K.P. KAUFFMAN COMPANY, INC.
WORLD TRADE CENTER
1675 BROADWAY, 28TH FLOOR
DENVER, COLORADO 80202-4628

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RECEIVED
OCT 16 2014
Office of Enforcement, Compliance and Environmental Justice (UFO)

October 15, 2014

Mr. Don Breffle
United States EPA Region 8
8OC-EISC
1595 Wynkoop Street
Denver, CO 80202-1129

RE: Wattenberg Disposal, LLC
Quarterly Report for Suckla Farms Injection Well #1

Dear Mr. Breffle,

CO10938-02115

Enclosed please find the Quarterly Injection Report for the period of July 1, 2014 through September 30, 2014 for the above referenced facility.

If you have any questions or need additional information, please do not hesitate contacting me at 303-825-4822 or slaramesa@kpk.com

Sincerely,

Susana Lara-Mesa
VP of Engineering

CC: Eric Jacobs, CDPHE
Stuart Ellsworth, COGCC
James Taloumis, WCDPHE
KPK files

	GREEN	BLUE	CBI
TAB		2	

U2 Entered
Date 10/20/14
Initial B

Mountain States ACCUTEST LABORATORIES

08/05/14

Technical Report for

K.P. Kauffman Company, Inc.

Wattenberg Tank

Accutest Job Number: D60118

Sampling Date: 07/24/14

Report to:

K.P. Kauffman Company, Inc.
1675 Broadway Suite 2800
Denver, CO 80202-4628
mhattel@msn.com; slaramesa@kpk.com

ATTN: Susana Lara-Mesa

Total number of pages in report: 28

NELAP ACCREDITED TNI LABORATORY

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

Scott Heideman
Laboratory Director

Client Service contact: Renea Jackson 303-425-6021

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

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Test results relate only to samples analyzed.

Accutest Laboratories is the sole authority for authorizing edits or modifications to this document. Unauthorized modification of this report is strictly prohibited.

Sections: 1 2 3 4 5 6 7

Table of Contents

-1-

Section 1: Sample Summary 3
Section 2: Case Narrative/Conformance Summary 4
Section 3: Summary of Hits 6
Section 4: Sample Results 7
4.1: D60118-1: TANK-I 8
4.2: D60118-1F: TANK-I 9
Section 5: Misc. Forms 10
5.1: Chain of Custody 11
Section 6: Metals Analysis - QC Data Summaries 12
6.1: Prep QC MP13564: Ca,Mg,K,Na 13
Section 7: General Chemistry - QC Data Summaries 23
7.1: Method Blank and Spike Results Summary 24
7.2: Blank Spike Duplicate Results Summary 25
7.3: Duplicate Results Summary 26
7.4: Matrix Spike Results Summary 27
7.5: Matrix Spike Duplicate Results Summary 28

Sample Summary

K.P. Kauffman Company, Inc.

Job No: D60118

Wattenberg Tank

Sample Number	Collected Date	Time By	Received	Matrix Code	Type	Client Sample ID
D60118-1	07/24/14	11:30 MH	07/24/14	AQ	Water	TANK-I
D60118-1F	07/24/14	11:30 MH	07/24/14	AQ	Water Filtered	TANK-I

ACCUTEST LABORATORIES

2

CASE NARRATIVE / CONFORMANCE SUMMARY

Client:	K.P. Kauffman Company, Inc.	**Job No**	D60118
Site:	Wattenberg Tank	**Report Date**	8/5/2014 4:13:40 PM

On 07/24/2014, 1 sample(s), 0 Trip Blank(s), and 0 Field Blank(s) were received at Accutest Mountain States (AMS) at a temperature of 2.1 °C. The samples were intact and properly preserved, unless noted below. An AMS Job Number of D60118 was assigned to the project. The lab sample ID, client sample ID, and date of sample collection are detailed in the report's Results Summary.

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

Metals By Method SW846 6010C

Matrix AQ **Batch ID:** MP13564

- All samples were digested within the recommended method holding time.
- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) D60175-9MS, D60175-9MSD, D60175-9SDL were used as the QC samples for the metals analysis.
- The serial dilution RPD(s) for Calcium, Potassium, Sodium are outside control limits for sample MP13564-SD1. Percent difference acceptable due to low initial sample concentration (< 50 times IDL).

Wet Chemistry By Method ASTM D287

Matrix ALL **Batch ID:** GN25831

- The data for ASTM D287 meets quality control requirements.

Wet Chemistry By Method EPA 1664A

Matrix AQ **Batch ID:** GP13188

- All samples were prepared within the recommended method holding time.
- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) D60036-1MS were used as the QC samples for the HEM Oil and Grease analysis.

Wet Chemistry By Method EPA 300.0/SW846 9056

Matrix AQ **Batch ID:** GP13141

- All samples were prepared within the recommended method holding time.
- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) D60126-1MS, D60126-1MSD were used as the QC samples for the Chloride, Nitrogen, Nitrate, Nitrogen, Nitrite, Sulfate, Chloride analysis.
- D60118-1 for Nitrogen, Nitrate: Elevated detection limit due to matrix interference.
- D60118-1 for Nitrogen, Nitrite: Elevated detection limit due to matrix interference.

Wet Chemistry By Method SM 2540C-2011

Matrix AQ	Batch ID: GN25761

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) D59997-1DUP were used as the QC samples for the Solids, Total Dissolved analysis.

Wet Chemistry By Method SM 5310B-2011

Matrix AQ	Batch ID: GP13197

- All samples were prepared within the recommended method holding time.
- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) D60118-1DUP, D60248-1MS, D60248-1MSD were used as the QC samples for the Total Organic Carbon analysis.

Wet Chemistry By Method SM4500HB+-2011/9040C

Matrix AQ	Batch ID: GN25734

- D60118-1 for pH: Analysis performed past the required 15 minutes from collection time/holding time.

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

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

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

Summary of Hits

Job Number: D60118
Account: K.P. Kauffman Company, Inc.
Project: Wattenberg Tank
Collected: 07/24/14

3

Lab Sample ID Analyte	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
D60118-1	TANK-I					
Chloride		9680	250		mg/l	EPA 300.0/SW846 9056
HEM Oil and Grease		42.2	4.8		mg/l	EPA 1664A
Solids, Total Dissolved		16800	10		mg/l	SM 2540C-2011
Specific Gravity by Hydrometer		1.0064				ASTM D287
Sulfate		63.0	50		mg/l	EPA 300.0/SW846 9056
Total Organic Carbon		122	20		mg/l	SM 5310B-2011
pH [a]		7.97			su	SM4500HB+-2011/9040C
D60118-1F	TANK-I					
Calcium		195000	20000		ug/l	SW846 6010C
Magnesium		17400	10000		ug/l	SW846 6010C
Potassium		157000	50000		ug/l	SW846 6010C
Sodium		4890000	20000		ug/l	SW846 6010C

(a) Analysis performed past the required 15 minutes from collection time/holding time.

Mountain States ACCUTEST LABORATORIES

Sample Results

Report of Analysis

Accutest Laboratories

Report of Analysis

Client Sample ID:	TANK-I		
Lab Sample ID:	D60118-1	Date Sampled:	07/24/14
Matrix:	AQ - Water	Date Received:	07/24/14
		Percent Solids:	n/a
Project:	Wattenberg Tank		

4.1

4

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Chloride	9680	250	mg/l	500	07/25/14 14:38	SK	EPA 300.0/SW846 9056
HEM Oil and Grease	42.2	4.8	mg/l	1	08/05/14	SWT	EPA 1664A
Nitrogen, Nitrate [a]	< 1.0	1.0	mg/l	100	07/25/14 12:10	SK	EPA 300.0/SW846 9056
Nitrogen, Nitrite [a]	< 0.40	0.40	mg/l	100	07/25/14 12:10	SK	EPA 300.0/SW846 9056
Solids, Total Dissolved	16800	10	mg/l	1	07/29/14	JD	SM 2540C-2011
Specific Gravity by Hydromete	1.0064			1	08/04/14	MM	ASTM D287
Sulfate	63.0	50	mg/l	100	07/25/14 12:10	SK	EPA 300.0/SW846 9056
Total Organic Carbon	122	20	mg/l	20	08/04/14 12:08	SK	SM 5310B-2011
pH [b]	7.97		su	1	07/25/14 10:00	JB	SM4500HB+-2011/9040C

(a) Elevated detection limit due to matrix interference.
(b) Analysis performed past the required 15 minutes from collection time/holding time.

RL = Reporting Limit

Accutest Laboratories

Report of Analysis

Client Sample ID:	TANK-I		
Lab Sample ID:	D60118-1F	Date Sampled:	07/24/14
Matrix:	AQ - Water Filtered	Date Received:	07/24/14
		Percent Solids:	n/a
Project:	Wattenberg Tank		

Dissolved Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Calcium	195000	20000	ug/l	5	07/30/14	07/31/14	KV	SW846 6010C [1]	SW846 3010A [2]
Magnesium	17400	10000	ug/l	5	07/30/14	07/31/14	KV	SW846 6010C [1]	SW846 3010A [2]
Potassium	157000	50000	ug/l	5	07/30/14	07/31/14	KV	SW846 6010C [1]	SW846 3010A [2]
Sodium	4890000	20000	ug/l	5	07/30/14	07/31/14	KV	SW846 6010C [1]	SW846 3010A [2]

(1) Instrument QC Batch: MA5042
(2) Prep QC Batch: MP13564

RL = Reporting Limit

Mountain States ACCUTEST LABORATORIES

Misc. Forms

Custody Documents and Other Forms

Includes the following where applicable:

- Chain of Custody

CHAIN OF CUSTODY

D60118

ACCUTEST Laboratories
4036 Youngfield St., Wheat Ridge, CO 80033
303-425-6021 FAX: 303-425-6854

FED-EX Tracking #
Accutest Quote #

Client / Reporting Information

Company Name: K.P. Kauffman Company, Inc.
Address: 1675 Broadway, Suite 2800
City: Denver State: CO Zip: 80202-4628
Project Contact: Susana Lara-Mesa SLaraMesa@kpk.com
Phone #: 303-825-4822
Samplers's Name: MICHAEL HATTEL (303-665-1400)

Project Information

Project Name: WATTENBERG TANK
Street:
City: Fort Lupton State: CO
Project #:
Fax #:
Client Purchase Order #: 7591

Accutest Sample #	Field ID / Point of Collection	SUMMA # / MEOH Vial #	Collection Date	Time	Sampled by	Matrix	# of bottles	HCl	NaOH	HNO3	H2SO4	NONE	Na2S2O3	MEOH	ENCORE	OIL & GREASE 1664	ANIONS (NITRATE, NITRITE, SULFATE, CHLORIDE)	pH	CATIONS (Ca, K, Mg, NA)	SPECIFIC GRAVITY	TDS	TOC					LAB USE ONLY
	TANK - I		7/24/14	1130	MDH	LIQ	7	X			X					X	X	X	X	X	X	X					01

Requested Analysis

Matrix Codes: DW- Drinking Water; GW- Ground Water; WW- Water; SW- Surface Water; SO- Soil; SL-Sludge; OI-Oil; LIQ- Other Liquid; AIR- Air; SOL-Other Solid; WP-Wipe

Turnaround Time (Business days)

- [x] Std. 10 Business Days
- Approved By / Date:

Emergency T/A data available VIA Lablink

Data Deliverable Information

- [ ] Commercial "A"
- [ ] Commercial "B"
- [ ] NJ Reduced
- [ ] NJ Full
- [x] Hard Copy
- [ ] FULL CLP
- [ ] NYASP Category A
- [ ] NYASP Category B
- [ ] State Forms
- [x] PDF

Comments / Remarks

PDF copy to Mike Hattel with APEX at mhattel@msn.com

PDF copy to Susan Lara-Mesa with KPK at Slaramesa@kpk.com

Sample Custody must be documented below each time samples change possession, including courier delivery.

Relinquished By Sampler:	Date Time:	Received By:	Relinquished By:	Date Time:	Received By:
1 [signature]	7/24/14	1	2 CO		2 [signature] 7-24-14
Relinquished by: 3	Date Time:	Received By: 3	Relinquished By: 4	Date Time:	Received By: 4
Relinquished by: 5	Date Time:	Received By: 5	Custody Seal #	Preserved where applicable ☑	On Ice ☑ Cooler Temp. 2.1

D60118: Chain of Custody
Page 1 of 1

Mountain States ACCUTEST LABORATORIES

Metals Analysis

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Matrix Spike and Duplicate Summaries
- Blank Spike and Lab Control Sample Summaries
- Serial Dilution Summaries

BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: D60118
Account: KPKCOD - K.P. Kauffman Company, Inc.
Project: Wattenberg Tank

QC Batch ID: MP13564
Matrix Type: AQUEOUS

Methods: SW846 6010C
Units: ug/l

Prep Date: 07/30/14

Metal	RL	IDL	MDL	MB raw	final
Aluminum	100	8.6	41		
Antimony	30	2.1	19		
Arsenic	25	3.8	5.6		
Barium	10	.2	1.4		
Beryllium	10	.8	1.2		
Boron	50	.8	6.6		
Cadmium	10	.2	.36		
Calcium	400	2.2	41	8.3	<400
Chromium	10	.3	.4		
Cobalt	5.0	.4	.57		
Copper	10	.8	1.9		
Iron	70	1.5	9.5		
Lead	50	2.1	21		
Lithium	5.0	.4	2.7		
Magnesium	200	6.8	19	5.4	<200
Manganese	5.0	.01	.46		
Molybdenum	10	.4	.84		
Nickel	30	.5	.87		
Phosphorus	100	15	20		
Potassium	1000	99	270	439	<1000
Selenium	50	7.1	11		
Silicon	50	4.7	5.2		
Silver	30	.3	.6		
Sodium	400	4.9	170	108	<400
Strontium	5.0	.01	.12		
Thallium	10	1.8	4		
Tin	50	12	16		
Titanium	10	.1	2.1		
Uranium	50	2.9	5.5		
Vanadium	10	.4	.4		
Zinc	30	.4	3.2		

Associated samples MP13564: D60118-1F

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits

BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: D60118
Account: KPKCOD - K.P. Kauffman Company, Inc.
Project: Wattenberg Tank

QC Batch ID: MP13564
Matrix Type: AQUEOUS

Methods: SW846 6010C
Units: ug/l

Prep Date: 07/30/14

Metal	RL	IDL	MDL	MB raw	final

(anr) Analyte not requested

6.1.1

6

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: D60118
Account: KPKCOD - K.P. Kauffman Company, Inc.
Project: Wattenberg Tank

QC Batch ID: MP13564
Matrix Type: AQUEOUS

Methods: SW846 6010C
Units: ug/l

Prep Date: 07/30/14

Metal	D60175-9 Original	MS	Spikelot ICPALL2	% Rec	QC Limits
Aluminum					
Antimony					
Arsenic	anr				
Barium	anr				
Beryllium					
Boron					
Cadmium	anr				
Calcium	5.3	26400	25000	105.6	75-125
Chromium	anr				
Cobalt					
Copper					
Iron					
Lead	anr				
Lithium					
Magnesium	0.0	26900	25000	107.6	75-125
Manganese					
Molybdenum					
Nickel					
Phosphorus					
Potassium	264	28200	25000	111.7	75-125
Selenium	anr				
Silicon					
Silver	anr				
Sodium	74.1	27300	25000	108.9	75-125
Strontium					
Thallium					
Tin					
Titanium					
Uranium					
Vanadium					
Zinc					

Associated samples MP13564: D60118-1F

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: D60118
Account: KPKCOD - K.P. Kauffman Company, Inc.
Project: Wattenberg Tank

QC Batch ID: MP13564
Matrix Type: AQUEOUS

Methods: SW846 6010C
Units: ug/l

Prep Date: 07/30/14

Metal	D60175-9 Original MS	Spikelot ICPALL2	% Rec	QC Limits

(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested

6.1.2

6

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: D60118
Account: KPKCOD - K.P. Kauffman Company, Inc.
Project: Wattenberg Tank

QC Batch ID: MP13564
Matrix Type: AQUEOUS

Methods: SW846 6010C
Units: ug/l

Prep Date: 07/30/14

Metal	D60175-9 Original	MSD	Spikelot ICPALL2	% Rec	MSD RPD	QC Limit
Aluminum						
Antimony						
Arsenic	anr					
Barium	anr					
Beryllium						
Boron						
Cadmium	anr					
Calcium	5.3	26400	25000	105.6	0.0	20
Chromium	anr					
Cobalt						
Copper						
Iron						
Lead	anr					
Lithium						
Magnesium	0.0	27300	25000	109.2	1.5	20
Manganese						
Molybdenum						
Nickel						
Phosphorus						
Potassium	264	28200	25000	111.7	0.0	20
Selenium	anr					
Silicon						
Silver	anr					
Sodium	74.1	27600	25000	110.1	1.1	20
Strontium						
Thallium						
Tin						
Titanium						
Uranium						
Vanadium						
Zinc						

Associated samples MP13564: D60118-1F

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: D60118
Account: KPKCOD - K.P. Kauffman Company, Inc.
Project: Wattenberg Tank

QC Batch ID: MP13564
Matrix Type: AQUEOUS

Methods: SW846 6010C
Units: ug/l

Prep Date: 07/30/14

Metal	D60175-9 Original	MSD	Spikelot ICPALL2	% Rec	MSD RPD	QC Limit

(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested

6.1.2

6

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: D60118
Account: KPKCOD - K.P. Kauffman Company, Inc.
Project: Wattenberg Tank

QC Batch ID: MP13564
Matrix Type: AQUEOUS

Methods: SW846 6010C
Units: ug/l

Prep Date: 07/30/14

Metal	BSP Result	Spikelot ICPALL2	% Rec	QC Limits
Aluminum				
Antimony				
Arsenic	anr			
Barium	anr			
Beryllium				
Boron				
Cadmium	anr			
Calcium	27300	25000	109.2	80-120
Chromium	anr			
Cobalt				
Copper				
Iron				
Lead	anr			
Lithium				
Magnesium	28000	25000	112.0	80-120
Manganese				
Molybdenum				
Nickel				
Phosphorus				
Potassium	29000	25000	116.0	80-120
Selenium	anr			
Silicon				
Silver	anr			
Sodium	28100	25000	112.4	80-120
Strontium				
Thallium				
Tin				
Titanium				
Uranium				
Vanadium				
Zinc				

Associated samples MP13564: D60118-1F

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: D60118
Account: KPKCOD - K.P. Kauffman Company, Inc.
Project: Wattenberg Tank

QC Batch ID: MP13564
Matrix Type: AQUEOUS

Methods: SW846 6010C
Units: ug/l

Prep Date: 07/30/14

Metal	BSP Result	Spikelot ICPALL2	% Rec	QC Limits

(anr) Analyte not requested

6.1.3

6

SERIAL DILUTION RESULTS SUMMARY

Login Number: D60118
Account: KPKCOD - K.P. Kauffman Company, Inc.
Project: Wattenberg Tank

QC Batch ID: MP13564
Matrix Type: AQUEOUS

Methods: SW846 6010C
Units: ug/l

Prep Date: 07/30/14

Metal	D60175-9 Original	SDL 1:5	%DIF	QC Limits
Aluminum				
Antimony				
Arsenic	anr			
Barium	anr			
Beryllium				
Boron				
Cadmium	anr			
Calcium	5.30	0.00	100.0(a)	0-10
Chromium	anr			
Cobalt				
Copper				
Iron				
Lead	anr			
Lithium				
Magnesium	0.00	0.00	NC	0-10
Manganese				
Molybdenum				
Nickel				
Phosphorus				
Potassium	264	1390	425.2(a)	0-10
Selenium	anr			
Silicon				
Silver	anr			
Sodium	74.1	282	280.6(a)	0-10
Strontium				
Thallium				
Tin				
Titanium				
Uranium				
Vanadium				
Zinc				

Associated samples MP13564: D60118-1F

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits

SERIAL DILUTION RESULTS SUMMARY

Login Number: D60118
Account: KPKCOD - K.P. Kauffman Company, Inc.
Project: Wattenberg Tank

QC Batch ID: MP13564
Matrix Type: AQUEOUS

Methods: SW846 6010C
Units: ug/l

Prep Date: 07/30/14

Metal	D60175-9 Original	SDL 1:5	%DIF	QC Limits

(anr) Analyte not requested
(a) Percent difference acceptable due to low initial sample concentration (< 50 times IDL).

6.1.4

6

Mountain States ACCUTEST LABORATORIES

General Chemistry

QC Data Summaries

Includes the following where applicable:

- Method Blank and Blank Spike Summaries
- Duplicate Summaries
- Matrix Spike Summaries

METHOD BLANK AND SPIKE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: D60118
Account: KPKCOD - K.P. Kauffman Company, Inc.
Project: Wattenberg Tank

Analyte	Batch ID	RL	MB Result	Units	Spike Amount	BSP Result	BSP %Recov	QC Limits
Chloride	GP13141/GN25740	0.50	0.0	mg/l	5	4.85	97.0	90-110%
HEM Oil and Grease	GP13188/GN25826	5.0	0.0	mg/l	40	33.1	82.8	78-114%
Nitrogen, Nitrate	GP13141/GN25740	0.010	0.0	mg/l	0.1	0.106	106.0	90-110%
Nitrogen, Nitrite	GP13141/GN25740	0.0040	0.0	mg/l	0.05	0.0513	102.6	90-110%
Solids, Total Dissolved	GN25761	10	0.0	mg/l	400	399	99.8	90-110%
Sulfate	GP13141/GN25740	0.50	0.0	mg/l	5	4.89	97.8	90-110%
Total Organic Carbon	GP13197/GN25849	1.0	0.0	mg/l	8.82	8.72	98.9	90-110%
pH	GN25734			su	8.00	7.97	99.6	99.1-100.9%

Associated Samples:
Batch GN25734: D60118-1
Batch GN25761: D60118-1
Batch GP13141: D60118-1
Batch GP13188: D60118-1
Batch GP13197: D60118-1
(*) Outside of QC limits

BLANK SPIKE DUPLICATE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: D60118
Account: KPKCOD - K.P. Kauffman Company, Inc.
Project: Wattenberg Tank

Analyte	Batch ID	Units	Spike Amount	BSD Result	RPD	QC Limit
HEM Oil and Grease	GP13188/GN25826	mg/l	40	34.6	4.4	20%

Associated Samples:
Batch GP13188: D60118-1
(*) Outside of QC limits

7.2

7

DUPLICATE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: D60118
Account: KPKCOD - K.P. Kauffman Company, Inc.
Project: Wattenberg Tank

Analyte	Batch ID	QC Sample	Units	Original Result	DUP Result	RPD	QC Limits
Solids, Total Dissolved	GN25761	D59997-1	mg/l	568	584	2.8	0-20%
Total Organic Carbon	GP13197/GN25849	D60118-1	mg/l	122	119	2.5	0-20%

Associated Samples:
Batch GN25761: D60118-1
Batch GP13197: D60118-1
(*) Outside of QC limits

7.3

7

MATRIX SPIKE DUPLICATE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: D60118
Account: KPKCOD - K.P. Kauffman Company, Inc.
Project: Wattenberg Tank

Analyte	Batch ID	QC Sample	Units	Original Result	Spike Amount	MSD Result	RPD	QC Limit
Chloride	GP13141/GN25740	D60126-1	mg/l	120	100	224	0.4	20%
Nitrogen, Nitrate	GP13141/GN25740	D60126-1	mg/l	4.9	2	7.0	2.9	20%
Nitrogen, Nitrite	GP13141/GN25740	D60126-1	mg/l	0.0	1	1.1	12.6	20%
Sulfate	GP13141/GN25740	D60126-1	mg/l	178	100	280	0.4	20%
Total Organic Carbon	GP13197/GN25849	D60248-1	mg/l	9.4	10	19.1	2.6	20%

Associated Samples:
Batch GP13141: D60118-1
Batch GP13197: D60118-1
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits

7.5

7

Mountain States ACCUTEST LABORATORIES

09/05/14

Technical Report for

K.P. Kauffman Company, Inc.

Wattenberg Tank

7591

Accutest Job Number: D61325

Sampling Date: 08/22/14

Report to:

K.P. Kauffman Company, Inc.
1675 Broadway Suite 2800
Denver, CO 80202-4628
mhattel@msn.com; slaramesa@kpk.com

ATTN: Susana Lara-Mesa

Total number of pages in report: 28

NELAP ACCREDITED TNI LABORATORY

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

Scott Heideman
Laboratory Director

Client Service contact: Renea Jackson 303-425-6021

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

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Sections: 1 2 3 4 5 6 7

Table of Contents

-1-

Section 1: Sample Summary 3
Section 2: Case Narrative/Conformance Summary 4
Section 3: Summary of Hits 6
Section 4: Sample Results 7
4.1: D61325-1: TANK-1 8
4.2: D61325-1F: TANK-1 9
Section 5: Misc. Forms 10
5.1: Chain of Custody 11
Section 6: Metals Analysis - QC Data Summaries 12
6.1: Prep QC MP13809: Ca,Mg,K,Na 13
Section 7: General Chemistry - QC Data Summaries 23
7.1: Method Blank and Spike Results Summary 24
7.2: Blank Spike Duplicate Results Summary 25
7.3: Duplicate Results Summary 26
7.4: Matrix Spike Results Summary 27
7.5: Matrix Spike Duplicate Results Summary 28

Sample Summary

K.P. Kauffman Company, Inc.

Job No: D61325

Wattenberg Tank
Project No: 7591

Sample Number	Collected Date	Time By	Received	Matrix Code	Matrix Type	Client Sample ID
D61325-1	08/22/14	07:00 MDH	08/22/14	AQ	Water	TANK-1
D61325-1F	08/22/14	07:00 MDH	08/22/14	AQ	Water Filtered	TANK-1

CASE NARRATIVE / CONFORMANCE SUMMARY

Client: K.P. Kauffman Company, Inc. **Job No** D61325

Site: Wattenberg Tank **Report Date** 9/5/2014 2:06:42 PM

On 08/22/2014, 1 sample(s), 0 Trip Blank(s), and 0 Field Blank(s) were received at Accutest Mountain States (AMS) at a temperature of 4 °C. The samples were intact and properly preserved, unless noted below. An AMS Job Number of D61325 was assigned to the project. The lab sample ID, client sample ID, and date of sample collection are detailed in the report's Results Summary.

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

Metals By Method SW846 6010C

Matrix AQ **Batch ID:** MP13809

- All samples were digested within the recommended method holding time.
- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) D61160-4MSD, D61160-4SDL, D61160-4MS, D61160-4MSD were used as the QC samples for the metals analysis.
- The matrix spike (MS) recovery(s) of Potassium are outside control limits. Spike amount low relative to the sample amount. Refer to lab control or spike blank for recovery information.

Wet Chemistry By Method ASTM D287

Matrix ALL **Batch ID:** GN26158

- The data for ASTM D287 meets quality control requirements.

Wet Chemistry By Method EPA 1664A

Matrix AQ **Batch ID:** GP13459

- All samples were prepared within the recommended method holding time.
- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) D61574-1MS were used as the QC samples for the HEM Oil and Grease analysis.

Wet Chemistry By Method EPA 300.0/SW846 9056

Matrix AQ **Batch ID:** GP13363

- All samples were prepared within the recommended method holding time.
- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) D61306-5MS, D61306-5MSD were used as the QC samples for the Chloride, Nitrogen, Nitrate, Nitrogen, Nitrite, Sulfate, Chloride analysis.
- D61325-1 for Nitrogen, Nitrate: Elevated detection limit due to matrix interference.
- D61325-1 for Nitrogen, Nitrite: Elevated detection limit due to matrix interference.
- D61325-1 for Sulfate: Elevated detection limit due to matrix interference.

Wet Chemistry By Method SM 2540C-2011

Matrix AQ	Batch ID: GN26162

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) D61281-2DUP were used as the QC samples for the Solids, Total Dissolved analysis.

Wet Chemistry By Method SM 5310B-2011

Matrix AQ	Batch ID: GP13348

- All samples were prepared within the recommended method holding time.
- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) D61308-4DUP, D61308-4MS, D61308-4MSD were used as the QC samples for the Total Organic Carbon analysis.

Wet Chemistry By Method SM4500HB+-2011/9040C

Matrix AQ	Batch ID: GN26148

- D61325-1 for pH: Analysis performed past the required 15 minutes from collection time/holding time.

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

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

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

Summary of Hits

Job Number: D61325
Account: K.P. Kauffman Company, Inc.
Project: Wattenberg Tank
Collected: 08/22/14

Lab Sample ID Analyte	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
D61325-1	TANK-1					
Chloride		10600	500		mg/l	EPA 300.0/SW846 9056
HEM Oil and Grease		187	4.8		mg/l	EPA 1664A
Solids, Total Dissolved		19300	10		mg/l	SM 2540C-2011
Specific Gravity by Hydrometer		1.0064				ASTM D287
Total Organic Carbon		136	25		mg/l	SM 5310B-2011
pH [a]		6.93			su	SM4500HB+-2011/9040C
D61325-1F	TANK-1					
Calcium		143000	20000		ug/l	SW846 6010C
Magnesium		22000	10000		ug/l	SW846 6010C
Potassium		73700	50000		ug/l	SW846 6010C
Sodium		4860000	20000		ug/l	SW846 6010C

(a) Analysis performed past the required 15 minutes from collection time/holding time.

Mountain States ACCUTEST LABORATORIES

Sample Results

Report of Analysis

Accutest Laboratories

Report of Analysis

Client Sample ID:	TANK-1		
Lab Sample ID:	D61325-1	Date Sampled:	08/22/14
Matrix:	AQ - Water	Date Received:	08/22/14
		Percent Solids:	n/a
Project:	Wattenberg Tank		

4.1

4

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Chloride	10600	500	mg/l	1000	08/23/14 17:33	JB	EPA 300.0/SW846 9056
HEM Oil and Grease	187	4.8	mg/l	1	09/05/14	SWT	EPA 1664A
Nitrogen, Nitrate [a]	< 1.0	1.0	mg/l	100	08/23/14 10:42	JB	EPA 300.0/SW846 9056
Nitrogen, Nitrite [a]	< 0.40	0.40	mg/l	100	08/23/14 10:42	JB	EPA 300.0/SW846 9056
Solids, Total Dissolved	19300	10	mg/l	1	08/25/14	BF	SM 2540C-2011
Specific Gravity by Hydromete	1.0064			1	08/25/14	MM	ASTM D287
Sulfate [a]	< 50	50	mg/l	100	08/23/14 10:42	JB	EPA 300.0/SW846 9056
Total Organic Carbon	136	25	mg/l	25	08/22/14 17:20	GH	SM 5310B-2011
pH [b]	6.93		su	1	08/22/14 14:40	SK	SM4500HB+-2011/9040C

(a) Elevated detection limit due to matrix interference.
(b) Analysis performed past the required 15 minutes from collection time/holding time.

RL = Reporting Limit

Accutest Laboratories

Report of Analysis

Client Sample ID:	TANK-1		
Lab Sample ID:	D61325-1F	Date Sampled:	08/22/14
Matrix:	AQ - Water Filtered	Date Received:	08/22/14
		Percent Solids:	n/a
Project:	Wattenberg Tank		

Dissolved Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Calcium	143000	20000	ug/l	5	08/25/14	08/26/14	KV	SW846 6010C [1]	SW846 3010A [2]
Magnesium	22000	10000	ug/l	5	08/25/14	08/26/14	KV	SW846 6010C [1]	SW846 3010A [2]
Potassium	73700	50000	ug/l	5	08/25/14	08/26/14	KV	SW846 6010C [1]	SW846 3010A [2]
Sodium	4860000	20000	ug/l	5	08/25/14	08/26/14	KV	SW846 6010C [1]	SW846 3010A [2]

(1) Instrument QC Batch: MA5159
(2) Prep QC Batch: MP13809

RL = Reporting Limit

Mountain States ACCUTEST LABORATORIES

Misc. Forms

Custody Documents and Other Forms

Includes the following where applicable:

- Chain of Custody

CHAIN OF CUSTODY

ACCUTEST Laboratories

4036 Youngfield St., Wheat Ridge, CO 80033
303-425-6021 FAX: 303-425-6854

FED-EX Tracking #:
Bottle Order Control #:
Accutest Quote #:
Accutest Job #: D61325

Client / Reporting Information

Company Name: K.P. Kauffman Company, Inc.
Address: 1675 Broadway, Suite 2800
City: Denver State: CO Zip: 80202-4628
Project Contact: Susana Lara-Mesa SLaraMesa@kpk.com
Phone #: 303-825-4822
Samplers's Name: MICHAEL HATTEL (303-665-1400)

Project Information

Project Name: WATTENBERG TANK
Street:
City: Fort Lupton State: CO
Project #:
Fax #:
Client Purchase Order #: 7591

Requested Analysis / **Matrix Codes**

Matrix Codes: DW- Drinking Water; GW- Ground Water; WW- Water; SW- Surface Water; SO- Soil; SL-Sludge; OI-Oil; LIQ- Other Liquid; AIR- Air; SOL-Other Solid; WP-Wipe

Accutest Sample #	Field ID / Point of Collection	SUMMA # / MEOH Vial #	Collection Date	Collection Time	Sampled by	Matrix	# of bottles	HCl	NaOH	HNO3	H2SO4	NONE	NaHSO4	MEOH	ENCORE	OIL & GREASE 1664	ANIONS (NITRATE, NITRITE, SULFATE, CHLORIDE)	pH	CATIONS (Ca, K, Mg, NA)	SPECIFIC GRAVITY	TDS	TOC				LAB USE ONLY
	TANK - I		8/22/14	0700	MDH	LIQ	7	X			X					X	X	X	X	X	X	X				01

Number of preserved Bottles

8/22/14

Turnaround Time (Business days)

- [X] Std. 10 Business Days
- [ ]
- [ ]
- [ ]
- [ ]
- [ ]
- [ ]

Approved By:/ Date:

Emergency T/A data available VIA Lablink

Data Deliverable Information

- [ ] Commercial "A"
- [ ] Commercial "B"
- [ ] NJ Reduced
- [ ] NJ Full
- [X] Hard Copy
- [ ] FULL CLP
- [ ] NYASP Category A
- [ ] NYASP Category B
- [ ] State Forms
- [X] PDF

Comments / Remarks

PDF copy to Mike Hattel with APEX at mhattel@msn.com

PDF copy to Susan Lara-Mesa with KPK at Slaramesa@kpk.com

Sample Custody must be documented below each time samples change possession, including courier delivery.

Relinquished by Sampler:	Date Time:	Received By:	Relinquished By:	Date Time:	Received By:
1	8/22/14 8:10	1	2		2
Relinquished by: 3	Date Time:	Received By: 3	Relinquished By: 4	Date Time:	Received By: 4
Relinquished by: 5	Date Time:	Received By: 5	Custody Seal # HD	Preserved where applicable ☐	On Ice ☐ Cooler Temp. 4.0

D61325: Chain of Custody
Page 1 of 1

Mountain States ACCUTEST LABORATORIES

Metals Analysis

6

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Matrix Spike and Duplicate Summaries
- Blank Spike and Lab Control Sample Summaries
- Serial Dilution Summaries

BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: D61325
Account: KPKCOD - K.P. Kauffman Company, Inc.
Project: Wattenberg Tank

QC Batch ID: MP13809
Matrix Type: AQUEOUS

Methods: SW846 6010C
Units: ug/l

Prep Date: 08/25/14

Metal	RL	IDL	MDL	MB raw	final
Aluminum	100	11	41		
Antimony	30	2.1	19		
Arsenic	25	3.8	5.6		
Barium	10	.2	1.4		
Beryllium	10	.9	1.2		
Boron	50	.8	6.6		
Cadmium	10	.2	.36		
Calcium	400	2.4	41	7.4	<400
Chromium	10	.3	.4		
Cobalt	5.0	.5	.57		
Copper	10	.8	1.9		
Iron	70	1.5	9.5		
Lead	50	2.1	21		
Lithium	5.0	.4	2.7		
Magnesium	200	6.8	19	8.6	<200
Manganese	5.0	.5	.46		
Molybdenum	10	.4	.84		
Nickel	30	.5	.87		
Phosphorus	100	15	20		
Potassium	1000	99	270	21.7	<1000
Selenium	50	7.1	11		
Silicon	50	4.7	5.2		
Silver	30	.3	.6		
Sodium	400	7.3	170	6.9	<400
Strontium	5.0	.01	.12		
Thallium	10	1.8	4		
Tin	50	12	16		
Titanium	10	.1	2.1		
Uranium	50	2.9	5.5		
Vanadium	10	.4	.4		
Zinc	30	.4	3.2		

Associated samples MP13809: D61325-1F

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits

BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: D61325
Account: KPKCOD - K.P. Kauffman Company, Inc.
Project: Wattenberg Tank

QC Batch ID: MP13809
Matrix Type: AQUEOUS

Methods: SW846 6010C
Units: ug/l

Prep Date: 08/25/14

Metal	RL	IDL	MDL	MB raw	final

(anr) Analyte not requested

6.1.1

6

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: D61325
Account: KPKCOD - K.P. Kauffman Company, Inc.
Project: Wattenberg Tank

QC Batch ID: MP13809
Matrix Type: AQUEOUS

Methods: SW846 6010C
Units: ug/l

Prep Date: 08/25/14

Metal	D61160-4 Original	MS	Spikelot ICPALL2	% Rec	QC Limits
Aluminum					
Antimony	anr				
Arsenic	anr				
Barium	anr				
Beryllium	anr				
Boron	anr				
Cadmium	anr				
Calcium	18000	42800	25000	99.2	75-125
Chromium	anr				
Cobalt					
Copper	anr				
Iron					
Lead	anr				
Lithium					
Magnesium	3040	27200	25000	96.6	75-125
Manganese					
Molybdenum					
Nickel	anr				
Phosphorus					
Potassium	1290000	1300000	25000	40.0 (a)	75-125
Selenium	anr				
Silicon					
Silver	anr				
Sodium	103000	128000	25000	100.0	75-125
Strontium					
Thallium					
Tin					
Titanium					
Uranium					
Vanadium					
Zinc	anr				

Associated samples MP13809: D61325-1F

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: D61325
Account: KPKCOD - K.P. Kauffman Company, Inc.
Project: Wattenberg Tank

QC Batch ID: MP13809
Matrix Type: AQUEOUS

Methods: SW846 6010C
Units: ug/l

Prep Date: 08/25/14

Metal	D61160-4 Original MS	Spikelot ICPALL2	% Rec	QC Limits

(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested
(a) Spike amount low relative to the sample amount. Refer to lab control or spike blank for recovery information.

6.1.2

6

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: D61325
Account: KPKCOD - K.P. Kauffman Company, Inc.
Project: Wattenberg Tank

QC Batch ID: MP13809
Matrix Type: AQUEOUS

Methods: SW846 6010C
Units: ug/l

Prep Date: 08/25/14

Metal	D61160-4 Original	MSD	Spikelot ICPALL2	% Rec	MSD RPD	QC Limit
Aluminum						
Antimony	anr					
Arsenic	anr					
Barium	anr					
Beryllium	anr					
Boron	anr					
Cadmium	anr					
Calcium	18000	43800	25000	103.2	2.3	20
Chromium	anr					
Cobalt						
Copper	anr					
Iron						
Lead	anr					
Lithium						
Magnesium	3040	27600	25000	98.2	1.5	20
Manganese						
Molybdenum						
Nickel	anr					
Phosphorus						
Potassium	1290000	1290000	25000	0.0 (a)	0.8	20
Selenium	anr					
Silicon						
Silver	anr					
Sodium	103000	129000	25000	104.0	0.8	20
Strontium						
Thallium						
Tin						
Titanium						
Uranium						
Vanadium						
Zinc	anr					

Associated samples MP13809: D61325-1F

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: D61325
Account: KPKCOD - K.P. Kauffman Company, Inc.
Project: Wattenberg Tank

QC Batch ID: MP13809
Matrix Type: AQUEOUS

Methods: SW846 6010C
Units: ug/l

Prep Date: 08/25/14

Metal	D61160-4 Original	MSD	Spikelot ICPALL2	% Rec	MSD RPD	QC Limit

(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested
(a) Spike amount low relative to the sample amount. Refer to lab control or spike blank for recovery information.

6.1.2

6

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: D61325
Account: KPKCOD - K.P. Kauffman Company, Inc.
Project: Wattenberg Tank

QC Batch ID: MP13809
Matrix Type: AQUEOUS

Methods: SW846 6010C
Units: ug/l

Prep Date: 08/25/14

Metal	BSP Result	Spikelot ICPALL2	% Rec	QC Limits
Aluminum				
Antimony	anr			
Arsenic	anr			
Barium	anr			
Beryllium	anr			
Boron	anr			
Cadmium	anr			
Calcium	25400	25000	101.6	80-120
Chromium	anr			
Cobalt				
Copper	anr			
Iron				
Lead	anr			
Lithium				
Magnesium	25300	25000	101.2	80-120
Manganese				
Molybdenum				
Nickel	anr			
Phosphorus				
Potassium	25500	25000	102.0	80-120
Selenium	anr			
Silicon				
Silver	anr			
Sodium	25500	25000	102.0	80-120
Strontium				
Thallium				
Tin				
Titanium				
Uranium				
Vanadium				
Zinc	anr			

Associated samples MP13809: D61325-1F

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: D61325
Account: KPKCOD - K.P. Kauffman Company, Inc.
Project: Wattenberg Tank

QC Batch ID: MP13809
Matrix Type: AQUEOUS

Methods: SW846 6010C
Units: ug/l

Prep Date: 08/25/14

Metal	BSP Result	Spikelot ICPALL2	% Rec	QC Limits

(anr) Analyte not requested

6.1.3

6

SERIAL DILUTION RESULTS SUMMARY

Login Number: D61325
Account: KPKCOD - K.P. Kauffman Company, Inc.
Project: Wattenberg Tank

QC Batch ID: MP13809
Matrix Type: AQUEOUS

Methods: SW846 6010C
Units: ug/l

Prep Date: 08/25/14

Metal	D61160-4 Original	SDL 1:5	%DIF	QC Limits
Aluminum				
Antimony	anr			
Arsenic	anr			
Barium	anr			
Beryllium	anr			
Boron	anr			
Cadmium	anr			
Calcium	18000	18400	2.2	0-10
Chromium	anr			
Cobalt				
Copper	anr			
Iron				
Lead	anr			
Lithium				
Magnesium	3040	3120	2.4	0-10
Manganese				
Molybdenum				
Nickel	anr			
Phosphorus				
Potassium	1290000	1290000	0.1	0-10
Selenium	anr			
Silicon				
Silver	anr			
Sodium	103000	105000	2.0	0-10
Strontium				
Thallium				
Tin				
Titanium				
Uranium				
Vanadium				
Zinc	anr			

Associated samples MP13809: D61325-1F

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits

SERIAL DILUTION RESULTS SUMMARY

Login Number: D61325
Account: KPKCOD - K.P. Kauffman Company, Inc.
Project: Wattenberg Tank

QC Batch ID: MP13809
Matrix Type: AQUEOUS

Methods: SW846 6010C
Units: ug/l

Prep Date: 08/25/14

Metal	D61160-4 Original	SDL 1:5	%DIF	QC Limits

(anr) Analyte not requested

6.1.4

6

Mountain States ACCUTEST LABORATORIES

General Chemistry

QC Data Summaries

Includes the following where applicable:

- Method Blank and Blank Spike Summaries
- Duplicate Summaries
- Matrix Spike Summaries

METHOD BLANK AND SPIKE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: D61325
Account: KPKCOD - K.P. Kauffman Company, Inc.
Project: Wattenberg Tank

Analyte	Batch ID	RL	MB Result	Units	Spike Amount	BSP Result	BSP %Recov	QC Limits
Chloride	GP13363/GN26156	0.50	0.0	mg/l	5	4.84	96.8	90-110%
HEM Oil and Grease	GP13459/GN26312	5.0	0.0	mg/l	40	32.8	82.0	78-114%
Nitrogen, Nitrate	GP13363/GN26156	0.010	0.0	mg/l	0.1	0.101	101.0	90-110%
Nitrogen, Nitrite	GP13363/GN26156	0.0040	0.0	mg/l	0.05	0.0474	94.8	90-110%
Solids, Total Dissolved	GN26162	10	0.0	mg/l	400	404	101.0	90-110%
Sulfate	GP13363/GN26156	0.50	0.0	mg/l	5	5.03	100.6	90-110%
Total Organic Carbon	GP13348/GN26138	1.0	0.0	mg/l	8.82	8.86	100.5	90-110%
pH	GN26148			su	8.00	7.99	99.9	99.1-100.9%

Associated Samples:
Batch GN26148: D61325-1
Batch GN26162: D61325-1
Batch GP13348: D61325-1
Batch GP13363: D61325-1
Batch GP13459: D61325-1
(*) Outside of QC limits

7.1
7

DUPLICATE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: D61325
Account: KPKCOD - K.P. Kauffman Company, Inc.
Project: Wattenberg Tank

Analyte	Batch ID	QC Sample	Units	Original Result	DUP Result	RPD	QC Limits
Solids, Total Dissolved	GN26162	D61281-2	mg/l	605	618	2.1	0-20%
Total Organic Carbon	GP13348/GN26138	D61308-4	mg/l	7.3	7.4	1.4	0-20%

Associated Samples:
Batch GN26162: D61325-1
Batch GP13348: D61325-1
(*) Outside of QC limits

7.3
7

MATRIX SPIKE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: D61325
Account: KPKCOD - K.P. Kauffman Company, Inc.
Project: Wattenberg Tank

Analyte	Batch ID	QC Sample	Units	Original Result	Spike Amount	MS Result	%Rec	QC Limits
Chloride	GP13363/GN26156	D61306-5	mg/l	1.3	5	6.0	94.0	80-120%
HEM Oil and Grease	GP13459/GN26312	D61574-1	mg/l	0.0	40	35.1	87.8	78-114%
Nitrogen, Nitrate	GP13363/GN26156	D61306-5	mg/l	0.10	0.1	0.20	100.0	80-120%
Nitrogen, Nitrite	GP13363/GN26156	D61306-5	mg/l	0.0	0.05	0.044	88.0	80-120%
Sulfate	GP13363/GN26156	D61306-5	mg/l	3.2	5	8.2	100.0	80-120%
Total Organic Carbon	GP13348/GN26138	D61308-4	mg/l	7.3	10	17.6	103.0	80-120%

Associated Samples:
Batch GP13348: D61325-1
Batch GP13363: D61325-1
Batch GP13459: D61325-1
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits

7.4
7

Mountain States ACCUTEST LABORATORIES

10/07/14

Technical Report for

K.P. Kauffman Company, Inc.

Wattenberg Tank

7591

Accutest Job Number: D62820

Sampling Date: 09/30/14

Report to:

K.P. Kauffman Company, Inc.
1675 Broadway Suite 2800
Denver, CO 80202-4628
mhattel@msn.com; slaramesa@kpk.com

ATTN: Susana Lara-Mesa

Total number of pages in report: 29

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

Scott Heideman
Laboratory Director

Client Service contact: Renea Jackson 303-425-6021

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

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Test results relate only to samples analyzed.

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Sections: 1 2 3 4 5 6 7

Table of Contents

-1-

Section 1: Sample Summary 3
Section 2: Case Narrative/Conformance Summary 4
Section 3: Summary of Hits 6
Section 4: Sample Results 7
4.1: D62820-1: TANK-1 8
4.2: D62820-1F: TANK-1 9
Section 5: Misc. Forms 10
5.1: Chain of Custody 11
Section 6: Metals Analysis - QC Data Summaries 13
6.1: Prep QC MP14160: Ca,Mg,K,Na 14
Section 7: General Chemistry - QC Data Summaries 24
7.1: Method Blank and Spike Results Summary 25
7.2: Blank Spike Duplicate Results Summary 26
7.3: Duplicate Results Summary 27
7.4: Matrix Spike Results Summary 28
7.5: Matrix Spike Duplicate Results Summary 29

ACCUTEST LABORATORIES

2

CASE NARRATIVE / CONFORMANCE SUMMARY

Client:	K.P. Kauffman Company, Inc.	**Job No**	D62820
Site:	Wattenberg Tank	**Report Date**	10/7/2014 8:00:42 PM

On 09/30/2014, 1 sample(s), 0 Trip Blank(s), and 0 Field Blank(s) were received at Accutest Mountain States (AMS) at a temperature of 3.2 °C. The samples were intact and properly preserved, unless noted below. An AMS Job Number of D62820 was assigned to the project. The lab sample ID, client sample ID, and date of sample collection are detailed in the report's Results Summary.

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

Metals By Method SW846 6010C

Matrix: AQ **Batch ID:** MP14160

- All samples were digested and analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) D62616-1AMSD, D62616-1ASDL, D62616-1AMS were used as the QC samples for the metals analysis.
- The matrix spike (MS) and matrix spike duplicate (MSD) recovery(s) of Potassium are outside control limits. Spike recovery indicates possible matrix interference.
- The matrix spike (MS) recovery(s) of Sodium are outside control limits. Spike amount low relative to the sample amount. Refer to lab control or spike blank for recovery information.
- The serial dilution RPD(s) for Potassium are outside control limits for sample MP14160-SD1. Percent difference acceptable due to low initial sample concentration (< 50 times IDL).

Wet Chemistry By Method ASTM D287

Matrix: ALL **Batch ID:** GN26758

- The data for ASTM D287 meets quality control requirements.

Wet Chemistry By Method EPA 1664A

Matrix: AQ **Batch ID:** GP13698

- All samples were prepared and analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) D62544-1MS were used as the QC samples for the HEM Oil and Grease analysis.

Wet Chemistry By Method EPA 300.0/SW846 9056

Matrix: AQ **Batch ID:** GP13647

- All samples were prepared and analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) D62781-1MS, D62781-1MSD were used as the QC samples for the Chloride, Nitrogen, Nitrate, Nitrogen, Nitrite, Sulfate analysis.
- D62820-1 for Sulfate: Elevated detection limit due to matrix interference.
- D62820-1 for Nitrogen, Nitrate: Elevated detection limit due to matrix interference.
- D62820-1 for Nitrogen, Nitrite: Elevated detection limit due to matrix interference.

Wet Chemistry By Method SM 2540C-2011

Matrix: AQ	Batch ID: GN26739

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) D62684-3DUP were used as the QC samples for the Solids, Total Dissolved analysis.

Wet Chemistry By Method SM 5310B-2011

Matrix: AQ	Batch ID: GP13666

- All samples were prepared and analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) D62811-1DUP, D62811-1MS, D62811-1MSD were used as the QC samples for the Total Organic Carbon analysis.

Wet Chemistry By Method SM4500HB+-2011/9040C

Matrix: AQ	Batch ID: GN26761

- The following samples were run outside of holding time for method SM4500HB+-2011/9040C: D62820-1 Analysis performed past the required 15 minutes from collection time/holding time.

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

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

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

Summary of Hits

Job Number: D62820
Account: K.P. Kauffman Company, Inc.
Project: Wattenberg Tank
Collected: 09/30/14

3

Lab Sample ID Analyte	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
D62820-1	TANK-1					
Chloride		9000	250		mg/l	EPA 300.0/SW846 9056
HEM Oil and Grease		17.9	5.0		mg/l	EPA 1664A
Solids, Total Dissolved		15500	10		mg/l	SM 2540C-2011
Specific Gravity by Hydrometer		1.0071				ASTM D287
Total Organic Carbon		63.0	25		mg/l	SM 5310B-2011
pH [a]		8.34			su	SM4500HB+-2011/9040C
D62820-1F	TANK-1					
Calcium		366000	20000		ug/l	SW846 6010C
Magnesium		49800	10000		ug/l	SW846 6010C
Potassium		482000	50000		ug/l	SW846 6010C
Sodium		11500000	20000		ug/l	SW846 6010C

(a) Analysis performed past the required 15 minutes from collection time/holding time.

Mountain States ACCUTEST LABORATORIES

Sample Results

Report of Analysis

Accutest Laboratories

Report of Analysis

Client Sample ID:	TANK-1		
Lab Sample ID:	D62820-1	Date Sampled:	09/30/14
Matrix:	AQ - Water	Date Received:	09/30/14
		Percent Solids:	n/a
Project:	Wattenberg Tank		

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Chloride	9000	250	mg/l	500	09/30/14 20:00	JB	EPA 300.0/SW846 9056
HEM Oil and Grease	17.9	5.0	mg/l	1	10/07/14	SWT	EPA 1664A
Nitrogen, Nitrate [a]	< 1.0	1.0	mg/l	100	09/30/14 15:31	JB	EPA 300.0/SW846 9056
Nitrogen, Nitrite [a]	< 0.40	0.40	mg/l	100	09/30/14 15:31	JB	EPA 300.0/SW846 9056
Solids, Total Dissolved	15500	10	mg/l	1	10/02/14	BF	SM 2540C-2011
Specific Gravity by Hydromete	1.0071			1	10/03/14	MM	ASTM D287
Sulfate [a]	< 50	50	mg/l	100	09/30/14 15:31	JB	EPA 300.0/SW846 9056
Total Organic Carbon	63.0	25	mg/l	25	10/02/14 11:45	GH	SM 5310B-2011
pH [b]	8.34		su	1	10/03/14 10:20	JB	SM4500HB+-2011/9040C

(a) Elevated detection limit due to matrix interference.
(b) Analysis performed past the required 15 minutes from collection time/holding time.

RL = Reporting Limit

Accutest Laboratories

Report of Analysis

Client Sample ID:	TANK-1		
Lab Sample ID:	D62820-1F	Date Sampled:	09/30/14
Matrix:	AQ - Water	Date Received:	09/30/14
		Percent Solids:	n/a
Project:	Wattenberg Tank		

Total Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Calcium	366000	20000	ug/l	5	10/01/14	10/02/14	KV	SW846 6010C [1]	SW846 3010A [2]
Magnesium	49800	10000	ug/l	5	10/01/14	10/02/14	KV	SW846 6010C [1]	SW846 3010A [2]
Potassium	482000	50000	ug/l	5	10/01/14	10/02/14	KV	SW846 6010C [1]	SW846 3010A [2]
Sodium	11500000	20000	ug/l	5	10/01/14	10/02/14	KV	SW846 6010C [1]	SW846 3010A [2]

(1) Instrument QC Batch: MA5321
(2) Prep QC Batch: MP14160

RL = Reporting Limit

Mountain States ACCUTEST LABORATORIES

Misc. Forms

Custody Documents and Other Forms

Includes the following where applicable:

- Chain of Custody

CHAIN OF CUSTODY

ACCUTEST Laboratories
4036 Youngfield St., Wheat Ridge, CO 80033
303-425-6021 FAX 303-425-6854

FED-EX Tracking #:
Bottle Order Control #:
Accutest Quote #:
Accutest Job #: D62820

Client / Reporting Information

Company Name: K.P. Kauffman Company, Inc.
Address: 1675 Broadway, Suite 2800
City: Denver State: CO Zip: 80202-4628
Project Contact: Susana Lara-Mesa SLaraMesa@kpk.com
Phone #: 303-825-4822
Samplers's Name: MICHAEL HATTEL (303-665-1400)

Project Information

Project Name: WATTENBERG TANK
Street:
City: Fort Lupton State: CO
Project #:
Fax #:
Client Purchase Order #: 7591

Requested Analysis

Accutest Sample #	Field ID / Point of Collection	SUMMA # / MEOH Vial #	Collection Date	Collection Time	Sampled by	Matrix	# of bottles	HCl	NaOH	DI/H2O	H2SO4	NONE	NaHSO4	MEOH	ENCORE	OIL & GREASE 1664	ANIONS (NITRATE, NITRITE, SULFATE, CHLORIDE)	pH	CATIONS (Ca, K, Mg, NA)	SPECIFIC GRAVITY	TDS	TOC					LAB USE ONLY
	TANK - I		8/26/14	1145	MDH	LIQ	7	X			X					X	X	X	X	X	X	X					01

Matrix Codes: DW- Drinking Water; GW- Ground Water; WW- Water; SW- Surface Water; SO- Soil; SL-Sludge; OI-Oil; LIQ- Other Liquid; AIR- Air; SOL-Other Solid; WP-Wipe

Turnaround Time (Business days): [X] Std. 10 Business Days; Approved By:/ Date:

Data Deliverable Information: [ ] Commercial "A"; [ ] Commercial "B"; [ ] NJ Reduced; [ ] NJ Full; [X] Hard Copy; [ ] FULL CLP; [ ] NYASP Category A; [ ] NYASP Category B; [ ] State Forms; [X] PDF

Comments / Remarks:
PDF copy to Mike Hattel with APEX at mhattel@msn.com
PDF copy to Susan Lara-Mesa with KPK at Slaramesa@kpk.com

Emergency T/A data available VIA Lablink

Sample Custody must be documented below each time samples change possession, including courier delivery.

Relinquished by Sampler:	Date Time:	Received By:	Relinquished By:	Date Time:	Received By:
1 [signature]	8/26/14 1240	1 [signature]	2		2
Relinquished by: 3	Date Time:	Received By: 3	Relinquished By: 4	Date Time:	Received By: 4
Relinquished by: 5	Date Time:	Received By: 5	Custody Seal # HO	Preserved where applicable ☐	On Ice ☑ Cooler Temp. 3.2 T088

5.1 5

D62820: Chain of Custody
Page 1 of 2

Accutest Laboratories Sample Receipt Summary

Accutest Job Number: D62820 **Client:** KPK **Project:**

Date / Time Received: 9/30/2014 12:40:00 PM **Delivery Method:** **Airbill #'s:** HD

Cooler Temps (Initial/Adjusted): 0

Cooler Security	Y	or N		Y	or N
1. Custody Seals Present:	☑	☐	3. COC Present:	☑	☐
2. Custody Seals Intact:	☑	☐	4. Smpl Dates/Time OK	☑	☐

Cooler Temperature	Y	or N
1. Temp criteria achieved:	☑	☐
2. Cooler temp verification:	;	
3. Cooler media:	Ice (Bag)	
4. No. Coolers:	1	

Quality Control Preservation	Y	or N	N/A
1. Trip Blank present / cooler:	☐	☐	☐
2. Trip Blank listed on COC:	☐	☐	☐
3. Samples preserved properly:	☑	☐	
4. VOCs headspace free:	☐	☐	☐

Comments

Sample Integrity - Documentation	Y	or N
1. Sample labels present on bottles:	☑	☐
2. Container labeling complete:	☑	☐
3. Sample container label / COC agree:	☑	☐

Sample Integrity - Condition	Y	or N
1. Sample recvd within HT:	☑	☐
2. All containers accounted for:	☑	☐
3. Condition of sample:	Intact	

Sample Integrity - Instructions	Y	or N	N/A
1. Analysis requested is clear:	☑	☐	
2. Bottles received for unspecified tests	☐	☑	
3. Sufficient volume recvd for analysis:	☑	☐	
4. Compositing instructions clear:	☐	☐	☑
5. Filtering instructions clear:	☐	☐	☑

Accutest Laboratories
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4036 Youngfield Street
F: (303) 425-6854

Wheat Ridge, CO
www/accutest.com

Mountain States ACCUTEST LABORATORIES

Metals Analysis

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Matrix Spike and Duplicate Summaries
- Blank Spike and Lab Control Sample Summaries
- Serial Dilution Summaries

BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: D62820
Account: KPKCOD - K.P. Kauffman Company, Inc.
Project: Wattenberg Tank

QC Batch ID: MP14160
Matrix Type: AQUEOUS

Methods: SW846 6010C
Units: ug/l

Prep Date: 10/01/14

Metal	RL	IDL	MDL	MB raw	final
Aluminum	100	11	41		
Antimony	30	2.1	19		
Arsenic	25	3.8	5.6		
Barium	10	.2	1.4		
Beryllium	10	.9	1.2		
Boron	50	.8	6.6		
Cadmium	10	.2	.36		
Calcium	400	2.4	41	16.9	<400
Chromium	10	.3	.4		
Cobalt	5.0	.5	.57		
Copper	10	.8	1.9		
Iron	70	1.5	9.5		
Lead	50	2.1	21		
Lithium	5.0	.4	2.7		
Magnesium	200	6.8	19	47.3	<200
Manganese	5.0	.5	.46		
Molybdenum	10	.4	.84		
Nickel	30	.5	.87		
Phosphorus	100	15	20		
Potassium	1000	99	270	-1.6	<1000
Selenium	50	7.1	11		
Silicon	50	4.7	5.2		
Silver	30	.3	.6		
Sodium	400	7.3	170	16.8	<400
Strontium	5.0	.01	.12		
Thallium	10	1.8	4		
Tin	50	12	16		
Titanium	10	.1	2.1		
Uranium	50	2.9	5.5		
Vanadium	10	.4	.4		
Zinc	30	.4	3.2		

Associated samples MP14160: D62820-1F

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits

BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: D62820
Account: KPKCOD - K.P. Kauffman Company, Inc.
Project: Wattenberg Tank

QC Batch ID: MP14160
Matrix Type: AQUEOUS

Methods: SW846 6010C
Units: ug/l

Prep Date: 10/01/14

Metal	RL	IDL	MDL	MB raw	final

(anr) Analyte not requested

6.1.1

6

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: D62820
Account: KPKCOD - K.P. Kauffman Company, Inc.
Project: Wattenberg Tank

QC Batch ID: MP14160
Matrix Type: AQUEOUS

Methods: SW846 6010C
Units: ug/l

Prep Date: 10/01/14

Metal	D62616-1A Original	MS	Spikelot ICPALL2	% Rec	QC Limits
Aluminum					
Antimony	anr				
Arsenic	anr				
Barium					
Beryllium	anr				
Boron	anr				
Cadmium	anr				
Calcium	2730	27700	25000	99.6	75-125
Chromium	anr				
Cobalt					
Copper	anr				
Iron					
Lead	anr				
Lithium					
Magnesium	1570	25300	25000	93.2	75-125
Manganese					
Molybdenum					
Nickel	anr				
Phosphorus					
Potassium	7130	39200	25000	137.6N(a	75-125
Selenium	anr				
Silicon					
Silver					
Sodium	1340000	1380000	25000	160.0(b)	75-125
Strontium					
Thallium					
Tin					
Titanium					
Uranium					
Vanadium					
Zinc	anr				

Associated samples MP14160: D62820-1F

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: D62820
Account: KPKCOD - K.P. Kauffman Company, Inc.
Project: Wattenberg Tank

QC Batch ID: MP14160
Matrix Type: AQUEOUS

Methods: SW846 6010C
Units: ug/l

Prep Date: 10/01/14

Metal	D62616-1A Original MS	Spikelot ICPALL2	% Rec	QC Limits

(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested
(a) Spike recovery indicates possible matrix interference.
(b) Spike amount low relative to the sample amount. Refer to lab control or spike blank for recovery information.

6.1.2

6

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: D62820
Account: KPKCOD - K.P. Kauffman Company, Inc.
Project: Wattenberg Tank

QC Batch ID: MP14160
Matrix Type: AQUEOUS

Methods: SW846 6010C
Units: ug/l

Prep Date: 10/01/14

Metal	D62616-1A Original	MSD	Spikelot ICPALL2	% Rec	MSD RPD	QC Limit
Aluminum						
Antimony	anr					
Arsenic	anr					
Barium						
Beryllium	anr					
Boron	anr					
Cadmium	anr					
Calcium	2730	27500	25000	98.8	0.7	20
Chromium	anr					
Cobalt						
Copper	anr					
Iron						
Lead	anr					
Lithium						
Magnesium	1570	24800	25000	91.2	2.0	20
Manganese						
Molybdenum						
Nickel	anr					
Phosphorus						
Potassium	7130	38500	25000	134.8N(a	1.8	20
Selenium	anr					
Silicon						
Silver						
Sodium	1340000	1340000	25000	0.0 (b)	5.4	20
Strontium						
Thallium						
Tin						
Titanium						
Uranium						
Vanadium						
Zinc	anr					

Associated samples MP14160: D62820-1F

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: D62820
Account: KPKCOD - K.P. Kauffman Company, Inc.
Project: Wattenberg Tank

QC Batch ID: MP14160
Matrix Type: AQUEOUS

Methods: SW846 6010C
Units: ug/l

Prep Date: 10/01/14

Metal	D62616-1A Original MSD	Spikelot ICPALL2	% Rec	MSD RPD	QC Limit

(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested
(a) Spike recovery indicates possible matrix interference.
(b) Spike amount low relative to the sample amount. Refer to lab control or spike blank for recovery information.

6.1.2

6

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: D62820
Account: KPKCOD - K.P. Kauffman Company, Inc.
Project: Wattenberg Tank

QC Batch ID: MP14160
Matrix Type: AQUEOUS

Methods: SW846 6010C
Units: ug/l

Prep Date: 10/01/14

Metal	BSP Result	Spikelot ICPALL2	% Rec	QC Limits
Aluminum				
Antimony	anr			
Arsenic	anr			
Barium				
Beryllium	anr			
Boron	anr			
Cadmium	anr			
Calcium	24600	25000	98.4	80-120
Chromium	anr			
Cobalt				
Copper	anr			
Iron				
Lead	anr			
Lithium				
Magnesium	23800	25000	95.2	80-120
Manganese				
Molybdenum				
Nickel	anr			
Phosphorus				
Potassium	24500	25000	98.0	80-120
Selenium	anr			
Silicon				
Silver				
Sodium	23700	25000	94.8	80-120
Strontium				
Thallium				
Tin				
Titanium				
Uranium				
Vanadium				
Zinc	anr			

Associated samples MP14160: D62820-1F

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: D62820
Account: KPKCOD - K.P. Kauffman Company, Inc.
Project: Wattenberg Tank

QC Batch ID: MP14160
Matrix Type: AQUEOUS

Methods: SW846 6010C
Units: ug/l

Prep Date: 10/01/14

Metal	BSP Result	Spikelot ICPALL2	% Rec	QC Limits

(anr) Analyte not requested

6.1.3

6

SERIAL DILUTION RESULTS SUMMARY

Login Number: D62820
Account: KPKCOD - K.P. Kauffman Company, Inc.
Project: Wattenberg Tank

QC Batch ID: MP14160
Matrix Type: AQUEOUS

Methods: SW846 6010C
Units: ug/l

Prep Date: 10/01/14

Metal	D62616-1A Original	SDL 1:5	%DIF	QC Limits
Aluminum				
Antimony	anr			
Arsenic	anr			
Barium				
Beryllium	anr			
Boron	anr			
Cadmium	anr			
Calcium	2730	2700	3.5	0-10
Chromium	anr			
Cobalt				
Copper	anr			
Iron				
Lead	anr			
Lithium				
Magnesium	1570	1800	9.3	0-10
Manganese				
Molybdenum				
Nickel	anr			
Phosphorus				
Potassium	7130	5700	18.6 (a)	0-10
Selenium	anr			
Silicon				
Silver				
Sodium	1340000	1310000	2.2	0-10
Strontium				
Thallium				
Tin				
Titanium				
Uranium				
Vanadium				
Zinc	anr			

Associated samples MP14160: D62820-1F

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits

SERIAL DILUTION RESULTS SUMMARY

Login Number: D62820
Account: KPKCOD - K.P. Kauffman Company, Inc.
Project: Wattenberg Tank

QC Batch ID: MP14160
Matrix Type: AQUEOUS

Methods: SW846 6010C
Units: ug/l

Prep Date: 10/01/14

Metal	D62616-1A Original	SDL 1:5	%DIF	QC Limits

(anr) Analyte not requested
(a) Percent difference acceptable due to low initial sample concentration (< 50 times IDL).

6.1.4

6

Mountain States ACCUTEST LABORATORIES

General Chemistry

QC Data Summaries

Includes the following where applicable:

- Method Blank and Blank Spike Summaries
- Duplicate Summaries
- Matrix Spike Summaries

METHOD BLANK AND SPIKE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: D62820
Account: KPKCOD - K.P. Kauffman Company, Inc.
Project: Wattenberg Tank

Analyte	Batch ID	RL	MB Result	Units	Spike Amount	BSP Result	BSP %Recov	QC Limits
Chloride	GP13647/GN26711	0.50	0.0	mg/l	5	4.82	96.4	90-110%
HEM Oil and Grease	GP13698/GN26805	5.0	0.0	mg/l	40	37.2	93.0	78-114%
Nitrogen, Nitrate	GP13647/GN26711	0.010	0.0	mg/l	0.1	0.103	103.0	90-110%
Nitrogen, Nitrite	GP13647/GN26711	0.0040	0.0	mg/l	0.05	0.0487	97.4	90-110%
Solids, Total Dissolved	GN26739	10	0.0	mg/l	400	397	99.3	90-110%
Sulfate	GP13647/GN26711	0.50	0.0	mg/l	5	4.94	98.8	90-110%
Total Organic Carbon	GP13666/GN26740	1.0	0.0	mg/l	8.82	8.90	100.9	90-110%
pH	GN26761			su	8.00	7.99	99.9	99.1-100.9%

Associated Samples:
Batch GN26739: D62820-1
Batch GN26761: D62820-1
Batch GP13647: D62820-1
Batch GP13666: D62820-1
Batch GP13698: D62820-1
(*) Outside of QC limits

7.1

7

BLANK SPIKE DUPLICATE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: D62820
Account: KPKCOD - K.P. Kauffman Company, Inc.
Project: Wattenberg Tank

Analyte	Batch ID	Units	Spike Amount	BSD Result	RPD	QC Limit
HEM Oil and Grease	GP13698/GN26805	mg/l	40	35.8	3.8	20%

Associated Samples:
Batch GP13698: D62820-1
(*) Outside of QC limits

7.2

7

DUPLICATE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: D62820
Account: KPKCOD - K.P. Kauffman Company, Inc.
Project: Wattenberg Tank

Analyte	Batch ID	QC Sample	Units	Original Result	DUP Result	RPD	QC Limits
Solids, Total Dissolved	GN26739	D62684-3	mg/l	513	473	8.1	0-20%
Total Organic Carbon	GP13666/GN26740	D62811-1	mg/l	2.3	2.2	4.4	0-20%

Associated Samples:
Batch GN26739: D62820-1
Batch GP13666: D62820-1
(*) Outside of QC limits

7.3

7

MATRIX SPIKE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: D62820
Account: KPKCOD - K.P. Kauffman Company, Inc.
Project: Wattenberg Tank

Analyte	Batch ID	QC Sample	Units	Original Result	Spike Amount	MS Result	%Rec	QC Limits
Chloride	GP13647/GN26711	D62781-1	mg/l	19.2	25	44.0	99.2	80-120%
HEM Oil and Grease	GP13698/GN26805	D62544-1	mg/l	0.0	40	39.2	98.0	78-114%
Nitrogen, Nitrate	GP13647/GN26711	D62781-1	mg/l	0.039	0.5	0.56	104.2	80-120%
Nitrogen, Nitrite	GP13647/GN26711	D62781-1	mg/l	0.48	0.25	0.72	96.0	80-120%
Sulfate	GP13647/GN26711	D62781-1	mg/l	24.6	25	49.2	98.4	80-120%
Total Organic Carbon	GP13666/GN26740	D62811-1	mg/l	2.3	10	12.4	101.0	80-120%

Associated Samples:
Batch GP13647: D62820-1
Batch GP13666: D62820-1
Batch GP13698: D62820-1
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits

7.4
7

MATRIX SPIKE DUPLICATE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: D62820
Account: KPKCOD - K.P. Kauffman Company, Inc.
Project: Wattenberg Tank

Analyte	Batch ID	QC Sample	Units	Original Result	Spike Amount	MSD Result	RPD	QC Limit
Chloride	GP13647/GN26711	D62781-1	mg/l	19.2	25	44.4	0.9	20%
Nitrogen, Nitrate	GP13647/GN26711	D62781-1	mg/l	0.039	0.5	0.58	3.5	20%
Nitrogen, Nitrite	GP13647/GN26711	D62781-1	mg/l	0.48	0.25	0.73	1.4	20%
Sulfate	GP13647/GN26711	D62781-1	mg/l	24.6	25	49.2	0.0	20%
Total Organic Carbon	GP13666/GN26740	D62811-1	mg/l	2.3	10	12.2	1.6	20%

Associated Samples:
Batch GP13647: D62820-1
Batch GP13666: D62820-1
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits

7.5
7

OMB No. 2040-0042 Approval Expires 12/31/2011

EPA

United States Environmental Protection Agency
Washington, DC 20460

Injection Well Monitoring Report

Year 2014	Month	Month	Month
Injection Pressure (PSI)	July	August	September
1. Minimum	700	700	700
2. Average	578	616	588
3. Maximum	700	700	700
Injection Rate (Gal/Min)			
1. Minimum	55	55	55
2. Average	55	55	55
3. Maximum	55	55	55
Annular Pressure (PSI)			
1. Minimum	130	130	130
2. Average	130	130	130
3. Maximum	130	130	130
Injection Volume (Gal)			
1. Monthly Total	641,718	576,324	322,770
2. Yearly Cumulative	2,989,014	3,565,338	3,888,108
Temperature (F °)			
1. Minimum			
2. Average			
3. Maximum			
pH			
1. Minimum			
2. Average			
3. Maximum			
Other			
Class I - Non Hazardous	0	0	0
Class I - Non-Haz. Cum.	0	0	0

Name and Address of Permittee
Wattenberg Disposal, LLC, 8979 WCR 22, Ft. Lupton, CO 80621

Permit Number
CO-10938-2115

Name and Official Title *(Please type or print)*
Renae Y. Patterson, Admin. Asst.

Signature
Renae Patterson

Date Signed
10/9/2014

EPA Form 7520-8 (Rev. 12-08)

LEASE #	LEASE NAME	DATE 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	LEASE TOTALS
67528	AMEN 1																							40									40
61864	AMOCO-CHARTER-SCHNEI											43					7																50
61883	AMOCO CHART SCHNEIDER A											43					6																49
61902	AMOCO CHART SCHNEIDER B											44					7																51
61450	ANDERSON 1, 2							45			50								7														102
17450	ANDERSON			32																		48			25					17		10	132
23789	ANDERSON 13-32																		8														8
23790	ANDERSON 12-32																		7														7
23792	ANDERSON 14-32																		8														8
192530	BAURER 41-36								27			30			33				30			22				30				22	21		215
58425	BELL, UNIT, *CHARLES																	37															37
58406	BELL, *CHARLES C																	38															38
59850	BERGER A			18											20																		38
59850B	BERGER, *JACK & BERG			17											20																		37
22655	BERNHARDT 7-14										18																						18
22698	BERNHARDT 7-16										17																						17
103500	BRIGGS #1																							90									90
61186	BURKHARDT SELTZER																							65	40								105
24571	CAMENISCH 2-32									15																							15
24591	CAMENISCH 8-32									15																							15
24569	CAMENISCH 41-32									15																							15
24704	CAMENISCH 50-32									15																							15
17451	CARTER 21-33									110					130														130				370
58463	CHRISTENSEN UNIT, *N		15																18										22				55
58444	CHRISTENSEN, *NELS		15																17										23				55
09163	COBURN CLEMENTINE 1																22																22
09593	COBURN CLEMENTINE B1																23																23
58482	DAMIANA, *JAMES A																															65	65
60040	DEEPE C, *CARL R																		40														40
07895	DEVORE 1, 2			9							9								10														28
07896	DEVORE 2			9							9								10														28
09272	DEVORE 3, 4			9							8								10														27
09271	DEVORE 4			8							9								10														27
07886	DUTCHER B 1	12															16																28
08945	DUTCHER B 2	13															17																30
08684	DUTCHER C 1	12															16																28
08899	DUTCHER C 2	13															16																29
62611	ED KAM 1-21																								80								80
62293	ED KAM 2-23																						30										30
67144	ED KAM 4-33								26																								26
194160	EIBERGER 32-36								27			30			34				30			21				30				21	22		215
194110	EIBERGER 42-36											30			33				30			22				30				22	22		189
08391	ELKHORN CO B3												8												7								15
08694	ELKHORN CO B5												9												7								16
09488	ELKHORN CO B6												8												7								15
09489	ELKHORN CO B7												9												6								15
09490	ELKHORN CO B8												8												6								14
09491	ELKHORN CO B9												8												7								15
59268	ENERGY MINERALS A 1			15						17															16								48
16081	EWING 23-30										35																40						75
00001	FACILITY 1								100						130		130												130				490
00002	FACILITY 2								100						15		260	60	130						130						130	260	1085
00003	FACILITY 3									45									40						40								125
00004	FACILITY 4		130	130				55	100				130					390														260	1195
00005	FACILITY 5		100					130	100	70			120		70				130					130									850
00006	FACILITY 6									50						90															70		210
00007	FACILITY 7	130	130							70		90			10			185						170		40				130			955
00008	FACILITY 8										130						120																250
0004WA	FACILITY 4WA							40																									40
0004WB	FACILITY 4WB	140																	80										130				350
69064	FED WILDHORSE 10,15,															80																	80
60095	FINDLAY, *RICHARD R								130									100	130											80			440
59269	FIRECRACKER			65								50																		70			185
62016	FRISBEE																									30							30
32751	FRONT RANGE 11-17-5							38																									38
32754	FRONT RANGE 11-17-6							37																									37
62608	GENESIS 1											45																					45
62603	GENESIS 3			30									30		40												40						140
07887	GERHARDT GEORGE H 1	15																															15
08124	GERHARDT GEORGE H 2	15																															15
08946	GERHARDT GEORGE H 3	15																															15
13577	GERHARDT GEORGE H 4	15																															15
60135	GERHARDT MARIE B																						35										35
59839	GRANT #'S 1,2,3,4																							60									60
60173	GREELEY NATIONAL BAN		80						90				50									100				80							400
61484	GUILDNER																30																30
5869	GUTHRIE 1 & 2			30								50					30						35								65		210
60192	HALEY TRUSTEE, *JAME									14														10									24
60211	HANKS											20																					20
60249	HART UNIT B, MARTIN															40																	40
60270	HART UNIT F, MARTIN			15						17															17								49
60230	HART, MARTIN T 1,2,3			15						16															17								48
603632	HARTMAN STATE 11-16																												50			20	70

59033	HAUDRICH #1 & 2			40																				35							75
62020	HEIN 1-2								13													10									23
60290	HERMAN UNIT B, *ALFR														15		18						25								58
58505	HERMAN UNIT, *ALFRED														15		17						25								57
58501	HLADKY-O'GORMAN																15														15
60310	HORST B, JOHN 1 & 2																20														20
04200	HORTH R1-R2									50																					50
66583	JEFFERS A									47																					47
16057	KOCH 41-6								23																						23
09204	KOCH, KEN								22																						22
34022	KOESTER 18-33-22		45																	35											80
29606	KOESTER 3-33-3		45					50	50		40					50															235
30329	KOESTER 3-33-29																			35								40			75
58789	KOSHIO											30																			30
6117	LAMBERT																											60		65	125
10437	LANSDOWN WM D UNIT D1			25																										25	50
59831	LANSON'S FARM 1-16			65							50						50					50									215
16883	LEGG 14-22			25																										25	50
56138	LOEFFLER 1-18																			50											50
67150	LOEFFLER 2-24																							30							30
61685	MARCUS 1		30																												30
56144	MATSUSHIMA 1-5		40														20							20							80
23517	MATSUSHIMA 2-6X		40														20							20							80
56141	MATSUSHIMA 3-14						25				23													25							73
23516	MATSUSHIMA 4-19X						25				22													25							72
68429	MAUL 20-2						45																								45
67531	MCCARTY 1																								30						30
07881	MCCOY PHILLIP #1			18						30					18										30						96
08644	MILLARD 1	25								25										23											73
10548	MILLARD 2	25								25										22											72
58709	MILLER 13-5		43													23															66
60572	MILLER A, *CARL A								13													10									23
68278	MILLER B #14, *CARL		43													23															66
60559	MILLER E #1, *CARL A		44													24															68
59800	MLEYNEK			130																											130
67152	MONTGOMERY							120			30	35		100	30	30	30		50		30			30					60		545
61697	MOSER #1-A																			45											45
6352	MURPHY 5-2			40						30				40																	110
69075A	MUSICK 1-2-4-7			30																									36		66
32872	NRC 9-9-15H									50							100							50							200
6119	NEWLANDER			40						45					30																115
34718	NOEL 3-18	50																	30												80
65003	OWEN		30																												30
62410	PHELPS 1-13																					40									40
56058	PHELPS 3-26										25																				25
259619	ROCKY MOUNTAIN FUEL 9-8															10								12						12	34
60762	ROCKY MTN FUEL CO C 7&8															10								13						13	36
68126	ROCKY MTN FUEL CO C 4, 10															20								25						25	70
6377	ROSENFIELD 6-1			30						30																					60
5787	RUEBEL 1 & 2																													35	35
67197	RUEBEL 36-1																													35	35
60790	SCHUTT, MARVIN E 1																20														20
15997	SHANNON 24-30									35															40						75
12602	SPRAGUE A M A 1			33									40						47				25					16		10	171
7733	STATE 2-26																			80											80
6515	STATE 14-32									23	33																				56
6741	STATE 14									24	34																				58
6746	STATE 14-31									23	33																				56
60819A	STREAR, *SIDNEY									25					33																58
60820	STREAR									25					32																57
60122	STROH #1								10																						10
66643	STROH #2								12																						12
26390	STROH 7-33								10																						10
24147	STROH 28-16								12																						12
26308	STROH 15-28								12																						12
24238	STROH 28-9								12																						12
24237	STROH 28-10								12																						12
24142	STROH 33-1								10																						10
24146	STROH 33-2								10																						10
24143	STROH 33-4								10																						10
62593	STRONG 1														40																40
60838	SUCKLA A UNIT 1&2										7																				7
60895	SUCKLA D UNIT 1&2										6																				6
60952	SUCKLA FARMS C 2&3										7																				7
60933	SUCKLA BROWN 17													40																	40
24646	SUNMARKE										30									60											90
5799	TIPPETT 6-4			50																											50
58653	TWOMBLEY B, *MARGARE	60																						35							95
61008	UPRR 42 D													130																	130
61047	UPRR 42 PAN AM G		50																									32			82
58691	UPRR 42 PAN AM K																35														35
61067	UPRR 43 PAN AM I												10				40														50
61068	UPRR 42 PAN AM N		50											40																	90
67770	VINCENT J 3			40																											40
61095	WALKING, *CARY																15														15
16268	WEIGANDT A 1							100																							100
59817	WINGO																							100				135			235

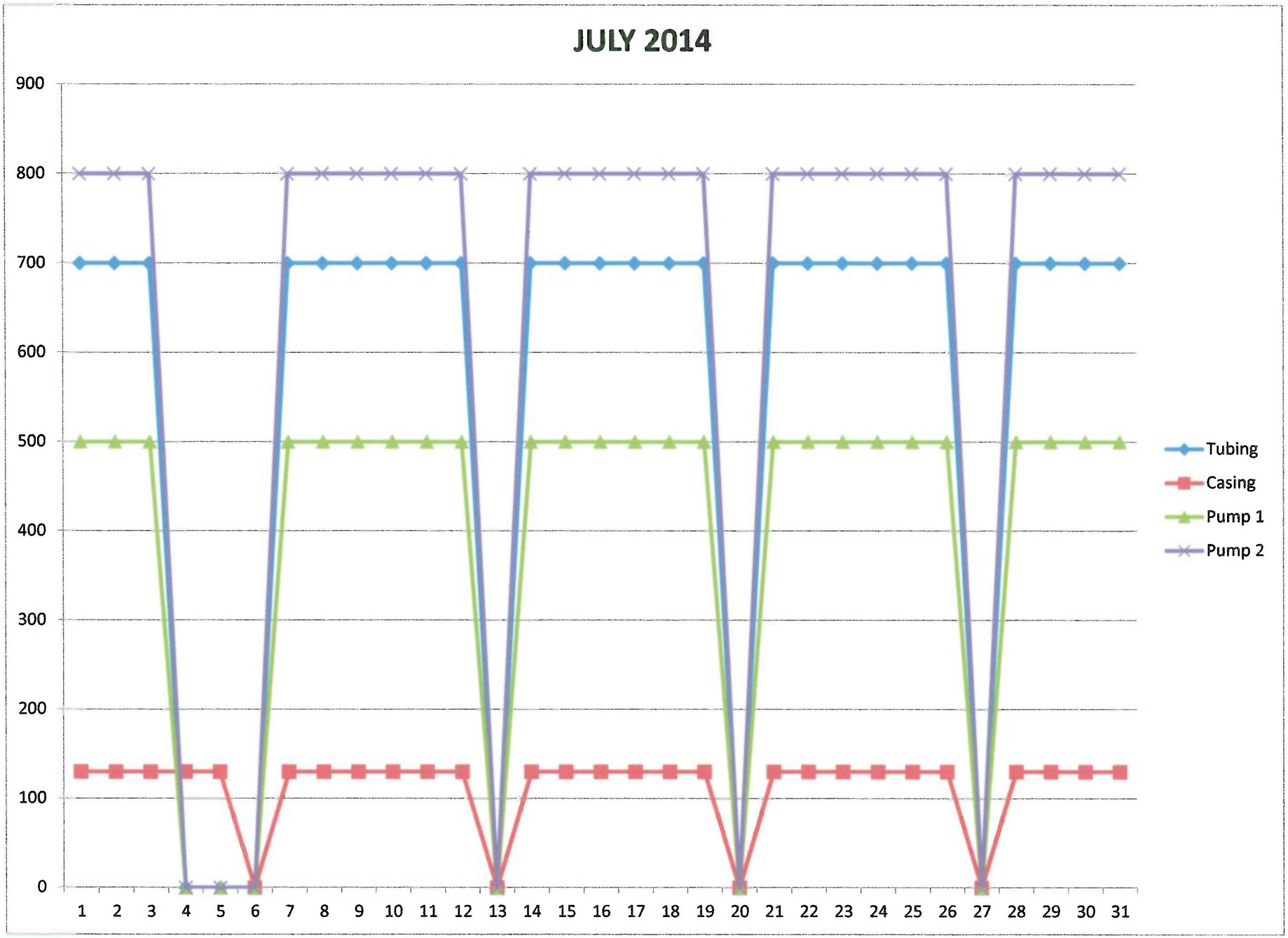
15925	WOOLEY 13-14			17							30						17										30						94
	TOTALS	540	930	985	0	0	0	440	970	700	752	865	445	0	585	560	930	1000	1145	0	0	340	450	705	480	660	210	0	485	645	426	860	
																																16108
																																16108

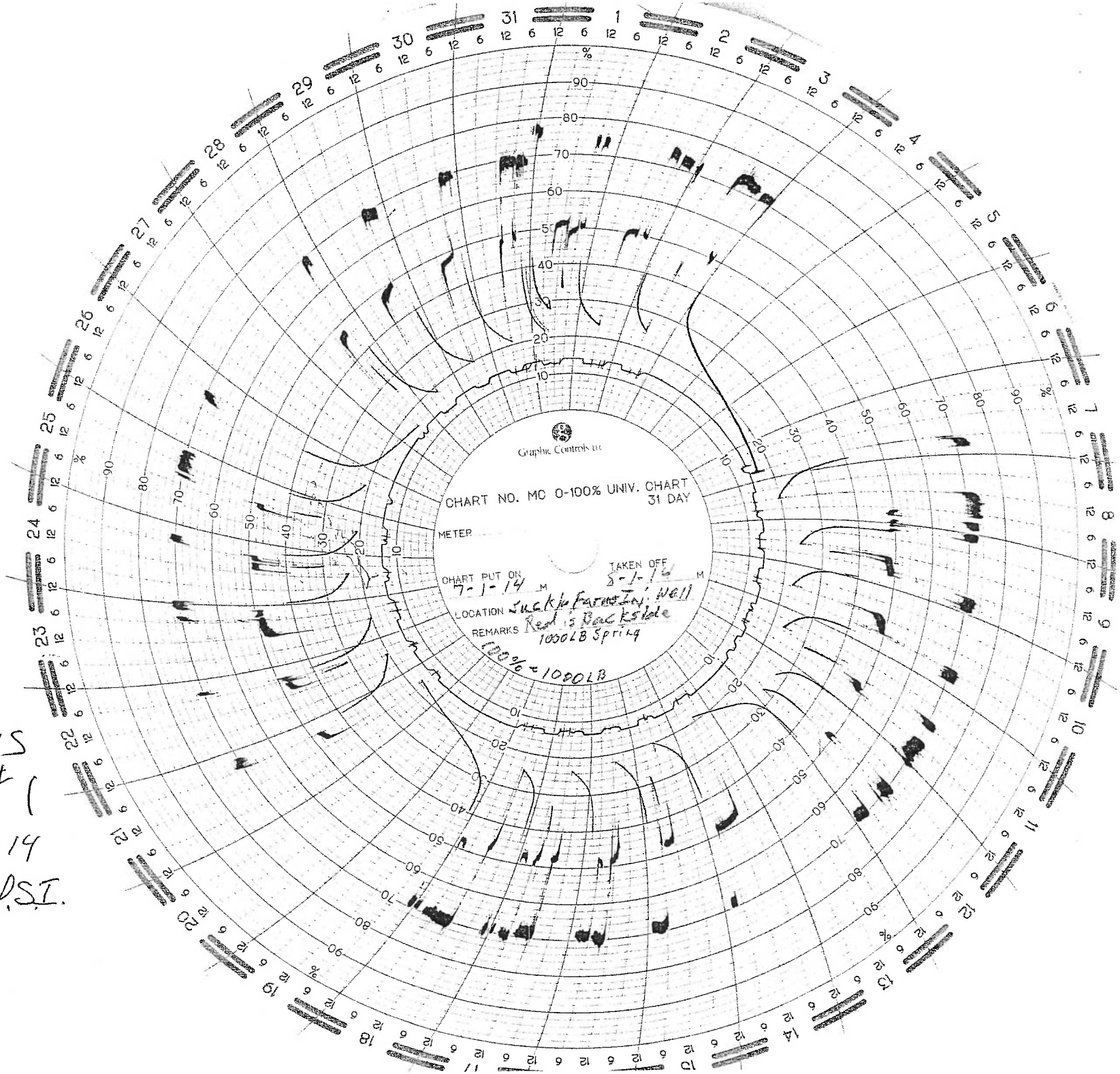
LEASE #	LEASE NAME	DATE 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	LEASE TOTALS
																																	0
	ANGI ALLES RECEIVER																																0
G018	BERTHOUD BOOSTER																																0
	CDP 7 RECEIVER																																0
G012	EATON PLANT																																0
G033	ENTERPRISE BOOSTER																																0
G009	GREELEY OFFICE																																0
G011	GREELEY PLANT																																0
	JODY BOOSTER																																0
G018	JOHNSTOWN BOOSTER																																0
G034	KRAUTHEAD																																0
GD06	LASALLE GAS																																0
G088	LIBSACK/GILL																																0
G013	LUCERNE PLANT																																0
	MARIA BOOSTER																																0
G018	MARILYN BOOSTER																																0
	MARLA STATION																																0
G018	MARTHA BOOSTER																																0
G014	MEWBOURN PLANT																																0
	MID POINT BOOSTER																																0
	PARKER PARSLEY BOOSTER																																0
G882	PLATTEVILLE PLANT																																0
	REINICK RECEIVER																																0
G035	RIVERSIDE BOOSTER																																0
G032	ROGGEN FIELD																																0
G031	ROGGEN PLANT																	25															25
G018	SINGLETREE BOOSTER																																0
	SOUTHFIELD BOOSTER																																0
G010	SPINDLE PLANT																																0
G018	SURREY BOOSTER																																0
G036	TAMPA																																0
G023	WELD BOOSTERS																																0
G017	WELD FIELD																																0
L095	WELD MEASUREMENT																																0
G018	WEST SPINDLE BOOSTER																																0
																																	0
																																	0
	TOTAL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	25	0	0	0	0	0	0	0	0	0	0	0	0	0	0	25
																																	25

WATTENBERG DAILY EVALUATION SHEET

July 2014

Date	Time	Injecting Fluid Yes	Injecting Fluid No	Pressured Annulus Yes	Pressured Annulus No	Tubing Pressure	Annulus Pressure	Estimated Barrels Injected (prior 24 hrs)	Ambient Air Temperature (est)	Weather Conditions	Remarks/Summary Prior 24 Hrs.
1	12:00A	X		X		800	130	796			
2	7:00A		X	X		Ø	130	777			
3	12:00A	X		X		800	130	730			
4	12:00A	X		X		800	130	1011			
5	Closed		X	X		Ø	130	46			
6	Closed		X	X		Ø	130	Ø			
7	7:00A		X	X		Ø	130	Ø			
8	7:00A		X	X		Ø	130	228			
9	12:00A	X		X		800	130	926			
10	12:00A	X		X		800	130	839			
11	7:00A		X	X		Ø	130	626			
12	12:00A	X		X		800	130	785			
13	Closed		X	X		Ø	130	745			
14	7:00A		X	X		Ø	130	Ø			
15	7:00A		X	X		Ø	130	575			
16	7:00A		X	X		Ø	130	548			
17	7:00A		X	X		Ø	130	731			
18	12:00A	X		X		800	130	852			
19	12:00A	X		X		800	130	1033			
20	Closed		X	X		Ø	130	196			
21	7:00A		X	X		Ø	130	Ø			
22	7:00A		X	X		Ø	130	449			
23	7:00A		X	X		Ø	130	279			
24	7:00A		X	X		Ø	130	618			
25	7:00A		X	X		Ø	130	433			
26	7:00A		X	X		Ø	130	662			
27	Closed		X	X		Ø	130	212			
28	7:00A		X	X		Ø	130	Ø			
29	7:00A		X	X		Ø	130	337			
30	7:00A		X	X		Ø	130	619			
31	7:00A		X	X		Ø	130	487			


JULY 2014
900
800
700
600
500
400
300
200
100
0
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31
Tubing
Casing
Pump 1
Pump 2



Suckla Farms
Injection Well #1
7-1-14 To 8-1-14
@ 10% equals 100 P.S.I.

LEASE #	LEASE NAME	DATE 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	LEASE TOTALS
60003	1415 CORPORATION C								30																								30
61864	AMOCO-CHARTER-SCHNEI								20																								20
67529	ANDERSON #1													12																			12
61450	ANDERSON 1, 2					44																											44
17450	ANDERSON																			22													22
23789	ANDERSON 13-32													13																			13
23790	ANDERSON 12-32													13																			13
23792	ANDERSON 14-32													12																			12
192530	BAURER 41-36				43				37				34			27				12			13				33			40	20		259
58425	BELL UNIT, *CHARLES	23																										25					48
58406	BELL, *CHARLES C	22																										25					47
59850	BERGER A								18																								18
59850B	BERGER, *JACK & BERG								17																								17
103500	BRIGGS #1																		75														75
61184	BURKHARDT 1																					15											15
61186	BURKHARDT SELTZER																					15											15
24571	CAMENISCH 2-32																										15						15
24591	CAMENISCH 8-32																										15						15
24569	CAMENISCH 41-32																										15						15
24704	CAMENISCH 50-32																										15						15
58463	CHRISTENSEN UNIT, *N							20											23											8			51
58444	CHRISTENSEN, *NELS							20											22											8			50
09163	COBURN CLEMENTINE 1							20																		18							38
09593	COBURN CLEMENTINE B1							20																		17							37
58482	DAMIANA, *JAMES A																													63			63
60040	DEEPE C, *CARL R													52																			52
07895	DEVORE 1, 2				10																							9					19
07896	DEVORE 2				10																							8					18
09272	DEVORE 3, 4				10																							9					19
09271	DEVORE 4				10																							9					19
67144	ED KAM 4-33																											40					40
194160	EIBERGER 32-36				44				37				34			27				11			14				34			40	20		261
194110	EIBERGER 42-36				43				36				34			26				12			13				33			40	20		257
08391	ELKHORN CO B3		5																	8								6					19
08694	ELKHORN CO B5		5																	9								5					19
09488	ELKHORN CO B6		5																	8								6					19
09489	ELKHORN CO B7		5																	8								6					19
09490	ELKHORN CO B8		5																	9								6					20
09491	ELKHORN CO B9		5																	8								6					19
59268	ENERGY MINERALS A 1																			17													17
16081	EWING 23-30																					40	30										70
00001	FACILITY 1							80													90		50					40		80	80		420
00002	FACILITY 2	130				130		130	80			390	80		90	20			80							130		30	30	160			1480
00003	FACILITY 3					130		40				130		20							40							30					390
00004	FACILITY 4				30	30		40	30			130	160		130				80										130	130			890
00005	FACILITY 5				130	130			210											130						130							730
00006	FACILITY 6					130		130				80																					340
00007	FACILITY 7	130						80	180					220												130				80			820
00008	FACILITY 8					130			80							110													130				450
0004WB	FACILITY 4WB				80										100																		180
59269	FIRECRACKER	60						40	60							80						130							45				415
32751	FRONT RANGE 11-17-5																		33														33
32754	FRONT RANGE 11-17-6																		32														32
62603	GENESIS 3							45														40											85
07887	GERHARDT GEORGE H 1				11																												11
08124	GERHARDT GEORGE H 2				12																												12
08946	GERHARDT GEORGE H 3				11																												11
13577	GERHARDT GEORGE H 4				11																												11
60135	GERHARDT MARIE B																											40					40
59839	GRANT #'S 1,2,3,4																				40												40
60173	GREELEY NATIONAL BAN					60														80													140
61484	GUILDNER														50																		50
5869	GUTHRIE 1 & 2											30							45				30					30					135
60192	HALEY TRUSTEE, *JAME											14															10		10				34
60211	HANKS														35											25							60
60249	HART UNIT B, MARTIN																										40						40
60268	HART UNIT D																						90										90
60270	HART UNIT F, MARTIN																			16													16
60230	HART, MARTIN T 1,2,3																			17													17
60271	HART UNIT G								45																								45
60272	HART UNIT H																			25													25
60274	HART UNIT I								45																								45
62020	HEIN 1-2											13															10		10				33
25314	HEPP 31-32													60																			60
60290	HERMAN UNIT B, *ALFR	23							18										20									25					86
58505	HERMAN UNIT, *ALFRED	22							17										20									25					84
56139	HILL 3-83 #1A	40										390	260		40	40			40	20	20		30				30			22			932
58501	HLADKY-O'GORMAN																		22											10			32
60310	HORST B, JOHN 1 & 2											15																20					35
04200	HORTH R1-R2																											50					50
60324	HUNZIKER																									30				20			50
60323	JEFFERS, A.D. #1																			25													25
59592	JOHNSON #'S 1 & 2											35																					35
68426	JORDAN 1														40																		40

August 2014

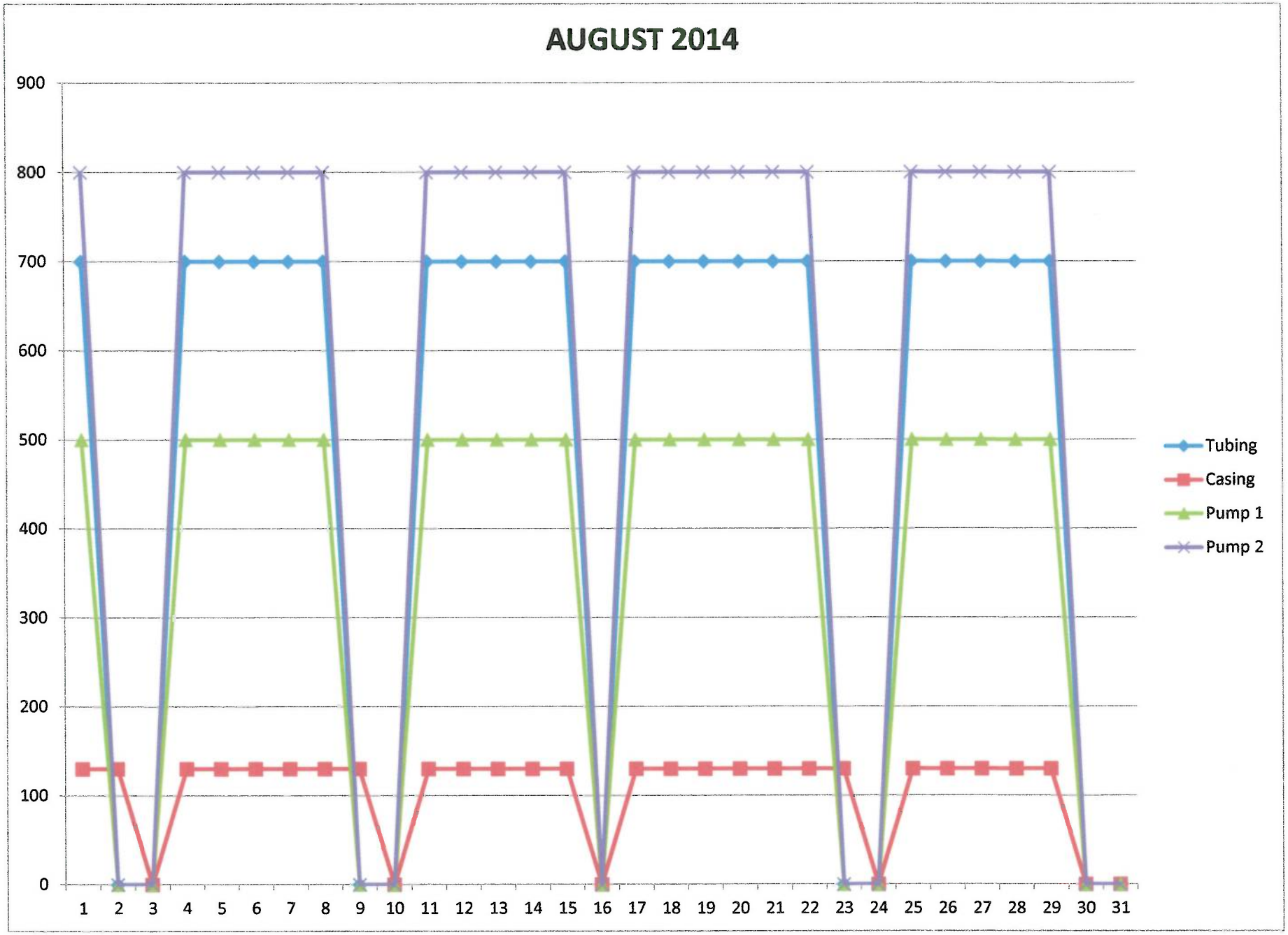
68431	JORDAN 34-4													30																			30
62592	KAMMERZELL 1-9																									18							18
22643	KAMMERZELL 7-4																									17							17
16057	KOCH 41-6					18																											18
09204	KOCH, KEN					18																											18
29642	KOESTER 18-33												13													10							23
29643	KOESTER 18-33-6												14													10							24
29605	KOESTER 18-33-4												13													10							23
29606	KOESTER 3-33-3																			10													10
30329	KOESTER 3-33-29													40																			40
16116	KUNZMAN 43-6							7																									7
07666	KUNZMAN JOHN A #1							8																									8
09296	KUNZMAN 2							7																									7
09719	KUNZMAN 4							8																									8
6117	LAMBERT								40																								40
10437	LANSDOWN WM D UNIT D1																								40								40
59831	LANSON'S FARM 1-16	80					100													80													260
16883	LEGG 14-22																								40								40
61959	LUCKE, HARRIET 1																											30					30
61685	MARCUS 1								30																								30
56144	MATSUSHIMA 1-5																								25								25
23517	MATSUSHIMA 2-6X																								25								25
56141	MATSUSHIMA 3-14		20						18									20								22							80
23516	MATSUSHIMA 4-19X		20						17									20								23							80
07881	MCCOY PHILLIP #1		20									20										30											70
67258	MCGILL #1													50																			50
60553	MCHALE																			62													62
61487	MEREDITH																		59														59
08644	MILLARD 1		20											25											25								70
10548	MILLARD 2		20											25											25								70
58709	MILLER 13-5																										27						27
60572	MILLER A, *CARL A										13															10		10					33
68278	MILLER B #14, *CARL																										26						26
60559	MILLER E #1, *CARL A																										27						27
6436	MITCHELL 32-3						30														30												60
67152	MONTGOMERY		8		175				30									25											22				260
60667	MONTOYA B 1, 2													50																			50
60648	MONTOYA 1, 2																	40															40
61697	MOSER #1-A																										45						45
6352	MURPHY 5-2																	30			30												60
69075A	MUSICK 1-2-4-7								25										30														55
69075B	MUSICK 3-5																		25														25
32872	NRC 9-9-15H					85							78						50														213
6119	NEWLANDER				50				35						40							40					25						190
34718	NOEL 3-18												50																				50
65003	OWEN																								90								90
08985	PREM TURKEY FARMS B2				13																												13
07876	PREM TURKEY FARMS C1				13																												13
08943	PREM TURKEY FARMS C2				13																												13
259619	ROCKY MOUNTAIN FUEL 9-8					3							5																				8
62401	ROCKY MOUNTAIN FUEL C 6																										60						60
60762	ROCKY MTN FUEL CO C 7&8					4							5																				9
68126	ROCKY MTN FUEL CO C 4, 10					8							10																				18
6377	ROSENFIELD 6-1																	30		50									40				120
6381	ROSENFIELD 6-5																	30		80	50												160
60746	SACK 14-31						25																										25
60790	SCHUTT, MARVIN E 1										15																20						35
15997	SHANNON 24-30																				40												40
60800	SICKLER, SHELDON 1 T						130																										130
62418	SPADE												30						70		50												150
12602	SPRAGUE A M A 1																		23														23
5032	STATE 1-16	50																															50
7733	STATE 2-26, 3-26					60																					40	70					170
6515	STATE 14-32						13						43								7												63
6741	STATE 14						14						44								6												64
6746	STATE 14-31						13						43								7												63
60819A	STREAR, *SIDNEY	35										10																10					55
60820	STREAR	35										10																10					55
62593	STRONG 1																										30						30
60933	SUCKLA BROWN 17								50																30								80
35079	SUNMARKE 19-28-12																									90							90
58653	TWOMBLEY B, *MARGARE								39																								39
61070	UPRR 42 PAN AM AF 1,				64																												64
61072	UPRR 42 PAN AM AG 3																								70								70
61008	UPRR 42 D	130							56																								186
61047	UPRR 42 PAN AM G								30										45														75
58691	UPRR 42 PAN AM K																			50													50
61067	UPRR 43 PAN AM I												20					80	40	125	50				95	30	60	35	60			595
61068	UPRR 42 PAN AM N	35													55												30						120
61078	VINCENT UNIT, R S 1&																					30											30
61095	WALKING, *CARY																	23											10				33
15925	WOOLEY 13-14		20									20										30											70
66995	WUERTZ 12-3																		50						45				35				130
	TOTALS	815	158	0	783	980	325	695	1330	0	0	1255	662	770	705	425	0	0	790	829	647	510	400	0	0	990	490	840	520	868	140	0	
																																	15927
																																	15927

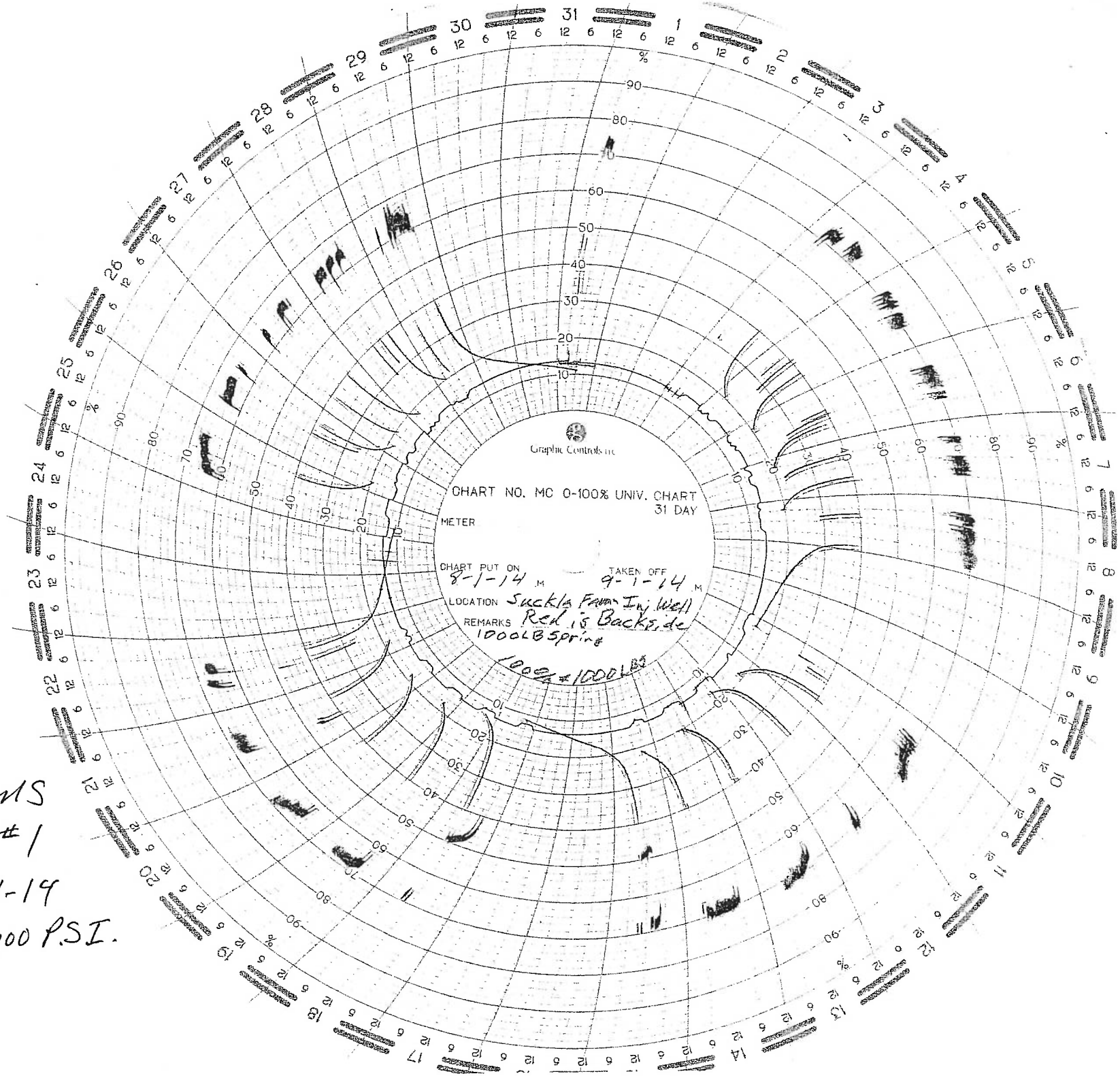
August 2014

WATTENBERG DAILY EVALUATION SHEET

August 2014

Date	Time	Injecting Fluid Yes	Injecting Fluid No	Pressured Annulus Yes	Pressured Annulus No	Tubing Pressure	Annulus Pressure	Estimated Barrels Injected (prior 24 hrs)	Ambient Air Temperature (est)	Weather Conditions	Remarks/Summary Prior 24 Hrs.
1	7:00A		X	X		Ø	130	581			
2	7:00A		X	X		Ø	130	781			
3	Closed		X	X		Ø	130	Ø			
4	7:00A		X	X		Ø	130	Ø			
5	7:00A		X	X		Ø	130	843			
6	7:00A		X	X		Ø	130	609			
7	7:00A		X	X		Ø	130	603			
8	7:00A		X	X		Ø	130	514			
9	Closed		X	X		Ø	130	1207			
10	Closed		X	X		Ø	130	Ø			
11	7:00A		X	X		Ø	130	Ø			
12	7:00A		X	X		Ø	130	780			
13	7:00A		X	X		Ø	130	147			
14	7:00A		X	X		Ø	130	887			
15	7:00A		X	X		Ø	130	852			
16	Closed		X	X		Ø	130	351			
17	Closed		X	X		Ø	130	Ø			
18	7:00A		X	X		Ø	130	Ø			
19	7:00A		X	X		Ø	130	377			
20	7:00A		X	X		Ø	130	700			
21	7:00A		X	X		Ø	130	680			
22	7:00A		X	X		Ø	130	591			
23	Closed		X	X		Ø	130	422			
24	Closed		X	X		Ø	130	Ø			
25	7:00A		X	X		Ø	130	Ø			
26	6:00A		X	X		Ø	130	904			
27	6:00A		X	X		Ø	130	688			
28	6:00A		X	X		Ø	130	428			
29	6:00A		X	X		Ø	130	725			
30	Closed		X	X		Ø	130	633			
31	Closed		X	X		Ø	130	Ø			


AUGUST 2014
900
800
700
600
500
400
300
200
100
0
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31
Tubing
Casing
Pump 1
Pump 2



Suckla Farms
Injection Well #1
8-1-14 to 9-1-14
@ 10% equals 100 P.S.I.

LEASE #	LEASE NAME	DATE 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	LEASE TOTALS
67528	AMEN 1			40																													40
61864	AMOCO-CHARTER-SCHNEI																								7								7
61883	AMOCO CHART SCHNEIDER A																								6								6
61902	AMOCO CHART SCHNEIDER B																								7								7
67529	ANDERSON #1			4																													4
61450	ANDERSON 1, 2																42																42
17450	ANDERSON				18					25	10									25						25							103
23789	ANDERSON 13-32			3																													3
23790	ANDERSON 12-32			4																													4
23792	ANDERSON 14-32			4																													4
192530	BAURER 41-36					27			27				27			33				42						20				27			203
58425	BELL UNIT, *CHARLES																30																30
58406	BELL, *CHARLES C																30																30
59850	BERGER A					20																											20
59850B	BERGER, *JACK & BERG					20																											20
22655	BERNHARDT 7-14																						70										70
23758	BILLINGS 21-7																160																160
103500	BRIGGS #1										80														60								140
24571	CAMENISCH 2-32																									12							12
24591	CAMENISCH 8-32																									13							13
24569	CAMENISCH 41-32																									12							12
24704	CAMENISCH 50-32																									13							13
60113	CAMENISCH 1																									10							10
23577	CAMENISCH 32-10																									10							10
23578	CAMENISCH 32-16																									10							10
23579	CAMENISCH 32-9																									10							10
26440	CAMENISCH 20-32																									10							10
17451	CARTER 21-33				200																						65						265
06790	CHAMPLIN 321																								45								45
58463	CHRISTENSEN UNIT, *N												15																				15
58444	CHRISTENSEN, *NELS												15																				15
58482	DAMIANA, *JAMES A				60															55													115
60040	DEEPE C, *CARL R			35																													35
07895	DEVORE 1, 2																													9			9
07896	DEVORE 2																													8			8
09272	DEVORE 3, 4																													9			9
09271	DEVORE 4																													9			9
194160	EIBERGER 32-36					27			27				27			34				41						20				26			202
194110	EIBERGER 42-36					26			26				26			33				42						20				27			200
08391	ELKHORN CO B3					7													7														14
08694	ELKHORN CO B5					8													6														14
09488	ELKHORN CO B6					7													7														14
09489	ELKHORN CO B7					8													7														15
09490	ELKHORN CO B8					7													6														13
09491	ELKHORN CO B9					8													7														15
59268	ENERGY MINERALS A 1																			15													15
16081	EWING 23-30								40																								40
00001	FACILITY 1				80																										130		210
00003	FACILITY 3																									50							50
00004	FACILITY 4										130																			130			260
00005	FACILITY 5					130										30	130	60								130							480
00006	FACILITY 6																							110									110
00007	FACILITY 7					130																								70			200
00008	FACILITY 8				80	120																											200
0004WB	FACILITY 4WB															95																	95
69064	FED WILDHORSE 10,15,												90																				90
60095	FINDLAY, *RICHARD R					130																											130
59269	FIRECRACKER										45																						45
59584	GAULKE 1, 2											135	80																				215
62603	GENESIS 3			45															40														85
07887	GERHARDT GEORGE H 1																			14													14
08124	GERHARDT GEORGE H 2																			13													13
08946	GERHARDT GEORGE H 3																			14													14
13577	GERHARDT GEORGE H 4																			14													14
5869	GUTHRIE 1 & 2			40						35								40						40									155
60192	HALEY TRUSTEE, *JAME			32		8														15													55
60270	HART UNIT F, MARTIN																			15													15
60230	HART, MARTIN T 1,2,3																			15													15
62020	HEIN 1-2			31		9														15													55
60290	HERMAN UNIT B, *ALFR								20											15													35
58505	HERMAN UNIT, *ALFRED								20											15													35
56139	HILL 3-83 #1A					25												30								30							85
58501	HLADKY-O'GORMAN																			20										10			30
60315	HORTON, GLENN																										65						65
68426	JORDAN 1				130																												130
62041	KIYOTA 1																													30	45		75
16057	KOCH 41-6																25																25
09204	KOCH, KEN																25																25
29642	KOESTER 18-33																									40							40
34022	KOESTER 18-33-22									50																							50
29606	KOESTER 3-33-3			45						35																40							120
6080	KORTUM 2 A									46																							46
31483	KNUDSEN		80																130														210

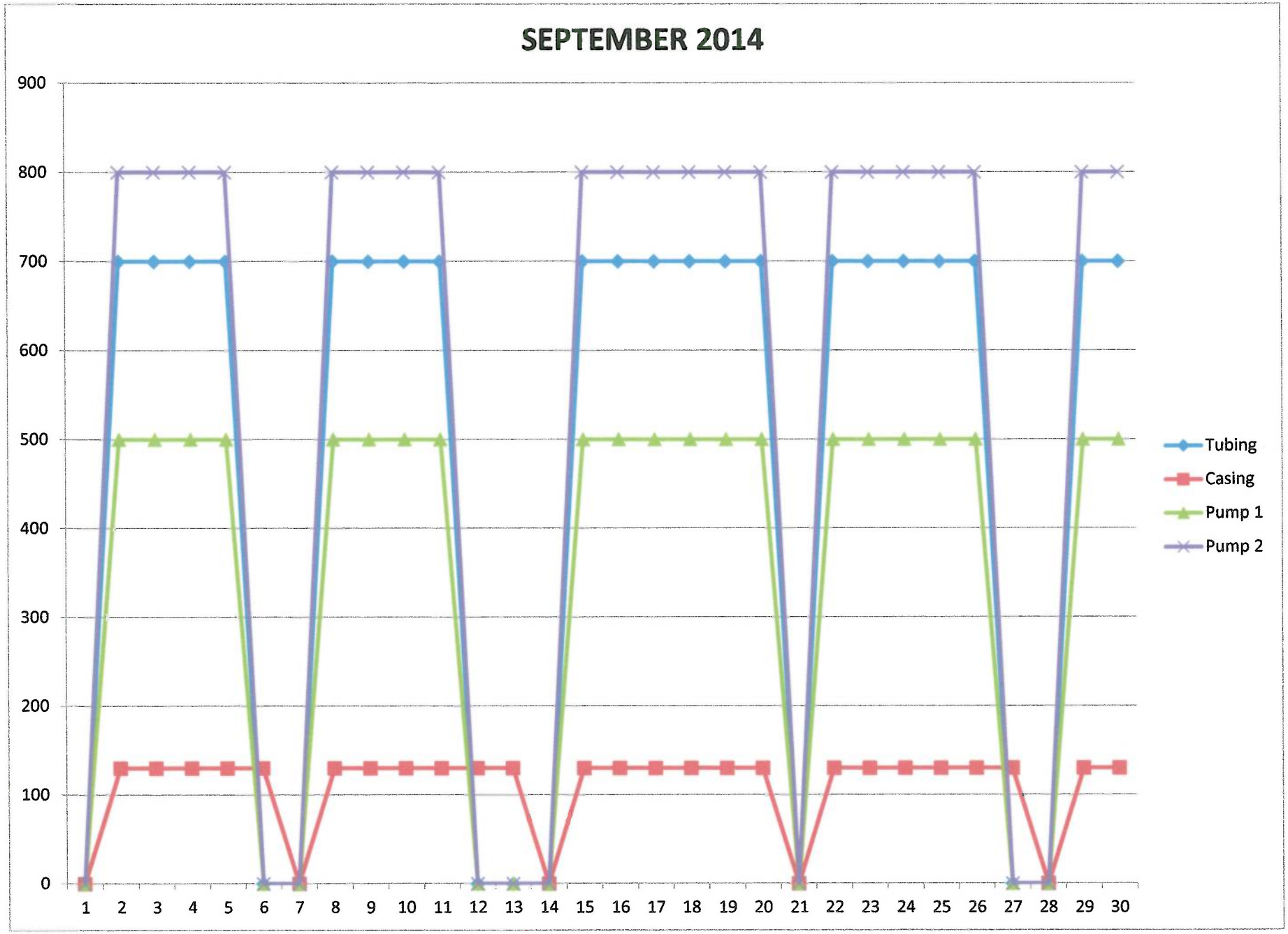
September 2014

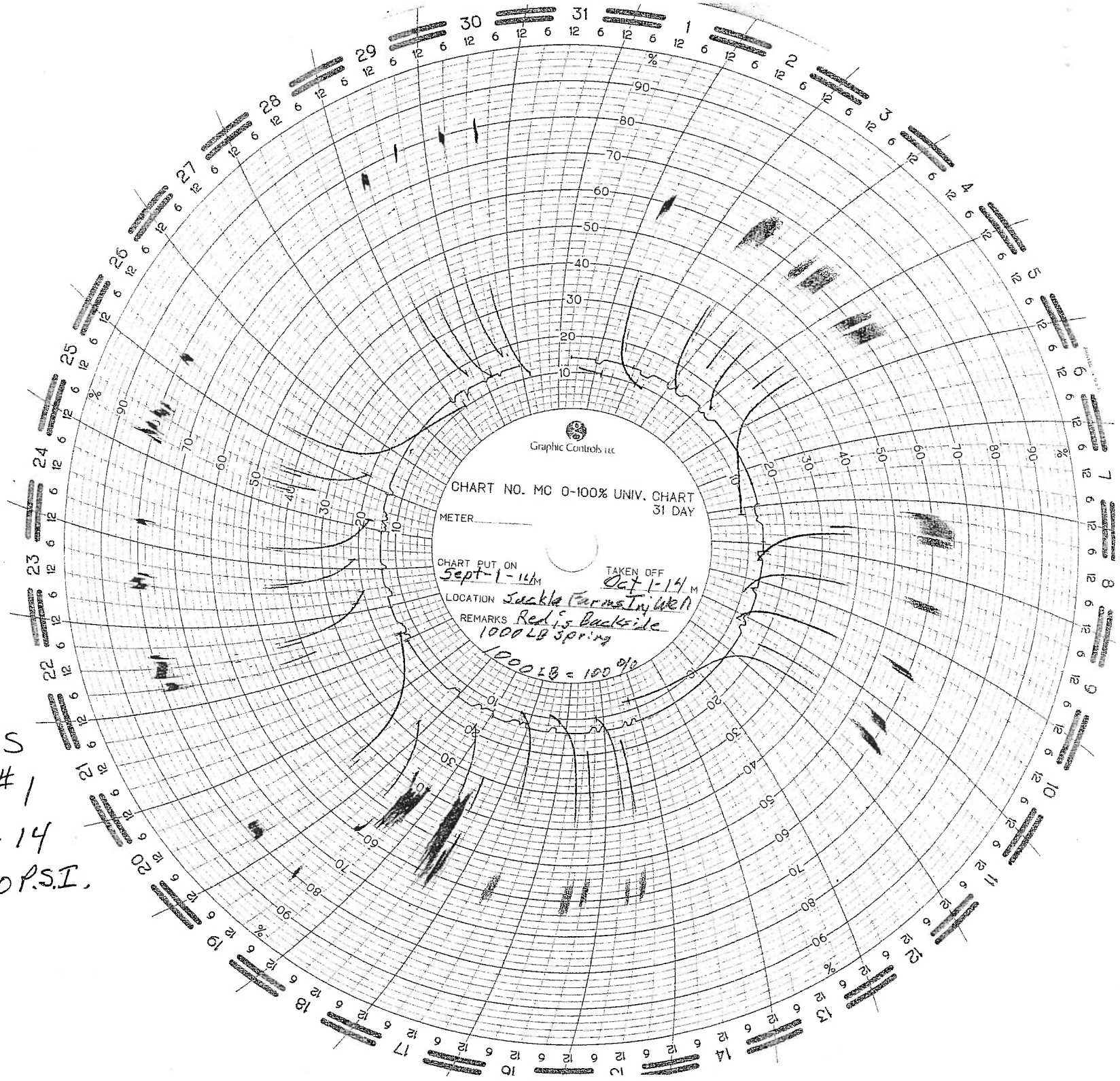
07534	LAMAR, JOHN																						130	70									200
10437	LANSDOWN WM D UNIT D1																									25							25
16883	LEGG 14-22																									25							25
56138	LOEFFLER 1-18																		20														20
67150	LOEFFLER 2-24																		20														20
61685	MARCUS 1																			43													43
56144	MATSUSHIMA 1-5					20						43												40	65								168
23517	MATSUSHIMA 2-6X					20						43												40	65								168
07881	MCCOY PHILLIP #1			20							32																	25					77
08644	MILLARD 1				18														20											25			63
10548	MILLARD 2				17														20											25			62
58709	MILLER 13-5			14															33														47
60572	MILLER A, *CARL A			32		8														15													55
68278	MILLER B #14, *CARL			13															34														47
60559	MILLER E #1, *CARL A			13															33														46
6436	MITCHELL 32-3								37																								37
6440	MITCHELL 32-7									20																							20
67152	MONTGOMERY											18																					18
61697	MOSER #1-A																			43													43
6352	MURPHY 5-2								41																								41
69075A	MUSICK 1-2-4-7								25											20											35		80
69075B	MUSICK 3-5																														15		15
32872	NRC 9-9-15H			61																130													191
6119	NEWLANDER			30						35								40								40							145
34718	NOEL 3-18																			10													10
65003	OWEN															100		80	10														190
08985	PREM TURKEY FARMS B2					12						13																					25
07876	PREM TURKEY FARMS C1					11						14																					25
08943	PREM TURKEY FARMS C2					12						13																					25
62401	ROCKY MOUNTAIN FUEL C 6																			130													130
6377	ROSENFIELD 6-1								27																								27
6381	ROSENFIELD 6-5																								30								30
5791	RUEBEL 1-4				35																												35
4247	SACK G			25																													25
61188	SELTZER 1A										25																						25
15997	SHANNON 24-30								40																								40
12602	SPRAGUE A M A 1			70	17					25	10									25						25							172
7684	STATE 1-26																								35								35
7733	STATE 2-26, 3-26			50		30					50																						130
59380	STERMOLE																							40	20								60
60819A	STREAR, *SIDNEY					25						20														15				15			75
60820	STREAR					25						20														15				15			75
60933	SUCKLA BROWN 17																			44													44
24646	SUNMARKE																		2														2
35079	SUNMARKE 19-28-12																		2														2
35080	SUNMARKE 19-28-11																		2														2
35081	SUNMARKE 19-28-14																		2														2
35082	SUNMARKE 19-28-13																		2														2
02090B	UPRR 23 D 2																							80									80
02091B	UPRR 23 D 4			40	50																												90
61070	UPRR 42 PAN AM AF 1,											40																					40
61047	UPRR 42 PAN AM G															30																	30
61067	UPRR 43 PAN AM I		60								45																						105
61068	UPRR 42 PAN AM N											45																					45
61080	VONASEK																		150														150
62130	WAGNER #1			11																													11
61719	WAGNER #1B			11																5													16
62131	WAGNER #'S 1A & 2A			23																5													28
61095	WALKING, *CARY																			20										10			30
59817	WINGO 2																										260						260
58797	WINGO 1																														25		25
15925	WOOLLEY 13-14			20								33																25					78
66995	WUERTZ 12-3																						40										40
	TOTALS	0	140	716	705	880	0	0	330	271	370	270	504	0	0	355	442	250	560	875	0	0	240	420	340	620	390	50	0	445	250	0	
																																	9423
																																	9423

September 2014

WATTENBERG DAILY EVALUATION SHEET

Date	Time	Injecting Fluid Yes	Injecting Fluid No	Pressured Annulus Yes	Pressured Annulus No	Tubing Pressure	Annulus Pressure	Estimated Barrels Injected (prior 24 hrs)	Ambient Air Temperature (est)	Weather Conditions	Remarks/Summary Prior 24 Hrs.
1	Closed		X	X		Ø	130	Ø			
2	6:00A		X	X		Ø	130	Ø			
3	6:00A		X	X		Ø	130	220			
4	6:00A		X	X		Ø	130	435			
5	6:00A		X	X		Ø	130	613			
6	Closed		X	X		Ø	130	622			
7	Closed		X	X		Ø	130	Ø			
8	6:15A		X	X		Ø	130	Ø			
9	6:15A		X	X		Ø	130	687			
10	6:15A		X	X		Ø	130	174			
11	6:15A		X	X		Ø	130	155			
12	6:15A		X	X		Ø	130	404			
13	Closed		X	X		Ø	130	Ø			
14	Closed		X	X		Ø	130	Ø			
15	6:15A		X	X		Ø	130	Ø			
16	6:15A		X	X		Ø	130	226			
17	6:15A		X	X		Ø	130	349			
18	6:15A		X	X		Ø	130	218			
19	6:15A		X	X		Ø	130	374			
20	6:15A		X	X		Ø	130	372			
21	Closed		X	X		Ø	130	404			
22	6:15A		X	X		Ø	130	Ø			
23	6:15A		X	X		Ø	130	736			
24	6:15A		X	X		Ø	130	334			
25	6:15A		X	X		Ø	130	126			
26	6:15A		X	X		Ø	130	633			
27	Closed		X	X		Ø	130	202			
28	Closed		X	X		Ø	130	Ø			
29	6:15A		X	X		Ø	130	Ø			
30	6:15A		X	X		Ø	130	212			
31											


SEPTEMBER 2014
900
800
700
600
500
400
300
200
100
0
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30
Tubing
Casing
Pump 1
Pump 2



Suckla Farms
Injection Well #1
9-1-14 to 10-1-14
@ 10 % equals 100 P.S.I.