

BATCH QUALITY CONTROL -- CONTROL SPIKE/DUPLICATE

ALS EP-068 : Pesticides

QC LOT No. :

NOCOPS1449

ANALYST N. MAHABIR

MATRIX:

Soils

COMPOUND	Blank Conc	Spike Level	SPIKE QC RESULTS				Control Limits		
			SCS Rec.	DCS Rec.	Average Rec.	RPD	Rec.	RPD	
	mg/kg	mg/kg	%	%	%	%	Low	High	%
EP068C : Triazines									
Simazine	<0.025	0.25	68	68.1	68.1	0.15	63.8	110	0-20
Atrazine	<0.025	0.25	83.8	81.2	82.5	3.15	57.5	111	0-20
EP068D : Pyrethroids									
Cypermethrins(multipeaks)	<0.1	0.25	84.1	81.7	82.9	2.8	76.3	99.2	0-20
EP068E : OC Surrogate									
Dibromo-DDE	87.1%	0.5	87.5	90.9	89.2	3.81	75.5	106	0-20
EP068F : OP Surrogate									
DEF	85.2%	0.5	86.2	87.8	87	1.84	74.3	106	0-20

COMMENTS:

- 1) The recovery control limits are based on ALS laboratory statistical data. (Method QWI-ORG/07)
- 2) The control limits on RPD (relative percent deviation) are fixed
- 3) * : Recovery or RPD falls outside of the recommended control limits.

BATCH QUALITY CONTROL - DUPLICATE

ALS EP-068 : Pesticides

QC LOT No. : NOCOPS1449
 MATRIX : Soils
 ANALYST : N. MAHABIR

COMPOUND	LOR mg/kg	QC DUPLICATE RESULTS			
		ES42791	ES42791	RPD	Cont. Limit %
		2	2D		
		mg/kg	mg/kg		
EP068A : OC Pesticides					
a-BHC	0.025	<0.025	<0.025	n/a	
γ-HCH	0.025	<0.025	<0.025	n/a	
β- & γ-BHC	0.05	<0.05	<0.05	n/a	
δ-BHC	0.025	<0.025	<0.025	n/a	
Heptachlor	0.025	<0.025	<0.025	n/a	
Aldrin	0.025	<0.025	<0.025	n/a	
Heptachlor epoxide	0.025	<0.025	<0.025	n/a	
Chlordane peak no. 1	0.025	<0.025	<0.025	n/a	
Endosulfan 1	0.025	<0.025	<0.025	n/a	
Chlordane peak no. 2	0.025	<0.025	<0.025	n/a	
Dieldrin	0.025	<0.025	<0.025	n/a	
DDE	0.025	<0.025	<0.025	n/a	
Endrin	0.025	<0.025	<0.025	n/a	
Endosulfan 2	0.025	<0.025	<0.025	n/a	
DDD	0.025	<0.025	<0.025	n/a	
Endrin aldehyde	0.025	<0.025	<0.025	n/a	
Endosulfan sulfate	0.025	<0.025	<0.025	n/a	
DDT	0.1	<0.1	<0.1	n/a	
Endrin ketone	0.025	<0.025	<0.025	n/a	
Methoxychlor	0.1	<0.1	<0.1	n/a	
EP068B : OP Pesticides					
Dichlorvos	0.025	<0.025	<0.025	n/a	
Demeton-s-methyl	0.025	<0.025	<0.025	n/a	
Monocrotophos	0.1	<0.1	<0.1	n/a	
Dimethoate	0.025	<0.025	<0.025	n/a	
Diazinon	0.025	<0.025	<0.025	n/a	
Chlorpyrifos methyl	0.025	<0.025	<0.025	n/a	
Parathion methyl	0.1	<0.1	<0.1	n/a	
Malathion	0.025	<0.025	<0.025	n/a	
Fenthion	0.025	<0.025	<0.025	n/a	
Chlorpyrifos	0.025	<0.025	<0.025	n/a	
Parathion	0.1	<0.1	<0.1	n/a	
Fimphos ethyl	0.025	<0.025	<0.025	n/a	
Chlorfenvinphos E	0.025	<0.025	<0.025	n/a	
Chlorfenvinphos Z	0.025	<0.025	<0.025	n/a	
Bromophos ethyl	0.025	<0.025	<0.025	n/a	
Fenamphos	0.025	<0.025	<0.025	n/a	
Prothiofos	0.025	<0.025	<0.025	n/a	
Phosin	0.025	<0.025	<0.025	n/a	
Carbofenthiion	0.025	<0.025	<0.025	n/a	
Azinphos methyl	0.025	<0.025	<0.025	n/a	

BATCH QUALITY CONTROL - DUPLICATE

ALS EP-068 : Pesticides

QC LOT No. : NOCOPS1449
 MATRIX : Soils
 ANALYST: N. MAHABIR

COMPOUND	LOR mg/kg	QC DUPLICATE RESULTS			
		ES42791	ES42791	RPD	Cont. Limit
		± mg/kg	±D mg/kg		
EP058C: Triazines					
Simazine	0.025	<0.025	<0.025	n/a	
Atrazine	0.025	<0.025	<0.025	n/a	
EP058D: Pyrethroids					
Cypermethrin(multi peaks)	0.1	<0.1	<0.1	n/a	
EP058S: PCB Surrogate					
Dibromo-DDE	1%	80.4%	93.1%	14.6	0 - 20
EP058T: CP Surrogate					
DEF	1%	115%	119%	5.42	0 - 20

Note: The permitted range for RPD (relative percent deviation) is specified in ALS Method QWI-EN/38 and is dependent on the magnitude of results in comparison to the level of reporting:

Result < 10 times LOR, no limit.

Result between 10 and 20 times LOR, 0% - 50%.

Results > 20 times LOR, 0% - 20%.

BATCH QUALITY CONTROL -- DUPLICATE

ALS EP-065 : Pesticides

QC LOT No. : NOCOPS144C
 MATRIX : Soils
 ANALYST : N. MAHABIR

COMPOUND	LOR mg/kg	QC DUPLICATE RESULTS			
		ES42791 a mg/kg	ES42791 bD mg/kg	RPD	Cont Limit %
EP065A / OC Pesticides					
α-BHC	0.025	<0.025	<0.025	n/a	
γ-BHC	0.025	<0.025	<0.025	n/a	
α- & γ-BHC	0.05	<0.05	<0.05	n/a	
δ-BHC	0.025	<0.025	<0.025	n/a	
Heptachlor	0.025	<0.025	<0.025	n/a	
Aroclor	0.025	<0.025	<0.025	n/a	
Heptachlor epoxide	0.025	<0.025	<0.025	n/a	
Chlordane peak no. 1	0.025	<0.025	<0.025	n/a	
Endosulfan 1	0.025	<0.025	<0.025	n/a	
Chlordane peak no. 2	0.025	<0.025	<0.025	n/a	
Dieldrin	0.025	<0.025	<0.025	n/a	
DDE	0.025	<0.025	<0.025	n/a	
Endrin	0.025	<0.025	<0.025	n/a	
Endosulfan 2	0.025	<0.025	<0.025	n/a	
DDE	0.025	<0.025	<0.025	n/a	
Endrin aldehyde	0.025	<0.025	<0.025	n/a	
Endosulfan sulfate	0.025	<0.025	<0.025	n/a	
DDT	0.1	<0.1	<0.1	n/a	
Endrin ketone	0.025	<0.025	<0.025	n/a	
Methoxychlor	0.1	<0.1	<0.1	n/a	
EP065B / OP Pesticides					
Dichlorvos	0.025	<0.025	<0.025	n/a	
Demeton-s-methyl	0.025	<0.025	<0.025	n/a	
Monocrotophos	0.1	<0.1	<0.1	n/a	
Dimethoate	0.025	<0.025	<0.025	n/a	
Diazinon	0.025	<0.025	<0.025	n/a	
Chlorpyrifos methyl	0.025	<0.025	<0.025	n/a	
Parathion methyl	0.1	<0.1	<0.1	n/a	
Malathion	0.025	<0.025	<0.025	n/a	
Fenitrothion	0.025	<0.025	<0.025	n/a	
Chlorpyrifos	0.025	<0.025	<0.025	n/a	
Permethrin	0.1	<0.1	<0.1	n/a	
Fenprophos ethyl	0.025	<0.025	<0.025	n/a	
Chlorfenvinphos E	0.025	<0.025	<0.025	n/a	
Chlorfenvinphos D	0.025	<0.025	<0.025	n/a	
Bromophos methyl	0.025	<0.025	<0.025	n/a	
Fenamiphos	0.025	<0.025	<0.025	n/a	
Propoxphos	0.025	<0.025	<0.025	n/a	
Etofenprox	0.025	<0.025	<0.025	n/a	
Carbofenthiion	0.025	<0.025	<0.025	n/a	
Triphenos methyl	0.025	<0.025	<0.025	n/a	

BATCH QUALITY CONTROL - DUPLICATE

ALS EP-066 : Pesticides

QC LOT No. : NOCOPS1449
 MATRIX : Soils
 ANALYST : N. MAHABIE

COMPOUND	LOR mg/kg	QC DUPLICATE RESULTS			
		ES42791	ES42791	RPD	Cont. Limit %
		± mg/kg	± mg/kg		
EP0380 : Triazines					
Simazina	0.025	<0.025	<0.025	n/a	
Atrazine	0.025	<0.025	<0.025	n/a	
EP0380 : Pyrethroids					
Cypermethrins(multipeaks)	0.1	<0.1	<0.1	n/a	
EP0380 : QC Surrogate					
Dibromo-DDE	1%	111%	110%	0.905	0 - 20
EP0381 : OP Surrogate					
DEF	1%	123%	118%	4.15	0 - 20

Note: The permitted range for RPD (relative percent deviation) is specified in ALS Method QWI-EN/38 and is dependent on the magnitude of results in comparison to the level of reporting:

Result < 10 times LOR, no limit.

Result between 10 and 20 times LOR, 0% - 50%.

Results > 20 times LOR, 0% - 20%.

BATCH QUALITY CONTROL -- CONTROL SPIKE/DUPLICATE

ALS EP-06B : Pesticides

QC LOT No. :

NOCOFS1450

ANALYST N. MAHABIR

MATRIX:

Soils

COMPOUND	Blank Conc	Spike Level	SPIKE QC RESULTS				Control Limits		
			SCS Rec	DCS Rec	Average Rec	RPD %	Rec. Low	RPD High	
	mg/kg	mg/kg	%	%	%	%		%	
EP06B : OC Pesticides									
a-BHC	<0.025	0.25	81	83.4	82.2	2.36	73.8	104	0-20
γ-HCH	<0.025	0.25	81.7	80.4	81	1.34	77.1	103	0-20
β- & γ-HCH	<0.05	0.5	81	81.8	81.5	0.58	81.5	107	0-20
δ-HCH	<0.025	0.25	81.7	85.1	83.5	3.08	76.1	104	0-20
Heptachlor	<0.025	0.25	81	81.8	81.4	0.88	72.3	103	0-20
Aldrin	<0.025	0.25	85.2	80.1	82.7	5.17	78.3	103	0-20
Heptachlor epoxide	<0.025	0.25	85.6	89.6	87.6	4.06	78	101	0-20
Chlordane peak no. 1	<0.025	0.25	80.6	80	80.3	0.62	75.8	105	0-20
Endosulfan 1	<0.025	0.25	80.7	80.8	80.8	0.28	78.8	106	0-20
Chlordane peak no. 2	<0.025	0.25	86.7	84.7	86.2	1.97	79.3	101	0-20
Dieldrin	<0.025	0.25	82	86.8	86.8	7.37	76.2	103	0-20
DDE	<0.025	0.25	89.8	81.8	84.1	8.54	77	106	0-20
Endrin	<0.025	0.25	88.4	87.3	86.4	4.57	73.6	107	0-20
Endosulfan 2	<0.025	0.25	89.2	88	86.6	3.7	78.2	101	0-20
DDD	<0.025	0.25	88	87.6	86.8	1.84	78.4	103	0-20
Endrin aldehyde	<0.025	0.25	89.3	80.2	84.8	10.7	74	107	1-20
Endosulfan sulfate	<0.025	0.25	86	81.8	83.8	6.37	78.8	102	0-20
DDT	<0.1	0.25	82	82.8	82.4	0.97	73.4	107	0-20
Endrin ketone	<0.025	0.25	83.6	81.8	87.8	6.22	81.2	100	0-20
Methoxychlor	<0.1	0.25	81.7	81.2	81.2	0.12	86.1	107	0-20
EP06B : OP Pesticides									
Dichlorvos	<0.025	0.25	88	81.8	84.8	1.67	78.3	101	0-20
Dantrolene-methyl	<0.025	0.25	83.8	80.7	81.1	1.7	76.1	102	0-20
Monocrotophos	<0.1	0.25	82.7	46.8	43	4.18	34	108	0-20
Dimethoate	<0.025	0.25	84.7	82.8	83.7	2.24	78	100	0-20
Diazinon	<0.025	0.25	83.2	88.7	83.5	0.6	77.2	104	0-20
Chlorpyrifos methyl	<0.025	0.25	81.7	80.1	80.9	1.28	80	103	0-20
Parathion methyl	<0.1	0.25	80.8	82.6	81.7	0.2	76.7	86.3	0-20
Melathion	<0.025	0.25	82.6	83.8	83.3	1.2	75.3	101	0-20
Fenthion	<0.025	0.25	88	85.8	86.8	2.58	75.6	87.7	0-20
Chlorpyrifos	<0.025	0.25	80.2	83.8	81.8	4.03	79.2	103	0-20
Parathion	<0.1	0.25	81.2	88	84.6	6.04	78.8	85.4	0-20
Phinphos ethyl	<0.025	0.25	80.8	81.2	80.8	1.11	78.2	82.8	0-20
Chlorfenvinphos Z	<0.025	0.25	83.7	84	83.8	0.36	78.1	104	0-20
Bromophos ethyl	<0.025	0.25	83.8	80.8	86.7	1.6	75.1	102	0-20
Fenathion	<0.025	0.25	80.6	81	80.8	0.67	75.1	103	0-20
Promethion	<0.025	0.25	83.8	87.8	84.8	4.38	78	87	0-20
Ethion	<0.025	0.25	80.4	87.4	84.8	6.88	73.3	104	0-20
Carbofenthion	<0.025	0.25	83.4	89.8	85	0.6	78.8	103	0-20
Azinphos methyl	<0.025	0.25	83.8	84.7	80.7	13.1	72.1	82	0-20

BATCH QUALITY CONTROL -- CONTROL SPIKE/DUPLICATE

ALS EP-068 : Pesticides

QC LOT No. :

NOCOPS1450

ANALYST N. MAHABIR

MATRIX:

Soils

COMPOUND	Blank Conc	Spike Level	SPIKE QC RESULTS				Control Limits		
			SCS Rec.	DCS Rec.	Average Rec.	RPD	Rec.		RPD
	mg/kg	mg/kg	%		%	%	Low	High	%
EP068C : Triazines									
Simazine	<0.025	0.25	72.9	68.5	70.7	6.22	63.8	110	0 - 20
Atrazine	<0.025	0.25	82.6	80.6	81.6	2.45	57.5	111	0 - 20
EP068D : Pyrethroids									
Cypermethrins(multi peaks)	<0.1	0.25	87.6	82.8	85.2	5.83	76.3	93.2	0 - 20
EP068E : OC Surrogate									
Dibromo-DDE	89.4%	0.5	83	88	85.5	5.85	73.6	109	0 - 20
EP068F : OP Surrogate									
DEF	84.2%	0.5	81.2	92.3	82.1	0.49	74.3	106	0 - 20

COMMENTS:

- 1) The recovery control limits are based on ALS laboratory statistical data. (Method QWI-ORG/07)
- 2) The control limits on RPD (relative percent deviation) are fixed.
- 3) * : Recovery or RPD falls outside of the recommended control limits.

BATCH QUALITY CONTROL -- MATRIX SPIKE/DUPLICATE							
ALS EP-068 : Semivolatile Organic Compounds							
QC LOT No. :	NOCOPS1450			ANALYST : N. MAHABIR			
MATRIX:	Soils			Sample ID: ER4279-74			
COMPOUND	Sample Results	Spike Level	SPIKE QC RESULTS				Cont. Limit
			MS Rec.	MSD Rec.	Average Rec.	RPD	RPD
	mg/kg	mg/kg	%	%	%	%	%
EP068A : OC Pesticides							
b- & g-BHC	<0.2	0.25	85.1	91.3	88.2	7.03	0 - 20
Heptachlor	<0.1	0.25	90.5	85.7	88.3	5.78	0 - 20
Aldrin	<0.1	0.25	84.4	89.9	87.2	8.31	0 - 20
Dieldrin	<0.1	0.25	82.8	84.4	83.6	2.18	0 - 20
Endrin	<0.1	1	85.9	82.3	84.1	4.26	0 - 20
DDT	<0.1	1	85.8	66.4	66.1	0.908	0 - 20
EP068B : OP Pesticides							
Diazinon	<0.1	0.25	83.8	89.2	86	5.12	0 - 20
Chlorpyrifos methyl	<0.1	0.25	80.5	83.5	82	3.68	0 - 20
Fenitrothion ethyl	<0.1	0.25	90.3	78.7	79.5	2.01	0 - 20
Bromophos ethyl	<0.1	0.25	81.5	83.7	82.4	2.08	0 - 20
Prothiofos	<0.1	0.25	87.9	82.2	86.1	5.7	0 - 20
EP068C : OC Surrogate							
Dibromo-DDE	86.5%	0.5	102	87.2	94.6	14.8	0 - 20
EP068D : OP Surrogate							
DEF	119%	0.5	113	115	114	1.76	0 - 20

COMMENTS:

- 1) The RPD control limits are fixed
- 2) *: RPD falls outside the recommended control limit.