TX.1-4/2517 TX.1 Aerospace

Department of Energy
Washington, D.C. 20545

JAN 8 1986

Mr. John Murray
Manager of Environmental Affairs
Mobil Mining and Minerals Company
P.O. Box 3447
Pasadena, Texas 77501

Dear Mr. Murray:

The Department of Energy (DOE), as part of its Formerly Utilized Sites Remedial Action Program (FUSRAP), has reviewed information on the Mobil Mining and Minerals Company (formerly Mathieson Chemical Company) to determine whether it contains residual radioactivity traceable to activities conducted on behalf of the Atomic Energy Commission (AEC) (a predecessor to DOE). The enclosed radiological survey indicated that a sink and associated drain and workbench area are contaminated with uranium, actinium, and radium. However, available information regarding the nature of the operations and the contractual relationship between AEC and Mathieson is not sufficient to establish DOE's authority under the Atomic Energy Act of 1954, as amended, to perform any remedial action required at the site. Therefore, DOE is eliminating it from further consideration under FUSRAP. It should be noted that the survey data indicated that the contamination does not pose a significant health hazard to workers or the general public under the use of the site at the time of the survey. However, in accordance with Department policy, the Environmental Protection Agency and the State of Texas Department of Health are being notified and provided a copy of the survey report by copy of this letter so that they may take whatever action they deem appropriate.

The information supporting this decision will be archived by DOE, and a copy of the elimination report will be available for public review between 8:00 a.m. and 4:00 p.m., Monday through Friday (except Federal holidays), at the DOE Public Document Room located in Room 1E-190 of the Forrestal Building, 1000 Independence Avenue, S.W., Washington, D.C.

If you have any questions regarding this decision, please call me on 301-353-4716.

Sincerely,

Edward G. DeLaney, Director
Division of Facility and Site
Decommissioning Projects
Office of Nuclear Energy

Enclosure

cc: w/enclosure
H. Snyder, EPA/HQ, Wash., D.C.
L. Wright, EPA Region VI, Dallas, Texas
E. Bailey, Texas Dept. of Health

bcc:
E. Keller, OR
B. Berven, ORNL
S. Miller, GC-11
Aerospace

Baublitz RF
NEG (4)

NE-23:AWhitman:ph:353-5439:1/7/86:IBM:298/27:3.43

CONCURRENCES	
RTG SYMBOL	NE-23
INITIALS/SIG.	Whitman
DATE	1/ /86
RTG SYMBOL	NE-23
INITIALS/SIG.	DeLaney
DATE	1/8/86
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PRELIMINARY SURVEY OF
OLIN MATHIESON CHEMICAL CORPORATION
Pasadena, Texas

Work performed
by the
Health and Safety Research Division
Oak Ridge National Laboratory
Oak Ridge, Tennessee 37830

March 1980

OAK RIDGE NATIONAL LABORATORY
operated by
UNION CARBIDE CORPORATION
for the
DEPARTMENT OF ENERGY
as part of the
Formerly Utilized Sites--
Remedial Action Program

OLIN MATHIESON CHEMICAL CORPORATION
Pasadena, Texas

At the request of the Department of Energy (DOE), a preliminary survey was performed at the Olin Mathieson Chemical Corporation plant in Pasadena, Texas (see Fig. 1), on November 18, 1977, to assess the radiological status of those facilities utilized under an Atomic Energy Commission raw materials contract for a period determined to be during the early 1950s. M. S. Davenport, Plant Manager, provided information as to the nature of work performed and the location of facilities utilized. T. Cook, who worked in Quality Assurance also provided information as to the history of material processed at this site.

From information obtained from review of files of contracts and in discussions held during the survey, the work conducted at the Pasadena site involved a bench-type pilot operation designed to extract U_3O_8 from phosphoric acid generated during the processing of phosphate rock. No information was available as to the exact amounts of U_3O_8 produced nor as to the radiological conditions of the facility at the culmination of the project at which time the pilot plant was dismantled (believed to have been in 1955).

Present Use of Facilities

The facility utilized in the project consisted of a single room approximately 12 x 14 ft (see Fig. 2). This room currently contains an L-shaped laboratory bench (with sink) adjacent to two walls and a chemical hood located on a third wall. This facility was part of an old process technology and analysis laboratory. The room is currently used for storing janitorial equipment. Plans are currently underway to demolish the building.

Results of Preliminary Survey

The preliminary survey was conducted by F. F. Haywood of the Oak Ridge National Laboratory and W. T. Thornton of the Department of Energy-Oak Ridge Operations Office. An exploratory radiation survey of the one room was made. This survey consisted of (1) direct alpha and beta-gamma measurements and (2) collection of residue samples from the areas of

the sink where elevated alpha and beta-gamma readings were noted (see Fig. 3). The maximum direct alpha reading was 3000 dpm/100 cm^2 on inside surfaces of the sink and presumed to be inside the drain opening of the sink. The inside of this opening was inaccessible beyond about 15 cm, which prohibited further assessment of the contamination level. The corresponding beta-gamma dose-rate reading was about 0.4 mrad/hr at the same location and was also the highest reading found in the facility.

Analytical results of a residue sample taken from the bench area around the sink and from an inside surface of the sink are presented in Table 1. No information was obtained as to the disposition of pilot plant equipment contained in this facility following culmination of the project.

In view of survey results, when the sink and accessible drain are removed from this facility, they should be handled as contaminated material with disposal at an approved burial site, prior to the release of the site for unrestricted use.

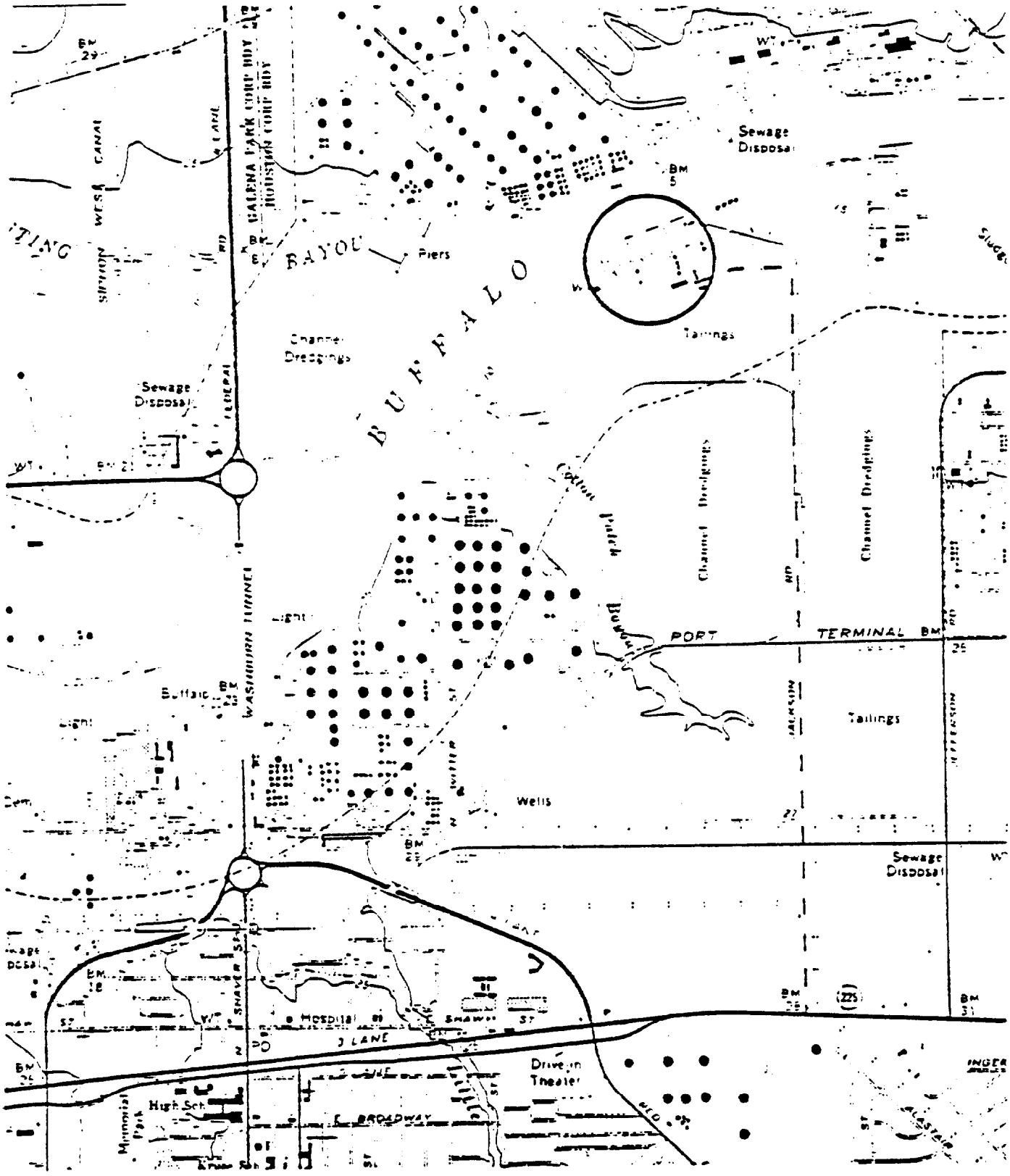

Fig. 1. Location of the Olin Mathieson Chemical Corporation in Pasadena, Texas.

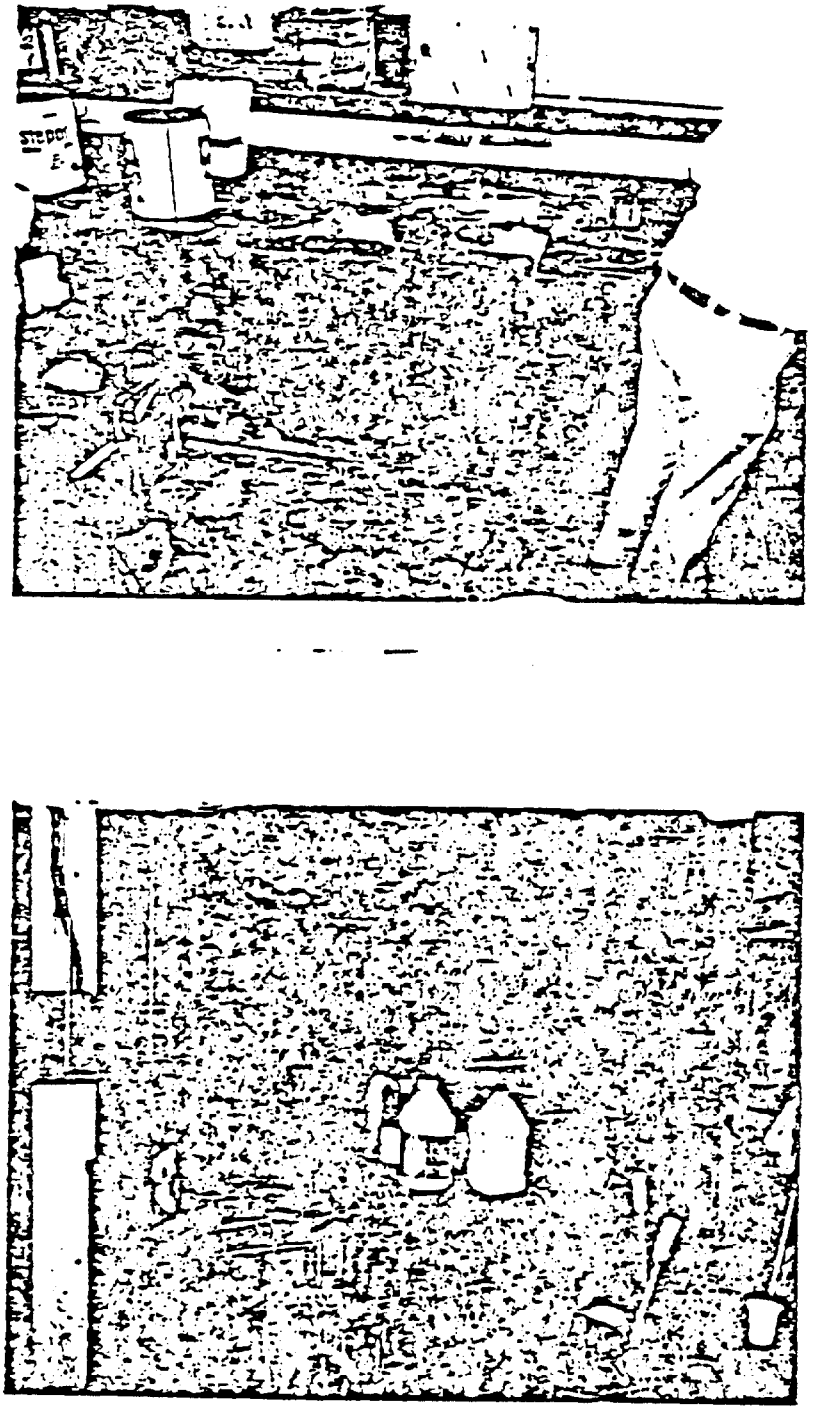

Fig. 2. Views of inside of room showing lab bench with sink and chemical hood.

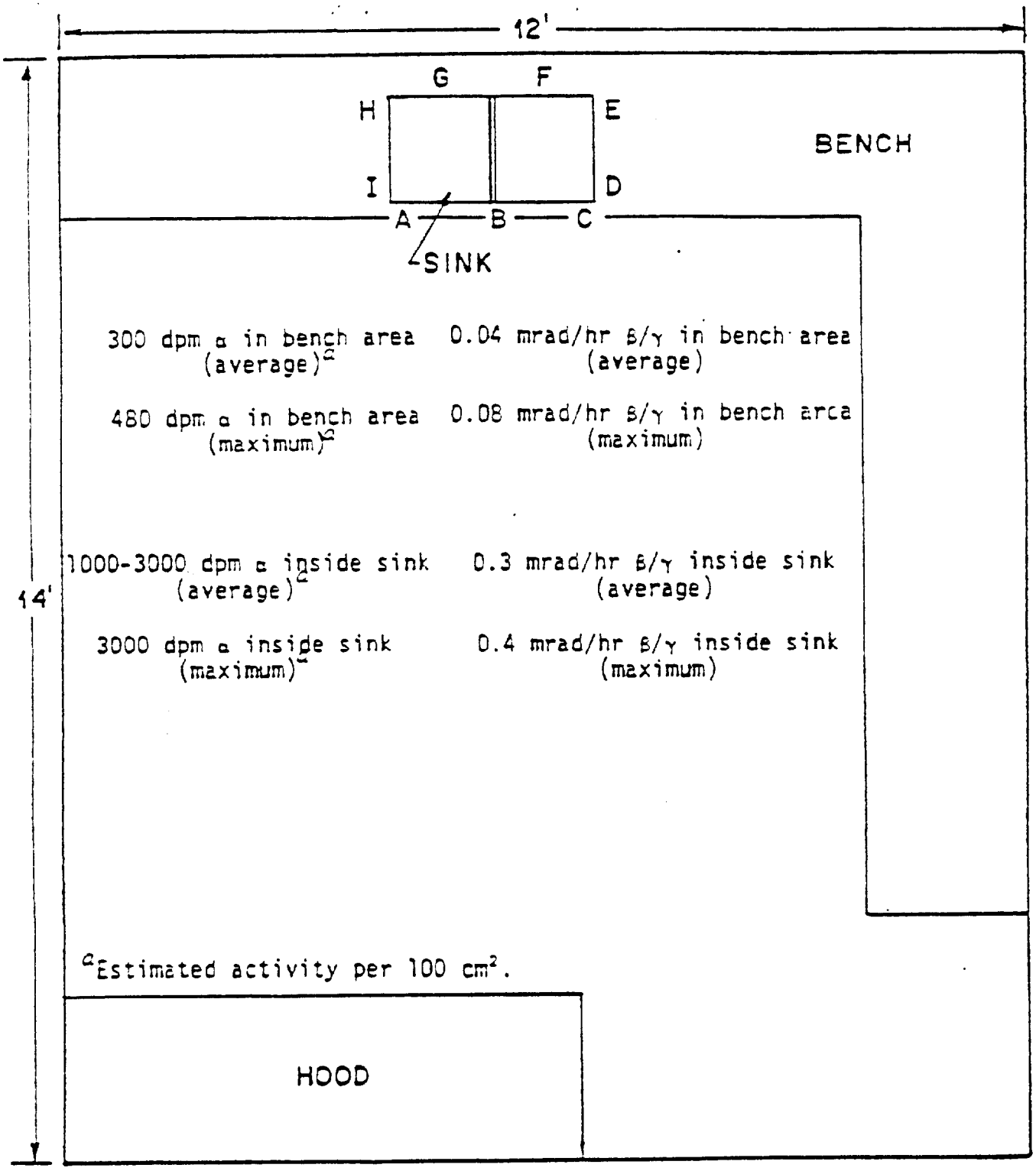

Fig. 3. Plan view of the former Olin Pilot Plant.

Table 1.

Radionuclides	Concentration for sample from bench area (pCi/g)	Concentration for sample from sink (pCi/g)
^{226}Ra	8.56	9.67
^{238}U	4.90	41.3
^{227}Ac	1.05	185