RESULTS FOR THE CALENDAR YEAR **2013**

Report Date: **23/12/2013**

POLLUTION MONITORING

As required by the NSW EPA under Section 66(6) of the POEO Act

TYPE OF MONITORING

GROUND WATER

PREMISES DETAILS

TOOHEYS PTY LTD
29 NYRANG STREET
LIDCOMBE
NSW 2141
LOT 10 DP 1008367
ENVIRONMENTAL PROTECTION LICENCE No. 1167

SAMPLE POINTS

There are 6 wells on site from which samples are taken
The wells are identified as follows

Well #01
Well #02
Well #07
Well #08
Well #09
Well #10

To view a map of the location of the sample points, Refer to Appendix 1

REQUIREMENTS

Pollutant	Monitoring Frequency (Grab Sample)	Unit of Measure	Adopted Criteria (GIL) Note 1 µg/L	Rationale
Metals				ANZECC (2000) Australian Water Quality Guidelines for the protection of 95% of freshwater species. The threshold levels have been adjusted for hardness inaccordance with the guidelines
Arsenic (V)	Every 6 months	µg/L	13	
Cadmium	Every 6 months	µg/L	2.5	
Chromium (VI)	Every 6 months	µg/L	10.1	
Copper	Every 6 months	µg/L	15.4	
Lead	Every 6 months	µg/L	122.7	
Mercury	Every 6 months	µg/L	0.6	
Nickel	Every 6 months	µg/L	121.2	
Zinc	Every 6 months	µg/L	88.2	
TRH/TPH				Screening GIL (at limited of reporting) – require further investigation if exceeded
C6-C9	Every 6 months	µg/L	10	
>C9	Every 6 months	µg/L	250	
BTEX				ANZECC (2000) Australian Water Quality Guidelines for the protection of 95% of freshwater species.
Benzene	Every 6 months	µg/L	950	
Toluene	Every 6 months	µg/L	180	GIL for toluene or ethyl benzene are low reliability.
Ethylbenzene	Every 6 months	µg/L	80	
Xylene	Every 6 months	µg/L	550	
PAH				ANZECC (2000) Australian Water Quality Guidelines for the protection of 95% of freshwater species.
Naphthalene	Every 6 months	µg/L	16	
Phenol	Every 6 months	µg/L	320	ANZECC (2000) Australian Water Quality Guidelines for the protection of 95% of freshwater species.
Organic Compounds				Screening GIL (at limited of reporting)
(VOC)	Every 6 months	µg/L	10	

Note 1 *Groundwater Investigation Levels (GIL) have been sourced from the ANZECC Australian and New Zealand Guidelines for Fresh and Marine Water*

Quality (2000), trigger values for toxicants in fresh waters for the protection of 95% of species.

	Survey Date	9/04/2013	Survey Date	7/11/2013
RESULTS	Survey Period	Jan 13 - Jun 13	Survey Period	Jul 13 - Dec 13
		Comment		Comment
Arsenic (ug/L)				
Well #01	3	The result meets the required guidelines	3	The result meets the required guidelines
Well #02	<1	The result meets the required guidelines	<1	The result meets the required guidelines
Well #07	<1	The result meets the required guidelines	<1	The result meets the required guidelines
Well #08	<1	The result meets the required guidelines	<1	The result meets the required guidelines
Well #09	<1	The result meets the required guidelines	<1	The result meets the required guidelines
Well #10	<1	The result meets the required guidelines	<1	The result meets the required guidelines
Cadmium (ug/L)				
Well #01	<0.1	The result meets the required guidelines	<0.1	The result meets the required guidelines
Well #02	0.4	The result meets the required guidelines	0.4	The result meets the required guidelines
Well #07	<0.1	The result meets the required guidelines	<0.1	The result meets the required guidelines
Well #08	0.3	The result meets the required guidelines	0.3	The result meets the required guidelines
Well #09	<0.1	The result meets the required guidelines	<0.1	The result meets the required guidelines
Well #10	0.2	The result meets the required guidelines	0.2	The result meets the required guidelines
Chromium (iii) (ug/L)				
Well #01	<1	The result meets the required guidelines	<1	The result meets the required guidelines
Well #02	<1	The result meets the required guidelines	<1	The result meets the required guidelines
Well #07	<1	The result meets the required guidelines	<1	The result meets the required guidelines
Well #08	<1	The result meets the required guidelines	<1	The result meets the required guidelines
Well #09	<1	The result meets the required guidelines	<1	The result meets the required guidelines
Well #10	<1	The result meets the required guidelines	<1	The result meets the required guidelines
Copper (ug/L)				
Well #01	4	The result meets the required guidelines	5	The result meets the required guidelines
Well #02	9	The result meets the required guidelines	9	The result meets the required guidelines
Well #07	8	The result meets the required guidelines	8	The result meets the required guidelines
Well #08	4	The result meets the required guidelines	4	The result meets the required guidelines
Well #09	3	The result meets the required guidelines	3	The result meets the required guidelines

Well #10	5	The result meets the required guidelines	5	The result meets the required guidelines
Lead (ug/L)				
Well #01	<1	The result meets the required guidelines	<1	The result meets the required guidelines
Well #02	<1	The result meets the required guidelines	<1	The result meets the required guidelines
Well #07	<1	The result meets the required guidelines	<1	The result meets the required guidelines
Well #08	<1	The result meets the required guidelines	<1	The result meets the required guidelines
Well #09	<1	The result meets the required guidelines	<1	The result meets the required guidelines
Well #10	<1	The result meets the required guidelines	<1	The result meets the required guidelines
Mercury (ug/L)				
Well #01	<0.1	The result meets the required guidelines	<0.1	The result meets the required guidelines
Well #02	<0.1	The result meets the required guidelines	<0.1	The result meets the required guidelines
Well #07	<0.1	The result meets the required guidelines	<0.1	The result meets the required guidelines
Well #08	<0.1	The result meets the required guidelines	<0.1	The result meets the required guidelines
Well #09	<0.1	The result meets the required guidelines	<0.1	The result meets the required guidelines
Well #10	<0.1	The result meets the required guidelines	<0.1	The result meets the required guidelines
Nickel (ug/L)				
Well #01	6	The result meets the required guidelines	6	The result meets the required guidelines
Well #02	19	The result meets the required guidelines	19	The result meets the required guidelines
Well #07	8	The result meets the required guidelines	8	The result meets the required guidelines
Well #08	5	The result meets the required guidelines	5	The result meets the required guidelines
Well #09	3	The result meets the required guidelines	3	The result meets the required guidelines
Well #10	3	The result meets the required guidelines	3	The result meets the required guidelines
Zinc (ug/L)				
Well #01	39	The result meets the required guidelines	40	The result meets the required guidelines
Well #02	71	The result meets the required guidelines	71	The result meets the required guidelines
Well #07	30	The result meets the required guidelines	30	The result meets the required guidelines
Well #08	17	The result meets the required guidelines	17	The result meets the required guidelines
Well #09	25	The result meets the required guidelines	25	The result meets the required guidelines
Well #10	12	The result meets the required guidelines	12	The result meets the required guidelines
Total Petroleum Hydrocarbons (C6-C9) (ug/L)				
Well #01	<10	The result meets the required guidelines	<10	The result meets the required guidelines
Well #02	<10	The result meets the required guidelines	<10	The result meets the required guidelines
Well #07	<10	The result meets the required guidelines	<10	The result meets the required guidelines

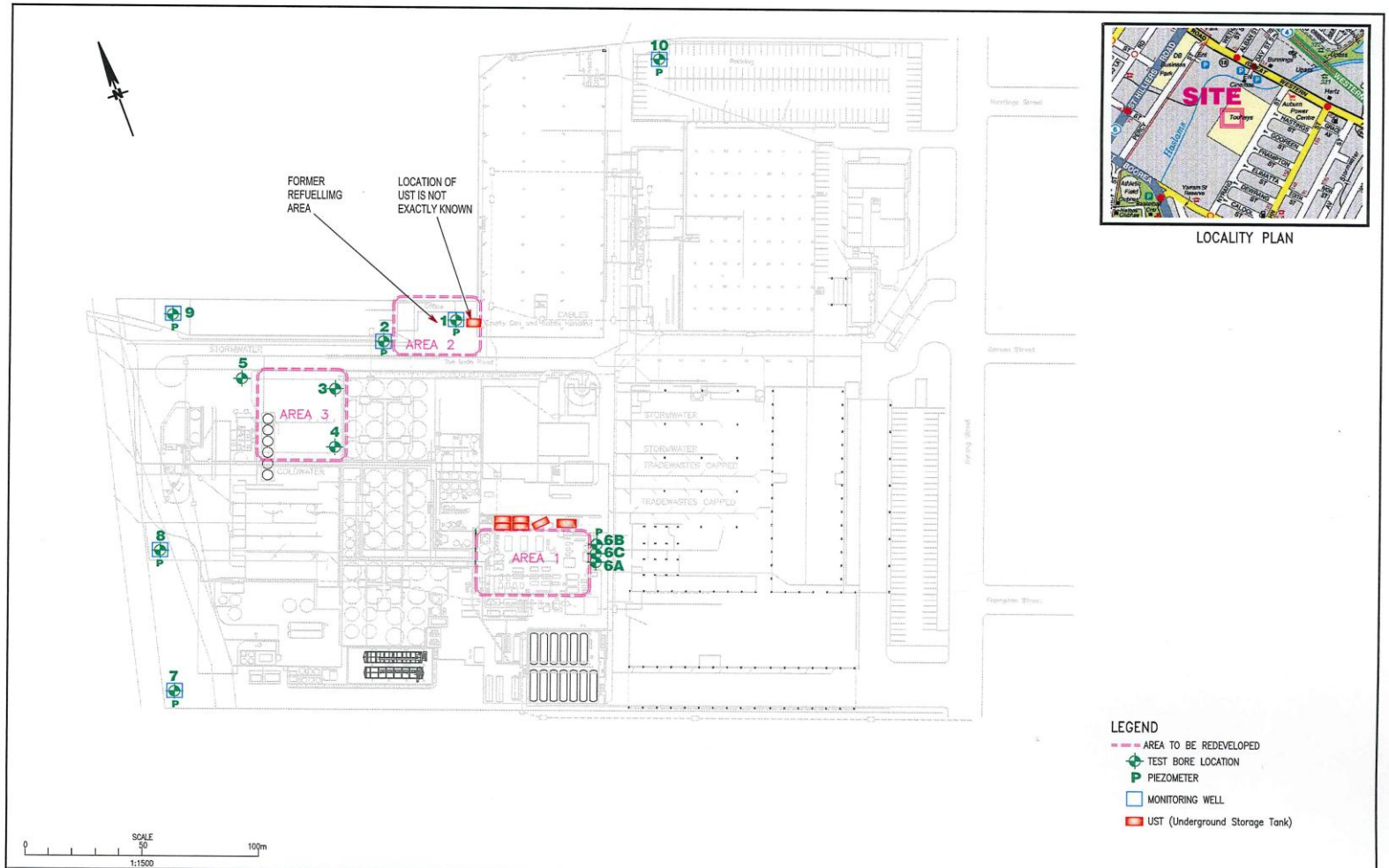
Well #08	<10	The result meets the required guidelines	<10	The result meets the required guidelines
Well #09	<10	The result meets the required guidelines	<10	The result meets the required guidelines
Well #10	<10	The result meets the required guidelines	<10	The result meets the required guidelines
Total Petroleum Hydrocarbons (C10-C36) (ug/L)				
Well #01	<250	The result meets the required guidelines	<250	The result meets the required guidelines
Well #02	<250	The result meets the required guidelines	<250	The result meets the required guidelines
Well #07	<250	The result meets the required guidelines	<250	The result meets the required guidelines
Well #08	<250	The result meets the required guidelines	<250	The result meets the required guidelines
Well #09	<250	The result meets the required guidelines	<250	The result meets the required guidelines
Well #10	<250	The result meets the required guidelines	<250	The result meets the required guidelines
Benzene (ug/L)				
Well #01	<1	The result meets the required guidelines	<1	The result meets the required guidelines
Well #02	<1	The result meets the required guidelines	<1	The result meets the required guidelines
Well #07	<1	The result meets the required guidelines	<1	The result meets the required guidelines
Well #08	<1	The result meets the required guidelines	<1	The result meets the required guidelines
Well #09	<1	The result meets the required guidelines	<1	The result meets the required guidelines
Well #10	<1	The result meets the required guidelines	<1	The result meets the required guidelines
Toluene (ug/L)				
Well #01	<1	The result meets the required guidelines	<1	The result meets the required guidelines
Well #02	<1	The result meets the required guidelines	<1	The result meets the required guidelines
Well #07	<1	The result meets the required guidelines	<1	The result meets the required guidelines
Well #08	<1	The result meets the required guidelines	<1	The result meets the required guidelines
Well #09	<1	The result meets the required guidelines	<1	The result meets the required guidelines
Well #10	<1	The result meets the required guidelines	<1	The result meets the required guidelines
Ethyl Benzene (ug/L)				
Well #01	<1	The result meets the required guidelines	<1	The result meets the required guidelines
Well #02	<1	The result meets the required guidelines	<1	The result meets the required guidelines
Well #07	<1	The result meets the required guidelines	<1	The result meets the required guidelines
Well #08	<1	The result meets the required guidelines	<1	The result meets the required guidelines
Well #09	<1	The result meets the required guidelines	<1	The result meets the required guidelines
Well #10	<1	The result meets the required guidelines	<1	The result meets the required guidelines
Total Xylene (ug/L)				
Well #01	<3	The result meets the required guidelines	<3	The result meets the required guidelines

Well #02	<3	The result meets the required guidelines	<3	The result meets the required guidelines
Well #07	<3	The result meets the required guidelines	<3	The result meets the required guidelines
Well #08	<3	The result meets the required guidelines	<3	The result meets the required guidelines
Well #09	<3	The result meets the required guidelines	<3	The result meets the required guidelines
Well #10	<3	The result meets the required guidelines	<3	The result meets the required guidelines

COMMENTS

All ground water monitoring results were within the required limits for current reporting period.

APPENDIX 1


FORMER REFUELLIMG AREA
LOCATION OF UST IS NOT EXACTLY KNOWN
AREA 1
AREA 2
AREA 3
SITE
LOCALITY PLAN
LEGEND
AREA TO BE REDEVELOPED
TEST BORE LOCATION
PIEZOMETER
MONITORING WELL
UST (Underground Storage Tank)
SCALE
1:1500
Douglas Partners
Geotechnics · Environment · Groundwater
CLIENT: Tooheys Pty Ltd
DRAWN BY: PSCH
SCALE: As shown
OFFICE: Sydney
APPROVED BY:
DATE: 06.06.11
TITLE: Location of Monitoring Wells
Groundwater Monitoring
29 Nyrang Street, LIDCOMBE
PROJECT No: 71021.03
DRAWING No: 1
REVISION: A