VENOCO, INC.

March 12, 2013

Mr. John Harader
Ventura County APCD
669 County Square Drive
Ventura, CA 93003

Re: **PTO 01493 – Platform Grace**
Request for Modification to Title V Renewal Permit

Dear Mr. Harader:

As you have discussed with our consultant, Alex Bealer, Venoco is requesting a few slight revisions to the soon-to-be-released Title V renewal permit for Platform Grace. The purpose of this request is to clarify the status of backup generator engine G-02 as an emergency engine under 40CFR63, Subpart ZZZZ. Attachment PO1493PC3, as currently written, places operating restrictions on the engine that are consistent with the ZZZZ definition of an emergency CI engine. Clarification of this status will ensure that the engine is subject to ZZZZ emergency engine requirements, as given in permit attachment 40CFR63ZZZZN3, rather than the non-emergency engine requirements given in permit attachment 40CFRZZZZN6.

We are requesting the following revisions to draft permit 01493:

- In Table Nos. 2, 3 & 4, and elsewhere as applicable, change the description of G-02 from "back-up" to "emergency".
- In Attachment PO1493PC3, change all references to "backup" to "emergency".

Please feel free to contact me at (805) 745-2264, or pcorcoran@venocoinc.com, if you have any questions or comments regarding this submittal.

Sincerely,

Pat Corcoran
Environmental Coordinator

Cc: Chris Fox, Venoco, Inc.
Alex Bealer, Reese-Chambers

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VENOCO, INC.

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VENTURA COUNTY
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October 25, 2012

Mr. Kerby Zozula, Supervisor
Engineering Division
Ventura County APCD
669 County Square Drive
Ventura, CA 93003

Subject: Reissuance Application for Part 70 Permit - Platform Grace

Dear Mr. Zozula:

We are responding to your letter of August 6, 2012 regarding the Platform Grace Part 70 Reissuance Application. Responses to your three comments are provided below. A copy of your letter is attached for reference to the comments made.

1. A signed copy of the Compliance Plan Cover Sheet from the application is attached.
2. Venoco submitted its latest annual compliance certification to the District with its letter dated May15, 2012 This certification is within the referenced 6-18 month window prior to the expiration date of the Part 70 permit (03/31/2013).
3. 40 CFR Part 63, Subpart ZZZZ, is applicable to stationary Reciprocating Internal Combustion Engines (RICE) that operate at a major or area source of HAP emissions. Revisions to include engines at HAPs area sources were adopted on August 20, 2010. A stationary source is a major source of HAP emissions when the HAP emissions exceed thresholds of 10 tons per year of a single HAP or 25 tons per year of combined HAPs. An Area Source of HAPs is any stationary source of HAP emissions that is not a major source. California-defined toxic emissions are shown in the Part 70 reissuance application, in the Air Toxics Emissions Summary Report. Most of these toxics listed are also included in the definition of HAPs in Clean Air Act 112(b). These data indicate that Platform Grace is an Area Source of HAPs. Thus, Subpart ZZZZ is applicable to the RICEs at the source. Subpart ZZZZ requirements vary in this instance depending on several factors, including:

   - Whether the engine is compression-ignition (CI), or spark-ignited (SI);
   - Whether the SI engine is 2-stroke or 4-stroke, lean-burn (LB) of rich-burn (RB)
   - Whether the engine is new or existing. A new engine is one constructed after June 12, 2006;
   - The engine size category, including:
     - $\leq$ 300 hp
     - 300-500 hp
     - >500 hp
   - Whether the engine is an emergency or a non-emergency engine.

   There are ten affected subpart ZZZZ engines on Platform Grace in four separate compliance categories:

a. non-emergency existing CI >500 hp:
   i. one 600 hp Caterpillar back-up generator (G-02);
b. non-emergency existing CIs <300 hp:
   i. two 300 hp GM engines (north and south crane);
   ii. one 48 hp John Deere engine (back-up air compressor)
c. emergency existing CI:
   i. one 120 hp Detroit Diesel emergency standby engine.
d. existing SI, 4-stroke, rich-burn >500 bhp :
   i. one 773 hp Waukesha engine (G-03);
   ii. five 915 hp Caterpillar generator engines (G-1A, G-1B, G-6A, G-6B, G-6C)

CI engines must be in compliance with subpart ZZZZ by May 3, 2013. SI engines must be in compliance with subpart ZZZZ by October 19, 2013. Compliance requirements are as follows:

a. non-emergency existing CIs >500 hp:
   CO must meet 23 ppmv at 15% O_2 or be reduced by 70% and periodic maintenance.
b. non- emergency existing CIs <300 hp:
   Periodic maintenance.
c. emergency existing CIs:
   Periodic maintenance.
d. existing SI, 4-stroke, rich-burn >500 bhp:
   formaldehyde concentration must meet 2.7 ppmv at 15% O_2 or be reduced by 76% and periodic maintenance.

It is anticipated that the CO standard for CI engines can be met with installation of a diesel oxidation catalyst (DOC) on each engine, and that the formaldehyde standard for SI engines can be met with the existing NSCR systems on these engines.

Since the compliance dates for area sources of HAPs have not yet passed, Platform Grace is currently in compliance with subpart ZZZZ. Venoco is currently developing a compliance plan to meet the 2013 requirements.

Please feel free to contact me at (805) 745-2264, or pcorcoran@venocoinc.com, if you have any questions or comments regarding this submittal.

Sincerely,

Pat Corcoran
Environmental Coordinator

Enclosures Noted

C: Chris Fox, Venoco, Inc.
Alex Bealer, Reese-Chambers

VENTURA COUNTY AIR POLLUTION CONTROL DISTRICT
669 County Square Drive, Ventura, CA 93003 805/645-1401 Fax 805/645-1444 www.vcapcd.org

Compliance Plan Cover Sheet
Part 70 Permit Reissuance Applications Forms

Instructions

A compliance plan, signed by the responsible official, must be attached to each application for reissuance of a Part 70 Permit. To complete the compliance plan, attach the following to this sheet:

1. A completed compliance plan form for all applicable requirements that are currently effective and that apply to an emission unit at your facility or to your entire facility. Only one form that refers to all currently applicable requirements needs to be completed.

2. A completed compliance plan form for each applicable requirement that will become effective during the term of your permit and that will apply to an emission unit at your facility or to your entire facility. One form for each applicable requirement with a future effective date must be completed.

3. A narrative description of how each emission unit at your facility that does not comply with an applicable requirement will achieve compliance with the requirement.

   A compliance schedule, approved as part of an order issued by the District Hearing Board, must be attached for each emission unit that is not in compliance with an applicable requirement. Each compliance schedule shall contain a schedule of remedial measures, including an enforceable sequence of actions with milestones, leading to compliance with the applicable requirement. The compliance schedule shall resemble, and be at least as stringent as that contained in any judicial consent decree or administrative order to which the source is subject.

   A schedule for submission of certified progress reports on the compliance schedule no less frequently than every six months must also be attached.

Certification by Responsible Official

I certify that, based on information and belief formed after reasonable inquiry, the statements and information in this compliance plan are true, accurate, and complete.

Signature and Title of Responsible Official:	Date:
Larry Huskins, Operations Manager	24-Oct-2012

Compliance Plan Cover Sheet (May 22, 2002)

VENOCO, INC.

June 19, 2012

Mr. Kerby Zozula, Supervisor
Engineering Division
Ventura County APCD
669 County Square Drive
Ventura, CA 93003

Re: Reissuance Application for Part 70 Permit No. 01493 - Platform Grace

Dear Mr. Zozula:

Venoco's application for reissuance of Part 70 Permit No. 01493 is attached. The due date is October 1, 2012. Contents of the application are provided on Page 1 - Application Contents as listed in the District's "Instructions - Part 70 Permit Reissuance Applications Forms". Our check for $2,450 is enclosed to cover the filing fee of $450 and the deposit of $2,000.

Please feel free to contact me at (805) 745-2264, or pcorcoran@venocoinc.com, if you have any questions or comments regarding this submittal.

Sincerely,

Pat Corcoran
Environmental Coordinator

Enclosures Noted

C: Alex Bealer, Reese-Chambers

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VENTURA COUNTY
12 JUN 21 AM 10:25
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PLATFORM GRACE
TITLE V REISSUANCE APPLICATION CONTENTS

1. General Facility Information Form (3 pages)
2. Facility Process Description (1 page)
   (Stationary Source Description from Part 70 Permit No. 01493)
3. Location Map (1 page)
4. Facility Plot Plan (Equipment Arrangement Drawings) (5 pages)
5. Process Flow Diagram (1 page)
6. Statement regarding Permit Tables 1 through 4 (1 page)
7. Table 1 from Part 70 Permit No. 01493 (7 pages)
8. Table 2 from Part 70 Permit No. 01493 (2 pages)
9. Table 3 from Part 70 Permit No. 01493 (2 pages)
10. Table 4 from Part 70 Permit No. 01493 (2 pages)
11. Equipment and Emissions Summary Report from Part 70 Permit No. 01493 (11 pages)
12. Air Toxics "Hot Spots" Emissions Summary Report (3 pages)
13. Compliance Plan and Certification (3 pages)
14. Statement regarding Insignificant Equipment List (1 page)
15. Insignificant Equipment List from permit (1 page)
16. CAM Plan for Generator G3 (Rule 74.9 Engine Operator Inspection Plan) (7 pages)
17. Statement regarding Oil Well List (1 page)
18. Oil Well List from permit (1 page)

VENTURA COUNTY AIR POLLUTION CONTROL DISTRICT
669 County Square Drive, Ventura, CA 93003 805/645-1401 Fax 805/645-1444 www.vcapcd.org

General Facility Information
Part 70 Permit Reissuance Application Form

1. Permit Number: 0 1493 Date: May 21, 2012

2. Company Name:
Venoco Inc.

3. Company Mailing Address:
6267 Carpinteria Ave.; Suite 100

4. Company City, State Zip Code:
Carpinteria, CA 93013

5. Responsible Official and Title (as defined in 40 CFR 70.2 and VCAPCD Rule 33.1):
Larry Huskins, Operations Manager

6. Responsible Official Telephone Number:
(805) 745-2284

7. Facility Name (Usually Same As Company Name):
Platform Grace

8. Facility Street Address (or Lease Name/Field Name):
OCS Lease P-0217

9. Facility City, CA Zip Code:
Offshore of Ventura, CA

10. Title V Permit Contact Person and Title:
Pat Corcoran, Environmental Coordinator

11. Title V Permit Contact Person Telephone Number:
(805) 745-2264

12. Type of Organization:

☒ Corporation	☐ Sole Proprietorship
☐ Partnership	☐ Government

13. Facility Operating Schedule: 24 Hours/Day 7 Days/Week 52 Weeks/Year

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$2,450.00 6/21/12

78034

14. Facility SIC Code: 1311

CAM(Compliance Assurance Monitoring) Plans

15. Are you required to submit a CAM plan for any emissions unit at this facility? ☒ Yes ☐ No

If yes, submit a CAM plan for each emissions unit as an attachment to the application. See the District CAM plan instructions for more detail. CAM Plan for Waukesha engine - See Attached "Engine Operator Inspection Plan"

If you answer yes to any of questions 16 through 18 below, submit supplemental information as an attachment to the application. See instructions for more detail.

16. Does this application request alternative operating scenarios pursuant to Rule 33.4.B? ☐ Yes ☒ No

17. Does this application request voluntary emission caps pursuant to Rule 33.4.C? ☐ Yes ☒ No

18. Does this application include any proposed exemptions from otherwise applicable requirements pursuant to Rule 33.2.A.5? ☐ Yes ☒ No

Miscellaneous Federal Requirements

19. Has this facility been required to prepare a federal Risk Management Plan pursuant to Section 112(r) of the federal Clean Air Act and 40 CFR Part 68? ☐ Yes ☒ No

If yes, has the federal Risk Management Plan been submitted to the implementing agency? ☐ Yes ☐ No

If a federal Risk Management Plan is required but has not been submitted to the implementing agency, provide a detailed explanation as an attachment to the application.

20. Does this facility conduct any activities that are regulated by the federal protection of stratospheric ozone requirements in 40 CFR Part 82? ☐ Yes ☒ No

21. Is this facility subject to the acid rain requirements in 40 CFR Part 72 through 40 CFR Part 78? ☐ Yes ☒ No

22. Is this facility subject to the federal outer continental shelf air regulations in 40 CFR Part 55? ☒ Yes ☐ No

Permit Shields

23. Does the current Part 70 permit for this facility include any permit shields? ☐ Yes ☒ No

If yes, is the basis for each permit shield still correct? ☐ Yes ☐ No

If the current Part 70 permit contains any permit shield for which the basis is no longer correct, provide a detailed explanation as an attachment to the application.

New Generally Applicable Requirement

24. Rule 74.11.1 requires that new large water heaters and new small boilers with a rated heat input capacity greater than or equal to 75,000 BTU per hour and less than or equal to 2,000,000 BTU per hour be certified by the manufacturer to meet certain nitrogen oxide emission standards. Are you complying with the requirements of Rule 74.11.1 by purchasing and installing only certified units? ☒ Yes ☐ No

If no, provide a detailed explanation as an attachment to the application.

Facilities Must Submit Process Descriptions, Plot Plans, and Process Flow Diagrams That Provide the Following:

25. General Nature of Business (e.g., Autobody Painting, Gasoline Storage & Dispensing, Oil Production, etc.)
    Oil & Gas Extraction
26. Facility Process Description
    Attached
27. A Street Map or Road Map That Shows the Location of the Facility in Ventura County.
    Attached
28. A Facility Map That Clearly Indicates the Facility Boundaries and the Location of Permitted Equipment.
    Attached
29. A Process Flow Diagram That Traces the Processes Throughout All Permitted Equipment from Start to Finish.
    Attached

30. Certification by Responsible Official (as defined in 40 CFR 70.2 and VCAPCD Rule 33.1)

I certify that, based on information and belief formed after reasonable inquiry, the statements and information provided for this Part 70 Permit Application are true, accurate, and complete.

Signature and Title of Responsible Official:	Date:
Larry Huskins, Operations Manager	19-Jun-2012

General Facility Information (May 22, 2002)

1.b. PERMIT SUMMARY AND STATEMENT OF BASIS

Stationary Source Description

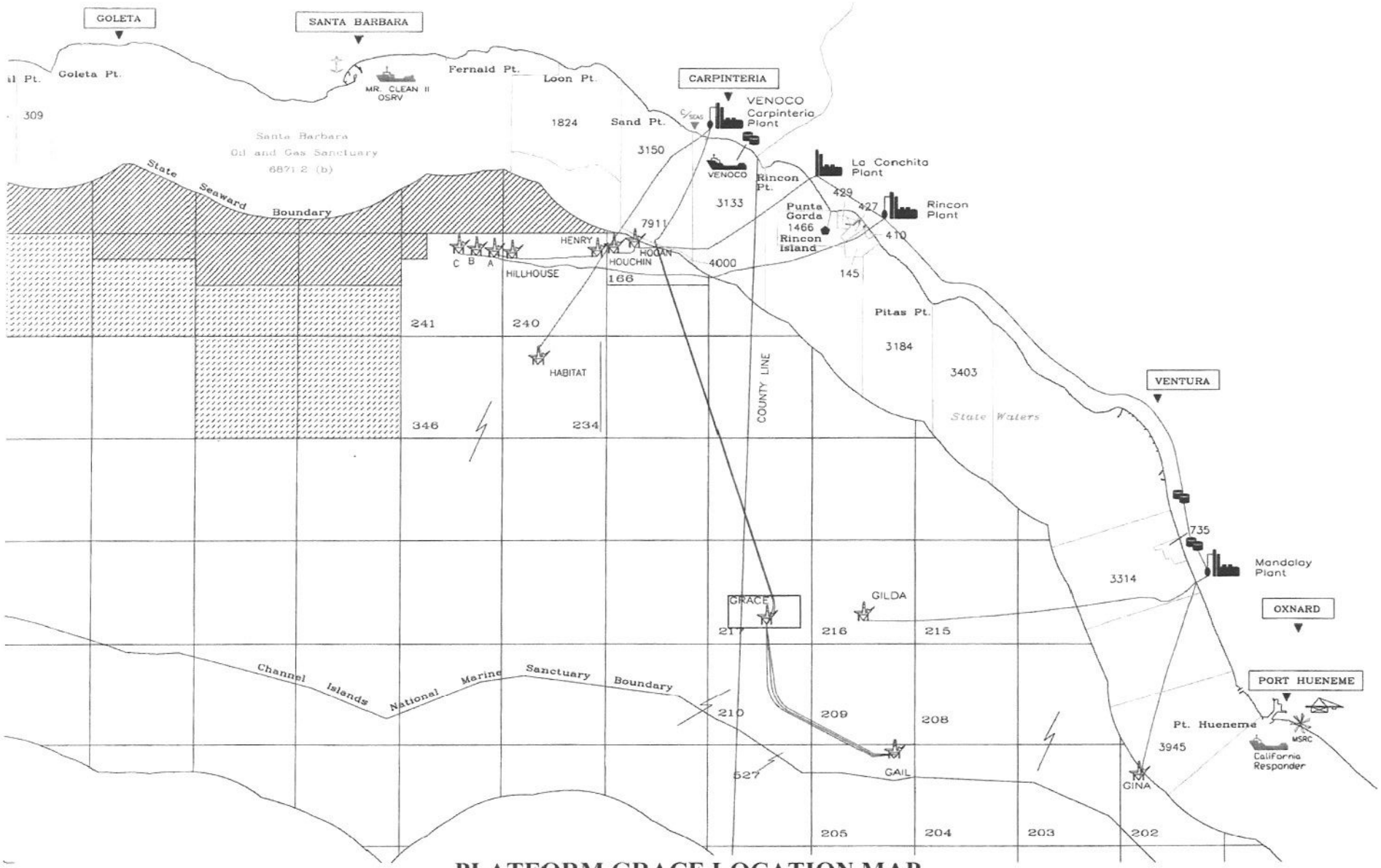
This stationary source is an oil platform, Platform Grace, located offshore of Ventura, California. The source is a crude oil production facility and has a Standard Industrial Classification (SIC) Code of 1311, Crude Oil Production. The source operates various oil production and processing equipment, including wells, tanks, flares, natural gas fired engines, and diesel engines. The six natural gas fired engines provide electrical power for the platform. The diesel engines on the platform are used for the operation of cranes and for backup electrical power. This stationary source is subject to the Part 70 permit program based upon the carbon monoxide (CO) potential to emit.

As discussed in more detail throughout this Permit Summary and Statement of Basis, this permit applies to emissions units that are required to have a permit to operate pursuant to District Rule 10, "Permits Required", and District Rule 23, "Exemptions from Permit". These emissions units are listed in Table No. 2 in Section No. 2 of this permit. However, as discussed below, some equipment that is exempt from permit pursuant to District Rule 23, "Exemptions from Permit", may be subject to District rules such as District Rule 50, "Opacity". This includes "Insignificant Activities" as listed in Section No. 6 of the permit. In addition, "Short Term Activities" as listed in Section No. 10 of the permit are subject to certain rules and regulations. This permit does not shield the permittee from complying with any Federal, State, or District rule or regulation that is not specifically addressed in the permit or any rule or regulation that may come into effect during the term of the permit.

Stationary Source Emissions

In Ventura County, the Part 70 permit thresholds are 50 tons per year for ROC and NOx and 100 tons per year for PM, SOx, and CO as Ventura County has a "Serious" Nonattainment Classification with the federal ozone standard. This stationary source is subject to the Part 70 permit program based upon the carbon monoxide (CO) potential to emit in excess of the threshold as shown in Table No. 4 in Section No. 4 of this Permit to Operate. The purpose of Table No. 4 is to document the permitted emissions of the criteria pollutants ROC, NOx, PM, SOx, and CO for this stationary source. District Rule 29, "Conditions on Permits", requires permitted emissions to be included on each Permit to Operate. District Rule 29 requires that annual permitted emissions be based on a 12 calendar month rolling period and be expressed in units of tons per year. Hourly permitted emissions are required to be expressed in units of pounds per hour. Permitted emissions for a stationary source are required to be determined by aggregating the permitted emissions for each emissions unit at the stationary source.

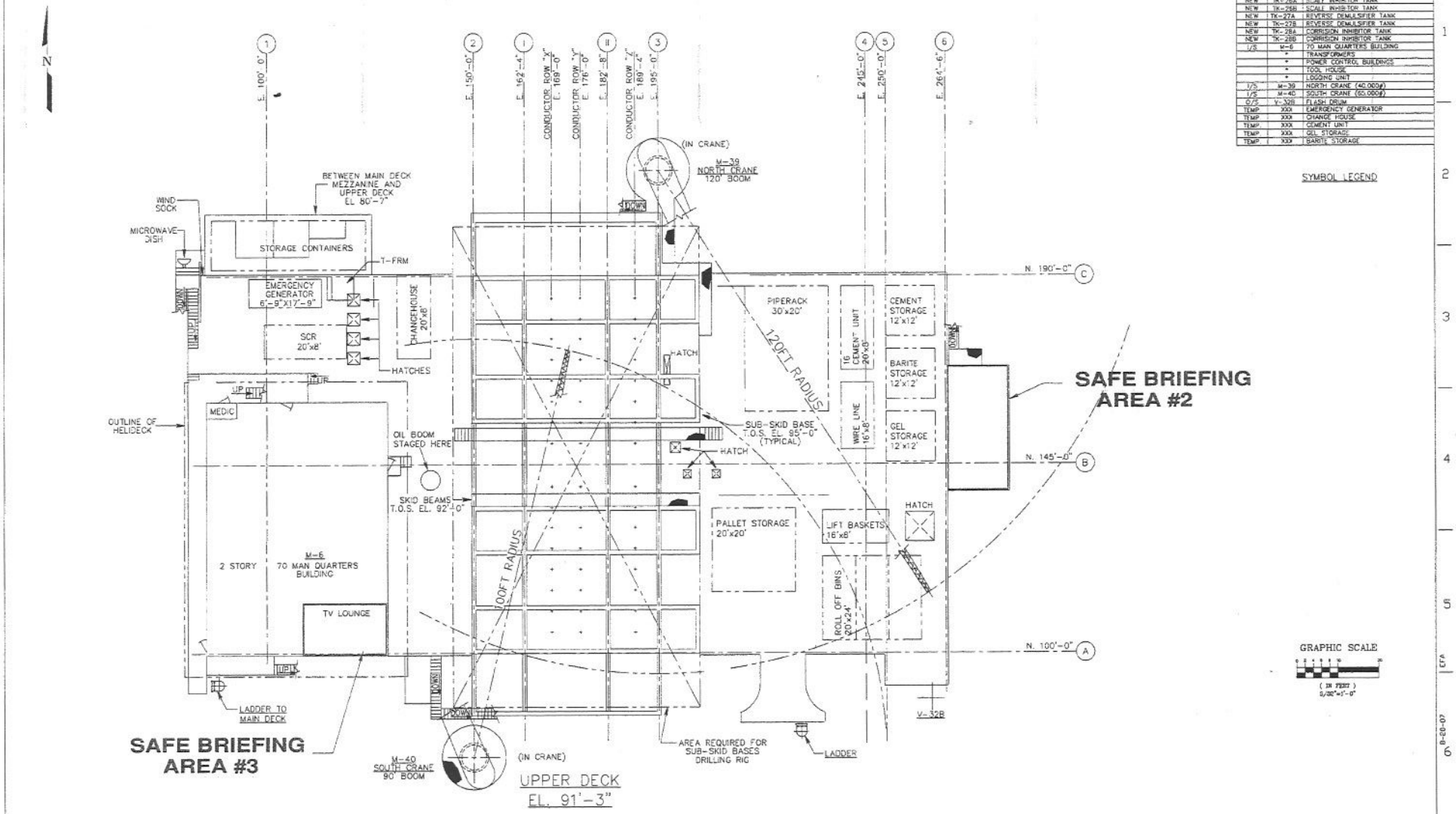
Criteria pollutant emissions (ROC, NOx, PM, SOx, and CO) result from the combustion of diesel fuel, natural gas, and produced gas in the engines and flares. Criteria pollutants are also emitted from the diesel and gasoline engines associated with the crew boats, work boats, and boom boats. Reactive Organic Compound (ROC) emissions result from the storage, handling, and loading of crude oil.



PLATFORM GRACE LOCATION MAP

STATUS	EQUIP. NUMBER	DESCRIPTION
NEW	TK-1A	DEMULSIFIER TANK
NEW	TK-1B	DEMULSIFIER TANK
NEW	TK-23	SCAVENGER TANK
NEW	TK-26A	SCALE INHIBITOR TANK
NEW	TK-26B	SCALE INHIBITOR TANK
NEW	TK-27A	REVERSE DEMULSIFIER TANK
NEW	TK-27B	REVERSE DEMULSIFIER TANK
NEW	TK-28A	CORRISION INHIBITOR TANK
NEW	TK-28B	CORRISION INHIBITOR TANK
I/S	M-6	70 MAN QUARTERS BUILDING
	*	TRANSFORMERS
	*	POWER CONTROL BUILDINGS
	*	TOOL HOUSE
	*	LOGGING UNIT
I/S	M-39	NORTH CRANE (40,000#)
I/S	M-40	SOUTH CRANE (60,000#)
O/S	V-32B	FLASH DRUM
TEMP	XXX	EMERGENCY GENERATOR
TEMP	XXX	CHANGE HOUSE
TEMP	XXX	CEMENT UNIT
TEMP	XXX	GEL STORAGE
TEMP	XXX	BARITE STORAGE

SYMBOL LEGEND



REFERENCE DRAWINGS	REVISIONS					
	AS-BUILT FIELD REVIEW 8-20-07	LG	EFA	TS		TS

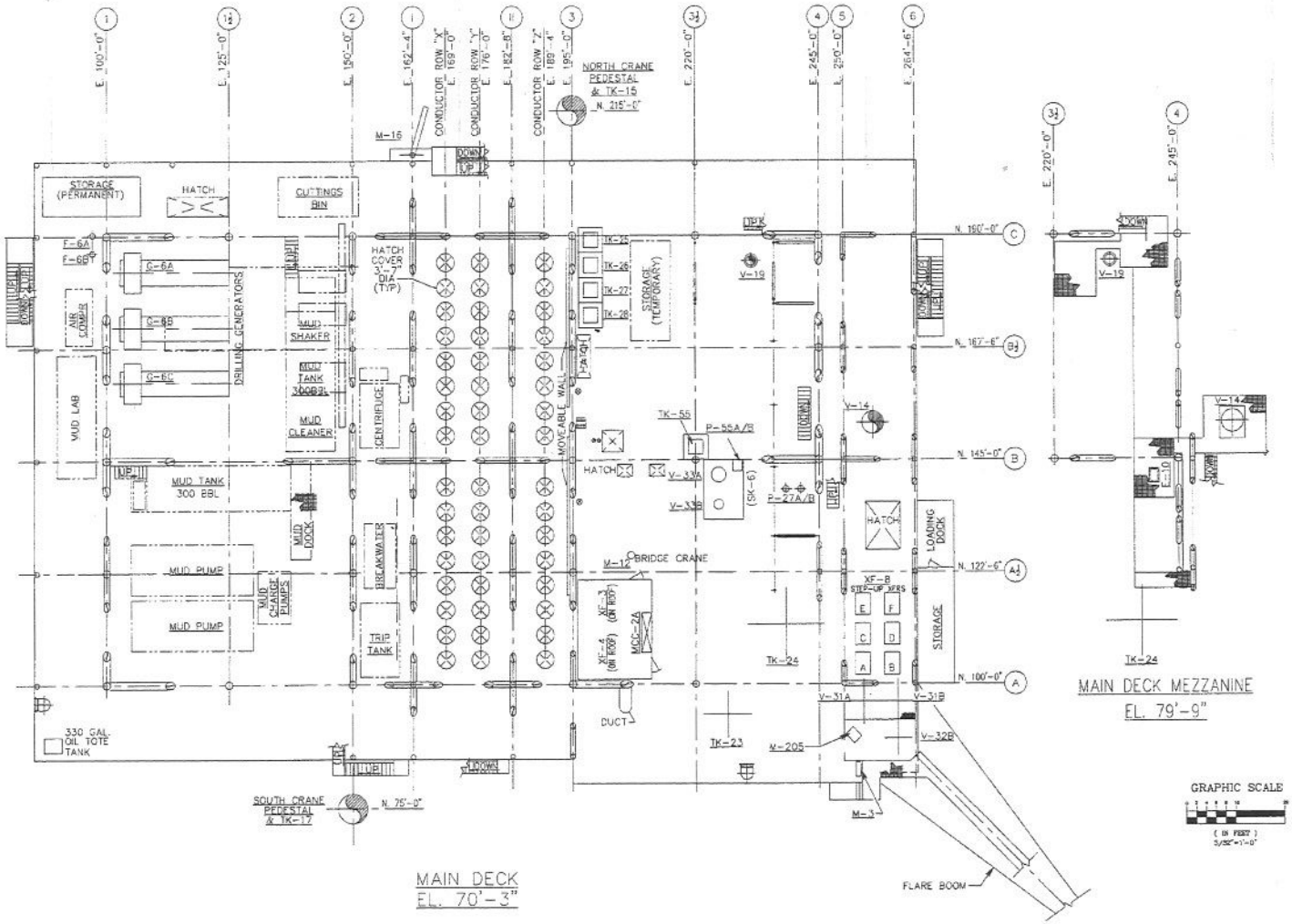
VENOCO, INC.

SCALE 3/32"=1' DATE 8-20-07 APPROVED
DR. LG CH. DR. APP. ENGR.
CONTRACTOR JOB #

EQUIPMENT ARRANGEMENT PLAN
UPPER DECK EL. 91'-3"
DRILLING & PRODUCTION PLATFORM GRACE
SANTA CLARA UNIT PARCEL P-0217 W.D. 325'

C.C. S.O. E-SB-2705 8

E-SB-2705 EFA 8-20-07



STATUS	EQUIP. NUMBER	DESCRIPTION
FUTURE	E-10	GAS COOLER
I/S	F-6A	GENERATOR FUEL GAS FILTER
I/S	F-6B	GENERATOR FUEL GAS FILTER
I/S	G-6A	DRILLING GENERATOR
I/S	G-6B	DRILLING GENERATOR
I/S	G-6C	DRILLING GENERATOR
I/S	M-3	FLARE FRONT GENERATOR
O/S	M-12	BRIDGE CRANE (12 TON)
I/S	M-15	JIB CRANE (1 TON W/10' BOOM)
I/S	M-205	LP FLARE BLOWER
I/S	P-27A/B	DRILL WATER BOSTER PUMPS
I/S	P-55A/B	SCAVENGER INJECTION PUMPS
I/S	SK-6	R25 SKID
I/S	TK-15	DIESEL STORAGE N.CRANE PEDESTAL
I/S	TK-17	PORTABLE WATER S.CRANE PEDESTAL
O/S	TK-23	SLURRY TANK
O/S	TK-24	PRODUCED WATER SURGE TANK
I/S	V-14	GAS KNOCKOUT VESSEL
I/S	V-19	FUEL GAS SCRUBBER
O/S	V-31A	DELAY TANK
O/S	V-31B	DELAY TANK
O/S	V-32B	FLASH DRUM
I/S	V-33A	H2S CONTACTOR VESSEL
I/S	V-33B	R25 SEPARATOR VESSEL
O/S	XF-3	4160-600V XFMR
O/S	XF-4	4160-600V XFMR
I/S	XF-8A-F	STEP-UP TRANSFORMER
TEMP	XXX	MUD LAB
TEMP	XXX	RESERVE MUD TANK 440 BBL
TEMP	XXX	RESERVE MUD TANK 380 BBL
TEMP	XXX	MUD TANK
TEMP	XXX	MUD PUMP
TEMP	XXX	MUD PUMP
TEMP	XXX	ACCUMULATOR
TEMP	XXX	TRIP TANK
TEMP	XXX	SOLIDS CONTROL
TEMP	XXX	20' STORAGE
TEMP	XXX	CUTTING BIN
TEMP	XXX	AIR COMPRESSOR
TEMP	XXX	MUD CHARGE PUMPS
TEMP	XXX	MUD SHAKER

REFERENCE DRAWINGS

REVISIONS

A	GENERAL UPDATE 8-9-07	LG EFA	C	GENERAL UPDATE 6-14-06	EFA DLC
B	AS-BUILT FIELD REVIEW 8-15-07	LG EFA TS	K	ISSUED FOR FINAL APPROVAL 9/9/06	RVR

VENCO INC.

SCALE 3/32"=1' DATE 4-06-06 APPROVED
DR. NR. CH. DR. APP. ENGR.
CONTRACTOR JOB #

EQUIPMENT ARRANGEMENT
MAIN DECK EL. 70'-3"
DRILLING & PRODUCTION PLATFORM GRACE
SANTA CLARA UNIT PARCEL P-0817 W.D. 325' 0

C.C. S.D.

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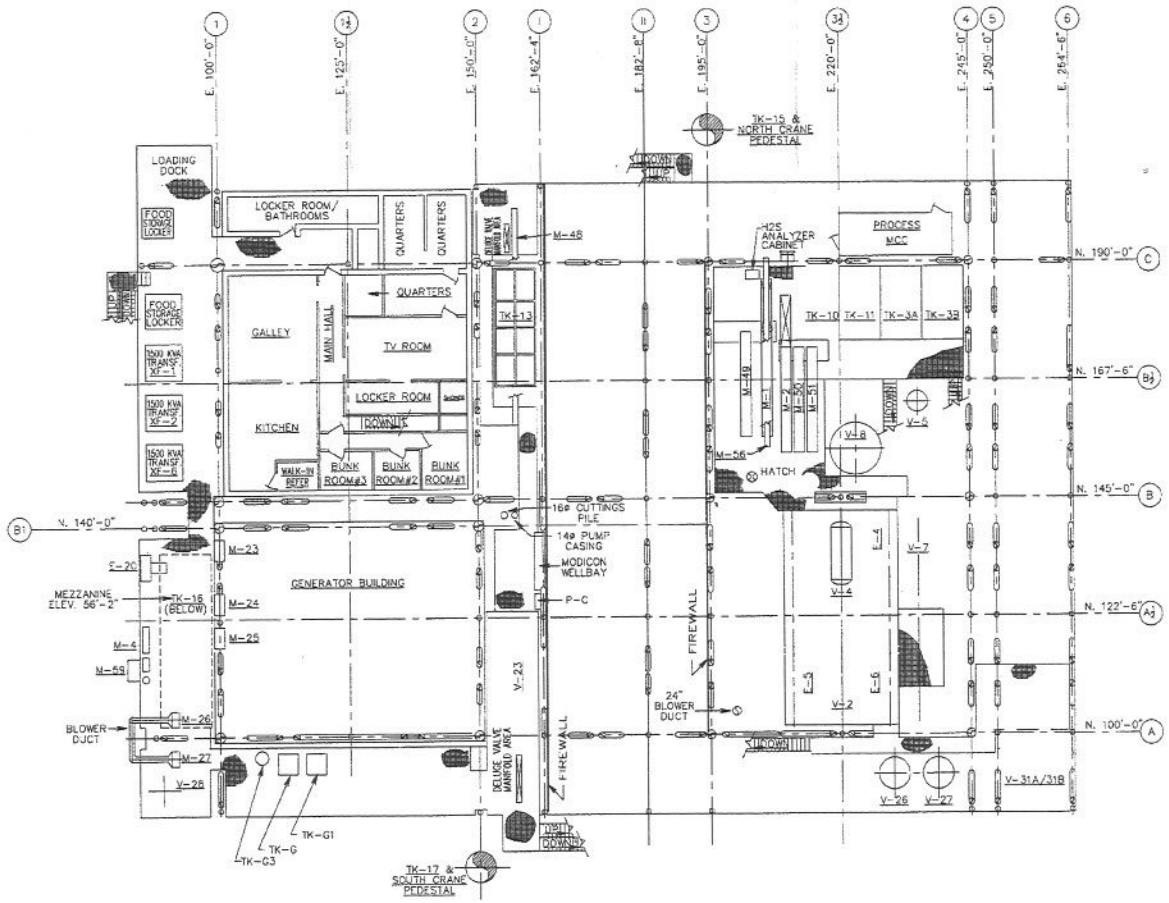

STATUS	DWG NUMBER	DESCRIPTION
C/S	E-4	PRIMARY EXCHANGER 1ST S.
C/S	E-5	
C/S	E-6	1ST OIL HEAT EXCHANGER B
C/S	E-20	RADIATOR FOR G-2
C/S	M-4	H/O UNIT
C/S	M-23	GEN-BLDG EXHAUST FAN
C/S	M-24	GEN-BLDG EXHAUST FAN
C/S	M-25	GEN-BLDG EXHAUST FAN
C/S	M-26	GEN-BLDG EXHAUST FAN
C/S	M-27	GEN-BLDG EXHAUST FAN
C/S	M-45	MINORAL
C/S	M-46	C.C. PIG RECEIVER
C/S	M-50	OIL PIG RECEIVER
C/S	M-51	P. GAS RECEIVER
C/S	M-56	WASTE H2O PIPER
C/S	TK-1	DIRTY OIL TANK
C/S	TK-2	CLEAN OIL TANK
C/S	TK-10	POWER WATER MAKE-UP TANK
C/S	TK-11	POWER WATER MAKE-UP TANK
C/S	TK-13	WASTE TANK
C/S	TK-15	DIESEL STORAGE TANK
C/S	TK-17	POTABLE WATER STORAGE TANK
C/S	V-2	1ST SEPARATOR "A"
C/S	V-4	1ST SEPARATOR "B"
C/S	V-5	WELL STREAM-LIQ SEPARATOR
C/S	V-7	HYDROPHOBIC COALESCER "B"
C/S	V-8	SURGE TANK
C/S	V-23	EXPANSION TANK
C/S	V-26	P. VENT SCRUBBER
C/S	V-27	H.P. VENT SCRUBBER
C/S	V-31A	HEAT TANK
C/S	V-31B	HEAT TANK
C/S	XF-1	1500 KVA TRANSFORMER
C/S	XF-2	1500 KVA TRANSFORMER
C/S	XF-6	1500 KVA TRANSFORMER

WELLHEAD MEZZANINE DECK
EL. 56'-6"

GRAPHIC SCALE
(IN FEET)
3/32"=1'-0"

REFERENCE DRAWINGS	REVISIONS								
	GENERAL UPDATE 4-02-06	MR		AS-BUILT FIELD REVIEW 8-15-07	LG	EFA	TS		
	GENERAL UPDATE 6-20-06	EFA							

VENOCO, INC

SCALE 3/32"=1' DATE 3-29-06 APPROVED
DR. MR CH. DR. APP. ENGR.
CONTRACTOR JOB #

EQUIPMENT ARRANGEMENT
WELLHEAD MEZZANINE DECK EL. 56'-6"
DRILLING & PRODUCTION PLATFORM GRACE
SANTA CLARA UNIT PARCEL P-0217 W.D. 325'

C.C.
S.D.

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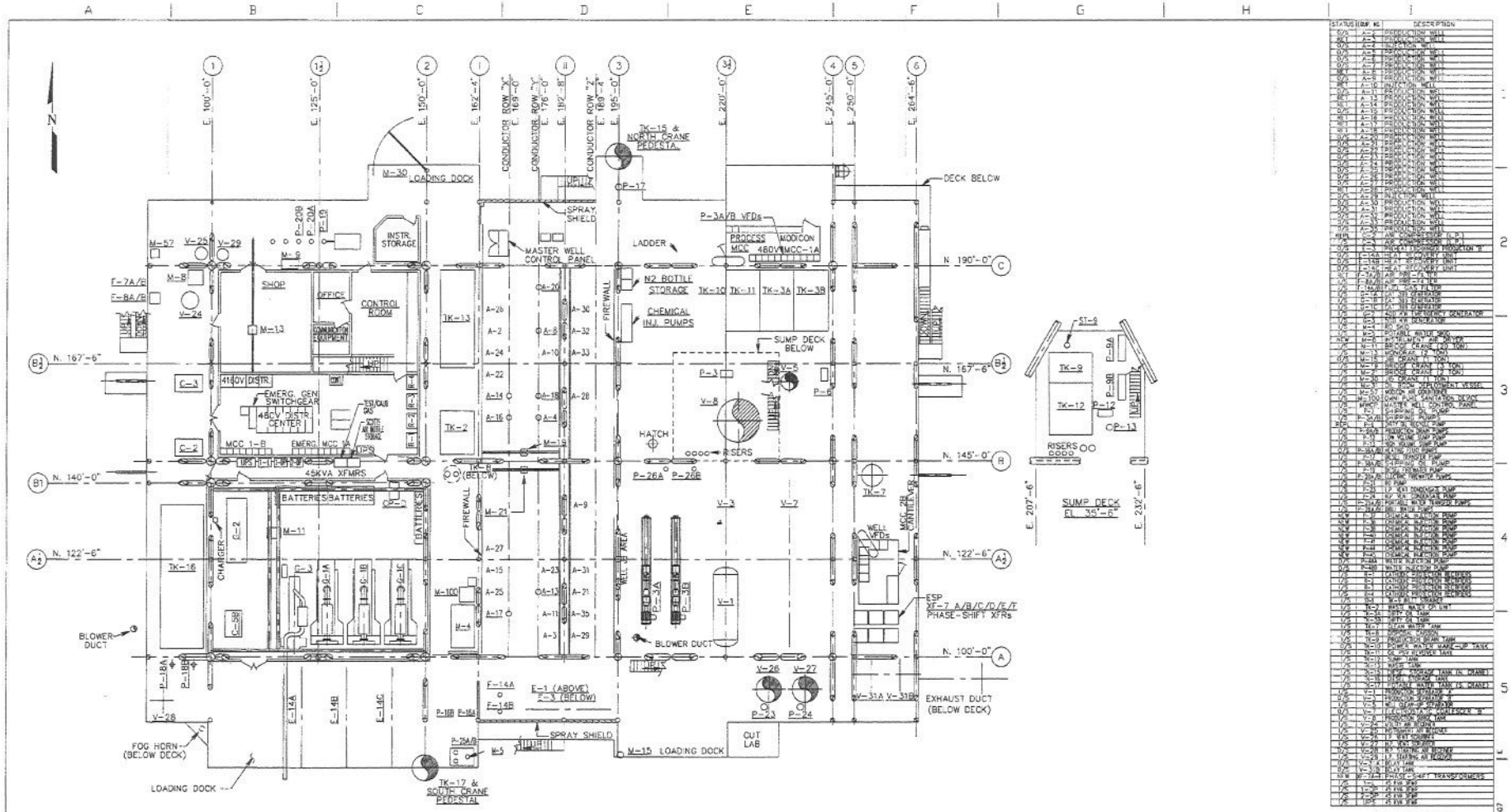
ESB-2707



WELLHEAD DECK
EL. 44'-6"

STATUS	EQUIP NO.	DESCRIPTION
O/S	A-2	PRODUCTION WELL
O/S	A-2	INJECTION WELL
O/S	A-3	PRODUCTION WELL
O/S	A-4	PRODUCTION WELL
O/S	A-5	PRODUCTION WELL
O/S	A-6	PRODUCTION WELL
O/S	A-7	PRODUCTION WELL
O/S	A-8	INJECTION WELL
O/S	A-9	PRODUCTION WELL
O/S	A-10	INJECTION WELL
N/A	A-11	PRODUCTION WELL
N/A	A-12	PRODUCTION WELL
N/A	A-13	PRODUCTION WELL
N/A	A-14	PRODUCTION WELL
N/A	A-15	PRODUCTION WELL
N/A	A-16	PRODUCTION WELL
N/A	A-17	PRODUCTION WELL
N/A	A-18	PRODUCTION WELL
O/S	A-19	PRODUCTION WELL
O/S	A-20	PRODUCTION WELL
O/S	A-21	PRODUCTION WELL
O/S	A-22	PRODUCTION WELL
O/S	A-23	PRODUCTION WELL
O/S	A-24	PRODUCTION WELL
O/S	A-25	PRODUCTION WELL
O/S	A-26	PRODUCTION WELL
O/S	A-27	PRODUCTION WELL
O/S	A-28	PRODUCTION WELL
O/S	A-29	PRODUCTION WELL
O/S	A-30	PRODUCTION WELL
O/S	A-31	PRODUCTION WELL
O/S	A-32	PRODUCTION WELL
O/S	A-33	PRODUCTION WELL
O/S	A-34	PRODUCTION WELL
O/S	A-35	PRODUCTION WELL
N/A	C-1	AIR COMPRESSOR (L.P.)
O/S	C-2	AIR COMPRESSOR
O/S	C-3	AIR COMPRESSOR
O/S	E-14A	HEAT EXCHANGER UNIT
O/S	E-14B	HEAT EXCHANGER UNIT
O/S	E-14C	HEAT EXCHANGER UNIT
O/S	F-7A/B	AIR FILTER
O/S	F-8A/B	AIR FILTER
O/S	F-14A/B	GAS FILTER
O/S	G-1A	GAS GENERATOR
O/S	G-1B	GAS GENERATOR
O/S	G-1C	GAS GENERATOR
O/S	G-2	AIR EMERGENCY GENERATOR
O/S	G-3	AIR GENERATOR
O/S	G-4	AIR GENERATOR
O/S	M-1	POTABLE WATER MAKER
NEW	M-2	PV-1A/B/C AIR DRYER
O/S	M-11	BRIDGE CRANE (20 TONS)
O/S	M-13	MONORAIL (2 TONS)
O/S	M-15	JIB CRANE (1 TON)
O/S	M-19	JIB CRANE (1 TON)
O/S	M-27	BRIDGE CRANE (10 TONS)
O/S	M-57	BRIDGE CRANE (12 TONS)
O/S	M-58	JIB CRANE (1 TON)
O/S	M-59	DOCK DEPLOYMENT VESSEL
O/S	M-57	MODICON AIR CONDITIONER
O/S	M-100	CAN PUMP SANITATION DEVICE
O/S	MWCP	MASTER WELL CONTROL PANEL
O/S	P-1	SHIPPING OIL PUMP
O/S	P-3A/B	SHIPPING PUMP
NEW	P-4	PRODUCTION SUMP PUMP
NEW	P-5A/B	PRODUCTION SUMP PUMPS
O/S	P-11	AIR VOLUME SUMP PUMP
O/S	P-12	AIR VOLUME SUMP PUMP
O/S	P-14A/B	CAN DECK PUMPS
O/S	P-17	SPRAY PUMP
O/S	P-18A/B	SHIPPING OIL PUMPS
O/S	P-20	CONDENSATE PUMP
O/S	P-20A/B	CONDENSATE PUMPS
O/S	P-23	AIR PUMP
O/S	P-24	AIR PUMP
O/S	P-25	AIR CAT SANDVACUM PUMP
O/S	P-26	AIR VAC. CONDENSATE PUMP
O/S	P-26A/B	PARALLEL WATER TRANSFER PUMPS
O/S	P-27A/B	BRINE PUMPS
NEW	P-28	CHEMICAL INJECTION PUMP
NEW	P-29	CHEMICAL INJECTION PUMP
NEW	P-30	CHEMICAL INJECTION PUMP
NEW	P-31	CHEMICAL INJECTION PUMP
NEW	P-32	CHEMICAL INJECTION PUMP
NEW	P-33	CHEMICAL INJECTION PUMP
NEW	P-34	CHEMICAL INJECTION PUMP
O/S	P-35	CHEMICAL INJECTION PUMP
O/S	P-36	CHEMICAL INJECTION PUMP
O/S	P-40	WATER DISCHARGE PUMP
O/S	R-1	CATHODIC PROTECTION RECTIFIERS
O/S	R-2	CATHODIC PROTECTION RECTIFIERS
O/S	R-3	CATHODIC PROTECTION RECTIFIERS
O/S	R-4	CATHODIC PROTECTION RECTIFIERS
O/S	TK-1	W.C. BOT. STORAGE
O/S	TK-2	WATER MAKER UP UNIT
O/S	TK-3A	DIRTY OIL TANK
O/S	TK-3B	DIRTY OIL TANK
O/S	TK-7	DRAIN WATER TANK
O/S	TK-8	CHEMICAL PACKAGE
O/S	TK-9	PRODUCTION DRAIN TANK
O/S	TK-10	POTABLE WATER MAKE-UP TANK
O/S	TK-11	CA. 2V DIESEL TANK
O/S	TK-12	SUMP TANK
O/S	TK-13	WATER TANK
O/S	TK-14	WATER TANK
O/S	TK-15	WATER STORAGE TANK (N. CRANE)
O/S	TK-16	WATER STORAGE TANK
O/S	TK-17	POTABLE WATER TANK (S. CRANE)
O/S	V-1	PRODUCTION SEPARATOR A
O/S	V-2	PRODUCTION SEPARATOR B
O/S	V-3	HI. SEPARATOR
O/S	V-5	W.C. DRAIN-UP SEPARATOR
O/S	V-7	PRODUCTION AIR/WATER SEPARATOR "B"
O/S	V-8	PRODUCTION DRAIN TANK
O/S	V-9	CA. AIR DIESEL
O/S	V-24	INSTRUMENT AIR RECEIVER
O/S	V-25	I.P. SERVICE AIR
O/S	V-26	I.P. SERVICE AIR
O/S	V-27	N.P. STARTING AIR RECEIVER
O/S	V-28	N.P. STARTING AIR RECEIVER
O/S	V-29	I.P. STARTING AIR RECEIVER
O/S	V-31A	DELAY TANK
O/S	V-31B	DELAY TANK
NEW	XF-7A/B	PHASE-SHIFT TRANSFORMERS
O/S	1-PDP	25 KVA DMP
O/S	2-PDP	25 KVA DMP
O/S	3PDP	25 KVA DMP

REFERENCE DRAWINGS			

REVISIONS							
A	GENERAL UPDATE	8-10-07	LG	EFA	L	ISSUED FOR CONSTRUCTION 9/11/06	EFA
B	AS-BUILT FIELD REVIEW	8-15-07	EFA		H	REISSUED FOR CONSTRUCTION CORRECTED P-3A/B COORDINATES 9/18/06	EFA

VERNOR, INC.

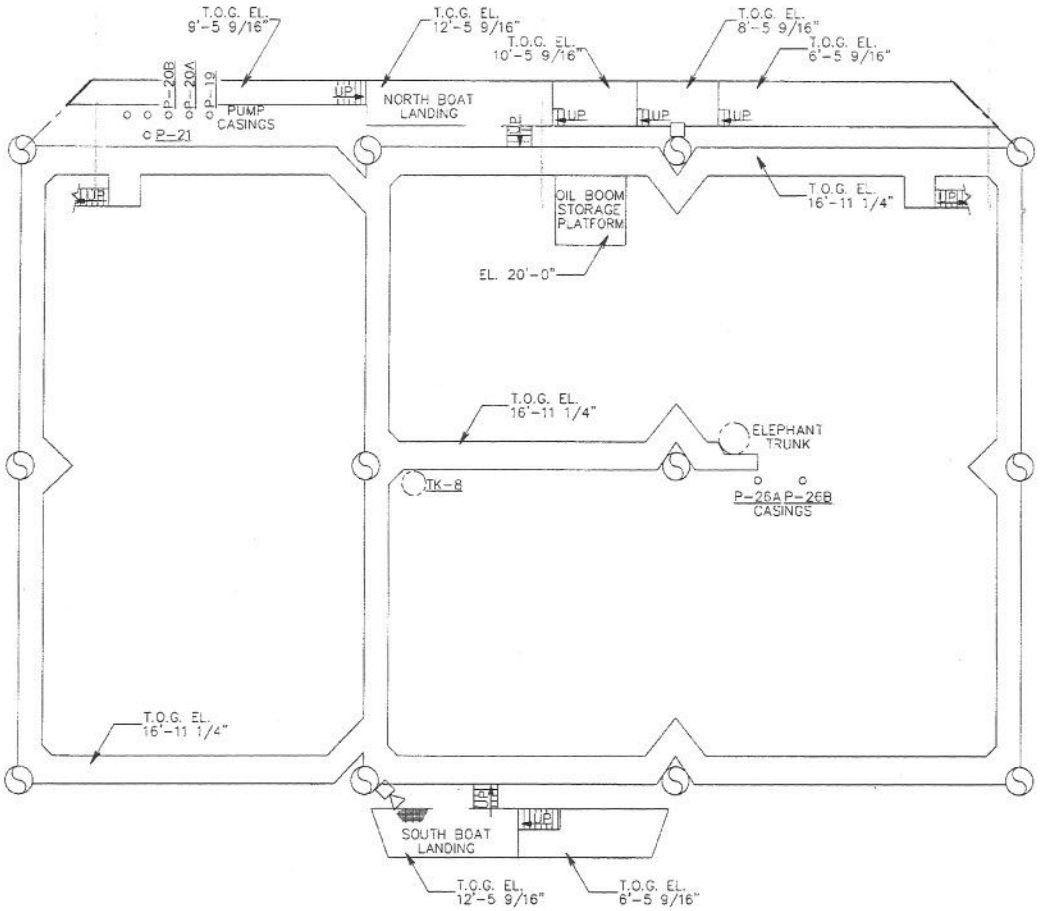
SCALE 3/32"=1' DATE 3-29-06 APPROVED
DR MR CH DR APP ENGR
CONTRACTOR JOB #

EQUIPMENT ARRANGEMENT
WELLHEAD DECK EL. 44'-6"
DRILLING & PRODUCTION PLATFORM GRACE
SANTA CLARA UNIT PARCEL P-0217 W.D. 325'

C.C. S.O.

E-SB-2708 8

ESB-2708



JACKET WALKWAY
EL. 16'-11 1/4"

STATUS	EQP. NUMBER	DESCRIPTION
O/S	E-4	PRECHEAT EXCHANGER TEST "D"
O/S	E-5	
O/S	E-6	NET OIL HEAT EXCHANGER "B"
I/S	E-20	RADIATOR FOR C-2
I/S	M-4	F/O UNIT
I/S	M-21	GEN-S.RC EXHAUST FAN
I/S	M-24	GEN-SLDG EXHAUST FAN
I/S	M-25	GEN-SLDG EXHAUST FAN
I/S	M-26	GEN-SLDG EXHAUST FAN
I/S	M-27	GEN-SLDG EXHAUST FAN
I/S	M-45	MONORAIL
I/S	M-48	GAS PIG DETECTOR
I/S	M-50	OIL PIG DETECTOR
I/S	M-51	L.P. GAS BLOWDOWN
I/S	M-52	WATER BLOWDOWN
I/S	TK-3	DIRTY OIL TANK
I/S	TK-10	DIRTY OIL TANK
O/S	TK-10	POWER WATER MAKE-UP TANK
I/S	TK-11	POWER WATER MAKE-UP TANK
I/S	TK-14	WASH TANK
I/S	TK-16	DIESEL STORAGE TANK
I/S	TK-17	POTABLE WATER STORAGE TANK
O/S	V-2	TEST SEPARATOR "A"
I/S	V-4	TEST SEPARATOR "B"
I/S	V-5	TEST SEPARATOR "C"
I/S	V-7	ELECTROSTATIC COALESCER "B"
I/S	V-8	SURGE TANK
O/S	V-23	SEPARATOR TANK
I/S	V-26	L.P. VENT SCRUBBER
I/S	V-27	H.P. VENT SCRUBBER
O/S	V-31A	DRAIN TANK
O/S	V-31B	DRAIN TANK
I/S	XF-1	1000 KVA TRANSFORMER
I/S	XF-2	1000 KVA TRANSFORMER
O/S	XF-3	1000 KVA TRANSFORMER

GRAPHIC SCALE
(IN FEET)
3/32"=1'-0"

REFERENCE DRAWINGS

REVISIONS

H	GENERAL UPDATE 4-02-06	MR		G AS-BUILT FIELD REVIEW 8-15-07	LG	EFA	TS
J	GENERAL UPDATE 6-20-06	EFA				

VERNADO, INC.

SCALE 3/32"=1' DATE 3-22-06 APPROVED
DR. MR CH. DR. APP. ENGR.
CONTRACTOR JOB #

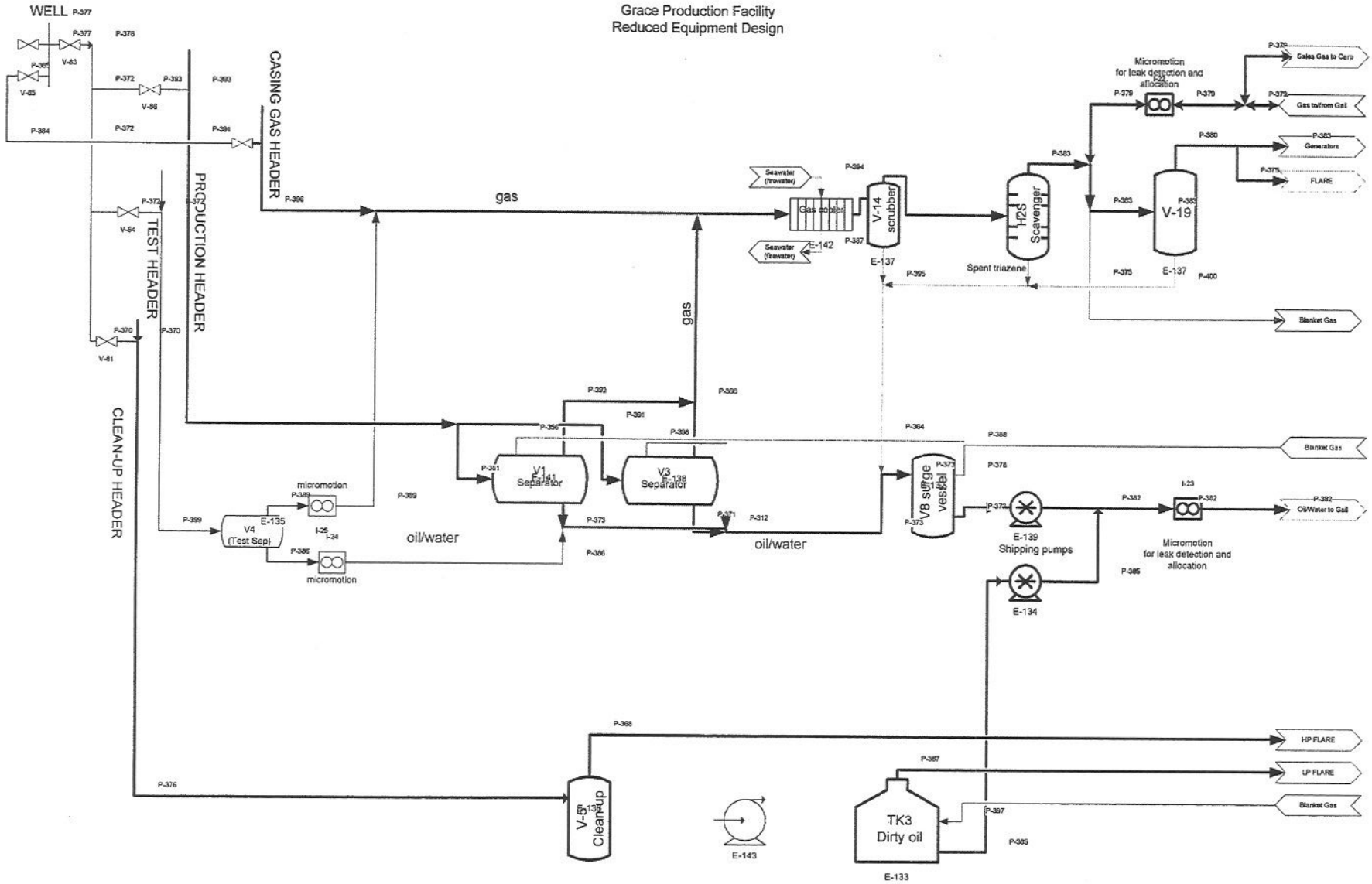
EQUIPMENT ARRANGEMENT
WELLHEAD MEZZANINE DECK EL. 56'-6"
DRILLING & PRODUCTION PLATFORM GRACE
SANTA CLARA UNIT PARCEL P-0217 W.D. 323'

C.C.
S.D.

E-SB-2710 0

8-15-07 EFA
ESB-2710

Grace Production Facility
Reduced Equipment Design



STATEMENT REGARDING PERMIT TABLES 1 THROUGH 4

Venoco has reviewed the following tables from Part 70 Permit No. 01493 and believes them to be correct as modified.

Table 1.c.1 - Specific Applicable Requirements
Table 1.c.2 - Permit Specific Conditions
Table 1.c.3 - General Applicable Conditions
Table 1.c.4. - General Requirements for Short-Term Activities
Table 2 - Permitted Equipment and Applicable Requirements
Table 3 - Permitted Throughput/Consumption Limits
Table 4 - Permitted Emissions

Copies of the referenced tables are attached following this statement.

1.c PERIODIC MONITORING SUMMARY

This periodic monitoring summary is intended to aid the permittee in quickly identifying key monitoring, recordkeeping, and reporting requirements. It is not intended to be used as a "stand alone" monitoring guidance document that completely satisfies the requirements specifically applicable to this facility. The following tables are included in the periodic monitoring summary:

- Table 1.c.1 - Specific Applicable Requirements
- Table 1.c.2 - Permit-Specific Conditions
- Table 1.c.3 - General Applicable Requirements
- Table 1.c.4 - General Requirements for Short-Term Activities

1.c.1 Specific Applicable Requirements

The Specific Applicable Requirements Table includes a summary of the monitoring requirements, recordkeeping requirements, reporting requirements, and test methods associated with the attachments contained in Section No. 7 of this permit.

Attachment No./ Condition No.	Applicable Rule or Requirement	Monitoring	Recordkeeping	Semi-annual Reports	Test Methods	Comments
71.1N1	Rules 71.1.B.1.a, 74.10	•Quarterly inspection of the following components for proper operation: gas compressor, hatches, relief valves, pressure regulators, flare, as applicable •Verbal notice of maintenance activities •Rule 74.10 inspections •Annual compliance certification including verification that tanks are equipped with a vapor recovery system	•Records of quarterly inspections and tank maintenance activities •Rule 74.10 records	None	None	
71.4N3	Rule 71.4.C.1.c	•Annual compliance certification including lab results of ROC content •Routine surveillance ensuring no change in liquid contents or method of operation	•Records of lab results of ROC content	None	ROC Content - EPA Method 8015 and EPA Method 5030	
74.9N3	Rules 74.9.B.1 and B.2	•Quarterly NOx and CO emission screening •Biennial Source Test (ROC, NO_x, CO) •Annual compliance certification	•Records of inspections •Records of maintenance	•Actual annual usage •Summary of maintenance and testing •Biennial Source Test Report	•ROC-EPA Method 25 or EPA Method 18 •NO_x-ARB Method 100 •CO-ARB Method 100	

1.c.1 Specific Applicable Requirements (Continued)

Attachment No./ Condition No.	Applicable Rule or Requirement	Monitoring	Recordkeeping	Semi-annual Reports	Test Methods	Comments
74.9N7	Rule 74.9.D.3	•Annual compliance certification •Hours of operation	•Records of operating hours •Date, time, duration, and reason for emergency operation •Records of engine data	None		
74.9N8	Rule 74.9.D.8	•Annual compliance certification including engine's usage (fuel consumption or operating hours)	•Records of engine data including maximum hourly fuel consumption, actual annual usage, engine manufacturer, model number, operator id number, and engine location	•Report of hours of operation or fuel usage		
74.9N9	Rule 74.9.D.9	•Annual compliance certification •Routine surveillance to ensure diesel-fired engine is used to power cranes and welding equipment only	•Records of engine data including engine function (usage), manufacturer, model number, operator identification number, and engine location	None		
ATCM Engine N3	ATCM for Stationary Compression Ignition Engines - OCS	•Fuel type records •Fuel use records	•Fuel type records •Fuel use records	None	None	Not federally enforceable

1.c.2 Permit-Specific Conditions

The Permit-Specific Conditions Table includes a summary of the monitoring requirements, recordkeeping requirements, reporting requirements, and test methods associated with the attachments contained in Section No. 8 of this permit.

Attachment No./ Condition No.	Applicable Rule or Requirement	Monitoring	Recordkeeping	Semi-annual Reports	Test Methods	Comments
PO1493PC1 - Condition No. 1	Rules 29 General Recordkeeping	•Annual compliance certification •Monthly records of throughput and consumption	•Monthly records	None	None	
PO1493PC1 – Condition No. 2	Rule 26 Natural Gas Only	•Annual compliance certification	None	None	None	
PO1493PC1 - Condition No. 3	Rule 29 Maximum Number of Oil Wells	•Annual compliance certification	None	None	None	
PO1493PC1 - Condition No. 4	Rule 29 Maximum Sulfur Content of Diesel Fuel	•Fuel records or fuel supplier certification containing sulfur content of each diesel fuel delivery •Annual compliance certification	Fuel records	None	None	
PO1493PC1 - Condition No. 5	Rules 26 and 29 Crew Boat and Work Boat Emission Limits	•Diesel fuel consumption for boats servicing Platforms Grace and Gail •Monthly calculations of emissions (boats) •Annual compliance certification	•Monthly records of diesel fuel consumption •Monthly calculations of emissions (boats)	None	None	
PO1493PC1 – Condition No. 6	Rule 29 Crew Boats Shall Not Be Used Simultaneously	•Maintain a log book of hours and days of crew boat operation •Annual compliance certification	•Maintain a log book of hours and days of crew boat operation	None	None	
PO1493PC1 – Condition No. 7	Rule 29 Work Boats Shall Not Be Used Simultaneously	•Maintain a log book of hours and days of work boat operation •Annual compliance certification	•Maintain a log book of hours and days of work boat operation	None	None	
PO1493PC1 - Condition No. 8	Rule 29 Solvent Use	•Maintain a list of exempt solvents •Annual compliance certification	•Maintain a list of exempt solvents	None	None	
PO1493PC1 – Condition No. 9	Rule 26 Temporary ERCs	None	None	None	None	Submit App. by June 28, 2009
PO1493PC2 - Condition Nos. 1 and 4	Rule 29 Flare Fuel Consumption	•Flare gas consumption •Identify emergency vs. non-emergency usage •Annual compliance certification	•Monthly records of flare gas consumption	None	None	

1.c.2 Permit-Specific Conditions (Continued)

Attachment No./ Condition No.	Applicable Rule or Requirement	Monitoring	Recordkeeping	Semi-annual Reports	Test Methods	Comments
PO1493PC2 - Condition Nos. 2 and 3	Rule 71.1 Flare Ignition System Operation	•Monthly tests of flare's ignition system •Annual compliance certification	•Records of ignition system tests and maintenance activities	None	None	
PO1493PC3	Rule 29 Backup Generator Operation	•Annual compliance certification	None	None	None	
PO1493PC4	Rule 29 Out of Service Tanks	•Annual compliance certification including verifying that a tank designated as "Out of Service" is shut down and not being operated	None	None	None	
PO1493PC5	Rules 26, 74.9, and 40 CFR Part 64 (CAM) Engine BACT Emission Limits (NOx, ROC, and CO)	•Annual compliance certification •Biennial source tests (NOx, ROC, and CO) •Air-fuel ratio set point measurements •Quarterly NOx and CO emissions screening •Daily measurement of NOx concentration with portable analyzer	•Quarterly records of the set point measurements •Records of quarterly NOx and CO screenings •Records of inspections •Records of maintenance •Records of daily portable NOx analyzer readings (ppmvd at 15% oxygen), time of measurement, excursions noted	•Actual annual usage •Summary of maintenance and testing •Biennial Source Test Report •Number, duration, and cause of CAM excursions and corrective action taken	•ROC-EPA Method 25 or EPA Method 18 •NO_x-ARB Method 100 •CO-ARB Method 100	
PO1493PC6	Rule 29 Crane Engine Fuel Usage	•Annual compliance certification •Diesel fuel consumption	•Monthly records of diesel fuel consumption	None	None	
PO1493PC7	Rules 26, 35, 74.9, and 40 CFR Part 64 (CAM) Engine BACT Emission Limits	•Annual compliance certification •Biennial source tests (NOx, ROC, and CO) •Quarterly NOx and CO emissions screening •Daily NOx measurement with portable analyzer	•Records of quarterly NOx and CO screenings •Records of daily portable NOx analyzer readings, time of measurement, excursions noted	None	•ROC-EPA Method 25 or EPA Method 18 •NO_x-ARB Method 100 •CO-ARB Method 100	

1.c.3 General Applicable Requirements

The General Applicable Requirements Table includes a summary of the monitoring requirements, recordkeeping requirements, reporting requirements, and test methods associated with the attachments contained in Section No. 9 of this permit.

Attachment No./ Condition No.	Applicable Rule or Requirement	Monitoring	Recordkeeping	Semi-annual Reports	Test Methods	Comments
50	Rule 50	•Routine surveillance •Visual inspections •Annual compliance certification, including a formal survey •Opacity readings upon request •Notification required for uncorrectable visible emissions	•All occurrences of visible emissions for periods>3min in any one hour •Annual formal survey of all emissions units	None	•Opacity - EPA Method 9	
52	Rule 52	•Annual compliance certification	None	None	None	•Not required based on District EPA emission factor analysis
54.B.1 (OCS)	Rule 54.B.1	•Annual compliance certification •Identify planned vs. unplanned flaring event •Identify date, time, duration, flare volume, and estimated sulfur emissions per flare event •Upon request, source test for sulfur compounds at point of discharge	•Representative fuel analysis or exhaust analysis and compliance demonstration •Flare records	None	•Sulfur Compounds - EPA Test Method 6, 6A, 6C, 8, 15, 16A,16B, or SCAQMD Method 307-94, as appropriate	
54.B.2 (OCS)	Rule 54.B.2	•Annual compliance certification •Identify planned vs. unplanned flaring event •Identify date, time, duration, flare volume, and estimated sulfur emissions per flare event •Determine ground or sea level concentrations of SO_2, upon request	•Representative fuel analysis or exhaust analysis and modeling data or other compliance demonstration •Flare records	None	•SO_2 - BAAQMD Manual of Procedures, Vol.VI, Section 1, Ground Level Monitoring for H_2S and SO_2	
57.1	Rule 57.1	•Annual compliance certification	None	None	None	•Not required based on District analysis
64.B.1	Rule 64.B.1	•Annual compliance certification •None for PUC-quality gas •Annual test for non PUC-quality gas (submit with annual compliance certification)	•Annual fuel gas analysis for non PUC-quality gas	None	•SCAQMD Method 307-94	
64.B.2	Rule 64.B.2	•Annual compliance certification •Fuel supplier's certification, or fuel test per each delivery (submit with annual compliance certification)	•Fuel supplier's certification, or fuel test per each delivery	None	•ASTM Method D4294-83 or D2622-87	

1c.3 General Applicable Requirements (Continued)

Attachment No./ Condition No.	Applicable Rule or Requirement	Monitoring	Recordkeeping	Semi-annual Reports	Test Methods	Comments
71.1.C	Rules 71.1.C and 74.10	•Annual compliance certification •Rule 74.10 inspections •Visual inspection to ensure collection system is closed •Quarterly inspection of flare to ensure proper operation	•Records of inspections of flare •Rule 74.10 records	None	None	Compliance with Rule 74.10 ensures compliance with the gas collection system's maintenance requirements
71.4.B.1	Rule 71.4.B.1	•Annual compliance certification to ensure there are no first stage sumps	None	None	None	
71.4.B.3	Rule 71.4.B.3	•Annual compliance certification •Routine surveillance and visual inspections of well cellars	•Records of maintenance or well workover activity during periods of crude oil storage	None	None	
74.6	Rule 74.6	•Annual compliance certification •Maintain current solvent information •Routine surveillance of solvent cleaning activities •Upon request, solvent testing	•Records of current solvent information	None	•ROC content-EPA Test Method 24 or 24A •Identity of solvent components-ASTM E168-67, ASTM E169-87, or ASTM E260-85 •True vapor pressure or composite partial pressure -ASTM D2879-86 •Initial boiling point-ASTM 1078-78 or published source •Spray gun active/passive solvent losses-SCAQMD Method (10-3-89)	
74.10	Rule 74.10	•Annual compliance certification •Identify leaking components •Inspections every shift or 8 hours at natural gas processing plants •Daily and/or weekly inspections for specified equipment •Quarterly inspections for specified components •Pressure relief valve inspections •Annual update to Operator Management Plan •Notification of major leaks in critical components •Notification of repeat leaks	•Records of leak inspections in inspection log	None	•Gas Leaks - EPA Method 21 •ROC Concentration of Gas Streams - ASTM E168-88, ASTM E169-87, or ASTM E260-85 •Weight percentage of evaporated compounds of liquids – ASTM Method D 86-82 •API Gravity - ASTM Method D287	

1.c.3 General Applicable Requirements (Continued)

Attachment No./ Condition No.	Applicable Rule or Requirement	Monitoring	Recordkeeping	Semi-annual Reports	Test Methods	Comments
74.11.1	Rule 74.11.1	•Annual Compliance Certification •Maintain identification records of large water heaters and small boilers	•Current large water heater and small boiler information	None	None	•Rule only applies to future installation of large water heaters and small boilers
74.22	Rule 74.22	•Annual compliance certification •Maintain furnace identification records	•Records of current furnace information	None	None	•Rule only applies to future installation of natural gas-fired, fan-type furnaces

1.c.4 General Requirements for Short-Term Activities

The General Requirements for Short-Term Activities Table includes a summary of the monitoring requirements, recordkeeping requirements, reporting requirements, and test methods associated with the attachments contained in Section No. 10 of this permit.

Attachment No./ Condition No.	Applicable Rule or Requirement	Monitoring	Recordkeeping	Semi-annual Reports	Test Methods	Comments
74.1	Rule 74.1	•Annual compliance certification •Routine surveillance and visual inspections of abrasive blasting operation •Abrasive blasting records	•Abrasive blasting records	None	•Visible emission evaluation-Section 92400 of CCR	
74.2	Rule 74.2	•Annual compliance certification •Routine surveillance •Maintain VOC records of coatings used	•Maintain VOC records of coatings used	None	•See Rule 74.2.G for test methods	
74.16	Rule 74.16	•Annual compliance certification to ensure electric power drilling and/or drilling engine has valid APCD Permit to Operate and meets NOx limit •Annual source tests (NOx) or engine manufacturer certification	•Records of source tests or engine manufacturer certification	None	•NOx – ARB Method 100	
40CFR.61.M	40 CFR Part 61, Subpart M	•Annual compliance certification •See 40 CFR Part 61.145 for inspection procedures	•See 40 CFR Part 61.145 for recordkeeping procedures	•See 40 CFR Part 61.145 for notification procedures	•See 40 CFR Part 61.145 for test methods	

TABLE NO. 2

VENTURA COUNTY AIR POLLUTION CONTROL DISTRICT
Permit to Operate No. 01493
Permitted Equipment and Applicable Requirements

M:\TITLEV\TV Permits\PO1493\PERMIT\INTABLES_REV391.xls

Equipment	71.1	71.4	74.9	Engine ATCM	Additional Requirements
Platform Grace					
1 - 321 BBL PWT (Waste Water Pump Tank) (T-24) VR	1				
1 - 300 BBL COST ("Dirty" Oil) (T-3A) VR	1				PC1
1 - 300 BBL COST ("Dirty" Oil) (T-3B) VR	1				PC1
1 - 300 BBL Oil Pipeline Relief Tank (T-11) VR	1				
1 - 200 BBL COST (Production Surge Vessel) (V-8) VR	1				PC1
1 - 100 BBL Spare COST (T-10) VR **					PC4
1 - 80 BBL PWT (Waste Water Sump Tank) (T-12) VR	1				
1 - 50 BBL Production Drain Tank (T-9) VR	1				
1 - 180 Sqft Waste Water Sump (T-13) Exempt < 5 mg/l		3			
1 - 33.57 Sqft Waste Water CPI Sump (T-2) Exempt < 5 mg/l		3			
1 - 773 BHP NG Rich Burn Waukesha Engine (G-03) NSCR			3		PC1, PC5
1 - 600 BHP Caterpillar Diesel Back-up Generator Engine (G-02)			8	3	PC1, PC3
3 - 915 BHP (650 kW) Caterpillar Rich Burn Natural Gas Engines, Model G-399 SI-TA HCR, NSCR, Turbocharger, Aftercooler, Electricity Generating Engines (G-6A, G-6B, G-6C)			3		PC7
2 - 915 BHP (650 kW) Caterpillar Rich Burn Natural Gas Engines, Model G-399 SI-TA HCR, NSCR, Turbocharger, Aftercooler, Electricity Generating Engines (G-1A, G-1B)			3		PC7
1 - 300 BHP Diesel Engine No. 1 (GM Model 8V92) (North Crane)			9	3	PC1, PC6
1 - 300 BHP Diesel Engine No. 2 (GM Model 8V92) (South Crane)			9	3	PC1, PC6
1 - 1006.30 MMBTU/Hr Kaldair Indair Flare, (High Pressure) Model I-15-H-VS, equipped with a Tulip/Coanda tip and two John Zink KEP-100 pilots with auto-ignition systems (installed 1994)					PC2
1 - 218.8 MMBTU/Hr Kaldair Flare (Low Pressure), Model PLA-20 Air-assisted, equipped with two John Zink KEP-100 pilots with auto-ignition systems (installed 1994)					PC2
1 - 120 BHP Detroit Diesel Emergency Engine, Model 500 Diesel, Serial No. 78-1804-1, I.D. P-19, used for fire suppression purposes			7	3	PC1
1 - 198 BBL Slurry Tank UNC (T-23) **					PC4
Boom Boat (Boomer)					
2 - 200 BHP Diesel Main Engines (Volvo Penta, Model AQAD41A)					PC1
Crew Boat Engines					
Glenn C					
4 - 510 BHP Diesel Main Engines (Detroit 12V71TI)					PC1
2 - 124 BHP Diesel Generator Engines (Detroit 4-71N)					PC1
Doug C					
3 - 535 BHP Diesel Main Engines (Detroit 6062)					PC1
2 - 50.5 BHP Diesel Generator Engines (Lugger L984)					PC1
Jackie C					
4 - 510 BHP Diesel Main Engines (Detroit 12V71TI)					PC1
2 - 65 BHP Diesel Generator Engines (Detroit 3-71)					PC1
1- 89 BHP Diesel Fire Water Pump Engine (Detroit 4-71)					PC1
Aces Wild					
3 - 510 BHP Diesel Main Engines (Detroit 12V71TI)					PC1
2 - 65 BHP Diesel Generator Engines (Detroit 3-71)					PC1
Wendy Tide					
4 - 510 BHP Diesel Main Engines (Detroit 12V71TI)					PC1
2 - 75 BHP Diesel Generator Engines (Detroit 3-71)					PC1
Robbie Tide					
3 - 510 BHP Diesel Main Engines (Detroit 12V71TI)					PC1
2 - 75 BHP Diesel Generator Engines (Detroit 3-71)					PC1
Messenger					
3 - 510 BHP Diesel Main Engines (Detroit 12V71TI)					PC1
2 - 75 BHP Diesel Generator Engines (Detroit 3-71)					PC1
Danny C					
2 - 365 BHP Diesel Main Engines (Caterpillar 3406 C)					PC1
1 - 40 BHP Diesel Generator Engine (Isuzu 4JB1)					PC1
1 - 32 BHP Diesel Generator Engine (Northern Lights M20)					PC1

TABLE NO. 2

VENTURA COUNTY AIR POLLUTION CONTROL DISTRICT
Permit to Operate No. 01493
Permitted Equipment and Applicable Requirements

M:\TITLEV\TV Permits\PO1493\PERMIT\II\TABLES_REV391.xls

Equipment	71.1	71.4	74.9	Engine ATCM	Additional Requirements
1 - 46 BHP Diesel Hydraulic Engine (Detroit 271)					PC1
Ace High					
2 - 650 BHP Diesel Main Engines (Detroit 12V92TI)					PC1
1 - 510 BHP Diesel Main Center Engine (Detroit 12V71TI)					PC1
2 - 65 BHP Diesel Generator Engines (Detroit 3-71)					PC1
Work Boat Engines					
San Miguel					
2 - 2000 BHP Diesel Main Engines (Caterpillar 3516B DITA SCAC)					PC1
2 - 247 BHP Diesel Generator Engines (Caterpillar 3306 DIT)					PC1
1 - 550 BHP Diesel Thruster Engine (Caterpillar 3408 DITA)					PC1
1 - 315 BHP Diesel Compressor Engine (Caterpillar 3306 DITA)					PC1
1 - 306 BHP Diesel Aux Pump Engine (Caterpillar 3406 DIT)					PC1
1 - 273 BHP Diesel Winch Engine (Detroit 8V-71)					PC1
O'Neil Tide					
2 - 1125 BHP Diesel Main Engines (Caterpillar D399T/A)					PC1
2 - 243 BHP Diesel Generator Engines (Caterpillar 3306 DIT)					PC1
1 - 325 BHP Diesel Thruster Engine (Caterpillar 3406 DIT)					PC1
1 - 325 BHP Diesel Aux Fire Pump Engine (Caterpillar 3406 DIT)					PC1
2 - 243 BHP Diesel Aux Liquid Pump Engines (Caterpillar 3306 DIT)					PC1
Victory Seahorse					
2 - 2500 BHP Diesel Main Engines (EMD 16-645-ED3A)					PC1
2 - 200 BHP Diesel Generator Engines (Detroit 8V-71)					PC1
1 - 300 BHP Diesel Thruster Engine (Detroit 8V-71)					PC1
Santa Cruz					
2 - 2000 BHP Diesel Main Engines (Caterpillar 3516B)					PC1
2 - 245 BHP Diesel Generator Engines (Caterpillar 3306)					PC1
1 - 515 BHP Diesel Thruster Engine (Caterpillar 3408)					PC1
Toby Tide					
2 - 1125 BHP Diesel Main Engines (Caterpillar D399TA)					PC1
2 - 200 BHP Diesel Generator Engines (Detroit 8V-71)					PC1
1 - 300 BHP Diesel Thruster Engine (Detroit 8V-71)					PC1
Sea Tide					
2 - 1220 BHP Diesel Main Engines (DDEC 12V149TI)					PC1
2 - 200 BHP Diesel Generator Engines (Detroit 8V-71)					PC1
1 - 200 BHP Diesel Thruster Engine (Detroit 6V-71)					PC1
Robin J					
2 - 600 BHP Diesel Main Engines (GM 1692)					PC1
2 - 21 BHP Diesel Generator Engines (GM 471)					PC1
Jackie C					
4 - 510 BHP Diesel Main Engines (Detroit 12V71TI)					PC1
2 - 65 BHP Diesel Generator Engines (Detroit 3-71)					PC1
1- 89 BHP Diesel Fire Water Pump Engine (Detroit 4-71)					PC1
Patriot II					
2 - 626 BHP Diesel Main Engines (Detroit 16V92)					PC1
2 - 103 BHP Diesel Generator Engines (Detroit 4-71)					PC1
1 - 103 BHP Diesel Fire Pump Engine (Detroit 4-71)					PC1
Freedom					
2 - 626 BHP Diesel Main Engines (Detroit 16V92)					PC1
2 - 76 BHP Diesel Generator Engines (Detroit 3-71)					PC1
1 - 103 BHP Diesel Fire Pump Engine (Detroit 4-71)					PC1
For Use Throughout Leases					
16 - Oil Wells (11 active wells)					PC1
Exempt Equipment					
Wipe Cleaning Operation					
** - Out of Service					

TABLE NO. 3

VENTURA COUNTY AIR POLLUTION CONTROL DISTRICT
Permit to Operate No. 01493
Permitted Throughput/Consumption Limits

M:\TITLE\ATV Permits\PO1493\PERMIT\[\TABLES_REV391.xls Equipment	Throughput/Emissions Permit Limit	District (D)/ Federal(F) Enforceable	Calculation Throughput	Calculation Procedure
Platform Grace				
1 - 321 BBL PWT (Waste Water Pump Tank) (T-24) VR				
1 - 300 BBL COST ("Dirty" Oil) (T-3A) VR	20 MBBL/Yr	F	20 MBBL/Yr	
1 - 300 BBL COST ("Dirty" Oil) (T-3B) VR	20 MBBL/Yr	F	20 MBBL/Yr	
1 - 300 BBL Oil Pipeline Relief Tank (T-11) VR				
1 - 200 BBL COST (Production Surge Vessel) (V-8) VR	3,960 MBBL/Yr	F	3,960 MBBL/Yr	
1 - 100 BBL Spare COST (T-10) VR **				
1 - 80 BBL PWT (Waste Water Sump Tank) (T-12) VR				
1 - 50 BBL Production Drain Tank (T-9) VR				
1 - 180 Sqft Waste Water Sump (T-13) Exempt < 5 mg/l				
1 - 33.57 Sqft Waste Water CPI Sump (T-2) Exempt < 5 mg/l				
1 - 773 BHP NG Rich Burn Waukesha Engine (G-03) NSCR	51.10 MMCF/Yr NG	F	51.1 MMCF/Yr NG	
1 - 600 BHP Caterpillar Diesel Back-up Generator Engine (G-02)	55.9 MGal/Yr	F	55.9 MGal/Yr	
3 - 915 BHP (650 kW) Caterpillar Rich Burn Natural Gas Engines, Model G-399 SI-TA HCR, NSCR, Turbocharger, Aftercooler, Electrictiy Generating Engines (G-6A, G-6B, G-6C)	60.00 MMCF/Yr NG	F	60.00 MMCF/Yr NG	
2 - 915 BHP (650 kW) Caterpillar Rich Burn Natural Gas Engines, Model G-399 SI-TA HCR, NSCR, Turbocharger, Aftercooler, Electricity Generating Engines (G-1A, G-1B)	126.72 MMCF/Yr NG	F	126.72 MMCF/Yr NG	
1 - 300 BHP Diesel Engine No. 1 (GM Model 8V92) (North Crane)	13,344 Gal/Yr ++	F	13,344 Gal/Yr ++	
1 - 300 BHP Diesel Engine No. 2 (GM Model 8V92) (South Crane)	*	F	*	
1 - 1006.30 MMBTU/Hr Kaldair Indair Flare, (High Pressure) Model I-15-H-VS, equipped with a Tulip/Coanda tip and two John Zink KEP-100 pilots with auto-ignition systems (installed 1994)	12.50 MMCF/Yr	F	12.50 MMCF/Yr	
1 - 218.8 MMBTU/Hr Kaldair Flare (Low Pressure), Model PLA-20 Air-assisted, equipped with two John Zink KEP-100 pilots with auto-ignition systems (installed 1994)	*	F	*	
1 - 120 BHP Detroit Diesel Emergency Engine, Model 500 Diesel, Serial No. 78-1804-1, I.D. P-19, used for fire suppression purposes	50 Hr/Yr ***	D	50 Hr/Yr	
1 - 198 BBL Slurry Tank UNC (T-23) **				
Boom Boat (Boomer)				
2 - 200 BHP Diesel Main Engines (Volvo Penta, Model AQAD41A)	469 Gal/Yr	F	469 Gal/Yr	
Crew Boat Engines				
Glenn C			35.392 Mgal/Yr	
4 - 510 BHP Diesel Main Engines (Detroit 12V71TI)				
2 - 124 BHP Diesel Generator Engines (Detroit 4-71N)				
ROC	1.61 TPY	F		
NOx	27.15 TPY	F		
PM	1.62 TPY	F		
SOx	0.36 TPY	F		
CO	4.93 TPY	F		
Doug C				
3 - 535 BHP Diesel Main Engines (Detroit 6062)	*	F	*	
2 - 50.5 BHP Diesel Generator Engines (Lugger L984)	*	F	*	
Jackie C				
4 - 510 BHP Diesel Main Engines (Detroit 12V71TI)	*	F	*	
2 - 65 BHP Diesel Generator Engines (Detroit 3-71)	*	F	*	
1- 89 BHP Diesel Fire Water Pump Engine (Detroit 4-71)	*	F	*	
Aces Wild				
3 - 510 BHP Diesel Main Engines (Detroit 12V71TI)	*	F	*	
2 - 65 BHP Diesel Generator Engines (Detroit 3-71)	*	F	*	
Wendy Tide				
4 - 510 BHP Diesel Main Engines (Detroit, 12V71TI)	*	F	*	
2 - 75 BHP Diesel Generator Engines (Detroit 3-71)	*	F	*	
Robbie Tide				
3 - 510 BHP Diesel Main Engines (Detroit 12V71TI)	*	F	*	
2 - 75 BHP Diesel Generator Engines (Detroit 3-71)	*	F	*	
Messenger				
3 - 510 BHP Diesel Main Engines (Detroit 12V71TI)	*	F	*	
2 - 75 BHP Diesel Generator Engines (Detroit 3-71)	*	F	*	
Danny C				
2 - 365 BHP Diesel Main Engines (Caterpillar 3406 C)	*	F	*	
1 - 40 BHP Diesel Generator Engine (Isuzu 4JB1)	*	F	*	
1 - 32 BHP Diesel Generator Engine (Northern Lights M20)	*	F	*	
1 - 46 BHP Diesel Hydraulic Engine (Detroit 271)	*	F	*	
Ace High				

TABLE NO. 3

VENTURA COUNTY AIR POLLUTION CONTROL DISTRICT
Permit to Operate No. 01493
Permitted Throughput/Consumption Limits

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Equipment	Throughput/Emissions Permit Limit	District (D)/ Federal(F) Enforceable	Calculation Throughput	Calculation Procedure
2 - 650 BHP Diesel Main Engines (Detroit 12V92TI)	*	F	*	
1 - 510 BHP Diesel Main Center Engine (Detroit 12V71TI)	*	F	*	
2 - 65 BHP Diesel Generator Engines (Detroit 3-71)	*	F	*	
Work Boat Engines				
San Miguel			61.4 MGal/Yr	
2 - 2000 BHP Diesel Main Engines (Caterpillar 3516B DITA SCAC)	*	F	*	
2 - 247 BHP Diesel Generator Engines (Caterpillar 3306 DIT)	*	F	*	
1 - 550 BHP Diesel Thruster Engine (Caterpillar 3408 DITA)	*	F	*	
1 - 315 BHP Diesel Compressor Engine (Caterpillar 3306 DITA)	*	F	*	
1 - 306 BHP Diesel Aux Pump Engine (Caterpillar 3406 DIT)	*	F	*	
1 - 273 BHP Diesel Winch Engine (Detroit 8V-71)	*	F	*	
O'Neil Tide				
2 - 1125 BHP Diesel Main Engines (Caterpillar D399T/A)	*	F	*	
2 - 243 BHP Diesel Generator Engines (Caterpillar 3306 DIT)	*	F	*	
1 - 325 BHP Diesel Thruster Engine (Caterpillar 3406 DIT)	*	F	*	
1 - 325 BHP Diesel Aux Fire Pump Engine (Caterpillar 3406 DIT)	*	F	*	
2 - 243 BHP Diesel Aux Liquid Pump Engines (Caterpillar 3306 DIT)	*	F	*	
Victory Seahorse				
2 - 2500 BHP Diesel Main Engines (EMD 16-645-ED3A)	*	F	*	
2 - 200 BHP Diesel Generator Engines (Detroit 8V-71)	*	F	*	
1 - 300 BHP Diesel Thruster Engine (Detroit 8V-71)	*	F	*	
Santa Cruz				
2 - 2000 BHP Diesel Main Engines (Caterpillar 3516B)	*	F	*	
2 - 245 BHP Diesel Generator Engines (Caterpillar 3306)	*	F	*	
1 - 515 BHP Diesel Thruster Engine (Caterpillar 3408)	*	F	*	
Toby Tide				
2 - 1125 BHP Diesel Main Engines (Caterpillar D399TA)	*	F	*	
2 - 200 BHP Diesel Generator Engines (Detroit 8V-71)	*	F	*	
1 - 300 BHP Diesel Thruster Engine (Detroit 8V-71)	*	F	*	
Sea Tide				
2 - 1220 BHP Diesel Main Engines (DDEC 12V149TI)	*	F	*	
2 - 200 BHP Diesel Generator Engines (Detroit 8V-71)	*	F	*	
1 - 200 BHP Diesel Thruster Engine (Detroit 6V-71)	*	F	*	
Robin J				
2 - 600 BHP Diesel Main Engines (GM 1692)	*	F	*	
2 - 21 BHP Diesel Generator Engines (GM 471)	*	F	*	
Jackie C				
4 - 510 BHP Diesel Main Engines (Detroit 12V71TI)	*	F	*	
2 - 65 BHP Diesel Generator Engines (Detroit 3-71)	*	F	*	
1- 89 BHP Diesel Fire Water Pump Engine (Detroit 4-71)	*	F	*	
Patriot II				
2 - 626 BHP Diesel Main Engines (Detroit 16V92)	*	F	*	
2 - 103 BHP Diesel Generator Engines (Detroit 4-71)	*	F	*	
1 - 103 BHP Diesel Fire Pump Engine (Detroit 4-71)	*	F	*	
Freedom				
2 - 626 BHP Diesel Main Engines (Detroit 16V92)	*	F	*	
2 - 76 BHP Diesel Generator Engines (Detroit 3-71)	*	F	*	
1 - 103 BHP Diesel Fire Pump Engine (Detroit 4-71)	*	F	*	
For Use Throughout Leases				
16 - Oil Wells (11 active wells)				
Exempt Equipment				
Wipe Cleaning Operation				

* - Included in Limit Above
++ - Crane Engine Limit w/ Active Wells is 7,344 Gal/Yr
** - Out of Service
*** - 50 Hr/Yr limitation is for maintenance of the engine. Emergency use is unlimited.

TABLE NO. 4

VENTURA COUNTY AIR POLLUTION CONTROL DISTRICT
Permit to Operate No. 01493
Permitted Emissions

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Equipment	TONS PER YEAR					POUNDS PER HOUR				
	ROC	NOx	PM	SOx	CO	ROC	NOx	PM	SOx	CO
Platform Grace										
1 - 321 BBL PWT (Waste Water Pump Tank) (T-24) VR	0.01					<0.01				
1 - 300 BBL COST ("Dirty" Oil) (T-3A) VR	0.02					<0.01				
1 - 300 BBL COST ("Dirty" Oil) (T-3B) VR	0.02					<0.01				
1 - 300 BBL Oil Pipeline Relief Tank (T-11) VR	0.01					<0.01				
1 - 200 BBL COST (Production Surge Vessel) (V-8) VR	4.86					1.11				
1 - 100 BBL Spare COST (T-10) VR **	<0.01					<0.01				
1 - 80 BBL PWT (Waste Water Sump Tank) (T-12) VR	<0.01					<0.01				
1 - 50 BBL Production Drain Tank (T-9) VR	<0.01					<0.01				
1 - 180 Sqft Waste Water Sump (T-13) Exempt < 5 mg/l	<0.01					<0.01				
1 - 33.57 Sqft Waste Water CPI Sump (T-2) Exempt < 5 mg/l	<0.01					<0.01				
1 - 773 BHP NG Rich Burn Waukesha Engine (G-03) NSCR	1.72	0.89	0.26	0.02	96.15	0.39	0.20	0.06	0.00	21.83
1 - 600 BHP Caterpillar Diesel Back-up Generator Engine (G-02)	0.93	13.11	0.94	0.21	2.85	1.41	19.98	1.43	0.32	4.35
3 - 915 BHP (650 kW) Caterpillar Rich Burn Natural Gas Engines, Model G-399 SI-TA HCR, NSCR, Turbocharger, Aftercooler, Electricity Generating Engines (G-6A, G-6B, G-6C)	0.57	0.58	0.3	0.02	5.02	0.41	0.42	0.22	0.01	3.61
2 - 915 BHP (650 kW) Caterpillar Rich Burn Natural Gas Engines, Model G-399 SI-TA HCR, NSCR, Turbocharger, Aftercooler, Electricity Generating Engines (G-1A, G-1B)	1.19	1.23	0.63	0.04	10.59	0.27	0.28	0.14	0.01	2.41
1 - 300 BHP Diesel Engine No. 1 (GM Model 8V92) (North Crane)	0.22	3.12	0.22	0.05	0.68	1.41	19.98	1.43	0.32	4.35
1 - 300 BHP Diesel Engine No. 2 (GM Model 8V92) (South Crane)	*	*	*	*	*	*	*	*	*	*
1 - 1006.30 MMBTU/Hr Kaldair Indair Flare, (High Pressure) Model I-15-H-VS, equipped with a Tulip/Coanda tip and two John Zink KEP-100 pilots with auto-ignition systems (installed 1994)	0.34	0.45	0.03	2.07	2.43	52.14	68.43	5.03	316.99	372.34
1 - 218.8 MMBTU/Hr Kaldair Flare (Low Pressure), Model PLA-20 Air-assisted, equipped with two John Zink KEP-100 pilots with auto-ignition systems (installed 1994)	*	*	*	*	*	11.34	14.88	1.09	68.93	80.96
1 - 120 BHP Detroit Diesel Emergency Engine, Model 500 Diesel, Serial No. 78-1804-1, I.D. P-19, used for fire suppression purposes	0.01	0.10	0.01	0.00	0.02	0.07	1.00	0.07	0.02	0.22
1 - 198 BBL Slurry Tank UNC (T-23) **										
Boom Boat (Boomer)										
2 - 200 BHP Diesel Main Engines (Volvo Penta, Model AQAD41A)	0.01	0.11	0.01	0.00	0.02	0.94	13.32	0.95	0.21	2.90
Crew Boats										
Glenn C										
4 - 510 BHP Diesel Main Engines (Detroit 12V71TI)	0.59	9.93	0.59	0.13	1.80	4.80	81.23	4.85	1.09	14.77
2 - 124 BHP Diesel Generator Engines (Detroit 4-71N)	*	*	*	*	*	0.58	9.87	0.59	0.13	1.80
Doug C										
3 - 535 BHP Diesel Main Engines (Detroit 6062)	*	*	*	*	*	*	*	*	*	*
2 - 50.5 BHP Diesel Generator Engines (Lugger L984)	*	*	*	*	*	*	*	*	*	*
Jackie C										
4 - 510 BHP Diesel Main Engines (Detroit 12V71TI)	*	*	*	*	*	*	*	*	*	*
2 - 65 BHP Diesel Generator Engines (Detroit 3-71)	*	*	*	*	*	*	*	*	*	*
1- 89 BHP Diesel Fire Water Pump Engine (Detroit 4-71)	*	*	*	*	*	*	*	*	*	*
Aces Wild										
3 - 510 BHP Diesel Main Engines (Detroit 12V71TI)	*	*	*	*	*	*	*	*	*	*
2 - 65 BHP Diesel Generator Engines (Detroit 3-71)	*	*	*	*	*	*	*	*	*	*
Wendy Tide										
4 - 510 BHP Diesel Main Engines (GMC, 12V71TI)	*	*	*	*	*	*	*	*	*	*
2 - 75 BHP Diesel Generator Engines (Detroit 3-71)	*	*	*	*	*	*	*	*	*	*
Robbie Tide										
3 - 510 BHP Diesel Main Engines (Detroit 12V71TI)	*	*	*	*	*	*	*	*	*	*
2 - 75 BHP Diesel Generator Engines (Detroit 3-71)	*	*	*	*	*	*	*	*	*	*
Messenger										
3 - 510 BHP Diesel Main Engines (Detroit 12V71TI)	*	*	*	*	*	*	*	*	*	*
2 - 75 BHP Diesel Generator Engines (Detroit 3-71)	*	*	*	*	*	*	*	*	*	*
Danny C										
2 - 365 BHP Diesel Main Engines (Caterpillar 3406 C)	*	*	*	*	*	*	*	*	*	*
1 - 40 BHP Diesel Generator Engine (Isuzu 4JB1)	*	*	*	*	*	*	*	*	*	*
1 - 32 BHP Diesel Generator Engine (Northern Lights M20)	*	*	*	*	*	*	*	*	*	*
1 - 46 BHP Diesel Hydraulic Engine (Detroit 271)	*	*	*	*	*	*	*	*	*	*
Ace High										
2 - 650 BHP Diesel Main Engines (Detroit 12V92TI)	*	*	*	*	*	*	*	*	*	*
1 - 510 BHP Diesel Main Center Engine (Detroit 12V71TI)	*	*	*	*	*	*	*	*	*	*

TABLE NO. 4

VENTURA COUNTY AIR POLLUTION CONTROL DISTRICT
Permit to Operate No. 01493
Permitted Emissions

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Equipment	TONS PER YEAR					POUNDS PER HOUR				
	ROC	NOx	PM	SOx	CO	ROC	NOx	PM	SOx	CO
2 - 65 BHP Diesel Generator Engines (Detroit 3-71)	*	*	*	*	*	*	*	*	*	*
Work Boat Engines										
San Miguel										
2 - 2000 BHP Diesel Main Engines (Caterpillar 3516B DITA SCAC)	1.02	17.22	1.03	0.23	3.13	7.71	130.49	7.79	1.74	23.73
2 - 247 BHP Diesel Generator Engines (Caterpillar 3306 DIT)	*	*	*	*	*	1.16	19.64	1.17	0.26	3.57
1 - 550 BHP Diesel Thruster Engine (Caterpillar 3408 DITA)	*	*	*	*	*	1.29	21.88	1.31	0.29	3.98
1 - 315 BHP Diesel Compressor Engine (Caterpillar 3306 DITA)	*	*	*	*	*	0.74	12.51	0.75	0.17	2.27
1 - 306 BHP Diesel Aux Pump Engine (Caterpillar 3406 DIT)	*	*	*	*	*	0.72	12.17	0.73	0.16	2.21
1 - 273 BHP Diesel Winch Engine (Detroit 8V-71)	*	*	*	*	*	0.64	10.88	0.65	0.15	1.98
O'Neil Tide										
2 - 1125 BHP Diesel Main Engines (Caterpillar D399T/A)	*	*	*	*	*	*	*	*	*	*
2 - 243 BHP Diesel Generator Engines (Caterpillar 3306 DIT)	*	*	*	*	*	*	*	*	*	*
1 - 325 BHP Diesel Thruster Engine (Caterpillar 3406 DIT)	*	*	*	*	*	*	*	*	*	*
1 - 325 BHP Diesel Aux Fire Pump Engine (Caterpillar 3406 DIT)	*	*	*	*	*	*	*	*	*	*
2 - 243 BHP Diesel Aux Liquid Pump Engines (Caterpillar 3306 DIT)	*	*	*	*	*	*	*	*	*	*
Victory Seahorse										
2 - 2500 BHP Diesel Main Engines (EMD 16-645-ED3A)	*	*	*	*	*	*	*	*	*	*
2 - 200 BHP Diesel Generator Engines (Detroit 8V-71)	*	*	*	*	*	*	*	*	*	*
1 - 300 BHP Diesel Thruster Engine (Detroit 8V-71)	*	*	*	*	*	*	*	*	*	*
Santa Cruz										
2 - 2000 BHP Diesel Main Engines (Caterpillar 3516B)	*	*	*	*	*	*	*	*	*	*
2 - 245 BHP Diesel Generator Engines (Caterpillar 3306)	*	*	*	*	*	*	*	*	*	*
1 - 515 BHP Diesel Thruster Engine (Caterpillar 3408)	*	*	*	*	*	*	*	*	*	*
Toby Tide										
2 - 1125 BHP Diesel Main Engines (Caterpillar D399TA)	*	*	*	*	*	*	*	*	*	*
2 - 200 BHP Diesel Generator Engines (Detroit 8V-71)	*	*	*	*	*	*	*	*	*	*
1 - 300 BHP Diesel Thruster Engine (Detroit 8V-71)	*	*	*	*	*	*	*	*	*	*
Sea Tide										
2 - 1220 BHP Diesel Main Engines (DDEC 12V149TI)	*	*	*	*	*	*	*	*	*	*
2 - 200 BHP Diesel Generator Engines (Detroit 8V-71)	*	*	*	*	*	*	*	*	*	*
1 - 200 BHP Diesel Thruster Engine (Detroit 6V-71)	*	*	*	*	*	*	*	*	*	*
Robin J										
2 - 600 BHP Diesel Main Engines (GM 1692)	*	*	*	*	*	*	*	*	*	*
2 - 21 BHP Diesel Generator Engines (GM 471)	*	*	*	*	*	*	*	*	*	*
Jackie C										
4 - 510 BHP Diesel Main Engines (Detroit 12V71TI)	*	*	*	*	*	*	*	*	*	*
2 - 65 BHP Diesel Generator Engines (Detroit 3-71)	*	*	*	*	*	*	*	*	*	*
1- 89 BHP Diesel Fire Water Pump Engine (Detroit 4-71)	*	*	*	*	*	*	*	*	*	*
Patriot II										
2 - 626 BHP Diesel Main Engines (Detroit 16V92)	*	*	*	*	*	*	*	*	*	*
2 - 103 BHP Diesel Generator Engines (Detroit 4-71)	*	*	*	*	*	*	*	*	*	*
1 - 103 BHP Diesel Fire Pump Engine (Detroit 4-71)	*	*	*	*	*	*	*	*	*	*
Freedom										
2 - 626 BHP Diesel Main Engines (Detroit 16V92)	*	*	*	*	*	*	*	*	*	*
2 - 76 BHP Diesel Generator Engines (Detroit 3-71)	*	*	*	*	*	*	*	*	*	*
1 - 103 BHP Diesel Fire Pump Engine (Detroit 4-71)	*	*	*	*	*	*	*	*	*	*
For Use Throughout Leases										
16 - Oil Wells (11 active wells)	5.84					1.33				
Exempt Equipment										
Solvent Wipe Cleaning Operation										
* - Included in Emissions Above ** - Out of Service										
Total Permitted Emissions	17.36	46.74	4.02	2.77	122.69	88.46	437.16	28.26	390.80	547.28

HAP Emissions Ref.: OCS HAP Emission Estimation Techniques and Calculations are included in the Reissuance Application and maintained at the facility.

Permitted Emissions Summary

Criteria Pollutants

01493-REN Platform Grace **Permit Period: 4/1/2011 to 3/31/2012**

	Tons per Year					Pounds Per Hour				
Equipment	**ROC**	**NOx**	**PM**	**SOx**	**CO**	**ROC**	**NOx**	**PM**	**SOx**	**CO**
1 - 321 Barrel Produced Water Tank	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1 - 300 Barrel Crude Oil Storage Tank	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1 - 300 Barrel Crude Oil Storage Tank	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1 - 300 Barrel Produced Water Tank	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1 - 200 Barrel Crude Oil Storage Tank	4.86	0.00	0.00	0.00	0.00	1.11	0.00	0.00	0.00	0.00
1 - 100 Barrel Crude Oil Storage Tank	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1 - 80 Barrel Produced Water Tank	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1 - 50 Barrel Produced Water Tank	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1 - 773 BHP Waukesha Natural Gas Engine	1.72	0.89	0.26	0.02	96.15	0.39	0.20	0.06	0.00	21.83
1 - 600 BHP Caterpillar Diesel Engine	0.93	13.11	0.94	0.21	2.85	1.41	19.98	1.43	0.32	4.35
3 - 915 BHP (650 kW Electrical Generator) Caterpillar Ric	0.57	0.58	0.30	0.02	5.02	0.41	0.42	0.22	0.01	3.61
2 - 915 BHP (650 kW Electrical Generator) Caterpillar Ric	1.19	1.23	0.63	0.04	10.59	0.27	0.28	0.14	0.01	2.41
1 - 300 BHP GM, Model 8V92, Diesel Engine	0.22	3.12	0.22	0.05	0.68	1.41	19.98	1.43	0.32	4.35
1 - 1006.3 MMBTU/hr Kaldair Indair Flare	0.34	0.45	0.03	2.07	2.43	52.14	68.43	5.03	316.99	372.34
1 [illegible] 8 MMBTU/hr Kaldair Indair Flare	0.00	0.00	0.00	0.00	0.00	11.34	14.88	1.09	68.93	80.96
1 - [illegible] BHP Detroit Bedford Diesel-Fired Emergency Stan	0.01	0.10	0.01	0.00	0.02	0.07	1.00	0.07	0.02	0.22
1 - 200 BHP Volvo Penta, Model AQAD41A, Diesel Engin	0.01	0.11	0.01	0.00	0.02	0.94	13.32	0.95	0.21	2.90
1 - Portable Engines for Operation of a Crew Boat - Glenn	0.59	9.93	0.59	0.13	1.80	0.00	0.00	0.00	0.00	0.00
4 - 510 BHP Detroit Diesel Engines	0.00	0.00	0.00	0.00	0.00	4.80	81.23	4.85	1.09	14.77
2 - 124 BHP Detroit Diesel Engines	0.00	0.00	0.00	0.00	0.00	0.58	9.87	0.59	0.13	1.80
1 - Portable Engines	1.02	17.22	1.03	0.23	3.13	0.00	0.00	0.00	0.00	0.00
2 - 2000 BHP Caterpillar Diesel Engines	0.00	0.00	0.00	0.00	0.00	7.71	130.49	7.79	1.74	23.73
2 - 247 BHP Caterpillar Diesel Engines	0.00	0.00	0.00	0.00	0.00	1.16	19.64	1.17	0.26	3.57
1 - 550 BHP Caterpillar Diesel Engine	0.00	0.00	0.00	0.00	0.00	1.29	21.88	1.31	0.29	3.98
1 - 315 BHP Caterpillar Diesel Engine	0.00	0.00	0.00	0.00	0.00	0.74	12.51	0.75	0.17	2.27
1 - 306 BHP Caterpillar Diesel Engine	0.00	0.00	0.00	0.00	0.00	0.72	12.17	0.73	0.16	2.21
1 - 273 BHP Detroit Diesel Engine	0.00	0.00	0.00	0.00	0.00	0.64	10.88	0.65	0.15	1.98
16 - Oil Wells	5.84	0.00	0.00	0.00	0.00	1.33	0.00	0.00	0.00	0.00
Total	17.36	46.74	4.02	2.77	122.69	88.46	437.16	28.26	390.80	547.28

Equipment and Emissions Summary

01493 - REN Platform Grace | Permit Period: 4/1/2011 to 3/31/2012 | SIC Code 1311 - Crude Oil Production

DEVICE NO: 14865 1 - 321 Barrel | Produced Water Tank (Waste Water Pump Tank, T-24)

SOURCE CLASSIFICATION CODE	SCC Units	Prmt Annual Throughput	Max Hourly Throughput	Hours Per Year (if used)
40301065 - Brth Ht 12-20' VP <1.5psi	bbl-Cap.	321.0000 bbl-Cap.	0.0366 bbl-Cap.	Calculate Hourly Using 8760 Hrs/Yr

POLLUTANT	Tons/Yr	Lbs/Hr	Uncntl EF	Cntl Factor	Cntl EF	APE?	HPE?	EF Over	CF Over	Control Device
Reactive Organics	0.01	0.00	0.3700	0.1000	0.0400	Y	Y		Y	Vapor Recovery (90%)

DEVICE NO: 14866 1 - 300 Barrel | Crude Oil Storage Tank ('Dirty' Oil, T-3A)

SOURCE CLASSIFICATION CODE	SCC Units	Prmt Annual Throughput	Max Hourly Throughput	Hours Per Year (if used)
40301061 - Brth Ht<12' VP <1.5 psi	bbl-Cap.	300.0000 bbl-Cap.	0.0342 bbl-Cap.	Calculate Hourly Using 8760 Hrs/Yr

POLLUTANT	Tons/Yr	Lbs/Hr	Uncntl EF	Cntl Factor	Cntl EF	APE?	HPE?	EF Over	CF Over	Control Device
Reactive Organics	0.01	0.00	0.4300	0.1000	0.0400	Y	Y		Y	Vapor Recovery (90%)

SOURCE CLASSIFICATION CODE	SCC Units	Prmt Annual Throughput	Max Hourly Throughput	Hours Per Year (if used)
40301081 - Work VP <1.5 psi	Mbbl	20.0000 Mbbl	0.0023 Mbbl	Calculate Hourly Using 8760 Hrs/Yr

POLLUTANT	Tons/Yr	Lbs/Hr	Uncntl EF	Cntl Factor	Cntl EF	APE?	HPE?	EF Over	CF Over	Control Device
Reactive Organics	0.01	0.00	12.2300	0.1000	1.2200	Y	Y		Y	Vapor Recovery (90%)

DEVICE NO: 14867 1 - 300 Barrel | Crude Oil Storage Tank ('Dirty' Oil, T-3B)

SOURCE CLASSIFICATION CODE	SCC Units	Prmt Annual Throughput	Max Hourly Throughput	Hours Per Year (if used)
40301061 - Brth Ht<12' VP <1.5 psi	bbl-Cap.	300.0000 bbl-Cap.	0.0342 bbl-Cap.	Calculate Hourly Using 8760 Hrs/Yr

POLLUTANT	Tons/Yr	Lbs/Hr	Uncntl EF	Cntl Factor	Cntl EF	APE?	HPE?	EF Over	CF Over	Control Device
Reactive Organics	0.01	0.00	0.4300	0.1000	0.0400	Y	Y		Y	Vapor Recovery (90%)

SOURCE CLASSIFICATION CODE	SCC Units	Prmt Annual Throughput	Max Hourly Throughput	Hours Per Year (if used)
40301081 - Work VP <1.5 psi	Mbbl	20.0000 Mbbl	0.0023 Mbbl	Calculate Hourly Using 8760 Hrs/Yr

POLLUTANT	Tons/Yr	Lbs/Hr	Uncntl EF	Cntl Factor	Cntl EF	APE?	HPE?	EF Over	CF Over	Control Device
Reactive Organics	0.01	0.00	12.2300	0.1000	1.2200	Y	Y		Y	Vapor Recovery (90%)

Equipment and Emissions Summary

01493 - REN Platform Grace | Permit Period: 4/1/2011 to 3/31/2012 | SIC Code 1311 - Crude Oil Production

DEVICE NO: 14868 1 - 300 Barrel | Produced Water Tank (Oil Pipeline Relief Tank, T-11)

SOURCE CLASSIFICATION CODE	SCC Units	Prmt Annual Throughput	Max Hourly Throughput	Hours Per Year (if used)
40301061 - Brth Ht<12' VP <1.5 psi	bbl-Cap.	300.0000 bbl-Cap.	0.0342 bbl-Cap.	Calculate Hourly Using 8760 Hrs/Yr

POLLUTANT	Tons/Yr	Lbs/Hr	Uncntl EF	Cntl Factor	Cntl EF	APE?	HPE?	EF Over	CF Over	Control Device
Reactive Organics	0.01	0.00	0.4300	0.1000	0.0400	Y	Y		Y	Vapor Recovery (90%)

DEVICE NO: 14869 1 - 200 Barrel | Crude Oil Storage Tank (Production Surge Vessel, V-8)

SOURCE CLASSIFICATION CODE	SCC Units	Prmt Annual Throughput	Max Hourly Throughput	Hours Per Year (if used)
40301066 - Brth Ht 12-20' VP 1.5-3.0	bbl-Cap.	200.0000 bbl-Cap.	0.0228 bbl-Cap.	Calculate Hourly Using 8760 Hrs/Yr

POLLUTANT	Tons/Yr	Lbs/Hr	Uncntl EF	Cntl Factor	Cntl EF	APE?	HPE?	EF Over	CF Over	Control Device
Reactive Organics	0.01	0.00	0.8500	0.1000	0.0900	Y	Y		Y	Vapor Recovery (90%)

SOURCE CLASSIFICATION CODE	SCC Units	Prmt Annual Throughput	Max Hourly Throughput	Hours Per Year (if used)
40301082 - Work VP 1.5-3.0psi	Mbbl	3960.0000 Mbbl	0.4521 Mbbl	Calculate Hourly Using 8760 Hrs/Yr

POLLUTANT	Tons/Yr	Lbs/Hr	Uncntl EF	Cntl Factor	Cntl EF	APE?	HPE?	EF Over	CF Over	Control Device
Reactive Organics	4.85	1.11	24.4700	0.1000	2.4500	Y	Y		Y	Vapor Recovery (90%)

DEVICE NO: 14870 1 - 100 Barrel | Crude Oil Storage Tank (Spare, T-10), Out of Service

SOURCE CLASSIFICATION CODE	SCC Units	Prmt Annual Throughput	Max Hourly Throughput	Hours Per Year (if used)
40301061 - Brth Ht<12' VP <1.5 psi	bbl-Cap.	100.0000 bbl-Cap.	0.0114 bbl-Cap.	Calculate Hourly Using 8760 Hrs/Yr

POLLUTANT	Tons/Yr	Lbs/Hr	Uncntl EF	Cntl Factor	Cntl EF	APE?	HPE?	EF Over	CF Over	Control Device
Reactive Organics	0.00	0.00	0.4300	0.1000	0.0400	Y	Y		Y	Vapor Recovery (90%)

DEVICE NO: 14873 1 - 80 Barrel | Produced Water Tank (Waste Water Sump Tank, T-12)

SOURCE CLASSIFICATION CODE	SCC Units	Prmt Annual Throughput	Max Hourly Throughput	Hours Per Year (if used)
40301061 - Brth Ht<12' VP <1.5 psi	bbl-Cap.	80.0000 bbl-Cap.	0.0091 bbl-Cap.	Calculate Hourly Using 8760 Hrs/Yr

POLLUTANT	Tons/Yr	Lbs/Hr	Uncntl EF	Cntl Factor	Cntl EF	APE?	HPE?	EF Over	CF Over	Control Device
Reactive Organics	0.00	0.00	0.4300	0.1000	0.0400	Y	Y		Y	Vapor Recovery (90%)

Equipment and Emissions Summary

01493 - REN Platform Grace | Permit Period: 4/1/2011 to 3/31/2012 | SIC Code 1311 - Crude Oil Production

DEVICE NO: 14874 1 - 50 Barrel | Produced Water Tank (Production Drain Tank, T-9)

SOURCE CLASSIFICATION CODE	SCC Units	Prmt Annual Throughput	Max Hourly Throughput	Hours Per Year (if used)
40301061 - Brth Ht<12' VP <1.5 psi	bbl-Cap.	50.0000 bbl-Cap.	0.0057 bbl-Cap.	Calculate Hourly Using 8760 Hrs/Yr

POLLUTANT	Tons/Yr	Lbs/Hr	Uncntl EF	Cntl Factor	Cntl EF	APE?	HPE?	EF Over	CF Over	Control Device
Reactive Organics	0.00	0.00	0.4300	0.1000	0.0400	Y	Y		Y	Vapor Recovery (90%)

DEVICE NO: 14877 1 - 773 BHP | Waukesha Natural Gas Engine (G-03), rich burn, equipped with NSCR

SOURCE CLASSIFICATION CODE	SCC Units	Prmt Annual Throughput	Max Hourly Throughput	Hours Per Year (if used)
20200202 - Natural Gas ICE <1000 B	MMcf	51.1000 MMcf	5.8370 Mcf	

POLLUTANT	Tons/Yr	Lbs/Hr	Uncntl EF	Cntl Factor	Cntl EF	APE?	HPE?	EF Over	CF Over	Control Device
Reactive Organics	1.72	0.39	67.2000	1.0000	67.2000	Y	Y	Y	Y	
Nitrogen Oxides	0.89	0.20	34.8000	1.0000	34.8000	Y	Y	Y	Y	ICE NOx Control
Particulate Matter	0.26	0.06	10.0000	1.0000	10.0000	Y	Y		Y	
Sulfur Oxides	0.02	0.00	0.6000	1.0000	0.6000	Y	Y		Y	
Carbon Monoxide	96.15	21.83	3763.2000	1.0000	3763.2000	Y	Y	Y	Y	

DEVICE NO: 14880 1 - 600 BHP | Caterpillar Diesel Engine (Back-Up Generator, G-02)

SOURCE CLASSIFICATION CODE	SCC Units	Prmt Annual Throughput	Max Hourly Throughput	Hours Per Year (if used)
20200102 - Diesel ICE - Industrial	Mgal	55.9000 Mgal	600.0000 BHP-d<1000	

POLLUTANT	Tons/Yr	Lbs/Hr	Uncntl EF	Cntl Factor	Cntl EF	APE?	HPE?	EF Over	CF Over	Control Device
Reactive Organics	0.93	1.41	33.1500	1.0000	33.1500	Y	Y		Y	
Nitrogen Oxides	13.11	19.98	469.0000	1.0000	469.0000	Y	Y		Y	
Particulate Matter	0.94	1.43	33.5000	1.0000	33.5000	Y	Y		Y	
Sulfur Oxides	0.21	0.32	75.0000	0.1000	7.5000	Y	Y		Y	Low Sulfur 0.05 fuel
Carbon Monoxide	2.85	4.35	102.0000	1.0000	102.0000	Y	Y		Y	

Equipment and Emissions Summary

01493 - REN Platform Grace | Permit Period: 4/1/2011 to 3/31/2012 | SIC Code 1311 - Crude Oil Production

DEVICE NO: 18994 3 - 915 BHP

(650 kW Electrical Generator) Caterpillar Rich Burn Natural Gas Engines, Model G-399 SI-TA HCR, equipped with Non Selective Catalytic Reduction (NSCR), Turbocharger and Aftercooler (G-6A, G-6B, G-6C)

SOURCE CLASSIFICATION CODE	SCC Units	Prmt Annual Throughput	Max Hourly Throughput	Hours Per Year (if used)
20200202 - Natural Gas ICE <1000 B	MMcf	20.0000 MMcf	7.2330 Mcf	

POLLUTANT	Tons/Yr	Lbs/Hr	Uncntl EF	Cntl Factor	Cntl EF	APE?	HPE?	EF Over	CF Over	Control Device
Reactive Organics	0.57	0.41	18.8400	1.0000	18.8400	Y	Y	Y	Y	
Nitrogen Oxides	0.58	0.42	19.3400	1.0000	19.3400	Y	Y	Y	Y	
Particulate Matter	0.30	0.22	10.0000	1.0000	10.0000	Y	Y		Y	
Sulfur Oxides	0.02	0.01	0.6000	1.0000	0.6000	Y	Y		Y	
Carbon Monoxide	5.02	3.61	167.1800	1.0000	167.1800	Y	Y	Y	Y	

Limit is 60.0 MMCF for 3 units, 14 ppm ROC, 5 ppm NOx, 71 ppm CO

DEVICE NO: 18995 2 - 915 BHP

(650 kW Electrical Generator) Caterpillar Rich Burn Natural Gas Engines, Model G-399 SI-TA HCR, equipped with Non Selective Catalytic Reduction (NSCR), Turbocharger and Aftercooler, (G-1A, G-1B)

SOURCE CLASSIFICATION CODE	SCC Units	Prmt Annual Throughput	Max Hourly Throughput	Hours Per Year (if used)
20200202 - Natural Gas ICE <1000 B	MMcf	63.3600 MMcf	7.2330 Mcf	

POLLUTANT	Tons/Yr	Lbs/Hr	Uncntl EF	Cntl Factor	Cntl EF	APE?	HPE?	EF Over	CF Over	Control Device
Reactive Organics	1.19	0.27	18.8400	1.0000	18.8400	Y	Y	Y	Y	
Nitrogen Oxides	1.23	0.28	19.3400	1.0000	19.3400	Y	Y	Y	Y	
Particulate Matter	0.63	0.14	10.0000	1.0000	10.0000	Y	Y		Y	
Sulfur Oxides	0.04	0.01	0.6000	1.0000	0.6000	Y	Y		Y	
Carbon Monoxide	10.59	2.41	167.1800	1.0000	167.1800	Y	Y	Y	Y	

63.36 is 8,760 hr/yr, 14 ppm ROC, 5 ppm NOx, 71 ppm CO

Equipment and Emissions Summary

01493 - REN Platform Grace | Permit Period: 4/1/2011 to 3/31/2012 | SIC Code 1311 - Crude Oil Production

DEVICE NO: 14881 1 - 300 BHP | GM, Model 8V92, Diesel Engine (North Crane, No. 1)

SOURCE CLASSIFICATION CODE	SCC Units	Prmt Annual Throughput	Max Hourly Throughput	Hours Per Year (if used)
20200102 - Diesel ICE - Industrial	Mgal	13.3000 Mgal	600.0000 BHP-d<1000	

POLLUTANT	Tons/Yr	Lbs/Hr	Uncntl EF	Cntl Factor	Cntl EF	APE?	HPE?	EF Over	CF Over	Control Device
Reactive Organics	0.22	1.41	33.1500	1.0000	33.1500	Y	Y		Y	
Nitrogen Oxides	3.12	19.98	469.0000	1.0000	469.0000	Y	Y		Y	
Particulate Matter	0.22	1.43	33.5000	1.0000	33.5000	Y	Y		Y	
Sulfur Oxides	0.05	0.32	75.0000	0.1000	7.5000	Y	Y		Y	Low Sulfur 0.05 fuel
Carbon Monoxide	0.68	4.35	102.0000	1.0000	102.0000	Y	Y		Y	

DEVICE NO: 14884 1 - 1006.3 MMBTU/hr | Kaldair Indair Flare, (High Pressure) Model I-15-H-VS, equipped with a Tulip/Coanda tip and two John Zink KEP-100 pilots with auto-ignition systems (installed 1994)

SOURCE CLASSIFICATION CODE	SCC Units	Prmt Annual Throughput	Max Hourly Throughput	Hours Per Year (if used)
10201302 - Flare	MMcf	12.5000 MMcf	1006.3000 MMBTU NG	

POLLUTANT	Tons/Yr	Lbs/Hr	Uncntl EF	Cntl Factor	Cntl EF	APE?	HPE?	EF Over	CF Over	Control Device
Reactive Organics	0.34	52.14	54.4000	1.0000	54.4000	Y	Y		Y	
Nitrogen Oxides	0.45	68.43	71.4000	1.0000	71.4000	Y	Y		Y	
Particulate Matter	0.03	5.03	5.2500	1.0000	5.2500	Y	Y		Y	
Sulfur Oxides	2.07	316.99	330.7500	1.0000	330.7500	Y	Y	Y	Y	
Carbon Monoxide	2.43	372.34	388.5000	1.0000	388.5000	Y	Y		Y	

DEVICE NO: 14885 1 - 218.8 MMBTU/hr | Kaldair Indair Flare (Low Pressure), Model PLA-20, Air-assisted, equipped with two John Zink KEP-100 pilots with auto-ignition systems (installed 1994)

SOURCE CLASSIFICATION CODE	SCC Units	Prmt Annual Throughput	Max Hourly Throughput	Hours Per Year (if used)
10201302 - Flare	MMcf	0.0000 MMcf	218.8000 MMBTU NG	

POLLUTANT	Tons/Yr	Lbs/Hr	Uncntl EF	Cntl Factor	Cntl EF	APE?	HPE?	EF Over	CF Over	Control Device
Reactive Organics	0.00	11.34	54.4000	1.0000	54.4000	Y	Y		Y	
Nitrogen Oxides	0.00	14.88	71.4000	1.0000	71.4000	Y	Y		Y	
Particulate Matter	0.00	1.09	5.2500	1.0000	5.2500	Y	Y		Y	
Sulfur Oxides	0.00	68.93	330.7500	1.0000	330.7500	Y	Y	Y	Y	
Carbon Monoxide	0.00	80.96	388.5000	1.0000	388.5000	Y	Y		Y	

Equipment and Emissions Summary

01493 - REN Platform Grace | Permit Period: 4/1/2011 to 3/31/2012 | SIC Code 1311 - Crude Oil Production

DEVICE NO: 17407 1 - 120 BHP

Detroit Bedford Diesel-Fired Emergency Standby Engine, Model 500 Diesel, Serial No. 78-1804-1, I.D. P-19, used for fire suppression purposes

SOURCE CLASSIFICATION CODE	SCC Units	Prmt Annual Throughput	Max Hourly Throughput	Hours Per Year (if used)
20200103 - Diesel ICE - g/hp-hr<1000	BHP-g<1000	6000.0000 BHP-d<1000	30.0000 BHP-d<1000	Calculate Hourly Using 200 Hrs/Yr

POLLUTANT	Tons/Yr	Lbs/Hr	Uncntl EF	Cntl Factor	Cntl EF	APE?	HPE?	EF Over	CF Over	Control Device
Reactive Organics	0.01	0.07	1.0700	1.0000	1.0700	Y	Y		Y	
Nitrogen Oxides	0.10	1.00	15.1000	1.0000	15.1000	Y	Y		Y	
Particulate Matter	0.01	0.07	1.0800	1.0000	1.0800	Y	Y		Y	
Sulfur Oxides	0.00	0.02	2.4200	0.1000	0.2400	Y	Y		Y	Low Sulfur 0.05 fuel
Carbon Monoxide	0.02	0.22	3.2800	1.0000	3.2800	Y	Y		Y	

DEVICE NO: 14892 1 - 200 BHP

Volvo Penta, Model AQAD41A, Diesel Engine (Main)

SOURCE CLASSIFICATION CODE	SCC Units	Prmt Annual Throughput	Max Hourly Throughput	Hours Per Year (if used)
20200102 - Diesel ICE - Industrial	Mgal	0.4690 Mgal	400.0000 BHP-d<1000	

POLLUTANT	Tons/Yr	Lbs/Hr	Uncntl EF	Cntl Factor	Cntl EF	APE?	HPE?	EF Over	CF Over	Control Device
Reactive Organics	0.01	0.94	33.1500	1.0000	33.1500	Y	Y		Y	
Nitrogen Oxides	0.11	13.32	469.0000	1.0000	469.0000	Y	Y		Y	
Particulate Matter	0.01	0.95	33.5000	1.0000	33.5000	Y	Y		Y	
Sulfur Oxides	0.00	0.21	75.0000	0.1000	7.5000	Y	Y		Y	Low Sulfur 0.05 fuel
Carbon Monoxide	0.02	2.90	102.0000	1.0000	102.0000	Y	Y		Y	

DEVICE NO: 17668 1 - 0

Portable Engines for Operation of a Crew Boat - Glenn C

SOURCE CLASSIFICATION CODE	SCC Units	Prmt Annual Throughput	Max Hourly Throughput	Hours Per Year (if used)
20200102 - Diesel ICE - Industrial	Mgal	35.3920 Mgal	0.0000 Mgal	

POLLUTANT	Tons/Yr	Lbs/Hr	Uncntl EF	Cntl Factor	Cntl EF	APE?	HPE?	EF Over	CF Over	Control Device
Reactive Organics	0.59	0.00	33.1500	1.0000	33.1500	Y	Y		Y	
Nitrogen Oxides	9.93	0.00	561.0000	1.0000	561.0000	Y	Y	Y	Y	
Particulate Matter	0.59	0.00	33.5000	1.0000	33.5000	Y	Y		Y	
Sulfur Oxides	0.13	0.00	75.0000	0.1000	7.5000	Y	Y		Y	Low Sulfur 0.05 fuel
Carbon Monoxide	1.80	0.00	102.0000	1.0000	102.0000	Y	Y		Y	

Equipment and Emissions Summary

01493 - REN Platform Grace | Permit Period: 4/1/2011 to 3/31/2012 | SIC Code 1311 - Crude Oil Production

DEVICE NO: 17669 4 - 510 BHP | Detroit Diesel Engines, Model 12V71T1, Main Engines

SOURCE CLASSIFICATION CODE	SCC Units	Prmt Annual Throughput	Max Hourly Throughput	Hours Per Year (if used)
20200102 - Diesel ICE - Industrial	Mgal	0.0000 Mgal	510.0000 BHP-d<1000	

POLLUTANT	Tons/Yr	Lbs/Hr	Uncntl EF	Cntl Factor	Cntl EF	APE?	HPE?	EF Over	CF Over	Control Device
Reactive Organics	0.00	4.80	33.1500	1.0000	33.1500	Y	Y		Y	
Nitrogen Oxides	0.00	81.23	561.0000	1.0000	561.0000	Y	Y	Y	Y	
Particulate Matter	0.00	4.85	33.5000	1.0000	33.5000	Y	Y		Y	
Sulfur Oxides	0.00	1.09	75.0000	0.1000	7.5000	Y	Y		Y	Low Sulfur 0.05 fuel
Carbon Monoxide	0.00	14.77	102.0000	1.0000	102.0000	Y	Y		Y	

DEVICE NO: 17670 2 - 124 BHP | Detroit Diesel Engines, Model 4-71N, Generator Engines

SOURCE CLASSIFICATION CODE	SCC Units	Prmt Annual Throughput	Max Hourly Throughput	Hours Per Year (if used)
20200102 - Diesel ICE - Industrial	Mgal	0.0000 Mgal	124.0000 BHP-d<1000	

POLLUTANT	Tons/Yr	Lbs/Hr	Uncntl EF	Cntl Factor	Cntl EF	APE?	HPE?	EF Over	CF Over	Control Device
Reactive Organics	0.00	0.58	33.1500	1.0000	33.1500	Y	Y		Y	
Nitrogen Oxides	0.00	9.87	561.0000	1.0000	561.0000	Y	Y	Y	Y	
Particulate Matter	0.00	0.59	33.5000	1.0000	33.5000	Y	Y		Y	
Sulfur Oxides	0.00	0.13	75.0000	0.1000	7.5000	Y	Y		Y	Low Sulfur 0.05 fuel
Carbon Monoxide	0.00	1.80	102.0000	1.0000	102.0000	Y	Y		Y	

DEVICE NO: 14934 1 - 0 | Portable Engines for Operation of Work Boat - San Miguel

SOURCE CLASSIFICATION CODE	SCC Units	Prmt Annual Throughput	Max Hourly Throughput	Hours Per Year (if used)
20200102 - Diesel ICE - Industrial	Mgal	61.4000 Mgal	0.0000 Mgal	

POLLUTANT	Tons/Yr	Lbs/Hr	Uncntl EF	Cntl Factor	Cntl EF	APE?	HPE?	EF Over	CF Over	Control Device
Reactive Organics	1.02	0.00	33.1500	1.0000	33.1500	Y	Y		Y	
Nitrogen Oxides	17.22	0.00	561.0000	1.0000	561.0000	Y	Y	Y	Y	
Particulate Matter	1.03	0.00	33.5000	1.0000	33.5000	Y	Y		Y	
Sulfur Oxides	0 23	0.00	75.0000	0.1000	7.5000	Y	Y		Y	Low Sulfur 0.05 fuel
Carbon Monoxide	3.13	0.00	102.0000	1.0000	102.0000	Y	Y		Y	

Equipment and Emissions Summary

01493 - REN Platform Grace | Permit Period: 4/1/2011 to 3/31/2012 | SIC Code 1311 - Crude Oil Production

DEVICE NO: 14935 2 - 2000 BHP — Caterpillar Diesel Engines, Model 3516B DITA SCAC, Main Engines

SOURCE CLASSIFICATION CODE	SCC Units	Prmt Annual Throughput	Max Hourly Throughput	Hours Per Year (if used)
20200102 - Diesel ICE - Industrial	Mgal	0.0000 Mgal	2000.0000 BHP-d>1000	

POLLUTANT	Tons/Yr	Lbs/Hr	Uncntl EF	Cntl Factor	Cntl EF	APE?	HPE?	EF Over	CF Over	Control Device
Reactive Organics	0.00	7.71	33.1500	1.0000	33.1500	Y	Y		Y	
Nitrogen Oxides	0.00	130.49	561.0000	1.0000	561.0000	Y	Y	Y	Y	
Particulate Matter	0.00	7.79	33.5000	1.0000	33.5000	Y	Y		Y	
Sulfur Oxides	0.00	1.74	75.0000	0.1000	7.5000	Y	Y		Y	Low Sulfur 0.05 fuel
Carbon Monoxide	0.00	23.73	102.0000	1.0000	102.0000	Y	Y		Y	

DEVICE NO: 14936 2 - 247 BHP — Caterpillar Diesel Engines, Model 3306 DIT, Generator Engines

SOURCE CLASSIFICATION CODE	SCC Units	Prmt Annual Throughput	Max Hourly Throughput	Hours Per Year (if used)
20200102 - Diesel ICE - Industrial	Mgal	0.0000 Mgal	247.0000 BHP-d<1000	

POLLUTANT	Tons/Yr	Lbs/Hr	Uncntl EF	Cntl Factor	Cntl EF	APE?	HPE?	EF Over	CF Over	Control Device
Reactive Organics	0.00	1.16	33.1500	1.0000	33.1500	Y	Y		Y	
Nitrogen Oxides	0.00	19.64	561.0000	1.0000	561.0000	Y	Y	Y	Y	
Particulate Matter	0.00	1.17	33.5000	1.0000	33.5000	Y	Y		Y	
Sulfur Oxides	0.00	0.26	75.0000	0.1000	7.5000	Y	Y		Y	Low Sulfur 0.05 fuel
Carbon Monoxide	0.00	3.57	102.0000	1.0000	102.0000	Y	Y		Y	

DEVICE NO: 14937 1 - 550 BHP — Caterpillar Diesel Engine, Model 3408 DITA, Thruster Engine

SOURCE CLASSIFICATION CODE	SCC Units	Prmt Annual Throughput	Max Hourly Throughput	Hours Per Year (if used)
20200102 - Diesel ICE - Industrial	Mgal	0.0000 Mgal	550.0000 BHP-d<1000	

POLLUTANT	Tons/Yr	Lbs/Hr	Uncntl EF	Cntl Factor	Cntl EF	APE?	HPE?	EF Over	CF Over	Control Device
Reactive Organics	0.00	1.29	33.1500	1.0000	33.1500	Y	Y		Y	
Nitrogen Oxides	0.00	21.88	561.0000	1.0000	561.0000	Y	Y	Y	Y	
Particulate Matter	0.00	1.31	33.5000	1.0000	33.5000	Y	Y		Y	
Sulfur Oxides	0.00	0.29	75.0000	0.1000	7.5000	Y	Y		Y	Low Sulfur 0.05 fuel
Carbon Monoxide	0.00	3.98	102.0000	1.0000	102.0000	Y	Y		Y	

Equipment and Emissions Summary

01493 - REN Platform Grace | Permit Period: 4/1/2011 to 3/31/2012 | SIC Code 1311 - Crude Oil Production

DEVICE NO: 14938 1 - 315 BHP — Caterpillar Diesel Engine, Model 3306 DITA, Compressor Engine

SOURCE CLASSIFICATION CODE	SCC Units	Prmt Annual Throughput	Max Hourly Throughput	Hours Per Year (if used)
20200102 - Diesel ICE - Industrial	Mgal	0.0000 Mgal	315.0000 BHP-d<1000	

POLLUTANT	Tons/Yr	Lbs/Hr	Uncntl EF	Cntl Factor	Cntl EF	APE?	HPE?	EF Over	CF Over	Control Device
Reactive Organics	0.00	0.74	33.1500	1.0000	33.1500	Y	Y		Y	
Nitrogen Oxides	0.00	12.51	561.0000	1.0000	561.0000	Y	Y	Y	Y	
Particulate Matter	0.00	0.75	33.5000	1.0000	33.5000	Y	Y		Y	
Sulfur Oxides	0.00	0.17	75.0000	0.1000	7.5000	Y	Y		Y	Low Sulfur 0.05 fuel
Carbon Monoxide	0.00	2.27	102.0000	1.0000	102.0000	Y	Y		Y	

DEVICE NO: 14939 1 - 306 BHP — Caterpillar Diesel Engine, Model 3406 DIT, Aux Pump Engine

SOURCE CLASSIFICATION CODE	SCC Units	Prmt Annual Throughput	Max Hourly Throughput	Hours Per Year (if used)
20200102 - Diesel ICE - Industrial	Mgal	0.0000 Mgal	306.0000 BHP-d<1000	

POLLUTANT	Tons/Yr	Lbs/Hr	Uncntl EF	Cntl Factor	Cntl EF	APE?	HPE?	EF Over	CF Over	Control Device
Reactive Organics	0.00	0.72	33.1500	1.0000	33.1500	Y	Y		Y	
Nitrogen Oxides	0.00	12.17	561.0000	1.0000	561.0000	Y	Y	Y	Y	
Particulate Matter	0.00	0.73	33.5000	1.0000	33.5000	Y	Y		Y	
Sulfur Oxides	0.00	0.16	75.0000	0.1000	7.5000	Y	Y		Y	Low Sulfur 0.05 fuel
Carbon Monoxide	0.00	2.21	102.0000	1.0000	102.0000	Y	Y		Y	

DEVICE NO: 14940 1 - 273 BHP — Detroit Diesel Engine, Model 8V-71, Winch Engine

SOURCE CLASSIFICATION CODE	SCC Units	Prmt Annual Throughput	Max Hourly Throughput	Hours Per Year (if used)
20200102 - Diesel ICE - Industrial	Mgal	0.0000 Mgal	273.0000 BHP-d<1000	

POLLUTANT	Tons/Yr	Lbs/Hr	Uncntl EF	Cntl Factor	Cntl EF	APE?	HPE?	EF Over	CF Over	Control Device
Reactive Organics	0.00	0.64	33.1500	1.0000	33.1500	Y	Y		Y	
Nitrogen Oxides	0.00	10.88	561.0000	1.0000	561.0000	Y	Y	Y	Y	
Particulate Matter	0.00	0.65	33.5000	1.0000	33.5000	Y	Y		Y	
Sulfur Oxides	0.00	0.15	75.0000	0.1000	7.5000	Y	Y		Y	Low Sulfur 0.05 fuel
Carbon Monoxide	0.00	1.98	102.0000	1.0000	102.0000	Y	Y		Y	

Equipment and Emissions Summary

01493 - REN Platform Grace | Permit Period: 4/1/2011 to 3/31/2012 | SIC Code 1311 - Crude Oil Production

DEVICE NO: 14905 16 - 0 | Oil Wells (11 active wells)

SOURCE CLASSIFICATION CODE	SCC Units	Prmt Annual Throughput	Max Hourly Throughput	Hours Per Year (if used)
31000122 - Crude Oil Well	Well-Day	365.0000 Well-Day	0.0417 Well-Day	Calculate Hourly Using 8760 Hrs/Yr

POLLUTANT	Tons/Yr	Lbs/Hr	Uncntl EF	Cntl Factor	Cntl EF	APE?	HPE?	EF Over	CF Over	Control Device
Reactive Organics	5.84	1.33	2.0000	1.0000	2.0000	Y	Y		Y	

AIR TOXICS EMISSIONS SUMMARY REPORT

The following two pages are the Air Toxics Emissions Summary Report for this facility. Toxic combustion emissions (first page) were determined based on fuel use reported for Calendar Year 2011. Non-combustion emissions, as weight fractions of ROCs, were not quantifiable with available data. The second page of this report shows ROC emissions, given as permit limits since they were not quantified directly.

Venoco Platform Grace - Part 70 Permit No. 01493
Air Toxics "Hot Spots" Emissions Summary Report - 2011

Combustion Sources		Annual	
Source	Fuel Type	Fuel Usage[a]	Fuel Units
HP & LP Flares	Gas	4.62	mmscf
Generator G3	Gas	0.63	mmscf
Back-up Generator G2	Diesel	1.516	1000 gal
Cranes	Diesel	3.664	1000 gal
48 hp Starter Engine	Diesel	0.057	1000 gal
Em. Firewater Pump	Diesel	0.026	1000 gal
Portable Equipment	Diesel	1.094	1000 gal
Crew Boats	Diesel	56.638	1000 gal
Supply Boats	Diesel	17.038	1000 gal

[a] Fuel usage is from 2011 Annual Equipment Usage Report for PTO No. 01493

Total flaring	4.62	mmscf
Total gas-fired ICE	0.63	mmscf
Total diesel	80.0	1000 gal

	Combustion Emission Factors			**Combustion Emissions (lb/yr)[b]**				
Pollutant Emissions	Flare[S1] (lb/mmscf)	Gas-Fired ICE[S2] (lb/mmscf)	Diesel[S3] (lb/1000 gal)	Flaring	Gas ICE	Diesel	Total Non-Cancer	Total Cancer
benzene	0.159	1.98	0.1863	0.73	1.25	14.91	16.89	1.98
formaldehyde	1.169	56.30	1.7261	5.40	35.47	138.14	179.02	40.87
PAH's (incl naphthalene)	0.014	0.14	0.0559	0.06	0.09	4.47	4.62	0.15
naphthalene	0.011	0.10	0.0197	0.05	0.06	1.58	1.69	0.11
acetaldehyde	0.043	7.92	0.7833	0.20	4.99	62.69	67.88	5.19
acrolein	0.01	7.94	0.0339	0.05	5.00	2.71	7.76	5.05
1,3-butadiene			0.2174	0.00	0.00	17.40	17.40	0.00
chlorobenzene		0.05	0.0002	0.00	0.03	0.02	0.04	0.03
propylene	2.44		0.467	11.27	0.00	37.38	48.65	11.27
hexane	0.029	0.45	0.0269	0.13	0.29	2.15	2.57	0.42
toluene	0.058	0.98	0.1054	0.27	0.62	8.44	9.32	0.89
xylenes	0.029	0.27	0.0424	0.13	0.17	3.39	3.70	0.31
ethyl benzene	1.444	0.11	0.0109	6.67	0.07	0.87	7.61	6.74
hydrogen chloride			0.1863	0.00	0.00	14.91	14.91	0.00
carbon tetrachloride		0.06		0.00	0.04	0.00	0.04	0.04
chloroform		0.05		0.00	0.03	0.00	0.03	0.03
ethylene dibromide		0.07		0.00	0.05	0.00	0.05	0.05
methanol		2.53		0.00	1.59	0.00	1.59	1.59
methylene chloride		0.15		0.00	0.09	0.00	0.09	0.09
phenol		0.04		0.00	0.03	0.00	0.03	0.03
styrene		0.06		0.00	0.04	0.00	0.04	0.04
vinyl chloride		0.03		0.00	0.02	0.00	0.02	0.02
arsenic			0.0016	0.00	0.00	0.13	0.13	0.00
cadmium			0.0015	0.00	0.00	0.12	0.12	0.00
total chromium			0.0006	0.00	0.00	0.05	0.05	0.00
hexavalent chromium			0.0001	0.00	0.00	0.01	0.01	0.00
copper			0.0041	0.00	0.00	0.33	0.33	0.00
lead			0.0083	0.00	0.00	0.66	0.66	0.00
manganese			0.0031	0.00	0.00	0.25	0.25	0.00
mercury			0.002	0.00	0.00	0.16	0.16	0.00
nickel			0.0039	0.00	0.00	0.31	0.31	0.00
selenium			0.0022	0.00	0.00	0.18	0.18	0.00
zinc			0.0224	0.00	0.00	1.79	1.79	0.00
diesel particulate matter			40	0.00	0.00	3201.32	0.00	3201.32

Sources:

S1. Ventura County APCD, "AB2588 Combustion Emission Factors", May 17, 2001

S2. U.S. EPA, AP-42, Table 3.2-1. Conversion from lb/MMBtu based on 1020 Btu/scf per footnote d of Table.

S3. U.S. EPA, AP-42, Table 3.3-1. Conversion from lb/hp-hr based on 0.055 gal/hp-hr

[b] Non-cancer emissions include all except diesel particulate matter. Total cancer emissions include all non-diesel emissions plus diesel particulate matter.

Venoco Platform Grace - Part 70 Permit No. 01493
Air Toxics "Hot Spots" Emissions Summary Report - 2011

Non-Combustion Sources

Non-combustion toxic emissions are not quantifiable with available data.
These emissions may be quantified as necessary.
ROC emissions are shown below. These are permit limits.

Source	ROC (tons/yr)
Tanks & Sumps	4.97
Oil Wells	5.84

VENTURA COUNTY AIR POLLUTION CONTROL DISTRICT
669 County Square Drive, Ventura, CA 93003 805/645-1401 Fax 805/645-1444 www.vcapcd.org

Compliance Plan Cover Sheet
Part 70 Permit Reissuance Applications Forms

Instructions

A compliance plan, signed by the responsible official, must be attached to each application for reissuance of a Part 70 Permit. To complete the compliance plan, attach the following to this sheet:

1. A completed compliance plan form for all applicable requirements that are currently effective and that apply to an emission unit at your facility or to your entire facility. Only one form that refers to all currently applicable requirements needs to be completed.

2. A completed compliance plan form for each applicable requirement that will become effective during the term of your permit and that will apply to an emission unit at your facility or to your entire facility. One form for each applicable requirement with a future effective date must be completed.

3. A narrative description of how each emission unit at your facility that does not comply with an applicable requirement will achieve compliance with the requirement.

   A compliance schedule, approved as part of an order issued by the District Hearing Board, must be attached for each emission unit that is not in compliance with an applicable requirement. Each compliance schedule shall contain a schedule of remedial measures, including an enforceable sequence of actions with milestones, leading to compliance with the applicable requirement. The compliance schedule shall resemble, and be at least as stringent as that contained in any judicial consent decree or administrative order to which the source is subject.

   A schedule for submission of certified progress reports on the compliance schedule no less frequently than every six months must also be attached.

Certification by Responsible Official

I certify that, based on information and belief formed after reasonable inquiry, the statements and information in this compliance plan are true, accurate, and complete.

Signature and Title of Responsible Official:	Date:
_____ **Larry Huskins, Operations Manager**	

Compliance Plan Cover Sheet (May 22, 2002)

VENTURA COUNTY AIR POLLUTION CONTROL DISTRICT
669 County Square Drive, Ventura, CA 93003 805/645-1401 Fax 805/645-1444 www.vcapcd.org

Compliance Plan
Applicable Requirements That Are Currently Effective

Compliance Schedule

Except for the specific applicable requirements and emission units listed below, the facility that is the subject of this application complies with all currently applicable requirements and will continue to comply with all currently applicable requirements.

Exceptions to This Declaration:

Applicable Requirement	Emission Unit
No Exceptions	

Compliance Plan Currently Effective (May 22, 2002)

VENTURA COUNTY AIR POLLUTION CONTROL DISTRICT
669 County Square Drive, Ventura, CA 93003 805/645-1401 Fax 805/645-1444 www.vcapcd.org

Compliance Plan
Applicable Requirements With a Future Effective Date

Applicable Requirement

Citation:	Description:
No Applicable Requirements	

Compliance Schedule

The requirement cited and described will be applicable to my entire facility or to emission units at my facility.

Except for the specific emission units listed below, the facility that is the subject of this application will comply in a timely manner with the applicable requirement listed above and in accordance with the compliance schedule, if any, contained in the applicable requirement.

Exceptions to This Declaration

Emission Unit

STATEMENT REGARDING INSIGNIFICANT ACTIVITIES

We have reviewed the Insignificant Activities List on the following page, from Part 70 Permit No. 01493, and believe it to be correct as modified.

Ventura County Air Pollution Control District

INSIGNIFICANT ACTIVITIES (EXEMPT EQUIPMENT)

INSIGNIFICANT ACTIVITIES (EXEMPT EMISSION UNITS)	BASIS FOR EXEMPTION (Size/Production Rate)	RULE 23 CITATION
48 BHP Ingersol Rand Diesel Air Compressor (C-5B), Emergency Generator Starter Engine	< 50 BHP	23.D.6
Wipecleaning Operation	ROC content $\leq$ 25 grams per liter	23.F.10.b

VENOCO, INC

PLATFORM GRACE
ENGINE OPERATOR INSPECTION PLAN

Prepared by Venoco, Inc. in Compliance with
Ventura County Air Pollution Control District Rule 74.9

July 2007

This Engine Operator Inspection Plan has been prepared to comply with Section C of Ventura County Air Pollution Control District Rule 74.9. Engine information is provided below in the order listed in Section C of the Rule. Eleven internal combustion engines are currently permitted for Platform Grace, seven of which are subject to Rule 74.9. The four exempt engines are two backup generators that have a permitted annual capacity factor of less than 15 percent (exempt per 74.9.D.8), and two crane engines (exempt per 74.9.D.9).

1.0 ENGINE DESCRIPTION

Table 1 includes the following information for each engine:

1. Venoco ID No.;
2. Engine Manufacturer;
3. Engine Model No.;
4. Engine rating (hp);
5. Fuel combustion method;
6. NO_x control system description;
7. Emission limits for NO_x, ROC, and CO.

2.0 ENGINE LOCATIONS

Figures 1 and 2 are a platform deck schematics showing locations of all applicable engines according to the Venoco ID shown in Table 1.

3.0 INSPECTION PROCEDURES

NO_x and CO concentrations will be monitored daily at each engine unless the engine is not operated on that day. An Enerac 3000E portable analyzer will be used for this purpose. Appropriate corrective actions will be taken if concentrations are above the limits shown in Table 1. A sample inspection log is shown in Figure 2. An engine found to have an excursion of NO_x or CO emission limits will be shut down within 6 hours of the discovery, except for testing, until the problem has been corrected, as documented by reinspection. The Compliance Assurance Monitoring (CAM) Plans for these engines require daily NO_x readings. Since CO concentrations are measured with the same analyzer, they are also logged daily.

Rule 74.9.B.5 requires that the APCD will be notified by telephone at least 24 hours prior to any quarterly screening analysis. Since daily screening analyses are taken, as the APCD is notified via this Plan, a separate quarterly notification will not be made.

4.0 MAINTENANCE PROCEDURES

The following maintenance procedures and schedule will be followed:

1. Change O_2 sensors every 4000 engine hours;
2. Blow and turn catalyst elements every 1500 engine hours, except when acid cleaning;
3. Acid clean catalyst elements every 3000 engine hours;
4. Replace spark plugs, oil, oil filter and air filter every 1500 engine hours.

Portable analyzer readings for NO_x and CO will be made within 24 hours following any of these maintenance procedures. The maintenance action taken will be recorded in the daily log (Figure 3).

5.0 BIENNIAL SOURCE TESTING

A biennial source test (once every two years) will be performed on each engine according to test methods listed in Rule 74.9.

6.0 RECORDKEEPING AND REPORTING

Inspection results and maintenance procedures will be kept in a written log (see example in Figure 3). The log will be maintained at the platform for a minimum of two years from the date of any entry and made available to the APCD upon request.

Within 45 days of the end of each permit renewal period, Venoco will provide the APCD with the following information:

- Engine manufacturer, model number, operator identification number, and location;
- A summary of maintenance reports during the renewal period.

Table 1
Engine Information

Venoco ID	Make	Model	Rating (hp)	Combustion Method	NO_x Control System	Emission Limit (ppmv at 15% O_2)		
						NO_x	ROC	CO
G-3	Waukesha	3521 GSI	773	Natural Gas, Rich-Burn	NSCR[a]	9[b]	50[b]	1600[b]
G-1A	Caterpillar	G399-SI-TA HCR	915	Natural Gas, Rich-Burn	Turbocharger, Aftercooler, NSCR[a]	5[b]	14[b]	71[b]
G-1B	Caterpillar	G399-SI-TA HCR	915	Natural Gas, Rich-Burn	Turbocharger, Aftercooler, NSCR[a]	5[b]	14[b]	71[b]
G-1C	Caterpillar	G399-SI-TA HCR	915	Natural Gas, Rich-Burn	Turbocharger, Aftercooler, NSCR[a]	5[b]	14[b]	71[b]
G-6A	Caterpillar	G399-SI-TA HCR	915	Natural Gas, Rich-Burn	Turbocharger, Aftercooler, NSCR[a]	5[b]	14[b]	71[b]
G-6B	Caterpillar	G399-SI-TA HCR	915	Natural Gas, Rich-Burn	Turbocharger, Aftercooler, NSCR[a]	5[b]	14[b]	71[b]
G-6C	Caterpillar	G399-SI-TA HCR	915	Natural Gas, Rich-Burn	Turbocharger, Aftercooler, NSCR[a]	5[b]	14[b]	71[b]

[a] NSCR - non-selective catalytic reduction with automatic air/fuel ratio controller.
G-33: Miratech Model No. MEC-2001.
G-1A, G-1B, G-1C, G-6A, G-6B & G-6C: Miratech Model No. RCS-3628-14-C2

[b] Emission requirements are permit limits that exceed Rule 74.9 limits.

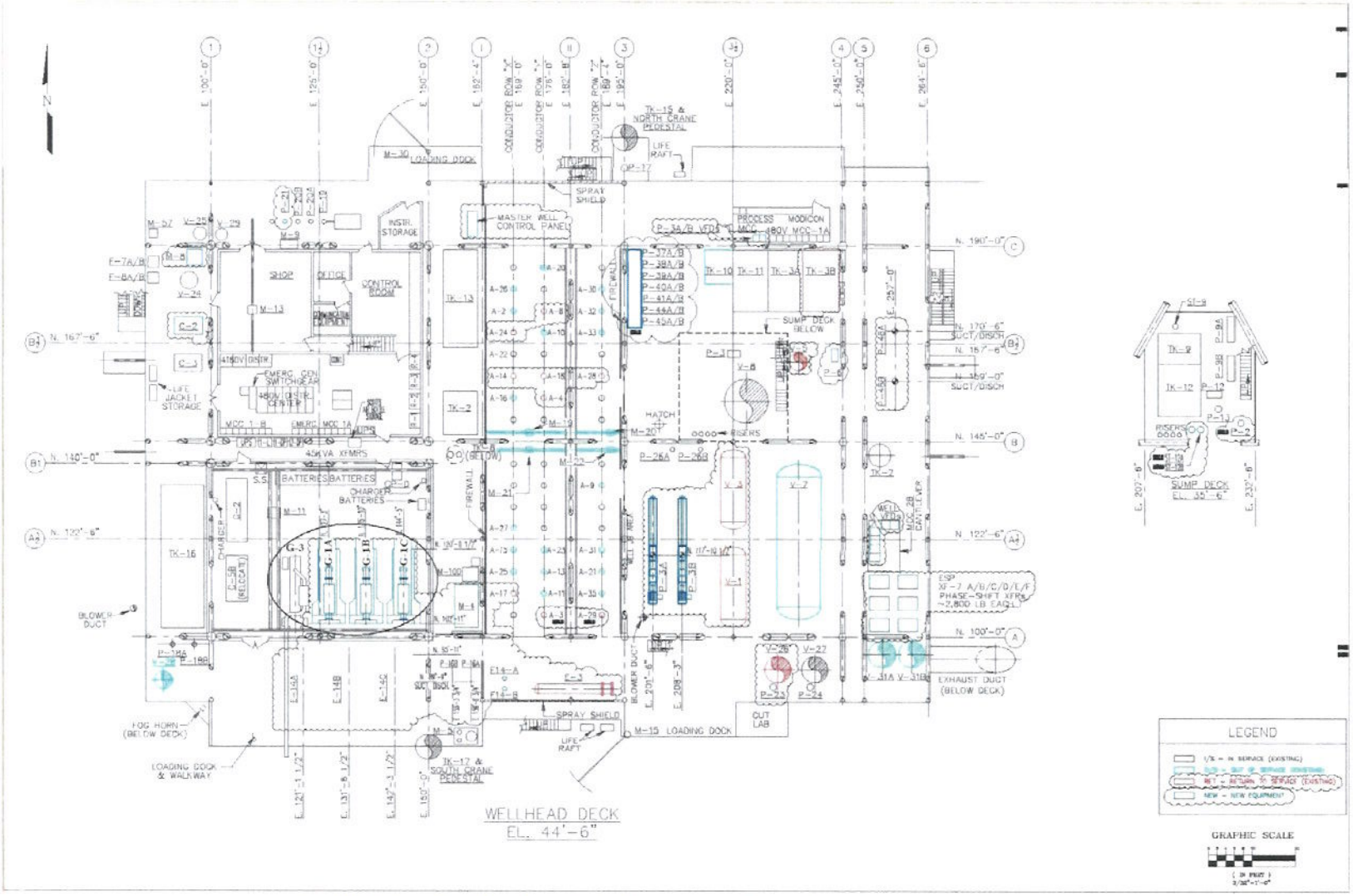

FIGURE 1 - ENGINE LOCATIONS: G-3, G-1A, G-1B, G-1C

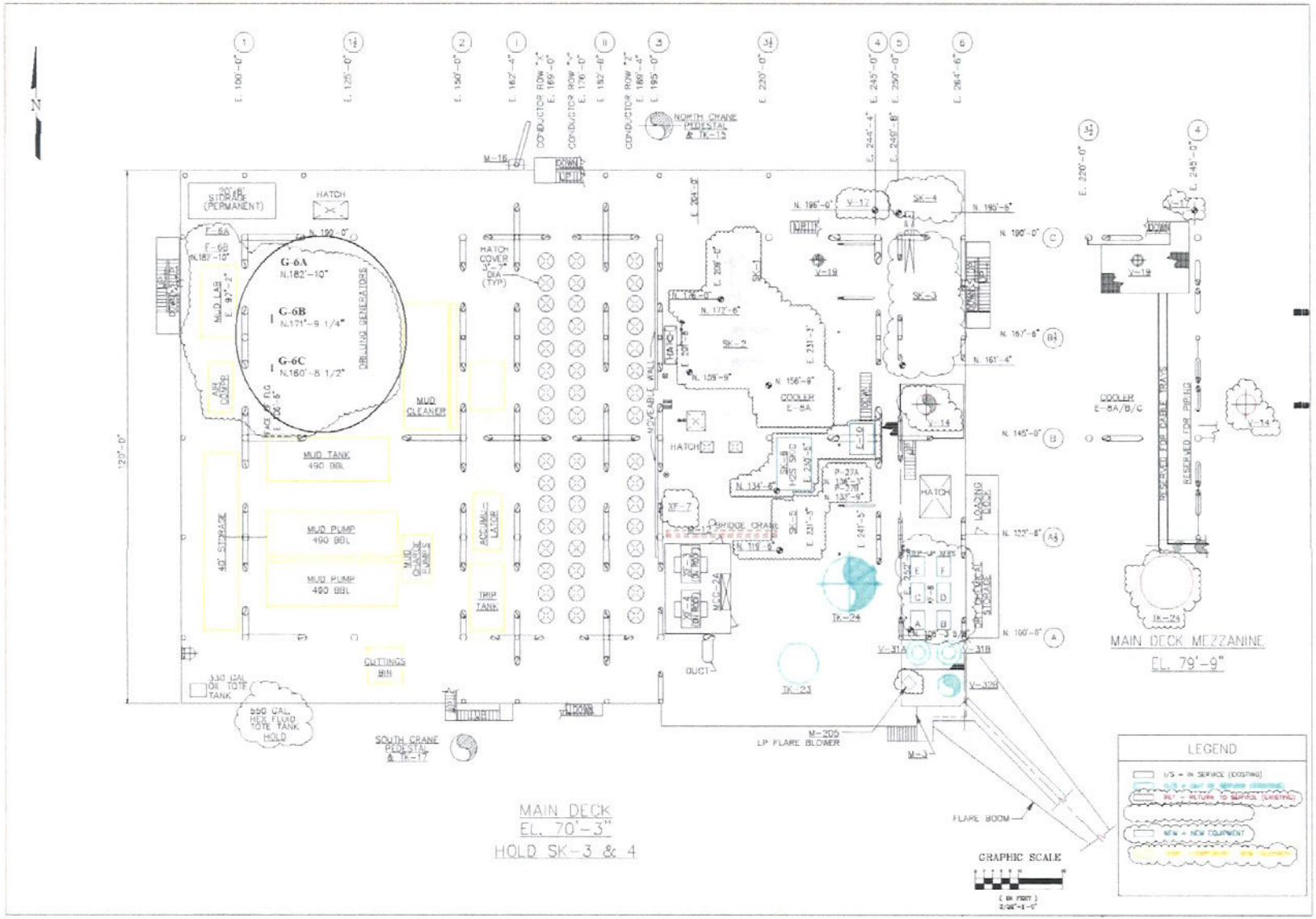

FIGURE 2 - ENGINE LOCATIONS: G-6A, G-6B, G-6C

Condition P011493PC5

PLATFORM GRACE
773 BHP WAUKESHA GENERATOR ENGINE (G-03)
DAILY CAM/RULE 74.9 MONITORING

Oct-05

OCT-05

	INITIAL NOx/CO TEST			CORRECTIVE ACTIONS	SECONDARY NOx/CO TEST			
	Initial Reading (ppmv @ 15% O2)			Corrective Actions Taken (If initial test result is greater than 9 ppmv NOx or 1600 ppmv CO @ 15% O2)	Reading (if needed) (ppmv @ 15% O2)			Tester's Initials
Day	NOx	CO	Time		NOx	CO	Time	
1								
2								
3								
4								
5								
6								
7								
8								
9								
10								
11								
12								
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FIGURE 3
SAMPLE INSPECTION LOG

STATEMENT REGARDING OIL WELL LIST

Venoco has reviewed the Oil Well List on the following page, from Part 70 Permit No. 01493, and finds that it is correct.

Ventura County Air Pollution Control District

OIL WELL LIST

Permit to Operate No. 01493

The following oil wells are on permit:

Slot Numbers

A-3
A-4
A-8
A-10
A-13
A-14
A-16
A-17
A-18
A-20
A-29

\\APCDBULLPEN\DivData\ENG\TITLEV\TV Permits\PO1493\Permit II\WELLS-rev341 doc