

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

FORM SUBMITTED FOR:

☒ Pit Report ☐ Pit Permit

Detailed Site Plan	<input checked="" type="checkbox"/>	
Topo Map w/ Pit Location	<input checked="" type="checkbox"/>	
Water Analysis (Form 26)		
Source Wells (Form 26)		
Pit Design/Plan & Cross Sec.	<input checked="" type="checkbox"/>	
Design Calculations	<input checked="" type="checkbox"/>	
Sensitive Area Determin.	<input checked="" type="checkbox"/>	
Mud Program		
Form 2A		

OGCC Operator Number: 96850

Name of Operator: Williams Production RMT

Address: 1058 County Rd 215

City: Parachute State: CO Zip: 81635

Contact Name and Telephone:

Karolina Blaney

No: (970) 683-2295

Fax: (970) 285-9573

API Number (of associated well): 05-103-11381

OGCC Facility ID (of other associated facility): 335926

Pit Location (Qtr, Sec, Twp, Rng, Meridian): SENW S27 T1S R96W

Latitude: 39.936167

Longitude: 108.379914

County: Rio Blanco

Pit Use: ☐ Production ☐ Drilling (Attach mud program) ☒ Special Purpose (Describe Use): Multi-Well

Pit Type: ☒ Lined ☐ Unlined Surface Discharge Permit: ☐ Yes ☒ No

Offsite disposal of pit contents: ☐ Injection ☐ Commercial Pit/Facility Name: RGU 22-27-198

Pit/Facility No: RGU 32-27-198

Attach Form 26 to identify Source Wells and Form 26 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: 990 ground water: 487 water wells: 5025

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 ☐ CRP

Non-Crop Land: ☒ Rangeland ☐ Timber ☐ Recreational ☐ Other (describe):

Subdivided: ☐ Industrial ☐ Commercial ☐ Residential

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

Soil map units from USNRCS survey: Sheet No: Soil Complex/Series No: 75

Soils Series Name: Rentsac Horizon thickness (in inches): A: 0-5 ; B: 5-16 ; C: 16-20

Soils Series Name: Piceance Horizon thickness (in inches): A: 0-4 ; B: 4-22 ; C:

Attach detailed site plan and topo map with pit location.

Pit Design and Construction

Size of pit (feet): Length: 136 Width: 80 Depth: 15

Calculated pit volume (bbls): ~9500 Daily Inflow rate (bbls/day): various

Daily disposal rates (attach calculations): Evaporation: 3.9 bbls/day Percolation: none bbls/day

Type of liner material: Polyethylene Thickness: 2 x 30 mil

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): separator

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: Karolina Blaney

Signed: Karolina Blaney

Title: Environmental Specialist

Date: 12/12/2011

OGCC Approved: Cliff Fries

Title: Engr. Sup.

Date: 12/15/11

CONDITIONS OF APPROVAL, IF ANY: As it

FACILITY NUMBER: 426888

COA: Operator will Cease use by 6/30/2012 or conduct 72-hour hydrostatic test of lined by same date. Operator will submit closure plan Form 27 or provide status update to OGCC by 6/30/2012. Operator will provide analytical data from grab sample collected from pit data on Form 4, by 6/30/2012. ASJ 12/15/11

## Topo Map with Pit Location



## Legend

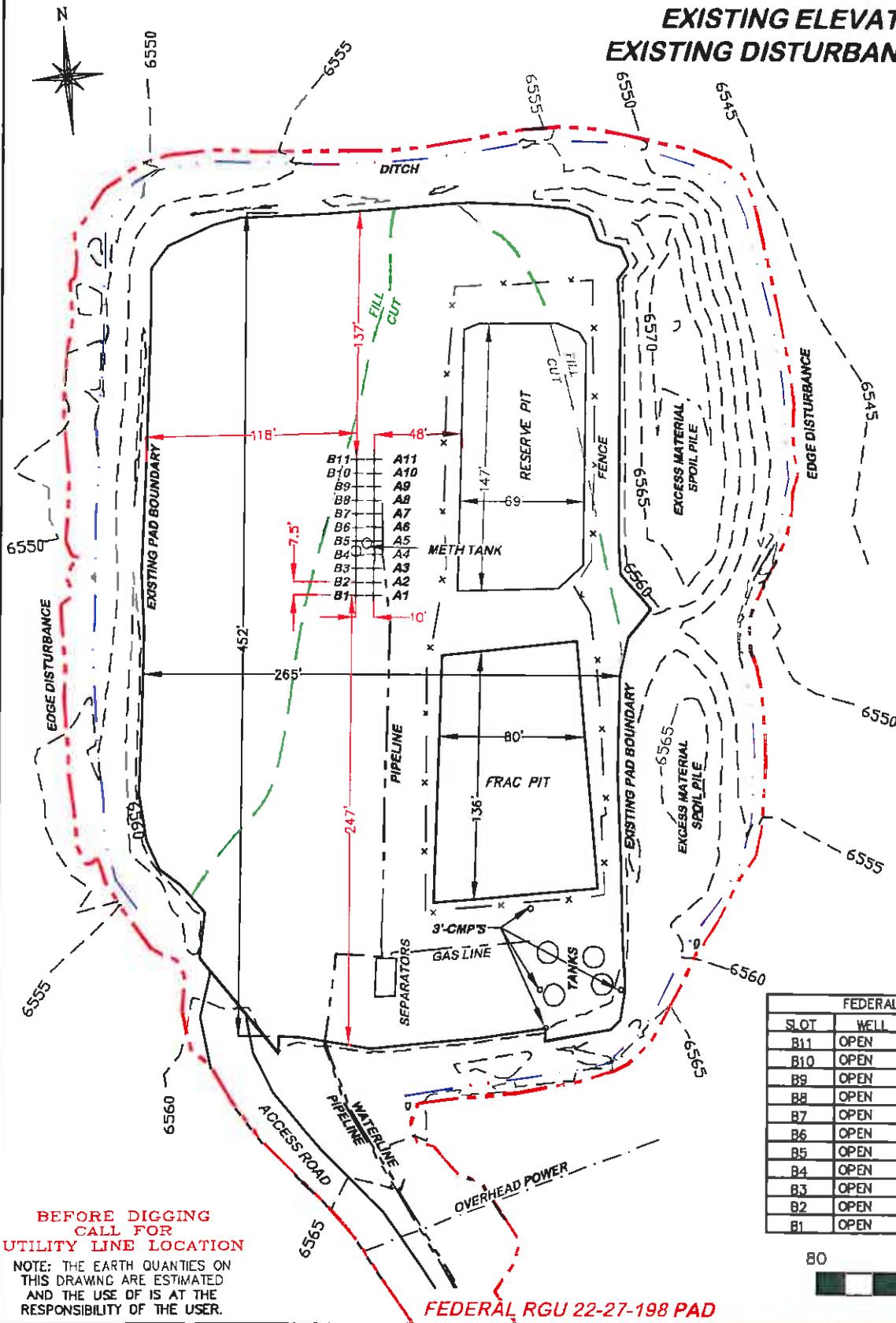
- Pad Location
- County Road
- Other Road

## RGU 22-27-198 Regional Location Map

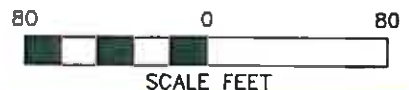


Detailed Site Plan  
Pit Design Plan and Cross Sections

**EXISTING ELEVATION: 6558.0'**  
**EXISTING DISTURBANCE : 4.7± ACRES**



FEDERAL RG 22-27-198			
SLOT	WELL	SLOT	WELL
B11	OPEN	A11	OPEN
B10	OPEN	A10	OPEN
B9	OPEN	A9	OPEN
B8	OPEN	A8	32'-27'-198 (EXISTING)
B7	OPEN	A7	OPEN
B6	OPEN	A6	432'-27'-198 (EXISTING)
B5	OPEN	A5	OPEN
B4	OPEN	A4	33'-27'-198 (EXISTING)
B3	OPEN	A3	OPEN
B2	OPEN	A2	OPEN
B1	OPEN	A1	OPEN

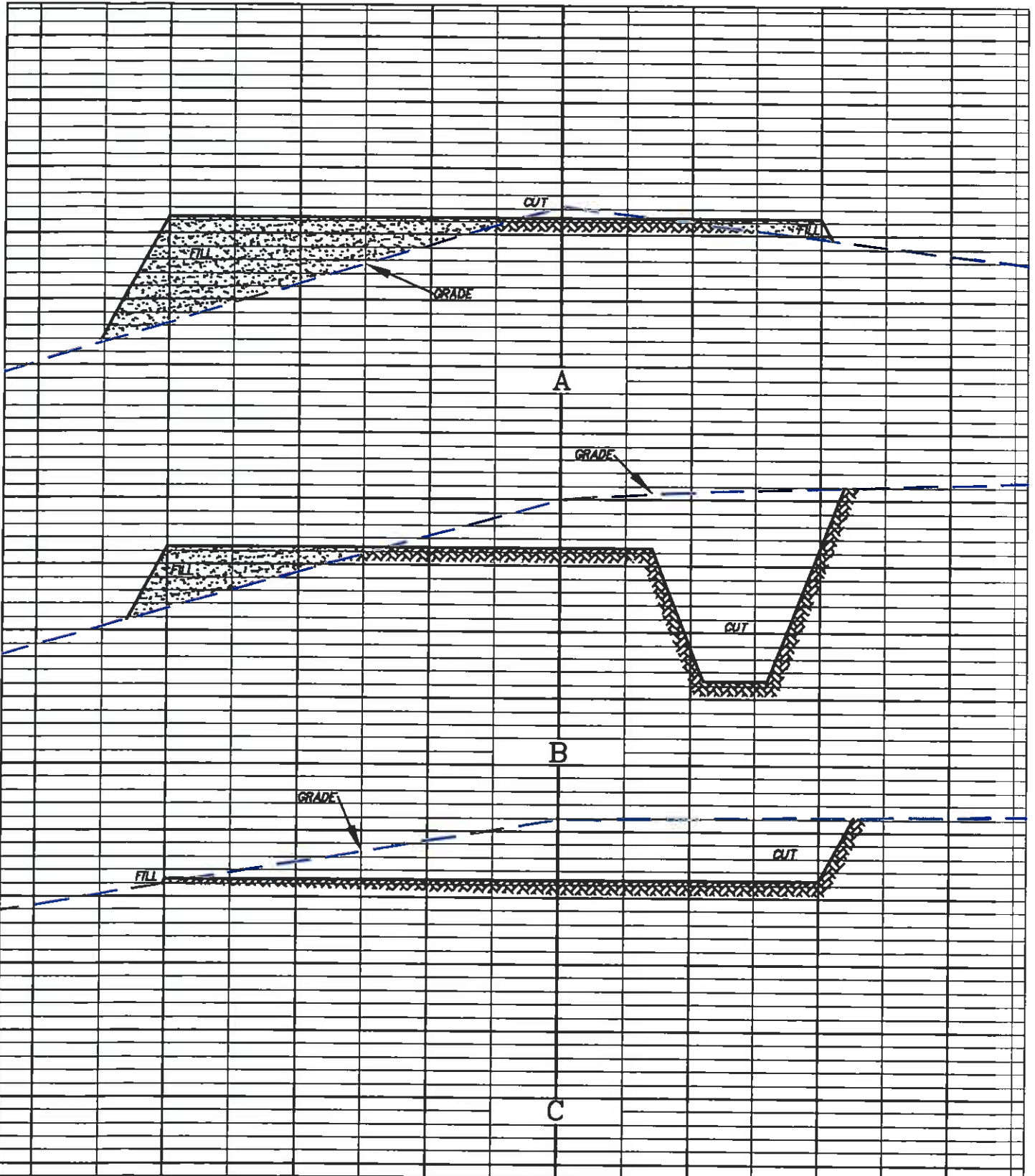


**DRG** RIFFIN & ASSOCIATES, INC.  
 (307) 382-5028 1414 ELK ST., ROCK SPRINGS, WY 82901

DRAWN: 5/28/08	SCALE: 1" = 80'
REVISED: 9/20/09 - WWG	DRG JOB No. 14543
AS BUILT PAD	EXHIBIT 2A

**WILLIAMS PRODUCTION RMT COMPANY**  
**FEDERAL RGU 32, 33, 432-27-198**

**AS BUILT ELEVATION: 6558.0'**



RIFFIN & ASSOCIATES, INC.

**WILLIAMS PRODUCTION RMT COMPANY**  
**FEDERAL RGU 22,32,33,432-27-198**

1414 ELK ST., SUITE 202  
 ROCK SPRINGS, WY 82901  
 (307) 362-5028

JOB No. 14543

REVISED: 9/6/07

HORZ. 1" = 50' VERT. 1" = 10'

UNGRADED ELEVATION: 6560.0'  
 FINISHED ELEVATION: 6557.1'

EXHIBIT 3

## Sensitive Area Determination

## Sensitive Area Determination Checklist

Williams Production RMT Company		
<b>Person(s) Conducting Field Inspection</b>	Ashlee Lane	12/13/10
	Biologist	
<b>Site Information</b>		
Location:	RGU 22-27-198	Time: 1100
Type of Facility:	Existing Well Pad	
<b>Environmental Conditions</b>	Clear and calm	
Temperature (°F)	70°	

Has the proposed, new or existing location been designated as a sensitive area?

☐ Yes      ☒ No

### SURFACE WATER

1. Are there any surface water features or SWSAs adjacent to or within ¼ mile of the proposed/new or existing facility?

☒ Yes      ☐ No

If yes, list type of surface water feature(s), i.e. rivers, creeks, streams, seeps, springs, wetlands: One unnamed intermittent drainage tributary to Yellow Creek.

If yes, describe location relative to facility: The unnamed intermittent drainage is located 1,031 feet to the east of the existing facility.

2. Could a potential release from the facility reach surface water features?

☐ Yes      ☒ No

If yes, describe the pathway a release from the facility would likely follow to determine if the potential to impact surface water is high or low. A potential release if it were to migrate off the facility would tend to flow primarily to the east with some potential for flow to the north and west following the natural topographic contours of the area.

3. Is the potential to impact surface water from a facility release high or low?

☐ High      ☒ Low

## GROUNDWATER

1. Will the proposed/new or existing facility have any pits which will contain hydrocarbons and chlorides or other E&P wastes?  
☒ Yes      ☐ No  
If yes, List the pit type(s): Multi-well pit.
2. Is the site of the proposed facility underlain by an unconfined aquifer or recharge zone?  
☒ Yes      ☐ No
3. Is the hydraulic conductivity of the underlying soil or geologic material =  $1.0 \times 10^{-7}$  cm/sec?  
☐ Yes      ☒ No
4. Is the proposed facility located within 1/8 mile of a domestic water well or 1/4 mile of a public water supply well which would use the same aquifer?  
☐ Yes      ☒ No
5. Is the proposed facility located within a 100 year floodplain?  
☐ Yes (*Sensitive Area*)      ☒ No (*If no, proceed to question #6.*)
6. Is the depth to groundwater known?  
☐ Yes (*If yes, follow instructions provided in 6(a) of this section.*)  
☒ No (*If no, follow instructions provided in 6(b) of this section.*)
  - (a) If yes, could a potential release from the proposed facility reach groundwater?  
☐ Yes      ☐ No  
If yes, explain:
  - (b) If no:
    - (i) Evaluate surrounding soils, topography, and vegetation which may suggest the presence of shallow groundwater.
    - (ii) Gather information from surrounding well data in order to determine a depth to groundwater, i.e. State Engineers Office.
7. Is the potential to impact ground water from the facility in the event of a release high or low?  
☐ High      ☒ Low

### **Additional Comments:**

As stated in the surface water section of this sensitive area determination there is one USGS identified unnamed intermittent drainage tributary to Yellow Creek located to the east of the existing facility. The facility, as it is currently constructed, would limit flow direction primarily to the east with some potential for flow to the north and west. It is not anticipated that the unnamed intermittent drainage to the east would be impacted by a release off the facility due to the fairly thick vegetative cover, the gently sloping hillside above the drainage, and the moderate to high infiltration rate of the underlying soils. Although identified on the USGS topographic maps as intermittent; the unnamed drainage exhibits ephemeral characteristics in the immediate vicinity of the proposed facility. The lack of a well defined ordinary high water mark (OHMW) and a vegetated bottom suggests that flow does not occur a majority of the time. The existing facility currently has excellent Best Management Practices BMP's in the form of a perimeter berm on the facility itself and a diversion ditch along the fill slopes of the facility on the north, west, and east sides. These should be monitored and maintained to ensure site containment. With proper monitoring and maintenance of the existing BMP's the potential to impact the above noted drainage would be considerably lower.

The State Engineer's Office and USGS records were reviewed and revealed that there are two permit applications for solution mining wells in section 27. These applications were denied by the State Engineers office therefore no records are available that would provide additional information pertaining to the depth to groundwater. The vegetative cover in the immediate vicinity of the facility, Piñon Juniper woodland and sage brush does not suggest the presence of shallow groundwater. The facility resides in the Uintah formation, which like the Green River Formation, tends to be fractured both vertically and horizontally which allows fluids to migrate in the subsurface over large distances. Based on the topographical setting of the facility, it is not anticipated that an overland release would impact groundwater due to the short duration time involved and the fact it would spread out over a large area. The greatest potential for impact to groundwater, if present, would be from a release that occurred over a longer period of time such as a leaking pit. However to lessen any potential to impact groundwater, it would be highly recommended that the pit be lined in accordance to COGCC criteria and tested prior to placement of any materials into it.

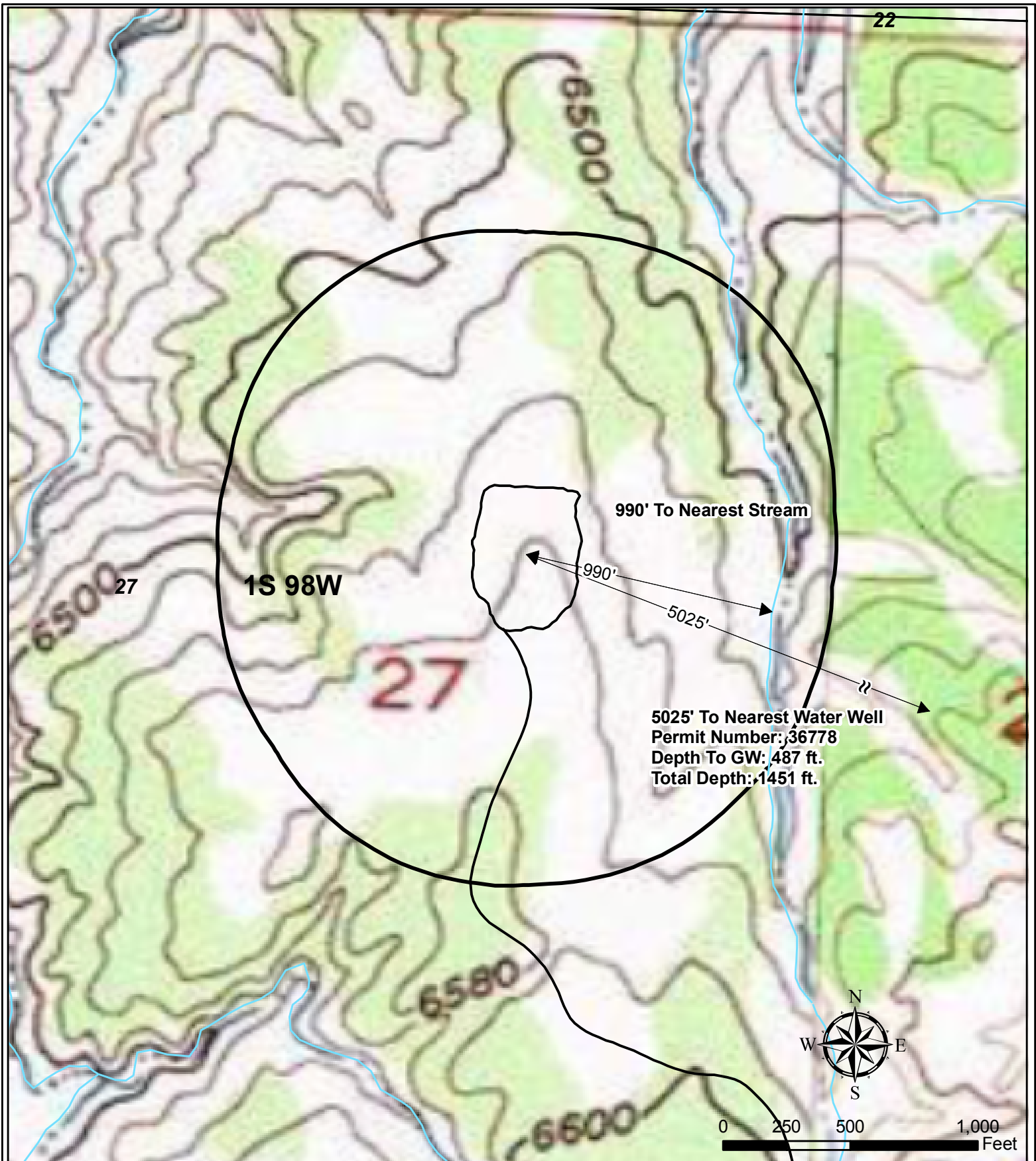
Based on the information collected during the site investigation and desktop review, the potential to impact surface water features has been deemed to be low. Based on the topographical setting of the proposed facility the potential to impact ground water has been deemed low as well. Therefore the facility can be designated as being in a non-sensitive area.

Inspector Signature(s): Mark E. Mumby Date: 10/26/2010

Mark E. Mumby, *Project Manager/RPG*  
HRL Compliance Solutions, Inc.

Ashlee Lane Date: 10/17/2010

Ashlee Lane, *Biologist*  
HRL Compliance Solutions, Inc.



### Legend

- Water Well
- Stream
- Pad
- 1000' Buffer

Williams Production RMT

Plat 5C

RGU 22-27-198 Hydrology Map  
T1S R98W, Section 27

