

**CONFIDENTIAL**

LOG AND CORE RECORD OF OIL OR GAS WELL  
 (Submit in duplicate)

In compliance with rules and regulations pursuant to ORS 520.095 (Chapter 667 OL 1953).

Operator Standard Oil Company of California Field Wildcat  
 Well No. Kirkpatrick #1, Sec. 6, T. 4S, R. 21E, W. B. & M.

FORMATIONS PENETRATED BY WELL

Depth to		Thickness	Drilled or Cored	Recovery	Description
Top of Formation	Bottom of Formation				
Surface	2439'	2439'	Drilled	---	Very hard, dark gray, basalt flows. } Ter Vari-colored tuffaceous volcanics. }
2439'	3200'	761'			
			2737 - 56	19'	
3200'	6700'	3500'			Tuff, flow & agglomeratic volcanics } Eocene +
			4405'-22'	17'	
			5409'-29'	20'	
			6542'-45'	3'	
6700'	8726'	2026'			Thickly interbedded, dark gray silty shales & siliceous tuffs. } Late Jur to Early cret.
			6846'-56'	5'	
			7170'-77'	7'	
			7647'-53'	3½'	
			8220'-21'	N.R.	
			8268'-78'	5'	
			8385'-93'	4'	

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Kirkpatrick No. 1  
Sec 6, T 4S, R 21E  
Gilliam County

Descriptions Taken from the Graphic Log by VCN;

TCr  
0 - 2150' Very hard, dense, dark gray basalt, with local inter-flow soil zones and some vesicular intervals.

2150 - 2440' As above with occasional quartz-filled vesicles.

2440 - 3050' Tuff, light gray-green, very firm, very clayey, abundant fragments and grains to coarse sand size. No shows.

TJL  
3050 - 3230' Tuff, rust red.

3230 - 3690' Undifferentiated volcanics, yellowish olive with rare lavender mottlings, very hard, brittle, siliceous, microcrystalline.

3690 - 3760' Tuff, medium gray green, very clayey, with abundant sand size fragments and grains.

3760 - 3950' Basalt, dark gray-black, sugary texture with red oxidized grains.

3950 - 3970' Tuff, pink-red, very calcareous.

Tc  
3970 - 4070' Basalt, dark gray, fine to medium crystalline, hard locally vesicular.  
4070 -

4070 - 4400' Tuff, cream gray to very pale purple and reddish chocolate brown.

4400.- 4600' Tuff, light gray-green and occasionally light tan, very clayey and locally very calcareous. Extremely questionable dips 5-10 degrees.

4600 - 4655' Agglomerate? 20-70% basalt, dark green, hard sugary texture, 80-30% tuff as above.

4655 - 4700' Tuff, light gray-green and occasionally tan, very clayey and locally very calcareous.

4700 - 4740' Agglomerate? 20-50% basalt, as above.

4740 - 4830' Agglomerate? 80-50% tuff.

4830 - 4860' Basalt, medium gray, very hard, finely crystalline to glassy with abundant scattered crystals.

4860 - 4885' Agglomerate? as above.



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4885 - 4920'	Basalt, medium gray, very hard, finely crystalline.
4920 - 4945'	Agglomerate? as above.
4945 - 4970'	Basalt, medium gray, very hard.
4970 - 5005'	Agglomerate? as above.
5005 - 5400'	Tuff, gray-white, very clayey with abundant sand size grains and fragments.
5400 - 6060'	Tuff to tuffaceous claystone, dark brown to dark blue gray and light greenish gray, firm, soapy, local streaks containing sand size fragments, rather crumbly.
6060 - 6200'	Siliceous tuff, mottled and streaked light to medium gray, hard, tough, occasional quartz grains.
6200 - 6500'	Tuff, white to light greenish-gray.
6500 - 6600'	Siliceous tuff? Pale to light green, slightly calcareous, similar to above. Highly contorted.
6600 - 6700'	Tuff, white to light pale green, slightly calcareous.
6700 - 6750'	Subgreywacke sandstone, hard, dirty, no apparent permeability or porosity
6750 - 6800'	Tuff, white to light pale green.
6800 - 7130'	Subgreywacke sandstone, dark peppery gray, very hard, very dirty, angular to rounded silty to medium quartz, chert and rock grains, interbedded with shaley siltstone, dark brown-gray, hard micromicaceous, no fissility.
7130 - 7480'	Shaley siltstone, dark brownish gray, hard, tough, micromicaceous with local shaley partings. Common calcite filled fractures and some minor faulting. Dips of 5 to 10 degrees.
7480 - 7630'	Shaley siltstone and sandstone similar to cores above.
7630 - 7940'	Argillitic shale, dark gray, hard, very dense, with hard thin, fine sandstone interbeds. Dips 34-40 degrees.

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- 7940 - 8170' Shaley siltstone, dark gray, hard pyritic, with thin interbeds of dirty, silty, hard fine grained sandstone.
- 8170 - 8380' Siliceous tuff,<sup>?</sup> cream white to chalk.
- 8380 - 8530' Argillitic shale with thin, dirty, fine grained sandstone interbeds.
- 8530 - 8600' Siliceous tuff,<sup>?</sup> cream white to chalk.
- 8600 - 8710' Argillitic shale with thin fine grained sandstone interbeds.
- 8710 - 8726' T.D. Siliceous tuff<sup>?</sup> white to light pale green.

Standard Oil Co of California  
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SW $\frac{1}{4}$  Sec 6, T 4S, R 21E  
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Source rock analyses of samples 7177' - 8393' in this hole  
indicated that thermal conditions were right for generating  
petroleum hydrocarbons.

Standard Oil Co of California

HWD