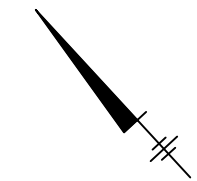
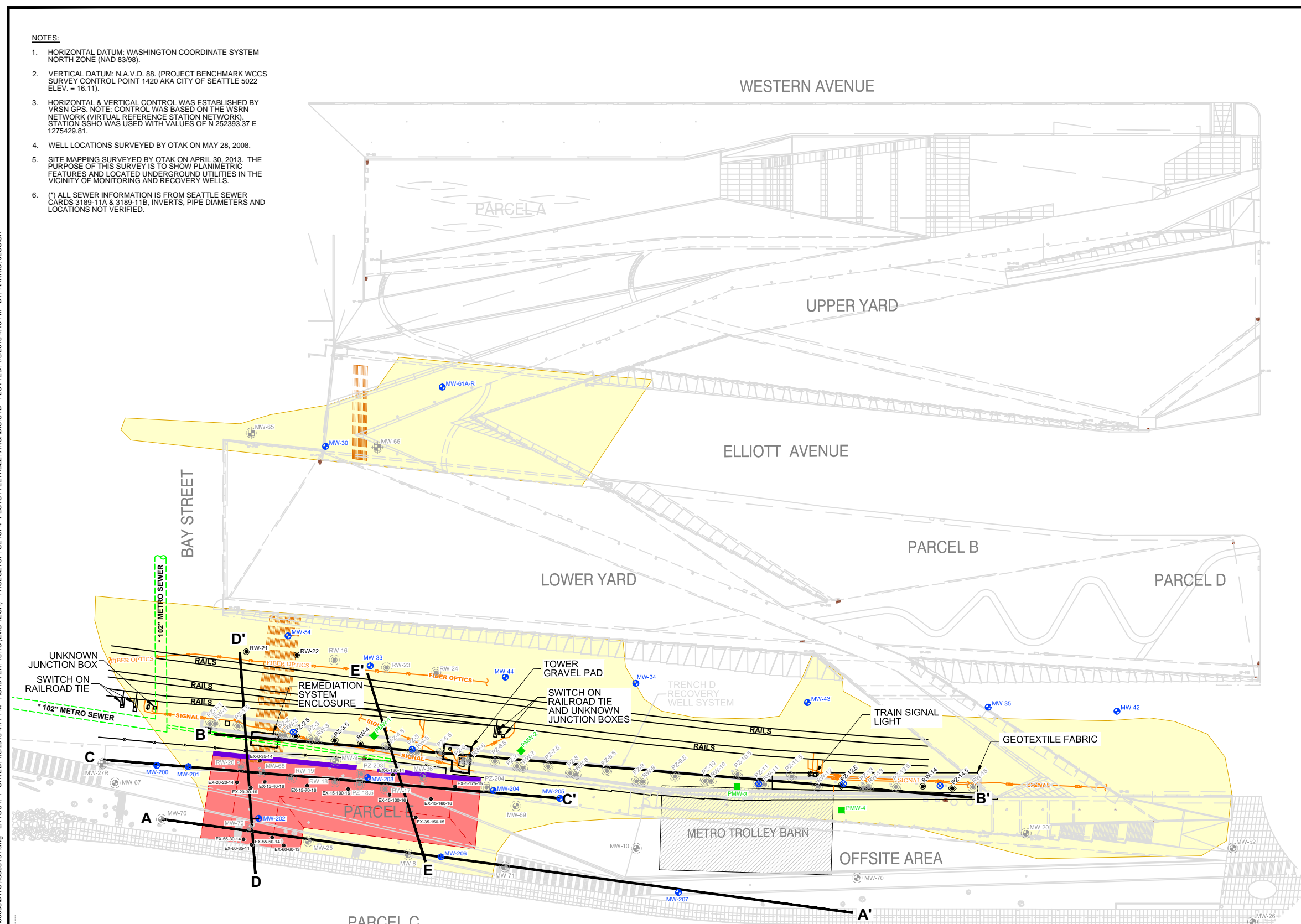


NOTES:

- HORIZONTAL DATUM: WASHINGTON COORDINATE SYSTEM NORTH ZONE (NAD 83/98).
- VERTICAL DATUM: N.A.V.D. 88. (PROJECT BENCHMARK WCCS SURVEY CONTROL POINT 1420 AKA CITY OF SEATTLE 5022 ELEV. = 16.11).
- HORIZONTAL & VERTICAL CONTROL WAS ESTABLISHED BY VRSN GPS. NOTE: CONTROL WAS BASED ON THE WSRN NETWORK (VIRTUAL REFERENCE STATION NETWORK). STATION S5HO WAS USED WITH VALUES OF N 252393.37 E 1275429.81.
- WELL LOCATIONS SURVEYED BY OTAK ON MAY 28, 2008.
- SITE MAPPING SURVEYED BY OTAK ON APRIL 30, 2013. THE PURPOSE OF THIS SURVEY IS TO SHOW PLANIMETRIC FEATURES AND LOCATED UNDERGROUND UTILITIES IN THE VICINITY OF MONITORING AND RECOVERY WELLS.
- (* ALL SEWER INFORMATION IS FROM SEATTLE SEWER CARDS 3189-11A & 3189-11B, INVERTS, PIPE DIAMETERS AND LOCATIONS NOT VERIFIED.



CITY: SAN RAFAEL, CA (PETALUMA) DIV/GROUP: ENVCAD DE, J. HARRIS
 C:\Users\j\harris\Desktop\ENVCAD\B0046383\000600003\DWG\45963X01.dwg LAYOUT: 1
 XREFS: IMAGES: PROJECTNAME: ...
 45963X01

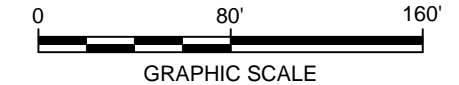


LEGEND

- MW-35 ● MONITORING WELL
- PZ-14.5 ■ RECOVERY WELL
- RW-14 ● PIEZOMETER
- EX-20-20-14 ● CONFIRMATION SOIL SAMPLE LOCATION
- ⊕ REPLACEMENT WELL LOCATION PROPOSED BY CITY/SAM
- PMW-1 ■ PROPOSED WELL LOCATION
- ⊗ WELL DECOMMISSIONED
- SHORING WALL
- EXISTING PIPING CORRIDOR
- 2005 HOT SPOT EXCAVATION AREA
- SIGNAL — RAILROAD SIGNAL LINE
- FIBER OPTICS — FIBER OPTIC LINE
- UTILITY CONTINUES BUT WAS NOT SURVEYED
- SEWER LINE
- APPROXIMATE AREA OF PETROLEUM CONTAMINATED SOIL (GEOENGINEERS 1997)
- A—A' — CROSS SECTION LOCATION

BROAD STREET

ALASKAN WAY



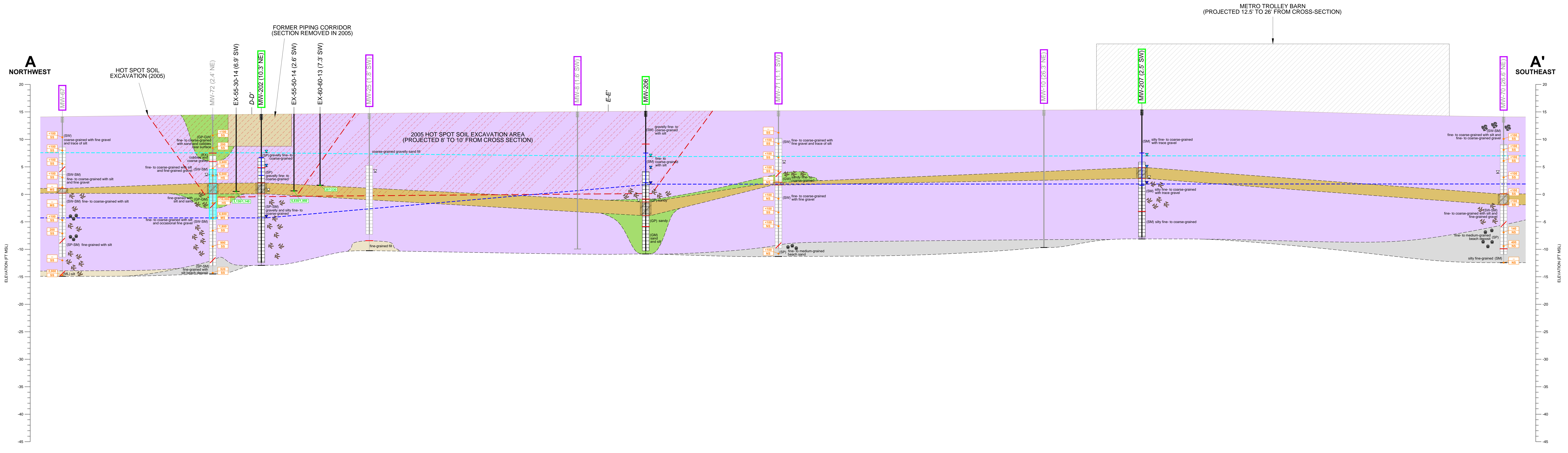
FORMER UNOCAL SEATTLE MARKETING TERMINAL
SEATTLE, WASHINGTON

CROSS SECTION LOCATION MAP



FIGURE
1

CITY: SAN RAFAEL, CA (PETA/LUMA) DIV: GROUP, ENV, CAD, DB: J. HARRIS
 C:\Users\jharri\Desktop\ENR\CAD\B04045383\0000000000\DWG\45383\01.dwg LAYOUT: A-A' SAVED: 1/8/2015 4:11 PM ACADIVER: 18.15 (LMS TECH) PAGESETUP: SETUP2 PLOTSTYLETABLE: ARCADIS.CTB PLOTTED: 1/8/2015 4:12 PM BY: HARRIS, JESSICA



LEGEND

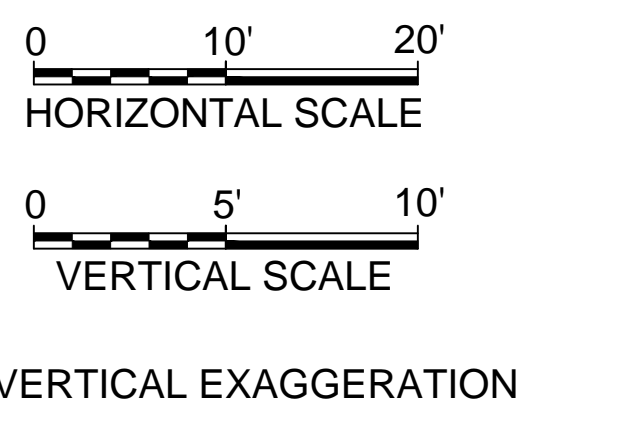
- MW-202 (10.3' NE) PROJECTION IN FEET AND DIRECTION FROM CROSS SECTION
- MW-202 (10.3' NE) BOX COLOR INDICATES GROUNDWATER COMPLIANCE
- MW-202 (10.3' NE) MONITORING WELL OR CONFIRMATION SOIL SAMPLE LOCATION ID
- MW-202 (10.3' NE) MONITORING WELL VAULT
- MW-202 (10.3' NE) MONITORING WELL OR CONFIRMATION SOIL SAMPLE LOCATION BLANK CASING
- MW-202 (10.3' NE) MONITORING WELL SCREEN
- MW-202 (10.3' NE) BOREHOLE, NO WELL CASING
- MW-202 (10.3' NE) BOTTOM OF BOREHOLE

- GEOLOGICAL CONTACTS:**
- WELL DEFINED LITHOLOGICAL CHANGE AT DEFINED DEPTH
 - GRADATIONAL LITHOLOGICAL CHANGE
 - INFERRED CONTACT
- UNITS:**
- FINE-GRAINED FILL
 - SAND FILL
 - GRAVEL FILL
 - BEACH SANDS, POSSIBLY MIXED WITH FILL MATERIAL
 - WOODEN PLANKING - HISTORIC ROADWAY
- GROUNDWATER COMPLIANCE INDICATORS:**
- MW-202 (10.3' NE) BELOW REGULATORY ACTION LEVEL BEFORE DECOMMISSIONING
 - MW-202 (10.3' NE) BELOW REGULATORY ACTION LEVEL LAST 6 SAMPLING EVENTS

- LITHOLOGICAL DEFINITIONS:**
- GP POORLY GRADED GRAVEL AND GRAVEL SAND MIXTURES
 - GM SILTY GRAVEL AND POORLY GRADED GRAVEL, SAND, SILT MIXTURES
 - GC CLAYEY GRAVEL AND POORLY GRADED GRAVEL, SAND AND CLAY MIXTURES
 - SP POORLY GRADED SAND AND GRAVELLY SAND
 - SM SILTY SAND AND POORLY GRADED SAND AND SILT MIXTURES
 - ML INORGANIC SILT AND VERY FINE-GRAINED SAND, SILTY OR CLAYEY FINE-GRAINED SAND, OR CLAYEY SILT WITH SLIGHT PLASTICITY
 - CL INORGANIC CLAY OF LOW TO MEDIUM PLASTICITY, GRAVELLY CLAY, SANDY CLAY, SILTY CLAY, LEAN CLAY
 - OL ORGANIC CLAY AND ORGANIC SILTY CLAY OF LOW PLASTICITY
- LIGHT NON-AQUEOUS PHASE LIQUID (LNAPL):**
- MW-202 (10.3' NE) INTERPRETED POTENTIAL EXTENT OF LNAPL SMEAR ZONE BASED ON VISUAL OBSERVATIONS OF SHEEN AND PRODUCT IN DRILLING LOGS AND AVAILABLE GROUNDWATER MONITORING HISTORY. DASHED LINES INDICATE APPROXIMATE DEPTHS WHERE FREE-PRODUCT WAS OBSERVED, WHERE APPLICABLE
- GROUNDWATER COMPLIANCE INDICATORS:**
- NS NO VISIBLE SHEEN
 - SS SLIGHT SHEEN
 - MS MODERATE SHEEN
 - HS HIGH SHEEN

- MINIMUM DEPTH TO GROUNDWATER
- AVERAGE DEPTH TO GROUNDWATER
- MAXIMUM DEPTH TO GROUNDWATER
- DEPTH TO GROUNDWATER ENCOUNTERED DURING WELL DEVELOPMENT
- ZONE OF WATER TABLE FLUCTUATION 2007-2014
- APPROXIMATE EXTENT OF TIDAL FLUCTUATION
- ASPHALT FRAGMENTS
- WOOD FRAGMENTS
- SHELL FRAGMENTS
- VAPOR CONCENTRATION MEASURED IN SOIL SAMPLE WITH PHOTOIONIZATION DETECTOR (PID), IN PARTS PER MILLION (ppm)
- SHEEN INDICATOR
- GASOLINE RANGE ORGANICS (GRO) / DIESEL RANGE ORGANICS (DRO) CONCENTRATION IN MILLIGRAMS PER KILOGRAM (mg/kg)
- NS = NOT SAMPLED
- = NOT MEASURED OR NOTED
- < = LESS THAN LABORATORY REPORTING LIMIT SHOWN
- > = GREATER THAN LABORATORY REPORTING LIMIT SHOWN

- NOTES:**
1. ALL FEATURES AND LOCATIONS ARE APPROXIMATE.
 2. SURVEY DATUMS ARE NAD83/98 (HORIZONTAL) AND NAVD88 (VERTICAL).
 3. VAPOR CONCENTRATIONS WERE MEASURED WITH A PHOTOIONIZATION DETECTOR (PID) AND ARE SHOWN WHERE AVAILABLE.
 4. LITHOLOGY SHOWN WAS DOCUMENTED AT THE TIME OF WELL INSTALLATION. MATERIAL AT WELLS INSTALLED IN THE EXCAVATION AREA PRIOR TO 2005 WAS REMOVED TO THE APPROXIMATE DEPTH SHOWN DURING THE 2005 EXCAVATION. ADDITIONAL SURFACE MATERIAL MAY HAVE BEEN REMOVED DURING POTENTIAL RE-GRADING ACTIVITIES DURING SITE HISTORY.
 5. MONITORING WELL MW-25 GEOLOGIC LOG NOT AVAILABLE. INFORMATION SHOWN HERE WAS PRESENTED ON A CROSS-SECTION FROM APPLIED GEOTECHNOLOGY, 1994.
 6. NO DATA AVAILABLE FOR MONITORING WELLS MW-8 AND MW-10.
 7. SURVEYED ELEVATIONS PRESENTED IN GEOLOGIC LOGS FOR DECOMMISSIONED MONITORING WELLS MW-70, MW-71, MW-72, AND MW-76 WERE MADE USING AN UNKNOWN DATUM (ARCADIS 2014). THEREFORE, THESE WELLS HAVE BEEN POSITIONED AT THE APPROXIMATE GROUND SURFACE ELEVATION BASED ON WELLS SURVEYED TO NAVD88 IN 2008.
 8. MONITORING WELL MW-72 IS SHOWN IN THE FORMER PIPING CORRIDOR ON HISTORIC SITE PLANS. HOWEVER, IT IS UNLIKELY THAT THIS WELL WAS INSTALLED IN 1995 THROUGH THE PIPING THAT EXISTED IN THIS AREA UNTIL OCTOBER 2005 (GEOTECHNICAL 2006). THEREFORE, THE POSITION OF THIS WELL HAS BEEN OFFSET APPROXIMATELY 12 FEET TO THE NORTH.
 9. EXTENT OF TIDAL FLUCTUATION AT 200-SERIES MONITORING WELLS BASED ON DATA PRESENTED IN ARCADIS 2010.



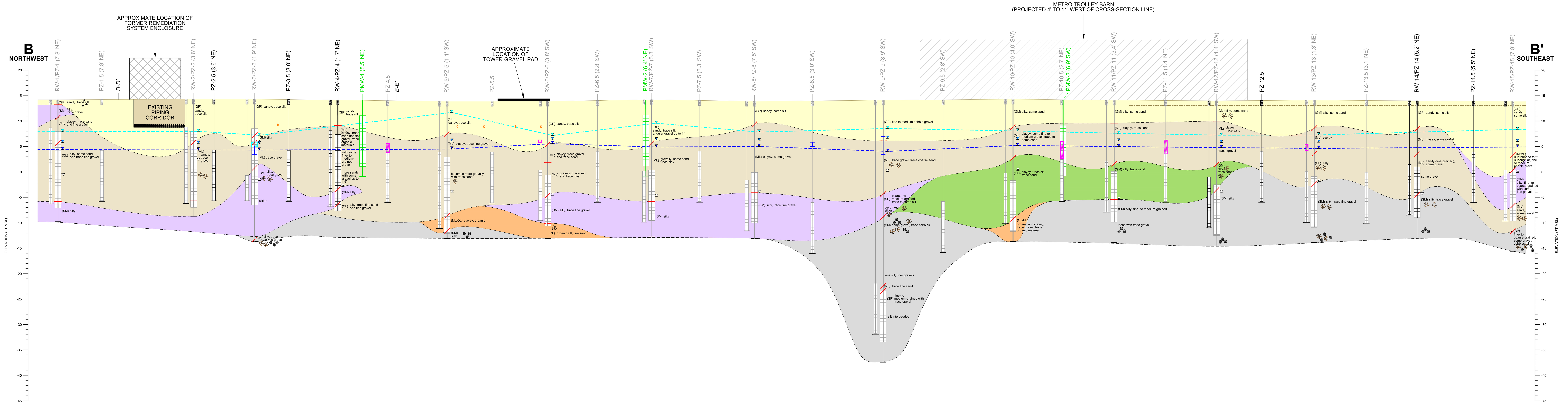
**FORMER UNOCAL SEATTLE MARKETING TERMINAL
SEATTLE, WASHINGTON**

GEOLOGIC CROSS SECTION A-A'

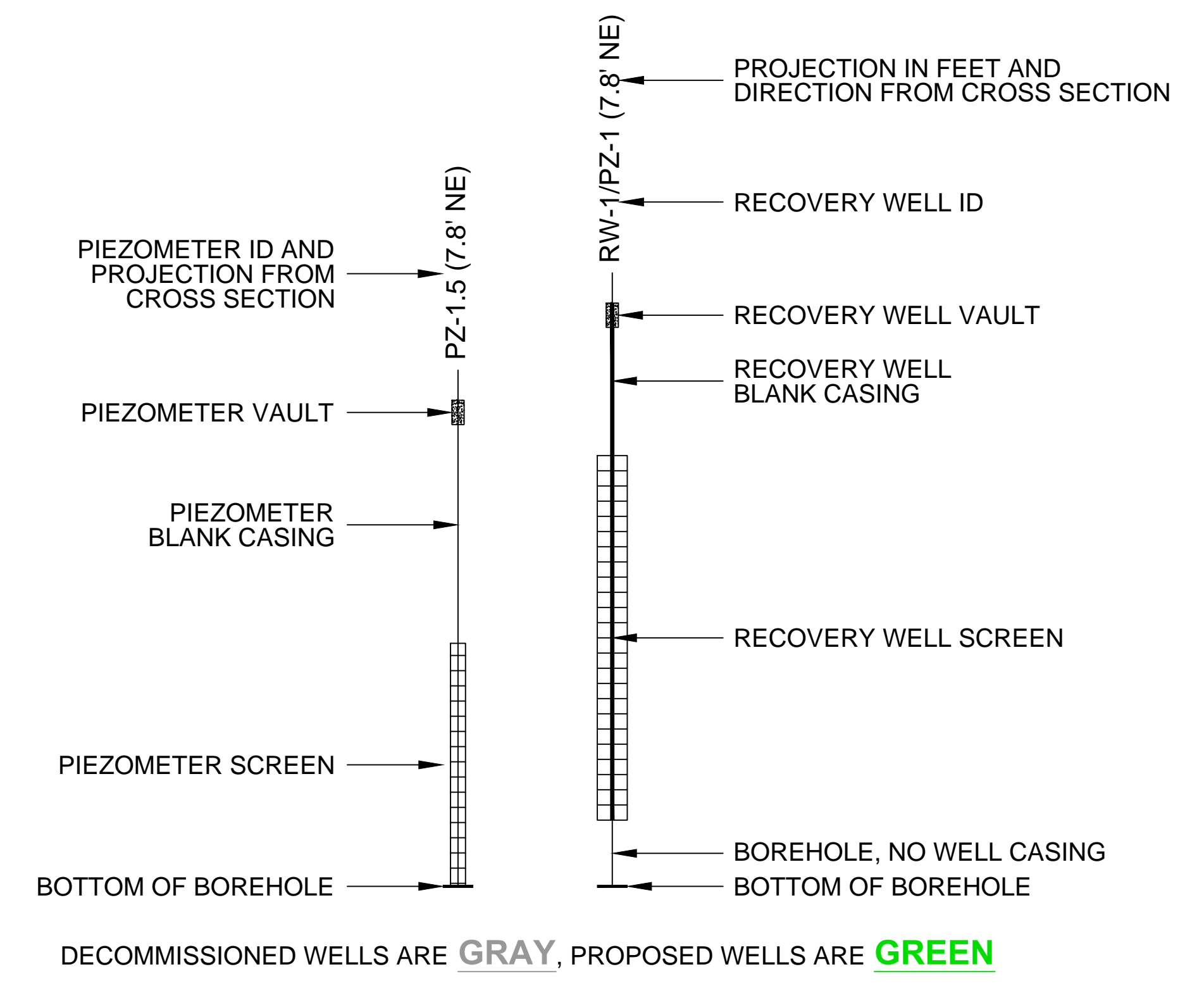
**FIGURE
A-A'**

ARCADIS

CITY: SAN RAFAEL, CA (PETA/ALUMA) DIV: GROUND ENV: CAD_DB: 1_HARRIS PAGESETUP: SETUP2_PLOTSTYLETABLE: ARCADIS.CTB PLOTTED: 18/2015 4:12 PM BY: HARRIS, JESSICA



LEGEND

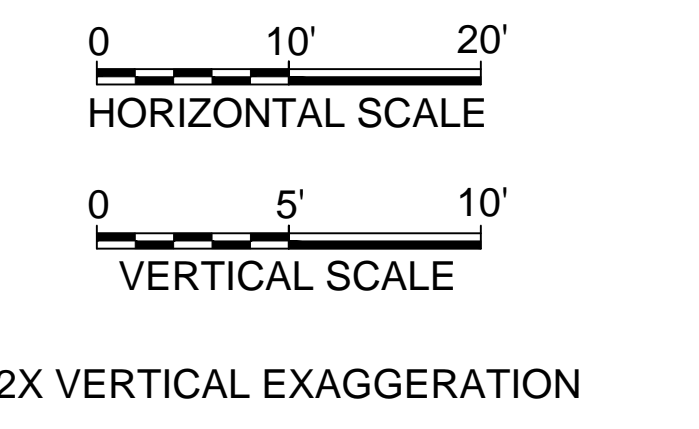


- GEOLOGICAL CONTACTS:**
- Well defined lithological change at defined depth
 - Well defined lithological change at approximate depth
 - Gradational lithological change
 - Obscure lithological change
 - Inferred contact
- UNITS:**
- Gravel surface fill
 - Fine-grained fill
 - Sand fill
 - Gravel fill
 - Fine-grained materials with high organic content
 - Beach sands, possibly mixed with fill material

- LITHOLOGICAL DEFINITIONS:**
- GP POORLY GRADED GRAVEL AND GRAVEL SAND MIXTURES
 - GM SILTY GRAVEL AND POORLY GRADED GRAVEL, SAND, SILT MIXTURES
 - GC CLAYEY GRAVEL AND POORLY GRADED GRAVEL, SAND AND CLAY MIXTURES
 - SP POORLY GRADED SAND AND GRAVELLY SAND
 - SM SILTY SAND AND POORLY GRADED SAND AND SILT MIXTURES
 - ML INORGANIC SILT AND VERY FINE-GRAINED SAND, SILTY OR CLAYEY FINE-GRAINED SAND, OR CLAYEY SILT WITH SLIGHT PLASTICITY
 - CL INORGANIC CLAY OF LOW TO MEDIUM PLASTICITY, GRAVELLY CLAY, SANDY CLAY, SILTY CLAY, LEAN CLAY
 - OL ORGANIC CLAY AND ORGANIC SILTY CLAY OF LOW PLASTICITY
- LIGHT NON-AQUEOUS PHASE LIQUID (LNAPL):**
- Interpreted potential extent of LNAPL smear zone based on visual observations of sheen and product in drilling logs and available groundwater monitoring history. Dashed lines indicate approximate depths where free-product was observed, where applicable.
 - Approximate extent of in-well LNAPL in 2014

- Minimum depth to groundwater
- Average depth to groundwater
- Maximum depth to groundwater
- Depth to groundwater encountered during well development
- Zone of water table fluctuation 2007-2014
- Approximate extent of tidal fluctuation
- Glass fragments
- Wood fragments
- Shell fragments
- Approximate location of underground railroad signal line
- Geotextile fabric

- NOTES:**
- ALL FEATURES AND LOCATIONS ARE APPROXIMATE.
 - SURVEY DATUMS ARE NAD83/98 (HORIZONTAL) AND NAVD88 (VERTICAL).
 - VAPOR CONCENTRATIONS WERE MEASURED WITH A PHOTOIONIZATION DETECTOR (PID) AND ARE SHOWN WHERE AVAILABLE.
 - EACH OF THE RECOVERY WELLS AND PIEZOMETERS HAVE BEEN PROPERLY DECOMMISSIONED WITH THE EXCEPTIONS OF PZ-2.5, PZ-3.5, RW-4, PZ-4, PZ-12.5, RW-14, PZ-14, AND PZ-14.5. THESE PIEZOMETERS AND MONITORING WELLS WERE NOT LOCATED DURING DECOMMISSIONING ACTIVITIES.
 - CONSTRUCTION DETAILS FOR PIEZOMETER PZ-14.5 WERE NOT LOCATED. DETAILS SHOWN HERE ARE BASED ON CONSTRUCTION OF RECOVERY WELLS: RW-1 THROUGH RW-3, RW-5 THROUGH RW-13, AND RW-15.
 - NO LITHOLOGICAL DATA RECORDED DURING THE INSTALLATION OF PIEZOMETERS 1.5 THROUGH 13.5.
 - EXTENT OF TIDAL FLUCTUATION AT RW-9 AND PZ-8.5 BASED ON DATA PROVIDED BY APPLIED GEOTECHNOLOGY (1989B).
 - EXTENT OF TIDAL FLUCTUATION AT RW-3 BASED ON DATA PRESENTED IN ARCADIS 2010.

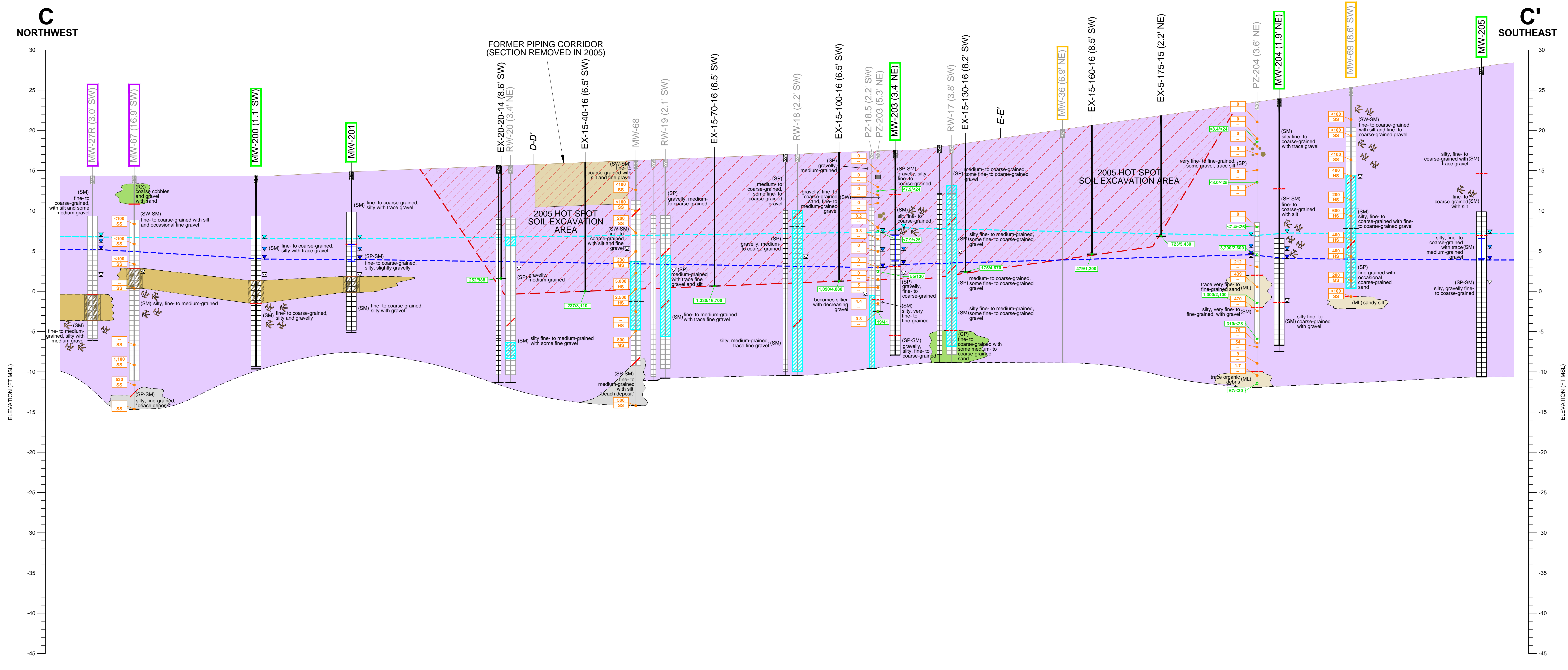


FORMER UNOCAL SEATTLE MARKETING TERMINAL
SEATTLE, WASHINGTON

GEOLOGIC CROSS SECTION B-B'

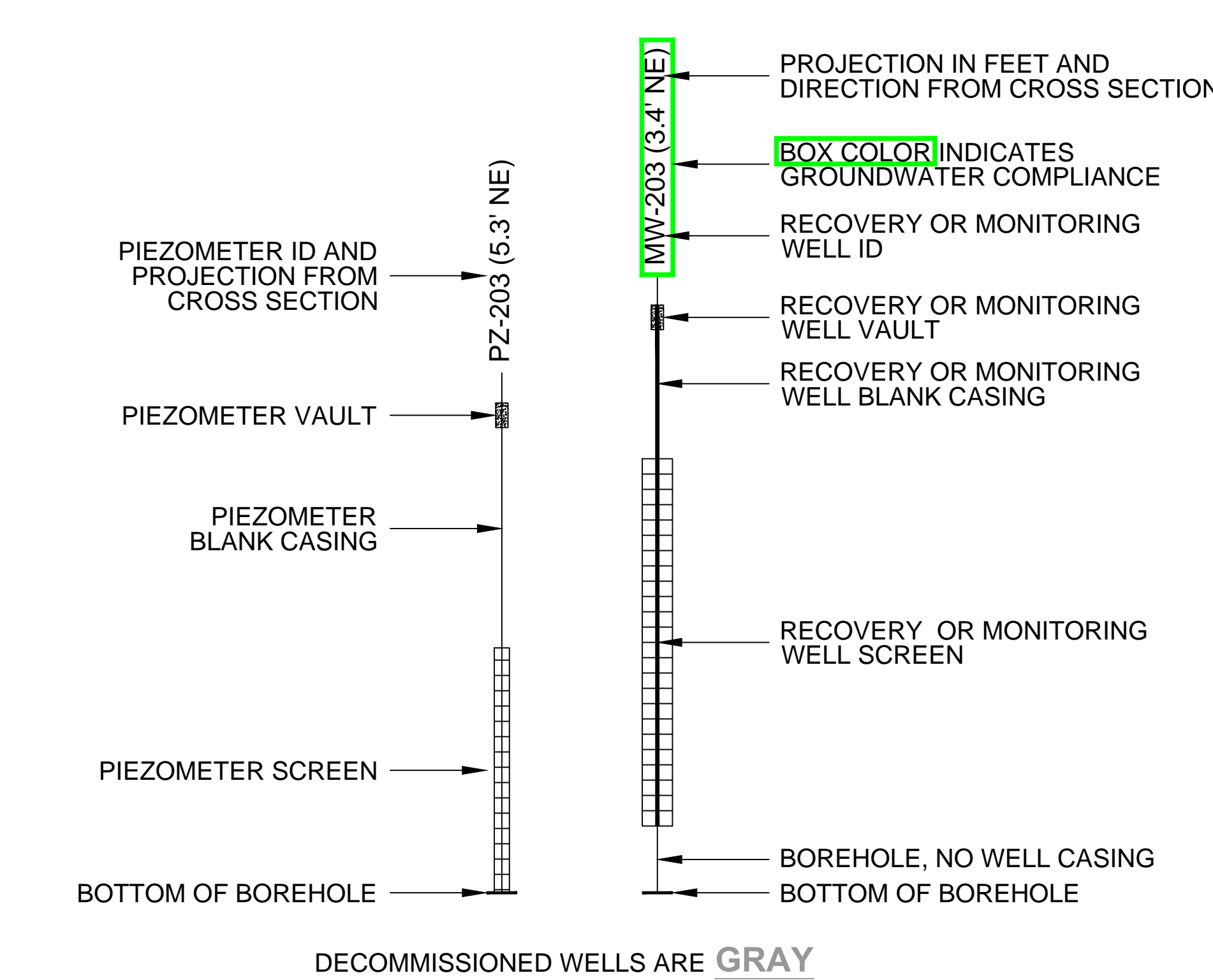
FIGURE
B-B'

CITY: SAN RAFAEL, CA (PETA/UMMA) DIV: GROUNDWATER ENVIRONMENTAL SERVICES GROUP, INC. DB: J. HARRIS
 C:\Users\jrharris\Desktop\ENVI\CADD\B04045330\B04045330\101.dwg LAYOUT: C-C SAIED: 1/8/2015 4:11 PM ACADIVER: 18.1S (LIMS TECH) PAGES: 18/18 PLOTSTYLE: ARCADIS.CTB PLOTTED: 1/8/2015 4:13 PM BY: HARRIS, JESSICA



- NOTES:**
1. ALL FEATURES AND LOCATIONS ARE APPROXIMATE.
 2. SURVEY DATUMS ARE NAD83/98 (HORIZONTAL) AND NAVD88 (VERTICAL).
 3. VAPOR CONCENTRATIONS WERE MEASURED WITH A PHOTOIONIZATION DETECTOR (PID) AND ARE SHOWN WHERE AVAILABLE.
 4. LITHOLOGY SHOWN WAS DOCUMENTED AT THE TIME OF WELL INSTALLATION. MATERIAL AT WELLS INSTALLED IN THE EXCAVATION AREA PRIOR TO 2005 WAS REMOVED TO THE APPROXIMATE DEPTH SHOWN DURING THE 2005 EXCAVATION. ADDITIONAL SURFACE MATERIAL MAY HAVE BEEN REMOVED DURING POTENTIAL RE-GRADING ACTIVITIES DURING SITE HISTORY.
 5. NO DATA AVAILABLE FOR MONITORING WELL MW-36.
 6. WELLS HAVE BEEN POSITIONED AT THE APPROXIMATE GROUND SURFACE ELEVATION BASED ON WELLS SURVEYED TO NAVD88 IN 2008 (MW-200, MW-203 THROUGH MW-205).
 7. MONITORING WELL MW-68 IS SHOWN IN THE FORMER PIPING CORRIDOR ON HISTORIC SITE PLANS. HOWEVER, IT IS UNLIKELY THAT THIS WELL WAS INSTALLED IN 1995 THROUGH THE PIPING THAT EXISTED IN THIS AREA UNTIL OCTOBER 2005 (GE ENGINEERS 2005). THEREFORE, THE POSITION OF THIS WELL HAS BEEN OFFSET APPROXIMATELY 17 FEET TO THE SOUTH.
 8. EXTENT OF TIDAL FLUCTUATION AT 200-SERIES MONITORING WELLS BASED ON DATA PRESENTED IN ARCADIS 2010.

LEGEND



- GEOLOGICAL CONTACTS:**
- WELL DEFINED LITHOLOGICAL CHANGE AT DEFINED DEPTH
 - - - WELL DEFINED LITHOLOGICAL CHANGE AT APPROXIMATE DEPTH
 - · - · - GRADATIONAL LITHOLOGICAL CHANGE
 - · - · - OBSOLETE LITHOLOGICAL CHANGE
 - · - · - INFERRED CONTACT

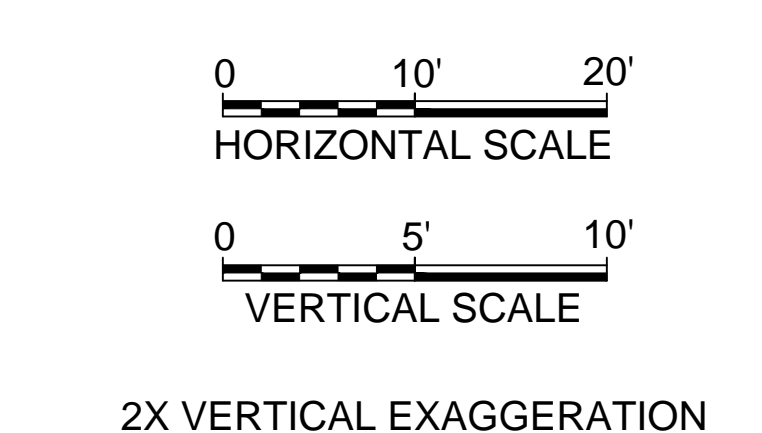
- UNITS:**
- FINE-GRAINED FILL
 - SAND FILL
 - GRAVEL FILL
 - BEACH SANDS, POSSIBLY MIXED WITH FILL MATERIAL
 - ASPHALT
 - WOODEN PLANKING - HISTORIC ROADWAY

- LITHOLOGICAL DEFINITIONS:**
- GP POORLY GRADED GRAVEL AND GRAVEL SAND MIXTURES
 - SP POORLY GRADED SAND AND GRAVELLY SAND
 - SM SILTY SAND AND POORLY GRADED SAND AND SILT MIXTURES
 - SW WELL GRADED FINE- TO COARSE-GRAINED SAND
 - ML INORGANIC SILT AND VERY FINE-GRAINED SAND, SILTY OR CLAYEY FINE-GRAINED SAND, OR CLAYEY SILT WITH SLIGHT PLASTICITY
 - RX ROCKS

- LIGHT NON-AQUEOUS PHASE LIQUID (LNAPL):**
- INTERPRETED POTENTIAL EXTENT OF LNAPL SMEAR ZONE BASED ON VISUAL OBSERVATIONS OF SHEEN AND PRODUCT IN DRILLING LOGS AND AVAILABLE GROUNDWATER MONITORING HISTORY. DASHED LINES INDICATE APPROXIMATE DEPTHS WHERE FREE-PRODUCT WAS OBSERVED, WHERE APPLICABLE
 - NS NO VISIBLE SHEEN
 - SS SLIGHT SHEEN
 - MS MODERATE SHEEN
 - HS HIGH SHEEN

- GROUNDWATER COMPLIANCE INDICATORS:**
- MINIMUM DEPTH TO GROUNDWATER
 - AVERAGE DEPTH TO GROUNDWATER
 - MAXIMUM DEPTH TO GROUNDWATER
 - DEPTH TO GROUNDWATER ENCOUNTERED DURING WELL DEVELOPMENT
 - ZONE OF WATER TABLE FLUCTUATION 2007-2014
 - APPROXIMATE EXTENT OF TIDAL FLUCTUATION
 - WOOD FRAGMENTS
 - GEOTEXTILE FRAGMENTS
 - VAPOR CONCENTRATION MEASURED IN SOIL SAMPLE WITH PHOTOIONIZATION DETECTOR (PID), IN PARTS PER MILLION (ppm)
 - SHEEN INDICATOR
 - GASOLINE RANGE ORGANICS (GRO)/DIESEL RANGE ORGANICS (DRO) CONCENTRATION IN MILLIGRAMS PER KILOGRAM (mg/kg)
 - NS = NOT SAMPLED
 - = NOT MEASURED OR NOTED
 - < = LESS THAN LABORATORY REPORTING LIMIT SHOWN

- GROUNDWATER COMPLIANCE INDICATORS:**
- BELOW REGULATORY ACTION LEVEL BEFORE DECOMMISSIONING
 - BELOW REGULATORY ACTION LEVEL LAST 6 SAMPLING EVENTS
 - GROUNDWATER EXCEEDANCE



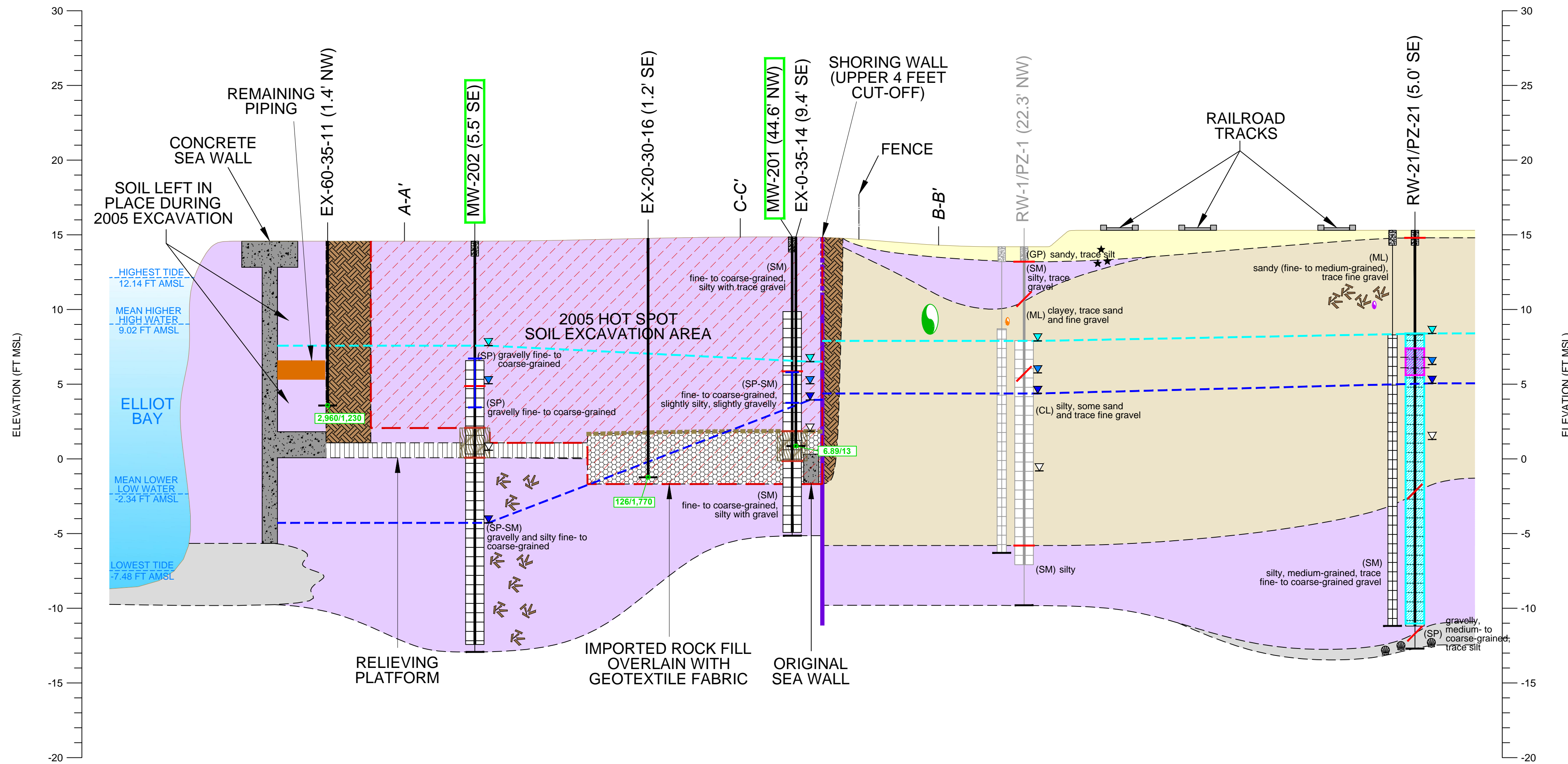
FORMER UNOCAL SEATTLE MARKETING TERMINAL
 SEATTLE, WASHINGTON

GEOLOGIC CROSS SECTION C-C'

FIGURE
C-C'

D
SOUTHWEST

D'
NORTHEAST



- NOTES:**
1. ALL FEATURES AND LOCATIONS ARE APPROXIMATE.
 2. SURVEY DATUMS ARE NAD83/98 (HORIZONTAL) AND NAVD88 (VERTICAL).
 3. VAPOR CONCENTRATIONS WERE MEASURED WITH A PHOTOIONIZATION DETECTOR (PID) AND ARE SHOWN WHERE AVAILABLE.
 4. FEATURES IN THE 2005 EXCAVATION AREA ARE BASED ON INFORMATION PROVIDED BY GEOENGINEERS (2006).
 5. ELLIOT BAY WATER LEVELS BASED ON PUBLIC INFORMATION PROVIDED BY THE ELLIOT BAY SEAWALL PROJECT (SEATTLE DEPARTMENT OF TRANSPORTATION 2013).
 6. EXTENT OF TIDAL FLUCTUATION AT 200-SERIES MONITORING WELLS BASED ON DATA PRESENTED IN ARCADIS 2010.

LEGEND

PROJECTION IN FEET AND DIRECTION FROM CROSS SECTION

BOX COLOR INDICATES GROUNDWATER COMPLIANCE

RECOVERY/MONITORING WELL OR CONFIRMATION SOIL SAMPLE ID

RECOVERY OR MONITORING WELL VAULT

RECOVERY/MONITORING WELL OR CONFIRMATION SOIL SAMPLE BLANK CASING

RECOVERY OR MONITORING WELL SCREEN

BOREHOLE, NO WELL CASING

BOTTOM OF BOREHOLE

DECOMMISSIONED WELLS ARE GRAY

GEOLOGICAL CONTACTS:

- WELL DEFINED LITHOLOGICAL CHANGE AT DEFINED DEPTH
- WELL DEFINED LITHOLOGICAL CHANGE AT APPROXIMATE DEPTH
- GRADATIONAL LITHOLOGICAL CHANGE
- OBSCURE LITHOLOGICAL CHANGE
- INFERRED CONTACT

UNITS:

- GRAVEL SURFACE FILL
- FINE-GRAINED FILL
- SAND FILL
- BEACH SANDS, POSSIBLY MIXED WITH FILL MATERIAL
- WOODEN PLANKING
- CONTROLLED DENSITY FILL
- ROCK FILL

LITHOLOGICAL DEFINITIONS:

- GP POORLY GRADED GRAVEL AND GRAVEL SAND MIXTURES
- SP POORLY GRADED SAND AND GRAVELLY SAND
- SM SILTY SAND AND POORLY GRADED SAND AND SILT MIXTURES
- ML INORGANIC SILT AND VERY FINE-GRAINED SAND, SILTY OR CLAYEY FINE-GRAINED SAND, OR CLAYEY SILT WITH SLIGHT PLASTICITY
- CL INORGANIC CLAY OF LOW TO MEDIUM PLASTICITY, GRAVELLY CLAY, SANDY CLAY, SILTY CLAY, LEAN CLAY

MINIMUM DEPTH TO GROUNDWATER

AVERAGE DEPTH TO GROUNDWATER

MAXIMUM DEPTH TO GROUNDWATER

DEPTH TO GROUNDWATER ENCOUNTERED DURING WELL DEVELOPMENT

ZONE OF WATER TABLE FLUCTUATION 2007-2014

APPROXIMATE EXTENT OF TIDAL FLUCTUATION

GLASS FRAGMENTS

WOOD FRAGMENTS

SHELL FRAGMENTS

APPROXIMATE LOCATION OF UNDERGROUND RAILROAD SIGNAL LINE

APPROXIMATE LOCATION OF UNDERGROUND FIBER OPTIC LINE

APPROXIMATE LOCATION OF UNDERGROUND SEWER LINE

GEOTEXTILE FABRIC

6.89/13 GASOLINE RANGE ORGANICS (GRO) / DIESEL RANGE ORGANICS (DRO) CONCENTRATION IN MILLIGRAMS PER KILOGRAM (mg/kg)

LIGHT NON-AQUEOUS PHASE LIQUID (LNAPL):

- INTERPRETED POTENTIAL EXTENT OF LNAPL SMEAR ZONE BASED ON VISUAL OBSERVATIONS OF SHEEN AND PRODUCT IN DRILLING LOGS AND AVAILABLE GROUNDWATER MONITORING HISTORY. DASHED LINES INDICATE APPROXIMATE DEPTHS WHERE FREE-PRODUCT WAS OBSERVED, WHERE APPLICABLE
- APPROXIMATE EXTENT OF IN-WELL LNAPL IN 2014

GROUNDWATER COMPLIANCE INDICATORS:

- BELOW REGULATORY ACTION LEVEL LAST 6 SAMPLING EVENTS

HORIZONTAL SCALE

VERTICAL SCALE

2X VERTICAL EXAGGERATION

FORMER UNOCAL SEATTLE MARKETING TERMINAL
SEATTLE, WASHINGTON

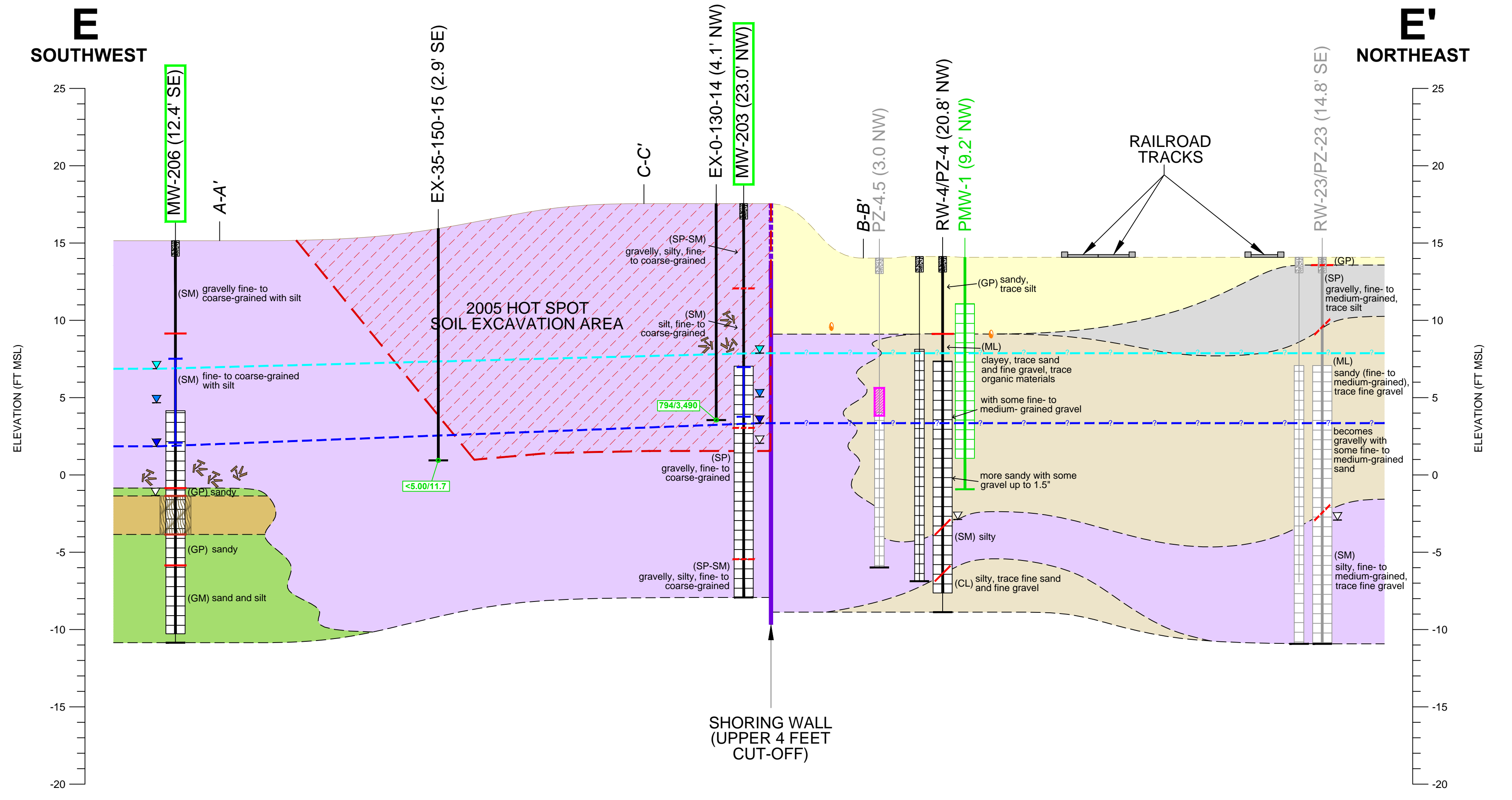
GEOLOGIC CROSS SECTION D-D'

ARCADIS

FIGURE
D-D'

CITY: SAN RAFAEL, CA (PETALUMA) DIV/GROUP: ENVCAD DE: J. HARRIS
C:\Users\jrharris\Desktop\ENVCAD\B0046383\000600003\DWG\45963\01.dwg LAYOUT: D-D' SAVER: 1/8/2015 4:55 PM ACADVER: 18.1S (LMS TECH) PAGESETUP: SETUP3 PLOTSTYLETABLE: ARCADIS.CTB PLOTTED: 1/8/2015 4:59 PM BY: HARRIS, JESSICA
XREFS: 45963X01
IMAGES: PROJECTNAME: ...

CITY: SAN RAFAEL, CA (PETALUMA) DIV/GROUP: ENVCAD DE: J. HARRIS
 C:\Users\jharris\Desktop\ENVCAD\B0046363\000600003\DWG\45963V01.dwg LAYOUT: E-E' SAVED: 1/8/2015 5:00 PM ACADVER: 18.1S (LMS TECH) PAGESETUP: SETUP3 PLOTSTYLETABLE: ARCADIS.CTB PLOTTED: 1/8/2015 5:00 PM BY: HARRIS, JESSICA
 XREFS: 45963X01
 IMAGES: PROJECTNAME: ...



- NOTES:**
1. ALL FEATURES AND LOCATIONS ARE APPROXIMATE.
 2. SURVEY DATUMS ARE NAD83/98 (HORIZONTAL) AND NAVD88 (VERTICAL).
 3. VAPOR CONCENTRATIONS WERE MEASURED WITH A PHOTOIONIZATION DETECTOR (PID) AND ARE SHOWN WHERE AVAILABLE.
 4. PIEZOMETERS AND WELLS ON NORTHEAST SIDE OF THE GAP IN THE SHORING WALL WERE NOT SURVEYED, THEREFORE, THE GROUND SURFACE ELEVATION SHOWN HERE IS ESTIMATED.
 5. ZONE OF WATER TABLE FLUCTUATION ESTIMATED ON THE NORTHEASTERN SIDE OF THE SHORING WALL BECAUSE WATER LEVELS NOT AVAILABLE AT THESE WELLS.
 6. PIEZOMETER PZ-4.5 WAS PROPERLY DECOMMISSIONED IN 2014.
 7. RECOVERY WELL RW-4 AND PIEZOMETER PZ-4 COULD NOT BE LOCATED DURING 2014 DECOMMISSIONING ACTIVITIES.
 8. EXTENT OF TIDAL FLUCTUATION AT 200-SERIES MONITORING WELLS BASED ON DATA PRESENTED IN ARCADIS 2010.

LEGEND

PROJECTION IN FEET AND DIRECTION FROM CROSS SECTION

BOX COLOR INDICATES GROUNDWATER COMPLIANCE

RECOVERY/MONITORING WELL OR CONFIRMATION SOIL SAMPLE ID

RECOVERY OR MONITORING WELL VAULT

RECOVERY/MONITORING WELL OR CONFIRMATION SOIL SAMPLE BLANK CASING

RECOVERY OR MONITORING WELL SCREEN

BOREHOLE, NO WELL CASING

BOTTOM OF BOREHOLE

DECOMMISSIONED WELLS ARE GRAY, PROPOSED WELLS ARE GREEN

GEOLOGICAL CONTACTS:

- WELL DEFINED LITHOLOGICAL CHANGE AT DEFINED DEPTH
- WELL DEFINED LITHOLOGICAL CHANGE AT APPROXIMATE DEPTH
- GRADATIONAL LITHOLOGICAL CHANGE
- OBSCURE LITHOLOGICAL CHANGE
- INFERRED CONTACT

UNITS:

- GRAVEL SURFACE FILL
- FINE-GRAINED FILL
- SAND FILL
- GRAVEL FILL
- BEACH SANDS, POSSIBLY MIXED WITH FILL MATERIAL
- WOODEN PLANKING - HISTORIC ROADWAY

LITHOLOGICAL DEFINITIONS:

- GP POORLY GRADED GRAVEL AND GRAVEL SAND MIXTURES
- SP POORLY GRADED SAND AND GRAVELLY SAND
- SM SILTY SAND AND POORLY GRADED SAND AND SILT MIXTURES
- ML INORGANIC SILT AND VERY FINE-GRAINED SAND, SILTY OR CLAYEY FINE-GRAINED SAND, OR CLAYEY SILT WITH SLIGHT PLASTICITY
- CL INORGANIC CLAY OF LOW TO MEDIUM PLASTICITY, GRAVELLY CLAY, SANDY CLAY, SILTY CLAY, LEAN CLAY

MINIMUM DEPTH TO GROUNDWATER

AVERAGE DEPTH TO GROUNDWATER

MAXIMUM DEPTH TO GROUNDWATER

DEPTH TO GROUNDWATER ENCOUNTERED DURING WELL DEVELOPMENT

ZONE OF WATER TABLE FLUCTUATION 2007-2014

ESTIMATED ZONE OF WATER TABLE FLUCTUATION 2007-2014

APPROXIMATE EXTENT OF TIDAL FLUCTUATION

WOOD FRAGMENTS

APPROXIMATE LOCATION OF UNDERGROUND RAILROAD SIGNAL LINE

GASOLINE RANGE ORGANICS (GRO) / DIESEL RANGE ORGANICS (DRO) CONCENTRATION IN MILLIGRAMS PER KILOGRAM (mg/kg)

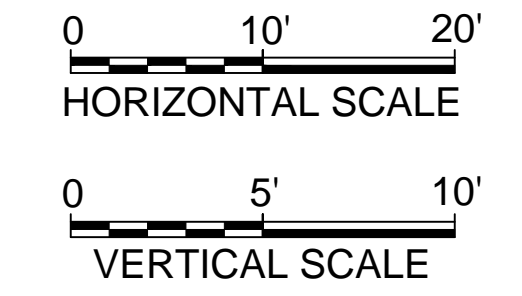
<= LESS THAN LABORATORY REPORTING LIMIT SHOWN

LIGHT NON-AQUEOUS PHASE LIQUID (LNAPL):

APPROXIMATE EXTENT OF IN-WELL LNAPL IN 2014

GROUNDWATER COMPLIANCE INDICATORS:

BELOW REGULATORY ACTION LEVEL LAST 6 SAMPLING EVENTS



FORMER UNOCAL SEATTLE MARKETING TERMINAL
 SEATTLE, WASHINGTON

GEOLOGIC CROSS SECTION E-E'

ARCADIS

FIGURE
E-E'