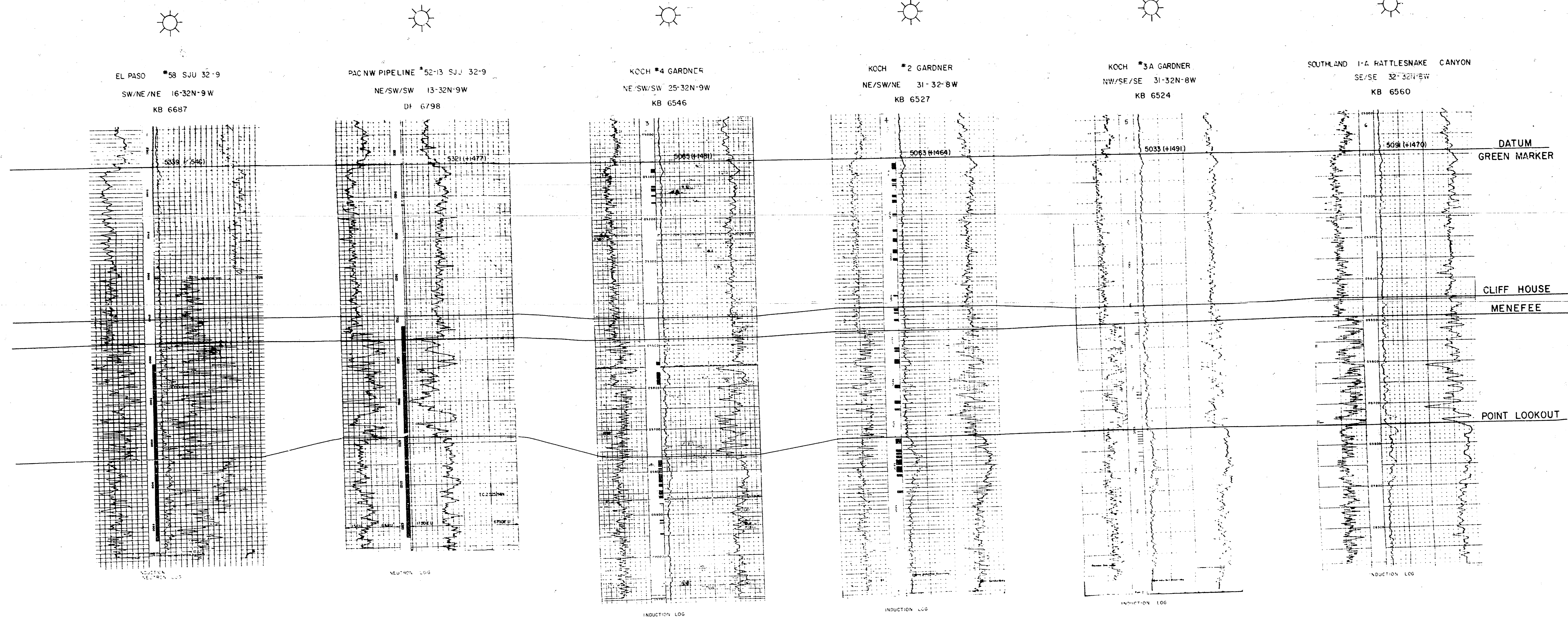
U.S. GEOLOGICAL SURVEY



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A
WEST

A'
EAST



BEFORE EXAMINER NUTTER
OIL CONSERVATION DIVISION
Koch - EXHIBIT NO. 3
CASE NO. 7209

KOCH
EXPLORATION COMPANY
ROCKY MOUNTAIN DIVISION

RATTLESNAKE CANYON TIGHT FORMATION AREA
AREA OR PROSPECT NAME

SAN JUAN Co., N. W. MEXICO
SECTION

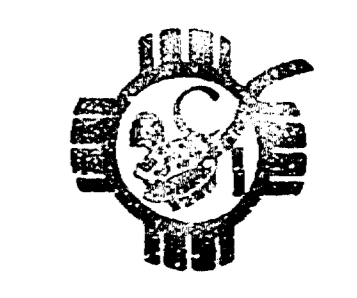
STRATIGRAPHIC CROSS-SECTION A-A'
TYPE OF ILLUSTRATION

GREEN MARKER
CORRELATION

VERT. 1" = 100' No. HORIZ.
SCALE

EXHIBIT NO. 3 INDEX NO.

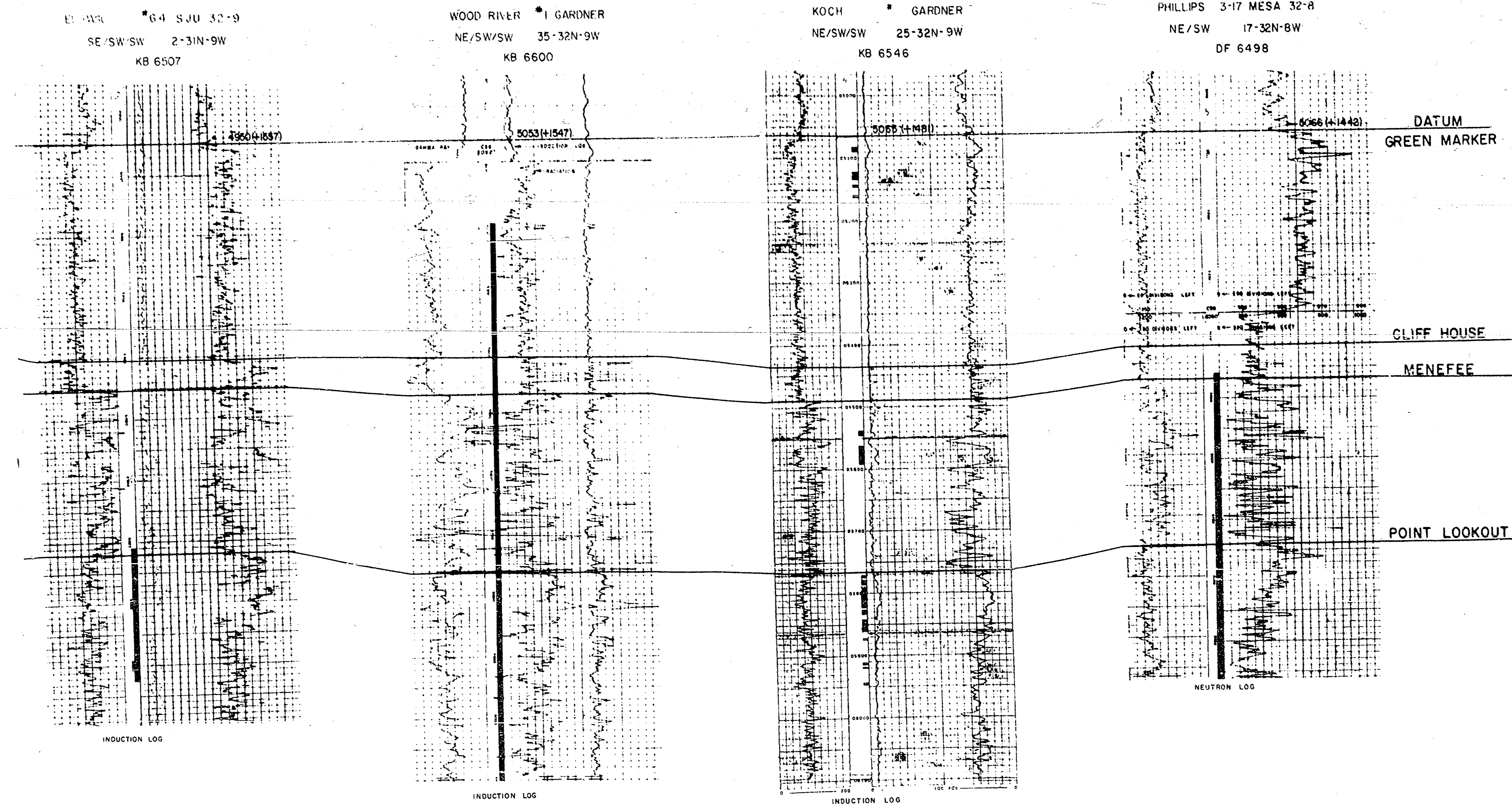
V.P.A.C. MICROGRAPHS



NOT AT ALL A COPY

B
SW

B'
NE



BEFORE EXAMINER NUTTER
OIL CONSERVATION DIVISION
Koch EXHIBIT NO. 4
CASE NO. 7209

KOCH
EXPLORATION COMPANY

ROCKY MOUNTAIN DIVISION

RATTLESNAKE CANYON TIGHT FORMATION AREA
AREA OR TIGHTNESS NAME

SAN JUAN Co. NEW MEXICO
LOCATION

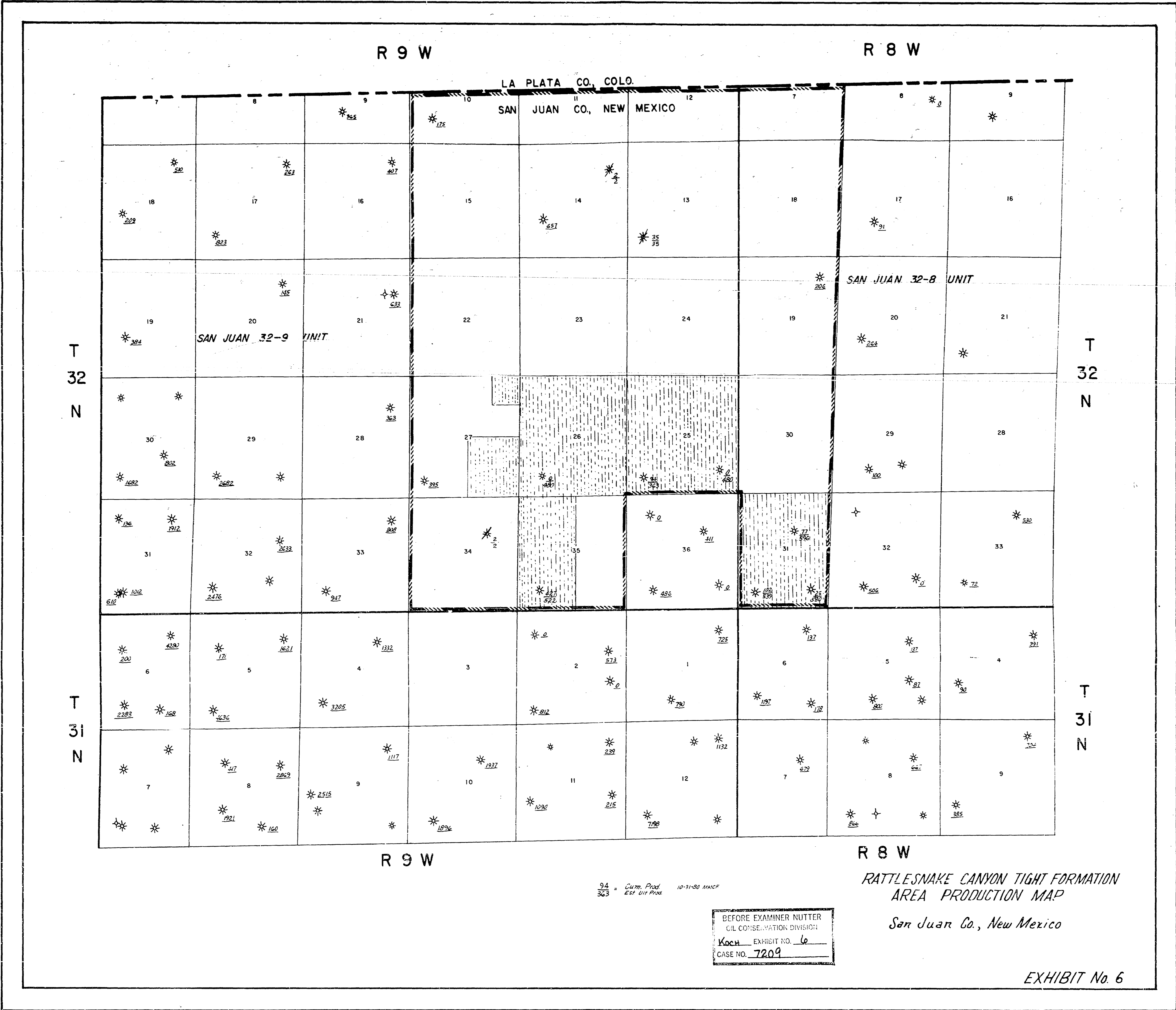
STRATIGRAPHIC CROSS-SECTION B-B'
TYPE OF ILLUSTRATION

MAPPED HORIZON: C. D. M. CONTOUR INTERVAL: 50' GREEN MARKER: DATUM

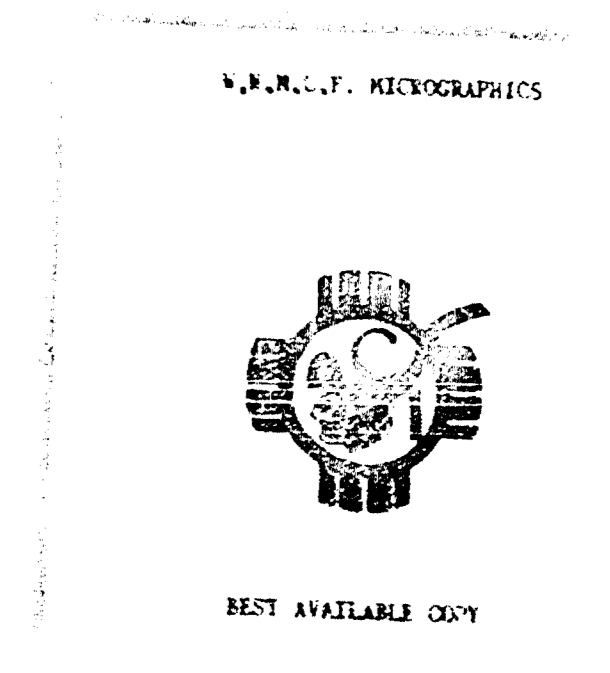
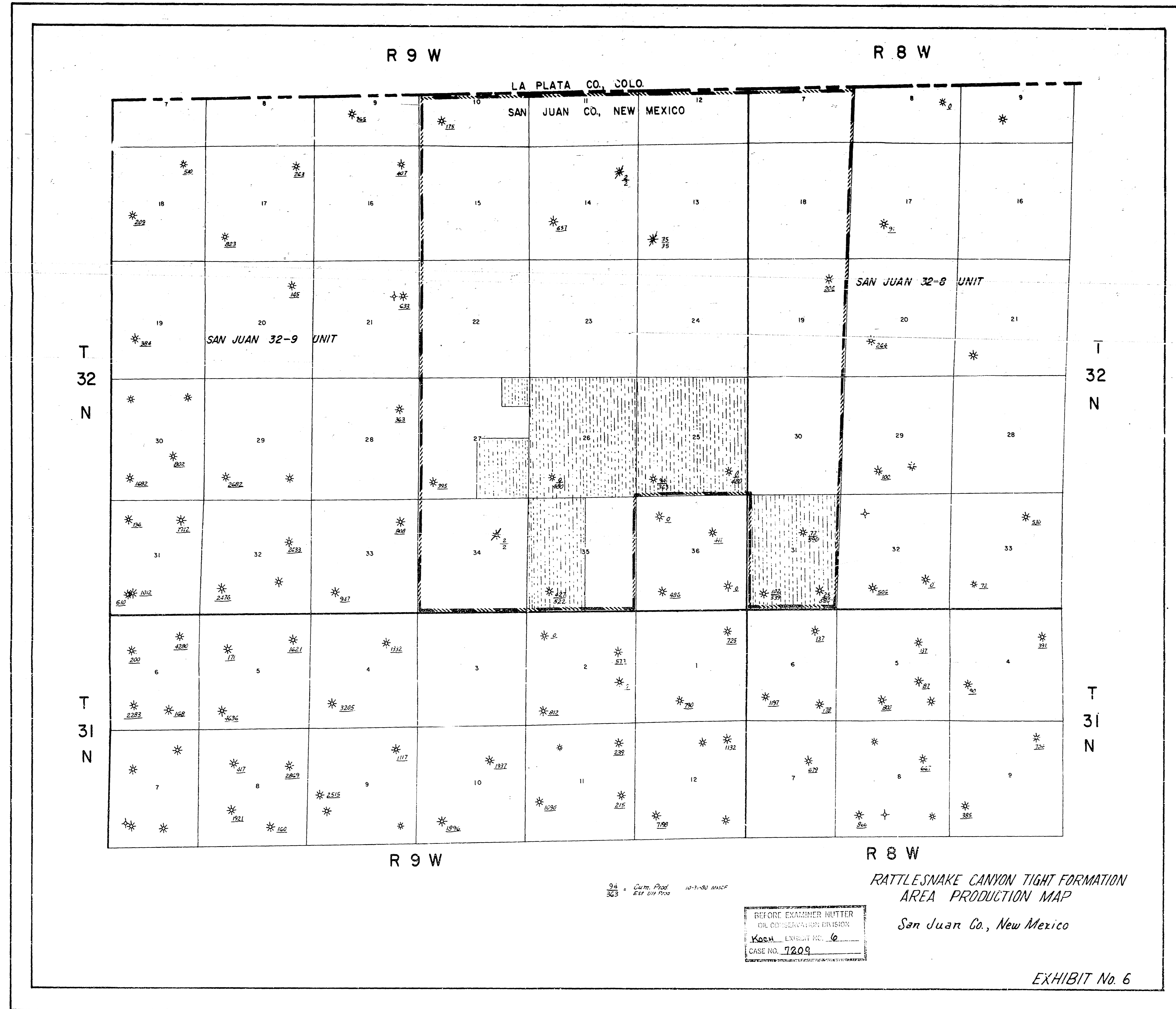
DATE: VERT. SCALE: 1"=100' NG 1927
RECYCLED

EXHIBIT NO. 4 INDEX NO. 4





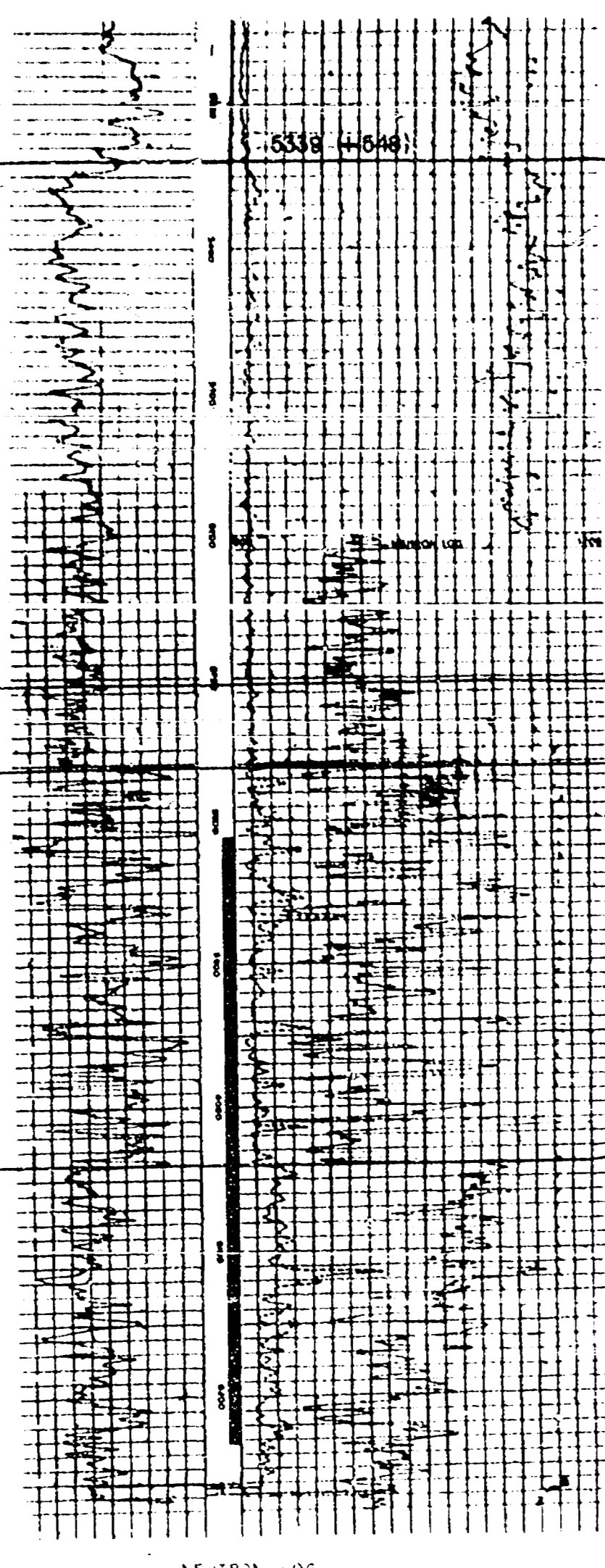
NEW MEXICO STATE OIL AND GAS COMMISSION



A
WEST

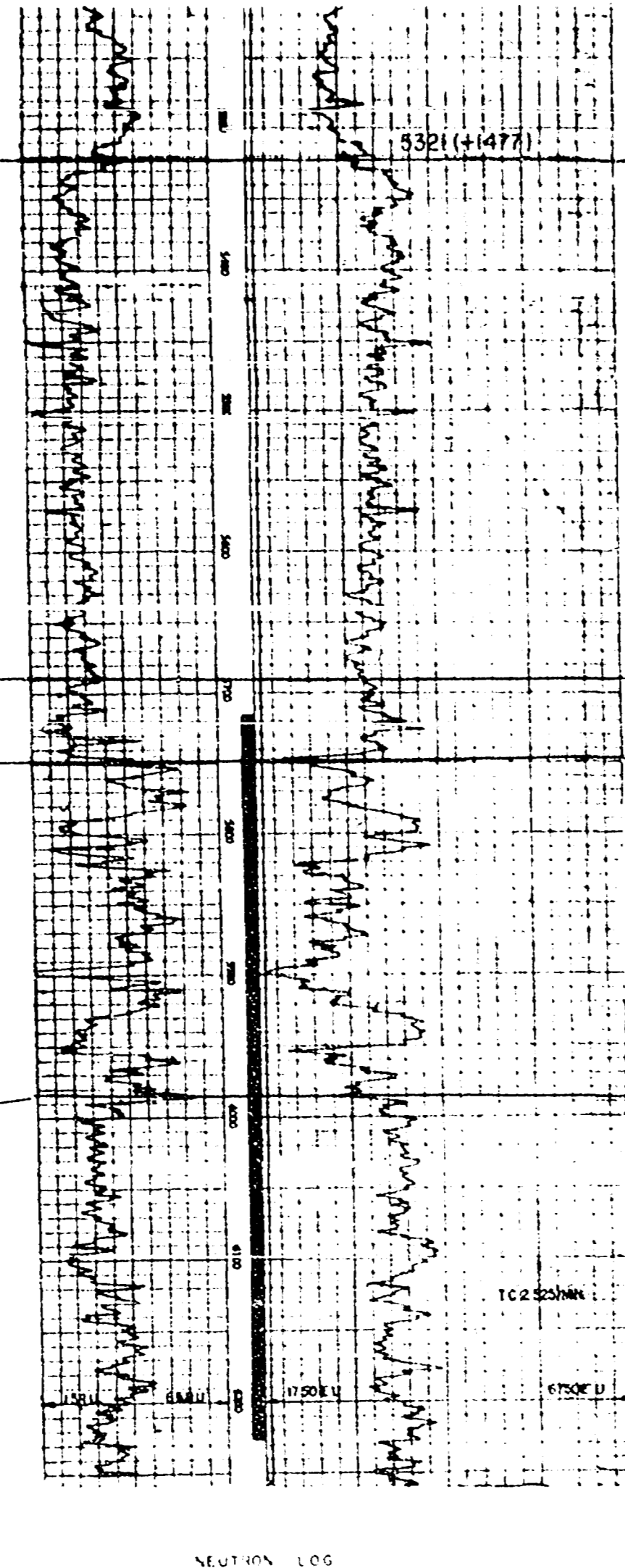
A
EAST

EL PASO #58 SJU 32-9
SW/NE/NE 16-32N-9W
KB 6687



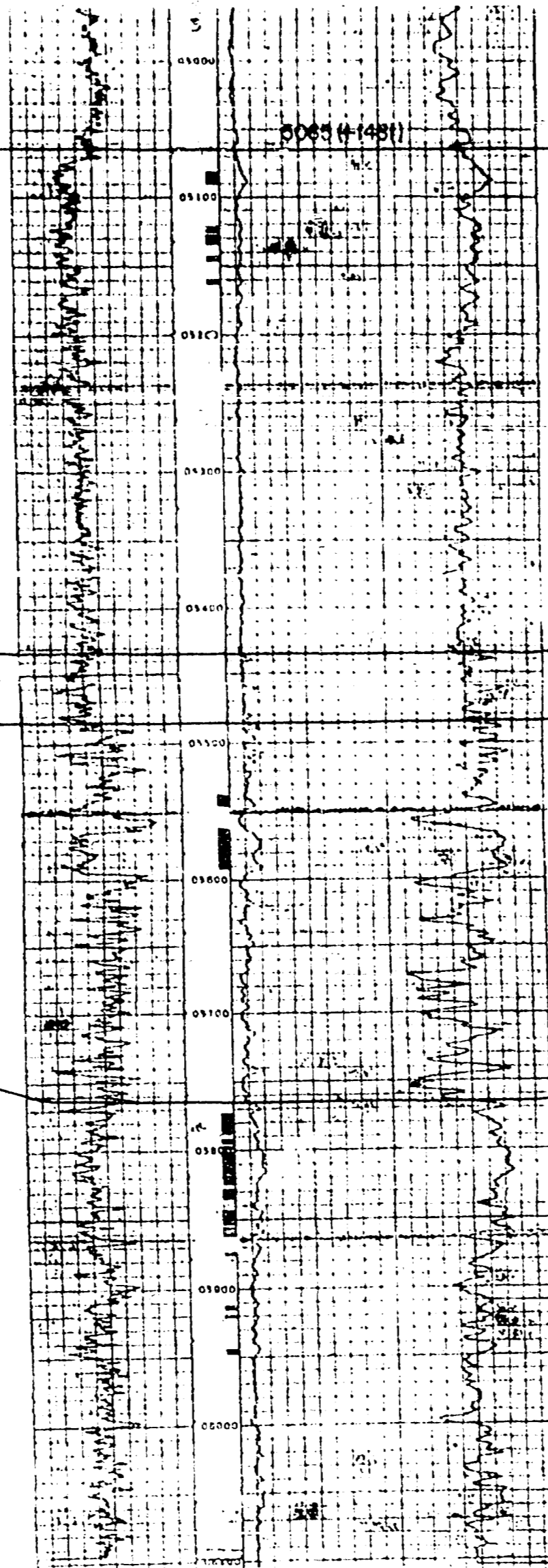
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PAC NW PIPELINE #52-13 SJU 32-9
NE/SW/SW 13-32N-9W
DF G798



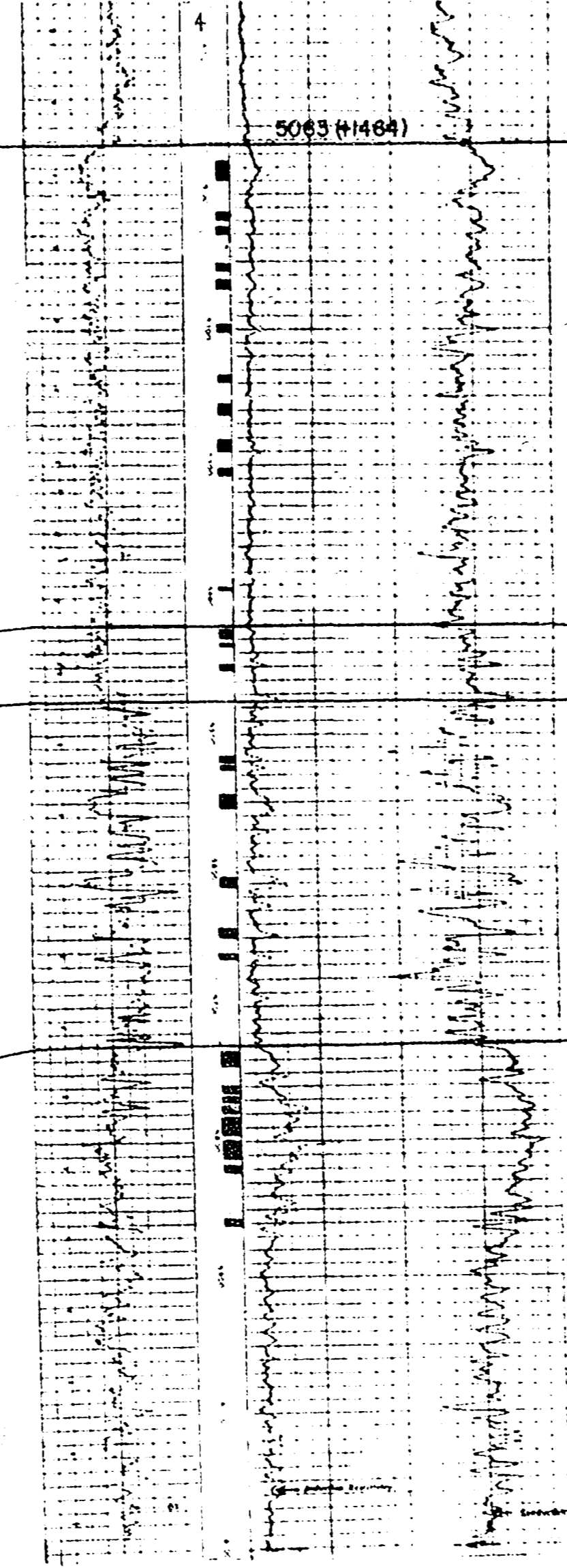
5690

KOCH #4 GARDNER
NE/SW/SW 25-32N-9W
KB 6546



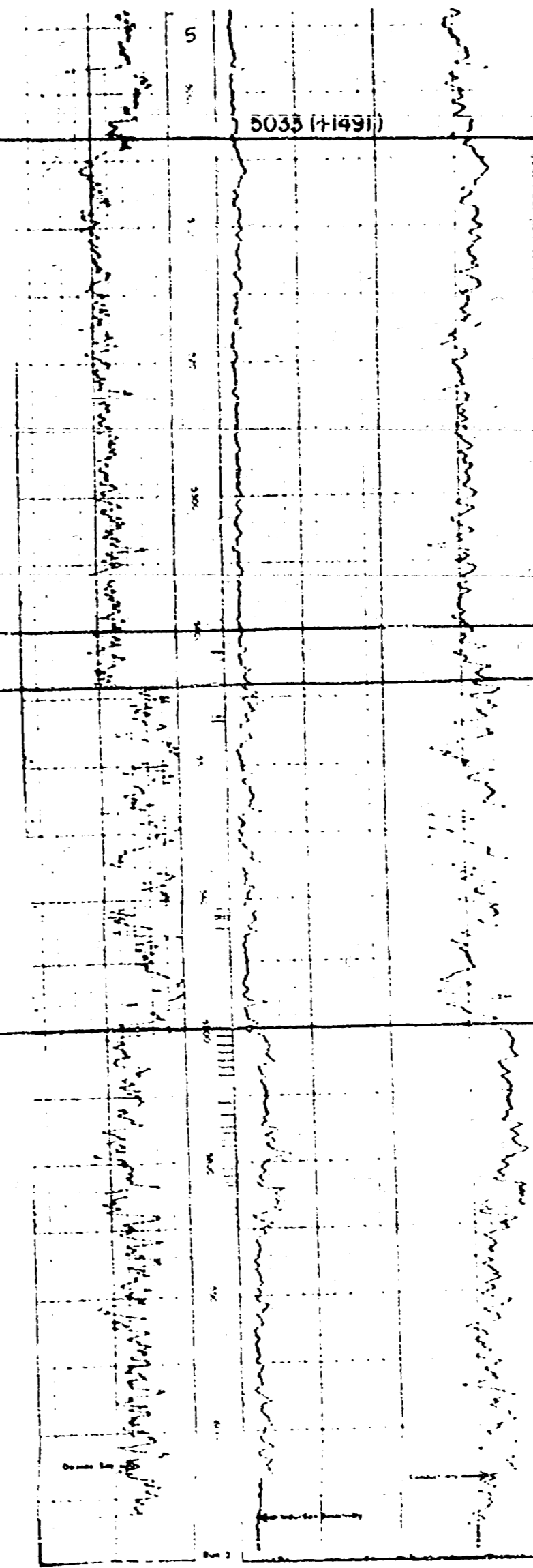
5435

KOCH #2 GARDNER
NE/SW/NE 31-32-8W
KB 6527



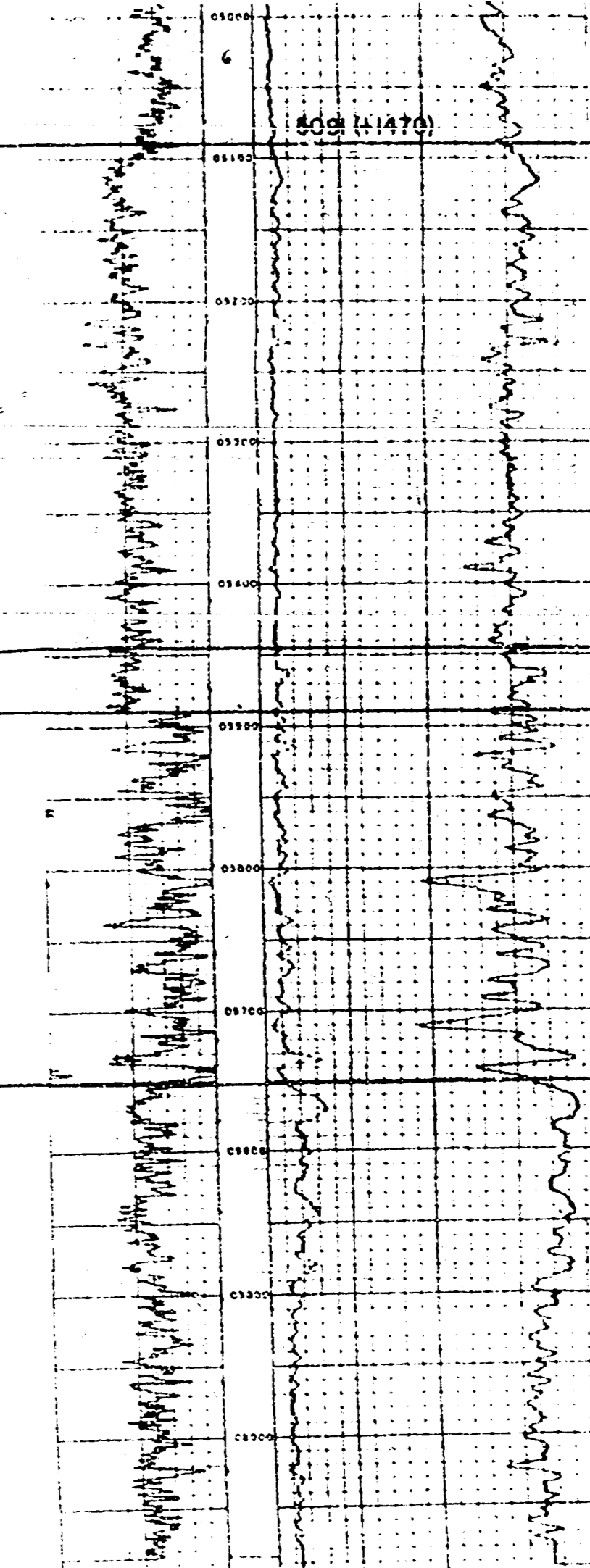
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KOCH #3A GARDNER
NW/SE/SE 31-32N-8W
KB 6524



5400

SOUTHLAND I-A RATTLESNAKE CANYON
SE/SE 32-32N-8W
KB 6560



5445

DATUM
GREEN MARKER

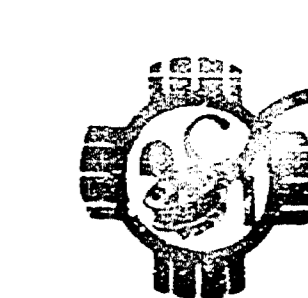
CLIFF HOUSE
MENELEE

POINT LOOKOUT

KOCH EXPLORATION COMPANY	
ROCKY MOUNTAIN DIVISION	
RATTLESNAKE CANYON TIGHT FORMATION AREA	
AREA OR PROJECT NAME	
SAN JUAN Co. NEW MEXICO	
LOCATION	
STRATIGRAPHIC CROSS-SECTION A-A'	
TYPE OF ILLUSTRATION	
MARKED HORIZON	CONTOUR INTERVAL
C. D. M.	DATE
BY	DATE
EXHIBIT NO. 3	INDEX NO.

W. M. C. J. MICROGRAPHS
NO. 100-1001 DIV. #1788 CASE # 7207

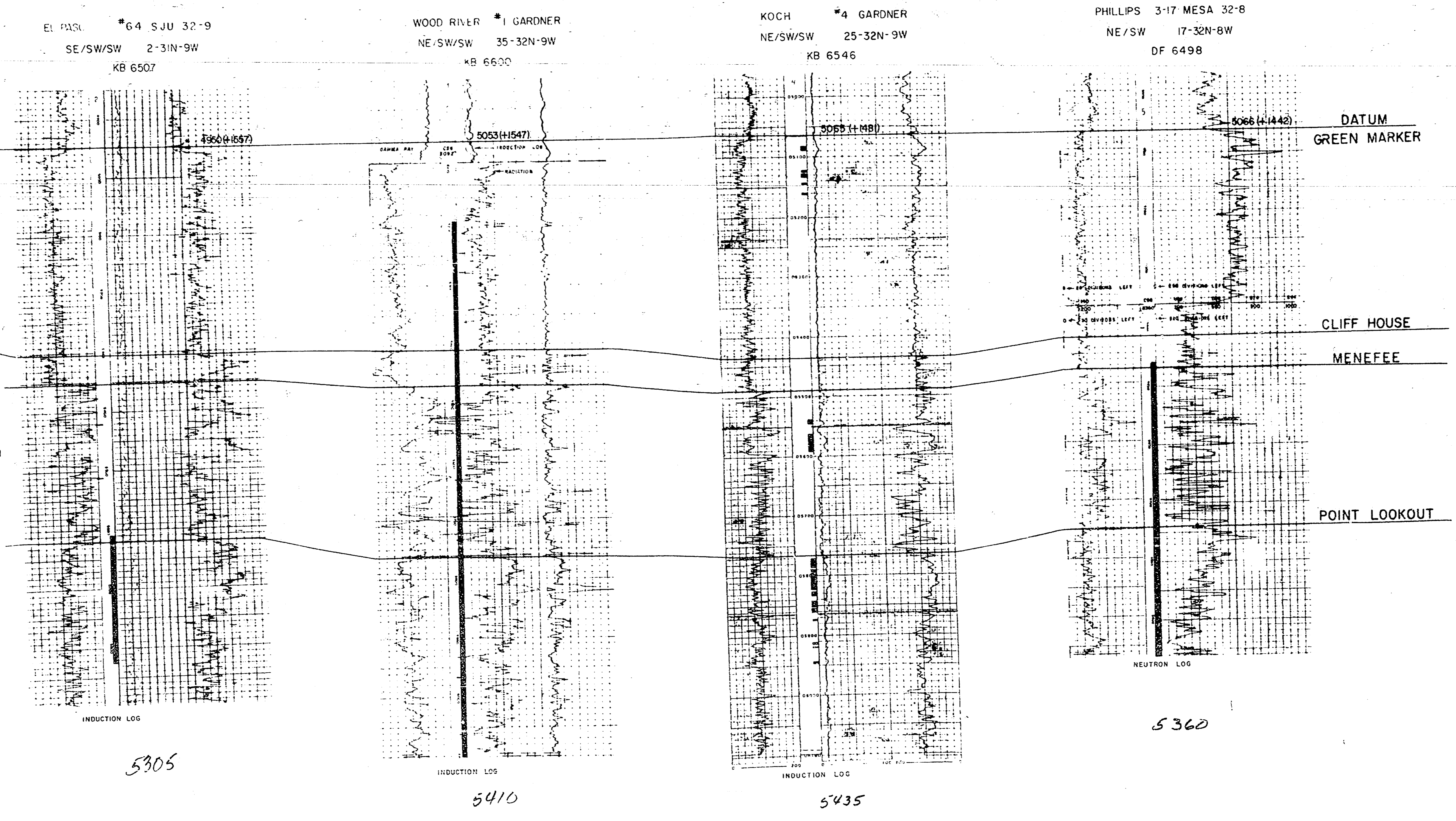
W. M. C. J. MICROGRAPHS



NOT AVAILABLE COPY

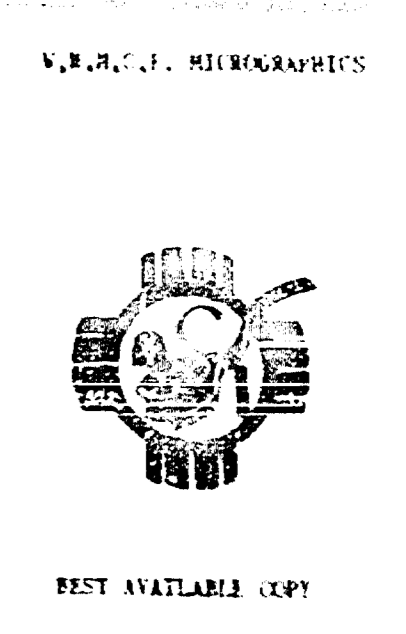
B
SW

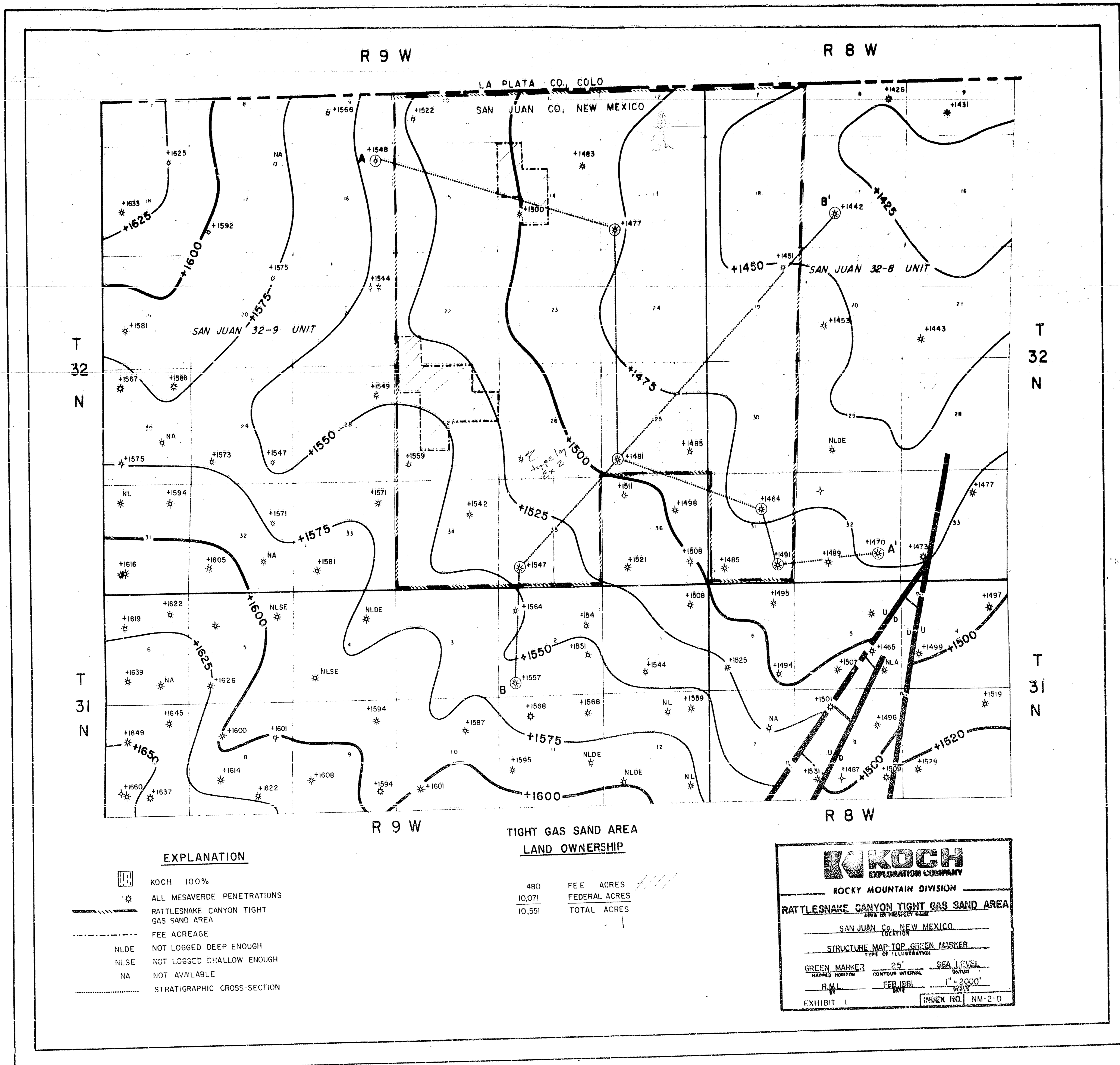
B'
NE



KOCH	
EXPLORATION COMPANY	
ROCKY MOUNTAIN DIVISION	
RATTLESNAKE CANYON TIGHT FORMATION AREA	
SAN JUAN Co. NEW MEXICO	
STRATIGRAPHIC CROSS-SECTION B-B'	
TYPE OF ILLUSTRATION	
MAPPED HORIZON	CONTOUR INTERVAL
C.D.M.	Var 1' = 100' No Horiz
DATE	SCALE
EXHIBIT NO. 4	INDEX NO.

104 010 001-014 * 7788 0001-1200





EXPLANATION

- KOCH 100%
- ALL MESAVERDE PENETRATIONS
- RATTLESNAKE CANYON TIGHT GAS SAND AREA
- FEE ACREAGE
- NLDE NOT LOGGED DEEP ENOUGH
- NLSE NOT LOGGED SHALLOW ENOUGH
- NA NOT AVAILABLE
- STRATIGRAPHIC CROSS-SECTION

**TIGHT GAS SAND AREA
LAND OWNERSHIP**

480	FEE ACRES
10,071	FEDERAL ACRES
10,551	TOTAL ACRES

KOCH
EXPLORATION COMPANY

ROCKY MOUNTAIN DIVISION

RATTLESNAKE CANYON TIGHT GAS SAND AREA

SAN JUAN CO., NEW MEXICO

STRUCTURE MAP TOP GREEN MARKER

GREEN MARKER 25' 520 LEVEL
 1" = 2000'

EXHIBIT I

R.M. DIV. PROJ. DIV. # 178 & 655-7249

