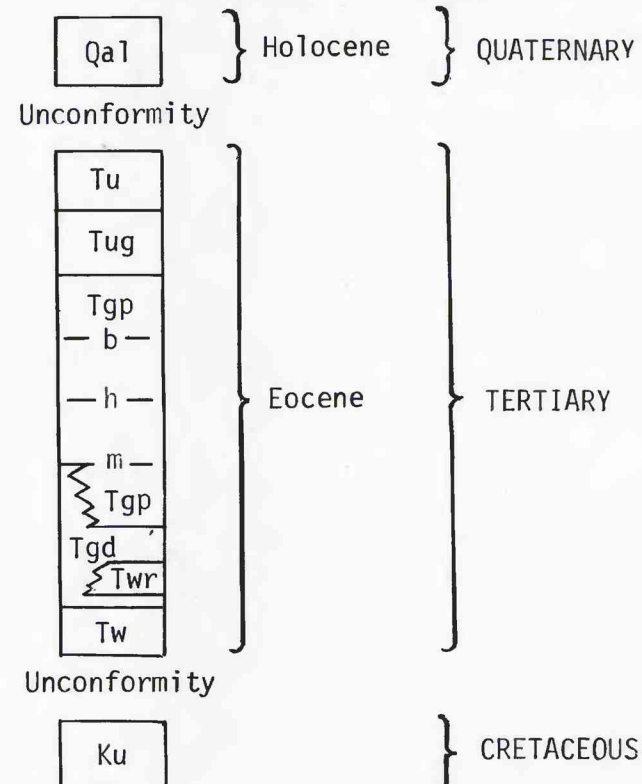




CORRELATION OF MAP UNITS



List of drill holes in the Agency Draw NW quadrangle, Utah

Map No.	Operator	Hole Name and No.	USGS Data-Bank file no. 1/	Surface elevation 2/ Feet	Surface elevation 2/ Meters	Total depth Feet	Total depth Meters
1	Champlin Petroleum Co.	127 U.S. Manco	-	5,880	1792	8,000±	2438±
2	Geokinetics, Inc.	Agency Draw 17	-	5,609	1710	259.2	79.0
3	Geokinetics, Inc.	Agency Draw 12	-	5,433	1656	100.0	30.5
4	Geokinetics, Inc.	Agency Draw 11	-	5,474	1668	90.0	27.4
4a	U.S. Geological Survey	Core hole 1	U-1	5,658	1724	126.4	38.5
5	Geokinetics, Inc.	Agency Draw 9	-	5,657	1724	200.0	61.0
6	Geokinetics, Inc.	Agency Draw 16	-	5,735	1748	213.0	64.9
7	H. M. Byllesby & Co., Inc.	Byllesby 2	-	6,154	1876	8,520	2597
8	Geokinetics, Inc.	Agency Draw 14	-	5,844	1781	250.0	76.2
9	Geokinetics, Inc.	Agency Draw 15	-	5,767	1758	210.3	64.1
10	Geokinetics, Inc.	Agency Draw 2	-	5,769	1758	156.1	47.6
11	Geokinetics, Inc.	Agency Draw 1	-	5,674	1729	78.4	23.9
12	H. M. Byllesby & Co., Inc.	Green Canyon	U-21	5,964	1818	232.8	70.9
13	Sunray DX Oil Co.	Utah Corporation 1	-	5,760	1756	7,316	2230
14	H. M. Byllesby & Co., Inc.	Pinon	U-22	6,038	1840	253.0	77.1
15	Geokinetics, Inc.	Agency Draw 10	-	6,141	1872	111.6	34.0
16	H. M. Byllesby & Co., Inc.	Byllesby 3	-	6,124	1866	6,918	2109
17	Geokinetics, Inc.	Agency Draw 4	-	6,387	1947	110.0	33.5

1/ Fischer assay shale-oil yield data.

2/ Surface elevations of all bore holes are rounded to nearest whole number.

DESCRIPTION OF MAP UNITS

- Qal** ALLUVIAL DEPOSITS (HOLOCENE)--Unconsolidated gray and brown silt, sand, and gravel of stream-bed, slope-wash, and fan deposits.
- Tu** UINTA FORMATION (EOCENE)--Yellow-brown to reddish-brown, fine- to coarse-grained sandstone, yellow-brown to gray-brown siltstone, and some red and gray shale. Locally crossbedded. Deposited principally in a fluvial environment.
- Tug** UINTA AND GREEN RIVER FORMATIONS (EOCENE)--An interbedded sequence that contains lithologies of the Uinta and Green River Formations; composed of yellow-brown sandstone and siltstone and gray and brown marlstone. Lithologic units are, for the most part, evenly bedded and laterally persistent and more representative of the Green River Formation than the Uinta Formation. Lower boundary is approximately equivalent to lower boundary of unit 8 of the Uinta Formation as mapped by Pipirinos (1979). This interbedded sequence is approximately equivalent to upper half of the transition zone of Cashion (1967, p. 9, 16).
- Tgp** GREEN RIVER FORMATION (EOCENE) Parachute Creek Member--Gray and yellow-brown marlstone, dark-gray and brown oil shale, numerous thin yellow-orange and gray tuff beds, and some yellow-brown siltstone beds. The Mahogany ledge (Mahogany zone in subsurface), the richest oil-shale sequence in the Green River Formation, occurs at or near the base of the Parachute Creek Member in the Agency Draw area. The boundary between the Parachute Creek (Tgp) and Douglas Creek (Tgd) Members rises stratigraphically southwestward and in the southwestern part of this quadrangle the boundary is placed at the base of the Mahogany oil-shale bed for mapping purposes. The Mahogany ledge is approximately 105 ft (32 m) thick in the northeast corner of the quadrangle and that part of the ledge that has an average shale-oil yield of 25 gallons per ton (104 liters per metric ton) is about 25 ft (7.6 m) thick. The potential oil yield decreases southwestward across the quadrangle. The upper part of the Parachute Creek Member is principally marlstone with some oil shale and siltstone. In the area southwest of East Squaw Canyon a massive contorted tuffaceous sandstone intertongues with the upper part of the Mahogany ledge and forms a bench above the Mahogany oil-shale bed.
- b-** Base of a yellow-orange weathering, ledge- and bench-forming tuffaceous bed--Approximate equivalent of the base of Uinta 8 of Osborn (1929, fig. 63) near Bonanza (Cashion, 1974).
- h-** Base of Horse Bench sandstone bed--Yellow-brown, very fine grained sandstone and siltstone, ripple laminated in part. Forms prominent bench in quadrangle. Unit ranges in thickness from 2 to 4 ft (0.6-1.2 m). Equivalent to only a part of the interval assigned to the Horse Bench sandstone bed at its type locality.
- m-** Top of Mahogany oil-shale bed--Dark-gray to black, laminated, ledge-forming oil shale. The richest oil-shale bed in the Mahogany ledge. Unit is approximately 4 ft (1.2 m) thick and occurs about 40 ft (12 m) below the top of the Mahogany ledge. In the area southwest of East Squaw Canyon the lateral continuity of the Mahogany oil-shale bed is disrupted by load features in a massive tuffaceous sandstone that normally occurs above the Mahogany oil-shale bed.
- Tgd** Douglas Creek Member--Composed of sandstone, siltstone, mudstone, stromatolitic limestone, and grain-supported limestone. Sandstone beds are yellow-brown and gray, ledge forming, and some beds are stained with bitumen. Mudstone beds are greenish-gray, commonly silty and form reentrants. Limestone beds are yellow brown and yellow gray and form ledges. Only the upper part of the member is exposed in the quadrangle. The total thickness of the Douglas Creek Member and intertonguing beds of the Wasatch Formation is about 1,900 ft (580 m).
- WASATCH FORMATION (EOCENE)**
- Twr** Renegade Tongue--Shown on cross section only. Irregularly bedded brown and gray sandstone and siltstone and red, maroon, and gray shales. Intertongues with the Douglas Creek Member of the Green River Formation.
- Tw** Main body--Shown on cross section only. Irregularly bedded brown and gray sandstone and siltstone and red, maroon, and gray shales. Underlies and intertongues with the Douglas Creek Member of the Green River Formation. The beds at Dark Canyon of Fouch and Cashion (1979), which lie below the main body of the Wasatch, are included in the main body on cross section.
- Ku** UNDIFFERENTIATED CRETACEOUS SEDIMENTARY ROCKS--Shown on cross section only. Gray and tan sandstone and gray siltstone and claystone in discontinuous beds deposited mostly in an alluvial environment.

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- CONTACT--Boundaries of Quaternary units were determined by photogeologic methods and are approximately located. Dashed line on cross section indicates position of unit boundary is uncertain
- UNCONFORMITY--Shown on cross section only. Position uncertain
- FAULT--Dashed where concealed. Bar and ball on downthrown side
- STRUCTURE CONTOURS--Drawn on top of Mahogany bed. Dashed where Mahogany bed eroded. Contour interval 100 ft (30 m). Datum is mean sea level
- CORE HOLE--Drill site located by recovery. Drilled to evaluate oil-shale beds. Map numbers keyed to list of drill holes
- CORE HOLE--Drill site located by description only. Drilled to evaluate oil-shale beds. Map numbers keyed to list of drill holes
- DRY HOLE--Map numbers keyed to list of drill holes
- TEMPORARILY ABANDONED WELL--Map numbers keyed to list of drill holes

GEOLOGIC MAP OF THE AGENCY DRAW NW QUADRANGLE, UINTAH COUNTY, UTAH

By  
William B. Cashion  
1984