industrial processes may remain at the site and contaminate storm water discharges. The areas at inactive surface or underground coal mines which are included in the storm water regulation include former locations of: conveyor belts, chutes, and aerial tramways; equipment storage and maintenance yards; coal preparation plants; and coal handling buildings and storage areas.

Inactive mine sites are regulated because significant materials remain onsite. The significant materials include, but are not limited to: coal piles, including coal refuse piles; used and old equipment, including boneyards; overburden; waste disposal sites; and waste materials. In addition, in certain areas where machinery has been intensively used or abandoned, waste lubricating fluids, solvents, and contaminated soils may be present. These materials are typically present outdoors and are exposed to storm water discharges.

2. Pollutants Found in Storm Water Discharges

Impacts caused by storm water discharges from active haul roads, access roads and rail lines and inactive coal mine and coal mining-related facilities will vary. Several factors influence to what extent significant materials from coal mines and coal mining-related facilities may affect water quality. Such factors include: geographic location; hydrogeology; the type of coal extracted; the mineralogy of the extracted resource and the surrounding rock; how the coal was extracted; the type of industrial activities occurring onsite; the size of the operation; and type, duration, and intensity of precipitation events. Each of these, and other, factors will interact to influence the quantity and quality of storm water runoff. For example, overburden may be a significant source of pollutants at some facilities, while storage areas are a primary source at others. In addition, sources of pollutants other than storm water, such as illicit

connections, 60 spills, and other improperly dumped materials, may increase the pollutant loads discharged into waters of the United States.

Storm water discharges from haul roads of active sites and inactive mine sites may include many of the pollutants common to active coal mining operations. These pollutants may include acids, suspended solids, dissolved solids, iron, manganese, and traces of other metals. Table H–1 indicates the pollutant sources and pollutants for a number of industrial activities for coal mines authorized by this section.

Another problem at coal mines is acid mine drainage. In general, the problems of acid mine drainage are confined to western Maryland, northern West Virginia, Pennsylvania, western Kentucky, and along the Illinois-Indiana border. Acid mine drainage is not a problem in the West because the coals and overburden contain little pyrite, the precursor for acid mine drainage, and because of low annual precipitation.

TABLE H-1.—ACTIVITIES, POLLUTANT SOURCES, AND POLLUTANTS

Activity	Pollutant source	Pollutant						
Road and Rail Construction and Maintenance—Active Sites.	Surface grading and exposure of soils	Dust, TSS, TDS, turbidity, pH.						
Raw or Waste Material Transportation.	Material spills	Dust, TSS, TDS, turbidity, pH, sulfates, iron.						
Location of Mining and Processing Activities at In- active Coal Mines.	Raw Material Storage	Dust, TSS, TDS, turbidity, pH sulfates, iron.						
	Waste Rock Storage Disposal Areas Surface and Underground Mines Materials Handling and Loading/Unloading	Dust, TSS, TDS, turbidity, sulfates, iron, pH. Dust, TSS, TDS, turbidity, pH, oil & grease. Dust, TSS, TDS, turbidity, pH, sulfates, iron. Dust, TSS, TDS, turbidity, pH, sulfates, iron.						
Equipment/Vehicle Mainte- nance.	Fueling Activities	Diesel fuel, gasoline, oil, COD.						
	Parts Cleaning							
Reclamation Activities	Site preparation for stabilization	Dust, TSS, TDS, turbidity.						

Based on the similarities of the facilities included in this sector in terms of industrial activities and significant materials, EPA believes it is appropriate to discuss the potential pollutants at coal mining facilities as a whole and not subdivide this sector. Therefore, Table H–2 lists data for selected parameters from facilities in the coal mining sector. These data include the eight pollutants that all facilities were required to monitor for under Form 2F, as well as the pollutants that EPA determined merit further monitoring.

TABLE H-2.—STATISTICS FOR SELECTED POLLUTANTS REPORTED BY COAL MINES AND COAL MINING-RELATED FACILITIES SUBMITTING PART II SAMPLING DATA; (mg/L)

Pollutant Sample type	No. of Facilities		No. of Samples		Mean		Minimum		Maximum		Median		95th percentile		99th percentile	
	Grab	Compii	Grab	Comp	Grab	Comp	Grab	Comp	Grab	Comp	Grab	Comp	Grab	Comp	Grab	Comp
BOD ₅	16	7	19	8	3.1	3.5	0.0	0.0	9.0	17.4	3.0	1.0	15.0	14.4	33.1	33.9
COD	21	11	25	12	22.9	18.8	0.0	0.0	275.0	115.0	0.0	4.0	102.0	86.9	237.5	184.6
Nitrate + Nitrite Nitrogen	17	10	20	10	0.38	0.68	0.00	0.00	3.12	3.12	0.00	0.17	1.85	3.55	3.45	8.60
Total Kjeldahl Nitrogen	18	11	21	12	1.55	1.78	0.00	0.00	5.20	7.40	0.66	0.39	10.33	10.25	32.01	31.31
Oil & Grease	27	N/A	31	N/A	1.7	N/A	0.0	N/A	13.9	N/A	1.0	N/A	6.5	N/A	13.6	N/A
pH	29	N/A	33	N/A	N/A	N/A	5.9	N/A	8.9	N/A	7.0	N/A	8.6	N/A	9.3	N/A
Total Phosphorus	18	l 9	20	9	0.36	0.08	0.00	0.00	5.90	0.58	0.00	0.00	1.40	0.61	5.00	1.37

⁶⁰ Illicit connections are contributions of unpermitted non-storm water discharges to storm sewers from any number of sources including

sanitary sewers, industrial facilities, commercial establishments, or residential dwellings. The probability of illicit connections at coal mines and

coal mining related facilities is low yet it still may be applicable at some operations.