

## COTTER CORPORATION (N.S.L.)

## RESPONSE TO

COLORADO DIVISION OF RECLAMATION, MINING AND SAFETY ADEQUACY REVIEWS

OF

SCHWARTZWALDER MINE, PERMIT NO. M-1977-300

AMENDMENT 4 (AM-04)

SUBMITTED TO DRMS APRIL 5, 2013



April 5, 2013

Mr. Tom Kaldenbach Division of Reclamation, Mining and Safety Department of Natural Resources 1313 Sherman Street, Room 215 Denver, Colorado 80203

Dear Mr. Kaldenbach:

This letter responds to certain questions in the letter of the Division of Reclamation, Mining, and Safety ("DRMS"), dated August 29, 2012, as modified by the letter of DRMS, dated February 22, 2013, providing a preliminary adequacy review ("PAR") on the submission of Cotter Corporation (N.S.L.) ("Cotter") of an amendment ("AM-04") to the Schwartzwalder Mine Permit M-1997-300. These questions were not covered in the letters of Cotter, dated September 21, 2012 and March 8, 2013. Specific point-by-point responses are given by Cotter below, following the numbering used by DRMS in its August 29, 2012 and October 19, 2012 letters. Above each response, the portion of the letter requesting the response is quoted in italics.

1. As an alternative to pumping down the mine pool to 500 feet below the Steve Level, DRMS will consider approving a plan to pump the mine pool down to 150 feet below the Steve Level. The Division would consider a plan for an immediate pump down of the mine pool to 150 feet and maintaining the mine pool elevation at 150 feet throughout the in-situ treatment trial phase of AM-04. An immediate pump down to 150 feet would reduce the mine pool to an elevation of approximately 63 feet below Ralston Creek in the permit area (thus preventing mine pool flow toward the creek), while also reducing the exposure of wall rock in the workings, compared to pumping down to the 500-foot level (thus minimizing uranium oxidation in the workings).

Pumping down to 150 feet would be contingent on Cotter and DRMS and/or MLRB executing an agreement that provides for Cotter withdrawing its pending appeal in the Colorado Court of Appeals (Case Number 2012CA763), and the MLRB modifying its August 11, 2010 Order to reflect the 150-foot pump-down level. This change in the pump-down level would also require Cotter to provide revised pages of the AM-04 submittal to reflect the 150-foot pump-down level.

On September 12, 2012, Cotter and DRMS entered into an agreement ("Agreement"), which provided for a 150-foot pump-down level and a dismissal of the appeal in the Colorado Court of Appeals. On September 18, 2012, the Mined Land Reclamation Board ("MLRB") modified its August 11, 2010 order ("August 2010 Order") consistent with the Agreement. The Colorado Court of Appeals has dismissed the appeal. On September 21, 2012, Cotter provided a partial response to the PAR, which included steps to initiate mine dewatering. On March 8, 2013, Cotter also provided a response to adequacy review round 2, dated October 19, 2012, and adequacy review 3, dated February 22, 2013, in which DRMS stated that concurrent pump-down of the mine pool and in-situ treatment are acceptable. Upon DRMS's approval of Cotter's plan for accelerated dewatering in conjunction with in-situ treatment set forth in Cotter's responses, Cotter will revise the appropriate pages of AM-04 to reflect the 150-foot pump-down level.

2. Please revise Figure 18 of Exhibit E to provide for concurrent initiation of mine pool pumping and in-situ treatment.

The revised schedule is shown in Figure 1.

ask Name	Start	Finish	2010 2011	2012	2013	2014	2015	2016	2017	2018
ccelerated De-watering w/ Concurrent InSitu Treatment	Mon 9/3/12	Mon 5/22/17		₹						
Adequacy Review #1 Partial Responses	Mon 9/3/12	Fri 12/14/12		•	Adequ	acy Revie	w #1 Par	tial Resp	onses	
Adequacy Review #2 and #3 Responses	Fri 10/19/12	Fri 3/8/13			Ade	quacy Rev	riew #2 a	nd #3 Re	sponses	
Engineering Design	Mon 9/3/12	Fri 11/23/12			₹					
Internal Mine Pumps, Pipes etc.	Mon 9/3/12	Fri 9/14/12		.1	Internal	Mine Pun	nps, Pipe	s etc.		
External Mine Pumps, Pipes etc.	Mon 9/3/12	Fri 9/21/12	***************************************	ı	External	Mine Pur	nps, Pip	es etc.		
RO System	Mon 9/3/12	Fri 9/28/12			RO Syst	em				
RO Systems Piping Connections	Mon 9/24/12	Fri 9/28/12		J	RO Syst	ems Pipin	g Connec	tions		
InSitu System	Mon 9/3/12	Fri 11/23/12			InSitu	System				
Internal Approvals	Mon 10/1/12	Fri 10/5/12			Internal	Approva	s			
Permits/Approvals	Mon 10/8/12	Fri 4/5/13		,	~					
EPA (UIC) Permit Process	Mon 10/8/12	Mon 3/11/13			EPA	(UIC) Per	mit Proce	SS		
DRMS	Mon 10/8/12	Fri 4/5/13			DRI	MS				
Procurement	Mon 9/3/12	Mon 6/24/13								
Pump, Pipes, Valves etc.	Mon 9/3/12	Fri 10/12/12			Pump, l	Pipes, Vah	ves etc.			
RO System	Tue	Mon 6/24/13			R	O System				
InSitu System	Mon 4/1/13	Fri 6/21/13			i Ir	Situ Syste	em			
Installation & Testing	Mon 4/8/13	Fr: /26/13			~					
Internal Mine Pumps, Pipes etc.	Mon 4/8/13	Fri 4/26/13			Int	ernal Min	e Pumps	, Pipes e	tc.	
External Mine Pumps, Pipes etc.	Mon 4/29/13	Fri 5/17/13	AN CARLON CO.		į Ex	ternal Mi	ne Pump	s, Pipes e	tc.	
RO System	Tue 7/2/13	Fri 7/19/13			1.1	RO System	1			
Connect RO to Piping Systems	Tue 7/2/13	Mon 7/8/13			10	onnect R	O to Pipir	ng Syster	ns	
InSitu System Installation	Mon 6/24/13	Fri 7/12/13			11	nSitu Syst	em Insta	llation		
Integrated System Testing	Mon 7/22/13	Fri 7/26/13			1	Integrated	System	Testing		
Start Dewatering with Prelim InSitu	Mon 7/29/13	Mon 7/29/13			7/29 💠	Start Dev	vatering	with Prel	im InSitu	
DeWater w/ InSitu to 150' Below the Steve	Tue 7/30/13	Mon 12/9/13				DeWat	er w/ Ins	itu to 15	0' Below	the Ste
DeWater and/or InSitu as Reg'd	Tue 12/10/13	Mon 5/22/17	DeWater and	l/or InSite	as Req'o	1		-		

Figure 1 - Revised Schwartzwalder Dewatering and Treatment Schedule

- 3. Returning reverse osmosis (RO) concentrate to the water in the underground workings of a uranium mine, and then performing in-situ biologic treatment on the water, is a unique approach to mine water treatment. The outcome of this approach may be unpredictable. Please add to Exhibit E a description of:
- 3.a. Previous barrel testing of in-situ biologic treatment (see Section 10.2.2 of Schwartzwalder Mine Hydrologic Evaluation of Mine Closure and Reclamation, 2007)

Please see Cotter's response submitted to comment 27 below.

3.b. A plan for conducting pilot-scale testing of disposing RO concentrate and in-situ biologic treatment inside the pumped down mine pool prior to full-scale disposal and treatment inside the pumped down mine pool,

Please see Cotter's response submitted to comment 27 below.

3.c. The expected secondary effects resulting from the creation of strongly reducing conditions in the mine pool

Please see Cotter's response submitted to comment 27 below.

3d. The expected effect of RO treatment residuals on the mine pool treatment process

Please see Cotter's response submitted to comment 27 below.

3.e. The expected effect of organic carbon on the RO treatment process

Please see Cotter's response submitted to comment 27 below.

4. Please add to Exhibit E the printout of results of model projections for the RO system.

Please see Cotter's response submitted to comment 28 below.

5. Please add to Exhibit E a contingency plan for disposing RO residuals outside the mine pool, should pilot-scale testing or full-scale testing indicate returning the residuals to the mine pool is not feasible.

Please see Cotter's response submitted to comment 29 below.

6. Please add to Exhibit E the minimum criteria that must be met before the in-situ trial is terminated and full-scale in-situ treatment begins.

In-situ treatment of the mine pool will occur in two stages, the first being the addition of a heavy organic carbon source into the mine as part of the backfill slurry during initial dewatering, which is expected to take up to four months. During this initial dewatering, mine pool conductivity, oxidation/reduction potential (ORP), pH, and temperature will be monitored continuously. Additionally, the constituents in the chart below will be analyzed on a monthly basis to supplement Cotter's current quarterly mine pool analysis, which shall continue to be performed. If beneficial effects from the initial addition of the heavy carbon source are confirmed, Cotter will proceed with full-scale in-situ treatment of the mine pool at a level at least 150 feet below the Steve level.

TDS	U	SO <sub>4</sub>	Мо	Mn
Ra 226	As	Ba	Fe	C1

Table 1. Constituents to be Analyzed Monthly

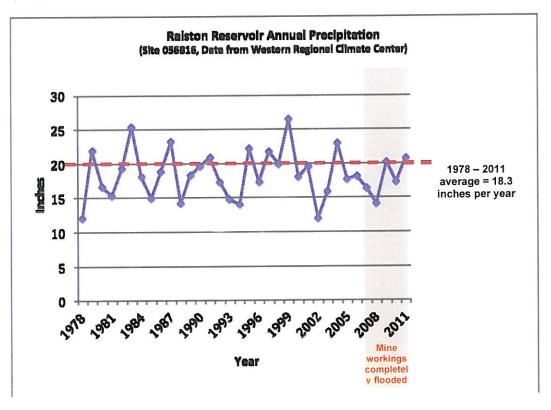
7. Please add to Exhibit E the specific criteria that must be met before ceasing mine pool pumping and before ceasing ex-situ active treatment of the mine pool.

Please see Cotter's response to comment 26 below.

8. Please add to Exhibit E a commitment to submit an amendment application when you propose to cease mine pool pumping and ex-situ active treatment of the mine pool. This important milestone will warrant DRMS review and notice to the public.

Cotter will seek DRMS written approval before ceasing mine pumping and ex-situ treatment.

9. Please add to Exhibit E a plan to monitor the mine pool quality and level for a minimum 10-year period after pumping ceases and the mine pool has refilled to approximately 24 feet below the Steve Level. A minimum 10-year monitoring period is necessary for demonstrating the mine pool water quality and flooding level have reached long-term stability. Although Section E-5.2.3 of the submittal indicates the mine pool is expected to stabilize at or near its current water level of 24 feet below the Steve Level, the level of the filled mine pool has not been observed during relatively wet years such as occurred in the 1980s and 1990s (see precipitation graph below). A close correlation between annual precipitation and mine pool fluctuations is noted in the previously approved Environmental Protection Plan.



Sealing fractures and boreholes with grout may cause the mine pool to rise to elevations higher than previously observed, resulting in increased head being exerted on unsealed fractures and boreholes, thus promoting new discharges from those openings. Based on the historical pattern of wet and dry years shown in the precipitation graph DRMS considers a reasonable minimum monitoring period to be 10 years following grouting and mine pool refilling. Compared to a 3-year or 5-year monitoring period, a 10-year monitoring period significantly increases the probability that the monitoring period will include a few relatively wet years as occurred in the 1980s and 1990s.

Confirming the ultimate long-term maximum elevation of the mine pool is critical to the proposed mitigation plan because the plan relies on containment of mine water in the mine pool for preventing the escape of sulphate-laden water to Ralston Creek. DRMS believes such

containment of water in the mine pool should be monitored over an extended period of time before the containment can be considered a success.

Cotter will continue to monitor and report mine pool level and water quality at the same intervals and using the same methods currently in practice at the mine. These analyses will be reported to DRMS for a period of ten years in conjunction with the quarterly report requested in Item 17 below, beginning after the second quarter of 2013.

10. Please add a firm commitment in Exhibit E stating that, in the event In-Situ treatment fails to adequately achieve remedial performance benchmarks, Cotter will conduct mine dewatering and ex-situ treatment to a depth of 150 feet, or other depth as necessary, to maintain a clear hydraulic gradient into the mine and protect Ralston Creek from potential impacts related to the mine pool.

In the event in-situ treatment results, as described in Cotter's response to comment 26 below, cannot be sustained, Cotter firmly commits to taking the necessary actions required to ensure negative impacts to Ralston Creek are mitigated.

11. Please add to Exhibit E a conceptual design for a perpetual, passive ex-situ treatment system and identify the specific criteria which must be met by the water quality in the mine pool and Ralston Creek before passive ex-situ treatment will begin.

Cotter believes that uranium concentrations in the mine pool, consistent with those presented in the response to comment 26 below, are reasonably obtainable and therefore passive ex-situ treatment will not be required. Thus, Cotter is not proposing a passive treatment system at this time. However, should such a need be identified in the future, Cotter will propose to DRMS a system appropriate to the site conditions and consistent with state and federal permit requirements at that time.

12. Please add to Exhibit E an option to make the diversion pipeline a permanent structure, and specify the criteria that must be met for making the decision to leave it as permanent, and the criteria that must be met before removing the pipeline.

Cotter discussed with Federal regulatory agencies the idea of a permanent pipeline when the creek by-pass was being explored in late-2010. Those discussions highlighted important issues associated with a permanent diversion pipeline, e.g., permanent loss of riparian and Preble's Meadow Jumping Mouse habitat. Any attempt to permit a permanent pipeline would likely be met with significant opposition. It is Cotter's belief that the solid source material mitigation proposed in AM-04, coupled with mine-pool mitigation via in-situ treatment, will be accomplished within the 10-year permit of the existing pipeline. The absence of solid source material in the valley between the mine and Ralston Creek and in-situ results in the mine pool consistent with those detailed in the response to comment 26 below will justify removal of the temporary diversion pipeline.

13. Please identify in Exhibit E the treatment concentration targets for uranium and other constituents of concern.

Please see Cotter's response to comment 26 below. Additionally, concentration targets for site-specific constituents of concern will take into account the results of the newly installed monitor wells, which will help define background water quality.

14. Please provide legible replacement pages for Figures 8 and 21 of Exhibit E.

Please see the attached Figure 5 and Figure 6; replacement pages for Exhibit E Figures 8 and 21 respectively.

15. Please add to Exhibit E a plan for disposing the sand filter backwash waste (generated during treatment of alluvial water) and the RO chemical cleaning waste.

The UIC Class V Injection Well Authorization issued by the Environmental Protection Agency to Cotter will allow materials originating from the mine to be placed back into the mine, including filter backwash and residuals from cleaning membranes.

16. DRMS will determine the amount of required financial warranty (reclamation bond) for AM-04 after receiving your responses to this letter.

No response necessary.

- 17. To enable DRMS to publish on its Laserfiche imaging system the progress of reclamation activities, please add to Exhibit E a commitment to submit to DRMS a reclamation report within 45 days after the end of each calendar quarter. Please include in each reclamation report the following information from activities conducted in the previous quarter:
  - a. Installation of pumping and treating facilities,
  - b. Summary of pumping and water treatment activities,
  - c. Summary of ex-situ and in-situ treatment performance,
  - d. Summary of corehole and fracture sealing activities,
  - e. Summary of alluvial fill disposal activities, and
  - f. Concentrations of constituents of concerns after alluvial fill is removed.

Please see Cotter's response to this comment, submitted to DRMS on September 21, 2012 in reply to AM-04 adequacy review comments regarding accelerated dewatering and in-situ treatment. Cotter will provide such a report, beginning in the third quarter of 2013, covering data from the second quarter of 2013. Quarterly reporting will continue until written authorization is received from DRMS to discontinue the reports.

18. Please add a statement to Exhibit E that explains IX regeneration waste or spent resin will not be placed in the mine workings.

Cotter will not place IX regeneration waste or spent resin in the mine workings unless it has received written authorization from DRMS to do so.

19. Please add to Exhibit E the details of the grouting program/incorporate the plans provided in TR-20 into the AM-04 process.

During alluvial fill removal, Cotter will employ third-party grouting contractors, as needed, to seal identified exploration core holes and natural conduits through which refilling mine pool water could migrate to Ralston Creek.

20. Please add to Exhibit E a plan for installing a monitoring well in the alluvium beneath the South Waste Rock Pile.

Please see Cotter's response to this comment submitted to DRMS, dated September 21, 2012, and its response to comment 32 below.

21. Please consider using pan lysimeters instead of suction lysimeters for monitoring infiltration through the South Waste Rock Pile.

Please see Cotter's response to this comment submitted to DRMS, dated September 21, 2012, and its response to comment 33 below.

22. Please consider including sulfuric acid dosing for pH adjustment prior to the RO system.

Please see Cotter's response to this comment submitted to DRMS on September 21, 2012, in reply to AM-04 adequacy review comments regarding accelerated dewatering and in-situ treatment.

23. Please revise Figure 7 to show radium in picocuries per liter (pCi/L).

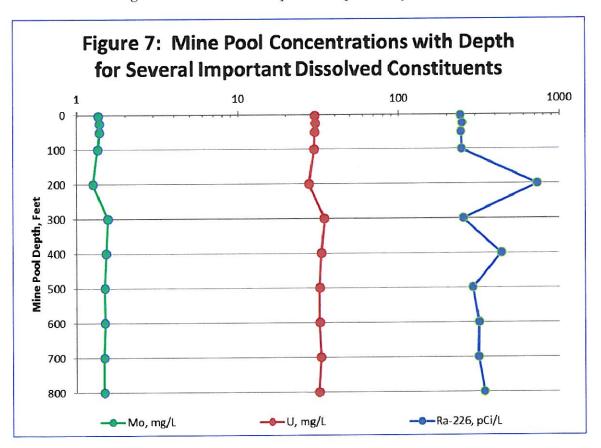


Figure 2 - Revised Figure 7 of Exhibit E

24. Please add to Exhibit E a detailed drawing showing the precise flow path of naturally seeping ground water at the base of the Glory Hole as the water reports "to the adjacent mine pool" (page 19 of Exhibit E). Without properly designed backfilling and drainage, the flow of the

seeping water at the base of the backfilled area could be blocked as the fill settles, resulting in much of the fill becoming saturated with the seeping water.

A seepage rate of 1 gpm in the Glory Hole would be sufficient to saturate the entire 56,000 cubic yards of backfilled alluvial fill in less than 2 years (assuming the fill has 15% porosity). Alluvial material is proposed to be backfilled in the Glory Hole to a height greater than 150 feet. If this material becomes saturated it could exert more than 150 feet of head on the hydraulic seal in the Steve Level at the base of the fill and exceed the seal's designed maximum pressure of 120 feet of head.

A three-dimensional drawing showing the flow path of groundwater from the Glory Hole to the mine pool is shown in Figure 3 attached to this document. The Glory Hole was mined out along the Nebraska vein, Colorado vein, Kansas vein, and the Flat vein as shown in Figure 4 attached to this document. Within the Glory Hole, any infiltrating groundwater percolates downward vertically toward the underlying mine pool as shown by the blue arrows in Figure 3. Because flow is driven by gravity, the vertical component of flow is dominant. In some cases, the vertical flow may have an angular component, as water seeps down the excavated face of the underground workings (Figure 3).

The Glory Hole is only one potential pathway for vertical infiltration of groundwater to the mine pool. Numerous additional veins were mined on and between the Charlie and Steve Levels (Figure 4) and several airway intake and exhaust holes were constructed between various levels of the mine. The inactive #2 Shaft extends from the Charlie Level to the Steve Level. The #2 Shaft, air holes, drawpoints, stopes, and other conduits would not be filled with the backfill that is proposed for placement in the Glory Hole and will be available as pathways for vertical seepage to groundwater in the mine pool.

The volume of backfill proposed for placement into the Glory Hole (32,000 – 54,000 cubic yards ("cyds")) is one third to one half of the total calculated volume of underground workings above the Steve Level [95,140 cyds, including the network of drifts, shafts, winzes, and raises on and between Charlie, Minnesota, CV, LBJ, and Upper Levels]. The backfill is not expected to become saturated because these remaining mine voids will allow downward vertical percolation of groundwater, thus preventing head buildup within the backfill.

The backfill itself is expected to maintain sufficiently high permeability (hydraulic conductivity) to transmit the small quantities of infiltrating precipitation that occur seasonally. The backfill will be placed in the mine without the possibility of mechanical compaction, and as a result, the backfill density will remain relatively low and permeability will remain relatively high. When excavated and dumped into the Glory Hole, the initial hydraulic conductivity is expected to be greater than the existing in situ hydraulic conductivity (K) of the alluvium and fill (5.0x10-3 to 1.7x10-2 cm/sec, or 14 to 48 ft/day). Although the change in K that occurs during settlement and gravity compaction may be difficult to quantify, the characteristics of the waste rock and alluvial fill material (low clay content, blocky, competent, no secondary clay alteration) will prevent significant compaction. If the hydraulic conductivity of the placed backfill decreased to one tenth the lowest measured hydraulic conductivity of the in situ alluvium and fill (from 14 ft/day to 1.4 ft/day), the backfill would be capable of transmitting 34.4 gpm,\* which is significantly higher than the rate of precipitation infiltration over the backfill area. [\*Maximum possible seepage rates through the backfill to the local water table (mine pool) can be estimated using a Darcy calculation where Q = KIA. In this equation, K is hydraulic conductivity (1.4 ft/day), I is the gradient (unit vertical gradient of 1.0 ft/ft), and A is the area of the seepage face above the water

table (i.e., the plan view area of the backfill, 4730 ft2). The calculated maximum seepage rate (Q) is 6,622 ft3/day or 34.4 gpm.]

As this analysis demonstrates, the backfill material will not become saturated and will not exert hydraulic head on the two sealed bulkheads on the Steve Level.

25. Please add to Exhibit E a prediction of water quality discharges from the mine site that are expected to occur during the time period when the water treatment plant will be moved from its current location to the flat area near the Steve Portal. Please include a description of the water quality control plan that will be followed during that time period.

Cotter intends to ensure that there are no adverse changes to water discharges from the mine site during any phase of construction or operation. As such, Cotter plans to site the RO treatment system in close proximity to the Steve Portal, which will enable Cotter to dismantle the IX building and treat what is expected to be minimal water collected via the installed array of sumps, using the RO system.

26. Please identify the criteria that must be met before ceasing the mine pool pumping that maintains the mine pool elevation at an elevation at least 150 feet below the Steve Level.

Please see Cotter's response to this comment submitted to DRMS on March 8, 2013, in reply to AM-04 adequacy review comments regarding accelerated dewatering and in-situ treatment.

- 27. (This comment is intended to address comment 3 from DRMS's August 29 letter.) Returning reverse osmosis (RO) concentrate to the water in the underground workings of a uranium mine, while performing in-situ biologic treatment on the water, is a unique approach to mine water treatment. The outcome of this approach may be unpredictable. Please provide a description of:
- a. Previous barrel testing of in-situ biologic treatment (see Section 10.2.2 of Schwartzwalder Mine Hydrologic Evaluation of Mine Closure and Reclamation, 2007)

Please see Cotter's response to this comment submitted to DRMS on March 8, 2013, in reply to AM-04 adequacy review comments regarding accelerated dewatering and in-situ treatment.

b. A plan for conducting pilot-scale testing of disposing RO concentrate and in-situ biologic treatment inside the pumped down mine pool prior to full-scale disposal and treatment inside the pumped down mine pool

Please see Cotter's response to this comment submitted to DRMS on March 8, 2013, in reply to AM-04 adequacy review comments regarding accelerated dewatering and in-situ treatment.

c. The expected secondary effects resulting from the creation of strongly reducing conditions in the mine pool

Please see Cotter's response to this comment submitted to DRMS on March 8, 2013, in reply to AM-04 adequacy review comments regarding accelerated dewatering and in-situ treatment.

d. The expected effect of RO treatment residuals on the mine pool treatment process

Please see Cotter's response to this comment submitted to DRMS on March 8, 2013, in reply to AM-04 adequacy review comments regarding accelerated dewatering and in-situ treatment.

e. The expected effect of organic carbon on the RO treatment process.

Please see Cotter's response to this comment submitted to DRMS on March 8, 2013, in reply to AM-04 adequacy review comments regarding accelerated dewatering and in-situ treatment.

28. (This comment is intended to address comment 4 from DRMS's August 29 letter.) Please provide a printout of results of model projections for the RO system.

Please see Cotter's response to this comment submitted to DRMS on March 8, 2013, in reply to AM-04 adequacy review comments regarding accelerated dewatering and in-situ treatment.

29. (This comment is intended to address comment 5 from DRMS's August 29 letter.) Please provide a contingency plan for disposing RO residuals outside the mine pool, should pilot-scale testing or full-scale testing indicate returning the residuals to the mine pool is not feasible.

Please see Cotter's response to this commnet submitted to DRMS on March 8, 2013, in reply to AM-04 adequacy review comments regarding accelerated dewatering and in-situ treatment.

30. Please describe your involvement with EPA regarding the UIC permitting requirements for the work proposed in your submittal.

On March 11, 2013, Cotter obtained a UIC Class V Injection Well Rule Authorization.

31. Please provide a contingency plan and schedule for a scenario in which UIC permitting cannot be completed in time for meeting the schedule shown in Figure 3.

On March 11, 2013, Cotter received a UIC Class V Injection Well Rule Authorization. On March 13, 2013, MLRB ordered a second modification of the August 2010 Order which allows implementation no later than July 29, 2013.

32. Please commit to having the installation of the well in the south waste rock pile overseen by a knowledgeable and trained hydro-geologist/geologist, and also commit to utilizing experienced personnel for correctly installing the well.

Please see Cotter's response to this comment submitted to DRMS on March 8, 2013, in reply to AM-04 adequacy review comments regarding accelerated dewatering and in-situ treatment.

33. Please commit to having the pan lysimeter installation overseen by a knowledgeable and trained hydro-geologist with pan lysimeter experience.

Please see Cotter's response to this comment submitted to DRMS on March 8, 2013, in reply to AM-04 adequacy review comments regarding accelerated dewatering and in-situ treatment.

34. Please describe how you will access shaft 2 when installing the pump.

Please see Cotter's response to this comment submitted to DRMS on March 8, 2013, in reply to AM-04 adequacy review comments regarding accelerated dewatering and in-situ treatment.

35. Please describe the disposal method and process for spent resin or waste from the ion exchange treatment process (e.g., shipping quantities, shipping frequency, disposal location).

Please see Cotter's response to this comment submitted to DRMS on March 8, 2013, in reply to AM-04 adequacy review comments regarding accelerated dewatering and in-situ treatment.

36. DRMS is preparing a reclamation cost estimate for the work proposed in you September 21, 2012 submittal, and will provide you a copy of the estimate when it becomes available.

Please see Cotter's response to this comment submitted to DRMS on March 8, 2013, in reply to AM-04 adequacy review comments regarding accelerated dewatering and in-situ treatment.

). M. M.

Sincerely yours,

Ken Mushinski President

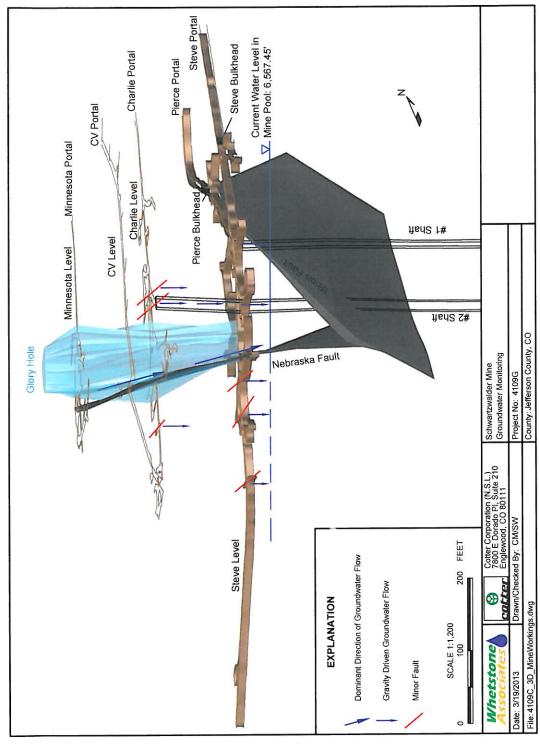


Figure 3 - Isometric View from Southeast showing Glory Hole, Mine Workings and Major Fault Planes

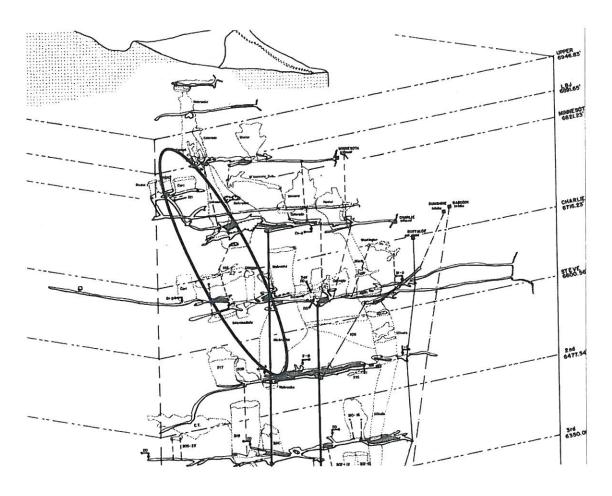


Figure 4 - Isometric Drawing of Schwartzwalder Mine Showing Glory Hole Zone and Other Vertical Connections

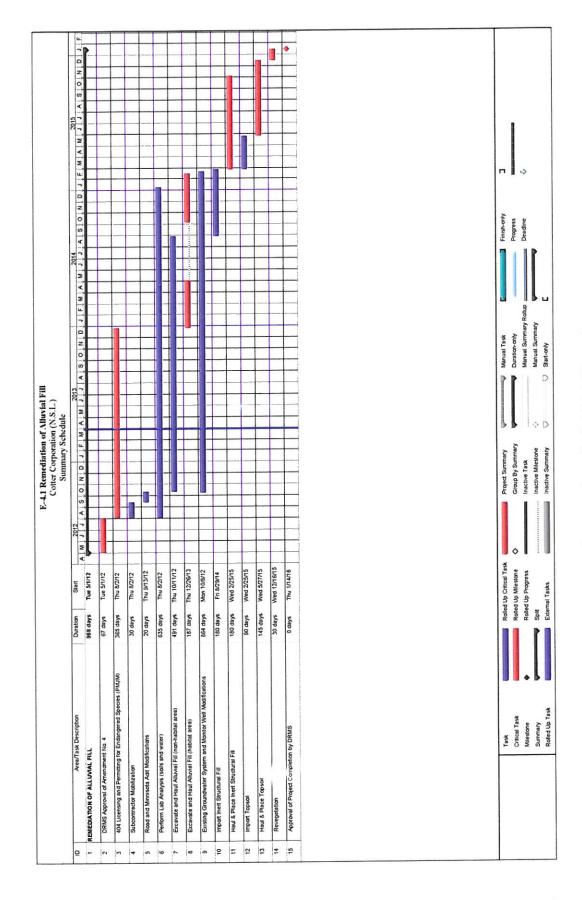


Figure 5 - Replacement Page for Exhibit E Figure 8

## ATTACHMENT

	ŀ	E-5.2.2 In-situ Water Cotter Corpo			ool										
			y Schedule	.L.)											
ID	Area/Task Description	Duration	Start	Finish	20	012						2013	T . T .	T = T	
1	In-situ Treatment	335 days	Tue 5/1/12	Mon 8/12/13	AMJ	JA	SO	N D	JF	M A	A M	7 7	AS	0	N
2	DRMS Approval of Amendment No. 4	90 days	Tue 5/1/12	Mon 9/3/12	THE REAL PROPERTY.				+	++	+	-		H	
3	Licensing and Permitting	180 days	Tue 9/4/12	Mon 5/13/13	+++	+						+	H	H	
4	In-situ Subcontractor Mobilization (Alexco)	60 days	Tue 2/26/13	Mon 5/20/13	++	╁┼						+	+	$\forall$	
5	Install Mine Pool Recirculation Pumps and Piping (incl. Su	pports) 30 days	Tue 5/21/13	Mon 7/1/13	++	╁	$\vdash$		+	+			+	H	_
6	Commence Injections of Molasses and Alcohols	30 days	Tue 7/2/13	Mon 8/12/13		$\vdash$			+	₩	+			$\mathbf{H}$	
7	Project Completion	0 days		Mon 8/12/13	44	$\vdash$	$\vdash$		-	₩	+	_		+	_
i	Traject compless.	V 20,5												$\perp$	
	Task Citical Tack	Split	al Tasks				tion-only		olluc						
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	Critical Task Milestone Summary Rolled Up Task Rolled Up Critical Task	Extern Project Group Inactiv Inactiv	Summary By Summary e Task e Milestone			Manu Manu Start- Finish Progr	ial Sumi ial Sumi only h-only ress	mary R					7		
	Critical Task Milestone Summary Rolled Up Task Rolled Up Critical Task	Extern Project Group Inactiv Inactiv	Summary By Summary e Task e Milestone e Summary	<b>-</b>		Manu Manu Start- Finisl	ial Sumi ial Sumi only h-only ress	mary R		<u></u>					

Figure 6 - Replacement Page for Exhibit E Figure 21