Parameter	unit	Value	Justfication
Assumed Hydraulic conductivity of HstW	m/s	1.00E-05	reasonable conservative assumption based on HstW being a mix of clay and sand. No
			attenuation layers present
Assumed Hydraulic conductivity of KPG Aquifer	m/s	1.00E-04	based on professional judgement / literature values.
Hydraulic Gradient in Hist W	m/m	1.11E-03	
Hydraulic Gradient of KPG	m/m	1.11E-03	calculated from SI data
Thickness of waste below the rest groundwater level	m	5.00E+00	based on SI data and represents the max. thickness below resting water level.

Caq= (Ciw x Qiw) + (Cbq X Qaq) / (Qiw +Qaq)

Groundwater flow in Aquifer, down hydraulic gradient of the site which is cal. Based on assumed Hyd Cond multiplied by the Calc. Hyd Grad in Aquifer **(Qaq)**

Arsenic - Hazardous	Unit	Value	Description
Environmental Assessment Level for Arsenic	ug/l	5.00E+00	Table 1: UKTAG values for hazardous substances
Predicted Conc in Aquifer (Caq)	ug/l	3.64E-01	what you want to find out
concentration in waste assumed at edge of site (Ciw)	ug/l	1.80E+01	high conc, but actually in KPG, waste is less at 9. Notably highest As is upstream
Discharge to GW from recovered waste- based on			
Hyd. Cond. of waste multiplied by the assumed Hyd			
Grad (Qiw)	m3/s	1.11E-08	
Background Conc in KPG (Cbg)	ug/l	4.00E-01	lowest observed concentration
Groundwater flow in Aquifer, down hydraulic gradient			
of the site which is cal. Based on assumed Hyd Cond			
multiplied by the Calc. Hyd Grad in Aquifer (Qag)	m3/s	1.11E-07	
	-1-		
Lead - Hazardous	Unit	Value	Description
Environmental Assessment Level for Lead	ug/l	5 00F+00	Table 1: LIKTAG values for hazardous substances
Predicted Conc in Aquifer (Can)	ug/l	1.64E+00	what you want to find out
	ug/i	1.042100	
concontration in waste, assumed at edge of site (Cive)		4 205 00	high conc. from PH100 in waste / cross gradient
Discharge to CW from recovered wrete, based or	ug/i	4.20E+00	high conc, from birtos in waste / closs gradient
Discharge to Gw from recovered waste-based on			
Hyd. Cond. of waste multiplied by the assumed Hyd	21		
Grad (Qiw)	m3/s	1.11E-08	
Background Conc in KPG (Cbg)	ug/I	1.80E+00	
Groundwater flow in Aquifer, down hydraulic gradient			
of the site which is cal. Based on assumed Hvd Cond			
multiplied by the Calc. Hyd Grad in Aquifer (Qaq)	m3/s	1.11E-07	
multiplied by the Calc. Hyd Grad in Aquifer (Qaq)	m3/s	1.11E-07	
multiplied by the Calc. Hyd Grad in Aquifer (Qaq) Boron - Non Hazardous	m3/s Unit	1.11E-07 Value	Description
multiplied by the Calc. Hyd Grad in Aquifer (Qaq) Boron - Non Hazardous Environmental Assessment Level for Boron	m3/s Unit ug/l	1.11E-07 Value 2.00E+03	Description EQS Boron
multiplied by the Calc. Hyd Grad in Aquifer (Qaq) Boron - Non Hazardous Environmental Assessment Level for Boron Predicted Conc in Aquifer (Caq)	m3/s Unit ug/l ug/l	1.11E-07 Value 2.00E+03 7.45E+02	Description EQS Boron what you want to find out
multiplied by the Calc. Hyd Grad in Aquifer (Qaq) Boron - Non Hazardous Environmental Assessment Level for Boron Predicted Conc in Aquifer (Caq)	m3/s Unit ug/l ug/l	1.11E-07 Value 2.00E+03 7.45E+02	Description EQS Boron what you want to find out
multiplied by the Calc. Hyd Grad in Aquifer (Qaq) Boron - Non Hazardous Environmental Assessment Level for Boron Predicted Conc in Aquifer (Caq) concentration in waste assumed at edge of site (Ciw)	m3/s Unit ug/l ug/l ug/l	1.11E-07 Value 2.00E+03 7.45E+02 1.50E+04	Description EQS Boron what you want to find out
multiplied by the Calc. Hyd Grad in Aquifer (Qaq) Boron - Non Hazardous Environmental Assessment Level for Boron Predicted Conc in Aquifer (Caq) concentration in waste assumed at edge of site (Ciw) Discharge to GW from recovered waste- based on	m3/s Unit ug/l ug/l ug/l	1.11E-07 Value 2.00E+03 7.45E+02 1.50E+04	Description EQS Boron what you want to find out
multiplied by the Calc. Hyd Grad in Aquifer (Qaq) Boron - Non Hazardous Environmental Assessment Level for Boron Predicted Conc in Aquifer (Caq) concentration in waste assumed at edge of site (Ciw) Discharge to GW from recovered waste- based on Hyd. Cond. of waste multiplied by the assumed Hyd	m3/s Unit ug/l ug/l	1.11E-07 Value 2.00E+03 7.45E+02 1.50E+04	Description EQS Boron what you want to find out
multiplied by the Calc. Hyd Grad in Aquifer (Qaq) Boron - Non Hazardous Environmental Assessment Level for Boron Predicted Conc in Aquifer (Caq) concentration in waste assumed at edge of site (Ciw) Discharge to GW from recovered waste- based on Hyd. Cond. of waste multiplied by the assumed Hyd Grad (Qiw)	m3/s Unit ug/l ug/l m3/s	1.11E-07 Value 2.00E+03 7.45E+02 1.50E+04 1.11E-08	Description EQS Boron what you want to find out
multiplied by the Calc. Hyd Grad in Aquifer (Qaq) Boron - Non Hazardous Environmental Assessment Level for Boron Predicted Conc in Aquifer (Caq) concentration in waste assumed at edge of site (Ciw) Discharge to GW from recovered waste- based on Hyd. Cond. of waste multiplied by the assumed Hyd Grad (Qiw) Background Conc in KPG (Cbg)	m3/s Unit ug/l ug/l ug/l m3/s ug/l	1.11E-07 Value 2.00E+03 7.45E+02 1.50E+04 1.11E-08 8.20E+02	Description EQS Boron what you want to find out
multiplied by the Calc. Hyd Grad in Aquifer (Qaq) Boron - Non Hazardous Environmental Assessment Level for Boron Predicted Conc in Aquifer (Caq) concentration in waste assumed at edge of site (Ciw) Discharge to GW from recovered waste- based on Hyd. Cond. of waste multiplied by the assumed Hyd Grad (Qiw) Background Conc in KPG (Cbg)	m3/s Unit ug/l ug/l ug/l m3/s ug/l	1.11E-07 Value 2.00E+03 7.45E+02 1.50E+04 1.11E-08 8.20E+02	Description EQS Boron what you want to find out minimum cncentration observed
multiplied by the Calc. Hyd Grad in Aquifer (Qaq) Boron - Non Hazardous Environmental Assessment Level for Boron Predicted Conc in Aquifer (Caq) concentration in waste assumed at edge of site (Ciw) Discharge to GW from recovered waste- based on Hyd. Cond. of waste multiplied by the assumed Hyd Grad (Qiw) Background Conc in KPG (Cbg) Groundwater flow in Aquifer, down hydraulic gradient	m3/s Unit ug/l ug/l m3/s ug/l	1.11E-07 Value 2.00E+03 7.45E+02 1.50E+04 1.11E-08 8.20E+02	Description EQS Boron what you want to find out minimum cncentration observed
multiplied by the Calc. Hyd Grad in Aquifer (Qaq) Boron - Non Hazardous Environmental Assessment Level for Boron Predicted Conc in Aquifer (Caq) concentration in waste assumed at edge of site (Ciw) Discharge to GW from recovered waste- based on Hyd. Cond. of waste multiplied by the assumed Hyd Grad (Qiw) Background Conc in KPG (Cbg) Groundwater flow in Aquifer, down hydraulic gradient of the site which is cal. Based on assumed Hyd Cond	m3/s Unit ug/l ug/l m3/s ug/l	1.11E-07 Value 2.00E+03 7.45E+02 1.50E+04 1.11E-08 8.20E+02	Description EQS Boron what you want to find out minimum cncentration observed
multiplied by the Calc. Hyd Grad in Aquifer (Qaq) Boron - Non Hazardous Environmental Assessment Level for Boron Predicted Conc in Aquifer (Caq) concentration in waste assumed at edge of site (Ciw) Discharge to GW from recovered waste- based on Hyd. Cond. of waste multiplied by the assumed Hyd Grad (Qiw) Background Conc in KPG (Cbg) Groundwater flow in Aquifer, down hydraulic gradient of the site which is cal. Based on assumed Hyd Cond multiplied by the Calc. Hyd Grad in Aquifer (Daa)	m3/s Unit ug/l ug/l ug/l m3/s ug/l m3/s	1.11E-07 Value 2.00E+03 7.45E+02 1.50E+04 1.11E-08 8.20E+02 1.11E-07	Description EQS Boron what you want to find out minimum cncentration observed
multiplied by the Calc. Hyd Grad in Aquifer (Qaq) Boron - Non Hazardous Environmental Assessment Level for Boron Predicted Conc in Aquifer (Caq) concentration in waste assumed at edge of site (Ciw) Discharge to GW from recovered waste- based on Hyd. Cond. of waste multiplied by the assumed Hyd Grad (Qiw) Background Conc in KPG (Cbg) Groundwater flow in Aquifer, down hydraulic gradient of the site which is cal. Based on assumed Hyd Cond multiplied by the Calc. Hyd Grad in Aquifer (Qaq)	m3/s Unit ug/l ug/l ug/l m3/s ug/l m3/s	1.11E-07 Value 2.00E+03 7.45E+02 1.50E+04 1.11E-08 8.20E+02 1.11E-07	Description EQS Boron what you want to find out minimum cncentration observed
multiplied by the Calc. Hyd Grad in Aquifer (Qaq) Boron - Non Hazardous Environmental Assessment Level for Boron Predicted Conc in Aquifer (Caq) concentration in waste assumed at edge of site (Ciw) Discharge to GW from recovered waste- based on Hyd. Cond. of waste multiplied by the assumed Hyd Grad (Qiw) Background Conc in KPG (Cbg) Groundwater flow in Aquifer, down hydraulic gradient of the site which is cal. Based on assumed Hyd Cond multiplied by the Calc. Hyd Grad in Aquifer (Qaq)	m3/s Unit ug/l ug/l ug/l m3/s ug/l m3/s	1.11E-07 Value 2.00E+03 7.45E+02 1.50E+04 1.11E-08 8.20E+02 1.11E-07 Value	Description EQS Boron what you want to find out minimum cncentration observed Description
multiplied by the Calc. Hyd Grad in Aquifer (Qaq) Boron - Non Hazardous Environmental Assessment Level for Boron Predicted Conc in Aquifer (Caq) concentration in waste assumed at edge of site (Ciw) Discharge to GW from recovered waste- based on Hyd. Cond. of waste multiplied by the assumed Hyd Grad (Qiw) Background Conc in KPG (Cbg) Groundwater flow in Aquifer, down hydraulic gradient of the site which is cal. Based on assumed Hyd Cond multiplied by the Calc. Hyd Grad in Aquifer (Qaq) Ammonium- Non Hazardous Environmental Assessment Level for NH4	m3/s Unit ug/l ug/l ug/l m3/s ug/l m3/s Unit ug/l	1.11E-07 Value 2.00E+03 7.45E+02 1.50E+04 1.11E-08 8.20E+02 1.11E-07 Value 2.00E+03	Description EQS Boron what you want to find out minimum cncentration observed Description EQS 2
multiplied by the Calc. Hyd Grad in Aquifer (Qaq) Boron - Non Hazardous Environmental Assessment Level for Boron Predicted Conc in Aquifer (Caq) concentration in waste assumed at edge of site (Ciw) Discharge to GW from recovered waste- based on Hyd. Cond. of waste multiplied by the assumed Hyd Grad (Qiw) Background Conc in KPG (Cbg) Groundwater flow in Aquifer, down hydraulic gradient of the site which is cal. Based on assumed Hyd Cond multiplied by the Calc. Hyd Grad in Aquifer (Qaq) Ammonium- Non Hazardous Environmental Assessment Level for NH4 Predicted Conc in Aquifer (Can)	m3/s Unit ug/l ug/l m3/s ug/l m3/s Unit ug/l ug/l ug/l ug/l	1.11E-07 Value 2.00E+03 7.45E+02 1.50E+04 1.11E-08 8.20E+02 1.11E-07 Value 2.00E+03 2.91E+01	Description EQS Boron what you want to find out minimum cncentration observed Description EQS 2 what you want to find out
multiplied by the Calc. Hyd Grad in Aquifer (Qaq) Boron - Non Hazardous Environmental Assessment Level for Boron Predicted Conc in Aquifer (Caq) concentration in waste assumed at edge of site (Ciw) Discharge to GW from recovered waste- based on Hyd. Cond. of waste multiplied by the assumed Hyd Grad (Qiw) Background Conc in KPG (Cbg) Groundwater flow in Aquifer, down hydraulic gradient of the site which is cal. Based on assumed Hyd Cond multiplied by the Calc. Hyd Grad in Aquifer (Qaq) Ammonium- Non Hazardous Environmental Assessment Level for NH4 Predicted Conc in Aquifer (Caq)	m3/s Unit ug/l ug/l ug/l m3/s ug/l m3/s Unit ug/l ug/l ug/l	1.11E-07 Value 2.00E+03 7.45E+02 1.50E+04 1.11E-08 8.20E+02 1.11E-07 Value 2.00E+03 2.91E+01	Description EQS Boron what you want to find out minimum cncentration observed Description EQS 2 what you want to find out
multiplied by the Calc. Hyd Grad in Aquifer (Qaq) Boron - Non Hazardous Environmental Assessment Level for Boron Predicted Conc in Aquifer (Caq) concentration in waste assumed at edge of site (Ciw) Discharge to GW from recovered waste- based on Hyd. Cond. of waste multiplied by the assumed Hyd Grad (Qiw) Background Conc in KPG (Cbg) Groundwater flow in Aquifer, down hydraulic gradient of the site which is cal. Based on assumed Hyd Cond multiplied by the Calc. Hyd Grad in Aquifer (Qaq) Ammonium- Non Hazardous Environmental Assessment Level for NH4 Predicted Conc in Aquifer (Caq) concentration in waste assumed at edge of site (Ciw)	m3/s Unit ug/l ug/l ug/l m3/s ug/l m3/s Unit ug/l ug/l ug/l	1.11E-07 Value 2.00E+03 7.45E+02 1.50E+04 1.11E-08 8.20E+02 1.11E-07 Value 2.00E+03 2.91E+01 4.70E+03	Description EQS Boron what you want to find out minimum cncentration observed Description EQS 2 what you want to find out
multiplied by the Calc. Hyd Grad in Aquifer (Qaq) Boron - Non Hazardous Environmental Assessment Level for Boron Predicted Conc in Aquifer (Caq) concentration in waste assumed at edge of site (Ciw) Discharge to GW from recovered waste- based on Hyd. Cond. of waste multiplied by the assumed Hyd Grad (Qiw) Background Conc in KPG (Cbg) Groundwater flow in Aquifer, down hydraulic gradient of the site which is cal. Based on assumed Hyd Cond multiplied by the Calc. Hyd Grad in Aquifer (Qaq) Ammonium- Non Hazardous Environmental Assessment Level for NH4 Predicted Conc in Aquifer (Caq) concentration in waste assumed at edge of site (Ciw) Discharge to GW from recovered waste- based on	m3/s Unit ug/l ug/l ug/l m3/s ug/l m3/s Unit ug/l ug/l	1.11E-07 Value 2.00E+03 7.45E+02 1.50E+04 1.11E-08 8.20E+02 1.11E-07 Value 2.00E+03 2.91E+01 4.70E+03	Description EQS Boron what you want to find out minimum cncentration observed Description EQS 2 what you want to find out
multiplied by the Calc. Hyd Grad in Aquifer (Qaq) Boron - Non Hazardous Environmental Assessment Level for Boron Predicted Conc in Aquifer (Caq) concentration in waste assumed at edge of site (Ciw) Discharge to GW from recovered waste- based on Hyd. Cond. of waste multiplied by the assumed Hyd Grad (Qiw) Background Conc in KPG (Cbg) Groundwater flow in Aquifer, down hydraulic gradient of the site which is cal. Based on assumed Hyd Cond multiplied by the Calc. Hyd Grad in Aquifer (Qaq) Ammonium- Non Hazardous Environmental Assessment Level for NH4 Predicted Conc in Aquifer (Caq) concentration in waste assumed at edge of site (Ciw) Discharge to GW from recovered waste- based on Hyd. Cond. of waste multiplied by the assumed Hyd	m3/s Unit ug/l ug/l ug/l m3/s ug/l m3/s Unit ug/l ug/l ug/l	1.11E-07 Value 2.00E+03 7.45E+02 1.50E+04 1.50E+04 1.11E-08 8.20E+02 1.11E-07 Value 2.00E+03 2.91E+01 4.70E+03	Description EQS Boron what you want to find out minimum cncentration observed Description EQS 2 what you want to find out
multiplied by the Calc. Hyd Grad in Aquifer (Qaq) Boron - Non Hazardous Environmental Assessment Level for Boron Predicted Conc in Aquifer (Caq) concentration in waste assumed at edge of site (Ciw) Discharge to GW from recovered waste- based on Hyd. Cond. of waste multiplied by the assumed Hyd Grad (Qiw) Background Conc in KPG (Cbg) Groundwater flow in Aquifer, down hydraulic gradient of the site which is cal. Based on assumed Hyd Cond multiplied by the Calc. Hyd Grad in Aquifer (Qaq) Ammonium- Non Hazardous Environmental Assessment Level for NH4 Predicted Conc in Aquifer (Caq) concentration in waste assumed at edge of site (Ciw) Discharge to GW from recovered waste- based on Hyd. Cond. of waste multiplied by the assumed Hyd Grad (Qiw)	m3/s Unit ug/l ug/l ug/l m3/s ug/l m3/s Unit ug/l ug/l ug/l ug/l ug/l ug/l	1.11E-07 Value 2.00E+03 7.45E+02 1.50E+04 1.11E-08 8.20E+02 1.11E-07 Value 2.00E+03 2.91E+01 4.70E+03 1.11E-08	Description EQS Boron what you want to find out minimum cncentration observed Description EQS 2 what you want to find out
multiplied by the Calc. Hyd Grad in Aquifer (Qaq) Boron - Non Hazardous Environmental Assessment Level for Boron Predicted Conc in Aquifer (Caq) concentration in waste assumed at edge of site (Ciw) Discharge to GW from recovered waste- based on Hyd. Cond. of waste multiplied by the assumed Hyd Grad (Qiw) Background Conc in KPG (Cbg) Groundwater flow in Aquifer, down hydraulic gradient of the site which is cal. Based on assumed Hyd Cond multiplied by the Calc. Hyd Grad in Aquifer (Qaq) Ammonium- Non Hazardous Environmental Assessment Level for NH4 Predicted Conc in Aquifer (Caq) concentration in waste assumed at edge of site (Ciw) Discharge to GW from recovered waste- based on Hyd. Cond. of waste multiplied by the assumed Hyd Grad (Qiw) Background Conc in KPG (Cbg)	m3/s Unit ug/l ug/l ug/l m3/s ug/l m3/s Unit ug/l ug/l ug/l ug/l ug/l	1.11E-07 Value 2.00E+03 7.45E+02 1.50E+04 1.11E-08 8.20E+02 1.11E-07 Value 2.00E+03 2.91E+01 4.70E+03 1.11E-08 3.20E+01	Description EQS Boron what you want to find out minimum cncentration observed Description EQS 2 what you want to find out minimum concentration observed at BH115. downstream

1.11E-07

m3/s