MONTGOMERY
& ASSOCIATES
Water Resource Consultants

www.elmontgomery.com
1550 East Prince Road
Tucson, AZ 85719
520.881.4912

TECHNICAL MEMORANDUM

DATE: September 14, 2018 **PROJECT #**: 605.8302

TO: Vicky Peacey, Resolution Copper

FROM: Chris Gregory and Tim Bayley, Montgomery & Associates

PROJECT: Proposed Peg Leg Tailings Facility

SUBJECT: TSF Alternative 5 – Peg Leg: Life of Mine and Post-Closure Seepage Transport Modeling

Introduction

The draft environmental impact statement for the proposed Resolution Copper mine includes the following tailings storage facility (TSF) alternatives:

- Alternative 2: Near West Modified Proposed Action (Modified Centerline Embankment – "Wet")
- Alternative 3: Near West Modified Proposed Action (High-density Thickened NPAG Scavenger Tailings and Segregated PAG Pyrite Tailings Cell – "Dry")
- Alternative 4: Silver King Filtered
- Alternative 5: Peg Leg
- Alternative 6: Skunk Camp

At the request of Resolution Copper (RC), Montgomery & Associates (M&A) has prepared this technical memorandum to document groundwater transport modeling and results for TSF Alternative 5—Peg Leg. The purpose of the model is to provide a tool to compare the relative impacts of seepage (rate, transit time, and quality) among the different TSF alternatives. All TSF alternatives can comply with groundwater and surface water standards, but the degree of seepage management needed among alternatives would vary (minimal/simple to extensive/complex).

The model was developed using the Contaminant Transport (CT) Module of the GoldSim simulation platform (version 12.0). The results include time series estimates of chemical constituent concentrations in the alluvial aquifer immediately downgradient of the TSF footprint in Donnelly Wash, as well as in the surface water mixing zone located at the confluence of Donnelly Wash and the Gila River. The model period spans 245 years, which includes the 41-year planned Life of Mine (LOM) and an additional 204 years post-closure.

The GoldSim modeling provides a basis for comparison among the alternatives, but is not typically used or adequate for water quality permitting. The TSF will be required to obtain an aquifer protection permit from the Arizona Department of Environmental Quality. By regulation, every permitted facility must utilize Best Available Demonstrated Control Technology (BADCT) and demonstrate that Aquifer Water Quality Standards (AWQS) and surface water quality standards will not be exceeded at the point of compliance as a result of discharge from the facility. These requirements have not been addressed by the GoldSim model but will be incorporated into final design, construction and operation of the TSF.

This memorandum comprises the following sections:

- Conceptual Model
- GoldSim Seepage Transport Model
- Results
- Discussion and Conclusions

Conceptual Model

Site Description

The proposed Peg Leg TSF is located approximately 17 miles east of Florence and 10 miles west of Kearny in Pinal County, Arizona. The site is approximately 4 miles south of the Gila River, and is accessible from the Florence-Kelvin Highway. The elevation of the TSF foundation varies from approximately 3,000 feet above mean sea level (amsl) on the east side to approximately 2,500 feet amsl on the west side. The Peg Leg study area and proposed TSF footprint are shown on **Figure 1**.

Geology

A geologic map of the Peg Leg area that shows the proposed TSF footprint for Alternative 5 is shown on **Figure 2**. The principal geologic units within the study area, from oldest to youngest, include: older Precambrian Pinal Schist (Xp); older and younger Precambrian intrusive rocks (YXg and Yg); younger Precambrian diabase (Yd); Laramide intrusive rocks (TKg); San Manuel Formation (Tsm); Whitetail Formation (Tw); Apache Leap Tuff (Tal); younger Tertiary volcanic rocks (Tvy); Gila Group conglomerate (Tcg);

Quaternary / Tertiary talus, colluvium, and landslide deposits (QTls); and Quaternary deposits including older alluvium (Qoa), active stream channel alluvium and low terraces (Qal), and disturbed surficial deposits (d) (Spencer and others, 1998; and Richard, 1998).

HydroGEOPHYSICS, Inc. (HGI) conducted a multi-method electrical resistivity, seismic refraction and gravity geophysical survey at the Peg Leg site to determine approximate depths to bedrock and character of the basin fill in support of a geotechnical feasibility study for the proposed TSF. The initial seismic refraction and electrical resistivity surveys yielded depths to bedrock greater than 300 feet and 400 feet, respectively, exceeding the limitations of the equipment used for the surveys. A basin-wide gravity survey was conducted to image down to bedrock (HGI, 2017).

Results of the survey indicated that depth to bedrock within the Donnelly Wash basin is approximately 700 feet in the northern part of the study area and 550 to 570 feet in central part of the basin using an assumed basin-fill density of 2.0 grams per cubic centimeter (g/cm^3); with an assumed basin-fill density of 2.35 g/cm^3, depth to bedrock estimates range from 1,600 feet in the northern part of the study area to 1,250 to 1,300 feet in the central part of the basin (HGI, 2017).

Surface Water

The proposed TSF footprint is located within the Donnelly Wash watershed. Major drainages in the area include Box O Wash to the west of the TSF and Ripsey Wash to the east. Surface water in the three drainages flows northwest to the Gila River. Surface water flow within these drainages is ephemeral (ADWR, 2009).

The Gila River is perennial and its flow is partially controlled by releases from Coolidge Dam (ADWR, 2009). Flow in the Gila River varies seasonally, with highest flows occurring between March and August, and lowest flows occurring between September and February. Flow data from 2003 to the end of the most recent water year (September 2017) were compiled from the two USGS gaging stations closest to Donnelly Wash: station 09474000, located along the Gila River approximately 14.4 miles upstream from Donnelly Wash at Kelvin, Arizona; and station 09475500, located at the Florence-Casa Grande Canal approximately 6.3 miles downstream from Donnelly Wash, near Florence, Arizona. Daily flow measurements from the two stations were used to estimate the median flow rate for the Gila River at Donnelly Wash, calculated as a spatially weighted average based on distance from each stream gage. The estimated median flow rate of the Gila River at the Donnelly Wash outlet is given in the table below.

Gila River Location	Median Flow (cfs[1])	(af/yr[2])
Donnelly Wash Outlet	240.6	174,300

[1] cfs = cubic feet per second

[2] af/yr = acre-feet per year

Groundwater Flow

The direction of groundwater movement in Donnelly Wash basin is west to northwest, and discharges into the Gila River. Conceptually, groundwater levels are the highest on the eastern margin of the alluvium as it flows off of the Precambrian and Laramide granitic bedrock highlands. As groundwater flows through the alluvium, the flow direction gradually bends to the northwest as it approaches the Gila River. Hydraulic conductivity is estimated to be 2.11 feet/day (ft/d) based on total basin size, estimated recharge, and hydraulic gradient.

During site reconnaissance in 2017, water levels were measured at six wells (M&A, 2018). Depths to water ranged from 22 feet below land surface (bls) at well 330618111092201 to 149 feet bls at well 55-631448. Depth to groundwater near the midline of the basin-fill alluvium and under the proposed TSF was observed at approximately 30 feet bls (**Figure 3**).

Tailings Storage Facility – Alternative 5

Alternative 5 utilizes two separate facilities to store and manage the tailings. The Pyrite Acid Generating (PAG) tailings are located on an area of bedrock geology, which is expected to have lower permeability than alluvial areas situated to the west. The PAG tailings will be stored within a downstream tailings embankment and deposited subaqueously beneath a water cover. The Non-Pyrite Acid Generating (NPAG) tailings will be constructed using a centerline dam and the overflow will be thickened to recapture the cyclone dilution water that diverts to the overflow during the cyclone separation process. This process reduces the water going to the impoundment, thereby reducing infiltration and evaporative losses. The engineering design includes pump-back infrastructure intended to capture seepage from the TSF and reuse it on site. Seepage that is not captured is predicted to infiltrate into the alluvial aquifer and travel towards the Gila River, where it will discharge into the river. Additional detail about the TSF design for Alternative 5 is available in Golder (2018).

GoldSim Seepage Transport Model

Contaminant Transport Module

The CT Module extension of GoldSim is a mass transport model, not a flow model. As such, it does not directly solve for the movement of water through the modeled environmental system (GoldSim, 2017). The CT Module relies on user-specified flow rates for all flows into and out of aquifers, and therefore the velocity at which water moves through the media depends on the flow rates and volume of the available pore space in the aquifer pathways.

The CT Module has been used to develop an advection-dispersion mass flux model with mixing of inflow and outflow components to estimate the transport of chemical constituents through time. Mechanical dispersion of the constituents occurs as a function of the porosity and tortuosity of the aquifer, and the dispersivity values specified in the model. The dispersivity values assigned to aquifer element pathways were estimated as 10% of aquifer subdomain length based on Gelhar and others (1992).

Model Domain

The domain of the model is defined by the extent of the alluvial deposits in the Donnelly Wash basin, as shown on **Figure 4**. The full domain was split into smaller subdomains to account for changes in aquifer width. Model subdomain geometries were estimated using polygon areas for the alluvium using ArcGIS. Cross-sectional areas and saturated thicknesses of the aquifer subdomains were estimated based on Darcy's Law. Calculations were made using the average flow rate through the subdomains, and an assumed hydraulic conductivity of 2.11 feet per day for the Donnelly Wash alluvium and basin-fill aquifer. The dimensions of the aquifer subdomains used in the seepage model are given in **Table 1.**

Materials and Parameters

Water

The GoldSim CT Module requires properties for a reference fluid and the flow medium for models. The reference fluid was specified as water, with a diffusivity of 1E-9 meters squared per second. For the seepage transport model, the diffusivity reduction formula, relative diffusivities and solubility input parameters did not apply as the media was fully saturated and the constituent concentrations did not approach solubility limits.

Alluvium

The aquifer material in the model is native alluvium, with an assumed advective porosity of 0.15 and a dry (bulk) density of 2,350 kilograms per cubic meter based on reference estimates (Sharma, 1997) and HGI surveys (2018). The tortuosity was estimated as the cube root of the porosity, with a value of 0.53 (GoldSim, 2017). No partition coefficients were specified as it was assumed that the transport of constituents was conservative (i.e. constituents did not sorb onto the alluvium).

Water Budget

Water enters the aquifer subdomains as recharge, groundwater underflow, and seepage from the TSF impoundment. Water exits the aquifer subdomains as groundwater evapotranspiration (GET), as flow passing into the next downgradient aquifer subdomain, and as discharge to the Gila River. Groundwater pumping is not known to occur within the model domain at meaningful rates.

Descriptions of aquifer inflows and outflows are presented below. Water budget components modeled during LOM and post-closure periods are given in **Tables 2 and 3**, respectively.

Inflows

Recharge

Recharge is inflow derived from precipitation occurring within aquifer subbasins. Estimates of recharge for model subbasins within the Donnelly Wash watershed were partitioned based on the fractional area of each subdomain within the greater Peg Leg study area. The Anderson method (1992) was used to estimate recharge based on estimates of precipitation. Average annual precipitation for these subbasins was estimated using 30 year normal precipitation data (1980-2010) from the PRISM Model (PRISM Climate Group, 2017).

Estimated recharge within each subbasin was subdivided into focused recharge—identified simply as “recharge” within the model—and diffuse recharge classified as groundwater underflow in the model. The model assumed 75% of recharge to be focused recharge and 25% to be diffuse recharge based on estimates provided by Meixner and others (2016). Recharge estimates for each aquifer subdomain are shown in **Tables 2 and 3**.

Groundwater Underflow

Groundwater underflow includes inflow to aquifer subdomains from the movement of groundwater originating from upstream portions of aquifer subbasins. As indicated in *Recharge* above, the seepage transport model assumed 25% of total recharge to be contributions to groundwater underflow. Estimates of groundwater underflows are shown in **Tables 2 and 3**.

TSF Seepage

Tailings seepage rates entering the Donnelly Wash alluvium over the 41-year LOM were estimated by Golder (2018) based on modeled mine tailings and slurry production estimates during mine operation. Captured seepage will be reused on site as process water, while uncaptured seepage will infiltrate into the surrounding alluvium (Golder, 2018). The uncaptured portion of seepage is used as the LOM seepage rate for this model. Post-closure seepage rates were based on average annual precipitation, TSF area and estimates of TSF recharge as a fraction of precipitation developed for beach and embankment areas. The estimated recharge rates due to precipitation for the PAG, NPAG and embankment tailings areas during post-closure are estimated to be 1%, 2% and 7%, respectively.

The average rates of tailings seepage into native alluvium during LOM and post-closure years are shown as inflow components for the Donnelly Wash 1 subdomain in **Tables 2 and 3**, and given below.

Aquifer Subdomain	Period	*TSF Alternative 5* Seepage (af/yr[1])	Seepage (gpm[2])
Donnelly Wash 1	Life of Mine	1293	802
	Post-Closure	258	160

[1] af/yr = acre-feet per year

[2] gpm = gallons per minute

Outflows

Groundwater Evapotranspiration (GET)

GET includes outflow from aquifer subdomains due to evaporation and transpiration. GET rates were estimated using the Normalized Difference Vegetation Index (NDVI) for satellite imagery datasets for the Peg Leg study area. NDVI values range from 0 to 1.0, with higher values indicating the presence of healthy dense vegetation. Because Donnelly

Wash is ephemeral, it is assumed that any actively photosynthesizing vegetation during dry periods of the year would get water needed for growth from groundwater sources.

NDVI datasets were collected for the month of June—using datasets when cloud cover is nearly absent—for the period from 2003 to 2017. Based on an analysis of the NVDI datasets, there was no evidence of any actively photosynthesizing vegetation in Donnelly Wash for any of the years reviewed. Consequently, GET was not considered a significant outflow component in Donnelly Wash and was not included in the seepage transport model.

Outflow to Downstream Aquifer Subdomains

Following mixing of recharge and tailings seepage, groundwater in the model flows from each subdomain into the next adjacent subdomain located immediately downstream. Outflow from the upstream subdomain becomes inflow to the downstream subdomain. The groundwater flow direction between aquifer subdomains is from southeast to northwest, as shown on **Figure 3**. Water discharging from the Donnelly Wash 5 subdomain mixes with water in the Gila River before terminating in a sink pathway cell. The outflow values used in the Alternative 5 model for each aquifer subdomain are presented in **Tables 2 and 3**.

Timing of Seepage Transit from TSF to Model Domain

The proposed Peg Leg TSF directly overlies basin-fill alluvium and occupies the Donnelly Wash 1 subdomain, which is adjacent to the upper reach of the Donnelly Wash 2 subdomain. Consequently, no seepage transit times between the location of the TSF and model domain were incorporated into the model.

Chemical Constituents

A total of 30 chemical constituents were included in process circuit and embankment oxidation chemistry models developed for LOM and post-closure years (Enchemica, 2018 and Rio Tinto, 2018). All of the constituents were included in the seepage transport model. The constituents include common and trace metals, as well as bicarbonate, nitrate-N, sulfate and total dissolved solids, and are given in **Table 4**.

Concentration and Mass Flux of Constituents

The CT Module requires mass and flow inputs in order to simulate the movement of constituent mass through the model domain. Constituent concentrations can be monitored at discreet locations through time based on the amount of fluid (water) and constituent mass at the monitoring location.

In order to simplify the modeling approach, the seepage transport model for Alternative 5 assumed a mass flux of zero milligrams per day from all natural waters—i.e. meteoric precipitation and groundwater. In addition, zero mass flux was assigned to flow from the Gila River. The only mass included in the model was derived from TSF seepage, which allowed for close monitoring of mass contributions from the TSF into the surrounding Donnelly Wash alluvium and Gila River.

Tailings seepage concentrations for LOM years were based on a tailings circuit predictive model for the TSF during mine operations (Enchemica, 2018). Tailings concentrations for post-closure years were based on a combination of the tailings circuit predictive model and base case embankment oxidation modeling (Rio Tinto, 2018) developed to simulate chemical weathering processes following mine closure and during draindown of tailings water. In order to calculate tailings concentrations during post-closure, the result of the process circuit model at the end of LOM (year 41) was multiplied by the estimated seepage rate in the tailings beach areas, and the chemistry of the embankment oxidation model (years 42 through 245) was multiplied by the estimated seepage rate in the tailings embankment areas; the products were added together to determine the daily mass input rate into the seepage transport model.

The seepage rates of the beach and embankment areas during post-closure were estimated by dividing the total post-closure tailings seepage rate by the weighted average of the beach and embankment areas multiplied by the estimated recharge rates for each of the areas. The estimated recharge rates due to precipitation for the PAG, NPAG and embankment tailings areas during post-closure period were estimated to be 1%, 2% and 7%, respectively.

The constituent concentrations of TSF seepage during the 245-year model period are given in **Table 4**. The mass flux of each constituent entering Donnelly Wash was calculated by multiplying the constituent concentrations shown in **Table 4** by the estimated seepage rates during LOM and post-closure (see *TSF Seepage*, above, and **Tables 2 and 3**).

Groundwater quality data for the Donnelly Wash basin is currently limited to two samples collected from wells in the basin (M&A, 2018). Surface water quality data is not available for the Gila River near the confluence with Donnelly Wash. Without a sufficiently large dataset, median concentrations of natural background water could not be estimated; consequently, predicted total constituent concentrations at monitoring locations in the model that include concentrations from TSF seepage and natural background water were not developed for Alternative 5.

Model Simulation Settings

The model was run as a forward, deterministic simulation. The model was designed to simulate 245 years after the start of mining, which includes the 41 years of planned LOM and 204 additional years following closure. Basic time steps of 0.1 years (36.525 days) were used for model calculations, with reporting steps of 1 year. All aquifer subdomain elements were given the maximum number of cell divisions (100 cells) in order to minimize numerical dispersion in model calculations.

Conservative Assumptions

The modeling approach included conservative assumptions about the Gila River flow rate that may overestimate actual constituent concentrations or the number of years that constituent concentrations are above water quality standards. The estimated Gila River flow rate at the Dripping Spring Wash confluence is based on median flow conditions. Average flow includes periods of higher flow associated with rainfall events, which would be expected to further reduce TSF seepage concentrations observed at the Gila River. Predicted constituent concentrations provided in this memorandum should not be considered definitive, and contribute more value in relative (comparative) rather than absolute terms.

Results

Modeled Constituent Concentrations

Modeled constituent concentrations in groundwater immediately downstream of the TSF were monitored in the Donnelly Wash 2 subdomain. The results—which show the contributions to solute concentrations from TSF seepage, and do not include background concentrations of local groundwater—are given in **Table 5**. The modeled constituent concentrations at the Gila River, following mixing with discharge from the Dripping Spring Wash confluence, are provided in **Table 6.**

Due to the large volume of water in storage in the Donnelly Wash alluvial aquifer, mixing and transport of TSF seepage requires more time than the other TSF alternatives before reaching the groundwater and surface water monitoring locations. During the 245-year model period, the maximum concentrations observed in groundwater at Donnelly Wash 2 decrease by approximately 20% to 83% from the maximum concentrations observed in the tailings seepage (**Tables 4 and 5**). The maximum concentrations observed in surface water at the Gila River decrease by approximately 99.8% to 99.9% from the maximum concentrations in the tailings seepage (**Tables 4 and 6**).

Comparison to Water Quality Standards

Modeled concentrations are compared to promulgated water quality standards to provide an indication of potential chemical constituents of concern and to assess the relative performance of different TSF alternatives against standards. Model results are useful indicators for comparative purposes, but are not considered definitive or final.

Water quality standards for the Donnelly Wash 2 subdomain are the Arizona Department of Environmental Quality (ADEQ) Numeric Aquifer Water Quality Standards (AWQS) (ADEQ, 2016). Water quality standards for the Gila River near Donnelly Wash are the ADEQ Numeric Surface Water Quality Standards (SWQS) for the aquatic and wildlife warm (A&Ww [chronic]) designation (ADEQ, 2016), which are the most restrictive standards that apply to the Gila River. Five of the modeled constituents—cadmium, copper, lead, nickel, and zinc—have surface water standards that are hardness dependent and were calculated by using the average value of available hardness measurements collected for USGS gaging station 09474000 between years 1950 and 2006 (477 milligrams per liter [mg/L]calcium carbonate). The regulatory standards for the chemical constituents are included for comparison with modeled values in **Tables 5 and 6**.

For Alternative 5, cadmium, nickel, selenium and thallium are predicted to be above AWQS at Donnelly Wash 2 for some of the model period (see values in bold italics in **Table 5**). None of the modeled concentrations at the Gila River are predicted to be above applicable SWQS during modeled years (**Table 6**).

Discussion and Conclusions

The GoldSim seepage transport model for TSF Alternative 5 provides a tool to compare the relative impacts of seepage (rate, transit time, and quality) among the different TSF alternatives. All TSF alternatives can comply with groundwater and surface water standards, but the degree of seepage management needed among alternatives would vary (minimal/simple to extensive/complex). The background water chemistry of the Peg Leg study area has not yet been characterized; therefore, the model results only consider the constituent concentrations resulting from TSF seepage and assume background concentrations of zero mg/L for natural waters.

The results indicate that concentrations of modeled constituents immediately downgradient from the TSF, in the Donnelly Wash 2 subdomain, generally remain below AWQS during the model period with the exception of cadmium, nickel, selenium and thallium. Furthermore, maximum concentrations observed during the model period decrease by approximately 20 to 83% from maximum concentrations observed in tailings seepage. By the time TSF seepage reaches the Gila River, maximum concentrations are approximately 99% lower than initial tailings concentrations, due in large part to the significant dilution that occurs as water from Donnelly Wash mixes with the Gila River. Additionally, none of the constituent concentrations are observed above applicable SWQS during the model period at the Gila River.

The transport seepage models include conservative assumptions and are expected to overestimate actual constituent concentrations. In the case of Alternative 5, the estimated Gila River flow rate at the Donnelly Wash confluence is based on median flow conditions. Average flow conditions, which are influenced by periods of higher flow associated with rainfall events, would be expected to further reduce concentrations observed at the Gila River.

References

Arizona Department of Water Quality, 2016, Arizona Department of Environmental Quality – Water Quality Standards Supplement 16-4, Arizona Administrative Code: Title 18, Ch. 11, December 31, 2016.

Arizona Department of Water Resources, 2009, Arizona Water Atlas, Volume 3, Southeastern Arizona Planning Area, June 2009.

Anderson, T.W., G.W. Freethey, and P. Tucci, 1992, Geohydrology and Water Resources of Alluvial Basins in South-Central Arizona and Parts of Adjacent States: U.S. Geological Survey, Professional Paper 1406-B, 1992.

Enchemica, LLC, 2018, Alternative 7 – Peg Leg Optimized: Prediction of Tailings Circuit Solute Chemistry: Technical Memorandum Draft prepared for Resolution Copper Mining LLC, June 16, 2018.

Gelhar, L.W., Welty, C., and Rehfeldt, K.R., 1992, A critical review of data on field-scale dispersion in aquifers: Water Resources Research, 28(7), pp. 1955–1974, 1992.

Golder Associates, Inc., 2018, Alternative 7 – Solute Memo Input Parameters and Dust Management – DRAFT: May 4, 2018.

GoldSim Technology Group LLC, 2017, User's Guide: GoldSim Contaminant Transport Module, Version 7.0: February 2017.

HydroGEOPHYSICS, Inc., 2017, Geophysical characterization of the Peg Leg site, Resolution Mine, AZ: report prepared for Resolution Copper, November 2017.

Montgomery & Associates, 2018, Results of Site Reconnaissance: Report prepared for Resolution Copper Mining, May 7, 2018.

PRISM Climate Group, September 2017, Oregon State University: http://prism.oregonstate.edu/explorer/

Richard, S.M. (compiler), 1998, Geologic map of portions of the Globe 30’ X 60’ quadrangle, Arizona: Arizona Geological Survey, digital map DI-13, version 1.0, 1998.

Rio Tinto, 2018, Prediction of Tailings Seepage Water Chemistry Influenced by Tailings Weathering Processes: Technical Memorandum Draft prepared for Resolution Copper Mining LLC, July 29, 2018.

Sharma, P.V., 1997, Environmental and Engineering Geophysics: Cambridge University Press, Cambridge, 1997.

Spencer, J.E., Richard, S.M., and Pearthree, P.A. (compilers), 1998, Geologic map of the Mesa 30’ X 60’ quadrangle, Arizona: Arizona Geological Survey, digital map DI-11, version 1.0, September 1998.

Table 1. Dimensions of Aquifer Subdomains

Aquifer Subdomain	Length (ft)	Area [a] (ft^2)	Average Width [b] (ft)	Saturated Thickness [c] (ft)	Cross Sectional Area [c] (ft^2)
Donnelly Wash 1	12,500	268,567,100	21,500	177	3,802,500
Donnelly Wash 2	5,700	107,599,900	18,900	142	2,685,300
Donnelly Wash 3	5,500	85,511,100	15,500	174	2,703,700
Donnelly Wash 4	4,600	64,363,300	14,000	165	2,306,800
Donnelly Wash 5	9,500	112,716,900	11,900	308	3,660,900

Notes:

[a] Calculated based on polygon area of each subdomain in ArcGIS

[b] Calculated by dividing aquifer polygon area by width

[c] Based on Darcy's Law using the average flow rate through the subdomain during Life of Mine

Table 2. Water Budget Components: Life of Mine

Aquifer Subdomain	INFLOW		OUTFLOW	
	Source	**af/yr**	**Source**	**af/yr**
Donnelly Wash 1	Recharge	74	Groundwater Evapotranspiration	0
	Underflow	246	Discharge to Donnelly Wash 2	1,614
	TSF Seepage during Life of Mine, Average	1,293		
Donnelly Wash 2	Recharge	32	Groundwater Evapotranspiration	0
	Underflow	20	Discharge to Donnelly Wash 3	1,666
	Discharge from Donnelly Wash 1	1,614		
Donnelly Wash 3	Recharge	26	Groundwater Evapotranspiration	0
	Underflow	47	Discharge to Donnelly Wash 4	1,739
	Discharge from Donnelly Wash 2	1,666		
Donnelly Wash 4	Recharge	19	Groundwater Evapotranspiration	0
	Underflow	16	Discharge to Donnelly Wash 5	1,774
	Discharge from Donnelly Wash 3	1,739		
Donnelly Wash 5	Recharge	31	Groundwater Evapotranspiration	0
	Underflow	35	Discharge to MIX	1,840
	Discharge from Donnelly Wash 4	1,774		
Gila River			Discharge to MIX	174,300
MIX	Discharge from Donnelly Wash 5	1,840		
	Discharge from Gila River	174,300	Terminal Sink	176,140

Notes:

1. TSF seepage estimates during Life of Mine based on engineering design report (Golder, 2018)
2. af/yr = acre-feet per year

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Table 3. Water Budget Components: Post-Closure

Aquifer Subdomain	INFLOW Source	INFLOW af/yr	OUTFLOW Source	OUTFLOW af/yr
Donnelly Wash 1	Recharge	74	Groundwater Evapotranspiration	0
	Underflow	246	Discharge to Donnelly Wash 2	579
	TSF Seepage during Post-Closure	258		
Donnelly Wash 2	Recharge	32	Groundwater Evapotranspiration	0
	Underflow	20	Discharge to Donnelly Wash 3	631
	Discharge from Donnelly Wash 1	579		
Donnelly Wash 3	Recharge	26	Groundwater Evapotranspiration	0
	Underflow	47	Discharge to Donnelly Wash 4	704
	Discharge from Donnelly Wash 2	631		
Donnelly Wash 4	Recharge	19	Groundwater Evapotranspiration	0
	Underflow	16	Discharge to Donnelly Wash 5	739
	Discharge from Donnelly Wash 3	704		
Donnelly Wash 5	Recharge	31	Groundwater Evapotranspiration	0
	Underflow	35	Discharge to MIX	805
	Discharge from Donnelly Wash 4	739		
Gila River			Discharge to MIX	174,300
MIX	Discharge from Donnelly Wash 5	805		
	Discharge from Gila River	174,300	Terminal Sink	175,105

Notes:
1. Post-closure TSF seepage estimates based on average annual precipitation, TSF areas and closure recharge estimates (KCB, 2018)
2. af/yr = acre-feet per year

Table 4. Tailings Seepage Concentrations - Alternative 5

Years since Mine Start	Al mg/L	Sb mg/L	As mg/L	Ba mg/L	Be mg/L	HCO3 mg/L	B mg/L	Cd mg/L	Ca mg/L	Cl mg/L	Cr mg/L	Co mg/L	Cu mg/L	F mg/L	Fe mg/L	Pb mg/L	Mg mg/L	Mn mg/L	Mo mg/L	Ni mg/L	NO3-N mg/L	K mg/L	Se mg/L	Si mg/L	Ag mg/L	Na mg/L	SO4 mg/L	Tl mg/L	Zn mg/L	TDS mg/L
1	0.24	0.0006	0.0022	0.013	0.00009	23	0.18	0.000	101	52	0.003	0.003	0.168	1.6	0.001719	0.0006	34	0.02	0.104	0.004	1.5	37	0.012	9.5	0.002	76	481	0.0003	0.10	720
2	0.40	0.0008	0.0014	0.011	0.00011	19	0.19	0.001	110	45	0.005	0.006	0.166	1.6	0.001727	0.0004	34	0.05	0.126	0.008	2.2	42	0.018	10.1	0.003	72	511	0.0003	0.17	756
3	0.53	0.0012	0.0012	0.012	0.00012	19	0.22	0.001	140	52	0.010	0.017	0.169	1.7	0.001728	0.0005	38	0.16	0.159	0.019	3.1	50	0.033	11.3	0.008	81	618	0.0005	0.37	913
4	0.63	0.0019	0.0009	0.012	0.00011	19	0.22	0.002	154	57	0.015	0.029	0.171	1.8	0.001727	0.0006	37	0.29	0.194	0.031	3.3	57	0.050	11.9	0.012	82	649	0.0009	0.59	969
5	0.66	0.0030	0.0005	0.012	0.00008	17	0.21	0.003	149	57	0.018	0.036	0.151	1.8	0.001635	0.0007	33	0.36	0.220	0.039	2.9	60	0.060	11.9	0.015	76	617	0.0019	0.71	931
6	0.64	0.0034	0.0003	0.012	0.00007	17	0.21	0.003	148	60	0.020	0.042	0.137	1.8	0.00139	0.0007	31	0.41	0.242	0.044	2.6	64	0.067	11.8	0.017	75	605	0.0022	0.79	923
7	0.62	0.0033	0.0002	0.012	0.00007	17	0.21	0.004	146	64	0.021	0.044	0.129	1.8	0.001247	0.0007	30	0.44	0.254	0.047	2.4	65	0.071	11.2	0.018	74	592	0.0020	0.83	912
8	0.58	0.0038	0.0004	0.012	0.00014	17	0.24	0.005	171	80	0.026	0.056	0.136	1.9	0.00126	0.0009	36	0.57	0.314	0.061	2.9	80	0.087	11.6	0.022	88	697	0.0023	1.03	1,079
9	0.61	0.0040	0.0004	0.013	0.00016	18	0.26	0.005	179	90	0.028	0.062	0.142	2.0	0.001295	0.0010	38	0.64	0.348	0.068	3.0	88	0.097	11.9	0.024	95	736	0.0023	1.14	1,147
10	0.64	0.0042	0.0004	0.013	0.00019	19	0.28	0.006	184	99	0.031	0.067	0.147	2.1	0.00133	0.0010	41	0.70	0.378	0.075	3.1	95	0.107	12.1	0.026	102	767	0.0024	1.24	1,203
11	0.68	0.0047	0.0005	0.014	0.00024	20	0.31	0.006	191	113	0.035	0.072	0.155	2.2	0.001387	0.0011	45	0.77	0.426	0.087	3.4	107	0.121	12.5	0.029	115	822	0.0026	1.36	1,297
12	0.69	0.0047	0.0005	0.014	0.00025	21	0.32	0.006	190	118	0.036	0.073	0.156	2.3	0.001397	0.0011	46	0.78	0.437	0.090	3.5	109	0.126	12.4	0.029	118	826	0.0025	1.38	1,308
13	0.72	0.0048	0.0005	0.014	0.00027	21	0.33	0.007	192	124	0.037	0.074	0.161	2.4	0.001437	0.0012	48	0.80	0.456	0.094	3.6	114	0.132	12.5	0.030	123	843	0.0025	1.41	1,340
14	0.74	0.0048	0.0004	0.015	0.00027	22	0.33	0.007	190	126	0.037	0.074	0.162	2.4	0.001452	0.0012	48	0.80	0.459	0.095	3.5	114	0.135	12.3	0.030	123	838	0.0025	1.40	1,336
15	0.75	0.0048	0.0004	0.015	0.00027	22	0.33	0.007	189	128	0.037	0.074	0.163	2.4	0.001463	0.0011	49	0.80	0.465	0.097	3.5	116	0.138	12.2	0.031	125	838	0.0025	1.40	1,339
16	0.77	0.0048	0.0004	0.015	0.00029	22	0.34	0.007	189	131	0.038	0.074	0.165	2.4	0.001476	0.0011	49	0.82	0.473	0.100	3.6	117	0.142	12.2	0.031	127	844	0.0025	1.42	1,351
17	0.78	0.0049	0.0004	0.015	0.00030	22	0.34	0.007	189	135	0.039	0.075	0.166	2.5	0.001492	0.0012	50	0.83	0.482	0.103	3.6	120	0.146	12.2	0.032	129	852	0.0025	1.45	1,366
18	0.79	0.0049	0.0004	0.015	0.00032	23	0.35	0.007	190	138	0.040	0.076	0.168	2.5	0.001503	0.0012	51	0.83	0.492	0.107	3.7	122	0.150	12.2	0.032	132	860	0.0025	1.47	1,382
19	0.80	0.0050	0.0004	0.015	0.00033	23	0.35	0.007	190	141	0.040	0.076	0.169	2.5	0.001512	0.0012	52	0.83	0.500	0.110	3.7	124	0.153	12.2	0.033	134	866	0.0025	1.48	1,394
20	0.80	0.0051	0.0004	0.015	0.00034	23	0.36	0.008	189	144	0.041	0.076	0.170	2.5	0.001518	0.0013	53	0.83	0.507	0.112	3.8	126	0.155	12.1	0.033	136	871	0.0025	1.48	1,403
21	0.81	0.0051	0.0004	0.015	0.00033	23	0.36	0.008	189	146	0.042	0.077	0.170	2.6	0.001524	0.0013	54	0.83	0.513	0.115	3.8	127	0.156	12.1	0.034	139	875	0.0025	1.47	1,412
22	0.82	0.0051	0.0004	0.016	0.00032	23	0.36	0.008	188	147	0.042	0.076	0.171	2.6	0.001529	0.0013	54	0.81	0.514	0.115	3.8	127	0.156	12.0	0.034	139	873	0.0025	1.46	1,411
23	0.84	0.0051	0.0004	0.016	0.00032	24	0.36	0.008	188	149	0.042	0.076	0.173	2.6	0.001546	0.0013	54	0.81	0.517	0.117	3.8	128	0.156	12.0	0.034	140	876	0.0025	1.45	1,416
24	0.84	0.0050	0.0003	0.016	0.00032	24	0.36	0.008	187	150	0.042	0.076	0.173	2.6	0.001551	0.0014	55	0.81	0.519	0.118	3.8	128	0.156	11.9	0.034	141	876	0.0024	1.44	1,417
25	0.85	0.0050	0.0003	0.016	0.00032	24	0.37	0.008	187	151	0.043	0.076	0.174	2.6	0.001556	0.0014	55	0.81	0.521	0.119	3.8	129	0.156	11.9	0.034	142	877	0.0024	1.44	1,420
26	0.85	0.0050	0.0003	0.016	0.00032	24	0.37	0.008	187	152	0.043	0.076	0.174	2.6	0.001558	0.0014	55	0.81	0.522	0.120	3.7	129	0.156	11.9	0.034	142	877	0.0024	1.43	1,422
27	0.85	0.0050	0.0003	0.016	0.00032	24	0.37	0.008	186	153	0.043	0.076	0.174	2.6	0.001558	0.0014	55	0.81	0.523	0.121	3.7	129	0.155	11.8	0.034	143	876	0.0024	1.42	1,421
28	0.85	0.0050	0.0003	0.016	0.00031	24	0.37	0.008	185	153	0.043	0.076	0.174	2.6	0.001554	0.0014	55	0.80	0.522	0.120	3.7	129	0.155	11.8	0.034	142	873	0.0024	1.41	1,416
29	0.86	0.0050	0.0003	0.016	0.00031	24	0.37	0.008	185	153	0.043	0.075	0.174	2.6	0.001557	0.0014	55	0.80	0.522	0.121	3.7	129	0.155	11.8	0.034	143	872	0.0024	1.40	1,416
30	0.87	0.0050	0.0003	0.016	0.00030	24	0.37	0.008	185	154	0.043	0.076	0.175	2.6	0.001571	0.0014	55	0.80	0.523	0.122	3.7	129	0.156	11.8	0.034	143	874	0.0024	1.39	1,419
31	0.87	0.0050	0.0003	0.016	0.00030	24	0.37	0.008	185	155	0.043	0.075	0.176	2.7	0.001578	0.0014	56	0.80	0.524	0.123	3.7	130	0.157	11.8	0.035	144	875	0.0024	1.38	1,421
32	0.90	0.0052	0.0003	0.017	0.00031	25	0.38	0.008	188	159	0.044	0.077	0.180	2.7	0.001615	0.0014	58	0.81	0.538	0.131	3.8	133	0.163	12.0	0.035	148	898	0.0024	1.39	1,458
33	0.93	0.0056	0.0004	0.017	0.00035	26	0.40	0.009	195	168	0.047	0.080	0.186	2.8	0.001663	0.0015	62	0.84	0.569	0.147	4.0	141	0.173	12.5	0.037	157	946	0.0026	1.43	1,535
34	0.96	0.0058	0.0004	0.017	0.00040	27	0.42	0.009	198	174	0.048	0.082	0.191	2.9	0.001699	0.0016	66	0.87	0.589	0.163	4.2	147	0.181	12.7	0.038	164	978	0.0027	1.46	1,587
35	0.98	0.0063	0.0006	0.018	0.00046	27	0.44	0.009	200	184	0.051	0.083	0.194	3.0	0.00172	0.0017	72	0.90	0.620	0.192	4.5	156	0.192	12.9	0.039	174	1024	0.0029	1.51	1,659
36	0.99	0.0064	0.0008	0.018	0.00059	28	0.44	0.010	199	183	0.050	0.090	0.194	3.0	0.00172	0.0017	74	1.01	0.615	0.213	4.5	156	0.192	12.9	0.039	174	1032	0.0029	1.70	1,668
37	0.95	0.0071	0.0012	0.017	0.00166	27	0.46	0.010	203	192	0.053	0.116	0.194	3.0	0.001719	0.0020	83	1.83	0.651	0.277	4.8	167	0.205	13.0	0.040	186	1104	0.0031	2.22	1,776
38	0.70	0.0069	0.0015	0.017	0.00413	20	0.43	0.010	207	177	0.048	0.209	0.203	3.1	0.001763	0.0020	83	2.31	0.605	0.318	4.6	158	0.192	13.2	0.037	174	1108	0.0029	2.12	1,756
39	0.74	0.0062	0.0017	0.018	0.00447	16	0.37	0.009	209	154	0.042	0.207	2.335	3.3	0.005454	0.0018	77	2.27	0.527	0.320	4.1	139	0.169	13.2	0.034	153	1062	0.0025	1.89	1,665
40	0.83	0.0058	0.0018	0.018	0.00463	15	0.34	0.008	212	140	0.038	0.202	4.551	3.4	0.008039	0.0018	73	2.24	0.479	0.319	3.9	128	0.154	13.3	0.032	141	1036	0.0023	1.75	1,613
41	0.84	0.0056	0.0019	0.018	0.00455	16	0.33	0.008	212	137	0.036	0.197	4.604	3.3	0.008108	0.0017	71	2.18	0.461	0.312	3.8	123	0.149	13.3	0.030	137	1022	0.0022	1.69	1,590
42	0.44	0.0044	0.00095	0.014	0.001979	17	0.29	0.007	436	120	0.033	0.122	2.036	2.9	0.0041	0.0013	53	1.312	0.406	0.174	2.73	104	0.126	7.1	0.028	116	1436	0.0019	1.42	2,234
43	0.44	0.0044	0.00096	0.014	0.001979	17	0.29	0.007	436	120	0.033	0.122	2.035	2.9	0.0041	0.0013	53	1.311	0.405	0.174	2.73	104	0.125	7.1	0.028	116	1435	0.0019	1.41	2,233
44	0.44	0.0044	0.00097	0.014	0.001978	17	0.29	0.007	436	119	0.033	0.122	2.035	2.9	0.0041	0.0013	53	1.309	0.404	0.174	2.72	104	0.125	7.1	0.028	115	1435	0.0019	1.41	2,231
45	0.44	0.0044	0.00097	0.014	0.001978	17	0.29	0.007	436	119	0.033	0.121	2.034	2.9	0.0041	0.0013	53	1.308	0.403	0.173	2.72	104	0.125	7.1	0.028	115	1434	0.0018	1.41	2,230
46	0.44	0.0043	0.00098	0.014	0.001977	17	0.29	0.007	436	119	0.032	0.121	2.033	2.9	0.0041	0.0013	53	1.306	0.402	0.173	2.72	103	0.124	7.1	0.028	115	1434	0.0018	1.40	2,228
47	0.44	0.0043	0.00099	0.014	0.001977	17	0.29	0.006	436	118	0.032	0.121	2.033	2.9	0.0041	0.0013	53	1.304	0.400	0.173	2.71	103	0.124	7.1	0.027	114	1434	0.0018	1.40	2,227
48	0.44	0.0043	0.00100	0.014	0.001977	17	0.29	0.006	436	118	0.032	0.121	2.032	2.9	0.0041	0.0013	53	1.301	0.399	0.173	2.71	103	0.124	7.1	0.027	114	1433	0.0018	1.39	2,225
49	0.44	0.0043	0.00101	0.014	0.001976	17	0.29	0.006	436	117	0.032	0.121	2.031	2.8	0.0041	0.0013	53	1.299	0.398	0.173	2.70	102	0.123	7.0	0.027	114	1432	0.0018	1.39	2,223
50	0.44	0.0043	0.00102	0.014	0.001975	17	0.29	0.006	436	117	0.032	0.120	2.030	2.8	0.0041	0.0013	53	1.297	0.396	0.172	2.69	102	0.123	7.0	0.027	113	1432	0.0018	1.38	2,222
51	0.44	0.0043	0.00104	0.014	0.001975	17	0.29	0.006	436	116	0.032	0.120	2.030	2.8	0.0041	0.0013	53	1.294	0.395	0.172	2.69	102	0.122	7.0	0.027	113	1431	0.0018	1.38	2,220
52	0.44	0.0043	0.00105	0.014	0.001975	17	0.29	0.006	436	116	0.032	0.120	2.029	2.8	0.0041	0.0013	53	1.292	0.394	0.172	2.68	101	0.122	7.0	0.027	112	1431	0.0018	1.38	2,218
53	0.43	0.0043	0.00106	0.014	0.001974	16	0.28	0.006	436	115	0.032	0.120	2.028	2.8	0.0041	0.0013	53	1.289	0.392	0.172	2.68	101	0.122	7.0	0.027	112	1430	0.0018	1.37	2,216
54	0.43	0.0043	0.00108	0.014	0.001973	16	0.28	0.006	436	115	0.031	0.119	2.027	2.8	0.0041	0.0013	53	1.286	0.390	0.171	2.67	101	0.121	7.0	0.027	111	1430	0.0018	1.36	2,214
55	0.43	0.0043	0.00109	0.014	0.001973	16	0.28	0.006	436	114	0.031	0.119	2.026	2.8	0.0041	0.0012	53	1.283	0.388	0.171	2.66	100	0.121	7.0	0.027	111	1429	0.0018	1.36	2,212
56	0.43	0.0043	0.00111	0.014	0.001972	16	0.28	0.006	436	114	0.031	0.119	2.025	2.8	0.0041	0.0012	53	1.280	0.387	0.171	2.66	100	0.120	7.0	0.026	110	1429	0.0018	1.35	2,210
57	0.43	0.0043	0.00112	0.014	0.001972	16	0.28	0.006	436	114	0.031	0.119	2.025	2.8	0.0041	0.0012	53	1.279	0.386	0.171	2.65	100	0.120	7.0	0.026	110	1429	0.0018	1.35	2,209
58	0.43	0.0043	0.00114	0.014	0.001971	16	0.28	0.006	436	113	0.031	0.118	2.024	2.7	0.0041	0.0012	53	1.276	0.384	0.171	2.65	99	0.119	6.9	0.026	110	1428	0.0018	1.35	2,208
59	0.43	0.0043	0.00116	0.014	0.001971	16	0.28	0.006	436	113	0.031	0.118	2.023	2.7	0.0041	0.0012	53	1.274	0.383	0.170	2.64	99	0.119	6.9	0.026	109	1428	0.0018	1.34	2,206
60	0.43	0.0043	0.00118	0.014	0.001970	16	0.28	0.006	436	112	0.031	0.118	2.022	2.7	0.0041	0.0012	53	1.271	0.381	0.170	2.64	99	0.119	6.9	0.026	109	1428	0.0017	1.34	2,205
61	0.43	0.0043	0.00120	0.013	0.001970	16	0.28	0.006	436	112	0.031	0.118	2.022	2.7	0.0041	0.0012	53	1.269	0.380	0.170	2.63	99	0.118	6.9	0.026	108	1428	0.0017	1.34	2,204
62	0.43	0.0043	0.00122	0.013	0.001969	16	0.28	0.006	436	112	0.031	0.118	2.021	2.7	0.0040	0.0012	53	1.268	0.380	0.170	2.63	98	0.118	6.9	0.026	108	1428	0.0017	1.33	2,204
63	0.43	0.0043	0.00124	0.013	0.001969	16	0.28	0.006	436	111	0.030	0.118	2.021	2.7	0.0040	0.0012	53	1.267	0.379	0.170	2.63	98	0.118	6.9	0.026	108	1429	0.0017	1.33	2,204

Table 4. Tailings Seepage Concentrations - Alternative 5

Years since Mine Start	Al mg/L	Sb mg/L	As mg/L	Ba mg/L	Be mg/L	HCO3 mg/L	B mg/L	Cd mg/L	Ca mg/L	Cl mg/L	Cr mg/L	Co mg/L	Cu mg/L	F mg/L	Fe mg/L	Pb mg/L	Mg mg/L	Mn mg/L	Mo mg/L	Ni mg/L	NO3-N mg/L	K mg/L	Se mg/L	Si mg/L	Ag mg/L	Na mg/L	SO4 mg/L	Tl mg/L	Zn mg/L	TDS mg/L
64	0.43	0.0043	0.00126	0.013	0.001969	16	0.28	0.006	436	111	0.030	0.118	2.020	2.7	0.0040	0.0012	54	1.265	0.378	0.170	2.62	98	0.118	6.9	0.026	108	1429	0.0017	1.33	2,204
65	0.43	0.0043	0.00128	0.013	0.001968	16	0.28	0.006	436	111	0.030	0.118	2.020	2.7	0.0040	0.0012	54	1.264	0.377	0.170	2.62	98	0.118	6.9	0.026	107	1429	0.0017	1.33	2,203
66	0.43	0.0043	0.00131	0.013	0.001968	16	0.28	0.006	436	111	0.030	0.118	2.019	2.7	0.0040	0.0012	54	1.263	0.377	0.170	2.62	98	0.118	6.9	0.026	107	1430	0.0017	1.32	2,203
67	0.43	0.0044	0.00133	0.013	0.001968	16	0.28	0.006	436	110	0.030	0.117	2.019	2.7	0.0040	0.0012	54	1.262	0.376	0.170	2.61	98	0.117	6.9	0.026	107	1430	0.0017	1.32	2,204
68	0.43	0.0044	0.00135	0.013	0.001968	16	0.28	0.006	436	110	0.030	0.117	2.019	2.7	0.0040	0.0012	55	1.261	0.376	0.170	2.61	98	0.117	6.9	0.026	107	1431	0.0017	1.32	2,204
69	0.43	0.0044	0.00138	0.013	0.001967	16	0.28	0.006	436	110	0.030	0.117	2.019	2.7	0.0040	0.0012	55	1.261	0.375	0.170	2.61	98	0.117	6.9	0.025	107	1432	0.0017	1.32	2,204
70	0.42	0.0044	0.00140	0.013	0.001967	16	0.28	0.006	436	110	0.030	0.117	2.018	2.7	0.0040	0.0013	55	1.260	0.375	0.170	2.61	98	0.117	6.9	0.025	107	1433	0.0017	1.32	2,205
71	0.42	0.0044	0.00143	0.013	0.001967	16	0.28	0.006	436	110	0.030	0.117	2.018	2.7	0.0040	0.0013	55	1.259	0.374	0.170	2.60	98	0.117	6.9	0.025	106	1433	0.0017	1.32	2,205
72	0.42	0.0044	0.00145	0.013	0.001967	16	0.28	0.006	436	110	0.030	0.117	2.018	2.7	0.0040	0.0013	56	1.259	0.374	0.170	2.60	98	0.117	6.9	0.025	106	1434	0.0017	1.32	2,206
73	0.42	0.0044	0.00148	0.013	0.001967	16	0.28	0.006	436	109	0.030	0.117	2.017	2.6	0.0040	0.0013	56	1.258	0.373	0.170	2.60	98	0.117	6.8	0.025	106	1435	0.0017	1.32	2,206
74	0.42	0.0044	0.00151	0.013	0.001966	16	0.28	0.006	435	109	0.030	0.117	2.017	2.6	0.0040	0.0013	56	1.257	0.373	0.170	2.60	98	0.117	6.8	0.025	106	1436	0.0017	1.32	2,207
75	0.42	0.0045	0.00154	0.013	0.001966	16	0.28	0.006	435	109	0.030	0.117	2.017	2.6	0.0040	0.0013	56	1.257	0.373	0.170	2.60	98	0.117	6.8	0.025	106	1437	0.0017	1.32	2,208
76	0.42	0.0045	0.00157	0.013	0.001966	15	0.28	0.006	435	109	0.030	0.117	2.016	2.6	0.0040	0.0013	57	1.256	0.372	0.170	2.59	98	0.117	6.8	0.025	106	1437	0.0017	1.32	2,208
77	0.42	0.0045	0.00159	0.013	0.001966	15	0.28	0.006	435	109	0.030	0.117	2.016	2.6	0.0040	0.0013	57	1.255	0.372	0.170	2.59	97	0.117	6.8	0.025	105	1438	0.0017	1.31	2,209
78	0.42	0.0045	0.00162	0.013	0.001966	15	0.28	0.006	435	108	0.030	0.117	2.016	2.6	0.0040	0.0013	57	1.255	0.371	0.170	2.59	97	0.117	6.8	0.025	105	1439	0.0017	1.31	2,210
79	0.42	0.0045	0.00165	0.013	0.001965	15	0.28	0.006	435	108	0.030	0.117	2.015	2.6	0.0040	0.0013	58	1.254	0.371	0.170	2.59	97	0.116	6.8	0.025	105	1440	0.0017	1.31	2,210
80	0.42	0.0045	0.00168	0.013	0.001965	15	0.28	0.006	435	108	0.030	0.117	2.015	2.6	0.0040	0.0013	58	1.253	0.370	0.170	2.58	97	0.116	6.8	0.025	105	1441	0.0017	1.31	2,211
81	0.42	0.0046	0.00171	0.013	0.001965	15	0.29	0.006	435	108	0.029	0.117	2.015	2.6	0.0040	0.0013	58	1.252	0.370	0.170	2.58	97	0.116	6.8	0.025	105	1442	0.0017	1.31	2,211
82	0.42	0.0046	0.00174	0.013	0.001965	15	0.29	0.006	435	108	0.029	0.117	2.014	2.6	0.0040	0.0013	59	1.251	0.369	0.170	2.58	97	0.116	6.8	0.025	104	1442	0.0017	1.31	2,212
83	0.42	0.0046	0.00177	0.013	0.001964	15	0.29	0.006	435	107	0.029	0.117	2.014	2.6	0.0040	0.0013	59	1.250	0.368	0.170	2.58	97	0.116	6.8	0.025	104	1443	0.0017	1.31	2,212
84	0.42	0.0046	0.00180	0.013	0.001964	15	0.29	0.006	435	107	0.029	0.117	2.013	2.6	0.0040	0.0013	59	1.249	0.368	0.171	2.57	97	0.116	6.8	0.025	104	1444	0.0017	1.30	2,212
85	0.42	0.0046	0.00184	0.013	0.001964	15	0.29	0.006	435	107	0.029	0.117	2.013	2.6	0.0040	0.0013	59	1.248	0.367	0.171	2.57	97	0.116	6.8	0.025	104	1445	0.0017	1.30	2,213
86	0.42	0.0046	0.00187	0.013	0.001963	15	0.29	0.006	434	107	0.029	0.117	2.012	2.6	0.0040	0.0013	60	1.247	0.366	0.171	2.57	97	0.116	6.8	0.025	103	1445	0.0017	1.30	2,213
87	0.42	0.0046	0.00189	0.013	0.001963	15	0.29	0.006	434	106	0.029	0.117	2.012	2.6	0.0040	0.0013	60	1.245	0.365	0.171	2.56	97	0.115	6.8	0.025	103	1446	0.0017	1.30	2,213
88	0.42	0.0047	0.00193	0.013	0.001963	15	0.29	0.006	434	106	0.029	0.117	2.011	2.6	0.0040	0.0013	60	1.244	0.364	0.170	2.56	97	0.115	6.8	0.024	103	1447	0.0017	1.30	2,213
89	0.42	0.0047	0.00196	0.013	0.001962	15	0.29	0.006	434	106	0.029	0.117	2.011	2.6	0.0040	0.0013	61	1.242	0.364	0.170	2.55	96	0.115	6.8	0.024	103	1447	0.0016	1.29	2,213
90	0.42	0.0047	0.00200	0.013	0.001962	15	0.29	0.006	434	105	0.029	0.117	2.010	2.5	0.0040	0.0013	61	1.241	0.363	0.170	2.55	96	0.115	6.7	0.024	102	1448	0.0016	1.29	2,213
91	0.42	0.0047	0.00203	0.013	0.001962	15	0.29	0.006	434	105	0.029	0.117	2.010	2.5	0.0040	0.0013	61	1.239	0.362	0.170	2.55	96	0.114	6.7	0.024	102	1449	0.0016	1.29	2,213
92	0.42	0.0047	0.00206	0.013	0.001961	15	0.29	0.006	434	105	0.029	0.117	2.009	2.5	0.0040	0.0013	62	1.238	0.361	0.170	2.54	96	0.114	6.7	0.024	102	1449	0.0016	1.29	2,213
93	0.42	0.0047	0.00209	0.013	0.001961	15	0.29	0.006	434	104	0.028	0.116	2.008	2.5	0.0040	0.0013	62	1.236	0.360	0.170	2.54	96	0.114	6.7	0.024	101	1450	0.0016	1.28	2,213
94	0.42	0.0047	0.00213	0.013	0.001960	15	0.29	0.006	434	104	0.028	0.116	2.008	2.5	0.0040	0.0013	62	1.234	0.359	0.170	2.53	96	0.114	6.7	0.024	101	1451	0.0016	1.28	2,213
95	0.42	0.0047	0.00216	0.013	0.001960	15	0.29	0.006	434	104	0.028	0.116	2.007	2.5	0.0040	0.0013	63	1.232	0.358	0.170	2.53	95	0.114	6.7	0.024	101	1451	0.0016	1.28	2,213
96	0.42	0.0048	0.00220	0.013	0.001960	15	0.29	0.006	434	103	0.028	0.116	2.006	2.5	0.0040	0.0013	63	1.230	0.357	0.170	2.52	95	0.113	6.7	0.024	100	1452	0.0016	1.27	2,213
97	0.42	0.0048	0.00223	0.013	0.001959	15	0.29	0.006	434	103	0.028	0.116	2.006	2.5	0.0040	0.0013	63	1.229	0.356	0.170	2.52	95	0.113	6.7	0.024	100	1453	0.0016	1.27	2,213
98	0.42	0.0048	0.00226	0.013	0.001959	15	0.29	0.006	433	102	0.028	0.116	2.005	2.5	0.0040	0.0013	63	1.227	0.355	0.170	2.52	95	0.113	6.7	0.024	100	1453	0.0016	1.27	2,213
99	0.42	0.0048	0.00230	0.013	0.001958	15	0.29	0.006	433	102	0.028	0.116	2.005	2.5	0.0040	0.0013	64	1.225	0.354	0.170	2.51	95	0.113	6.7	0.024	99	1454	0.0016	1.27	2,213
100	0.42	0.0048	0.00233	0.013	0.001958	15	0.29	0.006	433	102	0.028	0.116	2.004	2.5	0.0040	0.0013	64	1.223	0.353	0.170	2.51	95	0.112	6.7	0.023	99	1455	0.0016	1.26	2,213
101	0.42	0.0048	0.00237	0.013	0.001958	15	0.29	0.006	433	101	0.028	0.116	2.003	2.5	0.0040	0.0013	64	1.221	0.352	0.170	2.50	94	0.112	6.7	0.023	99	1456	0.0016	1.26	2,214
102	0.42	0.0048	0.00240	0.013	0.001957	15	0.29	0.006	433	101	0.028	0.116	2.003	2.4	0.0040	0.0013	65	1.220	0.351	0.170	2.50	94	0.112	6.6	0.023	98	1456	0.0016	1.26	2,214
103	0.42	0.0049	0.00244	0.013	0.001957	15	0.29	0.006	433	101	0.027	0.116	2.002	2.4	0.0040	0.0013	65	1.218	0.350	0.170	2.49	94	0.112	6.6	0.023	98	1457	0.0016	1.26	2,214
104	0.42	0.0049	0.00247	0.013	0.001956	15	0.29	0.006	433	100	0.027	0.115	2.002	2.4	0.0040	0.0013	65	1.216	0.349	0.170	2.49	94	0.112	6.6	0.023	98	1458	0.0016	1.25	2,214
105	0.42	0.0049	0.00251	0.013	0.001956	15	0.29	0.006	433	100	0.027	0.115	2.001	2.4	0.0040	0.0013	66	1.214	0.348	0.170	2.49	94	0.111	6.6	0.023	97	1459	0.0016	1.25	2,214
106	0.42	0.0049	0.00255	0.013	0.001956	15	0.29	0.006	433	100	0.027	0.115	2.001	2.4	0.0040	0.0013	66	1.212	0.347	0.170	2.48	94	0.111	6.6	0.023	97	1460	0.0016	1.25	2,215
107	0.42	0.0049	0.00257	0.013	0.001955	15	0.29	0.006	433	100	0.027	0.115	2.000	2.4	0.0040	0.0013	66	1.211	0.347	0.170	2.48	94	0.111	6.6	0.023	97	1460	0.0016	1.25	2,215
108	0.42	0.0049	0.00261	0.013	0.001955	15	0.29	0.006	433	99	0.027	0.115	2.000	2.4	0.0040	0.0013	67	1.210	0.346	0.170	2.48	94	0.111	6.6	0.023	97	1461	0.0016	1.25	2,215
109	0.42	0.0050	0.00264	0.013	0.001955	15	0.29	0.006	433	99	0.027	0.115	1.999	2.4	0.0040	0.0013	67	1.208	0.345	0.170	2.47	93	0.111	6.6	0.023	96	1462	0.0015	1.24	2,216
110	0.42	0.0050	0.00268	0.013	0.001954	15	0.29	0.006	432	99	0.027	0.115	1.999	2.4	0.0040	0.0013	67	1.206	0.344	0.170	2.47	93	0.111	6.6	0.023	96	1463	0.0015	1.24	2,216
111	0.42	0.0050	0.00271	0.013	0.001954	15	0.29	0.006	432	98	0.027	0.115	1.998	2.4	0.0040	0.0013	68	1.205	0.343	0.170	2.46	93	0.110	6.6	0.023	96	1464	0.0015	1.24	2,216
112	0.41	0.0050	0.00274	0.013	0.001954	15	0.29	0.006	432	98	0.027	0.115	1.998	2.4	0.0040	0.0013	68	1.204	0.343	0.170	2.46	93	0.110	6.6	0.023	95	1464	0.0015	1.24	2,217
113	0.41	0.0050	0.00278	0.013	0.001953	15	0.29	0.006	432	98	0.027	0.115	1.997	2.4	0.0040	0.0013	68	1.202	0.342	0.170	2.46	93	0.110	6.6	0.023	95	1465	0.0015	1.24	2,217
114	0.41	0.0050	0.00281	0.013	0.001953	15	0.29	0.006	432	98	0.027	0.115	1.997	2.4	0.0040	0.0013	69	1.201	0.341	0.170	2.45	93	0.110	6.6	0.022	95	1466	0.0015	1.23	2,218
115	0.41	0.0050	0.00284	0.013	0.001953	15	0.29	0.006	432	97	0.026	0.115	1.996	2.4	0.0039	0.0013	69	1.199	0.340	0.170	2.45	93	0.110	6.6	0.022	95	1467	0.0015	1.23	2,218
116	0.41	0.0051	0.00288	0.013	0.001952	15	0.29	0.006	432	97	0.026	0.115	1.996	2.3	0.0039	0.0013	69	1.198	0.340	0.170	2.45	93	0.110	6.5	0.022	94	1468	0.0015	1.23	2,219
117	0.41	0.0051	0.00290	0.013	0.001952	15	0.29	0.006	432	97	0.026	0.115	1.995	2.3	0.0039	0.0013	70	1.197	0.339	0.170	2.44	93	0.109	6.5	0.022	94	1468	0.0015	1.23	2,219
118	0.41	0.0051	0.00293	0.013	0.001952	15	0.29	0.006	432	96	0.026	0.115	1.995	2.3	0.0039	0.0013	70	1.195	0.338	0.170	2.44	93	0.109	6.5	0.022	94	1469	0.0015	1.23	2,219
119	0.41	0.0051	0.00297	0.013	0.001951	15	0.29	0.006	432	96	0.026	0.115	1.994	2.3	0.0039	0.0013	70	1.194	0.338	0.170	2.44	93	0.109	6.5	0.022	94	1470	0.0015	1.23	2,219
120	0.41	0.0051	0.00300	0.013	0.001951	15	0.29	0.006	432	96	0.026	0.115	1.994	2.3	0.0039	0.0013	71	1.192	0.337	0.170	2.43	92	0.109	6.5	0.022	93	1471	0.0015	1.22	2,220
121	0.41	0.0051	0.00303	0.013	0.001951	15	0.29	0.006	432	96	0.026	0.115	1.993	2.3	0.0039	0.0013	71	1.191	0.336	0.170	2.43	92	0.109	6.5	0.022	93	1471	0.0015	1.22	2,220
122	0.41	0.0051	0.00305	0.012	0.001950	15	0.29	0.006	431	95	0.026	0.114	1.993	2.3	0.0039	0.0013	71	1.190	0.335	0.170	2.43	92	0.109	6.5	0.022	93	1472	0.0015	1.22	2,220
123	0.41	0.0052	0.00308	0.012	0.001950	15	0.29	0.006	431	95	0.026	0.114	1.993	2.3	0.0039	0.0013	71	1.188	0.335	0.170	2.43	92	0.109	6.5	0.022	93	1473	0.0015	1.22	2,220
124	0.41	0.0052	0.00311	0.012	0.001950	15	0.29	0.006	431	95	0.026	0.114	1.992	2.3	0.0039	0.0014	72	1.187	0.334	0.170	2.42	92	0.108	6.5	0.022	92	1473	0.0015	1.22	2,221
125	0.41	0.0052	0.00314	0.012	0.001949	15	0.29	0.006	431	95	0.026	0.114	1.992	2.3	0.0039	0.0014	72	1.186	0.333	0.170	2.42	92	0.108	6.5	0.022	92	1474	0.0015	1.21	2,221
126	0.41	0.0052	0.00317	0.012	0.001949	15	0.29	0.006	431	94	0.026	0.114	1.991	2.3	0.0039	0.0014	72	1.184	0.332	0.170	2.41	92	0.108	6.5	0.022	92	1475	0.0015	1.21	2,221

Table 4. Tailings Seepage Concentrations - Alternative 5

Years since Mine Start	Al mg/L	Sb mg/L	As mg/L	Ba mg/L	Be mg/L	HCO3 mg/L	B mg/L	Cd mg/L	Ca mg/L	Cl mg/L	Cr mg/L	Co mg/L	Cu mg/L	F mg/L	Fe mg/L	Pb mg/L	Mg mg/L	Mn mg/L	Mo mg/L	Ni mg/L	NO3-N mg/L	K mg/L	Se mg/L	Si mg/L	Ag mg/L	Na mg/L	SO4 mg/L	Tl mg/L	Zn mg/L	TDS mg/L
127	0.41	0.0052	0.00319	0.012	0.001949	15	0.29	0.006	431	94	0.026	0.114	1.991	2.3	0.0039	0.0014	72	1.183	0.332	0.170	2.41	92	0.108	6.5	0.022	92	1475	0.0015	1.21	2,221
128	0.41	0.0052	0.00322	0.012	0.001949	15	0.29	0.006	431	94	0.025	0.114	1.990	2.3	0.0039	0.0014	73	1.182	0.331	0.170	2.41	92	0.108	6.5	0.022	91	1476	0.0015	1.21	2,221
129	0.41	0.0052	0.00325	0.012	0.001948	15	0.29	0.006	431	93	0.025	0.114	1.990	2.3	0.0039	0.0014	73	1.180	0.330	0.170	2.41	91	0.107	6.5	0.021	91	1476	0.0015	1.21	2,221
130	0.41	0.0052	0.00328	0.012	0.001948	15	0.30	0.006	431	93	0.025	0.114	1.989	2.3	0.0039	0.0014	73	1.179	0.329	0.170	2.40	91	0.107	6.5	0.021	91	1477	0.0015	1.20	2,221
131	0.41	0.0053	0.00331	0.012	0.001948	15	0.30	0.006	431	93	0.025	0.114	1.989	2.2	0.0039	0.0014	73	1.177	0.328	0.170	2.40	91	0.107	6.4	0.021	91	1478	0.0015	1.20	2,221
132	0.41	0.0053	0.00333	0.012	0.001947	15	0.30	0.006	431	93	0.025	0.114	1.988	2.2	0.0039	0.0014	74	1.176	0.328	0.170	2.40	91	0.107	6.4	0.021	90	1478	0.0015	1.20	2,221
133	0.41	0.0053	0.00336	0.012	0.001947	14	0.30	0.006	431	92	0.025	0.114	1.988	2.2	0.0039	0.0014	74	1.175	0.327	0.170	2.39	91	0.107	6.4	0.021	90	1479	0.0015	1.20	2,221
134	0.41	0.0053	0.00339	0.012	0.001947	14	0.30	0.006	431	92	0.025	0.114	1.987	2.2	0.0039	0.0014	74	1.173	0.326	0.170	2.39	91	0.107	6.4	0.021	90	1479	0.0014	1.20	2,221
135	0.41	0.0053	0.00342	0.012	0.001946	14	0.30	0.006	431	92	0.025	0.114	1.987	2.2	0.0039	0.0014	74	1.172	0.325	0.170	2.38	91	0.106	6.4	0.021	90	1480	0.0014	1.19	2,221
136	0.41	0.0053	0.00345	0.012	0.001946	14	0.30	0.006	430	91	0.025	0.113	1.986	2.2	0.0039	0.0014	75	1.171	0.324	0.170	2.38	91	0.106	6.4	0.021	89	1480	0.0014	1.19	2,221
137	0.41	0.0053	0.00346	0.012	0.001946	14	0.30	0.005	430	91	0.025	0.113	1.986	2.2	0.0039	0.0014	75	1.170	0.324	0.170	2.38	90	0.106	6.4	0.021	89	1481	0.0014	1.19	2,221
138	0.41	0.0053	0.00349	0.012	0.001945	14	0.30	0.005	430	91	0.025	0.113	1.985	2.2	0.0039	0.0014	75	1.168	0.323	0.170	2.38	90	0.106	6.4	0.021	89	1481	0.0014	1.19	2,221
139	0.41	0.0053	0.00352	0.012	0.001945	14	0.30	0.005	430	91	0.025	0.113	1.985	2.2	0.0039	0.0014	75	1.167	0.322	0.170	2.37	90	0.106	6.4	0.021	89	1482	0.0014	1.19	2,222
140	0.41	0.0054	0.00355	0.012	0.001945	14	0.30	0.005	430	90	0.025	0.113	1.984	2.2	0.0038	0.0014	76	1.166	0.321	0.170	2.37	90	0.106	6.4	0.021	88	1483	0.0014	1.18	2,222
141	0.41	0.0054	0.00358	0.012	0.001944	14	0.30	0.005	430	90	0.024	0.113	1.984	2.2	0.0038	0.0014	76	1.164	0.321	0.170	2.37	90	0.105	6.4	0.021	88	1483	0.0014	1.18	2,222
142	0.41	0.0054	0.00360	0.012	0.001944	14	0.30	0.005	430	90	0.024	0.113	1.983	2.2	0.0038	0.0014	76	1.163	0.320	0.170	2.36	90	0.105	6.4	0.021	88	1484	0.0014	1.18	2,222
143	0.41	0.0054	0.00363	0.012	0.001944	14	0.30	0.005	430	90	0.024	0.113	1.983	2.2	0.0038	0.0014	76	1.162	0.319	0.170	2.36	90	0.105	6.4	0.021	88	1485	0.0014	1.18	2,222
144	0.41	0.0054	0.00366	0.012	0.001944	14	0.30	0.005	430	89	0.024	0.113	1.983	2.2	0.0038	0.0014	77	1.161	0.319	0.170	2.36	90	0.105	6.4	0.021	87	1485	0.0014	1.18	2,223
145	0.41	0.0054	0.00370	0.012	0.001943	14	0.30	0.005	430	89	0.024	0.113	1.982	2.2	0.0038	0.0014	77	1.160	0.318	0.170	2.35	90	0.105	6.4	0.020	87	1486	0.0014	1.17	2,223
146	0.41	0.0054	0.00372	0.012	0.001943	14	0.30	0.005	430	89	0.024	0.113	1.982	2.1	0.0038	0.0014	77	1.159	0.317	0.170	2.35	90	0.105	6.3	0.020	87	1487	0.0014	1.17	2,223
147	0.40	0.0054	0.00375	0.012	0.001943	14	0.30	0.005	430	89	0.024	0.113	1.981	2.1	0.0038	0.0014	78	1.158	0.317	0.170	2.35	89	0.105	6.3	0.020	87	1487	0.0014	1.17	2,224
148	0.40	0.0055	0.00378	0.012	0.001943	14	0.30	0.005	430	89	0.024	0.113	1.981	2.1	0.0038	0.0014	78	1.157	0.316	0.170	2.35	89	0.104	6.3	0.020	87	1488	0.0014	1.17	2,224
149	0.40	0.0055	0.00381	0.011	0.001942	14	0.30	0.005	429	88	0.024	0.113	1.981	2.1	0.0038	0.0014	78	1.156	0.316	0.170	2.34	89	0.104	6.3	0.020	86	1489	0.0014	1.17	2,225
150	0.40	0.0055	0.00384	0.011	0.001942	14	0.30	0.005	429	88	0.024	0.113	1.980	2.1	0.0038	0.0014	79	1.155	0.315	0.170	2.34	89	0.104	6.3	0.020	86	1490	0.0014	1.17	2,225
151	0.40	0.0055	0.00387	0.011	0.001942	14	0.30	0.005	429	88	0.024	0.113	1.980	2.1	0.0038	0.0014	79	1.154	0.314	0.170	2.34	89	0.104	6.3	0.020	86	1491	0.0014	1.17	2,226
152	0.40	0.0055	0.00389	0.011	0.001942	14	0.30	0.005	429	88	0.024	0.113	1.980	2.1	0.0038	0.0014	79	1.154	0.314	0.170	2.34	89	0.104	6.3	0.020	86	1492	0.0014	1.17	2,226
153	0.40	0.0055	0.00393	0.011	0.001941	14	0.30	0.005	429	87	0.024	0.113	1.979	2.1	0.0038	0.0014	79	1.153	0.314	0.170	2.33	89	0.104	6.3	0.020	86	1493	0.0014	1.16	2,227
154	0.40	0.0056	0.00396	0.011	0.001941	14	0.30	0.005	429	87	0.024	0.113	1.979	2.1	0.0038	0.0014	80	1.152	0.313	0.170	2.33	89	0.104	6.3	0.020	85	1494	0.0014	1.16	2,228
155	0.40	0.0056	0.00400	0.011	0.001941	14	0.30	0.005	429	87	0.024	0.113	1.978	2.1	0.0038	0.0014	80	1.151	0.313	0.170	2.33	89	0.104	6.3	0.020	85	1495	0.0014	1.16	2,228
156	0.40	0.0056	0.00403	0.011	0.001941	14	0.30	0.005	429	87	0.024	0.113	1.978	2.1	0.0038	0.0014	81	1.150	0.312	0.170	2.33	89	0.104	6.3	0.020	85	1496	0.0014	1.16	2,229
157	0.40	0.0056	0.00405	0.011	0.001940	14	0.30	0.005	429	87	0.023	0.113	1.978	2.1	0.0038	0.0014	81	1.150	0.312	0.170	2.32	89	0.104	6.3	0.020	85	1496	0.0014	1.16	2,230
158	0.40	0.0056	0.00408	0.011	0.001940	14	0.30	0.005	429	87	0.023	0.113	1.978	2.1	0.0038	0.0014	81	1.149	0.311	0.171	2.32	89	0.104	6.3	0.020	85	1498	0.0014	1.16	2,231
159	0.40	0.0056	0.00412	0.011	0.001940	14	0.30	0.005	429	86	0.023	0.113	1.977	2.1	0.0038	0.0014	81	1.149	0.311	0.171	2.32	89	0.103	6.3	0.020	84	1499	0.0014	1.16	2,232
160	0.40	0.0057	0.00415	0.011	0.001940	14	0.30	0.005	428	86	0.023	0.113	1.977	2.1	0.0038	0.0014	82	1.148	0.310	0.171	2.32	89	0.103	6.3	0.020	84	1500	0.0014	1.16	2,233
161	0.40	0.0057	0.00419	0.011	0.001939	14	0.30	0.005	428	86	0.023	0.113	1.977	2.1	0.0038	0.0014	82	1.147	0.310	0.171	2.32	89	0.103	6.3	0.020	84	1501	0.0014	1.16	2,234
162	0.40	0.0057	0.00421	0.011	0.001939	14	0.30	0.005	428	86	0.023	0.113	1.976	2.1	0.0038	0.0014	82	1.147	0.310	0.171	2.31	89	0.103	6.3	0.020	84	1501	0.0014	1.16	2,234
163	0.40	0.0057	0.00424	0.011	0.001939	14	0.30	0.005	428	86	0.023	0.113	1.976	2.1	0.0038	0.0014	83	1.146	0.309	0.171	2.31	89	0.103	6.3	0.020	84	1503	0.0014	1.16	2,235
164	0.40	0.0057	0.00428	0.011	0.001939	14	0.31	0.005	428	85	0.023	0.113	1.976	2.1	0.0038	0.0014	83	1.145	0.309	0.171	2.31	89	0.103	6.3	0.020	84	1504	0.0013	1.15	2,236
165	0.40	0.0057	0.00432	0.011	0.001939	14	0.31	0.005	428	85	0.023	0.113	1.975	2.1	0.0038	0.0014	84	1.145	0.308	0.171	2.31	89	0.103	6.3	0.020	84	1505	0.0013	1.15	2,237
166	0.40	0.0058	0.00435	0.011	0.001938	14	0.31	0.005	428	85	0.023	0.113	1.975	2.1	0.0038	0.0014	84	1.144	0.308	0.171	2.30	89	0.103	6.3	0.019	83	1506	0.0013	1.15	2,238
167	0.40	0.0058	0.00437	0.011	0.001938	14	0.31	0.005	428	85	0.023	0.113	1.975	2.0	0.0038	0.0014	84	1.143	0.308	0.171	2.30	89	0.103	6.3	0.019	83	1507	0.0013	1.15	2,239
168	0.40	0.0058	0.00441	0.011	0.001938	14	0.31	0.005	428	85	0.023	0.113	1.974	2.0	0.0038	0.0014	85	1.143	0.307	0.171	2.30	89	0.103	6.2	0.019	83	1508	0.0013	1.15	2,240
169	0.40	0.0058	0.00444	0.011	0.001938	14	0.31	0.005	428	85	0.023	0.113	1.974	2.0	0.0038	0.0014	85	1.142	0.307	0.171	2.30	89	0.103	6.2	0.019	83	1509	0.0013	1.15	2,241
170	0.40	0.0058	0.00448	0.011	0.001938	14	0.31	0.005	427	84	0.023	0.113	1.974	2.0	0.0038	0.0014	85	1.141	0.307	0.172	2.30	89	0.103	6.2	0.019	83	1510	0.0013	1.15	2,242
171	0.40	0.0059	0.00451	0.011	0.001937	14	0.31	0.005	427	84	0.023	0.113	1.974	2.0	0.0038	0.0014	86	1.140	0.306	0.172	2.30	89	0.103	6.2	0.019	83	1511	0.0013	1.15	2,243
172	0.40	0.0059	0.00453	0.011	0.001937	14	0.31	0.005	427	84	0.023	0.113	1.973	2.0	0.0038	0.0014	86	1.140	0.306	0.172	2.29	89	0.103	6.2	0.019	82	1512	0.0013	1.15	2,244
173	0.40	0.0059	0.00457	0.011	0.001937	14	0.31	0.005	427	84	0.023	0.113	1.973	2.0	0.0038	0.0015	86	1.139	0.305	0.172	2.29	89	0.103	6.2	0.019	82	1513	0.0013	1.15	2,245
174	0.40	0.0059	0.00460	0.011	0.001937	14	0.31	0.005	427	84	0.023	0.113	1.973	2.0	0.0038	0.0015	87	1.139	0.305	0.172	2.29	89	0.103	6.2	0.019	82	1514	0.0013	1.15	2,246
175	0.40	0.0059	0.00464	0.011	0.001937	14	0.31	0.005	427	84	0.023	0.113	1.972	2.0	0.0038	0.0015	87	1.138	0.305	0.172	2.29	89	0.103	6.2	0.019	82	1516	0.0013	1.15	2,247
176	0.40	0.0059	0.00467	0.011	0.001936	14	0.31	0.005	427	83	0.023	0.113	1.972	2.0	0.0038	0.0015	88	1.137	0.304	0.172	2.29	89	0.103	6.2	0.019	82	1517	0.0013	1.15	2,248
177	0.40	0.0060	0.00469	0.011	0.001936	14	0.31	0.005	427	83	0.023	0.113	1.972	2.0	0.0038	0.0015	88	1.137	0.304	0.172	2.28	89	0.102	6.2	0.019	82	1517	0.0013	1.15	2,248
178	0.40	0.0060	0.00473	0.011	0.001936	14	0.31	0.005	427	83	0.022	0.113	1.971	2.0	0.0038	0.0015	88	1.136	0.303	0.172	2.28	89	0.102	6.2	0.019	81	1518	0.0013	1.14	2,249
179	0.40	0.0060	0.00476	0.011	0.001936	14	0.31	0.005	427	83	0.022	0.113	1.971	2.0	0.0038	0.0015	88	1.135	0.303	0.172	2.28	89	0.102	6.2	0.019	81	1520	0.0013	1.14	2,250
180	0.40	0.0060	0.00480	0.011	0.001936	14	0.31	0.005	427	83	0.022	0.113	1.971	2.0	0.0038	0.0015	89	1.134	0.303	0.172	2.28	89	0.102	6.2	0.019	81	1521	0.0013	1.14	2,251
181	0.40	0.0060	0.00483	0.011	0.001935	13	0.31	0.005	426	83	0.022	0.113	1.971	2.0	0.0038	0.0015	89	1.134	0.302	0.172	2.28	89	0.102	6.2	0.019	81	1522	0.0013	1.14	2,252
182	0.40	0.0060	0.00485	0.011	0.001935	13	0.31	0.005	426	82	0.022	0.113	1.970	2.0	0.0038	0.0015	89	1.133	0.302	0.172	2.27	89	0.102	6.2	0.019	81	1522	0.0013	1.14	2,253
183	0.40	0.0061	0.00489	0.011	0.001935	13	0.32	0.005	426	82	0.022	0.113	1.970	2.0	0.0038	0.0015	90	1.132	0.301	0.173	2.27	89	0.102	6.2	0.019	81	1524	0.0013	1.14	2,254
184	0.40	0.0061	0.00492	0.011	0.001935	13	0.32	0.005	426	82	0.022	0.113	1.970	2.0	0.0037	0.0015	90	1.132	0.301	0.173	2.27	89	0.102	6.2	0.019	80	1525	0.0013	1.14	2,255
185	0.40	0.0061	0.00496	0.011	0.001935	13	0.32	0.005	426	82	0.022	0.113	1.969	2.0	0.0037	0.0015	91	1.131	0.301	0.173	2.27	88	0.102	6.2	0.019	80	1526	0.0013	1.14	2,256
186	0.40	0.0061	0.00499	0.011	0.001934	13	0.32	0.005	426	82	0.022	0.113	1.969	2.0	0.0037	0.0015	91	1.130	0.300	0.173	2.27	88	0.102	6.2	0.019	80	1527	0.0013	1.14	2,257
187	0.40	0.0061	0.00501	0.011	0.001934	13	0.32	0.005	426	82	0.022	0.113	1.969	2.0	0.0037	0.0015	91	1.130	0.300	0.173	2.27	88	0.102	6.2	0.019	80	1528	0.0013	1.14	2,257
188	0.40	0.0062	0.00504	0.011	0.001934	13	0.32	0.005	426	81	0.022	0.113	1.968	2.0	0.0037	0.0015	92	1.129	0.299	0.173	2.26	88	0.102	6.2	0.019	80	1529	0.0013	1.14	2,258
189	0.40	0.0062	0.00508	0.011	0.001934	13	0.32	0.005	426	81	0.022	0.113	1.968	2.0	0.0037	0.0015	92	1.129	0.299	0.173	2.26	88	0.102	6.2	0.019	80	1530	0.0013	1.14	2,260

Table 4. Tailings Seepage Concentrations - Alternative 5

Years since Mine Start	Al	Sb	As	Ba	Be	HCO3	B	Cd	Ca	Cl	Cr	Co	Cu	F	Fe	Pb	Mg	Mn	Mo	Ni	NO3-N	K	Se	Si	Ag	Na	SO4	Tl	Zn	TDS
	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
190	0.40	0.0062	0.00512	0.011	0.001934	13	0.32	0.005	426	81	0.022	0.113	1.968	1.9	0.0037	0.0015	92	1.128	0.298	0.173	2.26	88	0.102	6.2	0.018	79	1531	0.0013	1.14	2,261
191	0.40	0.0062	0.00515	0.011	0.001933	13	0.32	0.005	425	81	0.022	0.113	1.967	1.9	0.0037	0.0015	93	1.127	0.298	0.173	2.26	88	0.102	6.1	0.018	79	1532	0.0013	1.13	2,262
192	0.40	0.0062	0.00517	0.011	0.001933	13	0.32	0.005	425	81	0.022	0.113	1.967	1.9	0.0037	0.0015	93	1.127	0.298	0.173	2.26	88	0.102	6.1	0.018	79	1533	0.0013	1.13	2,262
193	0.40	0.0062	0.00520	0.011	0.001933	13	0.32	0.005	425	80	0.022	0.113	1.967	1.9	0.0037	0.0015	93	1.126	0.297	0.173	2.25	88	0.102	6.1	0.018	79	1534	0.0013	1.13	2,263
194	0.40	0.0063	0.00524	0.011	0.001933	13	0.32	0.005	425	80	0.022	0.113	1.967	1.9	0.0037	0.0015	94	1.126	0.297	0.173	2.25	88	0.101	6.1	0.018	79	1535	0.0013	1.13	2,264
195	0.40	0.0063	0.00528	0.011	0.001933	13	0.32	0.005	425	80	0.022	0.113	1.966	1.9	0.0037	0.0015	94	1.125	0.296	0.174	2.25	88	0.101	6.1	0.018	79	1536	0.0013	1.13	2,265
196	0.40	0.0063	0.00532	0.011	0.001932	13	0.32	0.005	425	80	0.022	0.113	1.966	1.9	0.0037	0.0015	94	1.124	0.296	0.174	2.25	88	0.101	6.1	0.018	78	1538	0.0013	1.13	2,266
197	0.40	0.0063	0.00533	0.011	0.001932	13	0.32	0.005	425	80	0.022	0.113	1.966	1.9	0.0037	0.0015	95	1.124	0.296	0.174	2.25	88	0.101	6.1	0.018	78	1538	0.0013	1.13	2,267
198	0.40	0.0063	0.00537	0.011	0.001932	13	0.32	0.005	425	80	0.021	0.113	1.965	1.9	0.0037	0.0015	95	1.123	0.295	0.174	2.24	88	0.101	6.1	0.018	78	1539	0.0013	1.13	2,268
199	0.40	0.0064	0.00540	0.011	0.001932	13	0.32	0.005	425	79	0.021	0.113	1.965	1.9	0.0037	0.0015	95	1.123	0.295	0.174	2.24	88	0.101	6.1	0.018	78	1540	0.0013	1.13	2,269
200	0.40	0.0064	0.00544	0.011	0.001932	13	0.32	0.005	425	79	0.021	0.113	1.965	1.9	0.0037	0.0015	96	1.122	0.294	0.174	2.24	88	0.101	6.1	0.018	78	1542	0.0013	1.13	2,270
201	0.40	0.0064	0.00548	0.011	0.001931	13	0.32	0.005	425	79	0.021	0.113	1.964	1.9	0.0037	0.0015	96	1.121	0.294	0.174	2.24	88	0.101	6.1	0.018	78	1543	0.0013	1.13	2,271
202	0.40	0.0064	0.00549	0.011	0.001931	13	0.32	0.005	425	79	0.021	0.113	1.964	1.9	0.0037	0.0015	96	1.121	0.294	0.174	2.24	88	0.101	6.1	0.018	78	1543	0.0013	1.13	2,271
203	0.40	0.0064	0.00553	0.011	0.001931	13	0.33	0.005	424	79	0.021	0.113	1.964	1.9	0.0037	0.0015	97	1.120	0.293	0.174	2.23	88	0.101	6.1	0.018	77	1545	0.0012	1.13	2,273
204	0.40	0.0064	0.00557	0.011	0.001931	13	0.33	0.005	424	78	0.021	0.113	1.963	1.9	0.0037	0.0015	97	1.119	0.293	0.174	2.23	88	0.101	6.1	0.018	77	1546	0.0012	1.13	2,274
205	0.40	0.0065	0.00561	0.011	0.001930	13	0.33	0.005	424	78	0.021	0.113	1.963	1.9	0.0037	0.0015	98	1.119	0.292	0.174	2.23	88	0.101	6.1	0.018	77	1547	0.0012	1.12	2,275
206	0.40	0.0065	0.00565	0.011	0.001930	13	0.33	0.005	424	78	0.021	0.113	1.963	1.9	0.0037	0.0015	98	1.118	0.292	0.174	2.23	88	0.101	6.1	0.018	77	1548	0.0012	1.12	2,276
207	0.40	0.0065	0.00566	0.011	0.001930	13	0.33	0.005	424	78	0.021	0.113	1.963	1.9	0.0037	0.0015	98	1.118	0.292	0.174	2.22	88	0.101	6.1	0.018	77	1549	0.0012	1.12	2,276
208	0.40	0.0065	0.00570	0.011	0.001930	13	0.33	0.005	424	78	0.021	0.113	1.962	1.9	0.0037	0.0016	99	1.117	0.291	0.175	2.22	88	0.101	6.1	0.018	76	1550	0.0012	1.12	2,278
209	0.40	0.0065	0.00574	0.011	0.001930	13	0.33	0.005	424	78	0.021	0.113	1.962	1.9	0.0037	0.0016	99	1.116	0.291	0.175	2.22	88	0.101	6.1	0.018	76	1551	0.0012	1.12	2,279
210	0.40	0.0066	0.00578	0.010	0.001929	13	0.33	0.005	424	77	0.021	0.113	1.962	1.9	0.0037	0.0016	100	1.116	0.290	0.175	2.22	88	0.101	6.1	0.018	76	1553	0.0012	1.12	2,280
211	0.40	0.0066	0.00582	0.010	0.001929	13	0.33	0.005	424	77	0.021	0.113	1.961	1.9	0.0037	0.0016	100	1.115	0.290	0.175	2.22	88	0.100	6.1	0.018	76	1554	0.0012	1.12	2,281
212	0.40	0.0066	0.00583	0.010	0.001929	13	0.33	0.005	424	77	0.021	0.113	1.961	1.9	0.0037	0.0016	100	1.115	0.290	0.175	2.21	88	0.100	6.1	0.018	76	1554	0.0012	1.12	2,281
213	0.40	0.0066	0.00588	0.010	0.001929	13	0.33	0.005	423	77	0.021	0.113	1.961	1.8	0.0037	0.0016	101	1.114	0.289	0.175	2.21	88	0.100	6.1	0.018	76	1556	0.0012	1.12	2,283
214	0.40	0.0066	0.00592	0.010	0.001929	13	0.33	0.005	423	77	0.021	0.113	1.960	1.8	0.0037	0.0016	101	1.113	0.289	0.175	2.21	88	0.100	6.0	0.017	75	1557	0.0012	1.12	2,284
215	0.40	0.0067	0.00596	0.010	0.001928	13	0.33	0.005	423	76	0.021	0.113	1.960	1.8	0.0037	0.0016	101	1.112	0.288	0.175	2.21	88	0.100	6.0	0.017	75	1559	0.0012	1.12	2,285
216	0.40	0.0067	0.00599	0.010	0.001928	13	0.33	0.005	423	76	0.021	0.113	1.960	1.8	0.0037	0.0016	102	1.112	0.288	0.175	2.20	88	0.100	6.0	0.017	75	1560	0.0012	1.12	2,286
217	0.40	0.0067	0.00601	0.010	0.001928	13	0.33	0.005	423	76	0.021	0.113	1.959	1.8	0.0037	0.0016	102	1.111	0.287	0.175	2.20	88	0.100	6.0	0.017	75	1560	0.0012	1.11	2,287
218	0.40	0.0067	0.00606	0.010	0.001928	13	0.33	0.005	423	76	0.020	0.113	1.959	1.8	0.0037	0.0016	102	1.111	0.287	0.175	2.20	88	0.100	6.0	0.017	75	1562	0.0012	1.11	2,288
219	0.40	0.0067	0.00610	0.010	0.001927	13	0.33	0.005	423	76	0.020	0.113	1.959	1.8	0.0037	0.0016	103	1.110	0.286	0.176	2.20	88	0.100	6.0	0.017	74	1563	0.0012	1.11	2,289
220	0.40	0.0068	0.00614	0.010	0.001927	13	0.34	0.005	423	75	0.020	0.113	1.958	1.8	0.0037	0.0016	103	1.109	0.286	0.176	2.20	88	0.100	6.0	0.017	74	1565	0.0012	1.11	2,290
221	0.40	0.0068	0.00619	0.010	0.001927	13	0.34	0.005	423	75	0.020	0.113	1.958	1.8	0.0037	0.0016	104	1.108	0.285	0.176	2.19	88	0.100	6.0	0.017	74	1566	0.0012	1.11	2,292
222	0.40	0.0068	0.00620	0.010	0.001927	13	0.34	0.005	423	75	0.020	0.113	1.958	1.8	0.0037	0.0016	104	1.108	0.285	0.176	2.19	88	0.100	6.0	0.017	74	1566	0.0012	1.11	2,292
223	0.40	0.0068	0.00624	0.010	0.001927	13	0.34	0.005	422	75	0.020	0.113	1.957	1.8	0.0037	0.0016	104	1.107	0.285	0.176	2.19	88	0.100	6.0	0.017	74	1568	0.0012	1.11	2,293
224	0.40	0.0068	0.00629	0.010	0.001926	13	0.34	0.005	422	75	0.020	0.113	1.957	1.8	0.0037	0.0016	105	1.106	0.284	0.176	2.19	88	0.100	6.0	0.017	74	1569	0.0012	1.11	2,295
225	0.39	0.0069	0.00633	0.010	0.001926	13	0.34	0.005	422	74	0.020	0.113	1.956	1.8	0.0037	0.0016	105	1.106	0.284	0.176	2.19	88	0.100	6.0	0.017	73	1571	0.0012	1.11	2,296
226	0.39	0.0069	0.00638	0.010	0.001926	13	0.34	0.005	422	74	0.020	0.114	1.956	1.8	0.0037	0.0016	106	1.105	0.283	0.176	2.18	88	0.100	6.0	0.017	73	1572	0.0012	1.11	2,297
227	0.39	0.0069	0.00639	0.010	0.001926	13	0.34	0.005	422	74	0.020	0.114	1.956	1.8	0.0037	0.0016	106	1.105	0.283	0.176	2.18	88	0.100	6.0	0.017	73	1573	0.0012	1.11	2,298
228	0.39	0.0069	0.00643	0.010	0.001925	13	0.34	0.005	422	74	0.020	0.114	1.955	1.8	0.0037	0.0016	107	1.104	0.282	0.176	2.18	88	0.099	6.0	0.017	73	1574	0.0012	1.11	2,299
229	0.39	0.0070	0.00648	0.010	0.001925	13	0.34	0.005	422	74	0.020	0.114	1.955	1.8	0.0037	0.0016	107	1.103	0.282	0.177	2.18	88	0.099	6.0	0.017	73	1576	0.0012	1.11	2,300
230	0.39	0.0070	0.00653	0.010	0.001925	13	0.34	0.005	422	73	0.020	0.114	1.955	1.8	0.0037	0.0016	108	1.103	0.281	0.177	2.18	88	0.099	6.0	0.017	72	1577	0.0012	1.10	2,302
231	0.39	0.0070	0.00657	0.010	0.001925	13	0.34	0.005	421	73	0.020	0.114	1.954	1.8	0.0037	0.0016	108	1.102	0.281	0.177	2.18	88	0.099	6.0	0.017	72	1579	0.0012	1.10	2,303
232	0.39	0.0070	0.00658	0.010	0.001925	13	0.34	0.005	421	73	0.020	0.114	1.954	1.8	0.0037	0.0016	108	1.102	0.281	0.177	2.17	88	0.099	6.0	0.017	72	1579	0.0012	1.10	2,304
233	0.39	0.0070	0.00663	0.010	0.001924	13	0.34	0.005	421	73	0.020	0.114	1.954	1.8	0.0037	0.0016	109	1.101	0.280	0.177	2.17	88	0.099	6.0	0.017	72	1581	0.0012	1.10	2,305
234	0.39	0.0071	0.00668	0.010	0.001924	13	0.34	0.005	421	73	0.020	0.114	1.953	1.7	0.0037	0.0016	109	1.100	0.280	0.177	2.17	88	0.099	6.0	0.017	72	1583	0.0012	1.10	2,307
235	0.39	0.0071	0.00673	0.010	0.001924	13	0.34	0.005	421	72	0.019	0.114	1.953	1.7	0.0037	0.0016	110	1.099	0.279	0.177	2.17	88	0.099	5.9	0.016	72	1584	0.0012	1.10	2,308
236	0.39	0.0071	0.00678	0.010	0.001924	13	0.35	0.005	421	72	0.019	0.114	1.953	1.7	0.0037	0.0016	110	1.099	0.279	0.177	2.17	88	0.099	5.9	0.016	71	1586	0.0012	1.10	2,310
237	0.39	0.0071	0.00678	0.010	0.001924	13	0.35	0.005	421	72	0.019	0.114	1.952	1.7	0.0037	0.0016	110	1.099	0.279	0.177	2.16	88	0.099	5.9	0.016	71	1586	0.0011	1.10	2,310
238	0.39	0.0072	0.00683	0.010	0.001923	13	0.35	0.005	421	72	0.019	0.114	1.952	1.7	0.0037	0.0017	111	1.098	0.278	0.178	2.16	88	0.099	5.9	0.016	71	1588	0.0011	1.10	2,312
239	0.39	0.0072	0.00688	0.010	0.001923	13	0.35	0.005	421	72	0.019	0.114	1.952	1.7	0.0037	0.0017	111	1.097	0.278	0.178	2.16	88	0.099	5.9	0.016	71	1590	0.0011	1.10	2,313
240	0.39	0.0072	0.00693	0.010	0.001923	13	0.35	0.005	420	71	0.019	0.114	1.951	1.7	0.0037	0.0017	112	1.096	0.277	0.178	2.16	88	0.099	5.9	0.016	71	1591	0.0011	1.10	2,315
241	0.39	0.0072	0.00698	0.010	0.001922	13	0.35	0.005	420	71	0.019	0.114	1.951	1.7	0.0037	0.0017	113	1.095	0.277	0.178	2.15	88	0.099	5.9	0.016	70	1593	0.0011	1.10	2,317
242	0.39	0.0072	0.00699	0.010	0.001922	13	0.35	0.005	420	71	0.019	0.114	1.951	1.7	0.0037	0.0017	113	1.095	0.276	0.178	2.15	88	0.099	5.9	0.016	70	1593	0.0011	1.10	2,317
243	0.39	0.0073	0.00704	0.010	0.001922	13	0.35	0.005	420	71	0.019	0.114	1.950	1.7	0.0037	0.0017	113	1.094	0.276	0.178	2.15	88	0.099	5.9	0.016	70	1595	0.0011	1.10	2,319
244	0.39	0.0073	0.00709	0.010	0.001922	13	0.35	0.005	420	71	0.019	0.114	1.950	1.7	0.0037	0.0017	114	1.093	0.275	0.178	2.15	88	0.099	5.9	0.016	70	1597	0.0011	1.10	2,320
245	0.39	0.0073	0.00713	0.010	0.001922	13	0.35	0.005	420	71	0.019	0.114	1.950	1.7	0.0037	0.0017	114	1.093	0.275	0.178	2.15	88	0.099	5.9	0.016	70	1598	0.0011	1.09	2,322

Notes:

1. Tailings solute chemistry based on results of Peg Leg Tailings Storage Facility process circuit model (Enchemica, 2018) and sulfide oxidation model (Rio Tinto, 2018)
2. mg/L = milligrams per liter

Table 5. Model Results at Donnelly Wash 2 Aquifer Subdomain - Alternative 5

Years since Mine Start	Al	Sb	As	Ba	Be	HCO3	B	Cd	Ca	Cl	Cr	Co	Cu	F	Fe	Pb	Mg	Mn	Mo	Ni	NO3-N	K	Se	Si	Ag	Na	SO4	Tl	Zn	TDS
	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
1	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
2	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
3	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
4	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
5	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
6	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	3.6E-34	0.0E+00	0.0E+00	1.6E-33	8.5E-34	0.0E+00	0.0E+00	0.0E+00	2.3E-35	0.0E+00	0.0E+00	5.4E-34	0.0E+00	0.0E+00	0.0E+00	2.1E-35	5.8E-34	0.0E+00	1.5E-34	0.0E+00	1.2E-33	7.9E-33	0.0E+00	0.0E+00	1.2E-32
7	3.9E-32	7.6E-35	3.2E-34	2.0E-33	0.0E+00	3.8E-30	3.0E-32	2.5E-35	1.7E-29	8.6E-30	4.0E-34	4.0E-34	2.7E-32	2.6E-31	2.3E-34	7.1E-35	5.6E-30	2.7E-33	1.7E-32	6.1E-34	2.4E-31	6.0E-30	1.8E-33	1.6E-30	2.5E-34	1.2E-29	7.9E-29	2.7E-35	1.7E-32	1.2E-28
8	7.3E-29	1.9E-31	6.8E-31	4.1E-30	2.7E-32	7.0E-27	5.6E-29	7.0E-32	3.1E-26	1.6E-26	8.5E-31	8.4E-31	5.2E-29	4.9E-28	5.2E-31	1.8E-31	1.1E-26	5.3E-30	3.2E-29	1.3E-30	4.5E-28	1.1E-26	3.7E-30	2.9E-27	5.7E-31	2.3E-26	1.5E-25	7.5E-32	3.2E-29	2.2E-25
9	3.9E-26	1.0E-28	3.6E-28	2.1E-27	1.5E-29	3.7E-24	3.0E-26	3.8E-29	1.6E-23	8.5E-24	4.5E-28	4.5E-28	2.7E-26	2.6E-25	2.8E-28	9.5E-29	5.6E-24	2.8E-27	1.7E-26	6.8E-28	2.4E-25	6.0E-24	1.9E-27	1.5E-24	3.0E-28	1.2E-23	7.8E-23	4.1E-29	1.7E-26	1.2E-22
10	7.7E-24	2.0E-26	7.2E-26	4.3E-25	3.0E-27	7.4E-22	5.9E-24	7.6E-27	3.3E-21	1.7E-21	9.0E-26	8.9E-26	5.4E-24	5.2E-23	5.6E-26	1.9E-26	1.1E-21	5.6E-25	3.4E-24	1.4E-25	4.8E-23	1.2E-21	3.9E-25	3.1E-22	6.0E-26	2.4E-21	1.6E-20	8.2E-27	3.4E-24	2.3E-20
11	7.1E-22	1.9E-24	6.6E-24	3.9E-23	2.7E-25	6.8E-20	5.4E-22	7.0E-25	3.0E-19	1.5E-19	8.3E-24	8.2E-24	5.0E-22	4.7E-21	5.1E-24	1.7E-24	1.0E-19	5.2E-23	3.1E-22	1.3E-23	4.4E-21	1.1E-19	3.5E-23	2.8E-20	5.5E-24	2.2E-19	1.4E-18	7.5E-25	3.1E-22	2.1E-18
12	3.5E-20	9.1E-23	3.2E-22	1.9E-21	1.3E-23	3.3E-18	2.7E-20	3.5E-23	1.5E-17	7.6E-18	4.1E-22	4.1E-22	2.4E-20	2.3E-19	2.5E-22	8.5E-23	5.0E-18	2.6E-21	1.5E-20	6.2E-22	2.2E-19	5.3E-18	1.7E-21	1.4E-18	2.7E-22	1.1E-17	7.0E-17	3.7E-23	1.5E-20	1.0E-16
13	1.0E-18	2.7E-21	9.5E-21	5.7E-20	4.0E-22	9.8E-17	7.9E-19	1.0E-21	4.4E-16	2.2E-16	1.2E-20	1.2E-20	7.3E-19	6.9E-18	7.4E-21	2.5E-21	1.5E-16	7.8E-20	4.5E-19	1.9E-20	6.4E-18	1.6E-16	5.2E-20	4.1E-17	8.1E-21	3.3E-16	2.1E-15	1.1E-21	4.6E-19	3.1E-15
14	2.1E-17	5.3E-20	1.9E-19	1.1E-18	7.8E-21	1.9E-15	1.5E-17	2.1E-20	8.6E-15	4.4E-15	2.4E-19	2.4E-19	1.4E-17	1.3E-16	1.5E-19	4.9E-20	2.9E-15	1.6E-18	8.8E-18	3.7E-19	1.3E-16	3.1E-15	1.0E-18	8.0E-16	1.6E-19	6.4E-15	4.1E-14	2.1E-20	9.1E-18	6.1E-14
15	2.9E-16	7.4E-19	2.5E-18	1.5E-17	1.1E-19	2.6E-14	2.1E-16	2.9E-19	1.2E-13	6.0E-14	3.4E-18	3.4E-18	2.0E-16	1.9E-15	2.0E-18	6.7E-19	4.0E-14	2.3E-17	1.2E-16	5.2E-18	1.8E-15	4.3E-14	1.4E-17	1.1E-14	2.3E-18	8.8E-14	5.6E-13	3.0E-19	1.3E-16	8.4E-13
16	3.0E-15	7.7E-18	2.6E-17	1.6E-16	1.1E-18	2.7E-13	2.2E-15	3.1E-18	1.2E-12	6.2E-13	3.6E-17	3.7E-17	2.0E-15	1.9E-14	2.1E-17	6.9E-18	4.1E-13	2.5E-16	1.3E-15	5.5E-17	1.9E-14	4.5E-13	1.5E-16	1.1E-13	2.4E-17	9.1E-13	5.8E-12	3.1E-18	1.3E-15	8.7E-12
17	2.5E-14	6.3E-17	2.1E-16	1.3E-15	9.1E-18	2.2E-12	1.8E-14	2.6E-17	1.0E-11	5.0E-12	2.9E-16	3.1E-16	1.6E-14	1.6E-13	1.7E-16	5.5E-17	3.3E-12	2.1E-15	1.0E-14	4.6E-16	1.5E-13	3.6E-12	1.2E-15	9.3E-13	2.0E-16	7.3E-12	4.7E-11	2.5E-17	1.1E-14	7.1E-11
18	1.7E-13	4.2E-16	1.4E-15	8.3E-15	6.0E-17	1.4E-11	1.2E-13	1.8E-16	6.5E-11	3.3E-11	2.0E-15	2.1E-15	1.1E-13	1.0E-12	1.1E-15	3.6E-16	2.2E-11	1.5E-14	6.8E-14	3.1E-15	1.0E-12	2.4E-11	8.2E-15	6.1E-12	1.3E-15	4.8E-11	3.1E-10	1.7E-16	7.4E-14	4.6E-10
19	9.3E-13	2.3E-15	7.3E-15	4.5E-14	3.3E-16	7.7E-11	6.4E-13	1.0E-15	3.6E-10	1.8E-10	1.1E-14	1.2E-14	5.9E-13	5.6E-12	6.0E-15	1.9E-15	1.2E-10	8.9E-14	3.8E-13	1.8E-14	5.6E-12	1.3E-10	4.6E-14	3.3E-11	7.6E-15	2.6E-10	1.7E-09	9.3E-16	4.2E-13	2.5E-09
20	4.4E-12	1.1E-14	3.4E-14	2.1E-13	1.5E-15	3.6E-10	3.0E-12	5.2E-15	1.7E-09	8.3E-10	5.4E-14	6.1E-14	2.7E-12	2.6E-11	2.8E-14	9.0E-15	5.6E-10	4.5E-13	1.8E-12	8.6E-14	2.7E-11	6.2E-10	2.2E-13	1.6E-10	3.7E-14	1.2E-09	8.0E-09	4.4E-15	2.0E-12	1.2E-08
21	1.9E-11	4.6E-14	1.4E-13	8.5E-13	6.3E-15	1.5E-09	1.2E-11	2.3E-14	6.9E-09	3.4E-09	2.3E-13	2.7E-13	1.1E-11	1.1E-10	1.1E-13	3.6E-14	2.3E-09	2.0E-12	7.3E-12	3.7E-13	1.1E-10	2.5E-09	9.3E-13	6.4E-10	1.6E-13	5.0E-09	3.3E-08	1.8E-14	8.6E-12	4.9E-08
22	6.9E-11	1.7E-13	4.8E-13	3.0E-12	2.3E-14	5.2E-09	4.4E-11	8.8E-14	2.5E-08	1.2E-08	8.6E-13	1.0E-12	4.0E-11	3.8E-10	4.1E-13	1.3E-13	8.2E-09	8.1E-12	2.7E-11	1.4E-12	4.1E-10	9.2E-09	3.5E-12	2.3E-09	6.0E-13	1.8E-08	1.2E-07	6.7E-14	3.2E-11	1.8E-07
23	2.3E-10	5.6E-13	1.5E-12	9.8E-12	7.5E-14	1.7E-08	1.4E-10	3.1E-13	8.2E-08	3.9E-08	2.9E-12	3.7E-12	1.3E-10	1.2E-09	1.3E-12	4.2E-13	2.7E-08	2.9E-11	8.8E-11	4.9E-12	1.4E-09	3.0E-08	1.2E-11	7.6E-09	2.1E-12	5.8E-08	3.9E-07	2.3E-13	1.1E-10	5.8E-07
24	7.0E-10	1.7E-12	4.5E-12	2.9E-11	2.2E-13	5.0E-08	4.3E-10	9.8E-13	2.5E-07	1.2E-07	9.1E-12	1.2E-11	3.9E-10	3.7E-09	3.9E-12	1.2E-12	7.9E-08	9.5E-11	2.6E-10	1.5E-11	4.1E-09	9.0E-08	3.6E-11	2.2E-08	6.4E-12	1.7E-07	1.1E-06	6.9E-13	3.4E-10	1.7E-06
25	1.9E-09	4.8E-12	1.2E-11	7.9E-11	6.1E-13	1.3E-07	1.2E-09	2.9E-12	6.7E-07	3.2E-07	2.6E-11	3.5E-11	1.0E-09	1.0E-08	1.1E-11	3.3E-12	2.2E-07	2.9E-10	7.3E-10	4.4E-11	1.1E-08	2.5E-07	1.0E-10	6.1E-08	1.9E-11	4.7E-07	3.1E-06	2.0E-12	9.8E-10	4.7E-06
26	5.0E-09	1.3E-11	3.0E-11	2.0E-10	1.5E-12	3.4E-07	3.0E-09	7.9E-12	1.7E-06	8.0E-07	6.9E-11	9.5E-11	2.6E-09	2.5E-08	2.7E-11	8.4E-12	5.4E-07	8.0E-10	1.9E-09	1.2E-10	2.9E-08	6.3E-07	2.7E-10	1.6E-07	5.0E-11	1.2E-06	8.0E-06	5.1E-12	2.6E-09	1.2E-05
27	1.2E-08	3.1E-11	6.9E-11	4.7E-10	3.7E-12	7.9E-07	7.0E-09	2.0E-11	4.1E-06	1.9E-06	1.7E-10	2.4E-10	6.3E-09	6.0E-08	6.4E-11	2.0E-11	1.3E-06	2.1E-09	4.5E-09	3.0E-10	7.1E-08	1.5E-06	6.6E-10	3.7E-07	1.3E-10	2.8E-06	1.9E-05	1.3E-11	6.5E-09	2.8E-05
28	2.8E-08	7.1E-11	1.5E-10	1.0E-09	8.2E-12	1.7E-06	1.6E-08	4.9E-11	9.2E-06	4.2E-06	4.1E-10	5.9E-10	1.4E-08	1.3E-07	1.4E-10	4.4E-11	2.9E-06	5.1E-09	1.0E-08	7.2E-10	1.6E-07	3.4E-06	1.5E-09	8.3E-07	3.0E-10	6.3E-06	4.3E-05	3.0E-11	1.5E-08	6.3E-05
29	6.0E-08	1.5E-10	3.1E-10	2.2E-09	1.7E-11	3.7E-06	3.3E-08	1.1E-10	2.0E-05	8.9E-06	9.0E-10	1.3E-09	2.9E-08	2.8E-07	3.0E-10	9.2E-11	6.1E-06	1.2E-08	2.2E-08	1.6E-09	3.4E-07	7.2E-06	3.4E-09	1.8E-06	6.7E-10	1.3E-05	9.0E-05	6.6E-11	3.4E-08	1.3E-04
30	1.2E-07	3.2E-10	6.2E-10	4.3E-09	3.5E-11	7.3E-06	6.7E-08	2.4E-10	4.0E-05	1.8E-05	1.9E-09	2.9E-09	5.9E-08	5.7E-07	6.0E-10	1.8E-10	1.2E-05	2.6E-08	4.4E-08	3.5E-09	7.0E-07	1.5E-05	7.1E-09	3.5E-06	1.4E-09	2.7E-05	1.8E-04	1.4E-10	7.3E-08	2.7E-04
31	2.4E-07	6.5E-10	1.2E-09	8.3E-09	6.7E-11	1.4E-05	1.3E-07	5.0E-10	7.7E-05	3.4E-05	3.9E-09	6.0E-09	1.1E-07	1.1E-06	1.2E-09	3.5E-10	2.3E-05	5.4E-08	8.7E-08	7.2E-09	1.4E-06	2.9E-05	1.4E-08	6.8E-06	2.9E-09	5.1E-05	3.5E-04	2.9E-10	1.5E-07	5.3E-04
32	4.6E-07	1.2E-09	2.1E-09	1.5E-08	1.2E-10	2.6E-05	2.4E-07	9.9E-10	1.4E-04	6.3E-05	7.5E-09	1.2E-08	2.1E-07	2.0E-06	2.1E-09	6.5E-10	4.3E-05	1.1E-07	1.6E-07	1.4E-08	2.6E-06	5.3E-05	2.8E-08	1.3E-05	5.7E-09	9.4E-05	6.5E-04	5.6E-10	2.9E-07	9.7E-04
33	8.3E-07	2.3E-09	3.7E-09	2.7E-08	2.2E-10	4.5E-05	4.3E-07	1.9E-09	2.6E-04	1.1E-04	1.4E-08	2.3E-08	3.7E-07	3.6E-06	3.8E-09	1.2E-09	7.7E-05	2.1E-07	2.9E-07	2.7E-08	4.6E-06	9.6E-05	5.1E-08	2.3E-05	1.1E-08	1.7E-04	1.2E-03	1.0E-09	5.4E-07	1.7E-03
34	1.5E-06	4.1E-09	6.1E-09	4.6E-08	3.8E-10	7.7E-05	7.3E-07	3.5E-09	4.4E-04	1.9E-04	2.5E-08	4.2E-08	6.3E-07	6.2E-06	6.4E-09	2.0E-09	1.3E-04	3.8E-07	5.2E-07	4.8E-08	8.1E-06	1.7E-04	9.2E-08	3.9E-05	1.9E-08	2.9E-04	2.0E-03	1.9E-09	9.7E-07	3.0E-03
35	2.5E-06	7.1E-09	1.0E-08	7.7E-08	6.3E-10	1.3E-04	1.2E-06	6.1E-09	7.5E-04	3.3E-04	4.4E-08	7.4E-08	1.0E-06	1.0E-05	1.1E-08	3.3E-09	2.2E-04	6.9E-07	8.7E-07	8.5E-08	1.4E-05	2.8E-04	1.6E-07	6.5E-05	3.4E-08	4.8E-04	3.4E-03	3.3E-09	1.7E-06	5.0E-03
36	4.1E-06	1.2E-08	1.6E-08	1.2E-07	1.0E-09	2.1E-04	2.0E-06	1.1E-08	1.2E-03	5.3E-04	7.5E-08	1.3E-07	1.7E-06	1.7E-05	1.7E-08	5.4E-09	3.5E-04	1.2E-06	1.4E-06	1.5E-07	2.2E-05	4.6E-04	2.7E-07	1.1E-04	5.8E-08	7.8E-04	5.5E-03	5.7E-09	2.9E-06	8.2E-03
37	6.6E-06	2.0E-08	2.4E-08	2.0E-07	1.6E-09	3.2E-04	3.1E-06	1.8E-08	1.9E-03	8.4E-04	1.2E-07	2.1E-07	2.6E-06	2.6E-05	2.7E-08	8.6E-09	5.6E-04	2.0E-06	2.3E-06	2.4E-07	3.6E-05	7.3E-04	4.4E-07	1.7E-04	9.6E-08	1.2E-03	8.7E-03	9.5E-09	4.8E-06	1.3E-02
38	1.0E-05	3.1E-08	3.7E-08	3.0E-07	2.5E-09	4.9E-04	4.9E-06	2.9E-08	3.0E-03	1.3E-03	2.0E-07	3.5E-07	4.0E-06	4.0E-05	4.1E-08	1.3E-08	8.6E-04	3.3E-06	3.6E-06	3.9E-07	5.5E-05	1.1E-03	7.0E-07	2.6E-04	1.6E-07	1.9E-03	1.3E-02	1.5E-08	7.7E-06	2.0E-02
39	1.6E-05	4.9E-08	5.4E-08	4.5E-07	3.7E-09	7.3E-04	7.3E-06	4.6E-08	4.5E-03	2.0E-03	3.1E-07	5.5E-07	6.0E-06	6.1E-05	6.2E-08	2.0E-08	1.3E-03	5.2E-06	5.6E-06	6.2E-07	8.4E-05	1.7E-03	1.1E-06	3.9E-04	2.4E-07	2.8E-03	2.0E-02	2.4E-08	1.2E-05	3.0E-02
40	2.3E-05	7.5E-08	7.8E-08	6.6E-07	5.5E-09	1.1E-03	1.1E-05	7.1E-08	6.7E-03	2.9E-03	4.8E-07	8.5E-07	8.9E-06	9.0E-05	9.1E-08	3.0E-08	1.9E-03	8.2E-06	8.3E-06	9.7E-07	1.2E-04	2.6E-03	1.7E-06	5.7E-04	3.8E-07	4.2E-03	3.0E-02	3.7E-08	1.9E-05	4.5E-02
41	9.2E-05	3.0E-07	2.9E-07	2.6E-06	2.2E-08	4.2E-03	4.2E-05	2.9E-07	2.6E-02	1.1E-02	1.9E-06	3.5E-06	3.4E-05	3.5E-04	3.5E-07	1.2E-07	7.4E-03	3.4E-05	3.3E-05	4.0E-06	4.9E-04	1.0E-02	6.8E-06	2.2E-03	1.5E-06	1.6E-02	1.2E-01	1.5E-07	7.5E-05	1.8E-01
42	1.3E-04	4.4E-07	4.1E-07	3.6E-06	3.1E-08	5.9E-03	6.0E-05	4.4E-07	3.8E-02	1.6E-02	2.9E-06	5.2E-06	4.8E-05	5.0E-04	4.9E-07	1.7E-07	1.0E-02	5.1E-05	4.8E-05	5.9E-06	7.0E-04	1.5E-02	1.0E-05	3.2E-03	2.3E-06	2.3E-02	1.7E-01	2.3E-07	1.1E-04	2.5E-01
43	1.9E-04	6.4E-07	5.5E-07	5.0E-06	4.3E-08	8.1E-03	8.4E-05	6.4E-07	5.3E-02	2.3E-02	4.1E-06	7.6E-06	6.7E-05	6.9E-04	6.8E-07	2.3E-07	1.4E-02	7.4E-05	6.8E-05	8.6E-06	9.8E-04	2.1E-02	1.5E-05	4.4E-03	3.3E-06	3.2E-02	2.3E-01	3.3E-07	1.6E-04	3.5E-01
44	2.6E-04	9.1E-07	7.4E-07	6.9E-06	5.9E-08	1.1E-02	1.2E-04	9.1E-07	7.3E-02	3.1E-02	5.9E-06	1.1E-05	9.2E-05	9.5E-04	9.3E-07	3.2E-07	2.0E-02	1.1E-04	9.5E-05	1.2E-05	1.4E-03	2.9E-02	2.1E-05	6.1E-03	4.7E-06	4.4E-02	3.2E-01	4.7E-07	2.3E-04	4.8E-01
45	3.5E-04	1.3E-06	9.8E-07	9.3E-06	8.0E-08	1.5E-02	1.6E-04	1.3E-06	9.9E-02	4.3E-02	8.3E-06	1.5E-05	1.2E-04	1.3E-03	1.3E-06	4.4E-07	2.7E-02	1.5E-04	1.3E-04	1.7E-05	1.8E-03	3.9E-02	2.9E-05	8.2E-03	6.6E-06	6.0E-02	4.4E-01	6.6E-07	3.2E-04	6.5E-01
46	4.8E-04	1.7E-06	1.3E-06	1.2E-05	1.1E-07	2.0E-02	2.1E-04	1.8E-06	1.3E-01	5.8E-02	1.1E-05	2.1E-05	1.6E-04	1.7E-03	1.7E-06	5.9E-07	3.6E-02	2.1E-04	1.8E-04	2.4E-05	2.5E-03	5.3E-02	4.0E-05	1.1E-02	9.1E-06	8.0E-02	5.8E-01	9.1E-07	4.4E-04	8.8E-01
47	6.3E-04	2.4E-06	1.6E-06	1.6E-05	1.4E-07	2.6E-02	2.8E-04	2.5E-06	1.8E-01	7.6E-02	1.5E-05	2.9E-05	2.1E-04	2.3E-03	2.2E-06	7.9E-07	4.7E-02	2.9E-04	2.4E-04	3.3E-05	3.3E-03	7.0E-02	5.4E-05	1.4E-02	1.2E-05	1.0E-01	7.7E-01	1.2E-06	6.0E-04	1.2E+00
48	8.3E-04	3.1E-06	2.1E-06	2.1E-05	1.9E-07	3.3E-02	3.6E-04	3.3E-06	2.3E-01	1.0E-01	2.1E-05	4.0E-05	2.8E-04	3.0E-03	2.8E-06	1.0E-06	6.1E-02	3.9E-04	3.2E-04	4.5E-05	4.3E-03	9.3E-02	7.2E-05	1.9E-02	1.7E-05	1.4E-01	1.0E+00	1.7E-06	8.1E-04	1.5E+00
49	1.1E-03	4.2E-06	2.6E-06	2.7E-05	2.4E-07	4.3E-02	4.6E-04	4.4E-06	3.0E-01	1.3E-01	2.8E-05	5.3E-05	3.5E-04	3.8E-03	3.6E-06	1.3E-06	7.8E-02	5.2E-04	4.1E-04	6.0E-05	5.5E-03	1.2E-01	9.6E-05	2.4E-02	2.2E-05	1.8E-01	1.3E+00	2.2E-06	1.1E-03	2.0E+00
50	1.4E-03	5.4E-06	3.2E-06	3.4E-05	3.1E-07	5.4E-02	5.9E-04	5.8E-06	3.8E-01	1.7E-01	3.6E-05	6.9E-05	4.5E-04	4.8E-03	4.5E-06	1.7E-06	9.9E-02	6.9E-04	5.4E-04	7.9E-05	7.0E-03	1.6E-01	1.3E-04	3.1E-02	2.9E-05	2.2E-01	1.7E+00	2.9E-06	1.4E-03	2.5E+00
51	1.7E-03	7.0E-06	4.0E-06	4.3E-05	4.0E-07	6.8E-02	7.5E-04	7.6E-06	4.8E-01	2.1E-01	4.7E-05	9.0E-05	5.6E-04	6.1E-03	5.6E-06	2.2E-06	1.2E-01	9.0E-04	6.9E-04	1.0E-04	8.9E-03	2.0E-01	1.6E-04	3.8E-02	3.8E-05	2.8E-01	2.1E+00	3.8E-06	1.8E-03	3.1E+00
52	2.2E-03	8.9E-06	4.8E-06	5.3E-05	5.0E-07	8.4E-02	9.4E-04	9.8E-06	6.0E-01	2.7E-01	6.0E-05	1.2E-04	6.9E-04	7.6E-03	7.0E-06	2.8E-06	1.6E-01	1.2E-03	8.7E-04	1.3E-04	1.1E-02	2.5E-01	2.1E-04	4.8E-02	4.9E-05	3.5E-01	2.6E+00	4.8E-06	2.3E-03	3.9E+00
53	2.7E-03	1.1E-05	5.8E-06	6.6E-05	6.2E-07	1.0E-01	1.2E-03	1.3E-05	7.4E-01	3.3E-01	7.6E-05	1.5E-04	8.5E-04	9.4E-03	8.6E-06	3.4E-06	1.9E-01	1.5E-03	1.1E-03	1.7E-04	1.4E-02	3.1E-01	2.6E-04	5.9E-02	6.2E-05	4.4E-01	3.2E+00	6.1E-06	3.0E-03	4.9E+00
54	3.4E-03	1.4E-05	7.0E-06	8.0E-05	7.7E-07	1.3E-01	1.4E-03	1.6E-05	9.1E-01	4.1E-01	9.6E-05	1.9E-04	1.0E-03	1.2E-02	1.0E-05	4.3E-06	2.4E-01	1.9E-03	1.4E-03	2.1E-04	1.7E-02	3.9E-01	3.3E-04	7.2E-02	7.8E-05	5.4E-01	4.0E+00	7.7E-06	3.7E-03	6.0E+00
55	4.1E-03	1.8E-05	8.3E-06	9.8E-05	9.5E-07	1.5E-01	1.7E-03	2.0E-05	1.1E+00	5.1E-01	1.2E-04	2.3E-04	1.3E-03	1.4E-02	1.3E-05	5.2E-06	2.9E-01	2.4E-03	1.7E-03	2.7E-04	2.1E-02	4.8E-01	4.1E-04	8.8E-02	9.7E-05	6.6E-01	4.8E+00	9.5E-06	4.6E-03	7.3E+00
56	5.0E-03	2.2E-05	9.8E-06	1.2E-04	1.2E-06	1.8E-01	2.1E-03	2.5E-05	1.3E+00	6.2E-01	1.5E-04	2.9E-04	1.5E-03	1.7E-02	1.5E-05	6.4E-06	3.5E-01	2.9E-03	2.1E-03	3.3E-04	2.5E-02	5.8E-01	5.1E-04	1.1E-01	1.2E-04	7.9E-01	5.8E+00	1.2E-05	5.7E-03	8.9E+00
57	6.0E-03	2.6E-05	1.1E-05	1.4E-04	1.4E-06	2.2E-01	2.5E-03	3.0E-05	1.6E+00	7.5E-01	1.8E-04	3.6E-04	1.8E-03	2.0E-02	1.8E-05	7.7E-06	4.1E-01	3.6E-03	2.5E-03	4.1E-04	3.0E-02	7.0E-01	6.3E-04	1.3E-01	1.5E-04	9.5E-01	7.0E+00	1.4E-05	7.0E-03	1.1E+01
58	7.2E-03	3.2E-05	1.3E-05	1.7E-04	1.7E-06	2.6E-01	3.0E-03	3.7E-05	1.9E+00	9.0E-01	2.2E-04	4.3E-04	2.1E-03	2.4E-02	2.1E-05	9.2E-06	4.9E-01	4.4E-03	3.0E-03	5.0E-04	3.6E-02	8.5E-01	7.7E-04	1.5E-01	1.8E-04	1.1E+00	8.4E+00	1.7E-05	8.6E-03	1.3E+01
59	8.5E-03	3.9E-05	1.5E-05	2.0E-04	2.0E-06	3.0E-01	3.6E-03	4.5E-05	2.3E+00	1.1E+00	2.7E-04	5.2E-04	2.5E-03	2.9E-02	2.5E-05	1.1E-05	5.8E-01	5.3E-03	3.7E-03	6.1E-04	4.2E-02	1.0E+00	9.3E-04	1.8E-01	2.2E-04	1.3E+00	9.9E+00	2.1E-05	1.0E-02	1.5E+01
60	1.0E-02	4.6E-05	1.8E-05	2.3E-04	2.4E-06	3.6E-01	4.2E-03	5.4E-05	2.7E+00	1.3E+00	3.2E-04	6.3E-04	2.9E-03	3.4E-02	2.9E-05	1.3E-05	6.8E-01	6.4E-03	4.4E-03	7.3E-04	5.0E-02	1.2E+00	1.1E-03	2.1E-01	2.6E-04	1.6E+00	1.2E+01	2.5E-05	1.2E-02	1.8E+01
61	1.2E-02	5.5E-05	2.0E-05	2.7E-04	2.9E-06	4.1E-01	5.0E-03	6.4E-05	3.2E+00	1.5E+00	3.8E-04	7.5E-04	3.4E-03	3.9E-02	3.3E-05	1.5E-05	8.0E-01	7.7E-03	5.2E-03	8.8E-04	5.8E-02	1.4E+00	1.3E-03	2.4E-01	3.1E-04	1.9E+00	1.4E+01	3.0E-05	1.5E-02	2.1E+01
62	1.4E-02	6.4E-05	2.3E-05	3.1E-04	3.4E-06	4.8E-01	5.8E-03	7.6E-05	3.7E+00	1.8E+00	4.5E-04	8.9E-04	3.9E-03	4.6E-02	3.9E-05	1.8E-05	9.3E-01	9.1E-03	6.1E-03	1.0E-03	6.8E-02	1.7E+00	1.6E-03	2.8E-01	3.7E-04	2.2E+00	1.6E+01	3.5E-05	1.7E-02	2.4E+01
63	1.6E-02	7.6E-05	2.6E-05	3.6E-04	3.9E-06	5.5E-01	6.7E-03	9.0E-05	4.2E+00	2.1E+00	5.3E-04	1.0E-03	4.5E-03	5.3E-02	4.4E-05	2.1E-05	1.1E+00	1.1E-02	7.1E-03	1.2E-03	7.9E-02	1.9E+00	1.9E-03	3.2E-01	4.3E-04	2.5E+00	1.8E+01	4.1E-05	2.0E-02	2.8E+01
64	1.8E-02	8.8E-05	2.9E-05	4.1E-04	4.6E-06	6.3E-01	7.7E-03	1.1E-04	4.9E+00	2.4E+00	6.2E-04	1.2E-03	5.1E-03	6.1E-02	5.0E-05	2.4E-05	1.2E+00	1.3E-02	8.3E-03	1.5E-03	9.1E-02	2.2E+00	2.2E-03	3.7E-01	5.1E-04	2.9E+00	2.1E+01	4.8E-05	2.4E-02	3.2E+01
65	2.1E-02	1.0E-04	3.3E-05	4.7E-04	5.3E-06	7.2E-01	8.8E-03	1.2E-04	5.6E+00	2.8E+00	7.2E-04	1.4E-03	5.8E-03	7.0E-02	5.7E-05	2.8E-05	1.4E+00	1.5E-02	9.6E-03	1.7E-03	1.0E-01	2.6E+00	2.5E-03	4.2E-01	5.9E-04	3.3E+00	2.4E+01	5.5E-05	2.8E-02	3.7E+01
66	2.4E-02	1.2E-04	3.6E-05	5.3E-04	6.1E-06	8.2E-01	1.0E-02	1.4E-04	6.4E+00	3.2E+00	8.3E-04	1.6E-03	6.6E-03	7.9E-02	6.5E-05	3.2E-05	1.6E+00	1.7E-02	1.1E-02	2.0E-03	1.2E-01	3.0E+00	2.9E-03	4.8E-01	6.8E-04	3.8E+00	2.8E+01	6.4E-05	3.2E-02	4.2E+01
67	2.7E-02	1.3E-04	4.0E-05	6.0E-04	7.0E-06	9.2E-01	1.1E-02	1.7E-04	7.2E+00	3.6E+00	9.6E-04	1.9E-03	7.5E-03	9.0E-02	7.3E-05	3.7E-05	1.8E+00	2.0E-02	1.3E-02	2.3E-03	1.3E-01	3.4E+00	3.4E-03	5.4E-01	7.8E-04	4.3E+00	3.1E+01	7.3E-05	3.7E-02	4.8E+01
68	3.1E-02	1.5E-04	4.5E-05	6.8E-04	8.1E-06	1.0E+00	1.3E-02	1.9E-04	8.2E+00	4.2E+00	1.1E-03	2.2E-03	8.4E-03	1.0E-01	8.2E-05	4.2E-05	2.1E+00	2.3E-02	1.5E-02	2.6E-03	1.5E-01	3.9E+00	3.9E-03	6.1E-01	9.0E-04	4.9E+00	3.5E+01	8.3E-05	4.2E-02	5.4E+01
69	3.5E-02	1.8E-04	4.9E-05	7.6E-04	9.2E-06	1.2E+00	1.5E-02	2.2E-04	9.2E+00	4.7E+00	1.3E-03	2.5E-03	9.4E-03	1.1E-01	9.1E-05	4.7E-05	2.3E+00	2.6E-02	1.6E-02	3.0E-03	1.7E-01	4.4E+00	4.4E-03	6.8E-01	1.0E-03	5.5E+00	4.0E+01	9.5E-05	4.8E-02	6.1E+01

Table 5. Model Results at Donnelly Wash 2 Aquifer Subdomain - Alternative 5

Years since Mine Start	Al mg/L	Sb mg/L	As mg/L	Ba mg/L	Be mg/L	HCO3 mg/L	B mg/L	Cd mg/L	Ca mg/L	Cl mg/L	Cr mg/L	Co mg/L	Cu mg/L	F mg/L	Fe mg/L	Pb mg/L	Mg mg/L	Mn mg/L	Mo mg/L	Ni mg/L	NO3-N mg/L	K mg/L	Se mg/L	Si mg/L	Ag mg/L	Na mg/L	SO4 mg/L	Tl mg/L	Zn mg/L	TDS mg/L
70	3.9E-02	2.0E-04	5.4E-05	8.5E-04	1.0E-05	1.3E+00	1.6E-02	2.5E-04	1.0E+01	5.3E+00	1.4E-03	2.8E-03	1.0E-02	1.3E-01	1.0E-04	5.3E-05	2.6E+00	2.9E-02	1.9E-02	3.4E-03	1.9E-01	5.0E+00	5.0E-03	7.6E-01	1.2E-03	6.2E+00	4.5E+01	1.1E-04	5.5E-02	6.9E+01
71	4.4E-02	2.2E-04	5.9E-05	9.5E-04	1.2E-05	1.4E+00	1.8E-02	2.8E-04	1.1E+01	6.0E+00	1.6E-03	3.2E-03	1.2E-02	1.4E-01	1.1E-04	5.9E-05	2.9E+00	3.3E-02	2.1E-02	3.9E-03	2.1E-01	5.6E+00	5.7E-03	8.5E-01	1.3E-03	6.9E+00	5.0E+01	1.2E-04	6.2E-02	7.7E+01
72	4.9E-02	2.5E-04	6.4E-05	1.1E-03	1.3E-05	1.6E+00	2.1E-02	3.2E-04	1.3E+01	6.7E+00	1.8E-03	3.6E-03	1.3E-02	1.6E-01	1.2E-04	6.7E-05	3.2E+00	3.7E-02	2.4E-02	4.4E-03	2.4E-01	6.2E+00	6.4E-03	9.4E-01	1.5E-03	7.7E+00	5.5E+01	1.4E-04	6.9E-02	8.6E+01
73	5.4E-02	2.8E-04	7.0E-05	1.2E-03	1.5E-05	1.8E+00	2.3E-02	3.6E-04	1.4E+01	7.5E+00	2.0E-03	4.0E-03	1.4E-02	1.8E-01	1.4E-04	7.4E-05	3.6E+00	4.2E-02	2.6E-02	5.0E-03	2.6E-01	7.0E+00	7.2E-03	1.0E+00	1.7E-03	8.5E+00	6.1E+01	1.5E-04	7.7E-02	9.5E+01
74	6.0E-02	3.1E-04	7.5E-05	1.3E-03	1.7E-05	1.9E+00	2.5E-02	4.0E-04	1.6E+01	8.4E+00	2.3E-03	4.5E-03	1.6E-02	1.9E-01	1.5E-04	8.2E-05	3.9E+00	4.7E-02	2.9E-02	5.6E-03	2.9E-01	7.8E+00	8.0E-03	1.1E+00	1.9E-03	9.5E+00	6.8E+01	1.7E-04	8.6E-02	1.1E+02
75	6.6E-02	3.5E-04	8.1E-05	1.4E-03	1.9E-05	2.1E+00	2.8E-02	4.4E-04	1.7E+01	9.3E+00	2.5E-03	5.0E-03	1.7E-02	2.1E-01	1.6E-04	9.1E-05	4.3E+00	5.2E-02	3.3E-02	6.2E-03	3.2E-01	8.6E+00	9.0E-03	1.2E+00	2.1E-03	1.0E+01	7.5E+01	1.9E-04	9.6E-02	1.2E+02
76	7.2E-02	3.8E-04	8.8E-05	1.5E-03	2.1E-05	2.3E+00	3.1E-02	4.9E-04	1.9E+01	1.0E+01	2.8E-03	5.5E-03	1.9E-02	2.4E-01	1.8E-04	1.0E-04	4.8E+00	5.8E-02	3.6E-02	6.9E-03	3.5E-01	9.5E+00	1.0E-02	1.4E+00	2.3E-03	1.1E+01	8.2E+01	2.1E-04	1.1E-01	1.3E+02
77	7.9E-02	4.2E-04	9.4E-05	1.7E-03	2.3E-05	2.6E+00	3.4E-02	5.5E-04	2.1E+01	1.1E+01	3.1E-03	6.1E-03	2.0E-02	2.6E-01	2.0E-04	1.1E-04	5.2E+00	6.4E-02	4.0E-02	7.7E-03	3.8E-01	1.0E+01	1.1E-02	1.5E+00	2.5E-03	1.3E+01	9.0E+01	2.3E-04	1.2E-01	1.4E+02
78	8.7E-02	4.6E-04	1.0E-04	1.8E-03	2.6E-05	2.8E+00	3.7E-02	6.0E-04	2.2E+01	1.2E+01	3.4E-03	6.7E-03	2.2E-02	2.8E-01	2.1E-04	1.2E-04	5.7E+00	7.1E-02	4.4E-02	8.5E-03	4.2E-01	1.1E+01	1.2E-02	1.6E+00	2.8E-03	1.4E+01	9.8E+01	2.5E-04	1.3E-01	1.5E+02
79	9.4E-02	5.1E-04	1.1E-04	2.0E-03	2.8E-05	3.0E+00	4.0E-02	6.6E-04	2.4E+01	1.4E+01	3.8E-03	7.4E-03	2.4E-02	3.1E-01	2.3E-04	1.3E-04	6.2E+00	7.8E-02	4.8E-02	9.4E-03	4.6E-01	1.3E+01	1.3E-02	1.7E+00	3.1E-03	1.5E+01	1.1E+02	2.7E-04	1.4E-01	1.7E+02
80	1.0E-01	5.6E-04	1.1E-04	2.2E-03	3.1E-05	3.3E+00	4.4E-02	7.3E-04	2.6E+01	1.5E+01	4.1E-03	8.1E-03	2.6E-02	3.3E-01	2.5E-04	1.5E-04	6.7E+00	8.5E-02	5.3E-02	1.0E-02	4.9E-01	1.4E+01	1.5E-02	1.9E+00	3.4E-03	1.6E+01	1.2E+02	3.0E-04	1.6E-01	1.8E+02
81	1.1E-01	6.0E-04	1.2E-04	2.3E-03	3.5E-05	3.5E+00	4.7E-02	8.0E-04	2.9E+01	1.6E+01	4.5E-03	8.8E-03	2.9E-02	3.6E-01	2.7E-04	1.6E-04	7.3E+00	9.3E-02	5.7E-02	1.1E-02	5.3E-01	1.5E+01	1.6E-02	2.0E+00	3.7E-03	1.8E+01	1.3E+02	3.2E-04	1.7E-01	2.0E+02
82	1.2E-01	6.6E-04	1.3E-04	2.5E-03	3.8E-05	3.8E+00	5.1E-02	8.7E-04	3.1E+01	1.8E+01	4.9E-03	9.6E-03	3.1E-02	3.9E-01	2.9E-04	1.7E-04	7.9E+00	1.0E-01	6.3E-02	1.2E-02	5.8E-01	1.6E+01	1.8E-02	2.2E+00	4.0E-03	1.9E+01	1.4E+02	3.5E-04	1.8E-01	2.1E+02
83	1.3E-01	7.1E-04	1.4E-04	2.7E-03	4.2E-05	4.1E+00	5.5E-02	9.5E-04	3.3E+01	1.9E+01	5.3E-03	1.0E-02	3.4E-02	4.2E-01	3.1E-04	1.9E-04	8.5E+00	1.1E-01	6.8E-02	1.4E-02	6.2E-01	1.8E+01	1.9E-02	2.4E+00	4.3E-03	2.1E+01	1.5E+02	3.8E-04	2.0E-01	2.3E+02
84	1.4E-01	7.7E-04	1.5E-04	2.9E-03	4.6E-05	4.4E+00	5.9E-02	1.0E-03	3.6E+01	2.1E+01	5.8E-03	1.1E-02	3.7E-02	4.5E-01	3.3E-04	2.0E-04	9.2E+00	1.2E-01	7.3E-02	1.5E-02	6.7E-01	1.9E+01	2.1E-02	2.5E+00	4.7E-03	2.2E+01	1.6E+02	4.1E-04	2.2E-01	2.4E+02
85	1.5E-01	8.3E-04	1.5E-04	3.1E-03	5.1E-05	4.7E+00	6.4E-02	1.1E-03	3.8E+01	2.2E+01	6.2E-03	1.2E-02	3.9E-02	4.8E-01	3.5E-04	2.2E-04	9.8E+00	1.3E-01	7.9E-02	1.6E-02	7.2E-01	2.0E+01	2.2E-02	2.7E+00	5.1E-03	2.4E+01	1.7E+02	4.4E-04	2.3E-01	2.6E+02
86	1.6E-01	8.9E-04	1.6E-04	3.3E-03	5.6E-05	5.0E+00	6.8E-02	1.2E-03	4.1E+01	2.4E+01	6.7E-03	1.3E-02	4.3E-02	5.2E-01	3.8E-04	2.3E-04	1.1E+01	1.4E-01	8.5E-02	1.8E-02	7.7E-01	2.2E+01	2.4E-02	2.9E+00	5.5E-03	2.6E+01	1.8E+02	4.7E-04	2.5E-01	2.8E+02
87	1.7E-01	9.6E-04	1.7E-04	3.5E-03	6.1E-05	5.3E+00	7.3E-02	1.3E-03	4.3E+01	2.6E+01	7.2E-03	1.4E-02	4.6E-02	5.5E-01	4.0E-04	2.5E-04	1.1E+01	1.5E-01	9.2E-02	1.9E-02	8.2E-01	2.4E+01	2.6E-02	3.0E+00	5.9E-03	2.8E+01	1.9E+02	5.0E-04	2.7E-01	3.0E+02
88	1.8E-01	1.0E-03	1.8E-04	3.8E-03	6.7E-05	5.7E+00	7.8E-02	1.4E-03	4.6E+01	2.8E+01	7.7E-03	1.5E-02	5.0E-02	5.9E-01	4.3E-04	2.7E-04	1.2E+01	1.6E-01	9.8E-02	2.0E-02	8.7E-01	2.5E+01	2.8E-02	3.2E+00	6.3E-03	2.9E+01	2.0E+02	5.4E-04	2.9E-01	3.2E+02
89	1.9E-01	1.1E-03	1.9E-04	4.0E-03	7.3E-05	6.0E+00	8.3E-02	1.5E-03	4.9E+01	3.0E+01	8.3E-03	1.6E-02	5.4E-02	6.3E-01	4.5E-04	2.8E-04	1.3E+01	1.7E-01	1.0E-01	2.2E-02	9.3E-01	2.7E+01	3.0E-02	3.4E+00	6.7E-03	3.1E+01	2.2E+02	5.7E-04	3.1E-01	3.4E+02
90	2.1E-01	1.2E-03	2.0E-04	4.2E-03	8.0E-05	6.4E+00	8.8E-02	1.6E-03	5.2E+01	3.2E+01	8.8E-03	1.8E-02	5.8E-02	6.6E-01	4.8E-04	3.0E-04	1.4E+01	1.9E-01	1.1E-01	2.4E-02	9.8E-01	2.9E+01	3.2E-02	3.6E+00	7.2E-03	3.3E+01	2.3E+02	6.1E-04	3.3E-01	3.6E+02
91	2.2E-01	1.2E-03	2.1E-04	4.5E-03	8.7E-05	6.7E+00	9.4E-02	1.7E-03	5.5E+01	3.4E+01	9.4E-03	1.9E-02	6.2E-02	7.0E-01	5.1E-04	3.2E-04	1.4E+01	2.0E-01	1.2E-01	2.5E-02	1.0E+00	3.1E+01	3.4E-02	3.8E+00	7.7E-03	3.5E+01	2.4E+02	6.4E-04	3.5E-01	3.8E+02
92	2.3E-01	1.3E-03	2.2E-04	4.7E-03	9.5E-05	7.1E+00	9.9E-02	1.8E-03	5.8E+01	3.6E+01	1.0E-02	2.0E-02	6.7E-02	7.5E-01	5.4E-04	3.4E-04	1.5E+01	2.1E-01	1.3E-01	2.7E-02	1.1E+00	3.2E+01	3.6E-02	4.0E+00	8.1E-03	3.8E+01	2.6E+02	6.8E-04	3.7E-01	4.1E+02
93	2.4E-01	1.4E-03	2.3E-04	5.0E-03	1.0E-04	7.5E+00	1.0E-01	1.9E-03	6.1E+01	3.8E+01	1.1E-02	2.1E-02	7.2E-02	7.9E-01	5.7E-04	3.6E-04	1.6E+01	2.3E-01	1.3E-01	2.9E-02	1.2E+00	3.4E+01	3.8E-02	4.2E+00	8.6E-03	4.0E+01	2.7E+02	7.2E-04	3.9E-01	4.3E+02
94	2.6E-01	1.5E-03	2.4E-04	5.2E-03	1.1E-04	7.8E+00	1.1E-01	2.0E-03	6.5E+01	4.0E+01	1.1E-02	2.2E-02	7.7E-02	8.3E-01	6.0E-04	3.8E-04	1.7E+01	2.4E-01	1.4E-01	3.1E-02	1.2E+00	3.6E+01	4.1E-02	4.4E+00	9.1E-03	4.2E+01	2.9E+02	7.6E-04	4.2E-01	4.5E+02
95	2.7E-01	1.6E-03	2.5E-04	5.5E-03	1.2E-04	8.2E+00	1.2E-01	2.2E-03	6.8E+01	4.2E+01	1.2E-02	2.4E-02	8.3E-02	8.7E-01	6.3E-04	4.1E-04	1.8E+01	2.5E-01	1.5E-01	3.3E-02	1.3E+00	3.8E+01	4.3E-02	4.7E+00	9.7E-03	4.4E+01	3.0E+02	8.0E-04	4.4E-01	4.8E+02
96	2.8E-01	1.6E-03	2.6E-04	5.8E-03	1.3E-04	8.6E+00	1.2E-01	2.3E-03	7.1E+01	4.5E+01	1.3E-02	2.5E-02	8.9E-02	9.2E-01	6.6E-04	4.3E-04	1.9E+01	2.7E-01	1.6E-01	3.5E-02	1.3E+00	4.0E+01	4.6E-02	4.9E+00	1.0E-02	4.6E+01	3.2E+02	8.4E-04	4.6E-01	5.0E+02
97	3.0E-01	1.7E-03	2.7E-04	6.0E-03	1.4E-04	9.0E+00	1.3E-01	2.4E-03	7.4E+01	4.7E+01	1.3E-02	2.7E-02	9.5E-02	9.6E-01	6.9E-04	4.5E-04	2.0E+01	2.8E-01	1.7E-01	3.7E-02	1.4E+00	4.2E+01	4.8E-02	5.1E+00	1.1E-02	4.9E+01	3.3E+02	8.8E-04	4.9E-01	5.2E+02
98	3.1E-01	1.8E-03	2.8E-04	6.3E-03	1.5E-04	9.4E+00	1.3E-01	2.5E-03	7.8E+01	4.9E+01	1.4E-02	2.8E-02	1.0E-01	1.0E+00	7.3E-04	4.7E-04	2.1E+01	3.0E-01	1.7E-01	3.9E-02	1.5E+00	4.4E+01	***5.0E-02***	5.3E+00	1.1E-02	5.1E+01	3.5E+02	9.3E-04	5.1E-01	5.5E+02
99	3.3E-01	1.9E-03	2.9E-04	6.6E-03	1.6E-04	9.8E+00	1.4E-01	2.6E-03	8.1E+01	5.2E+01	1.5E-02	2.9E-02	1.1E-01	1.1E+00	7.6E-04	4.9E-04	2.2E+01	3.1E-01	1.8E-01	4.2E-02	1.5E+00	4.7E+01	***5.3E-02***	5.5E+00	1.2E-02	5.3E+01	3.6E+02	9.7E-04	5.3E-01	5.7E+02
100	3.4E-01	2.0E-03	3.0E-04	6.9E-03	1.8E-04	1.0E+01	1.5E-01	2.8E-03	8.5E+01	5.4E+01	1.5E-02	3.1E-02	1.2E-01	1.1E+00	7.9E-04	5.2E-04	2.3E+01	3.3E-01	1.9E-01	4.4E-02	1.6E+00	4.9E+01	***5.5E-02***	5.7E+00	1.2E-02	5.6E+01	3.8E+02	1.0E-03	5.6E-01	6.0E+02
101	3.5E-01	2.1E-03	3.1E-04	7.1E-03	1.9E-04	1.1E+01	1.5E-01	2.9E-03	8.8E+01	5.7E+01	1.6E-02	3.2E-02	1.2E-01	1.1E+00	8.3E-04	5.4E-04	2.4E+01	3.5E-01	2.0E-01	4.6E-02	1.7E+00	5.1E+01	***5.8E-02***	6.0E+00	1.3E-02	5.8E+01	4.0E+02	1.1E-03	5.8E-01	6.2E+02
102	3.7E-01	2.2E-03	3.2E-04	7.4E-03	2.0E-04	1.1E+01	1.6E-01	3.0E-03	9.2E+01	5.9E+01	1.7E-02	3.4E-02	1.3E-01	1.2E+00	8.6E-04	5.6E-04	2.5E+01	3.6E-01	2.1E-01	4.9E-02	1.7E+00	5.3E+01	***6.1E-02***	6.2E+00	1.3E-02	6.0E+01	4.1E+02	1.1E-03	6.1E-01	6.5E+02
103	3.8E-01	2.2E-03	3.3E-04	7.7E-03	2.1E-04	1.1E+01	1.6E-01	3.2E-03	9.5E+01	6.2E+01	1.7E-02	3.5E-02	1.4E-01	1.2E+00	9.0E-04	5.9E-04	2.6E+01	3.8E-01	2.2E-01	5.1E-02	1.8E+00	5.5E+01	***6.3E-02***	6.4E+00	1.4E-02	6.3E+01	4.3E+02	1.1E-03	6.3E-01	6.7E+02
104	4.0E-01	2.3E-03	3.4E-04	8.0E-03	2.3E-04	1.2E+01	1.7E-01	3.3E-03	9.9E+01	6.4E+01	1.8E-02	3.7E-02	1.5E-01	1.3E+00	9.4E-04	6.1E-04	2.7E+01	4.0E-01	2.3E-01	5.3E-02	1.9E+00	5.7E+01	***6.6E-02***	6.6E+00	1.5E-02	6.5E+01	4.4E+02	1.2E-03	6.6E-01	7.0E+02
105	4.1E-01	2.4E-03	3.5E-04	8.2E-03	2.4E-04	1.2E+01	1.8E-01	3.4E-03	1.0E+02	6.7E+01	1.9E-02	3.8E-02	1.6E-01	1.3E+00	9.7E-04	6.3E-04	2.8E+01	4.1E-01	2.3E-01	5.6E-02	1.9E+00	5.9E+01	***6.8E-02***	6.8E+00	1.5E-02	6.8E+01	4.6E+02	1.2E-03	6.8E-01	7.3E+02
106	4.2E-01	2.5E-03	3.6E-04	8.5E-03	2.6E-04	1.3E+01	1.8E-01	3.5E-03	1.1E+02	6.9E+01	1.9E-02	4.0E-02	1.7E-01	1.4E+00	1.0E-03	6.6E-04	2.9E+01	4.3E-01	2.4E-01	5.8E-02	2.0E+00	6.2E+01	***7.1E-02***	7.0E+00	1.6E-02	7.0E+01	4.7E+02	1.3E-03	7.1E-01	7.5E+02
107	4.4E-01	2.6E-03	3.7E-04	8.8E-03	2.7E-04	1.3E+01	1.9E-01	3.7E-03	1.1E+02	7.1E+01	2.0E-02	4.2E-02	1.8E-01	1.4E+00	1.0E-03	6.8E-04	3.0E+01	4.5E-01	2.5E-01	6.1E-02	2.1E+00	6.4E+01	***7.3E-02***	7.2E+00	1.6E-02	7.2E+01	4.9E+02	1.3E-03	7.3E-01	7.8E+02
108	4.5E-01	2.7E-03	3.8E-04	9.0E-03	2.9E-04	1.3E+01	2.0E-01	3.8E-03	1.1E+02	7.4E+01	2.1E-02	4.3E-02	1.9E-01	1.5E+00	1.1E-03	7.0E-04	3.0E+01	4.6E-01	2.6E-01	6.3E-02	2.1E+00	6.6E+01	***7.6E-02***	7.4E+00	1.7E-02	7.5E+01	5.1E+02	1.3E-03	7.6E-01	8.0E+02
109	4.6E-01	2.8E-03	3.9E-04	9.3E-03	3.0E-04	1.4E+01	2.0E-01	3.9E-03	1.2E+02	7.6E+01	2.1E-02	4.5E-02	2.0E-01	1.5E+00	1.1E-03	7.3E-04	3.1E+01	4.8E-01	2.7E-01	6.6E-02	2.2E+00	6.8E+01	***7.8E-02***	7.6E+00	1.7E-02	7.7E+01	5.2E+02	1.4E-03	7.8E-01	8.3E+02
110	4.8E-01	2.8E-03	4.0E-04	9.6E-03	3.2E-04	1.4E+01	2.1E-01	4.0E-03	1.2E+02	7.8E+01	2.2E-02	4.6E-02	2.1E-01	1.5E+00	1.2E-03	7.5E-04	3.2E+01	5.0E-01	2.7E-01	6.8E-02	2.2E+00	7.0E+01	***8.1E-02***	7.8E+00	1.8E-02	7.9E+01	5.4E+02	1.4E-03	8.1E-01	8.5E+02
111	4.9E-01	2.9E-03	4.1E-04	9.8E-03	3.4E-04	1.4E+01	2.1E-01	4.2E-03	1.2E+02	8.1E+01	2.3E-02	4.8E-02	2.2E-01	1.6E+00	1.2E-03	7.7E-04	3.3E+01	5.2E-01	2.8E-01	7.1E-02	2.3E+00	7.2E+01	***8.3E-02***	8.0E+00	1.8E-02	8.1E+01	5.5E+02	1.5E-03	8.3E-01	8.7E+02
112	5.0E-01	3.0E-03	4.2E-04	1.0E-02	3.5E-04	1.5E+01	2.2E-01	4.3E-03	1.3E+02	8.3E+01	2.3E-02	4.9E-02	2.3E-01	1.6E+00	1.2E-03	7.9E-04	3.4E+01	5.3E-01	2.9E-01	7.3E-02	2.4E+00	7.4E+01	***8.6E-02***	8.2E+00	1.9E-02	8.4E+01	5.7E+02	1.5E-03	8.5E-01	9.0E+02
113	5.1E-01	3.1E-03	4.3E-04	1.0E-02	3.7E-04	1.5E+01	2.2E-01	4.4E-03	1.3E+02	8.5E+01	2.4E-02	5.1E-02	2.4E-01	1.7E+00	1.3E-03	8.1E-04	3.5E+01	5.5E-01	3.0E-01	7.5E-02	2.4E+00	7.6E+01	***8.8E-02***	8.4E+00	1.9E-02	8.6E+01	5.8E+02	1.5E-03	8.8E-01	9.2E+02
114	5.2E-01	3.2E-03	4.4E-04	1.1E-02	3.9E-04	1.5E+01	2.3E-01	4.5E-03	1.3E+02	8.7E+01	2.5E-02	5.2E-02	2.5E-01	1.7E+00	1.3E-03	8.4E-04	3.6E+01	5.6E-01	3.1E-01	7.8E-02	2.5E+00	7.8E+01	***9.0E-02***	8.5E+00	2.0E-02	8.8E+01	6.0E+02	1.6E-03	9.0E-01	9.4E+02
115	5.4E-01	3.2E-03	4.5E-04	1.1E-02	4.0E-04	1.6E+01	2.3E-01	4.6E-03	1.4E+02	8.9E+01	2.5E-02	5.4E-02	2.6E-01	1.8E+00	1.3E-03	8.6E-04	3.7E+01	5.8E-01	3.1E-01	8.0E-02	2.5E+00	7.9E+01	***9.2E-02***	8.7E+00	2.0E-02	9.0E+01	6.1E+02	1.6E-03	9.2E-01	9.7E+02
116	5.5E-01	3.3E-03	4.6E-04	1.1E-02	4.2E-04	1.6E+01	2.4E-01	4.7E-03	1.4E+02	9.1E+01	2.6E-02	5.5E-02	2.8E-01	1.8E+00	1.4E-03	8.8E-04	3.8E+01	6.0E-01	3.2E-01	8.3E-02	2.6E+00	8.1E+01	***9.4E-02***	8.9E+00	2.1E-02	9.2E+01	6.2E+02	1.6E-03	9.4E-01	9.9E+02
117	5.6E-01	3.4E-03	4.7E-04	1.1E-02	4.4E-04	1.6E+01	2.4E-01	4.8E-03	1.4E+02	9.3E+01	2.6E-02	5.6E-02	2.9E-01	1.8E+00	1.4E-03	9.0E-04	3.8E+01	6.1E-01	3.3E-01	8.5E-02	2.6E+00	8.3E+01	***9.7E-02***	9.0E+00	2.1E-02	9.4E+01	6.4E+02	1.7E-03	9.6E-01	1.0E+03
118	5.7E-01	3.5E-03	4.8E-04	1.1E-02	4.5E-04	1.7E+01	2.5E-01	4.9E-03	1.4E+02	9.5E+01	2.7E-02	5.8E-02	3.0E-01	1.9E+00	1.4E-03	9.1E-04	3.9E+01	6.3E-01	3.3E-01	8.7E-02	2.7E+00	8.5E+01	***9.9E-02***	9.2E+00	2.2E-02	9.5E+01	6.5E+02	1.7E-03	9.8E-01	1.0E+03
119	5.8E-01	3.5E-03	4.9E-04	1.2E-02	4.7E-04	1.7E+01	2.5E-01	***5.0E-03***	1.5E+02	9.7E+01	2.7E-02	5.9E-02	3.1E-01	1.9E+00	1.5E-03	9.3E-04	4.0E+01	6.4E-01	3.4E-01	8.9E-02	2.7E+00	8.6E+01	***1.0E-01***	9.3E+00	2.2E-02	9.7E+01	6.6E+02	1.7E-03	1.0E+00	1.1E+03
120	5.8E-01	3.6E-03	5.0E-04	1.2E-02	4.9E-04	1.7E+01	2.6E-01	***5.1E-03***	1.5E+02	9.9E+01	2.8E-02	6.1E-02	3.2E-01	1.9E+00	1.5E-03	9.5E-04	4.1E+01	6.6E-01	3.5E-01	9.1E-02	2.8E+00	8.8E+01	***1.0E-01***	9.4E+00	2.2E-02	9.9E+01	6.7E+02	1.8E-03	1.0E+00	1.1E+03
121	5.9E-01	3.6E-03	5.1E-04	1.2E-02	5.1E-04	1.7E+01	2.6E-01	***5.2E-03***	1.5E+02	1.0E+02	2.8E-02	6.2E-02	3.4E-01	2.0E+00	1.5E-03	9.7E-04	4.1E+01	6.7E-01	3.5E-01	9.3E-02	2.8E+00	8.9E+01	***1.0E-01***	9.5E+00	2.3E-02	1.0E+02	6.9E+02	1.8E-03	1.0E+00	1.1E+03
122	6.0E-01	3.7E-03	5.2E-04	1.2E-02	5.2E-04	1.8E+01	2.6E-01	***5.3E-03***	1.6E+02	1.0E+02	2.9E-02	6.3E-02	3.5E-01	2.0E+00	1.6E-03	9.8E-04	4.2E+01	6.8E-01	3.6E-01	9.5E-02	2.8E+00	9.1E+01	***1.1E-01***	9.7E+00	2.3E-02	1.0E+02	7.0E+02	1.8E-03	1.1E+00	1.1E+03
123	6.1E-01	3.8E-03	5.3E-04	1.2E-02	5.4E-04	1.8E+01	2.7E-01	***5.4E-03***	1.6E+02	1.0E+02	2.9E-02	6.4E-02	3.6E-01	2.0E+00	1.6E-03	1.0E-03	4.3E+01	7.0E-01	3.6E-01	9.7E-02	2.9E+00	9.2E+01	***1.1E-01***	9.8E+00	2.4E-02	1.0E+02	7.1E+02	1.8E-03	1.1E+00	1.1E+03
124	6.2E-01	3.8E-03	5.3E-04	1.2E-02	5.6E-04	1.8E+01	2.7E-01	***5.5E-03***	1.6E+02	1.1E+02	3.0E-02	6.5E-02	3.7E-01	2.0E+00	1.6E-03	1.0E-03	4.3E+01	7.1E-01	3.7E-01	9.9E-02	2.9E+00	9.3E+01	***1.1E-01***	9.9E+00	2.4E-02	1.0E+02	7.2E+02	1.9E-03	1.1E+00	1.1E+03
125	6.2E-01	3.9E-03	5.4E-04	1.3E-02	5.7E-04	1.8E+01	2.8E-01	***5.6E-03***	1.6E+02	1.1E+02	3.0E-02	6.6E-02	3.8E-01	2.1E+00	1.7E-03	1.0E-03	4.4E+01	7.2E-01	3.7E-01	***1.0E-01***	2.9E+00	9.4E+01	***1.1E-01***	1.0E+01	2.4E-02	1.1E+02	7.3E+02	1.9E-03	1.1E+00	1.2E+03
126	6.3E-01	3.9E-03	5.5E-04	1.3E-02	5.9E-04	1.8E+01	2.8E-01	***5.6E-03***	1.7E+02	1.1E+02	3.0E-02	6.8E-02	4.0E-01	2.1E+00	1.7E-03	1.0E-03	4.4E+01	7.3E-01	3.8E-01	***1.0E-01***	3.0E+00	9.5E+01	***1.1E-01***	1.0E+01	2.4E-02	1.1E+02	7.4E+02	1.9E-03	1.1E+00	1.2E+03
127	6.4E-01	4.0E-03	5.6E-04	1.3E-02	6.0E-04	1.9E+01	2.8E-01	***5.7E-03***	1.7E+02	1.1E+02	3.1E-02	6.9E-02	4.1E-01	2.1E+00	1.7E-03	1.1E-03	4.5E+01	7.5E-01	3.8E-01	***1.0E-01***	3.0E+00	9.7E+01	***1.1E-01***	1.0E+01	2.5E-02	1.1E+02	7.5E+02	1.9E-03	1.1E+00	1.2E+03
128	6.4E-01	4.0E-03	5.6E-04	1.3E-02	6.2E-04	1.9E+01	2.8E-01	***5.8E-03***	1.7E+02	1.1E+02	3.1E-02	7.0E-02	4.2E-01	2.1E+00	1.7E-03	1.1E-03	4.5E+01	7.6E-01	3.8E-01	***1.1E-01***	3.0E+00	9.8E+01	***1.1E-01***	1.0E+01	2.5E-02	1.1E+02	7.6E+02	1.9E-03	1.1E+00	1.2E+03
129	6.5E-01	4.0E-03	5.7E-04	1.3E-02	6.3E-04	1.9E+01	2.9E-01	***5.8E-03***	1.7E+02	1.1E+02	3.1E-02	7.1E-02	4.3E-01	2.2E+00	1.8E-03	1.1E-03	4.6E+01	7.7E-01	3.9E-01	***1.1E-01***	3.1E+00	9.8E+01	***1.2E-01***	1.0E+01	2.5E-02	1.1E+02	7.7E+02	2.0E-03	1.1E+00	1.2E+03
130	6.5E-01	4.1E-03	5.8E-04	1.3E-02	6.5E-04	1.9E+01	2.9E-01	***5.9E-03***	1.7E+02	1.1E+02	3.2E-02	7.1E-02	4.4E-01	2.2E+00	1.8E-03	1.1E-03	4.6E+01	7.8E-01	3.9E-01	***1.1E-01***	3.1E+00	9.9E+01	***1.2E-01***	1.0E+01	2.5E-02	1.1E+02	7.7E+02	2.0E-03	1.2E+00	1.2E+03
131	6.5E-01	4.1E-03	5.8E-04	1.3E-02	6.6E-04	1.9E+01	2.9E-01	***5.9E-03***	1.8E+02	1.1E+02	3.2E-02	7.2E-02	4.5E-01	2.2E+00	1.8E-03	1.1E-03	4.7E+01	7.9E-01	3.9E-01	***1.1E-01***	3.1E+00	1.0E+02	***1.2E-01***	1.0E+01	2.6E-02	1.1E+02	7.8E+02	2.0E-03	1.2E+00	1.2E+03
132	6.6E-01	4.1E-03	5.9E-04	1.3E-02	6.8E-04	1.9E+01	2.9E-01	***6.0E-03***	1.8E+02	1.1E+02	3.2E-02	7.3E-02	4.7E-01	2.2E+00	1.8E-03	1.1E-03	4.7E+01	8.0E-01	4.0E-01	***1.1E-01***	3.1E+00	1.0E+02	***1.2E-01***	1.0E+01	2.6E-02	1.1E+02	7.9E+02	2.0E-03	1.2E+00	1.3E+03
133	6.6E-01	4.2E-03	6.0E-04	1.3E-02	6.9E-04	1.9E+01	2.9E-01	***6.0E-03***	1.8E+02	1.2E+02	3.2E-02	7.4E-02	4.8E-01	2.2E+00	1.9E-03	1.1E-03	4.7E+01	8.0E-01	4.0E-01	***1.1E-01***	3.1E+00	1.0E+02	***1.2E-01***	1.0E+01	2.6E-02	1.1E+02	8.0E+02	***2.0E-03***	1.2E+00	1.3E+03
134	6.6E-01	4.2E-03	6.0E-04	1.3E-02	7.1E-04	1.9E+01	3.0E-01	***6.1E-03***	1.8E+02	1.2E+02	3.2E-02	7.5E-02	4.9E-01	2.2E+00	1.9E-03	1.1E-03	4.8E+01	8.1E-01	4.0E-01	***1.1E-01***	3.1E+00	1.0E+02	***1.2E-01***	1.1E+01	2.6E-02	1.1E+02	8.0E+02	***2.0E-03***	1.2E+00	1.3E+03
135	6.7E-01	4.2E-03	6.1E-04	1.4E-02	7.2E-04	1.9E+01	3.0E-01	***6.1E-03***	1.8E+02	1.2E+02	3.3E-02	7.5E-02	5.0E-01	2.3E+00	1.9E-03	1.1E-03	4.8E+01	8.2E-01	4.0E-01	***1.2E-01***	3.2E+00	1.0E+02	***1.2E-01***	1.1E+01	2.6E-02	1.2E+02	8.1E+02	***2.0E-03***	1.2E+00	1.3E+03
136	6.7E-01	4.2E-03	6.1E-04	1.4E-02	7.3E-04	1.9E+01	3.0E-01	***6.1E-03***	1.9E+02	1.2E+02	3.3E-02	7.6E-02	5.1E-01	2.3E+00	1.9E-03	1.1E-03	4.8E+01	8.3E-01	4.1E-01	***1.2E-01***	3.2E+00	1.0E+02	***1.2E-01***	1.1E+01	2.6E-02	1.2E+02	8.1E+02	***2.0E-03***	1.2E+00	1.3E+03
137	6.7E-01	4.2E-03	6.2E-04	1.4E-02	7.4E-04	1.9E+01	3.0E-01	***6.2E-03***	1.9E+02	1.2E+02	3.3E-02	7.6E-02	5.2E-01	2.3E+00	1.9E-03	1.1E-03	4.8E+01	8.3E-01	4.1E-01	***1.2E-01***	3.2E+00	1.0E+02	***1.2E-01***	1.1E+01	2.7E-02	1.2E+02	8.2E+02	***2.0E-03***	1.2E+00	1.3E+03
138	6.7E-01	4.3E-03	6.2E-04	1.4E-02	7.5E-04	1.9E+01	3.0E-01	***6.2E-03***	1.9E+02	1.2E+02	3.3E-02	7.7E-02	5.3E-01	2.3E+00	2.0E-03	1.1E-03	4.9E+01	8.4E-01	4.1E-01	***1.2E-01***	3.2E+00	1.0E+02	***1.2E-01***	1.1E+01	2.7E-02	1.2E+02	8.2E+02	***2.0E-03***	1.2E+00	1.3E+03

Table 5. Model Results at Donnelly Wash 2 Aquifer Subdomain - Alternative 5

Years since Mine Start	Al mg/L	Sb mg/L	As mg/L	Ba mg/L	Be mg/L	HCO3 mg/L	B mg/L	Cd mg/L	Ca mg/L	Cl mg/L	Cr mg/L	Co mg/L	Cu mg/L	F mg/L	Fe mg/L	Pb mg/L	Mg mg/L	Mn mg/L	Mo mg/L	Ni mg/L	NO3-N mg/L	K mg/L	Se mg/L	Si mg/L	Ag mg/L	Na mg/L	SO4 mg/L	Tl mg/L	Zn mg/L	TDS mg/L
139	6.7E-01	4.3E-03	6.3E-04	1.4E-02	7.7E-04	1.9E+01	3.0E-01	***6.2E-03***	1.9E+02	1.2E+02	3.3E-02	7.7E-02	5.4E-01	2.3E+00	2.0E-03	1.1E-03	4.9E+01	8.4E-01	4.1E-01	***1.2E-01***	3.2E+00	1.0E+02	***1.2E-01***	1.1E+01	2.7E-02	1.2E+02	8.3E+02	***2.0E-03***	1.2E+00	1.3E+03
140	6.7E-01	4.3E-03	6.3E-04	1.4E-02	7.8E-04	1.9E+01	3.0E-01	***6.2E-03***	1.9E+02	1.2E+02	3.3E-02	7.8E-02	5.5E-01	2.3E+00	2.0E-03	1.2E-03	4.9E+01	8.5E-01	4.1E-01	***1.2E-01***	3.2E+00	1.0E+02	***1.2E-01***	1.1E+01	2.7E-02	1.2E+02	8.3E+02	***2.0E-03***	1.2E+00	1.3E+03
141	6.7E-01	4.3E-03	6.3E-04	1.4E-02	7.9E-04	1.9E+01	3.0E-01	***6.2E-03***	1.9E+02	1.2E+02	3.3E-02	7.8E-02	5.6E-01	2.3E+00	2.0E-03	1.2E-03	4.9E+01	8.5E-01	4.1E-01	***1.2E-01***	3.2E+00	1.0E+02	***1.2E-01***	1.1E+01	2.7E-02	1.2E+02	8.4E+02	***2.1E-03***	1.2E+00	1.3E+03
142	6.7E-01	4.3E-03	6.4E-04	1.4E-02	8.0E-04	1.9E+01	3.0E-01	***6.2E-03***	1.9E+02	1.2E+02	3.3E-02	7.9E-02	5.7E-01	2.3E+00	2.0E-03	1.2E-03	4.9E+01	8.6E-01	4.1E-01	***1.2E-01***	3.2E+00	1.0E+02	***1.2E-01***	1.1E+01	2.7E-02	1.2E+02	8.4E+02	***2.1E-03***	1.2E+00	1.3E+03
143	6.7E-01	4.3E-03	6.4E-04	1.4E-02	8.1E-04	1.9E+01	3.0E-01	***6.2E-03***	1.9E+02	1.2E+02	3.3E-02	7.9E-02	5.8E-01	2.3E+00	2.0E-03	1.2E-03	4.9E+01	8.6E-01	4.1E-01	***1.2E-01***	3.2E+00	1.0E+02	***1.2E-01***	1.1E+01	2.7E-02	1.2E+02	8.4E+02	***2.0E-03***	1.2E+00	1.3E+03
144	6.7E-01	4.3E-03	6.4E-04	1.4E-02	8.2E-04	1.9E+01	3.0E-01	***6.3E-03***	2.0E+02	1.2E+02	3.3E-02	7.9E-02	5.9E-01	2.3E+00	2.0E-03	1.2E-03	4.9E+01	8.7E-01	4.1E-01	***1.2E-01***	3.2E+00	1.0E+02	***1.2E-01***	1.1E+01	2.7E-02	1.2E+02	8.4E+02	***2.0E-03***	1.2E+00	1.3E+03
145	6.7E-01	4.3E-03	6.5E-04	1.4E-02	8.3E-04	1.9E+01	3.0E-01	***6.3E-03***	2.0E+02	1.2E+02	3.3E-02	8.0E-02	6.0E-01	2.3E+00	2.1E-03	1.2E-03	4.9E+01	8.7E-01	4.1E-01	***1.2E-01***	3.2E+00	1.0E+02	***1.2E-01***	1.0E+01	2.7E-02	1.2E+02	8.5E+02	***2.0E-03***	1.2E+00	1.3E+03
146	6.6E-01	4.3E-03	6.5E-04	1.4E-02	8.3E-04	1.9E+01	3.0E-01	***6.2E-03***	2.0E+02	1.2E+02	3.3E-02	8.0E-02	6.1E-01	2.3E+00	2.1E-03	1.2E-03	4.9E+01	8.7E-01	4.1E-01	***1.2E-01***	3.2E+00	1.0E+02	***1.2E-01***	1.0E+01	2.7E-02	1.2E+02	8.5E+02	***2.0E-03***	1.2E+00	1.3E+03
147	6.6E-01	4.3E-03	6.5E-04	1.4E-02	8.4E-04	1.9E+01	3.0E-01	***6.2E-03***	2.0E+02	1.2E+02	3.3E-02	8.0E-02	6.1E-01	2.3E+00	2.1E-03	1.2E-03	4.9E+01	8.7E-01	4.1E-01	***1.2E-01***	3.2E+00	1.0E+02	***1.2E-01***	1.0E+01	2.7E-02	1.2E+02	8.5E+02	***2.0E-03***	1.2E+00	1.3E+03
148	6.6E-01	4.3E-03	6.6E-04	1.4E-02	8.5E-04	1.9E+01	3.0E-01	***6.2E-03***	2.0E+02	1.2E+02	3.3E-02	8.0E-02	6.2E-01	2.3E+00	2.1E-03	1.2E-03	4.9E+01	8.7E-01	4.1E-01	***1.2E-01***	3.2E+00	1.0E+02	***1.2E-01***	1.0E+01	2.7E-02	1.2E+02	8.5E+02	***2.0E-03***	1.2E+00	1.3E+03
149	6.6E-01	4.3E-03	6.6E-04	1.4E-02	8.6E-04	1.9E+01	3.0E-01	***6.2E-03***	2.0E+02	1.2E+02	3.3E-02	8.0E-02	6.3E-01	2.3E+00	2.1E-03	1.2E-03	4.9E+01	8.8E-01	4.1E-01	***1.2E-01***	3.1E+00	1.0E+02	***1.2E-01***	1.0E+01	2.7E-02	1.2E+02	8.5E+02	***2.0E-03***	1.2E+00	1.3E+03
150	6.5E-01	4.3E-03	6.6E-04	1.4E-02	8.6E-04	1.9E+01	3.0E-01	***6.2E-03***	2.0E+02	1.2E+02	3.3E-02	8.0E-02	6.4E-01	2.3E+00	2.1E-03	1.2E-03	4.9E+01	8.8E-01	4.1E-01	***1.2E-01***	3.1E+00	1.0E+02	***1.2E-01***	1.0E+01	2.7E-02	1.2E+02	8.5E+02	***2.0E-03***	1.2E+00	1.3E+03
151	6.5E-01	4.3E-03	6.7E-04	1.3E-02	8.7E-04	1.9E+01	3.0E-01	***6.2E-03***	2.0E+02	1.2E+02	3.3E-02	8.0E-02	6.5E-01	2.3E+00	2.1E-03	1.2E-03	4.9E+01	8.8E-01	4.1E-01	***1.2E-01***	3.1E+00	1.0E+02	***1.2E-01***	1.0E+01	2.6E-02	1.2E+02	8.5E+02	***2.0E-03***	1.2E+00	1.3E+03
152	6.5E-01	4.2E-03	6.7E-04	1.3E-02	8.8E-04	1.9E+01	3.0E-01	***6.2E-03***	2.0E+02	1.2E+02	3.3E-02	8.0E-02	6.5E-01	2.3E+00	2.1E-03	1.1E-03	4.9E+01	8.8E-01	4.0E-01	***1.2E-01***	3.1E+00	1.0E+02	***1.2E-01***	1.0E+01	2.6E-02	1.1E+02	8.5E+02	2.0E-03	1.2E+00	1.3E+03
153	6.4E-01	4.2E-03	6.7E-04	1.3E-02	8.8E-04	1.9E+01	2.9E-01	***6.2E-03***	2.0E+02	1.2E+02	3.2E-02	8.0E-02	6.6E-01	2.3E+00	2.1E-03	1.1E-03	4.9E+01	8.8E-01	4.0E-01	***1.2E-01***	3.1E+00	1.0E+02	***1.2E-01***	1.0E+01	2.6E-02	1.1E+02	8.5E+02	2.0E-03	1.2E+00	1.3E+03
154	6.4E-01	4.2E-03	6.7E-04	1.3E-02	8.9E-04	1.9E+01	2.9E-01	***6.1E-03***	2.0E+02	1.2E+02	3.2E-02	8.0E-02	6.7E-01	2.3E+00	2.1E-03	1.1E-03	4.8E+01	8.8E-01	4.0E-01	***1.2E-01***	3.1E+00	1.0E+02	***1.2E-01***	1.0E+01	2.6E-02	1.1E+02	8.5E+02	2.0E-03	1.2E+00	1.3E+03
155	6.3E-01	4.2E-03	6.8E-04	1.3E-02	8.9E-04	1.9E+01	2.9E-01	***6.1E-03***	2.0E+02	1.2E+02	3.2E-02	8.0E-02	6.7E-01	2.3E+00	2.1E-03	1.1E-03	4.8E+01	8.8E-01	4.0E-01	***1.2E-01***	3.1E+00	1.0E+02	***1.2E-01***	9.9E+00	2.6E-02	1.1E+02	8.5E+02	2.0E-03	1.2E+00	1.3E+03
156	6.3E-01	4.2E-03	6.8E-04	1.3E-02	9.0E-04	1.8E+01	2.9E-01	***6.1E-03***	2.0E+02	1.1E+02	3.2E-02	8.0E-02	6.8E-01	2.3E+00	2.1E-03	1.1E-03	4.8E+01	8.8E-01	4.0E-01	***1.2E-01***	3.0E+00	1.0E+02	***1.2E-01***	9.9E+00	2.6E-02	1.1E+02	8.5E+02	2.0E-03	1.2E+00	1.3E+03
157	6.2E-01	4.2E-03	6.8E-04	1.3E-02	9.0E-04	1.8E+01	2.9E-01	***6.0E-03***	2.0E+02	1.1E+02	3.2E-02	8.0E-02	6.9E-01	2.3E+00	2.1E-03	1.1E-03	4.8E+01	8.7E-01	3.9E-01	***1.2E-01***	3.0E+00	1.0E+02	***1.2E-01***	9.8E+00	2.6E-02	1.1E+02	8.5E+02	1.9E-03	1.2E+00	1.3E+03
158	6.2E-01	4.1E-03	6.8E-04	1.3E-02	9.1E-04	1.8E+01	2.9E-01	***6.0E-03***	2.0E+02	1.1E+02	3.2E-02	8.0E-02	6.9E-01	2.2E+00	2.1E-03	1.1E-03	4.8E+01	8.7E-01	3.9E-01	***1.2E-01***	3.0E+00	1.0E+02	***1.2E-01***	9.7E+00	2.6E-02	1.1E+02	8.5E+02	1.9E-03	1.2E+00	1.3E+03
159	6.1E-01	4.1E-03	6.8E-04	1.3E-02	9.1E-04	1.8E+01	2.9E-01	***6.0E-03***	2.0E+02	1.1E+02	3.1E-02	8.0E-02	7.0E-01	2.2E+00	2.1E-03	1.1E-03	4.8E+01	8.7E-01	3.9E-01	***1.2E-01***	3.0E+00	9.9E+01	***1.2E-01***	9.6E+00	2.5E-02	1.1E+02	8.5E+02	1.9E-03	1.2E+00	1.3E+03
160	6.1E-01	4.1E-03	6.9E-04	1.3E-02	9.1E-04	1.8E+01	2.8E-01	***5.9E-03***	2.0E+02	1.1E+02	3.1E-02	8.0E-02	7.0E-01	2.2E+00	2.1E-03	1.1E-03	4.7E+01	8.7E-01	3.9E-01	***1.2E-01***	3.0E+00	9.9E+01	***1.2E-01***	9.5E+00	2.5E-02	1.1E+02	8.5E+02	1.9E-03	1.2E+00	1.3E+03
161	6.0E-01	4.1E-03	6.9E-04	1.3E-02	9.2E-04	1.8E+01	2.8E-01	***5.9E-03***	2.0E+02	1.1E+02	3.1E-02	7.9E-02	7.1E-01	2.2E+00	2.1E-03	1.1E-03	4.7E+01	8.7E-01	3.9E-01	***1.2E-01***	2.9E+00	9.8E+01	***1.2E-01***	9.5E+00	2.5E-02	1.1E+02	8.4E+02	1.9E-03	1.2E+00	1.3E+03
162	6.0E-01	4.1E-03	6.9E-04	1.3E-02	9.2E-04	1.8E+01	2.8E-01	***5.9E-03***	2.0E+02	1.1E+02	3.1E-02	7.9E-02	7.1E-01	2.2E+00	2.1E-03	1.1E-03	4.7E+01	8.6E-01	3.8E-01	***1.2E-01***	2.9E+00	9.7E+01	***1.2E-01***	9.4E+00	2.5E-02	1.1E+02	8.4E+02	1.9E-03	1.2E+00	1.3E+03
163	5.9E-01	4.0E-03	6.9E-04	1.3E-02	9.2E-04	1.7E+01	2.8E-01	***5.8E-03***	2.0E+02	1.1E+02	3.1E-02	7.9E-02	7.2E-01	2.2E+00	2.1E-03	1.1E-03	4.7E+01	8.6E-01	3.8E-01	***1.2E-01***	2.9E+00	9.7E+01	***1.1E-01***	9.3E+00	2.5E-02	1.1E+02	8.4E+02	1.9E-03	1.2E+00	1.3E+03
164	5.9E-01	4.0E-03	7.0E-04	1.3E-02	9.3E-04	1.7E+01	2.8E-01	***5.8E-03***	2.0E+02	1.1E+02	3.0E-02	7.9E-02	7.2E-01	2.2E+00	2.1E-03	1.1E-03	4.6E+01	8.6E-01	3.8E-01	***1.2E-01***	2.9E+00	9.6E+01	***1.1E-01***	9.2E+00	2.5E-02	1.1E+02	8.4E+02	1.8E-03	1.2E+00	1.3E+03
165	5.8E-01	4.0E-03	7.0E-04	1.2E-02	9.3E-04	1.7E+01	2.7E-01	***5.8E-03***	2.0E+02	1.1E+02	3.0E-02	7.8E-02	7.3E-01	2.2E+00	2.1E-03	1.1E-03	4.6E+01	8.6E-01	3.7E-01	***1.2E-01***	2.8E+00	9.5E+01	***1.1E-01***	9.1E+00	2.4E-02	1.1E+02	8.4E+02	1.8E-03	1.1E+00	1.3E+03
166	5.8E-01	4.0E-03	7.0E-04	1.2E-02	9.3E-04	1.7E+01	2.7E-01	***5.7E-03***	2.0E+02	1.1E+02	3.0E-02	7.8E-02	7.3E-01	2.1E+00	2.1E-03	1.1E-03	4.6E+01	8.5E-01	3.7E-01	***1.2E-01***	2.8E+00	9.5E+01	***1.1E-01***	9.0E+00	2.4E-02	1.1E+02	8.3E+02	1.8E-03	1.1E+00	1.3E+03
167	5.7E-01	3.9E-03	7.0E-04	1.2E-02	9.3E-04	1.7E+01	2.7E-01	***5.7E-03***	2.0E+02	1.1E+02	3.0E-02	7.8E-02	7.4E-01	2.1E+00	2.1E-03	1.1E-03	4.6E+01	8.5E-01	3.7E-01	***1.2E-01***	2.8E+00	9.4E+01	***1.1E-01***	8.9E+00	2.4E-02	1.0E+02	8.3E+02	1.8E-03	1.1E+00	1.3E+03
168	5.7E-01	3.9E-03	7.0E-04	1.2E-02	9.3E-04	1.7E+01	2.7E-01	***5.6E-03***	2.0E+02	1.1E+02	2.9E-02	7.8E-02	7.4E-01	2.1E+00	2.1E-03	1.1E-03	4.5E+01	8.5E-01	3.7E-01	***1.2E-01***	2.8E+00	9.3E+01	***1.1E-01***	8.8E+00	2.4E-02	1.0E+02	8.3E+02	1.8E-03	1.1E+00	1.3E+03
169	5.6E-01	3.9E-03	7.1E-04	1.2E-02	9.3E-04	1.7E+01	2.7E-01	***5.6E-03***	2.0E+02	1.0E+02	2.9E-02	7.7E-02	7.4E-01	2.1E+00	2.1E-03	1.1E-03	4.5E+01	8.4E-01	3.6E-01	***1.2E-01***	2.7E+00	9.2E+01	***1.1E-01***	8.7E+00	2.4E-02	1.0E+02	8.3E+02	1.8E-03	1.1E+00	1.3E+03
170	5.5E-01	3.8E-03	7.1E-04	1.2E-02	9.3E-04	1.6E+01	2.6E-01	***5.6E-03***	2.0E+02	1.0E+02	2.9E-02	7.7E-02	7.5E-01	2.1E+00	2.1E-03	1.0E-03	4.5E+01	8.4E-01	3.6E-01	***1.2E-01***	2.7E+00	9.2E+01	***1.1E-01***	8.7E+00	2.4E-02	1.0E+02	8.2E+02	1.8E-03	1.1E+00	1.3E+03
171	5.5E-01	3.8E-03	7.1E-04	1.2E-02	9.4E-04	1.6E+01	2.6E-01	***5.5E-03***	2.0E+02	1.0E+02	2.9E-02	7.7E-02	7.5E-01	2.1E+00	2.1E-03	1.0E-03	4.5E+01	8.3E-01	3.6E-01	***1.2E-01***	2.7E+00	9.1E+01	***1.1E-01***	8.6E+00	2.3E-02	1.0E+02	8.2E+02	1.7E-03	1.1E+00	1.3E+03
172	5.4E-01	3.8E-03	7.1E-04	1.2E-02	9.4E-04	1.6E+01	2.6E-01	***5.5E-03***	2.0E+02	1.0E+02	2.8E-02	7.6E-02	7.6E-01	2.1E+00	2.1E-03	1.0E-03	4.4E+01	8.3E-01	3.5E-01	***1.2E-01***	2.7E+00	9.0E+01	***1.1E-01***	8.5E+00	2.3E-02	1.0E+02	8.2E+02	1.7E-03	1.1E+00	1.3E+03
173	5.4E-01	3.8E-03	7.2E-04	1.2E-02	9.4E-04	1.6E+01	2.6E-01	***5.4E-03***	2.0E+02	1.0E+02	2.8E-02	7.6E-02	7.6E-01	2.0E+00	2.1E-03	1.0E-03	4.4E+01	8.3E-01	3.5E-01	***1.2E-01***	2.6E+00	8.9E+01	***1.1E-01***	8.4E+00	2.3E-02	9.9E+01	8.2E+02	1.7E-03	1.1E+00	1.3E+03
174	5.3E-01	3.7E-03	7.2E-04	1.2E-02	9.4E-04	1.6E+01	2.6E-01	***5.4E-03***	2.0E+02	1.0E+02	2.8E-02	7.6E-02	7.6E-01	2.0E+00	2.1E-03	1.0E-03	4.4E+01	8.2E-01	3.5E-01	***1.2E-01***	2.6E+00	8.9E+01	***1.1E-01***	8.3E+00	2.3E-02	9.8E+01	8.1E+02	1.7E-03	1.1E+00	1.3E+03
175	5.2E-01	3.7E-03	7.2E-04	1.1E-02	9.4E-04	1.6E+01	2.5E-01	***5.3E-03***	2.0E+02	9.9E+01	2.8E-02	7.5E-02	7.7E-01	2.0E+00	2.1E-03	1.0E-03	4.3E+01	8.2E-01	3.4E-01	***1.2E-01***	2.6E+00	8.8E+01	***1.0E-01***	8.2E+00	2.3E-02	9.7E+01	8.1E+02	1.7E-03	1.1E+00	1.3E+03
176	5.2E-01	3.7E-03	7.3E-04	1.1E-02	9.4E-04	1.5E+01	2.5E-01	***5.3E-03***	2.0E+02	9.9E+01	2.7E-02	7.5E-02	7.7E-01	2.0E+00	2.1E-03	1.0E-03	4.3E+01	8.1E-01	3.4E-01	***1.2E-01***	2.6E+00	8.7E+01	***1.0E-01***	8.1E+00	2.2E-02	9.6E+01	8.1E+02	1.7E-03	1.1E+00	1.3E+03
177	5.1E-01	3.7E-03	7.3E-04	1.1E-02	9.4E-04	1.5E+01	2.5E-01	***5.2E-03***	2.0E+02	9.8E+01	2.7E-02	7.4E-02	7.7E-01	2.0E+00	2.1E-03	1.0E-03	4.3E+01	8.1E-01	3.4E-01	***1.1E-01***	2.5E+00	8.6E+01	***1.0E-01***	8.0E+00	2.2E-02	9.5E+01	8.0E+02	1.6E-03	1.0E+00	1.3E+03
178	5.1E-01	3.6E-03	7.3E-04	1.1E-02	9.4E-04	1.5E+01	2.5E-01	***5.2E-03***	2.0E+02	9.7E+01	2.7E-02	7.4E-02	7.7E-01	2.0E+00	2.1E-03	9.9E-04	4.3E+01	8.0E-01	3.3E-01	***1.1E-01***	2.5E+00	8.5E+01	***1.0E-01***	7.9E+00	2.2E-02	9.4E+01	8.0E+02	1.6E-03	1.0E+00	1.3E+03
179	5.0E-01	3.6E-03	7.4E-04	1.1E-02	9.4E-04	1.5E+01	2.4E-01	***5.1E-03***	2.0E+02	9.6E+01	2.7E-02	7.4E-02	7.8E-01	1.9E+00	2.1E-03	9.8E-04	4.2E+01	8.0E-01	3.3E-01	***1.1E-01***	2.5E+00	8.5E+01	***1.0E-01***	7.8E+00	2.2E-02	9.4E+01	8.0E+02	1.6E-03	1.0E+00	1.3E+03
180	4.9E-01	3.6E-03	7.4E-04	1.1E-02	9.4E-04	1.5E+01	2.4E-01	***5.1E-03***	2.0E+02	9.5E+01	2.6E-02	7.3E-02	7.8E-01	1.9E+00	2.1E-03	9.7E-04	4.2E+01	8.0E-01	3.3E-01	***1.1E-01***	2.5E+00	8.4E+01	***1.0E-01***	7.7E+00	2.1E-02	9.3E+01	7.9E+02	1.6E-03	1.0E+00	1.2E+03
181	4.9E-01	3.5E-03	7.4E-04	1.1E-02	9.4E-04	1.5E+01	2.4E-01	***5.0E-03***	2.0E+02	9.4E+01	2.6E-02	7.3E-02	7.8E-01	1.9E+00	2.1E-03	9.7E-04	4.2E+01	7.9E-01	3.2E-01	***1.1E-01***	2.4E+00	8.3E+01	***9.9E-02***	7.6E+00	2.1E-02	9.2E+01	7.9E+02	1.6E-03	1.0E+00	1.2E+03
182	4.8E-01	3.5E-03	7.5E-04	1.1E-02	9.3E-04	1.4E+01	2.4E-01	5.0E-03	2.0E+02	9.3E+01	2.6E-02	7.2E-02	7.8E-01	1.9E+00	2.1E-03	9.6E-04	4.1E+01	7.9E-01	3.2E-01	***1.1E-01***	2.4E+00	8.2E+01	***9.8E-02***	7.5E+00	2.1E-02	9.1E+01	7.9E+02	1.6E-03	1.0E+00	1.2E+03
183	4.8E-01	3.5E-03	7.5E-04	1.1E-02	9.3E-04	1.4E+01	2.4E-01	5.0E-03	2.0E+02	9.2E+01	2.6E-02	7.2E-02	7.9E-01	1.9E+00	2.0E-03	9.5E-04	4.1E+01	7.8E-01	3.2E-01	***1.1E-01***	2.4E+00	8.1E+01	***9.7E-02***	7.4E+00	2.1E-02	9.0E+01	7.8E+02	1.5E-03	9.9E-01	1.2E+03
184	4.7E-01	3.5E-03	7.5E-04	1.1E-02	9.3E-04	1.4E+01	2.3E-01	4.9E-03	2.0E+02	9.1E+01	2.5E-02	7.2E-02	7.9E-01	1.9E+00	2.0E-03	9.4E-04	4.1E+01	7.8E-01	3.1E-01	***1.1E-01***	2.4E+00	8.1E+01	***9.6E-02***	7.4E+00	2.1E-02	8.9E+01	7.8E+02	1.5E-03	9.9E-01	1.2E+03
185	4.6E-01	3.4E-03	7.6E-04	1.0E-02	9.3E-04	1.4E+01	2.3E-01	4.9E-03	2.0E+02	9.0E+01	2.5E-02	7.1E-02	7.9E-01	1.9E+00	2.0E-03	9.4E-04	4.1E+01	7.7E-01	3.1E-01	***1.1E-01***	2.3E+00	8.0E+01	***9.5E-02***	7.3E+00	2.0E-02	8.8E+01	7.8E+02	1.5E-03	9.8E-01	1.2E+03
186	4.6E-01	3.4E-03	7.6E-04	1.0E-02	9.3E-04	1.4E+01	2.3E-01	4.8E-03	2.0E+02	8.9E+01	2.5E-02	7.1E-02	7.9E-01	1.8E+00	2.0E-03	9.3E-04	4.0E+01	7.7E-01	3.1E-01	***1.1E-01***	2.3E+00	7.9E+01	***9.4E-02***	7.2E+00	2.0E-02	8.7E+01	7.8E+02	1.5E-03	9.7E-01	1.2E+03
187	4.5E-01	3.4E-03	7.7E-04	1.0E-02	9.3E-04	1.4E+01	2.3E-01	4.8E-03	2.0E+02	8.8E+01	2.5E-02	7.0E-02	7.9E-01	1.8E+00	2.0E-03	9.2E-04	4.0E+01	7.6E-01	3.1E-01	***1.1E-01***	2.3E+00	7.8E+01	***9.3E-02***	7.1E+00	2.0E-02	8.6E+01	7.7E+02	1.5E-03	9.6E-01	1.2E+03
188	4.5E-01	3.3E-03	7.7E-04	1.0E-02	9.3E-04	1.4E+01	2.2E-01	4.7E-03	2.0E+02	8.7E+01	2.4E-02	7.0E-02	7.9E-01	1.8E+00	2.0E-03	9.1E-04	4.0E+01	7.6E-01	3.0E-01	***1.1E-01***	2.3E+00	7.8E+01	***9.2E-02***	7.0E+00	2.0E-02	8.5E+01	7.7E+02	1.5E-03	9.5E-01	1.2E+03
189	4.4E-01	3.3E-03	7.7E-04	1.0E-02	9.3E-04	1.3E+01	2.2E-01	4.7E-03	2.0E+02	8.7E+01	2.4E-02	7.0E-02	8.0E-01	1.8E+00	2.0E-03	9.1E-04	4.0E+01	7.5E-01	3.0E-01	***1.1E-01***	2.2E+00	7.7E+01	***9.1E-02***	6.9E+00	2.0E-02	8.5E+01	7.7E+02	1.4E-03	9.4E-01	1.2E+03
190	4.4E-01	3.3E-03	7.8E-04	9.9E-03	9.3E-04	1.3E+01	2.2E-01	4.6E-03	2.0E+02	8.6E+01	2.4E-02	6.9E-02	8.0E-01	1.8E+00	2.0E-03	9.0E-04	3.9E+01	7.5E-01	3.0E-01	***1.1E-01***	2.2E+00	7.6E+01	***9.1E-02***	6.8E+00	1.9E-02	8.4E+01	7.6E+02	1.4E-03	9.3E-01	1.2E+03
191	4.3E-01	3.3E-03	7.8E-04	9.8E-03	9.2E-04	1.3E+01	2.2E-01	4.6E-03	2.0E+02	8.5E+01	2.4E-02	6.9E-02	8.0E-01	1.8E+00	2.0E-03	8.9E-04	3.9E+01	7.4E-01	2.9E-01	***1.1E-01***	2.2E+00	7.5E+01	***9.0E-02***	6.7E+00	1.9E-02	8.3E+01	7.6E+02	1.4E-03	9.3E-01	1.2E+03
192	4.3E-01	3.2E-03	7.9E-04	9.7E-03	9.2E-04	1.3E+01	2.2E-01	4.5E-03	2.0E+02	8.4E+01	2.3E-02	6.8E-02	8.0E-01	1.7E+00	2.0E-03	8.8E-04	3.9E+01	7.4E-01	2.9E-01	***1.0E-01***	2.2E+00	7.5E+01	***8.9E-02***	6.7E+00	1.9E-02	8.2E+01	7.6E+02	1.4E-03	9.2E-01	1.2E+03
193	4.2E-01	3.2E-03	7.9E-04	9.6E-03	9.2E-04	1.3E+01	2.1E-01	4.5E-03	2.0E+02	8.3E+01	2.3E-02	6.8E-02	8.0E-01	1.7E+00	2.0E-03	8.8E-04	3.9E+01	7.4E-01	2.9E-01	***1.0E-01***	2.1E+00	7.4E+01	***8.8E-02***	6.6E+00	1.9E-02	8.1E+01	7.5E+02	1.4E-03	9.1E-01	1.2E+03
194	4.2E-01	3.2E-03	8.0E-04	9.5E-03	9.2E-04	1.3E+01	2.1E-01	4.5E-03	2.0E+02	8.2E+01	2.3E-02	6.8E-02	8.0E-01	1.7E+00	2.0E-03	8.7E-04	3.8E+01	7.3E-01	2.8E-01	***1.0E-01***	2.1E+00	7.3E+01	***8.7E-02***	6.5E+00	1.9E-02	8.0E+01	7.5E+02	1.4E-03	9.0E-01	1.2E+03
195	4.1E-01	3.2E-03	8.0E-04	9.4E-03	9.2E-04	1.3E+01	2.1E-01	4.4E-03	2.0E+02	8.1E+01	2.3E-02	6.7E-02	8.0E-01	1.7E+00	2.0E-03	8.6E-04	3.8E+01	7.3E-01	2.8E-01	***1.0E-01***	2.1E+00	7.2E+01	***8.6E-02***	6.4E+00	1.8E-02	7.9E+01	7.5E+02	1.3E-03	8.9E-01	1.2E+03
196	4.0E-01	3.1E-03	8.1E-04	9.4E-03	9.2E-04	1.2E+01	2.1E-01	4.4E-03	2.0E+02	8.0E+01	2.2E-02	6.7E-02	8.1E-01	1.7E+00	2.0E-03	8.6E-04	3.8E+01	7.2E-01	2.8E-01	***1.0E-01***	2.1E+00	7.2E+01	***8.5E-02***	6.3E+00	1.8E-02	7.9E+01	7.4E+02	1.3E-03	8.9E-01	1.2E+03
197	4.0E-01	3.1E-03	8.1E-04	9.3E-03	9.1E-04	1.2E+01	2.1E-01	4.3E-03	2.0E+02	8.0E+01	2.2E-02	6.6E-02	8.1E-01	1.7E+00	2.0E-03	8.5E-04	3.8E+01	7.2E-01	2.8E-01	***1.0E-01***	2.0E+00	7.1E+01	***8.5E-02***	6.3E+00	1.8E-02	7.8E+01	7.4E+02	1.3E-03	8.8E-01	1.2E+03
198	3.9E-01	3.1E-03	8.2E-04	9.2E-03	9.1E-04	1.2E+01	2.0E-01	4.3E-03	2.0E+02	7.9E+01	2.2E-02	6.6E-02	8.1E-01	1.7E+00	2.0E-03	8.4E-04	3.7E+01	7.1E-01	2.7E-01	***1.0E-01***	2.0E+00	7.0E+01	***8.4E-02***	6.2E+00	1.8E-02	7.7E+01	7.4E+02	1.3E-03	8.7E-01	1.1E+03
199	3.9E-01	3.1E-03	8.3E-04	9.1E-03	9.1E-04	1.2E+01	2.0E-01	4.2E-03	2.0E+02	7.8E+01	2.2E-02	6.6E-02	8.1E-01	1.6E+00	1.9E-03	8.4E-04	3.7E+01	7.1E-01	2.7E-01	1.0E-01	2.0E+00	7.0E+01	***8.3E-02***	6.1E+00	1.8E-02	7.6E+01	7.4E+02	1.3E-03	8.6E-01	1.1E+03
200	3.9E-01	3.1E-03	8.3E-04	9.0E-03	9.1E-04	1.2E+01	2.0E-01	4.2E-03	2.0E+02	7.7E+01	2.1E-02	6.5E-02	8.1E-01	1.6E+00	1.9E-03	8.3E-04	3.7E+01	7.0E-01	2.7E-01	9.9E-02	2.0E+00	6.9E+01	***8.2E-02***	6.0E+00	1.8E-02	7.5E+01	7.3E+02	1.3E-03	8.6E-01	1.1E+03
201	3.8E-01	3.0E-03	8.4E-04	8.9E-03	9.1E-04	1.2E+01	2.0E-01	4.2E-03	1.9E+02	7.6E+01	2.1E-02	6.5E-02	8.1E-01	1.6E+00	1.9E-03	8.3E-04	3.7E+01	7.0E-01	2.6E-01	9.9E-02	2.0E+00	6.8E+01	***8.1E-02***	6.0E+00	1.7E-02	7.4E+01	7.3E+02	1.3E-03	8.5E-01	1.1E+03
202	3.8E-01	3.0E-03	8.4E-04	8.8E-03	9.1E-04	1.2E+01	2.0E-01	4.1E-03	1.9E+02	7.6E+01	2.1E-02	6.5E-02	8.1E-01	1.6E+00	1.9E-03	8.2E-04	3.7E+01	7.0E-01	2.6E-01	9.8E-02	1.9E+00	6.8E+01	***8.0E-02***	5.9E+00	1.7E-02	7.4E+01	7.3E+02	1.2E-03	8.4E-01	1.1E+03
203	3.7E-01	3.0E-03	8.5E-04	8.7E-03	9.0E-04	1.2E+01	2.0E-01	4.1E-03	1.9E+02	7.5E+01	2.1E-02	6.4E-02	8.1E-01	1.6E+00	1.9E-03	8.1E-04	3.6E+01	6.9E-01	2.6E-01	9.8E-02	1.9E+00	6.7E+01	***8.0E-02***	5.8E+00	1.7E-02	7.3E+01	7.2E+02	1.2E-03	8.3E-01	1.1E+03
204	3.7E-01	3.0E-03	8.6E-04	8.7E-03	9.0E-04	1.1E+01	1.9E-01	4.1E-03	1.9E+02	7.4E+01	2.0E-02	6.4E-02	8.1E-01	1.6E+00	1.9E-03	8.1E-04	3.6E+01	6.9E-01	2.6E-01	9.7E-02	1.9E+00	6.6E+01	***7.9E-02***	5.7E+00	1.7E-02	7.2E+01	7.2E+02	1.2E-03	8.3E-01	1.1E+03
205	3.6E-01	2.9E-03	8.6E-04	8.6E-03	9.0E-04	1.1E+01	1.9E-01	4.0E-03	1.9E+02	7.3E+01	2.0E-02	6.3E-02	8.1E-01	1.6E+00	1.9E-03	8.0E-04	3.6E+01	6.8E-01	2.5E-01	9.6E-02	1.9E+00	6.6E+01	***7.8E-02***	5.7E+00	1.7E-02	7.1E+01	7.2E+02	1.2E-03	8.2E-01	1.1E+03
206	3.6E-01	2.9E-03	8.7E-04	8.5E-03	9.0E-04	1.1E+01	1.9E-01	4.0E-03	1.9E+02	7.3E+01	2.0E-02	6.3E-02	8.1E-01	1.5E+00	1.9E-03	8.0E-04	3.6E+01	6.8E-01	2.5E-01	9.6E-02	1.9E+00	6.5E+01	***7.7E-02***	5.6E+00	1.7E-02	7.1E+01	7.2E+02	1.2E-03	8.1E-01	1.1E+03
207	3.5E-01	2.9E-03	8.8E-04	8.4E-03	9.0E-04	1.1E+01	1.9E-01	3.9E-03	1.9E+02	7.2E+01	2.0E-02	6.3E-02	8.1E-01	1.5E+00	1.9E-03	7.9E-04	3.6E+01	6.7E-01	2.5E-01	9.5E-02	1.8E+00	6.4E+01	***7.7E-02***	5.5E+00	1.6E-02	7.0E+01	7.1E+02	1.2E-03	8.0E-01	1.1E+03

Table 5. Model Results at Donnelly Wash 2 Aquifer Subdomain - Alternative 5

Years since Mine Start	Al	Sb	As	Ba	Be	HCO3	B	Cd	Ca	Cl	Cr	Co	Cu	F	Fe	Pb	Mg	Mn	Mo	Ni	NO3-N	K	Se	Si	Ag	Na	SO4	Tl	Zn	TDS
	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
208	3.5E-01	2.9E-03	8.8E-04	8.4E-03	9.0E-04	1.1E+01	1.9E-01	3.9E-03	1.9E+02	7.1E+01	2.0E-02	6.2E-02	8.1E-01	1.5E+00	1.9E-03	7.8E-04	3.6E+01	6.7E-01	2.5E-01	9.5E-02	1.8E+00	6.4E+01	***7.6E-02***	5.5E+00	1.6E-02	6.9E+01	7.1E+02	1.2E-03	8.0E-01	1.1E+03
209	3.4E-01	2.9E-03	8.9E-04	8.3E-03	8.9E-04	1.1E+01	1.9E-01	3.9E-03	1.9E+02	7.0E+01	1.9E-02	6.2E-02	8.1E-01	1.5E+00	1.9E-03	7.8E-04	3.5E+01	6.7E-01	2.4E-01	9.4E-02	1.8E+00	6.3E+01	***7.5E-02***	5.4E+00	1.6E-02	6.9E+01	7.1E+02	1.2E-03	7.9E-01	1.1E+03
210	3.4E-01	2.8E-03	9.0E-04	8.2E-03	8.9E-04	1.1E+01	1.8E-01	3.8E-03	1.9E+02	7.0E+01	1.9E-02	6.2E-02	8.2E-01	1.5E+00	1.9E-03	7.7E-04	3.5E+01	6.6E-01	2.4E-01	9.4E-02	1.8E+00	6.3E+01	***7.5E-02***	5.3E+00	1.6E-02	6.8E+01	7.1E+02	1.1E-03	7.8E-01	1.1E+03
211	3.4E-01	2.8E-03	9.0E-04	8.1E-03	8.9E-04	1.1E+01	1.8E-01	3.8E-03	1.9E+02	6.9E+01	1.9E-02	6.1E-02	8.2E-01	1.5E+00	1.9E-03	7.7E-04	3.5E+01	6.6E-01	2.4E-01	9.3E-02	1.8E+00	6.2E+01	***7.4E-02***	5.3E+00	1.6E-02	6.7E+01	7.0E+02	1.1E-03	7.8E-01	1.1E+03
212	3.3E-01	2.8E-03	9.1E-04	8.1E-03	8.9E-04	1.0E+01	1.8E-01	3.8E-03	1.9E+02	6.8E+01	1.9E-02	6.1E-02	8.2E-01	1.5E+00	1.9E-03	7.6E-04	3.5E+01	6.5E-01	2.4E-01	9.2E-02	1.7E+00	6.1E+01	***7.3E-02***	5.2E+00	1.6E-02	6.7E+01	7.0E+02	1.1E-03	7.7E-01	1.1E+03
213	3.3E-01	2.8E-03	9.2E-04	8.0E-03	8.9E-04	1.0E+01	1.8E-01	3.7E-03	1.9E+02	6.8E+01	1.9E-02	6.1E-02	8.2E-01	1.5E+00	1.9E-03	7.6E-04	3.5E+01	6.5E-01	2.3E-01	9.2E-02	1.7E+00	6.1E+01	***7.2E-02***	5.1E+00	1.5E-02	6.6E+01	7.0E+02	1.1E-03	7.7E-01	1.1E+03
214	3.2E-01	2.8E-03	9.3E-04	7.9E-03	8.9E-04	1.0E+01	1.8E-01	3.7E-03	1.9E+02	6.7E+01	1.8E-02	6.0E-02	8.2E-01	1.4E+00	1.9E-03	7.5E-04	3.5E+01	6.5E-01	2.3E-01	9.1E-02	1.7E+00	6.0E+01	***7.2E-02***	5.1E+00	1.5E-02	6.5E+01	7.0E+02	1.1E-03	7.6E-01	1.1E+03
215	3.2E-01	2.8E-03	9.3E-04	7.8E-03	8.8E-04	1.0E+01	1.8E-01	3.7E-03	1.9E+02	6.6E+01	1.8E-02	6.0E-02	8.2E-01	1.4E+00	1.9E-03	7.5E-04	3.5E+01	6.4E-01	2.3E-01	9.1E-02	1.7E+00	6.0E+01	***7.1E-02***	5.0E+00	1.5E-02	6.5E+01	7.0E+02	1.1E-03	7.5E-01	1.1E+03
216	3.2E-01	2.7E-03	9.4E-04	7.8E-03	8.8E-04	1.0E+01	1.8E-01	3.6E-03	1.9E+02	6.6E+01	1.8E-02	6.0E-02	8.2E-01	1.4E+00	1.8E-03	7.4E-04	3.4E+01	6.4E-01	2.3E-01	9.0E-02	1.7E+00	5.9E+01	***7.1E-02***	5.0E+00	1.5E-02	6.4E+01	6.9E+02	1.1E-03	7.5E-01	1.1E+03
217	3.1E-01	2.7E-03	9.5E-04	7.7E-03	8.8E-04	1.0E+01	1.7E-01	3.6E-03	1.9E+02	6.5E+01	1.8E-02	5.9E-02	8.2E-01	1.4E+00	1.8E-03	7.4E-04	3.4E+01	6.4E-01	2.2E-01	9.0E-02	1.7E+00	5.9E+01	***7.0E-02***	4.9E+00	1.5E-02	6.3E+01	6.9E+02	1.1E-03	7.4E-01	1.1E+03
218	3.1E-01	2.7E-03	9.6E-04	7.6E-03	8.8E-04	9.9E+00	1.7E-01	3.6E-03	1.9E+02	6.4E+01	1.8E-02	5.9E-02	8.2E-01	1.4E+00	1.8E-03	7.4E-04	3.4E+01	6.3E-01	2.2E-01	9.0E-02	1.6E+00	5.8E+01	***6.9E-02***	4.9E+00	1.5E-02	6.3E+01	6.9E+02	1.0E-03	7.4E-01	1.1E+03
219	3.1E-01	2.7E-03	9.6E-04	7.6E-03	8.8E-04	9.8E+00	1.7E-01	3.5E-03	1.9E+02	6.4E+01	1.8E-02	5.9E-02	8.2E-01	1.4E+00	1.8E-03	7.3E-04	3.4E+01	6.3E-01	2.2E-01	8.9E-02	1.6E+00	5.8E+01	***6.9E-02***	4.8E+00	1.5E-02	6.2E+01	6.9E+02	1.0E-03	7.3E-01	1.1E+03
220	3.0E-01	2.7E-03	9.7E-04	7.5E-03	8.8E-04	9.7E+00	1.7E-01	3.5E-03	1.9E+02	6.3E+01	1.7E-02	5.9E-02	8.2E-01	1.4E+00	1.8E-03	7.3E-04	3.4E+01	6.3E-01	2.2E-01	8.9E-02	1.6E+00	5.7E+01	***6.8E-02***	4.8E+00	1.4E-02	6.1E+01	6.9E+02	1.0E-03	7.2E-01	1.1E+03
221	3.0E-01	2.7E-03	9.8E-04	7.5E-03	8.7E-04	9.6E+00	1.7E-01	3.5E-03	1.9E+02	6.2E+01	1.7E-02	5.8E-02	8.2E-01	1.4E+00	1.8E-03	7.2E-04	3.4E+01	6.2E-01	2.2E-01	8.8E-02	1.6E+00	5.7E+01	***6.8E-02***	4.7E+00	1.4E-02	6.1E+01	6.8E+02	1.0E-03	7.2E-01	1.1E+03
222	3.0E-01	2.7E-03	9.9E-04	7.4E-03	8.7E-04	9.5E+00	1.7E-01	3.4E-03	1.9E+02	6.2E+01	1.7E-02	5.8E-02	8.2E-01	1.4E+00	1.8E-03	7.2E-04	3.4E+01	6.2E-01	2.1E-01	8.8E-02	1.6E+00	5.6E+01	***6.7E-02***	4.7E+00	1.4E-02	6.0E+01	6.8E+02	1.0E-03	7.1E-01	1.0E+03
223	2.9E-01	2.7E-03	1.0E-03	7.3E-03	8.7E-04	9.4E+00	1.7E-01	3.4E-03	1.9E+02	6.1E+01	1.7E-02	5.8E-02	8.2E-01	1.3E+00	1.8E-03	7.1E-04	3.4E+01	6.2E-01	2.1E-01	8.7E-02	1.6E+00	5.6E+01	***6.6E-02***	4.6E+00	1.4E-02	6.0E+01	6.8E+02	1.0E-03	7.1E-01	1.0E+03
224	2.9E-01	2.6E-03	1.0E-03	7.3E-03	8.7E-04	9.3E+00	1.7E-01	3.4E-03	1.9E+02	6.1E+01	1.7E-02	5.8E-02	8.2E-01	1.3E+00	1.8E-03	7.1E-04	3.4E+01	6.1E-01	2.1E-01	8.7E-02	1.6E+00	5.5E+01	***6.6E-02***	4.6E+00	1.4E-02	5.9E+01	6.8E+02	9.9E-04	7.0E-01	1.0E+03
225	2.9E-01	2.6E-03	1.0E-03	7.2E-03	8.7E-04	9.2E+00	1.6E-01	3.4E-03	1.9E+02	6.0E+01	1.7E-02	5.7E-02	8.2E-01	1.3E+00	1.8E-03	7.1E-04	3.3E+01	6.1E-01	2.1E-01	8.6E-02	1.5E+00	5.5E+01	***6.5E-02***	4.5E+00	1.4E-02	5.9E+01	6.8E+02	9.8E-04	7.0E-01	1.0E+03
226	2.8E-01	2.6E-03	1.0E-03	7.2E-03	8.7E-04	9.1E+00	1.6E-01	3.3E-03	1.9E+02	6.0E+01	1.6E-02	5.7E-02	8.2E-01	1.3E+00	1.8E-03	7.0E-04	3.3E+01	6.1E-01	2.1E-01	8.6E-02	1.5E+00	5.5E+01	***6.5E-02***	4.5E+00	1.4E-02	5.8E+01	6.7E+02	9.7E-04	6.9E-01	1.0E+03
227	2.8E-01	2.6E-03	1.0E-03	7.1E-03	8.6E-04	9.1E+00	1.6E-01	3.3E-03	1.9E+02	5.9E+01	1.6E-02	5.7E-02	8.2E-01	1.3E+00	1.8E-03	7.0E-04	3.3E+01	6.0E-01	2.1E-01	8.6E-02	1.5E+00	5.4E+01	***6.4E-02***	4.4E+00	1.3E-02	5.8E+01	6.7E+02	9.6E-04	6.9E-01	1.0E+03
228	2.8E-01	2.6E-03	1.0E-03	7.0E-03	8.6E-04	9.0E+00	1.6E-01	3.3E-03	1.9E+02	5.9E+01	1.6E-02	5.6E-02	8.2E-01	1.3E+00	1.8E-03	7.0E-04	3.3E+01	6.0E-01	2.0E-01	8.5E-02	1.5E+00	5.4E+01	***6.4E-02***	4.4E+00	1.3E-02	5.7E+01	6.7E+02	9.5E-04	6.8E-01	1.0E+03
229	2.8E-01	2.6E-03	1.0E-03	7.0E-03	8.6E-04	8.9E+00	1.6E-01	3.3E-03	1.9E+02	5.8E+01	1.6E-02	5.6E-02	8.2E-01	1.3E+00	1.8E-03	6.9E-04	3.3E+01	6.0E-01	2.0E-01	8.5E-02	1.5E+00	5.3E+01	***6.3E-02***	4.3E+00	1.3E-02	5.7E+01	6.7E+02	9.4E-04	6.8E-01	1.0E+03
230	2.7E-01	2.6E-03	1.1E-03	6.9E-03	8.6E-04	8.8E+00	1.6E-01	3.2E-03	1.9E+02	5.8E+01	1.6E-02	5.6E-02	8.2E-01	1.3E+00	1.8E-03	6.9E-04	3.3E+01	5.9E-01	2.0E-01	8.4E-02	1.5E+00	5.3E+01	***6.3E-02***	4.3E+00	1.3E-02	5.6E+01	6.7E+02	9.3E-04	6.7E-01	1.0E+03
231	2.7E-01	2.6E-03	1.1E-03	6.9E-03	8.6E-04	8.7E+00	1.6E-01	3.2E-03	1.9E+02	5.7E+01	1.6E-02	5.6E-02	8.2E-01	1.3E+00	1.8E-03	6.9E-04	3.3E+01	5.9E-01	2.0E-01	8.4E-02	1.5E+00	5.2E+01	***6.2E-02***	4.2E+00	1.3E-02	5.6E+01	6.7E+02	9.2E-04	6.7E-01	1.0E+03
232	2.7E-01	2.6E-03	1.1E-03	6.8E-03	8.6E-04	8.7E+00	1.6E-01	3.2E-03	1.9E+02	5.7E+01	1.6E-02	5.6E-02	8.2E-01	1.3E+00	1.8E-03	6.8E-04	3.3E+01	5.9E-01	2.0E-01	8.4E-02	1.4E+00	5.2E+01	***6.2E-02***	4.2E+00	1.3E-02	5.5E+01	6.6E+02	9.1E-04	6.6E-01	1.0E+03
233	2.7E-01	2.5E-03	1.1E-03	6.8E-03	8.6E-04	8.6E+00	1.6E-01	3.2E-03	1.9E+02	5.6E+01	1.5E-02	5.5E-02	8.2E-01	1.2E+00	1.8E-03	6.8E-04	3.3E+01	5.9E-01	2.0E-01	8.3E-02	1.4E+00	5.2E+01	***6.1E-02***	4.2E+00	1.3E-02	5.5E+01	6.6E+02	9.1E-04	6.6E-01	1.0E+03
234	2.6E-01	2.5E-03	1.1E-03	6.7E-03	8.5E-04	8.5E+00	1.6E-01	3.1E-03	1.9E+02	5.6E+01	1.5E-02	5.5E-02	8.2E-01	1.2E+00	1.8E-03	6.8E-04	3.3E+01	5.8E-01	1.9E-01	8.3E-02	1.4E+00	5.1E+01	***6.1E-02***	4.1E+00	1.3E-02	5.4E+01	6.6E+02	9.0E-04	6.5E-01	1.0E+03
235	2.6E-01	2.5E-03	1.1E-03	6.7E-03	8.5E-04	8.5E+00	1.5E-01	3.1E-03	1.8E+02	5.5E+01	1.5E-02	5.5E-02	8.2E-01	1.2E+00	1.8E-03	6.7E-04	3.3E+01	5.8E-01	1.9E-01	8.3E-02	1.4E+00	5.1E+01	***6.0E-02***	4.1E+00	1.3E-02	5.4E+01	6.6E+02	8.9E-04	6.5E-01	1.0E+03
236	2.6E-01	2.5E-03	1.1E-03	6.6E-03	8.5E-04	8.4E+00	1.5E-01	3.1E-03	1.8E+02	5.5E+01	1.5E-02	5.5E-02	8.2E-01	1.2E+00	1.7E-03	6.7E-04	3.3E+01	5.8E-01	1.9E-01	8.2E-02	1.4E+00	5.1E+01	***6.0E-02***	4.0E+00	1.2E-02	5.3E+01	6.6E+02	8.8E-04	6.5E-01	1.0E+03
237	2.6E-01	2.5E-03	1.1E-03	6.6E-03	8.5E-04	8.3E+00	1.5E-01	3.1E-03	1.8E+02	5.4E+01	1.5E-02	5.4E-02	8.2E-01	1.2E+00	1.7E-03	6.7E-04	3.3E+01	5.8E-01	1.9E-01	8.2E-02	1.4E+00	5.0E+01	***6.0E-02***	4.0E+00	1.2E-02	5.3E+01	6.6E+02	8.7E-04	6.4E-01	1.0E+03
238	2.5E-01	2.5E-03	1.1E-03	6.5E-03	8.5E-04	8.3E+00	1.5E-01	3.1E-03	1.8E+02	5.4E+01	1.5E-02	5.4E-02	8.2E-01	1.2E+00	1.7E-03	6.7E-04	3.3E+01	5.7E-01	1.9E-01	8.2E-02	1.4E+00	5.0E+01	***5.9E-02***	4.0E+00	1.2E-02	5.2E+01	6.6E+02	8.7E-04	6.4E-01	1.0E+03
239	2.5E-01	2.5E-03	1.1E-03	6.5E-03	8.5E-04	8.2E+00	1.5E-01	3.0E-03	1.8E+02	5.3E+01	1.5E-02	5.4E-02	8.2E-01	1.2E+00	1.7E-03	6.6E-04	3.3E+01	5.7E-01	1.9E-01	8.1E-02	1.4E+00	5.0E+01	***5.9E-02***	3.9E+00	1.2E-02	5.2E+01	6.6E+02	8.6E-04	6.3E-01	1.0E+03
240	2.5E-01	2.5E-03	1.2E-03	6.5E-03	8.5E-04	8.1E+00	1.5E-01	3.0E-03	1.8E+02	5.3E+01	1.5E-02	5.4E-02	8.2E-01	1.2E+00	1.7E-03	6.6E-04	3.3E+01	5.7E-01	1.8E-01	8.1E-02	1.4E+00	4.9E+01	***5.8E-02***	3.9E+00	1.2E-02	5.2E+01	6.5E+02	8.5E-04	6.3E-01	1.0E+03
241	2.5E-01	2.5E-03	1.2E-03	6.4E-03	8.5E-04	8.1E+00	1.5E-01	3.0E-03	1.8E+02	5.2E+01	1.4E-02	5.4E-02	8.2E-01	1.2E+00	1.7E-03	6.6E-04	3.3E+01	5.7E-01	1.8E-01	8.1E-02	1.3E+00	4.9E+01	***5.8E-02***	3.9E+00	1.2E-02	5.1E+01	6.5E+02	8.4E-04	6.3E-01	1.0E+03
242	2.4E-01	2.5E-03	1.2E-03	6.4E-03	8.4E-04	8.0E+00	1.5E-01	3.0E-03	1.8E+02	5.2E+01	1.4E-02	5.3E-02	8.2E-01	1.2E+00	1.7E-03	6.6E-04	3.3E+01	5.6E-01	1.8E-01	8.1E-02	1.3E+00	4.9E+01	***5.8E-02***	3.8E+00	1.2E-02	5.1E+01	6.5E+02	8.4E-04	6.2E-01	9.9E+02
243	2.4E-01	2.5E-03	1.2E-03	6.3E-03	8.4E-04	7.9E+00	1.5E-01	3.0E-03	1.8E+02	5.2E+01	1.4E-02	5.3E-02	8.2E-01	1.2E+00	1.7E-03	6.5E-04	3.3E+01	5.6E-01	1.8E-01	8.0E-02	1.3E+00	4.8E+01	***5.7E-02***	3.8E+00	1.2E-02	5.0E+01	6.5E+02	8.3E-04	6.2E-01	9.9E+02
244	2.4E-01	2.5E-03	1.2E-03	6.3E-03	8.4E-04	7.9E+00	1.5E-01	2.9E-03	1.8E+02	5.1E+01	1.4E-02	5.3E-02	8.2E-01	1.2E+00	1.7E-03	6.5E-04	3.3E+01	5.6E-01	1.8E-01	8.0E-02	1.3E+00	4.8E+01	***5.7E-02***	3.8E+00	1.2E-02	5.0E+01	6.5E+02	8.2E-04	6.2E-01	9.9E+02
245	2.4E-01	2.5E-03	1.2E-03	6.3E-03	8.4E-04	7.8E+00	1.5E-01	2.9E-03	1.8E+02	5.1E+01	1.4E-02	5.3E-02	8.2E-01	1.2E+00	1.7E-03	6.5E-04	3.3E+01	5.6E-01	1.8E-01	8.0E-02	1.3E+00	4.8E+01	***5.6E-02***	3.7E+00	1.2E-02	5.0E+01	6.5E+02	8.2E-04	6.1E-01	9.9E+02
Minimum	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Maximum	6.7E-01	4.3E-03	1.2E-03	1.4E-02	9.4E-04	1.9E+01	3.0E-01	6.3E-03	2.0E+02	1.2E+02	3.3E-02	8.0E-02	8.2E-01	2.3E+00	2.1E-03	1.2E-03	4.9E+01	8.8E-01	4.1E-01	1.2E-01	3.2E+00	1.0E+02	1.2E-01	1.1E+01	2.7E-02	1.2E+02	8.5E+02	2.1E-03	1.2E+00	1.3E+03
Average	3.0E-01	2.1E-03	4.6E-04	6.5E-03	4.7E-04	9.1E+00	1.4E-01	2.9E-03	1.1E+02	5.5E+01	1.5E-02	4.1E-02	3.9E-01	1.1E+00	1.1E-03	5.7E-04	2.5E+01	4.4E-01	1.9E-01	6.1E-02	1.5E+00	4.9E+01	5.8E-02	4.8E+00	1.3E-02	5.5E+01	4.6E+02	9.5E-04	5.9E-01	7.1E+02
Aquifer WQ Standard =		0.006	0.05	2	0.004			0.005			0.1			4.0		0.05				0.1	10		0.05					0.002		

Notes:

1. Model results do not include background concentrations and assume no mass flux from recharge or natural groundwater sources
2. Aquifer WQ Standard = Arizona Department of Environmental Quality Numeric Aquifer Water Quality Standards (Arizona Administrative Code - Title 18, Ch. 11, Art. 4, Sup. 16-4, 2016)
3. Values in bold italic indicate that concentration is above water quality standard
4. mg/L = milligrams per liter

Table 6. Model Results at Gila River - Alternative 5

Years since Mine Start	Al	Sb	As	Ba	Be	HCO3	B	Cd	Ca	Cl	Cr	Co	Cu	F	Fe	Pb	Mg	Mn	Mo	Ni	NO3-N	K	Se	Si	Ag	Na	SO4	Tl	Zn	TDS
	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
1	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
2	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
3	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
4	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
5	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
6	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
7	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
8	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
9	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
10	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
11	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
12	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
13	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
14	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
15	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
16	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
17	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
18	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
19	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
20	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
21	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
22	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
23	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
24	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
25	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
26	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
27	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
28	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	4.5E-35	0.0E+00	0.0E+00	6.9E-35
29	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	4.4E-35	0.0E+00	0.0E+00	2.2E-34	1.1E-34	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	6.9E-35	0.0E+00	0.0E+00	0.0E+00	0.0E+00	7.4E-35	0.0E+00	1.7E-35	0.0E+00	1.6E-34	1.1E-33	0.0E+00	0.0E+00	1.6E-33
30	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	9.2E-34	0.0E+00	0.0E+00	4.2E-33	2.1E-33	0.0E+00	0.0E+00	0.0E+00	5.4E-35	0.0E+00	0.0E+00	1.4E-33	0.0E+00	0.0E+00	0.0E+00	5.1E-35	1.5E-33	0.0E+00	3.7E-34	0.0E+00	3.1E-33	2.0E-32	0.0E+00	0.0E+00	3.0E-32
31	1.3E-34	0.0E+00	0.0E+00	0.0E+00	0.0E+00	1.5E-32	9.6E-35	0.0E+00	6.6E-32	3.4E-32	0.0E+00	0.0E+00	8.6E-35	9.7E-34	0.0E+00	0.0E+00	2.2E-32	0.0E+00	5.2E-35	0.0E+00	9.2E-34	2.4E-32	0.0E+00	6.1E-33	0.0E+00	4.9E-32	3.2E-31	0.0E+00	5.4E-35	4.7E-31
32	2.0E-33	0.0E+00	0.0E+00	8.4E-35	0.0E+00	1.9E-31	1.5E-33	0.0E+00	8.8E-31	4.4E-31	1.4E-35	1.4E-35	1.3E-33	1.4E-32	0.0E+00	0.0E+00	2.9E-31	1.3E-34	8.2E-34	2.4E-35	1.3E-32	3.2E-31	7.9E-35	8.2E-32	0.0E+00	6.5E-31	4.2E-30	0.0E+00	8.6E-34	6.2E-30
33	2.4E-32	3.9E-35	1.6E-34	1.2E-33	0.0E+00	2.2E-30	1.8E-32	1.2E-35	1.0E-29	5.1E-30	2.3E-34	2.4E-34	1.6E-32	1.6E-31	1.2E-34	3.3E-35	3.4E-30	1.8E-33	1.0E-32	3.7E-34	1.5E-31	3.7E-30	1.1E-33	9.4E-31	1.4E-34	7.5E-30	4.8E-29	1.2E-35	1.1E-32	7.2E-29
34	2.5E-31	5.3E-34	1.9E-33	1.3E-32	5.6E-35	2.3E-29	1.8E-31	1.9E-34	1.0E-28	5.1E-29	2.7E-33	2.8E-33	1.7E-31	1.6E-30	1.5E-33	4.5E-34	3.4E-29	2.0E-32	1.0E-31	4.3E-33	1.5E-30	3.7E-29	1.2E-32	9.5E-30	1.8E-33	7.5E-29	4.8E-28	1.9E-34	1.1E-31	7.2E-28
35	2.3E-30	5.4E-33	1.9E-32	1.2E-31	6.7E-34	2.0E-28	1.6E-30	2.1E-33	9.1E-28	4.6E-28	2.6E-32	2.7E-32	1.5E-30	1.4E-29	1.5E-32	4.7E-33	3.1E-28	1.9E-31	9.4E-31	4.1E-32	1.4E-29	3.3E-28	1.1E-31	8.5E-29	1.7E-32	6.7E-28	4.3E-27	2.0E-33	1.0E-30	6.5E-27
36	1.8E-29	4.5E-32	1.5E-31	9.3E-31	6.2E-33	1.6E-27	1.3E-29	1.9E-32	7.3E-27	3.7E-27	2.1E-31	2.3E-31	1.2E-29	1.1E-28	1.2E-31	3.9E-32	2.4E-27	1.6E-30	7.6E-30	3.3E-31	1.1E-28	2.7E-27	9.1E-31	6.8E-28	1.4E-31	5.4E-27	3.5E-26	1.8E-32	8.1E-30	5.2E-26
37	1.3E-28	3.4E-31	1.1E-30	6.7E-30	4.7E-32	1.2E-26	9.5E-29	1.4E-31	5.3E-26	2.7E-26	1.6E-30	1.7E-30	8.7E-29	8.2E-28	8.9E-31	2.9E-31	1.8E-26	1.2E-29	5.5E-29	2.5E-30	8.1E-28	1.9E-26	6.6E-30	4.9E-27	1.1E-30	3.9E-26	2.5E-25	1.3E-31	6.0E-29	3.8E-25
38	8.9E-28	2.2E-30	7.2E-30	4.4E-29	3.2E-31	7.6E-26	6.2E-28	9.7E-31	3.5E-25	1.7E-25	1.1E-29	1.1E-29	5.7E-28	5.4E-27	5.8E-30	1.9E-30	1.2E-25	8.1E-29	3.6E-28	1.7E-29	5.4E-27	1.3E-25	4.4E-29	3.2E-26	7.2E-30	2.6E-25	1.7E-24	8.9E-31	4.0E-28	2.5E-24
39	5.4E-27	1.3E-29	4.3E-29	2.6E-28	1.9E-30	4.5E-25	3.7E-27	6.0E-30	2.1E-24	1.0E-24	6.4E-29	7.1E-29	3.4E-27	3.2E-26	3.5E-29	1.1E-29	7.0E-25	5.0E-28	2.2E-27	1.0E-28	3.3E-26	7.6E-25	2.7E-28	2.0E-25	4.4E-29	1.5E-24	9.9E-24	5.4E-30	2.4E-27	1.5E-23
40	3.0E-26	7.5E-29	2.4E-28	1.4E-27	1.1E-29	2.5E-24	2.1E-26	3.4E-29	1.2E-23	5.7E-24	3.6E-28	4.0E-28	1.9E-26	1.8E-25	1.9E-28	6.3E-29	3.8E-24	2.9E-27	1.2E-26	5.7E-28	1.8E-25	4.2E-24	1.5E-27	1.1E-24	2.5E-28	8.5E-24	5.5E-23	3.0E-29	1.4E-26	8.2E-23
41	2.5E-25	6.3E-28	2.0E-27	1.2E-26	8.9E-29	2.1E-23	1.7E-25	2.9E-28	9.7E-23	4.8E-23	3.1E-27	3.5E-27	1.6E-25	1.5E-24	1.6E-27	5.2E-28	3.2E-23	2.5E-26	1.0E-25	4.9E-27	1.5E-24	3.6E-23	1.3E-26	9.1E-24	2.1E-27	7.1E-23	4.6E-22	2.5E-28	1.2E-25	6.9E-22
42	8.1E-25	2.0E-27	6.2E-27	3.8E-26	2.8E-28	6.6E-23	5.5E-25	9.6E-28	3.1E-22	1.5E-22	9.9E-27	1.1E-26	5.0E-25	4.8E-24	5.1E-27	1.7E-27	1.0E-22	8.4E-26	3.3E-25	1.6E-26	4.9E-24	1.1E-22	4.1E-26	2.9E-23	6.8E-27	2.2E-22	1.5E-21	8.1E-28	3.7E-25	2.2E-21
43	3.6E-24	9.0E-27	2.7E-26	1.7E-25	1.3E-27	2.9E-22	2.4E-24	4.4E-27	1.4E-21	6.7E-22	4.5E-26	5.2E-26	2.2E-24	2.1E-23	2.3E-26	7.3E-27	4.5E-22	3.9E-25	1.4E-24	7.2E-26	2.2E-23	5.0E-22	1.8E-25	1.3E-22	3.1E-26	9.9E-22	6.5E-21	3.6E-27	1.7E-24	9.6E-21
44	1.5E-23	3.8E-26	1.1E-25	7.0E-25	5.2E-27	1.2E-21	1.0E-23	1.9E-26	5.7E-21	2.8E-21	1.9E-25	2.2E-25	9.2E-24	8.7E-23	9.4E-26	3.0E-26	1.9E-21	1.7E-24	6.0E-24	3.1E-25	9.1E-23	2.1E-21	7.7E-25	5.3E-22	1.3E-25	4.1E-21	2.7E-20	1.5E-26	7.1E-24	4.0E-20
45	6.0E-23	1.5E-25	4.3E-25	2.7E-24	2.0E-26	4.7E-21	3.9E-23	7.6E-26	2.2E-20	1.1E-20	7.5E-25	9.0E-25	3.6E-23	3.4E-22	3.7E-25	1.2E-25	7.3E-21	6.9E-24	2.4E-23	1.2E-24	3.6E-22	8.1E-21	3.0E-24	2.1E-21	5.2E-25	1.6E-20	1.0E-19	6.0E-26	2.8E-23	1.6E-19
46	2.2E-22	5.5E-25	1.6E-24	1.0E-23	7.5E-26	1.7E-20	1.5E-22	2.9E-25	8.2E-20	4.0E-20	2.8E-24	3.4E-24	1.3E-22	1.2E-21	1.3E-24	4.3E-25	2.7E-20	2.7E-23	8.7E-23	4.6E-24	1.3E-21	3.0E-20	1.1E-23	7.6E-21	2.0E-24	5.9E-20	3.9E-19	2.2E-25	1.1E-22	5.8E-19
47	7.9E-22	2.0E-24	5.5E-24	3.5E-23	2.6E-25	6.0E-20	5.1E-22	1.0E-24	2.9E-19	1.4E-19	1.0E-23	1.2E-23	4.6E-22	4.4E-21	4.7E-24	1.5E-24	9.4E-20	9.8E-23	3.1E-22	1.7E-23	4.7E-21	1.1E-19	4.1E-23	2.7E-20	7.1E-24	2.1E-19	1.4E-18	7.9E-25	3.8E-22	2.0E-18
48	2.7E-21	6.6E-24	1.8E-23	1.2E-22	8.8E-25	2.0E-19	1.7E-21	3.6E-24	9.6E-19	4.6E-19	3.4E-23	4.3E-23	1.5E-21	1.4E-20	1.6E-23	4.9E-24	3.1E-19	3.4E-22	1.0E-21	5.7E-23	1.6E-20	3.5E-19	1.4E-22	8.8E-20	2.4E-23	6.8E-19	4.5E-18	2.7E-24	1.3E-21	6.7E-18
49	8.6E-21	2.1E-23	5.7E-23	3.6E-22	2.8E-24	6.2E-19	5.4E-21	1.2E-23	3.1E-18	1.5E-18	1.1E-22	1.4E-22	4.8E-21	4.6E-20	4.9E-23	1.6E-23	9.9E-19	1.1E-21	3.3E-21	1.9E-22	5.1E-20	1.1E-18	4.4E-22	2.8E-19	7.9E-23	2.2E-18	1.4E-17	8.6E-24	4.2E-21	2.1E-17
50	2.6E-20	6.5E-23	1.7E-22	1.1E-21	8.4E-24	1.9E-18	1.6E-20	3.8E-23	9.3E-18	4.4E-18	3.5E-22	4.5E-22	1.5E-20	1.4E-19	1.5E-22	4.7E-23	3.0E-18	3.6E-21	1.0E-20	5.8E-22	1.5E-19	3.4E-18	1.4E-21	8.5E-19	2.5E-22	6.6E-18	4.4E-17	2.6E-23	1.3E-20	6.5E-17
51	7.7E-20	1.9E-22	4.9E-22	3.2E-21	2.5E-23	5.5E-18	4.7E-20	1.1E-22	2.7E-17	1.3E-17	1.0E-21	1.4E-21	4.2E-20	4.0E-19	4.3E-22	1.4E-22	8.7E-18	1.1E-20	2.9E-20	1.8E-21	4.5E-19	1.0E-17	4.0E-21	2.5E-18	7.3E-22	1.9E-17	1.3E-16	7.8E-23	3.9E-20	1.9E-16
52	2.2E-19	5.4E-22	1.4E-21	8.9E-21	6.9E-23	1.5E-17	1.3E-19	3.3E-22	7.6E-17	3.6E-17	2.9E-21	3.9E-21	1.2E-19	1.1E-18	1.2E-21	3.8E-22	2.4E-17	3.3E-20	8.2E-20	5.0E-21	1.3E-18	2.8E-17	1.2E-20	6.9E-18	2.1E-21	5.3E-17	3.6E-16	2.2E-22	1.1E-19	5.3E-16
53	5.9E-19	1.5E-21	3.6E-21	2.4E-20	1.9E-22	4.1E-17	3.6E-19	9.2E-22	2.1E-16	9.6E-17	8.1E-21	1.1E-20	3.2E-19	3.0E-18	3.3E-21	1.0E-21	6.5E-17	9.2E-20	2.2E-19	1.4E-20	3.5E-18	7.5E-17	3.2E-20	1.9E-17	5.8E-21	1.4E-16	9.6E-16	6.1E-22	3.1E-19	1.4E-15
54	1.6E-18	3.9E-21	9.3E-21	6.2E-20	4.8E-22	1.0E-16	9.2E-19	2.5E-21	5.3E-16	2.5E-16	2.2E-20	3.0E-20	8.2E-19	7.9E-18	8.4E-21	2.6E-21	1.7E-16	2.5E-19	5.8E-19	3.7E-20	9.1E-18	2.0E-16	8.4E-20	4.8E-17	1.6E-20	3.7E-16	2.5E-15	1.6E-21	8.2E-19	3.7E-15
55	4.0E-18	9.9E-21	2.3E-20	1.5E-19	1.2E-21	2.6E-16	2.3E-18	6.5E-21	1.3E-15	6.2E-16	5.5E-20	7.7E-20	2.1E-18	2.0E-17	2.1E-20	6.5E-21	4.2E-16	6.6E-19	1.5E-18	9.7E-20	2.3E-17	4.9E-16	2.1E-19	1.2E-16	4.0E-20	9.3E-16	6.2E-15	4.1E-21	2.1E-18	9.3E-15
56	9.7E-18	2.5E-20	5.6E-20	3.7E-19	2.9E-21	6.3E-16	5.6E-18	1.6E-20	3.3E-15	1.5E-15	1.4E-19	1.9E-19	5.0E-18	4.8E-17	5.1E-20	1.6E-20	1.0E-15	1.7E-18	3.6E-18	2.4E-19	5.6E-17	1.2E-15	5.3E-19	3.0E-16	1.0E-19	2.2E-15	1.5E-14	1.0E-20	5.2E-18	2.3E-14
57	2.3E-17	5.9E-20	1.3E-19	8.7E-19	6.9E-21	1.5E-15	1.3E-17	4.0E-20	7.7E-15	3.5E-15	3.3E-19	4.8E-19	1.2E-17	1.1E-16	1.2E-19	3.7E-20	2.4E-15	4.1E-18	8.4E-18	5.9E-19	1.3E-16	2.8E-15	1.3E-18	6.9E-16	2.4E-19	5.3E-15	3.6E-14	2.5E-20	1.3E-17	5.3E-14
58	5.3E-17	1.4E-19	2.9E-19	2.0E-18	1.6E-20	3.4E-15	3.0E-17	9.4E-20	1.8E-14	8.1E-15	7.8E-19	1.1E-18	2.7E-17	2.6E-16	2.7E-19	8.4E-20	5.5E-15	9.8E-18	1.9E-17	1.4E-18	3.1E-16	6.5E-15	3.0E-18	1.6E-15	5.7E-19	1.2E-14	8.2E-14	5.8E-20	3.0E-17	1.2E-13
59	1.2E-16	3.1E-19	6.4E-19	4.4E-18	3.5E-20	7.4E-15	6.7E-17	2.2E-19	3.9E-14	1.8E-14	1.8E-18	2.6E-18	5.9E-17	5.7E-16	6.1E-19	1.9E-19	1.2E-14	2.3E-17	4.3E-17	3.2E-18	6.9E-16	1.5E-14	6.7E-18	3.5E-15	1.3E-18	2.7E-14	1.8E-13	1.3E-19	6.7E-17	2.7E-13
60	2.6E-16	6.8E-19	1.4E-18	9.5E-18	7.5E-20	1.6E-14	1.4E-16	4.9E-19	8.5E-14	3.9E-14	3.9E-18	5.8E-18	1.3E-16	1.2E-15	1.3E-18	4.0E-19	2.6E-14	5.1E-17	9.5E-17	7.1E-18	1.5E-15	3.1E-14	1.5E-17	7.6E-15	2.9E-18	5.8E-14	3.9E-13	2.9E-19	1.5E-16	5.9E-13
61	5.6E-16	1.5E-18	2.9E-18	2.0E-17	1.6E-19	3.4E-14	3.1E-16	1.1E-18	1.8E-13	8.2E-14	8.5E-18	1.3E-17	2.7E-16	2.6E-15	2.7E-18	8.5E-19	5.6E-14	1.1E-16	2.0E-16	1.5E-17	3.2E-15	6.7E-14	3.2E-17	1.6E-14	6.3E-18	1.2E-13	8.3E-13	6.3E-19	3.2E-16	1.2E-12
62	1.2E-15	3.0E-18	5.8E-18	4.1E-17	3.3E-19	6.9E-14	6.3E-16	2.3E-18	3.7E-13	1.7E-13	1.8E-17	2.7E-17	5.5E-16	5.3E-15	5.6E-18	1.7E-18	1.1E-13	2.4E-16	4.2E-16	3.3E-17	6.6E-15	1.4E-13	6.7E-17	3.3E-14	1.3E-17	2.5E-13	1.7E-12	1.3E-18	6.8E-16	2.5E-12
63	2.3E-15	6.2E-18	1.2E-17	8.2E-17	6.6E-19	1.4E-13	1.3E-15	4.7E-18	7.5E-13	3.4E-13	3.7E-17	5.7E-17	1.1E-15	1.1E-14	1.1E-17	3.5E-18	2.3E-13	5.1E-16	8.4E-16	6.8E-17	1.3E-14	2.8E-13	1.4E-16	6.7E-14	2.8E-17	5.0E-13	3.4E-12	2.7E-18	1.4E-15	5.1E-12
64	4.7E-15	1.2E-17	2.2E-17	1.6E-16	1.3E-18	2.7E-13	2.5E-15	9.6E-18	1.5E-12	6.6E-13	7.4E-17	1.2E-16	2.2E-15	2.1E-14	2.2E-17	6.8E-18	4.5E-13	1.0E-15	1.7E-15	1.4E-16	2.6E-14	5.5E-13	2.8E-16	1.3E-13	5.6E-17	9.8E-13	6.8E-12	5.5E-18	2.8E-15	1.0E-11
65	9.1E-15	2.4E-17	4.3E-17	3.1E-16	2.5E-18	5.2E-13	4.8E-15	1.9E-17	2.8E-12	1.3E-12	1.5E-16	2.3E-16	4.1E-15	4.0E-14	4.3E-17	1.3E-17	8.6E-13	2.1E-15	3.2E-15	2.7E-16	5.1E-14	1.1E-12	5.4E-16	2.5E-13	1.1E-16	1.9E-12	1.3E-11	1.1E-17	5.6E-15	1.9E-11
66	1.7E-14	4.7E-17	8.0E-17	5.8E-16	4.7E-18	9.7E-13	9.0E-15	3.7E-17	5.4E-12	2.4E-12	2.8E-16	4.5E-16	7.8E-15	7.6E-14	8.0E-17	2.5E-17	1.6E-12	4.1E-15	6.1E-15	5.3E-16	9.7E-14	2.0E-12	1.0E-15	4.8E-13	2.1E-16	3.6E-12	2.5E-11	2.1E-17	1.1E-14	3.7E-11
67	3.2E-14	8.9E-17	1.5E-16	1.1E-15	8.6E-18	1.8E-12	1.7E-14	7.2E-17	1.0E-11	4.4E-12	5.4E-16	8.6E-16	1.4E-14	1.4E-13	1.5E-16	4.6E-17	3.0E-12	7.9E-15	1.1E-14	1.0E-15	1.8E-13	3.7E-12	2.0E-15	8.8E-13	4.1E-16	6.6E-12	4.6E-11	4.0E-17	2.1E-14	6.8E-11
68	5.9E-14	1.6E-16	2.6E-16	1.9E-15	1.6E-17	3.2E-12	3.0E-14	1.3E-16	1.8E-11	8.1E-12	1.0E-15	1.6E-15	2.6E-14	2.5E-13	2.7E-16	8.3E-17	5.4E-12	1.5E-14	2.1E-14	1.9E-15	3.3E-13	6.8E-12	3.6E-15	1.6E-12	7.6E-16	1.2E-11	8.3E-11	7.5E-17	3.8E-14	1.2E-10
69	1.1E-13	3.0E-16	4.6E-16	3.4E-15	2.8E-17	5.7E-12	5.4E-14	2.5E-16	3.2E-11	1.4E-11	1.8E-15	3.0E-15	4.6E-14	4.5E-13	4.7E-16	1.5E-16	9.7E-12	2.7E-14	3.8E-14	3.5E-15	5.9E-13	1.2E-11	6.6E-15	2.9E-12	1.4E-15	2.1E-11	1.5E-10	1.4E-16	7.0E-14	2.2E-10

Table 6. Model Results at Gila River - Alternative 5

Years since Mine Start	Al mg/L	Sb mg/L	As mg/L	Ba mg/L	Be mg/L	HCO3 mg/L	B mg/L	Cd mg/L	Ca mg/L	Cl mg/L	Cr mg/L	Co mg/L	Cu mg/L	F mg/L	Fe mg/L	Pb mg/L	Mg mg/L	Mn mg/L	Mo mg/L	Ni mg/L	NO3-N mg/L	K mg/L	Se mg/L	Si mg/L	Ag mg/L	Na mg/L	SO4 mg/L	Tl mg/L	Zn mg/L	TDS mg/L
70	1.9E-13	5.3E-16	8.0E-16	6.0E-15	4.9E-17	1.0E-11	9.5E-14	4.5E-16	5.7E-11	2.5E-11	3.3E-15	5.4E-15	8.1E-14	7.9E-13	8.3E-16	2.6E-16	1.7E-11	5.0E-14	6.6E-14	6.3E-15	1.0E-12	2.1E-11	1.2E-14	5.0E-12	2.5E-15	3.7E-11	2.6E-10	2.5E-16	1.3E-13	3.9E-10
71	3.3E-13	9.3E-16	1.4E-15	1.0E-14	8.4E-17	1.7E-11	1.6E-13	8.0E-16	9.9E-11	4.3E-11	5.8E-15	9.6E-15	1.4E-13	1.4E-12	1.4E-15	4.5E-16	2.9E-11	8.9E-14	1.2E-13	1.1E-14	1.8E-12	3.7E-11	2.1E-14	8.6E-12	4.4E-15	6.4E-11	4.5E-10	4.4E-16	2.2E-13	6.7E-10
72	5.6E-13	1.6E-15	2.3E-15	1.7E-14	1.4E-16	2.9E-11	2.8E-13	1.4E-15	1.7E-10	7.4E-11	1.0E-14	1.7E-14	2.3E-13	2.3E-12	2.4E-15	7.6E-16	4.9E-11	1.6E-13	2.0E-13	1.9E-14	3.1E-12	6.3E-11	3.6E-14	1.5E-11	7.7E-15	1.1E-10	7.6E-10	7.6E-16	3.8E-13	1.1E-09
73	9.4E-13	2.7E-15	3.7E-15	2.9E-14	2.4E-16	4.8E-11	4.6E-13	2.4E-15	2.8E-10	1.2E-10	1.7E-14	2.9E-14	3.9E-13	3.9E-12	4.0E-15	1.3E-15	8.2E-11	2.7E-13	3.3E-13	3.3E-14	5.1E-12	1.1E-10	6.1E-14	2.4E-11	1.3E-14	1.8E-10	1.3E-09	1.3E-15	6.6E-13	1.9E-09
74	1.6E-12	4.6E-15	6.1E-15	4.8E-14	3.9E-16	7.9E-11	7.6E-13	4.1E-15	4.6E-10	2.0E-10	2.9E-14	4.9E-14	6.4E-13	6.4E-12	6.6E-15	2.1E-15	1.4E-10	4.6E-13	5.5E-13	5.6E-14	8.5E-12	1.8E-10	1.0E-13	4.0E-11	2.2E-14	3.0E-10	2.1E-09	2.2E-15	1.1E-12	3.1E-09
75	2.5E-12	7.6E-15	9.8E-15	7.7E-14	6.4E-16	1.3E-10	1.2E-12	6.8E-15	7.6E-10	3.3E-10	4.8E-14	8.2E-14	1.0E-12	1.0E-11	1.1E-14	3.4E-15	2.2E-10	7.7E-13	9.1E-13	9.4E-14	1.4E-11	2.9E-10	1.7E-13	6.5E-11	3.7E-14	4.8E-10	3.4E-09	3.7E-15	1.8E-12	5.1E-09
76	4.1E-12	1.2E-14	1.5E-14	1.2E-13	1.0E-15	2.0E-10	2.0E-12	1.1E-14	1.2E-09	5.3E-10	7.8E-14	1.3E-13	1.7E-12	1.7E-11	1.7E-14	5.5E-15	3.5E-10	1.3E-12	1.5E-12	1.5E-13	2.2E-11	4.6E-10	2.8E-13	1.0E-10	6.1E-14	7.7E-10	5.5E-09	6.0E-15	3.0E-12	8.2E-09
77	6.5E-12	2.0E-14	2.4E-14	1.9E-13	1.6E-15	3.2E-10	3.1E-12	1.8E-14	1.9E-09	8.4E-10	1.3E-13	2.2E-13	2.6E-12	2.6E-11	2.7E-14	8.7E-15	5.6E-10	2.1E-12	2.3E-12	2.5E-13	3.5E-11	7.3E-10	4.5E-13	1.7E-10	9.8E-14	1.2E-09	8.7E-09	9.8E-15	4.9E-12	1.3E-08
78	1.0E-11	3.2E-14	3.7E-14	3.0E-13	2.5E-15	5.0E-10	4.9E-12	2.9E-14	3.0E-09	1.3E-09	2.0E-13	3.5E-13	4.1E-12	4.1E-11	4.2E-14	1.4E-14	8.7E-10	3.3E-12	3.7E-12	4.0E-13	5.6E-11	1.2E-09	7.2E-13	2.6E-10	1.6E-13	1.9E-09	1.4E-08	1.6E-14	7.8E-12	2.0E-08
79	1.6E-11	5.0E-14	5.7E-14	4.7E-13	3.9E-15	7.6E-10	7.6E-12	4.7E-14	4.7E-09	2.0E-09	3.2E-13	5.6E-13	6.3E-12	6.3E-11	6.4E-14	2.1E-14	1.3E-09	5.3E-12	5.7E-12	6.4E-13	8.6E-11	1.8E-09	1.1E-12	4.0E-10	2.5E-13	2.9E-09	2.1E-08	2.5E-14	1.2E-11	3.1E-08
80	2.5E-11	7.8E-14	8.6E-14	7.1E-13	5.9E-15	1.2E-09	1.2E-11	7.3E-14	7.1E-09	3.1E-09	4.9E-13	8.7E-13	9.5E-12	9.6E-11	9.7E-14	3.2E-14	2.0E-09	8.4E-12	8.8E-12	1.0E-12	1.3E-10	2.7E-09	1.8E-12	6.1E-10	3.9E-13	4.5E-09	3.2E-08	3.9E-14	1.9E-11	4.8E-08
81	3.7E-11	1.2E-13	1.3E-13	1.1E-12	9.0E-15	1.7E-09	1.7E-11	1.1E-13	1.1E-08	4.7E-09	7.6E-13	1.4E-12	1.4E-11	1.5E-10	1.5E-13	4.8E-14	3.1E-09	1.3E-11	1.3E-11	1.5E-12	2.0E-10	4.2E-09	2.7E-12	9.2E-10	6.0E-13	6.7E-09	4.8E-08	6.0E-14	2.9E-11	7.2E-08
82	5.6E-11	1.8E-13	1.9E-13	1.6E-12	1.3E-14	2.6E-09	2.6E-11	1.7E-13	1.6E-08	7.0E-09	1.2E-12	2.1E-12	2.1E-11	2.2E-10	2.2E-13	7.2E-14	4.6E-09	2.0E-11	2.0E-11	2.4E-12	3.0E-10	6.2E-09	4.1E-12	1.4E-09	9.1E-13	1.0E-08	7.2E-08	9.1E-14	4.5E-11	1.1E-07
83	8.3E-11	2.7E-13	2.7E-13	2.3E-12	2.0E-14	3.8E-09	3.9E-11	2.6E-13	2.4E-08	1.0E-08	1.7E-12	3.1E-12	3.1E-11	3.2E-10	3.2E-13	1.1E-13	6.7E-09	3.0E-11	3.0E-11	3.6E-12	4.4E-10	9.2E-09	6.2E-12	2.0E-09	1.4E-12	1.5E-08	1.1E-07	1.4E-13	6.8E-11	1.6E-07
84	1.2E-10	4.1E-13	3.9E-13	3.4E-12	2.9E-14	5.6E-09	5.6E-11	3.9E-13	3.5E-08	1.5E-08	2.6E-12	4.7E-12	4.6E-11	4.7E-10	4.7E-13	1.6E-13	9.8E-09	4.5E-11	4.4E-11	5.3E-12	6.5E-10	1.4E-08	9.2E-12	3.0E-09	2.1E-12	2.2E-08	1.6E-07	2.0E-13	1.0E-10	2.3E-07
85	1.8E-10	6.0E-13	5.6E-13	4.9E-12	4.2E-14	8.0E-09	8.2E-11	5.8E-13	5.1E-08	2.2E-08	3.8E-12	7.0E-12	6.6E-11	6.8E-10	6.7E-13	2.3E-13	1.4E-08	6.7E-11	6.5E-11	7.9E-12	9.4E-10	2.0E-08	1.4E-11	4.3E-09	3.0E-12	3.1E-08	2.3E-07	3.0E-13	1.5E-10	3.4E-07
86	2.6E-10	8.7E-13	8.0E-13	7.1E-12	6.0E-14	1.1E-08	1.2E-10	8.6E-13	7.3E-08	3.2E-08	5.6E-12	1.0E-11	9.4E-11	9.7E-10	9.6E-13	3.3E-13	2.0E-08	9.9E-11	9.4E-11	1.2E-11	1.4E-09	2.9E-08	2.0E-11	6.1E-09	4.5E-12	4.5E-08	3.2E-07	4.4E-13	2.2E-10	4.9E-07
87	3.7E-10	1.3E-12	1.1E-12	1.0E-11	8.6E-14	1.6E-08	1.7E-10	1.2E-12	1.0E-07	4.5E-08	8.1E-12	1.5E-11	1.3E-10	1.4E-09	1.4E-12	4.7E-13	2.9E-08	1.4E-10	1.3E-10	1.7E-11	1.9E-09	4.1E-08	2.9E-11	8.7E-09	6.5E-12	6.4E-08	4.6E-07	6.4E-13	3.2E-10	6.9E-07
88	5.2E-10	1.8E-12	1.6E-12	1.4E-11	1.2E-13	2.3E-08	2.3E-10	1.8E-12	1.5E-07	6.4E-08	1.2E-11	2.1E-11	1.9E-10	1.9E-09	1.9E-12	6.6E-13	4.0E-08	2.1E-10	1.9E-10	2.4E-11	2.7E-09	5.8E-08	4.1E-11	1.2E-08	9.3E-12	9.0E-08	6.5E-07	9.2E-13	4.5E-10	9.8E-07
89	7.3E-10	2.6E-12	2.1E-12	2.0E-11	1.7E-13	3.2E-08	3.3E-10	2.6E-12	2.1E-07	9.0E-08	1.7E-11	3.1E-11	2.6E-10	2.7E-09	2.7E-12	9.3E-13	5.6E-08	3.0E-10	2.7E-10	3.5E-11	3.8E-09	8.1E-08	5.8E-11	1.7E-08	1.3E-11	1.3E-07	9.1E-07	1.3E-12	6.4E-10	1.4E-06
90	1.0E-09	3.6E-12	2.9E-12	2.7E-11	2.4E-13	4.4E-08	4.6E-10	3.6E-12	2.9E-07	1.2E-07	2.3E-11	4.3E-11	3.6E-10	3.8E-09	3.7E-12	1.3E-12	7.8E-08	4.2E-10	3.8E-10	4.9E-11	5.3E-09	1.1E-07	8.2E-11	2.4E-08	1.9E-11	1.7E-07	1.3E-06	1.9E-12	9.1E-10	1.9E-06
91	1.4E-09	5.0E-12	4.0E-12	3.7E-11	3.2E-13	6.0E-08	6.3E-10	5.1E-12	3.9E-07	1.7E-07	3.3E-11	6.1E-11	4.9E-10	5.2E-09	5.0E-12	1.8E-12	1.1E-07	6.0E-10	5.2E-10	6.9E-11	7.3E-09	1.6E-07	1.1E-10	3.3E-08	2.6E-11	2.4E-07	1.7E-06	2.6E-12	1.3E-09	2.6E-06
92	1.9E-09	6.9E-12	5.4E-12	5.1E-11	4.4E-13	8.1E-08	8.5E-10	7.1E-12	5.4E-07	2.4E-07	4.5E-11	8.5E-11	6.7E-10	7.0E-09	6.8E-12	2.4E-12	1.5E-07	8.3E-10	7.2E-10	9.6E-11	1.0E-08	2.1E-07	1.6E-10	4.5E-08	3.6E-11	3.3E-07	2.4E-06	3.6E-12	1.8E-09	3.6E-06
93	2.6E-09	9.5E-12	7.2E-12	6.8E-11	6.0E-13	1.1E-07	1.2E-09	9.8E-12	7.3E-07	3.2E-07	6.3E-11	1.2E-10	9.0E-10	9.5E-09	9.2E-12	3.3E-12	2.0E-07	1.2E-09	9.8E-10	1.3E-10	1.4E-08	2.9E-07	2.2E-10	6.0E-08	5.0E-11	4.4E-07	3.2E-06	5.0E-12	2.4E-09	4.8E-06
94	3.5E-09	1.3E-11	9.5E-12	9.2E-11	8.1E-13	1.5E-07	1.6E-09	1.3E-11	9.8E-07	4.3E-07	8.5E-11	1.6E-10	1.2E-09	1.3E-08	1.2E-11	4.5E-12	2.7E-07	1.6E-09	1.3E-09	1.8E-10	1.8E-08	3.9E-07	3.0E-10	8.1E-08	6.9E-11	5.9E-07	4.3E-06	6.8E-12	3.3E-09	6.5E-06
95	4.7E-09	1.8E-11	1.3E-11	1.2E-10	1.1E-12	1.9E-07	2.1E-09	1.8E-11	1.3E-06	5.8E-07	1.2E-10	2.2E-10	1.6E-09	1.7E-08	1.6E-11	6.0E-12	3.5E-07	2.2E-09	1.8E-09	2.5E-10	2.4E-08	5.3E-07	4.0E-10	1.1E-07	9.3E-11	7.9E-07	5.8E-06	9.2E-12	4.5E-09	8.7E-06
96	6.3E-09	2.4E-11	1.6E-11	1.6E-10	1.4E-12	2.6E-07	2.8E-09	2.5E-11	1.7E-06	7.7E-07	1.6E-10	3.0E-10	2.1E-09	2.3E-08	2.2E-11	7.9E-12	4.7E-07	2.9E-09	2.4E-09	3.4E-10	3.2E-08	7.1E-07	5.4E-10	1.4E-07	1.3E-10	1.1E-06	7.7E-06	1.2E-11	6.1E-09	1.2E-05
97	8.3E-09	3.2E-11	2.1E-11	2.1E-10	1.9E-12	3.4E-07	3.6E-09	3.3E-11	2.3E-06	1.0E-06	2.1E-10	4.0E-10	2.8E-09	3.0E-08	2.8E-11	1.0E-11	6.2E-07	3.9E-09	3.2E-09	4.5E-10	4.3E-08	9.4E-07	7.3E-10	1.9E-07	1.7E-10	1.4E-06	1.0E-05	1.7E-11	8.1E-09	1.5E-05
98	1.1E-08	4.2E-11	2.7E-11	2.8E-10	2.5E-12	4.4E-07	4.8E-09	4.5E-11	3.0E-06	1.3E-06	2.8E-10	5.3E-10	3.6E-09	3.9E-08	3.7E-11	1.4E-11	8.0E-07	5.3E-09	4.2E-09	6.0E-10	5.6E-08	1.2E-06	9.7E-10	2.5E-07	2.2E-10	1.8E-06	1.3E-05	2.2E-11	1.1E-08	2.0E-05
99	1.4E-08	5.5E-11	3.5E-11	3.6E-10	3.3E-12	5.7E-07	6.2E-09	5.9E-11	3.9E-06	1.7E-06	3.7E-10	7.0E-10	4.7E-09	5.1E-08	4.8E-11	1.8E-11	1.0E-06	7.0E-09	5.5E-09	8.0E-10	7.3E-08	1.6E-06	1.3E-09	3.2E-07	3.0E-10	2.4E-06	1.7E-05	2.9E-11	1.4E-08	2.6E-05
100	1.8E-08	7.2E-11	4.5E-11	4.6E-10	4.3E-12	7.4E-07	8.0E-09	7.8E-11	5.1E-06	2.3E-06	4.8E-10	9.2E-10	6.1E-09	6.6E-08	6.1E-11	2.3E-11	1.3E-06	9.2E-09	7.2E-09	1.1E-09	9.5E-08	2.1E-06	1.7E-09	4.1E-07	3.9E-10	3.0E-06	2.2E-05	3.8E-11	1.9E-08	3.4E-05
101	2.4E-08	9.4E-11	5.7E-11	6.0E-10	5.5E-12	9.4E-07	1.0E-08	1.0E-10	6.6E-06	2.9E-06	6.3E-10	1.2E-09	7.8E-09	8.4E-08	7.8E-11	3.0E-11	1.7E-06	1.2E-08	9.4E-09	1.4E-09	1.2E-07	2.7E-06	2.2E-09	5.3E-07	5.1E-10	3.9E-06	2.9E-05	5.0E-11	2.4E-08	4.3E-05
102	3.0E-08	1.2E-10	7.2E-11	7.6E-10	7.1E-12	1.2E-06	1.3E-08	1.3E-10	8.4E-06	3.8E-06	8.1E-10	1.6E-09	9.9E-09	1.1E-07	1.0E-10	3.9E-11	2.2E-06	1.6E-08	1.2E-08	1.8E-09	1.6E-07	3.5E-06	2.8E-09	6.8E-07	6.6E-10	5.0E-06	3.7E-05	6.5E-11	3.2E-08	5.5E-05
103	3.9E-08	1.6E-10	9.0E-11	9.6E-10	9.0E-12	1.5E-06	1.7E-08	1.7E-10	1.1E-05	4.8E-06	1.1E-09	2.0E-09	1.3E-08	1.4E-07	1.3E-10	4.9E-11	2.8E-06	2.0E-08	1.5E-08	2.3E-09	2.0E-07	4.4E-06	3.7E-09	8.6E-07	8.5E-10	6.4E-06	4.7E-05	8.4E-11	4.1E-08	7.1E-05
104	4.9E-08	2.0E-10	1.1E-10	1.2E-09	1.1E-11	1.9E-06	2.1E-08	2.2E-10	1.4E-05	6.1E-06	1.3E-09	2.6E-09	1.6E-08	1.7E-07	1.6E-10	6.3E-11	3.5E-06	2.6E-08	2.0E-08	3.0E-09	2.5E-07	5.7E-06	4.7E-09	1.1E-06	1.1E-09	8.0E-06	5.9E-05	1.1E-10	5.2E-08	8.9E-05
105	6.2E-08	2.5E-10	1.4E-10	1.5E-09	1.4E-11	2.4E-06	2.7E-08	2.8E-10	1.7E-05	7.7E-06	1.7E-09	3.3E-09	2.0E-08	2.2E-07	2.0E-10	7.9E-11	4.5E-06	3.3E-08	2.5E-08	3.8E-09	3.2E-07	7.1E-06	6.0E-09	1.4E-06	1.4E-09	1.0E-05	7.4E-05	1.4E-10	6.7E-08	1.1E-04
106	7.8E-08	3.2E-10	1.7E-10	1.9E-09	1.8E-11	3.0E-06	3.4E-08	3.6E-10	2.1E-05	9.7E-06	2.2E-09	4.2E-09	2.5E-08	2.7E-07	2.5E-10	9.9E-11	5.6E-06	4.2E-08	3.2E-08	4.9E-09	4.0E-07	9.0E-06	7.6E-09	1.7E-06	1.8E-09	1.3E-05	9.3E-05	1.7E-10	8.5E-08	1.4E-04
107	9.7E-08	4.1E-10	2.1E-10	2.4E-09	2.3E-11	3.7E-06	4.2E-08	4.5E-10	2.7E-05	1.2E-05	2.7E-09	5.3E-09	3.1E-08	3.4E-07	3.1E-10	1.2E-10	6.9E-06	5.4E-08	4.0E-08	6.1E-09	4.9E-07	1.1E-05	9.6E-09	2.1E-06	2.2E-09	1.6E-05	1.2E-04	2.2E-10	1.1E-07	1.8E-04
108	1.2E-07	5.1E-10	2.6E-10	2.9E-09	2.8E-11	4.6E-06	5.2E-08	5.7E-10	3.3E-05	1.5E-05	3.5E-09	6.7E-09	3.8E-08	4.2E-07	3.8E-10	1.5E-10	8.6E-06	6.8E-08	5.0E-08	7.7E-09	6.1E-07	1.4E-05	1.2E-08	2.6E-06	2.8E-09	2.0E-05	1.4E-04	2.7E-10	1.3E-07	2.2E-04
109	1.5E-07	6.3E-10	3.2E-10	3.6E-09	3.5E-11	5.6E-06	6.4E-08	7.1E-10	4.1E-05	1.9E-05	4.3E-09	8.4E-09	4.6E-08	5.2E-07	4.6E-10	1.9E-10	1.1E-05	8.5E-08	6.2E-08	9.7E-09	7.6E-07	1.7E-05	1.5E-08	3.2E-06	3.5E-09	2.4E-05	1.8E-04	3.4E-10	1.7E-07	2.7E-04
110	1.8E-07	7.9E-10	3.8E-10	4.4E-09	4.4E-11	6.9E-06	7.9E-08	8.9E-10	5.0E-05	2.3E-05	5.4E-09	1.0E-08	5.7E-08	6.4E-07	5.7E-10	2.4E-10	1.3E-05	1.1E-07	7.6E-08	1.2E-08	9.3E-07	2.2E-05	1.9E-08	4.0E-06	4.4E-09	3.0E-05	2.2E-04	4.2E-10	2.1E-07	3.3E-04
111	2.3E-07	9.7E-10	4.6E-10	5.4E-09	5.4E-11	8.4E-06	9.7E-08	1.1E-09	6.1E-05	2.8E-05	6.6E-09	1.3E-08	6.9E-08	7.8E-07	6.9E-10	2.9E-10	1.6E-05	1.3E-07	9.4E-08	1.5E-08	1.1E-06	2.6E-05	2.3E-08	4.8E-06	5.4E-09	3.6E-05	2.7E-04	5.2E-10	2.6E-07	4.1E-04
112	2.8E-07	1.2E-09	5.5E-10	6.5E-09	6.6E-11	1.0E-05	1.2E-07	1.4E-09	7.5E-05	3.5E-05	8.2E-09	1.6E-08	8.4E-08	9.5E-07	8.4E-10	3.5E-10	1.9E-05	1.6E-07	1.2E-07	1.9E-08	1.4E-06	3.2E-05	2.9E-08	5.9E-06	6.7E-09	4.4E-05	3.3E-04	6.5E-10	3.2E-07	4.9E-04
113	3.3E-07	1.5E-09	6.6E-10	7.9E-09	8.0E-11	1.2E-05	1.4E-07	1.7E-09	9.1E-05	4.2E-05	1.0E-08	2.0E-08	1.0E-07	1.1E-06	1.0E-09	4.3E-10	2.3E-05	2.0E-07	1.4E-07	2.3E-08	1.7E-06	3.9E-05	3.5E-08	7.1E-06	8.2E-09	5.4E-05	3.9E-04	7.9E-10	3.9E-07	6.0E-04
114	4.1E-07	1.8E-09	7.9E-10	9.6E-09	9.7E-11	1.5E-05	1.7E-07	2.1E-09	1.1E-04	5.1E-05	1.2E-08	2.4E-08	1.2E-07	1.4E-06	1.2E-09	5.2E-10	2.8E-05	2.4E-07	1.7E-07	2.8E-08	2.0E-06	4.8E-05	4.3E-08	8.6E-06	1.0E-08	6.5E-05	4.8E-04	9.6E-10	4.8E-07	7.3E-04
115	4.9E-07	2.2E-09	9.4E-10	1.1E-08	1.2E-10	1.8E-05	2.1E-07	2.5E-09	1.3E-04	6.2E-05	1.5E-08	2.9E-08	1.5E-07	1.7E-06	1.5E-09	6.3E-10	3.4E-05	3.0E-07	2.1E-07	3.4E-08	2.4E-06	5.8E-05	5.2E-08	1.0E-05	1.2E-08	7.8E-05	5.7E-04	1.2E-09	5.8E-07	8.7E-04
116	5.9E-07	2.6E-09	1.1E-09	1.4E-08	1.4E-10	2.1E-05	2.5E-07	3.0E-09	1.6E-04	7.5E-05	1.8E-08	3.5E-08	1.7E-07	2.0E-06	1.7E-09	7.6E-10	4.1E-05	3.6E-07	2.5E-07	4.2E-08	2.9E-06	7.0E-05	6.3E-08	1.2E-05	1.5E-08	9.4E-05	6.9E-04	1.4E-09	7.0E-07	1.0E-03
117	7.0E-07	3.2E-09	1.3E-09	1.6E-08	1.7E-10	2.5E-05	3.0E-07	3.7E-09	1.9E-04	9.0E-05	2.2E-08	4.3E-08	2.1E-07	2.4E-06	2.1E-09	9.1E-10	4.8E-05	4.4E-07	3.0E-07	5.0E-08	3.5E-06	8.4E-05	7.6E-08	1.5E-05	1.8E-08	1.1E-04	8.2E-04	1.7E-09	8.5E-07	1.3E-03
118	8.4E-07	3.8E-09	1.5E-09	1.9E-08	2.0E-10	3.0E-05	3.5E-07	4.4E-09	2.2E-04	1.1E-04	2.6E-08	5.2E-08	2.5E-07	2.8E-06	2.4E-09	1.1E-09	5.8E-05	5.3E-07	3.6E-07	6.1E-08	4.2E-06	1.0E-04	9.2E-08	1.7E-05	2.1E-08	1.3E-04	9.8E-04	2.0E-09	1.0E-06	1.5E-03
119	9.9E-07	4.5E-09	1.8E-09	2.3E-08	2.4E-10	3.6E-05	4.2E-07	5.3E-09	2.7E-04	1.3E-04	3.1E-08	6.2E-08	2.9E-07	3.4E-06	2.9E-09	1.3E-09	6.8E-05	6.3E-07	4.3E-07	7.3E-08	4.9E-06	1.2E-04	1.1E-07	2.1E-05	2.6E-08	1.6E-04	1.2E-03	2.4E-09	1.2E-06	1.8E-03
120	1.2E-06	5.4E-09	2.1E-09	2.7E-08	2.9E-10	4.2E-05	5.0E-07	6.4E-09	3.1E-04	1.5E-04	3.8E-08	7.4E-08	3.4E-07	4.0E-06	3.4E-09	1.5E-09	8.0E-05	7.5E-07	5.1E-07	8.7E-08	5.8E-06	1.4E-04	1.3E-07	2.4E-05	3.1E-08	1.9E-04	1.4E-03	2.9E-09	1.5E-06	2.1E-03
121	1.4E-06	6.4E-09	2.4E-09	3.2E-08	3.4E-10	4.9E-05	5.9E-07	7.6E-09	3.7E-04	1.8E-04	4.5E-08	8.8E-08	4.0E-07	4.7E-06	4.0E-09	1.8E-09	9.5E-05	9.0E-07	6.1E-07	1.0E-07	6.9E-06	1.7E-04	1.6E-07	2.8E-05	3.6E-08	2.2E-04	1.6E-03	3.5E-09	1.7E-06	2.5E-03
122	1.6E-06	7.6E-09	2.8E-09	3.7E-08	4.1E-10	5.8E-05	6.9E-07	9.0E-09	4.3E-04	2.1E-04	5.3E-08	1.0E-07	4.7E-07	5.5E-06	4.6E-09	2.1E-09	1.1E-04	1.1E-06	7.2E-07	1.2E-07	8.1E-06	2.0E-04	1.9E-07	3.3E-05	4.3E-08	2.6E-04	1.9E-03	4.1E-09	2.0E-06	2.9E-03
123	1.9E-06	8.9E-09	3.2E-09	4.3E-08	4.8E-10	6.7E-05	8.1E-07	1.1E-08	5.1E-04	2.5E-04	6.2E-08	1.2E-07	5.5E-07	6.4E-06	5.4E-09	2.5E-09	1.3E-04	1.3E-06	8.5E-07	1.5E-07	9.4E-06	2.3E-04	2.2E-07	3.9E-05	5.1E-08	3.0E-04	2.2E-03	4.8E-09	2.4E-06	3.4E-03
124	2.2E-06	1.0E-08	3.7E-09	5.1E-08	5.6E-10	7.8E-05	9.4E-07	1.3E-08	5.9E-04	2.9E-04	7.3E-08	1.4E-07	6.3E-07	7.5E-06	6.3E-09	2.9E-09	1.5E-04	1.5E-06	1.0E-06	1.7E-07	1.1E-05	2.7E-04	2.6E-07	4.5E-05	6.0E-08	3.5E-04	2.6E-03	5.7E-09	2.8E-06	3.9E-03
125	2.6E-06	1.2E-08	4.3E-09	5.9E-08	6.6E-10	9.0E-05	1.1E-06	1.5E-08	6.9E-04	3.4E-04	8.6E-08	1.7E-07	7.4E-07	8.7E-06	7.2E-09	3.4E-09	1.8E-04	1.7E-06	1.2E-06	2.0E-07	1.3E-05	3.2E-04	3.0E-07	5.2E-05	7.0E-08	4.1E-04	3.0E-03	6.6E-09	3.3E-06	4.6E-03
126	3.0E-06	1.4E-08	4.9E-09	6.8E-08	7.7E-10	1.0E-04	1.3E-06	1.7E-08	8.0E-04	4.0E-04	1.0E-07	2.0E-07	8.5E-07	1.0E-05	8.3E-09	4.0E-09	2.0E-04	2.0E-06	1.4E-06	2.4E-07	1.5E-05	3.7E-04	3.5E-07	6.1E-05	8.2E-08	4.8E-04	3.5E-03	7.7E-09	3.9E-06	5.3E-03
127	3.5E-06	1.7E-08	5.6E-09	7.8E-08	8.9E-10	1.2E-04	1.5E-06	2.0E-08	9.2E-04	4.6E-04	1.2E-07	2.3E-07	9.8E-07	1.2E-05	9.6E-09	4.6E-09	2.3E-04	2.4E-06	1.6E-06	2.8E-07	1.7E-05	4.3E-04	4.1E-07	7.0E-05	9.6E-08	5.5E-04	4.0E-03	9.0E-09	4.5E-06	6.2E-03
128	4.0E-06	1.9E-08	6.4E-09	9.0E-08	1.0E-09	1.4E-04	1.7E-06	2.3E-08	1.1E-03	5.3E-04	1.4E-07	2.7E-07	1.1E-06	1.3E-05	1.1E-08	5.3E-09	2.7E-04	2.8E-06	1.8E-06	3.2E-07	2.0E-05	5.0E-04	4.8E-07	8.0E-05	1.1E-07	6.4E-04	4.6E-03	1.0E-08	5.3E-06	7.1E-03
129	4.6E-06	2.2E-08	7.2E-09	1.0E-07	1.2E-09	1.6E-04	1.9E-06	2.7E-08	1.2E-03	6.1E-04	1.6E-07	3.1E-07	1.3E-06	1.5E-05	1.3E-08	6.2E-09	3.1E-04	3.2E-06	2.1E-06	3.8E-07	2.3E-05	5.7E-04	5.6E-07	9.2E-05	1.3E-07	7.3E-04	5.3E-03	1.2E-08	6.1E-06	8.2E-03
130	5.3E-06	2.6E-08	8.2E-09	1.2E-07	1.4E-09	1.8E-04	2.2E-06	3.2E-08	1.4E-03	7.1E-04	1.8E-07	3.6E-07	1.5E-06	1.8E-05	1.4E-08	7.1E-09	3.6E-04	3.7E-06	2.4E-06	4.4E-07	2.6E-05	6.6E-04	6.4E-07	1.1E-04	1.5E-07	8.4E-04	6.1E-03	1.4E-08	7.0E-06	9.3E-03
131	6.0E-06	3.0E-08	9.2E-09	1.3E-07	1.6E-09	2.1E-04	2.6E-06	3.6E-08	1.6E-03	8.1E-04	2.1E-07	4.2E-07	1.7E-06	2.0E-05	1.6E-08	8.1E-09	4.1E-04	4.3E-06	2.8E-06	5.0E-07	3.0E-05	7.5E-04	7.4E-07	1.2E-04	1.7E-07	9.6E-04	7.0E-03	1.6E-08	8.1E-06	1.1E-02
132	6.9E-06	3.4E-08	1.0E-08	1.5E-07	1.8E-09	2.3E-04	2.9E-06	4.2E-08	1.8E-03	9.3E-04	2.4E-07	4.8E-07	1.9E-06	2.3E-05	1.9E-08	9.3E-09	4.6E-04	4.9E-06	3.2E-06	5.8E-07	3.4E-05	8.6E-04	8.5E-07	1.4E-04	2.0E-07	1.1E-03	7.9E-03	1.8E-08	9.3E-06	1.2E-02
133	7.8E-06	3.9E-08	1.2E-08	1.7E-07	2.1E-09	2.7E-04	3.3E-06	4.8E-08	2.1E-03	1.1E-03	2.8E-07	5.5E-07	2.2E-06	2.6E-05	2.1E-08	1.1E-08	5.3E-04	5.7E-06	3.7E-06	6.7E-07	3.9E-05	9.9E-04	9.8E-07	1.5E-04	2.3E-07	1.2E-03	9.0E-03	2.1E-08	1.1E-05	1.4E-02
134	8.9E-06	4.4E-08	1.3E-08	2.0E-07	2.4E-09	3.0E-04	3.8E-06	5.5E-08	2.3E-03	1.2E-03	3.2E-07	6.3E-07	2.5E-06	2.9E-05	2.4E-08	1.2E-08	6.0E-04	6.5E-06	4.2E-06	7.7E-07	4.4E-05	1.1E-03	1.1E-06	1.8E-04	2.6E-07	1.4E-03	1.0E-02	2.4E-08	1.2E-05	1.6E-02
135	1.0E-05	5.0E-08	1.5E-08	2.2E-07	2.8E-09	3.4E-04	4.3E-06	6.3E-08	2.7E-03	1.4E-03	3.6E-07	7.1E-07	2.8E-06	3.3E-05	2.7E-08	1.4E-08	6.7E-04	7.4E-06	4.8E-06	8.8E-07	4.9E-05	1.3E-03	1.3E-06	2.0E-04	3.0E-07	1.6E-03	1.2E-02	2.7E-08	1.4E-05	1.8E-02
136	1.1E-05	5.7E-08	1.6E-08	2.5E-07	3.1E-09	3.8E-04	4.8E-06	7.1E-08	3.0E-03	1.6E-03	4.1E-07	8.1E-07	3.1E-06	3.8E-05	3.0E-08	1.5E-08	7.6E-04	8.4E-06	5.4E-06	1.0E-06	5.6E-05	1.4E-03	1.5E-06	2.2E-04	3.4E-07	1.8E-03	1.3E-02	3.1E-08	1.6E-05	2.0E-02
137	1.3E-05	6.5E-08	1.8E-08	2.8E-07	3.6E-09	4.3E-04	5.4E-06	8.1E-08	3.4E-03	1.8E-03	4.7E-07	9.2E-07	3.5E-06	4.2E-05	3.4E-08	1.7E-08	8.6E-04	9.6E-06	6.1E-06	1.1E-06	6.3E-05	1.6E-03	1.7E-06	2.5E-04	3.8E-07	2.0E-03	1.5E-02	3.5E-08	1.8E-05	2.3E-02
138	1.4E-05	7.3E-08	2.0E-08	3.2E-07	4.0E-09	4.8E-04	6.1E-06	9.2E-08	3.8E-03	2.0E-03	5.3E-07	1.0E-06	3.9E-06	4.8E-05	3.8E-08	2.0E-08	9.6E-04	1.1E-05	6.9E-06	1.3E-06	7.0E-05	1.8E-03	1.9E-06	2.8E-04	4.3E-07	2.3E-03	1.6E-02	3.9E-08	2.0E-05	2.5E-02

Table 6. Model Results at Gila River - Alternative 5

Years since Mine Start	Al mg/L	Sb mg/L	As mg/L	Ba mg/L	Be mg/L	HCO3 mg/L	B mg/L	Cd mg/L	Ca mg/L	Cl mg/L	Cr mg/L	Co mg/L	Cu mg/L	F mg/L	Fe mg/L	Pb mg/L	Mg mg/L	Mn mg/L	Mo mg/L	Ni mg/L	NO3-N mg/L	K mg/L	Se mg/L	Si mg/L	Ag mg/L	Na mg/L	SO4 mg/L	Tl mg/L	Zn mg/L	TDS mg/L
139	1.6E-05	8.2E-08	2.2E-08	3.5E-07	4.6E-09	5.4E-04	6.8E-06	1.0E-07	4.2E-03	2.2E-03	6.0E-07	1.2E-06	4.4E-06	5.3E-05	4.2E-08	2.2E-08	1.1E-03	1.2E-05	7.8E-06	1.5E-06	7.9E-05	2.1E-03	2.1E-06	3.1E-04	4.9E-07	2.6E-03	1.8E-02	4.4E-08	2.3E-05	2.9E-02
140	1.8E-05	9.3E-08	2.5E-08	3.9E-07	5.2E-09	6.0E-04	7.7E-06	1.2E-07	4.7E-03	2.5E-03	6.7E-07	1.3E-06	4.9E-06	6.0E-05	4.7E-08	2.5E-08	1.2E-03	1.4E-05	8.8E-06	1.6E-06	8.8E-05	2.3E-03	2.4E-06	3.5E-04	5.5E-07	2.9E-03	2.1E-02	5.0E-08	2.6E-05	3.2E-02
141	2.0E-05	1.0E-07	2.7E-08	4.4E-07	5.8E-09	6.7E-04	8.6E-06	1.3E-07	5.3E-03	2.8E-03	7.5E-07	1.5E-06	5.5E-06	6.6E-05	5.2E-08	2.8E-08	1.3E-03	1.6E-05	9.8E-06	1.9E-06	9.9E-05	2.6E-03	2.7E-06	3.9E-04	6.1E-07	3.2E-03	2.3E-02	5.6E-08	2.9E-05	3.6E-02
142	2.3E-05	1.2E-07	3.0E-08	4.9E-07	6.6E-09	7.4E-04	9.5E-06	1.5E-07	5.9E-03	3.2E-03	8.4E-07	1.7E-06	6.1E-06	7.4E-05	5.8E-08	3.1E-08	1.5E-03	1.7E-05	1.1E-05	2.1E-06	1.1E-04	2.9E-03	3.0E-06	4.3E-04	6.9E-07	3.6E-03	2.6E-02	6.2E-08	3.2E-05	4.0E-02
143	2.5E-05	1.3E-07	3.3E-08	5.4E-07	7.4E-09	8.2E-04	1.1E-05	1.7E-07	6.5E-03	3.5E-03	9.4E-07	1.9E-06	6.8E-06	8.2E-05	6.4E-08	3.5E-08	1.7E-03	1.9E-05	1.2E-05	2.3E-06	1.2E-04	3.3E-03	3.4E-06	4.8E-04	7.7E-07	4.0E-03	2.9E-02	6.9E-08	3.6E-05	4.4E-02
144	2.8E-05	1.4E-07	3.6E-08	6.0E-07	8.3E-09	9.1E-04	1.2E-05	1.8E-07	7.2E-03	3.9E-03	1.1E-06	2.1E-06	7.6E-06	9.1E-05	7.1E-08	3.9E-08	1.8E-03	2.2E-05	1.4E-05	2.6E-06	1.4E-04	3.6E-03	3.7E-06	5.3E-04	8.6E-07	4.4E-03	3.2E-02	7.7E-08	4.0E-05	4.9E-02
145	3.1E-05	1.6E-07	3.9E-08	6.6E-07	9.3E-09	1.0E-03	1.3E-05	2.1E-07	8.0E-03	4.4E-03	1.2E-06	2.3E-06	8.4E-06	1.0E-04	7.8E-08	4.3E-08	2.0E-03	2.4E-05	1.5E-05	2.9E-06	1.5E-04	4.0E-03	4.2E-06	5.8E-04	9.6E-07	4.9E-03	3.5E-02	8.6E-08	4.4E-05	5.4E-02
146	3.4E-05	1.8E-07	4.3E-08	7.3E-07	1.0E-08	1.1E-03	1.4E-05	2.3E-07	8.8E-03	4.8E-03	1.3E-06	2.6E-06	9.3E-06	1.1E-04	8.6E-08	4.7E-08	2.3E-03	2.7E-05	1.7E-05	3.3E-06	1.7E-04	4.5E-03	4.6E-06	6.4E-04	1.1E-06	5.4E-03	3.9E-02	9.5E-08	4.9E-05	6.0E-02
147	3.8E-05	2.0E-07	4.7E-08	8.1E-07	1.2E-08	1.2E-03	1.6E-05	2.5E-07	9.7E-03	5.4E-03	1.4E-06	2.9E-06	1.0E-05	1.2E-04	9.5E-08	5.2E-08	2.5E-03	3.0E-05	1.9E-05	3.6E-06	1.8E-04	4.9E-03	5.2E-06	7.1E-04	1.2E-06	6.0E-03	4.3E-02	1.1E-07	5.5E-05	6.6E-02
148	4.1E-05	2.2E-07	5.1E-08	8.9E-07	1.3E-08	1.3E-03	1.8E-05	2.8E-07	1.1E-02	5.9E-03	1.6E-06	3.2E-06	1.1E-05	1.4E-04	1.0E-07	5.8E-08	2.7E-03	3.3E-05	2.1E-05	4.0E-06	2.0E-04	5.4E-03	5.7E-06	7.8E-04	1.3E-06	6.6E-03	4.7E-02	1.2E-07	6.1E-05	7.3E-02
149	4.5E-05	2.4E-07	5.6E-08	9.7E-07	1.4E-08	1.5E-03	1.9E-05	3.1E-07	1.2E-02	6.5E-03	1.8E-06	3.5E-06	1.2E-05	1.5E-04	1.1E-07	6.4E-08	3.0E-03	3.7E-05	2.3E-05	4.5E-06	2.2E-04	6.0E-03	6.3E-06	8.5E-04	1.4E-06	7.3E-03	5.2E-02	1.3E-07	6.7E-05	8.0E-02
150	5.0E-05	2.7E-07	6.0E-08	1.1E-06	1.6E-08	1.6E-03	2.1E-05	3.4E-07	1.3E-02	7.2E-03	2.0E-06	3.9E-06	1.4E-05	1.6E-04	1.2E-07	7.0E-08	3.3E-03	4.1E-05	2.5E-05	5.0E-06	2.4E-04	6.6E-03	7.0E-06	9.3E-04	1.6E-06	8.0E-03	5.7E-02	1.4E-07	7.4E-05	8.8E-02
151	5.5E-05	2.9E-07	6.5E-08	1.2E-06	1.8E-08	1.8E-03	2.3E-05	3.8E-07	1.4E-02	7.9E-03	2.1E-06	4.2E-06	1.5E-05	1.8E-04	1.4E-07	7.7E-08	3.6E-03	4.5E-05	2.8E-05	5.5E-06	2.6E-04	7.2E-03	7.7E-06	1.0E-03	1.8E-06	8.7E-03	6.2E-02	1.5E-07	8.1E-05	9.6E-02
152	6.0E-05	3.2E-07	7.1E-08	1.3E-06	2.0E-08	1.9E-03	2.5E-05	4.2E-07	1.5E-02	8.7E-03	2.4E-06	4.7E-06	1.7E-05	1.9E-04	1.5E-07	8.4E-08	4.0E-03	4.9E-05	3.0E-05	6.0E-06	2.9E-04	7.9E-03	8.4E-06	1.1E-03	1.9E-06	9.6E-03	6.8E-02	1.7E-07	8.9E-05	1.1E-01
153	6.5E-05	3.5E-07	7.7E-08	1.4E-06	2.2E-08	2.1E-03	2.8E-05	4.6E-07	1.7E-02	9.5E-03	2.6E-06	5.1E-06	1.8E-05	2.1E-04	1.6E-07	9.2E-08	4.3E-03	5.4E-05	3.3E-05	6.7E-06	3.1E-04	8.7E-03	9.3E-06	1.2E-03	2.1E-06	1.0E-02	7.4E-02	1.9E-07	9.7E-05	1.1E-01
154	7.1E-05	3.8E-07	8.3E-08	1.5E-06	2.4E-08	2.3E-03	3.0E-05	5.0E-07	1.8E-02	1.0E-02	2.8E-06	5.6E-06	2.0E-05	2.3E-04	1.7E-07	1.0E-07	4.7E-03	5.9E-05	3.6E-05	7.3E-06	3.4E-04	9.5E-03	1.0E-05	1.3E-03	2.3E-06	1.1E-02	8.0E-02	2.0E-07	1.1E-04	1.3E-01
155	7.7E-05	4.2E-07	8.9E-08	1.6E-06	2.7E-08	2.5E-03	3.3E-05	5.5E-07	2.0E-02	1.1E-02	3.1E-06	6.1E-06	2.2E-05	2.5E-04	1.9E-07	1.1E-07	5.1E-03	6.5E-05	4.0E-05	8.0E-06	3.7E-04	1.0E-02	1.1E-05	1.4E-03	2.5E-06	1.2E-02	8.7E-02	2.2E-07	1.2E-04	1.4E-01
156	8.4E-05	4.5E-07	9.6E-08	1.8E-06	2.9E-08	2.7E-03	3.6E-05	6.0E-07	2.2E-02	1.2E-02	3.4E-06	6.7E-06	2.4E-05	2.7E-04	2.1E-07	1.2E-07	5.6E-03	7.1E-05	4.3E-05	8.8E-06	4.0E-04	1.1E-02	1.2E-05	1.5E-03	2.8E-06	1.3E-02	9.5E-02	2.4E-07	1.3E-04	1.5E-01
157	9.1E-05	4.9E-07	1.0E-07	1.9E-06	3.2E-08	2.9E-03	3.9E-05	6.5E-07	2.3E-02	1.3E-02	3.7E-06	7.3E-06	2.6E-05	3.0E-04	2.2E-07	1.3E-07	6.0E-03	7.7E-05	4.7E-05	9.6E-06	4.4E-04	1.2E-02	1.3E-05	1.7E-03	3.0E-06	1.5E-02	1.0E-01	2.6E-07	1.4E-04	1.6E-01
158	9.9E-05	5.4E-07	1.1E-07	2.1E-06	3.5E-08	3.1E-03	4.2E-05	7.1E-07	2.5E-02	1.5E-02	4.0E-06	7.9E-06	2.8E-05	3.2E-04	2.4E-07	1.4E-07	6.5E-03	8.4E-05	5.1E-05	1.0E-05	4.7E-04	1.3E-02	1.4E-05	1.8E-03	3.3E-06	1.6E-02	1.1E-01	2.8E-07	1.5E-04	1.7E-01
159	1.1E-04	5.8E-07	1.2E-07	2.2E-06	3.9E-08	3.4E-03	4.5E-05	7.7E-07	2.7E-02	1.6E-02	4.3E-06	8.6E-06	3.1E-05	3.5E-04	2.6E-07	1.5E-07	7.1E-03	9.1E-05	5.6E-05	1.1E-05	5.1E-04	1.4E-02	1.6E-05	1.9E-03	3.5E-06	1.7E-02	1.2E-01	3.1E-07	1.6E-04	1.9E-01
160	1.2E-04	6.3E-07	1.3E-07	2.4E-06	4.3E-08	3.6E-03	4.9E-05	8.4E-07	2.9E-02	1.7E-02	4.7E-06	9.4E-06	3.3E-05	3.7E-04	2.8E-07	1.7E-07	7.6E-03	9.9E-05	6.0E-05	1.2E-05	5.5E-04	1.6E-02	1.7E-05	2.1E-03	3.8E-06	1.9E-02	1.3E-01	3.3E-07	1.8E-04	2.0E-01
161	1.2E-04	6.8E-07	1.3E-07	2.6E-06	4.7E-08	3.9E-03	5.3E-05	9.1E-07	3.2E-02	1.8E-02	5.1E-06	1.0E-05	3.6E-05	4.0E-04	3.0E-07	1.8E-07	8.2E-03	1.1E-04	6.5E-05	1.3E-05	5.9E-04	1.7E-02	1.8E-05	2.2E-03	4.1E-06	2.0E-02	1.4E-01	3.6E-07	1.9E-04	2.2E-01
162	1.3E-04	7.4E-07	1.4E-07	2.8E-06	5.1E-08	4.2E-03	5.7E-05	9.8E-07	3.4E-02	2.0E-02	5.5E-06	1.1E-05	3.9E-05	4.3E-04	3.2E-07	1.9E-07	8.8E-03	1.2E-04	7.0E-05	1.5E-05	6.4E-04	1.8E-02	2.0E-05	2.4E-03	4.5E-06	2.1E-02	1.5E-01	3.8E-07	2.1E-04	2.3E-01
163	1.4E-04	7.9E-07	1.5E-07	3.0E-06	5.5E-08	4.5E-03	6.1E-05	1.1E-06	3.7E-02	2.2E-02	5.9E-06	1.2E-05	4.2E-05	4.6E-04	3.5E-07	2.1E-07	9.5E-03	1.3E-04	7.6E-05	1.6E-05	6.9E-04	2.0E-02	2.1E-05	2.6E-03	4.8E-06	2.3E-02	1.6E-01	4.1E-07	2.2E-04	2.5E-01
164	1.5E-04	8.5E-07	1.6E-07	3.2E-06	6.0E-08	4.8E-03	6.6E-05	1.1E-06	3.9E-02	2.3E-02	6.4E-06	1.3E-05	4.6E-05	5.0E-04	3.7E-07	2.2E-07	1.0E-02	1.4E-04	8.1E-05	1.7E-05	7.4E-04	2.1E-02	2.3E-05	2.8E-03	5.2E-06	2.5E-02	1.7E-01	4.5E-07	2.4E-04	2.7E-01
165	1.6E-04	9.2E-07	1.7E-07	3.4E-06	6.6E-08	5.2E-03	7.0E-05	1.2E-06	4.2E-02	2.5E-02	6.9E-06	1.4E-05	5.0E-05	5.3E-04	4.0E-07	2.4E-07	1.1E-02	1.5E-04	8.8E-05	1.9E-05	7.9E-04	2.3E-02	2.5E-05	2.9E-03	5.6E-06	2.7E-02	1.9E-01	4.8E-07	2.6E-04	2.9E-01
166	1.8E-04	9.8E-07	1.8E-07	3.7E-06	7.2E-08	5.5E-03	7.5E-05	1.3E-06	4.5E-02	2.7E-02	7.4E-06	1.5E-05	5.3E-05	5.7E-04	4.2E-07	2.6E-07	1.2E-02	1.6E-04	9.4E-05	2.0E-05	8.4E-04	2.4E-02	2.7E-05	3.1E-03	6.0E-06	2.9E-02	2.0E-01	5.1E-07	2.8E-04	3.1E-01
167	1.9E-04	1.1E-06	2.0E-07	3.9E-06	7.8E-08	5.9E-03	8.1E-05	1.4E-06	4.8E-02	2.9E-02	7.9E-06	1.6E-05	5.8E-05	6.1E-04	4.5E-07	2.8E-07	1.3E-02	1.7E-04	1.0E-04	2.2E-05	9.0E-04	2.6E-02	2.9E-05	3.4E-03	6.4E-06	3.0E-02	2.1E-01	5.5E-07	2.9E-04	3.3E-01
168	2.0E-04	1.1E-06	2.1E-07	4.2E-06	8.4E-08	6.3E-03	8.6E-05	1.5E-06	5.1E-02	3.1E-02	8.5E-06	1.7E-05	6.2E-05	6.5E-04	4.8E-07	3.0E-07	1.3E-02	1.8E-04	1.1E-04	2.3E-05	9.6E-04	2.8E-02	3.1E-05	3.6E-03	6.9E-06	3.3E-02	2.3E-01	5.9E-07	3.2E-04	3.5E-01
169	2.1E-04	1.2E-06	2.2E-07	4.4E-06	9.1E-08	6.7E-03	9.2E-05	1.6E-06	5.4E-02	3.3E-02	9.1E-06	1.8E-05	6.7E-05	6.9E-04	5.2E-07	3.2E-07	1.4E-02	1.9E-04	1.2E-04	2.5E-05	1.0E-03	3.0E-02	3.3E-05	3.8E-03	7.4E-06	3.5E-02	2.4E-01	6.2E-07	3.4E-04	3.8E-01
170	2.3E-04	1.3E-06	2.3E-07	4.7E-06	9.9E-08	7.1E-03	9.8E-05	1.7E-06	5.8E-02	3.5E-02	9.7E-06	1.9E-05	7.2E-05	7.4E-04	5.5E-07	3.4E-07	1.5E-02	2.1E-04	1.2E-04	2.7E-05	1.1E-03	3.2E-02	3.5E-05	4.0E-03	7.9E-06	3.7E-02	2.6E-01	6.7E-07	3.6E-04	4.0E-01
171	2.4E-04	1.4E-06	2.4E-07	5.0E-06	1.1E-07	7.5E-03	1.0E-04	1.9E-06	6.2E-02	3.7E-02	1.0E-05	2.1E-05	7.7E-05	7.9E-04	5.8E-07	3.6E-07	1.6E-02	2.2E-04	1.3E-04	2.9E-05	1.2E-03	3.4E-02	3.7E-05	4.3E-03	8.4E-06	3.9E-02	2.7E-01	7.1E-07	3.8E-04	4.3E-01
172	2.6E-04	1.5E-06	2.6E-07	5.3E-06	1.2E-07	8.0E-03	1.1E-04	2.0E-06	6.5E-02	4.0E-02	1.1E-05	2.2E-05	8.3E-05	8.4E-04	6.2E-07	3.8E-07	1.7E-02	2.4E-04	1.4E-04	3.1E-05	1.2E-03	3.6E-02	4.0E-05	4.5E-03	9.0E-06	4.2E-02	2.9E-01	7.5E-07	4.1E-04	4.5E-01
173	2.7E-04	1.5E-06	2.7E-07	5.6E-06	1.2E-07	8.4E-03	1.2E-04	2.1E-06	6.9E-02	4.2E-02	1.2E-05	2.4E-05	8.9E-05	8.9E-04	6.6E-07	4.1E-07	1.8E-02	2.5E-04	1.5E-04	3.3E-05	1.3E-03	3.8E-02	4.2E-05	4.8E-03	9.5E-06	4.4E-02	3.1E-01	8.0E-07	4.3E-04	4.8E-01
174	2.9E-04	1.6E-06	2.9E-07	6.0E-06	1.3E-07	8.9E-03	1.2E-04	2.2E-06	7.3E-02	4.5E-02	1.2E-05	2.5E-05	9.5E-05	9.4E-04	6.9E-07	4.3E-07	1.9E-02	2.7E-04	1.6E-04	3.5E-05	1.4E-03	4.0E-02	4.5E-05	5.1E-03	1.0E-05	4.7E-02	3.3E-01	8.5E-07	4.6E-04	5.1E-01
175	3.1E-04	1.7E-06	3.0E-07	6.3E-06	1.4E-07	9.4E-03	1.3E-04	2.4E-06	7.8E-02	4.7E-02	1.3E-05	2.7E-05	1.0E-04	9.9E-04	7.4E-07	4.6E-07	2.0E-02	2.8E-04	1.7E-04	3.7E-05	1.5E-03	4.3E-02	4.8E-05	5.3E-03	1.1E-05	5.0E-02	3.4E-01	9.0E-07	4.9E-04	5.4E-01
176	3.2E-04	1.8E-06	3.2E-07	6.7E-06	1.5E-07	9.9E-03	1.4E-04	2.5E-06	8.2E-02	5.0E-02	1.4E-05	2.8E-05	1.1E-04	1.0E-03	7.8E-07	4.8E-07	2.2E-02	3.0E-04	1.8E-04	3.9E-05	1.5E-03	4.5E-02	5.1E-05	5.6E-03	1.1E-05	5.3E-02	3.6E-01	9.5E-07	5.2E-04	5.7E-01
177	3.4E-04	2.0E-06	3.3E-07	7.0E-06	1.7E-07	1.0E-02	1.5E-04	2.7E-06	8.7E-02	5.3E-02	1.5E-05	3.0E-05	1.2E-04	1.1E-03	8.2E-07	5.1E-07	2.3E-02	3.2E-04	1.9E-04	4.2E-05	1.6E-03	4.8E-02	5.4E-05	5.9E-03	1.2E-05	5.6E-02	3.8E-01	1.0E-06	5.5E-04	6.0E-01
178	3.6E-04	2.1E-06	3.5E-07	7.4E-06	1.8E-07	1.1E-02	1.5E-04	2.8E-06	9.1E-02	5.6E-02	1.6E-05	3.2E-05	1.2E-04	1.2E-03	8.7E-07	5.4E-07	2.4E-02	3.4E-04	2.0E-04	4.4E-05	1.7E-03	5.1E-02	5.7E-05	6.2E-03	1.3E-05	5.9E-02	4.1E-01	1.1E-06	5.8E-04	6.4E-01
179	3.8E-04	2.2E-06	3.6E-07	7.8E-06	1.9E-07	1.2E-02	1.6E-04	3.0E-06	9.6E-02	5.9E-02	1.7E-05	3.4E-05	1.3E-04	1.2E-03	9.1E-07	5.7E-07	2.5E-02	3.6E-04	2.1E-04	4.7E-05	1.8E-03	5.4E-02	6.0E-05	6.6E-03	1.3E-05	6.2E-02	4.3E-01	1.1E-06	6.1E-04	6.7E-01
180	4.0E-04	2.3E-06	3.8E-07	8.2E-06	2.0E-07	1.2E-02	1.7E-04	3.2E-06	1.0E-01	6.3E-02	1.7E-05	3.6E-05	1.4E-04	1.3E-03	9.6E-07	6.0E-07	2.7E-02	3.8E-04	2.2E-04	5.0E-05	1.9E-03	5.6E-02	6.3E-05	6.9E-03	1.4E-05	6.5E-02	4.5E-01	1.2E-06	6.5E-04	7.1E-01
181	4.2E-04	2.4E-06	4.0E-07	8.6E-06	2.2E-07	1.3E-02	1.8E-04	3.3E-06	1.1E-01	6.6E-02	1.8E-05	3.8E-05	1.5E-04	1.4E-03	1.0E-06	6.3E-07	2.8E-02	4.0E-04	2.3E-04	5.3E-05	2.0E-03	5.9E-02	6.7E-05	7.2E-03	1.5E-05	6.9E-02	4.7E-01	1.2E-06	6.8E-04	7.4E-01
182	4.4E-04	2.5E-06	4.2E-07	9.0E-06	2.3E-07	1.3E-02	1.9E-04	3.5E-06	1.1E-01	6.9E-02	1.9E-05	4.0E-05	1.6E-04	1.4E-03	1.1E-06	6.7E-07	3.0E-02	4.2E-04	2.4E-04	5.6E-05	2.1E-03	6.2E-02	7.0E-05	7.6E-03	1.6E-05	7.2E-02	5.0E-01	1.3E-06	7.2E-04	7.8E-01
183	4.6E-04	2.7E-06	4.4E-07	9.4E-06	2.5E-07	1.4E-02	2.0E-04	3.7E-06	1.2E-01	7.3E-02	2.0E-05	4.2E-05	1.7E-04	1.5E-03	1.1E-06	7.0E-07	3.1E-02	4.5E-04	2.6E-04	5.9E-05	2.2E-03	6.6E-02	7.4E-05	7.9E-03	1.7E-05	7.6E-02	5.2E-01	1.4E-06	7.5E-04	8.2E-01
184	4.8E-04	2.8E-06	4.5E-07	9.9E-06	2.6E-07	1.5E-02	2.1E-04	3.9E-06	1.2E-01	7.7E-02	2.1E-05	4.4E-05	1.8E-04	1.6E-03	1.2E-06	7.3E-07	3.2E-02	4.7E-04	2.7E-04	6.2E-05	2.3E-03	6.9E-02	7.8E-05	8.3E-03	1.7E-05	7.9E-02	5.5E-01	1.4E-06	7.9E-04	8.6E-01
185	5.1E-04	2.9E-06	4.7E-07	1.0E-05	2.8E-07	1.5E-02	2.2E-04	4.1E-06	1.3E-01	8.0E-02	2.2E-05	4.6E-05	1.9E-04	1.6E-03	1.2E-06	7.7E-07	3.4E-02	4.9E-04	2.8E-04	6.6E-05	2.4E-03	7.2E-02	8.2E-05	8.6E-03	1.8E-05	8.3E-02	5.7E-01	1.5E-06	8.3E-04	9.0E-01
186	5.3E-04	3.1E-06	4.9E-07	1.1E-05	3.0E-07	1.6E-02	2.3E-04	4.3E-06	1.3E-01	8.4E-02	2.4E-05	4.8E-05	2.0E-04	1.7E-03	1.3E-06	8.1E-07	3.6E-02	5.2E-04	3.0E-04	6.9E-05	2.5E-03	7.6E-02	8.6E-05	9.0E-03	1.9E-05	8.7E-02	6.0E-01	1.6E-06	8.7E-04	9.4E-01
187	5.5E-04	3.2E-06	5.1E-07	1.1E-05	3.1E-07	1.7E-02	2.4E-04	4.5E-06	1.4E-01	8.8E-02	2.5E-05	5.1E-05	2.1E-04	1.8E-03	1.3E-06	8.5E-07	3.7E-02	5.4E-04	3.1E-04	7.2E-05	2.6E-03	7.9E-02	9.0E-05	9.4E-03	2.0E-05	9.1E-02	6.2E-01	1.6E-06	9.1E-04	9.8E-01
188	5.8E-04	3.4E-06	5.3E-07	1.2E-05	3.3E-07	1.7E-02	2.5E-04	4.7E-06	1.5E-01	9.2E-02	2.6E-05	5.3E-05	2.3E-04	1.9E-03	1.4E-06	8.8E-07	3.9E-02	5.7E-04	3.2E-04	7.6E-05	2.7E-03	8.3E-02	9.4E-05	9.8E-03	2.1E-05	9.5E-02	6.5E-01	1.7E-06	9.5E-04	1.0E+00
189	6.0E-04	3.5E-06	5.5E-07	1.2E-05	3.5E-07	1.8E-02	2.6E-04	4.9E-06	1.5E-01	9.6E-02	2.7E-05	5.6E-05	2.4E-04	2.0E-03	1.5E-06	9.2E-07	4.1E-02	6.0E-04	3.4E-04	8.0E-05	2.8E-03	8.6E-02	9.8E-05	1.0E-02	2.2E-05	9.9E-02	6.8E-01	1.8E-06	9.9E-04	1.1E+00
190	6.3E-04	3.7E-06	5.8E-07	1.3E-05	3.7E-07	1.9E-02	2.7E-04	5.1E-06	1.6E-01	1.0E-01	2.8E-05	5.8E-05	2.5E-04	2.0E-03	1.5E-06	9.6E-07	4.2E-02	6.3E-04	3.5E-04	8.4E-05	3.0E-03	9.0E-02	1.0E-04	1.1E-02	2.3E-05	1.0E-01	7.1E-01	1.9E-06	1.0E-03	1.1E+00
191	6.5E-04	3.8E-06	6.0E-07	1.3E-05	3.9E-07	2.0E-02	2.8E-04	5.3E-06	1.7E-01	1.0E-01	2.9E-05	6.1E-05	2.7E-04	2.1E-03	1.6E-06	1.0E-06	4.4E-02	6.5E-04	3.7E-04	8.8E-05	3.1E-03	9.4E-02	1.1E-04	1.1E-02	2.4E-05	1.1E-01	7.4E-01	1.9E-06	1.1E-03	1.2E+00
192	6.8E-04	4.0E-06	6.2E-07	1.4E-05	4.1E-07	2.0E-02	2.9E-04	5.6E-06	1.7E-01	1.1E-01	3.0E-05	6.3E-05	2.8E-04	2.2E-03	1.7E-06	1.0E-06	4.6E-02	6.8E-04	3.8E-04	9.2E-05	3.2E-03	9.8E-02	1.1E-04	1.1E-02	2.5E-05	1.1E-01	7.7E-01	2.0E-06	1.1E-03	1.2E+00
193	7.0E-04	4.1E-06	6.4E-07	1.4E-05	4.4E-07	2.1E-02	3.0E-04	5.8E-06	1.8E-01	1.1E-01	3.2E-05	6.6E-05	3.0E-04	2.3E-03	1.7E-06	1.1E-06	4.8E-02	7.1E-04	4.0E-04	9.6E-05	3.3E-03	1.0E-01	1.2E-04	1.2E-02	2.6E-05	1.2E-01	8.0E-01	2.1E-06	1.2E-03	1.3E+00
194	7.3E-04	4.3E-06	6.6E-07	1.5E-05	4.6E-07	2.2E-02	3.2E-04	6.0E-06	1.9E-01	1.2E-01	3.3E-05	6.9E-05	3.1E-04	2.4E-03	1.8E-06	1.1E-06	4.9E-02	7.4E-04	4.1E-04	1.0E-04	3.5E-03	1.1E-01	1.2E-04	1.2E-02	2.7E-05	1.2E-01	8.3E-01	2.2E-06	1.2E-03	1.3E+00
195	7.6E-04	4.5E-06	6.9E-07	1.5E-05	4.8E-07	2.3E-02	3.3E-04	6.3E-06	1.9E-01	1.2E-01	3.4E-05	7.2E-05	3.3E-04	2.5E-03	1.9E-06	1.2E-06	5.1E-02	7.7E-04	4.3E-04	1.0E-04	3.6E-03	1.1E-01	1.3E-04	1.3E-02	2.8E-05	1.3E-01	8.6E-01	2.2E-06	1.3E-03	1.4E+00
196	7.8E-04	4.6E-06	7.1E-07	1.6E-05	5.1E-07	2.3E-02	3.4E-04	6.5E-06	2.0E-01	1.3E-01	3.6E-05	7.5E-05	3.4E-04	2.6E-03	1.9E-06	1.2E-06	5.3E-02	8.0E-04	4.5E-04	1.1E-04	3.7E-03	1.1E-01	1.3E-04	1.3E-02	2.9E-05	1.3E-01	8.9E-01	2.3E-06	1.3E-03	1.4E+00
197	8.1E-04	4.8E-06	7.3E-07	1.6E-05	5.3E-07	2.4E-02	3.5E-04	6.8E-06	2.1E-01	1.3E-01	3.7E-05	7.8E-05	3.6E-04	2.6E-03	2.0E-06	1.3E-06	5.5E-02	8.4E-04	4.6E-04	1.1E-04	3.8E-03	1.2E-01	1.3E-04	1.4E-02	3.0E-05	1.3E-01	9.2E-01	2.4E-06	1.4E-03	1.5E+00
198	8.4E-04	5.0E-06	7.6E-07	1.7E-05	5.6E-07	2.5E-02	3.6E-04	7.0E-06	2.1E-01	1.4E-01	3.8E-05	8.1E-05	3.8E-04	2.7E-03	2.1E-06	1.3E-06	5.7E-02	8.7E-04	4.8E-04	1.2E-04	4.0E-03	1.2E-01	1.4E-04	1.4E-02	3.1E-05	1.4E-01	9.6E-01	2.5E-06	1.4E-03	1.5E+00
199	8.7E-04	5.1E-06	7.8E-07	1.8E-05	5.8E-07	2.6E-02	3.8E-04	7.2E-06	2.2E-01	1.4E-01	4.0E-05	8.4E-05	4.0E-04	2.8E-03	2.2E-06	1.4E-06	5.9E-02	9.0E-04	4.9E-04	1.2E-04	4.1E-03	1.3E-01	1.4E-04	1.4E-02	3.2E-05	1.4E-01	9.9E-01	2.6E-06	1.5E-03	1.6E+00
200	8.9E-04	5.3E-06	8.1E-07	1.8E-05	6.1E-07	2.7E-02	3.9E-04	7.5E-06	2.3E-01	1.5E-01	4.1E-05	8.7E-05	4.1E-04	2.9E-03	2.2E-06	1.4E-06	6.1E-02	9.3E-04	5.1E-04	1.3E-04	4.2E-03	1.3E-01	1.5E-04	1.5E-02	3.3E-05	1.5E-01	1.0E+00	2.7E-06	1.5E-03	1.6E+00
201	9.2E-04	5.5E-06	8.3E-07	1.9E-05	6.4E-07	2.7E-02	4.0E-04	7.8E-06	2.4E-01	1.5E-01	4.2E-05	9.0E-05	4.3E-04	3.0E-03	2.3E-06	1.4E-06	6.3E-02	9.7E-04	5.3E-04	1.3E-04	4.4E-03	1.3E-01	1.5E-04	1.5E-02	3.4E-05	1.5E-01	1.1E+00	2.7E-06	1.6E-03	1.7E+00
202	9.5E-04	5.7E-06	8.5E-07	1.9E-05	6.7E-07	2.8E-02	4.1E-04	8.0E-06	2.4E-01	1.6E-01	4.4E-05	9.3E-05	4.5E-04	3.1E-03	2.4E-06	1.5E-06	6.5E-02	1.0E-03	5.5E-04	1.4E-04	4.5E-03	1.4E-01	1.6E-04	1.6E-02	3.5E-05	1.6E-01	1.1E+00	2.8E-06	1.6E-03	1.7E+00
203	9.8E-04	5.8E-06	8.8E-07	2.0E-05	7.0E-07	2.9E-02	4.3E-04	8.3E-06	2.5E-01	1.6E-01	4.5E-05	9.6E-05	4.7E-04	3.2E-03	2.5E-06	1.5E-06	6.7E-02	1.0E-03	5.6E-04	1.4E-04	4.6E-03	1.4E-01	1.7E-04	1.6E-02	3.6E-05	1.6E-01	1.1E+00	2.9E-06	1.7E-03	1.8E+00
204	1.0E-03	6.0E-06	9.0E-07	2.0E-05	7.3E-07	3.0E-02	4.4E-04	8.5E-06	2.6E-01	1.7E-01	4.6E-05	9.9E-05	4.9E-04	3.3E-03	2.5E-06	1.6E-06	6.9E-02	1.1E-03	5.8E-04	1.5E-04	4.8E-03	1.5E-01	1.7E-04	1.7E-02	3.8E-05	1.7E-01	1.2E+00	3.0E-06	1.7E-03	1.8E+00
205	1.0E-03	6.2E-06	9.3E-07	2.1E-05	7.6E-07	3.1E-02	4.5E-04	8.8E-06	2.7E-01	1.7E-01	4.8E-05	1.0E-04	5.1E-04	3.4E-03	2.6E-06	1.6E-06	7.1E-02	1.1E-03	6.0E-04	1.5E-04	4.9E-03	1.5E-01	1.8E-04	1.7E-02	3.9E-05	1.7E-01	1.2E+00	3.1E-06	1.8E-03	1.9E+00
206	1.1E-03	6.4E-06	9.5E-07	2.2E-05	7.9E-07	3.2E-02	4.6E-04	9.1E-06	2.8E-01	1.8E-01	4.9E-05	1.1E-04	5.4E-04	3.5E-03	2.7E-06	1.7E-06	7.3E-02	1.1E-03	6.1E-04	1.6E-04	5.0E-03	1.6E-01	1.8E-04	1.8E-02	4.0E-05	1.8E-01	1.2E+00	3.2E-06	1.8E-03	1.9E+00
207	1.1E-03	6.6E-06	9.8E-07	2.2E-05	8.2E-07	3.2E-02	4.8E-04	9.3E-06	2.8E-01	1.8E-01	5.1E-05	1.1E-04	5.6E-04	3.6E-03	2.8E-06	1.7E-06	7.5E-02	1.2E-03	6.3E-04	1.6E-04	5.2E-03	1.6E-01	1.9E-04	1.8E-02	4.1E-05	1.8E-01	1.3E+00	3.3E-06	1.9E-03	2.0E+00

Table 6. Model Results at Gila River - Alternative 5

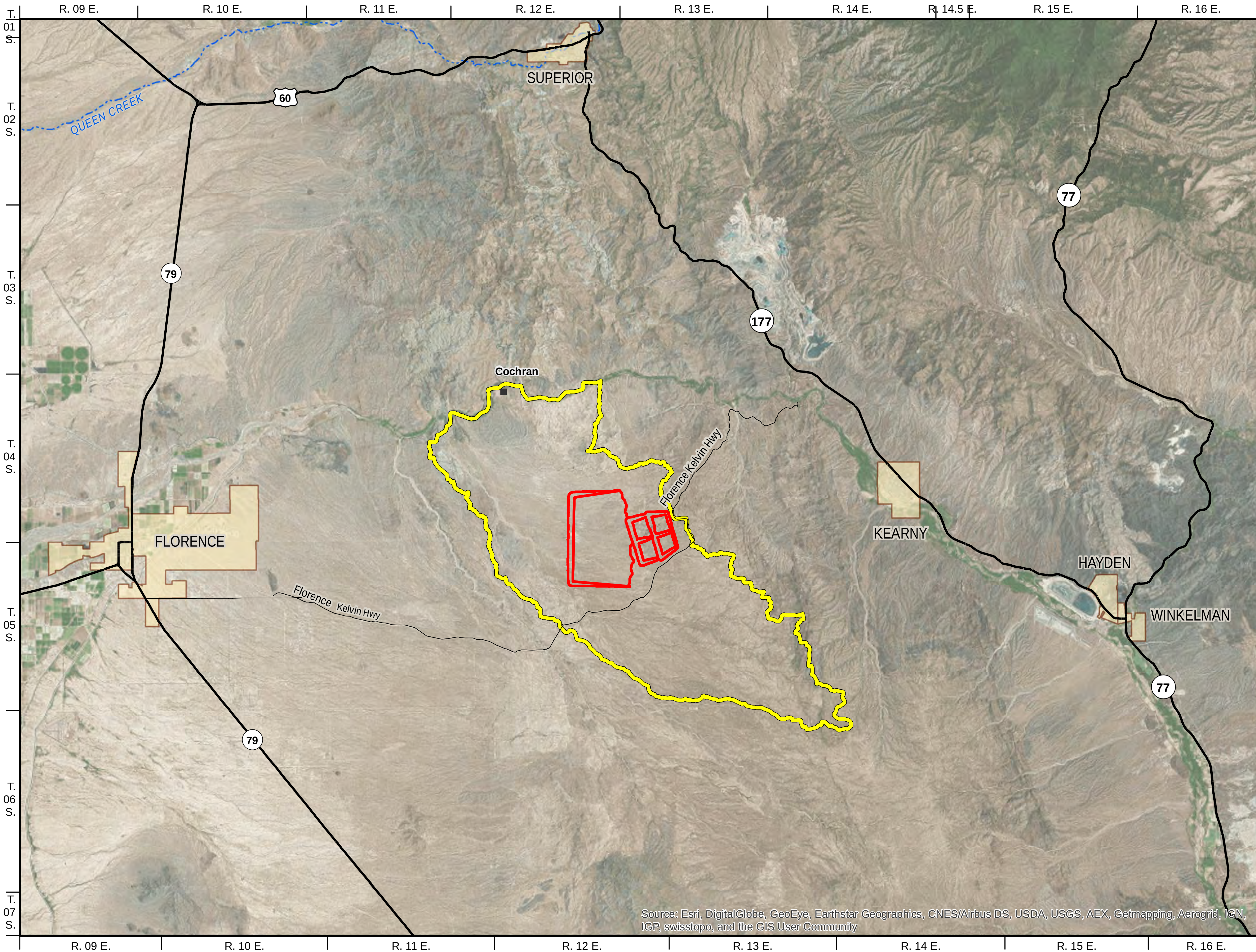
Years since Mine Start	Al mg/L	Sb mg/L	As mg/L	Ba mg/L	Be mg/L	HCO3 mg/L	B mg/L	Cd mg/L	Ca mg/L	Cl mg/L	Cr mg/L	Co mg/L	Cu mg/L	F mg/L	Fe mg/L
208	1.1E-03	6.8E-06	1.0E-06	2.3E-05	8.5E-07	3.3E-02	4.9E-04	9.6E-06	2.9E-01	1.9E-01	5.2E-05	1.1E-04	5.8E-04	3.7E-03	2.9E-06
209	1.1E-03	6.9E-06	1.0E-06	2.3E-05	8.8E-07	3.4E-02	5.0E-04	9.8E-06	3.0E-01	1.9E-01	5.3E-05	1.2E-04	6.0E-04	3.8E-03	3.0E-06
210	1.2E-03	7.1E-06	1.1E-06	2.4E-05	9.2E-07	3.5E-02	5.1E-04	1.0E-05	3.1E-01	2.0E-01	5.5E-05	1.2E-04	6.3E-04	3.9E-03	3.0E-06
211	1.2E-03	7.3E-06	1.1E-06	2.4E-05	9.5E-07	3.6E-02	5.3E-04	1.0E-05	3.1E-01	2.0E-01	5.6E-05	1.2E-04	6.5E-04	4.0E-03	3.1E-06
212	1.2E-03	7.5E-06	1.1E-06	2.5E-05	9.8E-07	3.6E-02	5.4E-04	1.1E-05	3.2E-01	2.1E-01	5.8E-05	1.3E-04	6.7E-04	4.1E-03	3.2E-06
213	1.3E-03	7.7E-06	1.1E-06	2.6E-05	1.0E-06	3.7E-02	5.5E-04	1.1E-05	3.3E-01	2.1E-01	5.9E-05	1.3E-04	7.0E-04	4.2E-03	3.3E-06
214	1.3E-03	7.8E-06	1.2E-06	2.6E-05	1.1E-06	3.8E-02	5.6E-04	1.1E-05	3.4E-01	2.2E-01	6.0E-05	1.3E-04	7.2E-04	4.3E-03	3.4E-06
215	1.3E-03	8.0E-06	1.2E-06	2.7E-05	1.1E-06	3.9E-02	5.8E-04	1.1E-05	3.5E-01	2.2E-01	6.2E-05	1.4E-04	7.5E-04	4.4E-03	3.5E-06
216	1.3E-03	8.2E-06	1.2E-06	2.7E-05	1.1E-06	4.0E-02	5.9E-04	1.2E-05	3.5E-01	2.3E-01	6.3E-05	1.4E-04	7.7E-04	4.5E-03	3.5E-06
217	1.4E-03	8.4E-06	1.2E-06	2.8E-05	1.2E-06	4.0E-02	6.0E-04	1.2E-05	3.6E-01	2.3E-01	6.4E-05	1.4E-04	8.0E-04	4.5E-03	3.6E-06
218	1.4E-03	8.5E-06	1.3E-06	2.8E-05	1.2E-06	4.1E-02	6.1E-04	1.2E-05	3.7E-01	2.3E-01	6.6E-05	1.5E-04	8.3E-04	4.6E-03	3.7E-06
219	1.4E-03	8.7E-06	1.3E-06	2.9E-05	1.2E-06	4.2E-02	6.3E-04	1.2E-05	3.8E-01	2.4E-01	6.7E-05	1.5E-04	8.5E-04	4.7E-03	3.8E-06
220	1.4E-03	8.9E-06	1.3E-06	2.9E-05	1.3E-06	4.3E-02	6.4E-04	1.3E-05	3.9E-01	2.4E-01	6.8E-05	1.5E-04	8.8E-04	4.8E-03	3.9E-06
221	1.5E-03	9.0E-06	1.3E-06	3.0E-05	1.3E-06	4.3E-02	6.5E-04	1.3E-05	3.9E-01	2.5E-01	7.0E-05	1.5E-04	9.1E-04	4.9E-03	4.0E-06
222	1.5E-03	9.2E-06	1.4E-06	3.0E-05	1.3E-06	4.4E-02	6.6E-04	1.3E-05	4.0E-01	2.5E-01	7.1E-05	1.6E-04	9.3E-04	5.0E-03	4.0E-06
223	1.5E-03	9.4E-06	1.4E-06	3.1E-05	1.4E-06	4.5E-02	6.7E-04	1.3E-05	4.1E-01	2.6E-01	7.2E-05	1.6E-04	9.6E-04	5.1E-03	4.1E-06
224	1.5E-03	9.5E-06	1.4E-06	3.1E-05	1.4E-06	4.5E-02	6.8E-04	1.4E-05	4.2E-01	2.6E-01	7.3E-05	1.6E-04	9.9E-04	5.2E-03	4.2E-06
225	1.6E-03	9.7E-06	1.4E-06	3.2E-05	1.5E-06	4.6E-02	6.9E-04	1.4E-05	4.2E-01	2.7E-01	7.5E-05	1.7E-04	1.0E-03	5.2E-03	4.3E-06
226	1.6E-03	9.8E-06	1.5E-06	3.2E-05	1.5E-06	4.7E-02	7.0E-04	1.4E-05	4.3E-01	2.7E-01	7.6E-05	1.7E-04	1.0E-03	5.3E-03	4.4E-06
227	1.6E-03	1.0E-05	1.5E-06	3.3E-05	1.5E-06	4.7E-02	7.1E-04	1.4E-05	4.4E-01	2.7E-01	7.7E-05	1.7E-04	1.1E-03	5.4E-03	4.4E-06
228	1.6E-03	1.0E-05	1.5E-06	3.3E-05	1.6E-06	4.8E-02	7.2E-04	1.5E-05	4.5E-01	2.8E-01	7.8E-05	1.8E-04	1.1E-03	5.5E-03	4.5E-06
229	1.6E-03	1.0E-05	1.5E-06	3.4E-05	1.6E-06	4.8E-02	7.3E-04	1.5E-05	4.5E-01	2.8E-01	7.9E-05	1.8E-04	1.1E-03	5.6E-03	4.6E-06
230	1.7E-03	1.0E-05	1.6E-06	3.4E-05	1.6E-06	4.9E-02	7.4E-04	1.5E-05	4.6E-01	2.9E-01	8.0E-05	1.8E-04	1.2E-03	5.6E-03	4.7E-06
231	1.7E-03	1.1E-05	1.6E-06	3.4E-05	1.7E-06	5.0E-02	7.5E-04	1.5E-05	4.7E-01	2.9E-01	8.1E-05	1.9E-04	1.2E-03	5.7E-03	4.8E-06
232	1.7E-03	1.1E-05	1.6E-06	3.5E-05	1.7E-06	5.0E-02	7.6E-04	1.5E-05	4.8E-01	2.9E-01	8.2E-05	1.9E-04	1.2E-03	5.8E-03	4.8E-06
233	1.7E-03	1.1E-05	1.6E-06	3.5E-05	1.8E-06	5.1E-02	7.7E-04	1.6E-05	4.8E-01	3.0E-01	8.3E-05	1.9E-04	1.2E-03	5.9E-03	4.9E-06
234	1.7E-03	1.1E-05	1.6E-06	3.6E-05	1.8E-06	5.1E-02	7.8E-04	1.6E-05	4.9E-01	3.0E-01	8.4E-05	1.9E-04	1.3E-03	5.9E-03	5.0E-06
235	1.8E-03	1.1E-05	1.7E-06	3.6E-05	1.8E-06	5.2E-02	7.9E-04	1.6E-05	5.0E-01	3.0E-01	8.5E-05	2.0E-04	1.3E-03	6.0E-03	5.1E-06
236	1.8E-03	1.1E-05	1.7E-06	3.6E-05	1.9E-06	5.2E-02	7.9E-04	1.6E-05	5.0E-01	3.1E-01	8.6E-05	2.0E-04	1.3E-03	6.1E-03	5.1E-06
237	1.8E-03	1.1E-05	1.7E-06	3.7E-05	1.9E-06	5.3E-02	8.0E-04	1.6E-05	5.1E-01	3.1E-01	8.7E-05	2.0E-04	1.4E-03	6.1E-03	5.2E-06
238	1.8E-03	1.1E-05	1.7E-06	3.7E-05	1.9E-06	5.3E-02	8.1E-04	1.6E-05	5.2E-01	3.1E-01	8.8E-05	2.0E-04	1.4E-03	6.2E-03	5.3E-06
239	1.8E-03	1.2E-05	1.8E-06	3.7E-05	2.0E-06	5.3E-02	8.2E-04	1.7E-05	5.2E-01	3.2E-01	8.9E-05	2.1E-04	1.4E-03	6.2E-03	5.3E-06
240	1.8E-03	1.2E-05	1.8E-06	3.8E-05	2.0E-06	5.4E-02	8.2E-04	1.7E-05	5.3E-01	3.2E-01	8.9E-05	2.1E-04	1.4E-03	6.3E-03	5.4E-06
241	1.8E-03	1.2E-05	1.8E-06	3.8E-05	2.0E-06	5.4E-02	8.3E-04	1.7E-05	5.3E-01	3.2E-01	9.0E-05	2.1E-04	1.5E-03	6.3E-03	5.5E-06
242	1.9E-03	1.2E-05	1.8E-06	3.8E-05	2.1E-06	5.4E-02	8.4E-04	1.7E-05	5.4E-01	3.3E-01	9.1E-05	2.1E-04	1.5E-03	6.4E-03	5.5E-06
243	1.9E-03	1.2E-05	1.8E-06	3.8E-05	2.1E-06	5.5E-02	8.4E-04	1.7E-05	5.5E-01	3.3E-01	9.2E-05	2.2E-04	1.5E-03	6.4E-03	5.6E-06
244	1.9E-03	1.2E-05	1.9E-06	3.9E-05	2.1E-06	5.5E-02	8.5E-04	1.7E-05	5.5E-01	3.3E-01	9.2E-05	2.2E-04	1.6E-03	6.5E-03	5.7E-06
245	1.9E-03	1.2E-05	1.9E-06	3.9E-05	2.2E-06	5.5E-02	8.5E-04	1.7E-05	5.6E-01	3.3E-01	9.3E-05	2.2E-04	1.6E-03	6.5E-03	5.7E-06
Minimum	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Maximum	1.9E-03	1.2E-05	1.9E-06	3.9E-05	2.2E-06	5.5E-02	8.5E-04	1.7E-05	5.6E-01	3.3E-01	9.3E-05	2.2E-04	1.6E-03	6.5E-03	5.7E-06
Average	3.5E-04	2.1E-06	3.3E-07	7.1E-06	3.0E-07	1.0E-02	1.5E-04	3.0E-06	9.4E-02	5.9E-02	1.6E-05	3.6E-05	2.1E-04	1.2E-03	9.4E-07
Surface WQ Standard =		0.03	0.15					0.007 [a]					0.034 [a]		1.0

Years since Mine Start	Pb mg/L	Mg mg/L	Mn mg/L	Mo mg/L	Ni mg/L	NO3-N mg/L	K mg/L	Se mg/L	Si mg/L	Ag mg/L	Na mg/L	SO4 mg/L	Tl mg/L	Zn mg/L	TDS mg/L
208	1.8E-06	7.7E-02	1.2E-03	6.5E-04	1.7E-04	5.3E-03	1.7E-01	1.9E-04	1.8E-02	4.2E-05	1.9E-01	1.3E+00	3.4E-06	1.9E-03	2.0E+00
209	1.8E-06	7.9E-02	1.2E-03	6.7E-04	1.7E-04	5.4E-03	1.7E-01	2.0E-04	1.9E-02	4.3E-05	1.9E-01	1.3E+00	3.4E-06	2.0E-03	2.1E+00
210	1.9E-06	8.1E-02	1.3E-03	6.8E-04	1.8E-04	5.6E-03	1.7E-01	2.0E-04	1.9E-02	4.4E-05	2.0E-01	1.4E+00	3.5E-06	2.0E-03	2.2E+00
211	1.9E-06	8.3E-02	1.3E-03	7.0E-04	1.8E-04	5.7E-03	1.8E-01	2.1E-04	2.0E-02	4.5E-05	2.0E-01	1.4E+00	3.6E-06	2.1E-03	2.2E+00
212	2.0E-06	8.5E-02	1.4E-03	7.2E-04	1.9E-04	5.8E-03	1.8E-01	2.1E-04	2.0E-02	4.7E-05	2.1E-01	1.4E+00	3.7E-06	2.1E-03	2.3E+00
213	2.0E-06	8.7E-02	1.4E-03	7.4E-04	1.9E-04	6.0E-03	1.9E-01	2.2E-04	2.1E-02	4.8E-05	2.1E-01	1.5E+00	3.8E-06	2.2E-03	2.3E+00
214	2.1E-06	8.9E-02	1.4E-03	7.5E-04	2.0E-04	6.1E-03	1.9E-01	2.2E-04	2.1E-02	4.9E-05	2.2E-01	1.5E+00	3.9E-06	2.2E-03	2.4E+00
215	2.1E-06	9.1E-02	1.5E-03	7.7E-04	2.0E-04	6.2E-03	2.0E-01	2.3E-04	2.1E-02	5.0E-05	2.2E-01	1.5E+00	3.9E-06	2.3E-03	2.4E+00
216	2.2E-06	9.3E-02	1.5E-03	7.9E-04	2.1E-04	6.3E-03	2.0E-01	2.3E-04	2.2E-02	5.1E-05	2.3E-01	1.6E+00	4.0E-06	2.3E-03	2.5E+00
217	2.2E-06	9.5E-02	1.5E-03	8.0E-04	2.1E-04	6.5E-03	2.0E-01	2.4E-04	2.2E-02	5.2E-05	2.3E-01	1.6E+00	4.1E-06	2.4E-03	2.5E+00
218	2.3E-06	9.7E-02	1.6E-03	8.2E-04	2.2E-04	6.6E-03	2.1E-01	2.4E-04	2.3E-02	5.3E-05	2.4E-01	1.6E+00	4.2E-06	2.4E-03	2.6E+00
219	2.3E-06	9.9E-02	1.6E-03	8.4E-04	2.2E-04	6.7E-03	2.1E-01	2.5E-04	2.3E-02	5.4E-05	2.4E-01	1.7E+00	4.3E-06	2.5E-03	2.6E+00
220	2.4E-06	1.0E-01	1.6E-03	8.5E-04	2.3E-04	6.8E-03	2.2E-01	2.5E-04	2.3E-02	5.5E-05	2.4E-01	1.7E+00	4.4E-06	2.5E-03	2.7E+00
221	2.4E-06	1.0E-01	1.7E-03	8.7E-04	2.3E-04	7.0E-03	2.2E-01	2.6E-04	2.4E-02	5.6E-05	2.5E-01	1.7E+00	4.4E-06	2.6E-03	2.8E+00
222	2.4E-06	1.1E-01	1.7E-03	8.8E-04	2.4E-04	7.1E-03	2.2E-01	2.6E-04	2.4E-02	5.7E-05	2.5E-01	1.8E+00	4.5E-06	2.6E-03	2.8E+00
223	2.5E-06	1.1E-01	1.7E-03	9.0E-04	2.4E-04	7.2E-03	2.3E-01	2.7E-04	2.5E-02	5.8E-05	2.6E-01	1.8E+00	4.6E-06	2.7E-03	2.9E+00
224	2.5E-06	1.1E-01	1.8E-03	9.1E-04	2.5E-04	7.3E-03	2.3E-01	2.7E-04	2.5E-02	5.9E-05	2.6E-01	1.8E+00	4.7E-06	2.7E-03	2.9E+00
225	2.6E-06	1.1E-01	1.8E-03	9.3E-04	2.5E-04	7.4E-03	2.4E-01	2.8E-04	2.5E-02	6.0E-05	2.7E-01	1.9E+00	4.7E-06	2.8E-03	3.0E+00
226	2.6E-06	1.1E-01	1.9E-03	9.4E-04	2.6E-04	7.5E-03	2.4E-01	2.8E-04	2.6E-02	6.1E-05	2.7E-01	1.9E+00	4.8E-06	2.8E-03	3.0E+00
227	2.7E-06	1.1E-01	1.9E-03	9.6E-04	2.6E-04	7.6E-03	2.4E-01	2.8E-04	2.6E-02	6.2E-05	2.7E-01	1.9E+00	4.9E-06	2.8E-03	3.1E+00
228	2.7E-06	1.2E-01	1.9E-03	9.7E-04	2.7E-04	7.7E-03	2.5E-01	2.9E-04	2.6E-02	6.3E-05	2.8E-01	2.0E+00	4.9E-06	2.9E-03	3.1E+00
229	2.7E-06	1.2E-01	1.9E-03	9.9E-04	2.7E-04	7.8E-03	2.5E-01	2.9E-04	2.7E-02	6.4E-05	2.8E-01	2.0E+00	5.0E-06	2.9E-03	3.2E+00
230	2.8E-06	1.2E-01	2.0E-03	1.0E-03	2.8E-04	7.9E-03	2.5E-01	3.0E-04	2.7E-02	6.5E-05	2.9E-01	2.0E+00	5.1E-06	3.0E-03	3.2E+00
231	2.8E-06	1.2E-01	2.0E-03	1.0E-03	2.8E-04	8.0E-03	2.6E-01	3.0E-04	2.7E-02	6.6E-05	2.9E-01	2.0E+00	5.1E-06	3.0E-03	3.2E+00
232	2.9E-06	1.2E-01	2.0E-03	1.0E-03	2.9E-04	8.1E-03	2.6E-01	3.0E-04	2.7E-02	6.7E-05	2.9E-01	2.1E+00	5.2E-06	3.0E-03	3.3E+00
233	2.9E-06	1.2E-01	2.1E-03	1.0E-03	2.9E-04	8.2E-03	2.6E-01	3.1E-04	2.8E-02	6.7E-05	3.0E-01	2.1E+00	5.2E-06	3.1E-03	3.3E+00
234	2.9E-06	1.3E-01	2.1E-03	1.0E-03	2.9E-04	8.3E-03	2.7E-01	3.1E-04	2.8E-02	6.8E-05	3.0E-01	2.1E+00	5.3E-06	3.1E-03	3.4E+00
235	3.0E-06	1.3E-01	2.1E-03	1.1E-03	3.0E-04	8.4E-03	2.7E-01	3.2E-04	2.8E-02	6.9E-05	3.0E-01	2.2E+00	5.4E-06	3.2E-03	3.4E+00
236	3.0E-06	1.3E-01	2.2E-03	1.1E-03	3.0E-04	8.5E-03	2.7E-01	3.2E-04	2.8E-02	7.0E-05	3.1E-01	2.2E+00	5.4E-06	3.2E-03	3.5E+00
237	3.0E-06	1.3E-01	2.2E-03	1.1E-03	3.1E-04	8.5E-03	2.8E-01	3.2E-04	2.9E-02	7.0E-05	3.1E-01	2.2E+00	5.5E-06	3.2E-03	3.5E+00
238	3.1E-06	1.3E-01	2.2E-03	1.1E-03	3.1E-04	8.6E-03	2.8E-01	3.3E-04	2.9E-02	7.1E-05	3.1E-01	2.2E+00	5.5E-06	3.3E-03	3.5E+00
239	3.1E-06	1.3E-01	2.2E-03	1.1E-03	3.1E-04	8.7E-03	2.8E-01	3.3E-04	2.9E-02	7.2E-05	3.1E-01	2.3E+00	5.5E-06	3.3E-03	3.6E+00
240	3.1E-06	1.3E-01	2.3E-03	1.1E-03	3.2E-04	8.7E-03	2.8E-01	3.3E-04	2.9E-02	7.2E-05	3.2E-01	2.3E+00	5.6E-06	3.3E-03	3.6E+00
241	3.1E-06	1.3E-01	2.3E-03	1.1E-03	3.2E-04	8.8E-03	2.9E-01	3.3E-04	2.9E-02	7.3E-05	3.2E-01	2.3E+00	5.6E-06	3.3E-03	3.6E+00
242	3.2E-06	1.4E-01	2.3E-03	1.1E-03	3.3E-04	8.9E-03	2.9E-01	3.4E-04	3.0E-02	7.4E-05	3.2E-01	2.3E+00	5.7E-06	3.4E-03	3.7E+00
243	3.2E-06	1.4E-01	2.3E-03	1.1E-03	3.3E-04	8.9E-03	2.9E-01	3.4E-04	3.0E-02	7.4E-05	3.2E-01	2.4E+00	5.7E-06	3.4E-03	3.7E+00
244	3.2E-06	1.4E-01	2.4E-03	1.1E-03	3.3E-04	9.0E-03	2.9E-01	3.4E-04	3.0E-02	7.5E-05	3.3E-01	2.4E+00	5.8E-06	3.4E-03	3.8E+00
245	3.2E-06	1.4E-01	2.4E-03	1.2E-03	3.4E-04	9.0E-03	2.9E-01	3.5E-04	3.0E-02	7.5E-05	3.3E-01	2.4E+00	5.8E-06	3.5E-03	3.8E+00
Minimum	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Maximum	3.2E-06	1.4E-01	2.4E-03	1.2E-03	3.4E-04	9.0E-03	2.9E-01	3.5E-04	3.0E-02	7.5E-05	3.3E-01	2.4E+00	5.8E-06	3.5E-03	3.8E+00
Average	5.7E-07	2.4E-02	3.9E-04	2.0E-04	5.4E-05	1.7E-03	5.2E-02	6.0E-05	5.7E-03	1.3E-05	5.9E-02	4.1E-01	1.1E-06	6.1E-04	6.5E-01
Surface WQ Standard =	0.013 [a]				0.20 [a]			0.002					0.15	0.44 [a]	

Notes:

[a] Cd, Cu, Pb, Ni and Zn standards are hardness dependent and were calculated using average hardness from 1,032 measurements collected at USGS station 09474000 (477 mg/L CaCO3)

1. Model results indicate estimated concentrations immediately following mixing of Donnelly Wash discharge with the median flow rate of the Gila River
2. Results do not include natural background concentrations and assume no mass flux contributions from recharge, underflow or the Gila River
3. Surface WQ Standard = Arizona Department of Environmental Quality Water Quality Standard for "Aquatic and wildlife warm" (A&ww) water with chronic exposure (Arizona Administrative Code - Title 18, Ch. 11, Sup. 16-4, 2016)
4. Values in bold italic indicate that concentration is above water quality standard
5. mg/L = milligrams per liter



EXPLANATION

Proposed TSF Footprint

Donnelly Wash Drainage

0 2,500 5,000 7,500 10,000
Meters

0 2 4 6 8
Miles

RESOLUTION
COPPER

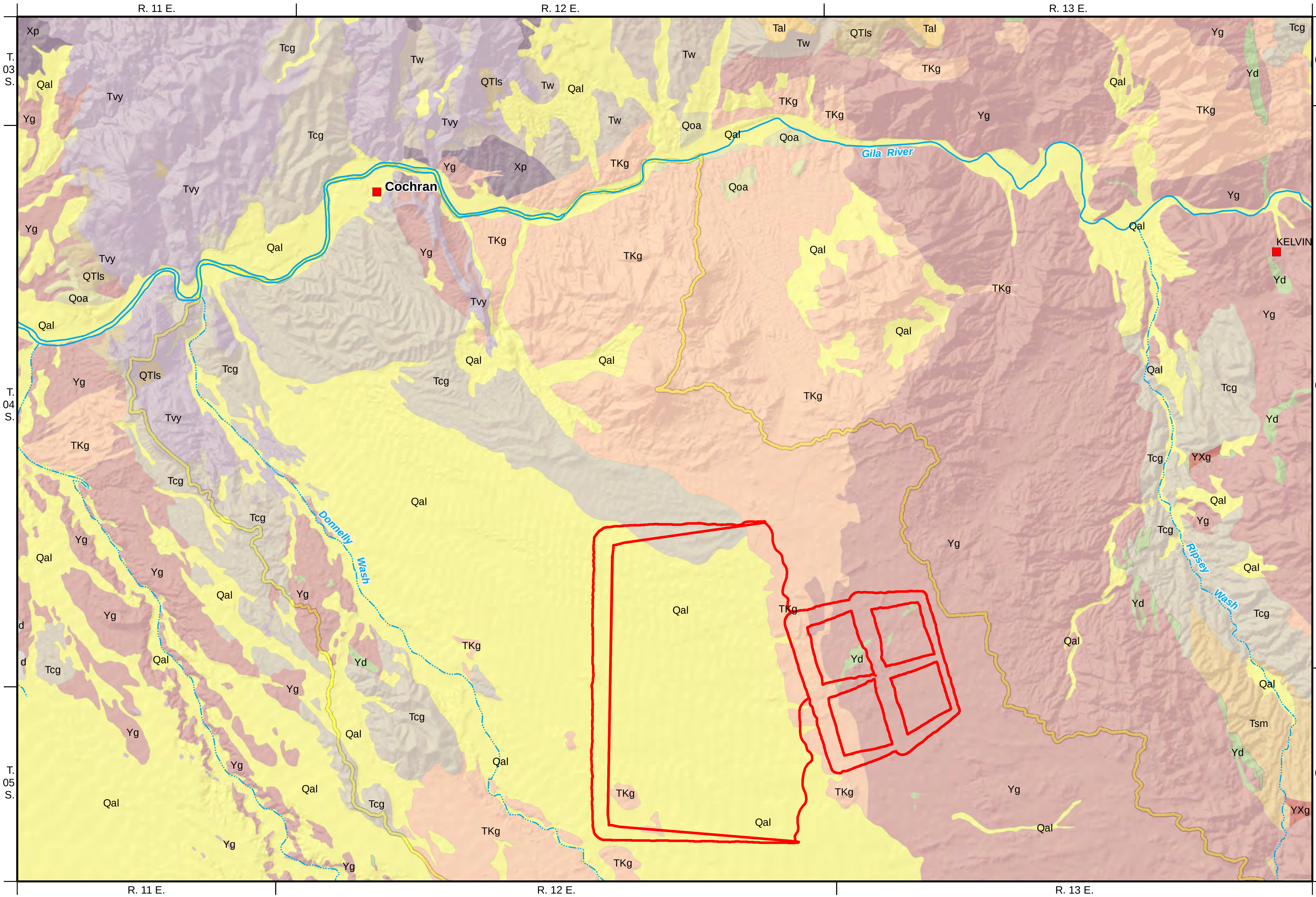
LOCATION MAP
TSF ALTERNATIVE 5

MONTGOMERY & ASSOCIATES
Water Resource Consultants

2018

FIGURE 1

G:\GIS-Tuc\Projects\605\605.8302\Goldsim\Figure 1_Location Map.mxd \ 07Aug2018



EXPLANATION

Proposed TSF Footprint

Donnelly Wash Drainage

GEOLOGIC UNITS

d	Disturbed Surficial Deposits
Qal	Alluvium
Qoa	Older Alluvium
QTls	Talus, Colluvium and Landslide Deposits
Tcg	Gila Group Congomerate
Tvy	Younger Tertiary Volcanic Rocks
Tal	Apache Leap Tuff
Tw	Whitetail Formation
Tsm	San Manuel Formation, undivided
TKg	Tertiary and Cretaceous Intrusive Rocks
Yd	Precambrian Diabase
Yg	Younger Precambrian Intrusive Rocks
YXg	Older Precambrian Granite
Xp	Pinal Schist

N

0 0.5 1
Miles

Geology modified from Spencer and others, 1998 and Richard, 1998

RESOLUTION COPPER

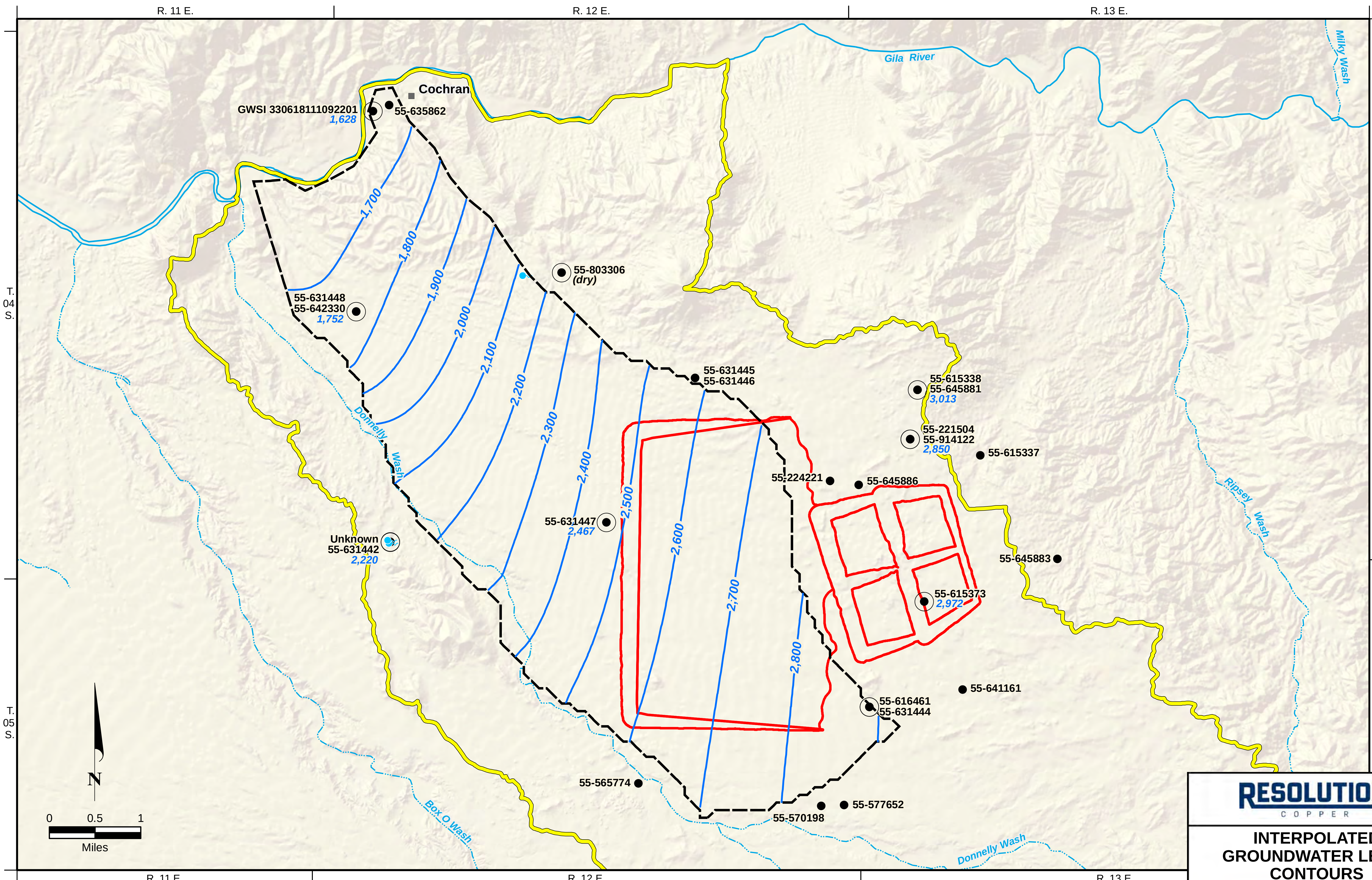
GEOLOGIC MAP
TSF ALTERNATIVE 5

MONTGOMERY & ASSOCIATES
Water Resource Consultants

2018

FIGURE 2

G\605.8302\GoldSim\Figure2_GeologicMap\07Aug2018



EXPLANATION

- Well
- Well (field verified)
- Spring
- Donnelly Wash Drainage
- Alluvium and Basin Fill Aquifer Boundary
- Proposed TSF Footprint
- *–2,300–* Groundwater level elevation, in feet

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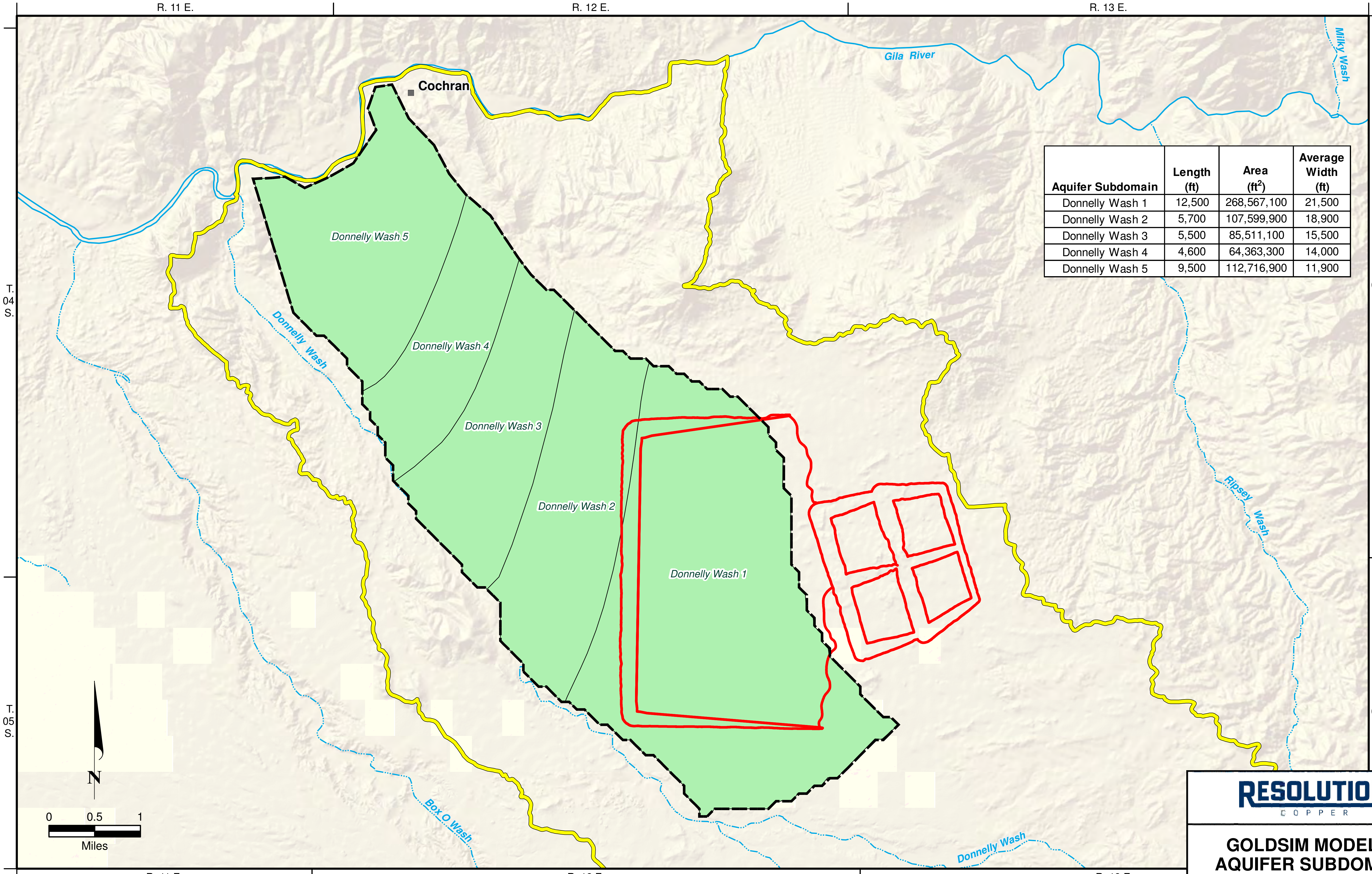
RESOLUTION COPPER

INTERPOLATED GROUNDWATER LEVEL CONTOURS TSF ALTERNATIVE 5

MONTGOMERY & ASSOCIATES Water Resource Consultants

2018

FIGURE 3



Aquifer Subdomain	Length (ft)	Area (ft^2)	Average Width (ft)
Donnelly Wash 1	12,500	268,567,100	21,500
Donnelly Wash 2	5,700	107,599,900	18,900
Donnelly Wash 3	5,500	85,511,100	15,500
Donnelly Wash 4	4,600	64,363,300	14,000
Donnelly Wash 5	9,500	112,716,900	11,900

EXPLANATION

- Aquifer Subdomain
- Proposed TSF Footprint
- Alluvium and Basin Fill Aquifer Boundary
- Donnelly Wash Drainage

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GOLDSIM MODELING AQUIFER SUBDOMAINS TSF ALTERNATIVE 5

MONTGOMERY & ASSOCIATES Water Resource Consultants

2018

FIGURE 4

RESOLUTION COPPER

102 Magma Heights – P.O. Box 1944
Superior, AZ 85173
Tel.: 520.689.9374
Fax: 520.689.9304

September 17, 2018

Mr. Neil Bosworth
Supervisor – Tonto National Forest
US Forest Service
Supervisor's Office
2324 East McDowell Road
Phoenix, AZ 85006-2496

Subject: Response to ANALYSIS DATA REQUEST #1 – Request for Analysis of Tailings Seepage – Item #4 GoldSim Contaminant Transport Module.

Dear Mr. Bosworth,

To complete the response to item #4 from your March 8, 2018 letter, the following documents from Montgomery and Associates are enclosed:

- TSF Alternatives 2 and 3 – Near West: Life of Mine and Post-Closure Seepage Transport Modeling
- TSF Alternative 4 – Silver King: Life of Mine and Post-Closure Seepage Transport Modeling
- TSF Alternative 5 – Peg Leg: Life of Mine and Post-Closure Seepage Transport Modeling
- TSF Alternative 6 – Skunk Camp: Life of Mine and Post-Closure Seepage Transport Modeling

Sincerely,

Vicky Peacey,

Senior Manager, Environment, Permitting and Approvals; Resolution Copper Company, as Manager of Resolution Copper Mining, LLC

Cc: Ms. Mary Morissette; Senior Environmental Specialist; Resolution Copper Company

Enclosure(s):

Montgomery & Associates, September 2018. *TSF Alternatives 2 & 3 – Near West: Life of Mine and Post-Closure Seepage Transport Modeling.*
Montgomery & Associates, September 2018. *TSF Alternatives 4 – Silver King: Life of Mine and Post-Closure Seepage Transport Modeling.*
Montgomery & Associates, September 2018. *TSF Alternatives 5 – Peg Leg: Life of Mine and Post-Closure Seepage Transport Modeling.*
Montgomery & Associates, September 2018. *TSF Alternatives 6 – Near West: Life of Mine and Post-Closure Seepage Transport Modeling.*