TETRA TECH EC, INC.

DAILY PROGRESS REPORT
Hunters Point Naval Shipyard Basewide Radiological Support

Report Date: January 19, 2012	RMAC – CTO 004

Overview

The HPNS Team continued radiological basewide functions including support activities, radiological screening yard processing, and laboratory operations. Details of the work activities performed are provided in the sections below.

Radiological Screening Yard (RSY) Processing

- The HPNS Team performed the following RSY4 processing activities:
  - Issued drawing to identify characterization sample collection locations for ES Unit 0634.
  - Five biased soil samples were collected from ES Unit 0634 and submitted to the on-site laboratory for analysis.
  - ES Units 0550 and 0630 were staged in the stockpile area pending receipt of the off-site analytical results.
  - Began transfer of ES Unit 0615 to the stockpile area.
- The HPNS Team continued radiological monitoring and control activities for the RSYs including incoming and outgoing equipment and materials, ingress and egress of personnel, dust suppression, and air monitoring, as appropriate.

On-Site and Off-Site Laboratories

- On-site laboratory staff continued to operate gamma spectroscopy detectors and the Protean unit. The following activities were completed:
  - Soil samples received for gamma spectroscopy analysis: 120
  - Swipe samples received for Protean counts: 7
  - Air samples received: 5
  - Samples analyzed by gamma spectroscopy: 58
  - Gamma spectroscopy samples recounted: 41
- A total of 290 samples currently are awaiting gamma spectroscopy analysis in the on-site laboratory.
- A total of 150 samples were sent to TestAmerica St. Louis for analysis.

Basewide Support

- Portal Monitor Activities
  - A total of 41 empty trucks entered HPNS through the portal monitor with no alarms.
  - A total of 48 truckloads of material exited HPNS through the portal monitor with no alarms.
- A total of two incoming and one outgoing materials and equipment surveys were performed by the HPNS Team.

TETRA TECH EC, INC.

DAILY STATUS REPORT
Parcel E and Building 500 Series Removal Action

Report Date: January 19, 2012	RMAC – CTO 07

Overview

The HPNS Team continued field activities for the Buildings 506 and 517 Sites, the 500 Series Area, and Work Area #36. Details of the activities performed are provided in the sections below.

Building 506 Site

- The HPNS Team issued record drawings to identify the post-remediation sample collection locations in Class 1 Survey Unit 4.

Building 517 Site

- Approximately 34 cubic yards of soil was remediated from Survey Unit 2 and placed in LLRW bins GFLU001194T15, GFLU001237T18, and GFLU002048 for disposal.
- The HPNS Team performed Class 1 survey activities for Survey Unit 2. A total of eight post-remediation gamma static measurements were logged with a maximum measurement of 9,946 cpm. In addition, eight soil samples were collected and submitted to the on-site laboratory for analysis. The RSO is the process of reviewing these data

500 Series Area

- The HPNS Team continued preparing the 500 Series Area for towed array survey activities including soil grading and removal of metal rebar from the concrete pad located in Survey Units 12 and 13.
- Approximately 12 cubic yards of asphalt from Survey Unit 8 was removed, scanned, and transferred to the Salvage Yard pending receipt of the Class 1 soil survey unit results.
- The HPNS Team performed gamma scan surveys over Survey Units 19 and 21.
- The HPNS Team performed Class 1 survey activities as follows:
  - Survey Unit 20 – A total of 36 systematic gamma static measurements were logged with a maximum measurement of 7,001 cpm. In addition, 36 soil samples were collected and submitted to the on-site laboratory for analysis.
  - Survey Unit 21 – A total of 36 systematic gamma static measurements were logged with a maximum measurement of 6,803 cpm. In addition, 36 soil samples were collected and submitted to the on-site laboratory for analysis.

- The RSO is in the process of reviewing the survey data for Survey Units 20 and 21.

Parcel E Storm Drain and Sanitary Sewer Removal Activities

- Trench segment 07-E36-39-1K crushed pipe debris was placed in LLRW bin GFLU001111 for disposal.
- A variety of housekeeping activities were performed throughout the Building 500 Series Area by the HPNS Team.

Issues/Items Pending Action

- Internal Draft Removal Action Completion Report
- Task-specific Plan

TETRA TECH EC, INC.

DAILY STATUS REPORT
Parcel C Storm Drain and Sanitary Sewer Removal Action

Report Date: February 2, 2012	RAD EMAC – CTO 002

Overview

The HPNS Team continued field activities for the North Pier and Work Areas #32 and #34. Details of the work activities performed are provided in the sections below.

North Pier

- Approximately 492 cubic yards of asphalt covering Survey Units 9, 10, and 11 was removed, scanned, and transferred to Drydock No. 4 pending receipt of the Class 1 survey unit results; no elevated scan readings were identified.

Parcel C Storm Drain and Sanitary Sewer Removal Activities

- The HPNS Team excavated approximately 264 cubic yards of soil from Work Area #34 and transferred the material to RSY4 for processing. Excavation activities were performed for the following trench segments:
  - 02-C34-28-2P 40 linear feet completed
  - 02-C34-28-4B 34 linear feet completed
  - 02-C34-28-4E 116 linear feet completed
- A total of 190 linear feet of trench (including excavated soil, manholes, and pipes) identified on the design drawings was completed by the HPNS Team.
- Manholes MH1007 and MH1009 excavated from trench segments 02-C34-28-2P and 02-C34-28-4E were placed on plastic pending further activities.
- A sediment sample was collected from excavated Manhole MH1007 (02-PCMH1007-060-01) and submitted to the on-site laboratory for analysis.
- Plastic pipe liner associated with trench segments 02-C34-28-2P, -4B, and -4E was placed in LLRW bin GFLU000262 for disposal.
- A variety of housekeeping activities were performed throughout Parcel C by the HPNS Team including street sweeping.

Issues/Items Pending Action

- Internal Draft Removal Action Completion Report

TETRA TECH EC, INC.

DAILY PROGRESS REPORT
Hunters Point Naval Shipyard Basewide Radiological Support

Report Date: February 2, 2012	RMAC – CTO 004

Overview

The HPNS Team continued radiological basewide functions including support activities, radiological screening yard processing, and laboratory operations. Details of the work activities performed are provided in the sections below.

Radiological Screening Yard (RSY) Processing

- The HPNS Team performed the following RSY4 processing activities:
  - A total of 22 truckloads of material were received for processing.
  - Towed array survey activities were performed for ES Unit 0640.
- The HPNS Team continued radiological monitoring and control activities for the RSYs including incoming and outgoing equipment and materials, ingress and egress of personnel, dust suppression, and air monitoring, as appropriate.

On-Site and Off-Site Laboratories

- On-site laboratory staff continued to operate gamma spectroscopy detectors and the Protean unit. The following activities were completed:
  - Soil samples received for gamma spectroscopy analysis: 91
  - Swipe samples received for Protean counts: 7
  - Air samples received: 16
  - Samples analyzed by gamma spectroscopy: 93
  - Gamma spectroscopy samples recounted: 10
  - Protean swipe samples counted: 48
  - Protean air samples counted: 16
- A total of 343 samples currently are awaiting gamma spectroscopy analysis in the on-site laboratory.
- A total of 35 samples were sent to TestAmerica St. Louis for analysis.

Basewide Support

- Portal Monitor Activities
  - A total of five empty trucks entered HPNS through the portal monitor with no alarms.
  - A total of 41 truckloads of material exited HPNS through the portal monitor with no alarms.
- One outgoing materials and equipment survey was performed by the HPNS Team.

TETRA TECH EC, INC.

DAILY STATUS REPORT
Parcel E and Building 500 Series Removal Action

Report Date: February 2, 2012	RMAC – CTO 07

Overview

The HPNS Team continued field activities for the Buildings 506 and 517 Sites, the 500 Series Area, and Work Area #36. Details of the activities performed are provided in the sections below.

Building 517 Site

- The HPNS Team performed Class 1 survey activities for Survey Unit 2. A total of 1 biased and 36 systematic gamma static measurements were logged with a maximum measurement of 8,805 cpm. In addition, 37 soil samples were collected and submitted to the on-site laboratory for analysis. The RSO is in the process of reviewing these data.

500 Series Area

- The HPNS Team continued soil grading and debris removal for the 500 Series Area in preparation for towed array survey activities.
- The HPNS Team performed towed array gamma scan surveys over Survey Unit 18.
- The HPNS Team performed Class 1 survey activities as follows:
  - Survey Unit 6 – A total of 4 biased gamma static measurements were logged with a maximum measurement of 7,710 cpm. In addition, 4 soil samples were collected and submitted to the on-site laboratory for analysis.
  - Survey Unit 8 – A total of 4 biased gamma static measurements were logged with a maximum measurement of 8,550 cpm. In addition, 4 soil samples were collected and submitted to the on-site laboratory for analysis.
- The RSO is in the process of reviewing the survey data for Survey Units 6 and 8.

Parcel E Storm Drain and Sanitary Sewer Removal Activities

- Approximately 10 cubic yards of soil was remediated from Trench Unit No. 225 (trench segment 07-E36-14-1Q) by the HPNS Team and placed in LLRW bins BFLU000011, GFLU001149T17, and GFLU001237T18 for off-site disposal.
- Approximately 5 cubic yards of soil was remediated from Trench Unit No. 228 (trench segment 07-E36-14-1E) by the HPNS Team and placed in LLRW bin BFLU000011 for off-site disposal.

- A total of 23 investigative samples were collected from Trench Unit No. 241 by the HPNS Team and submitted to the on-site laboratory for analysis.
- The HPNS Team issued drawings to identify locations for investigative sample collection in Trench Unit No. 241.
- A variety of housekeeping activities were performed throughout the Building 500 Series Area by the HPNS Team.

Issues/Items Pending Action

- Internal Draft Removal Action Completion Report

TETRA TECH EC, INC.

DAILY STATUS REPORT
Parcel C Storm Drain and Sanitary Sewer Removal Action

Report Date: February 21, 2012	RAD EMAC – CTO 002

Overview

The HPNS Team continued field activities for the North Pier and Work Areas #31 and #32. Details of the work activities performed are provided in the sections below.

North Pier

- The HPNS Team continued removing railroad ties and track and performing soil grading; metal track and wooden ties were sized and staged pending further activities.
- Survey activities were performed by the HPNS Team on metal railroad plates and rail spikes (Survey Nos. HPS-A-NPR-008 and HPS-A-NPR-009); a total of 108 swipe samples were collected and submitted to the on-site laboratory for analysis.
- The RSOR provided the HPNS Team with survey results for metal rail plates and spikes, and wooden railroad ties detailed in Survey Nos. HPS-A-NPR-002, HPS-A-NPR-003, and HPS-A-NPR-004. Because no activity above the release criteria was identified, 108 items were released and prepared for transfer to the recycling stockpiles near Building 411.

Parcel C Storm Drain and Sanitary Sewer Removal Activities

- A total of 18 systematic samples were collected from Trench Unit No. 236 by the HPNS Team and submitted to the on-site laboratory for analysis.
- A variety of housekeeping activities were performed throughout Parcel C by the HPNS Team including street sweeping.

Issues/Items Pending Action

- Internal Draft Removal Action Completion Report

TETRA TECH EC, INC.

DAILY PROGRESS REPORT
Hunters Point Naval Shipyard Basewide Radiological Support

Report Date: February 21, 2012	RMAC – CTO 004

Overview

The HPNS Team continued radiological basewide functions including support activities, radiological screening yard processing, and laboratory operations. Details of the work activities performed are provided in the sections below.

Radiological Screening Yard (RSY) Processing

- The HPNS Team performed the following RSY4 processing activities:
  - A total of 32 truckloads of material were received for processing.
  - Towed array survey activities were performed for ES Unit 0618.
  - Collected 10 biased and 18 systematic soil samples from ES Unit 0642 and submitted to the on-site laboratory for analysis.
  - ES Unit 0639 was staged in the stockpile area pending receipt of the off-site analytical results.
  - Began transfer of ES Unit 0641 to the stockpile area.
- The HPNS Team continued radiological monitoring and control activities for the RSYs including incoming and outgoing equipment and materials, ingress and egress of personnel, dust suppression, and air monitoring, as appropriate.
- The HPNS Team provided the RASO with the off-site laboratory analytical results for ES Unit 0635 and a request for concurrence to use the material as trench backfill.
- After evaluating the data, the RASO concurred with the following:
  - Staging of ES Unit 0641 pending receipt of the off-site analytical data prior to transferring the material to the DON non-LLRW contractor for disposal at a CERCLA landfill.
  - Staging ES Unit 0636 pending receipt of the off-site analytical results.

Basewide Support

- One outgoing materials and equipment survey was performed by the HPNS Team.

On-Site and Off-Site Laboratories

- On-site laboratory staff continued to operate gamma spectroscopy detectors and the Protean unit. The following activities were completed:
  - Soil samples received for gamma spectroscopy analysis: 53
  - Swipe samples received for Protean counts: 72
  - Air samples received: 8
  - Samples analyzed by gamma spectroscopy: 71
  - Gamma spectroscopy samples recounted: 22
  - Protean air samples counted: 18
- A total of 280 samples currently are awaiting gamma spectroscopy analysis in the on-site laboratory.
- A total of 137 samples were sent to TestAmerica St. Louis for analysis.

TETRA TECH EC, INC.

DAILY STATUS REPORT
Parcel E and Building 500 Series Removal Action

Report Date: February 21, 2012	RMAC – CTO 07

Overview

The HPNS Team continued field activities for Building 521, the Building 517 Site, Shacks 79 and 80, the 500 Series Area, and Work Area #36. Details of the activities performed are provided in the sections below.

Building 517 Site

- The HPNS Team performed Class 1 survey activities for Survey Unit 2. A total of 7 characterization gamma static measurements were logged with a maximum measurement of 8,894 cpm. In addition, 7 soil samples were collected and submitted to the on-site laboratory for analysis. The RSO is in the process of reviewing these data.

Building 521

- Vent and drain surveys were performed by the HPNS Team for the furnace system and exhaust stacks; a total of 20 swipe sample were collected and submitted to the on-site laboratory for analysis (Survey No. HPS-VD-B521-001).

Shacks 79 and 80

- The HPNS Team provided the RASO with off-site analytical and survey results for the biased and systematic samples collected from Class 1 Survey Unit 1. Characterization and remediation will be performed due to the presence of ^{137}Cs contamination as follows:
  - Sample Point 5 (077980-S0001-F005-01) with ^{137}Cs at 0.131 pCi/g
  - Sample Point 19 (077980-S0001-F019-01) with ^{137}Cs at 0.125 pCi/g

500 Series Area

- The HPNS Team excavated approximately 384 cubic yards of sand/soil material from Survey Units 12 and 13 and transferred the materials to RSY4 for further activities.
- Towed array gamma scan surveys were performed over Survey Units 15 and 16.

Parcel E Storm Drain and Sanitary Sewer Removal Activities

- Backfill activities were competed for Trench Unit Nos. 217 and 224 by the HPNS Team.

Issues/Items Pending Action

- Internal Draft Removal Action Completion Report

TETRA TECH EC, INC.

DAILY STATUS REPORT
Parcel C Storm Drain and Sanitary Sewer Removal Action

Report Date: March 5, 2012	RAD EMAC – CTO 002

Overview

The HPNS Team continued field activities for the North Pier and Work Areas #32, #33, and #35. Details of the work activities performed are provided in the sections below.

North Pier

- The HPNS Team performed towed array gamma scan surveys over Survey Unit 5.
- Perimeter fencing maintenance and reconfiguration activities were performed on the west end of Work Area #32 near Blandy Street.

Parcel C Storm Drain and Sanitary Sewer Removal Activities

- Backfill activities were initiated in Trench Unit No. 232 by the HPNS Team.
- A variety of housekeeping activities were performed throughout Parcel C by the HPNS Team including street sweeping.

Issues/Items Pending Action

- Internal Draft Removal Action Completion Report

TETRA TECH EC, INC.

DAILY PROGRESS REPORT
Hunters Point Naval Shipyard Basewide Radiological Support

Report Date: March 05, 2012	RMAC – CTO 004

Overview

The HPNS Team continued radiological basewide functions including support activities, radiological screening yard processing, and laboratory operations. Details of the work activities performed are provided in the sections below.

Radiological Screening Yard (RSY) Processing

- The HPNS Team received a total of 27 truckloads of material at RSY4 for processing.
- The HPNS Team continued radiological monitoring and control activities for the RSYs including incoming and outgoing equipment and materials, ingress and egress of personnel, dust suppression, and air monitoring, as appropriate.

On-Site and Off-Site Laboratories

- On-site laboratory staff continued to operate gamma spectroscopy detectors and the Protean unit. The following activities were completed:
  - Soil samples received for gamma spectroscopy analysis: 14
  - Swipe samples received for Protean counts: 85
  - Air samples received: 6
  - Samples analyzed by gamma spectroscopy: 60
  - Gamma spectroscopy samples recounted: 11
  - Protean swipe samples counted: 61
  - Protean air samples counted: 5
- A total of 249 samples currently are awaiting gamma spectroscopy analysis in the on-site laboratory.

TETRA TECH EC, INC.

DAILY STATUS REPORT
Parcel E and Building 500 Series Removal Action

Report Date: March 5, 2012	RMAC – CTO 07

Overview

The HPNS Team continued field activities for the Building 517 Site, the 500 Series Area, and Work Area #36. Details of the activities performed are provided in the sections below.

Building 517 Site

- The HPNS Team performed Class 1 survey activities for Survey Unit 2. A total of four characterization gamma static measurements were logged with a maximum measurement of 7,884 cpm. In addition, four soil samples were collected and submitted to the on-site laboratory for analysis. The RSO is in the process of reviewing these data.
- The HPNS Team issued drawings to identify locations for characterization sample collection in Class 1 Survey Unit 2.

500 Series Area

- The HPNS Team resumed excavation of the sand/soil from Survey Unit 13 and staged the material pending transfer to the RSY4 for processing.
- Towed array gamma scan surveys were performed over Survey Unit 2.
- The HPNS Team performed Class 1 survey activities as follows:
  - Survey Unit 3 – A biased gamma static measurements was logged with a measurement of 6,661 cpm. In addition, one soil sample was collected and submitted to the on-site laboratory for analysis.
  - Survey Unit 15 – A total of eight characterization gamma static measurements were logged with a maximum measurement of 6,077 cpm. In addition, eight soil samples were collected and submitted to the on-site laboratory for analysis.
- The RSO is in the process of reviewing the survey data for Survey Units 3 and 15.
- The HPNS Team issued drawings to identify locations for biased sample collection in Class 1 Survey Unit 3 and locations for characterization sample collection in Class 1 Survey Unit 15.

Parcel E Storm Drain and Sanitary Sewer Removal Activities

- The HPNS Team excavated approximately 324 cubic yards of soil from Work Area #36 and transferred the material to RSY4 for processing. Excavation activities were performed for the following trench segments:
  - 07-520-14-2A 35 linear feet completed
  - 07-520-14-2B 6 linear feet completed
  - 07-E36-00-4N 28 linear feet completed
  - 07-E36-00-4P 86 linear feet completed
  - 07-E36-00-4Q 65 linear feet completed
  - 07-E36-00-4T 3 linear feet completed
  - 07-E36-14-2A 28 linear feet completed
- A total of 251 linear feet of trench (including excavated soil and pipes) identified on the design drawings was completed by the HPNS Team.
- Pipe excavated from trench segment 07-E36-00-4P were placed on plastic pending further activities.
- The HPNS Team investigated trench segments 07-520-14-2A and 07-520-14-2B for the presence of pipe. Although depicted on the design drawing, no pipe was found during these investigations
- A sediment sample was collected from pipe excavated from trench segment 07-E36-00-4P (07-PEPI-0026-01) by the HPNS Team and submitted to the on-site laboratory for analysis.
- Backfill activities were completed for Trench Unit No. 235 by the HPNS Team.
- The HPNS Team issued an updated Parcel E Trench Survey Unit Key Plan.
- A variety of housekeeping activities were performed throughout the Building 500 Series Area by the HPNS Team.

Issues/Items Pending Action

- Internal Draft Removal Action Completion Report

TETRA TECH EC, INC.

DAILY STATUS REPORT
Parcel C Storm Drain and Sanitary Sewer Removal Action

Report Date: April 2, 2012	RAD EMAC – CTO 002

Overview

The HPNS Team continued field activities for the North Pier and Work Areas #34 and #35. Details of the work activities performed are provided in the sections below.

North Pier

- Approximately 312 cubic yards of asphalt removed from Survey Unit 5 was transferred by the HPNS Team to the Building 411 recycling stockpiles.

Parcel C Storm Drain and Sanitary Sewer Removal Activities

- The RSOR provided the HPNS Team with survey results for the excavated manholes detailed in Survey Nos. HPS-PCPIPE-032812-047 and HPS-PCPIPE-032812-048. Because no activity above the release criteria was identified, these 22 manholes were released for transfer to the recycling stockpiles near Building 411.
- A variety of housekeeping activities were performed throughout Parcel C by the HPNS Team including street sweeping.

Issues/Items Pending Action

- Internal Draft Removal Action Completion Report

TETRA TECH EC, INC.

DAILY PROGRESS REPORT
Hunters Point Naval Shipyard Basewide Radiological Support

Report Date: April 2, 2012	RMAC – CTO 004

Overview

The HPNS Team continued radiological basewide functions including support activities, radiological screening yard processing, and laboratory operations. Details of the work activities performed are provided in the sections below.

Radiological Screening Yard (RSY) Processing

- The HPNS Team performed the following RSY4 processing activities:
  - A total of 37 truckloads of material were received for processing.
  - Began transfer of ES Unit 0653 to the stockpile area.
- The HPNS Team continued radiological monitoring and control activities for the RSYs including incoming and outgoing equipment and materials, ingress and egress of personnel, dust suppression, and air monitoring, as appropriate.

On-Site and Off-Site Laboratories

- On-site laboratory staff continued to operate gamma spectroscopy detectors and the Protean unit. The following activities were completed:
  - Soil samples received for gamma spectroscopy analysis: 5
  - Air samples received: 8
  - Samples analyzed by gamma spectroscopy: 66
  - Gamma spectroscopy samples recounted: 15
  - Protean swipe samples counted: 16
  - Protean air samples counted: 7
- A total of 127 samples currently are awaiting gamma spectroscopy analysis in the on-site laboratory.

Basewide Support

- Portal Monitor Activities
  - A total of 57 empty trucks entered HPNS through the portal monitor with no alarms.
  - A total of 57 truckloads of material exited HPNS through the portal monitor with no alarms.

TETRA TECH EC, INC.

DAILY STATUS REPORT
Parcel E and Building 500 Series Removal Action

Report Date: April 2, 2012	RMAC – CTO 07

Overview

The HPNS Team continued field activities for Building 506, the Building 517 Site, Shacks 79 and 80, the 500 Series Area, and Work Area #36. Details of the activities performed are provided in the sections below.

Building 517 Site

- The HPNS Team performed Class 1 survey activities for Survey Unit 2. A total of four post-remediation gamma static measurements were logged with a maximum measurement of 6,846 cpm. In addition, four soil samples were collected and submitted to the on-site laboratory for analysis. The RSO is in the process of reviewing these data.

Shacks 79 and 80

- The HPNS Team prepared Survey Unit 3 for additional towed array survey activities including the removal of asphalt exposed during perimeter fencing modifications.
- The HPNS Team issued drawings to identify locations for characterization sample collection in Class 1 Survey Unit 1.

500 Series Area

- The HPNS Team continued soil grading and debris removal in preparation for upcoming towed array surveys in Class 2 Survey Units 22 and 23.
- Approximately 52 cubic yards of soil was remediated from Survey Units 1 and 3 by the HPNS Team and placed in LLRW bins ERRU000151, GFLU002020, and GFLU002136 for off-site disposal.
- The HPNS Team performed Class 1 survey activities for Survey Unit 1. A systematic gamma static measurement was logged at 4,448 cpm. In addition, a soil sample was collected and submitted to the on-site laboratory for analysis. The RSO is in the process of reviewing these data.
- The HPNS Team provided the RASO with total strontium analytical results for the elevated samples collected from Class 1 Survey Units 9, 17, 20, and 21; no further contamination was identified.

- The HPNS Team issued drawings to identify locations for remediation in Class 1 Survey Units 1, 16, 17, 18, and 19.

Parcel E Storm Drain and Sanitary Sewer Removal Activities

- The HPNS Team excavated approximately 444 cubic yards of soil from Work Area #36 and transferred the material to RSY4 for processing. Excavation activities were performed for the following trench segments:
  - 07-506-14-1C 12 linear feet completed
  - 07-E36-14-1C 32 linear feet completed
  - 07-E36-14-8S 2 linear feet completed
  - 07-E36-38-1Y 40 linear feet completed
  - 07-E36-38-1Z 6 linear feet completed
  - 07-E36-38-3E 72 linear feet completed
  - 07-E36-38-3H 30 linear feet completed
  - 07-E36-38-8B 2 linear feet completed
  - 07-E36-38-8C 4 linear feet completed
- A total of 192 linear feet of trench (including excavated soil, a manhole, and pipes) identified on the design drawings and 8 linear feet not identified on the design drawings was completed by the HPNS Team.
- Excavated Manhole MH1270 was placed on plastic pending further activities.
- Perimeter fencing along west edge of Work Area #36 was reconfigured by the HPNS Team to facilitate upcoming survey activities.
- A variety of housekeeping activities were performed throughout the Building 500 Series Area by the HPNS Team.

Issues/Items Pending Action

- Internal Draft Removal Action Completion Report

TETRA TECH EC, INC.

DAILY STATUS REPORT
Parcel C Storm Drain and Sanitary Sewer Removal Action

Report Date: April 10, 2012	RAD EMAC – CTO 002

Overview

The HPNS Team continued field activities in Work Areas #33 and #35. Details of the work activities performed are provided in the sections below.

Parcel C Storm Drain and Sanitary Sewer Removal Activities

- The RSOR provided the HPNS Team with survey results for the pipe sections detailed in Survey Nos. HPS-PCPIPE-040612-049 and HPS-PCPIPE-040612-050. Because no activity above the release criteria was identified, these 32 pipe sections were released for transfer to the recycling stockpiles near Building 411.
- The HPNS Team issued drawings to identify locations for systematic sample collection in Trench Unit No. 247.
- The HPNS Team conducted storm water pollution prevention activities in Parcel C.
- A variety of housekeeping activities were performed throughout Parcel C by the HPNS Team including street sweeping.

Issues/Items Pending Action

- Internal Draft Radiological Removal Action Completion Report

TETRA TECH EC, INC.

DAILY PROGRESS REPORT
Hunters Point Naval Shipyard Basewide Radiological Support

Report Date: April 10, 2012	RMAC – CTO 004

Overview

The HPNS Team continued radiological basewide functions including support activities, radiological screening yard processing, and laboratory operations. Details of the work activities performed are provided in the sections below.

Radiological Screening Yard (RSY) Processing

- The HPNS Team received a total of 44 truckloads of material at RSY3 for processing.
- The HPNS Team performed the following RSY4 processing activities:
  - ES Units 0658 and 0680 were prepared for upcoming towed array activities.
  - Issued drawings to identify biased, systematic, and remediation sample collection locations for ES Units 0626, 0652, 0655, 0659, 0674, and 0675.
  - A total of 6 biased and 18 systematic soil samples were collected from ES Unit 0659 and submitted to the on-site laboratory for analysis.
  - ES Unit 0656 was prepared for transfer to the stockpile area.
  - ES Unit 0654 was staged in the stockpile area pending receipt of the off-site analytical results.
- The HPNS Team continued radiological monitoring and control activities for the RSYs including incoming and outgoing equipment and materials, ingress and egress of personnel, dust suppression, and air monitoring, as appropriate.
- The off-site analytical data for ES Unit 0618 was submitted to the RASO for review. The RASO concurred with transferring the material to the DON non-LLRW contractor for off-site disposal at a CERCLA landfill.

Basewide Support

- Portal Monitor Activities
  - A total of 46 empty trucks entered HPNS through the portal monitor with no alarms.
  - A total of 46 truckloads of material exited HPNS through the portal monitor with no alarms.
- One outgoing materials and equipment survey was performed by the HPNS Team.

On-Site and Off-Site Laboratories

- On-site laboratory staff continued to operate gamma spectroscopy detectors and the Protean unit. The following activities were completed:
  - Soil samples received for gamma spectroscopy analysis: 78
  - Swipe samples received for Protean counts: 9
  - Air samples received: 1
  - Samples analyzed by gamma spectroscopy: 85
  - Gamma spectroscopy samples recounted: 1
  - Protean swipe samples counted: 79
  - Protean air samples counted: 1
- A total of 92 samples currently are awaiting gamma spectroscopy analysis in the on-site laboratory.
- A total of 114 samples were sent to TestAmerica St. Louis for analysis.

TETRA TECH EC, INC.

DAILY STATUS REPORT
Parcel E and Building 500 Series Removal Action

Report Date: April 10, 2012	RMAC – CTO 07

Overview

The HPNS Team continued field activities for the Building 517 Site, Shacks 79 and 80, the 500 Series Area, and Work Area #36. Details of the activities performed are provided in the sections below.

Building 517 Site

- The HPNS Team performed Class 1 survey activities for Survey Unit 2. A total of 36 systematic gamma static measurements were logged with a maximum measurement of 8,515 cpm. In addition, 36 soil samples were collected and submitted to the on-site laboratory for analysis. The RSO is in the process of reviewing these data.

Shacks 79 and 80

- The HPNS Team provided the RASO with on-site analytical and survey results for the biased and systematic samples collected from Class 1 Survey Unit 2. Characterization and remediation will be performed due to the presence of ^{137}Cs activity above the release criteria at Sample Point 7 (0.17 pCi/g).
- The HPNS Team issued drawings to identify characterization sample collection locations in Class 1 Survey Unit 2.

500 Series Area

- The HPNS Team provided the RASO with on-site analytical results for the characterization samples collected from Class 1 Survey Unit 17. Because no activity above the release criteria was identified, remediation and post-remediation sample collection will be performed.
- The HPNS Team issued drawings to identify remediation locations in Class 1 Survey Unit 17 and systematic sample collection locations s in Class 1 Survey Units 3 and 18.

Parcel E Storm Drain and Sanitary Sewer Removal Activities

- The HPNS Team excavated approximately 528 cubic yards of soil from Work Area #36 and transferred the material to RSY3 for processing. Excavation activities were performed for the following trench segments:

- 07-E36-00-6X 15 linear feet completed
- 07-E36-00-6Y 44 linear feet completed
- 07-E36-00-6Z 50 linear feet completed
- 07-E36-00-8Y 34 linear feet completed
- 07-E36-00-8Z 24 linear feet completed
- 07-E36-00-9K 5 linear feet completed

- A total of 109 linear feet of trench (including excavated soil, manholes, and pipes) identified on the design drawings and 63 linear feet not identified on the design drawings was completed by the HPNS Team.
- Excavated Manholes MH1280 and MH1281 were placed on plastic pending further activities.
- A sediment sample was collected from Manhole MH1281 (07-PEMH1281-012-01) by the HPNS Team and submitted to the on-site laboratory for analysis.
- Crushed debris and Manhole MH1275 were placed in LLRW bin ERRU000161 for off-site disposal.
- Backfill activities were initiated for Trench Unit Nos. 225 and 228 by the HPNS Team.
- A variety of housekeeping activities were performed throughout the Building 500 Series Area by the HPNS Team.

Issues/Items Pending Action

- Internal Draft Radiological Removal Action Completion Report

Area	Survey Unit	Sample Point	Sample Type	Sample ID	Date Collected
517	2	1	Biased	07517-S0002-F001-01	12-Dec-11
517	2	2	Biased	07517-S0002-F002-01	12-Dec-11
517	2	3	Biased	07517-S0002-F003-01	12-Dec-11
517	2	4	Biased	07517-S0002-F004-01	12-Dec-11
517	2	5	Biased	07517-S0002-F005-01	12-Dec-11
517	2	6	Biased	07517-S0002-F006-01	12-Dec-11
517	2	7	Biased	07517-S0002-F007-01	12-Dec-11
517	2	8	Systematic	07517-S0002-F008-01	12-Dec-11
517	2	9	Systematic	07517-S0002-F009-01	12-Dec-11
517	2	10	Systematic	07517-S0002-F010-01	12-Dec-11
517	2	11	Systematic	07517-S0002-F011-01	12-Dec-11
517	2	12	Systematic	07517-S0002-F012-01	12-Dec-11
517	2	13	Systematic	07517-S0002-F013-01	12-Dec-11
517	2	14	Systematic	07517-S0002-F014-01	12-Dec-11
517	2	15	Systematic	07517-S0002-F015-01	12-Dec-11
517	2	16	Systematic	07517-S0002-F016-01	12-Dec-11
517	2	17	Systematic	07517-S0002-F017-01	12-Dec-11
517	2	18	Systematic	07517-S0002-F018-01	12-Dec-11
517	2	19	Systematic	07517-S0002-F019-01	12-Dec-11
517	2	20	Systematic	07517-S0002-F020-01	12-Dec-11
517	2	21	Systematic	07517-S0002-F021-01	12-Dec-11
517	2	22	Systematic	07517-S0002-F022-01	12-Dec-11
517	2	23	Systematic	07517-S0002-F023-01	12-Dec-11
517	2	24	Systematic	07517-S0002-F024-01	12-Dec-11
517	2	25	Systematic	07517-S0002-F025-01	12-Dec-11
517	2	26	Systematic	07517-S0002-F026-01	12-Dec-11
517	2	27	Systematic	07517-S0002-F027-01	12-Dec-11
517	2	28	Systematic	07517-S0002-F028-01	12-Dec-11
517	2	29	Systematic	07517-S0002-F029-01	12-Dec-11
517	2	30	Systematic	07517-S0002-F030-01	12-Dec-11
517	2	31	Systematic	07517-S0002-F031-01	12-Dec-11
517	2	32	Systematic	07517-S0002-F032-01	12-Dec-11
517	2	33	Systematic	07517-S0002-F033-01	12-Dec-11
517	2	34	Systematic	07517-S0002-F034-01	12-Dec-11
517	2	35	Systematic	07517-S0002-F035-01	12-Dec-11
517	2	36	Systematic	07517-S0002-F036-01	12-Dec-11
517	2	37	Systematic	07517-S0002-F037-01	12-Dec-11
517	2	38	Systematic	07517-S0002-F038-01	12-Dec-11
517	2	39	Systematic	07517-S0002-F039-01	12-Dec-11
517	2	40	Systematic	07517-S0002-F040-01	12-Dec-11
517	2	41	Systematic	07517-S0002-F041-01	12-Dec-11
517	2	42	Systematic	07517-S0002-F042-01	12-Dec-11
517	2	43	Systematic	07517-S0002-F043-01	12-Dec-11
517	2	44	Characterization	07517-S0002-F044-01	12-Jan-12
517	2	45	Characterization	07517-S0002-F045-01	12-Jan-12
517	2	46	Characterization	07517-S0002-F046-01	12-Jan-12
517	2	47	Characterization	07517-S0002-F047-01	12-Jan-12
517	2	48	Characterization	07517-S0002-F048-01	12-Jan-12
517	2	49	Characterization	07517-S0002-F049-01	12-Jan-12
517	2	50	Characterization	07517-S0002-F050-01	12-Jan-12
517	2	51	Characterization	07517-S0002-F051-01	12-Jan-12
517	2	52	Characterization	07517-S0002-F052-01	12-Jan-12

On-Site Laboratory (pCi/g)

K-40	Ra-226	Cs-137	Bi-214	Pb-214
14.57	1.793	-0.007908	0.9212	1.077
13.7	1.729	0.00425	1.062	1.071
13.38	1.838	-0.002816	1.084	1.148
17.01	0.3222	-0.002556	0.6817	0.7362
15.95	0.812	-0.008397	0.598	0.6132
17.79	0.873	0.001905	0.4365	0.6143
18.45	0.8882	-0.005043	0.4547	0.6017
17.03	1.035	-0.002108	0.7789	0.8703
17.42	0.9294	0	0.7386	0.855
18.23	0.7109	-0.01334	0.725	0.7229
11.44	0.5055	0.01442	0.5093	0.5747
12.87	0.6684	-0.01473	0.4262	0.5235
14.43	3.803	-0.01851	2.372	2.476
13.1	2.481	-0.008261	1.73	1.827
14.29	2.046	0.008713	1.223	1.353
14.2	1.701	0.005234	1.635	1.681
10.77	0.9704	-0.001129	0.3679	0.4878
10.61	0.3254	0.009511	0.2953	0.5098
8.391	0.3543	0.001006	0.3331	0.3603
12.85	0.9633	0.01818	0.5032	0.5961
11.3	0.6022	0.00649	0.2723	0.4389
12.79	0.5336	0.01837	0.4	0.4706
13.81	0.7092	0.003023	0.6197	0.6552
13.87	0.6536	0	0.6175	0.6384
13.06	0.7848	0.007467	0.4886	0.5995
14.2	0.8044	-0.00686	0.6267	0.6843
5.401	0.5599	0.0005004	0.2297	0.3371
14.96	0.803	0.001295	0.5735	0.6863
15.07	0.6499	0.007813	0.5731	0.7231
14.5	0.9282	-0.00711	0.6613	0.7377
13.39	0.4525	0.01404	0.6022	0.6795
13.94	0.6558	0	0.505	0.6031
15.14	0.6507	0.01023	0.6365	0.6129
14.28	0.8655	0.01559	0.4783	0.6695
13.46	0.8594	0.02176	0.4704	0.6135
15.13	1.224	0.017	0.6901	0.6915
10.93	0.5857	0.02068	0.2603	0.4721
11.2	1.008	0.009354	0.502	0.5702
14.1	0.2553	-0.0008586	0.4775	0.6164
17.67	1.151	0.01056	0.8249	0.8027
13.06	0.7284	0.01624	0.5635	0.6122
12.31	1.421	-0.006136	0.8049	1.147
17.19	0.6279	-0.00326	0.6542	0.6478
12.58	0.1509	-0.0005076	0.3232	0.4743
12.9	1.032	-0.005945	0.4594	0.3422
12.51	0.812	-0.001039	0.3153	0.3805
13.6	0.8205	0.002865	0.2352	0.415
13.38	0.4986	0.007744	0.4544	0.4378
12.22	0.4907	-0.001855	0.2837	0.4477
12.61	0.3725	0.002652	0.4365	0.3721
12.87	0.4867	0.006751	0.3444	0.3249
10	0.3728	0.006848	0.4545	0.356

Off-Site Laboratory (pCi/g)

K-40	Ra-226	Cs-137	Bi-214	Pb-214

Area	Survey Unit	Sample Point	Sample Type	Sample ID	Date Collected	On-Site Laboratory (pCi/g)					Off-Site Laboratory (pCi/g)				
						K-40	Ra-226	Cs-137	Bi-214	Pb-214	K-40	Ra-226	Cs-137	Bi-214	Pb-214
517	2	53	Characterization	07517-S0002-F053-01	12-Jan-12	12.82	0.4189	-0.0002569	0.2745	0.3755					
517	2	54	Characterization	07517-S0002-F054-01	12-Jan-12	12.99	0.6403	-0.0001639	0.3745	0.4417					
517	2	55	Characterization	07517-S0002-F055-01	12-Jan-12	13.62	0.8739	0.01389	0.3899	0.3661					
517	2	56	Characterization	07517-S0002-F056-01	12-Jan-12	11.25	1.044	0.0145	0.417	0.4298					
517	2	57	Characterization	07517-S0002-F057-01	12-Jan-12	8.638	0.4514	0.007671	0.4733	0.5121					
517	2	58	Characterization	07517-S0002-F058-01	12-Jan-12	8.042	0.8903	-0.01241	0.3288	0.3569					
517	2	59	Characterization	07517-S0002-F059-01	12-Jan-12	13.17	0.8123	0.002289	0.4208	0.5186					
517	2	60	Characterization	07517-S0002-F060-01	12-Jan-12	11.2	0.6652	-0.008311	0.4125	0.4069					
517	2	61	Characterization	07517-S0002-F061-01	12-Jan-12	12.24	0.6225	-0.009485	0.3635	0.374					
517	2	62	Characterization	07517-S0002-F062-01	12-Jan-12	12.51	0.8759	0.002594	0.3136	0.5255					
517	2	63	Post-Remediation	07517-S0002-F063-01	19-Jan-12	25.21	1.248	-0.00102	1.016	1.129					
517	2	64	Post-Remediation	07517-S0002-F064-01	19-Jan-12	26.09	1.27	0	1.004	1.114					
517	2	65	Post-Remediation	07517-S0002-F065-01	19-Jan-12	27.72	1.54	-0.005191	1.141	1.173					
517	2	66	Post-Remediation	07517-S0002-F066-01	19-Jan-12	28.69	0.6624	0	1.057	1.263					
517	2	67	Post-Remediation	07517-S0002-F067-01	19-Jan-12	17.62	0.7224	-0.007909	0.7074	0.6486					
517	2	68	Post-Remediation	07517-S0002-F068-01	19-Jan-12	13.23	0.6853	-0.01103	0.5062	0.5298					
517	2	69	Post-Remediation	07517-S0002-F069-01	19-Jan-12	18.79	0.3369	-0.002105	0.592	0.7131					
517	2	70	Post-Remediation	07517-S0002-F070-01	19-Jan-12	21.91	1.335	-0.0005678	0.7979	0.8523					
517	2	71	Biased	07517-S0002-F071-01	02-Feb-12	27.36	1.18	0.0008843	0.9202	1.134					
517	2	72	Systematic	07517-S0002-F072-01	02-Feb-12	12.37	0.5988	0.001802	0.3511	0.3574					
517	2	73	Systematic	07517-S0002-F073-01	02-Feb-12	8.529	0.6409	0	0.1934	0.412					
517	2	74	Systematic	07517-S0002-F074-01	02-Feb-12	8.629	0.5914	-0.0002751	0.472	0.6522					
517	2	75	Systematic	07517-S0002-F075-01	02-Feb-12	9.062	0.107	-0.01015	0.1096	0.02634					
517	2	76	Systematic	07517-S0002-F076-01	02-Feb-12	16.76	0.4228	-0.003298	0.5703	0.4841					
517	2	77	Systematic	07517-S0002-F077-01	02-Feb-12	8.756	1.022	0.004358	0.716	0.8057					
517	2	78	Systematic	07517-S0002-F078-01	02-Feb-12	10.3	1.132	0.003877	0.4553	0.4595					
517	2	79	Systematic	07517-S0002-F079-01	02-Feb-12	13.67	1.123	-0.0005814	0.7524	0.723					
517	2	80	Systematic	07517-S0002-F080-01	02-Feb-12	9.694	0.696	0	0.4316	0.3759					
517	2	81	Systematic	07517-S0002-F081-01	02-Feb-12	26.94	1.647	0.001182	0.7436	0.8743					
517	2	82	Systematic	07517-S0002-F082-01	02-Feb-12	25.36	0.9986	-0.009699	0.834	0.8177					
517	2	83	Systematic	07517-S0002-F083-01	02-Feb-12	28.97	1.093	-0.0001782	0.7573	0.7836					
517	2	84	Systematic	07517-S0002-F084-01	02-Feb-12	17.85	1.275	0.006366	0.7886	0.747					
517	2	85	Systematic	07517-S0002-F085-01	02-Feb-12	18.27	0.7943	-0.008896	0.7572	0.8525					
517	2	86	Systematic	07517-S0002-F086-01	02-Feb-12	19.19	1.239	0.003711	0.7582	0.757					
517	2	87	Systematic	07517-S0002-F087-01	02-Feb-12	6.014	0.3571	0	0.1645	0.23					
517	2	88	Systematic	07517-S0002-F088-01	02-Feb-12	24.48	1.138	-0.01157	0.8108	0.9014					
517	2	89	Systematic	07517-S0002-F089-01	02-Feb-12	28.55	1.451	-0.001202	1.019	1.042					
517	2	90	Systematic	07517-S0002-F090-01	02-Feb-12	27.31	1.3	0	0.9204	1.06					
517	2	91	Systematic	07517-S0002-F091-01	02-Feb-12	27.24	0.9802	-0.004081	0.8879	1.001					
517	2	92	Systematic	07517-S0002-F092-01	02-Feb-12	20.68	1.156	-0.01478	0.7378	0.9759					
517	2	93	Systematic	07517-S0002-F093-01	02-Feb-12	16.07	0.7407	0.004073	0.5896	0.7442					
517	2	94	Systematic	07517-S0002-F094-01	02-Feb-12	9.031	0.007786	-0.00002648	0.287	0.3863					
517	2	95	Systematic	07517-S0002-F095-01	02-Feb-12	25.21	1.563	-0.01944	1.139	1.172					
517	2	96	Systematic	07517-S0002-F096-01	02-Feb-12	29.66	2.405	-0.00113	1.104	1.134					
517	2	97	Systematic	07517-S0002-F097-01	02-Feb-12	27.53	1.181	0	1.03	1.139					
517	2	98	Systematic	07517-S0002-F098-01	02-Feb-12	17.31	1.114	-0.008361	0.7126	0.771					
517	2	99	Systematic	07517-S0002-F099-01	02-Feb-12	12.18	0.419	0.006857	0.2621	0.4367					
517	2	100	Systematic	07517-S0002-F100-01	02-Feb-12	8.392	0.5421	0.008547	0.2689	0.2503					
517	2	101	Systematic	07517-S0002-F101-01	02-Feb-12	12.66	0.4389	0.003127	0.3495	0.4427					
517	2	102	Systematic	07517-S0002-F102-01	02-Feb-12	24.57	1.06	0.00215	0.9674	1.008					
517	2	103	Systematic	07517-S0002-F103-01	02-Feb-12	15.58	0.8928	0.00979	0.602	0.7729					
517	2	104	Systematic	07517-S0002-F104-01	02-Feb-12	11.49	0.8024	0	0.4857	0.4944					

Area	Survey Unit	Sample Point	Sample Type	Sample ID	Date Collected	On-Site Laboratory (pCi/g)					Off-Site Laboratory (pCi/g)				
						K-40	Ra-226	Cs-137	Bi-214	Pb-214	K-40	Ra-226	Cs-137	Bi-214	Pb-214
517	2	105	Systematic	07517-S0002-F105-01	02-Feb-12	12.67	0.6982	0.02004	0.2328	0.5136					
517	2	106	Systematic	07517-S0002-F106-01	02-Feb-12	12.6	0.5822	-0.0001041	0.2716	0.4274					
517	2	107	Systematic	07517-S0002-F107-01	02-Feb-12	5.807	0.1645	0.000456	0.1925	0.3036					
517	2	108	Characterization	07517-S0002-F108-01	21-Feb-12	27.49	1.379	0	1.112	1.115					
517	2	109	Characterization	07517-S0002-F109-01	21-Feb-12	29.48	1.855	0.0008791	1.248	1.318					
517	2	110	Characterization	07517-S0002-F110-01	21-Feb-12	31.4	0.8928	0.009672	1.024	1.127					
517	2	111	Characterization	07517-S0002-F111-01	21-Feb-12	30.86	1.682	-0.001429	1.236	1.489					
517	2	112	Characterization	07517-S0002-F112-01	21-Feb-12	32.88	2.123	0	1.429	1.51					
517	2	113	Characterization	07517-S0002-F113-01	21-Feb-12	31.34	1.801	0.003509	1.149	1.253					
517	2	114	Characterization	07517-S0002-F114-01	21-Feb-12	31.92	2.199	-0.01804	1.345	1.267					
517	2	115	Characterization	07517-S0002-F115-01	05-Mar-12	11.28	0.57	0	0.3371	0.4649					
517	2	116	Characterization	07517-S0002-F116-01	05-Mar-12	10.63	0.585	0	0.4014	0.333					
517	2	117	Characterization	07517-S0002-F117-01	05-Mar-12	11.32	0.5169	0.002896	0.3455	0.3992					
517	2	118	Characterization	07517-S0002-F118-01	05-Mar-12	16.01	0.5566	0.1001	0.475	0.492					
517	2	119	Post-Remediation	07517-S0002-F119-01	02-Apr-12	12.19	0.8073	0.04502	0.3546	0.4939					
517	2	120	Post-Remediation	07517-S0002-F120-01	02-Apr-12	8.555	0.09381	0.01634	0.3212	0.3248					
517	2	121	Post-Remediation	07517-S0002-F121-01	02-Apr-12	9.352	0.4759	0.02841	0.2833	0.2486					
517	2	122	Post-Remediation	07517-S0002-F122-01	02-Apr-12	11.13	0.7225	0	0.4263	0.4153					
517	2	123	Systematic	07517-S0002-F123-01	10-Apr-12	1.565	0.3047	-0.003487	0.2004	0.1034	0.729	0.227	0.0154	0.227	0.121
517	2	124	Systematic	07517-S0002-F124-01	10-Apr-12	1.714	0.1986	-0.003474	0.07178	0.08444	2.04	0.187	0	0.187	0.199
517	2	125	Systematic	07517-S0002-F125-01	10-Apr-12	2.723	0.2228	-0.0004776	0.2718	0.1849	1.33	0.185	0.0161	0.185	0.19
517	2	126	Systematic	07517-S0002-F126-01	10-Apr-12	1.599	0.3641	0	0.07279	0.05369	1.79	0.164	-0.00139	0.164	0.214
517	2	127	Systematic	07517-S0002-F127-01	10-Apr-12	1.643	0.5215	0	0.06677	0.1747	1.84	0.183	0.00787	0.183	0.223
517	2	128	Systematic	07517-S0002-F128-01	10-Apr-12	1.916	0.218	-0.000169	0.1084	0.1425	2.18	0.172	-0.0000483	0.172	0.217
517	2	129	Systematic	07517-S0002-F129-01	10-Apr-12	1.948	0.07245	-0.005154	0.1083	0.1785	2.09	0.237	-0.0149	0.237	0.0989
517	2	130	Systematic	07517-S0002-F130-01	10-Apr-12	2.369	0.3549	0.01417	0.2324	0.1753	1.3	0.11	0.00865	0.11	0.214
517	2	131	Systematic	07517-S0002-F131-01	10-Apr-12	2.127	0.1196	-0.004853	0.1977	0.1774	1.03	0.328	-0.0243	0.328	0.283
517	2	132	Systematic	07517-S0002-F132-01	10-Apr-12	3.031	0.4146	0.0009916	0.1295	0.2585	1.06	0.044	0.00788	0.044	0.268
517	2	133	Systematic	07517-S0002-F133-01	10-Apr-12	1.628	0	-0.0005489	0.1309	0.1837	1.67	0.235	-0.013	0.235	0.211
517	2	134	Systematic	07517-S0002-F134-01	10-Apr-12	1.49	0.1983	0	0.021	0.2448	1.38	0.257	-0.00711	0.257	0.184
517	2	135	Systematic	07517-S0002-F135-01	10-Apr-12	0.7055	0.3107	0.01188	0.1015	0.05593	3.46	0.127	0.0122	0.127	0.22
517	2	136	Systematic	07517-S0002-F136-01	10-Apr-12	2.011	0.2813	-0.0001282	0.09571	0.1064	1.59	0.0664	0.00521	0.0664	0.0991
517	2	137	Systematic	07517-S0002-F137-01	10-Apr-12	1.575	0.6108	-0.003272	0.1106	0.1025	0.95	0.184	-0.00934	0.184	0.135
517	2	138	Systematic	07517-S0002-F138-01	10-Apr-12	0.9645	0.2614	-0.008344	0.09655	0.06224	1.68	0.114	-0.000225	0.114	0.174
517	2	139	Systematic	07517-S0002-F139-01	10-Apr-12	1.677	0.2239	-0.004593	0.1608	0.1358	1.97	0.0926	-0.00613	0.0926	0.254
517	2	140	Systematic	07517-S0002-F140-01	10-Apr-12	0.8011	0	0.005677	0.01267	0.1995	1.66	0.0685	-0.00757	0.0685	0.215
517	2	141	Systematic	07517-S0002-F141-01	10-Apr-12	1.43	0.1886	0.00003795	0.08116	0.1533	1.72	0.17	0.000585	0.17	0.17
517	2	142	Systematic	07517-S0002-F142-01	10-Apr-12	2.328	0.0495	0.005777	0.1717	0.2391	2.41	0.158	-0.0135	0.158	0.275
517	2	143	Systematic	07517-S0002-F143-01	10-Apr-12	1.657	0.2341	0	0.08333	0.1584	2.61	0.23	-0.0101	0.23	0.291
517	2	144	Systematic	07517-S0002-F144-01	10-Apr-12	1.365	0.1241	0.009164	0.0579	0.06569	0.807	-0.0693	0	-0.0693	0.287
517	2	145	Systematic	07517-S0002-F145-01	10-Apr-12	1.694	0.05659	-0.001156	0.1646	0.2325	1.82	0.151	0.00968	0.151	0.196
517	2	146	Systematic	07517-S0002-F146-01	10-Apr-12	2.04	0.3837	0	0.122	0.06929	1.88	0.192	-0.00757	0.192	0.22
517	2	147	Systematic	07517-S0002-F147-01	10-Apr-12	1.057	0.1451	-0.004289	-0.002028	0.08787	2.06	0.101	0.00815	0.101	0.248
517	2	148	Systematic	07517-S0002-F148-01	10-Apr-12	1.173	0.6242	0.003668	0.1546	0.1879	2.9	0.215	-0.0194	0.215	0.327
517	2	149	Systematic	07517-S0002-F149-01	10-Apr-12	2.391	0.5082	0.004344	0.08803	0.2183	2.01	0.246	0	0.246	0.156
517	2	150	Systematic	07517-S0002-F150-01	10-Apr-12	1.195	0.5208	0.001873	0.2224	0.2491	1.26	0.114	0.00776	0.114	0.258
517	2	151	Systematic	07517-S0002-F151-01	10-Apr-12	2.29	0.3266	0.001623	0.08394	0.1959	2.27	0.218	-0.00576	0.218	0.221
517	2	152	Systematic	07517-S0002-F152-01	10-Apr-12	1.595	0.3115	-0.004797	0.1819	0.1484	2.16	0.22	0.00564	0.22	0.233
517	2	153	Systematic	07517-S0002-F153-01	10-Apr-12	1.116	0.4554	0.01332	0.0892	0.09616	1.66	0.397	-0.00345	0.397	0.336
517	2	154	Systematic	07517-S0002-F154-01	10-Apr-12	2.453	0.1518	0	0.2079	0.1764	2.2	0.0978	-0.0154	0.0978	0.192
517	2	155	Systematic	07517-S0002-F155-01	10-Apr-12	1.327	0	-0.005852	0.1592	0.1841	1.5	0.251	0.006	0.251	0.216
517	2	156	Systematic	07517-S0002-F156-01	10-Apr-12	2.268	0.4993	-0.00005921	0.08584	0.1258	2.64	0.087	0.0171	0.087	0.206

Area	Survey Unit	Sample Point	Sample Type	Sample ID	Date Collected
517	2	157	Systematic	07517-S0002-F157-01	10-Apr-12
517	2	158	Systematic	07517-S0002-F158-01	10-Apr-12
517	2	159	Systematic	07517-S0002-F159-01	24-Oct-12
517	2	160	Systematic	07517-S0002-F160-01	24-Oct-12
517	2	161	Systematic	07517-S0002-F161-01	24-Oct-12
517	2	162	Systematic	07517-S0002-F162-01	24-Oct-12
517	2	163	Systematic	07517-S0002-F163-01	24-Oct-12
517	2	164	Systematic	07517-S0002-F164-01	24-Oct-12
517	2	165	Systematic	07517-S0002-F165-01	24-Oct-12
517	2	166	Systematic	07517-S0002-F166-01	24-Oct-12
517	2	167	Systematic	07517-S0002-F167-01	24-Oct-12
517	2	168	Systematic	07517-S0002-F168-01	24-Oct-12
517	2	169	Systematic	07517-S0002-F169-01	24-Oct-12
517	2	170	Systematic	07517-S0002-F170-01	24-Oct-12
517	2	171	Systematic	07517-S0002-F171-01	24-Oct-12
517	2	172	Systematic	07517-S0002-F172-01	24-Oct-12
517	2	173	Systematic	07517-S0002-F173-01	24-Oct-12
517	2	174	Systematic	07517-S0002-F174-01	24-Oct-12
517	2	175	Systematic	07517-S0002-F175-01	24-Oct-12
517	2	176	Systematic	07517-S0002-F176-01	24-Oct-12
517	2	177	Systematic	07517-S0002-F177-01	24-Oct-12
517	2	178	Systematic	07517-S0002-F178-01	24-Oct-12
517	2	179	Systematic	07517-S0002-F179-01	24-Oct-12
517	2	180	Systematic	07517-S0002-F180-01	24-Oct-12
517	2	181	Systematic	07517-S0002-F181-01	24-Oct-12
517	2	182	Systematic	07517-S0002-F182-01	24-Oct-12
517	2	183	Systematic	07517-S0002-F183-01	24-Oct-12
517	2	184	Systematic	07517-S0002-F184-01	24-Oct-12
517	2	185	Systematic	07517-S0002-F185-01	24-Oct-12
517	2	186	Systematic	07517-S0002-F186-01	24-Oct-12
517	2	187	Systematic	07517-S0002-F187-01	24-Oct-12
517	2	188	Systematic	07517-S0002-F188-01	24-Oct-12
517	2	189	Systematic	07517-S0002-F189-01	24-Oct-12
517	2	190	Systematic	07517-S0002-F190-01	24-Oct-12
517	2	191	Systematic	07517-S0002-F191-01	24-Oct-12
517	2	192	Systematic	07517-S0002-F192-01	24-Oct-12
517	2	193	Systematic	07517-S0002-F193-01	24-Oct-12
517	2	194	Systematic	07517-S0002-F194-01	24-Oct-12

On-Site Laboratory (pCi/g)

K-40	Ra-226	Cs-137	Bi-214	Pb-214
1.749	0.4585	0.006668	0.2172	0.2189
1.383	0	0	0.09365	0.1804
11.44	0.7173	0.01432	0.425	0.308
20.85	0.6151	0.03089	0.4153	0.6025
14.72	0.8078	-0.009389	0.5853	0.6378
11.46	0.483	0.002639	0.3899	0.4993
11.1	0.749	0.003549	0.443	0.5455
10.66	0.4646	0.0006247	0.3981	0.4759
7.291	0.602	-0.005257	0.3337	0.3551
20.34	0.8742	0.005631	0.646	0.7567
14.83	0.9636	0.006453	0.5181	0.614
15.21	1.012	-0.003672	0.6321	0.6532
9.947	0.8453	-0.009418	0.2748	0.3264
18.72	0.8567	-0.01032	0.7483	0.6929
7.946	1.117	0.009863	0.6485	0.7857
15.82	1.236	-0.002971	0.6715	0.735
11.91	0.5886	0.01488	0.4297	0.4092
16.49	0.9684	0.006546	0.582	0.6458
12.71	0.5473	0.006649	0.4167	0.5017
16.35	1.124	0.02842	0.6446	0.7164
20.48	0.5588	0.01017	0.5547	0.6909
9.944	0.2375	0	0.435	0.5057
9.242	1.597	0.003257	0.9948	1.023
11.25	0.9259	0.0007954	0.5406	0.6019
11.18	0.58	0.02216	0.4171	0.436
15.36	1.052	0.006488	0.5364	0.03713
17.61	0.9707	0	0.5341	0.6837
10.11	0.903	0	0.5694	0.5673
10.93	0.4182	0.00318	0.526	0.5372
13.69	1.228	0.01443	0.5627	0.6159
13.3	1.078	0.001909	0.4748	0.5424
19.36	1.012	0.0003739	0.5727	0.7429
20.1	1.323	0.007917	0.6425	0.7291
22.37	1.371	-0.009888	0.7374	0.7566
16.99	0.8318	0.007615	0.5318	0.5803
21.76	0.912	0	0.746	0.791
29.42	2.04	-0.01067	1.126	1.132
23.92	1.299	0.00429	0.6834	0.7908

Off-Site Laboratory (pCi/g)

K-40	Ra-226	Cs-137	Bi-214	Pb-214
1.09	0.268	-0.00811	0.268	0.219
1.27	0.246	0.0165	0.246	0.252

Highlighted Activities: Ra-226 ≥ 1.633 (On-site) & 1.375 (Off-site) ; Cs-137 ≥ 0.113 ; Bi-214 ≥ 1.485 ; Pb-214 ≥ 1.485 (pCi/g)

LEGEND

- GAMMA TOTAL, <1 SIGMA
- GAMMA TOTAL, ≥1 AND <2 SIGMA
- GAMMA TOTAL, ≥2 AND <3 SIGMA
- GAMMA TOTAL, ≥3 AND <4 SIGMA
- GAMMA TOTAL, ≥4 AND <5 SIGMA
- GAMMA TOTAL, ≥5 AND <6 SIGMA
- GAMMA TOTAL, ≥6 SIGMA
- BIAS SAMPLE
- SYSTEMATIC SAMPLE
- ROAD
- BUILDING
- SCREENING PAD
- WATER

10 0 10 20 Feet

Scale: 1" = 20'

N

BASE REALIGNMENT AND CLOSURE
PROGRAM MANAGEMENT OFFICE WEST
SAN DIEGO, CALIFORNIA

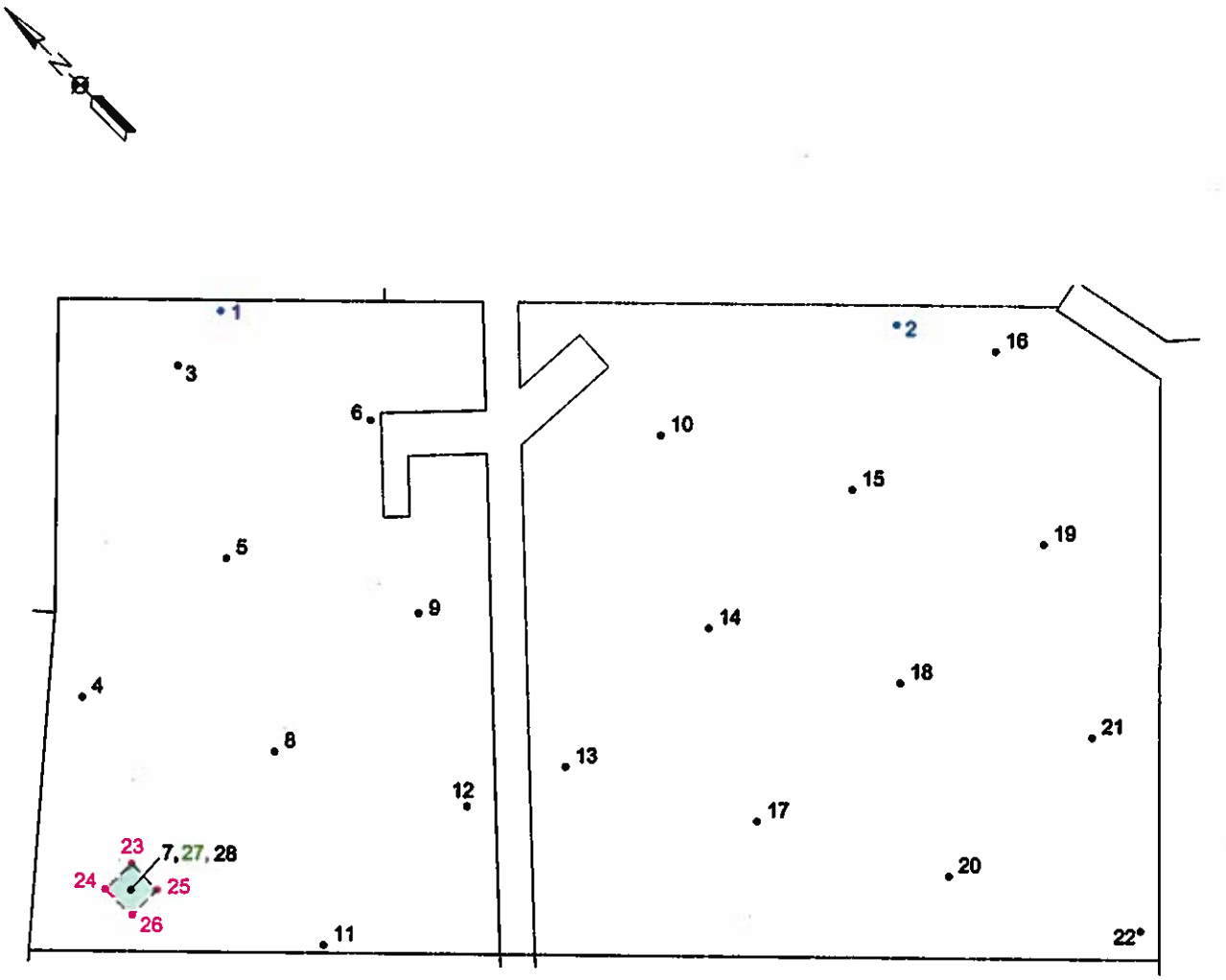
SU-02

Bldg 517

HUNTERS POINT SHIPYARD
SAN FRANCISCO, CALIFORNIA

REVIEW: 0
AUTHOR: TJS
DCN: ECSD-XXXX-XXXX-XXXX
FILE NUMBER: 517-SU02.mxd

TETRA TECH EC, INC



SU-02
CLASS 1
844.72 m^2 (9092.45 ft^2)

LEGEND:

- • 1 BIASED 1–2
- • 3 SYSTEMATIC 3–22,28
- • 23 CHARACTERIZATION 23–26
- • 27 POST–REMEDIATION 27
- REMEDIATION AREA

18 • — SAMPLE POINT NUMBER/LOCATION

— SURVEY UNIT

SCALE 1:20

RECORD COPY

P:\CTO-07 CAD FILES (RAD EMAC)\DWG FILES\SHACK 79 AND 80\SHACK 79-80.DWG
PLOT/UPDATE: APR 24 2012 08:32:18

HUNTERS POINT SHIPYARD
SAN FRANCISCO, CA
P.O. BOX 884836
SAN FRANCISCO, CA 94188

SHACKS 79/80
SURVEY UNIT 02

TETRA TECH EC, INC
1230 COLUMBIA STREET, SUITE 750
SAN DIEGO, CA 92101
TEL: (619) 234-8690 FAX: (619) 234-8591

TETRA TECH EC, INC.
Hunters Point Shipyard
San Francisco, CA

Gamma Direct Measurement Report

Site Area: 7980 **Survey Unit:** 2 **Class:** 1 **Area:** 844.72 m² **Count Time:** 1 min

Radioisotopes of Concern (ROCs): Cs137 Ra226 Sr90

Rdg #	Date / Time	Gross Gamma CPM	Gamma Background CPM	Net Gamma CPM	Background ID*	3σ Investigation Level (cpm)	Comments
1	4/4/2012 12:59	6475	5845	630	622-BKGDS1A	7004	
2	4/4/2012 13:00	6256	5845	411	622-BKGDS1A	7004	
3	4/4/2012 13:02	6656	5845	811	622-BKGDS1A	7004	
4	4/4/2012 13:03	6184	5845	339	622-BKGDS1A	7004	
5	4/4/2012 13:04	5730	5845	-115	622-BKGDS1A	7004	
6	4/4/2012 13:06	3559	5845	-2286	622-BKGDS1A	7004	
7	4/4/2012 13:07	4525	5845	-1320	622-BKGDS1A	7004	
8	4/4/2012 13:08	4128	5845	-1717	622-BKGDS1A	7004	
9	4/4/2012 13:09	4473	5845	-1372	622-BKGDS1A	7004	
10	4/4/2012 13:11	5532	5845	-313	622-BKGDS1A	7004	
11	4/4/2012 13:13	4710	5845	-1135	622-BKGDS1A	7004	
12	4/4/2012 13:14	3764	5845	-2081	622-BKGDS1A	7004	
13	4/4/2012 13:16	3549	5845	-2296	622-BKGDS1A	7004	
14	4/4/2012 13:17	3521	5845	-2324	622-BKGDS1A	7004	
15	4/4/2012 13:18	6110	5845	265	622-BKGDS1A	7004	
16	4/4/2012 13:20	5467	5845	-378	622-BKGDS1A	7004	
17	4/4/2012 13:21	3284	5845	-2561	622-BKGDS1A	7004	
18	4/4/2012 13:22	4884	5845	-961	622-BKGDS1A	7004	
19	4/4/2012 13:23	4780	5845	-1065	622-BKGDS1A	7004	
20	4/4/2012 13:25	5928	5845	83	622-BKGDS1A	7004	
21	4/4/2012 13:26	4987	5845	-858	622-BKGDS1A	7004	
22	4/4/2012 13:27	3724	5845	-2121	622-BKGDS1A	7004	
23	4/11/2012 8:30	3838	5845	-2007	622-BKGDS1A	7004	
24	4/11/2012 8:31	3481	5845	-2364	622-BKGDS1A	7004	
25	4/11/2012 8:32	3978	5845	-1867	622-BKGDS1A	7004	
26	4/11/2012 8:33	5325	5845	-520	622-BKGDS1A	7004	
27	4/18/2012 14:51	6330	5845	485	622-BKGDS1A	7004	
28	4/25/2012 10:08	6210	5845	365	622-BKGDS1A	7004	

TETRA TECH EC, INC.
Hunters Point Shipyard
San Francisco, CA

Gamma Direct Measurement Report

Site Area: 7980 **Survey Unit:** 2 **Class:** 1 **Area:** 844.72 m^2 **Count Time:** 1 min

Radioisotopes of Concern (ROCs): Cs137 Ra226 Sr90

Rdg #	Date / Time	Gross Gamma CPM	Gamma Background CPM	Net Gamma CPM	Background ID*	3σ Investigation Level (cpm)	Comments

Net Gamma cpm Summary

Min: -2561
Avg: -938
Max: 811
St Dev: 1101

Readings > 3σ investigation level are highlighted in blue

* Background ID correlates to Instrument reference area background identification number

Gamma measurements > 3σ investigation level are verified by 2360 beta measurements

TETRA TECH EC, INC.
Hunters Point Shipyard
San Francisco, CA

Gamma Instrument and Reference Area Background Report

Site Area: 7980 **Survey Unit:** 2 **Class:** 1 **Area:** 844.72 m²

Radioisotopes of Concern (ROCs): Cs137 Ra226 Sr90

2350 Identification #: 622
Instrument/Probe Type: 2350-1 / 44-10
Instrument Serial #: 129430
Probe Serial #: 230163
Calibration Due Date: 10/2/2012

Reference Area Background Identification #: 622-BKGDS1A Count Time (minutes): 1.00

Rdg #	Date and Time	Gross Gamma CPM
1	10/13/2011 15:12	5811
2	10/13/2011 15:13	5788
3	10/13/2011 15:14	5839
4	10/13/2011 15:15	5848
5	10/13/2011 15:16	5775
6	10/13/2011 15:17	5780
7	10/13/2011 15:18	5977
8	10/13/2011 15:20	5831
9	10/13/2011 15:21	5998
10	10/13/2011 15:22	5240
11	10/13/2011 15:23	5892
12	10/13/2011 15:24	5899
13	10/13/2011 15:25	5001
14	10/13/2011 15:27	5852
15	10/13/2011 15:28	5894
16	10/13/2011 15:29	5075
17	10/13/2011 15:31	6115
18	10/13/2011 15:32	6400
19	10/13/2011 15:33	6490
20	10/13/2011 15:35	6396

Gamma Mean Background (cpm):	5845
Standard Deviation:	386
Gamma 3σ Investigation Level (cpm):	7004

TETRA TECH EC, INC
Hunters Point Shipyard
San Francisco, CA

Exposure Rate Measurements

Site Area: 7980 **Survey Unit:** 2 **Class:** 1 **Area:** 844.72 m²

Radioisotopes of Concern (ROCs): Cs137 Ra226 Sr90

Instrument Model:	Model 19	Reference Area Background Identification #:	666-BKGDS1
Instrument Serial Number:	91499	Reference Area Background Location:	Parcel D-1 Reference
Instrument Calibration Due Date:	1/15/2013	Exposure Rate Background (µR/hr):	6

Rdg #	Date	Exposure Rate (µR/hr)	Comments
1	4/4/2012	7	
2	4/4/2012	7	
3	4/4/2012	7	
4	4/4/2012	7	
5	4/4/2012	6	
6	4/4/2012	6	
7	4/4/2012	6	
8	4/4/2012	6	
9	4/4/2012	6	
10	4/4/2012	7	
11	4/4/2012	5	
12	4/4/2012	5	
13	4/4/2012	6	
14	4/4/2012	6	
15	4/4/2012	7	
16	4/4/2012	8	
17	4/4/2012	6	
18	4/4/2012	6	
19	4/4/2012	7	
20	4/4/2012	4	
21	4/4/2012	6	
22	4/4/2012	6	
23	4/11/2012	5	
24	4/11/2012	6	
25	4/11/2012	6	
26	4/11/2012	7	
27	4/18/2012	7	

TETRA TECH EC, INC.
Hunters Point Shipyard
San Francisco, CA

Exposure Rate Measurements

Rdg #	Date	Exposure Rate (µR/hr)	Comments
28	4/25/2012	7	

Exposure Rate Summary (µR/hr)

Min: 4.00
Avg: 6.25
Max: 8.00
St Dev: 0.84

TETRA TECH EC, INC.
1230 Columbia St, Suite 750
San Diego, CA 92101

Chain-of-Custody Record

BFS 02378

Project Name: Radiological Building Survey		PO Number: N/A					GAMMA SPEC	SR90	ALPHA		LABORATORY NAME: ONSITE - Curtis & Tompkins, LTD.	**Project Information Section**	
Project Location: HUNTERS POINT		Project Number: 4044-0007									LABORATORY ID:		
Sampler Name: J. Rolfe		Airbill Number: N/A											
Project Chemist: LISA BIENKOWSKI		Project Chemist Phone: 949-756-7592											
SAMPLE_ID	**DATE**	**TIME**	**Containers**	**LEVEL**	**TYPE**	**TAT**	**1**	**1**	**1**	**COMMENTS**	**LOCATION**	**SAMPLE ID**	
077980-S0002-F027-01	4/18/2012	1245	1		S1		☑	☐	☐				

Relinquished by: (signature) Jeff Rolfe	*Date* 4-18-12	*Received by: (signature)*	LABORATORY INSTRUCTIONS/COMMENTS	SAMPLING COMMENTS: SHACKS 79 & 80 SITE FB 50-2 POST-REMEDIATION #27
Company KSRS	*Time* 1540	*Company*		
Relinquished by: (signature)	*Date*	*Received by: (signature)*	COMPOSITE DESCRIPTION	
Company	*Time*	*Company*		
Relinquished by: (signature)	*Date*	*Received by: (signature)*	SAMPLE CONDITION UPON RECEIPT (FOR LABORATORY) TEMPERATURE: SAMPLE CONDITION: COOLER SEAL:	
Company	*Time*	*Company*		

TETRA TECH EC, INC.
1230 Columbia St, Suite 750
San Diego, CA 92101

Chain-of-Custody Record

BFS 02351

Project Name: Radiological Building Survey	PO Number: N/A	GAMMASPEC		LABORATORY NAME: ONSITE - Curtis & Tompkins, LTD.
Project Location: HUNTERS POINT	Project Number: 4044-0007	SR90		LABORATORY ID:
Sampler Name: J. Rolfe	Airbill Number: N/A	ALPHA		**Project Information Section**
Project Chemist: LISA BIENKOWSKI	Project Chemist Phone: 949-756-7592			

SAMPLE_ID	DATE	TIME	Containers	LEVEL	TYPE	TAT	1	1	1	COMMENTS	LOCATION	SAMPLE ID
077980-S0002-F001-01	4/4/2012	1235	1		S1		☑	☐	☐			
077980-S0002-F002-01	4/4/2012	1238	1		S1		☑	☐	☐			
077980-S0002-F003-01	4/4/2012	1241	1		S1		☑	☐	☐			
077980-S0002-F004-01	4/4/2012	1244	1		S1		☑	☐	☐			
077980-S0002-F005-01	4/4/2012	1247	1		S1		☑	☐	☐			
077980-S0002-F006-01	4/4/2012	1250	1		S1		☑	☐	☐			
077980-S0002-F007-01	4/4/2012	1253	1		S1		☑	☐	☐			
077980-S0002-F008-01	4/4/2012	1256	1		S1		☑	☐	☐	DUP		
077980-S0002-F009-01	4/4/2012	1259	1		S1		☑	☐	☐			
077980-S0002-F010-01	4/4/2012	1302	1		S1		☑	☐	☐			
077980-S0002-F011-01	4/4/2012	1305	1		S1		☑	☐	☐			
077980-S0002-F012-01	4/4/2012	1308	1		S1		☑	☐	☐			

Relinquished by: (signature) J Rolfe	*Date* 4-4-12	*Received by: (signature)*	LABORATORY INSTRUCTIONS/COMMENTS
Company RSRS	*Time* 1523	*Company* CT	
Relinquished by: (signature)	*Date*	*Received by: (signature)*	COMPOSITE DESCRIPTION
Company	*Time*	*Company*	
Relinquished by: (signature)	*Date*	*Received by: (signature)*	SAMPLE CONDITION UPON RECEIPT (FOR LABORATORY)
Company	*Time*	*Company*	TEMPERATURE: SAMPLE CONDITION: COOLER SEAL:

SAMPLING COMMENTS
SHACKS 79/80 SITE FSS
SU-2
BIASED 1-2
SYSTEMATIC 3-22

TETRA TECH EC, INC.
1230 Columbia St, Suite 750
San Diego, CA 92101

Chain-of-Custody Record

BFS 02352

Project Name: Radiological Building Survey		PO Number: N/A				GAMMASPEC	SR90	ALPHA		LABORATORY NAME: ONSITE - Curtis & Tompkins, LTD.	Project Information Section		
Project Location: HUNTERS POINT		Project Number: 4044-0007								LABORATORY ID:			
Sampler Name: J. Rolfe		Airbill Number: N/A											
Project Chemist: LISA BIENKOWSKI		Project Chemist Phone: 949-756-7592											
SAMPLE_ID	DATE	TIME	Containers	LEVEL	TYPE	TAT	1	1	1	COMMENTS	LOCATION	SAMPLE ID	
077980-S0002-F013-01	4/4/2012	1311	1		S1		☑	☐	☐				
077980-S0002-F014-01	4/4/2012	1314	1		S1		☑	☐	☐				
077980-S0002-F015-01	4/4/2012	1317	1		S1		☑	☐	☐				
077980-S0002-F016-01	4/4/2012	1320	1		S1		☑	☐	☐				
077980-S0002-F017-01	4/4/2012	1323	1		S1		☑	☐	☐				
077980-S0002-F018-01	4/4/2012	1326	1		S1		☑	☐	☐				
077980-S0002-F019-01	4/4/2012	1329	1		S1		☑	☐	☐				
077980-S0002-F020-01	4/4/2012	1332	1		S1		☑	☐	☐				
077980-S0002-F021-01	4/4/2012	1335	1		S1		☑	☐	☐				
077980-S0002-F022-01	4/4/2012	1338	1		S1		☑	☐	☐				

Relinquished by: (signature) J. Rolfe	*Date* 4-4-12	*Received by: (signature)*	LABORATORY INSTRUCTIONS/COMMENTS	SAMPLING COMMENTS
Company RSRS	*Time* 1523	*Company* CT		
Relinquished by: (signature)	*Date*	*Received by: (signature)*	COMPOSITE DESCRIPTION	
Company	*Time*	*Company*		
Relinquished by: (signature)	*Date*	*Received by: (signature)*	SAMPLE CONDITION UPON RECEIPT (FOR LABORATORY)	
Company	*Time*	*Company*	TEMPERATURE: SAMPLE CONDITION: COOLER SEAL:	

TETRA TECH EC, INC.
1230 Columbia St, Suite 750
San Diego, CA 92101

Chain-of-Custody Record

BFS 02361

Project Name: Radiological Building Survey	PO Number: N/A					GAMMASPEC	SR90	ALPHA		LABORATORY NAME: ONSITE - Curtis & Tompkins, LTD.	Project Information Section		
Project Location: HUNTERS POINT	Project Number: 4044-0007									LABORATORY ID:			
Sampler Name: J. Rolfe	Airbill Number: N/A												
Project Chemist: LISA BIENKOWSKI	Project Chemist Phone: 949-756-7592												
SAMPLE_ID	DATE	TIME	Containers	LEVEL	TYPE	TAT	1	1	1	COMMENTS	LOCATION	SAMPLE ID	
077980-S0002-F023-01	4/11/2012	0830	1		S1		☑	☐	☐				
077980-S0002-F024-01	4/11/2012	0835	1		S1		☑	☐	☐				
077980-S0002-F025-01	4/11/2012	0840	1		S1		☑	☐	☐				
077980-S0002-F026-01	4/11/2012	0845	1		S1		☑	☐	☐				

Relinquished by: (signature) J.R.B Rolfe	Date 4-11-12	Received by: (signature)	LABORATORY INSTRUCTIONS/COMMENTS	SAMPLING COMMENTS SHARES 79 & 80 SITE SO-2 CHARACTERIZATION 23-26
Company RSRS	Time 1612	Company CT		
Relinquished by: (signature)	Date	Received by: (signature)	COMPOSITE DESCRIPTION	
Company	Time	Company		
Relinquished by: (signature)	Date	Received by: (signature)	SAMPLE CONDITION UPON RECEIPT (FOR LABORATORY) TEMPERATURE: SAMPLE CONDITION: COOLER SEAL:	
Company	Time	Company		

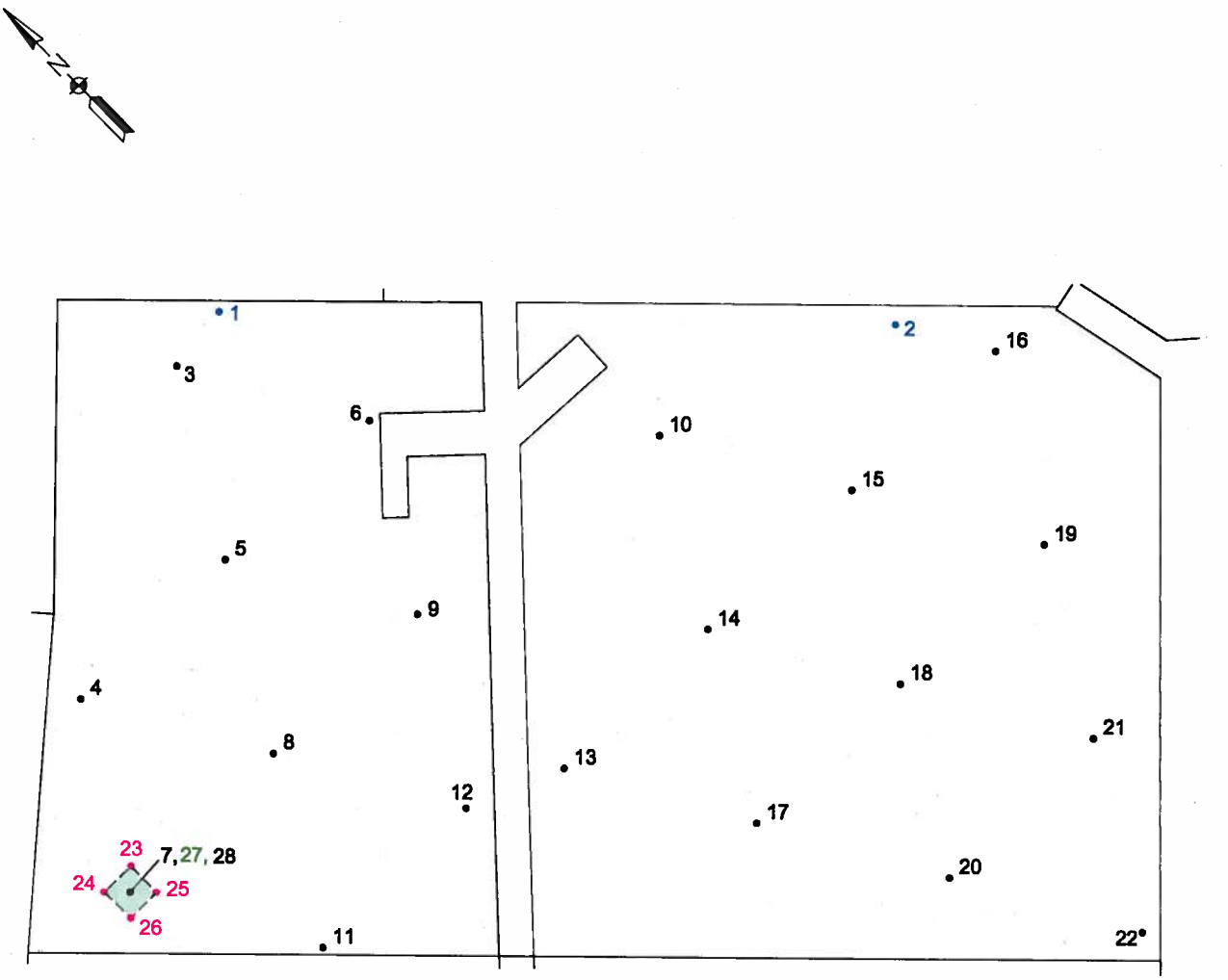
TETRA TECH EC, INC.
1230 Columbia St, Suite 750
San Diego, CA 92101

Chain-of-Custody Record

BFS 02387

Project Name: Radiological Building Survey		PO Number: N/A					G A M M A S P E C	S R 9 0	A L P H A		LABORATORY NAME: ONSITE - Curtis & Tompkins, LTD.	**Project Information Section**	
Project Location: HUNTERS POINT		Project Number: 4044-0007									LABORATORY ID:		
Sampler Name: RZahensky		Airbill Number: N/A											
Project Chemist: LISA BIENKOWSKI		Project Chemist Phone: 949-756-7592											
SAMPLE_ID	**DATE**	**TIME**	**Containers**	**LEVEL**	**TYPE**	**T A T**	**1**	**1**	**1**	**COMMENTS**	**LOCATION**	**SAMPLE ID**	
077980-S0002-F028-01	4/25/2012	1045	1		S1		☑	☐	☐				

Relinquished by: (signature)	*Date* 4.25.12	*Received by: (signature)*	LABORATORY INSTRUCTIONS/COMMENTS	SAMPLING COMMENTS: SHEAR 79&80 SITE FSS SU-2 SYSTEMATIC #28
Company R&RS	*Time* 1522	*Company* CT		
Relinquished by: (signature)	*Date*	*Received by: (signature)*	COMPOSITE DESCRIPTION	
Company	*Time*	*Company*		
Relinquished by: (signature)	*Date*	*Received by: (signature)*	SAMPLE CONDITION UPON RECEIPT (FOR LABORATORY)	
Company	*Time*	*Company*	TEMPERATURE: SAMPLE CONDITION: COOLER SEAL:	



SU-02
CLASS 1
844.72 m^2 (9092.45 ft^2)

LEGEND:

- 1 BIASED 1–2
- 3 SYSTEMATIC 3–22,28
- 23 CHARACTERIZATION 23–26
- 27 POST–REMEDIATION 27

REMEDIATION AREA

18 — SAMPLE POINT NUMBER/LOCATION

SURVEY UNIT

SCALE 1:20

RECORD COPY

P:\CTO-07 CAD FILES (RAD EMAC)\DWG FILES\SHACK 79 AND 80\SHACK 79-80.DWG
PLOT/UPDATE: APR 24 2012 08:32:18

HUNTERS POINT SHIPYARD
SAN FRANCISCO, CA
P.O. BOX 884836
SAN FRANCISCO, CA 94188

SHACKS 79/80
SURVEY UNIT 02

TETRA TECH EC, INC
1230 COLUMBIA STREET, SUITE 750
SAN DIEGO, CA 92101
TEL: (619) 234-8690 FAX: (619) 234-8591

Chiu, George

From: Chiu, George
Sent: Tuesday, June 05, 2012 1:40 PM
To: Allen Stambaugh (allen.stambaugh@navy.mil); joseph.sevcik@navy.mil; Laurie Lowman (laurie.lowman@navy.mil); Matt Slack (matthew.slack@navy.mil); Patrick Owens (patrick.a.owens@navy.mil); Zachary Edwards (zachary.edwards@navy.mil)
Cc: Rolfe, Stephen; Abkemeier, Erik; Berry, Adam; Bray, Jeff; Dambach, Brooklyn; DeLong, Daryl; Dougherty, Christine; Fluty, Robin; Henderson, Brian; Hubbard, Justin; Jensen, Jarvis; Kanaya, Rich; Miller, Karisa; Miller, Thorpe; Montgomery, Shanti; Smith, Phil; Snyder, Marie; Spencer, Jenny; Taylor, Jane; Wall, Paul; Weingarz, Richard; White, Bryan
Subject: HPS Data - Former Shack 79 and 80 Sites Survey Unit 02
Attachments: 077980-S0002 003 to 006, 008 to 022, and 028 Off-Site Gamma.pdf; 077980-S0002 003 to 006, 008 to 022, and 028 Sr.pdf

Allen/Joe/Laurie/Matt/Pat/Zach:

Attached for your review are the off-site gamma spec and strontium results for the systematic samples from Former Shack 79 and 80 Sites Survey Unit 02.

George Chiu | Health Physicist
Office: 415.216.2745 | Cell: 714.270.4009
george.chiu@tetratech.com

Radiological Survey & Remedial Services
100 Washington Street Suite 200 | Reno, NV 89503
www.radsvcs.com

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Think Green - Not every email needs to be printed.

From: Chiu, George
Sent: Friday, May 04, 2012 1:15 PM
To: Allen Stambaugh (allen.stambaugh@navy.mil); joseph.sevcik@navy.mil; Laurie Lowman (laurie.lowman@navy.mil); Matt Slack (matthew.slack@navy.mil); Patrick Owens (patrick.a.owens@navy.mil); Zachary Edwards (zachary.edwards@navy.mil)
Cc: Rolfe, Stephen; Abkemeier, Erik; Berry, Adam; Bray, Jeff; Dambach, Brooklyn; DeLong, Daryl; Dougherty, Christine; Fluty, Robin; Henderson, Brian; Hubbard, Justin; Jensen, Jarvis; Kanaya, Rich; Miller, Karisa; Miller, Thorpe; Montgomery, Shanti; Smith, Phil; Snyder, Marie; Spencer, Jenny; Taylor, Jane; Wall, Paul; Weingarz, Richard; White, Bryan
Subject: HPS Data - Former Shack 79 and 80 Sites Survey Unit 02

Allen/Joe/Laurie/Matt/Pat/Zach:

Attached for your review are the replacement systematic sampling results from Former Shack 79 and 80 Sites Survey Unit 02.

According to the TSP for the Former Shack 79 and 80 Sites, 100% of the final systematic will be analyzed by gamma spectroscopy and for total strontium/strontium-90 at a DoD ELAP approved laboratory.

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From: Chiu, George
Sent: Wednesday, May 02, 2012 12:00 PM
To: Allen Stambaugh (allen.stambaugh@navy.mil); joseph.sevcik@navy.mil; Laurie Lowman (laurie.lowman@navy.mil); Matt Slack (matthew.slack@navy.mil); Patrick Owens (patrick.a.owens@navy.mil); Zachary Edwards (zachary.edwards@navy.mil)
Cc: Rolfe, Stephen; Abkemeier, Erik; Berry, Adam; Bray, Jeff; Dambach, Brooklyn; DeLong, Daryl; Dougherty, Christine; Fluty, Robin; Henderson, Brian; Hubbard, Justin; Jensen, Jarvis; Kanaya, Rich; Miller, Karisa; Miller, Thorpe; Montgomery, Shanti; Smith, Phil; Snyder, Marie; Spencer, Jenny; Taylor, Jane; Wall, Paul; Weingarz, Richard; White, Bryan
Subject: HPS Data - Former Shack 79 and 80 Sites Survey Unit 02

Allen/Joe/Laurie/Matt/Pat/Zach:

Attached for your review is the total strontium result for the sample (07) with cesium-137 activity above the release criterion from Former Shack 79 and 80 Sites Survey Unit 02.

George Chiu | **Health Physicist**
Office: 415.216.2745 | Cell: 714.270.4009
george.chiu@tetratech.com

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From: Chiu, George
Sent: Monday, April 23, 2012 1:18 PM
To: Allen Stambaugh (allen.stambaugh@navy.mil); joseph.sevcik@navy.mil; Laurie Lowman (laurie.lowman@navy.mil); Matt Slack (matthew.slack@navy.mil); Patrick Owens (patrick.a.owens@navy.mil); Zachary Edwards (zachary.edwards@navy.mil)
Cc: Rolfe, Stephen; Abkemeier, Erik; Berry, Adam; Bray, Jeff; Dambach, Brooklyn; DeLong, Daryl; Dougherty, Christine; Fluty, Robin; Henderson, Brian; Hubbard, Justin; Jensen, Jarvis; Kanaya, Rich; Miller, Karisa; Miller, Thorpe; Montgomery, Shanti; Smith, Phil; Snyder, Marie; Spencer, Jenny; Taylor, Jane; Wall, Paul; Weingarz, Richard; White, Bryan
Subject: HPS Data - Former Shack 79 and 80 Sites Survey Unit 02

Allen/Joe/Laurie/Matt/Pat/Zach:

Attached for your review are the post-remediation sampling results from Former Shack 79 and 80 Sites Survey Unit 02. Sample 27 was recounted for a longer duration at the direction of the laboratory manager.

We will proceed with taking a replacement systematic sample for sample 07.

George Chiu | **Health Physicist**
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george.chiu@tetratech.com

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Think Green - Not every email needs to be printed.

From: Chiu, George
Sent: Tuesday, April 17, 2012 9:49 AM
To: Allen Stambaugh (allen.stambaugh@navy.mil); joseph.sevcik@navy.mil; Laurie Lowman (laurie.lowman@navy.mil); Matt Slack (matthew.slack@navy.mil); Patrick Owens (patrick.a.owens@navy.mil); Zachary Edwards (zachary.edwards@navy.mil)
Cc: Rolfe, Stephen; Abkemeier, Erik; Berry, Adam; Bray, Jeff; Dambach, Brooklyn; DeLong, Daryl; Dougherty, Christine; Fluty, Robin; Henderson, Brian; Hubbard, Justin; Jensen, Jarvis; Kanaya, Rich; Miller, Karisa; Miller, Thorpe; Montgomery, Shanti; Smith, Phil; Snyder, Marie; Spencer, Jenny; Taylor, Jane; Wall, Paul; Weingarz, Richard; White, Bryan
Subject: HPS Data - Former Shack 79 and 80 Sites Survey Unit 02

Allen/Joe/Laurie/Matt/Pat/Zach:

Attached for your review are the characterization sampling results from Former Shack 79 and 80 Sites Survey Unit 02.

We will proceed with remediation followed by post-remediation sampling.

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george.chiu@tetratech.com

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From: Chiu, George
Sent: Tuesday, April 10, 2012 7:59 AM
To: Allen Stambaugh (allen.stambaugh@navy.mil); joseph.sevcik@navy.mil; Laurie Lowman (laurie.lowman@navy.mil); Matt Slack (matthew.slack@navy.mil); Patrick Owens (patrick.a.owens@navy.mil); Zachary Edwards (zachary.edwards@navy.mil)
Cc: Rolfe, Stephen; Abkemeier, Erik; Berry, Adam; Bray, Jeff; Dambach, Brooklyn; DeLong, Daryl; Dougherty, Christine; Fluty, Robin; Henderson, Brian; Hubbard, Justin; Jensen, Jarvis; Kanaya, Rich; Miller, Karisa; Miller, Thorpe; Montgomery, Shanti; Smith, Phil; Snyder, Marie; Spencer, Jenny; Taylor, Jane; Wall, Paul; Weingarz, Richard; White, Bryan
Subject: HPS Data - Former Shack 79 and 80 Sites Survey Unit 02

Allen/Laurie/Matt/Pat/Zach:

Attached for your review are the on-site bias and systematic sampling results from Former Shack 79 and 80 Sites Survey Unit 02. Samples 01, 03, 06, 07, 09, and 22 were recounted for a longer duration at the direction of the laboratory manager. Also attached are the gamma scans, statics, and exposure rate measurements.

We will proceed with characterization/remediation around sample point 07 (0.1700 pCi/g) due to cesium-137 activity.

George Chiu | Health Physicist
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george.chiu@tetratech.com

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TETRA TECH EC, INC.

DAILY STATUS REPORT
Parcel C Storm Drain and Sanitary Sewer Removal Action

Report Date: April 4, 2012	RAD EMAC – CTO 002

Overview

The HPNS Team continued field activities for the North Pier and Work Area #32. Details of the work activities performed are provided in the sections below.

North Pier

- Approximately 114 cubic yards of asphalt removed from Survey Unit 6 was transferred by the HPNS Team to the Building 411 recycling stockpiles.

Parcel C Storm Drain and Sanitary Sewer Removal Activities

- A variety of housekeeping activities were performed throughout Parcel C by the HPNS Team including street sweeping.

Issues/Items Pending Action

- Internal Draft Removal Action Completion Report

TETRA TECH EC, INC.

DAILY PROGRESS REPORT
Hunters Point Naval Shipyard Basewide Radiological Support

Report Date: April 4, 2012	RMAC – CTO 004

Overview

The HPNS Team continued radiological basewide functions including support activities, radiological screening yard processing, and laboratory operations. Details of the work activities performed are provided in the sections below.

Radiological Screening Yard (RSY) Processing

- The HPNS Team performed the following RSY4 processing activities:
  - A total of 53 truckloads of material were received for processing.
  - Towed array survey activities were performed for ES Unit 0673.
  - Issued drawing to identify biased sample collection locations for ES Unit 0671.
  - Two biased soil samples were collected from ES Unit 0626 and submitted to the on-site laboratory for analysis.
- The ES Unit 0656 on-site analytical data was submitted to the RASO for review with a request for concurrence to stage the material pending receipt of the off-site analytical results.

Basewide Support

- Portal Monitor Activities
  - A total of 70 empty trucks entered HPNS through the portal monitor with no alarms.
  - A total of 70 truckloads of material exited HPNS through the portal monitor with no alarms.

On-Site and Off-Site Laboratories

- On-site laboratory staff continued to operate gamma spectroscopy detectors and the Protean unit. The following activities were completed:
  - Soil samples received for gamma spectroscopy analysis: 58
  - Air samples received: 10
  - Samples analyzed by gamma spectroscopy: 79
  - Gamma spectroscopy samples recounted: 14
  - Protean air samples counted: 10
- A total of 120 samples currently are awaiting gamma spectroscopy analysis in the on-site laboratory.

TETRA TECH EC, INC.

DAILY STATUS REPORT
Parcel E and Building 500 Series Removal Action

Report Date: April 4, 2012	RMAC – CTO 07

Overview

The HPNS Team continued field activities for the Building 506 Site, Shacks 79 and 80, the 500 Series Area, and Work Area #36. Details of the activities performed are provided in the sections below.

Building 506 Site

- The HPNS Team provided the RASO with off-site analytical results for the systematic samples collected from Class 1 Survey Unit 5; no activity above the release criteria was identified.

Shacks 79 and 80

- Towed array gamma scan survey activities were performed by the HPNS Team over Survey Unit 3.
- The HPNS Team performed Class 1 survey activities for Survey Unit 2. A total of 2 biased and 20 systematic gamma static measurements were logged with a maximum measurement of 6,655 cpm. In addition, 22 soil samples were collected and submitted to the on-site laboratory for analysis. The RSO is in the process of reviewing these data.
- The HPNS Team issued drawings to identify locations for biased and systematic sample collection in Class 1 Survey Unit 2.

500 Series Area

- The HPNS Team continued soil grading and debris removal in preparation for upcoming towed array surveys in Class 2 Survey Units 22 and 23.
- Approximately 46 cubic yards of soil was remediated from Survey Units 16 and 18 by the HPNS Team and placed in LLRW bins AWIU000148, AWIU000162, AWIU000286, and AWIU000296 for off-site disposal.
- The HPNS Team performed Class 1 survey activities as follows:
  - Survey Unit 3 – A total of 10 post-remediation gamma static measurements were logged with a maximum measurement of 6,878 cpm. In addition, 10 soil samples were collected and submitted to the on-site laboratory for analysis.

- Survey Unit 18 – A total of three post-remediation gamma static measurements were logged with a maximum measurement of 6,621 cpm. In addition, three soil samples were collected and submitted to the on-site laboratory for analysis.

- The RSO is in the process of reviewing the survey data for Survey Units 3 and 18.
- The HPNS Team provided the RASO with on-site analytical and survey results for the systematic samples collected from Class l Survey Unit 15. Characterization and remediation will be performed due to the presence of ^{137}Cs contamination as follows:
  - Sample Point 54 (07500SA-S0015-F054-01) with ^{137}Cs at 0.1554 pCi/g
  - Sample Point 58 (07500SA-S0015-F058-01) with ^{137}Cs at 0.2167 pCi/g
  - Sample Point 64 (07500SA-S0015-F064-01) with ^{137}Cs at 0.1307 pCi/g
  - Sample Point 68 (07500SA-S0015-F068-01) with ^{137}Cs at 0.5159 pCi/g
  - Sample Point 80 (07500SA-S0015-F080-01) with ^{137}Cs at 0.2028 pCi/g
  - Sample Point 82 (07500SA-S0015-F082-01) with ^{137}Cs at 0.1932 pCi/g
  - Sample Point 83 (07500SA-S0015-F083-01) with ^{137}Cs at 0.1937 pCi/g
  - Sample Point 85 (07500SA-S0015-F085-01) with ^{137}Cs at 0.234 pCi/g

Parcel E Storm Drain and Sanitary Sewer Removal Activities

- The HPNS Team excavated approximately 636 cubic yards of soil from Work Area #36 and transferred the material to RSY4 for processing. Excavation activities were performed for the following trench segments:
  - 07-E36-38-3F 5 linear feet completed
  - 07-E36-38-3G 5 linear feet completed
  - 07-E36-38-3H 90 linear feet completed
  - 07-E36-38-3I 24 linear feet completed
  - 07-E36-38-3J 26 linear feet completed
  - 07-E36-38-3P 5 linear feet completed
  - 07-E36-38-3Q 25 linear feet completed
  - 07-E36-38-3R 60 linear feet completed
- A total of 240 linear feet of trench (including excavated soil, manholes, and pipes) identified on the design drawings was completed by the HPNS Team.
- Manholes MH1275 and MH1276 and pipes excavated from trench segment 07-E36-38-3I were placed on plastic pending further activities.
- A total of two sediment samples were collected from excavated Manholes MH1275 (07-PEMH1275-009-01) and MH1276 (07-PEMH1276-010-01) by the HPNS Team and submitted to the on-site laboratory for analysis.
- A variety of housekeeping activities were performed throughout the Building 500 Series Area by the HPNS Team.

Issues/Items Pending Action

- Internal Draft Removal Action Completion Report

TETRA TECH EC, INC.

DAILY STATUS REPORT
Parcel C Storm Drain and Sanitary Sewer Removal Action

Report Date: April 11, 2012	RAD EMAC – CTO 002

Overview

The HPNS Team continued field activities for Buildings 203, 211, 231, and 253, and Work Areas #33, #34, and #35. Details of the work activities performed are provided in the sections below.

Parcel C Storm Drain and Sanitary Sewer Removal Activities

- Radiologically surveyed and released excavated pipe sections (Survey No. HPS-PCPIPE-040612-049 and HPS-PCPIPE-040612-050) were transferred to stockpiles near Building 411 pending off-site disposal or recycling.
- A total of 18 systematic samples were collected from Trench Unit No. 247 (associated with Building 203) by the HPNS Team and submitted to the on-site laboratory for analysis.
- The HPNS Team provided the RASO with analytical results for the post-remediation samples collected from Trench Unit No. 242. Because no activity above the release criteria was identified, systematic sample collection activities will be performed.
- The HPNS Team issued drawings to identify locations for systematic sample collection in Trench Unit No. 238 (associated with Buildings 211, 231, and 253).
- The HPNS Team conducted storm water pollution prevention activities in Parcel C.
- A variety of housekeeping activities were performed throughout Parcel C by the HPNS Team including street sweeping.

Issues/Items Pending Action

- Internal Draft Radiological Removal Action Completion Report

TETRA TECH EC, INC.

DAILY PROGRESS REPORT
Hunters Point Naval Shipyard Basewide Radiological Support

Report Date: April 11, 2012	RMAC – CTO 004

Overview

The HPNS Team continued radiological basewide functions including support activities, radiological screening yard processing, and laboratory operations. Details of the work activities performed are provided in the sections below.

Radiological Screening Yard (RSY) Processing

- The HPNS Team received a total of 62 truckloads of material at RSY3 for processing.
- The HPNS Team performed the following RSY4 processing activities:
  - Collected soil samples and submitted to the on-site laboratory for analysis as follows:
    - 18 systematic soil samples from ES Unit 0626
    - 9 biased and 18 systematic soil samples from ES Unit 0652
    - 16 biased and 18 systematic soil samples from ES Unit 0655
    - 4 biased and 18 systematic soil samples from ES Unit 0674
    - 7 biased and 18 systematic soil samples from ES Unit 0675
  - Remediated approximately 31 cubic yards of soil from ES Unit 0626 and placed the material in LLRW bins pending off-site disposal by the DON radiological waste contractor.
  - ES Unit 0656 was staged in the stockpile area pending receipt of the off-site analytical results.
- The HPNS Team continued radiological monitoring and control activities for the RSYs including incoming and outgoing equipment and materials, ingress and egress of personnel, dust suppression, and air monitoring, as appropriate.
- The HPNS Team provided the RASO with the following:
  - On-site analytical data for ES Units 0673 and 0677 along with requests for concurrence to stage the materials pending receipt of the off-site analytical results prior to transferring to the DON non-LLRW contactor for off-site disposal at a CERCLA landfill.
  - On-site analytical data for ES Unit 0657 and a request for concurrence to stage the materials pending receipt of the off-site analytical results.

Basewide Support

- Portal Monitor Activities
  - A total of 48 empty trucks entered HPNS through the portal monitor with no alarms.
  - A total of 48 truckloads of material exited HPNS through the portal monitor with no alarms.

On-Site and Off-Site Laboratories

- On-site laboratory staff continued to operate gamma spectroscopy detectors and the Protean unit. The following activities were completed:
  - Soil samples received for gamma spectroscopy analysis: 172
  - Air samples received: 9
  - Samples analyzed by gamma spectroscopy: 76
  - Gamma spectroscopy samples recounted: 5
  - Protean air samples counted: 10
- A total of 194 samples currently are awaiting gamma spectroscopy analysis in the on-site laboratory.

TETRA TECH EC, INC.

DAILY STATUS REPORT
Parcel E and Building 500 Series Removal Action

Report Date: April 11, 2012	RMAC – CTO 07

Overview

The HPNS Team continued field activities for Shacks 79 and 80, the 500 Series Area, and Work Area #36. Details of the activities performed are provided in the sections below.

Shacks 79 and 80

- The HPNS Team performed Class 1 survey activities as follows:
  - Survey Unit 2 – A total of four characterization gamma static measurements were logged with a maximum measurement of 5,325 cpm. In addition, four soil samples were collected and submitted to the on-site laboratory for analysis.
  - Survey Unit 3 – A total of two biased and twenty systematic gamma static measurements were logged with a maximum measurement of 5,745 cpm. In addition, 22 soil samples were collected and submitted to the on-site laboratory for analysis.
- The RSO is in the process of reviewing the survey data for Survey Units 2 and 3.
- The HPNS Team issued drawings to identify locations for biased and systematic sample collection in Class 1 Survey Unit 3.

500 Series Area

- The HPNS Team performed Class 1 survey activities for Survey Unit 3. A total of 36 systematic gamma static measurements were logged with a maximum measurement of 7,895 cpm.
- The HPNS Team provided the RASO with analytical results for the post-remediation samples collected from Class 1 Survey Unit 16. Because no activity above the release criteria was identified, systematic sample collection activities will be performed.

Parcel E Storm Drain and Sanitary Sewer Removal Activities

- The HPNS Team excavated approximately 744 cubic yards of soil from Work Area #36 and transferred the material to RSY3 for processing. Excavation activities were performed for the following trench segments:
  - 07-E36-00-6R 100 linear feet completed

- 07-E36-00-6S 30 linear feet completed
- 07-E36-00-6U 66 linear feet completed
- 07-E36-00-6V 10 linear feet completed
- 07-E36-00-6W 21 linear feet completed
- 07-E36-00-6X 25 linear feet completed

- A total of 252 linear feet of trench (including excavated soil, a manhole, and pipes) identified on the design drawings was completed by the HPNS Team.
- Excavated Manhole MH1282 was placed on plastic pending further activities.
- Backfill activities were completed for Trench Unit No. 225 by the HPNS Team.
- Backfill activities were continued for Trench Unit No. 228 by the HPNS Team.
- The HPNS Team provided the RASO with the on-site analytical results for the systematic samples collected from Trench Unit No. 245; no activity above the release criteria was identified.
- The HPNS Team conducted storm water pollution prevention activities in Parcel E.
- A variety of housekeeping activities were performed throughout the Building 500 Series Area by the HPNS Team.

Issues/Items Pending Action

- Internal Draft Radiological Removal Action Completion Report

TETRA TECH EC, INC.

DAILY STATUS REPORT
Parcel C Storm Drain and Sanitary Sewer Removal Action

Report Date: April 18, 2012	RAD EMAC – CTO 002

Overview

The HPNS Team continued field activities for the North Pier and Work Areas #32, #33, and 34. Details of the work activities performed are provided in the sections below.

Parcel C Storm Drain and Sanitary Sewer Removal Activities

- The HPNS Team excavated approximately 216 cubic yards of soil from Work Areas #32 and #34 and transferred the material to RSY4 for processing. Excavation activities were performed for the following trench segments:
  - 02-C32-00-1G 35 linear feet completed
  - 02-C34-28-4T 20 linear feet completed
  - 02-C34-28-4Y 38 linear feet completed
  - 02-C34-28-5Y 20 linear feet completed
- A total of 113 linear feet of trench (including excavated soil and pipes) identified on the design drawings was completed by the HPNS Team.
- Pipe sections excavated from trench segments 02-C32-00-1G and 02-C34-28-4Y were placed on plastic pending further activities.
- A sediment sample was collected from pipe excavated from trench segment 02-C32-00-1G (02-PCPI-0011-01) by the HPNS Team and submitted to the on-site laboratory for analysis.
- Site restoration activities were conducted over previously backfilled trench units in Work Area #33.
- A variety of housekeeping activities were performed throughout Parcel C by the HPNS Team including street sweeping.

Issues/Items Pending Action

- Internal Draft Radiological Removal Action Completion Report

TETRA TECH EC, INC.

DAILY PROGRESS REPORT
Hunters Point Naval Shipyard Basewide Radiological Support

Report Date: April 18, 2012	RMAC – CTO 004

Overview

The HPNS Team continued radiological basewide functions including support activities, radiological screening yard processing, and laboratory operations. Details of the work activities performed are provided in the sections below.

Radiological Screening Yard (RSY) Processing

- The HPNS Team performed the following RSY3 processing activities:
  - Towed array survey activities were performed for ES Units 0685 and 0688.
  - ES Units 0686 and 0687 was prepared for upcoming towed array activities.
- The HPNS Team performed the following RSY4 processing activities:
  - A total of 18 truckloads of material were received for processing.
  - ES Unit 0645 was prepared for upcoming towed array activities.
  - Issued drawings to identify biased, characterization, and systematic sample collection locations for ES Units 0626, 0658, 0676, and 0680.
  - ES Units 0652 and 0694 were staged in the stockpile area pending receipt of the off-site analytical results.
- The HPNS Team continued radiological monitoring and control activities for the RSYs including incoming and outgoing equipment and materials, ingress and egress of personnel, dust suppression, and air monitoring, as appropriate.
- Following data reviews, the RASO concurred with staging ES Units 0652, 0659, 0674, and 0675 pending receipt of the off-site analytical data prior to transferring the materials to the DON non-LLRW contractor for disposal at a CERCLA landfill.

Basewide Support

- Portal Monitor Activities
  - A total of 46 empty trucks entered HPNS through the portal monitor with no alarms.
  - A total of 45 truckloads of material exited HPNS through the portal monitor with no alarms.
- One incoming materials and equipment survey was performed by the HPNS Team.

On-Site and Off-Site Laboratories

- On-site laboratory staff continued to operate gamma spectroscopy detectors and the Protean unit. The following activities were completed:
  - Soil samples received for gamma spectroscopy analysis: 64
  - Swipe samples received for Protean counts: 13
  - Air samples received: 11
  - Samples analyzed by gamma spectroscopy: 98
  - Gamma spectroscopy samples recounted: 2
  - Protean swipe samples counted: 13
  - Protean air samples counted: 11
- A total of 88 samples currently are awaiting gamma spectroscopy analysis in the on-site laboratory.

TETRA TECH EC, INC.

DAILY STATUS REPORT
Parcel E and Building 500 Series Removal Action

Report Date: April 18, 2012	RMAC – CTO 07

Overview

The HPNS Team continued field activities for the Building 517 Site, Shacks 79 and 80, the 500 Series Area, and Work Area #36. Details of the activities performed are provided in the sections below.

Building 517 Site

- The HPNS Team provided the RASO with revised on-site analytical results for the post-remediation samples collected from Class 1 Survey Unit 2. Samples 119 and 120 were recounted for a longer duration to meet the ^{60}Co MDA requirement. Because no activity above the release criteria was identified, systematic sample collection activities will be performed.

Shacks 79 and 80

- The HPNS Team performed Class 1 survey activities for Survey Unit 2. A post-remediation gamma static measurement was logged at 6,330 cpm. In addition, a soil sample was collected and submitted to the on-site laboratory for analysis. The RSO is in the process of reviewing these data.
- The HPNS Team issued drawings to identify locations for remediation in Class 1 Survey Unit 2.

500 Series Area

- The HPNS Team continued soil grading and debris removal in preparation for upcoming towed array surveys in Class 2 Survey Units 22 and 23.
- Approximately 15 cubic yards of soil was remediated from Class 1 Survey Units 17 and 18 by the HPNS Team and placed in LLRW bins AWIU000263 and GFLU002055 for off-site disposal.
- Towed array gamma scan surveys were performed over Survey Unit 13.
- The HPNS Team performed Class 1 survey activities as follows:
  - Survey Unit 13 – A total of 356 gamma scan readings were logged with a maximum reading of 6,994 cpm.

- Survey Unit 15 – A total of eight post-remediation gamma static measurements were logged with a maximum measurement of 6,968 cpm. In addition, eight soil samples were collected and submitted to the on-site laboratory for analysis.
- Survey Unit 17 – A total of two post-remediation gamma static measurements were logged with a maximum measurement of 6,692 cpm. In addition, two soil samples were collected and submitted to the on-site laboratory for analysis.
- Survey Unit 19 – A total of 36 systematic gamma static measurements were logged with a maximum measurement of 5,977 cpm. In addition, 36 soil samples were collected and submitted to the on-site laboratory for analysis.

- The RSO is in the process of reviewing the survey data generated for Survey Units 13, 15, 17, and 19.
- The HPNS Team provided the RASO with on-site analytical and survey results for the biased and systematic samples collected from Class 1 Survey Unit 3. Because no activity above the release criteria was identified, the systematic samples will be submitted to the off-site laboratory for analysis.
- The HPNS Team provided the RASO with total strontium analytical results for the elevated ^{137}Cs samples collected from Class 1 Survey Units 16 and 18; no further contamination was identified.
- The HPNS Team issued drawings to identify locations for remediation in Class 1 Survey Units 15 and 18 and for biased and systematic sample collection in Class 1 Survey Unit 14.

Parcel E Storm Drain and Sanitary Sewer Removal Activities

- A variety of housekeeping activities were performed throughout the Building 500 Series Area by the HPNS Team.

Issues/Items Pending Action

- Internal Draft Radiological Removal Action Completion Report

TETRA TECH EC, INC.

DAILY STATUS REPORT
Parcel C Storm Drain and Sanitary Sewer Removal Action

Report Date: April 25, 2012	RAD EMAC – CTO 002

Overview

The HPNS Team continued field activities for the North Pier and Work Areas #32, #33, and #34. Details of the work activities performed are provided in the sections below.

North Pier

- The HPNS Team provided the RASO with total strontium analytical results for the elevated samples collected from Class 1 Survey Unit 7; no further contamination was identified.
- The HPNS Team provided the RASO with off-site analytical results for the systematic samples collected from Class 1 Survey Unit 2; no activity above the release criteria was identified.

Parcel C Storm Drain and Sanitary Sewer Removal Activities

- Pipes and debris from trench segments 02-C33-00-3P, 02-C33-29-1D, -1W, -1X, -8E, 02-C34-28-3T, -4Z, -8B, and -8U were placed by the HPNS Team in LLRW bin AWIU000201 for off-site disposal.
- The HPNS Team provided the RASO with analytical results for the sediment sample collected from excavated Manhole MH1333 (02-PCMH1333-062-01). Because ^{137}Cs contamination was identified at 0.3499 pCi/g, this manhole will be disposed of as LLRW.
- A variety of housekeeping activities were performed throughout Parcel C by the HPNS Team including street sweeping.

Issues/Items Pending Action

- Internal Draft Radiological Removal Action Completion Report

TETRA TECH EC, INC.

DAILY PROGRESS REPORT
Hunters Point Naval Shipyard Basewide Radiological Support

Report Date: April 25, 2012	RMAC – CTO 004

Overview

The HPNS Team continued radiological basewide functions including support activities, radiological screening yard processing, and laboratory operations. Details of the work activities performed are provided in the sections below.

Radiological Screening Yard (RSY) Processing

- The HPNS Team issued a drawing to identify biased and systematic sample collection locations for ES Unit 0689 in RSY3.
- The HPNS Team performed the following RSY4 processing activities:
  - A total of 41 truckloads of material were received for processing.
  - Towed array survey activities were performed for ES Unit 0691.
  - Issued drawings to identify biased and systematic sample collection locations for ES Units 0681, 0684 and 0694.
- Following data reviews, the RASO concurred with transferring ES Units 0642 and 0644 to the DON non-LLRW contractor for off-site disposal at a CERCLA landfill.

Basewide Support

- One incoming and one outgoing materials and equipment surveys were performed by the HPNS Team.

On-Site and Off-Site Laboratories

- On-site laboratory staff continued to operate gamma spectroscopy detectors and the Protean unit. The following activities were completed:
  - Soil samples received for gamma spectroscopy analysis: 65
  - Swipe samples received for Protean counts: 8
  - Air samples received: 12
  - Samples analyzed by gamma spectroscopy: 86
  - Gamma spectroscopy samples recounted: 7
  - Protean swipe samples counted: 48
  - Protean air samples counted: 12
- A total of 322 samples currently are awaiting gamma spectroscopy analysis in the on-site laboratory.

TETRA TECH EC, INC.

DAILY STATUS REPORT
Parcel E and Building 500 Series Removal Action

Report Date: April 25, 2012	RMAC – CTO 07

Overview

The HPNS Team continued field activities for the Building 520 Site, Shacks 79 and 80, the 500 Series Area, and Work Area #36. Details of the activities performed are provided below.

Building 520 Site

- The HPNS Team provided the RASO with off-site analytical results for the systematic samples collected from Class l Survey Unit 5. Characterization and remediation will be continued due to the presence of ^{90}Sr contamination as follows:
  - Sample Point 56 (07520-S0005-F056-01) with ^{90}Sr at 1.19 pCi/g
  - Sample Point 57 (07520-S0005-F057-01) with ^{90}Sr at 0.894 pCi/g
- The HPNS Team issued drawings to identify locations for characterization sample collection in Class 1 Survey Unit 5.

Shacks 79 and 80

- The HPNS Team performed Class 1 survey activities for Survey Unit 2. A replacement systematic gamma static measurement was logged at 6,209 cpm. In addition, one soil sample was collected and submitted to the on-site laboratory for analysis. The RSO is in the process of reviewing these data.
- The HPNS Team provided the RASO with on-site analytical and survey results for the replacement systematic samples collected from Class 1 Survey Unit 1. Because no activity above the release criteria was identified, the 18 systematic samples will be submitted to the off-site laboratory for analysis.
- The HPNS Team provided the RASO with total strontium analytical results for the elevated samples collected from Class 1 Survey Unit 1; no further contamination was identified.

500 Series Area

- The HPNS Team removed fencing surrounding the tennis courts in preparation for towed array surveys in Class 2 Survey Unit 22.
- The HPNS Team performed Class 1 survey activities as follows:

- Survey Unit 13 – A total of two characterization gamma static measurements were logged with a maximum measurement of 6,848 cpm. In addition, two soil samples were collected and submitted to the on-site laboratory for analysis.
- Survey Unit 16 – A total of three characterization gamma static measurements were logged with a maximum measurement of 6,475 cpm. In addition, three soil samples were collected and submitted to the on-site laboratory for analysis.
- Survey Unit 18 – A characterization gamma static measurement was logged with a measurement of 5,715 cpm. In addition, one soil sample was collected and submitted to the on-site laboratory for analysis.
- Survey Unit 19 – A characterization gamma static measurement was logged with a measurement of 4,575 cpm. In addition, one soil sample was collected and submitted to the on-site laboratory for analysis
- Survey Unit 21 – A total of two characterization gamma static measurements were logged with a maximum measurement of 5,370 cpm. In addition, two soil samples were collected and submitted to the on-site laboratory for analysis.

- The RSO is in the process of reviewing the survey data for Survey Units 13, 16, 18, 19, and 21.
- The HPNS Team provided the RASO with on-site analytical results for the systematic samples collected from Class 1 Survey Unit 19. Characterization and remediation will be continued due to the presence of ^{137}Cs contamination as follows:
  - Sample Point 54 (07500SA-S0019-F054-01) with ^{137}Cs at 0.1153 pCi/g
  - Sample Point 68 (07500SA-S0019-F068-01) with ^{137}Cs at 0.1556 pCi/g
  - Sample Point 74 (07500SA-S0019-F074-01) with ^{137}Cs at 0.1468 pCi/g
  - Sample Point 75 (07500SA-S0019-F074-01) with ^{137}Cs at 0.1645 pCi/g
- The HPNS Team provided the RASO with on-site analytical results for the characterization and post-remediation samples collected from Class 1 Survey Unit 17. Because no activity above the release criteria was identified, a replacement systematic soil sample will be collected for analysis.
- The HPNS Team provided the RASO with total strontium analytical results for the elevated samples collected from Class 1 Survey Units 16 and 17; no further contamination was identified.
- The HPNS Team issued drawings to identify locations for characterization sample collection in Class 1 Survey Units 5, 6, 13, 15, 19, and 20.

Parcel E Storm Drain and Sanitary Sewer Removal Activities

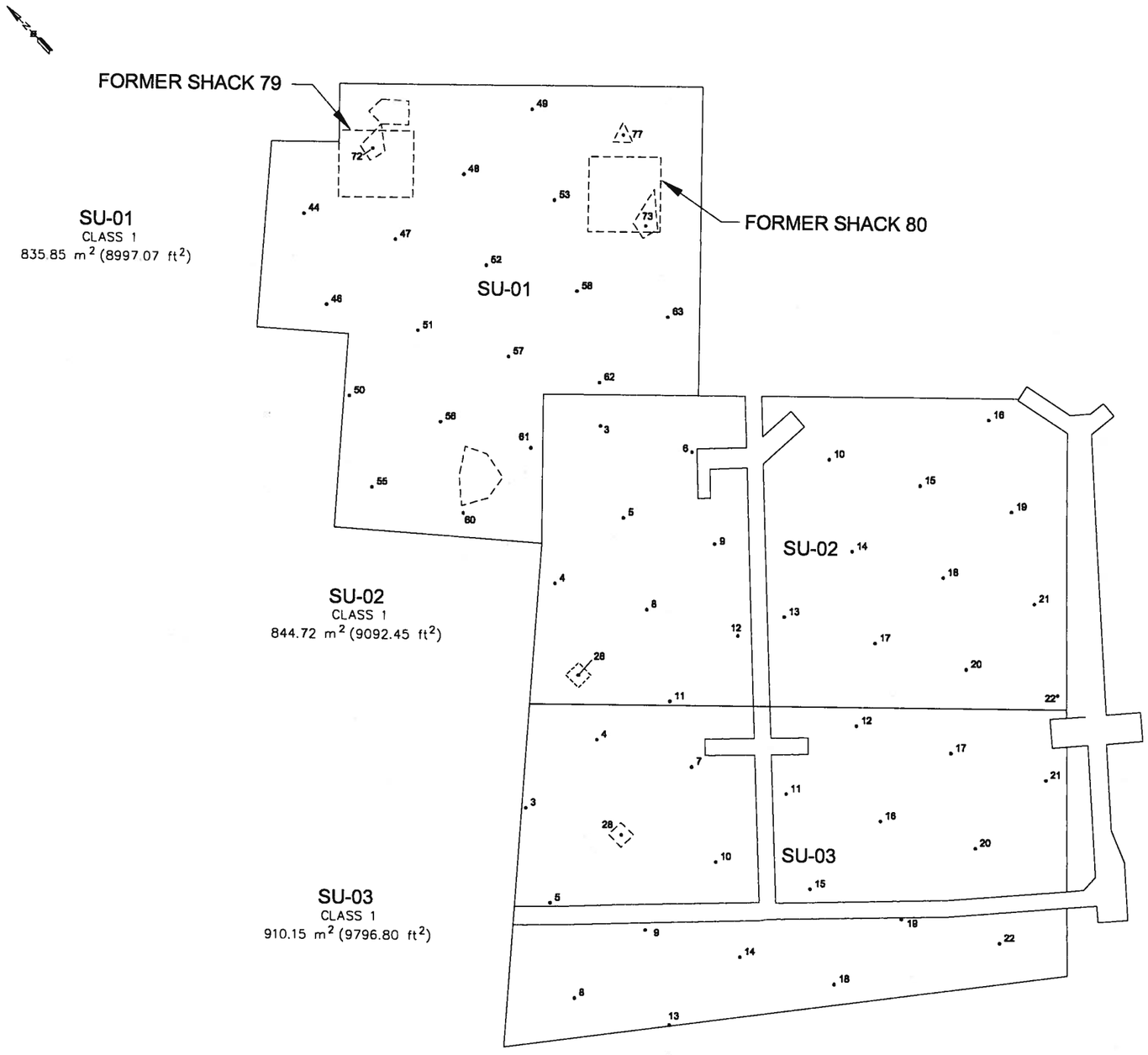
- The HPNS Team excavated approximately 492 cubic yards of soil from Work Area #36 and transferred the material to RSY4 for processing. Excavation activities were performed for the following trench segments:
  - 07-509-38-3T 9 linear feet completed
  - 07-509-38-3U 8 linear feet completed

- 07-509-38-8A 11 linear feet completed
- 07-E36-38-3J 11 linear feet completed
- 07-E36-38-3S 110 linear feet completed
- 07-E36-38-3T 29 linear feet completed
- 07-E36-38-3U 27 linear feet completed
- 07-E36-39-1D 103 linear feet completed
- 07-E36-39-1E 7 linear feet completed
- 07-E36-39-1F 3 linear feet completed
- 07-E36-39-8B 90 linear feet completed
- 07-E36-39-8C 4 linear feet completed
- 07-E36-39-8D 4 linear feet completed
- 07-E36-39-8E 10 linear feet completed

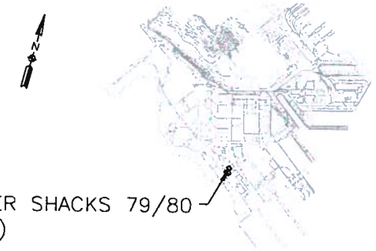
- A total of 307 linear feet of trench (including excavated soil, manholes, and pipes) identified on the design drawings and 119 linear feet not identified on the design drawings were completed by the HPNS Team.
- Manholes MH1301, MH1302, MH1303, and MH1326 along with pipes excavated from trench segments 07-509-38-3T, -8A, 07-E36-38-3T, 07-E36-39-8B, and -8D were placed on plastic pending further activities.
- Sediment samples were collected from excavated Manholes MH1302 (07-PEMH1302-013-01) and MH1303 (07-PEMH1303-014-01) by the HPNS Team and submitted to the on-site laboratory for analysis.
- A variety of housekeeping activities were performed throughout the Building 500 Series Area by the HPNS Team.

Issues/Items Pending Action

- Internal Draft Radiological Removal Action Completion Report



FORMER SHACKS 79/80 (SITES) PLAN VIEW



KEY PLAN

LEGEND

- FORMER SHACKS 79/80
- SURVEY UNIT
- •3 SYSTEMATIC SAMPLES

15 0 15 30

(feet)

BASE REALIGNMENT AND CLOSURE
PROGRAM MANAGEMENT OFFICE WEST
SAN DIEGO, CALIFORNIA

FINAL STATUS SURVEY

FORMER SHACKS 79/80 (SITES)

FIGURE 4-1

CLASS 1 SURVEY UNITS

HUNTERS POINT NAVAL SHIPYARD, SAN FRANCISCO, CALIFORNIA

REVISION:
AUTHOR: A.CRABTREE
PROJECT NO:
FILE: SEE BELOW

TETRA TECH EC, INC.

P:\CTO-07 CAD Files (Rad EMAC)\DWG Files\Shack 79 and 80\Shack 79-80 Figure 4-1.dwg

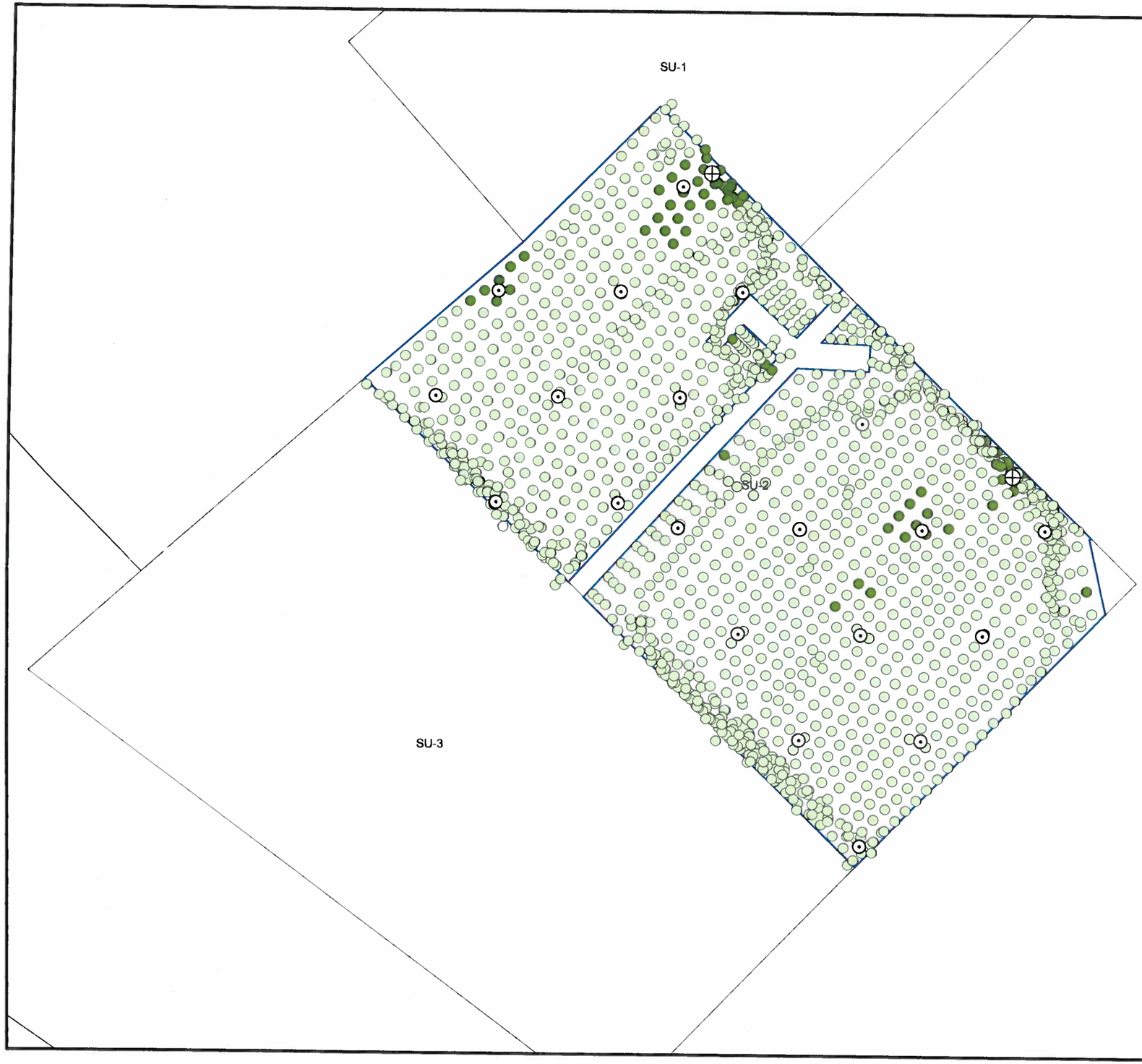
10/11/12

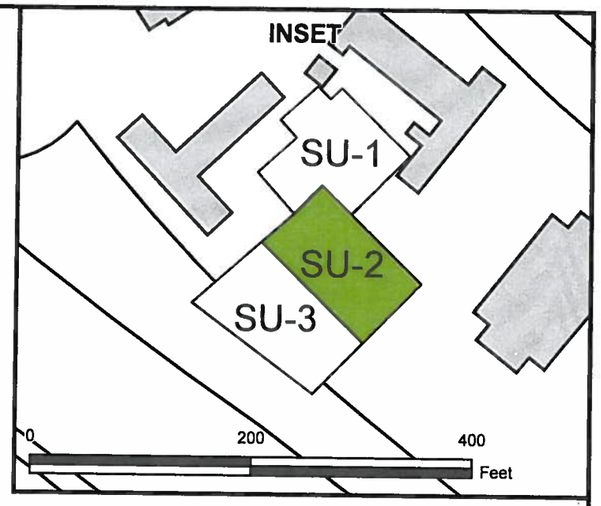
Area	Survey Unit	Sample Point	Sample Type	Sample ID	Date Collected	COC Radiological Technician	On-Site Laboratory (pCi/g)					Off-Site Laboratory (pCi/g)				
							K-40	Ra-226	Cs-137	Bi-214	Pb-214	K-40	Ra-226	Cs-137	Bi-214	Pb-214
7980	1	1	Biased	077980-S0001-F001-01	15-Dec-11	Jeff Rolfe	25.2	0.9137	0	0.5347	0.6151					
7980	1	2	Biased	077980-S0001-F002-01	15-Dec-11	Jeff Rolfe	24.41	0.279	0.02947	0.6561	0.6959					
7980	1	3	Biased	077980-S0001-F003-01	15-Dec-11	Jeff Rolfe	29.42	0.6357	0.0005157	0.6442	0.7351					
7980	1	4	Systematic	077980-S0001-F004-01	15-Dec-11	Jeff Rolfe	3.995	0.178	-0.007648	0.2281	0.212	4.9	0.387	-0.00721	0.387	0.364
7980	1	5	Systematic	077980-S0001-F005-01	15-Dec-11	Jeff Rolfe	13.73	0.8166	0.04719	0.5112	0.514	14.2	0.739	0.131	0.739	0.769
7980	1	6	Systematic	077980-S0001-F006-01	15-Dec-11	Jeff Rolfe	4.331	0.5291	0.009105	0.3656	0.3297	3.62	0.389	-0.014	0.389	0.409
7980	1	7	Systematic	077980-S0001-F007-01	15-Dec-11	Jeff Rolfe	12.45	0.4843	0.02396	0.2668	0.6064	11.8	0.664	-0.03	0.664	0.631
7980	1	8	Systematic	077980-S0001-F008-01	15-Dec-11	Jeff Rolfe	9.152	0.7749	0.0242	0.3992	0.5419	5.96	0.891	0.0297	0.891	0.783
7980	1	9	Systematic	077980-S0001-F009-01	15-Dec-11	Jeff Rolfe	11.53	0.751	0.009291	0.4401	0.371	10.2	0.436	0	0.436	0.731
7980	1	10	Systematic	077980-S0001-F010-01	15-Dec-11	Jeff Rolfe	6.653	0.3414	0.01244	0.4375	0.4691	6.45	0.606	0.0151	0.606	0.65
7980	1	11	Systematic	077980-S0001-F011-01	15-Dec-11	Jeff Rolfe	10.72	0.4464	0.02122	0.3691	0.5004	7.49	0.597	0.00442	0.597	0.496
7980	1	12	Systematic	077980-S0001-F012-01	15-Dec-11	Jeff Rolfe	7.606	0.6311	0.03228	0.5624	0.5477	8.26	0.717	0.0397	0.717	0.556
7980	1	13	Systematic	077980-S0001-F013-01	15-Dec-11	Jeff Rolfe	3.15	0.4215	0	0.2474	0.3316	4.3	0.229	0.0111	0.229	0.247
7980	1	14	Systematic	077980-S0001-F014-01	15-Dec-11	Jeff Rolfe	10.12	0.4843	0	0.2827	0.355	9.18	0.453	0.0118	0.453	0.472
7980	1	15	Systematic	077980-S0001-F015-01	15-Dec-11	Jeff Rolfe	11.79	0.9344	0.01548	0.353	0.5071	13	0.76	0.00284	0.76	0.652
7980	1	16	Systematic	077980-S0001-F016-01	15-Dec-11	Jeff Rolfe	11.67	0.2692	0	0.2766	0.3067	9.6	0.625	0.0324	0.625	0.59
7980	1	17	Systematic	077980-S0001-F017-01	15-Dec-11	Jeff Rolfe	12.7	0.7933	0.007186	0.3407	0.4346	11.9	0.56	0	0.56	0.519
7980	1	18	Systematic	077980-S0001-F018-01	15-Dec-11	Jeff Rolfe	5.5	0.5534	0.005923	0.328	0.2337	5.95	0.458	0.00712	0.458	0.421
7980	1	19	Systematic	077980-S0001-F019-01	15-Dec-11	Jeff Rolfe	14.87	0.5224	0.08356	0.3634	0.5333	15.7	0.618	0.125	0.618	0.692
7980	1	20	Systematic	077980-S0001-F020-01	15-Dec-11	Jeff Rolfe	13.53	0.3428	0.0226	0.4357	0.3494	11.4	0.724	0.0485	0.724	0.759
7980	1	21	Systematic	077980-S0001-F021-01	15-Dec-11	Jeff Rolfe	18.9	1.173	0.01484	0.5403	0.5734	19.7	0.611	0.00842	0.611	0.843
7980	1	22	Systematic	077980-S0001-F022-01	15-Dec-11	Jeff Rolfe	10.6	0	0.03294	0.3811	0.4016	10.6	0.554	0.0285	0.554	0.539
7980	1	23	Systematic	077980-S0001-F023-01	15-Dec-11	Jeff Rolfe	9.804	0.4546	0.02828	0.3792	0.4024	8.59	0.455	0.0367	0.455	0.45
7980	1	24	Characterization	077980-S0001-F024-01	22-Feb-12	Rick Zahensky	12	0.594	0.07655	0.4369	0.6784					
7980	1	25	Characterization	077980-S0001-F025-01	22-Feb-12	Rick Zahensky	11.37	0.3717	0.06263	0.2895	0.5293					
7980	1	26	Characterization	077980-S0001-F026-01	22-Feb-12	Rick Zahensky	12.41	0.2002	0.1966	0.4688	0.5256					
7980	1	27	Characterization	077980-S0001-F027-01	22-Feb-12	Rick Zahensky	12.45	0.8052	0.06098	0.565	0.6447					
7980	1	28	Characterization	077980-S0001-F028-01	22-Feb-12	Rick Zahensky	17.44	0.9192	0.2127	0.5008	0.5147					
7980	1	29	Characterization	077980-S0001-F029-01	22-Feb-12	Rick Zahensky	14.19	0.6014	-0.0068	0.6479	0.771					
7980	1	30	Characterization	077980-S0001-F030-01	22-Feb-12	Rick Zahensky	20.13	0.9259	0.1712	0.5637	0.6508					
7980	1	31	Characterization	077980-S0001-F031-01	22-Feb-12	Rick Zahensky	19.44	0.9207	0.2058	0.6565	0.6507					
7980	1	32	Characterization	077980-S0001-F032-01	01-Mar-12	Rick Zahensky	19.22	1.177	-0.005728	0.8194	0.8552					
7980	1	33	Characterization	077980-S0001-F033-01	01-Mar-12	Rick Zahensky	19.11	1.045	-0.008283	0.8789	0.9538					
7980	1	34	Characterization	077980-S0001-F034-01	01-Mar-12	Rick Zahensky	18.54	0.7263	-0.009133	0.6511	0.7469					
7980	1	35	Characterization	077980-S0001-F035-01	01-Mar-12	Rick Zahensky	18.77	0.9042	0.00485	0.6933	0.8001					
7980	1	36	Characterization	077980-S0001-F036-01	01-Mar-12	Rick Zahensky	19.42	0.973	-0.005097	0.8762	0.8229					
7980	1	37	Characterization	077980-S0001-F037-01	01-Mar-12	Rick Zahensky	20.07	1.297	0	0.8428	0.9045					
7980	1	38	Characterization	077980-S0001-F038-01	01-Mar-12	Rick Zahensky	18.69	1.115	0.002846	0.8979	0.9326					
7980	1	39	Post-Remediation	077980-S0001-F039-01	19-Mar-12	Jeff Rolfe	9.357	0.4125	0	0.2115	0.3684					
7980	1	40	Post-Remediation	077980-S0001-F040-01	19-Mar-12	Jeff Rolfe	10.03	0.5296	-0.006999	0.2807	0.3167					
7980	1	41	Post-Remediation	077980-S0001-F041-01	19-Mar-12	Jeff Rolfe	9.906	0.6091	0.0004201	0.3704	0.3246					
7980	1	42	Post-Remediation	077980-S0001-F042-01	19-Mar-12	Jeff Rolfe	8.002	0.9139	-0.003948	0.3481	0.3471					
7980	1	43	Post-Remediation	077980-S0001-F043-01	19-Mar-12	Jeff Rolfe	9.565	1.055	-0.001767	0.3963	0.3762					
7980	1	44	Systematic	077980-S0001-F044-01	27-Mar-12	Jeff Rolfe	15.44	1.198	0.05202	0.7115	0.8557	13	0.616	0.0518	0.616	0.674
7980	1	45	Systematic	077980-S0001-F045-01	27-Mar-12	Jeff Rolfe	14.87	1.11	0.2188	0.4101	0.481					
7980	1	46	Systematic	077980-S0001-F046-01	27-Mar-12	Jeff Rolfe	16.17	0.9619	0.02137	0.6985	0.837	13.8	0.77	0.0136	0.77	0.888
7980	1	47	Systematic	077980-S0001-F047-01	27-Mar-12	Jeff Rolfe	14.42	1.208	-0.001148	0.4215	0.643	12.8	0.645	0.0275	0.645	0.715
7980	1	48	Systematic	077980-S0001-F048-01	27-Mar-12	Jeff Rolfe	12.16	0.6543	0.01664	0.5025	0.4611	7.57	0.644	0.0399	0.644	0.578
7980	1	49	Systematic	077980-S0001-F049-01	27-Mar-12	Jeff Rolfe	13.64	0.9049	0.02921	0.5865	0.6316	10.6	0.676	0.0244	0.676	0.744
7980	1	50	Systematic	077980-S0001-F050-01	27-Mar-12	Jeff Rolfe	5.624	0.5366	-0.008329	0.1328	0.3165	4.06	0.543	-0.00252	0.543	0.376
7980	1	51	Systematic	077980-S0001-F051-01	27-Mar-12	Jeff Rolfe	14.53	1.283	0.01952	0.5703	0.5986	12.3	0.604	0.0183	0.604	0.702
7980	1	52	Systematic	077980-S0001-F052-01	27-Mar-12	Jeff Rolfe	12.78	0.9157	0.02375	0.4409	0.4984	11.9	0.505	0.0121	0.505	0.654
7980	1	53	Systematic	077980-S0001-F053-01	27-Mar-12	Jeff Rolfe	6.957	0.4753	0.0004446	0.2417	-0.00006399	5.94	0.489	0.0126	0.489	0.323

Area	Survey Unit	Sample Point	Sample Type	Sample ID	Date Collected	COC Radiological Technician	On-Site Laboratory (pCi/g)					Off-Site Laboratory (pCi/g)				
							K-40	Ra-226	Cs-137	Bi-214	Pb-214	K-40	Ra-226	Cs-137	Bi-214	Pb-214
7980	1	54	Systematic	077980-S0001-F054-01	27-Mar-12	Jeff Rolfe	8.22	0.5953	0.01421	0.2937	0.3236	5.81	0.443	0.00816	0.443	0.563
7980	1	55	Systematic	077980-S0001-F055-01	27-Mar-12	Jeff Rolfe	19.21	1.048	-0.004932	0.6646	0.6805	17	0.701	-0.0128	0.701	0.923
7980	1	56	Systematic	077980-S0001-F056-01	27-Mar-12	Jeff Rolfe	12.4	0.5392	0.02224	0.5477	0.6347	13.5	0.705	-0.011	0.705	0.7
7980	1	57	Systematic	077980-S0001-F057-01	27-Mar-12	Jeff Rolfe	10.55	0.5062	0.03709	0.483	0.4386	8.93	0.54	0.0162	0.54	0.556
7980	1	58	Systematic	077980-S0001-F058-01	27-Mar-12	Jeff Rolfe	25.26	1.138	0.01915	0.6524	0.6986	21.6	0.781	0.00471	0.781	0.901
7980	1	59	Systematic	077980-S0001-F059-01	27-Mar-12	Jeff Rolfe	13.45	0.6035	0.1169	0.6062	0.616					
7980	1	60	Systematic	077980-S0001-F060-01	27-Mar-12	Jeff Rolfe	20.23	0.7575	0.07492	0.4957	0.6598	17.2	0.623	0.107	0.623	0.699
7980	1	61	Systematic	077980-S0001-F061-01	27-Mar-12	Jeff Rolfe	13.08	0.7307	0.02712	0.431	0.5529	12.9	0.644	0.0431	0.644	0.56
7980	1	62	Systematic	077980-S0001-F062-01	27-Mar-12	Jeff Rolfe	22.52	0.9163	0.0117	0.6034	0.7355	21.8	0.722	0.00271	0.722	0.835
7980	1	63	Systematic	077980-S0001-F063-01	27-Mar-12	Jeff Rolfe	13.99	0.5582	0.01908	0.2921	0.4789	11	0.628	0.0401	0.628	0.553
7980	1	64	Characterization	077980-S0001-F064-01	03-Apr-12	Jeff Rolfe	8.604	-0.05862	0.01311	0.3911	0.3022					
7980	1	65	Characterization	077980-S0001-F065-01	03-Apr-12	Jeff Rolfe	11.48	0.5624	0	0.4904	0.467					
7980	1	66	Characterization	077980-S0001-F066-01	03-Apr-12	Jeff Rolfe	11.19	0.6287	0.01801	0.3388	0.4469					
7980	1	67	Characterization	077980-S0001-F067-01	03-Apr-12	Jeff Rolfe	14.1	1.16	0.00106	0.6877	0.6105					
7980	1	68	Characterization	077980-S0001-F068-01	03-Apr-12	Jeff Rolfe	17.91	1.218	0.01234	0.4406	0.4634					
7980	1	69	Characterization	077980-S0001-F069-01	03-Apr-12	Jeff Rolfe	15.26	0.9631	0.001534	0.6553	0.7328					
7980	1	70	Post-Remediation	077980-S0001-F070-01	06-Apr-12	Anthony Smith	10.72	0.486	0.008305	0.1595	0.2334					
7980	1	71	Post-Remediation	077980-S0001-F071-01	06-Apr-12	Anthony Smith	9.331	0.782	-0.01113	0.2341	0.3407					
7980	1	72	Systematic	077980-S0001-F072-01	20-Apr-12	Jeff Rolfe	8.851	0.7155	-0.006107	0.3015	0.3346	4.81	0.236	-0.0185	0.236	0.39
7980	1	73	Systematic	077980-S0001-F073-01	20-Apr-12	Jeff Rolfe	6.258	0.3147	-0.0006957	0.3098	0.4072	4.99	0.341	-0.0107	0.341	0.483
7980	1	74	Characterization	077980-S0001-F074-01	02-Jul-12	Rick Zahensky										
7980	1	75	Characterization	077980-S0001-F075-01	02-Jul-12	Rick Zahensky										
7980	1	76	Characterization	077980-S0001-F076-01	02-Jul-12	Rick Zahensky	9.909	0.5944	0.003967	0.3627	0.431	7.31	0.429	-0.0281	0.429	0.45
7980	1	77	Systematic	077980-S0001-F077-01	02-Jul-12	Rick Zahensky	0.1279	-0.003034	0.0126	0.03288	-0.03844					
7980	2	1	Biased	077980-S0002-F001-01	04-Apr-12	Jeff Rolfe	0.103	-0.1327	0	0.02184	0					
7980	2	2	Biased	077980-S0002-F002-01	04-Apr-12	Jeff Rolfe	0.3878	-0.0372	0.00251	-0.004521	-0.01145	0.983	0.0858	0	0.0858	0.0542
7980	2	3	Systematic	077980-S0002-F003-01	04-Apr-12	Jeff Rolfe	22.55	0.6674	0.04442	0.5596	0.5689	19.9	0.691	0.0539	0.691	0.702
7980	2	4	Systematic	077980-S0002-F004-01	04-Apr-12	Jeff Rolfe	0.06615	0.09367	0.0007372	0.04911	0.01359	-0.223	0.0484	0.0203	0.0484	0.191
7980	2	5	Systematic	077980-S0002-F005-01	04-Apr-12	Jeff Rolfe	0.2476	0.09348	0	0.03269	0.07683	0.222	0.101	0	0.101	0.173
7980	2	6	Systematic	077980-S0002-F006-01	04-Apr-12	Jeff Rolfe	20.41	0.7453	0.17	0.4747	0.5835					
7980	2	7	Systematic	077980-S0002-F007-01	04-Apr-12	Jeff Rolfe	4.202	0.6336	0.03166	0.1495	0.1021	4.43	0.202	0.0457	0.202	0.368
7980	2	8	Systematic	077980-S0002-F008-01	04-Apr-12	Jeff Rolfe	0.3656	-0.2169	-0.003176	0.04424	0.03832	0.0912	0.0333	0	0.0333	0.0439
7980	2	9	Systematic	077980-S0002-F009-01	04-Apr-12	Jeff Rolfe	0.2749	0.0815	0	0	0.04786	0.974	0.101	0.00421	0.101	0.164
7980	2	10	Systematic	077980-S0002-F010-01	04-Apr-12	Jeff Rolfe	0.6615	0.1123	0	0.04404	0.04351	0.506	0.182	0.0251	0.182	0.202
7980	2	11	Systematic	077980-S0002-F011-01	04-Apr-12	Jeff Rolfe	1.009	0.143	-0.002017	0.0339	-0.004279	0.349	0.156	-0.00527	0.156	0.0869
7980	2	12	Systematic	077980-S0002-F012-01	04-Apr-12	Jeff Rolfe	0.3326	-0.0274	0	0.05052	0	-0.347	0.0589	0.0301	0.0589	0.041
7980	2	13	Systematic	077980-S0002-F013-01	04-Apr-12	Jeff Rolfe	0.7109	-0.03862	0.0009595	0.0001165	0.07237	0.145	0.0957	0.0136	0.0957	0.167
7980	2	14	Systematic	077980-S0002-F014-01	04-Apr-12	Jeff Rolfe	0.347	0	0	0.04571	0.04693	0.421	0.026	0.016	0.026	0.0571
7980	2	15	Systematic	077980-S0002-F015-01	04-Apr-12	Jeff Rolfe	1.633	0.2212	0.01027	0.09416	0.06213	1.78	0.279	-0.0207	0.279	0.108
7980	2	16	Systematic	077980-S0002-F016-01	04-Apr-12	Jeff Rolfe	0.6001	-0.1453	0.01705	0.08369	0.04676	-0.291	0.216	0.0123	0.216	0.145
7980	2	17	Systematic	077980-S0002-F017-01	04-Apr-12	Jeff Rolfe	0.6679	0.5089	-0.003346	0.1169	0.152	2.23	0.206	-0.00142	0.206	0.122
7980	2	18	Systematic	077980-S0002-F018-01	04-Apr-12	Jeff Rolfe	0.6165	0.1342	0.003088	0.01697	0.1077	1.13	0.13	-0.0119	0.13	0.265
7980	2	19	Systematic	077980-S0002-F019-01	04-Apr-12	Jeff Rolfe	0.3956	0	0.002755	0.04995	0.01351	0.746	0.013	0.00978	0.013	0.066
7980	2	20	Systematic	077980-S0002-F020-01	04-Apr-12	Jeff Rolfe	0.659	0	0.01147	-0.02188	-0.006443	0.585	0.209	0.0121	0.209	0.0824
7980	2	21	Systematic	077980-S0002-F021-01	04-Apr-12	Jeff Rolfe	0.3496	0.002615	0.002154	-0.02011	-0.0306	0.177	0.0892	0	0.0892	0.177
7980	2	22	Systematic	077980-S0002-F022-01	04-Apr-12	Jeff Rolfe	0.09809	0.4546	0.0002043	0.02788	-0.0314					
7980	2	23	Characterization	077980-S0002-F023-01	11-Apr-12	Jeff Rolfe	0.04134	0.0894	0.008776	0.02346	0.01893					
7980	2	24	Characterization	077980-S0002-F024-01	11-Apr-12	Jeff Rolfe	0.02219	0	-0.001612	0.002061	0.001059					
7980	2	25	Characterization	077980-S0002-F025-01	11-Apr-12	Jeff Rolfe	0.3205	0.01241	-0.003908	0.01277	-0.0301					
7980	2	26	Characterization	077980-S0002-F026-01	11-Apr-12	Jeff Rolfe	-0.573	-0.2674	-0.002725	0.02335	0.002588					
7980	2	27	Post-Remediation	077980-S0002-F027-01	18-Apr-12	Jeff Rolfe	8.63	0.7232	0.006906	0.3929	0.4034	6.15	0.363	-0.0197	0.363	0.332
7980	2	28	Systematic	077980-S0002-F028-01	25-Apr-12	Rick Zahensky	11.02	1.313	0.04653	0.3236	0.4077					
7980	3	1	Biased	077980-S0003-F001-01	11-Apr-12	Anthony Smith										

Area	Survey Unit	Sample Point	Sample Type	Sample ID	Date Collected	COC Radiological Technician	On-Site Laboratory (pCi/g)					Off-Site Laboratory (pCi/g)				
							K-40	Ra-226	Cs-137	Bi-214	Pb-214	K-40	Ra-226	Cs-137	Bi-214	Pb-214
7980	3	2	Biased	077980-S0003-F002-01	11-Apr-12	Anthony Smith	20.53	0.4321	0	0.6139	0.5619					
7980	3	3	Systematic	077980-S0003-F003-01	11-Apr-12	Anthony Smith	2.327	0.6625	0.016	0	0.08321	1.36	0.0623	0.0066	0.0623	0.312
7980	3	4	Systematic	077980-S0003-F004-01	11-Apr-12	Anthony Smith	16.68	0.5168	0.08785	0.2324	0.4176	14.7	0.559	0.0614	0.559	0.703
7980	3	5	Systematic	077980-S0003-F005-01	11-Apr-12	Anthony Smith	9.376	0.355	0.01312	0.3131	0.4078	9.68	0.268	-0.00179	0.268	0.458
7980	3	6	Systematic	077980-S0003-F006-01	11-Apr-12	Anthony Smith	17.21	0.4707	0.07664	0.336	0.3993	15.2	0.49	0.119	0.49	0.551
7980	3	7	Systematic	077980-S0003-F007-01	11-Apr-12	Anthony Smith	2.063	0.4687	0.01285	-0.01275	0.2298	1.49	0.29	-0.00263	0.29	0.11
7980	3	8	Systematic	077980-S0003-F008-01	11-Apr-12	Anthony Smith	8.403	0.3923	0.01992	0.2231	0.3474	7.51	0.432	0.0306	0.432	0.393
7980	3	9	Systematic	077980-S0003-F009-01	11-Apr-12	Anthony Smith	16.3	1.04	0.04546	0.4853	0.5774	13	0.608	0.0248	0.608	0.601
7980	3	10	Systematic	077980-S0003-F010-01	11-Apr-12	Anthony Smith	14.67	0.6822	0.01961	0.3365	0.5222	12.5	0.484	0.0304	0.484	0.788
7980	3	11	Systematic	077980-S0003-F011-01	11-Apr-12	Anthony Smith	11.86	0.6482	0.006625	0.3019	0.4352	12.3	0.453	0.0455	0.453	0.695
7980	3	12	Systematic	077980-S0003-F012-01	11-Apr-12	Anthony Smith	4.921	0.1965	0	0.08739	0.07117	3.11	0.173	0.029	0.173	0.248
7980	3	13	Systematic	077980-S0003-F013-01	11-Apr-12	Anthony Smith	10.95	0.7956	0.005949	0.3818	0.4547	10.9	0.376	0.0256	0.376	0.597
7980	3	14	Systematic	077980-S0003-F014-01	11-Apr-12	Anthony Smith	17.07	1.078	0.04792	0.4632	0.5057	15	0.546	0.0553	0.546	0.666
7980	3	15	Systematic	077980-S0003-F015-01	11-Apr-12	Anthony Smith	16.72	0.5496	-0.0005035	0.5319	0.5479	14.1	0.538	-0.0137	0.538	0.665
7980	3	16	Systematic	077980-S0003-F016-01	11-Apr-12	Anthony Smith	7.97	0.8494	0	0.3031	0.3233	8.36	0.435	0.0173	0.435	0.606
7980	3	17	Systematic	077980-S0003-F017-01	11-Apr-12	Anthony Smith	0.5878	0.09573	0	0.06269	0.04347	0.361	0.0364	0.000975	0.0364	0.11
7980	3	18	Systematic	077980-S0003-F018-01	11-Apr-12	Anthony Smith	11.94	0.5192	0.009367	0.5287	0.5466	10.8	0.62	-0.00109	0.62	0.662
7980	3	19	Systematic	077980-S0003-F019-01	11-Apr-12	Anthony Smith	13.63	0.3115	0.01601	0.4486	0.2559	8.31	0.453	0.0299	0.453	0.628
7980	3	20	Systematic	077980-S0003-F020-01	11-Apr-12	Anthony Smith	5.444	0.4733	0.011	0.1841	0.2449	4.16	0.259	0.0012	0.259	0.332
7980	3	21	Systematic	077980-S0003-F021-01	11-Apr-12	Anthony Smith	6.698	0.5513	0.005566	0.2974	0.1757	6.41	0.356	0	0.356	0.421
7980	3	22	Systematic	077980-S0003-F022-01	11-Apr-12	Anthony Smith	5.148	0.6437	0.00008576	0.1843	0.3832	4.51	0.274	0.0159	0.274	0.41
7980	3	23	Characterization	077980-S0003-F023-01	23-May-12	Rick Zahensky	10.25	0.4833	-0.005974	0.503	0.6777					
7980	3	24	Characterization	077980-S0003-F024-01	23-May-12	Rick Zahensky	9.074	0.5956	0	0.5058	0.5089					
7980	3	25	Characterization	077980-S0003-F025-01	23-May-12	Rick Zahensky	9.162	0.5792	0	0.4378	0.5702					
7980	3	26	Characterization	077980-S0003-F026-01	23-May-12	Rick Zahensky	11.31	0.6039	-0.01034	0.5651	0.6842					
7980	3	27	Post-Remediation	077980-S0003-F027-01	29-May-12	Rick Zahensky	9.589	0.8554	0.007865	0.3286	0.5534					
7980	3	28	Systematic	077980-S0003-F028-01	06-Jun-12	Rick Zahensky	9.771	0.3344	0.005558	0.3884	0.4679	9.18	0.427	-0.0185	0.427	0.41

Highlighted Activities: Ra-226 ≥ 1.633 (On-site) & 1.375 (Off-site) ; Cs-137 ≥ 0.113 ; Bi-214 ≥ 1.485 ; Pb-214 ≥ 1.485 (pCi/g)





LEGEND

- GAMMA TOTAL, <1 SIGMA
- GAMMA TOTAL, ≥1 AND <2 SIGMA
- GAMMA TOTAL, ≥2 AND <3 SIGMA
- GAMMA TOTAL, ≥3 AND <4 SIGMA
- GAMMA TOTAL, ≥4 AND <5 SIGMA
- GAMMA TOTAL, ≥5 AND <6 SIGMA
- GAMMA TOTAL, ≥6 SIGMA
- BIAS SAMPLE
- SYSTEMATIC SAMPLE
- ROAD
- BUILDING (400)
- SCREENING PAD
- WATER

10 0 10 20 Feet

Scale: 1" = 20'

N

BASE REALIGNMENT AND CLOSURE
PROGRAM MANAGEMENT OFFICE WEST
SAN DIEGO, CALIFORNIA

SU-02

Bldg 79/80

HUNTERS POINT SHIPYARD
SAN FRANCISCO, CALIFORNIA

REVIEW: 0
AUTHOR: TJS
DCN: ECSD-XXXX-XXXX-XXXX
FILE NUMBER: 7980-SU02.mxd

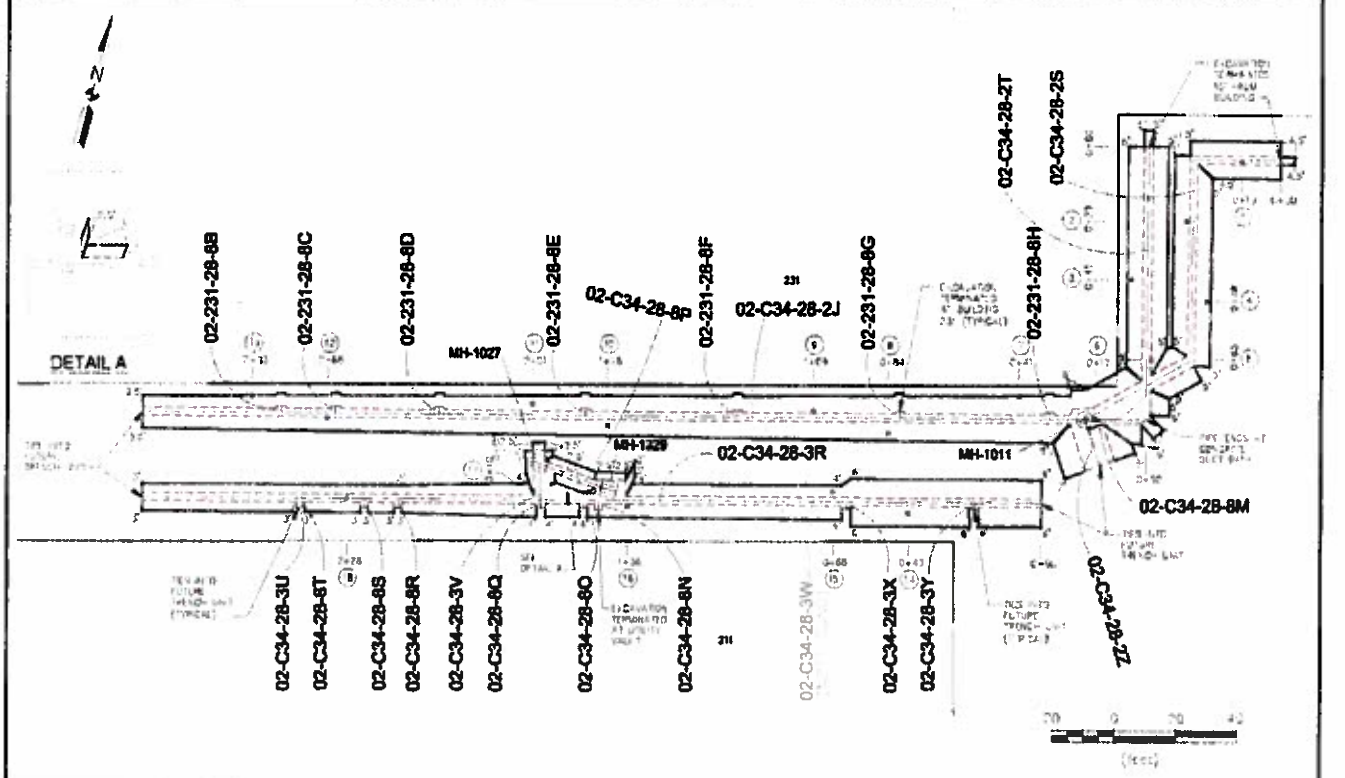
TETRA TECH EC, INC.

RADIATION/CONTAMINATION SURVEY SUPPLEMENT

Date:	Time:	INSTRUMENTATION USED						
		Model Inst/Det.	Serial Number	Calibration Due Date	Instrument % Efficiency	Total % Efficiency	MDC/MDA + (dpm/100cm2)	Background + (dpm/100cm2)
11/18/2011	07:30							
Survey Number: HPS-SU-234								
Location: Parcel C								
Surveyor: R. Roberson								
Reviewed By: (Print & Sign)		2350-1 44-10	117563 215116	6/8/2012				

Isotopes of Concern: ^{226}Ra ^{90}Sr ^{137}Cs

Description of drawing: Trench Scan Survey



Comments:

Scan range for 2350-1 Instrument is 3.59 - 7.26 Kcpm

3 sigma investigation level for 2350-1 Instrument is 8028 cpm

Picture is representative of material surveyed.

denotes swipe location or fixed α/β readings

# denotes G/A radiation readings

#/# denotes contact / 1 meter radiation readings.

* denotes highest radiation reading on contact

LAW denotes large area massinn wipe

Δ denotes static location.

* Unless Otherwise Noted

All readings in µR/hr unless otherwise noted

K = 1000

RADIATION/CONTAMINATION SURVEY SUPPLEMENT

SURVEY NUMBER: HPS-SU-234								
SURVEYOR: R. Roberson					LOCATION: Parcel C			
Location	Exposure Rate (µR/hr)		Fixed + Removable (NET)			Removable (NET)		Comments
	Contact	1 Meter	Gamma (cpm)	Alpha dpm/100cm2	Beta/Gamma dpm/100cm2	Alpha dpm/100cm2	Beta/Gamma dpm/100cm2	
1			5133					
2			5409					
3			5501					
4			5376					
5			5280					
6			5276					
7			5603					
8			5333					
9			5270					
10			5602					
11			5447					
12			5391					
13			5184					
14			5331					
15			5502					
16			5310					
17			5666					
18			5213					

Reviewer:	Date:

2350ID	SurveyMaterial	SurveyorInitials	SurveyType	DataType	Bldg	SurveyUnit	Location	RegNum	DateTime	GammaCPM	CntTime	isValid	LogMode	ImporterInitials	ImportDate
599	116S1A	RR 8.313	S	GST	PCT	234	F	1	11/18/2011	5133	1.00	TRUE	S	Thorpe.Miller	N/A
599	116S1A	RR 9.562	S	GST	PCT	234	F	2	11/18/2011	5409	1.00	TRUE	S	Thorpe.Miller	N/A
599	116S1A	RR 7.166	S	GST	PCT	234	F	3	11/18/2011	5501	1.00	TRUE	S	Thorpe.Miller	N/A
599	116S1A	RR 8.149	S	GST	PCT	234	F	4	11/18/2011	5376	1.00	TRUE	S	Thorpe.Miller	N/A
599	116S1A	RR 1.368	S	GST	PCT	234	F	5	11/18/2011	5280	1.00	TRUE	S	Thorpe.Miller	N/A
599	116S1A	RR 4.169	S	GST	PCT	234	F	6	11/18/2011	5276	1.00	TRUE	S	Thorpe.Miller	N/A
599	116S1A	RR 0.052	S	GST	PCT	234	F	7	11/18/2011	5603	1.00	TRUE	S	Thorpe.Miller	N/A
599	116S1A	RR 0.153	S	GST	PCT	234	F	8	11/18/2011	5333	1.00	TRUE	S	Thorpe.Miller	N/A
599	116S1A	RR 0.285	S	GST	PCT	234	F	9	11/18/2011	5270	1.00	TRUE	S	Thorpe.Miller	N/A
599	116S1A	RR 0.1626	S	GST	PCT	234	F	10	11/18/2011	5602	1.00	TRUE	S	Thorpe.Miller	N/A
599	116S1A	RR -0.262	S	GST	PCT	234	F	11	11/18/2011	5447	1.00	TRUE	S	Thorpe.Miller	N/A
599	116S1A	RR 0.684	S	GST	PCT	234	F	12	11/18/2011	5391	1.00	TRUE	S	Thorpe.Miller	N/A
599	116S1A	RR 0.856	S	GST	PCT	234	F	13	11/18/2011	5184	1.00	TRUE	S	Thorpe.Miller	N/A
599	116S1A	RR 0.279	S	GST	PCT	234	F	14	11/18/2011	5331	1.00	TRUE	S	Thorpe.Miller	N/A
599	116S1A	RR 0.927	S	GST	PCT	234	F	15	11/18/2011	5502	1.00	TRUE	S	Thorpe.Miller	N/A
599	116S1A	RR 1.869	S	GST	PCT	234	F	16	11/18/2011	5310	1.00	TRUE	S	Thorpe.Miller	N/A
599	116S1A	RR 0.661	S	GST	PCT	234	F	17	11/18/2011	5666	1.00	TRUE	S	Thorpe.Miller	N/A
599	116S1A	RR 3.376	S	GST	PCT	234	F	18	11/18/2011	5213	1.00	TRUE	S	Thorpe.Miller	N/A
599	116S1A	JC	S	GST	PCT	238	F	18	4/12/2012	5340	1.00	TRUE	S	Thorpe.Miller	N/A
599	116S1A	JC	S	GST	PCT	238	F	19	4/12/2012	5113	1.00	TRUE	S	Thorpe.Miller	N/A
599	116S1A	JC	S	GST	PCT	238	F	20	4/12/2012	5374	1.00	TRUE	S	Thorpe.Miller	N/A
599	116S1A	JC	S	GST	PCT	238	F	21	4/12/2012	5252	1.00	TRUE	S	Thorpe.Miller	N/A
599	116S1A	JC	S	GST	PCT	238	F	22	4/12/2012	5461	1.00	TRUE	S	Thorpe.Miller	N/A
599	116S1A	JC	S	GST	PCT	238	F	23	4/12/2012	5312	1.00	TRUE	S	Thorpe.Miller	N/A
599	116S1A	JC	S	GST	PCT	238	F	24	4/12/2012	5103	1.00	TRUE	S	Thorpe.Miller	N/A
599	116S1A	JC	S	GST	PCT	238	F	25	4/12/2012	5355	1.00	TRUE	S	Thorpe.Miller	N/A
599	116S1A	JC	S	GST	PCT	238	F	26	4/12/2012	5292	1.00	TRUE	S	Thorpe.Miller	N/A
599	116S1A	JC	S	GST	PCT	238	F	27	4/12/2012	5220	1.00	TRUE	S	Thorpe.Miller	N/A
599	116S1A	JC	S	GST	PCT	238	F	28	4/12/2012	5437	1.00	TRUE	S	Thorpe.Miller	N/A
599	116S1A	JC	S	GST	PCT	238	F	29	4/12/2012	5148	1.00	TRUE	S	Thorpe.Miller	N/A
599	116S1A	JC	S	GST	PCT	238	F	30	4/12/2012	5359	1.00	TRUE	S	Thorpe.Miller	N/A
599	116S1A	JC	S	GST	PCT	238	F	31	4/12/2012	5273	1.00	TRUE	S	Thorpe.Miller	N/A
599	116S1A	JC	S	GST	PCT	238	F	32	4/12/2012	5422	1.00	TRUE	S	Thorpe.Miller	N/A
599	116S1A	JC	S	GST	PCT	238	F	33	4/12/2012	5329	1.00	TRUE	S	Thorpe.Miller	N/A
599	116S1A	JC	S	GST	PCT	238	F	34	4/12/2012	5237	1.00	TRUE	S	Thorpe.Miller	N/A
599	116S1A	JC	S	GST	PCT	238	F	35	4/12/2012	5343	1.00	TRUE	S	Thorpe.Miller	N/A
599	116S1A	JC	S	GST	PCT	242	F	25	4/17/2012	5316	1.00	TRUE	S	Thorpe.Miller	N/A
599	116S1A	JC	S	GST	PCT	242	F	26	4/17/2012	5455	1.00	TRUE	S	Thorpe.Miller	N/A
599	116S1A	JC	S	GST	PCT	242	F	27	4/17/2012	5138	1.00	TRUE	S	Thorpe.Miller	N/A
599	116S1A	JC	S	GST	PCT	242	F	28	4/17/2012	5371	1.00	TRUE	S	Thorpe.Miller	N/A
599	116S1A	JC	S	GST	PCT	242	F	29	4/17/2012	5480	1.00	TRUE	S	Thorpe.Miller	N/A
599	116S1A	JC	S	GST	PCT	242	F	30	4/17/2012	5266	1.00	TRUE	S	Thorpe.Miller	N/A
599	116S1A	JC	S	GST	PCT	242	F	31	4/17/2012	5229	1.00	TRUE	S	Thorpe.Miller	N/A
599	116S1A	JC	S	GST	PCT	242	F	32	4/17/2012	5110	1.00	TRUE	S	Thorpe.Miller	N/A
599	116S1A	JC	S	GST	PCT	242	F	33	4/17/2012	5586	1.00	TRUE	S	Thorpe.Miller	N/A
599	116S1A	JC	S	GST	PCT	242	F	34	4/17/2012	5363	1.00	TRUE	S	Thorpe.Miller	N/A

599	116S1A	JC	S	GST	PCT	242	F	35	4/17/2012	5236	1.00	TRUE	S	Thorpe.Miller	N/A
599	116S1A	JC	S	GST	PCT	242	F	36	4/17/2012	5150	1.00	TRUE	S	Thorpe.Miller	N/A
599	116S1A	JC	S	GST	PCT	242	F	37	4/17/2012	5194	1.00	TRUE	S	Thorpe.Miller	N/A
599	116S1A	JC	S	GST	PCT	242	F	38	4/17/2012	5440	1.00	TRUE	S	Thorpe.Miller	N/A
599	116S1A	JC	S	GST	PCT	242	F	39	4/17/2012	5219	1.00	TRUE	S	Thorpe.Miller	N/A
599	116S1A	JC	S	GST	PCT	242	F	40	4/17/2012	5301	1.00	TRUE	S	Thorpe.Miller	N/A
599	116S1A	JC	S	GST	PCT	242	F	41	4/17/2012	5175	1.00	TRUE	S	Thorpe.Miller	N/A
599	116S1A	JC	S	GST	PCT	242	F	42	4/17/2012	5488	1.00	TRUE	S	Thorpe.Miller	N/A
630	116S1A	RR	S	GST	PCT	302	F	5	5/22/2012	5831	1.00	TRUE	S	Thorpe.Miller	N/A
630	116S1A	RR	S	GST	PCT	302	F	6	5/22/2012	5945	1.00	TRUE	S	Thorpe.Miller	N/A
630	116S1A	RR	S	GST	PCT	302	F	7	5/22/2012	5796	1.00	TRUE	S	Thorpe.Miller	N/A
630	116S1A	RR	S	GST	PCT	302	F	8	5/22/2012	6003	1.00	TRUE	S	Thorpe.Miller	N/A
630	116S1A	RR	S	GST	PCT	302	F	9	5/22/2012	5781	1.00	TRUE	S	Thorpe.Miller	N/A
630	116S1A	RR	S	GST	PCT	302	F	10	5/22/2012	5847	1.00	TRUE	S	Thorpe.Miller	N/A
630	116S1A	RR	S	GST	PCT	302	F	11	5/22/2012	5955	1.00	TRUE	S	Thorpe.Miller	N/A
630	116S1A	RR	S	GST	PCT	302	F	12	5/22/2012	5720	1.00	TRUE	S	Thorpe.Miller	N/A
630	116S1A	RR	S	GST	PCT	302	F	13	5/22/2012	5874	1.00	TRUE	S	Thorpe.Miller	N/A
630	116S1A	RR	S	GST	PCT	302	F	14	5/22/2012	5613	1.00	TRUE	S	Thorpe.Miller	N/A
630	116S1A	RR	S	GST	PCT	302	F	15	5/22/2012	5701	1.00	TRUE	S	Thorpe.Miller	N/A
630	116S1A	RR	S	GST	PCT	302	F	16	5/22/2012	5863	1.00	TRUE	S	Thorpe.Miller	N/A
630	116S1A	RR	S	GST	PCT	302	F	17	5/22/2012	5911	1.00	TRUE	S	Thorpe.Miller	N/A
630	116S1A	RR	S	GST	PCT	302	F	18	5/22/2012	5734	1.00	TRUE	S	Thorpe.Miller	N/A
630	116S1A	RR	S	GST	PCT	302	F	19	5/22/2012	5950	1.00	TRUE	S	Thorpe.Miller	N/A
630	116S1A	RR	S	GST	PCT	302	F	20	5/22/2012	5863	1.00	TRUE	S	Thorpe.Miller	N/A
630	116S1A	RR	S	GST	PCT	302	F	21	5/22/2012	5701	1.00	TRUE	S	Thorpe.Miller	N/A
630	116S1A	RR	S	GST	PCT	302	F	22	5/22/2012	5822	1.00	TRUE	S	Thorpe.Miller	N/A
630	116S1A	RR	S	GST	PCT	304	F	11	5/31/2012	5107	1.00	TRUE	S	Thorpe.Miller	N/A
630	116S1A	RR	S	GST	PCT	304	F	12	5/31/2012	5033	1.00	TRUE	S	Thorpe.Miller	N/A
630	116S1A	RR	S	GST	PCT	304	F	13	5/31/2012	5266	1.00	TRUE	S	Thorpe.Miller	N/A
630	116S1A	RR	S	GST	PCT	304	F	14	5/31/2012	5119	1.00	TRUE	S	Thorpe.Miller	N/A
630	116S1A	RR	S	GST	PCT	304	F	15	5/31/2012	5270	1.00	TRUE	S	Thorpe.Miller	N/A
630	116S1A	RR	S	GST	PCT	304	F	16	5/31/2012	5099	1.00	TRUE	S	Thorpe.Miller	N/A
630	116S1A	RR	S	GST	PCT	304	F	17	5/31/2012	5221	1.00	TRUE	S	Thorpe.Miller	N/A
630	116S1A	RR	S	GST	PCT	304	F	18	5/31/2012	5319	1.00	TRUE	S	Thorpe.Miller	N/A
630	116S1A	RR	S	GST	PCT	304	F	19	5/31/2012	5001	1.00	TRUE	S	Thorpe.Miller	N/A
630	116S1A	RR	S	GST	PCT	304	F	20	5/31/2012	5177	1.00	TRUE	S	Thorpe.Miller	N/A
630	116S1A	RR	S	GST	PCT	304	F	21	5/31/2012	5306	1.00	TRUE	S	Thorpe.Miller	N/A
630	116S1A	RR	S	GST	PCT	304	F	22	5/31/2012	5100	1.00	TRUE	S	Thorpe.Miller	N/A
630	116S1A	RR	S	GST	PCT	304	F	23	5/31/2012	5061	1.00	TRUE	S	Thorpe.Miller	N/A
630	116S1A	RR	S	GST	PCT	304	F	24	5/31/2012	5421	1.00	TRUE	S	Thorpe.Miller	N/A
630	116S1A	RR	S	GST	PCT	304	F	25	5/31/2012	5393	1.00	TRUE	S	Thorpe.Miller	N/A
630	116S1A	RR	S	GST	PCT	304	F	26	5/31/2012	5803	1.00	TRUE	S	Thorpe.Miller	N/A
630	116S1A	RR	S	GST	PCT	304	F	27	5/31/2012	5150	1.00	TRUE	S	Thorpe.Miller	N/A
630	116S1A	RR	S	GST	PCT	304	F	28	5/31/2012	5241	1.00	TRUE	S	Thorpe.Miller	N/A

TETRA TECH EC, INC.
1230 Columbia St, Suite 750
San Diego, CA 92101

Chain-of-Custody Record

TS 00327

Project Name: Parcel C Trench Survey	PO Number: N/A	GAMMASPEC	LABORATORY NAME: ONSITE - Curtis & Tompkins, Ltd.
Project Location: HUNTERS POINT	Project Number: 4044-0002	SR90	**Project Information Section**
Sampler Name: J.CUNNINGHAM	Airbill Number: N/A	ALPHA	
Project Chemist: LISA BIENKOWSKI	Project Chemist Phone: 949-756-7592		

SAMPLE_ID	DATE	TIME	Containers	LEVEL	TYPE	TAT	GAMMASPEC	SR90	ALPHA	COMMENTS	LOCATION	SAMPLE ID
02-PCT-234-001	11/18/2011	1005	1		S		☑	☐	☐			
02-PCT-234-002	11/18/2011	1010	1		S		☑	☐	☐			
02-PCT-234-003	11/18/2011	1015	1		S		☑	☐	☐			
02-PCT-234-004	11/18/2011	1020	1		S		☑	☐	☐			
02-PCT-234-005	11/18/2011	1025	1		S		☑	☐	☐			
02-PCT-234-006	11/18/2011	1030	1		S		☑	☐	☐			
02-PCT-234-007	11/18/2011	1035	1		S		☑	☐	☐			
02-PCT-234-008	11/18/2011	1040	1		S		☑	☐	☐			
02-PCT-234-009	11/18/2011	1045	1		S		☑	☐	☐			
02-PCT-234-010	11/18/2011	1050	1		S		☑	☐	☐			
02-PCT-234-011	11/18/2011	1055	1		S		☑	☐	☐			
02-PCT-234-012	11/18/2011	1160	1		S		☑	☐	☐			

Relinquished by: (signature)	*Date* 11-18-11	*Received by: (signature)*	
Company R.S.R.S.	*Time* 1345	*Company* CET	
Relinquished by: (signature)	*Date*	*Received by: (signature)*	
Company	*Time*	*Company*	
Relinquished by: (signature)	*Date*	*Received by: (signature)*	
Company	*Time*	*Company*	

TO 234

TETRA TECH EC, INC.
1230 Columbia St, Suite 750
San Diego, CA 92101

Chain-of-Custody Record

TS 00328

Project Name: Parcel C Trench Survey	PO Number: N/A	LABORATORY NAME: ONSITE - Curtis & Tompkins, Ltd.	Project Information Section
Project Location: HUNTERS POINT	Project Number: 4044-0002	LABORATORY ID:	
Sampler Name: J. Cunningham	Airbill Number: N/A		
Project Chemist: LISA BIENKOWSKI	Project Chemist Phone: 949-756-7592		

SAMPLE_ID	DATE	TIME	Containers	LEVEL	TYPE	TAT	GAMMA SPEC 1	SR90 1	ALPHA 1	COMMENTS	LOCATION	SAMPLE ID
02-PCT-234-013	11/18/2011	1105	1		S		☑	☐	☐			
02-PCT-234-014	11/18/2011	1110	1		S		☑	☐	☐			
02-PCT-234-015	11/18/2011	1115	1		S		☑	☐	☐			
02-PCT-234-016	11/18/2011	1120	1		S		☑	☐	☐			
02-PCT-234-017	11/18/2011	1125	1		S		☑	☐	☐			
02-PCT-234-018	11/18/2011	1130	1		S		☑	☐	☐			

Relinquished by: (signature) [signature]	Date 11-18-11	Received by: (signature) [signature]	LABORATORY INSTRUCTIONS/COMMENTS
Company R.S.R.S.	Time 1345	Company C&T	
Relinquished by: (signature)	Date	Received by: (signature)	COMPOSITE DESCRIPTION
Company	Time	Company	
Relinquished by: (signature)	Date	Received by: (signature)	SAMPLE CONDITION UPON RECEIPT (FOR LABORATORY) TEMPERATURE: SAMPLE CONDITION: COOLER SEAL:
Company	Time	Company	

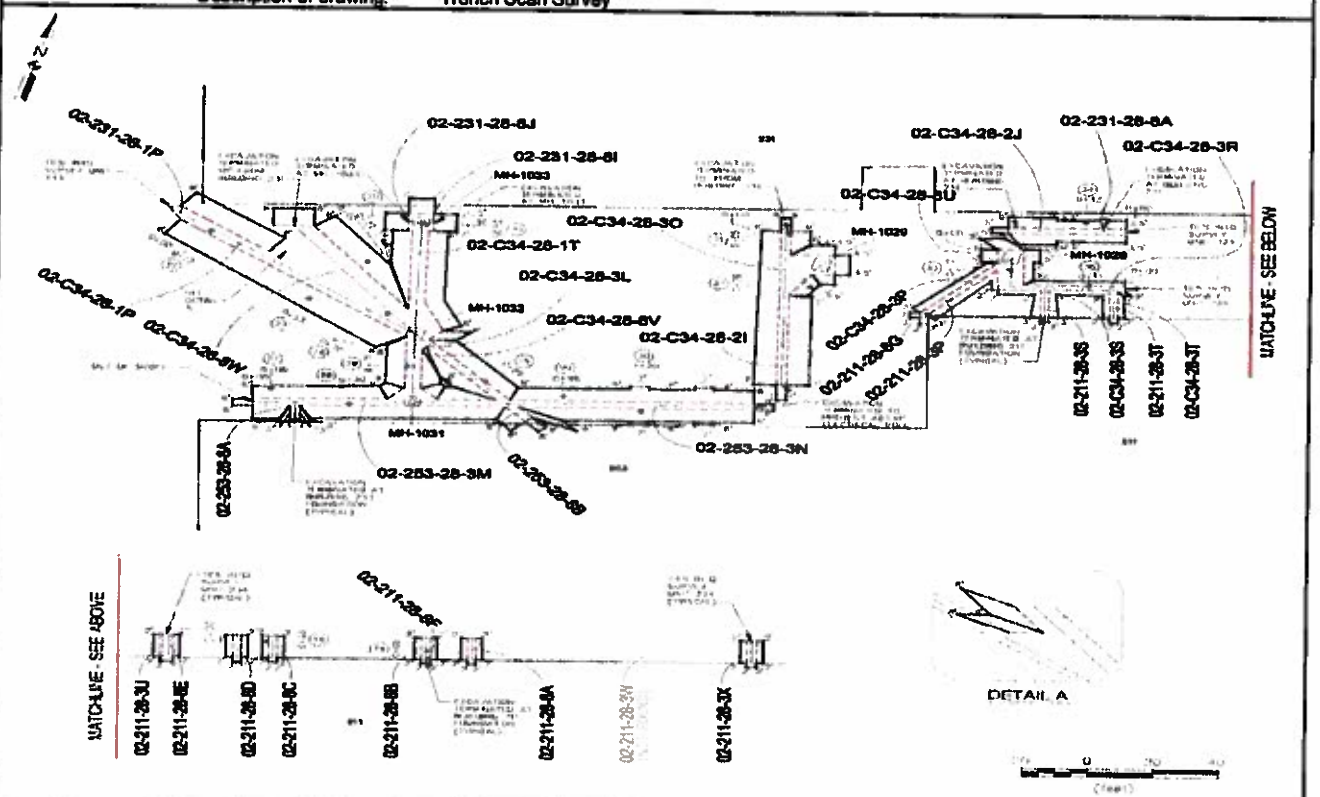
SAMPLING COMMENTS

RADIATION/CONTAMINATION SURVEY SUPPLEMENT

Date:	Time:	INSTRUMENTATION USED						
		Model Inst/Det.	Serial Number	Calibration Due Date	Instrument % Efficiency	Total % Efficiency	MDC/MDA + (dpm/100cm2)	Background + (dpm/100cm2)
4/12/2012	08:30							
Survey Number: HPS-SU-238								
Location:	Parcel C							
Surveyor:	J. Cunningham							
Reviewed By: (Print & Sign)		2350-1 44-10	117563 215116	6/8/2012				

Isotopes of Concern: ^{226}Ra ^{90}Sr ^{137}Cs

Description of drawing: Trench Scan Survey



Comments:

Scan range for 2350-1 Instrument is 3.14 - 7.37 Kcpm

3 sigma investigation level for 2350-1 Instrument is 8028 cpm

Picture is representative of material surveyed.

denotes swipe location or fixed α/β readings

# denotes G/A radiation readings

#/# denotes contact / 1 meter radiation readings.

* denotes highest radiation reading on contact

LAW denotes large area masslinn wipe

Δ denotes static location

* Unless Otherwise Noted

All readings in µR/hr unless otherwise noted

K = 1000

RADIATION/CONTAMINATION SURVEY SUPPLEMENT

SURVEY NUMBER: HPS-SU-238

SURVEYOR: J. Cunningham

LOCATION: Parcel C

Location	Exposure Rate (µR/hr)		Gamma (cpm)	Fixed + Removable (NET)		Removable (NET)		Comments
	Contact	1 Meter		Alpha dpm/100cm2	Beta/Gamma dpm/100cm2	Alpha dpm/100cm2	Beta/Gamma dpm/100cm2	
18			5340					
19			5113					
20			5374					
21			5252					
22			5461					
23			5312					
24			5103					
25			5355					
26			5292					
27			5220					
28			5437					
29			5148					
30			5359					
31			5273					
32			5422					
33			5329					
34			5237					
35			5343					

Reviewer:

Date:

2350ID	SurveyMaterial	SurveyorInitials	SurveyType	DataType	Bldg	SurveyUnit	Location	RegNum	DateTime	GammaCPM	CntTime	IsValid	LogMode	ImporterInitials	ImportDate
599	116S1A	RR	S	GST	PCT	234	F	1	11/18/2011	5133	1.00	TRUE	S	Thorpe.Miller	N/A
599	116S1A	RR	S	GST	PCT	234	F	2	11/18/2011	5409	1.00	TRUE	S	Thorpe.Miller	N/A
599	116S1A	RR	S	GST	PCT	234	F	3	11/18/2011	5501	1.00	TRUE	S	Thorpe.Miller	N/A
599	116S1A	RR	S	GST	PCT	234	F	4	11/18/2011	5376	1.00	TRUE	S	Thorpe.Miller	N/A
599	116S1A	RR	S	GST	PCT	234	F	5	11/18/2011	5280	1.00	TRUE	S	Thorpe.Miller	N/A
599	116S1A	RR	S	GST	PCT	234	F	6	11/18/2011	5276	1.00	TRUE	S	Thorpe.Miller	N/A
599	116S1A	RR	S	GST	PCT	234	F	7	11/18/2011	5603	1.00	TRUE	S	Thorpe.Miller	N/A
599	116S1A	RR	S	GST	PCT	234	F	8	11/18/2011	5333	1.00	TRUE	S	Thorpe.Miller	N/A
599	116S1A	RR	S	GST	PCT	234	F	9	11/18/2011	5270	1.00	TRUE	S	Thorpe.Miller	N/A
599	116S1A	RR	S	GST	PCT	234	F	10	11/18/2011	5602	1.00	TRUE	S	Thorpe.Miller	N/A
599	116S1A	RR	S	GST	PCT	234	F	11	11/18/2011	5447	1.00	TRUE	S	Thorpe.Miller	N/A
599	116S1A	RR	S	GST	PCT	234	F	12	11/18/2011	5391	1.00	TRUE	S	Thorpe.Miller	N/A
599	116S1A	RR	S	GST	PCT	234	F	13	11/18/2011	5184	1.00	TRUE	S	Thorpe.Miller	N/A
599	116S1A	RR	S	GST	PCT	234	F	14	11/18/2011	5331	1.00	TRUE	S	Thorpe.Miller	N/A
599	116S1A	RR	S	GST	PCT	234	F	15	11/18/2011	5502	1.00	TRUE	S	Thorpe.Miller	N/A
599	116S1A	RR	S	GST	PCT	234	F	16	11/18/2011	5310	1.00	TRUE	S	Thorpe.Miller	N/A
599	116S1A	RR	S	GST	PCT	234	F	17	11/18/2011	5666	1.00	TRUE	S	Thorpe.Miller	N/A
599	116S1A	RR	S	GST	PCT	234	F	18	11/18/2011	5213	1.00	TRUE	S	Thorpe.Miller	N/A
599	116S1A	JC 0.9228	S	GST	PCT	238	F	18	4/12/2012	5340	1.00	TRUE	S	Thorpe.Miller	N/A
599	116S1A	JC 1.1450	S	GST	PCT	238	F	19	4/12/2012	5113	1.00	TRUE	S	Thorpe.Miller	N/A
599	116S1A	JC 2.377	S	GST	PCT	238	F	20	4/12/2012	5374	1.00	TRUE	S	Thorpe.Miller	N/A
599	116S1A	JC 1.5466	S	GST	PCT	238	F	21	4/12/2012	5252	1.00	TRUE	S	Thorpe.Miller	N/A
599	116S1A	JC 1.0756	S	GST	PCT	238	F	22	4/12/2012	5461	1.00	TRUE	S	Thorpe.Miller	N/A
599	116S1A	JC 3.447	S	GST	PCT	238	F	23	4/12/2012	5312	1.00	TRUE	S	Thorpe.Miller	N/A
599	116S1A	JC 5.541	S	GST	PCT	238	F	24	4/12/2012	5103	1.00	TRUE	S	Thorpe.Miller	N/A
599	116S1A	JC 3.453	S	GST	PCT	238	F	25	4/12/2012	5355	1.00	TRUE	S	Thorpe.Miller	N/A
599	116S1A	JC 1.029	S	GST	PCT	238	F	26	4/12/2012	5292	1.00	TRUE	S	Thorpe.Miller	N/A
599	116S1A	JC 0.9147	S	GST	PCT	238	F	27	4/12/2012	5220	1.00	TRUE	S	Thorpe.Miller	N/A
599	116S1A	JC 0.9184	S	GST	PCT	238	F	28	4/12/2012	5437	1.00	TRUE	S	Thorpe.Miller	N/A
599	116S1A	JC 0.674	S	GST	PCT	238	F	29	4/12/2012	5148	1.00	TRUE	S	Thorpe.Miller	N/A
599	116S1A	JC 1.518	S	GST	PCT	238	F	30	4/12/2012	5359	1.00	TRUE	S	Thorpe.Miller	N/A
599	116S1A	JC 0.8516	S	GST	PCT	238	F	31	4/12/2012	5273	1.00	TRUE	S	Thorpe.Miller	N/A
599	116S1A	JC 1.492	S	GST	PCT	238	F	32	4/12/2012	5422	1.00	TRUE	S	Thorpe.Miller	N/A
599	116S1A	JC 0.8569	S	GST	PCT	238	F	33	4/12/2012	5329	1.00	TRUE	S	Thorpe.Miller	N/A
599	116S1A	JC 1.103	S	GST	PCT	238	F	34	4/12/2012	5237	1.00	TRUE	S	Thorpe.Miller	N/A
599	116S1A	JC 0.6327	S	GST	PCT	238	F	35	4/12/2012	5343	1.00	TRUE	S	Thorpe.Miller	N/A
599	116S1A	JC	S	GST	PCT	242	F	25	4/17/2012	5316	1.00	TRUE	S	Thorpe.Miller	N/A
599	116S1A	JC	S	GST	PCT	242	F	26	4/17/2012	5455	1.00	TRUE	S	Thorpe.Miller	N/A
599	116S1A	JC	S	GST	PCT	242	F	27	4/17/2012	5138	1.00	TRUE	S	Thorpe.Miller	N/A
599	116S1A	JC	S	GST	PCT	242	F	28	4/17/2012	5371	1.00	TRUE	S	Thorpe.Miller	N/A
599	116S1A	JC	S	GST	PCT	242	F	29	4/17/2012	5480	1.00	TRUE	S	Thorpe.Miller	N/A
599	116S1A	JC	S	GST	PCT	242	F	30	4/17/2012	5266	1.00	TRUE	S	Thorpe.Miller	N/A
599	116S1A	JC	S	GST	PCT	242	F	31	4/17/2012	5229	1.00	TRUE	S	Thorpe.Miller	N/A
599	116S1A	JC	S	GST	PCT	242	F	32	4/17/2012	5110	1.00	TRUE	S	Thorpe.Miller	N/A
599	116S1A	JC	S	GST	PCT	242	F	33	4/17/2012	5586	1.00	TRUE	S	Thorpe.Miller	N/A
599	116S1A	JC	S	GST	PCT	242	F	34	4/17/2012	5363	1.00	TRUE	S	Thorpe.Miller	N/A

599	116S1A	JC	S	GST	PCT	242	F	35	4/17/2012	5236	1.00	TRUE	S	Thorpe.Miller	N/A
599	116S1A	JC	S	GST	PCT	242	F	36	4/17/2012	5150	1.00	TRUE	S	Thorpe.Miller	N/A
599	116S1A	JC	S	GST	PCT	242	F	37	4/17/2012	5194	1.00	TRUE	S	Thorpe.Miller	N/A
599	116S1A	JC	S	GST	PCT	242	F	38	4/17/2012	5440	1.00	TRUE	S	Thorpe.Miller	N/A
599	116S1A	JC	S	GST	PCT	242	F	39	4/17/2012	5219	1.00	TRUE	S	Thorpe.Miller	N/A
599	116S1A	JC	S	GST	PCT	242	F	40	4/17/2012	5301	1.00	TRUE	S	Thorpe.Miller	N/A
599	116S1A	JC	S	GST	PCT	242	F	41	4/17/2012	5175	1.00	TRUE	S	Thorpe.Miller	N/A
599	116S1A	JC	S	GST	PCT	242	F	42	4/17/2012	5488	1.00	TRUE	S	Thorpe.Miller	N/A
630	116S1A	RR	S	GST	PCT	302	F	5	5/22/2012	5831	1.00	TRUE	S	Thorpe.Miller	N/A
630	116S1A	RR	S	GST	PCT	302	F	6	5/22/2012	5945	1.00	TRUE	S	Thorpe.Miller	N/A
630	116S1A	RR	S	GST	PCT	302	F	7	5/22/2012	5796	1.00	TRUE	S	Thorpe.Miller	N/A
630	116S1A	RR	S	GST	PCT	302	F	8	5/22/2012	6003	1.00	TRUE	S	Thorpe.Miller	N/A
630	116S1A	RR	S	GST	PCT	302	F	9	5/22/2012	5781	1.00	TRUE	S	Thorpe.Miller	N/A
630	116S1A	RR	S	GST	PCT	302	F	10	5/22/2012	5847	1.00	TRUE	S	Thorpe.Miller	N/A
630	116S1A	RR	S	GST	PCT	302	F	11	5/22/2012	5955	1.00	TRUE	S	Thorpe.Miller	N/A
630	116S1A	RR	S	GST	PCT	302	F	12	5/22/2012	5720	1.00	TRUE	S	Thorpe.Miller	N/A
630	116S1A	RR	S	GST	PCT	302	F	13	5/22/2012	5874	1.00	TRUE	S	Thorpe.Miller	N/A
630	116S1A	RR	S	GST	PCT	302	F	14	5/22/2012	5613	1.00	TRUE	S	Thorpe.Miller	N/A
630	116S1A	RR	S	GST	PCT	302	F	15	5/22/2012	5701	1.00	TRUE	S	Thorpe.Miller	N/A
630	116S1A	RR	S	GST	PCT	302	F	16	5/22/2012	5863	1.00	TRUE	S	Thorpe.Miller	N/A
630	116S1A	RR	S	GST	PCT	302	F	17	5/22/2012	5911	1.00	TRUE	S	Thorpe.Miller	N/A
630	116S1A	RR	S	GST	PCT	302	F	18	5/22/2012	5734	1.00	TRUE	S	Thorpe.Miller	N/A
630	116S1A	RR	S	GST	PCT	302	F	19	5/22/2012	5950	1.00	TRUE	S	Thorpe.Miller	N/A
630	116S1A	RR	S	GST	PCT	302	F	20	5/22/2012	5863	1.00	TRUE	S	Thorpe.Miller	N/A
630	116S1A	RR	S	GST	PCT	302	F	21	5/22/2012	5701	1.00	TRUE	S	Thorpe.Miller	N/A
630	116S1A	RR	S	GST	PCT	302	F	22	5/22/2012	5822	1.00	TRUE	S	Thorpe.Miller	N/A
630	116S1A	RR	S	GST	PCT	304	F	11	5/31/2012	5107	1.00	TRUE	S	Thorpe.Miller	N/A
630	116S1A	RR	S	GST	PCT	304	F	12	5/31/2012	5033	1.00	TRUE	S	Thorpe.Miller	N/A
630	116S1A	RR	S	GST	PCT	304	F	13	5/31/2012	5266	1.00	TRUE	S	Thorpe.Miller	N/A
630	116S1A	RR	S	GST	PCT	304	F	14	5/31/2012	5119	1.00	TRUE	S	Thorpe.Miller	N/A
630	116S1A	RR	S	GST	PCT	304	F	15	5/31/2012	5270	1.00	TRUE	S	Thorpe.Miller	N/A
630	116S1A	RR	S	GST	PCT	304	F	16	5/31/2012	5099	1.00	TRUE	S	Thorpe.Miller	N/A
630	116S1A	RR	S	GST	PCT	304	F	17	5/31/2012	5221	1.00	TRUE	S	Thorpe.Miller	N/A
630	116S1A	RR	S	GST	PCT	304	F	18	5/31/2012	5319	1.00	TRUE	S	Thorpe.Miller	N/A
630	116S1A	RR	S	GST	PCT	304	F	19	5/31/2012	5001	1.00	TRUE	S	Thorpe.Miller	N/A
630	116S1A	RR	S	GST	PCT	304	F	20	5/31/2012	5177	1.00	TRUE	S	Thorpe.Miller	N/A
630	116S1A	RR	S	GST	PCT	304	F	21	5/31/2012	5306	1.00	TRUE	S	Thorpe.Miller	N/A
630	116S1A	RR	S	GST	PCT	304	F	22	5/31/2012	5100	1.00	TRUE	S	Thorpe.Miller	N/A
630	116S1A	RR	S	GST	PCT	304	F	23	5/31/2012	5061	1.00	TRUE	S	Thorpe.Miller	N/A
630	116S1A	RR	S	GST	PCT	304	F	24	5/31/2012	5421	1.00	TRUE	S	Thorpe.Miller	N/A
630	116S1A	RR	S	GST	PCT	304	F	25	5/31/2012	5393	1.00	TRUE	S	Thorpe.Miller	N/A
630	116S1A	RR	S	GST	PCT	304	F	26	5/31/2012	5803	1.00	TRUE	S	Thorpe.Miller	N/A
630	116S1A	RR	S	GST	PCT	304	F	27	5/31/2012	5150	1.00	TRUE	S	Thorpe.Miller	N/A
630	116S1A	RR	S	GST	PCT	304	F	28	5/31/2012	5241	1.00	TRUE	S	Thorpe.Miller	N/A

TETRA TECH EC, INC.
1230 Columbia St, Suite 750
San Diego, CA 92101

Chain-of-Custody Record

TS 00373

Project Name: Parcel C Trench Survey	PO Number: N/A		
Project Location: HUNTERS POINT	Project Number: 4044-0002		
Sampler Name: Joe Cunningham	Airbill Number: N/A		
Project Chemist: LISA BIENKOWSKI	Project Chemist Phone: 949-756-7592		

LABORATORY NAME: ONSITE - Curtis & Tompkins, LTD.
LABORATORY ID:

Project Information Section

SAMPLE_ID	DATE	TIME	Containers	LEVEL	TYPE	TAT	GAMMASPEC 1	SR90 1	ALPHA 1	COMMENTS	LOCATION	SAMPLE ID
02-PCT-238-018	4/12/2012	1000	1		S		☑	☐	☐			
02-PCT-238-019	4/12/2012	1005	1		S		☑	☐	☐			
02-PCT-238-020	4/12/2012	1010	1		S		☑	☐	☐	DUP		
02-PCT-238-021	4/12/2012	1015	1		S		☑	☐	☐			
02-PCT-238-022	4/12/2012	1020	1		S		☑	☐	☐			
02-PCT-238-023	4/12/2012	1025	1		S		☑	☐	☐			
02-PCT-238-024	4/12/2012	1030	1		S		☑	☐	☐			
02-PCT-238-025	4/12/2012	1035	1		S		☑	☐	☐			
02-PCT-238-026	4/12/2012	1040	1		S		☑	☐	☐			
02-PCT-238-027	4/12/2012	1045	1		S		☑	☐	☐			
02-PCT-238-028	4/12/2012	1050	1		S		☑	☐	☐			
02-PCT-238-029	4/12/2012	1055	1		S		☑	☐	☐			

Relinquished by: (signature)	Date: 041212	Received by: (signature)
Company: TTEC	Time: 1130	Company: CET
Relinquished by: (signature)	Date	Received by: (signature)
Company	Time	Company
Relinquished by: (signature)	Date	Received by: (signature)
Company	Time	Company

LABORATORY INSTRUCTION/COMMENTS:

COMPOSITE DESCRIPTION:

SAMPLE CONDITION UPON RECEIPT (LABORATORY)
TEMPERATURE: TYPE OF CONDITION: CONDITION:

SAMPLING COMMENTS:

TETRA TECH EC, INC.
1230 Columbia St, Suite 750
San Diego, CA 92101

Chain-of-Custody Record

TS 00374

Project Name: Parcel C Trench Survey		PO Number: N/A					G A M M A S P E C	S R 9 0	A L P H A		LABORATORY NAME: ONSITE - Curtis & Tompkins, LTD.	Project Information Section
Project Location: HUNTERS POINT		Project Number: 4044-0002									LABORATORY ID: [redacted]	
Sampler Name: Joe Cunningham		Airbill Number: N/A										
Project Chemist: LISA BIENKOWSKI		Project Chemist Phone: 949-756-7592										
SAMPLE_ID	DATE	TIME	Containers	LEVEL	TYPE	TAT	1	1	1	COMMENTS	LOCATION	SAMPLE ID
02-PCT-238-030	4/12/2012	1100	1		S		☑	☐	☐			[redacted]
02-PCT-238-031	4/12/2012	1105	1		S		☑	☐	☐			[redacted]
02-PCT-238-032	4/12/2012	1116	1		S		☑	☐	☐			[redacted]
02-PCT-238-033	4/12/2012	1115	1		S		☑	☐	☐			[redacted]
02-PCT-238-034	4/12/2012	1120	1		S		☑	☐	☐			[redacted]
02-PCT-238-035	4/12/2012	1125	1		S		☑	☐	☐			[redacted]

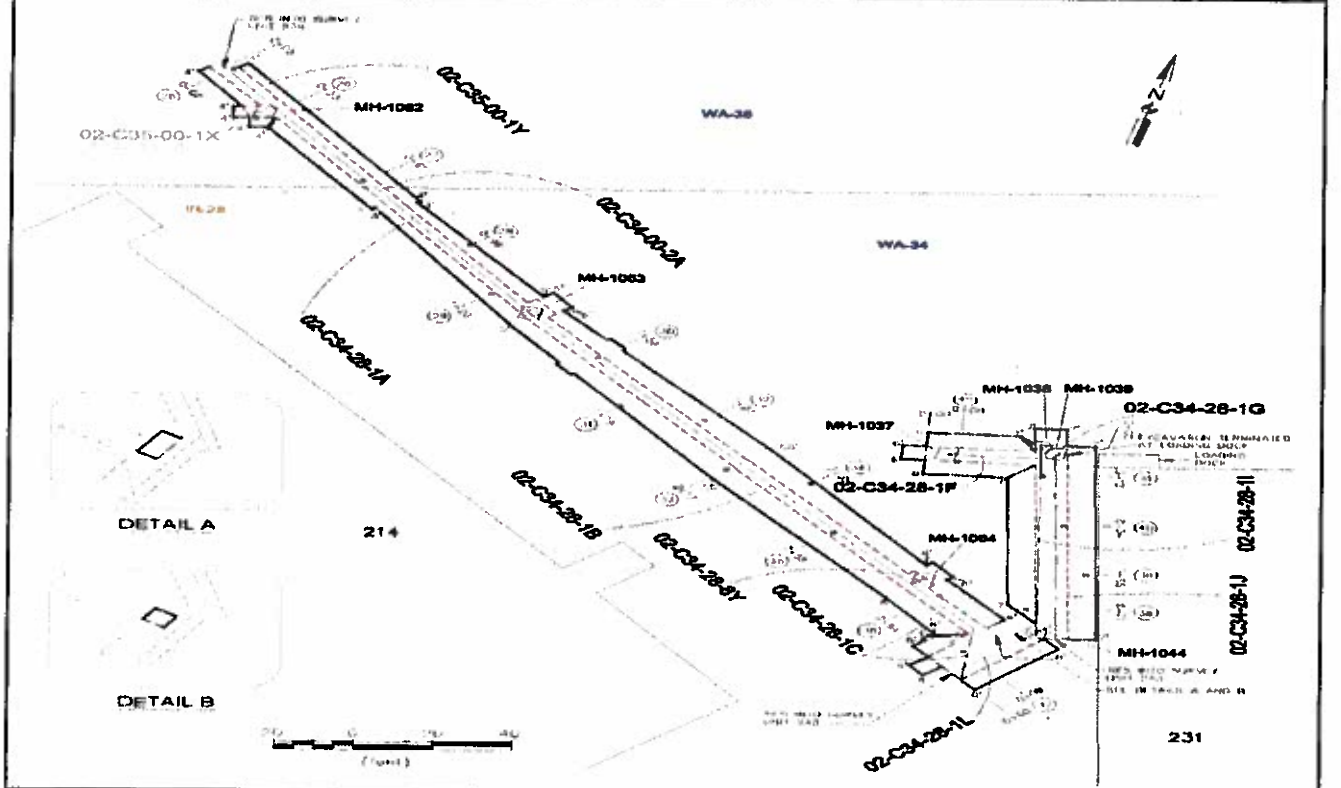
Relinquished by: (signature)	Date: 041212	Received by: (signature)	LABORATORY INSTRUCTIONS/COMMENTS:	SAMPLING COMMENTS:
Company: TTSPS	Time: 1130	Company: CET		
Relinquished by: (signature)	Date	Received by: (signature)	COMPOSITE DESCRIPTION:	
Company	Time	Company		
Relinquished by: (signature)	Date	Received by: (signature)	SAMPLE CONDITION UPON RECEIPT (FOR LABORATORY): TEMPERATURE: SAMPLE CONDITION: COOLER SEAL:	
Company	Time	Company		

RADIATION/CONTAMINATION SURVEY SUPPLEMENT

Date:	Time:	INSTRUMENTATION USED						
		Model Inst/Det.	Serial Number	Calibration Due Date	Instrument % Efficiency	Total % Efficiency	MDC/MDA + (dpm/100cm2)	Background + (dpm/100cm2)
4/17/2012	10:00							
Survey Number: HPS-SU-242								
Location: Parcel C								
Surveyor: J. Cunningham								
Reviewed By: (Print & Sign)		2350-1 44-10	117563 215116	6/8/2012				

Isotopes of Concern: ^{226}Ra ^{90}Sr ^{137}Cs

Description of drawing: Trench Scan Survey



Comments:

Scan range for 2350-1 Instrument is 3.73 - 7.67 Kcpm

3 sigma investigation level for 2350-1 Instrument is 8028 cpm

Picture is representative of material surveyed.

denotes swipe location or fixed α/β readings

# denotes G/A radiation readings

#/# denotes contact / 1 meter radiation readings

* denotes highest radiation reading on contact

LAW denotes large area massiinn wipe

Δ denotes static location.

\+ Unless Otherwise Noted

All readings in µR/hr unless otherwise noted

K = 1000

RADIATION/CONTAMINATION SURVEY SUPPLEMENT

SURVEY NUMBER: HPS-SU-242

SURVEYOR: J. Cunningham

LOCATION: Parcel C

Location	Exposure Rate (µR/hr)		Gamma (cpm)	Fixed + Removable (NET)		Removable (NET)		Comments
	Contact	1 Meter		Alpha dpm/100cm2	Beta/Gamma dpm/100cm2	Alpha dpm/100cm2	Beta/Gamma dpm/100cm2	
25			5318					
26			5455					
27			5138					
28			5371					
29			5480					
30			5266					
31			5229					
32			5110					
33			5586					
34			5363					
35			5236					
36			5150					
37			5194					
38			5440					
39			5219					
40			5301					
41			5175					
42			5488					

Reviewer:

Date:

2350ID	SurveyMaterial	SurveyorInitials	SurveyType	DataType	Bldg	SurveyUnit	Location	RowNum	DateTime	GammaCPM	CntTime	IsValid	LogMode	ImporterInitials	ImportDate
599	116S1A	RR	S	GST	PCT	234	F	1	11/18/2011	5133	1.00	TRUE	S	Thorpe.Miller	N/A
599	116S1A	RR	S	GST	PCT	234	F	2	11/18/2011	5409	1.00	TRUE	S	Thorpe.Miller	N/A
599	116S1A	RR	S	GST	PCT	234	F	3	11/18/2011	5501	1.00	TRUE	S	Thorpe.Miller	N/A
599	116S1A	RR	S	GST	PCT	234	F	4	11/18/2011	5376	1.00	TRUE	S	Thorpe.Miller	N/A
599	116S1A	RR	S	GST	PCT	234	F	5	11/18/2011	5280	1.00	TRUE	S	Thorpe.Miller	N/A
599	116S1A	RR	S	GST	PCT	234	F	6	11/18/2011	5276	1.00	TRUE	S	Thorpe.Miller	N/A
599	116S1A	RR	S	GST	PCT	234	F	7	11/18/2011	5603	1.00	TRUE	S	Thorpe.Miller	N/A
599	116S1A	RR	S	GST	PCT	234	F	8	11/18/2011	5333	1.00	TRUE	S	Thorpe.Miller	N/A
599	116S1A	RR	S	GST	PCT	234	F	9	11/18/2011	5270	1.00	TRUE	S	Thorpe.Miller	N/A
599	116S1A	RR	S	GST	PCT	234	F	10	11/18/2011	5602	1.00	TRUE	S	Thorpe.Miller	N/A
599	116S1A	RR	S	GST	PCT	234	F	11	11/18/2011	5447	1.00	TRUE	S	Thorpe.Miller	N/A
599	116S1A	RR	S	GST	PCT	234	F	12	11/18/2011	5391	1.00	TRUE	S	Thorpe.Miller	N/A
599	116S1A	RR	S	GST	PCT	234	F	13	11/18/2011	5184	1.00	TRUE	S	Thorpe.Miller	N/A
599	116S1A	RR	S	GST	PCT	234	F	14	11/18/2011	5331	1.00	TRUE	S	Thorpe.Miller	N/A
599	116S1A	RR	S	GST	PCT	234	F	15	11/18/2011	5502	1.00	TRUE	S	Thorpe.Miller	N/A
599	116S1A	RR	S	GST	PCT	234	F	16	11/18/2011	5310	1.00	TRUE	S	Thorpe.Miller	N/A
599	116S1A	RR	S	GST	PCT	234	F	17	11/18/2011	5666	1.00	TRUE	S	Thorpe.Miller	N/A
599	116S1A	RR	S	GST	PCT	234	F	18	11/18/2011	5213	1.00	TRUE	S	Thorpe.Miller	N/A
599	116S1A	JC	S	GST	PCT	238	F	18	4/12/2012	5340	1.00	TRUE	S	Thorpe.Miller	N/A
599	116S1A	JC	S	GST	PCT	238	F	19	4/12/2012	5113	1.00	TRUE	S	Thorpe.Miller	N/A
599	116S1A	JC	S	GST	PCT	238	F	20	4/12/2012	5374	1.00	TRUE	S	Thorpe.Miller	N/A
599	116S1A	JC	S	GST	PCT	238	F	21	4/12/2012	5252	1.00	TRUE	S	Thorpe.Miller	N/A
599	116S1A	JC	S	GST	PCT	238	F	22	4/12/2012	5461	1.00	TRUE	S	Thorpe.Miller	N/A
599	116S1A	JC	S	GST	PCT	238	F	23	4/12/2012	5312	1.00	TRUE	S	Thorpe.Miller	N/A
599	116S1A	JC	S	GST	PCT	238	F	24	4/12/2012	5103	1.00	TRUE	S	Thorpe.Miller	N/A
599	116S1A	JC	S	GST	PCT	238	F	25	4/12/2012	5355	1.00	TRUE	S	Thorpe.Miller	N/A
599	116S1A	JC	S	GST	PCT	238	F	26	4/12/2012	5292	1.00	TRUE	S	Thorpe.Miller	N/A
599	116S1A	JC	S	GST	PCT	238	F	27	4/12/2012	5220	1.00	TRUE	S	Thorpe.Miller	N/A
599	116S1A	JC	S	GST	PCT	238	F	28	4/12/2012	5437	1.00	TRUE	S	Thorpe.Miller	N/A
599	116S1A	JC	S	GST	PCT	238	F	29	4/12/2012	5148	1.00	TRUE	S	Thorpe.Miller	N/A
599	116S1A	JC	S	GST	PCT	238	F	30	4/12/2012	5359	1.00	TRUE	S	Thorpe.Miller	N/A
599	116S1A	JC	S	GST	PCT	238	F	31	4/12/2012	5273	1.00	TRUE	S	Thorpe.Miller	N/A
599	116S1A	JC	S	GST	PCT	238	F	32	4/12/2012	5422	1.00	TRUE	S	Thorpe.Miller	N/A
599	116S1A	JC	S	GST	PCT	238	F	33	4/12/2012	5329	1.00	TRUE	S	Thorpe.Miller	N/A
599	116S1A	JC	S	GST	PCT	238	F	34	4/12/2012	5237	1.00	TRUE	S	Thorpe.Miller	N/A
599	116S1A	JC	S	GST	PCT	238	F	35	4/12/2012	5343	1.00	TRUE	S	Thorpe.Miller	N/A
599	116S1A	JC 3.893	S	GST	PCT	242	F	25	4/17/2012	5316	1.00	TRUE	S	Thorpe.Miller	N/A
599	116S1A	JC 2.075	S	GST	PCT	242	F	26	4/17/2012	5455	1.00	TRUE	S	Thorpe.Miller	N/A
599	116S1A	JC 0.5004	S	GST	PCT	242	F	27	4/17/2012	5138	1.00	TRUE	S	Thorpe.Miller	N/A
599	116S1A	JC 1.658	S	GST	PCT	242	F	28	4/17/2012	5371	1.00	TRUE	S	Thorpe.Miller	N/A
599	116S1A	JC 2.044	S	GST	PCT	242	F	29	4/17/2012	5480	1.00	TRUE	S	Thorpe.Miller	N/A
599	116S1A	JC 2.063	S	GST	PCT	242	F	30	4/17/2012	5266	1.00	TRUE	S	Thorpe.Miller	N/A
599	116S1A	JC 2.658	S	GST	PCT	242	F	31	4/17/2012	5229	1.00	TRUE	S	Thorpe.Miller	N/A
599	116S1A	JC 2.589	S	GST	PCT	242	F	32	4/17/2012	5110	1.00	TRUE	S	Thorpe.Miller	N/A
599	116S1A	JC 1.532	S	GST	PCT	242	F	33	4/17/2012	5586	1.00	TRUE	S	Thorpe.Miller	N/A
599	116S1A	JC 2.153	S	GST	PCT	242	F	34	4/17/2012	5363	1.00	TRUE	S	Thorpe.Miller	N/A

599	116S1A	JC	2.257	S	GST	PCT	242	F	35	4/17/2012	5236	1.00	TRUE	S	Thorpe.Miller	N/A
599	116S1A	JC	2.044	S	GST	PCT	242	F	36	4/17/2012	5150	1.00	TRUE	S	Thorpe.Miller	N/A
599	116S1A	JC	0.4508	S	GST	PCT	242	F	37	4/17/2012	5194	1.00	TRUE	S	Thorpe.Miller	N/A
599	116S1A	JC	1.998	S	GST	PCT	242	F	38	4/17/2012	5440	1.00	TRUE	S	Thorpe.Miller	N/A
599	116S1A	JC	3.250	S	GST	PCT	242	F	39	4/17/2012	5219	1.00	TRUE	S	Thorpe.Miller	N/A
599	116S1A	JC	1.316	S	GST	PCT	242	F	40	4/17/2012	5301	1.00	TRUE	S	Thorpe.Miller	N/A
599	116S1A	JC	0.6316	S	GST	PCT	242	F	41	4/17/2012	5175	1.00	TRUE	S	Thorpe.Miller	N/A
599	116S1A	JC	0.4606	S	GST	PCT	242	F	42	4/17/2012	5488	1.00	TRUE	S	Thorpe.Miller	N/A
630	116S1A	RR		S	GST	PCT	302	F	5	5/22/2012	5831	1.00	TRUE	S	Thorpe.Miller	N/A
630	116S1A	RR		S	GST	PCT	302	F	6	5/22/2012	5945	1.00	TRUE	S	Thorpe.Miller	N/A
630	116S1A	RR		S	GST	PCT	302	F	7	5/22/2012	5796	1.00	TRUE	S	Thorpe.Miller	N/A
630	116S1A	RR		S	GST	PCT	302	F	8	5/22/2012	6003	1.00	TRUE	S	Thorpe.Miller	N/A
630	116S1A	RR		S	GST	PCT	302	F	9	5/22/2012	5781	1.00	TRUE	S	Thorpe.Miller	N/A
630	116S1A	RR		S	GST	PCT	302	F	10	5/22/2012	5847	1.00	TRUE	S	Thorpe.Miller	N/A
630	116S1A	RR		S	GST	PCT	302	F	11	5/22/2012	5955	1.00	TRUE	S	Thorpe.Miller	N/A
630	116S1A	RR		S	GST	PCT	302	F	12	5/22/2012	5720	1.00	TRUE	S	Thorpe.Miller	N/A
630	116S1A	RR		S	GST	PCT	302	F	13	5/22/2012	5874	1.00	TRUE	S	Thorpe.Miller	N/A
630	116S1A	RR		S	GST	PCT	302	F	14	5/22/2012	5613	1.00	TRUE	S	Thorpe.Miller	N/A
630	116S1A	RR		S	GST	PCT	302	F	15	5/22/2012	5701	1.00	TRUE	S	Thorpe.Miller	N/A
630	116S1A	RR		S	GST	PCT	302	F	16	5/22/2012	5863	1.00	TRUE	S	Thorpe.Miller	N/A
630	116S1A	RR		S	GST	PCT	302	F	17	5/22/2012	5911	1.00	TRUE	S	Thorpe.Miller	N/A
630	116S1A	RR		S	GST	PCT	302	F	18	5/22/2012	5734	1.00	TRUE	S	Thorpe.Miller	N/A
630	116S1A	RR		S	GST	PCT	302	F	19	5/22/2012	5950	1.00	TRUE	S	Thorpe.Miller	N/A
630	116S1A	RR		S	GST	PCT	302	F	20	5/22/2012	5863	1.00	TRUE	S	Thorpe.Miller	N/A
630	116S1A	RR		S	GST	PCT	302	F	21	5/22/2012	5701	1.00	TRUE	S	Thorpe.Miller	N/A
630	116S1A	RR		S	GST	PCT	302	F	22	5/22/2012	5822	1.00	TRUE	S	Thorpe.Miller	N/A
630	116S1A	RR		S	GST	PCT	304	F	11	5/31/2012	5107	1.00	TRUE	S	Thorpe.Miller	N/A
630	116S1A	RR		S	GST	PCT	304	F	12	5/31/2012	5033	1.00	TRUE	S	Thorpe.Miller	N/A
630	116S1A	RR		S	GST	PCT	304	F	13	5/31/2012	5266	1.00	TRUE	S	Thorpe.Miller	N/A
630	116S1A	RR		S	GST	PCT	304	F	14	5/31/2012	5119	1.00	TRUE	S	Thorpe.Miller	N/A
630	116S1A	RR		S	GST	PCT	304	F	15	5/31/2012	5270	1.00	TRUE	S	Thorpe.Miller	N/A
630	116S1A	RR		S	GST	PCT	304	F	16	5/31/2012	5099	1.00	TRUE	S	Thorpe.Miller	N/A
630	116S1A	RR		S	GST	PCT	304	F	17	5/31/2012	5221	1.00	TRUE	S	Thorpe.Miller	N/A
630	116S1A	RR		S	GST	PCT	304	F	18	5/31/2012	5319	1.00	TRUE	S	Thorpe.Miller	N/A
630	116S1A	RR		S	GST	PCT	304	F	19	5/31/2012	5001	1.00	TRUE	S	Thorpe.Miller	N/A
630	116S1A	RR		S	GST	PCT	304	F	20	5/31/2012	5177	1.00	TRUE	S	Thorpe.Miller	N/A
630	116S1A	RR		S	GST	PCT	304	F	21	5/31/2012	5306	1.00	TRUE	S	Thorpe.Miller	N/A
630	116S1A	RR		S	GST	PCT	304	F	22	5/31/2012	5100	1.00	TRUE	S	Thorpe.Miller	N/A
630	116S1A	RR		S	GST	PCT	304	F	23	5/31/2012	5061	1.00	TRUE	S	Thorpe.Miller	N/A
630	116S1A	RR		S	GST	PCT	304	F	24	5/31/2012	5421	1.00	TRUE	S	Thorpe.Miller	N/A
630	116S1A	RR		S	GST	PCT	304	F	25	5/31/2012	5393	1.00	TRUE	S	Thorpe.Miller	N/A
630	116S1A	RR		S	GST	PCT	304	F	26	5/31/2012	5803	1.00	TRUE	S	Thorpe.Miller	N/A
630	116S1A	RR		S	GST	PCT	304	F	27	5/31/2012	5150	1.00	TRUE	S	Thorpe.Miller	N/A
630	116S1A	RR		S	GST	PCT	304	F	28	5/31/2012	5241	1.00	TRUE	S	Thorpe.Miller	N/A

TETRA TECH EC, INC.
1230 Columbia St, Suite 750
San Diego, CA 92101

Chain-of-Custody Record

TS 00375

Project Name: Parcel C Trench Survey		PO Number: N/A					GAMMASPEC	SR90	ALPHA		LABORATORY NAME: ONSITE - Curtis & Tompkins, LTD.	Project Information Section
Project Location: HUNTERS POINT		Project Number: 4044-0002									LABORATORY ID:	
Sampler Name: J. Cunningham		Airbill Number: N/A										
Project Chemist: LISA BIENKOWSKI		Project Chemist Phone: 949-756-7592										
SAMPLE_ID	DATE	TIME	Containers	LEVEL	TYPE	TAT	1	1	1	COMMENTS	LOCATION	SAMPLE ID
02-PCT-242-025	4/17/2012	1300	1		S1		☑	☐	☐			
02-PCT-242-026	4/17/2012	1303	1		S1		☑	☐	☐			
02-PCT-242-027	4/17/2012	1306	1		S1		☑	☐	☐			
02-PCT-242-028	4/17/2012	1309	1		S1		☑	☐	☐			
02-PCT-242-029	4/17/2012	1312	1		S1		☑	☐	☐			
02-PCT-242-030	4/17/2012	1315	1		S1		☑	☐	☐			
02-PCT-242-031	4/17/2012	1318	1		S1		☑	☐	☐	DUP		
02-PCT-242-032	4/17/2012	1321	1		S1		☑	☐	☐			
02-PCT-242-033	4/17/2012	1324	1		S1		☑	☐	☐			
02-PCT-242-034	4/17/2012	1327	1		S1		☑	☐	☐			
02-PCT-242-035	4/17/2012	1330	1		S1		☑	☐	☐			
02-PCT-242-036	4/17/2012	1333	1		S1		☑	☐	☐			

Relinquished by: (signature)	*Date* 4.17.12	*Received by: (signature)*	LABORATORY INSTRUCTIONS/COMMENTS:	SAMPLING COMMENTS:
Company RSRS	*Time* 1530	*Company* C&T		
Relinquished by: (signature)	*Date*	*Received by: (signature)*	COMPOSITE DESCRIPTION:	
Company	*Time*	*Company*		
Relinquished by: (signature)	*Date*	*Received by: (signature)*	SAMPLE CONDITION UPON RECEIPT AT LABORATORY: TEMPERATURE: SAMPLE CONDITION: GOOD/BROKEN	
Company	*Time*	*Company*		

TETRA TECH EC, INC.
1230 Columbia St, Suite 750
San Diego, CA 92101

Chain-of-Custody Record

TS 00376

Project Name: Parcel C Trench Survey		PO Number: N/A					G A M M A S P E C	S R 9 0	A L P H A		LABORATORY NAME: ONSITE - Curtis & Tompkins, LTD.	Project Information Section
Project Location: HUNTERS POINT		Project Number: 4044-0002									LABORATORY ID: [redacted]	
Sampler Name: J. Cunningham		Airbill Number: N/A										
Project Chemist: LISA BIENKOWSKI		Project Chemist Phone: 949-756-7592										
SAMPLE_ID	DATE	TIME	Containers	LEVEL	TYPE	TAT	1	1	1	COMMENTS	LOCATION	SAMPLE ID
02-PCT-242-037	4/17/2012	1336	1		S1		☑	☐	☐			[redacted]
02-PCT-242-038	4/17/2012	1339	1		S1		☑	☐	☐			[redacted]
02-PCT-242-039	4/17/2012	1342	1		S1		☑	☐	☐			[redacted]
02-PCT-242-040	4/17/2012	1345	1		S1		☑	☐	☐			[redacted]
02-PCT-242-041	4/17/2012	1348	1		S1		☑	☐	☐			[redacted]
02-PCT-242-042	4/17/2012	1351	1		S1		☑	☐	☐			[redacted]

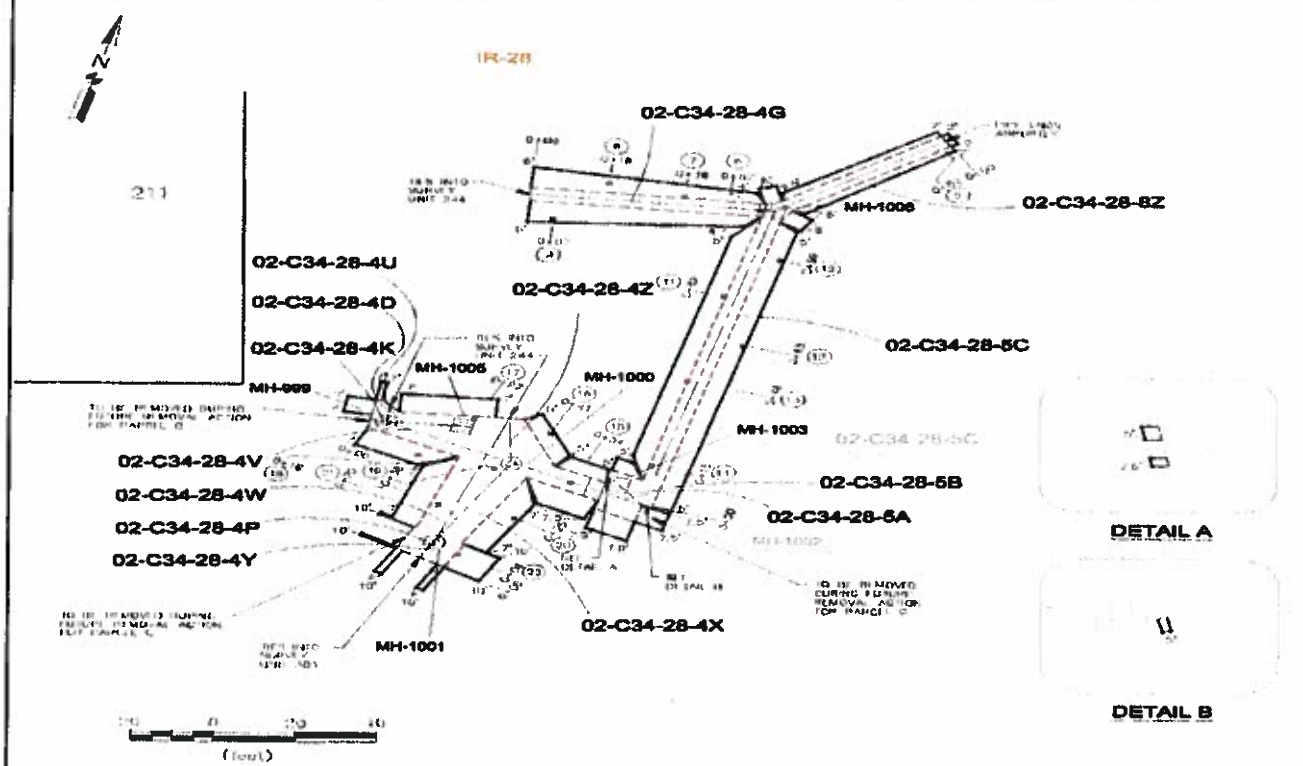
Relinquished by: (signature)	Date: 4.17.12	Received by: (signature)	LABORATORY INSTRUCTIONS/COMMENTS:	SAMPLING COMMENTS:
Company: [redacted]	Time: 1530	Company: C.T.		
Relinquished by: (signature)	Date	Received by: (signature)	COMPOSITE DESCRIPTION:	
Company	Time	Company		
Relinquished by: (signature)	Date	Received by: (signature)	SAMPLE CONDITION UPON RECEIPT FOR LABORATORY: TEMPERATURE: SAMPLE CONDITION: COOLER SEAL:	
Company	Time	Company		

RADIATION/CONTAMINATION SURVEY SUPPLEMENT

Date:	Time:	INSTRUMENTATION USED						
		Model Inst/Det.	Serial Number	Calibration Due Date	Instrument % Efficiency	Total % Efficiency	MDC/MDA + (dpm/100cm2)	Background + (dpm/100cm2)
5/22/2012	09:30							
Survey Number: HPS-SU-302								
Location: Parcel C								
Surveyor: R. Roberson								
Reviewed By: (Print & Sign)		2350-1 44-10	120588 81878	10/16/2012				

Isotopes of Concern: ^{226}Ra ^{90}Sr ^{137}Cs

Description of drawing: Trench Scan Survey



Comments:

Scan range for 2350-1 Instrument is 2.77 - 5.98 Kcpm

3 sigma investigation level for 2350-1 Instrument is 7838 cpm

Picture is representative of material surveyed.

denotes swipe location or fixed α/β readings

# denotes G/A radiation readings

#/# denotes contact / 1 meter radiation readings

* denotes highest radiation reading on contact

LAW denotes large area massiinn wipe

Δ denotes static location.

* Unless Otherwise Noted

All readings in µR/hr unless otherwise noted

K = 1000

RADIATION/CONTAMINATION SURVEY SUPPLEMENT

SURVEY NUMBER: HPS-SU-302

SURVEYOR: R. Roberson

LOCATION: Parcel C

Location	Exposure Rate (µR/hr)		Gamma (cpm)	Fixed + Removable (NET)		Removable (NET)		Comments
	Contact	1 Meter		Alpha dpm/100cm2	Beta/Gamma dpm/100cm2	Alpha dpm/100cm2	Beta/Gamma dpm/100cm2	
5			5831					
6			5945					
7			5796					
8			6003					
9			5781					
10			5847					
11			5955					
12			5720					
13			5874					
14			5613					
15			5701					
16			5863					
17			5911					
18			5734					
19			5950					
20			5863					
21			5701					
22			5822					

Reviewer:

Date:

599	116S1A		JC		S	GST	PCT	242	F	[illegible]	4/17/2012	5236	1.00	TRUE	S	Thorpe.Miller	N/A
599	116S1A		JC		S	GST	PCT	242	F	36	4/17/2012	5150	1.00	TRUE	S	Thorpe.Miller	N/A
599	116S1A		JC		S	GST	PCT	242	F	37	4/17/2012	5194	1.00	TRUE	S	Thorpe.Miller	N/A
599	116S1A		JC		S	GST	PCT	242	F	38	4/17/2012	5440	1.00	TRUE	S	Thorpe.Miller	N/A
599	116S1A	1	JC	10.44	S	GST	PCT	242	F	39	4/17/2012	5219	1.00	TRUE	S	Thorpe.Miller	N/A
599	116S1A	2	JC	11.84	S	GST	PCT	242	F	40	4/17/2012	5301	1.00	TRUE	S	Thorpe.Miller	N/A
599	116S1A	3	JC	12.01	S	GST	PCT	242	F	41	4/17/2012	5175	1.00	TRUE	S	Thorpe.Miller	N/A
599	116S1A	4	JC	10.77	S	GST	PCT	242	F	42	4/17/2012	5488	1.00	TRUE	S	Thorpe.Miller	N/A
630	116S1A		RR	1.624	S	GST	PCT	302	F	5	5/22/2012	5831	1.00	TRUE	S	Thorpe.Miller	N/A
630	116S1A		RR	1.740	S	GST	PCT	302	F	6	5/22/2012	5945	1.00	TRUE	S	Thorpe.Miller	N/A
630	116S1A		RR	1.180	S	GST	PCT	302	F	7	5/22/2012	5796	1.00	TRUE	S	Thorpe.Miller	N/A
630	116S1A		RR		S	GST	PCT	302	F	8	5/22/2012	6003	1.00	TRUE	S	Thorpe.Miller	N/A
630	116S1A		RR		S	GST	PCT	302	F	9	5/22/2012	5781	1.00	TRUE	S	Thorpe.Miller	N/A
630	116S1A		RR		S	GST	PCT	302	F	10	5/22/2012	5847	1.00	TRUE	S	Thorpe.Miller	N/A
630	116S1A		RR		S	GST	PCT	302	F	11	5/22/2012	5955	1.00	TRUE	S	Thorpe.Miller	N/A
630	116S1A		RR		S	GST	PCT	302	F	12	5/22/2012	5720	1.00	TRUE	S	Thorpe.Miller	N/A
630	116S1A		RR		S	GST	PCT	302	F	13	5/22/2012	5874	1.00	TRUE	S	Thorpe.Miller	N/A
630	116S1A		RR		S	GST	PCT	302	F	14	5/22/2012	5613	1.00	TRUE	S	Thorpe.Miller	N/A
630	116S1A		RR		S	GST	PCT	302	F	15	5/22/2012	5701	1.00	TRUE	S	Thorpe.Miller	N/A
630	116S1A		RR		S	GST	PCT	302	F	16	5/22/2012	5863	1.00	TRUE	S	Thorpe.Miller	N/A
630	116S1A		RR		S	GST	PCT	302	F	17	5/22/2012	5911	1.00	TRUE	S	Thorpe.Miller	N/A
630	116S1A		RR		S	GST	PCT	302	F	18	5/22/2012	5734	1.00	TRUE	S	Thorpe.Miller	N/A
630	116S1A		RR		S	GST	PCT	302	F	19	5/22/2012	5950	1.00	TRUE	S	Thorpe.Miller	N/A
630	116S1A		RR		S	GST	PCT	302	F	20	5/22/2012	5863	1.00	TRUE	S	Thorpe.Miller	N/A
630	116S1A		RR		S	GST	PCT	302	F	21	5/22/2012	5701	1.00	TRUE	S	Thorpe.Miller	N/A
630	116S1A		RR		S	GST	PCT	302	F	22	5/22/2012	5822	1.00	TRUE	S	Thorpe.Miller	N/A
630	116S1A		RR		S	GST	PCT	304	F	11	5/31/2012	5107	1.00	TRUE	S	Thorpe.Miller	N/A
630	116S1A		RR		S	GST	PCT	304	F	12	5/31/2012	5033	1.00	TRUE	S	Thorpe.Miller	N/A
630	116S1A		RR		S	GST	PCT	304	F	13	5/31/2012	5266	1.00	TRUE	S	Thorpe.Miller	N/A
630	116S1A		RR		S	GST	PCT	304	F	14	5/31/2012	5119	1.00	TRUE	S	Thorpe.Miller	N/A
630	116S1A		RR		S	GST	PCT	304	F	15	5/31/2012	5270	1.00	TRUE	S	Thorpe.Miller	N/A
630	116S1A		RR		S	GST	PCT	304	F	16	5/31/2012	5099	1.00	TRUE	S	Thorpe.Miller	N/A
630	116S1A		RR		S	GST	PCT	304	F	17	5/31/2012	5221	1.00	TRUE	S	Thorpe.Miller	N/A
630	116S1A		RR		S	GST	PCT	304	F	18	5/31/2012	5319	1.00	TRUE	S	Thorpe.Miller	N/A
630	116S1A		RR		S	GST	PCT	304	F	19	5/31/2012	5001	1.00	TRUE	S	Thorpe.Miller	N/A
630	116S1A		RR		S	GST	PCT	304	F	20	5/31/2012	5177	1.00	TRUE	S	Thorpe.Miller	N/A
630	116S1A		RR		S	GST	PCT	304	F	21	5/31/2012	5306	1.00	TRUE	S	Thorpe.Miller	N/A
630	116S1A		RR		S	GST	PCT	304	F	22	5/31/2012	5100	1.00	TRUE	S	Thorpe.Miller	N/A
630	116S1A		RR		S	GST	PCT	304	F	23	5/31/2012	5061	1.00	TRUE	S	Thorpe.Miller	N/A
630	116S1A		RR		S	GST	PCT	304	F	24	5/31/2012	5421	1.00	TRUE	S	Thorpe.Miller	N/A
630	116S1A		RR		S	GST	PCT	304	F	25	5/31/2012	5393	1.00	TRUE	S	Thorpe.Miller	N/A
630	116S1A		RR		S	GST	PCT	304	F	26	5/31/2012	5803	1.00	TRUE	S	Thorpe.Miller	N/A
630	116S1A		RR		S	GST	PCT	304	F	27	5/31/2012	5150	1.00	TRUE	S	Thorpe.Miller	N/A
630	116S1A		RR		S	GST	PCT	304	F	28	5/31/2012	5241	1.00	TRUE	S	Thorpe.Miller	N/A

2350ID	SurveyMaterial	SurveyorInitials	SurveyType	DataType	Bldg	SurveyUnit	Location	RdgNum	DateTime	GammaCPM	CntTime	IsValid	LogMode	ImporterInitials	ImportDate
599	116S1A	RR	S	GST	PCT	234	F	1	11/18/2011	5133	1.00	TRUE	S	Thorpe.Miller	N/A
599	116S1A	RR	S	GST	PCT	234	F	2	11/18/2011	5409	1.00	TRUE	S	Thorpe.Miller	N/A
599	116S1A	RR	S	GST	PCT	234	F	3	11/18/2011	5501	1.00	TRUE	S	Thorpe.Miller	N/A
599	116S1A	RR	S	GST	PCT	234	F	4	11/18/2011	5376	1.00	TRUE	S	Thorpe.Miller	N/A
599	116S1A	RR	S	GST	PCT	234	F	5	11/18/2011	5280	1.00	TRUE	S	Thorpe.Miller	N/A
599	116S1A	RR	S	GST	PCT	234	F	6	11/18/2011	5276	1.00	TRUE	S	Thorpe.Miller	N/A
599	116S1A	RR	S	GST	PCT	234	F	7	11/18/2011	5603	1.00	TRUE	S	Thorpe.Miller	N/A
599	116S1A	RR	S	GST	PCT	234	F	8	11/18/2011	5333	1.00	TRUE	S	Thorpe.Miller	N/A
599	116S1A	RR	S	GST	PCT	234	F	9	11/18/2011	5270	1.00	TRUE	S	Thorpe.Miller	N/A
599	116S1A	RR	S	GST	PCT	234	F	10	11/18/2011	5602	1.00	TRUE	S	Thorpe.Miller	N/A
599	116S1A	RR	S	GST	PCT	234	F	11	11/18/2011	5447	1.00	TRUE	S	Thorpe.Miller	N/A
599	116S1A	RR	S	GST	PCT	234	F	12	11/18/2011	5391	1.00	TRUE	S	Thorpe.Miller	N/A
599	116S1A	RR	S	GST	PCT	234	F	13	11/18/2011	5184	1.00	TRUE	S	Thorpe.Miller	N/A
599	116S1A	RR	S	GST	PCT	234	F	14	11/18/2011	5331	1.00	TRUE	S	Thorpe.Miller	N/A
599	116S1A	RR	S	GST	PCT	234	F	15	11/18/2011	5502	1.00	TRUE	S	Thorpe.Miller	N/A
599	116S1A	RR	S	GST	PCT	234	F	16	11/18/2011	5310	1.00	TRUE	S	Thorpe.Miller	N/A
599	116S1A	RR	S	GST	PCT	234	F	17	11/18/2011	5666	1.00	TRUE	S	Thorpe.Miller	N/A
599	116S1A	RR	S	GST	PCT	234	F	18	11/18/2011	5213	1.00	TRUE	S	Thorpe.Miller	N/A
599	116S1A	JC	S	GST	PCT	238	F	18	4/12/2012	5340	1.00	TRUE	S	Thorpe.Miller	N/A
599	116S1A	JC	S	GST	PCT	238	F	19	4/12/2012	5113	1.00	TRUE	S	Thorpe.Miller	N/A
599	116S1A	JC	S	GST	PCT	238	F	20	4/12/2012	5374	1.00	TRUE	S	Thorpe.Miller	N/A
599	116S1A	JC	S	GST	PCT	238	F	21	4/12/2012	5252	1.00	TRUE	S	Thorpe.Miller	N/A
599	116S1A	JC	S	GST	PCT	238	F	22	4/12/2012	5461	1.00	TRUE	S	Thorpe.Miller	N/A
599	116S1A	JC	S	GST	PCT	238	F	23	4/12/2012	5312	1.00	TRUE	S	Thorpe.Miller	N/A
599	116S1A	JC	S	GST	PCT	238	F	24	4/12/2012	5103	1.00	TRUE	S	Thorpe.Miller	N/A
599	116S1A	JC	S	GST	PCT	238	F	25	4/12/2012	5355	1.00	TRUE	S	Thorpe.Miller	N/A
599	116S1A	JC	S	GST	PCT	238	F	26	4/12/2012	5292	1.00	TRUE	S	Thorpe.Miller	N/A
599	116S1A	JC	S	GST	PCT	238	F	27	4/12/2012	5220	1.00	TRUE	S	Thorpe.Miller	N/A
599	116S1A	JC	S	GST	PCT	238	F	28	4/12/2012	5437	1.00	TRUE	S	Thorpe.Miller	N/A
599	116S1A	JC	S	GST	PCT	238	F	29	4/12/2012	5148	1.00	TRUE	S	Thorpe.Miller	N/A
599	116S1A	JC	S	GST	PCT	238	F	30	4/12/2012	5359	1.00	TRUE	S	Thorpe.Miller	N/A
599	116S1A	JC	S	GST	PCT	238	F	31	4/12/2012	5273	1.00	TRUE	S	Thorpe.Miller	N/A
599	116S1A	JC	S	GST	PCT	238	F	32	4/12/2012	5422	1.00	TRUE	S	Thorpe.Miller	N/A
599	116S1A	JC	S	GST	PCT	238	F	33	4/12/2012	5329	1.00	TRUE	S	Thorpe.Miller	N/A
599	116S1A	JC	S	GST	PCT	238	F	34	4/12/2012	5237	1.00	TRUE	S	Thorpe.Miller	N/A
599	116S1A	JC	S	GST	PCT	238	F	35	4/12/2012	5343	1.00	TRUE	S	Thorpe.Miller	N/A
599	116S1A	JC	S	GST	PCT	242	F	25	4/17/2012	5316	1.00	TRUE	S	Thorpe.Miller	N/A
599	116S1A	JC	S	GST	PCT	242	F	26	4/17/2012	5455	1.00	TRUE	S	Thorpe.Miller	N/A
599	116S1A	JC	S	GST	PCT	242	F	27	4/17/2012	5138	1.00	TRUE	S	Thorpe.Miller	N/A
599	116S1A	JC	S	GST	PCT	242	F	28	4/17/2012	5371	1.00	TRUE	S	Thorpe.Miller	N/A
599	116S1A	JC	S	GST	PCT	242	F	29	4/17/2012	5480	1.00	TRUE	S	Thorpe.Miller	N/A
599	116S1A	JC	S	GST	PCT	242	F	30	4/17/2012	5266	1.00	TRUE	S	Thorpe.Miller	N/A
599	116S1A	JC	S	GST	PCT	242	F	31	4/17/2012	5229	1.00	TRUE	S	Thorpe.Miller	N/A
599	116S1A	JC	S	GST	PCT	242	F	32	4/17/2012	5110	1.00	TRUE	S	Thorpe.Miller	N/A
599	116S1A	JC	S	GST	PCT	242	F	33	4/17/2012	5586	1.00	TRUE	S	Thorpe.Miller	N/A
599	116S1A	JC	S	GST	PCT	242	F	3	4/17/2012	5363	1.00	TRUE	S	Thorpe.Miller	N/A

TETRA TECH EC, INC.
1230 Columbia St, Suite 750
San Diego, CA 92101

Chain-of-Custody Record

TS 00383

Project Name: Parcel C Trench Survey		PO Number: N/A					GAMMASPEC	SR90	ALPHA		LABORATORY NAME: ONSITE - Curtis & Tompkins, LTD.	Project Information Section	
Project Location: HUNTERS POINT		Project Number: 4044-0002									LABORATORY ID: [redacted]		
Sampler Name: J. Cunningham		Airbill Number: N/A											
Project Chemist: LISA BIENKOWSKI		Project Chemist Phone: 949-756-7592											
SAMPLE_ID	DATE	TIME	Containers	LEVEL	TYPE	TAT	1	1	1	COMMENTS	LOCATION	SAMPLE ID	
02-PCT-302-005	5/22/2012	1000	1		S1		☑	☐	☐			[redacted]	
02-PCT-302-006	5/22/2012	1003	1		S1		☑	☐	☐			[redacted]	
02-PCT-302-007	5/22/2012	1006	1		S1		☑	☐	☐			[redacted]	
02-PCT-302-008	5/22/2012	1009	1		S1		☑	☐	☐			[redacted]	
02-PCT-302-009	5/22/2012	1012	1		S1		☑	☐	☐			[redacted]	
02-PCT-302-010	5/22/2012	1015	1		S1		☑	☐	☐			[redacted]	
02-PCT-302-011	5/22/2012	1018	1		S1		☑	☐	☐	DUP		[redacted]	
02-PCT-302-012	5/22/2012	1021	1		S1		☑	☐	☐			[redacted]	
02-PCT-302-013	5/22/2012	1024	1		S1		☑	☐	☐			[redacted]	
02-PCT-302-014	5/22/2012	1027	1		S1		☑	☐	☐			[redacted]	
02-PCT-302-015	5/22/2012	1030	1		S1		☑	☐	☐			[redacted]	
02-PCT-302-016	5/22/2012	1033	1		S1		☑	☐	☐			[redacted]	

Relinquished by: (signature)	Date: 5.22.12	Received by: (signature)	LABORATORY INSTRUCTIONS/COMMENTS: [redacted]
Company: TtSES	Time: 14:15	Company: CT	SAMPLING COMMENTS: [redacted]
Relinquished by: (signature)	Date	Received by: (signature)	COMPOSITE DESCRIPTION: [redacted]
Company	Time	Company	
Relinquished by: (signature)	Date	Received by: (signature)	SAMPLE CONDITION UPON RECEIPT (FOR LABORATORY): [redacted]
Company	Time	Company	TEMPERATURE: SAMPLE CONDITION: COOLER: [redacted]

TETRA TECH EC, INC.
1230 Columbia St, Suite 750
San Diego, CA 92101

Chain-of-Custody Record

TS 00384

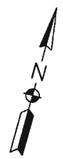
Project Name: Parcel C Trench Survey		PO Number: N/A					GAMMASPEC	SR90	ALPHA		LABORATORY NAME: ONSITE - Curtis & Tompkins, LTD.	**Project Information Section**	
Project Location: HUNTERS POINT		Project Number: 4044-0002									LABORATORY ID: [redacted]		
Sampler Name: J. Cunningham		Airbill Number: N/A											
Project Chemist: LISA BIENKOWSKI		Project Chemist Phone: 949-756-7592											
SAMPLE_ID	DATE	TIME	Containers	LEVEL	TYPE	TAT	1	1	1	COMMENTS	LOCATION	SAMPLE ID	
02-PCT-302-017	5/22/2012	1036	1		S1		☑	☐	☐			[redacted]	
02-PCT-302-018	5/22/2012	1039	1		S1		☑	☐	☐			[redacted]	
02-PCT-302-019	5/22/2012	1042	1		S1		☑	☐	☐			[redacted]	
02-PCT-302-020	5/22/2012	1045	1		S1		☑	☐	☐			[redacted]	
02-PCT-302-021	5/22/2012	1048	1		S1		☑	☐	☐			[redacted]	
02-PCT-302-022	5/22/2012	1057	1		S1		☑	☐	☐			[redacted]	

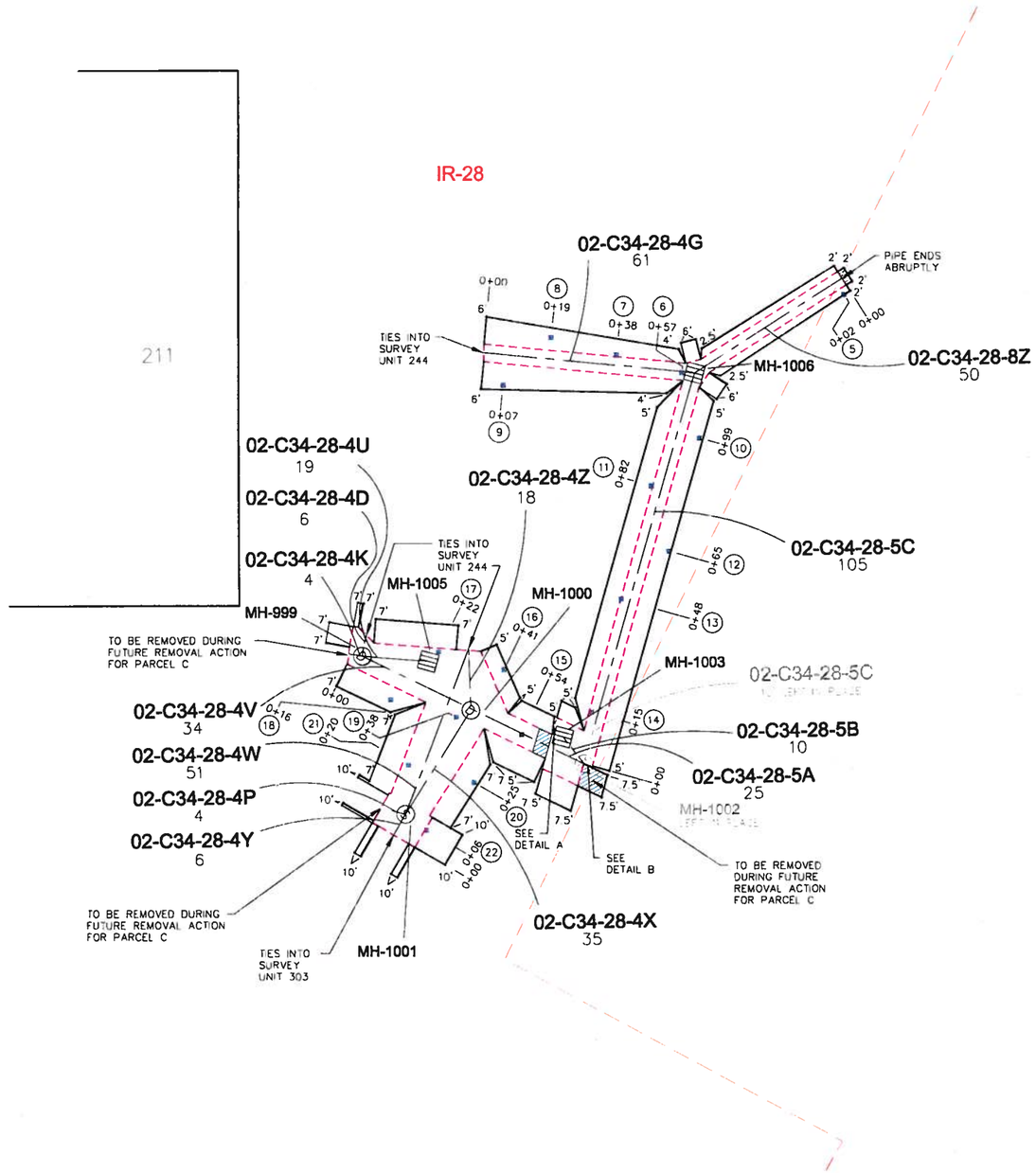
Relinquished by: (signature)	*Date* 5.22.12	*Received by: (signature)*	LABORATORY INSTRUCTIONS/COMMENTS	SAMPLING COMMENTS
Company [redacted]	*Time* 14:15	*Company* CET		
Relinquished by: (signature)	*Date*	*Received by: (signature)*	COMPOSITE DESCRIPTION	
Company	*Time*	*Company*		
Relinquished by: (signature)	*Date*	*Received by: (signature)*	SAMPLE CONDITION UPON RECEIPT (FOR LABORATORY)	
Company	*Time*	*Company*	TEMPERATURE: SAMPLE CONDITION: COOLER SEAL:	

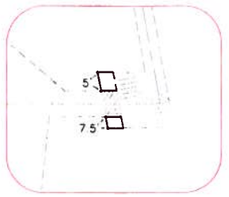
TU 302

Located in Parcel C
05/08/12: Issued drawing to identify locations for investigative sample collection (1-4)
05/09/12: Performed walkover survey to identify scan range
05/09/12: Collected 4 investigative samples (1-4)
05/17/12: No activity above the release criteria was identified in the investigative samples (1-4)
05/17/12: Issued drawing to identify locations for systematic sample collection (5-22)
05/22/12: Collected 18 systematic samples (5-22)
05/28/12: No activity above the release criteria was identified
05/31/12: Issued Figures 1-1/3-1 for Internal Draft SUPR
07/10/12: The RSO provided the RASO with the Internal Draft SUPR and requested for concurrence to backfill.
07/12/12: RASO concurs on backfilling the trench
07/16/12: Backfilling initiated with 48 cubic yards of Mills Peninsula import soils
07/17/12: Backfilling continued with 432 cubic yards of Mills Peninsula import soils
07/18/12: Backfilling completed with 144 cubic yards of Mills Peninsula import soils
08/07/12: CBD used Engineer's volume estimate of 550 cubic yards backfilled instead of field estimate of 624 cubic yards.

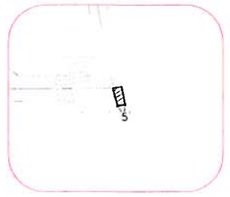
PROCEED WITH SAMPLING



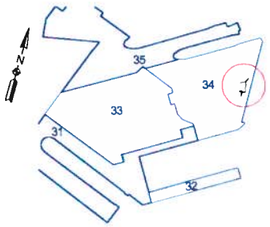




DETAIL A

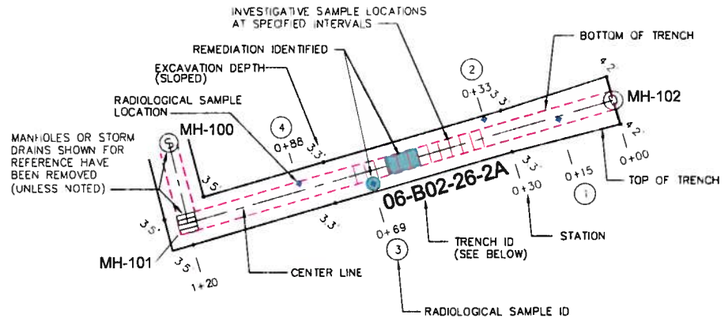


DETAIL B

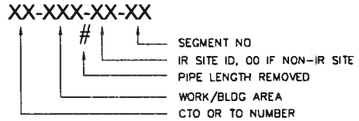


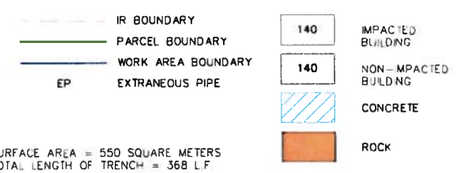
KEY PLAN

LEGEND



TRENCH ID





SURFACE AREA = 550 SQUARE METERS
TOTAL LENGTH OF TRENCH = 368 L.F.
TOTAL LENGTH OF PIPE = 428 L.F.
BACKFILL QUANTITY = 618 CUBIC YARDS

20 0 20 40
(feet)

SYSTEMATIC SAMPLES 5-22

BASE REALIGNMENT AND CLOSURE
PROGRAM MANAGEMENT OFFICE WEST
SAN DIEGO, CALIFORNIA

PARCEL C
SURVEY UNIT 302, AREA 34

HUNTERS POINT NAVAL SHIPYARD, SAN FRANCISCO, CA

REVISION: -
AUTHOR: DMACK
PROJECT NO:
FILE: SEE BELOW

TETRA TECH EC, INC.

P:\CTO-02 CAD Files (Rad EMAC)\DWG Files\Survey Units\SU302_5-22_05-17-12.dwg

Area	Survey Unit	Sample Point	Sample Type	Sample ID	Date Collected	COC Radiological Technician	On-Site Laboratory (pCi/g)					Off-Site Laboratory (pCi/g)				
							K-40	Ra-226	Cs-137	Bi-214	Pb-214	K-40	Ra-226	Cs-137	Bi-214	Pb-214
PCT	302	1	Investigative	02-PCT-302-001	9-May-12	Joe Cunningham	10.44	0.6771	0.006485	0.4463	0.445					
PCT	302	2	Investigative	02-PCT-302-002	9-May-12	Joe Cunningham	11.84	1.021	0.001174	0.5159	0.565					
PCT	302	3	Investigative	02-PCT-302-003	9-May-12	Joe Cunningham	12.01	1.056	0.01849	0.5321	0.4782					
PCT	302	4	Investigative	02-PCT-302-004	9-May-12	Joe Cunningham	10.77	0.928	0.01786	0.5633	0.7558					
PCT	302	5	Systematic	02-PCT-302-005	22-May-12	Joe Cunningham	1.624	-0.01469	0.01446	0.03351	0.1391	1.45	0.167	0.0247	0.167	0.17
PCT	302	6	Systematic	02-PCT-302-006	22-May-12	Joe Cunningham	1.74	-0.1275	0.001969	0.02143	0.07385	1.25	0.0463	-0.00357	0.0463	0.127
PCT	302	7	Systematic	02-PCT-302-007	22-May-12	Joe Cunningham	1.18	0.3231	0.01077	0.04333	0.061	1.06	0.0234	0.0097	0.0234	0.16
PCT	302	8	Systematic	02-PCT-302-008	22-May-12	Joe Cunningham	0.9761	0.05238	0	0.02773	0.07599	0.569	0.209	0	0.209	0.0249
PCT	302	9	Systematic	02-PCT-302-009	22-May-12	Joe Cunningham	1.639	0.02926	-0.003704	0.05798	0.07943	1.09	0.164	0.0123	0.164	0.159
PCT	302	10	Systematic	02-PCT-302-010	22-May-12	Joe Cunningham	1.509	0.2709	0	0.06214	0.0467	1.83	0.124	0.0194	0.124	0.242
PCT	302	11	Systematic	02-PCT-302-011	22-May-12	Joe Cunningham	1.097	-0.02643	-0.00472	0.07261	0.04614	0.699	0.23	0.00677	0.23	0.179
PCT	302	12	Systematic	02-PCT-302-012	22-May-12	Joe Cunningham	1.089	0.03933	0	0.06572	0.05792	0.751	0.0818	-0.0157	0.0818	0.0958
PCT	302	13	Systematic	02-PCT-302-013	22-May-12	Joe Cunningham	1.067	-0.02867	0	-0.06331	0.1845	2.1	0.181	-0.001	0.181	0.0745
PCT	302	14	Systematic	02-PCT-302-014	22-May-12	Joe Cunningham	0.3496	-0.00745	-0.00332	0.04801	0.01714	-0.238	0.0962	0	0.0962	0.0675
PCT	302	15	Systematic	02-PCT-302-015	22-May-12	Joe Cunningham	0.9525	0.1659	-0.009553	0.07832	0.08339	0.8	-0.0329	-0.000153	-0.0329	0.188
PCT	302	16	Systematic	02-PCT-302-016	22-May-12	Joe Cunningham	0.9337	0.03742	-0.000001871	0	0.05151	0.725	0.0957	-0.0125	0.0957	0.135
PCT	302	17	Systematic	02-PCT-302-017	22-May-12	Joe Cunningham	2.533	0.3881	0.005208	0.09374	0.1305	1.6	0.28	0.0112	0.28	0.236
PCT	302	18	Systematic	02-PCT-302-018	22-May-12	Joe Cunningham	1.952	-0.07401	0	0.04524	0.1874	1.92	0.0616	0	0.0616	0.262
PCT	302	19	Systematic	02-PCT-302-019	22-May-12	Joe Cunningham	0.3814	-0.151	0.002022	0.03047	0.09509	-0.204	0.0523	-0.00244	0.0523	0.0813
PCT	302	20	Systematic	02-PCT-302-020	22-May-12	Joe Cunningham	0.8222	0.5844	0.0004525	-0.005864	0.0317	-0.536	0.0348	-0.00987	0.0348	0.1
PCT	302	21	Systematic	02-PCT-302-021	22-May-12	Joe Cunningham	2.777	0.01699	0.01134	0.09316	0.05436	2.11	0.275	0.0192	0.275	0.125
PCT	302	22	Systematic	02-PCT-302-022	22-May-12	Joe Cunningham	0.8373	0.1714	0.01792	-0.00854	0.008091	0.654	0.102	0.0161	0.102	0.29
E20	642	1	Biased	04-PE-E0642-01	21-Feb-12	Marie Winder	9.777	1.633	0.002965	1.112	1.231					
E20	642	2	Biased	04-PE-E0642-02	21-Feb-12	Marie Winder	10.11	1.494	-0.004565	1.1	1.092					
E20	642	3	Biased	04-PE-E0642-03	21-Feb-12	Marie Winder	7.521	0.748	-0.008032	0.9372	0.9988					
E20	642	4	Biased	04-PE-E0642-04	21-Feb-12	Marie Winder	8.709	1.784	0.002631	1.153	1.212					
E20	642	5	Biased	04-PE-E0642-05	21-Feb-12	Marie Winder	7.071	1.543	0.01186	1.023	1.115					
E20	642	6	Biased	04-PE-E0642-06	21-Feb-12	Marie Winder	10.29	0.8462	-0.003166	0.8751	0.9221					
E20	642	7	Biased	04-PE-E0642-07	21-Feb-12	Marie Winder	9.247	1.196	0.01865	0.895	1.072					
E20	642	8	Biased	04-PE-E0642-08	21-Feb-12	Marie Winder	9.189	0.9857	-0.00146	1.082	1.21					
E20	642	9	Biased	04-PE-E0642-09	21-Feb-12	Marie Winder	10.36	0.7627	0	0.7617	0.8926					
E20	642	10	Biased	04-PE-E0642-10	21-Feb-12	Marie Winder	10.11	1.696	0.002623	1.182	1.342					
E20	642	11	Systematic	04-PE-E0642-11	21-Feb-12	Marie Winder	8.969	0.7551	-0.007591	0.684	0.7395					
E20	642	12	Systematic	04-PE-E0642-12	21-Feb-12	Marie Winder	9.489	0.9683	0.001427	0.7564	0.8397					
E20	642	13	Systematic	04-PE-E0642-13	21-Feb-12	Marie Winder	8.773	0.5134	0.005011	0.6593	0.764					
E20	642	14	Systematic	04-PE-E0642-14	21-Feb-12	Marie Winder	10.09	1.25	0.00003886	0.8811	0.8787					
E20	642	15	Systematic	04-PE-E0642-15	21-Feb-12	Marie Winder	11.93	1.01	0.01054	0.7806	0.7864					
E20	642	16	Systematic	04-PE-E0642-16	21-Feb-12	Marie Winder	10.11	1.297	0.004751	0.5521	0.7028					
E20	642	17	Systematic	04-PE-E0642-17	21-Feb-12	Marie Winder	8.545	1.214	0.0004183	0.7789	0.96					
E20	642	18	Systematic	04-PE-E0642-18	21-Feb-12	Marie Winder	11.1	0.9683	-0.0001923	0.6024	0.6267					
E20	642	19	Systematic	04-PE-E0642-19	21-Feb-12	Marie Winder	11.37	0.7214	0	0.6835	0.672					
E20	642	20	Systematic	04-PE-E0642-20	21-Feb-12	Marie Winder	9.938	1.143	-0.01274	1.054	1.1					
E20	642	21	Systematic	04-PE-E0642-21	21-Feb-12	Marie Winder	9.767	1.317	0	0.9975	0.935					
E20	642	22	Systematic	04-PE-E0642-22	21-Feb-12	Marie Winder	10.88	1.119	0.002148	0.8411	0.8891					

Area	Survey Unit	Sample Point	Sample Type	Sample ID	Date Collected	COC Radiological Technician	On-Site Laboratory (pCi/g)					Off-Site Laboratory (pCi/g)				
							K-40	Ra-226	Cs-137	Bi-214	Pb-214	K-40	Ra-226	Cs-137	Bi-214	Pb-214
E20	642	23	Systematic	04-PE-E0642-23	21-Feb-12	Marie Winder	11.46	1.292	-0.0001891	0.5196	0.8283					
E20	642	24	Systematic	04-PE-E0642-24	21-Feb-12	Marie Winder	5.022	1.322	0.001215	0.7593	0.9259					
E20	642	25	Systematic	04-PE-E0642-25	21-Feb-12	Marie Winder	12.77	0.4422	0.0009493	0.8085	0.7719					
E20	642	26	Systematic	04-PE-E0642-26	21-Feb-12	Marie Winder	10.68	0.8757	-0.002949	0.8006	0.6686					
E20	642	27	Systematic	04-PE-E0642-27	21-Feb-12	Marie Winder	8.643	1.151	0.001585	0.9153	0.8994					
E20	642	28	Systematic	04-PE-E0642-28	21-Feb-12	Marie Winder	9.903	0.73	-0.01572	0.8297	0.8301					
E20	642	29	Characterization	04-PE-E0642-29	7-Mar-12	Marie Winder	8.92	0.8794	-0.01208	0.715	0.6964					
E20	642	30	Characterization	04-PE-E0642-30	7-Mar-12	Marie Winder	9.645	1.353	0.00731	1.095	1.072					
E20	642	31	Characterization	04-PE-E0642-31	7-Mar-12	Marie Winder	12.21	1.066	0	0.8007	0.9408					
E20	642	32	Characterization	04-PE-E0642-32	7-Mar-12	Marie Winder	11.72	1.691	-0.003195	0.9274	1.107					
E20	642	33	Characterization	04-PE-E0642-33	15-Mar-12	Marie Winder	11.31	1.36	0.001964	0.7773	0.8268					
E09	643	1	Biased	04-PE-E0643-01	20-Feb-12	Marie Winder	10.14	1.187	0.008094	1.235	1.398					
E09	643	2	Biased	04-PE-E0643-02	20-Feb-12	Marie Winder	10.7	0.8059	-0.004474	1.133	1.125					
E09	643	3	Biased	04-PE-E0643-03	20-Feb-12	Marie Winder	19.73	0.6708	0.003788	0.5641	0.6531					
E09	643	4	Biased	04-PE-E0643-04	20-Feb-12	Marie Winder	14.63	1.148	0	0.6827	0.7243					
E09	643	5	Biased	04-PE-E0643-05	20-Feb-12	Marie Winder	12.47	1.26	0	0.4997	0.868					
E09	643	6	Biased	04-PE-E0643-06	20-Feb-12	Marie Winder	12.13	0.8072	-0.0004388	0.9502	0.9927					
E09	643	7	Biased	04-PE-E0643-07	20-Feb-12	Marie Winder	15.49	0.4838	-0.0005377	0.6015	0.6568					
E09	643	8	Systematic	04-PE-E0643-08	20-Feb-12	Marie Winder	11.25	0.5491	-0.006964	0.6838	0.6991					
E09	643	9	Systematic	04-PE-E0643-09	20-Feb-12	Marie Winder	9.882	0.9414	0.01758	0.5653	0.6673					
E09	643	10	Systematic	04-PE-E0643-10	20-Feb-12	Marie Winder	8.452	1.005	-0.006508	0.7258	0.8101					
E09	643	11	Systematic	04-PE-E0643-11	20-Feb-12	Marie Winder	10.56	0.9259	0.0002606	0.6431	0.6809					
E09	643	12	Systematic	04-PE-E0643-12	20-Feb-12	Marie Winder	12.18	0.4745	0.0003576	0.7328	0.7305					
E09	643	13	Systematic	04-PE-E0643-13	20-Feb-12	Marie Winder	11.11	0.9431	0.0006881	0.4984	0.6299					
E09	643	14	Systematic	04-PE-E0643-14	20-Feb-12	Marie Winder	9.423	1.01	-0.0008747	0.9459	0.8425					
E09	643	15	Systematic	04-PE-E0643-15	20-Feb-12	Marie Winder	11.24	0.8587	0.01661	0.7565	0.8942					
E09	643	16	Systematic	04-PE-E0643-16	20-Feb-12	Marie Winder	11.69	0.8246	0.01832	0.6853	0.7188					
E09	643	17	Systematic	04-PE-E0643-17	20-Feb-12	Marie Winder	11.89	1.164	-0.004481	0.5077	0.7386					
E09	643	18	Systematic	04-PE-E0643-18	20-Feb-12	Marie Winder	17.13	0.7488	-0.002082	0.4123	0.5256					
E09	643	19	Systematic	04-PE-E0643-19	20-Feb-12	Marie Winder	12.15	0.6749	-0.008129	0.4863	0.6155					
E09	643	20	Systematic	04-PE-E0643-20	20-Feb-12	Marie Winder	17.26	0.8191	-0.00006842	0.3564	0.506					
E09	643	21	Systematic	04-PE-E0643-21	20-Feb-12	Marie Winder	14.13	0.6001	0.001012	0.6683	0.6165					
E09	643	22	Systematic	04-PE-E0643-22	20-Feb-12	Marie Winder	19.83	0.621	0.007129	0.5636	0.4354					
E09	643	23	Systematic	04-PE-E0643-23	20-Feb-12	Marie Winder	11.89	1.117	0.006237	0.5256	0.5102					
E09	643	24	Systematic	04-PE-E0643-24	20-Feb-12	Marie Winder	11.91	1.348	0.001702	0.747	0.7316					
E09	643	25	Systematic	04-PE-E0643-25	20-Feb-12	Marie Winder	11.4	1.205	-0.007337	1.144	1.153					
E08	644	1	Biased	04-PE-E0644-01	28-Feb-12	Marie Winder	8.338	1.406	0.000004147	1.136	1.305					
E08	644	2	Biased	04-PE-E0644-02	28-Feb-12	Marie Winder	8.883	1.108	0.0009373	1.163	1.356					
E08	644	3	Biased	04-PE-E0644-03	28-Feb-12	Marie Winder	6.732	1.257	0	1.004	1.155					
E08	644	4	Biased	04-PE-E0644-04	28-Feb-12	Marie Winder	8.767	1.491	-0.004904	1.116	1.284					
E08	644	5	Biased	04-PE-E0644-05	28-Feb-12	Marie Winder	8.543	1.557	0	1.165	1.324					
E08	644	6	Biased	04-PE-E0644-06	28-Feb-12	Marie Winder	8.129	1.19	-0.01024	1.133	1.204					
E08	644	7	Biased	04-PE-E0644-07	28-Feb-12	Marie Winder	10.43	1.334	0.00918	1.115	1.267					
E08	644	8	Biased	04-PE-E0644-08	28-Feb-12	Marie Winder	8.522	1.486	0.002086	1.165	1.307					

Area	Survey Unit	Sample Point	Sample Type	Sample ID	Date Collected	COC Radiological Technician
E08	644	9	Biased	04-PE-E0644-09	28-Feb-12	Marie Winder
E08	644	10	Biased	04-PE-E0644-10	28-Feb-12	Marie Winder
E08	644	11	Biased	04-PE-E0644-11	28-Feb-12	Marie Winder
E08	644	12	Biased	04-PE-E0644-12	28-Feb-12	Marie Winder
E08	644	13	Biased	04-PE-E0644-13	28-Feb-12	Marie Winder
E08	644	14	Biased	04-PE-E0644-14	28-Feb-12	Marie Winder
E08	644	15	Systematic	04-PE-E0644-15	28-Feb-12	Marie Winder
E08	644	16	Systematic	04-PE-E0644-16	28-Feb-12	Marie Winder
E08	644	17	Systematic	04-PE-E0644-17	28-Feb-12	Marie Winder
E08	644	18	Systematic	04-PE-E0644-18	28-Feb-12	Marie Winder
E08	644	19	Systematic	04-PE-E0644-19	28-Feb-12	Marie Winder
E08	644	20	Systematic	04-PE-E0644-20	28-Feb-12	Marie Winder
E08	644	21	Systematic	04-PE-E0644-21	28-Feb-12	Marie Winder
E08	644	22	Systematic	04-PE-E0644-22	28-Feb-12	Marie Winder
E08	644	23	Systematic	04-PE-E0644-23	28-Feb-12	Marie Winder
E08	644	24	Systematic	04-PE-E0644-24	28-Feb-12	Marie Winder
E08	644	25	Systematic	04-PE-E0644-25	28-Feb-12	Marie Winder
E08	644	26	Systematic	04-PE-E0644-26	28-Feb-12	Marie Winder
E08	644	27	Systematic	04-PE-E0644-27	28-Feb-12	Marie Winder
E08	644	28	Systematic	04-PE-E0644-28	28-Feb-12	Marie Winder
E08	644	29	Systematic	04-PE-E0644-29	28-Feb-12	Marie Winder
E08	644	30	Systematic	04-PE-E0644-30	28-Feb-12	Marie Winder
E08	644	31	Systematic	04-PE-E0644-31	28-Feb-12	Marie Winder
E08	644	32	Systematic	04-PE-E0644-32	28-Feb-12	Marie Winder
E08	644	33	Characterization	04-PE-E0644-33	15-Mar-12	Marie Winder
E08	644	34	Characterization	04-PE-E0644-34	15-Mar-12	Marie Winder
E08	644	35	Characterization	04-PE-E0644-35	15-Mar-12	Marie Winder
E08	644	36	Characterization	04-PE-E0644-36	15-Mar-12	Marie Winder
E07	645	1	Biased	04-PE-E0645-01	24-Apr-12	Jeff Rolfe
E07	645	2	Biased	04-PE-E0645-02	24-Apr-12	Jeff Rolfe
E07	645	3	Biased	04-PE-E0645-03	24-Apr-12	Jeff Rolfe
E07	645	4	Biased	04-PE-E0645-04	24-Apr-12	Jeff Rolfe
E07	645	5	Biased	04-PE-E0645-05	24-Apr-12	Jeff Rolfe
E07	645	6	Biased	04-PE-E0645-06	24-Apr-12	Jeff Rolfe
E07	645	7	Biased	04-PE-E0645-07	24-Apr-12	Jeff Rolfe
E07	645	8	Systematic	04-PE-E0645-08	24-Apr-12	Jeff Rolfe
E07	645	9	Systematic	04-PE-E0645-09	24-Apr-12	Jeff Rolfe
E07	645	10	Systematic	04-PE-E0645-10	24-Apr-12	Jeff Rolfe
E07	645	11	Systematic	04-PE-E0645-11	24-Apr-12	Jeff Rolfe
E07	645	12	Systematic	04-PE-E0645-12	24-Apr-12	Jeff Rolfe
E07	645	13	Systematic	04-PE-E0645-13	24-Apr-12	Jeff Rolfe
E07	645	14	Systematic	04-PE-E0645-14	24-Apr-12	Jeff Rolfe
E07	645	15	Systematic	04-PE-E0645-15	24-Apr-12	Jeff Rolfe
E07	645	16	Systematic	04-PE-E0645-16	24-Apr-12	Jeff Rolfe

On-Site Laboratory (pCi/g)

K-40	Ra-226	Cs-137	Bi-214	Pb-214
9.135	1.038	0.001309	1.1	1.244
8.259	0.814	0.001332	0.8247	0.9353
7.992	1.491	-0.009793	1.361	1.54
8.946	0.8375	0.005088	0.8749	0.9432
8.655	0.6721	0	0.667	0.9609
8.359	1.325	0.003308	1.118	1.177
9.005	1.127	-0.00005525	0.8938	0.9698
9.698	1.677	0	1.053	1.056
8.569	1.932	0.01279	1.261	1.466
9.201	1.275	0.009044	0.747	0.9634
10.46	0.8392	0.007498	0.8023	0.8587
9.944	1.056	0.008981	0.7784	0.8405
6.756	0.8875	-0.001482	0.9662	1.046
8.938	1.569	0	0.8319	1.044
9.148	1.428	-0.0002595	1.175	1.362
10.35	0.996	0.00223	0.8824	0.988
8.924	0.5089	-0.001003	0.8721	0.916
9.717	0.5526	0.01115	0.6506	0.6031
10.05	0.6068	-0.008682	0.7451	0.7236
6.947	1.179	0.0116	0.803	0.9065
9.349	0.7631	0.001247	0.7629	0.7469
14.04	0.417	0.007556	0.5378	0.6637
9.113	0.6804	-0.0005737	0.6288	0.764
7.507	1.297	0.01065	0.8579	0.6753
10.79	0.6663	0.007039	0.6736	0.6624
8.413	1.193	0.003763	0.7782	0.971
7.831	1.145	0.001159	0.9242	0.9778
8.545	1.137	-0.008324	0.783	0.9059
8.659	1.024	-0.001956	1.032	1.096
10.62	1.419	0.001324	0.9855	1.203
8.617	1.934	-0.0002162	1.167	1.404
11.95	0.9436	0.01012	0.4337	0.5964
11.05	0.9386	-0.0002399	0.6464	0.7524
9.966	1.268	0.002277	0.7404	0.8226
10.23	0.9073	-0.0104	0.8124	0.8685
9.759	1.232	0	0.8063	0.9867
9.209	1.269	0.007185	1.025	1.184
9.5	1.269	0.009418	0.9847	1.066
9.57	0.7431	0	0.7789	0.7793
8.879	1.339	-0.01317	0.9731	1.289
12.05	0.596	0.008873	0.5815	0.6293
9.815	1.018	0.01082	0.8161	1.055
9.879	0.75	-0.009951	0.7509	0.909
9.852	0.5512	0	0.5	0.7552

Off-Site Laboratory (pCi/g)

K-40	Ra-226	Cs-137	Bi-214	Pb-214

Area	Survey Unit	Sample Point	Sample Type	Sample ID	Date Collected	COC Radiological Technician
E07	645	17	Systematic	04-PE-E0645-17	24-Apr-12	Jeff Rolfe
E07	645	18	Systematic	04-PE-E0645-18	24-Apr-12	Jeff Rolfe
E07	645	19	Systematic	04-PE-E0645-19	24-Apr-12	Jeff Rolfe
E07	645	20	Systematic	04-PE-E0645-20	24-Apr-12	Jeff Rolfe
E07	645	21	Systematic	04-PE-E0645-21	24-Apr-12	Jeff Rolfe
E07	645	22	Systematic	04-PE-E0645-22	24-Apr-12	Jeff Rolfe
E07	645	23	Systematic	04-PE-E0645-23	24-Apr-12	Jeff Rolfe
E07	645	24	Systematic	04-PE-E0645-24	24-Apr-12	Jeff Rolfe
E07	645	25	Systematic	04-PE-E0645-25	24-Apr-12	Jeff Rolfe
E07	645	26	Characterization	04-PE-E0645-26	7-May-12	Marie Winder
E07	645	27	Characterization	04-PE-E0645-27	7-May-12	Marie Winder
E07	645	28	Characterization	04-PE-E0645-28	7-May-12	Marie Winder
E07	645	29	Characterization	04-PE-E0645-29	11-May-12	Marie Winder
E07	645	30	Characterization	04-PE-E0645-30	11-May-12	Marie Winder
E07	645	31	Characterization	04-PE-E0645-31	18-May-12	Marie Winder
E07	645	32	Characterization	04-PE-E0645-32	18-May-12	Marie Winder
E19	691	1	Biased	04-PE-E0691-01	27-Apr-12	Marie Winder
E19	691	2	Biased	04-PE-E0691-02	27-Apr-12	Marie Winder
E19	691	3	Systematic	04-PE-E0691-03	27-Apr-12	Marie Winder
E19	691	4	Systematic	04-PE-E0691-04	27-Apr-12	Marie Winder
E19	691	5	Systematic	04-PE-E0691-05	27-Apr-12	Marie Winder
E19	691	6	Systematic	04-PE-E0691-06	27-Apr-12	Marie Winder
E19	691	7	Systematic	04-PE-E0691-07	27-Apr-12	Marie Winder
E19	691	8	Systematic	04-PE-E0691-08	27-Apr-12	Marie Winder
E19	691	9	Systematic	04-PE-E0691-09	27-Apr-12	Marie Winder
E19	691	10	Systematic	04-PE-E0691-10	27-Apr-12	Marie Winder
E19	691	11	Systematic	04-PE-E0691-11	27-Apr-12	Marie Winder
E19	691	12	Systematic	04-PE-E0691-12	27-Apr-12	Marie Winder
E19	691	13	Systematic	04-PE-E0691-13	27-Apr-12	Marie Winder
E19	691	14	Systematic	04-PE-E0691-14	27-Apr-12	Marie Winder
E19	691	15	Systematic	04-PE-E0691-15	27-Apr-12	Marie Winder
E19	691	16	Systematic	04-PE-E0691-16	27-Apr-12	Marie Winder
E19	691	17	Systematic	04-PE-E0691-17	27-Apr-12	Marie Winder
E19	691	18	Systematic	04-PE-E0691-18	27-Apr-12	Marie Winder
E19	691	19	Systematic	04-PE-E0691-19	27-Apr-12	Marie Winder
E19	691	20	Systematic	04-PE-E0691-20	27-Apr-12	Marie Winder
E11	693	1	Biased	04-PE-E0693-01	24-Apr-12	Anthony Smith
E11	693	2	Biased	04-PE-E0693-02	24-Apr-12	Anthony Smith
E11	693	3	Biased	04-PE-E0693-03	24-Apr-12	Anthony Smith
E11	693	4	Biased	04-PE-E0693-04	24-Apr-12	Anthony Smith
E11	693	5	Biased	04-PE-E0693-05	24-Apr-12	Anthony Smith
E11	693	6	Biased	04-PE-E0693-06	24-Apr-12	Anthony Smith
E11	693	7	Biased	04-PE-E0693-07	24-Apr-12	Anthony Smith
E11	693	8	Systematic	04-PE-E0693-08	24-Apr-12	Anthony Smith

On-Site Laboratory (pCi/g)

K-40	Ra-226	Cs-137	Bi-214	Pb-214
9.587	1.224	0.01352	0.6607	0.6848
11.19	0.8239	-0.001084	0.6204	0.8041
9.853	0.5957	-0.001048	0.5756	0.6929
12.81	0.7474	0.0125	0.5136	0.4787
9.45	0.8164	0.00155	0.4253	0.624
11.16	0.8517	-0.005392	0.4125	0.6129
13.33	0.8521	0	0.5497	0.7227
10.99	0.7246	0.01499	0.6088	0.4824
11.56	0.6383	-0.009513	0.6611	0.7273
8.846	1.618	0.01385	0.9045	1.041
8.932	1.286	-0.007502	0.9762	1.097
9.209	1.252	0	0.7861	0.824
8.143	1.725	0.01615	1.137	1.278
9.664	1.207	0.004073	0.7972	0.9242
9.615	0.6586	0.01424	0.9295	1.053
9.856	0.9581	-0.0108	0.3984	0.8761
11.42	0.5216	-0.001318	0.2918	0.4437
13.63	0.6136	0	0.343	0.2736
9.223	0.8276	0.004735	0.468	0.4789
10.37	0.7319	0.009413	0.4226	0.396
10.94	0.5759	0.01835	0.3179	0.2949
10.52	0.8873	0.01685	0.3787	0.3828
12.82	0.3752	0.001928	0.2875	0.4257
10.29	0.5444	0.002688	0.395	0.4011
10.05	0.2719	0.006117	0.4152	0.4421
13.51	1.128	0.008372	0.2934	0.3993
11.74	0.3808	0.009345	0.2491	0.3485
12.78	0.1083	-0.001786	0.01412	0.3935
10.37	0	0.0002353	0.2806	0.3421
12.41	0.2256	0.005948	0.3214	0.469
10.54	0.7034	0.0006072	0.1817	0.2721
12.64	0.1694	0	0.2648	0.3564
8.039	0.5271	-0.0447	0.2092	0.3019
12.81	0.2364	0.001157	0.39	0.2714
11.01	0.4375	0	0.399	0.3193
9.848	0.6194	0.01099	0.3178	0.3537
10.25	1.027	0.0006993	0.8814	0.8847
10.28	0.5294	0.007548	0.6713	0.6729
9.942	0.8699	-0.00798	0.8012	0.9899
10.99	1.374	0.004395	0.6647	0.667
10.73	0.947	-0.003895	0.6488	0.7013
9.629	0.7903	0.01272	0.7558	0.9325
10.73	1.155	-0.0001435	0.926	1.052
10.24	0.5115	0.01144	0.6164	0.5788

Off-Site Laboratory (pCi/g)

K-40	Ra-226	Cs-137	Bi-214	Pb-214

Area	Survey Unit	Sample Point	Sample Type	Sample ID	Date Collected	COC Radiological Technician
E11	693	9	Systematic	04-PE-E0693-09	24-Apr-12	Anthony Smith
E11	693	10	Systematic	04-PE-E0693-10	24-Apr-12	Anthony Smith
E11	693	11	Systematic	04-PE-E0693-11	24-Apr-12	Anthony Smith
E11	693	12	Systematic	04-PE-E0693-12	24-Apr-12	Anthony Smith
E11	693	13	Systematic	04-PE-E0693-13	24-Apr-12	Anthony Smith
E11	693	14	Systematic	04-PE-E0693-14	24-Apr-12	Anthony Smith
E11	693	15	Systematic	04-PE-E0693-15	24-Apr-12	Anthony Smith
E11	693	16	Systematic	04-PE-E0693-16	24-Apr-12	Anthony Smith
E11	693	17	Systematic	04-PE-E0693-17	24-Apr-12	Anthony Smith
E11	693	18	Systematic	04-PE-E0693-18	24-Apr-12	Anthony Smith
E11	693	19	Systematic	04-PE-E0693-19	24-Apr-12	Anthony Smith
E11	693	20	Systematic	04-PE-E0693-20	24-Apr-12	Anthony Smith
E11	693	21	Systematic	04-PE-E0693-21	24-Apr-12	Anthony Smith
E11	693	22	Systematic	04-PE-E0693-22	24-Apr-12	Anthony Smith
E11	693	23	Systematic	04-PE-E0693-23	24-Apr-12	Anthony Smith
E11	693	24	Systematic	04-PE-E0693-24	24-Apr-12	Anthony Smith
E11	693	25	Systematic	04-PE-E0693-25	24-Apr-12	Anthony Smith

On-Site Laboratory (pCi/g)

K-40	Ra-226	Cs-137	Bi-214	Pb-214
10.92	0.4133	0.01087	0.3187	0.503
10.31	1.338	0.01523	0.4785	0.5214
10.72	0.4259	0.01231	0.3547	0.4473
10.61	0.6146	0.02235	0.3334	0.5176
11.38	0.5131	0.01199	0.5798	0.6619
12.17	0.5977	0.001776	0.4368	0.7337
7.931	1.037	0.006561	0.7728	0.8283
7.963	0.7701	0.002913	0.578	0.6613
10	0.8577	0.01198	0.5866	0.6778
11.28	0.9163	0.01309	0.6664	0.7133
13.53	0.8076	0.01283	0.5062	0.6525
10.37	1.266	0.007697	0.7124	0.7932
8.877	1.009	-0.008686	0.63	0.6624
10.51	0.3598	0.01141	0.5688	0.6172
8.058	0.7641	-0.002274	0.649	0.7244
9.748	0.6598	0.01433	0.4658	0.5373
10.48	0.976	0.003956	0.3183	0.5567

Off-Site Laboratory (pCi/g)

K-40	Ra-226	Cs-137	Bi-214	Pb-214

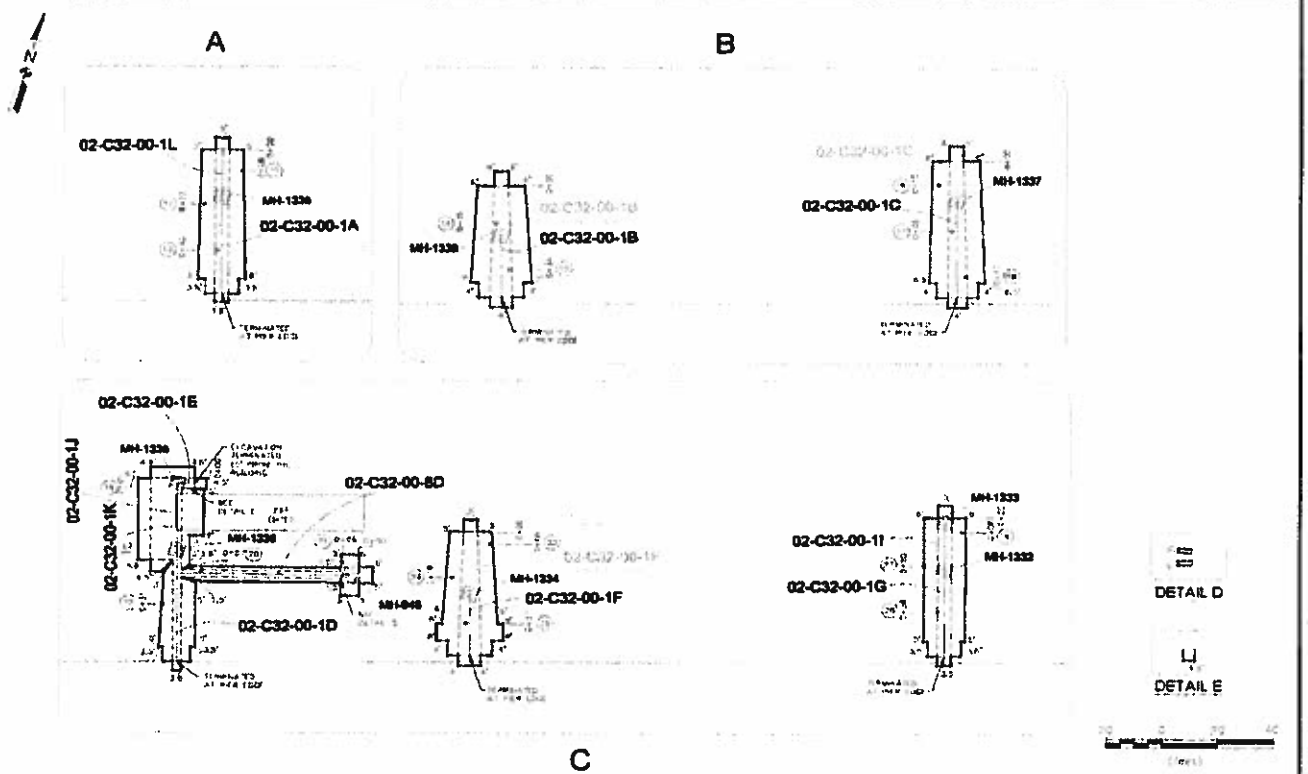
Highlighted Activities: K-40 ≤ 3.0 ; Ra-226 ≥ 1.485 (On-site) & 1.625 (Off-site) ; Cs-137 ≥ 0.113 ; Bi-214 ≥ 1.485 ; Pb-214 ≥ 1.485 (pCi/g)

RADIATION/CONTAMINATION SURVEY SUPPLEMENT

Date:	Time:	INSTRUMENTATION USED						
		Model Inst/Det.	Serial Number	Calibration Due Date	Instrument % Efficiency	Total % Efficiency	MDC/MDA + (dpm/100cm2)	Background + (dpm/100cm2)
5/31/2012	12:40							
Survey Number: HPS-SU-304								
Location: Parcel C								
Surveyor: R. Roberson								
Reviewed By: (Print & Sign)		2350-1 44-10	120588 81878	10/16/2012				

Isotopes of Concern: ^{226}Ra ^{90}Sr ^{137}Cs

Description of drawing: Trench Scan Survey



Comments:

Scan range for 2350-1 Instrument is 3.26 - 5.85 Kcpm

3 sigma investigation level for 2350-1 Instrument is 7638 cpm

Picture is representative of material surveyed.

denotes swipe location or fixed α/β readings

# denotes G/A radiation readings

#/# denotes contact / 1 meter radiation readings.

• denotes highest radiation reading on contact

LAW denotes large area massiinn wipe

Δ denotes static location.

' Unless Otherwise Noted

All readings in µR/hr unless otherwise noted

K = 1000

RADIATION/CONTAMINATION SURVEY SUPPLEMENT

SURVEY NUMBER: HPS-SU-304

SURVEYOR: R. Roberson

LOCATION: Parcel C

Location	Exposure Rate (µR/hr)		Gamma (cpm)	Fixed + Removable (NET)		Removable (NET)		Comments
	Contact	1 Meter		Alpha dpm/100cm2	Beta/Gamma dpm/100cm2	Alpha dpm/100cm2	Beta/Gamma dpm/100cm2	
11			5107					
12			5033					
13			5266					
14			5119					
15			5270					
16			5099					
17			5221					
18			5319					
19			5001					
20			5177					
21			5306					
22			5100					
23			5061					
24			5421					
25			5393					
26			5803					
27			5150					
28			5241					

Reviewer:

Date:

599	116S1A	JC	S	GST	PCT	242	F	36	4/17/2012	5150	1.00	TRUE	S	Thorpe.Miller	N/A
599	116S1A	JC	S	GST	PCT	242	F	37	4/17/2012	5194	1.00	TRUE	S	Thorpe.Miller	N/A
599	116S1A	JC	S	GST	PCT	242	F	38	4/17/2012	5440	1.00	TRUE	S	Thorpe.Miller	N/A
599	116S1A	JC	S	GST	PCT	242	F	39	4/17/2012	5219	1.00	TRUE	S	Thorpe.Miller	N/A
599	116S1A	JC	S	GST	PCT	242	F	40	4/17/2012	5301	1.00	TRUE	S	Thorpe.Miller	N/A
599	116S1A	JC	S	GST	PCT	242	F	41	4/17/2012	5175	1.00	TRUE	S	Thorpe.Miller	N/A
599	116S1A	JC	S	GST	PCT	242	F	42	4/17/2012	5488	1.00	TRUE	S	Thorpe.Miller	N/A
630	116S1A	RR	S	GST	PCT	302	F	5	5/22/2012	5831	1.00	TRUE	S	Thorpe.Miller	N/A
630	116S1A	RR	S	GST	PCT	302	F	6	5/22/2012	5945	1.00	TRUE	S	Thorpe.Miller	N/A
630	116S1A	RR	S	GST	PCT	302	F	7	5/22/2012	5796	1.00	TRUE	S	Thorpe.Miller	N/A
630	116S1A	RR	S	GST	PCT	302	F	8	5/22/2012	6003	1.00	TRUE	S	Thorpe.Miller	N/A
630	116S1A	RR	S	GST	PCT	302	F	9	5/22/2012	5781	1.00	TRUE	S	Thorpe.Miller	N/A
630	116S1A	RR	S	GST	PCT	302	F	10	5/22/2012	5847	1.00	TRUE	S	Thorpe.Miller	N/A
630	116S1A	RR	S	GST	PCT	302	F	11	5/22/2012	5955	1.00	TRUE	S	Thorpe.Miller	N/A
630	116S1A	RR	S	GST	PCT	302	F	12	5/22/2012	5720	1.00	TRUE	S	Thorpe.Miller	N/A
630	116S1A	RR	S	GST	PCT	302	F	13	5/22/2012	5874	1.00	TRUE	S	Thorpe.Miller	N/A
630	116S1A	RR	S	GST	PCT	302	F	14	5/22/2012	5613	1.00	TRUE	S	Thorpe.Miller	N/A
630	116S1A	RR	S	GST	PCT	302	F	15	5/22/2012	5701	1.00	TRUE	S	Thorpe.Miller	N/A
630	116S1A	RR	S	GST	PCT	302	F	16	5/22/2012	5863	1.00	TRUE	S	Thorpe.Miller	N/A
630	116S1A	RR	S	GST	PCT	302	F	17	5/22/2012	5911	1.00	TRUE	S	Thorpe.Miller	N/A
630	116S1A	RR	S	GST	PCT	302	F	18	5/22/2012	5734	1.00	TRUE	S	Thorpe.Miller	N/A
630	116S1A	RR	S	GST	PCT	302	F	19	5/22/2012	5950	1.00	TRUE	S	Thorpe.Miller	N/A
630	116S1A	RR	S	GST	PCT	302	F	20	5/22/2012	5863	1.00	TRUE	S	Thorpe.Miller	N/A
630	116S1A	RR	S	GST	PCT	302	F	21	5/22/2012	5701	1.00	TRUE	S	Thorpe.Miller	N/A
630	116S1A	RR	S	GST	PCT	302	F	22	5/22/2012	5822	1.00	TRUE	S	Thorpe.Miller	N/A
630	116S1A	RR	S	GST	PCT	304	F	11	5/31/2012	5107	1.00	TRUE	S	Thorpe.Miller	N/A
630	116S1A	RR	S	GST	PCT	304	F	12	5/31/2012	5033	1.00	TRUE	S	Thorpe.Miller	N/A
630	116S1A	RR	S	GST	PCT	304	F	13	5/31/2012	5266	1.00	TRUE	S	Thorpe.Miller	N/A
630	116S1A	RR	S	GST	PCT	304	F	14	5/31/2012	5119	1.00	TRUE	S	Thorpe.Miller	N/A
630	116S1A	RR	S	GST	PCT	304	F	15	5/31/2012	5270	1.00	TRUE	S	Thorpe.Miller	N/A
630	116S1A	RR	S	GST	PCT	304	F	16	5/31/2012	5099	1.00	TRUE	S	Thorpe.Miller	N/A
630	116S1A	RR	S	GST	PCT	304	F	17	5/31/2012	5221	1.00	TRUE	S	Thorpe.Miller	N/A
630	116S1A	RR	S	GST	PCT	304	F	18	5/31/2012	5319	1.00	TRUE	S	Thorpe.Miller	N/A
630	116S1A	RR	S	GST	PCT	304	F	19	5/31/2012	5001	1.00	TRUE	S	Thorpe.Miller	N/A
630	116S1A	RR	S	GST	PCT	304	F	20	5/31/2012	5177	1.00	TRUE	S	Thorpe.Miller	N/A
630	116S1A	RR	S	GST	PCT	304	F	21	5/31/2012	5306	1.00	TRUE	S	Thorpe.Miller	N/A
630	116S1A	RR	S	GST	PCT	304	F	22	5/31/2012	5100	1.00	TRUE	S	Thorpe.Miller	N/A
630	116S1A	RR	S	GST	PCT	304	F	23	5/31/2012	5061	1.00	TRUE	S	Thorpe.Miller	N/A
630	116S1A	RR	S	GST	PCT	304	F	24	5/31/2012	5421	1.00	TRUE	S	Thorpe.Miller	N/A
630	116S1A	RR	S	GST	PCT	304	F	25	5/31/2012	5393	1.00	TRUE	S	Thorpe.Miller	N/A
630	116S1A	RR	S	GST	PCT	304	F	26	5/31/2012	5803	1.00	TRUE	S	Thorpe.Miller	N/A
630	116S1A	RR	S	GST	PCT	304	F	27	5/31/2012	5150	1.00	TRUE	S	Thorpe.Miller	N/A
630	116S1A	RR	S	GST	PCT	304	F	28	5/31/2012	5241	1.00	TRUE	S	Thorpe.Miller	N/A

TETRA TECH EC, INC.
1230 Columbia St, Suite 750
San Diego, CA 92101

Chain-of-Custody Record

TSI 00591

Project Name: Parcel C Trench Survey	PO Number: N/A
Project Location: HUNTERS POINT	Project Number: 4044-0002
Sampler Name: J. Cunningham	Airbill Number: N/A
Project Chemist: LISA BIENKOWSKI	Project Chemist Phone: 949-756-7592

LABORATORY NAME: ONSITE - Curtis & Tompkins, LTD.

LABORATORY ID: [redacted]

Project Information Section

SAMPLE_ID	DATE	TIME	Containers	LEVEL	TYPE	TAT	GAMMASPEC 1	SR90 1	ALPHA 1	COMMENTS	LOCATION	SAMPLE ID
02-PCT-304-001	5/21/2012	1100	1		S1		☑	☐	☐			[redacted]
02-PCT-304-002	5/21/2012	1103	1		S1		☑	☐	☐			[redacted]
02-PCT-304-003	5/21/2012	1106	1		S1		☑	☐	☐			[redacted]
02-PCT-304-004	5/21/2012	1109	1		S1		☑	☐	☐			[redacted]
02-PCT-304-005	5/21/2012	1112	1		S1		☑	☐	☐			[redacted]
02-PCT-304-006	5/21/2012	1115	1		S1		☑	☐	☐			[redacted]
02-PCT-304-007	5/21/2012	1118	1		S1		☑	☐	☐			[redacted]
02-PCT-304-008	5/21/2012	1121	1		S1		☑	☐	☐			[redacted]
02-PCT-304-009	5/21/2012	1124	1		S1		☑	☐	☐			[redacted]
02-PCT-304-010	5/21/2012	1127	1		S1		☑	☐	☐			[redacted]

Relinquished by: (signature) [signature]	Date 05/21/12	Received by: (signature) [signature]	LABORATORY INSTRUCTIONS/COMMENTS: [redacted]
Company R.S.R.S.	Time 1341	Company CT	
Relinquished by: (signature)	Date	Received by: (signature)	COMPOSITE DESCRIPTION: [redacted]
Company	Time	Company	
Relinquished by: (signature)	Date	Received by: (signature)	SAMPLE CONDITION UPON RECEIPT FOR LABORATORY TEMPERATURE SAMPLE CONDITION COOLER SEAL: [redacted]
Company	Time	Company	

SAMPLING COMMENTS: [redacted]

TETRA TECH EC, INC.
1230 Columbia St, Suite 750
San Diego, CA 92101

Chain-of-Custody Record

TS 00385

Project Name: Parcel C Trench Survey		PO Number: N/A				GAMMASPEC	SR90	ALPHA		LABORATORY NAME: ONSITE - Curtis & Tompkins, LTD.	Project Information Section		
Project Location: HUNTERS POINT		Project Number: 4044-0002								LABORATORY ID: [redacted]			
Sampler Name: Roy Roberson		Airbill Number: N/A											
Project Chemist: LISA BIENKOWSKI		Project Chemist Phone: 949-756-7592											
SAMPLE_ID	DATE	TIME	Containers	LEVEL	TYPE	TAT	1	1	1	COMMENTS	LOCATION	SAMPLE ID	
02-PCT-304-011	5/31/2012	1240	1		S1		☑	☐	☐			[redacted]	
02-PCT-304-012	5/31/2012	1245	1		S1		☑	☐	☐			[redacted]	
02-PCT-304-013	5/31/2012	1250	1		S1		☑	☐	☐			[redacted]	
02-PCT-304-014	5/31/2012	1255	1		S1		☑	☐	☐			[redacted]	
02-PCT-304-015	5/31/2012	1300	1		S1		☑	☐	☐			[redacted]	
02-PCT-304-016	5/31/2012	1305	1		S1		☑	☐	☐			[redacted]	
02-PCT-304-017	5/31/2012	1310	1		S1		☑	☐	☐			[redacted]	
02-PCT-304-018	5/31/2012	1315	1		S1		☑	☐	☐			[redacted]	
02-PCT-304-019	5/31/2012	1320	1		S1		☑	☐	☐			[redacted]	
02-PCT-304-020	5/31/2012	1325	1		S1		☑	☐	☐	DUP		[redacted]	
02-PCT-304-021	5/31/2012	1330	1		S1		☑	☐	☐			[redacted]	
02-PCT-304-022	5/31/2012	1335	1		S1		☑	☐	☐			[redacted]	

Relinquished by: (signature)	Date: 5-31-12	Received by: (signature)	LABORATORY INSTRUCTIONS/COMMENTS:
Company: RSRS	Time: 16:46	Company: CT	COMPOSITE DESCRIPTION:
Relinquished by: (signature)	Date	Received by: (signature)	SAMPLE CONDITION UPON RECEIPT (FOR LABORATORY): TEMPERATURE: °C SAMPLE CONDITION: (COOLER SEAL)
Company	Time	Company	SAMPLING COMMENTS:
Relinquished by: (signature)	Date	Received by: (signature)	
Company	Time	Company	

TETRA TECH EC, INC.
1230 Columbia St, Suite 750
San Diego, CA 92101

Chain-of-Custody Record

TS 00386

Project Name: Parcel C Trench Survey	PO Number: N/A
Project Location: HUNTERS POINT	Project Number: 4044-0002
Sampler Name: Ray Roberson	Airbill Number: N/A
Project Chemist: LISA BIENKOWSKI	Project Chemist Phone: 949-756-7592

LABORATORY NAME: ONSITE - Curtis & Tompkins, LTD.

LABORATORY ID #: [redacted]

Project Information Section

SAMPLE_ID	DATE	TIME	Containers	LEVEL	TYPE	TAT	GAMMASPEC 1	SR90 1	ALPHA 1	COMMENTS	LOCATION	SAMPLE ID
02-PCT-304-023	5/31/2012	1340	1		S1		☑	☐	☐			[redacted]
02-PCT-304-024	5/31/2012	1345	1		S1		☑	☐	☐			[redacted]
02-PCT-304-025	5/31/2012	1350	1		S1		☑	☐	☐			[redacted]
02-PCT-304-026	5/31/2012	1355	1		S1		☑	☐	☐			[redacted]
02-PCT-304-027	5/31/2012	1400	1		S1		☑	☐	☐			[redacted]
02-PCT-304-028	5/31/2012	1405	1		S1		☑	☐	☐			[redacted]

Relinquished by: (signature)	Date: 5-31-12	Received by: (signature)	LABORATORY INSTRUCTIONS/COMMENTS: [redacted]
Company: RSRS	Time: 10:44	Company: C & T	
Relinquished by: (signature)	Date	Received by: (signature)	COMPOSITE DESCRIPTION: [redacted]
Company	Time	Company	
Relinquished by: (signature)	Date	Received by: (signature)	SAMPLE CONDITION UPON RECEIPT (FOR LABORATORY): TEMPERATURE: °F SAMPLE CONDITION: COOLER SEAL: [redacted]
Company	Time	Company	SAMPLING COMMENTS: [redacted]