LITHOLOGIC DESCRIPTION OF USBM ROCK SPRINGS WELL NO. 3A-1
NW1/4SE1/4NW1/4, SEC 15, T 18 N, R 106 W, SWEETWATER COUNTY, WYOMING
March 29, 1966
By
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Footage	Description	Remarks
29.9-32.2	Siltstone, mudstone, and sandstone, very fine grained, buff to gray, fractured, weathered, with abundant iron staining both as veins and scattered through matrix.	
32.2-32.8	Oil shale, light to dark brown, grayish-brown, fractured, iron staining, weathered, very fine crystal mineralization 32.4.	
32.8-33.0	Marlstone, gray, silty, dense, trace, crystallization.	
33.0-33.4	Siltstone, mudstone, light gray to buff, weathered, abundant iron stain, slightly calcareous.	
33.4-33.7	Silty marlstone as 32.8-33.0.	
33.7-34.1	Marlstone and siltstone as in 33.0-33.4.	
34.1-35.0	Silty marlstone, gray, slightly calcareous, trace iron stain in occasional fractures, fine crystallization occurs in discontinuous layers and veins.	
35.0-36.0	Mudstone, indurated shale, varying colored layers, light gray, olive drab, buff, grayish brown, silty, fractured in part, iron staining 35.6-36.0, slightly calcareous.	
36.0-37.1	Mudstone, as above but highly fractured and iron stained.	
37.1-38.6	Mudstone, shale, gray to olive drab, fairly dense, homogeneous, minute crystallization scattered through matrix.	
38.6-39.4	Shale, medium gray to olive drab, thinly interbedded with layers of light gray limestone, finely crystalline, wavy and erratic layering, some porosity as fractures, grading downward into oil shale.	
39.4-39.9	Oil shale, medium gray, thinly laminated with limestone layers, trace calcite crystals in occasional fractures.	
39.9-40.3	Oil shale, tan to gray-brown, competent, minute inclusions of dark brown shale in horizontal zones.	
40.3-40.9	Oil shale, gray to greenish-gray with iron sulphide mineralization scattered throughout matrix and as veinlets.	

Footage	Description	Remarks
40.9-41.5	Oil shale, medium to dark gray, finely laminated with tan to brown limey zones, section still has abundant but small crystals.	
41.5-41.7	Sandstone, gray to buff, very fine grained, considerable ash content, salt and pepper texture, contorted and fractures filled with shale particles, larger shale inclusions.	
41.7-44.1	Oil shale, medium to light brownish-gray, crystallization as veins and scattered through matrix.	
44.1-49.6	Oil shale, tan to yellowish-green, brown, gray, silty, slight crystallization in matrix becoming gray with depth.	
49.6-49.7	Sandstone, light gray, salt and pepper, fine to very fine grained, silty, finely fractured, stringers of shale filling some fractures, fair to poor porosity.	
49.7-52.3	Oil shale same as 44.1-49.6.	
52.3-56.0	Oil shale, gray-brown, medium greenish-brown, abundant pyritic crystallization and other iron sulphide derivatives.	
56.0-57.9	Oil shale, light gray to brownish-gray, few laminations, silty and dense.	
57.9-61.3	Oil shale, marlstone and siltstone, very finely laminated to thickly bedded, gray to gray-brown calcareous in part. Zones of buff to tan shale and siltstone as inclusions or wavy layers at 58.1-58.2, 59.6-59.7, 60.0-60.1 and 60.7-61.1, calcite deposits as crystals in 60.9-61.1.	
61.3-62.0	Oil shale, light to dark gray, some olive drab, thinly laminated, numerous small iron sulphide crystallizations First of darker oil shales.	
62.0-63.4	Oil shale, medium gray to sooty black, laminations distinct with tan to light brown shale layers carrying same tiny crystals as above. Some crystallization scattered through matrix.	
	Top of cement plug at 63 feet.	