State of Utah
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

Michael O. Leavitt
Governor

Ted Stewart
Executive Director

James W. Carter
Division Director

355 West North Temple
3 Triad Center, Suite 350
Salt Lake City, Utah 84180-1203
801-538-5340
801-359-3940 (Fax)
801-538-5319 (TDD)

April 25, 1995

TO: Minerals File

FROM: Tony Gallegos, Reclamation Engineer aag

RE: Site Inspection, SF Phosphates Ltd., Vernal Phosphates, M/047/007, Uintah County, Utah

Date of Inspection: April 20, 1995
Time of Inspection: 0800 -1130
Conditions: Overcast, cold, foggy, snow, snow cover on the ground,
Participants: Ron Ryan, SF; Tony Gallegos, Lynn Kunzler, DOGM

Purpose of Inspection: To examine reclaimed areas which are candidates for release and other recently reclaimed areas as depicted on the map attached to the annual report for 1994

We met Ron Ryan at the main entrance gate. We first visited the 35 acres in Panel C located southwest of the highway which is listed as being reclaimed in 1993. The vegetation success appeared to be acceptable; however, the snow cover prevented a quantifiable examination of the amount and diversity of the vegetation cover. The Division will need to inspect this area at another time before granting formal release of this area.

We next visited the 31.5 acre area in Panel D which is listed as being reclaimed in 1990. We also visited the 23 acre area listed as being reclaimed in 1991. Revegetation success in these areas also appeared to be good; however, due to the snow cover the Division will need to inspect this area another time before formal release can be granted.

Ron informed us that hunting on some BLM lands adjacent to the mine operation has caused SF some concern about safety. The area involved is located in the eastern half of Section 32, Township 2 South, Range 22 East. The problem is hunters shooting at game are also shooting towards the active mine site. The use of primitive weapons in this area, such as black powder or bow and arrow, would not create the same degree of hazard as high powered rifles. SF would like to resolve this matter to the satisfaction of all parties involved. We suggested SF contact the BLM and Wildlife

Resources to see if it would be possible to control the type and or timing of hunting in this area. The Division will send a copy of this memo to the appropriate BLM office and Wildlife Resources to inform them of the situation.

We next visited a test plot located at the base of the tailings dam. This test plot was created in approximately ten inches of tailings material. Details of where to go from here need to be discussed in greater detail at a later date.

Some minor rilling/erosion is visible on the outslope of the tailings dam from this location. At this time the problem is minor; however, SF may need to take additional measures to remedy this situation and modify reclamation procedures to prevent this problem in future work on the tailings dam. One suggestion is to leave the surface of the outslope in a much rougher condition by making irregularly spaced impressions in the slope using a dozer blade or backhoe bucket. These impressions help break up the slope distance and also act as collection basins for moisture and seed. Another suggestion would be to seed the area as soon as possible after disturbing the area.

We then briefly visited the active mining area in Panel B. No mining was being performed during this inspection. We examined the topsoil stockpiles in this area. The stockpiles include a large amount of organic material salvaged along with the topsoil. This is a favorable practice encouraged by the Division. The Division prefers a topsoil stockpile configuration and location which allows for maximum stability from wind and water erosion. Generally, this means stockpiles should not be mounded over 8-10 feet high with side slopes at 3h:1v. Topsoil stockpiles which sit undisturbed for a year or longer should be broadcast seeded in the interim to improve stability and keep the topsoil viable. Ron indicated some topsoil stockpiles may be sitting for up to a year under current practices. The Division encourages SF to replace topsoil and reseed the regraded areas as soon as practicable after an area is mined. This type of concurrent reclamation will allow more time for corrective actions, if needed, and also minimize the amount of reclamation bonding required by the Division. Economically, it is easier to spread reclamation costs over a number of years rather than one large sum over a shorter time period.

The currently approved reclamation plan calls for SF to annually reclaim an area approximately equal to the amount of new area disturbed. Over the course of a three-year period this accounting of reclaimed versus disturbed areas should balance out. At the present time, it appears that more area has been disturbed during the past year than has been reclaimed.

Areas inspected appeared to be lacking in diversity and especially low in woody plants. Given the value of the mine site for wintering big game species, the Division suggests adding some browse species to areas recently revegetated (four-wing saltbush, bitterbrush and mountain mahogany). Hand seeding of shrubs should be done in the fall. Generally, the seeds should be planted approximately 1/2 inch deep. It was suggested that hand seeding of large seeded shrubs (such as 4-wing saltbush and bitterbrush) may be a valuable project for a local boy scout troop, wildlife group or similar organizations.

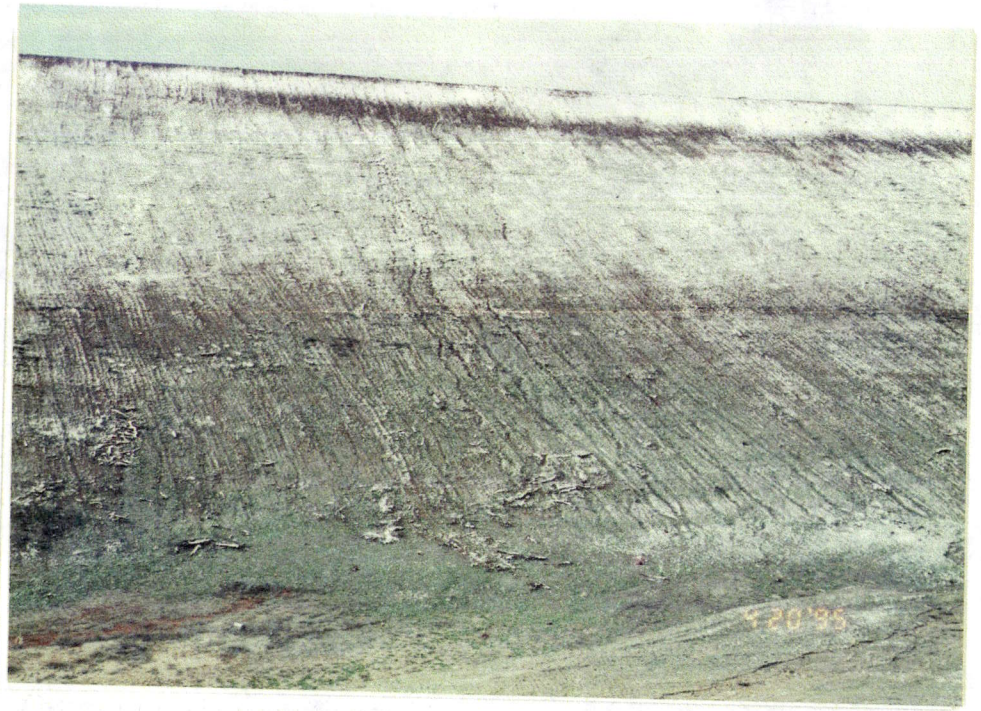
We then visited the 46.8 acre area in Panel C which is listed as being reclaimed in 1994. Actually, reclamation of this area has been partially completed. Reclamation work is currently behind the proposed scheduled.

In conclusion, the Division will need to revisit the site later this spring to evaluate the revegetation success of the candidate areas. The Division will offer suggestions to modify the current reclamation seed mix and also provide an interim seed mix for stabilizing topsoil stockpiles. In addition, the Division was to provide Ron Ryan with some information describing the completion of vegetation surveys and a contact at Kennecott Utah Copper for information on the recent installation of wicks in their tailings impoundment.

jb
cc: Ron Ryan, SF
D.J. Beaupeurt-Schantz, BLM, Diamond Mountain RA
Rick Larson, Wildlife Resources
M47-07.INS

20th Century Plastics
1-800-767-0777
STOCK# PPV840-000

M/047/007
VERNAL PHOSPHATE



50th Century Plastics
1-800-767-0777
STOCK# PPV840-000