ARDENT
ENVIRONMENTAL GROUP, INC.

July 13, 2016
Project No. 100671002

Mr. Patrick Russell
SRG Acquisition, LLC
18802 Bardeen Avenue
Irvine, California 92612

Subject: Results of Pesticide and Herbicide Sampling
17845 Indiana Street
Moreno Valley, California

Dear Mr. Russell:

This report presents the results of the pesticide and herbicide sampling completed at the property located at 17845 Indiana Street in the city of Moreno Valley, California (site; Figure 1). Work was completed in general accordance with the proposal dated June 23, 2016. The site comprises approximately 19.42-acres of land formerly used for agricultural purposes. SRG Acquisition, LLC (SRG) recently purchased the site and is considering redevelopment for commercial use.

As part of its real estate due diligence, SRG retained Ardent Environmental Group, Inc. (Ardent) to complete a Phase I Environmental Site Assessment (ESA) for the site in 2015. The site was formerly used for agricultural purposes since the 1930s and a former sod farm in 2004. A previous Phase I ESA indicated that pesticides and herbicides were used at the site during the time period the sod farm was in operations. As a result, Ardent concluded that residual concentrations of herbicides and pesticides might exist in shallow soils, however, due to the proposed redevelopment plans as commercial property, future grading activities would likely homogenize and dilute any residual agricultural chemicals. Based on this information, residual agricultural chemicals would not be considered an environmental concern to the site.

During completion of an Environmental Impact Report (EIR), comments from the City of Moreno Valley (the “City”) were obtained regarding the Phase I ESA and requested that pesticide and herbicide sampling be completed. In addition, the City noted that a water retention pond was observed immediately northwest of the site in a 1953 aerial photograph. According to the City, the water retention pond may have been “…used in the past as [a] mixing area for agricultural

chemicals." Based on this assumption, the City requested soil sampling be completed on-site and immediately adjacent to the water retention pond.

Since the 1930s, organochlorine pesticides (OCP), such as DDT, dieldrin, and heptachlor were commonly used. Some of these insecticides, such as DDT, are persistent organic pollutants which pose a danger when they are released into the environment. DDT, which was widely used in the mid-20th century, also accumulated in food chains and caused reproductive problems (e.g. eggshell thinning) in certain bird species. In 1970, the United States banned organochlorine pesticides, and in response, farmers began using organophosphorus pesticides (OPP). Chlorinated herbicides have been used since the 1940s. Based on this information, both organochloride and organophosphorus pesticides and chlorinated herbicides may have been used at the site. Groundwater in the vicinity of the site has been reported at depths of 75 feet below ground surface (bgs). The sampling completed as presented herein was to satisfy the City requirements.

OBJECTIVE

The objective of the work presented herein was to assess whether elevated concentrations of pesticides (both organochlorine and organophosphorus) and chlorinated herbicides were preset in shallow soils at the site due to historical agricultural land use.

PESTICIDE AND HERBICIDE SAMPLING AND RESULTS

Prior to sampling at the site, Ardent divided the site into eight separate approximately equal sized sampling grids and one soil boring was placed in the approximate center of each grid (Figure 2). Two additional soil borings were placed adjacent to the water retention pond. Soil sampling was completed on June 26, 2016. Laboratory results of the sampling activities are presented on Table 2, and laboratory reports are presented in Attachment A.. Soil samples were collected from each soil boring at depths of approximately 1- and 3-feet within native materials using hand auger equipment. The samples collected at 1-foot within native soil were chemically analyzed, while the 3-foot samples were archived by the laboratory. Soil lithology of the native soils generally consisted of fine sandy silt. The samples were analyzed for OCPs, OPP, and herbicides in general accordance with EPA Method Nos. 8081A, 8141A, and 8151A respectively. Laboratory results were compared to both the State of California Department of Toxic Substances Control (DTSC) Screening Levels for industrial/commercial land use (DTSC-

SLi) and the Federal EPA Regional Screening Levels for industrial/commercial land use (RSLi). Both of these regulatory guidelines are based on a human health risk criteria for dermal exposure. Laboratory results indicated no detectable concentrations of OCPs, OPPs, and chlorinated herbicides, with the exception of 4,4-DDE, a breakdown product of 4,4-DDT. The analytical results indicated concentrations of up to 0.0086 milligrams per kilogram (mg/kg) of 4,4-DDE in seven samples. As noted on Table 1, these concentrations are well below the RSLi guidelines of 9.3 mg/kg; the DTSC does not maintain guidelines for 4,4-DDE. Based on the depth to groundwater and low concentrations in shallow soils, there is a low likelihood that these detectable concentrations would pose a significant threat to groundwater.

CONCLUSIONS AND RECOMMENDATIONS

To satisfy comments raised during the review of an EIR, pesticide sampling was completed throughout the site. Laboratory results indicated no detectable to low concentrations of OCPs, OPPs, and chlorinated herbicides. Based on this information, there is a low likelihood that the residual pesticides would pose a significant human health risk to future workers or occupants of the site, or a threat to groundwater below the site. Ardent does not recommend further investigation or remediation at this time.

If you have any questions or comments regarding this report, please call the undersigned at your convenience.

Sincerely,
Ardent Environmental Group, Inc.

Jonathan Anderson
Staff Geologist

Paul Roberts, P.G.
Principle Geologist

PAR/JPA/nw

Appendices: Table 1 – Summary of Soil Sample Laboratory Results
Figure 1 – Site Location Map
Figure 2 – Area of Investigation
Attachment A – Laboratory Reports

Distribution: (1) Addressee – via email
(1) Ms. Janine Padia, SARES-REGIS Group – via email

References

Ardent Environmental Group, Inc. (Ardent), 2015, Phase I Environmental Site Assessment, Approximate 17845 Indian Street, Moreno Valley, California: Report prepared for SARES-REGIS Group, Irvine, California, dated July 15.

Table 1 - Summary of Soil Sample Laboratory Results

Sample ID	Date Sampled	Depth (feet bgs)	Organochlorine Pesticides (mg/kg)		Organophosphorus Pesticides (mg/kg)	Chlorinated Herbicides (mg/kg)
			4,4-DDE	All Others		
B1-1	6/28/16	1	ND<0.0020	ND<0.001-0.05	ND<0.05-0.1	ND<0.05-0.1
B2-1	6/28/16	1	0.0038	ND<0.001-0.05	ND<0.05-0.1	ND<0.05-0.1
B3-1	6/28/16	1	0.0027	ND<0.001-0.05	ND<0.05-0.1	ND<0.05-0.1
B4-1	6/28/16	1	0.0086	ND<0.001-0.05	ND<0.05-0.1	ND<0.05-0.1
B5-1	6/28/16	1	0.0031	ND<0.001-0.05	ND<0.05-0.1	ND<0.05-0.1
B6-1	6/28/16	1	ND<0.0020	ND<0.001-0.05	ND<0.05-0.1	ND<0.05-0.1
B7-1	6/28/16	1	0.0047	ND<0.001-0.05	ND<0.05-0.1	ND<0.05-0.1
B8-1	6/28/16	1	0.0037	ND<0.001-0.05	ND<0.05-0.1	ND<0.05-0.1
B9-1	6/28/16	1	ND<0.0020	ND<0.001-0.05	ND<0.05-0.1	ND<0.05-0.1
B10-1	6/28/16	1	0.0025	ND<0.001-0.05	ND<0.05-0.1	ND<0.05-0.1
DTSC-SLi			NA	Various	Various	Various
EPA RSLi			9.3	Various	Various	Various

Notes:

Sample ID - sample identification

feet bgs - feet below the ground surface

Organochlorine Pesticides analyzed in general accordance with EPA Method No. 8081A

Organophosphorus Pesticides analyzed in general accordance with EPA Method No.8141A

Chlorinated Herbicides analyzed in general accordance with EPA Method No.8151A

4,4-DDE - 4,4-dichlorodiphenyldichloroethylene

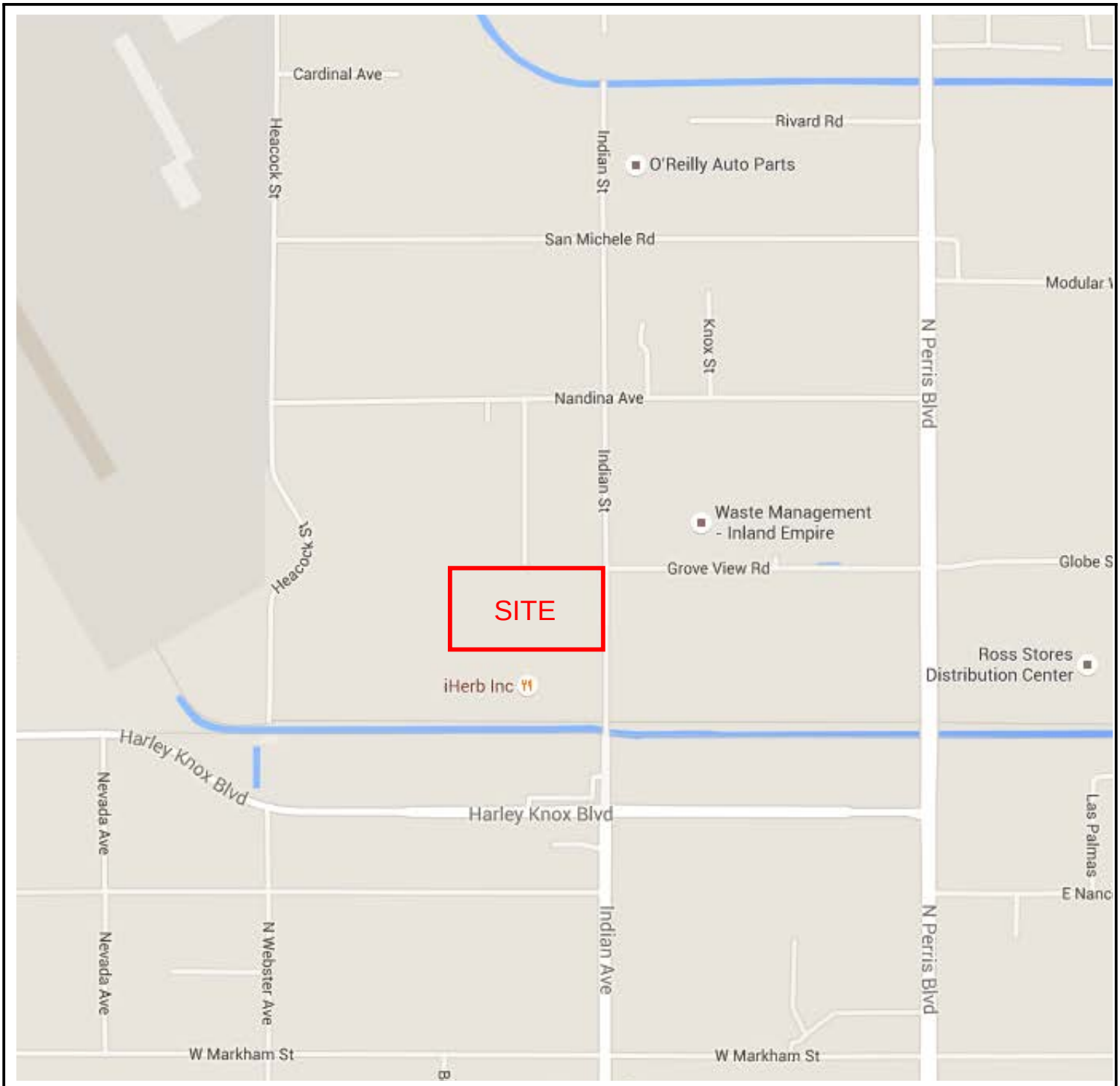
mg/kg - milligrams per kilogram

ND - no detectable concentration above the reporting limit

DTSC-SLi - Department of Toxic Substance Control (DTSC), Human Ecological Risk Office (HERO), Human Health Risk Assessment (HHRA) Note 3, Screening Levels for industrial/ commercial land use, dated January 2016.

NA - not applicable

EPA RSLi - EPA, Region 9, Regional Screening Levels for industrial/commercial land use, dated November 2015.

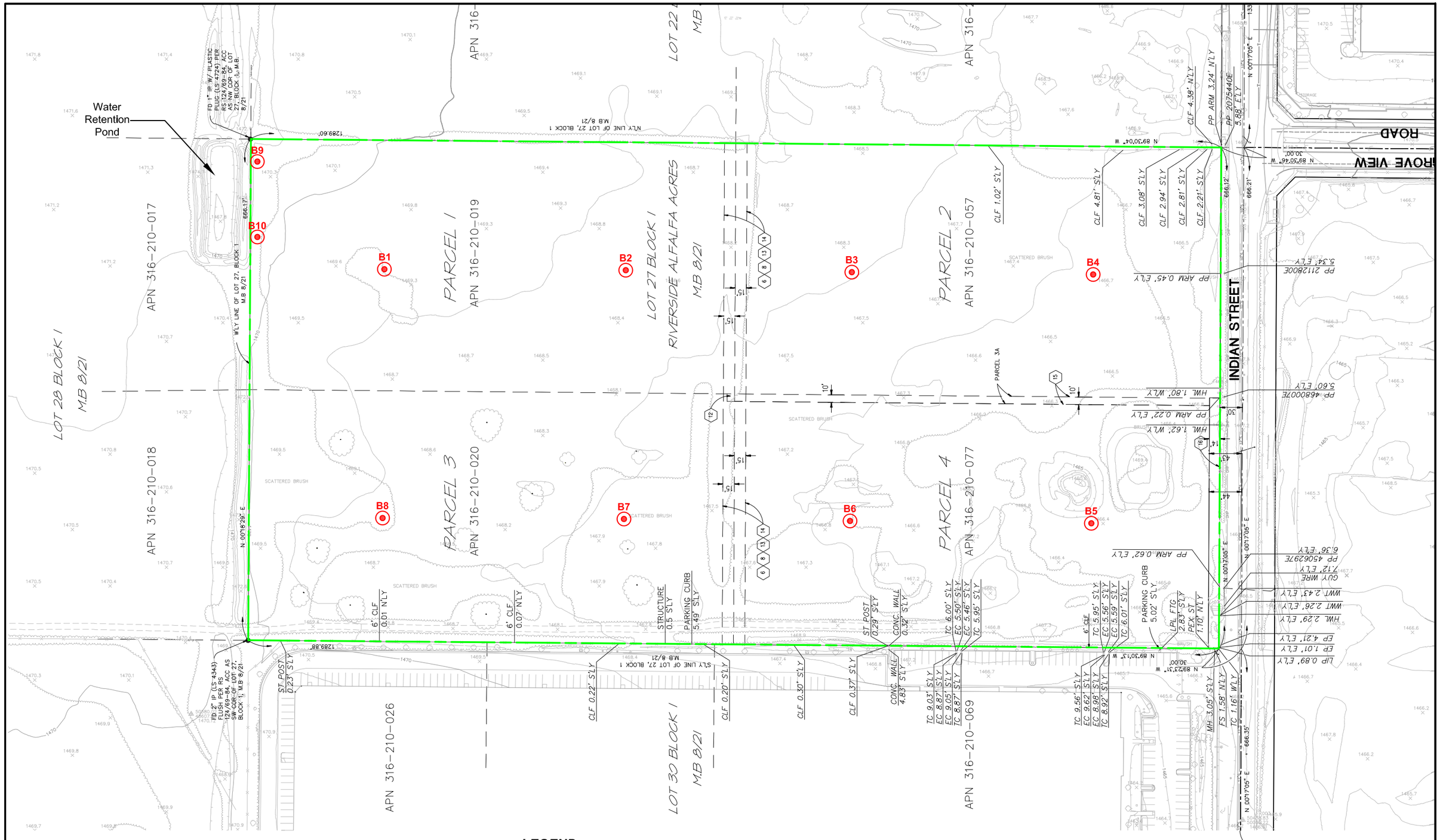


N

NO SCALE

NOTE: ALL DIMENSIONS, DIRECTIONS AND LOCATIONS ARE APPROXIMATE.

ARDENT ENVIRONMENTAL GROUP, INC.	PROJECT NO. 100671002	**SITE LOCATION MAP**	FIGURE 1
	DATE 07/15	17845 INDIAN STREET MORENO VALLEY, CALIFORNIA	



APPROXIMATE SCALE

0 120 240

NOTES:

1) Base Map Source: A.L.T.A/A.C.S.M. Land Title Survey, Prepared by Huitt-Zollars, Inc. of Ontario, California, Dated July 13, 2015.

2) All dimensions, directions and locations are approximate.

LEGEND

B10 SOIL BORING LOCATION AND DESIGNATION

APPROXIMATE PROPERTY LINE

ARDENT ENVIRONMENTAL GROUP, INC.

PROJECT NO.	AREA OF INVESTIGATION	FIGURE
100671002		2
DATE 07/16	17845 INDIAN STREET MORENO VALLEY, CALIFORNIA	

ATTACHMENT A

LABORATORY REPORTS