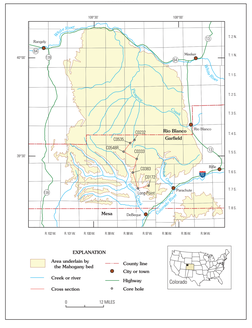
U.S. DEPARTMENT OF THE INTERIOR
U.S. GEOLOGICAL SURVEY

Click here to return to Chapter 5

INDEX MAP



EXPLANATION

Rich oil shale zones—Mostly kerogen-rich calcareous and dolomitic oil shale. Includes some calcareous sandstone, siltstone, and mudstone, oolitic and ostracodal limestone; contains stromatolites in basin-margin areas

Lean oil shale zones—Mostly kerogen-poor calcareous and dolomitic oil shale, with calcareous sandstone, siltstone, and mudstone, oolitic and ostracodal limestone; contains stromatolites in basin-margin areas

Rich oil shale zones—Mostly kerogen-rich, illitic oil shale with some sandstone, siltstone, mudstone, oolitic and ostracodal limestone; contains stromatolites in basin-margin areas

Lean oil shale zones—Mostly kerogen-poor, illitic oil shale with some sandstone, siltstone, mudstone, oolitic and ostracodal limestone; contains stromatolites in basin-margin areas

Marginal lacustrine—Mostly calcareous sandstone, siltstone, and mudstone, oolitic and ostracodal limestone, and stromatolites. May include some calcareous and dolomitic or illitic oil shale

Variegated maroon, purple, and gray sandstone, siltstone, and mudstone

Oil yield—In gallons per ton

Spontaneous potential base—In mV

Resistivity—In ohmm

Top of Mahogany bed

C0232	**USGS Colorado borehole number**
Humble Oil & Refining Co.	**Driller of well**
East Willow Creek 1	**Well name**
Sec. 28, T. 4 S., R. 97 W.	**Location (section, township, range)**
TD 1,950 ft	**Total depth of well**

KEY TO MEASURED SECTION

Long Point	**Section name**
Secs. 7, 8, 19, T. 7 S., R. 97 W.	**Location (section, township, range)**

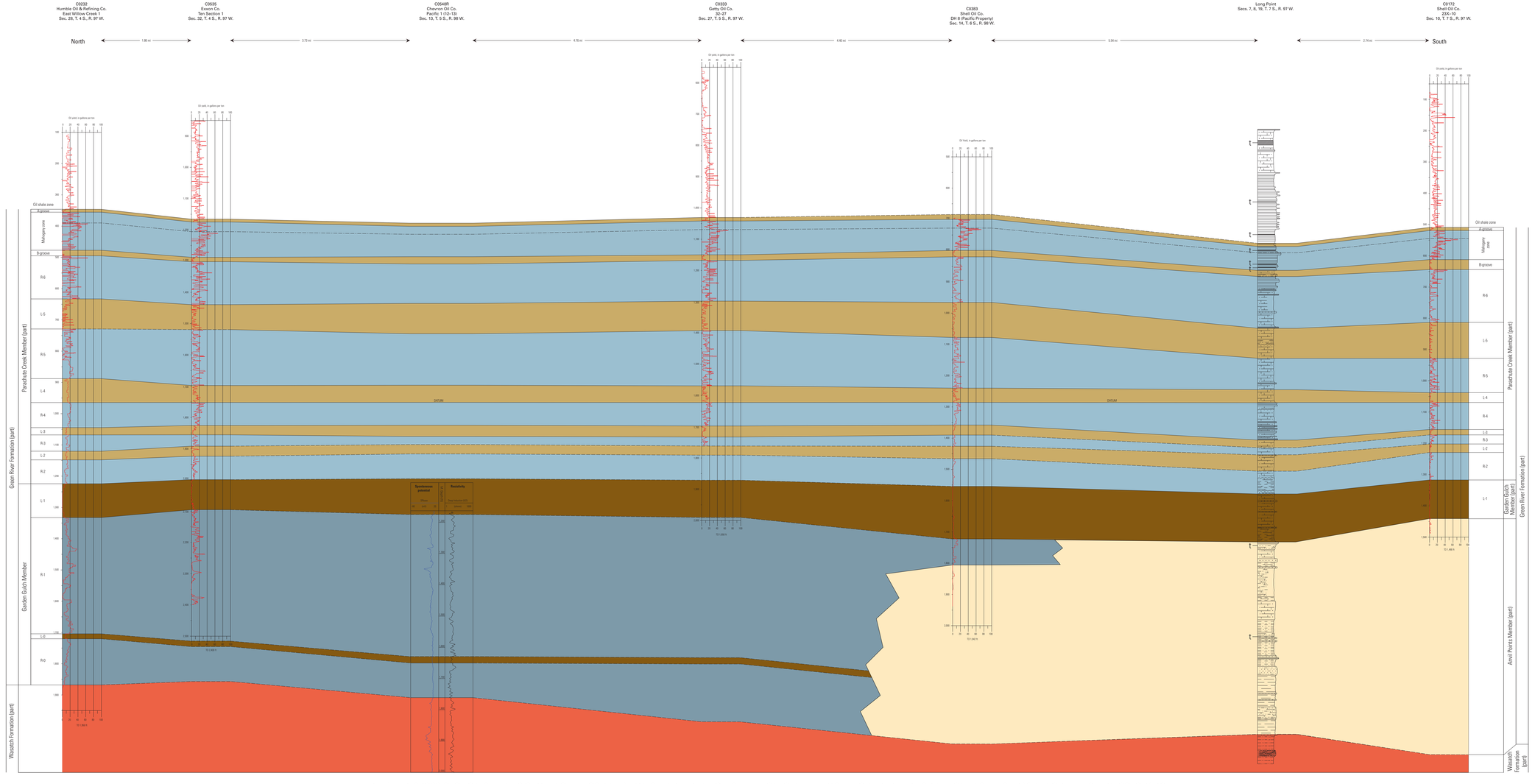
LITHOLOGY

- Oil shale
- Sandstone
- Kerogen-rich clay shale
- Dolomite and calcareous clay stone
- Silty dolomitic limestone
- Crossbedded sandstone
- Dolomite and calcareous siltstone
- Algal stromatolites
- Sandy limestone
- Silty sandstone
- Silty claystone
- Tuff layer

0 0.5 1 1.5 2 MILES

200 FEET
100
0

Correlation datum is top of the R-6 zone



DETAILED CROSS SECTION OF LINE 8 SHOWING THE CORRELATION OF INDIVIDUAL OIL SHALE ZONES IN THE EOCENE GREEN RIVER FORMATION, PICEANCE BASIN, NORTHWESTERN COLORADO

By
Jesse G. Self, Ronald C. Johnson, Michael E. Brownfield, and Tracey J. Mercier

2010