## APPENDIX 11-H GROUNDWATER QUANTITY SCOPING TABLE



Appendix 11-H. Groundwater Quantity Scoping Table

					Pha	ase					s due to Al	water Flow teration of litions			n of Ground s due to Alt		
Project Region	Project Area	ID#	Project Component	Construction	Operation	Closure	Post-Closure	Reclamation (Y/partial/N)	Closure Objective	Construction	Operation	Closure	Post-Closure	onstruction	Operation	Closure	ost-Closure
Mine Site	Camp 3: Eskay Staging	1	Camp 3 incinerator	X	R	10		(1/partial/N) Y	forest	0	0	0	<u> </u>	Ö	- 0	- 0	Δ.
	Camp	2	Camp 3 helipad	X	R	-		Y	forest								+
	·	3	Camp 3 equipment and material storage yard	X	R			Y	forest								+
		4	Camp 3: Eskay Staging Camp	X	R			Y	forest								1
		5	Camp 3 septic field	X	R			Y	forest								1
	Camp 7: Unuk North	6	Camp 7 equipment and material storage yard	X	R			Y	forest								+
	Camp	7	Camp 7: Unuk North Camp	X	R			Y	forest								1
	·	8	Camp 7 helipads	X	R			Y	forest								+
		9	Camp 7 incinerator	X	R			Y	forest								1
		10	Camp 7 septic field	X	R			Y	forest								+
	Camp 8: Unuk South	11	Camp 8 helipad	X	R			Y	forest								+
	Camp	12	Camp 8 equipment and material storage yard	X	R			Y	forest								1
	·	13	Camp 8 incinerator	X	R			Y	forest								+
		14	Camp 8: Unuk South Camp	X	R			Y	forest								1
		15	Camp 8 septic field	X	R			Y	forest								+
	Coulter Creek Access	16	Coulter Creek access road	X	X	X	R	Y	forest								1
	Corridor (CCAC)	17	CCAC borrow areas	X	PR		÷	partial	forest								+
	(11)	18	CCAC waste areas	X	R			Y	forest					+			+
		19	CCAC log landings	X	R			Y	forest								1
		20	creek crossing C012	X	X	×	R	Y	forest/riparian								+
		21	creek crossing C043	X			R	Y	forest/riparian								+
		22	creek crossing C044	X	X		R	Y	forest/riparian								+
		23	Coulter Creek bridge (C006)	X	X	X		Y	forest/riparian								+
		24	creek crossing C024	X			R	Y	forest/riparian								+
		25	creek crossing C021	X			R	Y	forest/riparian								+
		26	Unuk River bridge (C010) (88 m) (three-span bridge)	X	X			Y	forest/riparian								+
		27	creek crossing C042	X			R	Y	forest/riparian								+
		28	avalanche control structures (km 26-29)	X			D	N N	NA								+
		29	Gingras Creek bridge (C011)	X	X	X		Y	forest								+
		30	Mitchell Creek bridge (C007) (33.5 m)	X			X	N N	NA								+
	Mitchell Operating Camp	31	Mitchell operating camp	X			R X	partial	forest								+
	Witteriell Operating Camp	32	Mitchell operating camp helipad	X	X		X	N	NA								+
		33	Mitchell operating camp incinerator	X	X		X	N	NA NA						1		+
		34	Mitchell operating camp septic field	X	X	X		N	NA NA								+
	McTagg Rock Storage	35	McTagg access road	X	D	+^	^	-	NA NA								+
	Facility (RSF)	36	McTagg Creek bridge	X	D	-		-	NA NA					1	+		+
				^	X	D	+	-	NA NA					1	+		+
			McTagg RSF snow storage McTagg RSF		X			partial	forest								+
		39	West McTagg operation channel - North		X		`	- partial	NA								+
		40	West McTagg operation channel - North		X			-	NA NA								+
			West McTagg operation channel  West McTagg closure channel				X	N	NA NA					1	+		+
			West McTagg access road		Х		X	N	NA NA								+
			East McTagg access road  East McTagg closure channel and access road				X	N	NA NA								+
		44	North McTagg Diversion Channel		Х		X	N	NA NA					1	+		+
	McTagg Twinned	45	McTagg Diversion access road	X			X	N	NA NA								+
	Diversion Tunnels (MTDT)		McTagg phase 3 flood outlet	+^	X		X	N N	NA NA				1	-	-	1	+
	DIVOISION FUNITION (WITDT)	46		-	X/R		^	Y	forest			<b>—</b>	1			1	+
		48	McTagg phase 2 flood outlet			+-	+	Y				<del>                                     </del>	1		1	1	+
			McTagg phase 1 flood outlet	X X/R	R	-	+	Y	forest			<del>                                     </del>	1		1	1	+
		49	Temporary Water Treatment (TWT) 2						forest				1			1	+
		50	TWT 2 - sediment control pond	X/R			+	Y	forest				1		1	1	+
		51	TWT 2 - unlined muck pad	X/R				Y	forest				1		1	1	+
		52	TWT 2 - diversion ditch	X/R		1	\	Y	forest				1				+
		53	McTagg Twinned Diversion Tunnels	Х		X	X	N	NA					Х	Х	Х	Х
	1	54	Phase 3 West McTagg inlet		Х	X	Х	N	NA								

X = the project component is active during that project phase.

<sup>- =</sup> the project component is encompassed by another feature and the reclamation objective is indicated in the row for the other project feature. R/reclaim = shows the project phase where reclamation of the component occur.

PR/partial reclaim = shows the project phase where partial reclamation of the component occurs; in some cases the feature is totally reclaimed but remains in place (e.g., dams). D/decom = shows the phase of the project where the component is decommissioned, but not reclaimed.

Appendix 11-H. Groundwater Quantity Scoping Table

					Ph	ase					n of Ground ons due to Al Cond					lwater Flow eration of P	
Project Region	Project Area	ID#	Project Component	Construction	Operation	Closure	Post-Closure	Reclamation (Y/partial/N)	Closure Objective	Construction	Operation	Closure	Post-Closure	Construction	Operation	Closure	Post-Closure
Mine Site	McTagg Twinned	55	Phase 3 West McTagg dam		Х	Х	Х	N	NA								
	Diversion Tunnels (MTDT)		Phase 3 West McTagg dam spillway		Х	_	Х	N	NA								
	(cont'd)		Phase 3 East McTagg inlet		Х			N	NA								
			Phase 3 East McTagg dam		Х			N	NA								
			Phase 3 East McTagg dam spillway		Х		Х	N	NA								
			Phase 2 McTagg inlet		X/D			-	NA								
			Phase 2 McTagg dam		X/D			-	NA								
			Phase 2 McTagg dam spillway		X/D	)		-	NA								
			Phase 1 McTagg dam	X	D			-	NA								
			Phase 1 McTagg inlet	Х	D			-	NA								
			Phase 1 McTagg dam spillway	Х	D			-	NA								
	McTagg Power Plant	66	McTagg penstock tunnel		Х	Х	Χ	N	NA						Х	х	х
		67	McTagg penstock		Х	Х	Χ	N	NA								
		68	McTagg power plant		Х	Х	Х	N	NA								
	Mitchell Rock Storage	69	North Slope pipeline	Х	D			-	NA								
	Facility (RSF)	70	North Slope pipeline access road	Х	D			-	NA								
		71	North Slope diversion ditch		Х	D		-	NA								
		72	North Slope collection ditch		Х	Х	Х	N	NA								
		73	North Slope diversion buried pipeline	Х	Х	D		-	NA								
		74	North Slope diversion ditch access road	Х	Х			-	NA								
		75	Mitchell North closure channel			Х	Х	N	NA								
		76	Upper Mitchell Creek bridge	Х	D			-	NA								
			Mitchell RSF landbridge		X/D	)		-	NA								
		78	Temporary Water Treatment (TWT) 6	X/D				-	NA								
		79	TWT 6 - sediment control pond	X/D				-	NA								
		80	TWT 6 - lined muck pad	X/D				-	NA								
			TWT 6 - water treatment plant	X/D				-	NA								
		82	TWT 6 - lined pond	X/D				-	NA								
		83	TWT 6 - diversion ditch	X/D				-	NA								
			TWT 6 - unlined muck pad	X/D				-	NA								
			TWT 6 - buried pipeline	X/D				-	NA								
			Mitchell RSF pre-production ore stockpile	Х				-	NA								
			Mitchell RSF ore stockpile		X/PF	۲		partial	forest							1	
			Mitchell Batch Plant	Х	D	1		-	NA								
		89	Mitchell Batch Plant gravel stockpile	X	D			-	NA							1	
		90	Mitchell RSF snow storage	Х				-	NA								
			Mitchell RSF fuel storage		Х	Х	Х	N	NA								
			Sulphurets waste conveyor 3		Х			-	NA								
			Sulphurets waste conveyor 2		Х			_	NA								
			Sulphurets waste conveyor 1		Х			-	NA								
			Sulphurets waste stockpile		Х			_	NA							1	
			Mitchell RSF	Х				partial	forest								
			South Mitchell closure channel and access road				Х	N	NA							1	
			Mitchell Valley Drainage Tunnel		Х	X/E		N	NA NA		1		1			†	1
	Camp 4: Mitchell North	99	Camp 4: Mitchell North Camp	X/D		1		-	NA NA								
	Camp (for MTT	100	Camp 4 helipad	X/D		+		-	NA NA								
	construction)		Camp 4 incinerator	X/D		+		-	NA NA								
			Camp 4 equipment and material storage yard	X/D		+		-	NA NA		+					1	
			Camp 4 septic field	X/D		+		-	NA NA		+					1	
	omponent is active during			A.D	1		1		14/1	I	_i	I	1	<u> </u>	I	1	1

X = the project component is active during that project phase.

<sup>- =</sup> the project component is encompassed by another feature and the reclamation objective is indicated in the row for the other project feature.

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Appendix 11-H. Groundwater Quantity Scoping Table

					Pha	ase					n of Ground ns due to Al Cond				n of Ground		
Project Region	Project Area	ID#	Project Component	Construction	Operation	Closure	Post-Closure	Reclamation (Y/partial/N)	Closure Objective	Construction	Operation	Closure	ost-Closure	Construction	Operation	Closure	Post-Closure
	Mitchell Ore Preparation		Mitchell OPC	X	X	PF		Y	grass								
	Complex (Mitchell OPC)	105	MTT west portal	Х	Х			-	NA								
		106	MTT closure portal			Х	X	N	NA								
		107	substation 2	Х	Χ			-	NA								
		108	Closure substation				X	N	NA								
			25 kV transmission lines	X			X	N	NA								
	-		Mitchell OPC ore stockpile	X X/D	Х	R		Y	grass NA								
			TWT 4 - sediment control pond  Mitchell OPC Primary Crusher	X		D		-	NA NA								
	-		Mitchell OPC snow storage	+^	X			Y	grass								
	Mine Site Avalanche	114	fixed avalanche initiation exploders	Х			X	N N	NA								
	Control	115	fixed avalanche support structure	X	X	X		N	NA								
			fixed avalanche support structure access road	Х	Х		X	N	NA								
	Iron Cap Block Cave Mine	117	Iron Cap Underground Works		Х	D	)	N	NA		Х					Х	Х
		118	Iron Cap underground access ramp		Х	D	)	N	NA								
		119	Iron Cap conveyor 3		Х	D		N	NA								
		120	Iron Cap conveyor 2		Х	D		N	NA								
		121	Iron Cap conveyor 1		Х	D		N	NA								
			Iron Cap surface disturbance	_	X	_	X X	N	NA								
	-	123	Iron Cap return air portal		X	X		N N	NA NA								
		124 125	Iron Cap ventilation tunnels Iron Cap fresh air portals (x2)		X	D		N N	NA NA								
	Mitchell Pit		Mitchell Pit north wall dewatering adits		X			N	NA NA						х	х	Х
	I WILLOHOLI T IL		Mitchell Pit haul road	+	X			N	grass						^	^	^
			Mitchell Pit closure dam				X	N	NA							Х	Х
			Mitchell Pit closure dam spillway				X	N	NA								
			Mitchell Pit Lake discharge pipe			Х	X	N	NA								
			Mitchell Pit pre-production ore stockpile	Х				-	NA								
		132	Mitchell Pit	Х	Х	D		N	pit lake	Х	Х	Х	Х				
			Mitchell Pit Lake				X	N	NA			Х	Х				
			Mitchell Pit North diversion ditch		Х			N	NA								
		135	Mitchell Pit East diversion ditch		_			N	NA								
	Mitchell Disels Cove Mine	136	Mitchell Pit South diversion ditch		X	X/[		N	NA NA								
	Mitchell Block Cave Mine		Mitchell Underground Works Mitchell surface disturbance		X		' X	N N	NA NA	Х	Х	Х				Х	Х
			Mitchell underground access portal		X	_		N	NA NA								
			Mitchell underground access portal	1	X	D		N	NA NA								
			Mitchell underground conveyor tunnel portal		X			N	NA								
			Mitchell underground conveyor		Х			N	NA								
			Mitchell underground fresh air raises (x2)		Х			N	NA								
			Mitchell underground return air raises (x2)		Х			N	NA								
			Mitchell underground drainage tunnels		Х	D	)	N	NA					Х	Х	Х	Х
	Mitchell Diversion Tunnels		Mitchell diversion contact water ditch	Х			Ш	-	NA								
	(MDT)		North Mitchell Glacier collection ditch	X	Х	X	X	N	NA								
			North Mitchell Glacier collection ditch access road	X	V	<b>\</b>	, ,,	-	NA NA								
			North Mitchell Glacier access road	X	_	X	X	N	NA NA								
			Mitchell diversion phase1 surface inlet Mitchell Diversion Tunnel access	X	X	V	X	- N	NA NA				-		-		
			Mitchell diversion phase 2 surface inlet	+^	X	_		N N	NA NA								
			South Mitchell Glacier slope contact water collection ditch	+			X	N	NA NA						-		
			Mitchell flood overflow drainage tunnel	Х	Х		X	N	NA NA					Х	х	х	х
			Mitchell Diversion access road	X		†		-	NA								
			open pit phase sub-glacial inlet	Х	Х	Х	X	N	NA								
			underground phase sub-glacial inlet		Х		Х	N	NA								
		158	Temporary Water Treatment 5	X/D				-	NA								

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					Pha	ase					s due to Al	water Flow teration of E itions			n of Ground s due to Alte		
oject Region	Project Area	ID#	Project Component	Construction	Operation	Closure	Post-Closure	Reclamation (Y/partial/N)	Closure Objective	Construction	Operation	Closure	Post-Closure	Construction	Operation	Closure	Post-Closure
e Site	Mitchell Diversion Tunnels		TWT 5 - lined muck pad	X/D		1	-	-	NA	)		0	ш.				<del></del>
	(MDT) (cont'd)		TWT 5 - unlined muck pad	X/D				_	NA								+
			TWT 5 - sediment control pond	X/D				_	NA								+
		162	TWT 5 - diversion ditch	X/D				-	NA								+
		163	Open Pit Phase Mitchell Diversion Tunnel	Х	Х	Х	Х	N	NA					Х	Х	Х	Х
		164	Underground Phase Mitchell Diversion Tunnel		Х		Х	N	NA						х	Х	х
			Temporary Water Treatment 3	X/R				Υ	forest								1
		166	TWT 3 - unlined muck pad	X/R				Υ	forest								1
			TWT 3 - lined muck pad	X/R				Υ	forest								1
		168	TWT 3 - water treatment facility	X/R				Y	forest								1
		169	TWT 3 - sediment control pond	X/R				Y	forest								1
		170	TWT 3 - diversion ditch	X/R				Y	forest								
			MDT temporary diversion construction road	X	R			Y	forest								
			rock cut stepped spillway	X	Х	Х	Х	N	NA								
		173	underground phase outlet portal		Х	Х	Х	N	NA								
		174	Mitchell Diversion outlet access road	Х	Х	Х	Х	N	NA								
	Upper Sulphurets Power		surface penstock on pillars	Х	Х		Х	N	NA								
	Plant	176	penstock buried in road bed	Х	Х		Х	N	NA								
		177	upper Sulphurets Power Plant access road	Х	Х	Х	Х	N	NA								
		178	upper Sulphurets Power Plant	Х	Х	Х	Х	N	NA								
	Mitchell Truck Shop		Mitchell Truck Shop	X	Х	R		Υ	forest								
	Water Storage Facility		WSF bypass buried pipeline	X	Х		Х	N	NA								
	(WSF)		WSF snow storage		Х	D		N	NA								
			WSF borrow pits	X				-	NA								
			water storage pond	Х	Х	Х		N	NA	Х	Х	Х	Х				
			buried HDPE lined penstock	Х	Х		Х	N	NA								
			lined pumping header pond	Х	Х		Х	N	NA								
			downstream rockfill quarry area	Х	Х			Y	forest								
			Selenium Treatment Plant		Х		Х	N	NA								
		188	WSF diversion tunnel	X	Х	Х	Х	N	NA					Х	Х	Х	
			Temporary Water Treatment 7	X/R				N	NA								
			WSF construction access road	X/D				-	NA								
			WSF construction cofferdams	X/D				-	NA								
			Water Storage dam (WSD)		PR			Y	forest					Х	Х	Х	
			WSD west lower seepage interception tunnel	X			X	N	NA					Х	Х	Х	
			WSD west upper seepage interception tunnel	X			X	N	NA					Х	Х	Х	
			WSD east lower seepage interception tunnel	X	X	X	X	N	NA					Х	Х	Х	
			WSD east upper seepage interception tunnel	X		X	X	N	NA NA					Х	Х	Х	
			WSD southeast seepage interception tunnel	X			X	N	NA					Х	Х	Х	
			WSD southwest seepage interception tunnel	X			X	N	NA NA					Х	Х	Х	
			WSF pipeline	X	X		X	N	NA NA					1			+
			WSF spillway	X	X		X	N	NA NA					.,			+
			WSF seepage dam	X	X		X	N	NA nand/wattand		.,			Х	Х	Х	,
			WSF seepage collection pond	X	X		X	N	pond/wetland	Х	Х	Х	Х				+
			WSF seepage dam spillway southeast WSF diversion	X	X		X	N	NA NA								+
				X	Х	^	Х	N	NA NA								+
			temporary construction bridge Lower Mitchell closure channel access road	X/D	1	~	X	- N	NA NA					1	1	1	+
			Lower Mitchell closure channel		<del>                                     </del>		X	N N	NA NA								+
	Camp 9: Mitchell Initial			X/R	<del>                                     </del>	+^	^	Y	forest					-	-		+
	Camp 9: Mitchell Initial		Camp 9: Mitchell Initial Camp Camp 9 septic field	X/R X/R		+	+	Y	forest								+-
	Camp 10: Mitchell		Camp 9 septic field Camp 10: Mitchell Secondary Camp	X/R X		+	+	Y						-	-		+-
	Secondary Camp		Camps 9 and 10 helipad	X	R		+	Y	forest forest								+
	Cocondary Camp		Camps 9 and 10 neilpad Camp 9 and 10 incinerator	X			+	Y						-	-		+-
	1		Camp 9 and 10 incinerator  Camp 10 septic field	_ ^	R			Y	forest					1	1		1

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<sup>- =</sup> the project component is encompassed by another feature and the reclamation objective is indicated in the row for the other project feature.

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					Pha	ase					n of Ground ns due to Ali Cond					water Flow eration of P	Rates and ermeability
Project Pogica	Project Area	ID#	Project Component	Construction	Operation	Closure	Post-Closure	Reclamation	Closure Objective	Construction	Operation	Closure	ost-Closure	Construction	Operation	Closure	Post-Closure
Project Region Mine Site	Water Treatment and	214	penstock to WTP	X	X	X		(T/partial/N)	NA	0	0	0	ď	0	0	- 6	<del></del>
Willie Oile	Energy Recovery Area		Energy Recovery Facility	X	X		X	N	NA NA				+				+
	Lineigy receivery raise	216	Water Treatment Plant (WTP)	X	X		X	N	NA NA				+				+
		217	Temporary Water Treatment 1	X/R	^	^	^	Y	forest								+
	Sludge Management	218	sludge warehouse	X	Х		Х	N	NA								<del> </del>
	Facilities			X/R		_ ^	^	Y									<del> </del>
	aciiiles	219	sludge landfill	X/R		- V	· · ·		forest				1				<del> </del>
	Outobounds I modern Anna	220	sludge storage				X	N	NA				1				<del> </del>
	Sulphurets Laydown Area		Sulphurets access road	X	X		X	partial	forest								<b></b>
		222	Satellite Maintenance Facility		X	R		Y	forest								<b></b>
		223	Sulphurets snow storage	Х	X	R		Y	forest								
		224	Sulphurets diversion ditch	Х	Х	R		Y	forest								
		225	Sulphurets collection ditch	Х	Х			-	NA								
		226	landfarm/landfill	Х	R			Y	forest								
		227	Sulphurets laydown area	Х	X/R			Y	forest								
	Sulphurets-Mitchell	228	Sulphurets-Mitchell Conveyor Tunnel		Х	D		N	NA						Х	Х	х
	Conveyor Tunnel	229	Sulphurets-Mitchell Conveyor Tunnel portals		Х	R		Υ	forest								
		230	conveyor stockpile		Х	R		Υ	forest								
		231	conveyor 1 to Sulphurets portal		Х	R		Y	forest								
		232	conveyor 2 to Sulphurets portal		Х	R		Y	forest								
	Sulphurets Pit	233	Sulphurets Pit crusher		Х	R		Y	forest								1
		234	Sulphurets Pit	Х	Х	D		N	NA	Х	х	Х	х				1
		235	Sulphurets Pit Backfill			Х	PR	partial	forest								1
		236	Sulphurets Pit drainage collection ditch	X/D				-	NA								1
		237	Sulphurets Pit drainage pipeline to Selenium Treatment		Х	Х	Х	N	NA								†
		238	Sulphurets Pit drainage pipeline to WSF	Х	Х	Х		N	NA								+
		239	Sulphurets Pit diversion and collection system		Х	X	_	N	NA								+
	Kerr rope conveyor	240	Kerr rope conveyor		X	R		Y	forest								+
	l l l l l l l l l l l l l l l l l l l	241	conveyor stockpile		X	R		Y	forest								+
	Kerr Pit	242	Kerr Pit access road		X		R X	partial	forest								+
	Ken i it	243	Kerr Pit snow storage		X	R		Y	forest				+				+
		244	Kerr Pit crusher	-	X	R		Y	forest								+
		245	Kerr Pit			D		N					<b>.</b>				<del> </del>
			South Kerr Pit Lake		Х				pit lake		Х	X	X				<del> </del>
		246		_			X	N	NA NA			Х	Х				-
	Company Or To de Marria Company	247	Kerr Pit dewatering pipeline	V/D	Х	X	Х	N	NA				1				<del>                                     </del>
	Camp 2: Ted Morris Camp	248	Camp 2: Ted Morris Camp	X/R		-		Y	forest				1				-
		249	Camp 2 equipment and material storage yard	X/R				Y	forest								<u> </u>
			Camp 2 helipad	X/R				Y	forest								<b>_</b>
			Camp 2 incinerator	X/R				Y	forest								
			Camp 2 septic field	X/R				Y	forest								
	Explosives Manufacturing		Sulphurets Valley access road		Х	PR	R X	partial	forest								
	Facility		Sulphurets bridge	Х				N	NA								
			initial construction borrow and spoil area	Х	Х			Y	forest								
			secondary construction borrow and spoil area			X/F		Y	forest								
		257	closure cover borrow and till storage areas	Х		X/F		Υ	forest								
		258	secondary closure cover borrow and till storage area			X/F		Y	forest								
		259	explosives access road	Х	Х	R		Y	forest								
		260	explosives magazine	Х				Y	forest								
			AN Prill Storage access road	Х	Х			Y	forest								1
			AN prill storage area	Х	Х			Y	forest								1
			Explosives Manufacturing Facility	Х	Х			Y	forest								1
	Temporary Frank Mackie	264	Temporary Frank Mackie Glacier access route	X/D		1		N	NA								+
V = the project or	Glacier Access Route												<u> </u>				<u> </u>

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Appendix 11-H. Groundwater Quantity Scoping Table

					Pha	ase					n of Ground ons due to Al Cond				of Ground		Rates and ermeability
Project Region	Project Area	ID#	Project Component	Construction	Operation	Closure	Post-Closure	Reclamation	Closure Objective	Construction	Operation	Closure	ost-Closure	Construction	Operation	Closure	Post-Closure
Mine Site	Camp 1: Granduc Staging		Camp 1: Granduc Staging Camp	X	_		-	N	NA NA				ш.				ь.
	Camp	266	Camp 1 helipad	Х				N	NA								
		267	Camp 1 equipment and material storage yard	Х				N	NA								
		268	Camp 1 septic field	Х				N	NA								
Processing and	Mitchell-Treaty Twinned	269	Mitchell-Treaty Conveyor Tunnel	Х	Х	Х	Х	N	NA					Х	Х	Х	Х
Tailing	Tunnels (MTT)	270	Mitchell-Treaty Transportation Tunnel	Х	Х		Х	N	NA					Х	Х	Х	Х
Management	construction access adit	271	construction access portal	X	Х		Х	N	NA					1			
Area (PTMA)	constitution access dan		Adit Temporary Water Treatment 9	X	D			N	NA								
			Adit TWT - unlined muck pad	X	D			N	NA								
		274	Adit TWT - sediment control pond	X	D			N	NA								
			Adit TWT - lined muck pad	X	D			N	NA								
		276	Adit TWT - collection sump	X	D			N	NA NA								
		277	Adit TWT - diversion ditch	X	D			N	NA				<b>†</b>				<b>†</b>
		278	Treaty Adit road	X	X	Х	Х	N	NA NA								
		279	cable buried under road	X	D	<del>  ^</del>		N	NA NA								
		280	tunnel muck drainage pipeline buried under road	X	D			N	NA NA								
	Mitchell-Treaty Saddle	281	Saddle portal	X	X	X	Х	N	NA NA								
	Area	282	Saddle wash plant	X	R			Y	grass/shrub					1			
	7 0	283	Saddle helipad	X	R			Y	grass/shrub					1			
		284	Saddle Temporary Water Treatment 4	X	R			Y	grass/shrub								
			Saddle TWT - lined muck pad	X	R			Y	grass/shrub					+			
		286	Saddle TWT - unlined muck pad	X	R			Y	grass/shrub								
		287	Saddle TWT - temporary treatment plant	X	R			Y	grass/shrub					+			
		288	Saddle TWT - sediment control ponds	X	R			Y	grass/shrub					+			
		289	Saddle TWT - Sediment control ponds  Saddle TWT - diversion ditch	X	R			Y	grass/shrub								
		290	Saddle fueling station and tank farm	X	R			Y	grass/shrub					+			
		291	Saddle laydown area	X	R			Y	grass/shrub								
		292	Saddle explosives magazine	X	R			Y	grass/shrub								
		292	construction generator	X	R			Y	grass/shrub		_						
		293	Treaty Saddle road	X	X		Х	N	NA					1			
				X	R	^	^	Y						1			
		295	Treaty Saddle road borrow areas  Treaty Saddle road waste areas		R			Y	grass/shrub								
		296 297	•	X				Y	grass/shrub					1			
	Comm. C. Trank. Coddle		Treaty Saddle road till stockpiles		R			Y	grass/shrub					+			
	Camp 6: Treaty Saddle	298	Camp 6 incinerator  Camp 6 helipad	X	R			Y	grass/shrub								
	Camp	299 300	1	X	R		$\vdash$	Y	grass/shrub			<del>                                     </del>		1			
			Camp 6: Treaty Saddle Camp	X	R				grass/shrub					1			
			Camp 6 equipment and material storage yard	X				Y	grass/shrub					+			
	Comm. Fr. Transfer Dlant		Camp 6 septic field Camp 5: Treaty Plant Camp	X	R				grass/shrub								
	Camp 5: Treaty Plant Camp	303	Camp 5: Treaty Plant Camp	Х	R			Y	grass/shrub								
	Treaty Operating Camp	304	water supply well	X	Y	Х	Y	N	NA					+			
	Treaty Operating Camp		construction explosives storage	X/R		^	_^	Y	grass/shrub					+			
			water pipeline	X		X	V	N	NA		_						
			water supply well access road	X		X		N	NA NA								
			Treaty operating camp incinerator	X			X	N	NA NA					1			
		308		X		PR		partial			_						
		309 310	Treaty operating camp  Treaty operating camp septic field	X		rk	^		grass/shrub NA			<del>                                     </del>		1			
	Treaty Ore Preparation		Temporary Water Treatment 8	X			$\vdash$	- Y				-					
	Complex	311	TWT 8 - unlined muck pad		R		$\vdash$	Y	grass/shrub grass/shrub			<del>                                     </del>		1			
	Complex		TWT 8 - unlined muck pad TWT 8 - sediment control pond	X		-	$\vdash$							1	1	1	
				X		V	-	Y	grass/shrub		1	<del>                                     </del>	1	1	1	1	
			MTT ported levelous area	X	X X/R		Х	N Y	NA grace/ebrub		1	<del>                                     </del>	1	1	1	1	
			MTT portal laydown area						grass/shrub					1	1	1	
			Treaty runoff collection channel	X			R	Y	grass/shrub		-						
	mnonent is active during		Treaty helipad	X	Χ	R	$oldsymbol{oldsymbol{\sqcup}}$	Y	grass/shrub	<u> </u>	<u> </u>	L	<u> </u>	↓		<u> </u>	ļ

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Appendix 11-H. Groundwater Quantity Scoping Table

					Pha	ise					n of Ground ns due to Al Cond				n of Ground s due to Alte		
Denie of Denie v	Decinat Aven	ID #	Purious Common and	Construction	Operation	Closure	Post-Closure	Reclamation	Classes Objective	Construction	Operation	Closure	ost-Closure	Construction	Operation	Closure	Post-Closure
Project Region Processing and	Project Area Treaty Ore Preparation	<b>ID #</b> 318	Project Component Treaty construction laydown area	X	R	ပ	۵	(Y/partial/N)	Closure Objective grass/shrub	ပ	0	ပ	Δ.	ပ	0	ပ	Δ.
Tailing	Complex (cont'd)		Treaty waste management facilities	X		R		Y									
Management	Complex (cont a)	319 320	Treaty waste management racinities  Treaty warehouse and warehouse pad	X	X	R		Y	grass/shrub		-						
Area (PTMA)		321	Treaty maintenance shop	^		R		Y	grass/shrub		1						
,		322	Treaty lab		X	R		Y	grass/shrub grass/shrub								
		323	CIL Plant	X	X	R		Y	grass/shrub		-						
		324	substation 1	^	X		Х	N	NA		-						
			25 kV transmission line	X	X		X	N	NA NA								
		326	Treaty Process Plant	^	X	R	_	Y	grass/shrub		-						
			TWT 10 - sediment control pond		X		R	Y	grass/shrub		-						
					R	_^	К	Y			1						
			TWT 10 - collection ditch and pipeline	X		В	+	Y	grass/shrub								
			High Pressure Grinding Rolls (HPGR) Mill	Х	X	R		Y	grass/shrub								
		330	Treaty OPC fine ore stockpile		X	R			grass/shrub								
		331	Treaty OPC stormwater runoff pipeline		X		R	Y	grass/shrub		1						
		332	Treaty OPC coarse ore stockpile		X	R			grass/shrub								
		333	Treaty SEC Crusher Building	X		R		Y	grass/shrub		1						
		334	Treaty office complex	X	X		X	N	NA NA		1						
		335	Treaty ambulance building	X	X		Х	N	NA NA		1						
		336	container storage area	X	X	R		Y	grass/shrub		1						
		337	cold storage	X	X	R		Y	grass/shrub								
		338	Treaty CSCF/landfarm/landfill	X	X		R	Y	grass/shrub								
		339	Treaty OPC Batch Plant stockpile	X	X	R		Y	grass/shrub								
		340	Treaty OPC Batch Plant	X	X	R		Y	grass/shrub		1						
		341	Treaty fuel storage	X	X	R		Y	grass/shrub								
		342	Treaty OPC access road	X	X	R		Y	grass/shrub								
		343	Treaty OPC site collection and diversion ditches	X	X		R	Y	grass/shrub								
	0	344	Treaty Administration Building	X	X	_	Х	Y	grass/shrub		1						
	Concentrate Storage and Loadout	345	concentrate storage and loadout area		Х	R		Y	grass/shrub								
	North Cell Tailing	346	North Cell till stockpile	Х	Х	R		Υ	grass/shrub								
	Management Facility	347	North Cell soil storage area	Х	Х	R		Y	grass/shrub								
			TWT 11 - sediment control pond	Х	Х		R	Υ	grass/shrub								
		349	TWT 11 - collection ditch and pipeline	Х	Х		R	Y	grass/shrub								
		350	TWT 9 - sediment control pond	Х	Х	R		Υ	forest								
		351	TWT 9 - pipeline	Х	Х	R		Y	forest								
			North Cell seepage collection dam	Х		_	_	partial	grass/shrub					Х	Х	Х	Х
			North Cell seepage collection dam spillway	Х				N	NA								
			North Cell seepage collection pond	Х			Х	N	pond/wetland	Х	Х	Х	Х				
			North Cell seepage reclaim pipeline	Х		Х	Х	N	NA								
			North Cell construction berms and sediment fences	X/D					NA								
			North Cell starter dam	X/-				-	NA					Х			
			North dam construction pipeline and cofferdam	X/D				•	NA								
			North Cell dam		PR	Х	R	partial	grass/shrub					Х	Х	Х	Х
			North Cell borrow area	X/D		1_	$\perp$	-	NA								
			North Cell quarry	X/D				-	NA								
			North Cell waste pile	X/D		1	$\perp$	-	NA								
			North Cell construction access road and transmission line	X/D				-	NA				1		1	1	
			North Cell		X/PR			Υ	forest		Х	Х	Х				
			North Cell closure pond		Х			Y	pond/wetland							<u> </u>	
			reclaim barge		Х	D		-	NA								
			gravel beach cover		Х	-	R	Υ	wetland								
			pump house with potential clarification system	Х	Х	Х		-	NA								
			Northwest Diversion	Х			R	Y	forest							<u> </u>	
			TMF Discharge Pipeline	Х	Χ	X	D	N	NA		1						

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Appendix 11-H. Groundwater Quantity Scoping Table

					Ph	ase					n of Ground ns due to Al Cond					lwater Flow eration of P	
Project Region	Project Area	ID#	Project Component	Construction	Operation	Closure	Post-Closure	Reclamation (Y/partial/N)	Closure Objective	Construction	Operation	Closure	Post-Closure	Construction	Operation	Closure	Post-Closure
Processing and	East Catchment Diversion	371	East Catchment diversion tunnel portal access road	X	X	T X	X	Y	forest	)			ш.				<del></del>
Tailing		372	East Catchment diversion tunnel portal		Х	_		Y	forest								+
Management		373	northeast buried pipeline	X	X		R	N	NA								+
Area (PTMA)		374	northeast service road	X	X		R	Y	forest								+
		375	northeast diversion ditch	X			PR		forest								+
		376	East Catchment diversion tunnel phase 1	X	Х			N	NA					Х	х	Х	Х
		377	East Catchment diversion tunnel phase 2		X		( D	N	NA						X	X	X
		378	East Catchment diversion dam	X	PR		R	Y	grass/shrub								<del>- ^-</del>
		379	East Catchment diversion dam spillway	X	X		R	Y	grass/shrub					+			+
		380	East Catchment diversion pond	X			R	Y	grass/shrub					+			+
		381	TWT 13 - sediment control pond	X			`	Y	grass/shrub					+			+
		382	Upper East Catchment diversion dam	X	PR		( R	Y	grass/shrub								+
		383	Upper East Catchment diversion pond	X	X		R	Y	grass/shrub				1		1	<del> </del>	+
		384	Upper East Catchment diversion dam spillway	X			R	Y	grass/shrub							+	+
		385	TWT 12 - sediment control pond	X	R	_	, IX	Y	grass/shrub			<del>                                     </del>				+	+
	Centre Cell Tailing	386	Centre Cell borrow area	X/D		-		-	NA		+					+	+
	Management Facility		Splitter starter dam	X		-		_	NA NA		+			х		+	+
	Wanagement Fuelity	388	Splitter dam construction pipeline and cofferdam	X/D		-		-	NA NA					^			+
		389	Splitter dam	X		DI	R R	- Y	forest					· ·	· ·	· ·	<del></del>
			CIL Lined Pond	^			( R	Y			<b>.</b>			Х	Х	Х	Х
		390			X		( D		pond/wetland NA		Х	Х	Х				+
		391	reclaim barges (x2)	V	Х	+^	, D	-									+
		392	Saddle starter dam	X	<u> </u>	_	_	-	NA NA		1			Х		1	+
		393	Saddle dam construction diversion	X/D		-		-	NA NA								+
		394	Saddle dam construction southern diversion	X/D		_		-	NA								
		395	Saddle dam construction diversion access road	X/D		_		-	NA								
		396	Saddle seepage dam construction access road	X/D		<u> </u>		-	NA								
		397	Saddle dam	X			R R	Y	forest					Х	Х	Х	Х
		398	Saddle seepage collection pond	X				-	NA	Х	Х						
		399	Saddle seepage collection dam spillway	X	X/D			-	NA								
		400	Saddle seepage collection dam	X		)		-	NA					Х	Х	Х	Х
		401	Saddle dam collection ditch	X/D				-	NA								_
		402	TWT 14 - sediment control pond	X/D				-	NA								_
		403	TWT 14 - pipeline	X/D				-	NA								_
		404	Saddle seepage reclaim pipeline	X	X/D	)		-	NA								
		405	post-closure pond				X/PF		pond/wetland				Х				_
		406	post-closure gravel beach cover		1		X/R	Y	wetland						ļ	1	4
		407	post-closure cell				R	Y	forest				Х				
	South Cell Tailing	408	Southeast service road	Х			R	Y	forest						ļ	1	4
	Management Facility	409	Southeast diversion ditch	X			R	Y	forest				ļ		ļ		4
		410	South Cell quarry sediment fence		X/D			-	NA								
			South Cell quarry		X/D			-	NA								
			South Cell quarry construction berm		X/D			-	NA								
			North Treaty lower road	X	X/D			-	NA								_
		414	South Cell		Х	_	R R	Y	forest		Х	Х	х				
		415	South Cell pond		Х			-	NA		Х						
		416	South Cell closure pond		1	X/F		Y	pond/wetland			Х	Х	<u> </u>			1
		417	gravel beach cover		ļ		( R	Y	wetland								
		418	reclaim barge		Х		( D	-	NA				<u> </u>	<u> </u>			
		419	southeast dam				R	Y	grass/shrub						х	Х	Х
		420	southeast starter dam		Х			-	NA						Х		
		421	southeast dam diversion ditch		Х		X	N	NA								
		422	South Cell seepage reclaim pipeline		Х		X	N	NA								
			South Cell borrow area		X/R			Y	grass/shrub								
		424	TWT 15 - sediment control structure		X/R	3		Y	grass/shrub								

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## Appendix 11-H. Groundwater Quantity Scoping Table

					Pha	se				Alteration of Directions	due to Al	water Flow teration of E itions			of Ground		Rates and ermeability
Project Region	Project Area	ID#	Project Component	Construction	Operation	Closure	Post-Closure	Reclamation (Y/partial/N)	Closure Objective	Construction	Operation	Closure	Post-Closure	Construction	Operation	Closure	Post-Closure
Processing and	South Cell Tailing	425	TWT 15 - pipeline	Ť	X/R	Ĭ		Y	grass/shrub				_				
Tailing	Management Facility	426	Treaty Creek closure spillway			Х	X	N	NA								
Management	(cont'd)	427	southeast seepage collection dam		Х	PR	₹ X	partial	forest						Х	Х	х
Area (PTMA)		428	southeast seepage collection pond		Х		X	N	pond/wetland		Х	Х	Х				
		429	southeast seepage collection dam spillway		Х		X	N	NA								
		430	southeast seepage collection dam construction access road		Х	Х	X	N	NA								
		431	South Cell soil storage area		Х	R		Y	forest								
	Treaty Creek Access		North Treaty upper road	Х	Х	Х	X	N	NA								
	Corridor	433	Treaty Creek Transmission Line	Х	Х	Х	X	N	NA								
		434	southwest diversion ditch	Х	Х	Х	PR	partial	forest								
		435	TCAR channel armouring and diversion dams	Х	PR	Х	X	partial	grass								
		436	southwest diversion access road	Х	Х	Х	X	N	NA								
		437	Treaty Creek access road (TCAR)	Х	Х	Х	X	N	NA								
		438	TCAR borrow areas	Х	R			Υ	forest								
		439	TCAR waste areas	Х	R			Υ	forest								
		440	TCAR log landings	Х	R			Υ	forest								
		441	creek crossing R053	Χ	Х	Χ	X	N	NA								
		442	creek crossing R049	Х	Х	Х	X	N	NA								
		443	creek crossing R047	Х	Х	Х	X	N	NA								
		444	North Treaty Creek bridge (R045)	Х	Х	Х	X	N	NA								
		445	creek crossing R037	Х	Х	Х	X	N	NA								
		446	creek crossing R038	Х	Х	Х	X	N	NA								
		447	creek crossing R036	Х	Х	Х	X	N	NA								
		448	creek crossing R035	Χ	Х	Χ	X	N	NA								
		449	creek crossing R034	Χ	Х	Χ	X	N	NA								
		450	Bell-Irving River bridge (R033)	Х	Х	Х	X	N	NA								
	Camp 11: Treaty	451	Camp 11: Treaty Marshalling Yard Camp	Χ	R			Y	forest								
	Marshalling Yard Camp	452	Camp 11 Treaty marshalling yard	Х	R			Y	forest								
		453	Camp 11 incinerator	Х	R			Y	forest								
	Camp 12: Highway 37	454	Camp 12: Highway 37 Construction Camp	X/R				Y	forest								
	Construction Camp	455	Camp 12 incinerator	X/R				Y	forest								
Off-site	Highway 37 and 37A	456	Highway 37	Х	Х	Х	X	N	NA								
Transportation		457	Highway 37A	Х	Х			N	NA								

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