

# System Impact Study

*2019-G2*



## Western Area Power Administration

Studies Performed by:  
Transmission Planning North  
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Rocky Mountain Region

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## Executive Summary

Western Area Power Administration (WAPA) has received a request for interconnection of 252 MW of wind generation. It has been assigned Queue position 2019-G2. The point of interconnection is approximately 50 miles northwest of the Ault 345 kV substation on the Craig - Ault 345 kV line. The requested in-service date is December 31, 2022. The Interconnection Customer elected that the request be studied as both an Energy Resource and Network Resource. A System Impact Study (Study) has been completed for this request and this report details the results of the Study.

For protection and reliability, an additional breaker and bay will need to be added at an estimated cost of \$2.5M.

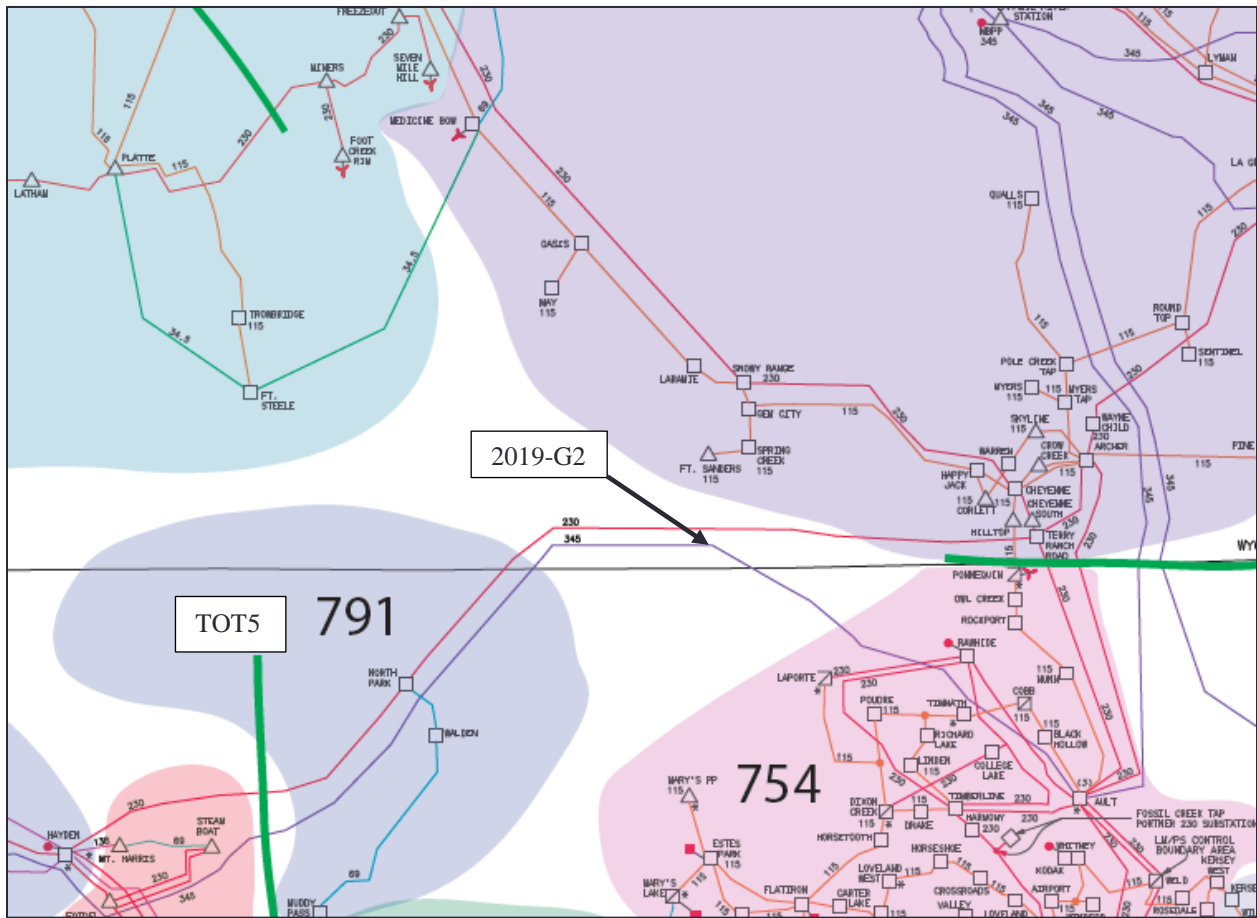
As an Energy or Network Resource, 252 MW of output from the wind farm could be interconnected without any further required system upgrades

Interconnection service in and of itself does not convey transmission service. Additional system upgrades may be identified when a Transmission Request for the output of the wind farm is studied.

\* These estimates are derived from WAPA's *Conceptual Planning and Budget Cost Estimating Guide*. The estimates do not include Planning, lands and rights, environmental, surveys, geologic investigations, designs and specifications, or construction supervision. The estimates reflect expected cost increases (2.4% per year) for 2022 construction.

## I. Introduction

WAPA has received an Interconnection Request for 252 MW of wind generation. It has been assigned Queue position 2019-G2. The point of interconnection is approximately 50 miles northwest of the Ault 345 kV substation on the Craig - Ault 345 kV line. The requested in-service date is December 31, 2021. The Interconnection Customer has elected for the request to be studied as both an Energy Resource and Network Resource. The Interconnection Customer has signed an Interconnection System Impact Study Agreement, and this study is in response to that agreement.



Approximate generation interconnection location (2019-G2)

## II. Methodology

### A. Study Objectives

WAPA's Large Generation Interconnection Procedures specify that this Study report will provide the following information:

- Preliminary identification of any thermal overload or voltage limit violations resulting from the interconnection of the proposed generation;
- Preliminary identification of any circuit breakers short circuit capability limits exceeded as a result of the interconnection of the proposed generation;
- Preliminary description and non-binding estimated cost of facilities required to interconnect the Large Generating Facility to the Transmission System and to address the identified short circuit and power flow issues.

### B. TOT Description

Within the western power grid there are 80 defined power constraint paths. A path's constraint is due to a power branch limitation. The limitation can be either a physical constraint or a stability constraint. This proposed interconnection impacts TOT5 (WECC path 39). The TOT 5 was stressed to 1300 MW. This was obtained by re-dispatching generation in western and eastern Colorado, before 2019-G2 is added at full output and the power flow analysis is done. Transfer limit flow is west-to-east at 1680 MW. TOT 5 is comprised of the following Transmission lines:

- North Park - Terry Ranch Road 230 kV
- Craig - Ault 345 kV
- Hayden – Gore Pass 230 kV
- Hayden – Gore Pass 138 kV
- N. Gunnison – Salida (Poncha Jct.) 115 kV
- Curecanti – Poncha 230 kV
- Basalt – Malta 230 kV
- Hopkins – Malta 230 kV

## C. Energy vs. Network Resource

The Interconnection Customer has elected to have the interconnection studied as an Energy Resource (ER) and a Network Resource (NR). The Interconnection Customer must select either NR or ER prior to the Facilities Study. The Interconnection Customer's request for ER or NR Interconnection Service in and of itself does not convey transmission service.

### 1. Energy Resource

An Energy Resource (ER) study identifies if there are any system conditions that would allow for the interconnection and sale of the proposed generation without the requirement of system upgrades. Such sale is contingent upon available transmission.

### 2. Network Resource

Network Resource (NR) interconnection service allows the proposed generation to operate regardless of system parameters such as loading on specific transmission lines, voltages, or path loadings. This is accomplished by requiring upgrades to system elements that meet or exceed reliability criteria as a result of interconnecting the proposed generation.

## D. Delivery of Power

The interconnection request does not include a power delivery point.





### III. Base Case

The base case to be used in this feasibility study will be the Colorado Coordinated Planning Group 2022 heavy summer case (ccpg2022HS), modified as follows:

#### A. Inclusions/changes identified by Affected Systems

Inclusions/changes as recommended by neighboring transmission providers PSCO, Tri- State Generation & Transmission (TSGT), Black Hills, and Basin Electric Power Cooperative (Basin Electric).

- A 3 percent load growth was added to the case to represent the ISD of 2022
- Husky-Ault interconnection at Ault Substation
- Basin Electric; specification changes to transformers at LRS and ratings on some branches in their transmission system.
- TSGT; Sawmill Creek, Wayne Child phase II removed.
- Black Hills; Cheyenne West substation, Corriedale Wind (102MW), additional load and shunt capacitors at King Ranch.
- WAPA; adjust western slope Hydro generation for nameplate output.
- All Nucla power plant facilities are off-line
- 2019-G1; 252 MW of Wind interconnection on Craig – Ault 345kV line

#### B. Prior Transmission and interconnection requests

Transmission and interconnection requests that were in WAPA's queue prior to 2019-G2 will also be included in the base case. The request is 2018-G7; 150 MW Solar Generation near Ault, Colorado.

#### C. TOT 5

Generation will be re-dispatched to stress TOT 5 at a level of 1300 MW, west to east. This was obtained by re-dispatching generation in western and eastern Colorado.

## IV. Criteria

### A. System Intact

Voltages will remain within the required 0.95 to 1.05 per unit range. Transmission lines and transformers may not exceed 100% of their nominal rating.

### B. Contingencies

Per TPL-001-WECC-CRT-3.1, requirement WR2, a Transmission Planner can have a more stringent criterion than requirement WR1 (.90-1.1 per unit). That is the case for WAPA Planning; voltages will remain between 0.95 and 1.05 per unit for single contingencies (P1 events). Transmission lines and transformers may not exceed either 100% of their nominal rating or an established emergency rating. The Zones monitored during the contingencies are: 753, 754, 756, 790, 791, 708, 755, 670, 709, 705, 703, 700, 752, and 706.



## V. Short Circuit Analysis

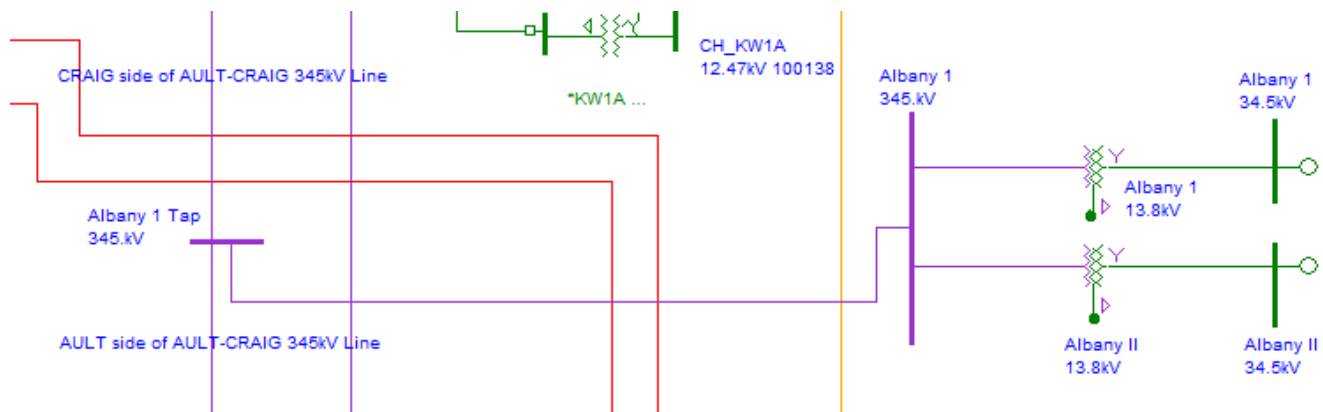
### A. Disclaimer

The Interconnection Customer provided preliminary or assumed data and information necessary to accurately model the short circuit analysis. Therefore, all results as stated below are the best estimates that can be generated with the information available. Once actual data is available, if it varies significantly from the provided or estimated data, it is possible that the short circuit study will need to be repeated at the Interconnection Customer's expense. The Interconnection Customer shall also assume all financial liability for any additions or modifications required by future study.

### B. Fault Duty

The Wind Farm interconnection was modeled in ASPEN OneLiner using the project information as provided by the requestor added to WAPA's latest OneLiner case. Typical impedance values and assumptions were made to fill in the missing information as noted below.

The following power system elements were added to the short circuit study to determine the impacts from the project. The following is a screenshot of the proposed power system in ASPEN Oneliner:



#### Generation Tie Line

From the Ault-Craig 345 kV line to the project, a 345 kV generation tie line with the following parameters. The zero-sequence impedance was modeled as 3 times the positive sequence impedance as an assumption.

**Transmission Line Data**

Albany 1 Tap 345.kV - Albany 1 345.kV

Name= Albany 1 Tap Ckt ID= 1

Length= 4. mi Type

Branch Parameters

R= 0.00036 X= 0.0027

R0= 0.00108 X0= 0.0081

G1= 0. B1= 0. G2= 0. B2= 0.

G10= 0. B10= 0. G20= 0. B20= 0.

Current Ratings (A)

A: 0. B: 0. C: 0. D: 0.

I<sup>2</sup>T Rating = 0. Amp<sup>2</sup> Sec

Metered at: Albany 1 345. kV

Memo:

Date In-service: N/A Out-of-service: N/A

Tags: None

[Last changed Apr 24, 2019](#)

### Main Power Transformer

The main power transformer connects directly to the wind farm 34.5kV bus and is defined as follows:


- 345 kV wye/34.5 kV wye - 13.8 kV delta
- 170/228/285 ONAN/ONAN/ONAF MVA
- Positive-sequence impedances:
  - $Z_{ps} = 0.002249 + j0.08997$
  - $Z_{pt} = 0.002249 + j0.08997$
  - $Z_{st} = 0.001125 + j0.04499$
- Zero-sequence impedances:
  - $Z_{pt0} = 0.002024 + j0.08097$
  - $Z_{pt0} = 0.002024 + j0.08097$
  - $Z_{st0} = 0.001013 + j0.04049$



3-Winding Transformer Data

Name=  ID=  MVA Ratings =

Auto-D, Delta lags



[P] Albany I 345. kV Tap kV=  [S] Albany II 34.5 kV Tap kV=  [T] Albany II 13.8 kV Tap kV=

MVA base for per-unit quantities =   Fict. bus No for data export =

Positive-sequence short circuit impedances (pu)  
 $Z_{ps} = 0.00225 + j 0.08997$   $Z_{pt} = 0.00225 + j 0.08997$   $Z_{st} = 0.00113 + j 0.04499$

Zero-sequence impedances (pu)  
 Short circuit impedances   
 Classical 'T' model impedances  
 $Z_{ps0} = 0.00202 + j 0.08097$   $Z_{pt0} = 0.00202 + j 0.08097$   $Z_{st0} = 0.00101 + j 0.04049$

Grounding impedances (ohms)  
 $Z_{g1} = 0. + j 0.$

Magnetizing susceptances (pu)  
 $B = 0.$   
 $B_0 = 0.$

Memo:

Date In-service: [N/A](#) Out-of-service: [N/A](#)  
 Tags: [None](#)

[Last changed May 02, 2019](#)

### 34.5 kV Collector System & Wind Turbine Generator Transformers

This was excluded from the model since no data was provided. This will give slightly higher short circuit results.

### Wind Turbine Generation

Modeled the wind turbines as lumped generators based upon the generator data provided for the Albany County II Wind Farm Project - 2019

- One wind generator lumped together with an estimated capacity of 252 MVA
- Current limited generator so that positive-sequence fault current is 2 times full load output (8434.6 A at 34.5kV bus)
- No zero-sequence current



**Generator Data**

Generators at Albany II 34.5kV

Unit '1' On-Line	Edit
	On/Off-Line
	New
	Delete

Internal V-Source  
 p.u. = 1.  
 Ref. angle = 0.

Current Limits (A)  
 A: 8434.6 B: 0.

Power Flow Regulation  
 Regulates voltage  Fixed P+iQ output  
 Hold V = 1. pu  
 At Albany II 34.5kV 0 (PV)

Memo:  

$$\left(\frac{252\text{MVA}}{\sqrt{3} \times 34.5\text{kV}}\right)^2 \times$$

Tags: [None](#)

Done Help

[Last changed May 02, 2019](#)

### C. Pre and Post Interconnection Fault Current Levels

#### 3-Phase Pre and Post Interconnection Fault Current Levels (Amperes symmetrical rms)

Location	Pre-interconnection	Post-interconnection
Ault 345 kV	13,943 A	14,294 A
Albany County II 345 kV	N/A	7,187 A
Craig 345 kV	14,034 A	14,102 A

#### Zero-Sequence (3I<sub>0</sub>) Pre and Post Interconnection Single-line-to-Ground Fault Current Levels (Amperes symmetrical rms)

Location	Pre-interconnection	Post-interconnection
----------	---------------------	----------------------



Ault 345 kV	13,514 A	13,784 A
Albany County II 345 kV	N/A	8,023 A
Craig 345 kV	15,371 A	15,422 A

The increase in fault duties should not be an issue for the present rating of electrical equipment as the Ault and Craig 345 kV circuit breakers are rated at 50 kA interruption rating.

#### D. Basic Protection Issues

The wind farm (2019-G2) would interconnect to the Ault-Craig 345kV line via a 3 breaker ring arrangement. This would require the addition of three circuit breakers. The short tie line between Ault and the Wind Farm could be protected by current differential protection with SEL-411L relays or equivalent. The Ault and Craig line relays at Albany County will be SEL-411L primary and an SEL-421 (or equivalent distance or differential relay) secondary relay to match the remote substations. Communications would be required on both primary and secondary relay schemes with redundant paths. Currently the primary relays use SONET based communications and the secondary relays use power line carrier. Alternatively if the tie line is longer, then line current differential with SEL-311L relays could be utilized. Some re-coordination of existing protective relays in the vicinity may be required.

#### E. System Restoration Issues

Automatic reclosing is not recommended on the short tie line between Ault-Craig 345kV line and 2019-G2 Albany County II Wind Farm due to the short length.

## VI. Results

### A. Benchmark Case.

This Benchmark case produced overloads during the contingency analysis as detailed in the following tables.

#### 1) Acceptable/existing overloads:

The Table below shows “existing” overloads. The two transformers associated with the Ault to Weld 230 kV line are a known problem; if one transformer goes out-of-service, then the other transformer overloads. The Gore Pass to Hayden 138 kV line is setup to automatically trips once the line has reached its thermal limit. The Basalt to Hopkins 115 kV line automatically trips when it reaches 100 percent of its rating. The other overloads can be reduce by re-dispatching generation or changing tap on the phase shifting transformers.

Monitored Branch	Contingency	Rating (MW)	Flow (MW)	%
70231 HOPKINS 115.00 79003 BASALT 115.00	Base Case	83	84.8	102.2
70072 CABINCRK 230.00 70156 DILLON 230.00	CRAIG_AULT345	459	491	116.4
73011 AULT 230.00 73212 WELD LM 230	AULT230_WELDI	512.7	531.2	103.5
73011 AULT 230.00 73212 WELD LM 230.00	AULT230_WELDII	512.7	531.2	103.5
79060 SANJN PS 345.00 79990 WATRFLW 345.00	CRAIG_MEEKER345(1)	300	312	104
79060 SANJN PS 345.00 79990 WATRFLW 345.00	CRAIG_MEEKER345(2)	300	312	104
73012 GOREPASS 138.00 79038 HAYDEN 138.00	GOREPASS_HAYDEN 230	133	176	130

The overloads in the Benchmark case above also appear when the 2019-G2 is connected and injecting an additional 252 MW of generation. Therefore, 2019-G2 will not be held responsible for these overloads.

### B. 2019-G2 Network Resource; G2\_2019 output 252 MW (G1/G2\_2019 = 504 MW total injected onto 345 kV bus)

- 1) As a Network Resource, the simulation results determined that no upgrades are required to interconnect 2019-G2.





C. 2019-G2 Energy Resource; output 252 MW (504 MW total G1/G2\_2019 on 345 kV bus)

- 1) As an Energy Resource, the simulation results determined that no upgrades are required to interconnect 2019-G2.

#### D. Transient Stability Results

Transient Stability Analysis was completed with the system upgrades described in Section VII of this report for Energy or Network resource, and the proposed generation set at full output (115 MW). The system remained in compliance with WECC Criterion (TPL-001-WECC-CRT-3.1) for the contingencies studied. Plots of the results are in Appendix D.

The following contingencies were studied below:

Disturbance Description	3-PH Fault Duration (cycles)	Cleared Element	With G1-2019
Ault 345 – 2019G1	5	Ault 345 – 2019G1	Stable
2019G1 – Craig 345	5	2019G1 – Craig 345	Stable
Craig – Bonanza 345	5	Craig – Bonanza 345	Stable
N. Park – T. Ranch Rd 230 kV	4	N. Park – T. Ranch Rd 230 kV	Stable
Hayden – North Park 230 kV	4	Hayden – T. Ranch Rd 230 kV	Stable

For the Contingencies listed above, Appendix D depicts each series of transient stability plots for each of the following:

**Bus voltage deviations** at the point of interconnection of the proposed generation, Craig 345 kV, Ault 345 kV, North Park 230 kV, Hayden 230 kV, and Bonanza 345 kV.

**Bus Frequency deviations** at the point of interconnection of the proposed generation, Craig 345 kV, Ault 345 kV, North Park 230 kV, Hayden 230 kV, and Bonanza 345 kV.

## VII. Estimated Costs for 2021 Construction

The following estimates are derived from WAPA's *Conceptual Planning and Budget Cost Estimating Guide*. The estimates do not include Planning, lands and rights, environmental, surveys, geologic investigations, designs and specifications, or construction supervision. The estimates reflect expected cost increases (2.4% per year) for 2022 construction.

### A. Energy or Network resource:

#### 1) Upgrades

- a. With 2019-G2 connected to the Craig to Ault 345 kV transmission line and powered delivered to the west, no upgrades are required for both Network and Energy Resources. An additional breaker and bay will need to be added at an estimated cost of \$2.5M.

#### 2) Cost Estimate

- a. The estimated construction cost for this addition breaker and bay is \$2.5M.



## **VIII. Conclusion**

This Study found that in order to interconnect 2019-G2 as an Energy Resource or a Network Resource, a new breaker will need to be added to the existing 3 breaker ring bus substation (from G1-2019) at the point of interconnection. The estimated cost of the project is approximately \$2.5M. As an energy and network resource, 2019-G2 would not be limited and full output of 252 MW will be acceptable.



## Appendices

### A. Contingency Legend

CONTINGENCY LEGEND:

```
<----- CONTINGENCY LABEL ----->  EVENTS
CRAIG_HDN_E                               : TRIP LINE FROM BUS 79013 [CRAIG      230.00] TO BUS 79142
[HDN EAST 230.00] CKT 1
CRAIG_G2_2019                             : TRIP LINE FROM BUS 79014 [CRAIG      345.00] TO BUS 90020
[G2_2019 345.00] CKT 1
G2_2019_AULT345                           : TRIP LINE FROM BUS 90020 [G2_2019    345.00] TO BUS 73012
[AULT 345.00] CKT 1
HAYDEN_NPARK230                           : TRIP LINE FROM BUS 79142 [HDN EAST    230.00] TO BUS 73616
[NORTH PARK 230.00] CKT 1
NPARK230_TRANCH                           : TRIP LINE FROM BUS 73616 [NORTH PARK  230.00] TO BUS 73488
[TERRY_RANCH 230.00] CKT 1
TRANCH_AULT230                            : TRIP LINE FROM BUS 73488 [TERRY_RANCH 230.00] TO BUS 73011
[AULT 230.00] CKT 1
ARCHER_AULT230                             : TRIP LINE FROM BUS 73009 [ARCHER      230.00] TO BUS 73011
[AULT 230.00] CKT 1
AULT230_WELDI                             : TRIP LINE FROM BUS 73011 [AULT      230.00] TO BUS 73212
[WELD LM 230.00] CKT 1
AULT230_WELDII                            : TRIP LINE FROM BUS 73011 [AULT      230.00] TO BUS 73212
[WELD LM 230.00] CKT 2
CRAIG_MEEKER345                           : TRIP LINE FROM BUS 79014 [CRAIG      345.00] TO BUS 79266
[MEEKER 345.00] CKT 1
CRAIG_RIFLE230                            : TRIP LINE FROM BUS 79013 [CRAIG      230.00] TO BUS 79059
[RIFLE WA 230.00] CKT 1
HAYDEN_GOREPASS230                        : TRIP LINE FROM BUS 79142 [HDN EAST    230.00] TO BUS 79033
[GOREPASS 230.00] CKT 1
CRAIG_HAYDENW230                          : TRIP LINE FROM BUS 79013 [CRAIG      230.00] TO BUS 79039
[HDN WEST 230.00] CKT 2
```



## B. Monitored Buses

<u>Bus#</u>	<u>Bus Name</u>		<u>Bus#</u>	<u>Bus Name</u>	
101	SHAFFERS_CRO	115.0	70059	BO_TERM	115.0
103	BAILEY	115.0	70064	BRECKRDG	230.0
104	SHAWNEE	115.0	70065	BROOMFLD	115.0
105	ROBERTS_TUNN	115.0	70067	BUCKLY12	230.0
65085	ASHLEY	138.0	70069	CABCRKA	13.8
65086	ASHLEY	69.0	70070	CABCRKB	13.8
65191	BONANZA	24.0	70071	CABINCRK	115.0
65192	BONANZA	138.0	70072	CABINCRK	230.0
65193	BONANZA	345.0	70073	CALIFOR	115.0
65194	CHAPITA	138.0	70076	CAMEO	69.0
65371	COVE TP	138.0	70078	CAMEO	230.0
65457	DG UPLCO	138.0	70079	BLUESTONE	230.0
65520	EMMAPARK	138.0	70082	CAMP	69.0
66278	RANGELY	138.0	70087	CAPHILL	115.0
66590	UPALCO	138.0	70089	CARBNDAL	115.0
66591	UPALCO PS	138.0	70099	THORNTON	115.0
67256	MOONLAK1	69.0	70100	CHATFLD	230.0
67945	OSO OIL	12.5	70104	CHEROKEE2	15.5
70005	BRUSH_SS	115.0	70106	CHEROK4	22.0
70008	KELIM	115.0	70107	CHEROKEE	230.0
70009	CRAIG_YV	230.0	70108	CHEROKEE_S	115.0
70018	SODALAKE	230.0	70109	UNA_ORCH	69.0
70023	ALLISON	115.0	70110	CHEROKEE_N	115.0
70032	ALMA	230.0	70112	CLARK	230.0
70036	ARAP_A	115.0	70113	CLIFTON	230.0
70037	ARAP_B	115.0	70114	CLIMAX	115.0
70038	ARAPAHOE	230.0	70115	HPCYN	115.0
70039	ARGO	115.0	70124	CONIFER	115.0
70040	ARSENAL	115.0	70126	CONOCO	115.0
70041	ARVADA_PS	230.0	70127	COORSREC	115.0
70043	B.HYDROA	4.2	70138	DANIELPK	115.0
70044	B.HYDROB	4.2	70139	DANIELPK	230.0
70045	BANCROFT	115.0	70140	DEBEQUE	69.0
70046	BUCKLY34	230.0	70141	DAKOTA	230.0
70047	BARRLAKE	230.0	70142	DEERCRK	115.0
70048	GREENVAL	230.0	70145	CHEROK5	18.0
70050	BERGENPK	115.0	70146	CHEROK6	18.0
70052	BLUERIVR	115.0	70147	CHEROK7	18.0
70053	BLUERIVR	230.0	70148	DENVTM	115.0
70055	BNAVST	115.0	70149	DENVTM	230.0
70056	BNVSTATP	115.0	70153	DERBY_1	115.0
70057	PTARMGN	230.0	70154	DERBY_2	115.0
70058	B.HYDRO	115.0	70155	DILLON	115.0



70156	DILLON	230.0	70234	HUDSON	115.0
70162	EAST	115.0	70237	IDAHOSPG	230.0
70163	ELATI1	230.0	70239	JEWELL2	230.0
70164	ELDORADO	115.0	70240	JOHNSTN	115.0
70165	ENGLE3TP	115.0	70241	JORDAN	230.0
70166	ENGLEWD1	115.0	70242	KENDRICK	115.0
70167	ENGLEWD2	115.0	70244	LAFAYETT	115.0
70168	ENGLEWD3	115.0	70246	JOHNSTN2	115.0
70169	ENNIS	115.0	70251	LAKEWOD1	115.0
70172	FED_CTR	115.0	70252	LAKEWOD2	115.0
70173	FEDCTRTP	115.0	70257	LEADVIL1	115.0
70174	FEDERHT23	115.0	70258	LEADVIL2	115.0
70175	FEDERHT1	115.0	70259	LEETSDAL1	115.0
70180	FRUITA	13.8	70260	LEETSDAL	230.0
70183	FRUITA	69.0	70261	LEGGETT	230.0
70188	FTLUP1-2	13.8	70262	LEYDEN	115.0
70190	DAVIS_PS	115.0	70263	LITTLET1	115.0
70191	FTLUPTON	115.0	70265	LOOKOUT	115.0
70192	FTLUPTON	230.0	70266	LOOKOUT	230.0
70194	FULTONTS	115.0	70267	HOPKINS	69.0
70195	GEORG1&2	2.3	70268	ADOBE	230.0
70196	GEORGETN	25.0	70269	LOUISVIL	115.0
70197	GEORGETN	115.0	70273	MALTA	115.0
70198	GILCREST	115.0	70274	MALTA	230.0
70199	GILMAN	115.0	70276	MAPLETO1	115.0
70200	GLENNPS	230.0	70277	MAPLETO2	115.0
70201	GLENNWD	69.0	70278	MARCY	230.0
70202	GODFRETP	115.0	70279	MARTIN_1	115.0
70205	GRANDJCT	230.0	70280	MARTIN_2	115.0
70206	GRANDJPS	230.0	70281	MAYFLOWR	115.0
70207	GRANDVLY	69.0	70282	LEETSDAL2	115.0
70208	GRAY_ST.	115.0	70283	MEADOWHL	230.0
70209	GREELEY	115.0	70284	SURREYRG	230.0
70211	GUNBARRE2	230.0	70287	MILL	115.0
70212	GREENWD	230.0	70288	MITCHLCR	69.0
70213	GUNBARRE1	230.0	70290	MONFORT	115.0
70214	GRANDJCT	69.0	70291	MONROEPS	230.0
70215	HARRISPS	115.0	70295	NCAR	115.0
70216	HAVANA1	115.0	70296	NEWCASTL	69.0
70217	HAVANA2	115.0	70297	NIWOT	230.0
70218	HENDERPS	115.0	70298	NORTH_PS	115.0
70224	HOGBACK	115.0	70299	STKGULCH	230.0
70231	HOPKINS	115.0	70302	OILSHALE	69.0
70232	HOPKINS	230.0	70304	OTEROTP	115.0
70233	HORIZON	230.0	70307	P.VALLEY	115.0



70309	PARACHUT	230.0	70398	BCK_PS_N	115.0
70310	PAWNEE	22.0	70399	B.CRK_PS	230.0
70311	PAWNEE	230.0	70400	SODALAKE	115.0
70312	RAY LEWI	115.0	70401	SOUTH_1	115.0
70313	ORCHARD	230.0	70402	SOUTH_2	115.0
70314	MANCHEF1	16.0	70406	ST.VR_2	18.0
70315	MANCHEF2	16.0	70407	ST.VR_3	18.0
70322	PLAINVW	115.0	70408	ST.VR_4	18.0
70323	PRAIRIE3	230.0	70409	ST.VRAIN	22.0
70324	LACOMBE	230.0	70410	ST.VRAIN	230.0
70327	PONCHA	115.0	70416	STRASBRG	115.0
70328	PORTAL	115.0	70417	SULLIVN	230.0
70331	PRAIRIE1	230.0	70418	SUMMIT1	115.0
70340	QUAKER1	115.0	70420	SUMMIT2	115.0
70342	QUAKERTP	115.0	70421	SUMTAP2	115.0
70343	QUINCY	230.0	70423	SUNSHINE	115.0
70345	RALSTON1	115.0	70424	SUNSHTAP	115.0
70346	RALSTON2	115.0	70428	TECH_CTR	230.0
70350	RAWHIDE	24.0	70429	TINYTOWN	115.0
70351	RAWHIDEA	13.8	70432	TOWER	230.0
70354	RIDGE	115.0	70434	TWNLAKES	115.0
70355	RIDGE	230.0	70435	TWNLAKTP	115.0
70356	WEELERPS	230.0	70436	UINTAH	69.0
70357	BENCH	230.0	70437	UINTAH	13.8
70358	RIFLE_PS	230.0	70438	UINTAH	230.0
70359	RIFLE_CU	69.0	70439	UNC	115.0
70362	RIVERDAL	230.0	70441	UNIVERS1	115.0
70363	ROARNGFK	69.0	70444	VALMONT	115.0
70364	ROBIN2	115.0	70447	VALMONT	230.0
70368	ROSEDALE	115.0	70448	VALMONT6	13.8
70369	RUSSELL	230.0	70450	VASQUEZ	115.0
70373	BB_DRAW	230.0	70454	VINELAND	69.0
70377	SANDOWN	115.0	70461	WASHINGT	230.0
70382	SEMPER	115.0	70463	WATERTON	115.0
70384	SHERIDAN	115.0	70464	WATERTON	230.0
70385	SHOSHA&B	4.0	70466	WATERTON	345.0
70386	SHOSHONE	69.0	70468	ROSEDALE	230.0
70387	SHOSHONE	115.0	70470	WELD_PS	115.0
70388	SILTUSBR	69.0	70471	WELD_PS	230.0
70389	ROBIN1	115.0	70474	WINDSOR	230.0
70392	SKYRANCH	230.0	70475	ARROWHLK	115.0
70393	PONCHA_PS	230.0	70476	WOODLAND	115.0
70395	SMOKYHIL	115.0	70480	WESTPS	230.0
70396	SMOKYHIL	230.0	70481	MONACO12	230.0
70397	BCK_PS_S	115.0	70483	MARTN1TP	115.0



70484	MARTN2TP	115.0	70562	SPRUCE1	18.0
70487	JMSHAFR4	13.8	70563	SPRUCE2	18.0
70488	JMSHAFR	230.0	70564	RH_PV_GEN	0.6
70490	JMSHAFR3	13.8	70565	KNUTSON1	13.8
70491	TOLGATE	230.0	70566	KNUTSON2	13.8
70493	JMSHAFR2	13.8	70567	RAWHIDED	13.8
70495	JMSHAFR1	13.8	70568	RAWHIDEB	13.8
70498	QF_BCP2T	13.8	70569	RAWHIDEC	13.8
70499	QF_B4-4T	13.8	70570	PLNENDSS	230.0
70500	QF_CPP1T	13.8	70574	MOONGLCH	230.0
70501	QF_CPP3T	13.8	70580	PLNENDG1	13.8
70510	VICTORY	115.0	70585	PLNENDG3	13.8
70512	JEWELL1	230.0	70586	PLNENDG4	13.8
70513	HOMESTEAD	230.0	70587	PLNENDG2	13.8
70523	SULPHUR	115.0	70588	RMEC1	15.0
70524	SULPHUR	230.0	70589	RMEC2	15.0
70525	MTHARRIS	138.0	70590	RMEC	230.0
70526	IMBODEN	230.0	70591	RMEC3	23.0
70527	SANTEFE	230.0	70592	SPNDLE	230.0
70528	SPRUCE	230.0	70593	SPNDLE1	18.0
70529	JLGREEN	230.0	70594	SPNDLE2	18.0
70530	PICADIL	230.0	70596	HARVEST MI	230.0
70531	AIR_LIQ	115.0	70597	HARVEST MI	345.0
70532	POWHATON	230.0	70598	PAWNEE	345.0
70533	LEMON	230.0	70599	SMOKYHIL	345.0
70534	BERTHOUD	115.0	70604	PARKWAY	115.0
70535	COOLEYMA	230.0	70605	HENRYLAK	230.0
70537	FITZSMNS	115.0	70606	HENRYLAK	115.0
70538	CHMBERS	115.0	70607	BROMLEY	115.0
70539	CHMBERS	230.0	70609	SILVSADL	230.0
70540	BASLTDST	115.0	70610	REUNION	230.0
70541	ASPEN_PS	115.0	70611	REUNION	115.0
70542	SNOWMASS	115.0	70612	PRARI_TS	115.0
70543	SIMMS	230.0	70621	MISSILE_TAP	230.0
70544	ISABELLE	230.0	70622	MISSILE_W1	34.5
70545	BRICKCTR	230.0	70623	MIS_SITE	230.0
70546	BRICKCTR	115.0	70624	MIS_SITE	345.0
70547	BENNETT	115.0	70625	LIMON1	345.0
70551	MURPHY	230.0	70626	LIMON2	345.0
70553	ARAP5&6	13.8	70627	LIMON3	345.0
70554	ARAP7	13.8	70628	RUSHCK1	345.0
70556	QF_B4D4T	12.5	70629	RUSHCK_W1	34.5
70557	VALMNT7	13.8	70630	RUSHCK2	345.0
70558	VALMNT8	13.8	70631	RUSHCK_W2	34.5
70561	RAWHIDEF	18.0	70635	LIMON1_W	34.5





70636	LIMON2_W	34.5	72109	PLATTE	69.0
70637	LIMON3_W	34.5	72110	ILIFF SW	69.0
70710	PTZLOGN1	34.5	72111	ILIFF	69.0
70711	PTZLOGN	230.0	72112	CROOK SW	69.0
70712	PTZLOGN2	34.5	72113	CROOK	69.0
70713	PTZLOGN3	34.5	72114	ATWOODTP	69.0
70714	PTZLOGN4	34.5	72115	ATWOOD	69.0
70721	SPRNGCAN	34.5	72116	W PLAINS	69.0
70722	RDGCREST	115.0	72117	RAYMR BX	69.0
70723	RDGCREST	34.5	72118	NUCLA	69.0
70805	LEPRINO_PS	115.0	72120	SUNSH SM	69.0
70820	KEENESBURG	230.0	72121	TELLURID	69.0
70821	CEDARCK_1	230.0	72122	FAIRGRND	115.0
70822	CEDARCK_2	230.0	72125	BUCK TAP	69.0
70823	CEDARCK_1A	34.5	72126	BUCKNGHM	69.0
70824	CEDARCK_1B	34.5	72128	BURDETT	115.0
70825	CEDARCK_2A	34.5	72129	OLIVE CK	115.0
70826	CEDARCK_2B	34.5	72130	OLIVETAP	115.0
70862	AVERY_PS	230.0	72140	KEOTA	345.0
70895	CLOVERLY	115.0	72141	KEOTA	115.0
70896	GRAHAM CREEK	115.0	72142	REDBOX	115.0
70897	HUSKY	115.0	72143	REDBOX	69.0
70898	HUSKY	230.0	72144	REDTAIL	115.0
70899	LUCERNE_PS	115.0	72145	REDTAIL	34.5
70901	STRSBG TR	115.0	72146	CHLKBLFF	115.0
70924	COMO	115.0	72147	CHLKBLFF	12.5
70925	FAIRPLAY	115.0	72155	SHERHILL	115.0
70926	HARTSEL	115.0	72200	ERIE SW	230.0
70927	HARTSELT	230.0	72201	SIPRES	230.0
70950	ST.VR_5	18.0	72208	DELCAMIN	69.0
70951	ST.VR_6	18.0	72215	GREENHSE	115.0
70981	BLUESTON	69.0	72221	DAVIS_TS	115.0
71994	PONCHA	13.8	72222	RATSNKRG	115.0
71995	WATERTON	13.8	72225	MILTON	230.0
71997	MS_STE	13.8	72226	MILTON	115.0
71998	PAWNEE	13.8	72227	NERESCNL	115.0
71999	PAWNEE	13.8	72240	SPRNGCK	115.0
72005	GREENHSE	230.0	72403	S_KERSEY	115.0
72100	E_YUMA_T	115.0	72404	CAREY_TS	230.0
72101	PANDA_T	115.0	72407	DOWEFLAT	115.0
72102	SCHRAMM	115.0	72432	LINDON	115.0
72103	WRAY TAP	115.0	72475	ALKALI	115.0
72106	TRALBLZR	69.0	72500	SPR GEN3	21.0
72107	SLATERTS	115.0	72501	TSGT_G1	18.0
72108	STERLING	69.0	72502	TSGT_G2	18.0



72503	TSGT_G3	18.0	72910	MONOLTH	115.0
72504	TSGTGEN	230.0	72951	MONTROSE	230.0
72514	TSGT_G4	18.0	72952	MAVERICK	230.0
72515	TSGT_G5	18.0	72953	CAHONE	230.0
72700	CAROUSEL	230.0	72954	MAVERICK	115.0
72701	CAROUSEL	34.5	73002	AIRPORT	115.0
72702	CAROUS_1	34.5	73003	AKRON	115.0
72703	CRSL_GEN	0.7	73004	ALCOVA	115.0
72710	LANDSMCK	230.0	73005	ALVIN	115.0
72711	KITCARSN	230.0	73006	ANTON	115.0
72712	KITCARSN	34.5	73007	ARAPASUB	115.0
72713	KITCAR_1	34.5	73008	ARCHER	115.0
72714	KC_GEN	0.7	73009	ARCHER	230.0
72731	HESPXR1	13.8	73010	ARICKARE	115.0
72732	HESPXR2	13.8	73011	AULT	230.0
72733	HESPXR3	13.8	73012	AULT	345.0
72734	HESPXR4	13.8	73015	B.CK TRI	115.0
72740	COWCREEK	115.0	73016	B.CK TRI	230.0
72741	RIDGEWAY	115.0	73017	B.SANDY	115.0
72742	RIDGEWAY	4.2	73018	B.SANDY	230.0
72750	GRANDVW	115.0	73020	BEAVERCK	115.0
72751	BAYFIELD	69.0	73023	BIJOUTAP	115.0
72752	SUNNYSDE	115.0	73024	BLKHLWTP	115.0
72753	RCKCREEK	115.0	73025	BONNY CK	115.0
72755	IRONHRS	115.0	73026	BOYD	115.0
72757	SALVADOR	115.0	73027	BOYD	230.0
72764	MCCAWTAP	115.0	73029	BRIDGEPT	115.0
72765	LABOCATP	115.0	73030	BRIGHTNW	115.0
72780	GOODMNPT	115.0	73031	BRUSHTAP	115.0
72781	DOECANYN	115.0	73034	BURL PSC	115.0
72782	ANASAZI	115.0	73035	BURLNGTN	115.0
72783	CORTZPIP	115.0	73036	BURLNGTN	230.0
72784	AIR_PROD	115.0	73037	BUSHNELL	115.0
72789	NORWOOD	115.0	73038	BUSHNLTP	115.0
72794	WILSNMSA	115.0	73039	CARTERLK TAP	115.0
72800	EMONTROS	115.0	73042	CASPERLM	115.0
72801	PEACHVLY	115.0	73043	CHEYENNE	115.0
72811	WL_CHILD	345.0	73044	COBBLKTP	115.0
72817	BADWATER	69.0	73046	DALTON	115.0
72818	WL_CHILD	230.0	73047	DEERINGL	115.0
72819	WL_CHILD	34.5	73048	DEL CTAP	115.0
72905	SAWMILL_115	115.0	73049	DELCAMIN	115.0
72907	HAMMOND_69	69.0	73050	DERBYHIL	115.0
72908	HAMMOND_115	115.0	73051	DIXON CK	115.0
72909	MONO_TP	115.0	73052	DRAKE RD	115.0



73053	ECKLEY	115.0	73107	LAR.RIVR	230.0
73054	ELBERT-1	11.5	73108	LAR.RIVR	345.0
73055	KERSEY_W	115.0	73109	LARAMIE	115.0
73056	ESTES	115.0	73110	LIBERTY	115.0
73058	FLATIRON	115.0	73111	LINDEN	115.0
73059	FLEMING	115.0	73112	LINGLE	115.0
73060	FORDHAM	115.0	73113	LNGMNTNW	115.0
73061	FRASER	138.0	73114	LONETREE	115.0
73062	FREMONT	115.0	73115	LONGPEAK	115.0
73063	FRENCHCK	115.0	73116	LONGPEAK	230.0
73065	GARY	115.0	73117	LOST CK	115.0
73066	GEMCTYTP	115.0	73118	LOVE E	115.0
73067	GERING	115.0	73120	LOVE W	115.0
73069	GLENDO	115.0	73124	LOVEWTAP	115.0
73070	DAVEJTPN	115.0	73125	LSCHANCE	115.0
73071	DAVEJTPS	115.0	73126	LYMAN	115.0
73072	GOREPASS	138.0	73127	LYONS	115.0
73073	GRANBYPP	69.0	73128	MAY	115.0
73074	GREENMTN	69.0	73129	MBPP-1	24.0
73076	GUERNTAP	115.0	73130	MBPP-2	24.0
73077	HAPPYJCK	115.0	73131	MCGREW	115.0
73078	HARMONY	230.0	73132	MCKENZIE	69.0
73079	HARVARD	115.0	73133	MEADOW	115.0
73080	HAXTUN	115.0	73134	MED BOW	115.0
73083	HELL CK	115.0	73136	MESSEX TAP	115.0
73084	HELL TAP	115.0	73137	MIRACLEM	115.0
73086	HORSESHO	115.0	73138	MT.ELBRT	230.0
73088	HOYT	115.0	73139	MYERS	115.0
73089	HRSTHTAP	115.0	73140	MYERS TP	115.0
73090	HYGIENE	115.0	73142	N.YUMA	115.0
73091	IDALIA	115.0	73143	N.YUMA	230.0
73092	JACINTO	115.0	73144	NCWCD	138.0
73094	JOES	115.0	73145	NUNN	115.0
73095	KERSEYTP	115.0	73146	OASISTAP	115.0
73096	KIMBALL	115.0	73147	ORCHARD	115.0
73097	KIOWA CK	115.0	73150	PEETZ	115.0
73098	KODAK	115.0	73152	PINEBLUF	115.0
73099	KORTES	115.0	73153	PODOLAK	115.0
73100	KORTESTP	115.0	73154	POLE CK	115.0
73101	KREMLING	69.0	73155	POLEHILL	115.0
73102	KREMLING	138.0	73156	POUDRE	115.0
73103	L.MEADOW	115.0	73159	PROSPVAL	115.0
73104	LAGRANGE	115.0	73161	QUALLS	115.0
73105	LAPORTE	115.0	73165	RAWHIDE	230.0
73106	LAPORTE	230.0	73166	REDWILLW	115.0



73167	REFNRYTP	115.0	73223	WRAY	115.0
73169	RICHARDS	115.0	73224	WRAY	230.0
73171	ROCKMTCM	115.0	73230	YUMA	115.0
73172	ROCKPRTP	115.0	73231	MARYLKPP	115.0
73173	ROUNDTOP	115.0	73232	MARYLKSB	115.0
73174	SAGEBRSH	115.0	73233	MARYLKTP	115.0
73175	SANDHILL	115.0	73235	MASONVIL	115.0
73176	SEMINOE	115.0	73236	GREENWOD	115.0
73177	SEMINOTP	115.0	73255	LINGLETP	115.0
73178	SENTINEL	115.0	73256	LYMANTP	115.0
73179	SIDNEY	115.0	73296	FRASER	115.0
73180	SIDNEY	230.0	73297	BELLEVUE	115.0
73181	SIDNEYDC	230.0	73298	BELLVUTP	115.0
73183	SKYLINE	115.0	73299	BIGTHOMP	4.2
73184	SMOKYHLW	115.0	73300	BIGTHOMP	13.8
73185	SO. FORK	115.0	73301	BLUVALTP	69.0
73187	SPRINGCK	115.0	73302	BRLNGTN1	13.8
73188	STEGALDC	230.0	73303	BRLNGTN2	13.8
73189	STEGALL	115.0	73304	CRETESWT	115.0
73190	STEGALL	230.0	73305	EFMORGTP	115.0
73191	STERLING	115.0	73306	ESTES1	6.9
73192	STORY	230.0	73307	ESTES2	6.9
73193	STORY	345.0	73308	ESTES3	6.9
73194	SWOODROW	115.0	73309	HENDERSON	115.0
73196	TERRY	115.0	73310	FME	115.0
73198	TIMBERLN	115.0	73311	FMS	115.0
73199	TIMBERLN	230.0	73312	GRANBYP1	6.9
73200	TIMNATH	115.0	73313	GRANBYP2	6.9
73202	TORRNGTN	115.0	73314	GRANBYP3	6.9
73203	TRILBY	115.0	73315	GRANBYTP	69.0
73204	TROUBLE	138.0	73316	GREENMT1	6.9
73206	VERNONTP	115.0	73317	GREENMT2	6.9
73207	WAANIBE	115.0	73318	LIMON	115.0
73208	WAGES	115.0	73319	MARYLKPP	6.9
73209	WANIBETP	115.0	73320	NCWCD	13.8
73210	WAUNETA	115.0	73324	POLEHILL	13.8
73211	WELD LM	115.0	73325	RIPPLE	115.0
73212	WELD LM	230.0	73326	ROBB	115.0
73213	WIGGINS TAP	115.0	73327	TROUBLE	24.9
73214	WILDCAT	115.0	73328	WILLMFRK	2.4
73215	WILLOWCK	69.0	73329	WILLMFRK	24.9
73218	WINDSOR	115.0	73330	WILLOWCK	4.2
73219	WINDYGAP	69.0	73331	WRAY WAPA	115.0
73220	WINDYGAP	138.0	73332	ALCOVA1	6.9
73221	WOODROW	115.0	73348	CORLETT	115.0



73349	FREMONT1	11.5	73480	CROWCRK	115.0
73350	FREMONT2	11.5	73482	GRANBYPP	138.0
73351	GLENDO1	6.9	73483	GRANBY	69.0
73352	GLENDO2	6.9	73485	BURL KC	115.0
73353	GUERNSY1	2.4	73486	ARH 13.8A	13.8
73354	JACKLOPE	115.0	73487	ARH 13.8B	13.8
73355	KIMBALLC	115.0	73488	TERRY_RANCH	230.0
73356	KORTES1	6.9	73493	SANDCRK	115.0
73357	KORTES2	6.9	73499	CROSSRDS	115.0
73358	KORTES3	6.9	73501	RINNVALL	115.0
73359	LIMESTON	115.0	73502	DACONO	115.0
73360	LIMESTON	34.5	73503	ERIE SW	115.0
73361	MEDBOWHS	115.0	73504	PONNEQUI	115.0
73362	MEDBOWTP	115.0	73531	LINCOLNT	230.0
73363	SEMINOE1-2	6.9	73532	LINCOLN1	13.8
73364	WARMSPGS	115.0	73533	LINCOLN2	13.8
73365	EMIGRANT	115.0	73535	HORSESHO	230.0
73366	WAGNHNDS	115.0	73536	CHEYENNE	230.0
73367	FTSANDER	115.0	73543	WILLOBY	115.0
73368	GUERNRRL	115.0	73545	CH 13.8B	13.8
73370	LOSTCKTP	115.0	73546	GOSH_COUNTY	13.8
73371	BETHELLM	115.0	73547	GOSH_COUNTY	115.0
73372	OTIS LM	115.0	73548	GOSH_COUNTY	230.0
73373	VALLEYLM	115.0	73550	AULT 13.8	
73374	VERNONLM	115.0	73551	W CANON	230.0
73375	WARRENLM	115.0	73552	AULT 115.0	
73377	EXCEL	115.0	73553	BOXELDER	115.0
73378	FMN	115.0	73554	BOOMERNG	115.0
73379	FMWEST	115.0	73555	BRACEWLL	115.0
73433	WINDSORT	115.0	73556	WAGONWHL	115.0
73436	MARYLKSB	69.0	73557	FORTNE	115.0
73437	ROGERSRD	115.0	73558	WHITNEY	115.0
73438	ALCOVA2	6.9	73561	LONTRETP	115.0
73441	SEMINOE3	6.9	73562	FORDHAM	230.0
73442	LRS SC	345.0	73568	WHTROCK	115.0
73444	GUERNSY2	2.4	73569	WHTROCK	34.5
73448	FLATIRN1	13.8	73570	SNOWYRNG	115.0
73449	FLATIRN2	13.8	73571	SNOWYRNG	230.0
73461	ELBERT-2	11.5	73572	MIRACLEM	230.0
73464	ADENA	115.0	73573	STILLWATERTP	69.0
73465	CNTYLINE	115.0	73578	GLDNPND	115.0
73466	RICHRDTP	115.0	73579	SPRNGCAN	230.0
73467	DIXON CK	230.0	73595	DERBHILT	115.0
73470	COLLEGLK	230.0	73597	OWL_CRK	115.0
73478	GALIEN	115.0	73600	COBLAKE	115.0



73602	WHEATLND	69.0		74074	CHEY_W	115.0	
73603	LAR.RIVR	69.0		76400	PUMPKIN_BTS	230.0	230.0
73604	PORTNER	230.0		76401	BARBERCK	230.0	
73607	WAGHN NT	115.0		79001	ARTESIA	138.0	
73608	WAGHN ST	115.0		79002	AXIAL	138.0	
73610	EMIGRNT	115.0		79003	BASALT	115.0	
73611	EMI TAP	115.0		79004	BASALT	230.0	
73616	NORTH PARK		230.0	79006	BEAVERCU	115.0	
73618	MM_LV A	13.8		79007	BLUEMESA	115.0	
73619	MM_LV B	13.8		79008	GRANGER	69.0	
73620	LARAMIE1	13.2		79009	LYMAN SW	69.0	
73621	LARAMIE2	13.2		79010	MANILA	69.0	
73622	SNG_LV A	13.8		79011	CAHONE	115.0	
73623	SNG_LV B	13.8		79012	CORTEZ	115.0	
73625	WLDHRSCK	115.0		79013	CRAIG	230.0	
73626	COHIWND	115.0		79014	CRAIG	345.0	
73627	COHIWND_1	34.5		79015	CRAIG 1	22.0	
73631	COHIWND_G1		0.7	79016	CRAIG 2	22.0	
73633	CHW_COL	34.5		79017	CRAIG 3	22.0	
73634	COHIWND_2	34.5		79018	CRYSTLPS	115.0	
73635	COHIWND_G2		0.7	79019	MORRO1-2	12.5	
73645	CH 13.8A	13.8		79020	CURECANT	115.0	
73646	RH_PV_CLTR		34.5	79021	CURECANT	230.0	
73647	RAWHIDE_PV		34.5	79023	DURANGO	115.0	
74037	CHEY_S	115.0		79026	FLAMGORG	138.0	
74039	NORTHRNG	115.0		79029	FLAMGORG	69.0	
74040	SWANRNCH	115.0		79030	FONTNLE	69.0	
74041	EB PARK	115.0		79033	GOREPASS	230.0	
74042	CLR_10.6			79034	GRANDJCT	115.0	
74043	SS_GEN1	0.6		79035	GRANDJCT	138.0	
74044	WTG_CB1	34.5		79036	GRANDJCT	345.0	
74045	2004-G1	34.5		79037	GUNNISON	115.0	
74046	SS_CL1	34.5		79038	HAYDEN	138.0	
74047	SSWIND	34.5		79039	HDN WEST	230.0	
74048	HJWIND	115.0		79040	HAYDEN1	18.0	
74054	MCRSFT	115.0		79041	HAYDEN2	22.0	
74056	KINGRNCH	115.0		79042	HOTCHKIS	115.0	
74060	CPGSTN	115.0		79044	LOSTCANY	115.0	
74061	CPGSTN_1	13.8		79045	LOSTCANY	230.0	
74062	CPGSTN_2	13.8		79046	MEEKER	138.0	
74063	CPGSTN_3	13.8		79047	COLBRAN	138.0	
74068	G7WNDLO	0.7		79048	MONTROSE	115.0	
74069	G7WNDHI	115.0		79049	MONTROSE	345.0	
74070	G7WNDMID	34.5		79050	NORTHFRK	115.0	
74071	G7WNDMI	34.5		79052	NUCLA	115.0	

79054	PONCHABR	230.0	79122	TOWAOC	115.0
79056	RIFLE_CU	138.0	79123	FONTNLE	4.2
79057	RIFLE_CU	230.0	79126	FLAMGORG	230.0
79058	RIFLE_CU	345.0	79127	SYLVSTGU	115.0
79059	RIFLE WA	230.0	79128	ANIMARIV	115.0
79060	SANJN PS	345.0	79135	HAPPYCAN	46.0
79061	SHIP PS	230.0	79136	JUANITA	46.0
79065	STEAMBT	230.0	79137	HOTCHKIS	46.0
79066	VAIL	115.0	79138	GARNET M	46.0
79067	VERNAL	138.0	79139	HDN KZ1A	13.8
79068	WOLCOTT	115.0	79140	HDN KZ2A	13.8
79069	WOLCOTT	230.0	79142	HDN EAST	230.0
79070	NORTHFRK	230.0	79154	FLGORG1	11.5
79071	HESPERUS	115.0	79155	FLGORG2	11.5
79072	HESPERUS	345.0	79156	FLGORG3	11.5
79073	BLUEDOOR	115.0	79157	BMESA1-2	11.5
79074	E.CORTEZ	115.0	79158	NUCLA 1	13.8
79075	EMPIRETS	115.0	79159	NUCLA 2	13.8
79076	AM EAST	115.0	79160	NUCLA 3	13.8
79077	BAYFIELD	115.0	79161	NUCLA 4	13.8
79078	BODO	115.0	79162	CRYSTAL	11.5
79079	BULLOCK	115.0	79163	MORROWPT	230.0
79080	CASCADEL	115.0	79164	TOWAOC	6.9
79081	CRSTBUTT	115.0	79166	MOLINA-L	4.2
79082	HAPPYCAN	115.0	79172	MOLINA-U	4.2
79083	JUANITA	115.0	79173	COLBRAN	115.0
79084	LAKECITY	115.0	79174	MOLINA-L	115.0
79085	NORTHMSA	115.0	79175	MOLINA-U	115.0
79086	PAGOSA	115.0	79176	MCPHEE	2.4
79088	TAMARRON	115.0	79177	MCPHEE	12.5
79089	SHENDOAH	115.0	79178	GRT CUT	12.5
79090	SKITO	115.0	79179	GRT CUT	115.0
79091	FOIDELCK	230.0	79180	GRCUT TP	115.0
79092	AVON	115.0	79181	DOUGHSPN	46.0
79099	FLOR.RIV	115.0	79182	DOUGHSPN	115.0
79103	GARNET M	115.0	79183	STRNELSN	115.0
79104	GARNETAP	115.0	79184	GUNVAL	115.0
79108	HOVENWEP	115.0	79189	SUNSH SM	115.0
79110	MAIN CO	115.0	79190	DALLASCR	115.0
79111	MANCOSTP	115.0	79191	COYOTE G	115.0
79115	SPRCKTAP	115.0	79192	SOCANAL	115.0
79117	Y.JACK 2	115.0	79194	BURROBDG	115.0
79118	Y.JACK W	115.0	79196	N.GUNNSN	115.0
79120	MOQUI C	115.0	79197	GUNNISTP	115.0
79121	SANDCANY	115.0	79250	AMATLAS	230.0



79251	QFATLAS1	13.8
79252	QFATLAS2	13.8
79253	CRYSTAL	115.0
79254	COALBANK	115.0
79255	MOLASTAP	115.0
79256	SILVERTN	115.0
79257	AMES	115.0
79260	ELPASOTP	115.0
79262	CEMNT CK	115.0
79264	W.RV.CTY	138.0
79265	CALAMRDG	138.0
79266	MEEKER	345.0
79312	C-A	138.0
79350	C-B	138.0
79352	PICEANCE	138.0
79354	MCBRYDE	138.0
79356	MCBRYDE	345.0
79400	DES.MINE	138.0
79990	WATRFLW	345.0
90020	G2_2019	345.0





### C. Monitored Branches

<u>Bus#</u>	<u>Bus Name</u>	<u>Bus#</u>	<u>Bus Name</u>		
101	SHAFFERS_CRO	115.00	103 BAILEY	115.00	1
101	SHAFFERS_CRO	115.00	70124 CONIFER	115.00	1
103	BAILEY	115.00	104 SHAWNEE	115.00	1
104	SHAWNEE	115.00	105 ROBERTS_TUNN	115.00	1
105	ROBERTS_TUNN	115.00	70924 COMO	115.00	1
10292	SAN_JUAN	345.00	79060 SANJN PS	345.00	1
19706	GLADETAP	115.00	79260 ELPASOTP	115.00	1
65085	ASHLEY	138.00	66590 UPALCO	138.00	1
65085	ASHLEY	138.00	79067 VERNAL	138.00	1
65192	BONANZA	138.00	65194 CHAPITA	138.00	1
65192	BONANZA	138.00	65371 COVE TP	138.00	1
65192	BONANZA	138.00	66278 RANGELY	138.00	1
65192	BONANZA	138.00	79067 VERNAL	138.00	1
65193	BONANZA	345.00	65995 MONA	345.00	1
65193	BONANZA	345.00	79014 CRAIG	345.00	1
65293	CARR DRA	230.00	76401 BARBERCK	230.00	1
65305	CASPERPP	115.00	73042 CASPERLM	115.00	1
65305	CASPERPP	115.00	73167 REFNRYTP	115.00	1
65371	COVE TP	138.00	65457 DG UPLCO	138.00	1
65420	DAVEJOHN	230.00	73548 GOSH_COUNTY	230.00	1
65425	DAVEJOHN	115.00	73070 DAVEJTPN	115.00	1
65425	DAVEJOHN	115.00	73071 DAVEJTPS	115.00	1
65457	DG UPLCO	138.00	66590 UPALCO	138.00	1
65520	EMMAPARK	138.00	66183 PANTHER	138.00	1
65520	EMMAPARK	138.00	66591 UPALCO PS	138.00	1
65895	LITTLEMT	230.00	79126 FLAMGORG	230.00	1
66245	PLATTE	115.00	73177 SEMINOTP	115.00	1
66278	RANGELY	138.00	79001 ARTESIA	138.00	1
66278	RANGELY	138.00	79265 CALAMRDG	138.00	1
66590	UPALCO	138.00	66591 UPALCO PS	138.00	1
66590	UPALCO	138.00	66591 UPALCO PS	138.00	3
67814	WINDSTAR	230.00	76400 PUMPKIN_BTS	230.00	1
67925	REFNRYPP	115.00	73167 REFNRYTP	115.00	1
69148	REDBUTTE	115.00	73042 CASPERLM	115.00	1
69155	BIXBY	115.00	73071 DAVEJTPS	115.00	1
70005	BRUSH_SS	115.00	70397 BCK_PS_S	115.00	2
70005	BRUSH_SS	115.00	70398 BCK_PS_N	115.00	1
70008	KELIM	115.00	73002 AIRPORT	115.00	1
70009	CRAIG_YV	230.00	79013 CRAIG	230.00	1
70018	SODALAKE	230.00	70100 CHATFLD	230.00	1
70018	SODALAKE	230.00	70266 LOOKOUT	230.00	1
70023	ALLISON	115.00	70242 KENDRICK	115.00	1
70023	ALLISON	115.00	70400 SODALAKE	115.00	1



70032 ALMA	230.00	70064 BRECKRDG	230.00	1
70032 ALMA	230.00	70274 MALTA	230.00	1
70036 ARAP_A	115.00	70037 ARAP_B	115.00	1
70036 ARAP_A	115.00	70384 SHERIDAN	115.00	1
70036 ARAP_A	115.00	70441 UNIVERS1	115.00	1
70036 ARAP_A	115.00	70531 AIR_LIQ	115.00	1
70037 ARAP_B	115.00	70165 ENGLE3TP	115.00	1
70037 ARAP_B	115.00	70167 ENGLEWD2	115.00	1
70037 ARAP_B	115.00	70401 SOUTH_1	115.00	1
70038 ARAPAHOE	230.00	70141 DAKOTA	230.00	1
70038 ARAPAHOE	230.00	70527 SANTEFE	230.00	1
70039 ARGO	115.00	70108 CHEROKEE_S	115.00	1
70039 ARGO	115.00	70148 DENVTM	115.00	1
70040 ARSENAL	115.00	70153 DERBY_1	115.00	1
70040 ARSENAL	115.00	70217 HAVANA2	115.00	1
70041 ARVADA_PS	230.00	70107 CHEROKEE	230.00	2
70041 ARVADA_PS	230.00	70355 RIDGE	230.00	2
70043 B.HYDROA	4.1600	70044 B.HYDROB	4.1600	1
70045 BANCROFT	115.00	70208 GRAY_ST.	115.00	1
70045 BANCROFT	115.00	70242 KENDRICK	115.00	1
70045 BANCROFT	115.00	70401 SOUTH_1	115.00	1
70046 BUCKLY34	230.00	70396 SMOKYHIL	230.00	1
70046 BUCKLY34	230.00	70491 TOLGATE	230.00	1
70047 BARRLAKE	230.00	70048 GREENVAL	230.00	1
70047 BARRLAKE	230.00	70610 REUNION	230.00	1
70048 GREENVAL	230.00	70192 FTLUPTON	230.00	1
70048 GREENVAL	230.00	70392 SKYRANCH	230.00	1
70048 GREENVAL	230.00	70526 IMBODEN	230.00	1
70048 GREENVAL	230.00	70528 SPRUCE	230.00	1
70048 GREENVAL	230.00	70590 RMEC	230.00	1
70048 GREENVAL	230.00	70820 KEENESBURG	230.00	1
70048 GREENVAL	230.00	70820 KEENESBURG	230.00	2
70050 BERGENPK	115.00	70224 HOGBACK	115.00	1
70052 BLUERIVR	115.00	70287 MILL	115.00	1
70053 BLUERIVR	230.00	70057 PTARMGN	230.00	1
70053 BLUERIVR	230.00	79033 GOREPASS	230.00	1
70055 BNAVST	115.00	70056 BNVSTATP	115.00	1
70056 BNVSTATP	115.00	70304 OTEROTP	115.00	1
70056 BNVSTATP	115.00	70312 RAY LEWI	115.00	1
70057 PTARMGN	230.00	70156 DILLON	230.00	1
70058 B.HYDRO	115.00	70295 NCAR	115.00	1
70058 B.HYDRO	115.00	70424 SUNSHTAP	115.00	1
70059 BO_TERM	115.00	70424 SUNSHTAP	115.00	1
70059 BO_TERM	115.00	70444 VALMONT	115.00	1
70059 BO_TERM	115.00	70444 VALMONT	115.00	2



70064 BRECKRDG	230.00	70156 DILLON	230.00	1
70065 BROOMFLD	115.00	70174 FEDERHT23	115.00	1
70065 BROOMFLD	115.00	70269 LOUISVIL	115.00	1
70065 BROOMFLD	115.00	70382 SEMPER	115.001	
70065 BROOMFLD	115.00	70444 VALMONT	115.00	1
70067 BUCKLY12	230.00	70396 SMOKYHIL	230.00	1
70067 BUCKLY12	230.00	70512 JEWELL1	230.001	
70071 CABINCRK	115.00	70197 GEORGETN	115.00	1
70072 CABINCRK	230.00	70156 DILLON	230.00	1
70072 CABINCRK	230.00	70237 IDAHOSPG	230.00	1
70072 CABINCRK	230.00	70266 LOOKOUT	230.00	2
70073 CALIFOR	115.00	70108 CHEROKEE_S	115.00	1
70073 CALIFOR	115.00	70215 HARRISPS	115.00	1
70076 CAMEO	69.000	70454 VINELAND	69.000	1
70076 CAMEO	69.000	70981 BLUESTON	69.000	1
70078 CAMEO	230.00	70079 BLUESTONE	230.00	1
70078 CAMEO	230.00	70438 UINTAH	230.00	1
70079 BLUESTONE	230.00	70309 PARACHUT	230.00	1
70082 CAMP	69.000	70207 GRANDVLY	69.000	1
70087 CAPHILL	115.00	70148 DENVTM	115.001	
70087 CAPHILL	115.00	70215 HARRISPS	115.00	1
70087 CAPHILL	115.00	70276 MAPLETO1	115.00	1
70089 CARBDAL	115.00	70231 HOPKINS	115.001	
70099 THORNTON	115.00	70110 CHEROKEE_N	115.00	1
70099 THORNTON	115.00	72122 FAIRGRND	115.00	1
70100 CHATFLD	230.00	70464 WATERTON	230.00	1
70107 CHEROKEE	230.00	70200 GLENNPS	230.00	1
70107 CHEROKEE	230.00	70324 LACOMBE	230.00	1
70107 CHEROKEE	230.00	70362 RIVERDAL	230.00	1
70107 CHEROKEE	230.00	70369 RUSSELL	230.00	1
70107 CHEROKEE	230.00	70609 SILVSADL	230.001	
70108 CHEROKEE_S	115.00	70276 MAPLETO1	115.00	1
70108 CHEROKEE_S	115.00	70277 MAPLETO2	115.00	1
70108 CHEROKEE_S	115.00	70298 NORTH_PS	115.00	1
70109 UNA_ORCH	69.000	70140 DEBEQUE	69.000	1
70109 UNA_ORCH	69.000	70207 GRANDVLY	69.000	1
70110 CHEROKEE_N	115.00	70126 CONOCO	115.00	1
70110 CHEROKEE_N	115.00	70153 DERBY_1	115.00	1
70110 CHEROKEE_N	115.00	70154 DERBY_2	115.00	1
70110 CHEROKEE_N	115.00	70174 FEDERHT23	115.00	1
70110 CHEROKEE_N	115.00	70175 FEDERHT1	115.00	1
70112 CLARK	230.00	70212 GREENWD	230.00	1
70112 CLARK	230.00	70241 JORDAN	230.001	
70113 CLIFTON	230.00	70205 GRANDJCT	230.00	1
70113 CLIFTON	230.00	70206 GRANDJPS	230.00	1



70114 CLIMAX	115.00	70257 LEADVIL1	115.00	1
70114 CLIMAX	115.00	70281 MAYFLOWR	115.00	1
70114 CLIMAX	115.00	70364 ROBIN2	115.00	1
70114 CLIMAX	115.00	70389 ROBIN1	115.00	1
70115 HPCYN	115.00	70117 CRWFTVLY	115.00	1
70115 HPCYN	115.00	70138 DANIELPK	115.00	1
70124 CONIFER	115.00	70429 TINYTOWN	115.00	1
70126 CONOCO	115.00	70377 SANDOWN	115.00	1
70127 COORSREC	115.00	70191 FTLUPTON	115.00	1
70127 COORSREC	115.00	70194 FULTONTS	115.00	1
70139 DANIELPK	230.00	70278 MARCY	230.00	1
70139 DANIELPK	230.00	70284 SURREYRG	230.00	1
70139 DANIELPK	230.00	70323 PRAIRIE3	230.00	1
70139 DANIELPK	230.00	70331 PRAIRIE1	230.00	1
70139 DANIELPK	230.00	70464 WATERTON	230.00	1
70139 DANIELPK	230.00	70527 SANTEFE	230.00	1
70139 DANIELPK	230.00	70623 MIS_SITE	230.00	1
70139 DANIELPK	230.00	73477 FULLER	230.00	1
70140 DEBEQUE	69.000	70981 BLUESTON	69.000	1
70141 DAKOTA	230.00	70149 DENVTM	230.00	1
70142 DEERCRK	115.00	70400 SODALAKE	115.00	1
70142 DEERCRK	115.00	70484 MARTN2TP	115.00	1
70148 DENVTM	115.00	70173 FEDCTRTP	115.00	1
70148 DENVTM	115.00	70208 GRAY_ST.	115.00	1
70149 DENVTM	230.00	70163 ELATI1	230.00	1
70149 DENVTM	230.00	70324 LACOMBE	230.00	1
70149 DENVTM	230.00	70480 WESTPS	230.00	1
70154 DERBY_2	115.00	70216 HAVANA1	115.00	1
70155 DILLON	115.00	70421 SUMTAP2	115.00	1
70157 DIVIDE	115.00	70476 WOODLAND	115.00	1
70162 EAST	115.00	70395 SMOKYHIL	115.00	1
70162 EAST	115.00	70395 SMOKYHIL	115.00	2
70162 EAST	115.00	70537 FITZSMNS	115.00	1
70162 EAST	115.00	70538 CHMBERS	115.00	1
70163 ELATI1	230.00	70291 MONROEPS	230.00	1
70164 ELDORADO	115.00	70295 NCAR	115.00	1
70164 ELDORADO	115.00	70322 PLAINVW	115.00	1
70164 ELDORADO	115.00	70346 RALSTON2	115.00	1
70164 ELDORADO	115.00	70444 VALMONT	115.00	1
70165 ENGLE3TP	115.00	70168 ENGLEWD3	115.00	1
70165 ENGLE3TP	115.00	70263 LITTLET1	115.00	1
70166 ENGLEWD1	115.00	70167 ENGLEWD2	115.00	1
70166 ENGLEWD1	115.00	70384 SHERIDAN	115.00	1
70167 ENGLEWD2	115.00	70168 ENGLEWD3	115.00	1
70169 ENNIS	115.00	70234 HUDSON	115.00	1



70172 FED_CTR	115.00	70173 FEDCTRTP	115.00	1
70173 FEDCTRTP	115.00	70342 QUAKERTP	115.00	1
70175 FEDERHT1	115.00	70382 SEMPER	115.001	
70183 FRUITA	69.000	70436 UINTAH	69.000	1
70190 DAVIS_PS	115.00	70191 FTLUPTON	115.00	1
70190 DAVIS_PS	115.00	70234 HUDSON	115.00	1
70191 FTLUPTON	115.00	70307 P.VALLEY	115.001	
70191 FTLUPTON	115.00	70450 VASQUEZ	115.00	1
70192 FTLUPTON	230.00	70311 PAWNEE	230.00	1
70192 FTLUPTON	230.00	70410 ST.VRAIN	230.00	1
70192 FTLUPTON	230.00	70410 ST.VRAIN	230.00	2
70192 FTLUPTON	230.00	70488 JMSHAFFER	230.00	1
70192 FTLUPTON	230.00	70529 JLGREEN	230.00	1
70192 FTLUPTON	230.00	70605 HENRYLAK	230.00	1
70194 FULTONTS	115.00	70604 PARKWAY	115.00	1
70197 GEORGETN	115.00	70218 HENDERPS	115.00	1
70198 GILCREST	115.00	70202 GODFRETP	115.00	1
70198 GILCREST	115.00	70450 VASQUEZ	115.00	1
70199 GILMAN	115.00	70364 ROBIN2	115.00	1
70199 GILMAN	115.00	79092 AVON	115.00	1
70200 GLENNPS	230.00	70461 WASHINGT	230.00	1
70201 GLENNWD	69.000	70288 MITCHLCR	69.000	1
70201 GLENNWD	69.000	70363 ROARNGFK	69.000	1
70201 GLENNWD	69.000	70386 SHOSHONE	69.000	1
70202 GODFRETP	115.00	70209 GREELEY	115.00	1
70202 GODFRETP	115.00	70240 JOHNSTN	115.00	1
70206 GRANDJPS	230.00	70233 HORIZON	230.00	1
70207 GRANDVLY	69.000	70302 OILSHALE	69.000	1
70208 GRAY_ST.	115.00	70251 LAKEWOD1	115.00	1
70208 GRAY_ST.	115.00	70252 LAKEWOD2	115.00	1
70208 GRAY_ST.	115.00	70402 SOUTH_2	115.00	1
70209 GREELEY	115.00	70290 MONFORT	115.00	1
70209 GREELEY	115.00	70470 WELD_PS	115.00	1
70211 GUNBARRE2	230.00	70213 GUNBARRE1	230.00	1
70211 GUNBARRE2	230.00	70297 NIWOT	230.00	2
70212 GREENWD	230.00	70323 PRAIRIE3	230.00	1
70212 GREENWD	230.00	70331 PRAIRIE1	230.00	1
70212 GREENWD	230.00	70428 TECH_CTR	230.00	1
70212 GREENWD	230.00	70481 MONACO12	230.00	1
70213 GUNBARRE1	230.00	70297 NIWOT	230.00	1
70214 GRANDJCT	69.000	70454 VINELAND	69.000	1
70215 HARRISPS	115.00	70282 LEETSDAL2	115.00	1
70216 HAVANA1	115.00	70538 CHMBERS	115.00	1
70217 HAVANA2	115.00	70538 CHMBERS	115.00	1
70218 HENDERPS	115.00	70328 PORTAL	115.00	1



70224 HOGBACK	115.00	70265 LOOKOUT	115.00	1
70224 HOGBACK	115.00	70400 SODALAKE	115.00	1
70231 HOPKINS	115.00	70387 SHOSHONE	115.00	1
70231 HOPKINS	115.00	79003 BASALT	115.00	1
70232 HOPKINS	230.00	70274 MALTA	230.00	1
70232 HOPKINS	230.00	70358 RIFLE_PS	230.00	1
70233 HORIZON	230.00	70268 ADOBE	230.00	1
70234 HUDSON	115.00	72215 GREENHSE	115.00	1
70234 HUDSON	115.00	72222 RATSNGRG	115.00	1
70237 IDAHOSPG	230.00	70266 LOOKOUT	230.00	1
70239 JEWELL2	230.00	70260 LEETSDAL	230.00	1
70239 JEWELL2	230.00	70491 TOLGATE	230.00	1
70240 JOHNSTN	115.00	70246 JOHNSTN2	115.00	1
70241 JORDAN	230.00	70313 ORCHARD	230.00	1
70244 LAFAYETT	115.00	70444 VALMONT	115.00	1
70244 LAFAYETT	115.00	70604 PARKWAY	115.00	1
70246 JOHNSTN2	115.00	70470 WELD_PS	115.00	1
70251 LAKEWOD1	115.00	70354 RIDGE	115.00	1
70252 LAKEWOD2	115.00	70354 RIDGE	115.00	1
70255 LAMAR_C2	230.00	73036 BURLNGTN	230.00	1
70257 LEADVIL1	115.00	70258 LEADVIL2	115.00	1
70257 LEADVIL1	115.00	70273 MALTA	115.00	1
70258 LEADVIL2	115.00	70273 MALTA	115.00	1
70258 LEADVIL2	115.00	70364 ROBIN2	115.00	1
70259 LEETSDAL1	115.00	70282 LEETSDAL2	115.00	1
70259 LEETSDAL1	115.00	70377 SANDOWN	115.00	1
70259 LEETSDAL1	115.00	70441 UNIVERS1	115.00	1
70260 LEETSDAL	230.00	70291 MONROEPS	230.00	1
70260 LEETSDAL	230.00	70481 MONACO12	230.00	1
70261 LEGGETT	230.00	70297 NIWOT	230.00	1
70261 LEGGETT	230.00	70570 PLNENDSS	230.00	1
70262 LEYDEN	115.00	70322 PLAINVW	115.00	1
70262 LEYDEN	115.00	70340 QUAKER1	115.00	1
70262 LEYDEN	115.00	70354 RIDGE	115.00	1
70263 LITTLET1	115.00	70483 MARTN1TP	115.00	1
70265 LOOKOUT	115.00	70342 QUAKERTP	115.00	1
70266 LOOKOUT	230.00	70355 RIDGE	230.00	1
70266 LOOKOUT	230.00	70480 WESTPS	230.00	1
70266 LOOKOUT	230.00	70570 PLNENDSS	230.00	1
70266 LOOKOUT	230.00	70570 PLNENDSS	230.00	2
70267 HOPKINS	69.00	70363 ROARNGFK	69.00	1
70268 ADOBE	230.00	70438 UINTAH	230.00	1
70269 LOUISVIL	115.00	70444 VALMONT	115.00	1
70273 MALTA	115.00	70435 TWNLAKTP	115.00	1
70274 MALTA	230.00	70927 HARTSELT	230.00	1



70274 MALTA	230.00	73138 MT.ELBRT	230.00	1
70274 MALTA	230.00	79004 BASALT	230.00	1
70277 MAPLETO2	115.00	70377 SANDOWN	115.00	1
70278 MARCY	230.00	70464 WATERTON	230.00	1
70279 MARTIN_1	115.00	70280 MARTIN_2	115.00	1
70279 MARTIN_1	115.00	70483 MARTN1TP	115.00	1
70280 MARTIN_2	115.00	70484 MARTN2TP	115.00	1
70281 MAYFLOWR	115.00	70421 SUMTAP2	115.00	1
70283 MEADOWHL	230.00	70313 ORCHARD	230.00	1
70283 MEADOWHL	230.00	70396 SMOKYHIL	230.00	1
70284 SURREYRG	230.00	70533 LEMON	230.00	1
70287 MILL	115.00	70328 PORTAL	115.00	1
70287 MILL	115.00	73296 FRASER	115.00	1
70288 MITCHLCR	69.000	70296 NEWCASTL	69.000	1
70290 MONFORT	115.00	70805 LEPRINO_PS	115.00	1
70290 MONFORT	115.00	70899 LUCERNE_PS	115.00	1
70296 NEWCASTL	69.000	70388 SILTUSBR	69.000	1
70297 NIWOT	230.00	70544 ISABELLE	230.00	1
70298 NORTH_PS	115.00	70377 SANDOWN	115.00	1
70299 STKGULCH	230.00	70309 PARACHUT	230.00	1
70302 OILSHALE	69.000	70359 RIFLE_CU	69.000	1
70304 OTEROTP	115.00	70435 TWNLAKTP	115.00	1
70307 P.VALLEY	115.00	72122 FAIRGRND	115.00	1
70309 PARACHUT	230.00	70356 WEELERPS	230.00	1
70309 PARACHUT	230.00	70358 RIFLE_PS	230.00	1
70309 PARACHUT	230.00	79057 RIFLE_CU	230.00	1
70311 PAWNEE	230.00	70545 BRICKCTR	230.00	1
70311 PAWNEE	230.00	70623 MIS_SITE	230.00	1
70311 PAWNEE	230.00	70711 PTZLOGN	230.00	1
70311 PAWNEE	230.00	73192 STORY	230.00	1
70312 RAY LEWI	115.00	70327 PONCHA	115.00	1
70327 PONCHA	115.00	70379 SARGENT	115.00	1
70327 PONCHA	115.00	70394 SMELTER	115.00	1
70327 PONCHA	115.00	79196 N.GUNNSN	115.00	1
70340 QUAKER1	115.00	70342 QUAKERTP	115.00	1
70343 QUINCY	230.00	70396 SMOKYHIL	230.00	1
70343 QUINCY	230.00	70545 BRICKCTR	230.00	1
70345 RALSTON1	115.00	70354 RIDGE	115.00	1
70345 RALSTON1	115.00	70444 VALMONT	115.00	1
70346 RALSTON2	115.00	70354 RIDGE	115.00	1
70355 RIDGE	230.00	70369 RUSSELL	230.00	1
70356 WEELERPS	230.00	70357 BENCH	230.00	1
70358 RIFLE_PS	230.00	79059 RIFLE WA	230.00	1
70358 RIFLE_PS	230.00	79250 AMATLAS	230.00	1
70359 RIFLE_CU	69.000	70388 SILTUSBR	69.000	1



70362 RIVERDAL	230.00	70605 HENRYLAK	230.00	1
70364 ROBIN2	115.00	70389 ROBIN1	115.00	1
70368 ROSEDALE	115.00	70439 UNC	115.00	1
70368 ROSEDALE	115.00	70475 ARROWHLK	115.00	1
70368 ROSEDALE	115.00	73055 KERSEY_W	115.00	1
70368 ROSEDALE	115.00	73554 BOOMERNG	115.00	1
70373 BB_DRAW	230.00	70468 ROSEDALE	230.00	1
70373 BB_DRAW	230.00	70471 WELD_PS	230.00	1
70375 SANLSVLY	230.00	79054 PONCHABR	230.00	1
70389 ROBIN1	115.00	70418 SUMMIT1	115.00	1
70392 SKYRANCH	230.00	70528 SPRUCE	230.00	1
70393 PONCHA_PS	230.00	79054 PONCHABR	230.00	1
70395 SMOKYHIL	115.00	70521 PEAKVIEW	115.00	1
70395 SMOKYHIL	115.00	70901 STRSBG TR	115.00	1
70396 SMOKYHIL	230.00	70528 SPRUCE	230.00	1
70396 SMOKYHIL	230.00	70532 POWHATON	230.00	1
70396 SMOKYHIL	230.00	70551 MURPHY	230.00	1
70396 SMOKYHIL	230.00	70596 HARVEST MI	230.00	1
70397 BCK_PS_S	115.00	70398 BCK_PS_N	115.00	1
70397 BCK_PS_S	115.00	73020 BEAVERCK	115.00	1
70399 B.CRK_PS	230.00	73192 STORY	230.00	1
70400 SODALAKE	115.00	70429 TINYTOWN	115.00	1
70402 SOUTH_2	115.00	70531 AIR_LIQ	115.00	1
70410 ST.VRAIN	230.00	70471 WELD_PS	230.00	1
70410 ST.VRAIN	230.00	70474 WINDSOR	230.00	1
70410 ST.VRAIN	230.00	70544 ISABELLE	230.00	1
70410 ST.VRAIN	230.00	70592 SPNDLE	230.00	1
70410 ST.VRAIN	230.00	70820 KEENESBURG	230.00	1
70410 ST.VRAIN	230.00	73116 LONGPEAK	230.00	1
70410 ST.VRAIN	230.00	73562 FORDHAM	230.00	1
70416 STRASBRG	115.00	70547 BENNETT	115.00	1
70416 STRASBRG	115.00	70901 STRSBG TR	115.00	1
70417 SULLIVN	230.00	70428 TECH_CTR	230.00	1
70417 SULLIVN	230.00	70512 JEWELL1	230.00	1
70418 SUMMIT1	115.00	70420 SUMMIT2	115.00	1
70420 SUMMIT2	115.00	70421 SUMTAP2	115.00	1
70423 SUNSHINE	115.00	70424 SUNSHTAP	115.00	1
70427 TARRYALL	230.00	70464 WATERTON	230.00	1
70427 TARRYALL	230.00	70927 HARTSELT	230.00	1
70432 TOWER	230.00	70530 PICADIL	230.00	1
70432 TOWER	230.00	70539 CHMBERS	230.00	1
70434 TWNLAKES	115.00	70435 TWNLAKTP	115.00	1
70439 UNC	115.00	70805 LEPRINO_PS	115.00	1
70447 VALMONT	230.00	70543 SIMMS	230.00	1
70447 VALMONT	230.00	70592 SPNDLE	230.00	1





70461 WASHINGT	230.00	70529 JLGREEN	230.00	1
70463 WATERTON	115.00	70483 MARTN1TP	115.00	1
70463 WATERTON	115.00	70484 MARTN2TP	115.00	1
70463 WATERTON	115.00	70522 ROXBOROU	115.00	1
70465 MIDWAYPS	345.00	70466 WATERTON	345.00	1
70470 WELD_PS	115.00	70475 ARROWHLK	115.00	1
70470 WELD_PS	115.00	73211 WELD LM	115.00	1
70471 WELD_PS	230.00	73212 WELD LM	230.00	1
70474 WINDSOR	230.00	73011 AULT	230.00	1
70476 WOODLAND	115.00	73476 FORESTLK	115.00	1
70488 JMSHAFFER	230.00	72005 GREENHSE	230.00	1
70510 VICTORY	115.00	70546 BRICKCTR	115.00	1
70510 VICTORY	115.00	70547 BENNETT	115.00	1
70513 HOMESTEAD	230.00	70524 SULPHUR	230.00	1
70513 HOMESTEAD	230.00	70551 MURPHY	230.00	1
70517 PARKERPS	115.00	70523 SULPHUR	115.00	1
70517 PARKERPS	115.00	70523 SULPHUR	115.00	2
70524 SULPHUR	230.00	70533 LEMON	230.00	1
70525 MTHARRIS	138.00	79038 HAYDEN	138.00	1
70526 IMBODEN	230.00	70528 SPRUCE	230.00	1
70528 SPRUCE	230.00	70530 PICADIL	230.00	1
70528 SPRUCE	230.00	70532 POWHATON	230.00	1
70528 SPRUCE	230.00	70539 CHMBERS	230.00	1
70534 BERTHOUD	115.00	73114 LONETREE	115.00	1
70534 BERTHOUD	115.00	73561 LONTRETP	115.00	1
70535 COOLEYMA	230.00	79004 BASALT	230.00	1
70535 COOLEYMA	230.00	79069 WOLCOTT	230.00	1
70537 FITZSMNS	115.00	70538 CHMBERS	115.00	1
70540 BASLTDST	115.00	70542 SNOWMASS	115.00	1
70540 BASLTDST	115.00	79003 BASALT	115.00	1
70541 ASPEN_PS	115.00	70542 SNOWMASS	115.00	1
70541 ASPEN_PS	115.00	79003 BASALT	115.00	1
70543 SIMMS	230.00	70574 MOONGLCH	230.00	1
70546 BRICKCTR	115.00	70571 KIOWA	115.00	1
70570 PLNENDSS	230.00	70574 MOONGLCH	230.00	1
70590 RMEC	230.00	70820 KEENESBURG	230.00	1
70597 HARVEST MI	345.00	70599 SMOKYHIL	345.00	1
70597 HARVEST MI	345.00	70601 DANIELPK	345.00	1
70598 PAWNEE	345.00	70624 MIS_SITE	345.00	1
70598 PAWNEE	345.00	70624 MIS_SITE	345.00	2
70599 SMOKYHIL	345.00	70624 MIS_SITE	345.00	1
70601 DANIELPK	345.00	70624 MIS_SITE	345.00	1
70605 HENRYLAK	230.00	72005 GREENHSE	230.00	1
70605 HENRYLAK	230.00	72201 SIPRES	230.00	1
70605 HENRYLAK	230.00	73192 STORY	230.00	1



70606 HENRYLAK	115.00	70607 BROMLEY	115.00	1
70607 BROMLEY	115.00	70612 PRARI_TS	115.00	1
70609 SILVSADL	230.00	70610 REUNION	230.00	1
70611 REUNION	115.00	70612 PRARI_TS	115.00	1
70621 MISSILE_TAP	230.00	70623 MIS_SITE	230.00	1
70624 MIS_SITE	345.00	70625 LIMON1	345.00	1
70624 MIS_SITE	345.00	70628 RUSHCK1	345.00	1
70625 LIMON1	345.00	70626 LIMON2	345.00	1
70626 LIMON2	345.00	70627 LIMON3	345.00	1
70628 RUSHCK1	345.00	70630 RUSHCK2	345.00	1
70722 RDGCREST	115.00	73150 PEETZ	115.00	1
70820 KEENESBURG	230.00	70821 CEDARCK_1	230.00	1
70821 CEDARCK_1	230.00	70822 CEDARCK_2	230.00	1
70862 AVERY_PS	230.00	72404 CAREY_TS	230.00	1
70862 AVERY_PS	230.00	73199 TIMBERLN	230.00	1
70895 CLOVERLY	115.00	70896 GRAHAM CREEK	115.00	1
70895 CLOVERLY	115.00	70899 LUCERNE_PS	115.00	1
70896 GRAHAM CREEK	115.00	70897 HUSKY	115.00	1
70898 HUSKY	230.00	73011 AULT	230.00	1
70924 COMO	115.00	70925 FAIRPLAY	115.00	1
70925 FAIRPLAY	115.00	70926 HARTSEL	115.00	1
72005 GREENHSE	230.00	72225 MILTON	230.00	1
72100 E_YUMA_T	115.00	72101 PANDA_T	115.00	1
72100 E_YUMA_T	115.00	73047 DEERINGL	115.00	1
72100 E_YUMA_T	115.00	73053 ECKLEY	115.00	1
72101 PANDA_T	115.00	72102 SCHRAMM	115.00	1
72103 WRAY TAP	115.00	73175 SANDHILL	115.00	1
72103 WRAY TAP	115.00	73223 WRAY	115.00	1
72103 WRAY TAP	115.00	73331 WRAY WAPA	115.00	1
72106 TRALBLZR	69.000	72113 CROOK	69.000	1
72107 SLATERTS	115.00	73048 DEL CTAP	115.00	1
72107 SLATERTS	115.00	73049 DELCAMIN	115.00	1
72108 STERLING	69.000	72109 PLATTE	69.000	1
72108 STERLING	69.000	72114 ATWOODTP	69.000	1
72109 PLATTE	69.000	72110 ILIFF SW	69.000	1
72110 ILIFF SW	69.000	72111 ILIFF	69.000	1
72110 ILIFF SW	69.000	72112 CROOK SW	69.000	1
72112 CROOK SW	69.000	72113 CROOK	69.000	1
72114 ATWOODTP	69.000	72115 ATWOOD	69.000	1
72114 ATWOODTP	69.000	72116 W PLAINS	69.000	1
72116 W PLAINS	69.000	72125 BUCK TAP	69.000	1
72117 RAYMR BX	69.000	72125 BUCK TAP	69.000	1
72120 SUNSH SM	69.000	72121 TELLURID	69.000	1
72125 BUCK TAP	69.000	72126 BUCKNGHM	69.000	1
72128 BURDETT	115.00	73142 N.YUMA	115.00	1



72129 OLIVE CK	115.00	72130 OLIVETAP	115.00	1
72130 OLIVETAP	115.00	73206 VERNONTP	115.00	1
72130 OLIVETAP	115.00	73223 WRAY	115.00	1
72140 KEOTA	345.00	72811 WL_CHILD	345.00	1
72140 KEOTA	345.00	73193 STORY	345.00	1
72141 KEOTA	115.00	72142 REDBOX	115.001	
72141 KEOTA	115.00	72142 REDBOX	115.002	
72141 KEOTA	115.00	72146 CHLKBLFF	115.00	1
72142 REDBOX	115.00	72144 REDTAIL	115.00	1
72142 REDBOX	115.00	72144 REDTAIL	115.00	2
72155 SHERHILL	115.00	73063 FRENCHCK	115.00	1
72155 SHERHILL	115.00	73210 WAUNETA	115.00	1
72200 ERIE SW	230.00	72201 SIPRES	230.00	1
72215 GREENHSE	115.00	72221 DAVIS_TS	115.00	1
72215 GREENHSE	115.00	72221 DAVIS_TS	115.00	2
72222 RATSNGRG	115.00	72226 MILTON	115.00	1
72226 MILTON	115.00	72227 NERESCNL	115.00	1
72227 NERESCNL	115.00	72403 S_KERSEY	115.00	1
72240 SPRNGCK	115.00	79071 HESPERUS	115.00	1
72240 SPRNGCK	115.00	79088 TAMARRON	115.00	1
72403 S_KERSEY	115.00	73055 KERSEY_W	115.00	1
72404 CAREY_TS	230.00	73011 AULT	230.00	1
72407 DOWEFLAT	115.00	73127 LYONS	115.00	1
72407 DOWEFLAT	115.00	73171 ROCKMTCM	115.00	1
72432 LINDON	115.00	73006 ANTON	115.00	1
72432 LINDON	115.00	73125 LSCHANCE	115.00	1
72475 ALKALI	115.00	79081 CRSTBUTT	115.00	1
72475 ALKALI	115.00	79090 SKITO	115.00	1
72504 TSGTGEN	230.00	73192 STORY	230.00	1
72700 CAROUSEL	230.00	73036 BURLNGTN	230.00	1
72701 CAROUSEL	34.500	72702 CAROUS_1	34.500	1
72710 LANDSMCK	230.00	72711 KITCARSN	230.00	1
72710 LANDSMCK	230.00	73018 B.SANDY	230.00	1
72710 LANDSMCK	230.00	73036 BURLNGTN	230.00	1
72712 KITCARSN	34.500	72713 KITCAR_1	34.500	1
72731 HESPRX1	13.800	72732 HESPRX2	13.800	1
72733 HESPRX3	13.800	72734 HESPRX4	13.800	1
72740 COWCREEK	115.00	72741 RIDGEWAY	115.00	1
72740 COWCREEK	115.00	79190 DALLASCR	115.00	1
72740 COWCREEK	115.00	79192 SOCANAL	115.00	1
72750 GRANDVW	115.00	79023 DURANGO	115.00	1
72750 GRANDVW	115.00	79077 BAYFIELD	115.00	1
72752 SUNNYSDE	115.00	79071 HESPERUS	115.00	1
72752 SUNNYSDE	115.00	79099 FLOR.RIV	115.00	1
72753 RCKCREEK	115.00	72755 IRONHRS	115.00	1



72753 RCKCREEK	115.00	79076 AM EAST	115.00	1
72755 IRONHRS	115.00	72764 MCCAWTAP	115.00	1
72755 IRONHRS	115.00	72765 LABOCATP	115.00	1
72757 SALVADOR	115.00	72765 LABOCATP	115.00	1
72764 MCCAWTAP	115.00	79099 FLOR.RIV	115.00	1
72780 GOODMNPT	115.00	79110 MAIN CO	115.00	1
72780 GOODMNPT	115.00	79121 SANDCANY	115.00	1
72781 DOECANYN	115.00	72782 ANASAZI	115.00	1
72781 DOECANYN	115.00	72784 AIR_PROD	115.00	1
72781 DOECANYN	115.00	79011 CAHONE	115.00	1
72782 ANASAZI	115.00	79117 Y.JACK 2	115.00	1
72783 CORTZPIP	115.00	79110 MAIN CO	115.00	1
72783 CORTZPIP	115.00	79122 TOWAOC	115.00	1
72789 NORWOOD	115.00	72794 WILSNMSA	115.00	1
72789 NORWOOD	115.00	79052 NUCLA	115.00	1
72794 WILSNMSA	115.00	79189 SUNSH SM	115.00	1
72800 EMONTROS	115.00	72801 PEACHVLY	115.00	1
72801 PEACHVLY	115.00	79085 NORTHMSA	115.00	1
72801 PEACHVLY	115.00	79104 GARNETAP	115.00	1
72811 WL_CHILD	345.00	73108 LAR.RIVR	345.00	1
72818 WL_CHILD	230.00	73009 ARCHER	230.00	1
72905 SAWMILL_115	115.00	72908 HAMMOND_115	115.00	1
72906 SAWMILLC_230	230.00	73107 LAR.RIVR	230.00	1
72909 MONO_TP	115.00	72910 MONOLTH	115.00	1
72909 MONO_TP	115.00	73187 SPRINGCK	115.00	1
72909 MONO_TP	115.00	73367 FTSANDER	115.00	1
72951 MONTROSE	230.00	72952 MAVERICK	230.00	1
72952 MAVERICK	230.00	72953 CAHONE	230.00	1
72954 MAVERICK	115.00	79052 NUCLA	115.00	1
73002 AIRPORT	115.00	73026 BOYD	115.00	1
73002 AIRPORT	115.00	73433 WINDSORT	115.00	1
73003 AKRON	115.00	73020 BEAVERCK	115.00	1
73003 AKRON	115.00	73372 OTIS LM	115.00	1
73004 ALCOVA	115.00	73042 CASPERLM	115.00	1
73004 ALCOVA	115.00	73042 CASPERLM	115.00	2
73004 ALCOVA	115.00	73062 FREMONT	115.00	1
73004 ALCOVA	115.00	73137 MIRACLEM	115.00	1
73004 ALCOVA	115.00	73137 MIRACLEM	115.00	2
73004 ALCOVA	115.00	73162 RADERVIL	115.00	1
73005 ALVIN	115.00	73175 SANDHILL	115.00	1
73005 ALVIN	115.00	73210 WAUNETA	115.00	1
73005 ALVIN	115.00	73304 CRETESWT	115.00	1
73006 ANTON	115.00	73010 ARICKARE	115.00	1
73007 ARAPASUB	115.00	73207 WAANIBE	115.00	1
73008 ARCHER	115.00	73043 CHEYENNE	115.00	1



73008 ARCHER	115.00	73140 MYERS TP	115.00	1
73008 ARCHER	115.00	73152 PINEBLUF	115.00	1
73008 ARCHER	115.00	73480 CROWCRK	115.00	1
73008 ARCHER	115.00	74060 CPGSTN	115.00	1
73009 ARCHER	230.00	73011 AULT	230.00	1
73009 ARCHER	230.00	73190 STEGALL	230.00	1
73009 ARCHER	230.00	73488 TERRY_RANCH	230.00	1
73010 ARICKARE	115.00	73094 JOES	115.00	1
73011 AULT	230.00	73165 RAWHIDE	230.00	1
73011 AULT	230.00	73212 WELD LM	230.00	1
73011 AULT	230.00	73212 WELD LM	230.00	2
73011 AULT	230.00	73488 TERRY_RANCH	230.00	1
73012 AULT	345.00	73108 LAR.RIVR	345.00	1
73012 AULT	345.00	90020 G2_2019	345.00	1
73015 B.CK TRI	115.00	73020 BEAVERCK	115.00	1
73016 B.CK TRI	230.00	73192 STORY	230.00	1
73017 B.SANDY	115.00	73125 LSCHANCE	115.00	1
73017 B.SANDY	115.00	73318 LIMON	115.00	1
73018 B.SANDY	230.00	73531 LINCOLNT	230.00	1
73020 BEAVERCK	115.00	73031 BRUSHTAP	115.00	1
73020 BEAVERCK	115.00	73065 GARY	115.00	1
73020 BEAVERCK	115.00	73136 MESSEX TAP	115.00	1
73020 BEAVERCK	115.00	73464 ADENA	115.00	1
73023 BIJOUTAP	115.00	73097 KIOWA CK	115.00	1
73023 BIJOUTAP	115.00	73379 FMWEST	115.00	1
73024 BLKHLWTP	115.00	73044 COBBLKTP	115.00	1
73024 BLKHLWTP	115.00	73552 AULT	115.00	1
73025 BONNY CK	115.00	73035 BURLNGTN	115.00	1
73025 BONNY CK	115.00	73185 SO. FORK	115.00	1
73026 BOYD	115.00	73118 LOVE E	115.00	1
73026 BOYD	115.00	73373 VALLEYLM	115.00	1
73026 BOYD	115.00	73561 LONTRETP	115.00	1
73026 BOYD	115.00	73595 DERBHILT	115.00	1
73027 BOYD	230.00	73116 LONGPEAK	230.00	1
73027 BOYD	230.00	73604 PORTNER	230.00	1
73029 BRIDGEPT	115.00	73131 MCGREW	115.00	1
73029 BRIDGEPT	115.00	73236 GREENWOD	115.00	1
73030 BRIGHTNW	115.00	73493 SANDCRK	115.00	1
73030 BRIGHTNW	115.00	73503 ERIE SW	115.00	1
73031 BRUSHTAP	115.00	73305 EFMORGTP	115.00	1
73034 BURL PSC	115.00	73209 WANIBETP	115.00	1
73034 BURL PSC	115.00	73485 BURL KC	115.00	1
73035 BURLNGTN	115.00	73485 BURL KC	115.00	1
73036 BURLNGTN	230.00	73224 WRAY	230.00	1
73037 BUSHNELL	115.00	73038 BUSHNLTP	115.00	1



73038 BUSHNLTP	115.00	73096 KIMBALL	115.00	1
73038 BUSHNLTP	115.00	73152 PINEBLUF	115.00	1
73039 CARTERLK TAP	115.00	73058 FLATIRON	115.00	1
73039 CARTERLK TAP	115.00	73124 LOVEWTAP	115.00	1
73042 CASPERLM	115.00	73070 DAVEJTPN	115.00	1
73043 CHEYENNE	115.00	73077 HAPPYJCK	115.00	1
73043 CHEYENNE	115.00	73480 CROWCRK	115.00	1
73043 CHEYENNE	115.00	73504 PONNEQUI	115.00	1
73044 COBBLKTP	115.00	73200 TIMNATH	115.00	1
73044 COBBLKTP	115.00	73557 FORTNE	115.00	1
73044 COBBLKTP	115.00	73600 COBBLAKE	115.00	1
73046 DALTON	115.00	73179 SIDNEY	115.00	1
73046 DALTON	115.00	73236 GREENWOD	115.00	1
73047 DEERINGL	115.00	73142 N.YUMA	115.00	1
73047 DEERINGL	115.00	73230 YUMA	115.00	1
73047 DEERINGL	115.00	73372 OTIS LM	115.00	1
73048 DEL CTAP	115.00	73115 LONGPEAK	115.00	1
73048 DEL CTAP	115.00	73133 MEADOW	115.00	1
73049 DELCAMIN	115.00	73501 RINNVALL	115.00	1
73050 DERBYHIL	115.00	73595 DERBHILT	115.00	1
73051 DIXON CK	115.00	73052 DRAKE RD	115.00	1
73051 DIXON CK	115.00	73089 HRSTHTAP	115.00	1
73051 DIXON CK	115.00	73156 POUDRE	115.00	1
73052 DRAKE RD	115.00	73198 TIMBERLN	115.00	1
73053 ECKLEY	115.00	73223 WRAY	115.00	1
73053 ECKLEY	115.00	73326 ROBB	115.00	1
73053 ECKLEY	115.00	73371 BETHELLM	115.00	1
73055 KERSEY_W	115.00	73095 KERSEYTP	115.00	1
73056 ESTES	115.00	73155 POLEHILL	115.00	1
73056 ESTES	115.00	73232 MARYLKSB	115.00	1
73056 ESTES	115.00	73233 MARYLKTP	115.00	1
73056 ESTES	115.00	73556 WAGONWHL	115.00	1
73058 FLATIRON	115.00	73089 HRSTHTAP	115.00	1
73058 FLATIRON	115.00	73155 POLEHILL	115.00	1
73059 FLEMING	115.00	73478 GALIEN	115.00	1
73059 FLEMING	115.00	73625 WLDHRSCK	115.00	1
73060 FORDHAM	115.00	73196 TERRY	115.00	1
73060 FORDHAM	115.00	73437 ROGERSRD	115.00	1
73061 FRASER	138.00	73220 WINDYGAP	138.00	1
73063 FRENCHCK	115.00	73080 HAXTUN	115.00	1
73065 GARY	115.00	73221 WOODROW	115.00	1
73066 GEMCTYTP	115.00	73077 HAPPYJCK	115.00	1
73066 GEMCTYTP	115.00	73187 SPRINGCK	115.00	1
73066 GEMCTYTP	115.00	73570 SNOWYRNG	115.00	1
73067 GERING	115.00	73131 MCGREW	115.00	1



73067 GERING	115.00	73189 STEGALL	115.001	
73067 GERING	115.00	73365 EMIGRANT	115.00	1
73069 GLEND	115.00	73076 GUERNTAP	115.00	1
73069 GLEND	115.00	73153 PODOLAK	115.00	1
73069 GLEND	115.00	73568 WHTROCK	115.00	1
73069 GLEND	115.00	73607 WAGHN NT	115.00	1
73069 GLEND	115.00	73608 WAGHN ST	115.00	1
73070 DAVEJTPN	115.00	73607 WAGHN NT	115.00	1
73071 DAVEJTPTS	115.00	73167 REFNRYP	115.00	1
73071 DAVEJTPTS	115.00	73608 WAGHN ST	115.00	1
73072 GOREPASS	138.00	73102 KREMLING	138.00	1
73072 GOREPASS	138.00	73220 WINDYGAP	138.00	1
73072 GOREPASS	138.00	79038 HAYDEN	138.001	
73073 GRANBYPP	69.000	73573 STILLWATERTP	69.000	1
73074 GREENMTN	69.000	73301 BLUVALTP	69.000	1
73076 GUERNTAP	115.00	73359 LIMESTON	115.00	1
73076 GUERNTAP	115.00	73368 GUERNRRL	115.00	1
73076 GUERNTAP	115.00	73568 WHTROCK	115.00	1
73077 HAPPYJCK	115.00	74039 NORTHRNG	115.00	1
73077 HAPPYJCK	115.00	74048 HJWIND	115.00	1
73078 HARMONY	230.00	73199 TIMBERLN	230.00	1
73078 HARMONY	230.00	73604 PORTNER	230.00	1
73079 HARVARD	115.00	73113 LNGMNTNW	115.00	1
73080 HAXTUN	115.00	73625 WLDHRSCK	115.00	1
73083 HELL CK	115.00	73084 HELL TAP	115.001	
73083 HELL CK	115.00	73174 SAGEBRSH	115.00	1
73084 HELL TAP	115.00	73110 LIBERTY	115.00	1
73084 HELL TAP	115.00	73185 SO. FORK	115.001	
73086 HORSESHO	115.00	73120 LOVE W	115.00	1
73086 HORSESHO	115.00	73499 CROSSRDS	115.00	1
73087 WESTHILL	230.00	73190 STEGALL	230.001	
73088 HOYT	115.00	73103 L.MEADOW	115.00	1
73088 HOYT	115.00	73464 ADENA	115.00	1
73088 HOYT	115.00	73493 SANDCRK	115.00	1
73089 HRSTHTAP	115.00	73203 TRILBY	115.00	1
73089 HRSTHTAP	115.00	73235 MASONVIL	115.00	1
73090 HYGIENE	115.00	73113 LNGMNTNW	115.00	1
73090 HYGIENE	115.00	73127 LYONS	115.00	1
73091 IDALIA	115.00	73185 SO. FORK	115.001	
73091 IDALIA	115.00	73206 VERNONTP	115.00	1
73092 JACINTO	115.00	73096 KIMBALL	115.00	1
73092 JACINTO	115.00	73179 SIDNEY	115.00	1
73094 JOES	115.00	73110 LIBERTY	115.00	1
73095 KERSEYTP	115.00	73543 WILLOBY	115.001	
73096 KIMBALL	115.00	73355 KIMBALLC	115.00	1



73097 KIOWA CK	115.00	73147 ORCHARD	115.00	1
73097 KIOWA CK	115.00	73213 WIGGINS TAP	115.00	1
73097 KIOWA CK	115.00	73543 WILLOBY	115.00	1
73098 KODAK	115.00	73558 WHITNEY	115.00	1
73098 KODAK	115.00	73558 WHITNEY	115.00	2
73099 KORTES	115.00	73100 KORTESTP	115.00	1
73099 KORTES	115.00	73137 MIRACLEM	115.00	1
73100 KORTESTP	115.00	73137 MIRACLEM	115.00	1
73100 KORTESTP	115.00	73176 SEMINOE	115.00	1
73101 KREMLING	69.000	73301 BLUVALTP	69.000	1
73102 KREMLING	138.00	73204 TROUBLE	138.00	1
73103 L.MEADOW	115.00	73213 WIGGINS TAP	115.00	1
73104 LAGRANGE	115.00	73173 ROUNDTOP	115.00	1
73104 LAGRANGE	115.00	73189 STEGALL	115.00	1
73105 LAPORTE	115.00	73298 BELLVUTP	115.00	1
73106 LAPORTE	230.00	73165 RAWHIDE	230.00	1
73106 LAPORTE	230.00	73165 RAWHIDE	230.00	2
73106 LAPORTE	230.00	73199 TIMBERLN	230.00	1
73106 LAPORTE	230.00	73470 COLLEGLK	230.00	1
73107 LAR.RIVR	230.00	73190 STEGALL	230.00	1
73108 LAR.RIVR	345.00	73442 LRS SC	345.00	1
73109 LARAMIE	115.00	73146 OASISTAP	115.00	1
73109 LARAMIE	115.00	73570 SNOWYRNG	115.00	1
73111 LINDEN	115.00	73169 RICHARDS	115.00	1
73111 LINDEN	115.00	73198 TIMBERLN	115.00	1
73112 LINGLE	115.00	73255 LINGLETP	115.00	1
73113 LNGMNTNW	115.00	73133 MEADOW	115.00	1
73113 LNGMNTNW	115.00	73578 GLDNPND	115.00	1
73115 LONGPEAK	115.00	73465 CNTYLINE	115.00	1
73117 LOST CK	115.00	73370 LOSTCKTP	115.00	1
73118 LOVE E	115.00	73499 CROSSRDS	115.00	1
73120 LOVE W	115.00	73124 LOVEWTAP	115.00	1
73124 LOVEWTAP	115.00	73373 VALLEYLM	115.00	1
73124 LOVEWTAP	115.00	73595 DERBHILT	115.00	1
73125 LSCHANCE	115.00	73194 SWOODROW	115.00	1
73126 LYMAN	115.00	73202 TORRNGTN	115.00	1
73126 LYMAN	115.00	73256 LYMANTP	115.00	1
73127 LYONS	115.00	73556 WAGONWHL	115.00	1
73128 MAY	115.00	73146 OASISTAP	115.00	1
73132 MCKENZIE	69.000	73436 MARYLKSB	69.000	1
73132 MCKENZIE	69.000	73573 STILLWATERTP	69.000	1
73134 MED BOW	115.00	73362 MEDBOWTP	115.00	1
73136 MESSEX TAP	115.00	73191 STERLING	115.00	1
73137 MIRACLEM	115.00	73177 SEMINOTP	115.00	1
73137 MIRACLEM	115.00	73362 MEDBOWTP	115.00	1





73139 MYERS	115.00	73140 MYERS TP	115.00	1
73140 MYERS TP	115.00	73154 POLE CK	115.00	1
73142 N.YUMA	115.00	73166 REDWILLW	115.00	1
73143 N.YUMA	230.00	73192 STORY	230.00	1
73143 N.YUMA	230.00	73224 WRAY	230.00	1
73143 N.YUMA	230.00	73579 SPRNGCAN	230.00	1
73144 NCWCD	138.00	73220 WINDYGAP	138.00	1
73145 NUNN	115.00	73172 ROCKPRTP	115.00	1
73145 NUNN	115.00	73552 AULT	115.00	1
73146 OASISTAP	115.00	73362 MEDBOWTP	115.00	1
73150 PEETZ	115.00	73179 SIDNEY	115.00	1
73150 PEETZ	115.00	73191 STERLING	115.00	1
73154 POLE CK	115.00	73161 QUALLS	115.00	1
73154 POLE CK	115.00	73173 ROUNDTOP	115.00	1
73156 POUFRE	115.00	73466 RICHRDTP	115.00	1
73159 PROSPVAL	115.00	73370 LOSTCKTP	115.00	1
73159 PROSPVAL	115.00	73493 SANDCRK	115.00	1
73165 RAWHIDE	230.00	73199 TIMBERLN	230.00	1
73166 REDWILLW	115.00	73208 WAGES	115.00	1
73169 RICHARDS	115.00	73469 WAVER PV	115.00	1
73169 RICHARDS	115.00	73557 FORTNE	115.00	1
73172 ROCKPRTP	115.00	73597 OWL_CRK	115.00	1
73173 ROUNDTOP	115.00	73178 SENTINEL	115.00	1
73176 SEMINOE	115.00	73177 SEMINOTP	115.00	1
73180 SIDNEY	230.00	73181 SIDNEYDC	230.00	1
73180 SIDNEY	230.00	73190 STEGALL	230.00	1
73180 SIDNEY	230.00	73579 SPRNGCAN	230.00	1
73183 SKYLINE	115.00	73375 WARRENLM	115.00	1
73183 SKYLINE	115.00	74041 EB PARK	115.00	1
73184 SMOKYHLW	115.00	73209 WANIBETP	115.00	1
73188 STEGALDC	230.00	73190 STEGALL	230.00	1
73189 STEGALL	115.00	73255 LINGLETP	115.00	1
73189 STEGALL	115.00	73256 LYMANTP	115.00	1
73189 STEGALL	115.00	73365 EMIGRANT	115.00	1
73190 STEGALL	230.00	73548 GOSH_COUNTY	230.00	1
73191 STERLING	115.00	73478 GALIEN	115.00	1
73194 SWOODROW	115.00	73221 WOODROW	115.00	1
73196 TERRY	115.00	73465 CNTYLINE	115.00	1
73196 TERRY	115.00	73503 ERIE SW	115.00	1
73196 TERRY	115.00	73578 GLDNPND	115.00	1
73200 TIMNATH	115.00	73466 RICHRDTP	115.00	1
73200 TIMNATH	115.00	73553 BOXELDER	115.00	1
73202 TORRNGTN	115.00	73547 GOSH_COUNTY	115.00	1
73204 TROUBLE	138.00	73220 WINDYGAP	138.00	1
73206 VERNONTP	115.00	73374 VERNONLM	115.00	1



73207 WAANIBE	115.00	73209 WANIBETP	115.00	1
73208 WAGES	115.00	73210 WAUNETA	115.00	1
73211 WELD LM	115.00	73554 BOOMERNG	115.00	1
73211 WELD LM	115.00	73558 WHITNEY	115.00	1
73214 WILDCAT	115.00	73365 EMIGRANT	115.00	1
73215 WILLOWCK	69.000	73315 GRANBYTP	69.000	1
73218 WINDSOR	115.00	73433 WINDSORT	115.00	1
73219 WINDYGAP	69.000	73315 GRANBYTP	69.000	1
73220 WINDYGAP	138.00	73482 GRANBYPP	138.00	1
73223 WRAY	115.00	73331 WRAY WAPA	115.00	1
73231 MARYLKPP	115.00	73233 MARYLKTP	115.00	1
73232 MARYLKSB	115.00	73233 MARYLKTP	115.00	1
73255 LINGLETP	115.00	73568 WHTROCK	115.00	1
73256 LYMANTP	115.00	73568 WHTROCK	115.00	1
73276 TEKLA	230.00	76400 PUMPKIN_BTS	230.00	1
73297 BELLEVUE	115.00	73298 BELLVUTP	115.00	1
73298 BELLVUTP	115.00	73325 RIPPLE	115.00	1
73300 BIGHOMP	13.800	73448 FLATIRN1	13.800	1
73305 EFMORGTP	115.00	73309 HENDERSON	115.00	1
73305 EFMORGTP	115.00	73378 FMN	115.00	1
73305 EFMORGTP	115.00	73379 FMWEST	115.00	1
73309 HENDERSON	115.00	73310 FME	115.00	1
73310 FME	115.00	73377 EXCEL	115.00	1
73311 FMS	115.00	73377 EXCEL	115.00	1
73311 FMS	115.00	73379 FMWEST	115.00	1
73315 GRANBYTP	69.000	73483 GRANBY	69.000	1
73315 GRANBYTP	69.000	73573 STILLWATERTP	69.000	1
73325 RIPPLE	115.00	73468 WELL TP	115.00	1
73327 TROUBLE	24.900	73329 WILLMFRK	24.900	1
73348 CORLETT	115.00	74037 CHEY_S	115.00	1
73348 CORLETT	115.00	74039 NORTHRNG	115.00	1
73354 JACKLOPE	115.00	73364 WARMSPGS	115.00	1
73361 MEDBOWHS	115.00	73362 MEDBOWTP	115.00	1
73364 WARMSPGS	115.00	73611 EMI TAP	115.00	1
73366 WAGNHNDS	115.00	73607 WAGHN NT	115.00	1
73366 WAGNHNDS	115.00	73608 WAGHN ST	115.00	1
73366 WAGNHNDS	115.00	73611 EMI TAP	115.00	1
73370 LOSTCKTP	115.00	73543 WILLOBY	115.00	1
73371 BETHELLM	115.00	73374 VERNONLM	115.00	1
73373 VALLEYLM	115.00	73595 DERBHILT	115.00	1
73375 WARRENLM	115.00	74039 NORTHRNG	115.00	1
73413 MIDWAYBR	230.00	73531 LINCOLNT	230.00	1
73413 MIDWAYBR	230.00	73551 W CANON	230.00	1
73433 WINDSORT	115.00	73558 WHITNEY	115.00	1
73437 ROGERSRD	115.00	73578 GLDNPND	115.00	1



73467 DIXON CK	230.00	73470 COLLEGLK	230.00	1
73467 DIXON CK	230.00	73535 HORSESHO	230.00	1
73488 TERRY_RANCH	230.00	73536 CHEYENNE	230.00	1
73488 TERRY_RANCH	230.00	73616 NORTH PARK	230.00	1
73501 RINNVALL	115.00	73502 DACONO	115.00	1
73502 DACONO	115.00	73503 ERIE SW	115.00	1
73504 PONNEQUI	115.00	73597 OWL_CRK	115.00	1
73536 CHEYENNE	230.00	73571 SNOWYRNG	230.00	1
73551 W CANON	230.00	79054 PONCHABR	230.00	1
73555 BRACEWLL	115.00	73558 WHITNEY	115.00	1
73555 BRACEWLL	115.00	73558 WHITNEY	115.00	2
73571 SNOWYRNG	230.00	73572 MIRACLEM	230.00	1
73602 WHEATLND	69.000	73603 LAR.RIVR	69.000	1
73610 EMIGRNT	115.00	73611 EMI TAP	115.00	1
73616 NORTH PARK	230.00	79142 HDN EAST	230.00	1
73618 MM_LV A	13.800	73619 MM_LV B	13.800	1
73625 WLDHRSCK	115.00	73626 COHIWND	115.00	1
73627 COHIWND_1	34.500	73633 CHW_COL	34.500	1
73633 CHW_COL	34.500	73634 COHIWND_2	34.500	1
73646 RH_PV_CLTR	34.500	73647 RAWHIDE_PV	34.500	1
74030 DONKYCRK	230.00	76400 PUMPKIN_BTS	230.00	1
74037 CHEY_S	115.00	74040 SWANRNCH	115.00	1
74037 CHEY_S	115.00	74060 CPGSTN	115.00	1
74037 CHEY_S	115.00	74060 CPGSTN	115.00	2
74039 NORTHRNG	115.00	74054 MCERSFT	115.00	1
74039 NORTHRNG	115.00	74054 MCERSFT	115.00	2
74039 NORTHRNG	115.00	74056 KINGRNCH	115.00	1
74039 NORTHRNG	115.00	74056 KINGRNCH	115.00	2
74040 SWANRNCH	115.00	74074 CHEY_W	115.00	1
74041 EB PARK	115.00	74060 CPGSTN	115.00	1
74044 WTG_CB1	34.500	74045 2004-G1	34.500	1
74046 SS_CL1	34.500	74047 SSWIND	34.500	1
74056 KINGRNCH	115.00	74074 CHEY_W	115.00	1
74069 G7WNDHI	115.00	74074 CHEY_W	115.00	1
74070 G7WNDMID	34.500	74071 G7WNDMI	34.500	1
76400 PUMPKIN_BTS	230.00	76401 BARBERCK	230.00	1
79001 ARTESIA	138.00	79038 HAYDEN	138.00	1
79001 ARTESIA	138.00	79067 VERNAL	138.00	1
79002 AXIAL	138.00	79038 HAYDEN	138.00	1
79002 AXIAL	138.00	79046 MEEKER	138.00	1
79003 BASALT	115.00	79018 CRYSTLPS	115.00	1
79006 BEAVERCU	115.00	79068 WOLCOTT	115.00	1
79006 BEAVERCU	115.00	79092 AVON	115.00	1
79007 BLUEMESA	115.00	79020 CURECANT	115.00	1
79007 BLUEMESA	115.00	79084 LAKECITY	115.00	1



79007 BLUEMESA	115.00	79090 SKITO	115.00	1
79008 GRANGER	69.000	79009 LYMAN SW	69.000	1
79008 GRANGER	69.000	79030 FONTNLE	69.000	1
79009 LYMAN SW	69.000	79010 MANILA	69.000	1
79010 MANILA	69.000	79029 FLAMGORG	69.000	1
79011 CAHONE	115.00	79180 GRCUT TP	115.00	1
79012 CORTEZ	115.00	79073 BLUEDOOR	115.00	1
79012 CORTEZ	115.00	79075 EMPIRETS	115.00	1
79013 CRAIG	230.00	79039 HDN WEST	230.00	2
79013 CRAIG	230.00	79059 RIFLE WA	230.00	1
79013 CRAIG	230.00	79142 HDN EAST	230.00	1
79014 CRAIG	345.00	79266 MEEKER	345.00	1
79014 CRAIG	345.00	90020 G2_2019	345.00	1
79020 CURECANT	115.00	79192 SOCANAL	115.00	1
79020 CURECANT	115.00	79253 CRYSTAL	115.00	1
79021 CURECANT	230.00	79045 LOSTCANY	230.00	1
79021 CURECANT	230.00	79054 PONCHABR	230.00	1
79021 CURECANT	230.00	79070 NORTHFRK	230.00	1
79021 CURECANT	230.00	79163 MORROWPT	230.00	1
79023 DURANGO	115.00	79071 HESPERUS	115.00	1
79023 DURANGO	115.00	79078 BODO	115.00	1
79023 DURANGO	115.00	79089 SHENDOAH	115.00	1
79023 DURANGO	115.00	79128 ANIMARIV	115.00	1
79026 FLAMGORG	138.00	79067 VERNAL	138.00	1
79026 FLAMGORG	138.00	79067 VERNAL	138.00	2
79033 GOREPASS	230.00	79142 HDN EAST	230.00	1
79034 GRANDJCT	115.00	79183 STRNELSN	115.00	1
79035 GRANDJCT	138.00	79047 COLBRAN	138.00	1
79036 GRANDJCT	345.00	79049 MONTROSE	345.00	1
79036 GRANDJCT	345.00	79058 RIFLE_CU	345.00	1
79037 GUNNISON	115.00	79197 GUNNISTP	115.00	1
79039 HDN WEST	230.00	79091 FOIDELCK	230.00	1
79039 HDN WEST	230.00	79142 HDN EAST	230.00	1
79042 HOTCHKIS	115.00	79050 NORTHFRK	115.00	1
79042 HOTCHKIS	115.00	79104 GARNETAP	115.00	1
79044 LOSTCANY	115.00	79074 E.CORTEZ	115.00	1
79044 LOSTCANY	115.00	79075 EMPIRETS	115.00	1
79044 LOSTCANY	115.00	79111 MANCOSTP	115.00	1
79044 LOSTCANY	115.00	79122 TOWAOC	115.00	1
79045 LOSTCANY	230.00	79061 SHIP PS	230.00	1
79046 MEEKER	138.00	79056 RIFLE_CU	138.00	1
79046 MEEKER	138.00	79264 W.RV.CTY	138.00	1
79046 MEEKER	138.00	79350 C-B	138.00	1
79047 COLBRAN	138.00	79056 RIFLE_CU	138.00	1
79048 MONTROSE	115.00	79082 HAPPYCAN	115.00	1



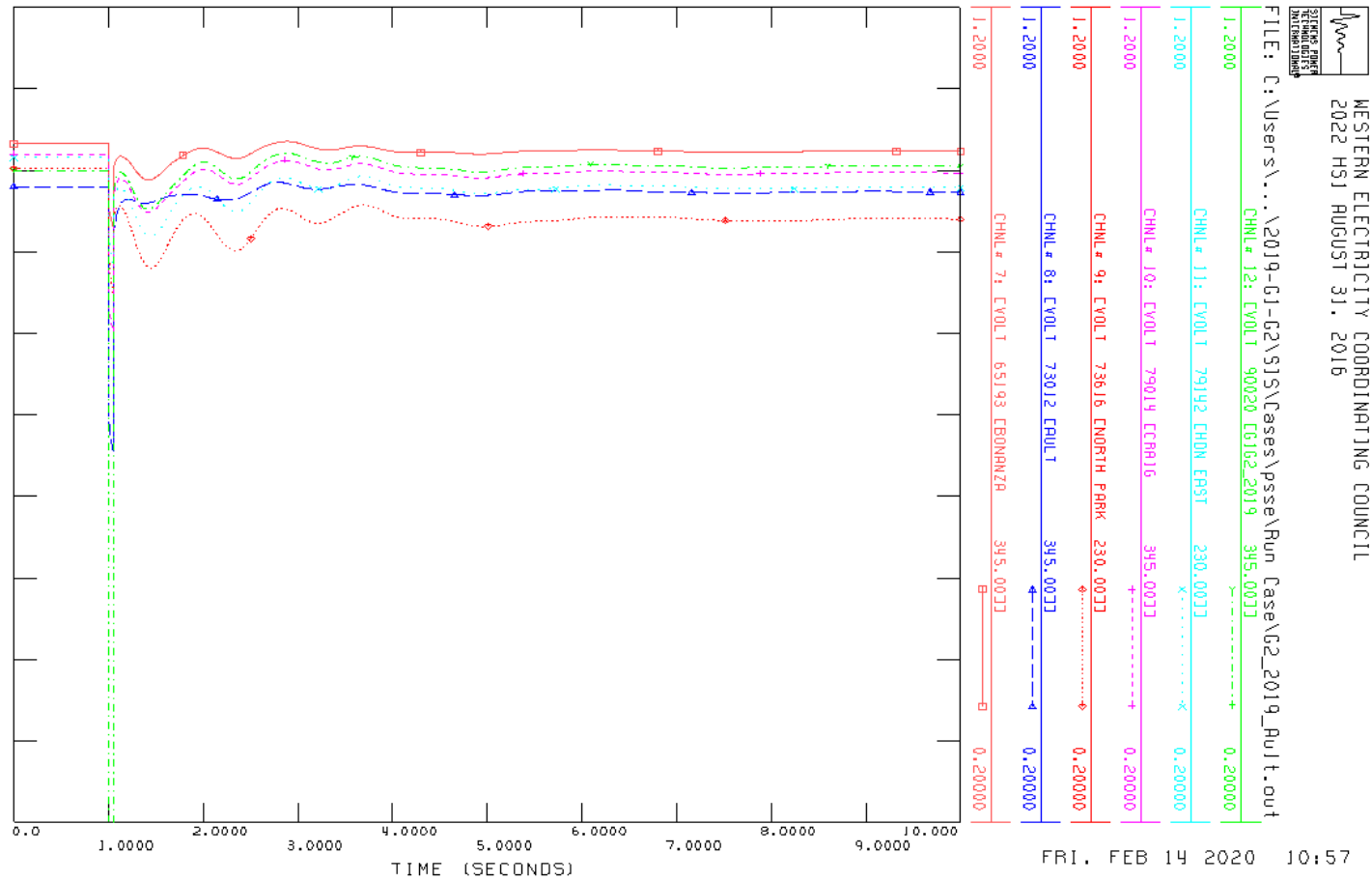
79048 MONTROSE	115.00	79115 SPRCKTAP	115.00	1
79048 MONTROSE	115.00	79183 STRNELSN	115.00	1
79048 MONTROSE	115.00	79192 SOCANAL	115.00	1
79049 MONTROSE	345.00	79072 HESPERUS	345.00	1
79050 NORTHFRK	115.00	79083 JUANITA	115.00	1
79057 RIFLE_CU	230.00	79059 RIFLE WA	230.00	1
79058 RIFLE_CU	345.00	79266 MEEKER	345.00	1
79059 RIFLE WA	230.00	79070 NORTHFRK	230.00	1
79060 SANJN PS	345.00	79990 WATRFLW	345.00	3
79061 SHIP PS	230.00	79063 SHIPROCK	230.00	3
79065 STEAMBT	230.00	79091 FOIDELCK	230.00	1
79065 STEAMBT	230.00	79091 FOIDELCK	230.00	2
79066 VAIL	115.00	79068 WOLCOTT	115.00	1
79066 VAIL	115.00	79092 AVON	115.00	1
79069 WOLCOTT	230.00	79091 FOIDELCK	230.00	1
79071 HESPERUS	115.00	79078 BODO	115.00	1
79071 HESPERUS	115.00	79191 COYOTE G	115.00	1
79072 HESPERUS	345.00	79990 WATRFLW	345.00	1
79073 BLUEDOOR	115.00	79074 E.CORTEZ	115.00	1
79075 EMPIRETS	115.00	79180 GRCUT TP	115.00	1
79076 AM EAST	115.00	79077 BAYFIELD	115.00	1
79077 BAYFIELD	115.00	79086 PAGOSA	115.00	1
79079 BULLOCK	115.00	79082 HAPPYCAN	115.00	1
79079 BULLOCK	115.00	79115 SPRCKTAP	115.00	1
79080 CASCADEL	115.00	79088 TAMARRON	115.00	1
79080 CASCADEL	115.00	79254 COALBANK	115.00	1
79083 JUANITA	115.00	79127 SYLVSTGU	115.00	1
79085 NORTHMSA	115.00	79115 SPRCKTAP	115.00	1
79089 SHENDOAH	115.00	79111 MANCOSTP	115.00	1
79090 SKITO	115.00	79197 GUNNISTP	115.00	1
79103 GARNET M	115.00	79104 GARNETAP	115.00	1
79103 GARNET M	115.00	79184 GUNVAL	115.00	1
79108 HOVENWEP	115.00	79117 Y.JACK 2	115.00	1
79108 HOVENWEP	115.00	79121 SANDCANY	115.00	1
79110 MAIN CO	115.00	79118 Y.JACK W	115.00	1
79110 MAIN CO	115.00	79120 MOQUI C	115.00	1
79117 Y.JACK 2	115.00	79118 Y.JACK W	115.00	1
79173 COLBRAN	115.00	79174 MOLINA-L	115.00	1
79173 COLBRAN	115.00	79175 MOLINA-U	115.00	1
79177 MCPHEE	12.470	79178 GRT CUT	12.470	1
79179 GRT CUT	115.00	79180 GRCUT TP	115.00	1
79182 DOUGHSPN	115.00	79183 STRNELSN	115.00	1
79182 DOUGHSPN	115.00	79184 GUNVAL	115.00	1
79189 SUNSH SM	115.00	79257 AMES	115.00	1
79191 COYOTE G	115.00	79260 ELPASOTP	115.00	1



79194 BURROBDG	115.00	79256 SILVERTN	115.00	1
79194 BURROBDG	115.00	79257 AMES	115.00	1
79196 N.GUNNSN	115.00	79197 GUNNISTP	115.00	1
79254 COALBANK	115.00	79255 MOLASTAP	115.00	1
79255 MOLASTAP	115.00	79256 SILVERTN	115.00	1
79256 SILVERTN	115.00	79262 CEMNT CK	115.00	1
79264 W.RV.CTY	138.00	79265 CALAMRDG	138.00	1
79265 CALAMRDG	138.00	79312 C-A	138.00	1
79265 CALAMRDG	138.00	79400 DES.MINE	138.00	1
79266 MEEKER	345.00	79356 MCBRYDE	345.00	1
79350 C-B	138.00	79352 PICEANCE	138.00	1



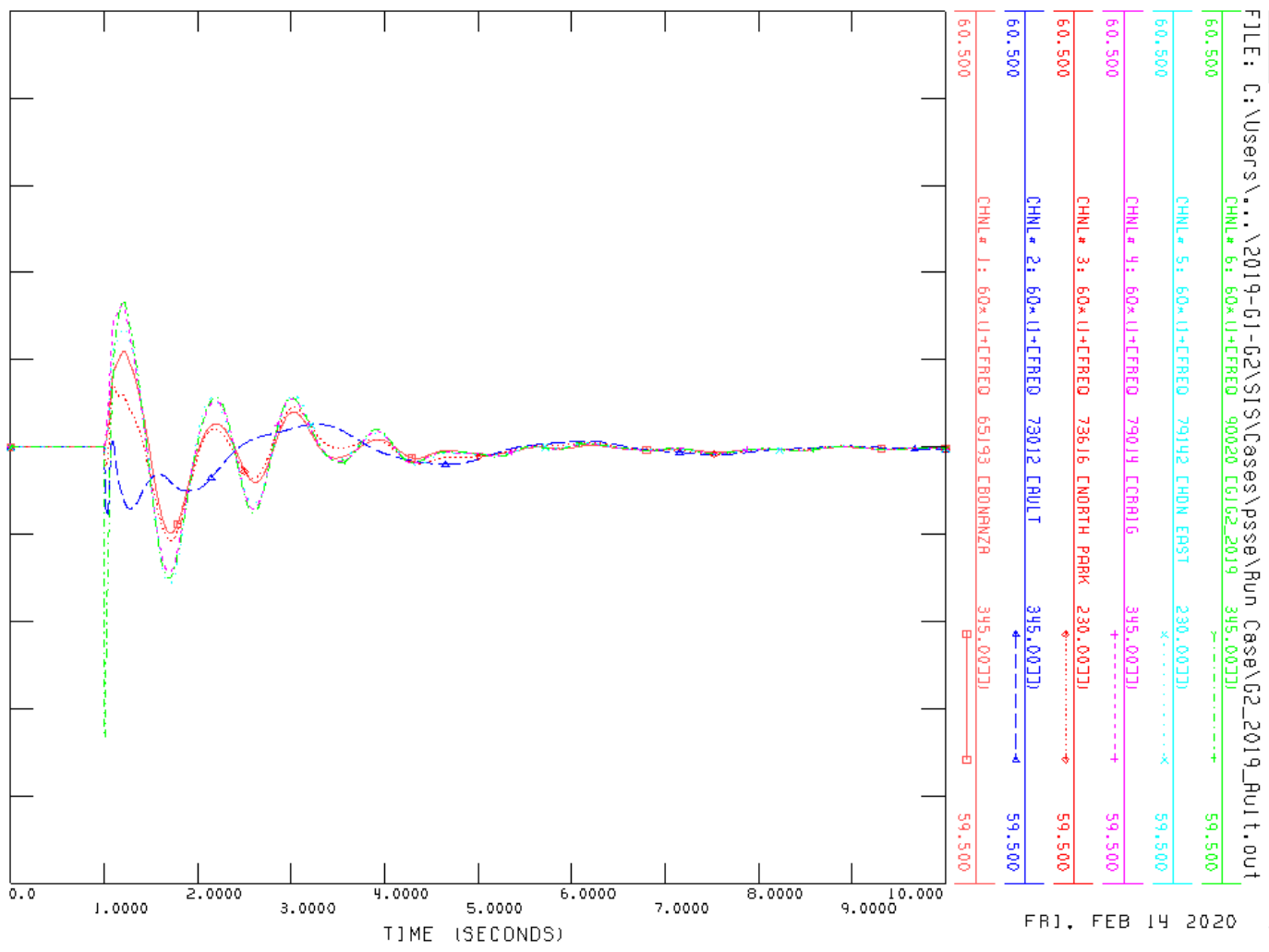
### D. Transient Stability Plots



Ault - 2019G2 345kV line fault: Bus Voltage

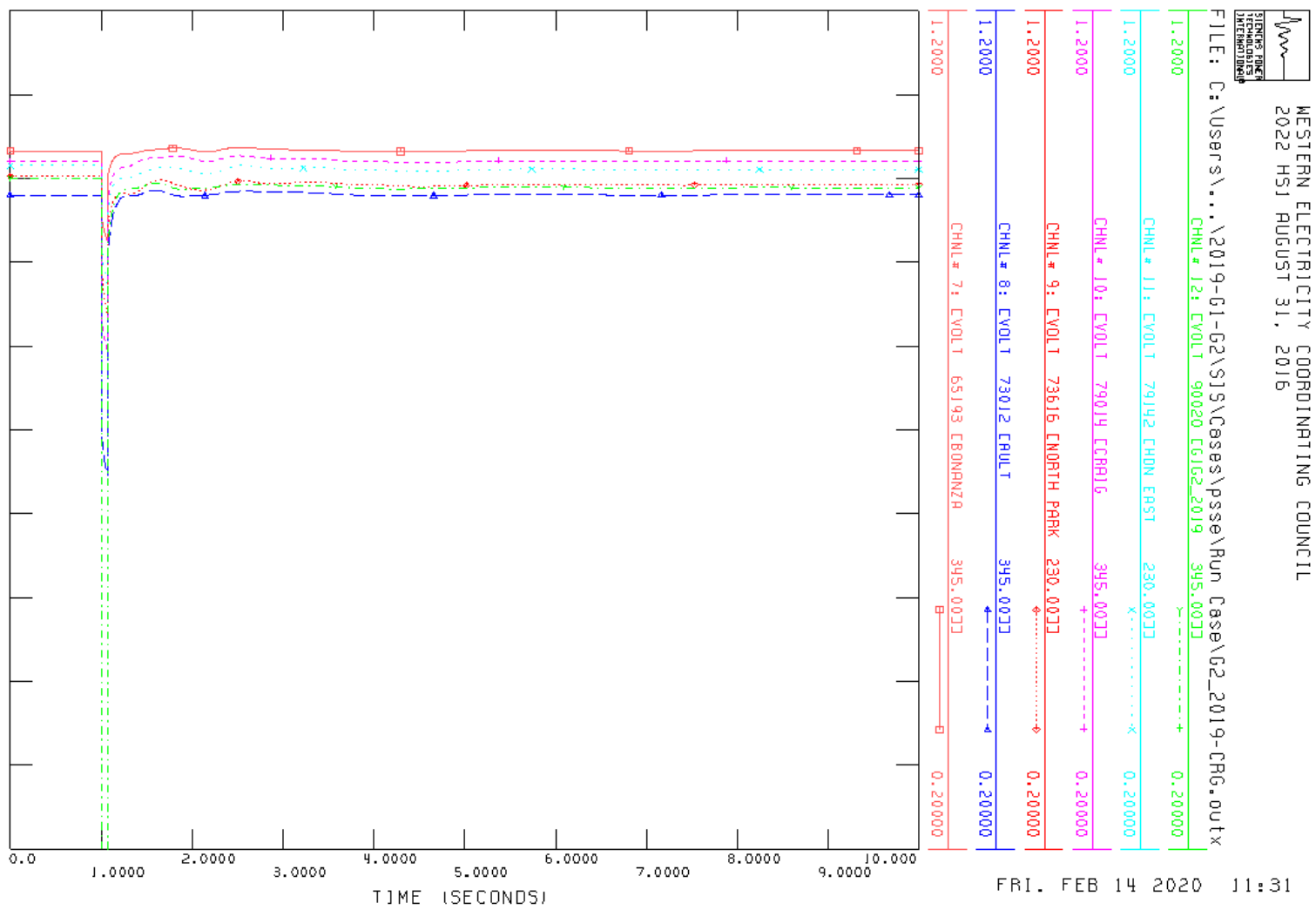


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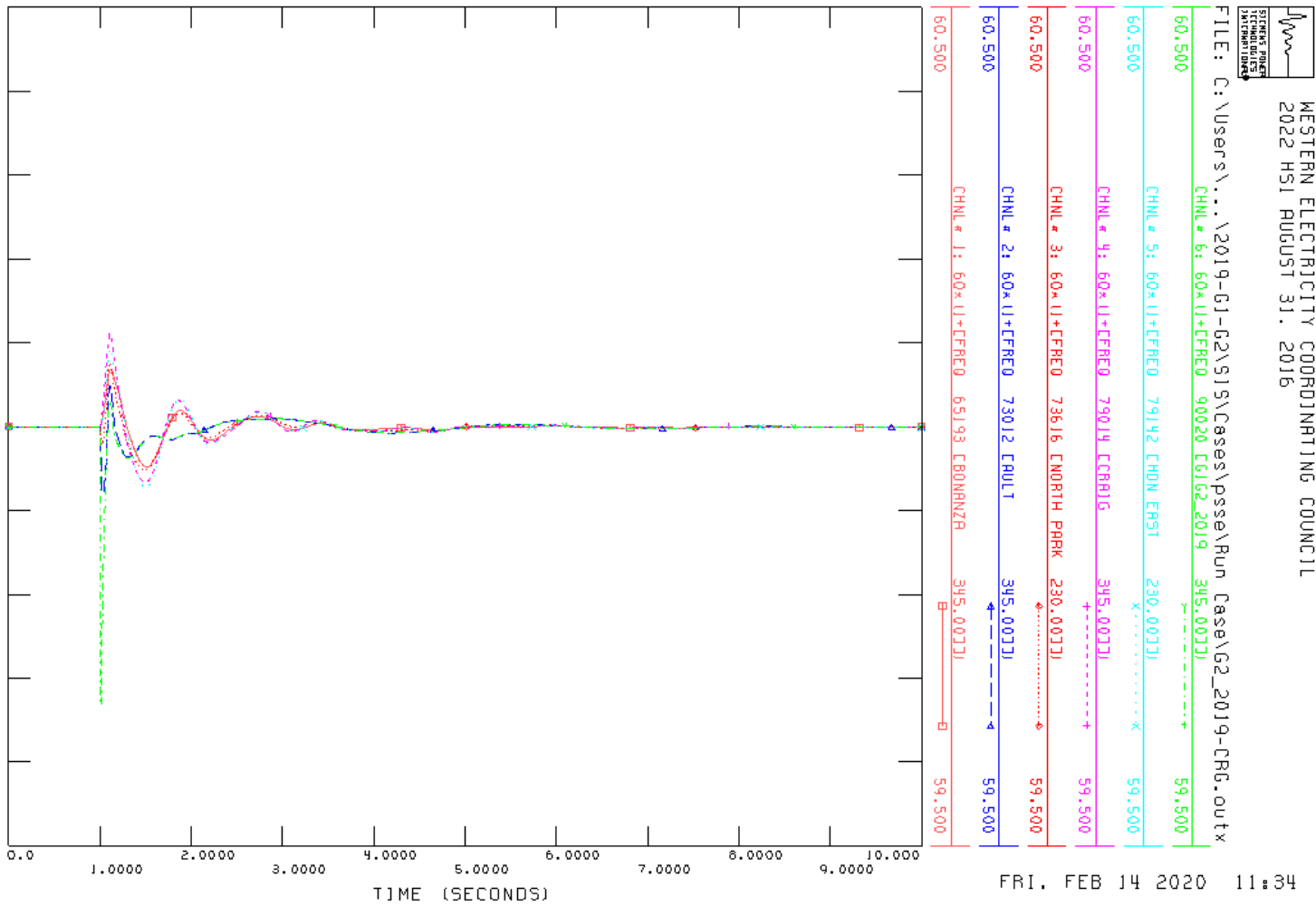


Ault - 2019G2 345kV line fault: Bus Frequency

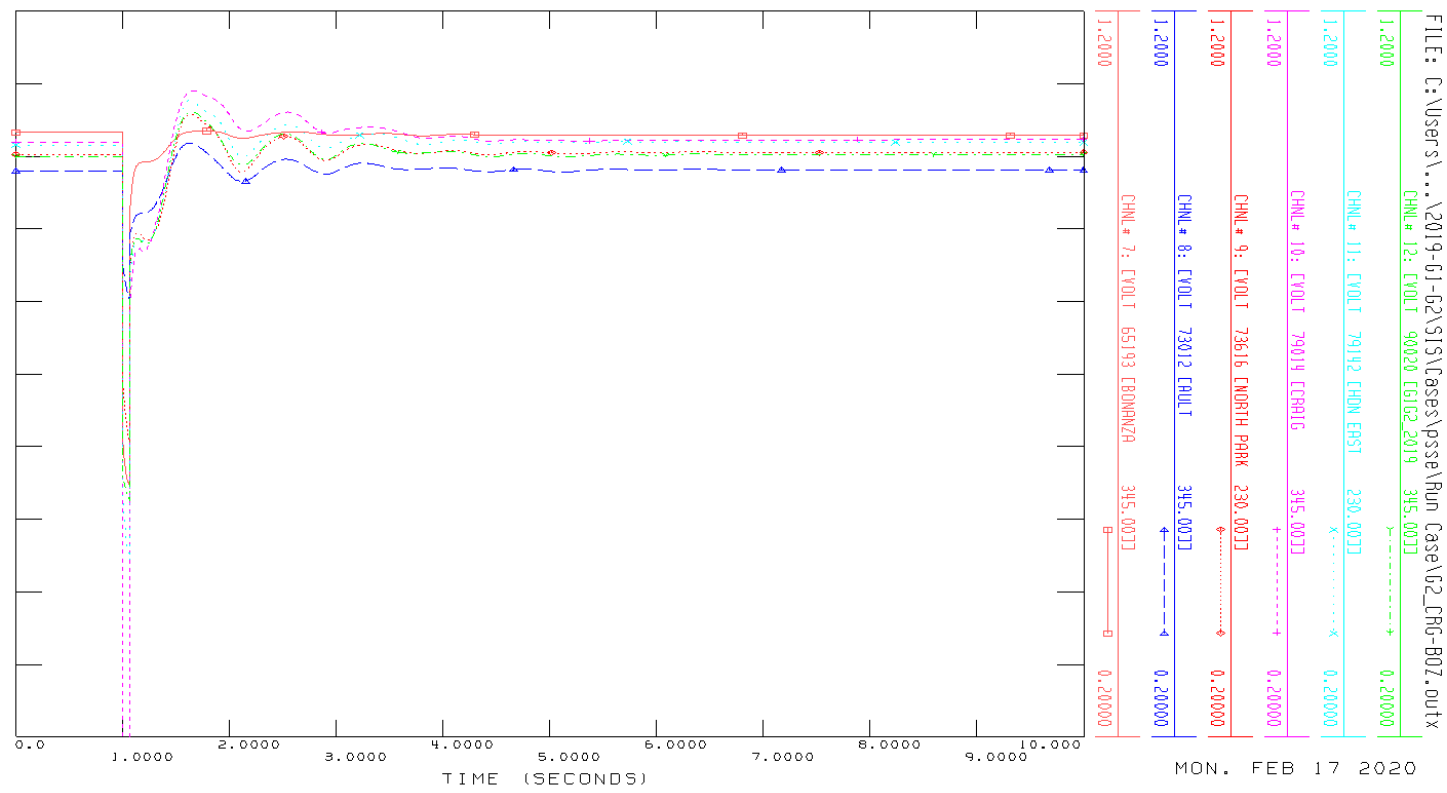




Craig - 2019G2 345kV line fault: Bus Voltage



Craig - 2019G2 345kV line fault: Bus Frequency

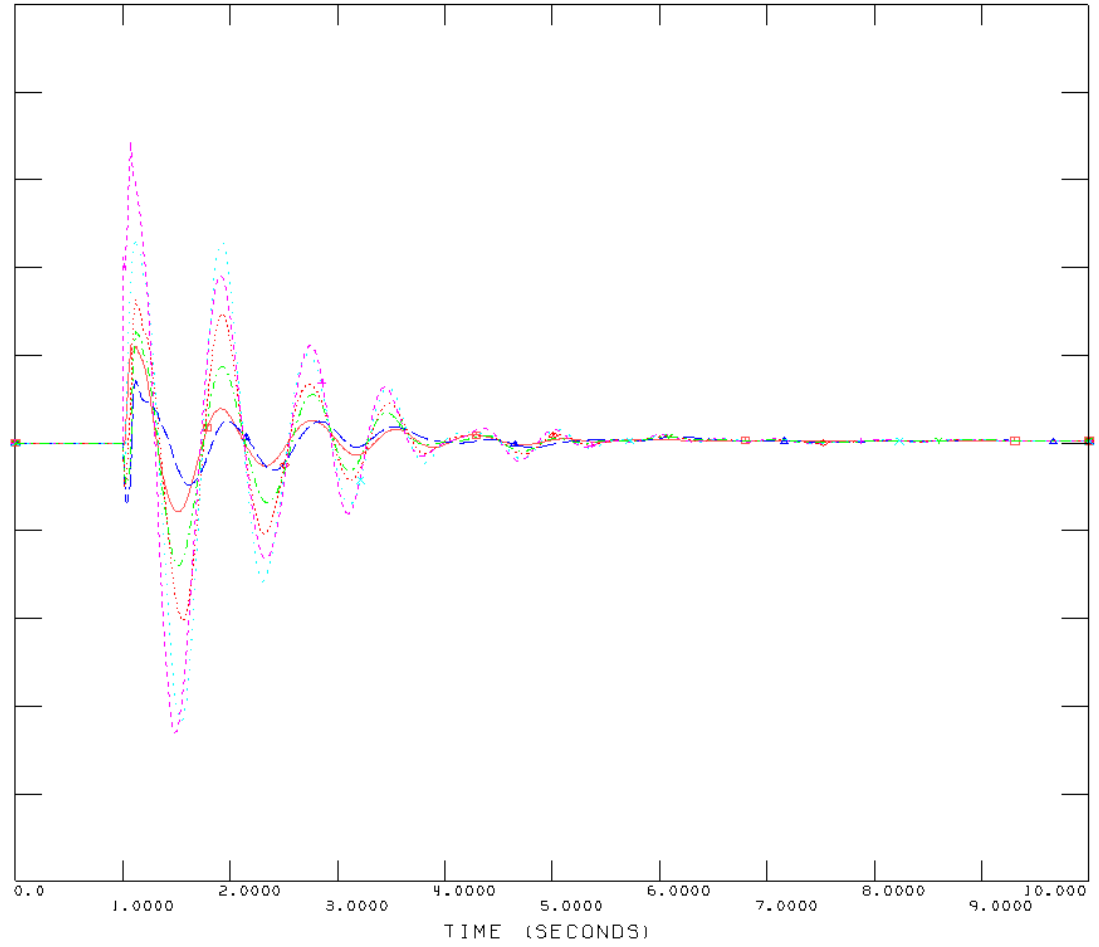


Craig – Bonanza 345kV line fault: Bus Voltage



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CHNL # 5: 60\*(I+CFREQ) 79142 [CHN ERST 230.00JJ] 59.500  
CHNL # 4: 60\*(I+CFREQ) 79019 [CRR16 395.00JJ] 59.500  
CHNL # 3: 60\*(I+CFREQ) 73616 [NORTH PARK 230.00JJ] 59.500  
CHNL # 2: 60\*(I+CFREQ) 73012 [RAULI 395.00JJ] 59.500  
CHNL # 1: 60\*(I+CFREQ) 65193 [BONANZA 395.00JJ] 59.500

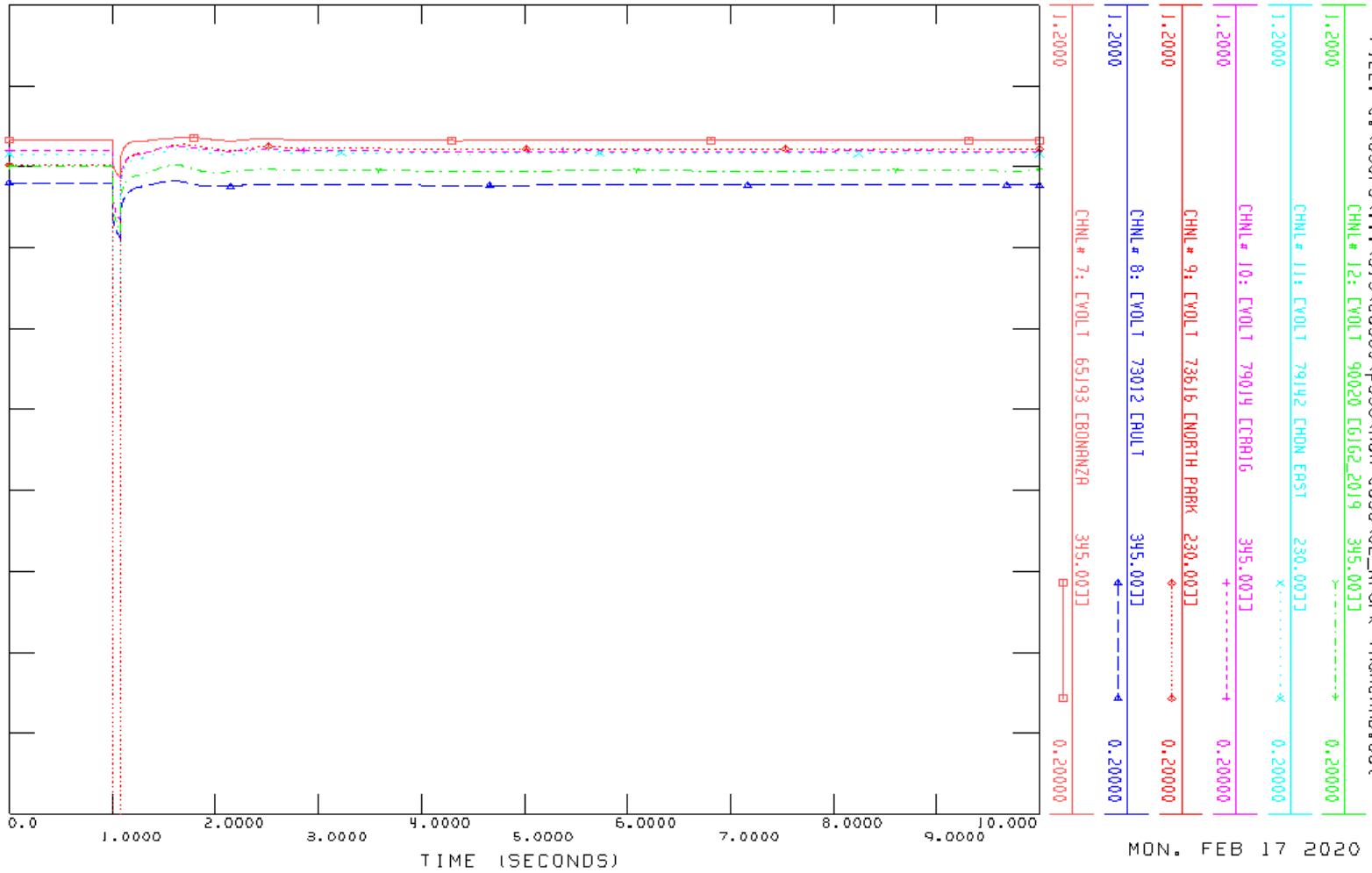
MON. FEB 17 2020 12:18



Craig - Bonanza 345kV line fault: Bus Frequency



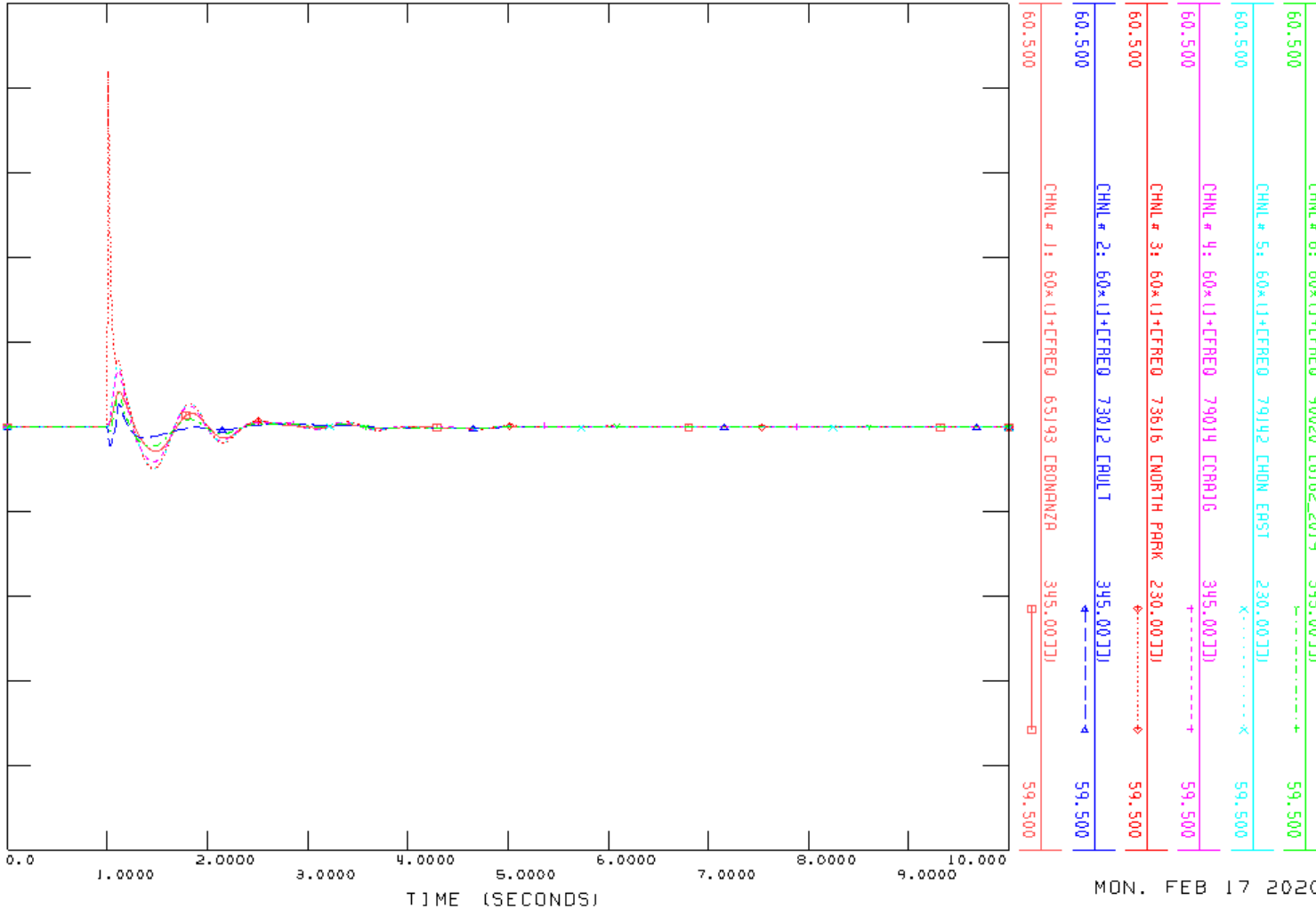
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North Park – Terry Ranch Rd 230V line fault: Bus Voltage



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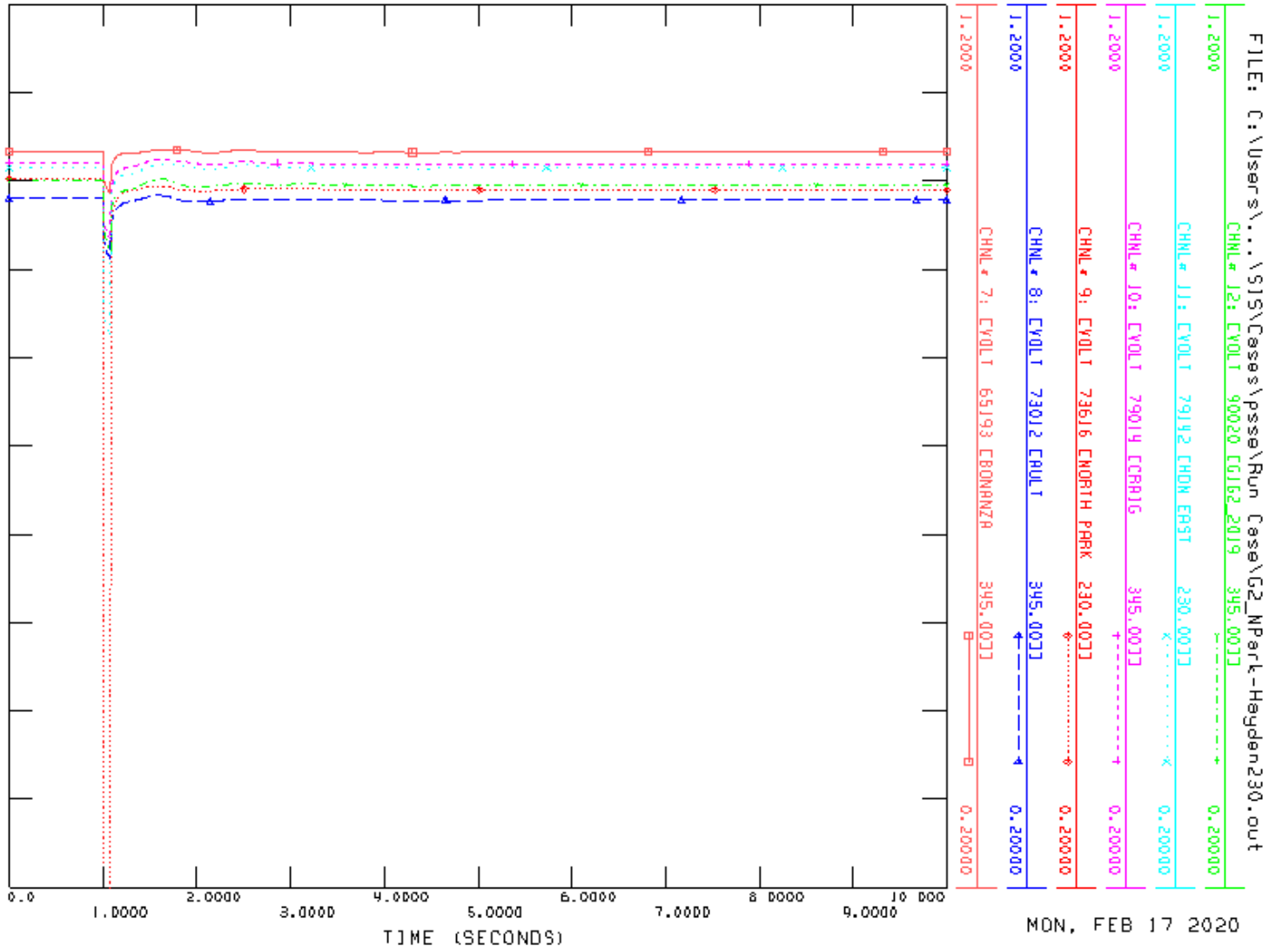


MON. FEB 17 2020 12:36

North Park – Terry Ranch Rd 230V line fault: Bus Frequency



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2022 HSJ AUGUST 31, 2016



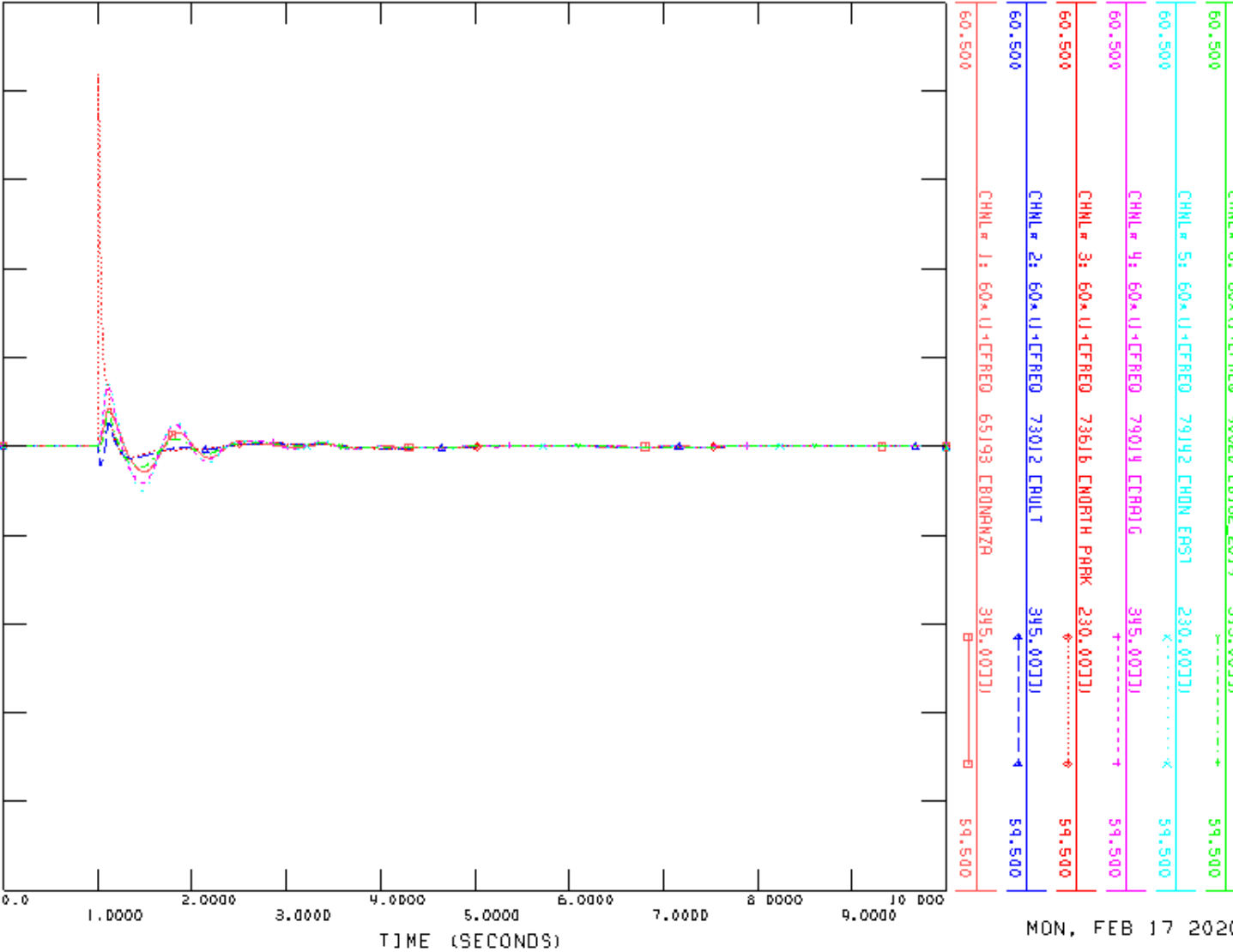
MDN, FEB 17 2020 12:48

North Park – Hayden 230V line fault: Bus Voltage



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2022 HSJ AUGUST 31, 2016

FILE: C:\Users\...\SIS\Cases\psser\Run Case\G2\_NPark-Hayden230.out



MON, FEB 17 2020 12:50

North Park – Hayden 230V line fault: Bus Frequency