

"om 8-10"

State of Colorado  
Oil and Gas Conservation Commission

1120 Lincoln Street, Suite 801, Denver, Colorado 80203 (303)894-2100 Fax:(303)894-2109

FOR OGCC USE ONLY

## EARTHEN PIT REPORT/PERMIT

This form is to be used for both reporting and permitting pits. Rule 903 describes when a Permit with prior approval, or a Report within 30 days, is required for pits. Submit required attachments and forms.

Complete the  
Attachment Checklist

Oper OGCC

Detailed Site Plan	✓	
Topo Map w/ Pit Location	✓	
Water Analysis (Form 25)		
Source Wells (Form 26)	✓	
Pit Design/Plan & Cross Sect	✓	
Design Calculations		
Sensitive Area Determ.		
Mud Program		
Form 2A		

## FORM SUBMITTED FOR:

☐ Pit Report☒ Pit Permit (Multi Well Pit)

OGCC Operator Number: 10091

Name of Operator: Berry Petroleum Company

Address: 1999 Broadway, Suite 3700

City: Denver State: CO Zip: 80202

Contact Name and Telephone:

Chris Freeman

No: 303-999-4400

Fax: 303-999-4401

API Number (of associated well): See attached sheet

OGCC Facility ID (of other associated facility): 335677

Pit Location (QtrQtr, Sec, Twp, Rng, Meridian): NWNE 1/4 Section 10, T 6 South, R 96 West

Latitude: 39.542272 Longitude: -108.091089 County: Garfield

Pit Use: ☒ Production ☐ Drilling (Attach mud program) ☐ Special Purpose (Describe Use):Pit Type: ☒ Lined ☐ Unlined Surface Discharge Permit: ☐ Yes ☒ NoOffsite disposal of pit contents: ☐ Injection ☒ Commercial Pit/Facility Name: Danish Flats Pit/Facility No: Utah

Attach Form 26 to identify Source Wells and Form 25 to provide Produced Water Analysis results.

## Existing Site Conditions

Is the location in a "Sensitive Area?" ☐ Yes ☒ No Attach data used for determination.

Distance (in feet) to nearest surface water: 2,200' ground water: approx. 800' water wells: 8,700'

LAND USE (or attach copy of Form 2A if previously submitted for associated well) Select one which best describes land use:

Crop Land: ☐ Irrigated ☐ Dry Land ☐ Improved Pasture ☐ Hay Meadow ☐ CRPNon-Crop Land: ☒ Rangeland ☐ Timber ☐ Recreational ☒ Other (describe): Natural Gas Well PadSubdivided: ☐ Industrial ☐ Commercial ☐ Residential

SOILS (or attach copy of Form 2A if previously submitted for associated well)

Soil map units from USNRCS survey: Sheet No: CO683 Soil Complex/Series No: \_\_\_\_\_

Soils Series Name: Parachute-Rhone Loams 5-30% slopes Horizon thickness (in inches): A: ; B: ; C:

Soils Series Name: \_\_\_\_\_ Horizon thickness (in inches): A: ; B: ; C:

Attach detailed site plan and topo map with pit location.

## Pit Design and Construction

Size of pit (feet): Length: 200' Width: 70' Depth: 15' + 2' freeboard

Calculated pit volume (bbls): 18,610 Daily inflow rate (bbls/day): variable

Daily disposal rates (attach calculations): Evaporation: \_\_\_\_\_ bbls/day Percolation: \_\_\_\_\_ bbls/day

Type of liner material: Polyethylene Plastic Thickness: 24-mil, double lined

Attach description of proposed design and construction (include sketches and calculations).

Method of treatment of produced water prior to discharge into pit (separator, heater treater, other): Separators/Production units, located at production pads.

Is pit fenced? ☒ Yes ☐ No Is pit netted? ☒ Yes ☐ No

I hereby certify that the statements made in this form are, to the best of my knowledge, true, correct, and complete.

Print Name: Chris Freeman

Signed:

Title: Environmental Manager

Date: 2/10/2010

OGCC Approved: \_\_\_\_\_ Title: \_\_\_\_\_ Date: \_\_\_\_\_

CONDITIONS OF APPROVAL, IF ANY:

FACILITY NUMBER:

## COGIS - LOCATION Information



### GRANLEE OM-66S96W - #335677 Information

**Status: AC**Location ID: **335677**Location Name/No: **GRANLEE OM-66S96W /10NWNE**Location Status: **AC**Status Date: **4/14/2009**Operator Name: **BERRY PETROLEUM COMPANY** Operator Number: **10091**County: **GARFIELD - #045**Location: **NWNE 10 6S 96W**Lat/Long: **39.542272/-108.091089**Facility Type: **LOCATION**

### Facility Well(s)

API Number: **05-045-12848**Operator Name: **BERRY PETROLEUM COMPANY**Well Status: **XX**API Number: **05-045-12849**Operator Name: **BERRY PETROLEUM COMPANY**Well Status: **XX**API Number: **05-045-12850**Operator Name: **BERRY PETROLEUM COMPANY**Well Status: **XX**API Number: **05-045-12852**Operator Name: **BERRY PETROLEUM COMPANY**Well Status: **WO**API Number: **05-045-12853**Operator Name: **BERRY PETROLEUM COMPANY**Well Status: **WO**API Number: **05-045-12854**Operator Name: **BERRY PETROLEUM COMPANY**Well Status: **PR**

# BERRY PETROLEUM COMPANY

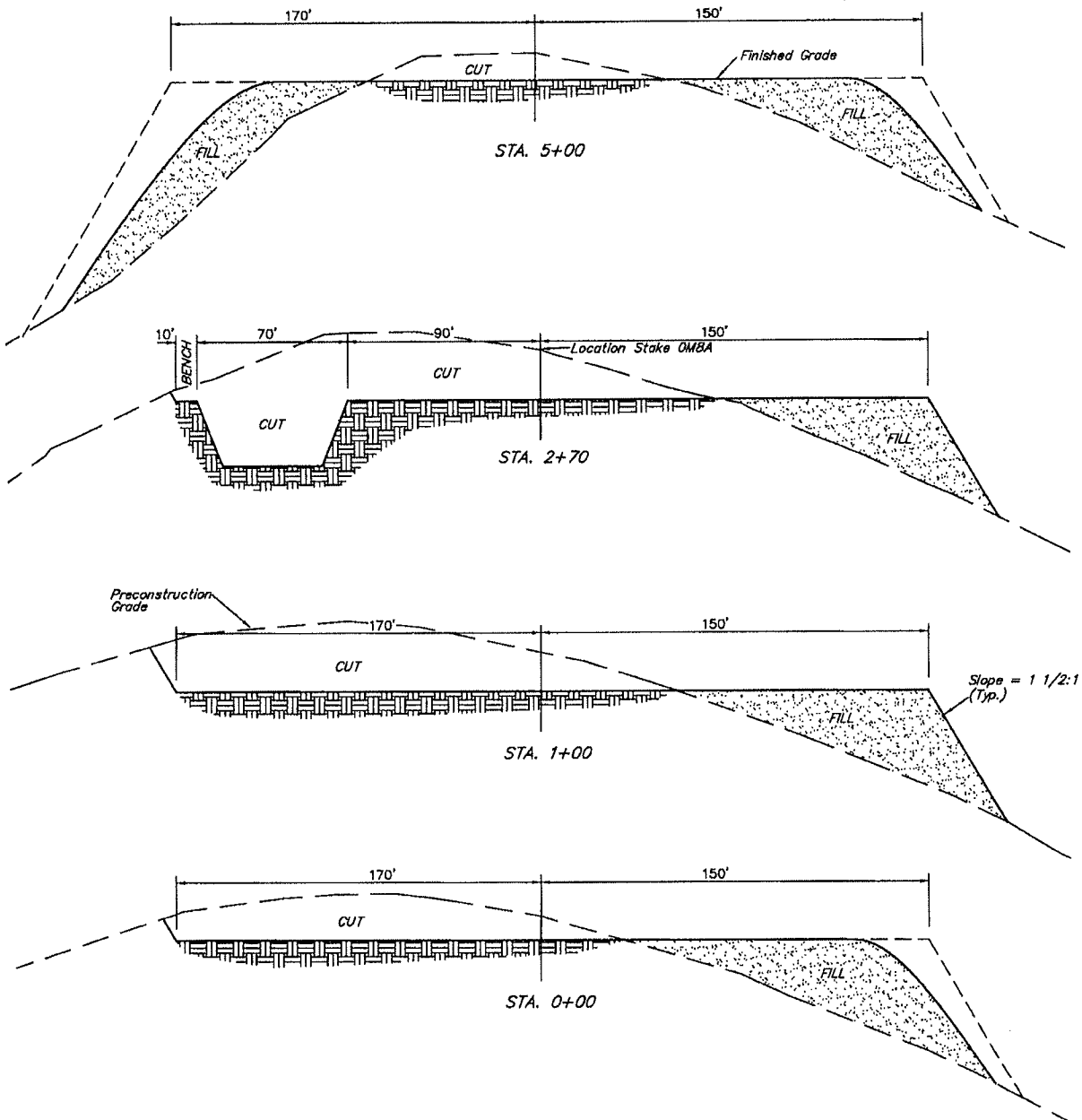
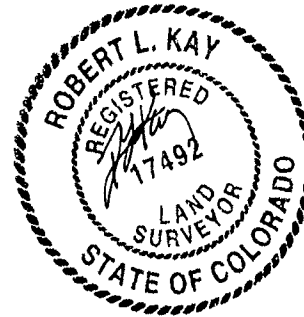
## TYPICAL CROSS SECTIONS FOR

WELL PAD B10 696  
SECTION 10, T6S, R96W, 6th P.M.  
NW 1/4 NE 1/4

FIGURE #2

1" = 20'  
X-Section  
Scale  
1" = 50'

DATE: 08-10-08  
Drawn By: D.R.B.  
Revised: 04-30-07 D.R.B.



### APPROXIMATE YARDAGES

CUT  
(6") Topsoil Stripping = 4,110 Cu. Yds.  
Remaining Location = 35,670 Cu. Yds.  
  
TOTAL CUT = 39,780 CU.YDS.  
FILL = 32,350 CU.YDS.

\* NOTE:  
FILL QUANTITY INCLUDES  
5% FOR COMPACTION

EXCESS MATERIAL = 7,430 Cu. Yds.  
Topsoil & Pit Backfill = 7,430 Cu. Yds.  
(1/2 Pit Vol.)  
EXCESS UNBALANCE = 0 Cu. Yds.  
(After Rehabilitation)

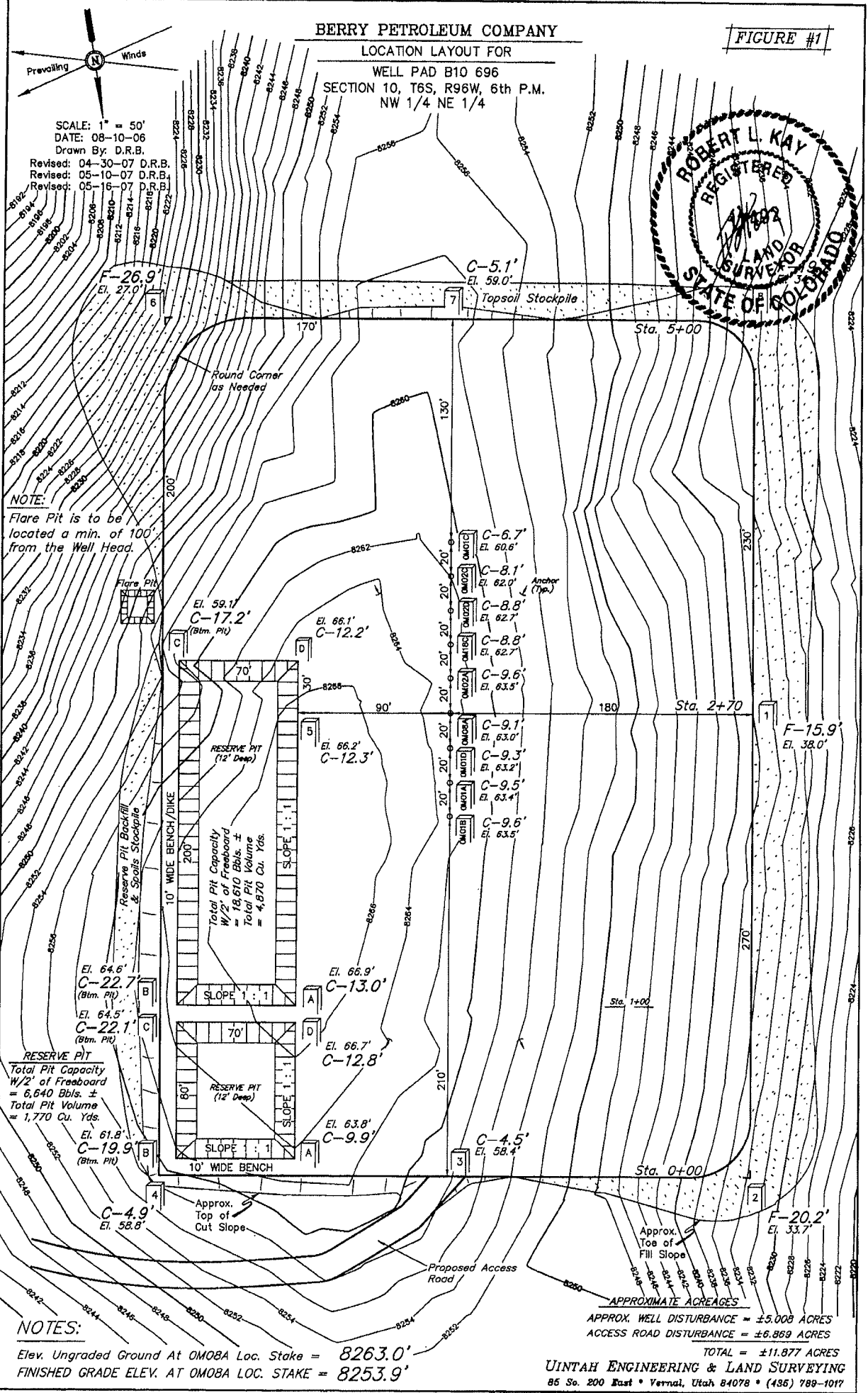
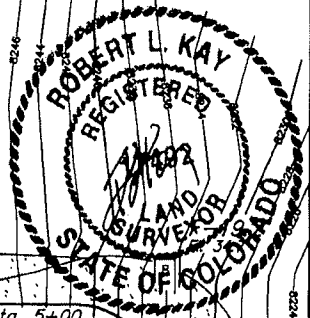
# BERRY PETROLEUM COMPANY

FIGURE #1

## LOCATION LAYOUT FOR

WELL PAD B10 696  
SECTION 10, T6S, R96W, 6th P.M.  
NW 1/4 NE 1/4

SCALE: 1" = 50'  
DATE: 08-10-06  
Drawn By: D.R.B.  
Revised: 04-30-07 D.R.B.  
Revised: 05-10-07 D.R.B.  
Revised: 05-16-07 D.R.B.



### NOTES:

Elev. Ungraded Ground At OMOBA Loc. Stake = 8263.0'  
FINISHED GRADE ELEV. AT OMOBA LOC. STAKE = 8253.9'

APPROXIMATE ACRES  
APPROX. WELL DISTURBANCE = ±5.008 ACRES  
ACCESS ROAD DISTURBANCE = ±6.869 ACRES

TOTAL = ±11.877 ACRES  
UINTAH ENGINEERING & LAND SURVEYING  
85 So. 200 East • Vernal, Utah 84078 • (435) 789-1017



# State of Colorado Oil and Gas Conservation Commission

1120 Lincoln Street, Suite 801, Denver, Colorado 80203 (303)894-2100 Fax:(303)894-2109



FOR OGCC USE ONLY

## SOURCE OF PRODUCED WATER FOR DISPOSAL

This form must be completed for any new disposal site and for any change in sources of produced water for an existing disposal site.

Complete the  
Attachment Checklist

OGCC Operator Number: <u>10091</u>	Contact Name and Telephone:
Name of Operator: <u>Berry Petroleum Company</u>	<u>Chris Freeman</u>
Address: <u>1999 Broadway, Suite 3700</u>	No: <u>303-999-4400</u>
City: <u>Denver</u> State: <u>CO</u> Zip: <u>80202</u>	Fax: <u>303-999-4401</u>

OGCC Disposal Facility Number: N/A, in Utah

Operator's Disposal Facility Name: Danish Flats Operator's Disposal Facility Number: N/A

Location (QtrQtr, Sec, Twp, Rng, Meridian): SWSW 1/4, Sec. 8, T 20 South, R 24 East.

Address: 510 South, 600 East

City: Salt Lake City State: UT Zip: 84102 County: Grand

Chemical Analysis of fluid	Oper	OGCC

If more space is required,  
attach additional sheet.

Add Source: OGCC Lease No: 335617 API No: See attached sheet Well Name & No: See attached sheet  
☒ Operator Name: Berry Petroleum Company Operator No: 10091

Delete Source: Location: QtrQtr: NW NE Section: 2 Township: 6 South Range: 96 West Producing Formation: Williams Fork  
☐ Analysis Attached? ☒ Yes ☐ No Transported to disposal site via: ☐ Pipeline ☒ Truck TDS: 21,000 mg/l

Add Source: OGCC Lease No: 335677 API No: See attached sheet Well Name & No: See attached sheet  
☒ Operator Name: Berry Petroleum Company Operator No: 10091

Delete Source: Location: QtrQtr: NW NE Section: 10 Township: 6 South Range: 96 West Producing Formation: Williams Fork  
☐ Analysis Attached? ☒ Yes ☐ No Transported to disposal site via: ☐ Pipeline ☒ Truck TDS: 16,000 mg/l

Add Source: OGCC Lease No: 335876 API No: See attached sheet Well Name & No: See attached sheet  
☒ Operator Name: Berry Petroleum Company Operator No: 10091

Delete Source: Location: QtrQtr: NE NW Section: 10 Township: 6 South Range: 96 West Producing Formation: Williams Fork  
☐ Analysis Attached? ☒ Yes ☐ No Transported to disposal site via: ☐ Pipeline ☒ Truck TDS: 21,000 mg/l

Add Source: OGCC Lease No: 335991 API No: See attached sheet Well Name & No: See attached sheet  
☒ Operator Name: Berry Petroleum Company Operator No: 10091

Delete Source: Location: QtrQtr: NE SW Section: 15 Township: 6 South Range: 96 West Producing Formation: Williams Fork  
☐ Analysis Attached? ☒ Yes ☐ No Transported to disposal site via: ☐ Pipeline ☒ Truck TDS: 12,000 mg/l

Add Source: OGCC Lease No: \_\_\_\_\_ API No: \_\_\_\_\_ Well Name & No: \_\_\_\_\_  
☐ Operator Name: \_\_\_\_\_ Operator No: \_\_\_\_\_

Delete Source: Location: QtrQtr: \_\_\_\_\_ Section: \_\_\_\_\_ Township: \_\_\_\_\_ Range: \_\_\_\_\_ Producing Formation: \_\_\_\_\_  
☐ Analysis Attached? ☐ Yes ☐ No Transported to disposal site via: ☐ Pipeline ☐ Truck TDS: \_\_\_\_\_

Add Source: OGCC Lease No: \_\_\_\_\_ API No: \_\_\_\_\_ Well Name & No: \_\_\_\_\_  
☐ Operator Name: \_\_\_\_\_ Operator No: \_\_\_\_\_

Delete Source: Location: QtrQtr: \_\_\_\_\_ Section: \_\_\_\_\_ Township: \_\_\_\_\_ Range: \_\_\_\_\_ Producing Formation: \_\_\_\_\_  
☐ Analysis Attached? ☐ Yes ☐ No Transported to disposal site via: ☐ Pipeline ☐ Truck TDS: \_\_\_\_\_

I hereby certify that the statements made in this form are, to the best of my knowledge, true, correct, and complete.

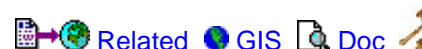
Print Name: Chris FreemanSigned: [Signature]Title: Environmental ManagerDate: 2/1/2010

OGCC Approved: \_\_\_\_\_ Title: \_\_\_\_\_ Date: \_\_\_\_\_

CONDITIONS OF APPROVAL, IF ANY:



## COGIS - LOCATION Information



### GRANLEE OM-66S96W - #335617 Information

**Status: AC**Location ID: **335617**Location Name/No: **GRANLEE OM-66S96W /2SENE**Location Status: **AC**Status Date: **4/14/2009**Operator Name: **BERRY PETROLEUM COMPANY**Operator Number: **10091**County: **GARFIELD - #045**Location: **SENE 2 6S 96W**Lat/Long: **39.55364/-108.06852**Facility Type: **LOCATION**

### Facility Well(s)

API Number: **05-045-12879**Operator Name: **BERRY PETROLEUM COMPANY**Well Status: **AL**API Number: **05-045-12880**Operator Name: **BERRY PETROLEUM COMPANY**Well Status: **PR**API Number: **05-045-12881**Operator Name: **BERRY PETROLEUM COMPANY**Well Status: **PR**API Number: **05-045-12882**Operator Name: **BERRY PETROLEUM COMPANY**Well Status: **PR**API Number: **05-045-12883**Operator Name: **BERRY PETROLEUM COMPANY**Well Status: **PR**API Number: **05-045-12884**Operator Name: **BERRY PETROLEUM COMPANY**Well Status: **XX**API Number: **05-045-12885**Operator Name: **BERRY PETROLEUM COMPANY**Well Status: **XX**API Number: **05-045-12886**Operator Name: **BERRY PETROLEUM COMPANY**Well Status: **XX**



12065 Lebanon Rd.  
Mt. Juliet, TN 37122  
(615) 758-5858  
1-800-767-5859  
Fax (615) 758-5859

Tax I.D. 62-0814289

Est. 1970

# REPORT OF ANALYSIS

Dave Nicholson  
Berry Petroleum Company - Denver, C  
1999 Broadway, Suite 3700  
Denver, CO 80202

November 10, 2009

Date Received : November 07, 2009  
Description :

Sample ID : OMI-02-PW

Collected By : Dave Nicholson  
Collection Date : 11/05/09 15:15

ESC Sample # : L431038-14

Site ID :

Project # : 407-36

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Bromide	91.	1.0	mg/l	9056	11/07/09	1
Chloride	12000	100	mg/l	9056	11/08/09	100
Fluoride	BDL	10.	mg/l	9056	11/08/09	100
Nitrate	BDL	10.	mg/l	9056	11/08/09	100
Nitrite	BDL	0.10	mg/l	9056	11/07/09	1
Sulfate	BDL	5.0	mg/l	9056	11/07/09	1
Alkalinity	850	200	mg/l	2320B	11/09/09	10
Alkalinity,Bicarbonate	850	20.	mg/l	2320B	11/09/09	1
Alkalinity,Hydroxide	BDL	20.	mg/l	2320B	11/09/09	1
pH	6.2		su	9040C	11/10/09	1
Phosphate,Ortho	1.8	0.12	mg/l	4500P-E	11/07/09	5
Specific Conductance	3300		umhos/cm	9050A	11/09/09	1
Dissolved Solids	21000	10.	mg/l	2540C	11/10/09	1
Calcium,Dissolved	240	0.50	mg/l	6010B	11/09/09	1
Iron,Dissolved	110	0.10	mg/l	6010B	11/09/09	1
Magnesium,Dissolved	23.	0.10	mg/l	6010B	11/09/09	1
Manganese,Dissolved	1.6	0.010	mg/l	6010B	11/09/09	1
Potassium,Dissolved	83.	0.50	mg/l	6010B	11/10/09	1
Selenium,Dissolved	BDL	0.020	mg/l	6010B	11/09/09	1
Sodium,Dissolved	7600	5.0	mg/l	6010B	11/09/09	10
Benzene	12.	0.10	mg/l	8021B	11/10/09	200
Toluene	20.	1.0	mg/l	8021B	11/10/09	200
Ethylbenzene	0.93	0.0050	mg/l	8021B	11/08/09	10
Total Xylene	11.	0.30	mg/l	8021B	11/10/09	200
Surrogate Recovery(%)						
a,a,a-Trifluorotoluene(PID)	96.9		% Rec.	8021B	11/08/09	10

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)

Note:

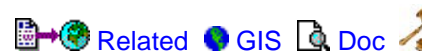
The reported analytical results relate only to the sample submitted.

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Reported: 11/10/09 16:41 Printed: 11/10/09 16:42  
L431038-14 (PH) - 6.2@19.2c



## COGIS - LOCATION Information



### GRANLEE OM-66S96W - #335677 Information

**Status: AC**

Location ID:	<b>335677</b>	Location Name/No:	<b>GRANLEE OM-66S96W /10NWNE</b>
Location Status:	<b>AC</b>	Status Date:	<b>4/14/2009</b>
Operator Name:	<b>BERRY PETROLEUM COMPANY</b>	Operator Number:	<b>10091</b>
County:	<b>GARFIELD - #045</b>	Location:	<b>NWNE 10 6S 96W</b>
		Lat/Long:	<b>39.542272/-108.091089</b>

Facility Type: **LOCATION**

#### Facility Well(s)

API Number:	<b><u>05-045-12848</u></b>	Operator Name:	<b>BERRY PETROLEUM COMPANY</b>
Well Status:	<b>XX</b>		

API Number:	<b><u>05-045-12849</u></b>	Operator Name:	<b>BERRY PETROLEUM COMPANY</b>
Well Status:	<b>XX</b>		

API Number:	<b><u>05-045-12850</u></b>	Operator Name:	<b>BERRY PETROLEUM COMPANY</b>
Well Status:	<b>XX</b>		

API Number:	<b><u>05-045-12852</u></b>	Operator Name:	<b>BERRY PETROLEUM COMPANY</b>
Well Status:	<b>WO</b>		

API Number:	<b><u>05-045-12853</u></b>	Operator Name:	<b>BERRY PETROLEUM COMPANY</b>
Well Status:	<b>WO</b>		

API Number:	<b><u>05-045-12854</u></b>	Operator Name:	<b>BERRY PETROLEUM COMPANY</b>
Well Status:	<b>PR</b>		

REPORT OF ANALYSIS

Dave Nicholson  
Berry Petroleum Company - Denver, C  
1999 Broadway, Suite 3700  
Denver, CO 80202

November 10, 2009

Date Received : November 07, 2009  
Description :

Sample ID : OMB-10-PW

Collected By : Dave Nicholson  
Collection Date : 11/05/09 16:00

ESC Sample # : L431038-15

Site ID :

Project # : 407-36

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Bromide	67.	1.0	mg/l	9056	11/07/09	1
Chloride	9700	100	mg/l	9056	11/08/09	100
Fluoride	BDL	10.	mg/l	9056	11/08/09	100
Nitrate	BDL	0.10	mg/l	9056	11/07/09	1
Nitrite	BDL	0.10	mg/l	9056	11/07/09	1
Sulfate	BDL	5.0	mg/l	9056	11/07/09	1
Alkalinity	670	200	mg/l	2320B	11/09/09	10
Alkalinity,Bicarbonate	670	20.	mg/l	2320B	11/09/09	1
Alkalinity,Hydroxide	BDL	20.	mg/l	2320B	11/09/09	1
pH	6.2		su	9040C	11/10/09	1
Phosphate,Ortho	0.97	0.050	mg/l	4500P-E	11/07/09	2
Specific Conductance	27000		umhos/cm	9050A	11/09/09	1
Dissolved Solids	16000	10.	mg/l	2540C	11/10/09	1
Calcium,Dissolved	200	0.50	mg/l	6010B	11/09/09	1
Iron,Dissolved	61.	0.10	mg/l	6010B	11/09/09	1
Magnesium,Dissolved	16.	0.10	mg/l	6010B	11/09/09	1
Manganese,Dissolved	0.67	0.010	mg/l	6010B	11/09/09	1
Potassium,Dissolved	66.	0.50	mg/l	6010B	11/10/09	1
Selenium,Dissolved	BDL	0.020	mg/l	6010B	11/09/09	1
Sodium,Dissolved	5600	5.0	mg/l	6010B	11/09/09	10
Benzene	14.	0.10	mg/l	8021B	11/10/09	200
Toluene	23.	1.0	mg/l	8021B	11/10/09	200
Ethylbenzene	0.86	0.0050	mg/l	8021B	11/08/09	10
Total Xylene	11.	0.30	mg/l	8021B	11/10/09	200
Surrogate Recovery(%)						
a,a,a-Trifluorotoluene(PID)	95.6		% Rec.	8021B	11/08/09	10

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)

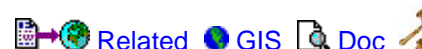
Note:

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L431038-15 (PH) - 6.2@19.3c

## COGIS - LOCATION Information



### GRANLEE OM-66S96W - #335876 Information

**Status: XX**

Location ID:	<b>335876</b>	Location Name/No:	<b>GRANLEE OM-66S96W /10NENW</b>
Location Status:	<b>XX</b>	Status Date:	<b>4/14/2009</b>
Operator Name:	<b>BERRY PETROLEUM COMPANY</b>	Operator Number:	<b>10091</b>
County:	<b>GARFIELD - #045</b>	Location:	<b>NENW 10 6S 96W</b>
		Lat/Long:	<b>39.544003/-108.096078</b>

Facility Type: **LOCATION**

#### Facility Well(s)

API Number:	<a href="#">05-045-13244</a>	Operator Name:	<b>BERRY PETROLEUM COMPANY</b>
Well Status:	<b>PR</b>		

API Number:	<a href="#">05-045-13245</a>	Operator Name:	<b>BERRY PETROLEUM COMPANY</b>
Well Status:	<b>XX</b>		

API Number:	<a href="#">05-045-13246</a>	Operator Name:	<b>BERRY PETROLEUM COMPANY</b>
Well Status:	<b>PR</b>		

API Number:	<a href="#">05-045-13247</a>	Operator Name:	<b>BERRY PETROLEUM COMPANY</b>
Well Status:	<b>XX</b>		

API Number:	<a href="#">05-045-13248</a>	Operator Name:	<b>BERRY PETROLEUM COMPANY</b>
Well Status:	<b>PR</b>		

API Number:	<a href="#">05-045-13249</a>	Operator Name:	<b>BERRY PETROLEUM COMPANY</b>
Well Status:	<b>XX</b>		

API Number:	<a href="#">05-045-13251</a>	Operator Name:	<b>BERRY PETROLEUM COMPANY</b>
Well Status:	<b>PR</b>		



12065 Lebanon Rd.  
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Est. 1970

# REPORT OF ANALYSIS

Dave Nicholson  
Berry Petroleum Company - Denver, C  
1999 Broadway, Suite 3700  
Denver, CO 80202

November 10, 2009

Date Received : November 07, 2009  
Description :

Sample ID : OMC-10-PW

Collected By : Dave Nicholson  
Collection Date : 11/05/09 16:30

ESC Sample # : L431038-16

Site ID :

Project # : 407-36

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Bromide	80.	10.	mg/l	9056	11/07/09	10
Chloride	12000	100	mg/l	9056	11/10/09	100
Fluoride	BDL	10.	mg/l	9056	11/10/09	100
Nitrate	BDL	1.0	mg/l	9056	11/07/09	10
Nitrite	BDL	1.0	mg/l	9056	11/07/09	10
Sulfate	BDL	50.	mg/l	9056	11/07/09	10
Alkalinity	2000	1000	mg/l	2320B	11/09/09	50
Alkalinity,Bicarbonate	2000	20.	mg/l	2320B	11/09/09	1
Alkalinity,Hydroxide	BDL	20.	mg/l	2320B	11/09/09	1
pH	6.9		su	9040C	11/10/09	1
Phosphate,Ortho	BDL	1.2	mg/l	4500P-E	11/07/09	50
Specific Conductance	3000		umhos/cm	9050A	11/09/09	1
Dissolved Solids	21000	10.	mg/l	2540C	11/10/09	1
Calcium,Dissolved	110	0.50	mg/l	6010B	11/09/09	1
Iron,Dissolved	1.2	0.10	mg/l	6010B	11/09/09	1
Magnesium,Dissolved	10.	0.10	mg/l	6010B	11/09/09	1
Manganese,Dissolved	0.25	0.010	mg/l	6010B	11/09/09	1
Potassium,Dissolved	48.	0.50	mg/l	6010B	11/10/09	1
Selenium,Dissolved	0.031	0.020	mg/l	6010B	11/09/09	1
Sodium,Dissolved	6000	5.0	mg/l	6010B	11/10/09	10
Benzene	11.	0.12	mg/l	8021B	11/10/09	250
Toluene	33.	1.2	mg/l	8021B	11/10/09	250
Ethylbenzene	2.5	0.12	mg/l	8021B	11/10/09	250
Total Xylene	44.	0.38	mg/l	8021B	11/10/09	250
Surrogate Recovery(%)						
a,a,a-Trifluorotoluene(PID)	95.1		% Rec.	8021B	11/10/09	250

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)

Note:

The reported analytical results relate only to the sample submitted.

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## COGIS - LOCATION Information

  [Related](#)  [GIS](#)  [D](#)

### SCHOOL HOUSE POINT OM-66S96W - #335991 Information

**Sta**Location ID: **335991**Location Name/No: **SCHOOL HOUSE POINT OM-66S**Location Status: **XX**Status Date: **4/14/2009**Operator Name: **BERRY PETROLEUM COMPANY**Operator Number: **10091**County: **GARFIELD - #045**Location: **NESW 15 6S 96W**Lat/Long: **39.522314/-108.097078**Facility Type: **LOCATION**

#### Facility Well(s)

API Number: [05-045-14963](#)Operator Name: **BERRY PETROLEUM COMPANY**Well Status: **PR**API Number: [05-045-14972](#)Operator Name: **BERRY PETROLEUM COMPANY**Well Status: **XX**API Number: [05-045-14973](#)Operator Name: **BERRY PETROLEUM COMPANY**Well Status: **XX**API Number: [05-045-14974](#)Operator Name: **BERRY PETROLEUM COMPANY**Well Status: **PR**API Number: [05-045-14975](#)Operator Name: **BERRY PETROLEUM COMPANY**Well Status: **XX**API Number: [05-045-14976](#)Operator Name: **BERRY PETROLEUM COMPANY**Well Status: **XX**API Number: [05-045-14977](#)Operator Name: **BERRY PETROLEUM COMPANY**Well Status: **PR**API Number: [05-045-14978](#)Operator Name: **BERRY PETROLEUM COMPANY**Well Status: **PR**



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1-800-767-5859  
Fax (615) 758-5859

Tax I.D. 62-0814289

Est. 1970

# REPORT OF ANALYSIS

Dave Nicholson  
Berry Petroleum Company - Denver, C  
1999 Broadway, Suite 3700  
Denver, CO 80202

November 10, 2009

Date Received : November 07, 2009  
Description :

Sample ID : OMK-15-PW

Collected By : Dave Nicholson  
Collection Date : 11/05/09 17:00

ESC Sample # : L431038-17

Site ID :

Project # : 407-36

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Bromide	50.	10.	mg/l	9056	11/07/09	10
Chloride	7800	100	mg/l	9056	11/08/09	100
Fluoride	BDL	10.	mg/l	9056	11/08/09	100
Nitrate	BDL	1.0	mg/l	9056	11/07/09	10
Nitrite	BDL	1.0	mg/l	9056	11/07/09	10
Sulfate	BDL	50.	mg/l	9056	11/07/09	10
Alkalinity	860	200	mg/l	2320B	11/09/09	10
Alkalinity,Bicarbonate	860	20.	mg/l	2320B	11/09/09	1
Alkalinity,Hydroxide	BDL	20.	mg/l	2320B	11/09/09	1
pH	6.3		su	9040C	11/10/09	1
Phosphate,Ortho	BDL	0.50	mg/l	4500P-E	11/07/09	20
Specific Conductance	20000		umhos/cm	9050A	11/09/09	1
Dissolved Solids	12000	10.	mg/l	2540C	11/10/09	1
Calcium,Dissolved	130	0.50	mg/l	6010B	11/09/09	1
Iron,Dissolved	48.	0.10	mg/l	6010B	11/09/09	1
Magnesium,Dissolved	9.8	0.10	mg/l	6010B	11/09/09	1
Manganese,Dissolved	0.78	0.010	mg/l	6010B	11/09/09	1
Potassium,Dissolved	27.	0.50	mg/l	6010B	11/10/09	1
Selenium,Dissolved	0.023	0.020	mg/l	6010B	11/09/09	1
Sodium,Dissolved	4100	2.5	mg/l	6010B	11/09/09	5
Benzene	12.	0.025	mg/l	8021B	11/08/09	50
Toluene	32.	2.5	mg/l	8021B	11/10/09	500
Ethylbenzene	2.9	0.025	mg/l	8021B	11/08/09	50
Total Xylene	29.	0.075	mg/l	8021B	11/08/09	50
Surrogate Recovery(%)						
a,a,a-Trifluorotoluene(PID)	96.6		% Rec.	8021B	11/08/09	50

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)

Note:

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