St. Louis Research Department

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We have just completed a determination of the low temperature viscosities on eight recent batches of Pydraul A-200 made at the Krummrich Plant. Of these eight batches four were "out-of-spec" on pour point and four were acceptable.

It had been our assumption that the pour point was too crude a method to give a valid test on non-petroleum fluids and that no agreement on pour point and low temperature viscosity (ca. 1000-2000 cs.) would be obtained. As the tabulated data show, we appeared to be 87% wrong, the data on seven out of eight samples checked. Only the data on batch KB 206 seemed out of line.

Pydraul A-200

Batch No.	Pour Point (°F)	Kinematic Viscosity (cs.) 45°F	100°F	210°F
KB 207	14 (15)	1297	30.65	2.85
201	14 (20)	1301	31.40	2.86
202	14 (20)	1307	30.60	2.86
205	14 (20)	1333	30.60	2.85
KB 206	18 (15)	1288	30.40	2.85
D 202	18 (15)	1378	30.60	2.86
D 201	18 (10)	1392	30.60	2.93
KB 204	18 (20)	1425	30.45	2.85

Since the pour points were originally run to a degree Centigrade value inadvertantly and later converted to Fahrenheit, I thought a recheck of the pour points in the Queeny Plant laboratory might bring all the values into agreement. The results of these determinations are shown in the above table in parenthesis.

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The overall results of this study reaffirm our belief that a pour point of a non-petroleum fluid is not a precise value and poor test precision is to be expected. It is really not the operators fault. He is measuring a low temperature viscosity by a quick but crude method not designed to measure viscosity. Consequently, I would recommend that if the low temperature properties of the fluids are important, a low temperature viscosity determination be substituted for the pour point. If it is not important I would recommend discontinuing the pour point determination on the Pydraul fluids.

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