

DOCKETED

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Project Title:	COMPLIANCE-Luz Solar Electric Generating System Cogeneration AFC (150 MW) Units III-VII.
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Document Title:	SEGS Kramer Junction 2020 1st Semiannual Bioremediation Report
Description:	N/A
Filer:	Glen T King
Organization:	NextEra Energy
Submitter Role:	Applicant
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Docketed Date:	7/8/2020



NextEra Energy Operating Services, LLC, 41100 US Highway 395,
Boron, CA 93516
760-762-5562

July 8, 2020

California Water Quality Control Board – Lahontan Region
2501 Lake Tahoe Boulevard
South Lake Tahoe, California 96150

Attention: Mr. John Steude, PG
Engineering Geologist

**Subject: First Semester 2019 Bioremediation Monitoring Report
Board Order No. 6-95-102 – Monitoring and Reporting Program
SEGS III through VII Facilities
Boron, California**

Dear Mr. Steude:

NextEra Energy Operating Services, LLC, on behalf of Luz Solar Partners III through VII, Ltd., is pleased to present this Bioremediation Monitoring Report for the First Semester of 2020. All operational activities with the exception of soil sampling of the bioremediation treatment unit, landfarm facility, and testing related to spill responses are performed by site personnel. Soil sampling is currently performed by Northstar Environmental Remediation under direct contract to Luz Solar Partners III through VII Ltd. Chemical analyses are performed by an independent State-certified laboratory also under direct contract.

Active treatment of soils affected by heat transfer fluid (HTF) is continuing in our permitted bioremediation facility. In addition, HTF-impacted soil is contained in our landfarm as the result of releases and subsequent clean-up in the solar fields. At present, approximately 110 cubic yards of soil are present in the bioremediation facility and approximately 500 cubic yards of soil are present in the landfarm. Soil in the landfarm is from releases that have been previously reported to the California Water Quality Control Board – Lahontan Region and other appropriate agencies.

If you have any questions regarding this report, please feel free to call me at (760) 762-1505.

Sincerely,

NextEra Energy Operating Services, LLC for
Luz Solar Partners III – VII Ltd.

A handwritten signature in black ink, appearing to read "Glen T. King".

Glen T. King
Environmental Specialist
Luz Solar Partners III – VII Ltd.

Date: July 8, 2020

California Regional Water Quality Control Board
Lahontan Region
2501 Lake Tahoe Boulevard
South Lake Tahoe, CA 96150

Facility Name: SEGS III - VII

Address: 41100 Highway 395
Boron, CA 93516

Contact Person: Glen King

Job Title: Environmental Specialist

Phone: 760-762-5562x440 or 661-202-5837

Email: glen.king@nee.com

WDR/NPDES Order Number: 6-95-102

WDID Number: 6B368909005

Type of Report (circle one): Monthly Quarterly Semi-Annual Annual Other

Month(s) (circle applicable month(s)*): JAN FEB MAR APR MAY JUN
JUL AUG SEP OCT NOV DEC

*annual Reports (circle the first month of the reporting period)

Year: 2020

Violation(s)? (Please check one): X NO YES*

***If YES is marked complete a-g (Attach Additional information as necessary)**

a) Brief Description of Violation: _____

b) Section(s) of WDRs/NPDES Permit Violated: _____

c) Reported Value(s) or Volume: _____

**d) WDRs/NPDES
Limit/Condition:** _____

**e) Date(s) and Duration of
Violation(s):** _____

f) Explanation of Cause(s): _____

**g) Corrective Action(s)
(Specify actions taken and a schedule
for actions to be taken)** _____

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision following a system designed to ensure that qualified personnel properly gather and evaluate the information submitted. Based on my knowledge of the person(s) who manage the system, or those directly responsible for data gathering, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

If you have any questions or require additional information, please contact me at the number provided above.

Sincerely,

Signature: 

Name: Glen T. King

Title: Environmental Specialist



2020 FIRST SEMIANNUAL
BIOREMEDIATION MONITORING REPORT
SEGS III – VII KRAMER JUNCTION
Board Order No. 6-95-102

July 07, 2020

Prepared for:
Luz Solar Partners III - VII Ltd. c/o
NextEra Energy Operating Services, LLC
41100 Highway 395
Boron, California 93516

Prepared By:
Northstar Environmental Remediation
26225 Enterprise Court
Lake Forest, California 92630

SIGNATURE PAGE

2020 FIRST SEMIANNUAL BIOREMEDIATION MONITORING REPORT

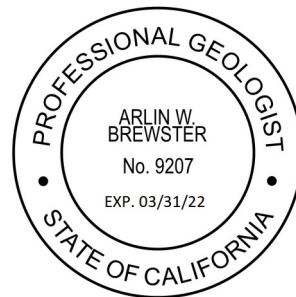
SEGS III - VII KRAMER JUNCTION

BORON, CALIFORNIA

PROFESSIONAL STATEMENT

I declare under the penalty of law that I have personally examined and am familiar with the information submitted in this document, and that based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of a fine and imprisonment for knowing violations.

I further certify that this report has been reviewed by the appropriate authority at NextEra Energy Resources and is being submitted with their written consent.



Arlin W. Brewster

Professional Geologist 9207

July 07, 2020

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1.0 INTRODUCTION

Northstar Environmental Remediation (Northstar) of Lake Forest, California has prepared this 2020 First Semiannual Bioremediation Monitoring Report for the Solar Electric Generating Station (SEGS) III – VII facility on behalf of NextEra Energy Operating Services, LLC (NextEra) and Luz Solar Partners III - VII Ltd. This report presents environmental data required under California Regional Water Quality Control Board - Lahontan Region (RWQCB) Order No. 6-95-102 Waste Discharge Requirements and Monitoring and Reporting Program. This report summarizes all bioremediation activity that occurred during the reporting period. Northstar currently conducts soil sampling associated with the bioremediation unit. A site vicinity map of SEGS III – VII is included in **Figure 1**.

1.1 Facility Information

Facility Name:

Solar Electric Generating Station (SEGS) III – VII

Facility Location:

41100 Highway 395
Boron, California 92347

Facility Contact:

Mr. Glen T. King
Safety/Environmental Specialist
NextEra Energy Operating Services, LLC
(760) 762-1505

Monitoring and Reporting Program:

RWQCB Order No. 6-95-102 (6-90-24 rescinded)

Waste Discharge Identification Number:

6B368909005

1.2 Soil Treatment Units

The Bioremediation Unit is designed to treat soil contaminated with the heat transfer fluid (HTF) Therminol, which is used in the processes of the solar trough technology employed at the site. Onsite treatment of contaminated soils is accomplished through two soil treatment units onsite: the Bioremediation Unit (located between SEGS VI and VII), which is used for storage and treatment of HTF-impacted soils; and, the Landfarm Unit (located between SEGS III and IV), which is used for treatment by natural attenuation and for storage of remediated soils, staged for future use at the facility. The location of both Units are shown on **Figure 1**.

2.0 HEAT TRANSFER FLUID RELEASES

There were no reportable spills (more than 25 gallons) of heat transfer fluid during the reporting period.

3.0 TREATMENT AND MONITORING

The Bioremediation Unit is divided into a north and south half by a concrete divider (see **Figure 2**). The North half is designated for soil treatment, and the south half for HTF-impacted soil storage. The impacted soils are treated in smaller cells by mixing with a urea fertilizer (containing nitrogen, phosphorous, and potassium), adding moisture, and by aerating the soils on a weekly to bi-weekly basis. This activity enhances biodegradation of the HTF.

Monitoring is performed by visually inspecting the condition of the concrete divider and leakage detection sumps (performed by NextEra) and by collecting periodic, representative samples of the treated soil media (performed by Northstar). When HTF compounds are demonstrated to be below 1,000 parts per million (ppm) by an analytical laboratory, the treated soils are then staged in the Landfarm Unit where natural attenuation occurs. Once the HTF compounds are below 100 parts per million, they are staged for future use within the facility.

The following notes apply to the treatment and monitoring performed during this reporting period:

- No new HTF-impacted soil was transferred into the Bioremediation Unit.
- 75 cubic yards of treated soil was transferred to the Landfarm Unit.
- No additional soil was released for use within the SEGS facility.
- Sampling was not required of any soils being treated onsite.
- No defects were discovered during inspections of the concrete divider and leakage detection sumps.
- No water accumulated in the leakage detection sumps.
- Soil aeration was performed as regularly scheduled.

4.0 SAMPLING AND ANALYTICAL SUMMARY

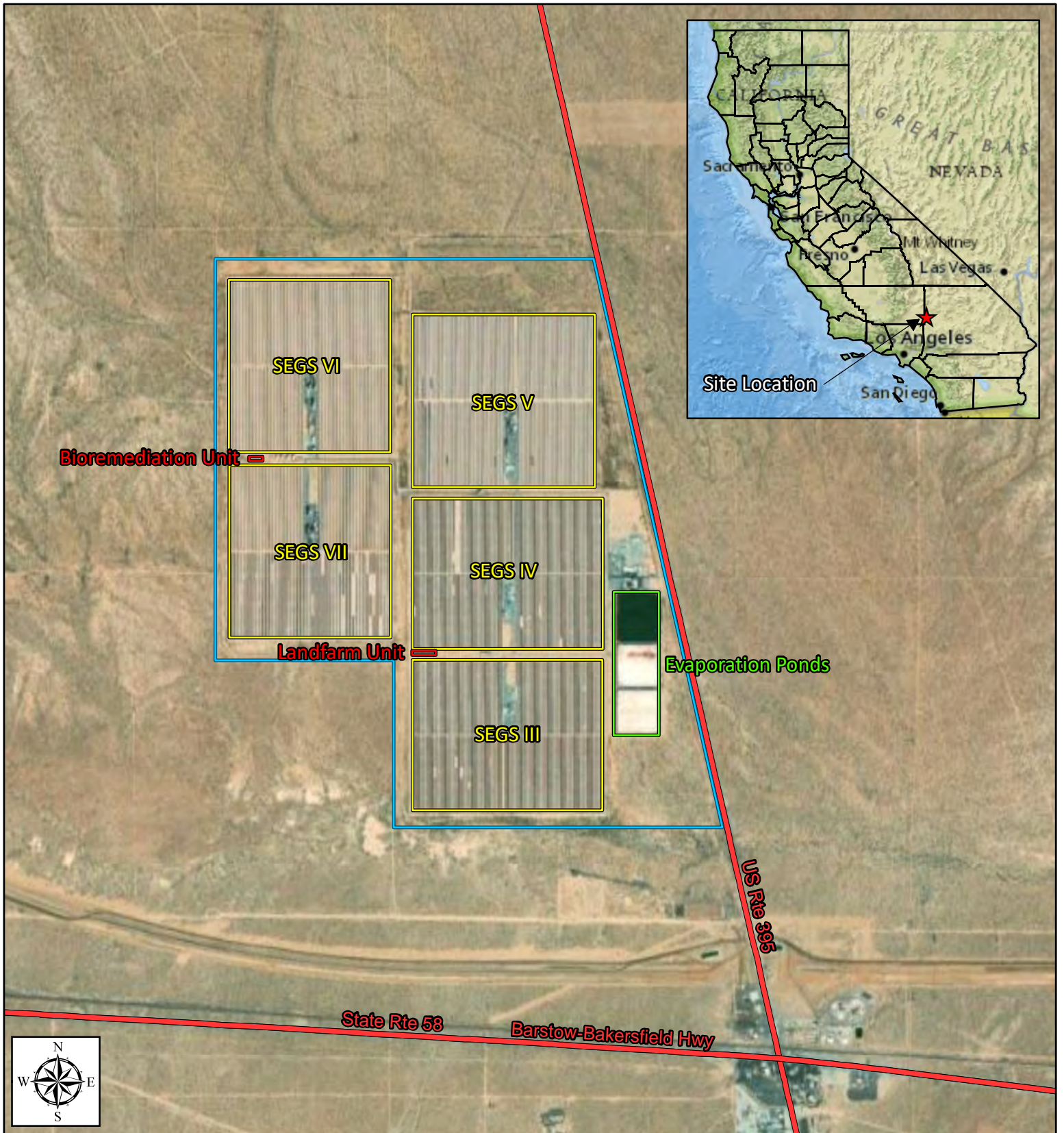
When required, soil samples are collected from four random, discrete locations within the soil stockpiles and transferred to a clean 5-gallon bucket with a clean stainless-steel trowel. All sampling apparatus are cleaned with non-phosphate detergent (typically Alconox, Liquinox, or equivalent) and triple-rinsed with deionized water prior to collecting all soil samples. The composited soil is then homogenized and transferred to laboratory-supplied, certified clean sample containers. The samples are labelled, sealed, and placed on ice to preserve the volatile compounds.

They are then transported under chain-of-custody protocols to TestAmerica Laboratories, Inc., a state- and federally-accredited laboratory located in Irvine, California. The soil samples are analyzed by Environmental Protection Agency Method 8015M for 1,1-Biphenyl and 1,1-Oxybisbenzene, which are volatile organic compounds characteristic of the HTF Therminol. The laboratory report is then submitted directly to NextEra and Northstar personnel and are presented in **Appendix A** and summarized in **Table 1** (not included for this reporting period).

No samples were collected during this reporting period.

The annual Landfarm Unit sample will be collected in the second half of the 2020 calendar year.

FIGURES



Legend

- Facility Boundary
- Solar Fields
- Land Treatment Units
- Evaporation Ponds

SEGS III - VII Kramer Junction
Boron, California

Figure 1
Site Location
and Vicinity Map

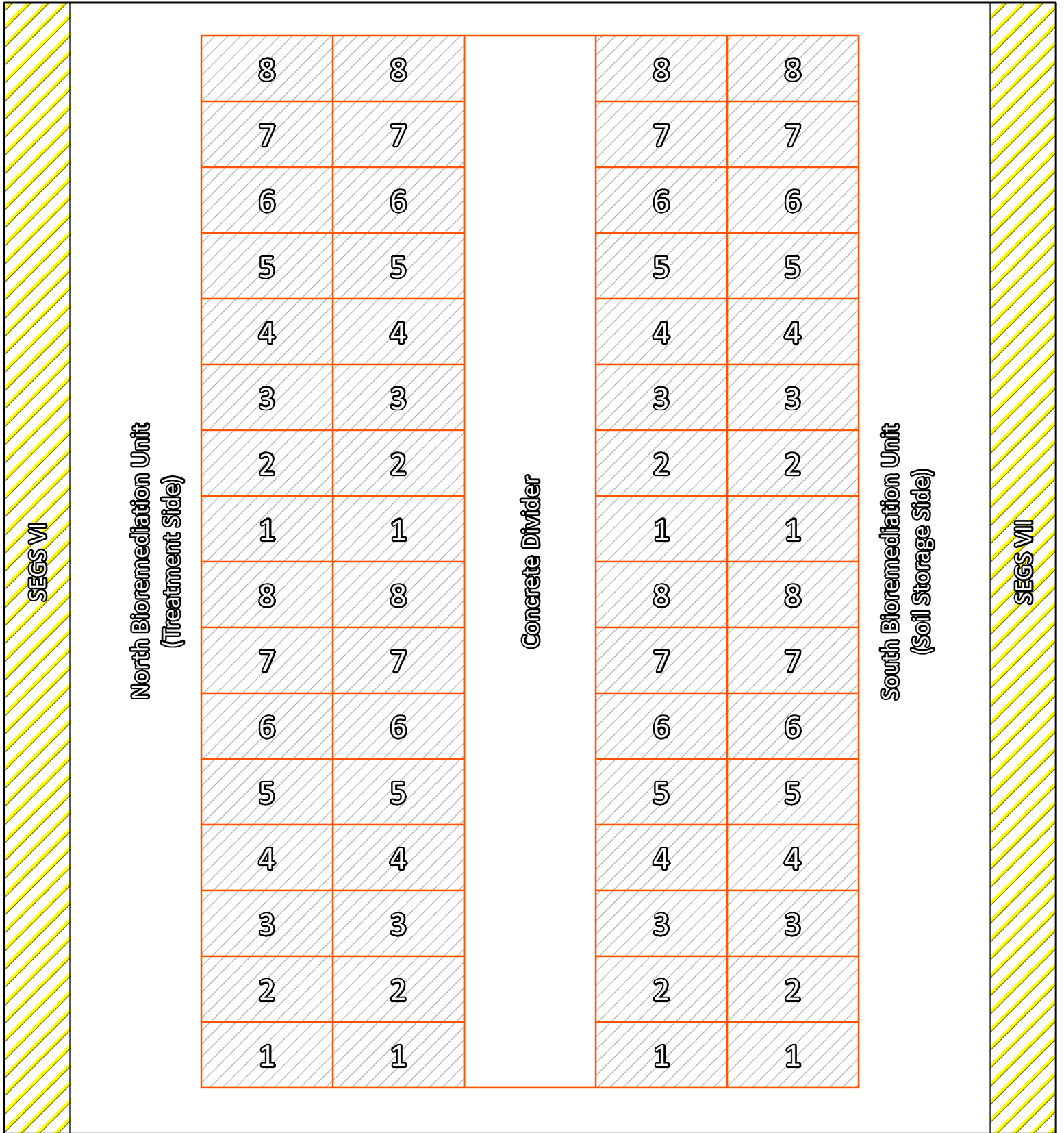


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Date: 07 Jul 2020

Drawn By: AWB

Checked By: AWB



Legend

-  Bioremediation Unit
-  Solar Field

SEGS III - VII Kramer Junction
Boron, California

Figure 2
Bioremediation Unit
Layout Schematic



Scale: NTS

Date: 07 Jul 2020

Drawn By: AWB

Checked By: AWB

APPENDIX A

LABORATORY REPORTS

**< NO SAMPLES COLLECTED DURING THIS
REPORTING PERIOD >**