

Appendix B

Field Forms

Antea Project #	I42611255.0005				Client	ELT/COP			
Site #	2611255				Page	1/3			
Site Address	19924 International Blvd, SeaTac, WA				Date				
Field Technician(s)					Weather				
PID Calibration (Date/Time)									

System Parameters Upon Arrival	High vac Operational Upon Arrival (Y/N)?				Comments:			
	Re-start System (Y/N)?				Time Restarted:			
	Alarm Condition(s)?							
	High Vac Operational Upon Departure (Y/N)?				Comments:			

High Vacuum Blower Measurements			
High Vac Blower Hours	hrs	AOS Temperature	°F
High Vac System Flow Rate	in w.c.	AOS Pressure	psi
Vacuum at Pitot Tube	in w.c.	KO Vacuum	in w.c.
Power Meter	kwh		

Water Treatment Measurements			
Filter #1 Pressure	psi	KO Pump Pressure	psi
Filter #2 Pressure	psi	Water Meter	X 100 gallons
Carbon #1 Pressure	psi	Carbon Influent Sample? (Y/N) Time:	
Carbon #2 Pressure	psi	Carbon Mid Sample? (Y/N) Time:	
pH	Turbidity	Carbon Effluent Sample? (Y/N) Time:	

Vapor Treatment Measurements			
Catox Influent Temp	°F		
Catox Effluent Temp	°F		
Influent Catox PID	ppm	Catox Influent Sample? (Y/N) Time:	
Effluent Catox PID	ppm	Catox Effluent Sample? (Y/N) Time:	

DPE/SVE Well Measurements									
Well ID	Flow Rate (scfm)	Vacuum (in hg)	PID (ppm)	Sample (Y/N)	Well ID	Flow Rate (scfm)	Vacuum (in hg)	PID (ppm)	Sample (Y/N)
DP-3					SVE-8				
SVE-13					DP-2				
DP-9					SVE-1				
SVE-7					DP-10				
DP-8					SVE-6				
SVE-2					DP-12				
SVE-4					MW-10				
DP-6					SVE-10				
DP-5					SVE-9				
DP-7					DP-1				
SVE-12					DP-4				
DP-13					SVE-11				
DP-11					SVE-3				

Notes:

Antea Proje l42611255.0005

Client	ELT/COP
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ELT/COP

Site # 2611255

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Site Address 19924 International Blvd, SeaTac, WA

Effluent pH Monitoring Form

[illegible]

Client	ELT/COP
Page	3 of 3
Date	
Weather	

System Air Samples			Monthly Maintenance			
Location	(Y/N)	me Sample	Task			Initials
INF			K.O. Check		Clean Sight Glass (Y/N)	
EFF			LRP Filter Check		Replace (Y/N)	
			VCV Valve Check		Lubricate (Y/N)	
			LRP Safety Valve Check		Clean (Y/N)	
			LRP Cooling Rib Check		Clean (Y/N)	
			AOS Oil Level Check		Add Oil (Y/N)	
			Water Sock Filter Check		Replace (Y/N)	
			System Piping Check			
			Semi Annual Maintenance			
			Task			Initials
			LRP Grease			
			LRP Motor Grease			
			Holding Tank Inspection			
			Sock Filter Canisters Clean			
			K.O. Tank Inspection and Cleaning			
			System Piping Check			
			Control Panel Inspection			
			Annual Maintenance			
			Task			Initials
			K.O. Tank and Sight Glass Clean			
			Holding Tank Clean			
			LRP Grease			
			LRP Motor Grease			
			Inspect All Filters			
			System Hose Inspection and Replacement			
			Control Panel Inspection			
			LRP Safety Valve Replacement			

[illegible]

Appendix C

Spill Control Plan

Spill Control Plan

Operation and Maintenance Manual

SeaTac 76 Retail Station #2611255
19924 International Blvd, SeaTac, Washington 98188

Antea[®]Group Project No. I42611255
April 25, 2018

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Spill Control Plan

SeaTac 76 Retail Station #2611255

19924 International Blvd, SeaTac, Washington 98188

1.0 OBJECTIVE

The objective of the Spill Control Plan is to document procedures for the prevention, containment and control of releases or unplanned discharge of (1) oil and hydrocarbon products, (2) Dangerous Wastes, as defined in WAC 173-303, and (3) other materials which may become pollutants or cause pollution upon reaching state waters.

2.0 DESCRIPTION OF WASTES AND OTHER POTENTIAL POLLUTANTS

The following is a list of wastes generated and materials handled or stored on-site that, due to their quantity or characteristics, represent a potential pollutant:

- Recoverable LPH has not been present in the pump-and treat unit since December 2015. Therefore, it is not anticipated to be a waste generated on-site.
- Hydrocarbon-impacted groundwater pumped from the recovery wells.
- Rinse water from cleaning liquid ring pump or other equipment.
- Sludge and sediment periodically removed from aboveground treatment equipment, AWS-1 and the holding tank. The water, sludge and sediment generated during maintenance are profiled, manifested and transported off-site by a licensed waste handler to a permitted facility for treatment or recycling.
- Diesel fuel stored within the double-walled, UL approved, fuel tank for the backup generator.
- Used oil and oil filter from diesel engine of the backup generator.
- Oil from the liquid ring pump and other equipment.

3.0 SPILL PREVENTION MEASURES

- Containment vessels have been factory tested by the manufacturer to confirm integrity and chemical compatibility.
- High level system shutoffs are installed on the holding tank, the liquid ring pump, and the moisture separator.
- The holding tank, liquid ring pump, and moisture separator are sealed vessels preventing the possibility of precipitation causing overfill of these containers.
- Heavy duty and chemically-resistant materials were selected for use in piping and tanks.

4.0 SPILL RESPONSE PROCEDURES

- All remediation equipment will be shut down. The DPE/SVE will be shut down by switching the main power breaker to off position.
- The source of the release will be identified and mitigated if the condition allows.
- Emergency Response protocol will be initiated as necessary.
- The wastes or liquids released will be contained by the use of appropriate absorbent materials and diking as necessary.
- Any catch basins on the property will be protected to prevent entry of released materials. Absorbent materials are stored on-site in the treatment building. After use, the residual materials will be placed in appropriate containers, and transported off-site for proper disposal.

5.0 OPERATOR TRAINING

Operator training shall include the following:

- Initial 40-hour HAZWOPER Training with subsequent annual 8-hour refresher courses.
- Review of the Operation and Maintenance Manual and all addenda or revisions by any technician prior to completing system O&M or site monitoring and an annual refresher.
- Annual facility inspection of the system by Antea Group's project manager or project engineer with technicians responsible for monitoring to verify that the operational procedures are being followed on site and to address any training needed.

Copies of HAZWOPER Training or 8-hour refresher courses for each technician shall be kept on file at Antea Group's Redmond office. Annual reviews of O&M manuals will be documented in field notes that shall be kept on file at Antea Group's Redmond office.

6.0 REPORTING/NOTIFICATION PROTOCOL

The following reporting/notification protocol will be used to alert responsible managers and regulatory authorities in the event of a release. The following individuals will be contacted by phone, in the order shown, as soon as possible within an 8-hour time period following the discovery of a release or incident (see Section 7.7 in O&M manual for contact phone numbers). Phone calls will be attempted at least every hour until notification is made. In the case of all other notifications, voice mail messages may be left if individuals cannot be reached immediately.

These notification procedures are intended to meet the requirements of RCW 90.48 and WAC 173-180C.

7.0 REMARKS

The recommendations contained in this report represent Antea USA, Inc.'s professional opinions based upon the currently available information and are arrived at in accordance with currently accepted professional standards. This report is based upon a specific scope of work requested by the client. The contract between Antea USA, Inc. and its client outlines the scope of work, and only those tasks specifically authorized by that contract or outlined in this report were performed. This report is intended only for the use of Antea USA, Inc.'s client and anyone else specifically identified in writing by Antea USA, Inc. as a user of this report. Antea USA, Inc. will not and cannot be liable for unauthorized reliance by any other third party. Other than as contained in this paragraph, Antea USA, Inc. makes no express or implied warranty as to the contents of this report.

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Appendix D

Telemetry Alarm Response Reference

FleetZOOM®
Wireless Remote Monitoring System

User Guide

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WARRANTY

AutoCache Inc. ("Manufacturer") warrants each new Remote Monitoring Device ("Device") manufactured by it to be free from defects in material or workmanship for one (1) year from and after the date of initial installation by or for the original purchaser ("Customer"). If such a defect is found by Manufacturer to exist within the one-year period, Manufacturer will, at its option, repair or replace such product free of charge, F.O.B. the factory of manufacture. Labor costs associated with the replacement or repair of product are not covered by Manufacturer.

Manufacturer shall not be liable for any consequential or special damage which any purchaser may suffer or claim to suffer as a result of any defect in the product. "Consequential" or "special damages" as used herein include, but are not limited to, lost or damaged products or goods, costs of transportation, lost sales, lost orders, lost income, increased overhead, labor and incidental costs and operational inefficiencies.

THIS WARRANTY CONSTITUTES MANUFACTURER'S ENTIRE AND SOLE WARRANTY AND THIS MANUFACTURER EXPRESSLY DISCLAIMS ANY AND ALL OTHER WARRANTIES, INCLUDING, BUT NOT LIMITED TO, EXPRESS AND IMPLIED WARRANTIES AS TO MERCHANTABILITY, FITNESS FOR PARTICULAR PURPOSES SOLD AND DESCRIPTION OR QUALITY OF THE PRODUCT FURNISHED HEREUNDER.

An officer of Manufacturer must authorize any exceptions to this Warranty in writing. No other parties are authorized to modify or extend the terms and conditions of this Warranty in any manner or to offer or grant any other warranties for the products provided hereunder in addition to those terms expressly stated above.

Manufacturer reserves the right to change models and specifications at any time without notice or obligation to improve previous models.

ASSUMPTION OF RISK OF USE

Customer agrees that the Device and Remote Monitoring Service ("Service") utilize telecommunication media that are beyond the control of Manufacturer and AutoCache Inc. and that disruption of Service may result from time to time. Therefore, neither Dealer, nor AutoCache Inc. shall be liable for any claims of loss or injury alleged or actually to have resulted from use of, or in reliance on, the Device or the Service. Customer further agrees that neither AutoCache Inc. or Dealer shall be liable to Customer for any incidental, indirect, special, punitive or consequential damages of any kind, irrespective of the basis of such loss or damage, and even if advised of the possibility of such loss or damage or if such loss or damage could have been reasonably foreseen. Customer accepts all risk of use of the Device and/or the Service and such risk falls solely on Customer.

CUSTOMER ACKNOWLEDGES THAT IT HAS READ THE FOREGOING DISCLAIMERS AND LIMITATION OF LIABILITY AND UNDERSTANDS THAT CUSTOMER ASSUMES ALL RISKS INVOLVED IN THE USE OF THE DEVICE AND/OR THE SERVICE.

AGREEMENT NOT TRANSFERABLE

This Agreement is not transferable without the prior written consent of AutoCache Inc..

WAIVERS

Neither Dealer, nor AutoCache Inc. shall be liable to Customer for any incidental, indirect, special, punitive or consequential damages of any kind, irrespective of the basis of such loss or damage. The parties' rights, liabilities and remedies with respect to the Device and Services shall be exclusively those expressly set forth in this Agreement.

GENERAL

This Agreement shall be governed by the laws of the State of Texas. Any invalidity, in whole or in part, of any provision of this Agreement shall not affect the validity of any other of its provisions.

Overview

Congratulations on the purchase of your FleetZOOM® Wireless Remote Monitoring System, and thank you for your business! Please read this user guide thoroughly to ensure proper configuration and operation of your system. Once you are fully familiar with your system it should quickly become an invaluable tool for your business since you will be able to monitor your operation 24 hours a day, wherever you are.

Who is FleetZOOM®?

FleetZOOM® is the product name of hardware and service designed and engineered by AutoCache Inc.. AutoCache Inc is an industry leader in developing robust and highly reliable wireless, web-based remote monitoring solutions. More information on FleetZOOM® products and service can be found at their website: www.FleetZOOM.com.

How It Works

Your remote monitoring system is basically made up of two components: 1.) wireless remote monitoring hardware, and 2.) a remote monitoring service subscription. Your dealer will install your wireless remote monitoring hardware and test it to ensure proper operation.

- ① **NOTE:** Your monitoring hardware can be easily configured to monitor things such as **temperature, water/static pressure, power outages, generator panel alarms, and much more.**

Once your dealer has installed your remote monitoring hardware, he/she will gather some information from you that will allow them to activate your service subscription and tailor it to the way you run your operation. Once your system is set up you will be able to receive critical alarms to any number of email addresses, cell phones, or pagers via text messages. You will also be able to use the Device Management Web Site to access the devices in your account to view event/alarm history, change notification settings, view current device status, and more from any web browser.

- ① **NOTE:** You do not need web or Internet access to use the system. All you need to receive alarm notifications are text message capable cell phones and/or text message capable pagers.

Remote Monitoring Service Subscription

Your Remote Monitoring Service Subscription fee includes the following:

1. **Unlimited Web Site Access:** Unlimited access to the Device Management Web Site (see below).
2. **500 transmissions per device, per month.** If you continually exceed that amount we will have to upgrade your subscription. As an example, for four generators with one monitoring device per generator, your service subscription includes 500 transmissions for each of the four monitoring devices. Every monitoring device is programmed to limit the number of false or “toggling” alarms, so that you are unlikely to exceed 500 alarm transmissions per month under typical conditions.
3. **Text messaging and email alarm notifications:** Configure as many text messaging addresses (cell phones, pagers, etc.) and email addresses as needed. There is no limit on the number of alert recipients.

- ① **NOTE:** While each service subscription includes up to 500 alarm transmissions per device, per month (transmissions from the monitoring device to FleetZOOM servers), there is no limit on the number of alarm notifications to cell phones, pagers, and email. For instance, if one alarm generates text messaging notifications to 5 different cell phones, this still only counts as 1 alarm event.

Receiving Alarms

You can receive alarm notifications in a number of ways:

1. **Email:** Alarm notifications can be sent to any email address. You can specify as many email addresses as needed, and you can change these addresses at any time.
2. **Cell Phones (text message):** Text message alarms can be sent to any text message capable cell phone. Text messages are also known as SMS messages. You can specify as many text messaging addresses as needed and you can change these addresses at any time.
3. **Pagers (text message):** Text message alarms can be sent to any text message capable pager.

- ① **IMPORTANT:** Check with your cell phone or pager provider to make sure your cell phone or pager is capable of receiving text messages (SMS). Although most current cell phones and alphanumeric pagers are capable of text messaging, your provider may have to activate this service for you.
- ① **NOTE:** You might incur charges from your cellular provider for text messaging activation and activity. Any such charges are in addition to the remote monitoring service subscription charges from AutoCache Inc..

System Set Up and Configuration

Step 1: Hardware Installation

Your dealer/installer will install your remote monitoring hardware and test it for proper wireless connectivity.

- ① **IMPORTANT:** Your FleetZOOM® system must be installed by an authorized representative.

Step 2: Fill out Set-up Forms and Notification List

Your dealer/installer will help you fill out the Set-up Forms and Notification List that is included with each system. This form provides AutoCache Inc. with information necessary to activate and configure your FleetZOOM® system, such as alarm configuration, alarm notification addresses, device location, billing information, etc..

Step 3: Submit your Set-up Forms and Notification List

You or your dealer/installer will submit your Set-up Forms and Notification List by fax. Form submission fax number: (713) 481-1896.

Step 4: Receive account log in information

Once your account has been set up and your system has been configured, you will receive a username and password for your account sent to your primary email address.

Step 5: Begin Using your FleetZOOM® Wireless Remote Monitoring System

That's it! Your FleetZOOM® system is now configured and online. You will be able to receive alarms immediately to the email and text messaging addresses you specified in Step 2.

Using the Device Management Web Site

- ① **What is the Device Management Web Site?** The Device Management Web Site lets you view the current status of all of your remote monitoring devices, view event/alarm history for each device, change alarm notification settings and addresses, and change device configurations, all from any web browser.

“Login” Screen (Fig. 1)

This is the FleetZOOM® web-portal login screen.

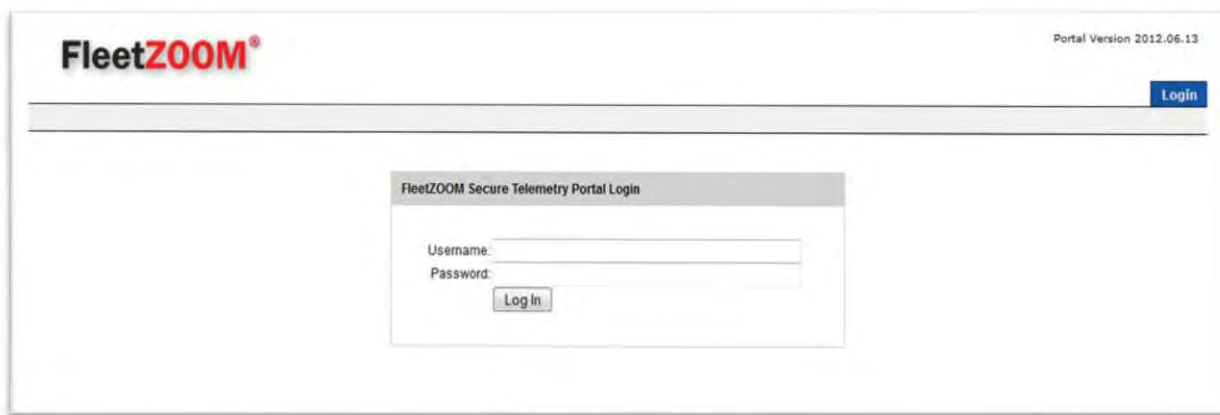


Fig. 1: “Login” screen

- 1) To login, type the following in your web browser address bar: <http://secure.fleetzoom.com/2012>
- 2) Type in the Username and Password provided to you by your FleetZOOM® Client Advisor and click **Log In**.

- ① **NOTE:** Once your account has been set up you will receive a username and password. Accounts can only be created by your FleetZOOM® Client Advisor. If you misplace your login information please contact your FleetZOOM® Client Advisor and they will assist you.

“Overview” Screen (Fig. 2)

Each time you log in, by default you will land on the Overview Screen. The screen updates automatically with live data which you can leave open for continual updates. This view allows for a quick status snapshot of all the devices in your account.

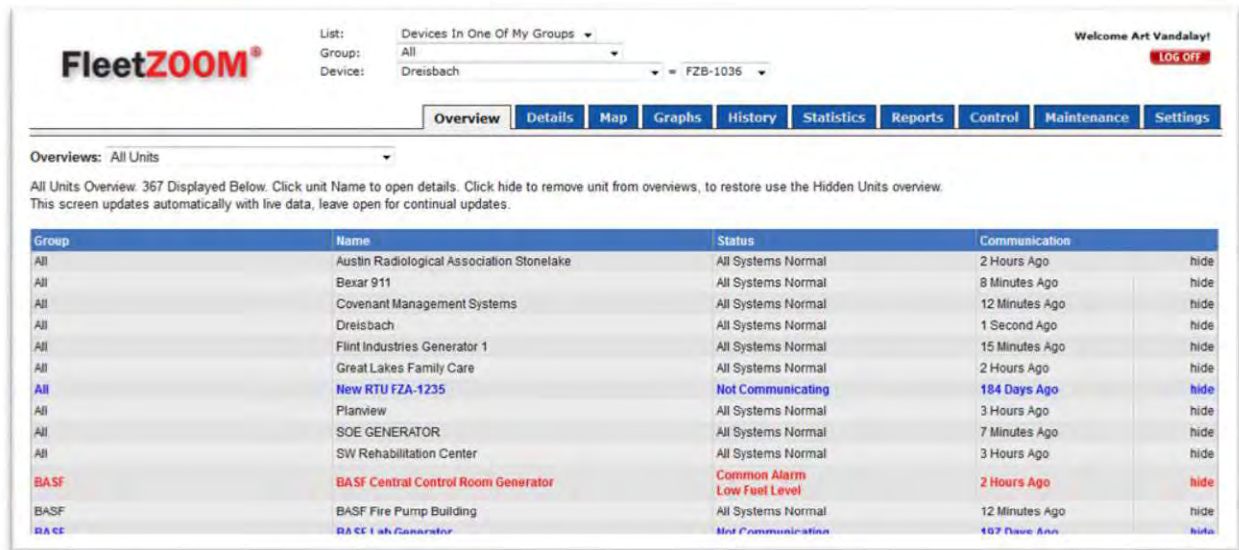


Fig. 2: “Overview” screen

“Overview” Dropdown Menu:

The Overview Screen updates automatically with live data which the user can leave open for continual updates. This dropdown menu gives 6 options.

- 1) **All Units-** This view allows the user to see all of the units in varying states such as Alarming, Not Communicating, and All Systems Normal Status. (Fig. 2)
- 2) **Alarming Units-** This view allows the user to see all of the units that are currently alarming, no matter what the alarming condition may be.
- 3) **Units Not Communicating-** This view shows the user the units that are currently **Not Communicating**, and for how many days they have not done so.
- 4) **Alarming and Not Communicating Units-** This view shows the user all of the units that are currently Alarming and Not Communicating. This allows the user to quickly get a total of units that are not in an All Systems Normal state.
- 5) **Hidden Units-** This view allows the user to see all the units which have been hidden for various reasons using the **hide** button on the furthest right hand column.
- 6) **Generator Weekly Run Times and Exercise-** This view allows the user to see units which have been set up as generator monitors with weekly run time minimums. There are 2 primary columns of interest in this view, the first will show if the unit has exercised for the minimum weekly interval, and the second will show how long the generator has ran over the past 7 days.

① **NOTE:** After you have chosen an Overview Dropdown menu option, the FZ system will note that change, and use that view as your default the next time you log in.

“Overview” Screen features:**Group:**

This provides which Group in which the unit resides. In the Settings section you will be able to group your devices to allow for quicker navigation of the system. For example you could group them by city, or state.

Device:

This provides the name of the device rather than an Electronic Serial Number, which will provide for quicker recognition of the device. In the Settings section you will be able to name the device. For example you could name the unit based on the facility it occupies.

Status:

Shows whether a particular monitoring device is in an alarm condition or an All Systems Normal state, and whether the device is online or in a “Not Communicating” status.

- ① **“Not Communicating” Status:** *A device is marked “Not Communicating” when the FleetZOOM data center has not received an event transmission or scheduled heartbeat from that device in the last 4 hours. This indicates some sort of problem that may not allow the unit to transmit an alarm when necessary.*

Communication:

The number of minutes or hours that have passed since the device has communicated.

‘Hide’ Button:

This button gives the user the ability to hide the unit from any of the Dropdown Menu views. You can ‘restore’ the visibility of the device by going to “Hidden Units” in the **Overviews** dropdown menu and clicking ‘restore’.

Default Dropdown Menus (Fig.3)

These dropdown menus will be visible from any screen view you may be on. It will assist you in navigating through your units.

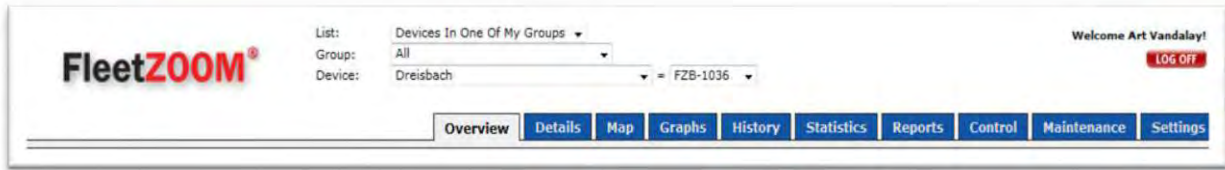


Fig. 3: Default Dropdown Menus

'List' Dropdown Menu:

This menu gives you only 2 options, **Devices In One Of My Groups**, and **Every Device In My Account**.

1. Choosing **Devices In One Of My Groups** activates another dropdown menu labeled **Group**, which allows you to navigate through your units based on its location within a group of units.
2. Choosing **Every Device In My Account** allows you to navigate through your units in numeric, alphabetical order without the **Group** filter on.

'Group' Dropdown Menu:

This menu is only activated when **Devices In One Of My Groups** is chosen from the **List** dropdown menu, and it allows you to navigate through your units by their Groupings.

'Device' Dropdown Menu:

This menu allows you to navigate through your list by either the unit's name, or by its Electronic Serial Number (ESN).

“Details” Screen (Fig. 4)

The “Details” screen will give you a ‘live’ snapshot of the chosen units’ status. This screen by default refreshes information every 15 seconds.

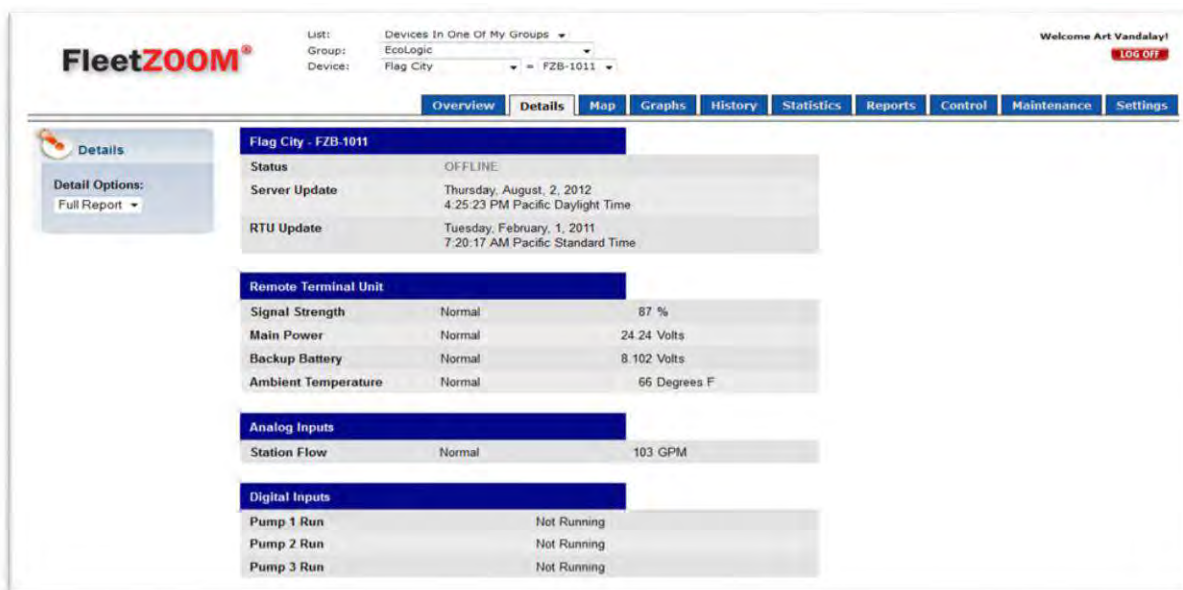


Fig. 4: “Details” screen

“Details” Screen features:

Device Name section:

This gives the devices name and its electronic serial number.

- 1) **Status:** This provides the status of the unit whether it be All Systems Normal, Offline, Unresponsive, or Alarming.
 - 2) **Server Update:** This provides the time the FleetZOOM® systems servers have checked in.
 - 3) **RTU Update:** This provides the time your unit last checked in.
- ① **NOTE:** You can always verify your unit is checking in accordingly by comparing your units RTU Update time versus the Server Update time depending on your service subscription. As an example, the FZ300 model checks in every 15 minutes regardless of its status.

Remote Terminal Unit section:

This section displays the FZ units default Analog Input values that are built into the hardware.

- 1) **Signal Strength:** This shows a percentage value of the cell signal receive strength.
- 2) **Main Power:** This is the DC voltage reading that is providing power to the unit.
- 3) **Backup Battery:** This value is only shown if the unit is optioned with a back-up battery.
- 4) **Ambient Temperature:** The FZ units are outfitted with an on-board temperature sensor. This degree readout will be in degrees Fahrenheit.

Analog Inputs section:

This section shows the name and read-out of each Analog Input. These values will refresh at a rate dependent on your service subscription level, or when the status across a Digital Input or Digital Output changes.

Digital Inputs section:

This section shows the name and real-time status of each Digital Input.

Digital Outputs section: **(Not Shown in Fig. 4)**

This section shows the name and status of each Digital Output.

- ① **NOTE:** *The amount of Analog and Digital Inputs, and Digital Outputs seen on the Details screen is dependent on the FZ model, and if the analog and digital inputs or the digital outputs are chosen to be displayed from the Settings screen during the FZ units set-up.*

“Map” Screen (Fig. 5)

The “Map” screen will give you the location of a particular device or group of devices within a chosen geographical radius, set up from the Group Setting screen.

- ① **NOTE:** If your FZ unit is GPS enabled your unit will display on the map after it checks in. If your FZ unit is not GPS enabled, you will have to input the devices latitude and longitude coordinates in the Settings screen to see it displayed on the Map Screen.

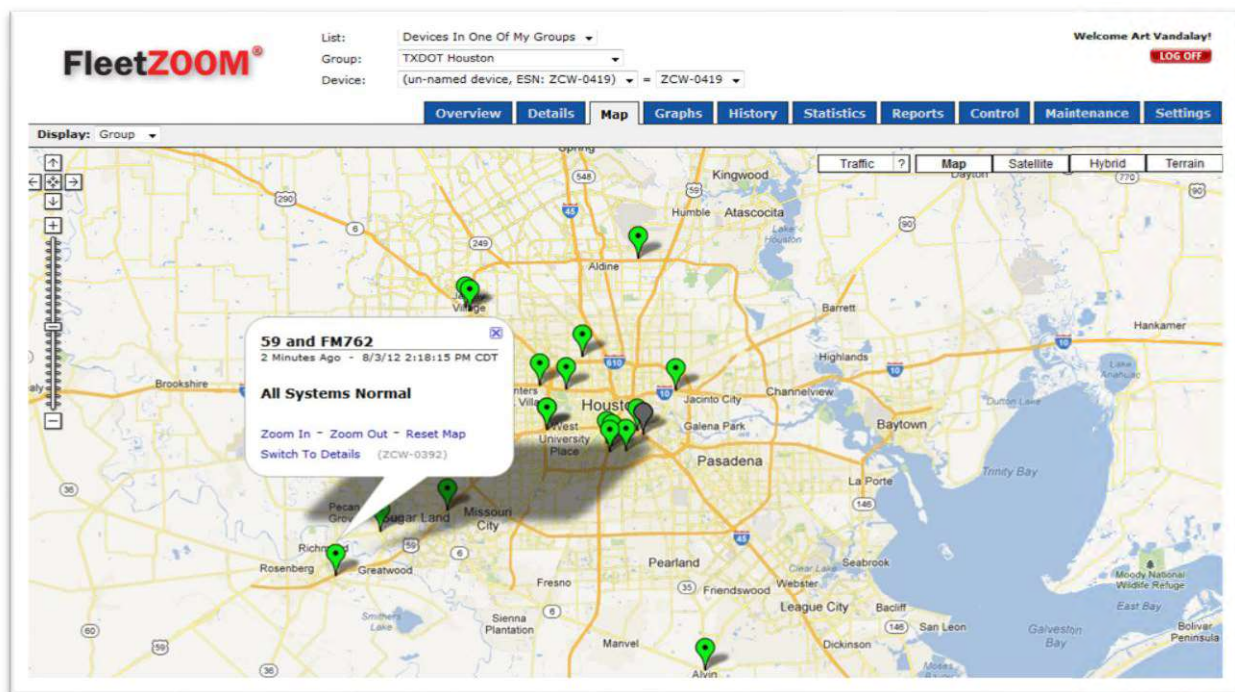


Fig. 5: “Map” screen

“Map” Screen features:

On the Map Screen you will see mapping pins which designate your FZ unit. This mapping pin icon could potentially be one of three different colors depending on the devices status.

- 1) **Green:** This designates your unit is in an All Systems Normal status.
- 2) **Red:** This designates your unit is in an Alarming status.
- 3) **Gray:** This designates your unit is Offline and not communicating.

You can scroll over the mapping icon with your mouse pointer to see the devices name. If more information is needed, you can double click on the mapping icon in question to see the unit’s last status update. (fig. 5)

“Display” Dropdown Menu:

- 1) **Group:** This displays all of the units mapping icons within a group.
- 2) **Device:** This displays a single mapping icon designating the single device chosen in the Device Dropdown Menu at the top of the screen.

“Graphs” Screen (Fig. 6)

The “Graphs” Screen is a graphical interface showing data on a line graph across a date range. Only Analog Inputs are capable of being graphed on this interface.



Fig. 6: “Graph” screen

Set a Date Range:

- 1) **Start Date:** Choose a start date on the top calendar.
- 2) **End Date:** Choose a stop date on the bottom left calendar.

Choose your analog inputs to display:

By default all of the graph-able Analog Inputs will be displayed at the bottom of the page. Click the checkbox next to each Analog Input you want to see displayed on the graph then click **Redraw**.

- ① **NOTE:** At this time there is no option to alter the X or Y axis of the graph. The graph will automatically adjust based on minimums and maximums of the Analog Inputs chose, versus the date range chose.

“History” Screen (Fig. 7)

The “History” Screen is where you can see status changes across a historical timeline. You choose your date range of interest and the Device Management Website will generate a spreadsheet view of all status changes over that period.

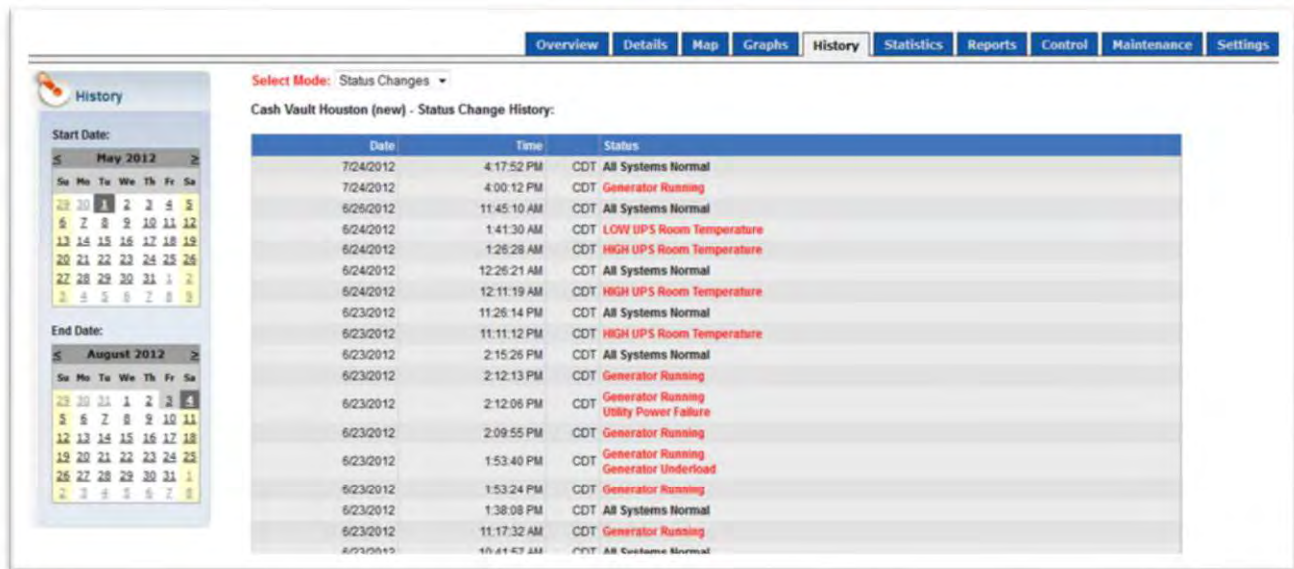


Fig. 7: Default “History” screen

Set a Date Range:

- 3) **Start Date:** Choose a start date on the top left calendar.
- 4) **End Date:** Choose a stop date on the bottom left calendar.

① **NOTE:** A status change under the History Screen is any Digital Input changing status, or any Analog Inputs’ threshold being surpassed.

“Statistics” Screen (Fig. 8)

The “Statistics” Screen gives you the ability to quickly see a total of events and grand totals of time a digital inputs status had been changed. Five export data options are available to quickly generate a printable report within a date range.

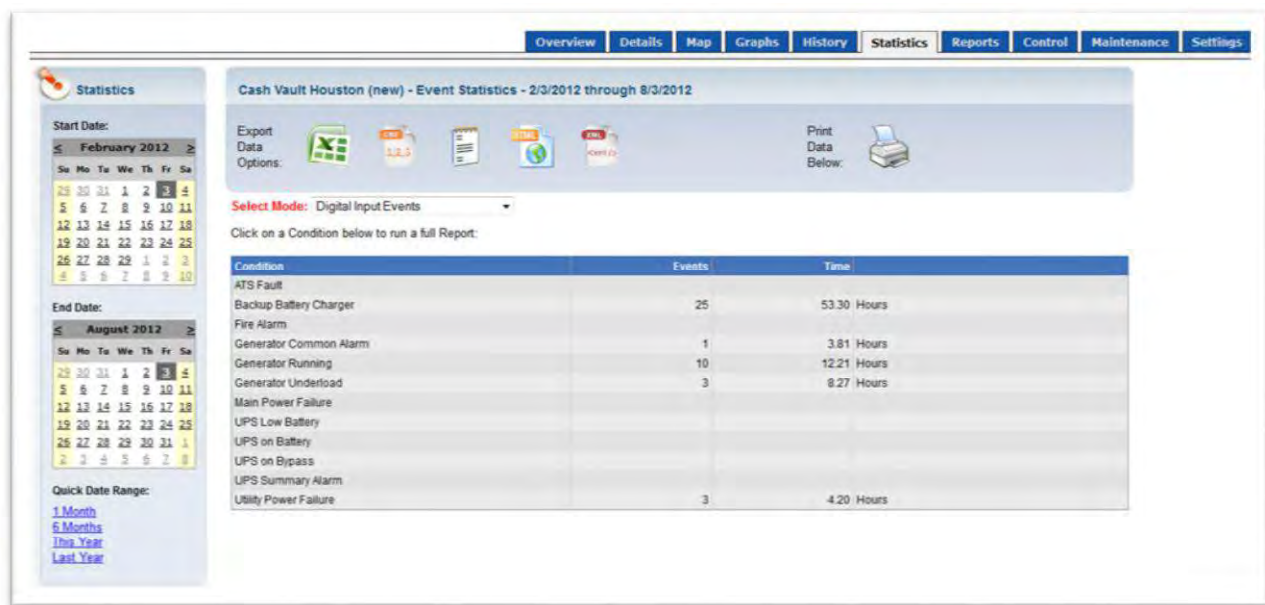


Fig. 8: Default “Statistics” screen

Statistics Features: You have the ability to quickly generate a report of overall time totals.

First, Set a Date Range:

- 1) **Start Date:** Choose a start date on the top left calendar.
- 2) **End Date:** Choose a stop date on the bottom left calendar.

① **NOTE:** In the bottom left hand corner you have a **Quick Date Range** function. Clicking either of the four options quickly sets a date range. The

Second, **Select Mode** Dropdown Menu: You have two options to choose from before generating your report.

-**Digital Input Events:** Total time a digital input had its status altered.

-**Digital Input Events-INVERTED:** Total time a digital input was in a normal state.

Third, Choose a file format for printing: There are five options.

- 1) Excel
- 2) CSV
- 3) Notepad
- 4) HTML
- 5) XML

Last, after clicking on your file format of choice, a time total report will be generated with the unit’s name, ESN number, date range, event totals, and time totals. You can choose to print the report from that programs menu.

“Reports” Screen (Fig. 9)

The “Reports” Screen gives you the ability to print reports whether they are from Digital, or Analog Inputs. All the reports will provide time stamps, event counts, and grand totals.

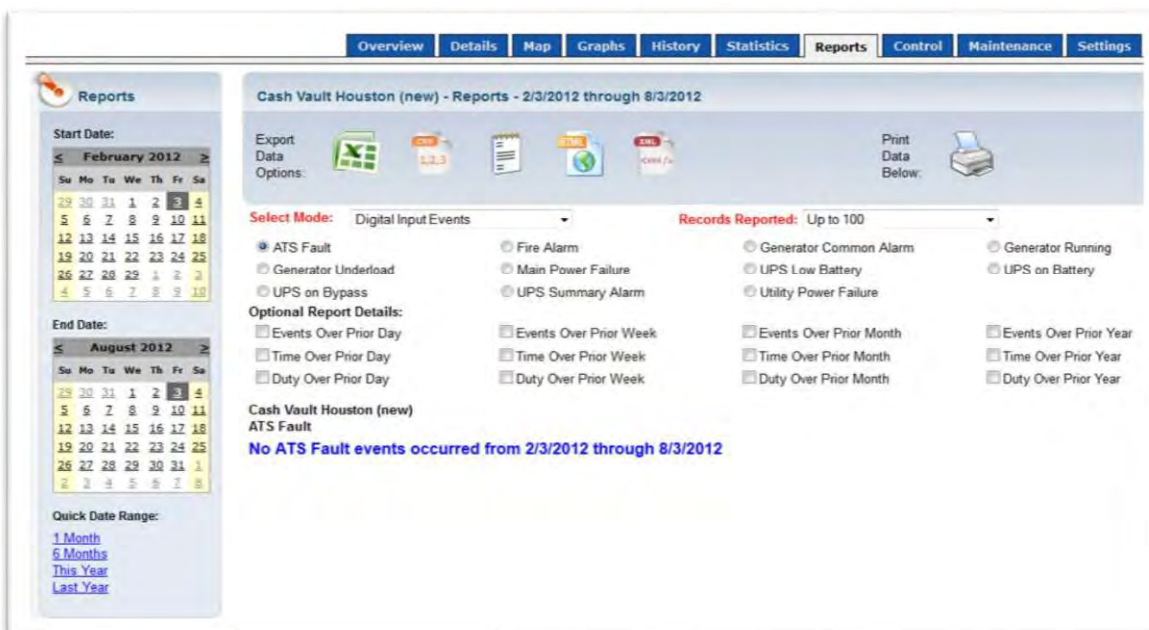


Fig. 9: Default “Reports” screen

Reports Features: You have the ability to quickly generate a report of event counts, totals and grand totals whether it is time from a digital input, or a value from an analog input.

First, **Select Mode** Dropdown Menu: You have five options to choose from before generating your report. By default the system will show the available inputs based on whichever of the five options chosen from the **Select Mode**. Check the box next to each input you desire to see generated on the report.

- 1) **Analog Input:** Analog values, data logged and time stamped
- 2) **Analog Input-Totalizer:** Analog values, data logged, time stamped, and totalized.
- 3) **Digital Input Events:** Total time a digital input had its status altered.
- 4) **Digital Input Events-INVERTED:** Total time a digital input was in a normal state.
- 5) **Greenhouse Gas Report:** Algorithm based, time stamped, data logged, totalized Greenhouse Gas report.

① **NOTE:** If you choose Analog Input-TOTALIZERS you will have more Optional report details functions, enabling you to get more detailed on your reports. Just click the check box and the FleetZOOM® system will generate the appropriate column on the report.

- **Every Sample**
- **Hourly**
- **Daily**
- **Weekly**
- **Monthly**

① **NOTE:** If you choose *Digital Input Events*, or *Digital Input Events-INVERTED* you will have more *Optional report details functions*, enabling you to get more detailed on your reports. Just click the check box and the *FleetZOOM®* system will generate the appropriate column on the report.

- **Events Over Prior Day**
- **Events Over Prior Week**
- **Events Over Prior Month**
- **Events Over Prior Year**

- **Time Over Prior Day**
- **Time Over Prior Week**
- **Time Over Prior Month**
- **Time Over Prior Year**

- **Duty Over Prior Day**
- **Duty Over Prior Week**
- **Duty Over Prior Month**
- **Duty Over Prior Year**

Second, Set a Date Range:

- 1) **Start Date:** Choose a start date on the top left calendar.
- 2) **End Date:** Choose a date on the bottom left calendar.

① **NOTE:** In the bottom left hand corner you have a **Quick Date Range** function. Clicking either of the four options quickly sets a date range ending on the present day.

Third, Records Reported Dropdown Menu: You have 10 options which provide data-logged line item amounts. You will choose one of these options based on your date range chosen.

- 1) **Up to 100**
- 2) **Up to 250**
- 3) **Up to 500**
- 4) **Up to 1000**
- 5) **Up to 5000 (Export Only)**
- 6) **Up to 10,000 (Export Only)**
- 7) **Up to 50,000 (Export Only)**
- 8) **Up to 100,000 (Export Only)**
- 9) **Up to 500,000 (Export Only)**
- 10) **Up to 1,000,000 (Export Only)**

If you need a printed report, choose a file format for printing: There are five options.

- 1) Excel
- 2) CSV
- 3) Notepad
- 4) HTML
- 5) XML

Last, after clicking on your file format of choice, a report will be generated with the unit's name, ESN number, date range, event totals, and time totals. You can choose to print the report from that programs menu.

“Control” Screen (Fig. 10)

In the “Control” screen you will be able to force your unit to check in, and remotely start or stop a piece of equipment for a predetermined period of time if the Digital Outputs have been utilized during the install.

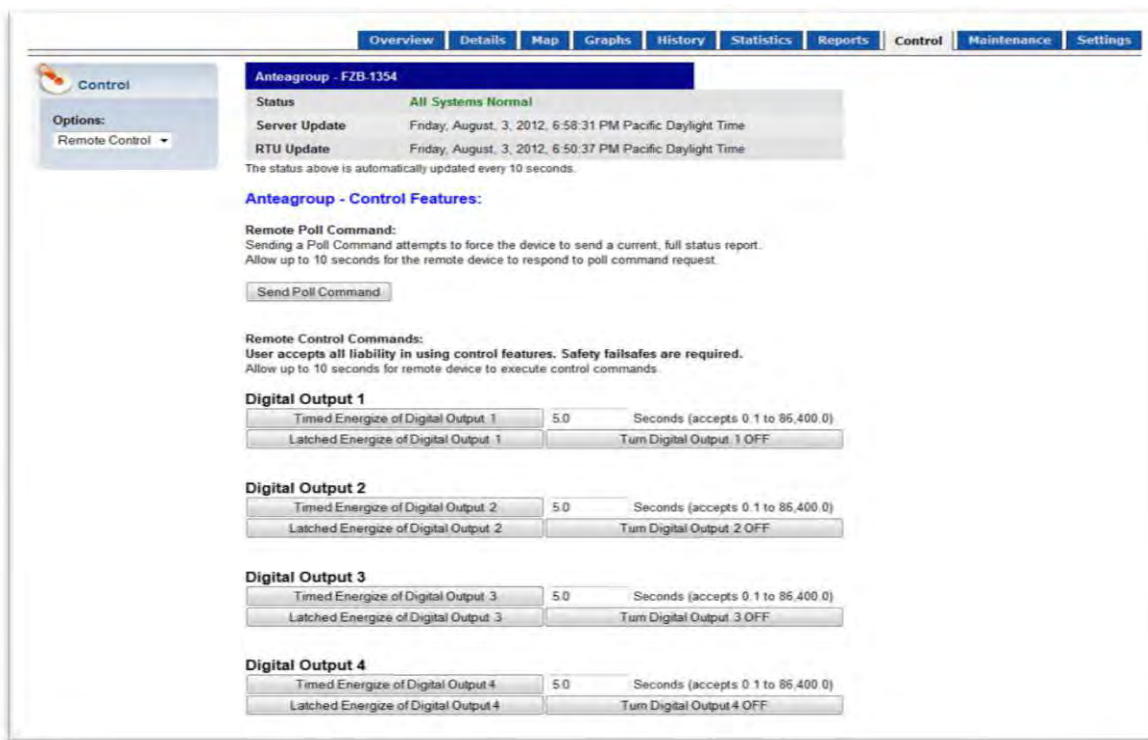


Fig. 10: Default “Control” screen

“Control” Screen Features: You have the ability to Send Poll Commands forcing your units to check in if you are in question of a units’ functionality. From this screen you can also energize the units Digital Outputs.

Remote Poll Command:

- 1) Under Remote Poll Command click the Send Poll Command
- 2) Allow the unit 10 seconds for the FZ device to respond to the request

① **Note:** You will notice the next to RTU Update at the top of the screen the time stamp should refresh.

Remote Control Commands:

- 1) Under Remote Control Commands choose any of the outputs available.
- 2) Choose one of the 3 options available per Output
 - a. Timed Energize: Energized based on a time in seconds designated
 - b. Latched Energize: Latched indefinitely until it is turned off or the unit power cycles
 - c. Turn Digital Output Off: Unlatches a latched output

“Maintenance” Screen (Fig. 11)

In the “Maintenance” screen you will be able to keep service logs for maintenance done on equipment, and schedule maintenance windows for your equipment to temporarily stop your FZ unit from sending out SMS messages, pages, and emails during that designated period of time.

The screenshot shows the FleetZOOM web interface. At the top, there is a navigation bar with tabs: Overview, Details, Map, Graphs, History, Statistics, Reports, Control, Maintenance (selected), and Settings. Below the navigation bar, a dropdown menu labeled 'Maintenance Features:' is set to 'Service Log'. The main content area is titled 'Service Log' and includes a descriptive text: 'The service log provides an editable journal of information to record about the selected equipment. The list is sorted by recent date and entries can be edited or deleted.' Below this text, there are two sections: 'Device Details' and 'Service Log Entry'. The 'Device Details' section shows 'Device Name' as 'Dreisbach' and 'ESN' as 'FZB-1036'. The 'Service Log Entry' section has a 'Date' field with '8/4/2012' and a 'Notes' text area. At the bottom of the form is an 'Add Entry' button.

Fig. 11: Default “Maintenance” screen

“Maintenance” Screen Features:

Creating a Service Log (Fig. 11)

- 1) Choose Service Log from the Maintenance Features dropdown menu
- 2) Verify The Device
- 3) Verify the Date
- 4) Input any service information within the Notes field
- 5) Click the Add Entry Box

Scheduling a Maintenance Window (Fig. 11.1)

- 1) Choose Schedule New Maintenance Window from the Maintenance Features Dropdown menu
- 2) Verify the device
- 3) Verify the Date
- 4) Verify the time
 - a. Maintenance Start- the unit stops sending messages
 - b. Maintenance Finish- the unit will begin sending messages as normal
- 5) Input any optional notes within the Notes field.
- 6) Click the Schedule Maintenance Window box.

Schedule New Maintenance Window

Scheduling a maintenance window disables all notifications for a specified period of time, preventing monitored equipment from transmitting unwanted notifications during service or testing. To schedule a maintenance window, select a device from the list at the top of the page, set the maintenance time below, and click "Schedule Maintenance Window".

Device Details

Device Name: Dreisbach
 ESN: FZB-1036
 Timezone: Pacific

Maintenance Window Schedule

Maintenance Start: 8/5/2012 9:00 AM Pacific
 Maintenance Finish: 8/5/2012 5:00 PM Pacific

Notes: Enter optional notes to record with the maintenance window here.

[Schedule Maintenance Window](#)

Fig. 11.1: Scheduling a New Maintenance Window

Modifying or Deleting a Maintenance Window (Fig. 11.2 and 11.3)

- 1) Choose Pending and Active Maintenance Windows from the Maintenance Features Dropdown menu
- 2) You will see all Pending and Active windows, choose which one to alter and click [modify](#)
- 3) You will be directed to a Modify Maintenance Window Screen where you have two options
 - a. Update Maintenance Window
 - b. Delete Maintenance Window

Pending and Active Maintenance Windows

1 Scheduled Maintenance Windows Displayed Below.

Details	Notes
Group: All Device: Dreisbach - FZB-1036 Start: 8/5/2012 9:00:00 AM Pacific Finish: 8/5/2012 5:00:00 PM Pacific Created By: Art Vandalay	Maintenance needed. modify

Fig. 11.2: Pending Maintenance Windows

1a) Updating Maintenance Window (Fig 11.3)

- a. Verify the Device
- b. Verify the Date
- c. Verify the time
 - i. Maintenance Start- the unit stops sending messages
 - ii. Maintenance Finish- the unit will begin sending messages as normal
- d. Input any optional notes within the Notes field.
- e. Click the Update Maintenance Window box.

2a) Deleting Maintenance Window (Fig. 11.3)

- a. Verify the Pending or Active Window to Delete
- b. Click Delete Maintenance Window
- c. You will be prompted to accept the deletion, click Delete Maintenance Window

Fig. 11.3: Modify Maintenance Windows

“Maintenance” Window History:

Through the Maintenance Screen you can see your History of Completed and Deleted Maintenance Windows.

Completed Maintenance Windows:

- 1) Choose Completed Maintenance Window from the Maintenance Features Dropdown menu

Deleted Maintenance Windows:

- 1) Choose Deleted Maintenance Window from the Maintenance Features Dropdown menu

“Settings” Screen (Fig. 12)

The “Settings” Screen gives you the ability to set-up your unit, change input names, scale analog values, add notifications.....

- ① **Note:** When you click on the “Settings” tab, by default the landing page will always be the Notifications List. This is done because the majority of time on the system will be adding, or altering individuals receiving alarms and notifications. (Fig. 12)

Fig. 12: “Settings” Screen

“Settings” Dropdown Menu: The “Settings” drop down menu will give 2 options.

- 1) Device Settings- For setting up and altering inputs, outputs, notification lists, etc.
- 2) Device Groups- For setting groups of devices

Device Settings: Under Section Dropdown Menu you will have 7 options.

- 1) **Device Details-** inputs basic info, site details, distributor info, and customer info
- 2) **Notifications List-** add or delete contacts, and import notification lists from other units
- 3) **Digital Inputs-** name inputs, change state, timers and counters, maintenance alerts
- 4) **Analog Inputs-** name inputs, scale inputs, set thresholds, input totalizer
- 5) **Digital Outputs-** name outputs
- 6) **Geofencing-** set up a geofence around a device’s geographical location
- 7) **Application Specific-** set up alarms for a generators lack of weekly exercise

Device Groups: Under Section Dropdown Menu you have 2 options.

- 1) **Group Details-** set groups name, input latitude and longitude for mapping interface
- 2) **Group Devices-** add or delete devices from groups

Device Details:

Basic Information: From the Basic Info section you can choose to display your device on the mapping interface, name your device, select a unit's time zone, and input latitude and longitude coordinates if the unit is not GPS-enabled.

The screenshot shows the 'Settings' page of the FleetZOOM interface. At the top, there is a navigation bar with tabs: Overview, Details, Map, Graphs, History, Statistics, Reports, Control, Maintenance, and Settings. The 'Settings' tab is selected. Below the navigation bar, there are three dropdown menus: 'Settings:' set to 'Device Settings', 'Section:' set to 'Device Details', and 'Device Details:' set to 'Basic Info'. The main content area is titled 'Device Settings for FZB-1036 - Dreisbach'. It contains three sections: 'Display Settings' with a 'Display Device' checkbox checked; 'Device Settings' with fields for 'Device ESN: FZB-1036', 'Device Name: Dreisbach', and 'Timezone: Pacific'; and 'Map Location' with an 'Open Map' button, 'Site Latitude (ex 32.4567): 36.86527', 'Site Longitude (ex -90.3456): -121.770945', and 'Fleet Icon Number: Not Set (Blank)'. At the bottom are 'Save' and 'Cancel' buttons.

Fig. 12.1: "Settings" Basic Information

Displaying a device on a map:

When choosing to display a device the unit will be visible on maps and reports, otherwise it is hidden from view. (Fig. 12.1)

- 1) Choose Basic Info from the Device Details dropdown menu in the Settings section
- 2) Find the Display Settings section
- 3) Find the Display Device check box
- 4) Click the Check box

Naming a device:

Naming a device will make navigating to find that unit easier. The unit name will be visible on the overview screen, texts, emails, reports, statistics, etc.. (Fig. 12.1)

- 1) Choose Basic Info from the Device Details dropdown menu in the Settings section
- 2) Find the Device Settings section
- 3) In the Device Name field, input the desired name
- 4) Click the Save button at the bottom of the screen

Setting a device's time zone:

Setting up a device's time zone will allow you to see the correct time on the details, reports, alarms, etc.. (Fig. 12.1)

- 1) Choose Basic Info from the Device Details dropdown menu in the Settings section
- 2) Find the Display Settings section
- 3) Find the Device Settings subsection
- 4) Choose your time zone from the Timezone dropdown menu
- 5) Click the Save button

Altering a device name: (Fig. 12.1)

- 1) Choose Basic Info from the Device Details dropdown menu in the Settings section
- 2) Find the Device Settings section
- 3) In the Device Name field, change the name
- 4) Click the Save button at the bottom of the screen

Inputting Latitude and Longitude Coordinates:

If your unit is not GPS enabled you will need to input GPS coordinates to see the unit visually on the map screen. (Fig. 12.1)

- 1) Choose Basic Info from the Device Details dropdown menu in the Settings section
- 2) Find the Map Location section
- 3) Find the Site Latitude field, input Latitude into the field
- 4) Find the Site Longitude field, Input Latitude into the field
- 5) Click the Save button at the bottom of the screen

① **Hint:** The Map button allows you to quickly locate a geographical position on a map without knowing the latitude and longitudinal coordinates.

Inputting Fleet Icon Numbers:

If your unit is GPS enabled you can display your units on the mapping screen numerically. (Fig. 12.1)

- 1) Choose Basic Info from the Device Details dropdown menu in the Settings section
- 2) Find the Map Location section
- 3) Find the Fleet Icon number dropdown menu at the bottom of the page
- 4) Select a number for the unit
- 5) Click the Save button at the bottom of the screen

Site Details: From the Site Details section you can input application description, equipment description, equipment serial numbers, site address, and any equipment notes you may have.

Overview Details Map Graphs History Statistics Reports Control Maintenance Settings

Settings: Device Settings ▾

Section: Device Details ▾

Device Details: Site Details ▾

Device Settings for FZB-1036 - Dreisbach

Device & Monitored Equipment Site Details

These optional details are shown in map balloons when the icon for this device is clicked on the Fleet view map.

Application Description:

Equipment Description:

Equipment Serial Number:

Equipment / Site Mailing Address:

Equipment Notes:

Save Cancel

Fig. 12.2: "Settings" Site Details

Inputting Site Details Information:

Using the Site Details section allows you to input either your equipment's information or your customer's giving you the ability to look up the important information quickly. **(Fig. 12.2)**

- 1) Choose Site Details from the Device Details dropdown menu in the Settings section
- 2) Input the application Information in the Application Description field
- 3) Input the equipment description in the Equipment Description field
- 4) Input any equipment serial numbers in the Equipment Serial Number field
- 5) Input the Equipment Site Address in the Equipment/Site Mailing Address field
- 6) Input any optional equipment notes in the Equipment Notes field
- 7) Click the Save button

Distributor Information: From the Distributor Information section you can input distributor company name, technical contacts, technician's phone number, and email address.

The screenshot shows the FleetZOOM Settings interface. At the top, there is a navigation bar with tabs: Overview, Details, Map, Graphs, History, Statistics, Reports, Control, Maintenance, and Settings. The Settings tab is selected. Below the navigation bar, there are three dropdown menus: Settings (set to Device Settings), Section (set to Device Details), and Device Details (set to Distributor Information). The main content area is titled 'Device Settings for - Dreisbach' and contains a section for 'Distributor Information'. This section includes a note: 'These optional details are included in email notifications from the device so users know who can help them.' Below the note are four input fields: 'Distributor Company Name:', 'Distributor Technical Contacts:', 'Distributor Tech Contact Phone Numbers:', and 'Distributor Tech Contact Email Addresses:'. At the bottom of the form are 'Save' and 'Cancel' buttons.

Fig. 12.3: "Settings" Distributor Information

Inputting Distributor Information:

Using the Distributor Information section allows you to quickly find your distributors contact information. (Fig. 12.3)

- 1) Choose Distributor Information from the Device Details dropdown menu in the Settings section
- 2) Input the Distributors Company name in the Distributor Company Name field
- 3) Input the Distributors Contacts within the Distributors Contacts field
- 4) Input the Distributors technicians phone numbers within the Distributor Tech contact phone numbers field
- 5) Input the Distributors technicians email address within the Distributor Tech contact email address field
- 6) Click the Save button

① **Note:** When you fill in the Distributor Information in this section, the information will be visible on the Details screen, and you will also see this information when you receive an email, or a text message from the system. (Fig. 12.3)

Customer Information: From the customer information section you can input the customers company name, address, customers technician name, technicians phone number, and email address.

The screenshot shows the FleetZOOM web interface. At the top is a navigation bar with tabs: Overview, Details, Map, Graphs, History, Statistics, Reports, Control, Maintenance, and Settings. The 'Settings' tab is selected. Below the navigation bar, there are three dropdown menus: 'Settings:' set to 'Device Settings', 'Section:' set to 'Device Details', and 'Device Details:' set to 'Customer Information'. The main content area is titled 'Device Settings for - Dreisbach' and contains a section for 'Customer Information'. This section includes a note: 'These optional details are stored here for distributors and their personnel to reference if they need to contact the users of the device.' Below the note are six input fields: 'Customer Company Name:', 'Customer Company Mailing Address:', 'Customer Technical Contact:', 'Customer Tech Contact Phone Numbers:', and 'Customer Tech Contact Email Addresses:'. At the bottom of the form are 'Save' and 'Cancel' buttons.

Fig. 12.4: “Settings” Customer Information

Inputting Customer Information:

Using the Distributor Information section allows you to quickly find your distributors contact information. (Fig. 12.4)

- 1) Choose Customer Information from the Device Details dropdown menu in the Settings section
- 2) Input the Customer Company name in the Customer Company Name field
- 3) Input the Customers Mailing Address in the Customer Company Mailing Address field
- 4) Input the Customers technicians name within the customer Technical contact field
- 5) Input the Customers technicians contact phone number in the Customer Tech Contact Phone Number field
- 6) Input the Customers technicians email address in the Customer tech contact Email address field
- 7) Click the Save button

Notification List: This section allows you to add, subtract, or alter who receives alarming messages and how they receive them.

Fig. 12.5: “Settings” Notification List

Adding Names and numbers to the Notification List:

This section allows you to easily add individuals to the outgoing alarms, and/or daily reports. (Fig. 12.5)

- 1) Choose Notification List from the Section dropdown menu in the Settings section
 - 2) Choose Add or Edit from the Notification List dropdown menu
 - 3) Click new address on the right hand side of the page
 - 4) Input the person’s name in the Recipients Name field
 - 5) Choose the format from two options
 - a. Email- Reports, and alarms will go to specified email address
 - b. SMS- Reports, and alarms will go to specified email address
 - 6) Input either an email address or a 10 digit cellular phone number based on the option chose in step #5
 - 7) Choose on the Daily Status Update dropdown menu if you would like a daily update report, or None-Disabled if you do not
 - 8) Input any digital inputs, or analog inputs you would like to ONLY be alarmed on (see the example below) leave blank if you want to receive any and all alarms
 - 9) Click on the Save button
- ① **Example:** If you would prefer not to be alarmed on every alarm, but just a few you can input those into the Enabled Alarms field. For example, for digital input #4 put DI4 in the Enabled alarms field. For analog inputs, for example Analog input #3, put AI3 in the Enabled alarms field. If there are multiple inputs separate them by a single space. (ex. DI4 AI4)
- ① **Hint:** In the Enabled Alarms field, if it is left blank you will receive all alarms. If it says ‘Master Notification’, you will also receive all alarms.

Settings: Device Settings ▾

Section: Notification List ▾

Notification List: Add or Edit ▾

New RTU FZB-1783 (FZB-1783) Notification List

Click on an addresses below to edit, or click the New Address button to add to the list:

Name	Address	Format	Daily Report Time	Enabled Alarms
Benjamin Button	Ben@FleetZOOM.com	email		Master Notification
Justin Roberts	Justin@FleetZOOM.com	email		Master Notification

New Address

New RTU FZB-1783 - FZB-1783

Notification List Address Details

Recipient's Name: Justin Roberts

Format: email ▾

Email Address: Justin@FleetZOOM.com

Daily Status Update: none - disabled ▾

Enabled Alarms: Master Notification

Save Cancel Test Delete

Fig. 12.6: "Settings" Altering Notification List

Changing Names and/or numbers in the Notification List:

This section allows you to easily alter information in the notifications list. (Fig. 12.6)

- 1) Choose Notification List from the Section dropdown menu in the Settings section
- 2) Choose Add or Edit from the Notification List dropdown menu
- 3) Click on the individuals name of whom you would like to alter, it will highlight yellow
- 4) A **Notification List Address Details** section will appear
- 5) Alter the Recipients Name in the Recipients Name field if necessary
- 6) Alter the Format if necessary
 - a. Email Address
 - b. SMS Message
- 7) Alter either the Email Address, or the SMS number if necessary
- 8) Alter the Daily status update information using the dropdown menu if necessary
- 9) Alter the Enabled alarms in the enabled alarms field if necessary
- 10) Click on the Save button

Deleting Individuals from the Notification List:

This section allows you to easily delete individuals from the notifications list. **(Fig. 12.6)**

- 1) Choose Notification List from the Section dropdown menu in the Settings section
- 2) Choose Add or Edit from the Notification List dropdown menu
- 3) Click on the individuals name of whom you would like delete, it will highlight yellow
- 4) A **Notification List Address Details** section will appear with the individuals information
- 5) Click the Delete Button
- 6) You will be asked again for verification, click the Delete button

Sending a Test Message from the Notification List:

This section allows you to send a test message to verify an individual is receiving alarms/alerts from the system. **(Fig. 12.6)**

- 1) Choose Notification List from the Section dropdown menu in the Settings section
- 2) Choose Add or Edit from the Notification List dropdown menu
- 3) Click on the individual of whom you would like send a test message, it will highlight yellow
- 4) A **Notification List Address Details** section will appear with the individuals information
- 5) Click the Test Button
- 6) You will be asked again for verification, click the Send button

① **Email Troubleshooting Hint:** *If an individual does not receive the 'test' message email please verify the email address in the notification list is correct. If the information is correct, please check your spam or junk folder in your email account. If this doesn't resolve the issue, please call your IT department and make sure you are receiving emails from anything from @fleetzoom.com.*

① **SMS Troubleshooting Hint:** *If an individual does not receive the 'test message text' please verify the SMS number in the notification list is correct. If the information is correct, call the individuals cellular provider and make sure the cellular device is SMS message capable and activated.*

Import Notification List: This feature enables an entire notification list from another unit to be copied into the present units' notification list.

Name	Address	Format	Daily Report Time	Enabled Alarms
Jeff Fisher	Jeff@FleetZOOM.com	email		Master Notification

Fig. 12.7: “Settings” Import Notification List

Importing a Notification List from an old unit to a new unit:

This section allows you to add individuals to a unit quickly by importing a notification list from another FleetZOOM® device to the current one. (Fig. 12.7)

- 1) Choose Notification List from the Section dropdown menu in the Settings section
- 2) Choose Import Notification List from the Notification List dropdown menu
- 3) Input a units ESN number into the Review List to Copy field
- 4) Click review list to copy
- 5) Review the list to ensure its accuracy
- 6) If this is the list you wish to import, click the Import button

① **Hint:** Any information already residing in the notification list will remain and not be deleted when using the Import function. If importing to another unit and a duplicate email or sms account arises the system will automatically skipped.

Digital Inputs Section: This section enables you to name your digital inputs, change a inputs state from a Normally Opened to a Normally Closed state, set up timers and counters, and set up preventative maintenance reminders.

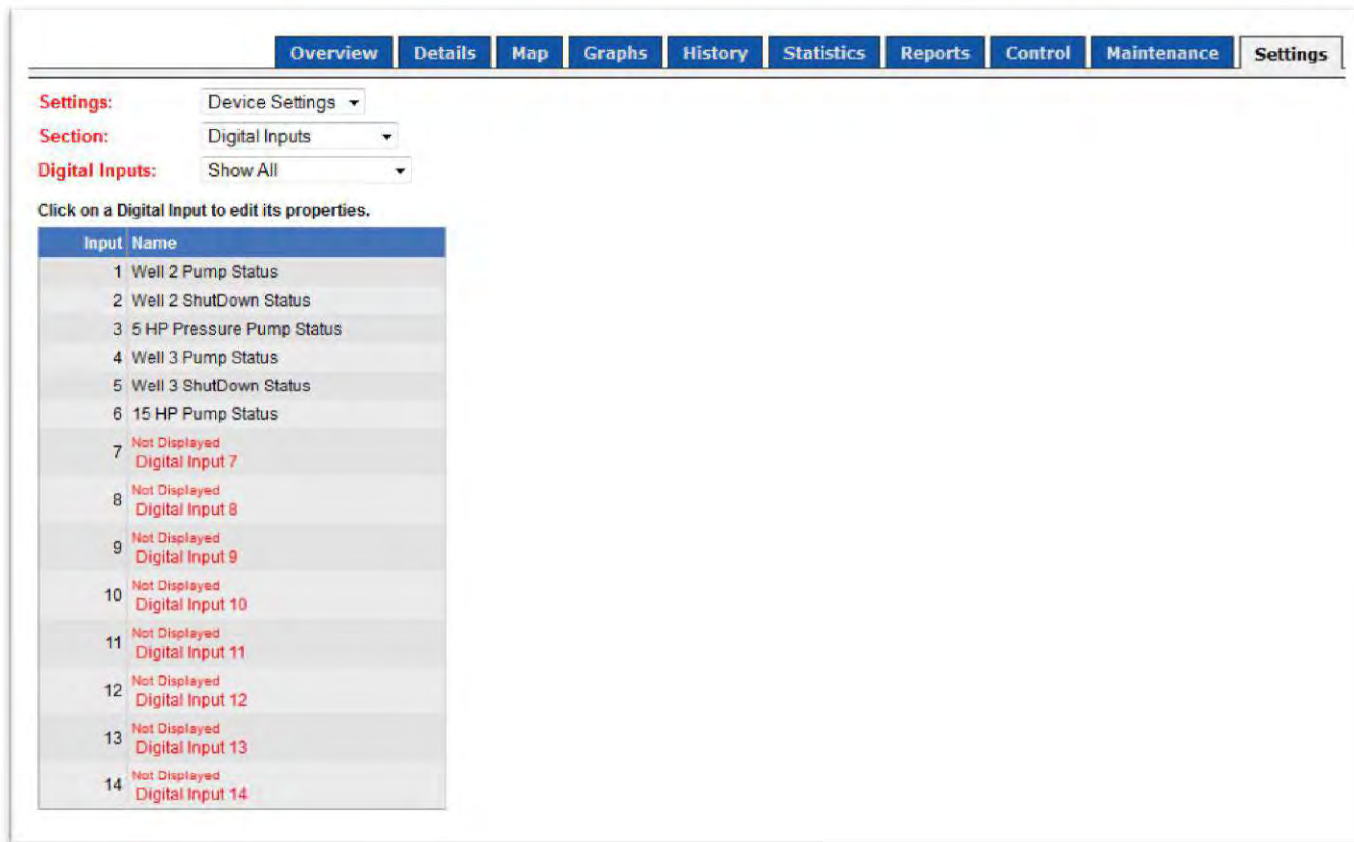


Fig. 12.8: “Settings” Digital Inputs Show All

Showing all available Digital Inputs:

This section allows you how to see how many available digital inputs, and what they are set up to monitor. (Fig. 12.8)

- 1) Choose Digital Inputs from the Section dropdown menu in the Settings section
- 2) Choose Show All from the Digital Inputs dropdown menu
- 3) The system will generate a list of all digital inputs

① **Digital Input Hint:** From the current FZ model units, the FZ100 has 3 digital inputs, the FZ200 has 6 digital inputs, and the FZ300 and FZ400 have 14 Digital Inputs.

Settings: Device Settings ▾

Section: Digital Inputs ▾

Digital Inputs: Show All ▾ Manage: Basic Settings ▾

Click on a Digital Input to edit its properties.

Input	Name
1	Well 2 Pump Status
2	Well 2 ShutDown Status
3	5 HP Pressure Pump Status
4	Well 3 Pump Status
5	Well 3 ShutDown Status
6	15 HP Pump Status
7	Not Displayed Digital Input 7
8	Not Displayed Digital Input 8
9	Not Displayed Digital Input 9
10	Not Displayed Digital Input 10
11	Not Displayed Digital Input 11
12	Not Displayed Digital Input 12
13	Not Displayed Digital Input 13
14	Not Displayed Digital Input 14

Dreisbach - FZB-1036

Digital Input Basic Settings

Digital Input: 7

Display Input: ☒

Signal Name: Digital Input 7

Save Cancel

Fig. 12.9: “Settings” Naming a Digital Input

Naming a Digital Input:

This section allows you to easily name your digital inputs. (Fig. 12.9)

- 1) Choose Digital Inputs from the Section dropdown menu in the Settings section
- 2) Choose Show All from the Digital Inputs dropdown menu
- 3) The system will generate a list of all digital inputs
- 4) Click on the available digital input to name, it will highlight yellow
- 5) A digital input Basic settings Section will appear
- 6) Click the Display Input check box
- 7) In the Signal Name field, input the name desired for that input
- 8) Click the Save button

Settings: Device Settings ▾

Section: Digital Inputs ▾

Digital Inputs: Show Displayed Only ▾ Manage: Basic Settings ▾

Click on a Digital Input to edit its properties.

Input	Name
1	Generator Running
3	Low Fuel
4	Overspeed
6	Not In Auto
7	Low Oil Pressure
8	Overcrank
11	High Engine Temp

Covenant Management Systems - FZA-1057

Digital Input Basic Settings

Digital Input: 1

Display Input: ☒

Signal Name: Generator Running

Save Cancel

Fig. 12.10: “Settings” Import Notification List

Altering a Digital Input name:

This section allows you to alter a digital inputs name. (Fig. 12.10)

- 1) Choose Digital Inputs from the Section dropdown menu in the Settings section
- 2) The system will generate a list of currently used digital inputs
- 3) Click on the available digital input to alter, it will highlight yellow
- 4) A digital input Basic Settings Section will appear
- 5) In the Signal Name field, alter the name for that input
- 6) Click the Save button

Settings: Device Settings ▾

Section: Digital Inputs ▾

Digital Inputs: Show Displayed Only ▾ Manage: Normally Open Or Closed Configuration ▾

Click on a Digital Input to edit its properties.

Mode: Standard ▾

Input	Name
1	Generator Running
3	Low Fuel
4	Overspeed
6	Not In Auto
7	Low Oil Pressure
8	Overcrank
11	High Engine Temp

Covenant Management Systems - FZA-1057

Digital Input Normally Open Or Closed Configuration

Digital Input: 1

Signal Name: Generator Running

Current Status: Normal

Status Reported: Monday, August 06, 2012
4:28:49 PM Central Daylight Time

Input Configuration: Normally Open

Change to Normally Closed

Fig. 12.11: “Settings” Changing Digital Input Status

Changing a Digital Inputs Status:

This section allows you to change the status of a digital input from Normally Opened to a Normally Closed input. (Fig. 12.11)

- 1) Choose Digital Inputs from the Section dropdown menu in the Settings section
- 2) The system will generate a list of currently used digital inputs
- 3) Click on the digital input to alter, it will highlight yellow
- 4) A digital input Basic Settings Section will appear
- 5) On the Manage dropdown Menu select Normally Opened or Closed Configuration
- 6) Choose Normally Open or Closed Configuration From the Manage Dropdown menu
- 7) Under input configuration, click the button Change to Normally Open

The screenshot shows the 'Settings' tab in the FleetZOOM interface. Under the 'Digital Inputs' section, a list of inputs is shown on the left, with '1 Generator Running' highlighted in yellow. On the right, the configuration for 'Digital Input: 1' is displayed. The 'Manage' dropdown is set to 'Value Labels And Alarming Statuses'. The configuration includes a signal name 'Generator Running', a low signal description 'LOW Signal = Digital Value 0 = Less Than 1 Volt Measured On Digital Input Terminal 1', and a high signal description 'HIGH Signal = Digital Value 1 = More Than 3 Volts Measured On Digital Input Terminal 1'. The status for the low signal is set to 'ALARMING Status' and for the high signal is set to 'Normal Status'. 'Save' and 'Cancel' buttons are at the bottom.

Fig. 12.12: “Settings” Import Notification List

Changing a Digital Inputs Label and Alarming Statuses:

This section allows you to alter whether a digital input alarms on a low (< 1 VDC) or a high (>3 VDC) signal. You can alter the label associated with a Normal or Alarming Status. (Fig. 12.12)

- 1) Choose Digital Inputs from the Section dropdown menu in the Settings section
- 2) The system will generate a list of currently used digital inputs
- 3) Click on the digital input to alter, it will highlight yellow
- 4) A digital input Basic Settings Section will appear
- 5) On the Manage Dropdown menu select Value Labels and Alarming Statuses
- 6) In the Low Signal subsection input a Label
- 7) In the Low Signal subsection use the Status Dropdown menu chose either
 - a. Alarming Status
 - b. Normal Status
- 8) In the High Signal subsection input a Label
- 9) In the High Signal subsection use the Status Dropdown menu chose either
 - a. Alarming Status
 - b. Normal Status
- 10) Click the Save Button

The screenshot shows the FleetZOOM Settings interface. At the top, there are tabs: Overview, Details, Map, Graphs, History, Statistics, Reports, Control, Maintenance, and Settings. The Settings tab is active. Below the tabs, there are dropdown menus for 'Settings' (Device Settings), 'Section' (Digital Inputs), 'Digital Inputs' (Show Displayed Only), and 'Manage' (Timers and Counters). A message says 'Click on a Digital Input to edit its properties.' Below this is a table of digital inputs:

Input	Name
1	Generator Running
3	Low Fuel
4	Overspeed
6	Not In Auto
7	Low Oil Pressure
8	Overcrank
11	High Engine Temp

The 'Generator Running' input is highlighted in yellow. To the right, the 'Covenant Management Systems - FZA-1057' configuration window is open, showing the 'Digital Input Timers & Counters' section. It includes fields for 'Digital Input: 1', 'Signal Name: Generator Running', 'Count & Time: Low Signals (Digital Value 0)', and 'Display: Not Displayed In Digital Input Details'. Below this are 'Timer Features' and 'Counter Features' sections, each with a 'Mode' dropdown (set to 'Recorded As Statistic Only') and a 'Seed' field (99.10 Hours for Timer, 243 Events for Counter). 'Save' and 'Cancel' buttons are at the bottom.

Fig. 12.13: “Settings” Import Notification List

Digital Input Timers and Counters:

This section allows you time and count a digital input over time. (Fig. 12.13)

- 1) Choose Digital Inputs from the Section dropdown menu in the Settings section
- 2) The system will generate a list of currently used digital inputs
- 3) Click on the digital input to alter, it will highlight yellow
- 4) A digital input Basic Settings Section will appear
- 5) On the Manage Dropdown menu select Timers and Counters
- 6) In the Digital Input Timers & Counters subsection use the Count & Time dropdown menu and select one of the 2 options
 - a. Low Signals
 - b. High Signals
- 7) Next under the Display dropdown menu choose one of the 2 options
 - a. Not Displayed in Digital Input Details
 - b. Display Complete Summary in Digital Input Details
- 8) Choose if you want to time based on hours (8a) or count on event totals (8b)
- 8a) In the Timer Features subsection, select one of the 2 mode options
 - a. Recorded as a Statistic Only
 - b. Show Summary at Top of Device Status
- 9a) Input the current hours in the Seed Timer field box
- 10a) Click the Save Button
- 8b) In the Counter Features subsection, select one of the 2 mode options
 - a. Recorded as a Statistic Only
 - b. Show Summary at Top of Device Status
- 9a) Input the current amount of Events in the Seed Timer field box
- 10a) Click the Save Button

Settings: Device Settings ▾

Section: Digital Inputs ▾

Digital Inputs: Show Displayed Only ▾ **Manage:** Preventative Maintenance Reminders ▾

Click on a Digital Input to edit its properties.

Input	Name
1	Generator Running
3	Low Fuel
4	Overspeed
6	Not In Auto
7	Low Oil Pressure
8	Overcrank
11	High Engine Temp

Covenant Management Systems - FZA-1057

Digital Input Preventative Maintenance Reminders

Digital Input: 1

Signal Name: Generator Running

Usage Based Reminder

Mode: Disabled ▾

Remind After: 0.00 Hours of Use

Note Displayed: Service or Preventative Maintenance Required; Run Time Interval Elapsed.

Date Based Reminder

Mode: Disabled ▾

Remind After: 1/1/2099 Date (m/d/yyyy)

Note Displayed: Service or Preventative Maintenance Required; Scheduled Service Date Reached.

Save Cancel

Fig. 12.14: “Settings” Import Notification List

Setting up Preventative Maintenance Reminders:

This section allows you set up a piece of equipment’s maintenance reminder based on hours ran or on a date range. (Fig. 12.14)

- 1) Choose Digital Inputs from the Section dropdown menu in the Settings section
- 2) The system will generate a list of currently used digital inputs
- 3) Click on the digital input to alter, it will highlight yellow
- 4) A digital input Basic Settings Section will appear
- 5) On the Manage Dropdown menu select Timers and Counters
- 6) Choose if you want the reminder time based in hours (7a) or date based (7b)
- 7a) In the Usage Based Reminder subsection, select one of the 2 mode options
 - a. Disabled
 - b. Noted in Emails and Reports
- 8a) Input the hours to be reminded after in the Hours of Use field
- 9a) Input any notes to display in the Note Displayed field
- 10a) Click the Save Button
- 7b) In the Counter Features subsection, select one of the 2 mode options
 - a. Disabled
 - b. Noted in Emails and Reports
- 8b) Input the date to be reminded after in the Remind After field
- 9b) Input any notes to display in the Note Displayed field
- 10b) Click the Save Button

Analog Inputs Section: This section enables you to name your analog inputs, scale a input, setting alarming thresholds on analog inputs, and setting up totalizers on analog inputs.

Settings: Device Settings ▾

Section: Analog Inputs ▾

Analog Inputs: Show Displayed Only ▾

Click on an Analog Input to edit its properties.

Input	Name
	Ambient Temperature
	Signal Strength
	Backup Battery
	Main Power

Dreisbach, ESN: FZB-1036:

Analog Input 2 is now hidden and won't be displayed as part of the status for this device.

Change Analog Inputs option to "Show All" to configure hidden inputs or restore visibility.

Fig. 12.15: "Settings" Import Notification List

Showing units default Analog Signals:

This section allows you how to see, alter the names, and set up alarming thresholds of the default analog signals of any FZ model unit. (Fig. 12.15)

- 1) Choose Analog Inputs from the Section dropdown menu in the Settings section
- 2) The system will generate a list of all Analog inputs

① **Analog Input Hint:** All current FZ model units have Ambient Temperature in Fahrenheit, Signal Strength in percentage, Backup Battery Voltage in VDC (if the unit is equipped with a back-up battery), and Main Power in VDC.

Settings: Device Settings ▾

Section: Analog Inputs ▾

Analog Inputs: Show All ▾

Click on an Analog Input to edit its properties.

Input	Name
	Ambient Temperature
	Signal Strength
	Backup Battery
	Main Power
1	Not Displayed Analog Input 1
2	Not Displayed Analog Input 2

Fig. 12.16: "Settings" Import Notification List

Showing all available Analog Inputs:

This section allows you how to see how many available analog inputs, and what they are set up to monitor. (Fig. 12.16)

- 1) Choose Analog Inputs from the Section dropdown menu in the Settings section
- 2) Choose Show All from the Digital Inputs dropdown menu
- 3) The system will generate a list of all Analog inputs

① **Digital Input Hint:** From the current FZ model units, the FZ100 has no analog inputs, the FZ200 has 1 analog input, and the FZ300 has 2 analog inputs, and the FZ400 has 10 analog Inputs.

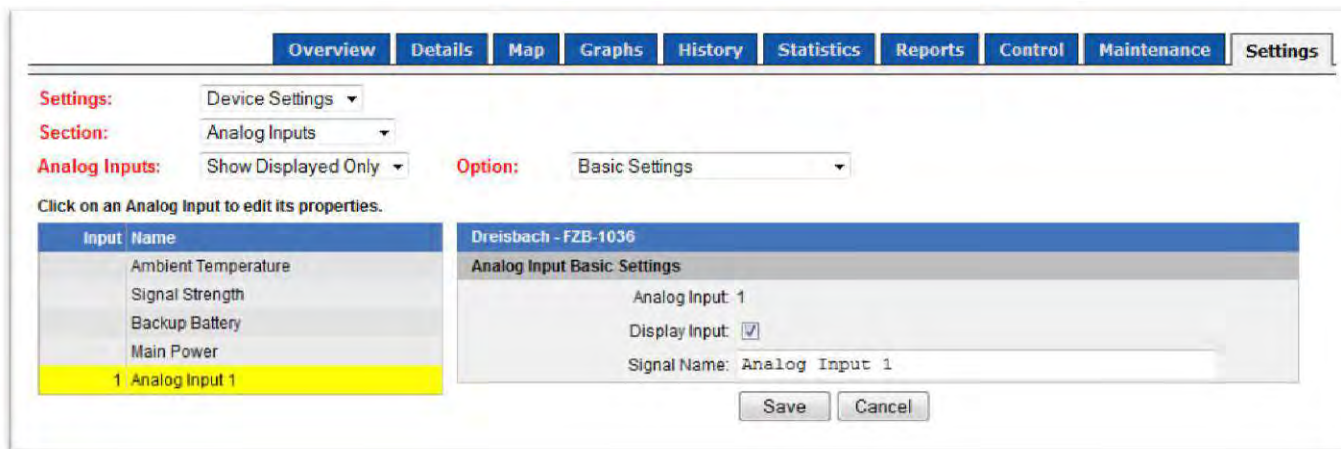


Fig. 12.17: “Settings” Import Notification List

Naming an Analog Input:

This section allows you to easily name your analog inputs. (Fig. 12.17)

- 1) Choose Analog Inputs from the Section dropdown menu in the Settings section
- 2) Choose Show All from the Analog Inputs dropdown menu
- 3) The system will generate a list of all the analog inputs
- 4) Click on the available analog input to name, it will highlight yellow
- 5) A analog input Basic settings Section will appear
- 6) Click the Display Input check box
- 7) In the Signal Name field, input the name desired for that input
- 8) Click the Save button

Altering an Analog Input name:

This section shows you how to change to a analog inputs name. (Fig. 12.17)

- 1) Choose Analog Inputs from the Section dropdown menu in the Settings section
- 2) Choose Show All from the analog Inputs dropdown menu
- 3) The system will generate a list of all digital inputs
- 4) Click on the analog input to alter, it will highlight yellow
- 5) A analog input Basic settings Section will appear
- 6) Click the Display Input check box
- 7) In the Signal Name field, alter the name
- 8) Click the Save button

The screenshot shows the FleetZOOM Settings page. At the top, there is a navigation bar with tabs: Overview, Details, Map, Graphs, History, Statistics, Reports, Control, Maintenance, and Settings. The Settings tab is active. Below the navigation bar, there are several dropdown menus: Settings (Device Settings), Section (Analog Inputs), Analog Inputs (Show Displayed Only), Option (Analog Input Scaling Settings), and Mode (Standard). A message says "Click on an Analog Input to edit its properties." Below this is a table of analog inputs:

Input	Name
	Ambient Temperature
	Signal Strength
	Backup Battery
	Main Power
1	Analog Input 1

The "Analog Input 1" row is highlighted in yellow. To the right of the table, the "Analog Input Scaling Settings" section is displayed for "Analog Input 1". It shows the following fields:

- Analog Input: 1
- Signal Name: Analog Input 1
- Voltage Measured At Terminal: 0.000 Volts
- Current Through Burden Resistor: 0.000 mA
- Scaling Mode: Voltage Input (dropdown menu)
- Scaled Output with 0 Volts Input: 0
- Scaled Output with 5 Volts Input: 5
- Scaled Output Display Units: Volts
- Offset Applied To Scaled Output: 0

At the bottom of the scaling settings section, there are buttons for "Save" and "Cancel". Below these, it shows the "Latest Scaled Value: 0.000 Volts" and the "Sample Taken: Monday, August 06, 2012 3:15:39 PM Pacific Daylight Time". At the very bottom, there are buttons for "Take New Sample" and "Refresh".

Fig. 12.18: "Settings" Import Notification List

Scaling an Analog Input:

This section shows you how to scale an analog input. (Fig. 12.18)

- 1) Choose Analog Inputs from the Section dropdown menu in the Settings section
- 2) The system will generate a list of all analog inputs
- 3) Click on the analog input to scale, it will highlight yellow
- 4) A analog input Basic settings Section will appear
- 5) Click Analog Input scaling settings from the option dropdown menu
- 6) A Analog input scaling settings section will appear
- 7) Using the Scaling mode dropdown menu select one of the 3 options
 - a. Voltage Input
 - b. 4-20 mA current input
 - c. 0-20 mA current input
- 8) Based on your choice the following 2 fields will adjust to match your choice
- 9) Fill in the field with the scaled output at the low setting
- 10) Fill in the field with the scaled output at the high setting
- 11) Fill in the Scaled Output Display Units
- 12) Fill in Offset Applied to scaled Output
- 13) Click the save button

① **Scaling Analog Input Hint:** Use the take new sample button to see what value the unit is seeing. If the value is high or low compared to what you see or expect, you may apply an offset in the Offset Applied to Scale Output field.

The screenshot shows the FleetZOOM web interface. At the top is a navigation bar with tabs: Overview, Details, Map, Graphs, History, Statistics, Reports, Control, Maintenance, and Settings. The 'Settings' tab is active. Below the navigation bar, there are dropdown menus for 'Settings:' (Device Settings), 'Section:' (Analog Inputs), and 'Analog Inputs:' (Show Displayed Only). A red instruction says 'Click on an Analog Input to edit its properties.' Below this is a table of analog inputs:

Input	Name
	Ambient Temperature
	Signal Strength
	Backup Battery
	Main Power
1	Analog Input 1

The 'Analog Input 1' row is highlighted in yellow. To the right of the table, there are dropdowns for 'Option:' (Analog Input Alarm Settings) and 'Mode:' (Standard). Below these is a section titled 'Dreisbach - FZB-1036' with a sub-section 'Analog Input Alarm Settings'. Inside this section, it shows 'Analog Input: 1' and 'Signal Name: Analog Input 1'. There is a dropdown for 'Scaled Analog Input Alarming Mode' set to 'ENABLED: Alarm On Thresholds'. Below this are two input fields: 'Low Alarm When Less Than: 0' and 'High Alarm When More Than: 0', both followed by a 'Temperature' label. At the bottom of this section are 'Save' and 'Cancel' buttons. Below the buttons, it shows 'Latest Scaled Value: 0.000 Temperature' and 'Sample Taken: Monday, August 06, 2012 3:18:51 PM Pacific Daylight Time'.

Fig. 12.19: "Settings" Thresholds on Analog Inputs

Setting threshold alarms on Analog Inputs:

This section shows you how to add an alarming threshold on an analog input. (Fig. 12.19)

- 1) Choose Analog Inputs from the Section dropdown menu in the Settings section
- 2) Choose Show All from the Analog Inputs dropdown menu
- 3) The system will generate a list of all analog inputs
- 4) Click on the analog input you want to set up a threshold on, it will highlight yellow
- 5) A analog input Basic settings Section will appear
- 6) From the option dropdown menu, click on analog input alarm settings
- 7) A analog input alarm settings section will appear
- 8) In the scaled analog input alarming mode dropdown menu choose ENABLED
- 9) Input your numerical value for a low condition in the first field
- 10) Input your numerical value for a high condition in the second field
- 11) Click the Save button

The screenshot shows the FleetZOOM Settings interface. At the top, there is a navigation bar with tabs: Overview, Details, Map, Graphs, History, Statistics, Reports, Control, Maintenance, and Settings. The Settings tab is active. Below the navigation bar, there are several dropdown menus: Settings (Device Settings), Section (Analog Inputs), Analog Inputs (Show Displayed Only), Option (Analog Input Totalizer Settings), and Mode (Settings). A message says 'Click on an Analog Input to edit its properties.' Below this is a table with columns 'Input' and 'Name'. The table lists: Ambient Temperature, Signal Strength, Backup Battery, Main Power, and '1 Analog Input 1' (highlighted in yellow). To the right of the table is the 'Analog Input Totalizer Settings' form for 'Dreisbach - FZB-1036'. The form has sections for 'Analog Input Totalizer Settings' (Analog Input: 1, Signal Name: Analog Input 1), 'Mode' (Analog Input Totalizer Mode: DISABLED: Totalizer OFF), 'Labels' (Totalizer Label: Totalizer, Totalizer Units: Units), and 'Totalizers Displayed' (a list of checkboxes for Hour Total, 24 Hour Total, 7 Day Total, 30 Day Total, Annual Total, and Grand Total). A note states: 'Each checked totalizer is displayed in emails and details for the device. Note that data for all 6 totalizers is recorded regardless of which ones are displayed.' At the bottom are 'Save' and 'Cancel' buttons.

Fig. 12.20: "Settings" Import Notification List

Setting up Analog Input Totalizers:

This section allows you to totalize analog inputs based on time. (Fig. 12.20)

- 1) Choose Analog Inputs from the Section dropdown menu in the Settings section
- 2) Choose Show All from the Analog Inputs dropdown menu
- 3) The system will generate a list of all analog inputs
- 4) Click on the analog input you want to set up a threshold on, it will highlight yellow
- 5) A analog input Basic settings Section will appear
- 6) From the option dropdown menu, click on analog input Totalizer Settings
- 7) Under the Mode subsection use the dropdown menu and select one of the 5 options
 - a. DISABLED: Totalizer OFF
 - b. ENABLED: Totalize Units per Minute
 - c. ENABLED: Totalize Units per Hour
 - d. ENABLED: Totalize Increased Readings
 - e. ENABLED: Totalize Decreased Readings
- 8) Under the Labels subsection input a label in the Totalizer Label field
- 9) Under the Labels subsection input a unit in the Totalizer Units field
- 10) Under the Totalizers Displayed subsection check up to 6 of the 6 options
 - a. Hour Total
 - b. 24 Hour Total
 - c. 7 Day Total
 - d. 30 Day Total
 - e. Annual Total
 - f. Grand Total
- 11) Click the Save Button

Digital Outputs Section: This section shows you how to name your Digital Outputs, and alter the Digital Outputs names.



Fig. 12.21: “Settings” Import Notification List

Viewing the Digital Outputs:

This section allows you to see your digital outputs, and what they are set up to control. (Fig. 12.21)

- 1) Choose Digital Outputs from the Section dropdown menu in the Settings section
- 2) By default the digital outputs dropdown will be on show displayed only
- 3) The system will generate a list of all Digital Outputs
- 4) You will see what they are named and what they control

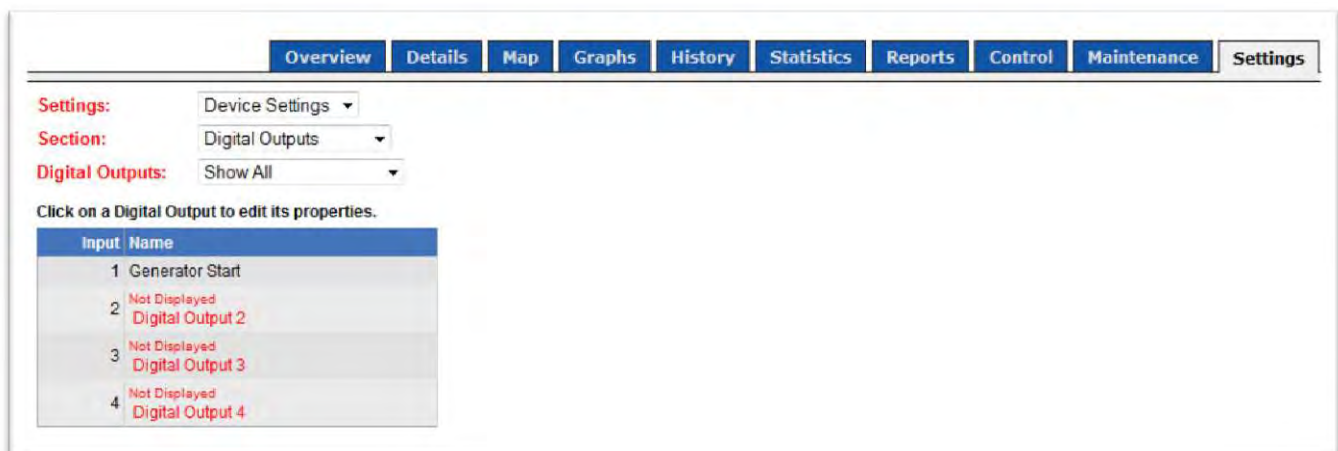


Fig. 12.22: “Settings” Import Notification List

Showing all available Digital Outputs:

This section allows you to see how many available digital outputs, and what they are set up to control. (Fig. 12.22)

- 1) Choose Digital Outputs from the Section dropdown menu in the Settings section
- 2) Choose Show All from the Digital Outputs dropdown menu
- 3) The system will generate a list of all Digital Outputs

① **Digital Input Hint:** From the current FZ model units, the FZ100 has 1 digital output, the FZ200 has 2 digital outputs, the FZ300 has 4 digital outputs, and the FZ400 also has 4 digital outputs.

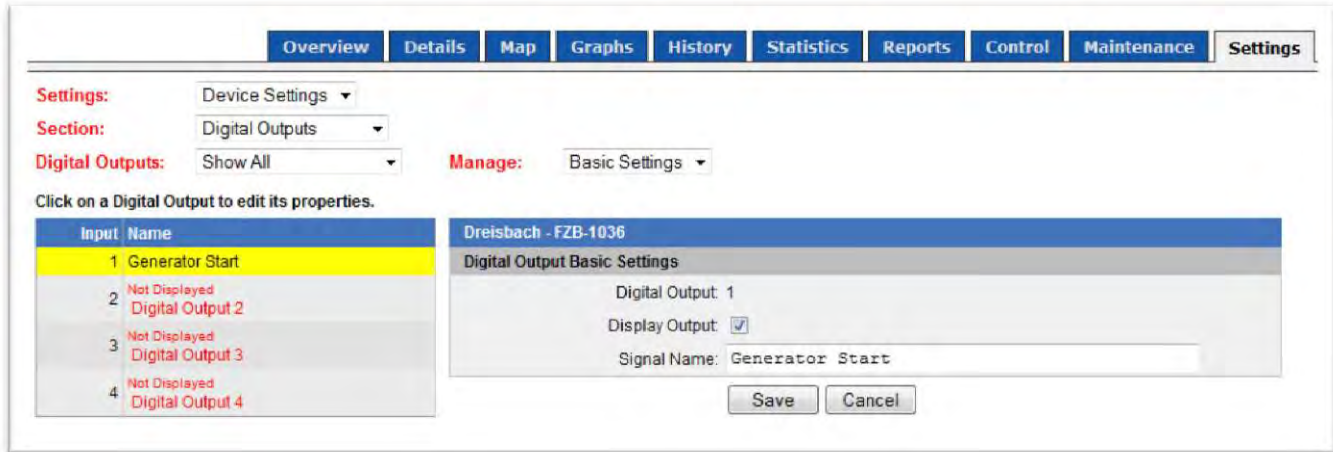


Fig. 12.23: “Settings” Import Notification List

Naming a Digital Output:

This section allows you to easily name your Digital Outputs. (Fig. 12.23)

- 1) Choose Digital Outputs from the Section dropdown menu in the Settings section
- 2) Choose Show All from the Digital Outputs dropdown menu
- 3) The system will generate a list of all the digital outputs
- 4) Click on the available digital output to name, it will highlight yellow
- 5) A digital output Basic settings Section will appear
- 6) Click the Display Input check box
- 7) In the Signal Name field, input the name desired for that output
- 8) Click the Save button

Altering a Digital Output name:

This section shows you how to change a digital outputs name. (Fig. 12.23)

- 1) Choose Digital Outputs from the Section dropdown menu in the Settings section
- 2) Choose Show All from the digital output dropdown menu
- 3) The system will generate a list of all digital outputs
- 4) Click on the digital output to alter, it will highlight yellow
- 5) A digital output Basic settings Section will appear
- 6) Click the Display Input check box
- 7) In the Signal Name field, alter the name
- 8) Click the Save button

Geofence Section: This section shows you how to set up a Geofence with your GPS enabled tracking device.

The screenshot displays the FleetZOOM web interface. At the top, a navigation bar contains tabs: Overview, Details, Map, Graphs, History, Statistics, Reports, Control, Maintenance, and Settings. The 'Settings' tab is selected. Below the tabs, there are two dropdown menus: 'Settings:' set to 'Device Settings' and 'Section:' set to 'Geofencing'. The main content area is titled 'Geofence Settings for FZB-1036 - Dreisbach'. It features a subsection 'Geofence Enable/Disable' with a note: 'When Enable Geofence is checked the device will generate Geofence Alarms if its location is outside of the Geofence.' Below this is an 'Enable Geofence:' checkbox. Another subsection, 'Geofence Location and Size', explains that a geofence is a circular boundary defined by center latitude/longitude and radius. It includes an 'Open Map' button and three input fields: 'Geofence Center Latitude (ex 32.4567): 38', 'Geofence Center Longitude (ex -90.3456): -98', and 'Geofence Radius Miles (ex 5.0): 500'. At the bottom of this section are 'Save' and 'Cancel' buttons.

Fig. 12.24: “Settings” Import Notification List

Setting a Geofence:

With a GPS enabled FZ unit, you can easily set a geofence. A geofence is a circular boundary with a specified center latitude and longitude along with a radius from the center that defines the geofence size. (Fig. 12.24)

- 1) Choose Geofencing from the Section dropdown menu in the Settings section
- 2) The system will generate a geofence settings section
- 3) Click the Enable geofence check box in the geofence enable/disable subsection
- 4) In the geofence location and size subsection input the latitude
- 5) In the geofence location and size subsection input longitude
- 6) In the geofence radius miles field type in the geofence radius miles
- 7) Click the Save button

① **Geofence Hint:** From the Geofence Location and size subsection you can click on the open map button to graphically locate and size a geofence without knowing the latitude and longitude fields.

Application Specific Section: This section shows you how to set up a unit to alarm based on a generators lack of weekly exercise time.

The screenshot shows the 'Settings' tab selected in the top navigation bar. Below the navigation bar, there are three dropdown menus: 'Settings:' set to 'Device Settings', 'Section:' set to 'Application Specific', and 'App Specific:' set to 'Generator Weekly Run Time Minimum'. The main content area is titled 'Generator Weekly Run Time Minimum Settings for FZB-1036 - Dreisbach'. It contains a section 'Weekly Run Time Minimum Settings Enable/Disable' with a description and an unchecked checkbox for 'Enable Weekly Run Time Minimum:'. Below this is a section 'Generator Running Digital Input and Weekly Run Time Minimum' with a description and a field for 'Generator Running Digital Input' set to '1'. At the bottom, there is a field for 'Weekly Run Time Minimum' set to '20' with a 'Minutes' label. 'Save' and 'Cancel' buttons are at the bottom right.

Fig. 12.25: “Settings” Import Notification List

Setting a generator weekly runtime alarm:

With this function you will be alerted if your generator does not run for a minimum amount of time per week. We suggest you set this up based on the amount of time the generator should start and run each week off of its exercise timer. (Fig. 12.25)

- 1) Choose Application Specific from the Section dropdown menu in the Settings section
- 2) The system will generate a Generator Weekly Run Time Minimum Settings section
- 3) Click the Enable Weekly Run Time Minimum check box
- 4) Verify this is the correct unit to enable weekly run time alarms
- 5) Input the devices input that is labeled generator run in the generator running box field
- 6) Input the minimum amount of runtime in minutes in the Weekly runtime minimum field
- 7) Click the Save button

Appendix E

Permits



STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY

Northwest Regional Office • 3190 160th Ave SE • Bellevue, WA 98008-5452 • 425-649-7000
711 for Washington Relay Service • Persons with a speech disability can call 877-833-6341

RECEIVED BY:

JAN 15 2018

Antea Group - Seattle, WA

2611255

January 11, 2018

Ms. Ellen Lehto
Northwest DealerCo Holdings LLC
Dba Platinum Energy
29501 Canwood Street
Ste 200
Agoura Hills, CA 91301

Re: State Waste Discharge Permit Issuance
Permit No. ST0501305

Dear Ms. Lehto:

Under Chapter 90.48 RCW Water Pollution Control Laws, the enclosed State Waste Discharge Permit No. ST0501305 is being reissued to Former Platinum Energy Facility No. 2611255 located at 19924 International Blvd, SeaTac, WA. This permit satisfies the requirements of state laws.

The permit authorizes the Permittee to discharge treated wastewater to the Midway Sewer District subject to the terms and conditions of the permit.

The Department of Ecology, in response to the passage of Initiative 97 in 1988, has adopted a regulation to recover costs associated with issuing and administering wastewater discharge permits (Chapter 173-224 WAC). The annual fee for both industrial and municipal/domestic discharges is computed according to the permit fee schedules contained in WAC 173-224-040. Ecology will notify permit holders of fee charges by mailed billing statements. Failure to pay the applicable permit fee may result in the suspension or revocation of the permit, and could result in the issuance of civil penalties or actions to enjoin the activity under the permit.

You have the right to appeal this permit within thirty (30) days upon receipt of this document. Pursuant to chapter 43.21B RCW, your appeal must be filed with the Pollution Control Hearings Board, and served on the Department of Ecology, within thirty (30) days of the date of your receipt of this document.

If you choose to appeal this action or decision, you must comply with the requirements of WAC 371-08-340.

Your appeal must be filed with:
The Pollution Control Hearings Board
P.O. Box 40903
Olympia, Washington 98504-0903

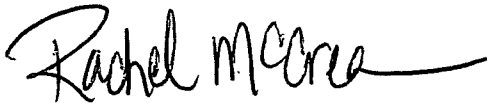
Ms. Ellen Lehto
Northwest DealerCo Holdings LLC
Page 2
January 11, 2018

Your appeal must also be served on:
The Department of Ecology
Appeals Coordinator
P.O. Box 47608
Olympia, Washington 98504-7608.

In addition, please send a copy of your appeal to:
Jeanne Tran
Department of Ecology
Northwest Regional Office
3190 – 160th Avenue SE
Bellevue, WA 98008-5452

If at any time during the term of this permit a question should arise regarding the permit or discharge, or if there is a significant change in the discharge or operation, please contact Jeanne Tran at (425) 649-7078 or Email at jtra461@ecy.wa.gov

Sincerely,



Rachel McCrea
Water Quality Section Manager
Northwest Regional Office

Enclosures

By Certified Mail 9171 9690 0935 0164 4573 89

cc: Bryan Taylor, Antea Group
Ken Kase, Midway Sewer District
Charles Gilman, WQ Permit Fee Unit
Jeanne Tran, Permit Manager
Chris Smith, PARIS
Central Files: Former Platinum Energy Facility No.2611255, ST0501305; WQ 1.1

Issuance Date: January 11, 2018
Effective Date: February 1, 2018
Expiration Date: January 31, 2023

State Waste Discharge Permit Number ST0501305

State of Washington
DEPARTMENT OF ECOLOGY
Northwest Regional Office
3190 160th Avenue SE
Bellevue, WA 98008-5452

In compliance with the provisions of the
State of Washington Water Pollution Control Law
Chapter 90.48 Revised Code of Washington, as amended,

Northwest DealerCo Holdings LLC
dba Platinum Energy
29501 Canwood Street, STE 200
Agoura Hills, CA 91301

is authorized to discharge wastewater in accordance with the special and general conditions which follow.

<u>Facility Location:</u> 19924 International Boulevard, Seatac, WA 98188	<u>SIC Code:</u> 5541
<u>Industry Type:</u> Gas station – groundwater remediation	<u>NAICS Code:</u> 447110
<u>POTW Receiving Discharge:</u> Midway Sewer District Wastewater Treatment Plant, WA0020958	<u>Outfall 001:</u> Latitude: 47.423088 °N Longitude: 122.295638 °W



Rachel McCrea
Water Quality Section Manager
Northwest Regional Office
Washington State Department of Ecology

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Summary of Permit Report Submittals

Refer to the Special and General Conditions of this permit for additional submittal requirements.

Permit Section	Submittal	Frequency	First Submittal Date
S3.A	Discharge Monitoring Report (DMR)	Monthly	March 28, 2018
S3.A	Discharge Monitoring Report (DMR)	Quarterly	April 28, 2018
S3.F	Reporting Permit Violations	As necessary	
S4.A	Operation and Maintenance Manual (TSOP)	1/permit cycle	May 1, 2018
S4.B	Reporting Bypasses	As necessary	
S7	Application for Permit Renewal	1/permit cycle	January 31, 2022
S8	Annual Groundwater Quality Evaluation	Annually	February 15, 2019
G1	Notice of Change in Authorization	As necessary	
G4	Permit Application for Substantive Changes to the Discharge	As necessary	
G5	Engineering Report for Construction or Modification Activities	As necessary	
G7	Notice of Permit Transfer	As necessary	
G12	Duty to Provide Information	As necessary	

Special Conditions

S1. Discharge limits

All discharges and activities authorized by this permit must comply with the terms and conditions of this permit. The discharge of any of the following pollutants more frequently than, or at a concentration in excess of, that authorized by this permit violates the terms and conditions of this permit.

A discharge of a pollutant in excess of local limits set by Midway Sewer District Wastewater Treatment Plant (aka POTW) violates the terms and conditions of this permit.

Beginning on the effective date, the Permittee is authorized to discharge treated wastewater to Midway Sewer District POTW subject to the following limits:

Parameter	Maximum Daily ^a
Flow ^b	16,000 gpd
Benzene	5 µg/L
BTEX ^c	200 µg/L
TPH-G ^d	1 mg/L
TPH-D ^d	5 mg/L

Parameter	Minimum	Maximum
pH	6.0 standard units	9.0 standard units

^a	Maximum daily effluent limit means the highest allowable daily discharge. The daily discharge means the discharge of a pollutant measured during a calendar day. For pollutants with limits expressed in units of mass, calculate the daily discharge as the total mass of the pollutant discharged over the day. For other units of measurement, the daily discharge is the average measurement of the pollutant over the day. This does not apply to pH.
^b	The flow rate must not exceed the flow allocation approved by Midway Sewer District. If the Permittee's flow allocation agreement with Midway Sewer District is changed, the Permittee must notify Ecology in writing and obtain the appropriate permit modification from Ecology prior to discharge at the new flow rate.
^c	BTEX is defined as benzene, toluene, ethylbenzene, and xylene.
^d	TPH-G and TPH-D are defined as total petroleum hydrocarbons in gasoline and diesel range, respectively.

S2. Monitoring requirements

S2.A. Monitoring requirements

The Permittee must monitor the wastewater according to the following schedule:

Parameter	Units	Laboratory Method ^a	Sampling Frequency	Sample Type
Final wastewater effluent ^a				
Flow	gpd	—	Weekly	Metered
Benzene	µg/L	EPA 624	Monthly	Grab ^b
BTEX ^c	µg/L	EPA 624	Monthly	Grab ^b
TPH-G ^d	µg/L	Ecology NWTPH Gx	Monthly	Grab ^b
TPH-D ^d	µg/L	Ecology NWTPH Dx	Monthly	Grab ^b
pH	Standard Units	pH meter	Weekly	Grab ^{b, f}
Lead (total)	µg/L	EPA 200.8	Quarterly ^e	Grab ^b
^a	The final effluent sample point is defined as the nearest accessible point after final treatment and prior to actual discharge or mixing with other flows.			
^b	Grab means an individual sample collected over a fifteen (15) minute, or less, period.			
^c	BTEX is defined as benzene, toluene, ethylbenzene, and xylene.			
^d	TPH-G and TPH-D (total petroleum hydrocarbons, gasoline range and diesel range) must be measured using NWTPH-G _x and NWTPH-D _x .			
^e	Quarterly sampling periods are January through March, April through June, July through September, and October through December. The Permittee must begin quarterly monitoring for the quarter beginning on January 1 st , April 1 st , July 1 st , and October 1 st , and submit results by April 28 th , July 28 th , October 28 th , and January 28 th .			
^f	The Permittee must report the instantaneous maximum and minimum pH monthly. Do not average pH values. The calibration frequency specification and method must be followed in accordance with the manufacturer's recommendations.			
^g	The Permittee must use the analytical test methods as specified above with the detection limit and quantitation level less than the effluent limits listed in S1 of the permit.			

S2.B. Sampling and analytical procedures

Samples and measurements taken to meet the requirements of this permit must represent the volume and nature of the monitored parameters, including representative sampling of any unusual discharge or discharge condition, including bypasses, upsets and maintenance-related conditions affecting effluent quality.

Sampling and analytical methods used to meet the water and wastewater monitoring requirements specified in this permit must conform to the latest revision of the following rules and documents unless otherwise specified in this permit or approved in writing by Ecology.

- Guidelines Establishing Test Procedures for the Analysis of Pollutants contained in 40 CFR Part 136.
- Standard Methods for the Examination of Water and Wastewater (APHA).

S2.C. Flow measurement monitoring devices

The Permittee must:

1. Select and use appropriate flow measurement and methods consistent with accepted scientific practices.
2. Install, calibrate, and maintain these devices to ensure the accuracy of the measurements is consistent with the accepted industry standard, the manufacturer's recommendation, and approved O&M manual procedures for the device and the wastestream.
3. Calibrate continuous monitoring instruments weekly unless it can demonstrate a longer period is sufficient based on monitoring records. The Permittee:
 - a. May calibrate apparatus for continuous monitoring of dissolved oxygen by air calibration.
 - b. Must calibrate continuous pH measurement instruments using a grab sample analyzed in the lab with a pH meter calibrated with standard buffers and analyzed within 15 minutes of sampling.
 - c. Must calibrate continuous chlorine measurement instruments using a grab sample analyzed in the laboratory within 15 minutes of sampling.
4. Calibrate flow-monitoring devices at a minimum frequency of at least one calibration per year.
5. Maintain calibration records for at least three years.

S2.D. Laboratory accreditation

The Permittee must ensure that all monitoring data required by Ecology for permit specified parameters is prepared by a laboratory registered or accredited under the provisions of chapter 173-50 WAC, *Accreditation of Environmental Laboratories*. Flow, temperature, settleable solids, conductivity, pH, and internal process control parameters are exempt from this requirement.

S3. Reporting and recording requirements

The Permittee must monitor and report in accordance with the following conditions. Falsification of information submitted to Ecology is a violation of the terms and conditions of this permit.

S3.A. Discharge monitoring reports

The first monitoring period begins on the effective date of the permit (unless otherwise specified). The Permittee must:

1. Summarize, report, and submit monitoring data obtained during each monitoring period on the electronic discharge monitoring report (DMR) form provided by Ecology within the Water Quality Permitting Portal. Include data for each of the parameters tabulated in Special Condition S2 and as required by the form. Report a value for each day sampling occurred (unless specifically exempted in the permit) and for the summary values (when applicable) included on the electronic form.

To find out more information and to sign up for the Water Quality Permitting Portal go to: <http://www.ecy.wa.gov/programs/wq/permits/paris/webdmr.html>

2. Enter the “No Discharge” reporting code for an entire DMR, for a specific monitoring point, or for a specific parameter as appropriate, if the Permittee did not discharge wastewater or a specific pollutant during a given monitoring period.
3. Report single analytical values below detection as “less than the detection level (DL)” by entering < followed by the numeric value of the detection level (e.g. < 2.0) on the DMR. If the method used did not meet the minimum DL and quantitation level (QL) identified in the permit, report the actual QL and DL in the comments or in the location provided.
4. Report the test method used for analysis in the comments if the laboratory used an alternative method not specified in the permit.
5. Calculate average values and calculated total values (unless otherwise specified in the permit) using:
 - a. The reported numeric value for all parameters measured between the agency-required detection value and the agency-required quantitation value.
 - b. One-half the detection value (for values reported below detection) if the lab detected the parameter in another sample from the same monitoring point for the reporting period.
 - c. Zero (for values reported below detection) if the lab did not detect the parameter in another sample for the reporting period.
6. The Permittee must also submit an electronic copy of the laboratory report as an attachment using WQWebDMR. The contract laboratory reports must also include information on the chain of custody, QA/QC results, and documentation of accreditation for the parameter.
7. Ensure that DMRs are electronically submitted no later than the dates specified below, unless otherwise specified in this permit.
8. Submit DMRs for parameters with the monitoring frequencies specified in S2 (monthly, quarterly, annual, etc.) at the reporting schedule identified below. The Permittee must:
 - a. Submit **monthly** DMRs by the 28th day of the following month.
 - b. Submit **quarterly** DMRs, unless otherwise specified in the permit, by the 28th day of the month following the monitoring period. Quarterly sampling periods are January through March, April through June, July through September, and October through December. The Permittee must submit the first quarterly DMR on April 28, 2018, for the quarter beginning on January 28, 2018; April 28, 2018; July 28, 2018; and October 28, 2018.

S3.B. Permit submittals and schedules

The Permittee must use the Water Quality Permitting Portal – Permit Submittals application (unless otherwise specified in the permit) to submit all other written permit-required reports by the date specified in the permit.

When another permit condition requires submittal of a paper (hard-copy) report, the Permittee must ensure that it is postmarked or received by Ecology no later than the dates specified by this permit. Send these paper reports to Ecology at:

Water Quality Permit Coordinator
Department of Ecology
Northwest Regional Office
3190 160th Avenue SE
Bellevue, WA 98008-5452

S3.C. Records retention

The Permittee must retain records of all monitoring information for a minimum of three (3) years. Such information must include all calibration and maintenance records and all original recordings for continuous monitoring instrumentation, copies of all reports required by this permit, and records of all data used to complete the application for this permit. The Permittee must extend this period of retention during the course of any unresolved litigation regarding the discharge of pollutants by the Permittee or when requested by Ecology.

S3.D. Recording of results

For each measurement or sample taken, the Permittee must record the following information:

1. The date, exact place, method, and time of sampling or measurement.
2. The individual who performed the sampling or measurement.
3. The dates the analyses were performed.
4. The individual who performed the analyses.
5. The analytical techniques or methods used.
6. The results of all analyses.

S3.E. Additional monitoring by the Permittee

If the Permittee monitors any pollutant more frequently than required by Condition S2 of this permit, then the Permittee must include the results of such monitoring in the calculation and reporting of the data submitted in the Permittee's DMR unless otherwise specified by Condition S2.

S3.F. Reporting permit violations

The Permittee must take the following actions when it violates or is unable to comply with any permit condition:

1. Immediately take action to stop, contain, and cleanup unauthorized discharges or otherwise stop the noncompliance and correct the problem.
2. If applicable, immediately repeat sampling and analysis. Submit the results of any repeat sampling to Ecology within thirty (30) days of sampling.

a. Immediate reporting

The Permittee must report any noncompliance that may endanger health or the environment immediately to the Department of Ecology's Regional Office 24-hr. number listed below:

Northwest Regional Office

425-649-7000

b. Twenty-four-hour reporting

The Permittee must report the following occurrences of noncompliance by telephone, to Ecology at the telephone numbers listed above, within 24 hours from the time the Permittee becomes aware of any of the following circumstances. The Permittee must report:

1. Any noncompliance that may endanger health or the environment, unless previously reported under immediate reporting requirements.
2. Any unanticipated bypass that causes an exceedance of an effluent limit in the permit (See Part S4.B., "Bypass Procedures").
3. Any upset that causes an exceedance of an effluent limit in the permit. Upset means an exceptional incident in which there is unintentional and temporary noncompliance with technology-based permit effluent limits because of factors beyond the reasonable control of the Permittee. An upset does not include noncompliance to the extent caused by operational error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventive maintenance, or careless or improper operation.
4. Any violation of a maximum daily or instantaneous maximum discharge limit for any of the pollutants in Section S1.A of this permit.
5. Any overflow prior to the treatment works, whether or not such overflow endangers health or the environment or exceeds any effluent limit in the permit. This requirement does not include industrial process wastewater overflows to impermeable surfaces which are collected and routed to the treatment works.

c. Report within five days

The Permittee must also submit a written report within five days of the time that the Permittee becomes aware of any reportable event under subparts a or b, above. The report must contain:

1. A description of the noncompliance and its cause.
2. The period of noncompliance, including exact dates and times.

3. The estimated time the Permittee expects the noncompliance to continue if not yet corrected.
4. Steps taken or planned to reduce, eliminate, and prevent recurrence of the noncompliance.
5. If the noncompliance involves an overflow prior to the treatment works, an estimate of the quantity (in gallons) of untreated overflow.

d. Waiver of written reports

Ecology may waive the written report required in subpart c, above, on a case-by-case basis upon request if the Permittee has submitted a timely oral report.

e. All other permit violation reporting

The Permittee must report all permit violations, which do not require immediate or within 24 hours reporting, when it submits monitoring reports for S3.A ("Reporting"). The reports must contain the information listed in subpart c, above. Compliance with these requirements does not relieve the Permittee from responsibility to maintain continuous compliance with the terms and conditions of this permit or the resulting liability for failure to comply.

S3.G. Other reporting

a. Spills of oil or hazardous materials

The Permittee must report a spill of oil or hazardous materials in accordance with the requirements of RCW 90.56.280 and chapter 173-303-145. You can obtain further instructions at the following website: <http://www.ecy.wa.gov/programs/spills/other/reportaspill.htm>.

b. Failure to submit relevant or correct facts

Where the Permittee becomes aware that it failed to submit any relevant facts in a permit application, or submitted incorrect information in a permit application, or in any report to Ecology, it must submit such facts or information promptly.

S3.H. Maintaining a copy of this permit

The Permittee must keep a copy of this permit at the facility and make it available upon request to Ecology inspectors.

S3.I. Dangerous waste discharge notification

The Permittee must notify the publicly owned treatment works (POTW) and Ecology in writing of the intent to discharge into the POTW any substance designated as a dangerous waste in accordance with the provisions of WAC 173-303-070. It must make this notification at least 90 days prior to the date that it proposes to initiate the discharge. The Permittee must not discharge this substance until authorized by Ecology and the POTW. It must also comply with the notification requirements of Special Condition S8 and General Condition G4.

S3.J. Spill notification

The Permittee must notify the POTW immediately (as soon as discovered) of all discharges that could cause problems to the POTW, such as process spills and unauthorized discharges.

S4. Operation and maintenance

The Permittee must, at all times, properly operate and maintain all facilities or systems of treatment and control (and related appurtenances) which are installed to achieve compliance with the terms and conditions of this permit. Proper operation and maintenance includes adequate laboratory controls and appropriate quality assurance procedures. This provision requires the operation of back-up or auxiliary facilities or similar systems, which are installed by a Permittee only when the operation is necessary to achieve compliance with the conditions of this permit.

S4.A. Treatment system operating plan

The Permittee must submit a treatment system operating plan to Ecology by May 1, 2018. The Permittee must update and submit this plan, as necessary, to include requirements for any major modifications of the treatment system.

The TSOP must include the following information:

1. A baseline operating condition, which describes the operating parameters and procedures, used to meet the effluent limits of S1 at the production levels used in developing these limits.
2. Emergency procedures for plant shutdown and cleanup in event of wastewater system upset, spill, failure, or demand by the publicly owned treatment works (POTW) treating the discharge.
3. Wastewater system maintenance procedures that contribute to the generation of process wastewater.
4. Any directions to maintenance staff when cleaning, or maintaining other equipment or performing other tasks which are necessary to protect the operation of the wastewater system (for example, defining maximum allowable discharge rate for draining a tank, blocking all floor drains before beginning the overhaul of a stationary engine.)
5. In the event of an upset, due to plant maintenance activities, severe stormwater events, start ups or shut downs, or other causes, the plan must describe the operating procedures and conditions employed to mitigate the upset. The monitoring and reporting must be described in the plan.
6. A description of any regularly scheduled maintenance or repair activities at the facility which would affect the volume or character of the wastes discharged to the wastewater treatment system and a plan for monitoring and treating/controlling the discharge of maintenance-related materials (such as cleaners, degreasers, solvents, etc.).

S4.B. Bypass procedures

This permit prohibits a bypass, which is the intentional diversion of waste streams from any portion of a treatment facility. Ecology may take enforcement action against a Permittee for a bypass unless one of the following circumstances (1, 2, or 3) applies.

1. Bypass for essential maintenance without the potential to cause violation of permit limits or conditions.

This permit authorizes a bypass if it allows for essential maintenance and does not have the potential to cause violations of limits or other conditions of this permit, or adversely impact public health as determined by Ecology prior to the bypass. The Permittee must submit prior notice, if possible, at least ten (10) days before the date of the bypass.

2. Bypass is unavoidable, unanticipated, and results in noncompliance of this permit.

This permit authorizes such a bypass only if:

- a. Bypass is unavoidable to prevent loss of life, personal injury, or severe property damage. "Severe property damage" means substantial physical damage to property, damage to the treatment facilities which would cause them to become inoperable, or substantial and permanent loss of natural resources which can reasonably be expected to occur in the absence of a bypass.
 - b. No feasible alternatives to the bypass exist, such as:
 - The use of auxiliary treatment facilities.
 - Retention of untreated wastes.
 - Stopping production.
 - Maintenance during normal periods of equipment downtime, but not if the Permittee should have installed adequate backup equipment in the exercise of reasonable engineering judgment to prevent a bypass.
 - Transport of untreated wastes to another treatment facility.
 - c. The Permittee has properly notified Ecology of the bypass as required in Condition S3.E of this permit.
3. If bypass is anticipated and has the potential to result in noncompliance of this permit.
 - a. The Permittee must notify Ecology at least thirty (30) days before the planned date of bypass. The notice must contain:
 - A description of the bypass and its cause.
 - An analysis of all known alternatives which would eliminate, reduce, or mitigate the need for bypassing.

- A cost-effectiveness analysis of alternatives including comparative resource damage assessment.
 - The minimum and maximum duration of bypass under each alternative.
 - A recommendation as to the preferred alternative for conducting the bypass.
 - The projected date of bypass initiation.
 - A statement of compliance with SEPA.
 - A request for modification of water quality standards as provided for in WAC 173-201A-410, if an exceedance of any water quality standard is anticipated.
 - Details of the steps taken or planned to reduce, eliminate, and prevent reoccurrence of the bypass.
- b. For probable construction bypasses, the Permittee must notify Ecology of the need to bypass as early in the planning process as possible. The Permittee must consider the analysis required above during the project planning and design process. The project-specific engineering report or facilities plan as well as the plans and specifications must include details of probable construction bypasses to the extent practical. In cases where the Permittee determines the probable need to bypass early, the Permittee must continue to analyze conditions up to and including the construction period in an effort to minimize or eliminate the bypass.
- c. Ecology will consider the following prior to issuing an administrative order for this type of bypass:
- If the bypass is necessary to perform construction or maintenance-related activities essential to meet the requirements of this permit.
 - If feasible alternatives to bypass exist, such as the use of auxiliary treatment facilities, retention of untreated wastes, stopping production, maintenance during normal periods of equipment down time, or transport of untreated wastes to another treatment facility.
 - If the Permittee planned and scheduled the bypass to minimize adverse effects on the public and the environment.

After consideration of the above and the adverse effects of the proposed bypass and any other relevant factors, Ecology will approve or deny the request. Ecology will give the public an opportunity to comment on bypass incidents of significant duration, to the extent feasible. Ecology will approve a request to bypass by issuing an administrative order under RCW 90.48.120.

S5. Prohibited discharges

The Permittee must comply with these General and Specific Prohibitions.

S5.A. General prohibitions

The Permittee must not introduce into the POTW pollutant(s), which cause pass through or interference.

S5.B. Specific prohibitions

In addition, the Permittee must not introduce the following into the POTW:

1. Pollutants which create a fire or explosion hazard in the POTW, including, but not limited to, waste streams with a closed cup flashpoint of less than 60 degrees C (140 degrees F) using the test methods specified in 40 CFR 261.21
2. Solid or viscous pollutants in amounts, which will cause obstruction to the flow in the POTW resulting in interference
3. Any pollutant (including oxygen-demanding pollutants (BOD₅, etc.), released in a discharge at a flow rate and/or pollutant concentration that will cause interference with the POTW
4. Heat in amounts which will inhibit biological activity in the POTW resulting in interference, but in no case heat in such quantities that the temperature at the POTW treatment plant exceeds 40 degrees C (104 degrees F) unless the approval authority, upon request of the POTW, approves alternative temperature limits
5. Petroleum oil, non-biodegradable cutting oil, or products of mineral oil origin in amounts that will cause interference or pass through
6. Pollutants which result in the presence of toxic gases, vapors, or fumes within the POTW in a quantity that may cause acute worker health and safety problems
7. Any trucked or hauled pollutants, except at discharge points designated by the POTW

S5.C. Prohibited unless approved

Any of the following discharges are prohibited unless approved by Ecology under extraordinary circumstances (such as a lack of direct discharge alternatives due to combined sewer service or a need to augment sewage flows due to septic conditions):

1. Noncontact cooling water in significant volumes
2. Storm water and other direct inflow sources
3. Wastewaters significantly affecting system hydraulic loading, which do not require treatment or would not be afforded a significant degree of treatment by the system
4. The discharge of dangerous wastes as defined in Chapter 173-303 WAC (Unless specifically authorized in this permit)

S6. Dilution prohibited

The Permittee must not dilute the wastewater discharge with stormwater or increase the use of potable water, process water, noncontact cooling water, or, in any way, attempt to dilute an effluent as a partial or complete substitute for adequate treatment to achieve compliance with the limits contained in this permit.

S7. Application for permit renewal or modification for facility changes

The Permittee must submit an application for renewal of this permit by January 31, 2022.

The Permittee must also submit a new application or addendum at least one hundred eighty (180) days prior to commencement of discharges, resulting from the activities listed below, which may result in permit violations. These activities include any facility expansions, production increases, or other planned changes, such as process modifications, in the permitted facility.

S8. Annual groundwater quality evaluation

The Permittee must submit a groundwater quality report to Ecology by February 15, 2019, and annually thereafter. The report must include, but is not limited to, the following:

- A discussion and evaluation of the effectiveness of the groundwater remediation system.
- The data should be presented on drawings by mapping and distribution (sample date and measured concentration) in groundwater for each contaminate. One map for each contaminant should be presented.
- The groundwater quality data for NWTPH-G_x, NWTPH-D_x, benzene, BETX, and lead concentrations collected during the previous calendar year from wells distributed across the site.
- The volume of groundwater pumped through the groundwater treatment system.
- A plan view of monitoring well locations.

For the purpose of meeting this requirement, groundwater quality monitoring and reporting results required by the Consent Order or Agreed Order from Ecology's Toxic Cleanup Program may be submitted.

General Conditions

G1. Signatory requirements

All applications, reports, or information submitted to Ecology must be signed as follows:

1. All permit applications must be signed by either a principal executive officer or ranking elected official.
2. All reports required by this permit and other information requested by Ecology must be signed by a person described above or by a duly authorized representative of that person. A person is a duly authorized representative only if:
 - a. The authorization is made in writing by the person described above and is submitted to Ecology at the time of authorization, and
 - b. The authorization specifies either a named individual or any individual occupying a named position.
3. Changes to authorization. If an authorization under paragraph G1.2, above, is no longer accurate because a different individual or position has responsibility for the overall operation of the facility, a new authorization must be submitted to Ecology prior to or together with any reports, information, or applications to be signed by an authorized representative.
4. Certification. Any person signing a document under this section must make the following certification:

"I certify under penalty of law, that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

G2. Right of entry

Representatives of Ecology have the right to enter at all reasonable times in or upon any property, public or private, for the purpose of inspecting and investigating conditions relating to the pollution or the possible pollution of any waters of the state. Reasonable times include normal business hours; hours during which production, treatment, or discharge occurs; or times when Ecology suspects a violation requiring immediate inspection. Representatives of Ecology must be allowed to have access to, and copy at reasonable cost, any records required to be kept under terms and conditions of the permit; to inspect any monitoring equipment or method required in the permit; and to sample the discharge, waste treatment processes, or internal waste streams.

G3. Permit actions

This permit is subject to modification, suspension, or termination, in whole or in part by Ecology for any of the following causes:

1. Violation of any permit term or condition;
2. Obtaining a permit by misrepresentation or failure to disclose all relevant facts;
3. A material change in quantity or type of waste disposal;
4. A material change in the condition of the waters of the state; or
5. Nonpayment of fees assessed pursuant to RCW 90.48.465.

Ecology may also modify this permit, including the schedule of compliance or other conditions, if it determines good and valid cause exists, including promulgation or revisions of regulations or new information.

G4. Reporting a cause for modification

The Permittee must submit a new application, or a supplement to the previous application, along with required engineering plans and reports, whenever a new or increased discharge or change in the nature of the discharge is anticipated which is not specifically authorized by this permit. This application must be submitted at least one hundred eighty (180) days prior to any proposed changes. Submission of this application does not relieve the Permittee of the duty to comply with the existing permit until it is modified or reissued.

G5. Plan review required

Prior to constructing or modifying any wastewater control facilities, an engineering report and detailed plans and specifications must be submitted to Ecology for approval in accordance with Chapter 173-240 WAC. Engineering reports, plans, and specifications should be submitted at least 180 days prior to the planned start of construction. Facilities must be constructed and operated in accordance with the approved plans.

G6. Compliance with other laws and statutes

Nothing in the permit excuses the Permittee from compliance with any applicable federal, state, or local statutes, ordinances, or regulations.

G7. Transfer of this permit

This permit is automatically transferred to a new owner or operator if:

1. A written agreement between the old and new owner or operator containing a specific date for transfer of permit responsibility, coverage, and liability is submitted to Ecology;
2. A copy of the permit is provided to the new owner; and
3. Ecology does not notify the Permittee of the need to modify the permit.

Unless this permit is automatically transferred according to Section 1, above, this permit may be transferred only if it is modified to identify the new Permittee and to incorporate such other requirements as determined necessary by Ecology.

G8. Reduced production for compliance

The Permittee must control production or discharge to the extent necessary to maintain compliance with the terms and conditions of this permit upon reduction of efficiency, loss, or failure of its treatment facility until the treatment capacity is restored or an alternative method of treatment is provided. This requirement applies in the situation where, among other things, the primary source of power for the treatment facility is reduced, lost, or fails.

G9. Removed substances

Collected screenings, grit, solids, sludges, filter backwash, or other pollutants removed in the course of treatment or control of wastewaters must not be resuspended or reintroduced to the effluent stream for discharge.

G10. Payment of fees

The Permittee must submit payment of fees associated with this permit as assessed by Ecology. Ecology may revoke this permit if the permit fees established under Chapter 173-224 WAC are not paid.

G11. Penalties for violating permit conditions

Any person who is found guilty of willfully violating the terms and conditions of this permit is guilty of a crime, and upon conviction thereof shall be punished by a fine of up to ten thousand dollars and costs of prosecution, or by imprisonment in the discretion of the court. Each day upon which a willful violation occurs is a separate and additional violation.

Any person who violates the terms and conditions of a waste discharge permit incurs, in addition to any other penalty as provided by law, a civil penalty in the amount of up to ten thousand dollars for every such violation. Each and every such violation is a separate and distinct offense, and in case of a continuing violation, every day's continuance is a separate and distinct violation.

G12. Duty to provide information

The Permittee must submit to Ecology, within a reasonable time, all information which Ecology may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit or to determine compliance with this permit. The Permittee must also submit to Ecology upon request, copies of records required to be kept by this permit.

G13. Duty to comply

The Permittee must comply with all conditions of this permit. Any permit noncompliance constitutes a violation of chapter 90.48 RCW and is grounds for enforcement action; for permit termination, revocation and reissuance, or modification; or denial of a permit renewal application.

Fact Sheet for State Waste Discharge Permit No. ST0501305

NW DealerCo Holdings LLC dba Platinum Energy

Effective Date: February 1, 2018

Purpose of this fact sheet

This fact sheet explains and documents the decisions the Department of Ecology (Ecology) made in drafting the proposed State Waste Discharge Permit for former Platinum Energy facility No. 2611255 (aka BP Oil facility No. 11255) that will allow discharge of wastewater to Midway Sewer District POTW.

State law requires any commercial or industrial facility to obtain a permit before discharging waste or chemicals to municipal sanitary sewer collection and treatment systems.

Ecology makes the draft permit and fact sheet available for public review and comment at least thirty (30) days before it issues the final permit to the facility operator. Copies of the fact sheet and draft permit for Platinum Energy, State Waste Discharge Permit No. ST0501305, were available for public review and comment from November 20, 2017 until the close of business on December 27, 2017. For more details on preparing and filing comments about these documents, please see **Appendix A - Public Involvement Information**.

Former Platinum Energy facility No. 2611255 (Platinum Energy) reviewed the draft permit and fact sheet for factual accuracy. Ecology corrected any errors or omissions about the facility's location, history, product type, production rate, or discharges prior to publishing this draft fact sheet for public notice.

After the public comment period closes, Ecology will summarize substantive comments and our responses to them. Ecology will include our summary and responses to comments to this fact sheet as **Appendix E - Response to Comments**, and publish it when we issue the final State Waste Discharge Permit. Ecology generally will not revise the rest of the fact sheet. The full document will become part of the legal history contained in the facility's permit file.

Summary

Platinum Energy is conducting remediation at an active retail gasoline station to treat hydrocarbon-affected soil and groundwater. The remediation system entails a dual phase high vacuum extraction system (pump and treat system) which was designed to mitigate ground and soil hydrocarbon impacts. Treatment system consists of sedimentation, filtration, and granular activated carbon treatment.

The facility proposes to discharge treated contaminated groundwater to Midway Sewer District Wastewater Treatment Plant. Ecology has decided to issue a State Waste Discharge Permit which authorizes Platinum Energy to discharge to the POTW.

Effluent limits proposed in the permit include flow, benzene, BTEX, TPH-G, TPH-D, and pH.

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I. Introduction

The Legislature defined Ecology's authority and obligations for the Wastewater Discharge Permit Program in the Water Pollution Control law, chapter 90.48 RCW (Revised Code of Washington).

Ecology adopted rules describing how it exercises its authority:

- State Waste Discharge Program (chapter 173-216 WAC).
- Submission of plans and reports for construction of wastewater facilities (chapter 173-240 WAC).

These rules require any industrial facility owner/operator to obtain a State Waste Discharge Permit before discharging wastewater to state waters. This rule includes commercial or industrial discharges to sewerage systems operated by municipalities or public entities which discharge into public waters of the state. They also help define the basis for limits on each discharge and for other performance requirements imposed by the permit.

Under the State Waste Discharge Permit Program and in response to a complete and accepted permit application, Ecology generally prepares a draft permit and accompanying fact sheet, and makes it available for public review before final issuance. If the volume of the discharge has not changed or if the characteristics of the discharge have not changed, Ecology may choose not to issue a public notice. When Ecology publishes an announcement (public notice), it tells people where they can read the draft permit, and where to send their comments, during a period of thirty days. (See **Appendix A – Public Involvement Information** for more detail about the public notice and comment procedures). After the public comment period ends, Ecology may make changes to the draft State Waste Discharge Permit in response to comment(s). Ecology will summarize the responses to comments and any changes to the permit in **Appendix E**.

II. Background Information

Table 1. General facility information

Facility Information	
Applicant	Northwest DealerCo Holdings, LLC Dba Platinum Energy
Facility Name and Address	Former Platinum Energy Facility No. 2611255, (aka Former BP Oil 11255)
Contact at Facility	Name: Bryan Taylor Telephone #: (425) 498-7727
Responsible Official	Name: Ellen Lehto Title: Director Address: 29501 Canwood Street, STE200, Agoura Hills, CA 91301
Industrial User Type	Minor Industrial User
Industry Type	Gas Station-groundwater remediation
Type of Treatment by Industry	Sedimentation through holding tank, bag filtration, granular activated carbon treatment
SIC Codes	5541
NAIC Codes	447110

Facility Information	
Facility Location (NAD83/WGS84 reference datum)	Latitude: 47.422987°N Longitude: -122.295801°W
Treatment Plant Receiving Discharge	Midway Sewer District POTW
Discharge Location (NAD83/WGS84 reference datum)	Latitude: 47.423088°N Longitude: -122.295638°W
Permit Status	
Application for Permit Submittal Date	June 12, 2017
Date of Ecology Acceptance of Application	June 27, 2017

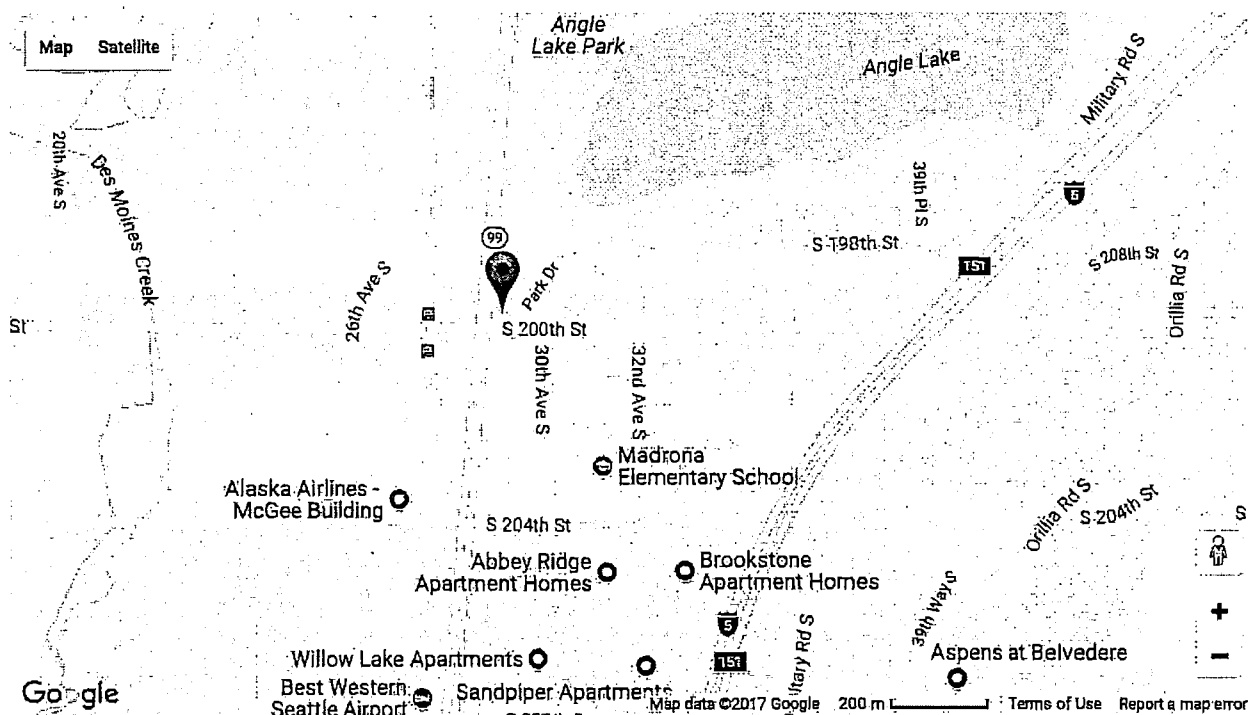


Figure 1. Facility location map

A. Facility description

History

The facility is an active retail fueling station located on the northeast corner of International Boulevard (Pacific Highway South/SR-99) and South 200th Street in SeaTac, Washington. The property is owned by Northwest DealerCo Holdings LLC, dba Platinum Energy (former Platinum Energy facility No. 2611255, here referred to as Platinum Energy). The retail station facility consists of a station building and one large canopy covering a concrete drive slab with six dispenser islands. The underground storage tank (UST) complex is located in the northeast portion of the property. According to Ecology's UST Database, the current USTs were installed in 1983.

Site geology and hydrogeology

The soils consist of dense, silty, fine-to-medium sand with some gravel from grade to 35 feet below ground surface (bgs). Sand, silt, and gravel lenses were observed between 20 and 30 feet bgs. From 35 to 49 feet bgs soils are very dense and consist of gravelly fine-to-coarse sand. Depth to water has been observed from 15 to 49 feet bgs. The depth of water after well installation varied significantly indicating a perched water table was present at the site. Flow fluctuates from southeast to southwest. The estimated hydraulic gradient ranges from 0.022 to 0.073 feet/feet.

Subsurface investigation

Multiple site investigations have been performed. The investigation conducted in 1992, indicated that presence of separate phase hydrocarbons accumulating in downgradient monitoring well MW-4. A notice of confirmed release was filed with Ecology's Leaking Underground Storage Tank (LUST) Program on March 31, 1992. Site characterization and remedial activities are currently being conducted in accordance with MTCA under Ecology Voluntary Cleanup Program (VCP).

Site assessment, source identification and characterization, and additional monitoring wells installations were performed in 2010, 2013 and 2015. Solid impacts are located down gradient of a former dispenser island, which may have been the source of the observed hydrocarbon.

Wastewater treatment system

The facility proposes to install a combined high vacuum dual phase/soil vapor extraction system to remediate hydrocarbon-affected soil and groundwater at the site. The system will consist of dual phase extraction (DPE) wells and 13 soil vapor extraction (SVE) wells (previously installed in March 2013 and December 2015). The system wells locations are depicted on Figure 2 – Soil Vapor Extraction/Dual Phase Extraction Layout. The system wells will be connected to a high vacuum blower which will extract hydrocarbon vapors and impacted groundwater from the subsurface. Extracted soil vapors will be treated through an electric catalytic-oxidizer to destroy hydrocarbon constituents prior to discharge to the atmosphere. Extracted groundwater will be pumped into a 1,000-gallons holding tank. The groundwater will then be treated through two 2,000-lb granular activated carbon vessels. The system has a design flow rate of 5 gpm.

Groundwater will be stored in a holding tank after granular activated carbon treatment. The treated groundwater will be discharged to Midway Sewer District sanitary sewer system if the effluent samples indicate compliance with the permit limits.

B. Discharge location to The Midway Sewer District (Permit No. WA0020958)

The facility proposes to discharge treated groundwater to Midway Sewer District's sanitary sewer system at a flow rate of 6,000 gpd (4.2 gpm).

The Midway Sewer District operates the Des Moines Creek Wastewater Treatment Plant (a trickling filter/solids contact wastewater treatment plant), which discharges to the Puget Sound. The treatment processes include headworks, primary treatment, secondary

treatment, disinfection, solids handling, and odor control. The plant has a maximum month design flow of 9 MGD. Ecology issued the NPDES Permit No. WA0020958 to Midway Sewer District on November 4, 2015.

The Sewer District's outfall line is a 48-inch diameter outfall, which discharges to Puget Sound, East Passage.

C. Wastewater characterization

The facility estimated the concentration of pollutants based on the pilot study conducted and the design treatment efficiency for the proposed treatment system in the permit application. The wastewater effluent was sampled and analyzed on October 31, 2017. The effluent concentrations are listed in the table below:

Parameter	Units	Average Value	Maximum Value
Flow	gpm	—	25
BTEX	µg/L	—	—
Benzene	µg/L	1	1
Ethylbenzene	µg/L	1	1
Toluene	µg/L	1	1
Total Xylene	µg/L	3	3
pH	Standard Units	6.4	6.4

D. State environmental policy act (SEPA) compliance

To meet the intent of SEPA, new discharges must undergo SEPA review during the permitting process. The facility filed a SEPA checklist with Puget Sound Clean Air Agency (PSCAA) on February 15, 2017, and issued a determination of non-significance for the project on February 15, 2017.

III. Proposed Permit Limits

State regulations require that Ecology base limits in a State Waste Discharge permit on the:

- Technology and treatment methods available to treat specific pollutants (technology-based). Technology-based limits are set by the EPA and published as a regulation (40 CFR 400 - 471), or Ecology develops limits on a case-by-case basis (40 CFR 125.3, and RCW 90.48). Dischargers must treat wastewater using all known, available, reasonable methods of prevention, control, and treatment (AKART).
- Effects of the pollutants on the publicly owned treatment works (POTW). Wastewater must not interfere with the operation of the POTW. Ecology considers local limits in developing permit limits.
- Applicable requirements of other local, state and federal laws.

Ecology applies the most stringent of these limits to each parameter of concern and further describes the proposed limits below.

The limits in this permit reflect information received in the application and from supporting reports (engineering, hydrogeology, monitoring, etc.). Ecology evaluated the permit application and

determined the limits needed to comply with the rules adopted by the state of Washington. Ecology does not develop effluent limits for all reported pollutants. Some pollutants are not treatable at the concentrations reported, are not controllable at the source, and are not listed in regulation.

Ecology does not usually develop permit limits for pollutants not reported in the permit application but may be present in the discharge. The permit does not authorize the discharge of the non-reported pollutants. During the five-year permit term, the facility's effluent discharge conditions may change from those conditions reported in the permit application. The facility must notify Ecology if significant changes occur in any constituent. Until Ecology modifies the permit to reflect additional discharge of pollutants, a permitted facility could be violating its permit.

A. Design criteria

Under WAC 173-216-110 (4), neither flows nor waste loadings may exceed approved design criteria. Ecology received the project description, and the plans and specification for the proposed treatment system dated June 12, 2017, prepared by Antegroup.

Table 2. Design criteria for the proposed treatment system

Parameter	Design Quantity
Maximum Design Flow	20 gpm

B. Technology-based effluent limits

Waste discharge permits issued by Ecology specify conditions requiring all available and reasonable methods of prevention, control, and treatment (AKART) of discharges to waters of the state (RCW 90.48).

Ecology approved the plans and specifications for the proposed wastewater treatment system dated June 12, 2017, and amended August 16, 2017. Ecology determined the facility meets the minimum requirements demonstrating compliance with the AKART standard and federal effluent guidelines if Platinum Energy operates the treatment and disposal system as described in the approved project description, and plans and specifications for the system, and any subsequent Ecology approved reports.

The following permit limits are necessary to satisfy the requirement for AKART:

Table 3. Technology-based effluent limits

Effluent Limits		
Parameter	Maximum Daily	
Flow	6,000 gpd	
Benzene	5 µg/L	
BTEX	200 µg/L	
TPH-G	1 mg/L	
TPH-D	5 mg/L	
Parameter	Daily Minimum	Daily Maximum
pH	6 standard units	9 standard units

IV. Monitoring Requirements

Ecology requires monitoring, recording, and reporting (WAC 173-216-110) to verify that the treatment process functions correctly and that the discharge complies with the permit's effluent limits.

If a facility uses a contract laboratory to monitor wastewater, it must ensure that the laboratory uses the approved methods and meets or exceeds the method detection levels required by the permit. The permit describes when facilities may use alternative methods. It also describes what to do in certain situations when the laboratory encounters matrix effects. When a facility uses an alternative method as allowed by the permit, it must report the test method, detection level (DL), and quantitation level (QL) on the discharge monitoring report or in the required report.

A. Lab accreditation

Ecology requires that facilities must use a laboratory registered or accredited under the provisions of chapter 173-50 WAC, Accreditation of Environmental Laboratories, to prepare all monitoring data (with the exception of certain parameters).

B. Wastewater monitoring

Ecology details the proposed monitoring schedule under Special Condition S2. Specified monitoring frequencies take into account the quantity and variability of the discharge, the treatment method, past compliance, significance of pollutants, and cost of monitoring.

V. Other Permit Conditions

A. Reporting and record keeping

Ecology-based Special Condition S3 on its authority to specify any appropriate reporting and recordkeeping requirements to prevent and control waste discharges [WAC 173-216-110 and CFR 403.12 (e),(g), and (h)].

B. Operations and maintenance

Ecology requires dischargers to take all reasonable steps to properly operate and maintain their wastewater treatment system in accordance with state regulations (WAC 173-240-080 and WAC 173-216-110). The facility must prepare and submit an operation and maintenance (O&M) manual as required by state regulation for the construction of wastewater treatment facilities (WAC 173-240-150). Implementation of the procedures in the operation and maintenance manual ensures the facility's compliance with the terms and limits in the permit.

C. Prohibited discharges

Ecology prohibits certain pollutants from being discharged to the POTW. These include substances which cause pass-through or interference, pollutants which may cause damage to the POTW or harm to the POTW workers (chapter 173-216 WAC) and the discharge of designated dangerous wastes not authorized by this permit (chapter 173-303 WAC).

D. Dilution prohibited

Ecology prohibits the facility from diluting its effluent as a partial or complete substitute for adequate treatment to achieve compliance with permit limits.

E. General conditions

Ecology bases the standardized general conditions on state law and regulations. They are included in all state waste discharge permits issued by Ecology.

VI. Public Notification of Noncompliance

Ecology may annually publish a list of all industrial users in significant noncompliance with Pretreatment Standards or Requirements during any of the previous four quarters in a local newspaper. Accordingly, this permit Special Condition informs the Facility that noncompliance with this permit may result in publication of the noncompliance.

VII. Permit Issuance Procedures

A. Permit modifications

Ecology may modify this permit to impose or change the numerical limits, if necessary to comply with changes in the pretreatment requirements, conditions in local sewer ordinances, or based on new information from sources such as inspections and effluent monitoring. It may also modify this permit to comply with new or amended state or federal regulations.

B. Proposed permit issuance

This proposed permit meets all statutory requirements for authorizing a wastewater discharge, including those limits and conditions believed necessary to control toxics. Ecology proposes that the permit be issued for 5 years.

VIII. References for Text and Appendices

Former Platinum Energy Facility No. 2611255

June 2017. Application for a State Waste Discharge Permit to discharge industrial wastewater to a POTW.

Washington State Department of Ecology.

Laws and Regulations (<http://www.ecy.wa.gov/laws-rules/index.html>)

Permit and Wastewater Related Information
(<http://www.ecy.wa.gov/programs/wq/permits/guidance.html>)

December 2011. *Permit Writer's Manual*, Publication Number 92-109
(<https://fortress.wa.gov/ecy/publications/SummaryPages/92109.html>)

February 2007. *Focus Sheet on Solid Waste Control Plan, Developing a Solid Waste Control Plan for Industrial Wastewater Discharge Permittees*, Publication Number 07-10-024.
<http://www.ecy.wa.gov/pubs/0710024.pdf>

Appendix A--Public Involvement Information

Ecology proposes to issue a permit to Platinum Energy. The permit includes wastewater discharge limits and other conditions. This fact sheet describes the facility and Ecology's reasons for requiring permit conditions.

Ecology placed a Public Notice of Application and Public Notice of Draft on November 20 and 27, 2017 in the *Seattle Times* to inform the public about the submitted application and to invite comment on the proposed draft State Waste Discharge Permit and Fact Sheet.

The notice:

- Told where copies of the draft Permit and Fact Sheet were available for public evaluation (a local public library, the closest Regional or Field Office, posted on our website).
- Offered to provide the documents in an alternate format to accommodate special needs.
- Urged people to submit their comments, in writing, before the end of the Comment Period.
- Told how to request a public hearing of comments about the proposed state waste discharge permit.
- Explained the next step(s) in the permitting process.

Ecology has published a document entitled *Frequently Asked Questions about Effective Public Commenting*, which is available on our website at

<https://fortress.wa.gov/ecy/publications/SummaryPages/0307023.html>.

You may obtain further information from Ecology by telephone, (425) 649-7201, or by writing to the address listed below.

Water Quality Permit Coordinator
Department of Ecology
Northwest Regional Office
3190 160th Avenue SE
Bellevue, WA 98008-5452

The primary author of this permit and fact sheet is Jeanne Tran, P.E.

Appendix B--Your Right to Appeal

You have a right to appeal this permit to the Pollution Control Hearing Board (PCHB) within 30 days of the date of receipt of the final permit. The appeal process is governed by chapter 43.21B RCW and chapter 371-08 WAC. "Date of receipt" is defined in RCW 43.21B.001(2) (see glossary).

To appeal you must do the following within 30 days of the date of receipt of this permit:

- File your appeal and a copy of this permit with the PCHB (see addresses below). Filing means actual receipt by the PCHB during regular business hours.
- Serve a copy of your appeal and this permit on Ecology in paper form - by mail or in person. (See addresses below.) E-mail is not accepted.

You must also comply with other applicable requirements in chapter 43.21B RCW and chapter 371-08 WAC.

ADDRESS AND LOCATION INFORMATION

Street Addresses	Mailing Addresses
Department of Ecology Attn: Appeals Processing Desk 300 Desmond Drive SE Lacey, WA 98503	Department of Ecology Attn: Appeals Processing Desk PO Box 47608 Olympia, WA 98504-7608
Pollution Control Hearings Board 1111 Israel RD SW STE 301 Tumwater, WA 98501	Pollution Control Hearings Board PO Box 40903 Olympia, WA 98504-0903

Appendix C--Glossary

1-DMax or 1-day maximum temperature -- The highest water temperature reached on any given day. This measure can be obtained using calibrated maximum/minimum thermometers or continuous monitoring probes having sampling intervals of thirty minutes or less.

7-DADMax or 7-day average of the daily maximum temperatures -- The arithmetic average of seven consecutive measures of daily maximum temperatures. The 7-DADMax for any individual day is calculated by averaging that day's daily maximum temperature with the daily maximum temperatures of the three days prior and the three days after that date.

Acute toxicity -- The lethal effect of a compound on an organism that occurs in a short time period, usually 48 to 96 hours.

AKART -- The acronym for "all known, available, and reasonable methods of prevention, control and treatment." AKART is a technology-based approach to limiting pollutants from wastewater discharges, which requires an engineering judgment and an economic judgment. AKART must be applied to all wastes and contaminants prior to entry into waters of the state in accordance with RCW 90.48.010 and 520, WAC 173-200-030(2)(c)(ii), and WAC 173-216-110(1)(a).

Alternate point of compliance -- An alternative location in the groundwater from the point of compliance where compliance with the groundwater standards is measured. It may be established in the groundwater at locations some distance from the discharge source, up to, but not exceeding the property boundary and is determined on a site specific basis following an AKART analysis. An "early warning value" must be used when an alternate point is established. An alternate point of compliance must be determined and approved in accordance with WAC 173-200-060(2).

Ambient water quality -- The existing environmental condition of the water in a receiving water body.

Ammonia -- Ammonia is produced by the breakdown of nitrogenous materials in wastewater. Ammonia is toxic to aquatic organisms, exerts an oxygen demand, and contributes to eutrophication. It also increases the amount of chlorine needed to disinfect wastewater.

Annual average design flow (AADF) -- The average of the daily flow volumes anticipated to occur over a calendar year.

Average monthly (intermittent) discharge limit -- The average of the measured values obtained over a calendar month's time taking into account zero discharge days.

Average monthly discharge limit -- The average of the measured values obtained over a calendar month's time.

Background water quality -- The concentrations of chemical, physical, biological or radiological constituents or other characteristics in or of groundwater at a particular point in time upgradient of an activity that has not been affected by that activity [WAC 173-200-020(3)]. Background water quality for any parameter is statistically defined as the 95% upper tolerance interval with a 95% confidence based on at least eight hydraulically upgradient water quality samples. The eight samples are collected over a period of at least one year, with no more than one sample collected during any month in a single calendar year.

Best management practices (BMPs) -- Schedules of activities, prohibitions of practices, maintenance procedures, and other physical, structural and/or managerial practices to prevent or reduce the pollution of waters of the state. BMPs include treatment systems, operating procedures, and practices to control: plant site runoff, spillage or leaks, sludge or waste disposal, or drainage from raw material storage. BMPs may be further categorized as operational, source control, erosion and sediment control, and treatment BMPs.

BOD5 -- Determining the five-day Biochemical Oxygen Demand of an effluent is an indirect way of measuring the quantity of organic material present in an effluent that is utilized by bacteria. The BOD5 is used in modeling to measure the reduction of dissolved oxygen in receiving waters after effluent is discharged. Stress caused by reduced dissolved oxygen levels makes organisms less competitive and less able to sustain their species in the aquatic environment. Although BOD₅ is not a specific compound, it is defined as a conventional pollutant under the federal Clean Water Act.

Bypass -- The intentional diversion of waste streams from any portion of a treatment facility.

Categorical pretreatment standards -- National pretreatment standards specifying quantities or concentrations of pollutants or pollutant properties, which may be discharged to a POTW by existing or new industrial users in specific industrial subcategories.

Chlorine -- A chemical used to disinfect wastewaters of pathogens harmful to human health. It is also extremely toxic to aquatic life.

Chronic toxicity -- The effect of a compound on an organism over a relatively long time; often 1/10 of an organism's lifespan or more. Chronic toxicity can measure survival, reproduction or growth rates, or other parameters to measure the toxic effects of a compound or combination of compounds.

Clean water act (CWA) -- The federal Water Pollution Control Act enacted by Public Law 92-500, as amended by Public Laws 95-217, 95-576, 96-483, 97-117; USC 1251 et seq.

Compliance inspection-without sampling -- A site visit for the purpose of determining the compliance of a facility with the terms and conditions of its permit or with applicable statutes and regulations.

Compliance inspection-with sampling -- A site visit for the purpose of determining the compliance of a facility with the terms and conditions of its permit or with applicable statutes and regulations. In addition it includes as a minimum, sampling and analysis for all parameters with limits in the permit to ascertain compliance with those limits; and, for municipal facilities, sampling of influent to ascertain compliance with the 85 percent removal requirement. Ecology may conduct additional sampling.

Composite sample -- A mixture of grab samples collected at the same sampling point at different times, formed either by continuous sampling or by mixing discrete samples. May be "time-composite" (collected at constant time intervals) or "flow-proportional" (collected either as a constant sample volume at time intervals proportional to stream flow, or collected by increasing the volume of each aliquot as the flow increased while maintaining a constant time interval between the aliquots).

Construction activity -- Clearing, grading, excavation, and any other activity, which disturbs the surface of the land. Such activities may include road building; construction of residential houses, office buildings, or industrial buildings; and demolition activity.

Continuous monitoring -- Uninterrupted, unless otherwise noted in the permit.

Critical condition -- The time during which the combination of receiving water and waste discharge conditions have the highest potential for causing toxicity in the receiving water environment. This situation usually occurs when the flow within a water body is low, thus, its ability to dilute effluent is reduced.

Date of receipt -- This is defined in RCW 43.21B.001(2) as five business days after the date of mailing; or the date of actual receipt, when the actual receipt date can be proven by a preponderance of the evidence. The recipient's sworn affidavit or declaration indicating the date of receipt, which is unchallenged by the agency, constitutes sufficient evidence of actual receipt. The date of actual receipt, however, may not exceed forty-five days from the date of mailing.

Detection limit -- The minimum concentration of a substance that can be measured and reported with 99 percent confidence that the pollutant concentration is above zero and is determined from analysis of a sample in a given matrix containing the pollutant.

Dilution factor (DF) -- A measure of the amount of mixing of effluent and receiving water that occurs at the boundary of the mixing zone. Expressed as the inverse of the percent effluent fraction, for example, a dilution factor of 10 means the effluent comprises 10% by volume and the receiving water 90%.

Distribution uniformity -- The uniformity of infiltration (or application in the case of sprinkle or trickle irrigation) throughout the field expressed as a percent relating to the average depth infiltrated in the lowest one-quarter of the area to the average depth of water infiltrated.

Early warning value -- The concentration of a pollutant set in accordance with WAC 173-200-070 that is a percentage of an enforcement limit. It may be established in the effluent, groundwater, surface water, the vadose zone or within the treatment process. This value acts as a trigger to detect and respond to increasing contaminant concentrations prior to the degradation of a beneficial use.

Enforcement limit -- The concentration assigned to a contaminant in the groundwater at the point of compliance for the purpose of regulation, [WAC 173-200-020(11)]. This limit assures that a groundwater criterion will not be exceeded and that background water quality will be protected.

Engineering report -- A document that thoroughly examines the engineering and administrative aspects of a particular domestic or industrial wastewater facility. The report must contain the appropriate information required in WAC 173-240-060 or 173-240-130.

Fecal coliform bacteria -- Fecal coliform bacteria are used as indicators of pathogenic bacteria in the effluent that are harmful to humans. Pathogenic bacteria in wastewater discharges are controlled by disinfecting the wastewater. The presence of high numbers of fecal coliform bacteria in a water body can indicate the recent release of untreated wastewater and/or the presence of animal feces.

Grab sample -- A single sample or measurement taken at a specific time or over as short a period of time as is feasible.

Groundwater -- Water in a saturated zone or stratum beneath the surface of land or below a surface water body.

Industrial user -- A discharger of wastewater to the sanitary sewer that is not sanitary wastewater or is not equivalent to sanitary wastewater in character.

Industrial wastewater -- Water or liquid-carried waste from industrial or commercial processes, as distinct from domestic wastewater. These wastes may result from any process or activity of industry, manufacture, trade or business; from the development of any natural resource; or from animal operations such as feed lots, poultry houses, or dairies. The term includes contaminated stormwater and, also, leachate from solid waste facilities.

Interference -- A discharge which, alone or in conjunction with a discharge or discharges from other sources, both:

- Inhibits or disrupts the POTW, its treatment processes or operations, or its sludge processes, use or disposal; and
- Therefore is a cause of a violation of any requirement of the POTW's NPDES permit (including an increase in the magnitude or duration of a violation) or of the prevention of sewage sludge use or disposal in compliance with the following statutory provisions and regulations or permits issued thereunder (or more stringent State or local regulations): Section 405 of the Clean Water Act, the Solid Waste Disposal Act (SWDA) (including Title II, more commonly referred to as the Resource Conservation and Recovery Act (RCRA), and including State regulations contained in any State sludge management plan prepared pursuant to subtitle D of the SWDA), sludge regulations appearing in 40 CFR Part 507, the Clean Air Act, the Toxic Substances Control Act, and the Marine Protection, Research and Sanctuaries Act.

Local limits -- Specific prohibitions or limits on pollutants or pollutant parameters developed by a POTW.

Major facility -- A facility discharging to surface water with an EPA rating score of > 80 points based on such factors as flow volume, toxic pollutant potential; and public health impact.

Maximum daily discharge limit -- The highest allowable daily discharge of a pollutant measured during a calendar day or any 24-hour period that reasonably represents the calendar day for purposes of sampling. The daily discharge is calculated as the average measurement of the pollutant over the day.

Maximum day design flow (MDDF) -- The largest volume of flow anticipated to occur during a one-day period, expressed as a daily average.

Maximum month design flow (MMDF) -- The largest volume of flow anticipated to occur during a continuous 30-day period, expressed as a daily average.

Maximum week design flow (MWDF) -- The largest volume of flow anticipated to occur during a continuous 7-day period, expressed as a daily average.

Method detection level (MDL) -- See Detection Limit.

Minor facility -- A facility discharging to surface water with an EPA rating score of < 80 points based on such factors as flow volume, toxic pollutant potential, and public health impact.

Mixing zone -- An area that surrounds an effluent discharge within which water quality criteria may be exceeded. The permit specifies the area of the authorized mixing zone that Ecology defines following procedures outlined in state regulations (chapter 173-201A WAC).

National pollutant discharge elimination system (NPDES) -- The NPDES (Section 402 of the Clean Water Act) is the federal wastewater permitting system for discharges to navigable waters of the United States. Many states, including the state of Washington, have been delegated the authority to issue these permits. NPDES permits issued by Washington State permit writers are joint NPDES/State permits issued under both state and federal laws.

pH -- The pH of a liquid measures its acidity or alkalinity. It is the negative logarithm of the hydrogen ion concentration. A pH of 7 is defined as neutral and large variations above or below this value are considered harmful to most aquatic life.

Pass-through -- A discharge which exits the POTW into waters of the State in quantities or concentrations which, alone or in conjunction with a discharge or discharges from other sources, is a cause of a violation of any requirement of the POTW's NPDES permit (including an increase in the magnitude or duration of a violation), or which is a cause of a violation of State water quality standards.

Peak hour design flow (PHDF) -- The largest volume of flow anticipated to occur during a one-hour period, expressed as a daily or hourly average.

Peak instantaneous design flow (PIDF) -- The maximum anticipated instantaneous flow.

Point of compliance -- The location in the groundwater where the enforcement limit must not be exceeded and a facility must comply with the Ground Water Quality Standards. Ecology determines this limit on a site-specific basis. Ecology locates the point of compliance in the groundwater as near and directly downgradient from the pollutant source as technically, hydrogeologically, and geographically feasible, unless it approves an alternative point of compliance.

Potential significant industrial user (PSIU) -- A potential significant industrial user is defined as an Industrial User that does not meet the criteria for a Significant Industrial User, but which discharges wastewater meeting one or more of the following criteria:

- a. Exceeds 0.5 % of treatment plant design capacity criteria and discharges <25,000 gallons per day; or
- b. Is a member of a group of similar industrial users which, taken together, have the potential to cause pass through or interference at the POTW (e.g. facilities which develop photographic film or paper, and car washes).

Ecology may determine that a discharger initially classified as a potential significant industrial user should be managed as a significant industrial user.

Quantitation level (QL) -- Also known as Minimum Level of Quantitation (ML) -- The lowest level at which the entire analytical system must give a recognizable signal and acceptable calibration point for the analyte. It is equivalent to the concentration of the lowest calibration standard, assuming that the lab has used all method-specified sample weights, volumes, and

cleanup procedures. The QL is calculated by multiplying the MDL by 3.18 and rounding the result to the number nearest to $(1, 2, \text{ or } 5) \times 10^n$, where n is an integer (64 FR 30417).

ALSO GIVEN AS:

The smallest detectable concentration of analyte greater than the Detection Limit (DL) where the accuracy (precision & bias) achieves the objectives of the intended purpose. (Report of the Federal Advisory Committee on Detection and Quantitation Approaches and Uses in Clean Water Act Programs Submitted to the US Environmental Protection Agency, December 2007).

Reasonable potential -- A reasonable potential to cause a water quality violation, or loss of sensitive and/or important habitat.

Responsible corporate officer -- A president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy- or decision-making functions for the corporation, or the manager of one or more manufacturing, production, or operating facilities employing more than 250 persons or have gross annual sales or expenditures exceeding \$25 million (in second quarter 1980 dollars), if authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures (40 CFR 122.22).

Sample Maximum -- No sample may exceed this value.

Significant industrial user (SIU) --

- 1) All industrial users subject to Categorical Pretreatment Standards under 40 CFR 403.6 and 40 CFR Chapter I, Subchapter N; and
- 2) Any other industrial user that: discharges an average of 25,000 gallons per day or more of process wastewater to the POTW (excluding sanitary, noncontact cooling, and boiler blow-down wastewater); contributes a process wastestream that makes up 5 percent or more of the average dry weather hydraulic or organic capacity of the POTW treatment plant; or is designated as such by the Control Authority* on the basis that the industrial user has a reasonable potential for adversely affecting the POTW's operation or for violating any pretreatment standard or requirement [in accordance with 40 CFR 403.8(f)(6)].

Upon finding that the industrial user meeting the criteria in paragraph 2, above, has no reasonable potential for adversely affecting the POTW's operation or for violating any pretreatment standard or requirement, the Control Authority* may at any time, on its own initiative or in response to a petition received from an industrial user or POTW, and in accordance with 40 CFR 403.8(f)(6), determine that such industrial user is not a significant industrial user.

*The term "Control Authority" refers to the Washington State Department of Ecology in the case of non-delegated POTWs or to the POTW in the case of delegated POTWs.

Slug discharge -- Any discharge of a non-routine, episodic nature, including but not limited to an accidental spill or a non-customary batch discharge to the POTW. This may include any pollutant released at a flow rate that may cause interference or pass through with the POTW or in any way violate the permit conditions or the POTW's regulations and local limits.

Soil scientist -- An individual who is registered as a Certified or Registered Professional Soil Scientist or as a Certified Professional Soil Specialist by the American Registry of Certified Professionals in Agronomy, Crops, and Soils or by the National Society of Consulting Scientists or who has the credentials for membership. Minimum requirements for eligibility are: possession of a baccalaureate, masters, or doctorate degree from a U.S. or Canadian institution with a minimum of 30 semester hours or 45 quarter hours professional core courses in agronomy, crops or soils, and have 5, 3, or 1 year(s), respectively, of professional experience working in the area of agronomy, crops, or soils.

Solid waste -- All putrescible and non-putrescible solid and semisolid wastes including, but not limited to, garbage, rubbish, ashes, industrial wastes, swill, sewage sludge, demolition and construction wastes, abandoned vehicles or parts thereof, contaminated soils and contaminated dredged material, and recyclable materials.

Soluble BOD₅ -- Determining the soluble fraction of Biochemical Oxygen Demand of an effluent is an indirect way of measuring the quantity of soluble organic material present in an effluent that is utilized by bacteria. Although the soluble BOD₅ test is not specifically described in Standard Methods, filtering the raw sample through at least a 1.2 um filter prior to running the standard BOD₅ test is sufficient to remove the particulate organic fraction.

State waters -- Lakes, rivers, ponds, streams, inland waters, underground waters, salt waters, and all other surface waters and watercourses within the jurisdiction of the state of Washington.

Stormwater--That portion of precipitation that does not naturally percolate into the ground or evaporate, but flows via overland flow, interflow, pipes, and other features of a stormwater drainage system into a defined surface water body, or a constructed infiltration facility.

Technology-based effluent limit -- A permit limit based on the ability of a treatment method to reduce the pollutant.

Total coliform bacteria--A microbiological test, which detects and enumerates the total coliform group of bacteria in water samples.

Total dissolved solids--That portion of total solids in water or wastewater that passes through a specific filter.

Total maximum daily load (TMDL) --A determination of the amount of pollutant that a water body can receive and still meet water quality standards.

Total suspended solids (TSS) -- Total suspended solids is the particulate material in an effluent. Large quantities of TSS discharged to a receiving water may result in solids accumulation. Apart from any toxic effects attributable to substances leached out by water, suspended solids may kill fish, shellfish, and other aquatic organisms by causing abrasive injuries and by clogging the gills and respiratory passages of various aquatic fauna. Indirectly, suspended solids can screen out light and can promote and maintain the development of noxious conditions through oxygen depletion.

Upset -- An exceptional incident in which there is unintentional and temporary noncompliance with technology-based permit effluent limits because of factors beyond the reasonable control of the Permittee. An upset does not include noncompliance to the extent caused by

operational error, improperly designed treatment facilities, lack of preventative maintenance, or careless or improper operation.

Water quality-based effluent limit -- A limit imposed on the concentration of an effluent parameter to prevent the concentration of that parameter from exceeding its water quality criterion after discharge into receiving waters.

Appendix D--Site Maps

F-1 Facility Site Map & 11.5 Stormwater Drainage Map

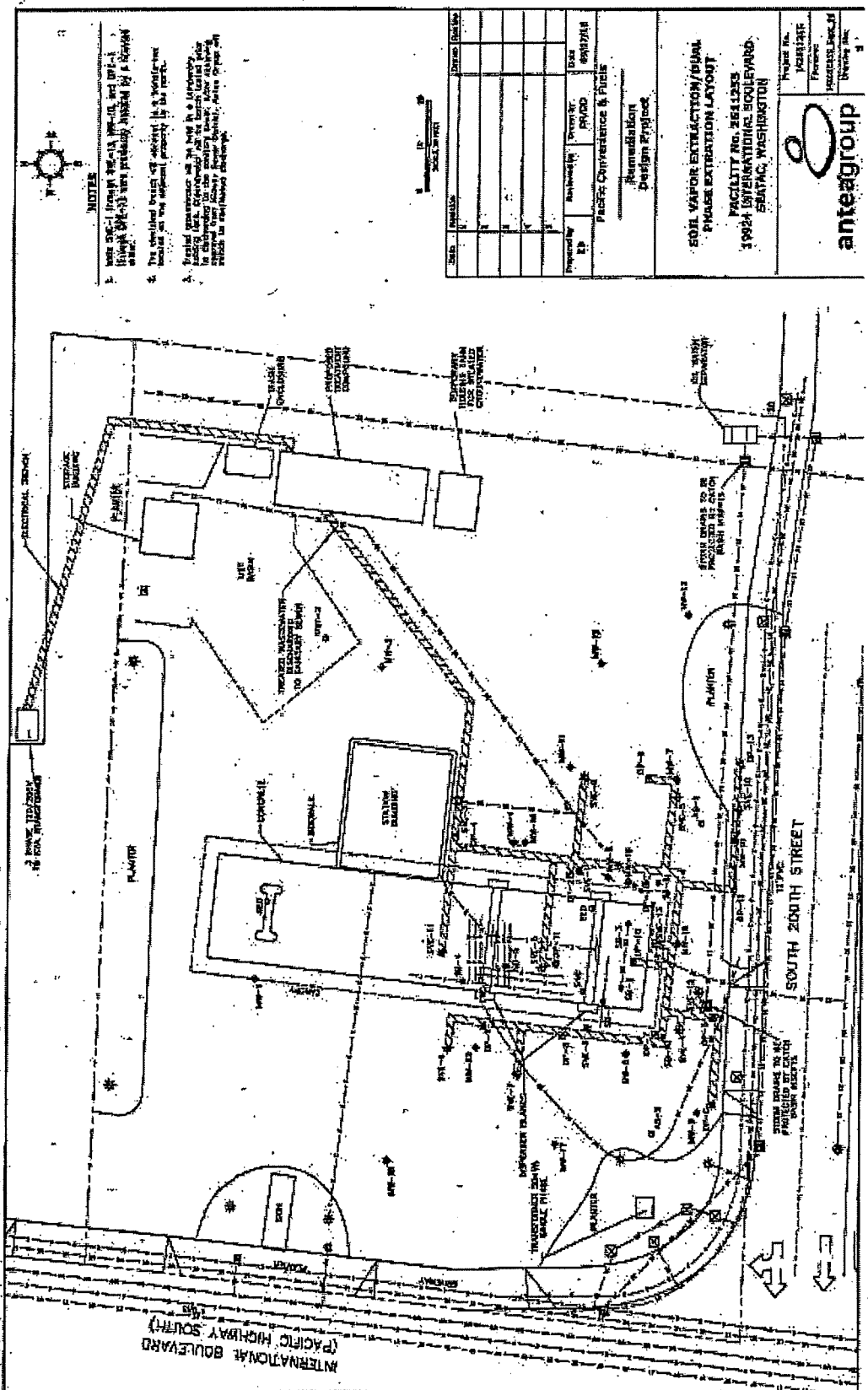


Figure 2. Site map – Dual phase extraction layout

C.2 Schematic Drawing of Production Processes (Direct Discharge Updated 8/16/2017)

Once receiving permission from Midway Sewer District, Antea Group will begin directly discharging to the sanitary sewer. A schematic of the process is provided below.

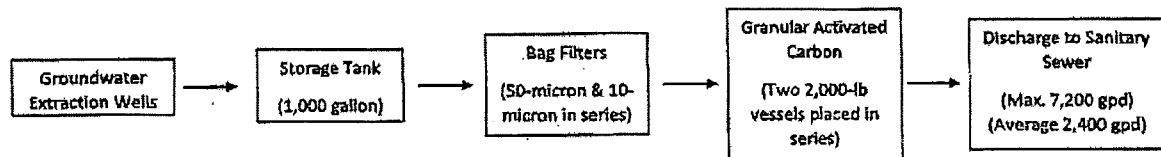


Figure 3. Process flow diagram

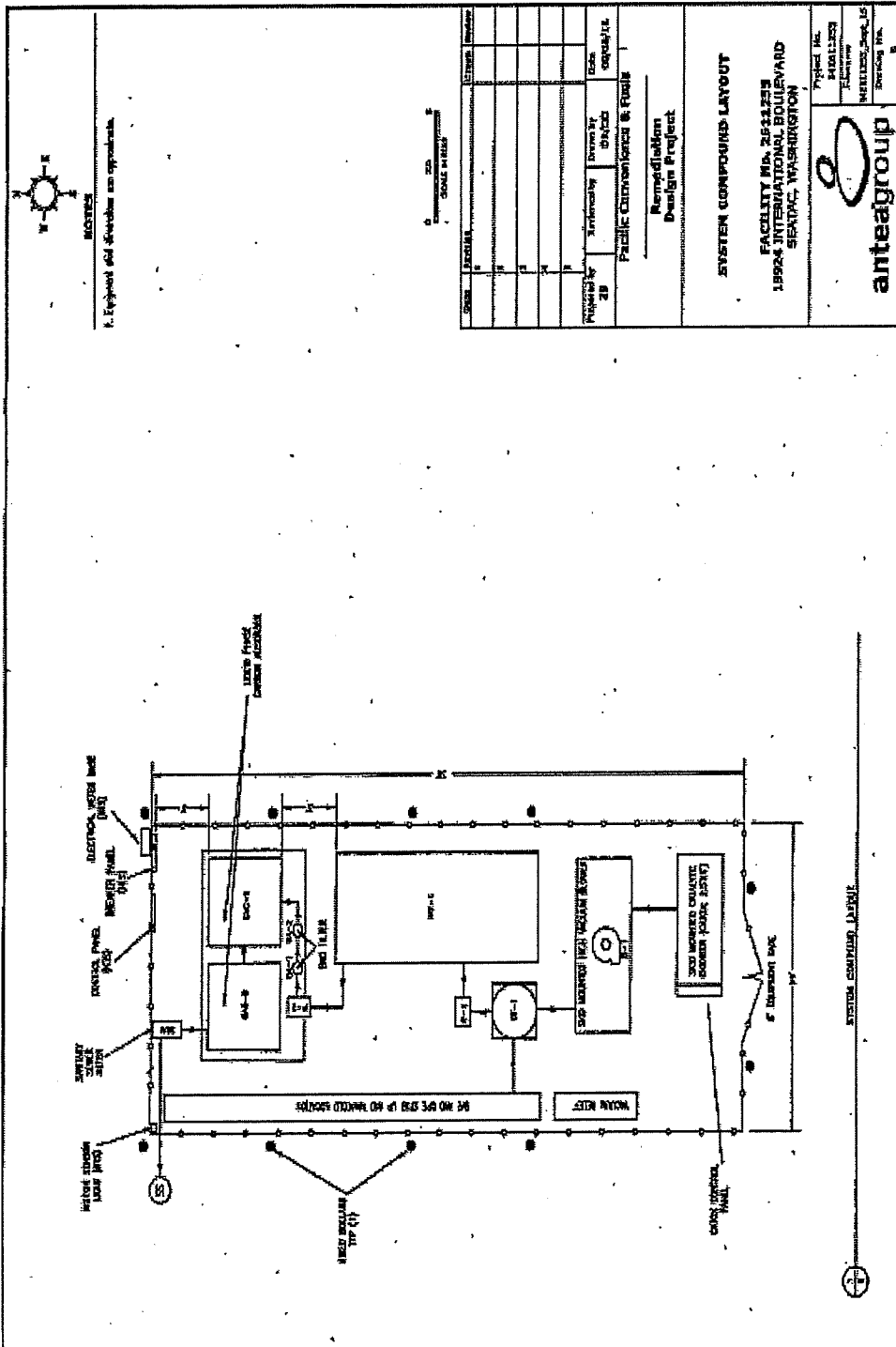


Figure 4. Treatment system compound layout

Appendix E--Response to Comments

Editorial and minor comments received from the facility on the proposed permit and fact sheet were incorporated into the final permit and fact sheet. No substantive comments were received on the proposed permit and fact sheet.

HEREBY ISSUES AN ORDER OF APPROVAL TO CONSTRUCT, INSTALL, OR ESTABLISH

Registration No. 29918

Date FEB 15 2017

Soil and groundwater remediation site of petroleum contaminated site. This project includes a dual phase/soil vapor extraction (DPE/SVE) system equipped with an electric catalytic oxidizer or activated carbon vessels that will be used to treat the contaminated vapors before being released to the atmosphere.

APPLICANT

Zoe Bezold
Antea Group Remediation
19924 International Blvd
SeaTac, WA 98188

OWNER

Antea Group Remediation
19924 International Blvd
SeaTac, WA 98188

INSTALLATION ADDRESS

Antea Group Remediation, 19924 International Blvd, SeaTac, WA 98188

THIS ORDER IS ISSUED SUBJECT TO THE FOLLOWING RESTRICTIONS AND CONDITIONS

1. Approval is hereby granted as provided in Article 6 of Regulation I of the Puget Sound Clean Air Agency to the applicant to install or establish the equipment, device or process described hereon at the INSTALLATION ADDRESS in accordance with the plans and specifications on file in the Engineering Division of the Puget Sound Clean Air Agency.
2. This approval does not relieve the applicant or owner of any requirement of any other governmental agency.
3. The owner or operator shall vent all vapors from the remediation extraction system to a catalytic oxidizer or activated carbon control system prior to discharge to the atmosphere.
 - a. The maximum influent flow rate to either system shall not exceed 300 standard cubic feet per minute (scfm).
 - b. When using an activated carbon control system, the system shall consist of at least two carbon canisters arranged in series.
4. The control efficiency of both the catalytic oxidizer and the activated carbon vessel system shall meet the following requirements, as applicable:
 - a. $\geq 97\%$ if inlet TPH ≥ 200 ppmv, measured as hexane or its equivalent; or
 - b. $\geq 90\%$ if inlet TPH < 200 ppmv, measured as hexane or its equivalent; or
 - c. ≤ 10 ppmv at the outlet of the control device, measured as hexane or its equivalent.
5. The owner or operator shall meet the following operating requirements:
 - a. The owner and/or operator shall only use natural gas, propane, or electric power to operate the oxidizer.
 - b. The SVE system shall be operated with a minimum catalytic oxidizer temperature of at least 600 degrees Fahrenheit.
 - c. The SVE system shall be equipped with an alarm that shuts the system off when the actual temperature readings fall below the minimum operating temperature in Condition No 5.b.

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6. The catalytic oxidizer shall be equipped with continuous temperature measuring and recording instrumentation to demonstrate compliance with the operating temperature requirements of Condition No. 5.
7. In order to demonstrate compliance with Condition No. 4 of this order, the owner or operator shall measure the inlet and exhaust gas streams by use of a hand held instrument capable of detecting concentrations at the levels expected, EPA Reference Method 8260B, EPA Method 8021, EPA Method TO-15 or other equivalent method approved by the agency at least once per month after initial start-up as follows:
 - a. Analyze inlet gas stream to determine the flow rate and the concentration of TPH and Benzene present.
 - b. Analyze exhaust gas to determine the flow rate, and the concentration of TPH and Benzene present.
 - c. Calculate the TPH control efficiency based on the inlet and exhaust gas analysis.

The SVE system shall not contain a valve or any other device which will either dilute or restrict the flow of the soil gases unless the position of the device can be measured and controlled. If a device is installed, its position must be measured and recorded any time a test sample is taken which will be used to calculate either the mass flow rate of VOCs into the atmosphere or the destruction efficiency of the control device.

8. During operation of the activated carbon vessels, the owner or operator shall contemporaneously monitor the gas stream with a photo-ionization detector (PID) or flame-ionization detector (FID) to prevent breakthrough at least once per month at the following locations:
 - a. At the lead carbon vessel inlet;
 - b. At the inlet to the last carbon vessel in series (outlet of lead carbon vessel);
 - c. Outlet of the last carbon vessel prior to venting to the atmosphere.

The owner/operator of this source may propose for Agency approval, based on actual measurements taken at the site during operation of the source, that the monitoring schedule be changed based on the decline in organic emissions and/or the demonstrated breakthrough rate of the carbon vessels.

9. The owner or operator shall immediately change out the first carbon bed with unspent carbon upon breakthrough defined as the detection at its outlet of the higher of the following:
 - a. 10 % of the inlet stream concentration to the carbon vessel.
 - b. 10 ppmv (measured as hexane or its equivalent).

10. The owner or operator may propose for agency approval to operate the soil vapor extraction system without any controls when all the sampling data from two or more consecutive months shows the both of the following are true:
 - a. Pre-control TPH emission rate is equal to or less than 2.74 lbs/day.
 - b. Pre-control Benzene emission rate is equal to or less than 0.018 lbs/day.

11. The owner or operator shall maintain records of the following information:
 - a. Hours and time of operation.
 - b. The results of analysis or monitoring performed as required by condition 7.
 - c. The control efficiency calculation results.
 - d. When operating the catalytic oxidizer, a summary of the temperature recordings taken on a monthly basis.
 - e. When operating the activated carbon vessels, the date change out occurred and the number of carbon vessel(s) changed.

12. The owner or operator shall report any non-compliance with any condition of this order to the Agency no later than 30 days after it is first discovered. The owner or operator shall detail the corrective action taken and include the data showing the exceedance as well as the time of occurrence in the submittal.

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13. Records required to be maintained by this Order of Approval shall be kept for at least two years from the date of generation, and made available to Puget Sound Clean Air Agency personnel upon request.

APPEAL RIGHTS

Pursuant to Puget Sound Clean Air Agency's Regulation I, Section 3.17 and RCW 43.21B.310, this Order may be appealed to the Pollution Control Hearings Board (PCHB). To appeal to the PCHB, a written notice of appeal must be filed with the PCHB and a copy served upon Puget Sound Clean Air Agency within 30 days of the date the applicant receives this Order.



Ralph Munoz
Reviewing Engineer



Carole Cenci
Compliance Manager