

**CHARLES SCHWALTZ**  
CONSULTING GEOLOGIST  
WICHITA, KANSAS

**REPORT LOG**

**GEOLOGIC**  
COMPANY: MUREN DRILLING CO.  
R 12 W  
WELL: RANK #2-2  
T 23 S  
MILES, METERS

FIELD: MIKES, METERS  
LOCATION: 1500 FNL, 330 FNL  
SEC: 2 T 23 S R 12 W  
COUNTY: STROUD  
STATE: KANSAS  
AP#: 15-RBS-23956

PRODUCTION: NONE  
ELEVATION: 1839  
WELL DEPTH: 3916  
MUD: MUD (A) / SERVICE MUD (INC.)  
CUTTINGS: 15' - 17'00" TO RTD  
17'00" TO 2100' IN RTD  
2100' TO 3916' IN RTD  
CUTTINGS RECORDED: YES  
CORING: YES  
TEMPERATURE: 65.5  
DEPTH LOG: 3916  
TOTAL DEPTH LOG: 3916

FORMATION	SAMPLE TOP	ELECTRIC LOG TOP	SUB-SEA POSITION	STRUCTURAL POSITION
ANHYDRITE - TOP	610	604	DAWN	0
ANHYDRITE - BASE	626	621	+1017	+4
DOLomite	2795	2781	-915	+10
SANDSTONE	3061	3052	-1213	+10
SHALE	3166	3166	-1317	+10
SHALE	3189	3189	-1341	+6
SHALE	3194	3180	-1345	+6
SHALE	3203	3194	-1351	+6
SHALE	3221	3213	-1353	+6
SHALE	3231	3213	-1353	+6
SHALE	3252	3231	-1353	+6
SHALE	3266	3247	-1353	+6
SHALE	3286	3266	-1353	+6
SHALE	3287	3287	-1353	+6
SHALE	3289	3289	-1353	+6
SHALE	3290	3290	-1353	+6
SHALE	3291	3291	-1353	+6
SHALE	3292	3292	-1353	+6
SHALE	3293	3293	-1353	+6
SHALE	3294	3294	-1353	+6
SHALE	3295	3295	-1353	+6
SHALE	3296	3296	-1353	+6
SHALE	3297	3297	-1353	+6
SHALE	3298	3298	-1353	+6
SHALE	3299	3299	-1353	+6
SHALE	3300	3300	-1353	+6
SHALE	3301	3301	-1353	+6
SHALE	3302	3302	-1353	+6
SHALE	3303	3303	-1353	+6
SHALE	3304	3304	-1353	+6
SHALE	3305	3305	-1353	+6
SHALE	3306	3306	-1353	+6
SHALE	3307	3307	-1353	+6
SHALE	3308	3308	-1353	+6
SHALE	3309	3309	-1353	+6
SHALE	3310	3310	-1353	+6
SHALE	3311	3311	-1353	+6
SHALE	3312	3312	-1353	+6
SHALE	3313	3313	-1353	+6
SHALE	3314	3314	-1353	+6
SHALE	3315	3315	-1353	+6
SHALE	3316	3316	-1353	+6
SHALE	3317	3317	-1353	+6
SHALE	3318	3318	-1353	+6
SHALE	3319	3319	-1353	+6
SHALE	3320	3320	-1353	+6
SHALE	3321	3321	-1353	+6
SHALE	3322	3322	-1353	+6
SHALE	3323	3323	-1353	+6
SHALE	3324	3324	-1353	+6
SHALE	3325	3325	-1353	+6
SHALE	3326	3326	-1353	+6
SHALE	3327	3327	-1353	+6
SHALE	3328	3328	-1353	+6
SHALE	3329	3329	-1353	+6
SHALE	3330	3330	-1353	+6
SHALE	3331	3331	-1353	+6
SHALE	3332	3332	-1353	+6
SHALE	3333	3333	-1353	+6
SHALE	3334	3334	-1353	+6
SHALE	3335	3335	-1353	+6
SHALE	3336	3336	-1353	+6
SHALE	3337	3337	-1353	+6
SHALE	3338	3338	-1353	+6
SHALE	3339	3339	-1353	+6
SHALE	3340	3340	-1353	+6
SHALE	3341	3341	-1353	+6
SHALE	3342	3342	-1353	+6
SHALE	3343	3343	-1353	+6
SHALE	3344	3344	-1353	+6
SHALE	3345	3345	-1353	+6
SHALE	3346	3346	-1353	+6
SHALE	3347	3347	-1353	+6
SHALE	3348	3348	-1353	+6
SHALE	3349	3349	-1353	+6
SHALE	3350	3350	-1353	+6
SHALE	3351	3351	-1353	+6
SHALE	3352	3352	-1353	+6
SHALE	3353	3353	-1353	+6
SHALE	3354	3354	-1353	+6
SHALE	3355	3355	-1353	+6
SHALE	3356	3356	-1353	+6
SHALE	3357	3357	-1353	+6
SHALE	3358	3358	-1353	+6
SHALE	3359	3359	-1353	+6
SHALE	3360	3360	-1353	+6
SHALE	3361	3361	-1353	+6
SHALE	3362	3362	-1353	+6
SHALE	3363	3363	-1353	+6
SHALE	3364	3364	-1353	+6
SHALE	3365	3365	-1353	+6
SHALE	3366	3366	-1353	+6
SHALE	3367	3367	-1353	+6
SHALE	3368	3368	-1353	+6
SHALE	3369	3369	-1353	+6
SHALE	3370	3370	-1353	+6
SHALE	3371	3371	-1353	+6
SHALE	3372	3372	-1353	+6
SHALE	3373	3373	-1353	+6
SHALE	3374	3374	-1353	+6
SHALE	3375	3375	-1353	+6
SHALE	3376	3376	-1353	+6
SHALE	3377	3377	-1353	+6
SHALE	3378	3378	-1353	+6
SHALE	3379	3379	-1353	+6
SHALE	3380	3380	-1353	+6
SHALE	3381	3381	-1353	+6
SHALE	3382	3382	-1353	+6
SHALE	3383	3383	-1353	+6
SHALE	3384	3384	-1353	+6
SHALE	3385	3385	-1353	+6
SHALE	3386	3386	-1353	+6
SHALE	3387	3387	-1353	+6
SHALE	3388	3388	-1353	+6
SHALE	3389	3389	-1353	+6
SHALE	3390	3390	-1353	+6
SHALE	3391	3391	-1353	+6
SHALE	3392	3392	-1353	+6
SHALE	3393	3393	-1353	+6
SHALE	3394	3394	-1353	+6
SHALE	3395	3395	-1353	+6
SHALE	3396	3396	-1353	+6
SHALE	3397	3397	-1353	+6
SHALE	3398	3398	-1353	+6
SHALE	3399	3399	-1353	+6
SHALE	3400	3400	-1353	+6

LOG #	DEPTH	DRILLING TIME	LOSS	REMARKS
1	3554 - 3750	44'10"	312'	65' MUD N.S.
2	3595 - 3644	45'59"	610'	70' Oil Spotted Mud
	TEST - VIOLA	30"	60'	

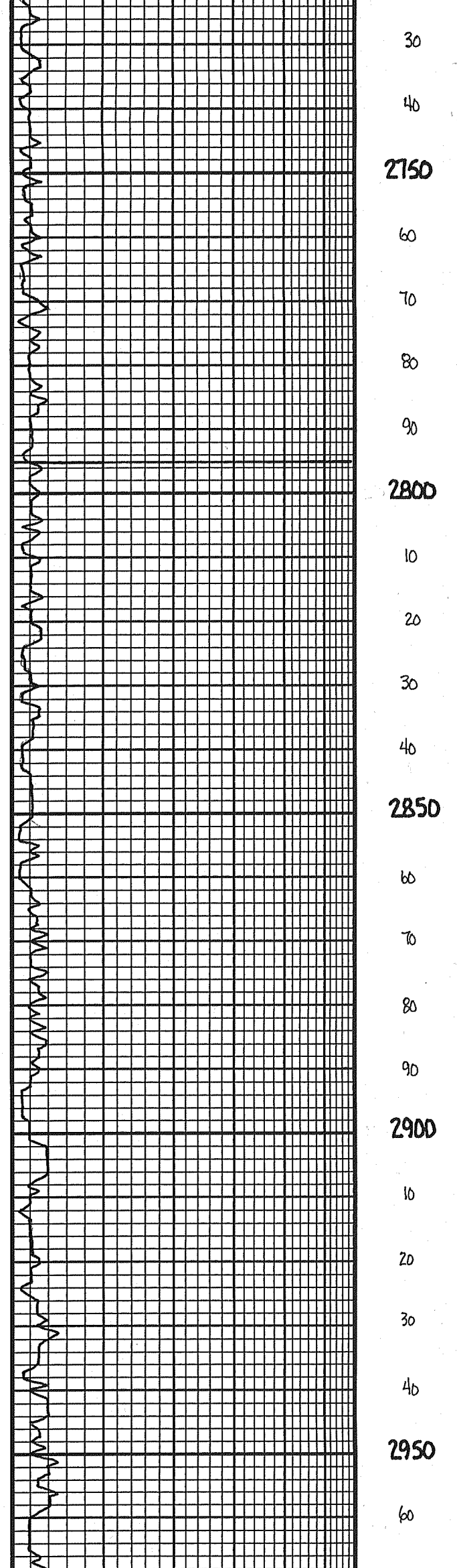
NO.	SIZE	MAKE	TYP	DEPTH OUT	FEET	HOURS	PIPE STRIPS
1	1 1/2"	HTC	DBD6	647'	647'	5 1/4	DEVIATION SURVEYS: @ 400' - 340' @ 350' - 340' @ 100' - 12' @ 375' - 110' @ 105' - 1'
2	1 7/8"	HTC	DP306	2772'	2772'	5 3/4	
	1 7/8"	HTC	6X20C	3975'	3975'	5 3/4	@ 105' - 1'

DATE	TIME	TEMP	WIND	SEA	WAVE	SWELL	WIND DIR	SEA DIR	WAVE DIR	WIND VELOC	SEA VELOC	WAVE VELOC		
9-27	5:27	SP/D	NO	DIR	ADMT	WT	WT	WT	WT	WT	WT	WT		
	6:47	M-OC	4	9.30	2541	DR15	8.1	42	92	9	11.5	707	14	9000
	9:29	L-6	5	10.1	3361	DR16	8.6	51	102	30	11.0	2566	14	11500
	9:30	2350' - DR16	5	10.2	3760	CUR	8.4	49	84	38	11.5	3541	21	10830
	10:1	2350' - DR16	7	10.3	3975'	SHAL	7.9	51	112	38	12.0	736	27	10430
	10:3	2350' - SHAL												
	10:3	3272' - SHAL												

12-10MCS

**LEGEND**

	Anhydrite		Salt		Sandstone		Shale		Carb sh		Limestone		Ool.Lime		Chert		Dolomite
--	-----------	--	------	--	-----------	--	-------	--	---------	--	-----------	--	----------	--	-------	--	----------



DEPTH	LITHOLOGY	SAMPLE DESCRIPTIONS	REMARKS
600 - 626		ANHYDRITE - TOP 610 (+1229)	
626 - 2700		ANHYDRITE - BASE 626 (+1213)	
2700 - 2795		DOPEKA 2795 (-956)	
2795 - 3166		HEEBNER 3166 (-1327)	
3166 - 3189		TORONTO 3189 (-1350)	
3189 - 3204		DOUGLAS 3204 (-1365)	
3204 - 3303		LANSING 3303 (-1464)	
3303 - 3521		VIOLA 3606 (-1767)	DST #1 (3554-3750) 30" - 60" - 60"-90" 11P: 1" BLOW DIED IN 11 MIN 15P: NO BLOW FFP: 14" BLOW DIED IN 15 MIN VVP: NO BLOW RECOVERED: 65' MUD, N.S. HSP: 1660' - 1740' SP: 41' - 64' 68" - 20" SIP: 252" - 315" BHT: 111' F 23 STAND SHORT TRIP PRIOR TO DST #1 ELCO SIMPSON ADJUSTED TO DT
3521 - 3573		BKC 3573 (-1734)	
3573 - 3606		VIOLA 3606 (-1767)	
3606 - 3686		SIMPSON 3686 (-1847)	DST #2 (3595-3644) 30" - 60" - 60"-90" 11P: BLOW BLDG TO 3/4" 12P: NO BLOW FFP: NO BLOW VVP: NO BLOW RECOVERED: 70' Oil Spotted Mud (1% Oil 99% Mud) HSP: 1760' - 1779" SP: 45" - 69" 62" - 72" SIP: 640" - 529" BHT: 109' F
3686 - 3819		ARBUCKLE 3819 (-1980)	16 STAND SHORT TRIP PRIOR TO LOGGING RTD 3916 (-2086) LTD 3915 (-2077)

DRILLING TIME Minutes/Foot

LOG 7710