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ENERGY RESERVES GROUP, INC.
217 North Water, Wichita, Kansas
& 925 Patton Road, Great Bend, Ks.

GEOLOGICAL REPORT
Oswald No. 24
100' East of SW NE NW Sec. 8
Twp. 12 South, Rge. 15 West
Russell, Kansas

January 25, 1985

ENERGY RESERVES GROUP, INC.

Great Bend & Wichita, Kansas

Geological Report:	Oswald No. 24 100' E of SW NE NW Sec. 8-12s-15w Russell County, Kansas
Contractor:	DaMac Drilling, Inc. Great Bend, Kansas
Drilling Commeced:	January 18, 1985
Drilling Completed:	January 23, 1985
Casing Record:	8 5/8" surface casing set at 211' with 140 sacks. 5 1/2" production casing set at 3265', with 200 sacks. DV Tool set in Anhydrite with 140 sx.
Samples:	Saved and examined from 2300' to 3266', RTD. Zones of interest are described in this report. Samples will be sent to the Kansas Sample Library at 4150 Monroe St., Wichita, Kansas.
Drilling Time:	Recorded and plotted from 2300' to 3266', RTD. A copy of the plotted drilling time/lithology log is included with this report.
Drillstem Tests:	None
Electric Logs:	By Welex, Inc.
Elevations:	Kelly Bushing: 1836' Ground Level: 1828 Measurements From: K.B.

Formations:	Rotary Depths:	E. Log Depths:	Datums:
Anhydrite	863-900	861-900	+ 975
Grandhaven Lime	2327	2334	- 498
Dry Shale		2343	- 507
Dover Lime		2367	- 531
Langdon Shale		2370	- 534
Tarkio Lime	2405	2406	- 570
Willard Shale	2427	2432	- 596
Elmont Lime	2460	2460	- 624
Howard Lime	2593	2595	- 759
Topeka Lime	2645	2646	- 810
Heebner Shale	2871	2870	-1034
Toronto Lime	2892	2890	-1054
Douglas Shale	2905	2905	-1069
Lansing-Kansas City	2924	2924	-1088
Base of Kansas City	3175	3176	-1340
Granite Wash	3217	3216	-1380
Total Depth	3266	3269	-1433

Lithology; Zones of Interest: (corrected to E. log depths)

Dry Shale (1st. Tarkio Sand):

2346-2356: SS-only a small amount of light gray, micaceous, very fine grained with questionable oil stain.

Willard Shale (3rd. Tarkio Sand):

2435-2452: SS-abundant gray, light gray, very fine to fine grained, micaceous , friable, soft and porous, with rare oil stain-saturation.

Topeka Lime:

2646-2654: LS-light gray, fine crystalline with slight crystalline and pin hole porosity. Fair oil stain-saturation, slight show of free oil and faint odor.

2710-2728: LS-light gray, white, chalky to dense with pin hole porosity. Rare light and dark oil stain scattered. No free oil or odor.

2744-2756: LS-mostly white, buff, fine crystalline, dense with scattered rare dark oil stain and poor visible porosity. No free oil or odor.

Lithology, Topeka, cont...

2780-2790: LS-buff, sucrosic and slight pin hole porosity with rare stain-saturation, trace of free oil but no odor.

2800-2810: LS-buff, sucrosic and some brown mottled lime and gray chert. Rare stain as above.

2810-2820: LS-light gray, chalky to granular and soft with trace of stain, trace of free oil and faint odor.

2826-2841: LS-light gray, mostly fine crystalline, some medium crystalline and fossiliferrous with good fossil porosity. Fair to good oil stain-saturation. Show of free oil and good odor.

Toronto Lime:

2890-2896: LS-white, fine crystalline, slight sucrosic with scattered light oil stain with very slight show of free oil and faint odor. Cherty.

Lansing-Kansas City:

2924-2935: A zone — LS-white, buff, fine crystalline, dense with some vuggy porosity. Scattered stain-saturation, some dark oil stain. Fair saturation. Fair odor.

2950-2960: B zone — LS-wht,dense to slight chalky and cherty. Rare stain in slight vuggy and fossil porosity. Some fine oolicastic porosity. No free oil or odor.

2968-2974: C zone — LS-white, dense to slight chalky and slight fossiliferrous and slight vuggy. Rare spotty oil stain and some dead oil stain. Faint odor.

2974-2988: D zone — LS-white, fine crystalline and dense with rare light oil stain.

2997-3002: E zone — LS-white, buff, dense and slight cherty with rare light oil stain.

3010-3018: F zone — LS-white, gray, buff, dense to slight vuggy with rare light oil stain. Slight cherty.

3020-3026: G zone — LS-white, chalky, some fine oolicastic with rare light stain and good saturation. Slight show of free oil and faint odor.

3060-3076: H zone — LS-dark gray, buff, dense and fine crystalline with no oil stain noted.

Lithology, Lansing, cont...

3083-3095: I zone — LS-gray, white, dense fine crystalline to slight chalky with trace of light oil stain. No free oil or odor.

3102-3127: J zone — LS-white, buff to light gray, dense crystalline with vuggy porosity. Rare light oil stain but no free oil or odor.

3139-3155: K zone — LS-white, buff, light gray, fine crystalline dense with rare light oil stain in slight vuggy and slight fossil porosity. No free oil or odor.

3167-3176: L zone — LS-white, cream, very dense with trace of light oil stain. No free oil or odorr.

Marmaton:

3208-3216: LS-white, tan, very dense with rare light and dark residual stain. No porosity.

Reagan: NONE

Granite Wash: Typical granite wash material. Quartz, highly fractured with weathered clear, pink and red feldspar, highly weathered. Abundant biotite associated in fractures.

Remarks & Recommendations:

The structural position on top of the LKC (-1088) was about as expected, but the expected Reagan Sand (at a productive datum) was absent. An unreasonably high Granite Wash (-1380) was encountered, instead.

During the drilling of the well, numerous zones of oil stain and porosity were noted from the Tarkio Section down through the last Marmaton Lime. Perforating and testing for commercial oil production will be based on sample evaluation, electric log values and known productive history of zones.

Respectfully submitted,

Francis C. Whisler

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