

Appendix A

Five-Year Review Community Interviews Summary, Individual Interview logs & Announcement Advertisement

Kennecott OU-3 and OU-18 Community Involvement Interviews Summary

During the five-year review community interviews were conducted to evaluate all remedy components. Interviews were conducted with elected officials, city officials, and property owners with remediated properties.

None of those interviewed for Operable Unit 3 expressed the existence of health or environmental concerns with the remedy over the last five year period. Most felt the remediation work was unnecessary from the beginning, with little evidence of elevated blood-lead samples or other sampling correlating contaminated properties to health impacts upon life-long residents. The most commented issue with those interviewed focused primarily on the use of poor quality backfill soils during the landscaping portion of the cleanup. Most said attempts to fertilize or till the replacement soil was futile and the backfill had a very poor nutrient content. Nearly everyone said the soil was filled with "larger-than-gravel" rocks and compacted to such a degree nothing grows in cleanup areas years later.

City officials felt the cleanup had hardships in the beginning. Balancing institutional controls with rapidly growing development demands has not been a long term issue over the last five years. The Mayor and Engineering Department representatives felt that the City's protective measures are established and working well now. These procedures address the need for property owners or developers to perform remediation on properties with elevated concentrations of lead and arsenic above selected land use standards. Detailed records of cleanup areas and other records associated with the selected remedy are available to the public at City Hall.

The Mayor said the anticipated stigma of the Superfund action devaluing property values has never really materialized. The Community of Herriman has approximately 20,000 residents compared to the 1,500 residents during the time of the cleanup and Superfund could not be considered a deterrent. The Mayor said a lot of land has changed hands in Herriman over the last 10 years including some previously contaminated properties.

One issue of concern mentioned by the City and private property owners is that the previous removal actions (or the selected remedy) did not address the contamination universally or sufficiently. The expense property owners now face selling or placing a single family home on small acre lots is viewed as unreasonable and unaffordable (because of required further cleanups pursuant to proposed land use changes). Some of the property owners could not understand how the undeveloped land was classified contaminated by the EPA and then the EPA only required some properties to be cleaned up. The citizens felt that any property still considered contaminated needs to be cleaned up, and the mining company should be held responsible by EPA until all areas of contamination are cleaned universally.

As for Operable Unit 18, Kennecott and Tooele County officials were interviewed regarding the Middle Canyon and Butterfield Canyon cleanup areas. Tooele County officials were familiar with the Middle Canyon site, Water Supply Tunnel and Water Supply Tunnel Dump, and had no reason to feel the area was not protective of human health and the environment.

Drainage of runoff water from Middle Canyon is a concern for Tooele County because of heightened awareness of mine related impacts from another recently completed Superfund site (i.e. International Smelter) where potentially arsenic contaminated surface water was investigated. It was noted by UDEQ that no evidence was ever determined to characterize a surface or groundwater impact from the Water Supply Tunnel or Water Supply Tunnel Dump (or the other tunnels and dump of OU18). Erosion of the Water Supply Tunnel Dump is prevented

and access to the top surface of the Water Supply Tunnel Dump by motorized vehicles is prevented by a series of boulders and jersey barriers. The Water Supply Tunnel Dump is accessible to recreational trespassers. Tooele officials were in the area last summer and did not see anything out of the ordinary regarding the current controls in place.

As it pertains to the Butterfield Canyon area (both the removal area and current active mining areas on Kennecott property), the Kennecott representative interviewed stated everything is functioning as designed as far as current waste rock dump runoff barriers. Only occasional debris flows need to be removed from the barriers and required sampling has not shown any evidence of runoff water bringing contaminated soils further down Butterfield Canyon.

Contact:
Michelle Facer-Baguley
Herriman City Council Member
13011 So. Pioneer St.
Herriman, UT 84096
Phone: 801.446.5323

KENNECOTT OU-3
FIVE-YEAR REVIEW QUESTIONS

What do you know and how long have you been involved with the Butterfield Creek-Herriman clean up? Ms. Michelle Baguley is familiar with the history of the area. Ms. Baguley is currently a Herriman City Council Member (since 1999) and a Herriman resident since 1992. Ms. Baguley has experienced the cleanup from the beginning of the Superfund process and even worked on another Utah Superfund site as a Technical Assistance Grant (TAG) Administrator for Midvale. Ms. Baguley was also the coordinator for the Herriman TAG group, Herriman Residents for Responsible Remediation and is currently a member of the Kennecott South Zone Technical Review Committee.

Do you have any *personal* concerns regarding the clean up? Are you aware of any *community* concerns? Since the cleanup, Ms. Baguley has not had any health or environmental concerns regarding the remedy and feels safe guards are in place to handle future growth issues. Herriman has grown from 1,500 residents to nearly 20,000 today. Ms. Baguley said undeveloped properties are detailed in City plans for future development consideration and through necessity, Herriman, is now more experienced to deal with contaminated soils. Ms. Baguley feels the remedy is protective and does not inhibit development.

Information is available detailing the cleanup work (for the community) including commercial and residential maps showing where elevated concentrations of lead and arsenic still exist, and "clean letters" from EPA. This information is housed at the City offices. Ms. Baguley also said that the once rocky relationship with EPA and UDEQ, at the beginning of the cleanup, is now considered productive with good communication.

As for community concerns, the main hardship heard most often by Ms. Baguley is a legacy of poor quality backfill soil used during the initial removal projects. Nothing seems to grow in the backfill soils used and for a farm/rural community this is hard to accept. Ms. Baguley said quality soil would have helped the perception of a worth while cleanup even if most of the citizens felt the lead soil cleanup was forced upon them and unnecessary to protect health in any case.

Have you noticed anything going on in the area that you believe might have damaged or compromised the remedy? Ms. Baguley feels the City has preventative measures in place and does not believe anything will or has compromised the remedy. Ms. Baguley mentioned property transactions were supposed to record cleanup work on property deeds and does not know for sure if the County is currently doing this.

Do you have any additional comments, suggestions or questions regarding the clean up? Ms. Baguley suggested a number of Herriman property owners to speak with and suggested that UDEQ speak with Salt Lake County for more information on cleanup issues within their jurisdiction..

Interviewed By: Dave Allison and Doug Bacon, Utah Department of Environmental Quality.

Contact:

Almon Butterfield
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Herriman, UT, 84065
(801) 254-4841

&

Rodney Dansie
7198 West 13090 South
Herriman, UT, 84065
(801) 254-4364

KENNECOTT OU-3
FIVE-YEAR REVIEW QUESTIONS

What do you know and how long have you been involved with the Butterfield Creek-Herriman clean up? Mr. Almon Butterfield and Mr. Rod Dansie are lifelong residents of the Herriman community and own substantial undeveloped property in/near the City of Herriman. Both are owners of an irrigation water company providing water to the area.

Do you have any personal concerns regarding the clean up? Are you aware of any community concerns? Mr. Almon Butterfield did not have any concerns related to health and the environment before or after the cleanup. Mr. Butterfield is unsatisfied that EPA let Kennecott dictate parameters of the cleanup. Mr. Butterfield believes the cleanup was ridiculous; the soils in the removal area as well as those unaddressed by the removal action never killed anyone. His family drank the water and farmed the land for generations, never observing a health concern.

Mr. Butterfield's main issues concern the decisions made by EPA to tag the farmland as contaminated, establish land use standards for lead and arsenic, and as he interprets the taking of private property away from the owners by EPA selecting remedy they did. Mr. Butterfield noted that Kennecott was the polluter and should be made to clean up every yard; EPA needs to make them accountable. Mr. Butterfield stated Kennecott dumped it and they need to come back and clean it up; he felt that they have been in business for 50 years making huge mining profits at the loss individual property owners and their rights. Mr. Butterfield said property owners are unable to develop their property due to the expense of cleaning up contamination and mentioned a couple of recent developers going bankrupt trying to do so. Dansie expressed issues and concerns very much the same as Mr. Butterfield.

Mr. Dansie is appreciative of the cleanup of Butterfield Canyon; he felt the Canyon is an asset for eternity. However, Mr. Dansie feels decisions made years ago were the best at that time and these decisions did not account for Herriman's continued growth. Mr. Dansie feels more needs to be done to resolve the soils issue for private property owners and the burden of costs for the cleanup was shifted from Kennecott to Herriman which forces an economic issue upon these private land owners.

Mr. Dansie stated that his undeveloped property along Butterfield Creek was not eligible for cleanup at the time, but yet this same property has been determined EPA to be unsafe for some land uses. Mr. Dansie felt that the land use standards should be mutually agreed upon and EPA should reassess these standards for the undeveloped properties, as they have caused for these agricultural lands to be difficult to sell. Also, Mr. Dansie stated that land owners should also have full access to the Kennecott repository so as to reduce any future removal costs. Mr. Dansie stressed this should be a shared responsibility between EPA, Kennecott, and Herriman.

Mr. Dansie said there are contaminated areas which still need to be looked at and some areas were swept under the carpet during the initial investigations. He stated current flood events still bring contamination down on to his property. Mr. Dansie reiterated that contamination still exists on the agricultural properties, and stated that the waste rock dumps to the west need to be stabilized. Mr. Dansie asked what the future of the mine holdings to the west was. Mr. Dansie strongly felt that Kennecott needs to cooperate more and continue to work to mitigate cleanup and associated costs.

Have you noticed anything going on in the area that you believe might have damaged or compromised the remedy? Mr. Butterfield has an issue with Salt Lake County taking care of a holding pond area in Butterfield Canyon that has become cluttered with trash, which is creating an eyesore. Dansie hasn't received any assistance from the county as well on issues he has raised to them. Neither felt the Salt Lake County has any means to ensure an understanding about the lead and arsenic concentrations in the area, and what to do about it.

Do you have any additional comments, suggestions or questions regarding the clean up? No additional suggestions were made.

Interviewed By: Dave Allison and Doug Bacon, Utah Department of Environmental Quality.

Contact:

**Mayor Lynn Crane
Herriman City
13011 So. Pioneer St.
Herriman, UT 84096**

***KENNECOTT OU-3
FIVE-YEAR REVIEW QUESTIONS***

What do you know and how long have you been involved with the Butterfield Creek-Herriman clean up? Mayor Crane has lived in Herriman for most of his life. He was appointed by the Salt Lake County Commission in June 1999 as the first Mayor of Herriman and held this position throughout the cleanup's history.

Do you have any personal concerns regarding the clean up? Are you aware of any community concerns? Mayor Crane does not have any concerns with health or the environment and said "the worst parade of horrors never materialized" regarding speculation on property values. Many residents expressed reservations about the Superfund investigation and the impending impact associated with a hazardous waste designation, at the time of the investigation. However, Herriman now is experiencing tremendous growth and the cleanup Mayor Crane could not consider the cleanup and response actions as deterrence for development. Herriman's population has increased nearly ten times in ten years and a lot of land has changed hands including a significant percentage with sensitive lead and arsenic soils.

Mayor Crane did say the Superfund experience was not without its difficulties. Early meetings were contentious; his own perspective and acceptance of the EPA remedy has changed since those early days. As long as the cleanup rules are what they are, Mayor Crane could accept the inconveniences of the selected remedy. Mayor Crane noted that for the sensitive lands there is a procedure in place to ensure control of the soils during redevelopment and the City is supportive of the guidelines from EPA. Mayor Crane also noted that Kennecott has responded to a greater degree than was expected.

Now that EPA has left, Herriman is committed to track the lands so "warning flags" are raised and cleanup efforts are tracked and implemented.

If the Mayor was disappointed with any aspect of the cleanup it would fall directly on the poor quality of the backfill soils and the infrastructure used for the construction of water lines. What was once farm land is now unable to grow anything without the implementation of extreme fertilization practices. The replacement soils (i.e. backfill) were poor organically (i.e. little to no nutrient value). Mayor Crane noted that vegetable gardens may take decades to replenish and he stated that there should have been some accountability as the cleanup did monetarily damaged properties and the ability of farmers to raise food on the properties. The Mayor felt compensation is due to families. Mayor Crane also noted that the infrastructure used to replace water lines and irrigations systems was poor. Water hydrants and lines leaked and poor materials were used for sprinkler systems.

Overall, the Mayor could see positives from the cleanup project. Property in general has more value than economic hardship. Throughout the process the EPA, UDEQ, and Kennecott learned to reduce intrusion in the lives of residents simply by using a sensible approach.

Have you noticed anything going on in the area that you believe might have damaged or compromised the remedy? Mayor Crane said the engineering processes and planning policies are in place to insure protectiveness of the remedy.

Do you have any additional comments, suggestions or questions regarding the clean up? No additional suggestions were provided.

Interviewed By: Dave Allison and Doug Bacon, Utah Department of Environmental Quality.

Contact:
Lynn & Lisa Egbert
5344 Imperia Way
Herriman, UT
801-254-9061

**KENNECOTT OU-3
FIVE-YEAR REVIEW QUESTIONS**

What do you know and how long have you been involved with the Butterfield Creek-Herriman clean up? The Egbert's owned 6 ½ acres of land that was involved in the cleanup.

Do you have any *personal* concerns regarding the clean up? Are you aware of any *community* concerns? The Egbert's do not have any current health or environmental concerns regarding the remedy. They do feel the cleanup was horrible (in the approach taken by EPA and that fact that little information was shared with residents), and they hold resentment toward the entire process.

The Egbert's feel that there are issues that haven't been resolved even to today. Their property was cleaned up and backfilled with very rocky and gravel-like rocks with very little nutrient value. They feel the backfill top soil was thrust upon them and they feel the overall removal project was a project simply because money was available. Mr. Egbert noted that the mineral traces and dirt parameters provided by experts from Utah State University were false; nothing has grown in the soil. In their opinion the property was hardly restored to pre-existing conditions. This is a similar complaint they have heard from others within Herriman.

In their opinion the blood lead sampling conducted by the Health Department never showed an elevated risk to warrant any level of cleanup. EPA presented Baseline Risk Information without showing a correlation between long time residents of the community and potential lead exposures. The Egbert's feel the testing was not logically performed.

Also, the Egbert's expressed frustration at the lack of consideration shown by EPA during the removal action. In some instances the lack of consideration lead to traumatic experiences for some of the older citizens in the community; they felt such treatment was less than kind, if not criminal. The Egbert's noted that they often were consoling an elderly neighbor trying to explain why trees/gardens had to be removed, this was not easy.

Have you noticed anything going on in the area that you believe might have damaged or compromised the remedy? The Egbert's could not recall any activities which would have compromised the remedy and feel property values and resale stigma to a developer are remaining issues within the community.

Do you have any additional comments, suggestions or questions regarding the clean up? No additional suggestions were provided.

Interviewed By: Dave Allison and Doug Bacon, Utah Department of Environmental Quality.

Contact:

Gordon Haight
Herriman City Engineer
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Herriman, UT 84096
Phone: 801.446.5323

KENNECOTT OU-3
FIVE-YEAR REVIEW QUESTIONS

What do you know and how long have you been involved with the Butterfield Creek-Herriman clean up? Mr. Gordon Haight is the City Engineer for Herriman. The Engineering Department oversees all capital improvement projects and construction management, tracks new and long range infrastructure planning, develops construction standards and determines development specifications and standards for the city. Mr. Haight was not around during the cleanup activities and has intently studied the remediated areas to keep up with increasing residential and commercial development demands. Mr. Haight has drafted a revised contaminated property or sensitive areas plan to track all remediated properties in Herriman and assist property owners/developers to understand their obligations to address elevated lead and arsenic concentrations when proposing a land use change.

Do you have any *personal* concerns regarding the clean up? Are you aware of any *community* concerns? Mr. Haight feels the City has done a really good job handling the challenges of remediated properties and does not have any remedy concerns. The City is fully committed to the selected remedy, and has an environmental engineer to oversee applications and work plans prior to any construction work in designated cleanup areas. The City has extensive communication with a hired environmental consultant to review all proposed remediation work including plan details on XRF, backfill and segregation of soil piles.

If Mr. Haight has any concerns, they are concerned with where developers could take contaminated soils to reduce costs, so as not to discourage development. Mr. Haight hopes Kennecott continues to have room in their repository to take contaminated soils removed during future development activities.

Mr. Haight said any community concerns are related to refinancing constraints and that no health related concerns have been raised to his attention.

Have you noticed anything going on in the area that you believe might have damaged or compromised the remedy? Nothing has occurred to damage any remediated areas to Mr. Haight's knowledge, as it pertains primarily to new development projects. Mr. Haight said there are three potential developments and a road way the City is carefully monitoring to insure any contaminated property is dealt with properly.

Do you have any additional comments, suggestions or questions regarding the clean up? Mr. Haight felt the cleanup areas were manageable for Herriman and did not have any further comments.

Interviewed By: Dave Allison and Doug Bacon, Utah Department of Environmental Quality

Contact:

J. Bryant Miller
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KENNECOTT OU-3
FIVE-YEAR REVIEW QUESTIONS

What do you know and how long have you been involved with the Butterfield Creek-Herriman clean up? Mr. J. Bryant Miller is a life long resident of Herriman and had his property remediated. Mr. Miller currently works for Herriman City.

Do you have any personal concerns regarding the clean up? Are you aware of any community concerns? Mr. Miller never had any health concerns arise from use of the land or water. He felt EPA overreacted, that the cleanup was over kill, the blood-lead surveys were lacking correlating results which documented an existing health impact. Mr. Miller stated that EPA wasted 10 million dollars of tax payer money, and was upset over such. Mr. Miller again stated that he's lived in Herriman for 78 years and no one in his family has ever suffered a health issue related to lead or arsenic poisoning.

Mr. Miller did not have anything good to say about EPA managers or the cleanup and even felt lied to. EPA workers ignored suggestions and he noted even catching them asleep at public meetings. Mr. Miller said if he got to a point of not cooperating with EPA, he felt that EPA would "red-tag" his property with the Salt Lake County and he would be intimidated if he fought such action. Mr. Miller stated that he thought and still does think that he could not sell his property or give it away.

Mr. Miller also questioned EPA's sampling results and said historic areas of runoff water should have shown metal contaminants but that EPA sampling reports did not. He commented that common sense should have been used during the construction activities too. Mr. Miller noted that compacting farm soil with rollers was totally unacceptable and poor rocky backfill decimated farmers in this community. What was once pasture land was left with cement caps, healthy trees were removed and costly sprinkling systems replaced functioning, low cost irrigation ditches. Mr. Miller felt EPA operated under the impression that money was never an issue. As a taxpayer, Mr. Miller took this wasteful spending seriously.

Have you noticed anything going on in the area that you believe might have damaged or compromised the remedy? Mr. Miller could not recall any activities which would have compromised the remedy other than past flooding events.

Do you have any additional comments, suggestions or questions regarding the clean up? No additional suggestions were provided.

Interviewed By: Dave Allison and Doug Bacon, Utah Department of Environmental Quality.

Contact:

Brian Vinton
President of North American Mine Services (NAMS)
Consultant for Kennecott Utah Copper Corporation
447 North 300 West
Kaysville, UT 84037
801-569-7887

KENNECOTT OU-3
FIVE-YEAR REVIEW QUESTIONS

What do you know and how long have you been involved with the Butterfield Creek-Herriman clean up? Mr. Brian Vinton is President of North American Mine Services (NAMS). He was a coordinator on contract to Kennecott and was involved with characterization and removal work in Butterfield Canyon.

Do you have any *personal* concerns regarding the clean up? Are you aware of any *community* concerns? Mr. Vinton said all of the mine access areas are gated and fenced to prevent access to the cleanup areas. He did not have any health or environmental concerns about the areas cleaned along Butterfield Creek.

An area that was not cleaned on Kennecott property includes the Queen Drainage, a tributary to Butterfield Creek. Kennecott sampled the former mill site area located about ½ mile up gradient in Queen drainage in 1996. Five surface samples were collected; three from tailings and two from ore/waste rock. The lead concentrations from the ore/waste rock had 1280 mg/kg and 31,500 mg/kg with arsenic 543 and 717 mg/kg. The tailings samples had lead ranging from 2600 to 5250 mg/kg and arsenic ranging from 1580 to 3150 mg/kg. A soil probe hole was also placed near the junction of Queen Drainage and Butterfield Creek and it was found that the surface soils (0-1 ft) beneath the coarse rock rip-wrap contained 6510 mg/kg lead and 382 mg/kg arsenic. The rip-wrap channel was built by Kennecott to guide any surface flow in the drainage to Butterfield Creek. This rip wrap can be observed from the county paved road. The report containing information on the Butterfield Creek Canyon area was submitted to the agencies in 1997 and is entitled "Butterfield Creek/Herriman Soil Investigations Report" October, 1996 – February, 1997

The Salt Lake County paved road traverses through the Revere and Yosemite soil cleanup areas in lower Butterfield Creek canyon and this road and the road shoulders cap lead contaminated areas. The final completion report for the Revere and Yosemite soil cleanup areas was submitted to the agencies in 1998.

Have you noticed anything going on in the area that you believe might have damaged or compromised the remedy? Other than a significant flood event, preventative measures are in place to prevent any spread of contamination.

Do you have any additional comments, suggestions or questions regarding the clean up? The vegetation has come in nicely for the Butterfield Tunnel waste rock cleanup area and also in the Revere and Yosemite cleanup areas. With the vegetation, soil erosion is minimal.

Interviewed By: Dave Allison and Doug Bacon, Utah Department of Environmental Quality.

Contact:

Vern Loveless, Tooele County Engineer
Kerry Beutler, Senior Planner, Tooele County
Bruce Clegg, Tooele County Commissioner
Tooele County Offices
47 South Main
Tooele, UT 84074

KENNECOTT OU-18
FIVE-YEAR REVIEW QUESTIONS

What do you know and how long have you been involved with the mine drainage areas associated with the Kennecott cleanup and Operable Unit 18? Mr. Vern Loveless is the Tooele County Engineer who is responsible for long and short range planning, development oversight, building inspection, road maintenance, code enforcement and infrastructure improvements in Tooele County. Mr. Loveless is relatively new to the position (2 years). He was aware of the mining history of Middle Canyon and wanted to learn more of the Operable Unit 18. Mr. Kerry Beutler, Division Manager/Tooele County Planner and Commissioner Bruce Clegg Tooele County Commissioner also wanted more information to make sure public health and ecological risks were protected and prevented.

Do you have any *personal* concerns regarding the clean up? Are you aware of any *community* concerns? None of the Tooele County representatives had any health or environmental concerns for the Middle Canyon area. Mr. Loveless is working on a plan to manage flood control and drainage from Middle Canyon, along Middle Canyon Creek. Mr. Loveless said he has visited the Water Supply Tunnel and Water Supply Tunnel Dump area due to some concern with some recent permitted exploratory drilling activities. However, none of this drilling activity took place near the Water Supply Tunnel or Water Supply Tunnel Dump. During his visit Mr. Loveless did not see anything damaging the environment. Mr. Loveless thought the recreation access to the Water Supply Tunnel Dump was minimal with boulders in place to prevent damaging off-road use. Commissioner Clegg wanted to make sure there were no surface water issues with contamination runoff affecting private wells and irrigation ditches. It was noted by UDEQ that there was no sampling evidence to date that has detected contamination in surface waters for the area of the Water Supply Tunnel or Water Supply Tunnel Dump.

Have you noticed anything going on in the area that you believe might have damaged or compromised the remedy? Mr. Loveless could not recall seeing any recreational damages to the terrain and felt appropriate measures were in place. Commissioner Clegg has also not seen or heard of anything damaging the area.

Do you have any additional comments, suggestions or questions regarding the clean up? No one had additional contacts to suggest for OU-18. Mr. Loveless, Mr. Beutler and Commissioner Clegg requested contact information for UDEQ, EPA and Kennecott personnel.

Interviewed By: Dave Allison and Doug Bacon, Utah Department of Environmental Quality

Contact:

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KENNECOTT OU-18
FIVE-YEAR REVIEW QUESTIONS

What do you know and how long have you been involved with the Water Supply Tunnel and Water Supply Tunnel Dump in Middle Canyon? Mr. Brian Vinton, President of North American Mines Services has been assisting Kennecott on soil cleanup and reclamation activities for the past 18 years as an on-the-ground coordinator and documentation person. For the Water Supply Tunnel and Water Supply Tunnel Dump (comprised of waste rock) area, Kennecott prepared a summary on the area as part of the Priority Site work in the latter part of the 1990s. This summary work included Mr. Vinton's sampling the waste rock and analyzing the samples for total metals and SPLP (synthetic procedure leaching potential), plus the collection of a water sample from the water exiting the Water Supply Tunnel in 1996. The total metal results for the soil samples included a maximum lead concentration of 2110 mg/kg and arsenic concentration of 107 mg/kg.

In late 2000, Kennecott conducted reclamation work on the Water Supply Tunnel Dump (Dump) by constructing a storm water ditch and berm along the top edge of the Dump's top surface, and planting seed on the top surface. Kennecott also installed a drainage pipe down the west embankment of the Dump that could route any storm water from the storm water ditch to the natural drainage channel in Middle Canyon so that the erosion of the waste rock could be kept to a minimum. At the toe of the Dump, a berm was made to catch any materials eroding off of the Dump's embankments and also to allow the canyon's intermittent stream to flow around the base of the Dump without eroding it.

In 2001, Mr. Vinton also collected two samples from the waste rock on the top of the Dump with one sample from the base of the storm water ditch and a second sample collected from a yellow brown area on the Dump's top surface. Both samples were checked for pH and conductivity. The ditch sample measured 7.1 for pH and 300 umhos/cm for conductivity. The yellow brown area had a pH of 5.92 and a conductivity reading of 2400 umhos/cm. Both areas were judged to be able to sustain plant growth.

In 2006, it was noted during an inspection that locals were spending time on the reclaimed surface and were trampling the sparse vegetation. In addition, the drainage pipe that was previously installed had been filled with rocks by locals and an erosion channel had developed along the Dump's west side embankment. A plan was developed to limit public access to the Dump's top surface and to re-construct a drainage pathway from the top surface to the canyon's intermittent stream (down-gradient of the Dump). The plan was implemented in 2007 and included: (1) the placement of anchored Jersey barricades along the east side of the Dump's top surface while providing a pathway to the portal of the Utah Metals Tunnel (a.k.a. Water Supply Tunnel), (2) the creation of a coarse rock rip-wrapped open-aired drainage channel along the Dump's western embankment where any surface water that collects in the former storm water ditch can flow off of the Dump, and (3) the ripping and re-seeding of the Dump's top surface.

Mr. Vinton stated that in the fall of 2008, it appeared that the Jersey barricades survived pressure from the public's use of the land. The barricades prevented vehicular access to the Dump's top surface. Vegetative success was good on the ripped surface and the rip-wrapped drainage channel was not experiencing any excessive erosion. It was also noted that the berm along the toe of the dump was still functioning as designed by limiting waste rock from entering the canyon's intermittent stream.

Do you have any *personal* concerns regarding the clean up? Are you aware of any *community* concerns? It appears that the more recent reclamation work has been successful to stabilize the stored waste rock. Since the Dump's slopes are at the angle of repose, there will always be some erosion. However, due to the reconstructed storm water capture system, surface water flow should be prevented from cascading over the Dump's embankments (other than through the designed rip-wrapped channel). If the public will continue to stay off of the area, a good stand of vegetation should be able to establish itself.

Last fall during the Labor Day weekend, weekend warriors had parked two campers on the east side of the Jersey barricades and they did complain about the non-access. Mr. Vinton noted that he told them they were currently trespassing and that Kennecott was trying to re-establish vegetation on the Dump. It is likely that if the public can be kept off the vegetated areas for several more years, then future reclamation work would not likely be needed.

Have you noticed anything going on in the area that you believe might have damaged or compromised the remedy? Other than what is listed above, the remedy appears to be working fine.

Do you have any additional comments, suggestions or questions regarding the clean up? Kennecott should continue to monitor the reclaimed area and make sure that Jersey barricades are kept in place. The graffiti on the barricades is unavoidable.

Interviewed By: Doug Bacon, Utah Department of Environmental Quality.

SCANNED

From: Dave Allison
To: Douglas Bacon
Date: 8/26/2008 1:12 PM
Subject: Fwd: RE: FW: Proof for Ad 0000348622011 DIVISION OF ENVIRONMENTALQUAL

DERR 2008-008093

Please release the ad Thurs., August 28.---Dave

>>> "Lynn Valdez" <lvaldez@mediaoneutah.com> 8/26/2008 12:28 PM >>>

Dave,

It looks like Credit Dept. did not release your ad until after deadline and it did not publish. I am very sorry about that.

I can reschedule it for Thursday, August 28th if that's ok with you. Let me know a.s.a.p.

Lynn Valdez
Legal Advertising
801-237-2720

-----Original Message-----

From: Dave Allison [mailto:dallison@utah.gov]
Sent: Tuesday, August 26, 2008 12:06 PM
To: NAC Legal; lvaldez@nacorp.com
Subject: Re: FW: Proof for Ad 0000348622011 DIVISION OF ENVIRONMENTALQUAL

Hi Lynn: This is the ad in question. Just checking to see if ad was published Mon., Aug. 25.

Thank you for your assistance.

Dave Allison
Utah Department of Environmental Quality
168 North 1950 West
Salt Lake City, Utah 84116
(801) 536-4479

>>> "NAC Legal" <naclegal@mediaoneutah.com> 8/22/2008 8:41 AM >>>

Dave,

Please check the proof and call me with correction.

Thank you,

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UDEQ

PUBLIC NOTICE

Five-Year Review of Kennecott
South Zone OU-3 and OU-18



U.S. EPA

The Utah Department of Environmental Quality, Division of Environmental Response and Remediation (UDEQ/DERR) - in cooperation with the U.S. Environmental Protection Agency (EPA) - is conducting a Five Year Review of the Kennecott south Zone Superfund Site - Operable Units 3 and 18. The purpose of a five-year review is to determine whether or not the cleanup and other actions take at the site are protective of human health and the environment.

Operable Unit No. 3 includes areas of Butterfield Creek, Butterfield Canyon, and Butterfield Mine. Operable Unit No. 18 includes mine drainage and waste rock associated with the western side of the Oquirrh Mountains in Tooele County.

During this Review, UDEQ/DERR will examine current information, conduct a site inspection, and community interviews to evaluate all remedy components. The Review will be completed by this fall. UDEQ will prepare a report for EPA summarizing the results.

If you would like more information about the review or would like to participate in an interview, please contact:

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