

UW

COLORADO SCHOOL OF MINES RESEARCH FOUNDATION

PAGE NO. 1 Golden, Colorado 9 PAGES

ANALYTICAL LABORATORY REPORT

6412- PRIVATE AND CONFIDENTIAL 8

Lab Group Number: 657-64

Project Number: 840704

Sponsor: Shell Oil Company

Project Engineer: W. H. Reeves

Date Submitted: December 18, 1964

Core Hole 22X-12, Utah

UC20

Lab. No.	Depth-Ft Sample No.	Description	G/T Oil		G/T Water		Specific Gravity		Bulk Density gm/cc									
			Est	Fnd	Est	Fnd	Est	Fnd	Est	Fnd	Est	Fnd	Est	Fnd	Est	Fnd	Est	Fnd
2388	1500	3301		12.1		0.26		0.925			2.40		START					
2389	1501	3302		13.7		0.57		0.925			2.40							
2390	1503	3304		10.7		0.61		0.925			2.46							
2391	1504	3305		10.4		0.45		0.924			2.45							
2392	1505	2306		10.3		0.37		0.922			2.44							
2393	1506	3307		9.69		0.33		0.923			2.45							
2394	1507	3308		9.84		0.43		0.921			2.45							
2395	1508	3309		8.62		0.32		0.915			2.49							
2396	1514	3315		8.28		0.21		0.915			2.47							
2397	1515	3316		8.73		0.33		0.911			2.49							
2398	1516	3317		11.3		0.20		0.924			2.45							
2399	1517	3318		11.2		0.15		0.925			2.46							
2400	1518	3319		8.99		0.15		0.916			2.48							
2401	1519	3320		8.95		0.17		0.912			2.49							
2402	1521	3322		8.72		0.17		0.918			2.49							
2403	1522	3323		7.97		0.29		0.916			2.51							
2404	1523	3324		8.57		0.47		0.911			2.48							
2405	1524	3325		7.34		0.61		0.912			2.38							
2406	1525	3326		8.02		0.31		0.919			2.48							
2407	1526	3327		8.81		0.20		0.920			2.45							
2408	1527	3328		8.51		0.37		0.915			2.42							
2409	1528	3329		7.73		0.58		0.912			2.46							
2410	1529	3330		9.86		0.35		0.924			2.45							
2411	1530	3331		10.1		0.17		0.925			2.49							
2412	1531	3332		8.94		0.30		0.925			2.49							

Remarks

10F9

Supervisor

Date Reported January 6, 1965

ANALYTICAL LABORATORY REPORT  
PRIVATE AND CONFIDENTIAL

6412-

Lab Group Number 657-64

Project Engineer W. H. Reeves

Project Number 840704

Date Submitted December 23, 1964

Sponsor Shell Oil Company

Core Hole 22X-12, Utah UC201

Lab. No.	Depth-Ft *Sampl. No.	Description	G/T Oil		G/T Water		Specific Gravity		Bulk Density gm/cc											
			Est	Fnd	Est	Fnd	Est	Fnd	Est	Fnd	Est	Fnd	Est	Fnd	Est	Fnd	Est	Fnd	Est	
2413	1532	3333		6.59		0.21		0.932				2.47								
2414	1533	3334		8.42		0.44		0.921				2.51								
2415	1534	3335		7.32		0.35		0.917				2.50								
2416	1535	3336		6.43		0.55		0.916				2.50								
2417	1536	3337		7.78		0.20		0.921				2.51								
2418	1537	3338		7.06		0.53		0.919				2.52								
2419	1538	3339		8.01		0.47		0.916				2.51								
2420	1539	3340		9.81		0.69		0.913				2.46								
2421	1540	3341		15.5		0.67		0.917				2.35								
2422	1541	3342		18.3		0.71		0.916				2.31								
2423	1542	3343		7.41		0.49		0.925				2.52								
2424	1543	3344		7.20		0.72		0.924				2.50								
2425	1544	3345		6.74		0.46		0.919				2.49								
2426	1545	3346		7.22		0.39		0.918				2.49								
2427	1546	3347		7.53		0.35		0.920				2.49								
2428	1547	3348		6.73		0.43		0.915				2.49								
2429	1548	3349		6.99		0.73		0.918				2.49								
2430	1549	3350		7.49		0.32		0.915				2.48								
2431	1550	3351		6.38		0.46		0.918				2.50								
2432	1840	3352		14.1		0.75		0.901				2.41								
2433	1841	3353		11.0		0.74		0.907				2.45								
2434	1842	3354		12.6		0.68		0.910				2.42								
2435	1843	3355		9.34		0.73		0.907				2.37								
2436	1844	3356		10.4		0.68		0.907				2.43								
2437	1845	3357		9.11		0.62		0.903				2.45								

STOP

Remarks

January 7, 1965

6412- ANALYTICAL LABORATORY REPORT  
PRIVATE AND CONFIDENTIAL

Sponsor: Shell Oil Company

Core Hole 22X-12, Utah

Lab. No.	Depth-Ft Sample No.	Description	G/T Oil		G/T Water		Specific Gravity		Bulk Density gm/cc											
			Est	Fnd	Est	Fnd	Est	Fnd	Est	Fnd	Est	Fnd	Est	Fnd	Est	Fnd	Est	Fnd	Est	Fnd
2438	1846	3358		13.7		0.30		0.896			2.37									
2439	1847	3359		13.5		0.40		0.897			2.34									
2440	1848	3360		45.5		1.71		0.907			1.92									
2441	1849	3361		30.5		2.19		0.893			2.07									
2442	1850	3362		22.6		0.51		0.899			2.22									
2443	1851	3363		19.3		1.69		0.907			2.22									
2444	1852	3364		31.4		0.83		0.898			2.12									
2445	1853	3365		33.8		1.07		0.908			2.04									
2446	1854	3366		38.6		0.88		0.898			1.99									
2447	1855	3367		72.4		1.19		0.892			1.62									
2448	1856	3368		58.7		1.52		0.900			1.73									
2449	1857	3369		84.8		1.74		0.906			1.51									
2450	1858	3370		74.5		1.76		0.906			1.62									
2451	1859	3371		56.7		0.91		0.900			1.78									
2452	1860	3372		59.0		1.01		0.896			1.77									
2453	1861	3373		56.1		0.92		0.908			1.80									
2454	1862	3374		24.5		0.93		0.916			2.20									
2455	1863	3375		20.3		0.83		0.913			2.22									
2456	1864	3376		37.2		0.26		0.909			2.03									
2457	1865	3377		38.4		0.40		0.913			1.96									
2458	1866	3378		35.4		0.83		0.895			2.02									
2459	1867	3379		47.2		1.04		0.899			1.87									
2460	1868	3380		53.5		1.11		0.896			1.78									
2461	1869	3381		27.1		0.81		0.901			2.10									
2462	1870	3382		21.7		0.66		0.897			2.13									

marks

ervisor

Date Reported

January 7, 1965

ANALYTICAL LABORATORY REPORT  
 6412- PRIVATE AND CONFIDENTIAL

Lab. No.	Depth-Ft Sample No.	Description	G/T Oil		G/T Water		Specific Gravity		Bulk Density gm/cc											
			Est	Fnd	Est	Fnd	Est	Fnd	Est	Fnd	Est	Fnd	Est	Fnd	Est	Fnd	Est	Fnd	Est	Fnd
2463	1871	3383		30.8		1.33		0.889				2.06								
2464	1872	3384		40.6		1.50		0.898				1.98								
2465	1873	3385		20.5		0.97		0.897				2.27								
2466	1874	3386		14.6		0.73		0.900				2.33								
2467	1875	3387		27.5		0.94		0.905				2.14								
2468	1876	3388		37.1		0.79		0.906				2.01								
2469	1877	3389		15.3		0.70		0.904				2.32								
2470	1878	3390		13.7		0.75		0.897				2.32								
2471	1879	3391		14.4		0.82		0.891				2.38								
2472	1880	3392		31.8		1.02		0.890				2.12								
2473	1881	3393		40.5		1.00		0.888				1.96								
2474	1882	3394		33.5		1.14		0.889				2.01								
2475	1883	3395		27.3		1.20		0.891				2.13								
2476	1884	3396		25.2		0.79		0.899				2.18								
2477	1885	3397		43.4		0.98		0.893				1.95								
2478	1886	3398		37.2		0.78		0.892				2.02								
2479	1887	3399		23.4		1.36		0.898				2.21								
2480	1888	3400		21.2		1.37		0.901				2.26								
2481	1889	3401		15.3		0.96		0.905				2.30								
2482	1890	3402		9.34		0.58		0.912				2.32								
2483	1891	3403		14.8		0.72		0.914				2.31								
2484	1892	3404		29.5		1.13		0.911				2.11								
2485	1893	3405		12.5		0.84		0.898				2.38								
2486	1894	3406		13.2		1.04		0.893				2.37								
2487	1895	3407		9.44		0.94		0.900				2.35								

Remarks

Date Reported

January 7, 1965

## ANALYTICAL LABORATORY REPORT

Sponsor: Shell Oil Company Core Hole 22X-12, Utah

6412- PRIVATE AND CONFIDENTIAL

Lab. No.	Depth-Ft x Samp. x No.	Description	G/T Oil		G/T Water		Specific Gravity		Bulk Density gm/cc									
			Est	Fnd	Est	Fnd	Est	Fnd	Est	Fnd	Est	Fnd	Est	Fnd	Est	Fnd	Est	Fnd
2488	1896	3408		4.65		0.34		0.901			2.37							
2489	1897	3409		7.29		0.45		0.896			2.37							
2490	1898	3410		16.8		0.76		0.892			2.32							
2491	1899	3411		9.12		0.82		0.897			2.41							
2492	1900	3412		7.58		0.71		0.887			2.39							
2493	1901	3413		26.1		1.32		0.905			2.15							1
2494	1902	3414		24.8		0.79		0.913			2.17							
2495	1903	3415		8.84		1.03		0.909			2.42							
2496	1904	3416		4.43		0.93		0.906			2.48							
2497	1905	3417		8.91		0.80		0.900			2.41							
2498	1906	3418		10.4		0.83		0.892			2.39							
2499	1907	3419		26.1		1.21		0.905			2.17							
2500	1908	3420		40.7		1.23		0.915			1.95							
2501	1909	3421		7.47		0.85		0.912			2.48							
2502	1910	3422		6.56		0.63		0.906			2.47							
2503	1911	3423		4.07		0.65		0.902 *			2.46							
2504	1912	3424		2.30		0.56		0.902 *			2.56							
2505	1913	3425		3.39		1.09		0.902 *			2.58							
2506	1914	3426		3.52		0.89		0.913 *			2.59							
2507	1915	3427		11.9		1.13		0.915			2.40							
2508	1916	3428		22.2		1.30		0.902			2.13							
2509	1917	3429		18.8		2.21		0.902			2.11							
2510	1918	3430		13.8		1.04		0.906			2.37							
2511	1919	3431		11.8		2.02		0.912			2.38							
2512	1920	3432		6.58		1.08		0.917			2.46							

Remarks \* Specific gravity calculated from average of group.

ANALYTICAL LABORATORY REPORT  
6412- PRIVATE AND CONFIDENTIAL

Sponsor: Shell Oil Company

Core Hole 22X-12, Utah

Lab. No.	Depth-Ft Sample No.	Description	G/T Oil		G/T Water		Specific Gravity		Bulk Density gm/cc											
			Est	Fnd	Est	Fnd	Est	Fnd	Est	Fnd	Est	Fnd	Est	Fnd	Est	Fnd	Est	Fnd	Est	Fnd
2513	1921	3433		5.44		1.20		0.924				2.48								
2514	1922	3434		1.25		0.68		0.923	*			2.50								
2515	1923	3435		3.53		1.61		0.923	*			2.56								
2516	1924	3436		2.47		0.71		0.923	*			2.55								
2517	1925	3437		5.08		0.73		0.927				2.52								
2518	1926	3438		4.93		0.63		0.920				2.50								
2519	1980	3443		1.62		1.48		0.913	*			2.56								
2520	1981	3444		1.37		2.08		0.913	*			2.53								
2521	1982	3445		0.93		1.51		0.913	*			2.52								
2522	1983	3446		0.76		1.39		0.913	*			2.49								
2523	1984	3447		1.60		1.46		0.913	*			2.51								
2524	1985	3448		1.63		1.85		0.913	*			2.54								
2525	1986	3449		8.20		1.98		0.917				2.52								
2526	1987	3450		7.51		1.46		0.908				2.50								
2527	1988	3451		2.05		1.55		0.901	*			2.62								
2528	1989	3452		1.81		2.24		0.901	*			2.61								
2529	1990	3453		2.87		1.61		0.901	*			2.62								
2530	1994	3454		27.2		1.71		0.911				2.16								
2531	1995	3458		42.5		2.25		0.904				1.94								
2532	1996	3459		16.8		1.13		0.901				2.32								
2533	1997	3460		20.1		1.04		0.893				2.28								
2534	1998	3461		8.77		1.13		0.901				2.47								
2535	1999	3462		6.95		0.68		0.910				2.50								
2536	2000	3463		3.77		0.64		0.901	*			2.54								
2537	2001	3464		1.51		2.25		0.901	*			2.59								

Remarks \* Specific gravity calculated from average of group.

6 OF 9

ANALYTICAL LABORATORY REPORT

6412- PRIVATE AND CONFIDENTIAL

Sponsor: Shell Oil Company

Core Hole 22X-12, Utah

Lab. No.	Depth-Ft Camp. No.	Description	G/T Oil		G/T Water		Specific Gravity		Bulk Density gm/cc											
			Est	Fnd	Est	Fnd	Est	Fnd	Est	Fnd	Est	Fnd	Est	Fnd	Est	Fnd	Est	Fnd	Est	Fnd
2538	2002	3465		0.55		3.51		0.901	*			2.56								
2539	2003	3466		10.0		0.98		0.907				2.45								
2540	2004	3467		12.5		1.19		0.897				2.42								
2541	2005	3468		5.99		1.40		0.909				2.50								
2542	2006	3469		11.7		0.71		0.907				2.41								
2543	2007	3470		21.3		2.03		0.911				2.21								
2544	2008	3471		9.21		1.42		0.903				2.46								
2545	2009	3472		7.46		1.31		0.900				2.52								
2546	2010	3473		14.3		1.85		0.887				2.40								
2547	2011	3474		9.88		1.22		0.890				2.44								
2548	2012	3475		10.6		0.96		0.887				2.45								
2549	2013	3476		9.62		1.08		0.896				2.42								
2550	2014	3477		11.7		1.16		0.894				2.40								
2551	2015	3478		11.2		1.59		0.895				2.41								
2552	2016	3479		19.6		1.58		0.901				2.15								
2553	2017	3480		14.0		1.48		0.898				2.33								
2554	2018	3481		8.08		0.91		0.901				2.47								
2555	2019	3482		6.43		0.80		0.898				2.49								
2556	2020	3483		10.8		1.06		0.906				2.44								
2557	2021	3484		30.3		1.95		0.896				2.14								
2558	2022	3485		51.5		2.51		0.898				1.84								
2559	2023	3486		25.6		1.08		0.894				2.19								
2560	2024	3487		15.4		1.72		0.901				2.35								
2561	2025	3488		38.6		1.99		0.907				2.01								
2562	2026	3489		21.6		1.58		0.914				2.22								

\* Specific gravity calculated from average of group.

Remarks

7 of 9

Golden, Colorado

Lab Group Number: 657-64

Project Number: 840704

Project Engineer: W. H. Reeves

Date Submitted: December 18, 1964

ANALYTICAL LABORATORY REPORT

6412- PRIVATE AND CONFIDENTIAL

Sponsor: Shell Oil Company

Core Hole 22X-12, Utah

TABLE 1 - PRIVATE AND CONFIDENTIAL																				
Lab. No.	Depth-Ft Sample No.	Description	G/T Oil		G/T Water		Specific Gravity		Bulk Density gm/cc											
			Est	Fnd	Est	Fnd	Est	Fnd	Est	Fnd	Est	Fnd	Est	Fnd	Est	Fnd	Est	Fnd	Est	Fnd
2563	2027	3490		4.82		1.70		0.915				2.51								
2564	2028	3491		11.9		1.52		0.910				2.39								
2565	2029	3492		13.9		1.28		0.910				2.40								
2566	2030	3493		23.6		1.81		0.915				2.24								
2567	2031	3494		25.7		2.54		0.912				2.17								
2568	2032	3495		10.6		3.64		0.890				2.37								
2569	2033	3496		20.0		2.89		0.894				2.24								
2570	2034	3497		18.3		3.23		0.889				2.28								
2571	2035	3498		9.08		4.36		0.883				2.40								
2572	2036	3499		12.1		1.15		0.894				2.37								
2573	2037	3500		15.4		1.60		0.903				2.35								
2574	2038	3501		26.8		1.97		0.914				2.17								
2575	2039	3502		14.7		1.79		0.902				2.32								
2576	2040	3503		8.67		2.28		0.900				2.44								
2577	2041	3504		21.7		1.14		0.909				2.34								
2578	2042	3505		7.86		1.43		0.909				2.40								
2579	2043	3506		15.1		3.11		0.903				2.34								
2580	2044	3507		31.7		3.02		0.910				2.08								
2581	2045	3508		14.6		4.14		0.894				2.32								
2582	2046	3509		15.4		2.39		0.898				2.34								
2583	2047	3510		27.1		3.08		0.901				2.10								
2584	2048	3511		8.70		2.09		0.896				2.44								
2585	2054	3517		4.88		3.06		0.901	*			2.47								
2586	2055	3518		4.93		2.95		0.914				2.48								
2587	2056	3519		2.06		4.12		0.901	*			2.46								

Remarks: \* Specific gravity calculated from average of group.



Core Hole 22X-12, Utah

6412-

Remarks

9050