

Max R. Lovely

# GEOLOGIST'S REPORT

DRILLING TIME AND SAMPLE LOG

COMPANY **Richie Exploration**

LEASE #1 **Dirks 4A**

LOCATION **2100' E N 55° E L**

COUNTY **Pawnee**

CONTRACTOR **Southwind #2**

RID **3-19-14**

MUD UP **3-28-14**

TYPE **Mud Chem**

ELEVATIONS

KB **2150**

DF **2141**

MEASUREMENTS

FROM **18W**

PRODUCTION

DATE **12/2**

TIME **4:56**

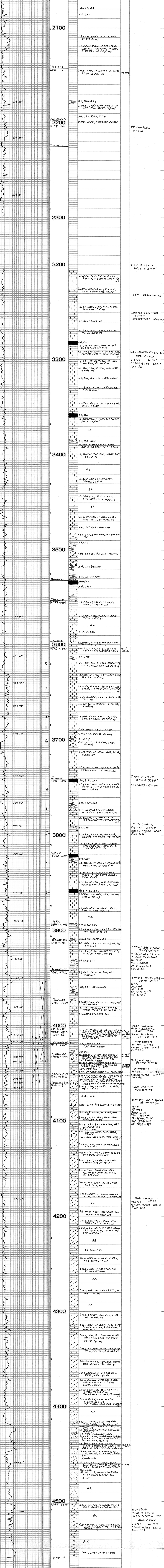
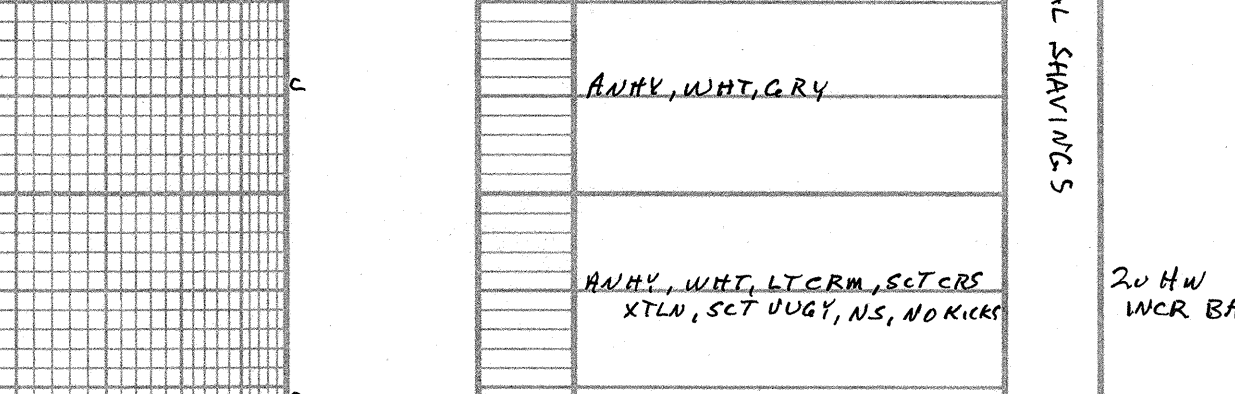
FORMATION	SHALE	ELECTRIC	SURF-SEA	STRUCTURAL
	TOP	TOP	DATE	POSITION
Anhydrite	1204	1205	945	944
Base Anhydrite	2143	1230	920	921
Krider	2143	2142	B	4
Heebner	3532	3534	1384	1381
Stark	3597	3800	1450	1456
Stark	3820	3820	1720	1720
Stark	3840	3840	1780	1784
Stark	3860	3860	1848	1854
Stark	4005	3898	1848	1854
Stark	4019	4010	1880	1885
Stark	4031	4020	1870	1878
Stark	4052	4052	1902	1892
Granite	4502	4504	2354	

REMARKS

A Hinkle Oil #1 Dirks SW SW NE-21-18W

REFERENCE WELLS FOR STRUCTURE

## LEGEND



DEPTH	LITHOLOGY	SAMPLE DESCRIPTIONS	REMARKS
2000		CARBIDE TEST-OFFCHRT V FINE SAMPLES SS, WHT, CLR, ANG, UNCENSAL, NS SLESTX, GRV	
2100		LS, CRM, BUFE, F XTLW, HRD, NO VIS P, NS	
2200		LS, CRM, TAN, F XTLW, HRD, NO VIS P, NS	
2300		LS, CRM, TAN, F XTLW, HRD, NO VIS P, NS	
3200		LS, CRM, TAN, F XTLW, HRD, NO VIS P, NS	
3300		LS, CRM, TAN, F XTLW, HRD, NO VIS P, NS	
3400		LS, CRM, TAN, F XTLW, HRD, NO VIS P, NS	
3500		LS, CRM, TAN, F XTLW, HRD, NO VIS P, NS	
3700		LS, CRM, TAN, F XTLW, HRD, NO VIS P, NS	
3800		LS, CRM, TAN, F XTLW, HRD, NO VIS P, NS	
3900		LS, CRM, TAN, F XTLW, HRD, NO VIS P, NS	
3974		LS, CRM, TAN, F XTLW, HRD, NO VIS P, NS	
4000		LS, CRM, TAN, F XTLW, HRD, NO VIS P, NS	
4019		LS, CRM, TAN, F XTLW, HRD, NO VIS P, NS	
4031		LS, CRM, TAN, F XTLW, HRD, NO VIS P, NS	
4052		LS, CRM, TAN, F XTLW, HRD, NO VIS P, NS	
4500		GRAVITE, ANG, PS, RED FOLDS, MCL, BOTT, PLAG, QZ	