

October 30, 1984

TO: Coal File, Inspection and Enforcement File
 FROM: David Lof, Mining Field Specialist **DL**
 RE: Plateau Mining Company, Star Point Mines,
ACT/007/006, #7, Carbon County, Utah

DATE: August 22 and 23, 1984
 TIME: 11:30 a.m. - 6:00 p.m.; 10:00 a.m. - 4:15
 p.m., respectively
 WEATHER: Cloudy, Mild, Afternoon Thunderstorms
 COMPANY OFFICIAL: Ben Grimes
 STATE OFFICIAL: David Lof
 ENFORCEMENT ACTION: Cessation Order C84-4-3-1

Compliance With Permanent Performance Standards

UMC 771 et al. Permits

All coal permits and approval letters were available in the operator's mine office.

On June 27, 1984, the Division received from the operator additional information regarding Special Stipulations #6 and #10 which had been attached to the operator's January 21, 1982 final approval issued by OSM.

UMC 817.11 Signs and Markers

The mine identification sign posted at the entrance of the mine site contained all the pertinent information required.

UMC 817.21-.25 Topsoil

Waste Pile Expansion Area Subsoil

During a June 26, 1984 partial inspection conducted by myself and Tom Portle, Division soils scientist, the operator was asked to have a trench dug from the small undisturbed island in the PL5 soil class area toward the PL3 soil class area so that a determination could be made whether or not any more subsoil needed to be removed from this specific area. An inspection of the trench sides revealed that the operator had removed all the soil possible in that area. The operator had also cordoned off the PL2, PL3 and PL5 area above the refuse haul road. However, they had not installed straw bales along the toe of the slope on the east side of the PL5 area as requested.

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Topsoil Stockpile

Some topsoil had been added to the existing topsoil stockpile since my previous inspection. I asked Mr. Grimes where the topsoil had come from. He told me that it had been removed from the Sediment Pond #5 area during the enlargement of Sediment Pond #5.

UMC 817.41-.52 Hydrologic Balance

The week prior to the inspection, the operator received several small thunderstorms, ranging in size from approximately .2 to .4 inches each in about a one hour period or less. On Sunday, August 19, the operator received 1.7 inches of rain in approximately a one hour period. On the afternoon of the 22nd, while I was on-site, the operator received .25 inches of rain in about 20 minutes. These high intensity, short duration thunderstorms have caused a great deal of damage throughout the mine area. The fact that the operator received several of these storms in the last week accentuates the problem. Because the soil has become saturated most of the rain which is received becomes surface runoff.

Lion Deck

A small section of the berm from the outside edge of the Lion Deck which is opposite the south end of the shop had breached. The breach in the berm allowed runoff from the Lion Deck to flow down the slope toward Sediment Pond #1 leaving a gully approximately 10 feet wide at the top and several feet deep. The breached berm was caused by the large amount of precipitation received, and water ponding against the berm. Mr. Grimes committed to repairing the berm as soon as equipment and men could be freed from the larger and more significant problems caused by the recent thunderstorms.

On August 27, Bob Lauman called to tell me that they were working on the Lion Deck's disturbed and undisturbed area diversions.

Noncoal Waste Area

The loose straw filter at the inlet to the noncoal waste area culvert had almost been completely plugged and filled with sediment. The operator committed to addressing the problem as soon as men and equipment could be freed up.

Mr. Lauman told me on August 27 that they had replaced the straw bales with silt fence.

The downspout for the noncoal waste area culvert extends down the slope below the area approximately 150-200 feet where it outlets on to a rocky slope. Runoff from the recent thunderstorms caused excessive erosion to occur. I discussed this with Mr. Grimes. He said that they would extend the downspout the rest of the way down the slope.

Sediment Trap #5

There was excessive erosion below the outlet for Sediment Trap #5. I briefly discussed with Mr. Grimes the possibility of either extending a downspout from the culvert outlet, or implementing some method for dispersing water discharged from the pond across the slope rather than having a concentrated discharge point. Since the inspection, the operator has been working on plans to difuse, or spread, the water out over a larger area so it is not concentrated and causing erosion.

On August 30, 1984, Mr. Grimes called to see if I knew of any design criteria for a device to spread water over a large area. I did not, so I referred him to Division Hydrologist Tom Suchoski.

Sediment Pond #3

On July 18, 1984, the operator received Notice of Violation (NOV) N84-4-11-1 for failure to mine in accordance with an approved mine plan and failure to have all sediment ponds certified by a registered professional engineer. Sediment Pond #3 was one of three sediment ponds cited in the NOV. The remedial action required the operator to conduct mining activities in accordance with the approved mine plan and get the ponds certified by a registered professional engineer. The operator was given until August 10, 1984 to get the sediment ponds into compliance and September 7, 1984 for the certification of the sediment ponds.

On August 10, 1984, Mr. Grimes called to inform me that they had completed the work on Sediment Pond #3 in order to bring it into compliance with the approved mine plan. At the time of my inspection, I found that the pond had indeed been enlarged back to the truck turnaround pavement and deepened approximately four feet. Mr. Grimes told me that they had surveyed the pond upon completion of the excavation work and found that it is now in compliance with the approved design specifications.

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There was a low spot on the top of the sediment pond embankment, near the piezometer, where a small amount of water was ponding. I asked Mr. Grimes to have the top of the embankment graded in order to prevent ponding on top of the embankment.

#1 Mine Canyon Undisturbed Drainage

Runoff from Sunday night's storm had washed a great deal of debris down #1 Mine Canyon and plugged the trash rack of the 60-inch culvert which conveys the undisturbed runoff from this canyon under the access road to the Lion Deck. The debris consisted of duff, tree limbs, dirt and large rocks. A high water/debris line could be seen above the top of the culvert.

The operator had to use heavy equipment to clear the debris from the culvert inlet's trash rack. Because of this, the operator needs to reestablish the undisturbed ephemeral stream channel and line it. I suggested to Mr. Grimes that they install an additional trash rack approximately 50-100 feet upstream of the culvert inlet for the purpose of catching debris prior to its reaching the inlet to the culvert.

Borrow Area Sediment Trap

The berm separating the borrow area sediment trap from the #1 Mine Canyon undisturbed drainage was breached by Sunday night's storm leaving a hole approximately 14 feet wide in the berm and a gully down the short slope approximately five feet deep. Runoff was discharging from the sediment trap at the time of the inspection at approximately 5-10 gallons per minute and it appeared that it would meet settleable solids criteria. Mr. Grimes committed to installing some straw bales at the breach to help filter any runoff which passes through the sediment trap as an interim measure until they can free equipment to repair the breach.

Mr. Lauman told me on August 27 that they were working on the embankment.

On August 29, Mr. Grimes called to inform me that the berm for the borrow area sediment trap had been repaired.

Sediment Pond #5

As I discussed earlier, the operator received NOV N84-4-11-1 on the sediment pond on July 18, 1984. On August 10, Mr. Grimes called to inform me that they felt they were nearing completion of the excavation work needed in order to

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bring the sediment pond into compliance with the approved design specifications. I told him that as long as they were within the 90 day total time allowable for abatement of the violation, and they were working diligently to abate the NOV, there would be no problem extending the abatement deadline.

At the time of the inspection, I found that the size of the sediment pond had been vastly increased. Mr. Grimes told me that the pond had been surveyed that morning and he expected to know the following day (August 23) whether or not the pond had been enlarged enough.

When I talked to Mr. Lauman on August 27, he informed me that he had found out from their survey that additional excavation was needed. In order to excavate the sediment pond further, they were planning to use a drag line.

Tipple/Coal Yard

As Mr. Grimes and I drove into the coal yard area, it started to rain extremely hard. The thunderstorm lasted approximately 20 minutes and dumped .25 inches of rain at the lower mine office precipitation gauge.

When Mr. Grimes and I entered the coal yard prior to the storm, there was little, if any, runoff which could be seen in any of the diversions. After the thunderstorm had stopped and we got out of the truck there was literally runoff going everywhere.

During past inspections in this area, you used to have to step from railroad tie to railroad tie as you walked to the west end of the railroad car yard. So much soil and rock had been washed into the railroad car yard area during the recent thunderstorms that you could just see the tops of the rails, and they had been cleaned off.

Diversion #13

Undisturbed runoff, which would normally bypass sediment pond #4, was coming off the north slope above the railroad car yard. Apparently undisturbed Diversion #13 above the railroad car yard had been partially breached. However, we were not able to get up to the undisturbed diversion at that time to make sure that that was, in fact, the problem. Mr. Grimes said he would inspect the diversion in the next few days and take any steps necessary to correct the problem.

The 15-inch downspout west of the shop for undisturbed Diversion #13 was discharging at a rate greater than one cfs, which is the design peak flow.

Sediment Trap #10

Sediment Trap #10 was full and overflowing into disturbed area runoff Diversion #10.

Sediment Trap #6

Sediment Trap #6 above the tipple was overflowing through its spillway and over the face of its embankment. The overflow was coming down the slope on the east side of the shop and going into the drop inlet for undisturbed area Diversion #11. However, so much water was coming down that the inlet couldn't handle all of the runoff. The embankment of the sediment trap was severely damaged by headcutting. Mr. Grimes said they would try and repair the embankment as soon as the road up to the embankment and the embankment itself dried out enough so that they could get heavy equipment on it.

Mr. Lauman told me on August 27 that they were repairing the sediment trap.

Diversion #9

The 60-inch culvert which bypasses undisturbed runoff from both the #1 and #2 Mine canyons under the coal yard had been blocked by debris Sunday night, just like the other 60-inch culvert. The operator had cleared the debris from the culvert's trash rack prior to the inspection.

During the inspection there was so much undisturbed runoff coming down the riprapped undisturbed diversion above the culvert inlet that you could see six-inch diameter riprap being moved down the slope toward the culvert inlet. I discussed with Mr. Grimes the possibility of extending the inlet of the culvert to the west to get above the steep slope which is directly upstream of the culvert inlet to a flatter area and installing an additional trash rack upstream of the culvert inlet.

Runoff was entering the culvert at a rate of several cfs. When we looked at the outlet, there was a maximum of 30-40 gallons per minute discharging. Upon further inspection, we found two areas in the tipple yard where undisturbed runoff was bubbling up out of the ground from the undisturbed bypass system, which was obviously plugged. One area was on the south side of the railroad tracks, along the undisturbed culvert from the west side of the shop to the primary bypass culvert. However, the main problem area was just east of the transfer tower along the 60-inch culvert.

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Because the culvert was blocked, just about all the undisturbed drainage from both the #1 and #2 Mine canyons (550 acres) was going to Sediment Pond #4, which is designed for approximately 35 acres of combined undisturbed and disturbed area runoff. As soon as the problem was discovered, Mr. Grimes made arrangements for men and equipment to start working on uncovering the culvert immediately. I told Mr. Grimes that this was their #1 priority.

When I continued the inspection on the morning of August 23, the operator had at that time uncovered a manhole along the culvert and found a large amount of soil material and rocks inside the culvert. Mr. Grimes said that they were going to try to uncover the culvert and flush it with a high pressure hose.

On the morning of August 27, Mr. Lauman called me to say that they had pulled out approximately 80 feet of the culvert, established an open channel for the undisturbed drainage through this area, and diverted disturbed area runoff around this open channel. In addition, he said that they had ordered some galvanized steel pipe to replace the culvert which had been removed and expected to have it installed by August 29 or 30. On August 29, Mr. Grimes called to inform me that the new section of 60-inch culvert had been installed.

Sediment Trap #7

The majority of the runoff which passes through Sediment Pond #4 first passes through Sediment Trap #7 at the east end of the coal stockpile yard. The sediment trap was full and almost overtopping, in fact it was obvious that it had during Sunday's storm. The sediment trap was discharging at a rate of several cfs and eroding the inlet of the downspout to Sediment Pond #4. You could see where the runoff from Sunday's storm had overtopped the downspout washing out a portion of it and eroding at least a hundred cubic yards of fill material into Sediment Pond #4.

Mr. Lauman told me on August 27 that they had cleaned the sediment trap.

Sediment Pond #4

When we inspected the sediment pond on August 22, water was overtopping the sediment pond embankment at a rate of several cfs causing some headcutting on the face of the embankment. In addition, there was no water discharging from the emergency spillway. Apparently it have become clogged with debris which had been washed into the sediment pond.

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Because of the concern for the stability of the embankment and the possibility of continuing thunderstorms, I immediately had Mr. Grimes open up the dewatering device for the sediment pond. By dewatering the pond part way, we would stop water from overtopping the embankment and lower the level of the pond so that the emergency spillway could be unplugged. I told Mr. Grimes to decant the pond until the oil skimmer for the emergency spillway was uncovered, to not leave the decant open overnight and to have somebody monitoring the dewatering at all times.

When I returned to the mine the following day, I found that the pond had been dewatered to just below the emergency spillway's oil skimmer. The operator was able to remove the oil skimmer and clean the trash rack but was not able to replace the oil skimmer on the stand pipe. Mr. Grimes said that when they cleaned the trash rack that duff and twigs were packed so tightly around the oil skimmer that they were barely able to remove it.

At this time, it was also apparent that the operator needed to clean the sediment out of the sediment pond. Mr. Grimes said that he would contact the drag line contractor to see if he could start working on the sediment pond on Monday, August 27.

Sediment Trap #9

Sediment Trap #9 which is located by Sediment Pond #6 was full of sediment. Mr. Lauman told me on August 27 that they had cleaned it out.

Undisturbed Diversion #14

Mr. Grimes and I walked the entire length of the half-round culvert. We found that there were no problems along the north side of the culvert along the road. However, there had been extensive settling and piping along the half-round culvert on its south side, particularly in the area parallel with the Sediment Pond #6 embankment to a point 200-300 yards west. There was no apparent structural damage to the half-round culvert. The outlet and splash basin at the end of the diversion were in good condition.

The operator will have to backfill and compact along the south side of the half-round culvert where settling has occurred and provide some means for preventing the piping of

runoff along the half-round culvert. I discussed with Mr. Grimes the possibility of installing something similar to anti-seep collars at intervals along the culvert. He said that they would repair the half-round culvert as soon as possible.

Sediment Pond #6

The water level in the sediment pond was almost to the emergency spillway level. Mr. Grimes and I took a sample from the sediment pond to determine whether or not it could be dewatered. The amount of settleable solids in the sample was 15 ml/l which is a great deal higher than the .5 ml/l allowable.

Dewatering Sediment Ponds #4, #5 and #6

When Mr. Lauman called me on August 27, he said that they hadn't told the drag line contractor to come up yet because they wanted to lower the water level in Sediment Ponds #4 and #6 first. They planned on having the drag line contractor work on Sediment Ponds #4, #5 and #6 at the same time.

On August 28, Mr. Grimes called to see if he could get approval to dewater sediment ponds #4 and #6. Mr. Grimes said that he had taken settleable solid samples from the two ponds earlier in the day and found them to be in compliance. Sediment Pond #4 was less than .1 ml/l and Sediment Pond #6 was approximately .25 ml/l. After discussing the situation with Division Hydrologist Tom Suchoski, the operator was granted a verbal approval to decant sediment ponds #4 and #6 with the following stipulations:

1. That four settleable solids samples be taken during the dewatering process for each pond.
2. That any time the operator determined that the settleable solids standard of .5 ml/l was not being met, dewatering would cease immediately.
3. That the operator was required to submit, within one week of decanting, the results of the settleable solids sampling to the Division.
4. The operator conduct the dewatering of the sediment ponds in accordance with their NPDES permit.

This verbal approval was documented in a Memo to Coal File dated August 29, 1984.

Mr. Grimes said that he had also tried to take a sample from Sediment Pond #5 but when he opened up the gate to the dewatering device, no water came out. He thought the dewatering spillway may have become clogged with coal fines when the sediment pond was filled with slurry earlier this year. He planned to get the dewatering device spillway unplugged in the next couple of days and that if they couldn't unplug it he would telephone the Division to see if an alternative method for dewatering the pond could be agreed upon.

The water level in Sediment Pond #5 needs to be lowered so that:

1. it will have proper detention volume;
2. they can finish enlarging the pond; and,
3. the dewatering device spillway can be maintained.

On September 7, 1984, I received a letter from Mr. Grimes informing me of the results of their dewatering of the three sediment ponds. Sample results are as follows:

<u>Sample #</u>	<u>Pond #4</u>	<u>Pond #5</u>	<u>Pond #6</u>
1	0.1	0.1	0.25
2	0.1	0.1	0.1
3	21.0	0.1	0.1
4	--	0.1	0.1

*All figures are in ml/l.

According to Mr. Grimes, while he was decanting Sediment Pond #4, the outflow suddenly turned very dark so he took sample #3 and closed the dewatering device. He did not dewater the pond any further because he determined that the water was pulling sediment from the bottom around the dewatering device stand pipe.

In order to dewater Sediment Pond #5, they pumped the water from the surface discharging it into the manhole in the sediment pond embankment.

There were no problems dewatering Sediment Pond #6.

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UMC 817.52 Surface and Ground Water Monitoring

Surface and ground water data were available through June of 1984. There were no apparent problems with the data which were reviewed.

UMC 817.150-.176 Roads

#1 Mine Canyon Roads

Ponding was occurring once again on the Class III road to the old #2 Mine portals. The pond was 9-12 inches deep and approximately 100 feet long. The water was not ponding directly against the berm on the outside of the road. Mr. Grimes said they would regrade the area to alleviate the ponding problem.

Excessive erosion occurred in diversion ditch #7D which runs along the Class I road to the #1 Mine loadout. By looking at the high water marks along the ditch, it was apparent that a very large amount of water had flowed through the ditch. During previous inspections, it did not appear as though this diversion ditch needed to be lined because the hard shale material which forms the bottom of the ditch. As was evidenced by this storm, this shale as hard as it may appear, is erodable. However, I would not recommend that the ditch be lined because of the amount of water which passed through the diversion was much greater than what it was designed to handle.

The Class II road from the #1 Mine pad down to Sediment Trap #6 had held up very well. The operator had previously had problems with erosion on this road surface.

Cessation Order C84-4-3-1

While inspecting the Unit Train Loadout area, I noted an access road which originated from State Highway 50, just to the west of where it crosses the Utah Railway tracks, traveling through the pinyon-juniper flat for about 1,650 feet and down to the Utah Railway tracks. According to Mr. Grimes, this road is on a BLM right-of-way and was built last year for the purposes of access for: construction of the Unit Train Loadout site; geotechnical work; and, the railroad.

Upon returning to the mine office, I reviewed the BLM Right-of-Way, U-48030, dated June 1, 1982. The right-of-way was in Plateau's name and the application had been made on November 23, 1981. On October 11, 1982, Plateau requested approval from the BLM to construct a temporary access road in

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order to conduct geotechnical analysis at the Unit Train silo site. It was stated that the road would serve as a pilot road for the permanent access road to the Unit Train site. In addition, they committed to removing topsoil from the road. On October 19, 1982, BLM responded giving them approval for the road.

I asked Mr. Grimes if they had received approval from the Division for the road and he said no, they had not. The road is located outside of the operator's permit area boundary. Because this activity was not a coal exploration activity, as per the definition found in the regulations, and the operator was operating outside their permit area without approval from the Division, Cessation Order (CO) C84-4-3-1 was issued. It reads as follows:

Nature of Condition, Practice or Violation:

Conducting underground coal mining activities without Division approval.

Provisions of the Regulations, Act or Permit Violated:

UCA 40-10-9
UMC 771.19

Operation to be Ceased Immediately:

All use of the temporary access road constructed on BLM Right-of-Way, U-48030, and approved by the BLM on October 19, 1982.

Affirmative Obligation and Time for Abatement:

- A. Cease operations immediately.
- B. Submit complete plans to the Division for the permitting of the access road by September 18, 1984 at 5:00 p.m.

The CO was issued from the Division offices on August 31, 1984.

On September 6, 1984, I received a phone call from Mr. Dan E. Martin, Superintendent of Utah Railway Company, to inform me that the road was the only access road available to their construction crews working in that immediate area, the only other access for the crews was by rail. He informed me that should an emergency occur, it would be necessary to use that access road. I told him that as long as they had permission

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from the BLM to use the access road they could use the road. On September 6, 1984, I received a letter from Mr. Martin documenting our telephone conversation.

On September 18, 1984, Joe Helfrich issued a Modification of Order for the CO. The modification extended until September 28, 1984 the abatement deadline for the CO.

After discussions with Division personnel and Mr. Grimes who indicated that Plateau wanted to simply reclaim the road rather than maintain it as an access road, I issued a Modification of Order which changed the Affirmative Obligations and Time for Abatement section of the CO to read:

- A. Cease operations immediately.
- B. Submit complete plans to the Division for the reclamation of the road by October 2, 1984.

On October 2, 1984, the Division received plans for the reclamation of the access road.

btb

cc: Donna Griffin
Ben Grimes
Joe Helfrich
Sue Linner
Bart Kale

Statistics:

See Consolidation Coal Company's Emery Deep Mine memo dated October 19, 1984

0541R-1-13