SECOR

SECOR
INTERNATIONAL
INCORPORATED

www.secor.com

3017 Kilgore Road, Suite 100
Rancho Cordova, CA 95670
916-861-0400 TEL
916-861-0430 FAX

January 23, 2006

Mr. Ronald Allen
California Regional Water Quality Control Board
North Coast Region
5550 Skyline Blvd., Suite A
Santa Rosa, CA 95403

RE: **Semi-Annual Monitoring and Status Report – Third and Fourth Quarter 2005**
SECOR Project No.: 77CP.60009.01.0140

Dear Mr. Allen:

On behalf of ConocoPhillips, SECOR International Incorporated is forwarding the quarterly summary report for the following location:

Bulk Plant	**Location**
Former ConocoPhillips Bulk Plant # 0140	255 State Highway 101 South Crescent City, California

If you have questions or comments regarding this quarterly summary report, please do not hesitate to contact me at (916) 861-0400.

Sincerely,
SECOR International Incorporated

Thomas M. Potter
Project Scientist

Attachments: SECOR's *Semi-Annual Summary Report – Third and Fourth Quarter 2005*

cc: Mr. Thomas Kosel, ConocoPhillips
Mr. Chris Renner, Renner Petroleum
Mr. Donald Kelly, California Department of Fish & Game
Mr. Leon Perrault, Del Norte County Department of Environmental Health
Mr. Ian Robb, Cambria Environmental Technology, Inc.

SEMI-ANNUAL SUMMARY REPORT
THIRD AND FOURTH QUARTER 2005

Former ConocoPhillips Bulk Plant #0140
255 State Highway 101 South, Crescent City, California

City/County ID #: Crescent City

County: Del Norte

PREVIOUS ASSESSMENT

The former Unocal Bulk Plant #0140 in Crescent City, California historically operated as a bulk plant for the storage and distribution of petroleum products including gasoline, diesel, and motor oil. Four aboveground storage tanks (ASTs) and two underground spill containment tanks were used at the site.

On July 13, 1990, Applied GeoSystems supervised removal of the two 550-gallon underground spill containment tanks. Soil and groundwater samples were collected from the tank cavities (Applied GeoSystems, November 1990).

In July of 1990, Applied GeoSystems advanced 22 soil borings (B-1 through B-22) at the site. Soil samples were collected from several of the borings. Petroleum hydrocarbons were detected in soil from several samples (Applied GeoSystems, December 1990).

In August of 1990, Applied GeoSystems oversaw the excavation and disposal of approximately 740 cubic yards of soil (Applied GeoSystems, December 1990).

In March of 1991, six soil borings (B-23 through B-28) were installed and converted to groundwater monitoring wells (MW-1 through MW-6) (RESNA, 1991).

In June of 1994, RESNA conducted an environmental investigation to further evaluate soil and groundwater conditions in the vicinity of the plant. Five soil borings (B-29 through B-33) were advanced during the investigation (RESNA, 1994).

Results from both the site investigations and quarterly groundwater monitoring reports indicated that soil and groundwater contamination existed at the boundaries of the property and (potentially) off site, toward the west.

On May 19, 2000, SHN supervised the installation of monitoring well MW-7 on the Elk Creek Wildlife Refuge property located west of the bulk plant (SHN, 2000).

In March 2001, SHN supervised the installation of seven soil borings (B-101 through B-107) and one monitoring well (MW-8) (SHN, 2001).

In May 2001, a tidal study was conducted at the site (SHN, October 2001). Based on the data collected, the tide has a very minimal influence on groundwater at the site.

On December 9 and 10, 2002, SHN supervised the installation of eight Membrane Interface Probe (MIP) borings and seven direct push borings with temporary well points (SHN, February 2003). The objective of the investigation was to assess soil and groundwater conditions in the vicinity of the Oil/Water Separator (OWS). MIP borings indicated significant concentrations of petroleum hydrocarbons were present only in the immediate vicinity of MIP boring #1. Petroleum-impacted soil and groundwater were detected in samples from the areas near the OWS and the former underground storage tank. One groundwater sample was collected from approximately 20 feet below ground surface (bgs) to define the vertical extent of groundwater contamination (B-207). No constituents were detected in the groundwater sample collected from B-207.

On October 13 to 16, 2003, SHN supervised Northcoast Environmental Construction (NEC) in the removal of the existing OWS and excavation of petroleum impacted soils around the OWS (SHN, November 2003). Soil samples were collected from the sidewalls and floor of the excavation pit. Approximately 66.5 tons of soil (approximately 72 cubic yards) were removed from the site.

Before the excavation was backfilled, approximately 500 pounds of Oxygen Releasing Compound (ORC®) was placed into the excavation cavity. The ORC® was mixed with potable water in the backhoe bucket and placed into the excavation cavity. After the ORC placement, the excavation cavity was lined with geofabric and bioventing piping was installed. Class II drain rock was placed on the geofabric, and the OWS and biovent piping were installed. Class II drain rock was used to fill the excavation cavity to a depth of approximately 3 feet bgs. The geofabric was used to line the top of the drain rock, and the remainder of the excavation cavity was filled with native material and compacted. The area around the OWS was completed with aggregate base material, and the remainder was graded, seeded, and covered with straw.

On November 1 to 22, 2005, SECOR supervised Cascade Drilling Inc. (Cascade) in the installation of eight ozone injection wells on the west side of the site.

SENSITIVE RECEPTORS

SHN performed a sensitive receptor survey within a 1,000-foot radius from the site location. SHN investigated the area for the presence of water wells, sensitive environmental habitats, and potential health and safety issues associated with the property. Data was acquired from site visits, United States Geological Survey 7.5-minute series topographic maps

(Crescent City and Sister Rocks), and the California Department of Water Resources (DWR).

The DWR well search did not identify any domestic wells within 1,000 feet of the site. The site receives water from wells located in the Smith River, which is located approximately 10 miles north of the site.

Underground utility lines are present beneath the site. Depths of utility trenches are inferred to be approximately 2.0-3.0 feet bgs. Previously reported monitoring well data from the site indicated the depth to groundwater to be approximately 3.0-5.5 feet bgs (TRC, June 2004). Therefore, utility trenches may act as preferential pathways during times of a high groundwater table.

Surface bodies of water within the 1,000-foot radius include Elk Creek, which is located approximately 70 feet west of the site. Elk Creek flows south through the Elk Creek Wildlife Refuge and west of the site location. Elk Creek ultimately discharges to the Pacific Ocean approximately 1,300 feet downstream from the site location. Sensitive environmental habitats may exist along Elk Creek.

Historically, groundwater flow beneath the site has been to the east.

MONITORING AND SAMPLING

The site has been monitored and sampled since the first quarter 1991. Between first quarter 1991 to fourth quarter 1995, the site was sampled quarterly. From second quarter 1996 to fourth quarter 2003, the site was sampled semi-annually. From the second quarter 2004 to second quarter 2005 the site was sampled on a quarterly basis. Currently, 8 monitoring wells (MW-1 through MW-8) and three sample points located in Elk Creek (EC-1, EC,2, and EC-4) are monitored and sampled semi-annually. In the second quarter 2005, the sampling program was changed to a semi-annual basis. Samples are analyzed for total petroleum hydrocarbons with gasoline distinction (TPHg) by Environmental Protection Agency (EPA) Method 8015M, and benzene, toluene, ethyl benzene, and total xylenes (collectively known as BTEX) by EPA Method 8021B. Samples were also analyzed for fuel oxygenates and total petroleum hydrocarbons with diesel distinction (TPHd) by EPA method 8260B.

REMEDATION STATUS

Currently there is no active remediation system operating at this site. SECOR installed ozone injection wells during the fourth quarter and has begun preparation for an ozone remedial system to be installed during the first quarter of 2006 (pending no unforeseen delays).

CHARACTERIZATION STATUS

The presence of TPHd affected soil and groundwater is adequately delineated downgradient (west) by EC-1 and MW-8 and cross gradient (south) by MW-1 and TW-1. However, to the east and north, the extent of TPHd is undefined. TPHg, MtBE and benzene have been adequately delineated at the site.

RECENT SUBMITTALS/CORRESPONDENCE

Received – September 7, 2005 letter from CRWQCB-NCR approving CAP

WASTE DISPOSAL SUMMARY

The volume of purged groundwater generated and disposed of during the semi-annual groundwater monitoring event is reported in TRC's semi-annual report (Attachment 1).

DISCUSSION

During the third and fourth quarter 2005, depth to groundwater in the eight on- and off-site wells ranged from approximately 3.16 feet to 4.98 feet below top of casing, which is consistent with historical levels that have ranged between depths of 1.15 feet and 6.00 feet below top of casing. Groundwater elevations in the site wells this quarter ranged from approximately 6.53 feet above mean sea level (msl) to 7.36 feet above msl. Groundwater flow beneath the site, measured on October 31, 2005, was westerly at a hydraulic gradient of 0.001 foot/foot. The historical groundwater flow direction beneath the site has predominantly been toward the northwest. A groundwater elevation contour map was prepared by TRC using monitoring data collected on October 31, 2005, and is presented as Figure 2 in Attachment 1.

During the third and fourth quarter 2005, concentrations of TPHd increased in MW-1, MW-3, MW-5, and MW-7. Reported TPHd concentrations ranged from 53 micrograms per liter (µg/L) in MW-1 to 880 µg/L in MW-3. During the second quarter 2005, TPHd was reported in MW-1 through MW-7 at concentrations of 53 µg/L, 140 µg/L, 880 µg/L, 180 µg/L, 710 µg/L, 460 µg/L, and 350 µg/L, respectively. The remaining sampling locations on- and off-site were reported as less than laboratory reporting limits for all analytes except TPHg in MW-3 (51 µg/L). Conversely, during the third and fourth quarter 2005 the former Texaco station adjoining the site shows a decrease in TPHd concentrations indicating that the TPHd plume may have migrated off of the Former Texaco property and under 255 State Hwy 101 South. Groundwater was reported to flow to the east during the first quarter and to the east north-east during the second quarter.

Upgradient (southeast) from the site is a former Texaco station. During the coordinated sampling event with Gettler-Ryan on October 31, 2005, groundwater samples from monitoring wells TW-2, TW-3, and TW-4, which are located downgradient of the Texaco

station in the southeast corner of the site, contained concentrations of TPHd, TPHg, benzene, total xylenes, and MtBE at maximum concentrations of 950 µg/L, 180 µg/L, 0.9 µg/L, 0.5 µg/L, and 6 µg/L respectively.

THIRD AND FOURTH QUARTER 2005 ACTIVITIES

1. TRC conducted semi-annual groundwater monitoring and sampling.
2. SECOR implemented CAP by installing ozone wells.

NEXT QUARTER ACTIVITIES (First Quarter 2006)

1. TRC to conduct coordinated semi-annual groundwater monitoring and sampling.
2. SECOR to install ozone injection system.
3. Prepare and submit quarterly summary report.

LIMITATIONS

This report presents our understanding of existing conditions at the subject site. The conclusions contained herein are based on the analytical results, and professional judgment in accordance with current standards of professional practice; no other warranty is expressed or implied. SECOR assumes no responsibility for exploratory borings or data reported by other consultants or contractors.

Sincerely,
SECOR International Incorporated

Dan Schreiner, P.G.
Associate Geologist

PROFESSIONAL GEOLOGIST
Dan Schreiner
No: 7646
STATE OF CALIFORNIA

Attachment 1 – TRC's *Quarterly Monitoring Report July Through December 2005,* dated December 6, 2005

ATTACHMENT 1
TRC'S *QUARTERLY MONITORING REPORT JULY THROUGH DECEMBER 2005*

Quarterly Monitoring and Status Report
Former ConocoPhillips Bulk Plant # 0140
255 State Highway 101 South
Crescent City, CA
January 23, 2006

SEE

TRC

QMR