

Work Plan

Cimarex Energy Company: Pintail 23 Federal Com #008H (Revision 3) |30-015-38657|2RP-4006|

May 17, 2017

# Prepared By:

TALON/LPE 408 W. Texas Avenue Artesia, New Mexico 88210

# **Prepared For:**

Cimarex Energy Company

Ms. Christine Alderman

Cimarex Energy Company
600 N. Marienfeld Ste. 600

Midland, TX 79701

Subject:

Soil Assessment and Remediation Work Plan

Cimarex Energy Co.

Pintail 23 Fed Com #008H |30-015-38657|2RP-4006|

Dear Ms. Alderman,

Cimarex Energy Company (Cimarex) has contracted Talon/LPE (Talon) to perform soil sampling and remediation services at the above referenced location. The results of our soil assessment and proposed remediation activities consist of the following.

#### **Site Information**

The Cimarex Pintail 23 Fed Com #8H is located approximately twenty-five (25) miles south of Carlsbad, New Mexico. The legal location for this facility is Unit Letter M, Section 23, Township 25S South and Range 26 East in Eddy County, New Mexico. More specifically the latitude and longitude are 32.1087494 North and -104.2693253 West. A site plan is presented in Appendix I.

According to the soil survey provided by the United States Department of Agriculture Natural Resources Conservation Service, the soil in this area is made up of the Reagan-Gypsum land complex with 0 to 3 percent slopes. Drainage courses in this area are normally dry.

#### **Ground Water and Site Ranking**

According to the New Mexico Office of the State Engineer database, the ground water in this area is approximately 35-feet below ground surface (BGS). The referenced ground water data is presented in Appendix II. Therefore the ranking for this site is a 20 based on the following:

Depth to ground water <50'
Wellhead Protection Area >1000'
Distance to surface water body >1000'

Based upon the site ranking of **20**, NMOCD Recommended Remedial Action Levels (RRAL's) are 50 mg/kg for BTEX, 10 mg/kg for Benzene, 100 mg/kg for TPH and the recommended guideline for Total Chlorides is 1,000 mg/kg.

# **Incident Description and Initial Remedial Actions**

On November 20, 2016 a 2-inch threaded fitting on a water line failed due to corrosion. This resulted in a release of approximately 50bbls of produced water. Approximately 2bbls of produced water were recovered. The fluid from this release impacted the pasture east of the location measuring approximately 280-feet by 120-feet. On December 2, 2016, Talon mobilized personnel to the site to perform an initial site assessment and to collect soil samples within the impacted area. The soil samples were analyzed TPH, BTEX, total chlorides, and detailed salinity. The analytical results from the soil analysis are summarized in the table below.

# **Laboratory Results**

See Appendix IV for complete report of laboratory results.

Sample ID	Depth ft	BTEX mg/kg	TPH mg/kg	Chloride mg/kg	рН	EC mmhos/cm	Sodium meq/L	Potassium meq/L	Calcium meq/L	Magnesium meq/L	SAR
S-1	0	<0.300	<10.0	11,627	7.2	100.5	928.49	16.33	167.26	17.86	96.51
S-1	1			10,635	7.2	73.6	13109.00	373.00	4224.00	165.00	53.86
S-1	2		<u> </u>	3,899	7.2	39.3	64.01	0.57	34.05	23.50	11.94
S-1	3			1,063	7.5	7	16.51	0.30	47.13	4.76	3.24
S-1	4			2,410	7.4	18.3	50.34	0.41	131.15	11.09	5.97
S-1	5			1,489	7.6	12.47	44.45	0.36	74.68	5.72	7.14
S-1	6			921	7.7	4.67	8.55	0.30	39.94	3.34	1.84
S-1	7			128*	7.8	2.86	6.16	0.72	31.29	1.78	1.52
S-2	0	<0.300	<10.0	5,246	7	62.8	471.31	5.11	159.55	8.14	51.47
S-2	1			141	7.4	4.88	13.70	0.39	37.93	1.36	3.09
S-2	2	-		64*		<u>-</u> -	-	H		<u> -</u>	-
S-3	0	<0.300	<10.00	4,537	7.1	47.7	391.09	3.18	178.71	5.32	40.77
S-3	1			212	7.6	5.16	14.34	0.42	38.89	1.51	3.19
S-3	2			128*	7.6	4.4	13.46	0.36	33.46	1.13	3.24
S-4	0	<0.300	<10.00	8,720	7.2	86.7	734.56	13.13	205.89	10.49	70.62
S-4	1			5,246	7.3	33.1	166.12	1.54	190.31	6.58	16.74
S-4	2			141	7.9	3.39	7.61	0.34	30.56	1.25	1.91
S-4	3			144*	7.9	2.7	4.50	0.32	29.66	1.38	1.14
S-5	0	<0.300	<10.00	5,884	7.4	40.4	348.43	3.50	176.69	5.33	36.52
S-5	1			921	7.8	6.23	30.01	0.73	32.44	1.73	7.26
S-5	2			141	7.8	2.86	6.08	0.37	30.09	0.86	1.55
S-5	3			80*	8	2.8	5.96	0.36	22.91	3.38	1.65

<sup>(--)</sup> Analyte Not Tested

<sup>(\*)</sup> Laboratory Chloride Confirmation

# **Proposed Remedial Actions**

- The impacted area in the vicinity of sample location S-1 will be excavated 4-feet BGS. A 20-mil reinforced liner padded with felt will be installed at the bottom of the excavation in order to encapsulate the remaining chloride impacts.
- The impacted areas in the vicinity of sample locations S-2, S-3, and S-5 will be excavated to a depth of 1-foot BGS.
- The impacted area in the vicinity of sample location S-4 will be excavated to a depth of 2-feet BGS.
- All of the excavated material will be hauled to an NMCOD approved solid waste disposal facility.
- The location will be downsized per BLM interim reclamation guidelines. The caliche generated during this process will be used to backfill the bottom of the excavation.
- The remaining vertical extent of the excavation will be backfilled with top soil, contoured to match the surrounding terrain and seeded with BLM #1 seed mixture.

Should you have any questions or if further information is required, please do not hesitate to contact our office at (575)-746-8768

Respectfully submitted,

TALON/LPE

Sheldon L. Hitchcock

Project Manager

David J. Adkins District Manager

Attachments

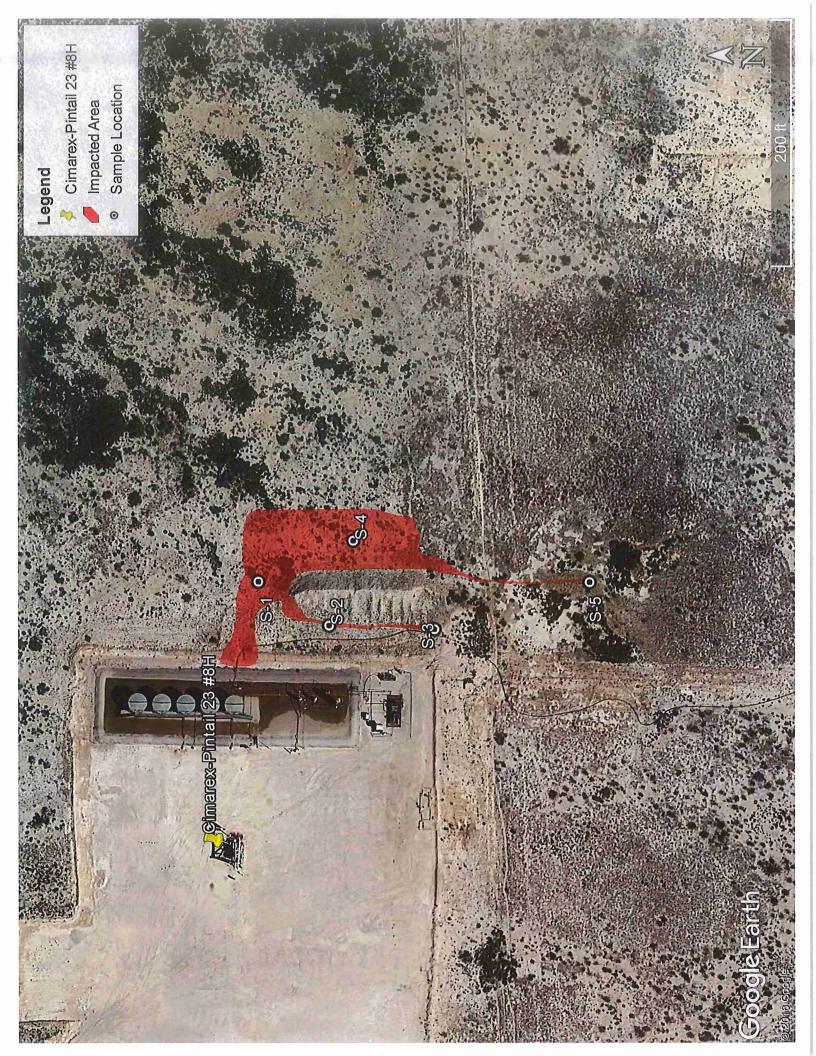
Appendix I Site Plan

Appendix II Groundwater Data

Appendix III Initial C-141

Appendix IV Laboratory Results

# APPENDIX I SITE PLAN



# APPENDIX II GROUNDWATER DATA



# New Mexico Office of the State Engineer Water Column/Average Depth to Water

(A CLW###### in the POD suffix indicates the POD has been replaced & no longer serves a water right file.)

(R=POD has been replaced, O=orphaned,

C=the file is

(quarters are 1=NW 2=NE 3=SW 4=SE)

(quarters are smallest to largest)

(NAD83 UTM in meters)

(In feet)

water right life.)	cioseu)	seu) (c		C	o a	10 31	Hanot	or to large	300) (14)	ADOC C I WI III III C	,,,,,,	ζ.	11 1001)
	POD												
	Sub-		Q	Q	Q							Depth	Depth Water
POD Number	Code basin C	County	64	16	4	Sec	Tws	Rng	Х	Υ	Distance	Well	Water Column
C 03655 POD3	CUB	ED	1	4	4	22	25S	26E	568458	3553019	465		
C 02220	CUB	ED	3	1	2	26	25S	26E	569598	3552352*	862	35	

Average Depth to Water:

Minimum Depth: --

Maximum Depth: -

**Record Count: 2** 

Basin/County Search:

County: Eddy

UTMNAD83 Radius Search (in meters):

Easting (X): 568890

Northing (Y): 3552845

Radius: 1000

# APPENDIX III INITIAL C-141

#### NM OIL CONSERVATION ARTESIA DISTRICT

<u>District i</u> 1625 N. French Dr., Hobbs, NM 88240 District II 811 S. First St., Artesia, NM 88210 District III 1000 Rio Brazos Road, Aztec, NM 87410 District IV 1220 S. St. Francis Dr., Santa Fc, NM 87505

State of New Mexico **Energy Minerals and Natural Resources** 

Oil Conservation Division

1220 South St. Francis Dr.

Kuy 2 1 2016

Form C-141 Revised August 8, 2011

Submit 1 Copy to appropriate District Office in accordance with 19.15.29 NMAC.

RECEIVED

Santa Fe, NM 87505 Release Notification and Corrective Action **OPERATOR** Initial Report Final Report Contact Christine Alderman Name of Company Cimarex Energy Address 600 N Marienfeld Ste 600 Midland TX Telephone No. 432-853-7059 Facility Name Pintail 23 #8H Facility Type production Mineral Owner API No. 30-015-38657 Surface Owner LOCATION OF RELEASE Unit Letter Section Township Range Feet from the North/South Line Feet from the Enst/West Line County 23 26E S Eddy M 258 250 Latitude 32.10874 Longitude -104.26932 NATURE OF RELEASE Type of Release Produced water Volume of Release 50 bbls Volume Recovered 2 bbls Date and Hour of Discovery Source of Release piping Date and Hour of Occurrence 11/20/2016 11/20/2016 If YES, To Whom? Was Immediate Notice Given? ✓ Yes 
 ☐ No 
 ☐ Not Required Shelly Tucker/Heather Patterson/Mike Bratcher By Whom? Christine Alderman Date and Hour If YES, Volume Impacting the Watercourse. Was a Watercourse Reached? ☐ Yes ☒ No NM OIL CONSERVATION ARTESIA DISTRICT If a Watercourse was Impacted, Describe Fully. NOV 2 1 2016 Describe Cause of Problem and Remedial Action Taken. RECEIVED A 2" threaded fitting corroded and failed. Describe Area Affected and Cleanup Action Taken. The affected area was pasture area and was approximately 2' wide by 25' long. We will delineate and submit a work plan to remediate. I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the NMOCI) marked as "Final Report" does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations. OIL CONSERVATION DIVISION hriotine Alderman Approved by Environmental Specialist: Printed Name: Christine Alderman Expiration Date: Title: ESH Supervisor Approval Date: E-mail Address: calderman@cimarex.com Conditions of Approval: Attached [V

Attach Additional Sheets If Necessary

Date: 11/21/2016

Phone: 432-853-7059

# APPENDIX IV LABORATORY RESULTS



**Outside TX County** 

Laboratory Number: 472168 Customer Sample ID: S-1 0

# Soil Analysis Report

Soil, Water and Forage Testing Laboratory Department of Soil and Crop Sciences 2478 TAMU

College Station, TX 77843-2478 979-845-4816 (phone)

979-845-5958 (FAX)
Visit our website: http://soiltesting.tamu.edu

Sample received on: 12/13/2016
Printed on: 12/21/2016
Area Represented: not provided

Customer Sample in														
•	n: IMPROVED			RIMUDA	GRAS	SS, GR	AZING	j						
Analysis	Results	CL*	Units	ExLow	VLow	Low	Mod	High	VHigh	Excess,		100000 mm		
рН	7.8	(5.8)		Mod. Al	kaline		ARMA LAS					1.4.4		
Conductivity	6,450	(-)	umho/cm	V. High			C	L•		Ferti	lizer Re	comm	ended	Ł
Nitrate-N	0	(-)	ppm**								55 lbs N	l/acre	Maria s	
Phosphorus	13	(50)	ppm			III		1 1			<b>50</b> lbs F	2O5/acr	e	
Potassium	396	(125)	ppm					illininii.	-		0 lbs k	20/acre		
Calcium	17,808	(180)	ppm	1111111111				41111111111	Įŧ		0 lbs C	ca/acre		
Magnesium	200	(50)	ppm	1111111111	11111111111			illii			0 lbs N	/lg/acre	18 J.	17.00
Sulfur	5,410	(13)	ppm					) 1111111111	[888]]]]]]]		<b>0</b> lbs 5	3/acre		
Sodium	9,748	(-)	ppm		A	And address of the same			[33][[]]	•			\$ 1.	
Iron	• • •		•••					1						
Zinc							- 5	1					1 g s = 3 s = 1 1 s = 1	11.56
Manganese								i						
Copper				188		. 2. 2. 5.4								• "
Boron			•											_
Limestone Requireme	ent		<b>随题自由</b>	Marian P				N. S.		0.	00 tons	100ECC	E/acre	е
		<del> </del>												
				Detail	ed Sali	nity To	est (Sa	iturate	d Paste	Extract)				
Market British and American Street, and an article of the Control			Control of the second	pl	DECEMBER OF STREET	an mark that the second	AD DE STAND PARSON	. **** **********	7.3					
				and the second of the second of the second	onduct	tivity			100.5	0 mmhos/ci	n i	数据图片		
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\*CL=Critical level is the point which no additional nutrient (excluding nitrate-N, sodium and conductivity) is recommended. \*\*ppm=mg/kg

Conductivity: Salinity levels are becoming elevated, monitor levels or remove salts with 10-15 inches of clean leach water.

Nitrogen: Apply an additional 70 lbs/A of nitrogen for each subsequent heavy graze down.



**Outside TX County** 

Laboratory Number: 472169 Customer Sample ID: S-11

2478 TAMU

Soil, Water and Forage Testing Laboratory Department of Soil and Crop Sciences

College Station, TX 77843-2478 979-845-4816 (phone) 979-845-5958 (FAX)

Soil Analysis Report

Visit our website: http://soiltesting.tamu.edu

Sample received on: 12/13/2016 Printed on: 12/21/2016 Area Represented: not provided

Crop Grown: IMPROVED AND HYBRID BERMUDA GRASS, GRAZING

Analysis	Results	ÇL*	Units	ExLow	VLow	Low	Mod	High	VHlgh	Excess.		
рН	7.6	(5.8)		Wod. All	caline		A A A A	COLOR LA				
Conductivity	6,360	(~)	umho/cm	V, High			(	CL*		F	ertilizer Recommende	ed
Nitrate-N	0	(-)	ppm**					1		İ	55 lbs N/acre	
Phosphorus	14	(50)	ppm	1111111111		(III		i I			50 lbs P2O5/acre	
Potassium	300	(125)	ppm	uumni	HIIIIIII	(minimi		BIIIII			0 lbs K20/acre	
Calcium (	17,185	(180)	ppm	mmm	1111111111			gnaaa.	ģi		0 lbs Ca/acre	
Magnesium	190	(50)	ppm				1111111111	DIIII		İ	0 lbs Mg/acre	i i
Sulfur	1,648	(13)	ppm	1111111111		(11111111111111111111111111111111111111	)	hannı	ķamaa	Ė	0 lbs S/acre	
Sodium	8,413		ppm		mmmi			Hillinin	immuni	Ė	•	
Iron								1		į		
Zinc				1980	45.5			İ		l		
Manganese								i		1		
Copper		A			* MI Car	<b>表</b> 语						
Boron								1		ļ		
Limestone Requirem	ent				MILE.				•		0.00 tons 100ECCE/ac	re
		ne s		Detaile	ed Sal	inity T	est (S	aturate	d Past	e Extra	ct)	
			Conjunction in addition in Februaries 19	p⊦		TOTAL BY TO THE SE	ng faireacht a side	2-1-2- 4-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-	7.		the first of the common of the first of the	2 (4-10-10-2
			Calentinicals		nduc	tivity			73.6	<b>0</b> mmhd	is/cm	701(C)
				THE REAL PROPERTY AND ADDRESS OF REAL PROPERTY OF THE PERSON OF THE PERS	dium		(PC)H-Q (FEPCH Z	time waterware	CAR SENSONERS	9 ppm	<b>570.431</b> m	neq/L
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		urie . L		Ca Ma	dcium agnes AR	in the second of		W (*)	CONTRACTOR AND AND AND AND AND AND AND AND AND AND	<b>5</b> ppm	210.772 m 13.524 m	

<sup>\*</sup>CL=Critical level is the point which no additional nutrient (excluding nitrate-N, sodium and conductivity) is recommended. \*\*ppm=mg/kg

Conductivity: Salinity levels are becoming elevated, monitor levels or remove salts with 10-15 inches of clean leach water. Nitrogen: Apply an additional 70 lbs/A of nitrogen for each subsequent heavy graze down.



**Outside TX County** 

Laboratory Number: 472170 Customer Sample ID: S-1 2

er Sample ID: S-1 2 Crop Grown: IMPROVED AND HYBRID BERMUDA GRASS, GRAZING

# Soil Analysis Report

Soil, Water and Forage Testing Laboratory Department of Soil and Crop Sciences 2478 TAMU

College Station, TX 77843-2478

979-845-4816 (phone) 979-845-5958 (FAX)

Visit our website: http://soiltesting.tamu.edu

Sample received on: 12/13/2016 Printed on: 12/21/2016

Area Represented: not provided

Analysis	Results	CL*	Units	ExLow	VLow	Low	Mod	Hlgh	VHlgh	Excess	
рН	7.7	(5.8)	and East ( pro-	Mod, All	kaline	Maria Samura					
Conductivity	4,710	(-)	umho/cm	V. High			CL	•		F	ertilizer Recommended
Nitrate-N	0	(-)	ppm**							ļ	55 lbs N/acre
Phosphorus	12	(50)	ppm			1					50 lbs P2O5/acre
Potassium	163	(125)	ppm	1111111111				11 '			0 lbs K20/acre
Calcium	21,931	(180)	ppm			•	f		ļI		0 lbs Ca/acre
Magnesium	325	(50)	ppm								0 lbs Mg/acre
Sulfur	597	(13)	ppm				11111111111		1111111111111		0 lbs S/acre
Sodium	1,068	(-)	ppm		11111111111			1			
Iron			**					) 			
Zinc		1 - Bar (17)									1000年後期
Manganese							į				
Copper				1 1394	1 . 1 . N			'			
Boron											
Limestone Requireme	nt.	THANKS									0.00 tons 100ECCE/acre
		)		Detail	ed Sal	inity T	est (Sa	iturate	d Past	e Extra	act)
		CHARLES IN THE		рН	1				7.	2	
22 (\$100 ) (10 mm)				C	onduc	tivity			39.3	<b>0</b> mmh	os/cm
	2000 1200			make and Conference in contrast	odium	y 'a-			147	2 ppm	64.049 meg/L
		(1) (F. 1)		Po	otassii	ım		1411 E.S. 27 14 14	2	2 ppm	0.569 meq/L
				Ca	alcium	an para sum a franci	egoration in all filters			2 ppm	34.053 meq/L
Total Comments of the Comments	1905 1979			a M	agnes	lum :			28	6 ppm	23:496 meq/L
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V-10-10-10-10-10-10-10-10-10-10-10-10-10-	2 3 W. 1 1	e er sa			SP				52.4	3	

<sup>\*</sup>CL=Critical level is the point which no additional nutrient (excluding nitrate-N, sodium and conductivity) is recommended. \*\*ppm=mg/kg

Conductivity: Salinity levels are becoming elevated, monitor levels or remove salts with 10-15 inches of clean leach water. Nitrogen: Apply an additional 70 lbs/A of nitrogen for each subsequent heavy graze down.



**Outside TX County** 

Laboratory Number: 472171 Customer Sample ID: S-13

# Soil Analysis Report

Soil, Water and Forage Testing Laboratory Department of Soil and Crop Sciences **2478 TAMU** 

College Station, TX 77843-2478 979-845-4816 (phone) 979-845-5958 (FAX)

Visit our website: http://soiltesting.tamu.edu

Sample received on: 12/13/2016 Printed on: 12/21/2016 Area Represented: not provided

Crop Grown:		AND I	IYBRID BEI	RMUDA	GRAS	S, GF	AZING				
Analysis	Results	CL*	Units	ExLow	VLow	Low	Mod	High	VHigh	Excess.	
рН	7.9	(5.8)	era a regimenta e	Mod. All	kaline	esys control	Transport to the	*-			
Conductivity	2,010	(-)	umho/cm	High			CL.	•		Fe	rtilizer Recommended
Nitrate-N	0	(-)	ppm**			1.5					55 lbs N/acre
Phosphorus	5	(50)	ppm								60 lbs P2O5/acre
Potassium	129	(125)	ppm	11111111111	11111111111	ШШШ	)!!!!!!!!!!!	. F			0 lbs K20/acre
Calcium	36,367	(180)	ppm	:	•		minim		ĮI		0 lbs Ca/acre
Magnesium	225	(50)	ppm				imminu	IIII			0 lbs Mg/acre
Sulfur	758	(13)	ppm		C 8 70 70 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	100 100 111 1	) HIIIIIII (†	limmi			0 lbs S/acre
Sodium	329	(-)	ppm					,			
Iron											- v v
Zinc					44.4%	\$6 A	]				
Manganese				ļ			1				
Copper					1.0						. * A
Boron											· · · · · · · · · · · · · · · · · · ·
Limestone Requirement	t a plant				47.02%			Page 1			0.00 tons 100ECCE/acre
					A AND	M.S. James I S. Amar		nata a salasin fu	era a arresta en estar		o amenicans source Adam - Louis et Estabandent Assault (Adam - Louis et Estabandent)
			3 19 2 3 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Detail	ed Sal	inity T	est (Sa	turate	A COLUMN TO THE PARTY OF THE PA	e Extrac	(1)
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				. C	onduc	tivity			Se an a company of the company	<b>0</b> mmhos	
				S	odium	et est et en en en en en	n azətəri	and out the state of the	NAMES OF TAXABLE	9 ppm	16.505 meq/L
				The same of the sa	otassiu	A Company of the Company				<b>2</b> ppm	<b>0.303</b> meq/L
					alcium	Alternative State	en en en en en en en en en en en en en e	a delta consultativa et e	CHARLEST CONTRACT	5 ppm	47,134 meq/L
				§ M	agnes	lum				8 ppm	4.763 meq/L
					٩R	nd opplant Rich	thater as fill to	ಪ್ರಕರಲ್ಪನೆಯ <u>ಿ</u>	3.2	and the second second	
	ent d			i S	SP				24.0	2	

<sup>\*</sup>CL=Critical level is the point which no additional nutrient (excluding nitrate-N, sodium and conductivity) is recommended. \*\*ppm=mg/kg

Conductivity: Salinity levels are becoming elevated, monitor levels or remove salts with 10-15 inches of clean leach water. Nitrogen: Apply an additional 70 lbs/A of nitrogen for each subsequent heavy graze down.



**Outside TX County** 

Laboratory Number: 472172 Customer Sample ID: S-1 4

er Sample ID: S-1 4

# Soil Analysis Report

Soil, Water and Forage Testing Laboratory Department of Soil and Crop Sciences 2478 TAMU

College Station, TX 77843-2478 979-845-4816 (phone) 979-845-5958 (FAX)

Visit our website: http://soiltesting.tamu.edu

Sample received on: 12/13/2016
Printed on: 12/21/2016
Area Represented: not provided

Crop Grown: I	MPROVED	AND F	IYBRID BE	RMUDA	GRAS	SS, GF	AZING	•			
Analysis	Results	CL*	Units	ExLow	VLow	Low	Mod	High	VHlgh	Éxcess.	
рН	7.9	(5.8)		Mod. Al	kaline	IFE A		ryste pro-			At the state of the section of the state of
Conductivity	3,300	(-)	umho/cm	V. High			C	L.		Fe	ertilizer Recommended
Nitrate-N	0	(-)	ppm**			3X.25					55 lbs N/acre
Phosphorus	8	(50)	ppm		1 .			l I			<b>55</b> lbs P2O5/acre
Potassium	65	(125)	ppm								55 lbs K20/acre
Calcium	31,150	(180)	ppm			1		•	ļii		0 lbs Ca/acre
Magnesium	187	(50)	ppm	- 1 Table - 1 Ta	A 2011 A 2011	1. Contract (1.00)		20.00			0 lbs Mg/acre
Sulfur	5,027	(13)	ppm		According to the Section of	I	A company of the comp	ļiiiiiiii	į į į į į į į į		0 lbs S/acre
Sodium	654	(-)	ppm	. minni			)IIII				
Iron	140 F W 177		**			4,574,111		ĺ			
Zinc						沙数片		1 1			
Manganese	n tata	42. 4 3.	0.015					l I.			
Copper	and the		12. 15. 15. 15. 15. 15. 15. 15. 15. 15. 15					[ 			
Boron	na an ann aitheara	tera e evas	25074540 5 9 1 1		Languaga	AND SOLVE	l Santanti	Nasaja i		ļ .	
Limestone Requirement	The state of the Pile						- militari k	a digh			0.00 tons 100ECCE/acre
	moule security to	5-23-5 P.S						PHEATERN.		9 <b>-</b> 022	
						inity	est (Sa	iturate	d Paste 7.4		
				pl S • €		daice			une number to the total	<del>1</del> O mmho	alom)
		1		The second second	onduc odium	LIVILY			ALC: ALC: A BUILDINGS	ժշրույլու 7 ppm	50.335 meq/L
			7 - 10 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 -		otassii				The second security of the second	r ppm≟	0.411 meg/L
					otassii alcium	AL SECTION AND A SECTION ASSESSMENT			and a transfer of the state of a state of	8 ppm	131.147 meq/L
		e e e	. N. 18	the second second	agnes	attention from March 1980 of			Arra Barreron Louis	5.ppm:	11.087 meg/L
				Market and the second of the s	agnes AR	LULL			5.9	California marketini in contraction in	
	ue en en files				SP				26.0		
				<b>建</b> 序进行组织 2.4.	e-Status	30000000000000000000000000000000000000	<b>建新越越越越越</b>	Sariyi Karibi da	NOTE BELL	SEPERATE STORES	(1) (1) (1) (1) (1) (1) (1) (1) (1) (1)

<sup>\*</sup>CL=Critical level is the point which no additional nutrient (excluding nitrate-N, sodium and conductivity) is recommended. \*\*ppm=mg/kg

Conductivity: Salinity levels are becoming elevated, monitor levels or remove salts with 10-15 inches of clean leach water.

Nitrogen: Apply an additional 70 lbs/A of nitrogen for each subsequent heavy graze down.



Outside TX: County

Laboratory Number: 472173 Customer Sample ID: S-1 5 Soil Analysis Report Soil, Water and Forage Testing I

Soil, Water and Forage Testing Laboratory Department of Soil and Crop Sciences 2478 TAMU

College Station, TX 77843-2478 979-845-4816 (phone)

979-845-5958 (FAX)

Visit our website: http://soiltesting.tamu.edu

Sample received on: 12/13/2016
Printed on: 12/21/2016
Area Represented: not provided

Crop Grown: IMPROVED AND HYBRID BERMUDA GRASS, GRAZING

Analysis	Results	CL*	Units	ExLow	VLow	•	Mod	High	VHigh	Excess.			
pH			Ointo	Mod, Alk		LOW	INOU	rigii	vnign	EXCESS.			
l <sup>*</sup>	8.1	. ,			kanne					r	innu Dann		لہ
Conductivity	2,230	(-)	umho/cm	High			CL:	.*	•		izer Reco		u
Nitrate-N	0	(-)	ppm**	40.00							55 lbs N/a		
Phosphorus	7	(50)	ppm				1				55 lbs P2C		
Potassium	37	(125)	ppm		Commence of the Commence of th		,				B <b>0</b> lbs K20		
Calcium	28,799	(180)	ppm			\$	mmni				0 lbs Ca/a		
Magnesium	135	(50)	ppm	. 2017/19/10/2004	And Street Control of the		) III III III B				0 lbs Mg/	acre	
Sulfur	5,242	(13)	ppm			2					0 lbs S/ac	re	
Sodium	770	(-)	ppm			(mann)	)iiiii						· · · · /
Iron						į	;						
Zinc					104								
Manganese	•						į						
Copper		1				100 A	ac i						
Boron	•												
Limestone Require	ment									0.	<b>00</b> tons 10	0ECCE/acr	е
				-									
				Detaile	ed Sal	inity T	est (Sa	turate	d Paste	Extract)			
		2	Albino de Longo de Company	рŀ		to some of Anna con-			7.6				
					onduc	tivity			12.4	7 mmhos/cn	1 1 1 1 1 1		
				Dates - J. A. Common references	dium	Committee and the	ulanii il isaa ulanii ili	and the same of the same	102	1 ppm	TOTAL COMMENTS	<b>44.446</b> m	eg/L
					tassii	Commercial and the Commercial Com			de administration along the	1 ppm	and the	<b>0.355</b> m	market transport
				SECTION OF THE PROPERTY OF	ılcium	professional designation of	ACTOR STANS		1. 2.34 (2.5.2)	7 ppm	17 \$1 10 July 5 H25 CE 108	<b>71.684</b> m	Car deal volva from
	7.75 T. St. &	96 4 200		tare reserved to	ignes	to describe the			STATE OF BUILDING TO STATE	) ppm		<b>5.7</b> 16 m	er etalen er en
				s SA	3.40 0.700-00				7.14		でのほうなの情で声音を		4000000
	Conference in the conference in the			ss S					36.37	mark (Acad Manuscratical	7777		
				2007年中央	<b>以上有主张的</b> 的	FREE PROPERTY.	在特殊的特殊的	できたのであるので	ement of the	And him A Shim A A A A A A A A A A A A A A A A A A A	THE PROPERTY OF STREET	on verally considerate while	and the first

<sup>\*</sup>CL=Critical level is the point which no additional nutrient (excluding nitrate-N, sodium and conductivity) is recommended. \*\*ppm=mg/kg

Conductivity: Salinity levels are becoming elevated, monitor levels or remove salts with 10-15 inches of clean leach water.

Nitrogen: Apply an additional 70 lbs/A of nitrogen for each subsequent heavy graze down.

Potassium: Split apply potassium fertilizer if recommendation is for more than 75 lbs K2O per acre.



**Outside TX County** 

Laboratory Number: 472174 Customer Sample ID: S-1 6

# Soil Analysis Report

Soil, Water and Forage Testing Laboratory Department of Soil and Crop Sciences 2478 TAMU

College Station, TX 77843-2478

979-845-4816 (phone) 979-845-5958 (FAX)

Visit our website: http://soiltesting.tamu.edu

Sample received on: 12/13/2016 Printed on: 12/21/2016 Area Represented: not provided

Crop Gro	own: IMPROVED	AND H	YBRID BE	RMUDA	GRAS	SS, GR	AZINO	3			
Analysis	Results	CL*	Units	ExLow	VLow	Low	Mod	High	VHlgh	Excess.	
рН	8.2	(5.8)		Mod. Al	kaline	13.550.00					
Conductivity	1,580	(-)	umho/cm	High				i.•		. F€	ertilizer Recommended
Nitrate-N	0	(-)	ppm**			1.00	en anti-			ļ	55 lbs N/acre
Phosphorus	6	(50)	ppm		<b> </b> 111			i I			60 lbs P2O5/acre
Potassium	30	(125)	ppm		iIIII .						90 lbs K20/acre
Calcium	30,974	(180)	ppm					1 .	ĮΠ	-	0 lbs Ca/acre
Magnesium	128	(50)	ppm	2 AND AND SECTION AND ADDRESS OF THE PARTY O				375 2.50			0 lbs Mg/acre
Sulfur	5,234	(13)	ppm	11111111111			)mmmi	փորուս	(mmm)	Ė	0 lbs S/acre
Sodium	153	(-)	ppm			(111					
Iron								I I			
Zinc		•						l I		İ	-
Manganese								į			
Copper								1			
Boron	•							I			and the second second
Limestone Requir	ement			Name:							0.00 tons 100ECCE/acre
				Detail	ed Sal	inity T	est (S	aturate	ed Past	e Extra	ct)
		-Charles and		p	Н				7.	7	
				C	onduc	tivity			4.6	<b>7</b> mmho	
				mention of the second	odium				19	7 ppm	8.554 meq/L
				P	otassi	um			1	<b>2</b> ppm	<b>0,298</b> meg/L
				С	alcium	·			80	0 ppm	<b>39,935</b> meq/L
				M	lagnes	lum				1 ppm₌	3,340 meg/L
				Figure 2 County County County	AR	er szerő eskerőlő	A Commentary	-9.5 (\$1.5 1.7 1.7 1.7 1.7 1.7 1.7 1.7 1.7 1.7 1.7	1.8		
		(a., e. ]			SP				16.4		

\*CL=Critical level is the point which no additional nutrient (excluding nitrate-N, sodium and conductivity) is recommended. \*\*ppm=mg/kg

Condüctivity: Salinity levels are becoming elevated, monitor levels or remove salts with 10-15 inches of clean leach water. Nitrogen: Apply an additional 70 lbs/A of nitrogen for each subsequent heavy graze down.

Potassium: Split apply potassium fertilizer if recommendation is for more than 75 lbs K2O per acre.



**Outside TX County** 

Laboratory Number: 472175 Customer Sample ID: S-1 7 Soil Analysis Report

Soil, Water and Forage Testing Laboratory Department of Soil and Grop Sciences 2478 TAMU

College Station, TX 77843-2478 979-845-4816 (phone)

979-845-5958 (FAX) Visit our website: http://soiltesting.tamu.edu

Sample received on: 12/13/2016
Printed on: 12/21/2016
Area Represented: not provided

Customer Samp														
Crop G	rown: l	IMPROVED		IÝBRID BEI	RMUDA	GRAS	SS, GR	AZING	•					
Analysis		Results	CL*	Units	ExLow	VLow	Low	Mod	High	VHigh	Excess.			
рН		8.1	(5.8)		Mod. All	kaline			-13F		-			The state of
Conductivity		1,430	(-)	umho/cm	Moderat				L•		Fert	lizer Reco	mmende	ed
Nitrate-N		0	(-)	ppm**			100					55 lbs N/ac	cre	18 <sup>70,13</sup>
Phosphorus	•	4	(50)	ppm	11111111				j J			<b>60</b> lbs P2O	5/acre	
Potassium		46	(125)	ppm	minim		技術類		7	Ì		75 lbs K20	/acre	
Calcium		32,453	(180)	ppm	1111111111		ļmmini		kummu.	įμ		0 lbs Ca/a	acre	
Magnesium		112	(50)	ppm					ģΠ			0 lbs Mg/a	асге	١.
Sulfur		5,053	(13)	ppm	1111111111		(000000	1111111111	hiiiiiiiiiiii	(mmm	Ŕ	0 lbs S/ac	re	
Sodium		82	(-)	ppm		mm			İ					
Iron			.,						i I					
Zinc			11 1 2			, a N	1.50		Ī					1 7
Manganese			•						i					
	1000		Programme						] ]					
Boron		•					l		ŗ			•	•	
Limestone Requi	rement	100 Miles		As land to be							· o	.00 tons 10	0ECCE/ac	re
												· · · · ·		
	:42 - 17.				Detail	ed Sal	inity T	est (Sa	aturate	d Past	e Extract)			
	e formula de	said a 155 bas		rich de la company	pl	But Butter and a second	4+5 (t <u>ru</u> n=+ <b>. ≠</b> 5 (trun):	CO. 22 17 10 \$ 147 40	organist Angeles de	7.	41.071 - 20 1	A TOTAL BALLET SAR AND ALCOHOL	To the transfer of the pro-	
						onduc	tivity		#5 (N)	2.8	6 mmhos/c	m		
			terreste en		The second of the second	odium	1 2 mg C - C	Report Constitutes	96 Sept. 250 C Sec.	2 TT 3 TW CATE	2 ppm	government for our	<b>6.164</b> m	neg/L
		yes here.	2 1			otassii	anne en la company				1 ppm		<b>0.272</b> m	and the second
					<b>一直</b> 100 mg 50 mg 10 mg	alcium	artecianos Botos em-	14日1日1日7日	CONTRACTOR		7 ppm	, ropina et diposateuri, in 2015	<b>31.292</b> m	
	ul allen		1077		er our entre and	agnes	WANT HERE OF STREET			orentem i felm Director	2 ppm .		<b>1.783</b> m	and the same of the same
	10.50	e ≧ wate ba	Tork Isus			AR		CONTRACTOR OF THE PROPERTY OF		1.5	State and a second second	.gr 1 84257 8 CR81 12 51 57 57 57 57 57 57 57 57 57 57 57 57 57	2. 1925-1925-1925-1925-1925-1925-1925-1925-	<b>《正信》的</b> [6]
	107 (P. 15					SP				15.6				
	was a way of the world		All the second second second	A STATE OF THE PARTY OF THE PAR	Sept Control of the Control	7. 4. X - X - X - X - X - X - X - X - X - X	DESCRIPTION OF THE PARTY.		THE STREET STREET	CANADA TO THE PARTY	the transfer of the second of the			10 mark 12 mark 12 10 2

<sup>\*</sup>CL=Critical level is the point which no additional nutrient (excluding nitrate-N, sodium and conductivity) is recommended. \*\*ppm=mg/kg

Conductivity: Salinity levels are becoming elevated, monitor levels or remove salts with 10-15 inches of clean leach water. Nitrogen: Apply an additional 70 lbs/A of nitrogen for each subsequent heavy graze down.

Potassium: Split apply potassium fertilizer if recommendation is for more than 75 lbs K2O per acre.



Outside TX County

Laboratory Number: 472176 Customer Sample ID: S-2 0 Soil Analysis Report

Soil, Water and Forage Testing Laboratory Department of Soil and Crop Sciences 2478 TAMU

College Station, TX 77843-2478 979-845-4816 (phone) 979-845-5958 (FAX)

Visit our website: http://soiltesting.tamu.edu

Fertilizer Recommended

Sample received on: 12/13/2016
Printed on: 12/21/2016
Area Represented: not provided

High

VHigh

Excess,

Crop Grow	n: IMPROVED	AND H	YBRID BEI	RMUDA	GRASS	s, GR	RAZING
Analysis	Results	CL*	Units	ExLow	VLow	Low	Mod
рН	7.5	(5.8)	स्तरकार स्थाप	Slightly	Alkaline	9.0000000000000000000000000000000000000	English tool
Conductivity	6,190	(-)	umho/cm	V. High			CL*
Nitrate-N	0	(-)	ppm**		Orania,	4 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	
Phosphorus	16	(50)	ppm		11010111110		

Conductivity	0,100	\ /	un nor on	********			CL			
Nitrate-N	0	(-)	ppm**		19.00				55 lbs N/acre	a S
Phosphorus	16	(50)	ppm	011111111	namanda	IIIII	1 1		45 lbs P2O5/acre	
Potassium	288	(125)	ppm		111111111111111111111111111111111111111		IIIII 🎁 IIIIII "		0 lbs K20/acre	· 47
Calcium	18,367	(180)	ppm		111111111111111111111111111111111111111		mağmaa	iļu	0 lbs Ca/acre	
Magnesium	139	(50)	ppm				mindu -		0 lbs Mg/acre	
Sulfur	6,112	(13)	ppm	11111111111	mamaji		mışımı	rimmani i	0 lbs S/acre	
Sodium	6,440	(-)	ppm			mmini	mignum	rimmum		
Iron	•						1			
Zinc	Same and the second of the sec			9000						
Manganese							j I		-	2,5
Copper							i			
Boron				1, 1			1		3	"va
Limestone Require	ment			1800 1	1 (1.8)		AND T		0.00 tons 100ECCE/acre	
				= \-087425\tau\$		engrunn er till sid sid	etama valualite in	ng mengel tanggan diggs		aerte
				Detaile	ed Salir	ity Test	(Saturat	ed Paste E	Extract)	
				pŀ	rabrica materials and ex-	xc=ru-sareirosara	eraniemoetonioni	7.0	n a chairt in 1957 a in Thuair ann an Thomas an 1860, i tha in thairt is bhailt i Thailte a in Thailte an Thail	0.27-1021
				Co	onducti	vity		<b>62.80</b> r	mmhos/cm	

De	tailed Salinity Test (Saturate	d Paste Extract)	
	Нq	7.0	
	Conductivity	62.80 mmhos/cm	
ASSERTATION OF THE PROPERTY OF	Sodium	10831 ppm	471.314 meg/L
	Potassium	200 ppm	5.110 meg/L
	Calcium	3197 ppm	159.552 meq/L
	Magnesium	99 ppm	8.141 meg/L
	SAR	51.47	
	SSP TO THE STATE OF THE STATE O	73.17	e De la Carago de la compaña d

<sup>\*</sup>CL=Critical level is the point which no additional nutrient (excluding nitrate-N, sodium and conductivity) is recommended. \*\*ppm=mg/kg

Conductivity: Salinity levels are becoming elevated, monitor levels or remove salts with 10-15 inches of clean leach water. Nitrogen: Apply an additional 70 lbs/A of nitrogen for each subsequent heavy graze down.



**Outside TX County** 

Laboratory Number: 472177 Customer Sample ID: S-21

Soil Analysis Report

Soil, Water and Forage Testing Laboratory Department of Soil and Crop Sciences 2478 TAMU

College Station, TX 77843-2478 979-845-4816 (phone) 979-845-5958 (FAX)

Visit our website: http://soiltesting.tamu.edu

Sample received on: 12/13/2016 Printed on: 12/21/2016 Area Represented: not provided

High

VHlgh

Excess.

0401011101								
Cro	p Grown:	IMPROVED	AND	HYBRID BE	RMUDA	GRAS	S, Gh	KAZING
Analysis		Results			ExLow	VLow	Low	Mod
рН		7.9	(5.8)		Mod. All	caline		\$ MERCHANIS
Conductivity		2,050	(-)	41111107 0111	High		4	CL.
N 124 4 N 1			11	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		Mark No.	<b>電影電影</b>	

(-) umho/cm H (-) ppm** I (50) ppm II 125) ppm II	ligh cu Mullium (Millium) Mullium (Millium) Millium (Millium) Millium (Millium) Millium (Millium) Millium (Millium)	Fertilizer Recommended 55 lbs N/acre 50 lbs P2O5/acre 0 lbs K20/acre 0 lbs Ca/acre
(-) ppm**     (50) ppm       125) ppm		55 lbs N/acre 50 lbs P2O5/acre 0 lbs K20/acre
(50) ppm II 125) ppm II	numan human (annum human kuman uman (annum kuman kuman kuman kuman kuman kuman kuman kuman kuman kuman kuman kuman kuman kuman kuman kuman k	50 lbs P2O5/acre 0 lbs K20/acre
(50) ppm II 125) ppm II	numan human (annum human kuman uman (annum kuman kuman kuman kuman kuman kuman kuman kuman kuman kuman kuman kuman kuman kuman kuman kuman k	0 lbs K20/acre
1-01	manai prantita produci pintenski produci ja	
100	and the state of t	0 lbs Ca/acre
(50) ppm II	uning properties of the proper	0 lbs Mg/acre
	imminifinismi (minim) minipatini (minima)	0 lbs S/acre
	immiliananifaman	÷
	그런 중점 원칙 보다는 다니다.	
	Y IN THE SEASON :	0.00 tons 100ECCE/acre

De	tailed Salinity Test (Saturat	ed Paste Extract)	
	рН	7.4	
	Conductivity	4.88 mmhos/cm	
The state of the s	Sodium	315 ppm	13.697 meq/L
	Potassium	<b>15</b> ppm	0.389 meq/L
	Calcium	760 ppm	<b>37.934</b> meq/L
	Magnesium	<b>17</b> ppm	1.362 meq/L
The second secon	SAR	3.09	
	SSP	25.66	
		1.1.1.44	22

<sup>\*</sup>CL=Critical level is the point which no additional nutrient (excluding nitrate-N, sodium and conductivity) is recommended. \*\*ppm=mg/kg

Conductivity: Salinity levels are becoming elevated, monitor levels or remove salts with 10-15 inches of clean leach water. Nitrogen: Apply an additional 70 lbs/A of nitrogen for each subsequent heavy graze down.



Outside TX County

Laboratory Number: 472178 Customer Sample ID: S-3 0

2478 TAMU

College Station, TX 77843-2478 979-845-4816 (phone) 979-845-5958 (FAX)

Soil Analysis Report

Visit our website: http://soiltesting.tamu.edu

Soil, Water and Forage Testing Laboratory Department of Soil and Crop Sciences

Sample received on: 12/13/2016 Printed on: 12/21/2016 Area Represented: not provided

Crop Grown: IMPROVED AND HYBRID BERMUDA GRASS, GRAZING

Analysis	Results	CL*	Units	ExLow	VLow	Low	Mod	High	VHigh	Excess.			
рН	7.9	(5.8)	e servijare e	Mod. Alk	aline		or of the second						
Conductivity	5,270	(-)	umho/cm	V. High			CI	r.		Fe	ertilizer Re	comme	nded
Nitrate-N	1	(-)	ppm**	1000			11/11/14	İ	Ì		55 lbs N	l/acre	
Phosphorus	22	(50)	ppm			İmmini		1 1			35 lbs F	205/acre	
Potassium	230	(125)	ppm				HIIIIII	jiiii °			0 lbs K	20/acre	
Calcium	18,063	(180)	ppm						11		0 lbs C	a/acre	
Magnesium	134	(50)	ppm				LITTITITI	)][			0 lbs N	lg/acre	
Sulfur	6,000	(13)	ppm					וווווווווווול	ļumana (1888		<b>0</b> lbs S	lacre	
Sodium	4,211	(-)	ppm		MINIM				uu T				
iron								) [					
Zinc								i I					
Manganese													
Copper	and the second						i	i d			•		
Boron								l I					
Limestone Requirement	4	1.7744			Vin Vin			4.			0.00 tons	100ECCE	/acre
					arsena cuur	: ಕರ್ನಾಂಪಾಗವಾಗು	sale sella calle	ntamenatia.	eleni e Pastoni india.	dan musur day	ು ಕ್ರೌಟರ್ ಡಿಎಸ್ಸ್ ಪ್ರೇಕ್ಷೆ ಪ್ರದೇಶ ಸಂಘಟಿಸುತ್ತ	versitata badazla	S. ST. T. T. S. VINGER VIN S. S.
						inity T	est (Sa	iturate	d Paste		<b>注</b> ) 医库里斯		
errenden der er er er er er er er er er er er er e		whateres a west		рН	Committee Service Services			THE STATE OF THE	7.	The Administration of the Control	ಇದರ ಕನ್ನಡ ಚಿತ್ರವೇಗುವುದು.	anteriorization	CT-86-28-78-800
		(1.4.) (1.4.)		THE PERSON NAMED IN THE PERSON NAMED IN	nduc	tivity			a de a Autorità de Certain 1987	) mmho	s/cm		
					dium	ann san Francis A	elemperatur en con con	いろ(アーで)あることでいる。	· 2004-2 HOW STREET	7 ppm	oran we na oran markaban		4 meq/L
				BROWN OF THE PROPERTY.	tassiı	· · · · · · · · · · · · · · · · · · ·			124	1 ppm			3 meq/L
				Ca	lcium	Notice Property Section and	and the state of the state of the state of	potest can see	358′	1 ppm	maretan trunce della della del	A SECRETARY ASSESSMENT FOR THE	7 meq/L
				. Ma	gnes	ium			- 6	5 ppm		5.31	6 meq/L
				SA					40.77	7			
			17.72 D. T.	SS	P				67.6	3			

<sup>\*</sup>CL=Critical level is the point which no additional nutrient (excluding nitrate-N, sodium and conductivity) is recommended. \*\*ppm=mg/kg

Conductivity: Salinity levels are becoming elevated, monitor levels or remove salts with 10-15 inches of clean leach water. Nitrogen: Apply an additional 70 lbs/A of nitrogen for each subsequent heavy graze down.



Outside TX County

Laboratory Number: 472179 Customer Sample ID: S-3 1

Soil Analysis Report

Soil, Water and Forage Testing Laboratory Department of Soil and Crop Sciences 2478 TAMU

College Station, TX 77843-2478 979-845-4816 (phone) 979-845-5958 (FAX)

Visit our website: http://soiltesting.tamu.edu

Sample received on: 12/13/2016 Printed on: 12/21/2016

Area Represented: not provided

Crop Grown: IMP	KOAFD	AND H	IARKID RFI	RIVIUDA	GRAS	58, GF	RAZINO	j i				
	Results	CL*	Units	ExLow	VLow	Low	Mod	High	VHlgh	Exces	s,	
рН	7.8	(5.8)	이 시작한 교육 :	Mod. Al	kaline	200	* # ##				e i a mini	Marine Triby
Conductivity	2,140	(-)	umho/cm	High			c	L*			Fertilizer Recommended	1
Nitrate-N	2	(-)	ppm**			(5)					55 lbs N/acre	
Phosphorus	12	(50)	ppm	11111111111				1			50 lbs P2O5/acre	
Potassium	246	(125)	ppm	2.1122-0.122		A SECTION AND LOSS OF THE PERSON AND LOSS OF	and the second second	1			0 lbs K20/acre	17.14
Calcium .	15,240	(180)	ppm			•	F	1	ļII		0 lbs Calacre	
Magnesium	148	(50)	ppm	1000		・ いたいかくび組ま	A	5,141	ļ ·		0 lbs Mg/acre	T PW
Sulfur	2,336	(13)	ppm	. !				ģiiiiiiiii	(IIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIII		0 lbs S/acre	
Sodium	422	(-)	ppm									W. J.
lron			and the second second					ì				
Zinc						医隐隐		I I		İ		4
Manganese			Jacobs No.					<b>j</b> I	İ			
Copper						- 527.5		i				A
Boron	and the second	10 14 15 25	and the second second			.,			į			
Limestone Requirement			Ografia (1786).	10000							0.00 tons 100ECCE/acre	
					ellika beresa	Averence:	Magaritations	ugiouses in 6.0	60-00 <b>-1</b> 551-1551-1600	en en en en en en en en en en en en en e		
	4.55					nity T	est (Sa	iturate	d Paste		act)	
				pl ====================================	A CHARLES AND AND AND	T-STA-STAND	es sustantian	SKÅLAJETOS	7.0	TANK DISPLAN		torios.
	. 36. 17			eget and It. a control of the It.	onduct	ivity			· · · · · · · · · · · · · · · · · · ·	a distance factories	nos/cm	
	- incres	sone selection			odium	75572534704F		SMALTER SERVICE	Committee of the Commit	9 ppm		
	1,11			CONTRACTOR SANGE	otassiu	and the State of		時間可		6 ppm		
			a signal	THE HOLD HAVE STREET AND A	alcium.	renduction to Affair	MOTOR AND	iairiis	<b>表表现在</b> 是有效的现在分词	9 ppm	おない といい マーチ セカンプラ マンステンス・ナンモラカン あいか たん 治療 かとば ヤイス (数字) 草葉	THE PERSON NAMED IN
	1.00			PROPERTY OF THE PROPERTY OF TH	agnesi	um			,	8 ppm	1.512 me	9/上。
				AND A COLUMN TANAMA	AR		HERVATIRATE	SAUSTRIE N	3.1			unida Unida
是 新疆				S	SP!			學問題	25.9	<b>共享销售</b>	所述出版的研究。但是由國際的	

\*CL=Critical level is the point which no additional nutrient (excluding nitrate-N, sodium and conductivity) is recommended. \*\*ppm=mg/kg

Conductivity: Salinity levels are becoming elevated, monitor levels or remove salts with 10-15 inches of clean leach water. Nitrogen: Apply an additional 70 lbs/A of nitrogen for each subsequent heavy graze down.



**Outside TX County** 

Laboratory Number: 472180 Customer Sample ID: S-3 2

Crop Grown: IMPROVED AND HYBRID BERMUDA GRASS, GRAZING

# Soil Analysis Report

Soil, Water and Forage Testing Laboratory Department of Soil and Crop Sciences 2478 TAMU

College Station, TX 77843-2478 979-845-4816 (phone)

979-845-5958 (FAX) Visit our website: http://soiltesting.tamu.edu

Sample received on: 12/13/2016 Printed on: 12/21/2016

Printed on: 12/21/2016
Area Represented: not provided

Analysis	Results	CL*	Units	ExLow	VLow	Low	Mod	High	VHigh	Excess.		
рН	8.1	(5.8)		Mod. Ali	kaline		v.prette					
Conductivity	1,520	(-)	umho/cm	Moderat	e		. с	Ļ•		_	lizer Recommende	d
Nitrate-N	Ò	(-)	ppm**	- News	No.		1				55 lbs N/acre	. 3
Phosphorus	7	(50)	ppm		11111			! !		İ	<b>55</b> lbs P2O5/acre	
Potassium	45	(125)	ppm	1111111111				° 			<b>75</b> lbs K20/acre	
Calcium	20,117	(180)	ppm		<b>!</b>			1	Ų.		0 lbs Ca/acre	
Magnesium	58	(50)	ppm						l .		0 lbs Mg/acre	
Sulfur	6,142	(13)	ppm			(000000	) 1111111111	himmi	(minimi	Ė	0 lbs S/acre	
Sodium	171	(-)	ppm	111111111	HIIIIIIII	(III						
Iron								1				
Zinc		yet deli			44.4	Y 14%		i i				
Manganese								İ				
Copper	13/44				APP APP			1				
Boron								l			4 24	
Limestone Requirement	<b>(</b>									0	.00 tons 100ECCE/acr	e .
							and more existing	water change and	CO-00 SCIOL 1-44+125	uningen <del>austr</del> icensky filo		
		47 a (8		Detail	ed Sal	inity T	est (Sa	aturate	d Past	e Extract)		
				pl		antera esta a sens	ne Denominaro r	atawana ta	7.	and the same of the same of the same		5.78V6854344
		1		d C	onduc	tivity			a market and a fine first and a second	<b>0</b> mmhos/c		
				So	odium	a	i e i e - European	TANTANIN SALIA	マッチ ちんいち マンモアグ	9 ppm	<b>13.459</b> m	
		ur ak		FF HALL BUT STATE OF	otassi	17.00-20-20-21.00				4 ppm	0.362 m	
				C	alcium	1	A 1 - COMP TO LOOK TO THE TOTAL	urs on our drops where	management and a second second	1 ppm	<b>33.459</b> m	
				₹ M	agnes	lum			1	4 ppm	1.129 m	eq/L
なないないないである。 なないないないできた。 なないないないできた。 なないないないないないないないできた。 なないないないないないないないないないないないないないないないないないないな	Language Control	ALL CASE THE RESIDENCE AND ADDRESS OF THE PERSONS ASSESSMENT ASSESSMENT OF THE PERSONS ASSESSMENT ASSESSMENT ASSESSMENT ASSESSMENT ASSESSMENT ASSESS	- CONTRACTOR CONTRACTOR	S	AR				3.2	en con a company of a constant		and the second
		in villar i		S S	SP .				27.8	0		

<sup>\*</sup>CL=Critical level is the point which no additional nutrient (excluding nitrate-N, sodium and conductivity) is recommended. \*\*ppm=mg/kg

Conductivity: Salinity levels are becoming elevated, monitor levels or remove salts with 10-15 inches of clean leach water.

Nitrogen: Apply an additional 70 lbs/A of nitrogen for each subsequent heavy graze down.

Potassium: Spilit apply potassium fertilizer if recommendation is for more than 75 lbs K2O per acre.



Outside TX County

Laboratory Number: 472181 Customer Sample ID: S-4 0

Crop Grown: IMPROVED AND HYBRID BERMUDA GRASS, GRAZING

# Soil Analysis Report

Soil, Water and Forage Testing Laboratory Department of Soil and Crop Sciences 2478 TAMU

College Station, TX 77843-2478 979-845-4816 (phone) 979-845-5958 (FAX)

Visit our website: http://soiltesting.tamu.edu

Sample received on: 12/13/2016
Printed on: 12/21/2016
Area Represented: not provided

Crop Grov	wn: IMPROVEL	ANDH	ARKID RE	RWUDA	GRAS	55, Gr	CAZING	1				
Analysis	Results	CL*	Units	ExLow	VLow	Low	Mod	High	VHlgh	Excess.		
рН	7.7	(5.8)		Mod. All	kaline							
Conductivity	6,250	(-)	umho/cm	V. High			С	L•		Ferti	izer Recomr	nended
Nitrate-N	0	(-)	ppm**						l		55 lbs N/acre	
Phosphorus	29	(50)	ppm	mannin	1111111111	<u>i</u> manni	Ì	i I			<b>25</b> lbs P2O5/a	сге
Potassium	453	(125)	ppm								0 lbs K20/acr	e
Calcium	10,009	(180)	ppm						ļl		0 lbs Ca/acre	
Magnesium	195	(50)	ppm	1111111111				AIIII			0 lbs Mg/acre	•
Sulfur	893	(13)	ppm		1111111111	(mmm)	)	<b>}</b> !!!!!!!!!!	(mmmm		0 lbs S/acre	
Sodium	8,505	(-)	ppm	1111111111			Munin					•
Iron								i [				
Zinc								I 1				
Manganese								i I				
Copper			(A.6.1) 1749/		t Bylishi			İ				
Boron					,							
Limestone Requirer	nent									. 0.	00 tons 100EC	CE/acre
				and the second second second	- www.tometre.4	And the second section of the	an orași de anticolor de antico	e-annen	Table Treatments	error (Angele et europe en vis e	a vetebouttavan venteraasse	on arteniano. E e la contrata dade
	in the			Detail	ed Sal	inity T	est (Sa	iturate	d Paste	Extract)		
	and the second second second second second			pŀ	والأرواض والمساوين والمساورة	ongles resultin	- A. S.A. N. T. S. S. S. S.	official was a set of a set	7.3	man for an motor come	e ann maire ealaisean eala militaria es emis	en and office a particulation
		5, 3		man and a commentation of	onduc	and the state of t			THE DESCRIPTION OF STREET	0 mmhos <i>i</i> cn	ea annean eat on Victorian delines	
	· · · · · · · · · · · · · · · · · · ·			termination and a state of the second	odlum		nur åttre i nurske trens	s decimal de la dassa de	ソン・ディス かいいき かってき かってき かい	0 ppm	Control of the second s	556 meq/L
				- Salar market	otassic	e and an additional sufficiency			17 1	3 ppm	har and an extendibility of all the second	131 meq/L
		altrystradio bacerno		<del>andria de la composiciona de</del>	alcium	the transport and the	No subsection of the	un i religio <del>de</del> rei	・・・・ チャンカラ かんたてまかり	6 ppm	era i comencia e esperante Parametra en	893 meq/L
	Na Salah da			Mrs. E. St. service designation	agnes	lum			12	B ppm	10.	<b>485</b> meq/L :
					٩R	a mendesaftere of the	i Segment et af en ee	isi e wata wata	70.6		r o construir de construir en r	
		数数据		# S	SP				76.1	9. 海路等等。		

<sup>\*</sup>CL=Critical level is the point which no additional nutrient (excluding nitrate-N, sodium and conductivity) is recommended. \*\*ppm=mg/kg

Conductivity: Salinity levels are becoming elevated, monitor levels or remove salts with 10-15 inches of clean leach water.

Nitrogen: Apply an additional 70 lbs/A of nitrogen for each subsequent heavy graze down.



Outside TX County

Laboratory Number: 472182 Customer Sample ID: S-4 1

# Soil Analysis Report

Soil, Water and Forage Testing Laboratory Department of Soil and Crop Sciences 2478 TAMU

College Station, TX 77843-2478 979-845-4816 (phone) 979-845-5958 (FAX)

Visit our website: http://soiltesting.tamu.edu

Sample received on: 12/13/2016 Printed on: 12/21/2016 Area Represented: not provided

Crop Grow	n: IMPROVED			RMUDA	GRAS	SS, GF	AZIN	G			
Analysis	Results	CL*	Units	ExLow	VLow	Low	Mod	High	VHigh	Excess.	
pН	7.8	(5.8)		Mod. Al	kaline	MANAGE PAR	De novigens	141			
Conductivity	4,600	(-)	umho/cm	V. Hìgh				CL.		F	ertilizer Recommended
Nitrate-N	0	(-)	ppm**								55 lbs N/acre
Phosphorus	13	(50)	ppm	1111111111	minini	ļ		1			50 lbs P2O5/acre
Potassium	239	(125)	ppm				111111111	IŅIIII '	1.	İ	0 lbs K20/acre
Calcium	16,225	(180)	ppm		1	1	·	IMIIIIIIIIII	Ŵ.		0 lbs Ca/acre
Magnesium	169	(50)	ppm		(1111111111			IģII			0 lbs Mg/acre
Sulfur	472	(13)	ppm					ipanna			0 lbs S/acre
Sodium	2,809	(-)	ppm			IIIIIIIII	HIIIIII	II)IIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIII	Ų.		
Iron					l .		i	i			
Zinc								1			•
Manganese								1			
Copper						İ		į			
Boron						l		Ĺ			• • • • •
Limestone Requirem	ent										0.00 tons 100ECCE/acre
				Nation of the State of the Stat		CONSTRUCTION	na oververa	të anti se e të	and the second of the second	erest i futoro nos	ant will be a sugar and the control with the second
						inity T	est (S	aturate	ed Past		ct)
				pl			n tateanness	94.5-50A(65)	<b>7.</b>		
				The state of the s	onduc	tivity			St. St. Add Carried and	0 mmhc	the Party of the Comment of the Comm
		same primare		ment of the Company	odium			egy egy egy egy egy eg	THE STREET WAS PROPERTY.	7 ppm	166.117 meq/L
	r es anelse			man of care and the	otassiı	Annual Street Control Street		國際政策		<b>0</b> ppm	- 1.541 meq/L
				- i i i i i i i i i i i i i i i i i i i	alcium	en automobile solution	e interpretation	otetaeenako		4 ppm	<b>190.312</b> meq/L
			alta (Lea Maria della L		agnes	ium				0 ppm	<b>6.576</b> meq/L
					AR	uParanistis	e Britania e e e e e e e e e e e e e e e e e e e	i a walang a green	16.7		ration on traverse quite suite en present constitutivité strave de l'administration de la Armenta.
				S	SP				45.5	7.331	

<sup>\*</sup>CL=Critical level is the point which no additional nutrient (excluding nitrate-N, sodium and conductivity) is recommended. \*\*ppm=mg/kg

Conductivity: Salinity levels are becoming elevated, monitor levels or remove salts with 10-15 inches of clean leach water. Nitrogen: Apply an additional 70 lbs/A of nitrogen for each subsequent heavy graze down.



**Outside TX County** 

Laboratory Number: 472183 Customer Sample ID: S-4 2 Soil Analysis Report

Soil, Water and Forage Testing Laboratory Department of Soil and Crop Sciences 2478 TAMU

College Station, TX 77843-2478 979-845-4816 (phone) 979-845-5958 (FAX)

Visit our website: http://soiltesting.tamu.edu

Sample received on: 12/13/2016
Printed on: 12/21/2016
Area Represented: not provided

Crop Gro	own: IMPROVED	AND I	IYBRID BE	RMUDA	GRAS	SS, GF	RAZING	ì				
Analysis	Results	CL*	Units	ExLow	VLow	Low	Mod	High	VHigh	Excess.		
рН	8.1	(5.8)	-	Mod. Al	kaline		grand in					V Fings
Conductivity	1,560	(-)	umho/cm	High			C			Fe	ertilizer Recommend	ed
Nitrate-N	0	(-)	ppm**		<b>有机</b> 扩张					1	55 lbs N/acre	1.5
Phosphorus	5	(50)	ppm	HIIIIIIII							60 lbs P2O5/acre	
Potassium	51	(125)	ppm	・ 「 作品を発売している」		a service and the service of					70 lbs K20/acre	
Calcium	27,898	(180)	ppm		11111111111				ļII		0 lbs Ca/acre	
Magnesium	86	(50)	ppm					ll .		]	0 lbs Mg/acre	-
Sulfur	5,899	(13)	ppm	1		<b></b>		HILLIAN		Ė	0 lbs S/acre	
Sodium	181	(-)	ppm	1111111111								
Iron										İ		
Zinc	And A					5 %		!				29 cm
Manganese												
Copper		* 1 A 1	상성하다			19,7413						4.00
Boron	and the second of the second	(** * * * * * * * * * * * * * * * * * *	NEST AND A STATE OF THE STATE OF									
Limestone Require	ement								`.	1.1	0.00 tons 100ECCE/ac	сте
				ing ato on branching	inedestrossies i	tuatus estate a che	ndianamik sk	-end from the	TO A SERTICAL PROPERTY.			satalkisteni
	1-0412146	6		ew war day and	AND ASSESSMENT OF PERSONS	nity T	est (Sa	turate		e Extra	ot)	
				pl		ie Santaite Mark	oraba-solution	estaronapa.	<b>7.</b>	and the second second second	ricani de American de La competita de	
105				magazini, Troni Zanin, James	onduci	livity			armin pilotatenine	9 mmho	5 はこれ 日本書きたいでも、よりは、または、たいかりは関心をからのは関係があったのよう。	
		en en en en en en en en en en en en en e			odium	elestares	avetterates	ggaartyees	ひょうしゅうしん しゅうしゃくかん	5 ppm	<b>7.612</b> r	THE PROPERTY OF THE PARTY OF
				The state of the state of the	otassii	nam of details a brain				3 ppm	<b>0.341</b> r	South a sea of the Paris of
		****		The second secon	alcium	error and a second	nākājia vilā	garantaria	emina (general) teleph	2 ppm	30.560	
				A CONTRACTOR	agnesi	lum 🦂				<b>5</b> ppm	1.245 п	neq/L
					AR	75-4551:24-2	STEER PORT		1.9	-		
				₹ S	SP.				19.1	51.		

<sup>\*</sup>CL=Critical level is the point which no additional nutrient (excluding nitrate-N, sodium and conductivity) is recommended. \*\*ppm≔mg/kg

Conductivity: Salinity levels are becoming elevated, monitor levels or remove salts with 10-15 inches of clean leach water.

Nitrogen: Apply an additional 70 lbs/A of nitrogen for each subsequent heavy graze down.



Outside TX County

Laboratory Number: 472184 Customer Sample ID: S-4 3 4

979-845-5958 (FAX)
Visit our website: http://soiltesting.tamu.edu

Soil, Water and Forage Testing Laboratory Department of Soil and Crop Sciences

Sample received on: 12/13/2016 Printed on: 12/21/2016 Area Represented: not provided

Soil Analysis Report

College Station, TX 77843-2478

979-845-4816 (phone)

2478 TAMU

Crop Grown: IMPROVED AND HYBRID BERMUDA GRASS, GRAZING

Analysis	vii: iiviPROVEL Results	CL*	Units	ExLow	VLow	•	Mod Mod	y High	VHlgh	Excess.	
рН	8.1			Mod, All		-	7 7 7 7 7	Tilgii	Yiliga	LAGESS.	
Conductivity	1,550		umho/cm	High			С			Fertilizer Red	commended
Nitrate-N	0	(-)	ppm**		A. I	194	_		1	55 lbs N/	acre
Phosphorus	6	(50)	ppm	mmmi	l			i · I		60 lbs P2	
Potassium	44	and the second second	ppm		11111111				ļ ·	75 lbs K2	20/acre
Calcium	28,274		ppm	11111111111	1111111111	İmmini		400000	ļu	0 lbs Ca	a/acre
Magnesium	93	(50)	ppm		1111111111	İMMAN		)ı		0 lbs M	g/acre
Sulfur	5,819	(13)	ppm	1111111111		(111111111)		,,,,,,,,,,,,,,,,	İmalikan barıldan		
Sodium	50	(-)	ppm	1111111111		25 (1) (1) 1			l		
ron								l I			
Zinc								i I			
Manganese	•					İ					
Copper					7.6	100				-	
Boron								l I			
Limestone Requiren	nent	<u> </u>					1 5 1 5 V	od od Visio		0.00 tons 1	00ECCE/acre
					e in a second	saucanada Pofra	kerestito etti	Services Score	A For 1 Company	enimeter mantala on a nara determina ancienta na centrala de la compania de la compania de la compania de la c	
			\$ 10.5 		dec #2 m / Audit	inity T	est (Sa	turate		Extract)	
		en synes		þ⊦		i en en en en en en en en en en en en en	efestof delig	Maries age	7.9 2.01	en la companya de la companya de la companya de la companya de la companya de la companya de la companya de la	
				SER SOURCE STORY FOR	onduc	livity			<ul> <li>commission and detail</li> </ul>	0 mmhos/cm	
	ap a managana	wis +, e 215			dium	:55009553		Fileton	working the last of the Barrier	3 ppm	4.499 meq/L
	ke padakan				tassiu	certimetrices and				2 ppm	/0.319 meq/L
		urzise cen		en a trans a description of the second	lcium	and a commence of the second		SHEDARATA	AND SHAREST CONTRACTOR	4 ppm	29.657 meq/L
				A control to Section 2022	ignes	um				<b>7</b> ppm	1,376 meg/L
n - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 -					\R	nasanas		Paris par prof	1.14	transfer and the second of the	
			using the same	SS	IL THE			<b>69</b> 5	12.58	<b>D</b> ate of the stat	

<sup>\*</sup>CL=Critical level is the point which no additional nutrient (excluding nitrate-N, sodium and conductivity) is recommended. \*\*ppm=mg/kg

Conductivity: Salinity levels are becoming elevated, monitor levels or remove salts with 10-15 inches of clean leach water.

Nitrogen: Apply an additional 70 lbs/A of nitrogen for each subsequent heavy graze down.

Potassium: Split apply potassium fertilizer if recommendation is for more than 75 lbs K2O per acre.



**Outside TX County** 

Laboratory Number: 472185 Customer Sample ID: S-5 0

Crop Grown: IMPROVED AND HYBRID BERMUDA GRASS, GRAZING

# Soil Analysis Report

Soil, Water and Forage Testing Laboratory Department of Soil and Crop Sciences 2478 TAMU

College Station, TX 77843-2478 979-845-4816 (phone)

979-845-4816 (phone) 979-845-5958 (FAX)

Visit our website: http://soiltesting.tamu.edu

Sample received on: 12/13/2016
Printed on: 12/21/2016
Area Represented: not provided

Analysis	Results	CL*	Units	Exrow	VLow	Low	Mod	High	VHigh	Excess	•			
рН	7.9	(5.8)	-	Mod. All	kaline	17431999	1944, 1941.13							131
Conductivity	4,530	(-)	umho/cm	V. High			C	Ŀ•	•	F	ertilize	r Recomr	nended	b
Nitrate-N	1	(-)	ppm**				70000				55	lbs N/acre	7.	
Phosphorus	27	(50)	ppm					i I			30	lbs P2O5/a	сге	
Potassium	295	(125)	ppm	ımımı	Milli	(((((())))		illili.	1		0	bs K20/acr	e	
Calcium	7,534	(180)	ppm		1111111111	mmini	11111111111		Ų.		0	lbs Ca/acre		
Magnesium	130	(50)	ppm					111			0	bs Mg/acre	)	. * * # <sub>4</sub>
Sulfur	1,234	(13)	ppm		111111111			himma	ÉDBRONNI			bs S/acre		
Sodium	3,897	(-)	ppm			HIIIIIIII		HHIIII	İM				•	
Iron								l i	ļ					
Zinc								l '						11.0
Manganese			•										•	
Copper	· 自己的特殊					1949	J. Comment		1				125	-
Boron							!							
Limestone Requirement						day.		1.	•	•	0.00	ons 100EC	CE/acre	э / 🖰
			100	Detaile	ed Sali	nity T	est (Sa	turate	d Paste	Extra	ct)			
				рŀ	1				7.4	4				
				Co	onduct	ivity			46.40	) mmh	os/cm			
				So	dium				800	7 ppm		348.	<b>427</b> me	eq/L
			5 7751	Po	tasslı	ım			13	7 ppm		3.	<b>502</b> me	q/L
				Ca	lcium				354	1 ppm		176.	694 me	q/L
				Ma	gnesi	um			6	5 ppm			<b>327</b> me	
The second of th				SA	\R				36.5			- 1, 1 , 2 , 1 - 1 1 1 mm-2002	THE PERSON NAMED IN	
	5 2 35 (3)		44,61,77	SS	iP.				65.2	<b>5 2 3 3 3</b>				

<sup>\*</sup>CL=Critical level is the point which no additional nutrient (excluding nitrate-N, sodium and conductivity) is recommended. \*\*ppm=mg/kg

Conductivity: Salinity levels are becoming elevated, monitor levels or remove salts with 10-15 inches of clean leach water. Nitrogen: Apply an additional 70 lbs/A of nitrogen for each subsequent heavy graze down.



**Outside TX County** 

Laboratory Number: 472186 Customer Sample ID: S-5 1

rtesia, NM 88210

Crop Grown: IMPROVED AND HYBRID BERMUDA GRASS, GRAZING

# Soil Analysis Report

Soil, Water and Forage Testing Laboratory Department of Soil and Crop Sciences 2478 TAMU

College Station, TX 77843-2478 979-845-4816 (phone) 979-845-5958 (FAX)

Visit our website: http://soiltesting.tamu.edu

Sample received on: 12/13/2016 Printed on: 12/21/2016

Finited Off.	1212 1120 10
Area Represented:	not provided

Analysis	Results	CL*	Units	ExLow	VLow	Low	Mod	High	VHigh	Excess.	
рН	8.3	(5.8)		Mod. Alk	aline	ri gazegi e	Mar Was				
Conductivity	1,780	(~)	umho/cm	High			С	L•		Fertiliz	er Recommended
Nitrate-N	. 1	(-)	ppm**			1986			1	55	lbs N/acre
Phosphorus	9	(50)	ppm	1111111111	11111111	·		! 		55	lbs P2O5/acre
Potassium	59	(125)	ppm			IIIIII				60	lbs K20/acre
Calcium	32,480	(180)	ppm	1111111111			11111111111		ĮII.	0	lbs Ca/acre
Magnesium	134	(50)	ppm					Ш		0	lbs Mg/acre
Sulfur	5,519	(13)	ppm		1111111111	1111111111		mmi	(manana)	i o	lbs S/acre
Sodium	524	(-)	ppm		11111111111						
Iron		•						l I			
Zinc							,`	i •			
Manganese											
Copper			1 2			Section 2					
Boron											•
Limestone Requiren	nent							<u> </u>	•	0.00	tons 100ECCE/acre
					erezek Kazek		endergen og	reneral est			
			1950 18 T	and the state of t		nity i	est (Sa	turate	A STATE OF THE PARTY OF	e Extract)	
				pΗ			tara ang	BALAKTIK	7.5	— Togick topografies to the appropriate	on mudfire for the company of the
				The section of the section of the	nduct	ivity		AFRE	~	3 mmhos/cm	
					dium				a Transfer Advancement	0 ppm	30.005 meq/L
	$  f_{i,j}  ^2 (a,b_i,a')_{i+1}$			The state of the s	tassiu 	m.			and the Property	8∗ppm	0.726 meq/L
		reservation		AND THE PARTY OF T	lcium	ele Varie da	Carlo de la	ay benjer	THE RESERVE AND ADDRESS OF	0 ppm	32.438 meq/L
		legeli.		THE CONTRACTOR OF THE PROPERTY	ignesi	um				1 ppm	1.730 meq/L
		21715		SA				anistra.	7.20		
				SS	r e				46.2	3	

<sup>\*</sup>CL=Critical level is the point which no additional nutrient (excluding nitrate-N, sodium and conductivity) is recommended. \*\*ppm=mg/kg

Conductivity: Salinity levels are becoming elevated, monitor levels or remove salts with 10-15 inches of clean leach water.

Nitrogen: Apply an additional 70 lbs/A of nitrogen for each subsequent heavy graze down.



**Outside TX County** 

Laboratory Number: 472187 Customer Sample ID: S-5 2 Soil Analysis Report

Soil, Water and Forage Testing Laboratory Department of Soil and Crop Sciences 2478 TAMU

College Station, TX 77843-2478

979-845-4816 (phone) 979-845-5958 (FAX)

Visit our website: http://soiltesting.tamu.edu

Sample received on: 12/13/2016

Printed on: 12/21/2016
Area Represented: not provided

Crop Grown: IMPROVED AND HYBRID BERMUDA GRASS, GRAZING

Analysis	Results	CL*	Units	ExLow	VLow	Low	Mod	High	VHlgh	Excess	•		
рН	8.2	(5.8)		Mod. All	kaline	(A. 1811/A.)							
Conductivity	1,420	(-)	umho/cm	Moderat	е		c	L.		F	ertilizer Re	commende	d
Nitrate-N	1	(-)	ppm**								55 lbs N	acre/	4.59
Phosphorus	4	(50)	ppm	1111111				i I			<b>60</b> lbs P:	2O5/acre	
Potassium	10	(125)	ppm			强烈	N. C.	1 5			<b>105</b> lbs K	20/acre	
Calcium	18,208	(180)	ppm	11111111111				unnuni,	ļπ		0 lbs C	а/асге	
Magnesium	68	(50)	ppm					þ			0 lbs M	g/acre	
Sulfur	7,037	(13)	ppm	1111111111	1111111111	111111111	)111111111	<b>p</b> ionaa	ģamanama		0 lbs S	acre	
Sodium	61	(-)	ppm		ĬĬĬ	1000		· .					, 15°
Iron	•							1					
Zinc								1	ļ				
Manganese	•							į					
Copper							Ì	l 1				144	%.; 7
Boron								Į I					
Limestone Requirement						N <sub>er</sub> ed		-	•		0.00 tons	100ECCE/acr	e 🦠
		10 m 11. 12 m		Detaile	ed Sali	nity T	est (Sa	iturate	d Paste	e Extra	ict)		
				рŀ	ł				7.	В			
		hili. Tarihi	2.37 大量	. Co	onduct	ivity			- 2.8	3 mmh	os/cm		
				Sc	dium				14	) ppm		6.084 m	eq/L
		(a. (-;))		⊕ Pc	otassiu	im			1	4 ppm		<b>0.365</b> m	eq/L
				Ca	ılcium					3 ppm		30.090 m	eq/L
				M	ignesi	um			- 10	) ppm		<b>0.856</b> m	eq/L
				SA	\R				1.5	5			
			de la company	≣ : SS	SP				16.2	7			

<sup>\*</sup>CL=Critical level is the point which no additional nutrient (excluding nitrate-N, sodium and conductivity) is recommended. \*\*ppm=mg/kg

Conductivity: Salinity levels are becoming elevated, monitor levels or remove salts with 10-15 inches of clean leach water.

Nitrogen: Apply an additional 70 lbs/A of nitrogen for each subsequent heavy graze down.

Potassium: Split apply potassium fertilizer if recommendation is for more than 75 lbs K2O per acre.



**Outside TX County** 

Laboratory Number: 472188 Customer Sample ID: S-5 3 Soil Analysis Report

Soil, Water and Forage Testing Laboratory Department of Soil and Crop Sciences 2478 TAMU

College Station, TX 77843-2478

979-845-4816 (phone) 979-845-5958 (FAX)

Visit our website: http://soiltesting.tamu.edu

Sample received on: 12/13/2016 Printed on: 12/21/2016

Area Represented: not provided

Crop Grown: If		AND H	YBRID BEI	RMUDA	GRAS	SS, GF	RAZING				
Analysis	Results	CL*	Units	ExLow	VLow	Low	Mod	High	VHlgh	Exces	6.
рН	8.3	(5.8)		Mod. All	caline	14 1 1 1					'
Conductivity	1,510	(-)	umho/cm	Moderat	e		CL	•		l	Fertilizer Recommended
Nitrate-N	1	(-)	ppm**				4324				55 lbs N/acre
Phosphorus	4	(50)	ppm								60 lbs P2O5/acre
Potassium	15	(125)	ppm	HIHHHH				- 4			105 lbs K20/acre
Calcium	16,303	(180)	ppm			1	ļummi		H		0 lbs Ca/acre
Magnesium	324	(50)	ppm				jumin	111111			0 lbs Mg/acre
Sulfur	6,730	(13)	ppm			(mmm	)mmind	mmid			0 lbs S/acre
Sodium	44	(-)	ppm	HIIIIII							
Iron							] ]				
Zinc							1				
Manganese							į				
Copper		- 4									
Boron											
Limestone Requirement		16.3	<b>在特别的数</b>					.5.		-	0.00 tons 100ECCE/acre
		± a≱as,,r.s≜	202 - S	Detaile pl		inity T	est (Sa	turate	d Paste 8.0		act)
(1) 11 11 11 11 11 11 11 11 11 11 11 11 1				and the second of the second	nduci	Hivity	ranana.				ios/cm
Participation of the surface of the					odium	4-5-6 <b>7</b> (1)	orther state	ER STATE	of the second control of the second	7 ppm	proprietation and the control of the
	Killing Times			Profesional and Company	otassiu	im	NASANSI			4 ppm	car i como incomo con como como como propriede acomo contrato de la como contrato del contrato de la como contrato de la como contrato de la como contrato de la como contrato de la como contrato de la como contrato de la como contrato de la como contrato del contrato de la como contrato del contrato de la como contrato de la como contrato de la como contrato de la como contrato de la como contrato de la como contrato de la como contrato del como contrato del como contrato del como contrato del como contrato del como contrato del contrato del como contrato del como contrato del como contrato del como contrato del como contrato del como contrato del como contrato del como contrato del como contrato del como contrato del como contrato del como contrato del como contrato del como contrato del como contrato del como contrato del como contrato del como contrato del como contrato
				■ Cat upon a to A Section	alcium	Markey Strategic Committee	(१८८ <b>म हर्न</b> ा संबर्ग हर्	2000年刊で		a ppm	The contract of the contract o
				والمراجع والمراجع والمساور والمراجع	agnesi	na Tariffo de no de nombre d				1 ppm	the structure of the control of the
				April 1997 - De Carrer Statement St	ugues. NR	MMAR		CARRED!	1.6		A STATE OF THE PARTY OF THE ALF
te Vince and de la lateratura de la compa		ugua eta e			3P	natuka	rgastentingsol	RESERVE A	18.2		

\*CL=Critical level is the point which no additional nutrient (excluding nitrate-N, sodium and conductivity) is recommended. \*\*ppm=mg/kg

Conductivity: Salinity levels are becoming elevated, monitor levels or remove salts with 10-15 inches of clean leach water.

Nitrogen: Apply an additional 70 lbs/A of nitrogen for each subsequent heavy graze down.

Potassium: Split apply potassium fertilizer if recommendation is for more than 75 lbs K2O per acre.



December 15, 2016

SHELDON HITCHCOCK

TALON LPE

408 W. TEXAS AVE.

ARTESIA, NM 88210

RE: PINTAIL 23 FED #8

Enclosed are the results of analyses for samples received by the laboratory on 12/08/16 14:00.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-16-8. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (\*). For a complete list of accredited analytes and matrices visit the TCEQ website at <a href="https://www.tceq.texas.gov/field/qa/lab">www.tceq.texas.gov/field/qa/lab</a> accredited certif.html.

Cardinal Laboratories is accreditated through the State of Colorado Department of Public Health and Environment for:

Method EPA 552.2

Haloacetic Acids (HAA-5)

Method EPA 524.2

Total Trihalomethanes (TTHM)

Method EPA 524.4

Regulated VOCs (V1, V2, V3)

Accreditation applies to public drinking water matrices.

Celey D. Keene

This report meets NELAP requirements and is made up of a cover page, analytical results, and a copy of the original chain-of-custody. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Celey D. Keene

Lab Director/Quality Manager



TALON LPE
SHELDON HITCHCOCK
408 W. TEXAS AVE.
ARTESIA NM, 88210
Fax To: (575) 745-8905

Received:

12/08/2016

Reported:

12/15/2016

Project Name:

PINTAIL 23 FED #8

Project Number: Project Location:

701162.078.01 M-23-25S-26E Sampling Date:

12/02/2016

Sampling Type:

Soil

Sampling Condition:

Cool & Intact

Sample Received By: Jodi Henson

## Sample ID: S-1 0' (H602747-01)

BTEX 8021B	mg/	kg	Analyze	d By: MS			5		
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	12/13/2016	ND	1.96	97.8	2.00	10.2	
Toluene*	<0.050	0.050	12/13/2016	ND	2.00	100	2.00	10.6	
Ethylbenzene*	<0.050	0.050	12/13/2016	ND	1.95	97.7	2.00	10.5	
Total Xylenes*	<0.150	0.150	12/13/2016	ND	5.99	99.8	6.00	11.0	
Total BTEX	<0.300	0.300	12/13/2016	ND					
Surrogate: 4-Bromofluorobenzene (PIE	1199	6 73.6-140							
TPH 8015M	mg/	kg	Analyze	alyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	12/09/2016	ND	190	95.0	200	1.17	
DRO >C10-C28	<10.0	10.0	12/09/2016	ND	204	102	200	0.506	
Surrogàte: 1-Chlorooctane	75.6	% 35-147							
Surrogate: 1-Chlorooctadecane	65.8	% 28-171							

## Sample ID: S-1 7' (H602747-02)

Chloride, SM4500CI-B	mg,	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	128	16.0	12/13/2016	ND	400	100	400	3.92	

#### Cardinal Laboratories

\*=Accredited Analyte

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Celeg D. Keine





TALON LPE
SHELDON HITCHCOCK
408 W. TEXAS AVE.
ARTESIA NM, 88210
Fax To: (575) 745-8905

Received:

12/08/2016

Reported:

12/15/2016

Project Name:

PINTAIL 23 FED #8

Project Number: Project Location:

701162.078.01 M-23-25S-26E Sampling Date:

12/02/2016

Sampling Type:

Soil

Sampling Condition:

Cool & Intact

Sample Received By: Jodi Henson

Sample ID: S-2 0' (H602747-03)

BTEX 8021B	mg,	'kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	12/13/2016	ND	1.96	97.8	2.00	10.2	
Toluene*	<0.050	0.050	12/13/2016	ND	2.00	100	2.00	10.6	
Ethylbenzene*	<0.050	0.050	12/13/2016	ND	1.95	97.7	2.00	10.5	
Total Xylenes*	<0.150	0.150	12/13/2016	ND	5.99	99.8	6.00	11.0	
Total BTEX	<0,300	0.300	12/13/2016	ND					
Surrogate: 4-Bromofluorobenzene (PIL	119 9	% 73.6-140	)						
TPH 8015M	mg/	kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	12/09/2016	ND	190	95.0	200	1.17	
DRO >C10-C28	<10.0	10.0	12/09/2016	ND	204	102	200	0.506	
Surrogate: 1-Chlorooctane	67.3	% 35-147							
Surrogate: 1-Chlorooctadecane	63.5	% 28-171							

## Sample ID: S-2 2' (H602747-04)

Chloride, SM4500CI-B	Chloride, SM4500CI-B mg/kg			d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	64.0	16.0	12/13/2016	ND	400	100	400	3.92	

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\*=Accredited Analyte

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Celeg & Keine



TALON LPE
SHELDON HITCHCOCK
408 W. TEXAS AVE.
ARTESIA NM, 88210
Fax To: (575) 745-8905

Received:

12/08/2016

Reported:

12/15/2016

Project Name:

PINTAIL 23 FED #8

Project Number:

701162.078.01

Project Location:

M-23-25S-26E

Sampling Date:

Sampling Type:

12/02/2016 Soil

Sampling Condition:

2011

Sample Received By:

Cool & Intact Jodi Henson

•

Sample ID: S-3 0' (H602747-05)

BTEX 8021B	mg,	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	12/13/2016	ND	1.96	97.8	2.00	10.2	
Toluene*	<0.050	0.050	12/13/2016	ND	2.00	100	2.00	10.6	
Ethylbenzene*	<0.050	0.050	12/13/2016	ND	1.95	97.7	2.00	10.5	
Total Xylenes*	<0.150	0.150	12/13/2016	ND	5.99	99.8	6.00	11.0	
Total BTEX	<0.300	0.300	12/13/2016	ND					
Surrogate: 4-Bromofluorobenzene (PIL	118 9	% 73.6-140	)						
TPH 8015M	mg,	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	12/09/2016	ND	190	95.0	200	1.17	
DRO >C10-C28	<10.0	10.0	12/09/2016	ND	204	102	200	0.506	
Surrogate: 1-Chlorooctane	73.0	% 35-147							
Surrogate: 1-Chlorooctadecane	73.1	% 28-171							

## Sample ID: S-3 2' (H602747-06)

Chloride, SM4500CI-B	I4500Cl-B mg/kg			d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	128	16.0	12/13/2016	ND	400	100	400	3.92	

#### Cardinal Laboratories

\*=Accredited Analyte

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Celey D. Keine



TALON LPE
SHELDON HITCHCOCK
408 W. TEXAS AVE.
ARTESIA NM, 88210
Fax To: (575) 745-8905

Received:

12/08/2016

Reported:

12/15/2016

Project Name:

PINTAIL 23 FED #8

Project Number:

701162.078.01

Project Location:

M-23-25S-26E

Sampling Date:

12/02/2016

Sampling Type:

Soil

Sampling Condition: Sample Received By: Cool & Intact

Jodi Henson

#### Sample ID: S-4 0' (H602747-07)

BTEX 8021B	mg/	kg	Analyze	d By: MS		to be a second as a second as a second as a second as a second as a second as a second as a second as a second			
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	< 0.050	0.050	12/13/2016	ND	1.96	97.8	2.00	10.2	
Toluene*	< 0.050	0.050	12/13/2016	ND	2.00	100	2.00	10.6	
Ethylbenzene*	<0.050	0.050	12/13/2016	ND	1.95	97.7	2.00	10.5	
Total Xylenes*	<0.150	0.150	12/13/2016	ND	5.99	99.8	6.00	11.0	
Total BTEX	<0.300	0.300	12/13/2016	ND					
Surrogate: 4-Bromofluorobenzene (PIL	119 %	6 73.6-146	)			11 111 111 111			
TPH 8015M	mg/	kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	12/09/2016	ND	190	95.0	200	1.17	
DRO >C10-C28	<10.0	10.0	12/09/2016	ND	204	102	200	0.506	
Surrogate: 1-Chlorooctane	68.8 %	% 35-147							· · · · · · · · · · · · · · · · · · ·
Surrogate: 1-Chlorooctadecane	68.8 9	% 28-171							

#### Sample ID: S-4 3' (H602747-08)

Chloride, SM4500CI-B	Chloride, SM4500CI-B mg/kg								
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	144	16.0	12/13/2016	ND	400	100	400	3,92	

#### Cardinal Laboratories

\*=Accredited Analyte

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Celey D. Keine



TALON LPE
SHELDON HITCHCOCK
408 W. TEXAS AVE.
ARTESIA NM, 88210
Fax To: (575) 745-8905

Received:

12/08/2016

Reported:

12/15/2016

Project Name:

PINTAIL 23 FED #8

Project Number: Project Location:

701162.078.01 M-23-25S-26E

65.4%

28-171

Sampling Date:

12/02/2016

Sampling Type:

Soil

Sampling Condition:

Cool & Intact

Sample Received By: Jodi Henson

Sample ID: S-5 0' (H602747-09)

BTEX 8021B	mg/	kg	Analyze	d By: MS		500000			
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	12/13/2016	ND	1.96	97.8	2.00	10.2	
Toluene*	<0.050	0.050	12/13/2016	ND	2.00	100	2.00	10.6	
Ethylbenzene*	<0.050	0.050	12/13/2016	ND	1.95	97.7	2.00	10.5	
Total Xylenes*	<0.150	0.150	12/13/2016	ND	5.99	99.8	6.00	11.0	
Total BTEX	<0.300	0.300	12/13/2016	ND					
Surrogate: 4-Bromofluorobenzene (PIL	118 %	6 73.6-14	0						
TPH 8015M	mg/	kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	12/09/2016	ND	190	95.0	200	1.17	
DRO >C10-C28	<10.0	10.0	12/09/2016	ND	204	102	200	0.506	
Surrogate: 1-Chlorooctane	69.8 9	% 35-147	7						

#### Sample ID: S-5 3' (H602747-10)

Surrogate: 1-Chlorooctadecane

Chloride, SM4500Cl-B	mg	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	80.0	16.0	12/13/2016	ND	400	100	400	3.92	

#### Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Ulability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whistoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claims is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

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#### **Notes and Definitions**

QR-03 The RPD value for the sample duplicate or MS/MSD was outside if QC acceptance limits due to matrix interference. QC batch

accepted based on LCS and/or LCSD recovery and/or RPD values.

QR-02 The RPD result exceeded the QC control limits; however, both percent recoveries were acceptable. Sample results for the QC

batch were accepted based on percent recoveries and completeness of QC data.

ND Analyte NOT DETECTED at or above the reporting limit

RPD Relative Percent Difference

\*\* Samples not received at proper temperature of 6°C or below.

\*\*\* Insufficient time to reach temperature.

Chloride by SM4500Cl-B does not require samples be received at or below 6°C

Samples reported on an as received basis (wet) unless otherwise noted on report

Cardinal Laboratories

\*=Accredited Analyte

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# CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

101 East Marland, Hobbs, NM 88240 (575) 393-2326 FAX (575) 393-2476

Company Name: Talon/LPE			And the control of th	ANALYSIS REQUEST	
Project Manager: Sheldon Hitchcock		P.O. #:			
Address: 408 W. Texas Ave.		Company: Cimarex			
ску: Artesia	State: NM Zlp: 88210	Attn: Christine Alderman			
Phone #: 575-746-8768	Fax #: 575-746-8905	Address:			
Project #: 701162.078.01	Project Owner: Cimarex	City:			
Project Name: Pintail 23 Fed #8		State: Zip:			
Project Location: M-23-25S-26E		Phone #:			
Sampler Name: Sheldon Hitchcock		Fax#:			
FOR LAB USE ONLY	MATRIX	PRESERV. SAMPLING			
	(C)OMP. ERS ATER	:	X vida		
Lab I.D. Sample I.D.	RAB OR ONTAINE OUNDW/ STEWAT	HER: D/BASE: / COOL HER:	-PH BTE)		
H200H	# C GR WA SO OIL	OTI ICE OTI DATE	]		
1 5-10'	₹ ·	216	1 / 58.2		
2 5-17	<u> </u>	2 7/1/21 /	1 05/20		
135-20	<u> </u>	1 12/2/63	1/00/		
4 5-22	9	1/11/2/163	505		
5 5-30	9	12/2/63	11/2		
6 5-3 2	2	1/ 12/2/16 3	136		
75-40	G	1 22164	/ / @		
8 5-43	<u>م</u>	1 12/2/64	7		
9 5-50	₹ 	1 12/2/64	//		
10 5-58	<u>                                      </u>	1 (2/7//63)	1301 1 1/		
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service. In no event shall Cardinal be liable for incidental or conseq stillates or successors arising out of or related to the performance o	quental damages, including without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries of services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated ressons or otherwise.	tion, business interruptions, loss of use, or loss of profits incurred by client, dises of whether such claim is based upon any of the above stated ressons			
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