

# ALS Group, USA

Date: 06-Feb-19

**Client:** SGM Inc.  
**Project:** Mustang Resources  
**Sample ID:** Sample Site 1  
**Collection Date:** 1/31/2019 04:30 PM

**Work Order:** 1902118  
**Lab ID:** 1902118-01  
**Matrix:** SOIL

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
<b>DIESEL RANGE ORGANICS BY GC-FID</b>							
			Method: <b>SW8015M</b>		Prep: SW3546 / 2/5/19		Analyst: <b>RP</b>
<b>DRO (C10-C28)</b>	<b>4.5</b>	<b>J</b>	<b>2.9</b>	<b>5.1</b>	<b>mg/Kg-dry</b>	<b>1</b>	2/6/2019 02:47
Surr: 4-Terphenyl-d14	75.5			33-111	%REC	1	2/6/2019 02:47
<b>GASOLINE RANGE ORGANICS BY GC-FID</b>							
			Method: <b>SW8015D</b>		Prep: SW5035 / 2/5/19		Analyst: <b>RP</b>
<b>GRO (C6-C10)</b>	<b>110</b>		<b>2.2</b>	<b>5.3</b>	<b>mg/Kg</b>	<b>1</b>	2/5/2019 22:51
Surr: Toluene-d8	98.2			71-123	%REC	1	2/5/2019 22:51
<b>MERCURY BY CVAA</b>							
			Method: <b>SW7471B</b>		Prep: SW7471 / 2/6/19		Analyst: <b>RSB</b>
<b>Mercury</b>	<b>0.0088</b>	<b>J</b>	<b>0.0018</b>	<b>0.018</b>	<b>mg/Kg-dry</b>	<b>1</b>	2/6/2019 13:11
<b>SEMI-VOLATILE ORGANIC COMPOUNDS</b>							
			Method: <b>SW846 8270D</b>		Prep: SW3546 / 2/5/19		Analyst: <b>KAW</b>
Acenaphthene	U		4.9	6.8	µg/Kg-dry	1	2/5/2019 21:25
Anthracene	U		4.8	6.8	µg/Kg-dry	1	2/5/2019 21:25
Benzo(a)anthracene	U		5.8	6.8	µg/Kg-dry	1	2/5/2019 21:25
Benzo(a)pyrene	U		4.1	6.8	µg/Kg-dry	1	2/5/2019 21:25
Benzo(b)fluoranthene	U		5.0	6.8	µg/Kg-dry	1	2/5/2019 21:25
Benzo(k)fluoranthene	U		5.1	6.8	µg/Kg-dry	1	2/5/2019 21:25
Chrysene	U		5.5	6.8	µg/Kg-dry	1	2/5/2019 21:25
Dibenzo(a,h)anthracene	U		3.7	6.8	µg/Kg-dry	1	2/5/2019 21:25
Fluoranthene	U		3.2	6.8	µg/Kg-dry	1	2/5/2019 21:25
Fluorene	U		4.9	6.8	µg/Kg-dry	1	2/5/2019 21:25
Indeno(1,2,3-cd)pyrene	U		4.7	6.8	µg/Kg-dry	1	2/5/2019 21:25
<b>Naphthalene</b>	<b>19</b>		<b>4.3</b>	<b>6.8</b>	<b>µg/Kg-dry</b>	<b>1</b>	2/5/2019 21:25
Pyrene	U		1.2	6.8	µg/Kg-dry	1	2/5/2019 21:25
Surr: 2-Fluorobiphenyl	55.4			44-107	%REC	1	2/5/2019 21:25
Surr: 4-Terphenyl-d14	59.8			52-123	%REC	1	2/5/2019 21:25
Surr: Nitrobenzene-d5	52.3			41-94	%REC	1	2/5/2019 21:25
<b>VOLATILE ORGANIC COMPOUNDS</b>							
			Method: <b>SW8260C</b>		Prep: SW5035 / 2/5/19		Analyst: <b>WH</b>
<b>Benzene</b>	<b>0.078</b>		<b>0.0054</b>	<b>0.032</b>	<b>mg/Kg</b>	<b>1</b>	2/5/2019 13:50
<b>Ethylbenzene</b>	<b>0.93</b>		<b>0.0067</b>	<b>0.032</b>	<b>mg/Kg</b>	<b>1</b>	2/5/2019 13:50
<b>m,p-Xylene</b>	<b>9.8</b>		<b>0.015</b>	<b>0.063</b>	<b>mg/Kg</b>	<b>1</b>	2/5/2019 13:50
<b>o-Xylene</b>	<b>1.5</b>		<b>0.012</b>	<b>0.032</b>	<b>mg/Kg</b>	<b>1</b>	2/5/2019 13:50
<b>Toluene</b>	<b>3.7</b>		<b>0.0087</b>	<b>0.032</b>	<b>mg/Kg</b>	<b>1</b>	2/5/2019 13:50
<b>Xylenes, Total</b>	<b>11</b>		<b>0.027</b>	<b>0.095</b>	<b>mg/Kg</b>	<b>1</b>	2/5/2019 13:50
Surr: 1,2-Dichloroethane-d4	96.9			70-130	%REC	1	2/5/2019 13:50
Surr: 4-Bromofluorobenzene	101			70-130	%REC	1	2/5/2019 13:50
Surr: Dibromofluoromethane	92.2			70-130	%REC	1	2/5/2019 13:50
Surr: Toluene-d8	103			70-130	%REC	1	2/5/2019 13:50
<b>CHROMIUM, HEXAVALENT</b>							
			Method: <b>SW7196A</b>		Prep: SW3060A / 2/5/19		Analyst: <b>JEB</b>

**Note:** See Qualifiers page for a list of qualifiers and their definitions.

PRELIMINARY

**ALS Group, USA****Date:** 06-Feb-19

**Client:** SGM Inc.  
**Project:** Mustang Resources  
**Sample ID:** Sample Site 1  
**Collection Date:** 1/31/2019 04:30 PM

**Work Order:** 1902118  
**Lab ID:** 1902118-01  
**Matrix:** SOIL

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
Chromium, Hexavalent	U		0.86	1.0	mg/Kg-dry	1	2/6/2019 14:30
<b>MOISTURE</b>			Method: <b>SW3550C</b>				Analyst: <b>KTP</b>
Moisture	2.8		0.10	0.10	% of sample	1	2/5/2019 12:54
<b>PH</b>			Method: <b>SW9045D</b>				Analyst: <b>RZM</b>
pH	8.25		0.10	0.100	s.u.	1	2/5/2019 15:08
Temperature	21.6		0.10	0.100	C	1	2/5/2019 15:08

**Note:** See Qualifiers page for a list of qualifiers and their definitions.

PRELIMINARY

# ALS Group, USA

Date: 06-Feb-19

**Client:** SGM Inc.  
**Project:** Mustang Resources  
**Sample ID:** Sample Site 2  
**Collection Date:** 2/1/2019 03:30 PM

**Work Order:** 1902118  
**Lab ID:** 1902118-02  
**Matrix:** SOIL

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
<b>DIESEL RANGE ORGANICS BY GC-FID</b>							
			Method: <b>SW8015M</b>		Prep: SW3546 / 2/5/19		Analyst: <b>RP</b>
DRO (C10-C28)	U		3.1	5.5	mg/Kg-dry	1	2/6/2019 03:16
Surr: 4-Terphenyl-d14	69.1			33-111	%REC	1	2/6/2019 03:16
<b>GASOLINE RANGE ORGANICS BY GC-FID</b>							
			Method: <b>SW8015D</b>		Prep: SW5035 / 2/5/19		Analyst: <b>RP</b>
GRO (C6-C10)	U		2.7	6.5	mg/Kg	1	2/5/2019 23:21
Surr: Toluene-d8	90.6			71-123	%REC	1	2/5/2019 23:21
<b>MERCURY BY CVAA</b>							
			Method: <b>SW7471B</b>		Prep: SW7471 / 2/6/19		Analyst: <b>RSB</b>
Mercury	<b>0.020</b>		<b>0.0018</b>	<b>0.018</b>	mg/Kg-dry	1	2/6/2019 13:13
<b>SEMI-VOLATILE ORGANIC COMPOUNDS</b>							
			Method: <b>SW846 8270D</b>		Prep: SW3546 / 2/5/19		Analyst: <b>KAW</b>
Acenaphthene	U		5.3	7.3	µg/Kg-dry	1	2/5/2019 21:49
Anthracene	U		5.2	7.3	µg/Kg-dry	1	2/5/2019 21:49
Benzo(a)anthracene	U		6.3	7.3	µg/Kg-dry	1	2/5/2019 21:49
Benzo(a)pyrene	U		4.5	7.3	µg/Kg-dry	1	2/5/2019 21:49
Benzo(b)fluoranthene	U		5.4	7.3	µg/Kg-dry	1	2/5/2019 21:49
Benzo(k)fluoranthene	U		5.5	7.3	µg/Kg-dry	1	2/5/2019 21:49
Chrysene	U		5.9	7.3	µg/Kg-dry	1	2/5/2019 21:49
Dibenzo(a,h)anthracene	U		3.9	7.3	µg/Kg-dry	1	2/5/2019 21:49
Fluoranthene	U		3.5	7.3	µg/Kg-dry	1	2/5/2019 21:49
Fluorene	U		5.3	7.3	µg/Kg-dry	1	2/5/2019 21:49
Indeno(1,2,3-cd)pyrene	U		5.1	7.3	µg/Kg-dry	1	2/5/2019 21:49
Naphthalene	U		4.7	7.3	µg/Kg-dry	1	2/5/2019 21:49
Pyrene	U		1.3	7.3	µg/Kg-dry	1	2/5/2019 21:49
Surr: 2-Fluorobiphenyl	44.9			44-107	%REC	1	2/5/2019 21:49
Surr: 4-Terphenyl-d14	48.4	S		52-123	%REC	1	2/5/2019 21:49
Surr: Nitrobenzene-d5	20.5	S		41-94	%REC	1	2/5/2019 21:49
<b>VOLATILE ORGANIC COMPOUNDS</b>							
			Method: <b>SW8260C</b>		Prep: SW5035 / 2/5/19		Analyst: <b>WH</b>
Benzene	U		0.0067	0.039	mg/Kg	1	2/5/2019 14:05
Ethylbenzene	<b>0.016</b>	J	<b>0.0082</b>	<b>0.039</b>	mg/Kg	1	2/5/2019 14:05
m,p-Xylene	<b>0.092</b>		<b>0.019</b>	<b>0.078</b>	mg/Kg	1	2/5/2019 14:05
o-Xylene	<b>0.024</b>	J	<b>0.015</b>	<b>0.039</b>	mg/Kg	1	2/5/2019 14:05
Toluene	<b>0.034</b>	J	<b>0.011</b>	<b>0.039</b>	mg/Kg	1	2/5/2019 14:05
Xylenes, Total	<b>0.12</b>	J	<b>0.034</b>	<b>0.12</b>	mg/Kg	1	2/5/2019 14:05
Surr: 1,2-Dichloroethane-d4	97.7			70-130	%REC	1	2/5/2019 14:05
Surr: 4-Bromofluorobenzene	99.1			70-130	%REC	1	2/5/2019 14:05
Surr: Dibromofluoromethane	95.2			70-130	%REC	1	2/5/2019 14:05
Surr: Toluene-d8	102			70-130	%REC	1	2/5/2019 14:05
<b>CHROMIUM, HEXAVALENT</b>							
			Method: <b>SW7196A</b>		Prep: SW3060A / 2/5/19		Analyst: <b>JEB</b>

**Note:** See Qualifiers page for a list of qualifiers and their definitions.

PRELIMINARY

**ALS Group, USA****Date:** 06-Feb-19

**Client:** SGM Inc.  
**Project:** Mustang Resources  
**Sample ID:** Sample Site 2  
**Collection Date:** 2/1/2019 03:30 PM

**Work Order:** 1902118  
**Lab ID:** 1902118-02  
**Matrix:** SOIL

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
Chromium, Hexavalent	U		0.95	1.1	mg/Kg-dry	1	2/6/2019 14:30
<b>MOISTURE</b>			Method: <b>SW3550C</b>				Analyst: <b>KTP</b>
Moisture	13		0.10	0.10	% of sample	1	2/5/2019 12:54
<b>PH</b>			Method: <b>SW9045D</b>				Analyst: <b>RZM</b>
pH	9.18		0.10	0.100	s.u.	1	2/5/2019 15:08
Temperature	21.5		0.10	0.100	C	1	2/5/2019 15:08

**Note:** See Qualifiers page for a list of qualifiers and their definitions.

PRELIMINARY

# ALS Group, USA

Date: 06-Feb-19

**Client:** SGM Inc.  
**Project:** Mustang Resources  
**Sample ID:** Sample Site 3  
**Collection Date:** 2/1/2019 04:00 PM

**Work Order:** 1902118  
**Lab ID:** 1902118-03  
**Matrix:** SOIL

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
<b>DIESEL RANGE ORGANICS BY GC-FID</b>							
			Method: <b>SW8015M</b>		Prep: SW3546 / 2/5/19		Analyst: <b>RP</b>
DRO (C10-C28)	U		3.0	5.2	mg/Kg-dry	1	2/6/2019 03:45
Surr: 4-Terphenyl-d14	67.7			33-111	%REC	1	2/6/2019 03:45
<b>GASOLINE RANGE ORGANICS BY GC-FID</b>							
			Method: <b>SW8015D</b>		Prep: SW5035 / 2/5/19		Analyst: <b>RP</b>
GRO (C6-C10)	U		2.4	5.7	mg/Kg	1	2/5/2019 23:50
Surr: Toluene-d8	90.2			71-123	%REC	1	2/5/2019 23:50
<b>MERCURY BY CVAA</b>							
			Method: <b>SW7471B</b>		Prep: SW7471 / 2/6/19		Analyst: <b>RSB</b>
Mercury	0.055		0.0018	0.018	mg/Kg-dry	1	2/6/2019 13:21
<b>SEMI-VOLATILE ORGANIC COMPOUNDS</b>							
			Method: <b>SW846 8270D</b>		Prep: SW3546 / 2/5/19		Analyst: <b>KAW</b>
Acenaphthene	U		5.0	7.0	µg/Kg-dry	1	2/5/2019 22:13
Anthracene	U		4.9	7.0	µg/Kg-dry	1	2/5/2019 22:13
<b>Benzo(a)anthracene</b>	<b>11</b>		<b>6.0</b>	<b>7.0</b>	<b>µg/Kg-dry</b>	1	2/5/2019 22:13
Benzo(a)pyrene	U		4.3	7.0	µg/Kg-dry	1	2/5/2019 22:13
Benzo(b)fluoranthene	U		5.2	7.0	µg/Kg-dry	1	2/5/2019 22:13
Benzo(k)fluoranthene	U		5.3	7.0	µg/Kg-dry	1	2/5/2019 22:13
Chrysene	U		5.6	7.0	µg/Kg-dry	1	2/5/2019 22:13
Dibenzo(a,h)anthracene	U		3.8	7.0	µg/Kg-dry	1	2/5/2019 22:13
<b>Fluoranthene</b>	<b>7.0</b>		<b>3.4</b>	<b>7.0</b>	<b>µg/Kg-dry</b>	1	2/5/2019 22:13
Fluorene	U		5.1	7.0	µg/Kg-dry	1	2/5/2019 22:13
Indeno(1,2,3-cd)pyrene	U		4.9	7.0	µg/Kg-dry	1	2/5/2019 22:13
Naphthalene	U		4.5	7.0	µg/Kg-dry	1	2/5/2019 22:13
Pyrene	U		1.3	7.0	µg/Kg-dry	1	2/5/2019 22:13
Surr: 2-Fluorobiphenyl	59.9			44-107	%REC	1	2/5/2019 22:13
Surr: 4-Terphenyl-d14	56.1			52-123	%REC	1	2/5/2019 22:13
Surr: Nitrobenzene-d5	42.8			41-94	%REC	1	2/5/2019 22:13
<b>VOLATILE ORGANIC COMPOUNDS</b>							
			Method: <b>SW8260C</b>		Prep: SW5035 / 2/5/19		Analyst: <b>WH</b>
<b>Benzene</b>	<b>0.0085</b>	J	<b>0.0058</b>	<b>0.034</b>	<b>mg/Kg</b>	1	2/5/2019 16:40
<b>Ethylbenzene</b>	<b>0.014</b>	J	<b>0.0072</b>	<b>0.034</b>	<b>mg/Kg</b>	1	2/5/2019 16:40
<b>m,p-Xylene</b>	<b>0.066</b>	J	<b>0.016</b>	<b>0.068</b>	<b>mg/Kg</b>	1	2/5/2019 16:40
<b>o-Xylene</b>	<b>0.019</b>	J	<b>0.013</b>	<b>0.034</b>	<b>mg/Kg</b>	1	2/5/2019 16:40
<b>Toluene</b>	<b>0.074</b>		<b>0.0093</b>	<b>0.034</b>	<b>mg/Kg</b>	1	2/5/2019 16:40
<b>Xylenes, Total</b>	<b>0.085</b>	J	<b>0.029</b>	<b>0.10</b>	<b>mg/Kg</b>	1	2/5/2019 16:40
Surr: 1,2-Dichloroethane-d4	98.8			70-130	%REC	1	2/5/2019 16:40
Surr: 4-Bromofluorobenzene	99.5			70-130	%REC	1	2/5/2019 16:40
Surr: Dibromofluoromethane	93.6			70-130	%REC	1	2/5/2019 16:40
Surr: Toluene-d8	103			70-130	%REC	1	2/5/2019 16:40
<b>CHROMIUM, HEXAVALENT</b>							
			Method: <b>SW7196A</b>		Prep: SW3060A / 2/5/19		Analyst: <b>JEB</b>

**Note:** See Qualifiers page for a list of qualifiers and their definitions.

PRELIMINARY

**ALS Group, USA****Date:** 06-Feb-19

**Client:** SGM Inc.  
**Project:** Mustang Resources  
**Sample ID:** Sample Site 3  
**Collection Date:** 2/1/2019 04:00 PM

**Work Order:** 1902118  
**Lab ID:** 1902118-03  
**Matrix:** SOIL

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
Chromium, Hexavalent	U		0.90	1.1	mg/Kg-dry	1	2/6/2019 14:30
<b>MOISTURE</b>			Method: <b>SW3550C</b>				Analyst: <b>KTP</b>
Moisture	6.3		0.10	0.10	% of sample	1	2/5/2019 12:54
<b>PH</b>			Method: <b>SW9045D</b>				Analyst: <b>RZM</b>
pH	9.01		0.10	0.100	s.u.	1	2/5/2019 15:08
Temperature	21.6		0.10	0.100	C	1	2/5/2019 15:08

**Note:** See Qualifiers page for a list of qualifiers and their definitions.

PRELIMINARY