

BOULDER CITY BYPASS PERSONAL AIR MONITORING SAMPLING FORM

Tetra Tech, Inc.
Background Study (ABS)

Date: 5/30/14

Cassette Lot No: 32946

Field Activity (check one):	<input checked="" type="checkbox"/> Soil Sampling	<input checked="" type="checkbox"/> ABS Testing
Collected By: <u>MS</u>	<input type="checkbox"/> Ambient Air Testing	<input type="checkbox"/> Other Activity

LOG BOOK 3

Sample #	Pump I.D.#	Rotometer I.D. #	Sample Type ¹	ABS Field Activity 2	Time On		Flow Rate-Start		Personnel Sampled
					Time Off	Total Minutes	Flow Rate-Stop	Total Volume (Liters)	
BC-ABS-00001	<u>SKC</u> <u>827126</u>	<u>LV-02</u>	FS	SOIL SAMPLING ABS	<u>0642</u>	<u>11042</u>	<u>4.0</u>	<u>14.0</u>	ES
					1	1	1	1	
					<u>340</u>		<u>960</u>		
BC-ABS-00002	-	-	FB	FIELD BLANK	1	1	1	1	/
					1	1	1	1	
					1	1	1	1	
BC-ABS-00003	-	-	LB	LOT BLANK	1	1	1	1	/
					1	1	1	1	
					1	1	1	1	

NOTES: All ABS samples will be collected on 25 mm diameter mixed cellulose ester (MCE) filter cassettes with a pore size of 0.8µm

1) Sample Type

FS = Field Sample EB = Equipment Blank
 FB = Field Blank FP = Field Split
 FD = Field Duplicate LB = Lot Blank

2) Field Activity

Soil Sampling,
 ABS Testing,
 Ambient Air Testing,
 Other

BOULDER CITY BYPASS ACTIVITY-BASED SAMPLING FORM

AIR SAMPLING DATA

Tetra Tech, Inc.
Activity-Based Sampling Project (ABS)

Date: 5/31/14

Cassette Lot No: 32946

ABS Scenario (check one):	<input checked="" type="checkbox"/> Surface Soil	<input type="checkbox"/> Sub-Surface	<input type="checkbox"/> Rock/Geo	<input type="checkbox"/> Driving
Collected By:	<u>Lona Pearson</u>			Log Book No: <u>1, 2</u>

Air Sample #	Pump I.D.#	Rotometer I.D.#	Sample Type ¹	ABS Scenario ²	Time On Time Off Total Minutes	Flow Rate-Start Flow Rate-Stop Total Volume (Liters)	Description/ Work Zone Size (square feet)	Initials of Personnel Sampled	ABS Activity ³	Receptor ⁴
BC-ABS-00004	SKC 827201	LV-02	FS	Soil Surface Sampling (1)	0655 / 1055	4.0 / 4.0	6 Sample grids	KV	2	Sampler
					240 min	960				
BC-ABS-00005	SKC 827994	↓	↓	↓	0655 / 1055	4.0 / 4.0	↓	JH	↓	↓
					240 min	960				
BC-ABS-00006	-	-	FB	-	/	/	/	/	/	/
					/	/	/	/	/	/
					/	/	/	/	/	/
					/	/	/	/	/	/

NOTES: All ABS samples will be collected on 25 mm diameter mixed cellulose ester (MCE) filter cassettes with a pore size of 0.8µm

1) Sample Type

FS = Field Sample EB = Equipment Blank
 FB = Field Blank FP = Field Split
 FD = Field Duplicate LB = Lot Blank

4) Receptor: Backhoe Operator, Sampler, Drill Rig Operator, Driver/Passenger

2) ABS Scenario

- 1) Surface Soil Sampling
- 2) Shallow Sub-Surface Sampling
- 3) Sub-Surface Rock/Geologic Sampling
- 4) Driving Work Vehicles

3) ABS Activity

- a) Collection, Mixing, Sample Storage
- b) Pit Excavation, Pit Filling
- d) Core Drilling

- e) Core Collection, Core Mixing-Homogenizing, Sample Storage,
- f) Excavating RockFace
- g) Geologic Sample Collection
- h) Driving

BOULDER CITY BYPASS ACTIVITY-BASED SAMPLING FORM

AIR SAMPLING DATA

Tetra Tech, Inc.
Activity-Based Sampling Project (ABS)

Date: 6/2/14

Cassette Lot No: 32946

ABS Scenario (check one):	<input checked="" type="checkbox"/> Surface Soil	<input type="checkbox"/> Sub-Surface	<input type="checkbox"/> Rock/Geo	<input type="checkbox"/> Driving
Collected By: <u>LP</u>	Log Book No: <u>2</u>			

Air Sample #	Pump I.D.#	Rotometer I.D.#	Sample Type ¹	ABS Scenario ²	Time On Time Off Total Minutes	Flow Rate-Start Flow Rate-Stop Total Volume (Liters)	Description/ Work Zone Size (square feet)	Initials of Personnel Sampled	ABS Activity ³	Receptor ⁴
BC-ABS-00007	827189	LV # 2	FS	1	0650 / 1050	4.0 / 3.7	7 sample Grids	RJ LP JH	A	RJ Sampler
					/	/				
BC-ABS-00008	/	/	FB	/	/	/	/	RJ LP	/	/
					/	/				
/	/	/	/	/	/	/	/	/	/	/
/	/	/	/	/	/	/	/	/	/	/
/	/	/	/	/	/	/	/	/	/	/
/	/	/	/	/	/	/	/	/	/	/

NOTES: All ABS samples will be collected on 25 mm diameter mixed cellulose ester (MCE) filter cassettes with a pore size of 0.8µm

1) Sample Type

FS = Field Sample EB = Equipment Blank
 FB = Field Blank FP = Field Split
 FD = Field Duplicate LB = Lot Blank

4) Receptor: Backhoe Operator, Sampler, Drill Rig Operator, Driver/Passenger

2) ABS Scenario

- 1) Surface Soil Sampling
- 2) Shallow Sub-Surface Sampling
- 3) Sub-Surface Rock/Geologic Sampling
- 4) Driving Work Vehicles

3) ABS Activity

- a) Collection, Mixing, Sample Storage
- b) Pit Excavation, Pit Filling
- d) Core Drilling

- e) Core Collection, Core Mixing-Homogenizing, Sample Storage,
- f) Excavating RockFace
- g) Geologic Sample Collection
- h) Driving

BOULDER CITY BYPASS ACTIVITY-BASED SAMPLING FORM

AIR SAMPLING DATA

Tetra Tech, Inc.
Activity-Based Sampling Project (ABS)

Date: 4/3/14

Cassette Lot No: 32946

ABS Scenario (check one):	<input type="checkbox"/> Surface Soil	<input checked="" type="checkbox"/> Sub-Surface	<input type="checkbox"/> Rock/Geo	<input type="checkbox"/> Driving
Collected By: <u>UP</u>	Log Book No: <u>1</u>			

Page 1

Air Sample #	Pump I.D.#	Rotometer I.D. #	Sample Type ¹	ABS Scenario ²	Time On Time Off Total Minutes	Flow Rate-Start Flow Rate-Stop Total Volume (Liters)	Description/ Work Zone Size (square feet)	Initials of Personnel Sampled	ABS Activity ³	Receptor ⁴
BC-ABS-00009	827201	LV-02	② FS	2	0735 / 1035	4.0 / 4.0	8 TEST PITS	BA	B	Backhoe Operator
					1200 / 1300	4.0 / 4.0				
					240 mins	960 Liters				
BC-ABS-00010	827994				0744 / 1044	4.0 / 4.0	↓	ES	A	Sampler
					1300 / 1400	4.0 / 4.0				
					240 mins	960 Liter				
BC-ABS-00011	/	/	FB	/	/	/				
					/	/				
					/	/				
					/	/				
					/	/				
					/	/				
					/	/				
					/	/				
					/	/				

NOTES: All ABS samples will be collected on 25 mm diameter mixed cellulose ester (MCE) filter cassettes with a pore size of 0.8µm

1) Sample Type

FS = Field Sample EB = Equipment Blank
FB = Field Blank FP = Field Split
FD = Field Duplicate LB = Lot Blank

4) Receptor: Backhoe Operator, Sampler, Drill Rig Operator, Driver/Passenger

2) ABS Scenario

- 1) Surface Soil Sampling
- 2) Shallow Sub-Surface Sampling
- 3) Sub-Surface Rock/Geologic Sampling
- 4) Driving Work Vehicles

3) ABS Activity

- a) Collection, Mixing, Sample Storage
- b) Pit Excavation, Pit Filling
- d) Core Drilling

e) Core Collection, Core Mixing-Homogenizing, Sample Storage,

- f) Excavating RockFace
- g) Geologic Sample Collection
- h) Driving

BOULDER CITY BYPASS ACTIVITY-BASED SAMPLING FORM

AIR SAMPLING DATA

Tetra Tech, Inc.
Activity-Based Sampling Project (ABS)

Date: 6/4/14

Cassette Lot No: 32946

ABS Scenario (check one):	<input type="checkbox"/> Surface Soil	<input checked="" type="checkbox"/> Sub-Surface	<input type="checkbox"/> Rock/Geo	<input type="checkbox"/> Driving
Collected By:	<u>UP</u>			Log Book No: <u>4, 2</u>

Air Sample #	Pump I.D.#	Rotometer I.D.#	Sample Type ¹	ABS Scenario ²	Time On Time Off Total Minutes	Flow Rate-Start Flow Rate-Stop Total Volume (Liters)	Description/ Work Zone Size (square feet)	Initials of Personnel Sampled	ABS Activity ³	Receptor ⁴
BC-ABS-00012	827189	LV-02	FS	1	0701 / 1101	4.0 / 4.0	8 SS Grids E SS Grids	JH	A	Sampler
					240 mins	960 Liters				
BC-ABS-00013	827833	LV-02	FS	3	0725 / 1015	4.0 / 3.9	2 HSA	ELS	D	Drill Rig Operator
					1125 / 1237	3.8 / 3.8				
BC-ABS-00014	827126	LV-02	FS	3	244 mins	945.5 Liters	↓	RF	E	Sampler
					0730 / 1015	4.0 / 3.8				
BC-ABS-00015	/	/	FB	/	1127 / 1242	3.8 / 3.8	/	/	/	/
					240 mins	924 Liters				
					/	/				
					/	/				

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FB = Field Blank FP = Field Split
FD = Field Duplicate LB = Lot Blank

4) Receptor: Backhoe Operator, Sampler, Drill Rig Operator, Driver/Passenger

2) ABS Scenario

- 1) Surface Soil Sampling
- 2) Shallow Sub-Surface Sampling
- 3) Sub-Surface Rock/Geologic Sampling
- 4) Driving Work Vehicles

3) ABS Activity

- a) Collection, Mixing, Sample Storage
- b) Pit Excavation, Pit Filling
- d) Core Drilling

- e) Core Collection, Core Mixing-Homogenizing, Sample Storage,
- f) Excavating RockFace
- g) Geologic Sample Collection
- h) Driving

BOULDER CITY BYPASS ACTIVITY-BASED SAMPLING FORM

AIR SAMPLING DATA

Tetra Tech, Inc.
Activity-Based Sampling Project (ABS)

Date: 6/5/14

Cassette Lot No: 32946

ABS Scenario (check one):	<input type="checkbox"/> Surface Soil	<input type="checkbox"/> Sub-Surface	<input type="checkbox"/> Rock/Geo	<input checked="" type="checkbox"/> Driving
Collected By: <u>Scott Halle</u>			Log Book No:	

Air Sample #	Pump I.D.#	Rotometer I.D. #	Sample Type ¹	ABS Scenario ²	Time On Time Off Total Minutes	Flow Rate-Start Flow Rate-Stop Total Volume (Liters)	Description/ Work Zone Size (square feet)	Initials of Personnel Sampled	ABS Activity ³	Receptor ⁴
BC-ABS-00016	HV-04	Broadbent Ryan Jones T29T	FS	4	7:40 / 8:40	10.0L / 10.0L		SH	h	Driver
					7:40 / 8:40	1				
					60min	600L				
BC-ABS-00017	HV-04	Broadbent Ryan Jones T29T	FS	4	9:00 / 10:00	10.0L / 10.0L		SH	h	Driver
					1	1				
					60min	600L				
					1	1				
					1	1				
					1	1				
					1	1				

NOTES: All ABS samples will be collected on 25 mm diameter mixed cellulose ester (MCE) filter cassettes with a pore size of 0.8µm

1) Sample Type

FS = Field Sample EB = Equipment Blank
 FB = Field Blank FP = Field Split
 FD = Field Duplicate LB = Lot Blank

4) Receptor: Backhoe Operator, Sampler, Drill Rig Operator, Driver/Passenger

2) ABS Scenario

- 1) Surface Soil Sampling
- 2) Shallow Sub-Surface Sampling
- 3) Sub-Surface Rock/Geologic Sampling
- 4) Driving Work Vehicles

3) ABS Activity

- a) Collection, Mixing, Sample Storage
- b) Pit Excavation, Pit Filling
- d) Core Drilling

- e) Core Collection, Core Mixing-Homogenizing, Sample Storage,
- f) Excavating RockFace
- g) Geologic Sample Collection
- h) Driving

BOULDER CITY BYPASS ACTIVITY-BASED SAMPLING FORM

AIR SAMPLING DATA

Tetra Tech, Inc.
Activity-Based Sampling Project (ABS)

Date: 6/5/14
Cassette Lot No: 32746

ABS Scenario (check one):	<input type="checkbox"/> Surface Soil	<input checked="" type="checkbox"/> Sub-Surface <i>HSA</i>	<input type="checkbox"/> Rock/Geo	<input type="checkbox"/> Driving
Collected By: <i>LP</i>	Log Book No: <i>4</i>			

Air Sample #	Pump I.D.#	Rotometer I.D.#	Sample Type ¹	ABS Scenario ²	Time On Time Off Total Minutes	Flow Rate-Start Flow Rate-Stop Total Volume (Liters)	Description/ Work Zone Size (square feet)	Initials of Personnel Sampled	ABS Activity ³	Receptor ⁴
BC-ABS-00018	827994	LV-02	FS	3	0805/1205	4.0 / 3.9	SS-36 + SS-46 HSA	ELS	D	Drill Rig Operator
					240 min	948 liters				
BC-ABS-00019	827201	LV-02	FS	3	0805/1205	4.0 / 4.0	↓	LP	E	SAMPLER
					240 min	960 liters				
BC-ABS-00021	/	/	FB	/	/	/	/	/	/	/
					/	/				
					/	/				
					/	/				

NOTES: All ABS samples will be collected on 25 mm diameter mixed cellulose ester (MCE) filter cassettes with a pore size of 0.8µm

1) Sample Type

- FS = Field Sample EB = Equipment Blank
- FB = Field Blank FP = Field Split
- FD = Field Duplicate LB = Lot Blank

4) Receptor: Backhoe Operator, Sampler, Drill Rig Operator, Driver/Passenger

2) ABS Scenario

- 1) Surface Soil Sampling
- 2) Shallow Sub-Surface Sampling
- 3) Sub-Surface Rock/Geologic Sampling
- 4) Driving Work Vehicles

3) ABS Activity

- a) Collection, Mixing, Sample Storage
- b) Pit Excavation, Pit Filling
- d) Core Drilling

e) Core Collection, Core Mixing-Homogenizing, Sample Storage,

- f) Excavating RockFace
- g) Geologic Sample Collection
- h) Driving

BOULDER CITY BYPASS ACTIVITY-BASED SAMPLING FORM

AIR SAMPLING DATA

Tetra Tech, Inc.
Activity-Based Sampling Project (ABS)

Date: 6-5-14

Cassette Lot No: 33498

ABS Scenario (check one):	<input type="checkbox"/> Surface Soil	<input type="checkbox"/> Sub-Surface	<input type="checkbox"/> Rock/Geo	<input checked="" type="checkbox"/> Driving
Collected By:	<u>SAH</u>			Log Book No:

Page 1

Air Sample #	Pump I.D.#	Rotometer I.D. #	Sample Type ¹	ABS Scenario ²	Time On Time Off Total Minutes	Flow Rate-Start Flow Rate-Stop Total Volume (Liters)	Description/ Work Zone Size (square feet)	Initials of Personnel Sampled	ABS Activity ³	Receptor ⁴
BC-ABS-00020	547156	Dry Cal Serial # 102427	FS	4	1 /	2.0L		SH	h	Driver / Passenger
					1 /	2.0L				
					2.5 min	5L				
					1 /	1				
					1 /	1				
					1 /	1				
					1 /	1				
					1 /	1				
					1 /	1				

NOTES: All ABS samples will be collected on 25 mm diameter mixed cellulose ester (MCE) filter cassettes with a pore size of 0.8µm

1) Sample Type

FS = Field Sample EB = Equipment Blank
 FB = Field Blank FP = Field Split
 FD = Field Duplicate LB = Lot Blank

4) Receptor: Backhoe Operator, Sampler, Drill Rig Operator, Driver/Passenger

2) ABS Scenario

- 1) Surface Soil Sampling
- 2) Shallow Sub-Surface Sampling
- 3) Sub-Surface Rock/Geologic Sampling
- 4) Driving Work Vehicles

3) ABS Activity

- a) Collection, Mixing, Sample Storage
- b) Pit Excavation, Pit Filling
- d) Core Drilling

- e) Core Collection, Core Mixing-Homogenizing, Sample Storage.
- f) Excavating RockFace
- g) Geologic Sample Collection
- h) Driving

BOULDER CITY BYPASS ACTIVITY-BASED SAMPLING FORM

AIR SAMPLING DATA

Tetra Tech, Inc.
Activity-Based Sampling Project (ABS)

Date: 6-6-14

Cassette Lot No: 32946

ABS Scenario (check one):	<input type="checkbox"/> Surface Soil	<input type="checkbox"/> Sub-Surface	<input type="checkbox"/> Rock/Geo	<input checked="" type="checkbox"/> Driving
Collected By:	SAH			Log Book No:

Air Sample #	Pump I.D.#	Rotometer I.D. #	Sample Type ¹	ABS Scenario ²	Time On Time Off Total Minutes	Flow Rate-Start Flow Rate-Stop Total Volume (Liters)	Description/ Work Zone Size (square feet)	Initials of Personnel Sampled	ABS Activity ³	Receptor ⁴
BC-ABS-00023	HV-04	Brandbark Ryan Jans T29T	FS	4	0650 / 0750	10.0L / 10.0L		SH	h	Driver Passenger
					/	/				
					60mm	600L				
BC-ABS-00024	HV-04	T29T	FS	4	0755 / 0855	10.0L / 10.0L		SH	h	Driver Passenger
					/	/				
					60mm	600L				
BC-ABS-00025	HV-04	T29T	FS	4	0900 / 1000	10.0L / 10.0L		SH	h	Driver Passenger
					/	/				
					60mm	600L				
					/	/				
					/	/				
					/	/				
					/	/				

NOTES: All ABS samples will be collected on 25 mm diameter mixed cellulose ester (MCE) filter cassettes with a pore size of 0.8µm

1) Sample Type

- FS = Field Sample EB = Equipment Blank
- FB = Field Blank FP = Field Split
- FD = Field Duplicate LB = Lot Blank

4) Receptor: Backhoe Operator, Sampler, Drill Rig Operator, Driver/Passenger

2) ABS Scenario

- 1) Surface Soil Sampling
- 2) Shallow Sub-Surface Sampling
- 3) Sub-Surface Rock/Geologic Sampling
- 4) Driving Work Vehicles

3) ABS Activity

- a) Collection, Mixing, Sample Storage
- b) Pit Excavation, Pit Filling
- d) Core Drilling

- e) Core Collection, Core Mixing-Homogenizing, Sample Storage,
- f) Excavating RockFace
- g) Geologic Sample Collection
- h) Driving

BOULDER CITY BYPASS ACTIVITY-BASED SAMPLING FORM

AIR SAMPLING DATA

Tetra Tech, Inc.
Activity-Based Sampling Project (ABS)

Date: 6-6-14

Cassette Lot No: 33498

ABS Scenario (check one):	<input type="checkbox"/> Surface Soil	<input type="checkbox"/> Sub-Surface	<input type="checkbox"/> Rock/Geo	<input checked="" type="checkbox"/> Driving
Collected By:	SAH			Log Book No:

Page 1

Air Sample #	Pump I.D.#	Rotometer I.D.#	Sample Type ¹	ABS Scenario ²	Time On Time Off Total Minutes	Flow Rate-Start Flow Rate-Stop Total Volume (Liters)	Description/ Work Zone Size (square feet)	Initials of Personnel Sampled	ABS Activity ³	Receptor ⁴
BC-ABS-00022	547156	Dry Cal seal # 10247	FS	4	1	2.0L / 2.0L		SH	h	Driver Passenger
					1	1				
					2.5 min	5L				
BC-ABS-00026			FB		1	1				
					1	1				
BC-ABS-00027			LB		1	1				
					1	1				
					1	1				
					1	1				
					1	1				
					1	1				

NOTES: All ABS samples will be collected on 25 mm diameter mixed cellulose ester (MCE) filter cassettes with a pore size of 0.8µm

1) Sample Type

FS = Field Sample EB = Equipment Blank
 FB = Field Blank FP = Field Split
 FD = Field Duplicate LB = Lot Blank

4) Receptor: Backhoe Operator, Sampler, Drill Rig Operator, Driver/Passenger

2) ABS Scenario

1) Surface Soil Sampling
 2) Shallow Sub-Surface Sampling
 3) Sub-Surface Rock/Geologic Sampling
 4) Driving Work Vehicles

3) ABS Activity

a) Collection, Mixing, Sample Storage
 b) Pit Excavation, Pit Filling
 c) Core Drilling

e) Core Collection, Core Mixing-Homogenizing, Sample Storage,

f) Excavating RockFace
 g) Geologic Sample Collection
 h) Driving

BOULDER CITY BYPASS ACTIVITY-BASED SAMPLING FORM

AIR SAMPLING DATA

Tetra Tech, Inc.
Activity-Based Sampling Project (ABS)

Date: 6/16/14

Cassette Lot No: 32946

ABS Scenario (check one):	<input type="checkbox"/> Surface Soil	<input checked="" type="checkbox"/> Sub-Surface	<input type="checkbox"/> Rock/Geo	<input type="checkbox"/> Driving
Collected By: <u>UP</u>	Log Book No: <u>1</u>			

Page 1

Air Sample #	Pump I.D.#	Rotometer I.D.#	Sample Type ¹	ABS Scenario ²	Time On Time Off Total Minutes	Flow Rate-Start Flow Rate-Stop Total Volume (Liters)	Description/ Work Zone Size (square feet)	Initials of Personnel Sampled	ABS Activity ³	Receptor ⁴
BC-ABS-00028	827126	W-02	FS	2	0710 / 1110	4.0 / 3.8	Le Test Pits	BA	B	Backhoe operator
					/	/				
					240 min	936 Liter				
BC-ABS-00029	827835	↓	↓	↓	0710 / 1110	4.0 / 3.8	↓	LP	A	Sampler
					/	/				
					240 min	936 Liter				
BC-ABS-00030	/	/	FB	/	/	/	/	/	/	
					/	/				
					/	/				
					/	/				

NOTES: All ABS samples will be collected on 25 mm diameter mixed cellulose ester (MCE) filter cassettes with a pore size of 0.8µm

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4) Receptor: Backhoe Operator, Sampler, Drill Rig Operator, Driver/Passenger

2) ABS Scenario

- 1) Surface Soil Sampling
- 2) Shallow Sub-Surface Sampling
- 3) Sub-Surface Rock/Geologic Sampling
- 4) Driving Work Vehicles

3) ABS Activity

- a) Collection, Mixing, Sample Storage
- b) Pit Excavation, Pit Filling
- d) Core Drilling

e) Core Collection, Core Mixing-Homogenizing, Sample Storage,

- f) Excavating RockFace
- g) Geologic Sample Collection
- h) Driving

BOULDER CITY BYPASS ACTIVITY-BASED SAMPLING FORM

AIR SAMPLING DATA

Tetra Tech, Inc.
Activity-Based Sampling Project (ABS)

Date: 6/9/14

Cassette Lot No: _____

ABS Scenario (check one):	<input type="checkbox"/> Surface Soil	<input type="checkbox"/> Sub-Surface	<input checked="" type="checkbox"/> Rock/Geo	<input type="checkbox"/> Driving
Collected By: <u>LP</u>	Log Book No: <u>2</u>			

Page 1

Air Sample #	Pump I.D.#	Rotometer I.D.#	Sample Type ¹	ABS Scenario ²	Time On Time Off Total Minutes	Flow Rate-Start Flow Rate-Stop Total Volume (Liters)	Description/ Work Zone Size (square feet)	Initials of Personnel Sampled	ABS Activity ³	Receptor ⁴
BC-ABS-00031	827994	W-02	FS	3	0657 / 1057	4.0 / 14.0	RC-1 Core Drilling 0-15' depth	TCT	D	Operator Drill Rig
					240 mins	960 liters				
BC-ABS-00032	827201	↓	↓	3	0658 / 1058	4.0 / 13.8	↓	RJ	E	Sampler
					240 mins	936 liters				
BC-ABS-00033	/	/	FB	/	/	/	/	/	/	/
					/	/				
					/	/				
					/	/				
					/	/				

NOTES: All ABS samples will be collected on 25 mm diameter mixed cellulose ester (MCE) filter cassettes with a pore size of 0.8µm

1) Sample Type

- FS = Field Sample EB = Equipment Blank
- FB = Field Blank FP = Field Split
- FD = Field Duplicate LB = Lot Blank

4) Receptor: Backhoe Operator, Sampler, Drill Rig Operator, Driver/Passenger

2) ABS Scenario

- 1) Surface Soil Sampling
- 2) Shallow Sub-Surface Sampling
- 3) Sub-Surface Rock/Geologic Sampling
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3) ABS Activity

- a) Collection, Mixing, Sample Storage
- b) Pit Excavation, Pit Filling
- d) Core Drilling

e) Core Collection, Core Mixing-Homogenizing, Sample Storage.

- f) Excavating RockFace
- g) Geologic Sample Collection
- h) Driving

BOULDER CITY BYPASS ACTIVITY-BASED SAMPLING FORM

AIR SAMPLING DATA

Tetra Tech, Inc.
Activity-Based Sampling Project (ABS)

Date: 8-22-14

Cassette Lot No: 32946

ABS Scenario (check one):	<input type="checkbox"/> Surface Soil	<input type="checkbox"/> Sub-Surface	<input type="checkbox"/> Rock/Geo	<input checked="" type="checkbox"/> Driving
Collected By: <u>Scott Holle</u>			Log Book No:	

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Air Sample #	Pump I.D.#	Rotometer I.D. #	Sample Type ¹	ABS Scenario ²	Time On Time Off Total Minutes	Flow Rate-Start Flow Rate-Stop Total Volume (Liters)	Description/ Work Zone Size (square feet)	Initials of Personnel Sampled	ABS Activity ³	Receptor ⁴
BC-ABS-DRV-1001	Broad- bent pump	Bios Defender 510-H	FS	4	0808 / ON	10.0 / ON	throughout Phase I	SH	H	Driver/ Passenger
					0908 / OFF	10.0 / OFF				
					60 minutes	600				
BC-ABS-DRV-2002	Broad- Bent pump	Bios Defender 510-H	FS	4	0910 / ON	10.0 / ON	throughout Phase I	SH	H	Driver/ Passenger
					1010 / OFF	10.0 / OFF				
					60 min	600				
BC-ABS-DRV-FB			FB		/	/				
					/	/				
					/	/				
					/	/				
					/	/				
					/	/				

NOTES: All ABS samples will be collected on 25 mm diameter mixed cellulose ester (MCE) filter cassettes with a pore size of 0.8µm

1) Sample Type

FS = Field Sample EB = Equipment Blank
 FB = Field Blank FP = Field Split
 FD = Field Duplicate LB = Lot Blank

4) Receptor: Backhoe Operator, Sampler, Drill Rig Operator, Driver/Passenger

2) ABS Scenario

- 1) Surface Soil Sampling
- 2) Shallow Sub-Surface Sampling
- 3) Sub-Surface Rock/Geologic Sampling
- 4) Driving Work Vehicles

3) ABS Activity

- a) Collection, Mixing, Sample Storage
- b) Pit Excavation, Pit Filling
- c) Core Drilling

- e) Core Collection, Core Mixing-Homogenizing, Sample Storage,
- f) Excavating RockFace
- g) Geologic Sample Collection
- h) Driving