GL00743

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OIL AND GAS EVALUATION

LACKLAND AFB #1

The purpose of this report is to discuss possible oil and gas prospects encountered during the drilling of the Geothermal Resource Project known as the Lackland AFB #1. There are three potential hydrocarbon-bearing zones found in this well: The first one, found at 440'; the second formation, called the Lit, found at 770'; and, the third formation, known as the Olmos and Pecan Gap Series, found between 1,000' and 1,100'.

The 440' sand was indicated by sidewall core analysis to be oil-bearing, with medium porosity in the neighborhood of 20%, with low permeability in the neighborhood of 1 to 4 millidarcies. This formation shows a total water saturation of 39 - 40% with 28 and 26 degrees API oil gravity. It is a very firm and shaley limestone, with yellow fluorescents. A copy of the core analysis is included in this report.

The Lit formation, found at 770', indicates to be oil-bearing, with adequate porosity in the neighborhood of 11%, with low to medium permeability of 15 - 20 millidarcies. It has a 31 - 32 degree API oil gravity with a 60% water saturation. It is also a very limey sand with gold fluorescents.

The Olmos and Pecan Gap Section indicates on the log to be possibly productive; however, the core analysis was broken and insufficient and, therefore, unable to get a recovery.

It is our opinion that a commercial oil and gas prospect could be encountered in this area; however, offset production indicates a marginal recovery and, at most, a potential 2 to 1 payout.

CORE SERVICE INC.

PRELIMINARY

CORE SERVICE, INC.
"Core Analysis"
CORPUS CHRISTI, HEBBRONVILLE,
VICTORIA, CARRIZO SPRINGS,
COTULLA, SAN ANTONIO

COMPANY U.S. GOVERNMENT DATE ON 10/26/83 JOB NO.

WELL LACKLAND A.F.B. NO. 1 DATE OFF ANALYST RTE-CLZ

FIELD WILDCAT DRILLING FLUID WATER BASE MUD

COUNTY BEXAR STATE TEXAS TYPE CORES PERCUSSION

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Sidewall Core Analysis Report

DEPTH FEET	PERM. MD.	POROSITY PERCENT	RESIDUAL SATURATION % BY VOLUME OIL	% BY VOLUME GAS	% PORE SPACE OIL	% PORE SPACE TOTAL WATER	PROBABLE PRODUCTION	°API	GAS UNITS	RECOVERY INCHES	LITHOLOGICAL DESCRIPTION
438	1.5	20.5	7.4	5.1	36.1	39.0	OIL	28	86	½	Frm v shy ls, Strks yell flu
442			No Analysis						0	½	Frm v lmy shale
444	3.7	23.8	6.6	7.4	27.7	41.2	OIL	26	6	¼	Frm v shy ls, Strk yell flu
774	15	21.4	2.5	5.9	11.7	60.8	OIL	31	0	1	Vfg shy v lmy sd, Ev gold flu
779	10	21.0	2.8	4.5	13.3	65.2	OIL		0	1	Same as above
782	22	21.3	3.2	5.6	15.0	58.7	OIL	32	0	1¼	Same as above
796	18	21.5	4.5	5.7	20.9	52.6	OIL		0	1¼	Vfg shy lmy sd, Fly ev yell flu
797	27	22.3	4.1	5.1	18.4	58.7	OIL	27	0	1¼	Same as above
798			Broken & Insufficient						0	¼	Vfg v shy v lmy sd, Dull yell flu
994			Broken & Insufficient						0	¼	Soft glauc ls, Min flu
995			Broken & Insufficient						0	¼	Same as above
996			Broken & Insufficient						0	¼	Same as above
997			Broken & Insufficient						0	¼	Same as above, Sh strk, Strk yell flu
1864			Broken & Insufficient						0	¼	Soft granular ls, Min flu
1866										0	No Recovery
1918			Broken & Insufficient						0	¼	Soft granular ls, Ft flu
1919										0	No Recovery
1964			Broken & Insufficient						0	¼	Soft gran ls, No flu
1966	< 0.1	11.2	0.0	1.8	0.0	83.9	(*)		0	¼	Same as above

(*) - Very Low Permeability Limestone.