

AUG 9 1982

Docket No. 40-08794

License No. SMB-1408

MEMORANDUM FOR: Bernard Singer, Chief, Material Certification and Procedures Branch

FROM: James H. Joyner, Chief, Technical Programs Branch

SUBJECT: RESULTS OF TEST WELL SAMPLE ANALYSIS AT MOLYCORP, INC. YORK, PENNSYLVANIA (LICENSE NO. SMB-1408)

Enclosed are the results of the analysis of water taken from test wells at Molycorp, Inc., York, Pennsylvania by the Commonwealth of Pennsylvania, as part of their review of the licensee's activities at the York site. The analysis performed by the U. S. EPA Eastern Environmental Radiation Facility shows measureable concentrations of radium-228 and thorium-232 in these samples. While it does not appear that the concentrations are in excess of NRC limits, Region I plans to further review these results during an inspection of Molycorp, Inc. later this year. However, we wanted you to be aware of the results during your review of the licensee's decommissioning plan. We will keep you informed of any additional information we receive.

Original Signed By:
John D. Kinneman

for James H. Joyner, Chief
Technical Programs Branch

Enclosures: As Stated

for *Kinneman*
R1:DETP
Campbell/wb
7/30/82

Kinneman
R1:DETP
Kinneman
8/5/82

OFFICIAL RECORD COPY

IE07



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Eastern Environmental Radiation Facility
P. O. Box 3009, Montgomery, AL 36193

cc: Rad Lab
K. Popenbaver
J. C. Karlosky
sent to 22

June 22, 1982

Ms. Margaret Reilly, Chief
Division of Environmental Radiation
Pennsylvania Bureau of Radiation Protection
P. O. Box 2063
Harrisburg, PA 17120

Dear Ms. Reilly:

In response to your request of April 6, 1982, the EERF has analyzed three test well water samples received April 16, 1982 for Radium-228 contamination.

Sample identification and analytical results are included in the sample headers and result portions of the enclosed data sheets.

If you have questions relative to the methods used, please contact me at FTS 534-7615.

Sincerely,

Mike Mardis, Chief
Monitoring & Analytical Services Branch

cc: Dr. David Langford, EPA Region III

158 (well #8) NE of
dampenment ~ 70-75 yds.

#159 (well #7) water use
for process water, pumped down
1/2 ditch to ditch SE ~ 100 yds

#160 NE ~ 100 yds from

SAMPLE ID PTW 22268
SAMPLE TYPE WATER
COLLECTION DATE, TIME 4/16/82 0:0
LOCATION PA:COMMONWEALTH OF
OTHER ID'S 2801-158

12-00-05

TYPE OF ANALYSIS ***** RA228 *****
VERIFIED BY GL (5/12/82) AND MH (5/12/82)
NUCLIDE ACTIVITY 2 SIG ERROR UNITS DATE
RA-228 1.4000E+00 92.00 % PCI/L 4/16/82 DISS.
RA-228 1.7000E+00 71.00 % PCI/L 4/16/82 UNDISS.

TYPE OF ANALYSIS ***** TH *****
VERIFIED BY GL (5/21/82) AND MH (5/21/82)
NUCLIDE ACTIVITY 2 SIG ERROR UNITS DATE
TH-227 1.9900E-02 529.15 % PCI/L 5/19/82
TH-228 5.7320E-01 28.89 % PCI/L 5/19/82
TH-230 5.2550E-01 27.69 % PCI/L 5/19/82
TH-232 4.2040E-01 31.02 % PCI/L 5/19/82

15452

FILE ID PTW 22269
SAMPLE TYPE WATER
COLLECTION DATE, TIME 4/16/82 01 0
LOCATION PA:COMMONWEALTH OF
OTHER ID'S 2801-159

TYPE OF ANALYSIS ***** RA228 *****
VERIFIED BY GL (5/12/82) AND MM (5/12/82)
NUCLIDE ACTIVITY 2 SIG ERROR UNITS DATE
RA-228 7.0000E-01 200.00 % PCI/L 4/16/82 DISS,
RA-228 -6.0000E-01 221.00 % PCI/L 4/16/82 UNDISS.

TYPE OF ANALYSIS ***** TH *****
VERIFIED BY GL (5/21/82) AND MM (5/21/82)
NUCLIDE ACTIVITY 2 SIG ERROR UNITS DATE
TH-227 1.7220E-02 100.06 % PCI/L 5/19/82
TH-228 1.4460E-02 124.62 % PCI/L 5/19/82
TH-230 1.2400E-02 81.69 % PCI/L 5/19/82
TH-232 1.0330E-02 105.91 % PCI/L 5/19/82

pk

PTW ID
SAMPLE TYPE
COLLECTION DATE, TIME
LOCATION
OTHER ID'S

PTW 22270
WATER
4/16/82 01 0
PA:COMMONWEALTH OF
2841-160

TYPE OF ANALYSIS ***** R4228 *****
VERIFIED BY GL (5/12/82) AND MM (5/12/82)
NUCLIDE ACTIVITY 2 SIG ERROR UNITS DATE
RA-228 8.0000E-01 130.00 % PCI/L 4/16/82 DISS.
RA-228 4.4000E+01 16.00 % PCI/L 4/16/82 UNDISS.

TYPE OF ANALYSIS ***** TH *****
VERIFIED BY GL (5/21/82) AND NN (5/21/82)
NUCLIDE ACTIVITY 2 SIG ERROR UNITS DATE
TH-227 9.3800E-02 346.48 % PCI/L 5/19/82
TH-228 4.0520E-01 101.90 % PCI/L 5/19/82
TH-230 1.8010E-01 141.48 % PCI/L 5/19/82
TH-232 9.0050E-02 200.00 % PCI/L 5/19/82

DISS

TYPE OF ANALYSIS ***** TH *****
VERIFIED BY GL (5/26/82) AND NN (5/26/82)
NUCLIDE ACTIVITY 2 SIG ERROR UNITS DATE
TH-227 6.6920E+00 35.55 % PCI/L 5/24/82
TH-228 4.2130E+01 10.60 % PCI/L 5/24/82
TH-230 8.0300E+00 22.35 % PCI/L 5/24/82
TH-232 4.3080E+01 10.28 % PCI/L 5/24/82

UNDISS

PTW 22270X
WATER
4/16/82 01 0
PA:COMMOWEALTH OF
2801-160

QA

SAMPLE TYPE
COLLECTION DATE, TIME
LOCATION
OTHER ID'S

TYPE OF ANALYSIS

***** RA228 *****

VERIFIED BY

GL (5/19/82) AND RH (5/19/82)

NUCLIDE	ACTIVITY	2 SIG ERROR	UNITS	DATE
RA-228	1.1000E-01	342.00 %	PCI/L	4/16/82 DISS.
RA-228	4.3800E+01	14.00 %	PCI/L	4/16/82 UNDISS.