



- **Fleet Participants**
- **Manufacturer Participants**
- **Showcase Project Issues**
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 - **Pricing**
- **Showcase Project Status**
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 - **PEMS System**
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 - **Contacts**



FLEET OWNER PARTICIPANTS

- Eighteen Fleet Owners
 - 5 Public Fleets
 - 13 Private Fleets
- Total of 230 Vehicles

| Private | Public |
|---|---|
| Community Recycling & Resource Recovery Inc. | CALTRANS Division of Equipment |
| Albert W. Davies, Inc. | City of Burbank Public Works Department |
| Recycled Materials Company of CA | City of Los Angeles, General Services Department |
| Dan Copp Crushing | County Sanitation Districts of L.A. County |
| ECCO Equipment Corp. | City of Culver City Transportation Department |
| Griffith Company | |
| PEED Equipment Company | |
| Altfillisch Contractors, Inc. | |
| Reed Thomas Company, Inc. | |
| Shimmick Construction Co. | |
| Skanska USA Civil West California District Inc. | |
| Tiger 4 Equipment Leasing | |
| Sukut Equipment Inc | |





Emission Control Manufacturer Participants



(16) 14 Manufacturers

(29) 24 Systems:

(11) 8 Active DPFs

(18) 15 Passive DPFs

**(8) 6 PM + NOx
Devices**

**(7) 6 Fuel Borne
Catalyst Systems**

(16) 13 Tier 0

(22) 17 Tier 1

(27) 18 Tier 2

(23) 16 Tier 3



Showcase Project Issues

- **Drop Out**

- Technology

- JM SCRT (Active)
- Aquis FBC (Active)
- Huss FS-MA FBC (Passive)
- Purem PMF (Active)
- Purem PMF (Passive)

- Device Manufacturer

- Aqius
- Purem

- **Economic Effects**

- Reduction in job availability
- Vehicles out-of-service
- Urea Availability (Rentals)

- **Others**

- **Payment Concerns: Fleet**

- **Sud Chemie: Shift in management/lack of update to fleet**

- **Contracts**

- Fleets / Manufacturers

- **Rematch**

- Vehicles Retired
- Vehicles Replaced
- Vehicle's Temp profile
- Fleet Preference

- **Pricing**

- Submitted prices differ from actual cost

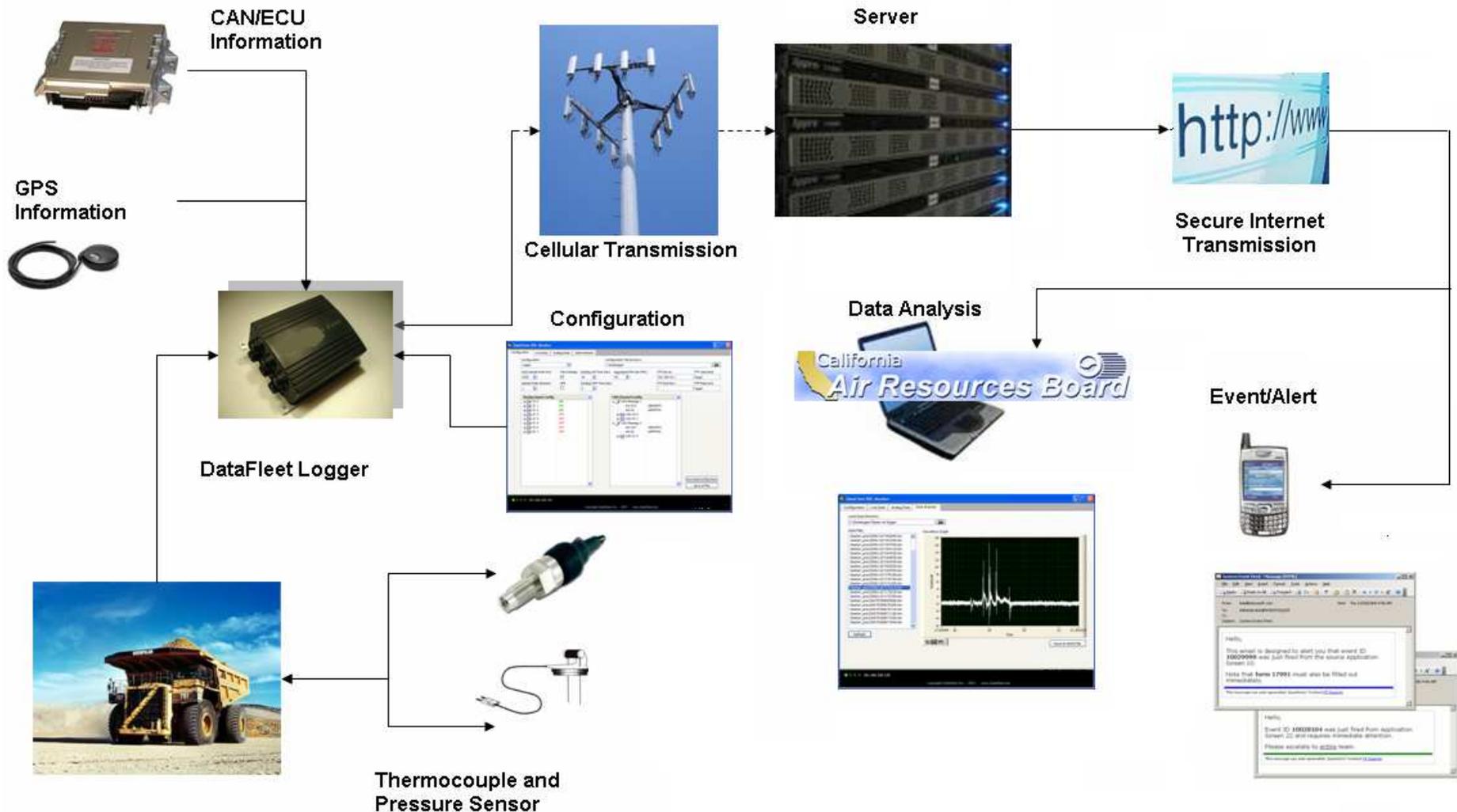


General Issues

- **Manufacturer(s) Awaiting PO from Fleet**
- **ARB: Awaiting Response from Manufacturers**
- **Dinex: Lack of Resources (Technicians)**
- **Rental Issues: Preference For Passive DPF**
- **Installation / Data Logging Issues**
- **Temp Profiles: Not Enough Data Due to Slow Business**
- **Manufacturer: Resolving SEP Issues Before Showcase Retrofits**
- **Contracts Not Finalized Between Fleet and MSRC**
- **Data Logger: ARB Finalizing Data Logger for Showcase**



DataLogger





| | | DATA FLEET | DATA TAKER | RM | CPK |
|---------------------|---------------------------------|--------------------------|-------------------------|-----------------------|-----------------------|
| INSTALLATION | | | | | |
| | UNIT UNEXPOSED/PROTECTED | X | EXPOSED TERMINAL | X | X |
| | PRESSURE SENSOR PROVIDED | X | X | | X |
| | TEMP SESNOR PROVIDED | X | X | | X |
| | CABLE HARNESS PROVIDED | X | | | X |
| | ALARM SENSOR/PROGRAM | | X | | X |
| | WIRELESS | X | X | X | X |
| | LIVE DATA | X | X | | X |
| | GPS POSITION | X | X | X | X |
| PARAMETERS | | | | | |
| | TEMPERATURE | X | X | X | X |
| | BACKPRESSURE | X | X | X | X |
| | RPM W/ SENSOR | X | X | | X |
| | CAN CONNECTION | X | X | X | X |
| MEMORY | | | | | |
| | SAMPLING INTERVALS | 1 SEC INTERVAL | 1 SEC INTERVAL | 1 SEC INTERVAL | 1 SEC INTERVAL |
| | DATA STORAGE | WEB/UNIT (1.4 GB) | UNIT (1GB) | WEB | UNIT/WEB |



| | | DATA FLEET | DATA TAKER | RM | CPK |
|-------------------|--|---------------------|---------------------|---------------------|---------------------|
| PROGRAMING | | | | | |
| | ATUOMATIC GRAPHING REPORTS | | | | X |
| | WEBSITE HOSTING | COMPANY HOST | PRIVATE HOST | COMPANY HOST | COMPANY HOST |
| | SOFTWARE | X | X | X | X |
| | USER FRIEDNLY LOGGER SETUP | X | X | | X |
| ISSUES | | | | | |
| | DATA WEB ACCESSIBILITY | X | | X | |
| | COMPILE FILES DAILY | X | | | |
| | TECHNICAL SUPPORT | X | | X | |
| | DOES NOT ACCEPT EXTERNAL RPM SIGNAL | | | X | |
| | MANUAL DATA DOWNLOAD TIME | X | | | X |



| | | DATA FLEET | DATA TAKER | RM | CPK |
|-----------------------|--|---|-------------------|---------------------|--|
| Logger Pricing | Single Unit | \$1,499.00 | \$3,700.00 | \$699.00 | \$1794.83 |
| | Engine Speed Sensor/ Signal Conditioner | Sensor (Not Included) Conditioner (Included) | \$425.00 | Not Included | Conditioner Included Not Included |
| | Pressure Sensor | \$225.00 | \$600.00 | Not Included | Included |
| | Exhaust Temperature Sensor | \$30.00 | \$205.00 | Not Included | Included |
| | CANGATE | Part of Unit | \$920.00 | Part of Unit | CANGATE for J1939 \$292.86 CANGATE for NOx \$292.86 |
| | Interface Connector | Part of Unit | \$200.00 | NA | \$229.62 |
| | Enclosure Box | Not Included | \$150.00 | Not Included | \$296.70 |
| | Total Unit Price | \$1,724 | \$7,924 | \$699 | \$2,907 |



| | | DATA FLEET | DATA TAKER | RM | CPK |
|-----------------|--|----------------------------------|---------------------|--|---------------------------|
| Wireless | GPS Antenna | \$70.00 | Part of Unit | \$25.00 (GPS/GSM Antenna) | Included |
| | GPS Receiver | Part of Unit | \$150.00 | Part of Unit | Included |
| | Cellular Modem GSM | \$250.00 (activation) | \$ 310.00 | Part of Unit | Included |
| | GSM Antenna | Part of Unit | Included | Included w/ GPS Antenna | Included |
| | Unlimited Data Subscription | \$59.00(mth) | NA | \$39.00 (Mth) | \$52.02 (Mth) |
| | SIM Fee | NA | Not Included | \$10.00 | \$12.50 |
| | Unlimited Hosting Fee | \$100.00(Mth) | NA | \$37.99 (Mth) | \$137.42 (Mth) |
| | Wireless Monthly Charge | \$159.99 | NA | \$76.99 | \$201.94 |
| | 1st yr Wireless Charge | \$2,158.00 | \$310.00 | \$933.88 | \$2,423.28 |
| | 2nd yr Wireless Charge | \$1,908.00 | NA | \$923.88 | \$2,423.28 |
| Manual | | 1.4 GB | 1 GB | 8MG (N/A) | |



PRICING SUMMARY

| | DATA FLEET | DATA TAKER | RM | CPK |
|---|-------------------|-------------------|---------------------|-------------------|
| Total Unit Price | \$1,724.00 | \$7,924.00 | \$699.00 | \$2,907.00 |
| 1st yr Wireless Charge | \$2,158.00 | \$310.00 | \$933.88 | \$2,423.28 |
| TEMPERATURE SENSORS | INLCUED | INCLUDED | EST \$50.00 | INLCLUDED |
| BACKPRESSURE SENSORS | INLCUED | INCLUDED | EST \$400.00 | INLCLUDED |
| OVERALL (WIRELESS 1 YR) PURCHASE PRICE | \$3,822.00 | \$8,384.00 | \$2,107.00 | \$5,330.00 |



Showcase Project Status

Contracts:

- Most of the Contracts Between MSRC and Fleet Owners Have Been Completed
- Communication Issues (Manufacturers/ Fleets)

70 Vehicles Data Logged

- Fleet Owners and Device Manufacturers are Determining Proper Location for DPF Installation
- Devices are Currently in Design Phase

Vehicles to be Retrofitted

- 230 Vehicles are Participating

Currently 4 Vehicles Have Been Retrofitted

1. **Skanska: CAT Vehicle 83N0670**
2. **Schimmick: Johnson Mathey Vehicle 37-006**
3. **Community Recycling: Sud Chemie Vehicle 330**
4. **Community Recycling: Sud Chemie Vehicle 325D**

Update:

- Dinex Proposes to Begin Installation by End of August (**17 vehicles**)
- Nett Tech is Scheduled to Begin Retrofits Mid August (**27 vehicles**)
- Mann Hummel (**1 vehicle**) Expected Retrofit –By End of August



CAT-EUG Skanka 1491



Johnson Matthey Shimick 37-006



**Retrofitted
Vehicles**



325B Sud Chemie Community Recycling



350D Sud Chemie Community Recycling



PEMS System



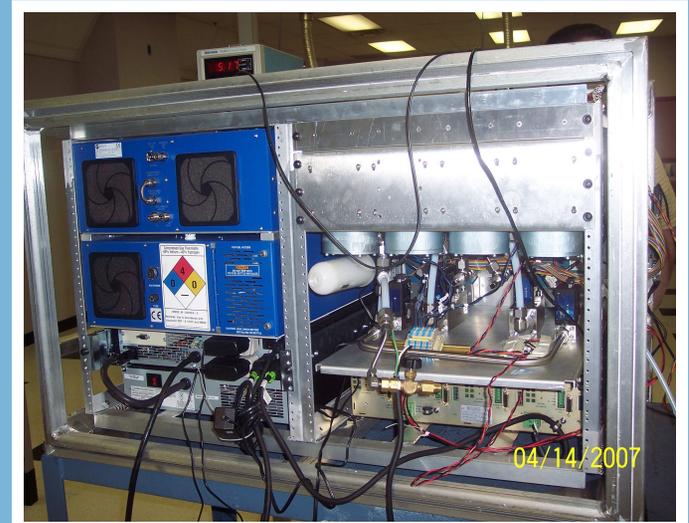
Gaseous Emissions:
THC, NO_x,
NO, NO₂,
CO, CO₂

Exhaust Flow Measurement
CFV, ECU

PM by:

Mass
Soot
Electric
Mobility
Received Aug,
2008.

ARB staff
Training: Sept
2008





<http://www.arb.ca.gov/diesel/showcase/showcase.htm>



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SHOWCASE

Monday, August 11, 2008

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Current Progress:

Current Showcase efforts include the following: researching different datalogger options, gathering temperature profile information for each piece of equipment, matching equipment to retrofit devices, and overseeing device installation, and datalogger installation.

Background:

The Air Resources Board in conjunction with the South Coast Air Quality Management District and the Mobile Source Air Pollution Reduction Review Committee, is pleased to participate in this "Off-Road Diesel Retrofit Showcase."

The goal of the Showcase is to demonstrate the viability of diesel emission control devices in a variety of off-road environments as well as to obtain new emission control systems that will be ARB verified prior to new off-road regulations currently under development. This project provides an opportunity for manufacturers of diesel emission control technologies to participate with fleet owners in retrofitting their engines with a diesel emission control device to reduce diesel particulate matter (PM) or diesel PM plus oxides of nitrogen (NOx). Stakeholders in the Showcase project include other local air pollution control districts in California, United States Environmental Protection Agency (U.S. EPA), device manufacturers, and fleet operators.

This program is open to manufacturers who have previously received verification from either the United States Environmental Protection Agency's (U.S. EPA) Voluntary Retrofit Program, ARB's Verification Procedure, or the Verminderung der Emissionen von Realmaschinen im Tunnelbau (VERT) program. Verification may be from a previous on-road or off-road verification.

Program announcements and applications are available from the [Mobile Source Air Pollution Control Reduction Committee](#) and the [South Coast AQMD](#).

To be notified when new information has been posted, please sign up for the Showcase listserv through the following link: <http://www.arb.ca.gov/listserv/serv.htm>.

Contact Information:

For more information, please contact [John Karim](#) at (626) 459-4303 or [Michael O'Kelly](#) at (626) 459-4367.

[Diesel Mobile Vehicles and Equipment](#)



A joint program of:



California Transportation Department



Air Resources Board



South Coast Air Quality Management District

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http://www.arb.ca.gov/diesel/showcase/publicfleetlists.php



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FLEET VEHICLE LIST

Monday, August 11, 2008 *This page last reviewed: August 5, 2008*

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Showcase:

SEP:

SEP II:

FLEET/BUSINESS: ALBERT W. DAVIES, INC.

Showcase Vehicles

| Equipment ID | Year | HP | Tier | Description | Serial Number | HRs/YR | Selected Device |
|---|------|-----|------|-------------|---------------|--------|--------------------|
| #125, CAT 235C Excavator | 1991 | 250 | -- | Excavators | 08Z65121 | 1600 | Recat - ESW DC-100 |
| #158, CAT 245B Excavator | 1991 | 375 | -- | Excavators | 11N02010 | 1500 | Extengine ADECI |
| #191, CAT 385BL Excavator | 2002 | 692 | -- | Excavators | BLC00232 | 1400 | Sud Chemie ENVICAT |
| #75, CAT 245B Excavator | 1984 | 350 | -- | Excavators | 70V17828 | 1400 | Sud Chemie ENVICAT |



Vehicle Info Page



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SHOWCASE VEHICLE INFORMATION

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Equipment ID: #125, CAT 235C Excavator

Year: 1991
 HP: 250
 Tier: --
 Equipment Type: Excavators
 Serial Number: 08265121
 HRs/YR: 1600
 Location During Showcase: Sites in Orange, Riverside, and San Bernardino Counties
 Selected Devices: Recat - ESW DC-100

Temperature Profiles For Equipment -- #125, CAT 235C Excavator

| Temperature Profile | Profile Date | Date Posted |
|---|---------------------|---------------------|
| vehicle# 125 as of 02-20-2008 | 2008-02-20 00:00:00 | 2008-07-25 14:36:31 |

Current Equipment Log Information

This Equipment Has No Log Entries At This Time



Equipment Image Gallery

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EQUIPMENT IMAGE GALLERY

Thursday, August 7, 2008

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Image_4



Contacts

- **Johnny Karim, Manager**
- **In-Use Retrofit Section**
- **(626) 459-4303, jkarim@arb.ca.gov**

- **Website:**

- **<http://www.arb.ca.gov/diesel/showcase/showcase.htm>**

