HARGIS + ASSOCIATES, INC.
HYDROGEOLOGY • ENGINEERING

La Jolla Gateway
9171 Towne Centre Drive, Suite 375
San Diego, CA 92122
Phone: 858.455.6500
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March 2, 2012

VIA FEDERAL EXPRESS STANDARD AND ELECTRONIC MAIL

Mr. William F. Jeffers, PE
Hazardous Substances Engineer
CALIFORNIA ENVIRONMENTAL PROTECTION AGENCY
DEPARTMENT OF TOXIC SUBSTANCES CONTROL
9211 Oakdale Avenue
Chatsworth, CA 91311-6505

Re: Transmittal of Results from Initial and Confirmation Groundwater Sampling at New Off-Site Monitor Well MW-36 along Brea Creek in Buena Park, Former Raytheon Company (Formerly Hughes Aircraft Company) Site, 1901 West Malvern Avenue, Fullerton, California

Dear Mr. Jeffers:

This letter has been prepared by Hargis + Associates, Inc. (H+A), on behalf of the Raytheon Company (Raytheon) to transmit results from the initial and confirmation groundwater sampling of recently constructed monitor well MW-36 near the former Raytheon (formerly Hughes Aircraft Company) Site located at 1901 West Malvern Avenue, Fullerton, California, (the Site) to the California Environmental Protection Agency, Department of Toxic Substances Control (DTSC) (Figures 1 and 2).

Monitor well MW-36 was constructed as a single completion well and is screened within the primary transport zone also referred to as Unit B. Monitor well MW-36 was installed and groundwater samples were collected in accordance with the DTSC-approved Additional Groundwater Assessment Work Plan Addendum No. 4 (Work Plan Addendum 4) and subsequent coordination with the DTSC (H+A, 2011b and 2011c; DTSC, 2011a and 2011b). The geophysical logs conducted at the monitor well MW-36 borehole, and the lithologic log with well construction summary information have been included (Attachments 1 and 2). Details regarding drilling, geophysical logging, well installation, and well development will be included in a forthcoming well construction report that will be prepared after completion of remaining tasks proposed in Work Plan Addendum 4.

The initial groundwater samples were collected from monitor well MW-36 on January 13, 2012. Prior to sampling, three screen volumes were purged from the well using a dedicated submersible pump. Confirmation groundwater samples were collected on January 26 using identical purging and sample collection methods to those used during initial groundwater sample collection. Field duplicate and laboratory split groundwater samples were collected during both the initial and confirmation sampling events. Original and field duplicate groundwater samples were transmitted to Advanced Technology Laboratories in Signal Hill, California (primary laboratory) for analysis of volatile organic compounds (VOCs) using U.S. Environmental Protection Agency (EPA) Method 8260B and for 1,4-dioxane using modified EPA Method 8270. Laboratory-split groundwater samples were collected and transmitted to Exova, formerly Bodycote Testing Group, Santa Fe Springs, California (split laboratory), for analysis of VOCs and 1,4-dioxane using the same analytical methods. Laboratory analytical results have been enclosed (Attachment 3). Details regarding well purging, sample collection, chain-of-custody, quality assurance/quality control, and data quality assessment results for the initial and confirmation sampling at newly installed monitor well MW-36 will be submitted separately as part of the forthcoming groundwater monitoring report for the first quarter 2012.

Other Offices:
Mesa, AZ
Tucson, AZ

Water Quality Results

The compounds of potential concern (COPCs) related to the Site, namely 1,1-dichloroethylene (1,1-DCE), trichloroethylene (TCE), and 1,4-dioxane, were not detected in the initial or confirmation groundwater samples collected from monitor well MW-36, with the following exceptions. 1,1-DCE was detected in the initial and confirmation groundwater samples collected from monitor well MW-36, at concentrations of 4.0 micrograms per liter (ug/l) and 5.2 ug/l in original samples, respectively. Field duplicate and laboratory split sample results agree moderately well with the original sample results (Table 1). TCE or 1,4-dioxane were not detected in any of the groundwater samples collected from monitor well MW-36 (Attachment 3). The California Department of Public Health (CDPH) drinking water Maximum Contaminant Level (MCL) for 1,1-DCE is 6 ug/l. The U.S EPA drinking water MCL for 1,1-DCE is 7 ug/l.

No other VOCs were detected in the initial or confirmation groundwater samples collected from monitor well MW-36, with the exception of toluene detected at relatively low levels. Toluene was detected in the initial and confirmation groundwater samples collected from monitor well MW-36 at concentrations of 5.9 ug/l and 4.3 ug/l in original samples, respectively. The CDPH drinking water MCL for toluene is 150 ug/l. The U.S EPA drinking water MCL for toluene is 1,000 ug/l.

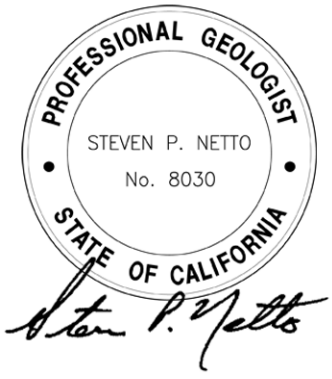
Conclusion and Recommendations

COPCs related to the Site were either not detected or were detected at relatively low concentrations below drinking water MCLs. Periodic (quarterly) monitoring will continue at monitor well MW-36 for at least eight quarters (approximately two full seasonal regional groundwater level cycles) in accordance with the latest Groundwater Monitoring Work Plan and Sampling and Analysis Plan for the Site (H+A, 2011a).

If you have any questions or would like to discuss please contact us.

Sincerely,

HARGIS + ASSOCIATES, INC.



Steven P. Netto, PG 8030, CHG 872
Senior Hydrogeologist

Kenneth S. Simon, PG 8919
Senior Hydrogeologist

SPN/KSS/ama

Enclosures: Figure 1. Site Location
Figure 2. Well and Piezometer Locations

Attachment 1. Geophysical Logs for Monitor Well MW-36.
Attachment 2. Lithologic Log for Monitor Well MW-36.
Attachment 3. Laboratory Results for Initial and Confirmation Samples from Monitor Well MW-36.

cc w/ Enclosures:

Mr. Paul Pongetti, Department of Toxic Substances Control, Cypress (via Email & U.S. Mail)
Ms. Tizita Bekele, PE, Department of Toxic Substances Control, Cypress (via Email & U.S. Mail)
Mr. Paul E. Brewer, Raytheon Company (via Email & U.S. Mail)
Mr. Carl Bernhardt, California RWQCB (via Email & U.S. Mail)
Mr. Dave Mark, Orange County Water District (via Email & U.S. Mail)
Mr. Dave Schickling, City of Fullerton (2 copies) (via Email & U.S. Mail)
Ms. Denise Gerstenberg, Cushman & Wakefield of California, Inc. (via Email & U.S. Mail)
Mr. Chad Blais, City of Fullerton (via Email & U.S. Mail)
Ms. Joan Lyle, City of Buena Park (via Email & U.S. Mail)

532 A01_Ltrs_01_Init-CnfrmMW36_Smplg.doc

REFERENCES

California Environmental Protection Agency, Department of Toxic Substances Control (DTSC), 2011a. Email from W. Jeffers, DTSC, re: Conditional Approval of Additional Groundwater Assessment Work Plan, Addendum No. 4, Raytheon, Fullerton, dated May 13, 2011.

_____, 2011b. Email from W. Jeffers, DTSC, re: Conditional Approval of Amendment A, Additional Groundwater Assessment Work Plan, Addendum No. 4, Raytheon, Fullerton, dated August 12, 2011.

Hargis + Associates, Inc. (H+A), 2011a. Letter to W. Jeffers, DTSC, from C. Ross and S. Netto, H+A, re. Addendum No. 1, to the Groundwater Monitoring Work Plan and Sampling and Analysis Plan (Revision 1.0), by H+A, dated April 25, 2003, for the Raytheon Company, (Former Hughes Aircraft Company), 1901 West Malvern, Avenue, Fullerton, California; dated February11, 2011.

_____, 2011b. Additional Groundwater Assessment Work Plan, Addendum No. 4, Raytheon Company (Former Hughes Aircraft Company, 1901 West Malvern, Avenue, Fullerton, California. April 13, 2011.

_____, 2011c. Amendment A, Additional Groundwater Assessment Work Plan Addendum No. 4, Former Raytheon Company Site, 1901 West Malvern Avenue, Fullerton, California. June 6, 2011.

TABLE 1

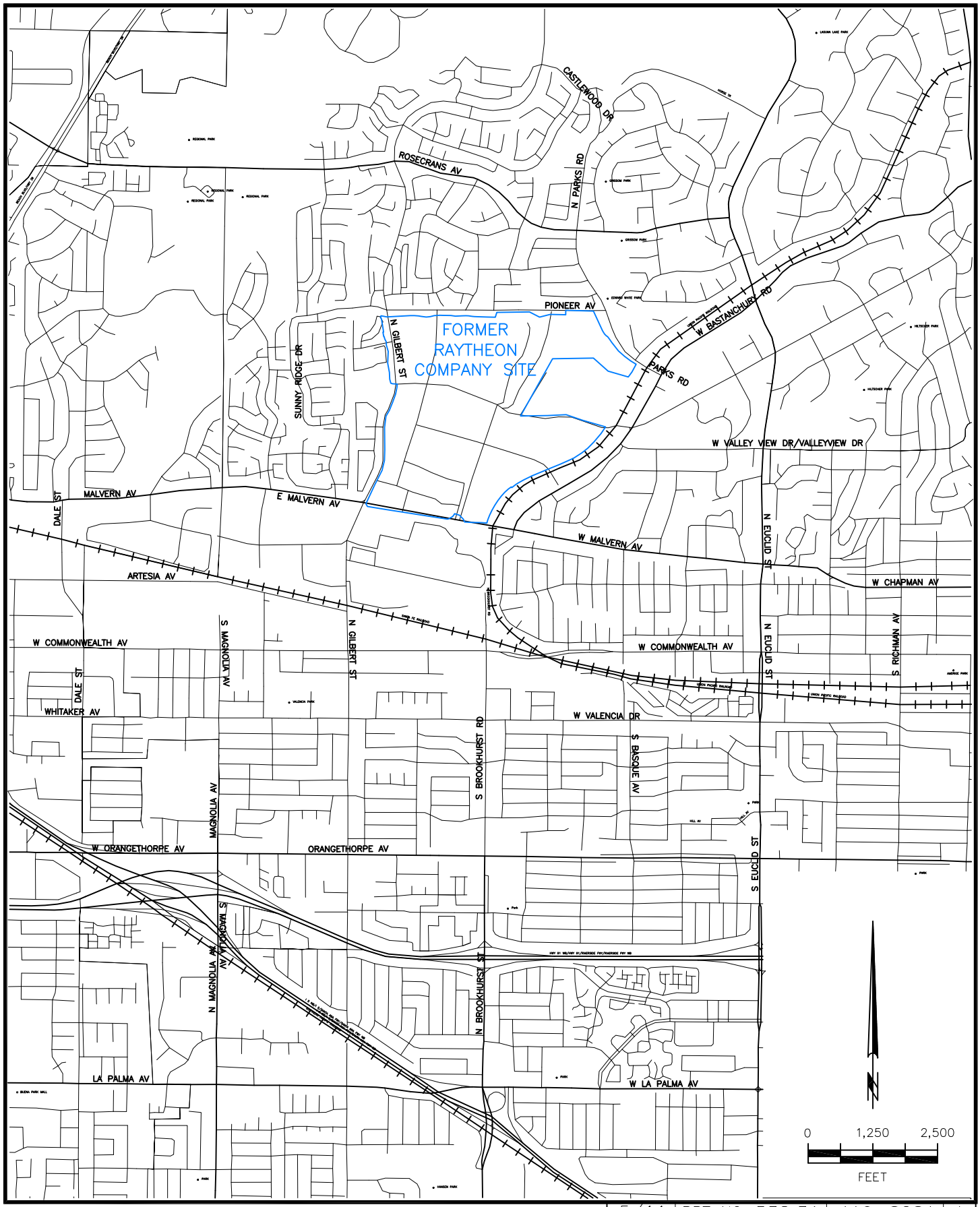
MONITOR WELL MW-36 INITIAL AND CONFIRMATION SAMPLES
PREVALENT VOLATILE ORGANIC COMPOUNDS AND 1,4-DIOXANE IN GROUNDWATER

			……Concentration (micrograms per liter)……			
			VOCs (FEDERAL MCL/CALIFORNIA MCL)			**Semi-VOCs**
Well Identifier / Sample Identifier	Date Sampled	QA Code	1,1-DCE (7/6)	TCE (5/5)	Toulene (1,000/150)	1,4-Dioxane (3*/1**)
MW-36	01/13/12	ORG	**4.0**	<0.50	**5.9**	<0.20
MW-3600	01/13/12	FD	**3.6**	<0.50	**7.0**	<0.20
MW-36	01/13/12	SPT	**2**	<1	**4**	<1
MW-36	01/26/12	ORG	**5.2**	<0.50	**4.3**	<0.20
MW-3600	01/26/12	FD	**5.0**	<0.50	**8.5**	<0.20
MW-36	01/26/12	SPT	**3**	<1	**3**	<1

NOTE: Detections are shown in **BOLD** type.

FOOTNOTES

(<) = Less than; the value is the Limit of Detection for that compound
* = 1,4-Dioxane Action Level of 3 ug/L
** = California Notification Level for 1,4-Dioxane of 1 ug/L
1,1-DCE = 1,1-Dichloroethy;ene
FD = Field duplicate sample
MCL = Maximum Contaminant Level
ORG = Original sample
QA = Quality Assurance
Semi-VOCs = Semivolatile organic compounds
SPT = Split sample
TCE = Trichloroethylene
ug/l = Micrograms per liter
VOCs = Volatile organic compounds



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HARGIS + ASSOCIATES, INC.
Hydrogeology/Engineering

5/11	RPT NO. 532.31	410-8281	A

FIGURE 1. SITE LOCATION

EXPLANATION

- MW-09 — GROUNDWATER MONITOR WELL
- MW-25 — GROUNDWATER PIEZOMETER
- P-09 — PERCHED ZONE PIEZOMETER
- EW-01 — GROUNDWATER EXTRACTION WELL
- MW-10 — FORMER GROUNDWATER MONITOR WELL (ABANDONED)
- P-04 — FORMER PERCHED ZONE PIEZOMETER (ABANDONED)
- DPE-05 — FORMER PERCHED ZONE DUAL-PHASE EXTRACTION WELL (ABANDONED)
- EB-01 — FORMER GROUNDWATER ASSESSMENT SOIL BORING (ABANDONED)
- PGETS — PILOT GROUNDWATER EXTRACTION AND TREATMENT SYSTEM FACILITY COMPOUND
- 609 — FORMER RAYTHEON BUILDING, DEMOLISHED MID-2000
- CURRENT RESIDENTIAL AND COMMERCIAL BUILDINGS
- DRIVEWAYS, PARKING LOTS AND OTHER HARDSCAPE OF SITE RE-DEVELOPMENT
- SITE BOUNDARY

SHERIDAN RD, NEWCASTLE LN, WILLIAMSBURG RD, BAYBERRY WAY, BAYCREST PL, ROXBURY DR, BRIGHTON PL, ASHTON PL, FOXBOROUGH PL, NORTHAMPTON WAY, JONESBORO LN, MEADOWBROOK WAY, ROCKLEDGE DRIVE, VESTAVIA AVE, N SEVILLE PL, BURNING TREE RD, FRANKLIN HILLS DR, MONTEREY PL, CYPRESS POINT DR, N CANDLEWOOD DR, N POST RD, SUNNY RIDGE DR, CARMEL CIR, RAMADA PLAZA, WINDSONG WAY, CREEKSIDE DR, SANDBAR DR, W MILLSTREAM DR, BRAMBLE WAY, WHITEWATER DR, NORTH GILBERT STREET, STARBUCK STREET, STERN-GOODMAN STREET, HUGHES DRIVE, MALVERN AVENUE, BREA CREEK, MOORE AVENUE, BURNING TREE ROAD, AIRPARK DRIVE, RAYMER AVENUE, GILBERT STREET, ARTESIA A. T. & S. F.

MW-34, MW-36, MW-32, MW-33, MW-35, MW-31, MW-29, MW-08, MW-15, EW-02, MW-30, MW-28, MW-13, MW-23, MW-26/EB-04, MW-18, MW-27, MW-17, MW-19, MW-22, MW-12, MW-14, EB-02, MW-10, MW-11, MW-07, MW-05, MW-20, MW-06, P-09, P-01, P-04, P-02, P-03, DPE-01, DPE-02, DPE-03, DPE-04, DPE-05, DPE-06, P-07, MW-09, MW-16, MW-24, MW-21, MW-25/EB-03, EW-01, EB-01

SEE DETAIL BELOW

COOLING TOWER, 609, 601

ROSS, OLD NAVY, LINENS 'N THINGS, CAMOUFLAGE FOOTWEAR, EVER INPORTS, RETAIL, TARGET, ALBERTSONS, BARNES & NOBLE BOOKS, RESTAURANT RES RETAIL, GAS STATION, SCE SUBSTATION

CITY OF FULLERTON WELL NO. 9

0 200 400 FEET

DETAIL AREA

0 50 100 FEET

Jan 31, 2012 - 4:05pm ADE - T:\2012\500-599\532 Raytheon\Hydrogeology\H+A BaseMaps\410-8569.dwg

HARGIS + ASSOCIATES, INC
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01/12 | RPT NO. 532.03 | 410-8569 | A

FIGURE 2.
WELL AND PIEZOMETER LOCATIONS

ATTACHMENT 1

GEOPHYSICAL LOGS FOR MONITOR WELL MW-36

PACIFIC SURVEYS

CALIPER
BOREHOLE VOLUMES

Job No. 16297

File No.

Company HARGIS & ASSOCIATES

Well MW-36

Field BUENA PARK

County ORANGE State CA

Location:

BRIDGEPORT AT MALVERN
GPS: N33o 52.657' W117o 58.898'

Sec. Twp. Rge.

Other Services:

ELOG
GR/LL3

Permanent Datum	G.L.		Elevation above perm. datum	K.B.	
Log Measured From	G.L.	0'		D.F.	
Drilling Measured From	G.L.			G.L.	

Date	12/20/2011			
Run Number	ONE			
Depth Driller	1029'			
Depth Logger	1027'			
Bottom Logged Interval	1027'			
Top Log Interval	40'			
Casing Driller	14" @ 40'			
Casing Logger	40'			
Bit Size	12.25"			
Type Fluid in Hole	BENTONITE			
Density / Viscosity	N/A			
pH / Fluid Loss	N/A			
Source of Sample	CIRC			
Rm @ Meas. Temp	5.4 @ 77F			
Rmf @ Meas. Temp	6.2 @ 77F			
Rmc @ Meas. Temp	N/A			
Source of Rmf / Rmc	MEASURE			
Rm @ BHT	N/A			
Time Circulation Stopped	2 HOURS			
Time Logger on Bottom	11:15 AM			
Max. Recorded Temperature	N/A			
Equipment Number	PS-5			
Location	L.A.			
Recorded By	ABREAU			
Witnessed By	G. CRANHAM			

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Comments

Calibration Report

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Dataset Creation: Tue Dec 20 12:33:05 2011 by Log Open-Cased 100827

Temperature Calibration Report

Serial Number: GRPH_SHORT
Tool Model: GRPH_CAL
Performed: Tue Jul 26 16:25:43 2011

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2	901.53	cps	4.00	degF
3	1093.48	cps	5.00	degF
4	1450.73	cps	7.00	degF
5	1822.41	cps	9.00	degF
6	2201.19	cps	11.00	degF
7		cps		degF
8		cps		degF
9		cps		degF
10		cps		degF

XY Caliper Calibration Report

Serial Number/Model: PS1_Short-Comprobe
Performed: Tue Jul 26 16:23:34 2011

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3:	10	in	1093.48	cps	1093.48	cps
4:	14	in	1450.73	cps	1450.73	cps
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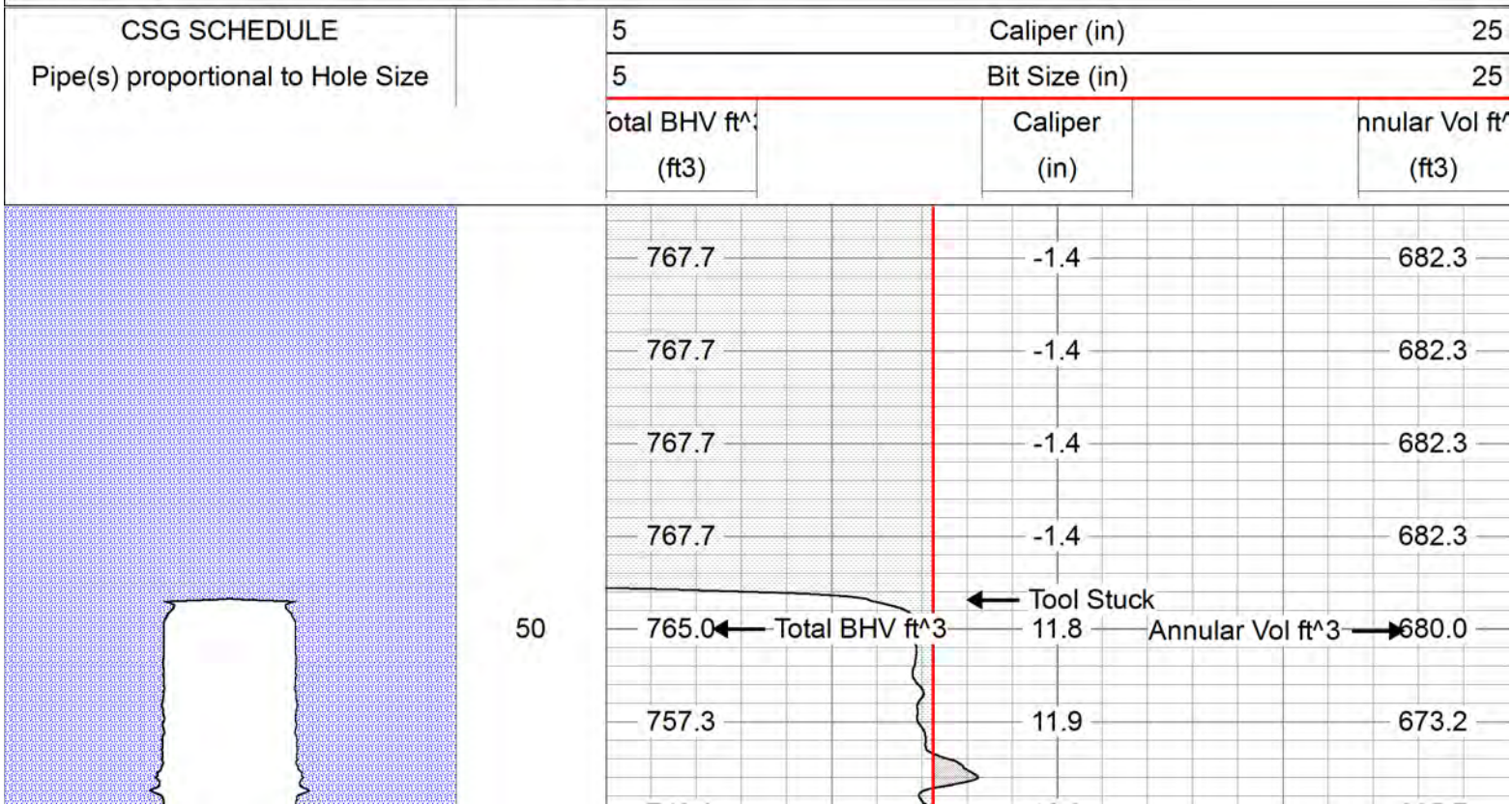

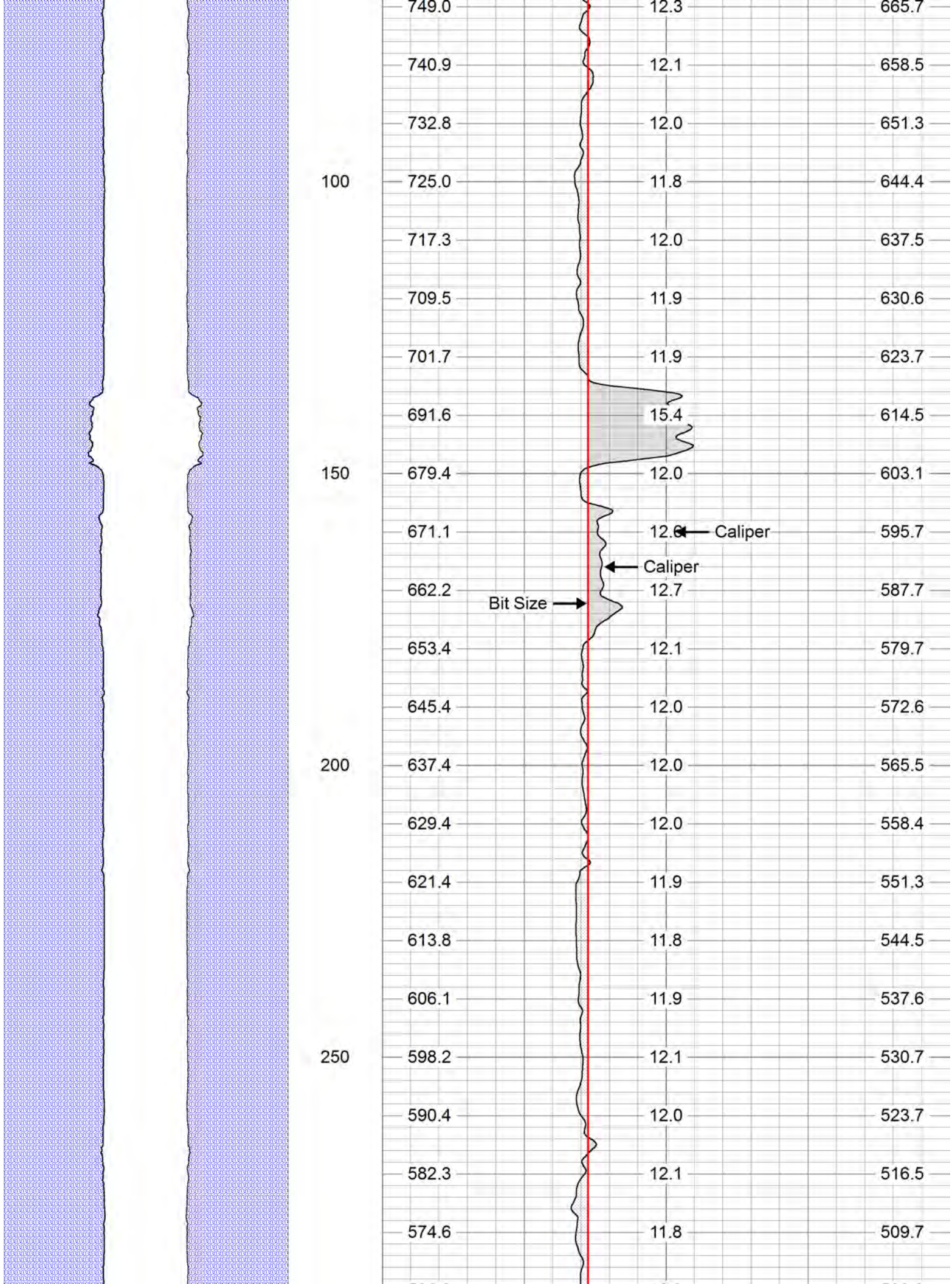
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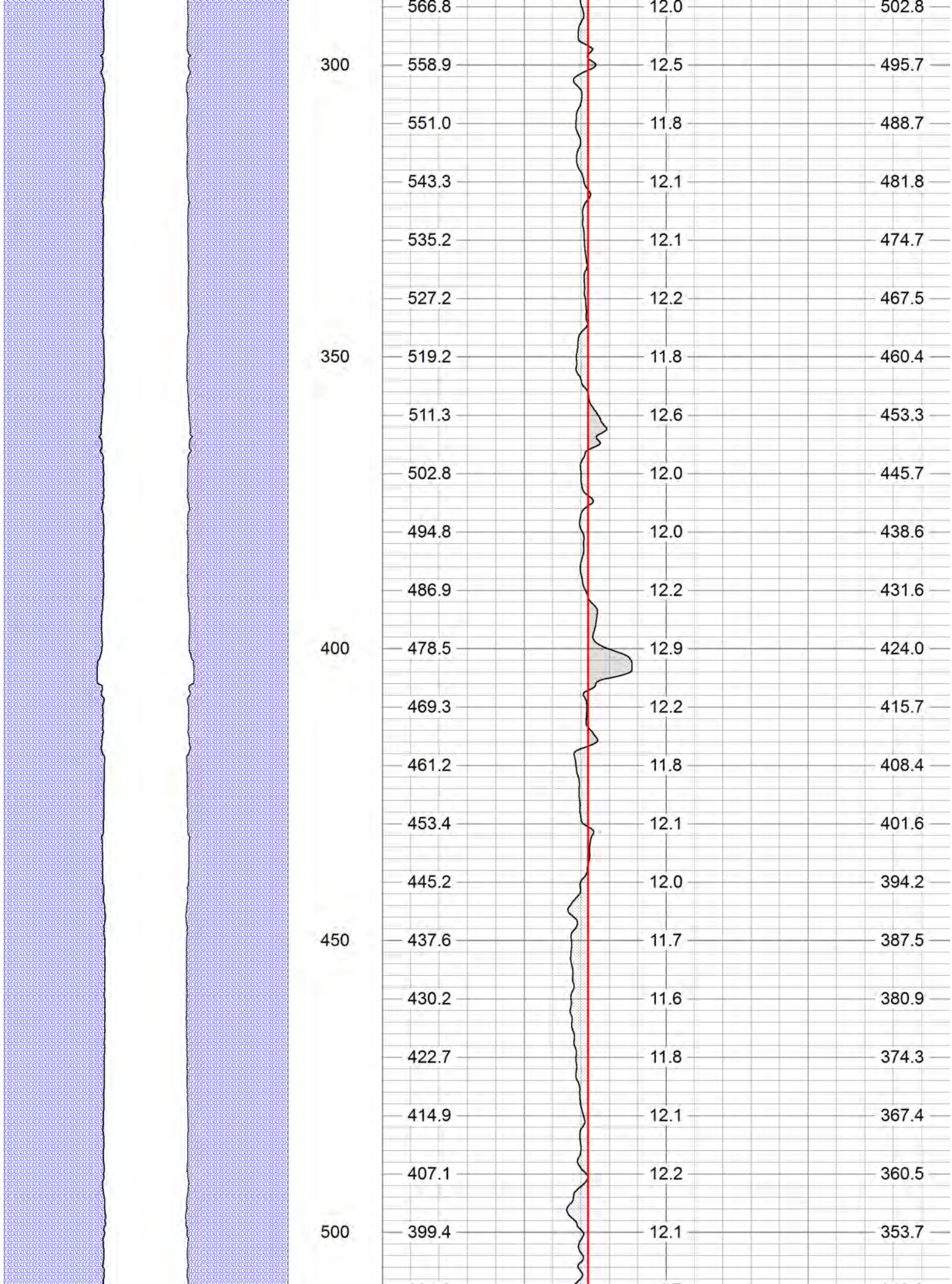
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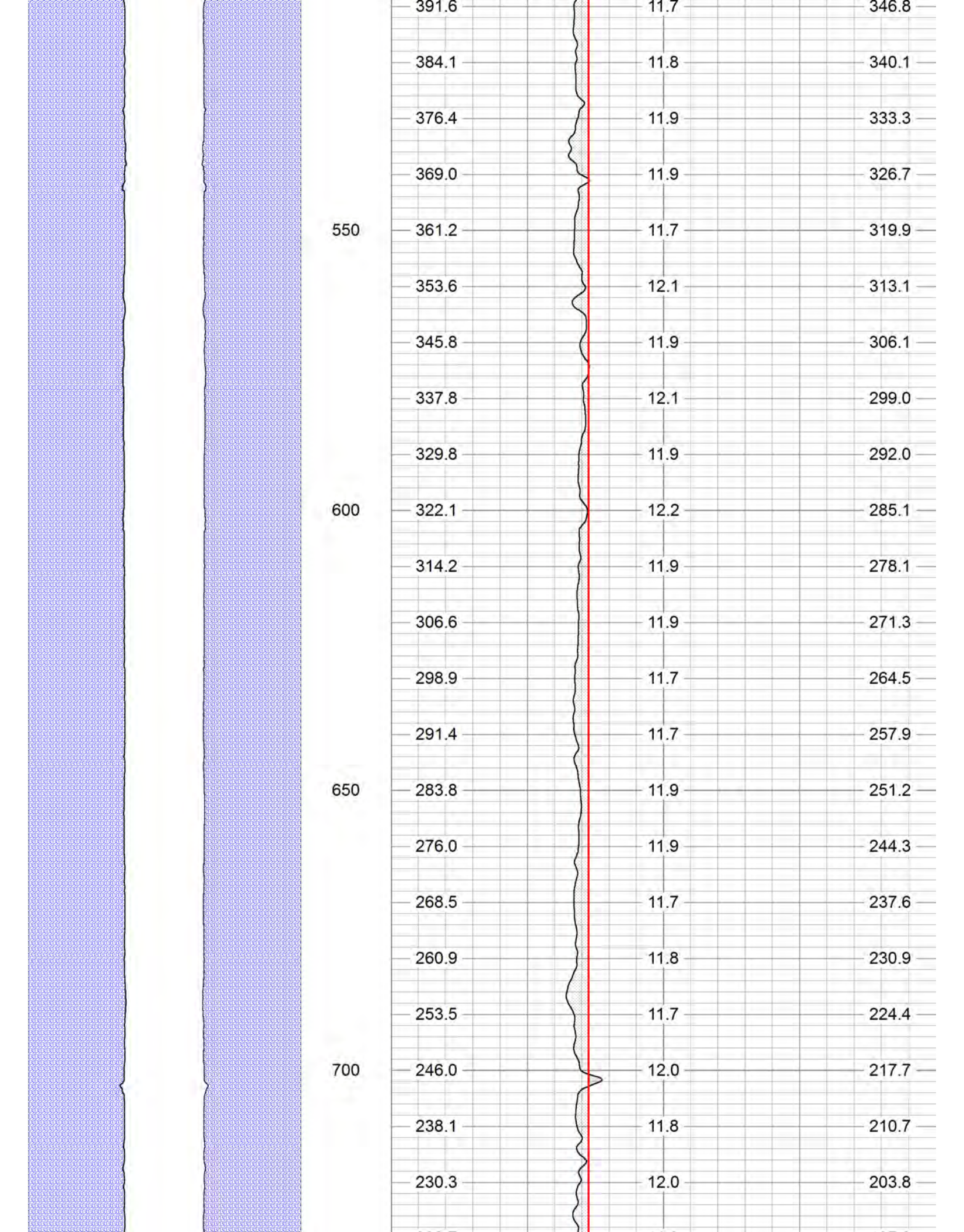
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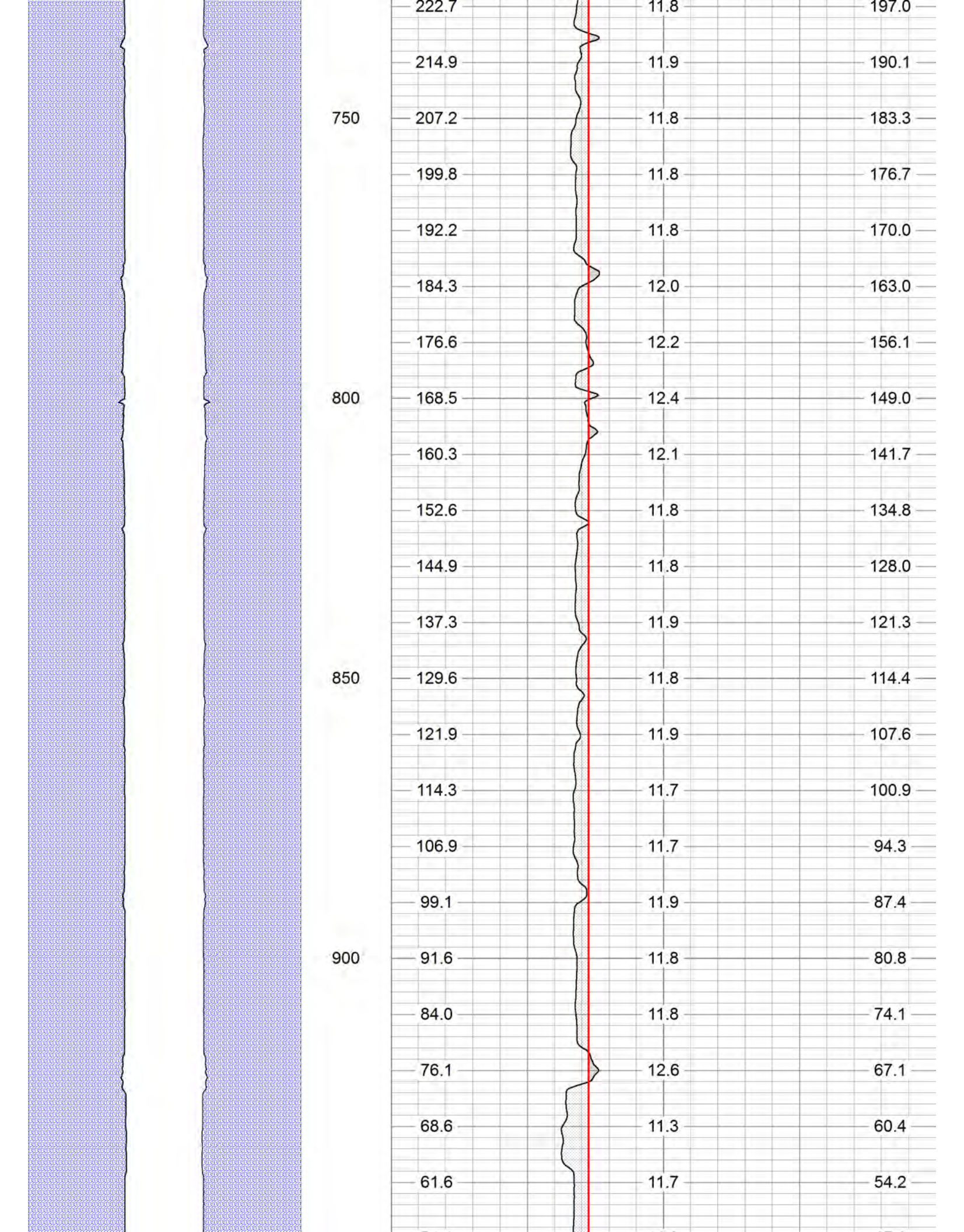
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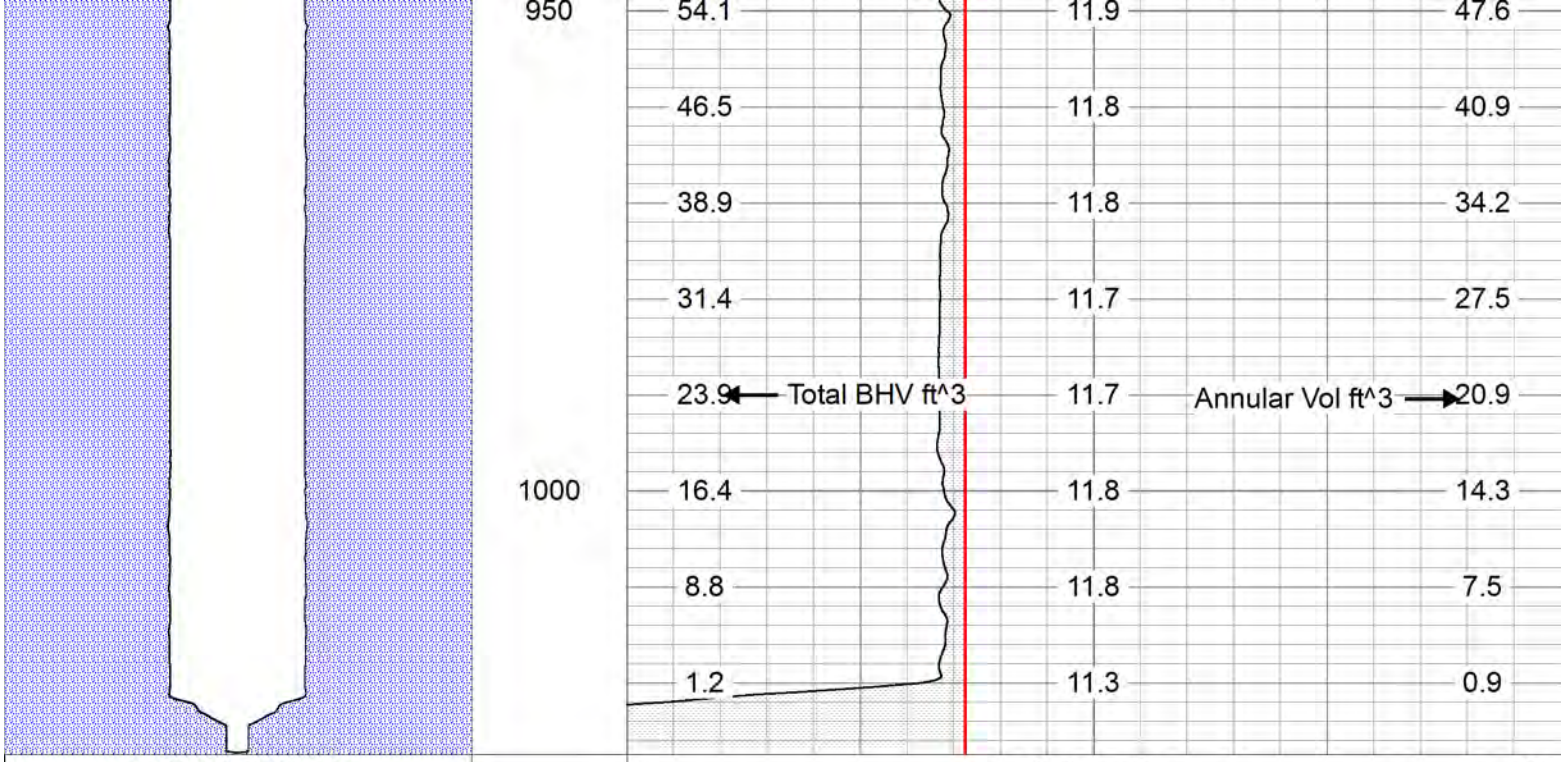

CSG SCHEDULE

Pipe(s) proportional to Hole Size

5	Caliper (in)	25
5	Bit Size (in)	25

Total BHV ft^3 (ft3)	Caliper (in)	Annular Vol ft^3 (ft3)

PACIFIC SURVEYS

ELECTRIC LOG
LATEROLOG 3
GAMMA-RAY

Job No. 16297

File No.

Company HARGIS & ASSOCIATES

Well MW-36

Field BUENA PARK

County ORANGE State CA

Location:

BRIDGEPORT AT MALVERN
GPS: N33o 52.657' W117o 58.898'

Other Services:

GR/LL3
CALIPER

Sec. Twp. Rge.

				Elevation
Permanent Datum	G.L.			K.B.
Log Measured From	G.L.	0'	Elevation above perm. datum	D.F.
Drilling Measured From	G.L.			G.L.

Date	12/20/2011			
Run Number	ONE			
Depth Driller	1029'			
Depth Logger	1027'			
Bottom Logged Interval	1027'			
Top Log Interval	40'			
Casing Driller	14" @ 40'			
Casing Logger	40'			
Bit Size	12.25"			
Type Fluid in Hole	BENTONITE			
Density / Viscosity	N/A			
pH / Fluid Loss	N/A			
Source of Sample	CIRC			
Rm @ Meas. Temp	5.4 @ 77F			
Rmf @ Meas. Temp	6.2 @ 77F			
Rmc @ Meas. Temp	N/A			
Source of Rmf / Rmc	MEASURE			
Rm @ BHT	N/A			
Time Circulation Stopped	2 HOURS			
Time Logger on Bottom	11:15 AM			
Max. Recorded Temperature	N/A			
Equipment Number	PS-5			
Location	L.A.			
Recorded By	ABREAU			
Witnessed By	G. CRANHAM			

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Comments

Calibration Report

Database File: 16297.db
Dataset Pathname: elog
Dataset Creation: Tue Dec 20 11:09:31 2011 by Log Open-Cased 100827

ELOG Calibration Report

Serial: D1
Model: DTQ

Shop Calibration Performed: Fri Sep 02 10:21:35 2011
Before Survey Verification Performed: Wed May 18 15:44:28 2011
After Survey Verification Performed: Wed May 18 15:45:08 2011

Shop Calibration

	Readings			References			Results	
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Short	8.723	99.406		10.200	102.200	Ohm-m	1.015	1.350
Long	7.680	96.048		10.200	102.200	Ohm-m	1.041	-17.600
IEE	52.920	3270.320	counts	0.058	3.579	A		
VSN	49.080	5373.320	counts	0.936	102.490	V		
VLN	204.820	45711.480	counts	3.907	871.891	V		

Before Survey Verification

	Readings			References			Results	
	Zero	Cal		Zero	Cal		Gain	Offset
Short	80.215	146.194		82.548	146.243	Ohm-m	0.965	5.112
Long	1342.350	4974.190		4976.440	4976.440	Ohm-m	0.991	47.934
IEE	54.260	3251.500	counts	0.059	3.558	A		
VSN	48.900	5340.600	counts	0.933	101.865	V		
VLN	204.580	45427.860	counts	3.902	866.481	V		

After Survey Verification

	Readings			References			Results	
	Zero	Cal		Zero	Cal		Gain	Offset
Short	79.445	146.186		80.215	146.194	Ohm-m	0.989	1.677
Long	1341.850	4973.840		4974.190	4974.190	Ohm-m	1.000	0.554
IEE	54.360	3249.300	counts	0.059	3.556	A		
VSN	48.520	5336.700	counts	0.925	101.791	V		
VLN	204.880	45393.900	counts	3.908	865.833	V		

After Survey Verification compared to Before Survey Calibration

	Zero			Cal		
	Before	After		Before	After	
Short	82.548	80.215	Ohm-m	146.243	146.194	Ohm-m
Long	1377.960	1342.350	Ohm-m	4976.440	4974.190	Ohm-m

Gamma Ray Calibration Report

Serial Number: D4
Tool Model: ELOG
Performed: Sat Apr 09 12:21:07 2011

Calibrator Value: 162.0 GAPI

Background Reading: 212.4 cps
Calibrator Reading: 707.5 cps

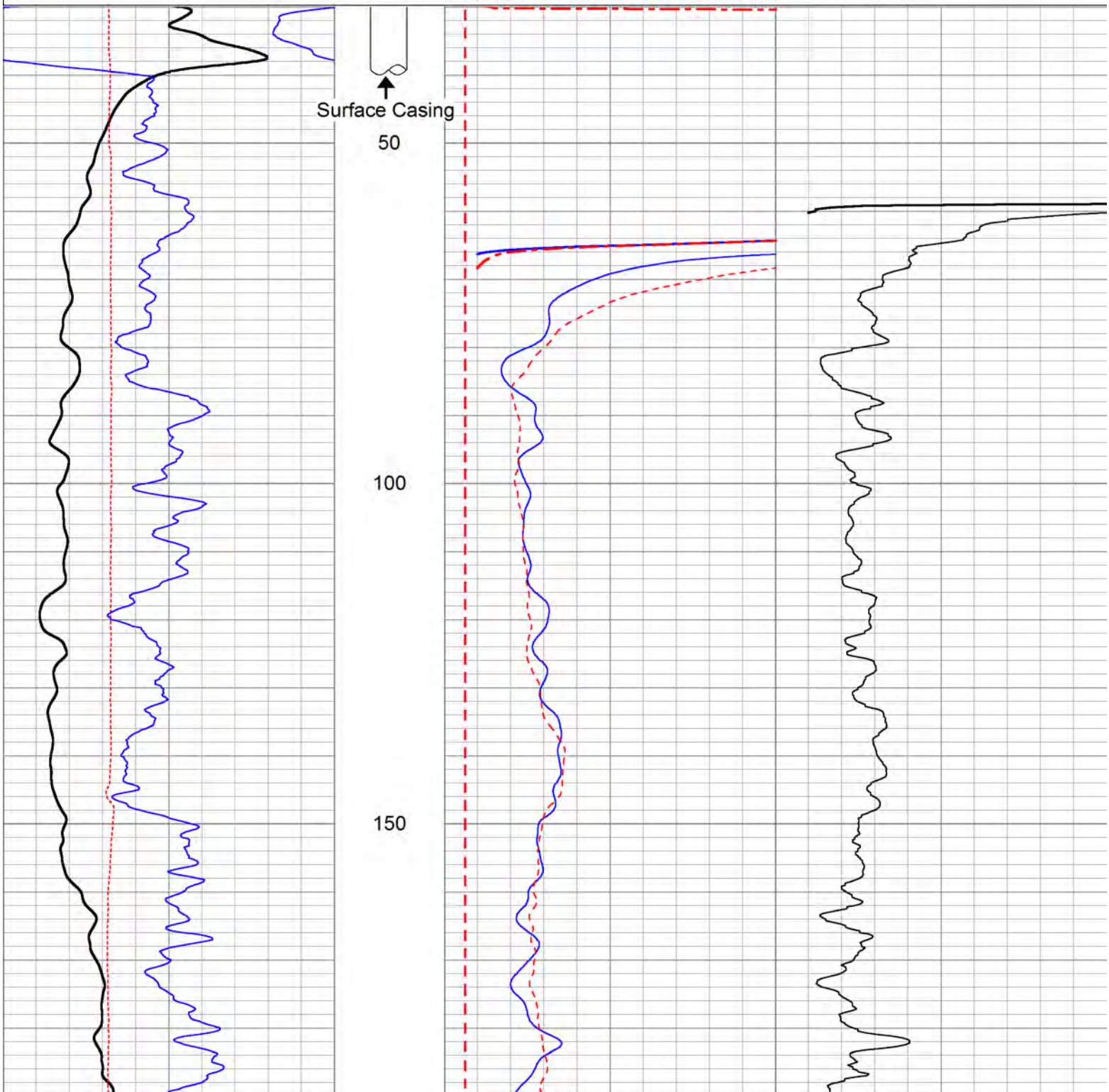
Sensitivity:	0.3272	GAPI/cps

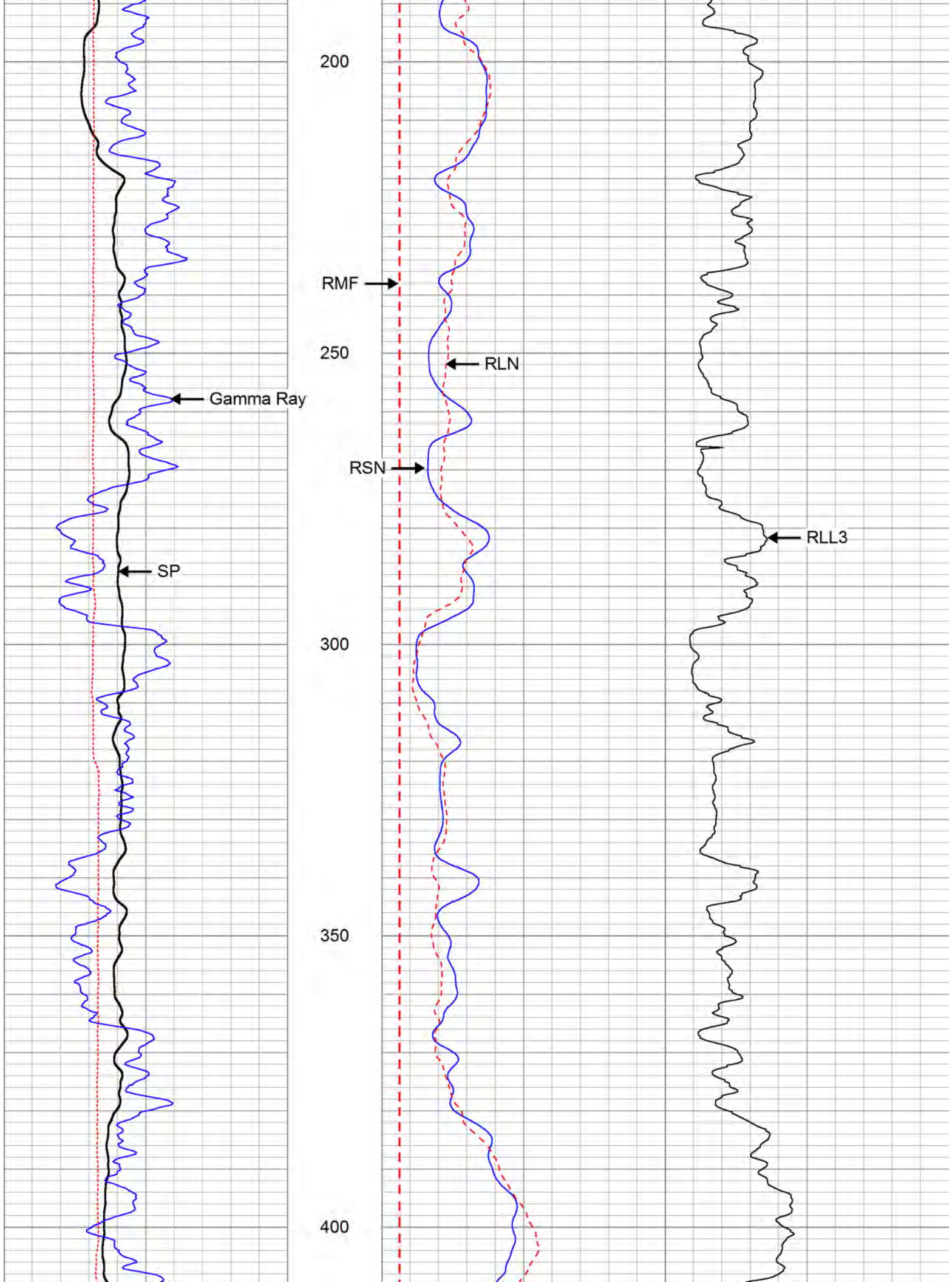
Database File:	16297.db
Dataset Pathname:	elog
Presentation Format:	elog
Dataset Creation:	Tue Dec 20 11:09:31 2011 by Log Open-Cased 100827
Charted by:	Depth in Feet scaled 1:240

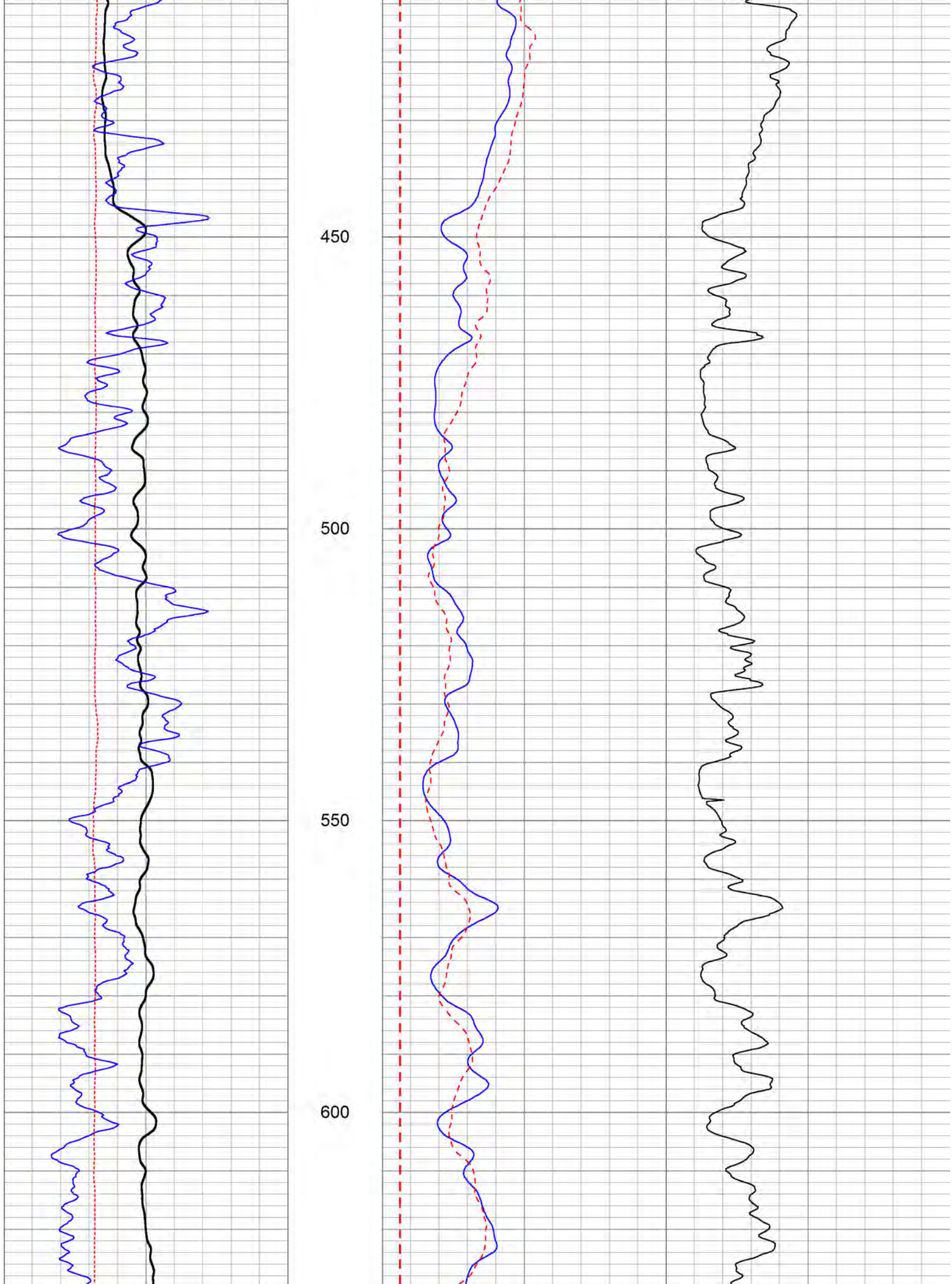
-70	SP (mV)	30
0	Line Speed (ft/min)	-100
40	Gamma Ray (GAPI)	140

0	RSN (Ohm-m)	100
0	RLN (Ohm-m)	100
0	RMF (Ohm-m)	100
100	RSN x 10 (Ohm-m)	1000
100	RLN x 10 (Ohm-m)	1000

0	*RLL3 (Ohm-m)*	100
100	*RLL3 (Ohm-m)*	1000




200
RMF
250
RLN
Gamma Ray
RSN
RLL3
SP
300
350
400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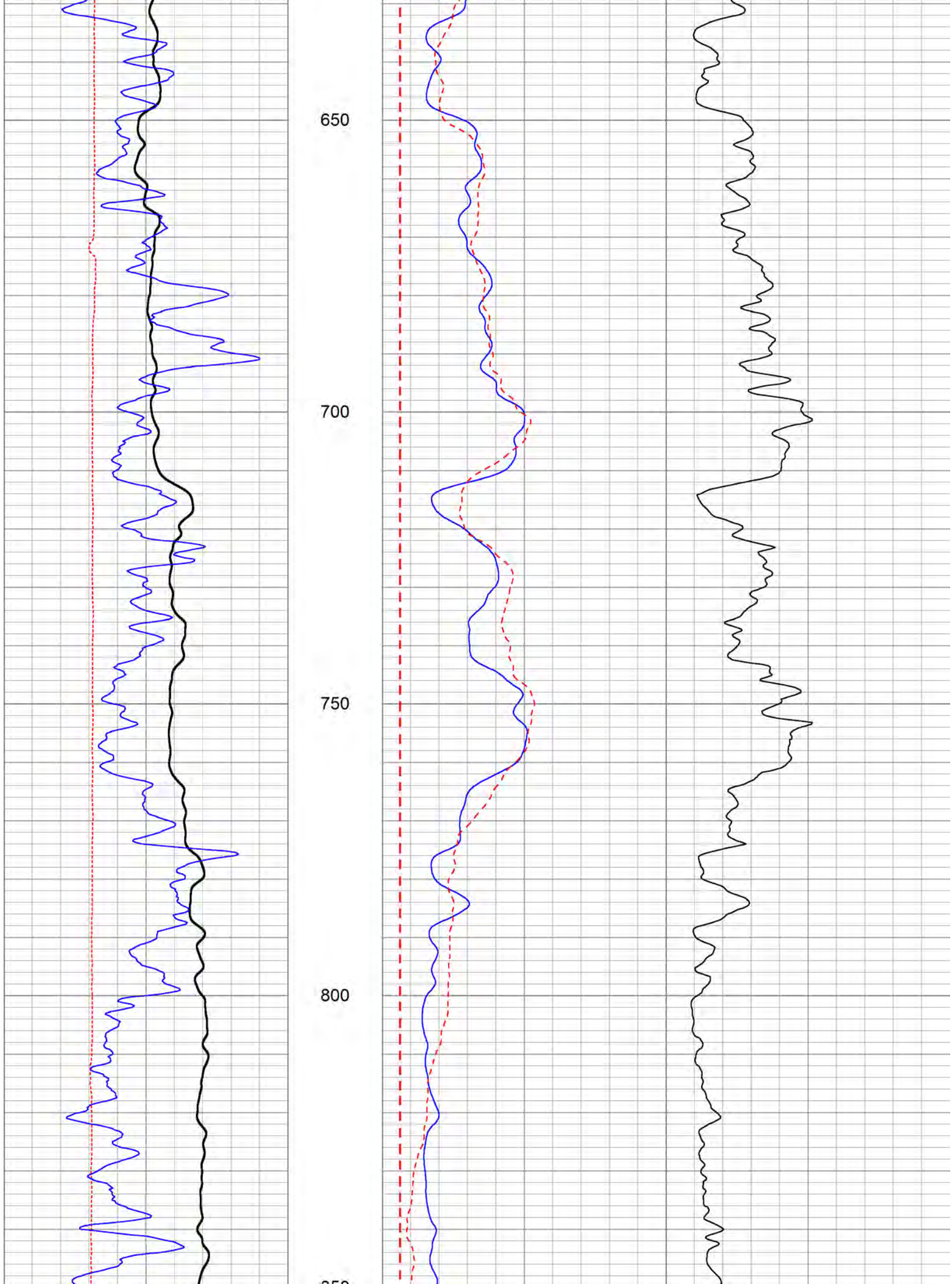
650
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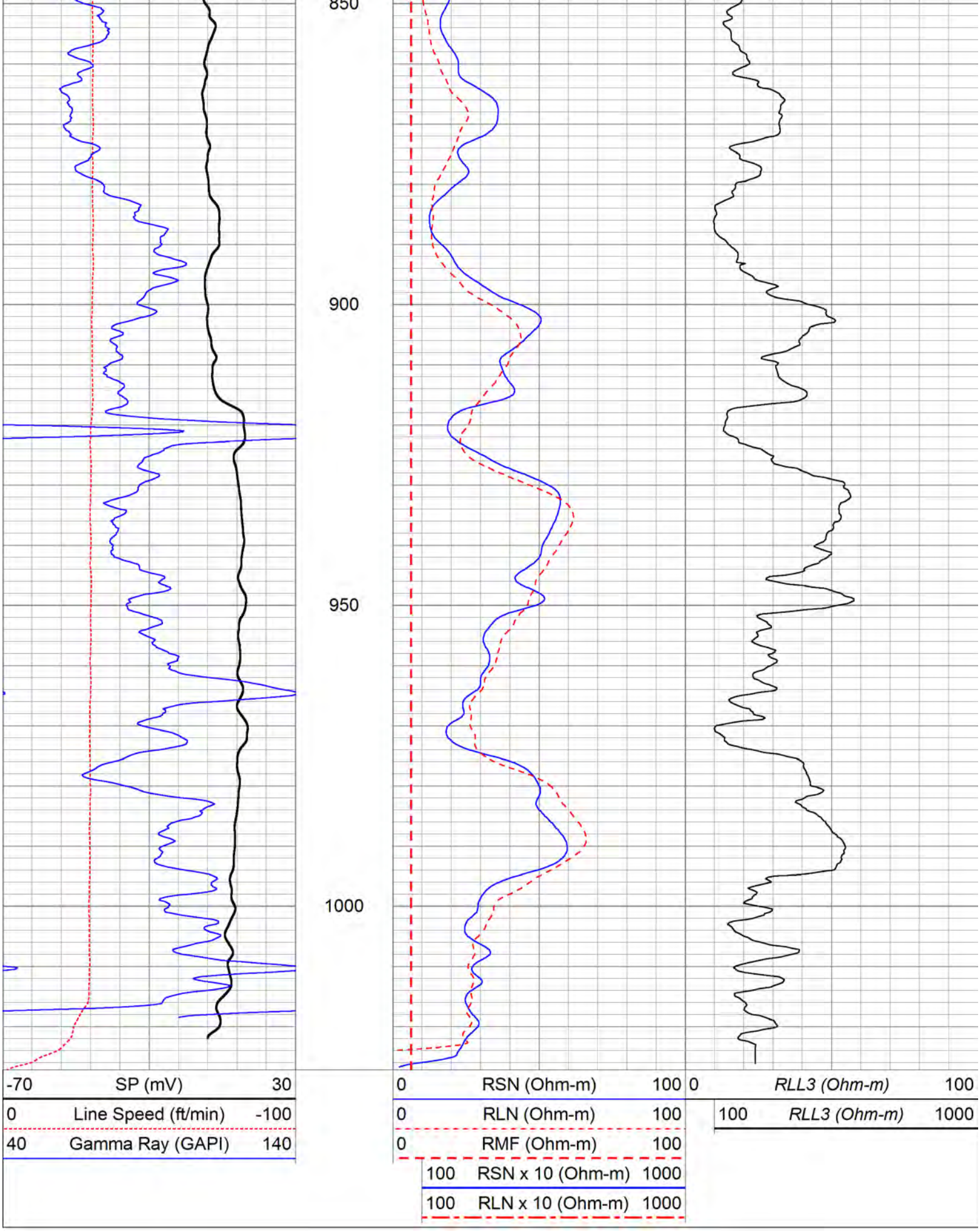

850
900
950
1000
-70 SP (mV) 30
0 Line Speed (ft/min) -100
40 Gamma Ray (GAPI) 140
0 RSN (Ohm-m) 100
0 RLN (Ohm-m) 100
0 RMF (Ohm-m) 100
100 RSN x 10 (Ohm-m) 1000
100 RLN x 10 (Ohm-m) 1000
0 RLL3 (Ohm-m) 100
100 RLL3 (Ohm-m) 1000

PACIFIC SURVEYS

LATEROLOG 3
GAMMA-RAY

Job No. 16297

File No.

Company HARGIS & ASSOCIATES

Well MW-36

Field BUENA PARK

County ORANGE State CA

Location:

BRIDGEPORT AT MALVERN
GPS: N33o 52.657' W117o 58.898'

Other Services:

ELOG
CALIPER

Sec. Twp. Rge.

Permanent Datum	G.L.		Elevation	K.B.
Log Measured From	G.L.	0'	above perm. datum	D.F.
Drilling Measured From	G.L.			G.L.

Date	12/20/2011		
Run Number	ONE		
Depth Driller	1029'		
Depth Logger	1027'		
Bottom Logged Interval	1027'		
Top Log Interval	40'		
Casing Driller	14" @ 40'		
Casing Logger	40'		
Bit Size	12.25"		
Type Fluid in Hole	BENTONITE		
Density / Viscosity	N/A		
pH / Fluid Loss	N/A		
Source of Sample	CIRC		
Rm @ Meas. Temp	5.4 @ 77F		
Rmf @ Meas. Temp	6.2 @ 77F		
Rmc @ Meas. Temp	N/A		
Source of Rmf / Rmc	MEASURE		
Rm @ BHT	N/A		
Time Circulation Stopped	2 HOURS		
Time Logger on Bottom	11:15 AM		
Max. Recorded Temperature	N/A		
Equipment Number	PS-5		
Location	L.A.		
Recorded By	ABREAU		
Witnessed By	G. CRANHAM		

<<< Fold Here >>>

Comments

Calibration Report

Database File: 16297.db
Dataset Pathname: LL3
Dataset Creation: Tue Dec 20 11:59:24 2011 by Log Open-Cased 100827

Gamma Ray Calibration Report

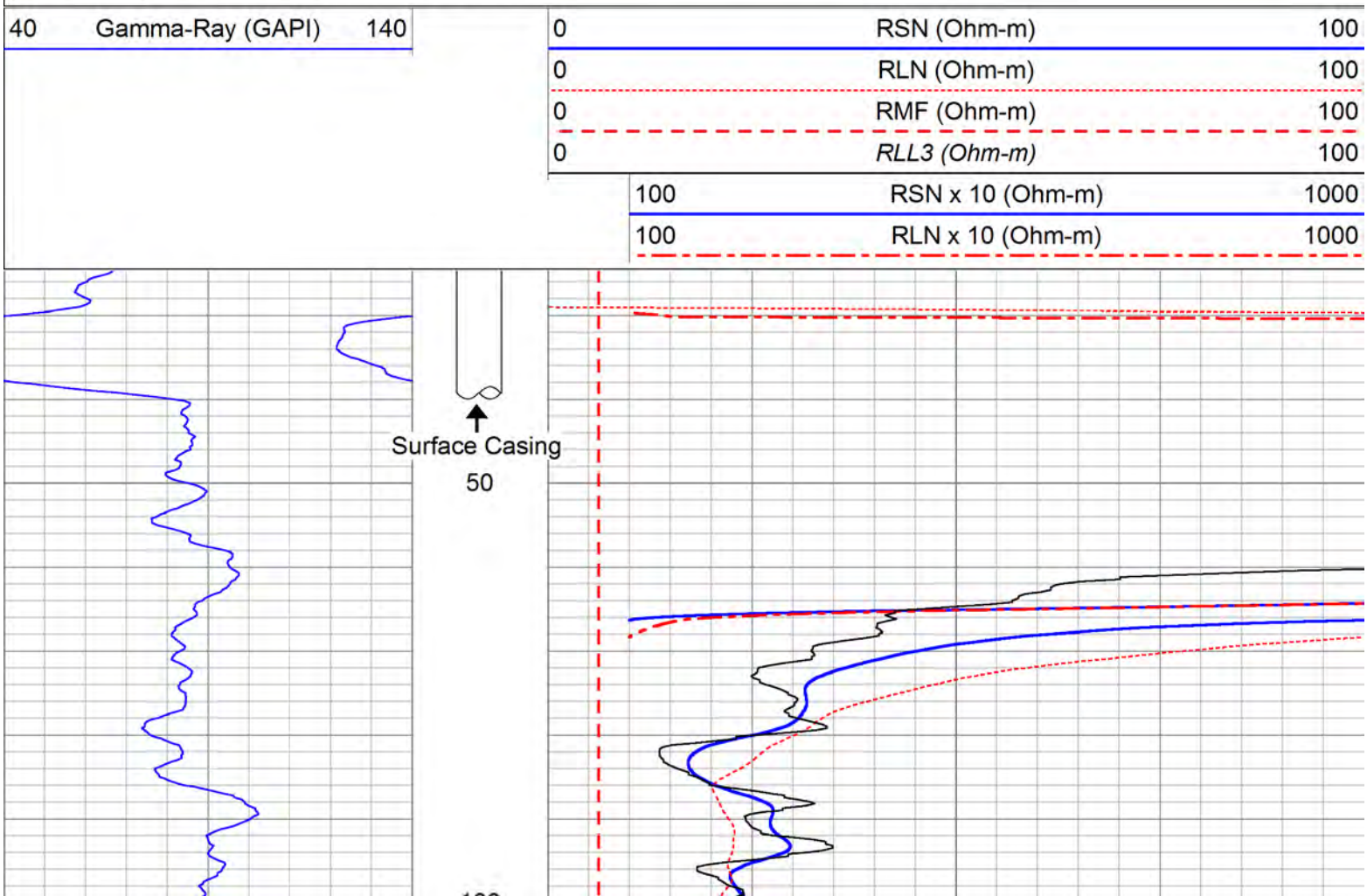
Serial Number:	12	
Tool Model:	GROH	
Performed:	Fri Apr 15 07:10:16 2011	
Calibrator Value:	162.0	GAPI
Background Reading:	43.7	
Calibrator Reading:	168.2	
Sensitivity:	1.3020	GAPI/

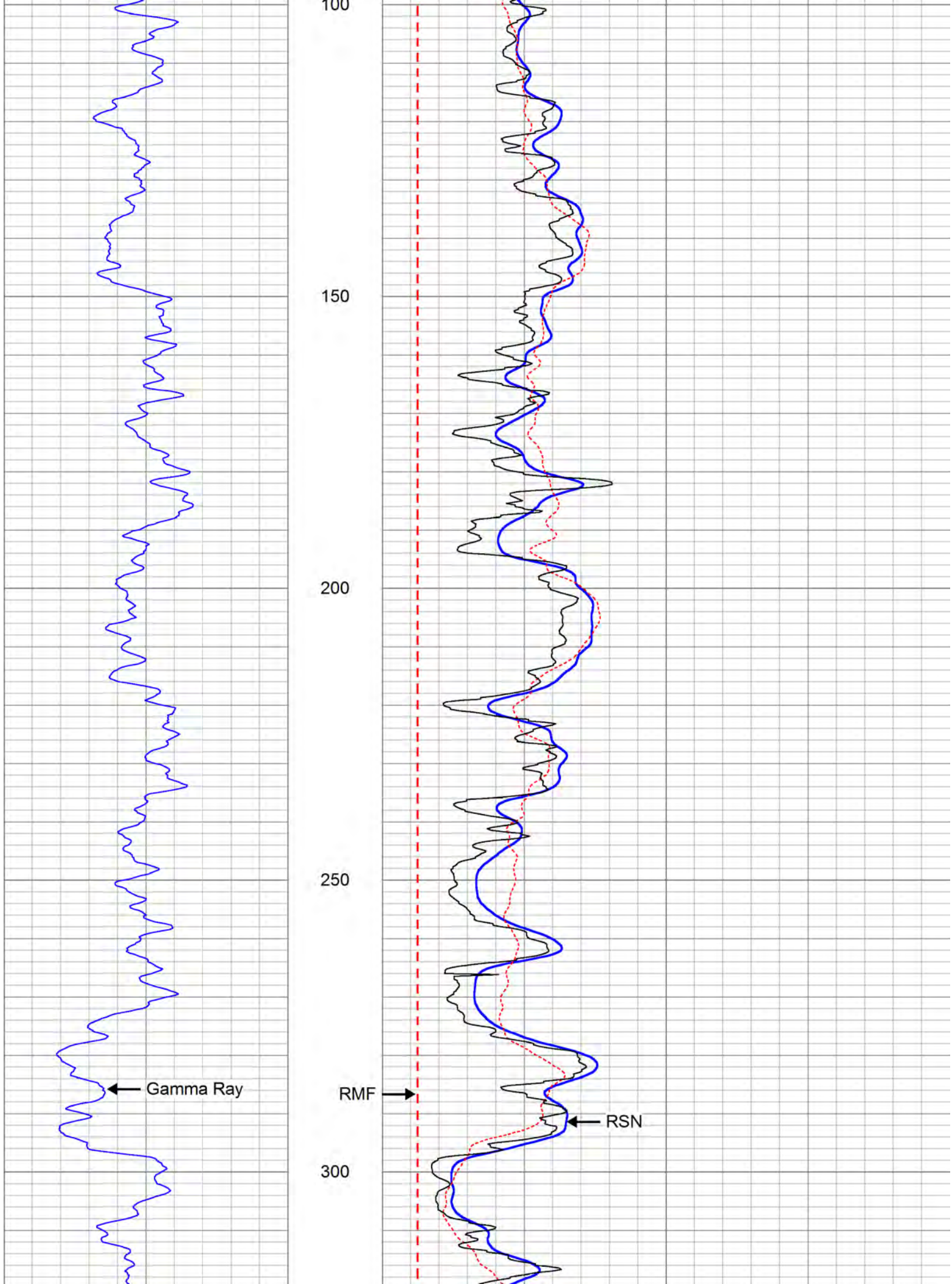
RLL3 (Resistivity Laterolog 3) Calibration Report:

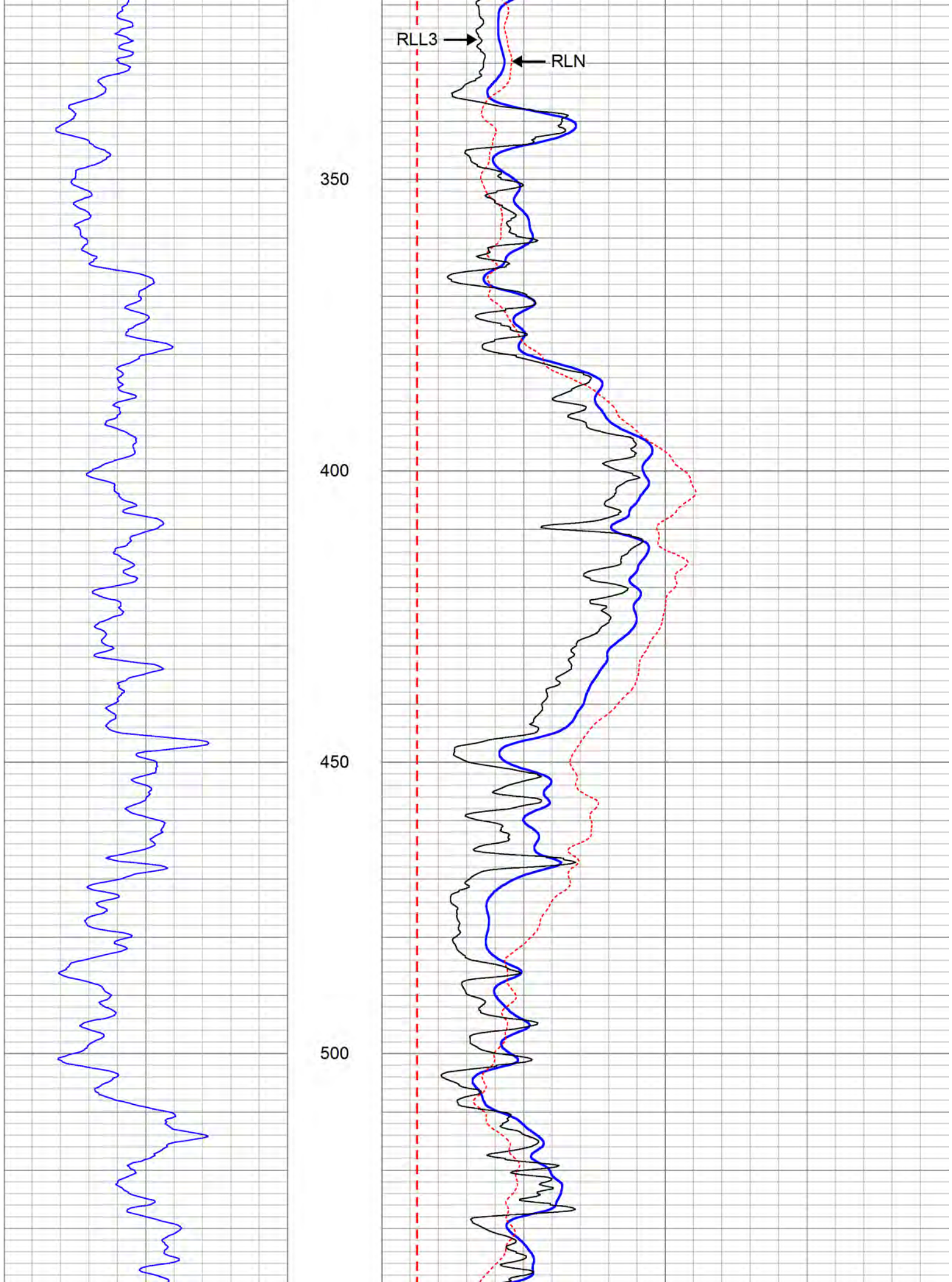
Serial Number:	130
Tool Model:	M&W
Performed:	Sat Apr 09 11:30:57 2011

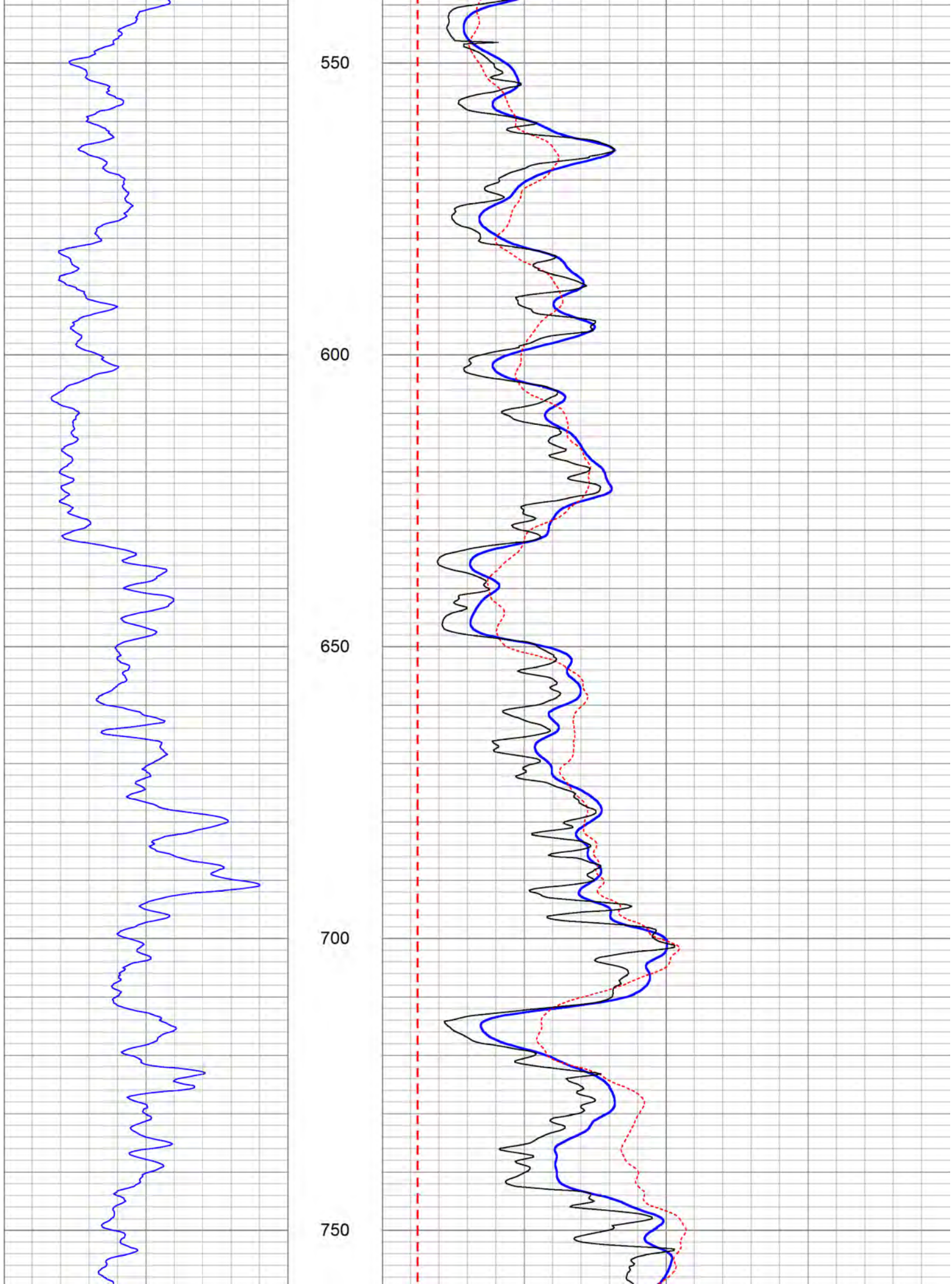
System Reading	Calibration Reference	
0.004	2.500	Ohm-m
0.007	5.000	
0.068	50.000	
0.361	250.000	
0.712	500.000	

Database File:	16297.db
Dataset Pathname:	LL3
Presentation Format:	guard
Dataset Creation:	Tue Dec 20 11:59:24 2011 by Log Open-Cased 100827
Charted by:	Depth in Feet scaled 1:240




100
150
200
250
300
Gamma Ray
RMF
RSN


RLL3
RLN
350
400
450
500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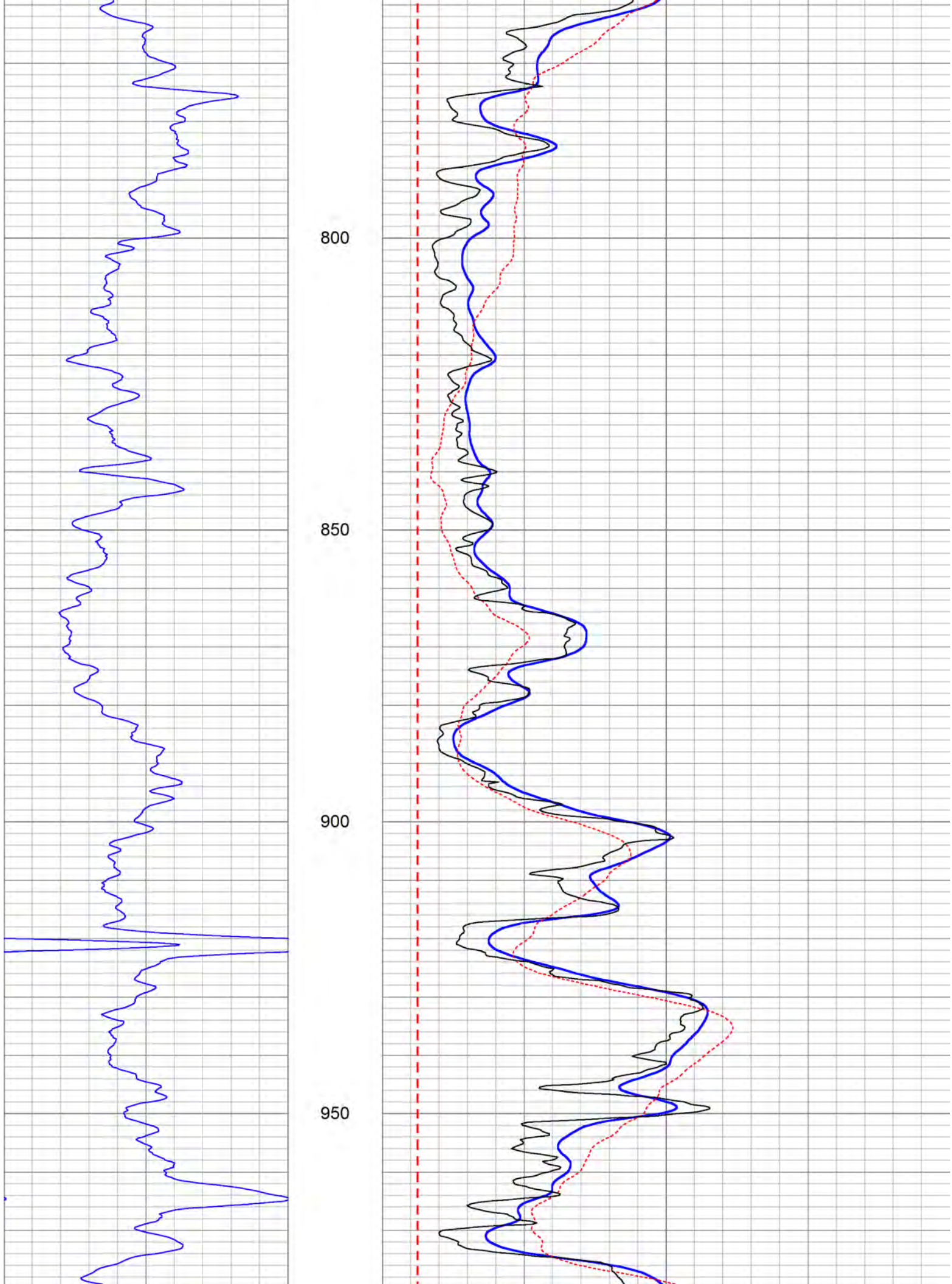
750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850
900
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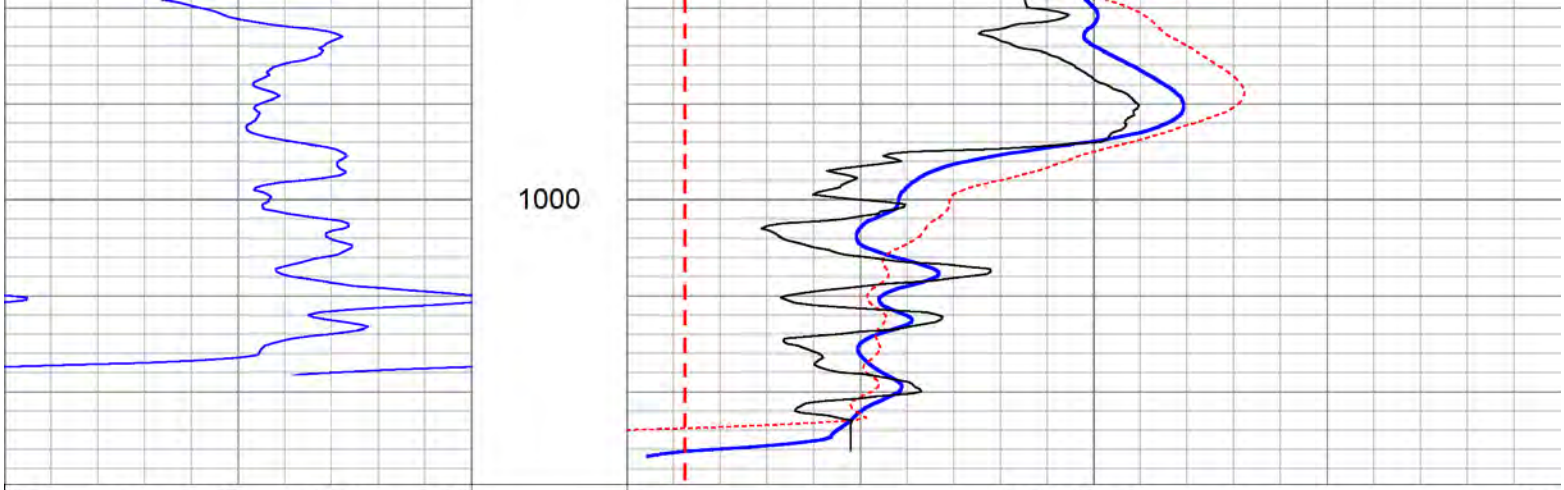
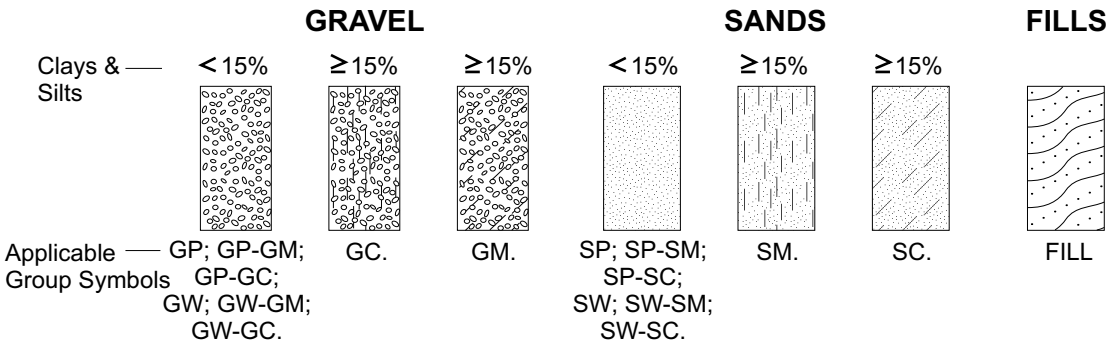


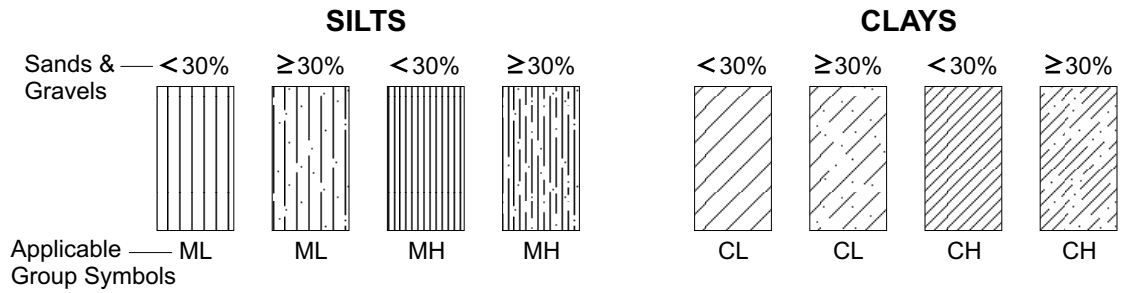
40	Gamma-Ray (GAPI)	140
0	RSN (Ohm-m)	100
0	RLN (Ohm-m)	100
0	RMF (Ohm-m)	100
0	*RLL3 (Ohm-m)*	100
100	RSN x 10 (Ohm-m)	1000
100	RLN x 10 (Ohm-m)	1000

ATTACHMENT 2

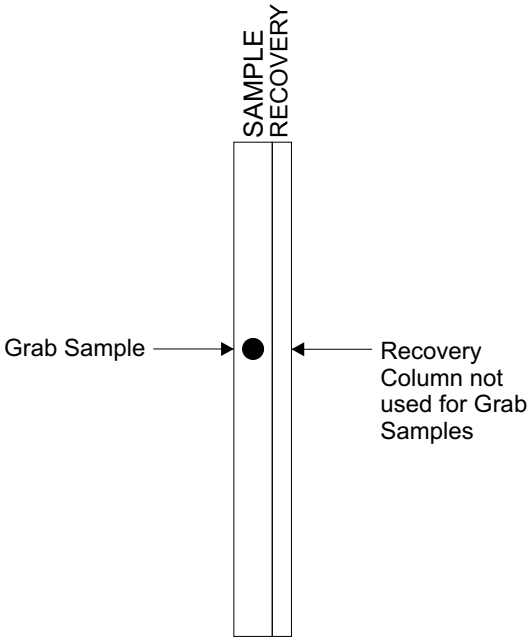
LITHOLOGIC LOG FOR MONITOR WELL MW-36

GRAPHIC LOG MATERIAL SYMBOLS

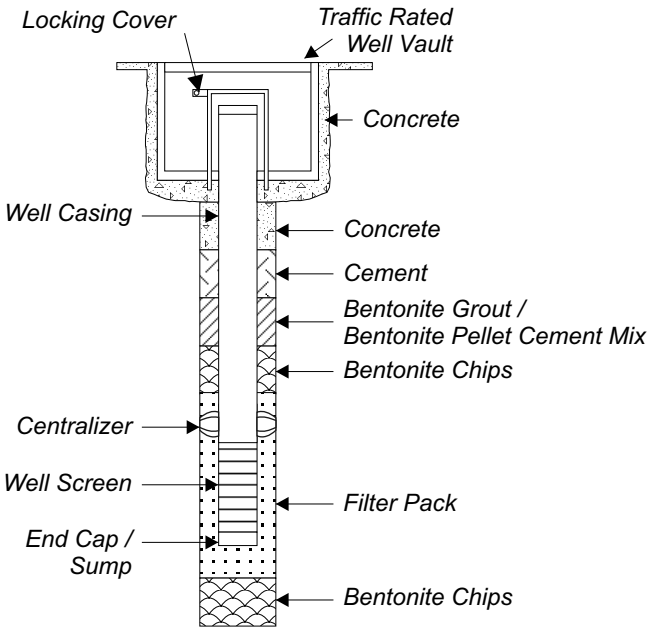




SAMPLE TYPE SYMBOLS



WELL CONSTRUCTION MATERIAL SYMBOLS



2/12	RPT NO.532.03	Figure 2-1 Lithologic Log Symbols.CDR

HARGIS + ASSOCIATES, INC.
Hydrogeology/Engineering

FIGURE 2-1: CONSTRUCTION AND LITHOLOGIC LOG SYMBOLS

MONITOR WELL MW-36

DATE DRILLED: *11/29/11 to 1/5/12*
SURFACE ELEVATION: *87.17 Feet msl**
BOREHOLE DIA.: *12.25 inches*
TOTAL DEPTH OF BORING: *1,030 feet bls*
DRILLING COMPANY: *WDC*
METHOD: *Mud Rotary*
DRILLER'S NAME: *J. Villegas*
A.Beam
DRILL RIG: *Speedstar 30K*
S. Netto
LOGGED BY: *G. Waggle (P.G. #8750)*
CHECKED BY: *(P.G. #8030, CHG #872)*

PROJECT NAME: *Raytheon - Fullerton*
PROJECT NUMBER: *532.03*

LOCATION: *Bridgeport Drive and Malvern Avenue, Fullerton, CA*

COMMENTS: *Lithologic description based on grab samples.*
*Top of Sounding Tube Elevation: 86.65 ft msl**
** - City of Fullerton Datum*

DEPTH (feet)	SAMPLE	RECOVERY	USCS	GRAPHIC LOG	LITHOLOGIC DESCRIPTION OF MATERIAL
					Lithologic descriptions start at 70 feet.

PROFESSIONAL GEOLOGIST
GREGORY WAGGLE
No. 8750
STATE OF CALIFORNIA

WELL CONSTRUCTION DIAGRAM

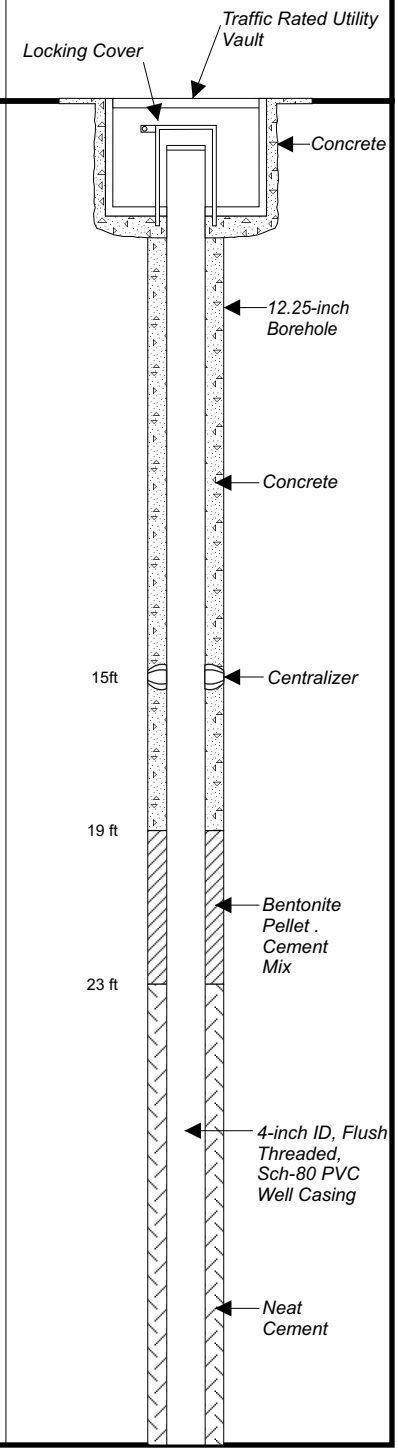


FIGURE 2-2: LITHOLOGIC LOG FOR MONITOR WELL MW-36

MONITOR WELL MW-36

PROJECT NAME: *Raytheon - Fullerton*
PROJECT NUMBER: *532.03*
DATE DRILLED: *11/29/11 to 1/5/12*

DEPTH (feet)	SAMPLE	RECOVERY	USCS	GRAPHIC LOG	LITHOLOGIC DESCRIPTION OF MATERIAL	WELL CONSTRUCTION DIAGRAM
40					Lithologic descriptions start at 70 feet.	12.25-inch Borehole
50						Neat Cement
						55ft Centralizer
60						4-inch ID, Flush Threaded, Sch-80 PVC Well Casing
70	●		SC		CLAYEY SAND (0,80,20) Yellowish brown (10YR 5/4), fine- to coarse-grained, mostly fine, little medium, few coarse, well sorted, coarse-grain sands are subangular.	
	●		ML		SANDY SILT (0,30,70) Dark yellowish brown (10YR 4/4), low- to medium-plasticity; sand: mostly fine.	

FIGURE 2-2: LITHOLOGIC LOG FOR MONITOR WELL MW-36

MONITOR WELL MW-36

PROJECT NAME: *Raytheon - Fullerton*
PROJECT NUMBER: *532.03*
DATE DRILLED: *11/29/11 to 1/5/12*

DEPTH (feet)	SAMPLE	RECOVERY	USCS	GRAPHIC LOG	LITHOLOGIC DESCRIPTION OF MATERIAL
	●		ML		SANDY SILT continued.
80	●		SM		SILTY SAND (5,60,35) Yellowish brown (10YR 5/4), fine- to coarse-grained, mostly medium, some fine and little coarse, mostly subrounded to rounded, little subangular.
	●		SM		Same as above.
90	●		ML		SANDY SILT (0,45,55) Light olive brown (2.5Y 5/4), low plasticity; sand: fine to coarse, mostly fine, few medium and coarse.
	●		ML		Same as above.
100	●		ML		SANDY SILT (0,40,60) Otherwise same as above.
110					

WELL CONSTRUCTION DIAGRAM

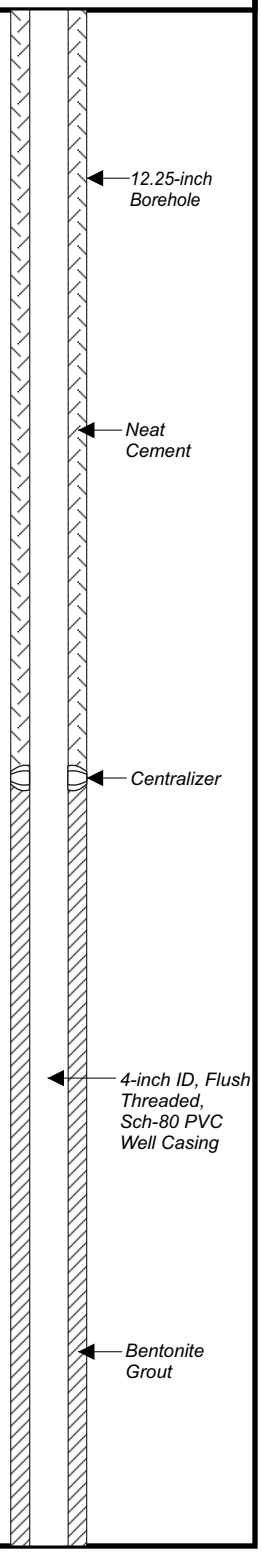


FIGURE 2-2: LITHOLOGIC LOG FOR MONITOR WELL MW-36

MONITOR WELL MW-36

PROJECT NAME: *Raytheon - Fullerton*
PROJECT NUMBER: *532.03*
DATE DRILLED: *11/29/11 to 1/5/12*

DEPTH (feet)	SAMPLE	RECOVERY	USCS	GRAPHIC LOG	LITHOLOGIC DESCRIPTION OF MATERIAL
120					
	●		SM		SILTY SAND (0,80,20) Yellowish brown (10YR 5/4), fine- to coarse-grained, mostly medium, some fine and few coarse, mostly subrounded, little rounded and subangular.
130					
	●		ML		SILT WITH SAND (tr,25,75) Light olive brown (2.5Y 5/3), nonplastic; gravel: subangular.
140	●		SW		SAND (0,95,5) Brown (10YR 5/3), fine- to coarse-grained, predominantly coarse, poorly sorted, subrounded, multicolored.
	●		SW		Same as above.
150	●		SW		SAND (tr,95,5); gravel: fine, subangular, otherwise same as above.
	●		GW-GC		GRAVEL WITH CLAY see below.

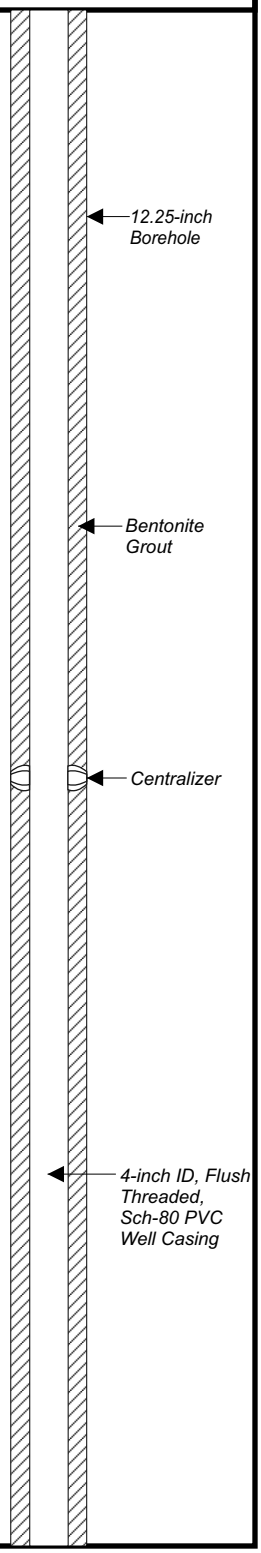


FIGURE 2-2: LITHOLOGIC LOG FOR MONITOR WELL MW-36

MONITOR WELL MW-36

PROJECT NAME: *Raytheon - Fullerton*
PROJECT NUMBER: *532.03*
DATE DRILLED: *11/29/11 to 1/5/12*

DEPTH (feet)	SAMPLE RECOVERY	USCS	GRAPHIC LOG	LITHOLOGIC DESCRIPTION OF MATERIAL	WELL CONSTRUCTION DIAGRAM
	●	GW-GC		GRAVEL WITH CLAY (80,10,10) fine- to coarse-grained, poorly sorted, subrounded to angular; sand: medium- to coarse, subrounded, multicolored grains.	
160	●	SW		SAND (tr,100,tr) Brown (10YR 4/3), medium- to coarse-grained, predominantly coarse, poorly sorted, subrounded to angular, multicolored grains; gravel: subangular to angular; trace clay.	*12.25-inch Borehole*
	●	SM		SILTY SAND (0,60,40) Dark greyish brown (2.5Y 4/2), fine- to coarse-grained, moderately sorted, rounded to angular coarse grains, predominantly medium grained; with silt and clay.	*Bentonite Grout*
170	●	SM		SILTY SAND (0,80,20) Brown (10YR 5/3), fine- to coarse-grained, predominantly medium, rounded to angular, predominantly subrounded, multicolored grains; with silt and some clay.	
	●	ML		SILT WITH SAND (0,20,80) Dark greyish brown (2.5Y 4/2), nonplastic; sand: medium to coarse, predominantly medium, multicolored; approximately 20% clay	175ft *Centralizer*
180	●	ML		SILT WITH SAND (0,25,75) Otherwise same as above.	
	●	CL		CLAY (0,10,90) Dark grey (5Y 4/1), low plasticity; sand: medium to coarse, subrounded to angular; some silt.	*4-inch ID, Flush Threaded, Sch-80 PVC Well Casing*
190	●	CL		SANDY CLAY (tr,30,70) Dark grey (5Y 4/1), low plasticity; sand: medium to coarse; gravel: fine; some silt.	
	●	ML		SILT see below.	

FIGURE 2-2: LITHOLOGIC LOG FOR MONITOR WELL MW-36

MONITOR WELL MW-36

PROJECT NAME: *Raytheon - Fullerton*
PROJECT NUMBER: *532.03*
DATE DRILLED: *11/29/11 to 1/5/12*

DEPTH (feet)	SAMPLE	RECOVERY	USCS	GRAPHIC LOG	LITHOLOGIC DESCRIPTION OF MATERIAL	WELL CONSTRUCTION DIAGRAM
	●		ML		SILT (0,10,90) Olive grey (5Y 5/2), nonplastic; sand: fine to coarse, predominantly medium; some clay.	
200						*12.25-inch Borehole*
	●		ML		SANDY SILT (tr,30,70) greyish brown (2.5Y 5/2), low plasticity; sand: fine to coarse, predominantly medium, subrounded to angular, multi-colored; some clay.	*Bentonite Grout*
210	●		SM		SILTY SAND (0,65,35) Light olive brown (2.5Y 5/3), fine- to coarse-grained, predominantly medium, subrounded to angular; fines: multi-colored, mostly silt, some clay, low plasticity.	
	●		SM		SILTY SAND (0,70,30) Otherwise same as above.	215ft *Centralizer*
220						
	●		ML		SANDY SILT (tr,30,70) Olive grey (5Y 4/2), nonplastic; sand: fine to coarse, predominantly coarse; gravel: fine; some clay.	*4-inch ID, Flush Threaded, Sch-80 PVC Well Casing*
230	●		ML		SILT WITH SAND (0,20,80) Olive grey (5Y 4/2), nonplastic; sand: fine to coarse, predominantly fine; some clay.	
	●		ML		Same as above.	

FIGURE 2-2: LITHOLOGIC LOG FOR MONITOR WELL MW-36

MONITOR WELL MW-36

PROJECT NAME: *Raytheon - Fullerton*
PROJECT NUMBER: *532.03*
DATE DRILLED: *11/29/11 to 1/5/12*

DEPTH (feet)	SAMPLE	RECOVERY	USCS	GRAPHIC LOG	LITHOLOGIC DESCRIPTION OF MATERIAL	WELL CONSTRUCTION DIAGRAM
	●		ML		SILT WITH SAND continued.	
240	●		ML		Same as above.	
	●		ML		SANDY SILT (tr,35,65) Olive grey (5Y 4/2); sand: fine to coarse, predominantly medium to coarse, subrounded to angular; gravel: fine; some clay (~30%).	
250	●		CL		CLAY WITH SAND (0,25,75) Olive grey (5Y 4/2), nonplastic to low plasticity; sand: fine to coarse, predominantly fine, coarse sand subrounded to angular.	
	●		CL		CLAY WITH SAND (0,20,80) Otherwise same as above.	255ft
260	●		CL		Same as above.	
270	●		CL		CLAY WITH SAND (0,15,85) Otherwise same as at 255 feet.	
	●		CL		CLAY WITH SAND Same as at 255 feet.	

12.25-inch Borehole
Bentonite Grout
Centralizer
4-inch ID, Flush Threaded, Sch-80 PVC Well Casing

FIGURE 2-2: LITHOLOGIC LOG FOR MONITOR WELL MW-36

MONITOR WELL MW-36

PROJECT NAME: *Raytheon - Fullerton*
PROJECT NUMBER: *532.03*
DATE DRILLED: *11/29/11 to 1/5/12*

DEPTH (feet)	SAMPLE	RECOVERY	USCS	GRAPHIC LOG	LITHOLOGIC DESCRIPTION OF MATERIAL	WELL CONSTRUCTION DIAGRAM
	●		CL		CLAY WITH SAND continued.	
280	●		CL		CLAY WITH SAND Light olive brown (2.5Y 5/4) otherwise same as above.	*12.25-inch Borehole*
	●		CL		CLAY WITH SAND (0,25,75) Light olive brown (2.5YR 5/3), low plasticity; sand: fine to coarse, predominantly medium, subrounded to angular; some silt.	*Bentonite Grout*
290	●		ML		SILT WITH SAND (tr,20,80) Light olive brown (2.5Y 5/4), sand: fine to coarse, predominantly fine; gravel: fine, subangular; some clay.	
	●		ML		SANDY SILT (0,35,65) Light olive brown (2.5Y), nonplastic ; sand: fine to coarse, predominantly fine; some clay.	290ft *Centralizer*
300	●		ML		SANDY SILT (0,40,60) Increased coarse sand content, otherwise same as above.	
	●		CH		CLAY (0,0,100) Very dark grey (5Y 3/1), very stiff, high plasticity.	*4-inch ID, Flush Threaded, Sch-80 PVC Well Casing*
310	●		CL		CLAY WITH SAND (0,15,85) grey (5Y 5/1), nonplasticity to low plasticity; sand fine to coarse, predominantly medium.	
	●		CL		CLAY WITH SAND (0,20,80) Increased sand content, low to medium plasticity, otherwise same as above.	

FIGURE 2-2: LITHOLOGIC LOG FOR MONITOR WELL MW-36

MONITOR WELL MW-36

PROJECT NAME: *Raytheon - Fullerton*
PROJECT NUMBER: *532.03*
DATE DRILLED: *11/29/11 to 1/5/12*

DEPTH (feet)	SAMPLE	RECOVERY	USCS	GRAPHIC LOG	LITHOLOGIC DESCRIPTION OF MATERIAL	WELL CONSTRUCTION DIAGRAM
	●		CL		CLAY WITH SAND continued.	
320	●		CL		Same as above	12.25-inch Borehole
	●		CL		SANDY CLAY (0,30,70) Dark grey (5Y 4/1), nonplastic to low plasticity; sand: fine to coarse, predominantly medium, subrounded to subangular.	Bentonite Grout
330	●		CL		CLAY WITH SAND (0,25,75) Dark grey (5Y 4/1), low to medium plasticity; sand: fine to coarse, predominantly medium, subrounded.	
	●		CL		CLAY WITH SAND Increased fine sand, otherwise same as above.	335ft Centralizer
340	●		CL		CLAY WITH SAND (0,20,80) Olive grey (5Y 4/2), low plasticity; sand: fine to coarse, predominantly fine.	
	●		CL		SANDY CLAY (0,30,70) Light olive brown (2.5YR 5/4), nonplastic to low plasticity; sand: fine to coarse, predominantly medium, subrounded to subangular.	4-inch ID, Flush Threaded, Sch-80 PVC Well Casing
350	●		CL		SANDY CLAY (tr,30,70) Light olive brown (2.5YR 5/3), low to medium plasticity; sand: fine to coarse, predominantly coarse, subrounded to subangular, multicolored sand grains; gravel: fine.	
	●		CL		SANDY CLAY see below.	

FIGURE 2-2: LITHOLOGIC LOG FOR MONITOR WELL MW-36

MONITOR WELL MW-36

PROJECT NAME: *Raytheon - Fullerton*
PROJECT NUMBER: *532.03*
DATE DRILLED: *11/29/11 to 1/5/12*

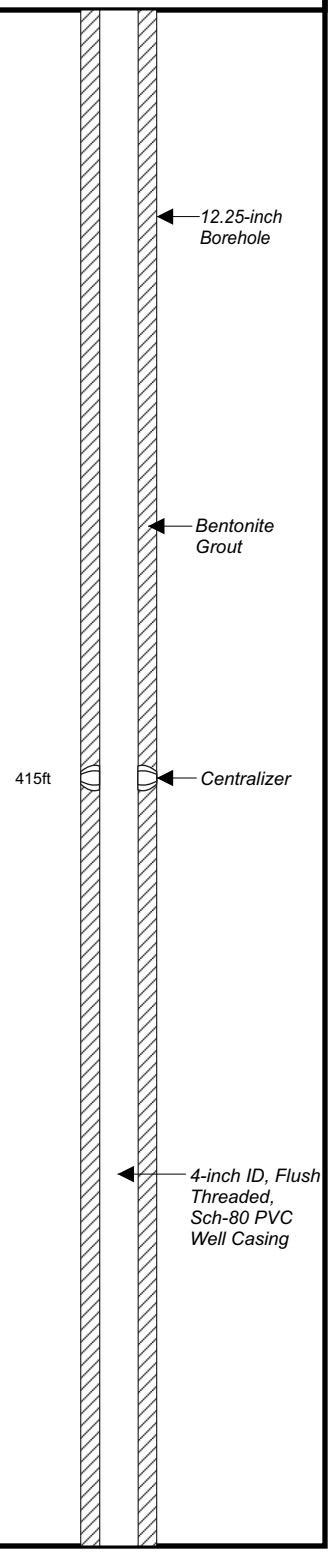
DEPTH (feet)	SAMPLE	RECOVERY	USCS	GRAPHIC LOG	LITHOLOGIC DESCRIPTION OF MATERIAL	WELL CONSTRUCTION DIAGRAM
	●		CL		SANDY CLAY (tr,40,60) Light olive brown (2.5YR 5/4), low to medium plasticity; sand: fine to coarse, predominantly fine, coarse sand: subrounded to angular, multicolored; some silt	
360	●		CL		SANDY CLAY (0,30,70) Light olive brown (2.5YR 5/4), nonplastic to low plasticity; sand: fine to coarse, subrounded to angular, multi-colored.	*12.25-inch Borehole*
	●		CL		SANDY CLAY Less coarse sand otherwise same as 355 feet.	
						Bentonite Grout
370	●		CL		SANDY CLAY Same as 365 feet.	
	●		CL		CLAY WITH SAND (0,25,75) Brown (10YR 4/3); sand: fine to coarse, predominantly fine; some silt.	375ft *Centralizer*
380	●		CL		SANDY CLAY (0,35,65) Light olive brown (2.5Y 5/4), sand: fine to coarse, predominantly coarse, subrounded to subangular, multicolored; some silt.	
	●		CL		SANDY CLAY Increase in silt content, otherwise same as above.	*4-inch ID, Flush Threaded, Sch-80 PVC Well Casing*
390						
	●		CL		SANDY CLAY see below.	

FIGURE 2-2: LITHOLOGIC LOG FOR MONITOR WELL MW-36

MONITOR WELL MW-36

PROJECT NAME: *Raytheon - Fullerton*
PROJECT NUMBER: *532.03*
DATE DRILLED: *11/29/11 to 1/5/12*

DEPTH (feet)	SAMPLE	RECOVERY	USCS	GRAPHIC LOG	LITHOLOGIC DESCRIPTION OF MATERIAL
	●		CL		SANDY CLAY (0,40,60) Olive brown (2.5Y 4/3); sand: fine to coarse, predominantly coarse, subrounded to subangular, multicolored grains; with silt.
400	●		SC		CLAYEY SAND (0,85,15) Light olive brown (2.5Y 5/3), fine- to coarse-grained, predominantly coarse, well sorted, subrounded to subangular; some silt.
	●		SP		SAND (0,95,5) Light olive brown (2.5Y 5/3), fine- to coarse-grained, predominantly coarse, well sorted, subrounded to subangular, multicolored.
410	●		CL		SANDY CLAY (0,45,55) Light olive brown (2.5Y 5/3), sand: fine to coarse, predominantly coarse, well sorted, subrounded to subangular, multicolored; some silt.
	●		CL		SANDY CLAY (tr,40,60) Increased silt content and trace gravel, otherwise same as above.
420	●		ML		SILT WITH SAND (0,15,85) Light olive brown (2.5Y 5/3); sand: fine to coarse, predominantly coarse; some clay.
	●		ML		Same as above.
430	●		SC		CLAYEY SAND (0,75,25) Light olive brown (2.5Y 5/3), fine- to coarse-grained, predominantly coarse, well sorted, coarse sand: subrounded to subangular, multicolored; some silt.
	●		SC		Same as above.



WELL CONSTRUCTION DIAGRAM

FIGURE 2-2: LITHOLOGIC LOG FOR MONITOR WELL MW-36

MONITOR WELL MW-36

PROJECT NAME: *Raytheon - Fullerton*
PROJECT NUMBER: *532.03*
DATE DRILLED: *11/29/11 to 1/5/12*

DEPTH (feet)	SAMPLE	RECOVERY	USCS	GRAPHIC LOG	LITHOLOGIC DESCRIPTION OF MATERIAL	WELL CONSTRUCTION DIAGRAM
	●		SC		CLAYEY SAND continued.	
440	●		CL		SANDY CLAY (0,30,70) Light olive brown (2.5Y 5/3), sand: fine to coarse, predominantly coarse, subrounded, multicolor; some silt.	*12.25-inch Borehole*
	●		CL		GRAVELLY CLAY WITH SAND (25,20,55) Light olive brown (2.5Y 5/3); approximately 40% of fines are silt, sand: fine to coarse, predominantly coarse, well sorted, subrounded, multicolored; gravel: fine, subrounded to angular, gravel and sand: multicolored.	*Bentonite Grout*
450	●		CL		SANDY CLAY (0,35,65) Light olive brown (2.5Y 5/3); sand: fine to coarse, predominantly fine, subrounded to subangular, multicolored; some silt.	
	●		ML		SILT (0,10,90) Dark grey (5Y 4/1), low to medium plasticity; sand: fine to coarse, predominantly medium; some (~30%) clay.	455ft *Centralizer*
460	●		ML		SILT WITH SAND (0,15,85) Dark grey (5Y 4/1), low to medium plasticity; sand: fine to coarse, predominantly medium; some (~30%) clay.	*4-inch ID, Flush Threaded, Sch-80 PVC Well Casing*
470	●		ML		SANDY SILT (0,30,70) Dark grey (5Y 4/1); sand: fine to coarse, predominantly coarse, subrounded to subangular, multicolored; some (~25%) clay.	
	●		ML		SANDY SILT (0,35,65) Otherwise same as above.	

FIGURE 2-2: LITHOLOGIC LOG FOR MONITOR WELL MW-36

MONITOR WELL MW-36

PROJECT NAME: *Raytheon - Fullerton*
PROJECT NUMBER: *532.03*
DATE DRILLED: *11/29/11 to 1/5/12*

DEPTH (feet)	SAMPLE	RECOVERY	USCS	GRAPHIC LOG	LITHOLOGIC DESCRIPTION OF MATERIAL	WELL CONSTRUCTION DIAGRAM
	●		ML		SANDY SILT continued.	
480	●		CL		CLAY WITH SAND (0,15,85) Light olive brown (2.5Y 5/3), low to non-plasticity; sand: fine to coarse, predominantly fine; some silt.	*12.25-inch Borehole*
	●		CL		Same as above.	
						Bentonite Grout
490	●		CL		Same as above.	
	●		CL		Same as above.	495ft *Centralizer*
500	●		CL		CLAY WITH SAND Olive grey (5Y 4/2) Otherwise same as above.	
	●		ML		SILT WITH SAND (0,15,85) Light olive brown (2.5Y 3/5); approximately 40% clay; sand: fine to coarse, predominantly medium, subrounded to subangular, coarse sand: multicolored.	*4-inch ID, Flush Threaded, Sch-80 PVC Well Casing*
510	●		CL		CLAY WITH SAND (0,15,85) Light olive brown (2.5Y 3/5); approximately 45% silt; sand: fine to coarse, predominantly medium, subrounded to subangular; coarse sand: multicolored.	
	●		CL		Same as above.	

FIGURE 2-2: LITHOLOGIC LOG FOR MONITOR WELL MW-36

MONITOR WELL MW-36

PROJECT NAME: *Raytheon - Fullerton*
PROJECT NUMBER: *532.03*
DATE DRILLED: *11/29/11 to 1/5/12*

DEPTH (feet)	SAMPLE	RECOVERY	USCS	GRAPHIC LOG	LITHOLOGIC DESCRIPTION OF MATERIAL	WELL CONSTRUCTION DIAGRAM
	●		CL		CLAY WITH SAND continued.	
520	●		CL		Same as above.	12.25-inch Borehole
	●		CL		SANDY CLAY (0,30,70) Olive brown (2.5Y 4/3), nonplastic to low plasticity; some silt; sand: fine to coarse, predominantly coarse, subrounded to subangular, multicolored grains.	Bentonite Grout
530						
	●		CL		CLAY WITH SAND (0,15,85) Light yellowish brown (2.5Y 6/3); some silt; sand: fine to coarse, predominantly fine.	535ft Centralizer
540	●		CL		CLAY WITH SAND Light olive brown (2.5Y 5/3) otherwise same as above.	
	●		CL		CLAY (0,10,90) Olive grey (5Y 5/2); approximately 25-35% silt, sand: fine to medium, predominantly fine.	4-inch ID, Flush Threaded, Sch-80 PVC Well Casing
550	●		CL		CLAY approximately 20-30% silt otherwise same as above.	
	●		CL		CLAY WITH SAND see below.	

FIGURE 2-2: LITHOLOGIC LOG FOR MONITOR WELL MW-36

MONITOR WELL MW-36

PROJECT NAME: *Raytheon - Fullerton*
PROJECT NUMBER: *532.03*
DATE DRILLED: *11/29/11 to 1/5/12*

DEPTH (feet)	SAMPLE	RECOVERY	USCS	GRAPHIC LOG	LITHOLOGIC DESCRIPTION OF MATERIAL	WELL CONSTRUCTION DIAGRAM
	●		CL		CLAY WITH SAND (tr,15,85) Olive grey (5Y 4/2); some silt (~25-35%); sand: fine to coarse, predominantly fine; gravel: fine, subangular to angular, multicolored.	
560	●		CL		CLAY WITH SAND (0,15,85) low plasticity otherwise same as above.	*12.25-inch Borehole*
	●		CL		CLAY WITH SAND (0,20,80) Olive brown (2.5Y 4/3) low to medium plasticity; some silt; sand: fine to coarse, predominantly medium, subrounded to subangular, multicolored.	*Bentonite Grout*
570	●		CL		CLAY WITH SAND nonplastic to low plasticity, otherwise same as above.	
	●		CL		SANDY CLAY (tr,45,55) Light olive brown (2.5Y 5/3); some silt, sand: fine to coarse, predominantly medium, approximately 25% coarse, subrounded to subangular; gravel: multicolored, subrounded to subangular.	575ft *Centralizer*
580	●		CL		SANDY CLAY (0,40,60) greyish brown (2.5Y 5/2); some silt, sand: fine to coarse, predominantly coarse, rounded to subangular, multicolored.	
	●		CL		CLAY WITH SAND (0,20,80) Brown (10YR 4/3), nonplastic to low plasticity; with silt, sand: fine to coarse, predominantly fine.	*4-inch ID, Flush Threaded, Sch-80 PVC Well Casing*
590	●		CL		SANDY CLAY (tr,40,60) Olive brown (2.5Y 4/3); high silt content; sand: fine to coarse, predominantly medium, rounded to subangular; gravel: multicolored, fine, subrounded to angular.	
	●		SP-SC		SAND WITH CLAY see below.	

FIGURE 2-2: LITHOLOGIC LOG FOR MONITOR WELL MW-36

MONITOR WELL MW-36

PROJECT NAME: *Raytheon - Fullerton*
PROJECT NUMBER: *532.03*
DATE DRILLED: *11/29/11 to 1/5/12*

DEPTH (feet)	SAMPLE	RECOVERY	USCS	GRAPHIC LOG	LITHOLOGIC DESCRIPTION OF MATERIAL
	●		SP-SC		SAND WITH CLAY (tr,90,10) Light olive brown (2.5Y 5/3), fine- to coarse-grained, predominantly coarse, well-sorted, subrounded to subangular; possible trace shell fragments or shale.
600	●		SC		CLAYEY SAND (0,55,45) Light olive brown (2.5Y 5/3), fine- to coarse-grained, predominantly coarse, well sorted, subrounded to subangular, multicolored.
	●		CL		SANDY CLAY (0,30,70) Light olive brown (2.5Y 5/3); some silt; sand: fine to coarse, predominantly medium.
610					
620					
	●		CL		SANDY CLAY (tr,40,60) Light olive brown (2.5Y 5/3); some silt; sand: fine to coarse, predominantly coarse, subrounded to subangular, multicolored; gravel: fine.
630	●		CL		SANDY CLAY (tr,45,55) Otherwise same as above.
	●		CL		SANDY CLAY see below.

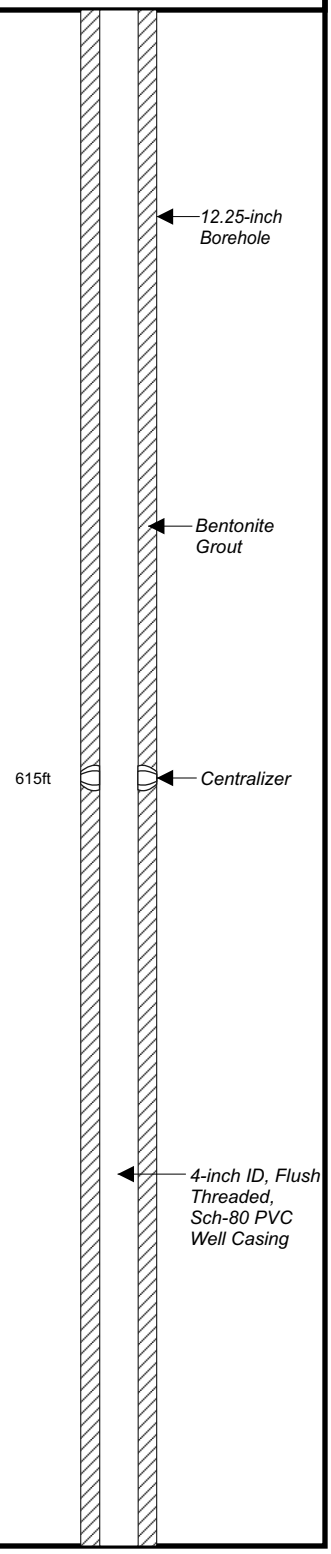


FIGURE 2-2: LITHOLOGIC LOG FOR MONITOR WELL MW-36

MONITOR WELL MW-36

PROJECT NAME: *Raytheon - Fullerton*
PROJECT NUMBER: *532.03*
DATE DRILLED: *11/29/11 to 1/5/12*

DEPTH (feet)	SAMPLE	RECOVERY	USCS	GRAPHIC LOG	LITHOLOGIC DESCRIPTION OF MATERIAL	WELL CONSTRUCTION DIAGRAM
	●		CL		SANDY CLAY (0,45,55) Light olive brown (2.5Y 5/4); some silt; sand: fine to coarse, predominantly coarse, subrounded to subangular, multicolored.	
640	●		CL		SANDY CLAY (0,35,65) Brown (2.5Y 4/3); some silt; sand: fine to coarse, predominantly coarse, subrounded to subangular, multicolored.	*12.25-inch Borehole*
	●		CL		SANDY CLAY (0,30,70) Light olive brown (2.5Y 5/3), low plasticity; sand: fine to coarse, predominantly coarse, well sorted, subrounded to subangular, multicolored.	*Bentonite Grout*
650	●		CL		CLAY (0,10,90) Light olive brown (2.5Y 5/3), low to medium plasticity; sand: fine to coarse, predominantly medium.	
	●		CL		SANDY CLAY (0,35,65) Light olive brown (2.5Y 5/3), nonplastic to low plasticity; sand: fine to coarse, predominantly medium.	655ft *Centralizer*
660	●		CL		SANDY CLAY (0,35,65) low to medium plasticity, otherwise same as above.	
	●		CL		SANDY CLAY (0,45,65) Light olive brown (2.5Y 5/3); sand: fine to coarse, predominantly coarse, subrounded to subangular, multicolored.	*4-inch ID, Flush Threaded, Sch-80 PVC Well Casing*
670	●		CL		SANDY CLAY (0,35,65) Olive brown (2.5Y 4/4); sand: fine to coarse, well sorted, subrounded to subangular.	
	●		CL		CLAY WITH SAND see below..	

FIGURE 2-2: LITHOLOGIC LOG FOR MONITOR WELL MW-36

MONITOR WELL MW-36

PROJECT NAME: *Raytheon - Fullerton*
PROJECT NUMBER: *532.03*
DATE DRILLED: *11/29/11 to 1/5/12*

DEPTH (feet)	SAMPLE	RECOVERY	USCS	GRAPHIC LOG	LITHOLOGIC DESCRIPTION OF MATERIAL
	●		CL		CLAY WITH SAND (0,20,80) Light olive brown (2.5Y 5/3), nonplastic to low plasticity; some silt; sand: fine to coarse, predominantly medium.
680	●		CL		CLAY WITH SAND Olive grey (5Y 4/2), Otherwise same as above.
	●		CL		CLAY WITH SAND (0,15,85) Otherwise same as above.
690	●		CL		CLAY (0,10,90) Dark grey (5Y 4/1), low plasticity; some silt; sand: fine to medium.
	●		CL		CLAY low to medium plasticity, otherwise same as above.
700	●		CL		Same as above.
	●		CL		CLAY WITH SAND (0,20,80) Dark grey (5Y 4/1), low plasticity; some silt; sand: fine to coarse, predominantly coarse.
710	●		SW-SC		SAND WITH CLAY AND GRAVEL (15,75,10) Light olive brown (2.5Y 5/3), fine- to coarse-grained, predominantly coarse, subrounded to subangular; gravel: fine, subrounded to angular, multicolored.
	●		SW-SC		Same as above.

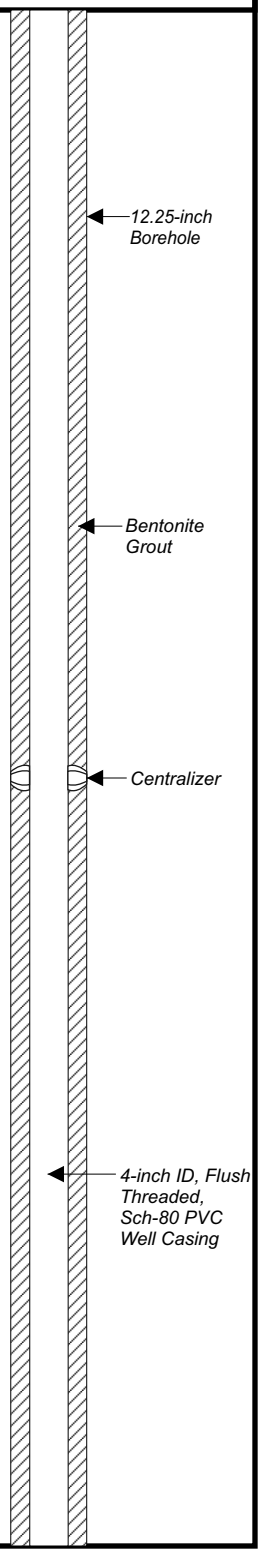


FIGURE 2-2: LITHOLOGIC LOG FOR MONITOR WELL MW-36

MONITOR WELL MW-36

PROJECT NAME: *Raytheon - Fullerton*
PROJECT NUMBER: *532.03*
DATE DRILLED: *11/29/11 to 1/5/12*

DEPTH (feet)	SAMPLE	RECOVERY	USCS	GRAPHIC LOG	LITHOLOGIC DESCRIPTION OF MATERIAL	WELL CONSTRUCTION DIAGRAM
			SW-SC		SAND WITH CLAY AND GRAVEL continued.	
720			SC		CLAYEY SAND (5,50,45) Light olive brown (2.5Y 5.3), fine- to coarse grained, predominantly coarse, moderately sorted; gravel: fine, subrounded to angular, multicolored.	
			CL		GRAVELLY CLAY (40,5,55) Light olive brown (2.5Y 5/3), medium plasticity; gravel: fine, subrounded to angular, possible fractured, multicolored.	
730			CL		SANDY CLAY (5,30,65) Light olive brown (2.5Y 5/3); sand: fine to coarse, predominantly coarse; gravel: fine subrounded to angular, multicolored.	
			CL		SANDY CLAY (10,25,65) Otherwise same as above.	
740			CL		SANDY CLAY (tr,35,65) Light olive brown (2.5Y 5/3); sand: fine to coarse, predominantly coarse; gravel: fine.	
			CL		CLAY WITH SAND (tr,25,75) Light olive brown (2.5Y 5/3); sand: fine to coarse, predominantly medium; gravel: fine.	
750			CL		Same as above.	
			CL		SANDY CLAY see below.	

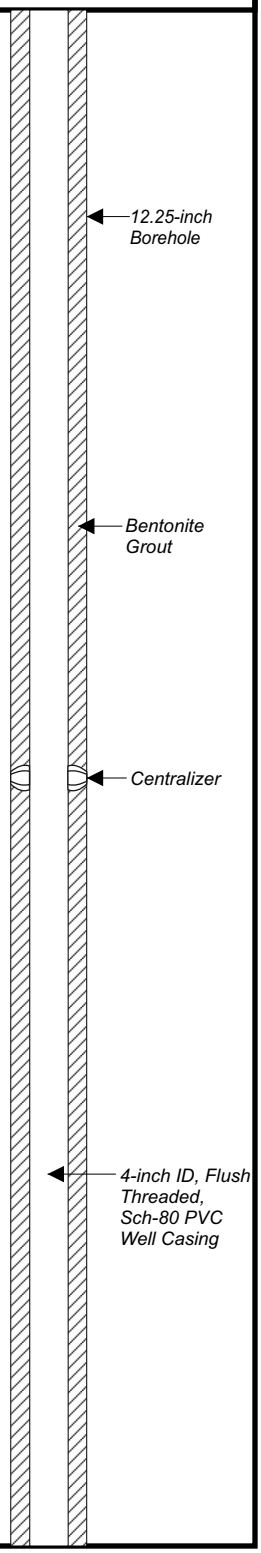


FIGURE 2-2: LITHOLOGIC LOG FOR MONITOR WELL MW-36

MONITOR WELL MW-36

PROJECT NAME: *Raytheon - Fullerton*
PROJECT NUMBER: *532.03*
DATE DRILLED: *11/29/11 to 1/5/12*

DEPTH (feet)	SAMPLE	RECOVERY	USCS	GRAPHIC LOG	LITHOLOGIC DESCRIPTION OF MATERIAL	WELL CONSTRUCTION DIAGRAM
	●		CL		SANDY CLAY (0,35,65) Light olive brown (2.5Y 5/3); some silt; sand: fine to coarse, predominantly coarse, subrounded to angular, multicolored, possibly interbedded.	
760	●		CL		SANDY CLAY as above with increased sand fraction, probably interbedded with predominantly sand lenses. At 762 to 764 feet: possible gravelly lens.	*12.25-inch Borehole*
	●		SC		CLAYEY SAND Light olive brown (2.5Y 5/3), fine- to coarse-grained; possible clay interbeds as above.	*Bentonite Grout*
770	●		SC		CLAYEY SAND increased sand fraction, otherwise same as above.	
	●		SC		Same as above.	775ft *Centralizer*
780	●		ML		SILT WITH SAND (0,20,80) Light olive brown (2.5Y 5/3), low plasticity; sand: fine to medium, trace medium.	
	●		CL		CLAY WITH SAND (0,20,80) Very dark grey (2.5Y 3/1), medium plasticity; sand: fine to medium, trace medium; possibly interbedded with silt with sand, as above.	*4-inch ID, Flush Threaded, Sch-80 PVC Well Casing*
790	●		CL/ ML		CLAY WITH SAND Same as above interbedded with SANDY SILT (0,30,70) Greenish grey (5GY 5/1), medium plasticity; sand: fine to medium.	
	●		CL/ ML		Same as above.	

FIGURE 2-2: LITHOLOGIC LOG FOR MONITOR WELL MW-36

MONITOR WELL MW-36

PROJECT NAME: *Raytheon - Fullerton*
PROJECT NUMBER: *532.03*
DATE DRILLED: *11/29/11 to 1/5/12*

DEPTH (feet)	SAMPLE	RECOVERY	USCS	GRAPHIC LOG	LITHOLOGIC DESCRIPTION OF MATERIAL	WELL CONSTRUCTION DIAGRAM
	●		CL/ ML		CLAY WITH SAND interbedded with SANDY SILT continued.	
800	●		ML		SANDY SILT (0,30,70) Greenish (5.6Y 5/1), low to medium plasticity; sand: fine to medium.	*12.25-inch Borehole*
	●		ML		SILT (0,10,90) Dark grey (2.5Y 4/1), low to medium plasticity; sand: fine to medium.	*Bentonite Grout*
810	●		ML		Same as above.	
	●		ML		SILT with trace coarse sand, otherwise same as above.	815ft *Centralizer*
820	●		ML		Same as above.	
	●		ML		Same as above.	*4-inch ID, Flush Threaded, Sch-80 PVC Well Casing*
830	●		ML		Same as above.	
	●		ML		SILT Olive grey (5Y 4/2), otherwise same as above.	

FIGURE 2-2: LITHOLOGIC LOG FOR MONITOR WELL MW-36

MONITOR WELL MW-36

PROJECT NAME: *Raytheon - Fullerton*
PROJECT NUMBER: *532.03*
DATE DRILLED: *11/29/11 to 1/5/12*

DEPTH (feet)	SAMPLE	RECOVERY	USCS	GRAPHIC LOG	LITHOLOGIC DESCRIPTION OF MATERIAL
	●		ML		SILT continued.
840	●		ML		Same as above.
850	●		ML		SANDY SILT (0,30,70) Brown (7.5YR 4/4), low plasticity; sand: fine to medium, predominantly fine.
	●		ML		SANDY SILT (0,30,70) Olive grey (5Y 4/2), low plasticity; some clay, sand: fine to medium, predominantly fine.
860	●		ML		Same as above.
	●		ML		Same as above.
870	●		ML		Same as above.
	●		ML		SANDY SILT see below.

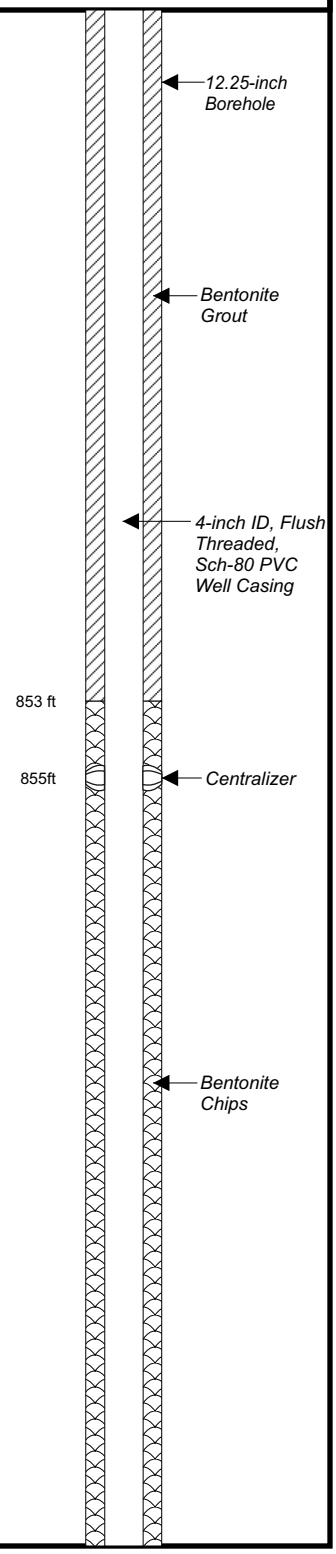


FIGURE 2-2: LITHOLOGIC LOG FOR MONITOR WELL MW-36

MONITOR WELL MW-36

PROJECT NAME: *Raytheon - Fullerton*
PROJECT NUMBER: *532.03*
DATE DRILLED: *11/29/11 to 1/5/12*

DEPTH (feet)	SAMPLE	RECOVERY	USCS	GRAPHIC LOG	LITHOLOGIC DESCRIPTION OF MATERIAL
	●		ML		SANDY SILT (0,35,65) Dark grey (5Y 4/1); some clay, sand: fine to coarse, predominantly fine, some medium, trace coarse.
880	●		ML		SANDY SILT (tr,40,60) Light olive brown (2.5Y 5/3); sand: fine to coarse, predominantly fine, some medium and coarse; gravel: fine, subrounded.
	●		SM		SILTY SAND (tr,55,45) Light olive brown (2.5Y 5/3), fine- to coarse-grained, in near equal parts, coarse, medium, and fine grained, moderately sorted.
890	●		ML		SANDY SILT Trace fine gravel, subrounded to subangular, otherwise same as 880 feet.
	●		CL		CLAY WITH SAND (0,20,80) Light olive brown (2.5Y 5/3), low to medium plasticity; some silt, fine- to medium-grained, predominantly fine.
900	●		CL		Same as above.
	●		CL		SANDY CLAY (tr,40,60) Brown (7.5YR 4/3), low plasticity; some silt; sand: fine to coarse, predominantly fine, trace coarse; gravel: subrounded to subangular; clay portion intact with trace coarse sand.
910	●		CL		Same as above, possibly interbedded with SAND fine- to coarse-grained, predominantly coarse, subrounded to subangular.
	●		CL		CLAY see below.

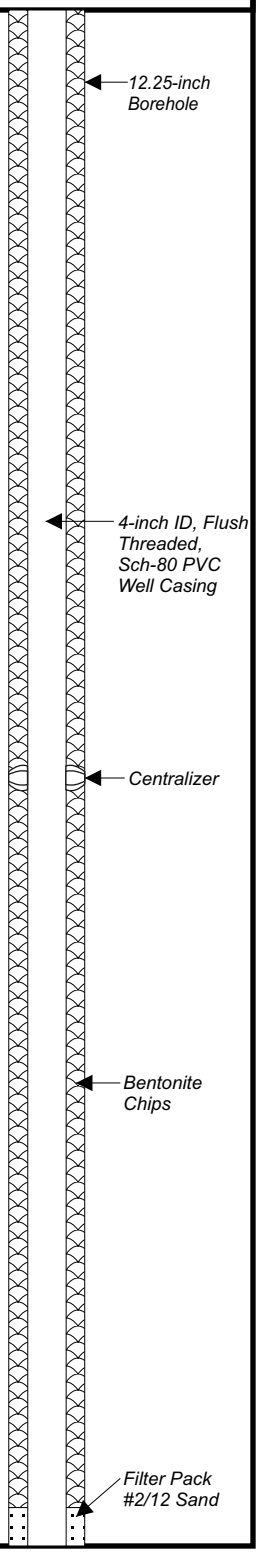
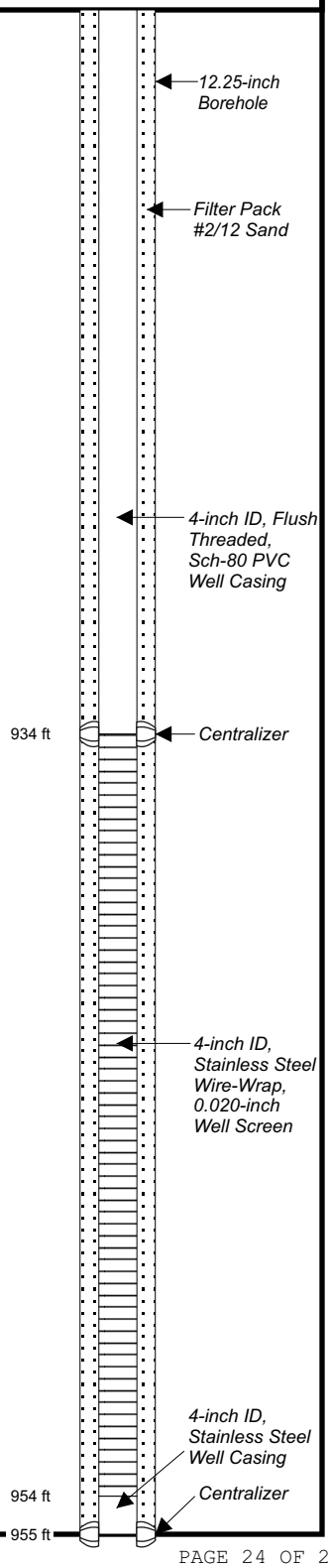


FIGURE 2-2: LITHOLOGIC LOG FOR MONITOR WELL MW-36

MONITOR WELL MW-36

PROJECT NAME: *Raytheon - Fullerton*
PROJECT NUMBER: *532.03*
DATE DRILLED: *11/29/11 to 1/5/12*

DEPTH (feet)	SAMPLE	RECOVERY	USCS	GRAPHIC LOG	LITHOLOGIC DESCRIPTION OF MATERIAL
	●		CL		Same as above, possibly interbedded with SAND coarse-grained.
920	●		CL		Same as above.
	●		SC		CLAYEY SAND (tr,55,45) Light olive brown (2.5YR 5/3), fine- to coarse-grained, predominantly coarse, moderately sorted, subrounded to angular, multicolored; possible interbed of CLAY/SILT WITH SAND Brown (7.5Y 4/3); sand: fine.
930	●		CL		CLAY WITH SAND (tr,25,75) Light olive grey (5Y 6/2); some silt; sand: medium to coarse, in equal proportions, subrounded to subangular; gravel: fine.
	●		CL		CLAY WITH SAND (0,25,75) Light olive brown (2.5Y 5/3); some silt; sand: medium to coarse, predominantly coarse.
940	●		CL		Same as above.
	●		CL		CLAY WITH SAND (5,20,75) Brown (10YR 5/3); some silt; sand: medium to coarse, predominantly coarse; gravel: fine, subangular to angular, multicolored.
950	●		CL		CLAY WITH SAND Light olive brown (2.5Y 5/3) otherwise same as above.
	●		CL		CLAY WITH SAND see below.



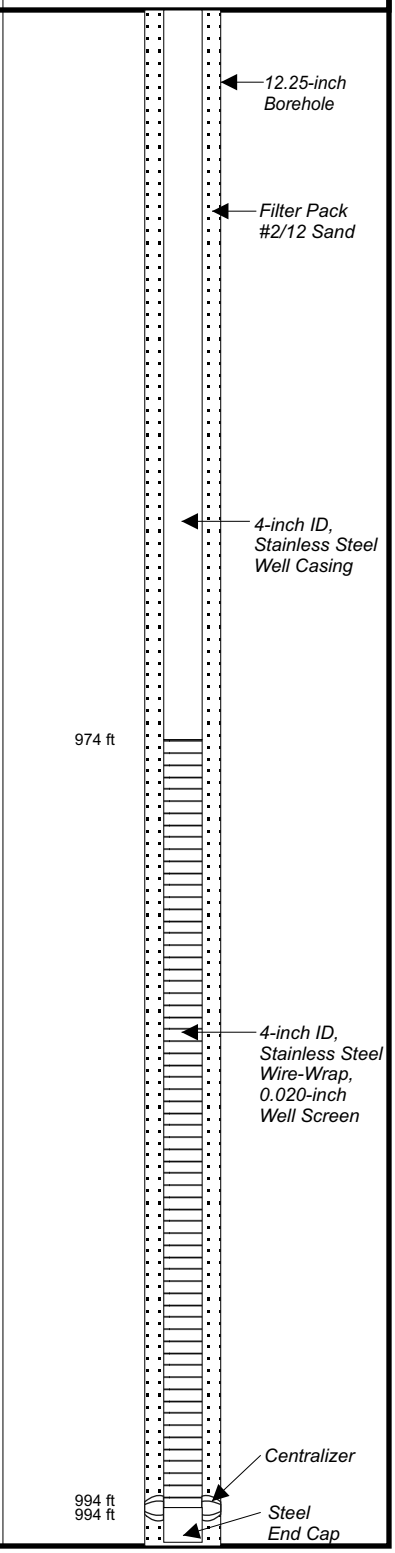
WELL CONSTRUCTION DIAGRAM

FIGURE 2-2: LITHOLOGIC LOG FOR MONITOR WELL MW-36

MONITOR WELL MW-36

PROJECT NAME: *Raytheon - Fullerton*
PROJECT NUMBER: *532.03*
DATE DRILLED: *11/29/11 to 1/5/12*

DEPTH (feet)	SAMPLE	RECOVERY	USCS	GRAPHIC LOG	LITHOLOGIC DESCRIPTION OF MATERIAL
	●		CL		CLAY WITH SAND trace coarse gravel, otherwise same as above.
960	●		CL		CLAY WITH SAND (0,25,75) Light olive brown (2.5Y 5/3), predominately clay, some silt; sand: medium to coarse, predominately coarse, subrounded to subangular, multicolored; interbeded with silty clay (10YR 4/4) dark yellowish brown, moderate to low plasticity.
	●		CL		CLAY (0,10,90) Olive grey (5Y 4/2); some silt; sand: fine to coarse, predominantly coarse, subrounded to subangular.
970	●		CL		CLAY WITH SAND (0,20,80) otherwise same as above.
	●		CL		Same as above.
980	●		CL		CLAY WITH SAND (tr,20,80) Otherwise same as above.
	●		CL		CLAY WITH SAND (tr,25,75) Dark grey (5Y 4/1), low plasticity; some silt; sand: medium to coarse, predominantly coarse, subrounded to subangular; gravel: subangular.
990	●		SC		CLAYEY SAND (tr,55,45) Dark grey (5Y 4/1), medium- to coarse-grained, predominantly coarse, subrounded to angular, multicolored; gravel: fine, subrounded to subangular.
	●		CL		CLAY see below.



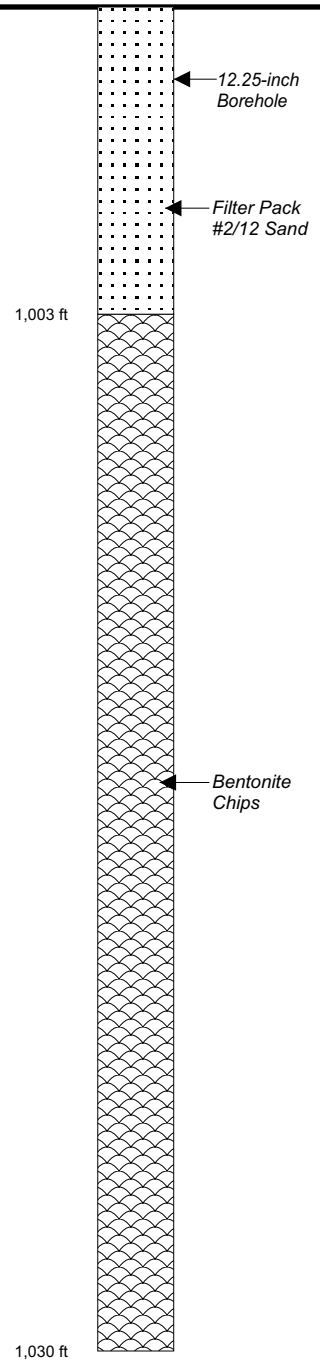
WELL CONSTRUCTION DIAGRAM

FIGURE 2-2: LITHOLOGIC LOG FOR MONITOR WELL MW-36

MONITOR WELL MW-36

PROJECT NAME: *Raytheon - Fullerton*
PROJECT NUMBER: *532.03*
DATE DRILLED: *11/29/11 to 1/5/12*

DEPTH (feet)	SAMPLE	RECOVERY	USCS	GRAPHIC LOG	LITHOLOGIC DESCRIPTION OF MATERIAL
	●		CL		CLAY (tr,10,90) Dark grey (5Y 4/1), low- to medium-plasticity; sand: medium to coarse, predominantly coarse; gravel: fine, subrounded to angular.
1000	●		CL		CLAY (tr,tr,100) Dark grey (5Y 4/1), low plasticity; some silt; sand: predominantly coarse; gravel: fine.
1010	●		CL		CLAY (0,0,100) Very dark grey (5Y 3/1), medium plasticity, firm.
1020					
	●		CL		CLAY (tr,5,95) Dark grey (5Y 4/1), low plasticity; some silt; sand: fine to coarse, predominantly coarse; gravel: fine.
1030	●		CL		CLAY (0,0,100) Very dark grey (5Y 3/1), medium plasticity, firm.



WELL CONSTRUCTION DIAGRAM

FIGURE 2-2: LITHOLOGIC LOG FOR MONITOR WELL MW-36

ATTACHMENT 3

LABORATORY RESULTS FOR INITIAL AND CONFIRMATION SAMPLES FROM MONITOR WELL MW-36

ADVANCED TECHNOLOGY LABORATORIES

January 25, 2012

ELAP No.: 1838
NELAP No.: 02107CA
CSDLAC No.: 10196
ORELAP No.: CA300003

Steve Netto
Hargis & Associates, Inc.
9171 Towne Centre Drive, Suite 375
San Diego, CA 92122
Tel: (619) 249-3166
Fax:(858) 455-6533

Re: ATL Work Order Number : 1200145

Client Reference : Raytheon Main, 532.03

Enclosed are the results for sample(s) received on January 13, 2012 by Advanced Technology Laboratories. The sample(s) are tested for the parameters as indicated on the enclosed chain of custody in accordance with applicable laboratory certifications. The laboratory results contained in this report specifically pertains to the sample(s) submitted.

Thank you for the opportunity to serve the needs of your company. If you have any questions, please feel free to contact me or your Project Manager.

Sincerely,

Eddie Rodriguez
Laboratory Director

Hargis & Associates, Inc.	Project Number : Raytheon Main, 532.03
9171 Towne Centre Drive, Suite 375	Report To : Steve Netto
San Diego , CA 92122	Reported : 01/25/2012

SUMMARY OF SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
TB-011312	1200145-01	Lab H2O	1/13/12 8:00	1/13/12 16:45
MW-36	1200145-02	Groundwater	1/13/12 12:07	1/13/12 16:45
MW-3600	1200145-03	Groundwater	1/13/12 12:27	1/13/12 16:45

Hargis & Associates, Inc.	Project Number : Raytheon Main, 532.03
9171 Towne Centre Drive, Suite 375	Report To : Steve Netto
San Diego , CA 92122	Reported : 01/25/2012

Client Sample ID TB-011312

Lab ID: 1200145-01

Volatile Organic Compounds by EPA 8260 **Analyst: DC**

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,1,1,2-Tetrachloroethane	ND	0.50	NA	1	B2A0494	01/19/2012	01/19/12 14:41	
1,1,1-Trichloroethane	ND	0.50	NA	1	B2A0494	01/19/2012	01/19/12 14:41	
1,1,2,2-Tetrachloroethane	ND	0.50	NA	1	B2A0494	01/19/2012	01/19/12 14:41	
1,1,2-Trichloroethane	ND	0.50	NA	1	B2A0494	01/19/2012	01/19/12 14:41	
1,1-Dichloroethane	ND	0.50	NA	1	B2A0494	01/19/2012	01/19/12 14:41	
1,1-Dichloroethene	ND	0.50	NA	1	B2A0494	01/19/2012	01/19/12 14:41	
1,1-Dichloropropene	ND	0.50	NA	1	B2A0494	01/19/2012	01/19/12 14:41	
1,2,3-Trichloropropane	ND	0.50	NA	1	B2A0494	01/19/2012	01/19/12 14:41	
1,2,3-Trichlorobenzene	ND	0.50	NA	1	B2A0494	01/19/2012	01/19/12 14:41	
1,2,4-Trichlorobenzene	ND	0.50	NA	1	B2A0494	01/19/2012	01/19/12 14:41	
1,2,4-Trimethylbenzene	ND	0.50	NA	1	B2A0494	01/19/2012	01/19/12 14:41	
1,2-Dibromo-3-chloropropane	ND	0.50	NA	1	B2A0494	01/19/2012	01/19/12 14:41	
1,2-Dibromoethane	ND	0.50	NA	1	B2A0494	01/19/2012	01/19/12 14:41	
1,2-Dichlorobenzene	ND	0.50	NA	1	B2A0494	01/19/2012	01/19/12 14:41	
1,2-Dichloroethane	ND	0.50	NA	1	B2A0494	01/19/2012	01/19/12 14:41	
1,2-Dichloropropane	ND	0.50	NA	1	B2A0494	01/19/2012	01/19/12 14:41	
1,3,5-Trimethylbenzene	ND	0.50	NA	1	B2A0494	01/19/2012	01/19/12 14:41	
1,3-Dichlorobenzene	ND	0.50	NA	1	B2A0494	01/19/2012	01/19/12 14:41	
1,3-Dichloropropane	ND	0.50	NA	1	B2A0494	01/19/2012	01/19/12 14:41	
1,4-Dichlorobenzene	ND	0.50	NA	1	B2A0494	01/19/2012	01/19/12 14:41	
2,2-Dichloropropane	ND	0.50	NA	1	B2A0494	01/19/2012	01/19/12 14:41	
2-Chlorotoluene	ND	0.50	NA	1	B2A0494	01/19/2012	01/19/12 14:41	
4-Chlorotoluene	ND	0.50	NA	1	B2A0494	01/19/2012	01/19/12 14:41	
4-Isopropyltoluene	ND	0.50	NA	1	B2A0494	01/19/2012	01/19/12 14:41	
Benzene	ND	0.50	NA	1	B2A0494	01/19/2012	01/19/12 14:41	
Bromobenzene	ND	0.50	NA	1	B2A0494	01/19/2012	01/19/12 14:41	
Bromodichloromethane	ND	0.50	NA	1	B2A0494	01/19/2012	01/19/12 14:41	
Bromoform	ND	0.50	NA	1	B2A0494	01/19/2012	01/19/12 14:41	
Bromomethane	ND	0.50	NA	1	B2A0494	01/19/2012	01/19/12 14:41	
Carbon tetrachloride	ND	0.50	NA	1	B2A0494	01/19/2012	01/19/12 14:41	
Chlorobenzene	ND	0.50	NA	1	B2A0494	01/19/2012	01/19/12 14:41	
Chloroethane	ND	0.50	NA	1	B2A0494	01/19/2012	01/19/12 14:41	
Chloroform	ND	0.50	NA	1	B2A0494	01/19/2012	01/19/12 14:41	
Chloromethane	ND	0.50	NA	1	B2A0494	01/19/2012	01/19/12 14:41	

Hargis & Associates, Inc.	Project Number : Raytheon Main, 532.03
9171 Towne Centre Drive, Suite 375	Report To : Steve Netto
San Diego , CA 92122	Reported : 01/25/2012

Client Sample ID TB-011312

Lab ID: 1200145-01

Volatile Organic Compounds by EPA 8260 **Analyst: DC**

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
cis-1,2-Dichloroethene	ND	0.50	NA	1	B2A0494	01/19/2012	01/19/12 14:41	
cis-1,3-Dichloropropene	ND	0.50	NA	1	B2A0494	01/19/2012	01/19/12 14:41	
Dibromochloromethane	ND	0.50	NA	1	B2A0494	01/19/2012	01/19/12 14:41	
Dibromomethane	ND	0.50	NA	1	B2A0494	01/19/2012	01/19/12 14:41	
Dichlorodifluoromethane	ND	0.50	NA	1	B2A0494	01/19/2012	01/19/12 14:41	
Ethylbenzene	ND	0.50	NA	1	B2A0494	01/19/2012	01/19/12 14:41	
Hexachlorobutadiene	ND	0.50	NA	1	B2A0494	01/19/2012	01/19/12 14:41	
Isopropylbenzene	ND	0.50	NA	1	B2A0494	01/19/2012	01/19/12 14:41	
m,p-Xylene	ND	1.0	NA	1	B2A0494	01/19/2012	01/19/12 14:41	
Methylene chloride	ND	1.0	NA	1	B2A0494	01/19/2012	01/19/12 14:41	
n-Butylbenzene	ND	0.50	NA	1	B2A0494	01/19/2012	01/19/12 14:41	
n-Propylbenzene	ND	0.50	NA	1	B2A0494	01/19/2012	01/19/12 14:41	
Naphthalene	ND	0.50	NA	1	B2A0494	01/19/2012	01/19/12 14:41	
o-Xylene	ND	0.50	NA	1	B2A0494	01/19/2012	01/19/12 14:41	
sec-Butylbenzene	ND	0.50	NA	1	B2A0494	01/19/2012	01/19/12 14:41	
Styrene	ND	0.50	NA	1	B2A0494	01/19/2012	01/19/12 14:41	
tert-Butylbenzene	ND	0.50	NA	1	B2A0494	01/19/2012	01/19/12 14:41	
Tetrachloroethene	ND	0.50	NA	1	B2A0494	01/19/2012	01/19/12 14:41	
Toluene	ND	0.50	NA	1	B2A0494	01/19/2012	01/19/12 14:41	
trans-1,2-Dichloroethene	ND	0.50	NA	1	B2A0494	01/19/2012	01/19/12 14:41	
Trichloroethene	ND	0.50	NA	1	B2A0494	01/19/2012	01/19/12 14:41	
Trichlorofluoromethane	ND	0.50	NA	1	B2A0494	01/19/2012	01/19/12 14:41	
Vinyl chloride	ND	0.50	NA	1	B2A0494	01/19/2012	01/19/12 14:41	
Surrogate: 1,2-Dichloroethane-d4	*95.8 %*		*70 - 130*		B2A0494	01/19/2012	*01/19/12 14:41*	
Surrogate: 4-Bromofluorobenzene	*83.4 %*		*70 - 130*		B2A0494	01/19/2012	*01/19/12 14:41*	
Surrogate: Dibromofluoromethane	*97.4 %*		*70 - 130*		B2A0494	01/19/2012	*01/19/12 14:41*	
Surrogate: Toluene-d8	*98.9 %*		*70 - 130*		B2A0494	01/19/2012	*01/19/12 14:41*	

Hargis & Associates, Inc.	Project Number : Raytheon Main, 532.03
9171 Towne Centre Drive, Suite 375	Report To : Steve Netto
San Diego , CA 92122	Reported : 01/25/2012

Client Sample ID MW-36
Lab ID: 1200145-02

Volatile Organic Compounds by EPA 8260 **Analyst: DC**

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,1,1,2-Tetrachloroethane	ND	0.50	NA	1	B2A0387	01/15/2012	01/15/12 17:58	
1,1,1-Trichloroethane	ND	0.50	NA	1	B2A0387	01/15/2012	01/15/12 17:58	
1,1,2,2-Tetrachloroethane	ND	0.50	NA	1	B2A0387	01/15/2012	01/15/12 17:58	
1,1,2-Trichloroethane	ND	0.50	NA	1	B2A0387	01/15/2012	01/15/12 17:58	
1,1-Dichloroethane	ND	0.50	NA	1	B2A0387	01/15/2012	01/15/12 17:58	
1,1-Dichloroethene	**4.0**	0.50	NA	1	B2A0387	01/15/2012	01/15/12 17:58	
1,1-Dichloropropene	ND	0.50	NA	1	B2A0387	01/15/2012	01/15/12 17:58	
1,2,3-Trichloropropane	ND	0.50	NA	1	B2A0387	01/15/2012	01/15/12 17:58	
1,2,3-Trichlorobenzene	ND	0.50	NA	1	B2A0387	01/15/2012	01/15/12 17:58	
1,2,4-Trichlorobenzene	ND	0.50	NA	1	B2A0387	01/15/2012	01/15/12 17:58	
1,2,4-Trimethylbenzene	ND	0.50	NA	1	B2A0387	01/15/2012	01/15/12 17:58	
1,2-Dibromo-3-chloropropane	ND	0.50	NA	1	B2A0387	01/15/2012	01/15/12 17:58	
1,2-Dibromoethane	ND	0.50	NA	1	B2A0387	01/15/2012	01/15/12 17:58	
1,2-Dichlorobenzene	ND	0.50	NA	1	B2A0387	01/15/2012	01/15/12 17:58	
1,2-Dichloroethane	ND	0.50	NA	1	B2A0387	01/15/2012	01/15/12 17:58	
1,2-Dichloropropane	ND	0.50	NA	1	B2A0387	01/15/2012	01/15/12 17:58	
1,3,5-Trimethylbenzene	ND	0.50	NA	1	B2A0387	01/15/2012	01/15/12 17:58	
1,3-Dichlorobenzene	ND	0.50	NA	1	B2A0387	01/15/2012	01/15/12 17:58	
1,3-Dichloropropane	ND	0.50	NA	1	B2A0387	01/15/2012	01/15/12 17:58	
1,4-Dichlorobenzene	ND	0.50	NA	1	B2A0387	01/15/2012	01/15/12 17:58	
2,2-Dichloropropane	ND	0.50	NA	1	B2A0387	01/15/2012	01/15/12 17:58	
2-Chlorotoluene	ND	0.50	NA	1	B2A0387	01/15/2012	01/15/12 17:58	
4-Chlorotoluene	ND	0.50	NA	1	B2A0387	01/15/2012	01/15/12 17:58	
4-Isopropyltoluene	ND	0.50	NA	1	B2A0387	01/15/2012	01/15/12 17:58	
Benzene	ND	0.50	NA	1	B2A0387	01/15/2012	01/15/12 17:58	
Bromobenzene	ND	0.50	NA	1	B2A0387	01/15/2012	01/15/12 17:58	
Bromodichloromethane	ND	0.50	NA	1	B2A0387	01/15/2012	01/15/12 17:58	
Bromoform	ND	0.50	NA	1	B2A0387	01/15/2012	01/15/12 17:58	
Bromomethane	ND	0.50	NA	1	B2A0387	01/15/2012	01/15/12 17:58	
Carbon tetrachloride	ND	0.50	NA	1	B2A0387	01/15/2012	01/15/12 17:58	
Chlorobenzene	ND	0.50	NA	1	B2A0387	01/15/2012	01/15/12 17:58	
Chloroethane	ND	0.50	NA	1	B2A0387	01/15/2012	01/15/12 17:58	
Chloroform	ND	0.50	NA	1	B2A0387	01/15/2012	01/15/12 17:58	
Chloromethane	ND	0.50	NA	1	B2A0387	01/15/2012	01/15/12 17:58	

Hargis & Associates, Inc.	Project Number : Raytheon Main, 532.03
9171 Towne Centre Drive, Suite 375	Report To : Steve Netto
San Diego , CA 92122	Reported : 01/25/2012

Client Sample ID MW-36
Lab ID: 1200145-02

Volatile Organic Compounds by EPA 8260

Analyst: DC

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
cis-1,2-Dichloroethene	ND	0.50	NA	1	B2A0387	01/15/2012	01/15/12 17:58	
cis-1,3-Dichloropropene	ND	0.50	NA	1	B2A0387	01/15/2012	01/15/12 17:58	
Dibromochloromethane	ND	0.50	NA	1	B2A0387	01/15/2012	01/15/12 17:58	
Dibromomethane	ND	0.50	NA	1	B2A0387	01/15/2012	01/15/12 17:58	
Dichlorodifluoromethane	ND	0.50	NA	1	B2A0387	01/15/2012	01/15/12 17:58	
Ethylbenzene	ND	0.50	NA	1	B2A0387	01/15/2012	01/15/12 17:58	
Hexachlorobutadiene	ND	0.50	NA	1	B2A0387	01/15/2012	01/15/12 17:58	
Isopropylbenzene	ND	0.50	NA	1	B2A0387	01/15/2012	01/15/12 17:58	
m,p-Xylene	ND	1.0	NA	1	B2A0387	01/15/2012	01/15/12 17:58	
Methylene chloride	ND	1.0	NA	1	B2A0387	01/15/2012	01/15/12 17:58	
n-Butylbenzene	ND	0.50	NA	1	B2A0387	01/15/2012	01/15/12 17:58	
n-Propylbenzene	ND	0.50	NA	1	B2A0387	01/15/2012	01/15/12 17:58	
Naphthalene	ND	0.50	NA	1	B2A0387	01/15/2012	01/15/12 17:58	
o-Xylene	ND	0.50	NA	1	B2A0387	01/15/2012	01/15/12 17:58	
sec-Butylbenzene	ND	0.50	NA	1	B2A0387	01/15/2012	01/15/12 17:58	
Styrene	ND	0.50	NA	1	B2A0387	01/15/2012	01/15/12 17:58	
tert-Butylbenzene	ND	0.50	NA	1	B2A0387	01/15/2012	01/15/12 17:58	
Tetrachloroethene	ND	0.50	NA	1	B2A0387	01/15/2012	01/15/12 17:58	
Toluene	**5.9**	0.50	NA	1	B2A0387	01/15/2012	01/15/12 17:58	
trans-1,2-Dichloroethene	ND	0.50	NA	1	B2A0387	01/15/2012	01/15/12 17:58	
Trichloroethene	ND	0.50	NA	1	B2A0387	01/15/2012	01/15/12 17:58	
Trichlorofluoromethane	ND	0.50	NA	1	B2A0387	01/15/2012	01/15/12 17:58	
Vinyl chloride	ND	0.50	NA	1	B2A0387	01/15/2012	01/15/12 17:58	
Surrogate: 1,2-Dichloroethane-d4	*105 %*		*70 - 130*		B2A0387	01/15/2012	*01/15/12 17:58*	
Surrogate: 4-Bromofluorobenzene	*89.9 %*		*70 - 130*		B2A0387	01/15/2012	*01/15/12 17:58*	
Surrogate: Dibromofluoromethane	*107 %*		*70 - 130*		B2A0387	01/15/2012	*01/15/12 17:58*	
Surrogate: Toluene-d8	*104 %*		*70 - 130*		B2A0387	01/15/2012	*01/15/12 17:58*	

1,4-Dioxane by EPA 8270/SIM: Isotope Dilution Technique

Analyst: JD

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,4-Dioxane	ND	0.20	0.13	1	B2A0395	01/16/2012	01/16/12 13:43	
Surrogate: 1,2-Dichlorobenzene-d4	*68.4 %*		*36 - 107*		B2A0395	01/16/2012	*01/16/12 13:43*	
Surrogate: 2-Fluorobiphenyl	*85.8 %*		*42 - 120*		B2A0395	01/16/2012	*01/16/12 13:43*	
Surrogate: 4-Terphenyl-d14	*98.0 %*		*67 - 142*		B2A0395	01/16/2012	*01/16/12 13:43*	

Hargis & Associates, Inc.	Project Number : Raytheon Main, 532.03
9171 Towne Centre Drive, Suite 375	Report To : Steve Netto
San Diego , CA 92122	Reported : 01/25/2012

Client Sample ID MW-36

Lab ID: 1200145-02

1,4-Dioxane by EPA 8270/SIM: Isotope Dilution Technique **Analyst: JD**

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Surrogate: Nitrobenzene-d5	*42.3 %*	*36 - 130*			B2A0395	01/16/2012	*01/16/12 13:43*	

Hargis & Associates, Inc.	Project Number : Raytheon Main, 532.03
9171 Towne Centre Drive, Suite 375	Report To : Steve Netto
San Diego , CA 92122	Reported : 01/25/2012

Client Sample ID MW-3600
Lab ID: 1200145-03

Volatile Organic Compounds by EPA 8260 **Analyst: DC**

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,1,1,2-Tetrachloroethane	ND	0.50	NA	1	B2A0494	01/19/2012	01/19/12 15:01	
1,1,1-Trichloroethane	ND	0.50	NA	1	B2A0494	01/19/2012	01/19/12 15:01	
1,1,2,2-Tetrachloroethane	ND	0.50	NA	1	B2A0494	01/19/2012	01/19/12 15:01	
1,1,2-Trichloroethane	ND	0.50	NA	1	B2A0494	01/19/2012	01/19/12 15:01	
1,1-Dichloroethane	ND	0.50	NA	1	B2A0494	01/19/2012	01/19/12 15:01	
1,1-Dichloroethene	**3.6**	0.50	NA	1	B2A0494	01/19/2012	01/19/12 15:01	
1,1-Dichloropropene	ND	0.50	NA	1	B2A0494	01/19/2012	01/19/12 15:01	
1,2,3-Trichloropropane	ND	0.50	NA	1	B2A0494	01/19/2012	01/19/12 15:01	
1,2,3-Trichlorobenzene	ND	0.50	NA	1	B2A0494	01/19/2012	01/19/12 15:01	
1,2,4-Trichlorobenzene	ND	0.50	NA	1	B2A0494	01/19/2012	01/19/12 15:01	
1,2,4-Trimethylbenzene	ND	0.50	NA	1	B2A0494	01/19/2012	01/19/12 15:01	
1,2-Dibromo-3-chloropropane	ND	0.50	NA	1	B2A0494	01/19/2012	01/19/12 15:01	
1,2-Dibromoethane	ND	0.50	NA	1	B2A0494	01/19/2012	01/19/12 15:01	
1,2-Dichlorobenzene	ND	0.50	NA	1	B2A0494	01/19/2012	01/19/12 15:01	
1,2-Dichloroethane	ND	0.50	NA	1	B2A0494	01/19/2012	01/19/12 15:01	
1,2-Dichloropropane	ND	0.50	NA	1	B2A0494	01/19/2012	01/19/12 15:01	
1,3,5-Trimethylbenzene	ND	0.50	NA	1	B2A0494	01/19/2012	01/19/12 15:01	
1,3-Dichlorobenzene	ND	0.50	NA	1	B2A0494	01/19/2012	01/19/12 15:01	
1,3-Dichloropropane	ND	0.50	NA	1	B2A0494	01/19/2012	01/19/12 15:01	
1,4-Dichlorobenzene	ND	0.50	NA	1	B2A0494	01/19/2012	01/19/12 15:01	
2,2-Dichloropropane	ND	0.50	NA	1	B2A0494	01/19/2012	01/19/12 15:01	
2-Chlorotoluene	ND	0.50	NA	1	B2A0494	01/19/2012	01/19/12 15:01	
4-Chlorotoluene	ND	0.50	NA	1	B2A0494	01/19/2012	01/19/12 15:01	
4-Isopropyltoluene	ND	0.50	NA	1	B2A0494	01/19/2012	01/19/12 15:01	
Benzene	ND	0.50	NA	1	B2A0494	01/19/2012	01/19/12 15:01	
Bromobenzene	ND	0.50	NA	1	B2A0494	01/19/2012	01/19/12 15:01	
Bromodichloromethane	ND	0.50	NA	1	B2A0494	01/19/2012	01/19/12 15:01	
Bromoform	ND	0.50	NA	1	B2A0494	01/19/2012	01/19/12 15:01	
Bromomethane	ND	0.50	NA	1	B2A0494	01/19/2012	01/19/12 15:01	
Carbon tetrachloride	ND	0.50	NA	1	B2A0494	01/19/2012	01/19/12 15:01	
Chlorobenzene	ND	0.50	NA	1	B2A0494	01/19/2012	01/19/12 15:01	
Chloroethane	ND	0.50	NA	1	B2A0494	01/19/2012	01/19/12 15:01	
Chloroform	ND	0.50	NA	1	B2A0494	01/19/2012	01/19/12 15:01	
Chloromethane	ND	0.50	NA	1	B2A0494	01/19/2012	01/19/12 15:01	

Hargis & Associates, Inc.	Project Number : Raytheon Main, 532.03
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San Diego , CA 92122	Reported : 01/25/2012

Client Sample ID MW-3600
Lab ID: 1200145-03

Volatile Organic Compounds by EPA 8260

Analyst: DC

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
cis-1,2-Dichloroethene	ND	0.50	NA	1	B2A0494	01/19/2012	01/19/12 15:01	
cis-1,3-Dichloropropene	ND	0.50	NA	1	B2A0494	01/19/2012	01/19/12 15:01	
Dibromochloromethane	ND	0.50	NA	1	B2A0494	01/19/2012	01/19/12 15:01	
Dibromomethane	ND	0.50	NA	1	B2A0494	01/19/2012	01/19/12 15:01	
Dichlorodifluoromethane	ND	0.50	NA	1	B2A0494	01/19/2012	01/19/12 15:01	
Ethylbenzene	ND	0.50	NA	1	B2A0494	01/19/2012	01/19/12 15:01	
Hexachlorobutadiene	ND	0.50	NA	1	B2A0494	01/19/2012	01/19/12 15:01	
Isopropylbenzene	ND	0.50	NA	1	B2A0494	01/19/2012	01/19/12 15:01	
m,p-Xylene	ND	1.0	NA	1	B2A0494	01/19/2012	01/19/12 15:01	
Methylene chloride	ND	1.0	NA	1	B2A0494	01/19/2012	01/19/12 15:01	
n-Butylbenzene	ND	0.50	NA	1	B2A0494	01/19/2012	01/19/12 15:01	
n-Propylbenzene	ND	0.50	NA	1	B2A0494	01/19/2012	01/19/12 15:01	
Naphthalene	ND	0.50	NA	1	B2A0494	01/19/2012	01/19/12 15:01	
o-Xylene	ND	0.50	NA	1	B2A0494	01/19/2012	01/19/12 15:01	
sec-Butylbenzene	ND	0.50	NA	1	B2A0494	01/19/2012	01/19/12 15:01	
Styrene	ND	0.50	NA	1	B2A0494	01/19/2012	01/19/12 15:01	
tert-Butylbenzene	ND	0.50	NA	1	B2A0494	01/19/2012	01/19/12 15:01	
Tetrachloroethene	ND	0.50	NA	1	B2A0494	01/19/2012	01/19/12 15:01	
Toluene	**7.0**	0.50	NA	1	B2A0494	01/19/2012	01/19/12 15:01	
trans-1,2-Dichloroethene	ND	0.50	NA	1	B2A0494	01/19/2012	01/19/12 15:01	
Trichloroethene	ND	0.50	NA	1	B2A0494	01/19/2012	01/19/12 15:01	
Trichlorofluoromethane	ND	0.50	NA	1	B2A0494	01/19/2012	01/19/12 15:01	
Vinyl chloride	ND	0.50	NA	1	B2A0494	01/19/2012	01/19/12 15:01	
Surrogate: 1,2-Dichloroethane-d4	*94.9 %*		*70 - 130*		B2A0494	01/19/2012	*01/19/12 15:01*	
Surrogate: 4-Bromofluorobenzene	*83.6 %*		*70 - 130*		B2A0494	01/19/2012	*01/19/12 15:01*	
Surrogate: Dibromofluoromethane	*97.2 %*		*70 - 130*		B2A0494	01/19/2012	*01/19/12 15:01*	
Surrogate: Toluene-d8	*99.2 %*		*70 - 130*		B2A0494	01/19/2012	*01/19/12 15:01*	

1,4-Dioxane by EPA 8270/SIM: Isotope Dilution Technique

Analyst: JD

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,4-Dioxane	ND	0.20	0.13	1	B2A0395	01/16/2012	01/16/12 14:12	
Surrogate: 1,2-Dichlorobenzene-d4	*75.3 %*		*36 - 107*		B2A0395	01/16/2012	*01/16/12 14:12*	
Surrogate: 2-Fluorobiphenyl	*92.6 %*		*42 - 120*		B2A0395	01/16/2012	*01/16/12 14:12*	
Surrogate: 4-Terphenyl-d14	*116 %*		*67 - 142*		B2A0395	01/16/2012	*01/16/12 14:12*	

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Client Sample ID MW-3600

Lab ID: 1200145-03

1,4-Dioxane by EPA 8270/SIM: Isotope Dilution Technique **Analyst: JD**

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Surrogate: Nitrobenzene-d5	*46.2 %*	*36 - 130*			B2A0395	01/16/2012	*01/16/12 14:12*	

Hargis & Associates, Inc.	Project Number : Raytheon Main, 532.03
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QUALITY CONTROL SECTION

Volatile Organic Compounds by EPA 8260 - Quality Control

Analyte	Result (ug/L)	PQL (ug/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B2A0387 - MSVOAW_LL									
Blank (B2A0387-BLK1)					Prepared: 1/15/2012 Analyzed: 1/15/2012				
1,1,1,2-Tetrachloroethane	ND	0.50			NR				
1,1,1-Trichloroethane	ND	0.50			NR				
1,1,2,2-Tetrachloroethane	ND	0.50			NR				
1,1,2-Trichloroethane	ND	0.50			NR				
1,1-Dichloroethane	ND	0.50			NR				
1,1-Dichloroethene	ND	0.50			NR				
1,1-Dichloropropene	ND	0.50			NR				
1,2,3-Trichloropropane	ND	0.50			NR				
1,2,3-Trichlorobenzene	ND	0.50			NR				
1,2,4-Trichlorobenzene	ND	0.50			NR				
1,2,4-Trimethylbenzene	ND	0.50			NR				
1,2-Dibromo-3-chloropropane	ND	0.50			NR				
1,2-Dibromoethane	ND	0.50			NR				
1,2-Dichlorobenzene	ND	0.50			NR				
1,2-Dichloroethane	ND	0.50			NR				
1,2-Dichloropropane	ND	0.50			NR				
1,3,5-Trimethylbenzene	ND	0.50			NR				
1,3-Dichlorobenzene	ND	0.50			NR				
1,3-Dichloropropane	ND	0.50			NR				
1,4-Dichlorobenzene	ND	0.50			NR				
2,2-Dichloropropane	ND	0.50			NR				
2-Chlorotoluene	ND	0.50			NR				
4-Chlorotoluene	ND	0.50			NR				
4-Isopropyltoluene	ND	0.50			NR				
Benzene	ND	0.50			NR				
Bromobenzene	ND	0.50			NR				
Bromodichloromethane	ND	0.50			NR				
Bromoform	ND	0.50			NR				
Bromomethane	ND	0.50			NR				
Carbon tetrachloride	ND	0.50			NR				
Chlorobenzene	ND	0.50			NR				
Chloroethane	ND	0.50			NR				
Chloroform	ND	0.50			NR				
Chloromethane	ND	0.50			NR				
cis-1,2-Dichloroethene	ND	0.50			NR				
cis-1,3-Dichloropropene	ND	0.50			NR				
Dibromochloromethane	ND	0.50			NR				
Dibromomethane	ND	0.50			NR				
Dichlorodifluoromethane	ND	0.50			NR				
Ethylbenzene	ND	0.50			NR				
Hexachlorobutadiene	ND	0.50			NR				
Isopropylbenzene	ND	0.50			NR				
m,p-Xylene	ND	1.0			NR				

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Volatile Organic Compounds by EPA 8260 - Quality Control (cont'd)

Analyte	Result (ug/L)	PQL (ug/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B2A0387 - MSVOAW_LL (continued)									
Blank (B2A0387-BLK1) - Continued					Prepared: 1/15/2012 Analyzed: 1/15/2012				
Methylene chloride	ND	1.0			NR				
n-Butylbenzene	ND	0.50			NR				
n-Propylbenzene	ND	0.50			NR				
Naphthalene	ND	0.50			NR				
o-Xylene	ND	0.50			NR				
sec-Butylbenzene	ND	0.50			NR				
Styrene	ND	0.50			NR				
tert-Butylbenzene	ND	0.50			NR				
Tetrachloroethene	ND	0.50			NR				
Toluene	ND	0.50			NR				
trans-1,2-Dichloroethene	ND	0.50			NR				
Trichloroethene	ND	0.50			NR				
Trichlorofluoromethane	ND	0.50			NR				
Vinyl chloride	ND	0.50			NR				
Surrogate: 1,2-Dichloroethane-d4	*26*		*25.0*		*104*	*70 - 130*			
Surrogate: 4-Bromofluorobenzene	*23*		*25.0*		*90.6*	*70 - 130*			
Surrogate: Dibromofluoromethane	*26*		*25.0*		*104*	*70 - 130*			
Surrogate: Toluene-d8	*26*		*25.0*		*104*	*70 - 130*			
LCS (B2A0387-BS1)					Prepared: 1/15/2012 Analyzed: 1/15/2012				
1,1-Dichloroethene	19	0.50	20.0		93.8	70 - 130			
Benzene	40	0.50	40.0		100	70 - 130			
Chlorobenzene	21	0.50	20.0		104	70 - 130			
MTBE	21	0.50	20.0		106	70 - 130			
Toluene	42	0.50	40.0		105	70 - 130			
Trichloroethene	20	0.50	20.0		102	70 - 130			
Surrogate: 1,2-Dichloroethane-d4	*26*		*25.0*		*102*	*70 - 130*			
Surrogate: 4-Bromofluorobenzene	*23*		*25.0*		*93.3*	*70 - 130*			
Surrogate: Dibromofluoromethane	*27*		*25.0*		*108*	*70 - 130*			
Surrogate: Toluene-d8	*27*		*25.0*		*110*	*70 - 130*			
LCS (B2A0387-BS2)					Prepared: 1/15/2012 Analyzed: 1/15/2012				
1,1-Dichloroethene	18	0.50	20.0		91.4	70 - 130			
Benzene	39	0.50	40.0		98.6	70 - 130			
Chlorobenzene	21	0.50	20.0		106	70 - 130			
MTBE	21	0.50	20.0		106	70 - 130			
Toluene	41	0.50	40.0		103	70 - 130			
Trichloroethene	20	0.50	20.0		101	70 - 130			
Surrogate: 1,2-Dichloroethane-d4	*25*		*25.0*		*101*	*70 - 130*			
Surrogate: 4-Bromofluorobenzene	*23*		*25.0*		*92.4*	*70 - 130*			
Surrogate: Dibromofluoromethane	*26*		*25.0*		*103*	*70 - 130*			
Surrogate: Toluene-d8	*27*		*25.0*		*106*	*70 - 130*			
LCS Dup (B2A0387-BSD1)					Prepared: 1/15/2012 Analyzed: 1/15/2012				
1,1-Dichloroethene	19	0.50	20.0		93.4	70 - 130	0.374	20	
Benzene	39	0.50	40.0		98.6	70 - 130	1.78	20	

Volatile Organic Compounds by EPA 8260 - Quality Control (cont'd)

Analyte	Result (ug/L)	PQL (ug/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B2A0387 - MSVOAW_LL (continued)									
LCS Dup (B2A0387-BSD1) - Continued					Prepared: 1/15/2012 Analyzed: 1/15/2012				
Chlorobenzene	21	0.50	20.0		107	70 - 130	2.51	20	
MTBE	21	0.50	20.0		104	70 - 130	1.85	20	
Toluene	41	0.50	40.0		104	70 - 130	1.22	20	
Trichloroethene	20	0.50	20.0		102	70 - 130	0.440	20	
Surrogate: 1,2-Dichloroethane-d4	*25*		*25.0*		*99.2*	*70 - 130*			
Surrogate: 4-Bromofluorobenzene	*23*		*25.0*		*91.2*	*70 - 130*			
Surrogate: Dibromofluoromethane	*26*		*25.0*		*103*	*70 - 130*			
Surrogate: Toluene-d8	*26*		*25.0*		*105*	*70 - 130*			
LCS Dup (B2A0387-BSD2)					Prepared: 1/15/2012 Analyzed: 1/15/2012				
1,1-Dichloroethene	19	0.50	20.0		93.0	70 - 130	1.74		
Benzene	40	0.50	40.0		99.3	70 - 130	0.682		
Chlorobenzene	21	0.50	20.0		107	70 - 130	1.12		
MTBE	21	0.50	20.0		106	70 - 130	0.236		
Toluene	42	0.50	40.0		104	70 - 130	1.50		
Trichloroethene	20	0.50	20.0		101	70 - 130	0.248		
Surrogate: 1,2-Dichloroethane-d4	*25*		*25.0*		*99.4*	*70 - 130*			
Surrogate: 4-Bromofluorobenzene	*23*		*25.0*		*92.2*	*70 - 130*			
Surrogate: Dibromofluoromethane	*26*		*25.0*		*105*	*70 - 130*			
Surrogate: Toluene-d8	*27*		*25.0*		*106*	*70 - 130*			
Batch B2A0494 - MSVOAW_LL									
Blank (B2A0494-BLK1)					Prepared: 1/19/2012 Analyzed: 1/19/2012				
1,1,1,2-Tetrachloroethane	ND	0.50			NR				
1,1,1-Trichloroethane	ND	0.50			NR				
1,1,2,2-Tetrachloroethane	ND	0.50			NR				
1,1,2-Trichloroethane	ND	0.50			NR				
1,1-Dichloroethane	ND	0.50			NR				
1,1-Dichloroethene	ND	0.50			NR				
1,1-Dichloropropene	ND	0.50			NR				
1,2,3-Trichloropropane	ND	0.50			NR				
1,2,3-Trichlorobenzene	ND	0.50			NR				
1,2,4-Trichlorobenzene	ND	0.50			NR				
1,2,4-Trimethylbenzene	ND	0.50			NR				
1,2-Dibromo-3-chloropropane	ND	0.50			NR				
1,2-Dibromoethane	ND	0.50			NR				
1,2-Dichlorobenzene	ND	0.50			NR				
1,2-Dichloroethane	ND	0.50			NR				
1,2-Dichloropropane	ND	0.50			NR				
1,3,5-Trimethylbenzene	ND	0.50			NR				
1,3-Dichlorobenzene	ND	0.50			NR				
1,3-Dichloropropane	ND	0.50			NR				
1,4-Dichlorobenzene	ND	0.50			NR				
2,2-Dichloropropane	ND	0.50			NR				
2-Chlorotoluene	ND	0.50			NR				
4-Chlorotoluene	ND	0.50			NR				

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Volatile Organic Compounds by EPA 8260 - Quality Control (cont'd)

Analyte	Result (ug/L)	PQL (ug/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B2A0494 - MSVOAW_LL (continued)									
Blank (B2A0494-BLK1) - Continued					Prepared: 1/19/2012 Analyzed: 1/19/2012				
4-Isopropyltoluene	ND	0.50			NR				
Benzene	ND	0.50			NR				
Bromobenzene	ND	0.50			NR				
Bromodichloromethane	ND	0.50			NR				
Bromoform	ND	0.50			NR				
Bromomethane	ND	0.50			NR				
Carbon tetrachloride	ND	0.50			NR				
Chlorobenzene	ND	0.50			NR				
Chloroethane	ND	0.50			NR				
Chloroform	ND	0.50			NR				
Chloromethane	ND	0.50			NR				
cis-1,2-Dichloroethene	ND	0.50			NR				
cis-1,3-Dichloropropene	ND	0.50			NR				
Dibromochloromethane	ND	0.50			NR				
Dibromomethane	ND	0.50			NR				
Dichlorodifluoromethane	ND	0.50			NR				
Ethylbenzene	ND	0.50			NR				
Hexachlorobutadiene	ND	0.50			NR				
Isopropylbenzene	ND	0.50			NR				
m,p-Xylene	ND	1.0			NR				
Methylene chloride	ND	1.0			NR				
n-Butylbenzene	ND	0.50			NR				
n-Propylbenzene	ND	0.50			NR				
Naphthalene	ND	0.50			NR				
o-Xylene	ND	0.50			NR				
sec-Butylbenzene	ND	0.50			NR				
Styrene	ND	0.50			NR				
tert-Butylbenzene	ND	0.50			NR				
Tetrachloroethene	ND	0.50			NR				
Toluene	ND	0.50			NR				
trans-1,2-Dichloroethene	ND	0.50			NR				
Trichloroethene	ND	0.50			NR				
Trichlorofluoromethane	ND	0.50			NR				
Vinyl chloride	ND	0.50			NR				
Surrogate: 1,2-Dichloroethane-d4	*24*		*25.0*		*95.4*	*70 - 130*			
Surrogate: 4-Bromofluorobenzene	*21*		*25.0*		*83.0*	*70 - 130*			
Surrogate: Dibromofluoromethane	*25*		*25.0*		*99.5*	*70 - 130*			
Surrogate: Toluene-d8	*25*		*25.0*		*99.7*	*70 - 130*			
LCS (B2A0494-BS1)					Prepared: 1/19/2012 Analyzed: 1/19/2012				
1,1-Dichloroethene	20	0.50	20.0		101	70 - 130			
Benzene	39	0.50	40.0		97.0	70 - 130			
Chlorobenzene	21	0.50	20.0		107	70 - 130			
MTBE	20	0.50	20.0		102	70 - 130			
Toluene	40	0.50	40.0		101	70 - 130			
Trichloroethene	21	0.50	20.0		105	70 - 130			

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Volatile Organic Compounds by EPA 8260 - Quality Control (cont'd)

Analyte	Result (ug/L)	PQL (ug/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B2A0494 - MSVOAW_LL (continued)									
LCS (B2A0494-BS1) - Continued					Prepared: 1/19/2012 Analyzed: 1/19/2012				
Surrogate: 1,2-Dichloroethane-d4	*24*		*25.0*		*97.4*	*70 - 130*			
Surrogate: 4-Bromofluorobenzene	*21*		*25.0*		*84.9*	*70 - 130*			
Surrogate: Dibromofluoromethane	*24*		*25.0*		*96.8*	*70 - 130*			
Surrogate: Toluene-d8	*25*		*25.0*		*99.3*	*70 - 130*			
LCS (B2A0494-BS2)					Prepared: 1/19/2012 Analyzed: 1/19/2012				
1,1-Dichloroethene	19	0.50	20.0		97.1	70 - 130			
Benzene	39	0.50	40.0		97.7	70 - 130			
Chlorobenzene	21	0.50	20.0		107	70 - 130			
MTBE	21	0.50	20.0		107	70 - 130			
Toluene	41	0.50	40.0		103	70 - 130			
Trichloroethene	21	0.50	20.0		106	70 - 130			
Surrogate: 1,2-Dichloroethane-d4	*25*		*25.0*		*98.7*	*70 - 130*			
Surrogate: 4-Bromofluorobenzene	*21*		*25.0*		*84.8*	*70 - 130*			
Surrogate: Dibromofluoromethane	*24*		*25.0*		*97.8*	*70 - 130*			
Surrogate: Toluene-d8	*25*		*25.0*		*100*	*70 - 130*			
LCS Dup (B2A0494-BSD1)					Prepared: 1/19/2012 Analyzed: 1/19/2012				
1,1-Dichloroethene	19	0.50	20.0		94.4	70 - 130	6.36	20	
Benzene	39	0.50	40.0		97.8	70 - 130	0.847	20	
Chlorobenzene	21	0.50	20.0		106	70 - 130	0.565	20	
MTBE	22	0.50	20.0		111	70 - 130	8.26	20	
Toluene	41	0.50	40.0		103	70 - 130	1.86	20	
Trichloroethene	21	0.50	20.0		105	70 - 130	0.476	20	
Surrogate: 1,2-Dichloroethane-d4	*25*		*25.0*		*101*	*70 - 130*			
Surrogate: 4-Bromofluorobenzene	*21*		*25.0*		*84.6*	*70 - 130*			
Surrogate: Dibromofluoromethane	*25*		*25.0*		*99.1*	*70 - 130*			
Surrogate: Toluene-d8	*25*		*25.0*		*100*	*70 - 130*			
LCS Dup (B2A0494-BSD2)					Prepared: 1/19/2012 Analyzed: 1/19/2012				
1,1-Dichloroethene	20	0.50	20.0		101	70 - 130	3.89		
Benzene	39	0.50	40.0		96.5	70 - 130	1.18		
Chlorobenzene	21	0.50	20.0		106	70 - 130	0.516		
MTBE	21	0.50	20.0		105	70 - 130	1.51		
Toluene	41	0.50	40.0		102	70 - 130	0.977		
Trichloroethene	21	0.50	20.0		105	70 - 130	0.190		
Surrogate: 1,2-Dichloroethane-d4	*25*		*25.0*		*98.7*	*70 - 130*			
Surrogate: 4-Bromofluorobenzene	*21*		*25.0*		*84.6*	*70 - 130*			
Surrogate: Dibromofluoromethane	*24*		*25.0*		*97.1*	*70 - 130*			
Surrogate: Toluene-d8	*25*		*25.0*		*99.5*	*70 - 130*			

Hargis & Associates, Inc.	Project Number : Raytheon Main, 532.03
9171 Towne Centre Drive, Suite 375	Report To : Steve Netto
San Diego , CA 92122	Reported : 01/25/2012

1,4-Dioxane by EPA 8270/SIM: Isotope Dilution Technique - Quality Control

Analyte	Result (ug/L)	PQL (ug/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B2A0395 - MSSEMI_ISOTOPEDILN									
Blank (B2A0395-BLK1)					Prepared: 1/16/2012 Analyzed: 1/16/2012				
1,4-Dioxane	ND	0.20			NR				
Surrogate: 1,2-Dichlorobenzene-d4	*0.73*		*1.00*		*73.2*	*36 - 107*			
Surrogate: 2-Fluorobiphenyl	*0.93*		*1.00*		*92.8*	*42 - 120*			
Surrogate: 4-Terphenyl-d14	*1.1*		*1.00*		*114*	*67 - 142*			
Surrogate: Nitrobenzene-d5	*0.45*		*1.00*		*45.0*	*36 - 130*			
LCS (B2A0395-BS1)					Prepared: 1/16/2012 Analyzed: 1/16/2012				
1,4-Dioxane	0.91	0.20	1.00		91.4	70 - 130			
Surrogate: 1,2-Dichlorobenzene-d4	*0.74*		*1.00*		*74.1*	*36 - 107*			
Surrogate: 2-Fluorobiphenyl	*0.90*		*1.00*		*89.8*	*42 - 120*			
Surrogate: 4-Terphenyl-d14	*1.0*		*1.00*		*104*	*67 - 142*			
Surrogate: Nitrobenzene-d5	*0.45*		*1.00*		*45.4*	*36 - 130*			
LCS Dup (B2A0395-BSD1)					Prepared: 1/16/2012 Analyzed: 1/16/2012				
1,4-Dioxane	0.91	0.20	1.00		91.1	70 - 130	0.288	20	
Surrogate: 1,2-Dichlorobenzene-d4	*0.69*		*1.00*		*69.3*	*36 - 107*			
Surrogate: 2-Fluorobiphenyl	*0.92*		*1.00*		*91.9*	*42 - 120*			
Surrogate: 4-Terphenyl-d14	*1.0*		*1.00*		*105*	*67 - 142*			
Surrogate: Nitrobenzene-d5	*0.43*		*1.00*		*43.2*	*36 - 130*			

Hargis & Associates, Inc.		Project Number :	Raytheon Main, 532.03
9171 Towne Centre Drive, Suite 375		Report To :	Steve Netto
San Diego , CA 92122		Reported :	01/25/2012

Notes and Definitions

S4	Surrogate was diluted out.
E	Result value above quantitation range.
D2	Sample required dilution due to high concentration of non-target analyte.
ND	Analyte not detected at or above reporting limit
PQL	Practical Quantitation Limit
MDL	Method Detection Limit
NR	Not Reported
RPD	Relative Percent Difference

HARGIS + ASSOCIATES, INC.
HYDROGEOLOGY • ENGINEERING

CHAIN-OF-CUSTODY RECORD AND ANALYSIS REQUEST FORM

DATE 1/13/12 PAGE 1 OF 1

PROJECT NAME: Raytheon Main	PROJECT No./TASK No.: 532.03
PROJECT MANAGER: Chris Ross	Phone No.: 858 455-6500
QA MANAGER: Steve Netto	Fax No.: 858-455-6533
SAMPLER (SIGNATURE): Daniel Mora / Amanda Beam	SAMPLER (PRINTED): Daniel Mora / Amanda Beam

LAB ID	SAMPLE ID	SAMPLE COLLECTION Date	SAMPLE COLLECTION Time	MATRIX: Soil	MATRIX: Ground-water	MATRIX: Surface water	MATRIX: CaBH4	PRESERVATION: HCl	PRESERVATION: HNO3	PRESERVATION: NaOH	PRESERVATION: H2SO4	PRESERVATION: Ice	SAMPLE CONTAINERS: 40mL VOA	SAMPLE CONTAINERS: 1 L Amber	ANALYSIS REQUESTED: 8260B VOCs	ANALYSIS REQUESTED: 8270 SIM 1,4-Dioxane	ESTIMATED CONCENTRATION RANGE (ppb) FOR VOA'S: 0	0 - 10	10 - 100	100 - 1000	>1,000	SPECIAL HANDLING: STANDARD TAT	SPECIAL HANDLING: 24 HOUR TAT
1200145-01	TB-011312	1/13/12	800				X	X				X	2		X			X				X	
-02	MW-36		1207		X			X				X	3		X			X					X
	MW-36		1207		X							X		1		X		X					X
-03	MW-3600		1227		X			X				X	3		X			X				X	
	MW-3600		1227		X							X		1		X		X				X	
Total number of Containers per analysis:													8	2								Total No. of Containers:	10

LABORATORY INFORMATION: ATL; ATTN: RACHELLE ARADA

REMARKS:

Relinquished by:	Date	Time	Received by:	Date	Time
Company: H+A, INC	1/13/12	1645	Company:		
Relinquished by:	Date 1/13/12	Time 1645	Received by: FEDEX ATL	Date 1/13/12	Time 1645
Company:			Company:		

INSTRUCTIONS

1. Fill out form completely except for shaded areas (lab use only); sign only after verified for completeness.
2. Complete in ballpoint pen. Draw one line through errors, initial and date correction.
3. Indicate number of sample containers in analysis request space; indicate choice with ✓ or x.
4. Note applicable preservatives, special instructions, and deviations from typical environmental samples.
5. Consult project QA documents for specific instructions.

Sample Receipt:

- ☐ No. of containers correct
- ☐ custody seals secure
- Temp. @ receipt _____ °C
- ☐ received good condition/cold
- ☐ conforms to COC document

Shipment Method: DROP OFF

Send Results to: Steve Netto

☒ 9171 TOWNE CENTRE DRIVE, SUITE 375 SAN DIEGO, CA 92122 (858) 455-6500

☐ 1640 SOUTH STAPLEY DRIVE, SUITE 124 MESA, AZ 85204 (480) 345-0888

☐ 1820 EAST RIVER ROAD, SUITE 220 TUCSON, AZ 85718 (520) 881-7300

Send invoice to San Diego, CA
Attn: Accounts Payable

ORIGINAL: LABORATORY YELLOW: QA MANAGER PINK: FIELD/TASK MANAGER

ADVANCED TECHNOLOGY LABORATORIES

February 06, 2012

ELAP No.: 1838
NELAP No.: 02107CA
CSDLAC No.: 10196
ORELAP No.: CA300003

Steve Netto
Hargis & Associates, Inc.
9171 Towne Centre Drive, Suite 375
San Diego, CA 92122
Tel: (619) 249-3166
Fax:(858) 455-6533

Re: ATL Work Order Number : 1200302
Client Reference : RAYTHEON MAIN, 532.03

Enclosed are the results for sample(s) received on January 26, 2012 by Advanced Technology Laboratories. The sample(s) are tested for the parameters as indicated on the enclosed chain of custody in accordance with applicable laboratory certifications. The laboratory results contained in this report specifically pertains to the sample(s) submitted.

Thank you for the opportunity to serve the needs of your company. If you have any questions, please feel free to contact me or your Project Manager.

Sincerely,

Eddie Rodriguez
Laboratory Director

Hargis & Associates, Inc.	Project Number : RAYTHEON MAIN, 532.03
9171 Towne Centre Drive, Suite 375	Report To : Steve Netto
San Diego , CA 92122	Reported : 02/06/2012

SUMMARY OF SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
TB-012612	1200302-01	Lab H2O	1/26/12 8:00	1/26/12 12:45
MW-36	1200302-02	Groundwater	1/26/12 11:13	1/26/12 12:45
MW-3600	1200302-03	Groundwater	1/26/12 11:33	1/26/12 12:45

Hargis & Associates, Inc.	Project Number : RAYTHEON MAIN, 532.03
9171 Towne Centre Drive, Suite 375	Report To : Steve Netto
San Diego , CA 92122	Reported : 02/06/2012

Client Sample ID TB-012612
Lab ID: 1200302-01

Volatile Organic Compounds by EPA 8260 **Analyst: DC**

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,1,1,2-Tetrachloroethane	ND	0.50	NA	1	B2A0690	01/27/2012	01/27/12 05:45	
1,1,1-Trichloroethane	ND	0.50	NA	1	B2A0690	01/27/2012	01/27/12 05:45	
1,1,2,2-Tetrachloroethane	ND	0.50	NA	1	B2A0690	01/27/2012	01/27/12 05:45	
1,1,2-Trichloroethane	ND	0.50	NA	1	B2A0690	01/27/2012	01/27/12 05:45	
1,1-Dichloroethane	ND	0.50	NA	1	B2A0690	01/27/2012	01/27/12 05:45	
1,1-Dichloroethene	ND	0.50	NA	1	B2A0690	01/27/2012	01/27/12 05:45	
1,1-Dichloropropene	ND	0.50	NA	1	B2A0690	01/27/2012	01/27/12 05:45	
1,2,3-Trichloropropane	ND	0.50	NA	1	B2A0690	01/27/2012	01/27/12 05:45	
1,2,3-Trichlorobenzene	ND	0.50	NA	1	B2A0690	01/27/2012	01/27/12 05:45	
1,2,4-Trichlorobenzene	ND	0.50	NA	1	B2A0690	01/27/2012	01/27/12 05:45	
1,2,4-Trimethylbenzene	ND	0.50	NA	1	B2A0690	01/27/2012	01/27/12 05:45	
1,2-Dibromo-3-chloropropane	ND	0.50	NA	1	B2A0690	01/27/2012	01/27/12 05:45	
1,2-Dibromoethane	ND	0.50	NA	1	B2A0690	01/27/2012	01/27/12 05:45	
1,2-Dichlorobenzene	ND	0.50	NA	1	B2A0690	01/27/2012	01/27/12 05:45	
1,2-Dichloroethane	ND	0.50	NA	1	B2A0690	01/27/2012	01/27/12 05:45	
1,2-Dichloropropane	ND	0.50	NA	1	B2A0690	01/27/2012	01/27/12 05:45	
1,3,5-Trimethylbenzene	ND	0.50	NA	1	B2A0690	01/27/2012	01/27/12 05:45	
1,3-Dichlorobenzene	ND	0.50	NA	1	B2A0690	01/27/2012	01/27/12 05:45	
1,3-Dichloropropane	ND	0.50	NA	1	B2A0690	01/27/2012	01/27/12 05:45	
1,4-Dichlorobenzene	ND	0.50	NA	1	B2A0690	01/27/2012	01/27/12 05:45	
2,2-Dichloropropane	ND	0.50	NA	1	B2A0690	01/27/2012	01/27/12 05:45	
2-Chlorotoluene	ND	0.50	NA	1	B2A0690	01/27/2012	01/27/12 05:45	
4-Chlorotoluene	ND	0.50	NA	1	B2A0690	01/27/2012	01/27/12 05:45	
4-Isopropyltoluene	ND	0.50	NA	1	B2A0690	01/27/2012	01/27/12 05:45	
Benzene	ND	0.50	NA	1	B2A0690	01/27/2012	01/27/12 05:45	
Bromobenzene	ND	0.50	NA	1	B2A0690	01/27/2012	01/27/12 05:45	
Bromodichloromethane	ND	0.50	NA	1	B2A0690	01/27/2012	01/27/12 05:45	
Bromoform	ND	0.50	NA	1	B2A0690	01/27/2012	01/27/12 05:45	
Bromomethane	ND	0.50	NA	1	B2A0690	01/27/2012	01/27/12 05:45	
Carbon tetrachloride	ND	0.50	NA	1	B2A0690	01/27/2012	01/27/12 05:45	
Chlorobenzene	ND	0.50	NA	1	B2A0690	01/27/2012	01/27/12 05:45	
Chloroethane	ND	0.50	NA	1	B2A0690	01/27/2012	01/27/12 05:45	
Chloroform	ND	0.50	NA	1	B2A0690	01/27/2012	01/27/12 05:45	
Chloromethane	ND	0.50	NA	1	B2A0690	01/27/2012	01/27/12 05:45	

Hargis & Associates, Inc.	Project Number : RAYTHEON MAIN, 532.03
9171 Towne Centre Drive, Suite 375	Report To : Steve Netto
San Diego , CA 92122	Reported : 02/06/2012

Client Sample ID TB-012612

Lab ID: 1200302-01

Volatile Organic Compounds by EPA 8260 **Analyst: DC**

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
cis-1,2-Dichloroethene	ND	0.50	NA	1	B2A0690	01/27/2012	01/27/12 05:45	
cis-1,3-Dichloropropene	ND	0.50	NA	1	B2A0690	01/27/2012	01/27/12 05:45	
Dibromochloromethane	ND	0.50	NA	1	B2A0690	01/27/2012	01/27/12 05:45	
Dibromomethane	ND	0.50	NA	1	B2A0690	01/27/2012	01/27/12 05:45	
Dichlorodifluoromethane	ND	0.50	NA	1	B2A0690	01/27/2012	01/27/12 05:45	
Ethylbenzene	ND	0.50	NA	1	B2A0690	01/27/2012	01/27/12 05:45	
Hexachlorobutadiene	ND	0.50	NA	1	B2A0690	01/27/2012	01/27/12 05:45	
Isopropylbenzene	ND	0.50	NA	1	B2A0690	01/27/2012	01/27/12 05:45	
m,p-Xylene	ND	1.0	NA	1	B2A0690	01/27/2012	01/27/12 05:45	
Methylene chloride	ND	1.0	NA	1	B2A0690	01/27/2012	01/27/12 05:45	
n-Butylbenzene	ND	0.50	NA	1	B2A0690	01/27/2012	01/27/12 05:45	
n-Propylbenzene	ND	0.50	NA	1	B2A0690	01/27/2012	01/27/12 05:45	
Naphthalene	ND	0.50	NA	1	B2A0690	01/27/2012	01/27/12 05:45	
o-Xylene	ND	0.50	NA	1	B2A0690	01/27/2012	01/27/12 05:45	
sec-Butylbenzene	ND	0.50	NA	1	B2A0690	01/27/2012	01/27/12 05:45	
Styrene	ND	0.50	NA	1	B2A0690	01/27/2012	01/27/12 05:45	
tert-Butylbenzene	ND	0.50	NA	1	B2A0690	01/27/2012	01/27/12 05:45	
Tetrachloroethene	ND	0.50	NA	1	B2A0690	01/27/2012	01/27/12 05:45	
Toluene	ND	0.50	NA	1	B2A0690	01/27/2012	01/27/12 05:45	
trans-1,2-Dichloroethene	ND	0.50	NA	1	B2A0690	01/27/2012	01/27/12 05:45	
Trichloroethene	ND	0.50	NA	1	B2A0690	01/27/2012	01/27/12 05:45	
Trichlorofluoromethane	ND	0.50	NA	1	B2A0690	01/27/2012	01/27/12 05:45	
Vinyl chloride	ND	0.50	NA	1	B2A0690	01/27/2012	01/27/12 05:45	
Surrogate: 1,2-Dichloroethane-d4	*109 %*		*70 - 130*		B2A0690	01/27/2012	*01/27/12 05:45*	
Surrogate: 4-Bromofluorobenzene	*84.1 %*		*70 - 130*		B2A0690	01/27/2012	*01/27/12 05:45*	
Surrogate: Dibromofluoromethane	*103 %*		*70 - 130*		B2A0690	01/27/2012	*01/27/12 05:45*	
Surrogate: Toluene-d8	*100 %*		*70 - 130*		B2A0690	01/27/2012	*01/27/12 05:45*	

Hargis & Associates, Inc.	Project Number : RAYTHEON MAIN, 532.03
9171 Towne Centre Drive, Suite 375	Report To : Steve Netto
San Diego , CA 92122	Reported : 02/06/2012

Client Sample ID MW-36
Lab ID: 1200302-02

Volatile Organic Compounds by EPA 8260 **Analyst: DC**

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,1,1,2-Tetrachloroethane	ND	0.50	NA	1	B2A0669	01/26/2012	01/26/12 17:14	
1,1,1-Trichloroethane	ND	0.50	NA	1	B2A0669	01/26/2012	01/26/12 17:14	
1,1,2,2-Tetrachloroethane	ND	0.50	NA	1	B2A0669	01/26/2012	01/26/12 17:14	
1,1,2-Trichloroethane	ND	0.50	NA	1	B2A0669	01/26/2012	01/26/12 17:14	
1,1-Dichloroethane	ND	0.50	NA	1	B2A0669	01/26/2012	01/26/12 17:14	
1,1-Dichloroethene	**5.2**	0.50	NA	1	B2A0669	01/26/2012	01/26/12 17:14	
1,1-Dichloropropene	ND	0.50	NA	1	B2A0669	01/26/2012	01/26/12 17:14	
1,2,3-Trichloropropane	ND	0.50	NA	1	B2A0669	01/26/2012	01/26/12 17:14	
1,2,3-Trichlorobenzene	ND	0.50	NA	1	B2A0669	01/26/2012	01/26/12 17:14	
1,2,4-Trichlorobenzene	ND	0.50	NA	1	B2A0669	01/26/2012	01/26/12 17:14	
1,2,4-Trimethylbenzene	ND	0.50	NA	1	B2A0669	01/26/2012	01/26/12 17:14	
1,2-Dibromo-3-chloropropane	ND	0.50	NA	1	B2A0669	01/26/2012	01/26/12 17:14	
1,2-Dibromoethane	ND	0.50	NA	1	B2A0669	01/26/2012	01/26/12 17:14	
1,2-Dichlorobenzene	ND	0.50	NA	1	B2A0669	01/26/2012	01/26/12 17:14	
1,2-Dichloroethane	ND	0.50	NA	1	B2A0669	01/26/2012	01/26/12 17:14	
1,2-Dichloropropane	ND	0.50	NA	1	B2A0669	01/26/2012	01/26/12 17:14	
1,3,5-Trimethylbenzene	ND	0.50	NA	1	B2A0669	01/26/2012	01/26/12 17:14	
1,3-Dichlorobenzene	ND	0.50	NA	1	B2A0669	01/26/2012	01/26/12 17:14	
1,3-Dichloropropane	ND	0.50	NA	1	B2A0669	01/26/2012	01/26/12 17:14	
1,4-Dichlorobenzene	ND	0.50	NA	1	B2A0669	01/26/2012	01/26/12 17:14	
2,2-Dichloropropane	ND	0.50	NA	1	B2A0669	01/26/2012	01/26/12 17:14	
2-Chlorotoluene	ND	0.50	NA	1	B2A0669	01/26/2012	01/26/12 17:14	
4-Chlorotoluene	ND	0.50	NA	1	B2A0669	01/26/2012	01/26/12 17:14	
4-Isopropyltoluene	ND	0.50	NA	1	B2A0669	01/26/2012	01/26/12 17:14	
Benzene	ND	0.50	NA	1	B2A0669	01/26/2012	01/26/12 17:14	
Bromobenzene	ND	0.50	NA	1	B2A0669	01/26/2012	01/26/12 17:14	
Bromodichloromethane	ND	0.50	NA	1	B2A0669	01/26/2012	01/26/12 17:14	
Bromoform	ND	0.50	NA	1	B2A0669	01/26/2012	01/26/12 17:14	
Bromomethane	ND	0.50	NA	1	B2A0669	01/26/2012	01/26/12 17:14	
Carbon tetrachloride	ND	0.50	NA	1	B2A0669	01/26/2012	01/26/12 17:14	
Chlorobenzene	ND	0.50	NA	1	B2A0669	01/26/2012	01/26/12 17:14	
Chloroethane	ND	0.50	NA	1	B2A0669	01/26/2012	01/26/12 17:14	
Chloroform	ND	0.50	NA	1	B2A0669	01/26/2012	01/26/12 17:14	
Chloromethane	ND	0.50	NA	1	B2A0669	01/26/2012	01/26/12 17:14	

Hargis & Associates, Inc.	Project Number : RAYTHEON MAIN, 532.03
9171 Towne Centre Drive, Suite 375	Report To : Steve Netto
San Diego , CA 92122	Reported : 02/06/2012

Client Sample ID MW-36
Lab ID: 1200302-02

Volatile Organic Compounds by EPA 8260

Analyst: DC

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
cis-1,2-Dichloroethene	ND	0.50	NA	1	B2A0669	01/26/2012	01/26/12 17:14	
cis-1,3-Dichloropropene	ND	0.50	NA	1	B2A0669	01/26/2012	01/26/12 17:14	
Dibromochloromethane	ND	0.50	NA	1	B2A0669	01/26/2012	01/26/12 17:14	
Dibromomethane	ND	0.50	NA	1	B2A0669	01/26/2012	01/26/12 17:14	
Dichlorodifluoromethane	ND	0.50	NA	1	B2A0669	01/26/2012	01/26/12 17:14	
Ethylbenzene	ND	0.50	NA	1	B2A0669	01/26/2012	01/26/12 17:14	
Hexachlorobutadiene	ND	0.50	NA	1	B2A0669	01/26/2012	01/26/12 17:14	
Isopropylbenzene	ND	0.50	NA	1	B2A0669	01/26/2012	01/26/12 17:14	
m,p-Xylene	ND	1.0	NA	1	B2A0669	01/26/2012	01/26/12 17:14	
Methylene chloride	ND	1.0	NA	1	B2A0669	01/26/2012	01/26/12 17:14	
n-Butylbenzene	ND	0.50	NA	1	B2A0669	01/26/2012	01/26/12 17:14	
n-Propylbenzene	ND	0.50	NA	1	B2A0669	01/26/2012	01/26/12 17:14	
Naphthalene	ND	0.50	NA	1	B2A0669	01/26/2012	01/26/12 17:14	
o-Xylene	ND	0.50	NA	1	B2A0669	01/26/2012	01/26/12 17:14	
sec-Butylbenzene	ND	0.50	NA	1	B2A0669	01/26/2012	01/26/12 17:14	
Styrene	ND	0.50	NA	1	B2A0669	01/26/2012	01/26/12 17:14	
tert-Butylbenzene	ND	0.50	NA	1	B2A0669	01/26/2012	01/26/12 17:14	
Tetrachloroethene	ND	0.50	NA	1	B2A0669	01/26/2012	01/26/12 17:14	
Toluene	**4.3**	0.50	NA	1	B2A0669	01/26/2012	01/26/12 17:14	
trans-1,2-Dichloroethene	ND	0.50	NA	1	B2A0669	01/26/2012	01/26/12 17:14	
Trichloroethene	ND	0.50	NA	1	B2A0669	01/26/2012	01/26/12 17:14	
Trichlorofluoromethane	ND	0.50	NA	1	B2A0669	01/26/2012	01/26/12 17:14	
Vinyl chloride	ND	0.50	NA	1	B2A0669	01/26/2012	01/26/12 17:14	
Surrogate: 1,2-Dichloroethane-d4	*111 %*		*70 - 130*		B2A0669	01/26/2012	*01/26/12 17:14*	
Surrogate: 4-Bromofluorobenzene	*84.5 %*		*70 - 130*		B2A0669	01/26/2012	*01/26/12 17:14*	
Surrogate: Dibromofluoromethane	*105 %*		*70 - 130*		B2A0669	01/26/2012	*01/26/12 17:14*	
Surrogate: Toluene-d8	*101 %*		*70 - 130*		B2A0669	01/26/2012	*01/26/12 17:14*	

1,4-Dioxane by EPA 8270/SIM: Isotope Dilution Technique

Analyst: JD

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,4-Dioxane	ND	0.20	0.13	1	B2A0786	01/31/2012	01/31/12 18:59	
Surrogate: 1,2-Dichlorobenzene-d4	*76.4 %*		*36 - 107*		B2A0786	01/31/2012	*01/31/12 18:59*	
Surrogate: 2-Fluorobiphenyl	*88.3 %*		*42 - 120*		B2A0786	01/31/2012	*01/31/12 18:59*	
Surrogate: 4-Terphenyl-d14	*117 %*		*67 - 142*		B2A0786	01/31/2012	*01/31/12 18:59*	

Hargis & Associates, Inc.	Project Number : RAYTHEON MAIN, 532.03
9171 Towne Centre Drive, Suite 375	Report To : Steve Netto
San Diego , CA 92122	Reported : 02/06/2012

Client Sample ID MW-36

Lab ID: 1200302-02

1,4-Dioxane by EPA 8270/SIM: Isotope Dilution Technique **Analyst: JD**

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Surrogate: Nitrobenzene-d5	*83.5 %*	*36 - 130*			B2A0786	01/31/2012	*01/31/12 18:59*	

Hargis & Associates, Inc.	Project Number : RAYTHEON MAIN, 532.03
9171 Towne Centre Drive, Suite 375	Report To : Steve Netto
San Diego , CA 92122	Reported : 02/06/2012

Client Sample ID MW-3600
Lab ID: 1200302-03

Volatile Organic Compounds by EPA 8260 **Analyst: DC**

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,1,1,2-Tetrachloroethane	ND	0.50	NA	1	B2A0699	01/27/2012	01/27/12 15:23	
1,1,1-Trichloroethane	ND	0.50	NA	1	B2A0699	01/27/2012	01/27/12 15:23	
1,1,2,2-Tetrachloroethane	ND	0.50	NA	1	B2A0699	01/27/2012	01/27/12 15:23	
1,1,2-Trichloroethane	ND	0.50	NA	1	B2A0699	01/27/2012	01/27/12 15:23	
1,1-Dichloroethane	ND	0.50	NA	1	B2A0699	01/27/2012	01/27/12 15:23	
1,1-Dichloroethene	**5.0**	0.50	NA	1	B2A0699	01/27/2012	01/27/12 15:23	
1,1-Dichloropropene	ND	0.50	NA	1	B2A0699	01/27/2012	01/27/12 15:23	
1,2,3-Trichloropropane	ND	0.50	NA	1	B2A0699	01/27/2012	01/27/12 15:23	
1,2,3-Trichlorobenzene	ND	0.50	NA	1	B2A0699	01/27/2012	01/27/12 15:23	
1,2,4-Trichlorobenzene	ND	0.50	NA	1	B2A0699	01/27/2012	01/27/12 15:23	
1,2,4-Trimethylbenzene	ND	0.50	NA	1	B2A0699	01/27/2012	01/27/12 15:23	
1,2-Dibromo-3-chloropropane	ND	0.50	NA	1	B2A0699	01/27/2012	01/27/12 15:23	
1,2-Dibromoethane	ND	0.50	NA	1	B2A0699	01/27/2012	01/27/12 15:23	
1,2-Dichlorobenzene	ND	0.50	NA	1	B2A0699	01/27/2012	01/27/12 15:23	
1,2-Dichloroethane	ND	0.50	NA	1	B2A0699	01/27/2012	01/27/12 15:23	
1,2-Dichloropropane	ND	0.50	NA	1	B2A0699	01/27/2012	01/27/12 15:23	
1,3,5-Trimethylbenzene	ND	0.50	NA	1	B2A0699	01/27/2012	01/27/12 15:23	
1,3-Dichlorobenzene	ND	0.50	NA	1	B2A0699	01/27/2012	01/27/12 15:23	
1,3-Dichloropropane	ND	0.50	NA	1	B2A0699	01/27/2012	01/27/12 15:23	
1,4-Dichlorobenzene	ND	0.50	NA	1	B2A0699	01/27/2012	01/27/12 15:23	
2,2-Dichloropropane	ND	0.50	NA	1	B2A0699	01/27/2012	01/27/12 15:23	
2-Chlorotoluene	ND	0.50	NA	1	B2A0699	01/27/2012	01/27/12 15:23	
4-Chlorotoluene	ND	0.50	NA	1	B2A0699	01/27/2012	01/27/12 15:23	
4-Isopropyltoluene	ND	0.50	NA	1	B2A0699	01/27/2012	01/27/12 15:23	
Benzene	ND	0.50	NA	1	B2A0699	01/27/2012	01/27/12 15:23	
Bromobenzene	ND	0.50	NA	1	B2A0699	01/27/2012	01/27/12 15:23	
Bromodichloromethane	ND	0.50	NA	1	B2A0699	01/27/2012	01/27/12 15:23	
Bromoform	ND	0.50	NA	1	B2A0699	01/27/2012	01/27/12 15:23	
Bromomethane	ND	0.50	NA	1	B2A0699	01/27/2012	01/27/12 15:23	
Carbon tetrachloride	ND	0.50	NA	1	B2A0699	01/27/2012	01/27/12 15:23	
Chlorobenzene	ND	0.50	NA	1	B2A0699	01/27/2012	01/27/12 15:23	
Chloroethane	ND	0.50	NA	1	B2A0699	01/27/2012	01/27/12 15:23	
Chloroform	ND	0.50	NA	1	B2A0699	01/27/2012	01/27/12 15:23	
Chloromethane	ND	0.50	NA	1	B2A0699	01/27/2012	01/27/12 15:23	

Hargis & Associates, Inc.	Project Number : RAYTHEON MAIN, 532.03
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San Diego , CA 92122	Reported : 02/06/2012

Client Sample ID MW-3600
Lab ID: 1200302-03

Volatile Organic Compounds by EPA 8260

Analyst: DC

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
cis-1,2-Dichloroethene	ND	0.50	NA	1	B2A0699	01/27/2012	01/27/12 15:23	
cis-1,3-Dichloropropene	ND	0.50	NA	1	B2A0699	01/27/2012	01/27/12 15:23	
Dibromochloromethane	ND	0.50	NA	1	B2A0699	01/27/2012	01/27/12 15:23	
Dibromomethane	ND	0.50	NA	1	B2A0699	01/27/2012	01/27/12 15:23	
Dichlorodifluoromethane	ND	0.50	NA	1	B2A0699	01/27/2012	01/27/12 15:23	
Ethylbenzene	ND	0.50	NA	1	B2A0699	01/27/2012	01/27/12 15:23	
Hexachlorobutadiene	ND	0.50	NA	1	B2A0699	01/27/2012	01/27/12 15:23	
Isopropylbenzene	ND	0.50	NA	1	B2A0699	01/27/2012	01/27/12 15:23	
m,p-Xylene	ND	1.0	NA	1	B2A0699	01/27/2012	01/27/12 15:23	
Methylene chloride	ND	1.0	NA	1	B2A0699	01/27/2012	01/27/12 15:23	
n-Butylbenzene	ND	0.50	NA	1	B2A0699	01/27/2012	01/27/12 15:23	
n-Propylbenzene	ND	0.50	NA	1	B2A0699	01/27/2012	01/27/12 15:23	
Naphthalene	ND	0.50	NA	1	B2A0699	01/27/2012	01/27/12 15:23	
o-Xylene	ND	0.50	NA	1	B2A0699	01/27/2012	01/27/12 15:23	
sec-Butylbenzene	ND	0.50	NA	1	B2A0699	01/27/2012	01/27/12 15:23	
Styrene	ND	0.50	NA	1	B2A0699	01/27/2012	01/27/12 15:23	
tert-Butylbenzene	ND	0.50	NA	1	B2A0699	01/27/2012	01/27/12 15:23	
Tetrachloroethene	ND	0.50	NA	1	B2A0699	01/27/2012	01/27/12 15:23	
Toluene	**8.5**	0.50	NA	1	B2A0699	01/27/2012	01/27/12 15:23	
trans-1,2-Dichloroethene	ND	0.50	NA	1	B2A0699	01/27/2012	01/27/12 15:23	
Trichloroethene	ND	0.50	NA	1	B2A0699	01/27/2012	01/27/12 15:23	
Trichlorofluoromethane	ND	0.50	NA	1	B2A0699	01/27/2012	01/27/12 15:23	
Vinyl chloride	ND	0.50	NA	1	B2A0699	01/27/2012	01/27/12 15:23	
Surrogate: 1,2-Dichloroethane-d4	*102 %*		*70 - 130*		B2A0699	01/27/2012	*01/27/12 15:23*	
Surrogate: 4-Bromofluorobenzene	*85.3 %*		*70 - 130*		B2A0699	01/27/2012	*01/27/12 15:23*	
Surrogate: Dibromofluoromethane	*97.8 %*		*70 - 130*		B2A0699	01/27/2012	*01/27/12 15:23*	
Surrogate: Toluene-d8	*99.4 %*		*70 - 130*		B2A0699	01/27/2012	*01/27/12 15:23*	

1,4-Dioxane by EPA 8270/SIM: Isotope Dilution Technique

Analyst: JD

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,4-Dioxane	ND	0.20	0.13	1	B2A0786	01/31/2012	01/31/12 19:27	
Surrogate: 1,2-Dichlorobenzene-d4	*78.6 %*		*36 - 107*		B2A0786	01/31/2012	*01/31/12 19:27*	
Surrogate: 2-Fluorobiphenyl	*91.5 %*		*42 - 120*		B2A0786	01/31/2012	*01/31/12 19:27*	
Surrogate: 4-Terphenyl-d14	*119 %*		*67 - 142*		B2A0786	01/31/2012	*01/31/12 19:27*	

Hargis & Associates, Inc.	Project Number : RAYTHEON MAIN, 532.03
9171 Towne Centre Drive, Suite 375	Report To : Steve Netto
San Diego , CA 92122	Reported : 02/06/2012

Client Sample ID MW-3600

Lab ID: 1200302-03

1,4-Dioxane by EPA 8270/SIM: Isotope Dilution Technique **Analyst: JD**

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Surrogate: Nitrobenzene-d5	*86.9 %*	*36 - 130*			B2A0786	01/31/2012	*01/31/12 19:27*	

Hargis & Associates, Inc.	Project Number : RAYTHEON MAIN, 532.03
9171 Towne Centre Drive, Suite 375	Report To : Steve Netto
San Diego , CA 92122	Reported : 02/06/2012

QUALITY CONTROL SECTION

Volatile Organic Compounds by EPA 8260 - Quality Control

Analyte	Result (ug/L)	PQL (ug/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B2A0669 - MSVOAW_LL									
Blank (B2A0669-BLK1)					Prepared: 1/26/2012 Analyzed: 1/26/2012				
1,1,1,2-Tetrachloroethane	ND	0.50			NR				
1,1,1-Trichloroethane	ND	0.50			NR				
1,1,2,2-Tetrachloroethane	ND	0.50			NR				
1,1,2-Trichloroethane	ND	0.50			NR				
1,1-Dichloroethane	ND	0.50			NR				
1,1-Dichloroethene	ND	0.50			NR				
1,1-Dichloropropene	ND	0.50			NR				
1,2,3-Trichloropropane	ND	0.50			NR				
1,2,3-Trichlorobenzene	ND	0.50			NR				
1,2,4-Trichlorobenzene	ND	0.50			NR				
1,2,4-Trimethylbenzene	ND	0.50			NR				
1,2-Dibromo-3-chloropropane	ND	0.50			NR				
1,2-Dibromoethane	ND	0.50			NR				
1,2-Dichlorobenzene	ND	0.50			NR				
1,2-Dichloroethane	ND	0.50			NR				
1,2-Dichloropropane	ND	0.50			NR				
1,3,5-Trimethylbenzene	ND	0.50			NR				
1,3-Dichlorobenzene	ND	0.50			NR				
1,3-Dichloropropane	ND	0.50			NR				
1,4-Dichlorobenzene	ND	0.50			NR				
2,2-Dichloropropane	ND	0.50			NR				
2-Chlorotoluene	ND	0.50			NR				
4-Chlorotoluene	ND	0.50			NR				
4-Isopropyltoluene	ND	0.50			NR				
Benzene	ND	0.50			NR				
Bromobenzene	ND	0.50			NR				
Bromodichloromethane	ND	0.50			NR				
Bromoform	ND	0.50			NR				
Bromomethane	ND	0.50			NR				
Carbon tetrachloride	ND	0.50			NR				
Chlorobenzene	ND	0.50			NR				
Chloroethane	ND	0.50			NR				
Chloroform	ND	0.50			NR				
Chloromethane	ND	0.50			NR				
cis-1,2-Dichloroethene	ND	0.50			NR				
cis-1,3-Dichloropropene	ND	0.50			NR				
Dibromochloromethane	ND	0.50			NR				
Dibromomethane	ND	0.50			NR				
Dichlorodifluoromethane	ND	0.50			NR				
Ethylbenzene	ND	0.50			NR				
Hexachlorobutadiene	ND	0.50			NR				
Isopropylbenzene	ND	0.50			NR				
m,p-Xylene	ND	1.0			NR				

Volatile Organic Compounds by EPA 8260 - Quality Control (cont'd)

Analyte	Result (ug/L)	PQL (ug/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B2A0669 - MSVOAW_LL (continued)									
Blank (B2A0669-BLK1) - Continued					Prepared: 1/26/2012 Analyzed: 1/26/2012				
Methylene chloride	ND	1.0			NR				
n-Butylbenzene	ND	0.50			NR				
n-Propylbenzene	ND	0.50			NR				
Naphthalene	ND	0.50			NR				
o-Xylene	ND	0.50			NR				
sec-Butylbenzene	ND	0.50			NR				
Styrene	ND	0.50			NR				
tert-Butylbenzene	ND	0.50			NR				
Tetrachloroethene	ND	0.50			NR				
Toluene	ND	0.50			NR				
trans-1,2-Dichloroethene	ND	0.50			NR				
Trichloroethene	ND	0.50			NR				
Trichlorofluoromethane	ND	0.50			NR				
Vinyl chloride	ND	0.50			NR				
Surrogate: 1,2-Dichloroethane-d4	*26*		*25.0*		*106*	*70 - 130*			
Surrogate: 4-Bromofluorobenzene	*21*		*25.0*		*83.8*	*70 - 130*			
Surrogate: Dibromofluoromethane	*25*		*25.0*		*102*	*70 - 130*			
Surrogate: Toluene-d8	*25*		*25.0*		*100*	*70 - 130*			
LCS (B2A0669-BS1)					Prepared: 1/26/2012 Analyzed: 1/26/2012				
1,1-Dichloroethene	21	0.50	20.0		103	70 - 130			
Benzene	40	0.50	40.0		99.2	70 - 130			
Chlorobenzene	21	0.50	20.0		104	70 - 130			
MTBE	23	0.50	20.0		113	70 - 130			
Toluene	41	0.50	40.0		102	70 - 130			
Trichloroethene	20	0.50	20.0		102	70 - 130			
Surrogate: 1,2-Dichloroethane-d4	*28*		*25.0*		*111*	*70 - 130*			
Surrogate: 4-Bromofluorobenzene	*22*		*25.0*		*86.6*	*70 - 130*			
Surrogate: Dibromofluoromethane	*26*		*25.0*		*103*	*70 - 130*			
Surrogate: Toluene-d8	*25*		*25.0*		*101*	*70 - 130*			
LCS (B2A0669-BS2)					Prepared: 1/26/2012 Analyzed: 1/26/2012				
1,1-Dichloroethene	20	0.50	20.0		97.6	70 - 130			
Benzene	39	0.50	40.0		97.6	70 - 130			
Chlorobenzene	21	0.50	20.0		103	70 - 130			
MTBE	23	0.50	20.0		113	70 - 130			
Toluene	40	0.50	40.0		101	70 - 130			
Trichloroethene	20	0.50	20.0		102	70 - 130			
Surrogate: 1,2-Dichloroethane-d4	*27*		*25.0*		*110*	*70 - 130*			
Surrogate: 4-Bromofluorobenzene	*22*		*25.0*		*86.0*	*70 - 130*			
Surrogate: Dibromofluoromethane	*26*		*25.0*		*102*	*70 - 130*			
Surrogate: Toluene-d8	*25*		*25.0*		*101*	*70 - 130*			
LCS Dup (B2A0669-BSD1)					Prepared: 1/26/2012 Analyzed: 1/26/2012				
1,1-Dichloroethene	21	0.50	20.0		103	70 - 130	0.437	20	
Benzene	39	0.50	40.0		98.2	70 - 130	0.912	20	

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Volatile Organic Compounds by EPA 8260 - Quality Control (cont'd)

Analyte	Result (ug/L)	PQL (ug/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B2A0669 - MSVOAW_LL (continued)									
LCS Dup (B2A0669-BSD1) - Continued					Prepared: 1/26/2012 Analyzed: 1/26/2012				
Chlorobenzene	21	0.50	20.0		104	70 - 130	0.768	20	
MTBE	22	0.50	20.0		110	70 - 130	2.88	20	
Toluene	41	0.50	40.0		101	70 - 130	0.345	20	
Trichloroethene	21	0.50	20.0		103	70 - 130	0.438	20	
Surrogate: 1,2-Dichloroethane-d4	*27*		*25.0*		*109*	*70 - 130*			
Surrogate: 4-Bromofluorobenzene	*21*		*25.0*		*84.8*	*70 - 130*			
Surrogate: Dibromofluoromethane	*25*		*25.0*		*99.3*	*70 - 130*			
Surrogate: Toluene-d8	*25*		*25.0*		*99.4*	*70 - 130*			
LCS Dup (B2A0669-BSD2)					Prepared: 1/26/2012 Analyzed: 1/26/2012				
1,1-Dichloroethene	20	0.50	20.0		98.6	70 - 130	1.07		
Benzene	39	0.50	40.0		97.8	70 - 130	0.256		
Chlorobenzene	21	0.50	20.0		105	70 - 130	1.30		
MTBE	23	0.50	20.0		113	70 - 130	0.00		
Toluene	41	0.50	40.0		102	70 - 130	0.864		
Trichloroethene	21	0.50	20.0		103	70 - 130	0.829		
Surrogate: 1,2-Dichloroethane-d4	*27*		*25.0*		*109*	*70 - 130*			
Surrogate: 4-Bromofluorobenzene	*22*		*25.0*		*86.5*	*70 - 130*			
Surrogate: Dibromofluoromethane	*25*		*25.0*		*101*	*70 - 130*			
Surrogate: Toluene-d8	*25*		*25.0*		*99.7*	*70 - 130*			
Batch B2A0690 - MSVOAW_LL									
Blank (B2A0690-BLK1)					Prepared: 1/27/2012 Analyzed: 1/27/2012				
1,1,1,2-Tetrachloroethane	ND	0.50			NR				
1,1,1-Trichloroethane	ND	0.50			NR				
1,1,2,2-Tetrachloroethane	ND	0.50			NR				
1,1,2-Trichloroethane	ND	0.50			NR				
1,1-Dichloroethane	ND	0.50			NR				
1,1-Dichloroethene	ND	0.50			NR				
1,1-Dichloropropene	ND	0.50			NR				
1,2,3-Trichloropropane	ND	0.50			NR				
1,2,3-Trichlorobenzene	ND	0.50			NR				
1,2,4-Trichlorobenzene	ND	0.50			NR				
1,2,4-Trimethylbenzene	ND	0.50			NR				
1,2-Dibromo-3-chloropropane	ND	0.50			NR				
1,2-Dibromoethane	ND	0.50			NR				
1,2-Dichlorobenzene	ND	0.50			NR				
1,2-Dichloroethane	ND	0.50			NR				
1,2-Dichloropropane	ND	0.50			NR				
1,3,5-Trimethylbenzene	ND	0.50			NR				
1,3-Dichlorobenzene	ND	0.50			NR				
1,3-Dichloropropane	ND	0.50			NR				
1,4-Dichlorobenzene	ND	0.50			NR				
2,2-Dichloropropane	ND	0.50			NR				
2-Chlorotoluene	ND	0.50			NR				
4-Chlorotoluene	ND	0.50			NR				

Volatile Organic Compounds by EPA 8260 - Quality Control (cont'd)

Analyte	Result (ug/L)	PQL (ug/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B2A0690 - MSVOAW_LL (continued)									
Blank (B2A0690-BLK1) - Continued					Prepared: 1/27/2012 Analyzed: 1/27/2012				
4-Isopropyltoluene	ND	0.50			NR				
Benzene	ND	0.50			NR				
Bromobenzene	ND	0.50			NR				
Bromodichloromethane	ND	0.50			NR				
Bromoform	ND	0.50			NR				
Bromomethane	ND	0.50			NR				
Carbon tetrachloride	ND	0.50			NR				
Chlorobenzene	ND	0.50			NR				
Chloroethane	ND	0.50			NR				
Chloroform	ND	0.50			NR				
Chloromethane	ND	0.50			NR				
cis-1,2-Dichloroethene	ND	0.50			NR				
cis-1,3-Dichloropropene	ND	0.50			NR				
Dibromochloromethane	ND	0.50			NR				
Dibromomethane	ND	0.50			NR				
Dichlorodifluoromethane	ND	0.50			NR				
Ethylbenzene	ND	0.50			NR				
Hexachlorobutadiene	ND	0.50			NR				
Isopropylbenzene	ND	0.50			NR				
m,p-Xylene	ND	1.0			NR				
Methylene chloride	ND	1.0			NR				
n-Butylbenzene	ND	0.50			NR				
n-Propylbenzene	ND	0.50			NR				
Naphthalene	ND	0.50			NR				
o-Xylene	ND	0.50			NR				
sec-Butylbenzene	ND	0.50			NR				
Styrene	ND	0.50			NR				
tert-Butylbenzene	ND	0.50			NR				
Tetrachloroethene	ND	0.50			NR				
Toluene	ND	0.50			NR				
trans-1,2-Dichloroethene	ND	0.50			NR				
Trichloroethene	ND	0.50			NR				
Trichlorofluoromethane	ND	0.50			NR				
Vinyl chloride	ND	0.50			NR				
Surrogate: 1,2-Dichloroethane-d4	*27*		*25.0*		*106*	*70 - 130*			
Surrogate: 4-Bromofluorobenzene	*21*		*25.0*		*84.4*	*70 - 130*			
Surrogate: Dibromofluoromethane	*25*		*25.0*		*101*	*70 - 130*			
Surrogate: Toluene-d8	*25*		*25.0*		*101*	*70 - 130*			
LCS (B2A0690-BS1)					Prepared: 1/27/2012 Analyzed: 1/27/2012				
1,1-Dichloroethene	21	0.50	20.0		106	70 - 130			
Benzene	40	0.50	40.0		99.0	70 - 130			
Chlorobenzene	21	0.50	20.0		104	70 - 130			
MTBE	22	0.50	20.0		109	70 - 130			
Toluene	40	0.50	40.0		101	70 - 130			
Trichloroethene	21	0.50	20.0		105	70 - 130			

Volatile Organic Compounds by EPA 8260 - Quality Control (cont'd)

Analyte	Result (ug/L)	PQL (ug/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B2A0690 - MSVOAW_LL (continued)									
LCS (B2A0690-BS1) - Continued					Prepared: 1/27/2012 Analyzed: 1/27/2012				
Surrogate: 1,2-Dichloroethane-d4	*27*		*25.0*		*109*	*70 - 130*			
Surrogate: 4-Bromofluorobenzene	*21*		*25.0*		*85.6*	*70 - 130*			
Surrogate: Dibromofluoromethane	*26*		*25.0*		*102*	*70 - 130*			
Surrogate: Toluene-d8	*25*		*25.0*		*100*	*70 - 130*			
LCS (B2A0690-BS2)					Prepared: 1/27/2012 Analyzed: 1/27/2012				
1,1-Dichloroethene	20	0.50	20.0		100	70 - 130			
Benzene	39	0.50	40.0		96.4	70 - 130			
Chlorobenzene	21	0.50	20.0		103	70 - 130			
MTBE	22	0.50	20.0		108	70 - 130			
Toluene	40	0.50	40.0		99.3	70 - 130			
Trichloroethene	20	0.50	20.0		102	70 - 130			
Surrogate: 1,2-Dichloroethane-d4	*27*		*25.0*		*110*	*70 - 130*			
Surrogate: 4-Bromofluorobenzene	*22*		*25.0*		*87.0*	*70 - 130*			
Surrogate: Dibromofluoromethane	*25*		*25.0*		*101*	*70 - 130*			
Surrogate: Toluene-d8	*25*		*25.0*		*99.4*	*70 - 130*			
LCS Dup (B2A0690-BSD1)					Prepared: 1/27/2012 Analyzed: 1/27/2012				
1,1-Dichloroethene	20	0.50	20.0		100	70 - 130	5.73	20	
Benzene	39	0.50	40.0		97.4	70 - 130	1.53	20	
Chlorobenzene	21	0.50	20.0		103	70 - 130	0.531	20	
MTBE	22	0.50	20.0		109	70 - 130	0.459	20	
Toluene	40	0.50	40.0		101	70 - 130	0.148	20	
Trichloroethene	21	0.50	20.0		106	70 - 130	0.522	20	
Surrogate: 1,2-Dichloroethane-d4	*28*		*25.0*		*111*	*70 - 130*			
Surrogate: 4-Bromofluorobenzene	*22*		*25.0*		*86.6*	*70 - 130*			
Surrogate: Dibromofluoromethane	*26*		*25.0*		*102*	*70 - 130*			
Surrogate: Toluene-d8	*25*		*25.0*		*101*	*70 - 130*			
LCS Dup (B2A0690-BSD2)					Prepared: 1/27/2012 Analyzed: 1/27/2012				
1,1-Dichloroethene	20	0.50	20.0		98.5	70 - 130	1.71		
Benzene	39	0.50	40.0		97.2	70 - 130	0.878		
Chlorobenzene	21	0.50	20.0		103	70 - 130	0.145		
MTBE	22	0.50	20.0		108	70 - 130	0.231		
Toluene	40	0.50	40.0		100	70 - 130	1.00		
Trichloroethene	21	0.50	20.0		106	70 - 130	3.37		
Surrogate: 1,2-Dichloroethane-d4	*27*		*25.0*		*108*	*70 - 130*			
Surrogate: 4-Bromofluorobenzene	*21*		*25.0*		*85.0*	*70 - 130*			
Surrogate: Dibromofluoromethane	*25*		*25.0*		*100*	*70 - 130*			
Surrogate: Toluene-d8	*25*		*25.0*		*100*	*70 - 130*			
Batch B2A0699 - MSVOAW_LL									
Blank (B2A0699-BLK1)					Prepared: 1/27/2012 Analyzed: 1/27/2012				
1,1,1,2-Tetrachloroethane	ND	0.50			NR				
1,1,1-Trichloroethane	ND	0.50			NR				
1,1,2,2-Tetrachloroethane	ND	0.50			NR				

Volatile Organic Compounds by EPA 8260 - Quality Control (cont'd)

Analyte	Result (ug/L)	PQL (ug/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B2A0699 - MSVOAW_LL (continued)									
Blank (B2A0699-BLK1) - Continued					Prepared: 1/27/2012 Analyzed: 1/27/2012				
1,1,2-Trichloroethane	ND	0.50			NR				
1,1-Dichloroethane	ND	0.50			NR				
1,1-Dichloroethene	ND	0.50			NR				
1,1-Dichloropropene	ND	0.50			NR				
1,2,3-Trichloropropane	ND	0.50			NR				
1,2,3-Trichlorobenzene	ND	0.50			NR				
1,2,4-Trichlorobenzene	ND	0.50			NR				
1,2,4-Trimethylbenzene	ND	0.50			NR				
1,2-Dibromo-3-chloropropane	ND	0.50			NR				
1,2-Dibromoethane	ND	0.50			NR				
1,2-Dichlorobenzene	ND	0.50			NR				
1,2-Dichloroethane	ND	0.50			NR				
1,2-Dichloropropane	ND	0.50			NR				
1,3,5-Trimethylbenzene	ND	0.50			NR				
1,3-Dichlorobenzene	ND	0.50			NR				
1,3-Dichloropropane	ND	0.50			NR				
1,4-Dichlorobenzene	ND	0.50			NR				
2,2-Dichloropropane	ND	0.50			NR				
2-Chlorotoluene	ND	0.50			NR				
4-Chlorotoluene	ND	0.50			NR				
4-Isopropyltoluene	ND	0.50			NR				
Benzene	ND	0.50			NR				
Bromobenzene	ND	0.50			NR				
Bromodichloromethane	ND	0.50			NR				
Bromoform	ND	0.50			NR				
Bromomethane	ND	0.50			NR				
Carbon tetrachloride	ND	0.50			NR				
Chlorobenzene	ND	0.50			NR				
Chloroethane	ND	0.50			NR				
Chloroform	ND	0.50			NR				
Chloromethane	ND	0.50			NR				
cis-1,2-Dichloroethene	ND	0.50			NR				
cis-1,3-Dichloropropene	ND	0.50			NR				
Dibromochloromethane	ND	0.50			NR				
Dibromomethane	ND	0.50			NR				
Dichlorodifluoromethane	ND	0.50			NR				
Ethylbenzene	ND	0.50			NR				
Hexachlorobutadiene	ND	0.50			NR				
Isopropylbenzene	ND	0.50			NR				
m,p-Xylene	ND	1.0			NR				
Methylene chloride	ND	1.0			NR				
n-Butylbenzene	ND	0.50			NR				
n-Propylbenzene	ND	0.50			NR				
Naphthalene	ND	0.50			NR				
o-Xylene	ND	0.50			NR				
sec-Butylbenzene	ND	0.50			NR				
Styrene	ND	0.50			NR				

Hargis & Associates, Inc.	Project Number : RAYTHEON MAIN, 532.03
9171 Towne Centre Drive, Suite 375	Report To : Steve Netto
San Diego , CA 92122	Reported : 02/06/2012

Volatile Organic Compounds by EPA 8260 - Quality Control (cont'd)

Analyte	Result (ug/L)	PQL (ug/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B2A0699 - MSVOAW_LL (continued)									
Blank (B2A0699-BLK1) - Continued					Prepared: 1/27/2012 Analyzed: 1/27/2012				
tert-Butylbenzene	ND	0.50			NR				
Tetrachloroethene	ND	0.50			NR				
Toluene	ND	0.50			NR				
trans-1,2-Dichloroethene	ND	0.50			NR				
Trichloroethene	ND	0.50			NR				
Trichlorofluoromethane	ND	0.50			NR				
Vinyl chloride	ND	0.50			NR				
Surrogate: 1,2-Dichloroethane-d4	*26*		*25.0*		*103*	*70 - 130*			
Surrogate: 4-Bromofluorobenzene	*21*		*25.0*		*83.6*	*70 - 130*			
Surrogate: Dibromofluoromethane	*25*		*25.0*		*99.5*	*70 - 130*			
Surrogate: Toluene-d8	*24*		*25.0*		*97.9*	*70 - 130*			
LCS (B2A0699-BS1)					Prepared: 1/27/2012 Analyzed: 1/27/2012				
1,1-Dichloroethene	20	0.50	20.0		102	70 - 130			
Benzene	39	0.50	40.0		98.3	70 - 130			
Chlorobenzene	21	0.50	20.0		104	70 - 130			
MTBE	21	0.50	20.0		107	70 - 130			
Toluene	40	0.50	40.0		101	70 - 130			
Trichloroethene	20	0.50	20.0		102	70 - 130			
Surrogate: 1,2-Dichloroethane-d4	*28*		*25.0*		*110*	*70 - 130*			
Surrogate: 4-Bromofluorobenzene	*21*		*25.0*		*85.8*	*70 - 130*			
Surrogate: Dibromofluoromethane	*25*		*25.0*		*101*	*70 - 130*			
Surrogate: Toluene-d8	*25*		*25.0*		*99.2*	*70 - 130*			
LCS (B2A0699-BS2)					Prepared: 1/27/2012 Analyzed: 1/27/2012				
1,1-Dichloroethene	20	0.50	20.0		102	70 - 130			
Benzene	39	0.50	40.0		97.8	70 - 130			
Chlorobenzene	21	0.50	20.0		104	70 - 130			
MTBE	21	0.50	20.0		107	70 - 130			
Toluene	40	0.50	40.0		101	70 - 130			
Trichloroethene	21	0.50	20.0		103	70 - 130			
Surrogate: 1,2-Dichloroethane-d4	*27*		*25.0*		*109*	*70 - 130*			
Surrogate: 4-Bromofluorobenzene	*22*		*25.0*		*86.8*	*70 - 130*			
Surrogate: Dibromofluoromethane	*25*		*25.0*		*100*	*70 - 130*			
Surrogate: Toluene-d8	*25*		*25.0*		*101*	*70 - 130*			
LCS Dup (B2A0699-BSD1)					Prepared: 1/27/2012 Analyzed: 1/27/2012				
1,1-Dichloroethene	21	0.50	20.0		103	70 - 130	0.683	20	
Benzene	39	0.50	40.0		97.5	70 - 130	0.843	20	
Chlorobenzene	21	0.50	20.0		104	70 - 130	0.770	20	
MTBE	22	0.50	20.0		112	70 - 130	4.56	20	
Toluene	40	0.50	40.0		100	70 - 130	0.770	20	
Trichloroethene	20	0.50	20.0		102	70 - 130	0.00	20	
Surrogate: 1,2-Dichloroethane-d4	*28*		*25.0*		*113*	*70 - 130*			
Surrogate: 4-Bromofluorobenzene	*22*		*25.0*		*87.4*	*70 - 130*			
Surrogate: Dibromofluoromethane	*26*		*25.0*		*104*	*70 - 130*			

Hargis & Associates, Inc.	Project Number : RAYTHEON MAIN, 532.03
9171 Towne Centre Drive, Suite 375	Report To : Steve Netto
San Diego , CA 92122	Reported : 02/06/2012

Volatile Organic Compounds by EPA 8260 - Quality Control (cont'd)

Analyte	Result (ug/L)	PQL (ug/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B2A0699 - MSVOAW_LL (continued)									
LCS Dup (B2A0699-BSD1) - Continued					Prepared: 1/27/2012 Analyzed: 1/27/2012				
Surrogate: Toluene-d8	*25*		*25.0*		*100*	*70 - 130*			
LCS Dup (B2A0699-BSD2)					Prepared: 1/27/2012 Analyzed: 1/27/2012				
1,1-Dichloroethene	20	0.50	20.0		99.8	70 - 130	1.64		
Benzene	38	0.50	40.0		95.7	70 - 130	2.14		
Chlorobenzene	21	0.50	20.0		104	70 - 130	0.144		
MTBE	22	0.50	20.0		108	70 - 130	1.77		
Toluene	40	0.50	40.0		99.4	70 - 130	1.13		
Trichloroethene	20	0.50	20.0		101	70 - 130	1.67		
Surrogate: 1,2-Dichloroethane-d4	*27*		*25.0*		*110*	*70 - 130*			
Surrogate: 4-Bromofluorobenzene	*22*		*25.0*		*88.0*	*70 - 130*			
Surrogate: Dibromofluoromethane	*25*		*25.0*		*101*	*70 - 130*			
Surrogate: Toluene-d8	*25*		*25.0*		*101*	*70 - 130*			

Hargis & Associates, Inc.	Project Number : RAYTHEON MAIN, 532.03
9171 Towne Centre Drive, Suite 375	Report To : Steve Netto
San Diego , CA 92122	Reported : 02/06/2012

1,4-Dioxane by EPA 8270/SIM: Isotope Dilution Technique - Quality Control

Analyte	Result (ug/L)	PQL (ug/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B2A0786 - MSSEMI_ISOTOPEDILN									
Blank (B2A0786-BLK1)					Prepared: 1/31/2012 Analyzed: 1/31/2012				
1,4-Dioxane	ND	0.20			NR				
Surrogate: 1,2-Dichlorobenzene-d4	*0.76*		*1.00*		*76.2*	*36 - 107*			
Surrogate: 2-Fluorobiphenyl	*0.82*		*1.00*		*82.4*	*42 - 120*			
Surrogate: 4-Terphenyl-d14	*1.1*		*1.00*		*108*	*67 - 142*			
Surrogate: Nitrobenzene-d5	*0.84*		*1.00*		*84.4*	*36 - 130*			
LCS (B2A0786-BS1)					Prepared: 1/31/2012 Analyzed: 1/31/2012				
1,4-Dioxane	0.97	0.20	1.00		96.7	70 - 130			
Surrogate: 1,2-Dichlorobenzene-d4	*0.72*		*1.00*		*72.5*	*36 - 107*			
Surrogate: 2-Fluorobiphenyl	*0.84*		*1.00*		*84.1*	*42 - 120*			
Surrogate: 4-Terphenyl-d14	*1.1*		*1.00*		*105*	*67 - 142*			
Surrogate: Nitrobenzene-d5	*0.82*		*1.00*		*82.4*	*36 - 130*			
LCS Dup (B2A0786-BSD1)					Prepared: 1/31/2012 Analyzed: 1/31/2012				
1,4-Dioxane	0.93	0.20	1.00		93.0	70 - 130	3.90	20	
Surrogate: 1,2-Dichlorobenzene-d4	*0.69*		*1.00*		*68.7*	*36 - 107*			
Surrogate: 2-Fluorobiphenyl	*0.80*		*1.00*		*80.3*	*42 - 120*			
Surrogate: 4-Terphenyl-d14	*1.0*		*1.00*		*105*	*67 - 142*			
Surrogate: Nitrobenzene-d5	*0.76*		*1.00*		*76.0*	*36 - 130*			

Hargis & Associates, Inc.		Project Number :	RAYTHEON MAIN, 532.03
9171 Towne Centre Drive, Suite 375		Report To :	Steve Netto
San Diego , CA 92122		Reported :	02/06/2012

Notes and Definitions

E	Result value above quantitation range.
D3	Sample required dilution due to insufficient sample.
ND	Analyte not detected at or above reporting limit
PQL	Practical Quantitation Limit
MDL	Method Detection Limit
NR	Not Reported
RPD	Relative Percent Difference

HARGIS + ASSOCIATES, INC.
HYDROGEOLOGY • ENGINEERING

CHAIN-OF-CUSTODY RECORD AND ANALYSIS REQUEST FORM

DATE 1/26/12 PAGE 1 OF 1

PROJECT NAME	RAYTHEON MAIN
PROJECT No./TASK No.	532.003
PROJECT MANAGER	Chris Ross
Phone No.	858-455-6500
QA MANAGER	Steve Netto
Fax No.	858-455-6633
SAMPLER (SIGNATURE)	Amanda Beam
SAMPLER (PRINTED)	Amanda Beam / DANIEL MORA

LAB ID	SAMPLE ID	SAMPLE COLLECTION Date	Time	MATRIX Soil	Ground-water	Surface water	Lab H20	PRESERVATION HCl	HNO 3	NaOH	H2SO 4	Ice	SAMPLE CONTAINERS 40 ml VOA	1 L Amber	ANALYSIS REQUESTED 8260 VOCs	8270 SIM 1,4-Dioxane	8270 MOD 1,4-Dioxane	ESTIMATED CONCENTRATION RANGE (ppb) FOR VOA'S 0-10	10-100	100-1,000	>1,000	SPECIAL HANDLING Standard TAT	24 hr TAT	LABORATORY INFORMATION
																								ATL
																								Attn: Rachelle Arace
120302-1	TB-012612	1/26/12	800				X	X				X	2		X			X				X		
-2	MW-36	1	1113		X			X				X	3		X			X					X	
	MW-36	↓	1113		X							X		1		X						X		
~~-3~~	~~MW-31D~~		~~1113~~																			X		
-3	MW-3600	1/26/12	1133		X			X				X	3		X			X				X		
	MW-3600	↓	1133		X							X		1		X						X		
Total number of Containers per analysis:													8	2								**Total No. of Containers:** 10		

Relinquished by:	Date	Time	Received by:	Date	Time
HTA	1/26/12	1245	ATL	1/26/12	1248
Company			Company		
Relinquished by:	Date	Time	Received by:	Date	Time
ATL	1/26/12	1317			
Company			Company		

INSTRUCTIONS

1. Fill out form completely except for shaded areas (lab use only); sign only after verified for completeness.
2. Complete in ballpoint pen. Draw one line through errors, initial and date correction.
3. Indicate number of sample containers in analysis request space; indicate choice with √ or x.
4. Note applicable preservatives, special instructions, and deviations from typical environmental samples.
5. Consult project QA documents for specific instructions.

Sample Receipt:

☐ No. of containers correct ☐ received good condition/cold

☐ custody seals secure ☐ conforms to COC document

Shipment Method: Courier/Drop off

Send Results to: Steve Netto

☒ 9171 TOWNE CENTRE DRIVE, SUITE 375
SAN DIEGO, CA 92122 (858) 455-6500

☐ 1640 SOUTH STAPLEY DRIVE, SUITE 124
MESA, AZ 85204 (480) 345-0888

☐ 1820 EAST RIVER ROAD, SUITE 220
TUCSON, AZ 85718 (520) 881-7300

Send invoice to San Diego, CA
Attn: Accounts Payable

ORIGINAL: LABORATORY YELLOW: QA MANAGER PINK: FIELD/TASK MANAGER

Exova
9240 Santa Fe Springs Road
Santa Fe Springs
California
USA
90670

T: +1 (562) 948-2225
F: +1 (562) 948-5850
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Certificate of Analysis

February 1, 2012

Hargis+Associates Inc
9171 Towne Centre Dr
Ste 375
San Diego, CA 92122

Attn: Steve Netto

Exova Job No: 136847
Purchase Order: 532.03
Project Name: Raytheon Main
Samples Received: Seven (7) Sample(s)
Date Received: 01/13/2012

KT

Analysis	Page
Volatile Organics by EPA 624/8260B	2 - 6
1,4-Dioxane by Modified EPA 8270	7

Patricia Metzger
Senior Chemist

Samina N. Hussain
Senior Chemist

EXOVA

Volatile Organics by EPA 624/8260B

Sample: MW-36

Parts Per Billion (µg/L)

Compound	Result	Detection Limit	Blank Result	Detection Limit
Acetone	ND	5	ND	5
tert-Amyl Methyl Ether	ND	1	ND	1
Benzene	ND	1	ND	1
Bromodichloromethane	ND	1	ND	1
Bromoform	ND	1	ND	1
Bromomethane	ND	5	ND	5
2-Butanone (MEK)	ND	2	ND	2
tert-Butyl Alcohol	ND	5	ND	5
tert-Butyl Ethyl Ether	ND	1	ND	1
Carbon Disulfide	ND	1	ND	1
Carbon Tetrachloride	ND	1	ND	1
Chlorobenzene	ND	1	ND	1
Chloroethane	ND	1	ND	1
Chloroform	ND	1	ND	1
Chloromethane	ND	2	ND	2
2-Chlorotoluene	ND	1	ND	1
4-Chlorotoluene	ND	1	ND	1
Dibromochloromethane	ND	1	ND	1
1,2-Dichlorobenzene	ND	1	ND	1
1,3-Dichlorobenzene	ND	1	ND	1
1,4-Dichlorobenzene	ND	1	ND	1
1,1-Dichloroethane	ND	1	ND	1
1,2-Dichloroethane	ND	1	ND	1
1,1-Dichloroethylene	2	1	ND	1
cis-1,2-Dichloroethylene	ND	1	ND	1
trans-1,2-Dichloroethylene	ND	1	ND	1
1,2-Dichloropropane	ND	1	ND	1
cis-1,3-Dichloropropene	ND	1	ND	1
trans-1,3-Dichloropropene	ND	1	ND	1
Diisopropyl Ether	ND	1	ND	1
Ethylbenzene	ND	1	ND	1
Ethylene Dibromide	ND	1	ND	1
Freon-TF	ND	1	ND	1
2-Hexanone	ND	1	ND	1
Methylene Chloride	ND	5	ND	5
4-Methyl-2-Pentanone (MIBK)	ND	1	ND	1
Methyl t-Butyl Ether	ND	2	ND	2
Styrene	ND	1	ND	1

EXOVA

Volatile Organics by EPA 624/8260B

Sample: MW-36 (continued)

Parts Per Billion (µg/L)

Compound	Result	Detection Limit	Blank Result	Detection Limit
1,1,2,2-Tetrachloroethane	ND	1	ND	1
Tetrachloroethylene	ND	1	ND	1
Tetrahydrofuran	ND	1	ND	1
Toluene	4	1	ND	1
1,1,1-Trichloroethane	ND	1	ND	1
1,1,2-Trichloroethane	ND	1	ND	1
Trichloroethylene	ND	1	ND	1
Trichlorofluoromethane	ND	1	ND	1
Vinyl Chloride	ND	1	ND	1
m/p-Xylenes	ND	1	ND	1
o-Xylene	ND	1	ND	1

Date extracted: 01-27-12
Date analyzed: 01-27-12

Surrogate	QC Limits	Sample Percent Recovery	Blank Percent Recovery
Dibromofluoromethane	75-125	92	94
1,2-Dichloroethane-d_4	82-121	93	97
Toluene-d_8	87-110	98	100
Bromofluorobenzene	76-113	98	100

EXOVA

Volatile Organics by EPA 624/8260B

Sample: TB-011312A

Parts Per Billion (µg/L)

Compound	Result	Detection Limit	Blank Result	Detection Limit
Acetone	ND	5	ND	5
tert-Amyl Methyl Ether	ND	1	ND	1
Benzene	ND	1	ND	1
Bromodichloromethane	ND	1	ND	1
Bromoform	ND	1	ND	1
Bromomethane	ND	5	ND	5
2-Butanone (MEK)	ND	2	ND	2
tert-Butyl Alcohol	ND	5	ND	5
tert-Butyl Ethyl Ether	ND	1	ND	1
Carbon Disulfide	ND	1	ND	1
Carbon Tetrachloride	ND	1	ND	1
Chlorobenzene	ND	1	ND	1
Chloroethane	ND	1	ND	1
Chloroform	ND	1	ND	1
Chloromethane	ND	2	ND	2
2-Chlorotoluene	ND	1	ND	1
4-Chlorotoluene	ND	1	ND	1
Dibromochloromethane	ND	1	ND	1
1,2-Dichlorobenzene	ND	1	ND	1
1,3-Dichlorobenzene	ND	1	ND	1
1,4-Dichlorobenzene	ND	1	ND	1
1,1-Dichloroethane	ND	1	ND	1
1,2-Dichloroethane	ND	1	ND	1
1,1-Dichloroethylene	ND	1	ND	1
cis-1,2-Dichloroethylene	ND	1	ND	1
trans-1,2-Dichloroethylene	ND	1	ND	1
1,2-Dichloropropane	ND	1	ND	1
cis-1,3-Dichloropropene	ND	1	ND	1
trans-1,3-Dichloropropene	ND	1	ND	1
Diisopropyl Ether	ND	1	ND	1
Ethylbenzene	ND	1	ND	1
Ethylene Dibromide	ND	1	ND	1
Freon-TF	ND	1	ND	1
2-Hexanone	ND	1	ND	1
Methylene Chloride	ND	5	ND	5
4-Methyl-2-Pentanone (MIBK)	ND	1	ND	1
Methyl t-Butyl Ether	ND	2	ND	2
Styrene	ND	1	ND	1

EXOVA

Volatile Organics by EPA 624/8260B

Sample: TB-011312A (continued)

Parts Per Billion (µg/L)

Compound	Result	Detection Limit	Blank Result	Detection Limit
1,1,2,2-Tetrachloroethane	ND	1	ND	1
Tetrachloroethylene	ND	1	ND	1
Tetrahydrofuran	ND	1	ND	1
Toluene	ND	1	ND	1
1,1,1-Trichloroethane	ND	1	ND	1
1,1,2-Trichloroethane	ND	1	ND	1
Trichloroethylene	ND	1	ND	1
Trichlorofluoromethane	ND	1	ND	1
Vinyl Chloride	ND	1	ND	1
m/p-Xylenes	ND	1	ND	1
o-Xylene	ND	1	ND	1

Date extracted: 01-27-12
Date analyzed: 01-27-12

Surrogate	QC Limits	Sample Percent Recovery	Blank Percent Recovery
Dibromofluoromethane	75-125	94	94
1,2-Dichloroethane-d_4	82-121	93	97
Toluene-d_8	87-110	101	100
Bromofluorobenzene	76-113	99	100

EXOVA

Quality Control Summary

Batch ID: 012712WV

Compound	Sample Result	Spike Conc	Spike Result	Spike % Rec	Spike Dup Result	Spike Dup % Rec	Spike RPD
Benzene	ND	50.0	49.3	99	46.4	93	6
Chlorobenzene	ND	50.0	49.5	99	47.3	95	5
1,1-Dichloroethylene	2.6	50.0	52.2	99	48.8	92	7
Toluene	3.2	50.0	58.0	110	55.4	104	5
Trichloroethylene	ND	50.0	45.9	92	43.4	87	6

Quality Control Limits

Compound	% Recovery	RPD
Benzene	77-127	10
Chlorobenzene	80-116	9
1,1-Dichloroethylene	66-125	11
Toluene	81-118	10
Trichloroethylene	72-119	11

EXOVA

1,4-Dioxane by Modified EPA 8270
Gas Chromatography/Mass Spectrometry

Sample ID	Parts Per Billion (µg/L)
MW-36	ND
Method Blank	ND
Detection Limit	1

Date Extracted: 01-18-12
Dates Analyzed: 01-27-12

Quality Control Summary

Sample ID: 011812WB

Analyte	Sample Result	Spike Conc	Spike Result	Spike % Rec	Spike Duplicate Result	Spike Duplicate % Rec	Spike RPD
1,4-Dioxane	ND	20.5	19.1	93	20.1	98	5

Quality Control Guidelines

Analyte	% Recovery	RPD
1,4-Dioxane	85-113	NMT 11

HARGIS + ASSOCIATES, INC.
HYDROGEOLOGY • ENGINEERING

CHAIN-OF-CUSTODY RECORD AND ANALYSIS REQUEST FORM

DATE 1/13/12 PAGE 1 OF 1

PROJECT NAME Raymond Main	**PROJECT No./TASK No.** 532
PROJECT MANAGER Chris Ross	**Phone No.** 858-455-6500
QA MANAGER Steve Nitto	**Fax No.** 858-455-6533
SAMPLER (SIGNATURE)	**SAMPLER (PRINTED)** Amanda Beam, DANIEL MORA

LAB ID	SAMPLE ID	SAMPLE COLLECTION Date	Time	MATRIX: Soil	Ground-water	Surface water	Other (Air)	PRESERVATION: HCl	HNO_3	NaOH	H_2SO_4	Ice	SAMPLE CONTAINERS: 40 mL VOA / 1 L Amber	ANALYSIS REQUESTED: 8260B VOCs; 8270D SIM 1,4-Dioxane; 8270D MOD 1,4-Dioxane	ESTIMATED CONCENTRATION RANGE (ppb) FOR VOA'S: 0-10 / 10-100 / 100-1000 / 1000-10,000	SPECIAL HANDLING: Standard turnaround	LABORATORY INFORMATION: A; EXOVA	REMARKS
	TB-011312A	1/13/12	800				X	X				X	3	X	X	X		
	MW-36	1/13/12	1217		X			X				X	3	X	X	X		
	MW-36	↓	1217		X							X	1		X	X		

Total number of Containers per analysis: 6 1

Total No. of Containers: 7

Relinquished by:	Date 1/13/12	Received by:	Date
HAING	Time 1521		Time
Company		Company	
Relinquished by:	Date	Received by:	Date 01-13-12
Company	Time	Company	Time 1521

INSTRUCTIONS

1. Fill out form completely except for shaded areas (lab use only); sign only after verified for completeness.
2. Complete in ballpoint pen. Draw one line through errors, initial and date correction.
3. Indicate number of sample containers in analysis request space; indicate choice with ✓ or x.
4. Note applicable preservatives, special instructions, and deviations from typical environmental samples.
5. Consult project QA documents for specific instructions.

Sample Receipt:

- ☑ No. of containers correct
- ☐ custody seals secure

Temp. @ receipt 2 °C

- ☐ received good condition/cold
- ☑ conforms to COC document

Shipment Method: Drop off
Send Results to: Steve Nitto

☒ 9171 TOWNE CENTRE DRIVE, SUITE 375
SAN DIEGO, CA 92122 (858) 455-6500

☐ 1640 SOUTH STAPLEY DRIVE, SUITE 124
MESA, AZ 85204 (480) 345-0888

☐ 1820 EAST RIVER ROAD, SUITE 220
TUCSON, AZ 85718 (520) 881-7300

Send invoice to San Diego, CA
Attn: Accounts Payable

136847

ORIGINAL: LABORATORY YELLOW: QA MANAGER PINK: FIELD/TASK MANAGER

Exova
9240 Santa Fe Springs Road
Santa Fe Springs
California
USA
90670

T: +1 (562) 948-2225
F: +1 (562) 948-5850
E: info400@exova.com
W: www.exova.com

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Certificate of Analysis

February 8, 2012

Hargis+Associates Inc
9171 Towne Centre Dr
Ste 375
San Diego, CA 92122

Attn: Steve Netto

Exova Job No: 137148
Purchase Order: 532.03
Project Name: Raytheon Main
Samples Received: Seven (7) Sample(s)
Date Received: 01/26/2012

KT

Analysis	Page
Volatile Organics by EPA 624/8260B	2 - 6
1,4-Dioxane by Modified EPA 8270	7

Michael Shelton
Technical Director

Patricia Metzger
Senior Chemist

EXOVA

Volatile Organics by EPA 624/8260B

Sample: MW-36

Parts Per Billion (µg/L)

Compound	Result	Detection Limit	Blank Result	Detection Limit
Acetone	ND	5	ND	5
tert-Amyl Methyl Ether	ND	1	ND	1
Benzene	ND	1	ND	1
Bromodichloromethane	ND	1	ND	1
Bromoform	ND	1	ND	1
Bromomethane	ND	5	ND	5
2-Butanone (MEK)	ND	2	ND	2
tert-Butyl Alcohol	ND	5	ND	5
tert-Butyl Ethyl Ether	ND	1	ND	1
Carbon Disulfide	ND	1	ND	1
Carbon Tetrachloride	ND	1	ND	1
Chlorobenzene	ND	1	ND	1
Chloroethane	ND	1	ND	1
Chloroform	ND	1	ND	1
Chloromethane	ND	2	ND	2
2-Chlorotoluene	ND	1	ND	1
4-Chlorotoluene	ND	1	ND	1
Dibromochloromethane	ND	1	ND	1
1,2-Dichlorobenzene	ND	1	ND	1
1,3-Dichlorobenzene	ND	1	ND	1
1,4-Dichlorobenzene	ND	1	ND	1
1,1-Dichloroethane	ND	1	ND	1
1,2-Dichloroethane	ND	1	ND	1
1,1-Dichloroethylene	3	1	ND	1
cis-1,2-Dichloroethylene	ND	1	ND	1
trans-1,2-Dichloroethylene	ND	1	ND	1
1,2-Dichloropropane	ND	1	ND	1
cis-1,3-Dichloropropene	ND	1	ND	1
trans-1,3-Dichloropropene	ND	1	ND	1
Diisopropyl Ether	ND	1	ND	1
Ethylbenzene	ND	1	ND	1
Ethylene Dibromide	ND	1	ND	1
Freon-TF	ND	1	ND	1
2-Hexanone	ND	1	ND	1
Methylene Chloride	ND	5	ND	5
4-Methyl-2-Pentanone (MIBK)	ND	1	ND	1
Methyl t-Butyl Ether	ND	2	ND	2
Styrene	ND	1	ND	1

EXOVA

Volatile Organics by EPA 624/8260B

Sample: MW-36 (continued)

Parts Per Billion (µg/L)

Compound	Result	Detection Limit	Blank Result	Detection Limit
1,1,2,2-Tetrachloroethane	ND	1	ND	1
Tetrachloroethylene	ND	1	ND	1
Tetrahydrofuran	ND	1	ND	1
Toluene	3	1	ND	1
1,1,1-Trichloroethane	ND	1	ND	1
1,1,2-Trichloroethane	ND	1	ND	1
Trichloroethylene	ND	1	ND	1
Trichlorofluoromethane	ND	1	ND	1
Vinyl Chloride	ND	1	ND	1
m/p-Xylenes	ND	1	ND	1
o-Xylene	ND	1	ND	1

Date extracted: 01-27-12
Date analyzed: 01-27-12

Surrogate	QC Limits	Sample Percent Recovery	Blank Percent Recovery
Dibromofluoromethane	75-125	94	94
1,2-Dichloroethane-d_4	82-121	94	97
Toluene-d_8	87-110	99	100
Bromofluorobenzene	76-113	100	100

EXOVA

Volatile Organics by EPA 624/8260B

Sample: TB-012612A

Parts Per Billion (µg/L)

Compound	Result	Detection Limit	Blank Result	Detection Limit
Acetone	ND	5	ND	5
tert-Amyl Methyl Ether	ND	1	ND	1
Benzene	ND	1	ND	1
Bromodichloromethane	ND	1	ND	1
Bromoform	ND	1	ND	1
Bromomethane	ND	5	ND	5
2-Butanone (MEK)	ND	2	ND	2
tert-Butyl Alcohol	ND	5	ND	5
tert-Butyl Ethyl Ether	ND	1	ND	1
Carbon Disulfide	ND	1	ND	1
Carbon Tetrachloride	ND	1	ND	1
Chlorobenzene	ND	1	ND	1
Chloroethane	ND	1	ND	1
Chloroform	ND	1	ND	1
Chloromethane	ND	2	ND	2
2-Chlorotoluene	ND	1	ND	1
4-Chlorotoluene	ND	1	ND	1
Dibromochloromethane	ND	1	ND	1
1,2-Dichlorobenzene	ND	1	ND	1
1,3-Dichlorobenzene	ND	1	ND	1
1,4-Dichlorobenzene	ND	1	ND	1
1,1-Dichloroethane	ND	1	ND	1
1,2-Dichloroethane	ND	1	ND	1
1,1-Dichloroethylene	ND	1	ND	1
cis-1,2-Dichloroethylene	ND	1	ND	1
trans-1,2-Dichloroethylene	ND	1	ND	1
1,2-Dichloropropane	ND	1	ND	1
cis-1,3-Dichloropropene	ND	1	ND	1
trans-1,3-Dichloropropene	ND	1	ND	1
Diisopropyl Ether	ND	1	ND	1
Ethylbenzene	ND	1	ND	1
Ethylene Dibromide	ND	1	ND	1
Freon-TF	ND	1	ND	1
2-Hexanone	ND	1	ND	1
Methylene Chloride	ND	5	ND	5
4-Methyl-2-Pentanone (MIBK)	ND	1	ND	1
Methyl t-Butyl Ether	ND	2	ND	2
Styrene	ND	1	ND	1

EXOVA

Volatile Organics by EPA 624/8260B

Sample: TB-012612A (continued)

Parts Per Billion (µg/L)

Compound	Result	Detection Limit	Blank Result	Detection Limit
1,1,2,2-Tetrachloroethane	ND	1	ND	1
Tetrachloroethylene	ND	1	ND	1
Tetrahydrofuran	ND	1	ND	1
Toluene	ND	1	ND	1
1,1,1-Trichloroethane	ND	1	ND	1
1,1,2-Trichloroethane	ND	1	ND	1
Trichloroethylene	ND	1	ND	1
Trichlorofluoromethane	ND	1	ND	1
Vinyl Chloride	ND	1	ND	1
m/p-Xylenes	ND	1	ND	1
o-Xylene	ND	1	ND	1

Date extracted: 01-27-12
Date analyzed: 01-27-12

Surrogate	QC Limits	Sample Percent Recovery	Blank Percent Recovery
Dibromofluoromethane	75-125	91	94
1,2-Dichloroethane-d_4	82-121	91	97
Toluene-d_8	87-110	98	100
Bromofluorobenzene	76-113	102	100

Quality Control Summary

Sample ID: MW-36

Compound	Sample Result	Spike Conc	Spike Result	Spike % Rec	Spike Dup Result	Spike Dup % Rec	Spike RPD
Benzene	ND	50.0	49.3	99	46.4	93	6
Chlorobenzene	ND	50.0	49.5	99	47.3	95	5
1,1-Dichloroethylene	2.6	50.0	52.2	99	48.8	92	7
Toluene	3.2	50.0	58.0	110	55.4	104	5
Trichloroethylene	ND	50.0	45.9	92	43.4	87	6

Quality Control Limits

Compound	% Recovery	RPD
Benzene	77-127	10
Chlorobenzene	80-116	9
1,1-Dichloroethylene	66-125	11
Toluene	81-118	10
Trichloroethylene	72-119	11

EXOVA

1,4-Dioxane by Modified EPA 8270
Gas Chromatography/Mass Spectrometry

Sample ID	Parts Per Billion (µg/L)
MW-36	ND
Method Blank	ND
Detection Limit	1

Date Extracted: 01-31-12
Dates Analyzed: 02-03-12

Quality Control Summary

Sample ID: 013112WB

Analyte	Sample Result	Spike Conc	Spike Result	Spike % Rec	Spike Duplicate Result	Spike Duplicate % Rec	Spike RPD
1,4-Dioxane	ND	20.5	20.4	100	20.3	99	0

Quality Control Guidelines

Analyte	% Recovery	RPD
1,4-Dioxane	85 - 113	NMT 11

HARGIS + ASSOCIATES, INC.
HYDROGEOLOGY • ENGINEERING

CHAIN-OF-CUSTODY RECORD AND ANALYSIS REQUEST FORM

DATE 11/26/12 PAGE 1 OF 1

PROJECT NAME: Raytheon Main	PROJECT No./TASK No.: ~~532.30~~ AMB 532.03
PROJECT MANAGER: Chris Ross	Phone No.: 858 455 6500
QA MANAGER: Steve Netto	Fax No.: 858 455-6533
SAMPLER (SIGNATURE): Amanda Beam / Daniel Mora	SAMPLER (PRINTED): Amanda Beam / DANIEL MORA

LAB ID	SAMPLE ID	SAMPLE COLLECTION Date	SAMPLE COLLECTION Time	MATRIX: Soil	Ground-water	Surface water	AIR Hg	PRESERVATION: HCl	HNO_3	NaOH	H_2SO_4	Ice	SAMPLE CONTAINERS: 40ml VOA	1 L Amber	ANALYSIS REQUESTED: 8260 VOCs	8270 SIM 1,4-Dioxane	8270 Mod 1,4-Dioxane	ESTIMATED CONCENTRATION RANGE (ppb) FOR VOA'S: 0-10	10-100	100-1,000	>1,000	SPECIAL HANDLING	LABORATORY INFORMATION / REMARKS
																							Eurofins
~3	TB-112612A	11/26/12	800				X	X				X	3		X								Standard turn around time
~3	MW-36	↓	1123		X			X				X	3		X			X					
~	MW-36	↓	1123		X							X		1		X							
Total number of Containers per analysis:													6	1								Total No. of Containers: 7	

Relinquished by:	Date	Received by:	Date
[signature]	11/26/12	[signature]	
HHA Inc	Time 1103	Eurofins	Time
Company		Company	
Relinquished by:	Date	Received by:	Date
	Time		Time
Company		Company	

INSTRUCTIONS

1. Fill out form completely except for shaded areas (lab use only); sign only after verified for completeness.
2. Complete in ballpoint pen. Draw one line through errors, initial and date correction.
3. Indicate number of sample containers in analysis request space; indicate choice with ✓ or x.
4. Note applicable preservatives, special instructions, and deviations from typical environmental samples.
5. Consult project QA documents for specific instructions.

Sample Receipt:

- ☑ No. of containers correct
- ☐ custody seals secure
- Temp. @ receipt 9 °C
- ☑ received good condition/cold
- ☑ conforms to COC document

Shipment Method: Drop off

Send Results to: Steve Netto

☒ 9171 TOWNE CENTRE DRIVE, SUITE 375
SAN DIEGO, CA 92122 (858) 455-6500

☐ 1640 SOUTH STAPLEY DRIVE, SUITE 124
MESA, AZ 85204 (480) 345-0888

☐ 1820 EAST RIVER ROAD, SUITE 220
TUCSON, AZ 85718 (520) 881-7300

Send invoice to San Diego CA
Attn: Accounts Payable

137148

ORIGINAL: LABORATORY YELLOW: QA MANAGER PINK: FIELD/TASK MANAGER