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Level IV Data Package

MWH Group 239631

Method: EPA 9040B: pH9040

2805060277
2805060278
2805060279
2805060280
2805060281
2805060282
2805060290
2805060291
2805060293
2805060294
2805060303
2805060305
2805060311
2805060312
2805060313
2805060314
2805060315
2805060316
2805060317
2805060318
2805060319
2805060320

Montgomery Watson Laboratory

pH Results Report

<u>Run Number</u>	2586	<u>Order Number</u>	20080506-6		
<u>SampleID</u>	<u>RunDate</u>	<u>RunTime</u>	<u>pH</u>	<u>Temperature</u>	<u>pHmV</u>
PH 4.0	5/6/2008	4:19 PM	3.97	19.89	186.52
PH 7.0	5/6/2008	4:22 PM	6.99	19.83	-85
PH 10.0	5/6/2008	4:25 PM	9.97	19.84	-186.03
WASH	5/6/2008	4:29 PM	9.26	19.89	-142.08
LCS6.0PH	5/6/2008	4:32 PM	5.98	19.83	61.64
2805060277 ✓	5/6/2008	4:36 PM	7.68	19.65	-43.57
2805060278 ✓	5/6/2008	4:40 PM	7.83	19.58	-53.34
2805060279 ✓	5/6/2008	4:43 PM	7.70	19.60	.00
2805060280 ✓	5/6/2008	4:47 PM	7.66	19.60	-42.72
2805060281 ✓	5/6/2008	4:51 PM	7.70	19.64	-45.16
2805060282 ✓	5/6/2008	4:54 PM	7.67	19.63	543.45
2805060290 ✓	5/6/2008	4:58 PM	7.75	19.69	-48.33
2805060291 ✓	5/6/2008	5:02 PM	7.66	19.72	-42.84
2805060294 ✓	5/6/2008	5:05 PM	7.67	19.71	-43.09
2805060303 ✓	5/6/2008	5:09 PM	7.75	19.77	-48.58
2805060303DUP	5/6/2008	5:13 PM	7.75	19.72	.00
WASH	5/6/2008	5:17 PM	6.07	19.79	55.66
LCS6.0PH	5/6/2008	5:19 PM	5.97	19.72	62.13
WASH	5/6/2008	5:23 PM	6.05	19.80	57.61
2805060293 ✓	5/6/2008	5:26 PM	5.70	19.77	79.34
2805060305 ✓	5/6/2008	5:30 PM	7.66	19.81	42.60
2805060311 ✓	5/6/2008	5:34 PM	7.68	19.80	12.81
2805060312 ✓	5/6/2008	5:37 PM	7.67	19.79	-43.57

Standards Documentation

pH 4: R201751 Exp: 09/08
 pH 7: R201522 Exp: 09/08
 pH10: R201683 Exp: 12/08
 pH 6: R201830 Exp: 02/10

Analyst Name: SAC
 Reviewed By: AVH 5/6/08

5/8/06

Run Number 2586 **Order Number** 20080506-6

<u>SampleID</u>	<u>RunDate</u>	<u>RunTime</u>	<u>pH</u>	<u>Temperature</u>	<u>pHmV</u>
2805060313 ✓	5/6/2008	5:41 PM	7.62	19.77	39.79
2805060314 ✓	5/6/2008	5:45 PM	7.67	19.79	-43.21
2805060315 ✓	5/6/2008	5:48 PM	7.79	19.77	-50.78
2805060316 ✓	5/6/2008	5:52 PM	7.69	19.79	44.55
2805060317 ✓	5/6/2008	5:56 PM	7.78	19.79	-50.29
2805060318 ✓	5/6/2008	6:00 PM	7.79	19.77	-50.78
2805060318DUP	5/6/2008	6:03 PM	7.78	19.83	550.04
WASH	5/6/2008	6:07 PM	6.32	19.84	40.77
LCS6.0PH	5/6/2008	6:10 PM	5.97	19.79	62.37
WASH	5/6/2008	6:14 PM	6.10	19.84	54.19
2805060276	5/6/2008	6:17 PM	6.50	19.83	29.78
2805060319 ✓	5/6/2008	6:21 PM	7.70	19.80	.00
2805060320 ✓	5/6/2008	6:25 PM	7.75	19.79	-47.60
COKE-RAW 2805060759	5/6/2008	6:29 PM	7.93	19.77	-59.69
COKE-T 2805060794	5/6/2008	6:32 PM	8.08	19.80	6.22
COKE-T-DUP 2805060794	5/6/2008	6:36 PM	8.09	19.85	-69.09
WASH	5/6/2008	6:40 PM	6.28	19.96	43.09
CCV4.0PH	5/6/2008	6:43 PM	3.94	19.93	188.96
CCV6.0PH	5/6/2008	6:46 PM	5.95	19.88	63.72
CCV7.0PH	5/6/2008	6:49 PM	6.96	19.83	.97
CCV10.0PH	5/6/2008	6:52 PM	9.94	19.90	-184.20

Standards Documentation

pH 4: R201751 Exp: 09/08
 pH 7: R201522 Exp: 09/08
 pH10: R201683 Exp: 12/08
 pH 6: R201830 Exp: 02/10

Analyst Name: SAR
 Reviewed By: ANH 5/6/08

5/8/08

**Standard
Preparation
Worksheet
&
Certificate of
Analysis**

Reagent Documentation

Reagent: NH₃ as N Standard
 Date Received: 15 November 07
 Date Expired: 5/13/09
 Manufacturer: CPI
 Storage Condition: room temperature

Reagent #: 201750
 By: GAH
 Matrix: aq
 Amount: 100ml
 Lot #: 07D245

Component	Comment	Standard	Concentration
	<u>CPI # 4400-060724RH01</u>		

Comment:

Reagent: Buffer pH 4
 Date Received: 16 Nov. 07
 Date Expired: Aug 2009
 Manufacturer: VWR
 Storage Condition: room temp

Reagent #: 201751
 By: GAH
 Matrix: aq
 Amount: 20L
 Lot #: 2708654

Component	Comment	Standard	Concentration
	<u>VWR # BDH 0198-20L</u>		

Comment:

Reagent: Conductivity Standard
 Date Received: 16 Nov 07
 Date Expired: 30 Sept 08
 Manufacturer: VWR
 Storage Condition: room temp

Reagent #: 201752
 By: GAH
 Matrix: aq
 Amount: 6x1L
 Lot #: 9264

Component	Comment	Standard	Concentration
	<u>VWR # VW3349-1</u>		

Comment:

Reagent Documentation

Reagent: pH 7.00 Buffer
 Date Received: 21 Nov 06 / 29 Dec 06
 Date Expired: 30 Sept 08
 Manufacturer: VWR
 Storage Condition: room temperature

Reagent #: 201522
 By: GCM
 Matrix: ag
 Amount: 200 / 1220-L
 Lot #: 6250

Component	Comment	Standard	Concentration
	VWR # 3A170-158		

Comment:

Reagent: Ammonium Molybdate 4% sol'n
 Date Received: 27 Nov 06 / 29 Nov 06
 Date Expired: 29 Sep 07
 Manufacturer: Spectrum Chemical
 Storage Condition: refrigerate 4±2°C

Reagent #: 201523
 By: LMR
 Matrix: ag
 Amount: 62500ml / 2x5000ml
 Lot #: 6270-14

Component	Comment	Standard	Concentration
	Spectrum Chem # A-320		

Comment:

Reagent: Ultrex HNO₃
 Date Received: 27 Nov 06
 Date Expired: Nov 09
 Manufacturer: J.T. Baker
 Storage Condition: room temp

Reagent #: 201524
 By: LMR
 Matrix: ag
 Amount: 27500ml
 Lot #: 031417

Component	Comment	Standard	Concentration
	VWR # JT6901-5		

Comment:

Reagent Documentation

Reagent: Ammonium Hydroxide
Date Received: 08/02/07
Date Expired: 08/02/10
Manufacturer: EMD
Storage Condition: Room Temp
Reagent #: 201681
By: JKZ
Matrix: Ag
Amount: 12 x 100 mL
Lot #: 46325720

Component	Comment	Standard	Concentration
	Cat # AX1303-11		

Comment:

Reagent: Ascorbic Acid
Date Received: 03 Aug 07
Date Expired: Aug 2012
Manufacturer: JT Baker
Storage Condition: Room Temp
Reagent #: 201682
By: JCH
Matrix: Solid
Amount: 500g
Lot #: E18045

Component	Comment	Standard	Concentration
	JT Baker # 0937-07		

Comment:

Reagent: Buffer pH 10
Date Received: 03 Aug 07
Date Expired: Dec 2008
Manufacturer: BDH
Storage Condition: Room Temp
Reagent #: 201683
By: JCH
Matrix: Ag
Amount: 20L
Lot #: 1706759

Component	Comment	Standard	Concentration
	VWR # BDH0190-20L		

Comment:

Reagent Documentation

Reagent: TISAB II w/CSTA
Date Received: 3 Apr 08
Date Expired: Apr '11
Manufacturer: Thermo Orion
Storage Condition: room temp

Reagent #: 201828
By: LMR
Matrix: ag
Amount: 2x1gal
Lot #: LP2

Component	Comment	Standard	Concentration
	Thermo No: 940909		

Comment:

Reagent: StabCal 20 NTU std.
Date Received: 3 Apr 08
Date Expired: Nov 09
Manufacturer: HACH
Storage Condition: 5-25°C

Reagent #: 201829
By: LMR
Matrix: ag
Amount: 500ml
Lot #: A7385

Component	Comment	Standard	Concentration
	HACH # 211091-49		

Comment:

Reagent: Buffer pH 6 colorless
Date Received: 08 April 08
Date Expired: Feb 2010
Manufacturer: BDH/VWR
Storage Condition: room temp

Reagent #: 201830
By: JWH
Matrix: ag
Amount: 6x500mL
Lot #: 1802602

Component	Comment	Standard	Concentration
	VWR # BDH5038-500mL		

Comment: