DCC:

R. . Garcia - Akron
J. A. Heilala - Pittsburgh
N. T. Johnson
W. B. Papageorge - WPAPA
D. A. Olson - LOLSO
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Monsanto

ORGANIC CHEMICALS DIVISION

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August 31, 1970

Mr. Jack Leiser
Timken Roller Bearing Company
The Steel and Tube Division
Canton, Ohio 44706

Dear Jack:

John Heilala and I recently discussed results of our analyses on the five samples taken from your plant effluent earlier this year. Pydraul concentrations from tube mills #3 and #4 and from the pond water are reported on the attached sheet. All were less than 1 ppm. Assuming a 24 hour per day operation and a 400-700 gpm water flow rate from each mill, the recoverable volume of Pydraul is extremely small at 4-7 gallons per year (mill #3) and 32-55 gallons per year (mill #4). The water flow rate range of 400-700 gpm was, I believe, mentioned during our meeting as typical of the mill through put.

The Pydraul content was essentially nil in the samples from the pond bottom (inlet end) and pond water (top). Both samples were decanted of water, filtered and the fluid content extracted. Both fluid samples gave specific gravities of 0.89, corresponding to that of petroleum oil.

The solids were found to be fine, highly metallic particles apparently from bearing grindings. The oil content at the bottom would indicate droplets adhere to the heavier solids. The fines prevented effective filtration of the waste oil.

Jack, this small amount of Pydraul overflow does not appear to offer practical, economical recovery. We are presently evaluating, within Monsanto, techniques for recovering small (ppm) quantities of Pydraul-type synthetic fluids. These results may be applicable to industry for larger volume Pydraul recovery programs.

MONS 088104

We sincerely appreciate your fine cooperation. Please let me know if you have questions or if we can provide additional information.

Very truly yours,

D. R. Pogue

D. R. Pogue

lb

Attach. 1

cc: Mr. B. Hockenberry
Mr. R. Pickens

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TIMKEN STEEL

	Pydraul (ppm)	Volume (gal/yr)
Bearing #3 Tube Mill	0.040	4 - 7.5
Bearing #4 Tube Mill	0.30	32-55
Bearing Pond Water	0.30	----

Pond Bottom (Inlet End)

Water	92.2% wt.
Solids	6.3
Oil	1.5
Oil Specific Gravity	0.89

Pond Water (Top)

Water	44.5% wt.
Solids	1.3
Oil	54.2
Oil Specific Gravity	0.89

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