

Horizon Oil & Gas Co. &
 Edwin L. Cox
 Hallock C1-36
 Sec. 36-32S-29W
 Meade County, Kansas

DRILLING TIME LOG

<u>DEPTH</u>	<u>TIME</u>	<u>REMARKS</u>
2950-2960	2-2-2-2-1	1-2-2-2-2
-2970	2-2-2-1-1	1-2-3-2-3
-2980	2-3-3-2-2	4-3-2-2-2
-2990	1-2-2-2-2	1-2-3-2-2
-3000	4-3-3-3-2	2-3-3-2-2
3000-3010	3-2-3-2-4	2-1-2-1-2
-3020	2-1-2-2-3	3-3-2-3-3
-3030	3-2-3-3-3	2-3-2-3-3
-3040	3-4-2-2-2	6-1-4-3-2
-3050	4-3-4-4-2	3-4-3-3-3
-3060	3-4-4-3-3	3-3-3-4-3
-3070	3-4-3-3-3	3-6-2-3-3
-3080	2-3-2-2-3	4-3-3-2-3
-3090	4-4-4-2-3	4-4-4-5-4
-3100	2-3-4-3-3	4-3-4-3-4
3100-3110	4-4-3-3-2	1-1-1-3-2
-3120	3-3-3-3-3	3-5-2-3-4
-3130	5-3-3-3-3	3-2-1-3-3
-3140	3-1-1-3-3	2-3-3-3-3
-3150	2-1-1-1-1	1-1-1-1-1
-3160	3-5-3-5-3	3-3-3-3-3
-3170	3-1-2-3-2	$\frac{1}{2}$ - $\frac{1}{2}$ - $\frac{1}{2}$ - $\frac{1}{2}$ - $\frac{1}{2}$
-3180	$\frac{1}{2}$ - $\frac{1}{2}$ - $\frac{1}{2}$ - $\frac{1}{2}$ - $\frac{1}{2}$	3-4-3-3-3
-3190	3-3-4-3-4	3-5-3-3-3
-3200	2-3-4-2-2	1-2-1-2-1
3200-3210	$\frac{1}{2}$ - $\frac{1}{2}$ - $\frac{1}{2}$ - $\frac{1}{2}$ - $\frac{1}{2}$	$\frac{1}{2}$ - $\frac{1}{2}$ - $\frac{1}{2}$ - $\frac{1}{2}$ - $\frac{1}{2}$
-3220	$\frac{1}{2}$ - $\frac{1}{2}$ - $\frac{1}{2}$ - $\frac{1}{2}$ - $\frac{1}{2}$	1-1-1-1-1
-3230	$\frac{1}{2}$ -1-1- $\frac{1}{2}$ - $\frac{1}{2}$	$\frac{1}{2}$ - $\frac{1}{2}$ - $\frac{1}{2}$ - $\frac{1}{2}$ - $\frac{1}{2}$
-3240	$\frac{1}{2}$ - $\frac{1}{2}$ - $\frac{1}{2}$ -1-1	2-2-2-2-2
-3250	2-1-1-1-2	2-2-1- $\frac{1}{2}$ - $\frac{1}{2}$
-3260	$\frac{1}{2}$ - $\frac{1}{2}$ - $\frac{1}{2}$ -1-1	2-2-1-1-1
-3270	2-2-2-2-2	2-2-1- $\frac{1}{2}$ -1
-3280	1- $\frac{1}{2}$ - $\frac{1}{2}$ - $\frac{1}{2}$ - $\frac{1}{2}$	$\frac{1}{2}$ - $\frac{1}{2}$ - $\frac{1}{2}$ -1-1
-3290	1- $\frac{1}{2}$ -1-1-1	1-2-2-1- $\frac{1}{2}$
-3300	$\frac{1}{2}$ - $\frac{1}{2}$ - $\frac{1}{2}$ -1-1	1-1-1-1-1
3300-3310	1-1-1-1-1	1- $\frac{1}{2}$ -1-1-1
-3320	1- $\frac{1}{2}$ - $\frac{1}{2}$ - $\frac{1}{2}$ - $\frac{1}{2}$	$\frac{1}{2}$ -1-1-1- $\frac{1}{2}$
-3330	$\frac{1}{2}$ - $\frac{1}{2}$ -1-1-1	1-1-1-1 $\frac{1}{2}$ -1
-3340	1-1- $\frac{1}{2}$ - $\frac{1}{2}$ - $\frac{1}{2}$	1-1-1- $\frac{1}{2}$ - $\frac{1}{2}$
-3350	1-1 $\frac{1}{2}$ -2-1-2	2-1-1-1-2
-3360	2-2-1 $\frac{1}{2}$ -1 $\frac{1}{2}$ -1	1 $\frac{1}{2}$ -1-1-1-1
-3370	$\frac{1}{2}$ - $\frac{1}{2}$ - $\frac{1}{2}$ - $\frac{1}{2}$ -1 $\frac{1}{2}$	2-1-1 $\frac{1}{2}$ - $\frac{1}{2}$ -1 $\frac{1}{2}$
-3380	$\frac{1}{2}$ - $\frac{1}{2}$ - $\frac{1}{2}$ - $\frac{1}{2}$ - $\frac{1}{2}$	$\frac{1}{2}$ - $\frac{1}{2}$ - $\frac{1}{2}$ - $\frac{1}{2}$ -1
-3390	$\frac{1}{2}$ - $\frac{1}{2}$ - $\frac{1}{2}$ -1-1	1-1-1- $\frac{1}{2}$ - $\frac{1}{2}$

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 Drilling Time Log

<u>DEPTH</u>	<u>TIME</u>	<u>REMARKS</u>
3390-3400	½-½-½-2-2	2-2-2-½-½
3400-3410	½-½-½-½-½	1-1-½-½-½
-3420	1-1-1-1-1	1-1-1-½-½
-3430	½-½-½-½-½	½-½-½-½-½
-3440	½-½-½-½-½	½-½-½-½-½
-3450	½-½-½-½-½	½-½-½-½-½
-3460	½-½-½-½-½	½-½-½-½-½
-3470	½-½-½-½-½	½-½-½-½-½
-3480	½-½-½-½-½	½-½-½-½-½
-3490	½-½-½-½-½	½-½-1-1-½
-3500	½-½-½-½-½	½-1-1-½-½
3500-3510	½-1-1½-1-2	2-1-1½-2-1
-3520	1½-2-2-2-1	1-1-1-1-1
-3530	1-1-1-1-½	½-½-½-½-½
-3540	½-½-½-½-½	½-1-2-2-1
-3550	1-1-1-1-1	1½-2-2-2-2
-3560	2-2-2-1-½	½-½-½-½-½
-3570	½-1-2-2-2	2-2-1-1-1
-3580	1½-2-1-½-½	½-2-2-4-1
-3590	1-1-1-1-1	1-1-1-2-3
-3600	3-3-3-3-3	3-3-3-3-3
3600-3610	3-2-2-2-	2-2-2-1-½
-3620	1-1-1-2-2	2-2-2-2-2
-3630	1-2-1-1-1	2-2-2-2-2
-3640	2-3-3-3-3	3-3-3-3-2
-3650	2-3-3-3-3	3-3-3-2-½
-3660	½-½-½-½-½	1-2-2½-3-2
-3670	2-1-1-1½-1	1-1-1-1-1
-3680	1-1- -2-2	2-2-2-2-2
-3690	2-2-2-2-2	2-2-2-2-2
-3700	2-2-2-2-2	2-3-3-3-3
3700-3710	2-2-3-2-3	2-2-3-2-3
-3720	1-1-2-3-2	1-½-½-2-2
-3730	2-1-2½-1½-3	4½-1½-1½-1½-1 Trip for New Bit @ 3725
-3740	1-1½-1½-1-2	2-1½-1½-2-2
-3750	1½-1½-2-1½-1	1½-2-1-1-2
-3760	1-½-½-1-1	1-1-1-1-1
-3770	1-1-½-½-1	1-½-½-½-½
-3780	¼-¼-¼-¼-¼	¼-¼-¼-¼-¼
-3790	¼-¼-¼-¼-½	½-½-½-½-½
-3800	½-½-½-½-½	½-½-½-½-½
3800-3810	½-½-½-½-½	½-½-½-½-½
-3820	½-½-½-½-½	½-½-½-½-½
-3830	½-½-½-½-1	½-½-½-½-1
-3840	1-1-1½-½-1	1-1-1-1-1
-3850	1-1-1-1-1	1-1-1-1-1
-3860	1-1-1-1-1	1-1-1-1-1

Horizon Oil & Gas Co. &
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 Hallock G1-36
 Sec. 36-32S-29W
 Meade County, Kansas
 Drilling Time Log

Page #3

<u>DEPTH</u>	<u>TIME</u>	<u>REMARKS</u>
3860-3870	1-1-1-1-1	1-1-1-1-1
-3880	1-1-1-1-2	2-1-1½-1½-1½
-3890	1-1½-2-1-1½	1½-1-2-1-2
-3900	1-1½-1½-1-1½	1½-1-2-1-2
3900-3910	1-1-1-1-1	1-1-2-1-2
-3920	1-1½-1½-1-1	2-1-1½-1½-1
-3930	2-½-½-½-½	1-1-1-1½-1½
-3940	1½-1½-1-1-1½	1½-1-1-1-1

2 Foot Intervals

-3950	2-2-2-2-2	
-3960	2-2-2-3-3	
-3970	3-3-2-1-½	
-3980	½-½-½-½-½	
-3990	4-3-4-4-4	
-4000	4-4-2-2-3	
4000-4010	4-4-4-4-4	
-4020	4-4-4-4-4	
-4030	3-4-3-4-5	
-4040	3-3-3-6-5	
-4050	5-5-6-6-6	
-4060	7-7-8-6-6	
-4070	6-6-6-5-6	
-4080	7-6-7-7-7	
-4090	6-4-4-5-5	
-4100	6-7-9-8-7	
4100-4110	8-9-5-5-4	Trip @ 4104
-4120	4-5-5-4-6	
-4130	6-6-5-4-7	
-4140	8-5-8-9-7	
-4150	5-5-6-7-4	
-4160	6-4-6-6-5	
-4170	6-4-6-6-5	
-4180	6-5-5-5-5	
-4190	6-6-6-8-5	
-4200	5-7-9-6-5	
4200-4210	5-5-5-5-4	
-4220	5-5-5-5-5	
-4230	5-5-5-5-5	
-4240	5-5-4-5-4	
-4250	5-4-5-5-5	
-4260	5-3-6-4-3	
-4270	3-4-4-4-4	
-4280	7-3-3-3-4	
-4290	4-2-10-6-4	
-4300	3-4-4-2-4	

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 Sec. 36-32S-29W
 Meade County, Kansas
 Drilling Time Log

Page #4

<u>DEPTH</u>	<u>TIME</u>	<u>REMARKS</u>
4300-4310	3-3-3-3-3	
-4320	3-3-9-3-3	
-4330	3-3-3-3-3	
-4340	3-3-4-3-4	
-4350	4-3-4-8-3	
-4360	4-5-4-4-4	
-4370	4-4-5-6-4	Trip for Bit @ 4370'
-4380	2-2-2-2-2	
-4390	2-2-2-3-3	
-4400	3-2-2-2-2	

1 foot intervals

4400-4410	1-1-1-1-1	1-2-1-1-1	
-4420	1-1-1- $\frac{1}{2}$ - $\frac{1}{2}$	$\frac{1}{2}$ - $\frac{1}{2}$ - $\frac{1}{2}$ - $\frac{1}{2}$ - $\frac{1}{2}$	
-4430	1-1-1-2-2	1-1-1-1-1	
-4440	1-2-2-1-1	$\frac{1}{2}$ - $\frac{1}{2}$ -1-1-1	
-4450	2-1-1- $\frac{1}{2}$ - $\frac{1}{2}$	$\frac{1}{2}$ - $\frac{1}{2}$ -1-1-1	
-4460	1-2-2-1-1	2-1-2-2-1	
-4470	2-1-1-1-1	1-2-1-1-2	
-4480	1-2-1-1-1	1-2-1-2-1	
-4490	1-1-1-1-1	1-1-1-1-1	
-4500	1-1-1- $\frac{1}{2}$ - $\frac{1}{2}$	$\frac{1}{2}$ - $\frac{1}{2}$ -1-1-1	
4500-4510	1-2-1-2-1	1-1-1-2-1	
-4520	1-2-1-2-1	2-1-2-2-1	
-4530	2-2-1-2-1	2-1-1-2-1	
-4540	2-1-2-2-1	1-1-2-2-2	
-4550	1-1-2-1-2	1-1-2-1-2	
-4560	1-2-1-2-1	1-1-2-1-1	
-4570	2-2-1-2-1	1-1-2-2-2	
-4580	2-2-2-2-1	2-1-2-2-1	
-4590	1- $\frac{1}{2}$ - $\frac{1}{2}$ - $\frac{1}{2}$ - $\frac{1}{2}$	1-1-2-1-2	
-4600	1-2- $\frac{1}{2}$ - $\frac{1}{2}$ - $\frac{1}{4}$	$\frac{1}{4}$ - $\frac{1}{4}$ - $\frac{1}{4}$ -1-2	
4600-4610	2-1-2-2-2	1-1-1-2-3	
-4620	4-4-4-3-3	3-3-3-3-3	
-4630	3-4-3-3-2	2-2-2-2-3	Trip
-4640	3-1-1-2-3	2-2-2-2-2	
-4650	2-1-2-2-1	1-2-1-2-2	
-4660	2-2-3-2-3	1-1-1- $\frac{1}{2}$ - $\frac{1}{2}$	
-4670	1-1-1-1-2	1-2-1-1-2	
-4680	1-1-2-2-2	3-2-2-1-2	
-4690	2-3-3-1-3	4- $\frac{1}{2}$ - $\frac{1}{2}$ - $\frac{1}{2}$ - $\frac{1}{2}$	
-4700	2-2-3-1-1	5-3-4-3-3	
4700-4710	2-3-1-2-2	2- $\frac{1}{2}$ - $\frac{1}{2}$ - $\frac{1}{2}$ - $\frac{1}{2}$	
-4720	1- $\frac{1}{2}$ - $\frac{1}{2}$ -1-1	1-1-1-2-2	
-4730	3-2-2-2-2	1-2- $\frac{1}{2}$ - $\frac{1}{2}$ - $\frac{1}{2}$	
-4740	$\frac{1}{2}$ - $\frac{1}{2}$ - $\frac{1}{2}$ - $\frac{1}{2}$ -1	1-2-3-2-3	
-4750	2-2-2-2-2	2-2-1 $\frac{1}{2}$ -1-2 $\frac{1}{2}$	
-4760	1-1-1 $\frac{1}{2}$ -1 $\frac{1}{2}$ -1 $\frac{1}{2}$	1-1-1-1 $\frac{1}{2}$ -1	

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<u>DEPTH</u>	<u>TIME</u>	<u>REMARKS</u>
4760-4770	1½-1-1½-1½-1	1-4-4-4-4
-4780	4-4½-4½-2½-2	1½-1-1-1½-2
-4790	1½-2½-2-1½-1	1½-1½-1-2-2
-4800	1½-1½-1½-1½-1	1-2-1-1-2
4800-4810	3-3½-4½-5-4½	5-4½-5½-5-6
-4820	5½-5-7½-6-5	4-4-4-3-2½
-4830	3-3½-2-3-4	6-7-5-6-5
-4840	5-5-6½-5½-6½	4-2½-3-4-5½
-4850	4½-5½-¼-¼-¼	¼-¼-¼-¼-¼
-4860	1/7-¼-¼-¼-¼	¼-¼-3-1-5
-4870	5-4-6-6-3	2-3-2-3-2
-4880	3-3-3-2-3	3-2-3-3-3
-4890	4-3-3-4-3	3-3-3-3-2
-4900	3-3-4-4-4	3-3-3-2-3
4900-4910	2-3-4-5-4	3-2-3-2-2
-4920	2-3-2-3-3	5-5-3-4-5
-4930	5-4-4-5-6	3-2-2-2-4
-4940	4-5-5-5-5	5-5-7-7-4
-4950	4-4-5-5-3	3-4-4-3-3
-4960	4-3-3-4-4	3-3-2-3-3
-4970	3-3-3-3-2	3-2-3-3-3
-4980	4-4-4-4-4	3-4-3-4-4
-4990	4-5-3-2-3	4-4-5-6-5
-5000	4-5-4-6-7	5-3-4-3-6
5000-5010	6-7-5-6-4	6-6-5-5-5
-5020	5-6-6-5-5	5-6-5-5-5
-5030	5-5-5-6-9	5-5-6-4-3
-5040	4-5-6-5-5	5-5-5-6-5
-5050	4-4-5-4-6	6-4-7-5-6
-5060	7-7-6-7-6	7-7-6-5-6
-5070	6-6-6-7-6	6-7-7-8-6
-5080	7-5-5-4-5	4-4-5-4-3
-5090	3-3-3-2-4	3-3-4-3-2
-5100	2-3-5-6-3	6-5-6-4-4
5100-5110	3-2-3-3-4	3-2-2-2-2
-5120	3-3-3-4-3	5-4-3-2-3
-5130	3-3-3-3-4	3-3-4-3-3
-5140	3-4-4-3-6	6-5-6-5-6
-5150	6-5-6-4-7	6-7-6-5-5
-5160	4-5-5-5-5	5-4-5-4-4
-5170	4-5-4-4-6	5-4-4-4-5
-5180	4-4-5-5-5	6-5-5-4-7
-5190	5-5-5-4-4	3-2-4-3-4
-5200	8-4-4-5-3	4-4-3-4-4
5200-5210	4-6-6-5-5	6-5-5-4-5
-5220	5-6-5-5-5	6-5-6-5-3
-5230	3-5- - -	- - -4-2

Trip

Horizon Oil & Gas Co. &
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 Sec. 36-32S-29W
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 Drilling Time Log

<u>DEPTH</u>	<u>TIME</u>	<u>REMARKS</u>
5230-5240	2-3-4-4-2	3-3-4-6-5
-5250	5-5-6-5-5 $\frac{1}{2}$	4-5-4-5-4 $\frac{1}{2}$
-5260	5-5-4-4 $\frac{1}{2}$ -4	3 $\frac{1}{2}$ -1-2 $\frac{1}{2}$ -1-2 $\frac{1}{2}$
-5270	3 $\frac{1}{2}$ -4 $\frac{1}{2}$ -4 $\frac{1}{2}$ -4 $\frac{1}{2}$ -4 $\frac{1}{2}$	4-6-5 $\frac{1}{2}$ -5-4
-5280	4-4-4-7-3	3-3-1 $\frac{1}{2}$ -2 $\frac{1}{2}$ -1 $\frac{1}{2}$
-5290	2 $\frac{1}{2}$ -3-3-5-4	5-4-5-4-3 $\frac{1}{2}$
-5300	3 $\frac{1}{2}$ -5-5 $\frac{1}{2}$ -5 $\frac{1}{2}$ -4	5-4 $\frac{1}{2}$ -3 $\frac{1}{2}$ -4-1
5300-5310	1-1-1-2-4	4-6-4-3-4
-5320	4-5-5-3 $\frac{1}{2}$ -3 $\frac{1}{2}$	2-2-2-3-4
-5330	3-2 $\frac{1}{2}$ -2-2 $\frac{1}{2}$ -2	2-2 $\frac{1}{2}$ -2 $\frac{1}{2}$ -2-3 $\frac{1}{2}$
-5340	2 $\frac{1}{2}$ -3-2 $\frac{1}{2}$ -4 $\frac{1}{2}$ -5	5-5-2-5-6
-5350	6-5-5-3-2	2-2-4-4-6
-5360	6-6-5-5-6	6-6-6-7-5
-5370	7-7-7-2-4	4-6-5-6-7
-5380	6-5-6-6-4	5-3-4-6-7
-5390	5-4-4-7-11	4-4-6-4-5
-5400	4-5-4-3-5	4-5-5-4-5
5400-5410	4-5-5-4-4	3-3-3-3-3
-5420	4-5-4-5-4	4-4-4-4-4
-5430	5-4-5-4-3	5-4-4-3-7
-5440	3-5-5-5-3	3-4-2-6-4
-5450	5-5-3-4-5	6-5-5-6-5
-5460	6-7-5-5-5	6-4-5-5-4
-5470	4-4-4-4-4	3-4-3-3-2
-5480	3-4-5-6-4	5-5-5-5-5
-5490	5-5-7-5-5	5-6-4-5-6
-5500	8-9-8-12-8	8-8-10-10-6
5500-5510	6-7-7-4-3	4-4-5-6-2
-5520	4-5-6-5-5	5-5-5-5-5
-5530	4-6-5-5-9	5-5-5-6-6
-5540	5-3-7-3-4	5-5-8-6-8
-5550	7-7-7-8-6	8-7-7-8-8
-5560	8-9-7-8-8	6-5-8-5-9
-5570	8-8-8-7-8	11-9-6-8-10
-5580	4-4-6-5-4	6-9-11-10-9
-5590	14-8-12-12-10	10-9-10-7-9
-5600	14-7-3-8-9	9-9-11-9-8
5600-5610	8-5-3-3-2	2-2-4-9-12
-5620	9-3-9-9-5	4-7-10-8-5
-5630	9-10-8-9-9	9-9-9-6-4
-5640	2-4-7-2-2	6-10-9-8-4
-5650	8-10-9-7-6	8-5-7-8-3
-5660	3-3-5-3-2	3-3-3-2-3
-5670	5-4-7-6-5 $\frac{1}{2}$	3 $\frac{1}{2}$ -4-6-6-4
-5680	7-5-6 $\frac{1}{2}$ -5 $\frac{1}{2}$ -6	3 $\frac{1}{2}$ -9-5-2 $\frac{1}{2}$ -3 $\frac{1}{2}$
-5690	2 $\frac{1}{2}$ -3 $\frac{1}{2}$ -3-7 $\frac{1}{2}$ -4	3 $\frac{1}{2}$ -6-5-2 $\frac{1}{2}$ -1 $\frac{1}{2}$
-5700	2 $\frac{1}{2}$ -5-5 $\frac{1}{2}$ -5-5	5-6-5-4-4

Trip

Trip for new bit @ 5581

Trip @ 5649

Horizon Oil & Gas Co. &
Edwin L. Cox
Hallock C1-36
Sec. 36-32S-29W
Meade County, Kansas
Drilling Time Log

Page #7

<u>DEPTH</u>	<u>TIME</u>	<u>REMARKS</u>
5700-5710	4-6-9-8-9	7-4-4-6-6
-5720	5-4-4-4-4	6-5-6-3-4
-5730	3-2-3-6-5	6-6-5-7-5
-5740	6-7-4-6-6	5-5-5-6-5
-5750	2-3-3-3-7	6-7-4-6-5
-5760	5-4-4-3-5	5-3-3-6-6
-5770	6-7-5-4-9	6-2-5-7-3
-5780	5-3-6-4-5	3-5-8-7-6
-5790	5-8-5-2-2	2-2-2-2-3
-5800	2-2-2-2-4	3-2-5-5-5
5800-5810	5-5-2-2-5	3-1-2-2-1
-5820	2 $\frac{1}{2}$ -2 $\frac{1}{2}$ -3-2 $\frac{1}{2}$ -3	2-3-2-2-3
-5825, RTD	2-3-2-2-2	

Trip for bit