Attachment A

Water Resources Monitoring and Mitigation Summary

ATTACHMENT A

WATER RESOURCES MONITORING AND MITIGATION SUMMARY

HYDRAULIC FEATURE	WELL/ SPRING/ FEATURE NAME	MONITORING PARAMETERS	FREQUENCY & TIME	FORMATION/ LOCATION	REASON FOR MONITORING	USE OF FEATURE	MONITOR OR MITIGATION TRIGGER	MONITORING OR MITIGATION MEASURE
Groundwater Removal Monitoring	H6-227WW	• Depth to Groundwater • NDEP Profile I	Quarterly	Vinini Formation	To monitor groundwater levels and water quality near active mining operations	N/A	If monitoring shows water quality exceedances significantly above existing conditions. See the Water Pollution Control Permit regarding water quality parameters. If the baseline groundwater elevation consistently declines more than 10 feet below the groundwater baseline elevation. The groundwater baseline elevation is determined once the water level stabilizes after drilling.	This well is used to continue to evaluate and refine the models. If impacts are detected, mitigation would be determined in consultation with the BLM and NDEP, and would depend on the identified impact. If the groundwater elevation reaches the monitor trigger then additional monitoring would consist of installing step-out monitoring wells and/or piezometers. The well locations would be determined in consultation with the BLM and NDEP.
	H7-252WW	• Depth to Groundwater • NDEP Profile I	Quarterly	Vinini Formation	To monitor groundwater levels and water quality near active mining operations	N/A	If monitoring shows water quality exceedances significantly above existing conditions. See the Water Pollution Control Permit regarding water quality parameters. If the baseline groundwater elevation consistently declines more than 10 feet below the groundwater baseline elevation. The groundwater baseline elevation is determined once the water level stabilizes after drilling.	This well is used to continue to evaluate and refine the models. If impacts are detected, mitigation would be determined in consultation with the BLM and NDEP, and would depend on the identified impact. If the groundwater elevation reaches the monitor trigger then additional monitoring would consist of installing step-out monitoring wells and/or piezometers. The well locations would be determined in consultation with the BLM and NDEP.
	H7-253WW	• Depth to Groundwater • NDEP Profile I	Quarterly	Vinini Formation	To monitor groundwater levels and water quality near active mining operations	N/A	If monitoring shows water quality exceedances significantly above existing conditions. See the Water Pollution Control Permit regarding water quality parameters. If the baseline groundwater elevation consistently declines more than 10 feet below the groundwater baseline elevation. The groundwater baseline elevation is determined once the water level stabilizes after drilling.	This well is used to continue to evaluate and refine the models. If impacts are detected, mitigation would be determined in consultation with the BLM and NDEP, and would depend on the identified impact. If the groundwater elevation reaches the monitor trigger then additional monitoring would consist of installing step-out monitoring wells and/or piezometers. The well locations would be determined in consultation with the BLM and NDEP.
	H7-254WW	• Depth to Groundwater • NDEP Profile I	Quarterly	Vinini Formation	To monitor groundwater levels and water quality near active mining operations	N/A	If monitoring shows water quality exceedances significantly above existing conditions. See the Water Pollution Control Permit regarding water quality parameters. If the baseline groundwater elevation consistently declines more than 10 feet below the groundwater baseline elevation. The groundwater baseline elevation is determined once the water level stabilizes after drilling.	This well is used to continue to evaluate and refine the models. If impacts are detected, mitigation would be determined in consultation with the BLM and NDEP, and would depend on the identified impact. If the groundwater elevation reaches the monitor trigger then additional monitoring would consist of installing step-out monitoring wells and/or piezometers. The well locations would be determined in consultation with the BLM and NDEP.

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	DGW-2C	• Depth to Groundwater • NDEP Profile I	Quarterly	Vinini Formation	To monitor groundwater levels and water quality near active mining operations	N/A	If monitoring shows water quality exceedances significantly above existing conditions. See the Water Pollution Control Permit regarding water quality parameters. If the baseline groundwater elevation consistently declines more than 10 feet below the groundwater baseline elevation. The groundwater baseline elevation is determined once the water level stabilizes after drilling.	This well is used to continue to evaluate and refine the models. If impacts are detected, mitigation would be determined in consultation with the BLM and NDEP, and would depend on the identified impact. If the groundwater elevation reaches the monitor trigger then additional monitoring would consist of installing step-out monitoring wells and/or piezometers. The well locations would be determined in consultation with the BLM and NDEP.
	BX-4s (Barrick Well)	• Depth to Groundwater	Quarterly	Vinini Formation	To monitor groundwater levels in outlying areas of the 10-foot drawdown contour; Monitoring well for Barrick project; data from this well will be provided to RCG's contractors to refine the groundwater model	N/A	Well BX-4s has a current groundwater elevation of approximately 5,600 feet. The mitigation trigger elevation is 5,588 feet above mean level (aml) or a consistent decline in groundwater elevation of more than 10 feet below the baseline elevation.	If BX-4s reaches the trigger elevation for this well then RCG shall establish a new monitoring well or piezometer at an appropriate location (determined by the BLM in coordination with RCG) between the impacted Barrick well and the spring complex(es).
	BX-2Rs (Barrick Well)	• Depth to Groundwater	Quarterly	Vinini Formation	To monitor groundwater levels in outlying areas of the 10-foot drawdown contour; Monitoring well for Barrick project; data from this well will be provided to RCG's contractors to refine the groundwater model	N/A	Well BX-2Rs has a current groundwater elevation of approximately 5,500 feet. The mitigation trigger elevation is 5,490 feet above mean level (aml) or a consistent decline in groundwater elevation of more than 10 feet below the baseline elevation.	If BX-2Rs reaches the trigger elevation for this well then RCG shall establish a new monitoring well or piezometer at an appropriate location (determined by BLM in coordination with RCG) between the impacted Barrick well and the spring complex(es).
	NA-46 (Barrick Well)	• Depth to Groundwater	Quarterly	Vinini Formation	To monitor groundwater levels in outlying areas of the 10-foot drawdown contour; Monitoring well for Barrick project; data from this well will be provided to RCG's contractors to refine the groundwater model	N/A	None	None
	New Well No.1 (North of underground workings)	• Depth to Groundwater • NDEP Profile I	Quarterly	Vinini Formation	To monitor groundwater levels in outlying areas of the 10-foot drawdown contour	N/A	If monitoring shows water quality exceedances significantly above existing conditions. See the Water Pollution Control Permit regarding water quality parameters. If the baseline groundwater elevation consistently declines more than 10 feet below the groundwater baseline elevation. The groundwater baseline elevation is determined once the water level stabilizes after drilling.	This well is used to continue to evaluate and refine the models. If impacts are detected, mitigation would be determined in consultation with the BLM and NDEP, and would depend on the identified impact. If the groundwater elevation reaches the monitor trigger then additional monitoring would consist of installing step-out monitoring wells and/or piezometers. The well locations would be determined in consultation with the BLM and NDEP.
	New Well	• Depth to	Quarterly	Vinini	To monitor groundwater	N/A	If monitoring shows water quality exceedances	This well is used to continue to evaluate and refine the

HYDRAULIC FEATURE	WELL/ SPRING/ FEATURE NAME	MONITORING PARAMETERS	FREQUENCY & TIME	FORMATION/ LOCATION	REASON FOR MONITORING	USE OF FEATURE	MONITOR OR MITIGATION TRIGGER	MONITORING OR MITIGATION MEASURE
	No. 2 (Northeast of underground workings)	Groundwater • NDEP Profile I		Formation	levels in outlying areas of the 10-foot drawdown contour		significantly above existing conditions. See the Water Pollution Control Permit regarding water quality parameters. If the baseline groundwater elevation consistently declines more than 10 feet below the groundwater baseline elevation. The groundwater baseline elevation is determined once the water level stabilizes after drilling.	models. If impacts are detected, mitigation would be determined in consultation with the BLM and NDEP, and would depend on the identified impact. If the groundwater elevation reaches the monitor trigger then additional monitoring would consist of installing step-out monitoring wells and/or piezometers. The well locations would be determined in consultation with the BLM and NDEP.
TCP Springs	Ivanhoe Springs	• Flow • NDEP Profile I	Annually, in the Fall	Tertiary Volcanics	Although this TCP spring is not sourced in the Vinini Formation and is not expected to be impacted by groundwater removal or mining operations, it is being monitored because of its significance as a TCP.	Western Shoshone cultural uses	No impact is anticipated; results will be reported to the BLM to assist with management of this TCP	N/A
	Buttercup Springs	• Flow • NDEP Profile I	Annually, in the Fall	Tertiary Volcanics	Although this TCP spring is not sourced in the Vinini Formation and is not expected to be impacted by groundwater removal or mining operations, it is being monitored because of its significance as a TCP.	Western Shoshone cultural uses	No impact is anticipated; results will be reported to the BLM to assist with management of this TCP	N/A
	Antelope Springs	• Flow • NDEP Profile I	Annually, in the Fall	Tertiary Volcanics	Although this TCP spring is not sourced in the Vinini Formation and is not expected to be impacted by groundwater removal or mining operations, it is being monitored because of its significance as a TCP.	Western Shoshone cultural uses	No impact is anticipated; results will be reported to the BLM to assist with management of this TCP	N/A
Surface Water Monitoring	GBG-01	• Flow • NDEP Profile I	Quarterly	Little Antelope Creek	Monitoring surface water quality upstream from the mining operations and MA-1 seep to determine background conditions in Little Antelope Creek	N/A	Monitors upstream from previous mining activities. If monitoring shows water quality exceedances significantly above existing conditions. See the Water Pollution Control Permit regarding water quality parameters.	No impacts are anticipated at this site. If impacts are detected, mitigation would be determined in consultation with the BLM and NDEP, and would depend on the identified impact.
	GBG-02	• Flow • NDEP Profile I	Quarterly	Little Antelope Creek	Monitoring surface water quality upstream from the mining operations and MA-1 seep to determine background conditions in Little Antelope Creek	N/A	Monitors upstream from previous mining activities. If monitoring shows water quality exceedances significantly above existing conditions. See the Water Pollution Control Permit regarding water quality parameters.	No impacts are anticipated at this site. If impacts are detected, mitigation would be determined in consultation with the BLM and NDEP, and would depend on the identified impact.
	GBG-03	• Flow	Quarterly	Little	Monitoring surface water	N/A	Monitors impacts from previous mining activities. If	The proposed mitigation for MA-1 seep would be

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		• NDEP Profile I		Antelope Creek	quality downstream from the mining operations and MA-1 seep. It will determine if impaired water from the MA-1 seep is reaching Little Antelope Creek.		monitoring shows water quality exceedances significantly above existing conditions. See the Water Pollution Control Permit regarding water quality parameters.	implemented. If other impacts are detected, mitigation would be determined in consultation with the BLM and NDEP, and would depend on the identified impact.
	GBG-04	• Flow • NDEP Profile I	Quarterly	Little Antelope Creek	Monitoring surface water quality downstream from the mining operations and MA-1 seep. It will determine if impaired water from the MA-1 seep is reaching Little Antelope Creek.	N/A	Monitors impacts from previous mining activities. If monitoring shows water quality exceedances significantly above existing conditions. See the Water Pollution Control Permit regarding water quality parameters.	The proposed mitigation for MA-1 seep would be implemented. If other impacts are detected, mitigation would be determined in consultation with the BLM and NDEP, and would depend on the identified impact.
	MA-1	• Flow • NDEP Profile I	Quarterly	East Waste Rock Storage Facility	Monitoring MA-1 seep will determine if impaired water from the MA-1 seep may reach Little Antelope Creek.	N/A	Monitors impacts from previous mining activities. If monitoring shows water quality exceedances significantly above existing conditions. See the Water Pollution Control Permit regarding water quality parameters.	The proposed mitigation for the MA-1 seep would be implemented. If other impacts are detected, mitigation would be determined in consultation with the BLM and NDEP, and would depend on the identified impact.
	LAC-U	• Flow • NDEP Profile I		RIBs	Monitoring surface water in proximity to the West RIBs		Monitors impacts from Rapid Infiltration Basin (RIB). If monitoring shows water quality exceedances significantly above existing conditions. See the Water Pollution Control Permit regarding water quality parameters.	If impacts are detected, mitigation would be determined in consultation with the BLM and NDEP, and would depend on the identified impact.
	AC-U	• Flow • NDEP Profile I	Quarterly	RIBs	Monitoring surface water quality in proximity to East RIBs	N/A	Monitors impacts from Rapid Infiltration Basin (RIB). If monitoring shows water quality exceedances significantly above existing conditions. See the Water Pollution Control Permit regarding water quality parameters.	If impacts are detected, mitigation would be determined in consultation with the BLM and NDEP, and would depend on the identified impact.
	AC-D	• Flow • NDEP Profile I	Quarterly		Monitoring surface water quality in proximity to West RIBs	N/A	Monitors impacts from Rapid Infiltration Basin (RIB). If monitoring shows water quality exceedances significantly above existing conditions. See the Water Pollution Control Permit regarding water quality parameters.	If impacts are detected, mitigation would be determined in consultation with the BLM and NDEP, and would depend on the identified impact.
Water Quality Monitoring – Wells	WE-1	• NDEP Profile I • Depth to Groundwater	Quarterly	Tertiary Volcanics	Monitoring groundwater quality will indicate if groundwater is being impaired by mining operations	N/A	If monitoring shows water quality exceedances significantly above existing conditions. See the Water Pollution Control Permit regarding water quality parameters. If the baseline groundwater elevation consistently declines more than 10 feet below the groundwater baseline elevation. The groundwater baseline elevation is determined once the water level stabilizes after drilling.	This well is to continue to evaluate and refine the models. If impacts are detected, mitigation would be determined in consultation with BLM and NDEP, and would depend on the identified impact. If the groundwater elevation reaches the monitor trigger then new monitoring wells would be installed to track upward propagation. Well locations would be determined in consultation with the BLM and NDEP.

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	DGW-1R	• NDEP Profile I • Depth to Groundwater	Quarterly	Tertiary Volcanics	Monitoring groundwater quality will indicate if groundwater is being impaired by mining operations	N/A	If monitoring shows water quality exceedances significantly above existing conditions. See the Water Pollution Control Permit regarding water quality parameters. If the baseline groundwater elevation consistently declines more than 10 feet below the groundwater baseline elevation. The groundwater baseline elevation is determined once the water level stabilizes after drilling.	This well is to continue to evaluate and refine the models. If impacts are detected, mitigation would be determined in consultation with BLM and NDEP, and would depend on the identified impact. If the groundwater elevation reaches the monitor trigger then new monitoring wells would be installed to track upward propagation. Well locations would be determined in consultation with the BLM and NDEP.
	DGW-2A	• NDEP Profile I • Depth to Groundwater	Quarterly	Waste Rock	Monitoring groundwater quality will indicate if groundwater is being impaired by mining operations	N/A	If monitoring shows water quality exceedances significantly above existing conditions. See the Water Pollution Control Permit regarding water quality parameters.	This well is to continue to evaluate and refine the models. If impacts are detected, mitigation would be determined in consultation with BLM and NDEP, and would depend on the identified impact.
	DGW-2B	• NDEP Profile I • Depth to Groundwater	Quarterly	Tertiary Volcanics	Monitoring groundwater quality will indicate if groundwater is being impaired by mining operations	N/A	If monitoring shows water quality exceedances significantly above existing conditions. See the Water Pollution Control Permit regarding water quality parameters. If the baseline groundwater elevation consistently declines more than 10 feet below the groundwater baseline elevation. The groundwater baseline elevation is determined once the water level stabilizes after drilling.	This well is to continue to evaluate and refine the models. If impacts are detected, mitigation would be determined in consultation with BLM and NDEP, and would depend on the identified impact. If the groundwater elevation reaches the monitor trigger then new monitoring wells would be installed to track upward propagation. Well locations would be determined in consultation with the BLM and NDEP.
	DGW-2C	• Depth to Groundwater • NDEP Profile I	Quarterly	Vinini Formation	Monitoring groundwater quality will indicate if groundwater is being impaired by mining operations	N/A	If monitoring shows water quality exceedances significantly above existing conditions. See the Water Pollution Control Permit regarding water quality parameters. If the baseline groundwater elevation consistently declines more than 10 feet below the groundwater baseline elevation. The groundwater baseline elevation is determined once the water level stabilizes after drilling.	This well is used to continue to evaluate and refine the models. If impacts are detected, mitigation would be determined in consultation with the BLM and NDEP, and would depend on the identified impact. If the groundwater elevation reaches the monitor trigger then additional monitoring would consist of installing step-out monitoring wells and/or piezometers. The well locations would be determined in consultation with the BLM and NDEP.
	MW-E	• NDEP Profile I • Depth to Groundwater	Monthly	Quaternary Alluvium	Monitoring groundwater quality will indicate if groundwater is being impaired by mining operations	N/A	If monitoring shows water quality exceedances significantly above existing conditions. See the Water Pollution Control Permit regarding water quality parameters.	This well is to continue to evaluate and refine the models. If impacts are detected, mitigation would be determined in consultation with the BLM and NDEP, and would depend on the identified impact.
	MW-F	• NDEP Profile I • Depth to Groundwater	Monthly	Quaternary Alluvium	Monitoring groundwater quality will indicate if groundwater is being impaired by mining	N/A	If monitoring shows water quality exceedances significantly above existing conditions. See the Water Pollution Control Permit regarding water quality parameters.	This well is to continue to evaluate and refine the models. If impacts are detected, mitigation would be determined in consultation with BLM and NDEP, and would depend on the identified impact.

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					operations			
	MW-B	• NDEP Profile I • Depth to Groundwater	Monthly	Quaternary Alluvium	Monitoring groundwater quality will indicate if groundwater is being impaired by mining operations	N/A	If monitoring shows water quality exceedances significantly above existing conditions. See the Water Pollution Control Permit regarding water quality parameters.	This well is to continue to evaluate and refine the models. If impacts are detected, mitigation would be determined in consultation with BLM and NDEP, and would depend on the identified impact.
	RIB-UP-1	• NDEP Profile I • Depth to Groundwater	Quarterly	Quaternary Alluvium	Monitoring groundwater quality will indicate if groundwater is being impaired by mining operations	N/A	If monitoring shows water quality exceedances significantly above existing conditions. See the Water Pollution Control Permit regarding water quality parameters.	This well is to continue to evaluate and refine the models. If impacts are detected, mitigation would be determined in consultation with BLM and NDEP, and would depend on the identified impact.
	RIB-DN-2	• NDEP Profile I • Depth to Groundwater	Quarterly	Quaternary Alluvium	Monitoring groundwater quality will indicate if groundwater is being impaired by mining operations	N/A	If monitoring shows water quality exceedances significantly above existing conditions. See the Water Pollution Control Permit regarding water quality parameters.	This well is to continue to evaluate and refine the models. If impacts are detected, mitigation would be determined in consultation with BLM and NDEP, and would depend on the identified impact.
	RIB-DN-1	• NDEP Profile I • Depth to Groundwater	Quarterly	Quaternary Alluvium	Monitoring groundwater quality will indicate if groundwater is being impaired by mining operations	N/A	If monitoring shows water quality exceedances significantly above existing conditions. See the Water Pollution Control Permit regarding water quality parameters.	This well is to continue to evaluate and refine the models. If impacts are detected, mitigation would be determined in consultation with BLM and NDEP, and would depend on the identified impact.

Attachment B

BLM Pesticide Application Record

ATTACHMENT B

BUREAU OF LAND MANAGEMENT PESTICIDE APPLICATION RECORD

1. a. Project Name: _____

   b. Operator: _____

   c. Pesticide Use Proposal Number: _____

   d. Reference Number: _____

2. Name of Applicator of Employee(s) Applying the Pesticide:

   _____ _____ _____

   _____ _____ _____

3. Date(s) of Application: _____
   (MONTH, DAY, YEAR)

4. Time Frame of Application: _____

5. Location of Application: _____

   County: _____

6. Type of Equipment Used: _____
7. Pesticide (s) Used:
   a. Company or Manufacturer's Name: _____

   b. Trade Name _____

   c. Type of Formulation: Liquid __ ___/ Granular _____/

8. Rate of Application Used:
   a. Active Ingredient per Acre: _____

   b. Volume of Formulation per Acre: _____

9. a. Actual Area Treated: _____

   b. Total Project Area: _____

10. Primary Pest(s) Involved: _____

11. Stage of Pest Development: _____

12. Site Treated: _/ Native Vegetation __/ Seeded Vegetation _/ Other

13. Weather Conditions: a. Wind Direction:_____ b. Wind velocity: _____ c. Temp. _____

14. Monitoring Record: (if insufficient space-continue on back): _____

This Record is required and must be completed for monitoring within 24 hours after completion of application of pesticides. This record must be maintained for a minimum of 10 years.

Protocol A

Groundwater Monitoring Schedule, Testing Criteria, and Reporting Procedure

PROTOCOL A

Groundwater Monitoring Schedule, Testing Criteria, and Reporting Procedure

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Monitoring Start Dates and Duration of Monitoring:

Well Number or Name	Start Date	Duration
H6-227WW H7-252WW H7-253WW H7-254WW W-E-1 DGW-1R DGW-2A DGW-2B DGW-2C RIB DN-1 RIB DN-2 RIB UP-1	The quarter following the issuance of the Project approval and quarterly thereafter	Life of Mine (including reclamation and closure)
WW-5	The year following the issuance of the Project approval and annually thereafter	Life of Mine (including reclamation and closure)
MW-B MW-E MW-F	The beginning month following the issuance of the Project approval and monthly thereafter	Life of Mine (including reclamation and closure)
New Well No. 1 (North)	The quarter following completion of the well and quarterly thereafter	Completion of the well through reclamation and closure/Life of mine
New Well No. 2 (Northeast)	The quarter following completion of the well and quarterly thereafter	Completion of the well through reclamation and closure/life of mine

Frequency of Monitoring: WW-5 will be monitored annually. MW-B, MW-E and MW-F will be monitored monthly. All other monitoring wells will be monitored quarterly.

Data Submission and Monitoring Report:

Report Due Date: Provided to the BLM annually by April 30 each year following the data collection the prior year.

Water Quantity Testing Protocol and Data:

- Hydrographs showing the base groundwater level, monthly/ quarterly/annual recorded levels and the groundwater trigger level.
- Comprehensive electronic water level files

Water Quality Testing:

- NDEP Profile 1 Standards
- Data will be presented in spreadsheet format and will include: well identification, date and time of sampling and the testing results for each constituent.

Monitoring and Static Water Level Sampling Procedures for Groundwater:

Collection of Water Samples/Depth To Water (DTW) Data:

- Wear personal protective equipment, as needed. At a minimum, a clean pair of gloves should be worn for each sample. Gloves should be changed if contamination has occurred during the sampling event.
- Take care to avoid contamination of the containers and lids during sampling. A separate container or bag can be used to avoid placing bottles or exposed lids directly on the ground. Avoid touching the inside of the containers or lids with your fingers or any sampling equipment.
- Rinse the water level indicator tape probe and first ten feet of tape with distilled water. Lower the indicator tape inside the small PVC pipe (sounding tube) located inside the well casing until the alarm sounds, indicating you have hit water. Measure the depth to water (DTW) from the top of the well casing. Record the static water level on the sampling log to the one-hundredths of a foot. Carefully remove tape from the well.
- Set up sampling apparatus by connecting PVC pipe to connection inside the well casing. Set a cleaned (rinsed) bucket underneath the PVC pipe to collect and measure water.
- Prepare to pump water by:
    - Completing a pre-inspection checklist for the generator.

    - Plug in female end of extension cord into male plug mounted at each well. Do not plug into the generator at this time.
    - Turn on fuel supply for generator.
    - Choke generator (if cold)
    - Start generator using pull cord and allow it to warm up for 1-3 minutes.
    - Plug in extension cord to begin pumping.
- Allow water to pump based on historic volume purges (for some wells this may be 10 gallons, for others it may be 100 gallons). Pumped water should be distributed to the surrounding area, away from the sampling location. Prior to sampling, fill a clean, non-preserved bottle, beaker or graduated cylinder with water and measure the pH, EC and Temperature using the multi-parameter meter. Record these values on the sampling log.
- Record the date/time of the sample and fill the pre-labeled sample containers. For bottles that contain preservatives, these will be contained in a separate vial except for the bottles containing sodium hydroxide (NaOH). NaOH will be present directly in the bottles in the form of pellets. If applicable, remove the vial, fill the sample container with water and then empty the contents of the preservative vial into the sample container. Take care not to overfill any of the sample containers, especially the bottles containing NaOH. FOR DISSOLVED METALS: fill the field filtering bottle with unpreserved sample water and attach hand pump to the filter bottle, apply a vacuum using the hand pump and allow sample to filter through the 0.45 μm filter. Pour the filtered sample into the sample container and add the preservative.
    - If you do not have field filtering bottles, DO NOT preserve the metals aliquot. The lab can filter and preserve for metals ONLY.
- Place filled sample containers in the cooler, ensuring all the lids are secure.
- Turn off the generator and disconnect extension cord, store in the vehicle. Remove sampling apparatus and store in the vehicle. Replace well cap.

- Repeat for each well. Follow Sample Transport & Shipment Guidelines.

Sample Transport & Shipment Guidelines:

After a sampling even takes place, the samples will need to be transported to a Nevada certified laboratory within EPA recommended holding times (allow for a minimum 24 hour buffer, if possible, for the laboratory to process the samples).

Prior to the transport of the samples by any of the approved methods, the following steps should be taken to ensure the samples are received in a complete and organized fashion by the laboratory:

- Ensure that all sample containers are present and are labeled completely and properly.
    - Sample bottles from each location should be placed inside a Ziploc bag, in an upright position.
- Ensure that the Sampling Log has been filled out completely and properly.
- Ensure that the Chain of Custody has been filled out completely and properly. Place the Chain of Custody inside a Ziploc bag and place it inside the cooler with the samples.
    - If the courier will be delivering the samples or you will be shipping them, tear off the pink copy of the Chain of Custody and keep in the Environmental Department's records. If a company employee is delivering the samples, they will receive the pink copy at the time of delivery.
- All samples should be placed securely inside a cooler in an upright position. NEVER LAY SAMPLE CONTAINERS ON THEIR SIDE.
- Using frozen ice packs, or ice placed inside Ziploc bags, pack the samples to ensure they will be maintained at 4°C until they are received at the laboratory. NEVER PUT LOOSE ICE IN THE COOLER. IT CAN POTENTIALLY CONTAMINATE THE SAMPLES AND ALL SHIPPING VENDORS WILL RETURN THE COOLER OR HOLD IT FOR INSPECTION IF THEY DETECT LEAKS.

Data Validation:

Immediately upon receipt of the laboratory results, all field and lab data will be evaluated and independent assessments of data accuracy will be completed. Independent checks of data accuracy are performed by the Environmental Department and the laboratory staff is notified if values are identified that are outside the existing data trends for any parameter, or if there is a potential for an exceedance of any permit condition. Upon positive confirmation of an outlier or anomaly, the laboratory will be instructed to re-analyze the sample. If the sample data comes back the same as the original analysis, then the monitoring location will be re-sampled. If the resample analysis confirms the original sample, RCG will report to necessary agencies. It's important to look at the data immediately when received from the lab in case we have to rerun a sample within an accepted holding period.

Protocol B

Monitoring Schedule, Testing Criteria, and Reporting Procedure
Surface Water, TCP Springs, and MA-1 Seep

PROTOCOL B

Monitoring Schedule, Testing Criteria, and Reporting Procedure
Surface Water, TCP Springs, and MA-1 Seep

Monitoring Start Dates and Duration of Monitoring: The third quarter or first fall after the issuance of the Project approval through closing and reclamation.

Frequency of Monitoring: Quarterly at existing surface water monitoring locations. All other locations will be monitored annually in the fall.

Data Submission and Monitoring Report:

Report due date: Annually, due by April 30 each year following the data collection the prior fall.

Water Quantity Testing:

- Permanent monitoring stations using a t-post with GPS coordinates
- Field measured items: flow rate, specific conductance, pH, dissolved oxygen, temperature and depth to water.

Water Quality Testing:

- NDEP Profile 1 Standards

Monitoring Procedures for Surface Water Quality:

Water Sampling:

- Wear personal protective equipment, as needed. At a minimum, a clean pair of gloves should be worn for each sample. Gloves should be changed if contamination has occurred during the sampling event.

- Take care to avoid contamination of the containers and lids during sampling. A separate container or bag can be used to avoid placing bottles or exposed lids directly on the ground. Avoid touching the inside of the containers or lids with your fingers or any sampling equipment.

- Record the date/time of the sample and fill the pre-labeled sample containers. For bottles that contain preservatives, these will be contained in a separate vial except for the bottles containing sodium hydroxide (NaOH). NaOH will be present directly in the bottles in the form of pellets. If applicable, remove the vial, fill the sample container with water

and then empty the contents of the preservative vial into the sample container. Containers should be filled by placing the bottle at a 45 degree angle, with the opening facing upwards, and allow the water to flow into the bottle. Pull the bottle straight up and out of the water. If you are filling a container that has NaOH, DO NOT place this bottle directly in the water source. The non-preserved bottle should be used to fill the bottle containing NaOH, using care not to touch the bottles necks together. If the water is too shallow to completely submerge the container, an additional clean, non-preserved bottle can be used to fill the sample containers until full. Take care not to overfill any of the sample containers, especially the bottles containing NaOH. FOR DISSOLVED METALS: fill the field filtering bottle with unpreserved sample water and attach hand pump to the filter bottle, apply a vacuum using the hand pump and allow sample to filter through the 0.45 μm filter. Pour the filtered sample into the sample container and add the preservative.

- If you do not have field filtering bottles, DO NOT preserve the metals aliquot. The lab can filter and preserve for metals ONLY.
- Place filled sample containers in the cooler, ensuring all the lids are secure.
- Repeat for each sampling location. Follow guidelines in Section 8.0 Sample Transport & Shipment Guidelines for post-sampling instructions.

Sample Transport & Shipment Guidelines:

Same procedures set forth for Groundwater, above.

Data Validation:

Same procedures set forth for Groundwater, above.

Monitoring Procedures for Surface Water Quantity:

Water Flow Measurements:

- Measuring the velocity of stream flow at flow stations requires the use of a current or flow meter, a tape measure to measure the width of the stream and a wading rod to measure the depth of the water. Rubber boots or waders may be required depending on the depth and width of the channel.
- Select the section of the channel to be measured. The ideal site is in a stable stream channel that does not significantly alter course, depth or flow

with minor environmental changes. The flow within the channel should run parallel to the stream channel orientation and not be interrupted by backwater flows or structures.

- Develop a cross-section of the stream. Measure the width of the stream, extending the cross-section to a point on the opposite bank that is above flood level, if practical. Stretch a measuring tape across the stream from the near bank to the far, so that one-foot intervals can be read quickly. (When measuring a narrow channel a shorter interval of 6” should be used.) Always record the interval width to insure proper calculation of the total flow rate. Also record the total width of the stream. Note any additional observations on the field sheet.

- Cross the stream at the tape and, at each foot mark beginning on the near bank, take a depth measurement and record this information, together with the distance from the near bank.

- Use the depth and width data to draw a rough profile for the stream on the field sheet. Return to the near bank and calculate 60 percent of each depth measured.

- Cross the stream again, lowering the flow meter to the "60 percent of depth" point determined previously. Always stand downstream of the flow meter and avoid standing so close that you interrupt the natural stream flow. Hold the flow meter in the water for 30 to 45 seconds to stabilize, and then record the measurement.

- Average the flow data to determine the flow rate at the monitoring site.