

Bratcher, Mike, EMNRD

From: Debi Moore [debi@sportenvironmental.com]
Sent: Friday, February 12, 2010 5:30 PM
To: Bratcher, Mike, EMNRD
Cc: Harol Creech; Dawn Howard, Nick Williams, Sally Jones
Subject: Re Southwest Royalties, Inc - Malaga A 002
Attachments: Site Ranking Form.xls; 2010_359288_MalagaA002_164242.pdf, Sample Data Summary.xlsx, Photos of Excavation for report.docx

Mike,

Thank you for approving an extension for submittal of site ranking information and a remediation/closure proposal, based on site delineation and site ranking, until today, February 12, 2010. Attached please find the Site Ranking Form, Xenco analytical report, Sample Data Summary (SDS) and site photos. These photos were taken at the time of sample collection and provide a visual indication of excavation extent.

On January 12, 2010, the Site Ranking Criteria Form was emailed to your attention. The total site ranking score and acceptable concentrations were determined to be >19 and Benzene, 10 ppm; BTEX, 50 ppm and TPH 100 ppm, respectively. For your convenience, attached please find a copy of the Xenco analytical report along with a Summary Data Summary report denoting elevated results. Southwest Royalties excavated all visually contaminated soils around the cellar prior to Sport Environmental collecting samples. It was determined at the time of excavation that there was an integrity issue with the cellar resulting in excavation of additional soils. The excavated soils were placed on a liner for disposal at an approved disposal site. Volume of soil disposed of and excavation dimensions are currently being determined by the client. Sample results indicate a TPH level of 164 ppm on the east excavation floor at 10' bgs, outside and adjacent to the cellar. All other vertical delineation results were collected at a depth (with no visual hydrocarbon contamination) of 7' bgs. These vertical delineation samples resulted in non-detect TPH and BTEX levels. However, you will find that the chloride levels in these soils range from 2640 mg/kg to 4740 mg/kg.

Additional delineation sampling will be required along with chloride background sampling. For safety and equipment stability reasons, we scheduled drilling of soil borings with Straub Corporation and encountered a delay due to equipment availability. We have been on their waiting list and a date became open for sampling on February 15, 2010. Please let this email also serve as notification of additional sampling to commence on Monday, February 15, 2010 at 8:30 am (CST). Soil borings will be collected and analyzed every 5' bgs to a sufficient depth as dictated by CI field titration results. In the event the NMOCD would like to witness sampling or needs site contact information....Nick Williams, Environmental Coordinator, and Sally Jones, Environmental Compliance Manager, will be handling job oversight and field testing.

We would like to request additional time for remediation/closure proposal submittal until such time when the release site is fully delineated. We apologize for requesting an extension via email, but we have made several attempts to reach you and have been unsuccessful. We wanted to insure that you received a status report on the date you requested. If we collect samples on February 15 then standard turn-around time for analysis should afford for analytical results to be available by Friday, February 19, 2010. A plan can be submitted to you timely following results receipt. I will be out of the office the first part of next week but am available to discuss with you. Please give me a call on my cell (432-553-8555) to discuss our requests at your earliest convenience. We would like to request an extension until February 25, 2010 for remediation/closure proposal submittal.

Thank you,



DEBI SPORT MOORE, M.E. R.E.P.A

President

Sport Environmental Services, PLLC
502 North Big Spring Street
Midland, Texas 79701
debi@sportenvironmental.com
Business: 432.683.1100
Fax: 888.500.0622
Cell: 432-553-8555

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From: Mike Bratcher <mike.bratcher@state.nm.us>
Date: Tue, 12 Jan 2010 11:04:19 -0700
To: Debi Moore <debi@sportenvironmental.com>
Cc: Dawn Howard <dhoward@claytonwilliams.com>
Subject: RE: Southwest Royalties, Inc - Malaga A 002

Debi,

As we discussed this morning, your request for an extension is approved to February 12, 2010. Please submit the site ranking information and a remediation/closure proposal, based on site delineation and site ranking, by this date. You may commence the delineation process upon arrival at the site on Wednesday.

If you have any questions or concerns, please contact me.

Mike Bratcher
NMOCD District 2

From: Debi Moore [<mailto:debi@sportenvironmental.com>]
Sent: Monday, January 11, 2010 4:18 PM
To: Bratcher, Mike, EMNRD
Cc: Dawn Howard
Subject: Southwest Royalties, Inc - Malaga A 002

Mike,

Please excuse the email request. I made an attempt to contact you this afternoon, but your office was closed for the day. In response to your attached request, please let this email serve as 48 hour notification of sampling to commence at 4pm (NM) on Wednesday, January 13th. The attached documentation is in regards to a release that was brought to our attention this afternoon. We would like to request an extension to today's deadline. We are available to sample sooner than 48 hours if the NMOCD approves. Please advise if this is a possibility.

In addition, a site ranking criteria form, denoting groundwater depth and other criteria necessary to determine the appropriate clean-up levels, is being compiled. The form will be emailed to your attention (in the morning) once accurate water well information is obtained. We will call your office first thing in the morning to discuss sampling timing and the potential for an extension to allow Sport Environmental time to properly sample and delineate the site.

Happy New Year! I hope you enjoyed your holidays.

Thanks,



DEBI SPORT MOORE, M.E., R.E.P.A

President

Sport Environmental Services, PLLC

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Site Information and Metrics

SITE Malaga A 002		Assigned Site Reference #	
Company Southwest Royalties, Inc			
Street Address 6 Desta Drive, Ste 2100			
Mailing Address 6 Desta Drive, Ste 2100			
City, State, Zip Midland, Texas 79705			
Representative Dawn M Howard			
Representative Telephone 432 688 3267			
Telephone			
Fluid volume released (bbls) 5 BF		Recovered (bbls) 5 BF	
>25 bbls Notify NMOCD verbally within 24 hrs and submit form C-141 within 15 days (Also applies to unauthorized releases >500 mcf Natural Gas)			
5-25 bbls Submit form C-141 within 15 days (Also applies to unauthorized releases of 50-500 mcf Natural Gas)			
Leak, Spill, or Pit (LSP) Name Malaga A 002			
Source of Contamination Slow packer leaking			
Land Owner, i.e., BLM, ST, Fee, Other Roxie L. Williams Trust, Margaret L. Fate, Trustee			
LSP Dimensions			
LSP Area			
Location of Reference Point (RP)			
Location distance and direction from RP			
Latitude 32.25256			
Longitude 104.06332			
Elevation above mean sea level			
Feet from North Section Line 660'			
Feet from West Section Line 660'			
Location - Unit or 1/4		Unit Letter D	
Location - Section 2			
Location - Township 24S			
Location - Range 28E			
Surface water body within 1000' radius of site None			
Surface water body within 1000' radius of site			
Domestic water wells within 1000' radius of site None			
Domestic water wells within 1000' radius of site			
Agricultural water wells within 1000' radius of site None			
Agricultural water wells within 1000' radius of site			
Public water supply wells within 1000' radius of site None			
Depth from land surface to ground water (DG) <50' per NMOCD Artesia and NM OSE Water Rights (at 487 meter radius)			
Depth of Contamination (DC) estimated to be 5'			
Depth to ground water (DG - DC = DtGW) 50-5 = 45 ft			
1. Ground Water		2. Wellhead Protection Area	
If Depth to GW <50 feet 20 points		If <1000' from water source, or, <200' from private domestic water source 20 points	
If Depth to GW 50 to 99 feet 10 points		If >1000' from water source, or, >200' from private domestic water source 0 points	
If Depth to GW >100 feet 0 points			
Ground Water Score = 20		Wellhead Protection Area Score = 0	
Site Rank (1+2+3) = 20			
Total Site Ranking Score and Acceptable Concentrations			
Parameter	>19'	10 - 19	0 - 9
Benzene ¹	10 ppm	10 ppm	10 ppm
BTEX ¹	50 ppm	50 ppm	50 ppm
TPH	100 ppm	1000 ppm	5000 ppm
¹ 100 ppm field VOC headspace measurement may be substituted for lab analysis			

Analytical Report 359288

for

Sport Environmental Services, PLLC

Project Manager: Debi Moore

Southwest Royalties, Inc.

Malaga A 002

22-JAN-10



12600 West I-20 East Odessa, Texas 79765

Xenco-Houston (EPA Lab code TX00122):

Texas (T104704215-08-TX), Arizona (AZ0738), Arkansas (08-039-0), Connecticut (PH-0102), Florida (E871002)
Illinois (002082), Indiana (C-TX-02), Iowa (392), Kansas (E-10380), Kentucky (45), Louisiana (03054)
New Hampshire (297408), New Jersey (TX007), New York (11763), Oklahoma (9218), Pennsylvania (68-03610)
Rhode Island (LAO00308), USDA (S-44102)

Xenco-Atlanta (EPA Lab Code GA00046)

Florida (E87429), North Carolina (483), South Carolina (98015), Utah (AALI1), West Virginia (362), Kentucky (85)
Louisiana (04176), USDA (P330-07-00105)

Xenco-Miami (EPA Lab code FL01152) Florida (E86678), Maryland (330)

Xenco-Tampa Mobile (EPA Lab code FL01212): Florida (E84900)

Xenco-Odessa (EPA Lab code TX00158) Texas (T104704400-08-TX)

Xenco-Dallas (EPA Lab code TX01468) Texas (T104704295-08-TX)

Xenco-Corpus Christi (EPA Lab code TX02613) Texas (T104704370-08-TX)

Xenco-Boca Raton (EPA Lab Code FL00449) Florida (E86240),

South Carolina (96031001), Louisiana (04154), Georgia (917)



22-JAN-10

Project Manager: **Debi Moore**
Sport Environmental Services, PLLC
502 North Big Spring Street
Midland, TX 79701

Reference: XENCO Report No: **359288**
Southwest Royalties, Inc.
Project Address

Debi Moore:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number 359288. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

Unless otherwise noted in a Case Narrative, all data reported in this Analytical Report are in compliance with NELAC standards. Estimation of data uncertainty for this report is found in the quality control section of this report unless otherwise noted. Should insufficient sample be provided to the laboratory to meet the method and NELAC Matrix Duplicate and Matrix Spike requirements, then the data will be analyzed, evaluated and reported using all other available quality control measures.

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by XENCO Laboratories. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 359288 will be filed for 60 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

We thank you for selecting XENCO Laboratories to serve your analytical needs. If you have any questions concerning this report, please feel free to contact us at any time.

Respectfully,

Brent Barron, II

Odessa Laboratory Manager

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Sample Cross Reference 359288



Sport Environmental Services, PLLC, Midland, TX
Southwest Royalties, Inc.

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
East-001	S	Jan-20-10 11:45	10 ft	359288-001
South-001	S	Jan-20-10 11:50	7 ft	359288-002
West-001	S	Jan-20-10 11:55	7 ft	359288-003



CASE NARRATIVE

Client Name: Sport Environmental Services, PLLC

Project Name: Southwest Royalties, Inc.

Project ID Malaga A 002

Work Order Number 359288

Report Date. 22-JAN-10

Date Received 01/20/2010

Sample receipt non conformances and Comments:

None

Sample receipt Non Conformances and Comments per Sample:

None

Analytical Non Conformances and Comments:

Batch LBA-790333 Petroleum Hydrocarbons, Total Recoverable (Spectrophoto Ir)

None

Batch: LBA-790374 Percent Moisture

None

Batch LBA-790386 Chloride in Soil by EPA 300

None

Batch LBA-790403 BTEX by EPA 8021

SW8021BM

Batch 790403, Benzene, Ethylbenzene, Toluene, m,p-Xylene, o-Xylene recovered below QC limits in the Matrix Spike and Matrix Spike Duplicate.

Samples affected are: 359288-002, -001, -003.

The Laboratory Control Sample for m,p-Xylene, Toluene, Benzene, Ethylbenzene, o-Xylene is within laboratory Control Limits

SW8021BM

Batch 790403, 4-Bromofluorobenzene recovered above QC limits . Matrix interferences is suspected; data not confirmed by re-analysis

Samples affected are: 359210-002 S,359210-002 SD.

SW8021BM

Batch 790403, Benzene, Ethylbenzene, Toluene, m,p-Xylene RPD was outside QC limits.

Samples affected are: 359288-002, -001, -003

Batch: LBA-790498 TPH by SW8015 Mod

None



Certificate of Analysis Summary 359288

Sport Environmental Services, PLLC, Midland, TX

Project Name: Southwest Royalties, Inc.



Project Id: Malaga A 002

Contact: Debi Moore

Date Received in Lab: Wed Jan-20-10 03 45 pm

Report Date: 22-JAN-10

Project Manager: Brent Barron, II

Project Location:

<i>Analysis Requested</i>	<i>Lab Id</i>	359288-001	359288-002	359288-003			
	<i>Field Id</i>	East-001	South-001	West-001			
	<i>Depth</i>	10- ft	7- ft	7- ft			
	<i>Matrix</i>	SOIL	SOIL	SOIL			
	<i>Sampled</i>	Jan-20-10 11 45	Jan-20-10 11 50	Jan-20-10 11 55			
BTEX by EPA 8021	<i>Extracted</i>	Jan-21-10 14 00	Jan-21-10 14 00	Jan-21-10 14 00			
	<i>Analyzed</i>	Jan-21-10 14 32	Jan-21-10 14 56	Jan-21-10 15 19			
	<i>Units/RL</i>	mg/kg RL	mg/kg RL	mg/kg RL			
Benzene		BRL 0 0012	BRL 0 0012	BRL 0 0012			
Toluene		BRL 0 0012	BRL 0 0012	BRL 0 0012			
Ethylbenzene		BRL 0 0012	BRL 0 0012	BRL 0 0012			
m,p-Xylene		BRL 0 0024	BRL 0 0024	BRL 0 0025			
o-Xylene		BRL 0 0012	BRL 0 0012	BRL 0 0012			
Total Xylenes		BRL 0 0012	BRL 0 0012	BRL 0 0012			
Total BTEX		BRL 0 0012	BRL 0 0012	BRL 0 0012			
Chloride in Soil by EPA 300	<i>Extracted</i>	Jan-21-10 21 23	Jan-21-10 21 23	Jan-21-10 21 23			
	<i>Analyzed</i>	Jan-21-10 21 23	Jan-21-10 21 23	Jan-21-10 21 23			
	<i>Units/RL</i>	mg/kg RL	mg/kg RL	mg/kg RL			
Chloride		4740 206	2800 51 5	2640 52 4			
Percent Moisture	<i>Extracted</i>	Jan-21-10 12 25	Jan-21-10 12 25	Jan-21-10 12 25			
	<i>Analyzed</i>	Jan-21-10 12 25	Jan-21-10 12 25	Jan-21-10 12 25			
	<i>Units/RL</i>	% RL	% RL	% RL			
Percent Moisture		18 3 1 00	18 5 1 00	19 9 1 00			
Petroleum Hydrocarbons, Total Recoverable (Spectrophoto Ir)	<i>Extracted</i>	Jan-21-10 15 32	Jan-21-10 15 32	Jan-21-10 15 32			
	<i>Analyzed</i>	Jan-21-10 15 32	Jan-21-10 15 32	Jan-21-10 15 32			
	<i>Units/RL</i>	mg/kg RL	mg/kg RL	mg/kg RL			
Total Petroleum Hydrocarbons (TPH)		BRL 24 5	BRL 24 5	BRL 25 0			

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Brent Barron, II
Odessa Laboratory Manager



Certificate of Analysis Summary 359288

Sport Environmental Services, PLLC, Midland, TX

Project Name: Southwest Royalties, Inc.



Project Id: Malaga A 002

Contact: Debi Moore

Date Received in Lab: Wed Jan-20-10 03 45 pm

Report Date: 22-JAN-10

Project Manager: Brent Barron, II

Project Location:

Analysis Requested	Lab Id:	359288-001	359288-002	359288-003			
	Field Id	East-001	South-001	West-001			
	Depth	10- ft	7- ft	7- ft			
	Matrix	SOIL	SOIL	SOIL			
	Sampled	Jan-20-10 11 45	Jan-20-10 11 50	Jan-20-10 11 55			
TPH by SW8015 Mod	Extracted:	Jan-21-10 11 30	Jan-21-10 11 30	Jan-21-10 11 30			
	Analyzed	Jan-22-10 12 04	Jan-22-10 12 31	Jan-22-10 12 58			
	Units/RL	mg/kg RL	mg/kg RL	mg/kg RL			
C6-C12 Gasoline Range Hydrocarbons		BRL 18 3	BRL 18 3	BRL 18 7			
C12-C28 Diesel Range Hydrocarbons		145 18 3	BRL 18 3	BRL 18 7			
C28-C35 Oil Range Hydrocarbons		19 2 18 3	BRL 18 3	BRL 18 7			
Total TPH		164 18 3	BRL 18 3	BRL 18 7			

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Brent Barron, II
Odessa Laboratory Manager



Flagging Criteria



- X** In our quality control review of the data a QC deficiency was observed and flagged as noted MS/MSD recoveries were found to be outside of the laboratory control limits due to possible matrix /chemical interference, or a concentration of target analyte high enough to effect the recovery of the spike concentration This condition could also effect the relative percent difference in the MS/MSD.
- B** A target analyte or common laboratory contaminant was identified in the method blank Its presence indicates possible field or laboratory contamination.
- D** The sample(s) were diluted due to targets detected over the highest point of the calibration curve, or due to matrix interference Dilution factors are included in the final results. The result is from a diluted sample.
- E** The data exceeds the upper calibration limit, therefore, the concentration is reported as estimated.
- F** RPD exceeded lab control limits
- J** The target analyte was positively identified below the MQL and above the SQL.
- U** Analyte was not detected.
- L** The LCS data for this analytical batch was reported below the laboratory control limits for this analyte. The department supervisor and QA Director reviewed data. The samples were either reanalyzed or flagged as estimated concentrations.
- H** The LCS data for this analytical batch was reported above the laboratory control limits. Supporting QC Data were reviewed by the Department Supervisor and QA Director. Data were determined to be valid for reporting
- K** Sample analyzed outside of recommended hold time
- JN** A combination of the "N" and the "J" qualifier The analysis indicates that the analyte is "tentatively identified" and the associated numerical value may not be consistent with the amount actually present in the environmental sample
- BRL** Below Reporting Limit.
- RL** Reporting Limit
- * Outside XENCO's scope of NELAC Accreditation

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5332 Blackberry Drive, San Antonio TX 78238	(210) 509-3334	(210) 509-3335
2505 North Falkenburg Rd, Tampa, FL 33619	(813) 620-2000	(813) 620-2033
5757 NW 158th St, Miami Lakes, FL 33014	(305) 823-8500	(305) 823-8555
12600 West I-20 East, Odessa, TX 79765	(432) 563-1800	(432) 563-1713
842 Cantwell Lane, Corpus Christi, TX 78408	(361) 884-0371	(361) 884-9116



Form 2 - Surrogate Recoveries

Project Name: Southwest Royalties, Inc.

Work Orders : 359288,

Project ID: Malaga A 002

Lab Batch #: 790403

Sample: 548205-1-BKS / BKS

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 01/21/10 12 37

SURROGATE RECOVERY STUDY

BTEX by EPA 8021 Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0327	0.0300	109	80-120	
4-Bromofluorobenzene	0.0302	0.0300	101	80-120	

Lab Batch #: 790403

Sample: 548205-1-BSD / BSD

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 01/21/10 13 00

SURROGATE RECOVERY STUDY

BTEX by EPA 8021 Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0326	0.0300	109	80-120	
4-Bromofluorobenzene	0.0298	0.0300	99	80-120	

Lab Batch #: 790403

Sample: 548205-1-BLK / BLK

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 01/21/10 14 09

SURROGATE RECOVERY STUDY

BTEX by EPA 8021 Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0268	0.0300	89	80-120	
4-Bromofluorobenzene	0.0317	0.0300	106	80-120	

Lab Batch #: 790403

Sample: 359288-001 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 01/21/10 14 32

SURROGATE RECOVERY STUDY

BTEX by EPA 8021 Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0270	0.0300	90	80-120	
4-Bromofluorobenzene	0.0335	0.0300	112	80-120	

Lab Batch #: 790403

Sample: 359288-002 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 01/21/10 14 56

SURROGATE RECOVERY STUDY

BTEX by EPA 8021 Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0271	0.0300	90	80-120	
4-Bromofluorobenzene	0.0349	0.0300	116	80-120	

* Surrogate outside of Laboratory QC limits

** Surrogates outside limits, data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

All results are based on MDL and validated for QC purposes



Form 2 - Surrogate Recoveries

Project Name: Southwest Royalties, Inc.

Work Orders : 359288,

Project ID: Malaga A 002

Lab Batch #: 790403

Sample: 359288-003 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 01/21/10 15 19

SURROGATE RECOVERY STUDY

BTEX by EPA 8021 Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0271	0.0300	90	80-120	
4-Bromofluorobenzene	0.0332	0.0300	111	80-120	

Lab Batch #: 790403

Sample: 359210-002 S / MS

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 01/21/10 16 05

SURROGATE RECOVERY STUDY

BTEX by EPA 8021 Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0303	0.0300	101	80-120	
4-Bromofluorobenzene	0.0395	0.0300	132	80-120	*

Lab Batch #: 790403

Sample: 359210-002 SD / MSD

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 01/21/10 16 28

SURROGATE RECOVERY STUDY

BTEX by EPA 8021 Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0313	0.0300	104	80-120	
4-Bromofluorobenzene	0.0387	0.0300	129	80-120	*

Lab Batch #: 790498

Sample: 548278-1-BKS / BKS

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 01/22/10 10 44

SURROGATE RECOVERY STUDY

TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	115	100	115	70-135	
o-Terphenyl	50.8	50.2	101	70-135	

Lab Batch #: 790498

Sample: 548278-1-BSD / BSD

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 01/22/10 11 11

SURROGATE RECOVERY STUDY

TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	105	99.8	105	70-135	
o-Terphenyl	47.4	49.9	95	70-135	

* Surrogate outside of Laboratory QC limits

** Surrogates outside limits, data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

All results are based on MDL and validated for QC purposes



Form 2 - Surrogate Recoveries

Project Name: Southwest Royalties, Inc.

Work Orders : 359288,

Project ID: Malaga A 002

Lab Batch #: 790498

Sample: 548278-1-BLK / BLK

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 01/22/10 11 37

SURROGATE RECOVERY STUDY					
TPH by SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1-Chlorooctane	91.1	99.9	91	70-135	
o-Terphenyl	50.2	50.0	100	70-135	

Lab Batch #: 790498

Sample: 359288-001 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 01/22/10 12 04

SURROGATE RECOVERY STUDY					
TPH by SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1-Chlorooctane	95.1	99.9	95	70-135	
o-Terphenyl	52.2	50.0	104	70-135	

Lab Batch #: 790498

Sample: 359288-002 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 01/22/10 12 31

SURROGATE RECOVERY STUDY					
TPH by SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1-Chlorooctane	92.1	99.6	92	70-135	
o-Terphenyl	50.3	49.8	101	70-135	

Lab Batch #: 790498

Sample: 359288-003 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 01/22/10 12 58

SURROGATE RECOVERY STUDY					
TPH by SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1-Chlorooctane	92.7	100	93	70-135	
o-Terphenyl	51.0	50.0	102	70-135	

* Surrogate outside of Laboratory QC limits
 ** Surrogates outside limits, data and surrogates confirmed by reanalysis
 *** Poor recoveries due to dilution
 Surrogate Recovery [D] = 100 * A / B
 All results are based on MDL and validated for QC purposes



Blank Spike Recovery



Project Name: Southwest Royalties, Inc.

Work Order #: 359288

Project ID:

Malaga A 002

Lab Batch #: 790386

Sample: 790386-1-BKS

Matrix: Solid

Date Analyzed: 01/21/2010

Date Prepared: 01/21/2010

Analyst: LATCOR

Reporting Units: mg/kg

Batch #: 1

BLANK /BLANK SPIKE RECOVERY STUDY

Chloride in Soil by EPA 300 Analytes	Blank Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Control Limits %R	Flags
Chloride	<0.420	10.0	9.36	94	75-125	

Blank Spike Recovery [D] = 100*[C]/[B]

All results are based on MDL and validated for QC purposes

BRL - Below Reporting Limit



BS / BSD Recoveries



Project Name: Southwest Royalties, Inc.

Work Order #: 359288

Project ID: Malaga A 002

Analyst: ASA

Date Prepared: 01/21/2010

Date Analyzed: 01/21/2010

Lab Batch ID: 790403

Sample: 548205-1-BKS

Batch #: 1

Matrix: Solid

Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

BTEX by EPA 8021	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Analytes											
Benzene	<0.0010	0.1000	0.1144	114	0.1	0.1111	111	3	70-130	35	
Toluene	<0.0010	0.1000	0.1156	116	0.1	0.1127	113	3	70-130	35	
Ethylbenzene	<0.0010	0.1000	0.1157	116	0.1	0.1124	112	3	71-129	35	
m,p-Xylene	<0.0020	0.2000	0.2376	119	0.2	0.2314	116	3	70-135	35	
o-Xylene	<0.0010	0.1000	0.1220	122	0.1	0.1194	119	2	71-133	35	

Analyst: ASA

Date Prepared: 01/21/2010

Date Analyzed: 01/21/2010

Lab Batch ID: 790333

Sample: 790333-1-BKS

Batch #: 1

Matrix: Solid

Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

Petroleum Hydrocarbons, Total Recoverable (Spectrophotometric)	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Analytes											
Total Petroleum Hydrocarbons (TPH)	<20.0	2500	2430	97	2500	2520	101	4	65-135	35	

Relative Percent Difference RPD = 200*(C-F)/(C+F)

Blank Spike Recovery [D] = 100*(C)/[B]

Blank Spike Duplicate Recovery [G] = 100*(F)/[E]

All results are based on MDL and Validated for QC Purposes



BS / BSD Recoveries



Project Name: Southwest Royalties, Inc.

Work Order #: 359288

Analyst: BEV

Lab Batch ID: 790498

Sample: 548278-1-BKS

Date Prepared: 01/21/2010

Batch #: 1

Project ID: Malaga A 002

Date Analyzed: 01/22/2010

Matrix: Solid

Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

TPH by SW8015 Mod	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Analytes											
C6-C12 Gasoline Range Hydrocarbons	<15.0	1000	993	99	998	908	91	9	70-135	35	
C12-C28 Diesel Range Hydrocarbons	<15.0	1000	786	79	998	881	88	11	70-135	35	

Relative Percent Difference RPD = $200 * |(C-F)/(C+F)|$

Blank Spike Recovery [D] = $100 * (C)/[B]$

Blank Spike Duplicate Recovery [G] = $100 * (F)/[E]$

All results are based on MDL and Validated for QC Purposes



Form 3 - MS Recoveries



Project Name: Southwest Royalties, Inc.

Work Order #: 359288

Lab Batch #: 790386

Date Analyzed: 01/21/2010

QC- Sample ID: 359288-001 S

Reporting Units: mg/kg

Date Prepared: 01/21/2010

Batch #: 1

Project ID: Malaga A 002

Analyst: LATCOR

Matrix: Soil

MATRIX / MATRIX SPIKE RECOVERY STUDY						
Inorganic Anions by EPA 300	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	%R [D]	Control Limits %R	Flag
Analytes						
Chloride	4740	4900	9690	101	75-125	

Matrix Spike Percent Recovery [D] = $100 * (C - A) / B$
 Relative Percent Difference [E] = $200 * (C - A) / (C + B)$
 All Results are based on MDL and Validated for QC Purposes

BRL - Below Reporting Limit



Form 3 - MS / MSD Recoveries



Project Name: Southwest Royalties, Inc.

Work Order #: 359288

Project ID: Malaga A 002

Lab Batch ID: 790403

QC- Sample ID: 359210-002 S

Batch #: 1 Matrix: Soil

Date Analyzed: 01/21/2010

Date Prepared: 01/21/2010

Analyst: ASA

Reporting Units: mg/kg

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

BTEX by EPA 8021 Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
	Benzene	<0.0012	0.1167	0.0348	30	0.1169	0.0656	56	61	70-130	35
Toluene	<0.0023	0.1167	0.0370	32	0.1169	0.0685	59	60	70-130	35	XF
Ethylbenzene	0.0062	0.1167	0.0380	27	0.1169	0.0671	52	55	71-129	35	XF
m,p-Xylene	0.0886	0.2333	0.1157	12	0.2338	0.1664	33	36	70-135	35	XF
o-Xylene	0.0663	0.1167	0.0786	11	0.1169	0.1017	30	26	71-133	35	X

Lab Batch ID: 790333

QC- Sample ID: 359288-001 S

Batch #: 1 Matrix: Soil

Date Analyzed: 01/21/2010

Date Prepared: 01/21/2010

Analyst: ASA

Reporting Units: mg/kg

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

Petroleum Hydrocarbons, Total Recoverable (Spectrophoto Ir)	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
	Total Petroleum Hydrocarbons (TPH)	<24.5	3060	3080	101	3060	3090	101	0	65-135	35

Matrix Spike Percent Recovery [D] = 100*(C-A)/B
Relative Percent Difference RPD = 200*|(C-F)/(C+F)|

Matrix Spike Duplicate Percent Recovery [G] = 100*(F-A)/E

ND = Not Detected J = Present Below Reporting Limit, B = Present in Blank, NR = Not Requested I = Interference NA = Not Applicable N = See Narrative EQL = Estimated Quantitation Limit



Sample Duplicate Recovery



Project Name: Southwest Royalties, Inc.

Work Order #: 359288

Lab Batch #: 790386

Project ID: Malaga A 002

Date Analyzed: 01/21/2010

Date Prepared: 01/21/2010

Analyst: LATCOR

QC- Sample ID: 359288-001 D

Batch #: 1

Matrix: Soil

Reporting Units: mg/kg

SAMPLE / SAMPLE DUPLICATE RECOVERY					
Chloride in Soil by EPA 300	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Analyte					
Chloride	4740	4790	1	20	

Lab Batch #: 790374

Date Analyzed: 01/21/2010

Date Prepared: 01/21/2010

Analyst: JLG

QC- Sample ID: 359350-001 D

Batch #: 1

Matrix: Soil

Reporting Units: %

SAMPLE / SAMPLE DUPLICATE RECOVERY					
Percent Moisture	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Analyte					
Percent Moisture	9.74	9.51	2	20	

Spike Relative Difference RPD $200 * |(B-A)/(B+A)|$
 All Results are based on MDL and validated for QC purposes
 BRL - Below Reporting Limit

Environmental Lab of Texas
Variance/ Corrective Action Report- Sample Log-In

Client: SPORT ENV.
 Date/ Time: 1.20.10 15:45
 Lab ID #: 359288
 Initials: AL

Sample Receipt Checklist

				Client Initials
#1	Temperature of container/ cooler?	<input checked="" type="checkbox"/> Yes	No	2.1 °C
#2	Shipping container in good condition?	<input checked="" type="checkbox"/> Yes	No	
#3	Custody Seals intact on shipping container/ cooler?	Yes	No	<input checked="" type="checkbox"/> Not Present
#4	Custody Seals intact on sample bottles/ container?	Yes	No	<input checked="" type="checkbox"/> Not Present
#5	Chain of Custody present?	<input checked="" type="checkbox"/> Yes	No	
#6	Sample instructions complete of Chain of Custody?	<input checked="" type="checkbox"/> Yes	No	
#7	Chain of Custody signed when relinquished/ received?	<input checked="" type="checkbox"/> Yes	No	
#8	Chain of Custody agrees with sample label(s)?	<input checked="" type="checkbox"/> Yes	No	ID written on Cont / Lid
#9	Container label(s) legible and intact?	<input checked="" type="checkbox"/> Yes	No	Not Applicable
#10	Sample matrix/ properties agree with Chain of Custody?	<input checked="" type="checkbox"/> Yes	No	
#11	Containers supplied by ELOT?	<input checked="" type="checkbox"/> Yes	No	
#12	Samples in proper container/ bottle?	<input checked="" type="checkbox"/> Yes	No	See Below
#13	Samples properly preserved?	<input checked="" type="checkbox"/> Yes	No	See Below
#14	Sample bottles intact?	<input checked="" type="checkbox"/> Yes	No	
#15	Preservations documented on Chain of Custody?	<input checked="" type="checkbox"/> Yes	No	
#16	Containers documented on Chain of Custody?	<input checked="" type="checkbox"/> Yes	No	
#17	Sufficient sample amount for indicated test(s)?	<input checked="" type="checkbox"/> Yes	No	See Below
#18	All samples received within sufficient hold time?	<input checked="" type="checkbox"/> Yes	No	See Below
#19	Subcontract of sample(s)?	Yes	No	<input checked="" type="checkbox"/> Not Applicable
#20	VOC samples have zero headspace?	<input checked="" type="checkbox"/> Yes	No	Not Applicable

Variance Documentation

Contact: _____ Contacted by: _____ Date/ Time: _____

Regarding: _____

Corrective Action Taken: _____

- Check all that Apply:
- See attached e-mail/ fax
 - Client understands and would like to proceed with analysis
 - Cooling process had begun shortly after sampling event

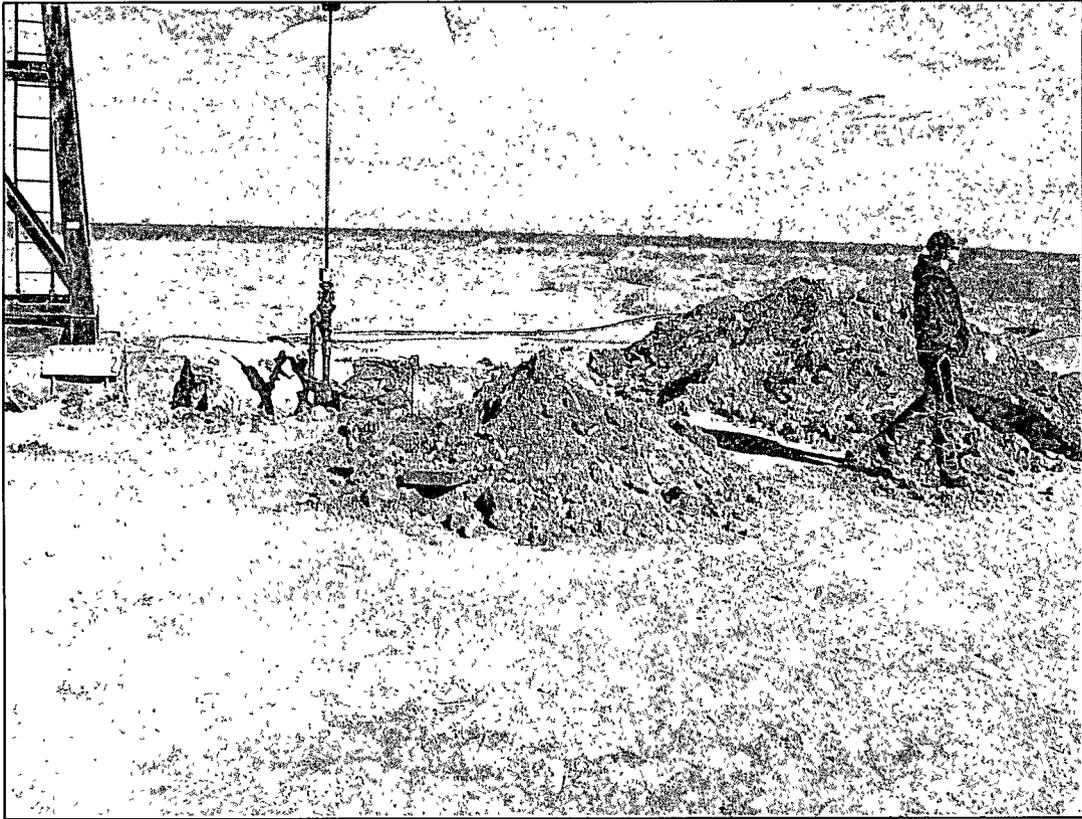


Sample Data Summary

Project Name: Southwest Royalties, Malaga A 002
 Project Location: Eddy County, New Mexico

							Analytical Results												
							Methods: SW8015 Mod (TPH), EPA 8021B (BTEX), EPA 300/300.1 (Cl)												
Sample ID	Lab ID	Latitude/ Longitude	Matrix	Sample Depth	Date Sampled	Date Received	Carbon Ranges C6-C12 (mg/kg dry)	Carbon Ranges C12-C28	Carbon Ranges C28-C35	Total Hydrocarbons	Benzene	Toluene	Ethylbenzene	Xylene (p/m)	Xylene (o)	Total Xylenes	Total BTEX	Chloride (Cl) (mg/kg wet)	% Moisture
Background Sampling																			
East-001	359288-001		Soil	10'	1/19/2010 0 00	1/19/2010 0 00	<18.3	145	19.2	164	<0.0012	<0.0012	0.0012	<0.0024	<0.0010	<0.0010	<0.0010	4740	18.30
South-001	359288-002		Soil	7'	1/19/2010 0 00	1/19/2010 0 00	<18.3	<18.3	<18.3	<18.3	<0.0012	<0.0012	0.0012	<0.0024	<0.0010	<0.0010	<0.0010	2800	18.50
West-001	359288-003		Soil	7'	1/19/2010 0 00	1/19/2010 0 00	<18.3	<18.7	<18.7	<18.7	<0.0012	<0.0012	0.0012	<0.0025	<0.0010	<0.0010	<0.0010	2640	19.90

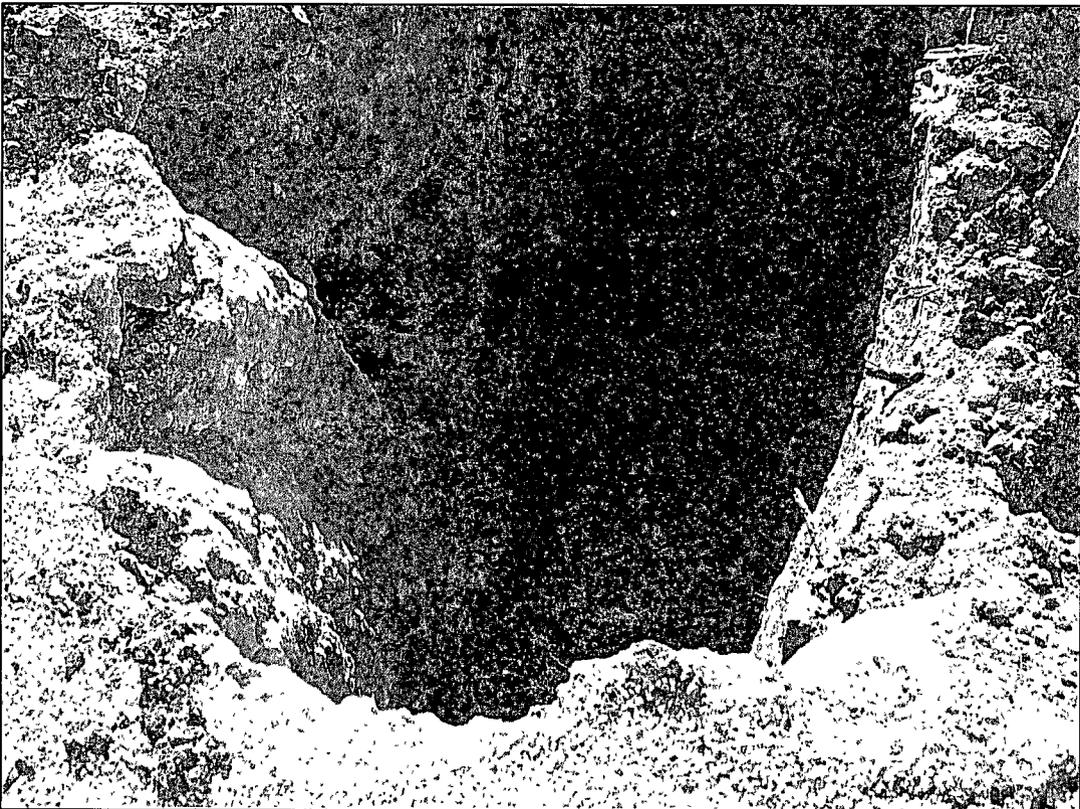
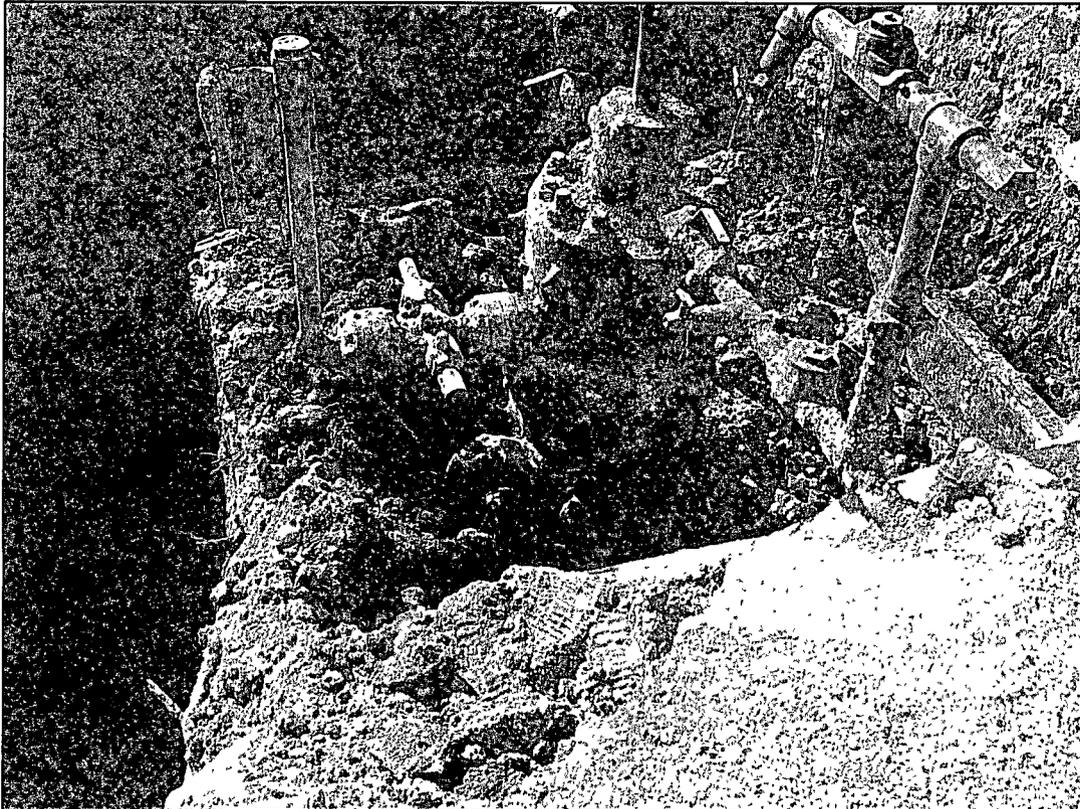
Southwest Royalties, Inc. – Malaga A #2
Excavation Site Photographs taken January 19, 2010
(p. 1 of 4)



Southwest Royalties, Inc. – Malaga A #2
Excavation Site Photographs taken January 19, 2010
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Southwest Royalties, Inc. – Malaga A #2
Excavation Site Photographs taken January 19, 2010
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Southwest Royalties, Inc. – Malaga A #2
Excavation Site Photographs taken January 19, 2010
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