Clinkenbeard Core Hole 7

CORE LABORATORIES, INC.

CORE ANALYSIS RESULTS FOR SHELL - DENVER PRODUCTION LABORATORY CP-1-5603

3-24-18E

DIVISION COMPANY SHELL OIL COMPANY FIELD CARLYLE LEASE CLINKENBEARD

WELL NO. CORE HOLE #7 STATE KANSAS LOCATION-SEC FORMATION

DATE 4/28/65 *CORING METHOD 2 CORE DIAMETER 2 I CORING FLUID 1 JOB CODE

MUD-VIS WT . WAT LOSS 23% PH . CHL OIL 20% RES WATER 28% GAS 15% FIL RES . ELEV

COR	DEPTH	SAMPLE NO.	LITH CODE	T A	PERM MD	POROSITY PERM %	POROSITY SAT %	GRAIN DENSITY GMS/CC	SATURATION OIL %	SATURATION WAT %	SATURATION TOTAL %	% SOL 15% HCL	CHL GRMS/ LTR	CUT FLR	CUT CLR
1	865		1002												
1	867.4	K17289	2233	1	.1	7.8	12.3	2.682	36.3	38.6	74.9		19.1	3	1
1	868		1002												
1	870	K17290	2331	1	147.0	15.6	18.6	2.663	47.6	7.7	55.3		21.6	3	3
1	871	K17291	2330	1	485.8	22.1	20.9	2.653	51.3	11.0	62.3		11.4	3	3
1	872	K17292	2330	1	632.8	24.2	22.7	2.659	52.0	8.9	60.9		12.3	3	3
1	873		LOST												
2	878.5		LOST												
2	879	K17293	2330	1	520.3	21.5	21.3	2.656	49.0	10.6	59.6		9.9	3	3
2	880	K17294	2330	1	708.9	22.6	21.8	2.667	46.7	8.3	55.0		13.2	3	3
2	881	K17295	2330	1	631.1	21.6	20.0	2.652	40.9	8.3	49.2		12.9	3	3
2	882	K17296	2330	1	259.4	17.7	17.9	2.698	41.8	21.4	63.2		15.6	3	3
2	883	K17297	2333	1	15.9	16.8	15.6	3.019	31.5	37.2	68.7		13.7	3	3
2	884	K17298	2330	1	194.5	19.0	20.7	2.680	61.4	19.3	80.7		10.6	3	3
2	885	K17299	2330	1	96.2	14.5	16.7	2.651	46.6	12.5	59.1		13.7	3	3
2	886		LOST												
3	887	K17300	2333	1	544.6	26.0	26.0	2.666	40.6	20.2	60.8		7.8	3	3
3	888	K17301	2333	1	1765.1	29.4	29.2	2.733	41.6	30.1	71.7		7.8	3	3
3	889	K17302	2333	1	12.2	18.6	25.4	2.748	40.6	21.6	62.2		11.0	3	3
3	890		LOST												
4	903	K17303	2330	1	1056.3	25.2	21.8	2.657	43.9	21.8	65.7		10.9	3	3
4	904	K17304	2330	1	1359.3	25.2	25.1	2.645	54.4	12.4	66.8		9.4	3	3
4	905	K17305	2330	1	2256.4	29.3	28.2	2.647	48.3	17.8	66.1		8.2	3	3
4	906	K17306	2330	1	1458.6	25.8	24.2	2.644	55.8	23.8	79.6		11.4	3	3
4	907	K17307	2330	1	494.3	21.3	21.5	2.642	47.9	13.2	61.1		12.4	3	3
4	908	K17308	2330	1	969.0	23.5	23.8	2.648	33.8	26.1	59.9		5.9	3	3
4	909	K17309	2330	1	1083.7	23.6	23.0	2.652	43.8	16.1	59.9		6.9	3	3
4	910	K17310	2330	1	982.7	24.5	25.1	2.647	40.0	22.0	62.0		4.4	3	3

Sh-89-92 Incl.

2' Deeper than El.

NT-NOT TESTED

REMARKS: OIL DENSITY 0.93

Dup 9.7 Dup 18.1 63.9

* - LEGEND ON BACK

SIGNED J. G. EVERTSON, JR.

CORE LABORATORIES, INC.

CORE ANALYSIS RESULTS FOR SHELL - DENVER PRODUCTION LABORATORY CP-1-5603

DIVISION | COMPANY SHELL OIL COMPANY | FIELD CARLYLE | LEASE CLINKENBEARD

WELL NO. CORE HOLE #7 | STATE KANSAS | LOCATION-SEC | FORMATION

DATE 4/28/65 | *CORING METHOD 2 | CORE DIAMETER 2.1 | CORING FLUID 1 | JOB CODE

MUD-VIS | WT . | WAT LOSS . | PH . | CHL . | RES . | FIL RES . | ELEV

COR	DEPTH	SAMPLE NO.	* LITH CODE	* TA	PERM MD	POROSITY PERM %	POROSITY SAT %	GRAIN DENSITY GMS/CC	SATURATION OIL %	SATURATION WAT %	SATURATION TOTAL %	% SOL 15% HCL	CHL GRMS/LTR	* CUT FLR	* CUT CLR
4	911	K17311	2330	1	752.1	25.4	26.9	2.643	30.3	36.3	66.4		3.6	3	3
4	912	K17312	2333	1	1040.9	23.7	24.4	2.641	34.4	22.9	57.3		8.5	3	3
4	913	K17313	2333	1	393.3	22.1	25.9	2.660	44.6	19.4	64.0		8.0	3	3
4	914	K17314	2333	1	518.7	24.1	24.8	2.662	28.9	33.0	61.9		4.7	3	3
4	915	K17315	2333	1	674.3	23.7	22.6	2.652	23.7	33.3	57.0		1.8	3	3
4	916	K17316	2333	1	380.8	23.9	23.5	2.665	28.0	34.1	62.1		1.1	3	3
4	917	K17317	2333	1	518.7	25.2	26.6	2.650	24.4	42.8	67.2		1.4	3	3
4	918	K17318	2333	1	910.8	25.5	23.8	2.656	32.4	31.0	63.4		2.9	3	3
4	919	K17319	2333	1	708.9	27.3	26.4	2.646	16.7	56.3	73.0		.8	3	3
4	920	K17320	2333	1	332.8	22.4	28.1	2.649	16.3	54.8	71.1		.8	3	3
4	921-23		LOST												
VERTICAL PERMS															
2	880	K17294		6	648.3										
2	884	K17298		6	67.5										
3	888	K17301		6	0.8										
4	905	K17305		6	702.4										
4	909	K17309		6	30.1										

NT-NOT TESTED

REMARKS: OIL DENSITY 0.93

* - LEGEND ON BACK

SIGNED J. G. EVERTSON, JR.

LITHOLOGY CODE

MAJOR ROCK TYPE	MATRIX	PORE STRUCTURE	SECONDARY MATERIAL
1 SHALE			0 CLEAN 2 SANDY 3 CALCAREOUS 4 DOLOMITIC
2 SANDSTONE	1 SILTSTONE 2 VERY FINE 3 FINE 4 FINE TO MEDIUM 5 MEDIUM 6 MEDIUM TO COARSE 7 COARSE 8 CONGLOMERATIC 9 QUARTZITIC	1 ROUNDED 2 ROUNDED TO SUB ROUNDED 3 SUB ROUNDED TO SUB ANGULAR 4 SUB ANGULAR 5 SUB ANGULAR TO ANGULAR 6 ANGULAR	0 CLEAN 1 SHALY 3 CALCAREOUS 4 DOLOMITIC 5 SILTY 6 CHERTY 7 SILICEOUS 8 FELDSPATHIC 9 CARBONAC
3 LIMESTONE OR 4 DOLOMITE	1 DENSE 2 DENSE TO CHALKY 3 DENSE TO SUCROSE 4 CHALKY 5 CHALKY TO SUCROSE 6 VERY FINELY SUCROSE 7 FINELY SUCROSE 8 MEDIUM SUCROSE 9 COARSELY SUCROSE, OOLITIC 0 OOLACASTIC	1 A 2 A/B 3 A/C 4 A/D 5 B 6 B/C 7 B/D 8 C 9 C/D 0 D	0 CLEAN 1 SHALY 2 SANDY 4 DOLOMITIC 5 FOSSIL 6 CHERTY 7 GILSONITIC 8 ANHYDRITIC 9 CALCAREOUS

TYPE ANALYSIS CODE	CORING METHOD CODE	CORING FLUID CODE	CUT-COLOR
1 CONVENTIONAL ANAL 2 LARGE CORE 3 VERTICAL PERM 4 POR & PERM ONLY 5 CLI CONVENTIONAL ANAL 6 CLI WHOLE CORE ANAL	1 CONVENTIONAL 2 DIAMOND 3 WIRE LINE CORE 4 SIDEWALL CORE 5 CABLE TOOL CORE 6 ELECTRO DRILL	1 WATER BASE MUD 2 OIL EMULSION 3 OIL BASE 4 OIL-CRUDE 5 AIR 6 WATER 7 SALT GEL MUD 8 OIL SALT EMUL 9 GYP BASE MUD 10 OIL-DIESEL 11 CAUSTIC-QUEB OIL 12 LIME BASE 13 CAUSTIC-QUEB 21 STARCH BASE 22 INVERTED OIL EMUL	0 NIL 1 LIGHT 2 LIGHT BROWN 3 BROWN

* - CHLORIDE GRAMS/LITER WATER SATURATION CORRECTED TO 26* BY WEIGHT CL. EXCESS NOT QUANTITATIVELY RECORDED, ASSUMED TO BE CRYSTALLINE NA CL.

F - FRACTURED PERM PLUG