ESCONDIDO
City of Choice

CITY COUNCIL

For City Clerk's Use:
☐ APPROVED ☐ DENIED
Reso No. _____ File No. _____
Ord No. _____

Agenda Item No.: 4
Date: September 14, 2011

TO: Honorable Mayor and Members of the City Council

FROM: Edward N. Domingue, Director of Engineering Services

SUBJECT: Second Amendment to Consultant Agreement with SCS Engineers for Remediation of Orange Glen Market Site

RECOMMENDATION:

It is requested that Council adopt Resolution No. 2011-98 authorizing the Mayor and City Clerk to execute a second amendment to the consulting agreement with SCS Engineers in the amount of $320,775 for continued engineering and construction support in the remediation of the Orange Glen Market site.

FISCAL ANALYSIS:

Funds for this work will be reimbursed to the City from the State Cleanup Fund and escrow funds from the right of way acquisition settlement with the previous property owner (Nanci).

PREVIOUS ACTION:

City Council approved a previous contract with SCS Engineers (previously Environmental Business Solutions, Inc.) per Resolution 2005-118 on June 1, 2005, and the First Amendment per Resolution 2008-88 on April 23, 2008. The current contract was approved by City Council per Resolution 2009-117 on August 19, 2009, and the First Amendment per Resolution 2010-162 on October 27, 2010.

BACKGROUND:

Part of the right of way necessary for the Bear/East Valley Parkways Project included a previous gas station site addressed as 2741 East Valley Parkway (OG Market). The County Department of Environmental Health identified site contamination during removal of the underground storage tanks (USTs) from this site in 1999. The tenant of the OG Market (Tartir) began the clean up process, but was unable due to lack of funds to proceed with the work. The tenant, however, was able to qualify this site for State Cleanup funds.

During the environmental and preliminary engineering phase of the Bear/East Valley Parkway project the City flagged the site as contaminated and obtained a preliminary range of cost to remediate the

site. The City received final federal environmental project approvals in 2004 and then proceeded into the project right of way phase.

During the right of way phase and prior to final City acquisition of the OG Market, the City entered into an "on behalf of" agreement with the tenant of the OG Market to allow the City to take the lead in site remediation on behalf of the property owner/tenant. This agreement did not relieve the tenant or property owner from responsibility for site cleanup, but expedited cleanup of site contamination that might impact construction of the City's project. This agreement also provided the project a higher priority for reimbursement by the state cleanup fund. While the OG Market structures have been removed, settlement with the tenants/owners completed, site remediated sufficiently to allow construction, and the road project constructed; the "on behalf of" agreement has continued. A portion of the scope of this amendment is to pursue an assignment of the claimant designation from the former tenant to the City. This does not assign any additional liability to the City for the cleanup of this site, but does expedite the applications and subsequent reimbursement(s) to the City from the state cleanup fund.

The City reached final agreement with the owner of the OG Market outlining acquisition of the site and financial responsibilities for site cleanup in a settlement agreement dated April 4, 2008. The final agreement established an escrow account for $500,000 of the purchase price of the property to cover any costs of the City not reimbursed by the State Cleanup Fund. The State Cleanup Fund will provide up to $1.5 million for qualifying cleanup expenses, which when supplemented by the escrow account are anticipated to adequately fund the process (proposed $2.0 million budget).

In 2005 SCS Engineers began work under City contracts/amendments to develop and implement work plans to document and remove the point source of contamination from the site. This specialized field of work and the expertise with the State Cleanup Fund was not available from City staff and not necessary to the City on a full time basis. City staff elected with City Council approval to proceed with outside consultants to accomplish this work. Major tasks accomplished to date include:

- "On Behalf Agreement" approved by State Water Resources Control Board 11/28/2006.
- Interim Remedial Action Workplan (IRAW) approved 8/01/2007.
- Completion of Interim Remedial Action (IRA) documented in 10/22/08 report.
- Removal and documented disposal of approximately 1,100 tons of petroleum hydrocarbon-bearing soil.
    - Addition of 1,025 pounds of oxygen releasing compound to the saturated subsurface in the vicinity of the former underground storage tanks (UST's).

  - Completed Quarterly groundwater monitoring consistent with IRAW (now changed to semi- annual).

- Response activities to the California Regional Water Quality Control Board Cleanup and Abatement Order R9-2009-0074 dated 5/11/2009.
- Processing of multiple State UST Cleanup Fund claims for reimbursement to the City.
- Addendum to the Subsurface Assessment Workplan, dated March 8, 2010.
- Completion of Interim Remedial Action Field Study Workplan Addendum, dated March 16, 2010.
- Completion of a Corrective Action Plan, dated April 30, 2010.
- Processing of Monitoring well permits with City, property owners, and County of San Diego.
- Maintenance and regular testing of 20 monitoring wells.
- Vapor Intrusion Risk Assessment (VIRA) dated December 30, 2010.
- Construction of an additional two (2) monitoring wells on June 2, 2011, to complete the delineation of VOC's within the Site vicinity.
- Completion of an additional Interim Remedial Action (IRA) Workplan dated June 30, 2011, and an addendum dated April 8, 2011.
- Subsurface Assessment Report and Semi Annual (2Q2011) Groundwater Monitoring Report dated July 27, 2011.

The proposed tasks for this second amendment to the latest contract with SCS Engineers addresses:

- Repairs/upgrades to monitoring wells.
- Project management and continued coordination/processing with Regional Water Quality Control Board (RWQCB) staff.
- Assignment of the fund claim from current claimant to the City of Escondido.
- Further assessment of site conditions and extent of contamination.

- Installation of four (4) dual-phase extraction (DPE) wells.
- Continue semi-annual monitoring of test wells.
- Processing of VIRA with RWQCB.
- Two 15-day high-vacuum dual-phase extraction (HVDPE) events to reduce the mass of pollutants within the source zone.
- Design of final remediation system.
- Processing of additional State UST Cleanup Fund claims for reimbursement to the City.

Upon the successful conclusion of the two 15-day non-emergency remediation method events, design of the final remediation system, and approval by RWQCB staff, City staff will then implement the final remediation process. Consultant estimates a conservative target date to final remediation will not exceed two years once the proposed treatment method has been validated and approved by the RWQCB.

Respectfully submitted,

Edward N. Domingue, P.E.
Director of Engineering Services

Agenda Item No.: 4
Date: September 14, 2011

RESOLUTION NO. 2011-98

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF ESCONDIDO, CALIFORNIA, AUTHORIZING THE MAYOR AND CITY CLERK, TO EXECUTE, ON BEHALF OF THE CITY, A SECOND AMENDMENT TO THE CONSULTANT AGREEMENT WITH SCS ENGINEERS, FOR CONTINUED ENGINEERING AND CONSTRUCTION SUPPORT IN THE REMEDIATION OF THE ORANGE GLEN MARKET SITE

WHEREAS, the City Council adopted Resolution 2009-117, on August 19, 2009, approving a consultant agreement with SCS Engineers for environmental consultant/contractor services for the Bear/East Valley Parkway Project; and

WHEREAS, the City Council adopted Resolution 2010-162, on October 27, 2010, approving a First Amendment to the Consultant Agreement with SCS Engineers for environmental consultant/contractor services for the Bear/East Valley Parkway Project; and

WHEREAS, the Director of Engineering Services recommends the execution of a Second Amendment to the Consultant Agreement for continued engineering and construction support in the remediation of the Orange Glen Market site, a more specific location within the Bear/East Valley Parkways Project; and

WHEREAS, this City Council desires at this time and deems it to be in the best public interest to approve said Second Amendment to the Consultant Agreement;

NOW, THEREFORE, BE IT RESOLVED by the City Council of the City of Escondido, California, as follows:

1. That the above recitations are true.

2. That the City Council accepts the recommendation of the Director of Engineering Services.

3. That the Mayor and City Clerk are authorized to execute, on behalf of the City, a Second Amendment to the Consultant Agreement with SCS Engineers, for continued engineering and construction support in the remediation of the Orange Glen Market site. A copy of the Second Amendment to the Consultant Agreement is attached as Exhibit "1" and is incorporated by this reference.

CITY OF ESCONDIDO
SECOND AMENDMENT TO CONSULTING AGREEMENT

This "Amendment" is made this _____ day of _____, 2011.

Between: CITY OF ESCONDIDO
a municipal corporation
201 N. Broadway
Escondido, California 92025
Attn: Ed Domingue
("CITY")

And: SCS Engineers
8799 Balboa Avenue, Suite 290
San Diego, California 92123-4340
Attn: Dan Johnson
("CONSULTANT")

Witness that whereas:

A. CITY and CONSULTANT entered into an agreement on August 19, 2009 ("Agreement"), and a First Amendment on October 27, 2010, wherein CITY retained CONSULTANT to provide services for environmental/contractor services for the Bear/East Valley Parkway Project for an amount not to exceed $281,511; and

B. CITY and CONSULTANT desire to amend the Agreement to include additional work, which is defined in "Attachment A" to this Amendment, which is incorporated by reference;

NOW THEREFORE, it is mutually agreed by and between CITY and CONSULTANT as follows:

1. The CONSULTANT will furnish the services described in "Attachment A" to this Amendment.

2. CITY will compensate the CONSULTANT in an additional amount not to exceed $320,775.00, pursuant to the conditions and compensation terms contained in "Attachment A" to this Agreement. Total amount of agreement and all amendments shall not exceed $602,286.00.

3. All additional terms under the Agreement between CITY and CONSULTANT still apply to the additional work to be performed by CONSULTANT under this Amendment. If any of the terms of this Amendment conflict with the Agreement, this Amendment must prevail.

IN WITNESS WHEREOF, the parties have executed this Amendment as of the day and year first above written.

CITY OF ESCONDIDO

Date: _____

_____
Sam Abed
Mayor

Date: _____

_____
Marsha Whalen
City Clerk

Date: _____

SCS Engineers

_____
Daniel E. Johnson
Vice President

APPROVED AS TO FORM:

OFFICE OF THE CITY ATTORNEY
JEFFREY R. EPP, CITY ATTORNEY

BY: _____

February 25, 2011

SCOPE OF SERVICES CHANGE, NUMBER 9

To: City of Escondido **Attn: Mr. Edward N. Domingue, P.E.** **Director of Engineering Services** **201 North Broadway** **Escondido, California 92025**	**Project Number: 01205515.00** **Project Name: Former Orange Glen Market** **Project Location: 2741 East Valley Parkway, Escondido, California (Site)**

The objectives of the proposed scope of services are to:

- Further assess the hydraulic gradient direction and magnitude of groundwater beneath the Site.
- Further assess the presence and concentrations of dissolved phase petroleum hydrocarbons and volatile organic compounds (VOCs) in the subsurface of the Site.
- Provide additional operating budget for project management and Cleanup and Abatement Order (CAO) compliance management, and liaising with the RWQCB.
- Provide additional operating budget for the preparation of a Vapor Intrusion Risk Assessment Addendum.
- Implementation of the Subsurface Assessment Workplan Addendum which includes the installation of two additional monitoring wells (MW21 and MW22).
- Purchase and install a dedicated bladder pump in the two additional groundwater monitoring wells.

BACKGROUND

Additional operating budgets are required for project management costs associated with compliance with the Cleanup and Abatement Order R9-2009-0074 (Order) (Task 37 of SSC8).

Also, in September 2010 eight additional wells were installed at the Site in accordance with the approved Workplan Addendum dated March 8, 2010. A groundwater monitoring event was completed on all 20 monitoring wells in November 2010. The detection of MTBE (8,700 micrograms per liter [µg/L]) and TBA (65 µg/L) in the groundwater sample collected from MW18 during the November 2010 sampling event precludes complete delineation of dissolved-phase MTBE and TBA at this time. Because of this, the RWQCB requested (email correspondence from February 3, 2011) the installation of different groundwater monitoring wells. This SSC9 provides operating budget to complete the permitting, installation, sampling, and document generation associated with the additional well installation.

The petroleum hydrocarbon- and volatile organic compound (VOC)-bearing groundwater beneath the Site and Site vicinity is currently being monitored and sampled on a semiannual basis. This scope change provides the additional costs associated with including the two additional wells in the existing semiannual groundwater sampling program for the one remaining event in the corresponding Tasks 21 through 24.

SCOPE OF SERVICES

Because the existing tasks associated with the execution and documentation of the semiannual groundwater monitoring program for the Site (Tasks 22 through 24) were budgeted for twenty wells, additional operating budget is required to accommodate the addition of the two wells detailed in Task 41 of this document. The additional estimated costs in Tasks 22 through 24 are for the one remaining semiannual sampling event to be completed at the Site which is tentatively scheduled to be completed in May 2011 (22 wells).

TASK XXII GROUNDWATER MONITORING AND SAMPLING

In an effort to obtain groundwater samples more representative of aquifer conditions low-flow purging and sampling (ASTM designation D6771-02) methodology will continue to be performed on all Site wells in conjunction with the existing semiannual sampling program for the one event remaining in the existing task budget. Water will be removed from each well with the use of a peristaltic pump in conjunction with dedicated, non-reactive polyethylene and silicone tubing. The tubing intake will be positioned within the upper third of the length of the wetted screen. Water will be pumped through a flow cell with a known operating volume, containing a calibrated water-quality meter capable of measuring pH, dissolved oxygen, conductivity, salinity, total dissolved solids, temperature, turbidity, and oxidation reduction potential. The water-quality meter sondes and associated low-flow cell will be decontaminated before purging groundwater from each well.

Water-quality measurements will be obtained from the water-quality meter each time that an approximate new low flow-cell volume of purged groundwater is purged from the

well. This length of time will be deduced in the field by dividing the approximate operating flow cell volume by the current flow rate of the pump. After three stabilized consecutive water quality measurements, a groundwater sample will be collected from each well by bypassing the flow cell and pumping the sample directly into appropriate, laboratory-supplied containers. The samples will be labeled and placed in an ice-packed cooler for transport under chain of custody to the selected laboratory. Purge water will be stored on Site in a labeled drum for later disposal under manifest.

Groundwater Sample Analysis

The groundwater samples will be analyzed for the following:

- TPHg and TPHd in general accordance with California Department of Health Service Leaking Underground Storage Tank (CADHSLUFT) Method

- Volatile Organic Compounds (VOCs) including fuel oxygenates MTBE, DIPE, TAME, ETBE, and TBA in general accordance with EPA Method 8260B

The estimated time and materials cost to complete the additional scope of services in Task XXII is $950.00 for the remaining sampling event tentatively scheduled to be completed in May 2011.

TASK XXIII DISPOSAL OF DRUMMED SOIL CUTTINGS, PURGE WATER, AND DECON WATER

As stated earlier, decon water and purge water will be placed in 55-gallon drums, which will be labeled and left on Site (vicinity of well MW6) pending receipt of analytical results and evaluation of disposal options. SCS shall perform all necessary testing and submit all necessary documentation to licensed disposal facilities for the disposal of drummed decontamination water and purged groundwater. For budgetary purposes we have assumed the disposal of one additional 55-gallon drum of purged groundwater and decontamination water as non-hazardous waste.

The estimated time and materials cost to complete the additional scope of services in Task XXIII is $175.00 for the remaining sampling event tentatively scheduled to be completed in May 2011.

TASK XXIV PREPARATION OF REPORT OF FINDINGS AND GEOTRACKER MANAGEMENT

At the completion of each groundwater sampling event a letter report (Report) will be prepared. The Report will include the following:

- Laboratory reports and chain-of-custody documents

- Figures indicating groundwater analytical results, groundwater elevation, and interpreted groundwater gradient direction

- Tabulated analytical results and appropriate support documentation

The Report will include a detailed description of the work performed, discussion of the results, and SCS's conclusions and recommendations, as deemed appropriate. The Report will be peer-reviewed and signed by a state-certified Professional Geologist.

Electronic Delivery Format (EDF) Reporting

All required data collected during the sampling events will be uploaded to the RWQCB GeoTracker database in electronic delivery format (EDF).

The estimated time and materials cost to complete the additional scope of services in Task XXIV is $625.00 for the remaining sampling event tentatively scheduled to be completed in May 2011.

TASK XXXVII PROJECT MANAGEMENT AND CAO COMPLIANCE

The estimated budget includes time (approximately 25 hours at senior project professional and 6 at project director) for project management activities such as project design and scoping, Cleanup and Abatement Order (CAO) compliance management, client communication and liaison, regulatory agency communication and liaison, attendance of meetings, compliance tracking and management, routine project status updates, and budget and subcontractor management by the project manager.

The estimated time and materials cost to complete the scope of services in Task XXXVII is $5,000.00

TASK XXXVIII VAPOR INTRUSION RISK ASSESSMENT ADDENDUM PREPARATION

A Vapor Intrusion Risk Assessment (VIRA) was performed at the Site and the findings were documented in a Subsurface and Vapor Intrusion Risk Assessment Report and Semi Annual Groundwater Monitoring Report dated December 30, 2010. Based on the findings of the VIRA, the RWQCB has requested the submission of a VIRA Addendum (Addendum) to accommodate revisions to the VIRA.

The estimated budget includes time (approximately 15 hours at senior project advisor, 2 hours at project director, and 7 hours at senior project professional) for the preparation of the Addendum as well as time to liaise with the Office of Environmental Health Hazard Assessment (OEHHA) who is the final authority of health risks executed in the state of California. The goal of the communications with OEHHA is to obtain an approval of the

methods used in the VIRA and Addendum to satisfy the requirements of the RWQCB with respect to the VIRA for the mobile home park residents.

The estimated time and materials cost to complete the scope of services in Task XXXVIII is $4,500.00

TASK XXXIX BLADDER PUMP INSTALLATION

A dedicated PVC-body, bladder pump equipped with a Teflon® bladder and all necessary polyethylene tubing, connections, and shallow casing hardware will be installed in both of the two additional monitoring wells (MW21 and MW22) proposed to be installed at the Site. Installation will follow manufacturers recommended installation protocols and will reflect associated sampling guidelines provided by local regulatory agencies such as the County of San Diego Department of Environmental Health.

Installation of the bladder pump network will be completed subsequent to installation of monitoring wells MW21 and MW22 but before the next groundwater sampling event tentatively scheduled to be completed in May 2011.

The estimated time and materials cost to purchase and install a dedicated bladder pump in proposed monitoring wells MW21 and MW22 at the Site (Task XXXIX is $1,900.00

TASK XXXXI SUBSURFACE ASSESSMENT WORKPLAN IMPLEMENTATION

Preparation for Field Work

Preparation and Submittal of Soil Boring and Groundwater Monitoring Well Permit Applications

Prior to conducting fieldwork, a soil boring and monitoring well permit application will be completed and submitted to the DEH for approval along with the required fee. The permit application will reflect soil boring advancement methodology and monitoring well construction details. The permit application will be signed by a state-certified professional geologist and submitted to the DEH for approval.

Site Health and Safety Plan

A Site health and safety plan (Plan) is required for the work conducted at the Site by workers within the exclusion zone pursuant to the regulations in 29 Code of Federal Regulations (CFR) Part 1910.120 and Title 8 California Code of Regulations (CCR) Section 5192. A previously prepared Plan which outlined the potential chemical and physical hazards that may be encountered during the drilling and sampling activities, will be updated as needed. The appropriate personal protective equipment and emergency response procedures for the Site-specific chemical and physical hazards will be detailed

in this Plan. All field personnel involved with the field work will be required to read and sign the document in order to encourage proper health and safety practices.

Utility Search and Markout

Prior to drilling, Underground Service Alert (USA) will be contacted to minimize the likelihood of drilling into an underground utility. SCS will also contract with a private underground utility location company to attempt to locate subsurface utilities and improvements at the Site to minimize the likelihood of drilling into an underground utility.

Project Management, Subcontractor Management, and Scheduling

Prior to mobilizing for field work, SCS will notify and schedule the subcontractors including, but not limited to, the laboratory, the drilling company, and the utility location contractor. In addition, SCS will coordinate with the Client and affected property owners to ensure appropriate scheduling of field work.

Field Activities - Drilling of Soil Borings, Well Installation, Sample Collection and Analysis

Monitoring Well Installation and Soil Sample Collection and Analysis

In an attempt to complete the delineation of dissolved-phase constituents of concern (CoCs) in the Site vicinity, it is proposed that additional assessment of the plume be conducted by installing and sampling two additional groundwater monitoring wells (MW21 and MW22) within the adjacent mobile home park (APN 231-040-33).

Drilling will be performed using a CME 75 or similar drill rig equipped with 8-inch hollow stem augers. SCS staff, under the supervision of a state-certified professional geologist, will be on the Site to observe the drilling activity and describe collected soil samples in general accordance with the Unified Soil Classification System.

The soil borings completed to accept the construction of MW21 and MW22 will be advanced to approximately 20 feet below grade with the wells constructed with 15-feet of screened interval such that the screen will span the top of shallow groundwater (estimated to range from approximately 11 to 12 feet below grade).

As required by San Diego County guidelines, the augers will be either precleaned or pressure cleaned on-Site to minimize the likelihood of cross-contamination and to minimize the potential for a false positive in the soil and groundwater samples analyzed.

Soil cuttings, purged groundwater, and decontamination rinsate will be placed in 55-gallon drums, labeled, and stored on Site until proper disposal has been scheduled. It is assumed that it will take 1 day to complete the well installation.

The 15-foot long screened interval of each well casing will consist of 0.010-inch slotted casing with an appropriately graded filter pack placed in the well annulus to approximately 1 foot above the top of screened interval. The wells will be surged during construction to settle the sand pack prior to installing a 3-feet thick annulus seal. All newly installed wells will be developed to remove fines from the sand pack and well casings and provide better hydraulic communication between the monitoring well construction and the surrounding saturated subsurface. The wells will be constructed and developed in accordance with DEH guidelines and State of California requirements.

Soil Sample Analysis

During the drilling of the soil borings, soil samples will be collected based on the following protocol:

- At a minimum of 5-foot intervals
- At interpreted capillary fringe or significant changes in unconsolidated sediments
- In areas of discoloration or staining
- When odors or elevated readings from field screening instruments are noted
- At other depths as deemed appropriate by the on-Site SCS staff

Soil samples will be collected with a split-spoon type or similar sampler and driven into stainless steel sample tubes. The two ends of the soil sample tubes will be covered with Teflon® sheeting, tightly closed with plastic end caps, labeled, and submitted to an off-Site, state-accredited laboratory for analysis. Chain-of-custody procedures will be implemented for sample tracking. Lithological descriptions will be performed by a California-registered professional geologist, or a qualified professional under the direct supervision of a professional geologist in accordance with the Unified Soil Classification System (USCS).

Up to three soil samples collected from the interpreted capillary fringe (approximately 10 to 15 feet below grade) of each soil boring will be submitted to a state-accredited laboratory for analysis. The samples will be analyzed for TPHg and TPHd in accordance with the CADHSLUFT Method and for VOCs including fuel oxygenates MTBE, DIPE, TAME, ETBE, and TBA in accordance with EPA Method 8260B.

Waste Disposal, Civil Survey, and Report Preparation

Disposal of Drummed Soil Cuttings, Purge Water, and Decon Water

As stated earlier, soil cuttings, decontamination rinsate, and purge water will be placed in appropriate 55-gallon drums, which will be labeled and left on Site pending receipt of analytical results and evaluation of disposal options. SCS shall perform all necessary

testing and submit all necessary documentation to licensed disposal facilities for the disposal of drummed soil cuttings, decontamination rinsate, and purge water.

Civil Survey

Pursuant to the requirements of AB 2886, the wells will be surveyed for latitude, longitude, and elevation. The latitude and longitude will be measured to sub-meter accuracy using an approved datum with GPS equipment. The well elevation will be measured to a hundredth of a foot using an AB 2886-compliant datum.

Preparation of Report of Findings

At the completion of Assessment a letter report (Report) will be prepared. The Report will include the following:

- Laboratory reports and chain-of-custody documents
- Permits
- Figures depicting the soil boring and monitoring well locations as well as soil and groundwater sample analytical data
- Computer-prepared lithologic logs of the soil borings
- Figures depicting the extent of petroleum hydrocarbon-bearing soil and groundwater at the Site
- Tabulated analytical results and appropriate support documentation

The Report will include a detailed description of the work performed, discussion of the results, and SCS's conclusions and recommendations, as deemed appropriate. The Report will be peer-reviewed and signed by a state-certified Professional Geologist. In addition to the above-described Report, in order to comply with the requirements of the soil boring permit, a 60-day report will be prepared and submitted to the DEH.

Electronic Delivery Format (EDF) Reporting

All required data collected during the Assessment will be uploaded to the RWQCB GeoTracker database in electronic delivery format (EDF) prior to or no later than the written report delivery date.

The estimated cost to conduct the scope of services in Task XXXXI is $14,800.00

TASK XXXXII GROUNDWATER MONITORING AND SAMPLING

This task includes time to coordinate and manage subcontractors, secure any necessary specialized equipment, and prepare for field mobilization. The estimated budget also includes limited time for project management activities such as planning, client communication and liaison, regulatory agency communication and liaison, project status updates, and budget and invoice review by the project manager. Groundwater sampling events associated with this task are tentatively scheduled to be completed in November 2011, May and November 2012, and May 2013 on all twenty-two wells. Please note that when the Site is moved into Interim Remedial and/or Corrective Action phases the frequency of groundwater monitoring may be changed by the RWQCB.

Subsequent to obtaining analytical data for all Site monitoring wells from at least four sampling events SCS anticipates the ability to perform a monitoring well optimization study. The optimization study can reduce analytical costs associated with groundwater sample analyses by reducing sampling frequency from some or all of the Site wells.

Proposed sampling methods are identical to those of Task 22 earlier in this SSC on page 2.

The estimated time and materials cost to complete the scope of services in Task XXXXII is $13,250.00 for one sampling event and $53,000.00 for four semiannual sampling events.

TASK XXXXIII DISPOSAL OF DRUMMED SOIL CUTTINGS, PURGE WATER, AND DECON WATER

Disposal of investigation-derived waste generated from the sampling activities will be completed as described in Task 23 earlier in this SSC on page 3. Groundwater sampling events associated with this task are tentatively scheduled to be completed in November 2011, May and November 2012, and May 2013.

The estimated time and materials cost to complete the scope of services in Task XXXXIII is $675.00 for one sampling event and $2,700.00 for four semiannual sampling events.

TASK XXXXIV PREPARATION OF REPORT OF FINDINGS AND GEOTRACKER MANAGEMENT

Groundwater Monitoring Reports and Geotracker file management associated with the groundwater sampling activities will be completed as described in Task 24 earlier in this SSC on pages 3 and 4. Groundwater sampling events associated with this task are tentatively scheduled to be completed in November 2011, May and November 2012, and May 2013.

The estimated time and materials cost to complete the scope of services in Task XXXXIV is $4,575.00 for one sampling event and $18,300.00 for four semiannual sampling events.

ESTIMATED SCHEDULE AND COSTS

The following table summarizes the costs for the scope of services described in this SSC.

Task	The costs for the above-described Scope of Services are estimated to be as follows:
TASK XXII – Groundwater Sampling (1 Event)	$950.00
TASK XXIII – IDW Disposal (1 Event)	$175.00
TASK XXIV – Groundwater Monitoring Report Preparation (1 Event)	$625.00
TASK XXXVII – Project Management/CAO Compliance	$5,000.00
TASK XXXVIII – VIRA Addendum/OEHHA Liaison	$4,500.00
TASK XXXIX – Bladder Pump Installation	$1,900.00
TASK XXXXI – Well Installation	$14,800.00
TASK XXXXIII – Groundwater Sampling (4 Events)	$53,000.00
TASK XXXXIV – IDW Disposal (4 Events)	$2,700.00
TASK XXXXV – Groundwater Monitoring Report Preparation (4 Events)	$18,300.00
Total Estimated Cost	**$101,950.00**
Total Estimated Cost with 5% Contingency*	**$107,047.50**

* Please allow for a minimum 5 percent variance in the total estimated cost due to changed Site conditions or unanticipated circumstances.

NOTE: This Scope of Services Change is part of and is in general conformance with the previously executed Contract and Agreement for Services No. 01205515.00 between SCS and the Client. Please sign both copies of SSC9 and mail both signed documents to SCS. One fully executed copy of SSC9 will be returned for your records.

CLIENT AUTHORIZATION:

Signature	Printed Name	Date

SCS ENGINEERS AUTHORIZATION:

Signature	Printed Name	Date

Environmental Consultants
and Contractors

8799 Balboa Avenue
Suite 290
San Diego, CA 92123

858-571-5500
FAX 858-571-5357
http://www.scsengineers.com

SCS ENGINEERS

SCS ENGINEERS UST PROJECT
FEE SCHEDULE
JULY 1, 2010 TO March 31, 2011

Principal	$229.00
Project Director	$208.00
Senior Project Advisor	$181.00
Project Manager	$163.00
Senior Project Professional	$137.00
Construction Superintendent	$126.00
Project Professional	$113.00
Staff Professional	$ 98.00
Associate Professional	$ 88.00
Senior Engineering Technician	$ 84.00
Technician	$ 76.00
Project Administrator	$ 86.00
Technical Editor	$ 86.00
Designer/Drafter	$ 82.00
Administrative/Secretarial	$ 72.00

Additional Terms and Conditions

- Scheduled labor rates include overhead, administration, and profit.
- Rates for principals of the firm may be negotiated on a project-specific basis.
- Scheduled rates are effective through March 31, 2011. Work performed thereafter is subject to a new Fee Schedule.
- Expert witness testimony (depositions and trial) will be charged at $350.00 per hour. Preparation for testimony and general litigation support will be charged at normal hourly rates.
- Direct project expenses (such as field equipment, subcontracted services including drilling, laboratory analyses, etc., permits, supplies, etc.) will be charged at cost plus 15 percent. Company trucks are charged at $50 for up to a half day (4 hours) of use, and $100 for up to a full day (company cars at $40/$80). These charges incorporate an allowance of 100 miles per job per day; a $0.50 per mile surcharge is applied for additional miles. Vehicle charges for long-term and/or high-mileage projects may be negotiated on a case-by-case basis. Personal vehicles will be charged at the Federal rate then in effect. All other field equipment will be charged in accordance with the Fee Schedule in effect at the time the work is performed.
- Per diem will be charged on all projects requiring overnight stays from our office. The per diem rate is $175.00 per day per person or the federal per diem rate for the area, whichever is greater.
- Overtime will be charged at 125 percent of standard rates for weekday work in excess of 8 hours. Work performed on holidays and weekends will be charged at 150 percent of standard rates.
- Invoices will be prepared monthly or more frequently for work in progress, unless otherwise agreed. Invoices are due and payable upon receipt. Invoices not paid within 30 days are subject to a service charge of 1.5 percent per month on the unpaid balance.
- Payment of SCS invoices for services performed will not be contingent upon the client's receipt of payment from other parties, unless otherwise agreed in writing. Client agrees to pay legal costs, including attorney's fees, incurred by SCS in collecting any amounts past due and owing on client's accounts.

The rationale and methodology for determining our Schedule of Rates is based on Manual 45c of the American Society of Civil Engineers.

SCS ENGINEERS UST FEE SCHEDULE
JULY 1, 2010 TO March 31, 2011
SCS ENGINEERS FIELD EQUIPMENT RENTAL AND REIMBURSABLE FEE SCHEDULE

Note: Unit rates for equipment identified in the Proposal/Scope of Services Change supersede the rates presented herein.

EQUIPMENT	RATE ($)
55-Gallon Drum	65
Full Day Geoprobe 540 MT (8 hours onsite, 2 technicians, expendables)	2,300
Full Day Geoprobe 540 MT (8 hours onsite, 1 technician, expendables)	1,700
Half Day Geoprobe 540 MT (4 hours onsite, 1 technician, expendables)	900
Overtime Geoprobe 540 MT (>8 hours/day)	200/Hour
1 Liter or less Summa Canister	35/Use
6 Liter Summa Canister + Flow w/Controller	75/Use
Bentonite Chips	11/Bag
Cement/Asphalt	8/Sack
Chlorine Test Kist	25/Kit
Drager CMS Analyzer	25/Day
Drager CMS Analyzer Chips	200/Chip
Personal / Ambient Air Sampling Pumps	25/Day
Dust Meter (personal data Ram or equivalent)	25/Day
Generator	60/Day
Hand Auger	60/Day
Tube, Caps and Teflon Sheets	5/Tube
Tedlar Bags	20/Bag
Organic Vapor Meter	85/Day
Flame Ionization Detector (FID)	75/Day
Chlorine Meter	25/Day
Bailers - Reusable	25/Day
Bailers – Disposable (small)	15/Each
Bailers – Disposable (large)	20/Each
Bailers - PVC	20/Day
10 ml Visqueen 20' x 100'	100/Roll
Expendable Field Supplies (caution tape, decontamination equipment, ice, sampling jars, etc.)	35/Day
Hazardous Waste Field Kit (for any field sampling; personal protective equip including Level C; protective clothing, respirators, gloves, etc.)	60/Day
Hazardous Waste Field Kit (for Level A or B)	Quoted/Job Specific
Digital Camera (includes contact sheet & color printing)	15/Day
Digital Video Camera	30/Day
Electronic Distance Meter	25/Day
Oil/Water Interface Probe	75/Day
Multiple Parameter Water Quality Meter	225/Day
pH/Temp/Conductivity Meter	60/Day
Moisture Meter	75/Day
Dissolved Oxygen Meter	75/Day
Bladder Pump	150/Day
Peristaltic Pump	125/Day
Pump Bladders, Tubing & Hardware	Quoted/Job Specific
Water Depth Meter	50/Day
Water Sampling Pump (Grundfos with controller or peristaltic)	125/Day
Water Sampling Pump (DC)	60/Day
Locking Well Cap	20/Each
Padlocks	15/Each
Copies	.14/Page
Color Copies/Prints (8 ½ x 11)	1.25/Page
Color Copies/Prints (11 x 17)	2.50/Page
CDs	25/Each
Weather Station	5/Day
Weather Station	50/Month
XRF Meter	500/day
4-Gas Meter (QUAE or Equivalent)	100/day

August 18, 2011

SCOPE OF SERVICES CHANGE NUMBER 10 (REVISED)

To: City of Escondido **Attn: Mr. Edward N. Domingue, P.E.** **Director of Engineering Services** **201 North Broadway** **Escondido, California 92025**	**Project Number: 01205515.00** **Project Name: Former Orange Glen Market** **Project Location: 2741 East Valley Parkway, Escondido, California (Site)**

The objectives of the proposed scope of services are to:

- Provide additional operating budget for project management, liaising with RWQCB, and facilitation of underground storage tank (UST) Cleanup FUND (FUND) requirements.
- Prepare an Assignment of the FUND claim from the current claimant, Omar Tartir, to the City of Escondido.
- Provide additional operating budget for project management and Cleanup and Abatement Order (CAO) compliance management, and liaising with the RWQCB.
- Install four dual-phase extraction (DPE) wells in the source area for purposes of high vacuum dual-phase extraction, aquifer characterization testing, and potentially groundwater recirculation coupled with enhanced bioremediation.
- Complete two 15-day high-vacuum dual-phase extraction (HVDPE) events within the span of three months to reduce the mass of sorbed-phase and dissolved-phase CoCs in the source zone.
- Assess aquifer parameters such as average hydraulic conductivity and groundwater flow velocity in order to assess whether remedial technologies such as groundwater pump-and-treat (GWPT) and/or groundwater recirculation can be viably utilized at the Site for hydraulic control and to mitigate the downgradient dissolved-phase contamination.
- Assess percolation rates in the vicinity of the proposed infiltration gallery location in order to guide gallery size requirement calculations.

BACKGROUND

A feasibility study completed at the Site in July 2010 was documented in the Feasibility Report, dated October 7, 2010, which consisted of high-vacuum, dual-phase extraction (HVDPE) and aquifer characterization via pump test. Based on the observations made during the pilot study, the use of HVDPE resulted in the mobilization and removal of a significant amount of petroleum hydrocarbons from the subsurface of the Site. Based on observations made in the field during the HVDPE pilot test and the reported analytical results of collected soil vapor stream samples, the pilot test appears to have resulted in the disruption of static or equilibrium conditions and the mobilization of a significant mass of petroleum hydrocarbons from the subsurface in the vicinity of monitoring well MW3R.

While the initial limited pumping test did yield some useful data and information about aquifer characteristics, it was not robust enough to allow the design of source area hydraulic control system (or data that could likewise inform the design of the downgradient remedial options).

With the plume investigation complete, the remaining task that needs to be completed is the implementation of a more comprehensive aquifer test. This task must be completed before we can move into a full-scale remedial design phase to amend the Corrective Action Plan (CAP) to address both source area and downgradient dissolved-phase constituents of concern (CoCs).

SCS Engineers' (SCS') Keith Etchells and Chuck Pryatel met with Ms. Sue Pease and Mr. John Anderson of the RWQCB on June 14, 2011, to discuss the future actions to be taken at the Site to implement corrective actions. The proposed project milestones and schedule presented in SCS's Response to May 18, 2011 RWQCB Letter, dated May 27, 2011, were discussed, and it was agreed that SCS would proceed with implementation of the proposed schedule. The submittal of an interim remedial action (IRA) workplan by June 30, 2011 was agreed upon at this meeting.

An IRA Workplan (Workplan) dated June 30, 2011, was submitted to the RWQCB for review and comment. On August 5, 2011, Keith Etchells and Chuck Pryatel along with Ed Domingue of the City of Escondido met with Ms. Sue Pease and John Anderson of the RWQCB to discuss the Workplan. Based on discussions held during this meeting, it is our understanding that the scope of the Workplan will remain unchanged.

This scope change details the scope of work, schedule, and additional costs associated with implementing the Workplan targeted at removing sorbed- and dissolved-phase source area mass; to complete additional aquifer characterization to inform the preparation of a CAP Addendum and to move toward a full-scale remedial design.

SCOPE OF SERVICES

TASK XVIII USTCF MANAGEMENT

The estimated budget includes limited time to further facilitate the recovery of project costs from the USTCF. An additional budget of $5,000 for staff time has been allotted to the existing corresponding task to manage future reimbursement requests and correspondence with the USTCF.

Assignment of Claim

To facilitate a smoother reimbursement from the Cleanup Fund (Fund), SCS will prepare an Assignment of the Fund claim from the current claimant, Omar Tartir, to the City of Escondido. Once the documentation is gathered and prepared, it will be provided to the Client's attorney for review and approval before submittal to the Fund for processing. If the Assignment is approved by the Fund, the City of Escondido will essentially be "stepping into the shoes" of the Assignor, Omar Tartir.

Preparing this Assignment involves the following:

- Gathering relevant documentation from files and the Client
- Preparation of the Assignment document/s
- Liaison with the Fund regarding the Assignment before and after submittal
- Meeting (either by phone or in person) with the Client and the Client's attorney to ensure all questions have been addressed and the Assignment is complete and approved for submittal to the Fund

The estimated time and materials cost to complete the scope of services in Task XVIII is $7,000.00

TASK XXXVII PROJECT MANAGEMENT

The estimated budget includes time (approximately 30 hours at senior project professional and 10 at project director) for project management activities such as project design and scoping, client communication and liaison, regulatory agency communication and liaison, attendance of meetings, compliance tracking and management, project status updates, and budget and invoice review by the project manager.

The estimated time and materials cost to complete the scope of services in Task XXXVII is $6,600.00

TASK XXXX AQUIFER CHARACTERIZATION

Revised Methodology and Associated Budget Discussion

In order to assess whether remedial technologies such as groundwater pump-and-treat (GWPT) and/or groundwater recirculation can be viably utilized at the Site for hydraulic control and to mitigate the downgradient dissolved-phase contamination, hydraulic testing will need to be completed to obtain critical aquifer parameters such as hydraulic conductivity and groundwater flow velocity.

Recent RWQCB disapproval of additional aquifer characterization and the associated possible restrictions this places on the Client's ability to recover corresponding costs from the FUND have precluded the execution of Task 40 from the previously approved SSC8. The estimated cost to complete aquifer characterization on a single monitoring well constructed in the vicinity of MW2 and MW6 was originally estimated to cost $16,350.

However, additional aquifer characterization performed using one of two proposed vertically installed DPE wells (DPE3 or DPE4) (Task 45) subsequent to the completion of HVDPE activities described in Task 46 was approved by the RWQCB after the August 5, 2011 meeting. Based on our initial calculations the estimated cost of Task 40 should be sufficient to implement the revised aquifer characterization scope of work. Savings associated with not installing a pump test well specific to aquifer characterization will be utilized in the additional staffing the longer test will require as well as costs associated with groundwater production volumes anticipated to be in excess of the initially budgeted 4,900 gallons.

REVISED SCOPE OF SERVICES

The following aquifer characterization methods reflect those approved by the RWQCB in the August 5, 2011 meeting. One of the vertically installed DPE wells (DPE3 or DPE4) will be used for the completion of additional aquifer characterization to support remedial design including small-scale (pneumatic-falling or rising-head slug testing)[1] and field-scale (pumping test) aquifer characteristic testing.

Should effective deployment of a packer system within the selected vertical extraction well be achieved, pneumatic slug testing will be completed to calculate the hydraulic conductivity (K) of saturated sediments in the vicinity of the extraction well. This method utilizes air pressure, either positive or negative, to displace well casing water. Pneumatic

[1] Use of a pneumatic packer will be required to hydraulically isolate the screened interval within and immediately beneath the capillary fringe for the completion of pneumatic slug testing. Because the primary intent of DPE3 is for HVDPE, well construction specifications will be designed to best suit access to both the vadose and saturated zones. Should slug testing in DPE3 prove to be technically infeasible due to recognized complexities with the deployment of packers in small-diameter wells, the aquifer characterization will consist entirely of a multi-well pumping test.

slug testing has been selected to minimize hydraulic shock associated with mechanical slug deployment at the initiation of the test as well as to provide better resolution of recovery data for a high-K, unconfined aquifer setting.

A multiple well pumping test will be conducted using one vertical extraction well and two nearby monitoring wells (and/or extraction well) as observation wells. A short-term test will be conducted as a constant rate discharge rate test for a period of approximately 12 to 24 hours. Extracted groundwater will be containerized on Site for subsequent transportation and disposal off Site.

Groundwater drawdown and recovery in the observation wells will be monitored and logged using pressure transducers prior, during, and subsequent to the test for subsequent analyses. Water extracted during the test will be discharged to a storage tank for later disposal.

Resulting water level data will be analyzed using an appropriate drawdown modeling method such as the Bouwer and Rice or Hvorslev models for unconfined aquifers. Resulting hydraulic parameter estimates will be used in conjunction with other hydrogeologic data to estimate groundwater velocities beneath the Site and evaluate the feasibility of using GWPT and/or groundwater recirculation as an effective remedial methodologies at the Site.

TASK XXXXV DPE WELLS INSTALLATION

Preparation for Field Work

Preparation and Submittal of Groundwater Monitoring Well Permit Applications

Prior to conducting fieldwork, a soil boring and monitoring well permit application will be completed and submitted to the DEH for approval along with the required fee. The permit application will reflect soil boring advancement methodology and monitoring well construction details. The permit application will be signed by a state-certified professional geologist and submitted to the DEH for approval. This proposal assumes that an encroachment permit will not be required for installation of the angled wells underneath East Valley Parkway.

Site Health and Safety Plan

A Site health and safety plan (Plan) is required for the work conducted at the Site by workers within the exclusion zone pursuant to the regulations in 29 Code of Federal Regulations (CFR) Part 1910.120 and Title 8 California Code of Regulations (CCR) Section 5192. A previously prepared Plan which outlined the potential chemical and physical hazards that may be encountered during the drilling and sampling activities, will be updated as needed. The appropriate personal protective equipment and emergency response procedures for the Site-specific chemical and physical hazards will be detailed

in this Plan. All field personnel involved with the field work will be required to read and sign the document in order to encourage proper health and safety practices.

Utility Search and Markout

Prior to drilling, Underground Service Alert (USA) will be contacted to minimize the likelihood of drilling into an underground utility. SCS will also contract with a private underground utility location company to attempt to locate subsurface utilities and improvements at the Site to minimize the likelihood of drilling into an underground utility.

Project Management, Subcontractor Management, and Scheduling

Prior to mobilizing for field work, SCS will notify and schedule the subcontractors including, but not limited to, the laboratory, the drilling company, and the utility location contractor. In addition, SCS will coordinate with the Client and affected property owners to ensure appropriate scheduling of field work.

Fieldwork

Well Installation

Wells DPE1 through DPE4 will be installed within the immediate vicinity of the former remedial excavation completed in June and July 2008 (Figure 3). Two of the proposed DPE wells (DPE1 and DPE2) will be constructed in soil borings advanced at 45 degree angles sloping to the northwest on the southwestern and northeastern sides of the former remedial excavation. Wells DPE3 and DPE4 will be constructed in two vertical borings advanced on the eastern side of the former remedial excavation. The four DPE wells will be constructed so that the screened interval in the wells ranges from approximately 10- to 35-feet below grade. This construction would yield extraction wells with approximately 5 feet of screen in the vadose zone and approximately 20 feet of screen in the saturated zone at static groundwater elevation conditions. All four DPE wells will be constructed with a four-inch diameter well casing and high-flow screen. An appropriately graded filter pack material, such as Monterey Sand Number 3, will be used to maximize the conductivity of the well materials.

The two angled wells (DPE1 and DPE2) will be constructed in borings advanced with sonic drilling methods to minimize borehole collapse and assure proper well material placement during construction. The two vertical extraction wells DPE3 and DPE4 will be constructed in boreholes advanced using conventional hollow-stem auger methods. The proposed installation of the angled extraction wells is intended to access residual subsurface CoCs in the source zone without encroaching upon or requiring ongoing access and modification to the East Valley Parkway (e.g., surface completions and underlying subsurface utilities). Construction of the two angled wells at the maximum vertical deviation of approximately 45 degrees should intersect saturated subsurface

sediment approximately 24 to 32 feet northwest of the southern edge of East Valley Parkway.

Soil Sample Analysis

During the drilling of the soil borings advanced to accept the construction of DPE3 and DPE4, soil samples will be collected based on the following protocol:

- At a minimum of 5-foot intervals
- At interpreted capillary fringe or significant changes in unconsolidated sediments
- In areas of discoloration or staining
- When odors or elevated readings from field screening instruments are noted
- At other depths as deemed appropriate by the on-Site SCS staff

Soil samples will be collected with a split-spoon type or similar sampler and driven into stainless steel sample tubes. The two ends of the soil sample tubes will be covered with Teflon® sheeting, tightly closed with plastic end caps, labeled, and submitted to an off-Site, state-accredited laboratory for analysis. Chain-of-custody procedures will be implemented for sample tracking. Lithological descriptions will be performed by a California-registered professional geologist, or a qualified professional under the direct supervision of a professional geologist in accordance with the Unified Soil Classification System (USCS).

Up to three soil samples collected from the interpreted capillary fringe (approximately 10 to 15 feet below grade) of both vertical soil borings (6 total) will be submitted to a state-accredited laboratory for analysis. The samples will be analyzed for TPHg and TPHd in accordance with the CADHSLUFT Method and for VOCs including fuel oxygenates MTBE, DIPE, TAME, ETBE, and TBA in accordance with EPA Method 8260B.

DPE Well Development

The four DPE wells will be developed with a truck-mounted piston pump and centrifugal pump to increase the hydraulic efficiency of the wells and remove fines from the well construction prior to HVDPE events.

Waste Disposal, Civil Survey, and Report Preparation

Disposal of Drummed Soil Cuttings, Purge Water, and Decon Water

As stated earlier, soil cuttings, decontamination rinsate, and purge water will be placed in appropriate 55-gallon drums, which will be labeled and left on Site pending receipt of analytical results and evaluation of disposal options. SCS shall perform all necessary

testing and submit all necessary documentation to licensed disposal facilities for the disposal of drummed soil cuttings, decontamination rinsate, and purge water. Based on the quote provided by the selected drilling contractor we have budgeted the disposal of 22 drums of soil cuttings, purged groundwater, and decontamination rinsate. Should additional drums require disposal it will cost approximately $155 per drum.

Civil Survey

We have assumed that a state-certified Land Surveyor on the City of Escondido staff will complete the survey of the four DPE wells for compliance with state Assembly Bill 2886.

Geotracker Management and Permit Reporting

All required data and information related to the installation of the DPE wells will be uploaded to the RWQCB GeoTracker database prior to or no later than the written report delivery date.

In order to comply with the requirements of the soil boring permit, a 60-day report will be prepared and submitted to the DEH.

The estimated time and materials cost to complete the scope of services in Task XXXXV is $51,650.00.

TASK XXXXVI SOURCE ZONE HIGH-VACUUM, DUAL-PHASE EXTRACTION

Proposed HVDPE Equipment

The principle of HVDPE involves application of a vacuum to unsaturated and shallow saturated sediments in order to remove volatile CoC-bearing soil vapor and groundwater from the subsurface. SCS proposes to complete HVDPE IRA on four dual-phase extraction (DPE) wells (DPE1 through DPE4) installed in the immediate vicinity of the former remedial excavation completed in June and July 2008 (Figures 2 and 3).

Existing monitoring wells located on the southern side of East Valley Parkway (MW1R, MW3R, MW2, and MW6) will be used to measure vacuums at various distances from the extraction wells. During the application of the vacuum, measurements will be made at the extraction well and observation wells in order to evaluate contaminant removal rates and to determine the distribution of airflow within the subsurface as well as the radius of influence associated with given extraction wells.

A mobile HVDPE system located on the back of a flatbed truck will be operated on Site by personnel who will be at the Site for the length of the program. Typical systems have a liquid ring pump with the capability of extracting from up to six wells at once. The groundwater and soil vapor are extracted from a downhole stinger in the groundwater

monitoring well that is typically placed no deeper than approximately 2 feet below the static groundwater elevation to prevent smearing of CoCs at the capillary fringe.

The influent stream of groundwater and soil vapor is separated subsequent to removal from the subsurface where the hydrocarbons in the vapor stream are processed via thermal oxidation and the groundwater is containerized for off-Site treatment and disposal. The mobile unit will operate under the necessary air quality permit(s) as required by the San Diego Air Pollution Control District (APCD).

HVDPE Interim Remedial Action

SCS proposes to complete two 15-day extraction events (with the system running continuously, 24-hours per day for the 15 day period) within the span of three months. Each proposed HVDPE event will be completed over a 15-day long continuous period of time. Due to the high fraction of larger grain unconsolidated sediment observed in the subsurface of the Site, approximately 30 days of equilibration time has been selected to separate each HVDPE event. We anticipate that stingers placed no deeper than two feet below the measured static depth to groundwater in the DPE wells that will be used to extract groundwater and soil vapor from the subsurface. Monitoring wells MW1R, MW2, MW3R, and MW6 will be used as observation wells to collect radius of influence measurements during the completion of each extraction event.

Observations and recovered contaminant mass interpretations made during each HVDPE event will be used to assess the necessity, longevity, and operating protocols of subsequent HVDPE events. Particular attention will be paid to contaminant mass recovery rates.

Should observations made during the second HVDPE event suggest that additional HVDPE events are necessary to reduce residual sorbed-phase contamination in the source zone, additional events may be proposed subsequent to the 30-day equilibration period. For budgetary purposes we have included two 15-day extraction events in the scope for this task, should additional events be deemed necessary a scope change will be provided to the Client for approval prior to execution.

Sample Collection and Analysis

During operation of the HVDPE system, influent petroleum hydrocarbon vapor concentrations will be measured with a field organic vapor analyzer. In addition, one vapor sample will be collected every other day of operation (total of 15 samples) for laboratory analysis as described below. Vapor samples collected during the HVDPE pilot test will be collected in Tedlar bags and labeled with the sample designation, collection date, and collection time. The samples will be stored at ambient temperature in a cooler that protects the samples from direct sunlight. The samples will be delivered or released to a state-certified laboratory with corresponding chain-of-custody documentation and analyzed on a standard turn-around-time (TAT). Vapor samples will be analyzed for the presence of total petroleum hydrocarbons as gasoline (TPHg); benzene, toluene,

ethylbenzene, and xylenes (BTEX); and fuel oxygenates including MTBE, di-isopropyl ether (DIPE), tertiary amyl methyl ether (TAME), ethyl tertiary butyl ether (ETBE), and tertiary butyl alcohol (TBA) in accordance with Environmental Protection Agency (EPA) Method 8260B.

Disposal/Handling of Extracted Groundwater

Extracted groundwater will either be discharged to the City of Escondido sewer system, should infrastructure location and characteristics of the generated waste permit, or containerized on Site for subsequent transportation under manifest to a properly permitted facility for treatment and disposal.

This scope change assumes that extracted groundwater will be treated onsite and discharged to the sewer system. Should offsite disposal be required the cost per gallon is approximately 60 cents.

Data Analysis

Field data collected during the HVDPE extraction events will include:

- Applied vacuum (on wells not being extracted),
- Groundwater drawdown in the vicinity of the active extraction well(s), and
- Influent vapor stream flow rates and contamination concentrations.

The tabulated data collected during the pilot test will be used to generate graphs of flow rates, vacuum, soil vapor removal rates and vapor concentrations versus time. Additionally, the data analysis will include evaluation of achieved vacuum radius of influence, total groundwater production and average production rate, and the flame ionization detector (FID) and laboratory data will be used to calculate a theoretical range of hydrocarbon mass removed.

The estimated time and materials cost to complete the scope of services in Task XXXXVI is $123,550.00.

TASK XXXXVII PREPARATION OF IRA REPORT AND GEOTRACKER MANAGEMENT

PREPARATION OF IRA REPORT

Following completion of all HVDPE events and associated data analysis, SCS will prepare an Interim Remedial Action Report documenting the field activities and evaluating the hydrocarbon removal rates and effectiveness of the remedial activities. The Report will include the following:

- Laboratory reports and chain-of-custody documents
- Subcontractor-provided reports
- Tabulated analytical results and appropriate support documentation
- Aquifer characterization data and supporting aquifer parameter model outputs
- Recommendations relating to potential remedial technologies that could be successfully implemented at the Site as Corrective Actions

The Report will include a detailed description of the work performed, discussion of the results, and SCS's conclusions and recommendations, as deemed appropriate. The Report will be peer-reviewed and signed by a state-certified Professional Geologist. The Report will be uploaded to the RWQCB GeoTracker database concurrently with document submission to the RWQCB.

Electronic Delivery Format (EDF) Reporting

All required data collected during the sampling events will be uploaded to the RWQCB GeoTracker database in electronic delivery format (EDF).

The estimated time and materials cost to complete the scope of services in Task XXXXVII is $6,350.00.

TASK XXXXVIII PERCOLATION TESTING AND INFILTRATION GALLERY DESIGN

An infiltration gallery is proposed to provide a mechanism for processed groundwater to be reintroduced to the subsurface upgradient of the source zone. The final design of the infiltration gallery will be based on an average of rates observed during the completion of percolation tests conducted in the proposed vicinity of the infiltration gallery prior to its construction.

Two open boreholes will be drilled using a 4-inch solid-stem auger. The boreholes will be advanced to a depth of approximately 10 feet below grade. Borehole walls will be scarified with a wire bristle brush to minimize flow reductions induced via auger smear. Water will then be introduced into each borehole, and the rate of water level decline will be measured.

Percolation rates will be averaged and used to calculate required infiltration gallery size utilizing a "safety factor" of two applied to the effective area of infiltration.

Please note that the Site will require entrance under RWQCB Order 2008-0081 in order to reintroduce treated groundwater to land, and as such, monthly monitoring and reporting will be required to maintain compliance with the Order's requirements.

The estimated time and materials cost to complete the scope of services in Task XXXXVIII is $3,500.00

TASK XXXXIX PREPARATION OF HYDRAULIC TESTING REPORT AND INTERIM REMEDIAL ACTION WORKPLAN ADDENDUM

The proposed design of the groundwater capture and recirculation system will be completed subsequent to obtaining more representative aquifer characteristics from the completion of the hydraulic testing (Task 40). The final proposed design of the groundwater capture and recirculation system will be presented in a Hydraulic Testing Report and Interim Remedial Action Workplan Addendum that will be submitted to the RWQCB for review and comment prior to Addendum implementation.

The estimated time and materials cost to complete the scope of services in Task XXXXIX is $4,900.00

ESTIMATED SCHEDULE AND COSTS

The following table summarizes the costs for the scope of services described in this SSC.

Task	The costs for the above-described Scope of Services are estimated to be as follows:
TASK XVIII – USTCF Management	**$7,000.00**
TASK XXXVII – Project Management	**$6,600.00**
TASK XXXX – Aquifer Characterization	Task already approved, cost not included
TASK XXXXV – DPE Wells Installation	**$51,650.00**
TASK XXXXVI – HVDPE Events	**$123,550.00**
TASK XXXXVII – IRA Report Preparation	**$6,350.00**
TASK XXXIX – Percolation Testing and Infiltration Gallery Design	**$3,500.00**
TASK XXXXIX – Hydraulic Testing Report and IRA Workplan Addendum Preparation	**$4,900.00**
Total Estimated Cost	**$203,550.00**
Total Estimated Cost with 5% Contingency*	**$213,727.50**

* Please allow for a minimum 5 percent variance in the total estimated cost due to changed Site conditions or unanticipated circumstances.

NOTE: This Scope of Services Change is part of and is in general conformance with the previously executed Contract and Agreement for Services No. 01205515.00 between SCS and the Client. Please sign both copies of SSC10 and mail both signed documents to SCS. One fully executed copy of SSC10 will be returned for your records.

CLIENT AUTHORIZATION:

Signature	Printed Name	Date

SCS ENGINEERS AUTHORIZATION:

Signature	Printed Name	Date

Environmental Consultants
and Contractors

8799 Balboa Avenue
Suite 290
San Diego, CA 92123

858-571-5500
FAX 858-571-5357
http://www.scsengineers.com

SCS ENGINEERS

SCS ENGINEERS UST PROJECT
FEE SCHEDULE
APRIL 1, 2011 TO March 31, 2012

Principal	$218.00
Project Director	$208.00
Senior Project Advisor	$187.00
Project Manager	$163.00
Senior Project Professional	$137.00
Construction Superintendent	$126.00
Project Professional	$115.00
Staff Professional	$ 98.00
Associate Professional	$ 88.00
Senior Engineering Technician	$ 84.00
Technician	$ 76.00
Project Administrator	$ 86.00
Technical Editor	$ 86.00
Designer/Drafter	$ 82.00
Administrative/Secretarial	$ 72.00

Additional Terms and Conditions

Scheduled labor rates include overhead, administration, and profit.

Rates for principals of the firm may be negotiated on a project-specific basis.

Scheduled rates are effective through March 31, 2012. Work performed thereafter is subject to a new Fee Schedule.

Expert witness testimony (depositions and trial) will be charged at $350.00 per hour. Preparation for testimony and general litigation support will be charged at normal hourly rates.

Direct project expenses (such as field equipment, subcontracted services including drilling, laboratory analyses, etc., permits, supplies, etc.) will be charged at cost plus 15 percent. Company trucks are charged at $50 for up to a half day (4 hours) of use, and $100 for up to a full day (company cars at $40/$80). These charges incorporate an allowance of 100 miles per job per day; a $0.51 per mile surcharge is applied for additional miles. Vehicle charges for long-term and/or high-mileage projects may be negotiated on a case-by-case basis. Personal vehicles will be charged at the Federal rate then in effect. All other field equipment will be charged in accordance with the Fee Schedule in effect at the time the work is performed.

Per diem will be charged on all projects requiring overnight stays from our office. The per diem rate is $175.00 per day per person or the federal per diem rate for the area, whichever is greater.

Overtime will be charged at 125 percent of standard rates for weekday work in excess of 8 hours. Work performed on holidays and weekends will be charged at 150 percent of standard rates.

Invoices will be prepared monthly or more frequently for work in progress, unless otherwise agreed. Invoices are due and payable upon receipt. Invoices not paid within 30 days are subject to a service charge of 1.5 percent per month on the unpaid balance.

Payment of SCS invoices for services performed will not be contingent upon the client's receipt of payment from other parties, unless otherwise agreed in writing. Client agrees to pay legal costs, including attorney's fees, incurred by SCS in collecting any amounts past due and owing on client's accounts.

The rationale and methodology for determining our Schedule of Rates is based on Manual 45c of the American Society of Civil Engineers.

SCS ENGINEERS UST FEE SCHEDULE
APRIL 1, 2011 TO March 31, 2012
SCS ENGINEERS FIELD EQUIPMENT RENTAL AND REIMBURSABLE FEE SCHEDULE

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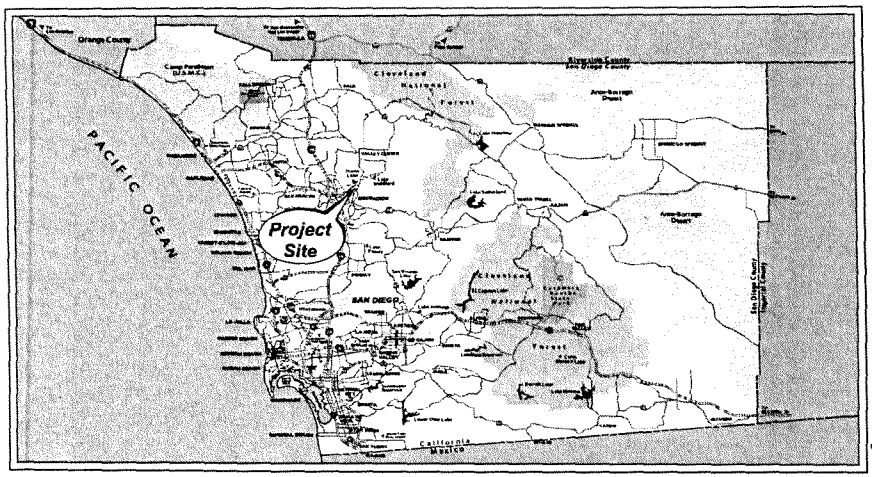
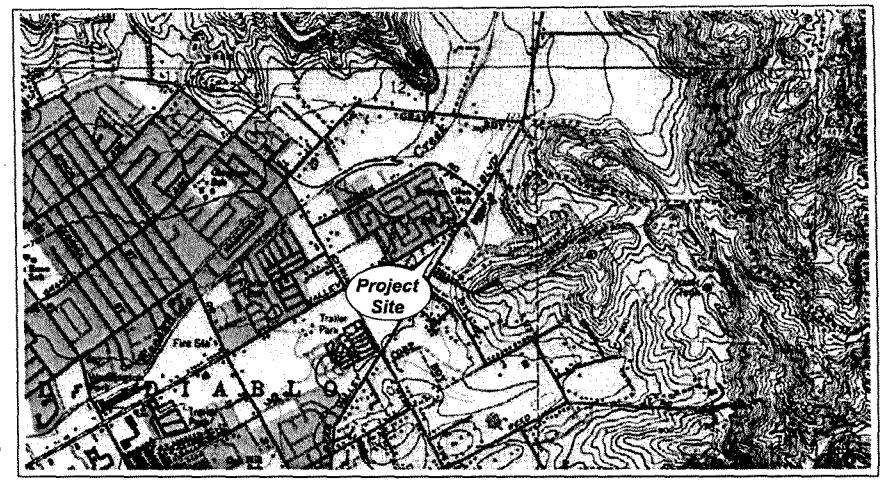
Full Day Geoprobe 540 MT (8 hours onsite, 1 technician, expendables)	1,700
Half Day Geoprobe 540 MT (4 hours onsite, 1 technician, expendables)	900
Overtime Geoprobe 540 MT (>8 hours/day)	200/Hour
1 Liter or less Summa Canister	35/Use
6 Liter Summa Canister + Flow w/Controller	75/Use
Bentonite Chips	11/Bag
Cement/Asphalt	8/Sack
Chlorine Test Kist	25/Kit
Drager CMS Analyzer	25/Day
Drager CMS Analyzer Chips	200/Chip
Personal / Ambient Air Sampling Pumps	25/Day
Dust Meter (personal data Ram or equivalent)	25/Day
Generator	60/Day
Hand Auger	60/Day
Tube, Caps and Teflon Sheets	5/Tube
Tedlar Bags	20/Bag
Organic Vapor Meter	85/Day
Flame Ionization Detector (FID)	75/Day
Chlorine Meter	25/Day
Bailers - Reusable	25/Day
Bailers – Disposable (small)	15/Each
Bailers – Disposable (large)	20/Each
Bailers - PVC	20/Day
10 ml Visqueen 20' x 100'	100/Roll
Expendable Field Supplies (caution tape, decontamination equipment, ice, sampling jars, etc.)	35/Day
Hazardous Waste Field Kit (for any field sampling; personal protective equip including Level C; protective clothing, respirators, gloves, etc.)	60/Day
Hazardous Waste Field Kit (for Level A or B)	Quoted/Job Specific
Digital Camera (includes contact sheet & color printing)	15/Day
Digital Video Camera	30/Day
Electronic Distance Meter	25/Day
Oil/Water Interface Probe	75/Day
Multiple Parameter Water Quality Meter	225/Day
pH/Temp/Conductivity Meter	60/Day
Moisture Meter	75/Day
Dissolved Oxygen Meter	75/Day
Bladder Pump	150/Day
Peristaltic Pump	125/Day
Pump Bladders, Tubing & Hardware	Quoted/Job Specific
Water Depth Meter	50/Day
Water Sampling Pump (Grundfos with controller or peristaltic)	125/Day
Water Sampling Pump (DC)	60/Day
Locking Well Cap	20/Each
Padlocks	15/Each
Copies	.14/Page
Color Copies/Prints (8 ½ x 11)	1.25/Page
Color Copies/Prints (11 x 17)	2.50/Page
CDs	25/Each
Weather Station	5/Day
Weather Station	50/Month
XRF Meter	500/day
4-Gas Meter (QUAE or Equivalent)	100/day



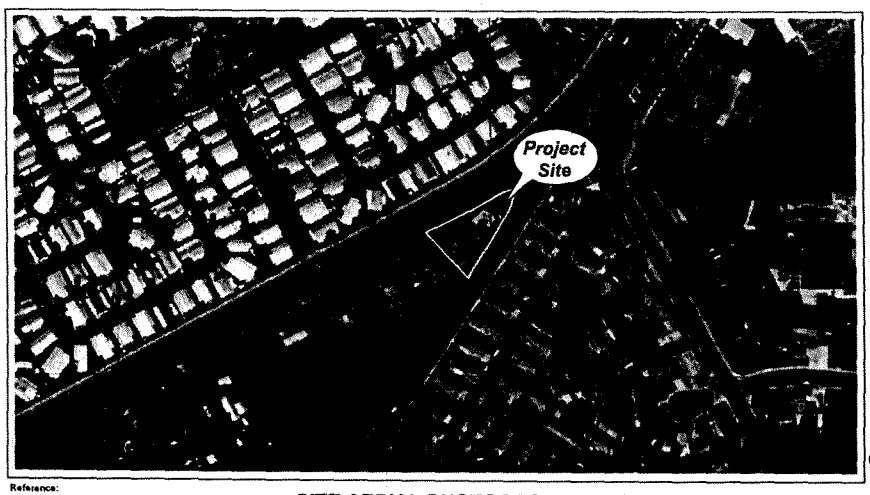
REGIONAL SITE LOCATION



Reference:
U.S.G.S. 7.5 Minute Quadrangle map
Valley Center, California - 1977. Photo revised 1982.

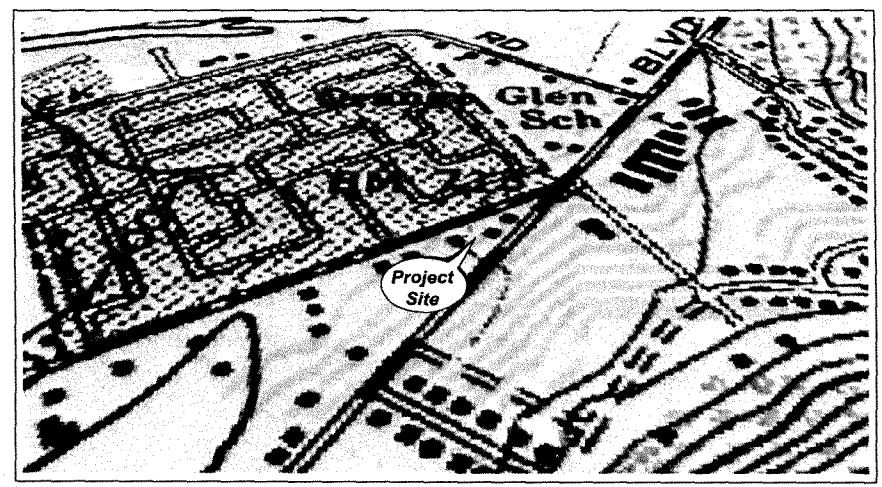
2-DIMENSIONAL SITE LOCATION

0 1,200 2,400 3,600
Approximate Graphic Scale in Feet



Reference:
Google Earth Aerial Photograph
Escondido, California - February 2008

SITE AERIAL PHOTOGRAPH



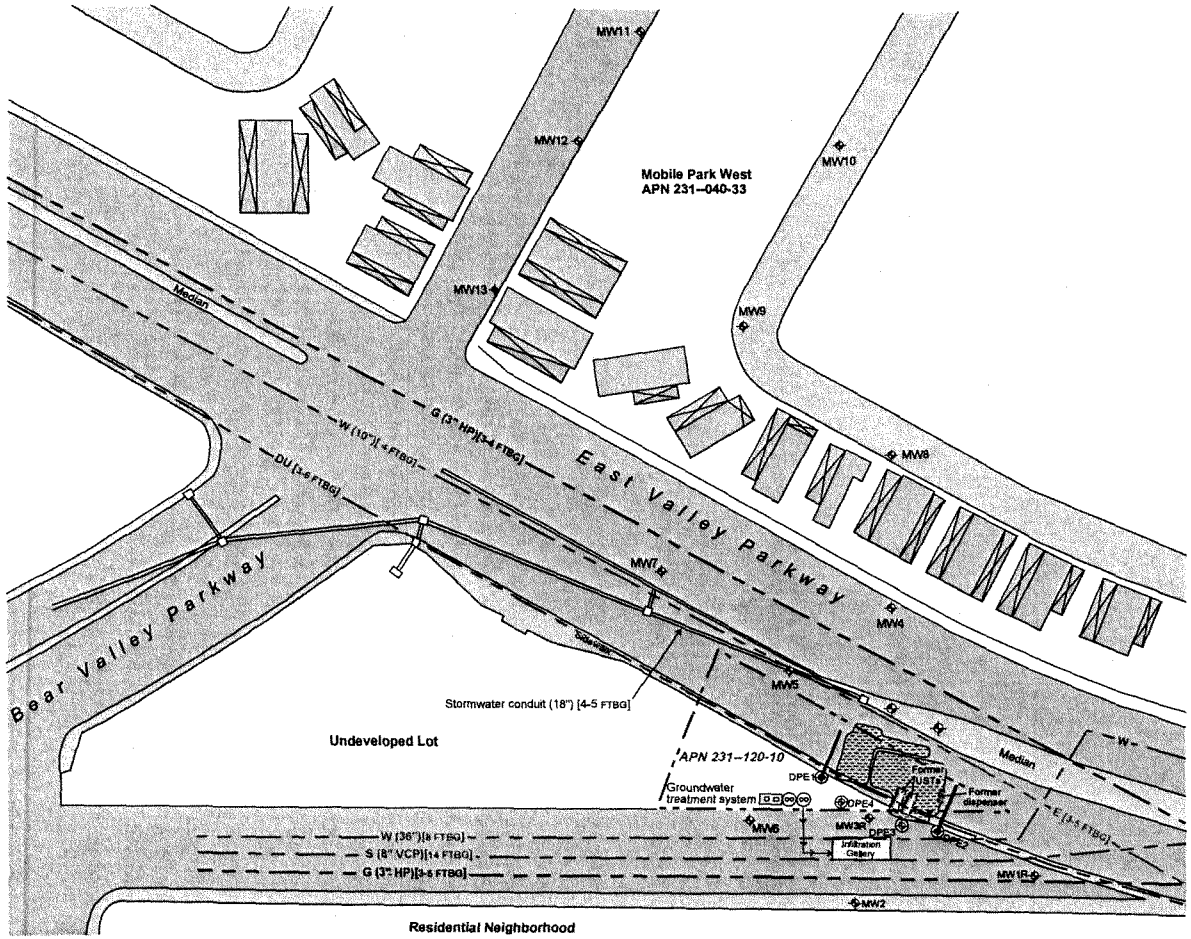
Reference:
U.S.G.S. 7.5 Minute Quadrangle map
Valley Center, California - 1977. Photo revised 1982.

3-DIMENSIONAL SITE LOCATION

Disclaimer: This figure is based on available data. Actual conditions may differ. All locations and dimensions are approximate.

SCS ENGINEERS Environmental Consultants 8799 Balboa Avenue, Suite 290 San Diego, California 92123	**4-WAY SITE LOCATION MAP** City of Escondido 2741 East Valley Parkway Escondido, California	Project No.: 01205515.00 Figure 1 Date Drafted: 12/29/09

Resolution No. 2011-98
EXHIBIT 1
Page 31 of 35



EXPLANATION

- Approximate Site boundary
- MW13 — Boring location and designation
- MW11 — Monitoring well location and designation
- Contingency groundwater extraction well location
- Proposed process flow - air compressor bag filter to granular activated carbon (GAC) in series.
- Lateral extent of former remedial excavations
- Former Orange Glen Market
- —W— Water line with diameter in inches
- —S— 8-inch diameter sewer line
- —G— 3-inch diameter high pressure gas line
- —DU— Dry utilities (SDG&E and Cox)
- —E— Electrical utility

Utility designations followed by approximate burial depth reported by the City of Escondido staff in feet below grade [3-5 FTBG].

0 40 80 120
Approximate Graphic Scale in Feet

North

Disclaimer: This figure is based on available data. Actual conditions may differ. All locations and dimensions are approximate.

SCS ENGINEERS
Environmental Consultants
8799 Balboa Avenue, Suite 290
San Diego, California 92123

SITE PLAN SHOWING PROPOSED INTERIM REMEDIAL ACTION COMPONENTS
City of Escondido
2741 East Valley Parkway
San Diego, California

Project No.: 01205515.00
Figure 2
Date Drafted: 6/30/11

Resolution No. 2011-98
EXHIBIT 1
Page 33 of 35

Resolution No. 2011-98
EXHIBIT 1
Page 33 of 35

EXPLANATION

- Location of soil boring installed January 10-11, 2002
- Location of soil sample collected during UST removal
- Dual phase extraction well location
- Contingency groundwater extraction well location
- Existing monitoring well location
- Location of confirmation soil sample collected during completion of remedial excavation on June 2-4 and July 15, 2008.

Sample	TPHg	TPHd	B	T	E	X	MTBE
EX-17-36	76,000	<10,000	1,700	150,000	23,000	140,000	1,100

Location and designation of confirmation soil samples collected from sidewalls and bottom of remedial excavation. Samples at 15 feet below grade and deeper are interpreted to be from the saturated zone. Samples analyzed for gasoline (TPHg) and diesel (TPHd) range petroleum hydrocarbons by EPA Method 8015B Modified. Samples also analyzed for benzene, toluene, ethylbenzene, and xylenes (BTEX), and fuel oxygenates such as methyl tertiary butyl ether (MTBE) by EPA Method 8260B. Results reported in micrograms per kilogram (µg/kg). < indicates concentration not above indicated detection limit for relevant analyte and analytical method. NA indicates sample not analyzed. Results in red exceed cleanup criteria selected for the Site. Samples with method detection limits greater than or equal to associated cleanup criterion are also shown in red.

Depth	TPHg	TPHd	B	T	E	X	MTBE
5'	81,000	<10,000	17,000				
10'	940,000	<10,000	380,000				
15'	4,300,000	<10,000	64,000				
20'	2,900,000	<10,000	280,000				
25'	1,400,000	<10,000	330,000				
30'	1,400,000	<10,000	<1,000				
35'	<10,000	<10,000	<1,000				
40'	<10,000	<10,000	<1,000				
45'	<10,000	<10,000	<5,000				

Sample	TPHg	TPHd	B	T	E	X	MTBE
EX-16.5'-17	130,000	27,000	<100	2,500	2,600	17,900	84,000

Depth	TPHg	TPHd	B	5,200
5'	<10,000	<10,000	T	63,000
10'	170,000	<10,000	E	18,000
15'	640,000	<10,000	X	95,000
20'	<10,000	<10,000	MTBE	130,000
25'	<10,000	<10,000	DIPE	<1,000
			ETBE	<1,000
			TAME	<1,000
			TBA	<5,000

Depth	5'	10'	15'	20'	25'
TPHg	<10	17	58	<10	<10
TPHd	<10	<10	<10	<10	<10
B	NA	<100	1,200	NA	NA
T	NA	120	720	NA	NA
E	NA	<100	1,300	NA	NA
X	NA	<300	4,800	NA	NA
MTBE	NA	28,000	220,000	NA	NA
TAME	NA	250	1,800	NA	NA
TBA	NA	3,700	4,500	NA	NA

Sample	TPHg	TPHd	B	T	E	X	MTBE
EX-16F-33	<10,000	<10,000	<5	<5	<5	<15	170
EX-16F-34	56,000	<10,000	270	7,300	4,400	23,200	6,700
EX-16F-35	<10,000	<10,000	<5	53	140	540	1,400

Depth	5'	10'	15'	20'	25'
TPHg	<10	<10	93	<10	<10
TPHd	<10	<10	29	<10	<10
B	NA	NA	<100	NA	NA
T	NA	NA	1,000	NA	NA
E	NA	NA	1,700	NA	NA
X	NA	NA	10,100	NA	NA
MTBE	NA	NA	130	NA	NA
TAME	NA	NA	<100	NA	NA
TBA	NA	NA	<500	NA	NA

Sample	TPHg	TPHd	B	T	E	X	MTBE
EX-16F-36	30,000	10,000	<10	<10	15	130	170
EX-16F-37	100,000	30,000	<100	1,100	1,300	6,700	2,900
EX-17-39	2,300,000	760,000	2,100	22,000	63,000	240,000	52,000

Sample	TPHg	TPHd	B	T	E	X	MTBE
EX-16F-38	<10,000	<10,000	<5	<5	<5	<15	130
EX-16F-37	23,000	<10,000	<100	1,400	3,000	13,200	2,100
EX-16F-39	76,000	<10,000	110	10,000	6,200	34,000	1,700

Sample	TPHg	TPHd	B	T	E	X	MTBE
EX-16F-40	10,000	<10,000	<10	15	40	160	410

Sample	TPHg	TPHd	B	T	E	X	MTBE
EX-16F-44	<10,000	<10,000	<5	<5	<5	<15	150
EX-16F-45	59,000	<10,000	<100	110	250	2,240	300
EX-17-46	29,000	<10,000	<10	16	37	480	770

Sample	TPHg	TPHd	B	T	E	X	MTBE
EX-16F-39	<10,000	<10,000	<5	16	<5	26	620

Sample	TPHg	TPHd	B	T	E	X	MTBE
EX-16F-43	<10,000	<10,000	<5	<5	<5	<15	86
EX-16F-48	20,000	<10,000	<10	<10	<10	<30	770
EX-17-48	12,000	<10,000	<5	<5	<5	<15	79

Sample	TPHg	TPHd	B	T	E	X	MTBE
EX-16F-41	<10,000	<10,000	<5	<5	<5	<15	66
EX-16F-42	<10,000	<10,000	<5	<5	<5	<15	130
EX-17-43	18,000	<10,000	<10	25	23	180	340

Sample	TPHg	TPHd	B	T	E	X	MTBE
EX-16F-26	21,000	10,000	<10	<10	25	240	720
EX-16F-28	200,000	47,000	<100	1,400	3,800	22,000	13,000
EX-17-27	1,600,000	240,000	3,100	30,000	33,000	180,000	62,000

Depth	5'	10'	15'	20'	25'
TPHg	<10	<10	<10	<10	<10
TPHd	<10	<10	<10	<10	<10

Sample	TPHg	TPHd	B	T	E	X	MTBE
EX-17-31	54,000	<10,000	<10	<10	<10	15	93,000

Sample	TPHg	TPHd	B	T	E	X	MTBE
EX-16F-25	47,000	21,000	<10	<10	110	930	2,800
EX-16F-23	62,000	14,000	<10	77	290	2,100	11,000
EX-17-22	13,000	10,000	<5	<5	14	98	1,400

Depth	TPHg	TPHd	B	37,000
5'	<10,000	<10,000	T	440,000
10'	<10,000	<10,000	E	83,000
15'	<10,000	<10,000	X	360,000
20'	360,000	<10,000	MTBE	310,000
25'	<10,000	<10,000	DIPE	<1,000
30'	<10,000	<10,000	ETBE	<1,000
			TAME	<1,000
			TBA	<5,000

Sample	TPHg	TPHd	B	T	E	X	MTBE
EX-16F-2	<10,000	<10,000	<5	<5	<5	<15	100

Depth	5'	10'	15'	20'	25'
TPHg	<10	130	1,900	<10	<10
TPHd	<10	88	270	<10	<10
B	NA	<200	5,700	NA	NA
T	NA	820	96,000	NA	NA
E	NA	550	30,000	NA	NA
X	NA	3,700	168,000	NA	NA
MTBE	NA	20,000	69,000	NA	NA
TAME	NA	<200	<2,000	NA	NA
TBA	NA	4,900	<10,000	NA	NA

Depth	TPHg	TPHd	B	6,700
5'	<10,000	<10,000	T	94,000
10'	<10,000	<10,000	E	25,000
15'	1,600,000	<10,000	X	128,000
20'	<10,000	<10,000	MTBE	100,000
25'	<10,000	<10,000	DIPE	<1,000
			ETBE	<1,000
			TAME	<1,000
			TBA	<5,000

Sample	TPHg	TPHd	B	T	E	X	MTBE
EX-17-21	3,900,000	360,000	51,000	230,000	68,000	271,000	2,200

Sample	TPHg	TPHd	B	T	E	X	MTBE
EX-17-24	290,000	41,000	300	45,000	10,000	57,000	21,000

Sample	TPHg	TPHd	B	T	E	X	MTBE
EX-17-26	1,400,000	150,000	1,300	160,000	25,000	150,000	1,700

Depth	5'	10'	15'	20'	25'
TPHg	<10	<10	<10	<10	<10
TPHd	<10	<10	<10	<10	<10

Depth	TPHg	TPHd	B	11,000
5'	<10,000	<10,000	T	160,000
10'	170,000	<10,000	E	41,000
15'	1,200,000	<10,000	X	202,000
20'	<10,000	<10,000	MTBE	240,000
25'	<10,000	<10,000	DIPE	<1,000
			ETBE	<1,000
			TAME	<1,000
			TBA	<5,000

Sample	TPHg	TPHd	B	T	E	X	MTBE
EX-16F-6	<10,000	<10,000	<5	<5	<5	<15	160
EX-16F-14	<10,000	<10,000	<5	<5	<5	<15	710
EX-17-10	180,000	43,000	<100	1,200	5,000	27,900	1,400

Sample	TPHg	TPHd	B	T	E	X	MTBE
EX-16F-8	<10,000	<10,000	<5	<5	<5	<15	180
EX-16F-12	36,000	21,000	<100	<100	<100	880	370
EX-17-13	240,000	64,000	<100	<100	1,300	7,000	16,000

Sample	TPHg	TPHd	B	T	E	X	MTBE
EX-16.5'-16	78,000	27,000	<100	1,900	500	4,100	3,500

Sample	TPHg	TPHd	B	T	E	X	MTBE
EX-16F-4	<10,000	<10,000	<5	<5	<5	<15	170
EX-16F-10	36,000	21,000	<100	<100	<100	1,300	7,000
EX-17-9	1,700,000	280,000	1,300	60,000	32,000	170,000	2,400

Sample	TPHg	TPHd	B	T	E	X	MTBE
EX-16F-1	160,000	76,000	<100	5,100	1,800	24,600	3,700
EX-16F-15	57,000	27,000	<100	<100	730	5,300	2,300
EX-17-11	17,000	10,000	<10	<10	61	680	780

Sample	TPHg	TPHd	B	T	E	X	MTBE
EX-16F-3	<10,000	<10,000	<5	<5	<5	<15	170
EX-16F-16	170,000	49,000	<100	1,500	6,800	31,000	680
EX-17-18	280,000	82,000	<100	2,200	5,700	39,000	290

Depth	5'	10'	15'	20'	25'
TPHg	<10	<10	<10	<10	<10
TPHd	<10	<10	<10	<10	<10

Groundwater 15' - 20'

45° DPE

DPE1

DPE2

DPE3

DPE4

EX-10'-1

EX-10'-5

EX-10'-4

MW3R

PZ1

MW1R

MW2

3" HP

ASPH

North

0 10 20 30

Approximate Graphic Scale in Feet

Disclaimer: This figure is based on available data. Actual conditions may differ. All locations and dimensions are approximate.

SCS ENGINEERS
Environmental Consultants
8799 Balboa Avenue, Suite 290
San Diego, California 92123

SOURCE AREA SITE PLAN WITH SOIL SAMPLE ANALYTICAL RESULTS AND PROPOSED EXTRACTION WELL LOCATIONS
City of Escondido
2741 East Valley Parkway
Escondido, California

Project No.: 01205515.00

Figure 3

Date Drafted: 5/10/11

PARCEL MAP NO. 20914

ESCONDIDO TPM 2006-03

IN THE CITY OF ESCONDIDO, CALIFORNIA

SHEET 1 OF 2 SHEETS

FOR CONDOMINIUM PURPOSES

BEING A SUBDIVISION OF LOT 12 OF ESCONDIDO TRACT NO. 843-R, IN THE CITY OF ESCONDIDO, COUNTY OF SAN DIEGO, STATE OF CALIFORNIA, ACCORDING TO MAP THEREOF NO. 11891, FILED IN THE OFFICE OF THE COUNTY RECORDER OF SAN DIEGO COUNTY ON SEPTEMBER 10, 1987.

THIS MAP IS A 5 UNIT CONDOMINIUM PROJECT AS DEFINED IN SECTION 1350 OF THE CIVIL CODE OF THE STATE OF CALIFORNIA AND IS FILED PURSUANT TO THE SUBDIVISION MAP ACT.

FOR COMPLETE LEGAL DESCRIPTION, REFER TO PARCEL MAP GUARANTEE NOTED HEREON. PARCEL MAP GUARANTEE IS ON FILE IN THE CITY ENGINEER'S OFFICE, FURNISHED BY FIRST AMERICAN TITLE COMPANY, ORDER NO. 2379233 (06) DATED 8/19/11

WE HEREBY STATE THAT WE ARE THE OWNERS OF OR ARE INTERESTED IN THE LAND INCLUDED WITHIN ESCONDIDO PARCEL MAP NO. 2006-03, AND WE HEREBY CONSENT TO THE PREPARATION AND RECORDATION OF THIS MAP CONSISTING OF 2 SHEETS AND DESCRIBED IN THE CAPTION THEREOF.

ARJONS INTEREST, LLC, A CALIFORNIA LIMITED LIABILITY COMPANY

BY: CATHERINE SHEFFLET, MANAGING MEMBER

DATE: 8/12/11

UNION BANK OF CALIFORNIA, N.A., AS BENEFICIARY OF THAT DEED OF TRUST RECORDED JUNE 1, 2000 AS FILE NO. 2000-0288623, O.R.

UNION BANK OF CALIFORNIA, N.A.

BY:

PRINT NAME: Toni Scandlyn

TITLE: Asst. Vice President

DATE: 8/11/11

STATE OF CALIFORNIA)
COUNTY OF SAN DIEGO) SS

ON 8-11-2011 BEFORE ME, JAMES L. FURRER
A NOTARY PUBLIC IN AND FOR SAID STATE, PERSONALLY APPEARED TONI SCANDLYN

WHO PROVED TO ME ON THE BASIS OF SATISFACTORY EVIDENCE TO BE THE PERSON(S) WHOSE NAME(S) IS/ARE SUBSCRIBED TO THE WITHIN INSTRUMENT AND ACKNOWLEDGED TO ME THAT HE/SHE/THEY EXECUTED THE SAME IN HIS/HER/THEIR AUTHORIZED CAPACITY(IES), AND THAT BY HIS/HER/THEIR SIGNATURE(S) ON THE INSTRUMENT THE PERSON(S) OR THE ENTITY UPON BEHALF OF WHICH THE PERSON(S) ACTED, EXECUTED THE INSTRUMENT.

I CERTIFY UNDER PENALTY OF PERJURY UNDER THE LAWS OF THE STATE OF CALIFORNIA THAT THE FOREGOING PARAGRAPH IS TRUE AND CORRECT.

WITNESS MY HAND:

PLEASE PRINT NAME: JAMES L. FURRER

COMMISSION NUMBER: 1996731

MY COMMISSION EXPIRES: JULY 24 2014

PRINCIPAL PLACE OF BUSINESS: SAN DIEGO COUNTY

STATE OF CALIFORNIA)
COUNTY OF SAN DIEGO) SS

ON August 12, 2011 BEFORE ME, Rahim Salehpour
A NOTARY PUBLIC IN AND FOR SAID STATE, PERSONALLY APPEARED Catherine A. Sheffler

WHO PROVED TO ME ON THE BASIS OF SATISFACTORY EVIDENCE TO BE THE PERSON(S) WHOSE NAME(S) IS/ARE SUBSCRIBED TO THE WITHIN INSTRUMENT AND ACKNOWLEDGED TO ME THAT HE/SHE/THEY EXECUTED THE SAME IN HIS/HER/THEIR AUTHORIZED CAPACITY(IES), AND THAT BY HIS/HER/THEIR SIGNATURE(S) ON THE INSTRUMENT THE PERSON(S) OR THE ENTITY UPON BEHALF OF WHICH THE PERSON(S) ACTED, EXECUTED THE INSTRUMENT.

I CERTIFY UNDER PENALTY OF PERJURY UNDER THE LAWS OF THE STATE OF CALIFORNIA THAT THE FOREGOING PARAGRAPH IS TRUE AND CORRECT.

WITNESS MY HAND:

PLEASE PRINT NAME: Rahim Salehpour

COMMISSION NUMBER: Jan 21, 2012 1789433

MY COMMISSION EXPIRES: Jan 21, 2012

PRINCIPAL PLACE OF BUSINESS: Poway, San Diego COUNTY

THE SIGNATURE OF THE FOLLOWING, OWNERS OF THE EASEMENTS AS LISTED HAVE BEEN OMITTED UNDER THE PROVISIONS OF SECTION 66436, SUBSECTION (a)(3)(A)(i) OF THE SUBDIVISION MAP ACT. THEIR INTEREST IS SUCH THAT IT CANNOT RIPEN INTO A FEE TITLE AND SAID SIGNATURES ARE NOT REQUIRED BY THE GOVERNING BODY.

1. THE CITY OF ESCONDIDO, HOLDER OF AN EASEMENT FOR PUBLIC ACCESS, UTILITY AND INCIDENTAL PURPOSES, DEDICATED ON MAP NO. 11891, RECORDED SEPTEMBER 10, 1987 AS FILE NO. 87-514548.

2. SAN DIEGO GAS AND ELECTRIC CO., HOLDER OF AN EASEMENT PER DOCUMENT FOR UNDERGROUND FACILITIES, PIPELINES AND COMMUNICATION FACILITIES, PER DOCUMENT RECORDED MARCH 15, 1989 AS INSTRUMENT NO. 89-131538, O.R.

COUNTY TREASURER/TAX COLLECTOR STATEMENT

I, COUNTY TREASURER-TAX COLLECTOR OF THE COUNTY OF SAN DIEGO, STATE OF CALIFORNIA HEREBY STATE THAT THERE ARE NO UNPAID SPECIAL ASSESSMENTS OR BONDS WHICH MAY BE PAID IN FULL, SHOWN BY THE BOOKS OF OUR OFFICES, AGAINST THE PARCEL MAP OR ANY PART THEREOF SHOWN ON THE MAP OF ESCONDIDO TENTATIVE PARCEL MAP NO. 2006-03.

BY: DAN McALLISTER, COUNTY DEPUTY TREASURER/ TAX COLLECTOR

BY: Leah J. Cabling DEPUTY

8/24/2011 DATE

I, KENNETH HUGINS, CITY TREASURER OF THE CITY OF ESCONDIDO, HEREBY STATE THAT THERE ARE NO LIENS OR UNPAID BONDS ISSUED UNDER ANY IMPROVEMENT BOND ACT OF THE STATE OF CALIFORNIA SHOWN BY THE BOOKS OF THIS OFFICE AGAINST THE PARCEL MAP OR ANY PART THEREOF SHOWN ON THE MAP OF ESCONDIDO PARCEL MAP NO. 2006-03.

DAN RYAN, on behalf of DEPUTY CITY TREASURER

8-25-11

SURVEYORS STATEMENT

THIS MAP WAS PREPARED BY ME OR UNDER MY DIRECTION AND IS BASED ON A FIELD SURVEY IN CONFORMANCE WITH THE REQUIREMENTS OF THE SUBDIVISION MAP ACT AND LOCAL ORDINANCE AT THE REQUEST OF CATHERINE SHEFFLET BETWEEN MAY AND JULY, 2007. I FURTHER STATE THAT ALL MONUMENTS INDICATED ARE OF CHARACTER INDICATED AND OCCUPY THE POSITIONS INDICATED AND ARE SUFFICIENT TO ENABLE THE SURVEY TO BE RETRACED. (SEE LEGEND ON SHEET NO. 2). I HEREBY STATE THAT THIS PARCEL MAP SUBSTANTIALLY CONFORMS TO THE APPROVED OR CONDITIONALLY APPROVED TENTATIVE PARCEL MAP.

JOEL F. PAULSON, L.S. 8637
EXPIRES 12/31/2011

8/18/11 DATE

LICENSED LAND SURVEYOR JOEL F. PAULSON Exp. 12-31-2011 No. 8637 STATE OF CALIFORNIA

CITY ENGINEER'S STATEMENT

I, OWEN M. TUNNELL, A LICENSED SURVEYOR OF THE STATE OF CALIFORNIA, REPRESENTING THE CITY ENGINEER OF THE CITY OF ESCONDIDO HEREBY STATE THAT I HAVE EXAMINED THE FINAL PARCEL MAP OF CITY OF ESCONDIDO TENTATIVE PARCEL MAP NO. 2006-03, THAT THE PARCEL MAP AS SHOWN HEREON IS SUBSTANTIALLY THE SAME AS IT APPEARED ON THE TENTATIVE PARCEL MAP AND ANY APPROVED ALTERATIONS THEREOF, THAT THE PROVISIONS OF THE SUBDIVISION MAP ACT AND ANY LOCAL ORDINANCES APPLICABLE AT THE TIME OF APPROVAL OF THE TENTATIVE MAP HAVE BEEN COMPLIED WITH, AND THAT I AM SATISFIED THAT SAID MAP IS TECHNICALLY CORRECT.

OWEN M. TUNNELL, L.S. 7134
EXPIRES 12-31-2012

8/25/11 DATE

LICENSED LAND SURVEYOR OWEN M. TUNNELL EXP. 12-31-12 NO. 7134 STATE OF CALIFORNIA

TAX CERTIFICATE

I, THOMAS J. PASTUSZKA, CLERK OF THE BOARD OF SUPERVISORS, HEREBY CERTIFY THAT THE PROVISIONS OF THE SUBDIVISION MAP ACT (DIVISION 2, TITLE 7 OF THE GOVERNMENT CODE) REGARDING (a)DEPOSITS FOR TAXES AND (b)CERTIFICATION OF THE ABSENCE OF LIENS FOR UNPAID STATE, COUNTY, MUNICIPAL OR LOCAL TAXES OR SPECIAL ASSESSMENTS COLLECTED AS TAXES, EXCEPT THOSE NOT YET PAYABLE, HAVE BEEN COMPLIED WITH.

THOMAS J. PASTUSZKA,
CLERK OF THE BOARD OF SUPERVISORS

BY: DEPUTY

8/31/11 DATE

FILE NO. 2011-0451156

I, ERNEST J. DRONENBURG, JR., RECORDER OF THE COUNTY OF SAN DIEGO, HEREBY CERTIFY THAT I HAVE ACCEPTED FOR RECORDATION THIS MAP FILED AT THE REQUEST OF JOEL F. PAULSON THIS 31st DAY OF AUGUST, 2011, AT 8:37 O'CLOCK, A M.

ERNEST J. DRONENBURG, JR., COUNTY RECORDER

FEE: $ 12.00

BY: DEPUTY COUNTY RECORDER

PAULSON SURVEYING AND MAPPING
998 Robin Court
San Marcos, CA
(760) 1744-8031

FILENAME: Z:\Projects\Corporate Drive\dwg\443-00ATM.DWG
LAYOUT: SHT 1 DATE: 08/01/2011

Resolution No. 2011-98
EXHIBIT 1
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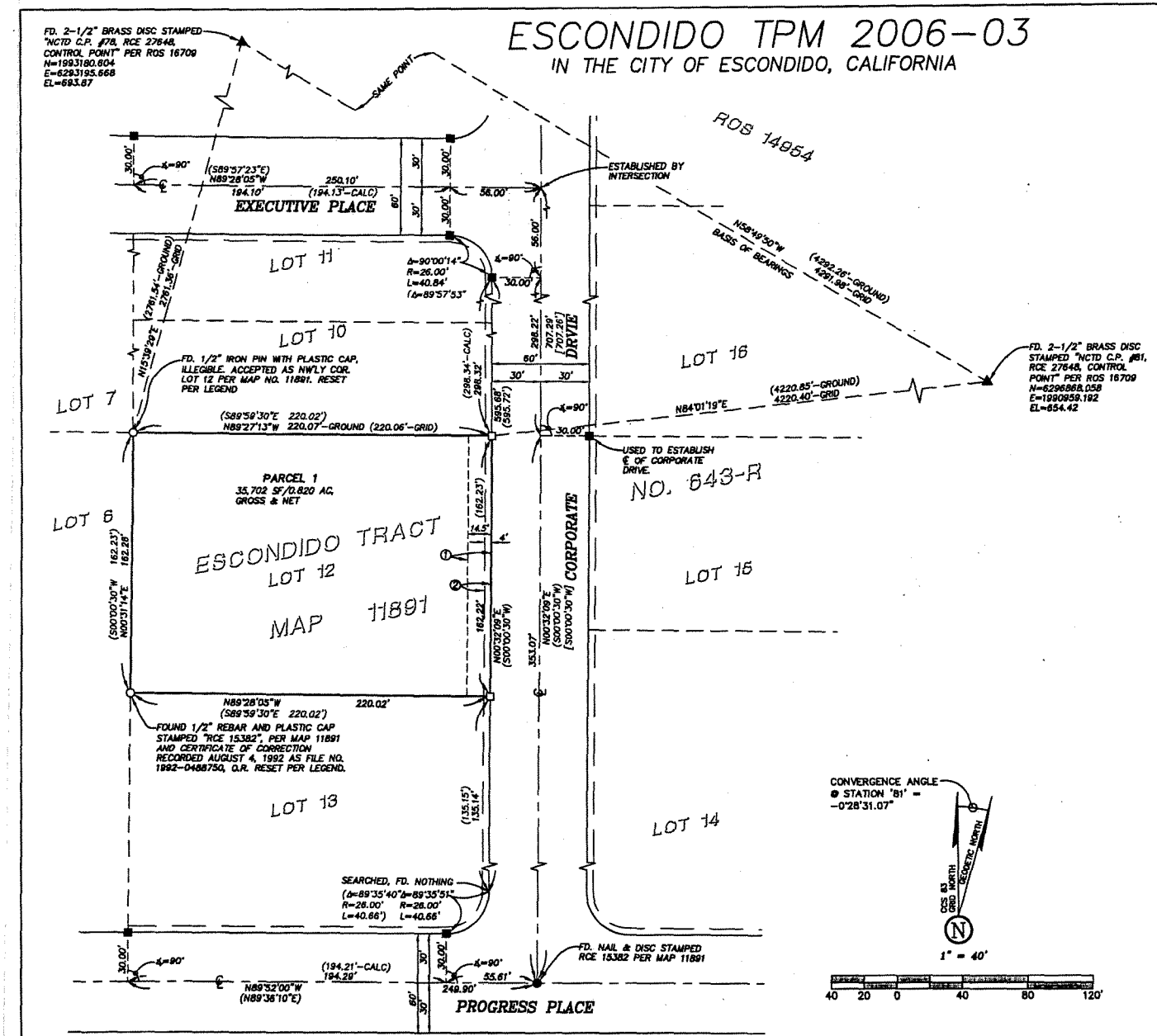
PARCEL MAP NO. 20914

ESCONDIDO TPM 2006-03

IN THE CITY OF ESCONDIDO, CALIFORNIA

SHEET 2 OF 2 SHEETS



LEGEND

- ▲ FOUND 2-1/2" BRASS DISC AS NOTED PER RECORD OF SURVEY NO. 16709. USED FOR BASIS OF BEARINGS.
- ● FOUND MONUMENT AS NOTED.
- ■ FOUND LEAD & DISC STAMPED "RCE 15382", PER MAP 11891 AND CERTIFICATE OF CORRECTION RECORDED AUGUST 4, 1992 AS FILE NO. 1992-0468750, O.R.
- □ SET NAIL & DISC STAMPED "LS 6837" IN PCC SIDEWALK
- ○ SET 2" X 24" IRON PIPE WITH DISC STAMPED "LS 6837"
- ( ) RECORD DATA PER MAP NO. 11891.
- [ ] RECORD DATA PER RECORD OF SURVEY NO. 14954.

BASIS OF BEARINGS

THE BASIS OF BEARINGS FOR THIS MAP IS THE CALIFORNIA COORDINATE SYSTEM '83 (CCS 83) GRID BEARING BETWEEN FIRST ORDER STATIONS "78" AND "81" AS SAID STATIONS ARE SHOWN ON RECORD OF SURVEY MAP NO. 16709 (I.E. NORTH 51°16'57" WEST). QUOTED BEARINGS FROM REFERENCE MAPS/DEEDS MAY OR MAY NOT BE IN TERMS OF SAID SYSTEM.

THE COMBINED SCALE FACTOR AT STATION "81" IS 0.99993462. GRID DISTANCE = GROUND DISTANCE X COMBINED SCALE FACTOR.

NOTES

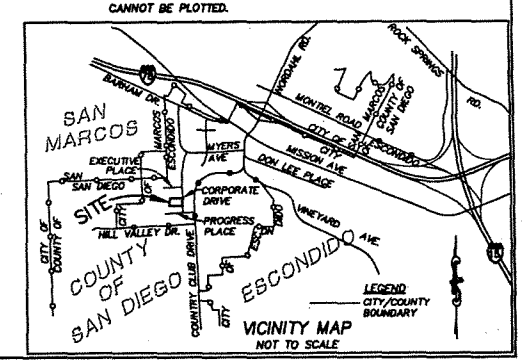
1. TOTAL NUMBER OF PARCELS IS 1.
2. GROSS AREA = 0.82 ACRES
3. ALL DISTANCES AND/OR STREET WIDTHS SHOWN WITHOUT DECIMALS OR TO THE NEAREST 1/10 OF A FOOT REPRESENT THAT DISTANCE TO ZERO HUNDREDTHS.

EASEMENTS

① 14.50' WIDE LANDSCAPE AREA RESERVED FOR MAINTENANCE PER MAP 11891.

② 4.00' WIDE EASEMENT FOR PUBLIC ACCESS AND UTILITY AND INCIDENTAL PURPOSES, DEDICATED TO THE CITY OF ESCONDIDO PER MAP 11891.

③ EASEMENT TO SAN DIEGO GAS AND ELECTRIC COMPANY PER DOCUMENT RECORDED MARCH 15, 1989 AS FILE NO. 89-131539, O.R. SAID EASEMENT PROVIDES A 3' WIDE EASEMENT AROUND EACH AND EVERY FACILITY INSTALLED ON OR BEFORE DECEMBER 31, 1989, BUT HAS NO SPECIFIC LOCATION SET FORTH AND CANNOT BE PLOTTED.



PAULSON SURVEYING AND MAPPING
888 Robin Court
San Marcos, CA
(760) 8744-8831

FILENAME: C:\Projects\Corporate Drive\dwg\1643-00TPM.DWG
LAYOUT: SHT 2 DATE: 08/07/2007

CALIF. COORD. INDEX: 342-1743

Resolution No. 8011-98
EXHIBIT 1
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