

DI 78

PHILADELPHIA OIL COMPANY

SAMPLE DESCRIPTIONS

WELL NO. P-4

0- 30	Light grey coarse grained orthoquartzitic sand; abundant in mica
30- 60	Same
60- 90	Light grey coarse grained orthoquartzitic sand; abundant in mica; few particles of grey fine grained Shale
90-120	Same
120-150	Same
150-180	Light grey coarse grained orthoquartzitic sand; grey fine grained Shale
180-210	Grey fine grained Shale; abundant in mica
210-240	Light grey coarse grained orthoquartzitic sand; grey fine grained Shale; abundant in mica
240-270	Same
270-300	Light grey coarse grained orthoquartzitic sand; abundant mica; few particles of lightgrey fine grained Shale
300-330	Same
330-360	Tan coarse grained quartzitic sand; light grey coarse grained sand; few particles grey fine grained Shale

360-390	Grey fine grained Shale
390-410	Same
410-440	Grey fine grained Shale; light grey coarse grained orthoquartzitic sand; abundant in mica
440-470	Same
470-500	Grey fine grained Shale
500-530	Light grey coarse grained orthoquartzitic sand
530-590	Light grey coarse grained orthoquartzitic sand; abundant in mica
590-620	Grey fine grained Shale
620-650	Same
650-680	Same
680-710	Same
710-730	Grey fine grained Shale; light grey coarse grained orthoquartzitic sand; abundant in mica
730-760	Grey fine grained Shale; abundant in mica
760-790	Same
790-820	Grey fine grained Shale; few fragments of light grey orthoquartzitic sand
820-850	Light grey coarse grained orthoquartzitic sand; few particles of grey fine grained Shale
850-880	Same
880-910	Same (More Shale)
910-940	Light grey coarse grained orthoquartzitic sand; grey fine grained Shale
940-970	Shale

970-1000	Light grey orthoquartzitic sand; abundant mica; grey fine grained Shale
1000-1030	Grey fine grained Shale
1030-1060	Light grey coarse grained orthoquartzitic sand; grey fine grained Shale
1060-1090	Light grey orthoquartzitic sand; grey fine grained Shale; few particles of coal.
1090-1130	Light grey coarse grained orthoquartzitic sand; grey fine grained Shale.
1130-1160	Same abundant in mica
1160-1190	Light grey orthoquartzitic sand; few particles of grey fine grained Shale
1190-1220	Light grey coarse grained orthoquartzitic sand; abundant in mica; grey fine grained Shale
1220-1250	Grey fine grained Shale
1250-1280	Same
1280-1310	Same
1310-1340	White finely ground quartzitic sand; few particles of coal
1340-1370	Same plus few fragments of grey fine grained Shale
1370-1400	Light grey coarse grained orthoquartzitic sand; grey fine grained Shale.
1400-1430	Light grey finely ground quartzitic sand; grey fine grained Shale
1430-1460	Light grey coarse grained orthoquartzitic sand; few fragments of grey fine grained Shale
1460-1490	Same - few sand grains exhibit reddish-brown iron stain
1490-1520	Same
1520-1550	Light grey orthoquartzitic sand; grey fine grained Shale

1550-1580	Same
1580-1610	Same
1610-1640	Light grey coarse grained orthoquartzitic sand
1640-1670	Light grey coarse grained orthoquartzitic sand; grey fine grained Shale
1670-1700	Same
1700-1730	Grey fine grained Shale; abundant in mica; few particles of light grey orthoquartzitic sand
1730-1760	Grey fine grained Shale; light coarse grained orthoquartzitic sand; abundant in mica.
1760-1790	Grey fine grained Shale; light grey coarse grained orthoquartzitic sand
1790-1820	Same
1820-1850	Light grey coarse grained orthoquartzitic sand; few particles of grey fine grained Shale
1850-1880	Grey fine grained Shale; light grey orthoquartzitic sand
1880-1910	Same
1910-1940	Grey fine grained Shale
1940-1970	No sample
1970-2000	Grey fine grained Shale; light grey coarse grained orthoquartzitic sand
2000-2030	Same
2030-2060	Same

2060-2090	Grey fine grained Shale
2090-2120	Light grey coarse grained quartzitic sand; grey fine grained Shale
2120-2150	Same
2150-2180	Grey fine grained Shale; light grey coarse grained quartzitic sand
2180-2210	Same plus few fragments of coal
2210-2240	Light grey coarse grained quartzitic sand; grey fine grained Shale
2240-2270	Same
2270-2300	Same
2300-2330	Same
2330-2360	Grey fine grained Shale; abundant in mica; few particles of light grey coarse grained Sand
2360-2390	Grey fine grained Shale
2390-2420	Same
2420-2450	Red Rock; grey fine grained Shale and Red Rock
2450-2480	Grey fine grained Shale; few particles of Red Rock
2480-2510	Same
2510-2540	Same
2540-2570	Grey fine grained Shale; light tan quartzitic sand; few particles of Red Rock

2570-2600	Grey fine grained Shale; light grey finely ground quartzitic sand
2600-2630	Same
2630-2660	No sample
2660-2690	Light grey finely ground quartzitic sand; grey fine grained Shale
2690-2710	Same
2710-2740	Grey fine grained Shale
2740-2770	Same
2770-2800	Same
2800-2830	Same
2830-2860	Grey fine grained Shale; few fragments of white fine grained calcitic lime
2860-2890	Same
2890-2920	No sample
2920-2950	Light tan finely ground quartzitic sand, many fragments exhibit reddish brown iron stain; few fragments of grey fine grained Shale
2950-2980	Same
2980-3010	Grey fine grained Shale; Red Rock
3010-3040	Grey fine grained Shale; Red Rock, few fragments of white calcitic lime
3040-3070	Same
3070-3100	Same
3100-3130	Grey fine grained Shale
3130-3160	Same
3160-3190	Same
3190-3200	Same

3200-3230	Same
3230-3260	Same
3260-3280	Same
3280-3310	Same
3310-3340	Light tan finely ground quartzitic sand; few fragments exhibit reddish brown iron stain; few fragments of grey fine grained Shale
3340-3370	Same
3370-3400	Same
3400-3430	Same
3430-3460	Light tan finely ground quartzitic sand; few fragments exhibit reddish brown iron stain
3460-3490	Same
3490-3520	Light tan finely ground quartzitic sand; grey fine grained Shale
3520-3550	Grey fine grained Shale
3550-3580	Light tan finely ground quartzitic sand; few fragments of grey fine grained Shale
3580-3610	Grey fine grained Shale
3610-3640	Grey fine grained Shale; few fragments of dark grey dolomitic lime; few fragments of white fine grained calcitic lime
3640-3670	Same
3670-3700	Same
3700-3730	Same
3730-3770	Dark grey dolomitic lime; white fine grained lime; grey fine grained Shale

3770-3800	Same - Less Shale
3800-3830	Same
3830-3860	Grey fine grained Shale; few fragments of dark grey dolomitic lime
3860-3890	Dark grey dolomitic lime; white fine grained calcitic lime; few fragments of grey fine grained Shale
3890-3920	Same
3920-3950	Same plus few particles of grey massive lime

Top of Big Lime 3935.

PHILADELPHIA OIL COMPANY

BIG LIME SAMPLES

WELL NO. P-4

3940-3970	Grey massive lime; dark grey dolomitic lime; few fragments of white fine grained lime; few fragments of buff crystalline lime; few particles exhibit reddish brown iron stain
3970-4000	Grey massive lime; white fine grained calcitic lime; few fragments of buff crystalline lime
4000-4030	Same
4030-4060	Buff massive lime; few fragments of white fine grained calcitic lime; few fragments of crystalline lime
4060-4090	Same
4090-4120	Buff massive lime; white fine grained calcitic lime; few fragments of white crystalline lime
4120-4150	Same
4150-4160	Grey massive lime; white fine grained calcitic lime; few fragments of white crystalline lime
4160-4170	Same
4170-4180	Same
4180-4190	Grey massive lime; white fine grained calcitic lime; few fragments of white crystalline lime; few fragments of grey Shale
4190-4200	Same

4200-4210	Light grey massive lime with stringers of white fine grained lime; few fragments of white fine grained lime
4210-4220	Same
4220-4230	Same
4230-4240	Light grey massive lime; few fragments of white fine grained calcitic lime; few fragments of dark grey dolomitic lime
4240-4250	No sample
4250-4260	No sample
4260-4270	No sample
4270-4280	Light grey massive lime; white fine grained calcitic lime; few fragments of white crystalline lime
4280-4290	No sample
4290-4300	Buff massive lime; white fine grained calcitic lime; few fragments of white crystalline lime
4300-4310	Light grey massive lime; white fine grained calcitic material; few fragments of white crystalline lime
4310-4320	Grey massive lime; white fine grained calcitic lime; few fragments of white crystalline lime
4320-4330	Same plus few fragments of dark grey Shale
4330-4340	Grey massive lime with white fine grained lime inclusions; few fragments exhibit reddish brown iron stain
4340-4350	Same
4350-4360	Grey massive lime; white fine grained calcitic lime; red quartzitic sand; few fragments of grey fine grained Shale.

4360-4370	No sample
4370-4380	Grey massive lime; dark grey dolomitic lime; red fine grained quartzitic sand; few fragments of white fine grained calcitic lime; few particles of white crystalline lime
4380-4390	Same
4390-4400	Same plus more sand Bottom of Big Lime 4400'
4400-4430	Red fine grained quartzitic sand; few fragments of grey massive lime and dark grey dolomitic lime
4430-4460	Red fine grained sand; few particles of lime
4460-4490	Same
4490-4520	Same
4520-4550	Grey fine grained Shale; few particles of dark grey dolomitic lime
4550-4580	Same
4580-4620	Same
4620-4660	No sample
4660-4690	Grey fine grained Shale
4690-4720	Same
4720-4750	Same
4750-4770	Dark grey fine grained Shale
4770-4920	Same Top of Berea 4920'

PHILADELPHIA OIL COMPANY

BEREA SAMPLES
WELL NO. P-4

4920-4930	Grey fine grained quartzitic sand, many fragments exhibit reddish brown iron stain; white fine grained calcitic material; few fragments of crystalline lime
4930-4940	Grey fine grained quartzitic sand, many fragments exhibit reddish brown iron stain; white fine grained calcitic material; few particles of dark grey dolomitic lime
4940-4950	Same
4950-4960	Same
4960-4970	Grey fine grained quartzitic sand, many fragments exhibit reddish brown iron stain; few particles of white fine grained lime; few fragments of white quartz sand
4970-4980	Dark grey fine grained Shale; few fragments of crystalline lime; few particles of grey fine quartzitic sand.
4980-4990	Dark grey fine grained Shale
	Bottom of Berea 4980'
4990-5080	Dark grey fine grained Shale
	T.D. Driller 5080
	T.D. SWSC 5120

These samples can be correlated to the logs by adding 20 feet.

T.	R.	Philadelphia Oil COMPANY
		COMMENCED
		COMPLETED
ELEVATION	2172.39	REMARKS
PRODUCTION		DRILLERS LOG

187 ROSS-MARTIN CO. TULSA 1, OKLAHOMA PRINTED IN U.S.A.

