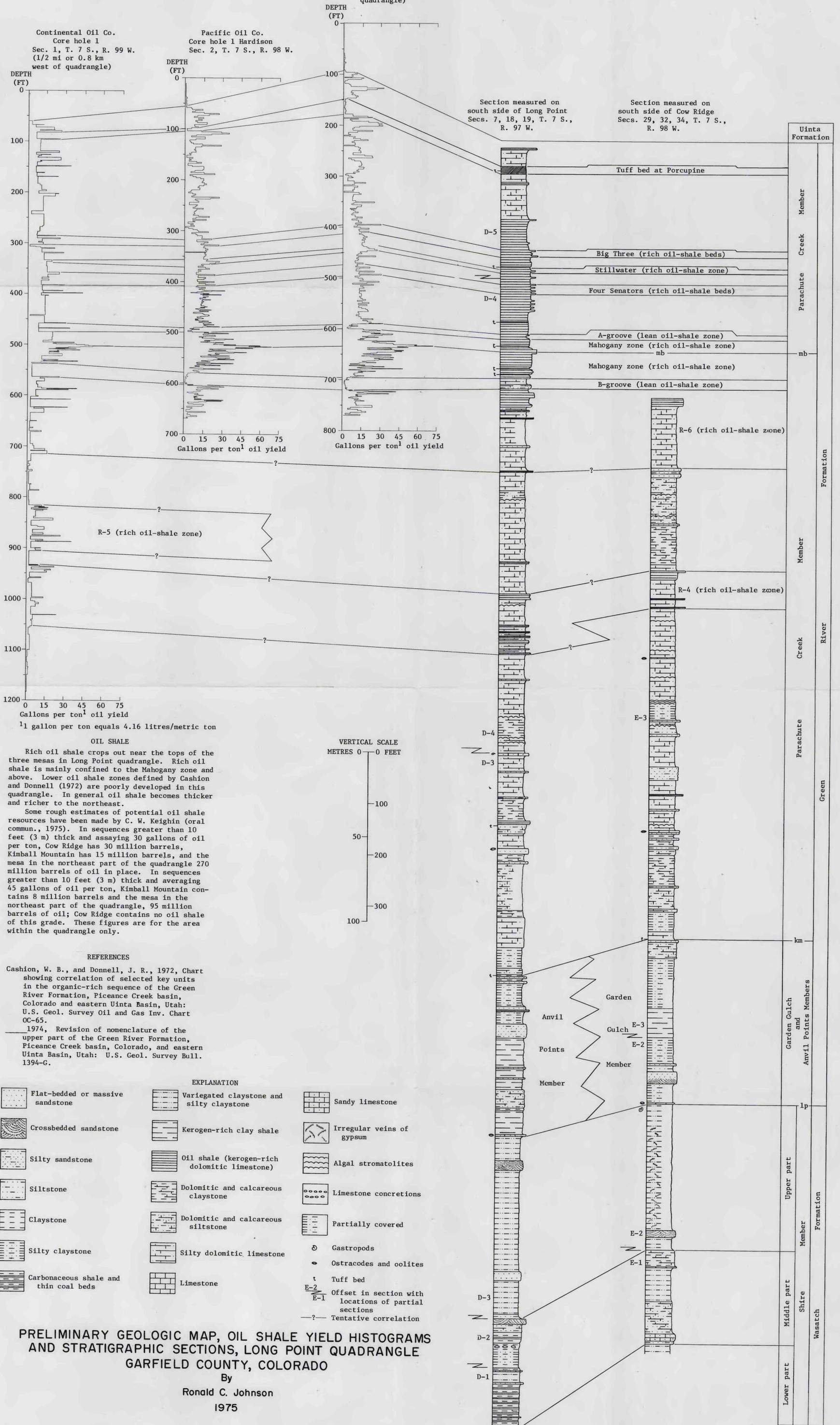


Pacific Oil Co.  
Core hole 1 Allen  
Sec. 27, T. 6 S., R. 97 W.  
(2 1/2 mi or 4 km east of  
quadrangle)

Continental Oil Co.  
Core hole 1  
Sec. 1, T. 7 S., R. 99 W.  
(1/2 mi or 0.8 km  
west of quadrangle)

Pacific Oil Co.  
Core hole 1 Hardison  
Sec. 2, T. 7 S., R. 98 W.



**OIL SHALE**

Rich oil shale crops out near the tops of the three mesas in Long Point quadrangle. Rich oil shale is mainly confined to the Mahogany zone and above. Lower oil shale zones defined by Cashion and Donnell (1972) are poorly developed in this quadrangle. In general oil shale becomes thicker and richer to the northeast.

Some rough estimates of potential oil shale resources have been made by C. W. Keighin (oral commun., 1975). In sequences greater than 10 feet (3 m) thick and assaying 30 gallons of oil per ton, Cow Ridge has 30 million barrels, Kimball Mountain has 15 million barrels, and the mesa in the northeast part of the quadrangle 270 million barrels of oil in place. In sequences greater than 10 feet (3 m) thick and averaging 45 gallons of oil per ton, Kimball Mountain contains 8 million barrels and the mesa in the northeast part of the quadrangle, 95 million barrels of oil; Cow Ridge contains no oil shale of this grade. These figures are for the area within the quadrangle only.

**REFERENCES**

Cashion, W. B., and Donnell, J. R., 1972, Chart showing correlation of selected key units in the organic-rich sequence of the Green River Formation, Piceance Creek basin, Colorado and eastern Uinta Basin, Utah: U.S. Geol. Survey Oil and Gas Inv. Chart OC-65.

1974, Revision of nomenclature of the upper part of the Green River Formation, Piceance Creek basin, Colorado, and eastern Uinta Basin, Utah: U.S. Geol. Survey Bull. 1394-C.

- EXPLANATION**
- |                                       |  |  |
|---------------------------------------|--|--|
| Flat-bedded or massive sandstone      | Variegated claystone and silty claystone     | Sandy limestone                                      |
| Crossbedded sandstone                 | Kerogen-rich clay shale                      | Irregular veins of gypsum                            |
| Silty sandstone                       | Oil shale (kerogen-rich dolomitic limestone) | Algal stromatolites                                  |
| Siltstone                             | Dolomitic and calcareous claystone           | Limestone concretions                                |
| Claystone                             | Dolomitic and calcareous siltstone           | Partially covered                                    |
| Silty claystone                       | Silty dolomitic limestone                    | Gastropods   |
| Carbonaceous shale and thin coal beds | Limestone                                    | Ostracodes and oolites                               |
|                                       |  | Tuff bed   |
|                                       |  | Offset in section with locations of partial sections |
|                                       |  | Tentative correlation                                |

PRELIMINARY GEOLOGIC MAP, OIL SHALE YIELD HISTOGRAMS  
AND STRATIGRAPHIC SECTIONS, LONG POINT QUADRANGLE  
GARFIELD COUNTY, COLORADO  
By  
Ronald C. Johnson  
1975