Northern New Mexico Stockman's Association
Dennis Gallegos, President
P.O. Box 306 Abiquiu, NM 87510

The Future of Livestock Grazing on New Mexico's National Forests
Northern New Mexico Stockman's Association

Producer Rangeland Assessment
Chicoma Allotment
2025 Grazing Season

Project Team:
Dr. Cristóbal Valencia, (PI) Northern New Mexico Stockman's Association
Carlos Salazar, Producer Representative Northern New Mexico Stockman's Association
Donald Martinez, (Co-PI) Rio Arriba County Extension NMSU
Dr. Casey Spackman, (Co-PI) Range Improvement Task Force NMSU

"This material is based upon work that is supported by the National Institute of Food and Agriculture, U.S. Department of Agriculture, under award number 2022-38640-37490 through the Western Sustainable Agriculture Research and Education program under project number SW23-953. USDA is an equal opportunity employer and service provider. Any opinions, findings, conclusions, or recommendations expressed in this publication are those of the author(s) and do not necessarily reflect the view of the U.S. Department of Agriculture."

USDA National Institute of Food and Agriculture
U.S. DEPARTMENT OF AGRICULTURE

WESTERN SARE
Sustainable Agriculture Research & Education

Figure 1Early spring water in Jarosito May 15, 2025.

Qualitative data was collected using ethnographic methods. Including participant observation, structured and unstructured interviews, photos, and participatory mapping exercises during range monitoring, at grazing association meetings, annual feast days, fiestas, local county fair events, and meetings between producers and land management agencies. Qualitative data was analyzed using ethnographic methods focusing on producers' descriptions, interpretations, and explanations of climate and rangeland conditions and impacts on livestock operations.

Producers on the Chicoma Allotment describe conditions defined by low precipitation, reduced snowpack, and delayed spring growth. Snow no longer persists into late spring, and cooler temperatures with late snow events slow green-up. Rainfall is uneven, with limited moisture

carried through the season. Water availability is inconsistent across the allotment, with springs drying by mid-summer and some sources, such as Jarosito, not persisting beyond spring. At the same time, forage conditions are described as decent to good, with some areas of abundant grass, but varying by location, species composition, and moisture. Elk are present year-round, with concentrated use in areas like Jarosito. The allotment also includes remote terrain, much of it accessible only by horseback, with dead and down timber across the landscape. Boundaries with adjacent lands, including the Valles Caldera and Santa Clara Pueblo, are not fenced in key areas.

Conditions

- Low precipitation with reduced snowpack and delayed spring growth
- Early drying springs and uneven seasonal water presence across locations
- Good to abundant forage with strong variation by location, species, and moisture
- Year-round elk use with concentrated grazing in specific areas like Jarosito
- Dead and down timber across the allotment
- Unfenced boundaries with adjacent Pueblo and National Park Service lands

Figure 2 Heavy elk utilization while stock water is available.

These conditions result in several direct impacts to operations. Producers report a shortened effective growing season and restricted use of available forage due to lack of water. Elk use contributes to heavy utilization in certain areas. Terrain and downed timber limit mobility, increasing the difficulty and labor required to work livestock, including instances of losing horses and dogs for several days. Boundary conditions, particularly the lack of fencing at Pueblo and Valles Caldera, constrain how the allotment can be used.

Impacts

- Shortened effective growing season
- Restricted use of available forage due to lack of water
- High elk utilization
- Limited mobility across the allotment increasing difficulty and labor to manage livestock
- Loss of horses and dogs during gathering
- Constraints on how the allotment can be used due to lack of fence at Pueblo and Valles Caldera boundary

Figure 3 Mid-season forage in Jarosito underutilized due to lack of stock water August 12, 2025.

In response, producers focus on water development, livestock movement, and direct observation of conditions. Efforts include pursuing artificial catchments, tanks, and troughs, placing water at ridgetops, and requesting additional water development near corrals. Producers also replace cattle to break movement patterns toward unfenced boundary areas. Monitoring practices center on on-the-ground observation, walking transects, and collecting field data on forage production, species composition, precipitation, temperature, and water availability.

Management Practices

- Pursuing water infrastructure near corrals and away from boundaries

- Replacing cattle to break movement patterns toward boundary areas
- On-the-ground monitoring

Decision-making is guided by water availability and infrastructure, along with easements, cooperation with neighboring jurisdictions, the ability to unload and move livestock, and the risk of confiscation following trespass. The most useful data for these decisions include forage production and conditions at the start of the season, as well as forage species composition and diversity.

Decision-Making Factors and Useful Data

- Forage production and conditions at the start of the season
- Forage species composition and diversity
- Water availability and water infrastructure
- Easements and cooperation with neighboring jurisdictions
- Ability to unload and move livestock
- Risk of confiscation after trespass

Producers describe changes in their understanding of how forage, water, and wildlife interact across the Chicoma Allotment. Over time, they report learning what forage is present in different parts of the allotment and recognizing differences in plant species across locations. They note that forage conditions vary with precipitation and that the timing of rains influences forage growth and production. Producers also identify that particular grasses and forbs in areas such as Jarosito are especially attractive to elk.

Producers also describe increased understanding of water variability across the range. They recognize microclimates and differences in precipitation, along with variation in water availability from place to place. Their understanding has expanded to include how forage conditions change with water availability and how factors such as encroachment influence springs and water presence, not just precipitation alone.

Wildlife use is increasingly understood in relation to both forage and water. Producers observe that elk concentrate in areas where preferred forage, water sources, and protective features occur together, such as in Jarosito. They also note that differences in utilization across locations are related to wildlife presence and activity. These observations have contributed to a clearer understanding of how forage, water, and wildlife interact across the allotment.

Changes in Understanding of Forage, Water, and Wildlife Relationships

- Learning what forage is present across different parts of the allotment
- Understanding how forage conditions vary with water availability
- Recognizing that particular forage species and conditions in areas like Jarosito attract elk
- Recognizing microclimates and differences in precipitation across locations
- Understanding differences in water availability across the range
- Understanding that factors such as encroachment influence springs and water availability, not just precipitation

- Understanding that wildlife use varies by location and contributes to differences in utilization

Producers identify several gaps in information that limit their ability to fully understand and assess conditions on the allotment. A primary need is for more accurate precipitation data**,** including better representation of rainfall across different parts of the range. Producers also note the need for more detailed information on grass species**,** including what species are present and how they vary across locations.

In addition, producers identify a lack of information on the nutritional values of grasses and forbs. These gaps limit understanding of how forage supports livestock.

Producers also point to the importance of retaining and transferring knowledge across generations**,** identifying a need to involve younger producers more directly. Programs such as 4-H and range education are identified as important for maintaining continuity in knowledge and experience related to rangeland conditions and monitoring.

Missing Information

- More accurate precipitation and rainfall data
- More information on grass species present across the allotment
- Nutritional values of grasses and forbs
- Retaining institutional knowledge by involving younger producers

Producers recommend several actions to improve rangeland conditions and sustain livestock production, with a strong emphasis on water, vegetation management, and information needs. A primary recommendation is the development of additional water infrastructure, including tanks, troughs, and artificial catchments. Producers also emphasize placing water at ridgetops to influence livestock movement and developing water sources near corrals. However, producers observed that any water developments will attract and concentrate wildlife, particularly elk, as well. Vegetation management is also identified, particularly thinning trees around springs to improve water persistence and associated forage conditions. Producers further recommend improving the accuracy and spatial coverage of precipitation data, along with increasing information on forage species, nutritional values of grasses and forbs, and wildlife forage preferences. They also highlight the importance of involving younger producers and supporting 4-H and range education programs to retain and transfer knowledge.

Analysis of the broader discussion suggests additional actions that build on these producer recommendations. Expanding and strategically locating water infrastructure would help address variability in water availability and improve access to forage. Addressing tree encroachment around springs would support both water persistence and vegetation conditions. Boundary conditions, particularly where fencing is absent near the Pueblo and Valles Caldera, represent another area where improvements could increase usable grazing area. Reducing dead and down timber would improve mobility and livestock management. Continued producer-led monitoring and improved precipitation tracking across microclimates would strengthen understanding of forage, water, and wildlife interactions. Coordination with neighboring jurisdictions and

management approaches that account for concentrated elk use in areas such as Jarosito would further support sustaining livestock production under existing conditions.

Producer Recommendations

- Build additional water infrastructure (tanks, troughs, artificial catchments)
- Place water at ridgetops to influence livestock movement
- Develop water sources near corrals
- Thin trees around springs
- Improve accuracy and coverage of precipitation data
- Increase information on forage species present on the allotment
- Develop information on nutritional values of grasses and forbs
- Develop information on wildlife forage preferences
- Increase involvement of younger producers
- Support 4-H and range education programs

Extended Recommendations

- Expand and strategically locate water infrastructure to improve distribution and access to forage
- Address tree encroachment around springs to improve water persistence and forage conditions
- Improve boundary management at Pueblo and Valles Caldera where fencing is absent
- Address dead and down timber to improve access and livestock management mobility
- Continue and expand producer-led monitoring to track forage, water, and wildlife interactions
- Improve spatial precipitation monitoring across microclimates
- Integrate forage species composition into decision-making for livestock
- Coordinate with neighboring jurisdictions to reduce constraints on allotment use
- Develop management approaches that account for concentrated elk use in areas like Jarosito

College of Agricultural, Consumer
and Environmental Sciences
Cooperative Extension Service
Department of Extension Animal Sciences and Natural Resources
MSC 3AE
New Mexico State University
P.O. Box 30003
Las Cruces, NM 88003-8003
575-646-3326, fax: 575-646-3164

Dear Northern New Mexico Stockman's Association,

At the request of producers of the Chicoma allotment on the Santa Fe National Forest, I have compiled preliminary data to summarize their 2025 monitoring efforts. This is preliminary data and does not constitute an official report for WSARE Project SW23-953. Data was collected by producers, Northern New Mexico Stockmen Association members, and US Forest Service personnel, with New Mexico State University serving as a consultant to compile and summarize the collected data. The data herein does not constitute an official recommendation in grazing management by New Mexico State University or its personnel.

Three sites were monitored in August and again in October 2025 using the Rapid Assessment Methodology. Biomass (also referred to as standing crop) and annual production were the only data requested for this preliminary report. However, an allotment averages report is provided for each monitoring period. All summarized information was taken from data entered in the Rangeland Data Analysis and Records program (RaDAR; rangelandradar.app). The procedures for monitoring and the calculation tabulation can be found on the website. Additional calculations not described on the website are provided in the Table footnotes.

The estimated stocking rate in the second allotment averages report refers to the maximum number of animal units that can be grazed for an entire year (animal unit year; AUY) with a 40 percent forage allocation. To convert this to animal unit months (AUM), multiply 268 AUY by 12 months (3216 AUM). Alternatively, if an estimate of animal units for the duration of the grazing season (150 days; Table 3) is desired, multiply 268 AUY by 365 days, then divide that by the grazing duration (644 Animal Unit Equivalent; AUE). This can be compared to the permitted livestock in Table 3 (authorized numbers are 24.4 percent of the 2025 AUE estimate). It is recommended that three years of data be collected to establish short-term stocking rates (Holechek et al. 2011). The estimated stocking rate for 2025 increased from the estimates in 2023 (580 AUE) and 2024 (427 AUE). The average estimated stocking rate over three years of data is 554 ± 116 AUE (authorized numbers are 28.3 percent of the three-year average).

College of Agricultural, Consumer and Environmental Sciences
Cooperative Extension Service
Department of Extension Animal Sciences and Natural Resources
MSC 3AE
New Mexico State University
P.O. Box 30003
Las Cruces, NM 88003-8003
575-646-3326, fax: 575-646-3164

Table 1. Chicoma Allotment Production and Use

	Mid-Year Biomass (lbs/acre)	Year-End Biomass (lbs/acre)	Annual Production (lbs/acre)	Utilization as a Percent
SC Trailhead	1902.0 ± 550.0	1066.0 ± 210.0	1240.0 ± 290.0	14.0
Jarosito	694.0 ± 320.0	400.0 ± 90.0	2670.0 ± 250.0	85.0
Cienega Redonda	1810.0 ± 410.0	1554.0 ± 400.0	2036.7 ± 320.0	23.7
*Averages	1468.7 ± 276.3	1006.7 ± 188.9	1982.2 ± 251.7	49.2 ± 22.2

*Averages were taken from raw data (n=15 weights for biomass and n=9 for annual production).

Table 2. Chicoma Allotment Physical Constraint of Cattle Intake

	Observed Utilization as a Percent[1]	Cattle Utilization as a Percent[2]	Other Utilization as a Percent	Cow Intake for Observed Utilization (pounds/day)[3]
Site Average*	49.2	7.2	42.0	176.8
Allotment Average†	49.2	9.6	39.6	133.3

$$\frac{(annual\ production - available\ biomass)}{annual\ production} \times 100 = percent\ utilization^{1}$$

$$\frac{(animal\ demand \times grazing\ duration \times permitted\ animals)}{(annual\ production \times grazable\ acres)} \times 100 = percent\ utilization^{2}$$

$$\frac{(annual\ production \times grazable\ acres \times observed\ utilization)}{(grazing\ duration \times permitted\ animals} = animal\ demand\ or\ daily\ intake^{3}$$

*based on 2024 GIS information, correcting for slope and distance from water by monitoring site location (no reductions; 31%), US Forest Service.
†based on 2008 US Forest Service Environmental Assessment.

College of Agricultural, Consumer
and Environmental Sciences
Cooperative Extension Service
Department of Extension Animal Sciences and Natural Resources
MSC 3AE
New Mexico State University
P.O. Box 30003
Las Cruces, NM 88003-8003
575-646-3326, fax: 575-646-3164

Table 3. Allotment summary for the 2024 grazing season.

Allotment	Cattle Intake Standard (lbs/day)	Grazing Duration (days)	[1,2]Permitted Livestock (AUE)	[2]Allotment Grazable Acres	[3]Monitoring Site Grazable Acres
Chicoma	26	150	157	3218	4267

[1] includes cow/calf at 1 AUE and bulls at 1.5 AUE;
[2]based on 2008 allotment Environmental Assessment, US Forest Service.
[3]based on 2024 GIS information, correcting for slope and distance from water by monitoring site location (reductions: 96.2% site representation), US Forest Service.

Respectfully,

Casey Spackman
Extension Rangeland Management Specialist

College of Agricultural, Consumer and Environmental Sciences
Cooperative Extension Service
Department of Extension Animal Sciences and Natural Resources
MSC 3AE
New Mexico State University
P.O. Box 30003
Las Cruces, NM 88003-8003
575-646-3326, fax: 575-646-3164

Radar - Chicoma 2025 Aug

ID: composite-68

Producer Name:	Chicoma	**Pasture Name:**	Composite
Date:	19-Nov-2025	**Collector Name:**	NNMSA, USFS
Transect Number:	Composite (3 reports)	**GPS Coordinates:**	Multiple Locations
Notes:	Composite analysis using average method from 3 reports		

Biomass Availability	Pasture Size	Estimated Stocking Rate	Annual Forage Production
1468.67 ± 276.29 lbs per acre	3218.00 acres	0 AUY	0.00 ± 0.00 lbs per acre

Percent Cover		Vegetation Cover - Grasses			Other Vegetation Cover	
Cover Name	**Percent**	**Common Name**	**Symbol**	**Percent**	**Common Name**	**Percent**
Vegetation	99.3	Sedge	Carex	43.3	Clover	14.0
Bare ground	2.0	Kentucky Bluegrass	POPR	25.7	-	-
-	-	Timber oatgrass	DAIN	16.0	-	-
-	-	Western Wheatgrass	AGSM	7.3	-	-
-	-	Arizona Fescue	FEAR	4.7	-	-

Forage Composition

Common Name	Symbol	Percent	Avg. Height (inches)	Minimum Stubble Height Guidline	
Sedge	Carex	44.0	5.2	1.5	-
Kentucky Bluegrass	POPR	25.7	8.2	2.5	-
Timber oatgrass	DAIN	16.0	10.4	4	-
Western Wheatgrass	AGSM	7.3	10.9	2.5	-
Arizona Fescue	FEAR	4.7	10.8	4	-

Fecal Counts

Horse	0	**Elk**	15	**Cattle**	13	**Deer**	1	1	0

College of Agricultural, Consumer
and Environmental Sciences
Cooperative Extension Service
Department of Extension Animal Sciences and Natural Resources
MSC 3AE
New Mexico State University
P.O. Box 30003
Las Cruces, NM 88003-8003
575-646-3326, fax: 575-646-3164

Composite Analysis Details

Analysis Method:	Average	**Reports Analyzed:**	3
Analysis Date:	19-Nov-2025	**Source Date Range:**	12-Aug-2025 to 12-Aug-2025

Source Reports

Report Name	Producer	Pasture	Date
Chicoma TH to Santa Clara 2025-1	Chicoma	TH to Santa Clara Pueblo	12-Aug-2025
Chicoma Jarosito 2025-1	Chicoma	Jarosito	12-Aug-2025
Chicoma Cienega Redonda 2025-1	Chicoma	Cienega Redonda	12-Aug-2025

Analysis Methodology

Average Analysis Method:
All numerical values (biomass availability, stocking rates, vegetation percentages, etc.) have been averaged across the selected 3 reports. This provides a mean representation of the data across all source reports.

Species and Vegetation Data Processing: Similar species and vegetation types across reports have been grouped together and their values aggregated using the selected average method. Only the top 5 most significant entries are displayed in each category to maintain report clarity.

Fecal Count Data Processing: Animal fecal counts have been averaged across all source reports to provide composite wildlife usage indicators for the analyzed area.

Data Quality Notes: This composite report represents aggregated data from multiple field measurements. Individual report variations have been smoothed through the aggregation process. For detailed individual measurements, refer to the source reports listed above.

College of Agricultural, Consumer
and Environmental Sciences
Cooperative Extension Service
Department of Extension Animal Sciences and Natural Resources
MSC 3AE
New Mexico State University
P.O. Box 30003
Las Cruces, NM 88003-8003
575-646-3326, fax: 575-646-3164

Radar - Chicoma 2025 Oct

ID: composite-67

Producer Name:	Chicoma	**Pasture Name:**	Composite
Date:	19-Nov-2025	**Collector Name:**	NNMSA
Transect Number:	Composite (3 reports)	**GPS Coordinates:**	Multiple Locations
Notes:	Composite analysis using average method from 3 reports		

Biomass Availability	Pasture Size	Estimated Stocking Rate	Annual Forage Production
1006.67 ± 188.90 lbs per acre	3218.00 acres	268 AUY	1982.22 ± 251.69 lbs per acre

Percent Cover		Vegetation Cover - Grasses			Other Vegetation Cover	
Cover Name	**Percent**	**Common Name**	**Symbol**	**Percent**	**Common Name**	**Percent**
Vegetation	66.3	Kentucky Bluegrass	POPR	53.7	Clover	18.1
Litter	25.5	Mountain Muhly	MUMO	6.7	Dand	0.6
Bare ground	6.9	Parrys oatgrass	DAPA	2.5	-	-
Rock	1.9	Grass Unknowns	GUNK	1.9	-	-
-	-	Sedge	Carex	1.9	-	-

Forage Composition

Common Name	Symbol	Percent	Avg. Height (inches)	Minimum Stubble Height Guidline	
Kentucky Bluegrass	POPR	74.0	2.4	2.5	Below Minimum Height
Mountain Muhly	MUMO	12.4	3.3	2.5	-
Parrys oatgrass	DAPA	6.0	4.2	4	-
Sedge	Carex	3.8	5.7	1.5	-
Grass Unknowns	GUNK	1.9	1	8.88	Below Minimum Height

Fecal Counts

Horse	0	**Elk**	16	**Cattle**	15	**Deer**	0	**Others**	0

College of Agricultural, Consumer
and Environmental Sciences
Cooperative Extension Service
Department of Extension Animal Sciences and Natural Resources
MSC 3AE
New Mexico State University
P.O. Box 30003
Las Cruces, NM 88003-8003
575-646-3326, fax: 575-646-3164

Composite Analysis Details

Analysis Method:	Average	**Reports Analyzed:**	3
Analysis Date:	19-Nov-2025	**Source Date Range:**	16-Oct-2025 to 16-Oct-2025

Source Reports

Report Name	Producer	Pasture	Date
Chicoma SC TH 10-2025	Chicoma	Santa Clara Pueblo Trail Head	16-Oct-2025
Chicoma Jarosito 10-2025	NNMSA	Jarosito	16-Oct-2025
Chicoma Cienega Redonda 10-2025	Chicoma	Cienega Redonda	16-Oct-2025

Analysis Methodology

Average Analysis Method:
All numerical values (biomass availability, stocking rates, vegetation percentages, etc.) have been averaged across the selected 3 reports. This provides a mean representation of the data across all source reports.

Species and Vegetation Data Processing: Similar species and vegetation types across reports have been grouped together and their values aggregated using the selected average method. Only the top 5 most significant entries are displayed in each category to maintain report clarity.

Fecal Count Data Processing: Animal fecal counts have been averaged across all source reports to provide composite wildlife usage indicators for the analyzed area.

Data Quality Notes: This composite report represents aggregated data from multiple field measurements. Individual report variations have been smoothed through the aggregation process. For detailed individual measurements, refer to the source reports listed above.

Radar - Chicoma Cienega Redonda 2025-1

ID: 328

Producer Name:	Chicoma	**Pasture Name:**	Cienega Redonda
Date:	12-Aug-2025	**Collector Name:**	NNMSA, USFS
Transect Number:	-	**GPS Coordinates:**	36.02.00 N, 106.28.35 W **(166°)**
Notes:			

Biomass Availability	Pasture Size	Estimated Stocking Rate	Annual Forage Production
1810.00 ± 410.00 lbs per acre	3218 acres	0 AUY	0.00 ± 0.00 lbs per acre

Percent Cover

Cover Name	Percent
Vegetation	100.0
-	-
-	-
-	-
-	-

Vegetation Cover - Grasses

Common Name	Symbol	Percent
Timber oatgrass	DAIN	48.0
Sedge	Carex	26.0
Arizona Fescue	FEAR	14.0
Kentucky Bluegrass	POPR	7.0
Mountain Muhly	MUMO	4.0

Other Vegetation Cover

Common Name	Percent
-	-
-	-
-	-
-	-
-	-

Forage Composition

Common Name	Symbol	Percent	Avg. Height (inches)	Minimum Stubble Height Guidline	
Timber oatgrass	DAIN	48.0	10.4	4.00	-
Sedge	Carex	26.0	4.7	1.50	-
Arizona Fescue	FEAR	14.0	10.8	4.00	-
Kentucky Bluegrass	POPR	7.0	5.3	2.50	-
Mountain Muhly	MUMO	4.0	11.0	2.50	-

Fecal Counts

Horse	0	**Elk**	22	**Cattle**	24	**Deer**	0	**Others**	0

Ground Photo

Lanscape Photo

Rapid Assessment Methodology (RAM) – Datasheet

Ranch or Allotment	Chicoma	**Pasture Name**	Cienega Redonda
Date	12-Aug-2025	**Collector Name(s)**	NNMSA, USFS
Transect Number		**GPS Coordinates**	36.02.00 N, 106.28.35 W
Pasture Size (acres)	3218	**Heading**	166

Measurements

1	2	3	4	5	6	7	8	9	10
V 6.00	V 9.00	V 8.00	V 11.00	V 10.00	V 8.00	V 6.00	V 7.00	V 9.00	V 5.00
DAIN	DAIN	DAIN	DAIN	AGSM	DAIN	Carex	Carex	DAIN	Carex
11	**12**	**13**	**14**	**15**	**16**	**17**	**18**	**19**	**20 (clip)**
V 11.00	V 12.00	V 9.00	V 12.00	V 14.00	V 7.00	V 11.00	V 12.00	V 13.00	V 6.00
DAIN	FEAR	DAIN	DAIN	DAIN	FEAR	DAIN	DAIN	DAIN	DAIN
21	**22**	**23**	**24**	**25**	**26**	**27**	**28**	**29**	**30**
V 14.00	V 12.00	V 12.00	V 6.00	V 14.00	V 7.00	V 13.00	V 6.00	V 12.00	V 14.00
DAIN	DAIN	DAIN	Carex	DAIN	Carex	DAIN	FEAR	DAIN	DAIN
31	**32**	**33**	**34**	**35**	**36**	**37**	**38**	**39**	**40 (clip)**
V 7.00	V 7.00	V 26.00	V 14.00	V 8.00	V 9.00	V 15.00	V 13.00	V 12.00	V 21.00
Carex	DAIN	FEAR	DAIN	DAIN	DAIN	DAIN	DAIN	DAIN	FEAR
41	**42**	**43**	**44**	**45**	**46**	**47**	**48**	**49**	**50**
V 15.00	V 13.00	V 6.00	V 9.00	V 8.00	V 6.00	V 7.00	V 19.00	V 18.00	V 9.00
DAIN	DAIN	FEAR	POPR	DAIN	DAIN	Carex	FEAR	DAIN	Carex
51	**52**	**53**	**54**	**55**	**56**	**57**	**58**	**59**	**60 (clip)**
V 15.00	V 5.00	V 4.00	V 9.00	V 16.00	V 10.00	V 5.00	V 4.00	V 9.00	V 7.00
DAIN	Carex	Carex	DAIN	FEAR	MUMO	Carex	Carex	POPR	DAIN
61	**62**	**63**	**64**	**65**	**66**	**67**	**68**	**69**	**70**
V 10.00	V 9.00	V 3.00	V 7.00	V 5.00	V 2.00	V 9.00	V 6.00	V 2.00	V 3.00
DAIN	DAIN	Carex	DAIN	Carex	Carex	MUMO	DAIN	POPR	Carex
71	**72**	**73**	**74**	**75**	**76**	**77**	**78**	**79**	**80 (clip)**
V 8.00	V 6.00	V 16.00	V 2.00	V 10.00	V 10.00	V 8.00	V 3.00	V 4.00	V 6.00
DAIN	DAIN	MUMO	POPR	DAIN	POPR	FEAR	FEAR	Carex	Carex
81	**82**	**83**	**84**	**85**	**86**	**87**	**88**	**89**	**90**
V 9.00	V 12.00	V 9.00	V 3.00	V 10.00	V 2.00	V 3.00	V 2.00	V 3.00	V 10.00
MUMO	FEAR	FEAR	Carex	DAIN	FEAR	Carex	POPR	Carex	DAIN
91	**92**	**93**	**94**	**95**	**96**	**97**	**98**	**99**	**100 (clip)**
V 4.00	V 5.00	V 4.00	V 2.00	V 3.00	V 6.00	V 5.00	V 6.00	V 3.00	V 12.00
FEAR	Carex	Carex	Carex	POPR	DAIN	Carex	DAIN	Carex	DAIN

Dot Tally		**Clip Weight**	**1**	**2**	**3**	**4**	**5**	**Comment or Notes:**
Horse			13.20	20.90	16.00	8.00	32.40	
Elk	**22**	**Cage Weight**	**1**	**2**	**3**			
Cattle	**24**							
Deer		*Sampling Hoop Size or Conversion Factor*					100	

Radar - Chicoma Jarosito 2025-1

Producer Name:	NNMSA	**Pasture Name:**	Jarosito
Date:	12-Aug-2025	**Collector Name:**	NNMSA, USFS
Transect Number:	-	**GPS Coordinates:**	36.01.47 N 106.26.52 W **(340°)**
Notes:			

Biomass Availability	Pasture Size	Estimated Stocking Rate	Annual Forage Production
694.00 ± 320.00 lbs per acre	3218 acres	0 AUY	0.00 ± 0.00 lbs per acre

Percent Cover

Cover Name	Percent
Vegetation	100.0
-	-
-	-
-	-
-	-

Vegetation Cover - Grasses

Common Name	Symbol	Percent
Sedge	Carex	40.0
Kentucky Bluegrass	POPR	37.0
-	-	-
-	-	-
-	-	-

Other Vegetation Cover

Common Name	Percent
Clover	23.0
-	-
-	-
-	-
-	-

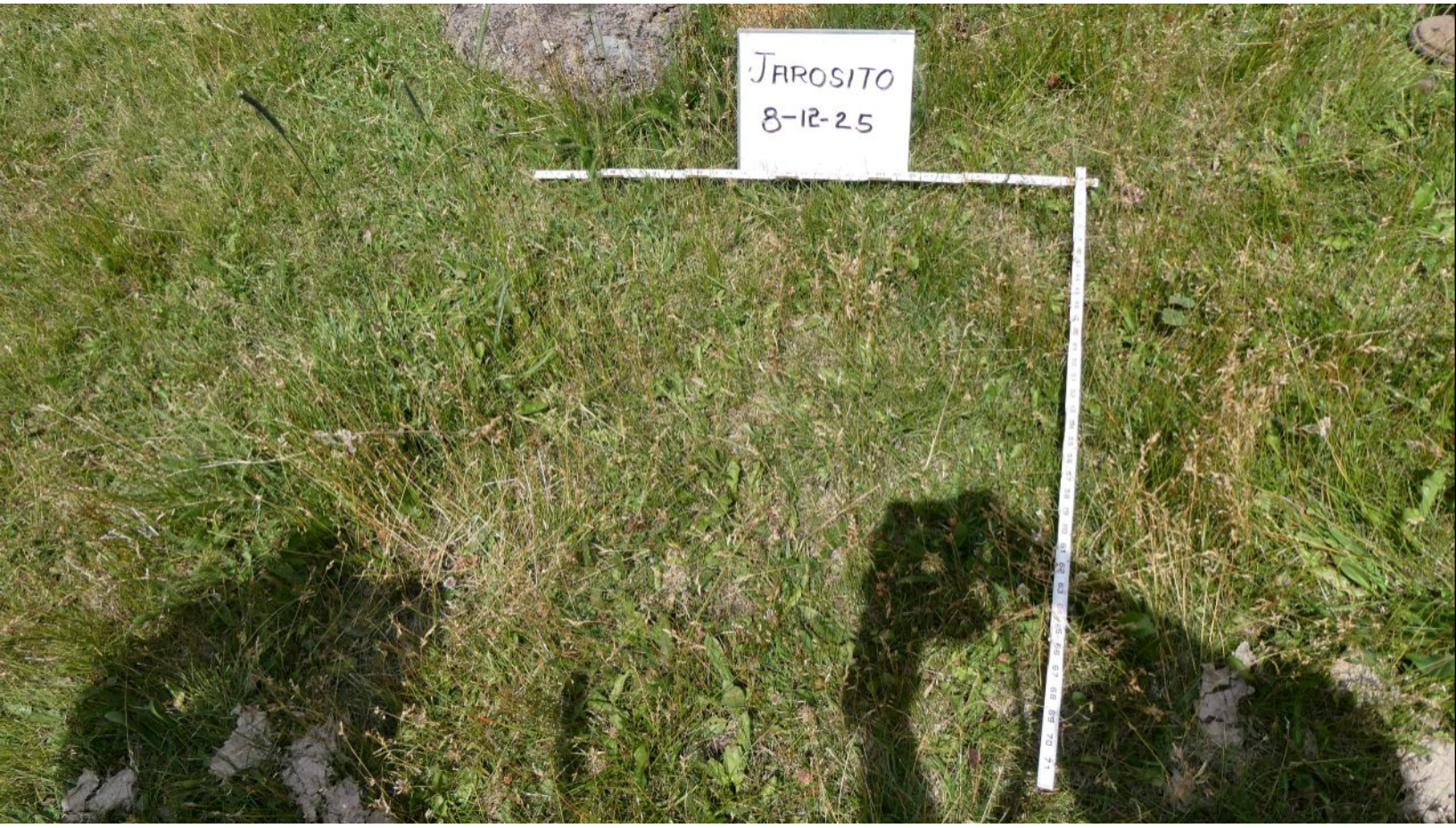
Forage Composition

Common Name	Symbol	Percent	Avg. Height (inches)	Minimum Stubble Height Guidline	
Kentucky Bluegrass	POPR	57.0	8.9	2.50	-
Sedge	Carex	43.0	3.9	1.50	-
-	-	-	-	-	-
-	-	-	-	-	-
-	-	-	-	-	-

Fecal Counts

Horse	-	**Elk**	15	**Cattle**	2	**Deer**	1	**Others**	-

Ground Photo



Lanscape Photo

Radar - TH to Santa Clara Pueblo CHICOMA 2025 1

Producer Name:	NNMSA	**Pasture Name:**	TH to Santa Clara Pueblo
Date:	12-Aug-2025	**Collector Name:**	NNMSA, USFS
Transect Number:	-	**GPS Coordinates:**	36.00.57 N 106.27.22W **(300°)**
Notes:			

Biomass Availability	Pasture Size	Estimated Stocking Rate	Annual Forage Production
1902.00 ± 550.00 lbs per acre	3218 acres	0 AUY	0.00 ± 0.00 lbs per acre

Percent Cover

Cover Name	Percent
Vegetation	98.0
Bare ground	2.0
-	-
-	-
-	-

Vegetation Cover - Grasses

Common Name	Symbol	Percent
Sedge	Carex	49.0
Western Wheatgrass	AGSM	14.0
Kentucky Bluegrass	POPR	13.0
Pine Dropseed	BLTR	1.0
Smooth Brome	BRIN	1.0

Other Vegetation Cover

Common Name	Percent
Clover	19.0
-	-
-	-
-	-
-	-

Forage Composition

Common Name	Symbol	Percent	Avg. Height (inches)	Minimum Stubble Height Guidline	
Sedge	Carex	63.0	6.3	1.50	-
Western Wheatgrass	AGSM	21.0	11.0	2.50	-
Kentucky Bluegrass	POPR	13.0	6.7	2.50	-
Pine Dropseed	BLTR	1.0	10.0	4.00	-
Squirreltail	ELEL	1.0	18.0	4.00	-

Fecal Counts

Horse	-	Elk	9	Cattle	-	Deer	-	Others	-

Ground Photo

Lanscape Photo

Radar - Chicoma Cienega Redonda 10-2025

Producer Name:	Chicoma	**Pasture Name:**	Cienega Redonda
Date:	16-Oct-2025	**Collector Name:**	NNMSA
Transect Number:	-	**GPS Coordinates:**	36.033319, -106.476714 **(345°)**
Notes:			

Biomass Availability	Pasture Size	Estimated Stocking Rate	Annual Forage Production
1554.00 ± 400.00 lbs per acre	3218 acres	276 AUY	2036.67 ± 320.00 lbs per acre

Percent Cover

Cover Name	Percent
Vegetation	53.0
Litter	45.0
Bare ground	2.0
-	-
-	-

Vegetation Cover - Grasses

Common Name	Symbol	Percent
Mountain Muhly	MUMO	21.0
Kentucky Bluegrass	POPR	17.0
Parrys oatgrass	DAPA	8.0
Sedge	Carex	6.0
-	-	-

Other Vegetation Cover

Common Name	Percent
Dand	1.0
-	-
-	-
-	-
-	-

Forage Composition

Common Name	Symbol	Percent	Avg. Height (inches)	Minimum Stubble Height Guidline	
Mountain Muhly	MUMO	39.0	3.3	2.50	-
Kentucky Bluegrass	POPR	31.0	2.2	2.50	Below Minimum Height
Parrys oatgrass	DAPA	19.0	4.2	4.00	-
Sedge	Carex	11.0	5.5	1.50	-
-	-	-	-	-	-

Fecal Counts

Horse	0	**Elk**	12	**Cattle**	9	**Deer**	0	**Others**	0

Ground Photo

Lanscape Photo

Radar - Chicoma Jarosito 10-2025

ID: 159

Producer Name:	NNMSA	**Pasture Name:**	Jarosito
Date:	16-Oct-2025	**Collector Name:**	NNMSA
Transect Number:	-	**GPS Coordinates:**	36.029871, -106.448082 **(176°)**
Notes:	need back button on step 5 - 97-100 missed entry. Correct with data sheet! CORRECTED DR. VALENCIA 11/11/25		

Biomass Availability	Pasture Size	Estimated Stocking Rate	Annual Forage Production
400.00 ± 90.00 lbs per acre	3218 acres	362 AUY	2670.00 ± 250.00 lbs per acre

Percent Cover

Cover Name	Percent
Vegetation	70.0
Litter	16.0
Bare ground	10.0
Other	3.0
Rock	1.0

Vegetation Cover - Grasses

Common Name	Symbol	Percent
Kentucky Bluegrass	POPR	43.0
-	-	-
-	-	-
-	-	-
-	-	-

Other Vegetation Cover

Common Name	Percent
Clover	26.0
Dand	1.0
-	-
-	-
-	-

Forage Composition

Common Name	Symbol	Percent	Avg. Height (inches)	Minimum Stubble Height Guidline	
Kentucky Bluegrass	POPR	93.0	2.0	2.50	Below Minimum Height
Blue Grama	BOGR	3.0	3.0	1.50	-
Arizona Fescue	FEAR	3.0	4.0	4.00	-
Sedge	Carex	1.0	7.0	1.50	-
-	-	-	-	-	-

Fecal Counts

Horse	0	**Elk**	19	**Cattle**	21	**Deer**	0	**Others**	0

Ground Photo

Lanscape Photo

Radar - Chicoma SC TH 10-2025

Producer Name:	Chicoma	**Pasture Name:**	Santa Clara Pueblo Trail Head
Date:	16-Oct-2025	**Collector Name:**	NNMSA
Transect Number:	-	**GPS Coordinates:**	36.015853, -106.456221 **(240°)**
Notes:	clover=MELA OFF BY 2 FROM DATA SHEET CORRECTED BY DR. VALENCIA 11/11/2025		

Biomass Availability	Pasture Size	Estimated Stocking Rate	Annual Forage Production
1066.00 ± 210.00 lbs per acre	3218 acres	168 AUY	1240.00 ± 290.00 lbs per acre

Percent Cover

Cover Name	Percent
Vegetation	72.0
Litter	15.0
Bare ground	10.0
Rock	3.0
-	-

Vegetation Cover - Grasses

Common Name	Symbol	Percent
Kentucky Bluegrass	POPR	47.0
-	-	-
-	-	-
-	-	-
-	-	-

Other Vegetation Cover

Common Name	Percent
Clover	25.0
-	-
-	-
-	-
-	-

Forage Composition

Common Name	Symbol	Percent	Avg. Height (inches)	Minimum Stubble Height Guidline	
Kentucky Bluegrass	POPR	98.0	2.9	2.50	-
Kentucky Bluegrass	POPR	2.0	4.0	2.50	-
-	-	-	-	-	-
-	-	-	-	-	-
-	-	-	-	-	-

Fecal Counts

Horse	0	**Elk**	16	**Cattle**	0	**Deer**	0	**Others**	0

Ground Photo

Lanscape Photo

Chicoma Allotment	Date	Amount	Reported	Notes
Key Area				
TH to Santa Clara	6/18/2025	1.93	Damian Velasquez	
	7/17/2025	1.76	Damian Velasquez	
	8/12/2025	2.04	Field day	
	9/16/2025	4.25	Damian Velasquez	
	10/16/2025	1.71	Field day	
Jarosito	6/18/2025	1.44	Damian Velasquez	
	7/17/2025	2	Damian Velasquez	
	8/12/2025	2.58	Field Day	
	9/16/2025	4.4	Damian Velasquez	
	10/17/2025	1.87	Field Day	
Cienega Redonda	6/18/2025	0.81	Damian Velasquez	
	7/17/2025	1.35	Damian Velasquez	
	8/12/2025	1.53	Field Day	
	9/16/2025	1	Damian Velasquez	
	10/16/2025	1.16	Field Day	Cap off-spilled heavy elk damage on cage
		29.83		

servi tech
6921 S. Bell • Amarillo, TX 79109
www.servitech.com

Phone: 806.677.0093
800.557.7509
Fax: 806.677.0329

Lab No.: 3814

LABORATORY ANALYSIS RESULTS

Date Reported: 06/02/2025

Send To:
55267

NORTHERN NM STOCKMANS ASSOC
DR CRISTOBAL VALENCIA
1116 SILVER AVE SW UNIT I
ALBUQUERQUE, NM 87102

Ashleigh Laugesen
Signer

Sample ID:	JARSOSITO	**Date Received:**	
Client Name:		**Invoice No:**	428334
Location:		**P.O. #:**	
Date/Time Sampled:	05/15/2025	**Name of Sampler:**	
Date/Time Submitted:	05/23/2025	**Name of Submitter:**	
Subject:	Livestock Water Lab Analysis	**Depth:**	

Livestock - Beef Cattle

		Excellent	Good	Fair	Poor	Very Poor
		1000	2000	4000	6000	10000
Total Dissolved Solids (Calc) (TDS), mg/L	25					
		Very Low	Low	Medium	High	Very High
		10.0	30.0	70.0	100	300
Nitrate Nitrogen (NO3-N), mg/L	<0.1					
		200	500	1000	2500	4000
Sulfate (SO4), mg/L	3.3					
		65	170	340	670	1300
Sulfate-Sulfur (SO4-S), mg/L	1.1					
		35	130	250	500	1000
Chloride (Cl), mg/L	<1					
		25	75	150	300	500
Total Sodium (Na), mg/L	3					
		40	100	200	400	600
Total Calcium (Ca), mg/L	8					
		25	50	120	250	500
Total Magnesium (Mg), mg/L	2					
		40	80	100	160	200
Total Potassium (K), mg/L	2					
		0.10	0.20	0.40	0.80	1.20
Total Iron (Fe), mg/L	0.42					
		0.010	0.025	0.050	0.075	0.150
Total Manganese (Mn), mg/L	0.020					
		Soft	Moderately Hard	Hard	Very Hard	Brackish
		60	120	180	270	480
Hardness (CaCO3), mg/L	28					
		3.5	7.0	11	16	24
Hardness (CaCO3), grains/gal	1.6					

Additional Tests

Electrical Conductivity (EC @ 25C), µmho/cm	39.8

Your opinion is valuable to us. Please let us know what you think about our services! Send an email to feedback@servitech.com.

servi tech
6921 S. Bell • Amarillo, TX 79109
www.servitech.com

Phone: 806.677.0093
800.557.7509
Fax: 806.677.0329

Lab No.: 3814

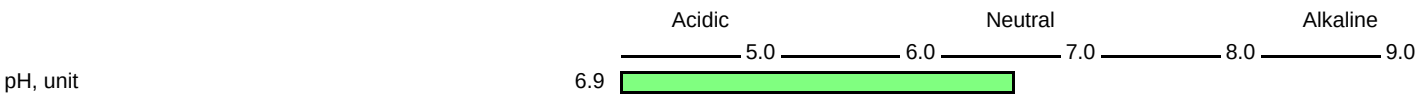
LABORATORY ANALYSIS RESULTS

Date Reported: 06/02/2025

Send To: 55267	NORTHERN NM STOCKMANS ASSOC DR CRISTOBAL VALENCIA 1116 SILVER AVE SW UNIT I ALBUQUERQUE, NM 87102	Ashleigh Laugesen Signer

Sample ID:	JARSOSITO	**Date Received:**	
Client Name:		**Invoice No:**	428334
Location:		**P.O. #:**	
Date/Time Sampled:	05/15/2025	**Name of Sampler:**	
Date/Time Submitted:	05/23/2025	**Name of Submitter:**	
Subject:	Livestock Water Lab Analysis	**Depth:**	

Livestock - Beef Cattle



INTERPRETATIONS for MATURE BEEF CATTLE ..... The following interpretations are considered appropriate for cows, bulls, and finishing cattle. The actual effect of a particular water source on health or performance depends on many factors, including diet, animal activity, air temperature, animal size, and condition. *(Interpretations for beef calves or dairy cattle are available on requrest.)*

TOTAL DISSOLVED SOLIDS, CONDUCTIVITY: EXCELLENT QUALITY ("fresh" water): Should have no effect on health or performance.

NITRATE-NITROGEN: This water should have no effect on animal health or performance.

SODIUM: Sodium by itself poses little risk but is considered a dissolved solid. See Total Dissolved Solids comments.

CALCIUM: This concentration is not expected to affect animal health or performance.

MAGNESIUM: Should not have significant long-term effects on animal health or performance, but is considered part of dissolved solids (see Total Dissolved Solids comments)

POTASSIUM: Not expected to affect health or performance.

IRON: No specific production or health problems are expected from using this water as a drinking water source..

MANGANESE: No specific production problems expected from using this water.

HARDNESS: Hardness has no direct effect on drinking water safety or animal health.

Your opinion is valuable to us. Please let us know what you think about our services! Send an email to feedback@servitech.com.

6921 S. Bell • Amarillo, TX 79109
www.servitech.com

Phone: 806.677.0093
800.557.7509
Fax: 806.677.0329

Lab No.: 3814

LABORATORY ANALYSIS RESULTS

Date Reported: 06/02/2025

Send To: 55267	NORTHERN NM STOCKMANS ASSOC DR CRISTOBAL VALENCIA 1116 SILVER AVE SW UNIT I ALBUQUERQUE, NM 87102

Ashleigh Laugesen
Signer

Sample ID:	JARSOSITO	**Date Received:**	
Client Name:		**Invoice No:**	428334
Location:		**P.O. #:**	
Date/Time Sampled:	05/15/2025	**Name of Sampler:**	
Date/Time Submitted:	05/23/2025	**Name of Submitter:**	
Subject:	Livestock Water Lab Analysis	**Depth:**	

AVERAGE DAILY WATER CONSUMPTION (gallons per head per day)

Feeder, finishing ..... 10 to 12 gal. Cow, dry or mature ..... 10 gal.
Bulls ..... 12 gal. Cow with calf ..... 12 gal.

(Note: Water consumption may increase by 1½ to 2 times when temperatures exceed 80°F.)

Your opinion is valuable to us. Please let us know what you think about our services! Send an email to feedback@servitech.com.

servi tech
6921 S. Bell • Amarillo, TX 79109
www.servitech.com

Phone: 806.677.0093
800.557.7509
Fax: 806.677.0329

Lab No.: 3814

LABORATORY ANALYSIS RESULTS

Date Reported: 06/02/2025

Send To:
55267

NORTHERN NM STOCKMANS ASSOC
DR CRISTOBAL VALENCIA
1116 SILVER AVE SW UNIT I
ALBUQUERQUE, NM 87102

Ashleigh Laugesen
Signer

Sample ID:	JARSOSITO	**Date Received:**	
Client Name:		**Invoice No:**	428334
Location:		**P.O. #:**	
Date/Time Sampled:	05/15/2025	**Name of Sampler:**	
Date/Time Submitted:	05/23/2025	**Name of Submitter:**	
Subject:	Livestock Water Lab Analysis	**Depth:**	

Livestock - Beef Calves

		Excellent	Good	Fair	Poor	Very Poor
		500	1000	2000	3500	5000
Total Dissolved Solids (Calc) (TDS), mg/L	25					
		Very Low	Low	Medium	High	Very High
		10.0	20.0	40.0	70.0	100
Nitrate Nitrogen (NO3-N), mg/L	<0.1					
		100	200	450	1200	2000
Sulfate (SO4), mg/L	3.3					
		35	65	150	400	670
Sulfate-Sulfur (SO4-S), mg/L	1.1					
		20	70	140	300	500
Chloride (Cl), mg/L	<1					
		20	50	100	200	350
Total Sodium (Na), mg/L	3					
		30	60	120	240	450
Total Calcium (Ca), mg/L	8					
		20	35	80	170	350
Total Magnesium (Mg), mg/L	2					
		10	25	50	100	150
Total Potassium (K), mg/L	2					
		0.10	0.20	0.40	0.80	1.20
Total Iron (Fe), mg/L	0.42					
		0.010	0.025	0.050	0.075	0.150
Total Manganese (Mn), mg/L	0.020					
		Soft	Moderately Hard	Hard	Very Hard	Brackish
		60	120	180	270	400
Hardness (CaCO3), mg/L	28					
		3.5	7.0	11	16	24
Hardness (CaCO3), grains/gal	1.6					

Additional Tests

Electrical Conductivity (EC @ 25C), µmho/cm	39.8

Your opinion is valuable to us. Please let us know what you think about our services! Send an email to feedback@servitech.com.

servi tech
6921 S. Bell • Amarillo, TX 79109
www.servitech.com

Phone: 806.677.0093
800.557.7509
Fax: 806.677.0329

Lab No.: 3814

LABORATORY ANALYSIS RESULTS

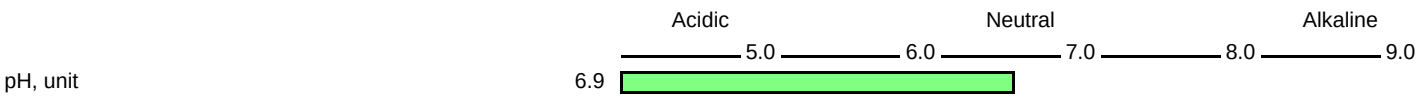
Date Reported: 06/02/2025

Send To: 55267	NORTHERN NM STOCKMANS ASSOC DR CRISTOBAL VALENCIA 1116 SILVER AVE SW UNIT I ALBUQUERQUE, NM 87102

Ashleigh Laugesen
Signer

Sample ID:	JARSOSITO	**Date Received:**	
Client Name:		**Invoice No:**	428334
Location:		**P.O. #:**	
Date/Time Sampled:	05/15/2025	**Name of Sampler:**	
Date/Time Submitted:	05/23/2025	**Name of Submitter:**	
Subject:	Livestock Water Lab Analysis	**Depth:**	

Livestock - Beef Calves



INTERPRETATIONS for BEEF CALVES ..... The following interpretations are considered appropriate for weaned, yearling, or growing cattle. The actual effect of a particular water source on health or performance depends on many factors, including diet, animal activity, air temperature, animal size, and condition. *(Interpretations for mature beef cattle or dairy cattle are available on requrest.)*

TOTAL DISSOLVED SOLIDS, CONDUCTIVITY: **EXCELLENT QUALITY ("fresh" water):** Should have no effect on health or performance.

NITRATE-NITROGEN: This water should have no effect on animal health or performance.

SULFATE: This water should have no effect on health or performance.

SODIUM: Sodium by itself poses little risk but is considered a dissolved solid. See Total Dissolved Solids comments.

CALCIUM: This concentration is not expected to affect animal health or performance.

MAGNESIUM: Should not have significant long-term effects on animal health or performance, but is considered part of dissolved solids (see Total Dissolved Solids comments)

POTASSIUM: Not expected to affect health or performance.

IRON: No specific production or health problems are expected from using this water as a drinking water source..

MANGANESE: No specific production problems expected from using this water.

HARDNESS: Hardness has no direct effect on drinking water safety or animal health.

Your opinion is valuable to us. Please let us know what you think about our services! Send an email to feedback@servitech.com.

servi tech
6921 S. Bell • Amarillo, TX 79109
www.servitech.com

Phone: 806.677.0093
800.557.7509
Fax: 806.677.0329

Lab No.: 3814

LABORATORY ANALYSIS RESULTS

Date Reported: 06/02/2025

Send To: 55267	NORTHERN NM STOCKMANS ASSOC DR CRISTOBAL VALENCIA 1116 SILVER AVE SW UNIT I ALBUQUERQUE, NM 87102

Ashleigh Laugesen
Signer

Sample ID:	JARSOSITO	**Date Received:**	
Client Name:		**Invoice No:**	428334
Location:		**P.O. #:**	
Date/Time Sampled:	05/15/2025	**Name of Sampler:**	
Date/Time Submitted:	05/23/2025	**Name of Submitter:**	
Subject:	Livestock Water Lab Analysis	**Depth:**	

AVERAGE DAILY WATER CONSUMPTION (gallons per head per day)

Calf (2 to 4 mo.) ..... 2 to 3.5 gal.
Feeder, growing (400-800 lb.) ..... 6 to 9 gal.
(Note: Water consumption may increase by 1½ to 2 times when temperatures exceed 80°F.)

Your opinion is valuable to us. Please let us know what you think about our services! Send an email to feedback@servitech.com.

servi tech
6921 S. Bell • Amarillo, TX 79109
www.servitech.com

Phone: 806.677.0093
800.557.7509
Fax: 806.677.0329

Lab No.: 3815

LABORATORY ANALYSIS RESULTS

Date Reported: 06/02/2025

Send To: 55267	NORTHERN NM STOCKMANS ASSOC DR CRISTOBAL VALENCIA 1116 SILVER AVE SW UNIT I ALBUQUERQUE, NM 87102

Ashleigh Laugesen
Signer

Sample ID:	CIENEGA REDONDA	**Date Received:**	
Client Name:		**Invoice No:**	428334
Location:		**P.O. #:**	
Date/Time Sampled:	05/15/2025	**Name of Sampler:**	
Date/Time Submitted:	05/23/2025	**Name of Submitter:**	
Subject:	Livestock Water Lab Analysis	**Depth:**	

Livestock - Beef Cattle

		Excellent	Good	Fair	Poor	Very Poor
		1000	2000	4000	6000	10000
Total Dissolved Solids (Calc) (TDS), mg/L	32					
		Very Low	Low	Medium	High	Very High
		10.0	30.0	70.0	100	300
Nitrate Nitrogen (NO3-N), mg/L	<0.1					
		200	500	1000	2500	4000
Sulfate (SO4), mg/L	1.1					
		65	170	340	670	1300
Sulfate-Sulfur (SO4-S), mg/L	0.38					
		35	130	250	500	1000
Chloride (Cl), mg/L	<1					
		25	75	150	300	500
Total Sodium (Na), mg/L	1					
		40	100	200	400	600
Total Calcium (Ca), mg/L	5					
		25	50	120	250	500
Total Magnesium (Mg), mg/L	2					
		40	80	100	160	200
Total Potassium (K), mg/L	6					
		0.10	0.20	0.40	0.80	1.20
Total Iron (Fe), mg/L	0.40					
		0.010	0.025	0.050	0.075	0.150
Total Manganese (Mn), mg/L	0.030					
		Soft	Moderately Hard	Hard	Very Hard	Brackish
		60	120	180	270	480
Hardness (CaCO3), mg/L	20					
		3.5	7.0	11	16	24
Hardness (CaCO3), grains/gal	1.2					

Additional Tests

Electrical Conductivity (EC @ 25C), µmho/cm	49.7

Your opinion is valuable to us. Please let us know what you think about our services! Send an email to feedback@servitech.com.

servi tech
6921 S. Bell • Amarillo, TX 79109
www.servitech.com

Phone: 806.677.0093
800.557.7509
Fax: 806.677.0329

Lab No.: 3815

LABORATORY ANALYSIS RESULTS

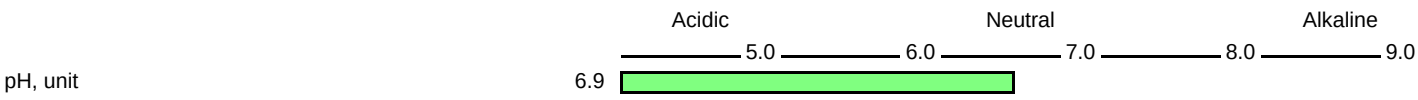
Date Reported: 06/02/2025

Send To: 55267	NORTHERN NM STOCKMANS ASSOC DR CRISTOBAL VALENCIA 1116 SILVER AVE SW UNIT I ALBUQUERQUE, NM 87102

Ashleigh Laugesen
Signer

Sample ID:	CIENEGA REDONDA	**Date Received:**	
Client Name:		**Invoice No:**	428334
Location:		**P.O. #:**	
Date/Time Sampled:	05/15/2025	**Name of Sampler:**	
Date/Time Submitted:	05/23/2025	**Name of Submitter:**	
Subject:	Livestock Water Lab Analysis	**Depth:**	

Livestock - Beef Cattle



INTERPRETATIONS for MATURE BEEF CATTLE ..... The following interpretations are considered appropriate for cows, bulls, and finishing cattle. The actual effect of a particular water source on health or performance depends on many factors, including diet, animal activity, air temperature, animal size, and condition. *(Interpretations for beef calves or dairy cattle are available on requrest.)*

TOTAL DISSOLVED SOLIDS, CONDUCTIVITY: EXCELLENT QUALITY ("fresh" water): Should have no effect on health or performance.

NITRATE-NITROGEN: This water should have no effect on animal health or performance.

SODIUM: Sodium by itself poses little risk but is considered a dissolved solid. See Total Dissolved Solids comments.

CALCIUM: This concentration is not expected to affect animal health or performance.

MAGNESIUM: Should not have significant long-term effects on animal health or performance, but is considered part of dissolved solids (see Total Dissolved Solids comments)

POTASSIUM: Not expected to affect health or performance.

IRON: No specific production or health problems are expected from using this water as a drinking water source..

MANGANESE: No specific production problems expected from using this water.

HARDNESS: Hardness has no direct effect on drinking water safety or animal health.

Your opinion is valuable to us. Please let us know what you think about our services! Send an email to feedback@servitech.com.

6921 S. Bell • Amarillo, TX 79109
www.servitech.com

Phone: 806.677.0093
800.557.7509
Fax: 806.677.0329

Lab No.: 3815

LABORATORY ANALYSIS RESULTS

Date Reported: 06/02/2025

Send To: 55267	NORTHERN NM STOCKMANS ASSOC DR CRISTOBAL VALENCIA 1116 SILVER AVE SW UNIT I ALBUQUERQUE, NM 87102

Ashleigh Laugesen
Signer

Sample ID:	CIENEGA REDONDA	**Date Received:**	
Client Name:		**Invoice No:**	428334
Location:		**P.O. #:**	
Date/Time Sampled:	05/15/2025	**Name of Sampler:**	
Date/Time Submitted:	05/23/2025	**Name of Submitter:**	
Subject:	Livestock Water Lab Analysis	**Depth:**	

AVERAGE DAILY WATER CONSUMPTION (gallons per head per day)

Feeder, finishing ..... 10 to 12 gal. Cow, dry or mature ..... 10 gal.
Bulls ..... 12 gal. Cow with calf ..... 12 gal.

(Note: Water consumption may increase by 1½ to 2 times when temperatures exceed 80°F.)

Your opinion is valuable to us. Please let us know what you think about our services! Send an email to feedback@servitech.com.

6921 S. Bell • Amarillo, TX 79109
www.servitech.com

Phone: 806.677.0093
800.557.7509
Fax: 806.677.0329

Lab No.: 3815

LABORATORY ANALYSIS RESULTS

Date Reported: 06/02/2025

Send To:
55267

NORTHERN NM STOCKMANS ASSOC
DR CRISTOBAL VALENCIA
1116 SILVER AVE SW UNIT I
ALBUQUERQUE, NM 87102

Ashleigh Laugesen
Signer

Sample ID:	CIENEGA REDONDA	**Date Received:**	
Client Name:		**Invoice No:**	428334
Location:		**P.O. #:**	
Date/Time Sampled:	05/15/2025	**Name of Sampler:**	
Date/Time Submitted:	05/23/2025	**Name of Submitter:**	
Subject:	Livestock Water Lab Analysis	**Depth:**	

Livestock - Beef Calves

		Excellent	Good	Fair	Poor	Very Poor
		500	1000	2000	3500	5000
Total Dissolved Solids (Calc) (TDS), mg/L	32					
		Very Low	Low	Medium	High	Very High
		10.0	20.0	40.0	70.0	100
Nitrate Nitrogen (NO3-N), mg/L	<0.1					
		100	200	450	1200	2000
Sulfate (SO4), mg/L	1.1					
		35	65	150	400	670
Sulfate-Sulfur (SO4-S), mg/L	0.38					
		20	70	140	300	500
Chloride (Cl), mg/L	<1					
		20	50	100	200	350
Total Sodium (Na), mg/L	1					
		30	60	120	240	450
Total Calcium (Ca), mg/L	5					
		20	35	80	170	350
Total Magnesium (Mg), mg/L	2					
		10	25	50	100	150
Total Potassium (K), mg/L	6					
		0.10	0.20	0.40	0.80	1.20
Total Iron (Fe), mg/L	0.40					
		0.010	0.025	0.050	0.075	0.150
Total Manganese (Mn), mg/L	0.030					
		Soft	Moderately Hard	Hard	Very Hard	Brackish
		60	120	180	270	400
Hardness (CaCO3), mg/L	20					
		3.5	7.0	11	16	24
Hardness (CaCO3), grains/gal	1.2					

Additional Tests

Electrical Conductivity (EC @ 25C), µmho/cm	49.7

Your opinion is valuable to us. Please let us know what you think about our services! Send an email to feedback@servitech.com.

servi tech
6921 S. Bell • Amarillo, TX 79109
www.servitech.com

Phone: 806.677.0093
800.557.7509
Fax: 806.677.0329

Lab No.: 3815

LABORATORY ANALYSIS RESULTS

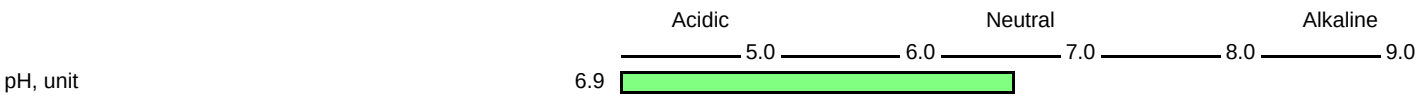
Date Reported: 06/02/2025

Send To: 55267	NORTHERN NM STOCKMANS ASSOC DR CRISTOBAL VALENCIA 1116 SILVER AVE SW UNIT I ALBUQUERQUE, NM 87102

Ashleigh Laugesen
Signer

Sample ID:	CIENEGA REDONDA	**Date Received:**	
Client Name:		**Invoice No:**	428334
Location:		**P.O. #:**	
Date/Time Sampled:	05/15/2025	**Name of Sampler:**	
Date/Time Submitted:	05/23/2025	**Name of Submitter:**	
Subject:	Livestock Water Lab Analysis	**Depth:**	

Livestock - Beef Calves



INTERPRETATIONS for BEEF CALVES ..... The following interpretations are considered appropriate for weaned, yearling, or growing cattle. The actual effect of a particular water source on health or performance depends on many factors, including diet, animal activity, air temperature, animal size, and condition. *(Interpretations for mature beef cattle or dairy cattle are available on requrest.)*

TOTAL DISSOLVED SOLIDS, CONDUCTIVITY: **EXCELLENT QUALITY ("fresh" water):** Should have no effect on health or performance.

NITRATE-NITROGEN: This water should have no effect on animal health or performance.

SULFATE: This water should have no effect on health or performance.

SODIUM: Sodium by itself poses little risk but is considered a dissolved solid. See Total Dissolved Solids comments.

CALCIUM: This concentration is not expected to affect animal health or performance.

MAGNESIUM: Should not have significant long-term effects on animal health or performance, but is considered part of dissolved solids (see Total Dissolved Solids comments)

POTASSIUM: Not expected to affect health or performance.

IRON: No specific production or health problems are expected from using this water as a drinking water source..

MANGANESE: No specific production problems expected from using this water.

HARDNESS: Hardness has no direct effect on drinking water safety or animal health.

Your opinion is valuable to us. Please let us know what you think about our services! Send an email to feedback@servitech.com.

6921 S. Bell • Amarillo, TX 79109
www.servitech.com

Phone: 806.677.0093
800.557.7509
Fax: 806.677.0329

Lab No.: 3815

LABORATORY ANALYSIS RESULTS

Date Reported: 06/02/2025

Send To: 55267	NORTHERN NM STOCKMANS ASSOC DR CRISTOBAL VALENCIA 1116 SILVER AVE SW UNIT I ALBUQUERQUE, NM 87102	Ashleigh Laugesen Signer

Sample ID:	CIENEGA REDONDA	**Date Received:**	
Client Name:		**Invoice No:**	428334
Location:		**P.O. #:**	
Date/Time Sampled:	05/15/2025	**Name of Sampler:**	
Date/Time Submitted:	05/23/2025	**Name of Submitter:**	
Subject:	Livestock Water Lab Analysis	**Depth:**	

AVERAGE DAILY WATER CONSUMPTION (gallons per head per day)

Calf (2 to 4 mo.) ..... 2 to 3.5 gal.
Feeder, growing (400-800 lb.) ..... 6 to 9 gal.
(Note: Water consumption may increase by 1½ to 2 times when temperatures exceed 80°F.)

Your opinion is valuable to us. Please let us know what you think about our services! Send an email to feedback@servitech.com.