



**STAR-ORION SOUTH DIAMOND PROJECT  
ENVIRONMENTAL IMPACT STATEMENT**

**APPENDIX 5.2.4-C  
AMEC Passive Sampling Lab Reports**



## MULTIGAS PASSIVE SAMPLER REPORT

**AMEC Earth & Environmental**  
**4810 – 93 Street**  
**Edmonton**  
**AB T6E 5M4**

**Sampling date:** Apri3-May4/08  
**Sampling location:** Shore Gold  
**Report date:** 2008/05/16  
**Project No.:** CE0331201.0200

**Attention:** Richard Palczynski

### CERTIFICATE OF RESULTS

Item	Laboratory Method							
Passive preparation	AMEC SOP-PS001							
O3 analysis & calculation	AMEC SOP-PS005							
SO2 analysis & calculation	AMEC SOP-PS003							
NO2 analysis & calculation	AMEC SOP-PS004							
BTEX analysis & calculation	AMEC SOP-PS006							

  

Sample No.	O3 ppb	NO2 ppb	SO2 ppb	Benzene ppb	Toluene ppb	Ethyl benzene ppb	Xylene ppb	Note
Average multi-gas		0.5	0.2					

### Reported by

Hongmao (Tom) Tang Ph.D., P. Chem.  
Director, AMEC Centre for Passive Sampling Technology  
Phone: 780 436-2152 ext 317  
Fax: 780 435-8425  
Email: [tom.tang@amec.com](mailto:tom.tang@amec.com)



## MULTIGAS PASSIVE SAMPLER REPORT

**AMEC Earth & Environmental**  
**4810 – 93 Street**  
**Edmonton**  
**AB T6E 5M4**

**Sampling date:** Aug1-25/08  
**Sampling location:** Shore Gold  
**Report date:** 2008/09/03  
**Project No.:** CE0331201.0200

**Attention:** Richard Palczynski

### CERTIFICATE OF RESULTS

Item	Laboratory Method							
Passive preparation	AMEC SOP-PS001							
O3 analysis & calculation	AMEC SOP-PS005							
SO2 analysis & calculation	AMEC SOP-PS003							
NO2 analysis & calculation	AMEC SOP-PS004							
BTEX analysis & calculation	AMEC SOP-PS006							

  

Sample No.	O3 ppb	NO2 ppb	SO2 ppb	Benzene ppb	Toluene ppb	Ethyl benzene ppb	Xylene ppb	Note
Average multi-gas		0.1	0.5					

### Reported by

Hongmao (Tom) Tang Ph.D., P. Chem.  
Director, AMEC Centre for Passive Sampling Technology  
Phone: 780 436-2152 ext 317  
Fax: 780 435-8425  
Email: [tom.tang@amec.com](mailto:tom.tang@amec.com)



## MULTIGAS PASSIVE SAMPLER REPORT

**AMEC Earth & Environmental**  
**5671 – 70 Street**  
**Edmonton**  
**AB T6E 5M4**

**Sampling date:** Dec2/08-Jan7/09  
**Sampling location:** Shore Gold  
**Report date:** 2009/01/26  
**Project No.:** CE0331201.0200

**Attention:** B. Gunter

### CERTIFICATE OF RESULTS

Item	Laboratory Method						
Passive preparation	AMEC SOP-PS001						
O3 analysis & calculation	AMEC SOP-PS005						
SO2 analysis & calculation	AMEC SOP-PS003						
NO2 analysis & calculation	AMEC SOP-PS004						
BTEX analysis & calculation	AMEC SOP-PS006						

  

Sample No.	O3 ppb	NO2 ppb	SO2 ppb	Benzene ppb	Toluene ppb	Ethyl benzene ppb	Xylene ppb	Note
Average multi-gas		1.6	2.1					

### Reported by

Hongmao (Tom) Tang Ph.D., P. Chem.  
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Phone: 780 436-2152 ext 317  
Fax: 780 435-8425  
Email: [tom.tang@amec.com](mailto:tom.tang@amec.com)



## MULTIGAS PASSIVE SAMPLER REPORT

**AMEC Earth & Environmental**  
**4810 – 93 Street**  
**Edmonton**  
**AB T6E 5M4**

**Sampling date:** Jul2-Aug1/08  
**Sampling location:** Shore Gold  
**Report date:** 2008/08/13  
**Project No.:** CE0331201.0200

**Attention:** Richard Palczynski

### CERTIFICATE OF RESULTS

Item	Laboratory Method							
Passive preparation	AMEC SOP-PS001							
O3 analysis & calculation	AMEC SOP-PS005							
SO2 analysis & calculation	AMEC SOP-PS003							
NO2 analysis & calculation	AMEC SOP-PS004							
BTEX analysis & calculation	AMEC SOP-PS006							

  

Sample No.	O3 ppb	NO2 ppb	SO2 ppb	Benzene ppb	Toluene ppb	Ethyl benzene ppb	Xylene ppb	Note
Average multi-gas		0.1	0.3					

### Reported by

Hongmao (Tom) Tang Ph.D., P. Chem.  
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## MULTIGAS PASSIVE SAMPLER REPORT

**AMEC Earth & Environmental**  
**4810 – 93 Street**  
**Edmonton**  
**AB T6E 5M4**

**Sampling date:** May28-Jul02/08  
**Sampling location:** Shore Gold  
**Report date:** 2008/07/10  
**Project No.:** CE0331201.0200

**Attention:** Richard Palczynski

### CERTIFICATE OF RESULTS

Item	Laboratory Method
Passive preparation	AMEC SOP-PS001
O3 analysis & calculation	AMEC SOP-PS005
SO2 analysis & calculation	AMEC SOP-PS003
NO2 analysis & calculation	AMEC SOP-PS004
BTEX analysis & calculation	AMEC SOP-PS006

Sample No.	O3 ppb	NO2 ppb	SO2 ppb	Benzene ppb	Toluene ppb	Ethyl benzene ppb	Xylene ppb	Note
Average multi-gas		0.6	0.2					

### Reported by

Hongmao (Tom) Tang Ph.D., P. Chem.  
Director, AMEC Centre for Passive Sampling Technology  
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Email: [tom.tang@amec.com](mailto:tom.tang@amec.com)



## MULTIGAS PASSIVE SAMPLER REPORT

**AMEC Earth & Environmental**  
**4810 – 93 Street**  
**Edmonton**  
**AB T6E 5M4**

**Sampling date:** Mar12-Apr13/08  
**Sampling location:** Shore Gold  
**Report date:** 2008/04/15  
**Project No.:** CE0331201.0200

**Attention:** Richard Palczynski

### CERTIFICATE OF RESULTS

Item	Laboratory Method							
Passive preparation	AMEC SOP-PS001							
O3 analysis & calculation	AMEC SOP-PS005							
SO2 analysis & calculation	AMEC SOP-PS003							
NO2 analysis & calculation	AMEC SOP-PS004							
BTEX analysis & calculation	AMEC SOP-PS006							

  

Sample No.	O3 ppb	NO2 ppb	SO2 ppb	Benzene ppb	Toluene ppb	Ethyl benzene ppb	Xylene ppb	Note
Average multi-gas		1.3	0.4					

### Reported by

Hongmao (Tom) Tang Ph.D., P. Chem.  
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## MULTIGAS PASSIVE SAMPLER REPORT

**AMEC Earth & Environmental**  
**4810 – 93 Street**  
**Edmonton**  
**AB T6E 5M4**

**Sampling date:** May4-28/08  
**Sampling location:** Shore Gold  
**Report date:** 2008/07/10  
**Project No.:** CE0331201.0200

**Attention:** Richard Palczynski

### CERTIFICATE OF RESULTS

Item	Laboratory Method							
Passive preparation	AMEC SOP-PS001							
O3 analysis & calculation	AMEC SOP-PS005							
SO2 analysis & calculation	AMEC SOP-PS003							
NO2 analysis & calculation	AMEC SOP-PS004							
BTEX analysis & calculation	AMEC SOP-PS006							

  

Sample No.	O3 ppb	NO2 ppb	SO2 ppb	Benzene ppb	Toluene ppb	Ethyl benzene ppb	Xylene ppb	Note
Average multi-gas		0.6	0.2					

### Reported by

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## MULTIGAS PASSIVE SAMPLER REPORT

**AMEC Earth & Environmental**  
**4810 – 93 Street**  
**Edmonton**  
**AB T6E 5M4**

**Sampling date:** Nov2-Dec2-/08  
**Sampling location:** Shore Gold  
**Report date:** 2008/12/15  
**Project No.:** CE0331201.0200

**Attention:** Richard Palczynski

### CERTIFICATE OF RESULTS

Item	Laboratory Method							
Passive preparation	AMEC SOP-PS001							
O3 analysis & calculation	AMEC SOP-PS005							
SO2 analysis & calculation	AMEC SOP-PS003							
NO2 analysis & calculation	AMEC SOP-PS004							
BTEX analysis & calculation	AMEC SOP-PS006							

  

Sample No.	O3 ppb	NO2 ppb	SO2 ppb	Benzene ppb	Toluene ppb	Ethyl benzene ppb	Xylene ppb	Note
Average multi-gas		1.5	0.4					

### Reported by

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## MULTIGAS PASSIVE SAMPLER REPORT

**AMEC Earth & Environmental**  
**4810 – 93 Street**  
**Edmonton**  
**AB T6E 5M4**

**Sampling date:** Sep30-Nov12/08  
**Sampling location:** Shore Gold  
**Report date:** 2008/12/01  
**Project No.:** CE0331201.0200

**Attention:** Richard Palczynski

### CERTIFICATE OF RESULTS

Item	Laboratory Method						
Passive preparation	AMEC SOP-PS001						
O3 analysis & calculation	AMEC SOP-PS005						
SO2 analysis & calculation	AMEC SOP-PS003						
NO2 analysis & calculation	AMEC SOP-PS004						
BTEX analysis & calculation	AMEC SOP-PS006						

  

Sample No.	O3 ppb	NO2 ppb	SO2 ppb	Benzene ppb	Toluene ppb	Ethyl benzene ppb	Xylene ppb	Note
Average multi-gas		0.8	0.5					

### Reported by

Hongmao (Tom) Tang Ph.D., P. Chem.  
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Email: [tom.tang@amec.com](mailto:tom.tang@amec.com)



## MULTIGAS PASSIVE SAMPLER REPORT

**AMEC Earth & Environmental**  
**4810 – 93 Street**  
**Edmonton**  
**AB T6E 5M4**

**Sampling date:** Sep1-30/08  
**Sampling location:** Shore Gold  
**Report date:** 2008/12/01  
**Project No.:** CE0331201.0200

**Attention:** Richard Palczynski

### CERTIFICATE OF RESULTS

Item	Laboratory Method							
Passive preparation	AMEC SOP-PS001							
O3 analysis & calculation	AMEC SOP-PS005							
SO2 analysis & calculation	AMEC SOP-PS003							
NO2 analysis & calculation	AMEC SOP-PS004							
BTEX analysis & calculation	AMEC SOP-PS006							

  

Sample No.	O3 ppb	NO2 ppb	SO2 ppb	Benzene ppb	Toluene ppb	Ethyl benzene ppb	Xylene ppb	Note
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### Reported by

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