Case No.
7116

Large Exhibits

R 13 W

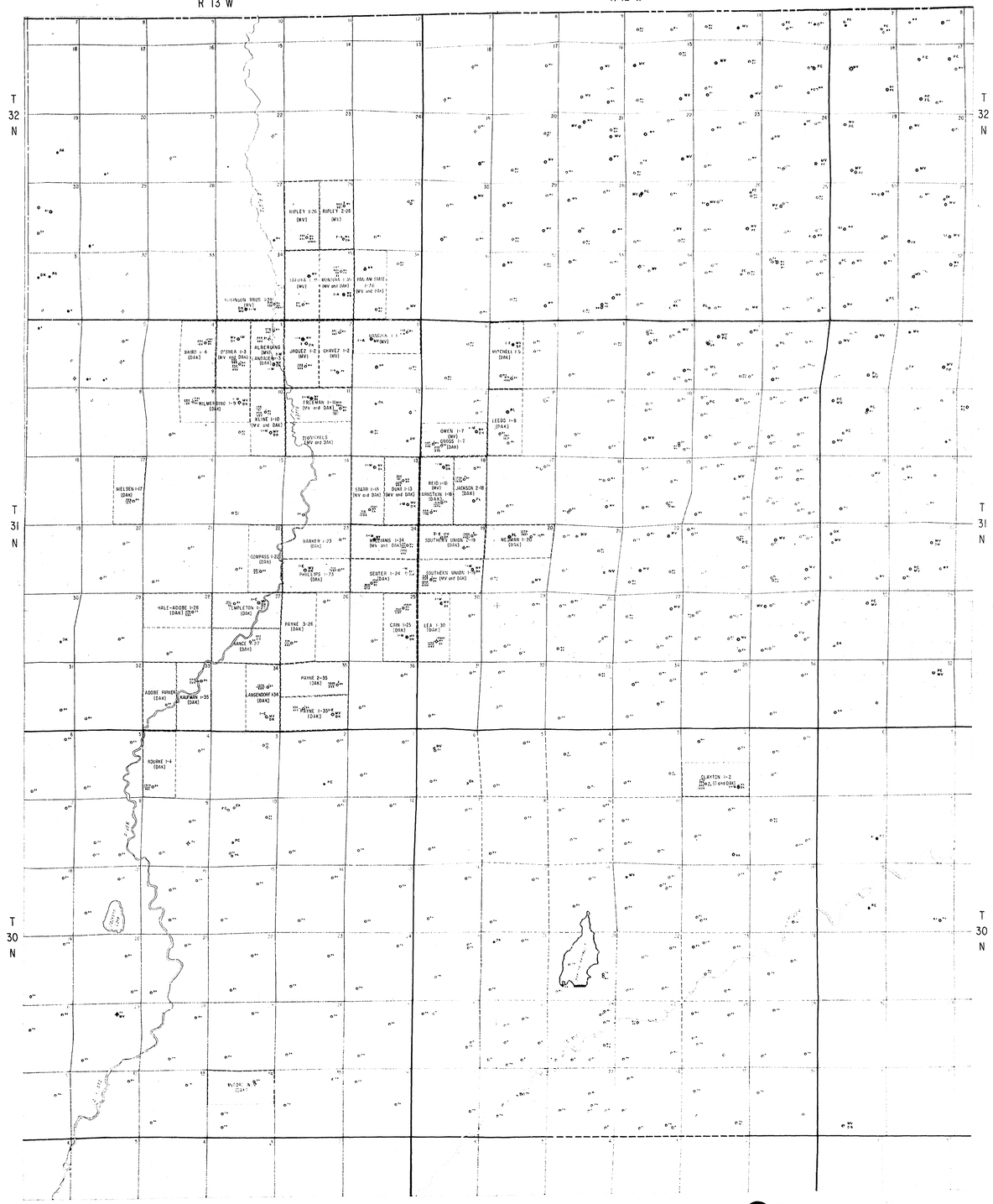
R 12 W

R 11 W

T 32 N

T 31 N

T 30 N



LEGEND

BEFORE EXAMINER NUTTER
OIL CONSERVATION DIVISION
COG EXHIBIT NO. 1
CASE NO. 7116

Consolidated Oil & Gas, Inc.

SAN JUAN COUNTY, NEW MEXICO

NORTHWEST BLANCO AREA

ACREAGE AND UNITS

SCALE 1"=1000'

R 13 W

R 12 W

R 11 W

T 32 N

T 31 N

T 30 N

RIPLEY 1-26 (MV)

RIPLEY 2-26 (MV)

JOHNSON DEVS 1-35 (DAK)

LEDYARD 1-35 (MV)

MONTOYA 1-35 (MV and DAK)

PAN AM STATE 1-36 (MV and DAK)

BAIRD 1-4 (DAK)

O'SHEA 1-3 (MV and DAK)

ALBERDING (MV) 1-4 ANDREWS 1-3 (DAK)

JAQUEZ 1-2 (MV)

CHAVEZ 1-2 (MV)

LINDOCK 1-1 (MV)

MITCHELL 1-5 (DAK)

ALBERDING 1-5 (DAK)

FREEMAN 1-10 (MV and DAK)

KLINE 1-10 (MV and DAK)

THOMPKINS (MV and DAK)

OWEN 1-7 (MV) GROSS 1-7 (DAK)

LEEDS 1-8 (DAK)

NIELSEN 1-17 (DAK)

STATE 1-15 (MV and DAK)

DUKE 1-13 (MV and DAK)

REID 1-18 (MV) ANDERSON 1-18 (DAK)

JACKSON 2-18 (DAK)

WILLIAMS 1-24 (MV and DAK)

SOUTHERN UNION 2-19 (DAK)

NEWMAN 1-20 (DAK)

BARKER 1-23 (DAK)

LOMPASS 1-22 (DAK)

PHILLIPS 1-23 (DAK)

SENTER 1-24 (DAK)

SOUTHERN UNION 1-21 (MV and DAK)

HALE-ADOBE 1-28 (DAK)

TEMPLETON 1-27 (DAK)

PAYNE 3-26 (DAK)

VANCE 1-27 (DAK)

CAIN 1-25 (DAK)

LEA 1-30 (DAK)

ADOBE RANCH (DAK)

KAUFMAN 1-35 (DAK)

PAYNE 2-35 (DAK)

ANGEMEIER 1-34 (DAK)

PAYNE 1-35-E (DAK)

ROGERS 1-2 (DAK)

CLAYTON 1-2 (MV and DAK)

MUDGE 1-1 (DAK)

LEGEND

Consolidated Oil & Gas, Inc.

SAN JUAN COUNTY, NEW MEXICO

NORTHWEST BLANCO AREA

ACREAGE AND UNITS

EXHIBIT 1

U.S.G.S. TOPOGRAPHIC

BEST AVAILABLE COPY

Water Damaged

DOCUMENT NUMBER 7116
REEL NUMBER 479
CASE NUMBER
DATE 12-8-88
SCANNED OUT BY L. Bien

2

SCHLUMBERGER WELL SURVEYING CORPORATION

INDUCTION-ELECTRICAL LOG
INDUCTION LOG
GAMMA RAY LOG

COMPANY AZTEC OIL & GAS COMPANY
WELL CULPEPPER MARTIN NO. 1A-D
FIELD BLANCO M.V. - UNDESIGNATED DAKOTA
LOCATION SEC. 32-32N-12W
COUNTY SAN JUAN
STATE NEW MEXICO

Location of Well
990' FN N/L
990' FR E/L
SEC. 32-32N-12W

(TEMP)

Elevation: D.F. ---
K.B. 5934
or G.L. 5922

FILING No. ---

COUNTY SAN JUAN, N. M.
LOCATION UNDESIGNATED DAKOTA
WELL CULPEPPER MARTIN NO. 1A-D
COMPANY AZTEC OIL & GAS

RUN No.	ONE 7-CS	IND IND	ONE GRI
Date	6-2-60	6-8-60	6-8-60
First Reading	5062	7141	7137
Last Reading	325	5053	5051
Feet Measured	4722	2088	2084
Csg. Schlum.	325	5053	5051
Csg. Driller	324	5050	5050
Depth Reached	5053	7147	7147
Bottom Driller	5050	7147	7147
Depth Datum	KB	KB	KB
Mud Nat.	CHEM GEL	AIR	AIR
Density	9.6	--	--
Viscosity	80	--	--
Resist.	1.69 @ 70 °F	-- @ -- °F	--
Res. BHT	1.10 @ 125 °F	-- @ -- °F	--
pH	-- @ -- °F	-- @ -- °F	--
Wtr. Loss	-- cc/30 min.	-- cc/30 min.	--
Max. Temp. °F	125	--	--
Bit Size	8-3/4"	6-1/4"	6-1/4"
SPCGS.	AM 16" ST 27 HN 22-2" IND SEFAD		SC INSTALLATION
Opr. Rig Time	1-1/2HRS	1-1/2HRS.	1-1/2HRS
Truck No.	2515FARN	2515FARN	2515FARN
Recorded By	CILL	FEATHER	FEATHERS
Witness	MR. PITTERSON	MR PATTERSON &	

REMARKS

CONDUCTIVITY millimhos/m
INDUCTION

RESISTIVITY ohms. m²/m
16" NORMAL
INDUCTION

DEPTHS

SPONTANEOUS-POTENTIAL millivolts

6700 6800 6900 7000 7100

GRANEROS

DAKOTA

2.1 Miles | 1.8 Miles | 1.7 Miles | 1.6 Miles | 2.2 Miles

A

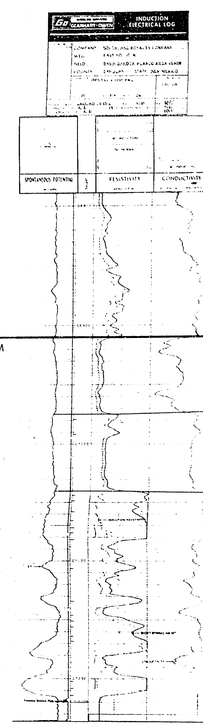
DATUM

A'

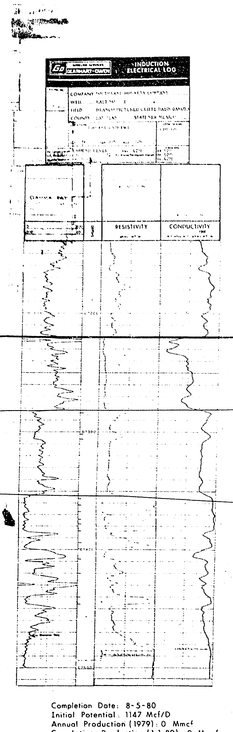
Base of GREENHORN

Top of GRANEROS SAND

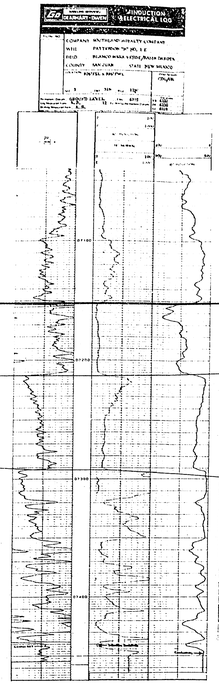
Top of DAKOTA SAND



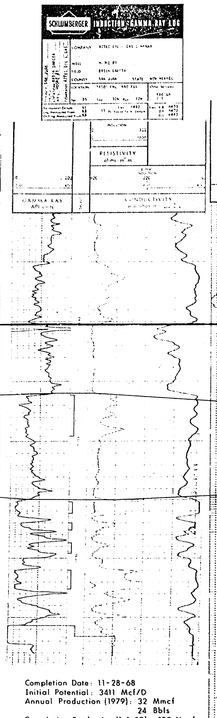
Completion Date: 9-20-80
Initial Potential: 151 Mcf/D
Annual Production (1979): 0 Mmcf
Cumulative Production (1-1-80): 0 Mmcf
Perforations: 6979'-7214'
Stimulation: Sand-Water Fracture



Completion Date: 8-5-80
Initial Potential: 1147 Mcf/D
Annual Production (1979): 0 Mmcf
Cumulative Production (1-1-80): 0 Mmcf
Perforations: 7284'-7445'
Stimulation: Sand-Water Fracture

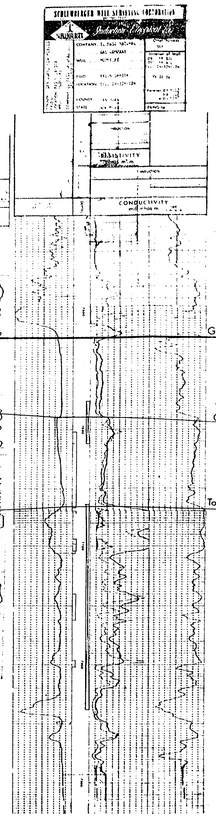


Completion Date: Not Yet Completed

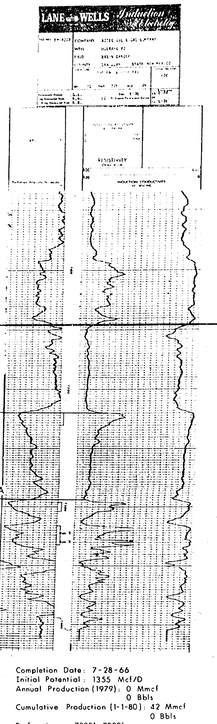


Completion Date: 11-28-68
Initial Potential: 3411 Mcf/D
Annual Production (1979): 32 Mmcf
24 Bbls
Cumulative Production (1-1-80): 530 Mmcf
1294 Bbls

Perforations: 7462'-7624'
Stimulation: Sand-Water Fracture

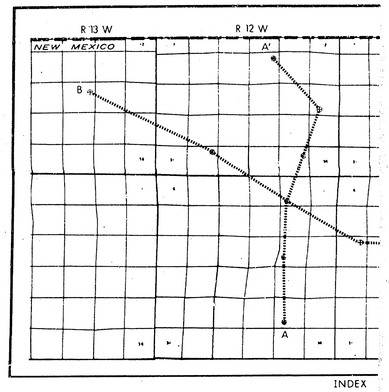


Completion Date: 5-10-61
Initial Potential: D & A (No Tests Reported)
Perforations: 7603'-7802'
Cored: 7575'-7612', 7663'-7838'
Stimulation: Sand-Water Fracture



Completion Date: 7-28-66
Initial Potential: 1355 Mcf/D
Annual Production (1979): 0 Mmcf
0 Bbls
Cumulative Production (1-1-80): 42 Mmcf
0 Bbls

Perforations: 7220'-7332'
Stimulation: Sand-Water Fracture



INDEX

7220

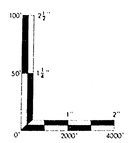
7152

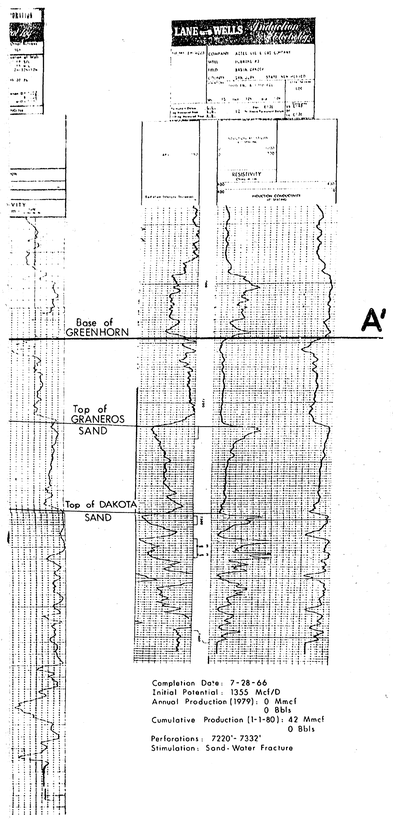
7402

7527

7146

71



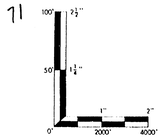


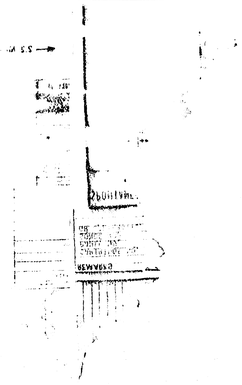
Completion Date: 7-28-66
Initial Potential: 1355 Mcf/D
Annual Production (1979): 0 Mmcf
0 Bbls
Cumulative Production (1-1-80): 42 Mmcf
0 Bbls
Perforations: 7220'- 7332'
Stimulation: Sand-Water Fracture

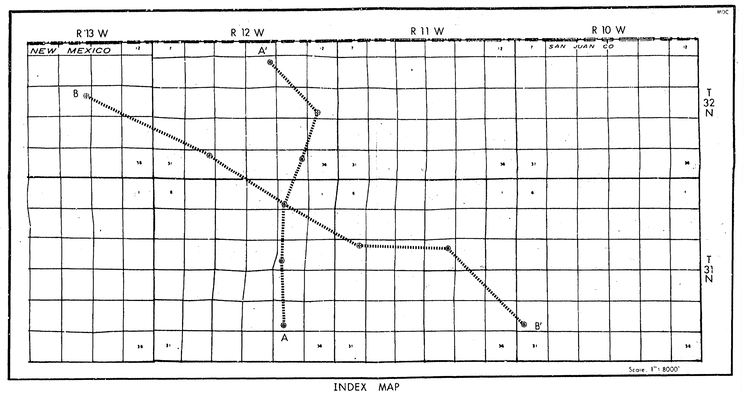
Tests Reported)
8'
ure

7146

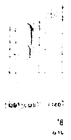
71







INDEX MAP



BEFORE EXAMINER NUTTER
OIL CONSERVATION DIVISION
SRC. EXHIBIT NO. 3
CASE NO.

Southland Royalty Company
PRODUCTION DEPARTMENT
FORT WORTH, TEXAS

SAN JUAN BASIN
SAN JUAN CO., NEW MEXICO

DAKOTA FORMATION

CROSS SECTION A — A'

12/80

3

W.R.M.C.F. MICROGRAPHICS
BEST AVAILABLE COPY

4.4 Miles — 2.9 Miles — 2.7 Miles — 2.9 Miles

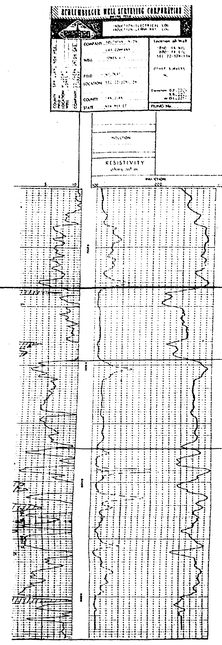
B

DATUM

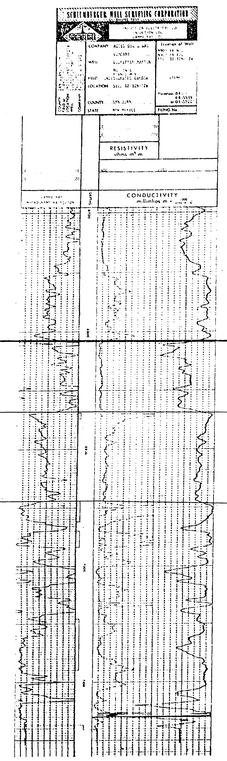
Base of GREENHORN

Top of GRANEROS SAND

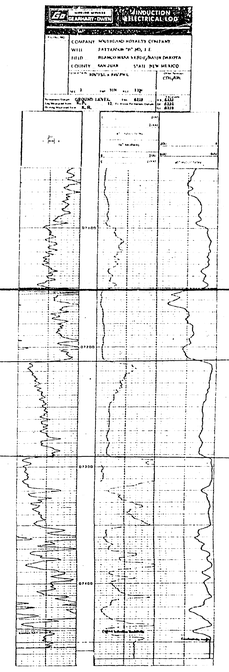
Top of DAKOTA SAND



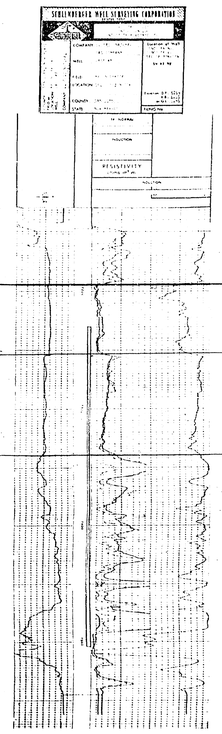
Completion Date: 2-18-60
Initial Potential: D&A (No Tests)



Completion Date: 7-6-60
Initial Potential: 322 Mcf/D
Annual Production (1979): 0 Mmcf
Cumulative Production (1-1-80): 0 Mmcf
Perforations: 6869'- 7090'
Stimulation: Sand-Water Fracture



Completion Date: Not Yet Completed



Completion Date: 6-10-61
Initial Potential: D & A (No Tests)
Cored: 7230' - 7513'

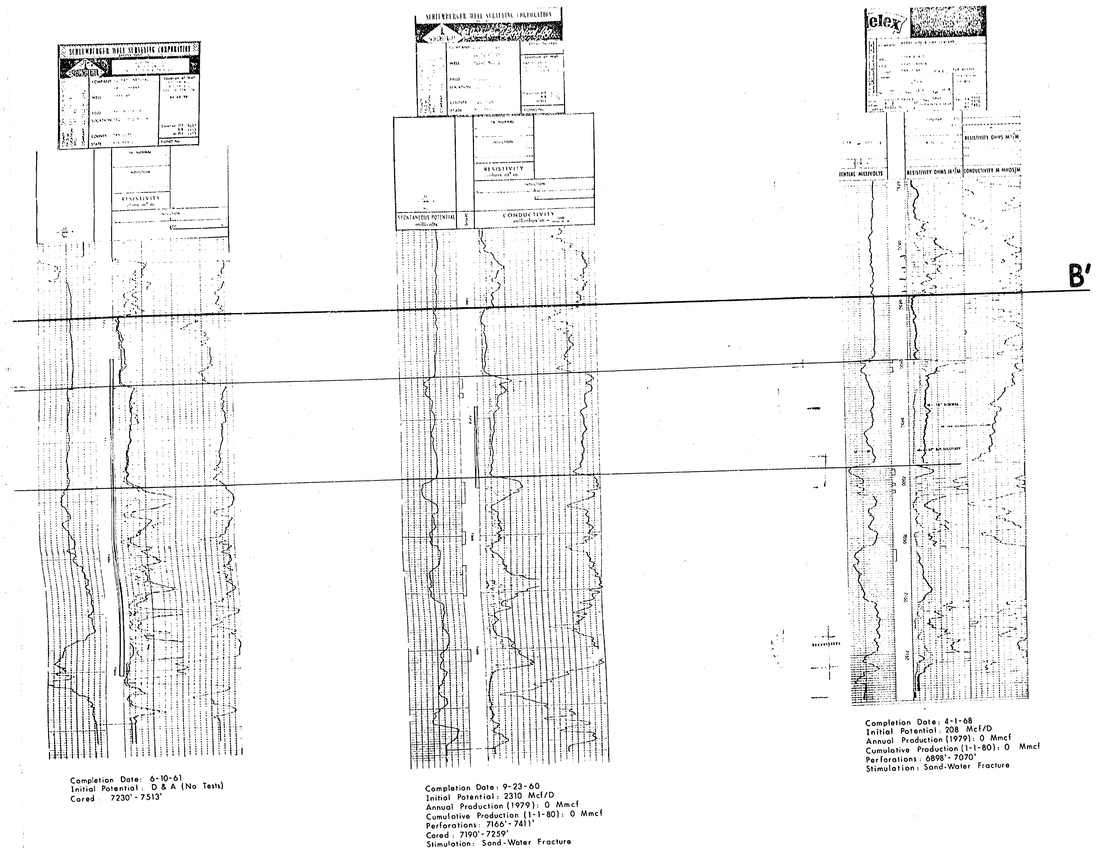
6808

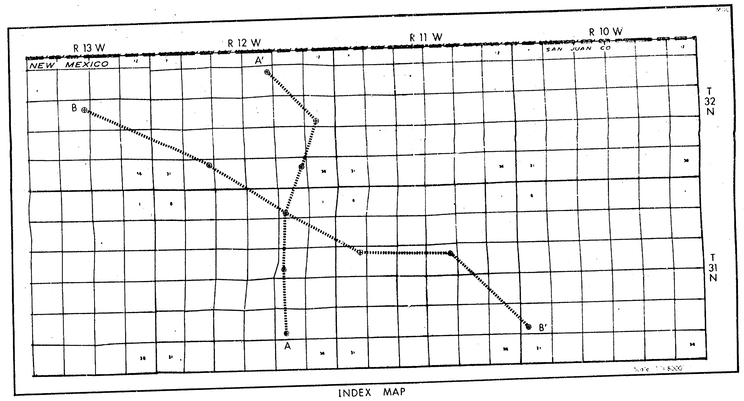
7152

7195

Top of Dk Pool Interval 5234

U.S.G.S. PHOTOGRAPHICS
BEST AVAILABLE COPY





INDEX MAP

4

BEFORE EXAMINER NUTTER
OIL CONSERVATION DIVISION
SRC EXHIBIT NO. 4
CASE NO.

Southland Royalty Company
PRODUCTION DEPARTMENT
FORT WORTH, TEXAS

SAN JUAN BASIN

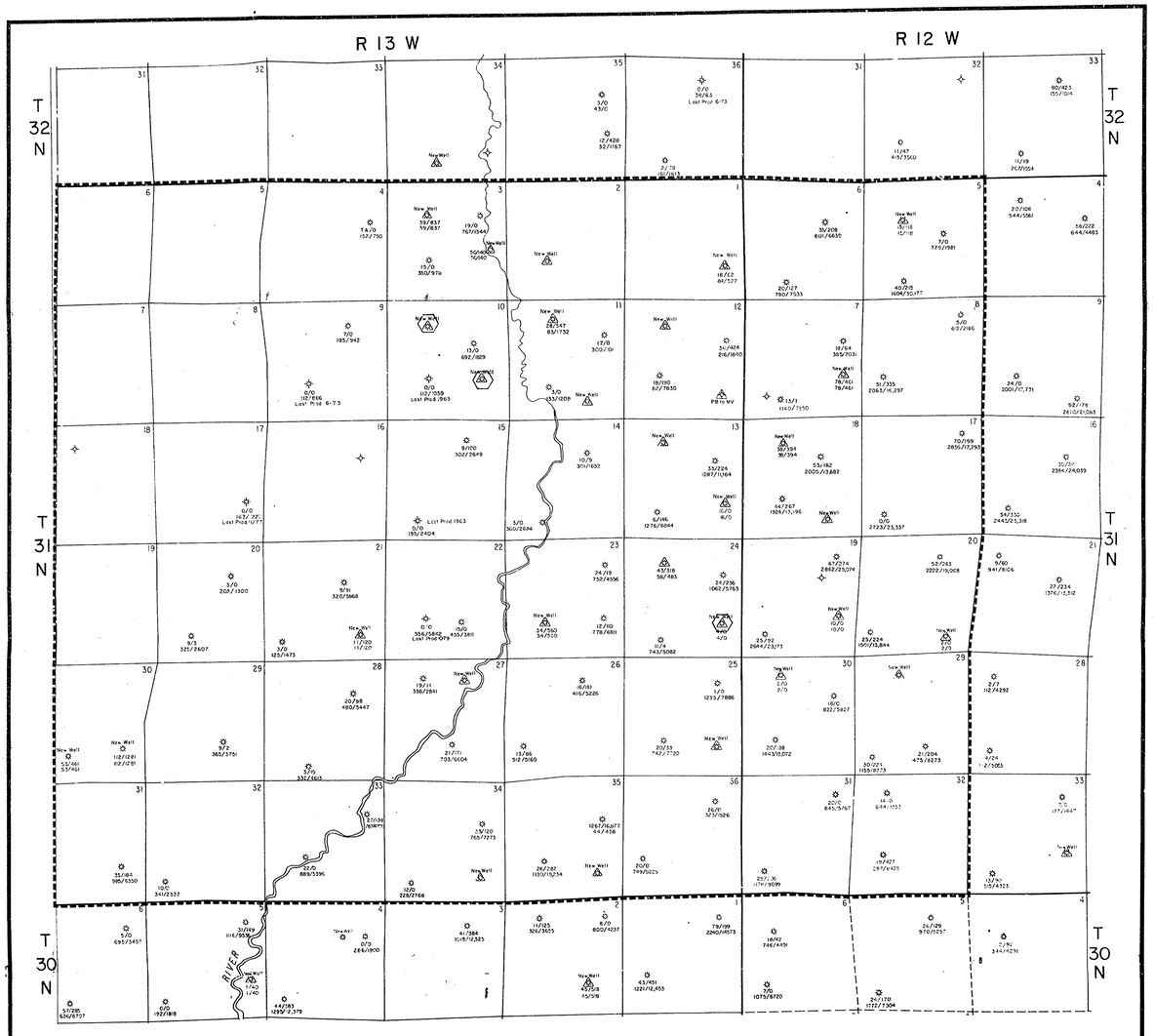
SAN JUAN CO., NEW MEXICO

DAKOTA FORMATION

CROSS SECTION B — B'

12/80

U.S.G.S. TOPOGRAPHICS
BEST AVAILABLE COPY



LEGEND
1983 PRODUCTION
MMCF/Well
Cum 12-31-83
MMCF/Well

INFILL DAKOTA WELLS

AREA OF INTEREST

Dakota will of permeability data

Consolidated Oil & Gas, Inc.
1860 LINCOLN STREET - DENVER COLORADO - 80295
SUITE 1300 - LINCOLN TOWER BUILDING - (303)861-5252

NW BLANCO AREA

SAN JAUN COUNTY, NEW MEXICO

DAKOTA BASE MAP

SCALE 1"=2000'

EXHIBIT I

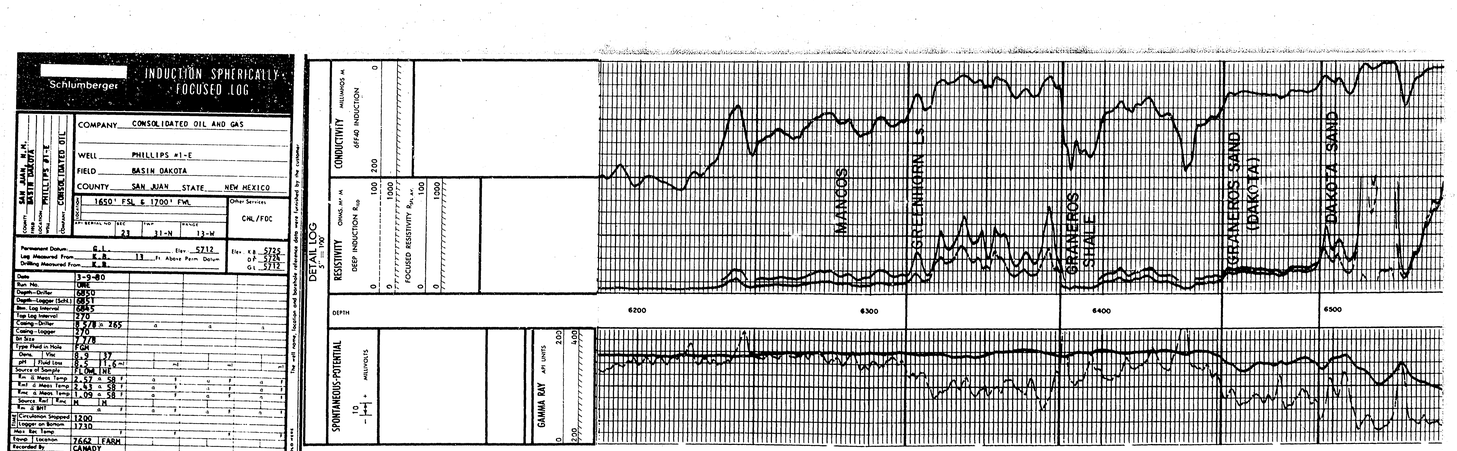
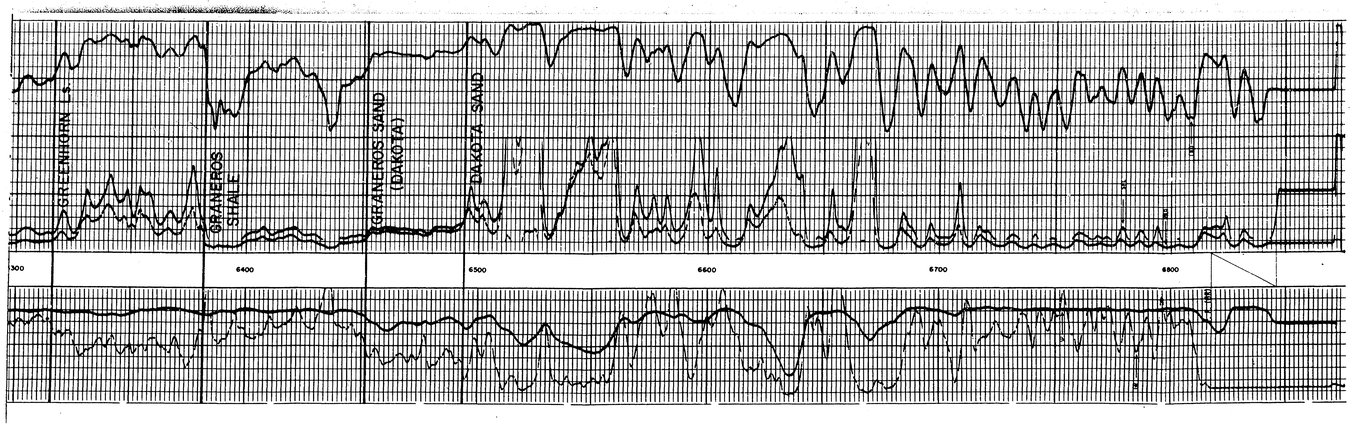

Schlumberger
INDUCTION SPHERICALLY FOCUSED LOG
COMPANY CONSOLIDATED OIL AND GAS
WELL PHILLIPS #1-E
FIELD BASIN DAKOTA
COUNTY SAN JUAN STATE NEW MEXICO
1650' FSL & 1700' FWL
CNL/FDC
Permanent Datum G.L. Elev. 5712
Log Measured From K.B. 13 Ft. Above Perm. Datum
Drilling Measured From K.B.
Date 3-9-80
Run No. ONE
Depth-Driller 6850
Depth-Logger (Sch.) 6851
Btm. Log Interval 6845
Top Log Interval 270
Casing-Driller 8 5/8 @ 265
Casing-Logger 270
Bit Size 7 7/8
Type Fluid in Hole FOAM
Dens. | Visc. 8.9 37
pH | Fluid Loss 8.5 | 6 ml
Source of Sample FLOWLINE
Rm @ Meas Temp 2.57 @ 58 F
Rmf @ Meas Temp 2.43 @ 58 F
Rmc @ Meas Temp 1.09 @ 58 F
Source Rmf | Rmc IM | IM
Rm @ BHT
Circulation Stopped 1200
Logger on Bottom 1730
Max. Rec. Temp
Equip. | Location 7662 | FARM
Recorded By CANADY
Witnessed By Mr. ALEXANDER
SAN JUAN, N.M.
BASIN DAKOTA
PHILLIPS #1-E
CONSOLIDATED OIL
DETAIL LOG
CONDUCTIVITY MILLIMHOS/M
0 200
DIFAD INDUCTION
RESISTIVITY OHMS M²/M
DEEP INDUCTION R_ID
0.2 2 20 200 2000
FOCUSED RESISTIVITY R_SFL
0.2 2 20 200 2000
SPONTANEOUS-POTENTIAL MILLIVOLTS
10 0 -10
GAMMA RAY API UNITS
0 200
400
DEPTH
6200
6300
6400
6500
MANCOS
GREENHORN Ls
GRANEROS SHALE
GRANEROS SAND (DAKOTA)
DAKOTA SAND
The well name, location and borehole record published here were furnished by the customer.

EXHIBIT 3A

U.S.G.S. RECORDS
BEST AVAILABLE COPY



U.S.G.S. RECORDS
BEST AVAILABLE COPY

Schlumberger

COMPUTER PROCESSED LOG

An Advanced Synergetic Log System

SARABAND®

Using the following logs:

IES, FDC/CNL-GR

COMPANY CONSOLIDATED OIL AND GAS COMPANY

WELL PHILLIPS 1E

FIELD BASIN DAKOTA

COUNTY SAN JUAN

STATE NEW MEXICO DEPTH INTERVAL 6830' TO 7300'

DATE LOGGED 4-10-80 DATE COMPUTED 4-17-80

LOCATION 1650'FSL, 1700'FWL

SEC. 23 TWP. 31N RGE. 13W

ELEVATION KB 5725 DF GL 5712 API NO. NA

OTHER SERVICES

Tie well name, location and borehole influence data were supplied by the customer.

This SYNERGETIC LOG presentation was computed using SARABAND — A Sandstone Analysis.

All interpretations are opinions based on inferences from electrical or other measurements and we cannot, and do not guarantee the accuracy or correctness of any interpretation, and we shall not, except in the case of gross or wilful negligence on our part, be liable or responsible for any loss, cost, damages or expenses incurred or sustained by anyone resulting from any interpretation made by any of our officers, agents or employees. These interpretations are also subject to our General Terms and Conditions as set out in our current price schedule.

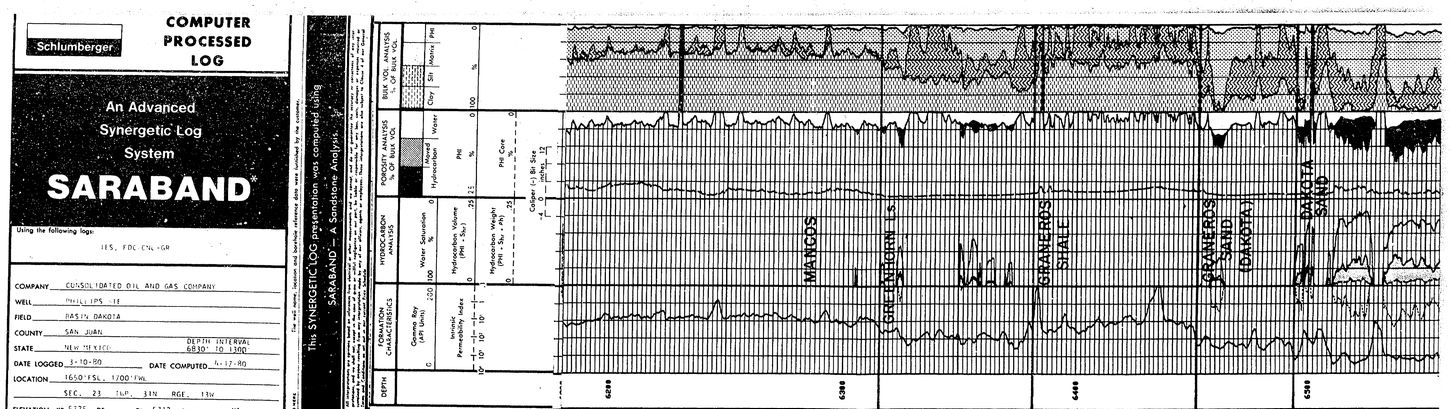
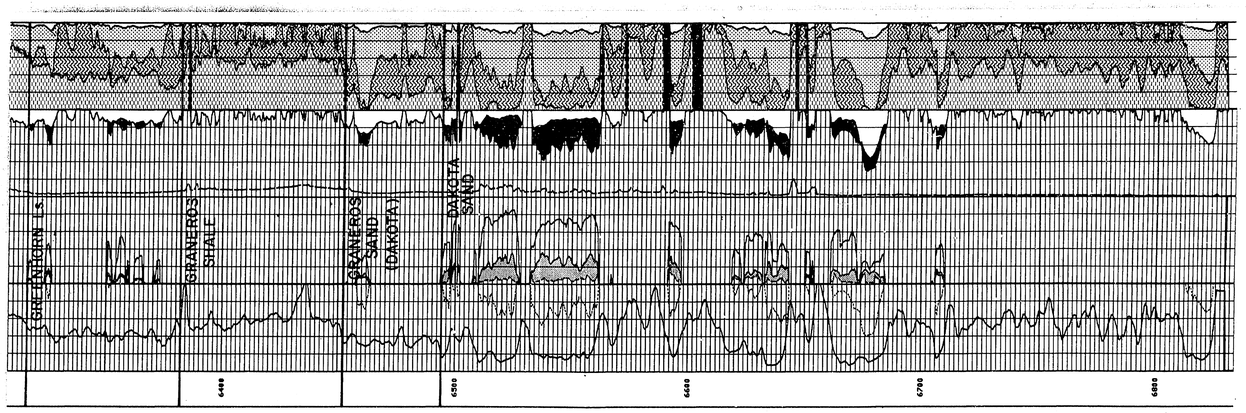


EXHIBIT 3B

U.S.G.S. RESOURCES
BEST AVAILABLE COPY



N.M.M.I.T. RESOURCES
BEST AVAILABLE COPY

A

0.4 MILES | 1.4 MILES | 0.9 MILES | 1.1 MILES | 0.8 MILES

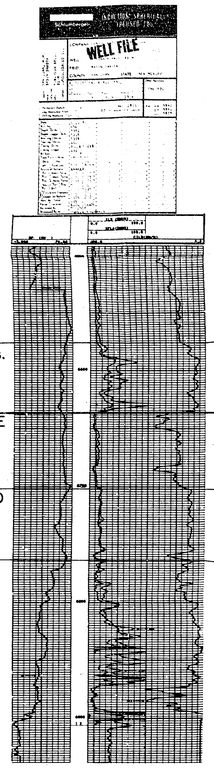
MANCOS

GREENHORN Ls.

DATUM
GRANEROS SHALE

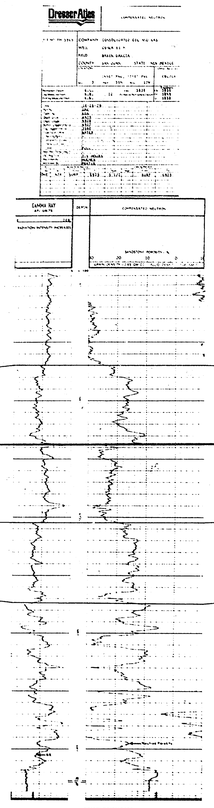
GRANEROS SAND (DAKOTA)

DAKOTA SAND



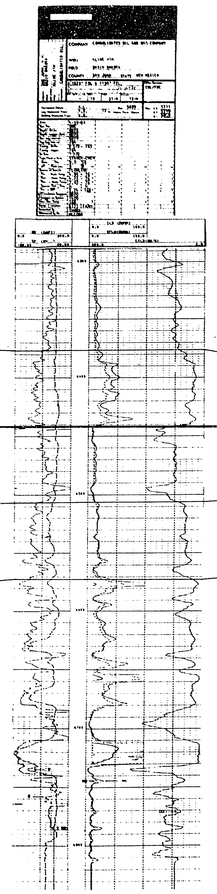
COMPLETION DATE
10/83/80

I P (DK) 1112 MCFGPD
CUM PROD (DK) NEW WELL
←— DAKOTA PERFS LOG DEPTS: 6024,6242,62
54,62,,6803,80,12,18,22,7230
6817,83,87,89,6901,03,05,07,09,11,13,15



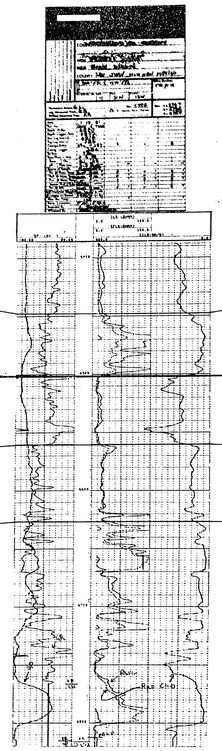
COMPLETION DATE
12/30/79

I P (DK) 2182 MCFGPD
CUM PROD (DK) ENDING 12/31/80 285,578 MCFG
631 BO
←— DAKOTA PERFS LOG DEPTHS 6708,09/2,
6710,12,14,42,43,50,56
6770,72,74,76,78,80,84,85,94,96,6604, 5,607,8,9,66
67,34,36
6904,05,06



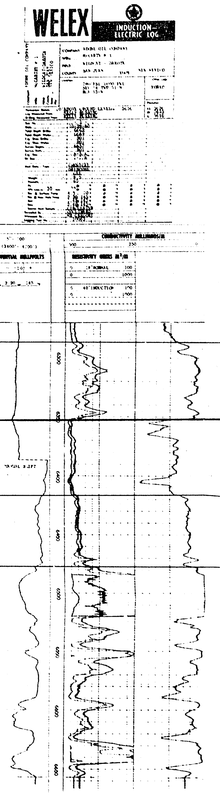
COMPLETION DATE
9/24/80

I P (DK) 1578 MCFGPD
CUM PROD (DK) ENDING 12/31/80 NEW WELL
←— DAKOTA PERFS LOG DEPTHS 6655,58/68,72
6,673,74,76,24,28
6734,67,86



COMPLETION DATE
5/1/81

I P (DK) 1405 MCFGPD
CUM PROD (DK) NEW WELL
←— DAKOTA PERFS LOG DEPTHS 6562,66,82
84,6600,04,06,10,32,34,40
6650-6656, 6657-6668,(693-6696,6700-6706
6761-6780



COMPLETION DATE
12/8/80

I P (DK) 1678 MCFGPD
CUM PROD (DK) 358,822 MCFG 1,488 BC
←— DAKOTA PERFS LOG DEPTHS 6842 6852 6872
6932, 6948-6954, 6988-6996

MANCOS

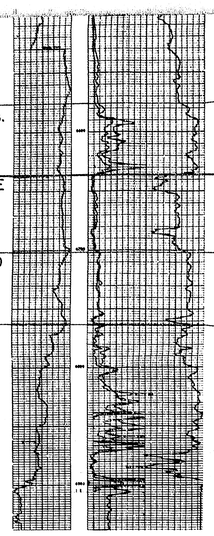
GREENHORN Ls.

DATUM

GRANEROS SHALE

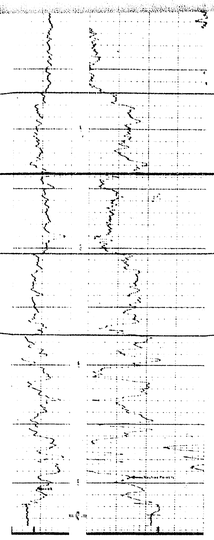
GRANEROS SAND (DAKOTA)

DAKOTA SAND



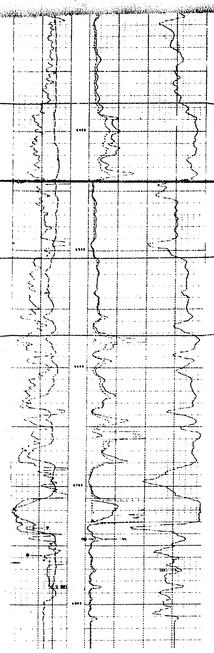
COMPLETION DATE
10/5/80

I.P.(DK) 100 MCFGPD
CUM PROD (DK) NEW WELL
←—DAKOTA PERFS. LOG DEPTS: 6720,24,27,42,50,
54,67,69,92,96,6802,
6892,93,97,99,6900,02,05,17,24,41,43,45



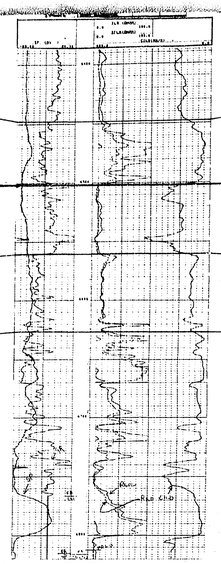
COMPLETION DATE
12/30/79

I.P.(DK) 2680 MCFGPD
CUM PROD (DK) ENDING 12/31/80 78,578 MCFG
830 BO
←—DAKOTA PERFS. LOG DEPTHS: 6706,09,12,
16,20,23,25,42,43,50,66
6773,76,77,78,80,84,94,95,96,6804,15,16,17,18,19,46
6124,30
6804,05,26



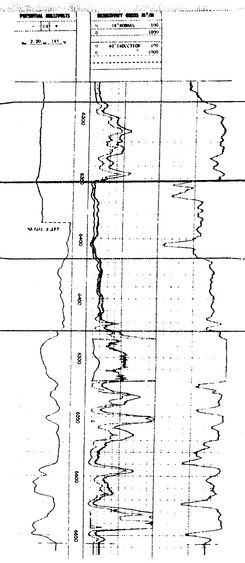
COMPLETION DATE
9/24/80

I.P.(DK) 1574 MCFGPD
CUM PROD (DK) ENDING 12/31/80 NEW WELL
←—DAKOTA PERFS. LOG DEPTHS: 6655,58,66,72
76,6715,20,24,29
6734,6736



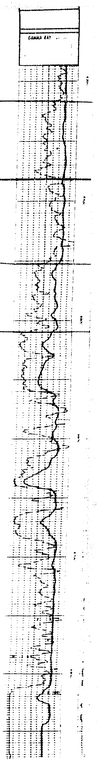
COMPLETION DATE
5/1/81

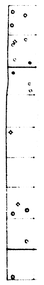
I.P.(DK) 1429 MCFGPD
CUM PROD (DK) NEW WELL
←—DAKOTA PERFS. LOG DEPTHS: 6562,66,82
94,6600,04,12,18,20,24,32,40
6701-6706, 6667-6668, 6693-6696, 6707-6706
6714-6780



COMPLETION DATE
12/9/80

I.P.(DK) 1678 MCFGPD
BBO PROD (DK) 2883 MCFG, 0 BO
CUM PROD (DK) 3552 CFG, 2 BBO BO
←—DAKOTA PERFS. LOG DEPTHS: 6842-65 ,6526-
6532, 6548-6554, 6588-6596





MILES | 0.8 MILES | 0.8 MILES | 1.1 MILES

A'

MANCOS

GREENHORN Ls.

DATUM

GRANEROS SHALE

GRANEROS SAND

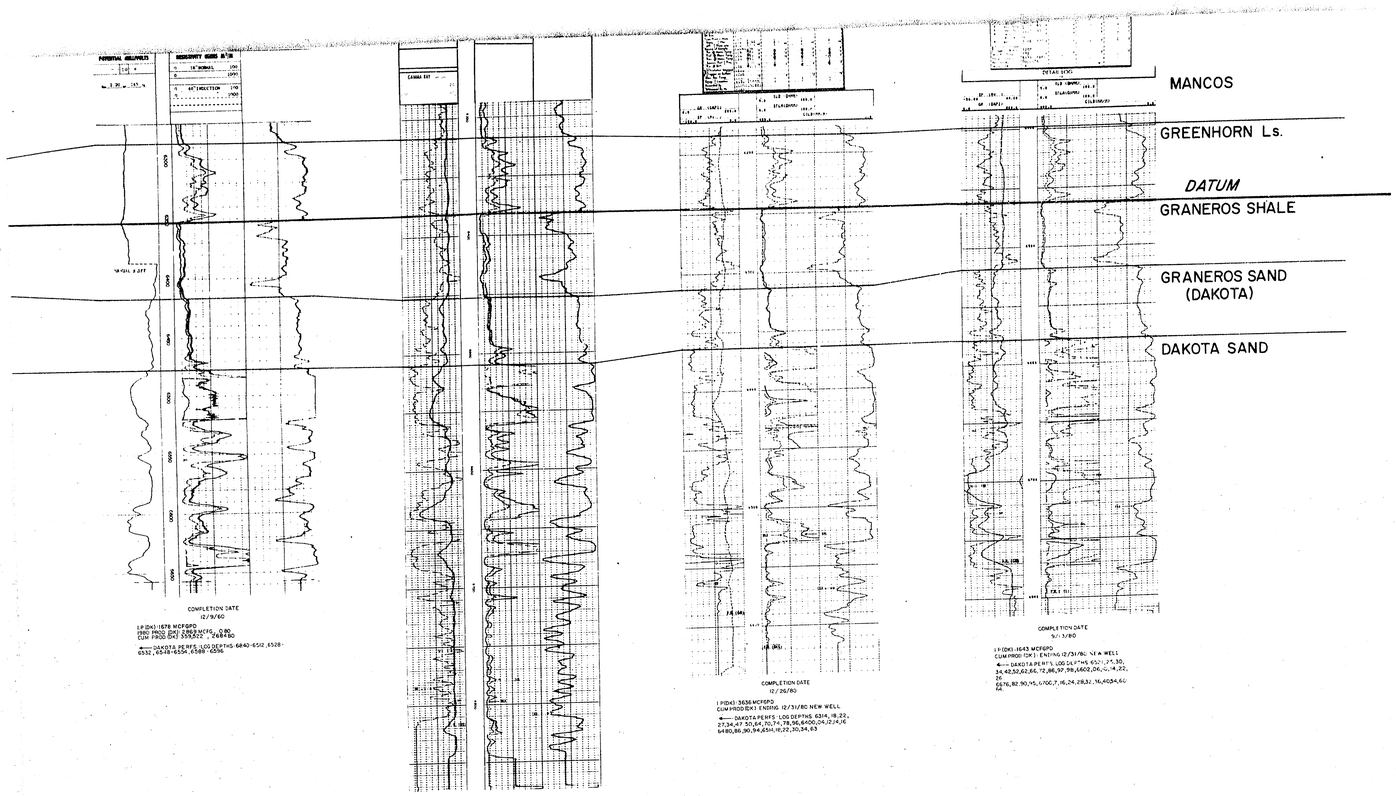
GRANEROS SAND (DAKOTA)

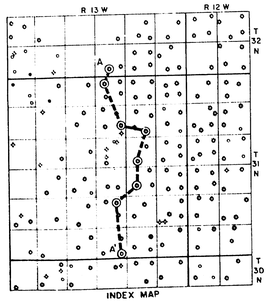
DAKOTA SAND

R 13 W | R 12 W

T 32 N

Consolidated Oil & Gas Inc.





INDEX MAP

Consolidated Oil & Gas, Inc.
1860 LINCOLN STREET – DENVER COLORADO – 80295
SUITE 1300 – LINCOLN TOWER BUILDING – (303)861-5251

NW BLANCO AREA

SAN JUAN COUNTY, NEW MEXICO

STRATIGRAPHIC CROSS SECTION A-A'

DATUM BASE GREENHORN Ls.

VERTICAL SCALE 2"=100'
HORIZONTAL SCALE NONE

EXHIBIT 4A

U.S.G.S. MICROGRAPHICS
BEST AVAILABLE COPY

0.8 MILES | 0.5 MILES | 1.5 MILES | 0.9 MILES | 0.6 MILES

B

B'

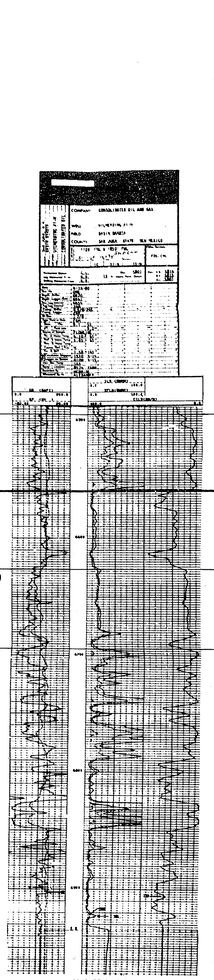
MANCOS

GREENHORN Ls.

DATUM

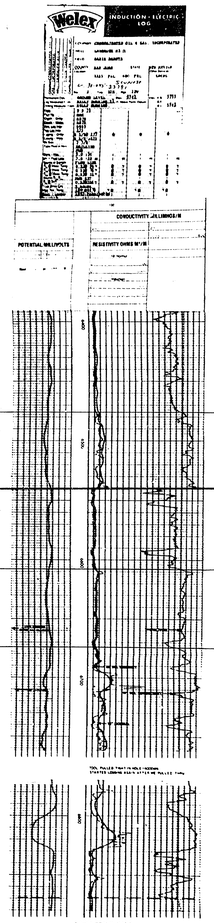
GRANEROS SAND (DAKOTA)

DAKOTA SAND



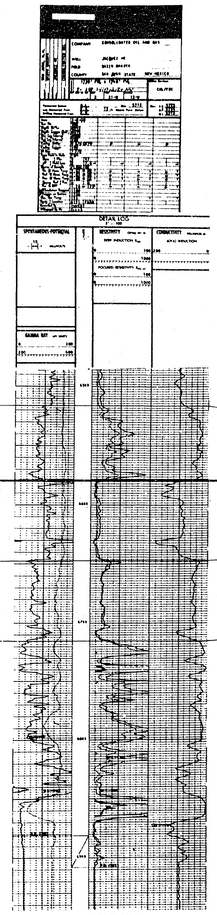
COMPLETION DATE
9/5/80

IP (DK) 1655 MCFGPD
CUM PROD (DK) (ENDING 12/31/80) NEW WELL.
←- DAKOTA PERFS: LOG DEPTHS: 6627, 30, 34, 35, 44, 50, 53, 60, 80, 84, 96, 98, 6701, 16, 18, 22, 24, 37, 41, 6788,98, 6828, 30, 33, 38, 41, 46.



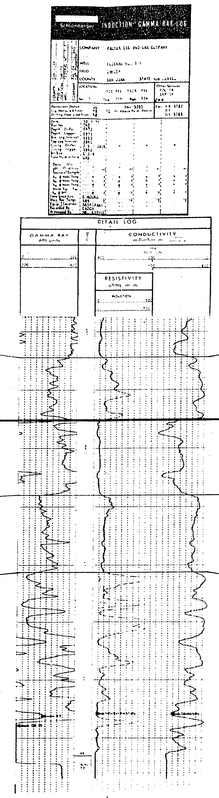
COMPLETION DATE
4/11/80

IP (DK) 2091 MCFGPD
CUM PROD (DK) (ENDING 12/31/80) 50,143 MCFG, 140 BO
←- DAKOTA PERFS: LOG DEPTHS 6608, 12, 16, 20, 28, 34, 40, 50, 60, 76, 84, 94, 98, 6702, 06, 14, 22, 26, 32, 36 6707, 08, 09, 10, 11, 12, 13, 14, 15, 16



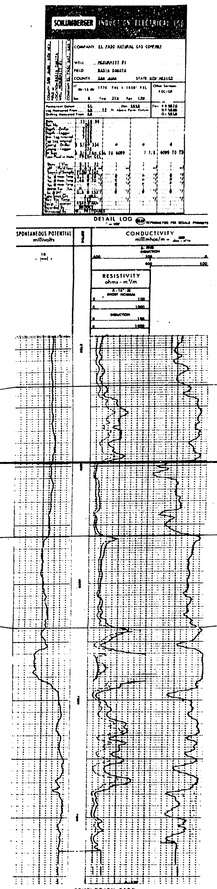
COMPLETION DATE
11/13/80

IP (DK) 1226 MCFGPD
CUM PROD (DK) (ENDING 12/31/80) NEW WELL
←- DAKOTA PERFS: LOG DEPTHS 6650,58, 66, 73, 80, 6703, 21, 40,56 6686, 92, 97, 6718, 27, 32, 46, 56, 70 6850, 52, 54, 56, 58, 60, 62, 64



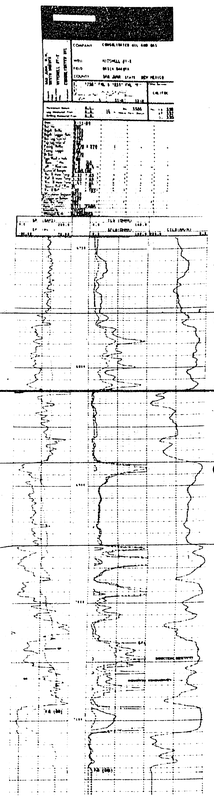
COMPLETION DATE
11/7/76

IP (DK) 1077 MCFGPD
1980 PROD. (DK) 18,270 MCFG, 62 BO
CUM. PROD. (DK) (ENDING 12/31/80) 84,233 MCFG, 322 BO
←- DAKOTA PERFS: LOG DEPTHS: 6642-53, 6708-16, 6731-39, 6746-56, 6784-86



COMPLETION DATE
12/14/66

IP(DK) 2394 MCFGPD
1980 PROD. (DK) 33156 MCFG, 209 BO
CUM. PROD (DK) 801,353 MCFG, 1639 BO
←- DAKOTA PERFS: LOG DEPTHS 6874, 6940-46, 6954-63, 6976-82



COMPLETION DATE
1/28/80

IP(CK) 681 MCFPD
CUM PROD (CK)(ENDING 12/31/81) 14,682 MCFG - 118 BO
←- DAKOTA PERFS: LOG DEPTHS 6882,87, 91, 97, 6902, 10, 14, 19, 24, 32, 64, 68, 72, 88, 90, 94
7080, 94, 96, 98, 7100, 02, 06.

R 13 W R 12 W

T 32 N

B B'

Consolidated Oil & Gas, Inc.
555 17TH STREET - DENVER COLORADO 80202

BEST AVAILABLE COPY

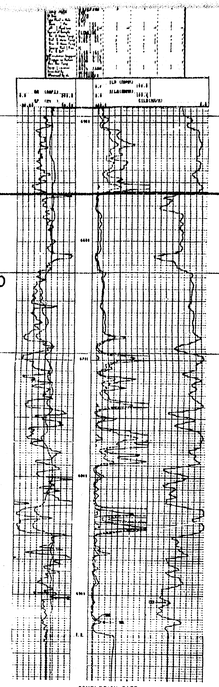
MANCOS

GREENHORN Ls.

DATUM

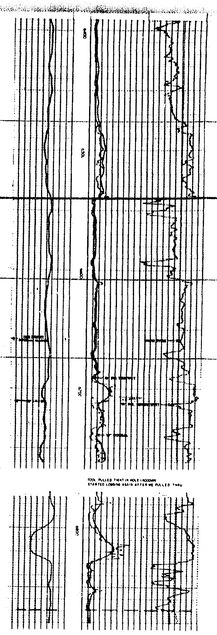
GRANEROS SAND (DAKOTA)

DAKOTA SAND



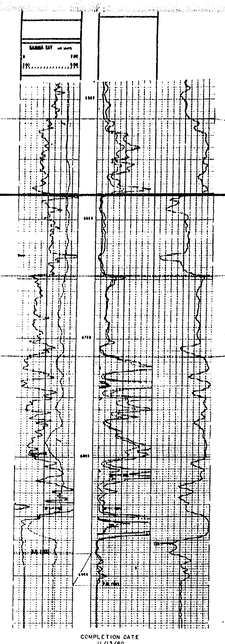
COMPLETION DATE
9/3/80

IP (DK) 1655 MCFGPD
CUM PROD (DK) ENDING 12/31/801 NEW WELL.
← DAKOTA PERFS: LOG DEPTHS: 6827, 30, 34, 38, 44, 50, 53, 60, 80, 84, 96, 98, 6700, 16, 18, 22, 24, 37, 41, 6788,98, 6828, 30, 33, 38, 41, 46



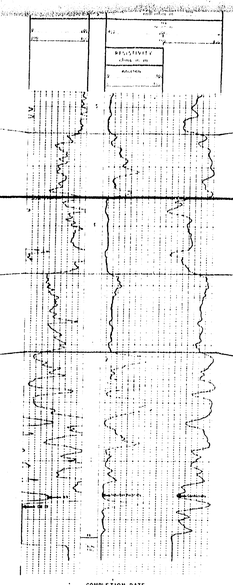
COMPLETION DATE
4/11/80

IP (DK) 2091 MCFGPD
CUM PROD. (DK) ENDING 12/31/80)
55,903 MCFG, 140 BO
← DAKOTA PERFS: LOG DEPTHS: 6608, 12, 16, 20, 28, 34, 40, 50, 60, 76, 84, 94, 98, 6702, 08, 14, 22, 26, 52, 56. 6707, 08, 09, 10, 11, 12, 13, 14, 15, 16.



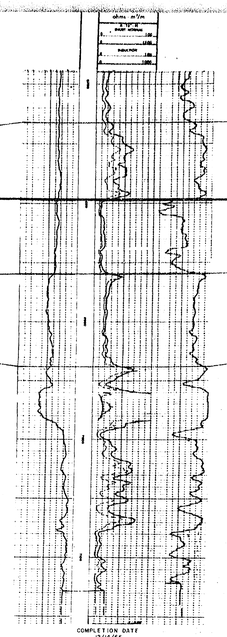
COMPLETION DATE
11/13/80

IP (DK) 1276 MCFGPD
CUM PROD. (DK) ENDING 12/31/80) NEW WELL
← DAKOTA PERFS: LOG DEPTHS: 6650,50, 66, 73, 80, 6703, 21, 40,56 6686, 92, 97, 6718, 27, 32, 45, 56, 70 6850, 52, 54, 56, 58, 60, 62, 64



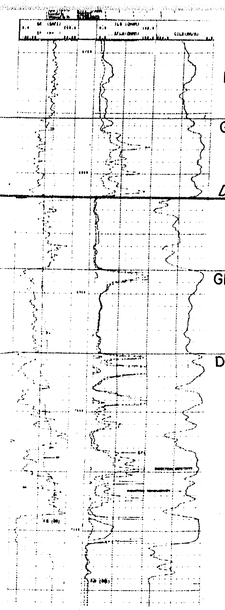
COMPLETION DATE
11/7/76

IP (DK) 1077 MCFGPD
1980 PROD. (DK) 18,270 MCFG, 62 BO
CUM. PROD. (DK)ENDING 12/31/80)
84,233 MCFG, 522 BO
← DAKOTA PERFS: LOG DEPTHS: 6642-53, 6708-16, 6731-37, 6746-56, 6784-86



COMPLETION DATE
12/14/66

IP(DK) 2394 MCFGPD
1980 PROD. (DK) 35136 MCFG, 208 BO
CUM. PROD. (DK) 801,333 MCFG, 6,639 BO
←DAKOTA PERFS: LOG DEPTHS: 6874, 6940-46, 6954-65, 6976-82



COMPLETION DATE
4/20/80

IP (DK) 681 MCFPD
CUM PROD (DK)[ENDING 12/31/81] 14,682 MCFG - 118 BO
← DAKOTA PERFS. LOG DEPTHS: 6882,87, 91, 97, 6902, 10, 14, 19, 24, 52, 54, 58, 72, 86, 90, 94
7088, 94, 96, 98, 7100, 02, 06

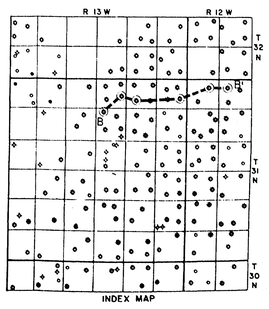
MANCOS

GREENHORN Ls.

DATUM

GRANEROS SAND (DAKOTA)

DAKOTA SAND



INDEX MAP

Consolidated Oil & Gas, Inc.

1860 LINCOLN STREET - DENVER COLORADO - 80295
SUITE 1300 - LINCOLN TOWER BUILDING - (303)861-5252

NW BLANCO AREA

SAN JUAN COUNTY, NEW MEXICO

STRATIGRAPHIC CROSS SECTION B-B'

DATUM BASE GREENHORN Ls.

VERTICAL SCALE 2"=100'
HORIZONTAL SCALE NONE

EXHIBIT 4B

C

1.4 MILES | 0.8 MILES | 1.1 MILES | 0.7 MILES | 0.7 MILES

MANCOS

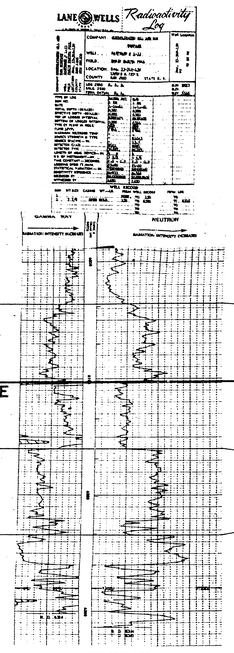
GREENHORN Ls.

DATUM

GRANEROS SHALE

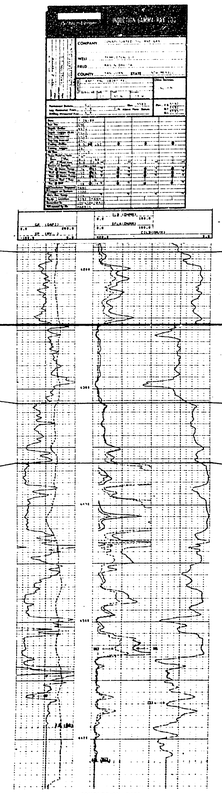
GRANEROS SAND (DAKOTA)

DAKOTA SAND



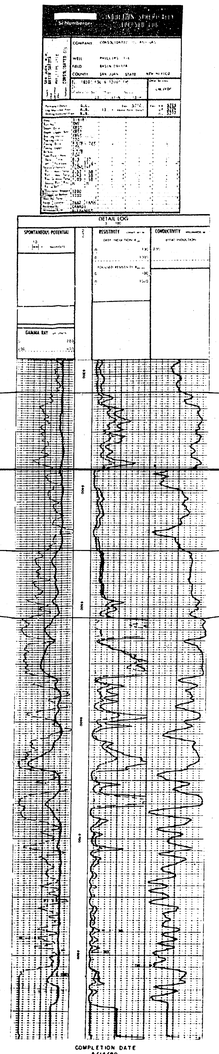
COMPLETION DATE
2/2/61

IP (DK) 1935 MCFGPD
1980 PROD.(DK) 27,353 MCFG, 139 BO.
CUM. PROD. (DK) 786,564 MCFG, 4709 BO.
←DAKOTA PERFS: LOG DEPTHS: 6112-17, 6244-56.



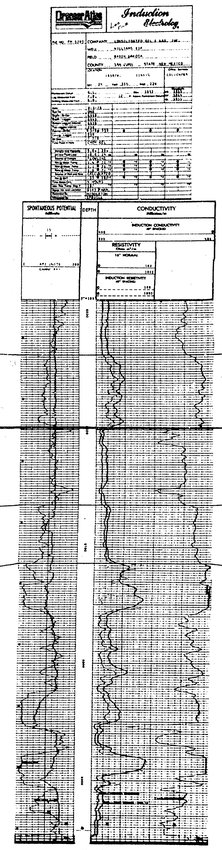
COMPLETION DATE
12/26/80

IP (DK) 3636 MCFGPD
CUM PROD (DK)(ENDING 12/31/80) NEW WELL
←DAKOTA PERFS LOG DEPTHS: 6314, 18, 22, 30, 34, 43, 56, 64, 70, 74, 76, 86, 6400, 04, 12, 14, 16, 6480, 86, 90, 94, 6514, 18, 22, 30, 34, 63



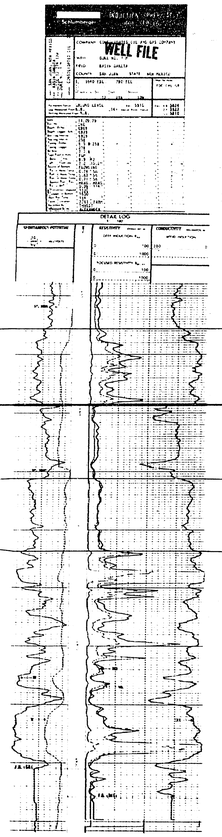
COMPLETION DATE
5/14/80

IP (DK) 5202 MCFGPD
CUM PROD (DK)(ENDING 12/31/80) 34,351 MCFG, 560 BO
←DAKOTA PERFS: LOG DEPTHS: 6453, 58, 61, 69, 74, 80, 94, 6502, 12, 14, 18, 24, 33, 37, 42, 48, 53, 56, 93, 6602, 26, 30, 34, 38, 62, 66, 71, 76, 79, 6707.



COMPLETION DATE
11/21/78

IP (DK) 1407 MCFGPD
1980 PROD (DK) 43,473 MCFG, 318 BO.
CUM PROD (DK)(ENDING 12/31/80) 58,083 MCFG, 483 BO.
←DAKOTA PERFS LOG DEPTHS: 6712, 14, 16, 18, 24, 26, 32, 34, 36, 38, 40, 42, 44, 46, 48, 50, 6840, 44, 46, 48, 80, 82, 84, 86, 90.



COMPLETION DATE
4/6/80

IP (DK) 328 MCFGPD
CUM PROD (DK)(ENDING 12/31/80) 16,363 MCFG.

DAKOTA PERFS LOG DEPTHS: 6658, 61, 64, 67, 70, 80, 85, 94, 6700, 18, 20, 28, 34, 37, 40, 43, 50, 68, 72, 6808, 18, 22, 26, 30, 34, 39, 62, 65, 68, 71, 74, 82, 86, 90

COMPLETION
6/30/

IP (DK) 1864 MCFGPD
CUM PROD (DK)(ENDING
MCFG, 394 BO
←DAKOTA PERFS
06, 14, 29, 34, 39
88, 96, 6900, 04, 34,
7011-23

MANCOS

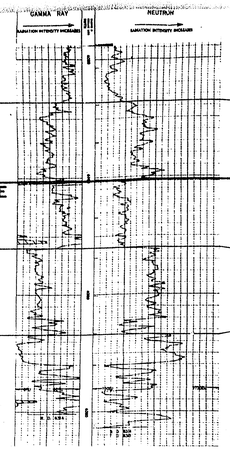
GREENHORN Ls.

DATUM

GRANEROS SHALE

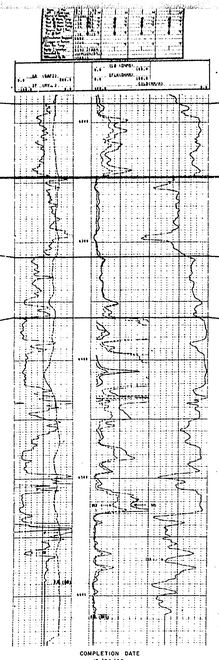
GRANEROS SAND (DAKOTA)

DAKOTA SAND



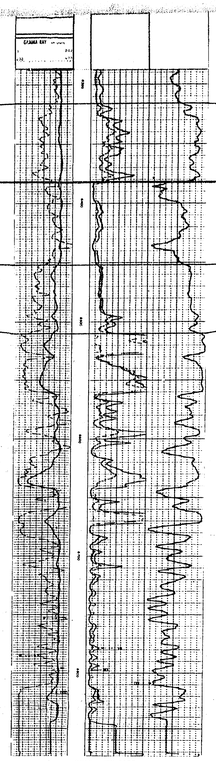
COMPLETION DATE
2/2/81

IP (DK) 1935 MCFGPD
1980 PROD. (DK) 27,353 MCFG, 138 BO.
CUM. PROD. (DK) 786,364 MCFG, 4709 BO.
←DAKOTA PERFS: LOG DEPTHS: 6112-17, 6244-56.



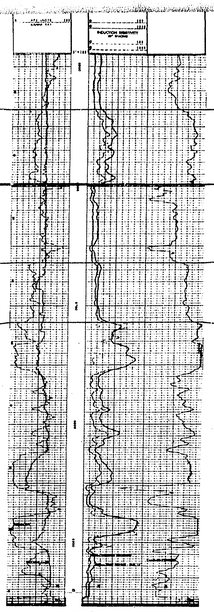
COMPLETION DATE
12/26/80

IP (DK) 3636 MCFGPD
CUM. PROD. (DK)(ENDING 12/31/80) NEW WELL.
←DAKOTA PERFS: LOG DEPTHS: 6314, 18, 22, 30, 34, 47, 90, 94, 70, 74, 78, 98, 6400, 04, 12, 14, 16, 6480, 85, 90, 94, 6514, 18, 22, 30, 34, 63.



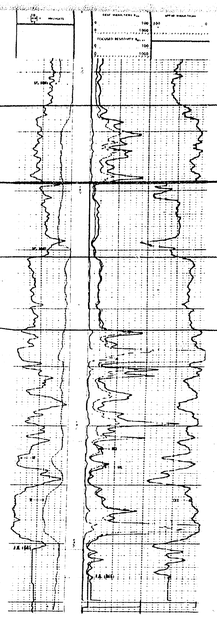
COMPLETION DATE
5/14/80

IP (DK) 5202 MCFGPD
CUM. PROD. (DK)(ENDING 12/31/80) 34,351 MCFG, 560 BO.
←DAKOTA PERFS: LOG DEPTHS: 6453, 58, 61, 69, 74, 80, 94, 6502, 12, 14, 18, 24, 33, 37, 42, 48, 53, 56, 93. 6602, 26, 30, 34, 38, 62, 66, 71, 76, 79, 6707.



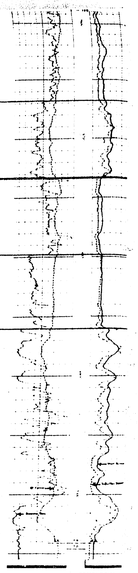
COMPLETION DATE
11/21/78

IP (DK) 1407 MCFGPD
1980 PROD. (DK) 43,473 MCFG, 318 BO.
CUM. PROD. (DK)(ENDING 12/31/80) 58,083 MCFG, 483 BO.
←DAKOTA PERFS: LOG DEPTHS: 6712, 14, 16, 18, 24, 26, 32, 34, 36, 38, 40, 42, 44, 46, 48, 50.
6840, 44, 46, 48, 80, 82, 84, 86, 90.



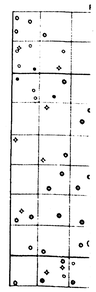
COMPLETION DATE
4/6/80

IP (DK) 328 MCFGPD
CUM. PROD. (DK)(ENDING 12/31/81) 16,365 MCFG.
DAKOTA PERFS: LOG DEPTHS: 6658, 61, 64, 67, 70, 80, 85, 94, 6700, 18, 20, 28, 34, 37, 40, 43, 50, 68, 72.
6808, 18, 22, 26, 30, 34, 59, 62, 65, 68, 71, 74, 82, 86, 90



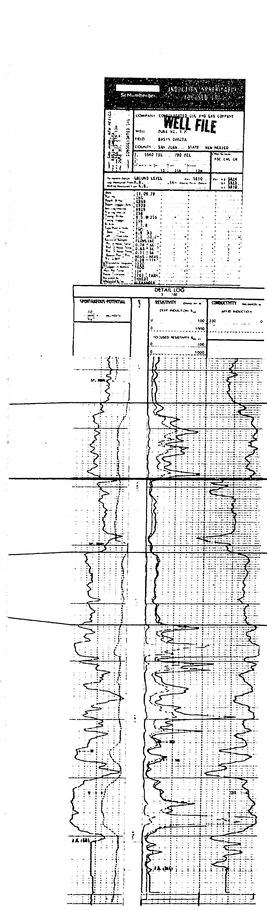
COMPLETION
6-30-82

IP (DK) 1864 MCFGPD
CUM. PROD (DK) (ENDING MCFG, 394 BO
←DAKOTA PERFS LOG DE 06, 12, 14, 29, 34, 39, 44, 86, 96, 6900, 04, 34, 5 7011-25



ES — 0.7 MILES — 0.7 MILES — 1.4 MILES

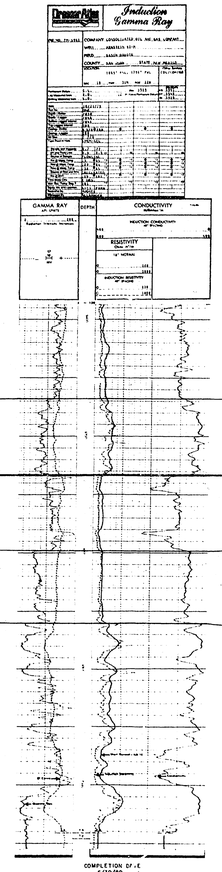
C'



COMPLETION DATE
4/6/80

IP (DK) 328 MCFGPD
CUM PROD (DK)(ENDING 12/31/81) 16,363 MCFG.

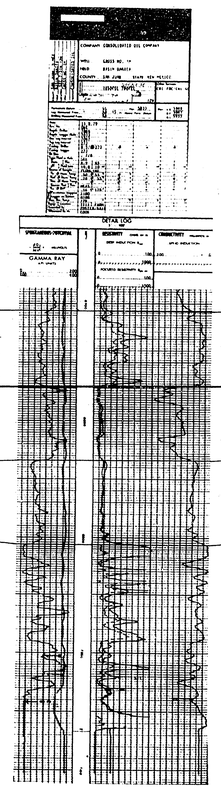
DAKOTA PERFS LOG DEPTHS 6658, 61, 64, 67, 70, 80, 85, 94, 6700, 18, 20, 28, 34, 37, 40, 43, 50, 68, 72, 6804, 18, 22, 26, 30, 34, 39, 62, 65, 68, 71, 74, 82, 86, 90



COMPLETION DATE
6/30/80

IP (DK) 1864 MCFGPD
CUM PROD (DK)(ENDING 12/31/80) 37,833 MCFG, 394 BO.

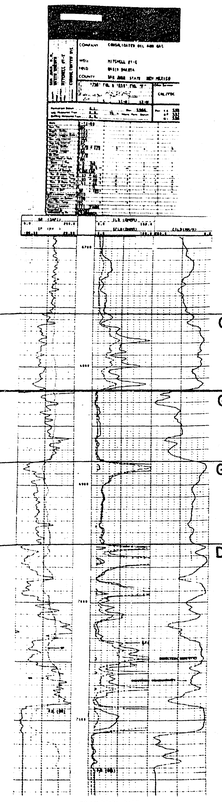
+--DAKOTA PERFS LOG DEPTHS 6802, 06, 10, 14, 29, 34, 38, 46, 61, 71, 75, 79, 88, 96, 6900, 04, 34, 51, 64 7011-25.



COMPLETION DATE
7/26/80

IP (DK) 1725 MCFGPD
CUM PROD (DK)(ENDING 12/31/81) 77,591 MCFG, 461 BO.

+--DAKOTA PERFS LOG DEPTHS 6868, 81, 83, 6907, 10, 13, 18, 28, 31, 38, 41, 71, 73, 84, 87 7037, 40, 43, 46, 49, 52, 55, 58, 61, 64.



COMPLETION DATE
4/28/80

IP (DK) 681 MCFGPD
CUM PROD (DK)(ENDING 12/31/80) 14,682 MCFG, 118 BO

+--DAKOTA PERFS: LOG DEPTH: 6882, 87, 91, 97, 6902, 10, 14, 19, 24, 32, 64, 68, 72, 86, 90, 94, 7088, 94, 96, 98, 7100, 02, 06.

MANCOS

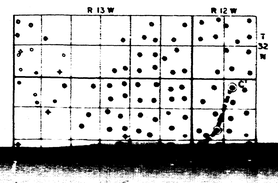
GREENHORN Ls.

DATUM

GRANEROS SHALE

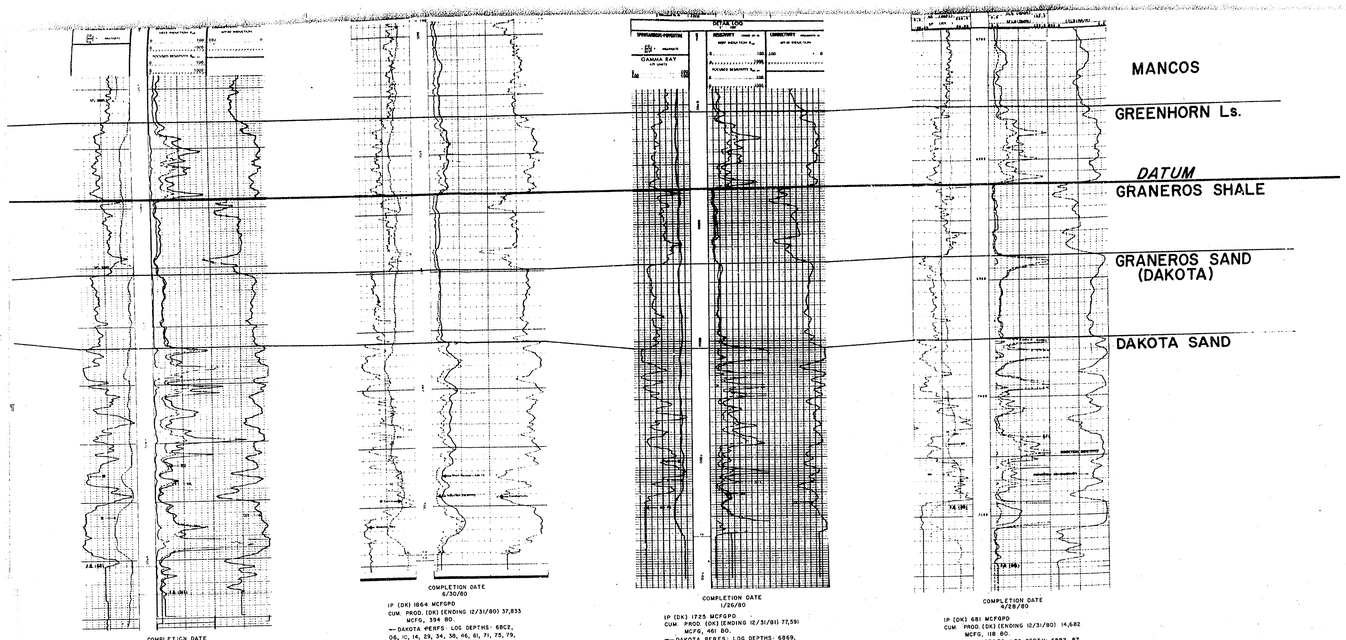
GRANEROS SAND (DAKOTA)

DAKOTA SAND



Consolidated Oil & Gas, Inc.

V.R.R.C.T. HOROGRAPHICS
BEST AVAILABLE COPY



COMPLETION DATE 4/4/80

IP (DK) 328 MCFGPD
CUM. PROD. (DK) (ENDING 12/31/81) 16,363 MCFG.

DAKOTA PERFS: LOG DEPTHS: 6658, 61, 64, 67, 70, 80, 85, 94, 6700, 18, 20, 28, 34, 37, 40, 43, 50, 68, 72, 6808, 18, 22, 26, 30, 34, 59, 62, 65, 68, 71, 74, 82, 86, 90.

COMPLETION DATE 6/30/80

IP (DK) 1864 MCFGPD
CUM. PROD. (DK) (ENDING 12/31/80) 37,833 MCFG, 394 BO.

←DAKOTA PERFS. LOG DEPTHS: 6802, 06, 10, 14, 23, 34, 36, 46, 61, 71, 75, 79, 88, 96, 6900, 04, 34, 51, 64. 7011-25.

COMPLETION DATE 1/26/80

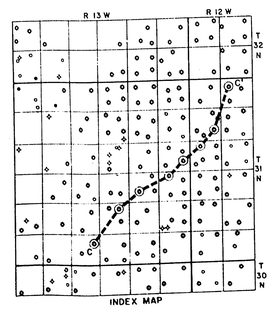
IP (DK) 1725 MCFGPD
CUM. PROD. (DK) (ENDING 12/31/81) 77,591 MCFG, 461 BO.

←DAKOTA PERFS: LOG DEPTHS: 6869, 81, 83, 6907, 10, 13, 16, 28, 31, 38, 41, 71, 73, 84, 87, 7037, 40, 43, 46, 49, 52, 55, 58, 61, 64.

COMPLETION DATE 4/28/80

IP (DK) 681 MCFGPD
CUM. PROD (DK) (ENDING 12/31/80) 19,682 MCFG, 118 BO.

←DAKOTA PERFS: LOG DEPTH: 6882, 87, 91, 97, 6902, 10, 14, 19, 24, 52, 64, 68, 72, 86, 90, 94, 7088, 94, 96, 98, 7100, 02, 06.



INDEX MAP

Consolidated Oil & Gas, Inc.
1860 LINCOLN STREET - DENVER COLORADO - 80295
SUITE 1300 - LINCOLN TOWER BUILDING - (303)861-5252

NW BLANCO AREA

SAN JUAN COUNTY, NEW MEXICO

STRATIGRAPHIC CROSS SECTION C-C'

DATUM BASE GREENHORN Ls.

VERTICAL SCALE: 2.5"=100'
HORIZONTAL SCALE: NONE

EXHIBIT 4C

U.S.G.S. TOPOGRAPHICS
BEST AVAILABLE COPY

R 13 W

R 12 W

T 32 N

T 31 N

T 30 N

RIVER

LEGEND
1980 PRODUCTION
MMCF/PSIA
CUM (7-31-81
MMCF/PSIA
INFILL DAKOTA WELLS
AREA OF INTEREST
Dakota well if permeability data

EXHIBIT I

Consolidated Oil & Gas, Inc.
1860 LINCOLN STREET - DENVER COLORADO - 80295
SUITE 1300 - LINCOLN TOWER BUILDING - (303)861-5252

NW BLANCO AREA
SAN JAUN COUNTY, NEW MEXICO

DAKOTA BASE MAP

SCALE 1"=2000'

Memo
From
D. S. NUTTER
To

V.P.R.C.I. HOROGRAPHICS
BEST AVAILABLE COPY

A

0.4 MILES | 1.4 MILES | 0.9 MILES | 1.1 MILES | 0.8 MILES

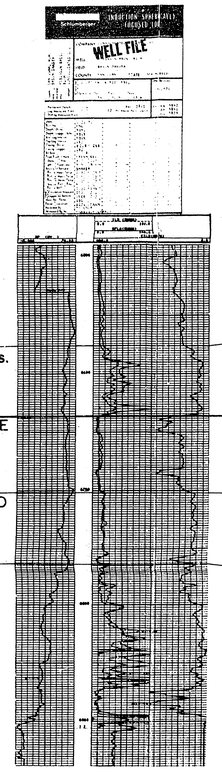
MANCOS

GREENHORN Ls.

DATUM
GRANEROS SHALE

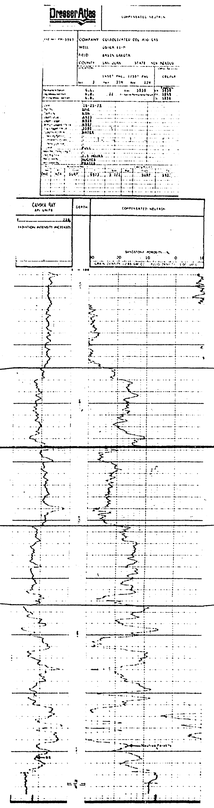
GRANEROS SAND (DAKOTA)

DAKOTA SAND



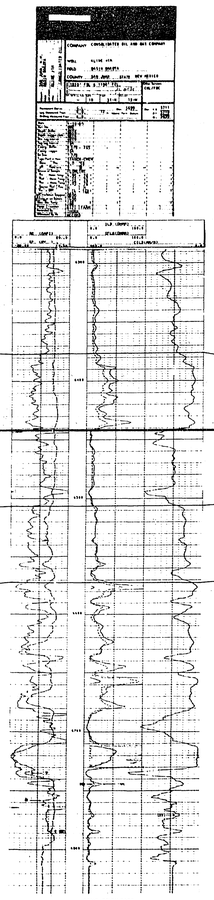
COMPLETION DATE
10/13/80

I.P. (OIL) 110 MCF/DPD
CUM PROD: (DHI) NEW WELL



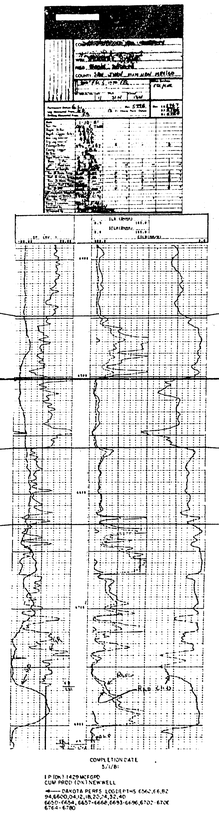
COMPLETION DATE
12/30/79

I.P. (OIL) 2148 MCF/DPD
CUM PROD (OIL) ENDING 12/31/80 38,578 MCFD
537 BO



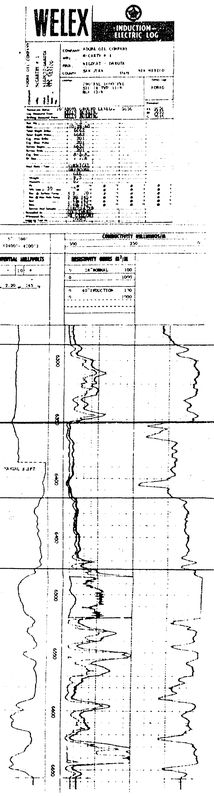
COMPLETION DATE
9/21/80

I.P. (MCF) 1574 MCF/DPD
CUM PROD (OIL) ENDING 12/31/80 NEW WELL



COMPLETION DATE
5/1/81

I.P. (OIL) 1428 MCF/DPD
CUM PROD (OIL) NEW WELL



COMPLETION DATE
7/9/80

I.P. (24) 1878 MCF/DPD
1980 YIELD (OIL) ENDING NOTED: 0 BO
CUM PROD (MCF) 3/31/82: 749 BO

MANCOS

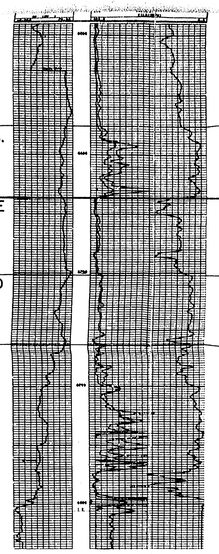
GREENHORN Ls.

DATUM

GRANEROS SHALE

GRANEROS SAND (DAKOTA)

DAKOTA SAND

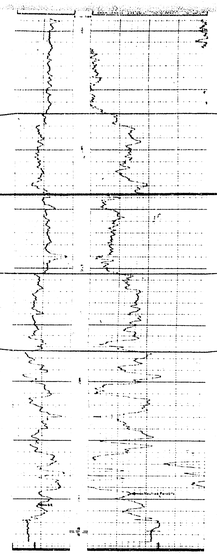


COMPLETION DATE
10/23/80

I.P.72MCF/D,-1112 MCF/DPD
CUM PROD (DK) NEW WELL

←——DAKOTA PERFS-LOG DEPTHS-6024-27,42,52,
56,62,6803,10,12,18,22,27,30
6893,95,6739,49,60,-53,59,97,6911,13.↑

6836 ✓

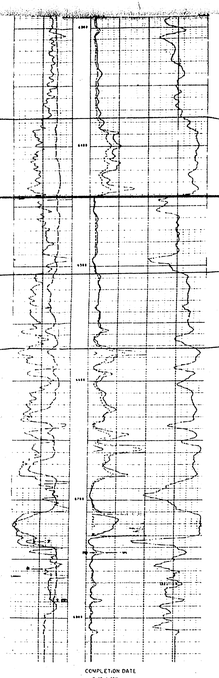


COMPLETION DATE
12/30/79

I.P.(DK)-2182 MCF/DPD
CUM PROD (DK) ENDING 12/31/80 38,578MCFG
837 BO

←——DAKOTA PERFS. LOG DEPTHS-6706,09/2,
11,20,23,25,42,45,50,56
6735,76,77,78,80,84,94,95,96,6814,15,16,17,18,19,46
6854,55,56
6024,00,26

6638 ✓

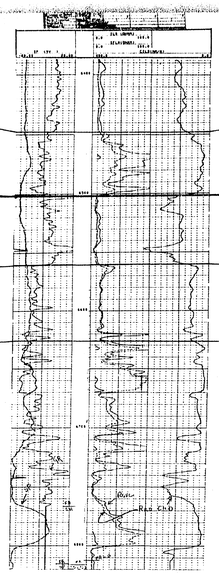


COMPLETION DATE
9/24/80

I.P.(TK)-1574 MCF/DPD
CUM PROD (DK) ENDING 12/31/80 NEW WELL

←——DAKOTA PERFS LOG DEPTHS-6655,5836,12
64,67,9,20,24,29
6734,6736

6442 ✓

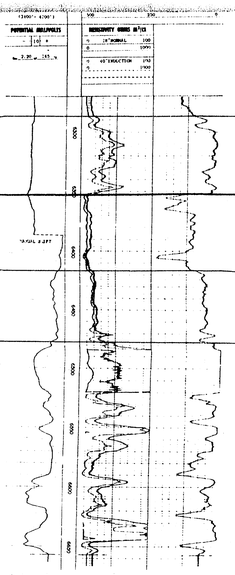


COMPLETION DATE
5/1/81

I.P.(DK)-1429 MCF/DPD
CUM PROD (DK) NEW WELL

←——DAKOTA PERFS LOGDEPTHS-6562,66,82
94,6600,04,12,18,20,24,32,40
6652-6656, 6657-6668, 6693-6696, 6702-6706
6764-6780

6502 ✓

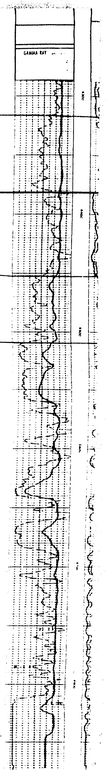


COMPLETION DATE
12/9/80

I.P.(DK)-1678 MCF/DPD
1880 PROD (DK) 2383 MCFG, 0 BO
CUM PROD (DK) 1593022 - 268+80

←——DAKOTA PERFS LOGDEPTHS 6642-652, 6528-
6532, 6548-6554, 6588-CONT

6532 ✓



0.9 MILES | 1.1 MILES | 0.8 MILES | 0.8 MILES | 1.1 MILES

A'

MANCOS

GREENHORN Ls.

DATUM

GRANEROS SHALE

GRANEROS SAND (DAKOTA)

DAKOTA SAND

COMPLETION DATE 9-24-80

COMPLETION DATE 5/1/81

COMPLETION DATE 12/9/80

COMPLETION DATE 5/14/80

COMPLETION DATE 12/26/80

COMPLETION DATE 9-3-80

6502

6382

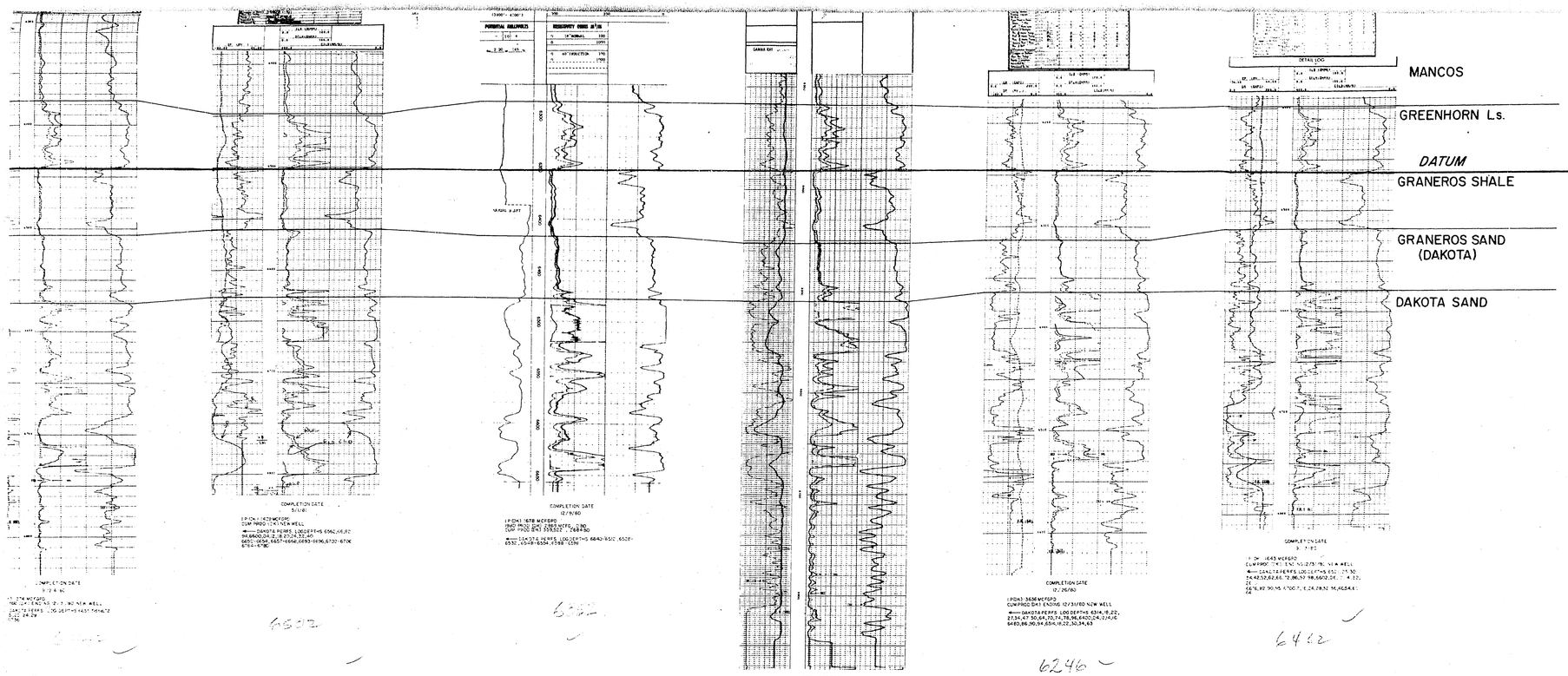
6382

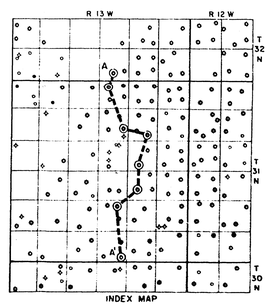
6246

6442

R 13 W | R 12 W | T 32 N

Consolidated Oil & Gas, Inc.





INDEX MAP

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1860 LINCOLN STREET – DENVER COLORADO – 80295
SUITE 1300 – LINCOLN TOWER BUILDING – (303)861-5252

NW BLANCO AREA
SAN JUAN COUNTY, NEW MEXICO

STRATIGRAPHIC CROSS SECTION A-A'
DATUM BASE GREENHORN Ls.

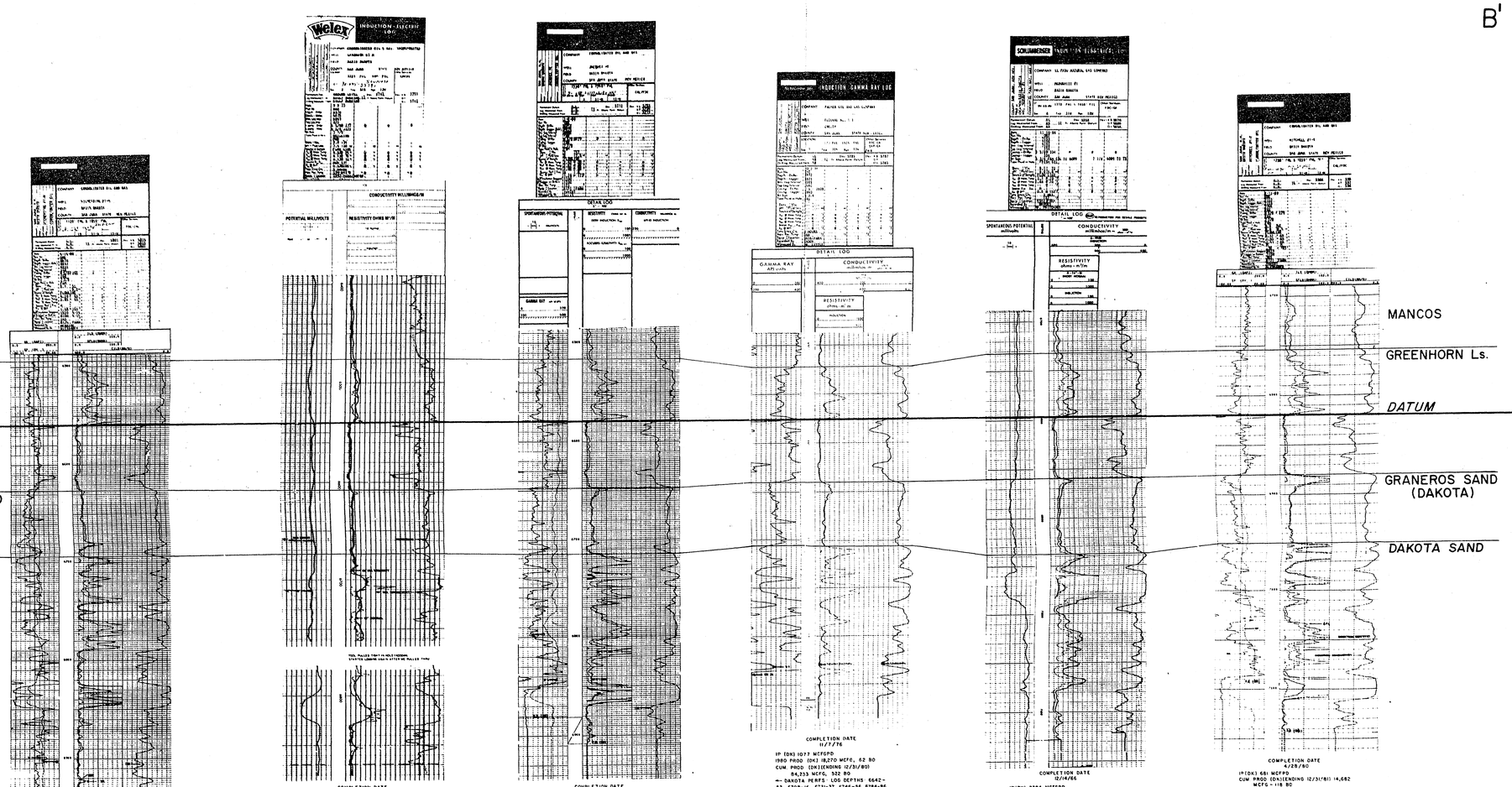
VERTICAL SCALE 2"=100'
NO HORIZONTAL SCALE NONE

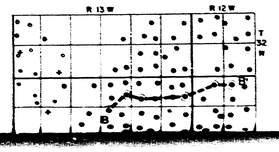
EXHIBIT 4A

0.8 MILES | 0.5 MILES | 1.5 MILES | 0.9 MILES | 0.6 MILES

B

B'





Consolidated Oil & Gas, Inc.

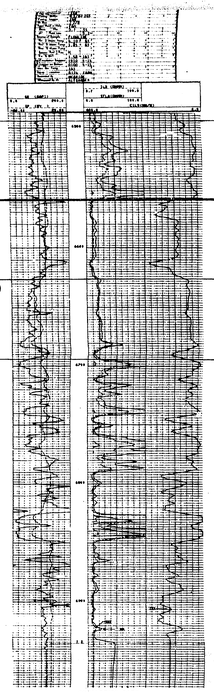
MANCOS

GREENHORN Ls.

DATUM

GRANEROS SAND (DAKOTA)

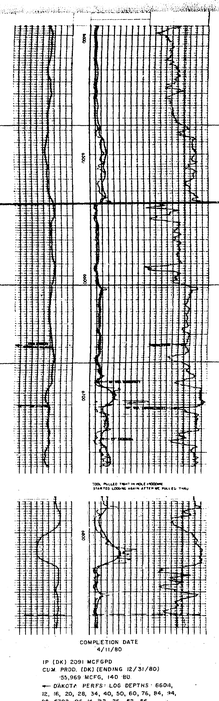
DAKOTA SAND



COMPLETION DATE
5/5/80

IP (DK) 1655 MCFGPD
CUM. PROD (DK)(ENDING 12/31/80) NEW WELL.
← DAKOTA PERFS: LOG DEPTHS- 6627, 30, 34, 38, 44, 50, 53, 60, 80, 84, 96, 98, 6701, 16, 18, 22, 24, 37, 41 6788,98, 6828, 30, 33, 38, 41, 46.

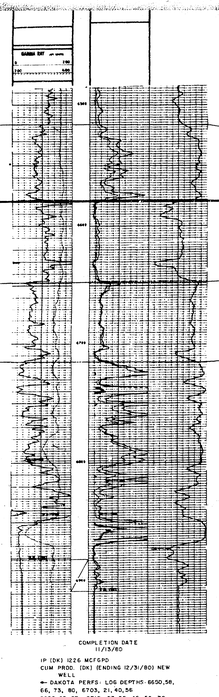
6560



COMPLETION DATE
4/11/80

IP (DK) 2091 MCFGPD
CUM. PROD. (DK) (ENDING 12/31/80) 55,969 MCFG, 140 BO
← DAKOTA PERFS: LOG DEPTHS- 6604, 12, 16, 20, 28, 34, 40, 50, 60, 76, 84, 94, 98, 6702, 06, 14, 22, 26, 52, 56. 6707, 08, 09, 10, 11, 12, 13, 14, 15, 16

6540

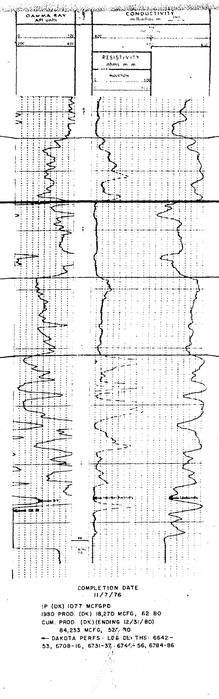


COMPLETION DATE
11/13/80

IP (DK) 1226 MCFGPD
CUM PROD. (DK) (ENDING 12/31/80) NEW WELL
← DAKOTA PERFS: LOG DEPTHS- 6650,58, 66, 75, 80, 6703, 21, 40,56 6686, 92, 97, 6718, 27, 32, 46, 56, 70. 6850, 52, 54, 56, 58, 60, 62, 64

6579

V

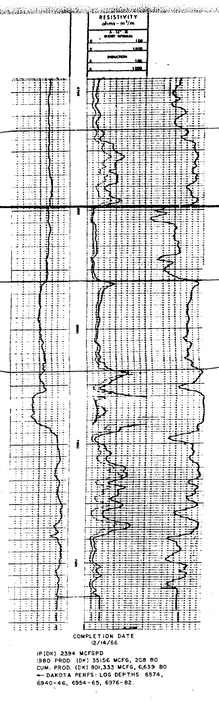


COMPLETION DATE
11/7/76

IP (DK) 1077 MCFGPD
1980 PROD. (DK) 18,270 MCFG, 62 BO
CUM. PROD. (DK)(ENDING 12/31/80) 84,333 MCFG, 537 BO
← DAKOTA PERFS: LOG DEPTHS- 6642-53, 6708-16, 6731-37, 6747-56, 6784-86

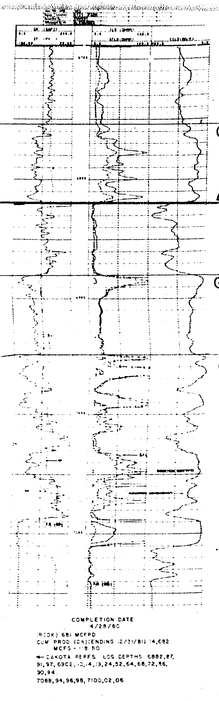
6673

6797



COMPLETION DATE
12/4/66

IP(DK) 2394 MCFGPD
1980 PROD (DK) 35,154 MCFG, 208 BO
CUM. PROD. (DK) 801,333 MCFG, 6,639 BO
← DAKOTA PERFS: LOG DEPTHS- 6874, 6940-46, 6954-65, 6976-82.



COMPLETION DATE
4/28/80

P(DK) 68 MCFPD
CUM PROD (DK)(ENDING 12/31/81) 4,682 MCFS - 8 BO
←-DAKOTA PERFS. LOG DEPTHS- 6882,87, 91,97, 6901, -2, -4, 13, 24, 52, 64, 68, 72, 96, 90, 94 7088, 94, 96, 98, 7100, 02, 06

6920

R 13 W — R 12 W

T 32 N

T 31 N

T 30 N

B — B'

INDEX MAP

Consolidated Oil & Gas, Inc.
1860 LINCOLN STREET - DENVER, COLORADO - 80295
SUITE 1300 - LINCOLN TOWER BUILDING - (303)861-5252

NW BLANCO AREA

SAN JUAN COUNTY, NEW MEXICO

STRATIGRAPHIC CROSS SECTION B-B'

DATUM: BASE GREENHORN Ls.

VERTICAL SCALE 20'/INCH
HORIZONTAL SCALE NONE

EXHIBIT 4B

BEST AVAILABLE COPY

C

1.4 MILES | 0.8 MILES | 1.1 MILES | 0.7 MILES | 0.7 MILES | 0.7 MILES | 1.4 MILES

MANCOS

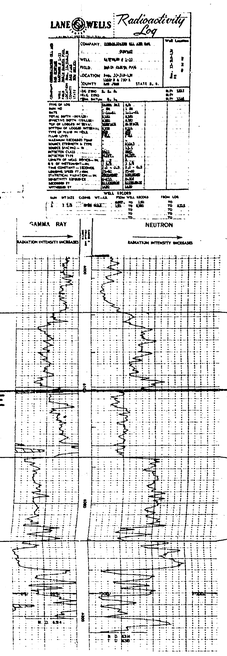
GREENHORN Ls.

DATUM

GRANEROS SHALE

GRANEROS SAND (DAKOTA)

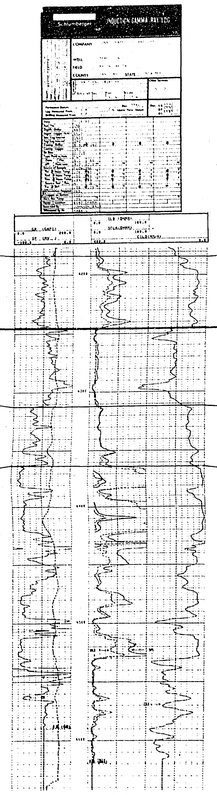
DAKOTA SAND



COMPLETION DATE
2/2/61

IP (DK) 1935 MCFGPD
1980 PROD (DK) 27,353 MCFG, 138 BO.
CUM PROD (DK) 786,564 MCFG, 4709 BO.
←DAKOTA PERFS: LOG DEPTHS: 6112-17, 6244-56.

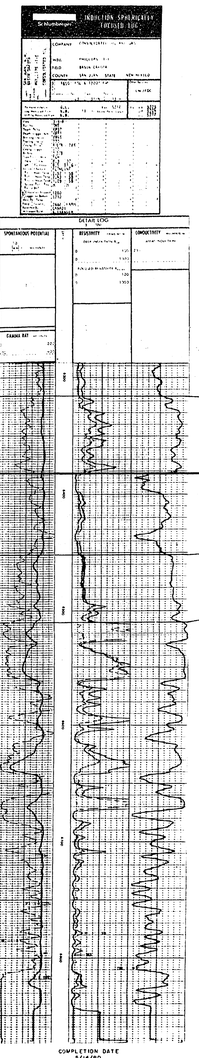
6103 ✓



COMPLETION DATE
12/26/80

IP (DK) 3636 MCFGPD
CUM PROD (DK)[ENDING 12/31/80] NEW WELL
←DAKOTA PERFS: LOG DEPTHS: 6314, 18, 27, 37, 44, 47, 50, 64, 70, 74, 78, 96, 6400, 04, 12, 14, 16, 6483, 86, 93, 97, 6514, 18, 22, 30, 34, 63

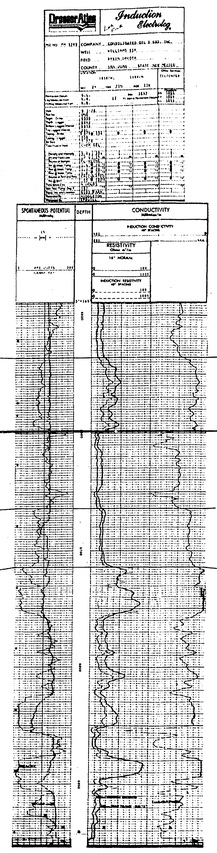
6276 ✓



COMPLETION DATE
5/14/80

IP (DK) 5202 MCFGPD
CUM. PROD. (DK)[ENDING 12/31/80] 34,351 MCFG, 560 BO
←DAKOTA PERFS: LOG DEPTHS: 6453, 58, 61, 69, 74, 80, 94, 6502, 12, 14, 18, 24, 33, 37, 42, 48, 53, 56, 93, 6602, 26, 30, 34, 38, 62, 66, 71, 76, 79, 6707.

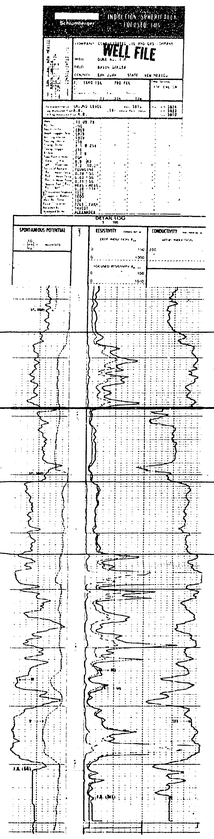
6382 ✓



COMPLETION DATE
1/21/78

IP (DK) 1407 MCFGPD
1980 PROD (DK) 43,473 MCFG, 318 BO.
CUM PROD (DK)[ENDING 12/31/80] 58,083 MCFG, 483 BO
←DAKOTA PERFS: LOG DEPTHS: 6712, 14, 19, 18, 24, 26, 32, 34, 36, 38, 40, 42, 44, 46, 48, 50
6840, 44, 46, 48, 80, 82, 84, 86, 90.

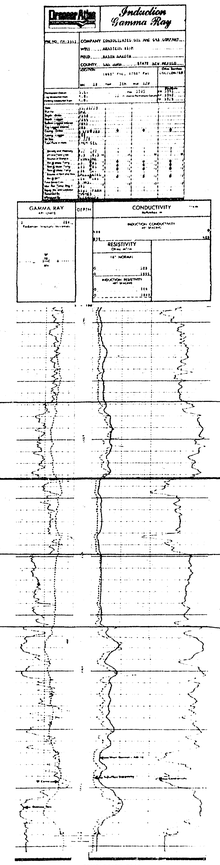
6598



COMPLETION DATE
4/4/80

IP (DK) 328 MCFGPD
CUM PROD (DK)[ENDING 12/31/81] 16,363 MCFG
DAKOTA PERFS: LOG DEPTHS: 6658, 61, 64, 67, 70, 80, 85, 94, 6700, 19, 20, 28, 34, 37, 40, 45, 50, 68, 72
6808, 19, 22, 26, 30, 34, 39, 62, 65, 68, 71, 74, 87, 86, 90

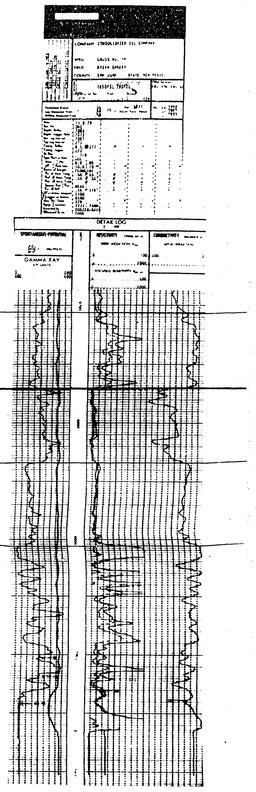
6514 ✓



COMPLETION DATE
6/30/80

IP (DK) 1864 MCFGPC
CUM PROD (DK)[ENDING 12/31/80] 37,833 MCFG, 394 BO
←DAKOTA PERFS: LOG DEPTHS: 6802, 06, 10, 14, 29, 34, 38, 46, 61, 71, 75, 79, 86, 96, 6900, 04, 34, 51, 64
7011-25

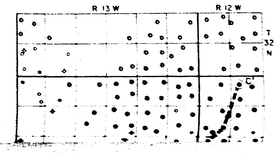
6784 ✓



COMPLETION DATE
1/24/ 81

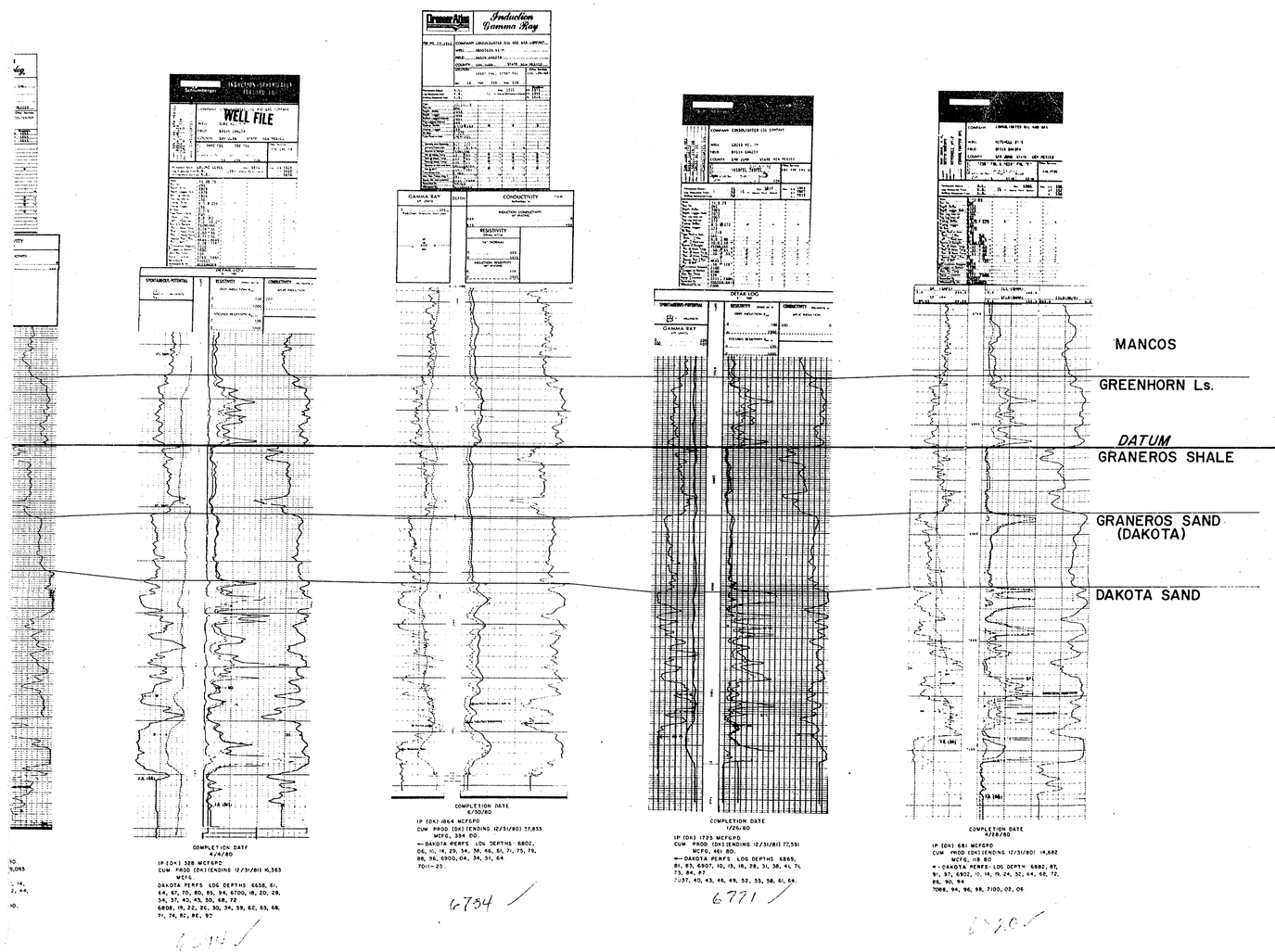
IP (DK) 1725 MCFGPD
CUM PROD (DK)[ENDING 12/31/81] 27,539 MCFG, 461 BO
←DAKOTA PERFS: LOG DEPTHS: 6869, 81, 83, 6907, 10, 13, 16, 28, 3 , 36, 41, 73, 94, 97
7037, 42, 45, 48, 49, 52, 55, 58 & 64

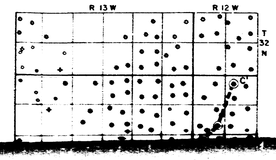
6771



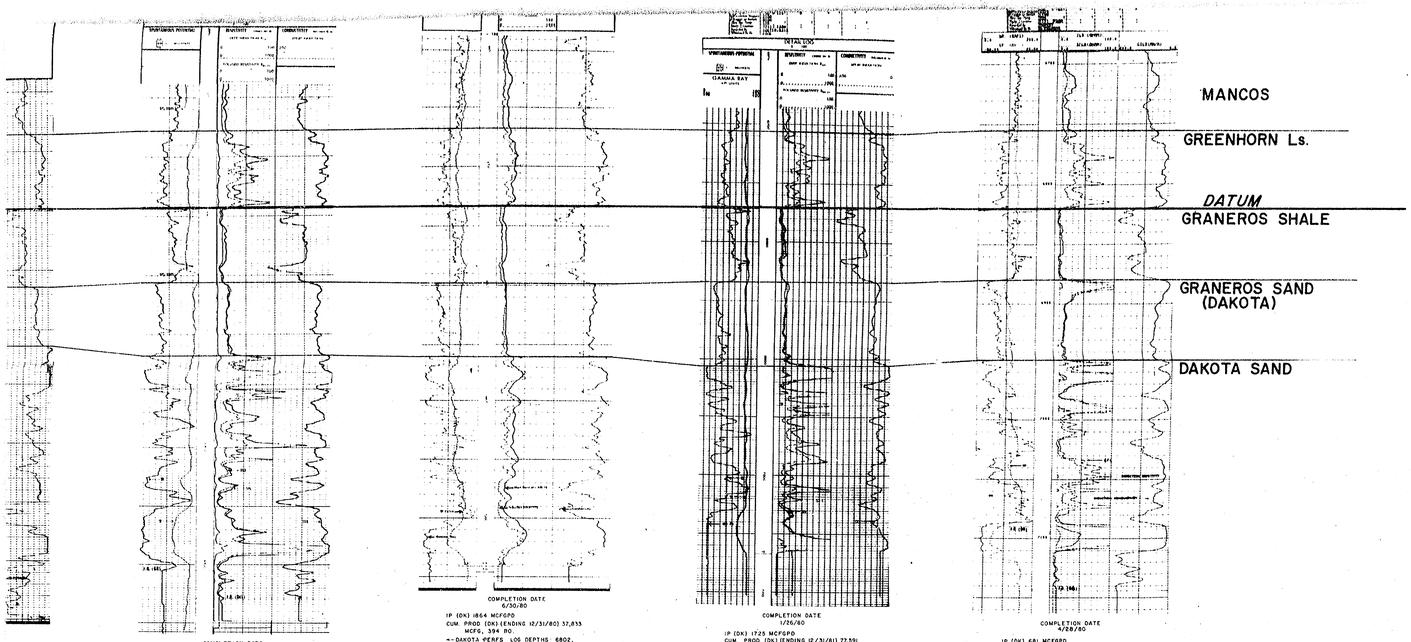
0.7 MILES | 0.7 MILES | 0.7 MILES | 1.4 MILES

C'





Consolidated Oil & Gas, Inc.



COMPLETION DATE 9/4/80

IP (DK) 328 MCFPPD
CUM. PROD. (DK) (ENDING 12/31/81) 16,363 MCFG.

DAKOTA PERFS. LOG DEPTHS: 6658, 61, 64, 67, 70, 80, 85, 94, 6700, 18, 20, 28, 34, 37, 40, 43, 50, 68, 72, 6808, 18, 22, 26, 30, 34, 59, 62, 65, 68, 71, 74, 87, 96, 90

6594

COMPLETION DATE 6/30/80

IP (DK) 1864 MCFGPD
CUM. PROD (DK) ENDING 12/31/80) 37,833 MCFG, 394 BO.

←DAKOTA PERFS LOG DEPTHS 6802, 05, 10, 14, 25, 34, 38, 46, 61, 71, 75, 79, 88, 96, 6900, 04, 34, 51, 64. 7011-25.

6794

COMPLETION DATE 1/26/80

IP (DK) 1725 MCFGPD
CUM. PROD. (DK) (ENDING 12/31/81) 77,591 MCFG, 461 BO.

←DAKOTA PERFS LOG DEPTHS 6669, 81, 83, 6907, 10, 15, 18, 29, 31, 38, 41, 71, 73, 84, 87. 7037, 40, 43, 46, 49, 52, 55, 58, 61, 64.

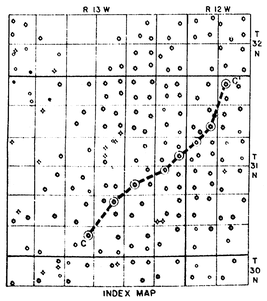
6771

COMPLETION DATE 4/28/80

IP (DK) 681 MCFGPD
CUM. PROD (DK) (ENDING 12/31/80) 14,682 MCFG, 118 BO

←DAKOTA PERFS: LOG DEPTH 6882, 87, 91, 97, 6902, 10, 14, 19, 24, 32, 44, 68, 72, 86, 90, 94. 7088, 94, 96, 98, 7100, 02, 06.

6820



INDEX MAP

Consolidated Oil & Gas, Inc.
1860 LINCOLN STREET - DENVER COLORADO - 80295
SUITE 1300 - LINCOLN TOWER BUILDING - (303)861-5252

NW BLANCO AREA

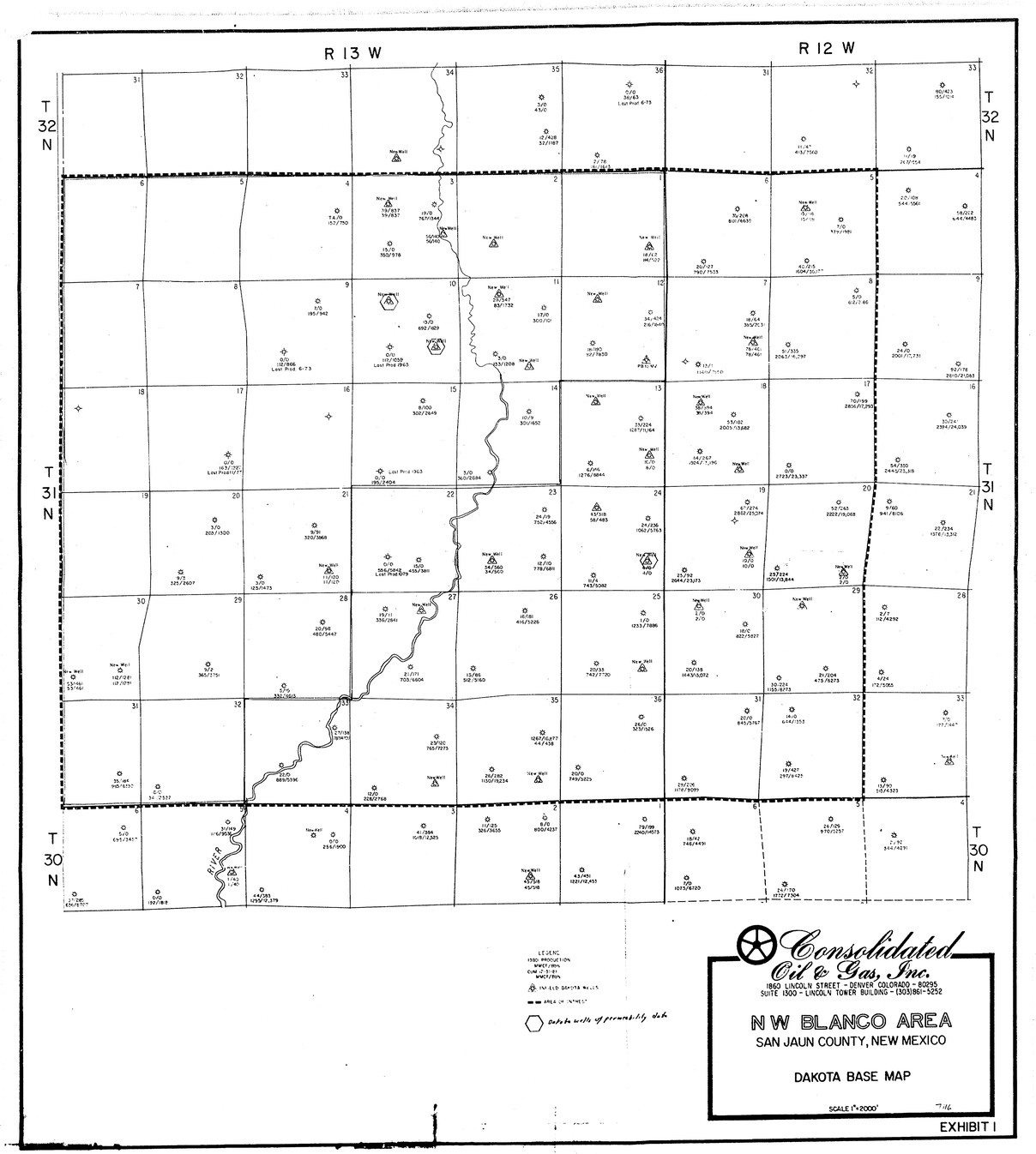
SAN JUAN COUNTY, NEW MEXICO

STRATIGRAPHIC CROSS SECTION C-C'

DATUM BASE GREENHORN Ls.

VERTICAL SCALE 2"/100'
HORIZONTAL SCALE NONE

EXHIBIT 4C



Consolidated Oil & Gas, Inc.
1860 LINCOLN STREET – DENVER COLORADO – 80295
SUITE 1300 – LINCOLN TOWER BUILDING – (303)861-5252

NW BLANCO AREA
SAN JAUN COUNTY, NEW MEXICO

DAKOTA BASE MAP

SCALE 1"=2000'

EXHIBIT I

R 13 W | R 12 W | R 11 W | R 10 W

COLORADO / NEW MEXICO

T 32 N

T 31 N

R 13 W | R 12 W | R 11 W | R 10 W

BEFORE EXAMINER NUTTER
OIL CONSERVATION DIVISION
SRC EXHIBIT NO. 1
CASE NO. 7116

K = well on Ex 5
" " " 6
" " " 7
X_7 " " " 10
X_{10} " " " 11
X_{11} " " "

SRC Ex 7 / Ex 11: both in t: .0609; area t: .0151
Cmp. Ex 6 / 7: both in t: .0049; area t: .0146

LEGEND

- DAKOTA COMPLETION
- 10/89 — ANNUAL GAS AND OIL PRODUCTION - 1979 (MMCF/BBLS)
- 444/4510 — CUMULATIVE GAS AND OIL PRODUCTION - 1/1/80 (MMCF/BBLS)
- TEST WELL
- DID NOT PRODUCE AFTER INITIAL POTENTIAL
- DRY HOLE
- ACREAGE HELD BY SOUTHLAND ROYALTY CO.
- OUTLINE OF GEOGRAPHICAL AREA INCLUDED IN SUBMITTAL
- A — A' LOCATION OF CROSS SECTION A - A'
- B — B' LOCATION OF CROSS SECTION B - B'

Southland Royalty Company
PRODUCTION DEPARTMENT
FORT WORTH, TEXAS

SAN JUAN BASIN

SAN JUAN CO., NEW MEXICO

DAKOTA FORMATION

COMPLETION & PRODUCTION MAP

1" 2000' 12/89

W.P.C.T.F. NOMOGRAPHICS

BEST AVAILABLE COPY

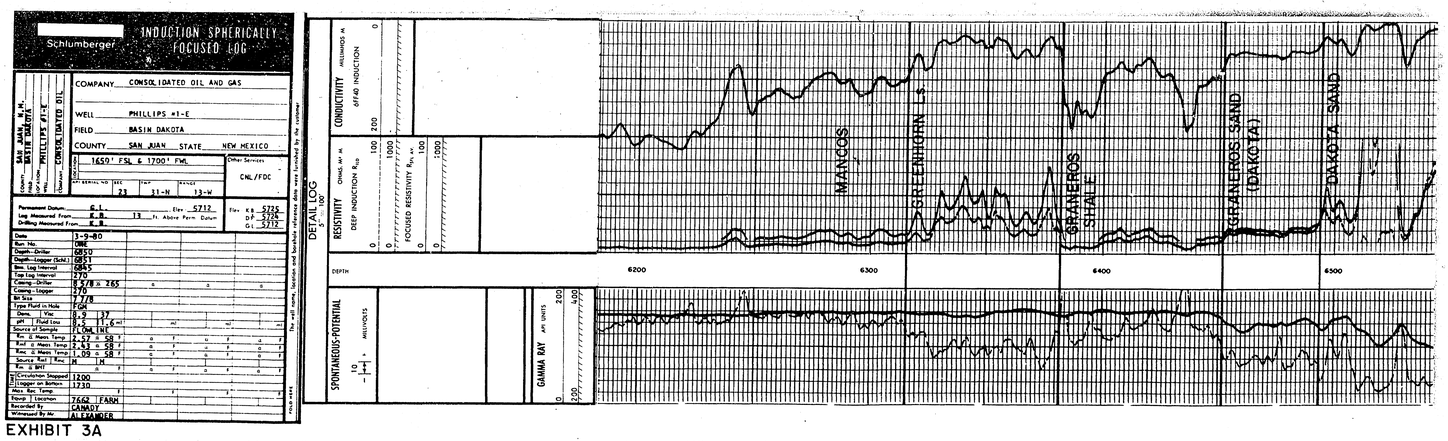
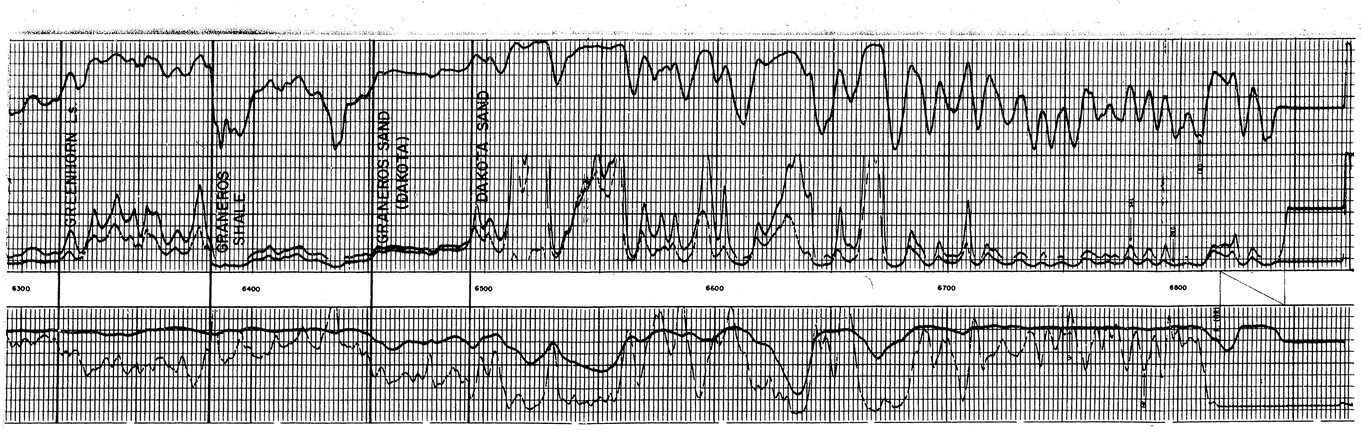

Schlumberger
INDUCTION-SPHERICALLY FOCUSED LOG
COMPANY CONSOLIDATED OIL AND GAS
WELL PHILLIPS #1-E
FIELD BASIN DAKOTA
COUNTY SAN JUAN STATE NEW MEXICO
1650' FSL & 1700' FWL
CNL/FDC
SAN JUAN, N.M.
BASIN DAKOTA
PHILLIPS #1-E
CONSOLIDATED OIL
Sec. 23
Twp. 31-N
Rge. 13-W
Permanent Datum G.L.
Log Measured From K.B. 13 ft. Above Perm. Datum
Drilling Measured From K.B.
Elev. 5712
K.B. 5725
D.F. 5724
G.L. 5712
Date 3-9-80
Run No. ONE
Depth-Driller 6850
Depth-Logger (Schl.) 6851
Btm. Log Interval 6845
Top Log Interval 270
Casing-Driller 8 5/8 @ 265
Casing-Logger 270
Bit Size 7 7/8
Type Fluid in Hole FGH
Dens. | Visc. 8.9 37
pH | Fluid loss 8.5 11.6
Source of Sample FLOWLINE
Rm @ Meas. Temp. 2.67 @ 58°F
Rmf @ Meas. Temp. 2.43 @ 58°F
Rmc @ Meas. Temp. 1.09 @ 58°F
Source Rmf | Rmc M | M
Rm @ BHT
Time Circulation Stopped 1200
Time Logger on Bottom 1730
Max. Rec. Temp.
Equip. | Location 7602 | FARH
Recorded By CANADY
Witnessed By Mr. ALEXANDER
The well name, location and borehole reference data were furnished by the customer
DETAIL LOG
5" = 100'
CONDUCTIVITY millimhos m
0
20
200
6FF40 INDUCTION
RESISTIVITY ohmm, AT M
DEEP INDUCTION R_{ID}
100
1000
FOCUSED RESISTIVITY R_{FOC} AT
100
1000
SPONTANEOUS-POTENTIAL
10
millivolts
GAMMA RAY API UNITS
200
400
DEPTH
6200
6300
6400
6500
MANCOS
GREENHORN
GRANEROS SHALE
GRANEROS SAND (DAKOTA)
DAKOTA SAND

EXHIBIT 3A



U.S.D.I.-F. MICROGRAPHICS
BEST AVAILABLE COPY

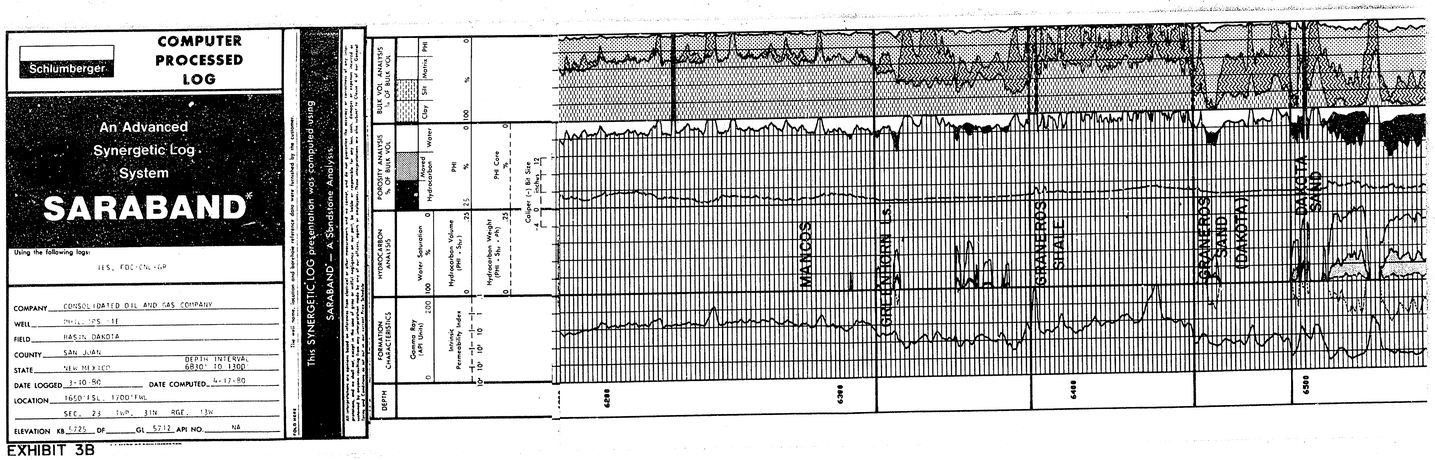
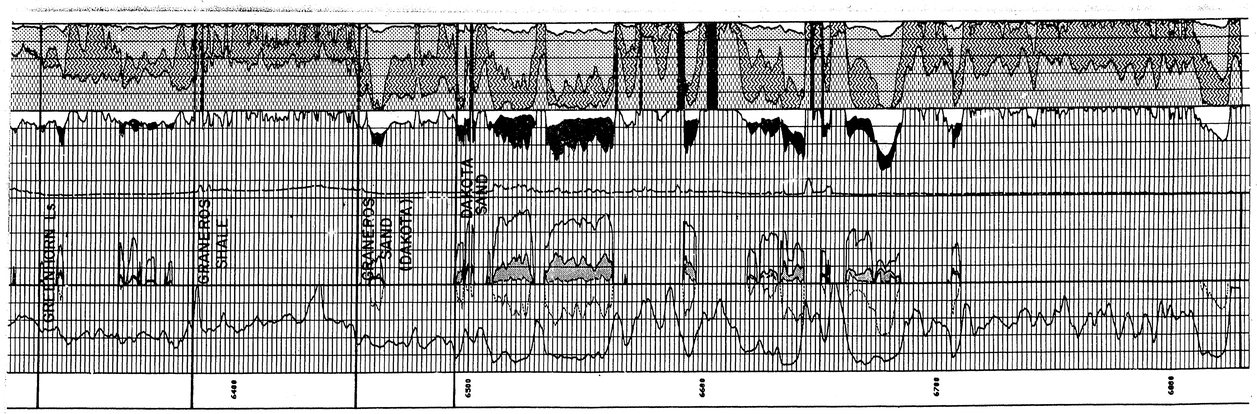

Schlumberger
COMPUTER PROCESSED LOG
An Advanced Synergetic Log System
SARABAND
using the following logs:
IES, FDC/CNL-GR
COMPANY CONSOLIDATED OIL AND GAS COMPANY
WELL PHILLIPS 11
FIELD BASIN DAKOTA
COUNTY SAN JUAN
STATE NEW MEXICO
DEPTH INTERVAL 6810' TO 1360'
DATE LOGGED 3-10-80
DATE COMPUTED 4-17-80
LOCATION 1650'FSL, 1700'FWL
SEC. 23 TWP. 31N RGE. 13W
ELEVATION KB 5725 DF GL 5712 API NO. NA
This SYNERGETIC LOG presentation was computed using SARABAND — A Sandstone Analysis.
BULK VOL. ANALYSIS % OF BULK VOL.
POROSITY ANALYSIS % OF BULK VOL.
HYDROCARBON ANALYSIS
FORMATION CHARACTERISTICS
DEPTH
Clay
Silt
Matrix
PHI
Water
Mixed Hydrocarbon
Water Saturation %
Hydrocarbon Volume (PHI - Sw)
Hydrocarbon Weight (PHI - Sw - PH)
Gamma Ray (API Units)
Intrinsic Permeability Index
Caliper (in) Bit Size
PHI Core
MANCOS
GREENHORN LS
GRANEROS SHALE
GRANEROS SAND (DAKOTA)
DAKOTA SAND
6200
6300
6400
6500

EXHIBIT 3B


CORE PORGRM L.S.
GRANEROS SHALE
GRANEROS SAND (DAKOTA)
DAKOTA SAND
6400
6500
6600
6700
6800

A

0.4 MILES | 1.4 MILES | 0.9 MILES | 1.1 MILES | 0.8 MILES

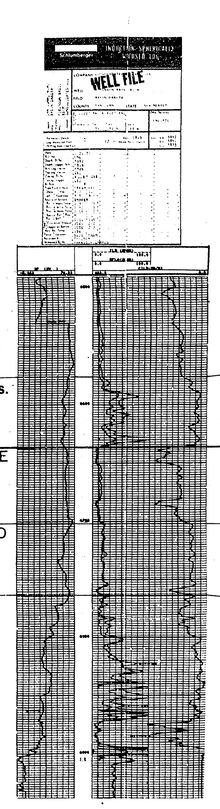
MANCOS

GREENHORN Ls.

DATUM
GRANEROS SHALE

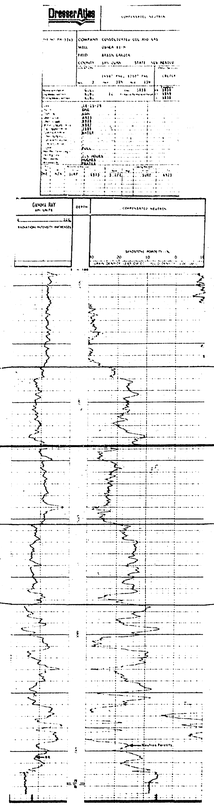
GRANEROS SAND
(DAKOTA)

DAKOTA SAND



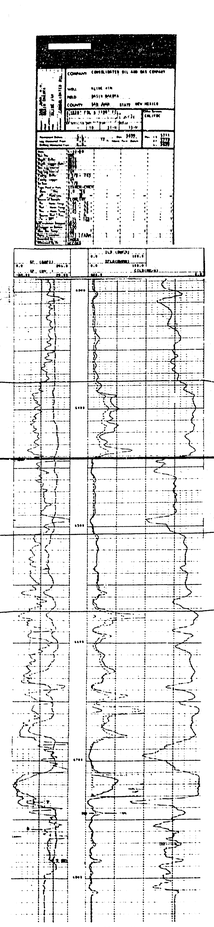
COMPLETION DATE
10/03/80

I.P.(24) 113 MCFGPD
CUM PROD (24) NEW WELL
◄——DAKOTA PERFS -(06,007'S 7024,27,42,52,
56,63,,6802,10,12,18,22,27,3(
6815,33,5799,6901,03,05,07,19,11,13,15



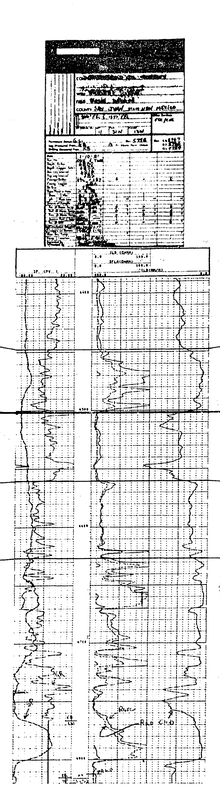
COMPLETION DATE
12/30/79

I.P.(24) 2,182 MCFGPD
CUM PROD (24) ENDING 12/31/80 38,578 MCFG
837 BO
◄——DAKOTA PERFS. LOG DEPTHS: 6708,09/2,
14,20,23,25,42,45,50,58
6717,19,22,27,76,80,84,94,95,96,6814,15,16,17,18,19,66
6924,26
6904,05,06



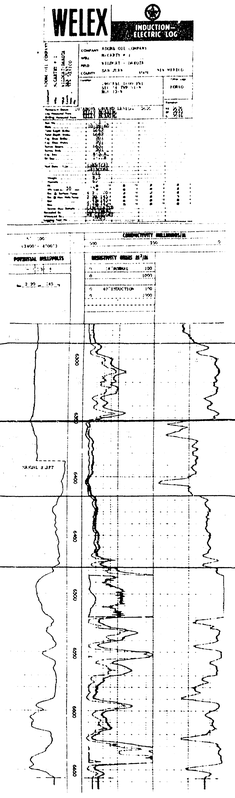
COMPLETION DATE
9/24/80

I.P.(24) 1,574 MCFGPD
CUM FROM DATE ENDING 12/31/80 NEW WELL
◄——DAKOTA PERFS. LOG DEPTHS 6653,56/M"2
6734,67,26



COMPLETION DATE
5/1/81

I.P.(24) 1,427 MCFGPD
CUM PROD FOR NEW WELL
◄——DAKOTA PERFS -LOGDEPTHS 6562,66,82
94,6600,02,04,12,15,20,24,32,40
6650-6656, 6657-6668,6693-6696,6702-6706
6764-6780



COMPLETION DATE
10-9-80

I.P.(24) 1678 MCFGPD
(180 PROD (24) 2,865 MCFG, 0 BO
CUM PROD (24) 6/30/82 - 2,689 MO

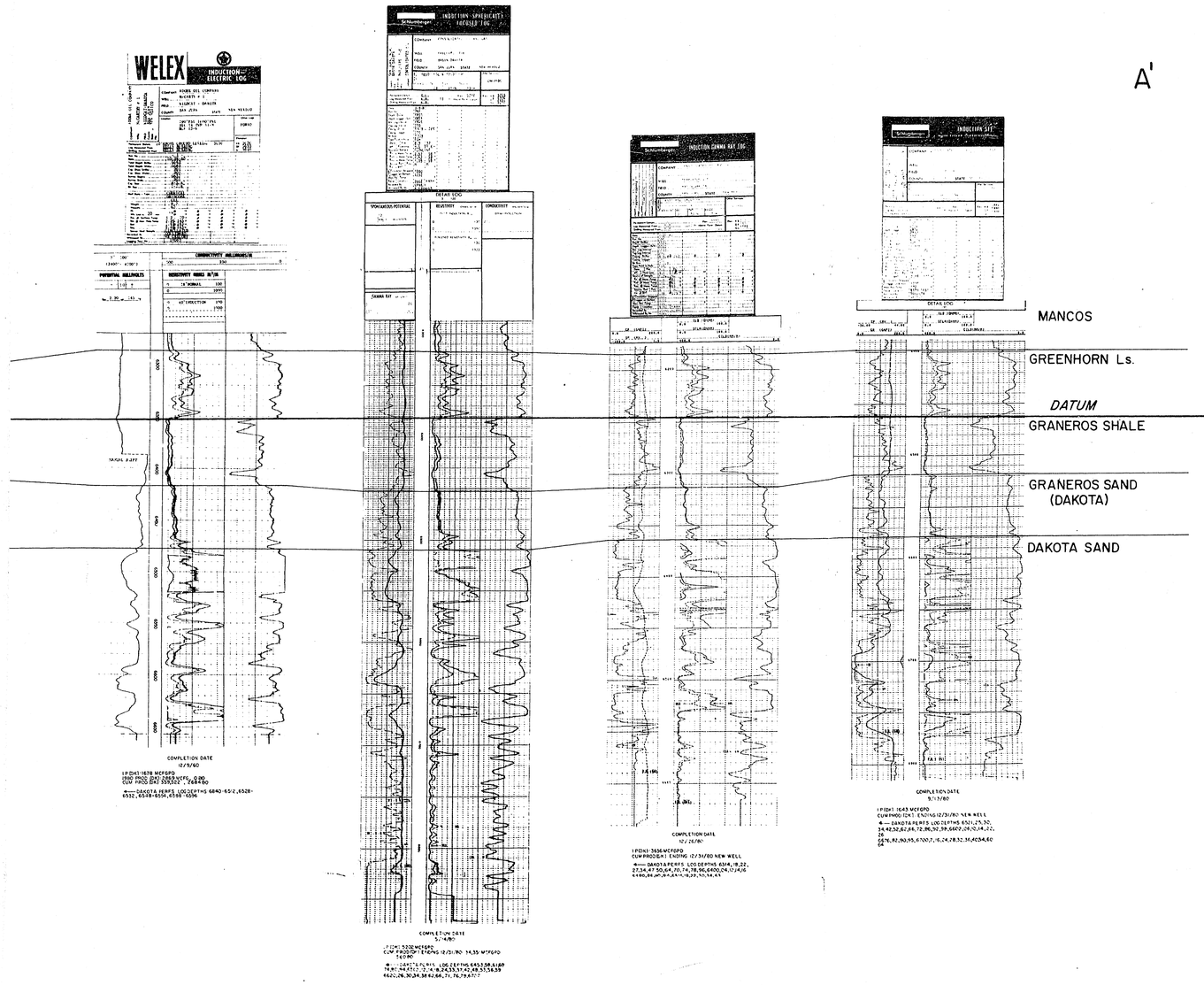
◄——DAKOTA PERFS. LOG DEPTHS 6642-65 2, 6529-
6532, 6548-6554, 6598-6606

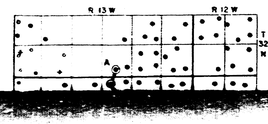
U.S.G.S. PHOTOGRAPHICS

BEST AVAILABLE COPY

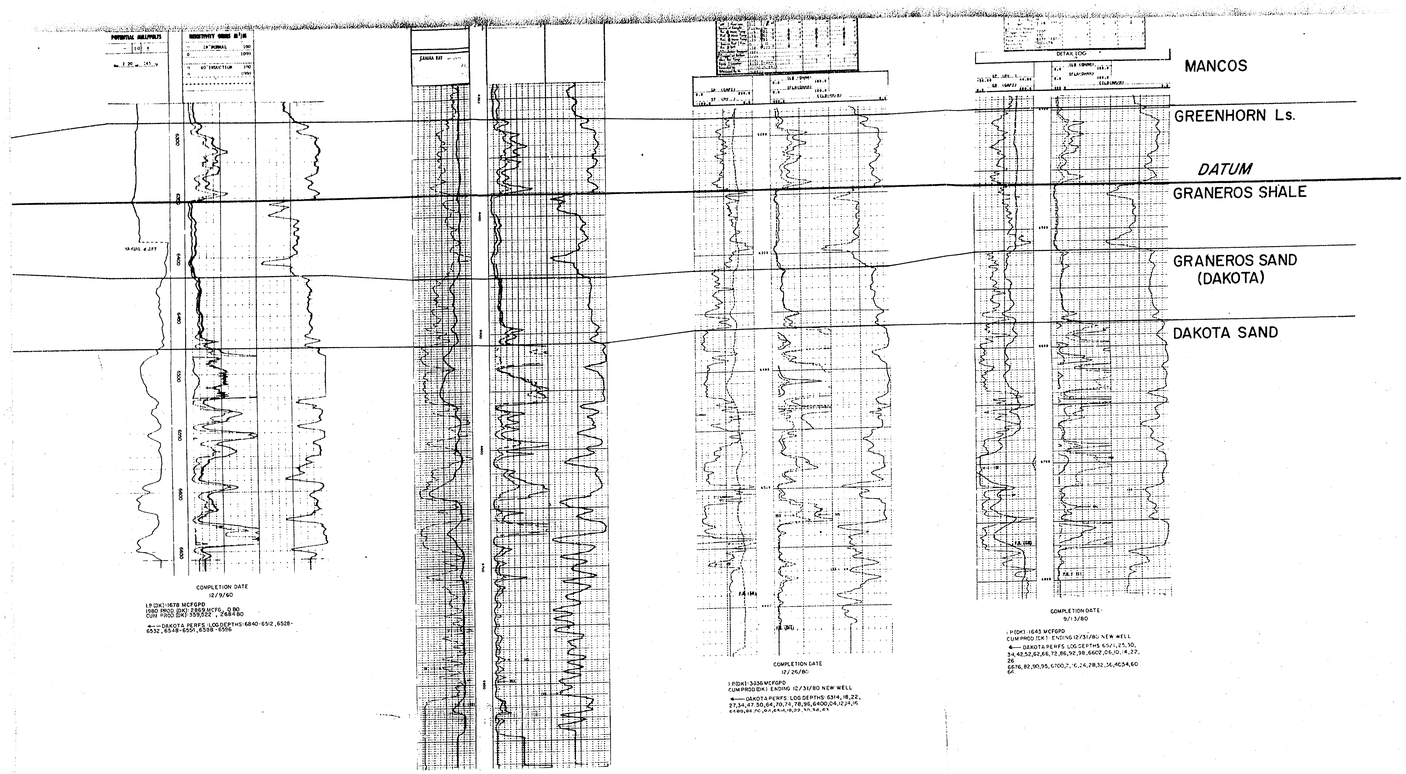
A

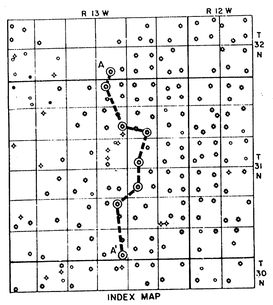
MILES | 0.8 MILES | 0.8 MILES | 1.1 MILES





Consolidated Oil & Gas, Inc.





INDEX MAP

Consolidated Oil & Gas, Inc.
1860 LINCOLN STREET - DENVER COLORADO - 80295
SUITE 1300 - LINCOLN TOWER BUILDING - (303)861-5252

NW BLANCO AREA

SAN JUAN COUNTY, NEW MEXICO

STRATIGRAPHIC CROSS SECTION A-A'

DATUM BASE GREENHORN Ls.

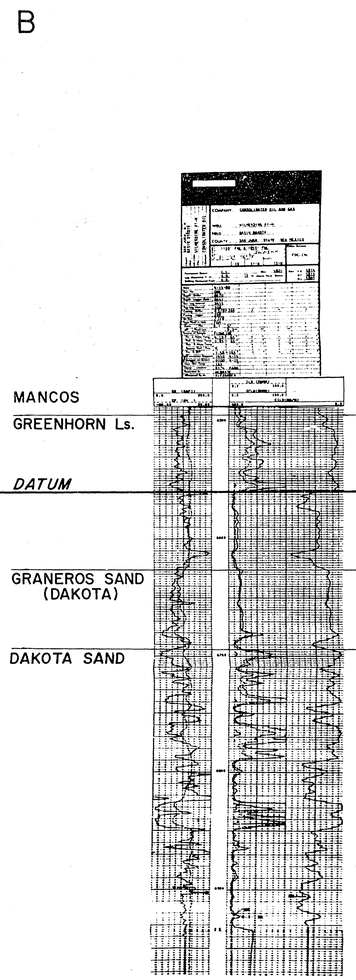
VERTICAL SCALE 2"=100'
HORIZONTAL SCALE NONE

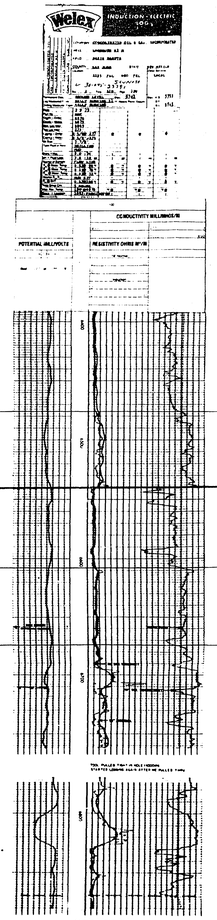
EXHIBIT 4A

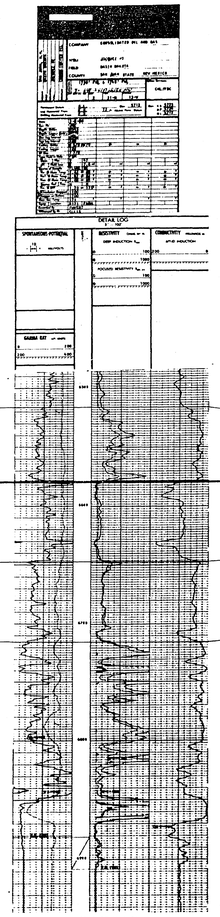
0.8 MILES | 0.5 MILES | 1.5 MILES | 0.9 MILES | 0.6 MILES

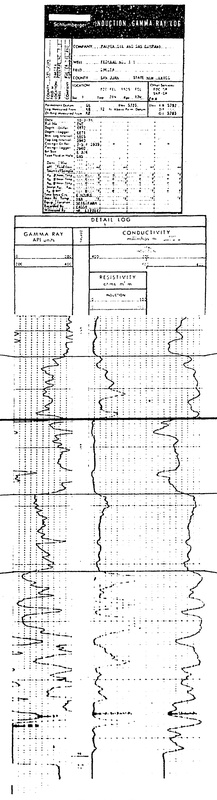
B

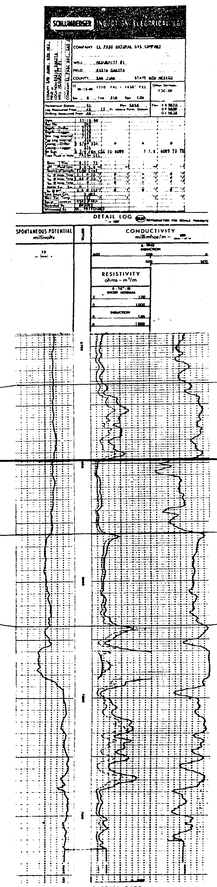
B'

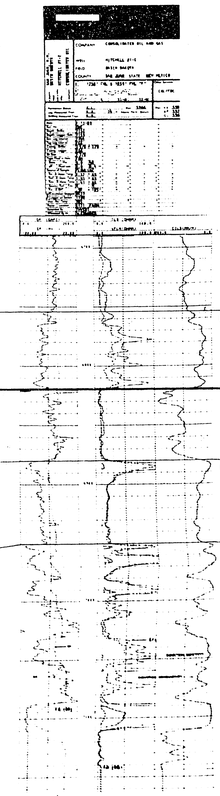












MANCOS

GREENHORN Ls.

DATUM

GRANEROS SAND (DAKOTA)

DAKOTA SAND

COMPLETION DATE 9/5/80

IP (DK) 1555 MCF/D

COMPLETION DATE 4/-1/80

IP (DK) 2281 MCF/D
CUM PROD (DK) (ENDING 12/31/80)
51,149 MCF/D, 140 BO
← DAKOTA PERFS LOG DEPTHS 6628, 12, 18, 20, 28, 34, 40, 50, 60, 76, 84, 94, 98, 6702, 06, 14, 22, 26, 32, 36
6757, 58, 59, 61, 71, 72, 73, 74, 75, 76

COMPLETION DATE 11/3/80

IP (DK) 1226 MCF/D
CUM PROD (DK) (ENDING 12/31/80) NEW WELL
← DAKOTA PERFS LOG DEPTHS 6630,58, 66, 73, 80, 6703, 21, 40,56
6686, 92, 97, 6748, 57, 93, 96, 56, 70
6850, 52, 54, 56, 58, 80, 82, 84

COMPLETION DATE 11/77

IP (DK) 1077 MCF/D
1980 PROD (DK) 82170 MCF, 92 BO
CUM PROD (DK)(ENDING 12/31/80)
84,133 MCF, 102 BO
← DAKOTA PERFS LOG DEPTHS 6642-
53, 6708-16, 6741-57, 6744-56, 6784-96

COMPLETION DATE 7/18/66

IP(DK) 2384 MCF/D
1980 PROD (DK) 39136 MCF, 208 BO
CUM PROD (DK) 801,333 MCF, 1,639 BO
← DAKOTA PERFS LOG DEPTHS 6974,
6940-46, 6954-65, 6976-82

COMPLETION DATE 4/29/80

IP (DK) 681 MCF/D
CUM PROD (DK)(ENDING 12/31/80) 4,592 MCF, 118 BC
← DAKOTA PERFS LOG DEPTHS 6882,87, 91,97,6902,,04,19,24,32,64,68,72,86, 90,94
7088,94,96,98,7100,02,06

U.S.G.S. PHOTOGRAPHICS

BEST AVAILABLE COPY

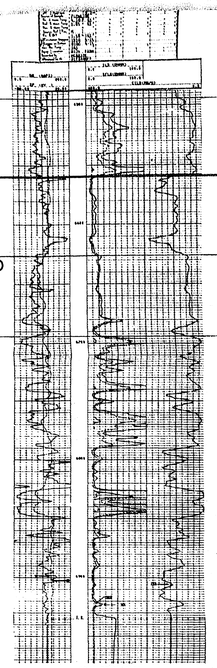
MANCOS

GREENHORN Ls.

DATUM

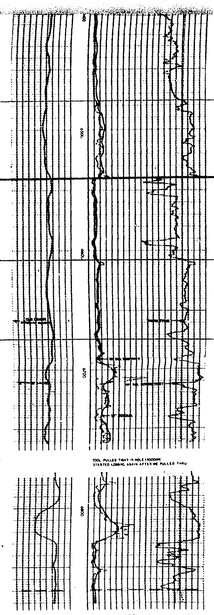
GRANEROS SAND (DAKOTA)

DAKOTA SAND



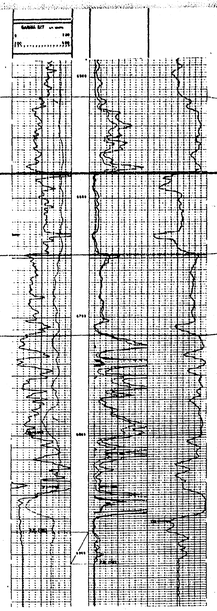
COMPLETION DATE
9/5/80

IP (DK) 1655 MCFGPD
CUM PROD (DK) (ENDING 12/31/80) NEW WELL
← DAKOTA PERFS: LOG DEPTHS: 6527, 30, 34, 38, 44, 50, 53, 60, 80, 84, 95, 98, 6701, 15, 18, 22, 24, 37, 41, 6788,93, 6828, 30, 33, 38, 41, 46.



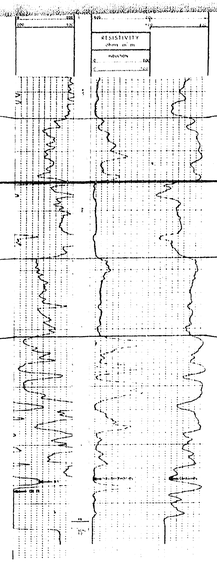
COMPLETION DATE
4/11/80

IP (DK) 2091 MCFGPD
CUM. PROD. (DK) (ENDING 12/31/80)
35,959 MCFG, 140 BO
← DAKOTA PERFS: LOG DEPTHS 6608, 12, 16, 20, 28, 34, 40, 50, 60, 76, 84, 94, 98, 6702, 06, 14, 22, 26, 52, 56, 6707, 08, 09, 10, 11, 12, 13, 14, 15, 16.



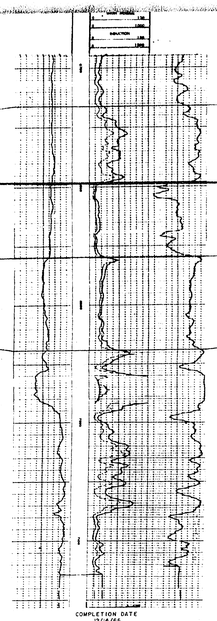
COMPLETION DATE
7/15/80

IP (DK) 1226 MCFGPD
CUM. PROD. (DK) (ENDING 12/31/80) NEW WELL
← DAKOTA PERFS: LOG DEPTHS: 6650,58, 66, 73, 80, 6703, 21, 40,56 6686,92,97, 6718, 27, 33, 46, 56, 70. 6850, 52, 54, 56, 58, 60, 62, 64



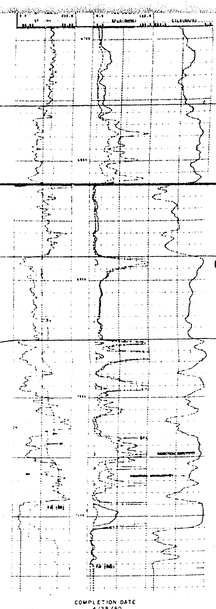
COMPLETION DATE
11/7/76

IP (DK) 1077 MCFGPD
1980 PROD. (DK) 18,270 MCFG, 62 BO
CUM. PROD. (DK)(ENDING 12/31/80)
84,033 MCFG, 322 BO
← DAKOTA PERFS: LOG DEPTHS 6642-53, 6708-16, 6731-37, 6746-56, 6784-86



COMPLETION DATE
12/4/66

IP(DK) 2384 MCFGPD
1980 PROD. (DK) 35156 MCFG, 208 BO
CUM. PROD. (DK) 810,333 MCFG, 6535 BO
← DAKOTA PERFS: LOG DEPTHS 6674, 6940-46, 6954 - 65, 6976-82



COMPLETION DATE
4/28/80

IP(DK) 681 MCFPD
CUM PROD (DK)(ENDING 12/31/81) 14,682 MCFG - 118 BO
← DAKOTA PERFS. LOG DEPTHS 6892,87, 91,97,6902,,10,14,19,24,32,64,68,72,86, 90,94
7088,94,98,38, 7100,02,06

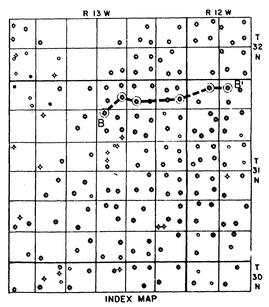
MANCOS

GREENHORN Ls.

DATUM

GRANEROS SAND (DAKOTA)

DAKOTA SAND



INDEX MAP

Consolidated Oil & Gas, Inc.
1860 LINCOLN STREET – DENVER COLORADO – 80295
SUITE 1300 – LINCOLN TOWER BUILDING – (303)861-5252

NW BLANCO AREA

SAN JUAN COUNTY, NEW MEXICO

STRATIGRAPHIC CROSS SECTION B-B'

DATUM BASE GREENHORN Ls.

VERTICAL SCALE 2"=100'
HORIZONTAL SCALE NONE

EXHIBIT 4B

BEST AVAILABLE COPY

C

1.4 MILES | 0.8 MILES | 1.1 MILES | 0.7 MILES | 0.7 MILES

MANCOS

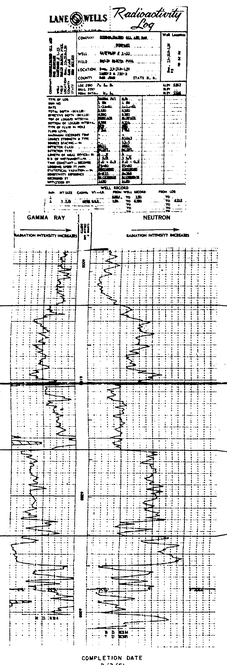
GREENHORN Ls.

DATUM

GRANEROS SHALE

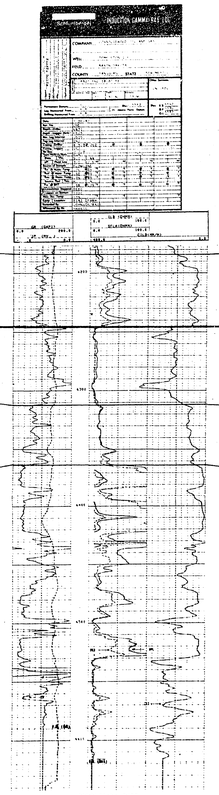
GRANEROS SAND (DAKOTA)

DAKOTA SAND



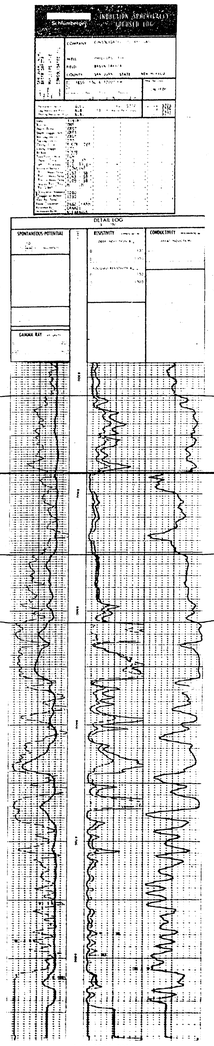
COMPLETION DATE
2/2/61

IP (DK) 1935 MCFGPD
1980 PROD (DK) 27,353 MCFG, 138 BO
CUM PROD (DK) 786,564 MCFG, 4709 BO
←DAKOTA PERFS: LOG DEPTHS 6112-17, 6244-56



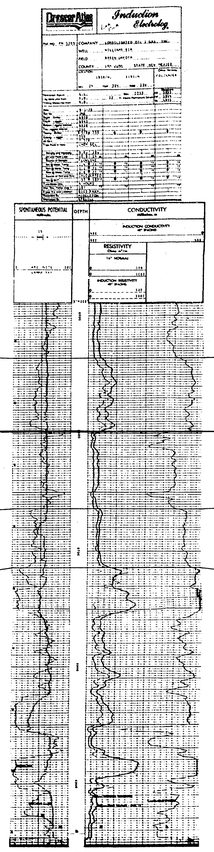
COMPLETION DATE
12/26/80

IP (DK) 3636 MCFGPD
CUM PROD (DK)[ENDING 12/31/80] NEW WELL
←DAKOTA PERFS: LOG DEPTHS 6314, 19, 22, 27, 34, 47, 50, 64, 70, 74, 78, 90, 6400, 04, 10, 14, 18, 6480, 86, 90, 94, 6514, 18, 22, 30, 34, 63



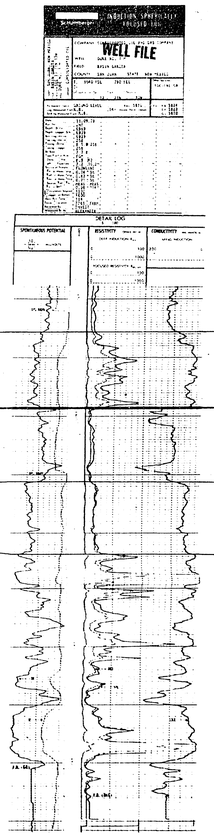
COMPLETION DATE
5/14/80

IP (DK) 5202 MCFGPD
CUM PROD (DK)[ENDING 12/31/80] 34,351 MCFG, 260 BO
←DAKOTA PERFS: LOG DEPTHS 6453, 58, 62, 69, 74, 80, 84, 6502, 10, 14, 18, 24, 28, 32, 42, 48, 52, 56, 93 6602, 26, 30, 34, 38, 42, 66, 7, 76, 79, 6707



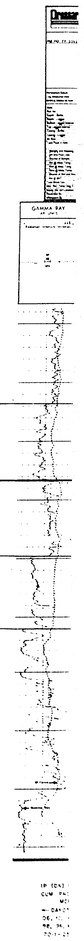
COMPLETION DATE
12/24/78

IP (DK) 1407 MCFGPD
1980 PROD (DK) 43,473 MCFG, 318 BO
CUM PROD (DK)[ENDING 12/31/80] 58,283 MCFG, 483 BO
←DAKOTA PERFS: LOG DEPTHS 6712, 14, 16, 18, 24, 26, 32, 34, 36, 38, 40, 42, 44, 46, 48, 50 6840, 44, 46, 48, 80, 82, 84, 86, 90.



COMPLETION DATE
4/4/80

IP (DK) 328 MCFGPD
CUM PROD (DK)[ENDING 12/31/81] 41,363 MCFG
DAKOTA PERFS: LOG DEPTHS 6658, 61, 64, 67, 70, 80, 85, 94, 6700, 8, 20, 28, 34, 37, 40, 45, 50, 68, 72, 6808, 18, 22, 26, 30, 34, 59, 62, 65, 68, 71, 74, 82, 86, 90

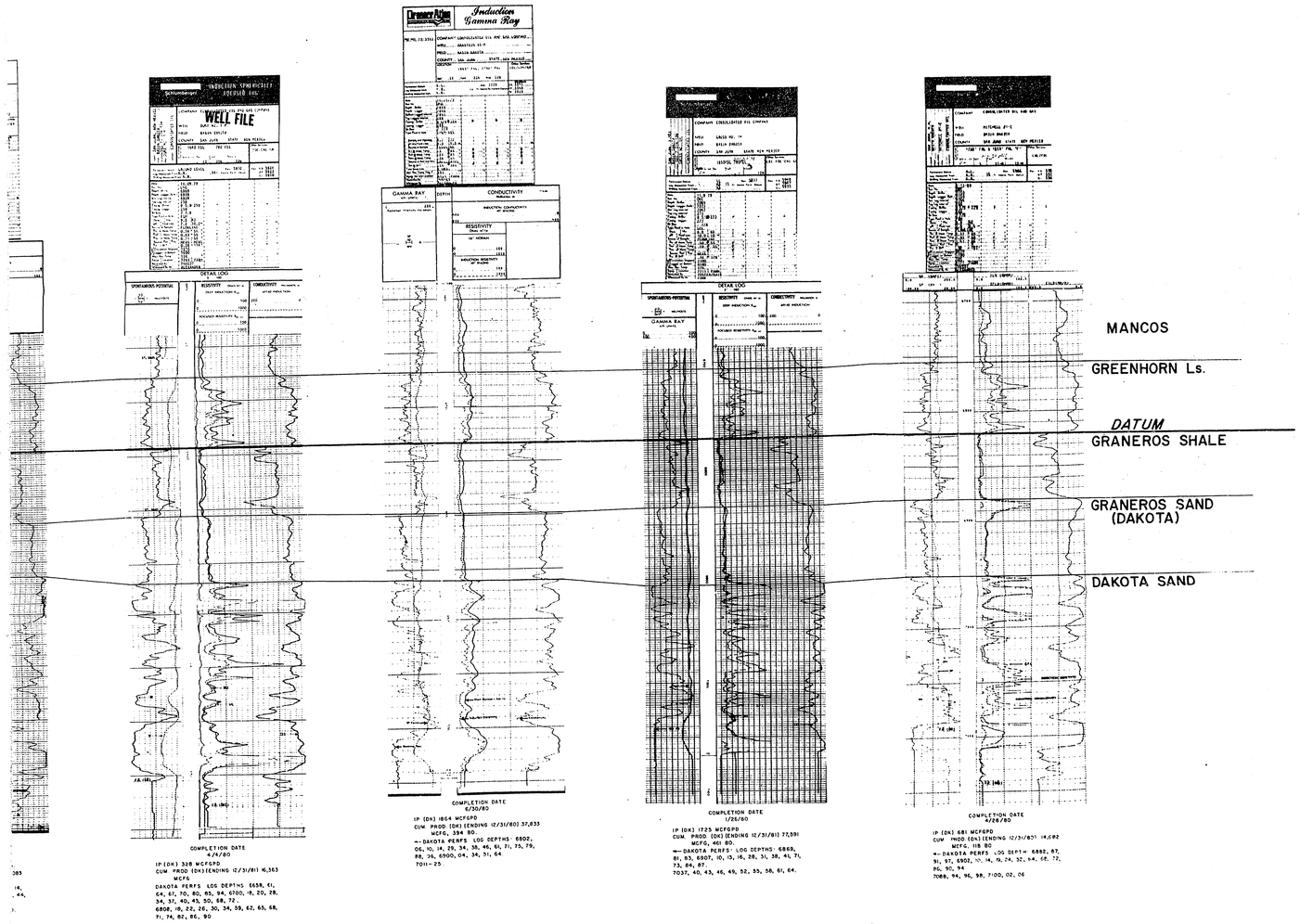


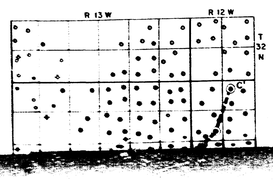
IP (DK)
CUM PR
MCF
← DAKO
PE
68, 74

BEST AVAILABLE COPY

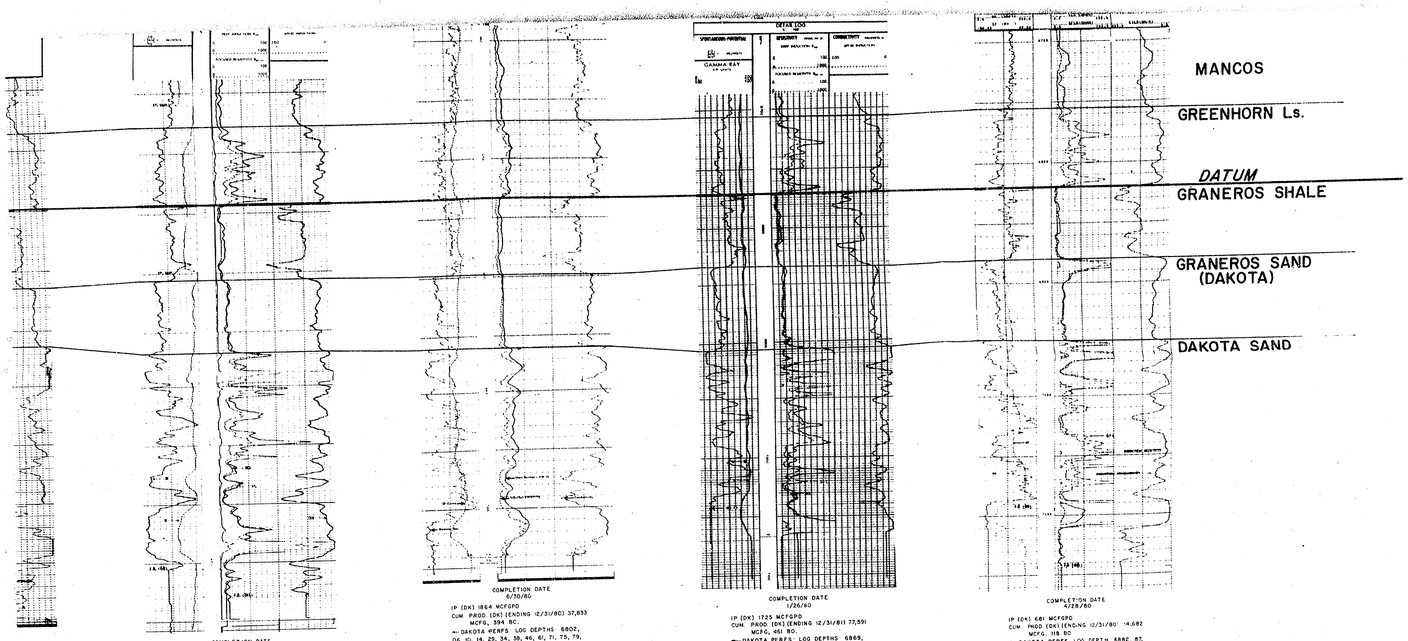
0.7 MILES | 0.7 MILES | 0.7 MILES | 1.4 MILES

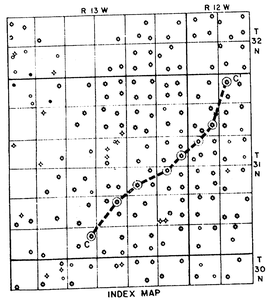
C'





Consolidated Oil & Gas, Inc.
1860 LINCOLN STREET - DENVER COLORADO - 80295





Consolidated Oil & Gas, Inc.
1860 LINCOLN STREET - DENVER COLORADO - 80295
SUITE 1000 - LINCOLN TOWER BUILDING - (303)861-5252

NW BLANCO AREA

SAN JUAN COUNTY, NEW MEXICO

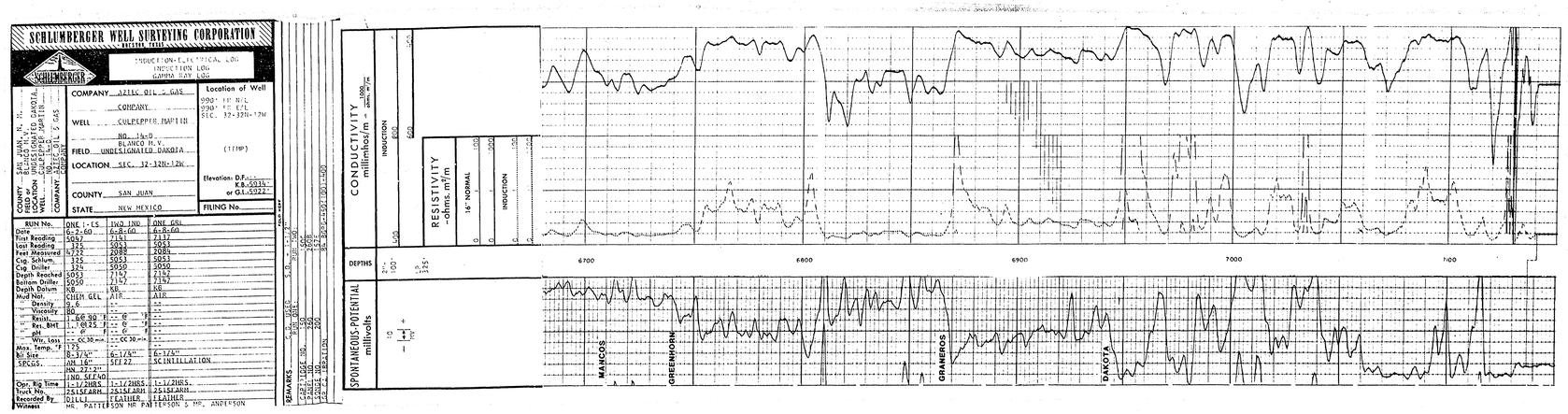
STRATIGRAPHIC CROSS SECTION C-C'

DATUM BASE GREENHORN Ls.

VERTICAL SCALE 2"=100'
HORIZONTAL SCALE NONE

EXHIBIT 4C

4-116 DM



U.S.G.S. HOBBS, N. M.
BEST AVAILABLE COPY

R 13 W

R 12 W

R 11 W

T 32 N

T 31 N

T 30 N

Southland Deleted these two sections.

Soe Helland Area

X_2 = 1,022 on & X 2 (Cons)

X_3 = " " " 3 (")

X_4 = " " " 4 (")

LEGEND

BEFORE EXAMINER NUTTER
OIL CONSERVATION COMMISSION
CASE NO. 716 EXHIBIT NO. 1

Consolidated Oil & Gas, Inc.

SAN JUAN COUNTY, NEW MEXICO

NORTHWEST BLANCO AREA

ACREAGE AND UNITS

2.1 Miles | 1.8 Miles | 1.7 Miles | 1.6 Miles | 2.2 Miles

A — DATUM — **A'**

Base of GREENHORN

Top of GRANEROS SAND

Top of DAKOTA SAND

South

West

Completion Date: 9-20-80
Initial Potential: 151 Mcf/D
Annual Production (1979): 0 Mmcf
Cumulative Production (1-1-80): 0 Mmcf
Perforations: 6979'-7214'
Stimulation: Sand-Water Fracture

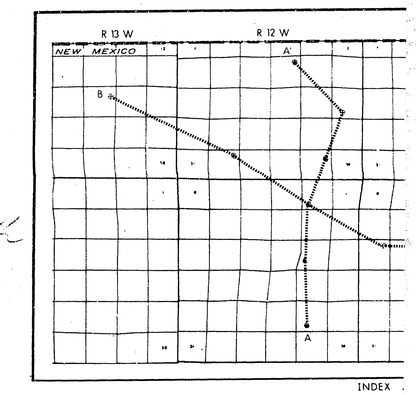
Completion Date: 8-5-80
Initial Potential: 1147 Mcf/D
Annual Production (1979): 0 Mmcf
Cumulative Production (1-1-80): 0 Mmcf
Perforations: 7284'-7465'
Stimulation: Sand-Water Fracture

Completion Date: Not Yet Completed

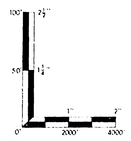
Completion Date: 11-28-68
Initial Potential: 3411 Mcf/D
Annual Production (1979): 32 Mmcf
24 Bbls
Cumulative Production (1-1-80): 530 Mmcf
1294 Bbls
Perforations: 7462'-7624'
Stimulation: Sand-Water Fracture

Completion Date: 5-10-61
Initial Potential: D&A [No Tests Reported]
Perforations: 7603'-7802'
Cored: 7575'-7613', 7663'-7838'
Stimulation: Sand-Water Fracture

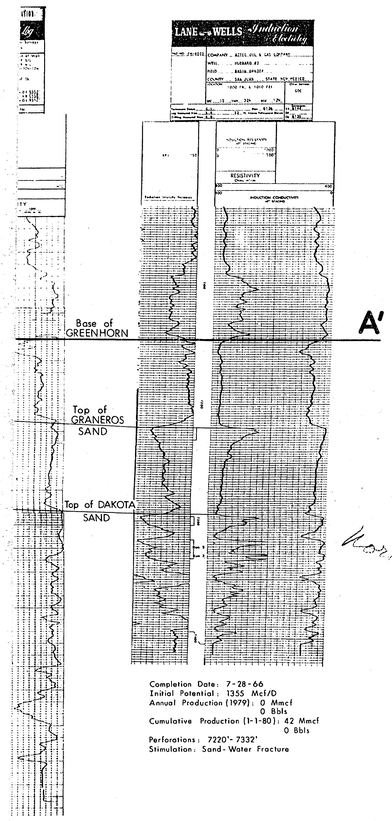
Completion Date: 7-28-66
Initial Potential: 1355 Mcf/D
Annual Production (1979): 0 Mmcf
0 Bbls
Cumulative Production (1-1-80): 42 Mmcf
0 Bbls
Perforations: 7220'-7332'
Stimulation: Sand-Water Fracture



INDEX



← 2.2 Miles →



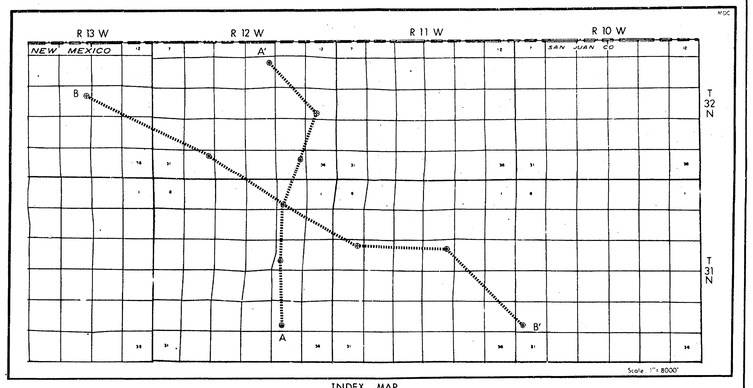
North

Completion Date: 7-28-66
Initial Potential: 1355 Mcf/D
Annual Production (1979): 0 Mmcf
0 Bbls
Cumulative Production (1-1-80): 42 Mmcf
0 Bbls

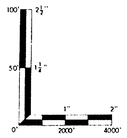
Perforations: 7220'- 7332'
Stimulation: Sand-Water Fracture

(tests Reported)

8'
ure



INDEX MAP



3

BEFORE EXAMINER NUTTER
OIL CONSERVATION DIVISION
SRC EXHIBIT NO. 3
CASE NO.

Southland Royalty Company
PRODUCTION DEPARTMENT
FORT WORTH, TEXAS

SAN JUAN BASIN

SAN JUAN CO., NEW MEXICO

DAKOTA FORMATION

CROSS SECTION A — A'

12/80

4.4 Miles — 2.9 Miles — 2.7 Miles — 2.9 Miles

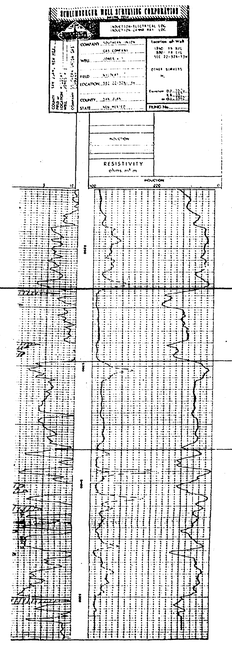
B

DATUM

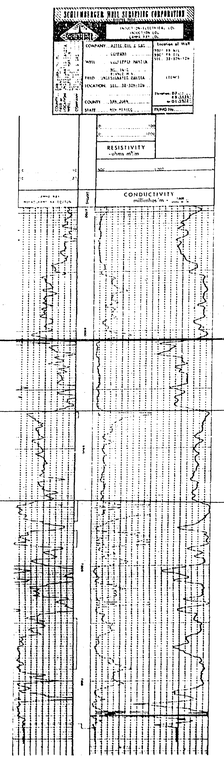
Base of GREENHORN

Top of GRANEROS SAND

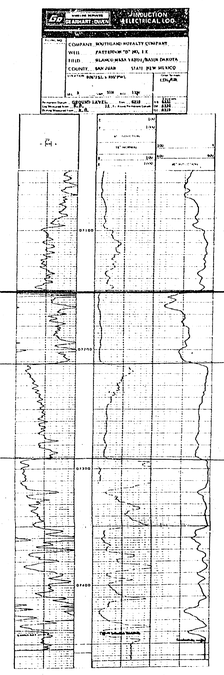
Top of DAKOTA SAND



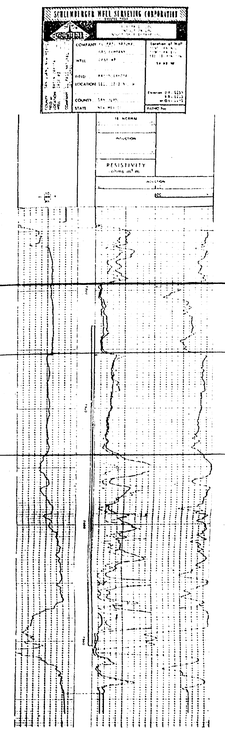
Completion Date: 2-18-60
Initial Potential: D & A (No Tests)



Completion Date: 7-6-60
Initial Potential: 322 Mcf/D
Annual Production (1979): 0 Mmcf
Cumulative Production (1-1-80): 0 Mmcf
Perforations: 6860'- 7090'
Stimulation: Sand-Water Fracture



Completion Date: Not Yet Completed

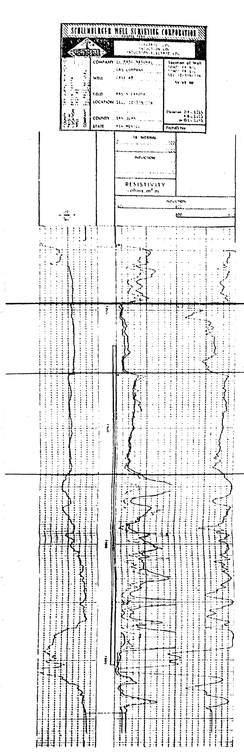


Completion Date: 6-10-61
Initial Potential: D & A (No Tests)
Cored: 7230'- 7513'

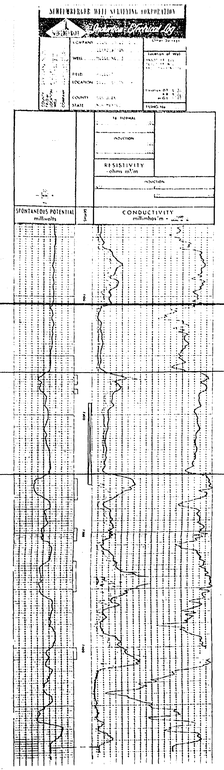
BEST AVAILABLE COPY

2.9 Miles

3.5 Miles

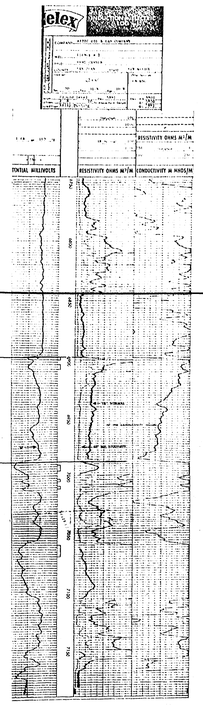


Completion Date: 6-10-61
Initial Potential: D & A (No Tests)
Cored: 7230'-7513'

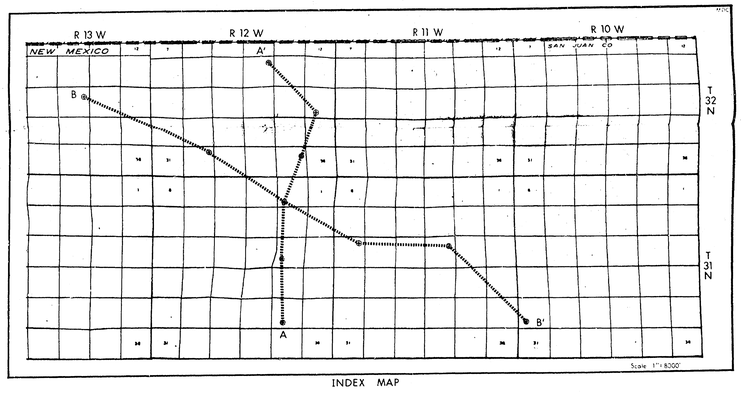


Completion Date: 9-23-60
Initial Potential: 2310 Mcf/D
Annual Production (1979): 0 Mmcf
Cumulative Production (1-1-80): 0 Mmcf
Perforations: 7166'-7411'
Cored: 7190'-7259'
Stimulation: Sand-Water Fracture

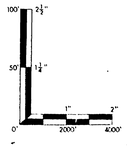
B'



Completion Date: 4-1-68
Initial Potential: 208 Mcf/D
Annual Production (1979): 0 Mmcf
Cumulative Production (1-1-80): 0 Mmcf
Perforations: 6898'-7070'
Stimulation: Sand-Water Fracture



INDEX MAP



BEFORE EXAMINER NUTTER
OIL CONSERVATION DIVISION
SRC EXHIBIT NO. 4
CASE NO.

Southland Royalty Company
PRODUCTION DEPARTMENT
FORT WORTH, TEXAS

SAN JUAN BASIN

SAN JUAN CO., NEW MEXICO

DAKOTA FORMATION

CROSS SECTION B — B'

12/80