



February 8, 2017

Mike Dinkel, REM, CSEM  
Kerr-McGee Oil & Gas Onshore LP  
1099 18th Street, Suite 1800  
Denver, Colorado 80202

**RE: Colorado Oil & Gas Conservation Commission (COGCC)  
Form 4 (Interim Reclamation Completion Notice)  
BRYANT 20-30 (417708)  
Kerr-McGee Oil & Gas Onshore LP (Operator: 47120)**

Dear Mr. Dinkel:

Apex Companies, LLC (Apex) is pleased to present this letter to Kerr-McGee Oil & Gas Onshore LP (Kerr-McGee) documenting the results of a vegetation assessment that demonstrates successful completion of interim reclamation efforts per COGCC Rule 1003 on the above referenced location in Weld County, Colorado. Attached is a topographic location map, which identifies the referenced location.

Based on communications with Kerr-McGee personnel and subsequent site visits, Apex inspectors confirmed that the unused portions of the reduced production footprint have been stabilized and seeded with Dryland Pasture/ Sandy Soil Mix. This seed mixture was applied at 20 pounds pure live seed (pls) per acre, and is composed of Tetraploid Perennial Ryegrass (9.84%), Smooth Brome, Lincoln (9.33%), Sandberg Bluegrass (7.5%), Intermediate Wheatgrass (7.5%), Sand Dropseed (7.5%), Indian Ricegrass (7.5%), Green Needlegrass (7.5%), Sideoats Grama (7.5%), Intermediate Wheatgrass, Oahe (7.38%), Dahurian Wildrye (7.22%), Orchardgrass, Paiute (7.145%), Pubescent Wheatgrass Luna (6.675%), Switchgrass (5.00%), and Inert-Other (2.41%).

On July 5, 2016, modified step-point vegetation surveys were conducted on the reclaimed portion of the well pad, and on adjacent reference areas. Foliar and basal cover, along with non-vegetated, and noxious weed occurrences were documented; 100 survey points were recorded within the reclaimed disturbance and 100 survey points were recorded within the reference area. Noxious weeds listed by the Colorado Department of Agriculture were excluded from the vegetative coverage calculation.

Survey results indicate the reclaimed area has a foliar vegetative cover that is 103.79% of the reference area. Vegetation survey results are provided in the attached survey summary tables and data sheets. Based on the results of the survey, interim reclamation as defined by COGCC Rule 1003.e (2) has been achieved. Photographs required by COGCC Rule 1003.e (3) are also attached along with a diagram illustrating vegetation survey efforts.

Apex appreciates the opportunity to provide environmental consulting services to Kerr-McGee with this project. Should you have any questions or require additional information, please don't hesitate to contact me.

Sincerely,  
**Apex Companies, LLC**

A handwritten signature in black ink, appearing to read 'Chris Hines', written over a horizontal line.

Chris Hines  
Project Manager  
970-261-1127  
[chris.hines@apexcos.com](mailto:chris.hines@apexcos.com)

Attachments:

1. Vegetation Survey (Summary of Field Data)
2. Vegetation Survey Site Map
3. Topographic Location Map
4. Vegetation Survey (Photos)
5. Vegetation Survey (Field Data Tables)



## Vegetation Survey (Summary of Field Data)

<b>Client</b>	Kerr-McGee Oil & Gas Onshore LP
<b>COGCC Location Name (ID)</b>	BRYANT 20-30 (417708)
<b>Assessment Date</b>	7/5/2016
<b>Inspector Name - Title</b>	Jennie Schoedel - Environmental Scientist
<b>Data Processor Name - Title</b>	Jennie Schoedel - Environmental Scientist

Based on the survey methodology, the Foliar Cover % in each survey area is calculated by summing the total number of foliar occurrences, minus noxious weeds, and dividing by the total occurrences in the transect. For this location:

<b>Reclaim Area (Foliar Cover)</b>	<b>Reference Area (Foliar Cover)</b>
$(10 + 22 + 0) / 146 =$ <b>21.92%</b>	$(17 + 17 + 0) / 161 =$ <b>21.12%</b>

The Percent of Reference (%) used to evaluate each reclaim area for compliance with COGCC Rule 1003.e(2) for determining interim reclamation success, is calculated by dividing the Foliar Cover % in the Reclaim Area by the Foliar Cover % in the Reference Area. For this location:

<b>Percent of Reference (Reclaim % / Reference %)</b>
$21.92\% / 21.12\% =$ <b>103.79%</b>

### Reclaim Area Vegetation

Foliar Cover	21.92%
Basal Cover	3.42%
Non Vegetated	62.33%
Noxious Weeds	12.33%
<b>QA Total</b> (must equal 100)	<b>100.00%</b>
Grass (Foliar)	10
Forb (Foliar)	22
Shrubs (Foliar)	0
Noxious Weed (Foliar)	17
Grass (Basal)	2
Forb (Basal)	3
Shrubs (Basal)	0
Noxious Weed (Basal)	1
Bare Ground	22
Litter	64
Rock	5
<b>Total Occurrences</b>	<b>146</b>

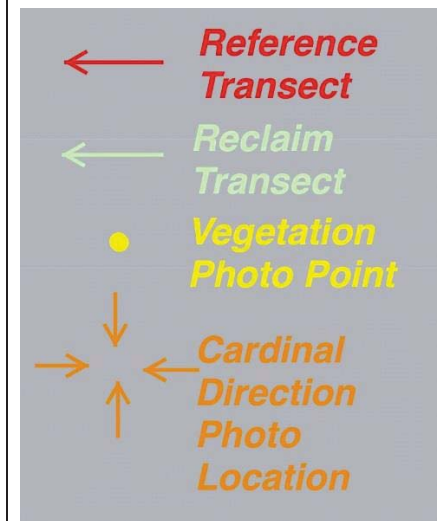
### Reference Area Vegetation

Foliar Cover	21.12%
Basal Cover	1.24%
Non Vegetated	57.76%
Noxious Weeds	19.88%
<b>QA Total</b> (must equal 100)	<b>100.00%</b>
Grass (Foliar)	17
Forb (Foliar)	17
Shrubs (Foliar)	0
Noxious Weed (Foliar)	27
Grass (Basal)	1
Forb (Basal)	1
Shrubs (Basal)	0
Noxious Weed (Basal)	5
Bare Ground	9
Litter	78
Rock	6
<b>Total Occurrences</b>	<b>161</b>

## Vegetation Survey Site Map

BRYANT 20-30

(417708)



### Legal Description:

County: Weld

Land Use: Rangeland

Reference Area Cover: 21.12%

Reclamation Cover: 21.92%

Cover Ratio

(Reclaim/Reference): 103.79%

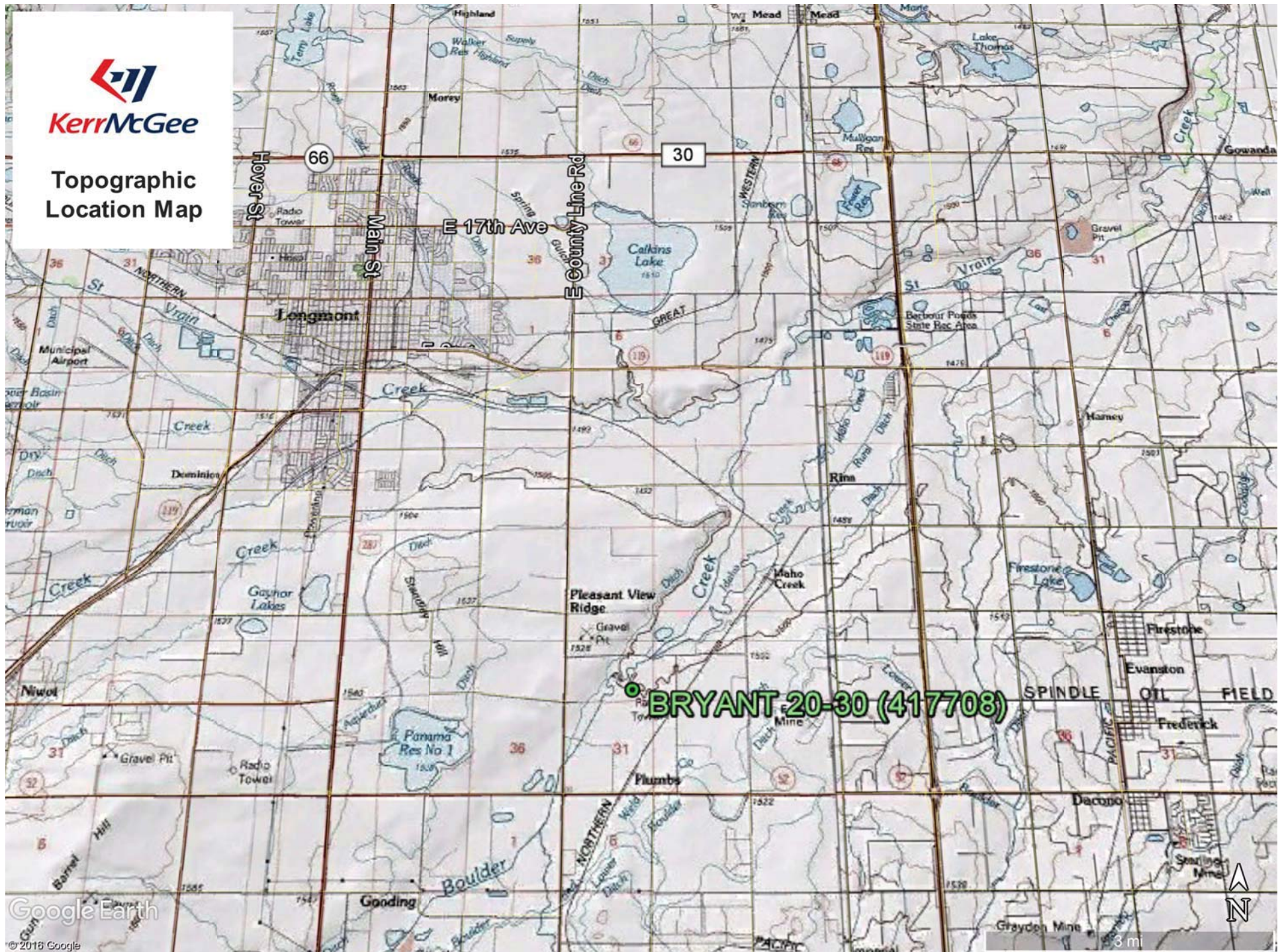
Inspector: J. Schoedel

Assessment Date: 07/05/2016





## Topographic Location Map





Edge of Disturbance - Facing South  
40.103233°/-105.042245°





**Kerr-McGee Oil & Gas Onshore LP**  
**Form 4 (Interim Reclamation Completion Notice)**  
**BRYANT 20-30 (417708)**

Vegetation Assessment  
Completed (07/05/2016)



South of Disturbance - Facing North  
40.102862°/-105.041563°



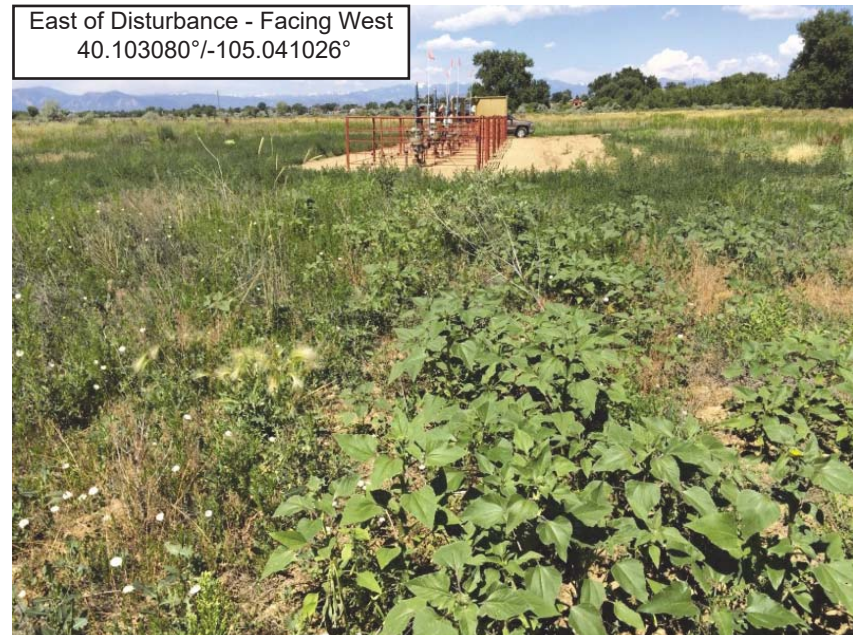
North of Disturbance - Facing South  
40.103307°/-105.041465°



West of Disturbance - Facing East  
40.103067°/-105.042029°



East of Disturbance - Facing West  
40.103080°/-105.041026°





Reclaim Area Vegetation Photo Point  
40.103122°/-105.041938°





Reclaim Transect 1 - Facing East  
40.103335°/-105.041878°



Reclaim Transect 2 - Facing East  
40.102978°/-105.041921°





Reference Area Vegetation Photo Point  
40.103966°/-105.041456°





Reference Transect 1 - Facing East  
40.103957°/-105.042631°



Reference Transect 1 - Facing West  
40.104203°/-105.040782°





**VEGETATION MONITORING FORM: Kerr-McGee Oil & Gas Onshore LP**

COGCC Location Name (ID): BRYANT 20-30 (417708)

CO #: COP0187

Date of Assessment: 07/05/2016

Transect ID: Reclaim Transect 1

Length of Transect (ft.): 400

Transect Type:



Reclamation



Reference

Inspector(s) (Name and Title): Jennie Schoedel - Environmental Scientist

Weather at Time of Inspection: Clear, 80s

Method: Step Point

Point	Foliar		Basal		Non-Vegetative
	Type	Species	Type	Species	
1	-		-		Litter
2	Noxious Weed	Bromus tectorum	-		Litter
3	Forb	Other spp. 1	-		Litter
4	-		-		Bare Ground
5	Forb	Lactuca serriola	-		Litter
6	Noxious Weed	Convolvulus arvensis	-		Bare Ground
7	Forb	Other spp. 1	-		Litter
8	Grass	Other spp. 1	B-Grass	Other spp. 1	-
9	-		-		Bare Ground
10	Forb	Lactuca serriola	-		Bare Ground
11	-		-		Litter
12	Noxious Weed	Convolvulus arvensis	-		Bare Ground
13	-		-		Litter
14	Noxious Weed	Convolvulus arvensis	-		Litter
15	-		-		Litter
16	Noxious Weed	Convolvulus arvensis	-		Litter
17	-		-		Rock
18	Grass	Bromus inermis	-		Litter
19	-		-		Litter
20	Noxious Weed	Convolvulus arvensis	-		Litter
21	Noxious Weed	Convolvulus arvensis	-		Litter
22	-		-		Litter
23	-		-		Rock
24	Noxious Weed	Centaurea diffusa	-		Litter
25	-		-		Bare Ground
26	-		-		Litter
27	-		-		Bare Ground
28	-		-		Bare Ground
29	Forb	Lactuca serriola	B-Noxious Weed	Convolvulus arvensis	-



Point	Foliar		Basal		Non-Vegetative
	Type	Species	Type	Species	
30	Grass	Other spp. 1	-		Litter
31	-		-		Bare Ground
32	-		-		Litter
33	Grass	Other spp. 1	-		Litter
34	-		-		Bare Ground
35	Grass	Thinopyrum intermedia	-		Bare Ground
36	-		-		Rock
37	Grass	Other spp. 1	-		Bare Ground
38	-		-		Bare Ground
39	Forb	Other spp. 1	B-Forb	Other spp. 1	-
40	-		-		Litter
41	-		-		Litter
42	Forb	Other spp. 1	B-Forb	Other spp. 1	-
43	-		-		Bare Ground
44	-		-		Bare Ground
45	Forb	Other spp. 2	-		Rock
46	-		-		Litter
47	-		-		Litter
48	-		-		Rock
49	-		-		Litter
50	Forb	Other spp. 1	-		Litter

#### Photo Requirements

Representative photo looking down the length of each transect; including reference area.	<input checked="" type="checkbox"/>	YES	<input type="checkbox"/> NO
Photo facing each cardinal direction (N, E, S, W) from edge of disturbance looking to well heads.	<input checked="" type="checkbox"/>	YES	<input type="checkbox"/> NO
Representative photo down edge of disturbance.	<input checked="" type="checkbox"/>	YES	<input type="checkbox"/> NO
Photo that documents the total cover of live perennial vegetation for the reference area.	<input checked="" type="checkbox"/>	YES	<input type="checkbox"/> NO
Photo that documents the total cover of live perennial vegetation of the disturbed area.	<input checked="" type="checkbox"/>	YES	<input type="checkbox"/> NO

#### General Notes:

Grass other species 1 foxtail barley  
 List any newly Forb other species 1 maretail  
 identified species Forb other species 2 lambs quarter  
 not present in drop-  
 down lists.

#### INSPECTION CERTIFICATION

I certify that this document and all attachments were prepared by me or under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. The information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of termination.

Inspector (Name)

Jennie Schoedel -Environmental Scientist



Date: 07/05/2016



**VEGETATION MONITORING FORM: Kerr-McGee Oil & Gas Onshore LP**

COGCC Location Name (ID): BRYANT 20-30 (417708)

CO #: COP0187

Date of Assessment: 07/05/2016

Transect ID: Reclaim Transect 2

Length of Transect (ft.): 400

Transect Type:



Reclamation



Reference

Inspector(s) (Name and Title): Jennie Schoedel - Environmental Scientist

Weather at Time of Inspection: Clear, 80s

Method: Step Point

Point	Foliar		Basal		Non-Vegetative
	Type	Species	Type	Species	
1	-		-		Litter
2	-		-		Rock
3	Forb	Other spp. 1	-		Litter
4	-		-		Litter
5	-		-		Litter
6	Forb	Lactuca serriola	-		Bare Ground
7	-		-		Litter
8	Forb	Lactuca serriola	-		Litter
9	-		-		Litter
10	Noxious Weed	Convolvulus arvensis	-		Litter
11	Forb	Other spp. 2	-		Litter
12	Forb	Other spp. 1	-		Bare Ground
13	Grass	Pascopyrum smithii (Agropyron)	-		Litter
14	-		-		Litter
15	-		-		Litter
16	Noxious Weed	Centaurea diffusa	-		Litter
17	-		-		Litter
18	-		-		Litter
19	Forb	Other spp. 1	-		Rock
20	Grass	Pascopyrum smithii (Agropyron)	-		Litter
21	-		-		Litter
22	Grass	Pascopyrum smithii (Agropyron)	-		Litter
23	-		-		Litter
24	Noxious Weed	Cardaria draba	-		Litter
25	Noxious Weed	Cardaria draba	-		Litter
26	Grass	Pascopyrum smithii (Agropyron)	B-Grass	Pascopyrum smithii (Agropyron)	-
27	-		-		Bare Ground
28	Forb	Lactuca serriola	-		Litter
29	Noxious Weed	Centaurea diffusa	-		Bare Ground



Point	Foliar		Basal		Non-Vegetative
	Type	Species	Type	Species	
30	Noxious Weed	Convolvulus arvensis	-		Litter
31	-		-		Litter
32	-		-		Litter
33	Forb	Other spp. 2	B-Forb	Other spp. 2	-
34	-		-		Litter
35	Forb	Other spp. 2	-		Litter
36	-		-		Litter
37	Forb	Lactuca serriola	-		Litter
38	-		-		Litter
39	-		-		Litter
40	Noxious Weed	Convolvulus arvensis	-		Bare Ground
41	Forb	Lactuca serriola	-		Litter
42	-		-		Litter
43	Noxious Weed	Cardaria draba	-		Litter
44	-		-		Litter
45	-		-		Bare Ground
46	Noxious Weed	Convolvulus arvensis	-		Litter
47	-		-		Rock
48	Forb	Other spp. 1	-		Litter
49	Forb	Lactuca serriola	-		Litter
50	-		-		Bare Ground

#### Photo Requirements

Representative photo looking down the length of each transect; including reference area.	<input checked="" type="checkbox"/>	YES	<input type="checkbox"/> NO
Photo facing each cardinal direction (N, E, S, W) from edge of disturbance looking to well heads.	<input checked="" type="checkbox"/>	YES	<input type="checkbox"/> NO
Representative photo down edge of disturbance.	<input checked="" type="checkbox"/>	YES	<input type="checkbox"/> NO
Photo that documents the total cover of live perennial vegetation for the reference area.	<input checked="" type="checkbox"/>	YES	<input type="checkbox"/> NO
Photo that documents the total cover of live perennial vegetation of the disturbed area.	<input checked="" type="checkbox"/>	YES	<input type="checkbox"/> NO

#### General Notes:

Grass other species 1 foxtail barley  
 List any newly identified species Forb other species 1 marestail,  
 not present in drop-down lists. Forb other species 2 lambs quarter

#### INSPECTION CERTIFICATION

I certify that this document and all attachments were prepared by me or under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. The information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of termination.

Inspector (Name)

Jennie Schoedel - Environmental Scientist



Date: 07/05/2016



**VEGETATION MONITORING FORM: Kerr-McGee Oil & Gas Onshore LP**

COGCC Location Name (ID): BRYANT 20-30 (417708)

CO #: COP0187

Date of Assessment: 07/05/2016

Transect ID: Reference Transect 1

Length of Transect (ft.): 500

Transect Type:

☐ Reclamation

☒ Reference

Inspector(s) (Name and Title): Jennie Schoedel - Environmental Scientist

Weather at Time of Inspection: Clear, 80s

Method: Step Point

Point	Foliar		Basal		Non-Vegetative
	Type	Species	Type	Species	
1	-		-		Litter
2	Noxious Weed	Convolvulus arvensis	-		Litter
3	-		-		Litter
4	Noxious Weed	Bromus tectorum	-		Litter
5	-		-		Litter
6	-		-		Litter
7	Grass	Bromus inermis	-		Litter
8	Noxious Weed	Bromus tectorum	-		Litter
9	Noxious Weed	Bromus tectorum	-		Litter
10	Noxious Weed	Centaurea diffusa	-		Litter
11	Noxious Weed	Bromus tectorum	-		Litter
12	Noxious Weed	Bromus tectorum	-		Litter
13	-		-		Litter
14	Grass	Bromus inermis	-		Litter
15	-		-		Bare Ground
16	-		-		Rock
17	-		-		Rock
18	Noxious Weed	Bromus tectorum	-		Litter
19	Forb	Other spp. 1	B-Forb	Other spp. 1	-
20	-		-		Litter
21	Grass	Bromus inermis	-		Litter
22	Noxious Weed	Centaurea diffusa	-		Litter
23	-		-		Litter
24	Forb	Other spp. 1	B-Noxious Weed	Bromus tectorum	-
25	Forb	Other spp. 1	-		Litter
26	Grass	Bromus inermis	-		Litter
27	-		-		Litter
28	Grass	Bromus inermis	-		Litter
29	Noxious Weed	Cardaria draba	-		Litter



Point	Foliar		Basal		Non-Vegetative
	Type	Species	Type	Species	
30	Forb	Other spp. 2	-		Litter
31	Grass	Elymus lanceolatus	-		Litter
32	Grass	Other spp. 1	B-Grass	Other spp. 1	-
33	Forb	Other spp. 1	-		Litter
34	Grass	Elymus lanceolatus	-		Litter
35	-		-		Litter
36	Grass	Elymus lanceolatus	-		Litter
37	Forb	Other spp. 2	-		Bare Ground
38	-		-		Bare Ground
39	-		-		Litter
40	-		-		Litter
41	-		-		Rock
42	Forb	Other spp. 2	-		Rock
43	Forb	Other spp. 2	-		Litter
44	-		-		Litter
45	-		-		Litter
46	Forb	Other spp. 1	-		Bare Ground
47	Noxious Weed	Centaurea diffusa	-		Litter
48	-		-		Litter
49	Forb	Other spp. 1	-		Litter
50	-		-		Litter

#### Photo Requirements

Representative photo looking down the length of each transect; including reference area.	<input checked="" type="checkbox"/>	YES	<input type="checkbox"/> NO
Photo facing each cardinal direction (N, E, S, W) from edge of disturbance looking to well heads.	<input checked="" type="checkbox"/>	YES	<input type="checkbox"/> NO
Representative photo down edge of disturbance.	<input checked="" type="checkbox"/>	YES	<input type="checkbox"/> NO
Photo that documents the total cover of live perennial vegetation for the reference area.	<input checked="" type="checkbox"/>	YES	<input type="checkbox"/> NO
Photo that documents the total cover of live perennial vegetation of the disturbed area.	<input checked="" type="checkbox"/>	YES	<input type="checkbox"/> NO

#### General Notes:

Forb other species 1 yellow sweet clover  
 List any newly Forb other species 2 mareetail  
 identified species Grass other species 1 Reed grass  
 not present in drop-  
 down lists.

#### INSPECTION CERTIFICATION

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Inspector (Name)

Jennie Schoedel -Environmental Scientist



Date: 07/05/2016



Point	Foliar		Basal		Non-Vegetative
	Type	Species	Type	Species	
30	Noxious Weed	Convolvulus arvensis	-		Litter
31	-		-		Bare Ground
32	Noxious Weed	Convolvulus arvensis	B-Noxious Weed	Bromus tectorum	-
33	Forb	Other spp. 1	-		Litter
34	Forb	Other spp. 2	-		Litter
35	-		-		Bare Ground
36	Grass	Bromus inermis	-		Litter
37	Forb	Other spp. 2	-		Litter
38	-		-		Litter
39	Forb	Other spp. 2	-		Bare Ground
40	Noxious Weed	Convolvulus arvensis	B-Noxious Weed	Bromus tectorum	-
41	-		-		Litter
42	Grass	Bromus inermis	-		Litter
43	-		-		Rock
44	-		-		Litter
45	Noxious Weed	Bromus tectorum	-		Litter
46	-		-		Litter
47	Noxious Weed	Bromus tectorum	-		Litter
48	Noxious Weed	Convolvulus arvensis	-		Bare Ground
49	Grass	Bromus inermis	-		Litter
50	-		-		Litter

#### Photo Requirements

Representative photo looking down the length of each transect; including reference area.	<input checked="" type="checkbox"/>	YES	<input type="checkbox"/> NO
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Photo that documents the total cover of live perennial vegetation of the disturbed area.	<input checked="" type="checkbox"/>	YES	<input type="checkbox"/> NO

**General Notes:** Grass other species 1 reed grass  
 List any newly Forb other species 1 maretail  
 identified species Forb other species 2 yellow sweet clover  
 not present in drop-  
 down lists.

#### INSPECTION CERTIFICATION

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Inspector (Name)

Jennie Schoedel - Environmental Scientist



Date: 07/05/2016



**VEGETATION MONITORING FORM: Kerr-McGee Oil & Gas Onshore LP**

COGCC Location Name (ID): BRYANT 20-30 (417708)

CO #: COP0187

Date of Assessment: 07/05/2016

Transect ID: Reference Transect 2

Length of Transect (ft.): 400

Transect Type:

☐ Reclamation

☒ Reference

Inspector(s) (Name and Title): Jennie Schoedel - Environmental Scientist

Weather at Time of Inspection: Clear, 80s

Method: Step Point

Point	Foliar		Basal		Non-Vegetative
	Type	Species	Type	Species	
1	-		-		Litter
2	Forb	Lactuca serriola	-		Litter
3	Forb	Lactuca serriola	-		Litter
4	-		-		Rock
5	Grass	Bromus inermis	-		Litter
6	Noxious Weed	Bromus tectorum	-		Litter
7	Noxious Weed	Bromus tectorum	-		Litter
8	Noxious Weed	Convolvulus arvensis	B-Noxious Weed	Bromus tectorum	-
9	Grass	Bromus inermis	B-Noxious Weed	Bromus tectorum	-
10	Noxious Weed	Convolvulus arvensis	-		Litter
11	Grass	Other spp. 1	-		Litter
12	Noxious Weed	Bromus tectorum	-		Litter
13	Grass	Other spp. 1	-		Litter
14	Noxious Weed	Convolvulus arvensis	-		Litter
15	-		-		Litter
16	Noxious Weed	Bromus tectorum	-		Litter
17	Noxious Weed	Convolvulus arvensis	-		Litter
18	Forb	Other spp. 1	-		Litter
19	-		-		Litter
20	-		-		Litter
21	Noxious Weed	Bromus tectorum	-		Litter
22	-		-		Litter
23	Grass	Bromus inermis	-		Litter
24	-		-		Litter
25	-		-		Litter
26	-		-		Litter
27	Noxious Weed	Convolvulus arvensis	-		Litter
28	-		-		Bare Ground
29	-		-		Litter