

**PLAN ISSUE DATE:** TBD  
**COMPANY I.D. #:** 171109  
**MITIGATION PLAN #:** 550633

**Company:** Phillips 66 Company – Los Angeles Refinery, Carson Plant  
1660 West Anaheim Street  
Wilmington, CA 90744

**Site:** Phillips 66 Company – Los Angeles Refinery, Carson Plant  
Tanks No. 2640 and 2643  
1520 East Sepulveda Blvd, Carson, CA

**Attn:** Mr. John Matthews, Environmental Engineer

**Phone** (310) 952-6213 **Fax**

**SITE SPECIFIC  
RULE 1166 CONTAMINATED SOIL MITIGATION PLAN**

Reference is made to your Application (A/N 550633) for the excavation and handling of VOC-contaminated soil at **1520 East Sepulveda Blvd, Carson, CA**. In accordance with Rule 1166 (c), this plan is required prior to commencing excavation, handling, or storage of VOC-contaminated soils.

The rights and privileges granted through the issuance of this plan are restricted exclusively to the plan holder to whom it was issued, and are non-transferable, even with the written or expressed consent of the plan holder listed above. No other excavation plan issued by the AQMD can be used at this site.

This plan has been approved under the provisions of Rule 1166 of the Rules and Regulations of the AQMD and is subject to the following conditions.

**SECTION I – GENERAL REQUIREMENTS**

1. THIS EXCAVATION PLAN SHALL EXPIRE **TBD, 2014**
2. A SIGNED COPY OF THIS PLAN SHALL BE PRESENT AT THE EXCAVATION SITE AT ALL TIMES AND SHALL BE MADE AVAILABLE TO AQMD PERSONNEL UPON REQUEST.
3. THIS PLAN IS NOT VALID FOR THE EXCAVATION OF VOC CONTAMINATED SOILS AT LANDFILLS OR SITES USED FOR DISPOSAL OF REFUSE OR OTHER TYPES OF WASTE.
4. THIS PLAN SHALL NOT BE USED IN CONJUNCTION WITH ANY ON SITE TREATMENT PROCESS, WITHOUT ADDITIONAL EVALUATION BY THE AQMD. THIS PLAN DOES NOT ALLOW THE ON SITE TREATMENT OF VOC-CONTAMINATED SOIL BY THERMAL, CHEMICAL, OR MECHANICAL

PROCESSES. ANY OF THE ABOVE TREATMENT PROCESSES REQUIRES A PERMIT TO OPERATE FROM THE AQMD.

5. THE TOTAL QUANTITY OF VOC CONTAMINATED SOIL EXCAVATED UNDER THIS PLAN SHALL NOT EXCEED 15,000 CUBIC YARDS. ALL OF THE EXCAVATED VOC CONTAMINATED SOIL WITH READINGS OF GREATER THAN 50 PPMV AS HEXANE SHALL BE PLACED IN SEALED/LINED CONTAINER BINS OR SOIL CAN BE STOCKPILED ONSITE AS PER THE PLAN REQUIREMENTS. AT NO TIME SHALL THE TOTAL QUANTITY OF VOC CONTAMINATED SOIL STOCKPILED ONSITE OR STORED IN SEALED & LINED BINS AT THIS SITE EXCEED 2,000 CUBIC YARDS.
6. (A) THE AQMD SHALL BE IMMEDIATELY NOTIFIED OF ANY COMPLAINTS RECEIVED AS A RESULT OF ACTIVITIES CONDUCTED UNDER THIS PLAN. SUCH NOTIFICATION SHALL INCLUDE THE NATURE OF THE COMPLAINT, NUMBER OF COMPLAINANTS, COMPLAINANT NAME, ADDRESS, PHONE NUMBER, AND THE ACTION TAKEN BY THE PLAN HOLDER TO MITIGATE THE SOURCE OF THE COMPLAINT.  
  
B) DURING EXCAVATION, IF A CONSIDERABLE NUMBER OF COMPLAINTS ARE RECEIVED, ALL WORK SHALL CEASE AND THE APPROVED MITIGATION MEASURES SHALL BE IMPLEMENTED IMMEDIATELY. OTHER MITIGATION MEASURES WHICH ARE DEEMED APPROPRIATE BY AQMD PERSONNEL TO ABATE A NUISANCE CONDITION SHALL BE IMPLEMENTED UPON REQUEST.
7. A). DURING EACH STEP OF THE PROCESS UP TO AND INCLUDING THE REMOVAL AND DISPOSAL PROCESS, ALL PRECAUTIONS AND MEASURES SHALL BE TAKEN TO MINIMIZE THE RELEASE OF VOC, ODOR AND DUST. THIS INCLUDES BUT IS NOT LIMITED TO THE USE OF ADDITIONAL PLASTIC SHEETING OR SUPPRESSANTS ON EXPOSED SOIL SURFACES & WORK AREAS AND MAINTAINING PAVED PUBLIC STREETS FREE OF SOIL DEPOSITS.  
  
B). VOC CONTAMINATED SOIL SHALL NOT BE SPREAD ON-SITE OR SPREAD OFF-SITE EXCEPT THE SOIL WITH READINGS OF LESS THAN 1,000 PPMV CAN BE STOCKPILED PER THIS PLAN REQUIREMENTS. THIS INCLUDES ANY UNNECESSARY MOVEMENT OR AGITATION OF SOIL THAT MAY CAUSE THE UNCONTROLLED EVAPORATION OF VOC'S INTO THE ATMOSPHERE, INCLUDING THE RESHAPING OR RELOCATION OF STOCKPILES. VOC CONTAMINATED SOIL SHALL BE EXCAVATED AND IMMEDIATELY PLACED IN LINED, AND SEALED BINS.

## SECTION II – PRIOR TO EXCAVATION

8. A). AT LEAST 24 HOURS PRIOR TO COMMENCING EXCAVATION OR GRADING OF SOIL AT THE PROJECT SITE, THE EXECUTIVE OFFICER OR DESIGNEE SHALL BE NOTIFIED OF THE EXCAVATION BY FAX USING A FORM APPROVED BY THE EXECUTIVE OFFICER WHICH IS FULLY COMPLETED AND INCLUDING, THE NAME OF THE COMPANY PERFORMING THE EXCAVATION, AND THE APPLICATION NUMBER LISTED ON THIS MITIGATION PLAN. THE NOTIFICATION SHALL BE MADE BY FAXING THE NOTIFICATION FORM AT (909) 396-3342. FAX NOTIFICATIONS WILL RECEIVE A REFERENCE NUMBER BY RETURN FAX OR CAN BE OBTAINED REFERENCING THE FAX NOTIFICATION BY PHONE TUESDAY THROUGH FRIDAY DURING BUSINESS HOURS AT 909 396-2326. THE REFERENCE NUMBER SHALL BE RETAINED AS PROOF OF COMPLIANCE WITH THIS REQUIREMENT.

REFERENCE NO: \_\_\_\_\_

NOTIFICATION DATE: \_\_\_\_\_

9. COMPLETE VERIFICATION INFORMATION IN CONDITION NO. 28 AND OBTAIN REQUIRED SIGNATURES, PRIOR TO COMMENCING EXCAVATION.

**SECTION III – MONITORING**

10. DURING THE EXCAVATION PROCESS, AN ORGANIC VAPOR ANALYZER (OVA) SHALL BE ON SITE AT ALL TIMES. THE OVA SHALL BE MAINTAINED IN GOOD WORKING ORDER AT ALL TIMES AND SHALL BE CALIBRATED BY THE MANUFACTURER AT LEAST ONCE EVERY THREE MONTHS. THE CALIBRATION OF THE OVA SHALL BE VERIFIED USING CERTIFIED CALIBRATION GAS AT THE BEGINNING OF EACH WORKING DAY WITH THE PROCEDURES SPECIFIED BY THE MANUFACTURER. IF A CALIBRATION GAS OTHER THAN HEXANE IS USED, EACH MEASURED READING SHALL BE CORRELATED TO AND EXPRESSED AS HEXANE, USING EQUIVALENCY FACTORS PROVIDED BY THE MANUFACTURER. IN THE EVENT THAT INCONSISTENT OR ERRATIC READINGS ARE EXPERIENCED, OR THE OVA BECOMES OTHERWISE INOPERABLE, ALL EXCAVATION ACTIVITIES WILL CEASE UNTIL THE OVA IS REPAIRED OR REPLACED.
11. ALL MONITORING SHALL BE CONDUCTED AT A DISTANCE NO MORE THAN 3 INCHES ABOVE THE SOIL SURFACE USING AN OVA DESCRIBED IN CONDITION NO. 10 ABOVE. MONITORING SHALL BE INITIALLY CONDUCTED AT A MINIMUM FREQUENCY OF ONE READING EVERY FIFTEEN MINUTES. UPON DETECTION OF VOC CONTAMINATION, MONITORING SHALL BE CONDUCTED AT A MINIMUM RATE OF ONE READING FOR EVERY FIVE CUBIC YARDS EXCAVATED. ALL READINGS SHALL BE TAKEN NO LATER THEN THREE (3) MINUTES AFTER EACH LOAD OF SOIL IS EXCAVATED.
12. ALL MONITORING SHALL BE CONDUCTED BY TRAINED PERSONNEL WHO ARE PROFICIENT IN THE USE OF THE HYDROCARBON MONITOR SELECTED FOR USE AT THIS SITE.
13. WRITTEN RECORDS OF OVA MONITORING AND CALIBRATIONS REQUIRED ABOVE SHALL BE KEPT IN A FORMAT APPROVED BY THE AQMD. THE APPROVED FORMAT IS INCLUDED ON PAGE 8 OF THIS PLAN. THE CERTIFICATION ON ALL RECORDS SHALL BE SIGNED AND DATED ON THE DAY THE MEASUREMENTS ARE OBSERVED.
14. UPON DETECTION OF VOC CONTAMINATED SOIL (READINGS 50 PPM OR GREATER), THE EXECUTIVE OFFICER OR DESIGNEE SHALL BE NOTIFIED **WITHIN 24 HOURS** OF THE FIRST DETECTION OF VOC CONTAMINATION. THE NOTIFICATION SHALL BE MADE BY FAXING THE NOTIFICATION FORM TO (909) 396-3342 OR CALLING (909) 396-2326. A REFERENCE NUMBER WILL BE FAXED BACK OR WILL BE ISSUED WHEN THE PHONE NOTIFICATION IS RECEIVED. ALL PHONE NOTIFICATIONS SHALL BE FOLLOWED BY MAILING THE NOTIFICATION FORM TO THE DISTRICT POSTMARKED **WITHIN 48 HOURS**. THE REFERENCE NUMBER WILL BE RETAINED AS PROOF OF COMPLIANCE WITH THIS REQUIREMENT.

REFERENCE NO: \_\_\_\_\_ NOTIFICATION DATE: \_\_\_\_\_

**SECTION IV – HANDLING & STORAGE**

15. ALL VOC-CONTAMINATED SOIL GREATER THAN 50 PMMV PPM SHALL BE EITHER STOCKPILED AS PER PLAN REQUIREMENTS OR STORED IN DEDICATED SEALED AND LINED BINS, OR IMMEDIATELY TRANSPORTED TO A TREATMENT FACILITY. CONTAMINATED SOIL ONCE EXCAVATED WILL BE CONSIDERED CONTAMINATED AT ALL TIMES AND CANNOT BE BACKFILLED UNLESS TREATED TO LESS THAN 50 PPM LEVELS WITH PRIOR AQMD APPROVAL AND AQMD PERMITTED EQUIPMENT.

16. IF THE OVA MEASUREMENT SPECIFIED IN CONDITION NO. 11 IS GREATER THAN 50 PPMV, BUT LESS THAN 1000 PPM,
  - A) THE AFFECTED WORK AREA AND LOAD OF SOIL SHALL BE SPRAYED WITH WATER AND/OR APPROVED VAPOR SUPPRESSANT.
  - B) CONTAMINATED SOIL IN STOCKPILES SHALL BE COVERED WITH PLASTIC SHEETING WHICH OVERLAP A MINIMUM OF TWENTY FOUR INCHES AND ARE SECURED SO THAT NO PORTION OF THE CONTAMINATED SOIL IS EXPOSED TO THE ATMOSPHERE. IN THE COURSE OF HANDLING THE STOCKPILE, ONLY THE WORKING FACE OF THE STOCKPILE MAY BE UNCOVERED.
17. IF THE OVA MEASUREMENT SPECIFIED IN CONDITION NO. 11 EQUALS OR IS GREATER THAN 1000 PPMV, NOTIFY THE DISTRICT IMMEDIATELY (WITHIN ONE HOUR) AT THE NUMBER SPECIFIED IN CONDITION # 14 AND,
  - A) THE AFFECTED SOIL AND WORKING AREA SHALL BE IMMEDIATELY SPRAYED WITH WATER OR AN APPROVED VAPOR SUPPRESSANT, AND EITHER:
    - I. THE CONTAMINATED SOIL EXCAVATED SHALL BE IMMEDIATELY PLACED IN AQMD APPROVED SEALED CONTAINERS, EQUIPPED WITH VAPOR TIGHT LIDS, OR,
    - II. THE SOIL EXCAVATED SHALL BE DIRECTLY LOADED IN TRUCKS, MOISTENED WITH ADDITIONAL WATER, COVERED, AND TRANSPORTED IMMEDIATELY OFF SITE TO AN APPROVED TREATMENT FACILITY, OR,
  - B) THE SOIL SHALL BE HANDLED BY OTHER ALTERNATIVE STORAGE METHODS WITH PRIOR WRITTEN APPROVAL FROM THE AQMD.
18. DURING EXCAVATION, THE EXPOSED VOC CONTAMINATED SOIL SHALL BE RESTRICTED TO THE IMMEDIATE WORKING AREA OF THE STOCKPILE ONLY. ALL OTHER PORTIONS OF THE STOCKPILE SHALL BE COVERED WITH PLASTIC SHEETING, WITH SEAMS WHICH OVERLAP A MINIMUM OF TWENTY-FOUR (24) INCHES AND ARE SECURED WITH DUCT TAPE. ALL EXPOSED VOC-CONTAMINATED SOIL SURFACES (WORK FACE) SHALL BE KEPT MOIST WITH WATER OR OTHER APPROVED SUPPRESSANTS AT ALL TIMES, AND SHALL BE RE-COVERED DURING PERIODS OF INACTIVITY LONGER THAN ONE (1) HOUR. AT THE END OF EACH WORKING DAY, ALL STOCKPILES SHALL BE COMPLETELY COVERED AND SECURELY ANCHORED TO PREVENT ANY EXPOSURE OF SOIL TO THE ATMOSPHERE.
19. CONTAMINATED SOIL ONCE STOCKPILED AND COVERED WITH PLASTIC SHEETING SHALL REMAIN COVERED AND UNDISTURBED UNTIL REMOVED FROM THE SITE.
20. SOIL MEASURED PURSUANT TO RULE 1166 AS VOC CONTAMINATED SOIL IS CONSIDERED, FROM THE TIME OF INITIAL MEASUREMENT ONWARD, AS VOC CONTAMINATED SOIL, FOR PURPOSES OF THIS PLAN, UNTIL THE SOIL IS TREATED PURSUANT TO AN APPROVED AQMD TREATMENT PROCESS.
21. DAILY INSPECTIONS SHALL BE CONDUCTED OF ALL COVERED VOC-CONTAMINATED STOCKPILES TO ENSURE THE INTEGRITY OF THE PLASTIC COVER. SUCH INSPECTIONS SHALL INCLUDE A VISUAL INSPECTION OF ALL SEAMS AND PLASTIC COVER SURFACES. ANY HOLES, TEARS OR ANY OTHER POTENTIAL SOURCES OF FUGITIVE VOC EMISSIONS

SHALL BE REPAIRED IMMEDIATELY. DAILY RECORDS SHALL BE MAINTAINED TO ENSURE COMPLIANCE WITH THIS CONDITION.

#### **SECTION V –SOIL REMOVAL AND DISPOSAL**

22. ALL VOC-CONTAMINATED SOIL SHALL BE REMOVED FROM THE SITE WITHIN THIRTY (30) DAYS OF ITS EXCAVATION.
23. ALL VOC-CONTAMINATED SOIL REMOVED FROM THE SITE SHALL COMPLY WITH THE FOLLOWING:
  - A). BE TRANSPORTED TO AN APPROVED TREATMENT/DISPOSAL FACILITY. IT SHALL BE THE RESPONSIBILITY OF THE PLAN HOLDER TO ENSURE THAT THE RECEIVING TREATMENT/DISPOSAL FACILITY HAS RECEIVED APPROVAL FROM THE APPROPRIATE ENVIRONMENTAL OVERSIGHT AGENCIES TO HANDLE AND TREAT VOC CONTAMINATED SOILS.
  - B). WHEN LOADING IS COMPLETED AND DURING TRANSPORTATION, NO EXCAVATED MATERIAL SHALL EXTEND ABOVE THE SIDES OR REAR OF THE TRUCK OR TRAILER.
  - C). PRIOR TO COVERING/TARPING, LOADED CONTAMINATED SOIL SHALL BE WETTED BY SPRAYING WITH MIST INHIBITORS.
  - D).THE TRUCK OR TRAILER SHALL BE COMPLETELY COVERED/TARPED PRIOR TO LEAVING THE SITE TO PREVENT PARTICULATE EMISSIONS TO THE ATMOSPHERE.
  - E). THE EXTERIOR OF THE TRUCKS (INCLUDING THE TIRES) SHALL BE CLEANED OFF PRIOR TO THE TRUCKS LEAVING THE EXCAVATION SITE.

#### **SECTION VI – RECORDS AND REPORTING**

24. A WRITTEN REPORT SHALL BE GENERATED WHICH INCLUDES:
  - A) THE FACILITY SELECTED TO TREAT THE VOC-CONTAMINATED SOIL, QUANTITY OF SOIL REMOVED FROM SITE, STATUS OF EXCAVATION PIT, AND ANY VOC CONTAMINATED SOIL REMAINING ON SITE.
  - B) A BRIEF SUMMARY INDICATING IF ADDITIONAL CLEAN UP EFFORTS ARE NECESSARY, THE ADDITIONAL QUANTITY OF VOC CONTAMINATED SOILS TO BE EXCAVATED AND THE PROJECTED SCHEDULE OF THE EXCAVATION.
25. RECORDS OF TREATMENT/DISPOSAL SHALL BE MAINTAINED FOR ALL VOC-CONTAMINATED SOIL REMOVED FROM THIS SITE. SUCH RECORDS SHALL BE CLEARLY LABELED “**SCAQMD RULE 1166 - VOC CONTAMINATED SOIL**” AND SHALL INCLUDE THE IDENTIFICATION AND THE LOCATION OF: THE GENERATOR, THE TRANSPORTER AND THE RECEIVING FACILITY. IN ADDITION, SUCH RECORDS SHALL BE SIGNED AND DATED BY EACH OF THE ABOVE PARTIES INDICATING RECEIPT OR RELINQUISHMENT OF THE VOC-CONTAMINATED SOIL AT THE TIME CUSTODY IS TRANSFERRED.
26. RECORDS OF DISPOSAL/TREATMENT OF VOC-CONTAMINATED SOIL SHALL BE MAINTAINED FOR A PERIOD OF TWO (2) YEARS AND MADE AVAILABLE TO AQMD PERSONNEL UPON REQUEST.

27. WITHIN FORTY (40) DAYS OF INITIAL DETECTION OF VOC-CONTAMINATION, THE WRITTEN RECORDS UNDER CONDITION NO. 24 AND WITHIN THIRTY (30) DAYS OF EXCAVATION PROJECT COMPLETION RECORDS UNDER CONDITION NOS. 13, 21 AND 25 SHALL BE SUBMITTED TO THE AQMD AT THE FOLLOWING ADDRESS.

SOUTH COAST AIR QUALITY MGMT DISTRICT  
 REFINERY COMPLIANCE  
 1500 WEST CARSON STREET, SUITE 115  
 LONG BEACH, CA. 90810

28. THIS PLAN IS NOT VALID UNTIL ALL PARTIES HAVE REVIEWED AND SIGNED THE VERIFICATION STATEMENT BELOW.

Site Name		Type of Business	
Address	City	Zip	
Responsible Party (Owner/Operator)		Phone	
Address	City	Zip	

I CERTIFY THAT I HAVE REVIEWED AND UNDERSTAND THE CONDITIONS CONTAINED WITHIN THIS PLAN. IN SIGNING BELOW, I ACKNOWLEDGE THAT UNDER THE PROVISIONS OF RULE 1166, I CAN BE HELD RESPONSIBLE FOR THE REQUIREMENTS SET FORTH IN THIS PLAN.

Responsible Party	Responsible Party Signature	Date Signed
General Contractor	General Contractor Signature	Date Signed
Excavation Contractor	Excavation Contractor Signature	Date Signed
Environmental Consultant	Environmental Consultant Signature	Date Signed

**DEFINITIONS**

**Excavation** Is the process of digging out and removing materials including any material necessary to that process such as the digging out and removal of asphalt or concrete necessary to expose, dig out and remove known VOC contaminated soil.

**Organic Vapor Analyzer (OVA)** For the purposes of this plan, an OVA is an hydrocarbon monitor utilizing flame ionization, photo ionization or other analytical methods complying with 40 CFR PART 60 APPENDIX A, EPA METHOD 21 SECTION 3, "DETERMINATION OF VOLATILE ORGANIC COMPOUND LEAKS, MONITORING INSTRUMENT SPECIFICATIONS. The monitor shall be capable of being calibrated using hexane at a range of 0 parts per million by volume (PPMV) to 50 PPMV, and at a detection range of at least 30 PPMV to 1100 PPMV

Sensitive Receptor	A sensitive receptor is defined as: Schools (Kindergarten through grade 12), licensed daycare centers, hospitals and convalescent homes.
Responsible Party	For the purposes of this plan, is the party financially responsible for initiating the excavation. This may include the property owner or the operator of the transfer, storage equipment. This excludes contractors working for the property owner or operator, and any other party that lacks the direct authority to immediately treat all VOC contaminated soils generated at the excavation site.
VOC Contaminated Soil	Is soil that registers a concentration of 50 PPM or greater of volatile organic compounds as measured before suppression materials have been applied and at a distance of no more than three inches from the surface of the excavated soil with an organic vapor analyzer calibrated with hexane.
Volatile Organic Compound (VOC)	Is any volatile compound of carbon, excluding methane, carbon monoxide, carbon dioxide, carbonic acid, metallic carbides or carbonates, ammonium carbonate, and exempt compounds. Exempt compounds are as defined in Rule 102 – Definitions of Terms.

Once issued, this plan is subject to further review by the AQMD and may be revoked if excavation activities are found in violation of plan conditions or AQMD's Rules and Regulations. Failure to comply with one or more of the conditions contained within this plan constitutes a violation of Rules 221 and 1166.

Other governmental agencies may require approval before any excavation begins. It shall be the responsibility of the applicant to obtain that approval. The South Coast Air Quality Management District shall not be responsible or liable for any losses because of measures required or taken pursuant to the requirements of this approved 1166 Contaminated Soil Mitigation Plan.

If you have any questions concerning this plan, please call Ms. Janice West at (909) 396-3763.

Sincerely,

Danny Luong, P.E.  
Senior Manager  
RECLAIM Admin., Refinery Permitting,  
Retail Gasoline Dispensing

## Rule 1166 Soil Monitoring Records

ID No: 171109 Phillips 66 Company – LA Refinery, Carson Plant 1660 West Anaheim St Wilmington, CA 90744	Plan No: 550633	<b>Facility/Site Information</b> <b>1520 East Sepulveda Blvd</b> <b>Tank Farm</b> <b>Carson, CA 90745</b>
Reference No(s).		

Monitor Information	Calibration Data	Monitoring Personnel	Excavation Summary <small>(Upon completion of each page)</small>	
Brand:	Gas:	Name:	Total Cubic Yds (This page)	
Model:	Date	Company:	Total Cubic Yds (To date)	
Type	By	Phone:	Removed from Site (To date)	

Time	VOC Concentration (PPMV) @ Excavated Load			Comment	Time	VOC Concentration (PPMV)@ Excavated Load			Comment
	Reading	Hexane Factor	Adjusted Reading			Every 15 min.	Reading	Hexane Factor	
Every 15 min.					Every 15 min.				

I certify that the information contained in the above document is true and correct. I further certify that the above listed hydrocarbon monitor was operated in a manner consistent with the manufacturer's specifications and the conditions specified within this plan. In addition, I certify that the above readings represent the actual measurements I observed and recorded during the excavation process.

SIGNATURE: \_\_\_\_\_ DATE: \_\_\_\_\_