FOURTH QUARTER 2012
QUARTERLY MONITORING REPORT

Berry Street Mall Landfill
901 Galleria Boulevard
Roseville, California

WDR No. 89-115

Prepared For:

A Greener Globe
5009 Southside Ranch Road
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Prepared By:

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February 28, 2014

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1.0 INTRODUCTION

This report presents the results of the Fourth Quarter 2012 groundwater monitoring activities for the closed Berry Street Mall Landfill (Landfill), in Roseville, California. These activities were implemented to fulfill requirements set forth in the Landfill's Waste Discharge Requirements Order No. 89-115 (Order 89-115) and associated Monitoring and Reporting Program (M&RP 89-115). Order 89-1 15 was issued and adopted by the California Regional Water Quality Control Board – Central Valley Region (RWQCB) on June 23, 1989. This Order, which rescinded the Landfill's previous Order 72-71, was adopted to address final closure of the Landfill and to bring the facility into compliance with Title 23 of the California Code of Regulations (23 CCR). Please note that 23 CCR has since been replaced with 27 CCR, which represents the current regulatory document governing municipal solid waste landfills. The Landfill is owned and operated by A Greener Globe (AGG), a charitable non-profit public benefit corporation.

As outlined above, this report includes a quarterly summary of monitoring activities in both a tabular and graphical format. However, only the supporting documentation (i.e., field sampling data sheets and groundwater potentiometric surface map) for the First Quarter 2012 monitoring period is presented herein.

1.1 Site Location and Description

The Landfill is located at 901 Galleria Boulevard in the City of Roseville, Placer County, California within the northeast quarter of Section 35, Township 11 North, Range 6 East, Mount Diablo Baseline and Meridian. The Placer County Assessors Parcel Number for the Landfill property is 015-100-048. A vicinity map showing the location of the Landfill is presented as Figure 1. The Landfill footprint occupies approximately 11 to 11.5 acres of an approximate 26-acre parcel.

The Landfill, which was formally closed in 1993, is centrally located within the property and is equipped with a final cover system meeting the regulatory prescriptive standard. Pertinent ancillary features with respect to the Landfill include interior and perimeter surface drainage facilities (i.e., down drains, culverts, paved ditches, etc.), a primary sedimentation basin, leachate and standby landfill gas (LFG) collection systems, and asphaltic paved and gravel access roadways. The Landfill footprint and adjoining areas are covered with seasonal grasses. In addition to the aforementioned landfill-related features, a nursery facility is located south and adjacent to the Landfill. The area occupied by the nursery was formerly used as a transfer station and is currently leased to the nursery owner by AGG. A site map showing the general site configuration and features is presented as Figure 2. Adjacent properties surrounding the Landfill are currently used for a variety of different purposes. The area north of the Landfill property

is comprised of non-irrigated open space.

Galleria Boulevard borders the site along its eastern property boundary, beyond which lies the closed Roseville Sanitary Landfill (RSL) and two electrical substations. The south-adjacent property is occupied by a commercial development, whereas the property west of the Landfill is currently under development.

1.2 Background Information

The Landfill (formerly known as the “Finger Sanitary Landfill”) was operated as a Class III (previously Group II-2) facility from approximately 1946 through 1987. The nature of the waste accepted at the Landfill included classified solid waste and construction debris. Reportedly, the Landfill received approximately 15 tons of waste per day and a total tonnage of approximately 224,500 tons over its operating life. The disposal of waste in the Landfill was discontinued in November 1987. However, the receipt and processing of waste on-site continued at the transfer station until approximately 1996. As previously noted, the transfer station facility was subsequently converted to a nursery in February 2003.

In May 1992, Final Closure and Post-closure Maintenance Plans were prepared for the Landfill under the California Integrated Waste Management Board’s (CIWMB’s) Orphan Sites Programs. The respective plans were subsequently approved by the various regulatory agencies, whereupon construction of the final cover system and associated ancillary facilities were implemented between the fall of 1992 and spring of 1993. The final cover system consists of a 4-foot minimum thickness monolithic earthen low permeability layer placed over the top of the entire waste footprint. The ancillary facilities, in turn, included surface water drainage control and sedimentation control improvements, placement of survey/settlement control monuments, installation of leachate and standby LFG collection systems, and the installation of miscellaneous environmental monitoring systems.

As a historical point of reference, the Landfill has gone through several ownerships since the early 1950’s. From 1952 through November 1987, the Landfill was owned and operated by Mr. William Finger (hence the former site reference as “Finger Sanitary Landfill”). In November 1987, ownership was transferred to the Estate of William Finger and Berry Street Mall, Inc. Finally, in August 1996, the Landfill property was subsequently acquired by AGG through foreclosure. As previously noted, AGG is the current owner of the Landfill property.

2.0 GROUNDWATER MONITORING PROGRAM

A Groundwater Monitoring Program has been developed for the Landfill to meet the minimum requirements set forth in M&RP 89-115. Details regarding the scope of monitoring activities and corresponding results and findings are summarized in the following subsections.

2.1 Scope of Monitoring Activities

2.1.1 ***Description of Groundwater Monitoring Network***

The existing groundwater monitoring network consists of six (6) monitoring wells, identified herein as GW-1 through GW-6. The locations of the monitoring wells are shown in Figure 2. Monitoring wells GW-1 through GW-4, which were installed in 1993 as part of the site closure activities for the purpose of monitoring first-encountered groundwater, are constructed of 5-inch diameter Schedule 80 polyvinyl chloride (PVC) casing and completed at depths ranging from approximately 122 to 152 feet below ground surface (BGS), which corresponds to approximately 38 to 82 feet above mean sea level (AMSL). At the time of installation, GW-1 and GW-4 were targeted for use as upgradient monitoring wells, whereas GW-2 and GW-3 were designated as downgradient “point of compliance” wells.

Monitoring wells GW-5 and GW-6 were installed in June 2004 as part of a site characterization investigation to further evaluate the nature and extent of groundwater impacts at the site. Similar to GW-1 through GW-4, these monitoring wells are also completed in first-encountered groundwater at depths ranging from approximately 154 to 165 feet BGS, which corresponds to approximately 31 to 34 feet AMSL. These monitoring wells are constructed of 2-inch diameter Schedule 40 PVC casing. Findings from the site characterization work concluded that the locations of GW-5 and GW-6 would serve as suitable northern and western “points of compliance” wells, respectively. As a result of these findings, GW-5 and GW-6 were subsequently incorporated into the groundwater monitoring network beginning with the Fourth Quarter 2004 monitoring event.

2.1.2 ***Testing Requirements***

The following table provides a summary of the quarterly monitoring requirements for groundwater as stipulated in M&RP 89-115.

SUMMARY OF FIELD AND LABORATORY TESTING REQUIREMENTS **GROUNDWATER MONITORING PROGRAM** **QUARTERLY EVENT**
Quarterly Field Parameters: Depth to Groundwater

2.1.3 ***Monitoring***

Groundwater monitoring activities were conducted on December 18, 2012 and performed by Doulos Environmental Company (Doulos) of Orangeville, California, under the direction of AGG. The scope of groundwater monitoring activities performed by Doulos encompassed the following:

- Measurement of depth to groundwater in GW-1 through GW-6. The depth to groundwater readings (as measured from the top of casing [TOC]) were conducted using a water level meter capable of measurements to the nearest 0.01 foot. The corresponding readings were then subtracted from the surveyed TOC elevations to determine groundwater potentiometric surface elevations at the respective locations. Copies of the field sampling data sheet documenting the corresponding field measurements for this quarter are included in Appendix A.

2.2 Results and Findings

2.2.1 ***Groundwater Flow Direction and Gradient***

The results of groundwater potentiometric surface measurements conducted at the site on December 18, 2012 are summarized in Table 1. A potentiometric surface map illustrating the corresponding groundwater flow conditions is presented as Figure 3, “Groundwater Contour Map”. As shown in Figure 3, the southeast portion of the site is characterized by a northwesterly groundwater flow component, whereas a westerly groundwater flow component predominates beneath the central and western portions of the Landfill.

These flows conditions generally mimic the original site topography and orientation of a former ephemeral drainage that was present prior to landfill development.

The aforementioned variable groundwater flow component is also accompanied by variable hydraulic gradient conditions, with a fairly significant decrease in hydraulic gradient occurring from east to west across the site. As shown in Figure 3, the site exhibits a hydraulic gradient of approximately 0.029 foot per foot (ft/ft). Similar to the comparison noted above, the changes in hydraulic gradient generally mimic the former topographic features that characterized the site prior to landfill development.

2.2.2 ***Groundwater Velocity***

The average linear velocity (seepage velocity) of groundwater is calculated using the following formula:

$$V_x = \frac{Q}{n_e A} = -\frac{Kdh}{n_e dl}$$

where

V_x is the average linear velocity
n_e is the effective porosity
Q is the discharge (flux)
A is the cross-sectional area of flow
K is the hydraulic conductivity
dh is the difference in groundwater elevation between two measurement points
dl is the distance between the two measurement points used for dh

No site-specific data exists for effective porosity (n_e) or hydraulic conductivity (K), for purposes of calculating groundwater velocity at the site, Geological Analytics used values of 0.15 for n_e and 0.00038 foot/second (ft/s) for K, based on published data for fine sandstones, which generally approximates the lithologies present in the upper water-bearing zone beneath the site. Groundwater elevation differential is calculated between monitoring wells GW-1 and GW-6. Based on these input values, the groundwater velocity at the site on December 18, 2012 is calculated as 7.35×10^{-5} ft/s.

3.0 REFERENCES

American Society for Testing and Materials (ASTM), 1998, *ASTM D6312-98, Standard Guide for Developing Appropriate Statistical Approaches for Ground-Water Detection Monitoring Programs.*

EBA Engineering, September 27, 2004, *Site Characterization Report, Berry Street Mall Landfill, Roseville, California: EBA Job No. 03-1039;* Prepared for A Greener Globe by EBA Engineering, Santa Rosa, California.

USEPA, July 1992, *Statistical Analysis Groundwater Monitoring Data at RCRA Facilities – Addendum to Interim Final Guidance*, Office of Solid Waste, Permits and State Program Division, Washington D.C.

4.0 LIMITATIONS, REMARKS AND SIGNATURES

The findings presented herein are professional opinions based on the data presented in this report. They are intended only for the indicated purpose and project site. Furthermore, the findings presented herein apply to site conditions existing at the time of our study. Changes in the conditions of the subject property can occur with time because of natural processes or the works of man on the project site or on adjacent properties. Changes in applicable standards can also occur as the result of legislation or from the broadening of knowledge. Accordingly, the findings of this report may be invalidated, wholly or in part, by changes beyond our control.

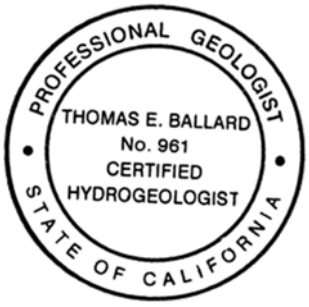
This work was performed for the sole use of Geological Analytics' client and appropriate regulatory agencies. Any reliance on this report by a third party is at such party's sole risk. Please note that the findings and evaluations presented herein are based, in part, on information generated by others. As a result, Geological Analytics cannot guarantee the precision or accuracy of data generated by other entities.

Geological Analytics' professional services were performed and findings obtained in accordance with generally accepted environmental consulting principles and practices in Placer County in 2012. This warranty is in lieu of all other warranties, either expressed or implied.

We appreciate the opportunity to provide you with geologic, engineering and environmental consulting services and trust this report meets your needs. If you have any questions or concerns, please call us at (916) 226-5072.

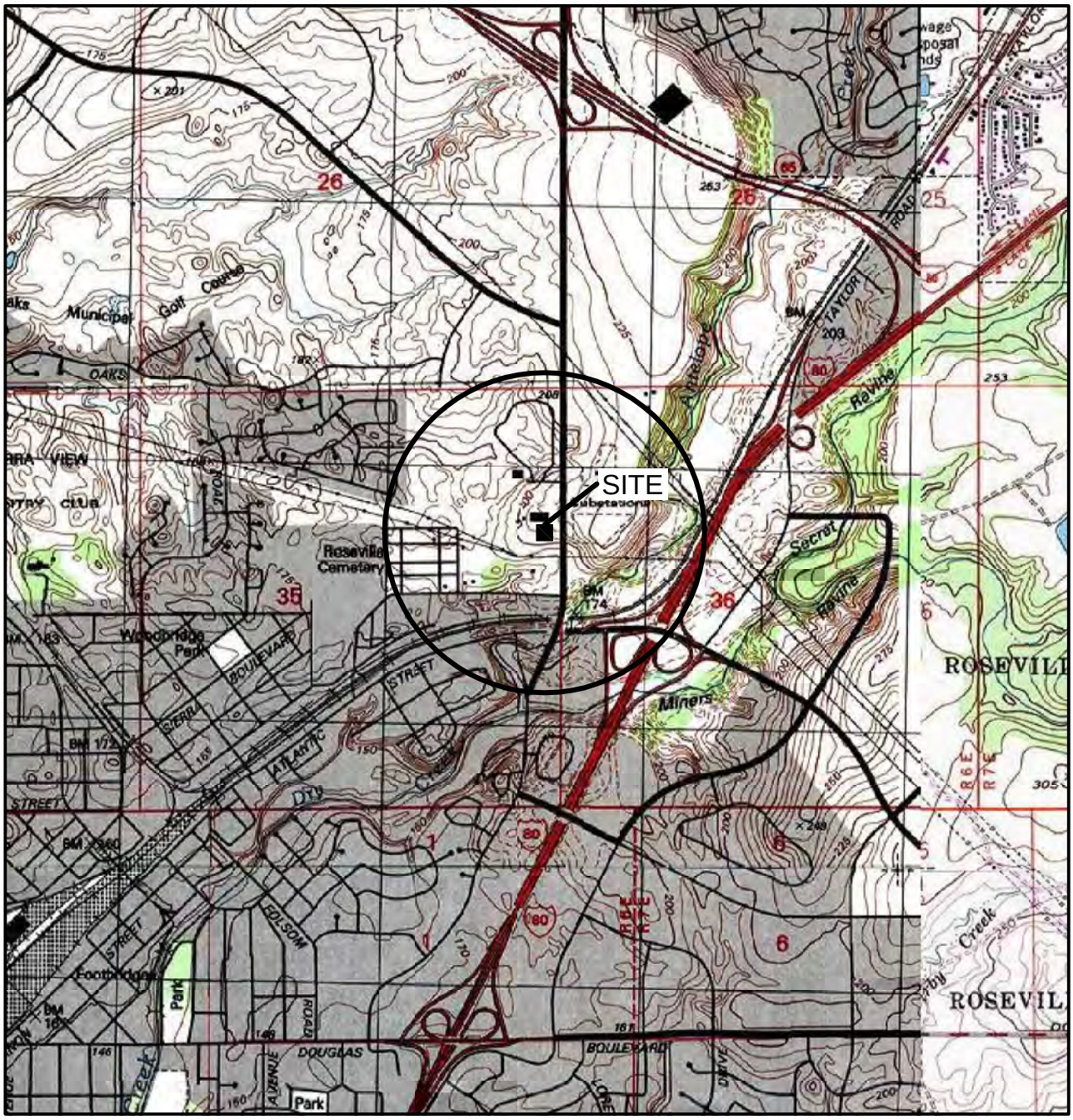
Sincerely,

Geological Analytics



Thomas E. Ballard, P.G. #7299, C.H.G. #961
Principal Hydrogeologist

FIGURES



GENERAL NOTES:
BASE MAP FROM U.S.G.S.
ROSEVILLE, CA
7.5 MINUTE TOPOGRAPHIC
PHOTOREVISED: 1992

QUADRANGLE LOCATION

N

0 2000 FT

SCALE 1:24,000

FIGURE 1

SITE LOCATION MAP

BERRY STREET MALL LANDFILL
ROSE VILLE, CALIFORNIA

PROJECT NO. 03-1039	DRAWN BY JWY 7/20/06
FILE NO. 03-1039-01	PREPARED BY T.E.B.
REVISION NO. 0	REVIEWED BY

GEOLOGICAL ANALYTICS

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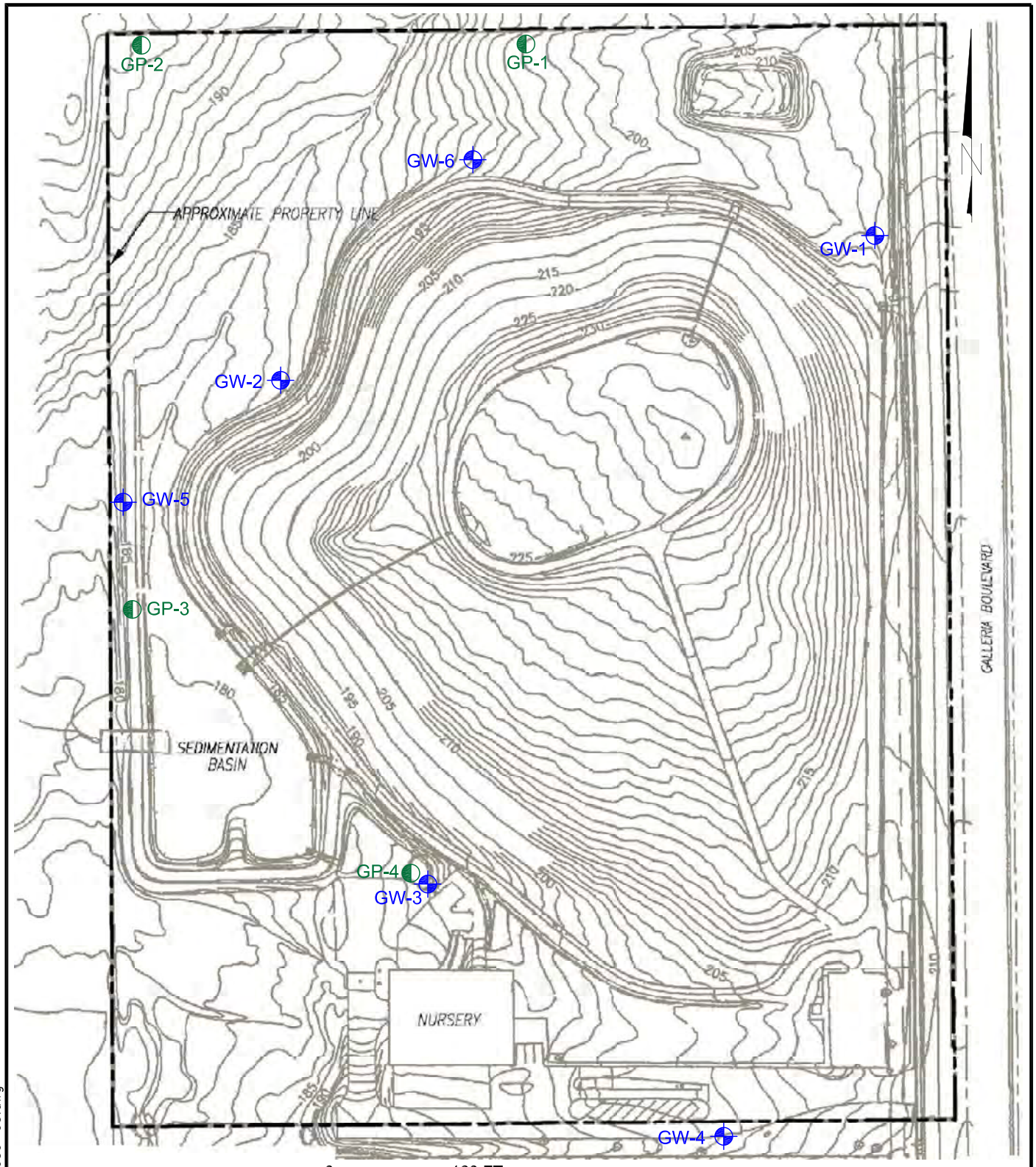

LEGEND

GP-4 PERIMETER LFG MONITORING POINT

GW-3 MONITORING WELL

MAP SOURCE: FINAL POST-CLOSURE MAINTENANCE PLAN, FIGURE 4-3 (MODIFIED

FIGURE 2

SITE MAP

BERRY STREET MALL LANDFILL
ROSE VILLE, CALIFORNIA

PROJECT NO.	DRAWN BY
03-1039	JWY 7/20/06
FILE NO.	PREPARED BY
03-1039-01	T.E.B.
REVISION NO.	REVIEWED BY
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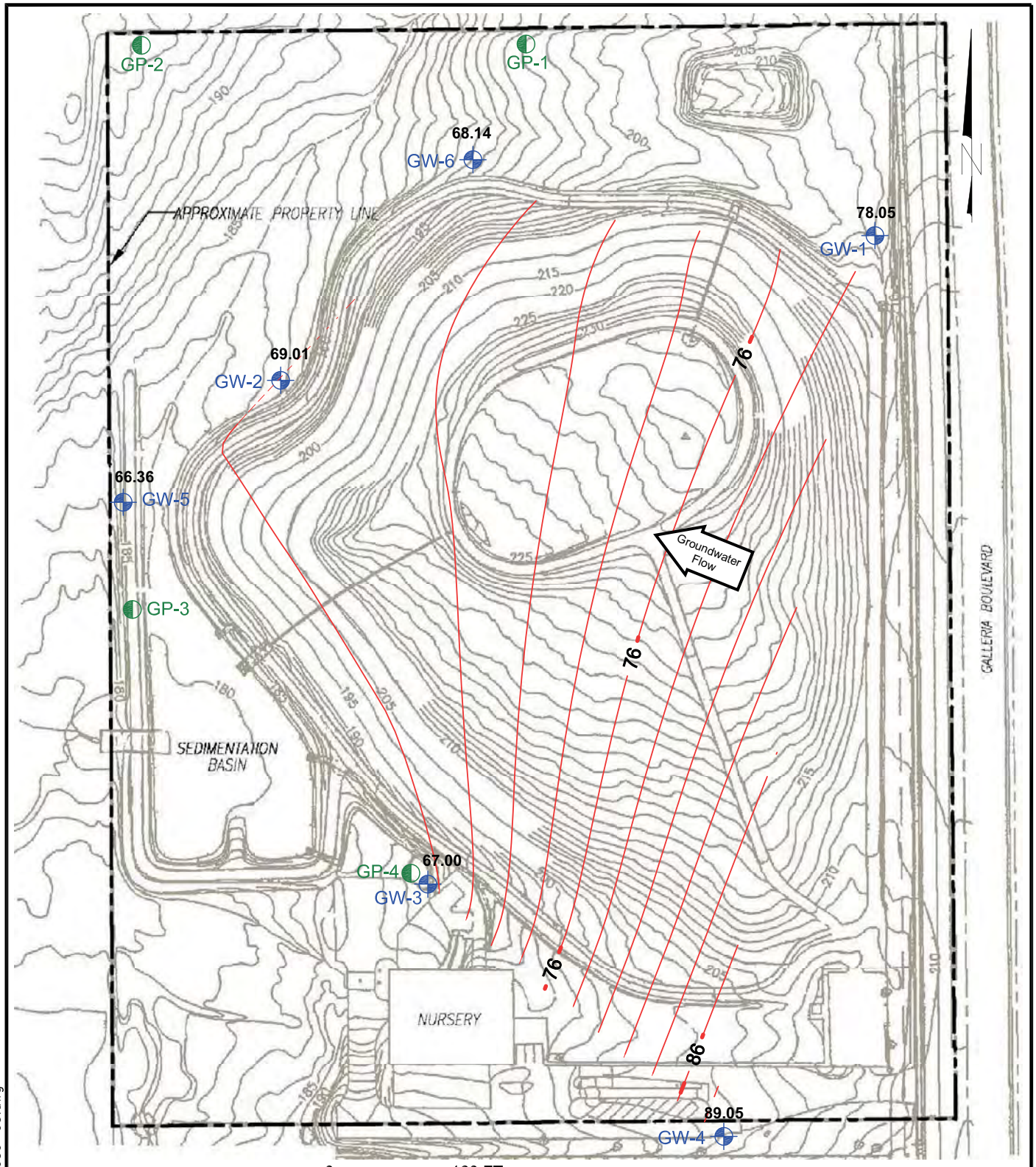
GEOLOGICAL ANALYTICS

8/22/2006 5:58PM 03-1039-03.dwg



LEGEND

GP-4 PERIMETER LFG MONITORING POINT

GW-3 MONITORING WELL WITH GW ELEVATION

MAP SOURCE: FINAL POST-CLOSURE MAINTENANCE PLAN, FIGURE 4-3 (MODIFIED

FIGURE 3

GROUNDWATER CONTOUR MAP DECEMBER 18, 2012

BERRY STREET MALL LANDFILL
ROSE VILLE, CALIFORNIA

PROJECT NO.	DRAWN BY
03-1039	JWY 7/20/06
FILE NO.	PREPARED BY
03-1039-01	T.E.B.
REVISION NO.	REVIEWED BY
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GEOLOGICAL ANALYTICS

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TABLES

TABLE 1
GROUNDWATER MONITORING SUMMARY
Berry Street Mall Landfill
901 Galleria Blvd. Roseville, CA

Well ID	Date	Top of Casing (ft)	Depth to Water (ft)	Groundwater Elevation (ft)
GW-1	4/7/99	208.8	139.41	69.39
GW-1	7/11/01	208.8	139.26	69.54
GW-1	9/12/02	208.8	139.10	69.70
GW-1	3/11/03	208.8	139.18	69.62
GW-1	6/23/03	208.8	139.87	68.93
GW-1	9/4/03	208.8	138.85	69.95
GW-1	10/23/03	208.8	138.87	69.93
GW-1	2/5/04	208.8	139.10	69.70
GW-1	6/3/04	208.8	138.24	70.56
GW-1	9/16/04	208.8	137.94	70.86
GW-1	12/2/04	208.8	138.12	70.68
GW-1	3/29/05	208.8	137.65	71.15
GW-1	6/21/05	208.8	137.44	71.36
GW-1	9/13/05	208.8	137.25	71.55
GW-1	12/13/05	208.8	137.20	71.60
GW-1	3/28/06	208.8	136.13	72.67
GW-1	6/28/06	208.8	136.00	72.80
GW-1	9/28/06	208.8	135.71	73.09
GW-1	11/21/06	208.8	135.61	73.19
GW-1	3/14/07	208.8	135.76	73.04
GW-1	5/8/07	208.8	135.65	73.15
GW-1	8/14/07	208.8	135.69	73.11
GW-1	11/6/07	208.8	135.70	73.10
GW-1	3/11/08	208.8	135.95	72.85
GW-1	6/11/08	208.8	135.35	73.45
GW-1	9/23/08	208.8	135.30	73.50
GW-1	12/9/08	208.8	135.37	73.43
GW-1	3/10/09	208.8	135.37	73.43
GW-1	6/8/09	208.8	134.84	73.96
GW-1	9/28/09	208.8	134.43	74.37
GW-1	12/14/09	208.8	134.82	73.98
GW-1	3/4/10	208.8	134.63	74.17
GW-1	6/3/10	208.8	133.98	74.82
GW-1	9/21/10	208.8	133.38	75.42
GW-1	12/7/10	208.8	133.75	75.05
GW-1	3/8/11	208.8	133.33	75.47
GW-1	6/15/11	208.8	131.92	76.88
GW-1	9/29/11	208.8	131.38	77.42
GW-1	12/6/11	208.8	131.33	77.47
GW-1	3/22/12	208.8	131.45	77.35
GW-1	6/13/12	208.8	131.03	77.77
GW-1	10/17/12	208.8	130.88	77.92
GW-1	12/18/12	208.8	130.75	78.05
GW-1	3/28/13	208.8	130.45	78.35
GW-1	6/25/13	208.8	130.15	78.65
GW-1	9/18/13	208.8	130.10	78.70
GW-1	1/24/14	208.8	130.27	78.53

TABLE 1
GROUNDWATER MONITORING SUMMARY
Berry Street Mall Landfill
901 Galleria Blvd. Roseville, CA

Well ID	Date	Top of Casing (ft)	Depth to Water (ft)	Groundwater Elevation (ft)
GW-2	6/15/11	187.61	121.85	65.76
GW-2	9/29/11	187.61	121.05	66.56
GW-2	12/6/11	187.61	122.24	65.37
GW-2	3/22/12	187.61	120.70	66.91
GW-2	6/13/12	189.32	122.70	--
GW-2	10/17/12	189.32	119.68	69.64
GW-2	12/18/12	189.32	120.31	69.01
GW-2	3/28/13	189.32	119.05	70.27
GW-2	6/25/13	189.32	117.92	71.40
GW-2	9/18/13	189.32	117.52	71.80
GW-2	1/24/14	189.32	117.61	71.71
GW-3	4/7/99	189.32	139.69	49.63
GW-3	7/11/01	189.32	138.66	50.66
GW-3	9/12/02	189.32	138.09	51.23
GW-3	3/11/03	189.32	137.65	51.67
GW-3	6/23/03	189.32	137.13	52.19
GW-3	9/4/03	189.32	137.12	52.20
GW-3	10/23/03	189.32	137.12	52.20
GW-3	2/5/04	189.32	136.99	52.33
GW-3	6/3/04	189.32	136.01	53.31
GW-3	9/16/04	189.32	135.74	53.58
GW-3	12/2/04	189.32	135.69	53.63
GW-3	3/29/05	189.32	135.60	53.72
GW-3	6/21/05	189.32	134.52	54.80
GW-3	9/13/05	189.32	134.16	55.16
GW-3	12/13/05	189.32	133.78	55.54
GW-3	3/28/06	189.32	131.83	57.49
GW-3	6/28/06	189.32	132.14	57.18
GW-3	9/28/06	189.32	131.78	57.54
GW-3	11/21/06	189.32	131.53	57.79
GW-3	3/14/07	189.32	131.05	58.27
GW-3	5/8/07	189.32	130.65	58.67
GW-3	8/14/07	189.32	130.37	58.95
GW-3	11/6/07	189.32	130.32	59.00
GW-3	3/11/08	189.32	131.87	57.45
GW-3	6/11/08	189.32	129.35	59.97
GW-3	9/23/08	189.32	129.20	60.12
GW-3	12/9/08	189.32	129.20	60.12
GW-3	3/10/09	189.32	128.37	60.95
GW-3	6/8/09	189.32	128.01	61.31
GW-3	9/28/09	189.32	127.58	61.74
GW-3	12/14/09	189.32	127.88	61.44
GW-3	3/4/10	189.32	127.32	62.00
GW-3	6/3/10	189.32	126.62	62.70
GW-3	9/21/10	189.32	126.03	63.29
GW-3	12/7/10	189.32	126.10	63.22
GW-3	3/8/11	189.32	125.55	63.77

TABLE 1
GROUNDWATER MONITORING SUMMARY
Berry Street Mall Landfill
901 Galleria Blvd. Roseville, CA

Well ID	Date	Top of Casing (ft)	Depth to Water (ft)	Groundwater Elevation (ft)
GW-3	6/15/11	189.32	124.58	64.74
GW-3	9/29/11	189.32	124.20	65.12
GW-3	12/6/11	189.32	123.70	65.62
GW-3	3/22/12	189.32	123.24	66.08
GW-3	6/13/12	189.32	122.58	66.74
GW-3	10/17/12	189.32	122.39	66.93
GW-3	12/18/12	189.32	122.32	67.00
GW-3	3/28/13	189.32	121.76	67.56
GW-3	6/25/13	189.32	121.32	68.00
GW-3	9/18/13	189.32	121.20	68.12
GW-3	1/24/14	189.32	121.20	68.12
GW-4	4/7/99	206.32	116.64	89.68
GW-4	7/11/01	206.32	117.00	89.32
GW-4	9/12/02	206.32	117.34	88.98
GW-4	3/11/03	206.32	117.48	88.84
GW-4	6/23/03	206.32	117.41	88.91
GW-4	9/4/03	206.32	117.54	88.78
GW-4	10/23/03	206.32	117.60	88.72
GW-4	2/5/04	206.32	117.74	88.58
GW-4	6/3/04	206.32	116.86	89.46
GW-4	9/16/04	206.32	116.79	89.53
GW-4	12/2/04	206.32	116.97	89.35
GW-4	3/29/05	206.32	116.52	89.80
GW-4	6/21/05	206.32	116.42	89.90
GW-4	9/13/05	206.32	116.39	89.93
GW-4	12/13/05	206.32	116.05	90.27
GW-4	3/28/06	206.32	115.29	91.03
GW-4	6/28/06	206.32	115.27	91.05
GW-4	9/28/06	206.32	115.44	90.88
GW-4	11/21/06	206.32	115.58	90.74
GW-4	3/14/07	206.32	116.10	90.22
GW-4	5/8/07	206.32	116.11	90.21
GW-4	8/14/07	206.32	116.36	89.96
GW-4	11/6/07	206.32	116.56	89.76
GW-4	3/11/08	206.32	116.61	89.71
GW-4	6/11/08	206.32	116.61	89.71
GW-4	9/23/08	206.32	116.92	89.40
GW-4	12/9/08	206.32	117.41	88.91
GW-4	3/10/09	206.32	117.68	88.64
GW-4	6/8/09	206.32	117.43	88.89
GW-4	9/28/09	206.32	117.47	88.85
GW-4	12/14/09	206.32	118.01	88.31
GW-4	3/4/10	206.32	118.00	88.32
GW-4	6/3/10	206.32	117.45	88.87
GW-4	9/21/10	206.32	117.27	89.05
GW-4	12/7/10	206.32	117.63	88.69
GW-4	3/8/11	206.32	117.10	89.22
GW-4	6/15/11	206.32	115.90	90.42

TABLE 1
GROUNDWATER MONITORING SUMMARY
Berry Street Mall Landfill
901 Galleria Blvd. Roseville, CA

Well ID	Date	Top of Casing (ft)	Depth to Water (ft)	Groundwater Elevation (ft)
GW-4	9/29/11	206.32	115.89	90.43
GW-4	12/6/11	206.32	116.13	90.19
GW-4	3/22/12	206.32	116.73	89.59
GW-4	6/13/12	206.32	116.54	89.78
GW-4	10/17/12	206.32	116.95	89.37
GW-4	12/18/12	206.32	117.27	89.05
GW-4	3/28/13	206.32	116.85	89.47
GW-4	6/25/13	206.32	116.88	89.44
GW-4	9/18/13	206.32	117.08	89.24
GW-4	1/24/14	206.32	dry	dry
GW-5	9/16/04	189.82	137.36	52.46
GW-5	12/2/04	189.82	137.29	52.53
GW-5	3/29/05	189.82	137.22	52.60
GW-5	6/21/05	189.82	141.97	47.85
GW-5	9/13/05	189.82	135.84	53.98
GW-5	12/13/05	189.82	135.44	54.38
GW-5	3/28/06	189.82	133.93	55.89
GW-5	6/28/06	189.82	133.93	55.89
GW-5	9/28/06	189.82	133.61	56.21
GW-5	11/21/06	189.82	133.34	56.48
GW-5	3/14/07	189.82	132.77	57.05
GW-5	5/8/07	189.82	132.27	57.55
GW-5	8/14/07	189.82	131.93	57.89
GW-5	11/6/07	189.82	131.74	58.08
GW-5	3/11/08	189.82	131.36	58.46
GW-5	6/11/08	189.82	130.71	59.11
GW-5	9/23/08	189.82	130.58	59.24
GW-5	12/9/08	189.82	130.56	59.26
GW-5	3/10/09	189.82	130.00	59.82
GW-5	6/8/09	189.82	129.18	60.64
GW-5	9/28/09	189.82	128.72	61.10
GW-5	12/14/09	189.82	128.95	60.87
GW-5	3/4/10	189.82	128.44	61.38
GW-5	6/3/10	189.82	127.68	62.14
GW-5	9/21/10	189.82	127.15	62.67
GW-5	12/7/10	189.82	127.37	62.45
GW-5	3/8/11	189.82	126.77	63.05
GW-5	6/15/11	189.82	125.60	64.22
GW-5	9/29/11	189.82	125.10	64.72
GW-5	12/6/11	189.82	124.82	65.00
GW-5	3/22/12	189.82	124.35	65.47
GW-5	6/13/12	189.82	123.65	66.17
GW-5	10/17/12	189.82	123.47	66.35
GW-5	12/18/12	189.82	123.46	66.36
GW-5	3/28/13	189.82	122.82	67.00
GW-5	6/25/13	189.82	122.41	67.41
GW-5	9/18/13	189.82	122.30	67.52
GW-5	1/24/14	189.82	122.20	67.62

TABLE 1
GROUNDWATER MONITORING SUMMARY
Berry Street Mall Landfill
901 Galleria Blvd. Roseville, CA

Well ID	Date	Top of Casing (ft)	Depth to Water (ft)	Groundwater Elevation (ft)
GW-6	9/16/04	198.02	142.95	55.07
GW-6	12/2/04	198.02	142.94	55.08
GW-6	3/29/05	198.02	142.55	55.47
GW-6	6/21/05	198.02	136.38	61.64
GW-6	9/13/05	198.02	141.65	56.37
GW-6	12/13/05	198.02	141.31	56.71
GW-6	3/28/06	198.02	139.93	58.09
GW-6	6/28/06	198.02	139.52	58.50
GW-6	9/28/06	198.02	139.21	58.81
GW-6	11/21/06	198.02	138.96	59.06
GW-6	3/14/07	198.02	138.72	59.30
GW-6	5/8/07	198.02	138.29	59.73
GW-6	8/14/07	198.02	137.97	60.05
GW-6	11/6/07	198.02	137.80	60.22
GW-6	3/11/08	198.02	137.54	60.48
GW-6	6/11/08	198.02	136.90	61.12
GW-6	9/23/08	198.02	136.67	61.35
GW-6	12/9/08	198.02	136.64	61.38
GW-6	3/10/09	198.02	136.26	61.76
GW-6	6/8/09	198.02	135.45	62.57
GW-6	9/28/09	198.02	134.94	63.08
GW-6	12/14/09	198.02	135.21	62.81
GW-6	3/4/10	198.02	134.74	63.28
GW-6	6/3/10	198.02	134.03	63.99
GW-6	9/21/10	198.02	133.45	64.57
GW-6	12/7/10	198.02	133.70	64.32
GW-6	3/8/11	198.02	133.11	64.91
GW-6	6/15/11	198.02	131.97	66.05
GW-6	9/29/11	198.02	131.42	66.60
GW-6	12/6/11	198.02	131.17	66.85
GW-6	3/22/12	198.02	130.85	67.17
GW-6	6/13/12	198.02	130.18	67.84
GW-6	10/17/12	198.02	129.52	68.50
GW-6	12/18/12	198.02	129.88	68.14
GW-6	3/28/13	198.02	129.38	68.64
GW-6	6/25/13	198.02	128.99	69.03
GW-6	9/18/13	198.02	128.83	69.19
GW-6	1/24/14	198.02	128.75	69.27

***Note**: GW-2 was dry since installation in 1999 through 1Q-11.*

APPENDIX A
FIELD DATA SHEETS

DOULOS ENVIRONMENTAL, INC.
GROUNDWATER/LIQUID LEVEL DATA
(measurements in feet)

Project Address: Berry Street Landfill
901 Galleria Blvd.
Roseville, CA

Date: 12-18-12

Project No.:

Recorded by: Jorge Gonzales

Well No.	Time	Well Elev. TOC	Depth to Groundwater	Measured Total Depth	Groundwater Elevation	Depth to Product	Product Thickness	Comments
GW-1	959		130.95	151.35				
GW2	1015		120.31	122.24				
GW3	9:45		122.32	151.64				
GW4	10:00		117.27	123.50				
GW5	9:30		123.40	156.88				
GW-6	1005		129.88	167.59				

Notes: