

0010

file A91015/009 #3



Diamond Shamrock
Coal Company

June 16, 1986

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**DIVISION OF
OIL, GAS & MINING**

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Mr. Wayne Hedberg
State of Utah
Division of Oil, Gas and Mining
355 West North Temple
3 Triad Center/Suite 350
Salt Lake City, Utah 84180-1203

RE: Request for change in Hydrological Monitoring Program - TMCC ACT/015/009

Dear Wayne;

In response to your letter of June 3, 1986, I am submitting to you and the Division a corrected version of Attachment I.

In this update of Attachment I, the North Fork of Cottonwood Creek (monitoring locations SW-1, SW-2, and SW-3) will be monitored monthly for field measurable parameters (ie discharge, PH, specific conductivity, temperature and dissolved oxygen).

Once again we request to enter into an operational phase monitoring program. The enclosed material is formatted for insertion into the approved Trail Mountain Coal Company Mining and Reclamation Plan upon approval of the Division.

If you need further information or have any questions concerning this matter, please feel free to contact me at 748-2140.

Sincerely;

TRAIL MOUNTAIN COAL COMPANY

Allen P. Childs
Mine Engineer

Enclosures

APC/gg

AMENDMENT TO

APPROVED Mining & Reclamation Plan
Approved, Division of Oil, Gas & Mining

by D.W. HEDBERG date 6/01/86
recommended by D. Wham

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MRP AMENDMENT
OPERATIONAL PHASE MONITORING PROGRAM
TRAIL MOUNTAIN COAL COMPANY

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ATTACHMENT I

SURFACE WATER

SW-1, SW-2, AND SW-3

TRAIL MOUNTAIN MINE, COTTONWOODCANYON

PERENNIAL STREAM - NORTH FORK OF THE COTTONWOODCREEK

FIELD MEASUREMENTS: MONTHLY

Discharge
PH
Specific conductivity
Temperature (Air and Water)
Dissolved Oxygen

LABORATORY MEASUREMENTS: QUARTERLY

Total Settleable Solids
Total Suspended Solids
Total Dissolved Solids
Total Hardness (as CaCO_3)
Acidity (CaCO_3)
Carbonate (CO_3^{2-})
Bicarbonate (HCO_3^-)
Calcium (Ca)
Chloride (Cl^-)
Dissolved Iron (Fe)
Total Iron (Fe)
Magnesium (Mg)
Total Manganese (Mn)
Potassium (K)
Sodium (Na)
Sulfate (SO_4^{2-})
Oil and Grease
Cation - Anion Balance

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ATTACHMENT II

SPRINGS

TM-21-1, TM 22-1 AND TM 23-1

TRAIL MOUNTAIN MINE - COTTONWOODCANYON

AND THE TOP AND TRAIL MOUNTAIN

FIELD MEASUREMENTS: Four samples per annum when weather conditions permit

Discharge
PH
Specific conductivity
Temperature (Air and Water)

LABORATORY MEASUREMENTS: Four samples per annum when weather conditions permit

Total Dissolved Solids
Total Hardness (as CaCO_3)
Carbonate (CO_3^{2-})
Bicarbonate (HCO_3^-)
Calcium (Ca)
Chloride (Cl^-)
Dissolved Iron (Fe)
Magnesium (Mg)
Manganese (Mn)
Potassium (K)
Sodium (Na)
Sulfate (SO_4^{2-})

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ATTACHMENT III

GROUND WATER

UG-1 - TRAIL MOUNTAIN MINE

FIELD MEASUREMENTS: QUARTERLY

Discharge
PH
Specific conductivity
Temperature (Air and Water)

LABORATORY MEASUREMENTS: QUARTERLY

Total Dissolved Solids
Total Hardness (as CaCO_3)
Carbonate (CO_3^{2-})
Bicarbonate (HCO_3^-)
Calcium (Ca)
Chloride (Cl^-)
Dissolved Iron (Fe)
Magnesium (Mg)
Manganese (Mn)
Potassium (K)
Sodium (Na)
Sulfate (SO_4^{2-})

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ATTACHMENT IV

OBSERVATION WELL

TM-1 (SURFACE LOCATION)

TM-2 (UNDERGROUND LOACAITON)

TRAIL MOUNTAIN MINE

FIELD MEASUREMENTS: QUARTERLY

Level
PH
Specific Conductivity
Temperature

LABORATORY MEASUREMENTS: QUARTERLY

Total Dissolved Solids
Total Hardness
Aluminum
Arsenic
Barium
Baron
Carbonate
Bicarbonate
Cadmium
Calcium
Chloride
Cromium
Copper
Flouride
Dissolved Iron
Lead
Magnesium
Manganese
Mercury
Molybdenum
Nickel
Nitrogen: Ammonia
Nitrate
Nitrate
Potassuim
Phosphate
Selenium
Sodium
Sulfate
Sulfide
Zinc

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After two years of Baseline Monitoring, Trail Mountain Coal Company will request of the Division to enter into the operational phase hydrological monitoring with reduced parameter.