

### Albion Park Quarry Dust - July 11 to Dec 11

Analyte	Location 1		Location 2		Location 3		Location 4	
	Ash	Total Insoluble Solids	Ash	Total Insoluble Solids	Ash	Total Insoluble Solids	Ash	Total Insoluble Solids
Jul-11	1	1.1	1.1	1.8	0.2	0.2	0.6	0.7
Aug-11	2	2.1	0.6	1.5	^aug3	^aug3	0.3	0.3
Sep-11	2.9	3	1.2	2.2	0.2	0.2	0.8	0.8
Oct-11	2.8	3.2	1.5	2.4	0.3	0.3	1.2	1.6
Nov-11	2.5	2.9	2	3.6	0.4	0.5	0.6	0.9
Dec-11	2.2	2.4	3.7	6.7	^dec3	^dec3	0.7	0.8

^aug 3 Funnel missing (subsequently replaced)

^dec3 Funnel missing and glass present In bottle

## Albion Park Quarry - Groundwater Dec 11

Borehole	Depth	Conductivity	pH	Temp	TDS	TSS
	m	µS/cm	Units	deg C	mg/L	mg/L
MW1D	12.72	140	6.6	17.7	101	50
MW1S	0.92	1110	6.4	18	684	18
MW2D	2.34	140	7	18.3	85	64
MW2S	8.18	1090	6.6	21.1	930	1660

\*

Borehole	Sodium	Potassium	Calcium	Sulphate	Chloride	Nitrate
	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
MW1D	10	4	9	11	11	0.78
MW1S	91	1	68	47	197	0.03
MW2D	7	2	9	6	8	0.36
MW2S	113	<1	65	231	48	1.73

Borehole	Nitrite	Alkalinity	Nitrogen	Bicarbonate	Oil & Grease	BOD
	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
MW1D	<0.01	33	0.4	33	<5	3
MW1S	<0.01	193	0.5	193	<5	<2
MW2D	<0.01	33	0.4	33	<5	3
MW2S	<0.01	226	0.5	226	<5	<2

Borehole	Carbon	Ammonia	Phosphorus
	mg/L	mg/L	mg/L
MW1D	<1	<0.01	0.08
MW1S	8	0.04	0.09
MW2D	4	<0.01	0.12
MW2S	4	<0.01	0.42

### Albion Park Quarry - Groundwater Dec 11

<b>Borehole</b>	<b>MW1D</b>	<b>MW1S</b>	<b>MW2D</b>	<b>MW2S</b>
<b>Arsenic</b>	<0.001	0.004	<0.001	<0.001
<b>Cadmium</b>	<0.0001	<0.0001	<0.0001	<0.0001
<b>Chromium</b>	<0.001	<0.001	<0.001	<0.001
<b>Copper</b>	0.011	0.003	0.048	0.012
<b>Iron</b>	<0.05	0.71	<0.05	<0.05
<b>Lead</b>	<0.001	<0.001	<0.001	<0.001
<b>Mercury</b>	<0.0001	<0.0001	<0.0001	<0.0001
<b>Nickel</b>	0.003	0.002	0.002	0.007
<b>Zinc</b>	0.135	0.018	0.168	0.028

## Albion Park Quarry HVAS - July 11 to Dec 11

Date	TSP
1/07/2011	4.4
7/07/2011	11.7
13/07/2011	15.7
19/07/2011	0.7
25/07/2011	6.4
31/07/2011	9
6/08/2011	8.6
12/08/2011	2.7
18/08/2011	4.6
24/08/2011	7.9
30/08/2011	6.3
5/09/2011	24.2
11/09/2011	14.6
17/09/2011	16.2
23/09/2011	29.4
29/09/2011	9.8
5/10/2011	7.6
11/10/2011	6.9
17/10/2011	9.8
23/10/2011	21
29/10/2011	23.2
4/11/2011	8.5
10/11/2011	13.4
16/11/2011	8.3
22/11/2011	6.9
28/11/2011	207
4/12/2011	0.6
10/12/2011	2.4
16/12/2011	1.6
22/12/2011	1.3
28/12/2011	2.3

**Albion Park Quarry Supertreat - July 11 to Dec 11**

<b>Date</b>	<b>Oil and Grease</b>	<b>TSS</b>	<b>BOD5</b>
<b>5/09/2011</b>	<5	45	36
<b>6/12/2011</b>	<5	39	40

**Albion Park Quarry Watercourse 1 & 2 - July 11 to Dec 11**

Analyte		5/07/2011	21/07/2011	2/08/2011	16/08/2011	31/08/2011	14/09/2011	28/09/2011	12/10/2011	28/10/2011	8/11/2011	23/11/2011	5/12/2011	21/12/2011
<b>Conductivity</b> ( $\mu$ S/cm)	WC 1	401	205	302	293	366	457	317	372	264	314	302	330	353
	WC 2	1050	529	986	981	920	1020	898	923	731	847	794	937	899
<b>pH</b>	WC 1	7.9	7.6	7.8	7.8	7.6	7.7	7.3	7.8	7.8	7.7	7.8	7.3	7.6
	WC 2	8.2	8	7.6	7.6	7.7	8	8.1	7.7	8	8.2	8.2	7.6	8.1
<b>Temperature</b> ( $^{\circ}$ C)	WC 1	9.9	12.6	12.7	14.1	12.5	15.9	14.9	17.3	16.5	20.1	17.3	17.9	19.6
	WC 2	11.8	13	14.6	14.3	13.5	17.9	15.1	16.1	17.1	20.8	18.3	19.4	20
<b>Turbidity</b> (NTU)	WC 1	10.8	65.4	16.6	43	6.9	3.9	14.2	4	3.6	6	37.3	5.2	4.8
	WC 2	4.2	123	2.6	7.1	1.4	1.2	7.7	3.1	39	7.2	250	2.1	9.4

## Albion Park Quarry Watercourse 1 & 2 - July 11 to Dec 11

### Oil & Grease

Location	5/09/2011	5/12/2011
WC 1	<5	<5
WC 2	<5	<5

### Total Suspended Solids

Location	5/09/2011	5/12/2011
WC 1	<5	7
WC 2	63	<5

### Total Dissolved Solids

Location	5/09/2011	5/12/2011
WC 1	234	212
WC 2	624	570

### Sodium

Location	5/09/2011	5/12/2011
WC 1	43	34
WC 2	108	106

### Potassium

Location	5/09/2011	5/12/2011
WC 1	<1	<1
WC 2	1	<1

### Calcium

Location	5/09/2011	5/12/2011
WC 1	19	12
WC 2	65	49

### Sulphate

Location	5/09/2011	5/12/2011
WC 1	<1	<10
WC 2	212	203

### Chloride

Location	5/09/2011	5/12/2011
WC 1	39	23
WC 2	30	25

### Alkalinity

Location	5/09/2011	5/12/2011
WC 1	125	99
WC 2	228	208

**Bicarbonate**

Location	5/09/2011	5/12/2011
WC 1	125	99
WC 2	228	208

**Metals**

Location	Watercourse 1		Watercourse 2	
	5/09/2011	5/12/2011	5/09/2011	5/12/2011
Arsenic	<0.001	<0.001	<0.001	<0.001
Cadmium	<0.0001	<0.0001	<0.0001	<0.0001
Chromium	<0.001	<0.001	<0.001	<0.001
Copper	0.003	0.005	0.003	0.005
Iron	0.14	0.24	<0.05	<0.05
Lead	<0.001	<0.001	<0.001	<0.001
Mercury	<0.0001	<0.0001	<0.0001	<0.0001
Nickel	<0.001	<0.001	<0.001	<0.001
Zinc	<0.005	<0.005	<0.005	<0.005



**Albion Park Quarry West of Quarry Managers Office - July 11 to Dec 11**

<b>Date</b>	<b>pH</b>	<b>Oil and Grease</b>	<b>TSS</b>
<b>5/07/2011</b>	8.1	5	<5
<b>5/08/2011</b>	8	<5	<5
<b>5/09/2011</b>	7.8	<5	<5
<b>5/10/2011</b>	7.7	<5	14
<b>4/11/2011</b>	7.8	<5	<5
<b>5/12/2011</b>	7.8	<5	9