STATE OF CALIFORNIA
REGIONAL WATER QUALITY CONTROL BOARD
CENTRAL COAST REGION

SUPPLEMENTAL SHEET FOR REGULAR MEETING OF MAY 3-4, 2012
Prepared on April 16, 2012

ITEM NUMBER: 7

SUBJECT: Recommended Case Closures – 200 Five Cities Drive, Pismo Beach

This supplemental sheet transmits the staff report and attachments for the recommended closure of the Underground Storage Tank cleanup case at 200 Five Cities Drive, Pismo Beach. The staff report was not contained in the original agenda mailing

Attachment: Staff report Former Gallo Service Station No. 102, 200 Five Cities Drive, Pismo Beach, San Luis Obispo County [Corey Walsh 805/542-4781]

Attachment 5: MTBE Isoconcentration Contour Map
Attachment 6: TBA Isoconcentration Contour Map

Former Gallo Service Station No. 102, 200 Five Cities Drive, Pismo Beach, San Luis Obispo County [Corey Walsh 805/542-4781]

Central Coast Water Board staff recommends closure of this UST case where groundwater sample results show concentrations remain greater than Central Coast Water Board cleanup goals. Groundwater analytical results of samples collected on November 7, 2011 showed concentrations greater than cleanup goals for methyl tertiary-butyl ether (MTBE) which ranged from 29 micrograms per liter (µg/L) to 520 µg/L, and TBA ranged from 11 to 600 µg/L (see Attachments 5 and 6). Central Coast Water Board cleanup goals for MTBE and TBA are 5 µg/L, and 12 µg/L, respectively. All other constituents of concern are below the Central Coast Water Board's cleanup goals.

This active service station is located at 200 Five Cities Drive in Pismo Beach. The UST system release was discovered in November 1993, during an investigation to evaluate subsurface conditions. The site property owner and responsible party for cleanup is Dr. Imad Rasool. Initial assessment indicated elevated concentrations of Total Petroleum Hydrocarbons as gasoline (TPH-g), benzene, toluene, ethylbenzene, and xylenes (collectively BTEX) in soil and groundwater samples. Various phases of soil and groundwater investigations were conducted to assess the extent of contamination. In 1997, the soil contaminant source area was excavated, and the USTs and tank system were replaced. Technicians removed approximately 11,000 cubic yards of impacted soil from the site.

A groundwater remediation system was installed in 2007 to treat off-site MTBE and TBA plume. The system included 13 ozone sparging wells located off-site and down-gradient (west-southwesterly) of the former UST system. Groundwater remediation began in March 2007 and continued until June 2010 when the system was turned off to assess for contaminant pollutant concentration rebound in the underlying groundwater. Groundwater analyses indicated no significant rebound in concentrations.

After ozone remediation, consultants conducted soil sampling in October 2010 to evaluate remediation effectiveness within the off-site treatment area. Soil analytical results indicate MTBE and TBA contamination greater than typical cleanup goals remains between 8 and 15 feet below ground surface (bgs). Groundwater verification samples continue to indicate that the remaining contamination is degrading naturally over time.

On-site depth to groundwater is generally between approximately 27 and 31 feet below ground surface (bgs), and between approximately 3 and 8 feet bgs in off-site monitoring wells. The groundwater flow direction is generally toward the west-southwest. The Pismo Lake Ecological Reserve is located approximately 1,600 feet south, and Pismo Creek is located approximately 2,000 feet west of the site. Two City of Pismo Beach Water Department (Water Department) municipal water supply wells are located within one-half mile of the site, but are not currently operational. One well has been abandoned, and the other well is inactive and located approximately 2,400 feet east of the site. In addition, the Water Department operates three non-potable irrigation wells within one-half mile of the site. The residual petroleum hydrocarbons are unlikely to affect any of these wells or surface waters considering the groundwater flow direction, area geology, well and surface water distances, and low remaining contaminant concentrations. Any associated risks are expected to reduce with time.

The Water Quality Control Plan, Central Coast Region (Basin Plan) designates groundwater beneficial uses underlying the site as suitable for municipal and domestic water supply, agricultural water supply, and industrial use.

Our recommendation for closure is based on the following:

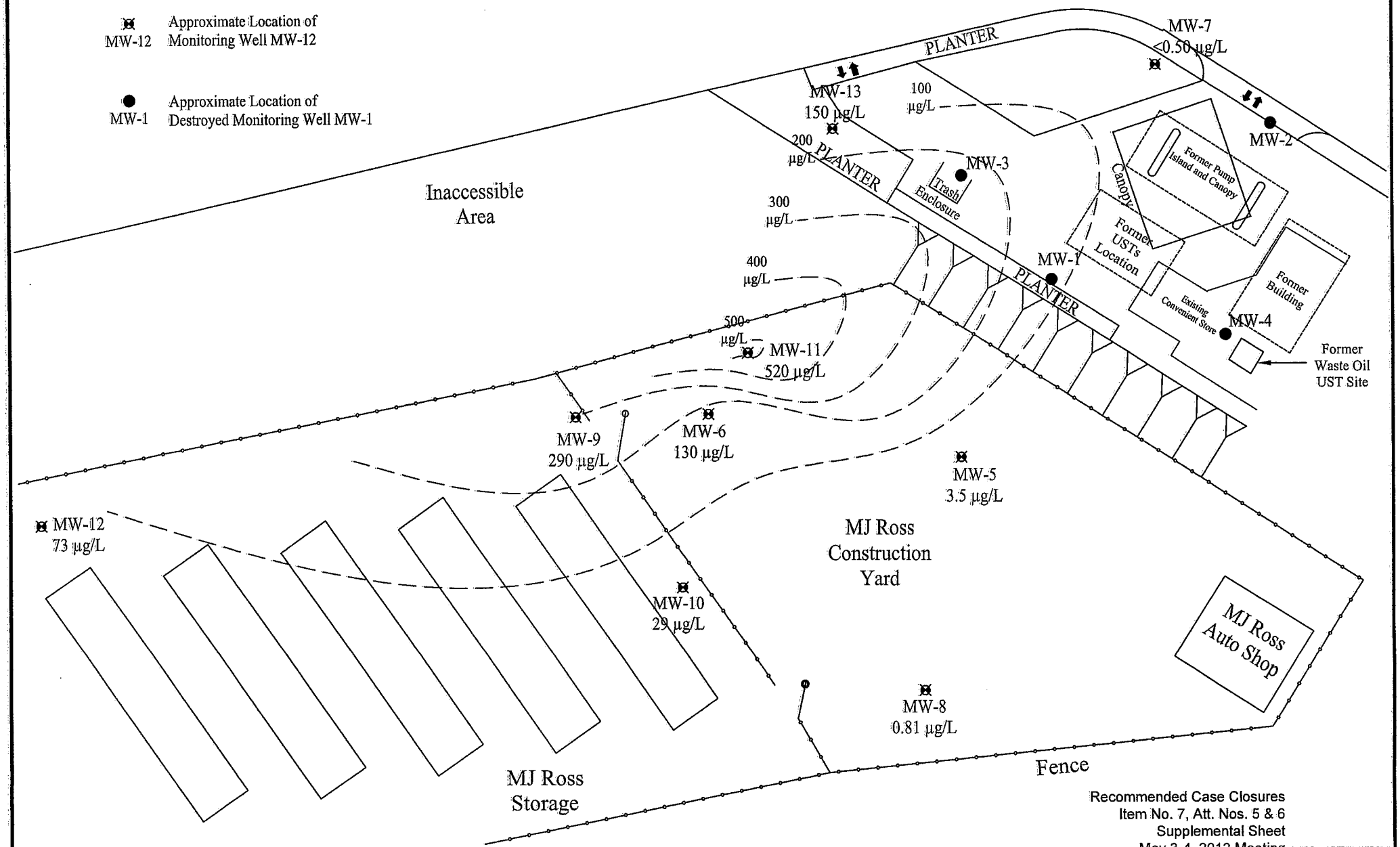
1. The extent of the release has been characterized in both soil and groundwater to the extent practical,
2. The soil contaminant source was removed from the site by way of extensive excavation, to the extent practical,
3. The remaining soil pollution above the cleanup goal is limited to MTBE and TBA, and is found below the groundwater table, and therefore likely attributed to dissolved phase migration,
4. The remaining groundwater constituents of concern are limited to MTBE and TBA, and the groundwater plume is declining in size and concentration,
5. MTBE concentrations in groundwater have been reduced from a maximum of 10,000 to 520µg/L in the center of the off-site plume,
6. TBA concentrations in groundwater have been reduced from a maximum of 2,400 to 600 µg/L, in the center of the off-site plume,
7. Monitoring data indicate favorable conditions for natural attenuation of petroleum hydrocarbons and concentrations are expected to continue to decrease with time,
8. The nearest water supply well (irrigation well) is located approximately 1,400 feet northwest of the site. It is extremely unlikely that remaining contamination will reach this well,
9. The site is located within the service area of a public water system, therefore it is not likely that a new water supply well will be installed in the surrounding area
10. The current fee titleholders of the subject property and adjacent properties have been notified of the proposed case closure and have no objections to case closure, and
11. Closure is consistent with Section III.G. State Board Resolution No. 92-49, allowing consideration of cost effective abatement measures for a site where attainment of reasonable objectives less stringent than background water quality does not unreasonably affect present or anticipated beneficial uses of groundwater.

Residual soil and groundwater contamination still exists on-site and off-site that could pose an unacceptable risk under certain site development activities such as site grading, excavation, or de-watering. The Central Coast Water Board, San Luis Obispo County Environmental Health Services (EHS), and the appropriate local planning and building departments must be notified prior to any changes in land use, grading activities, excavation, or dewatering. This notification must include a statement that residual soil and groundwater contamination underlie the property and nearby properties, and a description of the mitigation actions necessary (if any) to ensure that any possibly contaminated soils or groundwater brought to the surface by these activities are managed appropriately. The levels of residual contamination and any associated risks are expected to reduce with time. Future site disturbance could require worker health and safety protection, and restrictions on the disposal of soil and groundwater. San Luis Obispo County EHS may require additional site assessment if the property is proposed to be redeveloped. Additional actions required by the EHS may include, but are not limited to, a case review, further remedial action, soil gas analysis, and a human health risk assessment.

Central Coast Water Board staff notified the site property owner (Dr. Imad Rasool), neighboring property owners, including the owner of the adjacent property with the underlying residual groundwater plume, the Water Department, and other interested parties that we intend to recommend this UST case for closure. We have not received any comments or objections to the planned closure of this case. The San Luis Obispo County Environmental Health Services (EHS) agrees with our proposed closure of the case. The responsible party has agreed to prepare and implement a Contaminated Materials Management Plan and a Phase I environmental assessment for the adjacent downgradient property owner in the event the neighboring property owner redevelops. Unless the Water Board directs staff otherwise and pending proper monitoring well destruction, the Executive Officer will issue a case closure letter pursuant to California Underground Storage Tank Regulations.

Attachment 5: MTBE Isoconcentration Contour Map
Attachment 6: TBA Isoconcentration Contour Map

Job No. 9612016
April 2012
Figure 1



Recommended Case Closures
Item No. 7, Att. Nos. 5 & 6
Supplemental Sheet
~~May 3, 4, 2012 Meeting~~

ASR Engineering, Inc.

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NORTH

SCALE: 1" = 50'±

MTBE ISOCONCENTRATION CONTOUR MAP; NOV. 7, 2011
IMAD RASOOL SERVICE STATION
200 FIVE CITIES DRIVE
PISMO BEACH, CALIFORNIA

Job No. 9612016
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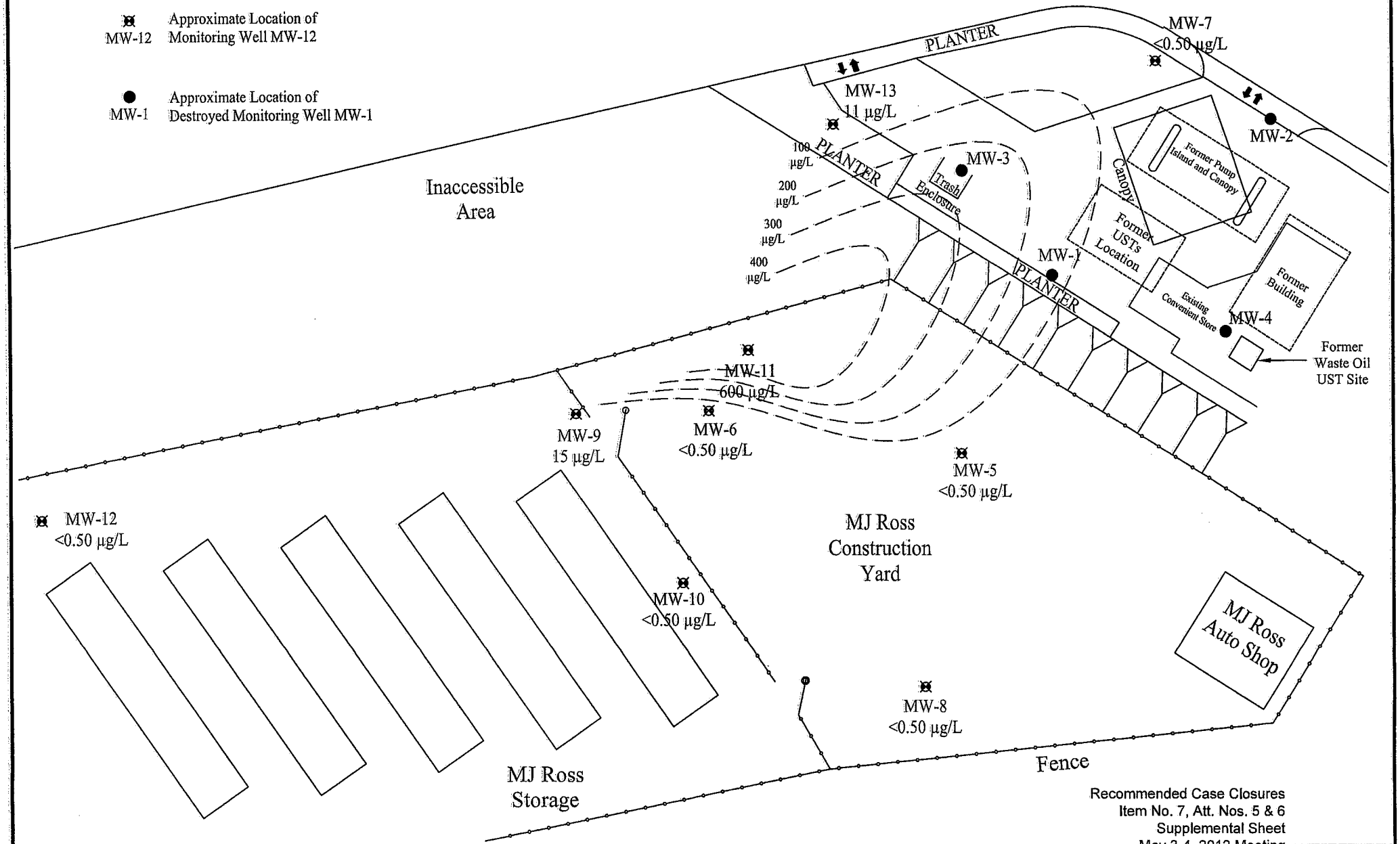
Figure 2

LEGEND:

MW-12 Approximate Location of Monitoring Well MW-12

MW-1 Approximate Location of Destroyed Monitoring Well MW-1



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TBA ISOCONCENTRATION CONTOUR MAP; NOV. 7, 2011
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