

**STATE OF UTAH**  
DEPARTMENT OF NATURAL RESOURCES  
DIVISION OF OIL, GAS AND MINING

FORM 3

AMENDED REPORT   
(highlight changes)

<b>APPLICATION FOR PERMIT TO DRILL</b>		5. MINERAL LEASE NO: Fee	6. SURFACE: Fee
1A. TYPE OF WORK: DRILL <input checked="" type="checkbox"/> REENTER <input type="checkbox"/> DEEPEN <input type="checkbox"/>		7. IF INDIAN, ALLOTTEE OR TRIBE NAME:	
B. TYPE OF WELL: OIL <input type="checkbox"/> GAS <input checked="" type="checkbox"/> OTHER _____ SINGLE ZONE <input type="checkbox"/> MULTIPLE ZONE <input checked="" type="checkbox"/>		8. UNIT or CA AGREEMENT NAME:	
2. NAME OF OPERATOR: Cabot Oil and Gas		9. WELL NAME and NUMBER: NW Bullhorn 8-31	
3. ADDRESS OF OPERATOR: 600 17th st. Suite 900N CITY Denver STATE CO ZIP 80202		PHONE NUMBER: (303) 868-6612	10. FIELD AND POOL, OR WILDCAT: Paradox
4. LOCATION OF WELL (FOOTAGES) AT SURFACE: 1944' FSL & 671' FWL AT PROPOSED PRODUCING ZONE: Same as above.		11. QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: NWSW 8 29S 24E	
14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE: 4.3 miles south of La Sal, UT		12. COUNTY: San Juan	13. STATE: UTAH
15. DISTANCE TO NEAREST PROPERTY OR LEASE LINE (FEET) 671'	16. NUMBER OF ACRES IN LEASE:	17. NUMBER OF ACRES ASSIGNED TO THIS WELL:	
18. DISTANCE TO NEAREST WELL (DRILLING, COMPLETED, OR APPLIED FOR) ON THIS LEASE (FEET) NA	19. PROPOSED DEPTH: 7,400	20. BOND DESCRIPTION: 5809579	
21. ELEVATIONS (SHOW WHETHER DF, RT, GR, ETC.): 6595' GR	22. APPROXIMATE DATE WORK WILL START: 1/30/2006	23. ESTIMATED DURATION: 30 Days	

24. **PROPOSED CASING AND CEMENTING PROGRAM**

SIZE OF HOLE	CASING SIZE, GRADE, AND WEIGHT PER FOOT	SETTING DEPTH	CEMENT TYPE, QUANTITY, YIELD, AND SLURRY WEIGHT
12 1/4	9 5/8 J-55 36#	3,100	Premium Lite 575 sx 2.28cf/sk 8.4 PPG
			Type III 450 sx 1.43cf/sk 8.4 PPG
8 3/4	5 1/2 P-110 17#	7,400	Premium Lite High Stg 840 sx 2.02cf/sk 9.0 PPG

25. **ATTACHMENTS**

VERIFY THE FOLLOWING ARE ATTACHED IN ACCORDANCE WITH THE UTAH OIL AND GAS CONSERVATION GENERAL RULES:

<input checked="" type="checkbox"/> WELL PLAT OR MAP PREPARED BY LICENSED SURVEYOR OR ENGINEER	<input checked="" type="checkbox"/> COMPLETE DRILLING PLAN
<input checked="" type="checkbox"/> EVIDENCE OF DIVISION OF WATER RIGHTS APPROVAL FOR USE OF WATER	<input checked="" type="checkbox"/> FORM 5, IF OPERATOR IS PERSON OR COMPANY OTHER THAN THE LEASE OWNER

CONFIDENTIAL

NAME (PLEASE PRINT) William A Ryan TITLE Agent

SIGNATURE *William A Ryan* DATE 11/21/2005

(This space for State use only)

API NUMBER ASSIGNED: 43-037-31842

**Approved by the  
Utah Division of  
Oil, Gas and Mining**

APPROVAL:  
Date: 01-30-06  
By: *[Signature]*

(See Instructions on Reverse Side)

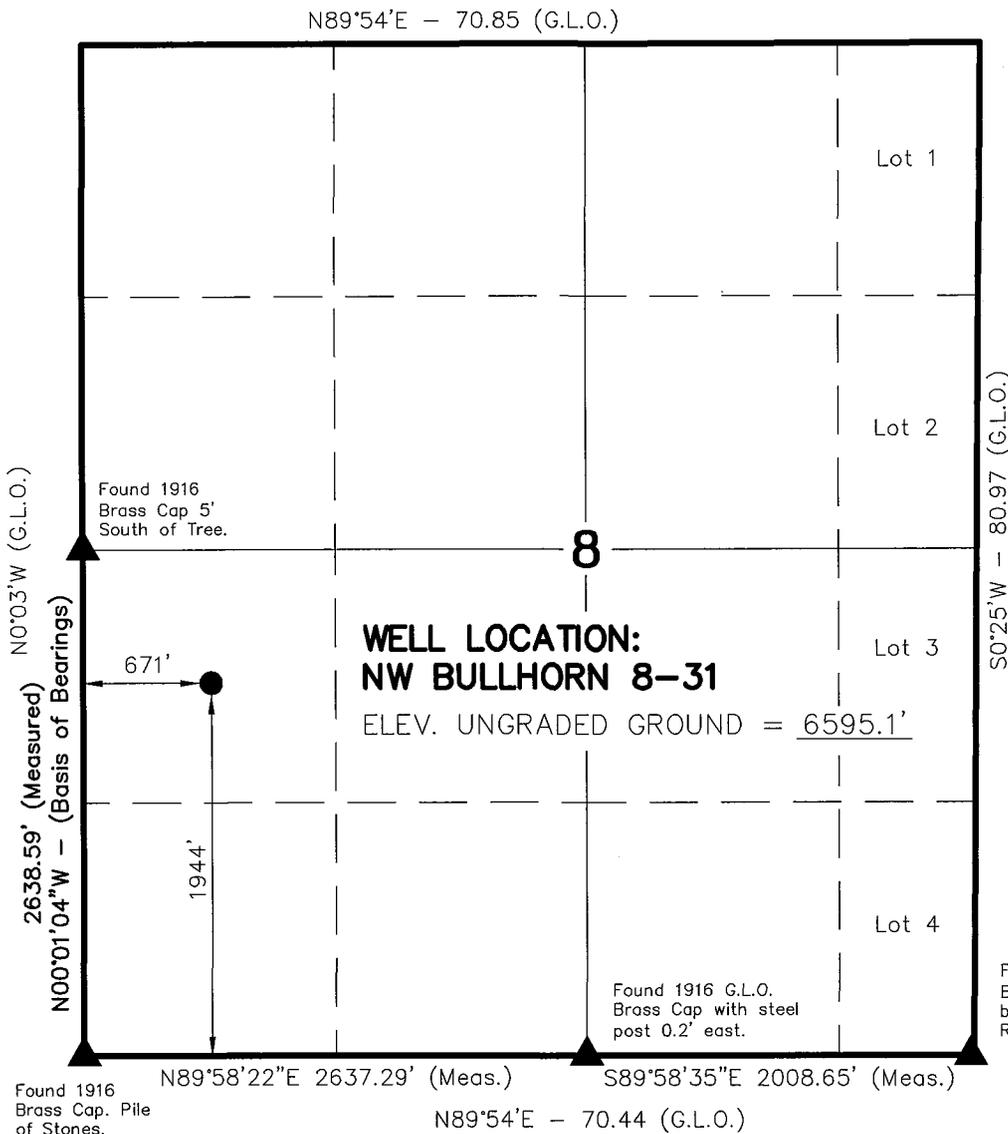
**RECEIVED**  
**DEC 07 2005**

DIV. OF OIL, GAS & MINING

# T29S, R24E, S.L.B.&M.

# CABOT OIL AND GAS

WELL LOCATION, NW BULLHORN 8-31,  
 LOCATED AS SHOWN IN THE NW 1/4  
 SW 1/4 OF SECTION 8, T29S, R24E,  
 S.L.B.&M. SAN JUAN COUNTY, UTAH.



**NOTES:**

1. Well footages are measured at right angles to the Section Lines.
2. Bearings are based on Global Positioning Satellite observations.
3. Basis of elevation is bench mark G127 1934 located in the West 1/2 of Section 3, T29S, R24E, S.L.B.&M. The elevation of this bench mark is shown on the La Sal West, Utah 7.5 min. Quadrangle as being 6844'.

▲ = SECTION CORNERS LOCATED

THIS IS TO CERTIFY THAT THE ABOVE PLAT WAS PREPARED FROM FIELD NOTES OF ACTUAL SURVEYS MADE BY ME OR UNDER MY SUPERVISION AND THAT THE SAME ARE TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF.

*Kathy R. Kelly*  
 REGISTERED LAND SURVEYOR  
 No. 362251  
 KOLBY R.  
 STATE OF UTAH

Found 1916 G.L.O.  
 Brass Cap buried 2' in  
 bar ditch of County  
 Road. CC

Found 1916  
 Brass Cap. Pile  
 of Stones.

UTAH STATE PLANE COORDINATES,  
 1927, SOUTH ZONE  
 X = 2,629,406.986  
 Y = 599,791.996

NW BULLHORN 8-31  
 (Surface Location) NAD 83  
 LATITUDE = 38° 17' 37.03"  
 LONGITUDE = 109° 18' 27.10"

**TIMBERLINE LAND SURVEYING, INC.**  
 38 WEST 100 NORTH. - VERNAL, UTAH 84078  
 (435) 789-1365

DATE SURVEYED: 10-26-05	SURVEYED BY: B.J.S.	SHEET <b>2</b>
DATE DRAWN: 11-8-05	DRAWN BY: J.R.S.	
SCALE: 1" = 1000'	Date Last Revised:	OF 10

**AFFIDAVIT OF SURFACE OWNER USE AGREEMENT**

Cabot Oil and Gas has in place, agreements with the surface owners of the following leases. Cabot Oil and Gas is the operator and makes this certification that the agreements provide for management of the Fee surface lands under development.

**Section 8, Township 29 South, Range 24 East**

Jim Blankenagle  
La Sal, UT  
435-686-2262

A handwritten signature in cursive script, reading "William A. Ryan", is written over a horizontal line.

William A Ryan, Agent  
Rocky Mountain Consulting  
290 S 800 E  
Vernal, UT 84078  
435-789-0968

## Ten Point Plan

### CABOT OIL & GAS CORPORATION

#### NW Bullhorn 8-31

Surface Location NW ¼ SW ¼, Section 8, T. 29S., R. 24E.

#### 1. Surface Formation

Alluvium/Dakota

#### 2. Estimated Formation Tops and Datum:

<u>Formation</u>	<u>Depth</u>	<u>Datum</u>
Alluvium/Dakota	Surface	+6,595' G.L.
Morrison	230	+6,365'
Entrada	400	+6,195'
Navajo	1,590	+5,005'
Kayenta	1,827	+4,768
Wingate	2,225	+4,370'
Chinle	3,100	+3,495'
Cutler	4,100	+2,495
Hctl 5	5,030	+1,565'
Hctl 4	5,589	+1,006'
Hctl 3	5,959	+636'
Hctl 2	6,201	+394'
HKTL 2 shale	6,499	+96'
HKTL 1	6,577	+18'
HKTL 1 shale	6,830	-235'
U Ismay	6,870	-275'
Hovenweep shale	7,008	-413'
L Ismay	7,070	-475'
Gothic shale	7,136	-541'
Desert Creek	7,240	-645'
Salt	7,400	-805'
TD	7,400	-805'

#### 3. Producing Formation Depth:

Formation objective includes the Honaker Trail and its sub-members.

Off Set Well information

Permitted/Drilled:

NW Bullhorn 17-31

Abandon Wells:

La Sal 2-17

**4. Proposed Casing:**

<u>Hole Size</u>	<u>Casing Size</u>	<u>Weight/FT</u>	<u>Grade</u>	<u>Coupling &amp; Tread</u>	<u>Casing Depth</u>	<u>New/Used</u>
12 1/4	9 5/8	36#	J-55	LT&C	3,100'	NEW
8 3/4	5 1/2	17#	P-110	LT&C	T.D.	NEW

**Cement Program:**

The Surface Casing will be cemented to the Surface as follows:

	<u>Casing Size</u>	<u>Cement Type</u>	<u>Cement Amounts</u>	<u>Cement Yield</u>	<u>Cement Weight</u>
Lead:	9 5/8	Premium Lite	575 sx. +/-	2.28cf/sx	36# ppf
Tail:	9 5/8	Type III	450sx. +/-	1.43 cf/sx	36 # ppf

Production casing will be cemented to 2,500' or higher as follows:

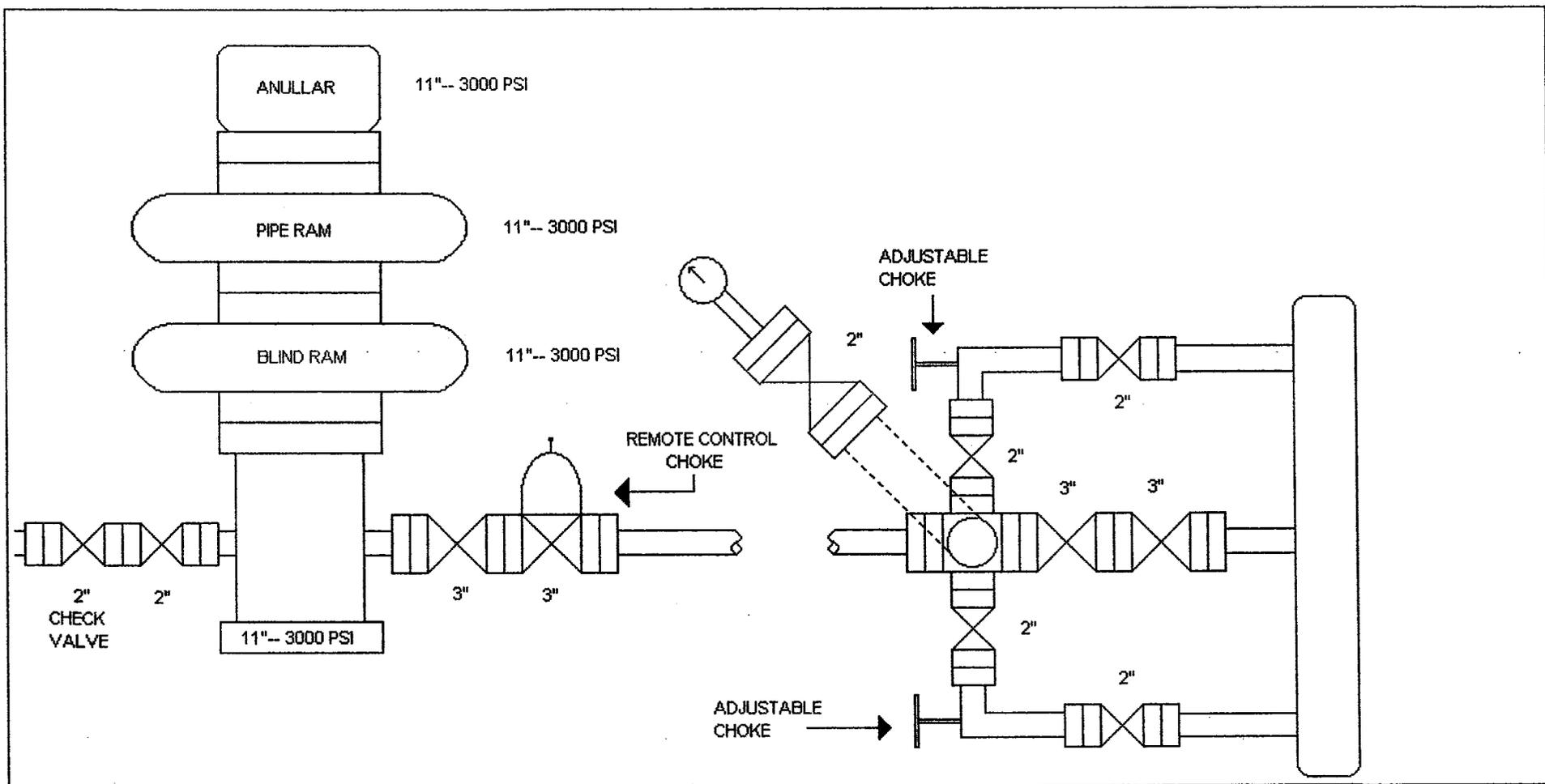
<u>Casing Size</u>	<u>Cement Type</u>	<u>Cement Amounts</u>	<u>Cement Yield</u>	<u>Cement Weight</u>
5 1/2	Premium Lite High Strength	800 sks +/-	2.02 cf/sx	17# ppf

**5. BOP and Pressure Containment Data:**

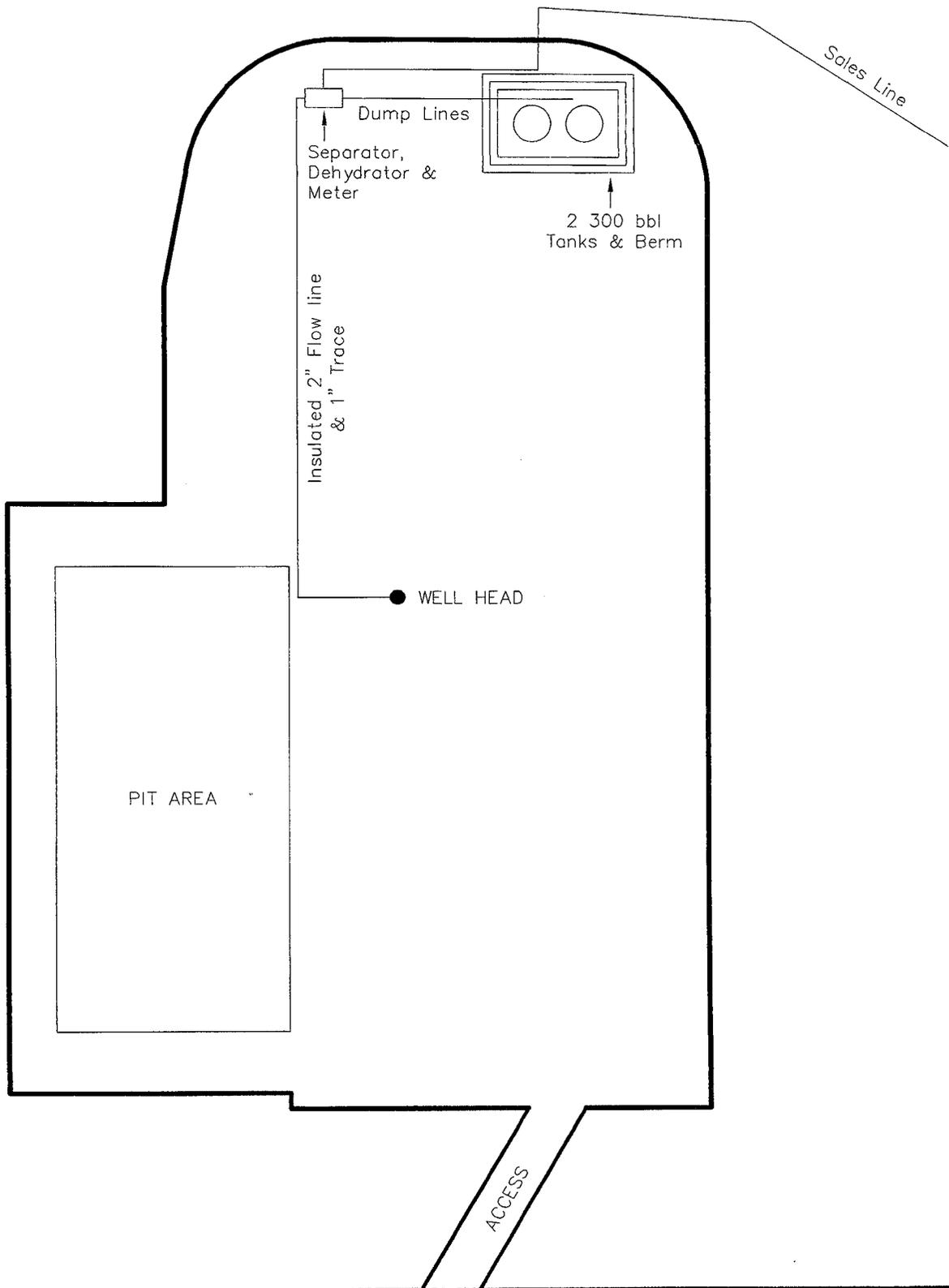
The anticipated bottom hole pressure will be less than 3000 psi.

A 3000-psi WP BOP system as described in the BOP and Pressure Containment Data (attached) will be installed and maintained from the 9 5/8" surface casing. The BOP system including the casing will be pressure tested to minimum standards set forth in "On Shore Order #2". The BOP will be mechanically checked daily during the drilling operation.





# TYPICAL PRODUCTION LAYOUT



**CABOT OIL AND GAS**  
**13 POINT SURFACE USE PLAN**  
**FOR WELL**  
**NW BULLHORN 8-31**  
**LOCATED IN NW ¼ SW ¼**  
**SECTION 8, T.29S, R24E, S.L.B.&M.**  
**SAN JUAN COUNTY, UTAH**  
**LEASE NUMBER: FEE**  
**SURFACE OWNERSHIP: FEE**

1. Existing Roads:

To reach Cabot Oil & Gas Co. well  
NW Bullhorn 8-31 in Section 8,  
T29S, R 24E,

Starting in La Sal, Utah:

Proceed in a westerly direction  
from La Sal, Utah along state  
highway 46 approximately 2.6  
miles to the junction of the Lisbon  
Valley Road; exit left and proceed  
in a southerly direction along the  
Lisbon Valley Road approximately  
0.9 miles to the junction of the  
Rattle Snake road (county road  
#117); exit left and proceed in a  
westerly direction along Rattle  
Snake Road approximately 0.7  
miles to the proposed access road;  
follow road flags in a southerly  
direction approximately 765 feet to  
the proposed location.

Total distance from La Sal, Utah  
to the proposed well location is  
approximately 4.3 miles.

All existing roads to the proposed  
location are State of Utah, BLM  
maintained or County Class D roads.  
Please see the attached map for  
additional details.

2. Planned access road

The proposed access road will be  
approximately 765' +/- of new  
construction on lease. The road  
will be graded once per year  
minimum and maintained.

- A) Approximate length 765 ft
- B) Right of Way width 30 ft
- C) Running surface 18 ft
- D) Surface material Native soil
- E) Maximum grade 5%
- F) Fence crossing None
- G) Culvert None
- H) Turnouts None
- I) Major cuts and fills None
- J) Road Flagged Yes
- K) Access road surface ownership  
Fee: Jim Blankenagle
- L) All new construction on lease  
Yes
- M) Pipe line crossing None

Please see the attached location plat  
for additional details.

An off lease right-of-way will not  
be required.

All surface disturbances for the road  
and location will be within the lease  
boundary.

3. Location of existing wells

The following wells are located within  
a one-mile radius of the location site.

- A) Producing well None
- B) Water well None
- C) Abandoned well  
La Sal 2-17
- D) Temp. abandoned well None
- E) Disposal well None
- F) Drilling /Permitted well  
NW Bullhorn 17-31
- G) Shut in wells None
- H) Injection well None
- I) Monitoring or observation well  
None

Please see the attached map for  
additional details.

4. Location of tank batteries, production facilities and production gathering service lines.

All production facilities are to be contained within the proposed location site. Please see the attached plat plan for a typical gas well separator installation and well site piping.

All permanent (on site for more than six months or longer) structures constructed or installed will be painted **as per request of the Private Land Owner**. Facilities required to comply with O.S.H.A. (Occupational Safety and Health Act) will be excluded.

All tanks will be surrounded by a dike of sufficient capacity to contain the storage capacity of the largest tank in the battery. The integrity of the dike will be maintained.

All off lease storage, off lease measurement, commingling on lease or off lease, of production, will have prior written approval from the authorized officer.

If the well is capable of economic production a surface gas line will be required.

**Approximately 8,200' +/- of 3" steel surface gas gathering line would be constructed on Private and Federal Lands. The line will tie into a proposed pipeline in Section 17, T29S, R24E. The pipeline would be strung and boomed to the east and south of the location. The pipeline may be**

**buried as determined by the Authorized Officer at the onsite.**

**An off lease right-of-way will be required for approximately 700'.**

**Please see the attached location diagrams for pipeline location.**

The gas meter run will be located within 500' of the wellhead. The gas line will be buried or anchored down from the wellhead to the meter. Meter runs will be housed and/or fenced.

The gas meter will be calibrated and the tank strapped in place prior to any deliveries. Tests for meter accuracy will be conducted monthly for the first three months on new meter installations and at least quarterly thereafter. The authorized officer will be provided with a date and time for the initial meter calibration and all future meter-proving schedules. A copy of the meter calibration report will be submitted to the State of Utah, Division of Oil, Gas, and Mining. All measurement facilities will conform to API (American Petroleum Institute) and AGA (American Gas Association) standards for gas and liquid hydrocarbon measurement.

5. Location and type of water supply

**Water for drilling and cementing will come from a private source in Section 8, T29S, R24E Permit # T-30139.**

6. Source of construction materials

All construction material for this location site and access road shall be borrow material accumulated during construction of the location site and access road. Additional road gravel or pit lining material will be obtained from private resources.

be submitted to the authorized officer. **Evaporation may be used instead of trucking to facilitate closing and reclamation of the reserve pit. A pumping system would be used for evaporation.**

7. Methods for handling waste disposal

A) Pit construction and liners:

The reserve pit will be approximately **12 ft.** deep and most of the depth shall be below the surface of the existing ground. Please see the attached plat for details.

The reserve pit will be lined.

The reserve pit will be used to store water for drilling. A semi-closed system will be used to drill the well. All fresh water for drilling will come from a frac tank placed on location and from the rig tank. The pit will be used to hold non-flammable materials such as cuttings, salt, drilling fluids, chemicals, produced fluids, etc.

C) Garbage:

A trash cage fabricated from expanded metal will be used to hold trash on location and will be removed to an authorized landfill location.

D) Sewage:

A portable chemical toilet will be supplied for human waste.

E) Site clean-up:

After the rig is moved off the location the well site area will be cleaned and all refuse removed.

8. Ancillary facilities

There are no ancillary facilities planned at this time and none are foreseen for the future.

B) Produced fluids:

Produced water will be confined to the reserve pit, or if deemed necessary, a storage tank for a period not to exceed 90 days after initial production. During the 90-day period an application for approval for permanent disposal method and location will

9. Well-site layout

Location dimensions are as follows:

<b>A) Pad length</b>	<b>345 ft.</b>
<b>B) Pad width</b>	<b>245 ft.</b>
<b>C) Pit depth</b>	<b>12 ft.</b>
<b>D) Pit length</b>	<b>150 ft.</b>
<b>E) Pit width</b>	<b>75 ft.</b>
<b>F) Max cut</b>	<b>17.7 ft.</b>
<b>G) Max fill</b>	<b>5.7 ft.</b>

- H) Total cut yds. 6,590 cu yds
- I) Pit location West end
- J) Top soil location North & East ends
- K) Access road location North end
- L) Flare Pit corner C

Please see the attached location diagram for additional details.

All pits will be fenced according to the following minimum standards:

- A) Thirty nine inch net wire shall be used with at least one strand of wire on top of the net wire. Barbed wire is not necessary if pipe or some type of reinforcement rod is attached to the top of the entire fence.
- B) The net wire shall be no more than 2 inches above the ground. The barbed wire shall be 3 inches above the net wire. Total height of the fence shall be at least 42 inches.
- C) Corner posts shall be cemented and/or braced in such a manner to keep the fence tight at all times.
- D) Standard steel, wood or pipe posts shall be used between the corner braces. Maximum distance between any two posts shall be no greater than 16 ft.
- E) All wire shall be stretched by using a stretching device before it is attached to the corner posts.

- 10. Plans for restoration of the surface

Prior to construction of the location, the top 6 inches of soil material will be stripped off the location and the pit area. The topsoil removed and piled will amount to approximately **1,500** cubic yards of material. Topsoil will be stockpiled in one distinct pile. Placement of the topsoil is noted on the attached location plat. The topsoil pile from the location will be seeded as soon as the soil is stock piled with the seed mix listed. When all drilling and completion activities have been completed and the pit back-filled the topsoil from the pit area will be spread on the pit area. The pit area will be seeded when the soil has been spread. The unused portion of the location (the area outside the dead men) will be re-contoured.

The dirt contractor will be provided with an approved copy of the surface use plan prior to construction activities.

Changes to the drainage during the construction activities shall be restored to its original line of flow or as near as possible when the pit is back-filled.

All disturbed areas will be re-contoured to the approximate natural contours. Prior to back filling the pit the fences around the reserve pit will be removed.

The reserve pit will be reclaimed within 90 days of well completion. If the reserve pit has not dried sufficiently to allow back filling, an extension on the time requirement

for back filling the pit will be requested. Once reclamation activities have begun, they shall be completed within 30 days.

After the reserve pit has been reclaimed, no depressions in the soil covering the reserve pit will be allowed. The objective is to keep seasonal rainfall and run off from seeping into the soil used to cover the reserve pit. Diversion ditches and water bars will be used to divert the run off as needed.

When restoration activities have been completed, the location site and new access road cuts and shoulders shall be reseeded. Prior to reseeding, all disturbed areas will be scarified and left with a rough surface.

A) Seeding dates:

Seed will be spread when topsoil is stock piled and when reclamation work is performed.

The seed mix and quantity list will be used whether the seed is broadcast or drilled.

B) Seed Mix

**To be determined by the Authorized Officer.**

11. Surface ownership:

<b>Access road</b>	<b>Fee</b>
<b>Location</b>	<b>Fee</b>
<b>Pipeline</b>	
<b>Fee and Federal</b>	

12. Other information:

A) Vegetation

The vegetation coverage is slight. The majority of the existing vegetation consists of non-native species. Rabbit Brush, Bitter Brush, and Indian Rice grass, Crested Wheat Grass and Sagebrush are also found on the location.

B) Dwellings:

There are no dwelling or other facilities within a one-mile radius of the location.

C) Archeology:

The location has not been surveyed.

D) Water:

**The nearest water is the West Coyote Wash, located approximately one half mile to the South.**

E) Chemicals:

No pesticides, herbicides or other possible hazardous chemicals will be used without prior application.

F) Notification:

a) Location Construction  
At least forty eight (48) hours prior to construction of location and access roads.

- b) Location completion:  
Prior to moving on the drilling rig.
- c) Spud notice:  
At least twenty-four (24) hours prior to spudding the well.
- d) Casing string and cementing:  
At least twenty-four (24) hours prior to running casing and cementing all casing strings.
- e) BOP and related equipment tests:  
At least twenty-four (24) hours prior to initial pressure tests.
- f) First production notice:  
Within five (5) business days after the new well begins, or production resumes after well has been off production for more than 90 days.

Office 435-789-0968  
 Fax 435-789-0970  
 Cellular 435-828-0968

All lease and/or unit operations will be conducted in such a manner that full compliance is made with all applicable laws, regulations, onshore oil and gas orders, and any applicable notices to lessees. The operator is fully responsible for the actions of his subcontractors. A copy of these conditions will be furnished to the field representative to ensure compliance.

This drilling permit will be valid for a period of one year from the date of approval. After permit termination, a new application will be filed for approval for any future operations.

G) Flare pit:

The flare pit will be located in **corner C** of the reserve pit outside the pit fences and 100 feet from the bore hole on the east side of the location. All fluids will be removed from the pit within 48 hours of occurrence.

B) Certification:

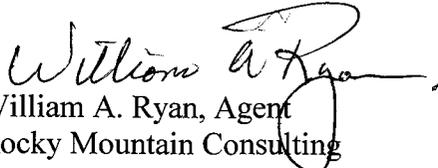
I hereby certify that I, or persons under my direct supervision, have inspected the proposed drill-site and access route that I am familiar with the conditions which presently exist, that the statements made in this plan are, to the best of my knowledge and belief, true and correct, and that the work associated with the operation proposed herein will be performed by Cabot Oil and Gas and its contractors and subcontractors in conformity with this plan and terms and conditions with this plan and the terms and conditions under which it is approved.

13. Lessees or Operator's representative and certification

A) Representative

William A. Ryan  
 Rocky Mountain Consulting  
 290 S 800 E  
 Vernal, UT 84078

Date 12-15-15

  
William A. Ryan, Agent  
Rocky Mountain Consulting

**Onsite Dates:**

### **Statement of use of Hazardous Materials**

No chemical(s) from the EPA's consolidated list of Chemicals subject to Reporting under Title III of the Superfund Amendments and Reauthorization, Act (SARA) of 1986 will be used, produced, transported, stored, disposed, or associated with the proposed action. No extremely hazardous substances, as defined in 40 cfr 355, will be used, produced, stored, transported, disposed, or associated with the proposed action.

If you require additional information please contact:

William A Ryan  
Agent for Cabot Oil and Gas  
Rocky Mountain Consulting  
290 S 800 E  
Vernal, UT 84078

435-789-0968 Office  
435-828-0968 Cell  
435-789-0970 Fax

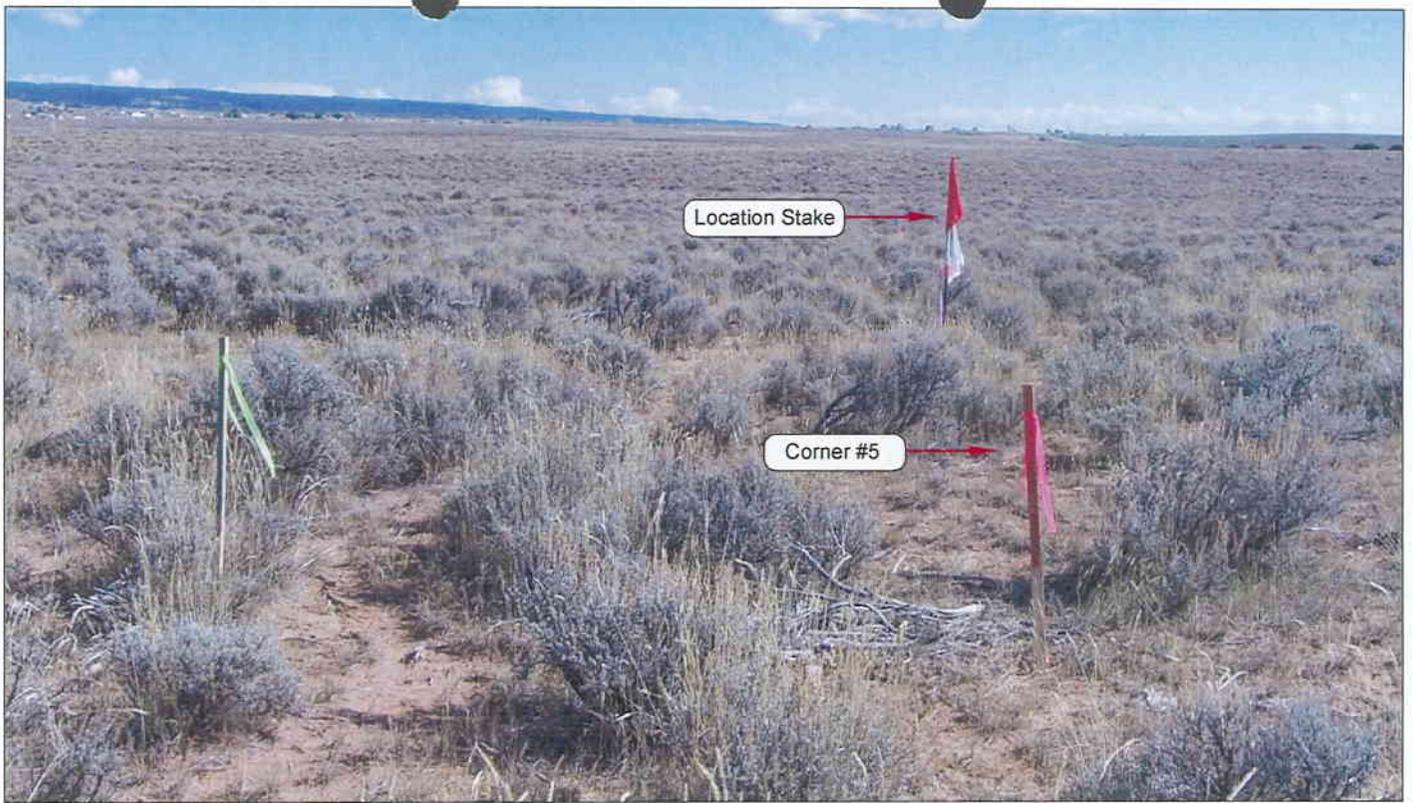


PHOTO VIEW: FROM CORNER #5 TO LOCATION STAKE

CAMERA ANGLE: SOUTHEASTERLY



PHOTO VIEW: FROM BEGINNING OF PROPOSED ROAD

CAMERA ANGLE: SOUTHERLY

**CABOT OIL AND GAS**

**NW Bullhorn 8-31  
SECTION 8 , T29S, R24E, S.L.B.&M.  
1944' FSL & 671' FWL**

**LOCATION PHOTOS**

TAKEN BY: B.J.S.

DRAWN BY: B.J.Z.

DATE TAKEN: 10-26-05

DATE DRAWN: 11-07-05

REVISED: 11-07-05 B.J.Z.

**Timberline Land Surveying, Inc.**

38 West 100 North Vernal, Utah 84078  
(435) 789-1365

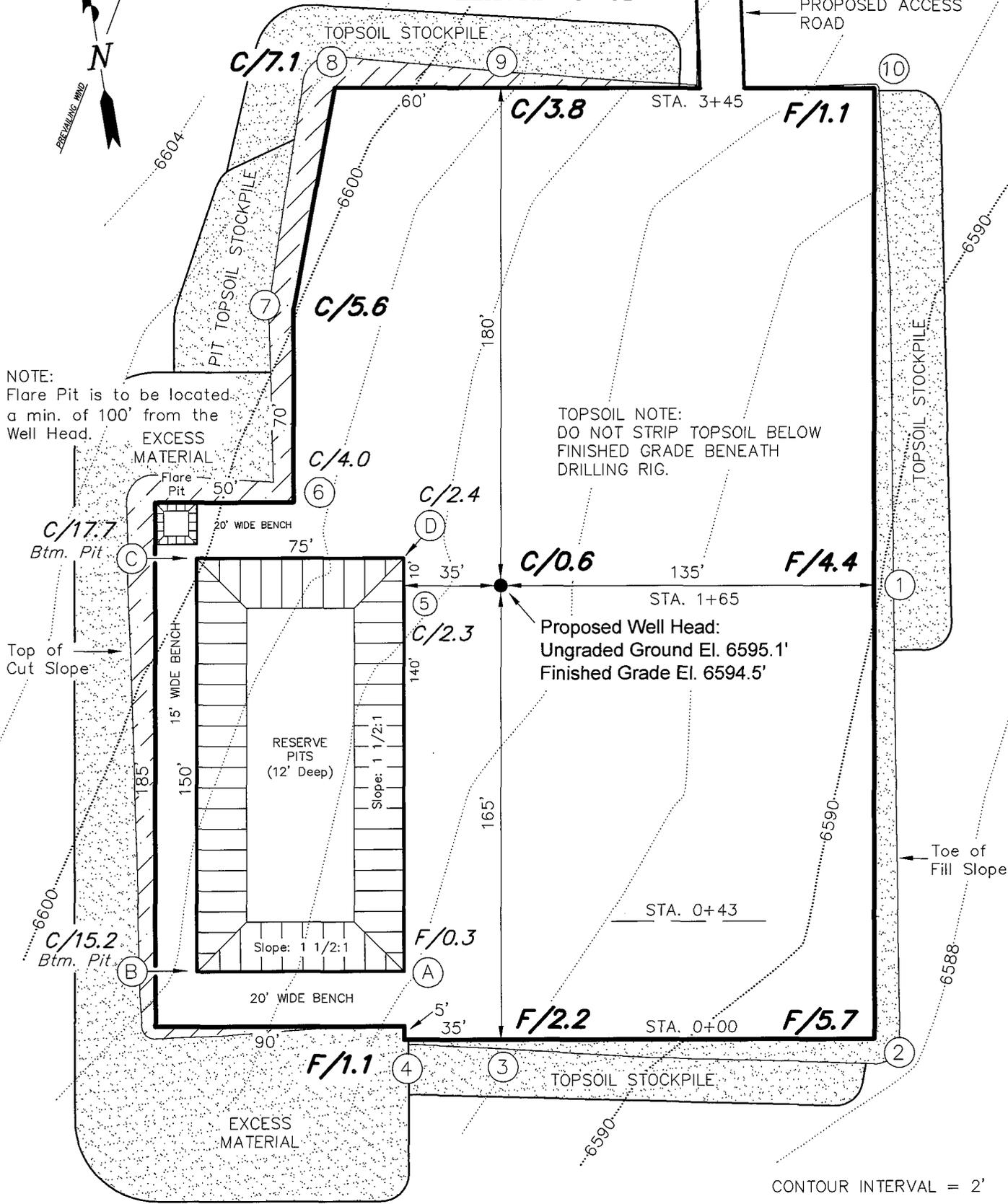
SHEET  
**1**  
OF 10

# CABOT OIL AND GAS

## CUT SHEET NW BULLHORN 8-31



PROPOSED ACCESS ROAD



NOTE:  
Flare Pit is to be located  
a min. of 100' from the  
Well Head.

TOPSOIL NOTE:  
DO NOT STRIP TOPSOIL BELOW  
FINISHED GRADE BENEATH  
DRILLING RIG.

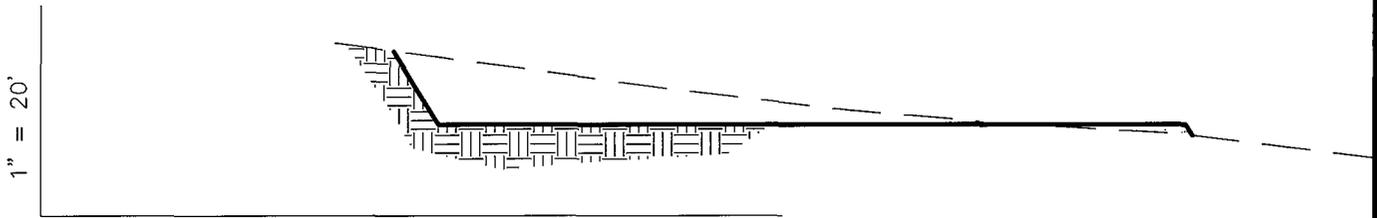
Proposed Well Head:  
Ungraded Ground El. 6595.1'  
Finished Grade El. 6594.5'

CONTOUR INTERVAL = 2'

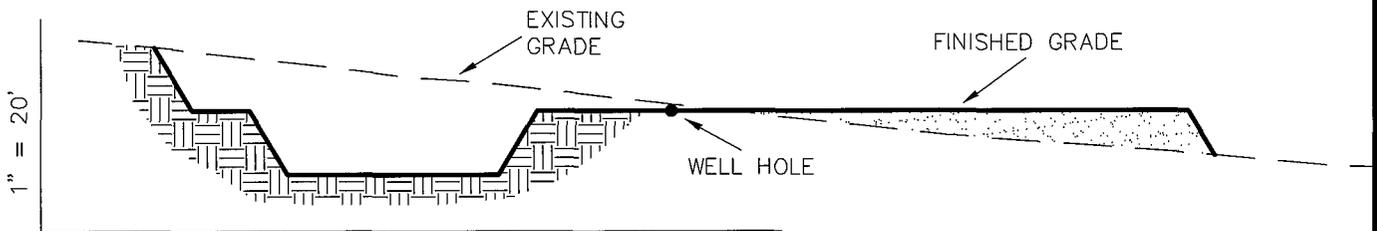
Section 8, T29S, R24E, S.L.B.&M.		Qtr/Qtr Location: NW SW	Footage Location: 1944' FSL & 671' FWL
Date Surveyed: 10-26-05	Date Drawn: 11-8-05	Date Last Revision:	<b>Timberline</b> (435) 789-1365 Land Surveying, Inc. 38 WEST 100 NORTH VERNAL, UTAH 84078
Surveyed By: B.J.S.	Drawn By: J.R.S.	Scale: 1" = 50'	
			SHEET <b>3</b> OF 10

# CABOT OIL AND GAS

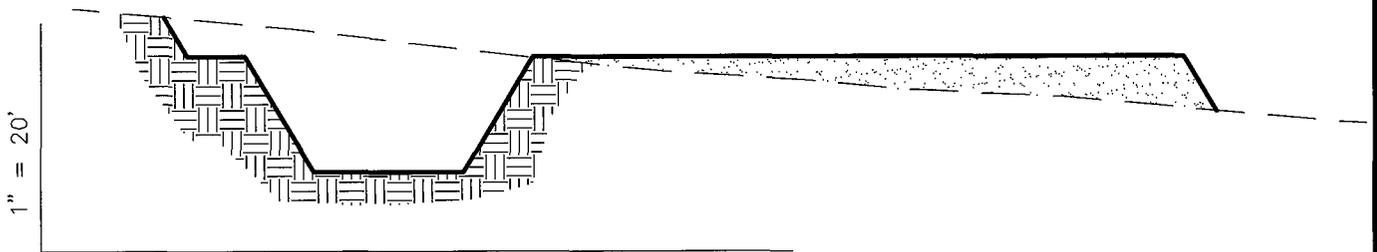
## CROSS SECTIONS NW BULLHORN 8-31



STA. 3+45

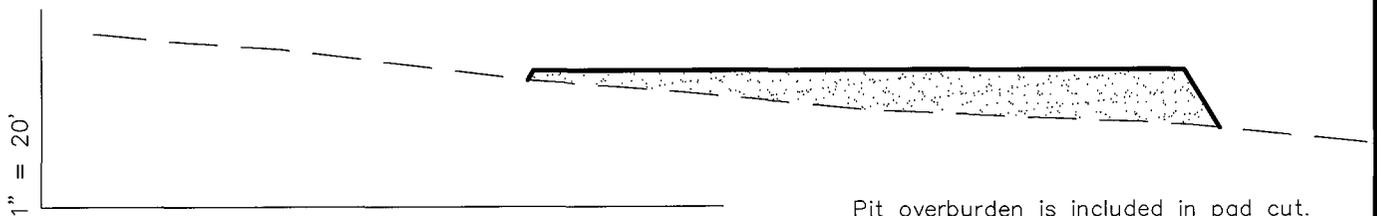


STA. 1+65



STA. 0+43

NOTE:  
UNLESS OTHERWISE NOTED  
ALL CUT/FILL SLOPES ARE  
AT 1.5:1



STA. 0+00

Pit overburden is included in pad cut.

**ESTIMATED EARTHWORK QUANTITIES**  
(No shrink or swell adjustments have been used)  
(Expressed in Cubic Yards)

ITEM	CUT	FILL	6" TOPSOIL	EXCESS
PAD	3,250	4,920	Topsoil is not included in Pad Cut	-1,670
PIT	3,340	0		3,340
TOTALS	6,590	4,920	1,500	1,670

Excess Material after Pit Rehabilitation = 0 Cu. Yds.

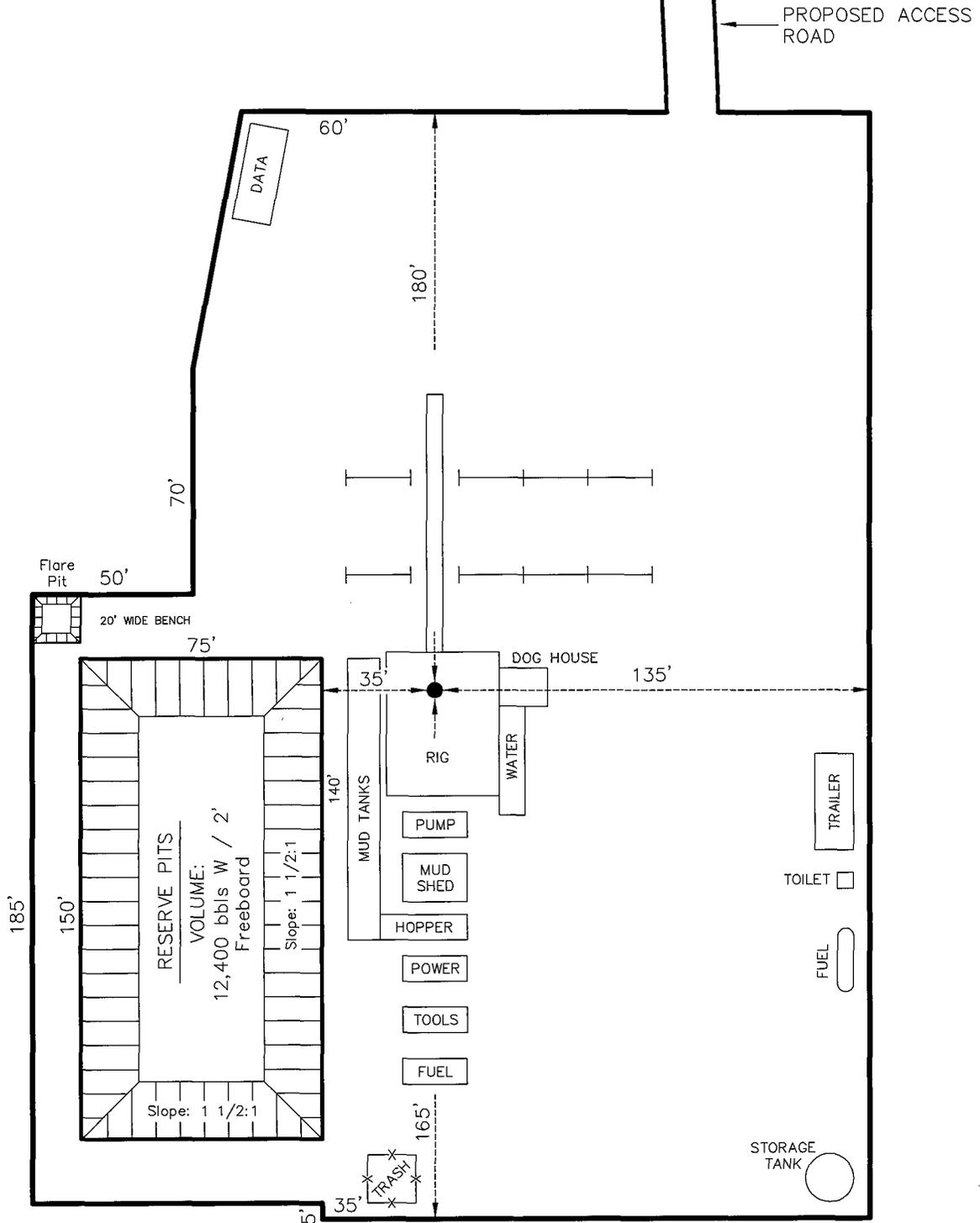
### REFERENCE POINTS

- 185' EASTERLY = 6588.5'
- 235' EASTERLY = 6587.1'
- 230' NORTHERLY = 6600.2'
- 260' NORTHERLY = 6603.2'

Section 8, T29S, R24E, S.L.B.&M.		Qtr/Qtr Location: NW SW	Footage Location: 1944' FSL & 671' FWL
Date Surveyed: 10-26-05	Date Drawn: 11-8-05	Date Last Revision:	<b>Timberline</b> (435) 789-1365 Land Surveying, Inc. 38 WEST 100 NORTH VERNAL, UTAH 84078
Surveyed By: B.J.S.	Drawn By: J.R.S.	Scale: 1" = 50'	

# CABOT OIL AND GAS

## TYPICAL RIG LAYOUT NW BULLHORN 8-31

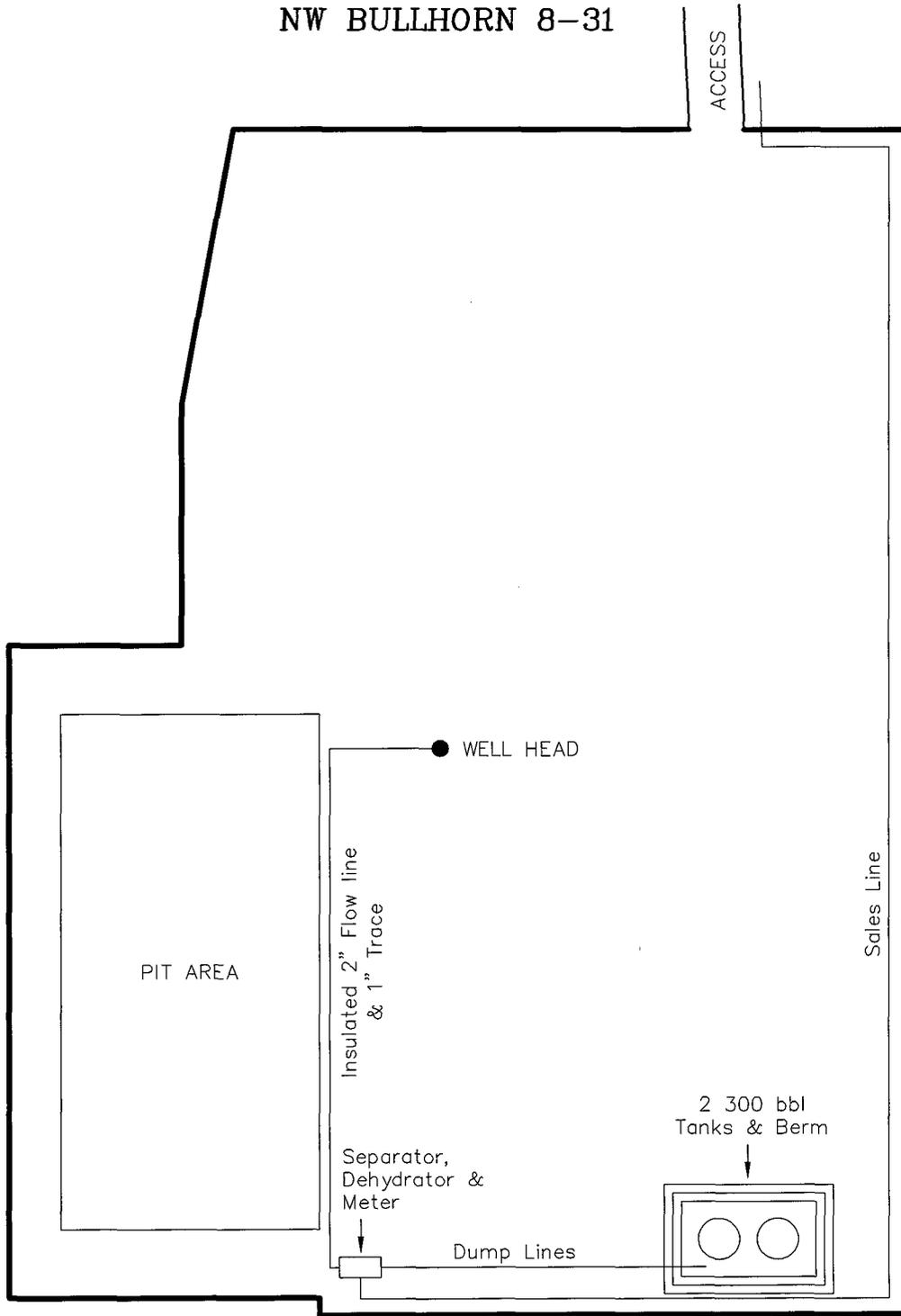


Section 8, T29S, R24E, S.L.B.&M.		Qtr/Qtr Location: NW SW	Footage Location: 1944' FSL & 671' FWL
Date Surveyed: 10-26-05	Date Drawn: 11-8-05	Date Last Revision:	<b>Timberline</b> (435) 789-1365 <i>Land Surveying, Inc.</i> 38 WEST 100 NORTH VERNAL, UTAH 84078
Surveyed By: B.J.S.	Drawn By: J.R.S.	Scale: 1" = 50'	

# CABOT OIL AND GAS

## TYPICAL PRODUCTION LAYOUT

### NW BULLHORN 8-31



Section 8, T29S, R24E, S.L.B.&M.		Qtr/Qtr Location: NW SW	Footage Location: 1944' FSL & 671' FWL
Date Surveyed: 10-26-05	Date Drawn: 11-8-05	Date Last Revision:	<b>Timberline</b> (435) 789-1365 <i>Land Surveying, Inc.</i> 38 WEST 100 NORTH VERNAL, UTAH 84078
Surveyed By: B.J.S.	Drawn By: J.R.S.	Scale: 1" = 50'	
			SHEET 6 OF 10



**Proposed Well Location:  
NW Bullhorn 8-31**

**LEGEND**

- = PROPOSED WELL LOCATION
- = EXISTING ROAD
- = EXISTING ROAD (TO BE IMPROVED)
- - - = PROPOSED ACCESS ROAD

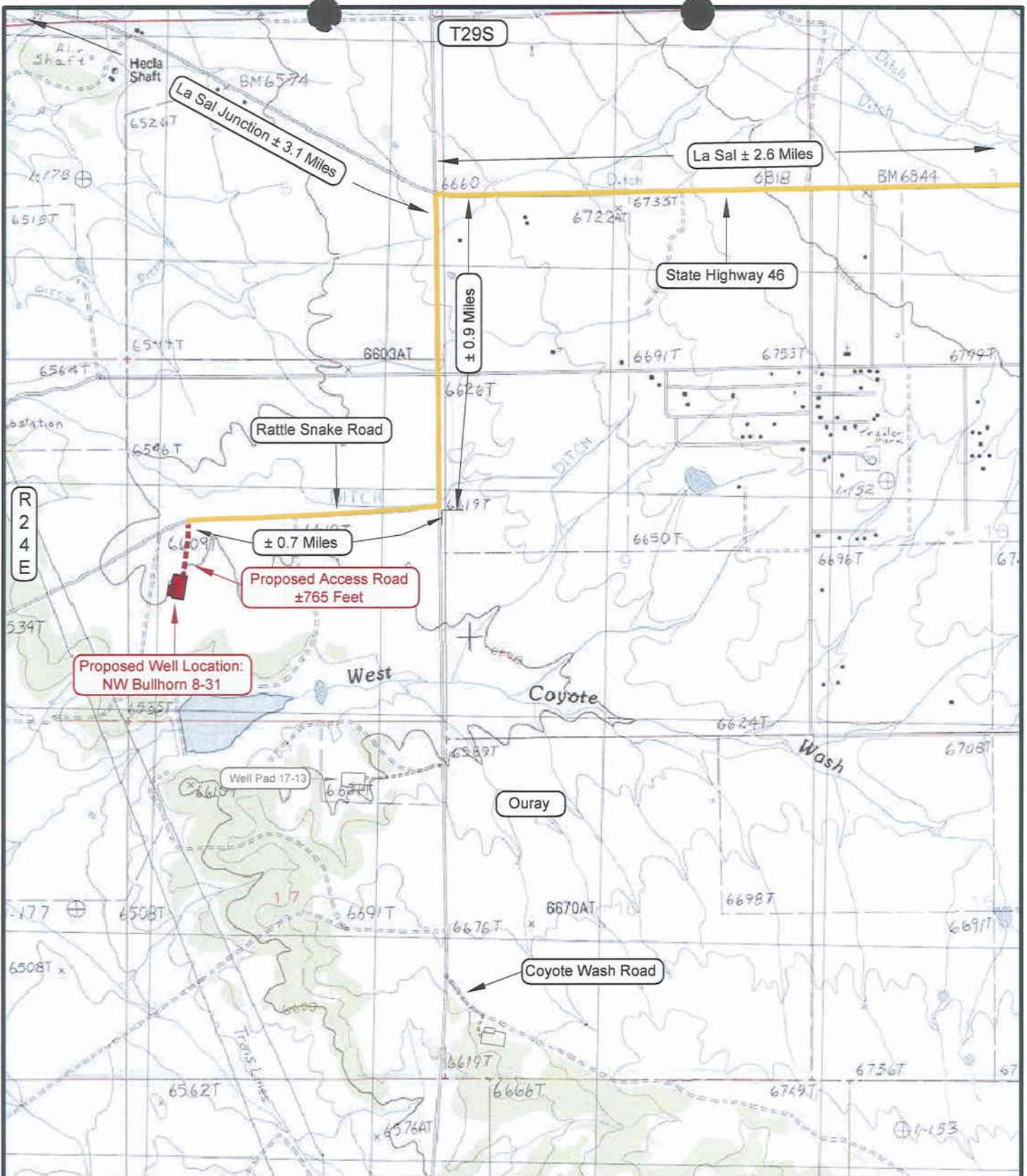
**CABOT OIL AND GAS**

**NW Bullhorn 8-31  
SECTION 8, T29S, R24E, S.L.B.&M.  
1944' FSL & 671' FWL**

<b>TOPOGRAPHIC MAP "A"</b>		DATE SURVEYED: 10-26-05
		DATE DRAWN: 11-04-05
SCALE: 1:100,000	DRAWN BY: B.J.Z.	REVISED: 11-07-05 B.J.Z.

**Timberline Land Surveying, Inc.**  
38 West 100 North Vernal, Utah 84078  
(435) 789-1365

**SHEET  
7  
OF 10**



**LEGEND**

- = PROPOSED ACCESS ROAD
- = SUBJECT WELL
- = SHARED ACCESS
- = EXISTING ROAD
- = EXISTING ROAD (TO BE IMPROVED)
- = LEASE LINE AND / OR PROPERTY LINE

**TOPOGRAPHIC MAP "B"**

SCALE: 1" = 2000'

DRAWN BY: BJ.Z.

DATE SURVEYED: 10-26-05

DATE DRAWN: 11-04-05

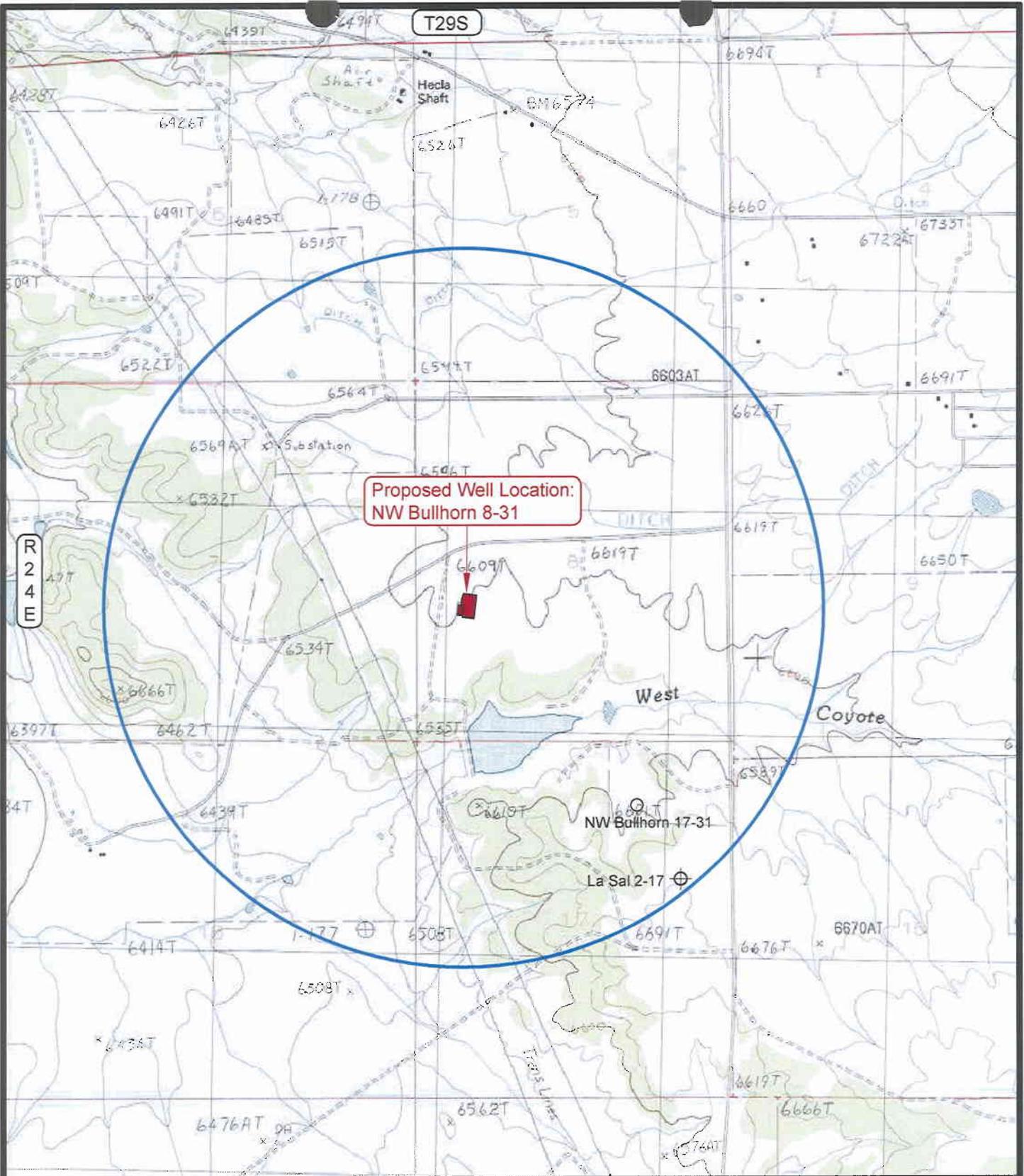
REVISED: 11-07-05 BJ.Z.

**CABOT OIL AND GAS**

**NW Bullhorn 8-31  
SECTION 8, T29S, R24E, S.L.B.&M.  
1944' FSL & 671' FWL**

**Timberline Land Surveying, Inc.**  
38 West 100 North Vernal, Utah 84078  
(435) 789-1365

**SHEET  
8  
OF 10**



Proposed Well Location:  
NW Bullhorn 8-31

**LEGEND**

- ⊗ = DISPOSAL WELL
- = PRODUCING WELL
- = SHUT IN WELL
- = PROPOSED WELL
- ⊗ = WATER WELL
- = ABANDONED WELL
- = TEMPORARILY ABANDONED WELL
- ⊗ = ABANDONED LOCATION

**CABOT OIL AND GAS**

**NW Bullhorn 8-31**  
**SECTION 8, T29S, R24E, S.L.B.&M.**  
**1944' FSL & 671' FWL**

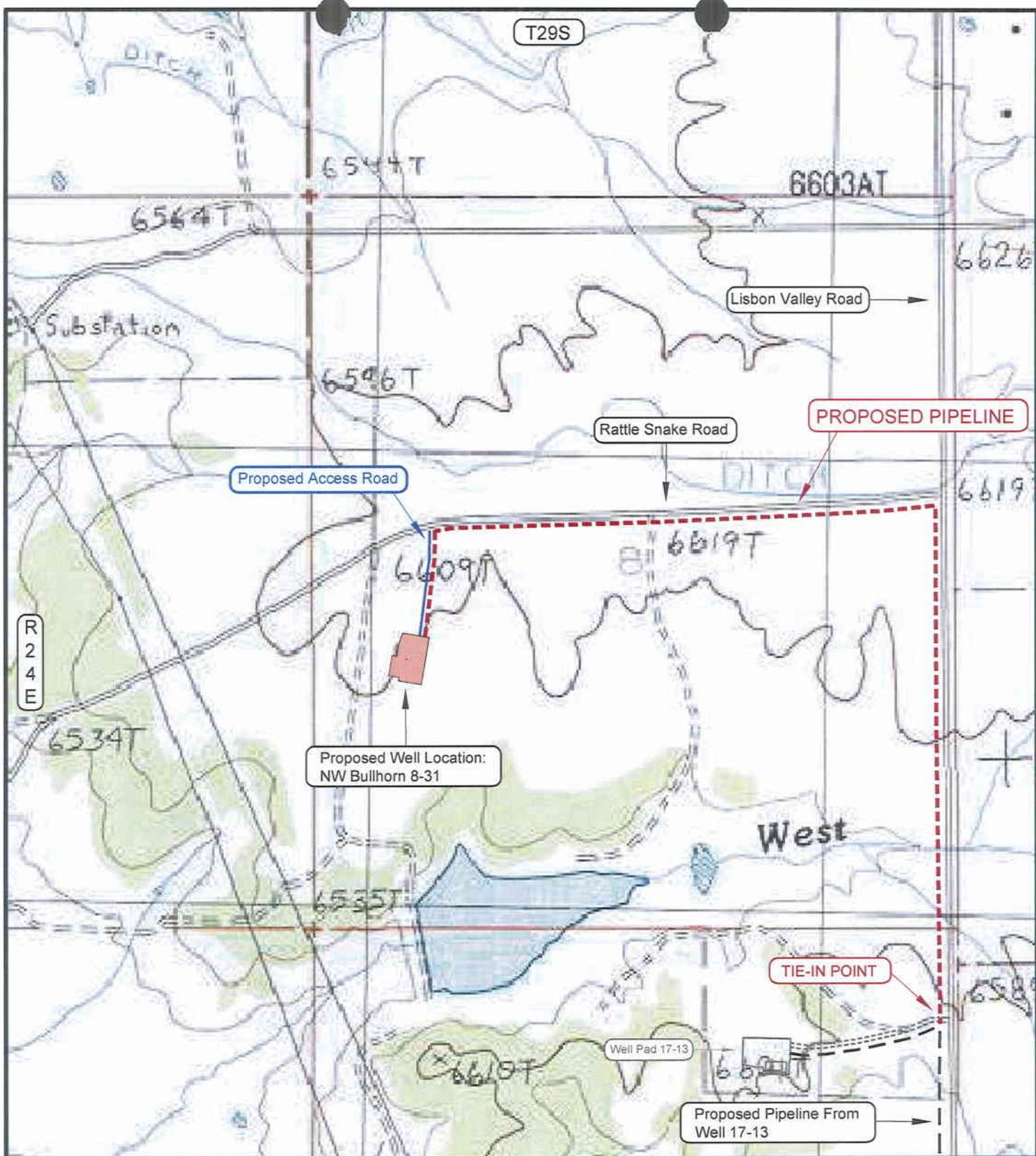
**TOPOGRAPHIC MAP "C"**

DATE SURVEYED: 10-26-05  
 DATE DRAWN: 11-04-05  
 REVISED: 11-07-05 B.J.Z.

SCALE: 1" = 2000'      DRAWN BY: B.J.Z.

**Timberline Land Surveying, Inc.**  
 38 West 100 North    Vernal, Utah 84078  
 (435) 789-1365

**SHEET**  
**9**  
**OF 10**



**APPROXIMATE PIPELINE LENGTH = ± 8,200 Feet**

**LEGEND**

- = EXISTING PIPELINE
- - - - = PROPOSED PIPELINE
- = PROPOSED ACCESS ROAD
- = LEASE LINE AND / OR PROPERTY LINE

**CABOT OIL AND GAS**

**NW Bullhorn 8-31  
SECTION 8, T29S, R24E, S.L.B.&M.  
1944' FSL & 671' FWL**

**TOPOGRAPHIC MAP "D"**

DATE SURVEYED: 10-26-05

DATE DRAWN: 11-07-05

SCALE: 1" = 1000'

DRAWN BY: B.J.Z.

REVISED: 11-07-05 B.J.Z.

**Timberline Land Surveying, Inc.**

38 West 100 North Vernal, Utah 84078  
(435) 789-1365

**SHEET**

**10**

**OF 10**

SOUTHEASTERN UTAH ASSOCIATION OF LOCAL GOVERNMENTS RECEIVED

JAN 24 2006

JERRY McNEELEY  
CHAIRMAN

WILLIAM D. HOWELL  
EXECUTIVE DIRECTOR



375 SOUTH CARBON AVE.  
DIV. OF OIL, GAS & MINING  
P.O. DRAWER 1106  
PRICE, UTAH 84501  
(435) 637-5444  
FAX (435) 637-5448

AREA WIDE CLEARINGHOUSE REVIEW

Federal Action \_\_\_\_\_ State Action   x   Approved ( x ) Yes ( ) No

Other (indicate) \_\_\_\_\_

Applicant Address:

Oil, Gas and Mining

1594 West North Temple #1210

SLC, UT 84114-5801

Name/Phone #

Diana Whitney 801-538-5312

Title/Project Description Application for Permit to Drill - Cabot Oil and Gas proposes to drill the NW Bullhorn 8-31 well (wildcat) on a Fee lease Fee, San Juan County, UT located at 1944' FSL, 671' FWL, NW/4 SW/4, Sec.8, TS29S, R24E, San Juan County, UT.

- No Comment
- See comment below

Comments: Favorable comment recommended.

Lorraine Bergheil 1/19/06  
SEUALG DATE

**STATE OF UTAH**  
DEPARTMENT OF NATURAL RESOURCES  
DIVISION OF OIL, GAS AND MINING

FORM 3

AMENDED REPORT   
(highlight changes)

<b>APPLICATION FOR PERMIT TO DRILL</b>			5. MINERAL LEASE NO: <b>Fee</b>	6. SURFACE: <b>Fee</b>
1A. TYPE OF WORK: <b>DRILL</b> <input checked="" type="checkbox"/> REENTER <input type="checkbox"/> DEEPEN <input type="checkbox"/>			7. IF INDIAN, ALLOTTEE OR TRIBE NAME:	
B. TYPE OF WELL:    OIL <input type="checkbox"/> GAS <input checked="" type="checkbox"/> OTHER _____    SINGLE ZONE <input type="checkbox"/> MULTIPLE ZONE <input checked="" type="checkbox"/>			8. UNIT or CA AGREEMENT NAME:	
2. NAME OF OPERATOR: <b>Cabot Oil and Gas</b>			9. WELL NAME and NUMBER: <b>NW Bullhorn 8-31</b>	
3. ADDRESS OF OPERATOR: <b>600 17th st. Suite 900N</b> CITY <b>Denver</b> STATE <b>CO</b> ZIP <b>80202</b>		PHONE NUMBER: <b>(303) 868-6612</b>	10. FIELD AND POOL, OR WILDCAT: <b>Paradox</b>	
4. LOCATION OF WELL (FOOTAGES) AT SURFACE: <b>1944' FSL &amp; 671' FWL</b> AT PROPOSED PRODUCING ZONE: <b>Same as above.</b>			11. QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: <b>NWSW 8    29S    24E</b>	
14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE: <b>4.3 miles south of La Sal, UT</b>			12. COUNTY: <b>San Juan</b>	13. STATE: <b>UTAH</b>
15. DISTANCE TO NEAREST PROPERTY OR LEASE LINE (FEET) <b>671'</b>	16. NUMBER OF ACRES IN LEASE:	17. NUMBER OF ACRES ASSIGNED TO THIS WELL:		
18. DISTANCE TO NEAREST WELL (DRILLING, COMPLETED, OR APPLIED FOR) ON THIS LEASE (FEET) <b>NA</b>	19. PROPOSED DEPTH: <b>7,400</b>	20. BOND DESCRIPTION: <b>5809579</b>		
21. ELEVATIONS (SHOW WHETHER DF, RT, GR, ETC.): <b>6595' GR</b>	22. APPROXIMATE DATE WORK WILL START: <b>1/30/2006</b>	23. ESTIMATED DURATION: <b>30 Days</b>		

**24. PROPOSED CASING AND CEMENTING PROGRAM**

SIZE OF HOLE	CASING SIZE, GRADE, AND WEIGHT PER FOOT			SETTING DEPTH	CEMENT TYPE, QUANTITY, YIELD, AND SLURRY WEIGHT		
12 1/4	9 5/8	J-55	36#	3,100	Premium Lite	575 sx	2.28cf/sk    8.4 PPG
					Type III	450 sx	1.43cf/sk    8.4 PPG
8 3/4	5 1/2	P-110	17#	7,400	Premium Lite High Stg	840 sx	2.02cf/sk    9.0 PPG

**25. ATTACHMENTS**

VERIFY THE FOLLOWING ARE ATTACHED IN ACCORDANCE WITH THE UTAH OIL AND GAS CONSERVATION GENERAL RULES:

- |  |   |
|--|---|
| <input checked="" type="checkbox"/> WELL PLAT OR MAP PREPARED BY LICENSED SURVEYOR OR ENGINEER     | <input checked="" type="checkbox"/> COMPLETE DRILLING PLAN  |
| <input checked="" type="checkbox"/> EVIDENCE OF DIVISION OF WATER RIGHTS APPROVAL FOR USE OF WATER | <input checked="" type="checkbox"/> FORM 5, IF OPERATOR IS PERSON OR COMPANY OTHER THAN THE LEASE OWNER |

**CONFIDENTIAL**

NAME (PLEASE PRINT) William A Ryan    TITLE Agent  
SIGNATURE *William A Ryan*    DATE 11/21/2005

(This space for State use only)

API NUMBER ASSIGNED: 43037-31842

APPROVAL:

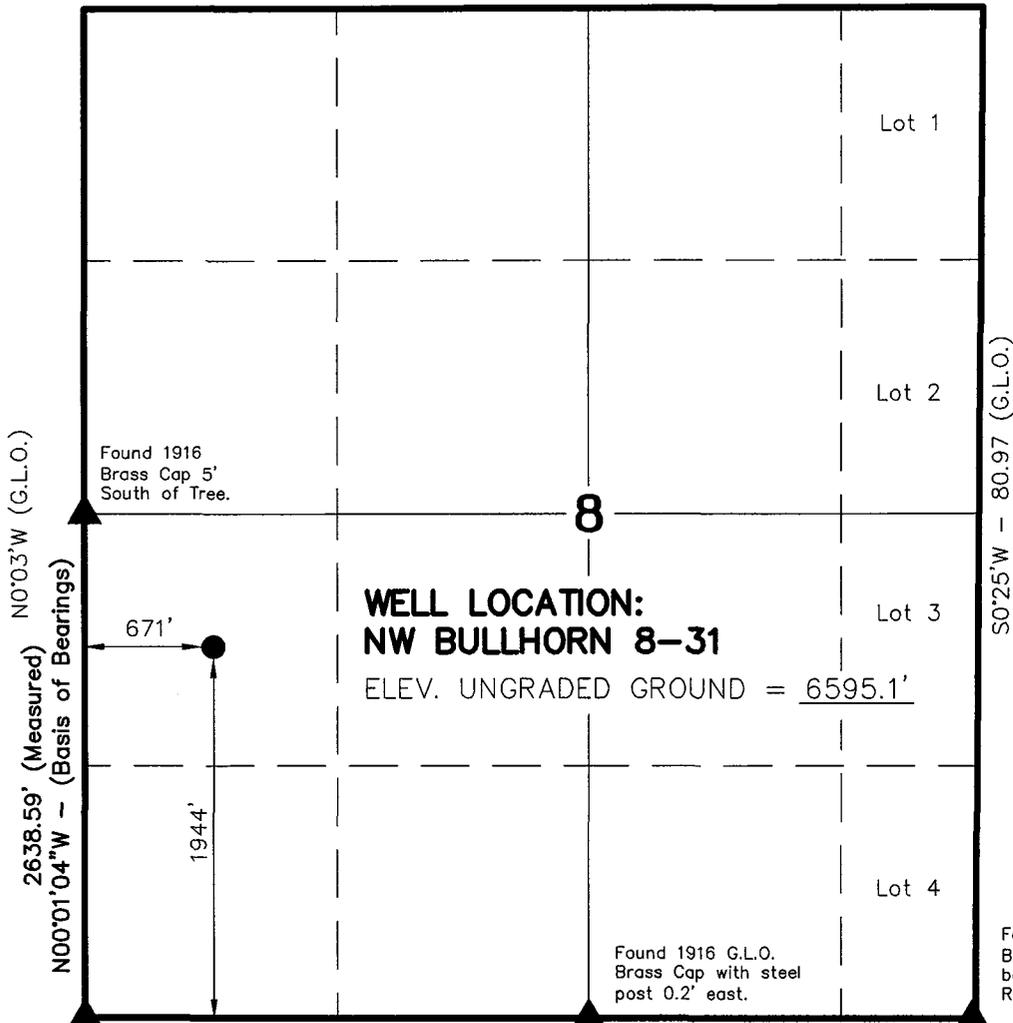
RECEIVED

DEC 07 2005

# T29S, R24E, S.L.B.&M.

# CABOT OIL AND GAS

N89°54'E - 70.85 (G.L.O.)



WELL LOCATION, NW BULLHORN 8-31,  
 LOCATED AS SHOWN IN THE NW 1/4  
 SW 1/4 OF SECTION 8, T29S, R24E,  
 S.L.B.&M. SAN JUAN COUNTY, UTAH.

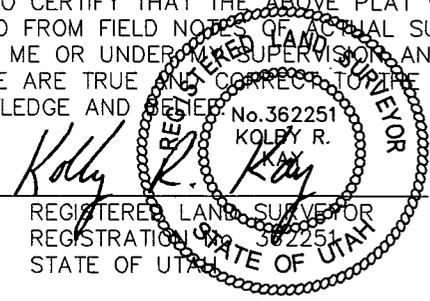
**NOTES:**

1. Well footages are measured at right angles to the Section Lines.
2. Bearings are based on Global Positioning Satellite observations.
3. Basis of elevation is bench mark G127 1934 located in the West 1/2 of Section 3, T29S, R24E, S.L.B.&M. The elevation of this bench mark is shown on the La Sal West, Utah 7.5 min. Quadrangle as being 6844'.

▲ = SECTION CORNERS LOCATED



THIS IS TO CERTIFY THAT THE ABOVE PLAT WAS PREPARED FROM FIELD NOTES OF AGRICULTURAL SURVEYS MADE BY ME OR UNDER MY SUPERVISION AND THAT THE SAME ARE TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF.



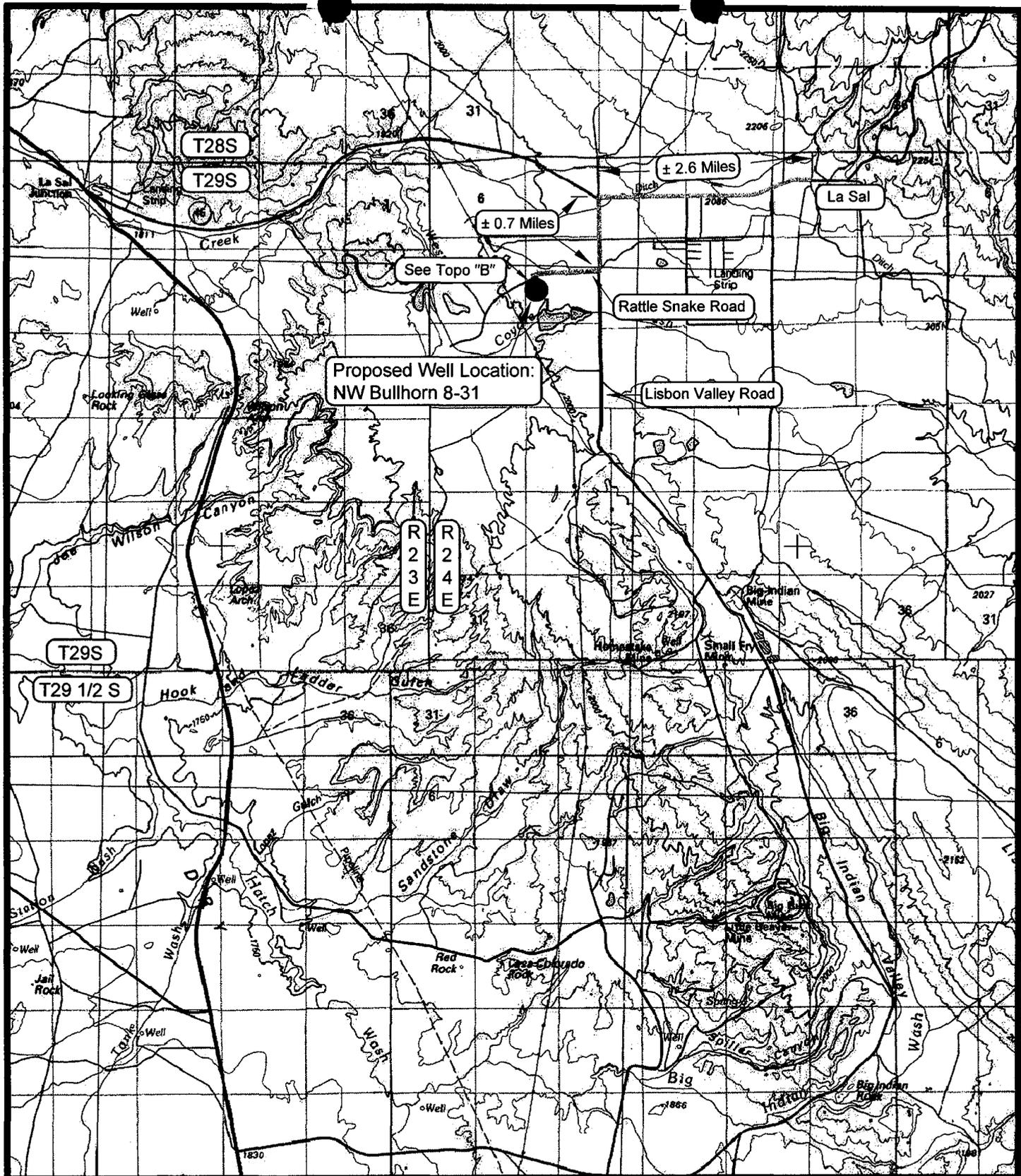
Found 1916 G.L.O.  
 Brass Cap buried 2' in  
 bar ditch of County  
 Road. CC

Found 1916  
 Brass Cap. Pile  
 of Stones.

**UTAH STATE PLANE COORDINATES,  
 1927, SOUTH ZONE**  
 X = 2,629,406.986  
 Y = 599,791.996

**NW BULLHORN 8-31  
 (Surface Location) NAD 83**  
 LATITUDE = 38° 17' 37.03"  
 LONGITUDE = 109° 18' 27.10"

<b>TIMBERLINE LAND SURVEYING, INC.</b>		<b>SHEET 2 OF 10</b>
38 WEST 100 NORTH. - VERNAL, UTAH 84078 (435) 789-1365		
DATE SURVEYED: 10-26-05	SURVEYED BY: B.J.S.	
DATE DRAWN: 11-8-05	DRAWN BY: J.R.S.	
SCALE: 1" = 1000'	Date Last Revised:	



**LEGEND**

- = PROPOSED WELL LOCATION
- = EXISTING ROAD
- = EXISTING ROAD (TO BE IMPROVED)
- = PROPOSED ACCESS ROAD

**TOPOGRAPHIC MAP "A"**

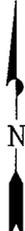
SCALE: 1:100,000

DRAWN BY: B.J.Z.

DATE SURVEYED: 10-26-05

DATE DRAWN: 11-04-05

REVISED: 11-07-05 B.J.Z.



**CABOT OIL AND GAS**

**NW Bullhorn 8-31  
SECTION 8, T29S, R24E, S.L.B.&M.  
1944' FSL & 671' FWL**

**Timberline Land Surveying, Inc.**  
38 West 100 North Vernal, Utah 84078  
(435) 789-1365

**SHEET  
7  
OF 10**

Project Number: 6025 Sponsor: Division of Oil, Gas and Mining  
SLB&M: Sec. 8, T29S, R24E Counties Affected: San Juan  
Description: Application for Permit to Drill - proposal to drill a wildcat well

Comments:

Well must be sited, drilled, and managed to prevent degradation of water quality through measures to limit erosion, limit stormwater runoff, and limit pollutant loading to runoff.

- 1- Wellpad placement or expansion disturbs soils. Vegetative and/or structural measures to control erosion should be implemented within 60 days of initial soil disturbance to prevent erosion leaving the site from exceeding the tolerable rate as determined by the local office of USDA/NRCS.
- 2- If vegetation surrounding the wellpad does not provide at least 60% ground cover within 60 days of creating the wellpad, engineering practices should be implemented within those 60 days to control erosion. Such engineering measures may include mulching, use of fiber mats, cross slope trenching, contour furrows, rock dams, terracing or such other erosion control practices as are required to prevent erosion from exceeding the tolerable rate.
- 3- No disturbance or degradation to or of surrounding or nearby soils, native or beneficial vegetation, or riparian areas should be permitted.
- 4- In addition, no spills nor runoff of chemicals including hydrocarbons, lubricants, salt water, antifreeze, or other potentially damaging materials should be permitted.

**DIVISION OF OIL, GAS AND MINING**  
**APPLICATION FOR PERMIT TO DRILL**  
**STATEMENT OF BASIS**

**OPERATOR:** Cabot Oil and Gas  
**WELL NAME & NUMBER:** NW Bullhorn 8-31  
**API NUMBER:** 43-037-31842  
**LOCATION:** 1/4,1/4 NWSW: Sec 8 TWP: 29 RNG: 24 1944 FSL 671 FWL

**Geology/Ground Water:**

This location is situated on moderately permeable soil formed on mixed Quaternary-age eolian and alluvial deposits covering either the Cretaceous-age Burro Canyon Formation or the Dakota Sandstone. The Operator proposes to use a benign fresh water mud system to 3,100' (base of the Wingate Sandstone of the Glen Canyon Group according to operator's prognosis), subsequently surface case to 3,100' and convert to a low solids non-dispersed mud system below that depth. Within a mile of this location underground water rights have been filed on numerous water wells. The subject location is relatively near the Lisbon Valley fault system so the area may present fracture permeability, lost circulation and a significant quantity of high quality groundwater may be encountered. I propose that the operator be required to extend their surface string into the upper Chinle Formation. If this is done the surface casing and cementing program is more likely to adequately isolate any zones of fresh water that may be penetrated.

**Reviewer:** Christopher J. Kierst      **Date:** 1/24/06

**Surface:**

On-site conducted January 10, 2006. In attendance: Bart Kettle (DOGM), Ginger Stringham (Paradigm Consulting, Inc), Kolby Kay (Timberline Land Surveying, Inc), Lane Fuller (Fuller Construction) Charles Redd (Surface lessee) Paul Redd (Surface lessee) and Laura Blanlenagle (Surface owner).

Surface owner requested that access road be change to enter the well pad from the south and use an existing private road. Surface owner requested that production pipeline be a buried line. No Surface Use Agreement has been signed at the time of the onsite visit. Reserve pit will need to be fence on three sides while the rig is on location and on all four side immediately upon remove of the drilling rig.

**Reviewer:** Bart Kettle      **Date:** January 13, 2006

**Conditions of Approval/Application for Permit to Drill:**

1. Reserve pit fenced on three sides during drilling, fourth side fenced upon completion of drilling.
2. A synthetic liner with a minimum thickness of 12 mils shall be properly installed and maintained in the reserve pit.
3. Extend surface casing to set 50' into the upper Chinle Formation.

**STATE ACTIONS**  
**Resource Development Coordinating Committee**  
**Governor's Office of Planning and Budget**  
**5110 State Office Building**  
**SLC, UT 84114**  
**Phone No. 537-9230**

<b>1. State Agency</b> Oil, Gas and Mining 1594 West North Temple, Suite 1210 Salt Lake City, UT 84114-5801	<b>2. Approximate date project will start:</b>  Upon Approval or December 27, 2005
<b>3. Title of proposed action:</b> Application for Permit to Drill	
<b>4. Description of Project:</b>  Cabot Oil and Gas proposes to drill the NW Bullhorn 8-31 well (wildcat) on a Fee lease Fee, San Juan County, Utah. This action is being presented to the RDCC for consideration of resource issues affecting state interests. The Division of Oil, Gas and Mining is the primary administrative agency in this action and must issue approval before operations commence.	
<b>5. Location and detailed map of land affected (site location map required, electronic GIS map preferred)</b> (include UTM coordinates where possible) (indicate county) 1944' FSL 671' FWL, NW/4 SW/4, Section 8, Township 29 South, Range 24 East, San Juan County, Utah	
<b>6. Possible significant impacts likely to occur:</b> Surface impacts include up to five acres of surface disturbance during the drilling and completion phase (estimated for five weeks duration). If oil and gas in commercial quantities is discovered, the location will be reclaimed back to a net disturbance of between one and two acres – not including road, pipeline, or utility infrastructure. If no oil or gas is discovered, the location will be completely reclaimed.	
<b>7. Identify local government affected</b> a. Has the government been contacted? No. b. When? c. What was the response? d. If no response, how is the local government(s) likely to be impacted?	
<b>8. For acquisitions of land or interests in land by DWR or State Parks please identify state representative and state senator for the project area. Name and phone number of state representative, state senator near project site, if applicable:</b> a. Has the representative and senator been contacted? N/A	
<b>9. Areawide clearinghouse(s) receiving state action:</b> (to be sent out by agency in block 1) Southeastern Utah Association of Governments	
<b>10. For further information, contact:</b>   <b>Diana Whitney</b> <b>Phone:</b> (801) 538-5312	<b>11. Signature and title of authorized officer</b>   Gil Hunt, Associate Director <b>Date:</b> December 13, 2005

**WORKSHEET  
APPLICATION FOR PERMIT TO DRILL**

APD RECEIVED: 12/07/2005

API NO. ASSIGNED: 43-037-31842
--------------------------------

WELL NAME: NW BULLHORN 8-31  
 OPERATOR: CABOT OIL & GAS CORP ( N6345 )  
 CONTACT: BILL RYAN

PHONE NUMBER: 435-789-0968

PROPOSED LOCATION:

NWSW 08 290S 240E  
 SURFACE: 1944 FSL 0671 FWL  
 BOTTOM: 1944 FSL 0671 FWL  
 SAN JUAN  
 WILDCAT ( 1 )

INSPECT LOCATN BY: / /		
Tech Review	Initials	Date
Engineering	DURD	1/30/06
Geology		
Surface		

LEASE TYPE: 4 - Fee  
 LEASE NUMBER: FEE  
 SURFACE OWNER: 4 - Fee  
 PROPOSED FORMATION: DSCR  
 COALBED METHANE WELL? NO

LATITUDE: 38.29370  
 LONGITUDE: -109.3067

RECEIVED AND/OR REVIEWED:

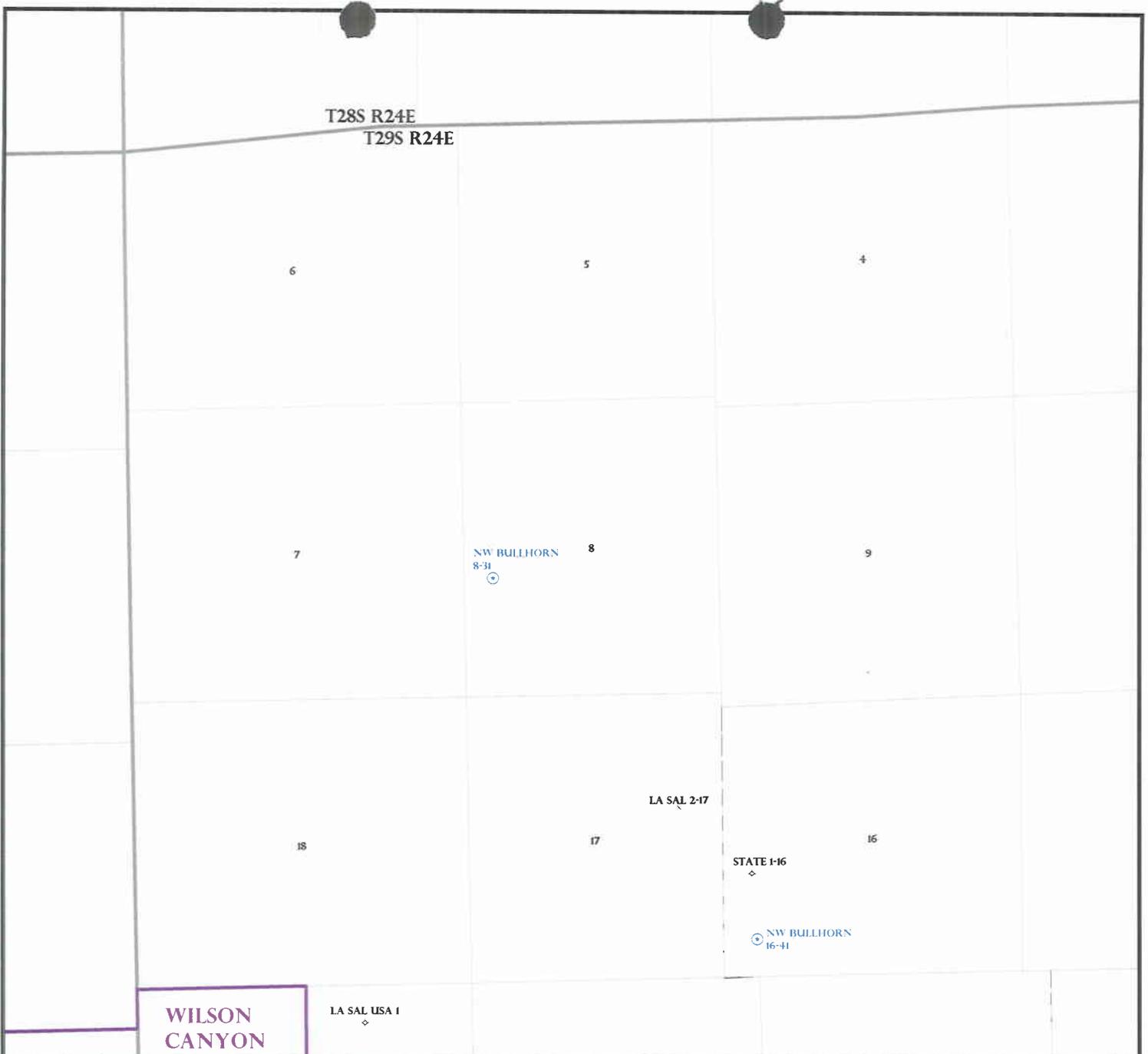
- Plat
- Bond: Fed[] Ind[] Sta[] Fee[]  
(No. R16008162 )
- Potash (Y/N)
- Oil Shale 190-5 (B) or 190-3 or 190-13
- Water Permit  
(No. T-30139 )
- RDCC Review (Y/N)  
(Date: 12/28/2005 )
- Fee Surf Agreement (Y/N)
- Intent to Commingle (Y/N)

LOCATION AND SITING:

- R649-2-3.  
Unit \_\_\_\_\_
- R649-3-2. General  
Siting: 460 From Qtr/Qtr & 920' Between Wells
- R649-3-3. Exception
- Drilling Unit  
Board Cause No: \_\_\_\_\_  
Eff Date: \_\_\_\_\_  
Siting: \_\_\_\_\_
- R649-3-11. Directional Drill

COMMENTS: Needs Permit (01-10-06)

STIPULATIONS: 1- Spacing Slip  
2- STATEMENT OF BASIS



OPERATOR: CABOT O&G (N6345)

SEC: 8 T. 29S R. 24E

FIELD: WILDC AT (001)

COUNTY: SAN JUAN

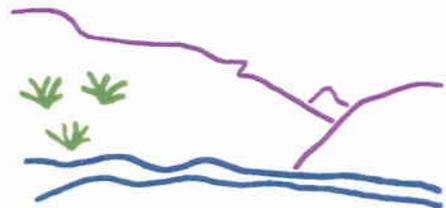
SPACING: R649-3-2 / GENERAL SITNG

- Field Status**
- ABANDONED
  - ACTIVE
  - COMBINED
  - INACTIVE
  - PROPOSED
  - STORAGE
  - TERMINATED

- Unit Status**
- EXPLORATORY
  - GAS STORAGE
  - NF PP OIL
  - NF SECONDARY
  - PENDING
  - PI OIL
  - PP GAS
  - PP GEOTHERML
  - PP OIL
  - SECONDARY
  - TERMINATED

**Wells Status**

- ✂ GAS INJECTION
- ✂ GAS STORAGE
- ✂ LOCATION ABANDONED
- ⊙ NEW LOCATION
- ◇ PLUGGED & ABANDONED
- ✂ PRODUCING GAS
- PRODUCING OIL
- ✂ SHUT-IN GAS
- ✂ SHUT-IN OIL
- ✂ TEMP. ABANDONED
- TEST WELL
- △ WATER INJECTION
- ⊙ WATER SUPPLY
- ⊙ WATER DISPOSAL
- ⊙ DRILLING



Utah Oil Gas and Mining



PREPARED BY: DIANA WHITNEY  
DATE: 13-DECEMBER-2005

**ON-SITE PREDRILL EVALUATION**  
**Division of Oil, Gas and Mining**

**OPERATOR:** Cabot Oil and Gas  
**WELL NAME & NUMBER:** NW Bullhorn 8-31  
**API NUMBER:** 43-037-31842  
**LEASE:** State **FIELD/UNIT:** \_\_\_\_\_  
**LOCATION:** 1/4,1/4 NWSW Sec: 8 TWP: 29S RNG: 24E 1944 FSL 671 FWL  
**LEGAL WELL SITING:** 460 F SEC. LINE; 460 F 1/4,1/4 LINE; 920 F ANOTHER WELL.  
**GPS COORD (UTM):** X =648077 E; Y =38293700 N SURFACE OWNER: Fee

**PARTICIPANTS**

Bart Kettle(DOGM), Ginger Stringham (Paradigm Consulting, Inc), Kolby Kay (Timberline Land Surveying, Inc), Lane Fuller (Fuller Construction), Laura Blankenagle (Surface Owner) Charles Redd (Surface lessee) and Paul Redd (Surface lessee).

**REGIONAL/LOCAL SETTING & TOPOGRAPHY**

Proposed location is ~4.3 miles southwest of La Sal, San Juan County, Utah. Areas surrounding the proposed well are a series of rough broken up sandstone ledges and wide relatively flat valley floors. Pinyon/Juniper and Wyoming sage communities that have been chained and seeded with crested wheatgrass dominate the immediate area. Access to this well will be along existing roads with approximately 340' of newly constructed access road. Drainage is to the southwest entering the Colorado River ~20 miles away. Ground cover is moderate to low, and soils are prone to erosion when vegetation is disturbed.

**SURFACE USE PLAN**

**CURRENT SURFACE USE:** Wildlife and Livestock grazing

**PROPOSED SURFACE DISTURBANCE:** 345' x 260'

**LOCATION OF EXISTING WELLS WITHIN A 1 MILE RADIUS:** Abandoned-La Sal 2-17. Permitted-NW Bullhorn 17-31

**LOCATION OF PRODUCTION FACILITIES AND PIPELINES:** Production facilities such as separators, dehydrators, flow meters and tanks will be located on-site. 8200' of 3" steel gas gathering line will be constructed if the well proves to be capable of economic production.

**SOURCE OF CONSTRUCTION MATERIAL:** On-site

**ANCILLARY FACILITIES:** None required

**WILL DRILLING AT THIS LOCATION GENERATE PUBLIC INTEREST OR CONCERNS? (EXPLAIN):** Drilling at this location is not expected to generate significant public concern.

## WASTE MANAGEMENT PLAN:

A trash cage fabricated from expanded metal will be used to hold trash on location and will be removed to an authorized landfill location. A portable chemical toilet will be supplied for human waste.

Reserve pit will be used to store water for drilling. A semi closed system will be used to drill the well. All fresh water for drilling will come from a frac tank placed on location and from the rig tank. The pit will be used to hold non-flammable materials such as cuttings, salt, drilling fluids. No produced fluids will be allowed into the reserve pit, a temporary tank will be required to collect these fluids.

## ENVIRONMENTAL PARAMETERS

AFFECTED FLOODPLAINS AND/OR WETLANDS: No floodplains or wetlands will be affected by the drilling of this well. Pad construction may increase short-term sediment loads, but is not expected to alter drainage function or long-term sediment loading.

FLORA/FAUNA: Mule Deer, elk, rabbits, songbirds, lizards, snakes and raptors.

Grasses: Crested wheatgrass. Forbs: None noted. Shrubs: Wyoming Sage, Douglas rabbit brush. Trees: Utah Juniper.

SOIL TYPE AND CHARACTERISTICS: Eolian deposits, reddish orange silty sand.

SURFACE FORMATION & CHARACTERISTICS: Dakota/Burro Canyon formations and Eolian deposits. Sloping sandstone ridges, and wide predominantly flat valleys with deep soils.

EROSION/SEDIMENTATION/STABILITY: Location is in a depositional zone for wind blown soils; soils are prone to wind and water erosion when disturbed. All soils are subject to erosion during rain events sufficient to create flows.

PALEONTOLOGICAL POTENTIAL: None noted

## RESERVE PIT

CHARACTERISTICS: 150'x75'x12'

LINER REQUIREMENTS (Site Ranking Form attached): Liner Required

## SURFACE RESTORATION/RECLAMATION PLAN

As per surface use agreement

SURFACE AGREEMENT: Surface agreement has not been signed at the time of onsite visit.

CULTURAL RESOURCES/ARCHAEOLOGY: Cultural resource inventory completed and report filed.

**OTHER OBSERVATIONS/COMMENTS**

Surface owner requested that access road be changed to enter location from the south off of a existing private road. Informed Cabot representative that if such changes are made a Sundry Notice noting these changes along with an updated plate would be required. Surface owner requested that production pipelines be buried. Surface owner, or lessee will determine seed mixture to be used for reclamation. At the time of onsite visit a surface use agreement has not yet been signed.

**ATTACHMENTS**

Photos of this location were taken and placed on file.

Bart Kettle  
DOGM REPRESENTATIVE

January 13, 2006, 1:13 P.M.  
DATE/TIME

**Evaluation Ranking Criteria and Ranking Score  
For Reserve and Onsite Pit Liner Requirements**

<u>Site-Specific Factors</u>	<u>Ranking</u>	<u>Site Ranking</u>
Distance to Groundwater (feet)		
>200	0	
100 to 200	5	
75 to 100	10	
25 to 75	15	
<25 or recharge area	20	<u>0</u>
Distance to Surf. Water (feet)		
>1000	0	
300 to 1000	2	
200 to 300	10	
100 to 200	15	
< 100	20	<u>0</u>
Distance to Nearest Municipal Well (feet)		
>5280	0	
1320 to 5280	5	
500 to 1320	10	
<500	20	<u>0</u>
Distance to Other Wells (feet)		
>1320	0	
300 to 1320	10	
<300	20	<u>0</u>
Native Soil Type		
Low permeability	0	
Mod. permeability	10	
High permeability	20	<u>20</u>
Fluid Type		
Air/mist	0	
Fresh Water	5	
TDS >5000 and <10000	10	
TDS >10000 or Oil Base Mud Fluid	15	
containing significant levels of hazardous constituents	20	<u>5</u>
Drill Cuttings		
Normal Rock	0	
Salt or detrimental	10	<u>0</u>
Annual Precipitation (inches)		
<10	0	
10 to 20	5	
>20	10	<u>5</u>
Affected Populations		
<10	0	
10 to 30	6	
30 to 50	8	
>50	10	<u>0</u>
Presence of Nearby Utility Conduits		
Not Present	0	
Unknown	10	
Present	15	<u>0</u>

**Final Score**      30      (Level I Sensitivity)

Sensitivity Level I = 20 or more; total containment is required, consider criteria for excluding pit use.

Sensitivity Level II = 15-19; lining is discretionary.

Sensitivity Level III = below 15; no specific lining is required.





State Online Services

Agency List

Business.utah.gov

Search Utah.gov

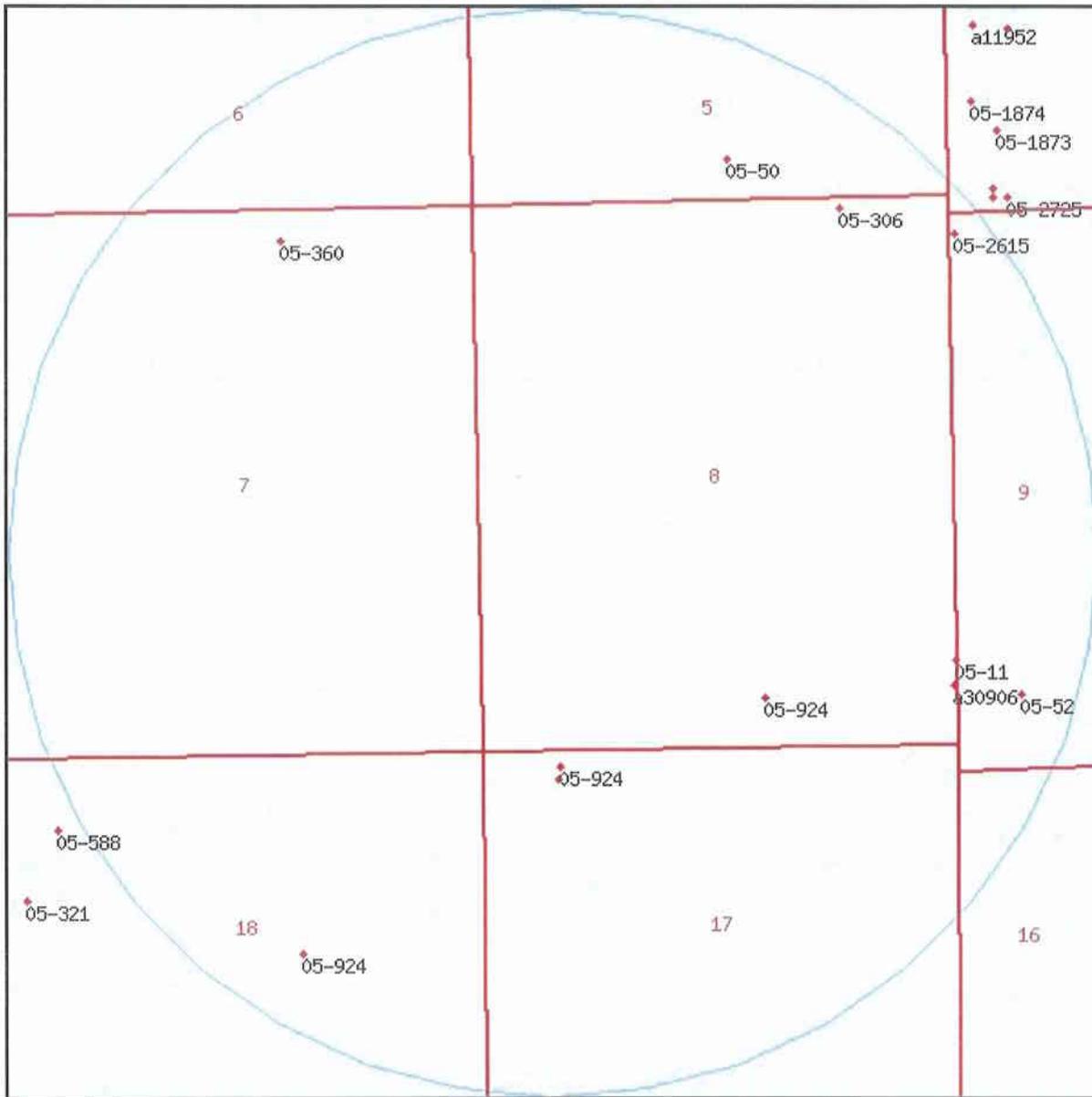


# UTAH DIVISION OF WATER RIGHTS

## WRPLAT Program Output Listing

Version: 2004.12.30.00      Rundate: 01/24/2006 03:32 PM

Radius search of 5280 feet from a point N1944 E671 from the SW corner, section 08, Township 29S, Range 24E, SL b&m Criteria:wrtypes=W,C,E  
podtypes=all status=U,A,P usetypes=all



**Water Rights**

<b>WR Number</b>	<b>Diversion Type/Location</b>	<b>Well Log</b>	<b>Status</b>	<b>Priority</b>	<b>Uses</b>	<b>CFS</b>	<b>ACFT</b>	<b>Owner Name</b>
<u>05-11</u>	Surface N827 W36 SE 08 29S 24E SL		P	19100413	I	1.000	0.000	NORMA P. BLANKENAGEL P.O. BOX 115
<u>05-1405</u>	Underground N260 E420 SW 04 29S 24E SL		U	19780123	DIS	0.100	0.000	WARREN KOCEJA P.O. BOX #1155
<u>05-1480</u>	Underground N1105 E210 SW 04 29S 24E SL	<u>well info</u>	P	19810916	DIS	0.096	0.000	DAVID AND HEYDI MOSHER 339 PARK AVE.
<u>05-1565</u>	Underground N820 E460 SW 04 29S 24E SL	<u>well info</u>	P	19781206	DIS	0.015	0.000	LAWRENCE W. AND SHARON R. JACOBS P.O. BOX 340
<u>05-1873</u>	Underground N820 E460 SW 04 29S 24E SL	<u>well info</u>	P	19740225	I	0.000	22.510	LAWRENCE W. AND SHARON R. JACOBS P.O. BOX 340
<u>05-1874</u>	Underground N1105 E210 SW 04 29S 24E SL		P	19740225	I	0.000	8.000	DAVID AND HEYDI MOSHER 339 PARK AVE.
<u>05-2195</u>	Surface S260 E720 NW 17 29S 24E SL		U	19870226	IS	4.000	300.000	NORMA P. BLANKENAGEL BOX 115
<u>05-2554</u>	Underground N165 E427 SW 04 29S 24E SL	<u>well info</u>	P	19951108	D	0.000	0.450	KELLY ANNE BACKES 177 SOUTH 400 EAST #5
<u>05-2615</u>	Underground S191 E56 SW 04 29S 24E SL	<u>well info</u>	P	19950818	DIS	0.000	3.790	ROBERT L. & LINDA A. NESTER P.O. BOX 127
<u>05-2725</u>	Underground	<u>well info</u>	P	19981009	DIS	0.000	3.250	TERRY STEWART

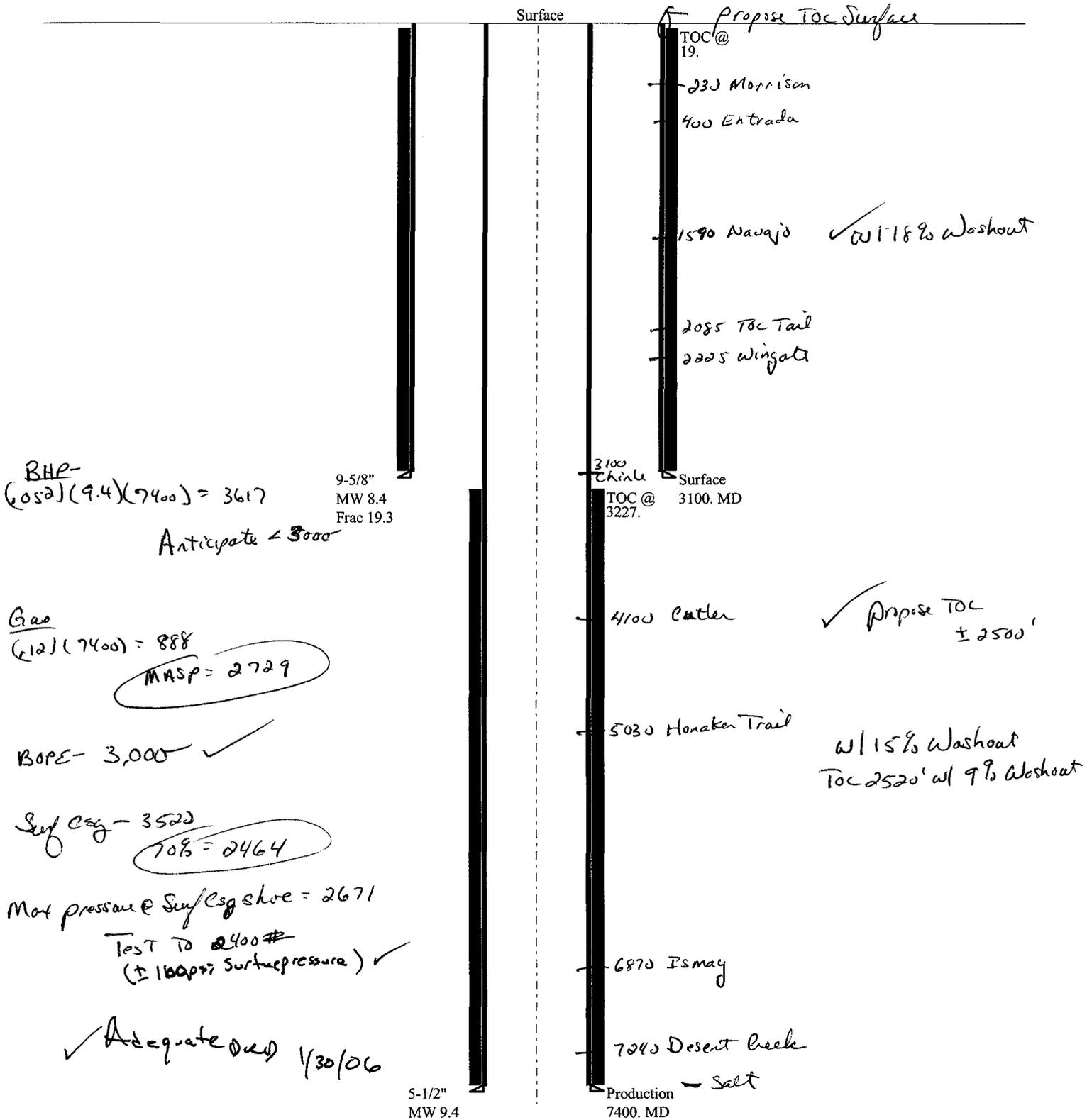
	N172 E556 SW 04 29S 24E SL					P. O. BOX 1153
<u>05-2976</u>	Underground	<u>well info</u>	A	20030730 DIS	0.000 4.730	DANIEL & DORIS SUPRAN
	S785 E620 W4 04 29S 24E SL					P.O. BOX 147
<u>05-2977</u>	Underground		A	20030808 DIS	0.000 4.730	ROBERT M. & THERESA A. KERSHAW
	S750 E274 W4 04 29S 24E SL					P.O. BOX 123
<u>05-306</u>	Underground		P	19600411 DIS	0.020 1.930	WILCOX RANCHES
	S122 W1055 NE 08 29S 24E SL					LASAL UT
<u>05-311</u>	Surface		P	19600615 IS	1.500 100.000	NORMA P. BLANKENAGEL
	S1950 W1760 NE 18 29S 24E SL					LASAL UT 84530
<u>05-311</u>	Surface		P	19600615 IS	1.500 100.000	NORMA P. BLANKENAGEL
	S140 E750 NW 17 29S 24E SL					LASAL UT 84530
<u>05-311</u>	Surface		P	19600615 IS	1.500 100.000	NORMA P. BLANKENAGEL
	N460 W1880 SE 08 29S 24E SL					LASAL UT 84530
<u>05-321</u>	Underground		P	19601216 DI	0.014 0.000	NORMA P. BLANKENAGEL
	S1382 W1408 N4 18 29S 24E SL					LASAL UT 84530
<u>05-360</u>	Underground		P	19680326 I	0.043 0.000	FRED C. AND DOROTHY L. MARKLE
	S251 E1155 N4 07 29S 24E SL					25 APACHE CIRCLE
<u>05-50</u>	Surface		P	19260319 I	4.000 0.000	JAMES H. WILCOX
	N330 E2640 SW 05 29S 24E SL					LA SAL UT 84530
<u>05-52</u>	Surface		P	19271005 I	3.000 126.600	J. H. BANKHEAD
	N763 E591 SW 09 29S 24E SL					MOAB UT 84532
<u>05-588</u>	Underground		P	19350819 D	0.000 0.000	R. L. HYDE

	S640 E1910 NW 18 29S 24E SL				LASAL UT 84530
<u>05-924</u>	Surface	P	19730419 IS	0.000 200.000	NORMA P. BLANKENAGEL
	S1950 W1760 NE 18 29S 24E SL				LASAL UT 84530
<u>05-924</u>	Surface	P	19730419 IS	0.000 200.000	NORMA P. BLANKENAGEL
	S140 E750 NW 17 29S 24E SL				LASAL UT 84530
<u>05-924</u>	Surface	P	19730419 IS	0.000 200.000	NORMA P. BLANKENAGEL
	N460 W1880 SE 08 29S 24E SL				LASAL UT 84530
<u>a11952</u>	Underground	A	19810820 I	0.000 12.000	ROBERT STEWART
	S750 E275 W4 04 29S 24E SL				P.O. BOX #176
<u>a30906</u>	Surface	U	20051228 O	0.000 1.000	JAMES BLANKENAGEL
	N580 W65 SE 08 29S 24E SL				P.O. BOX 276

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# 01-06 Cabot NW Bullhorn 31

## Casing Schematic



Well name:	<b>01-06 Cabot NW Bullhorn 8-31</b>		
Operator:	<b>Cabot Oil and Gas</b>	Project ID:	43-037-31842
String type:	Surface		
Location:	San Juan County		

**Design parameters:**

**Collapse**  
Mud weight: 8.400 ppg  
Design is based on evacuated pipe.

**Minimum design factors:**

**Collapse:**  
Design factor 1.125

**Burst:**  
Design factor 1.00

**Environment:**

H2S considered? No  
Surface temperature: 65 °F  
Bottom hole temperature: 108 °F  
Temperature gradient: 1.40 °F/100ft  
Minimum section length: 250 ft

Cement top: 19 ft

**Burst**

Max anticipated surface pressure: 2,726 psi  
Internal gradient: 0.120 psi/ft  
Calculated BHP 3,097 psi

No backup mud specified.

**Tension:**  
8 Round STC: 1.80 (J)  
8 Round LTC: 1.80 (J)  
Buttress: 1.60 (J)  
Premium: 1.50 (J)  
Body yield: 1.50 (B)

Tension is based on buoyed weight.  
Neutral point: 2,715 ft

Non-directional string.

**Re subsequent strings:**

Next setting depth: 7,400 ft  
Next mud weight: 9.400 ppg  
Next setting BHP: 3,614 psi  
Fracture mud wt: 19.250 ppg  
Fracture depth: 3,100 ft  
Injection pressure 3,100 psi

Run Seq	Segment Length (ft)	Size (in)	Nominal Weight (lbs/ft)	Grade	End Finish	True Vert Depth (ft)	Measured Depth (ft)	Drift Diameter (in)	Internal Capacity (ft³)
1	3100	9.625	36.00	J-55	LT&C	3100	3100	8.796	220.7

Run Seq	Collapse Load (psi)	Collapse Strength (psi)	Collapse Design Factor	Burst Load (psi)	Burst Strength (psi)	Burst Design Factor	Tension Load (Kips)	Tension Strength (Kips)	Tension Design Factor
1	1353	2020	1.493	3097	3520	1.14	98	453	4.64 J

Prepared by: Clinton Dworshak  
Utah Div. of Oil & Mining

Phone: 801-538-5280  
FAX: 810-359-3940

Date: January 26, 2006  
Salt Lake City, Utah

Remarks:  
Collapse is based on a vertical depth of 3100 ft, a mud weight of 8.4 ppg. The casing is considered to be evacuated for collapse purposes. Collapse strength is based on the Westcott, Dunlop & Kemler method of biaxial correction for tension.

Burst strength is not adjusted for tension.

Well name:

**01-06 Cabot NW Bullhorn 8-31**

Operator: **Cabot Oil and Gas**

String type: Production

Project ID:

43-037-31842

Location: San Juan County

**Design parameters:**

**Collapse**

Mud weight: 9.400 ppg  
Design is based on evacuated pipe.

**Minimum design factors:**

**Collapse:**

Design factor 1.125

**Burst:**

Design factor 1.00

**Environment:**

H2S considered? No  
Surface temperature: 65 °F  
Bottom hole temperature: 169 °F  
Temperature gradient: 1.40 °F/100ft  
Minimum section length: 1,500 ft

Cement top: 3,227 ft

**Burst**

Max anticipated surface pressure: 2,725 psi  
Internal gradient: 0.120 psi/ft  
Calculated BHP 3,613 psi

No backup mud specified.

**Tension:**

8 Round STC: 1.80 (J)  
8 Round LTC: 1.80 (J)  
Buttress: 1.60 (J)  
Premium: 1.50 (J)  
Body yield: 1.50 (B)

Non-directional string.

Tension is based on buoyed weight.

Neutral point: 6,345 ft

Run Seq	Segment Length (ft)	Size (in)	Nominal Weight (lbs/ft)	Grade	End Finish	True Vert Depth (ft)	Measured Depth (ft)	Drift Diameter (in)	Internal Capacity (ft³)
1	7400	5.5	17.00	P-110	LT&C	7400	7400	4.767	255
Run Seq	Collapse Load (psi)	Collapse Strength (psi)	Collapse Design Factor	Burst Load (psi)	Burst Strength (psi)	Burst Design Factor	Tension Load (Kips)	Tension Strength (Kips)	Tension Design Factor
1	3613	7480	2.070	3613	10640	2.94	108	445	4.13 J

Prepared by: Clinton Dworshak  
Utah Div. of Oil & Mining

Phone: 801-538-5280  
FAX: 810-359-3940

Date: January 26, 2006  
Salt Lake City, Utah

Remarks:

Collapse is based on a vertical depth of 7400 ft, a mud weight of 9.4 ppg. The casing is considered to be evacuated for collapse purposes. Collapse strength is based on the Westcott, Dunlop & Kemler method of biaxial correction for tension.

Burst strength is not adjusted for tension.

Engineering responsibility for use of this design will be that of the purchaser.

Cal 07 086  
6025

## MEMORANDUM

DATE: December 20, 2005

TO: Utah Division of Oil, Gas and Mining

CC: Resource Development Coordinating Committee

FROM: Utah Geological Survey Ground Water & Paleontology Program

SUBJECT: UGS comments on RDCC short turn around items 6018, 6019, 6020, 6021, 6022, 6025, 6027, and 6028.

6018. Division of Oil, Gas and Mining  
Short Turn Around Drilling Permit  
Sec. 32, T8S, R25E, Uintah County  
Application for Permit to Drill - proposal to drill a wildcat well the Hacking Reservoir 11-32-8-25 on a State lease ML-11124

Although there are no paleontological localities recorded in our files for this project area, the Eocene Uinta Formation that is exposed here has the potential for yielding significant vertebrate fossil localities. The office of the State Paleontologist therefore recommends that a paleontological evaluation be conducted for this project.

6019. Division of Oil, Gas and Mining  
Short Turn Around Drilling Permit  
Sec. 32, T8S, R25E, Uintah County  
Application for Permit to Drill - proposal to drill a wildcat well the Hacking Reservoir 3-32-8-25 on a State lease ML-11124

Although there are no paleontological localities recorded in our files for this project area, the Eocene Uinta Formation that is exposed here has the potential for yielding significant vertebrate fossil localities. The office of the State Paleontologist therefore recommends that a paleontological evaluation be conducted for this project.

6020. Division of Oil, Gas and Mining  
Short Turn Around Drilling Permit  
Sec. 32, T8S, R25E, Uintah County  
Application for Permit to Drill - proposal to drill a wildcat well the Hacking Reservoir 5-

32-8-25 on a State lease ML-11124

Although there are no paleontological localities recorded in our files for this project area, the Eocene Uinta Formation that is exposed here has the potential for yielding significant vertebrate fossil localities. The office of the State Paleontologist therefore recommends that a paleontological evaluation be conducted for this project.

6021. Division of Oil, Gas and Mining  
Short Turn Around Drilling Permit  
Sec. 32, T8S, R25E, Uintah County  
Application for Permit to Drill - proposal to drill a wildcat well the Hacking Reservoir 15-32-8-25 on a State lease ML-11124

Although there are no paleontological localities recorded in our files for this project area, the Eocene Uinta Formation that is exposed here has the potential for yielding significant vertebrate fossil localities. The office of the State Paleontologist therefore recommends that a paleontological evaluation be conducted for this project.

6022. Division of Oil, Gas and Mining  
Short Turn Around Drilling Permit  
Sec. 32, T8S, R25E, Uintah County  
Application for Permit to Drill - proposal to drill a wildcat well the Hacking Reservoir 9-32-8-25 on a State lease ML-11124

Although there are no paleontological localities recorded in our files for this project area, the Eocene Uinta Formation that is exposed here has the potential for yielding significant vertebrate fossil localities. The office of the State Paleontologist therefore recommends that a paleontological evaluation be conducted for this project.

6025. Division of Oil, Gas and Mining  
Short Turn Around Drilling Permit  
Sec. 8, T29S, R24E, San Juan County  
Application for Permit to Drill - proposal to drill a wildcat well the NW Bullhorn 8-31 on a Fee lease Fee

Although there are no paleontological localities recorded in our files for this project area, the Early Cretaceous Burro Canyon that is exposed here has the potential for yielding significant vertebrate fossil localities. The office of the State Paleontologist therefore recommends that a paleontological evaluation be conducted for this project.

6027. Division of Oil, Gas and Mining

Short Turn Around Drilling Permit  
Sec. 2, T6S, R21E, Uintah County  
Application for Permit to Drill - proposal to drill a wildcat well the North Horseshoe 13-2-6-21 on a State lease ML-47549

Although there are no paleontological localities recorded in our files for this project area, the Eocene Duchesne River Formation that is exposed here has the potential for yielding significant vertebrate fossil localities. The office of the State Paleontologist therefore recommends that a paleontological evaluation be conducted for this project.

6028. Division of Oil, Gas and Mining  
Short Turn Around Drilling Permit  
Sec. 2, T6S, R21E, Uintah County  
Application for Permit to Drill - proposal to drill a wildcat well the North Horseshoe 15-2-6-21 on a State lease ML-47549

Although there are no paleontological localities recorded in our files for this project area, the Eocene Duchesne River Formation that is exposed here has the potential for yielding significant vertebrate fossil localities. The office of the State Paleontologist therefore recommends that a paleontological evaluation be conducted for this project.

**From:** Robert Clark  
**To:** Whitney, Diana  
**Date:** 12/20/2005 4:08:49 PM  
**Subject:** RDCC comments

The following comments on **RDCC #6018 - 6028** are being sent directly to DOG&M due to their short turn around times.

**RDCC #6018 - 6022, #6027, & #6028, comments begin:** The proposed Houston Exploration well drilling projects in Uintah County may require permits, known as Approval Orders, from the Utah Division of Air Quality if any compressor stations are constructed at the sites. A permit application, known as a Notice of Intent (NOI), should be submitted to the Executive Secretary at the Utah Division of Air Quality at 150 N. 1950 West, SLC, UT, 84116 for review according to the Utah Air Quality Rule R307-401. Permit: Notice of Intent and Approval Order. The proposed projects are also subject to Utah Air Quality Rule R307-205-3, Fugitive Dust, due to the fugitive dust that is generated during the excavating phases of the projects. These rules apply to construction activities that disturb an area greater than 1/4 acre in size. A permit, known as an Approval Order, is not required from the Division of Air Quality, but steps need to be taken to minimize fugitive dust, such as, watering and/or chemical stabilization, providing vegetative or synthetic cover and windbreaks. A copy of the rules may be found at [www.rules.utah.gov/publicat/code/r307/r307.htm](http://www.rules.utah.gov/publicat/code/r307/r307.htm) . **Comments end.**

**RDCC #6023, #6025, & #6026, comments begin:** The proposed Cabot Oil and Gas well drilling projects in San Juan County may require permits, known as Approval Orders, from the Utah Division of Air Quality if any compressor stations are constructed at the sites. A permit application, known as a Notice of Intent (NOI), should be submitted to the Executive Secretary at the Utah Division of Air Quality at 150 N. 1950 West, SLC, UT, 84116 for review according to the Utah Air Quality Rule R307-401. Permit: Notice of Intent and Approval Order. The proposed projects are also subject to Utah Air Quality Rule R307-205-3, Fugitive Dust, due to the fugitive dust that is generated during the excavating phases of the projects. These rules apply to construction activities that disturb an area greater than 1/4 acre in size. A permit, known as an Approval Order, is not required from the Division of Air Quality, but steps need to be taken to minimize fugitive dust, such as, watering and/or chemical stabilization, providing vegetative or synthetic cover and windbreaks. A copy of the rules may be found at [www.rules.utah.gov/publicat/code/r307/r307.htm](http://www.rules.utah.gov/publicat/code/r307/r307.htm) . **Comments end.**

**RDCC #6024, comments begin:** The proposed Delta Petroleum well drilling project in Grand County may require a permit, known as Approval Order, from the Utah Division of Air Quality if any compressor stations are constructed at the site. A permit application, known as a Notice of Intent (NOI), should be submitted to the Executive Secretary at the Utah Division of Air Quality at 150 N. 1950 West, SLC, UT, 84116 for review according to the Utah Air Quality Rule R307-401. Permit: Notice of Intent and Approval Order. The proposed project is also subject to Utah Air Quality Rule R307-205-3, Fugitive Dust, due to the fugitive dust that is generated during the excavating phases of the project. These rules apply to construction activities that disturb an area greater than 1/4 acre in size. A permit, known as an Approval Order, is not required from the Division of Air Quality, but steps need to be taken to minimize fugitive dust, such as, watering and/or chemical stabilization, providing vegetative or synthetic cover and windbreaks. A copy of the rules may be found at [www.rules.utah.gov/publicat/code/r307/r307.htm](http://www.rules.utah.gov/publicat/code/r307/r307.htm) . **Comments end.**

Robert Clark  
Utah Division of Air Quality  
536-4435

**CC:** McNeill, Dave; Wright, Carolyn

**State of Utah****Department of  
Natural Resources**

MICHAEL R. STYLER  
*Executive Director*

**Division of  
Wildlife Resources**

JAMES F. KARPOWITZ  
*Division Director*

JON M. HUNTSMAN, JR.  
*Governor*

GARY R. HERBERT  
*Lieutenant Governor*

December 20, 2005

Gil Hunt  
Division of Oil, Gas and Mining  
P.O. Box 145801  
Salt Lake City, Utah 84114-5801

Subject: RDCC Project 6025, Application for Permit to Drill NW Bullhorn 8-31

Dear Mr. Hunt:

The Utah Division of Wildlife Resources has reviewed the subject document, and we provide the following comments:

We are concerned that the proposed action will result in impacts to Gunnison sage grouse habitat and mule deer. This location is within crucial winter range of mule deer and Gunnison sage-grouse. Gunnison sage-grouse are thought to have been extirpated from this area however; they have been sighted in the area within the last 10 years. Further, the Gunnison Sage-Grouse Recovery Plan stresses the importance of keeping habitat intact.

To minimize impacts to wildlife we recommend that our winter drilling restrictions for big game (December 1<sup>st</sup> -April 15<sup>th</sup>) be followed. In addition, we would recommend that the operator avoid placing the well pad in sagebrush parks or openings to reduce habitat loss and fragmentation of crucial habitat for both mule deer and Gunnison sage grouse. We are available to meet with the operator to help site the drill location to minimize impacts to wildlife while trying to meet resource extraction needs.

Mitigation should be accomplished by completing a habitat restoration project to compensate for both ground and noise disturbance to wildlife.

Thank you for the opportunity to review this proposed action and provide comment. If you have any questions, please call Nathan Sill, Wildlife biologist, at our Price office (435-636-0283).

Sincerely,

Derris Jones  
Regional Supervisor

DRJ/nss

Page 2  
January 5, 2006  
Subject:



**State of Utah**

**Department of  
Natural Resources**

MICHAEL R. STYLER  
*Executive Director*

**Division of  
Oil, Gas & Mining**

JOHN R. BAZA  
*Division Director*

JON M. HUNTSMAN, JR.  
*Governor*

GARY R. HERBERT  
*Lieutenant Governor*

January 30, 2006

Cabot Oil & Gas Corporation  
600 17th St., Suite 900 N  
Denver, CO 80202

Re: NW Bullhorn 8-31 Well, 1944' FSL, 671' FWL, NW SW, Sec. 8, T. 29 South,  
R. 24 East, San Juan County, Utah

Gentlemen:

Pursuant to the provisions and requirements of Utah Code Ann. § 40-6-1 *et seq.*, Utah Administrative Code R649-3-1 *et seq.*, and the attached Conditions of Approval, approval to drill the referenced well is granted.

This approval shall expire one year from the above date unless substantial and continuous operation is underway, or a request for extension is made prior to the expiration date. The API identification number assigned to this well is 43-037-31842.

Sincerely,

A handwritten signature in black ink, appearing to read "Gil Hunt".

Gil Hunt  
Associate Director

pab  
Enclosures

cc: San Juan County Assessor

**Operator:** Cabot Oil & Gas Corporation  
**Well Name & Number** NW Bullhorn 8-31  
**API Number:** 43-037-31842  
**Lease:** Fee

**Location:** NW SW                      **Sec.** 8                      **T.** 29 South                      **R.** 24 East

### Conditions of Approval

1. General

Compliance with the requirements of Utah Admin. R. 649-1 *et seq.*, the Oil and Gas Conservation General Rules, and the applicable terms and provisions of the approved Application for permit to drill.

2. Notification Requirements

The operator is required to notify the Division of Oil, Gas and Mining of the following actions during drilling of this well:

- 24 hours prior to cementing or testing casing
- 24 hours prior to testing blowout prevention equipment
- 24 hours prior to spudding the well
- within 24 hours of any emergency changes made to the approved drilling program
- prior to commencing operations to plug and abandon the well

The following are Division of Oil, Gas and Mining contacts and their work telephone numbers (please leave a voice mail message if the person is not available to take the call):

- Dan Jarvis at (801) 538-5338
- Carol Daniels at (801) 538-5284 (spud)

3. Reporting Requirements

All required reports, forms and submittals will be promptly filed with the Division, including but not limited to the Entity Action Form (Form 6), Report of Water Encountered During Drilling (Form 7), Weekly Progress Reports for drilling and completion operations, and Sundry Notices and Reports on Wells requesting approval of change of plans or other operational actions.

4. Compliance with the Conditions of Approval/Application for Permit to Drill outlined in the Statement of Basis. (Copy Attached)

5. Operator shall comply with applicable recommendations resulting from Resource Development Coordinating Committee review. Statements attached.

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43-037-31842

January 30, 2006

6. This proposed well is located in an area for which drilling units (well spacing patterns) have not been established through an order of the Board of Oil, Gas and Mining (the "Board"). In order to avoid the possibility of waste or injury to correlative rights, the operator is requested, once the well has been drilled, completed, and has produced, to analyze geological and engineering data generated therefrom, as well as any similar data from surrounding areas if available. As soon as is practicable after completion of its analysis, and if the analysis suggests an area larger than the quarter-quarter section upon which the well is located is being drained, the operator is requested to seek an appropriate order from the Board establishing drilling and spacing units in conformance with such analysis by filing a Request for Agency Action with the Board.



**State of Utah**

**Department of  
Natural Resources**

MICHAEL R. STYLER  
*Executive Director*

**Division of  
Oil, Gas & Mining**

JOHN R. BAZA  
*Division Director*

JON M. HUNTSMAN, JR.  
*Governor*

GARY R. HERBERT  
*Lieutenant Governor*

March 7, 2007

Ginger Stringham  
Cabot Oil & Gas Corporation  
600 17<sup>th</sup> St., Suite 900 N  
Denver, CO 80202

Re: APD Rescinded –NW Bullhorn 8-31 Sec. 8 T. 29 R. 24E  
San Juan County, Utah API No. 43-037-31842

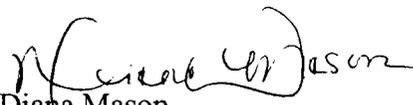
Ms. Stringham

The Application for Permit to Drill (APD) for the subject well was approved by the Division of Oil, Gas and Mining (Division) on January 30, 2006. No drilling activity at this location has been reported to the division. Therefore, approval to drill the well is hereby rescinded, effective March 7, 2007.

A new APD must be filed with this office for approval prior to the commencement of any future work on the subject location.

If any previously unreported operations have been performed on this well location, it is imperative that you notify the Division immediately.

Sincerely,

  
Diana Mason  
Environmental Scientist

cc: Well File  
Brad Hill, Technical Service Manager