

MONSANTO RESEARCH CORPORATION

MOUND LABORATORY

MIAMISBURG, OHIO

U. S. GOVERNMENT CONTRACT NO. AT-33-1-GEN-53

MOUND LABORATORY-MONSANTO

Central File No. 62-3-303

UNDERHILL 6-3811

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DATE 2-28-62 INIT [Signature]

March 27, 1962

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Mr. W. J. Howard
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Livermore Laboratory
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Livermore, California

MOUND DECLASSIFICATION REVIEW	
1ST REVIEW DATE: 9/2/97	DETERMINATION (CIRCLE NUMBER(S))
AUTHORITY: <input type="checkbox"/> AOC <input checked="" type="checkbox"/> ADOC <input type="checkbox"/> ADD	1. CLASSIFICATION RETAINED
NAME: TIM FLANNERY	2. CLASSIFICATION CHANGED TO: _____
2ND REVIEW DATE: 1/25/97	3. CONTAINS NO BSB CLASSIFIED INFO
AUTHORITY: [Signature]	4. COORDINATE WITH: _____
NAME: [Signature]	5. CLASSIFICATION CANCELLED
	6. CLASSIFIED INFO BRACKETED
	7. OTHER: _____

Dear Mr. Howard:

We would like to confirm the Mound Laboratory estimates on the Materials Test Program which were presented by G. R. Grove and N. E. Rogers at the Meeting at SC-LRL on March 20, 1962.

Part of the equipment which would be required for this Program is being purchased for use on other programs. However, this equipment would be available for use on this program if we are assigned the work. The remainder of the equipment, estimated to cost about \$75,000, would be purchased out of our FY-1963 equipment budget. The total equipment costs for Part I and Part II of the program, as outlined in the above meeting, therefore, would be financed by Mound with no costs to SC-LRL. However, should the scope of the program be increased or if additional equipment is needed from changes made to the existing program, other arrangements might have to be made for the procurement of necessary additional equipment.

No part of the equipment included in the \$75,000 figure will be purchased until official authorization has been received at Mound to proceed with this program.

The cost to perform the tests (Part I) specified on SC-LRL Drawing Numbers K-16514, K-16517, K-16175 and K-16176 is estimated to be approximately \$47,000. This estimate does not include the cost of special containers for the high-pressure exposure tests. Since an adequate design for these

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containers has not been developed as yet, it is not possible to give an accurate estimate of the container costs. It is our opinion at this time that these containers could be procured at a cost of the order of \$13,000, making the total cost for the specimen test part of the program of about \$60,000.

The details of the estimate for the absorption and mechanical tests are given on the attached sheet.

The cost of performing the spherical tests (Part II) as outlined by Don Clarin on March 21, 1962, is estimated to be \$1,000 per reservoir assuming that the test reservoirs are loaded at SRP and are received at Mound in containers suitable for storage under high pressure. The cost estimate per reservoir does not include the cost of loading or the cost of the safety containers.

We are definitely interested in participating in this Program. Based on the assumption that the AEC will approve this project and that arrangements can be made for the diversion of the tritium needed for the exposure tests, we believe that we can provide the requested test information.

It is estimated that approximately seven to nine months would be required from the time of the assignment of the program to Mound Laboratory before we would have all of the necessary equipment installed and ready for operation.

If there is any other information we can supply relative to this program, please do not hesitate to contact us.

Very truly yours,

Original signed by D.L. Scott

David L. Scott
Plant Manager

DLS: 14

Distribution: (On Page 3)

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Mr. W. J. Howard

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ABSORPTION TESTS

<u>Number of Strip Tests</u>	<u>Exposure Time</u>	<u>Cost/Strip</u>	
6 unstressed	1 day	\$ 130.00	\$1,080.00
6 unstressed	1 week	250.00	1,500.00
6 unstressed	1 month	330.00	1,980.00
6 unstressed	6 months	1,350.00	8,100.00
3 stressed	1 month	675.00	2,025.00
3 stressed	6 months	2,100.00	<u>6,300.00</u>

\$20,985.00

		<u>Cost/Test</u>	
Total Quantities	264	\$ 45.00	\$11,880.00
Surface Quantity	64	45.00	2,880.00
Micro-Structure	33	75.00	2,475.00
Gradient	18	40.00	<u>720.00</u>

\$17,955.00

MECHANICAL TESTS

<u>Number of Specimens</u>			
Exposure	100	\$ 60.00	\$6,000.00
Tensile Test	45	18.00	810.00
Notch Tensile Test	45	15.00	675.00
Notch Rupture Test	15	15.00	225.00
Notch Tensile Impact Test	45	8.00	<u>360.00</u>

\$ 8,070.00

TOTAL COST OF ABSORPTION AND MECHANICAL TESTS \$47,000.00

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