STATE OF NEW MEXICO

ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT

OIL CONSERVATION COMMISSION

IN THE MATTER OF THE HEARING CALLED BY THE OIL CONSERVATION COMMISSION FOR THE PURPOSE OF CONSIDERING:	
APPLICATION OF SAMSON RESOURCES COMPANY, KAISER-FRANCIS OIL COMPANY, AND MEWBOURNE OIL COMPANY FOR CANCELLATION OF TWO DRILLING PERMITS AND APPROVAL OF A DRILLING PERMIT, LEA COUNTY, NEW MEXICO	CASE NOS. 13,492
APPLICATION OF CHESAPEAKE PERMIAN, L.P., FOR COMPULSORY POOLING, LEA COUNTY, NEW MEXICO	and 13,493
	(Consolidated)

OFFICIAL EXHIBIT FILE
(1 OF 6: Chesapeake Geologic Exhibits)
COMMISSION HEARING

BEFORE: MARK E. FESMIRE, CHAIRMAN
JAMI BAILEY, COMMISSIONER (Present by telephone)
WILLIAM C. OLSON, COMMISSIONER

August 10th, 2006
December 14th and 15th, 2006
January 2nd, 2007

Santa Fe, New Mexico

These matters came on for hearing before the Oil Conservation Commission, MARK E. FESMIRE, Chairman, on August 10th, December 14th and 15th, 2006, and January 2nd, 2007, at the New Mexico Energy, Minerals and Natural Resources Department, 1220 South Saint Francis Drive, Room 102, Santa Fe, New Mexico, Steven T. Brenner, Certified Court Reporter No. 7 for the State of New Mexico.

* * *

STATE OF NEW MEXICO
ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT
OIL CONSERVATION COMMISSION

IN THE MATTER OF THE HEARING CALLED BY THE OIL CONSERVATION COMMISSION FOR THE PURPOSE OF CONSIDERING:

CASE NO. 13492 (De Novo)
APPLICATION OF SAMSON RESOURCES COMPANY, KAISER-FRANCIS OIL COMPANY AND MEWBOURNE OIL COMPANY FOR CONCELLATION OF TWO DRILLING PERMITS AND APPROVAL OF A DRILLING PERMIT
LEA COUNTY, NEW MEXICO.

CASE NO. 13493 (De Novo)
APPLICATION OF CHESAPEAKE OPERATING, INC.
FOR COMPULSORY POOLING,
LEA COUNTY, NEW MEXICO

ORDER NO. R-12343-B

CHESAPEAKE OPERATING, INC.'S GEOLOGIC EXHIBITS

ATTACHMENT "C"
Chesapeake's Geologic Exhibits

Exhibit No.	Prior Ex. No.	Description	Offer/Admit
GEO1	1	Index/Morrow Production Map	
GEO2	2	KF 4 State #1 Detail Log Section	
GEO3	3	Osudo 9 State #1 Detail Log Section	
GEO4	4	Updated Composite Morrow Map	
GEO5	5	Dip-Strike-Dip Stratigraphic X-Section	
GEO6	6	Detail Morrow Stratigraphic X-Section	
GEO7	7	updated Isopach: Upper Sand (orange)	
GEO8	8	updated Isopach: Upper New (green)	
GEO9	9	updated Isopach: Osudo Lower (blue)	
GEO10	10	Regional Gross Morrow Isopach	
GEO11	11	Regional Morrow Structural X-Section	
GEO12	12	Regional Physiographic Map (Hill et al)	
GEO13	New	Permian Basin Formation and Filling	
GEO14	13	East-West Diagramatic X-Section (Hill et al)	
GEO15	15	Morrow Depositional Environments (James)	
GEO16	16	Paleography SE US (Integ. Res. & CLI)	
GEO17	17	Paleography Delaware Basin (Integ. Res.& CLI)	
GEO18	New	Basic Well Log Analysis	
GEO19	20	Porosity Lithology Crossplot Chart	
GEO20	21	9H Detail	
GEO21	23	9I Detail	
GEO22	24	10E Detail	
GEO23	26	15F Detail	
GEO24	28	Log Section MEWBOURNE OSUDO 7 ST. #1 (7J)	
GEO25	29	Log Section MEWBOURNE SAN SIMON 18 ST. #1 (18C)	
GEO26	New	State JD Com #1	
GEO27	New	State 33 #3	
Addendum Exhibits:			
GEOAD 28	4a Ex #22	Pre-Drill Composite Morrow Map	
GEOAD 29	4b Ex #25	Hearing Date Composite Morrow Map	
GEOAD 30	7a Ex #34	Isopach: Upper Sand (orange)	
GEOAD 31	8a Ex #35	Isopach: Upper New (green)	
GEOAD 32	9a Ex #36	Isopach: OSUDO LOWER (blue)	
GEOAD33	14	Regional Morrowan Isopach (Meyer)	
GEOAD34	New	Samson Submitted Literature	
GEOAD35	New	Samson Map Analysis	
GEOAD36	New	Samson Isopach Values	
GEOAD37	22	Log Section CHK KF 4 State #1 (4W)	
GEOAD38	25	16P Detail	
GEOAD39	27	Log Section CHK SAN SIMON 21 State #2 (21E)	
GEOAD40	New	CHK Gross Iso	
GEOAD41	New	Gross Iso From Samson Datums	
GEOAD42	New	Log Section	
Rebuttal Exhibits:			
GEOR1	New	Samson Isopach Original	
GEOR2	New	Samson Isopach Latest Version	

GEOR3	New	Composite Map Analysis	
GEOR4	New	Computer Mapped Structure	
GEOR5	New	Osudo South Net Porosity Iso	
GEOR6	New	Central Basin Platform Cross Section	
GEOR7	33	Lower Paleozoic Cross Section	
GEOR8	New	Pre-Pennsylvanian Subcrop Map	
GEOR9	New	History of West Texas Time Scale	
GEOR10	New	Open hole Wellsite Interpreation	
GEOR11	New	Samson Sand Values Spreadsheet	

MODRALL SPERLING

LAWYERS

November 30, 2006

John R. Cooney
Earl E. DeBrine, Jr.
505.848.1800
Fax: 505.8481889.
jcooney@modrall.com
edebrine@modrall.com

HAND DELIVERED

Florene Davidson
Oil Conservation Commission
1220 South St. Francis Drive
Santa Fe, NM 87505

Re: *In The Matter of the Application Chesapeake Permian, L.P. for Compulsory Pooling, Lea County, New Mexico*, Case No. 13493(*De Novo*); and
In The Matter of KF "4" State Well No. 1 (API No. 30-025-37129) SE/4 Section 4, T. 21 S., R 35 E., Lea County, New Mexico, Case No. 13505 (*De Novo*)

Dear Ms. Davidson:

Enclosed for filing are six sets of Chesapeake Operating Inc.'s Amended Exhibit List together with its Exhibits for the December 14, 2006 Commission hearing in the above-referenced consolidated cases.

Sincerely,

Earl E. DeBrine, Jr.

EED/kta/*K:\dox\client\23254\116\W0487746.DOC*
Enclosures
cc w/encl.: W. Thomas Kellahin
J.E. Gallegos
James Bruce
J. Scott Hall
David K. Brooks
John R. Cooney

Modrall Sperling
Roehl Harris & Sisk P.A.

Bank of America Centre
500 Fourth Street NW
Suite 1000
Albuquerque,
New Mexico 87102

PO Box 2168
Albuquerque,
New Mexico 87103-2168

Tel: 505.848.1800
www.modrall.com

STATE OF NEW MEXICO
ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT
OIL CONSERVATION COMMISSION

IN THE MATTER OF THE HEARING CALLED BY THE OIL CONSERVATION COMMISSION FOR THE PURPOSE OF CONSIDERING:

CASE NO. 13492 (De Novo)

APPLICATION OF SAMSON RESOURCES COMPANY, KAISER-FRANCIS OIL COMPANY AND MEWBOURNE OIL COMPANY FOR CONCELLATION OF TWO DRILLING PERMITS AND APPROVAL OF A DRILLING PERMIT LEA COUNTY, NEW MEXICO.

CASE NO. 13493 (De Novo)

APPLICATION OF CHESAPEAKE OPERATING, INC. FOR COMPULSORY POOLING, LEA COUNTY, NEW MEXICO

ORDER NO. R-12343-B

CHESAPEAKE OPERATING, INC.'S AMENDED EXHIBIT LIST

Chesapeake Operating, Inc. submits this Amended Exhibit List in Accordance with the October 27, 2006 Scheduling Order issued by the New Mexico Oil Conservation Commission. This Amended Exhibit List supersedes and replaces the listing of Geologic and Engineering Exhibits attached as Exhibit "C" and "D" to Chesapeake's Prehearing Statement filed August 3, 2006. To avoid confusion, and for ease of reference, a complete set of Exhibits is being filed and served with this Amended Exhibit List.

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E-mail: tkellahin@comcast.net

John R. Cooney, Esq.
Earl DeBrine, Esq.
Modrall, Sperling, Roehl, Harris & Sisk, P.A.
P. O. Box 2168
Albuquerque NM 87103
Phone: (505) 848-1800
Fax: (505) 848-1891

CERTIFICATE OF SERVICE

I certify that on November 30, 2006 I served a copy of the foregoing document by:

[ ] US Mail, postage prepaid
[X] Hand Delivery
[ ] Facsimile

to the following:

David K. Brooks, Esq.
Fax: 505-476-3462
Attorney for Oil Conservation Commission

J. Scott Hall, Esq.
Fax: 505-989-9857
Attorney for Kaiser-Francis Oil Company

J. E "Gene" Gallegos, Esq.
Fax: 505-986-1367
Attorney for Samson Resources Company

James Bruce, Esq. - Via mail only
Fax: 505-982-2151
Attorney for Mewbourne Oil Company

Earl E. DeBrine, Jr.

ATTACHMENT "C"
Chesapeake's Geologic Exhibits

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GEO3	3	Osudo 9 State #1 Detail Log Section	
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GEO5	5	Dip-Strike-Dip Stratigraphic X-Section	
GEO6	6	Detail Morrow Stratigraphic X-Section	
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GEO21	23	9I Detail	
GEO22	24	10E Detail	
GEO23	26	15F Detail	
GEO24	28	Log Section MEWBOURNE OSUDO 7 ST. #1 (7J)	
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GEO27	New	State 33 #3	
Addendum Exhibits:			
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GEOAD34	New	Samson Submitted Literature	
GEOAD35	New	Samson Map Analysis	
GEOAD36	New	Samson Isopach Values	
GEOAD37	22	Log Section CHK KF 4 State #1 (4W)	
GEOAD38	25	16P Detail	
GEOAD39	27	Log Section CHK SAN SIMON 21 State #2 (21E)	
GEOAD40	New	CHK Gross Iso	
GEOAD41	New	Gross Iso From Samson Datums	
GEOAD42	New	Log Section	
Rebuttal Exhibits:			
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GEOR4	New	Computer Mapped Structure	
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GEOR6	New	Central Basin Platform Cross Section	
GEOR7	33	Lower Paleozoic Cross Section	
GEOR8	New	Pre-Pennsylvanian Subcrop Map	
GEOR9	New	History of West Texas Time Scale	
GEOR10	New	Open hole Wellsite Interpreation	
GEOR11	New	Samson Sand Values Spreadsheet	

ATTACHMENT "D"

Chesapeake's Petroleum Engineering Exhibits

Exhibit Number	Prior Ex. No.	Description	Offer/Admit
PE-1		Cover Sheet	
PE-2		BHP vs. Time for 8 key wellbores	
PE-3		Map with initial BHP of 7354 for State WEK #1 well	
PE-4		BHP vs. Time for State WEK #1 Well	
PE-5		Map with State WEL Com #1 well with initial BHP of 7080	
PE-6		BHP v time comparisons for WEK and WEL	
PE-7		Composite of CHK geologic and Samson's map	
PE-8		Map with State 15-1 well with initial BHP of 7636	
PE-9		BHP vs. time comparisons of WEK and State 15-1 wells	
PE-10		BHP vs. time comparison of WEL COM 1 and State 15-1 wells	
PE-11		Map with PQ Osudo State Com with BHP of 6627	
PE-12		PQ Osudo State Com Well with Initial BHP of 6627	
PE-13		BHP vs. Time comparison for WEK #1, State 15-1 & PQ Osudo State Com	
PE-14		BHP vs. time comparisons for WEL Com #1 and PQ Osudo State Com	
PE-15		Composite of CHK and Samson's geologic maps	
PE-16		Godsey's map with highlighting CC 3 State 1 Well initial BHP of 7300 and other wells	
PE-17		CC 3 State 1 PBU analysis-Cartesian plot	
PE-18		CC 3 State PBU-semi-log plot	
PE-19		CC 3 State PBU-Log-Log plot	
PE-20		Composite of CHK and Samson's geologic maps for CC 3 State #1	
		Production Data	
PE-21		Cover Sheet	
PE-22		Godsey's map with Osudo 9-1 with BHP of 6301	
PE-23		Osudo 9 production plot (Gas rate vs. time)	
PE-24		Map with Hunger Buster 3 with BHP of 6627	
PE-25		Huger Buster #3 production plot (Gas rate vs. time)	
PE-26		Composite map of CHK and Samson's geologic maps	
PE-27		Godsey's map with State WEL Com 2 (dry hole)	
PE-28		Composite map of CHK and Samson's geologic maps	
PE-29		Godsey's map highlighting KF 4 State #1 with initial BHP of 6600	
PE-30		KF 4 State production plot (Gas rate vs. time) WITH comments	
PE-31		Compares KF 4 State and Hunger Buster production plots	
PE-32		Composite of CHK and Samson's geologic maps	

Gas Analysis (Exhibits 33-36)			
Exhibit Number	Prior Ex. No.	Description	Offer/Admit
PE-34		sample of 6 gas specific gravity data:	
PE-35		Comparisons--Osudo 9, KF State 4 & WEL Com 1 are in the same group while the PQ Osudo and WEK are in another.	
PE-36		CHK's geologic map with specific gravity ID per wellbore	

Volumetrics (Exhibits 37-44)			
PE-37		Cover sheet	
PE-38		Recoverable Gas in Place for each of the six 160-acre tracts in Section 4 using CHK's map.	
PE-39		Recoverable Gas in Place for each of the six 160-acre tracts in Section 4 using Samson's map.	
PE-40		CHK's recoverable gas vs. Samson's	
PE-41		Recoverable Gas in Place for Area A using CHK's map 26,002 ac-ft yields 33.9 BCF	
PE-42		EUR for Area A using CHK's map Eur is 27.4 BCF by decline curve vs. 33.4 Volumetric Calc.	
PE-43		Recoverable Gas in Place using Samson's map (Area B) 24,408 ac-ft yields 33.9 BCF	
PE-44		EUR for Area B using Samson's map EUR is 37.1 BCF by decline curve vs. 33.9 Volumetric Calc	

Back-Up Maps (Exhibits 45-48)			
PE-45			
PE-46		CHK's map with its net thickness numbers	
PE-47		CHK's map with its net thickness numbers	
PE-48		Samson map with its net thickness numbers	

Rebuttal (Exhibits 59-69)			
PE-59		New	
PE-60		New	
PE-61		New	
PE-62		New	
PE-63		New	
PE-64	PE-48		
PE-65		New	
PE-67		New	
PE-68		New	
PE-69		New	

STATE OF NEW MEXICO
ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT
OIL CONSERVATION COMMISSION

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APPLICATION OF CHESAPEAKE OPERATING, INC. FOR COMPULSORY POOLING, LEA COUNTY, NEW MEXICO

ORDER NO. R-12343-B

CHESAPEAKE OPERATING, INC.'S ERRATA TO AMENDED EXHIBIT LIST

Chesapeake Operating, Inc. submits the following Errata to its Amended Exhibit List filed November 30, 2006 which erroneously attached an incorrect list of Chesapeake's Engineering Exhibits. The correct Exhibit D listing is attached hereto which corresponds with the order of Exhibits filed with Chesapeake's Amended Exhibit List on November 30, 2006.

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for John R. Cooney, Esq.
Earl E. DeBrine, Jr., Esq.
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CERTIFICATE OF SERVICE

I certify that on December 14, 2006 I served a copy of the foregoing document by:

[ ] US Mail, postage prepaid
[X] Hand Delivery
[ ] Facsimile Only

to the following:

David K. Brooks, Esq.
Fax: 505-476-3462
Attorney for Oil Conservation Commission

J. Scott Hall, Esq.
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Attorney for Kaiser-Francis Oil Company

J. E "Gene" Gallegos, Esq.
Fax: 505-986-1367
Attorney for Samson Resources Company

James Bruce, Esq.
Fax: 505-982-2151
Attorney for Mewbourne Oil Company

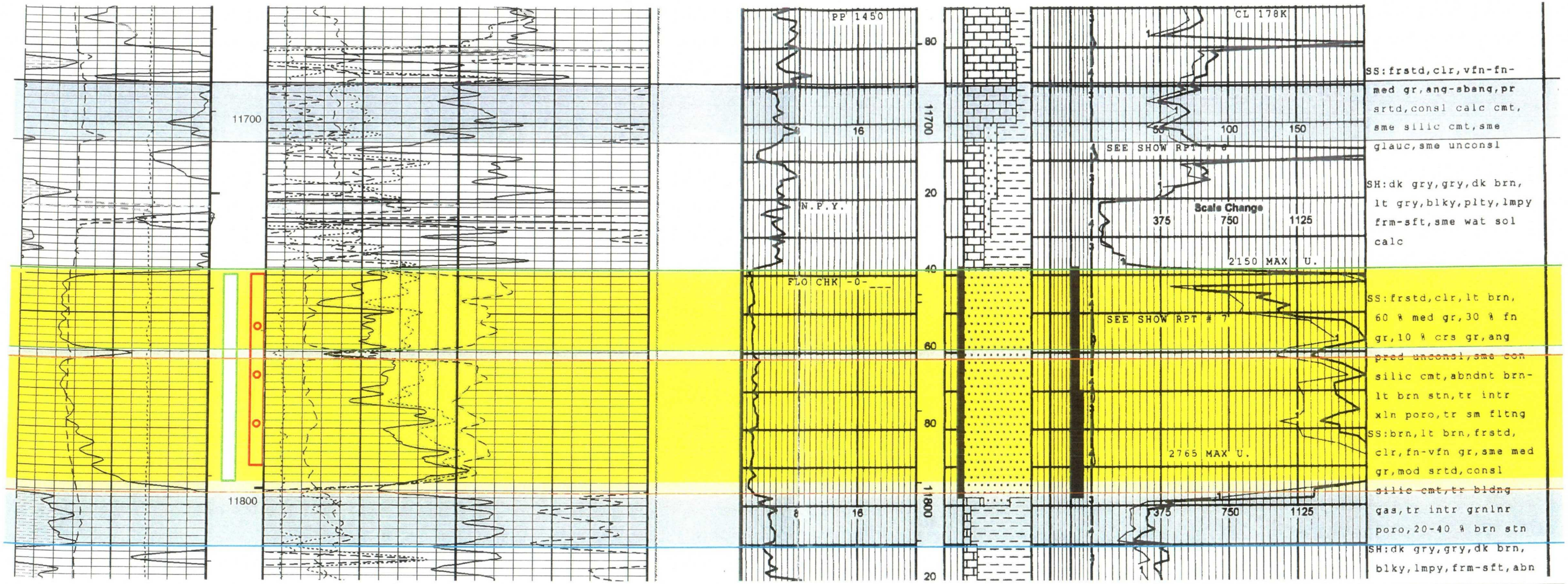
for Earl E. DeBrine, Jr.

ATTACHMENT "D"
Chesapeake's Petroleum Engineering Exhibits

Production Data (Exhibits 1-9)			
Exhibit Number	Prior Ex. No.	Description	Offer/Admit
PE-1	PE-21	Cover Sheet	
PE-2	PE-22	CHK's map with Osudo 9-1 with BHP of 6301	
PE-3	PE-23	Osudo 9 production plot (Gas rate vs. time)	
PE-4	PE-24	CHK's map with Hunger Buster 3 with BHP of 6627	
PE-5	PE-25	Hunger Buster #3 production plot (Gas rate vs. time)	
PE-6	PE-27	CHK's map with State WEL Com 2 (dry hole)	
PE-7	PE-29	CHK's map highlighting KF 4 State #1 with initial BHP of 6600	
PE-8	PE-30	KF 4 State production plot (Gas rate vs. time) WITH comments	
PE-9	PE-32	CHK's geologic map	
CC 3 State #1 Pressure Data (Exhibits 10-15)			
PE-10	New	Cover Sheet	
PE-11	PE-16	CHK's map with highlighting CC 3 State 1 Well initial BHP of 7300 and other wells	
PE-12	PE-17	CC 3 State 1 PBU analysis-Cartesian plot	
PE-13	PE-18	CC 3 State PBU-semi-log plot	
PE-14	PE-19	CC 3 State PBU-Log-Log plot	
PE-15	PE-20	CHK's geologic map for CC 3 State #1	
Gas Analysis (Exhibits 16-19)			
PE-16	PE-33	Cover Sheet	
PE-17	PE-34	sample of 6 gas specific gravity data:	
PE-18	PE-35	Comparisons--Osudo 9, KF State 4 & WEL Com 1 are in the same group while the PQ Osudo and WEK are in another.	
PE-19	PE-36	CHK's geologic map with specific gravity ID per wellbore	
Volumetrics (Exhibits 20-23)			
PE-20	PE-37	Cover Sheet	
PE-21	PE-41	Recoverable Gas in Place for Area A using CHK's map 23,528 ac-ft yields 30.2 BCF	
PE-22	PR-42	EUR for Area A using CHK's map is 27.4 BCF by decline curve vs. 30.2 Volumetric Calc.	
PE-23	PE-38	Recoverable Gas in Place for each of the six 160-acre tracts in Section 4 using CHK's map.	
Pressure/Performance Data (East-West Trend)(Exhibits 24-37)			
PE-24	PE-1	Cover Sheet	
PE-25	PE-2	BHP vs. time for 8 key wellbores	
PE-26	PE-3	CHK's map with initial BHP of 7354 for State WEK #1 well	
PE-27	PE-4	BHP vs. Time for State WEK #1 WEL	

Exhibit Number	Prior Ex. No.	Description	Offer/Admit
PE-28	PE-5	CHK map with State WEL Com #1 well with initial BHP of 7080	
PE-29	PE-6	BHP vs. Time for State WEK and WEL	
PE-30	PE-8	CHK's map with State 15-1 well with Initial BHP of 7636	
PE-31	PE-9	BHP vs. time comparisons of WEK and State 15-1 wells	
PE-32	PE-10	BHP vs. time comparison of WEL COM 1 and State 15-1 wells	
PE-33	PE-12	PQ Osudo State Com Well with Initial BHP of 6627	
PE-34	PE-13	BHP vs. Time comparison for WEK #1, State 15-1 & PQ Osudo State Com	
PE-35	PE-14	BHP vs. time comparisons for WEL Com #1 and PQ Osudo State	
PE-36	New	Comparative block performance since Jan-1991	
PE-37	New	Summary of CHK's Petroleum Engineering exhibits	
Production Data (Exhibits 38-40)			
PE-38	New	Cover Sheet	
PE-39	PE-21	Cover Sheet	
PE-40	PE-32	Composite of CHK and Samson's geologic maps	
CC 3 State #1 Pressure Data (Exhibits 41-43)			
PE-41	NEW	Cover Sheet	
PE-42	PE-20	CHK's geologic map for CC 3 State #1	
PE-43	PE-20	Composite of CHK and Samson's geologic maps for CC 3 State #1	
Volumetrics (Exhibits 44 - 49)			
PE-44	PE-37	Cover Sheet	
PE-45	PE-41	Recoverable Gas in Place for Area A using CHK's map 23,528 ac-ft yields 30.2 BCF	
PE-46	PE-42	EUR for Area A using CHK's map EUR is 27.4 BCF by decline curve vs. 30.2 Volumetric Calc.	
PE-47	PE-43	Recoverable Gas in Place using Samson's map (Area B) 40,923 ac-ft yields 52.5 BCF	
PE-48	PE-44	EUR for Area B using Samson's map EUR is 37.1 BCF by decline curve vs. 52.5 Volumetric Calc	
PE-49	PE-38	Recoverable Gas in Place for each of the six 160-acre tracts in Section 4 using CHK's map.	
Pressure/Performance Data (East-West Trend) (Exhibits 50-58)			
PE-50	PE-1	Cover Sheet	
PE-51	PE-2	BHP vs. Time for 8 key wellbores	
PE-52	New	Comparative block performance since Jan-1991	
PE-53	New	Samson Exhibit 47	
PE-54	New	Development timing, production, & pressures on Samson's geologic map	
PE-55	New	State 15-1 & State WEK 1 cross-section	
PE-56	New	Development timing, producton, & pressures on CHK's geologic map	
PE-57	New	Composite of CHK's and Samson's geologic maps with cum production	
PE-58	New	Summary of CHK's Petroleum Engineering rebuttal exhibits	

GEOLOGIC EXHIBITS



Two distinctly different stacked sands

- Note different gamma character of 2 sands
- Sands separated by 3' shale bed
- Upper sand is coarser grained, unconsolidated, angular, lighter colored, higher Ø
- Lower sand is finer grained, more consolidated and cemented, darker color, lower Ø

Chesapeake

CHESAPEAKE OPERATING, INC.

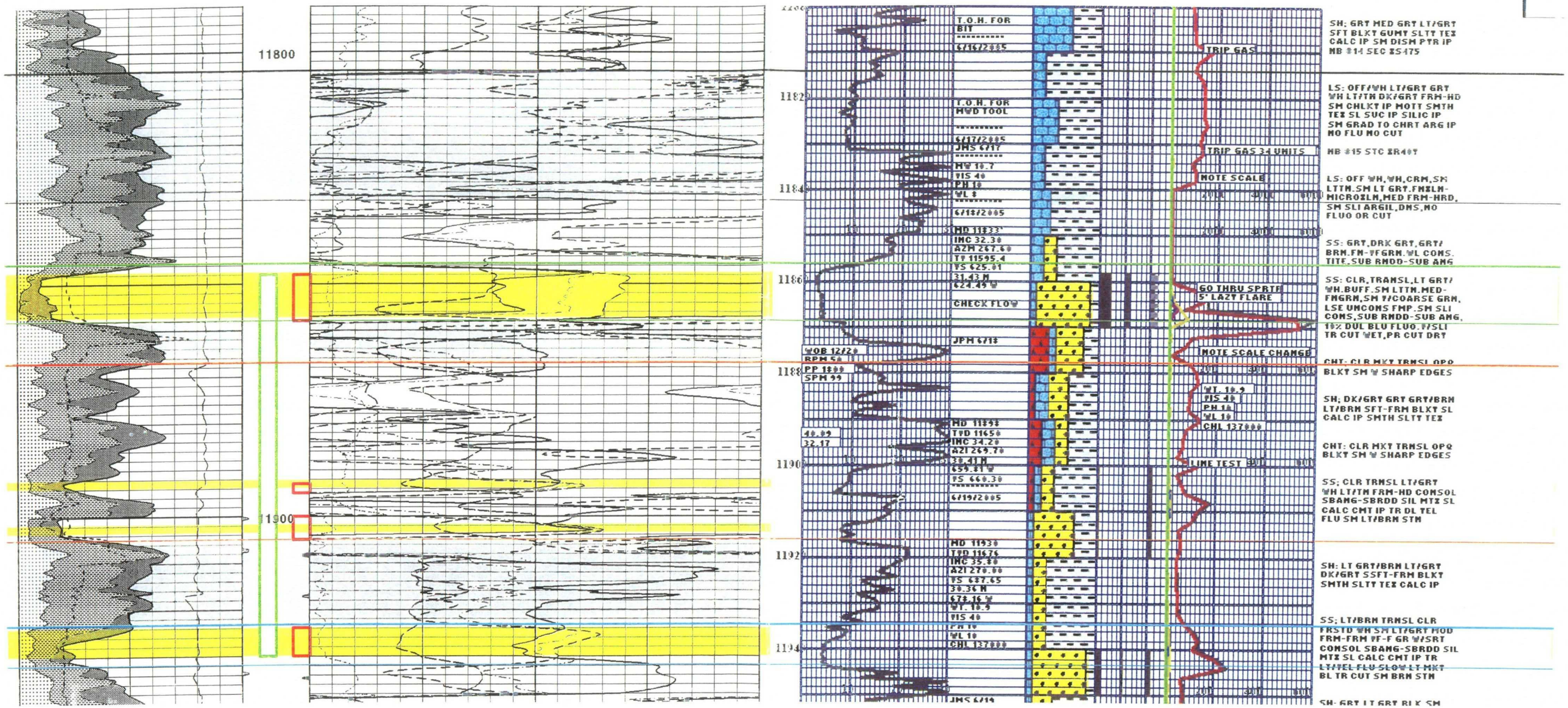
KF 4 STATE #1 **GEO3**

4-T21S-R35E Lea, NM

OSUDO 9 State #1

DETAIL LOG SECTION

Date: 5/05 | Geologist: D. Godsey



Three distinct sand units, upper 2 correlate to Osudo 9 St. #1

- Obvious separation of sands by thick shale beds
- Upper sand is coarser grained, unconsolidated, angular, lighter colored. Correlates to upper sand unit in Osudo 9 St. #1
- Middle sands finer grained, more consolidated and cemented, darker color. Correlate to lower sand unit in Osudo 9 St. #1
- Basal sand unit is finer grained, consolidated, cemented, browner color. Correlates below sands in Osudo 9 St. #1

Chesapeake
Natural Gas
Natural Advantages

CHESAPEAKE OPERATING, INC.

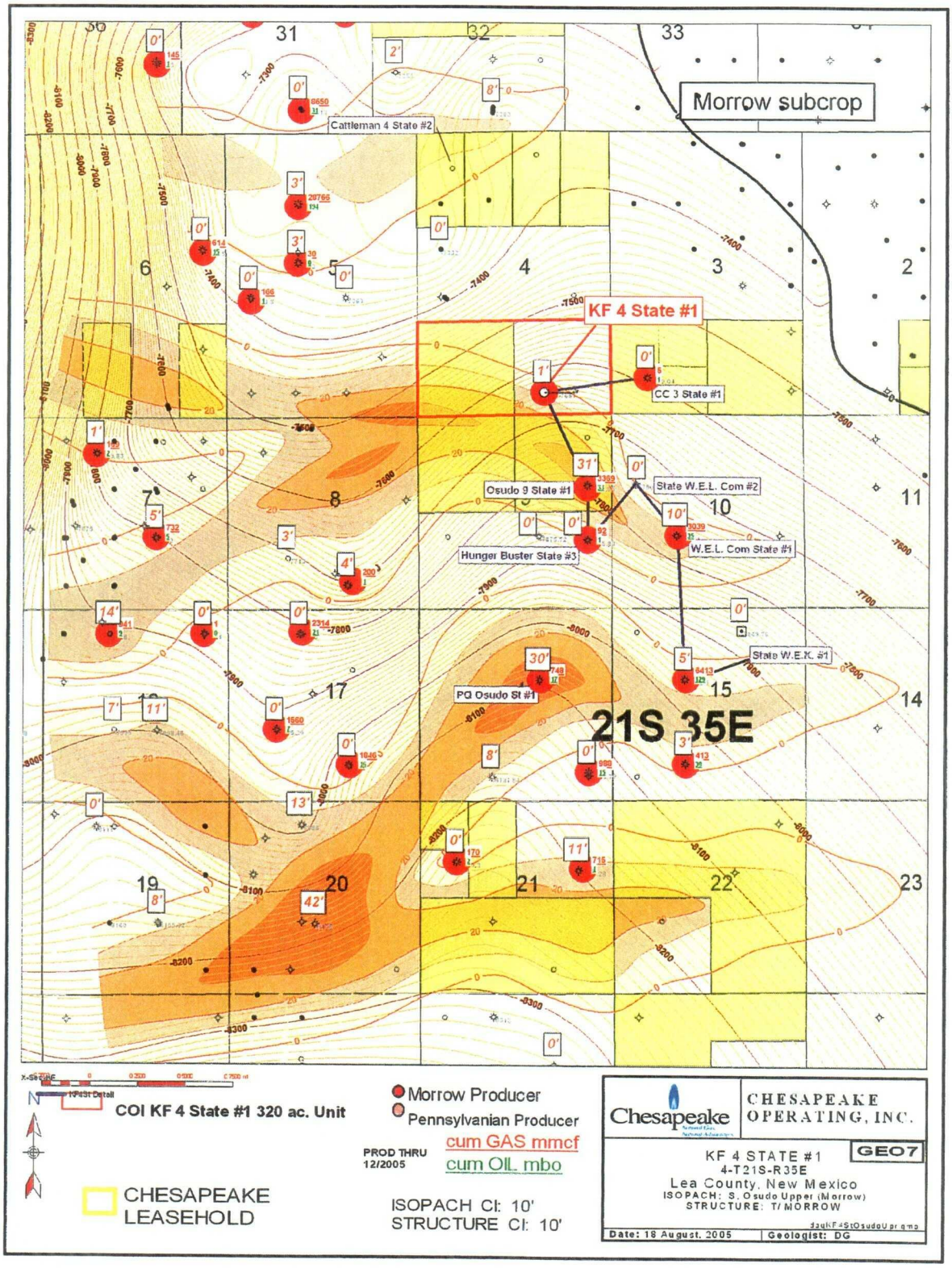
GEO2

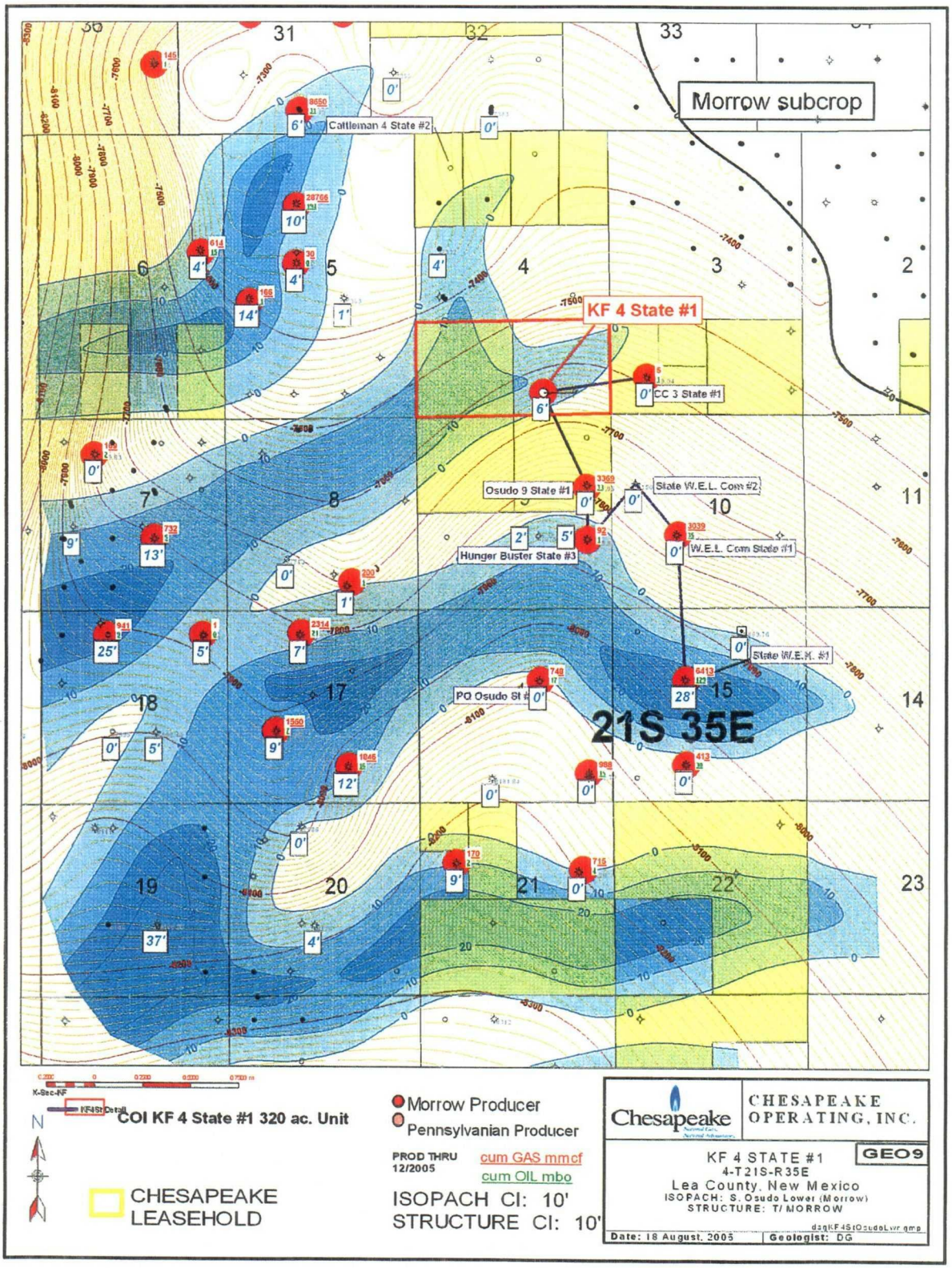
KF 4 STATE #1

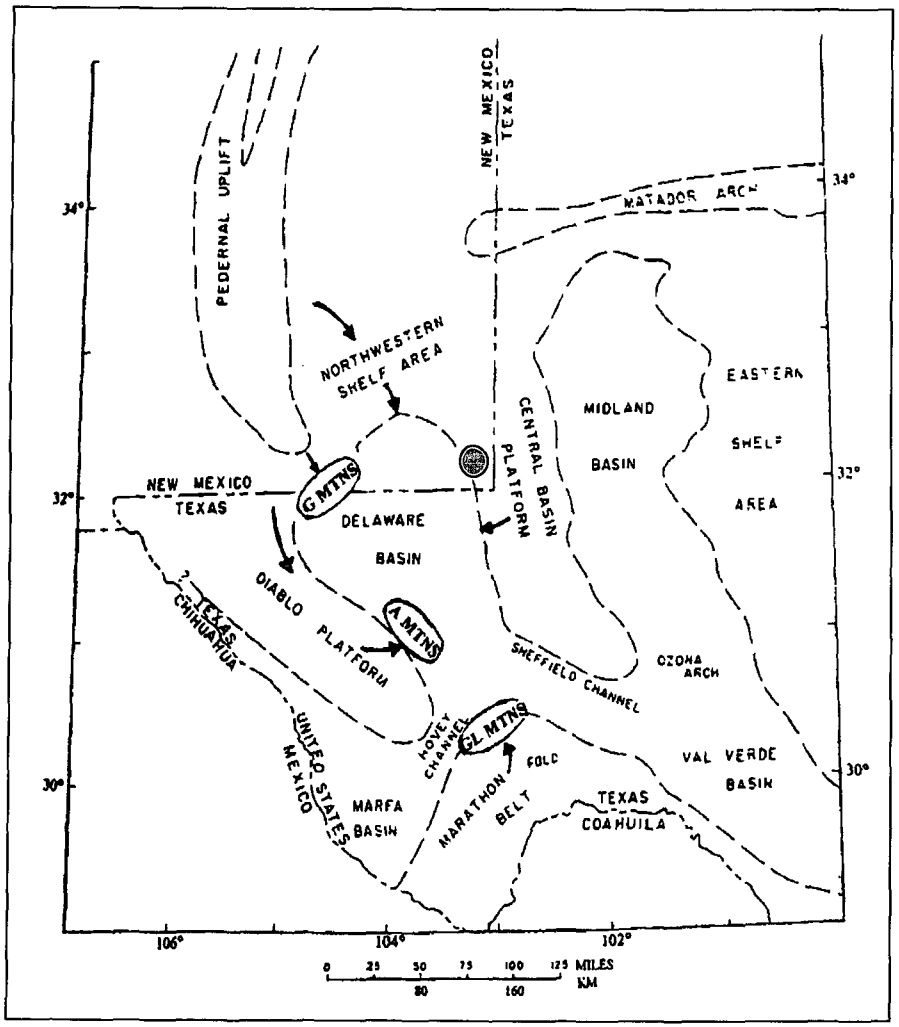
4-T21S-R35E, Lea, NM

DETAIL LOG SECTION

Date: 2005	Geologist: Godsey


Morrow subcrop
Cattleman 4 State #2
KF 4 State #1
CC 3 State #1
Osudo 9 State #1
State W.E.L. Com #2
W.E.L. Com State #1
Hunger Buster State #3
State W.E.K. #1
PQ Osudo St #1
21S 35E
COI KF 4 State #1 320 ac. Unit
Morrow Producer
Pennsylvanian Producer
PROD THRU 12/2005
cum GAS mmcf
cum OIL mbo
CHESAPEAKE LEASEHOLD
ISOPACH CI: 10'
STRUCTURE CI: 10'
Chesapeake
CHESAPEAKE OPERATING, INC.
KF 4 STATE #1
GEO7
4-T21S-R35E
Lea County, New Mexico
ISOPACH: S. Osudo Upper (Morrow)
STRUCTURE: T/ MORROW
Date: 18 August, 2005
Geologist: DG


Morrow subcrop
KF 4 State #1
Cattleman 4 State #2
CC 3 State #1
Osudo 9 State #1
State W.E.L. Com #2
W.E.L. Com State #1
Hunger Buster State #3
State W.E.L. #1
PO Osudo St #
21S 35E
COI KF 4 State #1 320 ac. Unit
CHESAPEAKE LEASEHOLD
Morrow Producer
Pennsylvanian Producer
PROD THRU 12/2005
cum GAS mmcf
cum OIL mbo
ISOPACH CI: 10'
STRUCTURE CI: 10'
Chesapeake
CHESAPEAKE OPERATING, INC.
KF 4 STATE #1
GEO9
4-T21S-R35E
Lea County, New Mexico
ISOPACH: S. Osudo Lower (Morrow)
STRUCTURE: T/ MORROW
Date: 18 August, 2005
Geologist: DG



KF 4 State #1 situated on the West flank of the Central Basin Platform (CBP).

Sediment sourced from CBP, Pedernales Uplift and Diablo Platform

Figure 13: "Paleogeography of Pennsylvanian time showing approximate location (dashed lines) of land masses and submerged areas. The Pedernal Uplift, Diablo Platform, Marathon-Ouachita fold belt, and Central Basin Platform supplied sediment to the Delaware Basin during the Pennsylvanian ..."

Hill, Caron A., 1996, Geology of the Delaware Basin Guadalupe, Apache, and Glass Mountains New Mexico and West Texas, Permian Basin Section-SEPM Publication No. 96-39, p.39.

Chesapeake

Permian Basin Formation and Filling

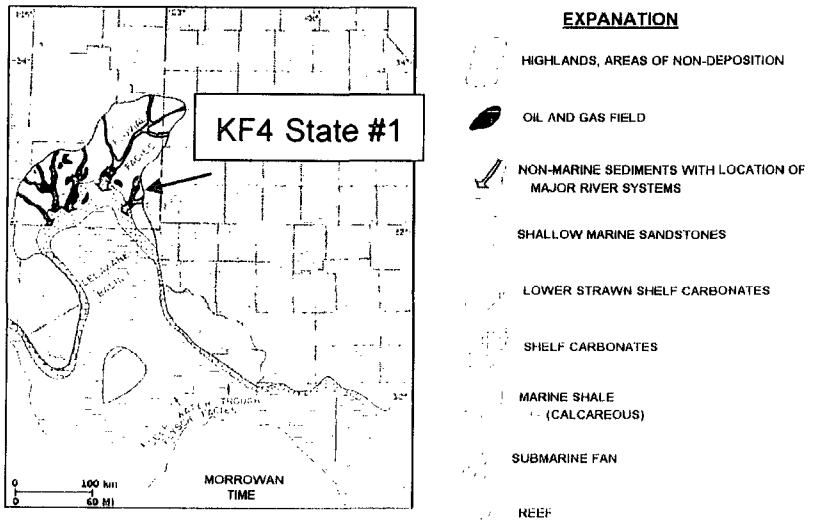
The structures of the Permian Basin, including basins, uplifts, faults, and anticlines developed in a series of tectonic pulses. The major pulses were: Middle Mississippian, early Morrowan, early Atokan, middle Desmoinesian, and early Wolfcampian. Most of these tectonic pulses also occur in nearby Late Paleozoic basins.

Paleogeographic reconstructions place the Permian Basin about 20 degrees south of the equator in the late Mississippian and gradually moving south. The basin was on the equator in mid-Pennsylvanian time and the region was about 15 degrees north by the end of the Permian.

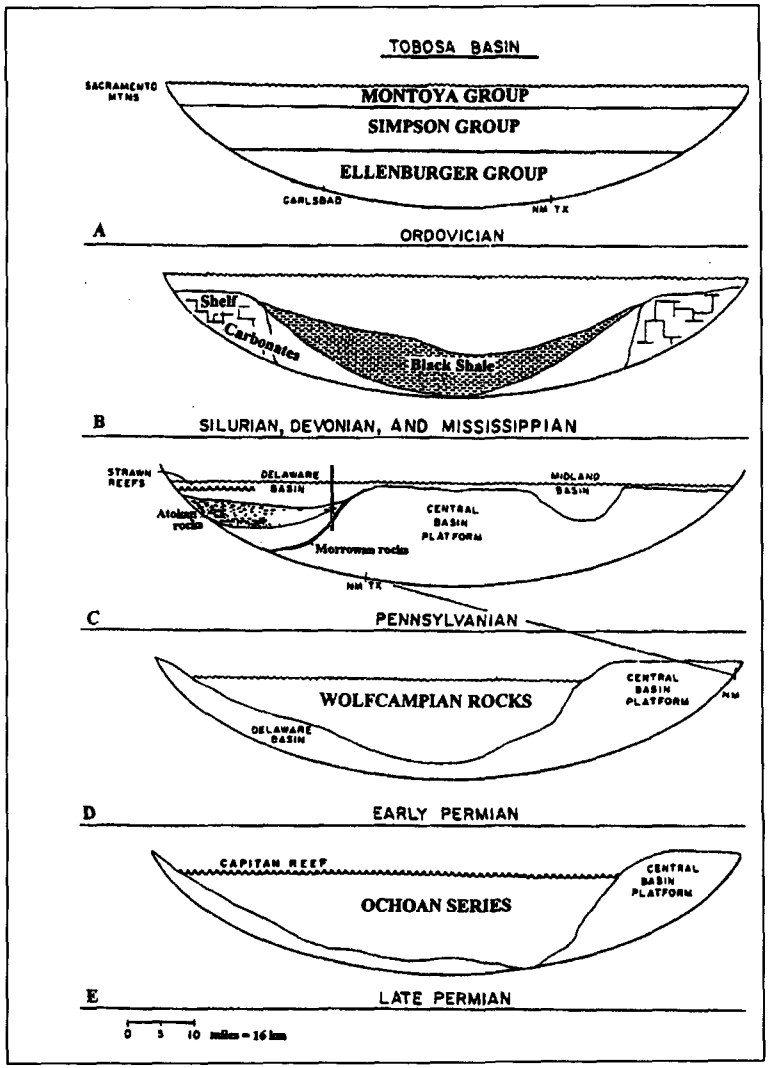
Mississippian. The formation of the Permian Basin started in late Mississippian time. The first deposits were widespread marine muds of the **Barnett Shale**. The Barnett overlies lower Mississippian through Ellenburger rocks on a low relief angular unconformity.

Pennsylvanian

The sediments of the Pennsylvanian age **Morrow Formation** (PB Figure 3) are fine-grained sandstone and shales eroded from areas north, east, and northwest of the Delaware Basin. Down warp of the Delaware Basin is obvious. The rest of the Permian Basin was exposed to erosion and were most likely low rolling hills at this time.



PB Figure 3. Morrowan paleogeographic map showing early downwarp of the Delaware Basin and Morrow sediments fed from the north. After Hanson and others, 1991. Explanation covers PB Figures 3 to 7.

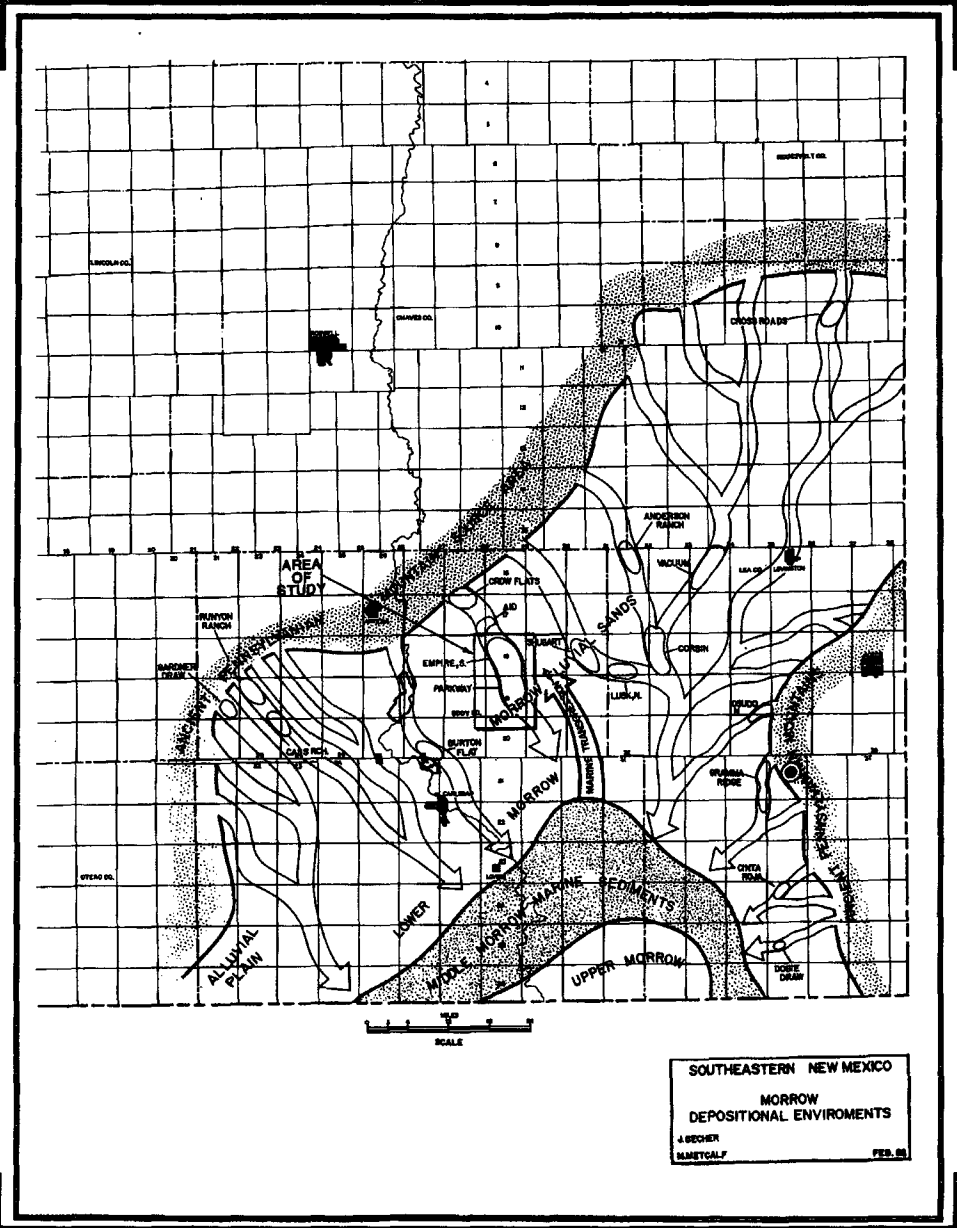


East –West diagramatic X-Section showing Morrow sediment wedge of Delaware Basin on West flank of CBP

Hill, Caron A., 1996, Geology of the Delaware Basin Guadalupe, Apache, and Glass Mountains New Mexico and West Texas, Permian Basin Section-SEPM Publication No. 96-39, p.39.

Chesapeake

GEO15



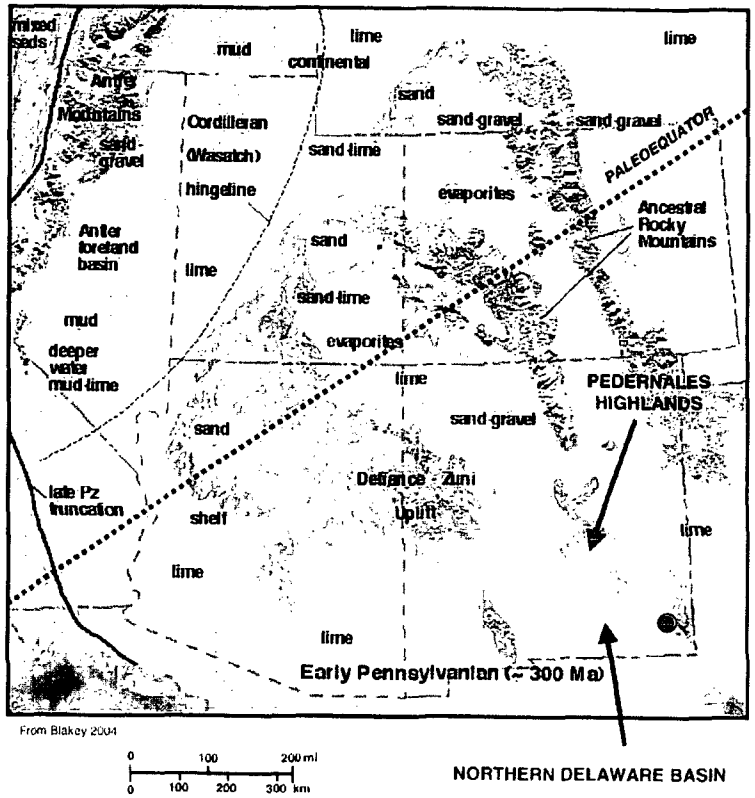
Proximity to CBP Highlands gives gives East to West sedimentation pattern

James, A.D., 1984, Lower Pennsylvanian Reservoirs of the Parkway Empire South Field, Eddy County, New Mexico, Transactions Southwest Section AAPG, p.35.

Chesapeake

FIGURE 1-5

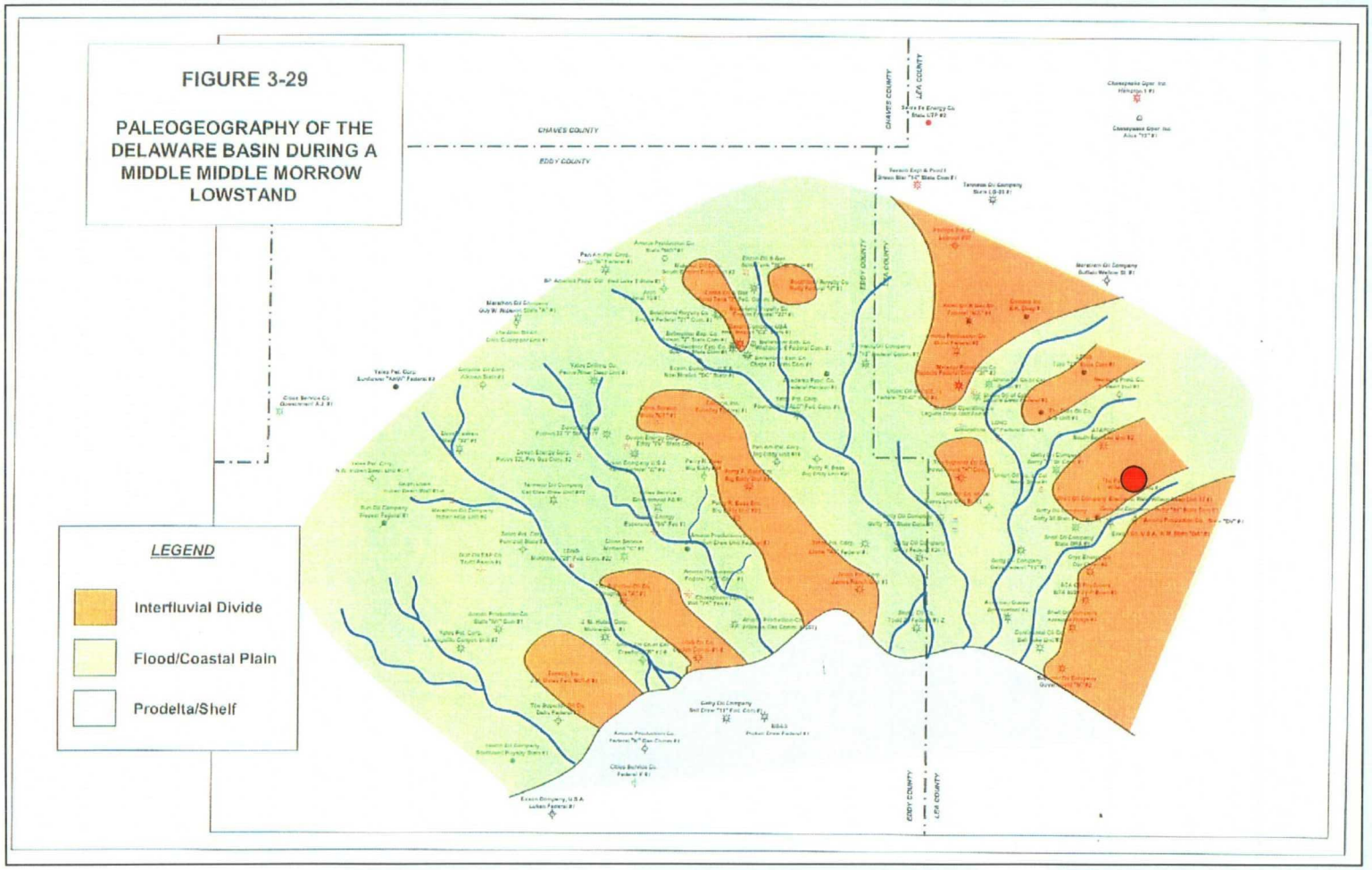
PALEOGEOGRAPHY OF THE SOUTHWESTERN
UNITED STATES DURING EARLY PENNSYLVANIAN TIME



Recent Morrow study shows KF 4 State #1 located on flank of CBP, the nearest landmass

2004, Sequence Stratigraphy and Petrophysical Study of the Morrow Sandstones Delaware Basin, Integrated Reservoir Solutions and Core Lab

Chesapeake



2004, Sequence Stratigraphy and Petrophysical Study of the Morrow Sandstones Delaware Basin, Integrated Reservoir Solutions and Core Lab

Recent Morrow study shows East to West depositional pattern

Chesapeake
Natural Gas. Natural Advantages.

Basic Well Log Analysis

Asquith and Krygowski

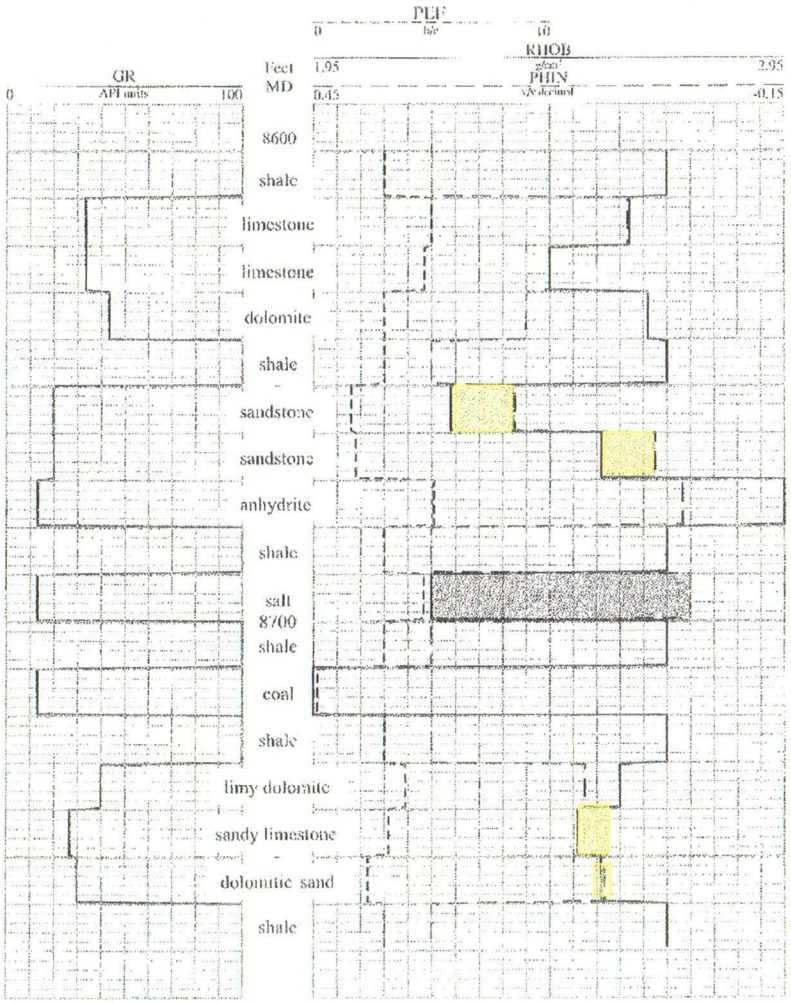


Figure 4.8. Example of the generalized lithologic response of the neutron and density logs, used as a quick-look lithology technique.

The gamma ray (GR) and photoelectric effect (PEF) are provided for additional information.

Procedure:

The neutron-porosity and density-porosity curves are scanned for their relationship to each other and for their values. The relative position of the curves is an indicator of the lithology encountered, and the average of the two curves at any depth is a good approximation of the porosity (within two porosity units).

The gamma ray may be used to distinguish ambiguous patterns, like shale and dolomite patterns.

The photoelectric effect may be used to distinguish ambiguous patterns (sandy limestone from dolomitic sand) or to confirm the neutron-density interpretation.

Assumptions:

- There is liquid in the pore space, either water or oil but not gas.
- The formations encountered do not contain clay (except for the shale).
- Both porosity curves are referenced to limestone.

Note the lithology interpretations listed on the log.

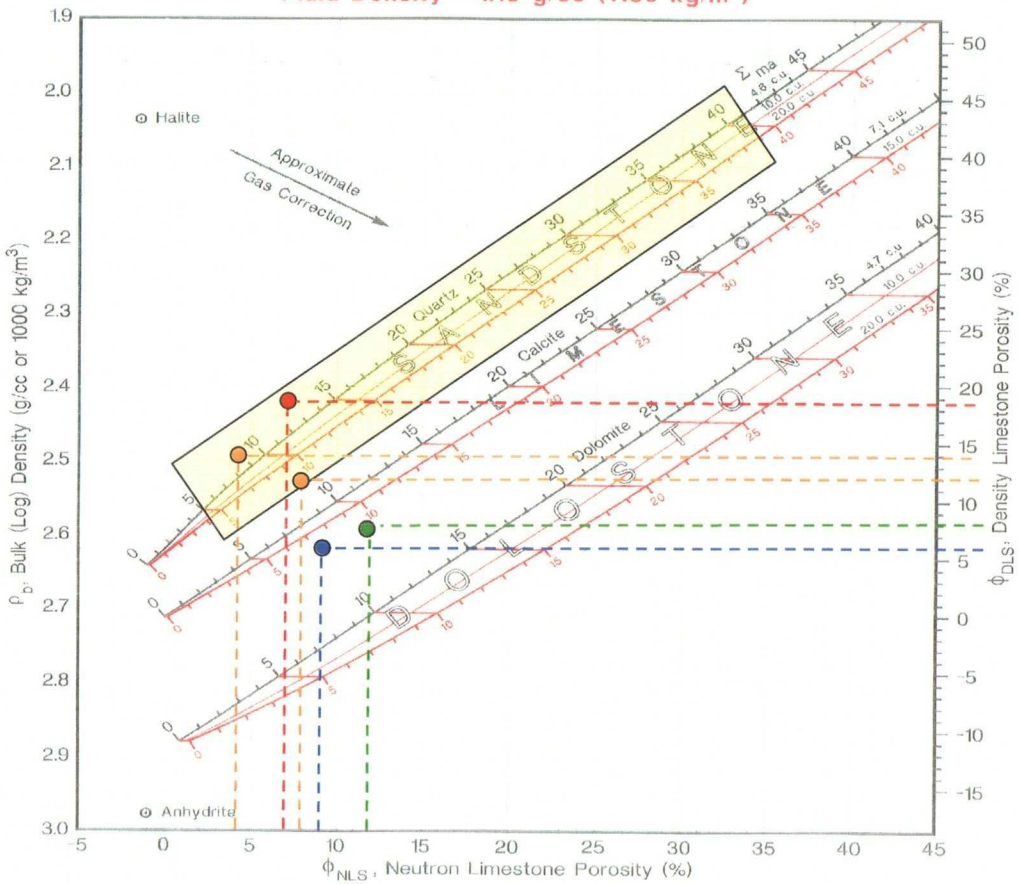
HALLIBURTON

Porosity – Mineralogy Crossplot

Bulk (Log) Density versus Neutron Porosity

DSN-II*

Fluid Density = 1.15 g/cc (1150 kg/m^3)



CP$_{DSN-II}$-1c

* A mark of Halliburton

Osudo 9 #1 – 9H

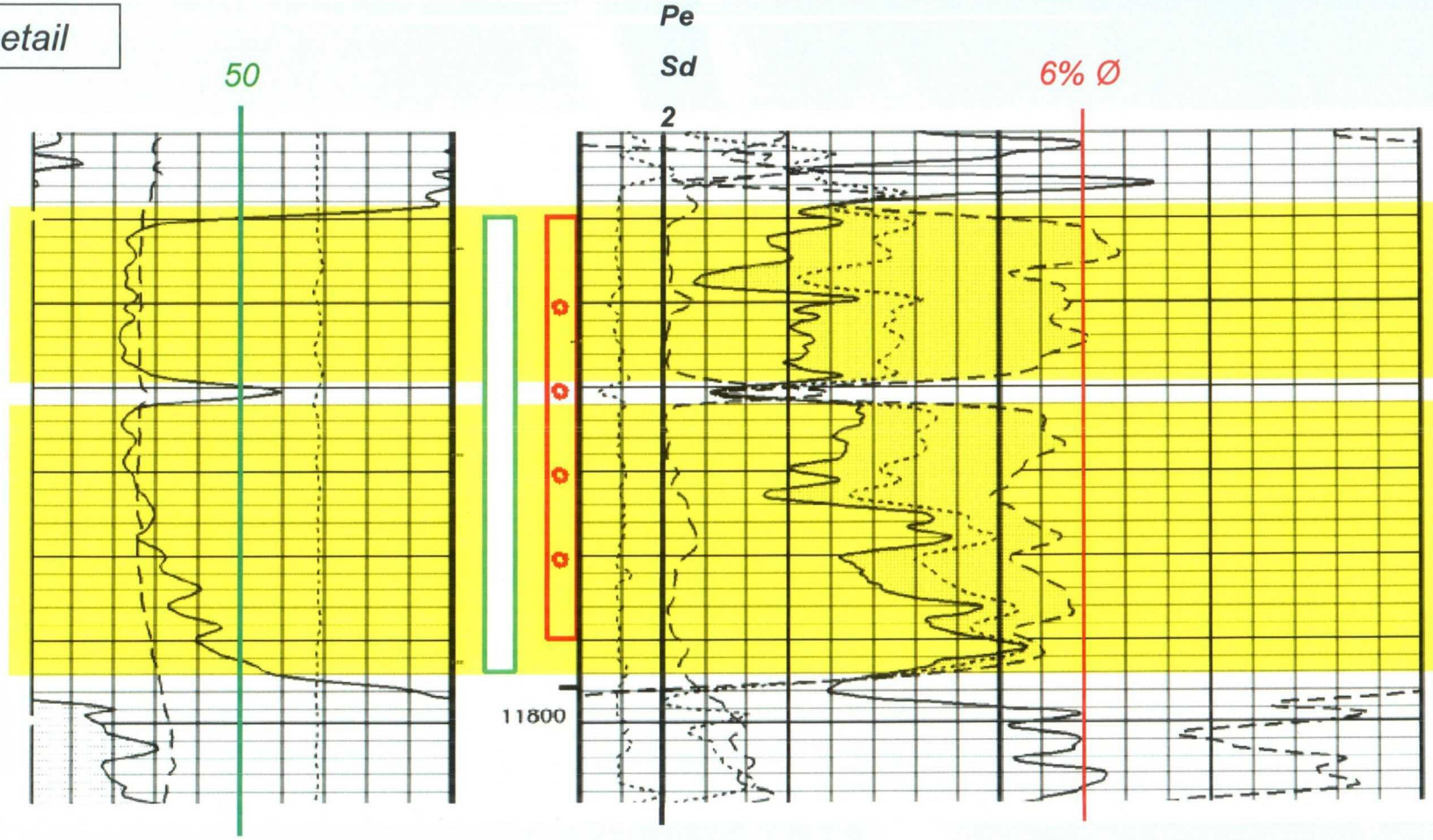
KF 4 State #1 – 4W

Hunger Buster #3 – 9I

WEL #2 – 10E

Chesapeake

9H Detail



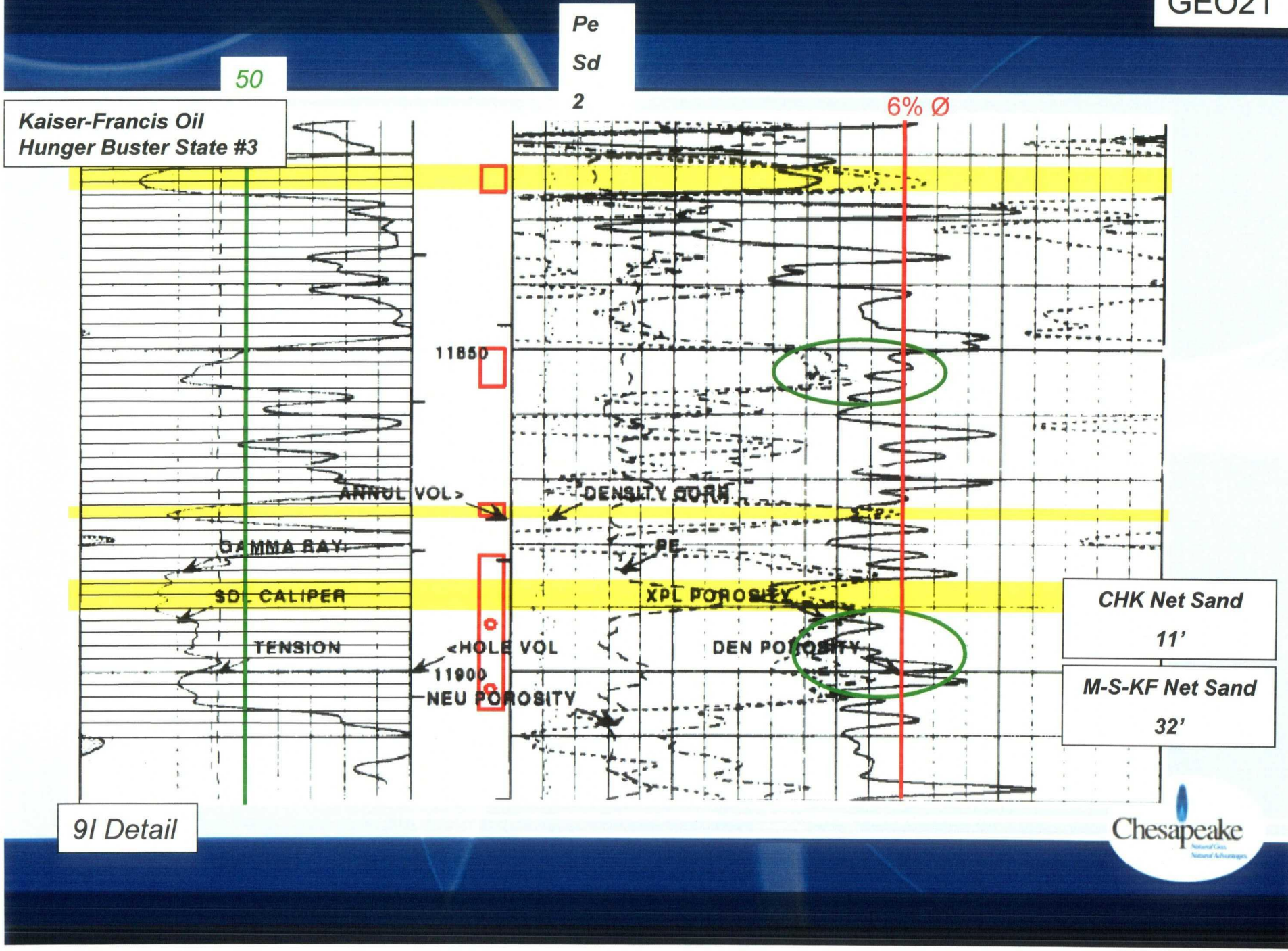
MEWBOURNE OIL COMPANY

OSUDO 9 #1

CHK Net Sand 54'

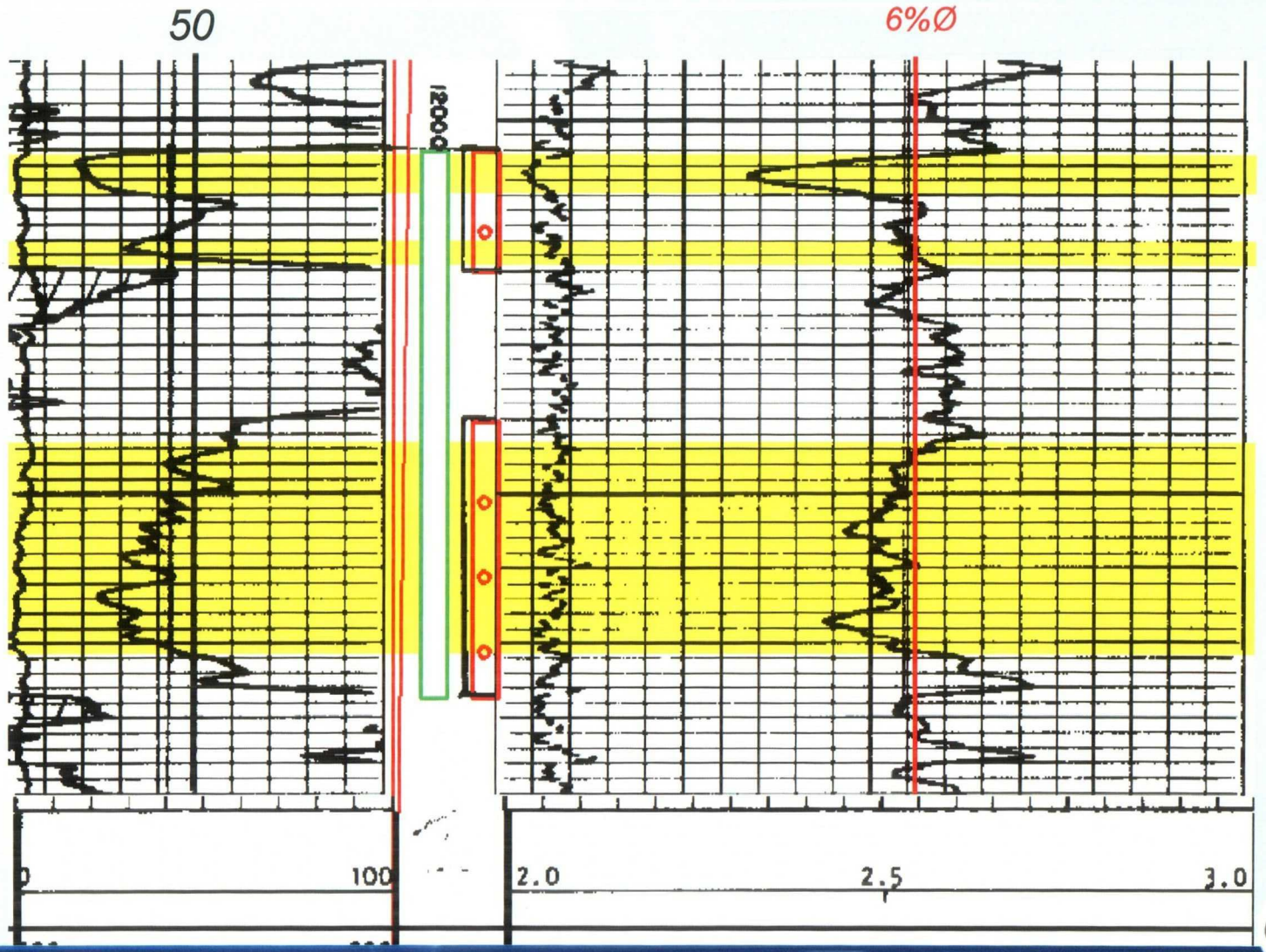
M-S-KF Net Sand 42'

Chesapeake


50
Pe
Sd
2
Kaiser-Francis Oil
Hunger Buster State #3
6% Ø
11850
ANNUL VOL>
DENSITY CORR
GAMMA RAY
PE
SDL CALIPER
XPL POROSITY
TENSION
<HOLE VOL
DEN POROSITY
11900
NEU POROSITY
CHK Net Sand
11'
M-S-KF Net Sand
32'
9I Detail
Chesapeake

GEO23

Amerada Petroleum
State WE K-1



CHK Net Sand

36'

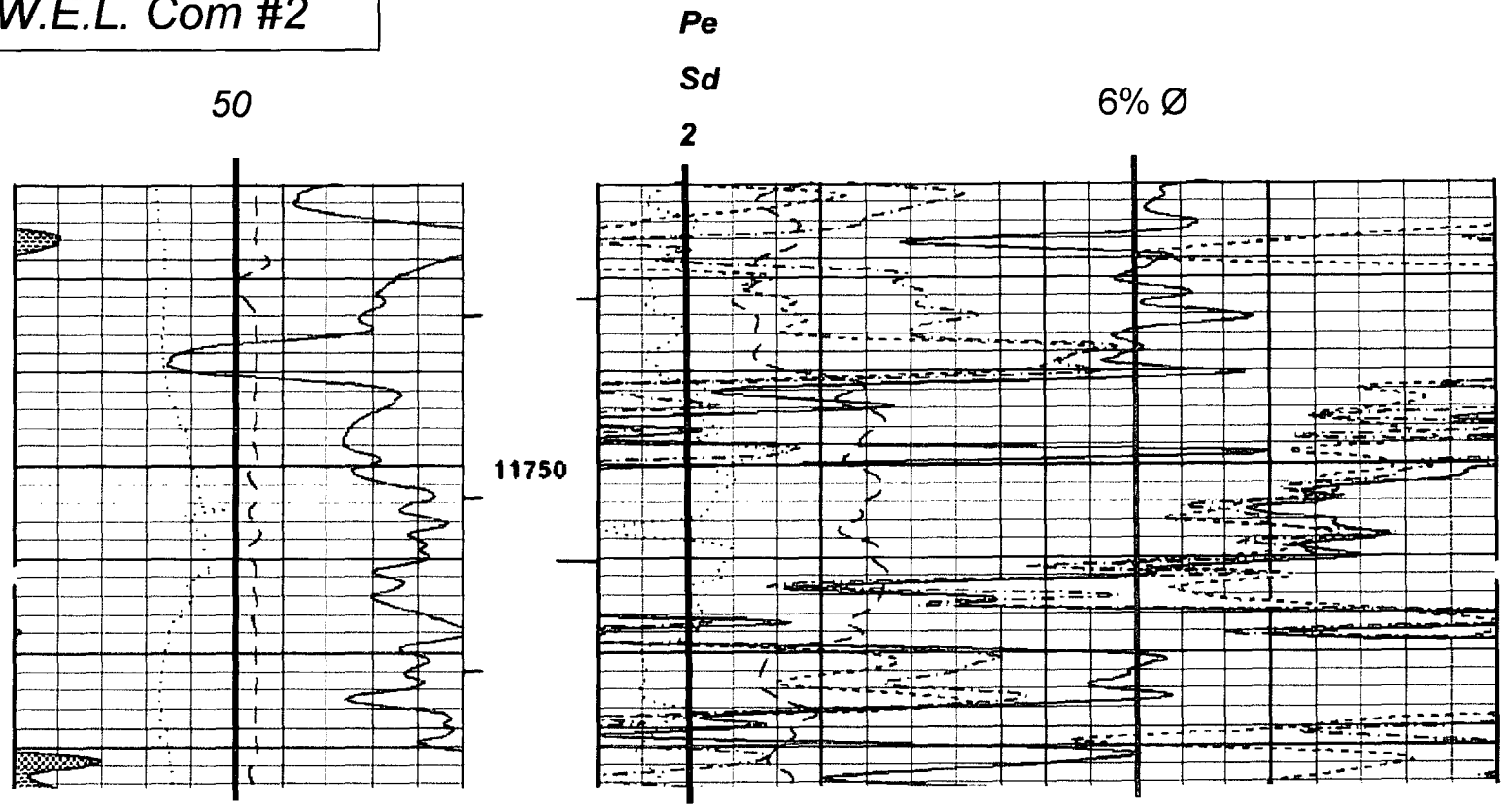
M-S-KF Net Sand

8'

Chesapeake

15F Detail

Apache Corporation
State W.E.L. Com #2



10E Detail

Chesapeake

GEO26

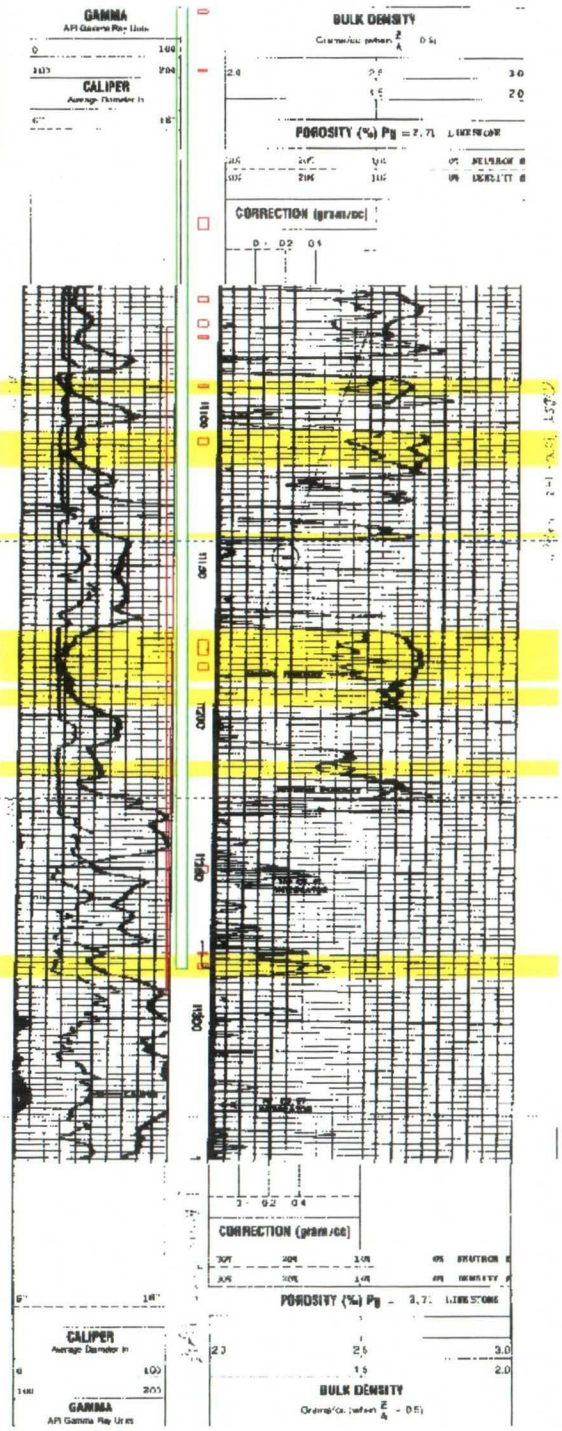
Lanexco

State JD Com #1

29K-20S-36E

562 MMCF

3 MBO



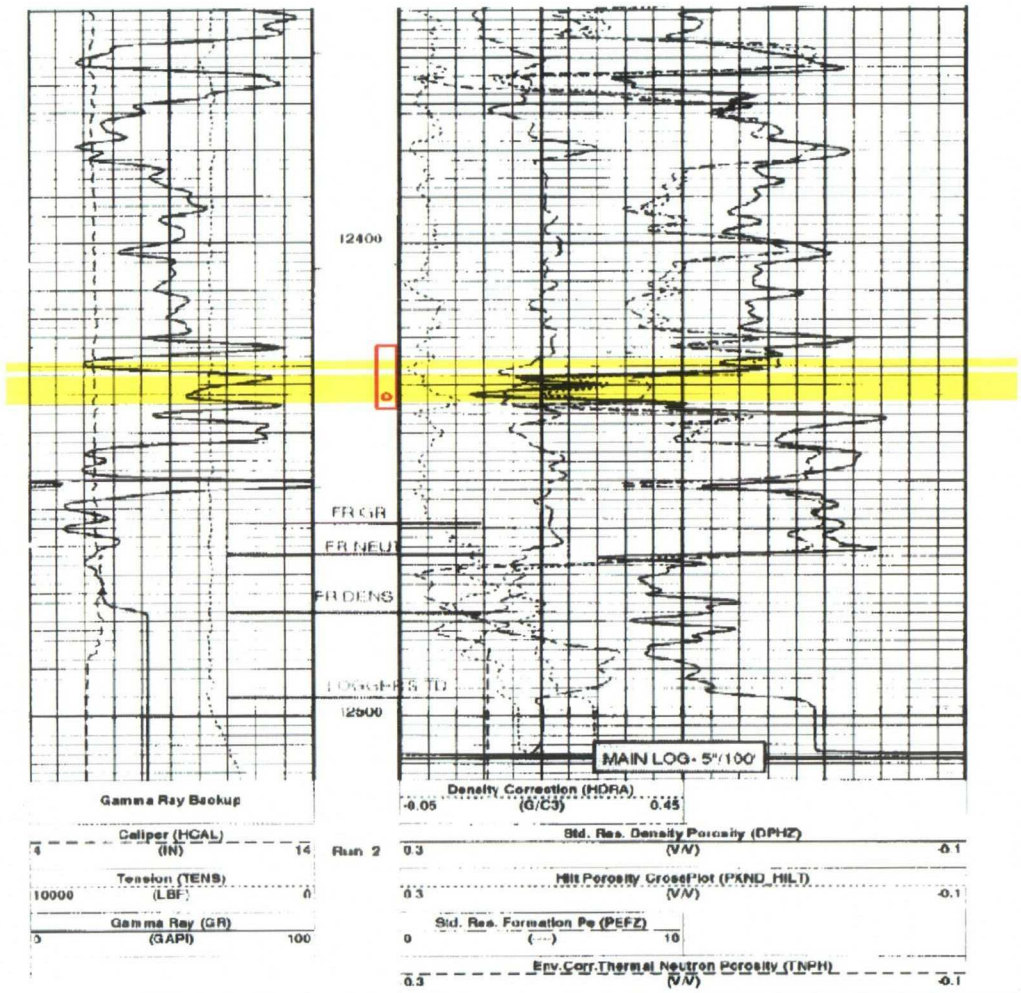
Chesapeake

1
RAND PAULSON OI
STATE 33 3
021.0S 035.0E03 033
30025341860000

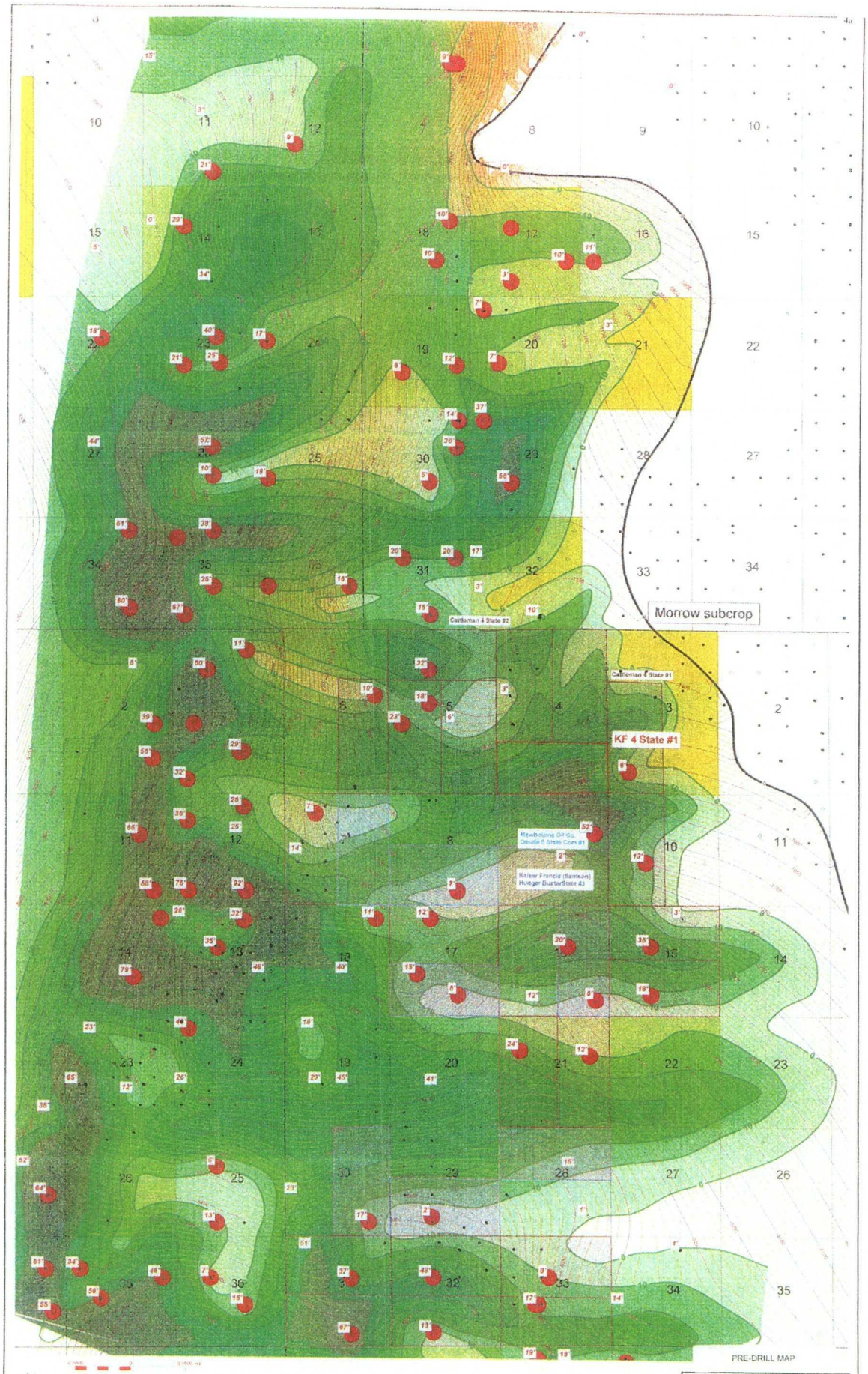
GEO27

1,018 MMCF

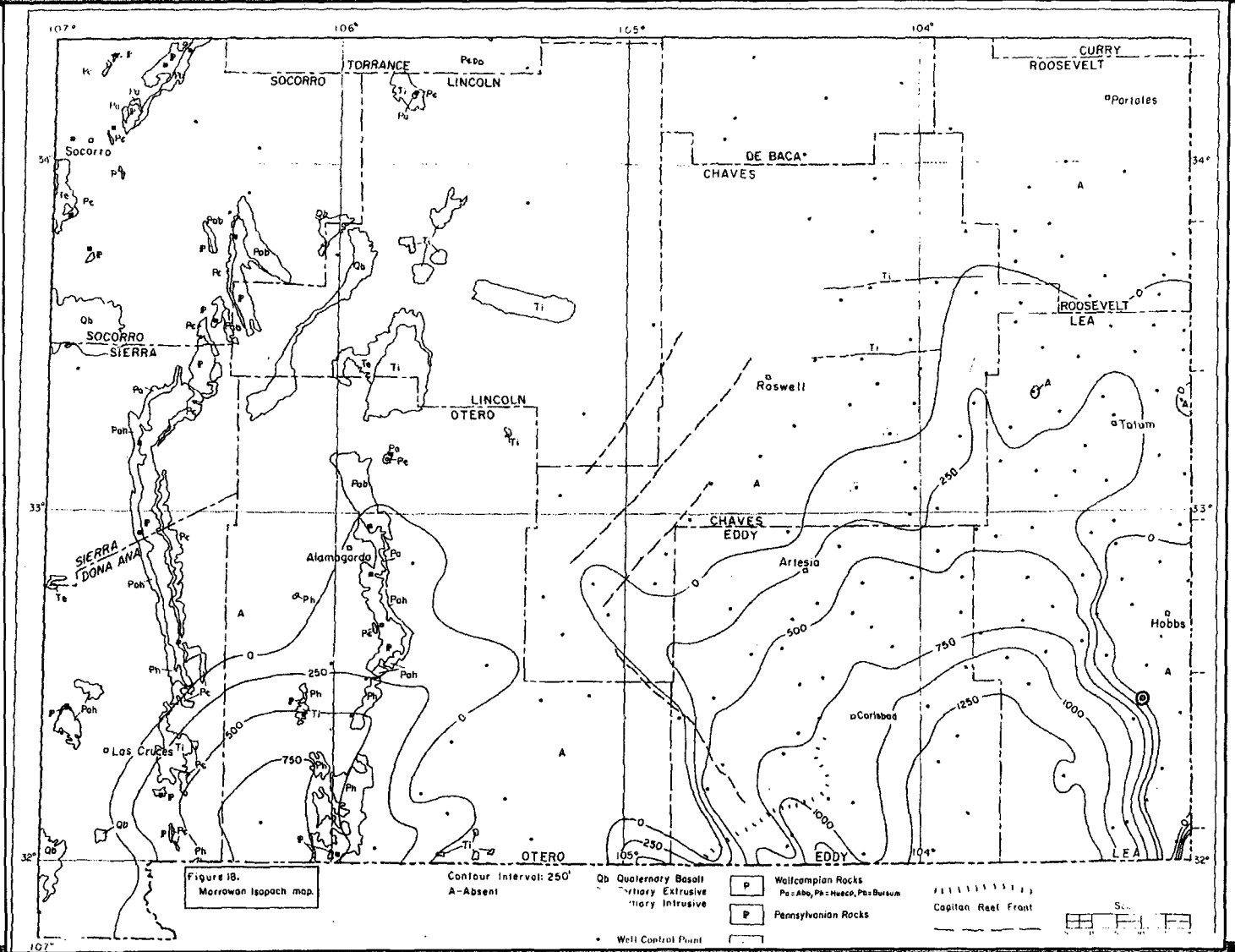
4 MBO



Chesapeake


Morrow subcrop
KF 4 State #1
Cattleman 4 State #2
Cattleman 4 State #1
Mewbourne Oil Co.
Double 5 State Com #1
Kaiser Francis (Samson)
Hunger Buster State #3
PRE-DRILL MAP
COI KF 4 State #1 320 ac. Unit
SAMSON 320 ac. Unit
Mewbourne 320 ac. Unit
"Other" 320 ac. Unit
Morrow Producer
Pennsylvanian Producer
CHESAPEAKE LEASEHOLD
ISOPACH CI: 10'
STRUCTURE CI: 10'
Chesapeake
CHESAPEAKE OPERATING, INC.
KF 4 STATE #1
GEO AD 28
4-T21S-R35E
Lea County, NM
ISOPACH: net Middle Morrow Sand
STRUCTURE: T/ Morrow
Date: 11 May, 2005
Geologist: DAG

GEOAD33



Publication by State Bureau of Mines & Mineral Resources, New Mexico Institute of Mining & Technology

Isopach of Morrowan sediments. Shows Morrow thickening to West of CBP.

KF 4 State #1 near updip limit of Morrow subcrop.

Meyer. Richard F., 1966, Geology of Pennsylvanian and Wolfcampian Rocks in Southeast New Mexico, United States Geological Survey Memior 17, p.32.

Chesapeake

Samson Submitted Literature

Article	Exhibit #	Pertinent Pages	Total Pages	Page #'s
A Symposium of the Oil and Gas Fields of Southeastern New Mexico	4	37	37	All
Depositional Environments of the Morrow Formation in the Osudo Field	5	8	8	All
Future Petroleum Provinces in New Mexico-discovering new reserves	6	9	35	15,18,69-70,74,80,82,86,91
The Permian Basin: Providing Energy for America	7	7	7	All
Play Analysis and Digital Portfolio of Major Oil Reserves in Permian Basin	9	7	72	106-107,121-122,124,132,140
Habitat of Oil	10	13	53	395,398,402,406,417-418,420,423-424,441-442,445
Geology of the Delaware Basin	12	1	15	39
The Permian Basin: Proving Ground for Tomorrow's Technologies	16	7	21	157,159,166-167,172-173,174
Oil & Gas Fields	17	4	19	32,35,38,40
Atlas of Major Rocky Mountain Gas Reservoirs	18	4	28	153,159-161
Sequence Stratigraphy and Petrophysical Study of the Morrow Sandstones	40	41	41	All

Chesapeake

28.5 BCF Well
best Morrow Producer in area
on high that Samson says diverted
sand deposition

CENTRAL BASIN PLATFORM

Morrow Producer

No sand trend in structural saddle

Sands trending uninterrupted across faulting, even from downthrown to upthrown side.

No well control for sand trend

2' sand; mapped as 0'

Thickest sand but narrowest sand body

Morrow Producer

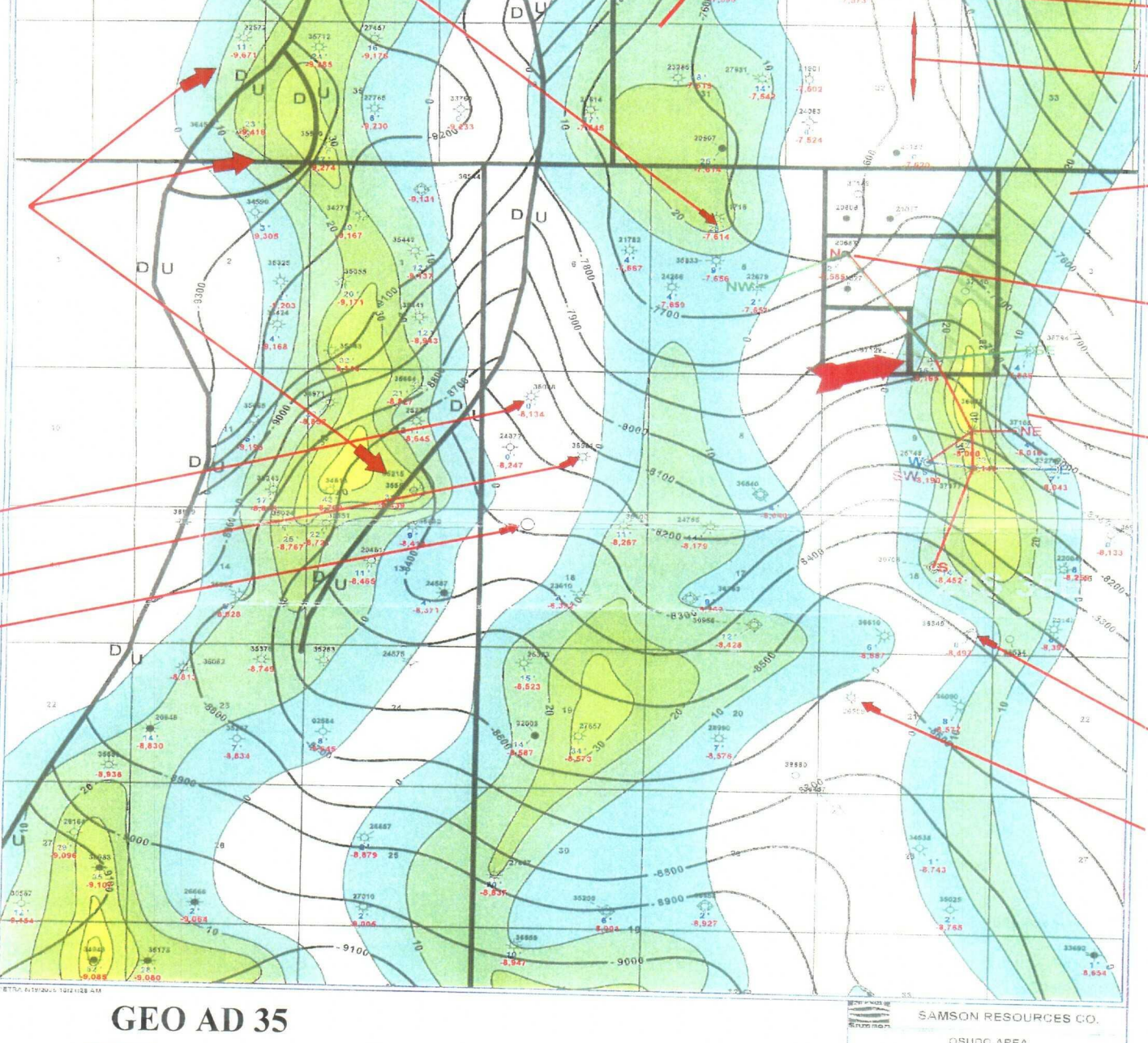
Morrow Producer

Morrow Producer

Does not match pressure decline data

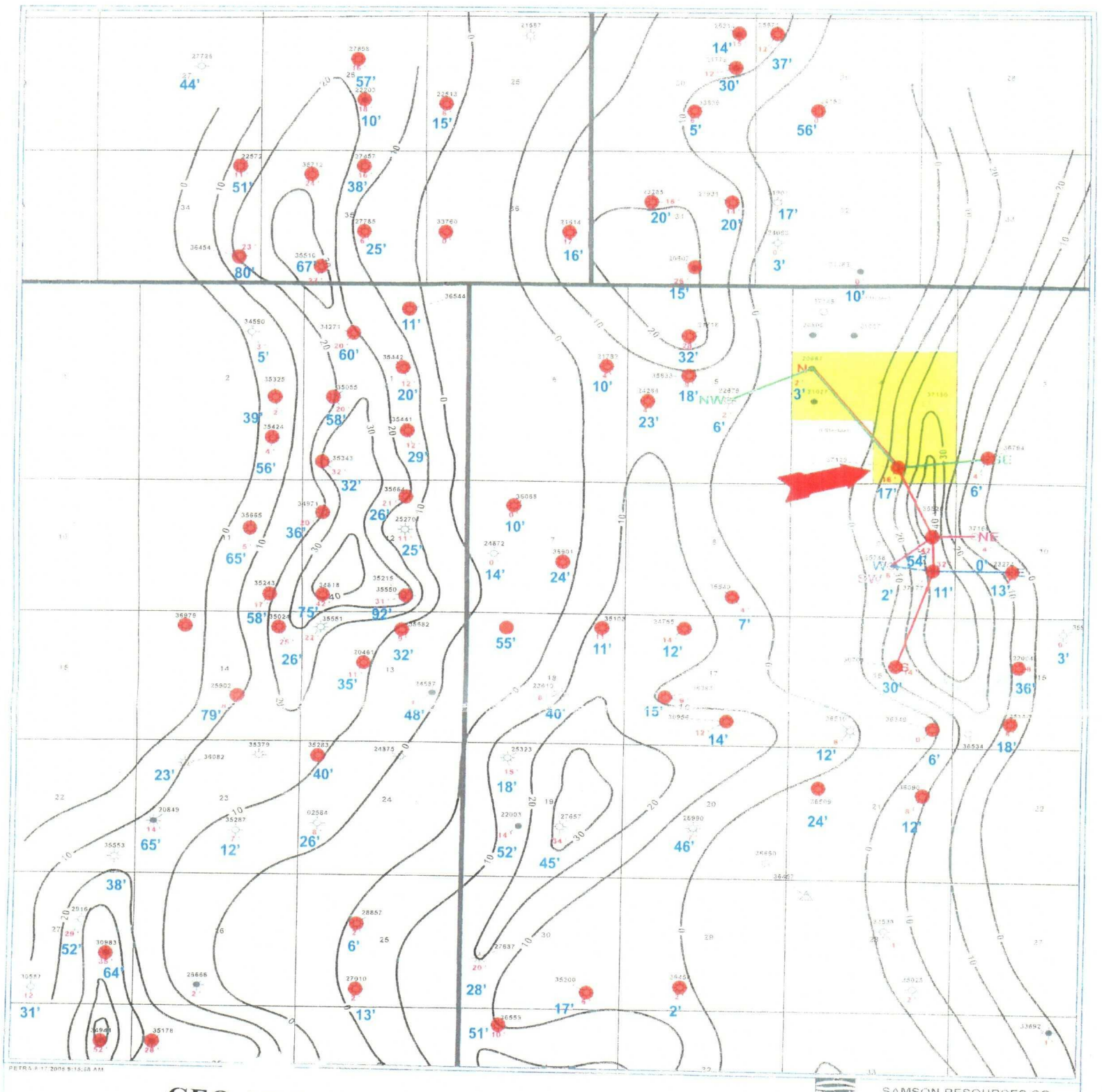
Morrow Producer

Morrow Producer



Chesapeake	CHESAPEAKE OPERATING, INC.
Samson Map Analysis	
Date: 2006	Geologist: Godsey

Samson Resources EX K
NMOCD Case No. 13493



Chesapeake	CHESAPEAKE OPERATING, INC.
CHK net sand values Morrow producers	
Date: 2006	Geologist: Godsey

Samson Resources Co. EX C
NMOCD Case No. 13493

GEOAD37

Chesapeake Operating

KF 4 State #1

4W-21S-35E

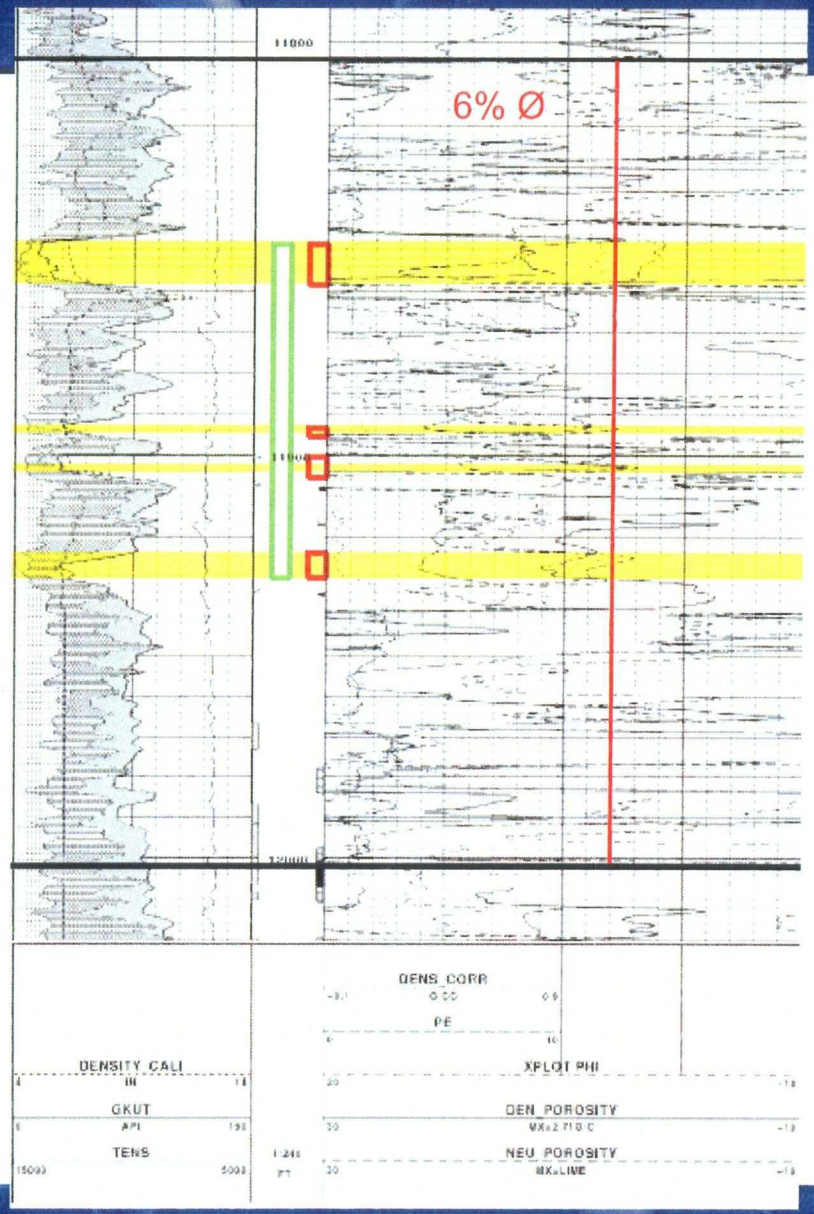
KB: 3639 ft.

Logged:

Comp Date: 8/11/2005

IP: 2,232 MCFD

Total Cum: 36 MMCF



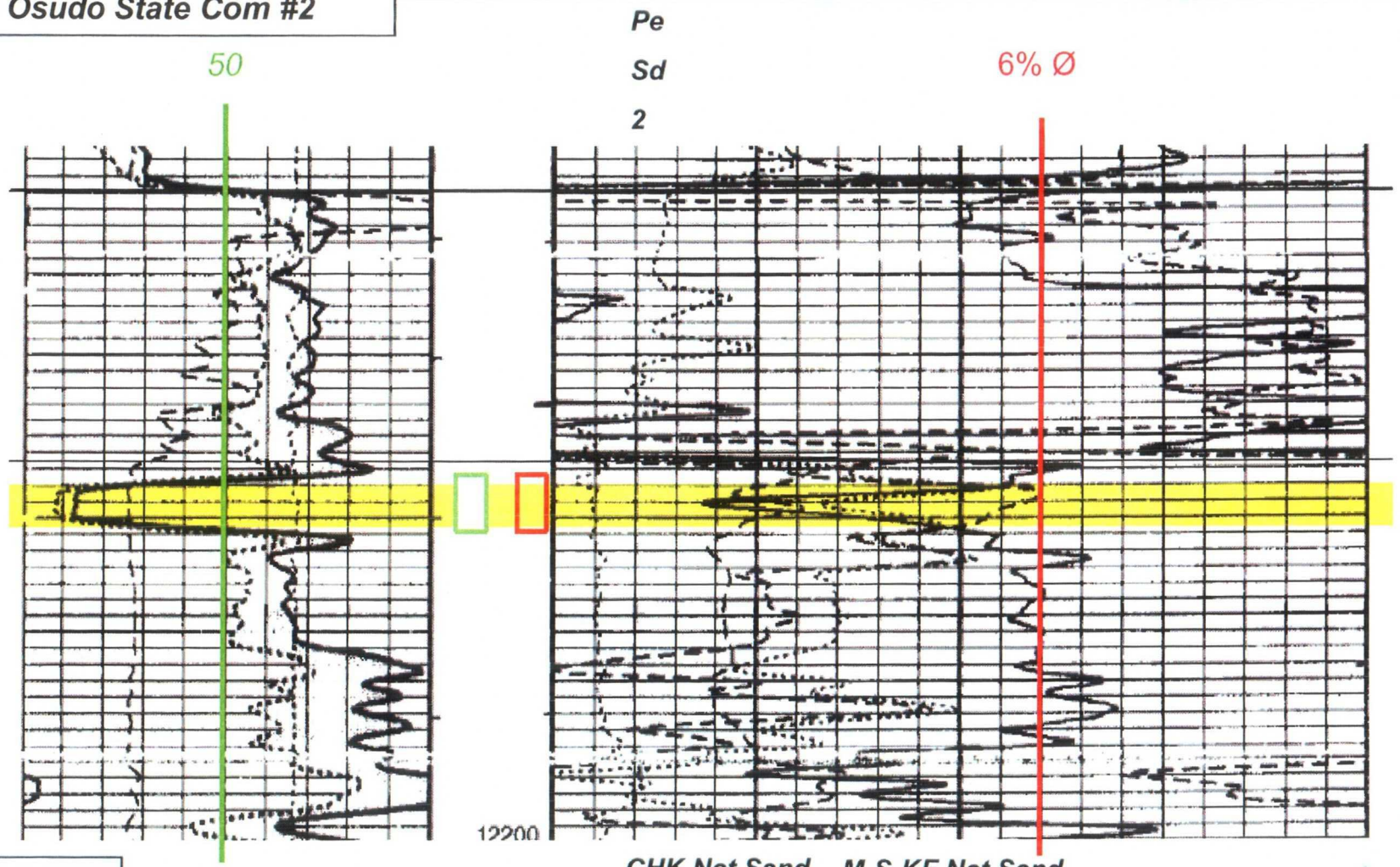
CHK Net Sand ***M-S-KF Net Sand***

17' ***16'***

Chesapeake

GEOAD38

Devon Energy
PQ Osudo State Com #2



16P Detail

Chesapeake

GEOAD39

Chesapeake Operating

San Simon 21 State #2

21E-21S-35E

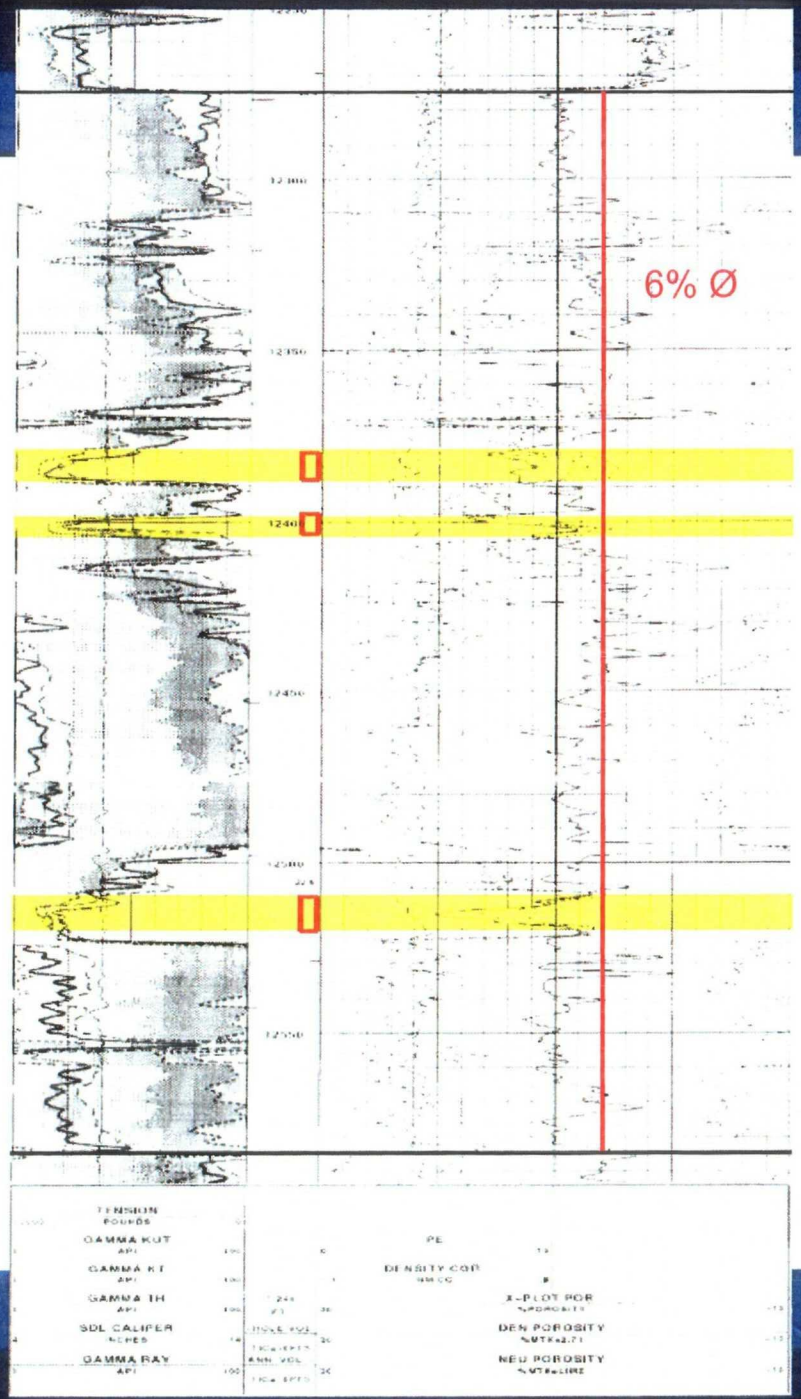
KB: 3698 ft.

Logged: 7/24/2004

Comp Date: 11/23/2004

IP: 1,047 MCFD

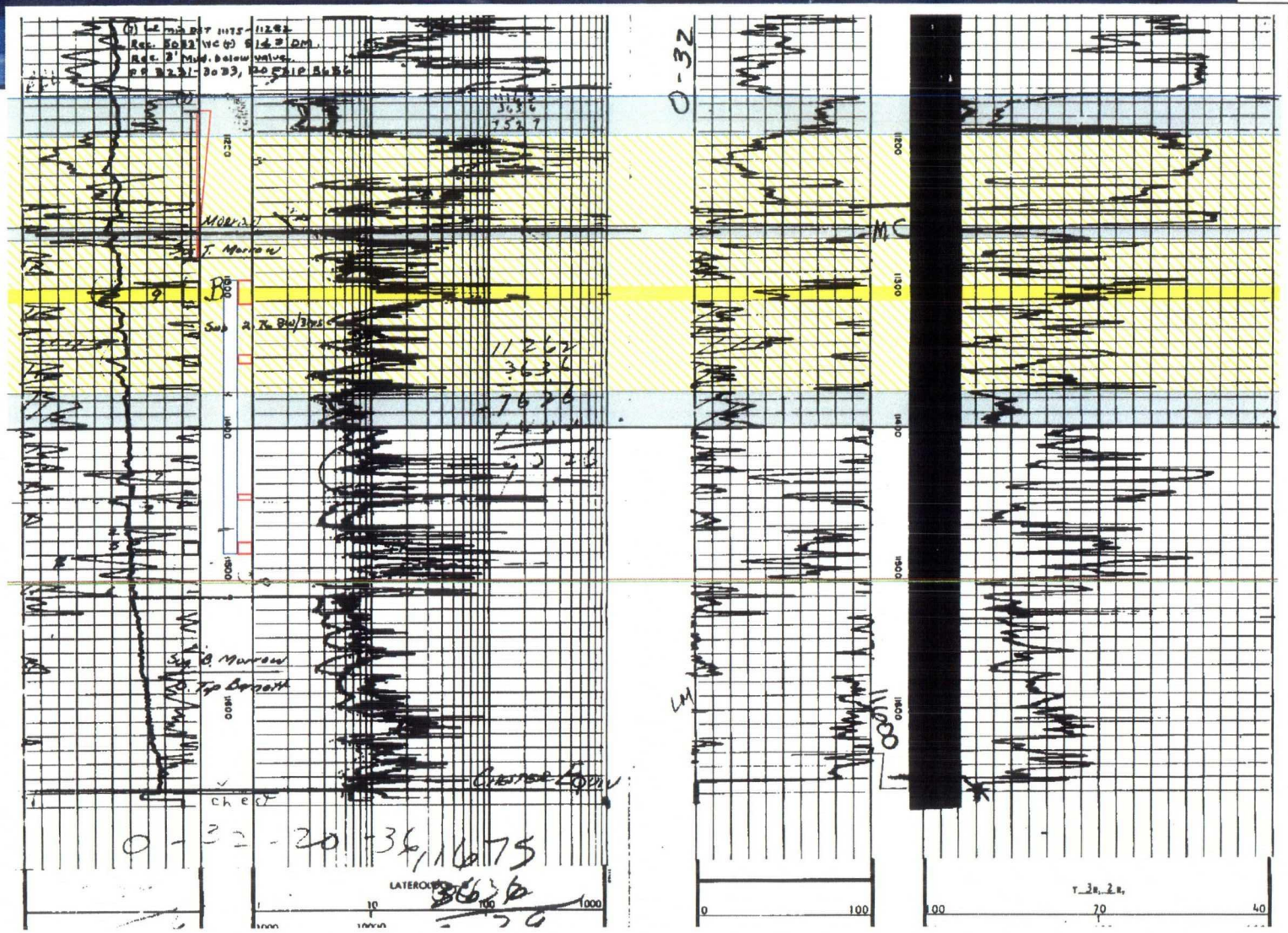
Total Cum: 179 MMCF



CHK Net Sand	M-S-KF Net Sand
24'	0'

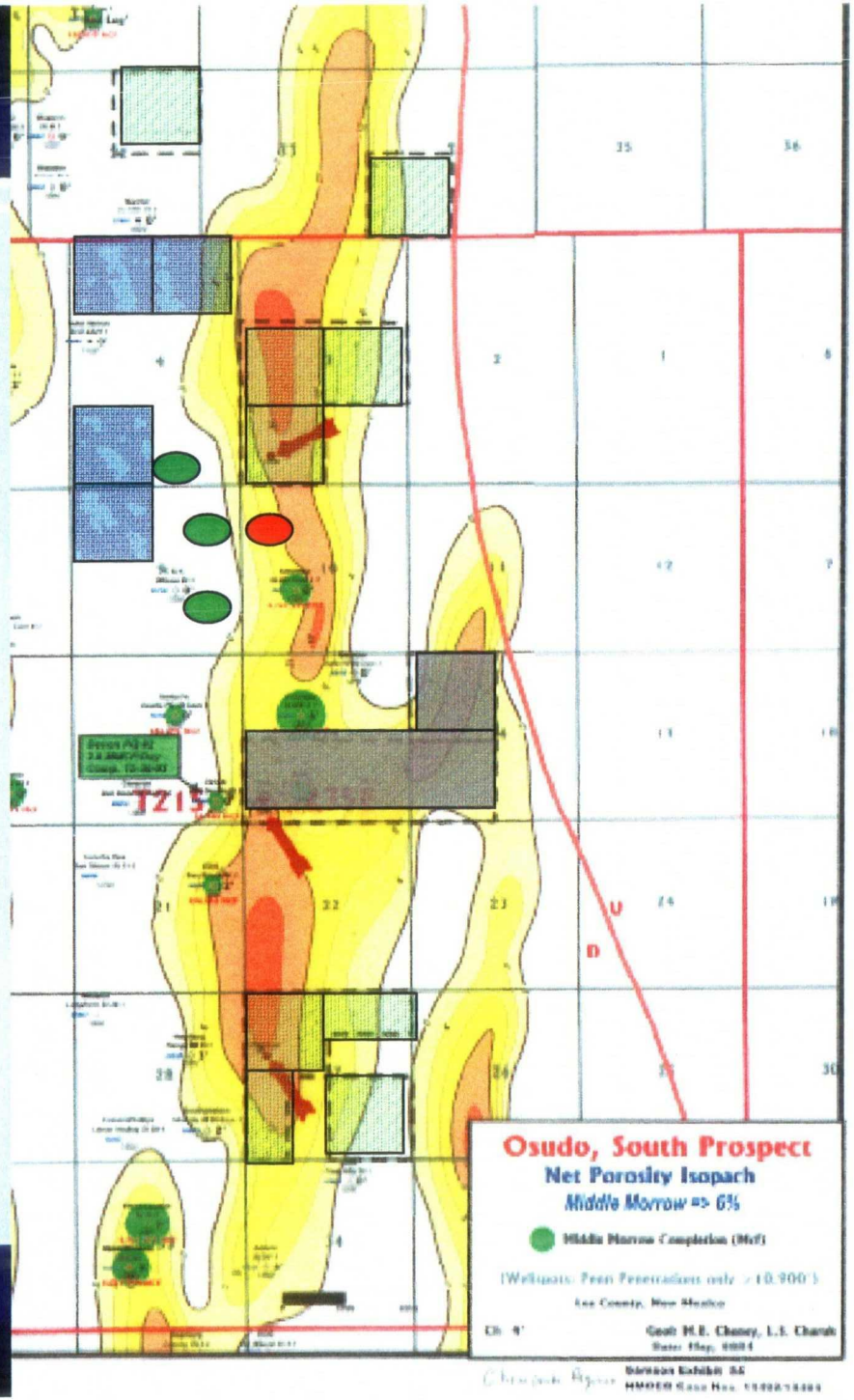
Chesapeake

GEOAD42



320

GEOR5



Original Purchase

Subsequent Purchase

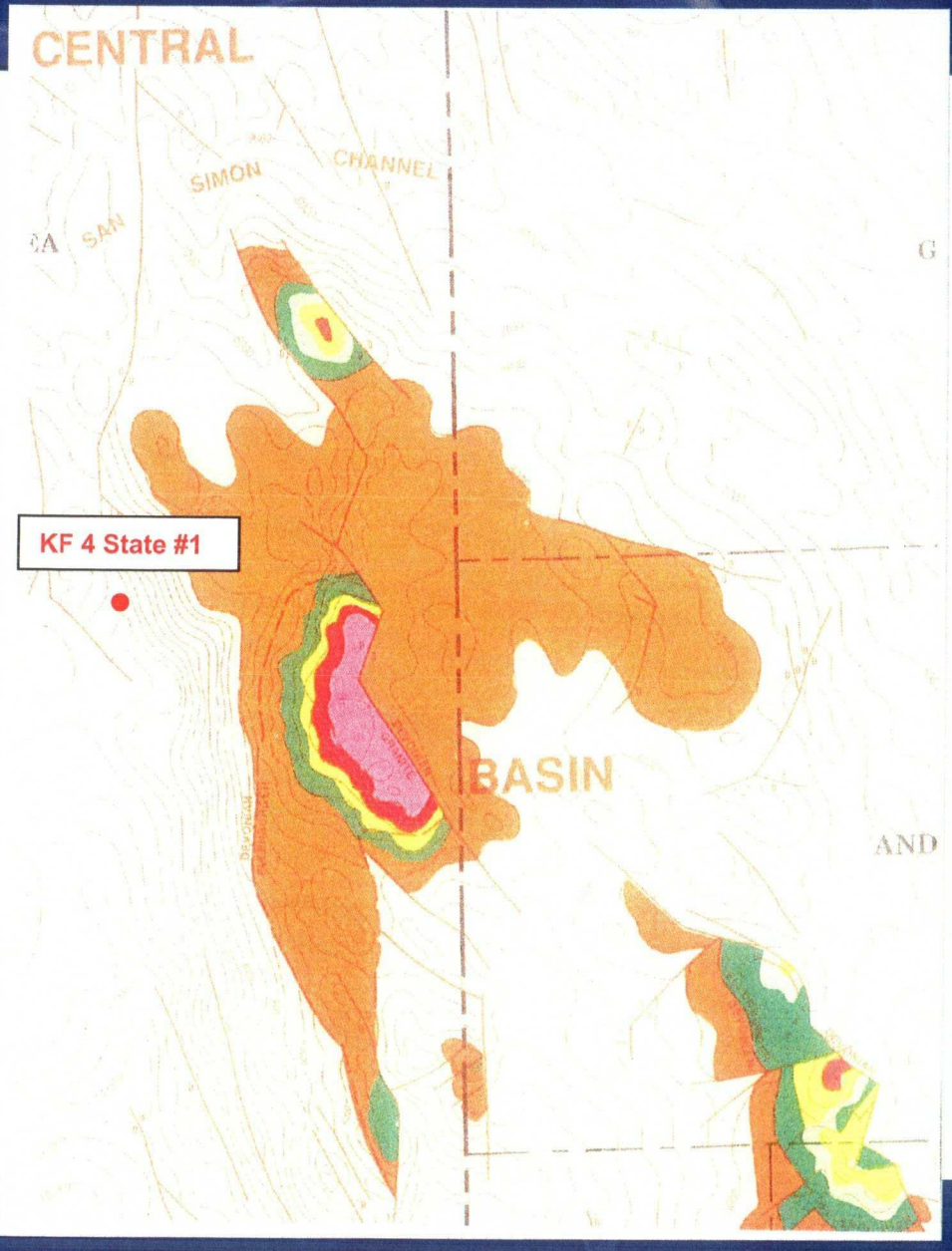
Good Well

Economic Failed Well

Did not Purchase

Chesapeake

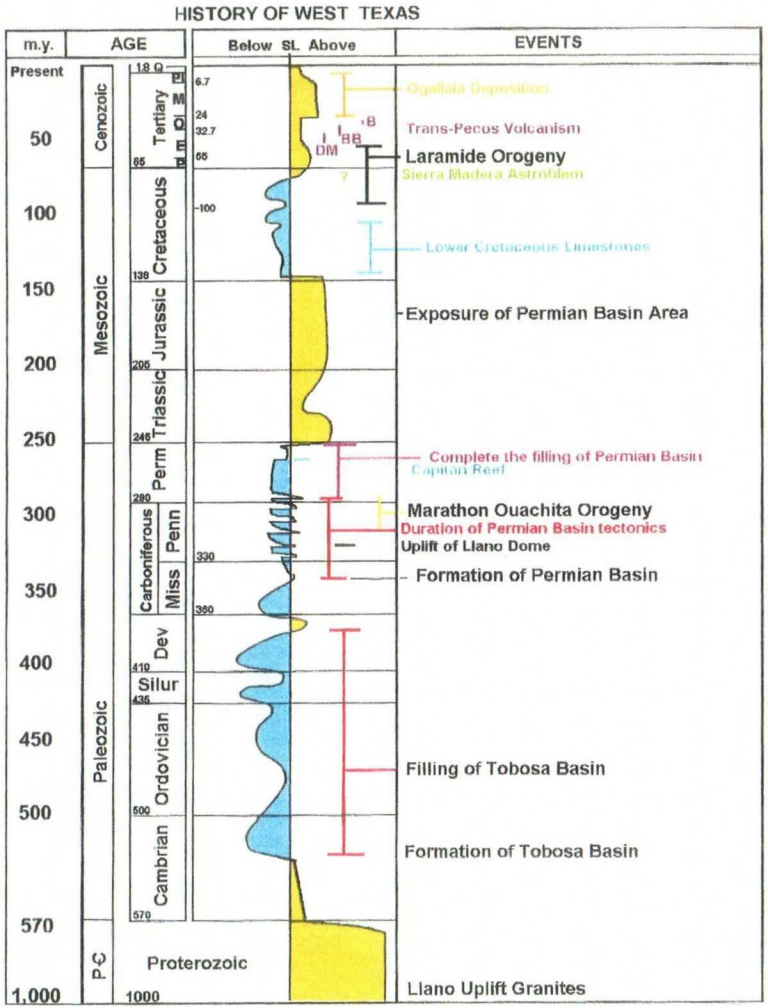
GEOR8



PRE-PENNSYLVANIAN SUBCROP LEGEND

	MISSISSIPPIAN	
	DEVONIAN	
	SILURIAN	
	MONTOYA	ORDOVICIAN
	SIMPSON	
	ELLENBURGER	
	PRE-CAMBRIAN	

Chesapeake



Introduction Figure 1. Diagram showing the chronological order and relative intensity of uplift and downwarp events in West Texas. Times when the West Texas area was partially or completely covered by marine water are colored blue. Times when this area was above sea level and receiving non-marine sediments are colored orange (after Hills, 1972). DM=Davis Mountains. BB=Big Bend. B=Bofecillos.

The Microlaterolog has somewhat less vertical resolution, but is suited to salt-base muds and high formation resistivities. Its response is strongly affected by mud cakes thicker than about 3/8 in.; however, this drawback for quantitative use actually becomes an advantage for the location of bed boundaries.

The Proximity Log is capable of detecting beds of thicknesses down to two to three inches under good conditions.

The resolution of the Micro-Spherically-Focused Log (MicroSFL), in general, lies between that of the Microlaterolog and the Proximity Log, depending on varying mud and formation conditions.

Single laminations of this order of thickness are not *usually of concern to the log analyst, but a number of such* layers may constitute an important reservoir. Unless such laminations are recognized, log-interpretation results can be unduly pessimistic.

Gamma Ray Log

The vertical resolution of the Gamma Ray curve depends on the logging speed and the time constant of the averaging used to smooth the statistically varying measurement. The higher the gamma-ray intensity of the formation, and the greater the detection efficiency of the tool, the better will be the vertical resolution.

At practical logging speeds, present Gamma Ray tools will detect well defined beds of the order of one foot thick.

The Gamma Ray Log is useful for picking bed boundaries in casing. The presence of casing in the hole reduces the Gamma Ray count rate by about thirty percent, with a corresponding increase in the statistical variations. However, the character of the logs is not otherwise changed. See Chapter I-10 for further discussion.

Other Logs

The Sonic, Density, or Neutron Logs, or combinations thereof, can be useful to pick levels where there are changes in lithology and/or porosity.

POROSITY — LITHOLOGY — GAS — SECONDARY POROSITY

Porosity from well logs is usually determined using Sonic, Density, and/or Neutron Logs. When none of these is available, porosity may be estimated from a resistivity log in clean, water-bearing formations.*

Although the so-called "porosity logs" (Sonic, Neutron, and Density) are largely responsive to porosity, they are also *affected by other factors; e.g.,* formation matrix *lithology*, type of fluid present in the pores, the type of porosity, and the degree and, to an extent, the type of shaliness. This has allowed the use of these logs in combination for determination of parameters other than porosity. In Chapter I-13 the use of crossplots to analyze and interpret the responses of these logs was explained. Crossplots may be used to some extent in the field. The MID Plot™, which will be described, is useful for lithology determination. More sophisticated versions of such interpretation, such as the SARABAND and CORIBAND techniques, require the facilities of a log-data-processing center. (See Chapters II-4, II-6, II-7, and II-8.)

For quick visual inspection, information similar to that obtainable from crossplots is provided by overlays of apparent porosity curves. In such an overlay, porosity curves from two or more porosity logs are either recorded simultaneously on the same log tracks, or the films of separate recordings are superimposed. In either case the overlaid curves must be on *the same porosity scale, and must be calibrated for the same* assumption of lithology.

Porosity-log overlays are often useful for wellsite determinations of lithology, gas, and secondary porosity. Similar information may also be available from quick-look presentations produced by the recording equipment. Except for qualitative indications, shaliness determinations are not considered wellsite methods. Qualitative indications of shaliness can be seen from SP and Gamma Ray curves.

LITHOLOGY

The Neutron-Density overlay, with the Sonic Log as a crosscheck, is the most generally useful combination for lithology determination. Fig. 3-3 gives comparative responses of the three tools in clean, liquid-saturated, single-mineral lithologies. The values of ϕ_N and ϕ_D are for limestone calibration. The ϕ_S values are indicated for both SNP (blue dash) and CNL (blue dot) Neutron tools. Except as noted, Fig. 3-3 applies to fresh muds.

If the overlay is presented without corrections for borehole size, mud cake, etc., the possible effect of these on curve separations must be borne in mind. Also, Density-porosity readings will be shifted to higher porosity values, and Neutron-porosity readings to lower values, by the presence of gas or light liquid hydrocarbons near the borehole. Shaliness may also complicate the interpretation. For example, $\phi_N = \phi_D$ could correspond to limestone, or to shaly sandstone. Use of the Sonic and Gamma Ray readings will usually resolve such ambiguities.

The generally-combinable CNL tool makes possible simultaneous recordings of Neutron-porosity and Density-porosity logs, among many other options. The utility of Neutron-Density overlays for lithology and gas determinations is thus made available on a single film (right-hand half of Fig. 3-4).

Sonic-Density and Sonic-Neutron overlays can be useful also. However, when using the Sonic, one must bear in mind the possible errors due to uncorrected lack of compaction in the case of sandstones, and the presence of secondary porosity in the case of carbonates.

Lithology problems are usually restricted to choices from a few particular rock types. For a given problem, a most-suitable overlay combination can be chosen, usually one which will permit visual identification of the rock types present in the well. For porosity determination in mixed lithologies, crossplots or computer solutions are needed.

*This assumes to determining the formation factor, F, from the relationship, $F = R_o/R_w$, and estimating porosity therefrom using the appropriate F-ϕ relationship (Chart Por-1). (See Chapter I-13.)

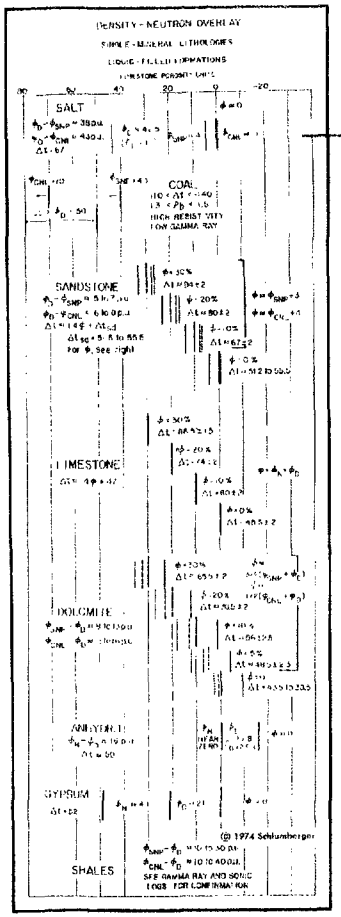


Fig. 3-3 — Comparative responses of Sonic (numerical values), Density (red) and Neutron (CNL, blue dots, and SNP, blue dashes) Logs in various single-mineral lithologies, assuming clean, liquid-saturated formations, limestone calibration, and, except as noted, fresh mud. Dash-dot black lines are actual porosities.

GAS

As mentioned, apparent porosities from Neutron and Density Logs are affected oppositely by gas zones near the borehole. This permits quick identification of gas zones if the formations are reasonably clean, particularly when using the deep-investigating Dual Spacing Neutron Log (CNL). Fig. 3-4 is an example; the CNL reads very low, while the FDC gives higher porosities. Accurate determination of the porosity of gas-bearing formations will require more sophisticated interpretation, such as use of crossplots, and the use of microresistivity logs to evaluate gas saturation in the flushed zone.

SECONDARY POROSITY

Where secondary porosity exists, the Sonic porosity will read lower than either Neutron or Density. The Sonic tends to ignore vuggy porosity since in the usual case a continuous path for the acoustic energy exists through the solid matrix. Density and Neutron Logs, on the other hand, respond to bulk-volume porosity. Sonic-Density or Sonic-Neutron over-

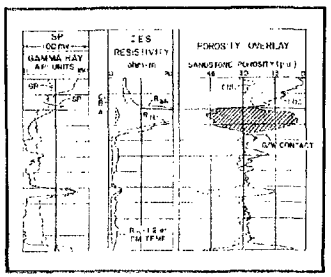


Fig. 3-4 — CNL-FDC overlay showing gas zone in cleaner part of sand. As shown by Gamma Ray the upper part of the interval is shaly. (From Ref. 1, courtesy of SPWLA.)

Samson Sand Values

GEOR11

LOCATION				SAMSON ORIGINAL		SAMSON SECOND		SAMSON LATEST		SAMSON	51 WELLS HAVE CHANGED BY 10 FT OR MORE				
T	R	Sec	Unit	ORIGINAL	MAPPED	VALUE	MAPPED	VALUE	MAPPED	CHANGE	API	Operator	Well Name	Well #	Compl. Date
20S	35E	35	C	24		24		114	*	90	30025357120000	Nearburg	Sims 35 State	4	5/6/2002
20S	35E	27	G	NV	0	40		61	*	61	30025277260000	Getty	Sims State 27	1	8/2/1982
21S	34E	11	G	5		5		66	*	61	30025356650000	Devon	Outland State Unit	5	1/23/2002
21S	34E	12	M	42		42		96	*	54	30025348180000	Santa Fe Snyder	Outland State Unit Y	1	5/25/2000
21S	34E	2	P	2		2		54	*	52	30025353250000	Phillips	Butkus 2 State	1	5/21/2001
20S	35E	35	B	16		16		66	*	50	30025274570000	Enron	Sims 35 State	1	9/3/1981
21S	34E	14	J	8		8		56	*	48	30025259020000	Texas Oil & Gas	S Wilson State Com	1	8/29/1978
21S	35E	18	C	NV	10	56		56	*	46	30025372720000	Mewbourne	San Simon 18 State Com	1	8/24/2005
21S	34E	14	D	NV	0	0		44	*	44	30025369790000	Nearburg	Outland 14 State	1	5/10/2005
21S	34E	23	C	NV	10	8		54	*	44	30025360820000	Nearburg	Grama Ridge 23 State	2	4/4/2003
20S	35E	26	G	16		16		59	*	43	30025278980000	Petro Lewis	S.E. Lea Unit	3	1/7/1983
20S	35E	34	A	11		11		54	*	43	30025225720000	Pennzoil	Lowe State 34	1	8/17/1968
20S	35E	35	N	37		37		80	*	43	30025355100000	Nearburg	Sims 35 State	3	9/15/2001
21S	34E	12	O	31		31		72	*	41	30025352150000	Matador	Mary State 1	1	5/3/2001
21S	34E	1	F	20		20		60	*	40	30025342710000	Phillips	State R	1	9/24/1998
21S	34E	11	P	17		17		56	*	39	30025352430000	Devon	Outland State Unit	3	2/11/2001
21S	34E	13	I	4		4		40	*	36	30025245870000	Dorchester	Wilson State	1	2/8/1974
20S	35E	34	P	23		23		58	*	35	30025364540000	Devon	Big Jake	1	3/23/2004
21S	35E	7	J	NV	0	38		34	*	34	30025369010000	Mewbourne	Osudo 7 State Com	1	4/28/2005
21S	34E	13	F	11		11		44	*	33	30025204610000	Pure	Wilson Deep Unit	1	8/3/1963
21S	34E	27	I	35		35		68	*	33	30025309830000	BTA	8817 JV-P Grama B	2	1/21/1991
21S	35E	7	C	0		0		32	*	32	30025360680000	Matador	Mary 7 State	1	2/18/2003
21S	35E	19	K	14		14		44	*	30	30025220030000	Robert J Leonard	Wilson State	1	7/10/1967
21S	34E	22	P	NV	15	12		44	*	29	30025355530000	Devon	O W State	1	10/13/2001
21S	34E	2	Q	4		4		32	*	28	30025354240000	Devon	Outland State	6	9/10/2001
21S	34E	23	L	14		14		42	*	28	30025208490000	Sinclair	South Wilson Deep Unit	1	3/18/1964
21S	34E	24	D	NV	12	24		40	*	28	30025352830000	BTA Oil	Merchant 8700	1	8/3/2001
20S	35E	35	J	6		6		30	*	24	30025277850000	HNG	Sims State 35	2	6/15/1982
21S	35E	21	E	NV	0	NL	0	24	*	24	30025365090000	COI	San Simon 21 State	2	11/23/2004
21S	34E	13	B	9		9		32	*	23	30025356820000	Matador	Laura 13 State Com	1	2/12/2002
21S	35E	15	F	8		30		30	*	22	30025220040000	Amerada	State WE-K	1	5/25/1967
21S	35E	16	G	14		22		34	*	20	30025307080000	Santa Fe Energy	P Q Osudo State	1	5/10/1990
20S	36E	30	A	15		32		34	*	19	30025263140000	Jake Hamon	Union State	2	10/24/1979
21S	34E	27	N	12		12		28	*	16	30025305870000	BTA	8817 JV-P Grama B	1	9/19/1989
21S	35E	17	K	9		9		25	*	16	30025363930000	Samson	Phillips State	2	12/30/2003
20S	36E	32	E	NV	0	8		14	*	14	30025219010000	Western	State M	1	12/26/1967
21S	35E	7	L	0		0		14	*	14	30025248720000	Western	Shell State	1	4/11/1975
21S	34E	12	G	11		11		24	*	13	30025252700000	Belco Petroleum	State 12	1	1/25/1977
20S	35E	36	I	17		17		4	*	-13	30025216140000	Texaco	NM CV State	1	12/28/1965
20S	35E	36	L	0		0		12	*	12	30025337600000	Nearburg	Osudo West State 1	36	10/9/1997
21S	34E	12	E	20		20		32	*	12	30025349710000	Santa Fe Snyder	Outland State	2	8/23/2000
21S	34E	13	D	22		22		34	*	12	30025355510000	Maynard Oil	Wilson Deep Unit Y	2	9/21/2001
21S	34E	25	F	2		2		14	*	12	30025288570000	Pogo	State L	2	6/15/1985
21S	34E	14	A	25		25		36	*	11	30025350240000	S Western Energy	Corner Pocket	1	3/19/2002
21S	35E	20	K	7		17		18	*	11	30025289900000	Champlin	Pogo State	1	1/24/1985
21S	35E	28	G	1		10		12	*	11	30025345380000	Nearburg	Range State Com 1	28	3/25/1990
20S	36E	29	D	12		22		22	*	10	30025259710000	TXO	Osudo State Com	1	1/15/1979
21S	34E	25	N	2		2		12	*	10	30025270100000	Getty	State 25	1	2/12/1981
21S	35E	9	H	42		52		52	*	10	30025368280000	Mewbourne	Osudo 9 State Com	1	3/9/2005
21S	35E	30	P	6		6		16	*	10	30025352000000	V-F	Livestock 30 State	1	12/6/2003
20S	35E	26	J	18		18		8	*	-10	30025222030000	Atapco	N.M. State 26	1	4/8/1968

GEO24

Mewbourne Oil Co.

Osudo 7 State Com #1

7J-21S-35E

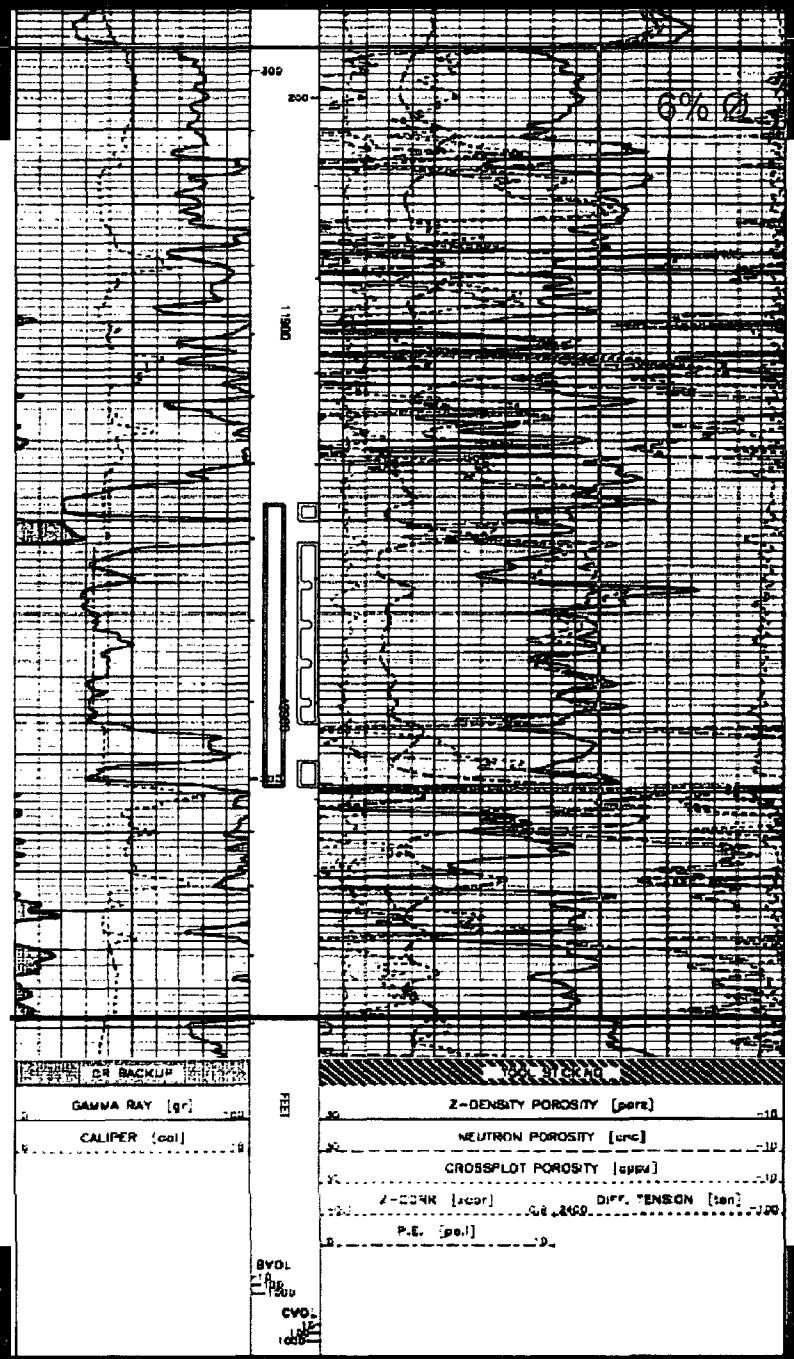
KB: 3670 ft.

Logged: 4/11/2005

Comp Date: 4/28/2005

IP: 1,056 MCFD + 15 BBL

Total Cum: 793 MMCF



CHK Net Sand	M-S-KF Net Sand
24'	0'

Chesapeake

Mewbourne Oil Co.

San Simon 18 State Com #1

18C-21S-35E

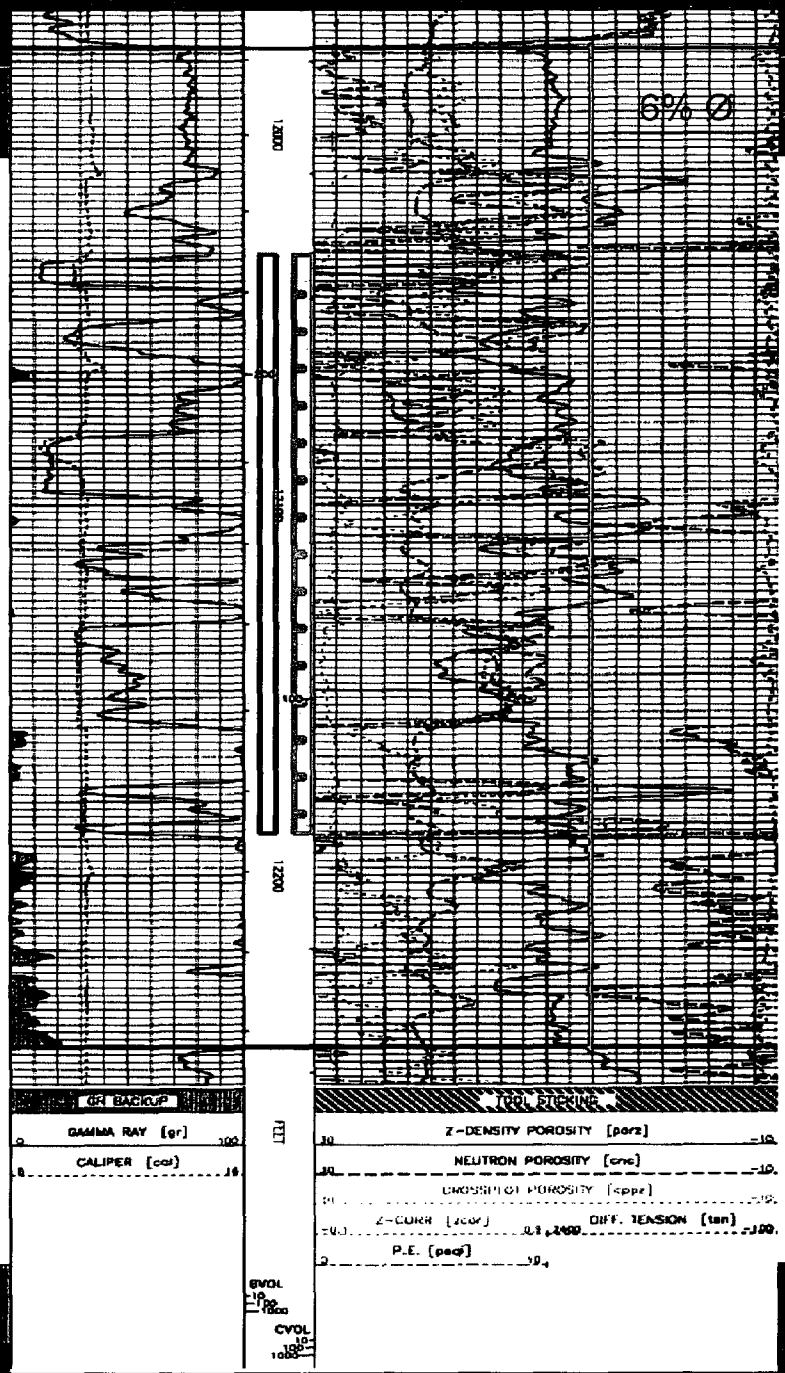
KB: 3707 ft.

Logged: 8/11/2005

Comp Date: 8/24/2005

IP: 1,097 MCFD + 48 BPD

Total Cum: 1,144 MMCF



CHK Net Sand	M-S-KF Net Sand
55'	0'

Chesapeake