

0043

PLATEAU MINING COMPANY

FILE ACT/007/006
FOLDER #7

A Subsidiary of Getty Oil Company

P.O. Drawer PMC

Price, Utah 84501

Telephone (801) 637-2875

July 13, 1984

RECEIVED

JUL 16 1984

DIVISION OF OIL
GAS & MINING

Mr. David Lof
Division of Oil, Gas and Mining
4241 State Office Building
Salt Lake City, Utah 84114

RE: NOV 84-4-7-6, No. 2 of 6

Dear David:

As per our agreement on July 11, attached is a chronology of Vaughn Hansen Associates involvement in this situation.

In the time between receiving the violation (April 25) and the date that Vaughn Hansen Associates (VHA) was brought into the project, we were doing the following:

- (1) Determining how to operate the preparation plant with no slurry discharge. You may recall our request to construct the small sump for wash down water.
- (2) Evaluating and trying to implement the ribbon berms in the flat area between the discharge point and Pond No. 5.
- (3) Evaluating alternatives to control the discharge, i.e., slurry ponds and treatment facilities.
- (4) Evaluating and selecting a consultant to engineer slurry ponds.

Upon completion of the detailed design by VHA, the plans must be approved by the Division and by the Board of Health; this unknown time period we have no control over.

After approvals, we anticipate a 50 to 60 day construction period. The schedules given in the attachment and in this letter are realistic and we are confident they can be met.

We would appreciate extension of abatement actions for the NOV to allow the proper engineering.

Please advise if further information is needed to justify extension.

Respectfully,



Ben Grimes
Environmental Coordinator

BG:sd

Attachment

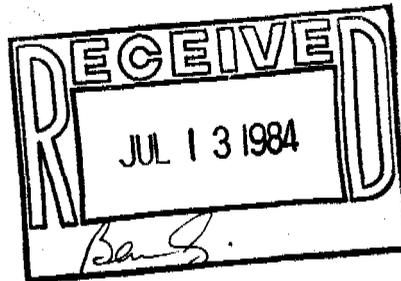
**VAUGHN
HANSEN
ASSOCIATES**WATERBURY PLAZA - SUITE A
5620 SOUTH 1475 EAST
SALT LAKE CITY, UTAH 84121
(801) 272-5263

RECEIVED

JUL 16 1984

DIVISION OF OIL
GAS & MINING

July 12, 1984

Mr. Ben Grimes
Plateau Mining Company
P.O. Drawer PMC
Price, Utah 84501

Dear Ben:

As per your request, outlined below is the chronology of events from beginning to end of final design for the proposed slurry treatment ponds to treat the slurry discharge from the thickener tank of the coal prep plant at the Plateau Mines.

1. Vaughn Hansen Associates (VHA) was requested by telephone to prepare design details for the slurry treatment ponds on May 16, 1984.
2. A meeting was scheduled and held on May 21 with you to go over the details of the proposed design project.
3. VHA prepared a proposal and commenced with work on the project on May 29, 1984.
4. Initially two alternate sites were considered as potential locations for the slurry treatment ponds. Site #1 is located south to southeast of the coal prep plant and site #2 is located immediately due east of the general office buildings. Site #2 was immediately recommended as the better alternative due to topographic and slurry conveyance considerations.
5. VHA recommended that first a feasibility study be conducted to determine if slurry settlement ponds could be designed within the limited space available with adequate capacity to sufficiently remove the suspended sediment from the water to allow either recirculation of the water back to the plant or direct discharge back into the natural channel.
6. Therefore, VHA proceeded with a preliminary layout and analysis of slurry treatment ponds located at the preferred site, site #2. Preliminary calculations were made from data supplied by Plateau (such as design flow, suspended sediment particle size gradation, etc.) However, it was determined that since the available gradation analysis supplied by Plateau stopped at

a sieve #325 (0.045 mm) with 26 percent still finer by weight, additional gradation and hydrometer analyses would be required. With the slurry having a suspended sediment concentration of close to 300,000 mg/l, 26 percent finer than the #325 sieve represents a suspended sediment concentration of 78,000 mg/l. Therefore, a sample of the thickener underflow was collected from the prep plant and submitted to Chen and Associates (of Salt Lake City) for testing on June 7, 1984.

7. Preliminary gradation analyses results were received back from Chen and Associates on June 14, 1984, the hydrometer test having taken over 5 days to run to determine that there was still 2.8 percent (8400 mg/l suspended solids) of the particles finer by weight than the 0.001 mm size. The test indicated that 10 percent of the particles were of clay size, being smaller than 0.002 mm in size.
8. During this same time period (June 12 to June 14), VHA was informed that site #2 would not be acceptable to Plateau and that site #1 would have to be used even though the topography is steeper. Therefore a field trip became necessary to investigate this alternative site, which was conducted on Friday, June 15.
9. At the time of the field trip, results of our preliminary findings were presented to you and Bob Lauman. We indicated that:
 - a. due to the limited space available in which to locate the ponds and due to the large quantity of fines in the slurry which untreated would remain in suspension for a significant period of time, the slurry would probably have to be treated with a flocculant,
 - b. that with such a heavy concentration of suspended solids, Stokes Law for determining particle fall velocities is not valid and that laboratory settling tests should be conducted (particularly with a flocculant added) to determine settling velocities for a basis of design,
 - c. that winter conditions would seriously hinder the operation of flow through type slurry treatment ponds and that Plateau would have to modify their operations plan for the 3 to 4 winter months during the year, and

Mr. Ben Grimes
July 12, 1984
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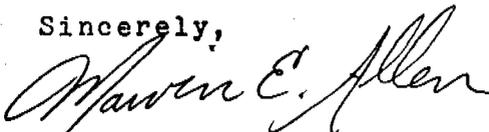
- d. that in order to expedite the project geotechnical work should be initiated since the geotechnical investigation of the foundation and foundation materials would require 4 to 5 weeks.

Plateau authorized VHA to solicit a proposal from Chen and Associates to conduct the required geotechnical investigation and to contact American Cyanamid (flocculant distributor) to request that laboratory settling tests be conducted on the slurry using a flocculant.

10. On the following Monday, June 18, I met with Jim Nordquist of Chen and Associates and requested a proposal to conduct the geotechnical investigation and I called Jerry Fahey of American Cyanamid and requested that laboratory settling tests be conducted on the slurry to determine fall velocities of the flocculated slurry.
11. Chen and Associates proposal was submitted on June 19 and approval by Plateau was given on Tuesday, June 26.
12. Chen and Associates began their field work on Thursday, June 28, completed the field work on June 30, and are presently in the process of conducting the required laboratory testing and analysis of data.
13. Results from American Cyanamid from the laboratory settling tests were received on July 5.
14. We anticipate receiving data back from Chen and Associates' geotechnical investigation on July 20 which we will then use to complete our final design.
15. Final design and report preparation will be completed during the time period of July 23 to August 17.
16. Plans and report will be ready to submit to DOGM and the Department of Health by August 20.

If you have any questions regarding the above outlined chronology of events, please call.

Sincerely,



Marvin E. Allen, P.E.
Executive Vice President