

TABLE 2
RIFS TASKS COMPARED TO THE SOW
 Leviathan Mine Site
 Alpine County, California

Statement of Work (SOW) Components	Well Location FRI	Mapping FRI	On-property FRI							Off-property FRI			Reference FRI			
			Water Balance	Bioassessment	Surface Water and Sediment	Hydrogeology	Geotechnical	Storm water	Source Investigation, Mine Waste	Bioassessment	Surface Water and Sediment	Soil	Bioassessment	Surface Water and Sediment	Soil	Groundwater
A) Environmental Setting and Pathway Characterization																
<u>A.1 Hydrogeology</u>	x	x	x		x	x			x	x						x
A.1.a) Analyze the available data to construct a water balance	x	x	x		x	x			x	x						x
A.1.b) Describe the regional and local geologic and hydrogeologic characteristics affecting groundwater flow beneath and downgradient of the Leviathan Mine	x	x				x				x						x
A.1.c) Collect field data to identify hydrogeologic properties of the subsurface units that may be part of the migration pathways	x	x				x				x						x
A.1.d) based on field studies and cores, and structural geology prepare hydrogeologic cross sections and fence diagrams showing the extent of hydrogeological units	x	x				x				x						x
A.1.e) Analyze topographic features that might influence groundwater flow system	x	x				x				x						x
A.1.f) Develop a representative description of groundwater levels and flow from regular periodic monitoring of groundwater elevation data in monitoring wells at the site and upgradient of the site	x		x			x				x						x
A.1.g) Based on data from monitoring of groundwater develop isoconcentration maps in plan and cross section and show relationship between sources and contaminant discharge	x		x		x	x		x	x		x					x
A.1.h) A description of the man made features that may affect discharge in the vicinity of the Leviathan Mine		x	x		x	x	x	x	x							
<u>A.2 Surface Water and Sediment</u>		x	x		x				x	x		x	x		x	
A.2.a) Describe the water bodies that exist (elevation, flow, velocity, depth, width, seasonal fluctuations, flooding tendencies)	x	x	x		x				x	x		x			x	
A.2.b) Install, calibrate, and maintain stream gauges for monitoring surface water flow rates			x		x					x		x	x		x	
A.2.c) Describe the chemistry of the natural surface water and sediment within appropriate reference streams.					x							x	x		x	
A.2.d) Storm water monitoring					x				x	x					x	
A.2.e) Characterize eroded sediment from mine wastes		x			x				x	x		x	x			x
A.2.f) Evaluate sediments behind the Ruhentroth Dam site		x										x	x			
B) Source Characterization																
<u>B.1) Quantify disposal or release area characteristics</u>	x	x	x			x	x			x						
<u>B.2) Quantify waste characteristics</u>		x								x						
B.2.a) Type, quantity, and chemical composition of wastes placed in the area, including degradation and reaction byproducts		x								x						
B.2.b) Physical and chemical characteristics of the waste, including mine waste classification in accordance with federal and state regulations							x			x						
B.2.c) Migration and dispersal characteristics of the waste, including erosion, sorption, biodegradability, acid generating potential, hydrolysis rates, and chemical transformations		x								x						
B.2.d) Biological effects of the waste on revegetation efforts and contaminant uptake potential		x								x						
C) Contamination Characterization																
<u>C.1) Groundwater Geochemistry</u>	x					x				x						x
<u>C.2) Soil and Mine Waste Geochemistry</u>		x								x						x
<u>C.3) Surface Water Geochemistry</u>				x	x				x	x	x	x	x	x		
<u>C.4) Stream Sediment Geochemistry</u>		x		x	x				x	x	x	x	x	x		
<u>C.5) Seasonal and annual mass transport of COCs</u>			x		x	x			x	x		x	x			
D) Receptor Identification and Risk Assessments																
<u>D.1) Human Health Risk Assessment</u>	x			x	x	x			x	x	x	x	x	x	x	x
<u>D.2) Ecological Risk Assessment</u>	x			x	x	x			x	x	x	x	x	x	x	x
E) Geotechnical Engineering Evaluation																
<u>E.1) Review groundwater level data</u>	x					x	x			x						x
<u>E.2) Complete geophysical surveys to determine subsurface geologic properties</u>		x				x	x			x						
<u>E.3) Visual inspection and assessment of existing structures</u>								x		x						
<u>E.4) Completion of subsurface explorations to characterize the native materials</u>						x	x			x					x	x
<u>E.5) Assess of mine shafts, adits, tunnels and galleries to determine their interaction with other structures.</u>						x	x			x						
<u>E.6) Geotechnical assessment of the existing ponds for structural integrity.</u>								x		x						
<u>E.7) Geotechnical assessment of mine waste slopes and high walls for stability and safety.</u>								x		x						
<u>E.8) Landslide evaluation</u>								x		x						
Feasibility Study																
A) Detailed identification of contamination to be remediated and physical hazards to be removed	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
B) Identification of remedial action alternatives that will protect human health and the environment	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x