



# FEMA

May 31, 2006

**MEMORANDUM FOR:** Jesse Crowley, Chief of Staff  
JFO, Biloxi, Mississippi

**FROM:** Bronson Brown, Chief  
Occupational Safety and Health

**SUBJECT:** Formaldehyde Air Sampling, FEMA Trailer Staging Area,  
Purvis, Mississippi

**CORRECTIVE ACTION:** Specific recommendations are provided.

Air monitoring for formaldehyde exposure conducted at the FEMA Trailer Staging Area in Purvis, Mississippi revealed that employee exposures were all below the Occupational Safety and Health Administration (OSHA) Permissible Exposure Limit (PEL) of 0.75 parts per million (PPM) and the Action Level (AL) of 0.5 ppm for formaldehyde based on an eight-hour time weighted average (TWA). This memorandum transmits the complete findings of the investigation and makes recommendations for corrective actions needed to ensure compliance in accordance with OSHA 29 Code of Federal Regulations (CFR) 1910.1048 for Formaldehyde.

## Background

Per your request, formaldehyde air monitoring was performed in FEMA new and refurbished trailers on March 28 and 29, 2006. The focus of the monitoring was to determine the worker exposure level of formaldehyde and to evaluate the work operations associated with the trailer staging operations. The monitoring was conducted by Messrs. Ken Medernach and Vincent McCarthy, Disaster Safety Officers (DSO), FEMA Occupational Safety and Health (OSH). FEMA employees performing work activities involving the trailer staging operations may include inspections, prep work and set-up for trailers prior to public receipt. This monitoring was conducted in response to general concerns and inquires related to potential employee exposure to formaldehyde.

Specifically, area and instantaneous air monitoring was performed in 13 newly received and 15 refurbished trailers. Short term air monitoring was performed in three trailers. Personal air monitoring was performed on three FEMA employees whose job duties require entering staged trailers. During our evaluation it was indicated by trailer staging management that FEMA employees do not perform job activities inside trailers for more than two hours per day. In an effort to simulate a "worst case scenario" area monitoring was performed with trailer doors and windows closed.

## Findings

Formaldehyde is a chemical component commonly found in building materials utilized in commercially manufactured trailers. Laboratory results from the area air monitoring indicated that area formaldehyde levels were below the OSHA PEL of 0.75 ppm and the Action Level of 0.5 ppm, based on an eight-hour time weighted average (TWA). Results ranged from 0.02 to 0.3 ppm calculated during a two hour period. Instantaneous formaldehyde results upon entering the trailers ranged from 0.03 to 0.47 ppm. Short term air monitoring results for formaldehyde ranged from 0.05 to 0.31 ppm.

Additional monitoring conduct after the same trailers were ventilated for three and one half hours ranged from 0.03 to 0.26 ppm. Personal air monitoring results were all below the laboratory's level of quantification. A summary of the air monitoring that was performed are provided as Attachment 1.

Based on the sampling results, there is no indication that FEMA employees have the potential to be exposed above OSHA's permissible exposure level while performing job activities involving trailer staging operations. The formaldehyde levels found in the trailers are comparable to the levels posted on the Environmental Protection Agency (EPA) website for typical levels found from building materials off-gassing in trailers and/or manufactured homes.

## Recommendations

To ensure the safety and health of all workers involved in the trailer staging operations, the following practices and recommendations must be implemented:

1. FEMA employees assigned to trailer staging operations must receive formaldehyde training in accordance with OSHA 29 CFR 1910.1048 guidelines and hazard communication training in accordance with OSHA 29 CFR 1910.1200.
2. Standard operating procedures are to be written for FEMA trailer staging operations and provided to all FEMA employees required to perform work in the trailers for review.
3. Manufactures' recommendations for trailer occupancy are to be posted in all trailers prior to public receipt.

Should you have any questions or concerns regarding this report please contact myself at (202) 646-7594 or David Chawaga at (202) 646-3588.

**Table One**  
**FEMA Purvis, Mississippi Trailer Staging Area**  
**Formaldehyde Sampling**  
**Area Monitoring**

SAMPLE ID NUMBER	TRAILER BARCODE	MONITORING DATE	INSTANTANEOUS RESULTS	AIR SAMPLE START TIME	AIR SAMPLE END TIME	LAB RESULT (PPM)	TWA RESULT (PPM)	DATE TRAILER ARRIVED ON LOT	TRAILER NEW OR REFURB	TRAILER MFG
DL6421	1375857	3/28/06	0.09	0735	1600	0.15	0.04	3/24/06	New	Morgan/Fleetwood
PE7052	1375782	3/28/06	0.39	0735	1535	0.41	0.1	3/26/06	New	Morgan/Fleetwood
DR0888	1375866	3/28/06	0.09	0740	1545	0.13	0.03	3/27/06	New	Morgan/Fleetwood
DL6426	1375883	3/28/06	0.21	0740	1559	0.24	0.06	3/28/06	New	Morgan/Fleetwood
DV0071	1234369	3/28/06	0.21	0740	1502	<0.079	<0.079	3/23/06	New	Morgan/Fleetwood
DL6411	1375868	3/28/06	0.03	0742	1548	0.096	0.02	3/27/06	New	Morgan/Fleetwood
DR9106	1375685	3/28/06	0.05	0742	1605	0.19	0.05	3/22/06	New	Morgan/Fleetwood
PE7044	1375677	3/28/06	0.21	0742	1607	0.2	0.05	3/22/06	New	Morgan/Fleetwood
PE7005	1375882	3/28/06	0.47	0745	1559	0.34	0.09	3/28/06	New	Morgan/Fleetwood
DR9080	1375867	3/28/06	0.47	0746	1550	0.11	0.03	3/27/06	New	Morgan/Fleetwood
PG0691	1375279	3/28/06	0.21	0746	1615	0.98	0.25	3/11/06	Refurb	Pilgrim
PG0703	1122438	3/28/06	0.05	0747	1615	0.32	0.08	3/11/06	Refurb	Cavallier
DV0469	1375870	3/28/06	0.09	0750	1553	0.25	0.06	3/27/06	New	Morgan/Fleetwood
DL6418	1375871	3/28/06	0.31	0750	1554	0.24	0.06	3/28/06	New	Morgan/Fleetwood
DR9058	1118378	3/28/06	0.09	0750	1617	0.66	0.17	3/13/06	Refurb	Cavallier
DR0856	1375878	3/28/06	0.21	0755	1557	0.34	0.09	3/28/06	New	Morgan/Fleetwood
DR0100	1200000	3/29/06	0.31	0600	1610	0.3	0.075	3/24/06	Refurb	MaxiLite
DR9065	1152958	3/29/06	0.31	0803	1612	0.63	0.16	3/22/06	Refurb	Outback
PG0701	1287952	3/29/06	0.47	0806	1628	1.19	0.3	3/24/06	Refurb	Jayco

**Table One**  
**FEMA Purvis, Mississippi Trailer Staging Area**  
**Formaldehyde Sampling**  
**Area Monitoring**

SAMPLE ID NUMBER	TRAILER BARCODE	MONITORING DATE	INSTANTANEOUS RESULTS	AIR SAMPLE START TIME	AIR SAMPLE END TIME	LAB RESULT (PPM)	TWA RESULT (PPM)	DATE TRAILER ARRIVED ON LOT	TRAILER NEW OR REFURB	TRAILER MFG
DR0857	1234464	3/29/06	0.31	0808	1630	0.61	0.15	3/24/06	Refurb	Zinger - Crossroads
PE7036	1154433	3/29/06	0.31	0810	1630	0.41	0.1	3/24/06	Refurb	Z II - Keystone
DR0826	1243315	3/29/06	0.28	0820	1635	0.75	0.19	3/16/06	Refurb	Jag - Fabrique
PG0675	1142789	3/29/06	0.47	0822	1637	0.31	0.08	3/17/06	Refurb	Coachmen
PE7038	1144125	3/29/06	0.29	0828	1630	0.086	0.02	3/17/06	Refurb	Terry - Fleetwood
DF5807	1243130	3/29/06	0.47	0832	1638	0.78	0.2	3/17/06	Refurb	Jag - Fabrique
DV0102	1288930	3/29/06	0.03	0853	1653	0.88	0.22	3/24/06	Refurb	Dutchmen
DL6366	1288735	3/29/06	0.05	0856	1650	0.62	0.16	3/24/06	Refurb	Dutchmen
PG0679	1289003	3/29/06	0.04	0859	1655	0.43	0.1	3/24/06	Refurb	Dutchmen
DL6421	1375857	3/28/06	0.09	0735	1600	0.15	0.04	3/24/06	New	Morgan/Fleetwood

**Table Two**  
**FEMA Purvis, Mississippi Trailer Staging Area**  
**Formaldehyde Sampling**  
**Personal Monitoring**

Sample ID Number	Trailer Barcode	Monitoring Date	Sample Time Start	Sample Time End	Lab Result (PPM)	TWA Result (PPM)	Date Trailer on Lot	Trailer New or Refurb	MFG Name/model
DF5845 Burkett	Various	03/29/06	0645	1540	<0.086	<0.086	3/24/06	Various	Various
DF5826 Gibbs	Various	03/29/06	0650	1530	<0.086	<0.086	3/26/06	Various	Various
DF5844 Chapman	Various	03/29/06	0653	1533	<0.083	<0.083	3/27/06	Various	Various

**Table Three**  
**FEMA Purvis, Mississippi Trailer Staging Area**  
**Formaldehyde Sampling**  
**Short Term Monitoring**

Sample ID Number	Trailer Barcode	Monitoring Date	Short Term Time Start	Short Term Time End	Short Term Monitoring Results	Trailer New or Refurb	MFG Name/model	Comments
Short Term 1a	1375510	03/29/06	1420	1435	0.31	New	Morgan	Closed
Short Term 1b	1375510	03/29/06	1810	1825	0.03	New	Morgan	Ventilated for 3.5 hrs then closed
Short Term 2a	1375482	03/29/06	1422	1437	0.05	New	Morgan	Closed
Short Term 2b	1375482	03/29/06	1812	1827	0.05	New	Morgan	Ventilated for 3.5 hrs then closed
Short Term 3a	1375463	03/29/06	1424	1439	0.26	New	Morgan	Closed
Short Term 3b	1375463	03/29/06	1815'	1830	0.26	New	Morgan	Ventilated for 3.5 hrs then closed

**Table One**  
**FEMA Purvis, Mississippi Trailer Staging Area**  
**Formaldehyde Sampling**  
**Personal Monitoring**

SAMPLE ID NUMBER	TRAILER BARCODE	MONITORING DATE	INSTANTANEOUS RESULTS	AIR SAMPLE START TIME	AIR SAMPLE END TIME	LAB RESULT (PPM)	TWA RESULT (PPM)	DATE TRAILER ARRIVED ON LOT	TRAILER NEW OR REFURBI SHED	TRAILER MFG
DL6421	1375857	03/28/06	0.09	0735	1600	0.15	0.04	3/24/06	New	Morgan/f etwood
PE7052	1375782	03/28/06	0.39	0735	1535	0.41	0.1	3/26/06	New	Morgan/f etwood
DR0888	1375866	03/28/06	0.09	0740	1545	0.13	0.03	3/27/06	New	Morgan/f etwood
DL6426	1375883	03/28/06	0.21	0740	1559	0.24	0.06	3/28/06	New	Morgan/f etwood
DV0071	1234369	03/28/06	0.21	0740	1502	<0.079	<0.079	3/23/06	New	Morgan/f etwood
DL6411	1375868	03/28/06	0.03	0742	1548	0.096	0.02	3/27/06	New	Morgan/f etwood
DR9106	1375685	03/28/06	0.05	0742	1605	0.19	0.05	3/22/06	New	Morgan/f etwood
PE7044	1375677	03/28/06	0.21	0742	1607	0.2	0.05	3/22/06	New	Morgan/f etwood
PE7005	1375882	03/28/06	0.47	0745	1559	0.34	0.09	3/28/06	New	Morgan/f etwood
DR9080	1375867	03/28/06	0.47	0746	1550	0.11	0.03	3/27/06	New	Morgan/f etwood
PG0691	1375279	03/28/06	0.21	0746	1615	0.98	0.25	3/11/06	Refurb	Pilgrinr
PG0703	1122438	03/28/06	0.05	0747	1615	0.32	0.08	3/11/06	Refurb	Cavallir
DV0469	1375870	03/28/06	0.09	0750	1553	0.25	0.06	3/27/06	New	Morgan/f etwood
DL6418	1375871	03/28/06	0.31	0750	1554	0.24	0.06	3/28/06	New	Morgan/f etwood
DR9058	1118378	03/28/06	0.09	0750	1617	0.66	0.17	3/13/06	Refurb	Cavallir

**Table One**  
**FEMA Purvis, Mississippi Trailer Staging Area**  
**Formaldehyde Sampling**  
**Personal Monitoring**

SAMPLE ID NUMBER	TRAILER BARCODE	MONITORING DATE	INSTANTANEOUS RESULTS	AIR SAMPLE START TIME	AIR SAMPLE END TIME	LAB RESULT (PPM)	TWA RESULT (PPM)	DATE TRAILER ARRIVED ON LOT	TRAILER NEW OR REFURBISHED	TRAILER MFG
DR0856	1375878	03/28/06	0.21	0755	1557	0.34	0.09	3/28/06	New	Morgan/etwood
DR9100	1288983	3/29/06	0.31	0800	1610	0.3	0.075	3/24/06	Refurb	Maxilit
DR9065	1152958	3/29/06	0.31	0803	1612	0.63	0.16	3/22/06	Refurb	Outbac
PG0701	1287952	3/29/06	0.47	0806	1628	1.19	0.3	3/24/06	Refurb	Jayco
DR0857	1234464	3/29/06	0.31	0808	1630	0.61	0.15	3/24/06	Refurb	Zinger Crossroad
PE7036	1154433	3/29/06	0.31	0810	1630	0.41	0.1	3/24/06	Refurb	Z ll-Keystor
DR0826	1243315	3/29/06	0.28	0820	1635	0.75	0.19	3/16/06	Refurb	Jag - Fabriq
PG0675	1142789	3/29/06	0.47	0822	1637	0.31	0.08	3/17/06	Refurb	Coachm
PE7038	1144125	3/29/06	0.29	0828	1630	0.086	0.02	3/17/06	Refurb	Terry Fleetwo
DF5807	1243130	3/29/06	0.47	0832	1638	0.78	0.2	3/17/06	Refurb	Jag - Fabriq
DV0102	1288930	3/29/06	0.03	0853	1653	0.88	0.22	3/24/06	Refurb	Dutchm
DL6366	1288735	3/29/06	0.05	0856	1650	0.62	0.16	3/24/06	Refurb	Dutchm
PG0679	1289003	3/29/06	0.04	0859	1655	0.43	0.1	3/24/06	Refurb	Dutchm
DL6421	1375857	03/28/06	0.09	0735	1600	0.15	0.04	3/24/06	New	Morgan/etwood



**Table Two  
 FEMA Purvis, Mississippi Trailer Staging Area  
 Formaldehyde Sampling  
 Personal Monitoring**

Sample ID Number	Trailer Barcode	Monitoring Date	Sample Time Start	Sample Time End	Lab Result (PPM)	TWA Result (PPM)	Date Trailer on Lot	Trailer New or Refurb	MF Name/r
DF5845	Various	03/29/06	0645	1540	<0.086	<0.086	3/24/06	Various	Varic
DF5826	Various	03/29/06	0650	1530	<0.086	<0.086	3/26/06	Various	Varic
DF5844	Various	03/29/06	0653	1533	<0.086	<0.086	3/27/06	Various	Varic

Table Three FEMA Purvis, Mississippi Trailer Staging Area Formaldehyde Sampling Short Term Monitoring									
Sample ID Number	Trailer Barcode	Monitoring Date	Short Term Time Start	Short Term Time End	Short Term Monitoring Results	Trailer New or Refurb	MFG Name/model	Comments	
Short Term 1a	1375510	03/29/06	1420	1435	0.31	New	Morgan	Closed	
Short Term 1b	1375510	03/29/06	1810	1825	0.03	New	Morgan	Ventilated for 3.5 hrs then closed	
Short Term 2a	1375482	03/29/06	1422	1437	0.05	New	Morgan	Closed	
Short Term 2b	1375482	03/29/06	1812	1827	0.05	New	Morgan	Ventilated for 3.5 hrs then closed	
Short Term 3a	1375463	03/29/06	1424	1439	0.26	New	Morgan	Closed	
Short Term 3b	1375463	03/29/06	1815'	1830	0.26	New	Morgan	Ventilated for 3.5 hrs then closed	

DATE	TEMP/RH	SAMPLE TIME S1	SAMPLE TIME 2	RKI READIN	SAMPLE ID	DATE ARRIVE	MFG NAME / M	BARCOL	NEW / REF
3/29/06	See Attached weather averages	0800	1610	0.31	DR9100	3/24/06	MaxiLite	1288983	Refurb
3/29/06	"	0803	1612	0.31	DR9065	3/22/06	Outback	1152958	Refurb
3/29/06	"	0806	1628	0.47	PG0701	3/24/06	Jayco	1287952	Refurb
3/29/06	"	0808	1630	0.31	DR0857	3/24/06	Zinger -Crossroads	1234464	Refurb
3/29/06	"	0810	1630	0.31	PR7036	3/24/06	Z II- Keystone	1154433	Refurb
3/29/06	"	0820	1635	0.28	DR0826	3/16/06	Jag - Fabrique	1243315	Refurb
3/29/06	"	0822	1637	0.47	PG0675	3/17/06	Coachmen	1142789	Refurb
3/29/06	"	0828	1630	0.29	PE7038	3/17/06	Terry - Fleetwood	1144125	Refurb
3/29/06	"	0832	1638	0.47	DF5807	3/17/06	Jag - Fabrique	1243130	Refurb
3/29/06	"	0853	1653	0.03	DV0102	3/24/06	Dutchmen	1288930	Refurb
3/29/06	"	0856	1650	0.05	DL6366	3/24/06	Dutchmen	1288735	Refurb
3/29/06	"	0859	1655	0.04	PG0679	3/24/06	Dutchmen	1289003	Refurb

30  
63  
719  
621  
11  
72  
31  
086  
73  
88  
62  
45

*CXO*



THE FOLLOWING IS A SPECIAL STEL TEST ONLY ON THREE UNITS

3/29/06	"	1420	1435	0.31	RKI Meter	3/24/06	Morgan	1375510	New	Closed
3/29/06	"	1422	1437	0.05	RKI Meter	3/24/06	Morgan	1375482	New	Closed
3/29/06	"	1424	1439	0.26	RKI Meter	3/24/06	Morgan	1375463	New	Closed
3/29/06	"	1810	1825	0.03	RKI Meter	3/24/06	Morgan	1375510	New	Ventilated for 3.5 hrs then closed
3/29/06	"	1812	1827	0.05	RKI Meter	3/24/06	Morgan	1375482	New	Ventilated for 3.5 hrs then closed
3/29/06	"	1815'	1830	0.26	RKI Meter	3/24/06	Morgan	1375463	New	Ventilated for 3.5 hrs then closed

The above were 3 new ADA units all the same floorplan and design, this test was run at 1420 hrs for 15 min in each Tavel Trailer the Sun was high and very warm the units were closed on the 1st test, the trailers were opened : Door, windows and bathroom ceiling vent, NOTE: Red refers to RED etc. see Bar Code #'s . Additionally I placed dosimeters on 3 employees who entered various trailers off and on all

	Start time	End time	Sample ID#	Empl. Name	
3/29/06	"	0645	1540	DF5845	Burkett
3/29/06	"	0650	1530	DF5826	Gibbs
3/29/06	"	0653	1533	DF5844	Chapman

< .086  
 < .086  
 < .083

# FORMALDEHYDE TESTING

## FORMALDEHYDE TESTING - AREA SAMPLING

SAMPLE ID NUMBER	TRAILER BARCODE	MONITORING DATE	INSTANTANEOUS RESULT PPM	SAMPLE TIME START	SAMPLE TIME END	LABORATORY RESULT PPM	TWA RESULT PPM	DATE TRAILER ARRIVED @ LOT	TRAILER NEW or REFRUB	MFG NAME / MODEL
DL6421	1375857	03/28/06	0.09	0735	1600	0.15	0.04	3/24/06	New	Morgan/Fleetwood
PE7052	1375782	03/28/06	0.39	0735	1535	0.41	0.1	3/26/06	New	Morgan/Fleetwood
DR0888	1375866	03/28/06	0.09	0740	1545	0.13	0.03	3/27/06	New	Morgan/Fleetwood
DL6426	1375883	03/28/06	0.21	0740	1559	0.24	0.06	3/28/06	New	Morgan/Fleetwood
DV0071	1234369	03/28/06	0.21	0740	1502	<0.079	<0.079	3/23/06	New	Morgan/Fleetwood
DL6411	1375868	03/28/06	0.03	0742	1548	0.096	0.02	3/27/06	New	Morgan/Fleetwood
DR9106	1375685	03/28/06	0.05	0742	1605	0.19	0.05	3/22/06	New	Morgan/Fleetwood
PE7044	1375677	03/28/06	0.21	0742	1607	0.2	0.05	3/22/06	New	Morgan/Fleetwood
PE7005	1375882	03/28/06	0.47	0745	1559	0.34	0.09	3/22/06	New	Morgan/Fleetwood
DR9080	1375867	03/28/06	0.47	0746	1550	0.11	0.03	3/28/06	New	Morgan/Fleetwood
PG0691	1375279	03/28/06	0.21	0746	1615	0.98	0.25	3/27/06	Refurb	Pilgrim
PG0703	1122438	03/28/06	0.05	0747	1615	0.32	0.08	3/11/06	Refurb	Cavallier
DV0469	1375870	03/28/06	0.09	0750	1553	0.25	0.06	3/27/06	New	Morgan/Fleetwood
DL6418	1375871	03/28/06	0.31	0750	1554	0.24	0.06	3/28/06	New	Morgan/Fleetwood
DR9058	1118378	03/28/06	0.09	0750	1617	0.66	0.17	3/13/06	Refurb	Cavallier
DR0856	1375878	03/28/06	0.21	0755	1557	0.34	0.09	3/28/06	New	Morgan/Fleetwood
DR9100	1288983	3/29/06	0.31	0800	1610	0.3	0.075	3/24/06	Refurb	MaxiLite
DR9065	1152958	3/29/06	0.31	0803	1612	0.63	0.16	3/22/06	Refurb	Outback
PG0701	1287952	3/29/06	0.47	0806	1628	1.19	0.3	3/24/06	Refurb	Jayco
DR0857	1234464	3/29/06	0.31	0808	1630	0.61	0.15	3/24/06	Refurb	Zinger -Crossroads
PE7036	1154433	3/29/06	0.31	0810	1630	0.41	0.1	3/24/06	Refurb	Z II- Keystone
DR0826	1243315	3/29/06	0.28	0820	1635	0.75	0.19	3/16/06	Refurb	Jag - Fabrique
PG0675	1142789	3/29/06	0.47	0822	1637	0.31	0.08	3/17/06	Refurb	Coachmen
PE7038	1144125	3/29/06	0.29	0828	1630	0.086	0.02	3/17/06	Refurb	Terry - Fleetwood
DF5807	1243130	3/29/06	0.47	0832	1638	0.78	0.2	3/17/06	Refurb	Jag - Fabrique
DV0102	1288930	3/29/06	0.03	0853	1653	0.88	0.22	3/24/06	Refurb	Dutchmen
DL6566	1288735	3/29/06	0.05	0856	1650	0.62	0.16	3/24/06	Refurb	Dutchmen
PG0679	1289003	3/29/06	0.04	0859	1655	0.43	0.1	3/24/06	Refurb	Dutchmen

FORMALDEHYDE TESTING - SHORT TERM SAMPLING

SAMPLE ID NUMBER	TRAILER BARCODE	MONITORING DATE	SHORT TERM TIME START	SHORT TERM TIME END	AVERAGE INSTANTANEOUS RESULT (ppm)	TRAILER NEW or REFURB	MFG NAME / MODEL	COMMENTS
STEL 1a	1375510	03/29/06	1420	1435	0.31	New	Morgan	Closed
STEL 1b	1375510	03/29/06	1810	1825	0.03	New	Morgan	Ventilated for 3.5 hrs then closed
STEL 2a	1375482	03/29/06	1422	1437	0.05	New	Morgan	Closed
STEL 2b	1375482	03/29/06	1812	1827	0.05	New	Morgan	Ventilated for 3.5 hrs then closed
STEL 3a	1375463	03/29/06	1424	1439	0.26	New	Morgan	Closed
STEL 3b	1375463	03/29/06	1815'	1830	0.26	New	Morgan	Ventilated for 3.5 hrs then closed

FORMALDEHYDE TESTING - PERSONAL SAMPLING

SAMPLE ID NUMBER	TRAILER BARCODE	MONITORING DATE	SAMPLE TIME START	SAMPLE TIME END	LABORATORY RESULT PPM	TWA RESULT PPM	DATE TRAILER ARRIVED @ LOT	TRAILER NEW or REURB	MFG NAME / MODEL
DF5845	Various	03/29/06	0645	1540	<0.086	<0.086	3/24/06	Various	Various
DF5826	Various	03/29/06	0650	1530	<0.086	<0.086	3/26/06	Various	Various
DF5844	Various	03/29/06	0653	1533	<0.086	<0.086	3/27/06	Various	Various



6601 KIRCHOFF ROAD  
EAST SYRACUSE, NY 13057  
(315) 432-5227  
Fax: (315) 437-0571  
www.galsonlabs.com

Date Sampled : 28-MAR-06 - 29-MAR-06 Account No.: 17804  
Date Received : 31-MAR-06 Login No. : L131371  
Date Analyzed : 03-APR-06

**Formaldehyde**

Sample ID	Lab ID	Time min	Total ug	ppm
DR 9065	L131371-1	489	23.3	0.63
PG 0679	L131371-2	484	15.8	0.43
DL 6366	L131371-3	474	22.1	0.62
PE 7038	L131371-4	478	3.1	0.086
PG 0701	L131371-5	502	45.0	1.19
DR 9100	L131371-6	490	11.0	0.30
PE 7036	L131371-7	500	15.6	0.41
DR 0826	L131371-8	495	28.1	0.75
PG 0675	L131371-9	495	11.5	0.31
DR 0857	L131371-10	502	23.0	0.61
DR 9058	L131371-11	507	25.3	0.66
DR 0856	L131371-12	482	12.3	0.34
DR 0888	L131371-13	485	4.7	0.13
DV 0071	L131371-14	502	<3.0	<0.079
DL 6411	L131371-15	483	3.5	0.096
PE 7052	L131371-16	480	14.9	0.41
DV 0102	L131371-17	480	31.7	0.88
DL 6421	L131371-18	505	5.7	0.15
PG 0691	L131371-19	509	37.5	0.98
DL 6426	L131371-20	482	8.9	0.24
PG 0703	L131371-21	509	12.3	0.32
DR 9080	L131371-22	484	4.0	0.11
DV 0469	L131371-23	483	9.1	0.25

REMARKS: SOPs: ic-id205(4)

Level of quantitation: 3 ug	Submitted by: mh
Analytical Method : mod. OSHA ID205; COLOR	Approved by : DM
OSHA PEL (TWA) : 0.75 ppm	Date : 05-APR-06 NYS DOH # : 11626
Collection Media : M3M-3721	QC by: Tony D'Amico

-Less Than	mg -Milligrams	m3 -Cubic Meters	kg -Kilograms
-Greater Than	ug -Micrograms	l -Liters	NS -Not Specified
-Not Applicable	ND -Not Detected	ppm -Parts per Million	

6601 KROVITT ROAD  
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Date Sampled : 28-MAR-06 - 29-MAR-06 Account No.: 17804  
Date Received : 31-MAR-06 Login No. : L131371  
Date Analyzed : 03-APR-06

**Formaldehyde**

<u>Sample ID</u>	<u>Lab ID</u>	<u>Time min</u>	<u>Total ug</u>	<u>ppm</u>
PE 7005	L131371-24	484	12.3	0.34
DR 9106	L131371-25	513	7.4	0.19
DL 6418	L131371-26	484	8.7	0.24
PE 7044	L131371-27	503	7.4	0.20
DF 5826	L131371-28	460	<3.0	<0.086
DF 5845	L131371-29	462	<3.0	<0.086
DF 5844	L131371-30	480	<3.0	<0.083
DF 5807	L131371-31	486	28.7	0.78

REMARKS: SOPs: ic-id205(4)

Level of quantitation: 3 ug	Submitted by: mh
Analytical Method : mod. OSHA ID205; COLOR	Approved by : DM
OSHA PEL (TWA) : 0.75 ppm	Date : 05-APR-06 NYS DOH # : 11626
Collection Media : M3M-3721	QC by: Tony D'Amico

-Less Than	mg -Milligrams	m3 -Cubic Meters	kg -Kilograms
-Greater Than	ug -Micrograms	l -Liters	NS -Not Specified
-Not Applicable	ND -Not Detected	ppm -Parts per Million	