

**Enduring Resources**

475 17th Street Suite 1500 Denver Colorado 80202
Telephone 303 573-1222 Fax 303 573 0461

June 24, 2005

Utah Division of Oil, Gas and Mining
1594 West North Temple, Suite 1210
P. O. Box 145801
Salt Lake City, Utah 84114-5801

Attn.: Ms. Diana Whitney

RE: Archy Bench 12-23-21-16
NENW Sec 16 T12S-R23E
Uintah County, Utah

Dear Ms. Whitney:

Enclosed are two original applications to drill concerning the referenced proposed well. According to Enduring Resources' references, this acreage is managed by the School and Institutional Trust Lands Administration. Therefore, this information was also submitted to them.

Enduring Resources, LLC is requesting the Utah Division of Oil, Gas and Mining to hold this application and all future information as confidential.

If any questions arise or additional information is required, please contact me at 303-350-5114.

Sincerely,

Phyllis Sobotik
Regulatory Specialist

/ps

Enclosures:

xc: School and Institutional Trust Lands Administration
675 East 500 South, Suite 500
Salt Lake City, Utah 84102
Attn: Mr. Ed Bonner

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JUN 2 / 2005

DIV. OF OIL, GAS & MINING

**Enduring Resources, LLC
Archy Bench 12-23-21-16
NENW Sec. 16 T12S-R23E
Uintah County, Utah
Lease # ML-48957**

Directions to Proposed Location

Directions to the proposed location are as follows:

From the intersection of U.S. Hwy 40 and 500 East Street in Vernal, Utah, proceed in an easterly then southerly direction along U.S. Hwy 40 approximately 3.3 miles to the junction of State Hwy 45. Exit right and proceed in a southerly direction along State Hwy 45, approximately 40.5 miles to the junction of Dragon Road (County B Road 4180). (This road is located approximately 4.8 miles south of Bonanza, Utah.) Exit left and proceed in a southeasterly direction along County B Road 4180, approximately 4.0 miles to the junction of Kings Wells Road (County B Road 4190). Exit right and proceed in a southwesterly direction along County B Road 4190 approximately 8.7 miles to the junction of Atchee Ridge Road (County B Road 4270). Continue along County B Road 4190 in a southwesterly direction approximately 4.3 miles to the junction of Long Draw Road (County B Road 4260). Continue along County B Road 4190 in a southerly, then westerly direction approximately 4.0 miles to the junction of County B Road 4160. Continue in a southerly direction along County B Road 4190 approximately 1.8 miles to the junction of a County D Road. Exit right and proceed in a westerly direction along the County D Road approximately 1.7 miles to the junction of a County D Road to the west. Exit left and proceed in a westerly direction along County D Road approximately 0.5 miles to the junction of a two track road to the southwest. Exit right and proceed in a southwesterly then northwesterly direction along the two track road approximately 0.9 miles to the proposed access road. Follow road flags in a easterly direction approximately 90 feet (0.02 miles) to the proposed location.

The proposed well site is located approximately 69.7 miles Southeasterly from Vernal, Utah.

CONFIDENTIAL

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

FORM 3

AMENDED REPORT
(highlight changes)

001

APPLICATION FOR PERMIT TO DRILL		5. MINERAL LEASE NO: ML-48957	6. SURFACE: State
1A. TYPE OF WORK: DRILL <input checked="" type="checkbox"/> REENTER <input type="checkbox"/> DEEPEN <input type="checkbox"/>	7. IF INDIAN, ALLOTTEE OR TRIBE NAME: N/A		8. UNIT or CA AGREEMENT NAME: N/A
B. TYPE OF WELL: OIL <input type="checkbox"/> GAS <input checked="" type="checkbox"/> OTHER _____ SINGLE ZONE <input checked="" type="checkbox"/> MULTIPLE ZONE <input type="checkbox"/>	2. NAME OF OPERATOR: Enduring Resources, LLC		9. WELL NAME and NUMBER: Archy Bench 12-23-21-16
3. ADDRESS OF OPERATOR: 475 17th St, Suite 1500 CITY Denver STATE CO ZIP 80202	PHONE NUMBER: (303) 350-5114	10. FIELD AND POOL, OR WMLDCAT: <i>Oil Springs</i>	
4. LOCATION OF WELL (FOOTAGES) AT SURFACE: 843' FNL 1957' FWL Sec 16 T12S R23E S.L.B.&M. AT PROPOSED PRODUCING ZONE: Same as above		11. QTR/4QTR SECTION, TOWNSHIP, RANGE, MERIDIAN: NENW 16 12S 23E	
14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE: 69.7 miles Southeasterly from Vernal, Utah		12. COUNTY: Uintah	13. STATE: UTAH
15. DISTANCE TO NEAREST PROPERTY OR LEASE LINE (FEET) 843'	16. NUMBER OF ACRES IN LEASE: 472.50	17. NUMBER OF ACRES ASSIGNED TO THIS WELL: 40	
18. DISTANCE TO NEAREST WELL (DRILLING, COMPLETED, OR APPLIED FOR) ON THIS LEASE (FEET) 1217'	19. PROPOSED DEPTH: 6,484	20. BOND DESCRIPTION: RLB0008031	
21. ELEVATIONS (SHOW WHETHER DF, RT, GR, ETC.): 5971.3' GR Ungraded	22. APPROXIMATE DATE WORK WILL START: 11/15/2005	23. ESTIMATED DURATION: 20 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"	8-5/8" J-55 24#	2,000	65/35 Poz	462 sx	1.81 12.6 ppg
			Prem	236 sx	1.18 15.6 ppg
7-7/8"	4-1/2" N-80/I-80 11.6#	6,484	Prem Lite II	306 sx	3.38 11.0 ppg
			50/50 Poz CI G	1029 sx	1.31 14.3 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 type="checkbox"/> FORM 5, IF OPERATOR IS PERSON OR COMPANY OTHER THAN THE LEASE OWNER

NAME (PLEASE PRINT) Phyllis Sobotik TITLE Regulatory Specialist

SIGNATURE *Phyllis Sobotik* DATE 6/24/2005

(This space for State use only)

API NUMBER ASSIGNED: 43-047-36799

Approved by the
Utah Division of
Oil, Gas and Mining

RECEIVED
JUN 21 2005

APPROVAL: *[Signature]*
Date: 06-25-05
By: *[Signature]* DIV. OF OIL, GAS & MINING

**Enduring Resources, LLC
Archy Bench 12-23-21-16
NENW Sec. 16 T12S-R23E
Uintah County, Utah
Lease # ML-48957**

ONSHORE ORDER 1 - DRILLING PLAN

1. Estimated Tops of Geological Markers:

<u>Formation</u>	<u>Depth</u>
Uinta	Surface
Green River	269'
Wasatch	2704'
Mesaverde	4273'

2. Estimated Depths of Anticipated Water, Oil, Gas or Other Minerals: (5975.7' estimated KB)

Substance	Formation	Depth
	Uinta	Surface
Oil / Gas	Green River	269'
Oil /Gas	Wasatch	2704'
Oil /Gas	Mesaverde	4273'
	Estimated TD	6484'

A 12-1/4" hole will be drilled to approximately 2000 feet. The depth will be determined by the depth that the Birds Nest zone is encountered. The hole will be drilled 400 feet beyond the top of the Birds Nest zone and surface casing will be set.

3. Pressure Control Equipment: (3000 psi schematic attached)

A. Type: Eleven (11) inch double gate hydraulic BOP with eleven (11) inch annular preventer with 3,000 psi Casinghead and 3,000 psi Tubinghead equipped per the attached diagrams for 3,000 psi. BOPE as specified in *Onshore Oil & Gas Order Number 2*. A PVT, Stroke Counter and flow sensor will be installed to check for flow and monitor pit volume.

B. Pressure Rating: 3,000 psi BOPE

C. Kelly will be equipped with upper and lower Kelly valves.

D. Testing Procedure: Annular Preventer

At a minimum, the annular preventer will be pressure tested to 50% of the stack rated working pressure for a period of ten (10) minutes or until provisions of the test are met, whichever is longer.

At a minimum, the above pressure test will be performed:

1. When the annular preventer is initially installed;
2. Whenever any seal subject to test pressure is broken;
3. Following related repairs; and
4. At thirty (30) day intervals.

In addition to the above, the annular preventer will be functionally operated at least weekly.

Blow-Out Preventer

At a minimum, the BOP, choke manifold, and related equipment will be pressure tested to the approved working pressure of the BOP stack (if isolated from the surface casing by a test plug) or to 70% of the internal yield strength of the surface casing (if the BOP is not isolated from the casing by a test plug). Pressure will be maintained for a period of at least ten (10) minutes or until the requirements of the test are met, whichever is longer.

At a minimum, the above pressure test will be performed:

1. When the BOP is initially installed;
2. Whenever any seal subject to test pressure is broken;
3. Following related repairs; and
4. At thirty (30) day intervals.

In addition to the above, the pipe and blind rams will be activated each trip, but not more than once each day. All BOP drills and tests will be recorded in the IADC driller's log.

D. Miscellaneous Information:

The blowout preventer and related pressure control equipment will be installed, tested and maintained in compliance with the specifications in and requirements of *Onshore Oil & Gas Order Number 2*.

Totco directional surveys will be dropped every 2000 feet. Maximum allowable angle is 5 degrees.

4. Proposed Casing & Cementing Program:**A. Casing Program: All New**

Hole Size	Casing Size	Wt./Ft.	Grade	Joint	Depth Set (md)
20"	16"				40'
12-1/4"	8-5/8"	24#	J-55	ST&C	0 – 2,000' est
7-7/8"	4-1/2"	11.6#	N-80/I-80	LT&C	0 – 6484'

The surface casing will have guide shoe, 1 jt., insert float collar. Centralize the first 3 joints with bowspring centralizers. Thread lock guide shoe.

Casing string(s) will be pressure tested to 0.22 psi/foot of casing string length or 1500 psi, whichever is greater (not to exceed 70% of the internal yield strength of the casing), after cementing and prior to drilling out from under the casing shoe.

B. Casing Design Parameters:

Depth (md)	Casing	Collapse(psi)/SF	Burst (psi)/SF	Tension(mlbs)/SF
40	16"			
2000	8-5/8", 24#/ft, J55, STC	1370/1.53(a)	4460/4.98(b)	244/5.08(c)
6484	4-1/2", 11.6#/ft, N-80, LTC	6350/1.90 (d)	7780/2.53 (e)	223/3.50 (f)

- (a.) based on full evacuation with 8.6 ppg fluid on annulus
- (b.) based on 8.6 ppg gradient with no fluid on annulus
- (c.) based on casing string weight in 8.6 ppg mud
- (d.) based on full evacuation with 10.0 ppg fluid on annulus, pipe evacuated

(e.) based on 9.2 ppg gradient, gas to surface, with no fluid on annulus, no gas gradient.

(f.) based on casing string weight in 9.2 ppg mud

PROPOSED CEMENTING PROGRAM

Surface Casing (if well will circulate)-Cemented to surface

CASING	SLURRY	FT. of FILL	CEMENT TYPE	SXS	EXCESS (%)	WEIGHT (ppg)	YIELD (ft ³ /sx)
8-5/8"	Lead	1500	65/35 POZ +6% Gel +10 pps gilsonite + .25 pps Flocele + 3% salt BWOW	462	35%	12.6	1.81
8-5/8"	Tail	500	Premium cmt +2% CaCl +.25 pps flocele	236	35%	15.6	1.18

A cement top job is required if cement fallback is greater than 10' below ground level. Top job cement will be premium cement w/2% CaCl. Volume as required.

Surface Casing (if well will not circulate)-Cemented to surface

CASING	SLURRY	FT. of FILL	CEMENT TYPE	SXS	EXCESS (%)	WEIGHT (ppg)	YIELD (ft ³ /sx)
8-5/8"	Lead	500	Premium cmt + 2% CaCl +.25 pps flocele	280	60	15.6	1.18
8-5/8"	Top job	As req.	Premium cement + 2% CaCl	Req.		15.6	1.18

Production Casing and Liner-Cemented TD to Surface

CASING	SLURRY	FT. of FILL	CEMENT TYPE	SXS	EXCESS (%)	WEIGHT (ppg)	YIELD (ft ³ /sx)
4-1/2"	Lead	2684	Premium Lite II +3% KCL +0.25 pps celloflake +5 pps gilsonite +10% gel +0.5% extender	306	60	11.0	3.38
4-1/2"	Tail	3800	50/50 POZ Class G +10% salt + 2% gel + 1% R-3	1029	60	14.3	1.31

Cement volumes for the 4-1/2" Production Casing will be calculated to provide a top of cement to surface. Cement volumes are approximate and were calculated under the assumption that a gauge hole will be achieved. Actual cement volumes may vary due to variations in the actual hole size and will be determined by running a caliper log on the drilled hole.

All waiting on cement (WOC) times will be adequate to achieve a minimum of 500 psi compressive strength at the casing shoe prior to drilling out.

5. Drilling Fluids (mud) Program:

Interval	Mud Weight	Fluid Loss	Viscosity	Mud Type
0' - 2000'		No cntrl		Air/mist
2000'-3000'	8.4-8.6	No cntrl	28-36	Water
3000'-6484'	8.8-10.2	8 - 10 ml	32-42	Water/Gel

Sufficient mud material(s) to maintain mud properties, control lost circulation and contain a blowout will be available at the well site during drilling operations.

6. Evaluation Program:

Tests: No tests are currently planned.

Coring: No cores are currently planned.

Samples: None

Logging: Dual Induction – SFL /Gamma Ray Caliper: TD to Base Surface Casing
 Compensated Neutron/Litho Density Temperature/Gamma Ray: TD to Base Surface Casing
 Cement Bond Log / Gamma Ray: PBTD to Top of Cement

Stimulation: A stimulation or frac treatment will be designed for completion of this well based on openhole log analysis. The drill site, as approved, will be sufficient size to accommodate all completion activities.

7. Abnormal Conditions:

No abnormal temperatures or pressures are anticipated. No H₂S has been encountered or known to exist from previous wells drilled to similar depths in the general area.

Maximum anticipated bottom hole pressure equals approximately 3372 psi (calculated at 0.52 max psi/foot of hole) and maximum anticipated surface pressure equals approximately 1945 psi (anticipated bottom hole pressure minus the pressure of a partially evacuated hole calculated at 0.22 psi/foot of hole).

8. Anticipated Starting Dates:

Anticipated Commencement Date- November 15, 2005
 Drilling Days- Approximately 10 days
 Completion Days - Approximately 10 days
 Anticipate location construction within 30 days of permit issue.

9. Variances:

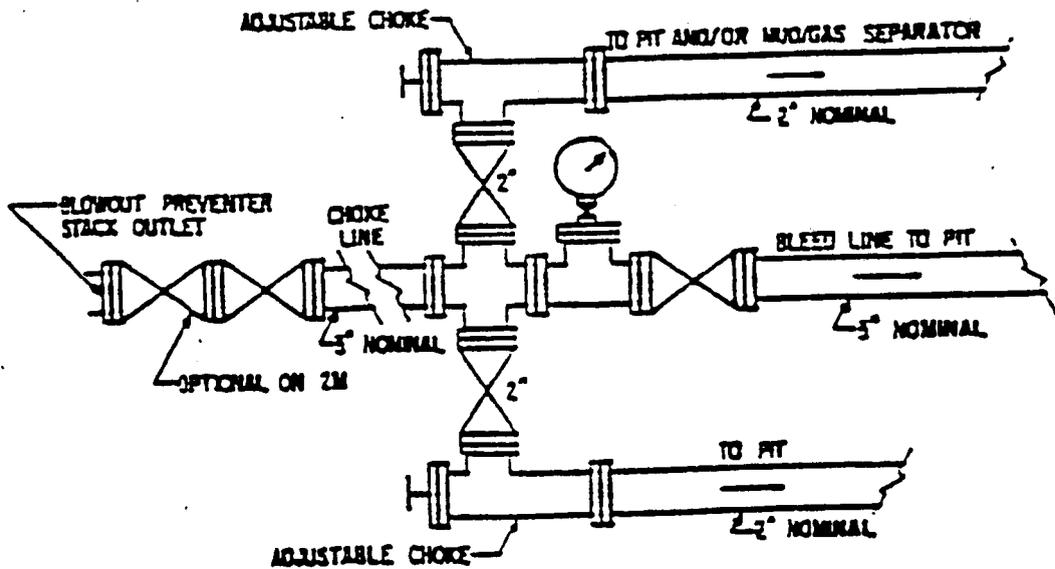
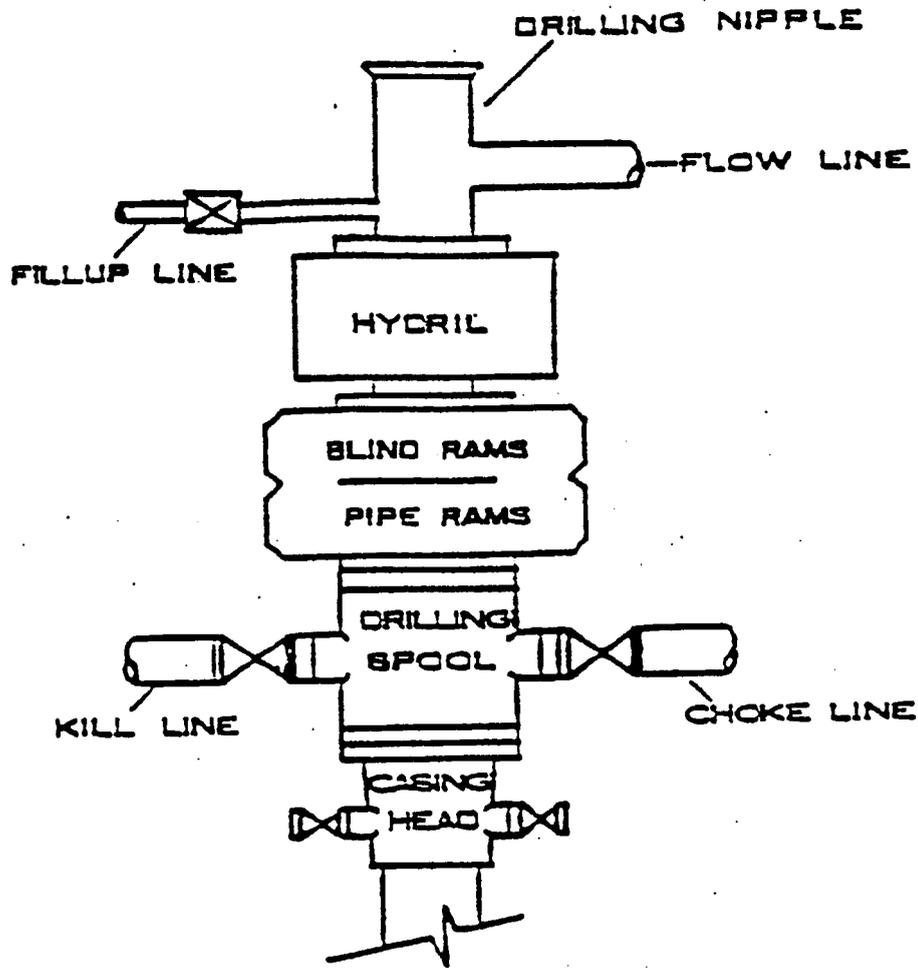
None anticipated

10. Other:

A Cultural Resource Inventory and Paleontology reconnaissance shall be conducted for the well location, access route and pipeline. The reports shall be submitted to the Division of Oil, Gas and Mining and the School and Institutional Trust Lands Administration upon their receipt.

3,000 PSI

BOF STACK



Enduring Resources, LLC
Archy Bench 12-23-21-16
NENW Sec. 16 T12S-R23E
Uintah County, Utah
Lease # ML-48957

MULTI-POINT SURFACE USE & OPERATIONS PLAN

1. Existing Roads:

Directions to the proposed location are as follows:

From the intersection of U.S. Hwy 40 and 500 East Street in Vernal, Utah, proceed in an easterly then southerly direction along U.S. Hwy 40 approximately 3.3 miles to the junction of State Hwy 45. Exit right and proceed in a southerly direction along State Hwy 45, approximately 40.5 miles to the junction of Dragon Road (County B Road 4180). (This road is located approximately 4.8 miles south of Bonanza, Utah.) Exit left and proceed in a southeasterly direction along County B Road 4180, approximately 4.0 miles to the junction of Kings Wells Road (County B Road 4190). Exit right and proceed in a southwesterly direction along County B Road 4190 approximately 8.7 miles to the junction of Atchee Ridge Road (County B Road 4270). Continue along County B Road 4190 in a southwesterly direction approximately 4.3 miles to the junction of Long Draw Road (County B Road 4260). Continue along County B Road 4190 in a southerly, then westerly direction approximately 4.0 miles to the junction of County B Road 4160. Continue in a southerly direction along County B Road 4190 approximately 1.8 miles to the junction of a County D Road. Exit right and proceed in a westerly direction along the County D Road approximately 1.7 miles to the junction of a County D Road to the west. Exit left and proceed in a westerly direction along County D Road approximately 0.5 miles to the junction of a two track road to the southwest. Exit right and proceed in a southwesterly then northwesterly direction along the two track road approximately 0.9 miles to the proposed access road. Follow road flags in a easterly direction approximately 90 feet (0.02 miles) to the proposed location.

The proposed well site is located approximately 69.7 miles Southeasterly from Vernal, Utah. Refer to attached Topographic Map "A" and "B"

All existing roads will be maintained and kept in good repair during all drilling and completion operations associated with this well.

2. Planned Access Roads:

The proposed access road will be approximately 90 feet (0.02 miles) of new construction entering the location from the upgraded two track access road. Approximately 4,752 feet (0.9 miles) of an existing two track road will require upgrading. Rerouting of approximately 1,580 feet (0.3 miles) of the 0.9 miles of two track may be necessary. The proposed access road utilizes approximately 2.2 miles of an existing County D road requiring no new construction or upgrades. Please refer to Topo Map "B".

The access road will be crowned 2% to 3%, ditched and constructed with a running surface of 18 feet and a maximum disturbed width of 30 feet right-of-way. Maximum grade of road is 5% or less. Graveling or capping the roadbed will be performed as necessary to provide a well constructed, safe road. No fence crossings, culverts, turnouts, cattleguards or major cuts and fills are expected to be required. Prior to construction or upgrading, the proposed road shall be cleared of any snow and allowed to dry completely.

Surface disturbance and vehicular traffic will be limited to the proposed location and proposed access route. Any additional area needed will be approved in advance. All construction shall be in conformance with the standards outlined in the BLM and Forest Service publication: Surface Operating Standards for Oil and Gas Exploration and Development. 1989.

The road surface and shoulders will be kept in a safe usable condition and will be maintained in accordance with the original construction standards. All drainage ditches will be kept clear and free flowing and will be maintained according to original construction standards. The access road surface will be kept free of trash during operations. All traffic will be confined to the approved disturbed surface. Road drainage crossings shall be designed so they will not cause siltation or accumulation of debris in the drainage crossing nor shall the drainages be blocked by the road bed. Erosion of drainage ditches by runoff water shall be prevented by diverting water off at frequent intervals by means of cutouts. Upgrading shall not be allowed during muddy conditions. Should mud holes develop, they shall be filled in and detours around them avoided. When snow is removed from the road during the winter months, the snow shall be pushed outside of the borrow ditches and the turnouts kept clear so that snowmelt will be channeled away from the road.

3. Location of Existing Wells Within a One Mile Radius: Please refer to Topographic Map "C"

There are no known producing wells, temporarily abandoned wells, water wells, disposal wells, monitoring or observation wells, or injection wells located within a one (1) mile radius of the proposed location.

There are four known shut in wells – Hanging Rock I #10-13 SWSW Sec 10 T12S-R23E
- DWR #14-16 SESW Sec 16 T12S-R23E
- DWR #15-16 SWSE Sec 16 T12S-R23E
- DWR #16-16 SESE Sec 16 T12S-R23E

There are three known plugged and abandoned wells – Hanging Rock I #9-11 NESW Sec 9 T12S-R23E
- Hanging Rock I #15-5 SWNW Sec 15 T12S-R23E
- State M #32-16 SWNE Sec 16 T12S-R23E

There may be drilling activity or permitted wells within in the area.

4. Location of Existing &/or Proposed Facilities:

All production facilities will be located on the disturbed portion of the well pad and at a minimum of 25 feet from the toe of the back slope or the top of the fill slope. Refer to Sheet #6.

A dike will be constructed completely around those production facilities which contain fluids (i.e. production tanks, produced water tanks and/or heater treater.) These dikes will be constructed of compacted subsoil, be impervious, hold 100% of the capacity of the largest tank and be independent of the back cut.

All permanent (on site for six months or longer) above the ground structures constructed or installed, including pumping units, will be painted a flat, non-reflective, earth tone color to match one of the standard environmental colors, as determined by the Rocky Mountain Five State Inter-Agency Committee.

All facilities will be painted within 6 months of installation. The color shall be Carlsbad Canyon (2.5Y 6/2). Facilities required to comply with the Occupational Safety and Health Act (OSHA) will be excluded.

Any necessary pits will be properly fenced to protect livestock and prevent wildlife entry.

If the well is capable of economic production, a surface gas gathering line and related equipment shall be installed. The gas gathering line shall be in use year round. Approximately 2,507 feet (0.5 miles) of 6 inch or less diameter steel, unpainted, welded gas gathering line is proposed to be laid. The proposed line shall begin at the well site, go west following 90 feet of proposed access road, turn in a southerly direction being laid alongside the access road and continue in a easterly direction to tie into the gathering line installed to transport gas from the Archy Bench #12-23-22-16 well. The gathering line for the Archy Bench #12-23-22-16 well ties into an existing pipeline located in Sec. 16 T12S-R23E. The proposed gathering line shall be placed above ground. The line will be welded together and pulled from the well site location and tie-in point when practical; however, it may be necessary to utilize the access road for welding of the line. The line will then be boomed off to the side of the road. The gas meter run will be located within 500 feet of the wellhead. The

meter run will be housed. The gas gathering line will be buried or anchored down from the wellhead to the meter. Please refer to the attached Topographic Map "D".

Upon plugging and abandonment, the gas gathering line will be removed and the disturbed area will be re-contoured and restored as near as practical to the original condition. If necessary, re-seeding operations will be performed after completion of other reclamation operations. The appropriate surface management agency will be contacted for the required seed mixture and seeding dates.

5. Location and Type of Water Supply:

Water will be obtained from the White River by Tu and Frum, Inc. Water User Claim #49-2185, Application #T75517, or by Target Trucking Water User Claim #43-2195, or by Dalbo Inc. Water User Claim #43-8496.

Water will be hauled to the location over the roads marked on Topographic Maps "A" and "B".

No water well is to be drilled on this lease.

6. Source of Construction Materials:

Surface and subsoil materials in the immediate area will be utilized for location and access road construction.

Any gravel will be obtained from a commercial source; however, gravel sized rock debris associated with location and access road construction may be used as access road surfacing material.

7. Methods of Handling Waste Materials:

Drill cuttings will be contained and buried in the reserve pit.

Drilling fluids, including salts and chemicals, will be contained in the reserve pit. Upon termination of drilling and completion operations, the liquid contents of the reserve pit will be removed and disposed of at an approved waste disposal facility within 120 days after drilling is terminated.

The reserve pit will be constructed on the location and will not be located within natural drainage, where a flood hazard exists or surface runoff will destroy or damage the pit walls. The reserve pit will be constructed so that it will not leak, break or allow discharge of liquids.

A plastic reinforced liner is to be used. It will be a minimum of 12 mil thick and felt with sufficient bedding used to cover any rocks. The liner will overlap the pit walls and be covered with dirt and/or rocks to hold it in place. No trash or scrap that could puncture the liner will be disposed of in the pit.

Any spills of oil, salt water or other noxious fluids will be immediately cleaned up and removed to an approved disposal site.

A chemical portable toilet will be furnished with the drilling rig. The toilet will be replaced periodically utilizing a licensed contractor to transport by truck the portable chemical toilet so that its contents can be delivered to the Vernal Wastewater Treatment Facility in accordance with state and county regulations.

Garbage, trash and other waste materials will be collected in a portable, self-contained, fully enclosed trash cage during operations. No trash will be burned on location.

All debris and other waste material not contained in the trash cage will be cleaned up and removed from the location immediately after removal of the drilling rig.

Any open pits will be fenced during the operations. The fencing will be maintained until such time as the pits are backfilled.

No chemicals subject to reporting under SARA Title III (hazardous materials) in an amount greater than 10,000 pounds will be used, produced, stored, transported or disposed of annually in association with the drilling, completion or testing of this well. Furthermore, no extremely hazardous substances, as defined in 40 CFR 355, in threshold planning quantities, will be used, produced, stored, transported or disposed of in association with the drilling, completion or testing of this well.

Produced oil will be stored in an oil tank and then hauled by truck to a crude purchaser facility. Any produced water from the proposed well will be contained in a water tank and will then be hauled by truck to an approved disposal site.

8. Ancillary Facilities:

During drilling operations, approximately 20 days, the site will be a manned camp. Three or four additional trailers will be on location to serve as the crew's housing and eating facility. These will be located on the perimeter of the pad site within the topsoil stockpiles. Refer to Sheet #5.

9. Well Site Layout: (Refer to Sheet #3, #4 & #5)

The attached Location Layout Diagrams describes drill pad cross-sections, cuts and fills and locations of the mud tanks, reserve pit, flare pit, pipe racks, trailer parking, spoil dirt stockpile(s) and surface material stockpiles(s).

Please see the attached diagram for rig orientation and access roads.

All pits shall be fenced to the following minimum standards:

39 inch net wire shall be used with at least one strand of barbed 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.

The net wire shall be no more than 2 inches above the ground. The barbed wire shall be 3 inches over the net wire. Total height of the fence shall be at least 42 inches.

Corner posts shall be cemented and/or braced in such a manner to keep the fence tight at all times.

Standard steel, wood or pipe posts shall be used between the corner braces. Maximum distance between any two fence posts shall be no greater than 16 feet.

All wire shall be stretched by, using a stretching device, before it is attached to corner posts.

The reserve pit fencing will be on three sides during drilling operations and on the fourth side when the rig moves off location. Pits will be fenced and maintained until cleanup.

Location size may change prior to drilling the well due to the current rig availability. If the proposed location is not large enough to accommodate the drilling rig, the location will be re-surveyed and a Form 9 will be submitted.

10. Plans for Surface Reclamation:

Producing Location:

Immediately upon well completion, the location and surrounding area will be cleared of all unused tubing, equipment, materials, trash and debris not required for production.

Immediately upon well completion, any hydrocarbons in the pit shall be removed in accordance with 40 CFR 3162.7.

Before any dirt work associated with location restoration takes place, the reserve pit shall be as dry as possible. All debris in it will be removed. Other waste and spoil materials will be disposed of immediately upon completion of operations.

The reserve pit and that portion of the location not needed for production facilities/operations will be re-contoured to the approximate natural contours. The reserve pit will be reclaimed within 90 days from the date of well completion, weather permitting.

To prevent surface water(s) from standing (ponding) on the reclaimed reserve pit area, final reclamation of the reserve pit will consist of "mounding" the surface 3 feet above surrounding ground surface to allow the reclaimed pit area to drain effectively.

Upon completion of backfilling, leveling and re-contouring, the stockpiled topsoil will be spread evenly over the reclaimed area(s).

The Operator will control noxious weeds along Rights-Of-Way for roads, pipelines, well sites or other applicable facilities.

Dry Hole / Abandoned Location:

Abandoned well sites, roads and other disturbed areas will be restored as near as practical to their original condition. Where applicable, these conditions include the re-establishment of irrigation systems, the re-establishment of appropriate soil conditions and re-establishment of vegetation as specified.

All disturbed surfaces will be re-contoured to the approximate natural contours with reclamation of the well pad and access road to be performed as soon as practical after final abandonment. If necessary, re-seeding operations will be performed after completion of other reclamation operations.

Seed Mixture:

The appropriate surface management agency will be contacted for the required seed mixture and seeding dates.

11. Surface Ownership: Location, Access Road & Pipeline

School and Institutional Trust Lands Administration
675 East 500 South, Suite 500
Salt Lake City, Utah 84102
Attn: Mr. Ed Bonner

12. Other Information:

Wildlife Stipulations: Wildlife stipulations and possible activity restrictions will be detailed in the "Conditions of Approval" received with an approved Permit to Drill. Operator will comply with these wildlife stipulations.

Archeology: A Cultural Resource Inventory shall be conducted for the well location, access route and pipeline. The report shall be submitted to the Division of Oil, Gas and Mining and the School and Institutional Trust Lands Administration upon its receipt.

Paleontology: A Paleontology reconnaissance shall be conducted for the well location, access route and pipeline. The report shall be submitted to the Division of Oil, Gas and Mining and the School and Institutional Trust Lands Administration upon its receipt.

If, during operations, any archaeological or historical sites, or any objects of antiquity (subject to the Antiquities Act of June 8, 1906) are discovered, all operations which would affect such sites will be suspended and the discovery reported promptly to the surface management agency.

All lease operations will be conducted in such a manner that full compliance is made with all applicable laws, regulations, the approved Plan of Operations and any applicable Notice to Lessees. The Operator will be fully responsible for the actions of its subcontractors. A complete copy of the approved "Application for Permit to Drill" will be furnished to the field representative(s) to ensure compliance and shall be on location during all construction and drilling operations.

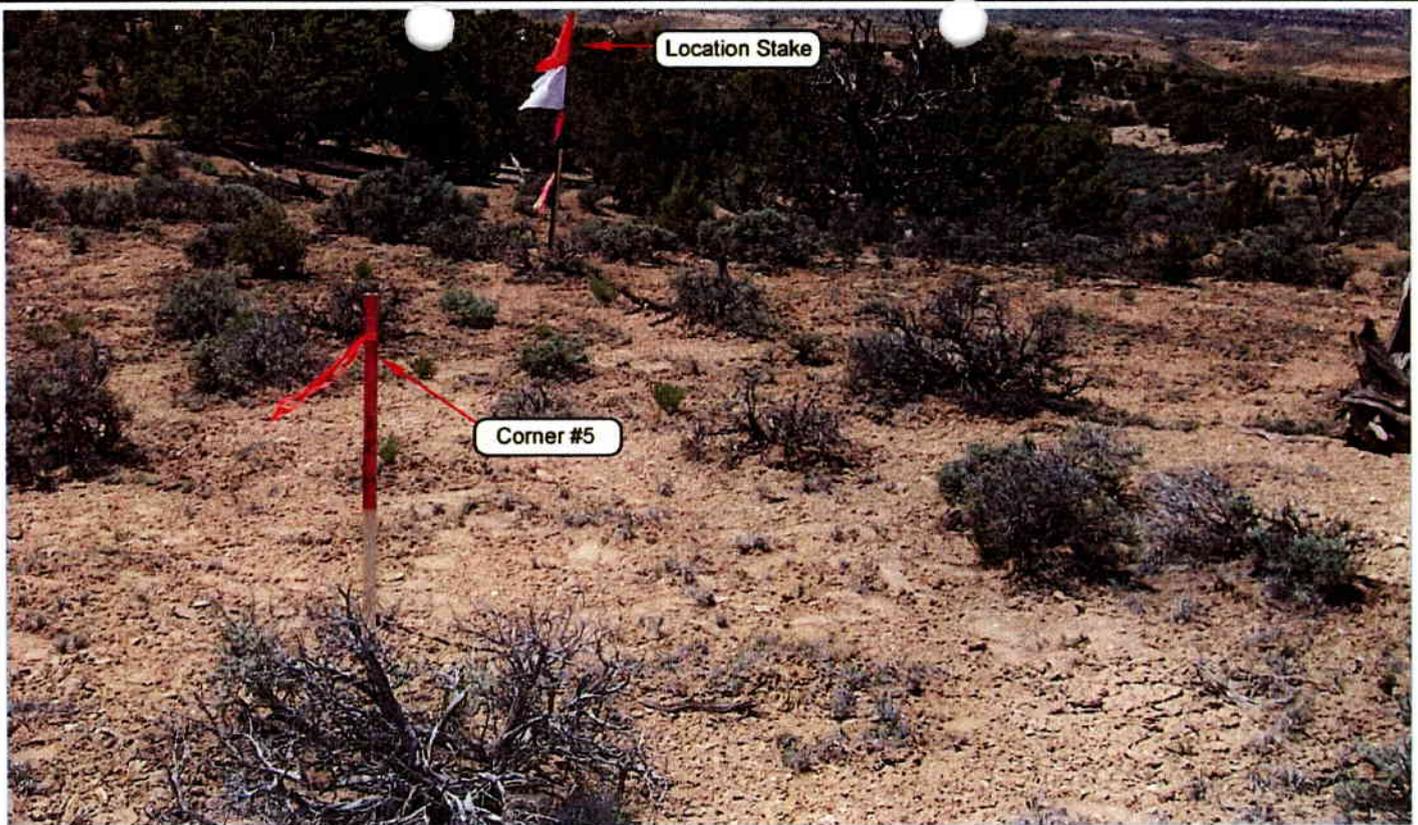


PHOTO VIEW: FROM CORNER #5 TO LOCATION STAKE

CAMERA ANGLE: SOUTHWESTERLY

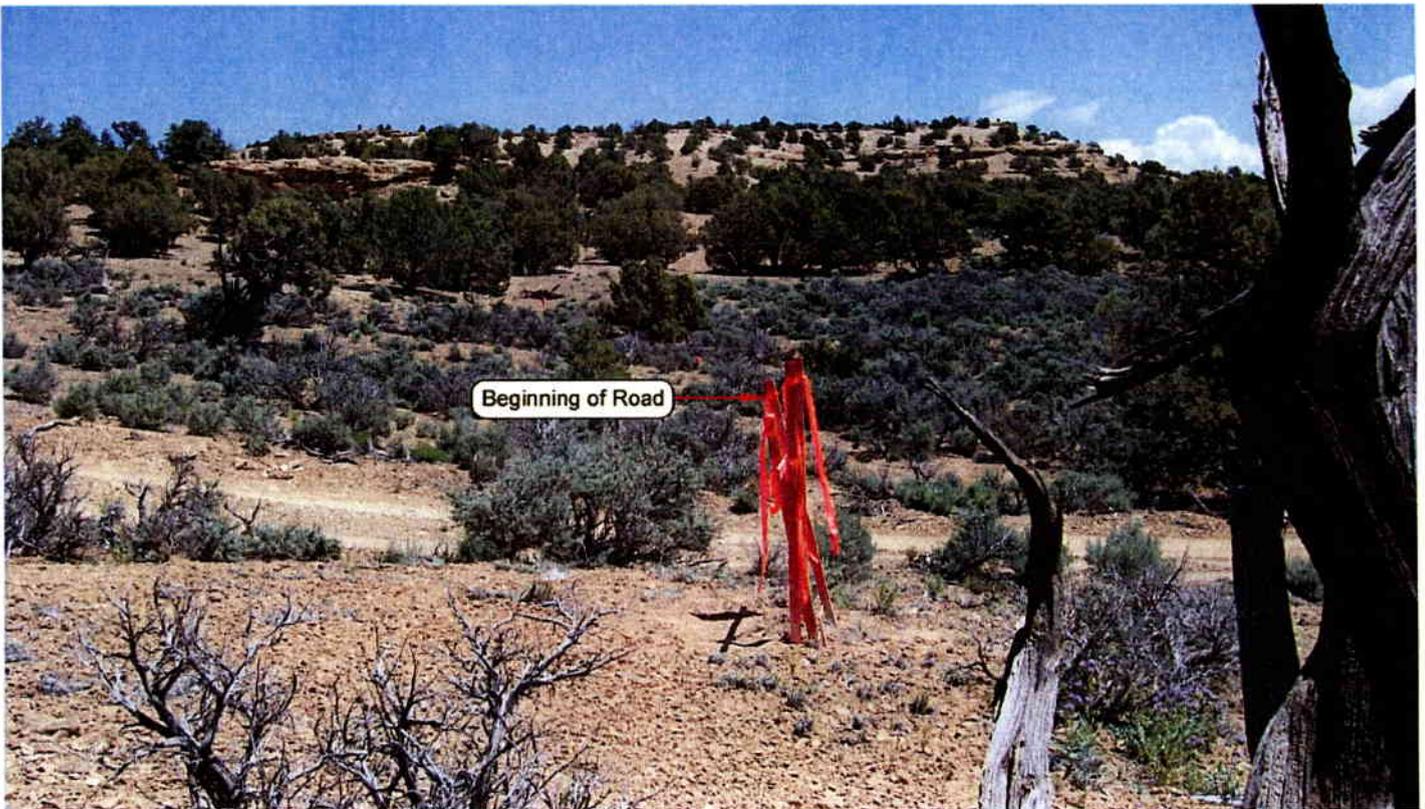


PHOTO VIEW: FROM BEGINNING OF PROPOSED ROAD

CAMERA ANGLE: EASTERLY

ENDURING RESOURCES

Archy Bench 12-23-21-16
SECTION 16, T12S, R23E, S.L.B.&M.
843' FNL & 1957' FWL

LOCATION PHOTOS

TAKEN BY: K.R.K.

DRAWN BY: T.D.H.

DATE TAKEN: 05-21-05

DATE DRAWN: 06-01-05

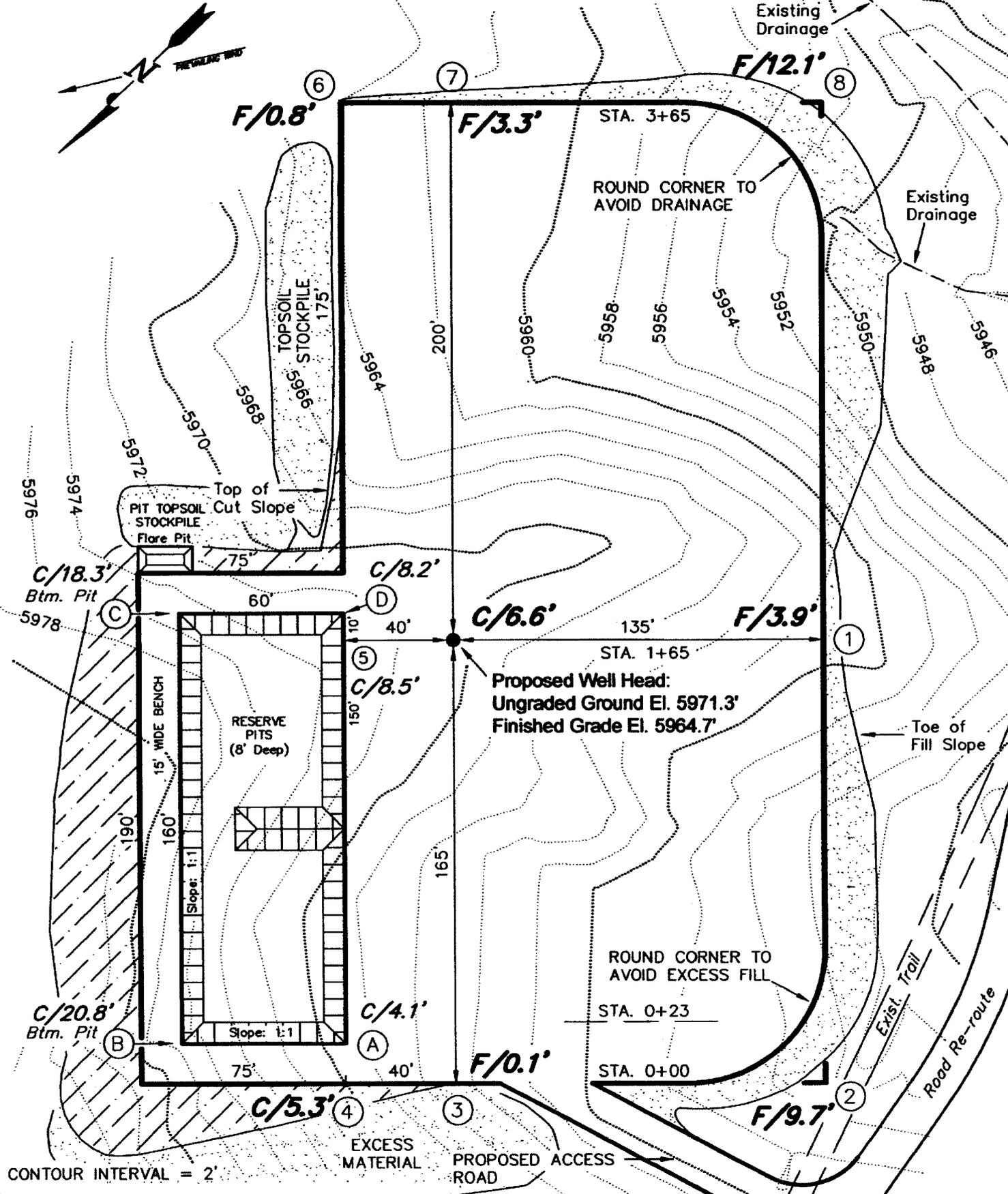
REVISED:

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

SHEET
1
 OF 10

ENDURING RESOURCES

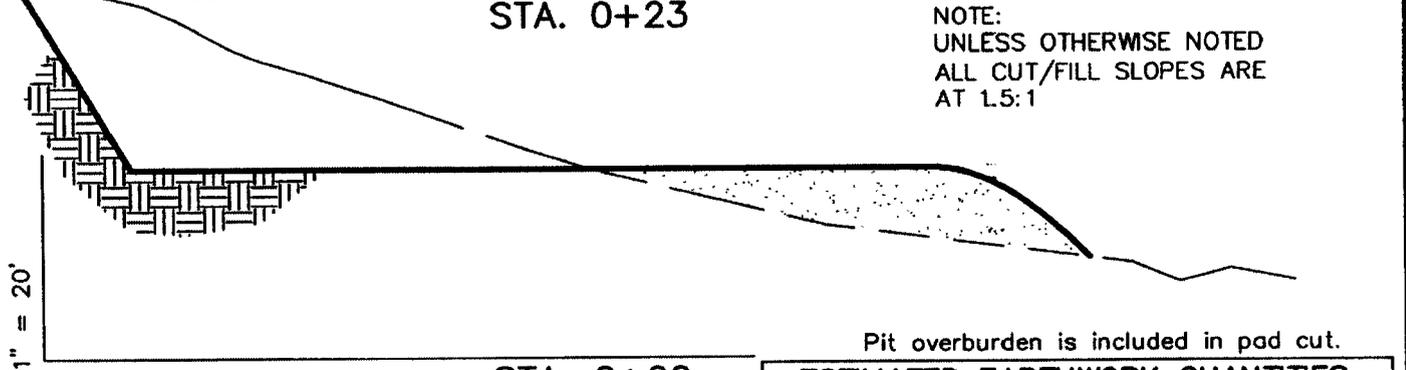
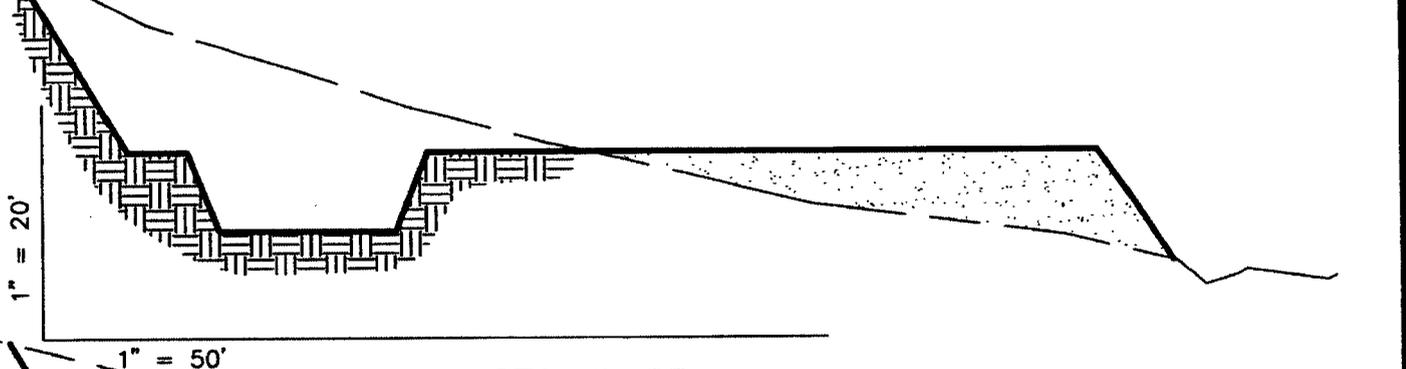
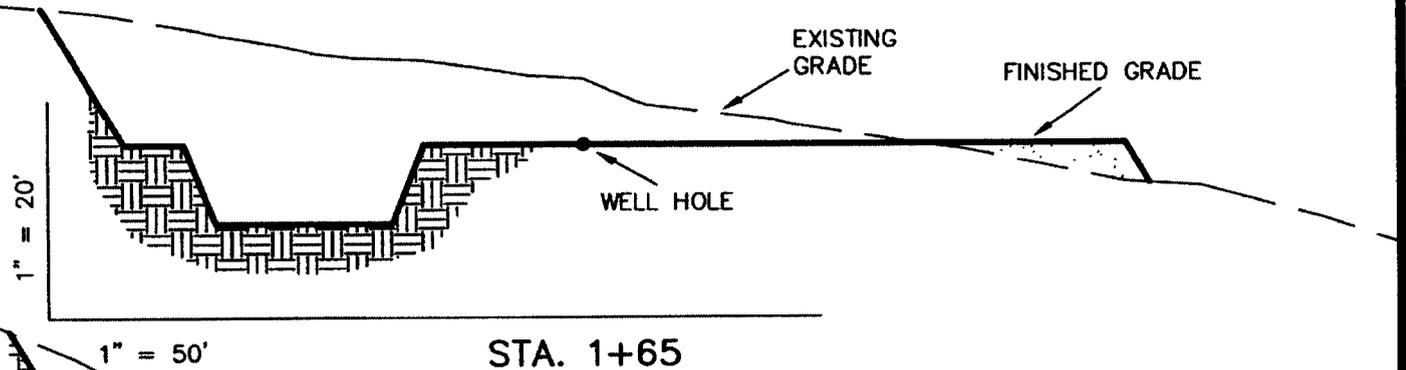
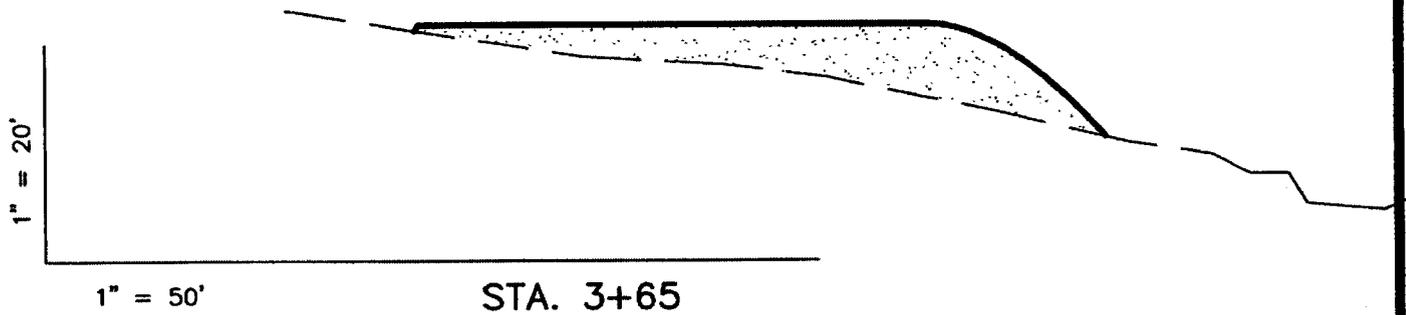
CUT SHEET - ARCHY BENCH 12-23-21-16



Section 16, T12S, R23E, S.L.B.&M.		Qtr/Qtr Location: NE NW		Footage Location: 843' FNL & 1957' FWL	
Date Surveyed: 5-21-05	Date Drawn: 5-31-05	Date Last Revision:		Timberline (435) 789-1365 Land Surveying, Inc. 38 WEST 100 NORTH VERNAL, UTAH 84078	
Surveyed By: K.R.K.		Drawn By: C.B.T.			

ENDURING RESOURCES

CROSS SECTIONS - ARCHY BENCH 12-23-21-16



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

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	9,230	10,360	Topsoil is not included in Pad Cut	-1,130
PIT	2,270	0		2,270
TOTALS	11,500	10,360	1,450	1,140

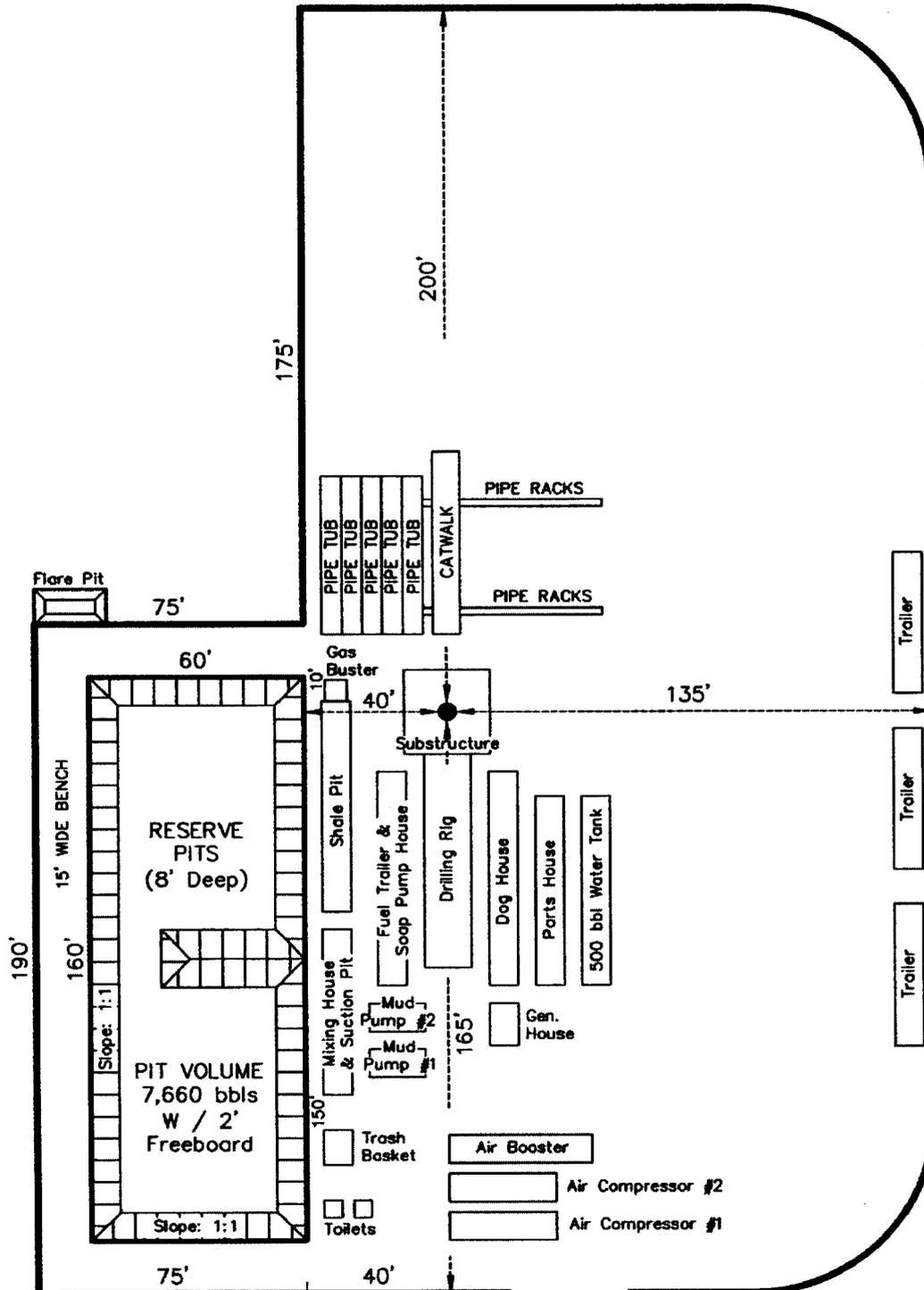
Excess Material after Pit Rehabilitation = 0 Cu. Yds.

REFERENCE POINTS

185' Southwesterly	5956.9'
235' Southwesterly	5951.2'
250' Southeasterly	5963.0'
300' Southeasterly	5962.8'

DURING RESOURCE

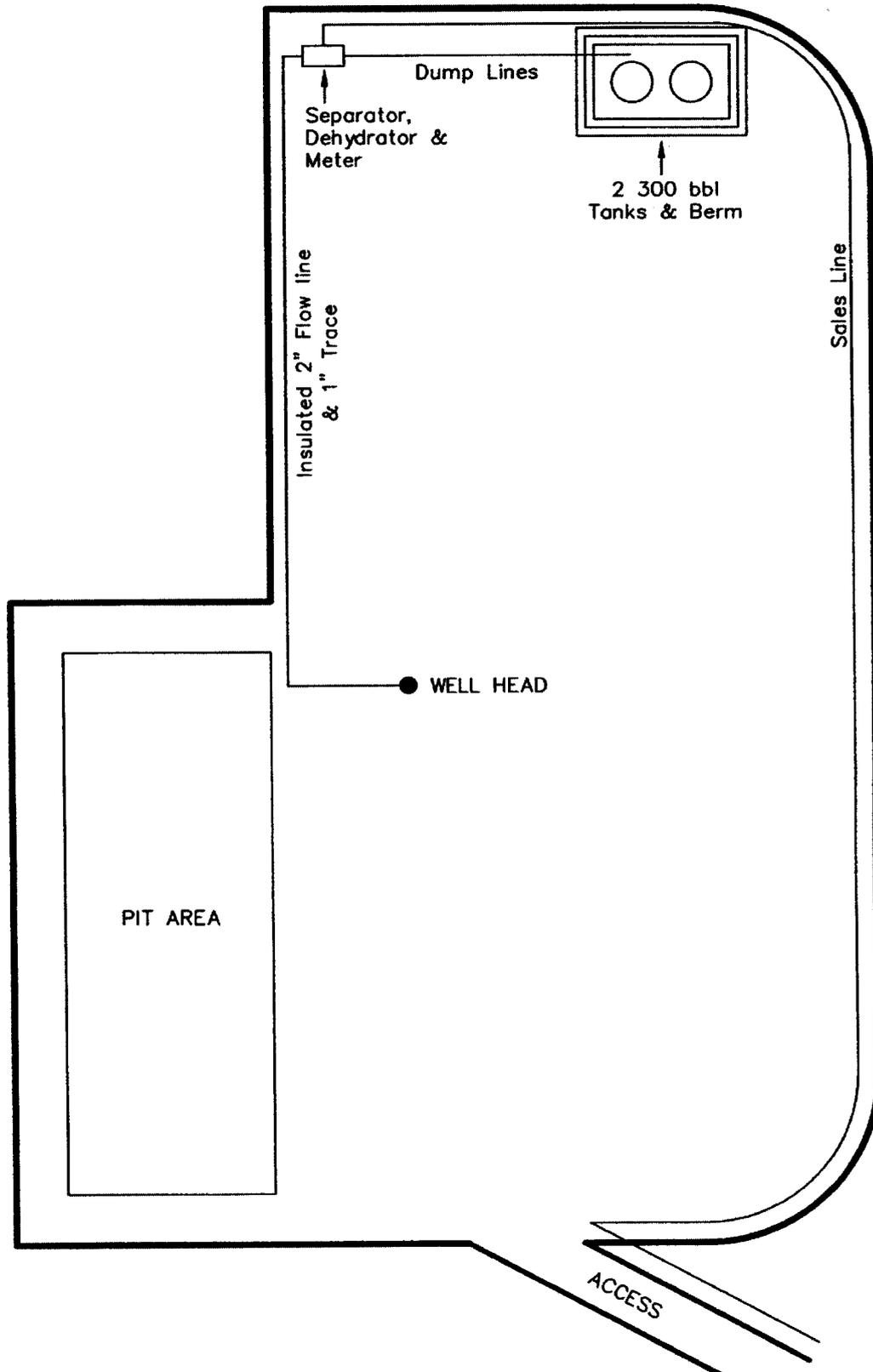
TYPICAL RIG LAYOUT - ARCHY BENCH 12-23-21-16



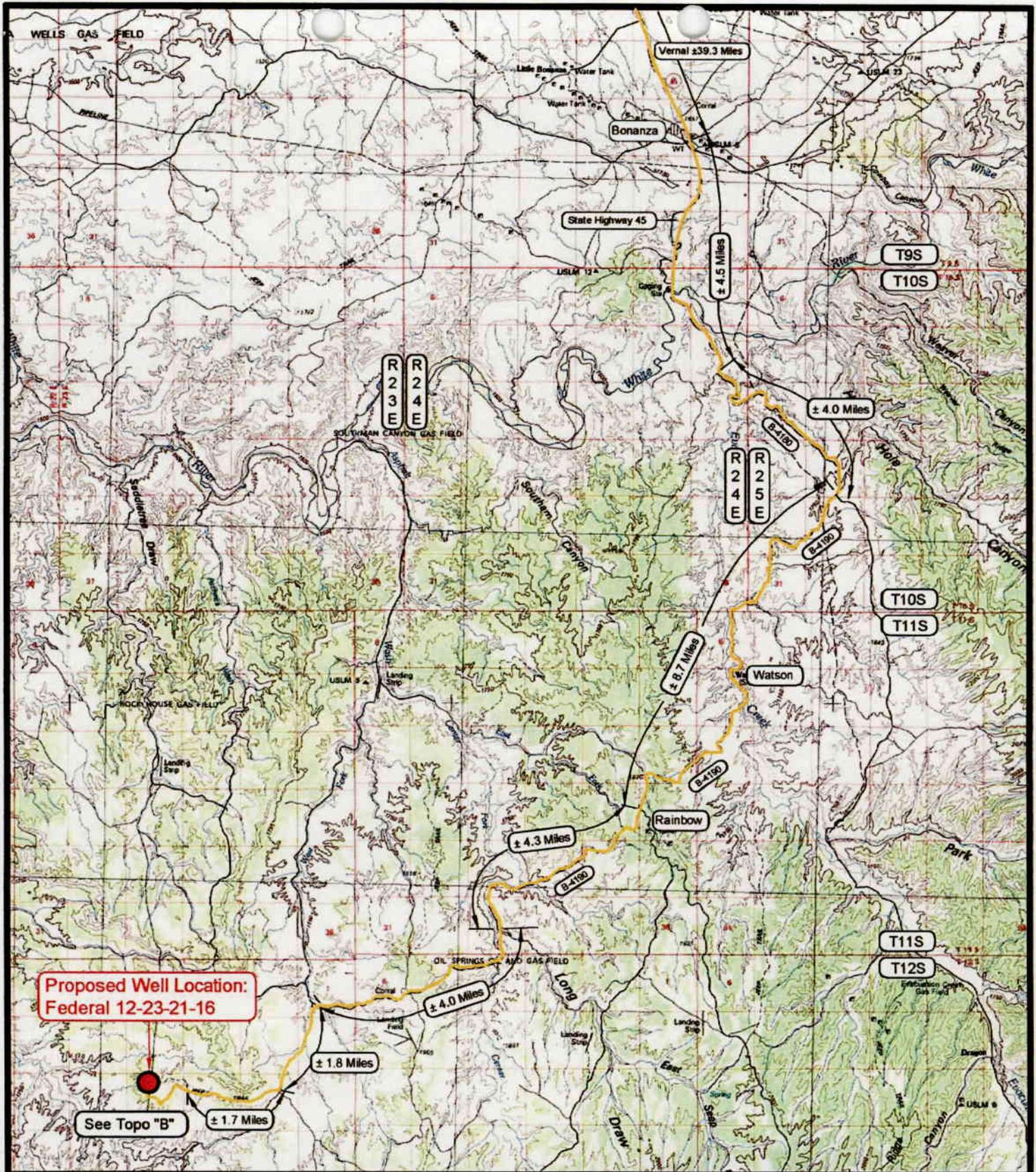
Section 16, T12S, R23E, S.L.B.&M.		Qtr/Qtr Location: NE NW	Footage Location: 843' FNL & 1957' FWL
Date Surveyed: 5-21-05	Date Drawn: 5-31-05	Date Last Revision:	Timberline <i>Land Surveying, Inc.</i> (435) 789-1365 38 WEST 100 NORTH VERNAL, UTAH 84078
Surveyed By: K.R.K.	Drawn By: C.B.T.	Scale: 1" = 50'	

ENDURING RESOURCES

TYPICAL PRODUCTION LAYOUT – ARCHY BENCH 12-23-21-16



Section 16, T12S, R23E, S.L.B.&M.		Qtr/Qtr Location: NE NW	Footage Location: 843' FNL & 1957' FWL
Date Surveyed: 5-21-05	Date Drawn: 5-31-05	Date Last Revision:	Timberline (435) 789-1365 <i>Land Surveying, Inc.</i> 38 WEST 100 NORTH VERNAL, UTAH 84078
Surveyed By: K.R.K.	Drawn By: C.B.T.	Scale: 1" = 50'	



**Proposed Well Location:
Federal 12-23-21-16**

See Topo "B"

LEGEND

- = PROPOSED WELL LOCATION
- = EXISTING ROAD
- = EXISTING ROAD (TO BE IMPROVED)
- - - = PROPOSED ACCESS ROAD
- B-5460 = COUNTY ROAD CLASS & NUMBER

TOPOGRAPHIC MAP "A"

SCALE: 1:150,000

DRAWN BY: T.D.H.

DATE SURVEYED: 05-21-05

DATE DRAWN: 06-01-05

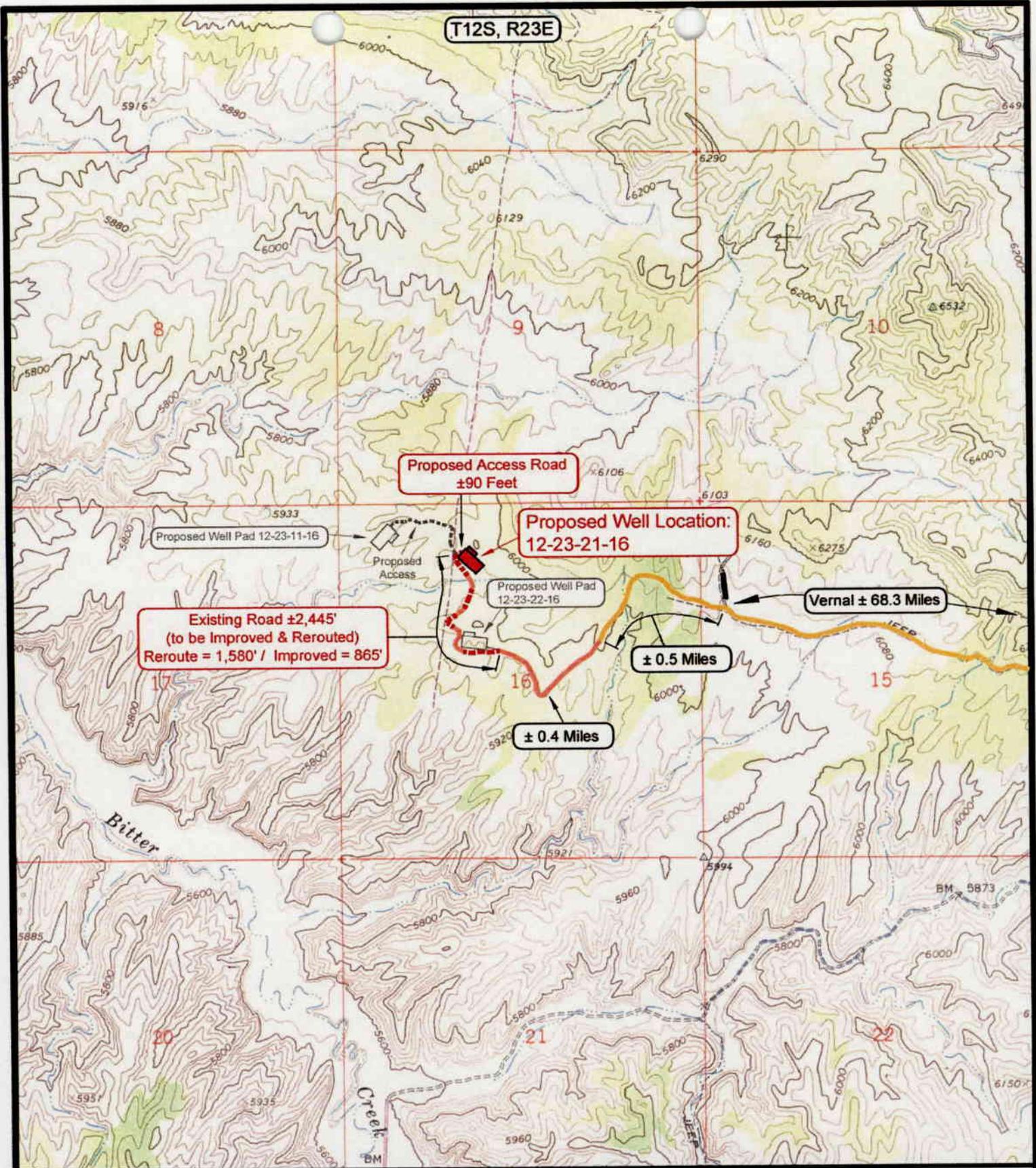
REVISED:

ENDURING RESOURCES

**Archy Bench 12-23-21-16
SECTION 16, T12S, R23E, S.L.B.&M.
843' FNL & 1957' FWL**

Timberline Land Surveying, Inc.
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**SHEET
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OF 10**



LEGEND

- = EXISTING ROAD
- = EXISTING ROAD (TO BE IMPROVED)
- - - = PROPOSED ACCESS ROAD
- B-5460 = COUNTY ROAD CLASS & NUMBER

TOPOGRAPHIC MAP "B"

DATE SURVEYED: 05-21-05

DATE DRAWN: 06-01-05

SCALE: 1" = 2000'

DRAWN BY: T.D.H.

REVISED:



ENDURING RESOURCES

Archy Bench 12-23-21-16
SECTION 16, T12S, R23E, S.L.B.&M.
843' FNL & 1957' FWL

Timberline Land Surveying, Inc.

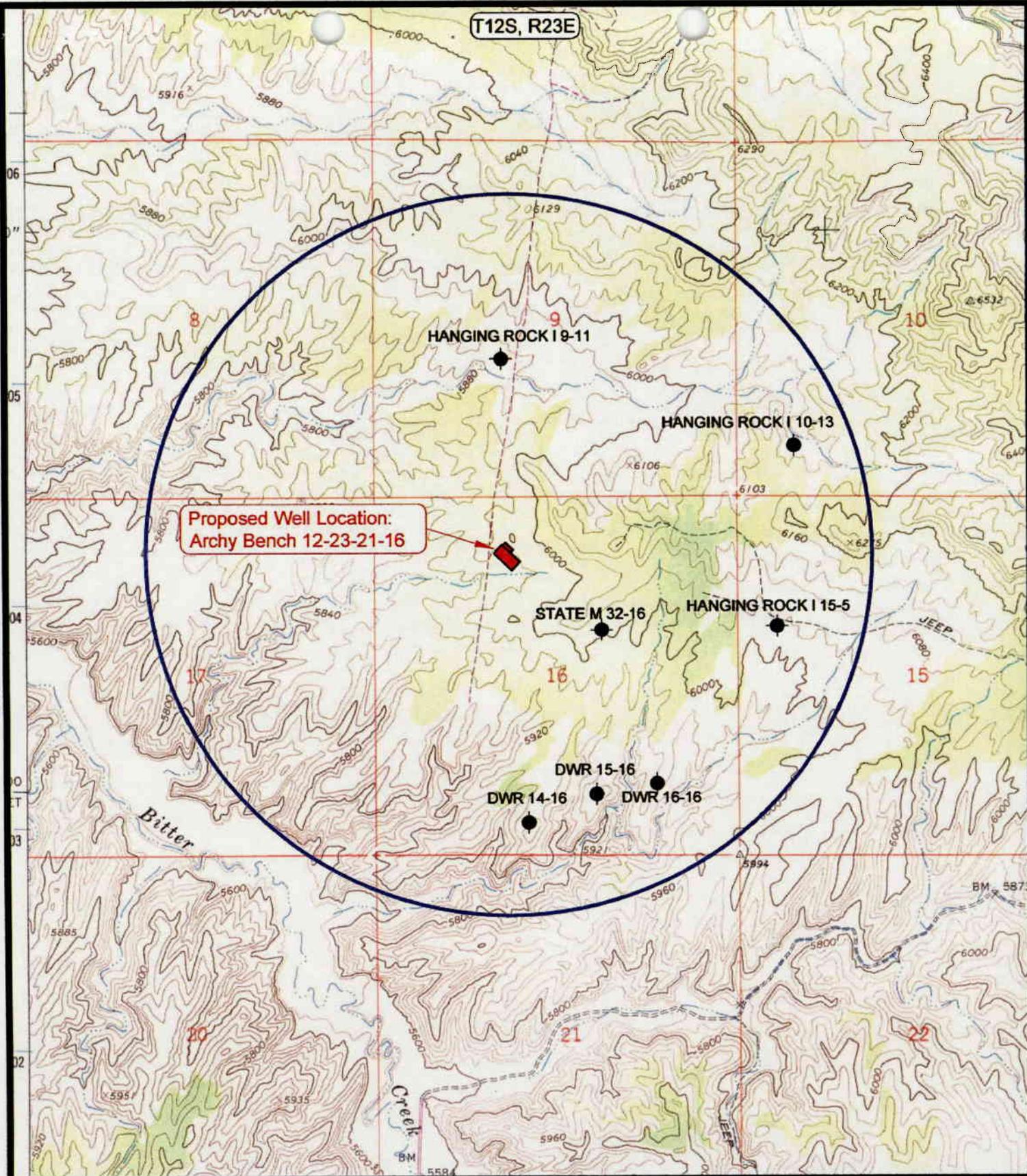
38 West 100 North Vernal, Utah 84078
 (435) 789-1365

SHEET

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OF 10

T12S, R23E



**Proposed Well Location:
Archy Bench 12-23-21-16**

LEGEND

- ∅ = DISPOSAL WELL
- = PRODUCING WELL
- = SHUT IN WELL
- ∅ = WATER WELL
- = ABANDONED WELL
- = TEMPORARILY ABANDONED WELL

TOPOGRAPHIC MAP "C"

DATE SURVEYED: 05-21-05

DATE DRAWN: 08-01-05

SCALE: 1" = 2000'

DRAWN BY: T.D.H

REVISED:

ENDURING RESOURCES

**Archy Bench 12-23-21-16
SECTION 16, T12S, R23E, S.L.B.&M.
843' FNL & 1957' FWL**

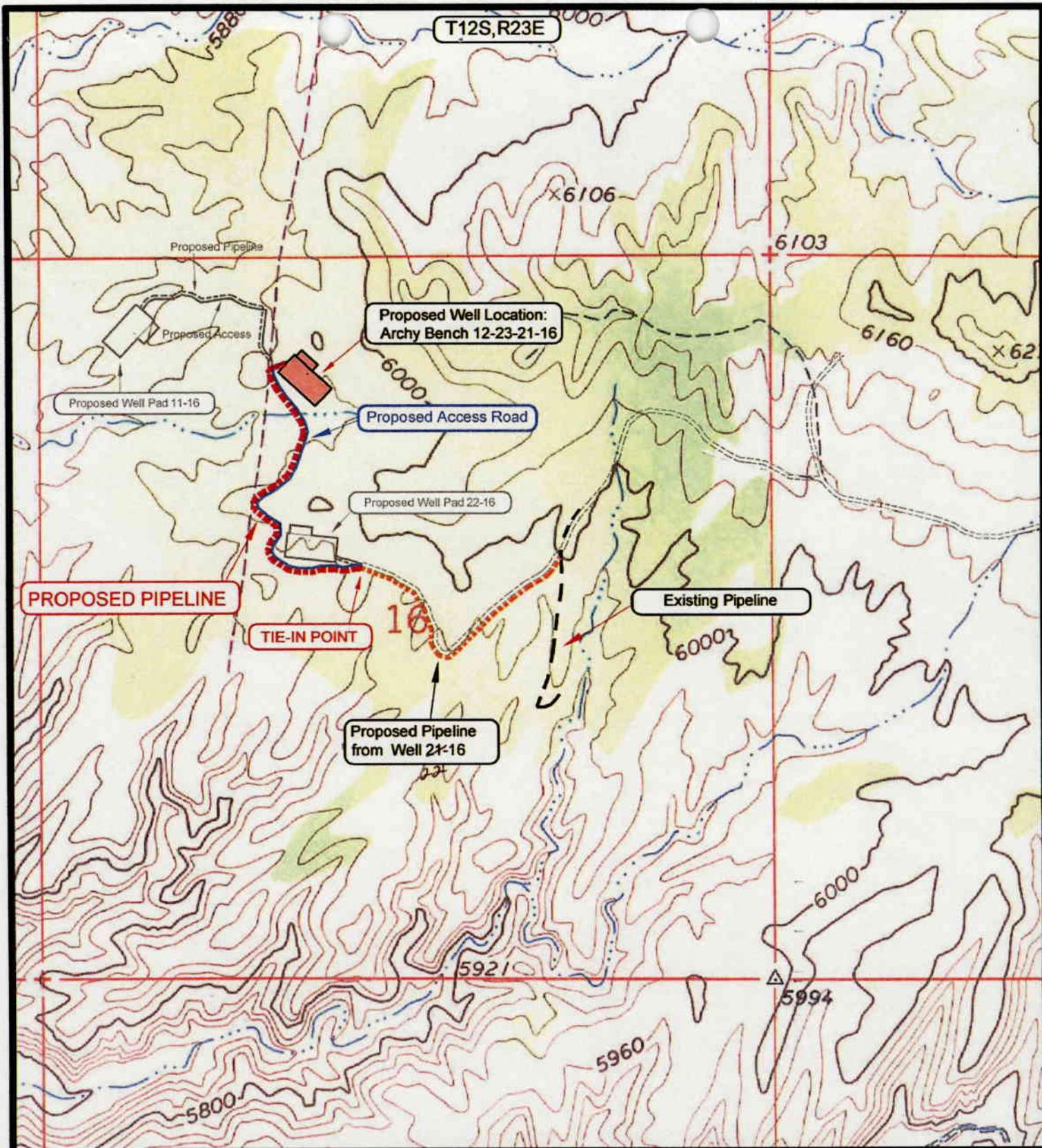
Timberline Land Surveying, Inc.

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(435) 789-1365

SHEET

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OF 10



APPROXIMATE PIPELINE LENGTH = 2507'

LEGEND

- = EXISTING PIPELINE
- = PROPOSED PIPELINE
- - - - - = PROPOSED ACCESS ROAD

ENDURING RESOURCES

Archy Bench 12-23-21-16
SECTION 16, T12S, R23E, S.L.B.&M.
843' FNL & 1957' FWL

TOPOGRAPHIC MAP "D"

DATE SURVEYED: 05-21-05

DATE DRAWN: 06-01-05

SCALE: 1" = 1000'

DRAWN BY: T.D.H.

REVISED:

Timberline Land Surveying, Inc.

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

SHEET
10
OF 10

003

WORKSHEET
APPLICATION FOR PERMIT TO DRILL

APD RECEIVED: 06/27/2005

API NO. ASSIGNED: 43-047-36799

WELL NAME: ARCHY BENCH 12-23-21-16
OPERATOR: ENDURING RESOURCES, LLC (N2750)
CONTACT: PHYLLIS SOBOTIK

PHONE NUMBER: 303-350-5114

PROPOSED LOCATION:
NENW 16 120S 230E
SURFACE: 0843 FNL 1957 FWL
BOTTOM: 0843 FNL 1957 FWL
UINTAH
OIL SPRINGS (635)

INSPECT LOCATN BY: / /		
Tech Review	Initials	Date
Engineering	DeD	7/18/05
Geology		
Surface		

LEASE TYPE: 3 - State
LEASE NUMBER: ML-48957
SURFACE OWNER: 3 - State
PROPOSED FORMATION: MVRD
COALBED METHANE WELL? NO

LATITUDE: 39.77856
LONGITUDE: -109.3498

RECEIVED AND/OR REVIEWED:

Plat

Bond: Fed[] Ind[] Sta[] Fee[]
(No. RLB0008031)

Potash (Y/N)

Oil Shale 190-5 (B) or 190-3 or 190-13

Water Permit
(No. 43-2195)

RDCC Review (Y/N)
(Date: _____)

Fee Surf Agreement (Y/N)

LOCATION AND SITING:

___ R649-2-3.
Unit _____

R649-3-2. General
Siting: 460 From Qtr/Qtr & 920' Between Wells

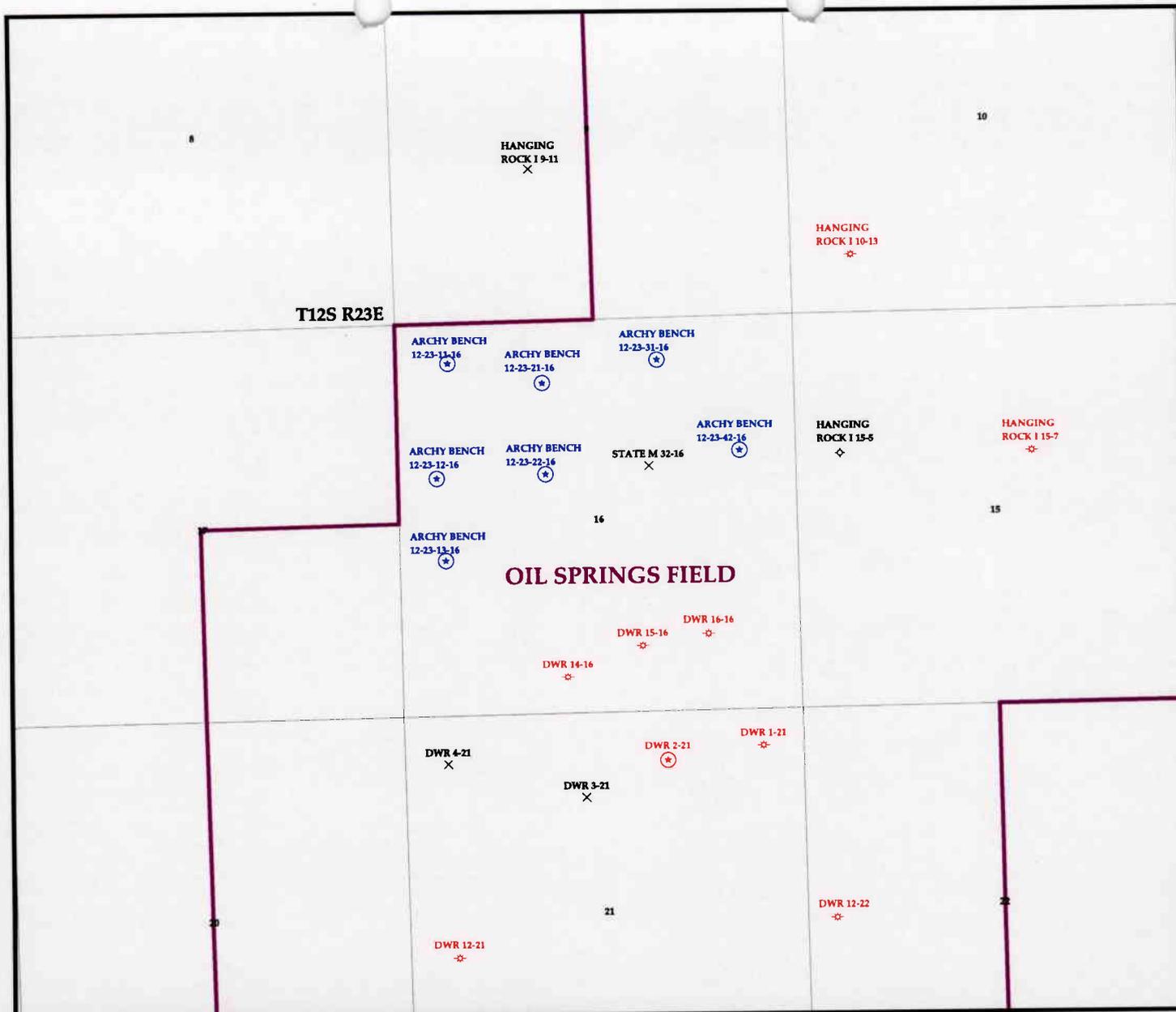
___ R649-3-3. Exception

___ Drilling Unit
Board Cause No: _____
Eff Date: _____
Siting: _____

___ R649-3-11. Directional Drill

COMMENTS: Needs Permit (07-06-05)

STIPULATIONS: 1. Spacing 15hr
2. STATEMENT OF BASIS
3. Surface Csgmt Strip



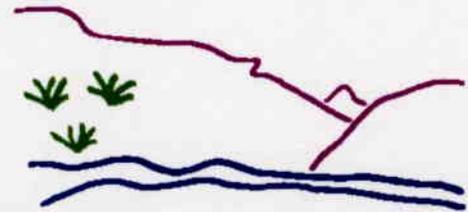
OPERATOR: ENDURING RES LLC (N2750)

SEC: 16 T. 12S R. 23E

FIELD: OIL SPRINGS (635)

COUNTY: UINTAH

SPACING: R649-3-2 / GENERAL SITING



Utah Oil Gas and Mining

Wells	Units.shp	Fields.shp
⊕ GAS INJECTION	□ EXPLORATORY	□ ABANDONED
⊕ GAS STORAGE	□ GAS STORAGE	□ ACTIVE
× LOCATION ABANDONED	□ NF PP OIL	□ COMBINED
⊕ NEW LOCATION	□ NF SECONDARY	□ INACTIVE
⊕ PLUGGED & ABANDONED	□ PENDING	□ PROPOSED
⊕ PRODUCING GAS	□ PI OIL	□ STORAGE
⊕ PRODUCING OIL	□ PP GAS	□ TERMINATED
⊕ SHUT-IN GAS	□ PP GEOTHERML	
⊕ SHUT-IN OIL	□ PP OIL	
⊕ TEMP. ABANDONED	□ SECONDARY	
⊕ TEST WELL	□ TERMINATED	
⊕ WATER INJECTION		
⊕ WATER SUPPLY		
⊕ WATER DISPOSAL		



PREPARED BY: DIANA WHITNEY
DATE: 28-JUNE-2005

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

OPERATOR: ENDURING RESOURCES, LLC
WELL NAME & NUMBER: ARCHY BENCH 12-23-21-16
API NUMBER: 43-047-36799
LEASE: ML-48957 FIELD/UNIT: OIL SPRINGS
LOCATION: 1/4,1/4 NE/NW Sec: 16 TWP: 12S RNG: 23E 843' FNL 1957' FWL
LEGAL WELL SITING: 460 F SEC. LINE; 460 F 1/4,1/4 LINE; 920 F ANOTHER WELL.
GPS COORD (UTM): 4404270 12S0641330 SURFACE OWNER: SITLA.

PARTICIPANTS

RICHARD POWELL (DOGM), DAVID W. HACKFORD (DOGM), KOLBY KAY (TIMBERLINE SURVEYING), DOUG HAMMOND (ENDURING), ONE DIRT CONTRACTOR.

REGIONAL/LOCAL SETTING & TOPOGRAPHY

SITE IS SITUATED IN A BOWL WITH A RIDGE, WHICH CURVES AROUND THE NORTH SIDE OF THE SITE. THE SITE THEN DRAINS SOUTHWARD TO BITTER CREEK APPROXIMATELY 1 MILE AWAY. THE AREA IS A PINYON JUNIPER FOREST TYPIFIED BY MODERATELY STEEP TO GRADUALLY SLOPED HILLS AND DRAINAGES ALL SLOPING IN A SOUTHWESTERLY DIRECTION TO BITTER CREEK. VERNAL, UTAH IS APPROXIMATELY 68.3 MILES TO THE NORTHWEST.

SURFACE USE PLAN

CURRENT SURFACE USE: WILDLIFE AND LIVESTOCK GRAZING.

PROPOSED SURFACE DISTURBANCE: LOCATION WILL BE 365' BY 250'. ACCESS ROAD WILL BE 90 FEET. MAIN EXISTING ROAD IS TO BE IMPROVED AND REROUTED APPROXIMATELY 2,445 FEET. (REROUTE =1,580' / IMPROVED = 865')

LOCATION OF EXISTING WELLS WITHIN A 1 MILE RADIUS: SEE ATTACHED MAP FROM GIS DATABASE.

LOCATION OF PRODUCTION FACILITIES AND PIPELINES: ALL PRODUCTION FACILITIES WILL BE ON LOCATION AND ADDED AFTER DRILLING WELL. PIPELINE WILL FOLLOW ACCESS ROAD.

SOURCE OF CONSTRUCTION MATERIAL: ALL CONSTRUCTION MATERIAL WILL BE BORROWED FROM SITE DURING CONSTRUCTION OF LOCATION.

ANCILLARY FACILITIES: NONE WILL BE REQUIRED.

WILL DRILLING AT THIS LOCATION GENERATE PUBLIC INTEREST OF CONCERNS?
(EXPLAIN): UNLIKELY.

WASTE MANAGEMENT PLAN:

DRILLED CUTTINGS WILL BE SETTLED INTO RESERVE PIT. LIQUIDS FROM PIT WILL BE ALLOWED TO EVAPORATE. FORMATION WATER WILL BE CONFINED TO STORAGE

TANKS. SEWAGE FACILITIES, STORAGE AND DISPOSAL WILL BE HANDLED BY COMMERCIAL CONTRACTOR. TRASH WILL BE CONTAINED IN TRASH BASKETS AND HAULED TO AN APPROVED LAND FILL.

ENVIRONMENTAL PARAMETERS

AFFECTED FLOODPLAINS AND/OR WETLANDS: NONE

FLORA/FAUNA: SAGEBRUSH, GREASEWOOD, PRICKLEY PEAR, RABBIT BRUSH, SOME GRASS, UTAH JUNIPER, PINYON. DEER, ELK, RODENTS, RAPTORS, COYOTE, SONGBIRDS, RABBIT, BOBCAT, PRONGHORN.

SOIL TYPE AND CHARACTERISTICS: GRAVELLY LIGHT BROWN SILK LOAM WITH ROCK OUTCROPPINGS WHICH MAY REQUIRE BLASTING.

EROSION/SEDIMENTATION/STABILITY: VERY LITTLE NATURAL EROSION. SEDIMENTATION AND STABILITY ARE NOT A PROBLEM AND LOCATION CONSTRUCTION SHOULDN'T CAUSE AN INCREASE IN STABILITY OR EROSION PROBLEMS.

PALEONTOLOGICAL POTENTIAL: NONE OBSERVED

RESERVE PIT

CHARACTERISTICS: 160' BY 60' AND EIGHT FEET DEEP.

LINER REQUIREMENTS (Site Ranking Form attached): A LINER AND FELT SUB-LINER WILL BE REQUIRED FOR RESERVE PIT.

SURFACE RESTORATION/RECLAMATION PLAN

AS PER SITLA

SURFACE AGREEMENT: AS PER SITLA

CULTURAL RESOURCES/ARCHAEOLOGY: ARCHAEOLOGY STUDY HAS NOT BEEN DONE.

OTHER OBSERVATIONS/COMMENTS

THIS PREDRILL INVESTIGATION WAS CONDUCTED ON A HOT, CALM DAY.

ATTACHMENTS

PHOTOS OF THIS SITE WERE TAKEN AND PLACED ON FILE.

RICHARD POWELL
DOG M REPRESENTATIVE

7/06/05 10:30 AM
DATE/TIME

**Evaluation Ranking Criteria and Ranking Scale
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>5</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>0</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.
Sensitivity Level II = 15-19; lining is discretionary.
Sensitivity Level III = below 15; no specific lining is required.





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

OPERATOR: ENDURING RESOURCES, LLC
WELL NAME & NUMBER: ARCHEY BENCH 12-23-21-16
API NUMBER: 43-047-36799
LOCATION: 1/4,1/4 NE/NW Sec: 16 TWP: 12S RNG: 23E 843' FNL 1957' FWL

Geology/Ground Water:

Enduring proposes to set 2,000 feet of surface casing cemented to the surface. The base of the moderately saline water is estimated at 4,000 feet. A search of Division of Water Rights records shows no water wells within a 10,000 foot radius of the center of section 16. The surface formation at this location is the Uinta/Green River Formation transition. The Uinta Formation is made up of discontinuous sands interbedded with shales and are not expected to produce prolific aquifers. The Green River Formation is made up of interbedded limestones, shales and sandstones. Fresh water aquifers can be found in the Green River Formation and should be protected. The proposed surface casing should adequately protect any potentially useable aquifers.

Reviewer: Brad Hill **Date:** 07-12-05

Surface:

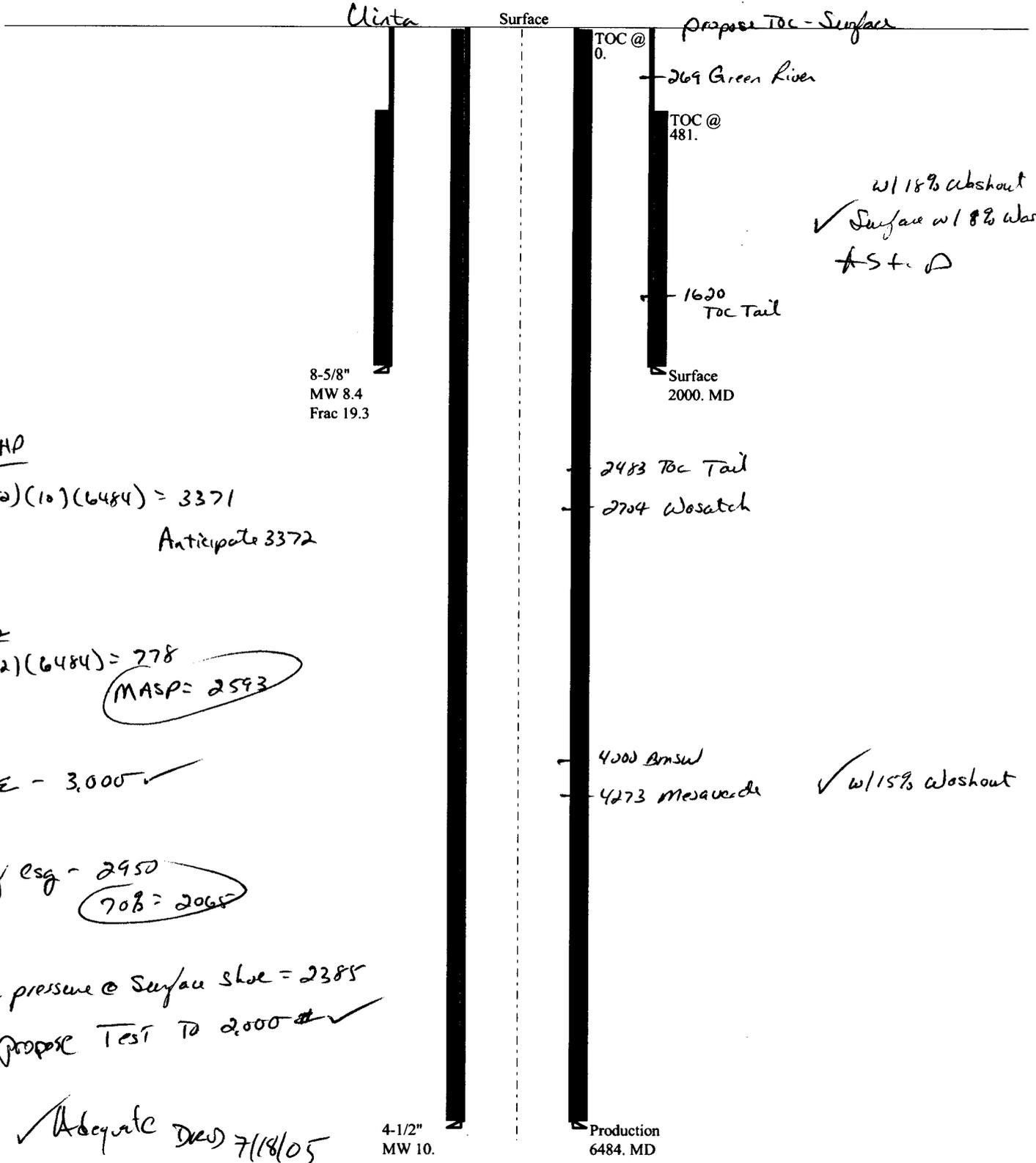
The predrill investigation of the surface was performed on 7/06/05. This site is on State surface, with State minerals, and appears to be the best site for a location in the drilling window. SITLA and DWR were notified of this investigation. DWR representative Chris Wood was present, but no SITLA representative was present. Mr. Wood stated no wildlife concerns with drilling in this area. The existing road is to be improved and rerouted for 2,445', (Improved = 1,580' / Rerouted = 865').

Reviewer: Richard Powell **Date:** 7/06/2005

Conditions of Approval/Application for Permit to Drill:

1. A synthetic liner with a minimum thickness of 12 mils with a felt subliner shall be properly installed and maintained in the reserve pit.

05 Enduring Archy Bench 1 23-21-16
Casing Schematic



BHP
 $(.052)(10)(6484) = 3371$
 Anticipate 3372

Gaa
 $(.12)(6484) = 778$
 (MASP = 2593)

BOPE - 3,000 ✓

Surf esg - 2950
 70% = 2065

Max pressure @ Surface shoe = 2385
 Propose Test to 2,000 ✓

✓ Adequate Dred 7/18/05

w/ 18% abshout
 ✓ Surface w/ 8% washout
 *S + D

✓ w/ 15% washout

4-1/2"
 MW 10.

Production
 6484. MD

Well name:	07-05 Enduring Archy Bench 12-23-21-16	
Operator:	Enduring Resources, LLC	Project ID:
String type:	Surface	43-047-36799
Location:	Uintah 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: 75 °F
 Bottom hole temperature: 103 °F
 Temperature gradient: 1.40 °F/100ft
 Minimum section length: 350 ft

Cement top: 481 ft

Burst

Max anticipated surface pressure: 1,760 psi
 Internal gradient: 0.120 psi/ft
 Calculated BHP 2,000 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: 1,748 ft

Non-directional string.

Re subsequent strings:

Next setting depth: 6,484 ft
 Next mud weight: 10.000 ppg
 Next setting BHP: 3,368 psi
 Fracture mud wt: 19.250 ppg
 Fracture depth: 2,000 ft
 Injection pressure: 2,000 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	2000	8.625	24.00	J-55	ST&C	2000	2000	7.972	96.3
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	873	1370	1.570	2000	2950	1.48	42	244	5.82 J

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

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

Date: July 13, 2005
 Salt Lake City, Utah

Remarks:

Collapse is based on a vertical depth of 2000 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.

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

Well name:

07-05 Enduring Archy Bench 12-23-21-16Operator: **Enduring Resources, LLC**String type: **Production**

Project ID:

43-047-36799

Location: **Uintah County****Design parameters:****Collapse**Mud weight: 10.000 ppg
Design is based on evacuated pipe.**Minimum design factors:****Collapse:**

Design factor 1.125

Environment:H2S considered? No
Surface temperature: 75 °F
Bottom hole temperature: 166 °F
Temperature gradient: 1.40 °F/100ft
Minimum section length: 1,500 ft**Burst:**

Design factor 1.00

Cement top: Surface

BurstMax anticipated surface
pressure: 2,590 psi
Internal gradient: 0.120 psi/ft
Calculated BHP 3,368 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: 5,515 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 (ft ³)
1	6484	4.5	11.60	N-80	LT&C	6484	6484	3.875	150.3
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	3368	6350	1.885	3368	7780	2.31	64	223	3.49 J

Prepared by: Clinton Dworshak
Utah Div. of Oil & MiningPhone: 801-538-5280
FAX: 801-359-3940Date: July 13, 2005
Salt Lake City, Utah**Remarks:**

Collapse is based on a vertical depth of 6484 ft, a mud weight of 10 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.



Enduring Resources

475 17th Street Suite 1500 Denver Colorado 80202
Telephone 303 573-1222 Fax 303 573 0461

July 27, 2005

Utah Division of Oil, Gas and Mining
1594 West North Temple, Suite 1210
P. O. Box 145801
Salt Lake City, Utah 84114-5801

Attn.: Ms. Diana Whitney

RE: Cultural Resource Inventory Report # MOAC 05-227
Paleontological Reconnaissance Report # MOAC 05-228
Access Road and Pipelines Sec 16 T12S-R23E
Uintah County, Utah

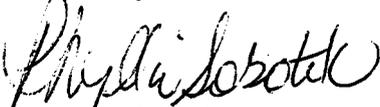
Dear Ms. Whitney:

Enclosed are the referenced reports for the following proposed wells.

Archy Bench #12-23-11-16	Archy Bench #12-23-21-16	Archy Bench #12-23-42-16
Archy Bench #12-23-12-16	Archy Bench #12-23-22-16	
Archy Bench #12-23-13-16	Archy Bench #12-23-31-16	

If any questions arise or additional information is required, please contact me at 303-350-5114.

Sincerely,


Phyllis Sobotik
Regulatory Specialist

/ps
Enclosures:

RECEIVED
AUG 01 2005
DIV. OF OIL, GAS & MINING

From: Ed Bonner
To: Whitney, Diana
Date: 8/25/2005 10:37:49 AM
Subject: Well Clearance

The following wells have been given cultural resource clearance by the Trust Lands Cultural Resources Group:

Enduring Resources, LLC

Archy Bench 12-23-11-16
Archy Bench 12-23-12-16
Archy Bench 12-23-13-16
Archy Bench 12-23-21-16 ✓
Archy Bench 12-23-22-16
Archy Bench 12-23-31-16
Archy Bench 12-23-42-16

Medallion Exploration

Atchee State 20-12-25
Atchee State 1-29-12-25
Atchee State 2-29-12-25
Atchee Ridge 32-12-25
Seep Canyon State 30-12-25

National Fuel Corporation

NFC State Duncan #14-28
NFC Horse Point State #11-6
NFC Westwater State #22-32

Westport Oil & Gas Company

State 920-36J
State 920-36K
State 920-36L
State 920-36M
State 920-36N

If you have any questions regarding this matter please give me a call.

CC: Garrison, LaVonne; Hill, Brad; Hunt, Gil



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

August 25, 2005

Enduring Resources, LLC
475 17th St., Suite 1500
Denver, CO 80202

Re: Archy Bench 12-23-21-16 Well, 843' FNL, 1957' FWL, NE NW,
Sec. 16, T. 12 South, R. 23 East, Uintah 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 43-047-36799.

Sincerely,


for Gil Hunt
Associate Director

pab
Enclosures

cc: Uintah County Assessor
SITLA

Operator: Enduring Resources, LLC
Well Name & Number Archy Bench 12-23-21-16
API Number: 43-047-36799
Lease: ML-48957

Location: NE NW Sec. 16 T. 12 South R. 23 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 State of Utah Antiquities Act forbids disturbance of archeological, historical, or paleontological remains. Should archeological, historical or paleontological remains be encountered during your operations, you are required to immediately suspend all operations and immediately inform the Trust Lands Administration and the Division of State History of the discovery of such remains.

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

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.
7. Surface casing shall be cemented to the surface.

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

FORM 9

SUNDRY NOTICES AND REPORTS ON WELLS

5. LEASE DESIGNATION AND SERIAL NUMBER:

ML-48957

6. IF INDIAN, ALLOTTEE OR TRIBE NAME:

n/a

7. UNIT or CA AGREEMENT NAME:

n/a

8. WELL NAME and NUMBER:

Archy Bench 12-23-21-16

9. API NUMBER:

4304736799

10. FIELD AND POOL, OR WILDCAT:

No name

1. TYPE OF WELL

OIL WELL

GAS WELL

OTHER _____

CONFIDENTIAL

2. NAME OF OPERATOR:

Enduring Resources, LLC

3. ADDRESS OF OPERATOR:

475 17th Street, Suite 1500 CITY Denver

STATE CO ZIP 80202

PHONE NUMBER:

(303) 350-5114

4. LOCATION OF WELL

FOOTAGES AT SURFACE: 843' FNL - 1957' FWL

COUNTY: Uintah

QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: NENW 16 12S 23E S

STATE:

UTAH

11. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION		
<input checked="" type="checkbox"/> NOTICE OF INTENT (Submit in Duplicate) Approximate date work will start: <u>6/28/2006</u> <input type="checkbox"/> SUBSEQUENT REPORT (Submit Original Form Only) Date of work completion: _____	<input type="checkbox"/> ACIDIZE	<input type="checkbox"/> DEEPEN	<input type="checkbox"/> REPERFORATE CURRENT FORMATION
	<input type="checkbox"/> ALTER CASING	<input type="checkbox"/> FRACTURE TREAT	<input type="checkbox"/> SIDETRACK TO REPAIR WELL
	<input type="checkbox"/> CASING REPAIR	<input type="checkbox"/> NEW CONSTRUCTION	<input type="checkbox"/> TEMPORARILY ABANDON
	<input type="checkbox"/> CHANGE TO PREVIOUS PLANS	<input type="checkbox"/> OPERATOR CHANGE	<input type="checkbox"/> TUBING REPAIR
	<input type="checkbox"/> CHANGE TUBING	<input type="checkbox"/> PLUG AND ABANDON	<input type="checkbox"/> VENT OR FLARE
	<input type="checkbox"/> CHANGE WELL NAME	<input type="checkbox"/> PLUG BACK	<input type="checkbox"/> WATER DISPOSAL
	<input type="checkbox"/> CHANGE WELL STATUS	<input type="checkbox"/> PRODUCTION (START/RESUME)	<input type="checkbox"/> WATER SHUT-OFF
	<input type="checkbox"/> COMMINGLE PRODUCING FORMATIONS	<input type="checkbox"/> RECLAMATION OF WELL SITE	<input checked="" type="checkbox"/> OTHER: <u>Request for APD Extension</u>
	<input type="checkbox"/> CONVERT WELL TYPE	<input type="checkbox"/> RECOMPLETE - DIFFERENT FORMATION	

12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.

Enduring Resources, LLC respectfully request an extension to the expiration date of this Application for Permit to Drill

FROM: 8-25-2006
TO: 8-25-2007

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

Date: 07-13-06
By: [Signature]

COPY SENT TO OPERATOR
Date: 10-01-06
Initials: DM

NAME (PLEASE PRINT) Alvin R. (Al) Arlian

TITLE Landman - Regulatory Specialist

SIGNATURE [Signature]

DATE 6/28/2006

(This space for State use only)

**RECEIVED
JUL 12 2006**

**Application for Permit to Drill
Request for Permit Extension
Validation**

(this form should accompany the Sundry Notice requesting permit extension)

API: 4304736799
Well Name: Archy Bench 12-23-21-16
Location: 843' FNL - 1957' FWL , NENW, Sec 16, T12S-R23E
Company Permit Issued to: Enduring Resources, LLC
Date Original Permit Issued: 8/25/2005

The undersigned as owner with legal rights to drill on the property as permitted above, hereby verifies that the information as submitted in the previously approved application to drill, remains valid and does not require revision.

Following is a checklist of some items related to the application, which should be verified.

If located on private land, has the ownership changed, if so, has the surface agreement been updated? Yes No

Have any wells been drilled in the vicinity of the proposed well which would affect the spacing or siting requirements for this location? Yes No

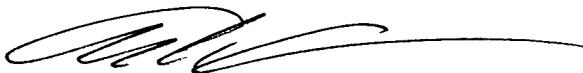
Has there been any unit or other agreements put in place that could affect the permitting or operation of this proposed well? Yes No

Have there been any changes to the access route including ownership, or right-of-way, which could affect the proposed location? Yes No

Has the approved source of water for drilling changed? Yes No

Have there been any physical changes to the surface location or access route which will require a change in plans from what was discussed at the onsite evaluation? Yes No

Is bonding still in place, which covers this proposed well? Yes No



Signature

6/28/2006

Date

Title: Landman - Regulatory Specialist

Representing: Enduring Resources, LLC

RECEIVED
JUL 12 2006
DIV. OF OIL, GAS & MINING

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

FORM 9

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals.

1. TYPE OF WELL OIL WELL <input type="checkbox"/> GAS WELL <input checked="" type="checkbox"/> OTHER _____		5. LEASE DESIGNATION AND SERIAL NUMBER: ML-48957
2. NAME OF OPERATOR: Enduring Resources, LLC		6. IF INDIAN, ALLOTTEE OR TRIBE NAME: n/a
3. ADDRESS OF OPERATOR: 475 17th Street, Suite 1500 CITY Denver STATE CO ZIP 80202		7. UNIT or CA AGREEMENT NAME: n/a
4. LOCATION OF WELL FOOTAGES AT SURFACE: 843' FNL - 1957' FWL QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: NENW 16 12S 23E S		8. WELL NAME and NUMBER: Archy Bench 12-23-21-16
PHONE NUMBER: (303) 350-5719		9. API NUMBER: 4304736799
COUNTY: Uintah		10. FIELD AND POOL, OR WILDCAT: Undesignated
STATE: UTAH		

11. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION		
<input checked="" type="checkbox"/> NOTICE OF INTENT (Submit in Duplicate) Approximate date work will start: _____	<input type="checkbox"/> ACIDIZE	<input type="checkbox"/> DEEPEN	<input type="checkbox"/> REPERFORATE CURRENT FORMATION
	<input type="checkbox"/> ALTER CASING	<input type="checkbox"/> FRACTURE TREAT	<input type="checkbox"/> SIDETRACK TO REPAIR WELL
	<input type="checkbox"/> CASING REPAIR	<input type="checkbox"/> NEW CONSTRUCTION	<input type="checkbox"/> TEMPORARILY ABANDON
	<input type="checkbox"/> CHANGE TO PREVIOUS PLANS	<input type="checkbox"/> OPERATOR CHANGE	<input type="checkbox"/> TUBING REPAIR
	<input type="checkbox"/> CHANGE TUBING	<input type="checkbox"/> PLUG AND ABANDON	<input type="checkbox"/> VENT OR FLARE
<input type="checkbox"/> SUBSEQUENT REPORT (Submit Original Form Only) Date of work completion: _____	<input type="checkbox"/> CHANGE WELL NAME	<input type="checkbox"/> PLUG BACK	<input type="checkbox"/> WATER DISPOSAL
	<input type="checkbox"/> CHANGE WELL STATUS	<input type="checkbox"/> PRODUCTION (START/RESUME)	<input type="checkbox"/> WATER SHUT-OFF
	<input type="checkbox"/> COMMINGLE PRODUCING FORMATIONS	<input type="checkbox"/> RECLAMATION OF WELL SITE	<input checked="" type="checkbox"/> OTHER: <u>Request for APD Extension</u>
	<input type="checkbox"/> CONVERT WELL TYPE	<input type="checkbox"/> RECOMPLETE - DIFFERENT FORMATION	

12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.

Enduring Resources, LLC respectfully request an extension to the expiration date of this Application for Permit to Drill

FROM: 7/13/2007
TO: 7/13/2008

Approved by the
Utah Division of
Oil, Gas and Mining

Date: 07-16-07
By: [Signature]

NAME (PLEASE PRINT) <u>Evette Bissett</u>	TITLE <u>Regulatory Affairs Assistant</u>
SIGNATURE <u>[Signature]</u>	DATE <u>7/10/2007</u>

(This space for State use only)

7-17-07
RM

RECEIVED
JUL 13 2007

**Application for Permit to Drill
Request for Permit Extension
Validation**

(this form should accompany the Sundry Notice requesting permit extension)

API: 4304736799
Well Name: Archy Bench 12-23-21-16
Location: 843' FNL - 1957' FWL, NENW, Sec 16, T12S-R23E
Company Permit Issued to: Enduring Resources, LLC
Date Original Permit Issued: ~~7/11/2005~~
8/25/05

The undersigned as owner with legal rights to drill on the property as permitted above, hereby verifies that the information as submitted in the previously approved application to drill, remains valid and does not require revision.

Following is a checklist of some items related to the application, which should be verified.

If located on private land, has the ownership changed, if so, has the surface agreement been updated? Yes No

Have any wells been drilled in the vicinity of the proposed well which would affect the spacing or siting requirements for this location? Yes No

Has there been any unit or other agreements put in place that could affect the permitting or operation of this proposed well? Yes No

Have there been any changes to the access route including ownership, or right-of-way, which could affect the proposed location? Yes No

Has the approved source of water for drilling changed? Yes No

Have there been any physical changes to the surface location or access route which will require a change in plans from what was discussed at the onsite evaluation? Yes No

Is bonding still in place, which covers this proposed well? Yes No

Luette Brisett
Signature

7/10/2007
Date

Title: Regulatory Affairs Assistant

Representing: Enduring Resources, LLC

RECEIVED
JUL 13 2007
DIV. OF OIL, GAS & MINING



JON M. HUNTSMAN, JR.
Governor

GARY R. HERBERT
Lieutenant Governor

State of Utah

DEPARTMENT OF NATURAL RESOURCES

MICHAEL R. STYLER
Executive Director

Division of Oil, Gas and Mining

JOHN R. BAZA
Division Director

July 23, 2008

Al Arlian
Enduring Resources LLC
475 17th St. Ste. 1500
Denver, CO 80202

Re: APD Rescinded – Archy Bench 12-23-21-16 Sec. 16, T.12S, R. 23E
Uintah County, Utah API No. 43-047-36799

Dear Mr. Arlian:

The Application for Permit to Drill (APD) for the subject well was approved by the Division of Oil, Gas and Mining (Division) on August 25, 2005. On July 13, 2006 and July 16, 2007, the Division granted a one-year APD extension. No drilling activity at this location has been reported to the division. Therefore, approval to drill the well is hereby rescinded, effective July 23, 2008.

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

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
SITLA, Ed Bonner

