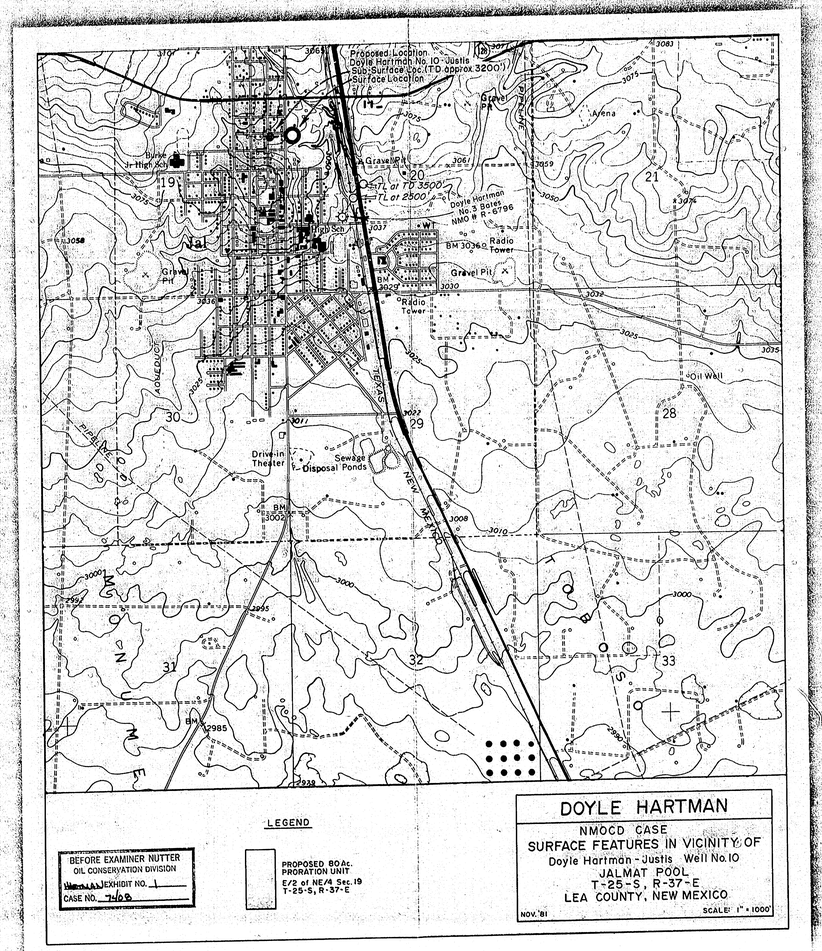
Case No
7408

Large Exhibits



LEGEND

PROPOSED 80 Ac. PRORATION UNIT
E/2 of NE/4 Sec. 19
T-25-S, R-37-E

BEFORE EXAMINER NUTTER
OIL CONSERVATION DIVISION
EXHIBIT NO. 1
CASE NO. 7408

DOYLE HARTMAN

NMOCD CASE
SURFACE FEATURES IN VICINITY OF
Doyle Hartman - Justis Well No. 10
JALMAT POOL
T-25-S, R-37-E
LEA COUNTY, NEW MEXICO

NOV. '81 SCALE: 1" = 1000'

U.S.G.S. TOPOGRAPHIC
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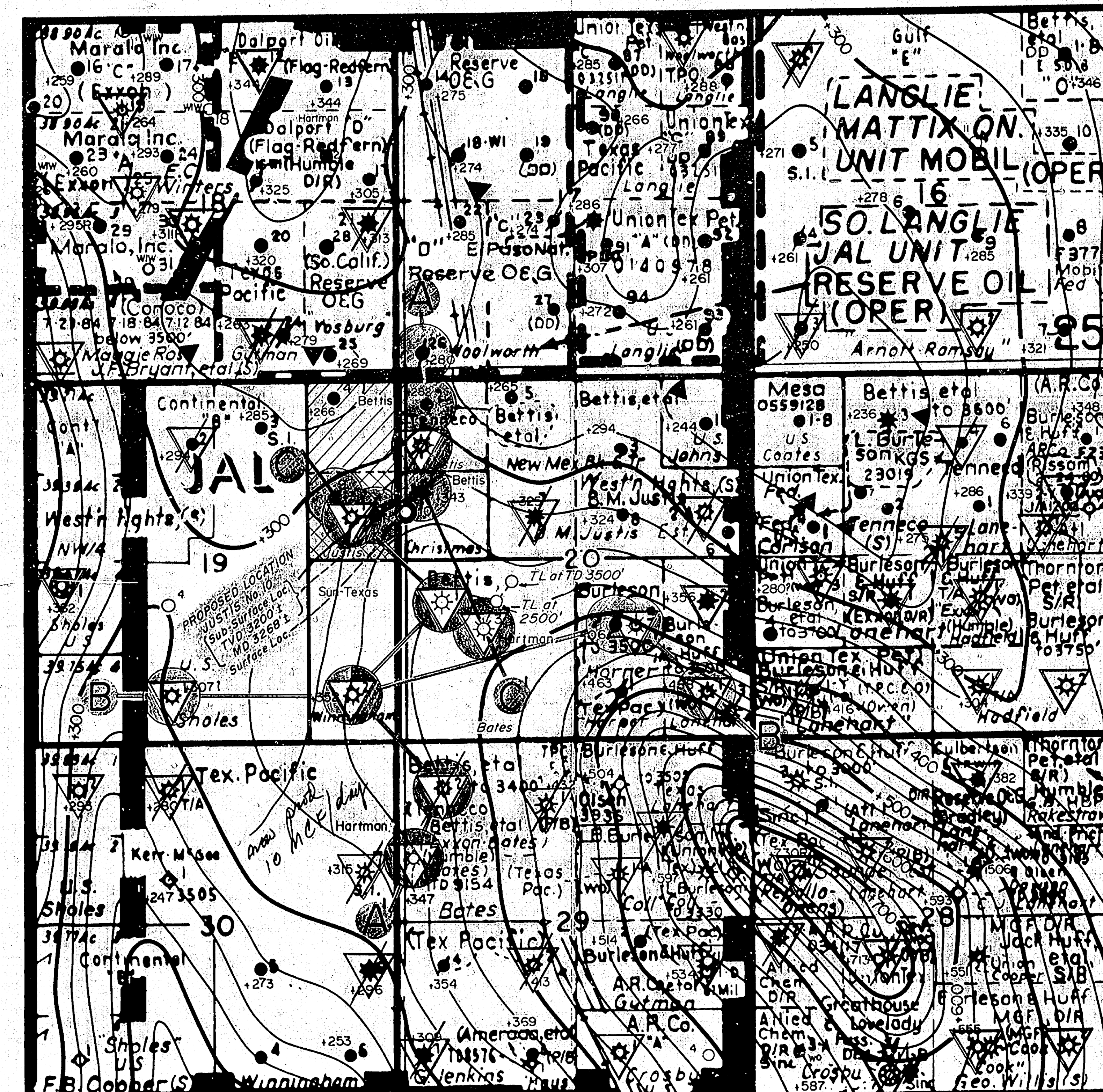

LEGEND

- PROPOSED 80 Ac. PRORATION UNIT — E/2 of NE/4 SEC. 19, T-25-S, R-37-E
- EXIST. 40 Ac. UNIT (SE/4 of NE/4) BETTIS No. 1-JUSTIS
- EXISTING JALMAT PRODUCER LOCATION — Bettis No. 1-Justis, 1980' FNL & 660' FEL (H), Sec. 19, T-25-S, R-37-E
- PROPOSED INFILL LOCATION — Surface Location 1940' FNL & 120' FWL (E) Sec. 20; Subsurface Loc. 1980' FNL & 330' FEL (H), Sec. 19, T-25-S, R-37-E
- ACTIVE JALMAT (GAS) PRODUCERS
- ABANDONED, SHUT-IN, RECOMPLETED OR RECLASSIFIED JALMAT (GAS) PRODUCERS

DOYLE HARTMAN

NMOCD CASE

YATES STRUCTURE

C.I. = 25'

T-25-S, R-37-E

LEA COUNTY, NEW MEXICO

NOV. '81 SCALE: 1" = 1000'

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A
NORTH

+500'

TOP TANSILL

TOP YATES

TOP SEVEN RIVERS

TOP COMMITTEE LANGLIE MATTIX

TOP "CUQ" MARKER

TOP COMMITTEE QUEEN

EST. TOP - NO DATA

Getty-Reserve (Sp. California Petroleum) SLJU No. 26 (Woolworth "D" No. 2)
Jalmat (Oil) | 330 FSL & 330 FWL (M) | Section 17, T-25-S, R-37-E
Lea | New Mexico
KB ___ DF 3092 GL ___

COMPLETION RECORD
SPUD DATE 8-1-53 COMP. DATE 8-26-53
TD 3365 PBTD 3365
CASING RECORD 10 3/4 @ 156 w/150'
5 1/2 @ 3290 w/400
PERFORATING RECORD OH: 3290-3365 (4th Seven Rivers)
STIMULATION SF/1500
IP IPF= 79 BOPD
GOR 293 GA
TP CP
CHOKE 10/64 TUBING 2 3/8 @ 3280
DST RECORD
8-20-53 Perf 3190-3264. A/2500 and SF/30,000 + 40,000 (3190-3365). Returned well to water injection in SLJU waterflood.
April 1981 Inj= 436 BWPD
1-1-81 Cum Inj= 935 MBBW
REMARKS
1-1-81 Cum Prod= 87.6 MBO

Settle, Boyle & Stovall (Leonard Oil Company) V. H. Justis No. 2
Jalmat (Oil) | 370 FNL & 420 FWL (D) | Section 20, T-25-S, R-37-E
Lea | New Mexico
KB ___ DF 3084 GL ___

COMPLETION RECORD
SPUD DATE 11-23-53 COMP. DATE 12-9-53
TD 3335 PBTD 3335
CASING RECORD 8 5/8 @ 317 w/160
7 @ 3256 w/275
PERFORATING RECORD OH: 3256-3335 (3rd & 4th Seven Rivers)
STIMULATION SF/3000
IP IPF= 180 BOPD
GOR GA 35
TP 400 CP
CHOKE TUBING @
DST RECORD
REMARKS 1980 Prod: 27 BOPD
62 MCFPD
53 BWPD
1980 Cum: 167.4 MBO

Settle, Boyle & Stovall (Leonard Oil Company) Justis No. 1
Jalmat (Gas) | 990 FNL & 330 FWL (D) | Section 20, T-25-S, R-37-E
Lea | New Mexico
KB ___ DF 3067 GL ___

COMPLETION RECORD
SPUD DATE 9-30-34 COMP. DATE 10-18-38
TD 3501 PBTD 2975
CASING RECORD 8 5/8 @ 2660 w/360
5 1/2 @ 3043 w/30
PERFORATING RECORD OH: 2660 -2975 (T/P @ 2800)
STIMULATION Shot w/28 qts (2935-2975)
IP IPF= 13 BOPD + 2000 MCFPD
GOR GA
TP CP
CHOKE TUBING @
DST RECORD 3043-3501 Show of oil, gas, water. PBTD @ 2970. Pulled 5 1/2" casing above 2970.
REMARKS 9-1-69: P&A

Settle, Boyle & Stovall (Leonard Oil Company) Gulf-Christmas No. 1
Jalmat (Oil) | 1650 FNL & 330 FWL (E) | Section 20, T-25-S, R-37-E
Lea | New Mexico
KB ___ DF 3076 GL ___

COMPLETION RECORD
SPUD DATE 10-31-53 COMP. DATE 11-21-53
TD 3285 PBTD 3285
CASING RECORD 10 3/4 @ 325 w/200
7 @ 3212 w/350
PERFORATING RECORD OH: 3212-3285 (3rd & 4th Seven Rivers)
STIMULATION SF/1500
IP IPF= 25 BOPD + 150 MCFPD
GOR GA
TP CP
CHOKE TUBING @
DST RECORD 4-18-54 SF/10,000 + 10,000 (OH: 3212-3285). F/103 BOPD + 215 MCFPD.
4-4-61 SF/30,000 + 40,000 (OH: 3212-3285). F/15 BOPD + 94 MCFPD.
Unknown Date Perforated well 2925-3005.
11-7-77 Converted well to salt-water disposal (2925-3285).
REMARKS 1-1-81 Cum= 35.8 MSTBO

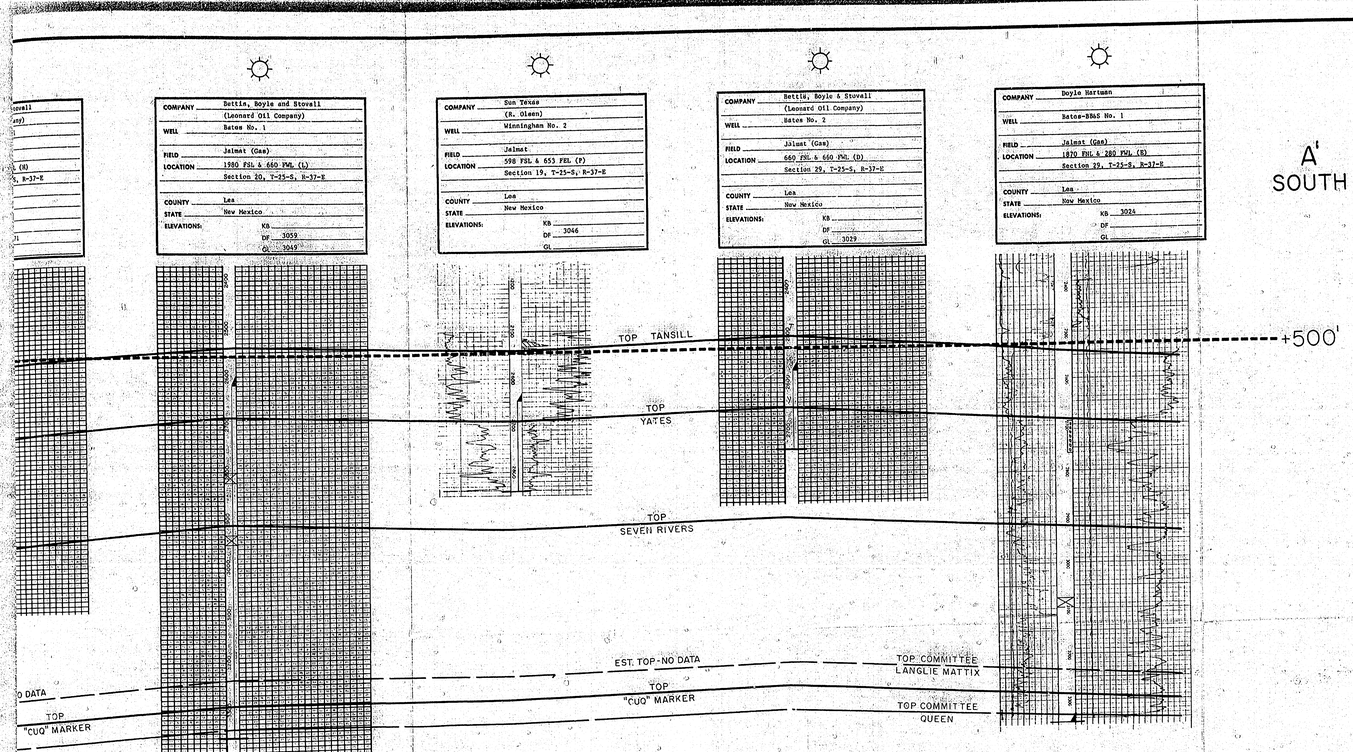
Settle, Boyle & Stovall (Leonard Oil Company) B. H. Justis No. 1
Jalmat (Gas) | 1980 FNL & 660 FEL (H) | Section 19, T-25-S, R-37-E
Lea | New Mexico
KB ___ DF 3071 GL ___

COMPLETION RECORD
SPUD DATE 3-5-31 COMP. DATE 6-2-31
TD ___ PBTD ___
CASING RECORD 10 3/4 @ 820 w/50
8 5/8 @ 2615 w/155
PERFORATING RECORD OH: 2615-2795* (T/P @ 2743)
STIMULATION Natural
IP IPF= 15,000 MCFPD
GOR GA
TP CP
CHOKE TUBING @
DST RECORD *Upper 50' of Yates.
REMARKS Avg 1981 Prod: 3 MCFPD
5-1-81 Cum: 8202 MMCF

Settle, Boyle and Stovall (Leonard Oil Company) Bates No. 1
Jalmat (Gas) | 1980 FSL & 660 FWL (L) | Section 20, T-25-S, R-37-E
Lea | New Mexico
KB ___ DF 3059 GL 3049

COMPLETION RECORD
SPUD DATE 6-21-36 COMP. DATE 9-9-36
TD 3872 PBTD 3872
CASING RECORD 8 5/8 @ 1328 w/1150
7 @ 2616 w/100
PERFORATING RECORD OH: 2616-2872 (Yates)
STIMULATION Natural
IP IPF= 23,500 MCFPD
GOR GA
TP CP
CHOKE TUBING @
DST RECORD 6-28-40 Deepened well to 3360. Set plr at 3082. F/2000 MCFPD + 3 BOPD (3082-3360).
11-23-53 PBTD @ 3031. T/P @ 2747.
9-15-59 Found bridge @ 2748. Cleaned well out to 2800.
1981 Avg Rate: 20 MCFPD
REMARKS 6-1-81 Cum: 5935 MMCF

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



COMPANY	Bettis, Boyle and Stovall (Leonard Oil Company)
WELL	Bates No. 1
FIELD	Jalmat (Gas)
LOCATION	1980 FSL & 660 FWL (L) Section 20, T-25-S, R-37-E
COUNTY	Lea
STATE	New Mexico
ELEVATIONS:	KB DF 3059 GL 3049

COMPANY	Sun Texas (R. Olsen)
WELL	Winningham No. 2
FIELD	Jalmat
LOCATION	598 FSL & 655 FEL (P) Section 19, T-25-S, R-37-E
COUNTY	Lea
STATE	New Mexico
ELEVATIONS:	KB DF 3046 GL

COMPANY	Bettis, Boyle & Stovall (Leonard Oil Company)
WELL	Bates No. 2
FIELD	Jalmat (Gas)
LOCATION	660 FSL & 660 FWL (D) Section 29, T-25-S, R-37-E
COUNTY	Lea
STATE	New Mexico
ELEVATIONS:	KB DF GL 3029

COMPANY	Doyle Hartman
WELL	Bates-BB&S No. 1
FIELD	Jalmat (Gas)
LOCATION	1870 FSL & 280 FWL (E) Section 29, T-25-S, R-37-E
COUNTY	Lea
STATE	New Mexico
ELEVATIONS:	KB 3024 DF GL

COMPLETION RECORD

SPUD DATE	6-21-36 COMP. DATE 9-9-36
TD	2872 PBTD 2872
CASING RECORD	8 5/8 @ 1328 w/1150 7 @ 2616 w/100
PERFORATING RECORD	OH: 2616-2872 (Yates)
STIMULATION	Natural
IP	IPF= 25,500 MCFPD
GOR	GR
TP	CP
CHOKE	TUBING @
DST RECORD	6-28-40 Deepened well to 3360. Set pkr at 3082'. F/2000 MCFPD + 3 BOPD (3082-3360). 11-25-53 PBTD @ 2931. T/P @ 2747. 9-15-59 Found bridge @ 2748. Cleaned well out to 2800.
	1981 Avg Rate: 20 MCFPD
REMARKS	6-1-81 Cum: 5935 MMCF

COMPLETION RECORD

SPUD DATE	11-22-49 COMP. DATE 12-8-49
TD	2841 PBTD 2841
CASING RECORD	9 5/8 @ 298 w/200 7 @ 2648 w/375
PERFORATING RECORD	OH: 2648-2841 (Upper Yates)
STIMULATION	Natural
IP	IPF= 4060 MCFPD
GOR	GR
TP	CP
CHOKE	5/8 TUBING @
DST RECORD	
	NSP No.= 39 80 Acres E/2 SE/4 Section 19
REMARKS	8-1-80 Cum= 1907.2 MMCF 1980 Avg Prod= 363 MCF/mo.

COMPLETION RECORD

SPUD DATE	1-10-52 COMP. DATE 1-22-52
TD	2740 PBTD 2740
CASING RECORD	8 5/8 @ 356 w/225 5 1/2 @ 2574 w/225
PERFORATING RECORD	OH: 2574-2740 (Upper 85' of Yates)
STIMULATION	Shot w/160 qts. 2655-2735
IP	IPF= 1345 MCFPD
GOR	GR
TP	CP
CHOKE	TUBING 2 3/8 @ 2500
DST RECORD	
	9-1-56: Cleaned out open hole with reverse unit to 2740. Ran tbg. to 2735. F/400 MCFPD plus trace of water.
	5-14-69: Well reported T&A.
	10-15-74: Well reported to have junk in hole.
REMARKS	

COMPLETION RECORD

SPUD DATE	12-26-79 COMP. DATE 2-06-80
TD	3350 PBTD 3026
CASING RECORD	8 5/8 @ 420 W/325 5 1/2 @ 3350 w/1000
PERFORATING RECORD	Perf: 2692-2762 w/12 (Upper Yates)
STIMULATION	A/3200 SWF/78,000 + 132,000
IP	IPF= 103 MCFPD*
GOR	GR
TP	140 CP 141
CHOKE	9/64 TUBING @
DST RECORD	
	*Potential after acid treatment.
	SICP= 180 psi.
REMARKS	Avg. 1981 Prod: 302 MCFPD 90 BWPD
	7-1-81 Cum: 154 MMCF

BEFORE EXAMINER NUTTER
OIL CONSERVATION DIVISION
(HARTMAN) EXHIBIT NO. 3
CASE NO. 7408

DOYLE HARTMAN

CROSS SECTION A-A'
(NORTH - SOUTH)

SECTIONS 17, 20, 19 & 29, T-25-S, R-37-E

SHOWING
JALMAT INTERVAL

VERT. SCALE: 1" = 100'
HORIZ. SCALE: NONE

D. HARTMAN

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

B
WEST

B'
EAST

+500'

+500'

TOP TANSILL

TOP YATES

TOP SEVEN RIVERS

EST. TOP- NO DATA

TOP COMMITTEE LANGLIE MATTIX

TOP "CUO" MARKER

TOP COMMITTEE QUEEN

COMPANY	Conoco
WELL	Sholes "B" No. 1
FIELD	Jalmat (Gas)
LOCATION	660 FSL & 1980 FWL (N) Section 19, T-25-S, R-37-E
COUNTY	Lea
STATE	New Mexico
ELEVATIONS:	KB DF 3083 GL

COMPLETION RECORD	
SPUD DATE	2-27-41 COMP. DATE 3-22-41
TD	2945 PBTD 2945
CASING RECORD	9 5/8 @ 1103 7 @ 2662
PERFORATING RECORD	OH: 2662-2945 (T/P @ 2850)
STIMULATION	Natural
IP	1PF= 12,000 MCFPD
GOR	GR
TP	CP
CHOKE	TUBING
DST RECORD	
REMARKS	Last Prod: 10-80 6-1-81 Cum: 6248 MMCF

COMPANY	Sun Texas (R. Olsen)
WELL	Winningham No. 2
FIELD	Jalmat
LOCATION	598 FSL & 653 FEL (P) Section 19, T-25-S, R-37-E
COUNTY	Lea
STATE	New Mexico
ELEVATIONS:	KB DF 3046 GL

COMPLETION RECORD	
SPUD DATE	11-22-49 COMP. DATE 12-8-49
TD	2841 PBTD 2841
CASING RECORD	9 5/8 @ 298 w/200 7 @ 2648 w/325
PERFORATING RECORD	OH: 2648-2841 (Upper Yates)
STIMULATION	Natural
IP	1PF= 4050 MCFPD
GOR	GR
TP	CP
CHOKE	5/8 TUBING
DST RECORD	NSP No.= 39 80 acres E/2 SE/4 Section 19
REMARKS	8-1-80 Cum= 1907.2 MMCF 1980 Avg Prod= 363 MCF/mo.

COMPANY	Texas Pacific (Jal Oil Company)
WELL	Horner No. 2
FIELD	Jalmat-Langlie Mattix
LOCATION	1980 FSL & 1905 FEL (J) Section 20, T-25-S, R-37-E
COUNTY	Lea
STATE	New Mexico
ELEVATIONS:	KB 3055 DF GL 3045

COMPLETION RECORD	
SPUD DATE	5-6-59 COMP. DATE 7-15-59
TD	3444 PBTD 3414
CASING RECORD	9 5/8 @ 328 w/300 7 @ 3444 w/300
PERFORATING RECORD	Perf: 3170-3402
STIMULATION	A/1000 SOF/50,650 + 74,000
IP	IP= 72 BOPD + 648 MCFD
GOR	GR
TP	CP
CHOKE	TUBING
DST RECORD	9-22-59 Set CIBP @ 3320. Perf 2810-3160. IPF= 26 BOPD & 4 BWPD (2810-3226). Last Prod: 12-69. P&A 4-10-70.
REMARKS	

COMPANY	Lewis B. Burleson
WELL	Horner No. 3
FIELD	Jalmat (Gas)
LOCATION	1650 FSL & 1650 FEL (J) Section 20, T-25-S, R-37-E
COUNTY	Lea
STATE	New Mexico
ELEVATIONS:	KB 3053 DF GL 3043

COMPLETION RECORD	
SPUD DATE	6-27-79 COMP. DATE 10-10-79
TD	3400 PBTD 3400
CASING RECORD	8 5/8 @ 978 w/300 4 1/2 @ 3400 w/300
PERFORATING RECORD	Perf: 3126-3139 w/10 (4th Seven Rivers)
STIMULATION	A/1000 SWF/10,000 + 46,000
IP	IPF= 250 MCFPD
GOR	GR
TP	40 CP 170
CHOKE	TUBING
DST RECORD	
REMARKS	April 1981 Prod: 13 MCFPD

COMPANY	Lewis B. Burleson (Sun Oil Company)
WELL	Leonard No. 1 (Lenehart No. 1)
FIELD	Jalmat
LOCATION	660 FSL & 660 FEL (P) Section 20, T-25-S, R-37-E
COUNTY	Lea
STATE	New Mexico
ELEVATIONS:	KB DF 3050 GL

COMPLETION RECORD	
SPUD DATE	5-6-36 COMP. DATE 6-12-36
TD	2757 PBTD 2757
CASING RECORD	13 3/8 @ 266 w/125 9 3/8 @ 2353 w/400
PERFORATING RECORD	OH: 2353-2757
STIMULATION	Natural
IP	IPF= 22,000 MCFPD
GOR	GR
TP	1100 CP
CHOKE	TUBING
DST RECORD	8-20-36 Set 5 1/2 @ 2866 w/400. Shot/190 qts 3266-3362. IPF= 69 BOPD. 12-12-69 Abd well. 9-2-76 Set CIBP @ 2850. Perf 2707-2757 w/17. AF3500. CAOF= 423 MCFPD.
REMARKS	

BEFORE EXAMINER NUTTER
OIL CONSERVATION DIVISION
EXHIBIT NO. 4
CASE NO. 7408

DOYLE HARTMAN

CROSS SECTION B-B'
(WEST - EAST)

SECTIONS 19 & 20, T-25-S, R-37-E

SHOWING

JALMAT INTERVAL

VERT. SCALE: 1" = 100'
HORIZ. SCALE: NONE

D. HARTMAN

V.I.R.C.F. MICROGRAPHICS
BEST AVAILABLE COPY

C
WEST

C'
EAST

PROPOSED LOCATION

COMPANY	Bettis, Boyle & Stovall (Leonard Oil Company)	Bettis, Boyle & Stovall (Leonard Oil Company)'	Doyle Hartman	Bettis, Boyle & Stovall (Leonard Oil Company)	Doyle Hartman
WELL	B. M. Justis No. 9	B. M. Justis No. 1	Justis No. 10	Gulf-Christmas No. 1	Bates No. 3
FIELD	Jalmat (Oil)	Jalmat (Gas)	Jalmat (Gas)	Jalmat (Oil)	Jalmat (Gas)
LOCATION	1650 FNL & 990 FEL (H) Section 19, T-25-S, R-37-E	1980 FNL & 660 FEL (S) Section 19, T-25-S, R-37-E	Surf. 1940' FNL & 120 FWL (E) Section 20 Bottom Hole 1980 FNL & 330 FEL (H) Section 19 T-25-S, R-37-E	1650 FNL & 330 FWL (E) Section 20, T-25-S, R-37-E	1635 FSL & 1210 FWL (L) (2292 FSL & 1657 FWL (K))* Section 20, T-25-S, R-37-E
COUNTY	Lea	Lea	Lea	Lea	Lea
STATE	New Mexico	New Mexico	New Mexico	New Mexico	New Mexico
ELEVATIONS: KB				3076	3051
DF		3071			
GL	3077				3040

+500'

TOP TANSILL

2750' TVD
2803' MD

TOP YATES

Prospective Completion Interval Jalmat (Gas)

2970' TVD
3030' MD

TOP SEVEN RIVERS

PROPOSED:
TD (TVD) 3200'±
TD (DRILL) 3268'±

3288' TVD
3359' MD

EST. TOP NO DATA

TOP COMMITTEE LANGLIE MATTIX

TOP COMMITTEE "CUQ" MARKER

TOP COMMITTEE QUEEN

+500'

Well hung on TVD Log: TVD + 106' 2551' Log = 2657' TVD

NOTE- ILLUSTRATIVE CROSS SECTION- WELLS NOT SPACED ACCORDING TO HORIZONTAL DISTANCE

COMPLETION RECORD

SPUD DATE	6-16-65 COMP. DATE 6-25-65	3-5-31 COMP. DATE 6-2-31	10-31-53 COMP. DATE 11-21-53	9-3-81 COMP. DATE 9-21-81
TD	3400' PBTD 3393	PBTD	3285 PBTD 3285	3481 PBTD 3470
CASING RECORD	8 5/8 @ 300 w/175 5 1/2 @ 3400 w/200	10 3/4 @ 820 w/50 8 5/8 @ 2615 w/155	10 3/4 @ 325 w/200 7 @ 3212 w/350	10 3/4 @ 652 w/450 5 1/2 @ 3477 w/550
PERFORATING RECORD	Perf: 3229-3286 w/24 (3rd & 4th Seven Rivers)	OH: 2615-2795'* (T/P @ 2743)	OH: 3212-3285 (3rd & 4th Seven Rivers)	Perf: 2773-3337 w/17
STIMULATION	SOF/30,000 + 30,000	Natural	SF/1500	A/5000 SF/62,000 + 159,000
IP	IPF= 15 BOPD + 6 BWPD	IPF= 15,000 MCFPD	IPF= 25 BOPD + 150 MCFPD	IP= 101 MCFPD + 4 BWPD**
GOR	23,333 GA	GA	GA	Dry Gas GA
TP	CP	CP	CP	TP CP
CHOKE	TUBING	TUBING	TUBING	CHOKE 20/64 TUBING 2 3/8 @ 3022
DST RECORD		*Upper 50' of Yates.	4-18-54 SF/10,000 + 10,000 (OH: 3212-3285). F/103 BOPD + 215 MCFPD. 6-4-81 SF/30,000 + 40,000 (OH: 3212-3285). F/15 BOPD + 94 MCFPD. Unknown Date Perforated well 2975-3065. 11-7-72 Converted well to salt-water disposal (2975-3285).	* Bottom-hole location. ** Prior to frac.
REMARKS		Avg 1981 Prod: 1 MCFPD 5-1-81 Cum: 8201 MCF	1-1-81 Cum= 35.8 MSTBO	10-26-81 Test: 468 MCFPD 3 BWPD CP= 109 psi

BEFORE EXAMINER NUTTER
OIL CONSERVATION DIVISION
EXHIBIT NO. 5
CASE NO. 7408

DOYLE HARTMAN

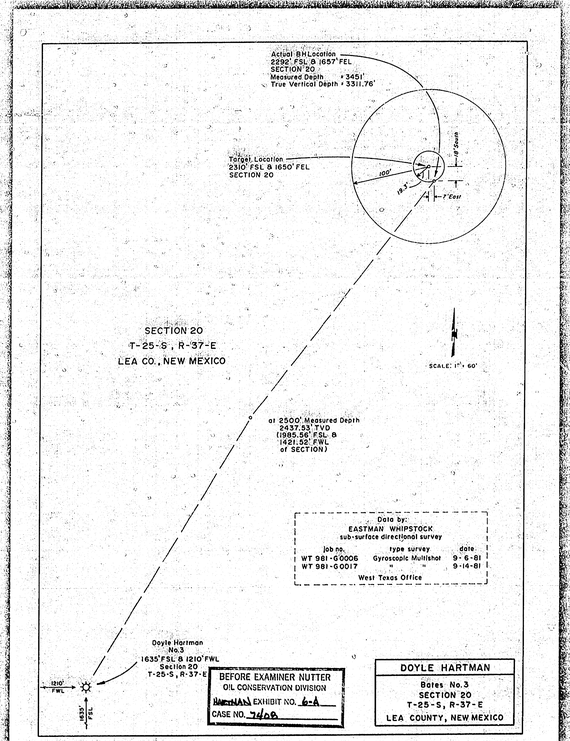
CROSS SECTION C-C'
(WEST - EAST)

SECTIONS 19 & 20, T-25-S, R-37-E

SHOWING
JALMAT INTERVAL

VERT. SCALE: 1" = 100'
HORIZ. SCALE: NONE

D. HARTMAN



U.S.G.S. RESOURCES
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TRUE VERTICAL DEPTH VS. DISPLACEMENT
R.M. Justis No. 10
SE/4 NE/4 Section 19, T-25-S, R-37-E
TVD
Deviation Direction
South 85° West
Surface Location
1940 FNL & 120 FWL
Sec. 20, T-25-S, R-37-E
Bottom-hole Location
1980 FNL & 440 FEL
Sec. 19, T-25-S, R-37-E
Top of Salt
1980 FNL & 330 FEL
Sec. 19, T-25-S, R-37-E
Edge Of Lease
Top of Yates
2750 TVD (2800 MD)
Top of Seven Rivers
2970 TVD (3030 MD)
Projected Total Depth
3200 TVD (3260 MD)
Base of Jalmat
3288