



10/20/14

Technical Report for

Diamond Operating Inc.

IDEA Skim Pit

Remediation #: 8252

Soil sample tests

Initial excavation

Accutest Job Number: D63480

Sampling Date: 10/15/14

Report to:

Diamond Operating Inc.
6666 Gunpark Drive Suite 200
Boulder, CO 80301
davep@flatironenergy.com

ATTN: Dave Peterson

Total number of pages in report: 23



Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Program and/or state specific certification programs as applicable.

A handwritten signature in black ink, appearing to read "Scott Heideman".

Scott Heideman
Laboratory Director

Client Service contact: Renea Jackson 303-425-6021

Certifications: CO (CO00049), ID, NE (CO00049), ND (R-027), NJ (CO 0007), OK (D9942), UT (NELAP CO00049), TX (T104704511)

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Test results relate only to samples analyzed.

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Sample Summary

Diamond Operating Inc.

Job No: D63480

IDEA Skim Pit

Sample Number	Collected Date	Time By	Received	Matrix Code Type	Client Sample ID
D63480-1	10/15/14	09:30 DP	10/15/14	SO Soil	IDEA-EAST
D63480-2	10/15/14	09:30 DP	10/15/14	SO Soil	IDEA-WEST
D63480-3	10/15/14	09:30 DP	10/15/14	SO Soil	IDEA-EXCAVATED SOIL

Soil samples reported on a dry weight basis unless otherwise indicated on result page.



CASE NARRATIVE / CONFORMANCE SUMMARY

Client: Diamond Operating Inc.

Job No D63480

Site: IDEA Skim Pit

Report Date 10/20/2014 4:47:33 P

On 10/15/2014, 3 sample(s), 0 Trip Blank(s), and 0 Field Blank(s) were received at Accutest Mountain States (AMS) at a temperature of 20 °C. The samples were intact and properly preserved, unless noted below. An AMS Job Number of D63480 was assigned to the project. The lab sample ID, client sample ID, and date of sample collection are detailed in the report's Results Summary.

Specified quality control criteria were achieved for this job except as noted below. For more information, please refer to the analytical results and QC summary pages.

Volatiles by GC By Method SW846 8015B

Matrix: SO

Batch ID: GGB1464

- * All samples were analyzed within the recommended method holding time.
- * All method blanks for this batch meet method specific criteria.
- * Sample(s) D63195-IMS, D63195-IMSD were used as the QC samples indicated.

Extractables by GC By Method SW846-8015B

Matrix: SO

Batch ID: OP10818

- * All samples were extracted and analyzed within the recommended method holding time.
- * All method blanks for this batch meet method specific criteria.
- * Sample(s) D63195-IMS, D63195-IMSD were used as the QC samples indicated.

Wet Chemistry By Method SM2540G-2011 M

Matrix: SO

Batch ID: GN26973

- * The data for SM2540G-2011 M meets quality control requirements.

AMS certifies that data reported for samples received, listed on the associated custody chain or analytical task order, were produced to specifications meeting AMS's Quality System precision, accuracy and completeness objectives except as noted.

Estimated non-standard method measurement uncertainty data is available on request, based on quality control bias and implicit for standard methods. Acceptable uncertainty requires tested parameter quality control data to meet method criteria.

AMS is not responsible for data quality assumptions if partial reports are used and recommends that this report be used in its entirety. This report is authorized by AMS indicated via signature on the report cover.

Summary of Hits

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Job Number: D63480
Account: Diamond Operating Inc.
Project: IDEA Skim Pit
Collected: 10/15/14

Lab Sample ID	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
D63480-1	IDEA-EAST					
TPH-DRO (C10-C28)		33.4	7.5	5.6	mg/kg	SW846-8015B
D63480-2	IDEA-WEST					
TPH-DRO (C10-C28)		217	7.7	5.8	mg/kg	SW846-8015B
D63480-3	IDEA-EXCAVATED SOIL					
TPH-GRO (C6-C10)		101	13	6.3	mg/kg	SW846 8015B
TPH-DRO (C10-C28)		6120	110	85	mg/kg	SW846-8015B



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Sample Results

Report of Analysis

Report of Analysis

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Client Sample ID:	IDEA-FAST	Date Sampled:	10/15/14
Lab Sample ID:	D63480-1	Date Received:	10/15/14
Matrix:	SO - Soil	Percent Solids:	89.2
Method:	SW846 8015B		
Project:	IDEA Skim Pit		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	GB27039.D	1	10/16/14	EP	n/a	n/a	GGB1464
Run #2							

	Initial Weight	Final Volume	Methanol Aliquot
Run #1	5.1 g	5.0 ml	100 ul
Run #2			

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH-GRO (C6-C10)	ND	12	6.1	mg/kg	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits		
120-82-1	1,2,4-Trichlorobenzene	85%		60-140%		

ND = Not detected MDL = Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

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Client Sample ID:	IDEA-EAST	Date Sampled:	10/15/14
Lab Sample ID:	D63480-1	Date Received:	10/15/14
Matrix:	SO - Soil	Percent Solids:	89.2
Method:	SW846-8015B SW846 3546		
Project:	IDEA Skim Pit		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	FI18210.D	1	10/19/14	JS	10/16/14	OP10818	GFI1009
Run #2							

	Initial Weight	Final Volume
Run #1	30.0 g	1.0 ml
Run #2		

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH-DRO (C10-C28)	33.4	7.5	5.6	mg/kg	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits		
84-15-1	o-Terphenyl	69%		20-130%		

ND = Not detected MDL = Method Detection Limit
 RI = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

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Client Sample ID: IDEA-WEST
 Lab Sample ID: D63480-2
 Matrix: SO - Soil
 Method: SW846 8015B
 Project: IDEA Skim Pit

Date Sampled: 10/15/14
 Date Received: 10/15/14
 Percent Solids: 86.6

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	GB27040.D	1	10/16/14	EP	n/a	n/a	GGB1464
Run #2							

	Initial Weight	Final Volume	Methanol Aliquot
Run #1	5.0 g	5.0 ml	100 ul
Run #2			

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH-GRO (C6-C10)	ND	13	6.5	mg/kg	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits		
120-82-1	1,2,4-Trichlorobenzene	98%		60-140%		

ND = Not detected MDL = Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

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Client Sample ID: IDEA-WEST
 Lab Sample ID: D63480-2
 Matrix: SO - Soil
 Method: SW846-8015B SW846 3546
 Project: IDEA Skim Pit

Date Sampled: 10/15/14
 Date Received: 10/15/14
 Percent Solids: 86.6

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	FI18212.D	1	10/19/14	JS	10/16/14	OP10818	GFI1009
Run #2							

	Initial Weight	Final Volume
Run #1	30.1 g	1.0 ml
Run #2		

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH-DRO (C10-C28)	217	7.7	5.8	mg/kg	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits		
84-15-1	o-Terphenyl	61%		20-130%		

ND = Not detected MDL = Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

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Client Sample ID: IDEA-EXCAVATED SOIL
 Lab Sample ID: D63480-3
 Matrix: SO - Soil
 Method: SW846 8015B
 Project: IDEA Skim Pit

Date Sampled: 10/15/14
 Date Received: 10/15/14
 Percent Solids: 88.0

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	GB27041.D	1	10/16/14	EP	n/a	n/a	GGB1464
Run #2							

	Initial Weight	Final Volume	Methanol Aliquot
Run #1	5.0 g	5.0 ml	100 ul
Run #2			

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH-GRO (C6-C10)	101	13	6.3	mg/kg	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits		
120-82-1	1,2,4-Trichlorobenzene	115%		60-140%		

ND = Not detected MDL = Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

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Client Sample ID: IDEA-EXCAVATED SOIL
 Lab Sample ID: D63480-3
 Matrix: SO - Soil
 Method: SW846-8015B SW846 3546
 Project: IDEA Skim Pit

Date Sampled: 10/15/14
 Date Received: 10/15/14
 Percent Solids: 88.0

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	FI18214.D	10	10/20/14	JS	10/16/14	OP10818	GFI1009
Run #2							

	Initial Weight	Final Volume
Run #1	30.1 g	1.5 ml
Run #2		

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH-DRO (C10-C28)	6120	110	85	mg/kg	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits		
84-15-1	o-Terphenyl	71%		20-130%		

ND = Not detected MDL = Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Misc. Forms

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Custody Documents and Other Forms

Includes the following where applicable:

- Chain of Custody



CHAIN OF CUSTODY

PAGE 1 OF 1

Accutest Laboratories
4036 Youngfield Street, West Ridge, Co. 80033
TEL: 303 425 6021 877-737-4521
FAX: 303 425 6021

FED-EX Tracking #	Sample Order Control #
Accutest Order #	Accutest Job # D63480

Client / Reporting Information		Project Information		Requested Analysis (see Test Method Sheet)		Matrix Codes	
Client Name Nickerson Operating, Inc.	Project Name Idea skin pit closure	Billing Information (If different from Report to)					
Client Address 6660 Gumpark Dr. Suite 200	City Portland CO 80501	Client Address					
Client Phone 303.517.3399	Client PO#	City State Zip					
Signature Nick Peterson	Phone #	Project Manager					
Collection		Number of pre- and post-voids					
Field ID / Point of Collection	MECHID No. #	Date	Time	Sample by	Name	# of bottles	NO
1 Idea - East	01/15/14	12:30pm	JD	JD	JD	1	NO
2 Idea - West	"	"	JD	JD	JD	1	NO
3 Idea - North	"	"	JD	JD	JD	1	NO
4 Idea - South	"	"	JD	JD	JD	1	NO
5 Idea - North	"	"	JD	JD	JD	1	NO
3 Idea - Excavated Soil	"	"	DD	JD	JD	1	NO

Turnaround Time (Business days)		Approved By (Accutest PM) / Date:		Data Deliverable Information		Comments / Special Instructions	
<input type="checkbox"/> Std. 10 Business Days	<input type="checkbox"/> Std. 5 Business Days (By Contract only)			<input type="checkbox"/> Commercial "A" (Level 1)	<input type="checkbox"/> State Forms		
<input type="checkbox"/> 5 Day / 8 Hr	<input type="checkbox"/> 3 Day EMERGENCY			<input type="checkbox"/> Commercial "B" (Level 2)	<input type="checkbox"/> EDD Format		
<input type="checkbox"/> 3 Day EMERGENCY	<input type="checkbox"/> 1 Day EMERGENCY			<input type="checkbox"/> Commercial "B" - Narrative	<input type="checkbox"/> PDF		
<input type="checkbox"/> 1 Day EMERGENCY	<input type="checkbox"/> Emergency & Rush Test available via LCLSS			<input type="checkbox"/> FULLT1 (Level 3+4)			
				Commercial "A" = Results Only Commercial "B" = Results + QC Comments			

Sample Custody must be documented below each time samples change possession, including courier delivery.							
Relinquished by:	Date/Time:	Received By:	Relinquished By:	Date/Time:	Received By:	Relinquished By:	Date/Time:
1 JD	10/15/14 14:00	1 JD	2		2		
Relinquished by:	Date/Time:	Received By:	Relinquished By:	Date/Time:	Received By:	Relinquished By:	Date/Time:
3		3	4		4		
Relinquished by:	Date/Time:	Received By:	Relinquished By:	Date/Time:	Received By:	Relinquished By:	Date/Time:
5		5					

Custody Seal # **10** ☐ Intact ☒ Preserved when applicable ☒ On Ice ☒ Cooler Temp. **20.0**

D63480: Chain of Custody
Page 1 of 2



10/31/14

Technical Report for

Diamond Operating Inc.

IDEA Skim Pit

Remediation #: 8252

Soil sample tests

Excavation #2

Accutest Job Number: D63908

Sampling Date: 10/28/14

Report to:

Diamond Operating Inc.
6666 Gunpark Drive Suite 200
Boulder, CO 80301
davep@flatironenergy.com

ATTN: Dave Peterson

Total number of pages in report: 23



Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Program and/or state specific certification programs as applicable.

Scott Heideman
Laboratory Director

Client Service contact: Renea Jackson 303-425-6021

Certifications: CO (CO00049), ID, NE (CO00049), ND (R-027), NJ (CO 0007), OK (D9942), UT (NELAP CO00049), TX (T104704511)

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Sample Summary

Diamond Operating Inc.

Job No: D63908

IDEA Skim Pit

Sample Number	Collected Date	Time By	Received	Matrix Code Type	Client Sample ID
D63908-1	10/28/14	14:00 DP	10/28/14	SO Soil	IDEA-BASE
D63908-2	10/28/14	14:00 DP	10/28/14	SO Soil	IDEA-NORTH
D63908-3	10/28/14	14:00 DP	10/28/14	SO Soil	IDEA-SOUTH

Soil samples reported on a dry weight basis unless otherwise indicated on result page.

CASE NARRATIVE / CONFORMANCE SUMMARY

Client: Diamond Operating Inc.

Job No D63908

Site: IDEA Skim Pit

Report Date 10/31/2014 5:02:34 P

On 10/28/2014, 3 sample(s), 0 Trip Blank(s), and 0 Field Blank(s) were received at Accutest Mountain States (AMS) at a temperature of 17.4 °C. The samples were intact and properly preserved, unless noted below. An AMS Job Number of D63908 was assigned to the project. The lab sample ID, client sample ID, and date of sample collection are detailed in the report's Results Summary.

Specified quality control criteria were achieved for this job except as noted below. For more information, please refer to the analytical results and QC summary pages.

Volatiles by GC By Method SW846 8015B

Matrix: SO	Batch ID: GGB1473
-------------------	--------------------------

- * All samples were analyzed within the recommended method holding time.
- * All method blanks for this batch meet method specific criteria.
- * Sample(s) D63908-1MS, D63908-1MSD were used as the QC samples indicated.

Extractables by GC By Method SW846-8015B

Matrix: SO	Batch ID: OP10885
-------------------	--------------------------

- * All samples were extracted and analyzed within the recommended method holding time.
- * All method blanks for this batch meet method specific criteria.
- * Sample(s) D63908-3MS, D63908-3MSD were used as the QC samples indicated.
- * The matrix spike (MS) recovery(s) of TPH-DRO (C10-C28) are outside control limits. Outside control limits due to high level in sample relative to spike amount.
- * The RPD(s) for the MS and MSD recoveries of TPH-DRO (C10-C28) are outside control limits for sample OP10885-MSD. High RPD due to possible sample nonhomogeneity.

Wet Chemistry By Method SM2540G-2011 M

Matrix: SO	Batch ID: GN27213
-------------------	--------------------------

- * The data for SM2540G-2011 M meets quality control requirements.

AMS certifies that data reported for samples received, listed on the associated custody chain or analytical task order, were produced to specifications meeting AMS's Quality System precision, accuracy and completeness objectives except as noted.

Estimated non-standard method measurement uncertainty data is available on request, based on quality control bias and implicit for standard methods. Acceptable uncertainty requires tested parameter quality control data to meet method criteria.

AMS is not responsible for data quality assumptions if partial reports are used and recommends that this report be used in its entirety. This report is authorized by AMS indicated via signature on the report cover.

Summary of Hits

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Job Number: D63908
Account: Diamond Operating Inc.
Project: IDEA Skim Pit
Collected: 10/28/14

Lab Sample ID	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
D63908-1	IDEA-BASE					
TPH-DRO (C10-C28)		332	7.5	5.6	mg/kg	SW846-8015B
D63908-2	IDEA-NORTH					
TPH-DRO (C10-C28)		602	7.5	5.6	mg/kg	SW846-8015B
D63908-3	IDEA-SOUTH					
TPH-DRO (C10-C28)		343	7.4	5.6	mg/kg	SW846-8015B



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Sample Results

Report of Analysis

Report of Analysis

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Client Sample ID: IDEA-BASE
 Lab Sample ID: D63908-1
 Matrix: SO - Soil
 Method: SW846 8015B
 Project: IDEA Skim Pit

Date Sampled: 10/28/14
 Date Received: 10/28/14
 Percent Solids: 88.5

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	GB27210.D	1	10/30/14	EP	n/a	n/a	GGB1473
Run #2							

	Initial Weight	Final Volume	Methanol Aliquot
Run #1	5.0 g	5.0 ml	100 ul
Run #2			

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH-GRO (C6-C10)	ND	13	6.3	mg/kg	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits		
120-82-1	1,2,4-Trichlorobenzene	96%		60-140%		

ND = Not detected MDL = Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

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Client Sample ID:	IDEA-BASE	Date Sampled:	10/28/14
Lab Sample ID:	D63908-1	Date Received:	10/28/14
Matrix:	SO - Soil	Percent Solids:	88.5
Method:	SW846-8015B SW846 3546		
Project:	IDEA Skim Pit		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	FI18716.D	1	10/29/14	JS	10/29/14	OP10885	GFI1025
Run #2							

	Initial Weight	Final Volume
Run #1	30.1 g	1.0 ml
Run #2		

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH-DRO (C10-C28)	332	7.5	5.6	mg/kg	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits		
84-15-1	o-Terphenyl	78%		20-130%		

ND = Not detected MDL = Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

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Client Sample ID: IDEA-NORTH
 Lab Sample ID: D63908-2
 Matrix: SO - Soil
 Method: SW846 8015B
 Project: IDEA Skim Pit

Date Sampled: 10/28/14
 Date Received: 10/28/14
 Percent Solids: 89.0

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	GB27213.D	1	10/30/14	EP	n/a	n/a	GGB1473
Run #2							

	Initial Weight	Final Volume	Methanol Aliquot
Run #1	5.1 g	5.0 ml	100 ul
Run #2			

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH-GRO (C6-C10)	ND	12	6.2	mg/kg	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits		
120-82-1	1,2,4-Trichlorobenzene	97%		60-140%		

ND = Not detected MDL = Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

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Client Sample ID:	IDEA-NORTH	Date Sampled:	10/28/14
Lab Sample ID:	D63908-2	Date Received:	10/28/14
Matrix:	SO - Soil	Percent Solids:	89.0
Method:	SW846-8015B SW846 3546		
Project:	IDEA Skim Pit		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	FI18718.D	1	10/29/14	JS	10/29/14	OP10885	GFI1025
Run #2							

Run #	Initial Weight	Final Volume
Run #1	30.1 g	1.0 ml
Run #2		

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH-DRO (C10-C28)	602	7.5	5.6	mg/kg	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits		
84-15-1	o-Terphenyl	62%		20-130%		

ND = Not detected MDL = Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Page 1 of 1

Client Sample ID: IDEA-SOUTH
 Lab Sample ID: D63908-3
 Matrix: SO - Soil
 Method: SW846 8015B
 Project: IDEA Skim Pit

Date Sampled: 10/28/14
 Date Received: 10/28/14
 Percent Solids: 89.0

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	GB27214.D	1	10/30/14	EP	n/a	n/a	GGB1473
Run #2							

	Initial Weight	Final Volume	Methanol Aliquot
Run #1	5.1 g	5.0 ml	100 ul
Run #2			

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH-GRO (C6-C10)	ND	12	6.1	mg/kg	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits		
120-82-1	1,2,4-Trichlorobenzene	93%		60-140%		

ND = Not detected MDL = Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

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Client Sample ID:	IDEA-SOUTH	Date Sampled:	10/28/14
Lab Sample ID:	D63908-3	Date Received:	10/28/14
Matrix:	SO - Soil	Percent Solids:	89.0
Method:	SW846-8015B SW846 3546		
Project:	IDEA Skim Pit		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	FI18710.D	1	10/29/14	JS	10/29/14	OP10885	GFI1025
Run #2							

	Initial Weight	Final Volume
Run #1	30.2 g	1.0 ml
Run #2		

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH-DRO (C10-C28)	343	7.4	5.6	mg/kg	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits		
84-15-1	o-Terphenyl	64%		20-130%		

ND = Not detected MDL = Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound



Misc. Forms

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Custody Documents and Other Forms

Includes the following where applicable:

- Chain of Custody



11/21/14

Technical Report for

Diamond Operating Inc.

IDEA Skim Pit

Remediation #: 8252
Soil sample tests
Excavation #3

Accutest Job Number: D64622

Sampling Date: 11/17/14

Report to:

Diamond Operating Inc.
6666 Gunpark Drive Suite 200
Boulder, CO 80301
davep@flatironenergy.com

ATTN: Dave Peterson

Total number of pages in report: 19



Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Program and/or state specific certification programs as applicable.

A handwritten signature in black ink, appearing to read "Scott Heideman".

Scott Heideman
Laboratory Director

Client Service contact: Renea Jackson 303-425-6021

Certifications: CO (CO00049), ID, NE (CO00049), ND (R-027), NJ (CO 0007), OK (D9942), UT (NELAP CO00049), TX (T104704511)

This report shall not be reproduced, except in its entirety, without the written approval of Accutest Laboratories.
Test results relate only to samples analyzed.

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Sample Summary

Diamond Operating Inc.

Job No: D64622

IDEA Skim Pit

Sample Number	Collected Date	Time By	Received	Matrix Code Type	Client Sample ID
D64622-1	11/17/14	10:00 DP	11/18/14	SO Soil	IDEA-NORTH SIDE

Soil samples reported on a dry weight basis unless otherwise indicated on result page.

**CASE NARRATIVE / CONFORMANCE SUMMARY****Client:** Diamond Operating Inc.**Job No** D64622**Site:** IDEA Skim Pit**Report Date** 11/21/2014 12:13:20 P

On 11/18/2014, 1 sample(s), 0 Trip Blank(s), and 0 Field Blank(s) were received at Accutest Mountain States (AMS) at a temperature of 16.1 °C. The samples were intact and properly preserved, unless noted below. An AMS Job Number of D64622 was assigned to the project. The lab sample ID, client sample ID, and date of sample collection are detailed in the report's Results Summary.

Specified quality control criteria were achieved for this job except as noted below. For more information, please refer to the analytical results and QC summary pages.

Volatiles by GC By Method SW846 8015B

Matrix	SO	Batch ID:	GGB1488
--------	----	-----------	---------

- * All samples were analyzed within the recommended method holding time.
- * All method blanks for this batch meet method specific criteria.
- * Sample(s) D64358-1MS, D64358-1MSD were used as the QC samples indicated.

Extractables by GC By Method SW846-8015B

Matrix	SO	Batch ID:	OP10977
--------	----	-----------	---------

- * All samples were extracted within the recommended method holding time.
- * All samples were analyzed within the recommended method holding time.
- * All method blanks for this batch meet method specific criteria.
- * Sample(s) D64603-2MS, D64603-2MSD were used as the QC samples indicated.

Wet Chemistry By Method SM2540G-2011 M

Matrix	SO	Batch ID:	GN27532
--------	----	-----------	---------

- * The data for SM2540G-2011 M meets quality control requirements.

AMS certifies that data reported for samples received, listed on the associated custody chain or analytical task order, were produced to specifications meeting AMS's Quality System precision, accuracy and completeness objectives except as noted.

Estimated non-standard method measurement uncertainty data is available on request, based on quality control bias and implicit for standard methods. Acceptable uncertainty requires tested parameter quality control data to meet method criteria.

AMS is not responsible for data quality assumptions if partial reports are used and recommends that this report be used in its entirety. This report is authorized by AMS indicated via signature on the report cover.

Summary of Hits

Page 1 of 1

Job Number: D64622
Account: Diamond Operating Inc.
Project: IDEA Skim Pit
Collected: 11/17/14

Lab Sample ID	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
D64622-1	IDEA-NORTH SIDE					
TPH-DRO (C10-C28)		193	7.4	5.5	mg/kg	SW846-8015B



Sample Results

Report of Analysis

Report of Analysis

Page 1 of 1

Client Sample ID: IDEA-NORTH SIDE
 Lab Sample ID: D64622-1
 Matrix: SO - Soil
 Method: SW846 8015B
 Project: IDEA Skim Pit

Date Sampled: 11/17/14
 Date Received: 11/18/14
 Percent Solids: 90.3

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	GB27508.D	1	11/19/14	EP	n/a	n/a	GGB1488
Run #2							

	Initial Weight	Final Volume	Methanol Aliquot
Run #1	5.0 g	5.0 ml	100 ul
Run #2			

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH-GRO (C6-C10)	ND	12	6.1	mg/kg	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits		
120-82-1	1,2,4-Trichlorobenzene	92%		60-140%		

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 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Page 1 of 1

Client Sample ID: IDEA-NORTH SIDE
Lab Sample ID: D64622-1
Matrix: SO - Soil
Method: SW846-8015B SW846 3546
Project: IDEA Skim Pit

Date Sampled: 11/17/14
Date Received: 11/18/14
Percent Solids: 90.3

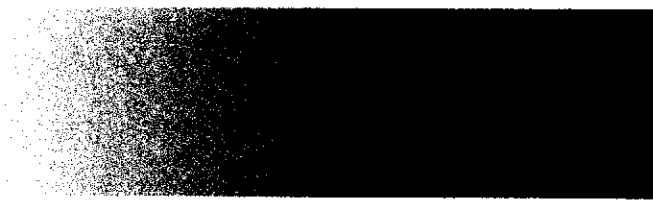
	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	FI19602.D	1	11/20/14	JJ	11/19/14	OP10977	GFI1059
Run #2							

	Initial Weight	Final Volume
Run #1	30.1 g	1.0 ml
Run #2		

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH-DRO (C10-C28)	193	7.4	5.5	mg/kg	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits		
84-15-1	o-Terphenyl	90%		20-130%		

ND = Not detected MDL = Method Detection Limit
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Misc. Forms

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Custody Documents and Other Forms

Includes the following where applicable:

- Chain of Custody

PED EX Tracking #	Bottle Order Central #
Account: CusID #	Account Job # 364622

[illegible]

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