

Appendix D4 Private Water Supply Information

Information related to the private water supplies - see enclosed:

Software Requirements to view private water supply information:

Location of Private Water Supplies

The shapefile and associated files can be opened with a wide variety of GIS software packages.

- ArcGIS
- Global Mapper
- MapInfo
- QGIS
- Autodesk Civil 3D
- Autodesk Map3D

An electronic copy of the shapefile and associated files can be obtained from either Turley or Dalradian Gold Limited.

- Turley, Hamilton House, 3 Joy Street, Belfast, BT2 8LE
- Dalradian Gold Limited, 3 Killybrack Road, Omagh, BT79 7DG

Project well ID	X_Coordinate	Y_Coordinate	Well Information			Initial screening for inclusion in groundwater model			Numerical model predictions: Predicted drawdown range at end of mining in metres (Water level)*		Numerical model predictions: Contact water migration (Water Quality)*		Abstraction Impact Summary
			Supply Type	General Usage (long term)	Currently Used (Second survey locations only)	Purpose	Well Depth Group	Well inside maximum piezometer drawdown extent (deep/layer 5 of groundwater model)	Well downgradient of proposed infrastructure area (included for flow source work)	Abstraction assessed in numerical model (remaining abstractions outside radius of potential impact)	Abstractions with a known depth	Abstractions with a <u>unknown depth</u> . Hypothetical drawdowns were calculated for if wells are 5m, 50m, 100m, or 200m deep	
1		255100	386000 Well	Disused	No	Domestic	0-10m	Yes	No	Yes	0 (zero)	0% (zero)	No impact predicted
2		257400	383400 Well	Disused	No	Domestic	0-10m	No	Yes	Yes	0 (Zero), Outside L5 drawdown	0% (zero)	No impact predicted Monitoring offered
4		257800	384600 Well	Used	Operational	Domestic	0-10m	Yes	Inside infrastructure area	Yes	0 (zero)	0% (zero)	No impact predicted Monitoring offered
5		258900	384000 Well	Used	Unknown	Multiple	0-10m	No	Inside infrastructure area	No	0 (Zero), Outside L5 drawdown	0% (zero)	Removed for development Replacement source will be offered if still utilised
6		258200	383100 Well	Disused	No	Livestock feed / General Farming	Unknown	No	Yes	Yes	0 (Zero), Outside L5 drawdown	0% (zero)	No impact predicted Monitoring offered
7		256000	384500 Well	Used	Operational	Domestic	0-10m	No	No	No			
8		256900	384100 Well	Used	Operational	Livestock feed / General Farming	0-10m	No	No	No			
9		256300	385000 Well	Used	Operational	Multiple	0-10m	Yes	No	Yes	0 (zero)	0% (zero)	No impact predicted Monitoring offered
10		256000	386500 Well	Disused	No	Livestock feed / General Farming	Unknown	Yes	No	Yes	Well 5m depth: zero Well 50m depth: zero Well 100m depth: 0.5m to 1m Well 200m depth: 10m to 20m	0% (zero)	Water level impact predicted if well >100m deep Well depth to be determined
11		256400	386500 Well	Used	Operational	Livestock feed / General Farming	0-10m	Yes	No	Yes	0 (zero)	0% (zero)	Drawdown likely to increase with 2019 mine design* Monitoring offered
12		259600	386100 Well	Used	Operational	Domestic	0-10m	No	No	No			
13		259600	386200 Well	Used	Operational	Domestic	0-10m	No	No	No			
14		259100	386600 Well	Used	Planned	Domestic	0-10m	Yes	No	Yes	0 (zero)	0% (zero)	No impact predicted
15		259900	382900 Well	Used	Operational	Multiple	Unknown	No	No	No			
16		259600	382800 Well	Unknown	Unknown	Unknown	Unknown	No	No	No			
17		259500	384100 Well	Used	No	Livestock feed / General Farming	0-10m	No	Yes	Yes	0 (Zero), Outside L5 drawdown	0% (zero)	No impact predicted
18		259400	384000 Well	Used	Operational	Livestock feed / General Farming	0-10m	No	Yes	Yes	0 (Zero), Outside L5 drawdown	0% (zero)	No impact predicted
19		254100	385800 Well	Disused	No	Domestic	10-80m	No	No	No			
20		253700	385800 Well	Disused	No	Domestic	0-10m	No	No	No			
21		254500	385900 Spring	Disused	No	Domestic	Unknown	No	No	No			
22		253400	385800 Well	Disused	No	Domestic	Unknown	No	No	No			
23		254900	383900 Spring	Used	Operational	Livestock feed / General Farming	0-10m	No	No	No			
24		255000	383900 Spring	Disused	No	Livestock feed / General Farming	0-10m	No	No	No			
25		257100	387800 Well	Used	Operational	Livestock feed / General Farming	0-10m	Yes	No	Yes	0 (zero)	0% (zero)	No impact predicted
26		257100	387600 Well	Used	Planned	Domestic	0-10m	Yes	No	Yes	0 (zero)	0% (zero)	No impact predicted
27		265900	387800 Well	Disused	No	Livestock feed / General Farming	Unknown	No	No	No			
28		257400	384200 Well	Used	Operational	Domestic	80-150m	No	Yes	Yes	0 (Zero), Outside L5 drawdown	0% (zero)	No impact predicted Monitoring offered
29		253600	387700 Spring	Used	No	Livestock feed / General Farming	0-10m	No	No	No			
30		254500	387500 Well	Disused	No	Domestic	Unknown	No	No	No			
31		267300	386100 Well	Disused	No	Unknown	0-10m	No	No	No			
32		257900	386800 Well	Backfilled	No	Livestock feed / General Farming	Unknown	Yes (well backfilled)	No	No			
33		261000	386200 Well	Disused	No	Livestock feed / General Farming	Unknown	No	No	No			
34		261000	386100 Well	Disused	No	Livestock feed / General Farming	0-10m	No	No	No			
35	Not recorded - well disused	Not recorded - well disused	Unknown	Disused	No	Domestic	Unknown	No	No	No			
36		259700	386200 Well	Used	Operational	Livestock feed / General Farming	Unknown	No	No	No			
37		259400	384000 Well	Used	Operational	Domestic	80-150m	No	Yes	Yes	0 (Zero), Outside L5 drawdown	0% (zero)	No impact predicted Monitoring offered
40		258100	384500 Well	Disused	No	Livestock feed / General Farming	Unknown	Yes	Inside infrastructure area	Yes	Well 5m depth: Zero Well 50m depth: <0.05m Well 100m depth: 0.5m to 1m Well 200m depth: 1m to 5m	0.01%	Disused well. Well removed for development
41		254800	387600 Well	Used	Unknown	Livestock feed / General Farming	0-10m	No	No	No			
42		254400	388000 Well	Used	Unknown	Livestock feed / General Farming	Unknown	No	No	No			
43		255000	387500 Well	Disused	No	Livestock feed / General Farming	Unknown	No	No	No			
44		260900	386900 Well	Used	Unknown	Multiple	Unknown	No	No	No			
45		261100	387000 Well	Disused	Domestic	Domestic	10-80m	No	No	No			
46		261100	387000 Well	Used	Domestic	Domestic	0-10m	No	No	No			
48		254700	383900 Well	Disused	No	Livestock feed / General Farming	Unknown	No	No	No			
49		254700	384000 Well	Used	Operational	Livestock feed / General Farming	Unknown	No	No	No			

50	254700	384100 Well	Disused	No	Domestic	Unknown	No	No	No					
51	254500	384900 Well	Used	Unknown	Livestock feed / General Farming	Unknown	No	No	No					
52	255500	383400 Well	Used		Domestic	Unknown	No	No	No					
53	255400	383700 Well	Used		Livestock feed / General Farming	0-10m	No	No	No					
54	258900	386600 Well	Used	Operational	Domestic	0-10m	Yes	No	No	Yes	<0.05		0% (zero)	No impact predicted Monitoring offered
55	258100	389200 Well	Used		Livestock feed / General Farming	Unknown	No	No	No	No				
56	256100	386300 Spring	Used	Operational	Livestock feed / General Farming	0-10m	Yes	No	No	Yes	<0.05		0% (zero)	No impact predicted. Drawdown likely to increase with 2019 mine design* Monitoring offered
57	254500	385000 Spring	Disused	No	Unknown	0-10m	No	No	No	No				
58	254700	384500 Spring	Disused	No	Unknown	0-10m	No	No	No	No				
59	254600	384200 Spring	Disused	No	Unknown	0-10m	No	No	No	No				
60	255100	387300 Well	Disused	No	Unknown	Unknown	No	No	No	No				
61	255800	387300 Well	Used	Operational	Livestock feed / General Farming	150-250m	Yes	No	No	Yes	1 to 5m		0% (zero)	Minor water level impact predicted Monitoring offered
62	255800	387400 Well	Used	Operational	Livestock feed / General Farming	Unknown	Yes	No	No	Yes		Well 5m depth: zero Well 50m depth: <0.05m Well 100m depth: <0.05m Well 200m depth: 1m to 5m	0% (zero)	Water level impact predicted if well >200m deep Well depth to be determined
63	259400	387600 Well	Used	Operational	Livestock feed / General Farming	0-10m	No	No	No	No				
64	259400	387500 Well	Disused	No	Unknown	Unknown	No	No	No	No				
65	259600	387500 Well	Used	Operational	Livestock feed / General Farming	0-10m	No	No	No	No				
66	260700	387300 Well	Unknown	Unknown	Unknown	Unknown	No	No	No	No				
67	261200	387100 Well	Unknown	Unknown	Unknown	Unknown	No	No	No	No				
68	261300	387100 Well	Unknown	Unknown	Unknown	Unknown	No	No	No	No				
69	261200	387000 Well	Unknown	Unknown	Livestock feed / General Farming	Unknown	No	No	No	No				
70	255800	382700 Well	Disused	Unknown	Livestock feed / General Farming	Unknown	No	No	No	No				
71	255800	382500 Well	Disused	Unknown	Livestock feed / General Farming	Unknown	No	No	No	No				
72	261900	385000 Well	Used	Unknown	Livestock feed / General Farming	Unknown	No	No	No	No				
73	262400	385200 Well	Used	Unknown	Livestock feed / General Farming	Unknown	No	No	No	No				
74	262100	385200 Well	Used	Unknown	Livestock feed / General Farming	Unknown	No	No	No	No				
75	261900	385800 Well	Disused	No	Unknown	Unknown	No	No	No	No				
77	255800	382700 Well	Used	Unknown	Livestock feed / General Farming	Unknown	No	No	No	No				
79	257900	383800 Spring	Used	Unknown	Livestock feed / General Farming	0-10m		Yes	Yes	Yes	0 (Zero), Outside L5 drawdown		2%	Predicted quality below drining water standard/background. No impact predicted Monitoring offered
80	257600	383600 Spring	Used	Unknown	Livestock feed / General Farming	0-10m	No	Yes	Yes	Yes	0 (Zero), Outside L5 drawdown		0% (zero)	No impact predicted Monitoring offered
81	256800	384000 Well	Used	Unknown	Domestic	Unknown	No	No	No	No				
82	254300	384900 Well	Disused	No	Livestock feed / General Farming	0-10m	No	No	No	No				
83	255800	384900 Well	Backfilled	No	Livestock feed / General Farming	0-10m	No	No	No	No				
84	260500	383800 Well	Used	Unknown	Multiple	Unknown	No	No	No	No				
85	262000	386800 Well	Used	Unknown	Livestock feed / General Farming	Unknown	No	No	No	No				
86	261300	383500 Well	Used	Unknown	Domestic	Unknown	No	No	No	No				
87	261600	385300 Well	Used	Planned	Unknown	Unknown	No	No	No	No				
88	261800	385500 Well	Used	Unknown	Livestock feed / General Farming	Unknown	No	No	No	No				
89	260900	382200 Well	Used	Unknown	Livestock feed / General Farming	Unknown	No	No	No	No				
90	260000	385500 Well	Used	Operational	Livestock feed / General Farming	0-10m	No	No	No	No				
91	256800	382300 Well	Used	Unknown	Livestock feed / General Farming	Unknown	No	No	No	No				
92	257100	381700 Well	Used	Unknown	Livestock feed / General Farming	Unknown	No	No	No	No				
93	257100	382000 Well	Used	Unknown	Livestock feed / General Farming	Unknown	No	No	No	No				
94	257200	382100 Well	Used	Unknown	Livestock feed / General Farming	Unknown	No	No	No	No				
95	257300	381500 Well	Used	Operational	Livestock feed / General Farming	Unknown	No	No	No	No				
96	257300	382000 Well	Used	Unknown	Livestock feed / General Farming	Unknown	No	No	No	No				
97	257200	384000 Well	Used	Operational	Livestock feed / General Farming	0-10m	No	No	No	No				
98	256700	382000 Well	Used	Unknown	Livestock feed / General Farming	Unknown	No	No	No	No				
99	256800	382400 Well	Used	No	Unknown	Unknown	No	No	No	No				
100	256000	384100 Well	Disused	No	Unknown	Unknown	No	No	No	No				
101	260800	385100 Well	Used	Unknown	Domestic	Unknown	No	No	No	No				
102	259000	383800 Well	Used	Operational	Domestic	0-10m	No	Yes	Yes	Yes	0 (Zero), Outside L5 drawdown		0% (zero)	No impact predicted Monitoring offered
104	259500	384100 Well	Used	Unknown	Domestic	0-10m	No	Yes	Yes	Yes	0 (Zero), Outside L5 drawdown		0% (zero)	No impact predicted Monitoring offered
105	257500	383100 Well	Used	Unknown	Livestock feed / General Farming	Unknown	No	Yes	Yes	Yes	0 (Zero), Outside L5 drawdown		0% (zero)	No impact predicted Monitoring offered
106	258800	386300 Well	Disused	No	Livestock feed / General Farming	Unknown	Yes	No	Yes	Yes	Well 5m depth: zero Well 50m depth: 0.05m to 0.5m Well 100m depth: 0.05m to 0.5m Well 200m depth: 5m to 10m		0% (zero)	Disused well. Water level impact predicted if well >50m deep Well depth to be determined
107	259000	383500 Well	Used	Operational	Livestock feed / General Farming	0-10m	No	No	No	No				
108	260000	384900 Well	Used	Unknown	Domestic	Unknown	No	No	No	No				
109	260900	383900 Well	Disused	No	Unknown	Unknown	No	No	No	No				
110	261500	383600 Well	Used	Unknown	Livestock feed / General Farming	Unknown	No	No	No	No				
111	261100	384100 Well	Disused	No	Domestic	Unknown	No	No	No	No				
112	258700	384500 Well	Used	Operational	Domestic	0-10m		Yes	Yes	Yes	0 (Zero), Outside L5 drawdown		0% (zero)	Well and associated property removed for development. No replacement required
113	259600	383900 Well	Disused	No	Livestock feed / General Farming	Unknown	No	Yes	Yes	Yes	0 (Zero), Outside L5 drawdown		0% (zero)	No impact predicted
114	257400	388000 Well	Used	Operational	Domestic	0-10m	Yes	No	Yes	Yes	<0.05		0% (zero)	No impact predicted
115	258000	389300 Well	Used	Operational	Domestic	Unknown	No	No	No	No				
116	257400	389100 Well	Used	Operational	Domestic	Unknown	No	No	No	No				
117	253800	387800 Well	Used	Unknown	Livestock feed / General Farming	Unknown	No	No	No	No				
118	257500	388300 Well	Used	Planned	Livestock feed / General Farming	Unknown	No	No	No	No				
119	Not recorded - Outside 2nd survey	Not recorded - Outside 2nd survey	Well	Used	Operational	Unknown	Unknown	No	No	No				
120	Not recorded - well disused	Not recorded - well disused	Well	Disused	No	Livestock feed / General Farming	Unknown	No	No	No				
121	259200	384300 Well	Disused	No	Unknown	0-10m		Yes	Yes	Yes	0 (Zero), Outside L5 drawdown		0% (zero)	Disused well. Well removed for development
122	257800	381800 Spring	Used	Unknown	Commercial/Industrial	Unknown	No	No	No	No				
123	258300	382500 Well	Used	Operational	Domestic	Unknown	No	Yes	Yes	Yes	0 (Zero), Outside L5 drawdown		0% (zero)	No impact predicted
124	Not recorded - Outside 2nd survey	Not recorded - Outside 2nd survey	Well	Used	Operational	Domestic	Unknown	No	No	No				
125	254000	387700 Spring	Used	Operational	Livestock feed / General Farming	0-10m	No	No	No	No				
126	Not recorded - Outside 2nd survey	Not recorded - Outside 2nd survey	Well	Used	Operational	Unknown	Unknown	No	No	No				
127	258200	382600 Well	Used	Operational	Domestic	Unknown	No	Yes	Yes	Yes	0 (Zero), Outside L5 drawdown		0% (zero)	No impact predicted

128	260200	383500 Well	Used	Operational	Livestock feed / General Farming	Unknown	No	No	No				
129	Not recorded - Outside 2nd survey	Not recorded - Outside 2nd survey Well	Used		Domestic	Unknown	No	No	No				
130	260500	382200 Well	Used	Operational	Unknown	Unknown	No	No	No				
131	255700	383600 Well	Disused	No	Unknown	Unknown	No	No	No				
132	258600	382200 Spring	Used		Livestock feed / General Farming	Unknown	No	No	No				
133	257000	382200 Spring	Used	Operational	Livestock feed / General Farming	0-10m	No	No	No				
38a	258100	382800 Well	Used	Unknown	Multiple	Unknown	No	Yes	Yes	0 (Zero), Outside L5 drawdown	0% (zero)	No impact predicted	
38b	258100	382700 Well	Used	Unknown	Multiple	Unknown	No	Yes	Yes	0 (Zero), Outside L5 drawdown	0% (zero)	No impact predicted	
38c	258100	382700 Well	Used	Unknown	Multiple	Unknown	No	Yes	Yes	0 (Zero), Outside L5 drawdown	0% (zero)	No impact predicted	
39a	259900	382900 Well	Used		Livestock feed / General Farming	Unknown	No	No	No				
39b	259600	382800 Well	Used		Livestock feed / General Farming	Unknown	No	No	No				

Table information

Coordinates are presented in TM65_Irish_Grid. Co-ordinates have been rounded to the nearest 100m

The first abstraction survey area was defined a basic drawdown calculation. The second survey was defined on Layer 5 (L5) groundwater model drawdown (i.e. maximum piezometric drawdown) and locations downgradient of the DSI

*The groundwater model used for these predictions incorporates the 2017 EIA mine design. The 2019 underground mine design is larger in the west of the extraction area, therefore predicted impacts to supplies ID 11 and 56 are expected to increase