

**SOIL REMEDIATION PHASE 1 COMPLETION
REPORT**

**Defense Fuel Support Point Norwalk
15306 Norwalk Boulevard
Norwalk, CA 90650**

04-NDLA-007

Prepared For:



**Defense Logistics Agency
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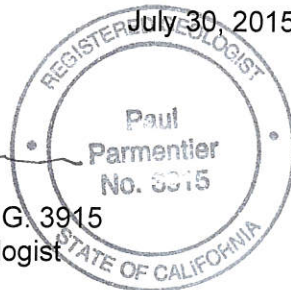
1962 Freeman Avenue
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July 30, 2015

Prepared By:

A handwritten signature in black ink, appearing to read "Paul Parmentier".

Paul Parmentier, P.G. 3915
Principal Hydrogeologist



Reviewed By:

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1.0 INTRODUCTION

This report documents soil reuse and backfilling activities associated with shallow soil excavation and remediation at the Defense Fuel Support Point Norwalk site located at 15306 Norwalk Boulevard, in Norwalk, California 90650 (Site).

This *Phase 1 Completion Report* (Completion Report) was prepared by The Source Group, Inc. (SGI), on behalf of the Defense Logistics Agency - Energy (DLA – Energy). This report is one of several completion reports resulting from site-wide excavation, soil segregation, and soil treatment conducted at the Site.

The remediation of soil and groundwater and the removal of light non-aqueous phase liquids (LNAPL) has been on-going since 1995 and has resulted in the removal of the majority of the LNAPL from the shallow aquifer and the removal and destruction of thousands of pounds of hydrocarbons present in soil and groundwater using extractive and *in situ* treatment methods. The primary sources of contamination (tanks and pipelines) associated with former DLA – Energy operations have also been removed.

To implement additional source removal, DLA proposed excavation of soil with on-site treatment. The soil removal and proposed confirmation sampling was proposed in SGI's Soil Remediation Action Plan (SGI, 2014), conditionally approved on January 7, 2015 by the RWQCB. The soil excavation is also being conducted under the South Coast Air Quality Management District (SCAQMD) site-specific soil excavation and treatment permits No. 566483 and 568793.

On June 15, 2015, SGI submitted to RWQCB a Proposed Addendum to the Soil Cleanup Goals (SGI, 2015a) to clarify the hydrocarbon ranges and include longer-chain hydrocarbons (with >C25 carbon chain), and RWQCB indicated that these updated cleanup goals are acceptable for the Site.

The soil treatment, confirmation sampling and backfilling procedures for the site were presented in SGI's June 15, 2015 *Revised Field Sampling and Analysis Plan and Sampling Strategy* (SGI, 2015b).

DLA is submitting excavation- and stockpile-specific reports of confirmation sampling results to request RWQCB's approval for soil reuse and backfilling.

The first phase of excavation, soil testing and confirmation sampling was presented in a *Phase 1 Excavations and Stockpiling Confirmation Sampling Report* submitted on July 14, 2015 by SGI (SGI 2015c). This Completion Report presents a summary of the implementation of backfilling and soil reuse described in the July 14, Phase 1 report.

Figure 1 presents a site map that provides the locations of Excavations #3, #4, #5, and #14, and of Phase 1 stockpiles CS-01, CS-02A, CS-10, CS-12, and CS-14.

1.1 Soil Reuse and Backfilling

The two northeastern excavations (#5 and #3, #4, and #14 combined) were backfilled from July 20 to 27, 2015. Backfilling included addition of water to ensure compaction in approximate one-foot thick lifts, and confirmation testing of compaction to 90% overseen by Albus-Keefe & Associates of Anaheim, CA.

Appendix A includes photo documentation of the backfilling.

Note that approximately 790 tons of oily material was also excavated from Excavation #3, segregated and hauled off site for disposal, as will be reported in the pending Quarterly Soil Management Report.

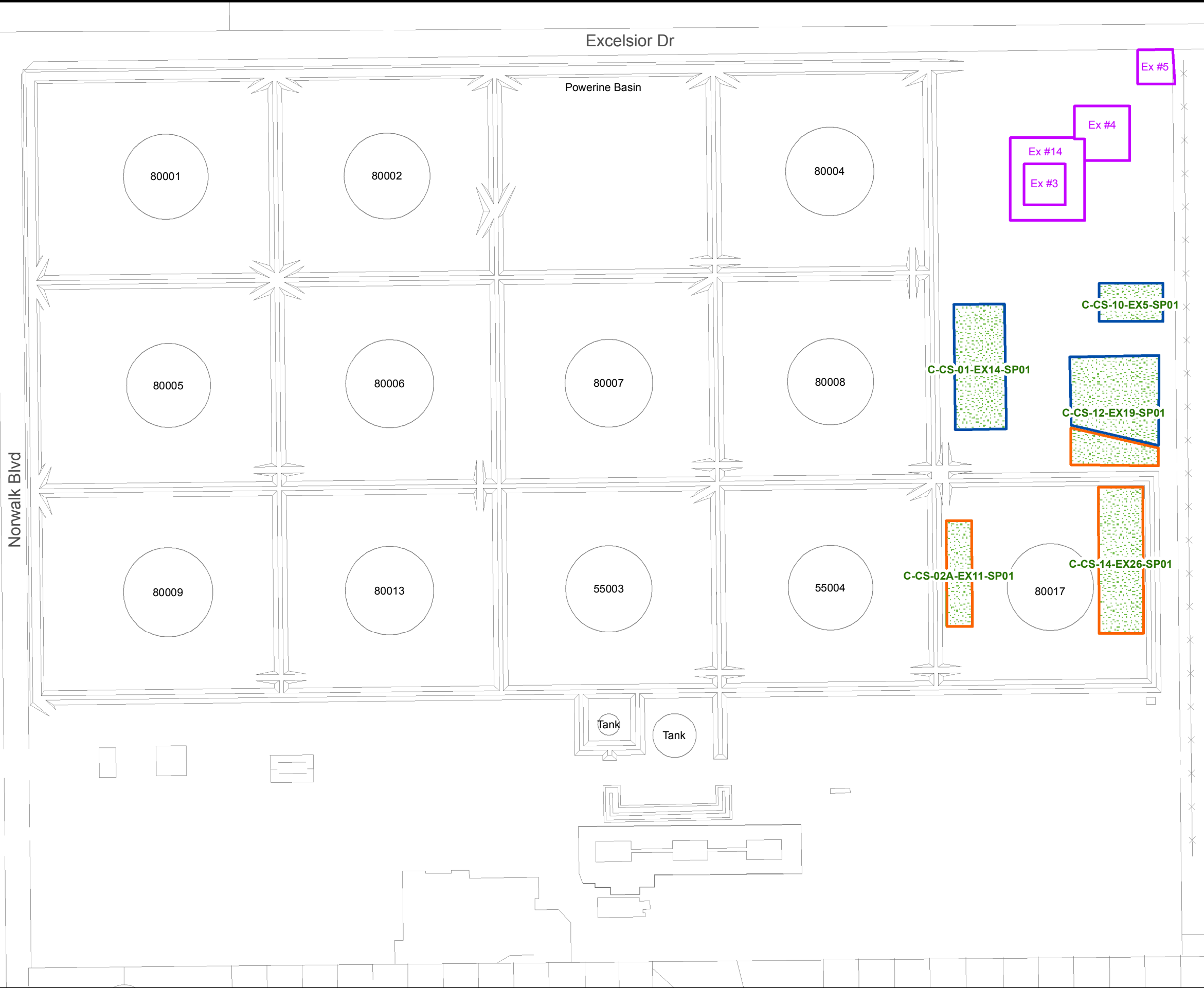
1.2 Residual Soil

The Phase 1 stockpiles included five stockpiles, of which stockpiles CS-1 and CS-10 were completely used for backfilling, while stockpile CS-12 was only partially used, leaving approximately 4,510 cubic yards of clean soil to be reused at the site in later phases of the project. Table 1 presents a summary of Phase 1 soil reuse.

2.0 REFERENCES

- The Source Group, Inc. 2014 (SGI, 2014) *Soil Remedial Action Plan Defense Fuel Support Norwalk*. November 30.
- The Source Group, Inc. 2015 (SGI, 2015a), *Proposed Addendum to the Soil Cleanup Goals*. June 15.
- The Source Group, Inc. 2015 (SGI, 2015b), *Revised Field Sampling and Analysis Plan and Sampling Strategy*. June 15.
- The Source Group, Inc. 2015. (SGI, 2015c), *Phase 1 Excavations and Stockpiles Confirmation Sampling Report*. July 14.

FIGURE



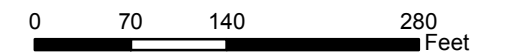
Legend

- Excavation Backfilled July 2015
- Soil Used for Backfilling
- Residual Phase 1 Clean Soil Stockpile



DFSP Norwalk
15306 Norwalk Boulevard
Norwalk, California

Project Number:	Date:	Drawn By:	Approved By:
04-NDLA-010	07/27/2015	S.M.	P.P



Phase 1 Completion Map

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Figure
1

TABLE

TABLE 1**Summary of Phase 1 Clean Soil Stockpiles**

Stockpile Number	Initial Volume (yds³)	Confirmation Sampling Status	Residual Volume (yds³)	Comments
C-CS-01-EX14-SP01	933	Approved for backfilling: used for backfill of excavations 3, 4, 5, and 14	0	Used for Phase 1
C-CS-02A-EX11-SP01	900	Approved for backfilling: used for backfill of excavations 3, 4, 5, and 14	900	Unused
C-C-CS-10-EX05-SP01	600	Approved for backfilling: used for backfill of excavations 3, 4, 5, and 14	0	Used for Phase 1
C-CS-12-EX19-SP01	4,550	Approved for backfilling: used for backfill of excavations 3, 4, 5, and 14	1,150	Partially used for Phase 1
C-CS-14-EX26-SP01	2,460	Approved for backfilling: used for backfill of excavations 3, 4, 5, and 14	2,460	Unused
Total Volume	9,443		4,510	

Notes:yds³ = cubic yards



Photo 1: Backfilling, southern end of Excavation 3-4-14, view to the north.



Photo 2: Backfilling, northern end of Excavation 3-4-14, view to the north.