

J&T Consulting, Inc.

May 29, 2025

Mr. Patrick Lennberg
Environmental Protection Specialist
State of Colorado
Division of Reclamation, Mining, & Safety

Physical Address:

1313 Sherman Street, Room 215
Denver, CO 80203

Mailing Address:

Division of Reclamation, Mining and Safety, Room 215
1001 East 62nd Avenue

RE: Adequacy Review No. 1, TR-3, Bennett Pit; Permit File No. M-2016-085
Adequacy Review No. 1 Response

Dear Mr. Lennberg,

Northern Colorado Constructors, Inc. has received the Division's adequacy review comments letter dated May 1, 2025. Below are the comments and the corresponding responses that have been provided to address the comments.

1. During the original permit application review the Operator in Adequacy Review Response #3, dated October 12, 2017, provided Appendix E Side Channel Spillway Maps and Calculations. In the submittal the Operator provided calculations and an explanation for the sizing of spillways for both reservoirs. Please update and submit a new Side Channel Maps and Calculations that discusses and accounts for decreasing the size of the side channel and spillway for the North Reservoir from 215 feet to 125 feet include a clear statement for why a spillway is no longer needed for the South Reservoir. Since the Rock Chute Design data was last completed in 2017, please update as needed and provide a summary of the differences, if any. Include what guidelines were used to determine the factor of safety used for the rip rap and what the basis for the estimated flow used is.

Response: The side channel spillway maps (Exhibit F1 – Reclamation Plan Map and Exhibit F2 – Side Channel Spillway) and side channel spillway length calculations are attached showing the configuration of the spillway, and calculations per UD&FCD methodology for determining the required spillway length. Note that the spillway depth has been revised to be 3.5 feet.

The updated Rock Chute Design data sheet is attached. The approach channel and chute widths have been modified to be 125 feet per the calculations referenced above. The factor of safety used for the rip rap was set to the minimum recommended value referenced in the calculation spreadsheet (1.2). The estimated flow was modified to be 1,600 cfs to match the capacity of the spillway as sized using the UD&FCD methodology referenced above. The updated Rock Chute Design data is attached.



-2-

The reclaimed South cell riverbank berm top width has been modified to be a minimum of 400 feet in width. Thus, per Table 2.1 of the Technical Review Guidelines for Gravel Mining & Water Storage Activities from Urban Drainage and Flood Control District, no river or pit side stabilization is required for the South cell pit side or river banks. Table 2.1 is attached.

2. For construction of the spillway is an USACE permit required and, if so, has the Operator obtained the permit?

Response: The construction of the spillway within the river bank area will be done under the USACE Nationwide Permit No. 7.

3. Please clearly state the reason why mining between the reservoirs can occur whereas in the original permit it could not happen. The Division during review assumes that the reason this can occur is because the tank battery and separator and associated pipeline have been abandoned and removed. A review of the most recent aerial imagery indicates these structures are still present at the site.

Response: The wells, tank battery, separator, and associated pipelines have been abandoned or are scheduled to be abandoned. Wells Kuipers Red V 12-2, Glover V 12-18D, and Kuipers V 12-2 JI have been plugged and abandoned. Well Glover V 12-27 is scheduled to be plugged and abandoned in October, 2025. Once the wells, tank battery, separator, and associated pipelines are removed mining can occur in the area between the reservoirs.

Thank you for your consideration of our responses to the comments. Please feel free to contact me with any questions or if you need additional information.

Sincerely,

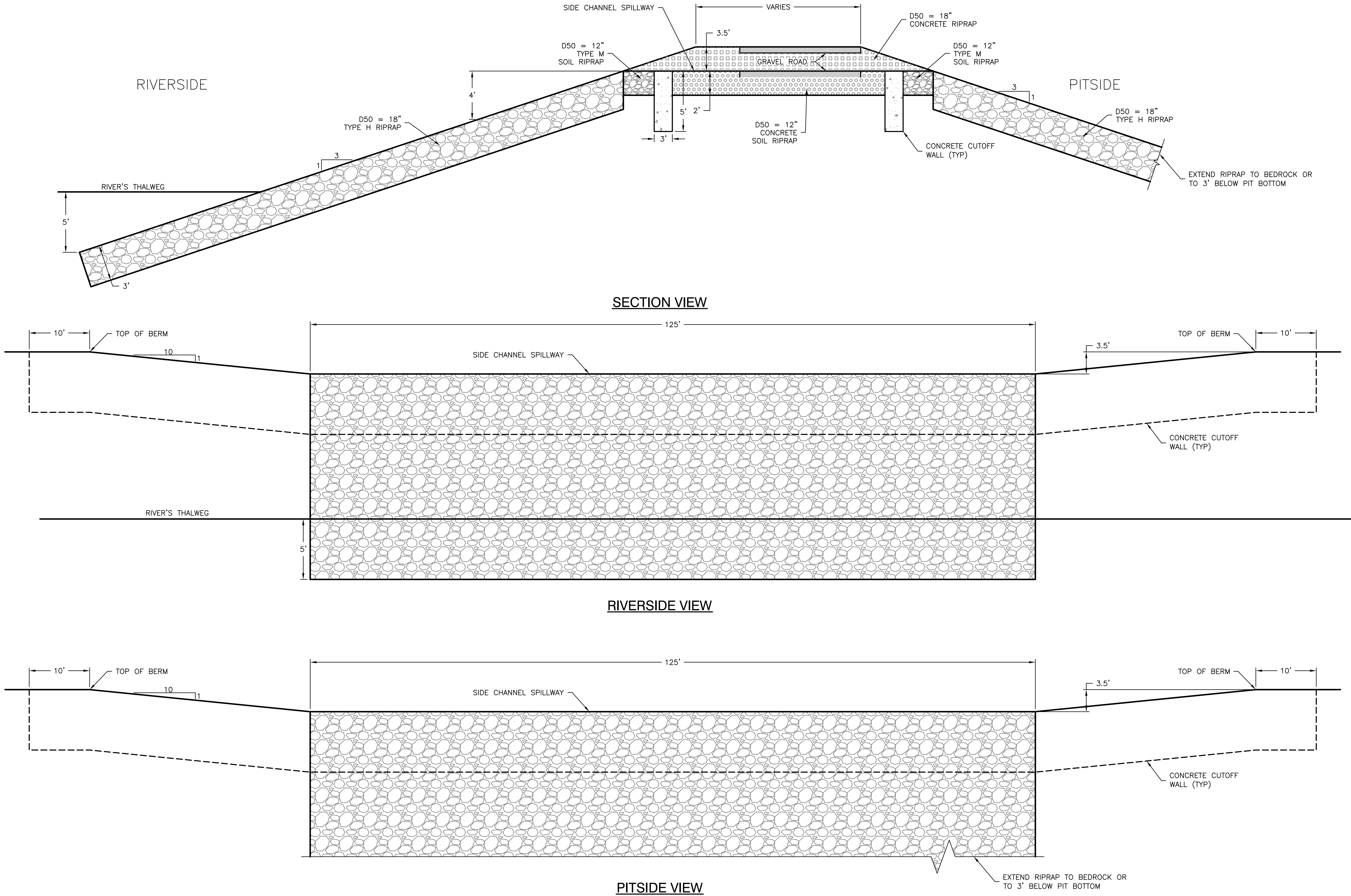


J.C. York, P.E.
J&T Consulting, Inc.

Attachments:

1. Exhibit F1 – Reclamation Plan Map
2. Exhibit F2 – Side Channel Spillway
3. North Cell Side Channel Spillway Calculations
4. North Cell Rock Chute Calculations
5. "Technical Review Guidelines for Gravel Mining & Water Storage Activities" Table 2.1
6. Oil/Gas Well Information

P:\16116 Bennett Mine Permitting\Drawings\Plan Sheets\JT-Reclamation Plan.dwg, F2, 5/14/2025 1:22:48 PM



REVISIONS					Description	
No	Date	By	Chk	Technical	Revision	
1	4.4.25	TPY	JCY			
2	5.14.25	TPY	JCY			

Job #	16116
Date	5.15.17
Drawn By	WSS
Designed By	TPY
Checked By	JCY
File	JT-Reclamation
Scale	1" = 200'

North Cell Side Channel Spillway Calculations

According to the *Technical Review Guidelines for Gravel Mining & Water Storage Activities (Guidelines)* from Urban Drainage & Flood Control District, the equation for a single side channel spillway length is:

$$L_s = \frac{A_p}{12,000}$$

L_s = length of the side channel spillway

A_p = area of pit measured in square feet at the high water line

The calculated surface area for the North cell at the high water line is 1,474,078 square feet. The calculated length of the spillway is 122.8 feet which was rounded up to 125 feet.

The riverside berm protection was designed based on Figure 2.8: Riprap Spillway Stabilization from the *Guidelines* shown below. The pit side protection was designed using the Rock Chute Design Program based on "Design of Rock Chutes" by Robinson, Rice, and Kadavy, ASAE Vol. 41(3). The results sheet is attached.

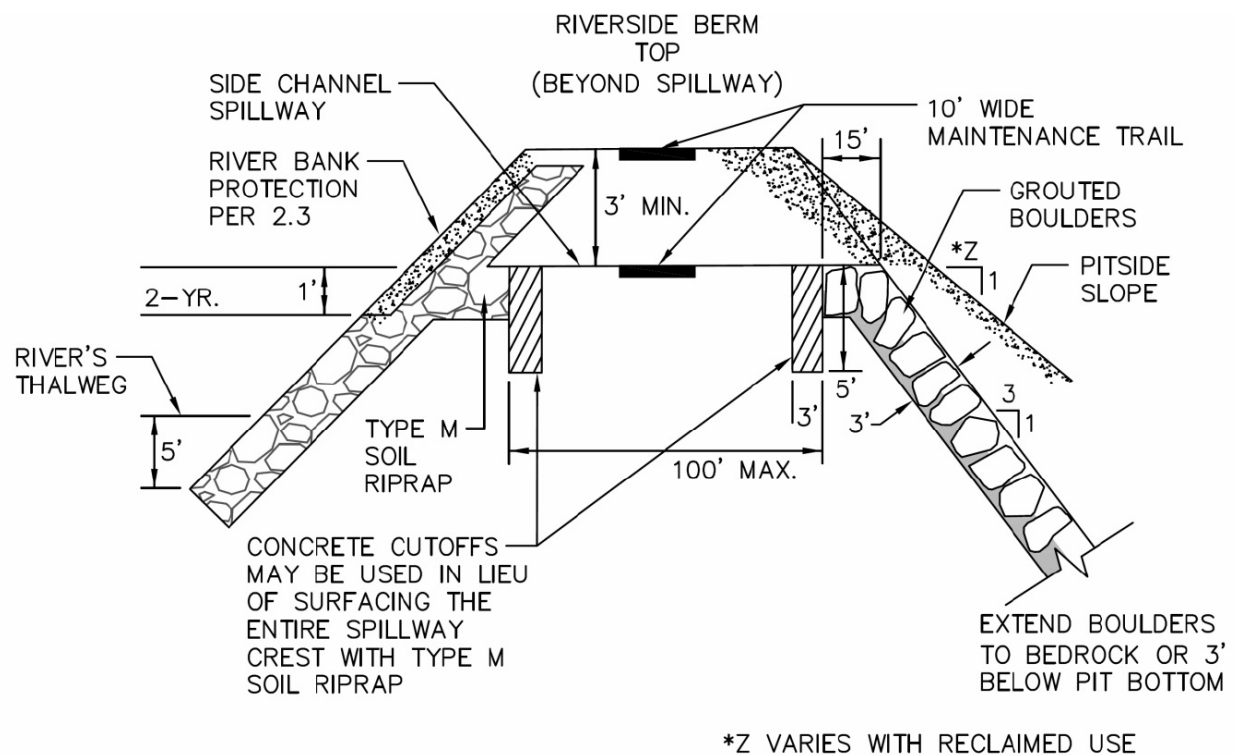


Figure 2.8
Riprap Spillway Stabilization

Rock Chute Design Data

(Version WI-July-2010, Based on Design of Rock Chutes by Robinson, Rice, Kadavy, ASAE, 1998)

Project: Bennett Pit - North Cell
 Designer: TPY
 Date: May 14 2025

County: Weld
 Checked by: _____
 Date: _____

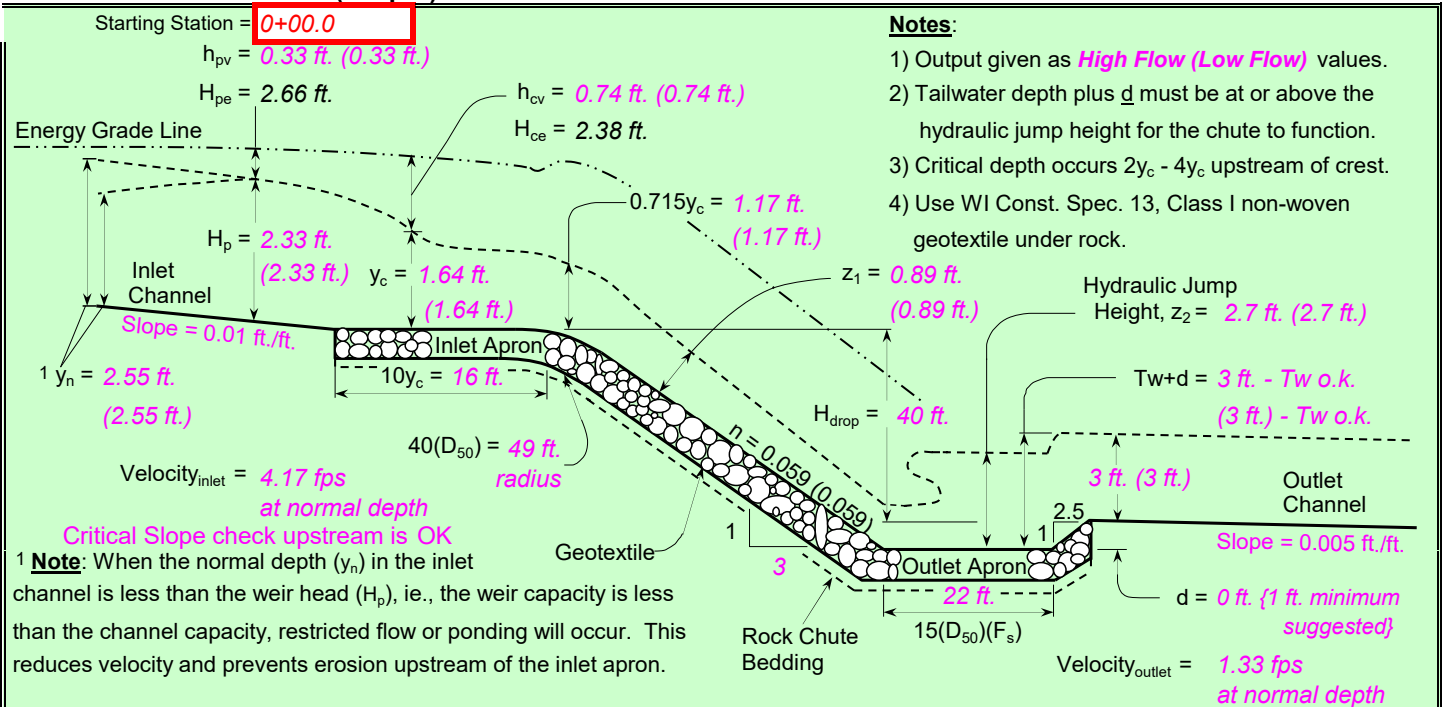
Input Geometry:

Upstream Channel	Chute	Downstream Channel
Bw = 125.0 ft.	Bw = 125.0 ft.	Bw = 400.0 ft.
Side slopes = 10.0(m:1)	Factor of safety = 1.20 (F_s)	Side slopes = 0.1 (m:1)
Velocity n-value = 0.060	Side slopes = 10.0(m:1) → 2.0:1 max.	Velocity n-value = 0.020
Bed slope = 0.0100 ft./ft.	Bed slope (3:1) = 0.330 ft./ft → 3.0:1 max.	Bed slope = 0.0050 ft./ft.
Note: n value = a) velocity n from waterway program or b) computed manning's n for channel	Freeboard = 0.0 ft.	Base flow = 0.0 cfs
	Outlet apron depth, d = 0.0 ft.	

Design Storm Data (Table 2, FOTG, WI-NRCS Grade Stabilization Structure No. 410):

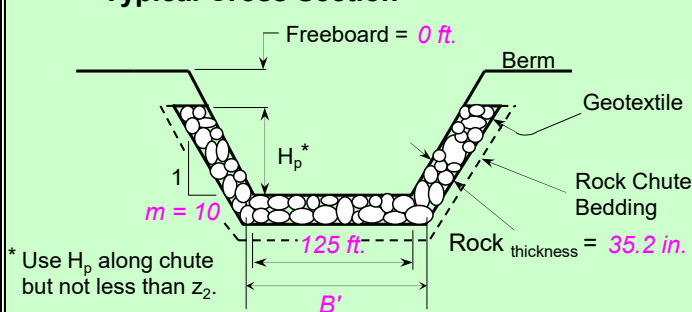
Apron elev. --- Inlet = 100.0 ft. ----- Outlet 60.0 ft. --- (H_{drop} = 40 ft.)	Note: The total required capacity is routed through the chute (principal spillway) or in combination with an auxiliary spillway.
Q_{high} = Runoff from design storm capacity from Table 2, FOTG Standard 410	
Q_5 = Runoff from a 5-year, 24-hour storm.	Input tailwater (T_w): 0.33 1.20
Q_{high} = 1600.0 cfs High flow storm through chute	Tw (ft.) = 3.00
Q_5 = 1600.0 cfs Low flow storm through chute	Tw (ft.) = 3.00

Profile and Cross Section (Output):



Profile Along Centerline of Chute

Typical Cross Section



F_s = 1.20	Factor of safety (multiplier)
Z_1 = 0.89 ft.	Normal depth in chute
n-value = 0.059	Manning's roughness coefficient
$D_{50}(F_s)$ = 17.6 in.	Minimum Design D_{50} *
$2(D_{50})(F_s)$ = 35.2 in.	Rock chute thickness
$T_w + d$ = 3 ft.	Tailwater above outlet apron
Z_2 = 2.7 ft.	Hydraulic jump height
*** The outlet will	function adequately

High Flow Storm Information

Rock Chute Design - Cut/Paste Plan

(Version WI-July-2010, Based on Design of Rock Chutes by Robinson, Rice, Kadavy, ASAE, 1998)

Project: Bennett Pit - North Cell
Designer: TPY
Date: May 14 2025

County: Weld
Checked by: _____
Date: _____

Design Values

D_{50} dia. = 18.0 in.
Rock_{chute} thickness = 36.0 in.
Inlet apron length = 16 ft.
Outlet apron length = 22 ft.
Radius = 50 ft.
Will bedding be used? Yes

Rock Gradation Envelope

% Passing	Diameter, in. (weight, lbs.)
D_{100} -----	27 - 36 (1393 - 3302)
D_{85} -----	23 - 32 (907 - 2407)
D_{50} -----	18 - 27 (413 - 1393)
D_{10} -----	14 - 23 (211 - 907)

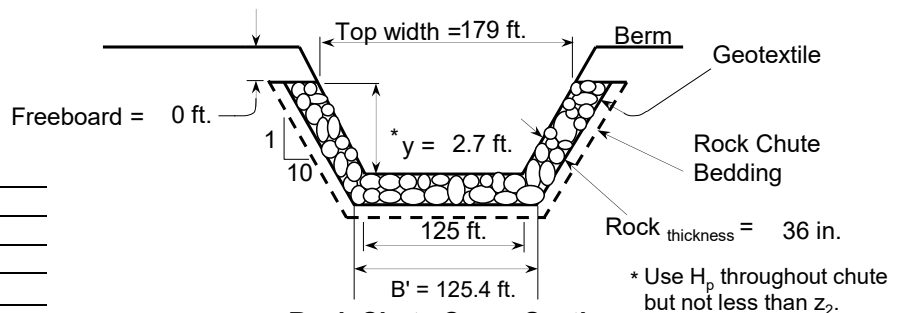
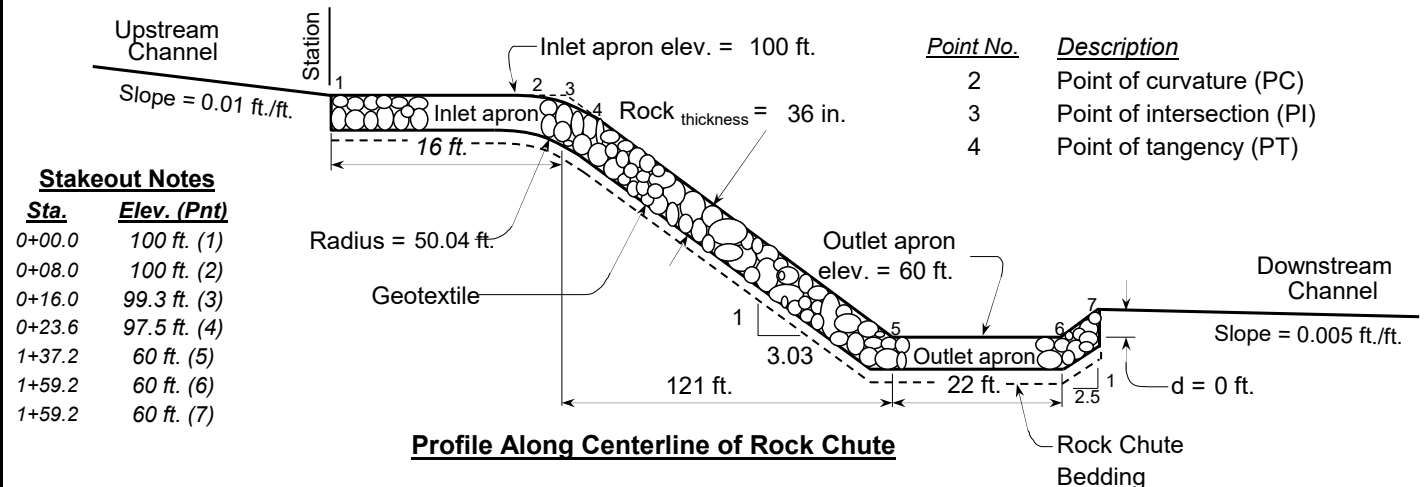
Coefficient of Uniformity, $(D_{60})/(D_{10}) < 1.7$

Quantities^a

Rock = 3857 yd³
Geotextile (WCS-13)^b = 4414 yd²
Bedding 12 in. = 1534 yd³
Excavation = 0 yd³
Earthfill = 0 yd³
Seeding = 0.0 acres

Notes: ^a Rock, bedding, and geotextile quantities are determined from x-section below (neglect radius).

^b Geotextile Class I (Non-woven) shall be overlapped and anchored (18-in. minimum along sides and 24-in. minimum on the ends) --- quantity not included.



Profile, Cross Sections, and Quantities

Notes:
Rock gradation envelope can be met with
Gradation printed



Bennett Pit - North Cell

Weld County

	Date
Designed	TPY
Drawn	
Checked	
Approved	

File Name
Drawing Name
Sheet 1 of 1

Table 2.1
Riverbank Berm-Top Width

Area Stabilized	Alignment	Type of Stabilization	Minimum Top Width (ft)
None	2.1.1—Existing unstable	None	400
Riverbank Only	2.1.1—Existing unstable	2.3—Riverbank Protection	250
		2.3.1—Riprap	
		2.3.2—Soil Riprap	
		2.3.3—Jetties (Groins)	
	2.1.2—Master Plan	2.3—Riverbank Protection	200
		2.3.1—Riprap	
		2.3.2—Soil Riprap	
		2.3.3—Jetties (Groins)	
	2.1.3—Minimum maintenance	2.3—Riverbank Protection	200
		2.3.1—Riprap	
		2.3.2—Soil Riprap	
		2.3.3—Jetties (Groins)	
Pitside Bank Only	2.1.1—Existing unstable	2.4—Pitside Bank Protection	300
		2.4.1—Riprap	
		2.4.2—Soil Riprap	
		2.4.3—Soil Cement	
		2.4.4—Grouted Boulders	
		2.4.5—Side Channel Spillway	
Riverbank and Pitside Bank	2.1.1—Existing unstable	2.3—Riverbank Protection and	150
		2.4—Pitside Bank Protection	
	2.1.2—Master Plan	2.3—Riverbank Protection and	100
		2.4—Pitside Bank Protection	
	2.1.3—Minimum maintenance	2.3—Riverbank Protection and	100
		2.4—Pitside Bank Protection	

From: [Crouch, Tom](#)
To: [Chris Zadel](#)
Cc: [JC York](#)
Subject: RE: Bennett Pit - Oil/Gas Well Information
Date: Wednesday, May 28, 2025 9:38:02 AM

Hey Chris,

Please see below the status of the wells:

- Kuipers Red V12-2 – plugged back in March 2015
- Glover V 12-18D – plugged back in August 2021
- Kuipers V12-2 JI – plugged in January 2025
- Glover V 12-27 – on the schedule for October 2025

Let me know if you have any questions.

Thanks,

Tom Crouch

Sr. Landman | DJ Surface Long Term Planning

Occidental Petroleum Corporation

1099 18th St. | Suite 700 | Denver, CO 80202

Office (720) 929-6797 | Cell (720) 215-8215

From: Chris Zadel <chrisz@nconconstructors.com>
Sent: Wednesday, May 28, 2025 9:15 AM
To: Crouch, Tom <Thomas_Crouch@oxy.com>
Cc: J.C. York <jcyork@j-tconsulting.com>
Subject: [EXTERNAL] RE: Bennett Pit - Oil/Gas Well Information

WARNING - This message is from an EXTERNAL SENDER - be CAUTIOUS, particularly with links and attachments.

Ok. Please keep us informed.

Thanks again -
Chris

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Surface Location
API# 05-123-30117

Well Classification: OW

Status: PR - 8/1/2024

Well Name/No: [GLOVER V #12-27D](#) [Click Here for Transporter Gatherer Info](#)

(Click Well Name for Production Data)

Operator: [KERR MCGEE OIL & GAS ONSHORE LP - 47120](#) Federal Or State Lease #:

(Click Operator Name for Company Detail Report)

Facility Status: PR Status Date 8/1/2024

FacilityID: 301882 LocationID: 329579

County: WELD #123 Location: NWNE 12 2N67W 6

Field: WATTENBERG - #90750 Elevation: 4836 ft.

Planned Location: 592FNL 1827 FEL Lat/Long: 40.157860 / -104.836240 Lat/Long Source: Field Measured

As Drilled Location: Footages Not Available Lat/Long: 40.157860 / -104.836240 Lat/Long Source: Field Measured

Sample Site Data

Collapse Section

Wellbore Data for Original Wellbore **Wellbore Classification: OW** **PR - 8/1/2024** **Measured TD:**
8045 ft. Vertical TD: 7941 ft.

Wellbore Permit

Permit #: 20090603 Expiration Date: 3/4/2010

Proposed Top PZ Location: Sec:12 Twp: 2N 67W Footage: 103 FNL 1114 FEL

Bottom Hole Location: Sec:12 Twp: 2N 67W Footage: 98 FNL 1110 FEL

Prop Depth/Form: 8035 ft.

Surface Mineral Owner Same: No

Mineral Owner: FEE Surface Owner: FEE

Unit: Unit Number:

Formation And Spacing: Code: CODL , Formation: CODELL , Order: 407-87 , Unit Acreage: 160, Drill Unit: GWA

Formation And Spacing: Code: JSND , Formation: J SAND , Order: 232-23 , Unit Acreage: 160, Drill Unit: GWA

Formation And Spacing: Code: NBRR , Formation: NIOBRARA , Order: 407-87 , Unit Acreage: 160, Drill Unit: GWA

Casing: String Type: SURF, Hole Size: 12.25 in., Size: 8.625 in., Top: , Depth: 730 ft., Weight: 24 , Citings Type: PLANNED

Cement: Sacks: 305, Top: 0 ft., Bottom: 730 ft.

Casing: String Type: 1ST, Hole Size: 7.875 in., Size: 4.5 in., Top: , Depth: 8035 ft., Weight: 11.6 , Citings Type: PLANNED

Cement: Sacks: 523, Top: , Bottom: 8035 ft.

Wellbore Completed

Completion Date: 10/20/2009

Spud Date: 10/17/2009 Spud Date Is: ACTUAL

Measured TD: 8045 ft. Measured PB depth: 7970 ft.

True Vertical TD: 7941 ft. True Vertical PB depth: 7867 ft.

Top PZ Location: Sec:12 Twp: 2N 67W Footage: 103 FNL 1114 FEL

Bottom Hole Location: Sec:12 Twp: 2N 67W Footage: 98 FNL 1110 FEL

Log Types: CBL/GR/CCL/VDL, CBL/GR/CCL/VDL, DIL/GL/GR, Density/Neutron/Microlog

Casing: String Type: SURF, Hole Size: 12.25 in., Size: 8.625 in., Top: 0 ft., Depth: 800 ft., Weight: , Citings Type: ACTUAL

Cement: Sacks: 268, Top: 0 ft., Bottom: 800 ft., Determination Method: CALC

Casing: String Type: 2ND, Hole Size: 7.875 in., Size: 4.5 in., Top: 0 ft., Depth: 8044 ft., Weight: , Citings Type: ACTUAL

Cement: Sacks: 440, Top: 6588 ft., Bottom: 8044 ft., Determination Method: CBL

Additional Cement: String Type: 2ND , Top: 5450, Depth: , Bottom: 7964, Sacks: 627, Method: SQUEEZE

Formation **Interval Top** **Log Bottom** **Cored** **DSTs**

NIOBRARA 7178 ft.

Primary Well Designation:
Low Producing *i*

All Designations	Date	
Reported Plugged	N	
Out Of Service Repurposed	N	
Out Of Service	N	
Inactive Exception	N	
Noticed Inactive	N	
Defined Inactive	N	
Low Producing	Y	Production Period 02/2024 - 01/2025

BOE/MCFE/GOR Calculations
Production for Previous 12 Months

February 2024 - January 2025	<i>i</i>
Total Oil Produced (Barrels)	0
Total Gas Produced (MCF)	349
GOR	
GOR Determination	MCFE
Average BOE per Day	0.164
Average MCFE per Day	0.952

Federal Financial Assurance *i*

Tribal Well *i* No

FORT HAYS	7420 ft.
CODELL	7440 ft.
GREENHORN	7533 ft.
D SAND	7813 ft.
MOWRY	7864 ft.
J SAND	7877 ft.
J-3 SAND	7905 ft.

Completed Information for Formation J SAND

Formation Classification: OW

Status: PR - 8/1/2024

1st Production Date:6/24/2010

Choke Size:

Formation Name:J SAND

Commingled:Yes

Production Method:

Open Hole Completion:No

Formation Treatment

Treatment Type:

Treatment Date:6/1/2010

Treatment End Date:N/A

Treatment Summary:Frac'd J-Sand w/144123 gals Vistar and Slick Water with 280300 lbs Ottawa sand and SB Excel

Total fluid used in treatment (bbls):

Max pressure during treatment (psi):

Total gas used in treatment (mcf):

Fluid density (lbs/gal):

Type Of gas:

Number Of staged intervals:

Total acid used in treatment (bbls):

Min frac gradient (psi/ft):

Recycled water used in treatment (bbls):

Total flowback volume recovered (bbls):

Fresh water used in treatment (bbls):

Disposition method For flowback:

Total proppant used (lbs):

Green completions techniques utilized: --

Reason green techniques Not utilized:

Tubing Size:Tubing Setting Depth:

Tubing Packer Depth:Tubing Multiple Packer:

Open Hole Top:Open Hole Bottom:

No Initial Test Data was found for formation JSND.

Perforation Data:

Interval Top:7880 ft.

Of Holes:124

Interval Bottom:7920 ft.

Hole Size:0.41 in.

Completed Information for Formation J-NIOBRARA-CODELL

Formation Classification: OW

Status: CM - 6/29/2010

1st Production Date:6/24/2010

Choke Size:

Formation Name:J-NIOBRARA-CODELL

Commingled:No

Production Method:

Open Hole Completion:No

Formation Treatment

Treatment Type:

Treatment Date:6/1/2010

Treatment End Date:N/A

Treatment Summary:Codell, Niobrara, and J-Sand are commingled

Total fluid used in treatment (bbls):

Max pressure during treatment (psi):

Total gas used in treatment (mcf):

Fluid density (lbs/gal):

Type Of gas:

Number Of staged intervals:

Total acid used in treatment (bbls):

Min frac gradient (psi/ft):

Recycled water used in treatment (bbls):

Total flowback volume recovered (bbls):

Fresh water used in treatment (bbls):

Disposition method For flowback:

Total proppant used (lbs):

Green completions techniques utilized: --

Reason green techniques Not utilized:

Tubing Size: 2.375 in. Tubing Setting Depth: 7839 ft.

Tubing Packer Depth: Tubing Multiple Packer:

Open Hole Top: Open Hole Bottom:

Initial Test Data:

Test Date: 6/29/2010 Test Method: Flowing

Hours Tested: 24 Gas Type: WET

Gas Disposal: SOLD

Test Type	Measure
BBLS_H2O	40
BBLS_OIL	38
BTU_GAS	1237
CALC_BBLS_H2O	40
CALC_BBLS_OIL	38
CALC_GOR	8605
CALC_MCF_GAS	327
CASING_PRESS	800
GRAVITY_OIL	47
MCF_GAS	327
TUBING_PRESS	425

Perforation Data:

Interval Top: 7234 ft. # Of Holes: 236

Interval Bottom: 7920 ft. Hole Size:

Completed Information for Formation NIOBRARA-CODELL Formation
Classification: OW Status: PR - 8/1/2024

1st Production Date: 6/24/2010 Choke Size:

Formation Name: NIOBRARA-CODELL Commingled: Yes

Production Method:

Open Hole Completion: No

Formation Treatment

Treatment Type:

Treatment Date: 6/7/2010 Treatment End Date: N/A

Treatment Summary: Frac'd Codell w/131038 gals Vistar and Slick Water with 269920 lbs Ottawa sand. CD PERFS 7438-7454, 64 HOLES @.41". NB perfs7234-7324, 48 holes @.73". Frac'd NB w/174246 gals Vistar and Slickwater with 249500 lbs Ottawa Sand.

Total fluid used in treatment (bbls): Max pressure during treatment (psi):

Total gas used in treatment (mcf): Fluid density (lbs/gal):

Type Of gas: Number Of staged intervals:

Total acid used in treatment (bbls): Min frac gradient (psi/ft):

Recycled water used in treatment (bbls): Total flowback volume recovered (bbls):

Fresh water used in treatment (bbls): Disposition method For flowback:

Total proppant used (lbs): Green completions techniques utilized: --

Reason green techniques Not utilized:

Tubing Size: Tubing Setting Depth:

Tubing Packer Depth: Tubing Multiple Packer:

Open Hole Top: Open Hole Bottom:

No Initial Test Data was found for formation NB-CD.

Initial Test Data:

Test Date: 6/29/2010 Test Method: Flowing

Hours Tested: 24 Gas Type: WET

Gas Disposal: SOLD

Test Type	Measure
BBLS_H2O	40
BBLS_OIL	38
BTU_GAS	1237
CALC_BBLS_H2O	40
CALC_BBLS_OIL	38
CALC_GOR	8605
CALC_MCF_GAS	327
CASING_PRESS	800
GRAVITY_OIL	47
MCF_GAS	327
TUBING_PRESS	425

Perforation Data:

Interval Top: 7234 ft. # Of Holes: 112
Interval Bottom: 7454 ft. Hole Size:

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Surface Location
API# 05-123-30624

Well Classification: GW

Status: PA - 8/12/2021

Well Name/No:
[GLOVER V #12-18D](#)
(Click Well Name for Production Data)

Operator:
[KERR MCGEE OIL & GAS ONSHORE LP - 47120](#)
(Click Operator Name for Company Detail Report)

Click Here for Transporter Gatherer Info

Federal Or State Lease #:

Facility Status: PA

Status Date: 8/12/2021

FacilityID: 413261

LocationID: 329579

County: WELD #123

Location: NWNE 12 2N67W 6

Field: WATTENBERG - #90750

Elevation: 4836 ft.

Planned Location: 616FNL 1822 FEL

Lat/Long: 40.157790 / -104.836220 Lat/Long Source: Field Measured

As Drilled Location: Footages Not Available

Lat/Long: 40.157799 / -104.836222 Lat/Long Source: Field Measured

Sample Site Data

Collapse Section

Wellbore Data for Original Wellbore

Wellbore Classification: GW PA - 8/11/2021 Measured TD: 7621 ft. Vertical TD: 7497 ft.

Wellbore Permit

DIRECTIONAL

Permit #:

Expiration Date: 9/27/2011

Proposed Top PZ Location: Sec:12 Twp: 2N 67W Footage: 1269 FNL 2558 FEL

Bottom Hole Location: Sec:12 Twp: 2N 67W Footage: 1270 FNL 2558 FEL

Prop Depth/Form: 7535 ft.

Surface Mineral Owner Same: No

Mineral Owner: FEE

Surface Owner: FEE

Unit:

Unit Number:

Formation And Spacing: Code: CODL , Formation: CODELL , Order: 407-87 , Unit Acreage: 160, Drill Unit: GWA

Formation And Spacing: Code: NBRR , Formation: NIOBRARA , Order: 407-87 , Unit Acreage: 160, Drill Unit: GWA

Casing: String Type: SURF, Hole Size: 12.25 in., Size: 8.625 in., Top: , Depth: 730 ft., Weight: 24 , Citings Type: PLANNED

Cement: Sacks: 305, Top: 0 ft., Bottom: 730 ft.

Casing: String Type: 1ST, Hole Size: 7.875 in., Size: 4.5 in., Top: , Depth: 7535 ft., Weight: 11.6 , Citings Type: PLANNED

Cement: Sacks: 614, Top: , Bottom: 7535 ft.

Wellbore Completed

Completion Date: N/A

Spud Date: 10/11/2009 Spud Date Is: ACTUAL

Measured TD: 7621 ft.

Measured PB depth: 7579 ft.

True Vertical TD: 7497 ft.

True Vertical PB depth: 7455 ft.

Top PZ Location: Sec:12 Twp: 2N 67W Footage: 1269 FNL 2558 FEL

Bottom Hole Location: Sec:12 Twp: 2N 67W Footage: 1270 FNL 2558 FEL

Log Types: CBL/GR/CCL, CDL/CNL/ML, DIL/GR

Log Types:

Casing: String Type: SURF, Hole Size: 12.25 in., Size: 8.625 in., Top: 0 ft., Depth: 802 ft., Weight: 24 , Citings Type: ACTUAL

Cement: Sacks: 363, Top: 0 ft., Bottom: 802 ft., Determination Method: VISU

Casing: String Type: 1ST, Hole Size: 7.875 in., Size: 4.5 in., Top: 0 ft., Depth: 7618 ft., Weight: 11.6 , Citings Type: ACTUAL

Cement: Sacks: 713, Top: 1230 ft., Bottom: 7618 ft., Determination Method: CBL

Casing: String Type: S.C. 1.1, Hole Size: 7.875 in., Size: 4.5 in., Top: , Depth: 1192 ft., Weight: 11.6 , Citings Type: ACTUAL

Cement: Sacks: 140, Top: 464 ft., Bottom: 1192 ft., Determination Method: CBL

Formation Interval Top Log Bottom Cored DSTs

Primary Well Designation:		
None <i>i</i>		
All Designations	Date	
Reported Plugged	Y	08/12/2021
Out Of Service Repurposed	N	
Out Of Service	N	
Inactive Exception	N	
Noticed Inactive	N	
Defined Inactive	N	
Low Producing	N	

BOE/MCFE/GOR Calculations	
Production for Previous 12 Months	
February 2024 - January 2025 <i>i</i>	
Total Oil Produced (Barrels)	0
Total Gas Produced (MCF)	0
GOR	
GOR Determination	MCFE
Average BOE per Day	0.000
Average MCFE per Day	0.000

Federal Financial Assurance	<i>i</i>	
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Tribal Well	<i>i</i>	No
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PIERRE	2813 ft.
PARKMAN	3948 ft.
SUSSEX	4488 ft.
SHANNON	4980 ft.
NIOBRARA	7204 ft.
FORT HAYS	7446 ft.
CODELL	7467 ft.

Completed Information for Formation CODELL Formation Classification: GW Status: CM - 10/7/2010

1st Production Date: 11/27/2009 Choke Size:
 Formation Name: CODELL Commingled: Yes
 Production Method:
 Open Hole Completion:

Formation Treatment

Treatment Type:
 Treatment Date: 11/24/2009 Treatment End Date: N/A
 Treatment Summary: FRAC'D CODELL W/ 134,988 GALS SLICK WATER, PHASERFRAC AND 15% HCl WITH 249,800#S OF OTTAWA SAND. CODELL PRODUCING THROUGH FLOW PLUG.

Total fluid used in treatment (bbls): Max pressure during treatment (psi):
 Total gas used in treatment (mcf): Fluid density (lbs/gal):
 Type Of gas: Number Of staged intervals:
 Total acid used in treatment (bbls): Min frac gradient (psi/ft):
 Recycled water used in treatment (bbls): Total flowback volume recovered (bbls):
 Fresh water used in treatment (bbls): Disposition method For flowback:
 Total proppant used (lbs): Green completions techniques utilized: --
 Reason green techniques Not utilized:

Tubing Size: Tubing Setting Depth:
 Tubing Packer Depth: Tubing Multiple Packer:
 Open Hole Top: Open Hole Bottom:

No Initial Test Data was found for formation CODL.

Perforation Data:

Interval Top: 7469 ft. # Of Holes: 68
 Interval Bottom: 7486 ft. Hole Size: 0.41 in.

Completed Information for Formation NIOBRARA-CODELL Formation Classification: GW Status: AB - 8/12/2021

1st Production Date: 11/27/2009 Choke Size:
 Formation Name: NIOBRARA-CODELL Commingled:
 Production Method:
 Open Hole Completion:

Formation Treatment

Treatment Type:
 Treatment Date: 11/24/2009 Treatment End Date: N/A
 Treatment Summary: CODELL AND NIOBRARA ARE COMMINGLED
 Total fluid used in treatment (bbls): Max pressure during treatment (psi):
 Total gas used in treatment (mcf): Fluid density (lbs/gal):
 Type Of gas: Number Of staged intervals:
 Total acid used in treatment (bbls): Min frac gradient (psi/ft):
 Recycled water used in treatment (bbls): Total flowback volume recovered (bbls):
 Fresh water used in treatment (bbls): Disposition method For flowback:
 Total proppant used (lbs): Green completions techniques utilized: --

Reason green techniques Not utilized:

Tubing Size: Tubing Setting Depth:
Tubing Packer Depth: Tubing Multiple Packer:
Open Hole Top: Open Hole Bottom:

Initial Test Data:

Test Date: 12/11/2009 Test Method: FLOWING
Hours Tested: 24 Gas Type: SHALE
Gas Disposal: SOLD

Test Type	Measure
BBLS_H2O	11
BBLS_OIL	62
BTU_GAS	1299
CALC_BBLS_H2O	11
CALC_BBLS_OIL	62
CALC_GOR	3339
CALC_MCF_GAS	207
CASING_PRESS	890
GRAVITY_OIL	48
MCF_GAS	207

Perforation Data:

Interval Top: 7326 ft. # Of Holes: 92
Interval Bottom: 7486 ft. Hole Size:

Completed Information for Formation NIOBRARA Formation Classification: GW Status: CM - 10/7/2010

1st Production Date: 11/27/2009 Choke Size:
Formation Name: NIOBRARA Commingled: Yes
Production Method:
Open Hole Completion:

Formation Treatment

Treatment Type:
Treatment Date: 11/24/2009 Treatment End Date: N/A
Treatment Summary: FRAC'D NIOBRARA W/175,014 GALS SLICK WATER
AND PHASERFRAC WITH 250,080#’S OF OTTAWA
SAND.

Total fluid used in treatment (bbls): Max pressure during treatment (psi):
Total gas used in treatment (mcf): Fluid density (lbs/gal):
Type Of gas: Number Of staged intervals:
Total acid used in treatment (bbls): Min frac gradient (psi/ft):
Recycled water used in treatment (bbls): Total flowback volume recovered (bbls):
Fresh water used in treatment (bbls): Disposition method For flowback:
Total proppant used (lbs): Green completions techniques utilized: --

Reason green techniques Not utilized:

Tubing Size: Tubing Setting Depth:
Tubing Packer Depth: Tubing Multiple Packer:
Open Hole Top: Open Hole Bottom:

No Initial Test Data was found for formation NBRR.

Initial Test Data:

Test Date: 12/11/2009 Test Method: FLOWING
Hours Tested: 24 Gas Type: SHALE
Gas Disposal: SOLD

Test Type	Measure
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BBLS_H2O	11
BBLS_OIL	62
BTU_GAS	1299
CALC_BBLS_H2O	11
CALC_BBLS_OIL	62
CALC_GOR	3339
CALC_MCF_GAS	207
CASING_PRESS	890
GRAVITY_OIL	48
MCF_GAS	207

Perforation Data:

Interval Top: 7326 ft. # Of Holes: 24
Interval Bottom: 7338 ft. Hole Size: 0.73 in.

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Surface Location API# 05-123-17554		Well Classification: OW	Status: PA - 3/14/2015
Well Name/No:	KUIPERS RED V #12-2 <small>(Click Well Name for Production Data)</small>	Click Here for Transporter Gatherer Info	
Operator:	KERR MCGEE OIL & GAS ONSHORE LP - 47120 <small>(Click Operator Name for Company Detail Report)</small>	Federal Or State Lease #:	
Facility Status:	PA	Status Date	3/14/2015
FacilityID:	249751	LocationID:	329579
County:	WELD #123	Location:	NWNE 12 2N67W 6
Field:	WATTENBERG - #90750	Elevation:	4836 ft.
Planned Location:	666FNL 1795 FEL	Lat/Long: 40.157807 / -104.836222	Lat/Long Source: Calculated From Footages
As Drilled Location:	656 FNL 1790 FEL	Lat/Long: 40.157680 / -104.836110	Lat/Long Source: Field Measured



[Disclosure: Sidetrack #00](#)
Start Date: 1/25/2012
End Date: 1/25/2012
Reported: 2/16/2012
Prior to rule 205A.b.(2)(A)
Days to report: 22

Collapse Se

Wellbore Data for Original Wellbore	Wellbore Classification: OW PA - 3/14/2015 Measured TD: 7518 ft. Vertical TD: 0 ft.
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Wellbore Permit

Permit #:	19931578	Expiration Date:	2/24/1994
Prop Depth/Form:	7550 ft.		
Surface Mineral Owner Same: Not available			
Mineral Owner:	FEE	Surface Owner:	Not available
Unit:		Unit Number:	
Formation And Spacing:	Code: CODL , Formation: CODELL , Order: 0 , Unit Acreage: 80, Drill Unit: W2NE		

Wellbore Completed

Completion Date:	4/20/1994		
Spud Date:	1/26/1994	Spud Date Is:	ACTUAL
Measured TD:	7518 ft.	Measured PB depth:	7443 ft.
True Vertical TD:	0 ft.	True Vertical PB depth:	
Log Types:	COMP DENSITY, DIL, CBL-CCL-GR		
Casing:	String Type: SURF, Hole Size: 12.25 in., Size: 8.625 in., Top: 0 ft., Depth: 512 ft., Weight: 24 , Citings Type: ACTUAL		
Cement:	Sacks: 345, Top: 0 ft., Bottom: 512 ft., Determination Method: VISU		
Casing:	String Type: 1ST, Hole Size: 7.875 in., Size: 2.875 in., Top: 0 ft., Depth: 7511 ft., Weight: 6.5 , Citings Type: ACTUAL		
Cement:	Sacks: 216, Top: 6504 ft., Bottom: 7511 ft., Determination Method: CBL		
Casing:	String Type: S.C. 1.1, Hole Size: 7.875 in., Size: 2.875 in., Top: , Depth: 4880 ft., Weight: 6.5 , Citings Type: ACTUAL		
Cement:	Sacks: 600, Top: 3466 ft., Bottom: 4880 ft., Determination Method: CBL		

Formation	Interval Top	Log Bottom	Cored	DSTs
SUSSEX	4458 ft.			
NIOBRARA	7074 ft.			
CODELL	7343 ft.			

Completed Information for Formation CODELL		Formation Classification: OW	Status: AB - 5/12/2014
1st Production Date:	4/11/1994	Choke Size:	
Formation Name:	CODELL	Commingled:	No

Production Method:

Open Hole Completion:No

Formation Treatment

Treatment Type:

Treatment Date:1/17/2014Treatment End Date:N/A

Treatment Summary:Set CIBP @ 7308' with 25sx cement

Total fluid used in treatment (bbls):Max pressure during treatment (psi):

Total gas used in treatment (mcf):Fluid density (lbs/gal):

Type Of gas:Number Of staged intervals:

Total acid used in treatment (bbls):Min frac gradient (psi/ft):

Recycled water used in treatment (bbls):Total flowback volume recovered (bbls):

Fresh water used in treatment (bbls):Disposition method For flowback:

Total proppant used (lbs):Green completions techniques utilized:--

Reason green techniques Not utilized:

Formation Treatment

Treatment Type:FRACTURE STIMULATION

Treatment Date:1/25/2012Treatment End Date:1/2

Treatment Summary:Tri-Frac'd Codell w/ 140237 gals of Slick Water and Vis 247831#'s of Ottawa sand.

Total fluid used in treatment (bbls):3339Max pressure during treatment (psi):52'

Total gas used in treatment (mcf):0Fluid density (lbs/gal):

Type Of gas:Number Of staged intervals:6

Total acid used in treatment (bbls):Min frac gradient (psi/ft):0.8

Recycled water used in treatment (bbls):Total flowback volume recovered (bbls):

Fresh water used in treatment (bbls):Disposition method For flowback:RE

Total proppant used (lbs):247831Green completions techniques utilized:Yes

Reason green techniques Not utilized:

Formation Treatment

Treatment Type:

Treatment Date:

Treatment Summary:

Total fluid used in treatment (bbls):

Total gas used in treatment (mcf):

Type Of gas:

Total acid used in treatment (bbls):

Recycled water used in treatment (bbls):

Fresh water used in treatment (bbls):

Total proppant used (lbs):

Reason green techniques Not utilized:

Tubing Size:Tubing Setting Depth:

Tubing Packer Depth:Tubing Multiple Packer:

Open Hole Top:Open Hole Bottom:

Initial Test Data:

Test Date:N/ATest Method:

Hours Tested:Gas Type:

Gas Disposal:

Test Type	Measure
BBLS_H2O	4
BBLS_OIL	6
BTU_GAS	1321
CALC_BBLS_H2O	4
CALC_BBLS_OIL	6

CALC_GOR	19667
CALC_MCF_GAS	118
CASING_PRESS	562
GRAVITY_OIL	55
MCF_GAS	118
TUBING_PRESS	519

Perforation Data:

Interval Top:	7349 ft.	# Of Holes:	45
Interval Bottom:	7364 ft.	Hole Size:	0.32 in.

Primary Well Designation:
None *i*

All Designations	Date	
Reported Plugged	Y	03/14/2015
Out Of Service Repurposed	N	
Out Of Service	N	
Inactive Exception	N	
Noticed Inactive	N	
Defined Inactive	N	
Low Producing	N	

BOE/MCFE/GOR Calculations
Production for Previous 12 Months

February 2024 - January 2025		<i>i</i>
Total Oil Produced (Barrels)	0	
Total Gas Produced (MCF)	0	
GOR		
GOR Determination		
Average BOE per Day	0.000	
Average MCFE per Day	0.000	

Federal Financial Assurance	<i>i</i>	
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Tribal Well	<i>i</i>	No
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Surface Location API# 05-123-21168	Well Classification: GW	Status: PA - 1/30/2025
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Well Name/No:	KUIPERS V #12-2 JI		Click Here for Transporter Gatherer Info
	(Click Well Name for Production Data)		
Operator:	KERR MCGEE OIL & GAS ONSHORE LP - 47120		Federal Or State Lease #:
	(Click Operator Name for Company Detail Report)		
Facility Status:	PA	Status Date	1/30/2025
FacilityID:	265069	LocationID:	331711
County:	WELD #123	Location:	NWNE 12 2N67W 6
Field:	WATTENBERG - #90750	Elevation:	4840 ft.
Planned Location:	372FNL 2310 FEL	Lat/Long: 40.158597 / -104.838062	Lat/Long Source: Calculated From Footages
As Drilled Location:	Footages Not Available	Lat/Long: 40.158217 / -104.837401	Lat/Long Source: Field Measured

Sample Site Data

Collapse Section

Wellbore Data for Original Wellbore	Wellbore Classification: GW	AB - 1/30/2025	Measured TD: 8021 ft.
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Wellbore Permit

Permit #:	20021590	Expiration Date:	10/27/2003
Prop Depth/Form:	8100 ft.		
Surface Mineral Owner Same:	Yes		
Mineral Owner:	FEE	Surface Owner:	FEE
Unit:		Unit Number:	
Formation And Spacing:	Code: JSND , Formation: J SAND , Order: 318A , Unit Acreage: 320, Drill Unit: N/2		

Wellbore Completed

Completion Date:	4/8/2003		
Spud Date:	1/11/2003	Spud Date Is:	ACTUAL
Measured TD:	8021 ft.	Measured PB depth:	8003 ft.
True Vertical TD:		True Vertical PB depth:	
Log Types:	INDUCTION, GR, CEMENT BOND		
Casing:	String Type: SURF, Hole Size: 12.25 in., Size: 8.625 in., Top: 0 ft., Depth: 621 ft., Weight: 24 , Citings Type: ACTUAL		
Cement:	Sacks: 260, Top: 0 ft., Bottom: 621 ft., Determination Method: VISU		
Casing:	String Type: 1ST, Hole Size: 7.875 in., Size: 4.5 in., Top: 0 ft., Depth: 8020 ft., Weight: 11.6 , Citings Type: ACTUAL		
Cement:	Sacks: 240, Top: 6696 ft., Bottom: 8020 ft., Determination Method: CBL		
Casing:	String Type: S.C. 1.1, Hole Size: , Size: , Top: , Depth: 4830 ft., Weight: , Citings Type: ACTUAL		
Cement:	Sacks: 105, Top: 3686 ft., Bottom: 4840 ft., Determination Method: CBL		

Formation	Interval Top	Log Bottom	Cored	DSTs
SUSSEX	4480 ft.		N	N
NIOBRARA	7090 ft.		N	N
FORT HAYS	7340 ft.		N	N
CODELL	7363 ft.		N	N
J SAND	7798 ft.		N	N

Completed Information for Formation J SAND	Formation Classification: GW	Status: AB - 1/30/2025
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1st Production Date:	N/A	Choke Size:	0.469 in.
Formation Name:	J SAND	Commingled:	No

Primary Well Designation: None i

All Designations		Date
Reported Plugged	Y	01/30/2025
Out Of Service Repurposed	N	
Out Of Service	Y	Plugging Due Date 12/31/2030
Inactive Exception	N	
Noticed Inactive	N	
Defined Inactive	N	
Low Producing	N	

BOE/MCFE/GOR Calculations
Production for Previous 12 Months

February 2024 - January 2025	i
Total Oil Produced (Barrels)	0
Total Gas Produced (MCF)	0
GOR	
GOR Determination	MCFE
Average BOE per Day	0.000
Average MCFE per Day	0.000

Federal Financial Assurance	i	
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Tribal Well	i	No
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Production Method: FLOWING

Open Hole Completion: No

Formation Treatment

Treatment Type:

Treatment Date: 4/8/2003 Treatment End Date: N/A

Treatment Summary: 141,372 GAL SILVER STIM GEL & 447,060# 20/40 SAND, 4/04/03

Total fluid used in treatment (bbls): Max pressure during treatment (psi):

Total gas used in treatment (mcf): Fluid density (lbs/gal):

Type Of gas: Number Of staged intervals:

Total acid used in treatment (bbls): Min frac gradient (psi/ft):

Recycled water used in treatment (bbls): Total flowback volume recovered (bbls):

Fresh water used in treatment (bbls): Disposition method For flowback:

Total proppant used (lbs): Green completions techniques utilized: --

Reason green techniques Not utilized:

Tubing Size: 2.375 in. Tubing Setting Depth: 7779 ft.

Tubing Packer Depth: Tubing Multiple Packer:

Open Hole Top: Open Hole Bottom:

Initial Test Data:

Test Date: 4/22/2003 Test Method: FLOWING

Hours Tested: 24 Gas Type: WET

Gas Disposal: SOLD

Test Type	Measure
BBLS_H2O	22
BBLS_OIL	9
BTU_GAS	1256
CALC_BBLS_H2O	22
CALC_BBLS_OIL	9
CALC_GOR	66666
CALC_MCF_GAS	600
CASING_PRESS	775
GRAVITY_OIL	50
MCF_GAS	600
TUBING_PRESS	575

Perforation Data:

Interval Top: 7798 ft. # Of Holes: 102

Interval Bottom: 7856 ft. Hole Size: