

DESCRIPTION OF AN ASPHALT-LIKE MINERAL FROM
ASPHALT WASH, UTAH.

BY R. C. HILLS.

Distributed through the drift of Asphalt Wash, near White River, Utah, occur fragments of an asphalt-like mineral resembling alberite. The following is the result of a partial investigation of a number of these fragments collected for several miles along the Wash.

Hardness 2.5; specific gravity at 16°C 1.061—1.069; luster subvitreous to pitch-like and dull; color jet-black; powder dark-brown; fracture sub-conchoidal. In 19 hours alcohol dissolved 6%, benzole 14%, and ether 36%. In 24 hours carbon disulphide dissolved 45% and oil of turpentine 32%.

Fuses imperfectly, with intumescence, in a gas or candle flame. At 150°C softens slightly. At 170°—180° becomes elastic like rubber and cracks on the surface but retains its luster.

A proximate analysis of two samples gave:

Hygroscopic water	1.1	1.2
Volatile hydro-carbons	77.6	77.3
Fixed carbon	20.7	20.9
Ash, (fawn-colored)	0.6	0.6
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	100.0	100.0

On subjecting a weighed portion of the substance to destructive distillation there was obtained 42.5% of dark-brown tarry oil, having a strongly-bituminous odor.

A separate examination of fragments having a slightly laminated structure and dull luster resulted as follows:

Hygroscopic water	1.2
Volatile hydro-carbons	75.6
Fixed carbons	21.9
Ash (fawn-colored)	1.3

A dark-brown solution was obtained on leaching the powdered substance with ether, and in 3 hours alcohol dissolved 5%. This material may therefore be regarded as substantially

identical with the lustrous mineral previously described. I will suggest that the dullness of the surface may be due in part to the presence of gas-cavities, visible under a power of 70 diam, which are so numerous as to cause the fragments to float on water.

The Asphalt Wash mineral differs from albertite and grahamite, to both of which it has some resemblance, in its greater hardness; in containing substances soluble in alcohol, and in the high percentage of substances soluble in ether.

The mineral has probably been derived, originally, from the highly bituminous shales of the Green River Eocene, which formation is predominantly developed in the surrounding country.

NOTES ON A TRIP TO TELLURIDE, SAN MIGUEL COUNTY,
COLORADO.

BY P. H. VAN DIEST.

[ABSTRACT.]

After a description of the mode of travelling, the scenery, and the general formation, mention was made of the typical rock section seen in approaching Marshall Basin by the trail from Pandora. The red beds of the Trias are overlaid by a hard gray or red sandstone, followed by a thin layer of limestone, and above this by a conglomerate made up of fragments of the above named sedimentary rocks with trachyte, cemented together by an earthy trachytic tufa. This changes upwards to a breccia, which rarely contains sandstone fragments, and has a crystalline trachytic mass which has melted together pieces of red and greenish trachyte. Above this follows andesite and what Breithaupt would have called timazite, containing a greenish hornblend. All these trachytic flows have a thickness of about 2,500 feet.

In this trachytic cap the outcrops of veins are readily seen. They are either gold or silver bearing.