

New Mexico Bureau of Mines and Mineral Resources
Open File Report No. OF-276

ORGANIC GEOCHEMICAL ANALYSES,
SUPERIOR OIL COMPANY NO. 1 BLACKWELL WELL,
TORRANCE COUNTY, NEW MEXICO

by GeoChem Laboratories, Inc.

1987



GEOCHEMICAL ANALYSES
SOURCE ROCK EVALUATION

CRUDE OIL—SOURCE ROCK CORRELATION

CRUDE OIL CHARACTERIZATION
GEOCHEMICAL PROSPECTING

1143-C BRITTMORE ROAD • HOUSTON, TEXAS 77043-5094 • 713/487-7011

July 18, 1984

Mr. Jeremy Setter
TRANS PECOS RESOURCES, INC.
One Memorial City Plaza
Suite 790
800 Gessner
Houston, Texas 77024

RE: GeoChem Job No. 2876
Superior #1 Blackwell

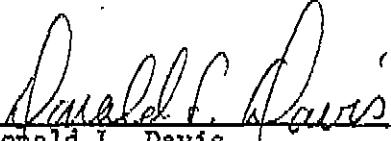
Dear Mr. Setter:

Enclosed are the results of the total organic analyses and the Rock-Eval
pyrolyses performed on your 18 samples from the Superior #1 Blackwell. Also
included is the invoice for this work.

131-CN-112 Terrance P.

Please call if we can be of additional assistance.

Sincerely,


Donald L. Davis
Manager - Technical Services
GEOCHEM LABORATORIES, INC.

st

Enclosures

TABLE
RESULTS OF ROCK-EVAL PYROLYSIS

GeoChem Sample No.	Depth Interval (Feet)	Tmax (c)	S ₁ (mg/g)	S ₂ (mg/g)	S ₃ (mg/g)	PI	PC*	T.O.C. (wt.%)	Hydrogen Index	Oxygen Index
2876-001	970-1000	320*	0.03	0.06	0.13	0.37	0.00	0.09	66	144
2876-002	1000-1100	324*	0.03	0.05	0.16	0.37	0.00	0.08	62	200
2876-003	1100-1200	321*	0.03	0.05	0.18	0.37	0.00	0.17	29	105
2876-004	1200-1300	330*	0.04	0.06	0.26	0.40	0.00	0.11	54	236
2876-005	1300-1400	388*	0.04	0.02	0.21	0.67	0.00	0.11	18	190
2876-006	1400-1500	269*	0.05	0.05	0.20	0.50	0.00	0.12	41	166
2876-007	1500-1600	269*	0.03	0.02	0.15	0.75	0.00	0.14	14	107
2876-008	1600-1700	269*	0.06	0.04	0.12	0.60	0.00	0.06	66	200
2876-009	1700-1800	269*	0.04	0.05	0.18	0.50	0.00	0.10	50	180
2876-010	1800-1900	268*	0.06	0.03	0.12	0.75	0.00	0.07	42	171
2876-011	1900-2000	268*	0.04	0.04	0.28	0.50	0.00	0.11	36	254
2876-012	2000-2100	269*	0.06	0.05	0.11	0.60	0.00	0.11	45	100
2876-013	2100-2200	339*	0.07	0.10	0.12	0.44	0.01	0.11	90	109
2876-014	2200-2300	292*	0.03	0.04	0.09	0.50	0.00	0.11	36	81
2876-015	2300-2400	384*	0.04	0.06	0.14	0.40	0.00	0.23	26	60
2876-016	2400-2500	321*	0.05	0.14	0.22	0.28	0.01	0.50	28	44
2876-017	2500-2600	417*	0.04	0.15	0.29	0.22	0.01	0.79	18	36
2876-018	2600-2700	270*	0.05	0.03	0.28	0.62	0.00	0.09	33	311

* The S₂ value, or quantity of kerogen pyrolyzed to bitumen, is insufficient to produce a valid Tmax.

T.O.C.	= Total organic carbon, wt.%	S ₃	= CO ₂ produced from kerogen pyrolysis (mg CO ₂ /g of rock)	Oxygen Index	= mg CO ₂ /g organic carbon
S ₁	= Free hydrocarbons, mg HC/g of rock	PC*	= 0.083 (S ₁ + S ₂)	PI	= S ₁ /S ₁ + S ₂
S ₂	= Residual hydrocarbon potential (mg HC/g of rock)	Hydrogen Index	= mg HC/g organic carbon	Tmax	= Temperature Index, degrees C.