

**SITUATION REPORT
INCIDENT COMMAND POST GOLD KING
GOLD KING MINE RELEASE INCIDENT
U.S. ENVIRONMENTAL PROTECTION AGENCY**



Red & Bonita Settling Ponds (3 September 2015)

Subject: EXECSUM / SITREP #24
Gold King Mine Release Incident
San Juan County, Colorado
Latitude: 37.8945 Longitude: -107.6384

From: Situation Unit, Incident Command Post Gold King
Date: 4 September 2015
Reporting Period: 0700 3 September 2015 through 0700 4 September 2015
Website: www.epa.gov/goldkingmine



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EXECUTIVE SUMMARY

Situation Summary

United States Environmental Protection Agency (U.S. EPA) Incident Command Post Gold King (ICPGK) is comprised of U.S. EPA Regions 8, 6 and 9. ICPKG is continuing strategic management of the response Unified Incident Command Posts (ICPs).

Highlights, Key Updates/Changes

- Area Command and Incident Command Posts (ICP) for U.S. EPA Regions 8, 6 and 9 completed its consolidation into ICPGK.
- ICPGK is monitoring drinking water samples collected, analytical results and dissemination of results within Region 8 and Region 6.
- ICPGK continues to monitor relations with the Navajo Nation.

Objectives

- Ensure health and safety of the public and responders.
- Continue implementation of private well sampling and water deliveries.
- Establish strategy for **exceeded** private wells.
- Continue coordination with Federal, State, Tribal and local stakeholders.
- Continue management of mine water discharge.
- Continue mine dump and portal stabilization.
- Assess sediment impacts.
- Identify incident end points.
- Implement river alert and notification plan during mine site operations.
- Explore real time monitoring options.
- Continue water and sediment sampling along the Animas and San Juan Rivers.
- Evaluate need for delivery of feed for livestock on Navajo Nation.

Command Emphasis

For the next operational period, the ICPGK command emphasis will be:

- Safety of responders and the public
- Visitors to the mine site are required to go through a safety briefing.
- Incident personnel entering Southern Ute Tribal (SUT) lands must be escorted by a SUT member.
- All sampling operations in Navajo Nation must be conducted with law enforcement escort.
- Ensure information flow between ICP and Stakeholders is transparent.

The metrics provided in this Situation Report represent quantities reported for work completed on 3 September 2015. Press releases are presented in Attachment 1. **Metrics table cells and report text highlighted in yellow represent a change/addition from the previous day's Situation Report.**



1.0 BACKGROUND

The Gold King Mine (GKM) near Silverton, Colorado is a historic gold mine at an elevation of approximately 11,300 feet above mean sea level. The mine discharge includes acidic mine drainage that is a contributor of heavy metals into the Cement Creek drainage of the Animas River watershed. The GKM workings have been inaccessible since 1995 when the mine portal collapsed.

On 5 August 2015, an estimated volume of up to three million gallons of water containing sediment and dissolved metals was suddenly released from the Gold King Mine adit. This water discharged into Cement Creek which feeds into the Animas River, and eventually flows into the San Juan River.

The ICPKG (located in Durango, Colorado) continues to assess and mitigate effects from the release. The U.S. EPA continues daily sampling of surface water and sediment from the Animas River, San Juan River and Cement Creek. Additionally, U.S. EPA continues to schedule sampling of private wells within an alluvial area surrounding the Animas River.

2.0 OPERATIONS

2.1 Mine Operations

A summary of mine operations is presented below.

- Lime addition is ongoing (8lbs every 10 min); flocculent used if needed.
- Automated lime hopper is being used to dispense lime.
- Diverting Gold King mine water to the Red and Bonita (R&B) settling ponds.
- Monitoring of treatment process at 5 locations twice daily. Average flow rate of approximately 517 gallons per minute (gpm) and pH of 3.67 S.U. at 15:15.
- Construction of the Gladstone settling ponds 1 to 4.
- Installed oil boom modified with felt liner to act as sediment curtains and dissipate the energy flow of water through the R&B ponds.
- Bolts and wire mesh are being installed in and around the adit/portal to the Gold King Mine in an effort to stabilize area.

2.2 Sampling

Operational activities for surface water and sediment sampling are summarized below. Sample quantities are based on the SCRIBE database, and include field samples and quality assurance/quality control (QA/QC) samples.

Matrix	U.S. EPA Region	Qty. (3 Sep 2015)	Qty. (Cumulative)
Surface Water Samples	8	8	351
	6	9	297
	9	5	239
Sediment Samples	8	8	129
	6	11	313
	9	5	192



2.3 Private Wells

Operational activities for private drinking water well sampling are summarized below.

The assessment focus area for private drinking water wells in Region 8 includes those private drinking water wells located within 300 feet of the banks of the Animas River (including connected canals), between Baker’s Bridge and the Colorado/New Mexico state line. The assessment focus area for private drinking water wells in Region 6 includes those private drinking water wells located within 500 feet of the banks of the affected waterways (Animas River, San Juan River and connected canals) within the Animas River watershed in New Mexico. There has been no sampling of private drinking water wells in U.S. EPA Region 9.

Private well samples that have metals concentrations greater than the Maximum Contaminant Levels (MCLs) and were collected from private drinking water wells during the first sampling event were sampled a second time to confirm the analytical results. In Region 8, the second round of samples at a given property were collected from the tap. Residents that have MCL exceedances have been notified.

A summary of private drinking water well sampling is presented below.

Matrix	U.S. EPA Region	Qty. (3 Sep 2015)	Qty. (Cumulative)
Private Drinking Water Well Samples Collected (from SCRIBE, includes QA/QC samples)	8	2	357
	6	0	285
Private Drinking Water Well Locations Inside Focus Area	8	3	45
	6	0	120
Private Drinking Water Well Locations Outside Focus Area	8	0	250
	6	0	0

Matrix	U.S. EPA Region	Qty. (3 Sep 2015)	Qty. (Cumulative)
Within Focus Area: Private Drinking Water Wells Containing Contaminant Concentrations Above MCLs during Second Sampling Event	8	0	1
	6	0	7
Outside of Focus Area: Private Drinking Water Wells Containing Contaminant Concentrations Above MCLs during Second Sampling Event	8	0	9
	6	0	0

Private water well sampling in U.S. EPA Region 6 was completed on 27 August 2015 and is no longer ongoing in U.S. EPA Region 6.

2.4 Mitigation

2.4.1 Water

No public water systems are currently affected by the release or response operations.



U.S. EPA purchased 1,232 cases of bottled water to supply the community. Public support activities completed are summarized below.

Activity	U.S. EPA Region	3 Sep 2015			Cumulative		
		Deliveries (each)	Qty. (gal)	Qty. (hay bales)	Deliveries (each)	Qty. (gal)	Qty. (hay bales)
Potable Water Deliveries	8	0	0			62,000	
Livestock / Agricultural Water Deliveries	8	0	0		47	141,980	
	6				59	1,104,990	
	9	0	0		13	218,400	
Agricultural Food Deliveries	6				1		244
	9	0		0	14		5,376

Bulk water delivery in Region 8 has been discontinued. Bottled water was also provided to 3 residences in Region 8. The Navajo Tribal Utility Authority has been handling water deliveries in Region 9. The Region 6 agriculture and livestock team demobilized on 20 August 2015. There have been no potable water deliveries by the U.S. EPA in Regions 6 and 9; nor agricultural food deliveries by U.S. EPA in Region 8.

The Southern Ute Indian Tribe (SUIT) has delivered drinking and stock water to tribal members within the Reservation boundary. Approximate volumes to-date include:

- 100 cases of bottled water
- 18 water dispensers units and 42 – five-gallon water containers (210 gallons total).
- 8,000 gallons of bulk water deliveries (there have been no new requests in the past two weeks)

SUIT Tribal Housing Services completed the installation of 14 RO filtration systems at potentially impacted tribal residences.

2.4.2 Other Mitigation Activities

U.S. EPA continues to conduct twice daily water quality field parameters measurements at Little Fishes, LLC and forwarding results to the owner. U.S. EPA continues to remove sediment in the trout ponds for a resident along the Animas River.

The U.S. EPA provided analytical results of well-head sampling for the Tranquillo Canyon community to the well caretaker. Analytical results were below Maximum Contaminant Levels (MCLs) and so shipment of water to the Tranquillo Canyon community cistern was discontinued.

2.4.3 Water Tank Assessment

On or about 15 August 2015, 15 black steel tanks were delivered by the ERRS contractor to certain locations on the Navajo Reservation as part of the response to the Gold King Mine (GKM) Site. Each of these tanks is reported to have a capacity of 16,500 gallons. Until 4 September 2015, the number of tanks delivered had been reported as 13, but it was reported to the EPA OSC on 4 September 2015, that there were two additional tanks that had not previously been reported. These two tanks had been ordered by R6 personnel and were not being tracked by R9 personnel. On 4 September 2015, the EPA OSC confirmed the presence of these two additional tanks.



On 19 August 2015, two tanks at the Upper Fruitland location were removed by the ERRS contractor. On 3 September 2015, the OSC and START conducted an assessment of the 11 known tanks (this did not include the two tanks that had not been reported until September 4).

The Bureau of Indian Affairs (BIA) delivered water to these tanks. Metrics for water volumes will follow in future SITREPs.

3.0 PLANNING

3.1 Environmental Unit

The following post-sampling documents have been issued.

Activity	U.S. EPA Region	Qty. (3 Sep 2015)	Cumulative
Validated Analytical Results Letter to Private Drinking Water Well Owners (no MCL exceedance) (Validation date on or before 15 August 2015)	8	0	17
	6	0	0
	9	N/A	N/A

The following data was sent to HQ EU to be posted to www.epa.gov:

- Region 8 sediment data (8 samples), surface water data (8 samples) and potable water data (2 samples).
- Region 6 sediment data (11 samples) and surface water data (9 samples)
- Region 9 sediment sample data (5 samples) and surface water data (5 samples).

The Environmental Unit (EU) also created a list of non-exceedance (of MCLs) private well owners that have not yet been contacted and forwarded the list to U.S. EPA Region 8 Drinking Water Senior Environmental Employees for direct phone contact. The list has a target of 319 phone contacts. U.S. EPA started making these calls on 3 September, 2015.

3.2 Resources

The table below summarizes staffing numbers for the federal entities and agencies active in the response.



Region	Agency / Entity	Number of Personnel (3 Sep 2015)
Mine	U.S. EPA	3
	U.S. Coast Guard	6
	U.S. EPA Contractors	22
	U.S. Army Corps of Engineers	2
	U.S. Geological Survey	2
	U.S. Bureau of Reclamation	2
ICPGK	U.S. EPA	29
	U.S. EPA Contractors	19
	USCG	4
	Other Federal, State, Local and Tribal Entities	2
6	U.S. EPA	13
	U.S. EPA Contractors	12
	USCG	0
	Other Federal, State, Local and Tribal Entities	0
9	U.S. EPA	1
	U.S. EPA Contractors	2
	USCG	0
	Other Federal, State, Local and Tribal Entities	0
Total		119

No unmet critical resource needs reported.

4.0 FINANCE

4.1 Estimated Response Costs to Date

The table below summarizes estimated costs for the response.

Region	U.S. EPA * Cumulative Expended Payroll	U.S. EPA Cumulative Expended Travel	U.S. EPA Cumulative Other Charges	U.S. EPA Cumulative Contractors Cost	Total Cumulative Costs
8	\$738,927	\$147,153	\$18,886	\$2,436,000	\$3,340,966
6	\$472,642	\$119,350	\$12,989	\$2,334,013	\$2,938,994
9	\$517,440	\$78,000	\$0	\$879,796	\$1,475,236
TOTAL	\$1,729,009	\$344,503	\$31,875	\$5,649,809	\$7,755,196

4.2 Estimated Burn Rates

The table below summarizes current estimated burn rates for the response.



U.S. EPA Region	Estimated Daily Burn Rate (as of 3 Sep 2015)
8	\$137,760
6	\$49,400
9	\$60,816
Total	\$247,976

5.0 LOGISTICS

Nothing to report.

6.0 SAFETY

The safety focus was vehicular traffic and weather. Personnel were encouraged to take extra caution when driving in rain and to anticipate slippery conditions when walking in parking lots or on job sites. Site personnel were also reminded of the tourist traffic expected in the area during the upcoming holiday weekend.

ICPKG has a Critical Incident Stress Management (CISM) program for personnel involved with the response. On 3 September 2015, the CISM center received 0 visits from response personnel. To date, the CISM center has received 200 visits.

No recordable accidents were reported.

7.0 PUBLIC INFORMATION

7.1 Community Engagements

The following community engagements occurred on 3 September 2015:

- Shaun McGrath, Region 8 Administrator, and Doug Ammon, Chief, Site Assessment and Remedy Decisions Branch, met with the La Plata County Commissioners to discuss Superfund and NPL Listing.

Community engagements reported are summarized below.

Description	U.S. EPA Region	Qty. (3 Sep 2015)
Community Engagements	8	1
	6	0
	9	0



7.2 Anticipated Events: VIPs/Congressional Visits and Public Events

Known site visits and public events for the next 7 days are summarized below.

Table 9 - Anticipated Site Visits and Public Events Summary	
Planned Event	Anticipated Date
Response update presentation to San Juan County Commission, including long-term options and consideration of NPL.	4 September 2015

7.3 Community Relations Branch

Effective 27 August 2015, calls to the Regional Call Center (970-385-8700) regarding the Gold King Mine Release Incident are being directed to the National Call Center (844-607-9700). The National Call Center is now being operated by U.S. EPA Headquarters. A total of 809 calls were received at the Regional Call Center during its operation by former Area Command (AC). A total of 223 calls were received at the National Call Center during its operation by AC, this included 120 calls related to Region 8, 67 calls related to Region 6 and 38 calls related to Region 9.

8.0 LIAISON

Federal, regional, local and other entities participating in the response are summarized below.

- U.S. EPA
- U.S. Coast Guard (USCG)
- U.S. Fish and Wildlife Services (USFWS)

- Colorado Office of Emergency Management (OEM)
- Colorado Department of Public Health and Environment (CDPHE)
- New Mexico Environment Department (NMED)
- New Mexico (NM) Department of Health
- NM Office of the State Engineer
- NM Department of Game and Fish
- State of Utah
- State of Arizona

- City of Durango
- La Plata County
- San Juan County
- San Juan Basin Health Department
- County of San Juan – New Mexico

- Southern Ute Indian Tribe (SUIT)
- Navajo Nation

9.0 SOURCE OF ADDITIONAL INFORMATION

For additional information, refer to www.epa.gov/goldkingmine .



**ATTACHMENT 1
PRESS RELEASE**



Exec. Sum/SITREP #24 (4 September 2015)
Gold King Mine Release Incident
ICP Gold King

NO PRESS RELEASES FOR 3 SEPTEMBER 2015
