FORM 15 Rev 6/99

01632013

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
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COGCC

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

FORM SUBMITTED FOR:

☐ Pit Report ☒ Pit Permit

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): _____ OGCC Facility ID (of other associated facility): _____
Pit Location (QtrQtr, Sec, Twp, Rng, Meridian): SESW 6 7S 93W 6TH
Latitude: 39.467855 Longitude: 107.814924 County: GARFIELD
Pit Use: ☐ Production ☐ Drilling (Attach mud program) ☒ Special Purpose (Describe Use): FLARE PIT
Pit Type: ☐ Lined ☒ Unlined Surface Discharge Permit: ☐ Yes ☒ No
Offsite disposal of pit contents: ☐ Injection ☐ Commercial Pit/Facility Name: RU 34-6 Pit/Facility No: _____
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: 773 ground water: 50 water wells: 6165

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 form USNRCS survey: Sheet No: NA Soil Complex/Series No: 45
Soils Series Name: Morval Horizon thickness (in inches): A: 0-5 ; B: 5-17 ; C: 17-27
Soils Series Name: Tridell Horizon thickness (in inches): A: 0-10 ; B: 10-60 ; C:
Attach detailed site plan and topo map with pit location.

Pit Design and Construction

Size of pit (feet): Length: 10 Width: 10 Depth: 5
Calculated pit volume (bbls): 50 Daily inflow rate (bbls/day): NA
Daily disposal rates (attach calculations): Evaporation: NA bbls/day Percolation: NA bbls/day
Type of liner material: NA Thickness: NA
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): NA
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: 1/5/10

OGCC Approved: _____ Title: _____ Date: _____

CONDITIONS OF APPROVAL, IF ANY:

FACILITY NUMBER: 415153

EXPLORATION AND PRODUCTION
1058 CR #215
P.O. Box 370
Parachute, Colorado 81635
970/285-9377 – 970/285-9573 (fax)

January 11, 2009

Mr. Alex Fischer
Environmental Supervisor – Western Colorado
Colorado Oil and Gas Conservation Commission
1120 Lincoln St.
Denver, CO 80203

Re: Form 15 applications for the flare pits located on the RU 23-5, RU 34-6, SG 34-28, and KP 24-16 pads

Dear Mr. Fischer:

Enclosed are the COGCC Form 15 applications with attachments for the flare pits, owned by Williams Production RMT. These pits will be used to collect excess fluids that might be generated exclusively in an emergency situation during the drilling process.

The enclosures include:

- Form 15
- Topo Map with Pit Location
- Detailed Site Plan
- Pit Design, Cross Section, and Design Calculations
- Sensitive Area Determination
- Copy of Form 2A

I appreciate your consideration in this matter. If you have any questions or need additional information, please do not hesitate to call me at (970) 683-2295.

Best Regards,

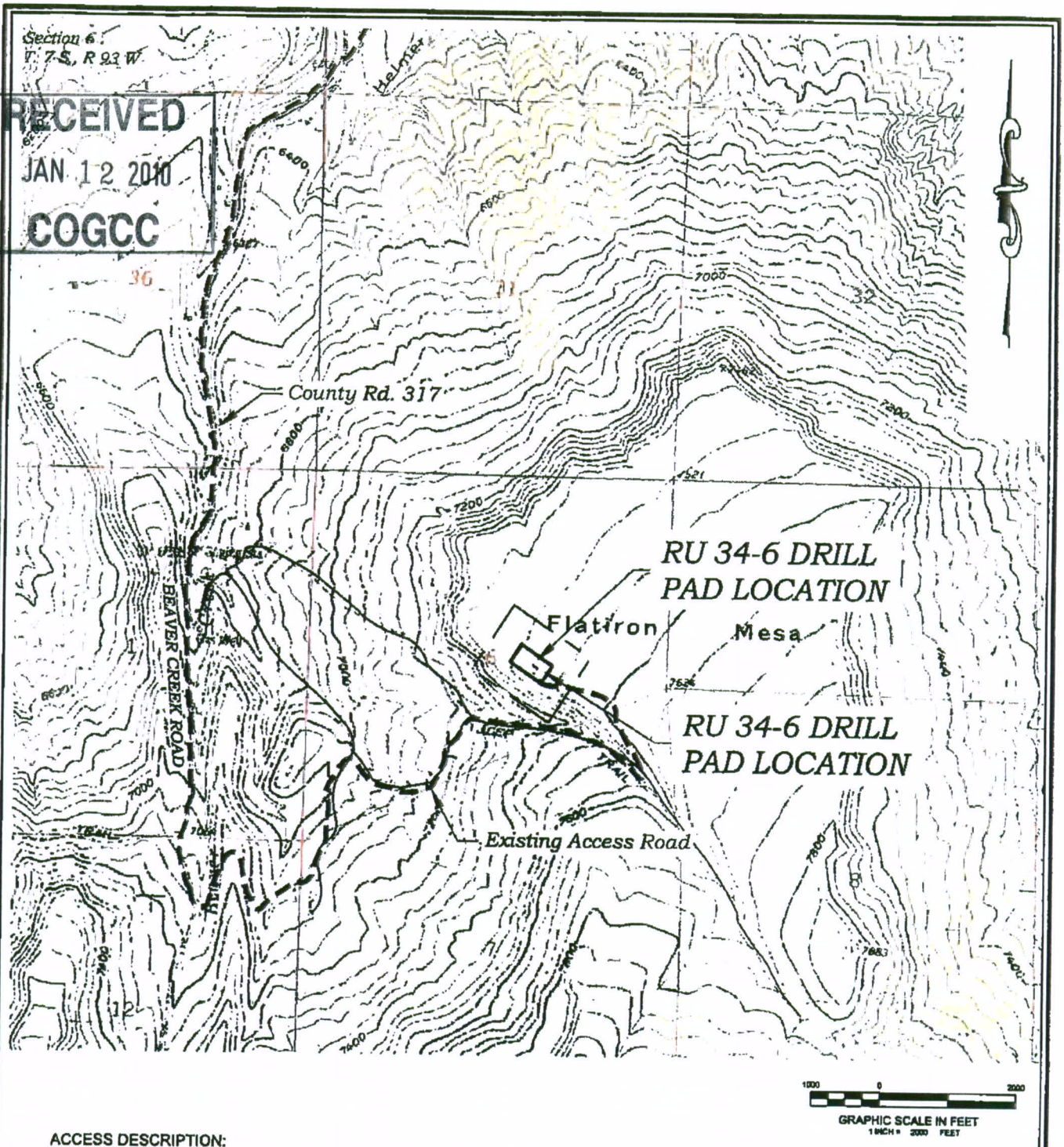
Karolina Blaney

Karolina Blaney
Environmental Specialist
Piceance - Valley Asset Team
(970) 683-2295 (Office)
(970) 589-0743 (Cell)
Karolina.Blaney@williams.com

cc (via e-mail): G. Davis

Environmental file (Waste Management)

Topo Map with Pit Location



ACCESS DESCRIPTION:
FROM THE INTERSECTION OF STATE HIGHWAY 6 AND COUNTY ROAD 323 (RULISON ROAD) NORTH OF RULISON, PROCEED SOUTHERLY ALONG COUNTY ROAD 323 (RULISON ROAD) ±1.1 MILES TO THE INTERSECTION WITH COUNTY ROAD 309 (RULISON PARACHUTE ROAD), PROCEED LEFT IN AN EASTERLY DIRECTION ±2.3 MILES TO THE INTERSECTION WITH COUNTY ROAD 320 (RIFLE RULISON ROAD), PROCEED RIGHT IN AN EASTERLY DIRECTION ±6.2 MILES TO THE INTERSECTION WITH COUNTY ROAD 317 (BEAVER CREEK ROAD), PROCEED RIGHT IN A SOUTHERLY DIRECTION ±3.6 MILES TO AN INTERSECTION WITH A DIRT/GRAVEL ROAD, PROCEED LEFT IN AN EASTERLY TO NORTHEASTERLY DIRECTION TO THE EXISTING RU 34-6 DRILL PAD LOCATION, AS SHOWN HEREON.

REVISED: 12/9/09

BOOKCLIFF Survey Services, Inc.

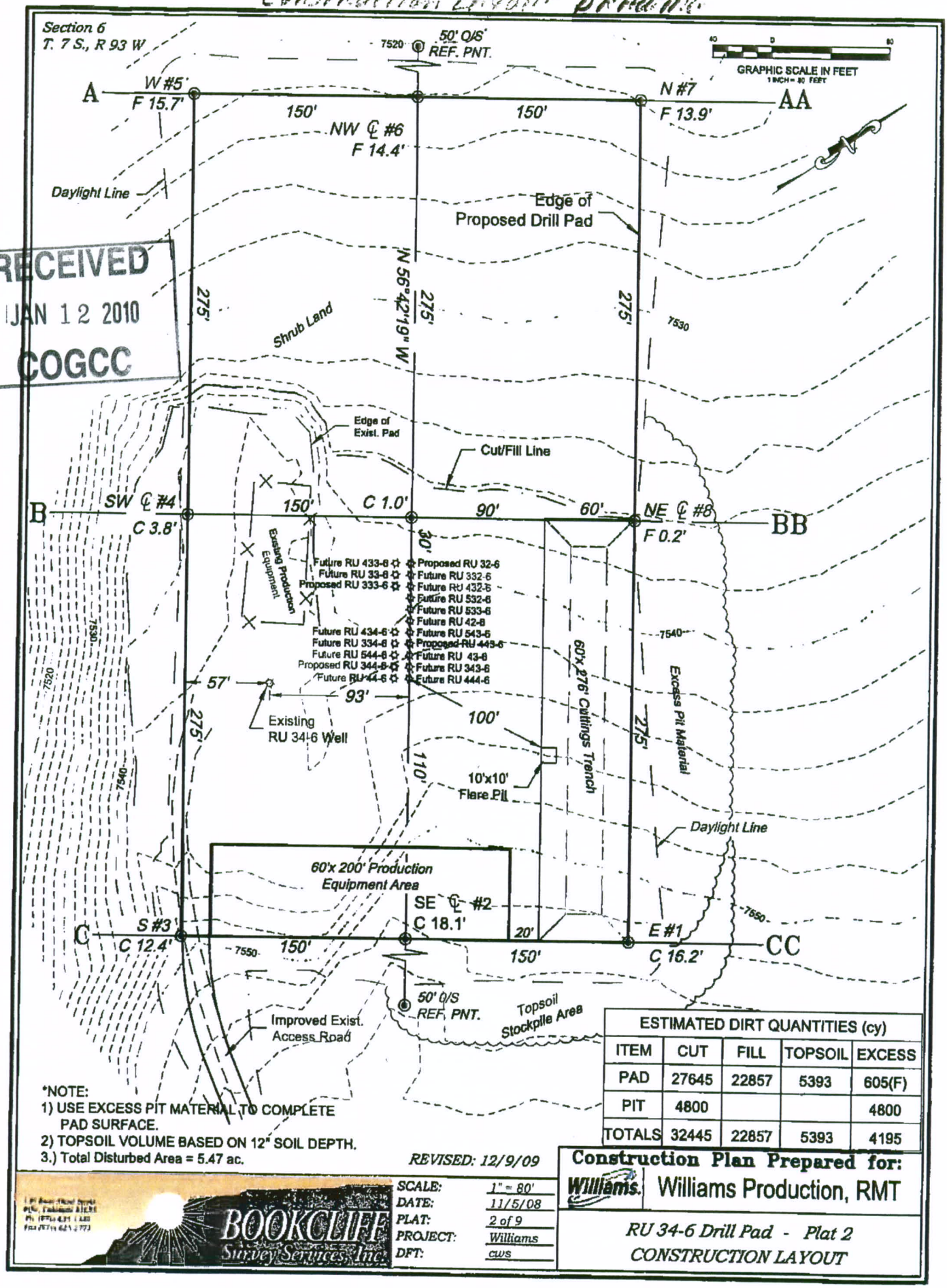
SCALE:	1" = 2000'
DATE:	11/5/08
PLAT:	5 of 9
PROJECT:	Williams
DFT:	cws

Construction Plan Prepared for:
Williams Production, RMT

RU 34-6 Drill Pad - Plat 5
ACCESS ROAD MAP

Detailed Site Plan

CONSTRUCTION LAYOUT - RU 34-6 W.C.



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ESTIMATED DIRT QUANTITIES (cy)				
ITEM	CUT	FILL	TOPSOIL	EXCESS
PAD	27645	22857	5393	605(F)
PIT	4800			4800
TOTALS	32445	22857	5393	4195

*NOTE:
1) USE EXCESS PIT MATERIAL TO COMPLETE PAD SURFACE.
2) TOPSOIL VOLUME BASED ON 12" SOIL DEPTH.
3.) Total Disturbed Area = 5.47 ac.

REVISED: 12/9/09

BOOKCLIFF Survey Services, Inc.

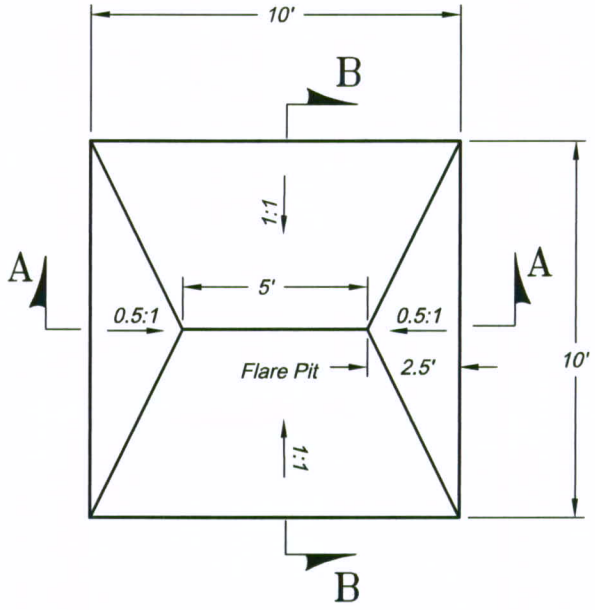
SCALE:	1" = 80'
DATE:	11/5/08
PLAT:	2 of 9
PROJECT:	Williams
DFT:	cws

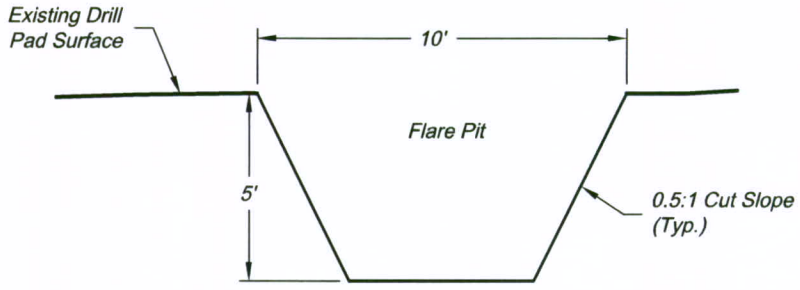
Construction Plan Prepared for:
Williams Production, RMT

RU 34-6 Drill Pad - Plat 2
CONSTRUCTION LAYOUT

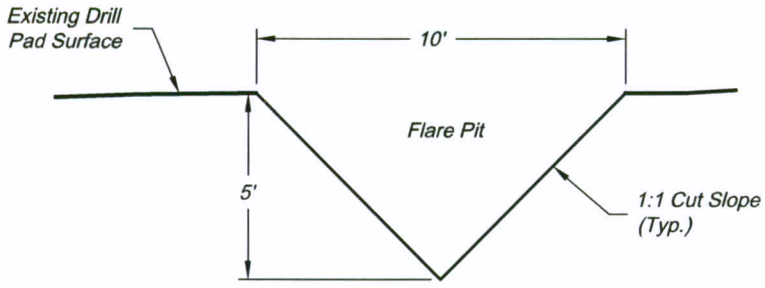
Pit Design/Plan and Cross Section

Design Calculations





Section A
Scale: 1" = 5'



Section B
Scale: 1" = 5'

Total Volume ~ 50bbls

Revised date:8/11/09

136 East Third Street
Rifle, Colorado 81650
Ph. (970) 625-1330
Fax (970) 625-2773
BOOKCLIFF Survey Services, Inc.

SCALE:	1" = 5'
DATE:	5/15/09
SHEET:	1 of 1
PROJECT:	Williams
DFT:	cws

Construction Plan Prepared for:
Williams Production, RMT

10' x 10' FLARE PIT
WILLIAMS STANDARD DETAIL

K:\Williams\Typicals\Flare Pit.dwg, 5/15/2009 3:16:54 PM

Sensitive Area Determination

Sensitive Area Determination Checklist

Williams Production RMT Company – Valley		
Person(s) conducting inspection	Ashlee Lane	12/03/09
Site Information	Existing location with proposed well pad extension	
Location:	RU 34-6	Time: 1130
Type of Facility:	Well Pad	
Environmental Conditions	Clear and calm; soils are dry and frozen; snow patches present in some areas.	
Temperature (°F)	10°F	

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: Unnamed Intermittent stream

   If yes, describe location relative to facility: South of the location ~580 feet

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.
   If a release were to occur off the southwest side of the pad it would migrate down the hillside adjacent to the pad. However the hillside is covered with Piñyon/Juniper forest. The vegetation would act as a buffer making the likelihood of a release reaching the surface water very low.

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

Williams

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): Cuttings trench, Flare 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 $\leq 1.0 \times 10^{-7}$ 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 5(a) of this section).*
   ☒ No (*If no, follow instructions provided in 5(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.
   (iii) Drill a soil boring to determine depth to groundwater or
   (iv) Model hydro geologic conditions to determine if the potential to impact groundwater is high or low.

7. Is the potential to impact ground water from the facility in the event of a release high or low?
   ☐ High ☒ Low

Additional Comments:

No water well data is available for this location and/or the area surrounding the location. Vegetation in the area of proposed expansion does not suggest the presence of shallow groundwater within the immediate proximity of the facility.

The proposed pad expansion will be located on top of a mesa. South/south west of the location the topography drops off abruptly into the main Flat Iron Mesa valley approximately 166 feet below the pad where the unnamed intermittent stream is located. As stated in the surface water section the hillside is well vegetated which would aid in mitigating any release that could potentially migrate off the pad. In addition, the intermittent stream in the immediate vicinity below the proposed expansion exhibits more ephemeral characteristics than intermittent based on the vegetation present.

When expansion of the pad commences; if special attention is given to ensure adequate storm water BMP's are in place on the southwestern side of the well pad, this will further assist in mitigating any potential impacts to the unnamed intermittent stream below the pad.

Based on the above mentioned data, this location is not located within a sensitive area.

Inspector(s) Signature(s): _____ Date: 12/03/09

_____ Date: 12/23/09

Copy of Form 2A

Form 2A Rev 03/09 — Page 1

State of Colorado
Oil and Gas Conservation Commission
1120 Lincoln Street, Suite 801 Denver, Colorado 80203 Phone: (303)894-2100 Fax:(303)894-2109

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Deemed Complete:

Oil and Gas Location Assessment

☐ New Location ☒ Amend Existing Location Location #: 335044

Submit original plus one copy. This form is to be submitted to the COGCC prior to any ground disturbance activity associated with oil and gas development operations. This Assessment may be approved as a stand alone application or submitted as an informational report accompanying an Application for Permit-To-Drill, Form 2. Approval of this Assessment will allow for the construction of the below specified location; however, it does not supersede any land use rules applied by the local land use authority. This form may serve as notice to land owners and other interested parties, please see the COGCC web site at http://colorado.gov/cogcc/ for all accompanying information pertinent to this Oil and Gas Location Assessment.

☒ This location assessment is included as part of a permit application.

Complete the Attachment Checklist

Attachment	Op	COGCC
Location Pictures	☒	
Location Drawing	☒	
Hydrology Map	☒	
Access Road Map	☒	
Reference Area Map	☒	
Reference Area Pictures	☐	
NRCS Map Unit Desc	☒	
Const. Layout Drawings	☒	
Multi-well Plan	☒	
Proposed BMPs	☒	
Sensitive Area Data	☐	
Section 404 Permit	☐	
COP Conditions	☐	
317B Notification	☐	
	☐	

1. Consultation

☐ This location is included in a Comprehensive Drilling Plan. COP #
☐ This location is in a sensitive wildlife habitat area.
☐ This location is in a wildlife restricted surface occupancy area.
☐ This location includes a Rule 306.d.(1)A.ii. variance request.

2. Operator

Operator Number: 96850 Suffix:
Name: Williams Production RMT Company
Address: 1515 Arapahoe St., Tower 3, Suite 1000
City: Denver State: CO Zip: 80202

3. Contact Information

Name: Greg Davis
Phone: 303 606-4071
Fax: 303 629-8272
email: Greg.J.Davis@Williams.com

4. Location Identification:

Name: Federal Number: RU 34-6
County: Garfield
QuarterQuarter: SWSE Section: 6 Township: 7S Range: 93W Meridian: 6th Ground Elevation: 7542'

Define a single point as a location reference for the facility location. This point should be used as the point of measurement in the drawings to be submitted with this application. When the location is to be used as a well site then the point shall be a well location.

Footage at surface: 1036 feet, from North or South section line: S and 1956 feet, from East or West section line: E
Latitude: 39.467855 Longitude: 107.814924 PDOP Reading: <6.0 Date of Measurement: 6/03/08
Instrument operator's name: J. Kirkpatrick

5. Facilities (Indicate the number of each type of oil and gas facility planned on location)

Wells	5	Drilling Pits		Special Purpose Pits		Production Pits		Multi-Well Pits		Oil Tanks	
Condensate Tanks	3	Water Tanks	3	Separators	5	LACT Unit		Dehydrator Units		Gas Compressors	
Pump Jacks		Cavity Pumps		Electric Motors		Gas or Diesel Motors		Electric Generators		Fuel Tanks	
Pigging Station		Gas Pipeline	1	Oil Pipeline		Water Pipeline		Flare	1	VOC Combustor	
Other:				Cuttings Trench							

6. Construction

Date planned to commence construction: 6/1/10 Size of disturbed area during construction in acres: 5.47 Is H2S Anticipated: Yes ☐
Estimated date that interim reclamation will begin: 11/1/10 Size of location after interim reclamation in acres: 1.28
Estimated post-construction ground elevation: 7542' Will a closed loop system be used for drilling fluids: Yes ☒
Will salt sections be encountered during drilling: Yes ☐ No ☒ Will salt (>15,000 ppm TDS Cl) or oil based muds be used : Yes ☐ No ☒
Mud disposal: Offsite ☒ Onsite ☐ Method : Land Farming ☐ Land Spreading ☐ Disposal Facility ☐ Other ☒ re-used

7. Surface Owner

Name: Bureau of Land Management Phone:
Address: 2300 River Frontage Road Fax:
Address: email:
City: Silt State: CO Zip: 81652 Date of Rule 306 surface owner consultation: N/A
Surface Owner: ☐ Fee ☐ State ☒ Federal ☐ Indian
Mineral Owner: ☐ Fee ☐ State ☒ Federal ☐ Indian
The surface owner is: ☒ the mineral owner ☐ committed to an oil and gas lease ☐ is the executor of the oil and gas lease. ☐ the applicant
The right to construct the location is granted by: ☒ oil and gas lease ☐ Surface Use Agreement ☐ Right of Way ☐ applicant is owner
Surface damage assurance if no agreement is in place: ☐ $2,000 ☐ $5,000 ☒ Blanket Surety Id:

8. Reclamation Financial Assurance

☒ Well Surety Id: 20030107 ☐ Gas Facility Surety Id: ☐ Waste Management Surety Id:

9. Cultural

Is the location in a high density area (Rule 603.b.): Yes ☐ No ☒
Distance, in feet, to nearest building: 6569' , public road: 4986' , above ground utility: 855' , railroad: 19695' , property line: 1564'

Continue on Page Two

State of Colorado
Oil and Gas Conservation Commission
1120 Lincoln Street, Suite 801, Denver, Colorado 80203 Phone: (303)894-2100 Fax:(303)894-2109

Oil and Gas Location Assessment Page 2

10. Current Land Use (Check all that apply)

Crop Land:	☐ Irrigated	☐ Dry land	☐ Improved Pasture	☐ Hay Meadow	☐ CRP
Non-Crop Land:	☒ Rangeland	☐ Timber	☐ Recreational	☐ Other (describe):	
Subdivided:	☐ Industrial	☐ Commercial	☐ Residential		

11. Future Land Use (Check all that apply)

Crop Land:	☐ Irrigated	☐ Dry land	☐ Improved Pasture	☐ Hay Meadow	☐ CRP
Non-Crop Land:	☒ Rangeland	☐ Timber	☐ Recreational	☐ Other (describe):	
Subdivided:	☐ Industrial	☐ Commercial	☐ Residential		

12. Soils

List all soil map units that occur within the proposed location. Attach the National Resource Conservation Service (NRCS) report showing the "Map Unit Description" report listing the soil typical vertical profile. This data is to used when segregating topsoil.

The required information can be obtained from the NRCS web site at http://soildatamart.nrcs.usda.gov/ or from the COGCC web site GIS Online map page found at http://colorado.gov/cogcc. Instructions are provided within the COGCC web site help section.

NRCS Map Unit Name: 45 - Morval-Tridell complex, 6 to 25% slopes

NRCS Map Unit Name:

NRCS Map Unit Name:

13. Plant Community

Complete this section only if any portion of the disturbed area of the location's current land use is on non-crop land.

Are noxious weeds present: Yes ☐ No ☒

Plant species from: ☐ NRCS or, ☒ field observation Date of observation: 12/1/09

List individual species:

Check all plant communities that exist in the disturbed area.

- ☐ Disturbed Grassland (Cactus, Yucca, Cheatgrass, Rye)
- ☐ Native Grassland (Bluestem, Grama, Wheatgrass, Buffalograss, Fescue, Oatgrass, Brome)
- ☒ Shrub Land (Mahogany, Oak, Sage, Serviceberry, Chokecherry)
- ☐ Plains Riparian (Cottonwood, Willow, Aspen, Maple, Poplar, Russian Olive, Tamarisk)
- ☐ Mountain Riparian (Cottonwood, Willow, Blue Spruce)
- ☐ Forest Land (Spruce, Fir, Ponderosa Pine, Lodgepole Pine, Juniper, Pinyon, Aspen)
- ☐ Wetlands Aquatic (Bullrush, Sedge, Cattail, Arrowhead)
- ☐ Alpine (above timberline)
- ☐ Other (describe):

14. Water Resources

Rule 901.e. may require a sensitive area determination be performed. If this determination is performed the data is to be submitted with the Form 2A.

Is this a sensitive area: ☒ No ☐ Yes Was a Rule 901.e. Sensitive Areas Determination performed: ☒ No ☐ Yes

Distance (in feet) to nearest surface water: 773' , water well: 6165' , depth to ground water: 50'

Is the location in a riparian area: ☒ No ☐ Yes Was an Army Corps of Engineers Section 404 permit filed: ☒ No ☐ Yes If yes attach permit.

Is the location within a Rule 317B Surface Water Supply Area buffer zone: ☒ No ☐ 0-300 ft. zone ☐ 301-500 ft. zone ☐ 501-2640 ft. zone

If the location is within a Rule 317B Surface Water Supply Area buffer have all public water supply systems within 15 miles been notified : ☒ No ☐ Yes

15. Comments

This location assessment is for the construction of a new well pad. There will be a total of 20 wells on the pad when drilled out. Williams is currently submitting 4 re-file APD's for permit approval.

Pad is located on Federal Surface

The location reference point for this facility is the RU 32-6 well. All measurements were taken from this point.

Reference Area photos will be taken at a later date, due to snow cover.

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

Signed: Greg Davis Date: 12/18/09 Email: Greg.J.Davis@Williams.com

Print Name: Greg Davis Title: Supervisor Permits

COGCC Approved: Title: Date:

CONDITIONS OF APPROVAL will be attached. Location Number:

Federal RU 34-6

RU 443-6, RU 32-6, RU 344-6, RU 333-6

PHOTO: VIEW FROM PAD CENTER

CAMERA ANGLE: NORTH

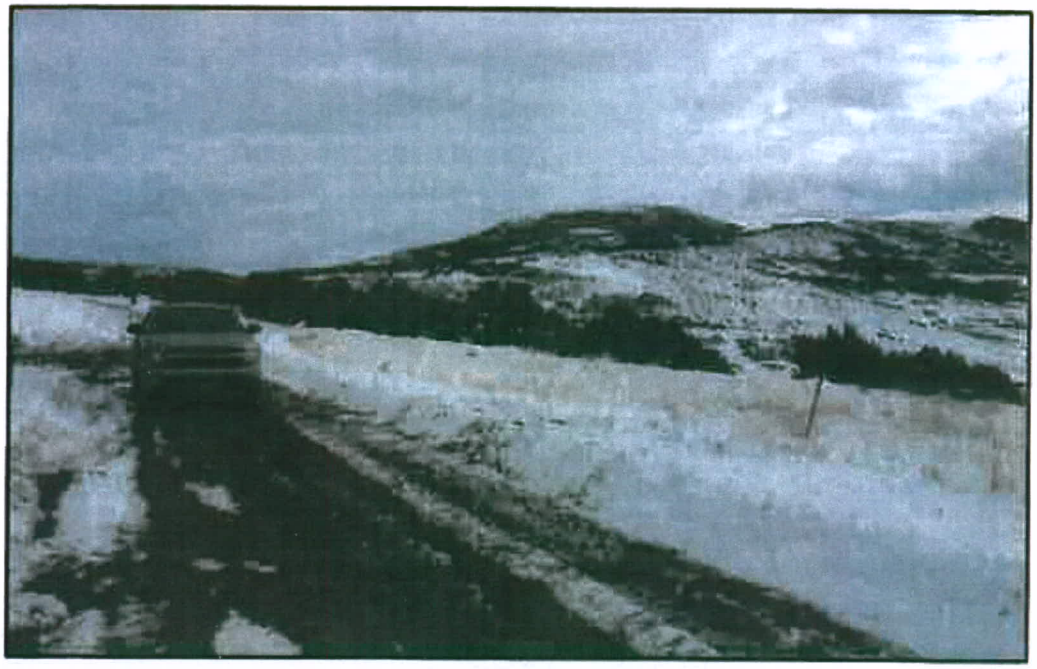


PHOTO: VIEW FROM PAD CENTER

CAMERA ANGLE: SOUTH

BOOKCLIFF Survey Services, Inc.

PHOTO DATE:	12/16/09
TAKEN BY:	WK
DRAWN BY:	DPM
SHEET:	1 of 3
PROJECT:	Williams

LOCATION PHOTOS Prepared for:

Williams Production, RMT

SW1/4 SE1/4, SECTION 6
T. 7 S., R. 93 W. of the 6th. P.M.
GARFIELD COUNTY, COLORADO

Federal RU 34-6

RU 443-6, RU 32-6, RU 344-6, RU 333-6

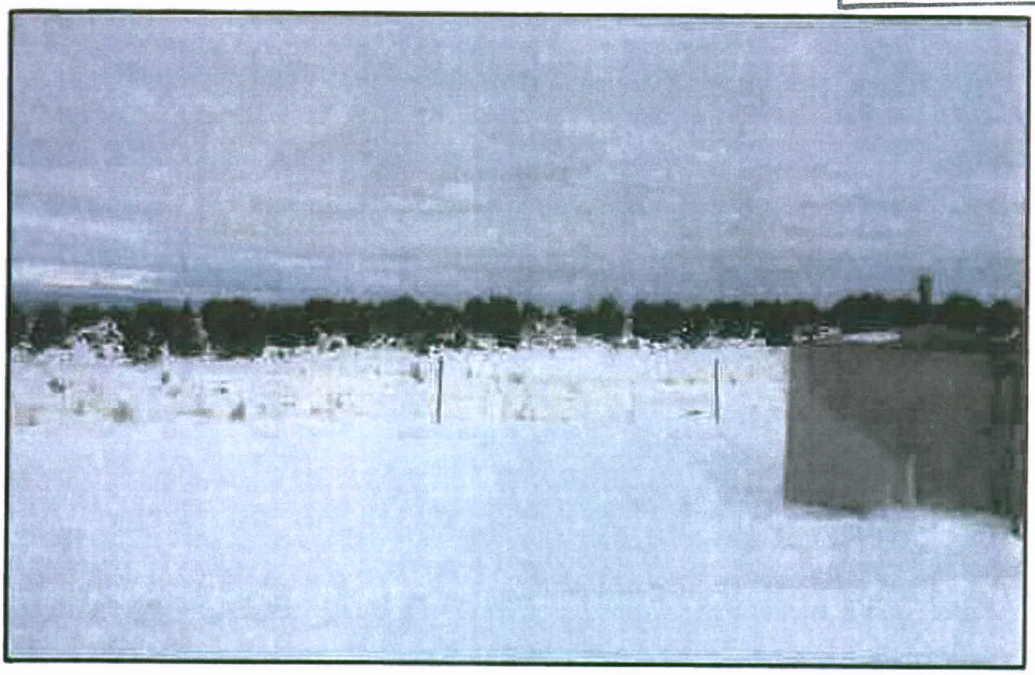


PHOTO: VIEW FROM PAD CENTER *CAMERA ANGLE: EAST*

PHOTO: VIEW FROM PAD CENTER *CAMERA ANGLE: WEST*

BOOKCLIFF Survey Services, Inc.

PHOTO DATE:	12/16/09
TAKEN BY:	WK
DRAWN BY:	DPM
SHEET:	2 of 3
PROJECT:	Williams

LOCATION PHOTOS Prepared for:
Williams Production, RMT

SW1/4 SE1/4, SECTION 6
T. 7 S., R. 93 W. of the 6th. P.M.
GARFIELD COUNTY, COLORADO

Federal RU 34-6

RU 443-6, RU 32-6, RU 344-6, RU 333-6

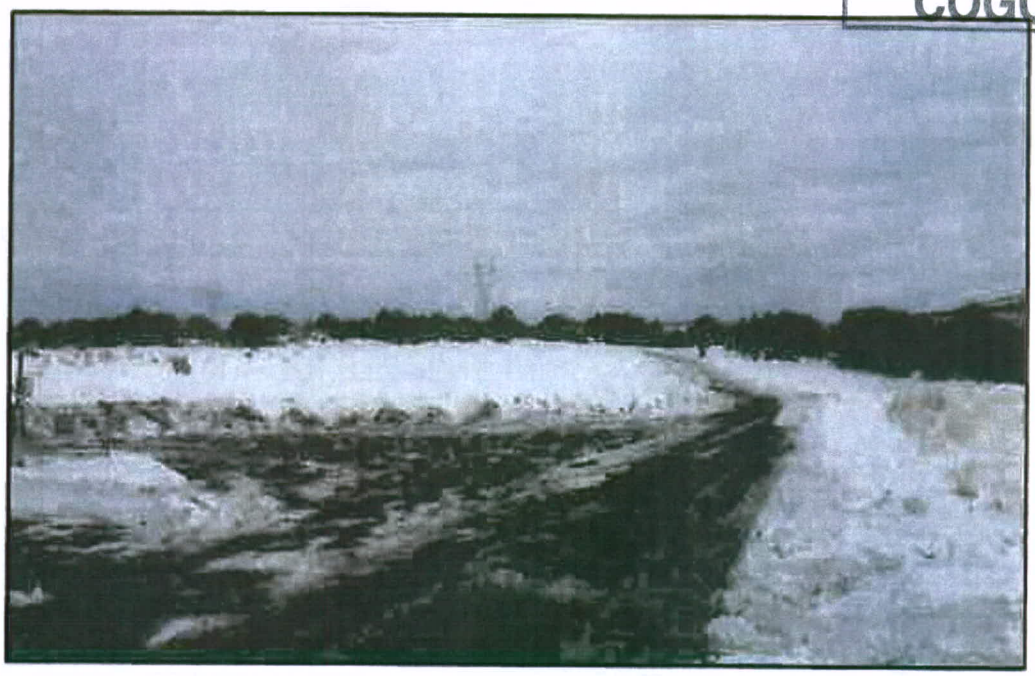


PHOTO: VIEW OF EXISTING ACCESS

CAMERA ANGLE: SOUTHEAST

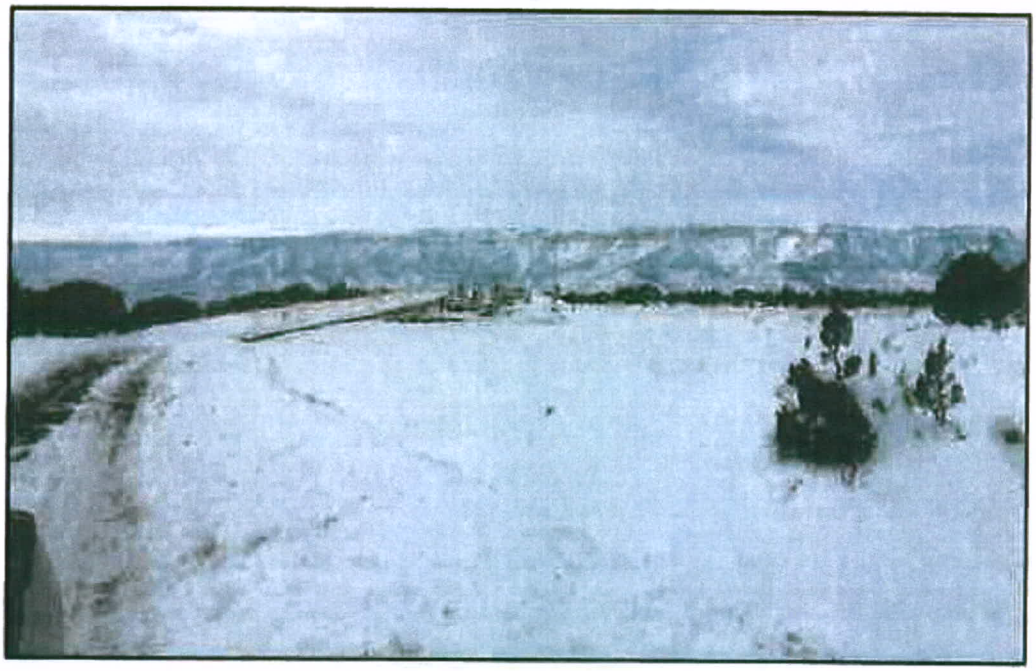


PHOTO: VIEW OF OVERALL DRILL PAD

CAMERA ANGLE: NORTHWEST

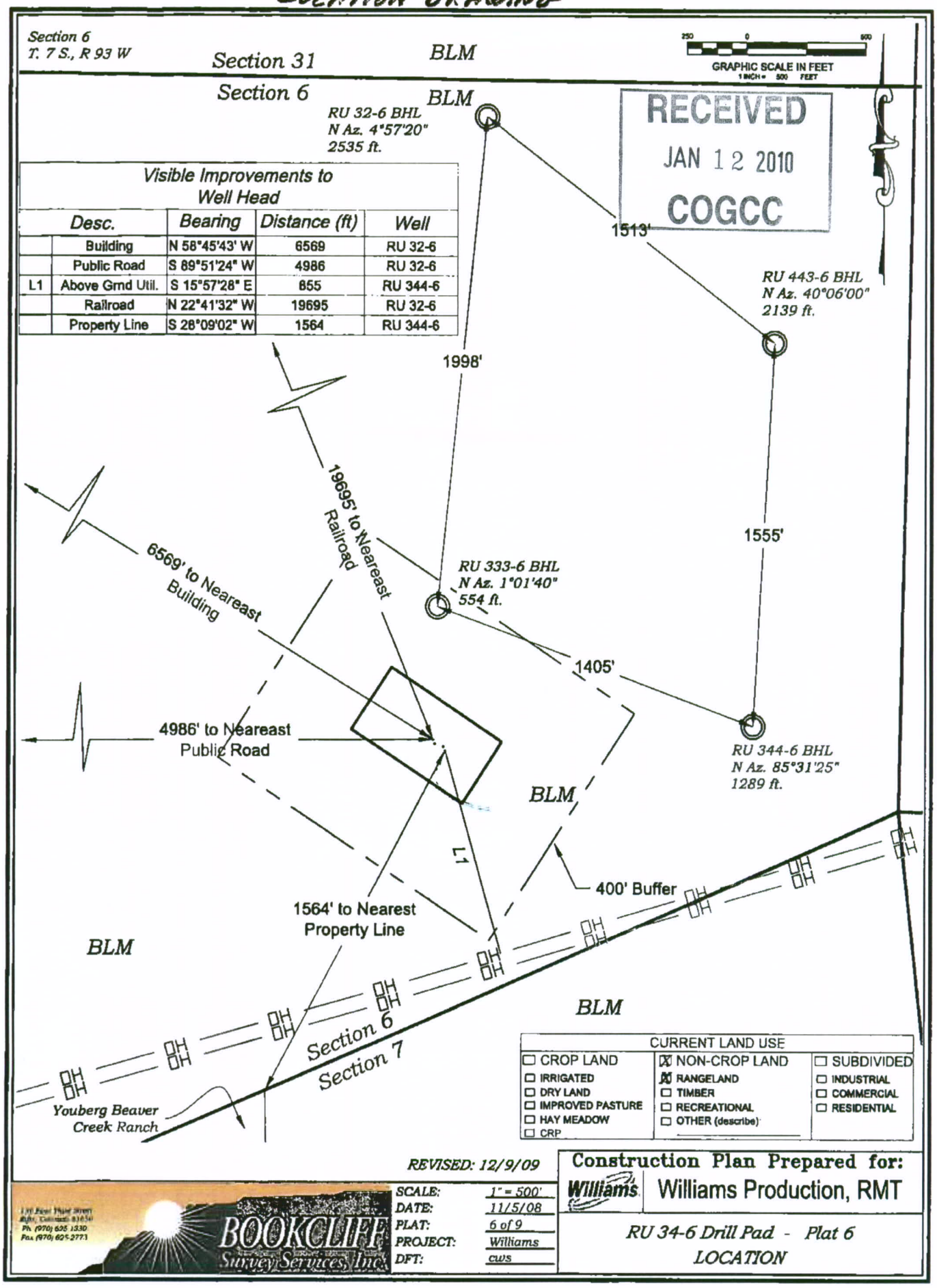
BOOKCLIFF
Survey Services, Inc.

PHOTO DATE:	12/16/09
TAKEN BY:	WK
DRAWN BY:	DPM
SHEET:	3 of 3
PROJECT:	Williams

LOCATION PHOTOS Prepared for:
Williams Production, RMT

SW1/4 SE1/4, SECTION 6
T. 7 S., R. 93 W. of the 6th. P.M.
GARFIELD COUNTY, COLORADO

LOCATION DRAWING



Visible Improvements to Well Head				
	Desc.	Bearing	Distance (ft)	Well
	Building	N 58°45'43" W	6569	RU 32-6
	Public Road	S 89°51'24" W	4986	RU 32-6
L1	Above Grnd Util.	S 15°57'28" E	855	RU 344-6
	Railroad	N 22°41'32" W	19695	RU 32-6
	Property Line	S 28°09'02" W	1564	RU 344-6

CURRENT LAND USE		
☐ CROP LAND	☒ NON-CROP LAND	☐ SUBDIVIDED
☐ IRRIGATED	☒ RANGELAND	☐ INDUSTRIAL
☐ DRY LAND	☐ TIMBER	☐ COMMERCIAL
☐ IMPROVED PASTURE	☐ RECREATIONAL	☐ RESIDENTIAL
☐ HAY MEADOW	☐ OTHER (describe)	
☐ CRP		

REVISED: 12/9/09

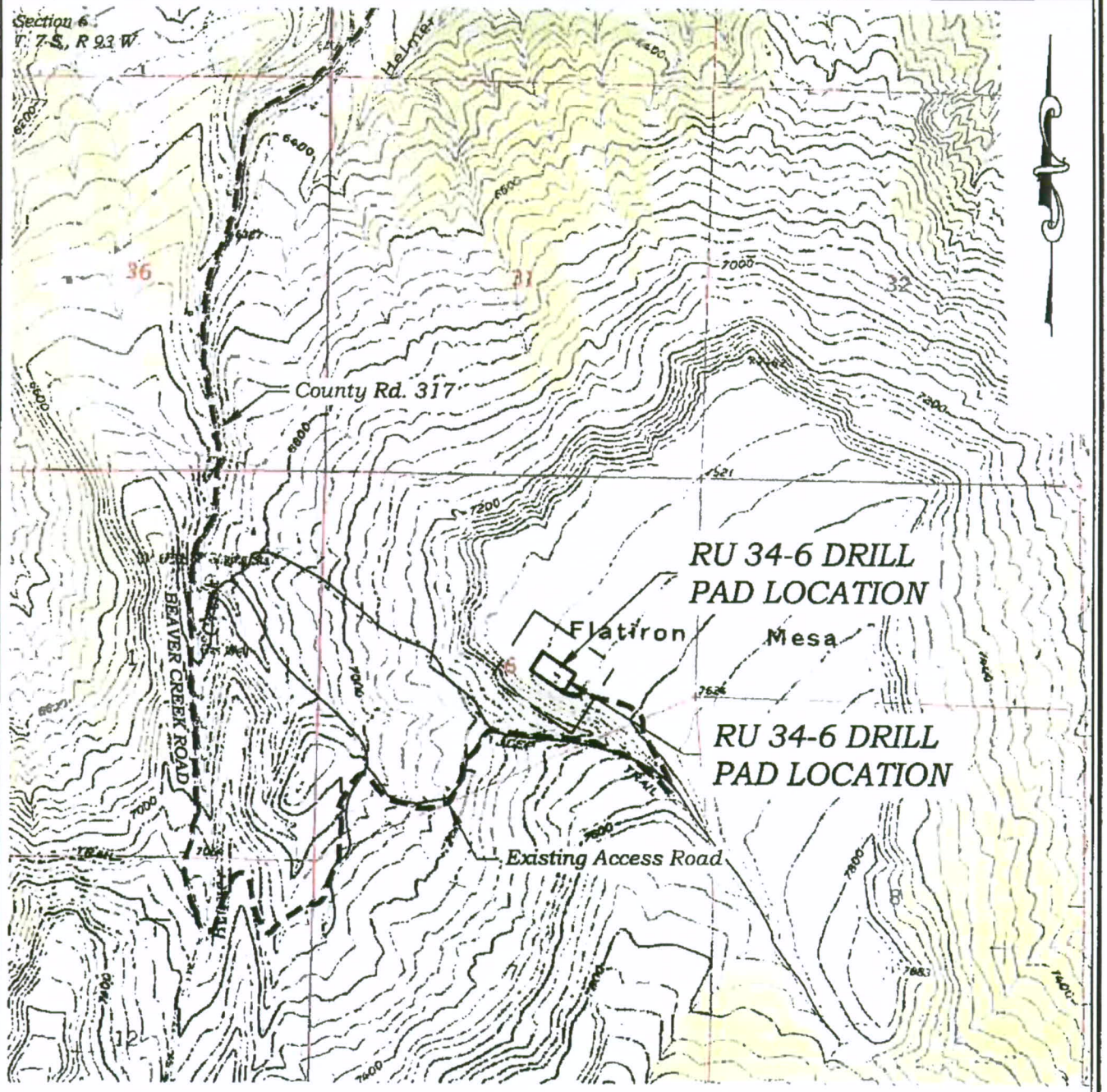
BOOKCLIFF Survey Services, Inc.
Ph. (970) 625 1330
Fax (970) 625-2773

SCALE:	1" = 500'
DATE:	11/5/08
PLAT:	6 of 9
PROJECT:	Williams
DFT:	cws

Construction Plan Prepared for:
Williams Production, RMT

RU 34-6 Drill Pad - Plat 6
LOCATION

K:\2008 WILLIAMS CURED\RU 34-6\RU 34-6 dst2.dwg, 12/16/2009 8:17:12 AM, 1:1



ACCESS DESCRIPTION:

FROM THE INTERSECTION OF STATE HIGHWAY 6 AND COUNTY ROAD 323 (RULISON ROAD) NORTH OF RULISON, PROCEED SOUTHERLY ALONG COUNTY ROAD 323 (RULISON ROAD) ±1.1 MILES TO THE INTERSECTION WITH COUNTY ROAD 309 (RULISON PARACHUTE ROAD), PROCEED LEFT IN AN EASTERLY DIRECTION ±2.3 MILES TO THE INTERSECTION WITH COUNTY ROAD 320 (RIFLE RULISON ROAD), PROCEED RIGHT IN AN EASTERLY DIRECTION ±6.2 MILES TO THE INTERSECTION WITH COUNTY ROAD 317 (BEAVER CREEK ROAD), PROCEED RIGHT IN A SOUTHERLY DIRECTION ±3.6 MILES TO AN INTERSECTION WITH A DIRT/GRAVEL ROAD, PROCEED LEFT IN AN EASTERLY TO NORTHEASTERLY DIRECTION TO THE EXISTING RU 34-6 DRILL PAD LOCATION, AS SHOWN HEREON.

REVISED: 12/9/09

BOOKCLIFF Survey Services, Inc.

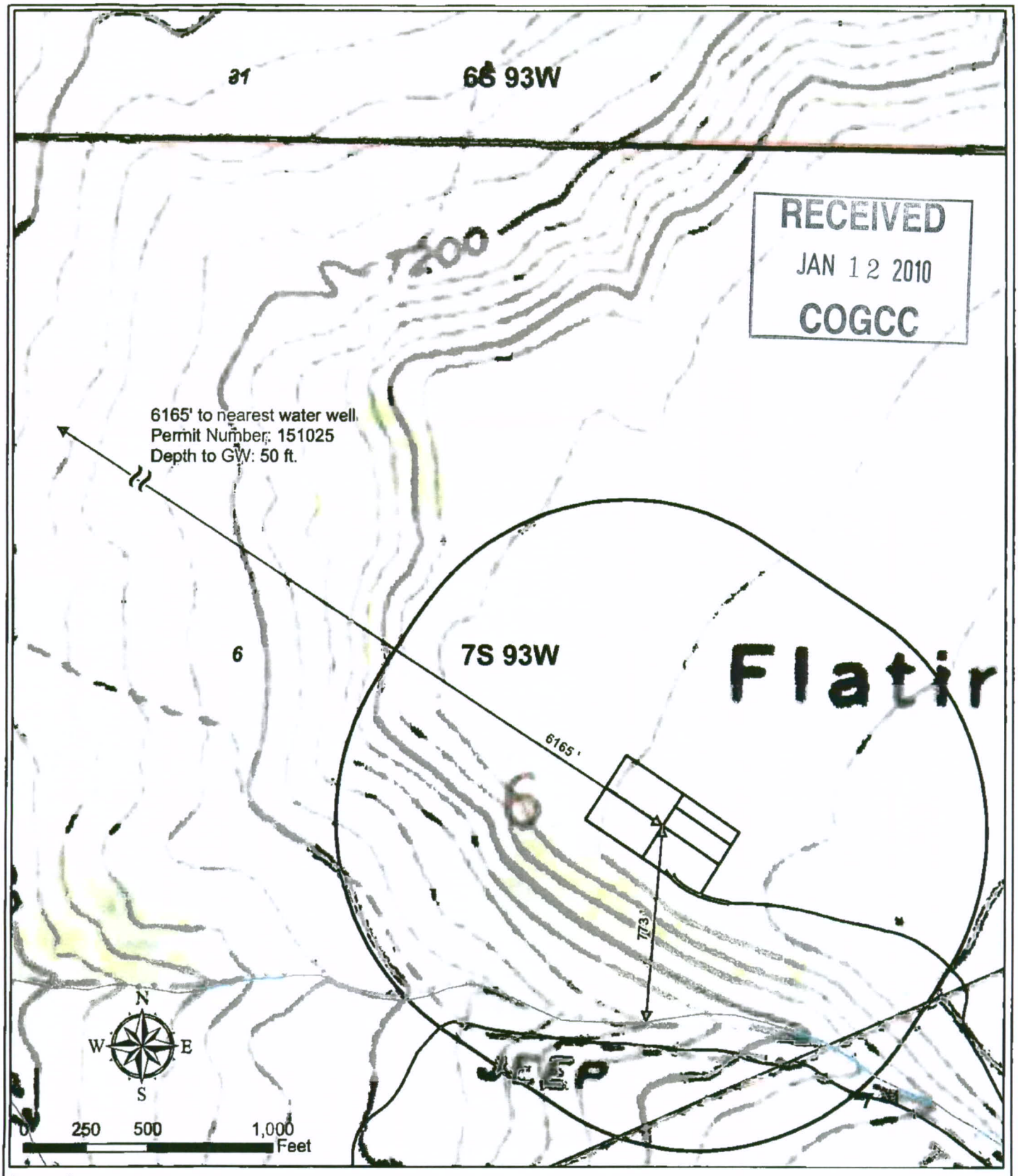
SCALE:	1" = 2000'
DATE:	11/5/08
PLAT:	5 of 9
PROJECT:	Williams
DFT:	CJS

Construction Plan Prepared for:

Williams | Williams Production, RMT

RU 34-6 Drill Pad - Plat 5

ACCESS ROAD MAP



Legend

- Water Well
- Pad
- Existing Road
- Stream
- 1000' Buffer

Williams Production RMT

Plat 5C

RU 34-6 Hydrology Map
T7S R93W, Section 6

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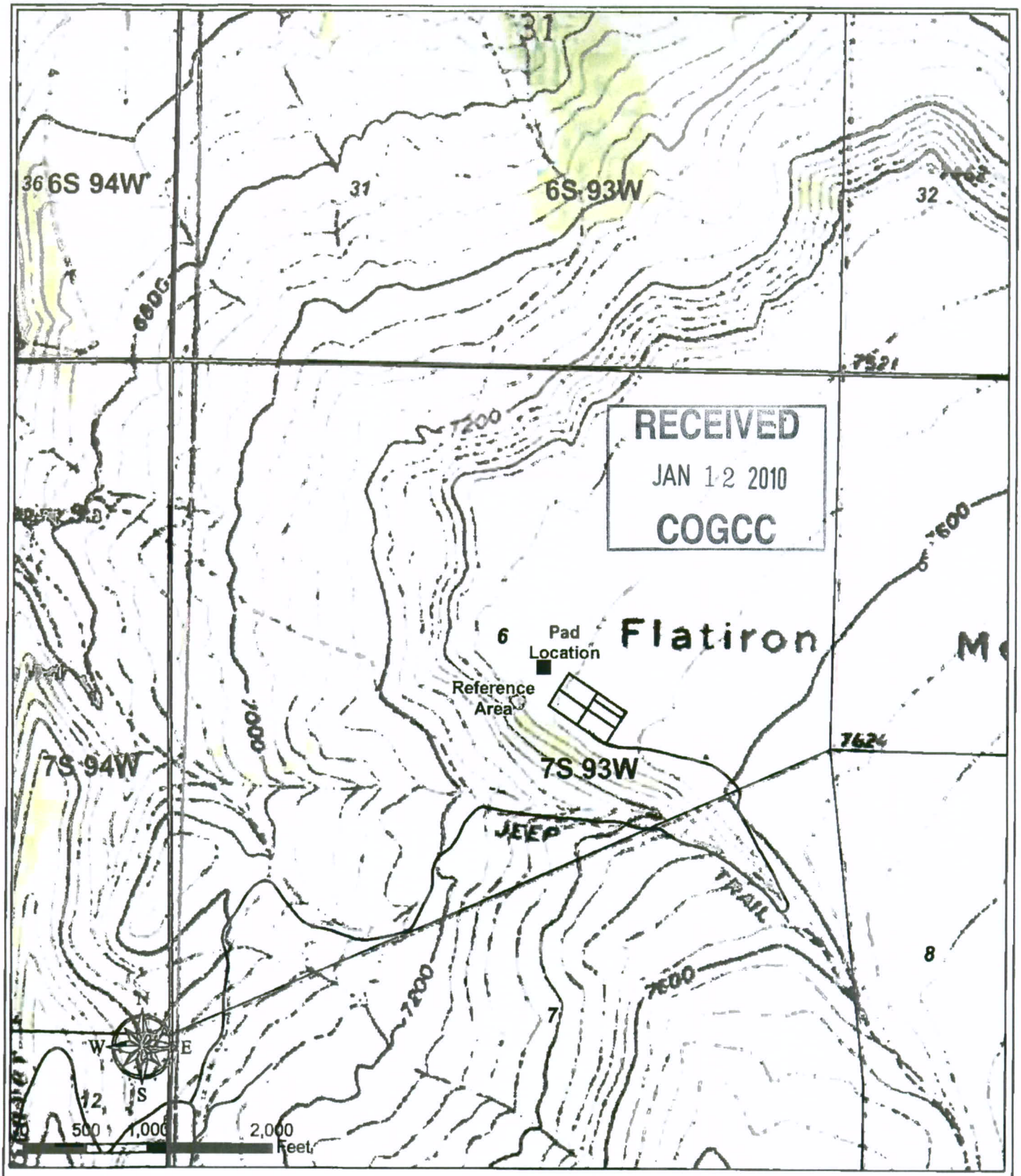

Legend

Pad

Existing Road

Williams Production RMT

Plat 5D

RU 34-6 Reference Area Map
T7S R93W, Section 6

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Map Unit Description

Rifle Area, Colorado, Parts of Garfield and Mesa Counties

45 Morval-Tridell complex, 6 to 25 percent slopes

Setting

Elevation: 6500 to 8000 feet

Composition

Morval and similar soils: 55 percent
Tridell and similar soils: 30 percent

Description of Morval

Setting

Landform: Mesas, alluvial fans
Down-slope shape: Convex, linear
Across-slope shape: Convex, linear
Parent material: Reworked alluvium derived from sandstone and/or reworked alluvium derived from basalt

Properties and Qualities

Slope: 6 to 12 percent
Drainage class: Well drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately high (0.20 to 0.60 in/hr)
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate maximum: 25 percent
Gypsum maximum: 0 percent
Available water capacity: Moderate (about 8.4 inches)

Interpretive Groups

Land capability (non irrigated): 4e
Ecological site: Deep Loam (R048AY292CO)

Typical Profile

0 to 5 inches: loam
5 to 17 inches: clay loam
17 to 27 inches: stony clay loam
27 to 60 inches: stony loam

Description of Tridell

Setting

Landform: Alluvial fans, mesas
Down-slope shape: Convex
Across-slope shape: Convex
Parent material: Reworked alluvium derived from sandstone and/or reworked alluvium derived from basalt

Properties and Qualities

Slope: 6 to 25 percent
Drainage class: Well drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately high or high (0.60 to 6.00 in/hr)
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate maximum: 30 percent
Gypsum maximum: 0 percent
Available water capacity: Low (about 5.2 inches)

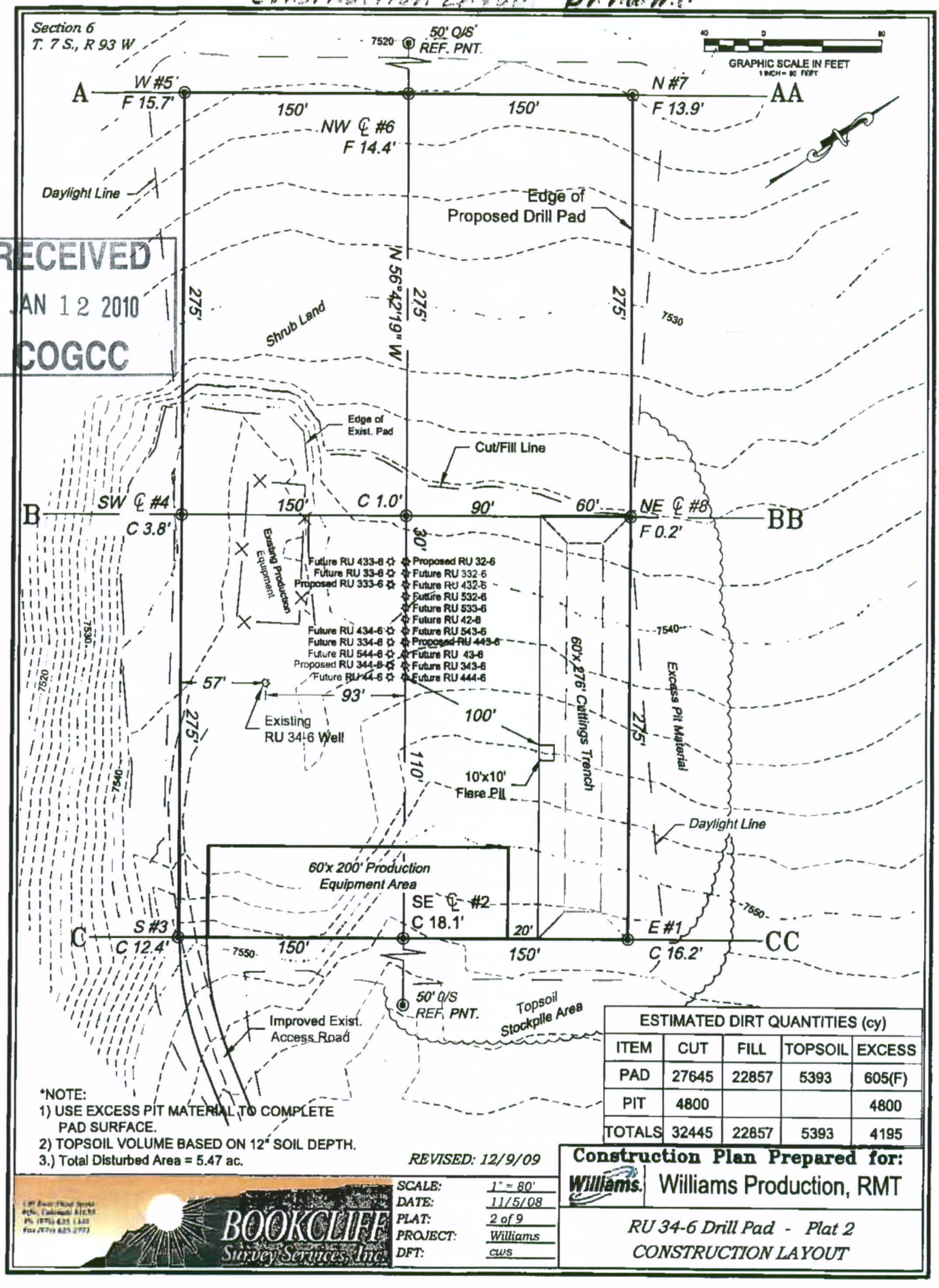
Interpretive Groups

Land capability (non irrigated): 6e

Typical Profile

0 to 10 inches: stony loam
10 to 60 inches: very stony loam

CONSTRUCTION LAYOUT - DRAWING



RECEIVED
JAN 12 2010
COGCC

ESTIMATED DIRT QUANTITIES (cy)				
ITEM	CUT	FILL	TOPSOIL	EXCESS
PAD	27645	22857	5393	605(F)
PIT	4800			4800
TOTALS	32445	22857	5393	4195

*NOTE:
1) USE EXCESS PIT MATERIAL TO COMPLETE PAD SURFACE.
2) TOPSOIL VOLUME BASED ON 12" SOIL DEPTH.
3.) Total Disturbed Area = 5.47 ac.

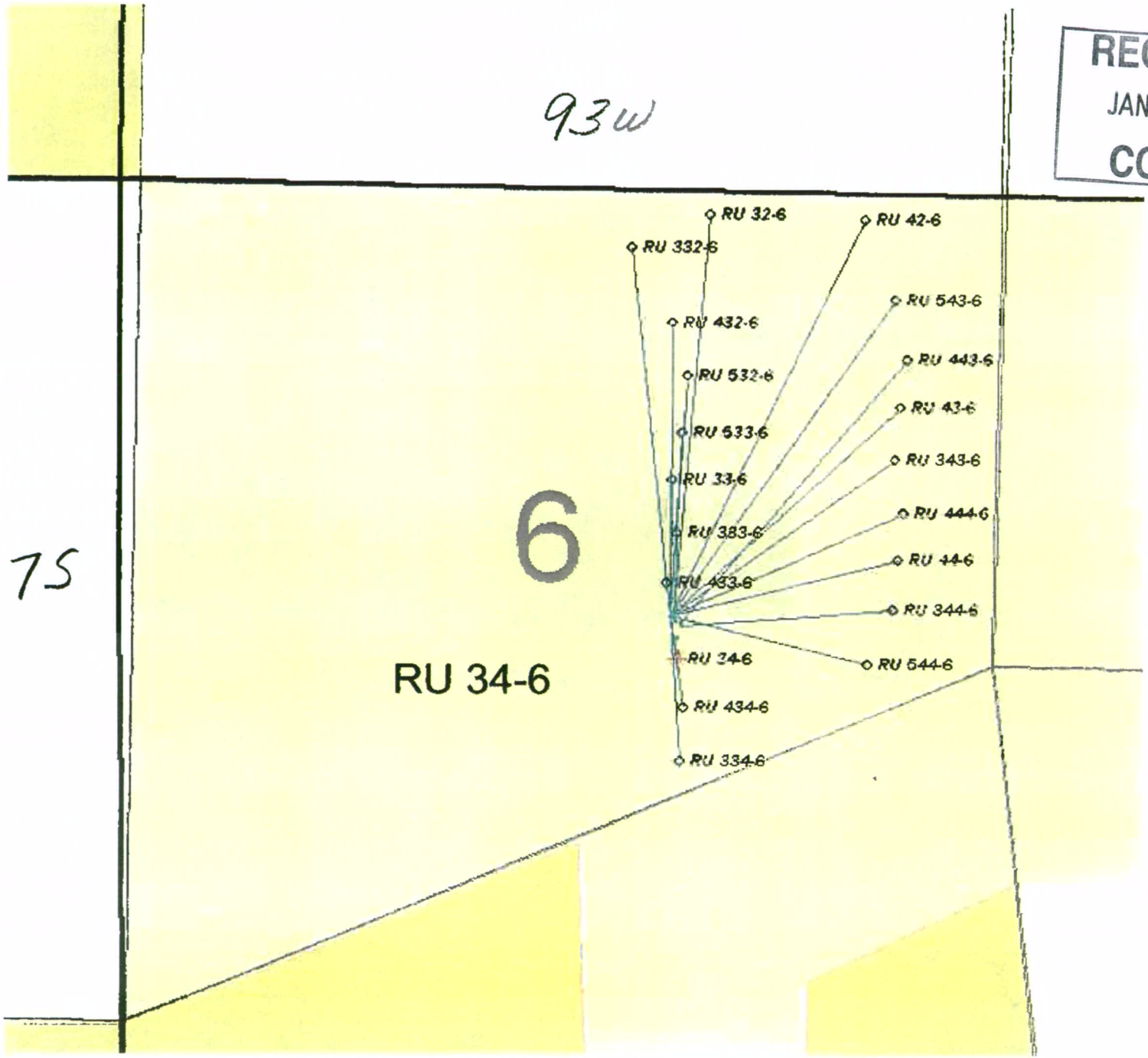
REVISED: 12/9/09

BOOKCLIFF Survey Services, Inc.

SCALE:	1" = 80'
DATE:	11/5/08
PLAT:	2 of 9
PROJECT:	Williams
DFT:	cws

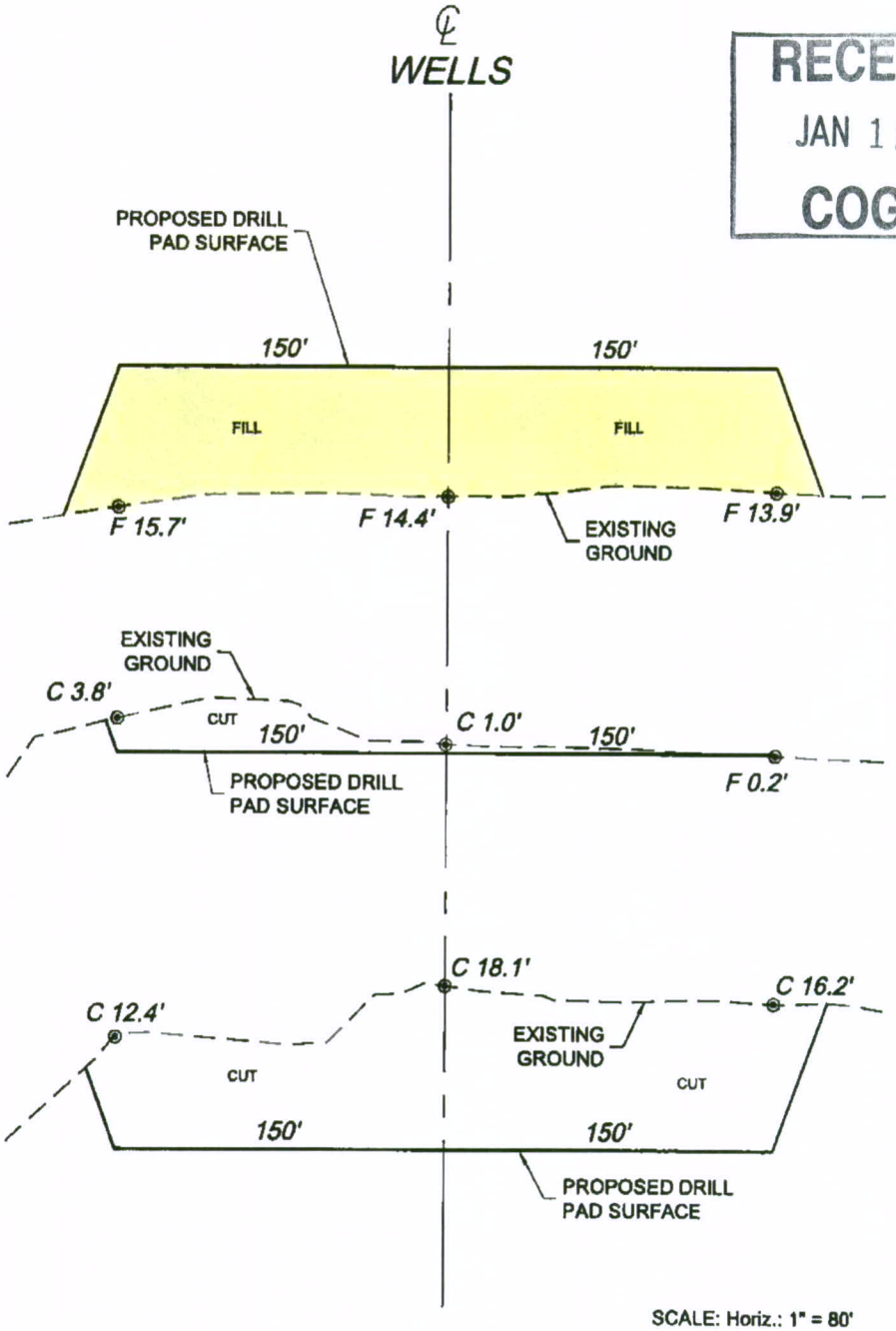
Construction Plan Prepared for:
Williams Production, RMT

RU 34-6 Drill Pad - Plat 2
CONSTRUCTION LAYOUT



CONSTRUCTION LAYOUT / X SECTION

Section 6
T. 7 S., R 93 W



RECEIVED
JAN 12 2010
COGCC

SCALE: Horiz.: 1" = 80'
Vert. : 1" = 20'

*NOTE:
ALL PROPOSED CUT AND FILL SIDE SLOPES ARE AT 1.5:1 UNLESS OTHERWISE NOTED.

REVISED: 12/9/09

BOOKCLIFF Survey Services, Inc.

SCALE:	As Noted
DATE:	11/5/08
PLAT:	3 of 9
PROJECT:	Williams
DFT:	cws

Construction Plan Prepared for:
Williams Production, RMT

RU 34-6 Drill Pad - Plat 3
CONSTRUCTION LAYOUT
CROSS SECTIONS

RU 34-6

In addition to compliance with General Operating Requirements required under COGCC rule 1203 to be applied in Sensitive Wildlife Habitat and Restricted Surface Occupancy areas or COGCC 1204 to be applied statewide or in areas noted in the Rule, Williams will employ the following BMPs either field wide or at the specific location for which this Form 2A is being submitted.

Field Wide BMPs:

General

- Prepare plans and studies to support wildlife conservation and protection
- Contribute to and participate in wildlife studies and research efforts related to oil and gas activity's relationship to wildlife
- Treat/control noxious weeds/plants including Tamarisk
- Assist CDOW in obtaining access to private lands for wildlife research and conservation
- Focus BMPs on critical wildlife seclusion and "crucial habitats'
- Contribute to organizations that acquire/manage habitat
- Continue to Support Operation Game Thief
- Continue to support CDOW sportsman's programs
- Participate in wildlife seminars and conferences (e.g. AFWA)
- Focus Ranch and Property Management (Williams' owned/managed properties) on wildlife resources
- Identify conservation easement opportunities on Williams-owned/managed properties
- Acquire water rights and irrigate key habitat areas
- Restrict and/or manage grazing to benefit wildlife
- Fence and restrict activities in locations that provide high value habitat
- Construct habitat improvement projects as practical
- Enforce policies to protect wildlife (e.g., no poaching, no firearms, no dogs on location, no feeding of wildlife, etc.).
- Inventory, monitor and remove obsolete, degraded, or hazardous fencing on Williams owned property
- Support research to test the effectiveness of specific Best Management Practices

Planning

- Conduct wildlife surveys to determine presence of game/non-game species/habitat
- Identify and Protect "crucial habitats"
- Site access roads, pads and facilities in locations that minimize habitat impacts
- Identify private and Federal land seclusion areas where drilling will be voluntarily deferred in critical seasonal habitats
- Identify and protect migration corridors
- Minimize well pad density to the extent possible

- Minimize the number, size and distribution of well pads and locate pads along existing roads where possible.
- Cluster well pads in the least environmentally sensitive areas.
- Plan pipelines routes ahead of time to avoid field fitting and reduce excessive ROW widths and reclamation.
- Adequately size infrastructure and facilities to accommodate both current and future gas production.

Construction

- Schedule necessary construction in stream courses to avoid critical spawning times.
- Surface roads to ensure that the anticipated volume of traffic and the weight and speed of vehicles using the road do not cause environmental damage, including generation of fugitive dust and contribution of sediment to downstream areas.
- Protect culvert inlets from erosion and sedimentation and install energy dissipation structures at outfalls
- Use the minimum right-of-way width and vegetation mats where pipelines cross riparian areas and streams wherever possible
- Construct fluid pit fences and nets that are capable of withstanding animal pressure and environmental conditions and that are appropriately sized for the wildlife encountered.
- Install impermeable barriers beneath fluid pits to protect groundwater, riparian areas and wetlands.
- Salvage topsoil from all road construction and other rights-of-way and re-apply during interim and final reclamation.
- Strip and segregate topsoil prior to construction. Appropriately configure topsoil piles and immediately seed to control erosion, prevent weed establishment and maintain soil microbial activity

Drilling/Completions

- Continue application of BMPs to prevent wildlife from entering pits including fencing and netting where appropriate
- Limit days/hours operations where practical to minimize disturbance and traffic
- Promptly report spills that affect wildlife to the CDOW.
- Store and stage emergency spill response equipment at strategic locations so that it is available to expedite effective spill response.
- Limit parking to already disturbed areas that have not yet been reclaimed
- Screen water suction hoses to exclude fish.
- Reduce noise by using effective sound dampening devices or techniques (e.g., hospital-grade mufflers, equipment housing, insulation, installation of sound barriers, earthen berms, vegetative buffers, etc.).

Production/Reclamation

- Gate access roads where necessary to minimize/control access to "crucial habitats"
- Install automated emergency response systems (e.g., high tank alarms, emergency shut- down systems, etc.).
- Implement fugitive dust control program
- Avoid direct discharge of pipeline hydrostatic test water to any reservoir, lake, wetland, or natural perennial or seasonally flowing stream or river.
- Locate above-ground facilities to minimize the visual effect (e.g., low profile equipment, appropriate paint color, vegetation screening in wooded areas, etc.).
- Skim and eliminate oil from produced water ponds and fluid pits at a rate sufficient to prevent oiling of birds or other wildlife that could gain access to the pit.
- Apply an aggressive, integrated, noxious and invasive weed management plan. Utilize an adaptive management strategy that permits effective responses to monitored findings and reflects local site and geologic conditions
- Map the occurrence of existing weed infestations prior to development to effectively monitor and target areas that will likely become issues after development.
- Evaluate the utility of soil amendment application or consider importing topsoil to achieve effective reclamation.
- Use locally adapted seed whenever available and approved by landowner.
- Use appropriately diverse reclamation seed mixes that mirror an appropriate reference area for the site being reclaimed where approved by landowner.
- Conduct seeding in a manner that ensures that seedbed preparation and planting techniques are targeted toward the varied needs of grasses, forbs and shrubs (e.g., seed forbs and shrubs separately from grasses, broadcast big sagebrush but drill grasses, etc.)
- Emphasize bunchgrass over sod-forming grasses in seed mixes in order to provide more effective wildlife cover and to facilitate forb and shrub establishment.
- Seed during appropriate season to increase likelihood of reclamation success
- Do not include aggressive, non-native grasses in reclamation seed mixes
- Choose reference areas as goals for reclamation that have high wildlife value, with attributes such a diverse and productive understory of vegetation, productive and palatable shrubs, and a high prevalence of native species.
- Establish vegetation with total perennial non-invasive plant cover of at least eighty (80) percent of pre-disturbance or reference area levels.
- Establish vegetation with plant diversity of non-invasive species which is at least half that of pre-disturbance or reference area levels. Quantify diversity of vegetation using a metric that considers only species with at least 3 percent relative plant cover.
- Establish permanent and monumented photo points and vegetation measurement plots or transects; monitor at least annually until plant cover, composition, and diversity standards have been met.
- Observe and maintain a performance standard for reclamation success characterized by the establishment of a self-sustaining, vigorous, diverse, locally appropriate plant community on the site, with a density sufficient to control

erosion and non-native plant invasion and diversity sufficient to allow for normal plant community development.

- Use early and effective reclamation techniques, including interim reclamation to accelerate return of disturbed areas for use by wildlife
- Remove all unnecessary infrastructure during the production phase.
- Reclaim reserve pits as quickly as practical after drilling and ensure that pit contents do not contaminate soil.
- Remediate hydrocarbon spills on disturbed areas prior to reclamation.
- Complete final reclamation activities so that seeding occurs during the first optimal season following plugging and abandonment of oil and gas wells.
- Perform interim reclamation to final reclamation species composition and establishment standards.
- Perform interim reclamation on all disturbed areas not needed for active support of production operations
- Remove and properly dispose of degraded silt fencing and erosion control materials after their utility has expired
- Remove and properly dispose of pit contents where contamination of surface water, groundwater, or soil by pit contents cannot be effectively prevented
- Apply certified weed free mulch and crimp or tacify to remain in place to reclaim areas for seed preservation and moisture retention
- Control weeds in areas surrounding reclamation areas in order to reduce weed competition
- Educate employees and contractors about weed issues
- Where possible, fence livestock and/or wildlife out of newly reclaimed areas until reclamation standards have been met and plants are capable of sustaining herbivory
- Conduct necessary reclamation and invasive plant monitoring.
- Census and assess the utilization of the reclaimed areas by the target species
- Maintain pre and post development site inspection records and monitor operations for compliance
- Utilize GIS technologies to assess the extent of disturbance and document the reclamation progression and the footprint of disturbances
- Identify native species for which commercial seed sources are not available. Provide support to contractors for developing cultivation and seed production techniques for needed species
- Conduct reclamation field trials to match seed mixes, soil preparation techniques, and planting methods to local conditions.

Site Specific BMPs:

<u>Planning</u>

- Share/consolidate corridors for pipeline ROWs to the maximum extent possible.
- Maximize the utility of surface facilities by developing multiple wells from a single pad (directional drilling), and by co-locating multipurpose facilities (for

example, well pads and compressors) to avoid unnecessary habitat fragmentation and disturbance of additional geographic areas.

- Minimize newly planned activities and operations within 300 feet of the ordinary high water mark of any reservoir, lake, wetland, or natural perennial or seasonally flowing stream or river.
- Locate roads outside of drainages where possible and outside of riparian habitat.
- Avoid constructing any road segment in the channel of an intermittent or perennial stream.
- Avoid new surface disturbance and placing new facilities in key wildlife habitats in consultation with CDOW.
- Minimize the number, length, and footprint of oil and gas development roads;
- Use existing roads where possible
- Combine utility infrastructure (gas, electric, and water) planning with roadway planning to avoid separate utility corridors
- Combine and share roads to minimize habitat fragmentation
- Where possible, consolidate pipeline and existing roadways, or roadways that are planned for development
- Place roads to avoid obstructions to migratory routes for wildlife, and to avoid displacement of wildlife from public to private lands.
- Design roads with visual and auditory buffers or screens (e.g., topographic barriers, vegetation, and distance).
- Accelerate development under a "clustered-development concept" on a site-specific basis where Williams has a 100% mineral interest or control of mineral development
- Maximize the use of directional drilling to minimize habitat loss/fragmentation
- Maximize use of long-term centralized tank batteries to minimize traffic
- Maximize use of remote completion/frac operations to minimize traffic
- Maximize use of remote telemetry for well monitoring to minimize traffic
- Phase and concentrate development activities, so that large areas of undisturbed habitat for wildlife remain.
- Maintain undeveloped areas within development boundaries sufficient to allow wildlife to persist within development boundaries during all phases of construction, drilling, and production.
- Minimize the duration of development and avoid repeated or chronic disturbance of developed areas. Complete all anticipated drilling within a phased, concentrated, development area during a single, uninterrupted time period.
- Restrict oil and gas activities as practical during critical seasonal periods
- Implement self imposed timing limitations to protect species and/or habitat

<u>Construction</u>

- Close and reclaim roads not necessary for development, including removing all bridges and culverts and recontouring/reclaiming all stream crossings.
- Structures for perennial or intermittent stream channel crossings should be constructed using appropriately sized bridges or culverts

- Design road crossings of streams to allow fish passage at all flows and to minimize the generation of sediment.
- Design road crossings of streams at right angles to all riparian corridors and streams to minimize the area of disturbance to the extent possible.
- Construct retention basins and ponds that benefit wildlife

Drilling/Completions

- Install and maintain adequate measures to exclude all types of wildlife (e.g., big game, birds, and small rodents) from all fluid pits (e.g., fencing, netting, and other appropriate exclusion measures).
- Conduct well completions with drilling operations to limit the number of rig moves and traffic.

Production/Reclamation

- Restore both form and function of impacted wetlands and riparian areas and mitigate erosion.
- Remove well pad and road surface materials that are incompatible with post-production land use and re-vegetation requirements
- Use only certified weed-free native seed in seed mixes, except for non-native plants that benefit wildlife
- Install exclusionary devices to prevent bird and other wildlife access to equipment stacks, vents and openings.
- Reduce visits to well-sites through remote monitoring (i.e. SCADA) and the use of multi-function contractors.
- Avoid dust suppression activities within 300 feet of the ordinary high water mark of any reservoir, lake, wetland, or natural perennial or seasonally flowing stream or river where possible.
- Bore pipelines that cross perennial streams
- Install and use locked gates or other means to prevent unauthorized vehicular travel on roads and facility rights-of-way.

Sensitive Area Determination Checklist

Williams Production RMT Company – Valley		
Person(s) conducting inspection	Ashlee Lane	12/03/09
Site Information	Existing location with proposed well pad extension	
Location:	RU 34-6	Time: 1130
Type of Facility:	Well Pad	
Environmental Conditions	Clear and calm; soils are dry and frozen; snow patches present in some areas.	
Temperature (°F)	10°F	

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: Unnamed Intermittent stream

   If yes, describe location relative to facility: South of the location ~580 feet

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.
   If a release were to occur off the southwest side of the pad it would migrate down the hillside adjacent to the pad. However the hillside is covered with Piñyon/Juniper forest. The vegetation would act as a buffer making the likelihood of a release reaching the surface water very low.

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

Williams

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): Cuttings trench, Flare 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 $\leq 1.0x10^{-7}$ 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 5(a) of this section).*
   ☒ No (*If no, follow instructions provided in 5(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.
   (iii) Drill a soil boring to determine depth to groundwater or
   (iv) Model hydro geologic conditions to determine if the potential to impact groundwater is high or low.

7. Is the potential to impact ground water from the facility in the event of a release high or low?
   ☐ High ☒ Low

Additional Comments:

No water well data is available for this location and/or the area surrounding the location. Vegetation in the area of proposed expansion does not suggest the presence of shallow groundwater within the immediate proximity of the facility.

The proposed pad expansion will be located on top of a mesa. South/south west of the location the topography drops off abruptly into the main Flat Iron Mesa valley approximately 166 feet below the pad where the unnamed intermittent stream is located. As stated in the surface water section the hillside is well vegetated which would aid in mitigating any release that could potentially migrate off the pad. In addition, the intermittent stream in the immediate vicinity below the proposed expansion exhibits more ephemeral characteristics than intermittent based on the vegetation present.

When expansion of the pad commences; if special attention is given to ensure adequate storm water BMP's are in place on the southwestern side of the well pad, this will further assist in mitigating any potential impacts to the unnamed intermittent stream below the pad.

Based on the above mentioned data, this location is not located within a sensitive area.

Inspector(s) Signature(s): _____ Date: 12/03/09

_____ Date: 12/23/09