From:	Detterman, Karel, Env. Health
To:	Paul Sappal; "paulsappal@yahoo.com"; "Gowri"; "Scott"
Subject:	Fuel Leak Case No. RO0000127, Alaska Gasoline Station, GeoTracker Global ID T0600101804, 6211 San Pablo Avenue, Oakland, CA 94608
Date:	Friday, July 24, 2015 4:27:52 PM
Attachments:	Attachment_1_and_ftpUploadInstructions_2014-05-15.pdf Attachment 2 Example LTCP Plume Length-Sensitive Receptors from RO474 RFC_SCM_R_2015-03-10.pdf

Hello Everyone:

Alameda County Environmental Health (ACEH) staff has reviewed the case file including the February 18, 2015 *Additional Information to Support Environmental Case Closure Review (Site Conceptual Model [SCM)]* prepared and submitted on your behalf by Stratus Environmental, Inc. (Stratus). Thank you for submitting the SCM. The SCM was submitted in response to a meeting held at Alameda County Environmental Health's (ACEH) offices on July 29, 2014 that was attended by you and representatives from Stratus. The purpose of the meeting was to discuss the status of the site and to identify the next steps to progress the case to closure. ACEH staff has reviewed the case file in conjunction with the State Water Resources Control Board's (SWRCB) Low Threat Underground Storage Tank Case Closure Policy (LTCP).

While the SCM addressed Technical Comments 1 and 4 provided in ACEH's August 29, 2014 Directive Letter, Technical Comment 2 was partially addressed and Technical Comment 3 has not yet been addressed. ACEH requests that you address the remaining Technical Comments and three additional Technical Comments and submit the requested report by the date provided below.

TECHNICAL COMMENTS:

1. **Well Survey - COMPLETED** – Thank you for updating the 2008 well survey using data from the Alameda County Public Works Agency (ACPWA) and Department of Water Resources (DWR) and listing the wells in a table and a figure.

2. **Site Conceptual Model (SCM)** - **PARTIALLY COMPLETED** – Thank you for preparing a SCM in a tabular form by synthesizing existing site data into the attached Word document template, including the updated well survey. The following requested items were not included with the SCM:

   a. **Summary of historical soil and groundwater analytical results:** Please prepare tables summarizing all historical soil and groundwater analytical results including sample depths and detection limits if sample result is not detected/less than the detection limit;
   b. **Figure showing remaining site soil concentrations:** Please provide a figure that documents the remaining soil concentrations on-site after completion of the remedial activities by indicating in grey or faded font the sample locations and results removed by remedial activities and in bold font the sample locations and results remaining after remedial activities. This request is to quickly illustrate areas of residual contamination. Please submit these figures and tables in an SCM Addendum report as described below.

3. **Low Threat Closure Policy's Technical Justification for Groundwater Media-Specific Criteria - NOT COMPLETED** – To satisfy the media-specific criteria for groundwater, the contaminant plume that exceeds water quality objectives must be stable or decreasing in areal extent, and meet all of the additional characteristics of one of the five classes of sites listed in the policy. According to the LTCP, a plume is considered stable or decreasing if a contaminant mass has expanded to its maximum extent. Our review of the case files indicates that insufficient data and analysis has been presented to support the requisite characteristics of the plume length. Please estimate the GRO, benzene, and MTBE plume

lengths in conjunction with the updated 2,000 foot well survey radius using ACPWA and DWR data, and submit the report as an appendix of the SCM Addendum requested below. Please revise the SCM to include the following lines of evidence:

a. Distal end of plume: please prepare the following figures and tables:

1. As shown in Attachment 2, plot on three separate aerial photography-based figures the site's prevalent groundwater flow direction, the average, 90th percentile, and maximum plume lengths for gasoline-range organics (GRO), benzene, and MTBE using Table 1: *Plume Characteristics*, in the LTCP's *Technical Justification for Groundwater Media-Specific Criteria*.
2. Additionally plot the results of the ACPWA and DWR 2,000 foot well survey radius on the three figures, and due to the lack of a bioattenuation zone because of shallow groundwater levels in the vicinity, indicate the locations of any sensitive receptors including, but not limited to, basements, dewatering structures, wetlands, surface water bodies, natural resources, schools, hospitals, day care centers, elder care facilities, etc. downgradient of the site. Please number each sensitive receptors location and summarize the locations on a table similar to the table provided in Attachment 2.

b. Proximal end of Plume: Please utilize the results of the upcoming groundwater monitoring and sampling event, plot the GRO, benzene, and MTBE concentrations to document groundwater quality at the proximal end of the plume.

4. **Johnson-Ettinger (J-E) Model Sensitivity Analysis – COMPLETED** – Thank you for preparing a J-E Model sensitivity analysis to estimate off-site VI risk using current groundwater contaminant data and submitting the report as an appendix of the SCM requested below.

ADDITIONAL TECHNICAL COMMENTS:

5. **Geotracker Update:** Offsite wells MW-7, MW-8, MW-9, and MW-10 do not appear on the GeoTracker map. Please ensure that the EDF data for all the on-and off-site wells is uploaded and the off-site wells appear as monitoring points on the Geotracker map for the site.

6. **Table 2, Groundwater Elevation Data Tables:** It is evident that free product has migrated off site and periodically appears in offsite monitoring well MW-7. Please include a column indicating both historic and present free product thickness for all wells in both the SCM Addendum and future Groundwater Monitoring Reports.

7. **Free-product trend in off-site wells:** The Free Product Section of the LTCP's *Technical Justification for Groundwater Media-Specific Criteria* describes the importance of determining if free product is immobile, mobile, or migrating. Because of the increasing trend of free product in downgradient and off-site MW-7, it appears to ACEH that the free product is mobile or migrating. However, please evaluate if the free product observed in MW-7 is migrating, and if the free product can be expected to appear in downgradient wells MW-9 and/or MW-10 in the near future. If insufficient data is currently available to determine mobility and migration, please submit a data gap work plan with the Site Conceptual Model Addendum requested below.

TECHNICAL REPORT REQUEST

Please upload technical reports to the ACEH ftp site (Attention: Karel Detterman), and to the State Water Resources Control Board's Geotracker website, according to Attachment 1 and the following specified file naming convention and schedule:

- **September 30, 2015 –** Site Conceptual Model Addendum including the Sensitivity Analysis and Plume Lengths and a Data Gap Work Plan (if needed)
  File to be named: RO127_SCM_ADDEN_R_yyyy-mm-dd

This report is being requested pursuant to California Health and Safety Code Section 25296.10. 23 CCR Sections 2652 through 2654, and 2721 through 2728 outline the responsibilities of a responsible party in response to an unauthorized release from a petroleum UST system, and require your compliance with this request. Online case files are available for review at the following website: http://www.acgov.org/aceh/index.htm.

Thank you for your cooperation. Should you have any questions or concerns regarding this correspondence or your case, please send me an e-mail message at karel.detterman@acgov.org or call me at (510) 567-6708.

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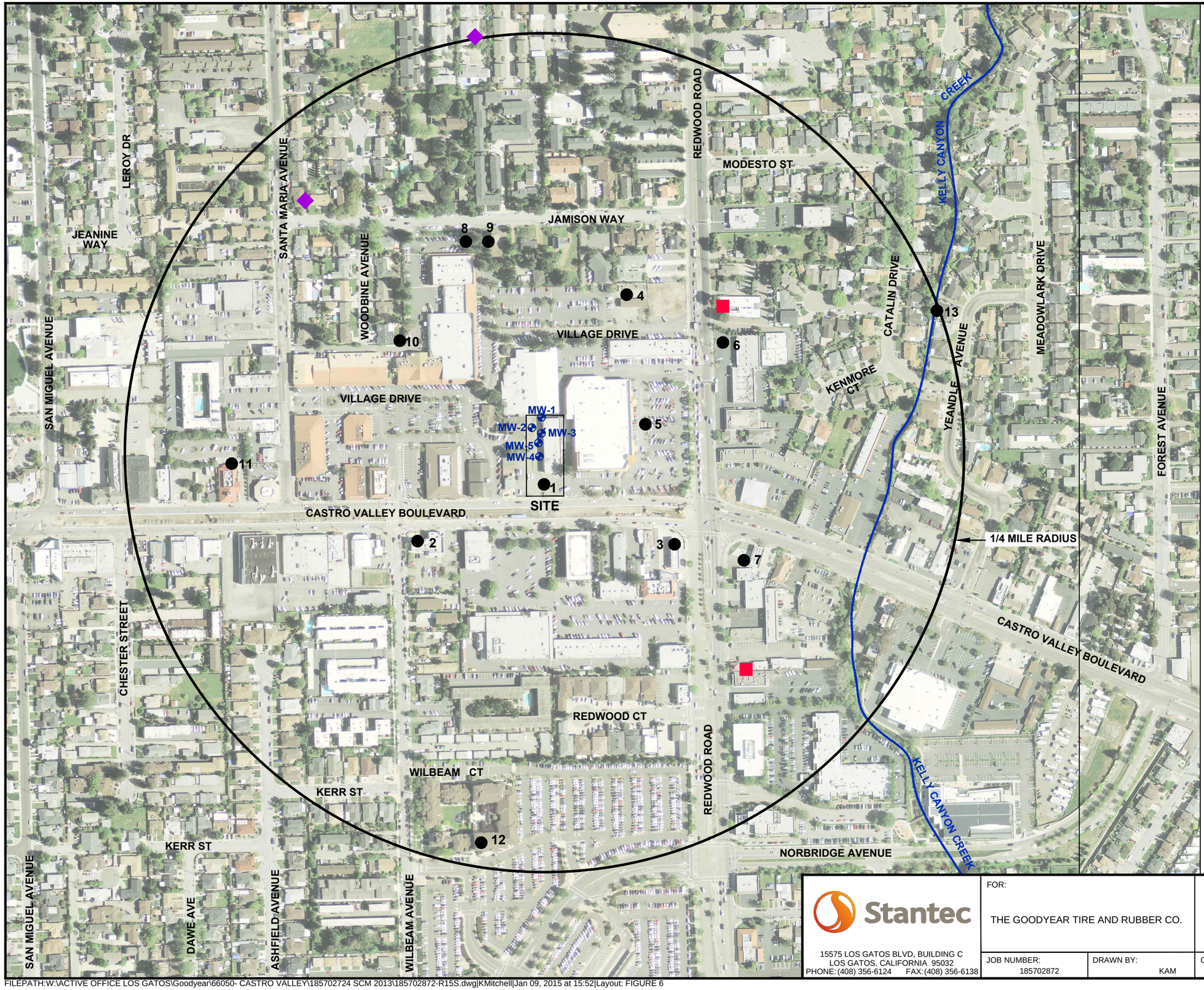
Fax: 510.337.9335
Email: karel.detterman@acgov.org

PDF copies of case files can be downloaded at:

http://www.acgov.org/aceh/lop/ust.htm



LEGEND:

- PROPERTIES WITH WELLS WITHIN 1/4-MILE OF SITE
- MEDICAL OFFICES WITHIN 1/4-MILE OF SITE
- SCHOOLS WITHIN 1/4-MILE OF SITE
- ACTIVE GROUNDWATER MONITORING WELL LOCATION
- DESTROYED GROUNDWATER MONITORING WELL LOCATION

N

0 300 600

APPROXIMATE SCALE (FEET)

Stantec
15575 LOS GATOS BLVD, BUILDING C
LOS GATOS, CALIFORNIA 95032
PHONE: (408) 356-6124 FAX:(408) 356-6138

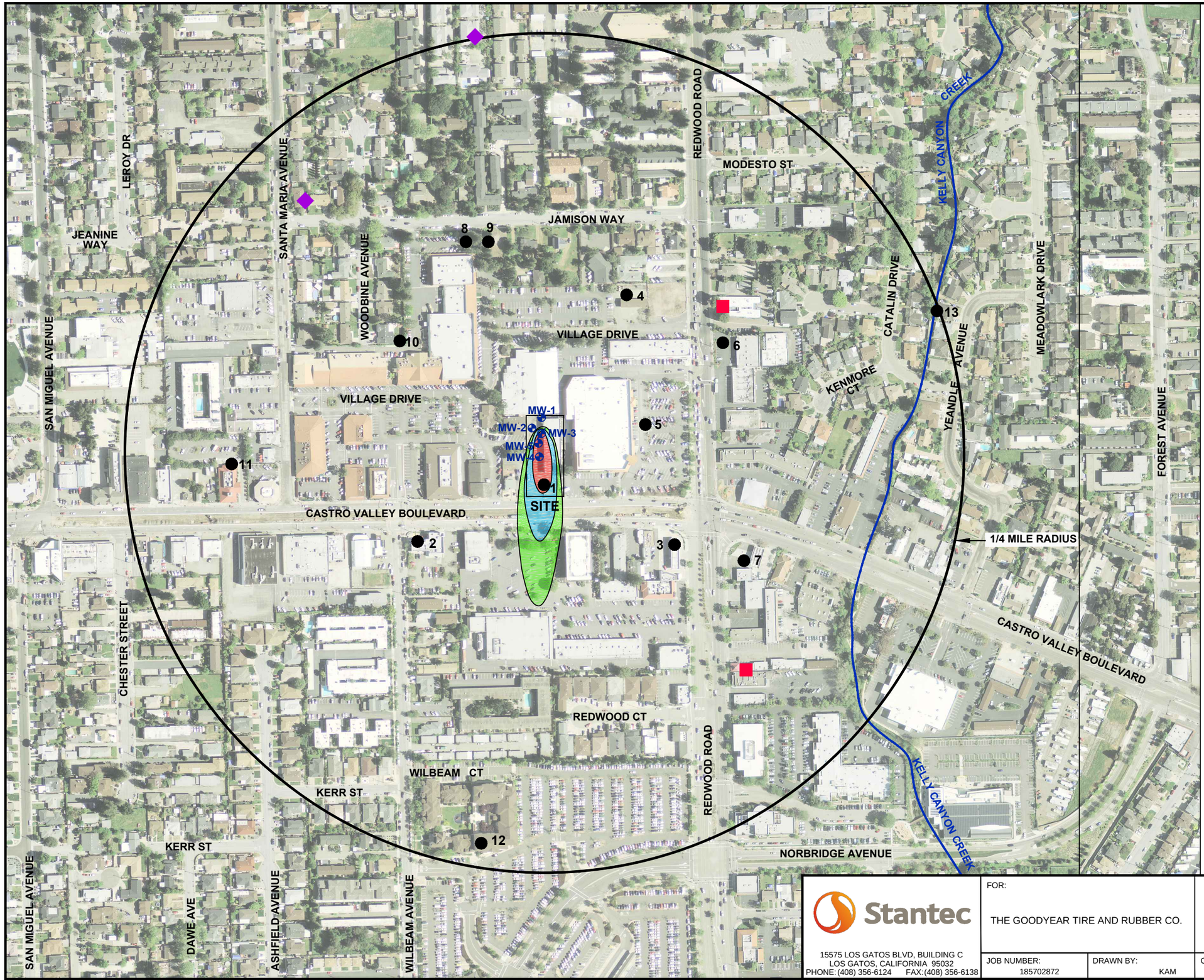
FOR: THE GOODYEAR TIRE AND RUBBER CO.

WELL & SENSITIVE RECEPTOR SURVEY
GOODYEAR DEX #9578
3430 CASTRO VALLEY BOULEVARD
CASTRO VALLEY, CALIFORNIA

FIGURE: 6

JOB NUMBER:	DRAWN BY:	CHECKED BY:	APPROVED BY:	DATE:
185702872	KAM	KM	GM	01/08/15

FILEPATH:W:\ACTIVE OFFICE LOS GATOS\Goodyear\66050- CASTRO VALLEY\185702724 SCM 2013\185702872-R15S.dwg|KMitchell|Jan 09, 2015 at 15:52|Layout: FIGURE 6



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- MEDICAL OFFICES WITHIN 1/4-MILE OF SITE
- SCHOOLS WITHIN 1/4-MILE OF SITE
- ACTIVE GROUNDWATER MONITORING WELL LOCATION
- DESTROYED GROUNDWATER MONITORING WELL LOCATION
- AVERAGE PLUME LENGTH (5 ug/L)
- 90TH PERCENTILE PLUME LENGTH (5 ug/L)
- MAXIMUM PLUME LENGTH (5 ug/L)

N

0 300 600

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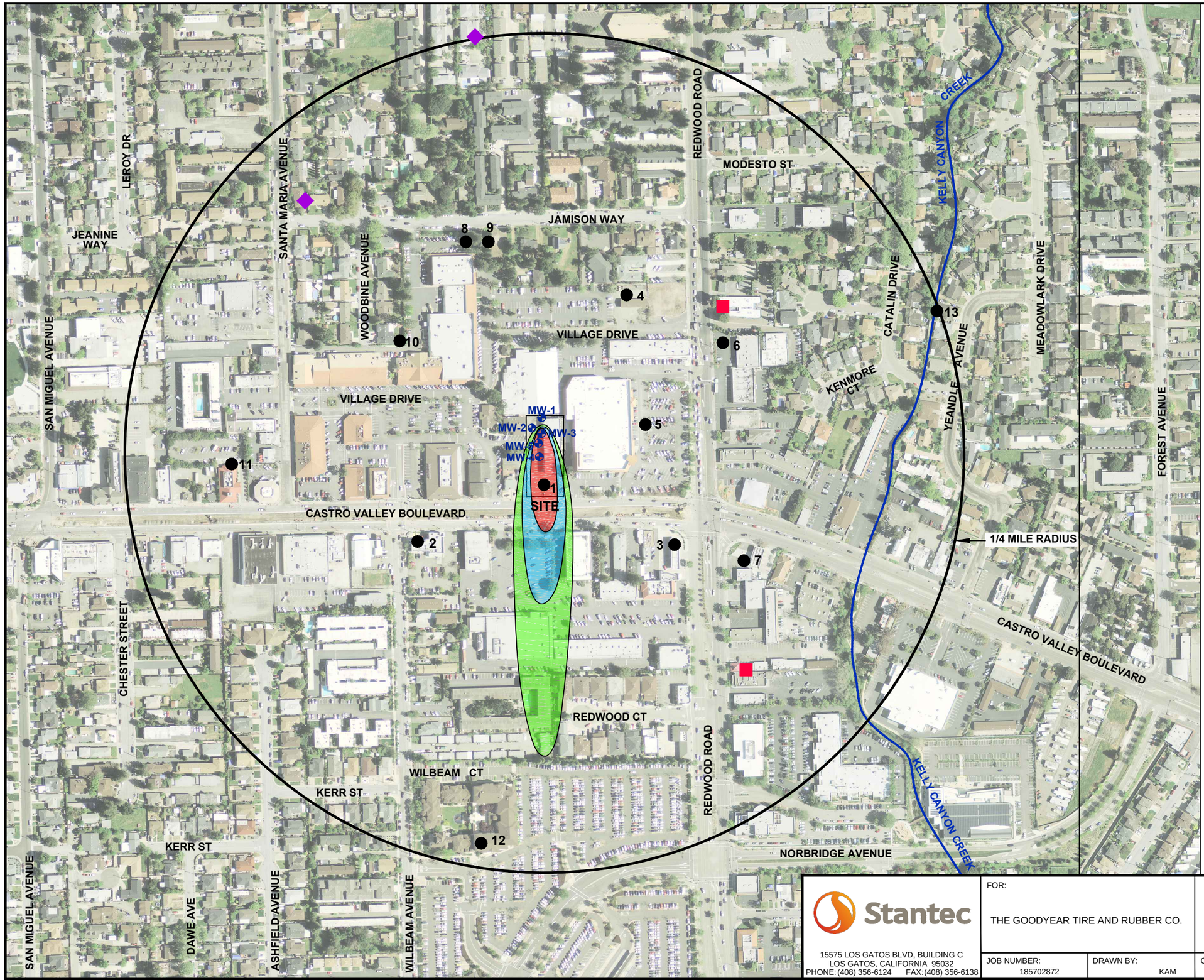
FOR: THE GOODYEAR TIRE AND RUBBER CO.

POTENTIAL BENZENE PLUME LENGTHS BASED ON LTCP TECHNICAL JUSTIFICATION GOODYEAR DEX #9578 3430 CASTRO VALLEY BOULEVARD CASTRO VALLEY, CALIFORNIA

FIGURE: 10

JOB NUMBER:	DRAWN BY:	CHECKED BY:	APPROVED BY:	DATE:
185702872	KAM	KM	GM	01/08/15

FILEPATH:W:\ACTIVE OFFICE LOS GATOS\Goodyear\66050- CASTRO VALLEY\185702724 SCM 2013\185702872-R15S.dwg|KMitchell|Jan 09, 2015 at 15:38|Layout: FIGURE 10- BENZENE



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- ACTIVE GROUNDWATER MONITORING WELL LOCATION
- DESTROYED GROUNDWATER MONITORING WELL LOCATION
- AVERAGE PLUME LENGTH (5 ug/L)
- 90TH PERCENTILE PLUME LENGTH (5 ug/L)
- MAXIMUM PLUME LENGTH (5 ug/L)

N

0 300 600

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FOR: THE GOODYEAR TIRE AND RUBBER CO.

POTENTIAL MTBE PLUME LENGTHS BASED ON LTCP TECHNICAL JUSTIFICATION GOODYEAR DEX #9578 3430 CASTRO VALLEY BOULEVARD CASTRO VALLEY, CALIFORNIA

FIGURE: 11

JOB NUMBER:	DRAWN BY:	CHECKED BY:	APPROVED BY:	DATE:
185702872	KAM	KM	GM	01/08/15

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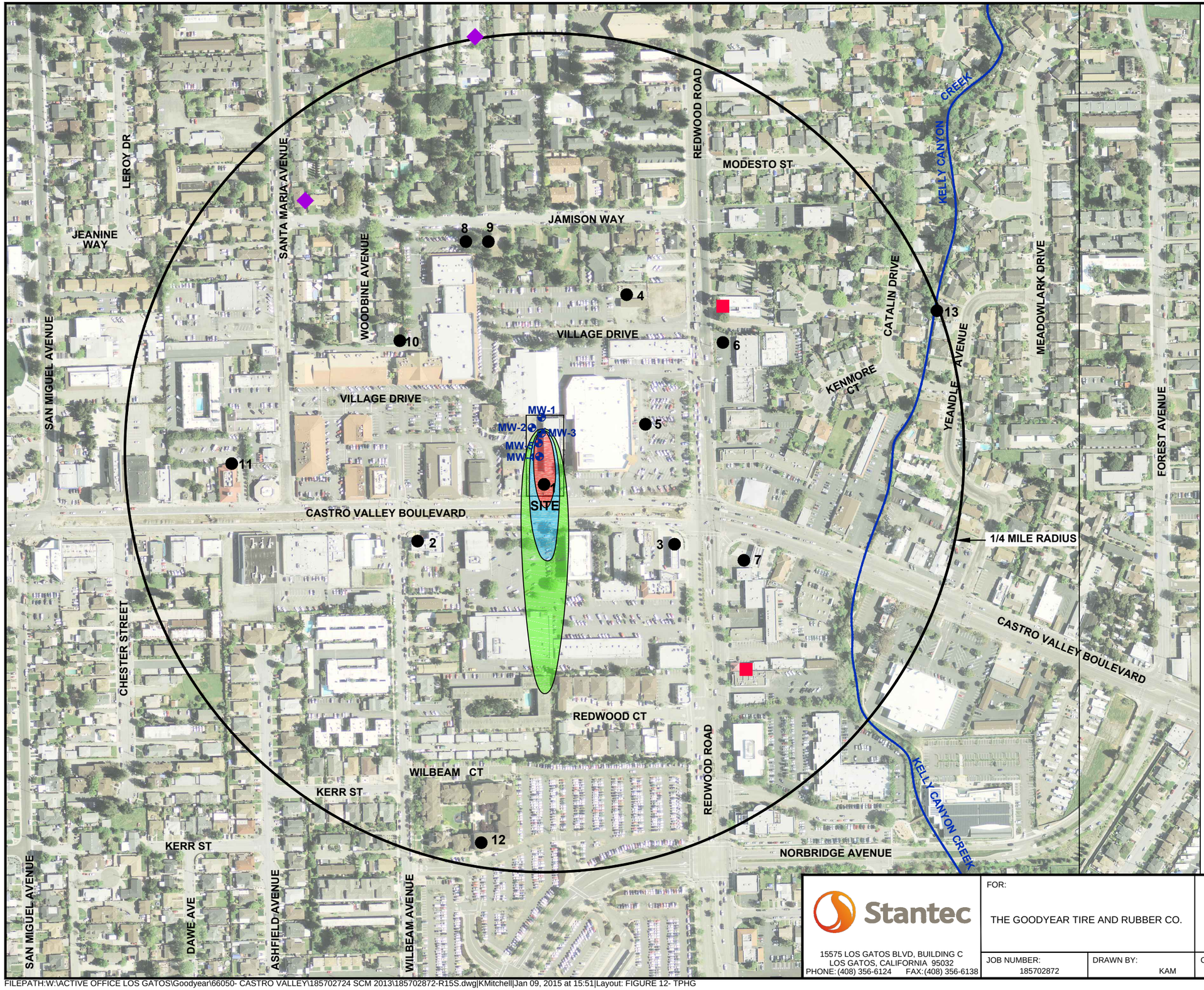

LEGEND:

- PROPERTIES WITH WELLS WITHIN 1/4-MILE OF SITE
- MEDICAL OFFICES WITHIN 1/4-MILE OF SITE
- SCHOOLS WITHIN 1/4-MILE OF SITE
- ACTIVE GROUNDWATER MONITORING WELL LOCATION
- DESTROYED GROUNDWATER MONITORING WELL LOCATION
- AVERAGE PLUME LENGTH (100 ug/L)
- 90TH PERCENTILE PLUME LENGTH (100 ug/L)
- MAXIMUM PLUME LENGTH (100 ug/L)

N

0 300 600

APPROXIMATE SCALE (FEET)

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FOR: THE GOODYEAR TIRE AND RUBBER CO.

POTENTIAL TPHg PLUME LENGTHS BASED ON LTCP TECHNICAL JUSTIFICATION GOODYEAR DEX #9578 3430 CASTRO VALLEY BOULEVARD CASTRO VALLEY, CALIFORNIA

FIGURE: 12

JOB NUMBER:	DRAWN BY:	CHECKED BY:	APPROVED BY:	DATE:
185702872	KAM	KM	GM	01/08/15

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APPENDIX C
Wells Survey Results
Former Goodyear Tire Store
3430 Castro Valley Boulevard
Castro Valley, CA

	Owner/Site Name	Well Type	Drill Date	Total Depth	Address	Approximate Distance/Direction From Site
1	Merritt Tire Sale	Monitoring Wells	Sept 94, Dec 96, Aug 12	16-20	3430 Castro Valley Blvd.	0
2	CHEVRON #9-4930 / VALLEY CAR WASH	Monitoring Well	Oct-93	20	3369 Castro Valley Blvd.	460 SW
3	Ted Simas (XTRA OIL DBA SHELL STATION)	Monitoring Wells	Feb 90 & Aug 97	18-20	3495 Castro Valley Blvd.	510 SE
4	R. T. Nahas Company (UNOCAL)	Monitoring Wells	Dec 89	25-30	20405 Redwood Rd.	520 NE
5	R. T. Nahas Company	Monitoring Wells	Apr 92	29-37	20629 Redwood Rd	310 E
6	Exxon Oil	Unknown	?	?	20450 Redwood Rd.	650 NE
7	BP #11105 / SHELL 17-1445	Monitoring Well	Sept 92, July 95, Aug 09,	15-30	3519 Castro Valley Blvd.	700 SE
8	R. T. Nahas Company	Domestic/Destroyed	Dec 75	56	3559 JAMISON WAY	700 NNW
9	R. T. Nahas Company	Destroyed	?	20 & 25	3533 JAMISON WAY	725 NNW
10	Horseshoe Drilling	Destroyed	Apr 96	20	20342 Woodbine Ave	600 NW
11	Mitzi Stockel	BOR/MON	Apr-90	8-23	3234 Castro Valley Blvd	1000 W
12	BART	Monitoring Well	Feb 93	16	21000 Wilbeam Ave.	1225 SSW
13	Robert D Rousey	Irrigation	May-77	28	20283 Yeandle Ave.	1325 ENE