WATTENBERG DISPOSAL, LLC

WORLD TRADE CENTER

1675 BROADWAY, 28TH FLOOR

DENVER, COLORADO 80202-4628

TELEPHONE (303) 825 4822

FACSIMILE (303) 825-4825

WWW.KPK.COM

RECEIVED

JAN 20 2016

Office of Enforcement, Compliance and Environmental Justice (UFO)

January 15, 2016

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

CO10938-02115

RE: Wattenberg Disposal, LLC
Suckla Farms Injection Well #1 – 2015 4th Quarter Report

Dear Mr. Breffle;

Enclosed please find Wattenberg Disposal, LLC's (Wattenberg) Quarterly Injection Report for the period of October 1, 2016 through December 31, 2016, for the Suckla Farms Injection Well #1 facility (facility) located in the SWNW Section 10, T1N, R67W, in Weld County, Colorado.

Monthly analysis of waste fluid stored at the facility performed by Accutest Consulting Services has been included within the attached quarterly report. Comparison of the waste fluid analyses with the established three (3) year baseline has been included within the quarterly report. A slight change in Total Dissolved Solids was observed during the sampling process for October and December, 2015. Additionally, the Semi-Annual Groundwater Monitoring Report by Apex Consulting Services is attached.

Please note that no seismic events with a magnitude of 2.5 or greater were recorded by the U.S. Geological Survey within fifty (50) miles of the 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,

U2 Entered
Date 1/20/16
Initial DB

Susana Lara-Mesa
VP of Engineering

Enclosures

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

	GREEN	BLUE	CBI
TAB		2	

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

EPA

United States Environmental Protection Agency
Washington, DC 20460

Injection Well Monitoring Report

Year 2015	Month	Month	Month
Injection Pressure (PSI)	October	November	December
1. Minimum	800	800	800
2. Average	652	691	646
3. Maximum	800	800	800
Injection Rate (Gal/Min)			
1. Minimum	55	55	55
2. Average	55	55	55
3. Maximum	55	55	55
Annular Pressure (PSI)			
1. Minimum	120	120	120
2. Average	120	120	120
3. Maximum	120	120	120
Injection Volume (Gal)			
1. Monthly Total	631,890	423,444	488,544
2. Yearly Cumulative	4,683,420	5,106,864	5,595,408
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. Cumulative	0	0	0

Name and Address of Permittee		Permit Number
Wattenberg Disposal, LLC, 8979 WCR 22, Ft. Lupton, CO 80621		CO-10938-2115
Name and Official Title *(Please type or print)*	Signature	Date Signed
Renae Patterson, Admin. Asst.	Renae Patterson	1/5/2016

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
60003	1415 CORPORATION C		40																														40
67528	AMEN 1																50																50
61864	A.C.S. 2,5,7,9,10,11,12,14,																						130										130
58368	AMOCO-ENERGY-SMITS U																				35							45					80
192530	BAURER 41-36									17							13						33				43		28		23		157
09813	BECKY		60												10												60						130
59850	BERGER A																					20											20
59850B	BERGER, *JACK & BERG																					20											20
22655	BERNHARDT 7-14								30																								30
22698	BERNHARDT 7-16								30																								30
103500	BRIGGS #1	40													70								80						50				240
61184	BURKHARDT 1																				25												25
61186	BURKHARDT SELTZER																				25												25
60113	CAMENISCH 1							12																									12
23577	CAMENISCH 32-10							12																									12
23579	CAMENISCH 32-9							12																									12
23578	CAMENISCH 32-16							12																									12
26440	CAMENISCH 20-32							12																									12
17451	CARTER 21-33						130								130													130					390
68256	CHAMPLIN 86 AMOCO F 7									40																							40
6825	CHURCH 7A 31-2																													40			40
07615	COSSLETT 1																32																32
09303	COSSLETT 2																33																33
58482	DAMIANA	60																												50			110
07730	DECHANT STATE 1 TO 7																														60		60
60040	DEEPE C. *CARL R																						40										40
07895	DEVORE 1, 2		10													7																	17
07896	DEVORE 2		10													8																	18
09272	DEVORE 3, 4		10													8																	18
09271	DEVORE 4		10													7																	17
07886	DUTCHER ROY UNIT B1																			2													2
08945	DUTCHER ROY UNIT B2																			3													3
08684	DUTCHER C1																			2													2
08899	DUTCHER C2																			3													3
56054	ED KAM 3-28												70																				70
67144	ED KAM 4-33														90	130																	220
194160	EIBERGER 32-36									16							13						34				44		29		24		160
194110	EIBERGER 42-36									17							14						33				43		28		23		158
08391	ELKHORN CO B3		5													5																	10
08694	ELKHORN CO B5		5													5																	10
09488	ELKHORN CO B6		5													5																	10
09489	ELKHORN CO B7		5													5																	10
09490	ELKHORN CO B8		5													5																	10
09491	ELKHORN CO B9		5													5																	10
59268	ENERGY MINERALS A 1																			15													15
16081	EWING 23-30													35																			35
00001	FACILITY 1		130																				130						130				390
00002	FACILITY 2	130						130	100					130		130						130						130		120			1000
00003	FACILITY 3					80							70																				150
00004	FACILITY 4		130							130				130			130										130			120	130		900
00005	FACILITY 5								130				45							130											130		435
00007	FACILITY 7	130								90							130											130			130		610
00008	FACILITY 8									80							130												130				340
0004WA	FACILITY 4WA																												65				65
0004WB	FACILITY 4WB														70														65				135
60095	FINDLAY, *RICHARD R	130						100															130										360
59269	FIRECRACKER						80			80							70											60	70				360
62016	FRISBEE							130																									130
32751	FRONT RANGE 11-17-5												30																				30
32754	FRONT RANGE 11-17-6												30																				30
60100	FUNAKOSHI A 1, 2																												40				40
05869	GAULKE 2												40																				40
62603	GENESIS 3																			40							40						80
60135	GERHARDT MARIE B						40																								30		70
59839	GRANT #'S 1,2,3,4																					45											45
67532	GRAY 1												30																				30
60173	GREELEY NAT'L BANK					80																											80
5869	GUTHRIE 1 & 2	30								40							40							30									140
60192	HALEY TRUSTEE, *JAME	22												14																10			46
60211	HANKS	40																															40
60249	HART UNIT B, MARTIN																											35					35
60268	HART UNIT D																				35												35
60270	HART UNIT F, MARTIN																			15													15
60230	HART, MARTIN T 1,2,3																			15													15
59033	HAUDRICH #1 & 2													50																			50
62020	HEIN 1-2	21												13																10			44
25314	HEPP 31-32												30																				30
58505	HERMAN, ALFRED UT 1, 2		20											25										20							20		85
60290	HERMAN, ALFRED UT B 1		20											25										20							20		85
56134	HILL 3-10																										200						200
58501	HLADKY-O'GORMAN																				15												15
60310	HORST								20																								20
04200	HORTH 1 & 2																												50				50
2199	HOSMER 4-4					130				30																			100				260
60324	HUNZIKER 1						50																								140		190
08777	JILLSON A																						45										45

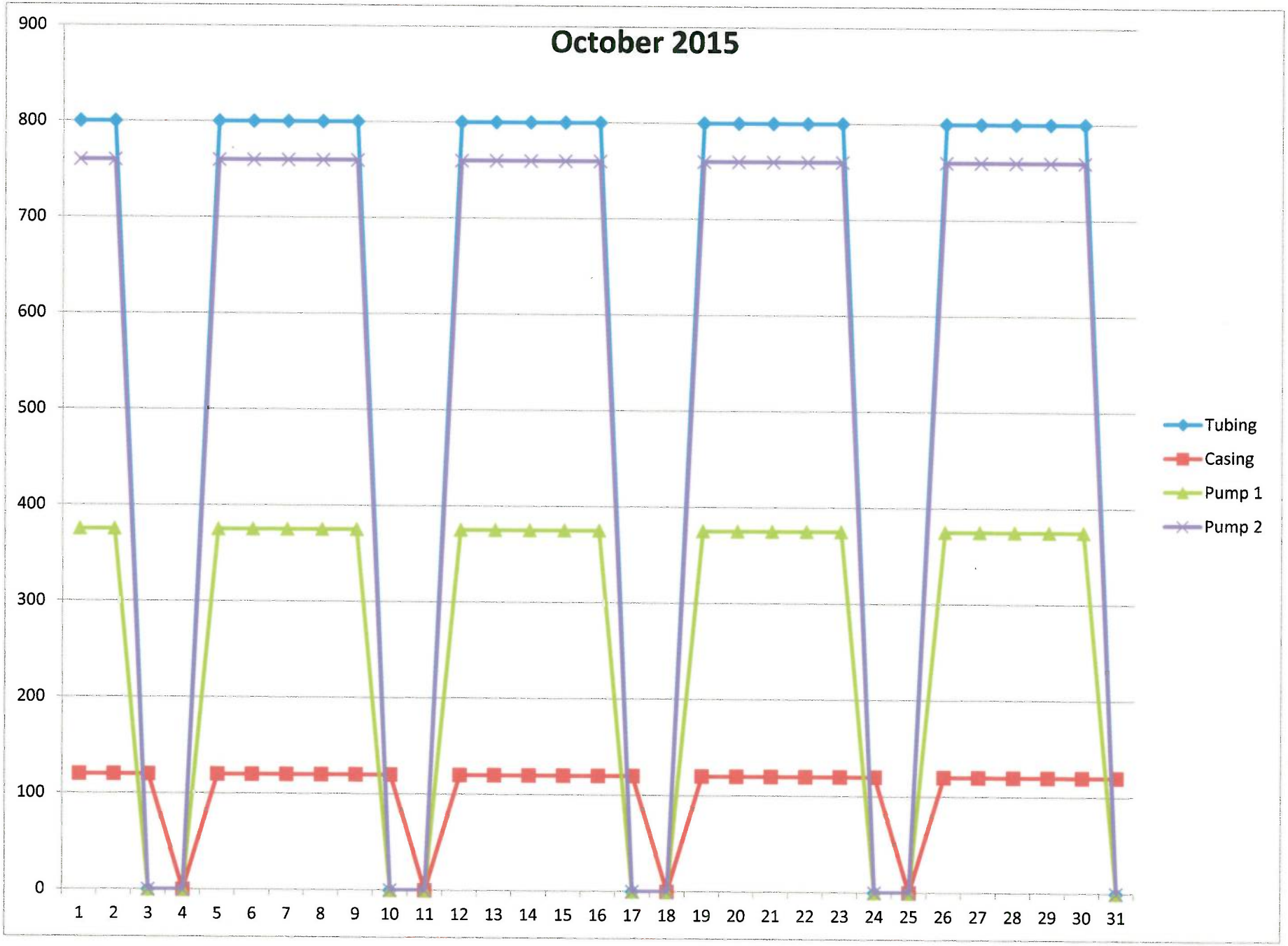
08510	JILLSON BATTERY		40																								45								85
08680	JOHNSON ROLAND 1							20																											20
08896	JOHNSON ROLAND B-1							20																											20
62592	KAMMERZELL 1-9														20																				20
22643	KAMMERZELL 7-4														20																				20
29642	KOESTER 18-33																				13														13
29605	KOESTER 18-33-4																				14														14
29643	KOESTER 18-33-6																				13														13
29606	KOESTER 3-33-3		30																		45							40							115
6080	KORTUM 2A	50																																	50
16116	KUNZMAN 43-6												30																						30
10437	LANSDOWN WM D UNIT D1						20																							25					45
59831	LANSON'S FARM 1-16		80					65												40															185
16883	LEGG 14-22						20																							25					45
56142	LEWIS 1, 1-C															30																			30
56138	LOEFFLER 1-18							60																											60
12183	LOEHR, LARRY R 1						195									80				130								205							610
08030	MAHONE PERRIN 1																		65																65
56144	MATSUSHIMA 1-5																			32															32
23517	MATSUSHIMA 2-6X																			33															33
56141	MATSUSHIMA 3-14						20																												20
23516	MATSUSHIMA 4-19X						20																												20
60477	MCCANNON, VERA 2	20																				35													55
13285	MCCONAHAY 32-34 SX					130											130											130							390
07881	MCCOY PHILLIP #1						20										25													20					65
59071	MCCRUMB #'S 1 & 2												50				20		20																90
67258	MCGILL															70																			70
08644	MILLARD 1						35																					37							72
10548	MILLARD 2						35																					38							73
14594	MILLARD 43-30												80																						80
58709	MILLER 13-5						22																23							27					72
60572	MILLER A, *CARL A	22											13																	10					45
68278	MILLER B #14, *CARL						21																24							26					71
60559	MILLER E #1, *CARL A						22																23							27					72
6341	MITCHELL 32-4															80																			80
6440	MITCHELL 32-7												45																						45
6442	MITCHELL 32-8												30																	30					60
62295	MONFORT 1-29																										60								60
60667	MONTOYA B 1, 2	60																																	60
61697	MOSER #1-A																40																		40
6352	MURPHY 5-2																30																		30
69075A	MUSICK 1-2-4-7										20		30																						50
69075B	MUSICK 3-5				40														40								30								110
32872	NRC 9-9-15H				40																														40
08017	NEFF 1 & 2																				60														60
6119	NEWLANDER	30							40								30						30												130
60691	NUCON 21-12						130													350															480
09311	PACE CONNELLY 1																									80									80
08074	PARKER 1 & 2																										80			80					160
56058	PHELPS 3-26		20																																20
259619	ROCKY MOUNTAIN FUEL 9-8							10								52				12											10				84
60762	ROCKY MTN FUEL CO C 7&8							10								53				13											10				86
68126	ROCKY MTN FUEL CO C 4, 10							20								65				25											20				130
6377	ROSENFIELD 6-1												35																	30					65
6381	ROSENFIELD 6-5																													30					30
60790	SCHUTT							20																											20
15997	SHANNON 24-30												35																						35
20008	SHAW 15-20																										25								25
20133	SHAW 16-20																										25								25
7733	STATE 2-26, 3-26	50																																	50
6741	STATE 14-22	27																																	27
6746	STATE 14-31	26																																	26
6515	STATE 14-32	27																																	27
7676	STATE 32-26																30																		30
59380	STERMOLE	70																												40					110
60819A	STREAR, *SIDNEY						60								10													17							87
60820	STREAR														10													18							28
66643	STROH #2							14																											14
24147	STROH 28-16							14																											14
26308	STROH 15-28							14																											14
24238	STROH 28-9							14																											14
24237	STROH 28-10							14																											14
60933	SUCKLA BROWN 17																									35									35
60838	SUCKLA A UNIT 1&2	13																									15								28
60895	SUCKLA D UNIT 1&2	14																									15								29
60952	SUCKLA FARMS C 2&3	13																									15								28
35079	SUNMARKE 19-28-12																										80								80
09559	TANG 1 SX	30	10																																40
07636	TEETS PERRIN		80		20																														100
58653	TWOMBLEY B, *MARGARE												50																						50
02091B	UPRR 23 D 4																									50									50
02113	UPRR 24 C																									30									30
61070	UPRR 42 PAN AM AF 1,							60																											60
61047	UPRR 42 PAN AM G																				40														40
58691	UPRR 42 PAN AM K							40																							40				80
61068	UPRR 42 PAN AM N						45																50												95
61067	UPRR 43 PAN AM I		60												80					60						60									260
67770	R. VINCENT J 3															60			115	65			80				50				40				410

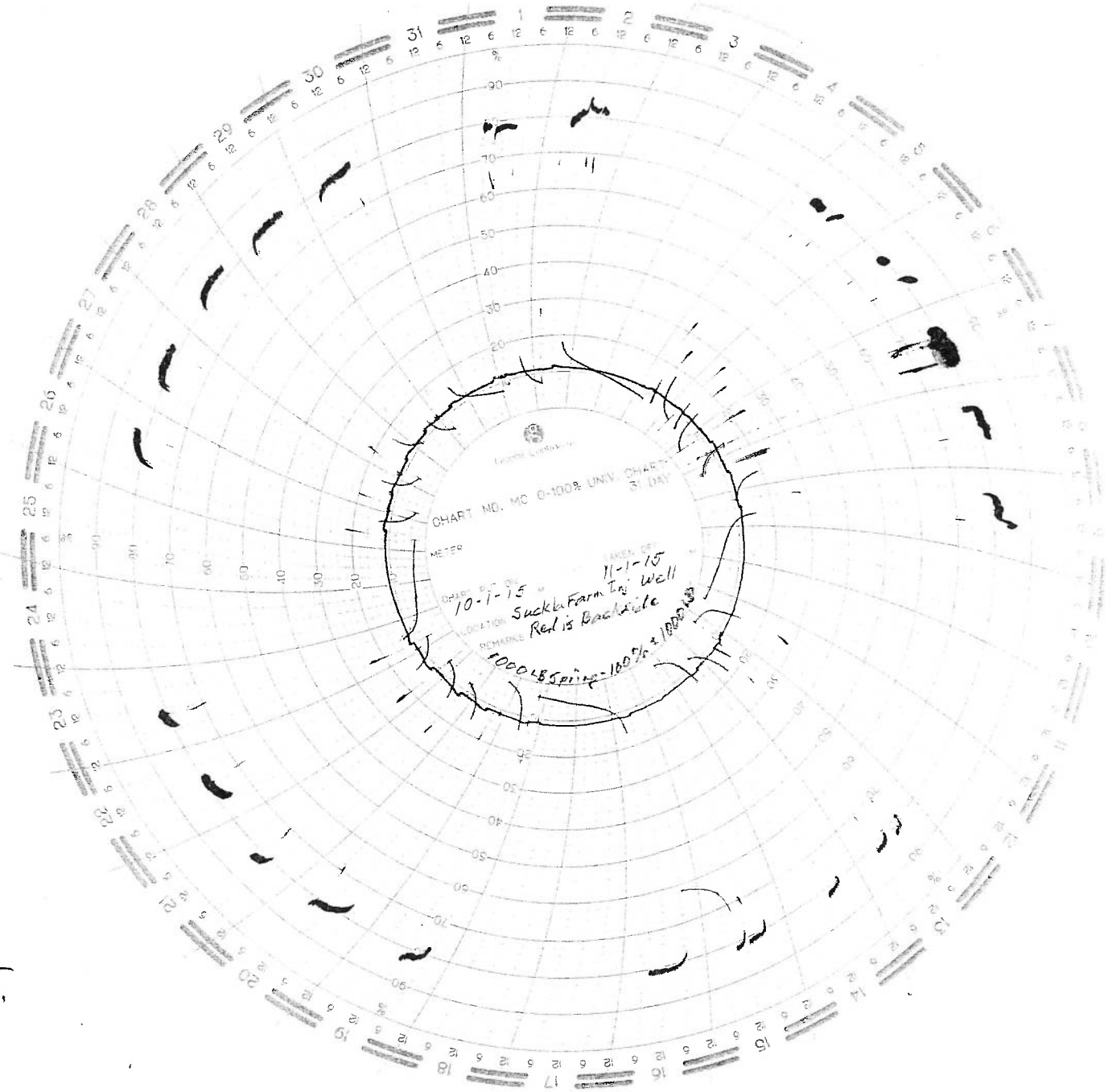
62130	WAGNER #1																			7													7
61719	WAGNER #1B																			8													8
62131	WAGNER #'S 1A & 2A																			15													15
61095	WALKING, *CARY																			15													15
61104	WELD COUNTY																										40						40
61123	WIKSTRAND						60							50						45								40					195
58797	WINGO 1		70																														70
15925	WOOLEY 13-14							20									25												20				65
61142	YURK													40																			40
	TOTALS	1055	860	0	0	390	530	1065	705	580	0	0	365	910	510	810	385	0	0	465	985	400	690	300	0	0	1000	1055	1080	740	850	0	
																																	16330
																																	16330

WATTENBERG DAILY EVALUATION SHEET

October 2015

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	6:15A		X	X		Ø	120	800			
2	6:15A		X	X		Ø	120	761			
3	Closed		X	X		Ø	120	921			
4	Closed		X	X		Ø	120	Ø			
5	6:00A		X	X		Ø	120	Ø			
6	6:15A		X	X		Ø	120	474			
7	6:15A		X	X		Ø	120	360			
8	6:00A		X	X		Ø	120	772			
9	6:15A		X	X		Ø	120	842			
10	Closed		X	X		Ø	120	763			
11	Closed		X	X		Ø	120	Ø			
12	6:00A		X	X		Ø	120	Ø			
13	6:15A		X	X		Ø	120	101			
14	6:00A		X	X		Ø	120	695			
15	6:00A		X	X		Ø	120	423			
16	6:00A		X	X		Ø	120	772			
17	Closed		X	X		Ø	120	919			
18	Closed		X	X		Ø	120	Ø			
19	5:45A		X	X		Ø	120	Ø			
20	6:00A		X	X		Ø	120	581			
21	6:15A		X	X		Ø	120	778			
22	6:15A		X	X		Ø	120	289			
23	6:00A		X	X		Ø	120	659			
24	Closed		X	X		Ø	120	329			
25	Closed		X	X		Ø	120	Ø			
26	6:15A		X	X		Ø	120	Ø			
27	6:00A		X	X		Ø	120	691			
28	6:45A		X	X		Ø	120	974			
29	4:45A		X	X		Ø	120	954			
30	4:30A		X	X		Ø	120	1058			
31	Closed		X	X		Ø	120	949			


October 2015
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



Suckle Farms
Injection Well #1
10-1-15 to 11-1-15
@ 10% equals 100 P.S.I.

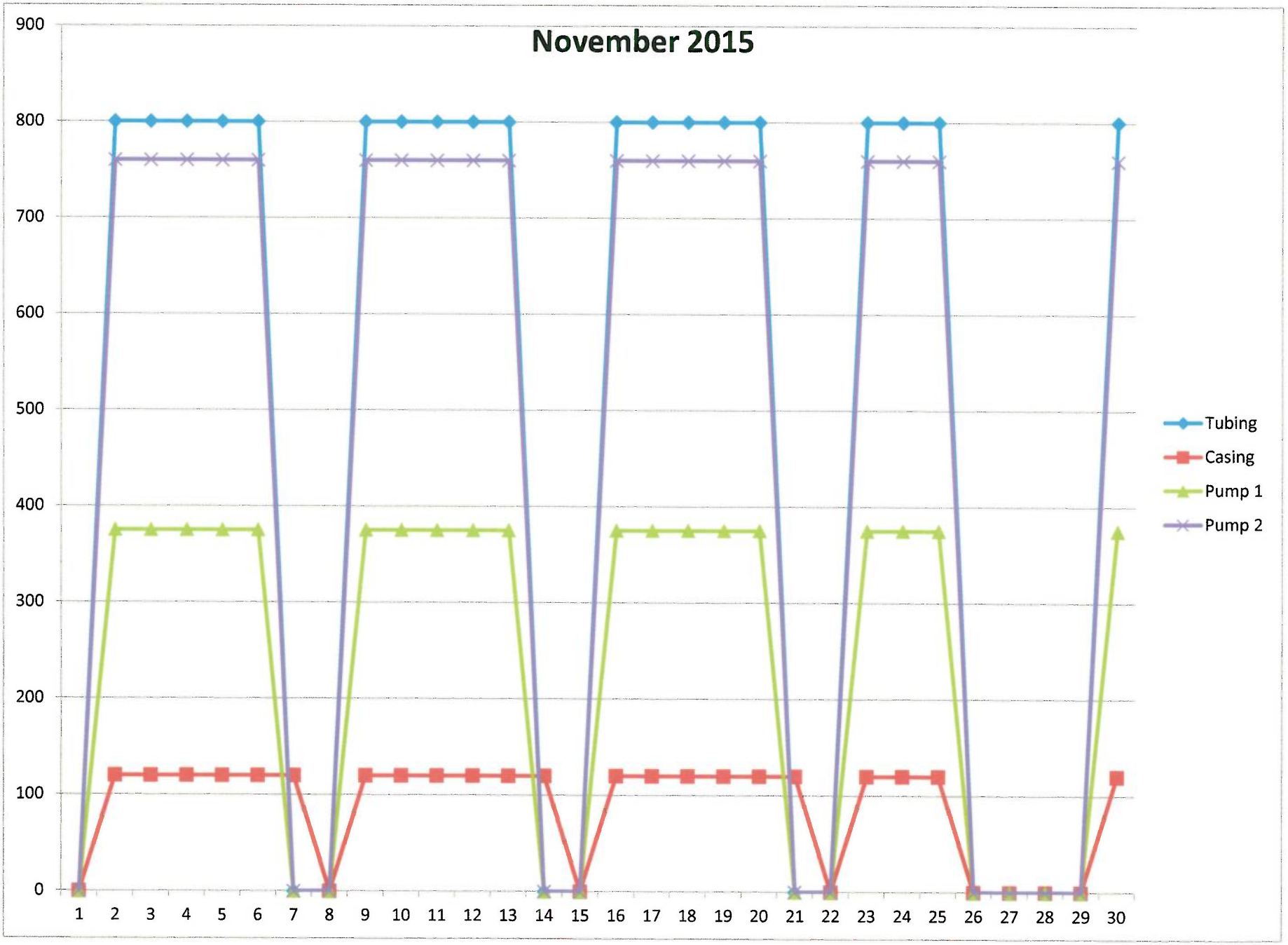
LEASE #	LEASE NAME	DATE 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	LEASE TOTALS
60002	1415 CORPORATION B																	18															18
60093	1415 CORPORATION G																	17															17
61864	A.C.S. 2,5,7,9,10,11,12,14,												35												100								135
58368	AMOCO-ENERGY-SMITS U												50																				50
61450	ANDERSON 1, 2				40																												40
17450	ANDERSON			25		37							20							22											37		141
192530	BAURER 41-36				40					35				13			43				33					30							194
09813	BECKY																60																60
59850B	BERGER, *JACK & BERG													30																			30
08746	BRAND 1													110																			110
103500	BRIGGS #1					50															70												120
24571	CAMENISCH 2-32																								18								18
24591	CAMENISCH 8-32																								17								17
24569	CAMENISCH 41-32																								17								17
24704	CAMENISCH 50-32																								18								18
17451	CARTER 21-33			130						130										130						130							520
58463	CHRISTENSEN UNIT, *N																								18								18
58444	CHRISTENSEN, *NELS																								17								17
07730	DECHANT STATE 1 TO 7						65							60										90									215
60040	DEEPE C, *CARL R					40						30									35					30							135
07895	DEVORE 1, 2						10																										10
07896	DEVORE 2						10																										10
09272	DEVORE 3, 4						10																										10
09271	DEVORE 4						10																										10
07886	DUTCHER ROY UNIT B1																								12								12
08945	DUTCHER ROY UNIT B2																								13								13
08684	DUTCHER C1																								12								12
08899	DUTCHER C2																								13								13
56054	ED KAM 3-28																								60								60
67144	ED KAM 4-33																				60												60
194160	EIBERGER 32-36				40					35				14			43				34					30							196
194110	EIBERGER 42-36				40					35				13			44				33					30							195
08391	ELKHORN CO B3					7								3						7					6								23
08694	ELKHORN CO B5					7								4						6					5								22
09488	ELKHORN CO B6					6								3						7					6								22
09489	ELKHORN CO B7					7								4						6					6								23
09490	ELKHORN CO B8					6								3						7					6								22
09491	ELKHORN CO B9					7								3						7					6								23
59268	ENERGY MINERALS A 1												13																				13
16081	EWING 23-30																	40															40
00002	FACILITY 2			130		10					20	130						130								130							550
00003	FACILITY 3																							40	80								120
00004	FACILITY 4						130					130		130										130		130							650
00005	FACILITY 5						130							130							130												390
00007	FACILITY 7				120																100										15		235
00008	FACILITY 8				130							130									130												390
0004WB	FACILITY 4WB			45	80					80																80							285
59269	FIRECRACKER						60										50																110
62016	FRISBEE										130																						130
32751	FRONT RANGE 11-17-5		30																		35												65
32754	FRONT RANGE 11-17-6		30																		35												65
05869	GAULKE 2						260																										260
62603	GENESIS 3				45									40										40									125
60135	GERHARDT MARIE B																	35															35
59839	GRANT #'S 1,2,3,4																30																30
60173	GREELEY NAT'L BANK																									50							50
60192	HALEY TRUSTEE, *JAME																				14					6							20
60270	HART UNIT F, MARTIN												13																				13
60230	HART, MARTIN T 1,2,3												14																				14
59033	HAUDRICH #1 & 2				45																												45
62020	HEIN 1-2																				13					7							20
58505	HERMAN, ALFRED UT 1, 2						23						20							18					15								76
60290	HERMAN, ALFRED UT B 1						22						20							17					15								74
56134	HILL 3-10																														30		30
60310	HORST												23																				23
2199	HOSMER 4-4																								45								45
60324	HUNZIKER 1												115																				115
60323	JEFFERS																				390												390
08777	JILLSON A										40																						40
08510	JILLSON BATTERY																30																30
59592	JOHNSON #'S 1 & 2				40																												40
29605	KOESTER 18-33-4																	22															22
29643	KOESTER 18-33-6																	23															23
29606	KOESTER 3-33-3																	45								40							85
31483	KNUDSEN		100																														100
16116	KUNZMAN 43-6																							10									10
07666	KUNZMAN A 1																							10									10
09296	KUNZMAN A 2																							10									10
09719	KUNZMAN A 4																							10									10
10437	LANSDOWN WM D UNIT D1									25	8																						33
59831	LANSON'S FARM 1-16																40								45								85
16883	LEGG 14-22									25	7																						32
12183	LOEHR, LARRY R 1										185										30												215

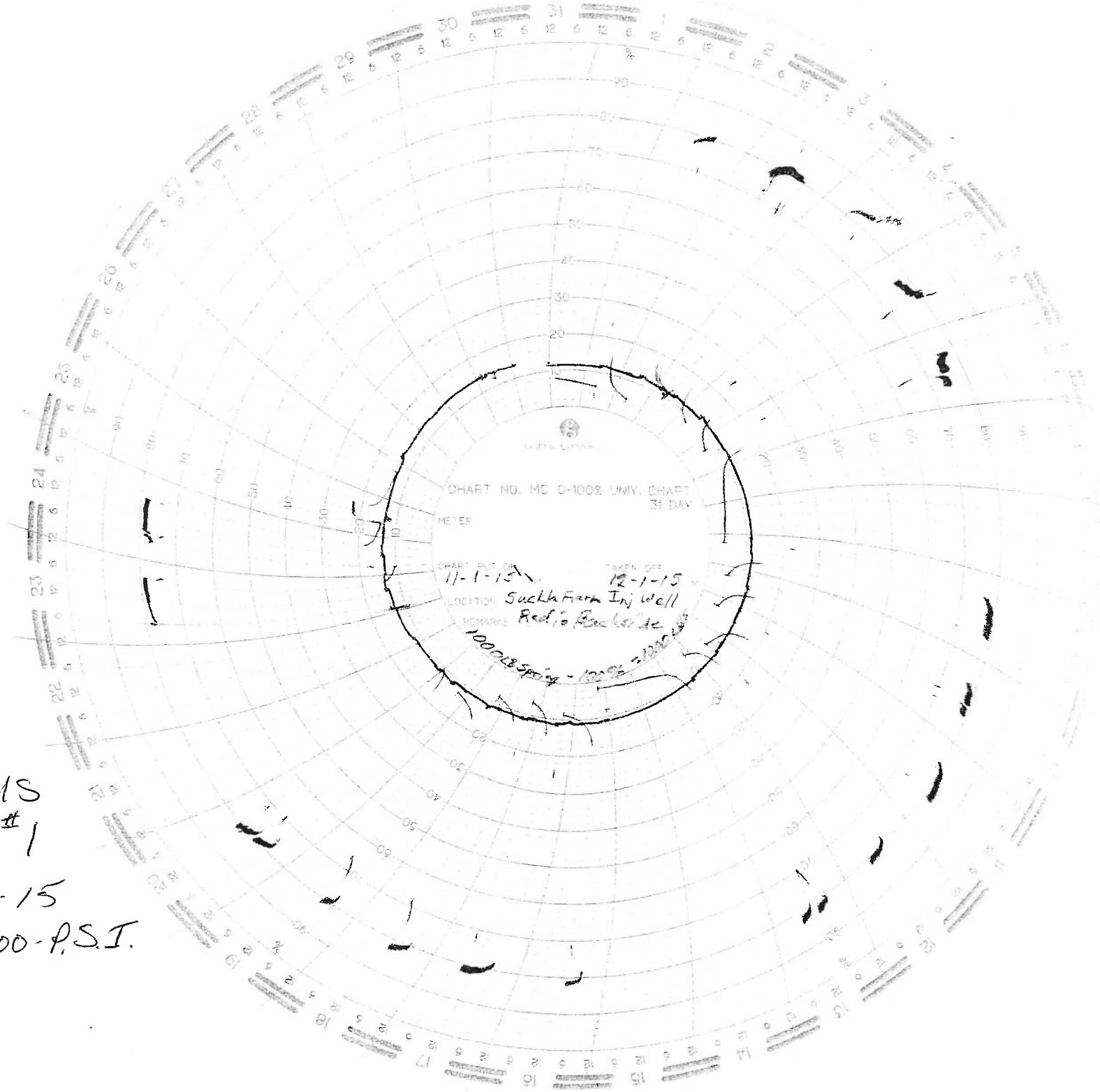
56141	MATSUSHIMA 3-14													20																			20
23516	MATSUSHIMA 4-19X													20																			20
60477	MCCANNON, VERA 2												30						110														140
13285	MCCONAHAY 32-34 SX			120														80						130									330
07881	MCCOY PHILLIP #1						25												40														65
59071	MCCRUMB #'S 1 & 2				40															45													85
60553	MCHALE																		130														130
61487	MEREDITH										20														45								45
08644	MILLARD 1										20														18								38
10548	MILLARD 2																								17								37
14594	MILLARD 43-30			60																													60
58709	MILLER 13-5					27	22				23														13						22		107
60572	MILLER A, *CARL A																				13					7							20
68278	MILLER B #14, *CARL					27	21				24														14						22		108
60559	MILLER E #1, *CARL A					26	22				23														13						21		105
60610	MILLER, DONALD B 3												130													100							230
67152	MONTGOMERY 1-27				35																												35
60648	MONTOYA 1, 2												35																				35
61697	MOSER #1-A										30																						30
69075A	MUSICK 1-2-4-7		30																					10									40
69075B	MUSICK 3-5		40											40										30									110
32872	NRC 9-9-15H			65															65														130
6119	NEWLANDER			45													50																95
34718	NOEL 3-18				45																												45
08074	PARKER 1 & 2									70																							70
259619	ROCKY MOUNTAIN FUEL 9-8									10										10													20
60762	ROCKY MTN FUEL CO C 7&8									10										10													20
68126	ROCKY MTN FUEL CO C 4, 10									20										10													30
60790	SCHUTT												22																				22
15997	SHANNON 24-30																	40															40
12602	SPRAGUE A M A 1			25		38							20							23											38		144
59375	STATE 9																							40									40
6741	STATE 14-22																							43									43
6746	STATE 14-31																							44									44
6515	STATE 14-32																							43									43
60819A	STREAR, *SIDNEY																	5							23								28
60820	STREAR																	5							22								27
66643	STROH #2																									12							12
24147	STROH 28-16																									12							12
26308	STROH 15-26																									12							12
24238	STROH 28-9																									12							12
24237	STROH 28-10																									12							12
62594	STRONG 2-8						70																										70
60933	SUCKLA BROWN 17																									30							30
60838	SUCKLA A UNIT 1&2																12																12
60895	SUCKLA D UNIT 1&2																11																11
60952	SUCKLA FARMS C 2&3																12																12
5799	TIPPETT 6-4									130																							130
58653	TWOMBLEY B, *MARGARE																		50						30								80
61047	UPRR 42 PAN AM G																				35												35
61068	UPRR 42 PAN AM N																	50															50
61067	UPRR 43 PAN AM I						70																		80								150
67770	R. VINCENT J 3					45						40														30					50		165
68295	VINCENT A					45																											45
62130	WAGNER #1																								10								10
61719	WAGNER #1B																								10								10
62131	WAGNER #'S 1A & 2A																								20								20
61104	WELD COUNTY												90																				90
61123	WIKSTRAND						20													20													40
15925	WOOLEY 13-14						25												40														65
	TOTALS	0	230	645	740	385	1005	0	0	605	530	460	650	640	0	0	425	510	435	345	1190	0	0	880	865	920	0	0	0	0	235	0	
																																	11495
																																	11495

November 2015

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	120	Ø			
2	6:00A		X	X		Ø	120	Ø			
3	6:00A		X	X		Ø	120	441			
4	6:00A		X	X		Ø	120	609			
5	6:00A		X	X		Ø	120	781			
6	6:15A		X	X		Ø	120	469			
7	Closed		X	X		Ø	120	509			
8	Closed		X	X		Ø	120	Ø			
9	6:00A		X	X		Ø	120	Ø			
10	6:30A		X	X		Ø	120	607			
11	6:15A		X	X		Ø	120	469			
12	6:00A		X	X		Ø	120	689			
13	6:00A		X	X		Ø	120	449			
14	Closed		X	X		Ø	120	422			
15	Closed		X	X		Ø	120	Ø			
16	6:00A		X	X		Ø	120	Ø			
17	6:00A		X	X		Ø	120	364			
18	6:15A		X	X		Ø	120	510			
19	6:00A		X	X		Ø	120	416			
20	6:00A		X	X		Ø	120	329			
21	Closed		X	X		Ø	120	742			
22	Closed		X	X		Ø	120	Ø			
23	6:00A		X	X		Ø	120	Ø			
24	5:00A		X	X		Ø	120	844			
25	7:00A		X	X		Ø	120	679			
26	Closed		X	X		Ø	120	429			
27	Closed		X	X		Ø	120	Ø			
28	Closed		X	X		Ø	120	Ø			
29	Closed		X	X		Ø	120	Ø			
30	7:00A		X	X		Ø	120	Ø			
31											


November 2015
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
11-1-15 to 12-1-15
@ 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
58368	AMOCO-ENERGY-SMITS U		50															40															90
61450	ANDERSON 1, 2								50																								50
17450	ANDERSON							20								20			15					20							20		95
192530	BAURER 41-36	40	20		13					37								43							40					33			226
09813	BECKY																					50											50
59850	BERGER A																	20															20
59850B	BERGER, *JACK & BERG																	20															20
103500	BRIGGS #1																							60									60
60113	CAMENISCH 1									8																							8
23577	CAMENISCH 32-10									8																							8
23579	CAMENISCH 32-9									8																							8
23578	CAMENISCH 32-16									8																							8
26440	CAMENISCH 20-32									8																							8
17451	CARTER 21-33	70						130									110						120										430
09163	COBURN CLEMENTINE 1										20							20						20								23	83
09593	COBURN CLEMENTINE B1										20							20						20								22	82
09032	DACONO 1,2,3																	30															30
07730	DECHANT STATE 1 TO 7														80										80								160
60040	DEEPE C, *CARL R																	50															50
07895	DEVORE 1, 2			7																													7
07896	DEVORE 2			8																													8
09272	DEVORE 3, 4			7																													7
09271	DEVORE 4			8																													8
62611	ED KAM 1-21																						40										40
67144	ED KAM 4-33											70																					70
194160	EIBERGER 32-36	40	20		14					36								43							40					34			227
194110	EIBERGER 42-36	40	20		13					37								44							40					33			227
08391	ELKHORN CO B3									7														7									14
08694	ELKHORN CO B5									7														6									13
09488	ELKHORN CO B6									6														7									13
09489	ELKHORN CO B7									7														6									13
09490	ELKHORN CO B8									7														7									14
09491	ELKHORN CO B9									6														7									13
59268	ENERGY MINERALS A 1																	13															13
00001	FACILITY 1	80							80									130													120		410
00002	FACILITY 2	130						60	130						80		130						130							120	130		910
00003	FACILITY 3								80			80																					160
00004	FACILITY 4	80													110							40	130		130					130	130	130	880
00005	FACILITY 5								130													130											260
00007	FACILITY 7				60												130							130									320
00008	FACILITY 8		130																130														260
0004WB	FACILITY 4WB								80													75										80	235
69064	FEDERAL WILDHORSE 15-31																	100															100
60095	FINDLAY, *RICHARD R																														130		130
59269	FIRECRACKER														85							80			60					80		40	325
32762	FRONT RANGE 11-17-7											30																					30
32755	FRONT RANGE 11-17-8											30																					30
60100	FUNAKOSHI A 1, 2	50																															50
62608	GENESIS 1	50																															50
62603	GENESIS 3							50																									50
60135	GERHARDT MARIE B									50		40							50														140
59839	GRANT #'S 1,2,3,4											40																					40
60173	GREELEY NAT'L BANK																								50								50
5869	GUTHRIE 1 & 2									40																							40
60192	HALEY TRUSTEE, *JAME										13																						13
60211	HANKS															40																	40
60249	HART UNIT B, MARTIN																								25								25
60268	HART UNIT D											40																					40
60270	HART UNIT F, MARTIN																	14															14
60230	HART, MARTIN T 1,2,3																	13															13
59033	HAUDRICH #1 & 2		40																														40
62020	HEIN 1-2										14																						14
58505	HERMAN, ALFRED UT 1, 2		20									25												20							20		85
60290	HERMAN, ALFRED UT B 1		20									25												20							20		85
60310	HORST											10							15					20									45
04200	HORTH 1 & 2																							40									40
60323	JEFFERS		280																						25								305
08777	JILLSON A																					40											40
29606	KOESTER 3-33-3				50																	40								40			130
6080	KORTUM 2A				20													80															100
10437	LANSDOWN WM D UNIT D1																10																10
59831	LANSON'S FARM 1-16								50																								50
16883	LEGG 14-22																10																10
56144	MATSUSHIMA 1-5	40																															40
23517	MATSUSHIMA 2-6X	40																															40
56141	MATSUSHIMA 3-14																					25											25
23516	MATSUSHIMA 4-19X																					25											25
60477	MCCANNON, VERA 2																50																50
60498	MCCANNON 2		40		30																												70
13285	MCCONAHAY 32-34 SX									130													130										260
07881	MCCOY PHILLIP #1			25								20																	20				65
59071	MCCRUMB #'S 1 & 2									40																				50			90
61487	MEREDITH				50																												50

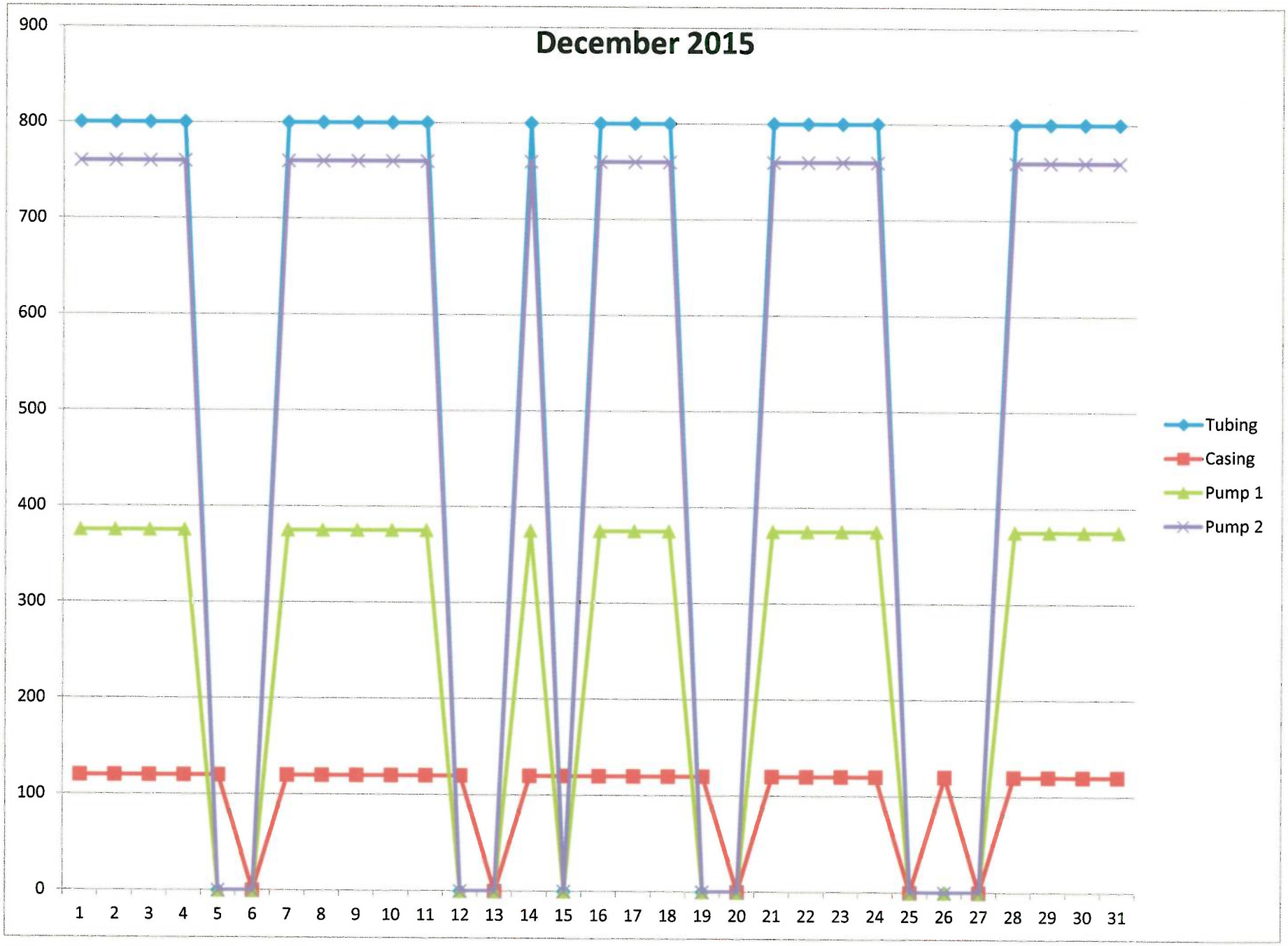
14594	MILLARD 43-30									100																								100
58709	MILLER 13-5								23										13					10								15	61
60572	MILLER A, *CARL A										13																						13
68278	MILLER B #14, *CARL								24										14					10								15	63
60559	MILLER E #1, *CARL A								23										13					10								15	61
60610	MILLER, DONALD B 3																						80										80
62295	MONFORT 1-29											40																					40
67152	MONTGOMERY 1-27			40																												30	70
61697	MOSER #1-A									50																							50
69075A	MUSICK 1-2-4-7		20																														20
69075B	MUSICK 3-5		50					30											55										40			175
32872	NRC 9-9-15H									55									30					40						60		185
08017	NEFF 1 & 2																70																70
6119	NEWLANDER									40							40							40									120
34718	NOEL 3-18																						40										40
65003	OWEN																											70					70
09311	PACE CONNELLY 1																				60												60
259619	ROCKY MOUNTAIN FUEL 9-8													12		10			10		10			10	10			12					74
60762	ROCKY MTN FUEL CO C 7&8																															12	12
68126	ROCKY MTN FUEL CO C 4, 10													25		20			20		20			20	20			25			25	175
60762	ROCKY MTN FUEL C 8													13		10			10		10			10	10			13			13	89
6377	ROSENFIELD 6-1										80																						80
60790	SCHUTT											10							15					20									45
12602	SPRAGUE A M A 1							20							20				15					20						20			95
59375	STATE 3													40																			40
59375	STATE 9																						350										350
60819A	STREAR, *SIDNEY																											20					20
60820	STREAR																											20					20
60933	SUCKLA BROWN 17																						50										50
60838	SUCKLA A UNIT 1&2		17																													13	30
60895	SUCKLA D UNIT 1&2		16																													14	30
60952	SUCKLA FARMS C 2&3		17																													13	30
35079	SUNMARKE 19-28-12				18																												18
35080	SUNMARKE 19-28-11				17																												17
35081	SUNMARKE 19-28-14				18																												18
35082	SUNMARKE 19-28-13				17																												17
5797	TIPPETT 6-2	35																															35
5799	TIPPETT 6-4	40																															40
60997	TOTEMS, LAWRENCE 1									40																							40
61070	UPRR 42 PAN AM AF 1,		40																														40
61009	UPRR 42 E 3										130																						130
61047	UPRR 42 PAN AM G																													40			40
58691	UPRR 42 PAN AM K		40																										5				45
61068	UPRR 42 PAN AM N																								40								40
61067	UPRR 43 PAN AM I													65					40														105
67770	R. VINCENT J 3			50				40			50			50			50				40												280
62130	WAGNER #1										12													7									19
61719	WAGNER #1B										13													8									21
62131	WAGNER #'S 1A & 2A										25													15									40
61123	WIKSTRAND			40								30																					70
66832	WIND 1							70																									70
15925	WOOLEY 13-14			25								20																20					65
	TOTALS	735	840	210	320	0	0	420	670	775	390	510	0	0	540	80	590	730	445	0	0	645	1070	580	600	0	0	0	200	565	690	460	
																																	12065
																																	12065

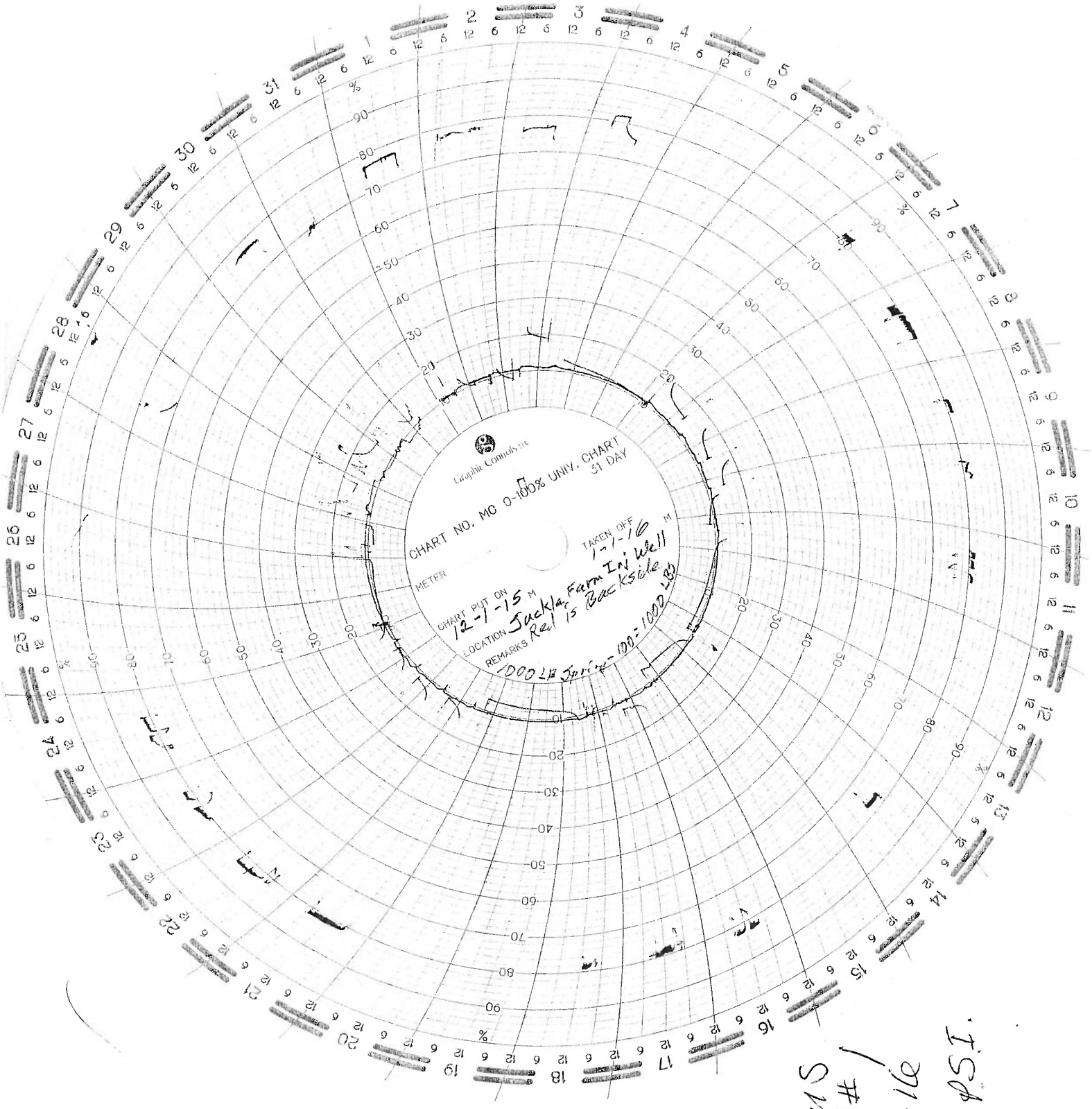
LEASE #	LEASE NAME	DATE 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	LEASE TOTALS
																																	0
	ANGI ALLES RECEIVER																																0
G018	BERTHOUD BOOSTER																																0
	CDP 7 RECEIVER																																0
G012	EATON PLANT																																0
G033	ENTERPRISE BOOSTER																																0
G009	GREELEY OFFICE																																0
G011	GREELEY PLANT																																0
	JODY BOOSTER																																0
G018	JOHNSTOWN BOOSTER																																0
	KEENESBURG LAUNCH																																
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											130																					130
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	130	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	130
																																	130

WATTENBERG DAILY EVALUATION SHEET

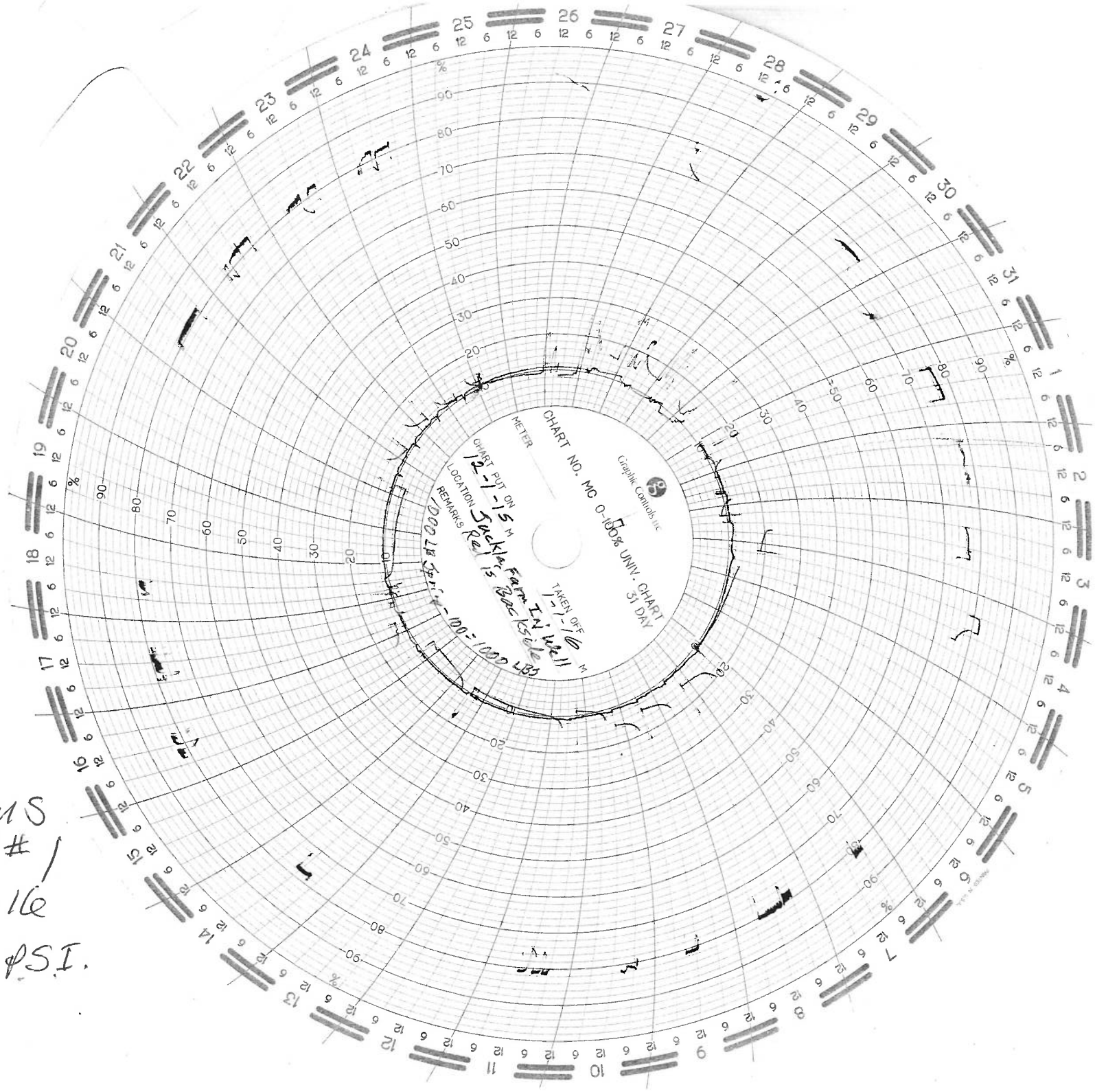
December 2015

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	6:00A		X	X		Ø	120	324			
2	6:00A		X	X		Ø	120	651			
3	6:00A		X	X		Ø	120	710			
4	6:00A		X	X		Ø	120	569			
5	Closed		X	X		Ø	120	327			
6	Closed		X	X		Ø	120	Ø			
7	6:00A		X	X		Ø	120	Ø			
8	6:00A		X	X		Ø	120	325			
9	6:00A		X	X		Ø	120	973			
10	6:00A		X	X		Ø	120	392			
11	6:00A		X	X		Ø	120	414			
12	Closed		X	X		Ø	120	553			
13	Closed		X	X		Ø	120	Ø			
14	6:00A		X	X		Ø	120	Ø			
15	6:15A		X	X		Ø	120	479			
16	6:15A		X	X		Ø	120	Ø			
17	6:15A		X	X		Ø	120	566			
18	6:30A		X	X		Ø	120	724			
19	Closed		X	X		Ø	120	210			
20	Closed		X	X		Ø	120	Ø			
21	6:00A		X	X		Ø	120	Ø			
22	6:15A		X	X		Ø	120	962			
23	6:30A		X	X		Ø	120	802			
24	6:15A		X	X		Ø	120	698			
25	Closed		X	X		Ø	120	635			
26	Closed		X	X		Ø	120	Ø			
27	Closed		X	X		Ø	120	Ø			
28	6:15A		X	X		Ø	120	Ø			
29	6:15A		X	X		Ø	120	144			
30	6:15A		X	X		Ø	120	168			
31	6:00A		X	X		Ø	120	752			

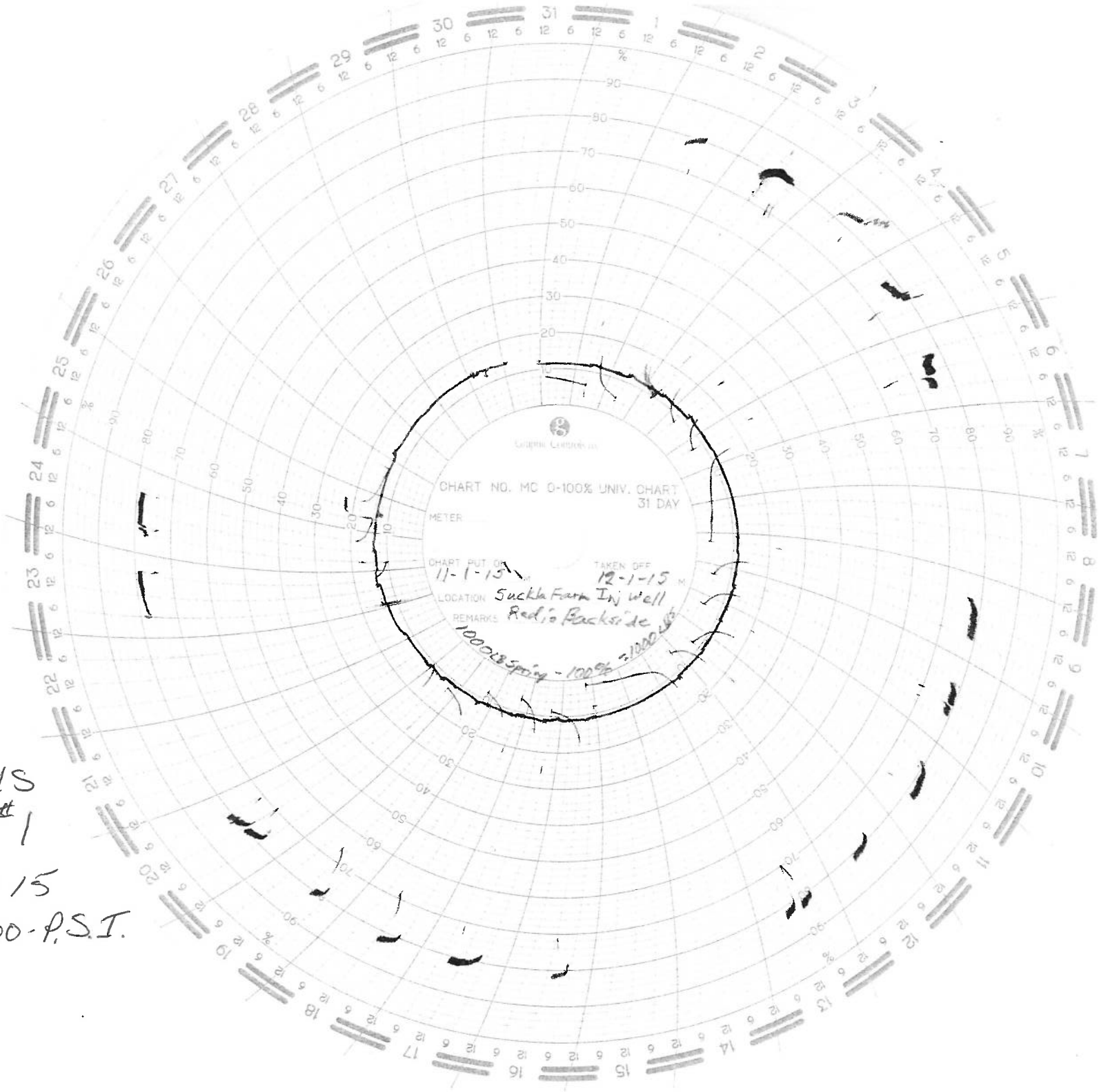

December 2015
900
800
700
600
500
400
300
200
100
0
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31
Tubing
Casing
Pump 1
Pump 2



Suckla Farms
Injection Well #1
12-1-15 to 1-1-16
@ 10% equals 100 PSI.

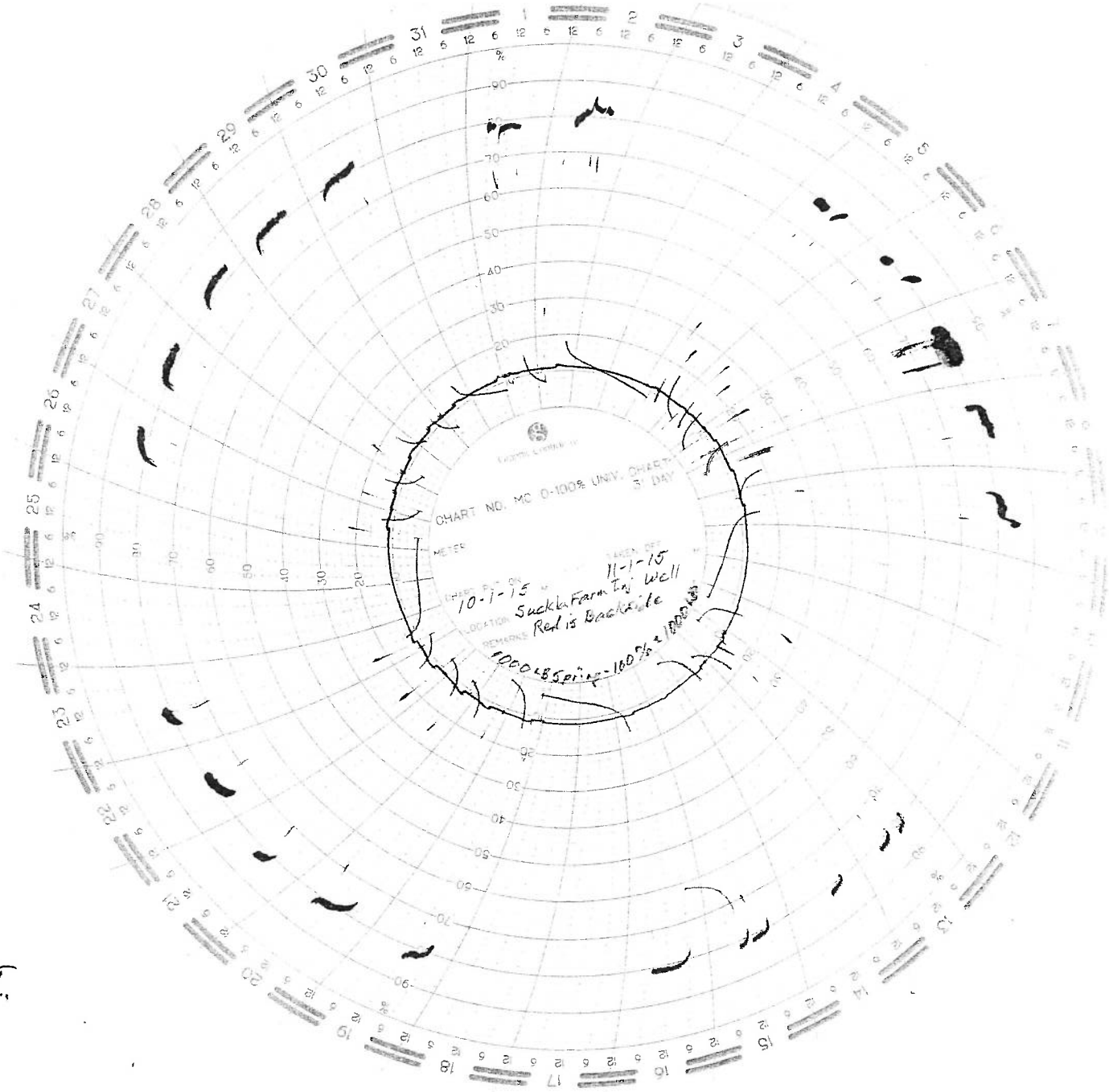


Suckla Farms
Injection Well #1
12-1-15 to 1-1-16
@ 10% equals 100 PSI.



Suckla Farms
Injection Well #1
11-1-15 to 12-1-15
@ 10% equals 100-P.S.I.

Suckle Farms
Injection Well #1
10-1-15 to 11-1-15
@ 10% equals 100 P.S.I.



Mountain States
ACCUTEST
LABORATORIES

11/02/15

Technical Report for

K.P. Kauffman Company, Inc.

Wattenberg Tank

7591

Accutest Job Number: D76610

Sampling Date: 10/26/15

Report to:

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

ATTN: Susana Lara-Mesa

Total number of pages in report: 29

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 Lewis 303-425-6021

Certifications: CO (CO00049), ID, NE (CO00049), ND (R-027), NJ (CO 0007), OK (D9942), UT (NELAP CO00049), LA (LA150028), TX (T104704511), WY
CO (CO00049), EPA 524.2 Provisional

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Test results relate only to samples analyzed.

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Sample Summary

K.P. Kauffman Company, Inc.

Job No: D76610

Wattenberg Tank
Project No: 7591

Sample Number	Collected Date	Time By	Received	Matrix Code	Matrix Type	Client Sample ID
D76610-1	10/26/15	09:00 MDH	10/26/15	AQ	Water	TANK-1
D76610-1F	10/26/15	09:00 MDH	10/26/15	AQ	Water Filtered	TANK-1

ACCUTEST LABORATORIES

CASE NARRATIVE / CONFORMANCE SUMMARY

Client:	K.P. Kauffman Company, Inc.	**Job No**	D76610
Site:	Wattenberg Tank	**Report Date**	11/2/2015 12:23:57 P

On 10/26/2015, 1 sample(s), 0 Trip Blank(s), and 0 Field Blank(s) were received at Accutest Mountain States (AMS) at a temperature of 8.9 °C. The samples were intact and properly preserved, unless noted below. An AMS Job Number of D76610 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:** MP17315

- All samples were digested and analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) D76599-1MS, D76599-1MSD, D76599-1SDL were used as the QC samples for the metals analysis.

Wet Chemistry By Method ASTM D287

Matrix: ALL **Batch ID:** GN32148

- The data for ASTM D287 meets quality control requirements.

Wet Chemistry By Method EPA 1664A

Matrix: AQ **Batch ID:** GP16545

- All samples were prepared and analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) D76476-3MS 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:** GP16533

- All samples were prepared and analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) D76609-2MS, D76609-2MSD were used as the QC samples for the Chloride, Nitrogen, Nitrate, Nitrogen, Nitrite, Sulfate, Chloride analysis.
- D76610-1 for Nitrogen, Nitrate: Elevated detection limit due to matrix interference.
- D76610-1 for Sulfate: Elevated detection limit due to matrix interference.
- D76610-1 for Nitrogen, Nitrite: Elevated detection limit due to matrix interference.

Wet Chemistry By Method SM 2540C-2011

Matrix: AQ	Batch ID: GN32170

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) D76628-1DUP were used as the QC samples for the Solids, Total Dissolved analysis.
- D76610-1 for Solids, Total Dissolved: Maximum reference method residue requirement was exceeded. The constant weight requirement was met.

Wet Chemistry By Method SM 5310B-2011

Matrix: AQ	Batch ID: GP16573

- All samples were prepared and analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) D76633-1DUP, D76633-1MS, D76633-1MSD were used as the QC samples for the Total Organic Carbon analysis.

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: D76610
Account: K.P. Kauffman Company, Inc.
Project: Wattenberg Tank
Collected: 10/26/15

Lab Sample ID / Analyte	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
D76610-1	TANK-1					
Chloride		13100	500		mg/l	EPA 300.0/SW846 9056
HEM Oil and Grease		47.6	4.8		mg/l	EPA 1664A
Solids, Total Dissolved [a]		21400	10		mg/l	SM 2540C-2011
Specific Gravity by Hydrometer		1.0064				ASTM D287
Total Organic Carbon		57.2	3.1		mg/l	SM 5310B-2011
pH		6.60			su	SM4500HB+-2011/9040C
D76610-1F	TANK-1					
Calcium		316000	20000		ug/l	SW846 6010C
Magnesium		41300	10000		ug/l	SW846 6010C
Potassium		131000	50000		ug/l	SW846 6010C
Sodium		8370000	20000		ug/l	SW846 6010C

(a) Maximum reference method residue requirement was exceeded. The constant weight requirement was met.

Mountain States ACCUTEST LABORATORIES

Sample Results

Report of Analysis

Report of Analysis

Client Sample ID:	TANK-1		
Lab Sample ID:	D76610-1	Date Sampled:	10/26/15
Matrix:	AQ - Water	Date Received:	10/26/15
		Percent Solids:	n/a
Project:	Wattenberg Tank		

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Chloride	13100	500	mg/l	1000	10/27/15 18:10	JB	EPA 300.0/SW846 9056
HEM Oil and Grease	47.6	4.8	mg/l	1	10/29/15	SWT	EPA 1664A
Nitrogen, Nitrate [a]	< 1.0	1.0	mg/l	100	10/27/15 11:11	JB	EPA 300.0/SW846 9056
Nitrogen, Nitrite [a]	< 4.0	4.0	mg/l	1000	10/27/15 18:10	JB	EPA 300.0/SW846 9056
Solids, Total Dissolved [b]	21400	10	mg/l	1	10/29/15	AK	SM 2540C-2011
Specific Gravity by Hydromete	1.0064			1	10/27/15	MM	ASTM D287
Sulfate [a]	< 50	50	mg/l	100	10/27/15 11:11	JB	EPA 300.0/SW846 9056
Total Organic Carbon	57.2	3.1	mg/l	3.125	10/30/15 16:12	JB	SM 5310B-2011
pH	6.60		su	1	10/26/15 15:00	AK	SM4500HB+-2011/9040C

(a) Elevated detection limit due to matrix interference.
(b) Maximum reference method residue requirement was exceeded. The constant weight requirement was met.

RL = Reporting Limit

Accutest Laboratories

Report of Analysis

Client Sample ID:	TANK-1		
Lab Sample ID:	D76610-1F	Date Sampled:	10/26/15
Matrix:	AQ - Water Filtered	Date Received:	10/26/15
		Percent Solids:	n/a
Project:	Wattenberg Tank		

Dissolved Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Calcium	316000	20000	ug/l	5	10/28/15	10/30/15	LH	SW846 6010C [1]	SW846 3010A [2]
Magnesium	41300	10000	ug/l	5	10/28/15	10/30/15	LH	SW846 6010C [1]	SW846 3010A [2]
Potassium	131000	50000	ug/l	5	10/28/15	10/30/15	LH	SW846 6010C [1]	SW846 3010A [2]
Sodium	8370000	20000	ug/l	5	10/28/15	10/30/15	LH	SW846 6010C [1]	SW846 3010A [2]

(1) Instrument QC Batch: MA6691
(2) Prep QC Batch: MP17315

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 # D76610

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	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		10/26/15	9:00	MDH	LIQ	7	X			X					X	X	X	X	X	X	X					01
																											BB
																											BB

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

Date 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

rec'd within 2hrs - BB

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	10/26/15 9:55	1 10.26.15 9:55			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 #	Preserved where applicable	On Ice / Cooler Temp. 8.9

D76610: Chain of Custody
Page 1 of 2

Accutest Laboratories Sample Receipt Summary

Accutest Job Number: D76610 **Client:** KP KAUFFMAN **Project:** WATTENBERG TANK

Date / Time Received: 10/26/2015 9:55:00 AM **Delivery Method:** **Airbill #'s:** hd

Cooler Temps (Initial/Adjusted): #1: (8.9/8.9);

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:	IR Gun;	
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:	☐	☐	☑

5.1 5

Accutest Laboratories
V:(303) 425-6021

4036 Youngfield Street
F: (303) 425-6854

Wheat Ridge, CO
www/accutest.com

D76610: Chain of Custody
Page 2 of 2

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: D76610
Account: KPKCOD - K.P. Kauffman Company, Inc.
Project: Wattenberg Tank

QC Batch ID: MP17315
Matrix Type: AQUEOUS

Methods: SW846 6010C
Units: ug/l

Prep Date: 10/28/15

Metal	RL	IDL	MDL	MB raw	final
Aluminum	100	11	13		
Antimony	30	2.1	8.7		
Arsenic	25	3.8	12		
Barium	10	.2	.4		
Beryllium	10	.9	1.6		
Boron	50	.8	3.6		
Cadmium	10	.2	.8		
Calcium	400	2.4	10	11.2	<400
Chromium	10	.3	.7		
Cobalt	5.0	.5	1.2		
Copper	10	.8	3.8		
Iron	70	1.5	6.9		
Lead	50	2.1	4.9		
Lithium	5.0	.4	.7		
Magnesium	200	6.8	39	3.4	<200
Manganese	5.0	.5	.9		
Molybdenum	10	.4	3.6		
Nickel	30	.5	2.7		
Phosphorus	100	15	34		
Potassium	1000	99	71	27.7	<1000
Selenium	50	7.1	10		
Silicon	50	4.7	8.4		
Silver	30	.3	.6		
Sodium	400	7.3	14	94.2	<400
Strontium	5.0	.01	.3		
Thallium	10	1.8	8		
Tin	50	12	12		
Titanium	10	.1	2.7		
Uranium	50	2.9	4.4		
Vanadium	10	.4	.6		
Zinc	30	.4	3.5		

Associated samples MP17315: D76610-1F

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

BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: D76610
Account: KPKCOD - K.P. Kauffman Company, Inc.
Project: Wattenberg Tank

QC Batch ID: MP17315
Matrix Type: AQUEOUS

Methods: SW846 6010C
Units: ug/l

Prep Date: 10/28/15

Metal	RL	IDL	MDL	MB raw	final

(anr) Analyte not requested

6.1.1 6

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: D76610
Account: KPKCOD - K.P. Kauffman Company, Inc.
Project: Wattenberg Tank

QC Batch ID: MP17315
Matrix Type: AQUEOUS

Methods: SW846 6010C
Units: ug/l

Prep Date: 10/28/15

Metal	D76599-1 Original	MS	Spikelot ICPALL2	% Rec	QC Limits
Aluminum	anr				
Antimony	anr				
Arsenic	anr				
Barium	anr				
Beryllium	anr				
Boron	anr				
Cadmium	anr				
Calcium	135000	159000	25000	96.0	75-125
Chromium	anr				
Cobalt	anr				
Copper	anr				
Iron	anr				
Lead	anr				
Lithium					
Magnesium	123000	148000	25000	100.0	75-125
Manganese	anr				
Molybdenum	anr				
Nickel	anr				
Phosphorus	anr				
Potassium	1760	28100	25000	105.4	75-125
Selenium	anr				
Silicon	anr				
Silver	anr				
Sodium	37900	63700	25000	103.2	75-125
Strontium	anr				
Thallium	anr				
Tin	anr				
Titanium	anr				
Uranium					
Vanadium	anr				
Zinc	anr				

Associated samples MP17315: D76610-1F

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

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: D76610
Account: KPKCOD - K.P. Kauffman Company, Inc.
Project: Wattenberg Tank

QC Batch ID: MP17315
Matrix Type: AQUEOUS

Methods: SW846 6010C
Units: ug/l

Prep Date: 10/28/15

Metal	D76599-1 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: D76610
Account: KPKCOD - K.P. Kauffman Company, Inc.
Project: Wattenberg Tank

QC Batch ID: MP17315
Matrix Type: AQUEOUS

Methods: SW846 6010C
Units: ug/l

Prep Date: 10/28/15

Metal	D76599-1 Original	MSD	Spikelot ICPALL2	% Rec	MSD RPD	QC Limit
Aluminum	anr					
Antimony	anr					
Arsenic	anr					
Barium	anr					
Beryllium	anr					
Boron	anr					
Cadmium	anr					
Calcium	135000	161000	25000	104.0	1.3	20
Chromium	anr					
Cobalt	anr					
Copper	anr					
Iron	anr					
Lead	anr					
Lithium						
Magnesium	123000	147000	25000	96.0	0.7	20
Manganese	anr					
Molybdenum	anr					
Nickel	anr					
Phosphorus	anr					
Potassium	1760	28000	25000	105.0	0.4	20
Selenium	anr					
Silicon	anr					
Silver	anr					
Sodium	37900	63000	25000	100.4	1.1	20
Strontium	anr					
Thallium	anr					
Tin	anr					
Titanium	anr					
Uranium						
Vanadium	anr					
Zinc	anr					

Associated samples MP17315: D76610-1F

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

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: D76610
Account: KPKCOD - K.P. Kauffman Company, Inc.
Project: Wattenberg Tank

QC Batch ID: MP17315
Matrix Type: AQUEOUS

Methods: SW846 6010C
Units: ug/l

Prep Date: 10/28/15

Metal	D76599-1 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: D76610
Account: KPKCOD - K.P. Kauffman Company, Inc.
Project: Wattenberg Tank

QC Batch ID: MP17315
Matrix Type: AQUEOUS

Methods: SW846 6010C
Units: ug/l

Prep Date: 10/28/15

Metal	BSP Result	Spikelot ICPALL2	% Rec	QC Limits
Aluminum	anr			
Antimony	anr			
Arsenic	anr			
Barium	anr			
Beryllium	anr			
Boron	anr			
Cadmium	anr			
Calcium	25200	25000	100.8	80-120
Chromium	anr			
Cobalt	anr			
Copper	anr			
Iron	anr			
Lead	anr			
Lithium				
Magnesium	25200	25000	100.8	80-120
Manganese	anr			
Molybdenum	anr			
Nickel	anr			
Phosphorus	anr			
Potassium	25700	25000	102.8	80-120
Selenium	anr			
Silicon	anr			
Silver	anr			
Sodium	25300	25000	101.2	80-120
Strontium	anr			
Thallium	anr			
Tin	anr			
Titanium	anr			
Uranium				
Vanadium	anr			
Zinc	anr			

Associated samples MP17315: D76610-1F

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

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: D76610
Account: KPKCOD - K.P. Kauffman Company, Inc.
Project: Wattenberg Tank

QC Batch ID: MP17315
Matrix Type: AQUEOUS

Methods: SW846 6010C
Units: ug/l

Prep Date: 10/28/15

Metal	BSP Result	Spikelot ICPALL2	% Rec	QC Limits

(anr) Analyte not requested

6.1.3

6

SERIAL DILUTION RESULTS SUMMARY

Login Number: D76610
Account: KPKCOD - K.P. Kauffman Company, Inc.
Project: Wattenberg Tank

QC Batch ID: MP17315
Matrix Type: AQUEOUS

Methods: SW846 6010C
Units: ug/l

Prep Date: 10/28/15

Metal	D76599-1 Original	SDL 1:5	%DIF	QC Limits
Aluminum	anr			
Antimony	anr			
Arsenic	anr			
Barium	anr			
Beryllium	anr			
Boron	anr			
Cadmium	anr			
Calcium	135000	144000	7.0	0-10
Chromium	anr			
Cobalt	anr			
Copper	anr			
Iron	anr			
Lead	anr			
Lithium				
Magnesium	123000	127000	3.6	0-10
Manganese	anr			
Molybdenum	anr			
Nickel	anr			
Phosphorus	anr			
Potassium	1760	1810	2.9	0-10
Selenium	anr			
Silicon	anr			
Silver	anr			
Sodium	37900	38900	2.4	0-10
Strontium	anr			
Thallium	anr			
Tin	anr			
Titanium	anr			
Uranium				
Vanadium	anr			
Zinc	anr			

Associated samples MP17315: D76610-1F

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

SERIAL DILUTION RESULTS SUMMARY

Login Number: D76610
Account: KPKCOD - K.P. Kauffman Company, Inc.
Project: Wattenberg Tank

QC Batch ID: MP17315
Matrix Type: AQUEOUS

Methods: SW846 6010C
Units: ug/l

Prep Date: 10/28/15

Metal	D76599-1 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: D76610
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	GP16533/GN32162	0.50	0.0	mg/l	5	5.18	103.6	90-110%
HEM Oil and Grease	GP16545/GN32168	5.0	0.0	mg/l	40	32.8	82.0	78-114%
Nitrogen, Nitrate	GP16533/GN32162	0.010	0.0	mg/l	0.1	0.105	105.0	90-110%
Nitrogen, Nitrite	GP16533/GN32162	0.0040	0.0	mg/l	0.05	0.0523	104.6	90-110%
Solids, Total Dissolved	GN32170	10	0.0	mg/l	400	400	100.0	90-110%
Sulfate	GP16533/GN32162	0.50	0.0	mg/l	5	5.04	100.8	90-110%
Total Organic Carbon	GP16573/GN32205	1.0	0.0	mg/l	5	4.77	95.4	90-110%
pH	GN32132			su	8.00	7.98	99.7	99.1-100.9%

Associated Samples:
Batch GN32132: D76610-1
Batch GN32170: D76610-1
Batch GP16533: D76610-1
Batch GP16545: D76610-1
Batch GP16573: D76610-1
(*) Outside of QC limits

7.1

BLANK SPIKE DUPLICATE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: D76610
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	GP16545/GN32168	mg/l	40	33.6	2.4	18%

Associated Samples:
Batch GP16545: D76610-1
(*) Outside of QC limits

7.2
7

DUPLICATE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: D76610
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	GN32170	D76628-1	mg/l	1050	1040	1.0	0-20%
Total Organic Carbon	GP16573/GN32205	D76633-1	mg/l	0.72	0.71	1.4	0-20%

Associated Samples:
Batch GN32170: D76610-1
Batch GP16573: D76610-1
(*) Outside of QC limits

7.3

7

MATRIX SPIKE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: D76610
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	GP16533/GN32162	D76609-2	mg/l	191	250	463	108.8	80-120%
HEM Oil and Grease	GP16545/GN32168	D76476-3	mg/l	0.0	40	32.6	81.5	78-114%
Nitrogen, Nitrate	GP16533/GN32162	D76609-2	mg/l	4.6	5	9.9	106.0	80-120%
Nitrogen, Nitrite	GP16533/GN32162	D76609-2	mg/l	0.0	2.5	2.5	100.0	80-120%
Sulfate	GP16533/GN32162	D76609-2	mg/l	141	250	392	100.4	80-120%
Total Organic Carbon	GP16573/GN32205	D76633-1	mg/l	0.72	10	10.7	99.8	80-120%

Associated Samples:
Batch GP16533: D76610-1
Batch GP16545: D76610-1
Batch GP16573: D76610-1
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits

7.4

7

MATRIX SPIKE DUPLICATE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: D76610
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	GP16533/GN32162	D76609-2	mg/l	191	250	465	0.4	20%
Nitrogen, Nitrate	GP16533/GN32162	D76609-2	mg/l	4.6	5	10	1.0	20%
Nitrogen, Nitrite	GP16533/GN32162	D76609-2	mg/l	0.0	2.5	2.6	3.9	20%
Sulfate	GP16533/GN32162	D76609-2	mg/l	141	250	399	1.8	20%
Total Organic Carbon	GP16573/GN32205	D76633-1	mg/l	0.72	10	10.6	0.9	20%

Associated Samples:
Batch GP16533: D76610-1
Batch GP16573: D76610-1
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits

7.5
7

Mountain States
ACCUTEST
LABORATORIES

11/23/15

Technical Report for

K.P. Kauffman Company, Inc.

Wattenberg Tank

7591

Accutest Job Number: D77314

Sampling Date: 11/16/15

Report to:

K.P. Kauffman Company, Inc.
1675 Broadway Suite 2800
Denver, CO 80202-4628
slaramesa@kpk.com; mhattel@msn.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 Lewis 303-425-6021

Certifications: CO (CO00049), ID, NE (CO00049), ND (R-027), NJ (CO 0007), OK (D9942), UT (NELAP CO00049), LA (LA150028), TX (T104704511), WY
CO (CO00049), EPA 524.2 Provisional

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Sample Summary

K.P. Kauffman Company, Inc.

Job No: D77314

Wattenberg Tank
Project No: 7591

Sample Number	Collected Date	Time By	Received	Matrix Code	Matrix Type	Client Sample ID
D77314-1	11/16/15	12:30 MDH	11/16/15	AQ	Water	TANK-1
D77314-1F	11/16/15	12:30 MDH	11/16/15	AQ	Water Filtered	TANK-1

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2

CASE NARRATIVE / CONFORMANCE SUMMARY

Client:	K.P. Kauffman Company, Inc.	**Job No**	D77314
Site:	Wattenberg Tank	**Report Date**	11/23/2015 4:05:51 P

On 11/16/2015, 1 sample(s), 0 Trip Blank(s), and 0 Field Blank(s) were received at Accutest Mountain States (AMS) at a temperature of 4.9 °C. The samples were intact and properly preserved, unless noted below. An AMS Job Number of D77314 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:** MP17482

- All samples were digested and analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) D77313-1FMS, D77313-1FMSD, D77313-1FSDL were used as the QC samples for the metals analysis.
- 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.
- MP17482-SD1 for Sodium: Serial dilution indicates possible matrix interference.

Wet Chemistry By Method ASTM D287

Matrix: ALL **Batch ID:** GN32470

- The data for ASTM D287 meets quality control requirements.

Wet Chemistry By Method EPA 1664A

Matrix: AQ **Batch ID:** GP16735

- All samples were prepared and analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.

Wet Chemistry By Method EPA 300.0/SW846 9056

Matrix: AQ **Batch ID:** GP16684

- All samples were prepared and analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) D77324-4MS, D77324-4MSD were used as the QC samples for the Nitrogen, Nitrate, Nitrogen, Nitrite, Sulfate, Chloride analysis.
- D77314-1 for Nitrogen, Nitrate: Elevated detection limit due to matrix interference.
- D77314-1 for Sulfate: Elevated detection limit due to matrix interference.

Wet Chemistry By Method SM 2540C-2011

Matrix: AQ	Batch ID: GN32435

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) D77224-1DUP were used as the QC samples for the Solids, Total Dissolved analysis.
- D77314-1 for Solids, Total Dissolved: Maximum reference method residue requirement was exceeded, even with minimum sample volume used.The constant weight requirement was met.

Wet Chemistry By Method SM 5310B-2011

Matrix: AQ	Batch ID: GP16686

- All samples were prepared and analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) D77322-1DUP, D77322-1MS, D77322-1MSD were used as the QC samples for the Total Organic Carbon analysis.

Wet Chemistry By Method SM4500HB+-2011/9040C

Matrix: AQ	Batch ID: GN32447

- The following samples were run outside of holding time for method SM4500HB+-2011/9040C: D77314-1 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: D77314
Account: K.P. Kauffman Company, Inc.
Project: Wattenberg Tank
Collected: 11/16/15

Lab Sample ID / Analyte	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
D77314-1	TANK-1					
Chloride		10300	500		mg/l	EPA 300.0/SW846 9056
HEM Oil and Grease		35.2	4.8		mg/l	EPA 1664A
Nitrogen, Nitrite		6.5	4.0		mg/l	EPA 300.0/SW846 9056
Solids, Total Dissolved [a]		17100	10		mg/l	SM 2540C-2011
Specific Gravity by Hydrometer		1.0165				ASTM D287
Total Organic Carbon		64.0	3.6		mg/l	SM 5310B-2011
pH [b]		6.90			su	SM4500HB+-2011/9040C
D77314-1F	TANK-1					
Calcium		173000	20000		ug/l	SW846 6010C
Magnesium		28100	10000		ug/l	SW846 6010C
Potassium		200000	50000		ug/l	SW846 6010C
Sodium		6600000	20000		ug/l	SW846 6010C

(a) Maximum reference method residue requirement was exceeded, even with minimum sample volume used.The constant weight requirement was met.
(b) Analysis performed past the required 15 minutes from collection time/holding time.

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Sample Results

Report of Analysis

Accutest Laboratories

Report of Analysis

Client Sample ID:	TANK-1		
Lab Sample ID:	D77314-1	Date Sampled:	11/16/15
Matrix:	AQ - Water	Date Received:	11/16/15
		Percent Solids:	n/a
Project:	Wattenberg Tank		

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Chloride	10300	500	mg/l	1000	11/17/15 17:02	JB	EPA 300.0/SW846 9056
HEM Oil and Grease	35.2	4.8	mg/l	1	11/23/15	SWT	EPA 1664A
Nitrogen, Nitrate [a]	< 2.0	2.0	mg/l	200	11/17/15 10:27	JB	EPA 300.0/SW846 9056
Nitrogen, Nitrite	6.5	4.0	mg/l	1000	11/17/15 17:02	JB	EPA 300.0/SW846 9056
Solids, Total Dissolved [b]	17100	10	mg/l	1	11/18/15	MR	SM 2540C-2011
Specific Gravity by Hydromete	1.0165			1	11/19/15	MM	ASTM D287
Sulfate [a]	< 100	100	mg/l	200	11/17/15 10:27	JB	EPA 300.0/SW846 9056
Total Organic Carbon	64.0	3.6	mg/l	3.57	11/17/15 17:22	JB	SM 5310B-2011
pH [c]	6.90		su	1	11/18/15 13:30	JD	SM4500HB+-2011/9040C

(a) Elevated detection limit due to matrix interference.
(b) Maximum reference method residue requirement was exceeded, even with minimum sample volume used.The constant weight requirement was met.
(c) Analysis performed past the required 15 minutes from collection time/holding time.

RL = Reporting Limit

Report of Analysis

Client Sample ID:	TANK-1		
Lab Sample ID:	D77314-1F	Date Sampled:	11/16/15
Matrix:	AQ - Water Filtered	Date Received:	11/16/15
		Percent Solids:	n/a
Project:	Wattenberg Tank		

Dissolved Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Calcium	173000	20000	ug/l	5	11/17/15	11/17/15	LH	SW846 6010C [1]	SW846 3010A [2]
Magnesium	28100	10000	ug/l	5	11/17/15	11/17/15	LH	SW846 6010C [1]	SW846 3010A [2]
Potassium	200000	50000	ug/l	5	11/17/15	11/17/15	LH	SW846 6010C [1]	SW846 3010A [2]
Sodium	6600000	20000	ug/l	5	11/17/15	11/17/15	LH	SW846 6010C [1]	SW846 3010A [2]

(1) Instrument QC Batch: MA6758
(2) Prep QC Batch: MP17482

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 #: D77314

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 # / MECH 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		11/14/15	1230	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:

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	11/14/15-1340	2	2		2
Relinquished by: 3	Date Time:	Received By: 3	Relinquished By: 4	Date Time:	Received By: 4 T186
Relinquished by: 5	Date Time:	Received By: 5	Custody Seal # HD	Preserved where applicable ☑	On Ice ☑ Cooler Temp. 4.9

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D77314: 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: D77314
Account: KPKCOD - K.P. Kauffman Company, Inc.
Project: Wattenberg Tank

QC Batch ID: MP17482
Matrix Type: AQUEOUS

Methods: SW846 6010C
Units: ug/l

Prep Date: 11/17/15

Metal	RL	IDL	MDL	MB raw	final
Aluminum	100	11	13		
Antimony	30	2.1	8.7		
Arsenic	25	3.8	12		
Barium	10	.2	.4		
Beryllium	10	.9	1.6		
Boron	50	.8	3.6		
Cadmium	10	.2	.8		
Calcium	400	2.4	10	27.3	<400
Chromium	10	.3	.7		
Cobalt	5.0	.5	1.2		
Copper	10	.8	3.8		
Iron	70	1.5	6.9		
Lead	50	2.1	4.9		
Lithium	5.0	.4	.7		
Magnesium	200	6.8	39	16.3	<200
Manganese	5.0	.5	.9		
Molybdenum	10	.4	3.6		
Nickel	30	.5	2.7		
Phosphorus	100	15	34		
Potassium	1000	99	71	61.3	<1000
Selenium	50	7.1	10		
Silicon	50	4.7	8.4		
Silver	30	.3	.6		
Sodium	400	7.3	14	-5.6	<400
Strontium	5.0	.01	.3		
Thallium	10	1.8	8		
Tin	50	12	12		
Titanium	10	.1	2.7		
Uranium	50	2.9	4.4		
Vanadium	10	.4	.6		
Zinc	30	.4	3.5		

Associated samples MP17482: D77314-1F

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

BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: D77314
Account: KPKCOD - K.P. Kauffman Company, Inc.
Project: Wattenberg Tank

QC Batch ID: MP17482
Matrix Type: AQUEOUS

Methods: SW846 6010C
Units: ug/l

Prep Date: 11/17/15

Metal	RL	IDL	MDL	MB raw	final

(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: D77314
Account: KPKCOD - K.P. Kauffman Company, Inc.
Project: Wattenberg Tank

QC Batch ID: MP17482
Matrix Type: AQUEOUS

Methods: SW846 6010C
Units: ug/l

Prep Date: 11/17/15

Metal	D77313-1F Original	MS	Spikelot ICPALL2	% Rec	QC Limits
Aluminum	anr				
Antimony	anr				
Arsenic	anr				
Barium	anr				
Beryllium	anr				
Boron					
Cadmium	anr				
Calcium	108000	133000	25000	100.0	75-125
Chromium	anr				
Cobalt	anr				
Copper	anr				
Iron	anr				
Lead	anr				
Lithium					
Magnesium	80200	106000	25000	103.2	75-125
Manganese	anr				
Molybdenum					
Nickel	anr				
Phosphorus					
Potassium	5940	34200	25000	113.0	75-125
Selenium	anr				
Silicon					
Silver	anr				
Sodium	752000	788000	25000	144.0(a)	75-125
Strontium					
Thallium	anr				
Tin					
Titanium					
Uranium					
Vanadium	anr				
Zinc	anr				

Associated samples MP17482: D77314-1F

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

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: D77314
Account: KPKCOD - K.P. Kauffman Company, Inc.
Project: Wattenberg Tank

QC Batch ID: MP17482
Matrix Type: AQUEOUS

Methods: SW846 6010C
Units: ug/l

Prep Date: 11/17/15

Metal	D77313-1F 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

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MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: D77314
Account: KPKCOD - K.P. Kauffman Company, Inc.
Project: Wattenberg Tank

QC Batch ID: MP17482
Matrix Type: AQUEOUS

Methods: SW846 6010C
Units: ug/l

Prep Date: 11/17/15

Metal	D77313-1F Original	MSD	Spikelot ICPALL2	% Rec	MSD RPD	QC Limit
Aluminum	anr					
Antimony	anr					
Arsenic	anr					
Barium	anr					
Beryllium	anr					
Boron						
Cadmium	anr					
Calcium	108000	132000	25000	96.0	0.8	20
Chromium	anr					
Cobalt	anr					
Copper	anr					
Iron	anr					
Lead	anr					
Lithium						
Magnesium	80200	107000	25000	107.2	0.9	20
Manganese	anr					
Molybdenum						
Nickel	anr					
Phosphorus						
Potassium	5940	34700	25000	115.0	1.5	20
Selenium	anr					
Silicon						
Silver	anr					
Sodium	752000	794000	25000	168.0(a)	0.8	20
Strontium						
Thallium	anr					
Tin						
Titanium						
Uranium						
Vanadium	anr					
Zinc	anr					

Associated samples MP17482: D77314-1F

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

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: D77314
Account: KPKCOD - K.P. Kauffman Company, Inc.
Project: Wattenberg Tank

QC Batch ID: MP17482
Matrix Type: AQUEOUS

Methods: SW846 6010C
Units: ug/l

Prep Date: 11/17/15

Metal	D77313-1F 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.

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SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: D77314
Account: KPKCOD - K.P. Kauffman Company, Inc.
Project: Wattenberg Tank

QC Batch ID: MP17482
Matrix Type: AQUEOUS

Methods: SW846 6010C
Units: ug/l

Prep Date: 11/17/15

Metal	BSP Result	Spikelot ICPALL2	% Rec	QC Limits
Aluminum	anr			
Antimony	anr			
Arsenic	anr			
Barium	anr			
Beryllium	anr			
Boron				
Cadmium	anr			
Calcium	25800	25000	103.2	80-120
Chromium	anr			
Cobalt	anr			
Copper	anr			
Iron	anr			
Lead	anr			
Lithium				
Magnesium	25800	25000	103.2	80-120
Manganese	anr			
Molybdenum				
Nickel	anr			
Phosphorus				
Potassium	26000	25000	104.0	80-120
Selenium	anr			
Silicon				
Silver	anr			
Sodium	25500	25000	102.0	80-120
Strontium				
Thallium	anr			
Tin				
Titanium				
Uranium				
Vanadium	anr			
Zinc	anr			

Associated samples MP17482: D77314-1F

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

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: D77314
Account: KPKCOD - K.P. Kauffman Company, Inc.
Project: Wattenberg Tank

QC Batch ID: MP17482
Matrix Type: AQUEOUS

Methods: SW846 6010C
Units: ug/l

Prep Date: 11/17/15

Metal	BSP Result	Spikelot ICPALL2	% Rec	QC Limits

(anr) Analyte not requested

6.1.3

6

ACCUTEST LABORATORIES

D77314

SERIAL DILUTION RESULTS SUMMARY

Login Number: D77314
Account: KPKCOD - K.P. Kauffman Company, Inc.
Project: Wattenberg Tank

QC Batch ID: MP17482
Matrix Type: AQUEOUS

Methods: SW846 6010C
Units: ug/l

Prep Date: 11/17/15

Metal	D77313-1F Original	SDL 1:5	%DIF	QC Limits
Aluminum	anr			
Antimony	anr			
Arsenic	anr			
Barium	anr			
Beryllium	anr			
Boron				
Cadmium	anr			
Calcium	108000	113000	5.3	0-10
Chromium	anr			
Cobalt	anr			
Copper	anr			
Iron	anr			
Lead	anr			
Lithium				
Magnesium	80200	85800	7.0	0-10
Manganese	anr			
Molybdenum				
Nickel	anr			
Phosphorus				
Potassium	5940	5930	0.2	0-10
Selenium	anr			
Silicon				
Silver	anr			
Sodium	752000	855000	13.6*(a)	0-10
Strontium				
Thallium	anr			
Tin				
Titanium				
Uranium				
Vanadium	anr			
Zinc	anr			

Associated samples MP17482: D77314-1F

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

SERIAL DILUTION RESULTS SUMMARY

Login Number: D77314
Account: KPKCOD - K.P. Kauffman Company, Inc.
Project: Wattenberg Tank

QC Batch ID: MP17482
Matrix Type: AQUEOUS

Methods: SW846 6010C
Units: ug/l

Prep Date: 11/17/15

Metal	D77313-1F Original	SDL 1:5	%DIF	QC Limits

(anr) Analyte not requested
(a) Serial dilution indicates possible matrix interference.

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: D77314
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	GP16684/GN32438	0.50	0.0	mg/l	5	5.05	101.0	90-110%
HEM Oil and Grease	GP16735/GN32509	5.0	0.0	mg/l	40	35.0	87.5	78-114%
Nitrogen, Nitrate	GP16684/GN32438	0.010	0.0	mg/l	0.1	0.107	107.0	90-110%
Nitrogen, Nitrite	GP16684/GN32438	0.0040	0.0	mg/l	0.05	0.0501	100.2	90-110%
Solids, Total Dissolved	GN32435	10	0.0	mg/l	400	394	98.5	90-110%
Solids, Total Dissolved	GN32435	10	0.0	mg/l				
Sulfate	GP16684/GN32438	0.50	0.0	mg/l	5	5.03	100.6	90-110%
Total Organic Carbon	GP16686/GN32440	1.0	0.0	mg/l	5	4.70	94.0	90-110%
pH	GN32447			su	8.0	7.97	99.6	99.1-100.9%

Associated Samples:
Batch GN32435: D77314-1
Batch GN32447: D77314-1
Batch GP16684: D77314-1
Batch GP16686: D77314-1
Batch GP16735: D77314-1
(*) Outside of QC limits

BLANK SPIKE DUPLICATE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: D77314
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	GP16735/GN32509	mg/l	40	33.0	5.9	18%

Associated Samples:
Batch GP16735: D77314-1
(*) Outside of QC limits

7.2

DUPLICATE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: D77314
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	GN32435	D77224-1	mg/l	639	623	2.5	0-20%
Total Organic Carbon	GP16686/GN32440	D77322-1	mg/l	5.1	5.1	0.0	0-20%

Associated Samples:
Batch GN32435: D77314-1
Batch GP16686: D77314-1
(*) Outside of QC limits

7.3

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MATRIX SPIKE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: D77314
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	GP16684/GN32438	D77324-4	mg/l	0.56	5	5.4	96.8	80-120%
Nitrogen, Nitrate	GP16684/GN32438	D77324-4	mg/l	0.0078	0.1	0.11	102.2	80-120%
Nitrogen, Nitrite	GP16684/GN32438	D77324-4	mg/l	0.0	0.05	0.052	104.0	80-120%
Sulfate	GP16684/GN32438	D77324-4	mg/l	15.3	5	20.3	100.0	80-120%
Total Organic Carbon	GP16686/GN32440	D77322-1	mg/l	5.1	10	15.5	104.0	80-120%

Associated Samples:
Batch GP16684: D77314-1
Batch GP16686: D77314-1
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits

7.4
7

MATRIX SPIKE DUPLICATE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: D77314
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	GP16684/GN32438	D77324-4	mg/l	0.56	5	5.4	0.0	20%
Nitrogen, Nitrate	GP16684/GN32438	D77324-4	mg/l	0.0078	0.1	0.11	0.0	20%
Nitrogen, Nitrite	GP16684/GN32438	D77324-4	mg/l	0.0	0.05	0.053	1.9	20%
Sulfate	GP16684/GN32438	D77324-4	mg/l	15.3	5	20.5	1.0	20%
Total Organic Carbon	GP16686/GN32440	D77322-1	mg/l	5.1	10	14.7	5.3	20%

Associated Samples:
Batch GP16684: D77314-1
Batch GP16686: D77314-1
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits

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