

*Duplicate
Well File
P-3990*

BIOSTRATIGRAPHIC STUDY NO. 1137
PALYNOLOGY REPORT
P3989 - P4003

LOCATION: Dan Wallem Collection.
Ness, Wichita, Stevens, Ford, Clark, Meade, Harper,
Hodgeman, Sadgewick, Rice, Pawnee, Pratt and Morton
Counties, Kansas.

PROBLEM: Core samples submitted by Dan Wallem for determination
of maturity (TAI - V_o) and microscopic organic analysis (MOA)
indices.

RESULTS: Data Data

Sample Kerogen Types (MOA)

P3989-1 I 0
Sinclair Prairie II 90% oil prone.
(Welhelm) I III
Sec. 16-19S -21W IV
Ness Co. Kansas
Cherokee Fm.
4228-4237'

Maturity

Tmax 429°C immature.
 V_o .69 oil generative zone. (=TAI, 2.6 - 2.7)
 .5 - .7 (interpreted from histogram) immature -
 early oil generative zone. (=TAI, 2.5 - 2.7)
TAI 2.6 - 2.7 oil generative zone.

Amount

WT % TOC 8.85 very good.
Organic yield 1.9 ml./10 grams

Sample Kerogen Types (MOA)

P3990-1 I 0
Hauck Drilling II 20% oil prone.
(Lehman) I III 20% gas-cond. prone.
Sec. 36-19S-35W IV 60% inert.
Wichita Co., Kansas
Morrow Fm.
4832'

Maturity

Tmax 429°C immature.
 V_o .78 oil generative zone. (=TAI, 2.7 - 2.8)
TAI 2.9 oil generative zone.

Amount

WT % TOC 1.06 good.
Organic yield .2 ml./10 grams

<u>FILE INDEXING INFO.</u>	
DISPLAYS	<u>BT</u>
SMPL. TYPE	<u>X</u>
FOSSIL TYPE	<u>P</u>
TYPE OF STUDY	<u>MOV</u>

Sample

P3991-1
Cities Service
(Skinner) B-2
Sec. 10-34S-35W
Stevens Co., Kansas
Morrow Fm.
6189'-6210'

Kerogen Types (MOA)

I 0
II 25% oil prone.
III 25% gas-cond. prone.
IV 50% inert.

Maturity

Tmax -

V_o -

Very small particles of questionable
vitrinite. Plug not useful.

TAI 2.9 oil generative zone.

Amount

WT % TOC .38 poor.
Organic yield .2 ml./10 grams

Sample

P3992-1
Imperial
(Brensing) 3-13
Sec. 13-30S-21W
Ford Co., Kansas
Cherokee Fm.
5134'-5137'

Kerogen Types (MOA)

I 0
II 80% ?oil prone.
III
IV

Maturity

Tmax -

V_o -

Plug not useful, little if any
vitrinite present.

TAI - Probably barren of palynomorphs.

Amount

WT % TOC .51 fair.
Organic yield .2 ml./10 grams

Sample
P3993-1
Ladd
(Wears) 1-8
Sec. 8-30S-25W
Clark Co., Kansas
Cherokee Fm.
5314'-5317'

Kerogen Types (MOA)

I 0
II 20% oil prone.
III 40% gas-cond. prone.
IV 40% inert.

Maturity

Tmax 429°C immature.
V_o - Minerals common. Plug not useful,
small particle size.
TAI 2.3-2.4 immature. Poor preservation.

Amount

WT % TOC 2.07 very good.
Organic yield 1.1 ml./10 grams

Sample
P3994-1
Imperial
(Bolan 1)
Sec. 6-33S-29W
Meade Co., Kansas
Morrow Fm.
5734'-5744'

Kerogen Types (MOA)

I 0
II 40% oil prone.
III 40% gas-cond. prone.
IV 20% inert.

Maturity

Tmax 407°C immature.
V_o .71 oil generative zone. (=TAI, 2.7-2.8)
.5-.7 (interpreted from histogram) immature -
early oil generative zone. (=TAI, 2.5-2.7)
TAI - Probably barren of palynomorphs.

Amount

WT % TOC 1.0 good.
Organic yield .2 ml./10 grams

Sample

Kerogen Types (MOA)

P3995-1
Texas Oil and Gas
(Robinson C)1
Sec. 30-32S-8W
Harper Co., Kansas
Lansing/Kansas City Fm.
3697'-3700'

I 0
II 20% oil prone.
III 20% gas-cond. prone.
IV 60% inert.

Maturity

Tmax -
V_o .75 oil generative zone. (=TAI, 2.7-2.8)
TAI 2.6-2.7 oil generative zone.

Amount

WT % TOC .31 poor.
Organic yield, trace.

Sample

Kerogen Types (MOA)

P3996-1
Pendleton
(Gleason) 1
Sec. 5-24S-21W
Hodgeman Co., Kansas
Lansing/Kansas City Fm.
4303'-4306'

I Poor recovery of organic
II material.
III
IV

Maturity

Tmax - Plug not useful,
V_o - minerals very common.
TAI - Probably barren of
palytomorphs.

Amount

WT % TOC .18 poor.
Organic yield, trace.

Sample

P3997-1
Empire
(Kimel) 1
Sec. 4-29S-2W
Sedgewick Co., Kansas
Simpson Fm.
4092'-4097'

Kerogen Type (MOA)

I 0
II 90% oil prone.
III
IV

Maturity

Tmax 438°C incipient oil generative zone.
V_o - Plug not useful, little if any
vitrinite.
TAI 2.4-2.5 immature.

Amount

WT % TOC 2.32 very good.
Organic yield .6 ml./10 grams

Sample

P3998-1
Texas Oil and Gas
(Harper) B-1
Sec. 3-34S-21W
Clark Co., Kansas
Morrow Fm.
5463'-5466'

Kerogene Type (MOA)

I 0
II 15% oil prone.
III 15% gas-cond. prone.
IV 70% inert.

Maturity

Tmax 429°C immature.
V_o - Plug not useful.
TAI 2.8-2.9 oil generative zone.

Amount

WT % TOC .77 fair.
Organic yield .6 ml./10 grams

<u>Sample</u>	<u>Kerogen Types (MOA)</u>	
P3999-1	I	No slide
Shell	II	made.
(Ploug) 2	III	
Sec. 33-18S-9W	IV	
Rice Co., Kansas		
Simpson Fm.		
3259'		

Maturity

Tmax -
V_o -
TAI -

Amount

WT % TOC .09
Organic yield, trace.

<u>Sample</u>	<u>Kerogen Types (MOA)</u>	
P4000-1	I	Poor recovery
Mid Continent	II	of organic
(Collins) 1	III	material.
Sec. 24-20S-26W	IV	
Ness Co., Kansas		
Basal Penn.		
4469'-4471'		

Maturity

Tmax - Plug not useful.
V_o - Probably barren of palynomorphs.
TAI -

Amount

WT % TOC .48 poor.
Organic yield .2 ml./10 grams

Sample

P4001-1
Hauck
(Birzer "A") 1
Sec. 18-23S-16W
Pawnee Co., Kansas
Lansing/Kansas City Fm.
4068'

Kerogen Types (MOA)

I Poor recovery
II of organic
III material.
IV

Maturity

Tmax -
V_o 1.23 gas-cond. generative zone. (=TAI, 3.2-3.3)
TAI - Probably barren of palynomorphs.

Amount

WT % TOC .17 poor.
Organic yield .1 ml./10 grams

Sample

P4002-1
CRA
(Calbeck "A") 1
Sec. 1-27S-13W
Pratt Co., Kansas
Simpson Fm.
4239'

Kerogen Types (MOA)

I Poor recovery
II of organic
III material.
IV

Maturity

Tmax 418°C immature.
V_o - Plug not useful, minerals very common.
TAI - Probably barren of palynomorphs.

Amount

WT % TOC .21 poor.
Organic yield, trace.

Sample

Kerogen Types (MOA)

P4003-1
Anadarko
-(Low "G") 1
Sec. 6-23S-40W.
Morton Co., Kansas
Morrow Fm.
5392'-5395'

I 0
II 40% oil prone.
III 10% gas-cond. prone.
IV 50% inert.

Maturity

Tmax 442°C early oil generative zone.
V_o 1.11 early gas-cond. generative zone.
(=TAI, 3.1-3.2)
.75-1.0 (interpreted from histogram), oil
generative zone. (=TAI, 2.7-3.0)
TAI 2.8-2.9 oil generative zone.

Amount

WT % TOC .68 fair.
Organic yield, trace.

J. D. Saxton
March 7, 1983

Attachment: Figure 1

APPROX. TAI	APPROX. % R _o	APPROX. TAI	APPROX. % R _o	APPROX. TAI	APPROX. % R _o
1.0	—	2.0	0.30	3.0	1.0
1.1	0.11	2.1	0.32	3.1	1.1
1.2	0.14	2.2	0.35	3.2	1.2
1.3	0.16	2.3	0.38	3.3	1.3
1.4	0.18	2.4	0.43	3.4	1.4
1.5	0.20	2.5	0.50	3.5	1.5
1.6	0.22	2.6	0.60	3.6	1.7
1.7	0.24	2.7	0.70	3.7	2.0
1.8	0.26	2.8	0.80	3.8	2.7
1.9	0.28	2.9	0.90	3.9	3.4
				4.0	4.0

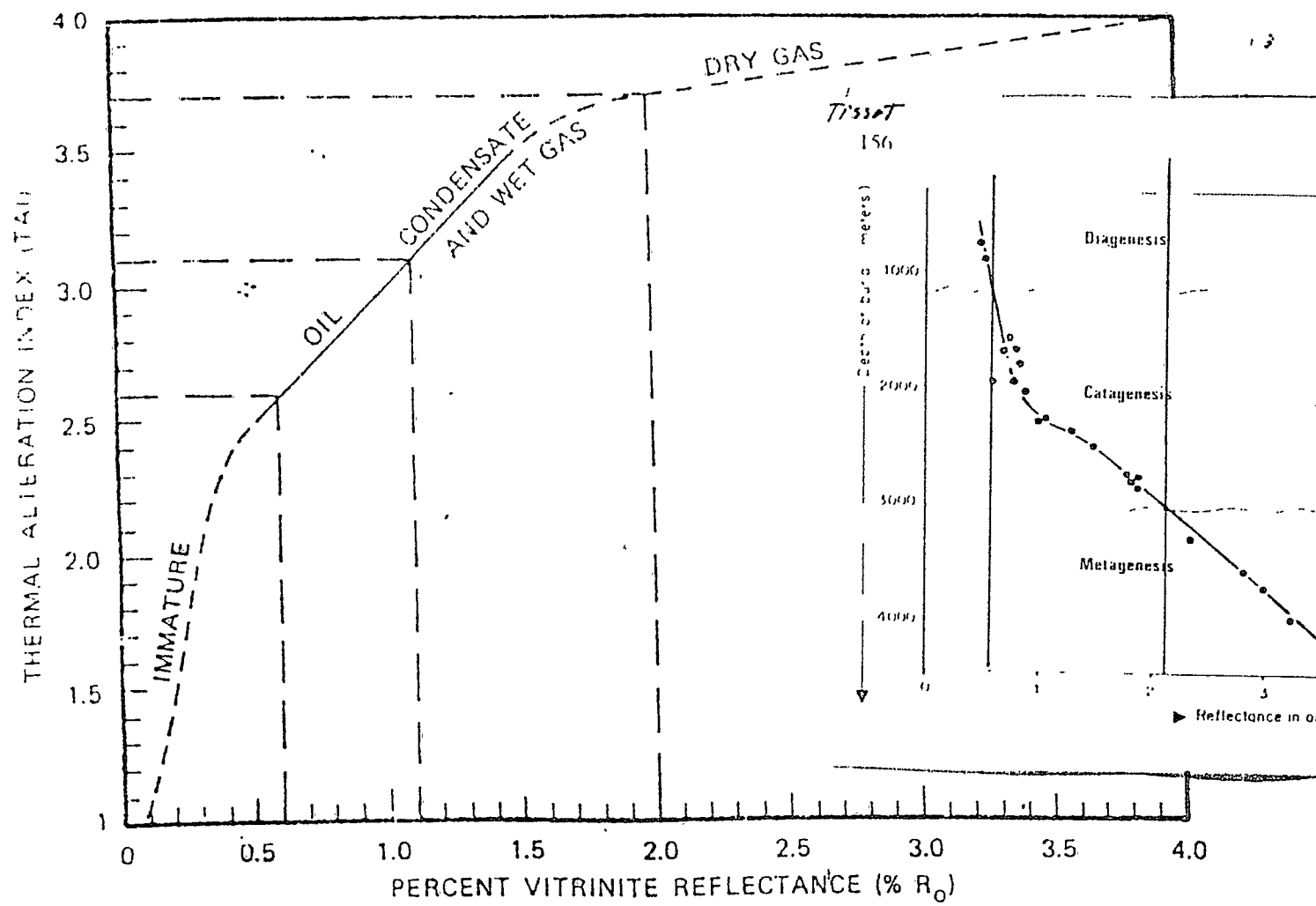


FIGURE 1
TAI AND PERCENT VITRINITE REFLECTANCE OF
PRINCIPAL HYDROCARBON GENERATION ZONES