

**UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT**

SUBMIT IN TRIPPLICATE*
(Other instructions on
reverse side)

Form approved.
Budget Bureau No. 1004-0136
Expires: December 31, 1991

APPLICATION FOR PERMIT TO DRILL OR DEEPEN

1 a. TYPE OF WORK DRILL <input checked="" type="checkbox"/> DEEPEN <input type="checkbox"/>		5. LEASE DESIGNATION AND SERIAL NO. ML-46106	
b. TYPE OF WELL OIL WELL <input type="checkbox"/> GAS WELL <input type="checkbox"/> OTHER <input checked="" type="checkbox"/> COALBED METHANE SINGLE ZONE <input type="checkbox"/> MULTIPLE <input type="checkbox"/>		6. IF INDIAN, ALLOTTEES OR TRIBE NAME	
2. NAME OF OPERATOR ANADARKO PETROLEUM CORPORATION		7. UNIT AGREEMENT NAME	
3. ADDRESS AND TELEPHONE NO. 17001 Northchase Drive, Houston, Texas 77060 281/875-1101		8. FARM OR LEASE NAME WELL NO. Clawson Spring State SWD-1	
4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.) At surface 716 FNL & 2301' FWL of Section 36, T15S, R8E <i>NENW 4370082 N 5020109 E</i>		9. API WELL NO.	
At proposed prod. zone 716 FNL & 2301' FWL of Section 36, T15S, R8E		10. FIELD AND POOL OR WILDCAT SWD	
14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE. 15 miles SW from Price		11. SEC. T,R,M, OR BLK. AND SURVEY OR AREA Section 36, T15S, R8E	
		12. COUNTY Carbon	13. STATE Utah
15. DISTANCE FROM PROPOSED LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT. (Also to nearest drlg. unit line, if any)	716'	16. NO. OF ACRES IN LEASE 880'	17. NO. OF ACRES ASSIGNED TO THIS WELL. 160
18. DISTANCE FROM PROPOSED LOCATION TO NEAREST WELL, DRILLING, COMPLETED, OR APPLIED FOR, ON THIS LEASE. FT.	1000'	19. PROPOSED DEPTH 8450'	20. ROTARY OR CABLE TOOLS Rotary
21. ELEVATIONS (Show whether DF, RT, GR, etc.) 6796' GL		22. APPROX. DATE WORK WILL START. 07/01/2000	
23. PROPOSED CASING AND CEMENTING PROGRAM			
SIZE OF HOLE	GRADE, SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH
17-1/2"	13-5/8" H-40	48#	300'
12-1/4"	8 5/8" K-55	24#	2800'
7-7/8"	5-1/2" K-55 <i>N-80</i>	15# <i>17#</i>	8450
		QUANTITY OF CEMENT	
		420 cu. ft.	
		1800 cu. ft.	
		TBD - BASED ON OH LOGS	

CONFIDENTIAL

Attached is the following:

per J.D. 7-19-00.

1. Survey Plat
2. Drilling Plan with BOP Schematic, Figure 1-1
3. Topo & Access Map & Area Map.
4. Pit & Pad Layout with cross sections of pit, pad, & rig layout.

RECEIVED

JUN 27 2000

**DIVISION OF
OIL, GAS AND MINING**

The Cultural Resource Study was submitted under separate cover.

Nationwide BLM Oil & Gas Lease Bond Number 153571
Utah Oil & Gas Lease Bond 224351 (expiration date 06-30-2000)
 Utah Bond of Lessee 203521

IN ABOVE SPACE, DESCRIBE PROPOSED PROGRAM: If proposal is to deepen, give data on present productive zone and proposed new productive zone. If proposal is to drill or deepen directionally, give pertinent data on subsurface locations and measured and true vertical depths. Give blowout preventer program, if any.

24. SIGNED *Judy Davidson* TITLE Judy Davidson Regulatory Analyst DATE 06/20/2000

(This space for Federal or State office use.)

PERMIT NO. 43-007-30721 APPROVAL DATE _____

Application approval does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon. CONDITIONS OF APPROVAL IF ANY:

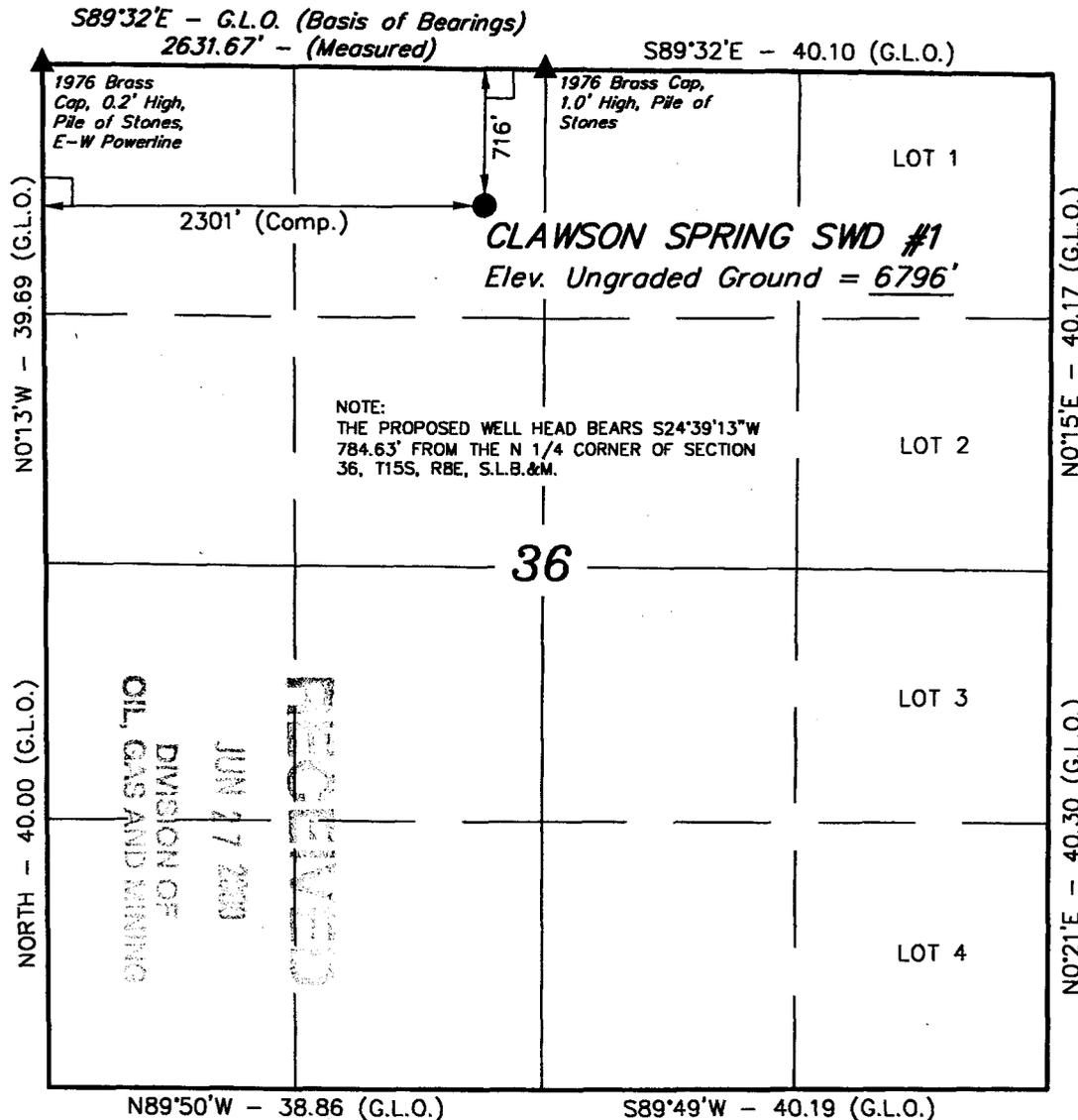
APPROVED BY *Bradley G. Hill* TITLE BRADLEY G. HILL RECLAMATION SPECIALIST III DATE 7/19/00

See Instructions On Reverse Side

T15S, R8E, S.L.B.&M.

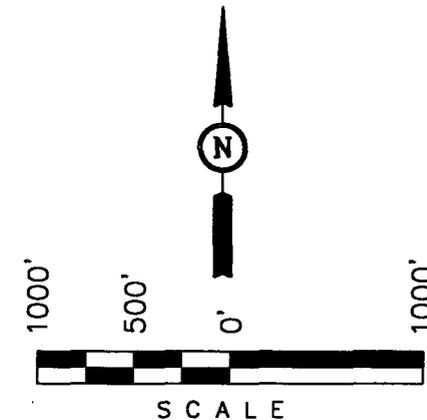
ANADARKO PETROLEUM CORP.

Well location, CLAWSON SPRING SWD #1, located shown in the NE 1/4 NW 1/4 of Section 36, T15S, R8E, S.L.B.&M. Carbon County, Utah.



BASIS OF ELEVATION

SPOT ELEVATION AT A ROAD INTERSECTION ON THE SOUTH LINE OF THE SE 1/4 OF SECTION 26, T15S, R8E, S.L.B.&M. TAKEN FROM THE POISON SPRING BENCH QUADRANGLE, UTAH, 7.5 MINUTE QUAD. (TOPOGRAPHIC MAP) PUBLISHED BY THE UNITED STATES DEPARTMENT OF THE INTERIOR, GEOLOGICAL SURVEY. SAID ELEVATION IS MARKED AS BEING 6931 FEET.



CERTIFICATE

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.

Robert J. May
 REGISTERED LAND SURVEYOR
 REGISTRATION NO. 161319
 STATE OF UTAH

UINTAH ENGINEERING & LAND SURVEYING 85 SOUTH 200 EAST - VERNAL, UTAH 84078 (435) 789-1017		
SCALE 1" = 1000'	DATE SURVEYED: 5-10-99	DATE DRAWN: 5-16-00
PARTY D.L.K. E.O. D.COX	REFERENCES G.L.O. PLAT	
WEATHER WARM	FILE ANADARKO PETROLEUM CORP.	

LEGEND:

- = 90° SYMBOL
- = PROPOSED WELL HEAD.
- = SECTION CORNERS LOCATED.

LATITUDE = 39°28'56"
 LONGITUDE = 110°58'33"



June 26, 2000

State of Utah
Division of Oil, Gas & Mining
1594 West North Temple, Suite 1210
Salt Lake City, UT 84114-5801

Attention: Lisha Cordova

RE: Application for Permit to Drill

Gentlemen:

Enclosed, in duplicate, are Applications for Permit to Drill (Form 3) for the Clawson Spring State SWD-1 well in Carbon County.

Please call me at (281) 874-8766 if you require further information or have any questions.

Sincerely,

A handwritten signature in cursive script that reads "Judy Davidson".

Judy Davidson
Regulatory Analyst

JD/me
enclosures

RECEIVED

JUN 27 2000

DIVISION OF
OIL, GAS AND MINING

**DRILLING PLAN
TO ACCOMPANY APPLICATION FOR PERMIT TO DRILL**

Company: Anadarko Petroleum Corporation

Well: Clawson Spring State SWD-1

Location: 716' FNL & 2301' FWL of
T15S, 8E, Section 36
Carbon County, Utah

Lease: ML-46106

Surface Elevation: 6796

A. Estimated Tops of Important Geologic Markers:

Emery	Surface	Buckhorn Cong.	4816	Carmel Anhy	6916
Bluegate Shale	2386	Morrison	4896	Carmel Lime	7091
Ferron Sand	3486	Summerville	5396	Navajo	7311
Tununk Shale	3721	Curtis	5796	Kayenta	7651
Dakota Sand	4106	Entrada	5946	Wingate	7731
Cedar Mtn	4156	Carmel	6596		

B. Estimated Depth at which Water, Oil, Gas or other Mineral-Bearing zones are expected to be encountered:

Gas-bearing Ferron Sandstone Member is expected to be encountered from: 3486 - 4106.

All fresh water zones and prospectively valuable mineral zones encountered during drilling will be recorded by depth and adequately protected. All significant oil and gas shows will be tested to determine commercial potential.

C. Pressure Control Equipment:

A 9" 3000 psi WP double gate hydraulic BOP with pipe rams and blind rams will be installed on the 8-5/8" casinghead. In addition to the BOP stack, a rotating head will be installed on top of the BOP to assist in safe air drilling operations. The BOP stack will be tested prior to drilling below intermediate casing. The ram preventers will be tested to 70% of the working pressure of the casinghead. The annular will be tested to 50% of its working pressure. Operational checks will be made daily or on trips. A BOP schematic is shown on attached Exhibit "A".

The BOP system will be consistent with API RP 53. Pressure tests will be conducted before drilling out from under all casing strings which are set and cemented in place. Blowout preventer controls will be installed prior to drilling the surface casing plug and will remain in use until the well is completed or abandoned. Preventers will be inspected and operated at least daily to ensure good mechanical working order. This inspection will be recorded on the daily drilling report. Preventers will be pressure tested before drilling casing cement plugs. The accumulator system will meet IADC guidelines concerning pump capacities, storage capacity, and reservoir volume. Closing unit fluid volume will be sufficient to pre-charge the system to operating pressure plus 50% excess. One set of controls will be in the doghouse on the rig floor and one set will be remote on the drilling pad.

D. Casing Program

Surface Casing: 13-3/8", 48#, H40, STC new casing will be set at approximately 300'.
Intermediate Casing: 8-5/8" 24#, K55, LTC, new casing will be set at approximately 2800'.
Production Casing: 5-1/2" ~~15.5#~~, K55, LTC, new casing will be set at approximately 8450'

17, N-80 per J.D. 7-19-00

RECEIVED

JUN 27 2000

DIVISION OF
OIL, GAS AND MINING

D. Casing Program (continued)

Casing Design Factors

The safety factors on casing strings will equal or exceed the following values:

Collapse	1.0
Joint Strength	1.6
Burst	1.33

E. Cement Program

Surface - Cement will be circulated to the surface. Casing will be cemented with approximately 420 cu. ft. (350 sx, 15.6 ppg, 1.19 cf/sk) of API Class 'A' cement.

Intermediate - Cement will be raised to the surface casing using an API Class 'A' cement lead volume of approximately 1500 cu. ft. (750 sx, 12.8 ppg, 2.0 cf/sk) and an API Class 'A' tail cement volume of approximately 300 cu. ft (250 sx, 15.6 ppg, 1.19 cf/sk).

Production - Casing will be cemented back to ^{200' above the} intermediate 8-5/8" casing using API Class 'H' cement and a "DV" stage cementing collar with a two stage cement job. The actual cement volumes and DV stage cementing tool placement will be based upon actual depth and gauge determined from open hole logs. *per S.D. 7-19-00*

Additional additives will be used to retard the cement, accelerate the cement, control lost circulation, or control fluid loss. All cementing will be done in accordance with API cementing practices.

F. Mud Program and Circulating Medium:

A truck-mounted air drilling rig will be used to drill the surface hole to 300' and to pre-set the surface casing before moving a drilling rig on location to drill the rest of the hole to TD.

An air or air/mist system will be used for drilling from below surface pipe at 300' to 2800.

An air/mist system will be used from 2800' to approximately 5000'. The hole will then be displaced with an 8.7 to 9.2 ppg Low Solids Non Dispersed mud. Bentonite gel will be the primary additive with minor additions of lime, caustic, soda ash, and polymer to control viscosity.

The mud/fluid system will be monitored visually and with a gas chromatograph detector.

G. Coring, Logging, and Testing Program:

a. The following logging program is planned:

1. SDL-GR-CAL over prospective intervals (300 to 2800' and 2800 to 6200').
2. DIL- SP-GR-CAL over prospective intervals (2800' to 6200')

b. A mud logging unit with chromatograph will be used from approximately 1000' to TD.

c. After production casing is installed, a cement bond log will be run to determine the top of cement. Productive zones will then be perforated and tested. Water produced during testing will be contained in the temporary reserve pit.

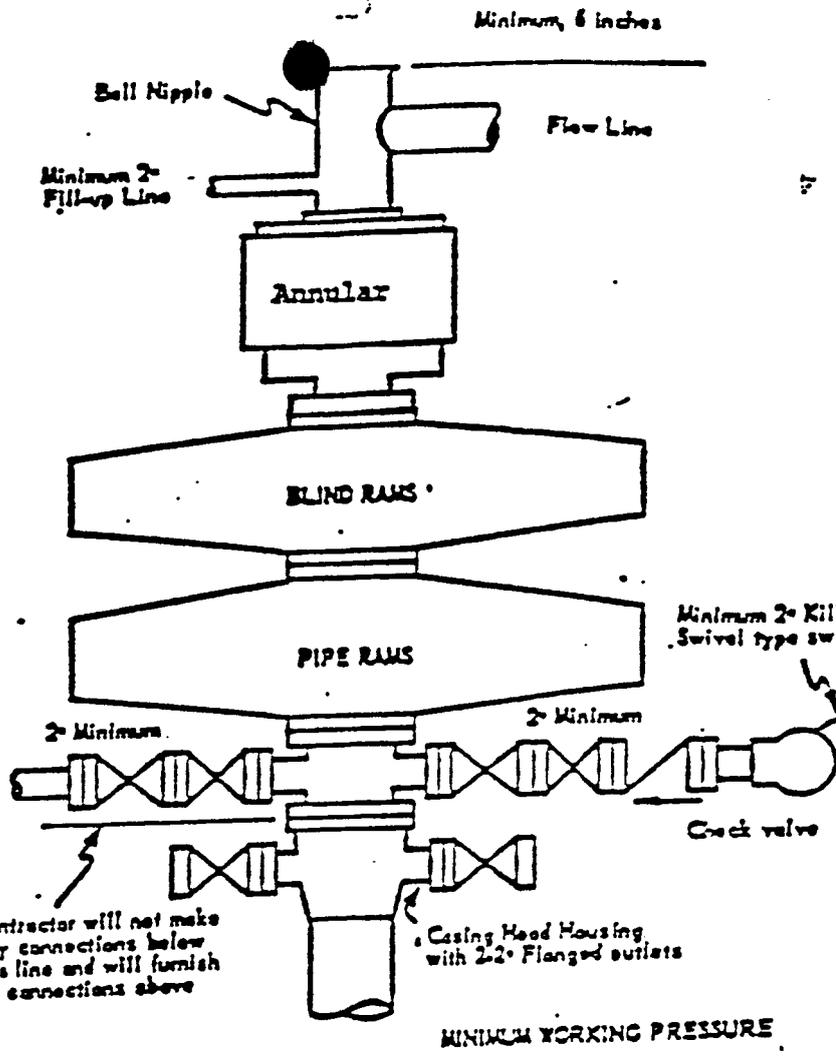
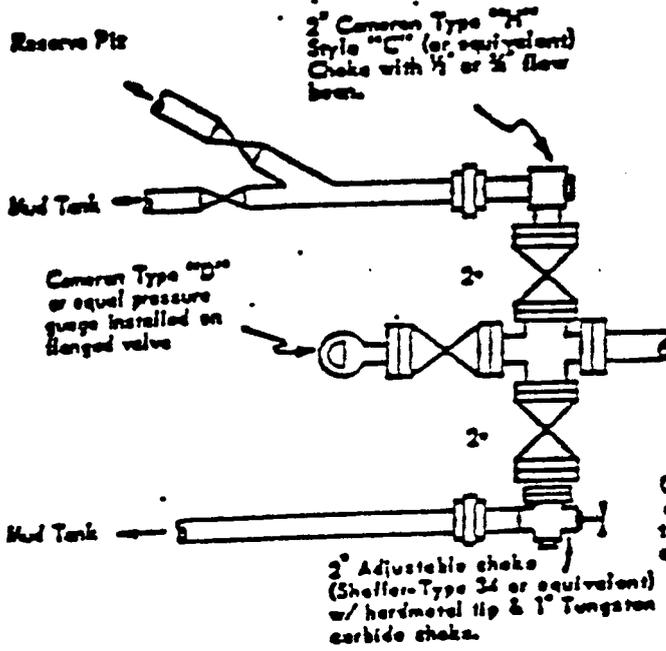
H. Abnormal Conditions and Potential Hazards:

Abnormal conditions such as abnormal temperatures or pressures are not anticipated. Potential hazards such as H2S are also not anticipated.

RECEIVED

JUN 27 2000

DIVISION OF
OIL, GAS AND MINING



RECEIVED

JUN 27 2000

DIVISION OF
OIL, GAS AND MINING

MINIMUM BLOWOUT PREVENTER
REQUIREMENTS - NORMAL
PRESSURE SERVICE

ANADARKO PETROLEUM CORP.

CLAWSON SPRING SWD #1

LOCATED IN CARBON COUNTY, UTAH

SECTION 36, T15S, R8E, S.L.B.&M.



PHOTO: VIEW FROM CORNER #7 TO LOCATION STAKE

CAMERA ANGLE: SOUTHWESTERLY



PHOTO: VIEW FROM BEGINNING OF PROPOSED #A-4 ROAD

CAMERA ANGLE: SOUTHERLY



- Since 1964 -

U
E
L
S
Uintah Engineering & Land Surveying
85 South 200 East Vernal, Utah 84078
435-789-1017 uels@uelsinc.com

LOCATION PHOTOS

5 16 00
MONTH DAY YEAR

PHOTO

TAKEN BY: B.B.

DRAWN BY: J.L.G.

REVISED: 00-00-00

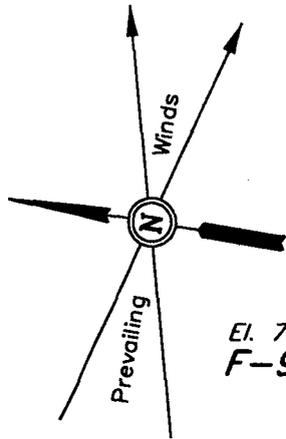
ANADARKO PETROLEUM CORP.

LOCATION LAYOUT FOR
 CLAWSON SPRING SWD #1
 SECTION 36, T15S, R8E, S.L.B.&M.
 716' FNL 2301' FWL

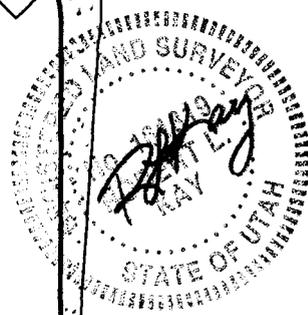
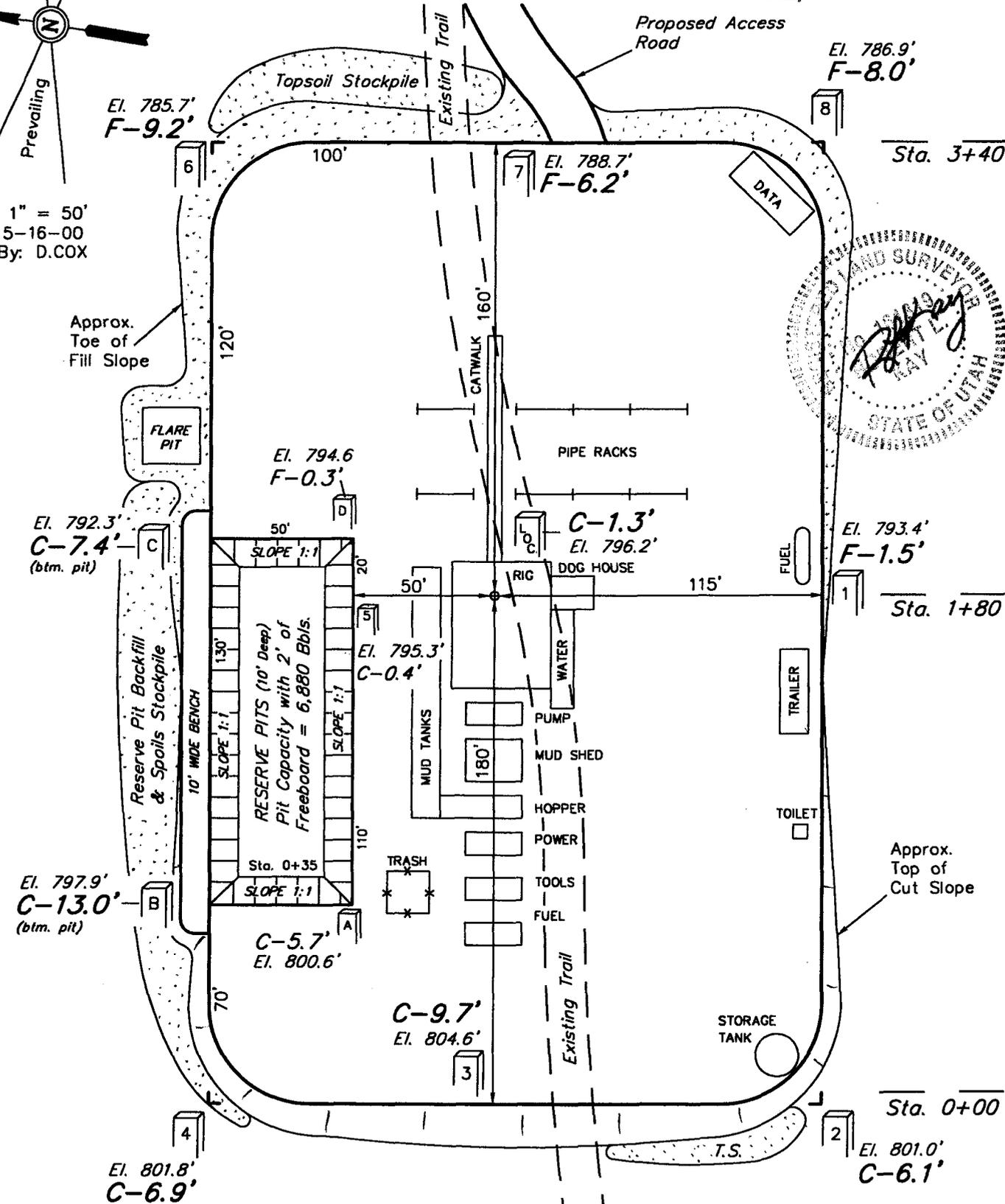
RECEIVED

JUN 27 2000

DIVISION OF
 OIL, GAS AND MINING



SCALE: 1" = 50'
 DATE: 5-16-00
 Drawn By: D.COX



ELEV. UNGRADED GROUND AT LOC. STAKE = 6796.2'
 ELEV. GRADED GROUND AT LOC. STAKE = 6794.9'

UINTAH ENGINEERING & LAND SURVEYING
 85 So. 200 East Vernal, Utah

ANADARKO PETROLEUM CORP.

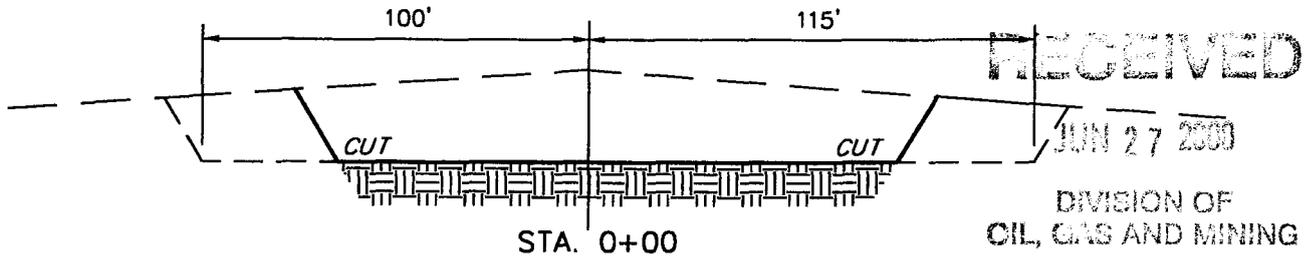
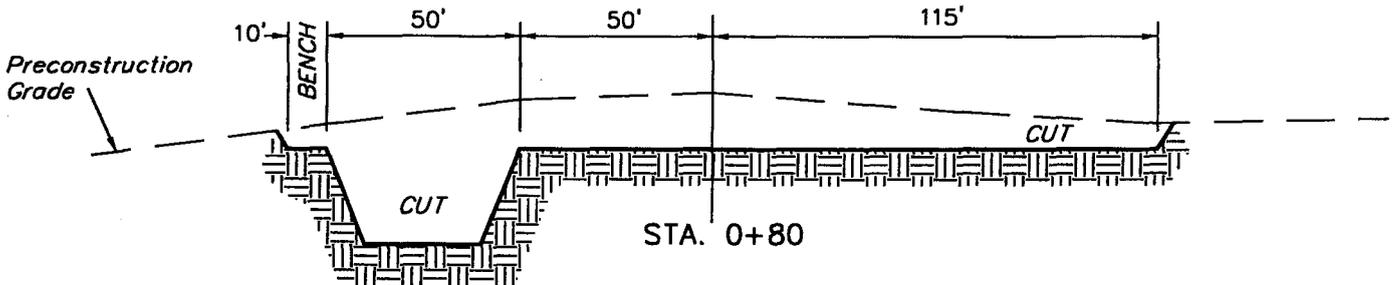
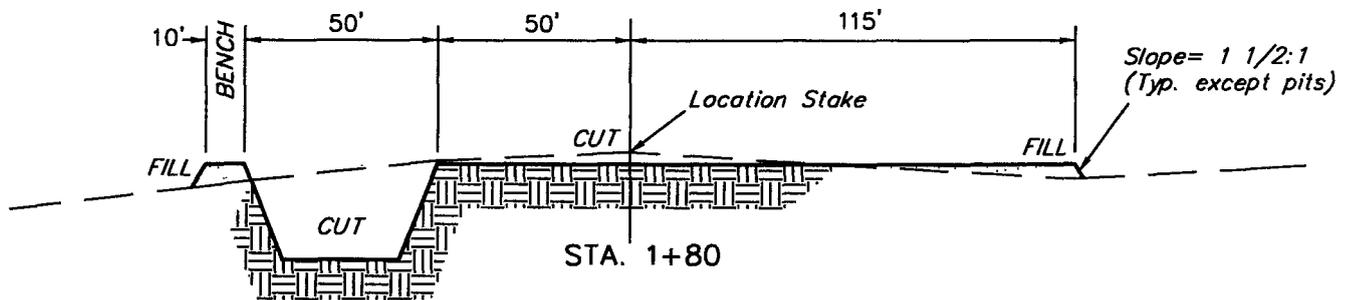
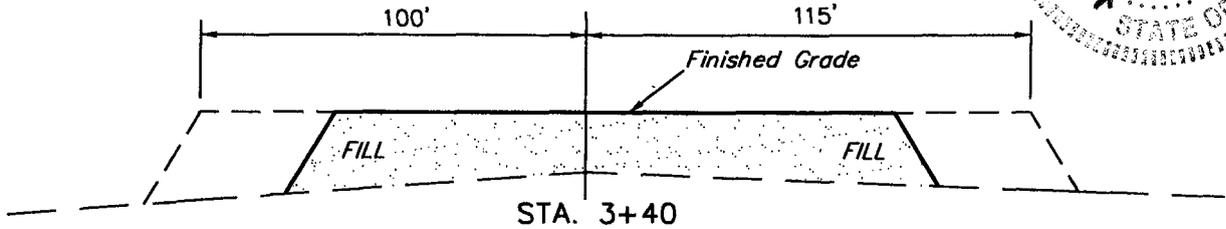
TYPICAL CROSS SECTIONS FOR

CLAWSON SPRING SWD #1
SECTION 36, T15S, R8E, S.L.B.&M.
716' FNL 2301' FWL



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

DATE: 5-16-00
Drawn By: D.COX

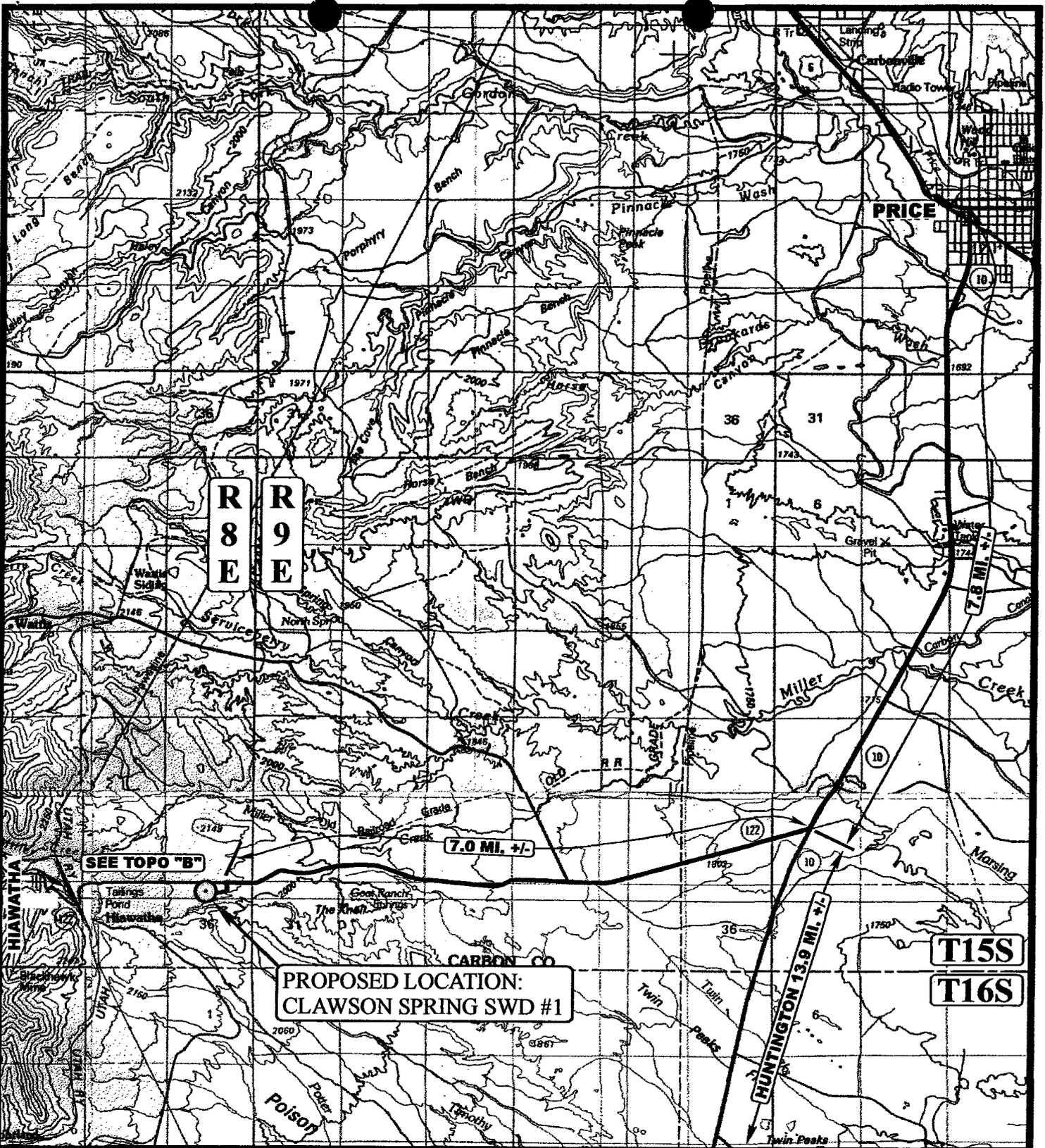


APPROXIMATE YARDAGES

CUT	
(6") Topsoil Stripping	= 1,380 Cu. Yds.
Remaining Location	= 7,050 Cu. Yds.
TOTAL CUT	= 8,430 CU.YDS.
FILL	= 5,850 CU.YDS.

EXCESS MATERIAL AFTER 5% COMPACTION	= 2,270 Cu. Yds.
Topsoil & Pit Backfill (1/2 Pit Vol.)	= 2,270 Cu. Yds.
EXCESS UNBALANCE (After Rehabilitation)	= 0 Cu. Yds.

UINTAH ENGINEERING & LAND SURVEYING
85 So. 200 East Vernal, Utah



R
8
E

R
9
E

PRICE

T15S

T16S

SEE TOPO "B"

PROPOSED LOCATION:
CLAWSON SPRING SWD #1

7.0 MI +/-

HUNTINGTON 13.9 MI +/-

7.8 MI +/-

LEGEND:

⊙ PROPOSED LOCATION

N

ANADARKO PETROLEUM CORP.

CLAWSON SPRING SWD #1
SECTION 36, T15S, R8E, S.L.B.&M.
716' FNL 2301' FWL

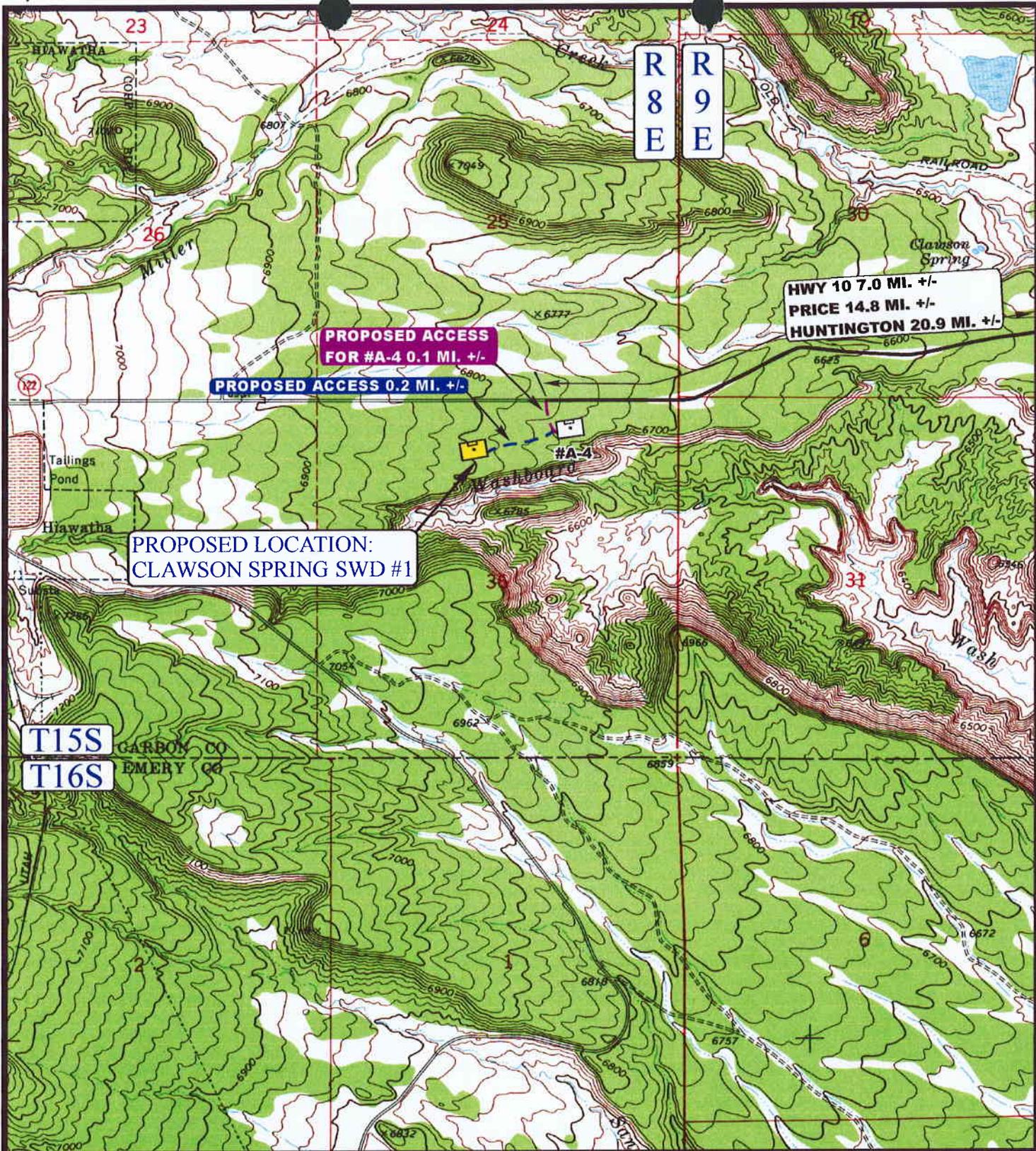


Uintah Engineering & Land Surveying
85 South 200 East Vernal, Utah 84078
(435) 789-1017 * FAX (435) 789-1813



TOPOGRAPHIC MAP
SCALE: 1:100,000
DRAWN BY: J.L.G.
5 MONTH 1600 DAY YEAR
REVISED: 00-00-00





LEGEND:

- PROPOSED ACCESS ROAD
- EXISTING ROAD



ANADARKO PETROLEUM CORP.

CLAWSON SPRING SWD #1
SECTION 36, T15S, R8E, S.L.B.&M.
716' FNL 2301' FWL

U E I S	Uintah Engineering & Land Surveying
	85 South 200 East Vernal, Utah 84078 (435) 789-1017 * FAX (435) 789-1813

TOPOGRAPHIC	5	1600	B TOPO	
MAP	MONTH	DAY		YEAR
SCALE: 1" = 2000'		DRAWN BY: J.L.G.		REVISED: 00-00-00



July 5, 2000

State of Utah
Division of Oil, Gas & Mining
1594 West North Temple, Suite 1210
Salt Lake City, Utah 84114-6801

Attention: Lisha Cordova

RE: Exception to Location, Rule 649-3-3
Clawson Spring State SWD-1
Section 36, T15S, R8E

Gentlemen:

In accordance with Rule 649-3-3, Location and Siting of Wells, Anadarko Petroleum Corporation hereby requests a location exception for the Clawson Spring State SWD-1 well in Carbon County, Utah. This location exception is requested due to topography in this area which mandates that this well be positioned 716' FNL & 2301' FWL of Section 36, T15S, R8E. Anadarko is its own offset operator and waives its objection to this exception. There are no other owners within 460' of this proposed wellsite.

Please call me at (281) 874-8766 if you require further information or have any questions.

Sincerely,


Judy Davidson
Regulatory Analyst

JD/me

RECEIVED

JUL 05 2000

DIVISION OF
OIL, GAS AND MINING

**WORKSHEET
APPLICATION FOR PERMIT TO DRILL**

APD RECEIVED: 06/27/2000

API NO. ASSIGNED: 43-007-30721

WELL NAME: CLAWSON SPRING ST SWD 1
 OPERATOR: ANADARKO PETROLEUM CORP (N0035)
 CONTACT: JUDY DAVIDSON

PHONE NUMBER: 281-875-1101

PROPOSED LOCATION:

NENW 36 150S 080E
 SURFACE: 0716 FNL 2301 FWL
 BOTTOM: 0716 FNL 2301 FWL
 CARBON
 UNDESIGNATED (2)

INSPECT LOCATN BY: / /		
Tech Review	Initials	Date
Engineering	<i>RSK</i>	7-19-00
Geology		
Surface		

LEASE TYPE: 3-State
 LEASE NUMBER: ML-46106
 SURFACE OWNER: 3-State per Op. 7-5-2000.
 PROPOSED FORMATION: NAVA *lc*

RECEIVED AND/OR REVIEWED:

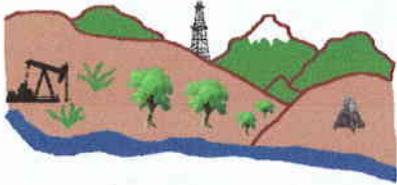
Plat
 Bond: Fed[] Ind[] Sta[3] Fee[]
 (No. 203521)
 Potash (Y/N)
 Oil Shale (Y/N) *190 - 5 (B)
 Water Permit
 (No. PPWID per Op. 7-5-2000.) *lc*
 RDCC Review (Y/N)
 (Date: _____)
 Fee Surf Agreement (Y/N)

LOCATION AND SITING:

___ R649-2-3. Unit _____
 ___ R649-3-2. General
 Siting: _____
 R649-3-3. Exception
 ___ Drilling Unit
 Board Cause No: _____
 Eff Date: _____
 Siting: _____
 ___ R649-3-11. Directional Drill

COMMENTS: Need add'l info. Ex. Loc. (Rec'd 7-6-00)
Need Prosite (Conducted 7-14-00)

STIPULATIONS: Ex. Loc.
① STATEMENT OF BASIS



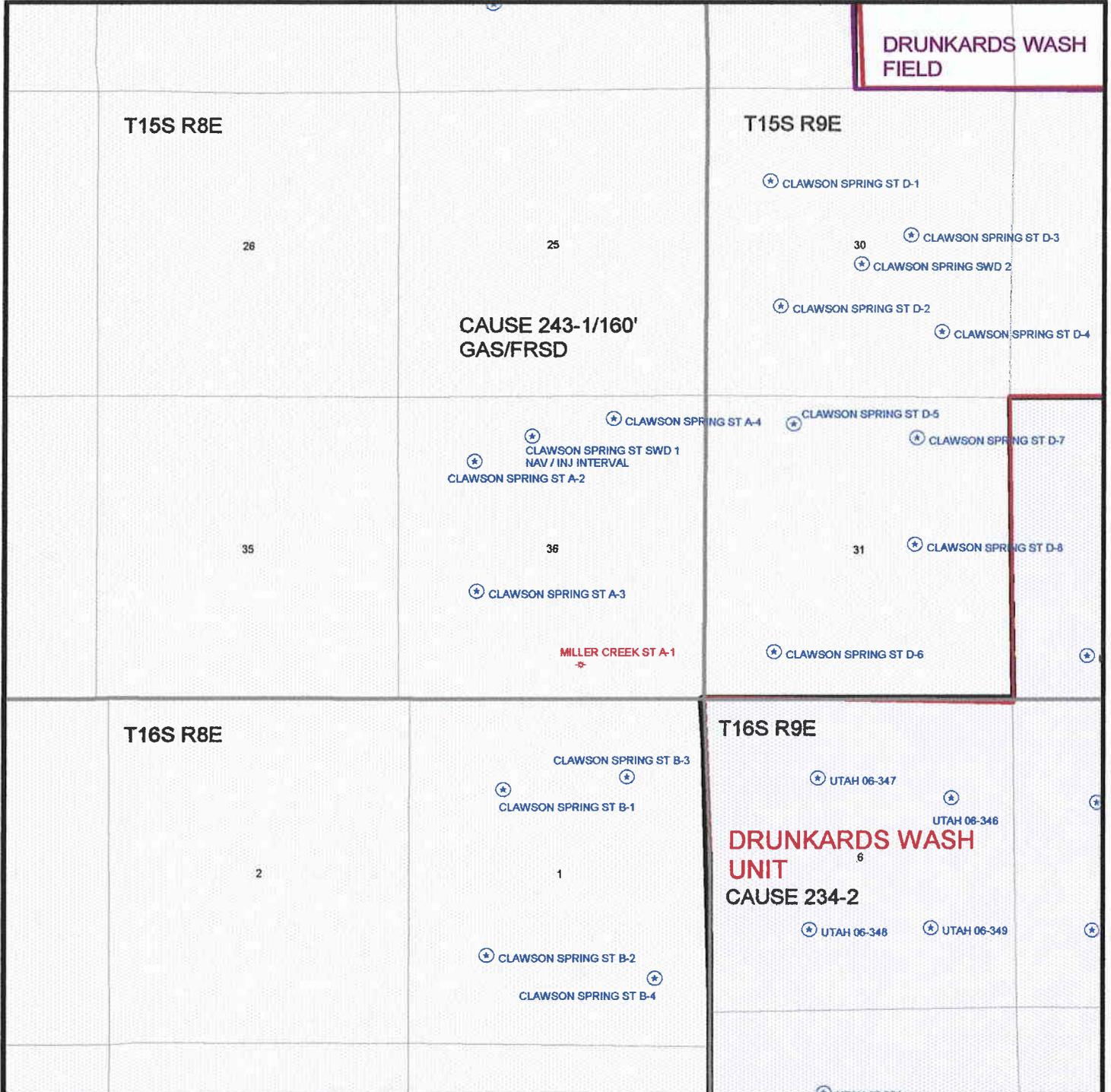
Utah Oil Gas and Mining

OPERATOR: ANADARKO PETROLEUM (N0035)

FIELD: UNDESIGNATED (002)

SEC. 36, T15S, R8E,

COUNTY: CARBON SPACING: R649-3-3/GEN ST
(EX LOC)



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

Operator Name: Anakarko Petroleum Corporation

Name & Number: Clawsno Spring State SWD #1

API Number: 43-007-30721

Location: 1/4, 1/4 NE NW Sec. 36 T. 15 S R. 8 E **County:** Carbon

Geology/Ground Water:

There are thirteen points of diversion within 1 mile of this location none of these are culinary or are used as culinary supplies. There is one spring and an active creek that has water in it at all times. It is possible that zones of potable water may be encountered. The proposed casing and cement program will adequately isolate any zones of water penetrated. However the proximity of Washboard Wash to the south of the location will require added awareness on the part of the operator in order that they will be adequately protected.

Reviewer: K. Michael Hebertson **Date:** 14 /July/2000

Surface:

Carbon County and SITLA personnel were invited to participate in the pre-site but elected not to attend. There were no issues with wildlife except the winter drilling restrictions. There were no raptor conditions or stipulations with this location as there are no active nesting sites in the immediate area. The nearest moving water is in Miller Creek ~1 mile north, however Washboard Wash also has water in it during certain seasons of the year. Precipitation will be diverted around the location and berms will be established to keep pollutants from entering or leaving the well pad. The operator is aware of winter drilling restrictions enforced by DWR from December 1st to April 15th each year and has elected to abide by those restrictions unless an exemption or waiver is granted.

Reviewer: K. Michael Hebertson **Date:** 14/July/2000

Conditions of Approval/Application for Permit to Drill:

1. A pit liner is required.
2. Berms and diversions to protect the location and spoil piles and control erosion and pollution.
3. Dust suppression while air drilling.
4. A berm will be placed along the top outside edge of the location.

ON-SITE PREDRILL EVALUATION

Division of Oil, Gas and Mining

OPERATOR: Anadarko Petroleum Corporation

WELL NAME & NUMBER: Clawson Spring State SWD#1

API NUMBER: 43-007-30721

LEASE: State ML-46106

FIELD/UNIT: UNDESIGNATED

LOCATION: 1/4,1/4 NE NW Sec 36 TWP: 15 S RNG: 8 E 716 FNL 2301 FWL

LEGAL WELL SITING: 660' F SEC. LINE; 660 F 1/4,1/4 LINE; 1320 F ANOTHER WELL.

GPS COORD (UTM): X = 502,069 E; Y = 4,370,082 N Calculated SURFACE OWNER: State

PARTICIPANTS

Mike Hebertson & Chris Kierst, (DOGM), Jim Harley (Anadarko), C. Colt (DWR), David Kay, Eric Olsen (Uintah Engineering)

REGIONAL/LOCAL SETTING & TOPOGRAPHY

Western margin of Colorado Plateau/~2.5 miles east of the Wasatch Plateau. The location is on the westward-dipping pediment mantle of the upper Blue Gate Member of the Mancos Shale. The well may penetrate the Emery Sandstone Member and possibly the Middle Emery Member of the Mancos Shale. The pad is on well forested Pinon Juniper ground which slopes towards Washboard Wash, >1/4 mile to the south and is ~1/8 mile south of Highway 122. Highway 10 is east about 5 miles. and 2.0 miles east of the Hiawatha Mine.

SURFACE USE PLAN

CURRENT SURFACE USE: Mining and wildlife habitat.

PROPOSED SURFACE DISTURBANCE: 340 X 215' pad and outboard soil storage a 30' X 80' X 10' inboard pit and ~ 800 - 900' of new approach road to access the location.

LOCATION OF EXISTING WELLS WITHIN A 1 MILE RADIUS: There is one gas well within the radius of one mile of this location. There are 13 points of diversion or existing water rights within one mile of this location. Most of these follow Washboard Wash, one is a well to the NW.

LOCATION OF PRODUCTION FACILITIES AND PIPELINES: ~3.5 miles east of the pad (Questar pipeline runs north-south).

SOURCE OF CONSTRUCTION MATERIAL: gravel location and approach road; soil stored in berm, the location will be made of natural material borrowed from leveling the pad during construction.

ANCILLARY FACILITIES: none

WASTE MANAGEMENT PLAN:

Portable toilets; garbage cans on location will be emptied into centralized dumpsters which will be emptied into an approved landfill. All human waste generated at the site will be kept in proper sanitary facilities and disposed of according to local rules. A waste management program has been filed for the 2000 year drilling season however it is written to cover production and is not sufficient to cover the drilling phase of operations. Extra precautions will be taken due to the proximity of Washboard Wash.

ENVIRONMENTAL PARAMETERS

AFFECTED FLOODPLAINS AND/OR WETLANDS: Washboard Wash is possible, >1/4 mile north of the location, however the vegetation and distance from the wash will reduce the effects on the flood plain to near zero. Diversions around the west side of location will deflect runoff around the pad and into already established drainages.

FLORA/FAUNA: Pinon Juniper Sagebrush, grasses, cactus, birds, lizards, coyotes, rodents, raptors, occasional elk and deer, reptiles.

SOIL TYPE AND CHARACTERISTICS: Moderately-permeable silty soil on Quaternary/Tertiary Pediment Mantle. The soil is composed of decomposed sandstone and shale from the Emery sand sequences and Bluegate shale

SURFACE FORMATION & CHARACTERISTICS: Quaternary/Tertiary Pediment Mantle overlying the Upper Blue Gate Shale Member of the Mancos Shale. The Emery Sandstone Beds are present in this area, and form a cliff face in the wash about a 1/4 mile to the south of this location.

EROSION/SEDIMENTATION/STABILITY: Stable

PALEONTOLOGICAL POTENTIAL: None observed.

RESERVE PIT

CHARACTERISTICS: Dugout, earthen pit, as above.

LINER REQUIREMENTS (Site Ranking Form attached): Synthetic liner is required.

SURFACE RESTORATION/RECLAMATION PLAN

As per State surface agreement.

SURFACE AGREEMENT: Agreement filed with State.

CULTURAL RESOURCES/ARCHAEOLOGY: None observed

OTHER OBSERVATIONS/COMMENTS

This location is on a ridge directly above the head of Washboard Wash. A vegetation buffer will be left between the location and the top of the wash that will serve as a visual impact barrier and an area of security for the wildlife using the grasslands below. The location is accessible by a two track jeep trail that will be straightened and upgraded for part of its length and will require some new construction. Two previously approved locations are located along this road which will become the pipeline and power route for the wells on the north side of Washboard Wash, with only one access off the Hiawatha road.

ATTACHMENTS:

Photographs taken.

K. Michael Hebertson
DOGM REPRESENTATIVE

14 /July /2000 2:30 PM
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>10</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>10</u>
Fluid Type		
Air/mist	0	
Fresh Water	5	
TDS >5000 and <10000	10	
TDS >10000 or Oil Base Mud Fluid containing significant levels of hazardous constituents	15	
	20	<u>0</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>10</u>

Final Score 35 (Level II Sensitivity)

GLE
GRAPHIC

111

23

HIAWATHA

23

24

Creek

26

26

Miller

25

RAILROAD

CLAWSON Spring

CLAWSON SPRING ST D-3

CLAWSON SPRING SWD

CLAWSON SPRING ST D-2

CLAWSON SPRING ST D-4

122

122

Tailings Ponds

Tailings Pond

Hiawatha

CLAWSON SPRING ST A-1

CLAWSON SPRING ST A-2

Washboard

CLAWSON SPRING ST D-5

CLAWSON SPRING ST D-7

Raven

Golden Eagle

Golden Eagle

Raven

35

35

Sulfate

CLAWSON SPRING ST A-3

7054

MILLER CREEK ST A-1

CLAWSON SPRING ST D-3

CLAWSON SPRING ST D-4

Wash

T15S R8E

CARBON CO
EMERY OG

T16S R8E

CLAWSON SPRING ST B-3

CLAWSON SPRING ST B-1

UTAH 05-347

UTAH 05-346

UTAH 05-348

UTAH 05-349

CLAWSON SPRING ST B-2

CLAWSON SPRING ST B-4

UTAH 05-348

UTAH 05-349

7105

RAILWA

11

12

11

11

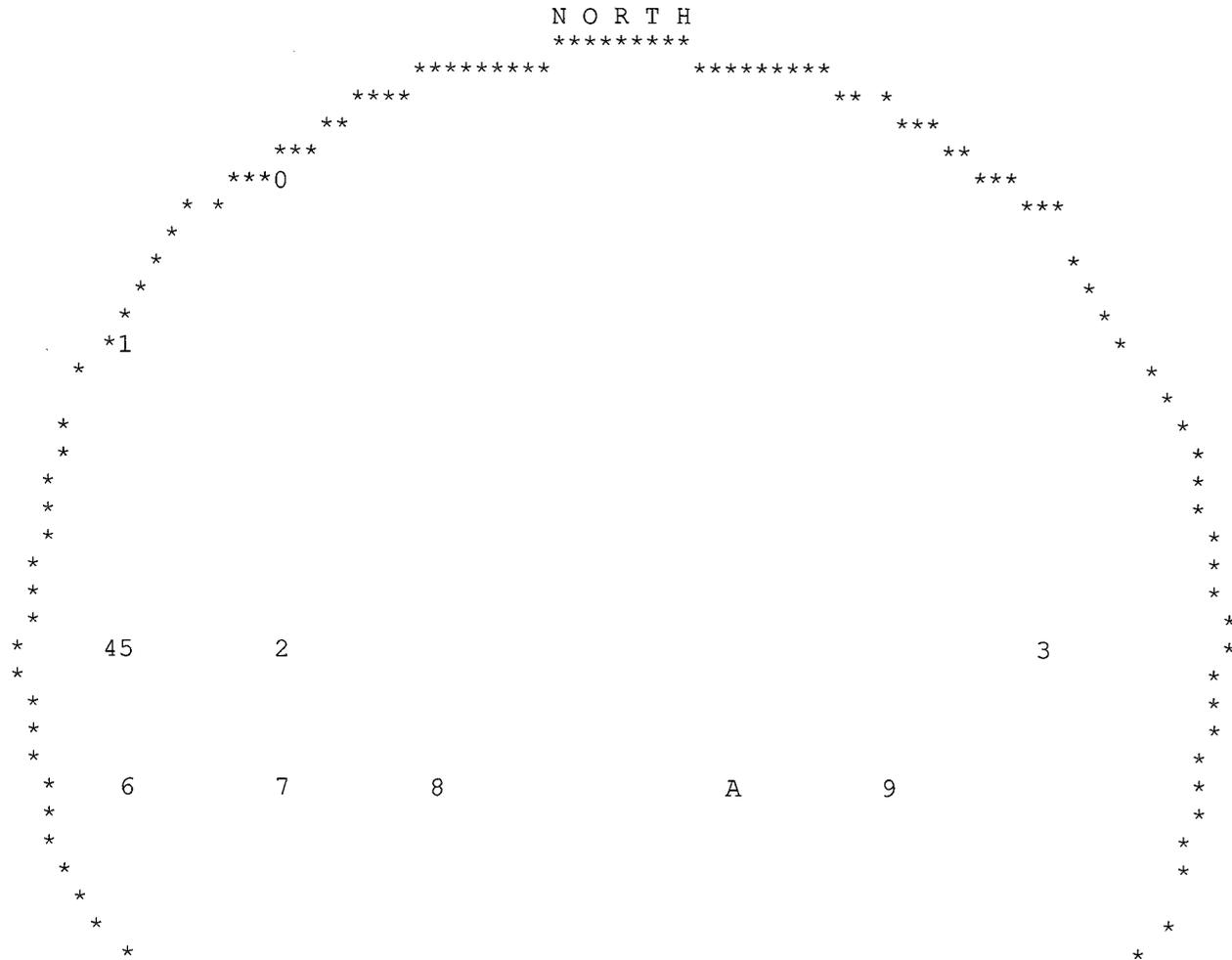
Miller

11

UTAH DIVISION OF WATER RIGHTS
WATER RIGHT POINT OF DIVERSION PLOT CREATED WED, JUL 12, 2000, 8:51 AM
PLOT SHOWS LOCATION OF 13 POINTS OF DIVERSION

PLOT OF AN AREA WITH A RADIUS OF 5280 FEET FROM A POINT
S 716 FEET, E 2301 FEET OF THE NW CORNER,
SECTION 36 TOWNSHIP 15S RANGE 8E SL BASE AND MERIDIAN

PLOT SCALE IS APPROXIMATELY 1 INCH = 2000 FEET



```

*
*
*
***
***
**
***
* **
*****
*****
*****

```

UTAH DIVISION OF WATER RIGHTS
 NWPLAT POINT OF DIVERSION LOCATION PROGRAM

MAP CHAR	WATER RIGHT	QUANTITY CFS	AND/OR AC-FT	SOURCE DESCRIPTION or WELL INFO DIAMETER DEPTH YEAR LOG NORTH	POINT OF DIVERSION DESCRIPTION EAST CNR SEC TWN RNG B&M	U A N P N P
0	91 1156	.0000	.00	Miller Creek		
		WATER USE(S): STOCKWATERING			PRIORITY DATE: 00/00/1869	
		Dees, Carl F. Jr and Amy		P.O. Box 981	Price	UT 84
1	91 1157	.0000	.00	Miller Creek		
		WATER USE(S):			PRIORITY DATE: 00/00/1869	
		Pierucci, Victor		119 Greenwood Avenue	San Rafael	CA
		Dees, Carl F. Jr. and Amy		P.O. Box 981	Price	UT 84
2	91 347	.0000	.00	Unnamed Stream		
		WATER USE(S): STOCKWATERING			PRIORITY DATE: 00/00/1902	
		Diumentti, George S.		11 South First West Street	Bountiful	UT 84
3	91 3764	.0000	.00	Washboard Wash		
		WATER USE(S): STOCKWATERING			PRIORITY DATE: 00/00/1869	
		State of Utah School & Institutional Tru		675 East 500 South, Suite 500	Salt Lake City	UT 84
4	91 3231	.0150	.00	UGW Well	S 700 E 480 N4 35 15S 8E SL	
		WATER USE(S): DOMESTIC			PRIORITY DATE: 00/00/1925	
		Potter, James			Huntington	UT 84
5	91 3232	.0150	.00	UGW Well	S 700 E 650 N4 35 15S 8E SL	

	WATER USE(S): DOMESTIC								PRIORITY DATE: 00/00/1915	
	Potter, James								Huntington	UT 84
5	<u>91 3233</u>	.0150	.00 UGW Well		S	700	E	650	N4 35 15S 8E SL	
	WATER USE(S): DOMESTIC								PRIORITY DATE: 00/00/1915	
	Diumentti, George S.			600 East Mill Street					Bountiful	UT 84
6	<u>91 3230</u>	.0000	.00 Washboard Wash						PRIORITY DATE: 00/00/1869	
	WATER USE(S):								Huntington	UT 84
	Potter, James									
6	<u>91 3229</u>	.0000	.00 Washboard Wash						PRIORITY DATE: 00/00/1902	
	WATER USE(S):								Huntington	UT 84
	Potter, James									
7	<u>91 3230</u>	.0000	.00 Washboard Wash						PRIORITY DATE: 00/00/1869	
	WATER USE(S):								Huntington	UT 84
	Potter, James									
8	<u>91 3162</u>	.0000	.00 Washboard Wash						PRIORITY DATE: 00/00/1869	
	WATER USE(S): STOCKWATERING								Salt Lake City	UT 84
	State of Utah School & Institutional Tru 675 East 500 South, 5th Floor									
9	<u>91 3162</u>	.0000	.00 Washboard Wash						PRIORITY DATE: 00/00/1869	
	WATER USE(S): STOCKWATERING								Salt Lake City	UT 84
	State of Utah School & Institutional Tru 675 East 500 South, 5th Floor									
A	<u>91 3889</u>	.0000	.00 Washboard Wash 1						PRIORITY DATE: 00/00/1869	
	WATER USE(S): STOCKWATERING								Salt Lake City	UT 84
	State of Utah School & Institutional Tru 675 East 500 South, 5th Floor									

Well name:	7-00 Anadarko CSS SWD-1	
Operator:	Anadarko	Project ID:
String type:	Surface	43-007-30721
Location:	Carbon County	

Design parameters:	Minimum design factors:	Environment:
Collapse	Collapse:	H2S considered? No
Mud weight: 8.330 ppg	Design factor 1.125	Surface temperature: 75 °F
Design is based on evacuated pipe.		Bottom hole temperature: 79 °F
		Temperature gradient: 1.40 °F/100ft
		Minimum section length: 300 ft
	Burst:	Cement top: 0 ft
Burst	Design factor 1.00	
Max anticipated surface pressure: 0 psi		Non-directional string.
Internal gradient: 0.433 psi/ft	Tension:	
Calculated BHP 130 psi	8 Round STC: 1.80 (J)	
No backup mud specified.	8 Round LTC: 1.80 (J)	
	Buttress: 1.60 (J)	
	Premium: 1.50 (J)	
	Body yield: 1.50 (B)	Re subsequent strings:
	Tension is based on buoyed weight.	Next setting depth: 7,500 ft
	Neutral point: 263 ft	Next mud weight: 8.330 ppg
		Next setting BHP: 3,245 psi
		Fracture mud wt: 19.250 ppg
		Fracture depth: 3,865 ft
		Injection pressure: 3,865 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	300	13.375	48.00	H-40	ST&C	300	300	12.59	28.2

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	130	740	5.70	130	1730	13.33	13	322	25.47 J

Prepared RJK
by: Utah Dept. of Natural Resources

Date: July 19,2000
Salt Lake City, Utah

ENGINEERING STIPULATIONS: NONE
Collapse strength is based on the Westcott, Dunlop & Kemler method of biaxial correction for tension.
Collapse is based on a vertical depth of 300 ft, a mud weight of 8.33 ppg The casing is considered to be evacuated for collapse purposes.
In addition, burst strength is biaxially adjusted for tension.

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

Well name:	7-00 Anadarko CSS SWD-1	
Operator:	Anadarko	Project ID:
String type:	Intermediate	43-007-30721
Location:	Carbon County	

Design parameters:

Collapse

Mud weight: 8.330 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: 114 °F
 Temperature gradient: 1.40 °F/100ft
 Minimum section length: 1,500 ft

Cement top: Surface

Burst

Max anticipated surface pressure: 0 psi
 Internal gradient: 0.433 psi/ft
 Calculated BHP 1,212 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: 2,450 ft

Non-directional string.

Re subsequent strings:

Next setting depth: 8,450 ft
 Next mud weight: 8.330 ppg
 Next setting BHP: 3,657 psi
 Fracture mud wt: 19.250 ppg
 Fracture depth: 8,450 ft
 Injection pressure: 8,450 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	2800	8.625	24.00	K-55	ST&C	2800	2800	7.972	134.8
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	1212	1370	1.13	1212	2950	2.43	59	263	4.47 J

Prepared RJK
 by: Utah Dept. of Natural Resources

Date: July 19,2000
 Salt Lake City, Utah

ENGINEERING STIPULATIONS: NONE

Collapse strength is based on the Westcott, Dunlop & Kemler method of biaxial correction for tension.
 Collapse is based on a vertical depth of 2800 ft, a mud weight of 8.33 ppg. The casing is considered to be evacuated for collapse purposes.
 In addition, burst strength is biaxially adjusted for tension.

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

Well name:	7-00 Anadarko CSS SWD-1	
Operator:	Anadarko	Project ID:
String type:	Production	43-007-30721
Location:	Carbon County	

Design parameters:

Collapse
Mud weight: 9.200 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: 193 °F
Temperature gradient: 1.40 °F/100ft
Minimum section length: 368 ft

Burst

Max anticipated surface pressure: 0 psi
Internal gradient: 0.478 psi/ft
Calculated BHP 4,038 psi

Burst:
Design factor 1.00

Cement top: 2,603 ft

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: 7,271 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	8450	5.5	17.00	N-80	LT&C	8450	8450	4.767	291.2
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	4038	6290	1.56	4038	7740	1.92	124	348	2.82 J

Prepared by: RJK
Utah Dept. of Natural Resources

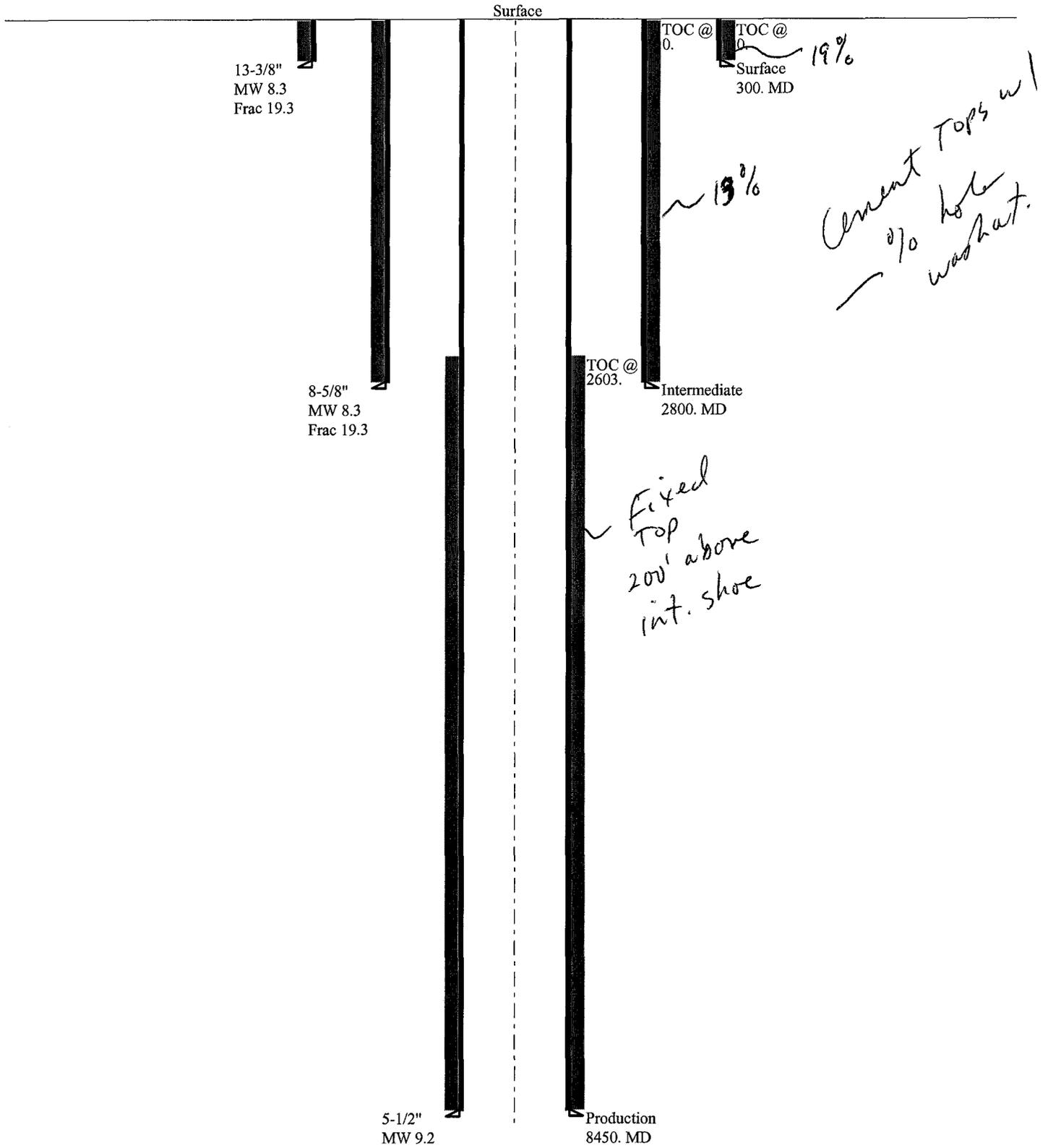
Date: July 19,2000
Salt Lake City, Utah

ENGINEERING STIPULATIONS: NONE
Collapse strength is based on the Westcott, Dunlop & Kemler method of biaxial correction for tension.
Collapse is based on a vertical depth of 8450 ft, a mud weight of 9.2 ppg The casing is considered to be evacuated for collapse purposes.
Burst strength is not adjusted for tension.

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

7-00 Anadarko CSS SWD

Casing Schematic





State of Utah
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

Michael O. Leavitt
Governor
Kathleen Clarke
Executive Director
Lowell P. Braxton
Division Director

1594 West North Temple, Suite 1210
PO Box 145801
Salt Lake City, Utah 84114-5801
801-538-5340
801-359-3940 (Fax)
801-538-7223 (TDD)

July 19, 2000

Anadarko Petroleum Corporation
17001 Northchase Dr
Houston, TX 77060

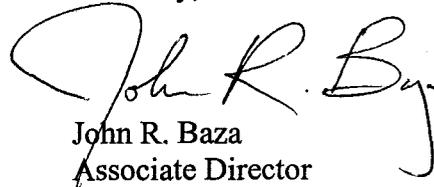
Re: Clawson Spring State SWD1 Well, 716' FNL, 2301' FWL, NE NW, Sec. 36, T. 15 South, R. 8 East, Carbon County, Utah

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. . Appropriate information has been submitted to DOGM and administrative approval of the requested exception location is hereby 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 43-007-30721.

Sincerely,



John R. Baza
Associate Director

er

Enclosures

cc: Carbon County Assessor
SITLA

Operator: Anadarko Petroleum Corporation
Well Name & Number Clawson Spring State SWD 1
API Number: 43-007-30721
Lease: ML-46106

Location: NE NW Sec. 36 T. 15 South R. 8 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
- Robert Krueger at (801) 538-5274 (plugging)
- 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)

STATE OF UTAH
DIVISION OF OIL, GAS AND MINING

CONFIDENTIAL

5. Lease Designation and Serial Number

ML-46106

6. Indian, Allottee or Tribe Name:

7. Unit Agreement Name:

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill new wells, deepen existing wells, or to reenter plugged and abandoned wells.
Use APPLICATION FOR PERMIT TO DRILL OR DEEPEN form for such purposes

1. Type of Well: OIL GAS OTHER: coalbed methane

8. Well Name and Number:

Clawson Spring
State SWD1

2. Name of Operator

Anadarko Petroleum Corporation

9. API Well Number:

43-007-30721

3. Address and Telephone Number.

17001 Northchase Dr., Houston, Texas 77060

281 (874-8766)

10. Field and Pool, or Wildcat

Clawson Spring CBM

4. Location of Well

Footages: 716' FNL & 2301' FWL

County: Carbon

QQ,Sec., T., R., M.: Section 36, T15S, R8E

State: UT

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

NOTICE OF INTENT
(Submit in Duplicate)

- Abandon
- Repair Casing
- Change of Plans
- Convert to Injection
- Fracture Treat or Acidize
- Multiple Completion
- Other _____
- New Construction
- Pull or Alter Casing
- Recomplete
- Perforate
- Vent or Flare
- Water Shut-Off

Approximate date work will start 08-01-00

SUBSEQUENT REPORT
(Submit Original Form Only)

- Abandon*
- Repair Casing
- Change of Plans
- Convert to Injection
- Fracture Treat or Acidize
- Other _____
- New Construction
- Pull or Alter Casing
- Perforate
- Vent or Flare
- Water Shut-Off

Date of work completion Well has not been drilled

Report results of **Multiple Completions** and **Recompletions** to different reservoirs on WELL COMPLETION OR RECOMPLETION REPORT AND LOG form.

* Must be accompanied by a cement verification report.

12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS (Clearly state all pertinent details, and give pertinent dates. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)

Amend 8-5/8", K-55, 24# casing setting depth to 4160'. The remainder of the Permit to Drill as approved July 19, 2000 is unchanged.

CONFIDENTIAL

13. Name & Signature Judy Davidson Title Regulatory Analyst Date 07-26-00

(This space for State use only)

APPROVED *

The Utah Division of Oil, Gas and Mining
Robert J. Krueger, PE, Petroleum Engineer

(5) Date: 8-9-00

* Cement shall be to surface on intermediate casing string

COPY SENT TO OPERATOR

Date: 8-9-00
Initials: CHD

(See Instructions on Reverse Side)

RECEIVED

AUG 27 2000

DIVISION OF
OIL, GAS AND MINING

STATE OF UTAH
 DIVISION OF OIL, GAS AND MINING
 ENTITY ACTION FORM - FORM 6

OPERATOR Anadarko Petroleum Corporation
 ADDRESS P. O. Box 1330
Houston, TX 77251-1330

OPERATOR ACCT. NO. N 0035

ACTION CODE	CURRENT ENTITY NO.	NEW ENTITY NO.	API NUMBER	WELL NAME	WELL LOCATION					SPUD DATE	EFFECTIVE DATE
					QQ	SC	TP	RG	COUNTY		
A	99999	12832	43-007-30721	Clawson Spring State SWD-1	NW	36	15S	8E	Carbon	08-04-00	8-4-00
WELL 1 COMMENTS: 8-8-00 CONFIDENTIAL											
A	99999	12833	43-007-30699	Helper Federal H-4	SE	1	14S	10E	Carbon	08-04-00	8-4-00
WELL 2 COMMENTS: 8-8-00 CONFIDENTIAL											
WELL 3 COMMENTS:											
WELL 4 COMMENTS:											
WELL 5 COMMENTS:											

ACTION CODES (See instructions on back of form)

- A - Establish new entity for new well (single well only)
- B - Add new well to existing entity (group or unit well)
- C - Re-assign well from one existing entity to another existing entity
- D - Re-assign well from one existing entity to a new entity
- E - Other (explain in comments section)

NOTE: Use COMMENT section to explain why each Action Code was selected.

(3/89)

Judy Anderson
 Signature
 Regulatory Analyst
 Title
 Date 08-09-00
 Phone No. (281) 875-1101

** TOTAL PAGE: 02 **

AUG 09 '00 09:48 FR ANADARKO PETROLEUM 281 876 8323 TO 918013593940

P.02/02

STATE OF UTAH
DIVISION OF OIL, GAS AND MINING

5. Lease Designation and Serial Number

ML-46106

6. Indian, Allottee or Tribe Name:

7. Unit Agreement Name:

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill new wells, deepen existing wells, or to reenter plugged and abandoned wells.
Use APPLICATION FOR PERMIT TO DRILL OR DEEPEN form for such purposes

1. Type of Well: OIL GAS OTHER: coalbed methane

CONFIDENTIAL

8. Well Name and Number:

Clawson Spring
State SWD1

2. Name of Operator

Anadarko Petroleum Corporation

9. API Well Number:

43-007-30721

3. Address and Telephone Number.

17001 Northchase Dr., Houston, Texas 77060

281 (874-8766)

10. Field and Pool, or Wildcat

Clawson Spring CBM

4. Location of Well

Footages: 716' FNL & 2301' FWL

County: Carbon

QQ,Sec., T., R., M.: Section 36, T15S, R8E

State: UT

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

NOTICE OF INTENT
(Submit in Duplicate)

- Abandon
- Repair Casing
- Change of Plans
- Convert to Injection
- Fracture Treat or Acidize
- Multiple Completion
- Other _____ Spud Date
- New Construction
- Pull or Alter Casing
- Recomplete
- Perforate
- Vent or Flare
- Water Shut-Off

Approximate date work will start 08-04-00

SUBSEQUENT REPORT
(Submit Original Form Only)

- Abandon*
- Repair Casing
- Change of Plans
- Convert to Injection
- Fracture Treat or Acidize
- Other _____
- New Construction
- Pull or Alter Casing
- Perforate
- Vent or Flare
- Water Shut-Off

Date of work completion _____

Report results of **Multiple Completions** and **Recompletions** to different reservoirs on WELL COMPLETION OR RECOMPLETION REPORT AND LOG form.

* Must be accompanied by a cement verification report.

12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS (Clearly state all pertinent details, and give pertinent dates. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)

Clawson Spring State SWD-1 spud 08-04-00

APR 10 2000

13. Name & Signature Judy Davidson Title Regulatory Analyst

Date 08-09-00

(This space for State use only)

STATE OF UTAH
DIVISION OF OIL, GAS AND MINING

CONFIDENTIAL

5. Lease Designation and Serial Number

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill new wells, deepen existing wells, or to reenter plugged and abandoned wells.
Use APPLICATION FOR PERMIT TO DRILL OR DEEPEN form for such purposes

6. Indian, Allottee or Tribe Name:

7. Unit Agreement Name:

1. Type of Well: OIL GAS OTHER: coalbed methane

8. Well Name and Number:

2. Name of Operator

Anadarko Petroleum Corporation

9. API Well Number:

43-007-30721

3. Address and Telephone Number.

17001 Northchase Dr., Houston, Texas 77060

(281) 874-8766

10. Field and Pool, or Wildcat

4. Location of Well

Footages:

Sec 36 T15S R08E

County: Carbon

QQ, Sec., T., R., M.:

State: UT

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

NOTICE OF INTENT
(Submit in Duplicate)

- Abandon
- Repair Casing
- Change of Plans
- Convert to Injection
- Fracture Treat or Acidize
- Multiple Completion
- Other _____
- New Construction
- Pull or Alter Casing
- Recomplete
- Perforate
- Vent or Flare
- Water Shut-Off

Approximate date work will start _____

SUBSEQUENT REPORT
(Submit Original Form Only)

- Abandon*
- Repair Casing
- Change of Plans
- Convert to Injection
- Fracture Treat or Acidize
- Other Weekly Report of Operations
- New Construction
- Pull or Alter Casing
- Perforate
- Vent or Flare
- Water Shut-Off

Date of work completion _____

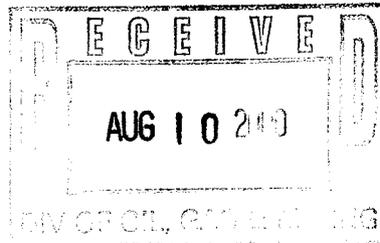
Report results of **Multiple Completions** and **Recompletions** to different reservoirs on WELL COMPLETION OR RECOMPLETION REPORT AND LOG form.

* Must be accompanied by a cement verification report.

12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS (Clearly state all pertinent details, and give pertinent dates. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)

Weekly Reports for the following wells (week ending 08-07-00)

Clawson Spring State SWD-1
Helper State E-4
Helper Federal H-3
Helper Federal H-4



13

Name & Signature

Judy Davidson

Title

Judy Davidson
Regulatory Analyst

Date

08-08-00

(This space for State use only)

ANADARKO PETROLEUM CORPORATION
WELL HISTORY
ONSHORE - U.S.

CONFIDENTIAL

CLAWSON SPRINGS SWD#1, CLAWSON SPRINGS FIELD, 716' FNL & 2310' FWL, SEC 36-15S-8E,
CARBON CO., UTAH, WI 1.0, AFE #20512, ETD 8430', GLE 6795', CYCLONE RIG #7, API # 43-007-30721

08/05/2000 174' (154') **DRILLING**, MW 8.3 PPG

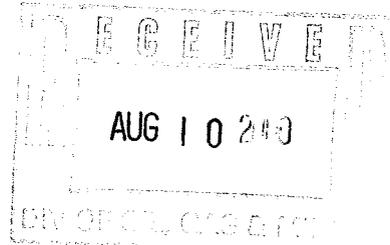
DFS 01 **SPUD @ 15:00 HRS 8/04/00**, DRILLING SURF HOLE
CC: \$NR

08/06/2000 325' (151') **CIRC HOLE CLEAN**, MW 8.8 PPG

DFS 02 TD SURF HOLE @ 16:30 HRS 8/5/00, CCM, TOH, TIH W/ 2 JNTS 13 3/8" CSG, STOPPED @
80', POH, TIH W/ BIT TO REAM HOLE, LAST SURVEY @ 285' - 0.75°
CC: \$NR

08/07/2000 325' (0') **WELDING ON HEAD**

DFS 03 REAMED HOLE TO 325', TOH, TIH W 7 JNTS 13 3/8" 48# H40 CSG, SET @ 316', CMTD W/
390 SXS CLASS G, MIXED @ 15.8 PPG, PLUG NOT BMPD, FLOATS HELD, CO CSG,
INSTALL HEAD
CC: \$140,000



STATE OF UTAH
DIVISION OF OIL, GAS AND MINING

CONFIDENTIAL

5. Lease Designation and Serial Number

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill new wells, deepen existing wells, or to reenter plugged and abandoned wells.
Use APPLICATION FOR PERMIT TO DRILL OR DEEPEN form for such purposes

6. Indian, Allottee or Tribe Name:

7. Unit Agreement Name:

8. Well Name and Number:

1. Type of Well: OIL GAS OTHER: coalbed methane

2. Name of Operator
Anadarko Petroleum Corporation

9. API Well Number:
43-007-30721

3. Address and Telephone Number:
17001 Northchase Dr., Houston, Texas 77060 (281) 874-8766

10. Field and Pool, or Wildcat

4. Location of Well
Footages:
QQ, Sec., T., R., M.: Sec 36 T15S R08E

County: Carbon/Emery
State: UT

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

NOTICE OF INTENT
(Submit in Duplicate)

- Abandon
- Repair Casing
- Change of Plans
- Convert to Injection
- Fracture Treat or Acidize
- Multiple Completion
- Other _____
- New Construction
- Pull or Alter Casing
- Recomplete
- Perforate
- Vent or Flare
- Water Shut-Off

SUBSEQUENT REPORT
(Submit Original Form Only)

- Abandon*
- Repair Casing
- Change of Plans
- Convert to Injection
- Fracture Treat or Acidize
- Other: Weekly Report of Operations
- New Construction
- Pull or Alter Casing
- Perforate
- Vent or Flare
- Water Shut-Off

Approximate date work will start _____

Date of work completion _____

Report results of **Multiple Completions** and **Recompletions** to different reservoirs on WELL COMPLETION OR RECOMPLETION REPORT AND LOG form.

* Must be accompanied by a cement verification report.

12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS (Clearly state all pertinent details, and give pertinent dates. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)

Weekly Reports for the following wells (week ending 08-14-00)

- Clawson Spring State A-4
- Clawson Spring State B-1
- Clawson Spring State B-2
- Clawson Spring State D-6
- Clawson Spring State SWD-1

CONFIDENTIAL

13. Name & Signature Judy Davidson Title Regulatory Analyst

Date 08-14-00

(This space for State use only)

**Accepted by the
Utah Division of
Oil, Gas and Mining
FOR RECORD ONLY**

RECEIVED

AUG 16 2000

DIVISION OF
OIL, GAS AND MINING

ANADARKO PETROLEUM CORPORATION
WELL HISTORY
ONSHORE - U.S.

CONFIDENTIAL

CLAWSON SPRINGS SWD#1, CLAWSON SPRINGS FIELD, 716' FNL & 2310' FWL, SEC 36-15S-8E, CARBON CO., UTAH, WI 1.0, AFE #20512, ETD 8430', GLE 6795', CYCLONE RIG #7, API # 43-007-30721

08/05/2000 174' (154') **DRILLING**, MW 8.3 PPG
DFS 01 **SPUD @ 15:00 HRS 8/04/00**, DRILLING SURF HOLE
CC: \$NR

08/06/2000 325' (151') **CIRC HOLE CLEAN**, MW 8.8 PPG
DFS 02 TD SURF HOLE @ 16:30 HRS 8/5/00, CCM, TOH, TIH W/ 2 JNTS 13 3/8" CSG, STOPPED @ 80', POH, TIH W/ BIT TO REAM HOLE, LAST SURVEY @ 285' - 0.75⁰
CC: \$NR

08/07/2000 325' (0') **WELDING ON HEAD**
DFS 03 REAMED HOLE TO 325', TOH, TIH W 7 JNTS 13 3/8" 48# H40 CSG, SET @ 316', CMTD W/ 390 SXS CLASS G, MIXED @ 15.8 PPG, PLUG NOT BMPD, FLOATS HELD, CO CSG, INSTALL HEAD
CC: \$140,000

08/08/2000 613' (288') **DRILLING**, MW-AIR
DFS 04 WELD ON HEAD, NU BOPE, TEST BOPE TO 250 LOW/ 3000 HIGH, TEST ANNULAR TO 250 LOW/ 1500 HIGH, TIH W/ BIT, DRILL AHEAD, LAST SURVEY @ 498' - 0.75⁰
CC: \$140,000

08/09/2000 1280' (667') **DRILLING**, MW-AIR
DFS 05 LAST SURVEY @ 498' - 0.75⁰
CC: \$150,125

8/10/2000 2085' (805') **DRILLING**, MW-AIR
DFS 06 TFB #4 @ 1304, MIST PUMP WENT DOWN @ 11802, STUCK PIPE, FREE UP PIPE, DRILL AHEAD, LAST SURVEY @ 1788' - 2.0⁰
CC: \$175,727

8/11/00 3135' (1050') **DRILLING**, MW-AIR
DFS 07 LAST SURVEY @ 2663' - 1.5⁰
CC: \$189,471

08/12/2000 3900' (775') **DRILLING**, MW-AIR
DFS 08 LAST SURVEY @ 3623' - 3.5⁰
CC: \$206,011

08/13/2000 4270' (370') **WORKING STUCK PIPE**, MW-AIR
DFS 09 DRILL TO 4260, HOLE STARTED SLOUGHING IN, CLEANED UP HOLE, DRILL TO 4270, HOLE PACKED OFF, WORKED DP TO 4250, STUCK, NO CIRC, RAN FP, ATTEMPT BACKOFF @ 4210, NO BACKOFF, PIPE STARTED MOVING, WORKED OUT W/ 4 JNTS TO 4120, LAST SURVEY @ 3623' - 3.5⁰
CC: \$219,366

08/14/2000 4270' (0') **WASH AND REAM TO TOP OF FISH**, MW-AIR
DFS 09 DP STUCK @ 4120, RAN FP, BACKED OFF @ 4047, TOH, TIH W/ BIT, START REAMING @ 3725, LAST SURVEY @ 3623' - 3.5⁰
CC: \$250,564

RECEIVED

AUG 16 2000

DIVISION OF
OIL, GAS AND MINING

STATE OF UTAH
DIVISION OF OIL, GAS AND MINING

CONFIDENTIAL

5. Lease Designation and Serial Number

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill new wells, deepen existing wells, or to reenter plugged and abandoned wells.
Use APPLICATION FOR PERMIT TO DRILL OR DEEPEN form for such purposes

6. Indian, Allottee or Tribe Name:

7. Unit Agreement Name:

8. Well Name and Number:

1. Type of Well: OIL GAS OTHER: coalbed methane

9. API Well Number:
43-007-30921

2. Name of Operator
Anadarko Petroleum Corporation

10. Field and Pool, or Wildcat

3. Address and Telephone Number.

17001 Northchase Dr., Houston, Texas 77060 (281) 874-8766

4. Location of Well

Footages:

County: Carbon/Emery

QQ, Sec., T., R., M.: sec 36 T15S R08E

State: UT

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

NOTICE OF INTENT
(Submit in Duplicate)

SUBSEQUENT REPORT
(Submit Original Form Only)

- Abandon
- Repair Casing
- Change of Plans
- Convert to Injection
- Fracture Treat or Acidize
- Multiple Completion
- Other _____
- New Construction
- Pull or Alter Casing
- Recomplete
- Perforate
- Vent or Flare
- Water Shut-Off

- Abandon*
- Repair Casing
- Change of Plans
- Convert to Injection
- Fracture Treat or Acidize
- Other Weekly Report of Operations
- New Construction
- Pull or Alter Casing
- Perforate
- Vent or Flare
- Water Shut-Off

Approximate date work will start _____

Date of work completion _____

Report results of **Multiple Completions** and **Recompletions** to different reservoirs on WELL COMPLETION OR RECOMPLETION REPORT AND LOG form.

* Must be accompanied by a cement verification report.

12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS (Clearly state all pertinent details, and give pertinent dates. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)

Weekly Reports for the following wells (week ending 08-21-00)

- Clawson Spring State B-2
- Clawson Spring State B-3
- Clawson Spring State C-2
- Clawson Spring State D-5
- Clawson Spring State D-7
- Clawson Spring State D-8
- Clawson Spring State SWD-1

CONFIDENTIAL

13. Name & Signature Judy Davidson Title Regulatory Analyst

Date 08-21-00

(This space for State use only)

RECEIVED

AUG 22 2000

DIVISION OF
OIL, GAS AND MINING

ANADARKO PETROLEUM CORPORATION
WELL HISTORY
ONSHORE - U.S.

CONFIDENTIAL

CLAWSON SPRINGS SWD#1, CLAWSON SPRINGS FIELD, 716' FNL & 2310' FWL, SEC 36-15S-8E,
CARBON CO., UTAH, WI 1.0, AFE #20512, ETD 8430', GLE 6795', CYCLONE RIG #7, API # 43-007-30721

08/05/2000 174' (154') **DRILLING**, MW 8.3 PPG
DFS 01 **SPUD @ 15:00 HRS 8/04/00**, DRILLING SURF HOLE
CC: \$NR

08/06/2000 325' (151') **CIRC HOLE CLEAN**, MW 8.8 PPG
DFS 02 TD SURF HOLE @ 16:30 HRS 8/5/00, CCM, TOH, TIH W/ 2 JNTS 13 3/8" CSG, STOPPED @
80', POH, TIH W/ BIT TO REAM HOLE, LAST SURVEY @ 285' - 0.75⁰
CC: \$NR

08/07/2000 325' (0') **WELDING ON HEAD**
DFS 03 REAMED HOLE TO 325', TOH, TIH W 7 JNTS 13 3/8" 48# H40 CSG, SET @ 316', CMTD W/
390 SXS CLASS G, MIXED @ 15.8 PPG, PLUG NOT BMPD, FLOATS HELD, CO CSG,
INSTALL HEAD
CC: \$140,000

08/08/2000 613' (288') **DRILLING**, MW-AIR
DFS 04 WELD ON HEAD, NU BOPE, TEST BOPE TO 250 LOW/ 3000 HIGH, TEST ANNULAR TO 250
LOW/ 1500 HIGH, TIH W/ BIT, DRILL AHEAD, LAST SURVEY @ 498' - 0.75⁰
CC: \$140,000

08/09/2000 1280' (667') **DRILLING**, MW-AIR
DFS 05 LAST SURVEY @ 498' - 0.75⁰
CC: \$150,125

8/10/2000 2085' (805') **DRILLING**, MW-AIR
DFS 06 TFB #4 @ 1304, MIST PUMP WENT DOWN @ 11802, STUCK PIPE, FREE UP PIPE, DRILL
AHEAD, LAST SURVEY @ 1788' - 2.0⁰
CC: \$175,727

8/11/00 3135' (1050') **DRILLING**, MW-AIR
DFS 07 LAST SURVEY @ 2663' - 1.5⁰ CC: \$189,471

08/12/2000 3900' (775') **DRILLING**, MW-AIR
DFS 08 LAST SURVEY @ 3623' - 3.5⁰ CC: \$206,011

08/13/2000 4270' (370') **WORKING STUCK PIPE**, MW-AIR
DFS 09 DRILL TO 4260, HOLE STARTED SLOUGHING IN, CLEANED UP HOLE, DRILL TO 4270,
HOLE PACKED OFF, WORKED DP TO 4250, STUCK, NO CIRC, RAN FP, ATTEMPT
BACKOFF @ 4210, NO BACKOFF, PIPE STARTED MOVING, WORKED OUT W/ 4 JNTS TO
4120, LAST SURVEY @ 3623' - 3.5⁰
CC: \$219,366

08/14/2000 4270' (0') **WASH AND REAM TO TOP OF FISH**, MW-AIR
DFS 09 DP STUCK @ 4120, RAN FP, BACKED OFF @ 4047, TOH, TIH W/ BIT, START REAMING @
3725, LAST SURVEY @ 3623' - 3.5⁰
CC: \$250,564

08/15/2000 4270' (0') **TOH W/ FISH**, MW-AIR
DFS 10 W & R TO 4047 (TOF), TOH, TIH W/ JARS, SCREW INTO FISH, JAR FREE, TOH W/ FISH,
LAST SURVEY @ 3623' - 3.5⁰
CC: \$263,114

08/16/2000 4270' (0') **W & R TO BTM**, MW 8.5 PPG
DFS 12 TOH W/ FISH, MUD UP, TIH W/ DP, LOADED DP TO DISPLACE HOLE, DP PLUGGED, TOH,
BTM DC AND BIT PLUGGED W/ SHALE, TIH TO 3743, LOADED HOLE W/ MUD, W 7 R TO
3833, LAST SURVEY @ 3623' - 3.5⁰
CC: \$288,218

08/17/2000 4270' (0') **WORKING DP OUT OF HOLE**, MW 8.6 PPG

RECEIVED

AUG 22 2000

DIVISION OF
OIL, GAS AND MINING

ANADARKO PETROLEUM CORPORATION
WELL HISTORY
ONSHORE - U.S.

CONFIDENTIAL

CLAWSON SPRINGS SWD#1, CLAWSON SPRINGS FIELD, 716' FNL & 2310' FWL, SEC 36-15S-8E, CARBON CO., UTAH, WI 1.0, AFE #20512, ETD 8430', GLE 6795', CYCLONE RIG #7, API # 43-007-30721

DFS 13 W & R TO 4234, HOLE COLLAPSED, STUCK DP, WORKED DP TO 4194, RAN FREE POINT, RAN STRING SHOT FOR BACKOFF, WHILE TORQUEING FOR BACKOFF DP CAME LOOSE, WORKING OUT OF HOLE, LAST SURVEY @ 3623' - 3.5⁰
CC: \$298,030

08/18/2000 4270' (0') **W & R TO BTM**, MW 8.6 PPG

DFS 14 WORKED DP OUT OF HOLE, LD 8" DC, TIH W/ BHA AND JARS, W&R TO 4245, LAST SURVEY @ 3623' - 3.5⁰
CC: \$314,550

08/19/2000 4276' (6') **W & R TO BTM**, MW 8.6 PPG

DFS 15 W&R TO 4270, DRILLED TO 4276, TFB #5, PU 5 DC, TIH TO 4207, W&R TO 4270, LAST SURVEY @ 3623' - 3.5⁰
CC: \$324,755

08/20/2000 4300' (24') **CCM FOR CASING**, MW 8.6 PPG

DFS 16 TD @ 05:30 HRS 8/19/00, CCM, SHORT TRIP 300', W&R TO BTM, SHORT TRIP 360', W&R TO BTM, NO FILL, CCM, LAST SURVEY @ 3623' - 3.5⁰
CC: \$336,569

08/21/2000 4300' (0') **NU BOPE**, MW 8.6 PPG

DFS 17 CCM, RAN 103 JNTS 8 5/8" 24# J55 CSG, SET @ 4300', CMTD W/ 615 SXS HILIFT CLASS G POZMIX LEAD, MIXED @ 11.4 PPG, 185 SXS CLASS G TAIL, MIXED @ 15.2 PPG, PLG BMPD, FLOATS HELD, CMT DID NOT CIRC TO SURF, RAN 1" PIPE TO 180', CMT W/ 150 SXS CLASS G, CMT CIRC TO SURF, SET SLIPS, ND BOPE, CO CSG, INSTALLED B SEC, LAST SURVEY @ 3623' - 3.5⁰
CC: \$416,995

RECEIVED

AUG 22 2000

DIVISION OF
OIL, GAS AND MINING

STATE OF UTAH
DIVISION OF OIL, GAS AND MINING

CONFIDENTIAL

5. Lease Designation and Serial Number

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill new wells, deepen existing wells, or to reenter plugged and abandoned wells.
Use APPLICATION FOR PERMIT TO DRILL OR DEEPEN form for such purposes

6. Indian, Allottee or Tribe Name:

7. Unit Agreement Name:

1. Type of Well: OIL GAS OTHER: coalbed methane

8. Well Name and Number:

2. Name of Operator
Anadarko Petroleum Corporation

9. API Well Number:

43-009-30721

3. Address and Telephone Number.
17001 Northchase Dr., Houston, Texas 77060 (281) 874-8766

10. Field and Pool, or Wildcat

4. Location of Well
Footages: County: Carbon/Emery
QQ, Sec., T., R., M.: State: UT

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

NOTICE OF INTENT
(Submit in Duplicate)

- Abandon
- Repair Casing
- Change of Plans
- Convert to Injection
- Fracture Treat or Acidize
- Multiple Completion
- Other _____
- New Construction
- Pull or Alter Casing
- Recomplete
- Perforate
- Vent or Flare
- Water Shut-Off

SUBSEQUENT REPORT
(Submit Original Form Only)

- Abandon*
- Repair Casing
- Change of Plans
- Convert to Injection
- Fracture Treat or Acidize
- Other Weekly Report of Operations
- New Construction
- Pull or Alter Casing
- Perforate
- Vent or Flare
- Water Shut-Off

Approximate date work will start _____

Date of work completion _____

Report results of **Multiple Completions** and **Recompletions** to different reservoirs on WELL COMPLETION OR RECOMPLETION REPORT AND LOG form.

* Must be accompanied by a cement verification report.

12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS (Clearly state all pertinent details, and give pertinent dates. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)

Weekly Reports for the following wells (week ending 08-28-00)

- Clawson Spring State A-2
- Clawson Spring State B-4
- Clawson Spring State B-8
- Clawson Spring State B-9
- Clawson Spring State C-2
- Clawson Spring State D-5
- Clawson Spring State SWD-1

CONFIDENTIAL

13. Name & Signature Judy Davidson Title Regulatory Analyst

Date 08-29-00

(This space for State use only)

RECEIVED

AUG 30 2000

DIVISION OF
OIL, GAS AND MINING

ANADARKO PETROLEUM CORPORATION
WELL HISTORY
ONSHORE - U.S.

CONFIDENTIAL

CLAWSON SPRINGS SWD#1, CLAWSON SPRINGS FIELD, 716' FNL & 2310' FWL, SEC 36-15S-8E, CARBON CO., UTAH, WI 1.0, AFE #20512, ETD 8430', GLE 6795', CYCLONE RIG #7, API # 43-007-30721

08/05/2000 174' (154') **DRILLING**, MW 8.3 PPG
DFS 01 **SPUD @ 15:00 HRS 8/04/00**, DRILLING SURF HOLE
CC: \$NR

08/06/2000 325' (151') **CIRC HOLE CLEAN**, MW 8.8 PPG
DFS 02 TD SURF HOLE @ 16:30 HRS 8/5/00, CCM, TOH, TIH W/ 2 JNTS 13 3/8" CSG, STOPPED @ 80', POH, TIH W/ BIT TO REAM HOLE, LAST SURVEY @ 285' - 0.75⁰
CC: \$NR

08/07/2000 325' (0') **WELDING ON HEAD**
DFS 03 REAMED HOLE TO 325', TOH, TIH W 7 JNTS 13 3/8" 48# H40 CSG, SET @ 316', CMTD W/ 390 SXS CLASS G, MIXED @ 15.8 PPG, PLUG NOT BMPD, FLOATS HELD, CO CSG, INSTALL HEAD
CC: \$140,000

08/08/2000 613' (288') **DRILLING**, MW-AIR
DFS 04 WELD ON HEAD, NU BOPE, TEST BOPE TO 250 LOW/ 3000 HIGH, TEST ANNULAR TO 250 LOW/ 1500 HIGH, TIH W/ BIT, DRILL AHEAD, LAST SURVEY @ 498' - 0.75⁰
CC: \$140,000

08/09/2000 1280' (667') **DRILLING**, MW-AIR
DFS 05 LAST SURVEY @ 498' - 0.75⁰
CC: \$150,125

8/10/2000 2085' (805') **DRILLING**, MW-AIR
DFS 06 TFB #4 @ 1304, MIST PUMP WENT DOWN @ 11802, STUCK PIPE, FREE UP PIPE, DRILL AHEAD, LAST SURVEY @ 1788' - 2.0⁰
CC: \$175,727

8/11/00 3135' (1050') **DRILLING**, MW-AIR
DFS 07 LAST SURVEY @ 2663' - 1.5⁰ CC: \$189,471

08/12/2000 3900' (775') **DRILLING**, MW-AIR
DFS 08 LAST SURVEY @ 3623' - 3.5⁰ CC: \$206,011

08/13/2000 4270' (370') **WORKING STUCK PIPE**, MW-AIR
DFS 09 DRILL TO 4260, HOLE STARTED SLOUGHING IN, CLEANED UP HOLE, DRILL TO 4270, HOLE PACKED OFF, WORKED DP TO 4250, STUCK, NO CIRC, RAN FP, ATTEMPT BACKOFF @ 4210, NO BACKOFF, PIPE STARTED MOVING, WORKED OUT W/ 4 JNTS TO 4120, LAST SURVEY @ 3623' - 3.5⁰
CC: \$219,366

08/14/2000 4270' (0') **WASH AND REAM TO TOP OF FISH**, MW-AIR
DFS 09 DP STUCK @ 4120, RAN FP, BACKED OFF @ 4047, TOH, TIH W/ BIT, START REAMING @ 3725, LAST SURVEY @ 3623' - 3.5⁰
CC: \$250,564

08/15/2000 4270' (0') **TOH W/ FISH**, MW-AIR
DFS 10 W & R TO 4047 (TOF), TOH, TIH W/ JARS, SCREW INTO FISH, JAR FREE, TOH W/ FISH, LAST SURVEY @ 3623' - 3.5⁰
CC: \$263,114

08/16/2000 4270' (0') **W & R TO BTM**, MW 8.5 PPG
DFS 12 TOH W/ FISH, MUD UP, TIH W/ DP, LOADED DP TO DISPLACE HOLE, DP PLUGGED, TOH, BTM DC AND BIT PLUGGED W/ SHALE, TIH TO 3743, LOADED HOLE W/ MUD, W 7 R TO 3833, LAST SURVEY @ 3623' - 3.5⁰
CC: \$288,218

08/17/2000 4270' (0') **WORKING DP OUT OF HOLE**, MW 8.6 PPG

RECEIVED

AUG 21 2000

DIVISION OF
OIL, GAS AND MINING

ANADARKO PETROLEUM CORPORATION
WELL HISTORY
ONSHORE - U.S.

CONFIDENTIAL

CLAWSON SPRINGS SWD#1, CLAWSON SPRINGS FIELD, 716' FNL & 2310' FWL, SEC 36-15S-8E, CARBON CO., UTAH, WI 1.0, AFE #20512, ETD 8430', GLE 6795', CYCLONE RIG #7, API # 43-007-30721

DFS 13 W & R TO 4234, HOLE COLLAPSED, STUCK DP, WORKED DP TO 4194, RAN FREE POINT, RAN STRING SHOT FOR BACKOFF, WHILE TORQUEING FOR BACKOFF DP CAME LOOSE, WORKING OUT OF HOLE, LAST SURVEY @ 3623' - 3.5⁰
CC: \$298,030

08/18/2000 4270' (0') **W & R TO BTM**, MW 8.6 PPG

DFS 14 WORKED DP OUT OF HOLE, LD 8" DC, TIH W/ BHA AND JARS, W&R TO 4245, LAST SURVEY @ 3623' - 3.5⁰
CC: \$314,550

08/19/2000 4276' (6') **W & R TO BTM**, MW 8.6 PPG

DFS 15 W&R TO 4270, DRILLED TO 4276, TFB #5, PU 5 DC, TIH TO 4207, W&R TO 4270, LAST SURVEY @ 3623' - 3.5⁰
CC: \$324,755

08/20/2000 4300' (24') **CCM FOR CASING**, MW 8.6 PPG

DFS 16 TD @ 05:30 HRS 8/19/00, CCM, SHORT TRIP 300', W&R TO BTM, SHORT TRIP 360', W&R TO BTM, NO FILL, CCM, LAST SURVEY @ 3623' - 3.5⁰
CC: \$336,569

08/21/2000 4300' (0') **NU BOPE**, MW 8.6 PPG

DFS 17 CCM, RAN 103 JNTS 8 5/8" 24# J55 CSG, SET @ 4300', CMTD W/ 615 SXS HILIFT CLASS G POZMIX LEAD, MIXED @ 11.4 PPG, 185 SXS CLASS G TAIL, MIXED @ 15.2 PPG, PLG BMPD, FLOATS HELD, CMT DID NOT CIRC TO SURF, RAN 1" PIPE TO 180', CMT W/ 150 SXS CLASS G, CMT CIRC TO SURF, SET SLIPS, ND BOPE, CO CSG, INSTALLED B SEC, LAST SURVEY @ 3623' - 3.5⁰
CC: \$416,995

08/22/2000 4333' (33') **DRILLING**, MW 8.6 PPG

DFS 18 NU BOPE, TEST EQUIP AND LINES TO 250 LOW/ 3000 HIGH, TEST ANNULAR TO 250 LOW/ 1500 HIGH, TIH W/ BIT AND MOTOR, DO FLOAT EQUIP AND 13' NEW FORM, FIT TO 10 PPG EMW, DRILL AHEAD, LAST SURVEY @ 3623' - 3.5⁰
CC: \$436,829

08/23/2000 4700' (367') **TFB**, MW 8.6 PPG

DFS 19 TFB #36 @ 4700, LAST SURVEY @ 3623' - 3.5⁰
CC: \$448,146

08/24/2000 4998' (298') **DRILLING**, MW 8.9 PPG

DFS 19 LAST SURVEY @ 4657' - 4.0⁰
CC: \$463,673

08/25/2000 5279' (281') **DRILLING**, MW 8.9 PPG

DFS 20 LAST SURVEY @ 5205' - 3.75⁰
CC: \$473,678

08/26/2000 5530' (251') **DRILLING**, MW 9.1 PPG

DFS 21 LAST SURVEY @ 5205' - 3.75⁰
CC: \$484,476

08/27/2000 5667' (137') **DRILLING**, MW 9.2 PPG

DFS 22 TFB #8 @ 5622, RR BIT #6, LAST SURVEY @ 5579' - 1.0⁰
CC: \$495,629

08/28/2000 5943' (276') **DRILLING**, MW 9.2 PPG

DFS 23 LAST SURVEY @ 5579' - 1.0⁰
CC: \$512,160

RECEIVED

08/28/00

DIVISION OF
OIL, GAS AND MINING



Talon Resources, Inc.

Service, Quality and Accuracy

375 South Carbon Avenue A-10
Suite 101
Price, Utah 84501
Phone: 435-637-8781
435-637-5032 Ext 710/711

Cell: 801-650-1401
801-650-1402
Fax: 435-636-8603
Email: talon@castlernet.com

October 6, 2000

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

RE: Application for Injection Well—Clawson Springs SWD #1, Carbon County, Utah
716' FNL, 2301' FWL, Section 36, T15S, R8E, SLB&M.

Dear Mr. Hunt:

On behalf of Anadarko Petroleum Corporation (Anadarko), Talon Resources, Inc. respectfully submits the enclosed original of the *Application for Injection Well (UIC Form 1)* for the above referenced well. Included with the UIC Form 1 is the following supplemental information:

- Exhibit "A" - Civil Plat;
- Exhibit "B" - Surface Use Plat;
- Exhibit "C" - Topographic Maps.

Anadarko desires to submit this application now to begin the noticing process and comment period. Supplemental information will be submitted in the future by Anadarko or Talon as the completion of the well occurs.

Thank you for your timely processing and review of this application. Please feel free to contact myself or Mr. Lloyd Stutz of Anadarko at 1-832-601-3091 if you have any questions or need additional information.

Sincerely,

Don Hamilton
Don Hamilton
Environmental Manager / Project Coordinator

BH
UIC-264.1
LC

cc: Mr. Lloyd Stutz, Anadarko
Mr. Jim Hartley, Anadarko
Job #197 file

RECEIVED

OCT 10 2000

DIVISION OF
OIL, GAS AND MINING

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

UIC FORM 1

APPLICATION FOR INJECTION WELL

Name of Operator Anadarko Petroleum Corporation	Utah Account Number N	Well Name and Number Clawson Springs SWD 1
Address of Operator 60 South 700 East, Unit 1, Price, Utah 84501	Phone Number 435-637-3044	API Number 43-007-30721
Location of Well Footage : 7.16' FNL 230.1' FWL County : Carbon QQ, Section, Township, Range: NE NW, Sec. 36, T15S, R8E State : UTAH		Field or Unit Name Clawson Springs
		Lease Designation and Number ML-46106

Is this application for expansion of an existing project? Yes No

Will the proposed well be used for:

Enhanced Recovery?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
Disposal?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
Storage?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>

Is this application for a new well to be drilled? Yes No

If this application is for an existing well, has a casing test been performed? Yes No
Date of test: pending

Proposed injection interval: from 7,700' to 8,250'

Proposed maximum injection: rate 14,000 bpd pressure 1,400 psig

Proposed injection zone contains oil , gas , and / or fresh water within 1/2 mile of the well.

List of attachments: Civil Plat, Surface Ownership Plat, Topographic Maps,

RECEIVED
OCT 10 2000
DIVISION OF
OIL, GAS AND MINING

ATTACH ADDITIONAL INFORMATION AS REQUIRED BY CURRENT
UTAH OIL AND GAS CONSERVATION GENERAL RULES

ORIGINAL

I hereby certify that this report is true and complete to the best of my knowledge.

Name (Please Print) Jim Hartley

Title Field Foreman

Signature *Jim Hartley*

Date 10-3-00

T15S, R8E, S.L.B.&M.

ANADARKO PETROLEUM CORP.

Well location, CLAWSON SPRING SWD #1, located shown in the NE 1/4 NW 1/4 of Section 36, T15S, R8E, S.L.B.&M. Carbon County, Utah.

BASIS OF ELEVATION

SPOT ELEVATION AT A ROAD INTERSECTION ON THE SOUTH LINE OF THE SE 1/4 OF SECTION 26, T15S, R8E, S.L.B.&M. TAKEN FROM THE POISON SPRING BENCH QUADRANGLE, UTAH, 7.5 MINUTE QUAD. (TOPOGRAPHIC MAP) PUBLISHED BY THE UNITED STATES DEPARTMENT OF THE INTERIOR, GEOLOGICAL SURVEY. SAID ELEVATION IS MARKED AS BEING 6931 FEET.

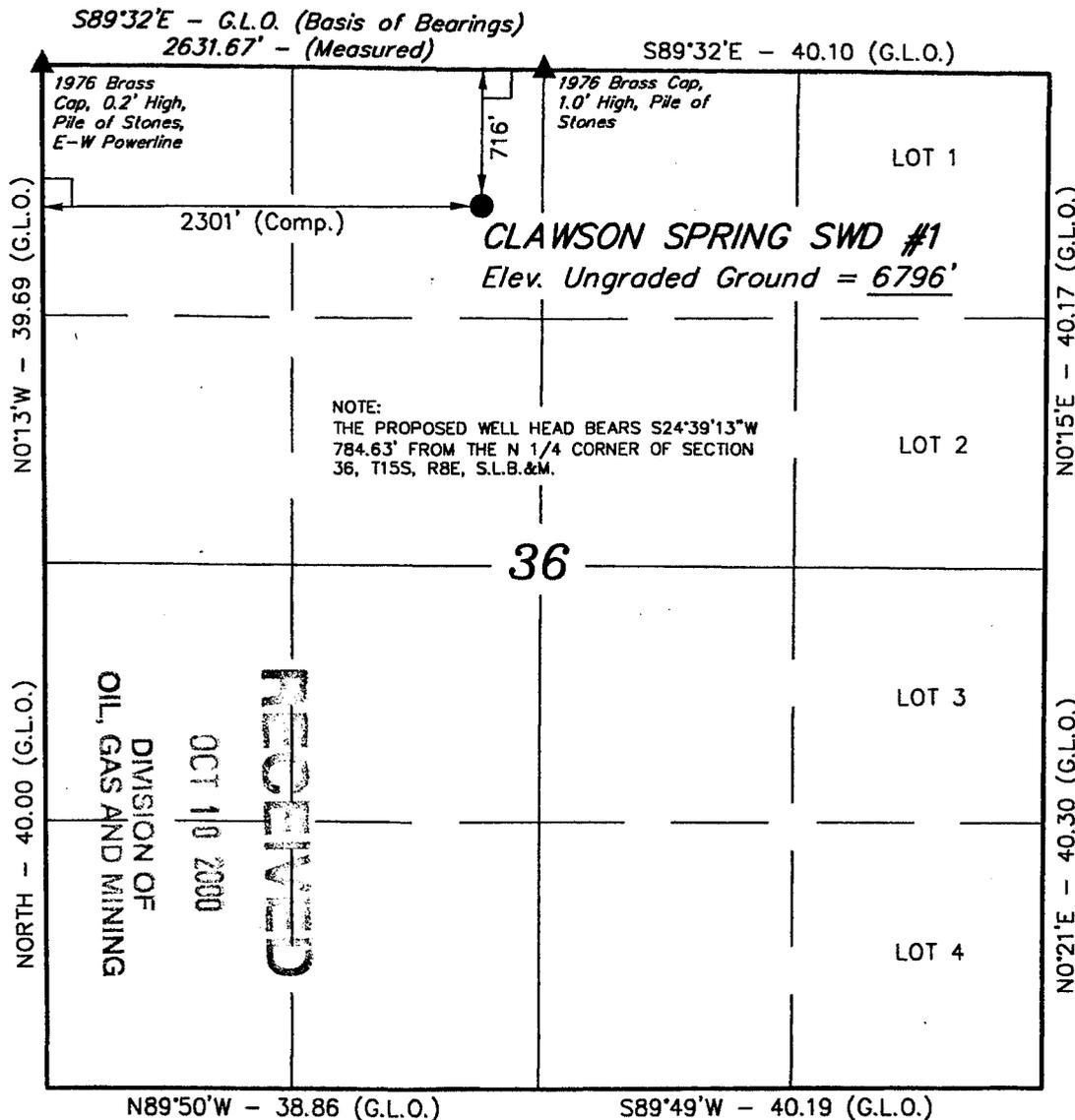


SCALE

CERTIFICATE

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.

Robert J. Key
 REGISTERED LAND SURVEYOR
 REGISTRATION NO. 161319
 STATE OF UTAH



LEGEND:

- └─┘ = 90° SYMBOL
- = PROPOSED WELL HEAD.
- ▲ = SECTION CORNERS LOCATED.

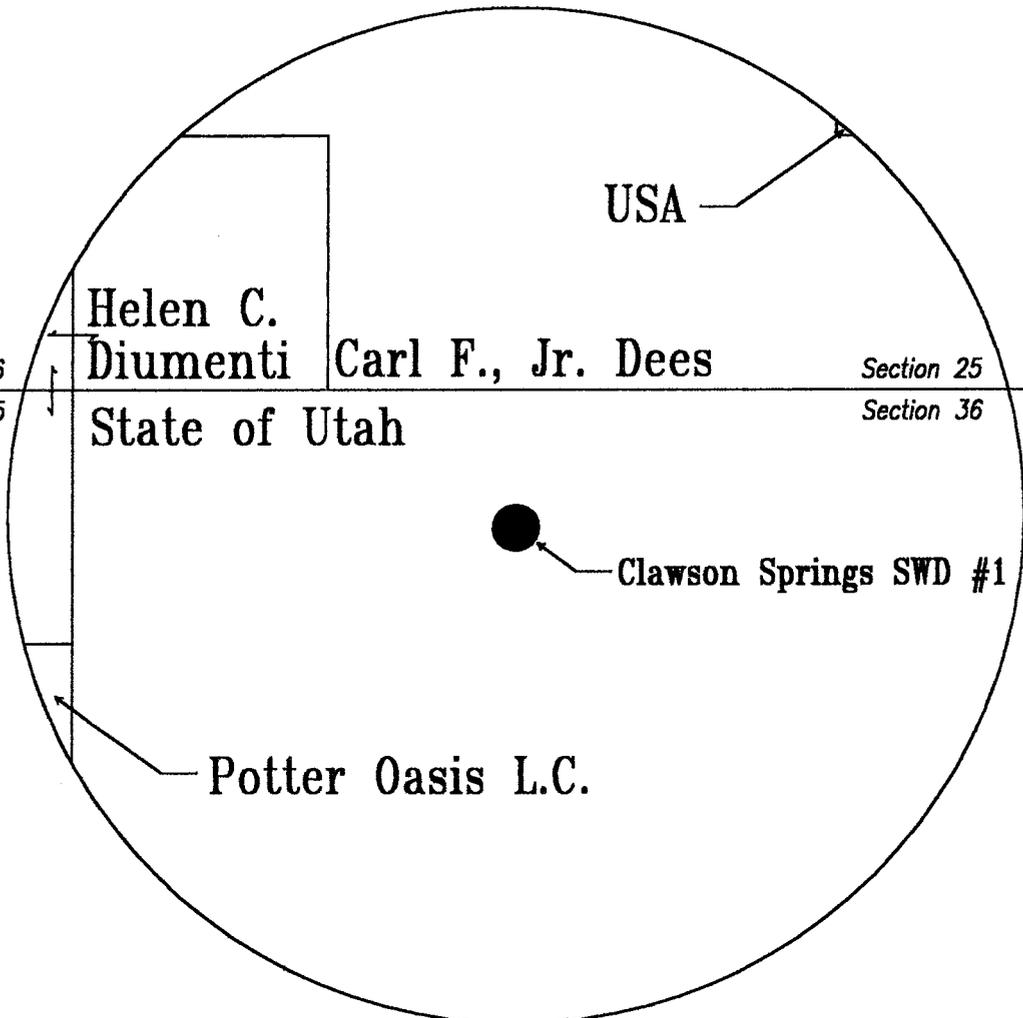
LATITUDE = 39°28'56"
 LONGITUDE = 110°58'33"

UINTAH ENGINEERING & LAND SURVEYING

85 SOUTH 200 EAST - VERNAL, UTAH 84078

(435) 789-1017

SCALE 1" = 1000'	DATE SURVEYED: 5-10-99	DATE DRAWN: 5-16-00
PARTY D.L.K. E.O. D.COX	REFERENCES G.L.O. PLAT	
WEATHER WARM	FILE ANADARKO PETROLEUM CORP.	

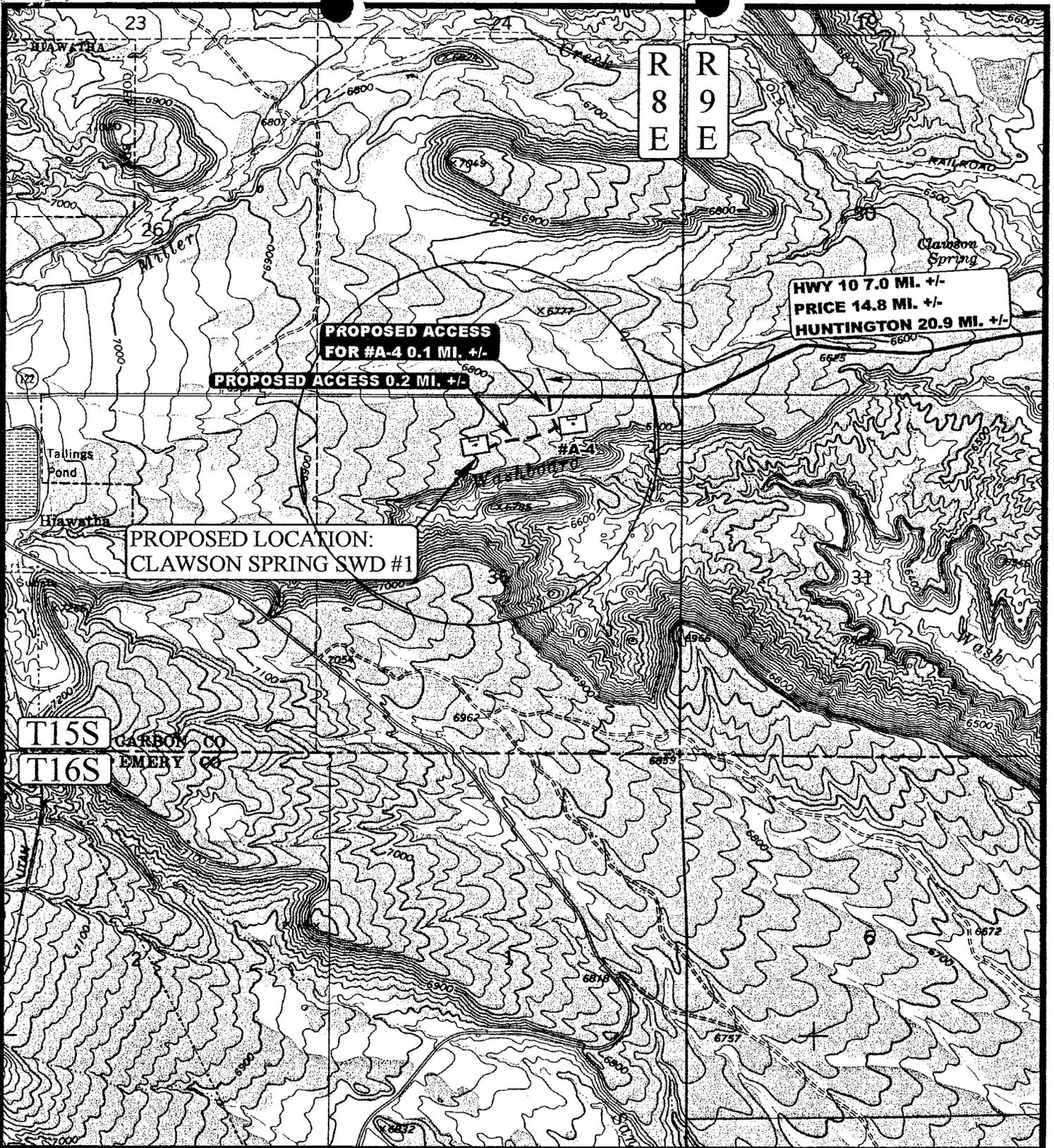


RECEIVED

OCT 10 2000

DIVISION OF
OIL, GAS AND MINING

DRAWN BY: DSH	Talon Resources, Inc. 375 South Carbon Ave. Price, Utah Phone (435) 637-5032 ext 710 Fax (435)636-8603
CHECKED BY: LWJ	
DATE: 10/4/00	ANADARKO Petroleum Corporation Section 36, T15S, R8E, SLBM Surface Ownership Plat
SCALE: 1"=1000'	
SHEET NO.: 197	
MARKING NO.: L1	



LEGEND:

- PROPOSED ACCESS ROAD
- EXISTING ROAD



ANADARKO PETROLEUM CORP.

CLAWSON SPRING SWD #1
SECTION 36, T15S, R8E, S.L.B.&M.
716' FNL 2301' FWL



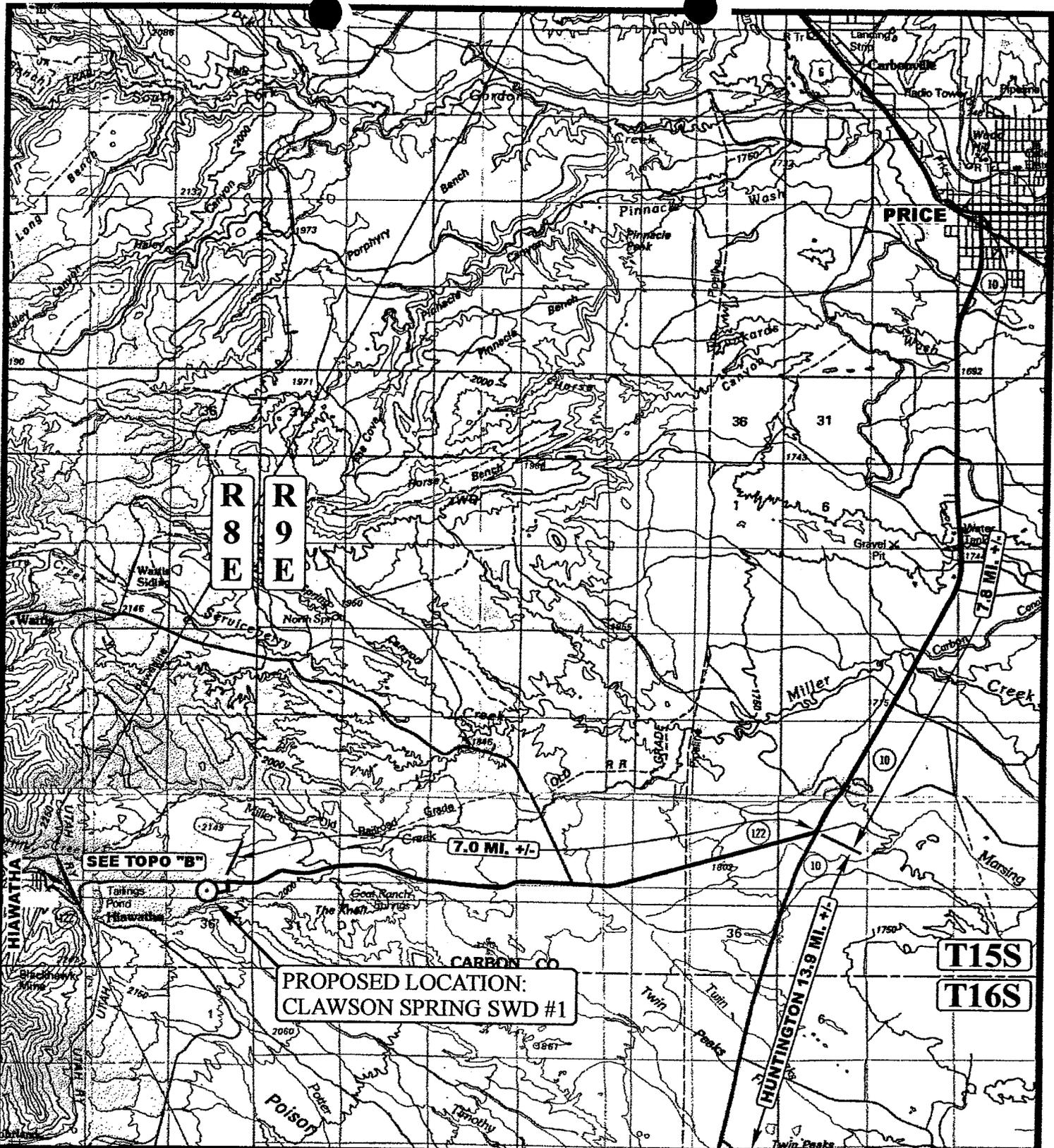
Utah Engineering & Land Surveying
 85 South 200 East Vernal, Utah 84078
 (435) 789-1017 * FAX (435) 789-1813

TOPOGRAPHIC
MAP

5	16	00
MONTH	DAY	YEAR

SCALE: 1" = 2000' DRAWN BY: J.L.G. REVISED: 00-00-00

B
 TOPO



R 8 E
R 9 E

SEE TOPO "B"

7.0 MI +/-

HUNTINGTON 13.8 MI +/-

T15S

T16S

**PROPOSED LOCATION:
CLAWSON SPRING SWD #1**

LEGEND:

⊙ PROPOSED LOCATION

N

ANADARKO PETROLEUM CORP.

**CLAWSON SPRING SWD #1
SECTION 36, T15S, R8E, S.L.B.&M.
716' FNL 2301' FWL**



Utah Engineering & Land Surveying
85 South 200 East Vernal, Utah 84078
(435) 789-1017 * FAX (435) 789-1813

**TOPOGRAPHIC
MAP**

5 16 00
MONTH DAY YEAR

SCALE: 1:100,000 DRAWN BY: J.L.G. REVISED: 00-00-00



TALON RESOURCES, INC.

375 S. Carbon Ave. (A-10), Suite 101, Price, Utah 84501
Phone: (435) 637-8781 Fax: (435) 636- 8603

Fax Transmittal Cover Sheet**Date: 10/18/00****Number of pages: 1****Message To: Michael Hebertson****Telephone Number: 1-801-538-5333****Fax Number: 1-801-359-3940**

Mr. Hebertson:

Following our earlier conversation I am submitting this information on the proposed injection zones and intervals to supplement the previously submitted UIC form 1 for Anadarko's proposed Clawson Springs State SWD #1 injection well (all footages are approximate):

Upper Navajo Bench	7710' - 7800'
Middle Navajo A	7840' - 7905'
Middle Navajo B	7920' - 7970'
Lower Navajo	8005' - 8050'
Kayenta	8070' - 8120'
Wingate	8150' - 8225'

It is our understanding that this is the only outstanding information needed to begin the public comment period for the Clawson Springs SWD #1 injection well.

Please feel free to contact me if you need additional information or have any questions.

Don



VIA U.S. POST OFFICE EXPRESS

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

RE: Application for Injection Well
Clawson Spring SWD 1
Carbon County, Utah

Dear Mr. Hunt:

Please find enclosed an "Affidavit of Service" executed on behalf of Anadarko Petroleum Corporation as required for subject application. If anything further is required, please contact me at (281) 876-8374.

Sincerely,

A handwritten signature in cursive script, appearing to read "Patrick A. Smith".

Patrick A. Smith
Project Landman

RECEIVED

OCT 13 2000

DIVISION OF
OIL, GAS AND MINING

AFFIDAVIT OF SERVICE

STATE: Texas
COUNTY: Harris
AFFIANT: Anadarko Petroleum Corporation
P.O. Box 1330
Houston, Texas 77251-1330
DATE OF EXECUTION: October 11, 2000

Affiant on oath swears that the following statement is true:

To the best of affiant's knowledge, a true and correct copy of that certain Application for Injection Well dated October 3, 2000 (Clawson Spring SWD 1) along with a supplemental ownership plat and a topographic map has been provided all oil and gas operators, mineral owners and surface owners located with a one-half mile radius of the proposed injection well location.

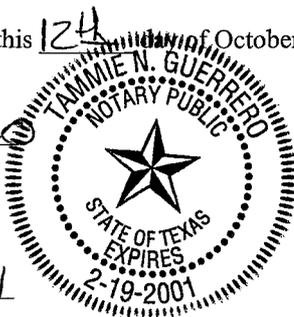
Affiant:

Anadarko Petroleum Corporation

By: Patrick A. Smith
Patrick A. Smith
Project Landman

Suscribed and sworn before me on this 12th day of October, 2000.

Tammien N. Guerrero
Notary Public
State of Texas



My commission expires: 2-19-01



Talon Resources, Inc.

Service, Quality and Accuracy

375 South Carbon Avenue A-10
Suite 101
Price, Utah 84501
Phone: 435-637-8781
435-637-5032 Ext 710/711

Cell: 801-650-1401
801-650-1402
Fax: 435-636-8603
Email: talon@castlernet.com

October 11, 2000

Mr. Brad Hill
Utah Division of Oil, Gas and Mining
P.O. Box 145801
Salt Lake City, Utah 84114-5801

RE: Submitted Notices: Application for Injection Well -
Anadarko Petroleum Corporation's Clawson Springs SWD #1 well
716' FNL 2301' FWL, Section 36, T15S, R8E, SLB&M, Carbon County, Utah

Dear Mr. Hill:

Following are the notices submitted for the above referenced application pursuant R649-5-2.12 of the Oil and Gas Conservation, General Rules. Anadarko has had us submit the notices and send them a copy of the notices. Upon receipt of the notices Anadarko will execute an affidavit that will be forwarded to you.

Please feel free to contact me if you have any questions or need additional information.

Sincerely,

Don Hamilton
Environmental Manager / Project Coordinator

Enclosures

RECEIVED

OCT 11 2000

DIVISION OF
OIL, GAS AND MINING



Talon Resources, Inc.

Service, Quality and Accuracy

375 South Carbon Avenue A-10
Suite 101
Price, Utah 84501
Phone: 435-637-8781
435-637-5032 Ext 710/711

Cell: 801-650-1401
801-650-1402
Fax: 435-636-8603
Email: talon@castnet.com

October 5, 2000

Mrs. Joan Hubert
Bureau of Land Management
125 South 600 West
Price, Utah 84501

RE: Notice of Application for Injection Well -
Anadarko Petroleum Corporation's Clawson Springs SWD #1 well
716' FNL 2301' FWL, Section 36, T15S, R8E, SLB&M, Carbon County, Utah

Dear Ms. Hubert:

On behalf of Anadarko Petroleum Corporation (Anadarko), Talon Resources, Inc. respectfully submits this notice that the Utah Division of Oil, Gas and Mining (UDOGM) is in receipt of an *Application for Injection Well (UIC Form 1)* for the referenced well. A copy of the application with supplemental ownership and topographic information is being submitted to provide notice and information to you pursuant to R649-5-2.12 of the Oil and Gas Conservation, General Rules. Any person desiring to object to approval of such an application for an injection well shall file the objection in conformance with the procedural rules of the Board of Oil, Gas and Mining.

Written comments received by the State of Utah, Division of Oil, Gas, and Mining, (attn: Brad Hill), at P.O. Box 145801, Salt Lake City, Utah 84114-5801 on or before October 20, 2000, will be considered in making the final decision on the approval/disapproval of the proposed application.

Please feel free to contact myself at 435-637-8781 or Mr. Brad Hill at UDOGM at 1-801-538-5315 if you have any questions or concerns that could be addressed prior an objection being submitted.

Sincerely,

Don Hamilton

Don Hamilton
Environmental Manager / Project Coordinator

Enclosures

cc: Mr. Brad Hill, UDOGM

RECEIVED
OCT 10 2000
DIVISION OF
OIL, GAS AND MINING



Talon Resources, Inc.

Service, Quality and Accuracy

375 South Carbon Avenue A-10
Suite 101
Price, Utah 84501
Phone: 435-637-8781
435-637-5032 Ext 710/711

Cell: 801-650-1401
801-650-1402
Fax: 435-636-8603
Email: talon@castnet.com

October 5, 2000

Mr. Ed Bonner
School and Institutional Trust Lands Administration
675 East 500 South, Suite 500
Salt Lake City, Utah 84102-2818

RE: Notice of Application for Injection Well -
Anadarko Petroleum Corporation's Clawson Springs SWD #1 well
716' FNL 2301' FWL, Section 36, T15S, R8E, SLB&M, Carbon County, Utah

Dear Mr. Bonner:

On behalf of Anadarko Petroleum Corporation (Anadarko), Talon Resources, Inc. respectfully submits this notice that the Utah Division of Oil, Gas and Mining (UDOGM) is in receipt of an *Application for Injection Well (UIC Form 1)* for the referenced well. A copy of the application with supplemental ownership and topographic information is being submitted to provide notice and information to you pursuant to R649-5-2.12 of the Oil and Gas Conservation, General Rules. Any person desiring to object to approval of such an application for an injection well shall file the objection in conformance with the procedural rules of the Board of Oil, Gas and Mining.

Written comments received by the State of Utah, Division of Oil, Gas, and Mining, (attn: Brad Hill), at P.O. Box 145801, Salt Lake City, Utah 84114-5801 on or before October 20, 2000, will be considered in making the final decision on the approval/disapproval of the proposed application.

Please feel free to contact myself at 435-637-8781 or Mr. Brad Hill at UDOGM at 1-801-538-5315 if you have any questions or concerns that could be addressed prior an objection being submitted.

Sincerely,

Don Hamilton
Don Hamilton
Environmental Manager / Project Coordinator

Enclosures

cc: Mr. Brad Hill, UDOGM



Talon Resources, Inc.

Service, Quality and Accuracy

375 South Carbon Avenue A-10
Suite 101
Price, Utah 84501
Phone: 435-637-8781
435-637-5032 Ext 710/711

Cell: 801-650-1401
801-650-1402
Fax: 435-636-8603
Email: talon@castlenet.com

— October 5, 2000

Helen C. Diument
1519 Military Way
Salt Lake City, Utah 84103

RE: Notice of Application for Injection Well -
Anadarko Petroleum Corporation's Clawson Springs SWD #1 well
716' FNL 2301' FWL, Section 36, T15S, R8E, SLB&M, Carbon County, Utah

Dear Mrs. Diument:

On behalf of Anadarko Petroleum Corporation (Anadarko), Talon Resources, Inc. respectfully submits this notice that the Utah Division of Oil, Gas and Mining (UDOGM) is in receipt of an *Application for Injection Well (UIC Form 1)* for the referenced well. A copy of the application with supplemental ownership and topographic information is being submitted to provide notice and information to you pursuant to R649-5-2.12 of the Oil and Gas Conservation, General Rules. Any person desiring to object to approval of such an application for an injection well shall file the objection in conformance with the procedural rules of the Board of Oil, Gas and Mining.

Written comments received by the State of Utah, Division of Oil, Gas, and Mining, (attn: Brad Hill), at P.O. Box 145801, Salt Lake City, Utah 84114-5801 on or before October 20, 2000, will be considered in making the final decision on the approval/disapproval of the proposed application.

Please feel free to contact myself at 435-637-8781 or Mr. Brad Hill at UDOGM at 1-801-538-5315 if you have any questions or concerns that could be addressed prior an objection being submitted.

Sincerely,

Don A. Hamilton

Don Hamilton
Environmental Manager / Project Coordinator

Enclosures

cc: Mr. Brad Hill, UDOGM



Talon Resources, Inc.

Service, Quality and Accuracy

375 South Carbon Avenue A-10
Suite 101
Price, Utah 84501
Phone: 435-637-8781
435-637-5032 Ext 710/711

Cell: 801-650-1401
801-650-1402
Fax: 435-636-8603
Email: talon@castnet.com

October 5, 2000

Potter Oasis L.C.
c/o Diana Ware
2223 North 1200 West
Helper, Utah 84526

RE: Notice of Application for Injection Well -
Anadarko Petroleum Corporation's Clawson Springs SWD #1 well
716' FNL 2301' FWL, Section 36, T15S, R8E, SLB&M, Carbon County, Utah

Dear Mrs. Ware:

On behalf of Anadarko Petroleum Corporation (Anadarko), Talon Resources, Inc. respectfully submits this notice that the Utah Division of Oil, Gas and Mining (UDOGM) is in receipt of an *Application for Injection Well (UIC Form 1)* for the referenced well. A copy of the application with supplemental ownership and topographic information is being submitted to provide notice and information to you pursuant to R649-5-2.12 of the Oil and Gas Conservation, General Rules. Any person desiring to object to approval of such an application for an injection well shall file the objection in conformance with the procedural rules of the Board of Oil, Gas and Mining.

Written comments received by the State of Utah, Division of Oil, Gas, and Mining, (attn: Brad Hill), at P.O. Box 145801, Salt Lake City, Utah 84114-5801 on or before October 20, 2000, will be considered in making the final decision on the approval/disapproval of the proposed application.

Please feel free to contact myself at 435-637-8781 or Mr. Brad Hill at UDOGM at 1-801-538-5315 if you have any questions or concerns that could be addressed prior an objection being submitted.

Sincerely,

Don Hamilton
Don Hamilton
Environmental Manager / Project Coordinator

Enclosures

cc: Mr. Brad Hill, UDOGM



Talon Resources, Inc.

Service, Quality and Accuracy

375 South Carbon Avenue A-10
Suite 101
Price, Utah 84501
Phone: 435-637-8781
435-637-5032 Ext 710/711

Cell: 801-650-1401
801-650-1402
Fax: 435-636-8603
Email: talon@castlenet.com

October 5, 2000

Carl F., Jr. Dees
8304 Palladay Road
El Verda, California 95626

RE: Notice of Application for Injection Well -
Anadarko Petroleum Corporation's Clawson Springs SWD #1 well
716' FNL 2301' FWL, Section 36, T15S, R8E, SLB&M, Carbon County, Utah

Dear Mr. Dees:

On behalf of Anadarko Petroleum Corporation (Anadarko), Talon Resources, Inc. respectfully submits this notice that the Utah Division of Oil, Gas and Mining (UDOGM) is in receipt of an *Application for Injection Well (UIC Form 1)* for the referenced well. A copy of the application with supplemental ownership and topographic information is being submitted to provide notice and information to you pursuant to R649-5-2.12 of the Oil and Gas Conservation, General Rules. Any person desiring to object to approval of such an application for an injection well shall file the objection in conformance with the procedural rules of the Board of Oil, Gas and Mining.

Written comments received by the State of Utah, Division of Oil, Gas, and Mining, (attn: Brad Hill), at P.O. Box 145801, Salt Lake City, Utah 84114-5801 on or before October 20, 2000, will be considered in making the final decision on the approval/disapproval of the proposed application.

Please feel free to contact myself at 435-637-8781 or Mr. Brad Hill at UDOGM at 1-801-538-5315 if you have any questions or concerns that could be addressed prior an objection being submitted.

Sincerely,

Don Hamilton

Don Hamilton
Environmental Manager / Project Coordinator

Enclosures

cc: Mr. Brad Hill, UDOGM



Talon Resources, Inc.

Service, Quality and Accuracy

375 South Carbon Avenue A-10
Suite 101
Price, Utah 84501
Phone: 435-637-8781
435-637-5032 Ext 710/711

Cell: 801-650-1401
801-650-1402
Fax: 435-636-8603
Email: talon@castnet.com

October 5, 2000

River Gas Corporation
Attn: Joey Stephenson
1300 McFarland Blvd. NE, Suite 300
Tuscaloosa, AL 35406

RE: Notice of Application for Injection Well -
Anadarko Petroleum Corporation's Clawson Springs SWD #1 well
716' FNL 2301' FWL, Section 36, T15S, R8E, SLB&M, Carbon County, Utah

Dear Mr. Stephenson:

On behalf of Anadarko Petroleum Corporation (Anadarko), Talon Resources, Inc. respectfully submits this notice that the Utah Division of Oil, Gas and Mining (UDOGM) is in receipt of an *Application for Injection Well (UIC Form 1)* for the referenced well. A copy of the application with supplemental ownership and topographic information is being submitted to provide notice and information to you pursuant to R649-5-2.12 of the Oil and Gas Conservation, General Rules. Any person desiring to object to approval of such an application for an injection well shall file the objection in conformance with the procedural rules of the Board of Oil, Gas and Mining.

Written comments received by the State of Utah, Division of Oil, Gas, and Mining, (attn: Brad Hill), at P.O. Box 145801, Salt Lake City, Utah 84114-5801 on or before October 20, 2000, will be considered in making the final decision on the approval/disapproval of the proposed application.

Please feel free to contact myself at 435-637-8781 or Mr. Brad Hill at UDOGM at 1-801-538-5315 if you have any questions or concerns that could be addressed prior an objection being submitted.

Sincerely,

Don Hamilton
Don Hamilton
Environmental Manager / Project Coordinator

Enclosures

cc: Mr. Brad Hill, UDOGM



375 South Carbon Avenue A-10
Suite 101
Price, Utah 84501
Phone: 435-637-8781
435-637-5032 Ext 710/711

Cell: 801-650-1401
801-650-1402
Fax: 435-636-8603
Email: talon@castlenet.com

October 11, 2000

Texaco Exploration and Production, Inc.
Attn: Chuck Snure
Room #152
P.O. Box 2100
Denver, Colorado 80201

RE: Notice of Application for Injection Well -
Anadarko Petroleum Corporation's Clawson Springs SWD #1 well
716' FNL 2301' FWL, Section 36, T15S, R8E, SLB&M, Carbon County, Utah

Dear Mr. Snure:

On behalf of Anadarko Petroleum Corporation (Anadarko), Talon Resources, Inc. respectfully submits this notice that the Utah Division of Oil, Gas and Mining (UDOGM) is in receipt of an *Application for Injection Well (UIC Form 1)* for the referenced well. A copy of the application with supplemental ownership and topographic information is being submitted to provide notice and information to you pursuant to R649-5-2.12 of the Oil and Gas Conservation, General Rules. Any person desiring to object to approval of such an application for an injection well shall file the objection in conformance with the procedural rules of the Board of Oil, Gas and Mining.

Written comments received by the State of Utah, Division of Oil, Gas, and Mining, (attn: Brad Hill), at P.O. Box 145801, Salt Lake City, Utah 84114-5801 on or before October 20, 2000, will be considered in making the final decision on the approval/disapproval of the proposed application.

Please feel free to contact myself at 435-637-8781 or Mr. Brad Hill at UDOGM at 1-801-538-5315 if you have any questions or concerns that could be addressed prior an objection being submitted.

Sincerely,

Don Hamilton

Don Hamilton
Environmental Manager / Project Coordinator

Enclosures

cc: Mr. Brad Hill, UDOGM



Talon Resources, Inc.

Service, Quality and Accuracy

375 South Carbon Avenue A-10
Suite 101
Price, Utah 84501
Phone: 435-637-8781
435-637-5032 Ext 710/711

Cell: 801-650-1401
801-650-1402
Fax: 435-636-8603
Email: talon@castlenet.com

October 11, 2000

Armando Pierucci
169 South 300 West
Price, Utah 84501

RE: Notice of Application for Injection Well -
Anadarko Petroleum Corporation's Clawson Springs SWD #1 well
716' FNL 2301' FWL, Section 36, T15S, R8E, SLB&M, Carbon County, Utah

Dear Mr. Pierucci:

On behalf of Anadarko Petroleum Corporation (Anadarko), Talon Resources, Inc. respectfully submits this notice that the Utah Division of Oil, Gas and Mining (UDOGM) is in receipt of an *Application for Injection Well (UIC Form 1)* for the referenced well. A copy of the application with supplemental ownership and topographic information is being submitted to provide notice and information to you pursuant to R649-5-2.12 of the Oil and Gas Conservation, General Rules. Any person desiring to object to approval of such an application for an injection well shall file the objection in conformance with the procedural rules of the Board of Oil, Gas and Mining.

Written comments received by the State of Utah, Division of Oil, Gas, and Mining, (attn: Brad Hill), at P.O. Box 145801, Salt Lake City, Utah 84114-5801 on or before October 20, 2000, will be considered in making the final decision on the approval/disapproval of the proposed application.

Please feel free to contact myself at 435-637-8781 or Mr. Brad Hill at UDOGM at 1-801-538-5315 if you have any questions or concerns that could be addressed prior an objection being submitted.

Sincerely,

Don Hamilton

Don Hamilton
Environmental Manager / Project Coordinator

Enclosures

cc: Mr. Brad Hill, UDOGM



Talon Resources, Inc.

Service, Quality and Accuracy

375 South Carbon Avenue A-10
Suite 101
Price, Utah 84501
Phone: 435-637-8781
435-637-5032 Ext 710/711

Cell: 801-650-1401
801-650-1402
Fax: 435-636-8603
Email: talon@castlernet.com

October 11, 2000

John F. Pierucci
263 North 100 West
Price, Utah 84501

RE: Notice of Application for Injection Well -
Anadarko Petroleum Corporation's Clawson Springs SWD #1 well
716' FNL 2301' FWL, Section 36, T15S, R8E, SLB&M, Carbon County, Utah

Dear Mr. Pierucci:

On behalf of Anadarko Petroleum Corporation (Anadarko), Talon Resources, Inc. respectfully submits this notice that the Utah Division of Oil, Gas and Mining (UDOGM) is in receipt of an *Application for Injection Well (UIC Form 1)* for the referenced well. A copy of the application with supplemental ownership and topographic information is being submitted to provide notice and information to you pursuant to R649-5-2.12 of the Oil and Gas Conservation, General Rules. Any person desiring to object to approval of such an application for an injection well shall file the objection in conformance with the procedural rules of the Board of Oil, Gas and Mining.

Written comments received by the State of Utah, Division of Oil, Gas, and Mining, (attn: Brad Hill), at P.O. Box 145801, Salt Lake City, Utah 84114-5801 on or before October 20, 2000, will be considered in making the final decision on the approval/disapproval of the proposed application.

Please feel free to contact myself at 435-637-8781 or Mr. Brad Hill at UDOGM at 1-801-538-5315 if you have any questions or concerns that could be addressed prior an objection being submitted.

Sincerely,

Don Hamilton

Don Hamilton
Environmental Manager / Project Coordinator

Enclosures

cc: Mr. Brad Hill, UDOGM



Talon Resources, Inc.

Service, Quality and Accuracy

375 South Carbon Avenue A-10
Suite 101
Price, Utah 84501
Phone: 435-637-8781
435-637-5032 Ext 710/711

Cell: 801-650-1401
801-650-1402
Fax: 435-636-8603
Email: talon@castlenet.com

October 11, 2000

Dominion Resources—Utah Inc.
attn: Jerry Moore
120 Tregegar Street
Richmond, Virginia 23219

RE: Notice of Application for Injection Well -
Anadarko Petroleum Corporation's Clawson Springs SWD #1 well
716' FNL 2301' FWL, Section 36, T15S, R8E, SLB&M, Carbon County, Utah

Dear Mr. Moore:

On behalf of Anadarko Petroleum Corporation (Anadarko), Talon Resources, Inc. respectfully submits this notice that the Utah Division of Oil, Gas and Mining (UDOGM) is in receipt of an *Application for Injection Well (UIC Form 1)* for the referenced well. A copy of the application with supplemental ownership and topographic information is being submitted to provide notice and information to you pursuant to R649-5-2.12 of the Oil and Gas Conservation, General Rules. Any person desiring to object to approval of such an application for an injection well shall file the objection in conformance with the procedural rules of the Board of Oil, Gas and Mining.

Written comments received by the State of Utah, Division of Oil, Gas, and Mining, (attn: Brad Hill), at P.O. Box 145801, Salt Lake City, Utah 84114-5801 on or before October 20, 2000, will be considered in making the final decision on the approval/disapproval of the proposed application.

Please feel free to contact myself at 435-637-8781 or Mr. Brad Hill at UDOGM at 1-801-538-5315 if you have any questions or concerns that could be addressed prior an objection being submitted.

Sincerely,

Don Hamilton

Don Hamilton
Environmental Manager / Project Coordinator

Enclosures

cc: Mr. Brad Hill, UDOGM

M

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

---ooOoo---

IN THE MATTER OF THE	:	NOTICE OF AGENCY ACTION
APPLICATION OF ANADARKO	:	
PETROLEUM CORPORATION FOR	:	CAUSE NO. UIC-264.1
ADMINISTRATIVE APPROVAL OF	:	
THE CLAWSON SPRING SWD #1	:	
WELL LOCATED IN SECTION 36,	:	
TOWNSHIP 15 SOUTH, RANGE 8	:	
EAST, S.L.M., CARBON COUNTY,	:	
UTAH, AS A CLASS II INJECTION	:	
WELL	:	

---ooOoo---

THE STATE OF UTAH TO ALL PERSONS INTERESTED IN THE ABOVE ENTITLED MATTER.

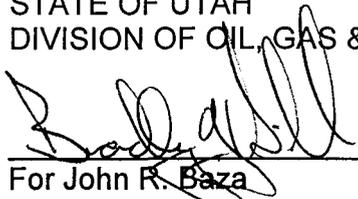
Notice is hereby given that the Division of Oil, Gas and Mining (the "Division") is commencing an informal adjudicative proceeding to consider the application of Anadarko Petroleum Corporation for administrative approval of the Clawson Spring SWD #1 well, located in Section 36, Township 15 South, Range 8 East, Carbon County, Utah, for conversion to a Class II injection well. The proceeding will be conducted in accordance with Utah Admin. R.649-10, Administrative Procedures.

The interval from 7,700 feet to 8,050 feet (Navajo Formation), 8,070 feet to 8,120 feet (Kayenta Formation), and 8,150 feet to 8,225 feet (Wingate Formation) will be selectively perforated for water injection. The maximum requested injection pressure is 1,400 psig surface pressure with a maximum rate of 14,000 BWPD.

Any person desiring to object to the application or otherwise intervene in the proceeding, must file a written protest or notice of intervention with the Division within fifteen days following publication of this notice. If such a protest or notice of intervention is received, a hearing will be scheduled in accordance with the aforementioned administrative procedure rules. Protestants and/or intervener should be prepared to demonstrate at the hearing how this matter affects their interests.

Dated this 19th day of October, 2000.

STATE OF UTAH
DIVISION OF OIL, GAS & MINING



For John R. Baza
Associate Director

Anadarko Petroleum Corporation
Clawson Spring SWD#1
Cause No. UIC-264.1

Publication Notices were sent to the following:

Anadarko Petroleum Corporation
17001 Northchase Drive
PO Box 1330
Houston, Texas 77251-1330

(Via E-Mail and Facsimile 237-2577)
Newspaper Agency Corporation
Legal Advertising
PO Box 45838
Salt Lake City, Utah 84145

(Via Facsimile (435) 637-2716
Sun Advocate
845 East Main Street
Price, Utah 84501

School and Institutional Trust Lands Administration
675 East 500 South, Suite 500
Salt Lake City, UT 84102-2818

Bureau of Land Management
Moab District Office
82 East Dogwood
Moab, Utah 84532

Dan Jackson
U.S. Environmental Protection Agency
Region VIII
999 18th Street
Denver, Colorado 80202-2466



Earlene Russell

October 19, 2000



State of Utah
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

Michael O. Leavitt
Governor
Kathleen Clarke
Executive Director
Lowell P. Braxton
Division Director

1594 West North Temple, Suite 1210
PO Box 145801
Salt Lake City, Utah 84114-5801
801-538-5340
801-359-3940 (Fax)
801-538-7223 (TDD)

October 19, 2000

SENT VIA E-MAIL AND FAX (801) 237-2776

Salt Lake Tribune
PO Box 45838
Salt Lake City, UT 84145

RE: Notice of Agency Action - Cause No. UIC 264.1

Gentlemen:

Enclosed is a copy of the referenced Notice of Agency Action. Please publish the Notice, once only, as soon as possible. Please send proof of publication and billing to the Division of Oil, Gas and Mining, Suite 1210, PO Box 145801, Salt Lake City, Utah 84114-5801.

Sincerely,

Earlene Russell
Earlene Russell
Secretary

encl.

INJECTION WELL - PRESSURE TEST

Well Name: Lawson Springs St. SWD #1 API Number: 43-015-30394 ⁰⁰⁷⁻³⁰⁷²¹

Qtr/Qtr: _____ Section: 36 Township: 15S Range: 8E

Company Name: ANADARKO PETROLEUM CORPORATION

Lease: State _____ Fee _____ Federal _____ Indian _____

Inspector: James L. Ingram Date: 11-30-00

Initial Conditions:

Tubing - Rate: _____ Pressure: 0 psi

Casing/Tubing Annulus - Pressure: 0 psi

Conditions During Test:

Time (Minutes)	Annulus Pressure	Tubing Pressure
0	<u>1000 PSI</u>	<u>0 PSI</u>
5	<u>1000 PSI</u>	<u>0</u>
10	<u>1000 PSI</u>	<u>0</u>
15	<u>1000 PSI</u>	<u>0</u>
20	<u>1000 PSI</u>	<u>0</u>
25	<u>1000 PSI</u>	<u>0</u>
30	<u>1000 PSI</u>	<u>0</u>

Results: Pass/Fail

Conditions After Test:

Tubing Pressure: 0 psi

Casing/Tubing Annulus Pressure: 1000 psi

COMMENTS: TESTED W/ DOUBLE JACK TESTING SERVICE. RECORD ON
Chart. Valve open on Tubing during test. ORIGINAL
TEST. TESTED @ 1:15 PM

Martin D. Talbot
 Operator Representative

***** P. 01 *****
 * TRANSACTION REPORT *
 * OCT-19-2000 THU 02:52 PM *
 * FOR: OIL, GAS & MINING 801 359 3940 *

 * DATE START RECEIVER TX TIME PAGES TYPE NOTE M# DP *

 * OCT-19 02:51 PM 2372776 41" 2 SEND OK 100 *

 * TOTAL : 41S PAGES: 2 *



State of Utah
 DEPARTMENT OF NATURAL RESOURCES
 DIVISION OF OIL, GAS AND MINING

1594 West North Temple, Suite 1210
 PO Box 145801
 Salt Lake City, Utah 84114-5801
 801-538-5340
 801-359-3940 (Fax)
 801-538-7223 (TDD)

Michael O. Leavitt
 Governor
 Kathleen Clarke
 Executive Director
 Lowell P. Braxton
 Division Director

October 19, 2000

SENT VIA E-MAIL AND FAX (801) 237-2776

Salt Lake Tribune
 PO Box 45838
 Salt Lake City, UT 84145

RE: Notice of Agency Action - Cause No. UIC 264.1

Gentlemen:

Enclosed is a copy of the referenced Notice of Agency Action. Please publish the Notice, once only, as soon as possible. Please send proof of publication and billing to the Division of Oil, Gas and Mining, Suite 1210, PO Box 145801, Salt Lake City, Utah 84114-5801.

Sincerely,
S. A. R. 11



State of Utah
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

Michael O. Leavitt
Governor

Kathleen Clarke
Executive Director

Lowell P. Braxton
Division Director

1594 West North Temple, Suite 1210

PO Box 145801

Salt Lake City, Utah 84114-5801

801-538-5340

801-359-3940 (Fax)

801-538-7223 (TDD)

October 19, 2000

SENT VIA FAX (435) 637-2716

Sun Advocate
845 East Main Street
Price, Utah 84501

RE: Notice of Agency Action - Cause No. UIC 264.1

Gentlemen:

Enclosed is a copy of the referenced Notice of Agency Action. Please publish the Notice, once only, as soon as possible. Please send proof of publication and billing to the Division of Oil, Gas and Mining, Suite 1210, PO Box 145801, Salt Lake City, Utah 84114-5801.

Sincerely,

A handwritten signature in cursive script that reads "Earlene Russell".

Earlene Russell
Secretary

encl.

TRANSACTION REPORT

P. 01

OCT-19-2000 THU 02:53 PM

FOR: OIL, GAS & MINING

801 359 3940

DATE	START	RECEIVER	TX TIME	PAGES	TYPE	NOTE	M#	DP
OCT-19	02:52 PM	14356372716	48"	2	SEND	OK	101	
TOTAL :						48S	PAGES:	2



State of Utah

DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

Michael O. Leavitt
Governor

Kathleen Clarke
Executive Director

Lowell P. Braxton
Division Director

1594 West North Temple, Suite 1210
PO Box 145801
Salt Lake City, Utah 84114-5801
801-538-5340
801-359-3940 (Fax)
801-538-7223 (TDD)

October 19, 2000

SENT VIA FAX (435) 637-2716

Sun Advocate
845 East Main Street
Price, Utah 84501

RE: Notice of Agency Action - Cause No. UIC 264.1

Gentlemen:

Enclosed is a copy of the referenced Notice of Agency Action. Please publish the Notice, once only, as soon as possible. Please send proof of publication and billing to the Division of Oil, Gas and Mining, Suite 1210, PO Box 145801, Salt Lake City, Utah 84114-5801.

Sincerely,

143 SOUTH MAIN ST.
P.O. BOX 45838
SALT LAKE CITY, UTAH 84145
FED. TAX I.D.# 87-0217663

Newspaper Agency Corporation

The Salt Lake Tribune  DESERET NEWS

CUSTOMER'S
COPY

PROOF OF PUBLICATION

CUSTOMER NAME AND ADDRESS	ACCOUNT NUMBER	DATE
DIV OF OIL-GAS & MINING 1594 W NORTH TEMP #1210 P.O. BOX 145801 SALT LAKE CITY, UT 84114	D5385340L-07	10/24/00

ACCOUNT NAME	
DIV OF OIL-GAS & MINING	
TELEPHONE	INVOICE NUMBER
801-538-5340	TL8200WGVDI
SCHEDULE	
START 10/24/00 END 10/24/00	
CUST. REF. NO.	
UIC264-1	
CAPTION	
BEFORE THE DIVISION OF OIL, GA	
SIZE	
55 LINES 2.00 COLUMN	
TIMES	RATE
1	1.16
MISC. CHARGES	AD CHARGES
.00	127.60
TOTAL COST	
127.60	

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

--ooOoo--

IN THE MATTER OF THE APPLICATION OF ANADARKO PETROLEUM CORPORATION FOR ADMINISTRATIVE APPROVAL OF THE CLAWSON SPRING SWD #1 WELL LOCATED IN SECTION 36, TOWNSHIP 15 SOUTH, RANGE 8 EAST, S.L.M., CARBON COUNTY, UTAH, AS A CLASS II INJECTION WELL :

NOTICE OF AGENCY ACTION CAUSE NO. UIC-264.1

--ooOoo--

THE STATE OF UTAH TO ALL PERSONS INTERESTED IN THE ABOVE ENTITLED MATTER.

Notice is hereby given that the Division of Oil, Gas and Mining (the "Division") is commencing an informal adjudicative proceeding to consider the application of Anadarko Petroleum Corporation for administrative approval of the Clawson Spring SWD #1 well, located in Section 36, Township 15 South, Range 8 East, Carbon County, Utah, for conversion to a Class II injection well. The proceeding will be conducted in accordance with Utah Admin. R. 649-10, Administrative Procedures.

The interval from 7,700 feet to 8,050 feet (Navajo Formation), 8,070 feet to 8,120 feet (Kayenta Formation), and 8,150 feet to 8,225 feet (Wingate Formation) will be selectively perforated for water injection. The maximum requested injection pressure is 1,400 psig surface pressure with a maximum rate of 14,000 BWPD.

Any person desiring to object to the application or otherwise intervene in the proceeding, must file a written protest or notice of intervention with the Division within fifteen days following publication of this notice. If such a protest or notice of intervention is received, a hearing will be scheduled in accordance with the aforementioned administrative procedure rules. Protestants and/or interveners should be prepared to demonstrate at the hearing how this matter affects their interests.

Dated this 19th day of October, 2000.

STATE OF UTAH
DIVISION OF OIL, GAS & MINING

/s/ Brad Hill
For John R. Baza
Associate Director

8200WGV D

AFFIDAVIT OF PUBLICATION

FOR THE DIVISION OF OIL, GAS AND MINING, I CERTIFY THAT THE ATTACHED COPY OF THE DIVISION OF OIL, GAS AND MINING WAS PUBLISHED BY THE NEWSPAPER AGENCY THE SALT LAKE TRIBUNE AND DESERET NEWS, DAILY NEWSPAPERS IN THE STATE OF UTAH, IN THE LANGUAGE WITH GENERAL CIRCULATION IN UTAH, AND PUBLISHED IN CARBON COUNTY IN THE STATE OF UTAH.

START 10/24/00 END 10/24/00

Brad Hill

STATEMENT BUT A "PROOF OF PUBLICATION"
PLEASE PAY FROM BILLING STATEMENT.

AFFIDAVIT OF PUBLICATION

STATE OF UTAH)

ss.

County of Carbon,)

I, Kevin Ashby, on oath, say that I am the Publisher of the Sun Advocate, a twice-weekly newspaper of general circulation, published at Price, State and County aforesaid, and that a certain notice, a true copy of which is hereto attached, was published in the full issue of such newspaper for 1 (One) consecutive issues, and that the first publication was on the 24th day of October 2000, and that the last publication of such notice was in the issue of such newspaper dated the 24th day of October, 2000.



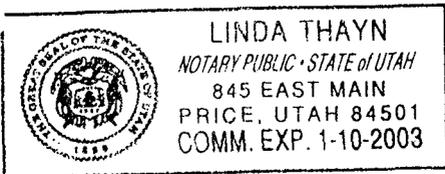
Kevin Ashby - Publisher

Subscribed and sworn to before me this 24th day of October, 2000.



Notary Public My commission expires January 10, 2003 Residing at Price, Utah

Publication fee, \$ 101.50



**NOTICE OF AGENCY ACTION
CAUSE NO. UIC-264.1**

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

IN THE MATTER OF THE
APPLICATION OF ANADARKO
PETROLEUM CORPORATION FOR
ADMINISTRATIVE APPROVAL OF
THE CLAWSON SPRING SWD #1
WELL LOCATED IN SECTION 36,
TOWNSHIP 15 SOUTH, RANGE 8
EAST, S.L.M., CARBON COUNTY,
UTAH, AS A CLASS II INJECTION
WELL.

THE STATE OF UTAH TO ALL PERSONS INTERESTED IN THE ABOVE ENTITLED MATTER.

Notice is hereby given that the Division of Oil, Gas and Mining (the "Division") is commencing an informal adjudicative proceeding to consider the application of Anadarko Petroleum Corporation for administrative approval of the Clawson Spring SWD #1 well, located in Section 36, Township 15 South, Range 8 East, Carbon County, Utah, for conversion to a Class II injection well. The proceeding will be conducted in accordance with Utah Admin. R.649-10, Administrative Procedures.

The interval from 7,700 feet to 8,050 feet (Navajo Formation), 8,070 feet to 8,120 feet (Kayenta Formation), and 8,150 feet to 8,225 feet (Wingate Formation) will be selectively perforated for water injection. The maximum requested injection pressure is 1,400 psig surface pressure with a maximum rate of 14,000 BWPD.

Any person desiring to object to the application or otherwise intervene in the proceeding, must file a written protest or notice of intervention with the Division within fifteen days following publication of this notice. If such a protest or notice of intervention is received, a hearing will be scheduled in accordance with the aforementioned administrative procedure rules. Protestants and/or interveners should be prepared to demonstrate at the hearing how this matter affects their interests.

Dated this 19th day of October, 2000.

STATE OF UTAH
DIVISION OF OIL, GAS & MINING
-s- John R. Baza
Associate Director

Published in the Sun Advocate October 24, 2000.



Talon Resources, Inc.

Service, Quality and Accuracy

375 South Carbon Avenue A-10
Suite 101
Price, Utah 84501
Phone: 435-637-8781
435-637-5032 Ext 710/711

Cell: 801-650-1401
801-650-1402
Fax: 435-636-8603
Email: talon@castlenet.com

December 22, 2000

Mr. Michael Hebertson
State of Utah
Division of Oil Gas and Mining
P.O. Box 145801
Salt Lake City, Utah 84114-5801

RE: Supplemental Information - Application for Injection Well — UIC Form 1
Anadarko Petroleum Corporation – Clawson Springs State SWD 1
716' FNL 2301' FWL, Section 36, T15S, R8E, SLB&M, Carbon County, Utah

Dear Mr. Hebertson:

On behalf of Anadarko Petroleum Corporation (Anadarko), Talon Resources, Inc. respectfully submits the following supplemental information for permit for an Injection Well within the existing Clawson Springs Field.

For your ease of review, I have supplied the necessary information following each quotation from The Oil and Gas Conservation General Rules, R649-5-2. "Requirements for Class II Injection Wells" parts 1 through 2.

Please accept this letter as Anadarko's written request for confidential treatment of all information contained in and pertaining to this permit application, if said information is eligible for such consideration.

Please feel free to contact Mr. Lloyd Stutz of Anadarko or myself if you should have any questions or require additional information.

Sincerely,

Don S. Hamilton

Don S. Hamilton
Environmental Manager / Project Coordinator

cc. Mr. Lloyd Stutz, Anadarko
Mr. Jim Hartley, Anadarko
Job 195

Attachments

1. Injection wells shall be completed, equipped, operated, and maintained in a manner that will prevent pollution and damage to any USDW, or other resources and will confine injected fluids to the interval approved.

Anadarko Petroleum Corporation will complete, equip, operate, and maintain this injection well in compliance with *The Oil and Gas Conservation –General Rules*, and pending *Underground Injection Control Permit*. Furthermore, Anadarko Petroleum Corporation will maintain their high-standard of pollution control and waste management to any **Underground Sources of Drinking Water, non-approved injection intervals and other resources.**

2. The application for an injection well shall include a properly completed UIC Form 1 and the following:

A properly completed UIC Form 1 has been previously submitted to the Division of Oil, Gas and Mining on October 6, 2000 and was noticed for public comment following receipt of the document by the Division of Oil, Gas and Mining. A copy is being included for your reference (see attachment 1 of 11).

- 2.1 A plat showing the location of the injection well, all abandoned or active wells within a one-half mile radius of the proposed well, and the surface owner and the operator of any lands or producing leases, respectively, within a one-half mile radius of the proposed injection well.

Detailed plats and maps have been previously submitted to the Division of Oil, Gas and Mining on October 6, 2000 detailing all wells, owners, operators and producing leases within a one-half mile radius of the proposed injection well. A copy is being included for your reference (see attachments 2 of 11).

- 2.2 Copies of electrical or radioactive logs, including gamma ray logs, for the proposed well run prior to the installation of casing and indicating resistivity, spontaneous potential, caliper, and porosity.

The following electrical or radioactive logs are being submitted at this time:

**Compensated Neutron Litho Density Gamma Ray log – (see attachment Log 1 of 4)
Array Induction Gamma Ray log – (see attachment Log 2 of 4)
Bond Attenuation Gamma Ray log – (see attachment Log 3 of 4)**

- 2.3 A copy of the cement bond or comparable log run for the proposed injection well after casing was set and cemented.

A cement bond log completed after the casing was set and cemented is being submitted at this time:

Cement bond log – (see attachment Log 4 of 4)

- 2.4 Copies of logs already on file with the division should be referenced, but need not be refiled.

We are not aware of any other electrical or radioactive logs that have been previously submitted to the Division of Oil, Gas and Mining under separate cover.

2.5 A description of the casing or proposed casing program of the injection well and of the proposed method for testing the casing before use of the well.

A brief description of the casing and cement program for this well is being submitted at this time (see attachment 3 of 11). A description of the casing testing that was witnessed by Dennis L. Ingram has previously been submitted. A copy is being included for your reference (see attachment 4 of 11).

2.6 A statement as to the type of fluid to be used for injection, its source and estimated amounts to be injected daily.

The fluid to be injected into this well will be a composite of waters gathered from existing and proposed wells within the Clawson Springs Field that extract water from the Ferron coal seams. A list of wells that will potentially deliver water to the injection well has been included (see attachment 5 of 11). It is estimated that a maximum of 14,000 barrels of water will be injected daily.

2.7 Standard laboratory analyses of (1) the fluid to be injected, (2) the fluid in the formation into which the fluid is being injected, and (3) the compatibility of the fluids.

The following laboratory analyses have been included with this application:

- (1) the fluid to be injected (see attachment 6 of 11)**
- (2) the fluid in the formation (see attachment 7 of 11)**
- (3) the compatibility of the fluids (see attachment 8 of 11)**

2.8 The proposed average and maximum injection pressures.

An average and maximum of 14,000 barrels of water per day at an average and maximum pressure of 1,400 psig is proposed for this injection well.

2.9 Evidence and data to support a finding that the proposed injection well will not initiate fractures through the overlying strata or a confining interval that could enable the injected fluid or formation fluid to enter the fresh water strata.

The Navajo Formation is overlain by approximately 815 feet of Carmel Formation with some shale, minor salt, anhydrite and abundant sandstone with very low porosity and subsequently very low permeability. The Carmel is too tight to transmit fluid through it and any fractures that might be initiated in the Navajo formation will not propagate up through the Carmel Formation to the overlying formations.

2.10 Appropriate geological data on the injection interval and confining beds, and nearby Underground Sources of Drinking Water, including the geologic name, lithologic description, thickness, depth, water quality, and lateral extent; also information relative to geologic structure near the proposed well which may effect the conveyance and/or storage of the injected fluids.

An independent evaluation has been completed on the injection interval, confining beds, and nearby Underground Sources of Drinking Water that also provides detailed information on the geologic name, lithologic description, thickness, depth, water quality, lateral extent and structures which may effect the conveyance and/or storage of the injected fluids (see attachment 9 of 11). Furthermore, a stratigraphic cross-section (see attachment 10 of 11) and isopach map (see attachment 11 of 11) prepared by Anadarko Petroleum Corporation provide detailed site-specific information about the lithologic description, thickness, depth and lateral extent of the formations to be injected into.

2.11 A review of the mechanical condition of each well within a one-half mile radius of the proposed injection well to assure that no conduit exists that could enable fluids to migrate up or down the wellbore and enter improper intervals.

The Clawson Springs State A-1 production well is located approximately 1,500' Northeast of the proposed injection well but has only been completed into the Ferron Coals and Sands. The Ferron Coals and Sands are stratigraphically several thousand feet above the proposed injection interval with numerous confining layers between the injection and production zones.

2.12 An affidavit certifying that a copy of the application has been provided to all operators, owners, and surface owners within a one-half mile radius of the proposed injection well.

An affidavit has been previously submitted to the Division of Oil, Gas and Mining following notices being submitted to all operators, owners, and surface owners within a one-half mile radius of the proposed injection well.

2.13 Any other additional information that the board or division may determine is necessary to adequately review the application.

No additional information has been requested by the board or division at this time but can be made available upon request.

List of Attachments

- | | |
|---------------|---|
| Attachment 1 | Application for Injection Well – UIC Form 1 |
| Attachment 2 | Plats and Maps |
| Attachment 3 | Casing and Cement Description |
| Attachment 4 | Casing Testing Description |
| Attachment 5 | Potential Sources of Water |
| Attachment 6 | Source Water Analysis |
| Attachment 7 | Formation Water Analysis |
| Attachment 8 | Compatibility Study |
| Attachment 9 | Hydrogeologic Assessment – Helper Field |
| Attachment 10 | Stratigraphic Cross-Section |
| Attachment 11 | Isopach Map |

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

UIC FORM 1

APPLICATION FOR INJECTION WELL

Name of Operator Anadarko Petroleum Corporation	Utah Account Number N	Well Name and Number Clawson Springs SWD 1
Address of Operator 60 South 700 East, Unit 1, Price, Utah 84501	Phone Number 435-637-3044	API Number 43-007-3072.1
Location of Well Footage : 7.16' FNL 230.1' FWL County: Carbon QQ, Section, Township, Range: NE NW, Sec. 36, T15S, R8E State: UTAH		Field or Unit Name Clawson Springs Lease Designation and Number ML-46.106

Is this application for expansion of an existing project? Yes No

Will the proposed well be used for:

Enhanced Recovery?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
Disposal?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
Storage?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>

Is this application for a new well to be drilled? Yes No

If this application is for an existing well, has a casing test been performed? Yes No
Date of test: pending

Proposed injection interval: from 7,700' to 8,250'

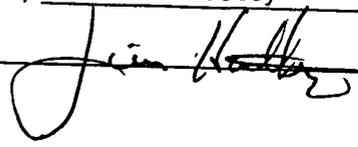
Proposed maximum injection: rate 14,000 bpd pressure 1,400 psig

Proposed injection zone contains oil , gas , and / or fresh water within 1/2 mile of the well.

List of attachments: Civil Plat, Surface Ownership Plat, Topographic Maps,

**ATTACH ADDITIONAL INFORMATION AS REQUIRED BY CURRENT
UTAH OIL AND GAS CONSERVATION GENERAL RULES**

hereby certify that this report is true and complete to the best of my knowledge.

Name (Please Print) Jim Hartley Title Field Foreman
Signature  Date 11-3-00

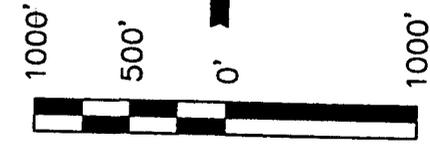
T15S, R8E, S.L.B.&M.

ANADARKO PETROLEUM CORP.

Well location, CLAWSON SPRING SWD #1, located shown in the NE 1/4 NW 1/4 of Section 36, T15S, R8E, S.L.B.&M. Carbon County, Utah.

BASIS OF ELEVATION

SPOT ELEVATION AT A ROAD INTERSECTION ON THE SOUTH LINE OF THE SE 1/4 OF SECTION 26, T15S, R8E, S.L.B.&M. TAKEN FROM THE POISON SPRING BENCH QUADRANGLE, UTAH, 7.5 MINUTE QUAD. (TOPOGRAPHIC MAP) PUBLISHED BY THE UNITED STATES DEPARTMENT OF THE INTERIOR, GEOLOGICAL SURVEY. SAID ELEVATION IS MARKED AS BEING 6931 FEET.



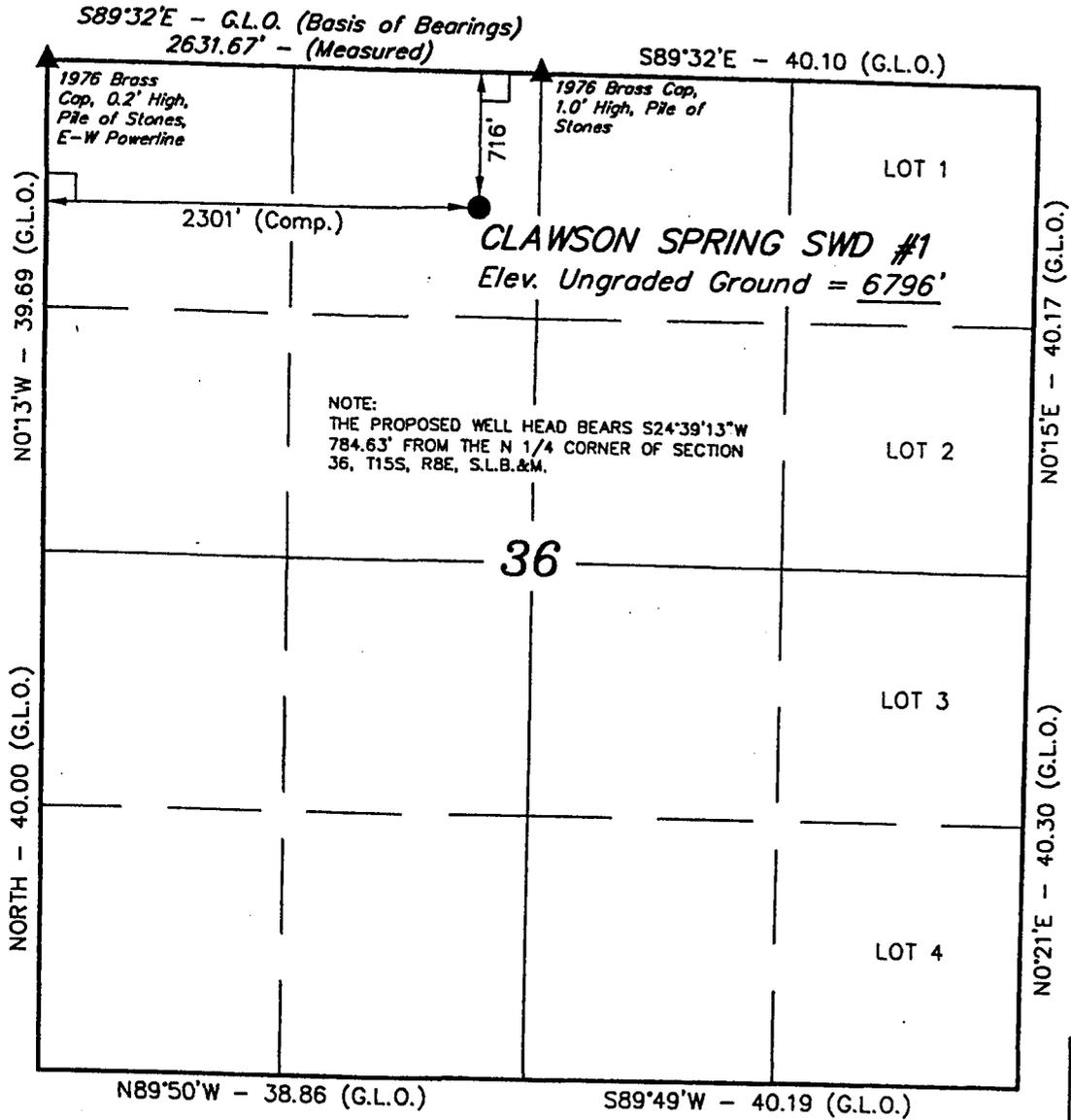
SCALE

CERTIFICATE

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.

Robert J. [Signature]
 REGISTERED LAND SURVEYOR
 REGISTRATION NO. 161319
 STATE OF UTAH

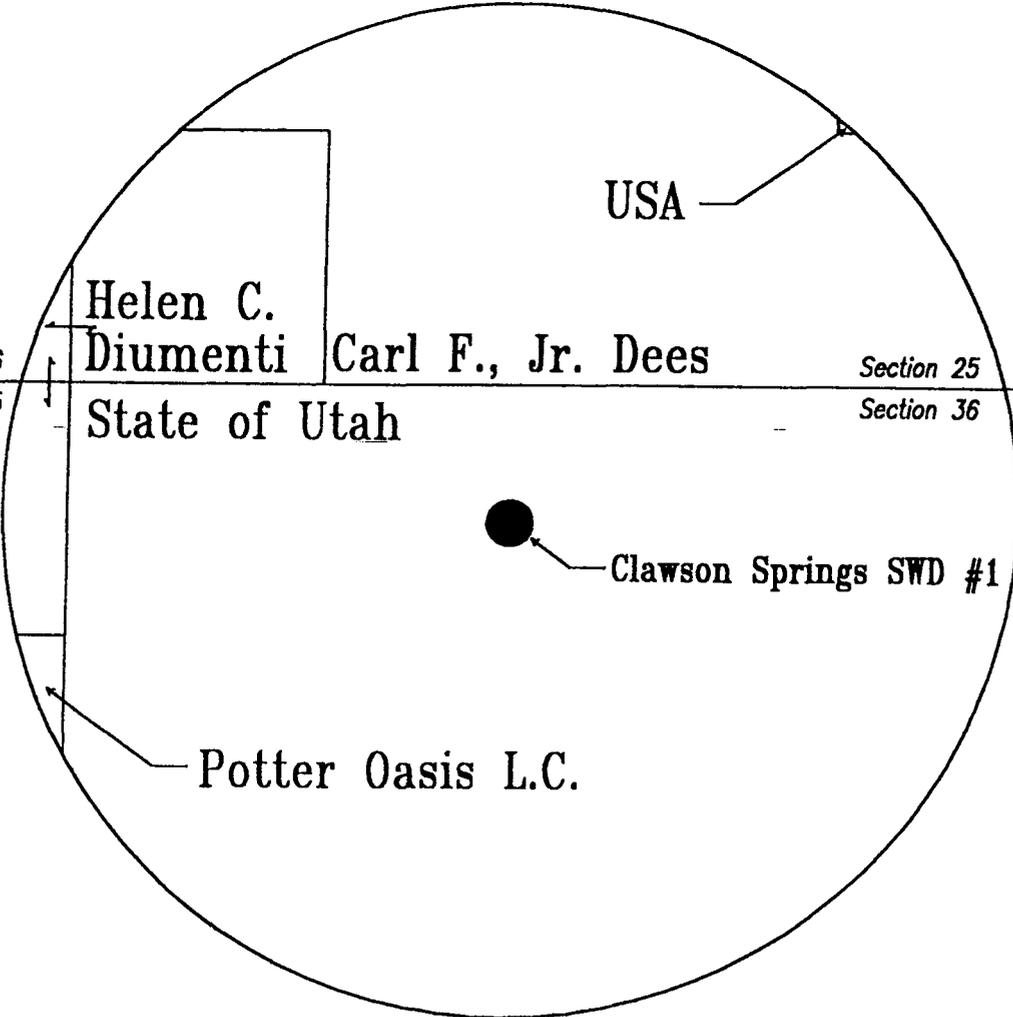
UINTAH ENGINEERING & LAND SURVEYING		
85 SOUTH 200 EAST - VERNAL, UTAH 84078		
(435) 789-1017		
SCALE 1" = 1000'	DATE SURVEYED: 5-10-99	DATE DRAWN: 5-16-00
PARTY D.L.K. E.O. D.COX	REFERENCES G.L.O. PLAT	
WEATHER WARM	FILE ANADARKO PETROLEUM CORP.	



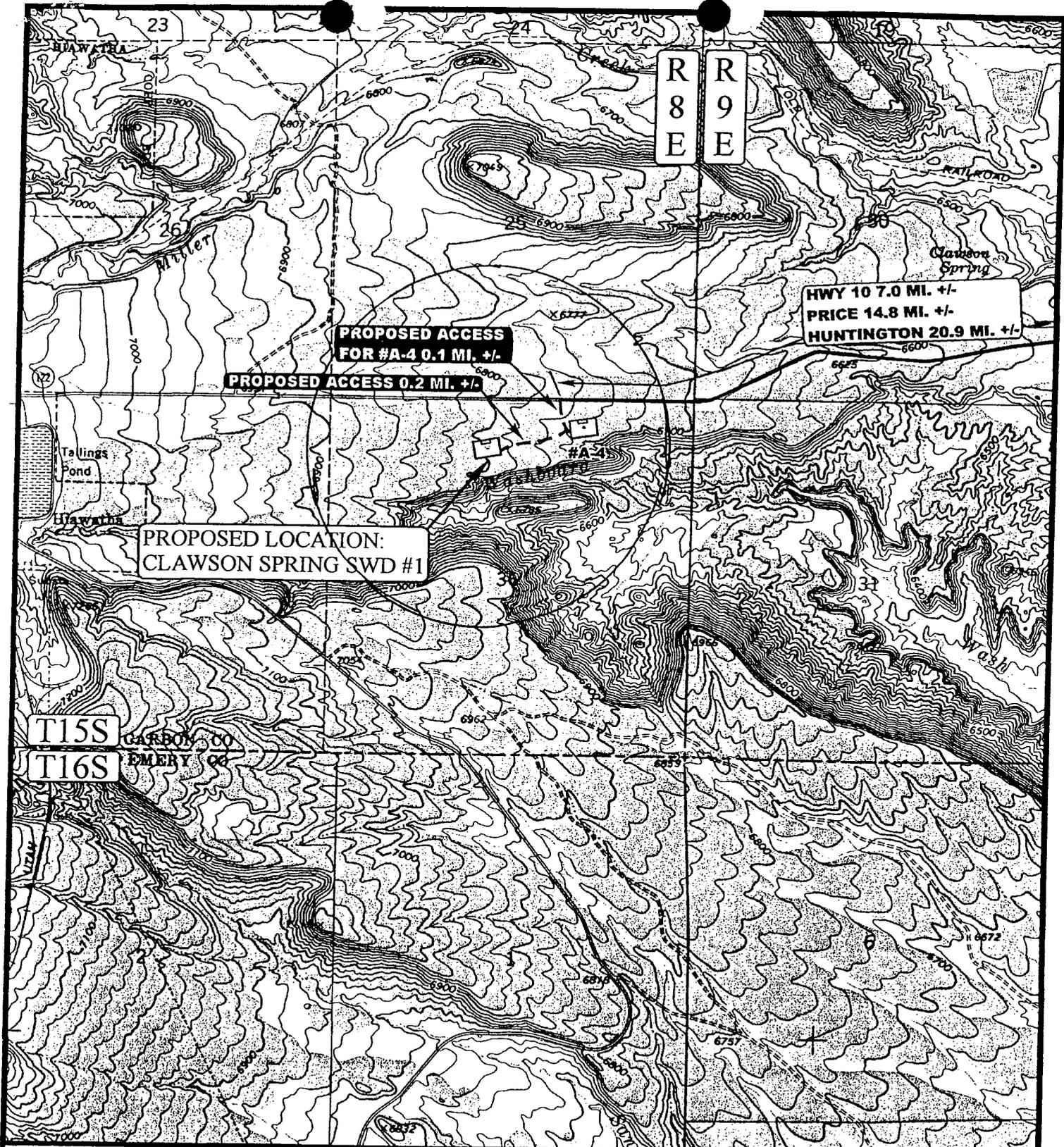
Attachment 2 of 11

- LEGEND:**
- └─┘ = 90° SYMBOL
 - = PROPOSED WELL HEAD.
 - ▲ = SECTION CORNERS LOCATED.

LATITUDE = 39°28'56"
 LONGITUDE = 110°58'33"



<small>DESIGNED BY</small> DSH	Talon Resources, Inc. 375 South Carbon Ave. Price, Utah Phone (435) 637-5032 ext 710 Fax (435) 636-8603
<small>CHECKED BY</small> LWJ	
<small>DATE</small> 10/4/00	ANADARKO Petroleum Corporation Section 36, T15S, R8E, SLBM Surface Ownership Plat
<small>SCALE</small> 1"=1000'	
<small>JOB NO.</small> 197	
<small>REVISION NO.</small> L1	



LEGEND:

- PROPOSED ACCESS ROAD
- EXISTING ROAD

ANADARKO PETROLEUM CORP.

CLAWSON SPRING SWD #1
 SECTION 36, T15S, R8E, S.L.B.&M.
 716' FNL 2301' FWL



Uintah Engineering & Land Surveying
 85 South 200 East Vernal, Utah 84078
 (435) 789-1017 * FAX (435) 789-1813



TOPOGRAPHIC MAP	5	16	00	B TOPO
	MONTH	DAY	YEAR	
SCALE: 1" = 2000'	DRAWN BY: J.L.G.	REVISED: 00-00-00		



PROPOSED LOCATION:
CLAWSON SPRING SWD #1

LEGEND:

⊗ PROPOSED LOCATION



Utah Engineering & Land Surveying
85 South 200 East Vernal, Utah 84078
(435) 789-1017 * FAX (435) 789-1813



ANADARKO PETROLEUM CORP.

CLAWSON SPRING SWD #1
SECTION 36, T15S, R8E, S.L.B.&M.
716' FNL 2301' FWL

TOPOGRAPHIC MAP
SCALE: 1:100,000 DRAWN BY: J.L.G. REVISED: 00-00-00

5 MONTH 16 DAY 00 YEAR



Casing Program

String Type	Hole Size	Depth	Feet	Casing Diameter	Weight	Grade	Connection Type
Surface	17-1/2"	316'	316'	13-3/8"	48#	H-40	ST&C
Intermediate	12-1/4"	4300'	4300'	8-5/8"	24#	J-55	ST&C
Production	7-7/8"	8448'	8448'	5-1/2"	17#	N-80	LT&C

String Type	DV Depth	Stage Lead/Tail	Cement Top	Number Sacks	Cement Type	Cement Yield	Cement Weight
Surface		Lead	Surface	390	Class G	1.16	15.80
Intermediate	None	Lead		615	Hi Lift	3.84	11.40
Intermediate		Tail	Surface	185	Class G	1.61	15.20
Production	7202'	Lead		410	Class G	1.15	15.80
		Lead		386	Hi Lift	3.84	17.00
		Tail	4100'	120	Class G	1.15	15.80

Well Name	CSS SWD #1	Zone/Perfs	Top	Bttm	Csg. Sz	Grade	Wt.	Jts.	Depth
County/St	CARBON, UT		7706'	8218'	5 1/2	N80	17#		8448'
Date	11/30/00								
AFE/Loc#	20512/128792								
Reason	ORIGINAL COMPLETION								
					Tbg Sz	Grade	Wt.	Jts.	Depth
					3 1/2	J55		239	7556'
TD	8448'	PBTD	8371'	KB	13'	SN		PKR TOP	7549'

Test Information
Check boxes that apply

Basic Data

Swab

Flow

Pumping

Sub Pump

Plunger Lift

Production

Total Fluid Recovered

Previous Day LTR

End of Day LTR

Fill in shaded boxes

SITP SICP FTP FCP

IFL FFL Hrs Last 2hrs (BFPH)

Choke Hrs

Unit SL SPM Hrs

Choke Hrs

Cycles/Day Hrs/Flow

BO BW MCF

BBLs

BBLs

BBLs

Remarks

Activity details

RU DOUBLE JACK TESTER. PRESSURE TEST CSG AND PKR TO 1000 PSIG FOR 30 MIN "OK". WITNESS STATE OF UTAH, DENNIS INGRAM. "OK". END OF REPORTS.

		Rod String				ESP Details	
Prior day CC	Work done	Size	Number	Grade	Feet	Depth	Model
Vendor		3/4"					
	treatment	7/8"					
	rig	1 1/4"		PR			
	bop	1 1/2"		WB			
M.D. TALBOTT	supervision						
DOUBLE JACK	roustabouts						
	PRESS TEST	Rod Subs				Cable size model	
	water					DHI Sensor depth	
	trucking						PSI
	stinger					PBHP	
	contingency 10%					SBHP	
	Daily Total					Misc. Information	
	Cumulative cost						

Report submitted by M.D. Talbott

Potential Sources of Water - CCS SWD-1 and CCS SWD-4

Clawson Springs State A-1
Clawson Springs State A-2
Clawson Springs State A-3
Clawson Springs State A-4
Clawson Springs State A-6
Clawson Springs State A-7
Clawson Springs State A-8
Clawson Springs State B-1
Clawson Springs State B-2
Clawson Springs State B-3
Clawson Springs State B-4
Clawson Springs State B-5
Clawson Springs State B-6
Clawson Springs State B-7
Clawson Springs State B-8
Clawson Springs State B-9
Clawson Springs State C-2
Clawson Springs State C-3
Clawson Springs State C-4
Clawson Springs State C-6
Clawson Springs State C-8
Clawson Springs State D-5
Clawson Springs State D-6
Clawson Springs State D-7
Clawson Springs State D-8
Clawson Springs State E-1
Clawson Springs State E-2
Clawson Springs State E-3
Clawson Springs State E-4
Clawson Springs State E-5
Clawson Springs State E-6
Clawson Springs State E-7
Clawson Springs State E-8
Clawson Springs State F-1
Clawson Springs State F-2
Clawson Springs State G-1
Clawson Springs State G-2
Clawson Springs State H-1
Clawson Springs State H-2
Clawson Springs State J-1
Pierucci 1
Potter 1
Potter 2
IPA-1
IPA-2

Note: See attachment 11 of 11 for the approximate location of each production well



2000 SOUTH 1500 EAST
VERNAL, UTAH 84078

Water Analysis Report

Telephone (435) 789-4327

Customer : Anadarko Petroleum Corporation

Date Sampled : 29-Nov-00

Address :

Date Reported : 07-Dec-00

City : Price

Date Received : 30-Nov-00

State : UT

Postal Code :

Field : Clawson Springs

Lease : Clawson Springs

Attention : Jim Hartley

Location : Clawson Springs State A-1

cc1 : Dan Victor

Sample Point : wellhead

cc2 : Greg Strickland

cc3 : Lloyd Sutz

Salesman : Ed Schwarz *injectate*

Comments : Acid gases not ran in field.

Analyst : Karen Hawkins Allen

CATIONS

Calcium : 208 mg/l
Magnesium : 190 mg/l
Barium : 0 mg/l
Strontium : 0 mg/l
Iron : 14.0 mg/l
Sodium : 3548 mg/l

ANIONS

Chloride : 4,400 mg/l
Carbonate : 1,537 mg/l
Bicarbonate : 3,294 mg/l
Sulfate : 108 mg/l

pH (field) : 9.55
Temperature : 85 degrees F
Ionic Strength : 0.18

Resistivity : ohm/meters
Ammonia : ppm

Specific Gravity : 1.0100 grams/ml
Total Dissolved Solids : 13,299 ppm
CO2 in Water : 1 mg/l
CO2 in Gas : 0.03 mole %
H2S in Water : 3.0 mg/l
Dissolved Oxygen : ppm

SI calculations based on Tomson-Oddo parameters

Calcite (CaCO3) SI :	3.04	Calcite PTB :	181.7
Calcite (CaCO3) SI @ 100 F :	3.20	Calcite PTB @ 100 F :	181.7
Calcite (CaCO3) SI @ 120 F :	3.41	Calcite PTB @ 120 F :	181.8
Calcite (CaCO3) SI @ 140 F :	3.63	Calcite PTB @ 140 F :	181.8
Calcite (CaCO3) SI @ 160 F :	3.85	Calcite PTB @ 160 F :	181.8
Gypsum (CaSO4) SI :	-2.19	Gypsum PTB :	N/A
Barite (BaSO4) SI :	N/A	Barite PTB :	N/A
Celestite (SrSO4) SI :	N/A	Celestite PTB :	N/A



2080 SOUTH 1500 EAST
VERNAL, UTAH 84078

Water Analysis Report

Telephone (435) 789-4327

<p>Customer : Anadarko Petroleum Corporation</p> <p>Address :</p> <p style="padding-left: 20px;">City : Price</p> <p style="padding-left: 20px;">State : UT Postal Code :</p> <p>Attention : Jim Hartley</p> <p style="padding-left: 20px;">cc1 : Dan Victor</p> <p style="padding-left: 20px;">cc2 : Greg Strickland</p> <p style="padding-left: 20px;">cc3 : Lloyd Sutz</p> <p>Comments : Acid gases not ran in field.</p>	<p>Date Sampled : 29-Nov-00</p> <p>Date Reported : 07-Dec-00</p> <p>Date Received : 30-Nov-00</p> <p>Field : Clawson Springs</p> <p>Lease : Clawson Springs</p> <p>Location : Clawson Springs <u>SWD #1</u></p> <p>Sample Point : wellhead <i>Formation Fluid</i></p> <p>Salesman : Ed Schwarz</p> <p>Analyst : Karen Hawkins Allen</p>
---	--

CATIONS

Calcium :	448	mg/l
Magnesium :	126	mg/l
Barium :	0	mg/l
Strontium :	0	mg/l
Iron :	15.0	mg/l
Sodium :	17194	mg/l

ANIONS

Chloride :	24,800	mg/l
Carbonate :	0	mg/l
Bicarbonate :	1,012	mg/l
Sulfate :	3,095	mg/l

pH (field) :	7.38
Temperature :	85 degrees F
Ionic Strength :	0.78
Resistivity :	ohm/meters
Ammonia :	ppm

Specific Gravity :	1.0350	grams/ml
Total Dissolved Solids :	46,690	ppm
CO2 in Water :	150	mg/l
CO2 in Gas :	0.03	mole %
H2S in Water :	3.0	mg/l
Dissolved Oxygen :		ppm

SI calculations based on Tomson-Oddo parameters

Calcite (CaCO3) SI :	-0.57	Calcite PTB :	N/A
Calcite (CaCO3) SI @ 100 F :	-0.42	Calcite PTB @ 100 F :	N/A
Calcite (CaCO3) SI @ 120 F :	-0.20	Calcite PTB @ 120 F :	N/A
Calcite (CaCO3) SI @ 140 F :	0.01	Calcite PTB @ 140 F :	3.1
Calcite (CaCO3) SI @ 160 F :	0.24	Calcite PTB @ 160 F :	82.6
Gypsum (CaSO4) SI :	-0.73	Gypsum PTB :	N/A
Barite (BaSO4) SI :	N/A	Barite PTB :	N/A
Celestite (SrSO4) SI :	N/A	Celestite PTB :	N/A

Saturation Index Calculations

Champion Technologies, Inc.

(Based on the Tomson-Oddo Model)

12/13/00

Anadarko Petroleum Corporation

Clawson Spring

Brine 1 : Clawson Springs State A-1
 Brine 2 : Clawson Springs SWD No. 1
 Brine 3 : Clawson Springs SWD No. 2

Sample Date

November 29, 2000
 November 29, 2000
 November 29, 2000

Comments

acid gases not ran in the field
 acid gases not ran in the field
 acid gases not ran in the field

Component (mg/L)	Brines			Mixing Ratio as %									
	Brine 1	Brine 2	Brine 3	10	20	70	70	40	30	30	50	25	25
				20	10	20	10	30	40	30	25	50	25
Calcium	208	448	1,224	967	943	358	435	585	609	686	522	582	776
Magnesium	190	126	83	102	109	167	162	139	132	128	147	131	121
Barium	0	0	0	0	0	0	0	0	0	0	0	0	0
Strontium	0	0	0	0	0	0	0	0	0	0	0	0	0
Carbonate	1,537	0	2,440	1,862	2,015	1,320	1,564	1,347	1,193	1,437	1,379	994	1,604
Bicarbonate	3,294	1,012	3,172	2,752	2,980	2,825	3,041	2,573	2,345	2,561	2,693	2,123	2,663
Sulfate	108	3,095	2,545	2,411	2,113	949	894	1,735	2,034	1,979	1,464	2,211	2,073
Chloride	4,400	24,800	35,000	29,900	27,860	11,540	12,560	19,700	21,740	22,760	17,150	22,250	24,800
Measured pH	9.55	7.38	10.24	9.60	9.82	9.19	9.47	9.11	8.89	9.18	9.18	8.64	9.35
Ionic Strength	#NAME?	#NAME?	#NAME?	#NAME?	#NAME?	#NAME?	#NAME?	#NAME?	#NAME?	#NAME?	#NAME?	#NAME?	#NAME?
Temperature (°F)	85	85	85	85	85	85	85	85	85	85	85	85	85
Pressure (psia)	100	100	100	100	100	100	100	100	100	100	100	100	100

Saturation Index													
Calcite	#NAME?												
Gypsum	#NAME?												
Hemihydrate	#NAME?												
Anhydrite	#NAME?												
Barite	#NAME?												
Celestite	#NAME?												

PTB													
Calcite	#NAME?												
Gypsum	#NAME?												
Hemihydrate	#NAME?												
Anhydrite	#NAME?												
Barite	#NAME?												
Celestite	#NAME?												



November 24, 1997

Anadarko Petroleum Corporation
17001 Northchase Drive
P.O. Box 1330
Houston, TX 77251-1330

ATTN: Mr. Shad Frazier

Subject: Hydrogeologic Assessment in the Vicinity of Anadarko
Ferron Coalbed Methane Water-Disposal Well Helper State SWD # 1

Dear Mr. Frazier:

This letter-report is a summary of findings of an evaluation of general groundwater quality and hydrogeologic conditions in the vicinity of the Anadarko North Area Ferron Coalbed Methane project in Carbon County, Utah.

Project Background and Scope

It is our understanding that Anadarko has completed water-disposal well Helper State SWD #1 at 1,131' FSL, 2,194' FWL of Section 3, Township 14 South, Range 10 East, in Carbon County, Utah. The well was drilled to a depth of 6,488 feet, and is completed in the Navajo Sandstone and Wingate Sandstone. The well will be used to dispose of water removed from nearby existing and proposed coalbed methane production wells completed in the Ferron Sandstone at depths of approximately 2,100 feet.

The purpose of this report is to provide Anadarko with an independent evaluation of hydrogeologic conditions in the area of the disposal well, specifically those in the Navajo Sandstone Aquifer. The scope of our services included the collection and analysis of available information for permitted water-supply and oil and gas wells within a five-mile radius of the disposal well site, and review and interpretation of available geologic maps and reports for the area. Data sources included:

- Utah Department of Natural Resources Division of Water Rights database, files, and reports
- Utah Department of Natural Resources Division of Water Resources reports
- Utah Division of Oil, Gas and Mining (UDOGM) files
- Utah Geological Survey reports and maps
- U.S. Geological Survey (USGS) database, reports, and maps

Geology of the Navajo Sandstone

The Lower Jurassic Navajo Sandstone is a light-brown to light-gray, thick-bedded to massive, cross-bedded quartzose sandstone. The Navajo is generally fine-grained, clean and friable. The formation contains a few thin lenticular, light-gray limestone beds in the upper part (Witkind, 1995). Navajo exposures range from steep cliffs to rounded knolls and nearly flat terrain. The Navajo Sandstone ranges in thickness from 400 to 1,000 feet along the west flank of the San Rafael Swell, and is projected to be approximately 300 feet thick in the vicinity of Helper State SWD #1 (Hood and Patterson, 1984, Plate 6; attached Figure 1). In the vicinity of Helper, the Navajo Sandstone strikes generally northeast and dips from 3 to 7 degrees west (Witkind, 1988).

Groundwater Occurrence

Groundwater in the area north of the San Rafael Swell occurs under confined, unconfined, and perched conditions. Most water in the unconsolidated surficial deposits is unconfined and saline, due to dissolution of evaporite minerals. Perched conditions occur in partially or fully-saturated strata underlain by less-permeable, unsaturated rocks. Water in consolidated strata such as the Navajo Sandstone is unconfined in and near outcrops around the perimeter of the Swell, where recharge to the aquifer occurs (see attached Figure 2). Downgradient and downdip from the recharge areas, the water level in the confined aquifer intersects the contact with an overlying confining layer, and groundwater is under confined conditions. In the San Rafael Swell, the Carmel Formation serves as the confining layer above the Navajo Sandstone.

Groundwater Movement

According to information extrapolated from Hood and Patterson (1984, Plate 5) the potentiometric surface of groundwater in the Navajo Sandstone is approximately 5,100 feet above mean sea level (about 900 feet below ground level) in the vicinity of Helper State SWD #1 (see Figure 2). Groundwater in the Navajo Sandstone is recharged by infiltration into exposures of the formation around the flanks of the San Rafael Swell. Recharge along the west flank flows downdip (westerly) toward Castle Valley (Figure 2). Approximately 20 miles south of Castle Dale, the west-flank groundwater flow in the Navajo splits into north and south components (Hood and Patterson, 1984, Plate 5; Weiss, 1987, Figure 7). The direction of groundwater movement in the Navajo north of the groundwater divide (in the area of Castle Dale) is north-northeast; in the area of Price and Helper groundwater flows east-northeast. Groundwater flow in the Navajo continues clockwise around the north end of the San Rafael Swell, and generally southwest along the east flank of the Swell, until it intercepts and discharges to the Green River.

Based on analysis of shallow (less than 5 feet in depth) bedrock cores and outcrop samples, the porosity of the Navajo Sandstone in the northern San Rafael Swell area ranges

from 3.6 to 26.8 percent (averaging 17.7 percent), and hydraulic conductivities range from 0.0037 to 5.1 feet per day (Hood and Patterson, 1984). As extrapolated from Hood and Patterson's potentiometric contour map (1984, Plate 5; attached Figure 2), the hydraulic gradient of groundwater in the Navajo near Helper is easterly, at 0.0013.

The horizontal rate of groundwater flow (or average linear velocity) can be calculated using a modified form of the Darcy Equation (Freeze and Cherry, 1979):

$$v = (K/n) (dh/dl)$$

where:

v	=	average linear velocity (feet per day)
K	=	hydraulic conductivity (feet per day)
n	=	porosity (fraction)
dh/dl	=	hydraulic gradient (feet/foot)

Using the published range of values for K and n and the calculated dh/dl discussed above, the calculated average linear velocity of groundwater in the Navajo Sandstone in the northern San Rafael area may range from 0.007 feet per year (under low conductivity, high porosity conditions) to 67 feet per year (under high conductivity, low porosity conditions). Note that these velocities are not based on site-specific data, but are calculated using hydraulic characteristics of near-surface, weathered samples. It is probable that the velocity of groundwater flow in the formation as a whole, and particularly in the unweathered formation at depth, is more in line with the lower velocity.

Near Caineville (approximately 95 miles due south of Helper), cores of Navajo Sandstone from 1,000 to 2,000 feet below ground surface had an average horizontal hydraulic conductivity (K) of 0.5 feet per day (Hood and Danielson, 1979, pg. 36). Assuming that the K value of these cores is more representative of the hydraulic conductivity of the Navajo at depth in the Castle Dale area, and assuming the 17.7 percent average porosity and 0.0013 hydraulic gradient extrapolated from Hood and Patterson (1984), an average linear velocity of 1.34 feet per year is derived.

Groundwater Use

Deep-source groundwater use in Carbon County is very limited. A review of recorded water rights for the 120 sections within an approximate 5-mile radius of Helper State SWD #1 revealed a total of 675 water rights. Of these, 633 are surface rights on creeks and springs, and 42 are underground water rights for wells. Of the 42 underground water rights, only 10 have Well Driller Reports on file with the Utah Division of Water Rights. Nine of these wells are less than 200 feet deep; the remaining well was drilled by Mountain Fuel Supply to 958 feet and produced brackish water. According to the Utah Division of

Water Rights regional engineer, no water is currently withdrawn from the Navajo Sandstone in Carbon County, and communities rely on surface water and spring flow collected from the Price River and the Wasatch Plateau.

Five test wells were installed in 1981 by Utah Power and Light (UP&L) in Section 1, Township 20 South, Range 9 East and Section 7, Township 20 South, Range 10 East (35 miles south of Helper State SWD #1, see Figure 2). The wells were drilled to the top of the Kayenta Formation and completed in the Navajo at depths ranging from 575 to 882 feet. Navajo thickness ranged from 340 to 404 feet. Although the wells produced water of sufficient quality and quantity for use in UP&L's power plant near Castle Dale, the cost of a conveyance pipeline was determined to be prohibitive, and adequate surface water supplies were available. The wells were donated by UP&L to the Utah Division of Wildlife Resources.

Groundwater Quality

In general, groundwater is saline in much of the northern San Rafael Swell area. Most formations in the Swell contain fresh water only near the recharge areas. Fresh water occurs in the Navajo Sandstone near outcrop areas on the perimeter of the Swell where infiltration of meteoric water flushes out dissolved solids. In most other areas of the northern San Rafael Swell, with increasing distance from recharge areas, water in the Navajo shows degradation by interformational leakage and mixing with saline water from adjacent formations (e.g., the overlying Carmel Formation) which contain gypsum, halite, and other evaporite minerals (Hood and Patterson, 1984).

Water samples collected by UP&L from the Navajo at various depths in the above-mentioned wells were submitted for laboratory analyses of water quality. The analytical results indicate total dissolved solids (TDS) concentrations from 600 to 6,799 milligrams per liter (mg/l). These wells are only 1.5 miles downdip from numerous narrow canyon-bottom exposures of the Navajo, and only 3 miles downdip of broad Navajo exposures with little relief. The relative "freshness" of some of the samples of Navajo groundwater from the UP&L wells is a function of shallow depth and the proximity of the wells to this recharge area.

The salinity of groundwater typically increases with depth of burial and distance from the area of recharge (Freeze and Cherry, 1979, pg. 241-243). This degradation in quality is primarily related to the distance the groundwater has traveled (allowing more time for dissolution of minerals in the formation). Because of this, it is reasonable to expect that water quality in the Navajo Sandstone degrades westward and northward with increasing depth and distance from the outcrop; the Navajo at Helper State SWD #1 is under 6,000 feet of cover and is more than 30 miles downgradient from the nearest recharge area.

According to information on file with the Utah Division of Oil, Gas and Mining, the TDS concentration of groundwater collected from the Navajo Sandstone at the River Gas Corporation Drunkard's Wash injection well D-1 (immediately southwest of Price, Utah) was analyzed at 172,386 milligrams per liter (parts per million [ppm]), which is an extremely saline brine. The Navajo Sandstone at well D-1 is under approximately 5,700 feet of cover, and is about 28 miles north-northwest of the nearest outcrop (recharge area) of the Navajo in the San Rafael Swell. The TDS concentration of water removed from the Ferron Sandstone coal beds at Drunkard's Wash and injected in the Navajo Sandstone at well D-1 is approximately 15,000 ppm; thus, injection of Ferron water actually decreases the salinity of groundwater in the Navajo.

Helper State SWD #1 is perforated across three depth intervals: from 5,920 feet to 6,090 feet and from 6,112 to 6,154 feet (in the Navajo Sandstone); and from 6,256 to 6,320 feet (in the Wingate Sandstone). For the purposes of this report, groundwater in the Wingate Sandstone is not differentiated from that in the Navajo Sandstone Aquifer (i.e., both formations and the interposed Kayenta Formation are considered a single hydrogeologic unit). Groundwater collected from these three zones between November 7 and 12, 1997 contained TDS concentrations of 64,997 ppm, 86,022 ppm, and 107,809 ppm, respectively. A composite sample of water from Anadarko's Ferron Sandstone production wells collected on November 12, 1997 had a TDS concentration of 25,500 ppm. As compared with conditions at Drunkard's Wash, the Navajo groundwater is less saline and the Ferron groundwater is more saline in the vicinity of the Anadarko wells. As at Drunkard's Wash, however, because the Ferron groundwater is more "fresh" than the Navajo groundwater, injection of the produced Ferron water in Helper State SWD #1 will decrease the salinity of water in the Navajo.

Potential Effects of Water-Disposal on Water Quality in the Navajo Aquifer

The effect of Ferron Sandstone groundwater disposal on water quality in the Navajo Sandstone Aquifer in the vicinity of Helper State SWD #1 will depend primarily on the quality of water removed from the Ferron during dewatering and gas production, and the quality of groundwater in the Navajo prior to injection of the Ferron water. Analyses of the Ferron and Navajo groundwaters suggest that injection of saline water from the Ferron may actually improve groundwater quality in the Navajo.

Hood and Patterson (1984, pg. 40) note that the relatively low transmissivity of the Navajo Sandstone results in a restricted cone of depression and steep drawdown under pumping. Because groundwater injection and groundwater withdrawal in confined aquifers have equivalent but inverse effects on the potentiometric surface surrounding the injection or withdrawal point (Freeze and Cherry, 1979, pg. 454), it is reasonable to expect that injection will result in a high, but relatively restricted groundwater mound in the Navajo Sandstone. Considering the upgradient distance to fresher, more usable water in the Navajo (closer to the formation's recharge area 30 miles southeast of Helper State SWD

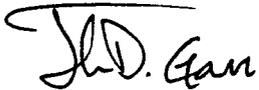
Anadarko Petroleum Corporation
November 24, 1997
Page 6

#1), it is unlikely that injection of Ferron groundwater could adversely affect groundwater quality in the vicinity of future potential water-production sites.

It has been a pleasure to work with you on this project. If you have any questions or require additional information or services, please do not hesitate to call me at (801) 273-2416.

Sincerely,

MONTGOMERY WATSON

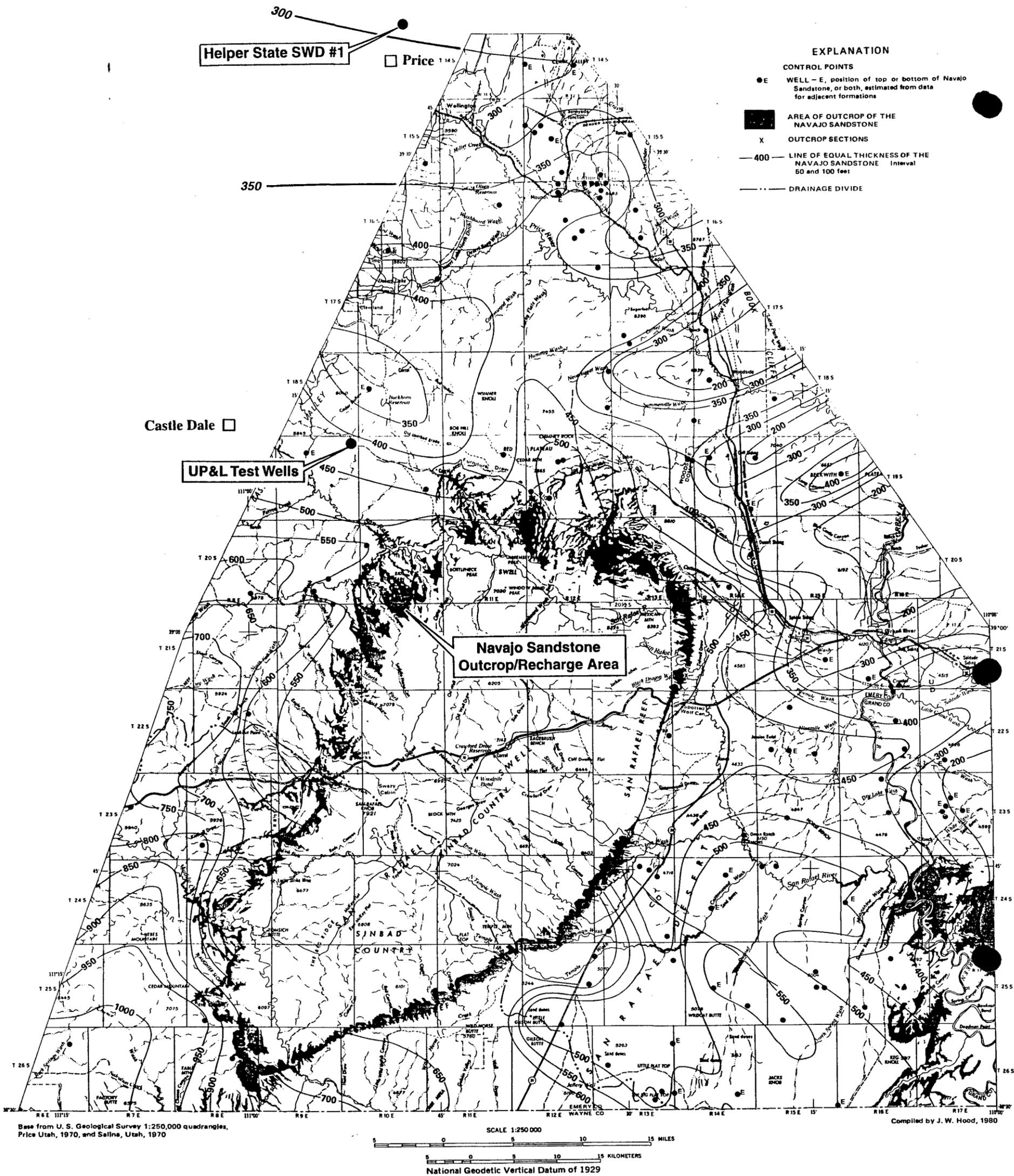
A handwritten signature in cursive script, appearing to read "J.D. Garr".

John D. Garr, R.G.
Supervising Hydrogeologist

Attachments: Figure 1
Figure 2

REFERENCES CITED

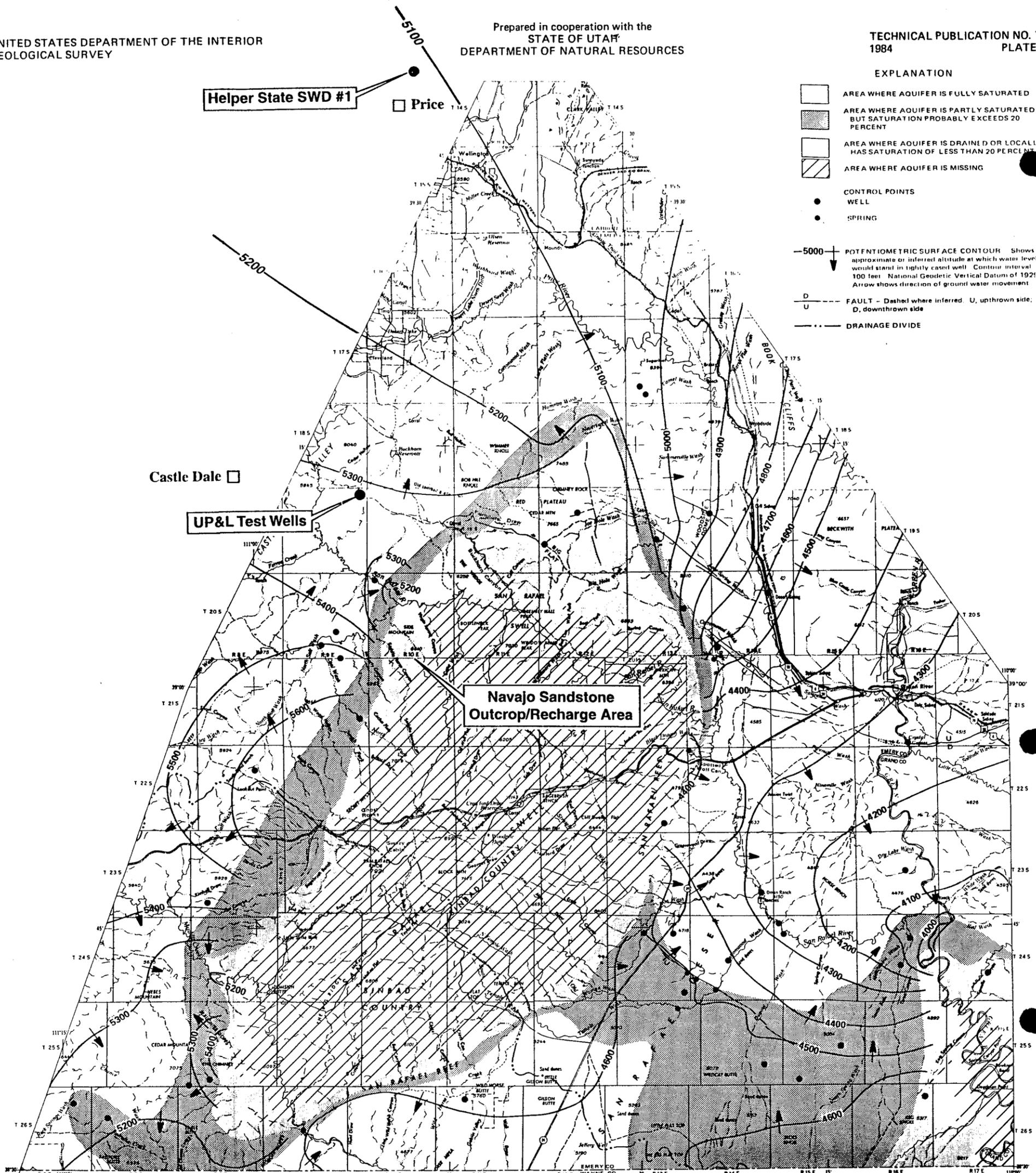
- Freeze, R.A., and Cherry, J.A., 1979. Groundwater: Prentice-Hall, Inc., Englewood Cliffs, New Jersey, 604 p.
- Hood, J.W., and Danielson, T.W., 1979. Aquifer tests of the Navajo Sandstone near Caineville, Wayne County, Utah: State of Utah Department of Natural Resources Division of Water Rights Technical Publication No. 66, 69 p.
- Hood, J.W., and Patterson, D.J., 1984. Bedrock aquifers in the northern San Rafael Swell area, Utah, with special emphasis on the Navajo Sandstone: State of Utah Department of Natural Resources Division of Water Rights Technical Publication No. 78, 128 p. text, 5 plates.
- Weiss, E., 1987. Groundwater flow in the Navajo Sandstone in parts of Carbon, Grand, Carbon, Wayne, Garfield, and Kane counties, southeast Utah: U.S. Geological Survey Water-Resources Investigations Report 86-4012, 41 p.
- Witkind, I.J., 1988. Geologic map of the Huntington 30' x 60' quadrangle, Carbon, Carbon, Grand, and Uintah Counties, Utah: U.S. Geological Survey Miscellaneous Investigations Series Map I-1764. 1:100,000-scale.
- Witkind, I. J., 1995. Geologic map of the Price 1_ x 2_ quadrangle, Utah: U.S. Geological Survey Miscellaneous Investigations Series Map I-2462. 1:250,000-scale.



MAP SHOWING THICKNESS OF THE NAVAJO SANDSTONE IN THE NORTHERN SAN RAFAEL SWELL AREA, UTAH.

EXPLANATION

-  AREA WHERE AQUIFER IS FULLY SATURATED
-  AREA WHERE AQUIFER IS PARTLY SATURATED BUT SATURATION PROBABLY EXCEEDS 20 PERCENT
-  AREA WHERE AQUIFER IS DRAINED OR LOCALLY HAS SATURATION OF LESS THAN 20 PERCENT
-  AREA WHERE AQUIFER IS MISSING
-  CONTROL POINTS
-  WELL
-  SPRING
-  5000 POTENTIOMETRIC SURFACE CONTOUR Shows approximate or inferred altitude at which water level would stand in tightly cased well. Contour interval 100 feet. National Geodetic Vertical Datum of 1929. Arrow shows direction of ground water movement.
-  FAULT - Dashed where inferred. U, upthrown side; D, downthrown side
-  DRAINAGE DIVIDE



Base from U. S. Geological Survey 1:250,000 quadrangles, Price Utah, 1970, and Salina, Utah, 1970

SCALE 1:250,000

0 5 10 15 MILES

0 5 10 15 KILOMETERS

National Geodetic Vertical Datum of 1929

Compiled by J. W. Hood, 1980

MAP SHOWING THE APPROXIMATE POTENTIOMETRIC SURFACE FOR THE NAVAJO SANDSTONE AQUIFER IN THE NORTHERN SAN RAFAEL SWELL AREA, UTAH.

Anadarko Petroleum Corporation

Helper SWD Well Presentation

Helper SWD Well 1

Proposed Perforations

LOG CURVES

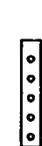
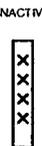
0	150	GR (GAPI) 11 Gamma Ray
0	16	HCAL (IN) 6 HILT Caliper
0.2	2,000	AT10 (OHMM) 27 2Ft Vert. Res. 10in D.I.
0.2	2,000	AT30 (OHMM) 29 2Ft Vert. Res. 30in D.I.
0.2	2,000	AT90 (OHMM) 31 2Ft Vert. Res. 90in D.I.
0.2	2,000	HMNO (OHMM) 21 HILT Micro Normal
0.2	2,000	HMIN (OHMM) 20 HILT Micro inverse
0.3	-0.1	PHIA Average Porosity CUTOFF = 0.15
0	20	PEFZ 18 HILT Photoelectric Factor

TOPS AND MARKERS

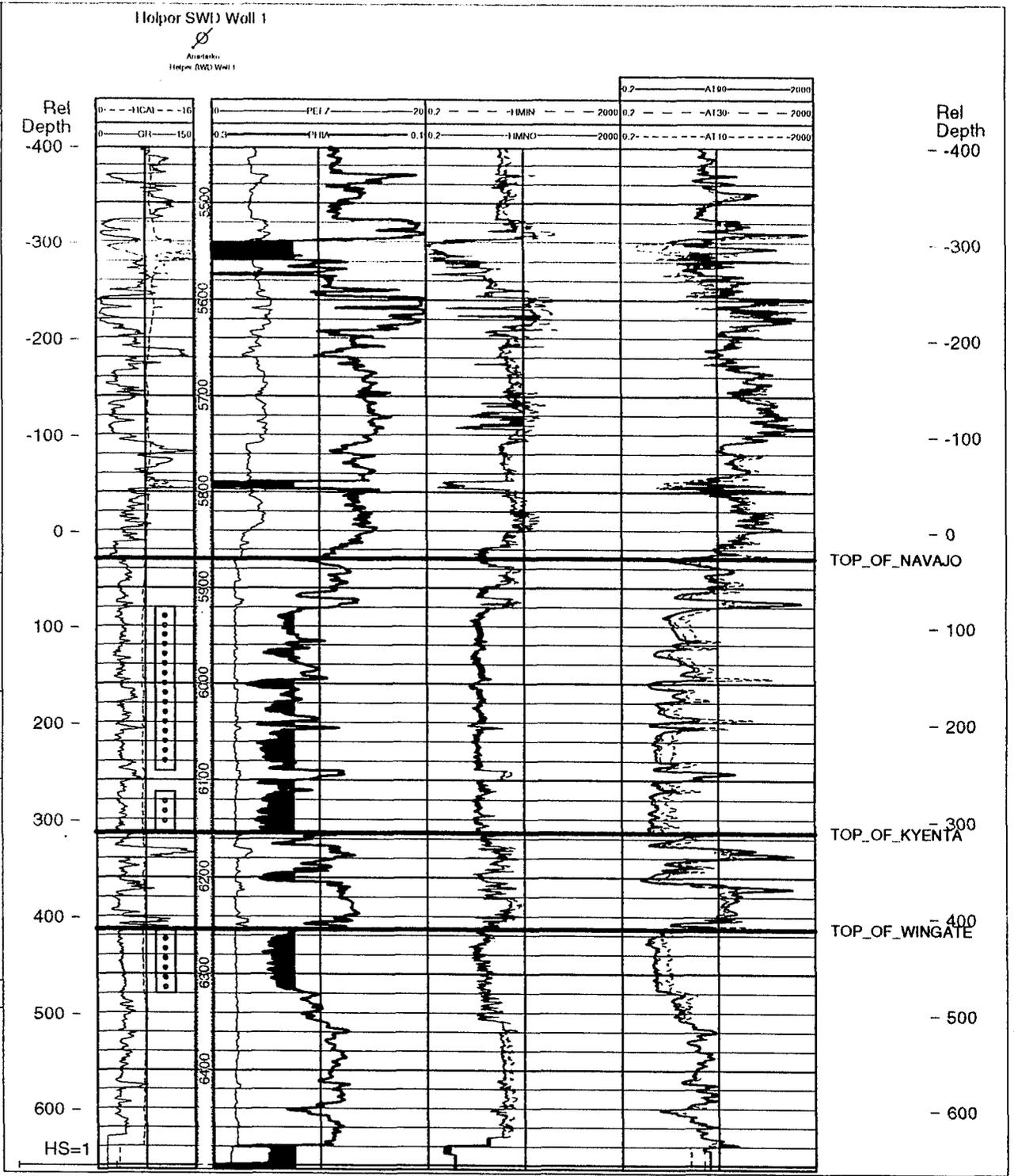
	TOP_OF_NAVAJO - Top Of Navajo Formation
	TOP_OF_KYENTA - Top Of Kyenta Formation

●
Operator
Well Name

CORES PERFS SHOWS DST IP CASING

											
---	---	---	---	---	---	---	---	---	---	---	---

October 29, 1997 10:25 AM





State of Utah
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

Michael O. Leavitt
Governor
Kathleen Clarke
Executive Director
Lowell P. Braxton
Division Director

1594 West North Temple, Suite 1210
PO Box 145801
Salt Lake City, Utah 84114-5801
801-538-5340
801-359-3940 (Fax)
801-538-7223 (TDD)

January 4, 2001

Anadarko Petroleum Corporation
17001 Northchase Dr.
P.O. Box 1330
Houston, Texas 77251-1130

Re: Clawson Spring SWD #1, Section 36, Township 15 South, Range 8 East, Carbon County, Utah

Gentlemen:

Pursuant to Utah Admin. Code R649-5-3-3, the Division of Oil, Gas and Mining (the "Division") issues its administrative approval for conversion of the referenced well to a Class II injection well. Accordingly, the following stipulations shall apply for full compliance with this approval:

1. Compliance with all applicable requirements for the operation, maintenance and reporting for Underground Injection Control ("UIC") Class II injection wells pursuant to Utah Admin. Code R649-1 et seq.
2. Conformance with all conditions and requirements of the complete application submitted by Anadarko Petroleum Corporation.
3. A fracture gradient will be obtained from the Step Rate Test, and submitted to the Division of Oil, Gas & Mining.
4. Conduct a Mechanical Integrity Test.
5. A review of the mechanical condition of each well within ½ mile of the proposed location, submitted in table form with casing grades, casing depth, cement volumes, cement type, and cement tops.
6. A minerals ownership plat of all mineral interest holders within ½ mile of the injection well.

The above stipulations will be complied with prior to the issuance of a final injection permit. If you have any questions regarding this approval or the necessary requirements, please contact K. Michael Hebertson (801) 538-5333 at this office.

Sincerely,

John R. Baza
Associate Director

er

cc: Dan Jackson, Environmental Protection Agency
Bureau of Land Management, Price
Carbon, County Commission



State of Utah
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

Michael O. Leavitt
Governor
Kathleen Clarke
Executive Director
Lowell P. Braxton
Division Director

1594 West North Temple, Suite 1210
PO Box 145801
Salt Lake City, Utah 84114-5801
801-538-5340
801-359-3940 (Fax)
801-538-7223 (TDD)

January 4, 2001

Anadarko Petroleum Corporation
17001 Northchase Dr.
P.O. Box 1330
Houston, Texas 77251-1130

Re: Clawson Spring SWD #1, Section 36, Township 15 South, Range 8 East, Carbon County, Utah

Gentlemen:

Pursuant to Utah Admin. Code R649-5-3-3, the Division of Oil, Gas and Mining (the "Division") issues its administrative approval for conversion of the referenced well to a Class II injection well. Accordingly, the following stipulations shall apply for full compliance with this approval:

1. Compliance with all applicable requirements for the operation, maintenance and reporting for Underground Injection Control ("UIC") Class II injection wells pursuant to Utah Admin. Code R649-1 et seq.
2. Conformance with all conditions and requirements of the complete application submitted by Anadarko Petroleum Corporation.
3. A fracture gradient will be obtained from the Step Rate Test, and submitted to the Division of Oil, Gas & Mining.
4. Conduct a Mechanical Integrity Test.
5. A review of the mechanical condition of each well within ½ mile of the proposed location, submitted in table form with casing grades, casing depth, cement volumes, cement type, and cement tops.
6. A minerals ownership plat of all mineral interest holders within ½ mile of the injection well.

The above stipulations will be complied with prior to the issuance of a final injection permit. If you have any questions regarding this approval or the necessary requirements, please contact K. Michael Hebertson (801) 538-5333 at this office.

Sincerely,

John R. Baza
Associate Director

er

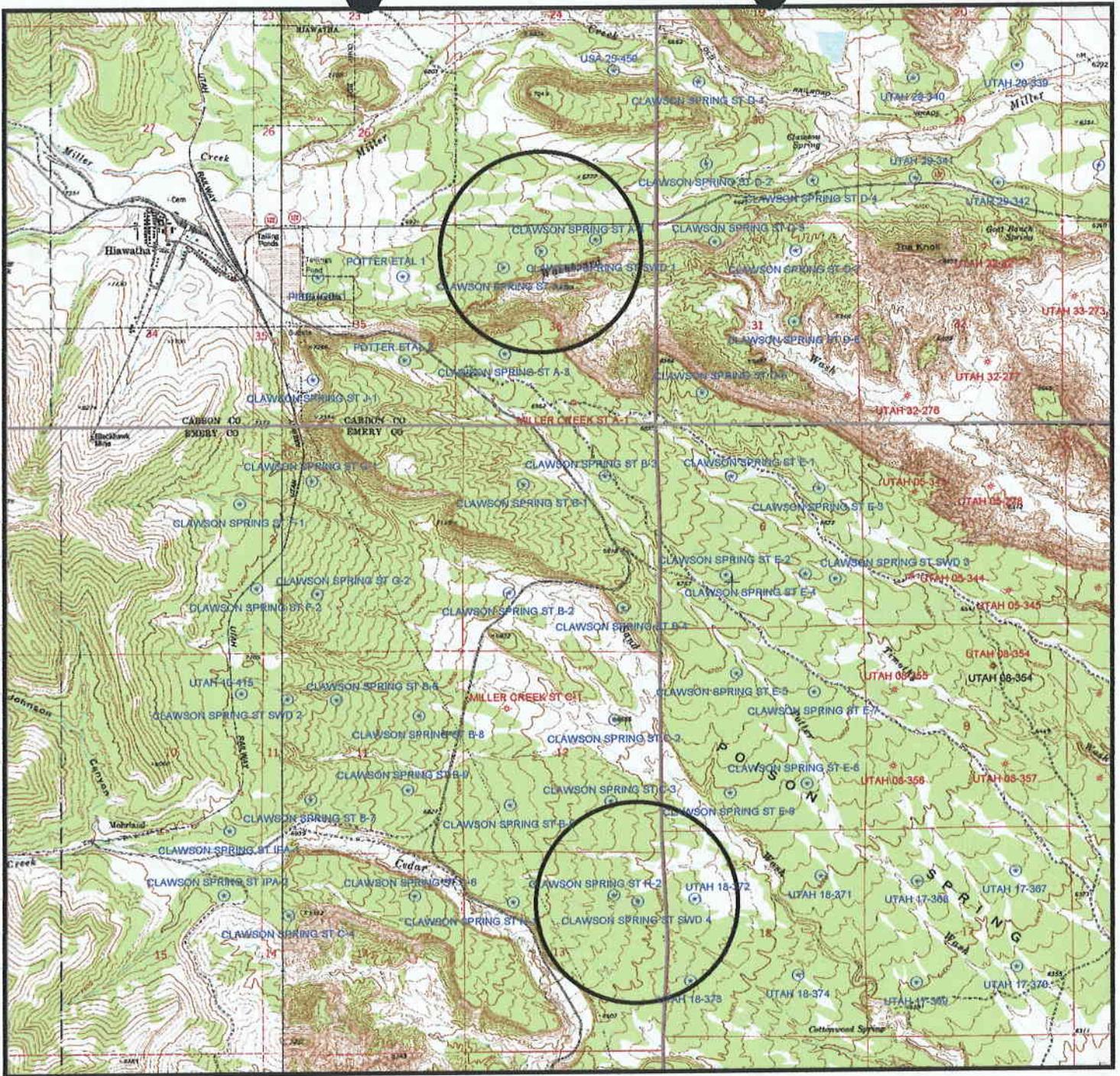
cc: Dan Jackson, Environmental Protection Agency
Bureau of Land Management, Price
Carbon, County Commission

UIC INJECTION PERMIT ANALYSIS FORM

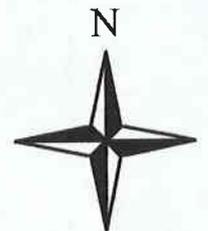
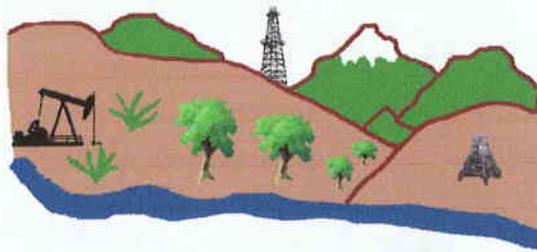
RG49-5-2. Requirements For Class II Injection Wells Including Water Disposal, Storage And Enhanced Recovery Wells.	Completed Items, Needed Items, & Comments
<p>1. Injection wells shall be completed. Equipped, operated, and maintained in a manner that will prevent pollution and damage to any USDW, or other resources and will confine injected fluids to the interval approved.</p>	<p>1. This section will be complied with.</p>
<p>2. The application for an injection well shall include a properly completed UIC Form 1 and the following:</p>	<p>2. Appears to be complete</p>
<p>2.1. A plat showing the location of the injection well, all abandoned or active wells within a one-half mile radius of the proposed well, and the surface owner and the operator of any lands or producing leases, respectively, within a one-half mile radius of the proposed injection well.</p>	<p>2.1. Needs a Mineral Ownership Plat. Needs a plat showing all current wells. (I will Make a wells plat)</p>
<p>2.2. Copies of electrical or radioactive logs, including gamma ray logs, for the proposed well run prior to the installation of casing and indicating resistivity, spontaneous potential, caliper, and porosity.</p>	<p>2.2. Logs have been filed</p>
<p>2.3. A copy of a cement bond or comparable log run for the proposed injection well after casing was set and cemented.</p>	<p>2.3. Cement Bond log has been provided</p>
<p>2.4. Copies of logs already on file with the division should be referenced, but need not be refiled.</p>	<p>2.4. This section Okay</p>
<p>2.5. A description of the casing or proposed casing program of the injection well and of the proposed method for testing the casing before use of the well.</p>	<p>2.5. Needs a casing design run showing the wellbore as completed.</p>
<p>2.6. A statement as to the type of fluid to be used for injection. its source and estimated amounts to be injected daily.</p>	<p>2.6. This section Okay</p>
<p>2.7. Standard laboratory analyses of (1) the fluid to be injected, (2) the fluid in the formation into which the fluid is being injected, and (3) the compatibility of the fluids.</p>	<p>2.7. The compatibility study does not state the results of a precipitate forming or not.</p>
<p>2.8. The proposed average and maximum injection pressures.</p>	<p>2.8. The average injection pressure and maximum injection pressure should not be the same.</p>
<p>2.9. Evidence and data to support a finding that the proposed injection well will not initiate fractures through the overlying strata or a confining interval that could enable the injected fluid or formation fluid to enter the fresh water strata.</p>	<p>2.9. This section appears to be Okay.</p>
<p>2.10. Appropriate geological data on the injection interval and confining beds, including .the geologic name, lithologic description, thickness, depth, and lateral extent; also information relative to geologic structure near the proposed well which may effect the conveyance and/or storage of the injected fluids.</p>	<p>2.10. The cross section lacks the obvious markers defining the anhydrite beds, showing them as the confining zones.</p>
<p>2.11. A review of the mechanical condition of each well within a one-half mile radius of the proposed injection well to assure that no conduit exists that could enable fluids to migrate up or down the wellbore and enter improper intervals.</p>	<p>2.11. There is no review of the mechanical condition of each well within a half mile.</p>
<p>2.12. An affidavit certifying that a copy of the application has been provided to all operators, owners and surface owners within a one-half mile radius of the proposed injection well.</p>	<p>2.12. The Affidavit has been filed.</p>
<p>2.13. Any other additional information that the board or division may determine is necessary to adequately review the application.</p>	<p>2.13. No other information has been requested as of yet.</p>

OTHER COMMENTS AND OBSERVATIONS: The public notice was published in the Sun Advocate on October 24, 2000 and Cause No. UIC-264.1 was presented before the board on 19-Oct-2000. There were no protests or notices of intervention that were filed concerning this matter.

Reviewed by: K. Michael Hebertson Date: 27-December-2000



- Sections
- Township
- Wells**
- GAS INJECTION
- GAS STORAGE
- LOCATION ABANDONED
- NEW LOCATION
- PLUGGED & ABANDONED
- PRODUCING GAS
- PRODUCING OIL
- SHUT-IN GAS
- SHUT-IN OIL
- TEMP. ABANDONED
- WATER INJECTION
- WATER SUPPLY
- WATER DISPOSAL



Utah Oil Gas and Mining

The State of Utah Division of Oil, Gas & Mining does not guarantee or warrant the accuracy of any data presented herein that is not generated or maintained by the Division. All of the data presented is available in the public sector and can be inspected at the offices of the various divisions or agencies which are responsible for generating the data.



Talon Resources, Inc.

Service, Quality and Accuracy

375 South Carbon Avenue A-10
Suite 101
Price, Utah 84501
Phone: 435-637-8781

Cell: 435-650-1401
435-650-1402
Fax: 435-636-8603
Email: talon@castlenet.com

January 4, 2001

Mr. Michael Hebertson
State of Utah
Division of Oil Gas and Mining
P.O. Box 145801
Salt Lake City, Utah 84114-5801

RE: Requested Information - Application for Injection Well — UIC Form 1
Anadarko Petroleum Corporation – Clawson Springs State SWD 1
716' FNL 2301' FWL, Section 36, T15S, R8E, SLB&M, Carbon County, Utah

Dear Mr. Hebertson:

On behalf of Anadarko Petroleum Corporation (Anadarko), Talon Resources, Inc. respectfully submits the following requested information for permit for an Injection Well within the existing Clawson Springs Field.

Attachment 2 of 11 "Mineral Ownership Plat"
Attachment 3 of 11 "Updated Casing and Cement Description"
Attachment 3 of 11 "Casing Design Run Depicting the Completed Well Bore"
Attachment 8 of 11 "Compatibility Study Results and Statements"
Attachment 11 of 11 "Review of the Mechanical Condition of Surrounding Wells"

Additionally, Anadarko desires to change the proposed average injection volume and pressures found within section 2.8 of the previously submitted supplemental information to a proposed average volume of 10,000 barrels of water per day and a proposed average pressure of 1,000 psig.

Thank you for your timely review of this application and please feel free to contact Mr. Lloyd Stutz of Anadarko or myself if you have any questions or require additional information.

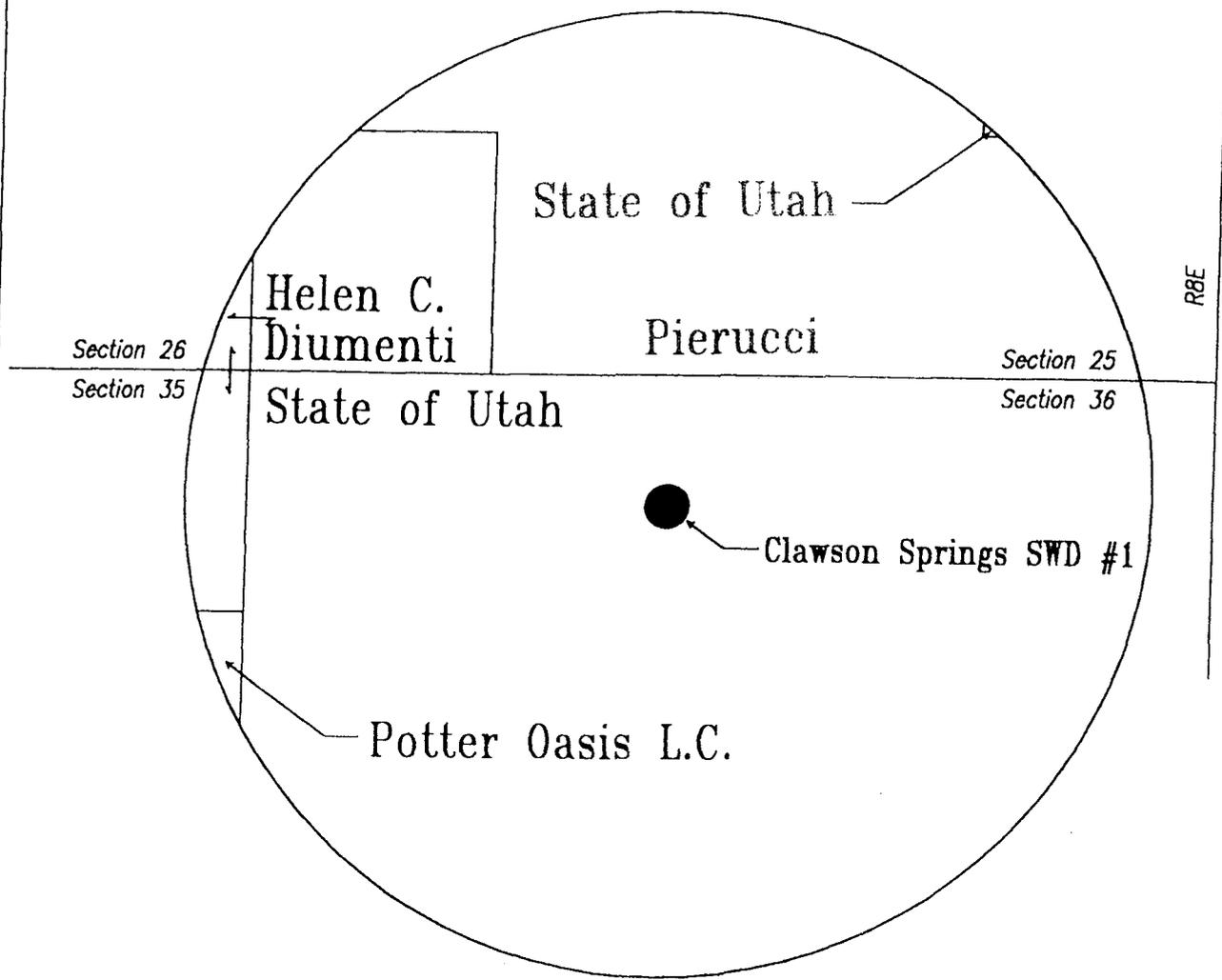
Sincerely,

Don S. Hamilton
Don S. Hamilton
Environmental Manager / Project Coordinator

cc. Mr. Lloyd Stutz, Anadarko
Mr. Jim Hartley, Anadarko
Job 195

FILED
JAN 10 2001
SALT LAKE CITY, UTAH
COUNTY CLERK

MINERAL OWNERSHIP PLAT



<small>DESIGNED BY</small> DSH	Talon Resources, Inc. 375 South Carbon Ave. Price, Utah Phone (435) 637-5032 ext 710 Fax (435)636-8603
<small>CHECKED BY</small> LWJ	
<small>DATE</small> 12/28/00	ANADARKO Petroleum Corporation Section 36, T15S, R8E, SLBM Mineral Ownership Plat - SWD-1
<small>SCALE</small> 1"=1000'	
<small>SHEET NO.</small> 197	
<small>PLAT NO.</small> L1	

Casing Program

String Type	Hole Size	Depth	Feet	Casing Diameter	Weight	Grade	Connection Type
Surface	17-1/2"	316'	316'	13-3/8"	48#	H-40	ST&C
Intermediate	12-1/4"	4300'	4300'	8-5/8"	24#	J-55	ST&C
Production	7-7/8"	8448'	8448'	5-1/2"	17#	N-80	LT&C

Cement Program

String Type	DV Depth	Stage Lead/Tail	Cement Top	Number Sacks	Cement Type	Cement Yield	Cement Weight
Surface		Lead	Surface	390	Class G	1.16	15.80
Intermediate	None	Lead		615	Hi Lift	3.84	11.40
Intermediate		Tail	Surface	185	Class G	1.61	15.20
Production	7202'	Lead		410	Class G	1.15	15.80
		Lead		386	Hi Lift	3.84	11.00
		Tail	4100'	120	Class G	1.15	15.80

Clawson Springs SWD 1
716' FNL & 2310' FWL Sec 36-T15S-R8E
API 43-007-30721 in Carbon County, Utah

SPUD RIG OFF
 SURFACE 8/5/00 9/13/00

6795 GL KB 6804

WELL WORK HISTORY

17 1/2" Hole
 13 3/8" 48#
 Set w/ 390 sxs cmt

316

12 1/4" Hole
 8 5/8" 24# J-55
 615 sxs lead cmt
 185 sxs tail cmt

4300

DV Tool

?

SURFACE STRING

13-3/8" 48# H40 - set @ 316
 CEMENT: Type: Class G
 Volume: 390 sx

Cement Top: Surface

INTERMEDIATE STRING

8-5/8" 24# J55 - set @ 4300
 Hole Size: 12.25
 CEMENT: Type: Class G
 Volume: 615 sx lead + 185 sx tail

Cement Top: Surface

INJECTION STRING

5-1/2" 17# N80 - set @ 8448
 Hole Size: 7.875" TD: 8448
 CEMENT: Type: All Class G except 386 sx in 2nd Stage was HiLift
 Volume: 1st 410 sx / 2nd 386 sx lead + 120 sx tail

Calc TOC: ?

(Holes) Perforations

(0)	0 -	0
(0)	0 -	0
(0)	0 -	0
(0)	0 -	0
(0)	0 -	0
(0)	0 -	0
(0)	0 -	0
(0)	Total Holes	

DEVIATION ANGLE

FORMATION TOP KB 6804

Hole Size 7 7/8"
 5 1/2" 17# N-80
 410 sxs cmt 1st stage
 386 sxs lead cmt 2nd stage

8448

LAST REVISED: 1/3/01



2060 SOUTH 1500 EAST
VERNAL, UTAH 84078

December 29, 2000

Telephone (435) 789-4327

Mike Hebertson
Reclamation Specialist
State of Utah
Division of Oil, Gas, & Mining

RE: Anadarko Petroleum Corporation
Clawson Spring Field
Disposal Water Compatibility

Mike,

Water chemistries were analyzed on three sampled waters submitted to Champion Technologies, Inc. District Lab in Vernal, Utah. Samples were from the Clawson Springs State A-1, Clawson Springs SWD No. 1, and Clawson Springs SWD Well No. 2. Analytical parameters were tested by standard bench and wet chemistry methods.

Data from these analyses were placed into a mathematical mixing model to evaluate water compatibility and scaling probability. Mineral scale saturation indices are calculated using a Tomson-Oddo scale prediction model. The Tomson-Oddo uses the cation concentration (calcium, magnesium, barium, strontium), anion concentration (carbonate, bicarbonate, sulfate), and system parameters such as temperature and pressure to predict mineral scale formation. Note that as system parameters change, so will mineral scale formation tendencies. Please see the attached analytical spreadsheet.

The saturation index is calculated from the Tomson-Oddo scale prediction model. It provides a numerical indication of mineral scaling tendency. A number equal to or less than zero indicates no possibility of mineral scale formation. A number between 0 and 0.5 indicates a slight tendency for mineral scale formation with tendencies increasing as the number gets larger. Note that just because there is a positive scaling tendency does not indicate absolute scale formation, these values are very temperature and pressure dependent. This is only a mathematical model and cannot simulate the system exactly, but is a close approximation.

The PTB (Pounds Per Thousand Barrels) provides a calculated mass of mineral scale that might form based on the saturation index per 1,000 barrels of water. Again, this is only a mathematical model that does not duplicate the system exactly but is a close approximation.

According to the mixing model, saturation indices range from 1.97 to 3.41 for Calcite and 0.99 to 1.12 for Barite. All other mineral scales indicate no scaling tendency. According to the Tomson-Oddo model, formation of Calcite (Calcium Carbonate) and Barite (Barium Sulfate) is likely to occur. These mineral scales can be prevented from forming and depositing by mineral scale inhibitor application prior to their formation.

If you any questions or need further information, please do not hesitate to call.

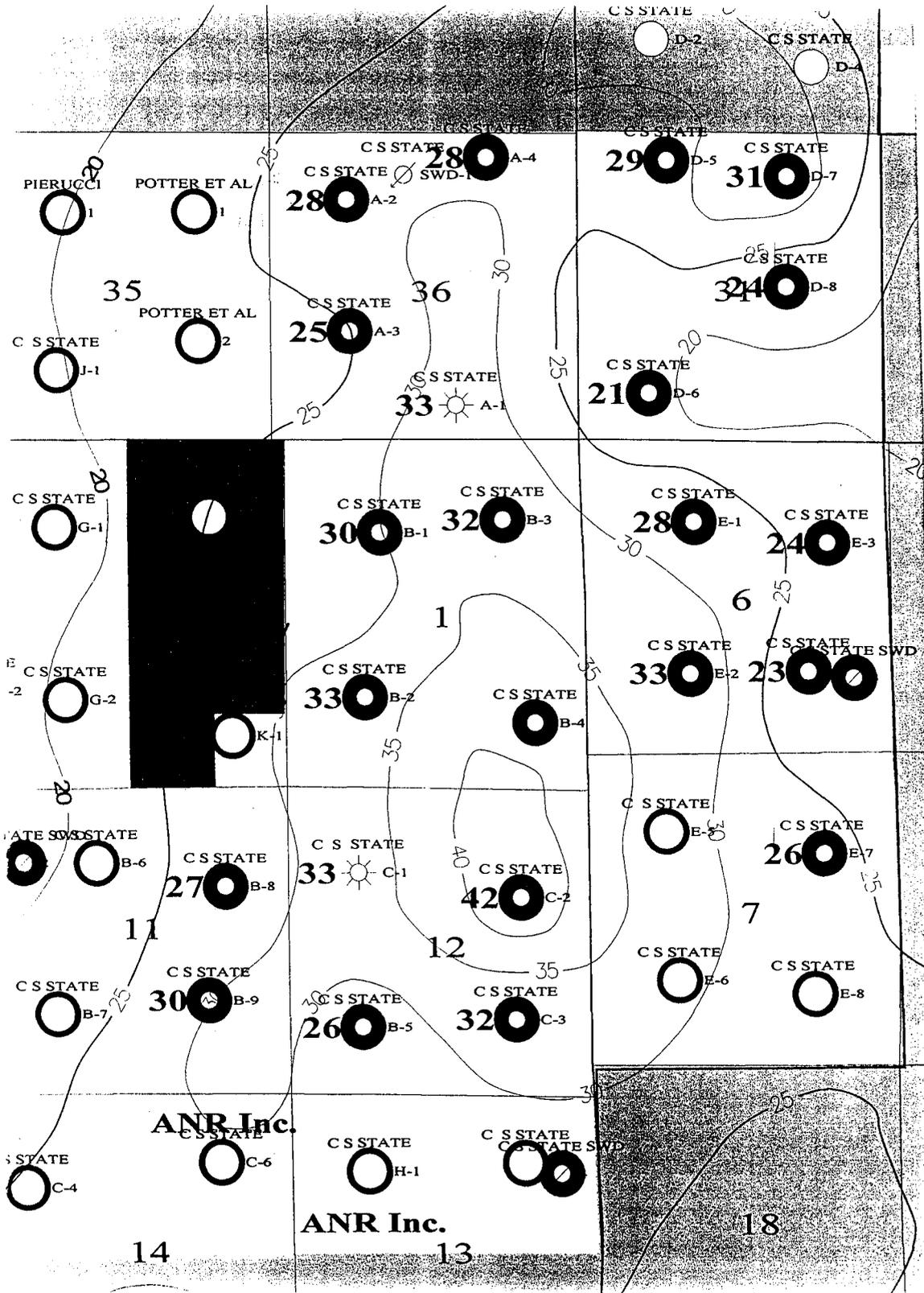
Office Phone: 435-789-4327
Cell Phone: 435-828-8193

Regards,

A handwritten signature in black ink that reads "Mike Cloud".

Mike Cloud
Sr. Technical Service Representative
Vernal District Technical Services

cc: Barry Culpepper
Ed Schwarz
File



Casing Program

String Type	Hole Size	Hole Depth	Casing Depth	Casing Diameter	Weight	Grade	Connection Type
Surface	11"	335'	327'	8-5/8"	24#	J-55	ST&C
Production	7-7/8"	3882'	3879'	5-1/2"	17#	N-80	8 rds

Cement Program

String Type	DV Depth	Stage Lead/Tail	Cement Top	Number Sacks	Cement Type	Cement Yield	Cement Weight
Surface		Lead	Surface	144	Class G	1.15	15.8
Production		Lead	3170'	130	10-1 RFC	1.61	14.2

Clawson Springs A-2

API 43-007-30635

1146' FNL & 1312' FWL Sec 36-T15S-R8E

Carbon County, Utah

SPUD RIG OFF

SURFACE 8/24/00 11/15/00

6837 GL KB 6846

WELL WORK HISTORY

11" Hole
8 5/8" 24# J-55
144 sxs cmt
TOC to surface

327

TOC
3170

(Holes)	Perforations
(0)	0 - 0
(0)	0 - 0
(0)	0 - 0
(0)	0 - 0
(0)	0 - 0
(0)	0 - 0
(0)	Total Holes

Hole Size 7 7/8"
5 1/2" 17# N-80
130 sxs cmt

SURFACE STRING	
8-5/8" 24# J-55 set @	327
Hole Size: 12.25	
CEMENT: Type: Class G	
Volume: 144 sx	Cement Top: Surface
PRODUCTION STRING	
5-1/2" 17# N-80 set @	3882
Hole Size: 7.875 TD: 3882	
CEMENT: Type: Class G	
Volume: 130 sx	Cement Top: 3170
DEVIATION ANGLE	FORMATION TOP KB 6846

PBTD 3838
TD 3882

LAST REVISED: 1/3/01

Casing Program

String Type	Hole Size	Hole Depth	Casing Depth	Casing Diameter	Weight	Grade	Connection Type
Surface	11"	335'	323'	8-5/8"	24#	J-55	ST&C
Production	7-7/8"	3944'	3941'	5-1/2"	17#	N-80	8 rds

Cement Program

String Type	DV Depth	Stage Lead/Tail	Cement Top	Number Sacks	Cement Type	Cement Yield	Cement Weight
Surface		Lead	Surface	144	Class G	1.15	15.80
Production		Lead	2830'	150	10-1 RFC	1.61	14.20

Clawson Springs A-4

API 43-007-30637

416' FNL & 1584' FEL Sec 36-T15S-R8E

Carbon County, Utah

SPUD RIG OFF

SURFACE 8/12/00 11/14/00

6747 GL KB 6756

WELL WORK HISTORY

11" Hole
8 5/8" 24# J-55
144 sxs cmt
TOC to surface

323

TOC
2830

(Holes) Perforations
(32) 3448 - 3456
(80) 3480 - 3500
(18) 3518 - 3524
(80) 3576 - 3596

(210) Total Holes

Hole Size 7 7/8"
5 1/2" 17# N-80
150 sxs cmt

PBTD 3904
TD 3944

SURFACE STRING			
8-5/8" 24#	J-55 set @	323	
	Hole Size:	12.25	
CEMENT:	Type:	Class G	
	Volume:	144 sx	Cement Top: Surface
PRODUCTION STRING			
5-1/2" 17#	N-80 set @	3944	
	Hole Size:	7.875	TD: 3944
CEMENT:	Type:	Class G	
	Volume:	150 sx	Cement Top: 2830
DEVIATION ANGLE		FORMATION	TOP KB 6756

1/3/01

TALON RESOURCES, INC.

375 S. Carbon Ave. (A-10), Suite 101, Price, Utah 84501
Phone: (435) 637-8781 (435) 650-1886 Fax: (435) 636- 8603

Fax Transmittal Cover Sheet

Date: 6-7-00

Number of pages: 13

Message To: Mr. Mike Hebertson – Division of Oil, Gas, and Mining

Telephone Number: 1-801-538-5333

Fax Number: 1-801-359-3940

Message From: Don Hamilton

Mr. Hebertson:

Following our earlier conversations I have drafted a graph of the step-rate test completed earlier for the SWD-1 and SWD-4. Please review the enclosed data and let me know if you need any additional information

Thank you for your time and patience on this matter.

Don

HALLIBURTON ENERGY SERVICES
ACQUIRE Version 2.30

CUSTOMER AND JOB INFORMATION

Customer	ANADARKO	Date	12-Jan-2001
Contractor		County	CARBON
Lease	SWD	Town	15S
Location	PRICE	Section	36
Formation	NAVARO	Range	8E
Job Type	STEP TEST	Permit No	
Country	USA	Well No	#1
State	UTAH	Field Name	FERRON

Customer Representative JIM HANTLEY

Halliburton Operator S. STEWART

Ticket No. 1070104

WELL CONFIGURATION INFORMATION

Packer Type		Depth	0 ft
Bottom Hole Temp.	150.0	Deg F	

PIPE CONFIGURATION

Wellbore Segment Number	Measured Depth (ft)	TVD (ft)	Casing ID (inch)	Casing OD (inch)	Tubing ID (inch)	Tubing OD (inch)
1	7556	7556	4.892	5.500	2.992	3.500
2	8218	8218	4.892	5.500	0.000	0.000

PERFORATIONS

Perforation Interval	Top (ft)	Bottom (ft)	Shots per (ft)
1	7706	8218	0

REMARKS ABOUT JOB

NOTICE: THIS REPORT IS BASED ON SOUND ENGINEERING PRACTICES, BUT BECAUSE OF VARIABLE WELL CONDITIONS AND OTHER INFORMATION WHICH MUST BE RELIED UPON, HALLIBURTON MAKES NO WARRANTY, EXPRESSED OR IMPLIED, AS TO THE ACCURACY OF THE DATA OR OF ANY CALCULATIONS OR OPINIONS EXPRESSED HEREIN. YOU AGREE THAT HALLIBURTON SHALL NOT BE LIABLE FOR ANY LOSS OR DAMAGE, WHETHER DUE TO NEGLIGENCE OR OTHERWISE ARISING OUT OF OR IN CONNECTION WITH SUCH DATA, CALCULATIONS OR OPINIONS.

HALIBURTON		JOB SUMMARY		TICKET #	1079104	TICKET DATE	1/12/01
REGION	NORTH AMERICAN	AREA / COUNTRY	ROCKY MOUNTAIN / USA	SDA / STATE	DENVER CO.	COUNTY	CARBON
MBU ID / EMPL #	VE-0503	H/E & EMPLOYEE NAME / EMPLOYEE #	B. GUINN / 121401	PSL DEPARTMENT	PRODUCTION ENHANCEMENT	CUSTOMER REP / PHONE	JIM HARTLEY
LOCATION	VERNAL UT.	COMPANY	Anadarko Petroleum Corp.	APPLY #			
TICKET AMOUNT		WELL TYPE	02-Gas	WELL CATEGORY	01-Development		
WELL LOCATION	PRICE UT.	DEPARTMENT	5005	JOB PURPOSE CODE	450 MISC PUMP		
LEASE	SWD	SEC / TWP / RNC	SEC. 36 - TWN. 15S - RNC. 8E				
	WELL #		#1				

H/E & EMP NAME / EMP # (EXPOSURE HOURS)	HRS	HRS	HRS	HRS
	3.8			
S. STEWART / 122306	3.8			
S. STEWART / 122306	3.8			
J. HATCH / 122114	3.8			
G. HARREL / 219895	3.8			
	3.8			

H/E UNIT # (R/T MILES)	R/T MILES	R/T MILES	R/T MILES	R/T MILES
421616	240			
540458-78378	240			
	240			
	240			
	240			
	240			
	240			

Form. Name NAVAGO Type: _____
 Form. Thickness 512 From 7.708 To 8.218
 Packer Type _____ Set At _____
 Bottom Hole Temp. 150.0 Pressure 3,872
 Misc. Data _____ Total Depth 8,500

Called Out	On Location	Job Started	Job Completed
Date: 1/12/01	1/12/01	1/12/01	1/12/01
Time: 0200	0830	0951	1052

Treat. Fluid	Density	Lb/Gal
Disp. Fluid	Fresh	8.33
Prod. Type	Sz	Lb.
Prop. Type	Sz	Lb.
Acid Type	Gal.	%
Acid Type	Gal.	%
Surfactant	Gal.	In
Surfactant	Gal.	In
Fluid Loss	Gal/Lb	In
Gelling Agent	Gal/Lb	In
Breaker	Gal/Lb	In
Breaker	Gal/Lb	In
Breaker	Gal/Lb	In
Perpac Balls	Qty.	
Blocker	Gal/Lb	In
Cross-linker	Gal/Lb	In
Cross-linker	Gal/Lb	In
Clay Control	Gal/Lb	In
Sand Cont.	Gal/Lb	In
Sand Cont.	Gal/Lb	In
Buffer	Gal/Lb	In
Buffer	Gal/Lb	In
Foamer	Gal/Lb	In
Catalyst	Gal/Lb	In
Gel Stabilizer	Gal/Lb	In
Other		
Other		
Other		

Well Data	Weight	Size	From	To	Max. Allow
Casing	U	5.500	0	8,500	5,000
Casing					
Liner					
Tcp / D.P.	U	9.20	0	7,556	1,450
Tcp / D.P.					
Open Hole					Shots/Ft.
Perforations		380	7,708	8,218	4
Perforations					

Hours On Location	Hours	Operating Hours	Hours	Description of Job
Date: 01/12/01	3.8	Date: 01/12/01	1.00	450 MISC PUMP
Total	3.8	Total	1.00	

Job Leaders: MBU LDR. B. GUINN / 121401 SAFETY G. HARREL / 219895
 TEAM LDR. S. STEWART / 122306 DRIVER S. STEWART / 122306
 ENG. CO DRIVER J. HATCH / 122114

Treating Personnel: _____

Ordered	BAP	Hydraulic Horsepower	Avail.	BAP	Used	74
Max. Rate	6.2	Rates in BPM				

Pressures	Displacement	Preflush:	Gal - BBI	Volumes:	Type:
Circulating	1,120	Load & Bkdn:	Gal - BBI		Pad: Bbl - Gal
Breakdown	955	Treatment:	Gal - BBI	172.8	Disp: Bbl - Gal
Average	523	Total Volume	Gal - BBI	7,256	Gal
Shut In: Instant	5 Min. 47				172.8 BBL

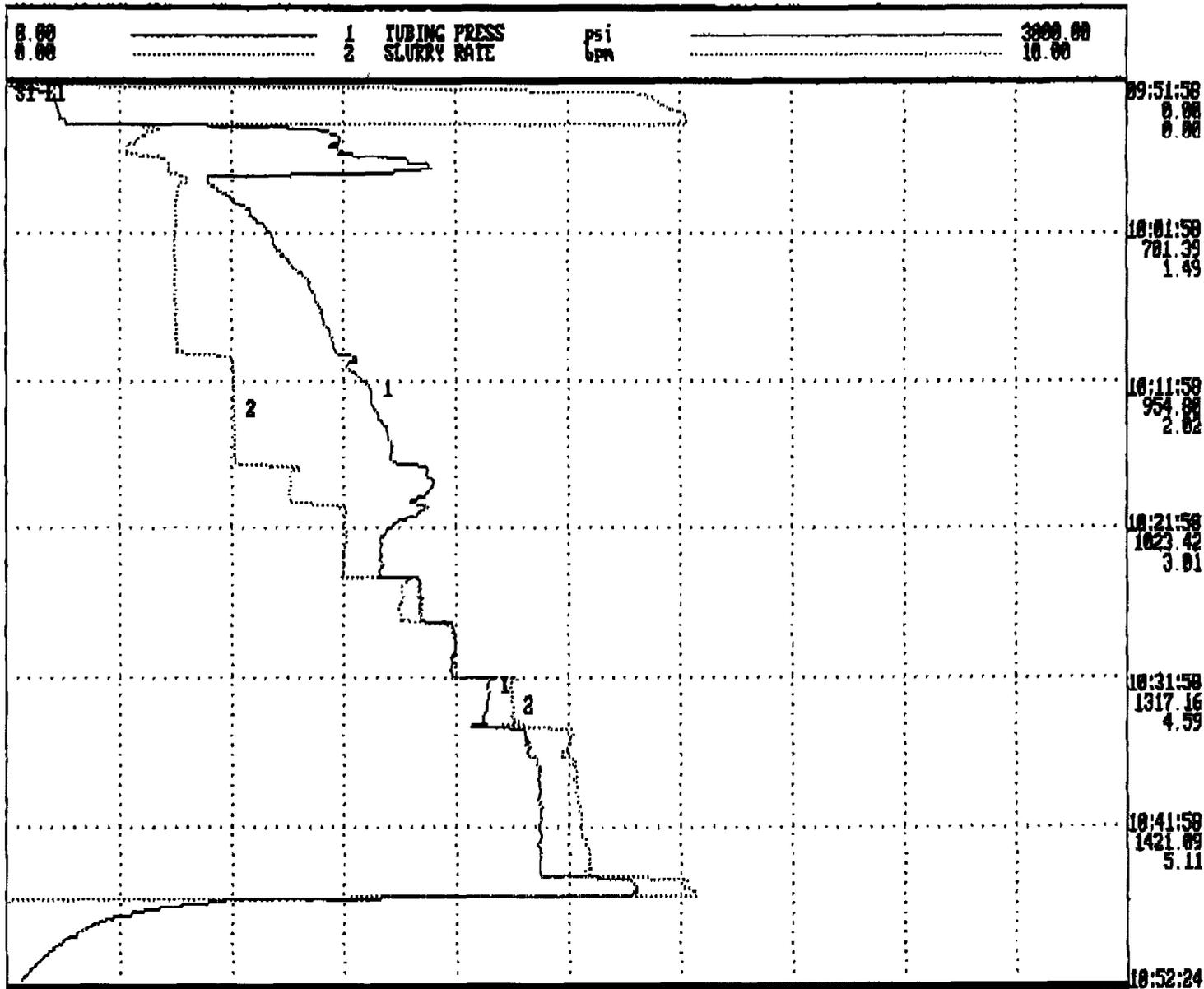
HALLIBURTON		JOB LOG		1078104	1/12/01
NORTH AMERICA		ROCKY MOUNTAIN / USA		DENVER, CO.	CARBON
VE-0503		B. GUINN / 121401		PRODUCTION ENHANCEMENT	
VERNAL, UT.		Anadarko Petroleum Corp.		JIM HARTLEY	
TICKET AMOUNT \$0.00		WELL TYPE 02-Gas		WELL CATEGORY 01-Development	
WELL LOCATION PRICE, UT		DEPARTMENT 5005		JOB PURPOSE CODE: 450 MISC PUMP	
LEASE SWD		WELL # #1		SEC / TRAP / INCH SEC. 36 - TWN. 15S - RNG. BE	

Chart No.	Time	Rate	Volume	Propp.		Press. (PSI)		Job Description / Remarks
				T	C	T	C	
	0200							CALLED OUT
	0830							ON LOCATION
	0840							RIG UP TO WELL HEAD
	0950					2,311		PRIME AND TEST
	0951							SAFETY MEETING
	0951	0.0	0			0		START JOB
	0952	0.1	0			35		FILL HOLE
	0954	1.0	14			466		ESTABLISH RATE
	0956	1.1	16			682		ESTABLISH PSI
	0957	1.1	16			901		STEP UP
	0957	1.4	17			1,100		ESTABLISH PSI
	0958	1.5	18			1,120		BREAK @
	0958	1.5	19			534		ESTABLISH PSI
	1009	1.5	36			676		STEP UP
	1010	2.0	37			930		ESTABLISH PSI
	1017	2.0	51			1,028		STEP UP ACID
	1018	2.5	53			1,122		ESTABLISH PSI
	1020	2.5	58			1,068		STEP UP
	1020	3.0	58			1,123		ESTABLISH PSI
	1025	3.0	72			988		STEP UP
	1025	3.5	74			1,100		ESTABLISH PSI
	1028	3.5	83			1,107		STEP UP
	1028	4.0	84			1,195		ESTABLISH PSI
	1031	4.0	97			1,187		STEP UP
	1032	4.5	99			1,290		ESTABLISH PSI
	1034	4.5	112			1,264		STEP UP
	1036	6.0	115			1,380		ESTABLISH PSI
	1045	5.2	164			1,421		STEP UP
	1045	6.1	166			1,667		ESTABLISH PSI
	1046	6.0	173			1,642		SHUTDOWN / JOB COMPLETED
	1047					523		ISIP
	1052					47		5 MIN
	1055							RIG DOWN WELL HEAD
	1120							LEAVE LOCATION FOR SWD #4
								SUMMARY
						HHP 74		FG. 0.50
						AVG RT. 3.2 BPM		MAX RT. 6.2 BPM
						AVG PRESS. 955 PSI		MAX PRESS. 1,663 PSI
						TOTAL LOAD 7,286 GAL		172.8 BBL
						TOTAL PROPPANT 0 LBS		0 SKS.

Customer: ANADARKO
Well Desc: SWD #1
Formation: NUGROD

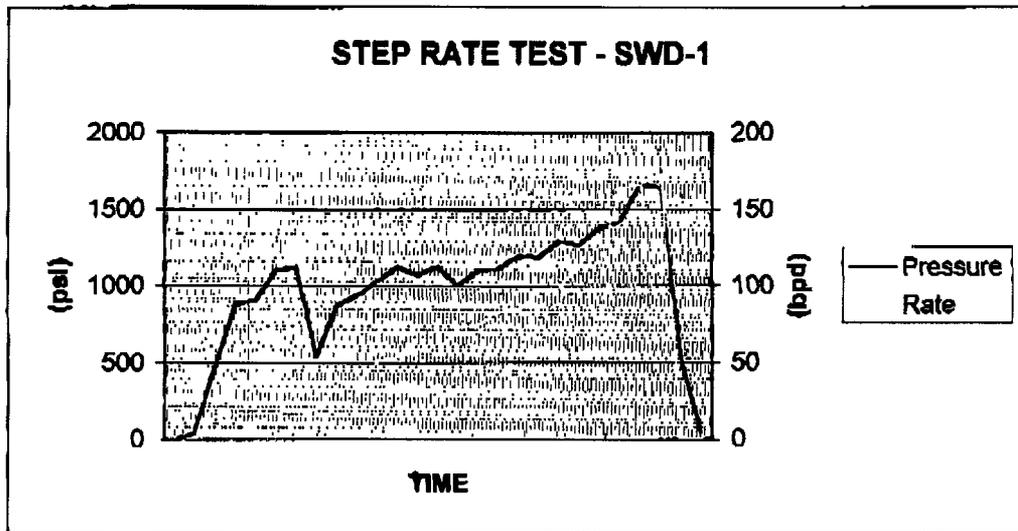
Date: 12-Jan-2001
Ticket #: 1078184
Job Type: STEP TEST

1. Tubing Press (psi)
2. Slurry Rate (bpm)

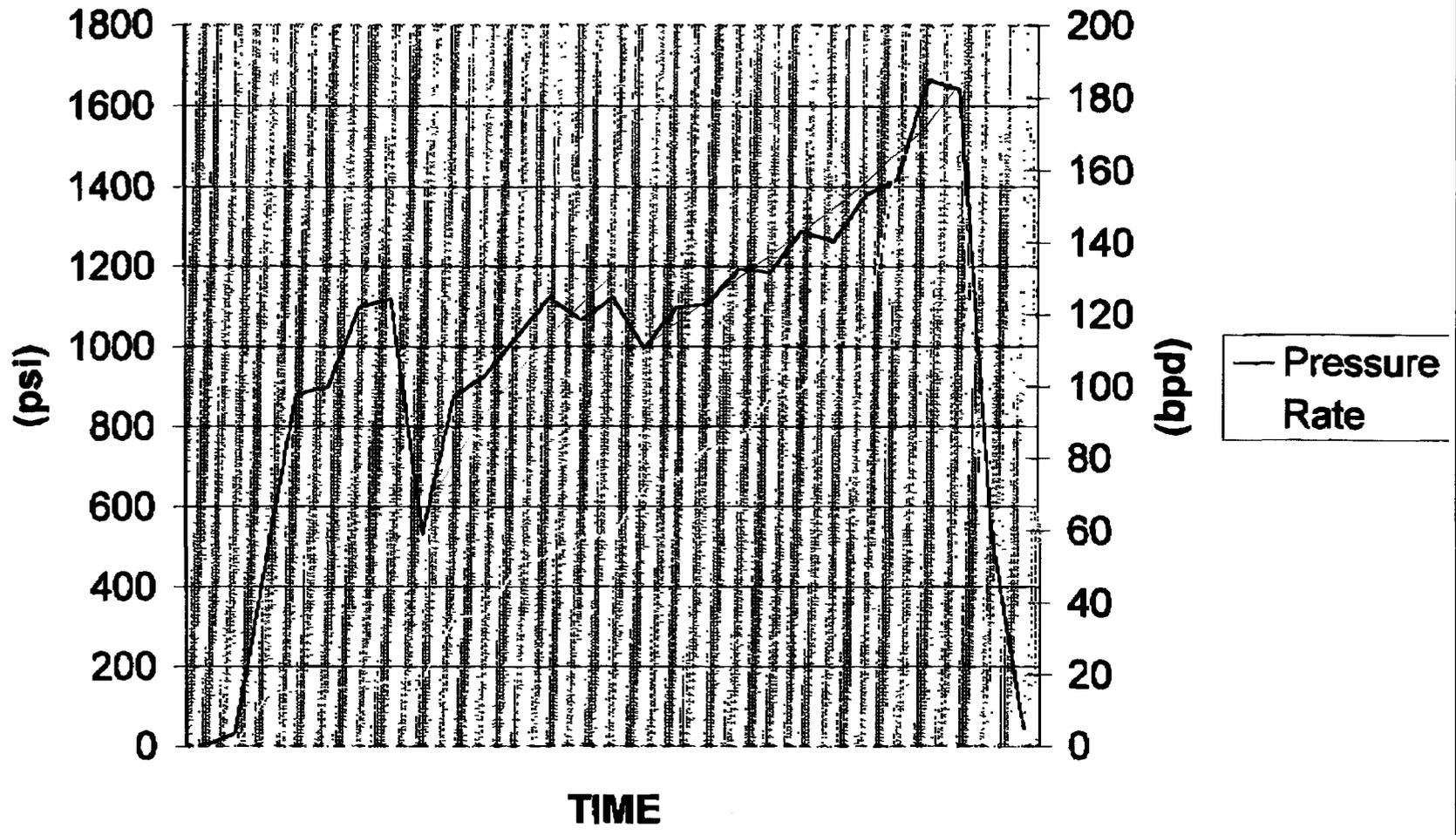


STEP RATE TEST DATA
SWD-1

Time	Pressure	Rate	Time
951	0	0	951
952	35	0	952
954	466	14	954
956	882	16	956
957	901	16	957
957	1100	17	957
958	1120	18	958
958	534	19	958
1009	876	36	1009
1010	930	37	1010
1017	1029	51	1017
1018	1122	53	1018
1020	1068	58	1020
1020	1123	59	1020
1025	998	72	1025
1025	1100	74	1025
1028	1107	83	1028
1028	1195	84	1028
1031	1187	97	1031
1032	1290	99	1032
1034	1264	112	1034
1035	1380	115	1035
1045	1421	164	1045
1045	1667	166	1045
1046	1642	173	1046
1047	523	0	1047
1052	47	0	1052



STEP RATE TEST - SWD-1





RE: Clawson Spring State SWD #1 Injectivity Test

01/23/01

Dear Mr Hebertson,

Based on the analysis of the step rate (or injectivity) test done on this well and submitted to your office, I have concluded that we did not reach a pressure sufficient to part the formation. There were no discernable slope changes in the rate vs. pressure plot of the injectivity data. There was a near wellbore clean up anomaly early in the test but the data indicates that fracturing of the reservoir has not yet occurred at the maximum pressure reached during the test of 1667 psig. To further substantiate my findings, the measured surface pressures were largely due to friction pressure between the water and the walls of the tubing. Standard friction pressure curves indicate that at 6 BPM, there would be at least 600 psig of friction pressure (I am confident that due to a 2" surface injection line, the friction pressure was much higher than that). The remaining surface pressure of approximately 1100 psig plus the weight of the hydrostatic head of about 3500 psig is not sufficient to create a fracturing gradient at this depth and in this formation.

It is my conclusion that at 1667 psig surface injection pressure, the Navajo formation has enough matrix permeability to absorb all of the water injected without yielding from the pressure. Further, the thickness of the injection zone, coupled with the higher natural stresses in the confining anhydrite formations, would easily contain any fracturing that might occur if pressures and rates were to ever exceed the fracturing gradient.

I would anticipate that in the near future, Anadarko will submit additional information and request an allowance for an even higher maximum injection pressure than the currently applied for 1400 psig.

Please feel free to contact me with any further questions or concerns.

Thank you for your time and efforts in granting this injection permit.

Sincerely,

A handwritten signature in black ink, appearing to read "Lloyd Stutz".

Lloyd Stutz
Production Engineer
Anadarko Petroleum Company
832-601-3091

TALON RESOURCES, INC.

375 S. Carbon Ave. (A-10), Suite 101, Price, Utah 84501
Phone: (435) 637-8781 (435) 650-1886 Fax: (435) 636-8603

Fax Transmittal Cover Sheet**Date: 01/19/01****Number of pages: 13****Message To: Mr. Mike Hebertson - Division of Oil, Gas, and Mining****Telephone Number: 1-801-538-5333****Fax Number: 1-801-359-3940**

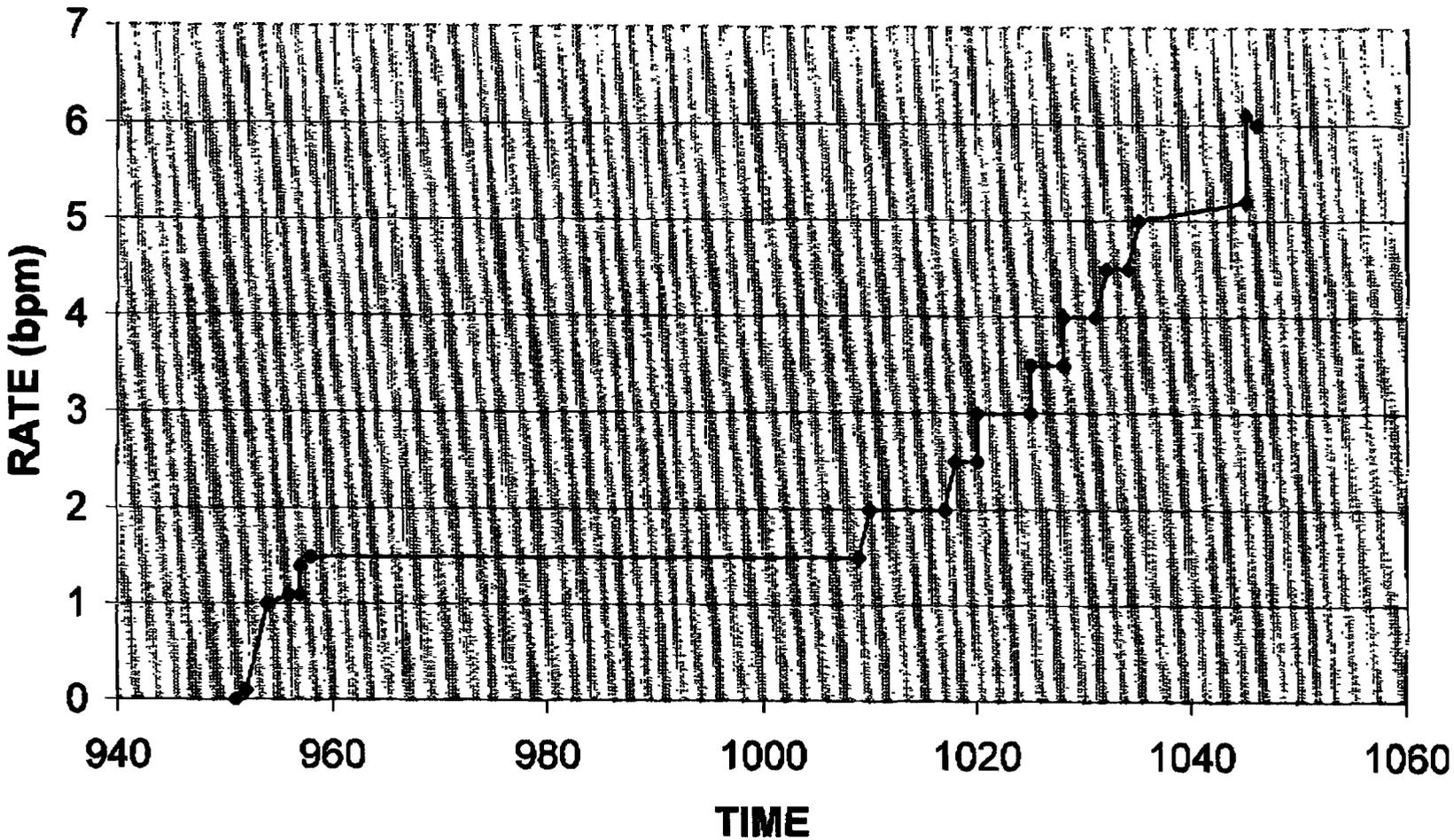
Message From: Don Hamilton**Mr. Hebertson:**

Following our earlier conversations I have drafted a TIME vs RATE graph of the step-rate test completed earlier for the SWD-1 and SWD-4. Additionally, I have plotted the RATE vs PRESSURE for both wells to see if that presented the data in a better format. Please review the enclosed data and let me know if you need any additional information

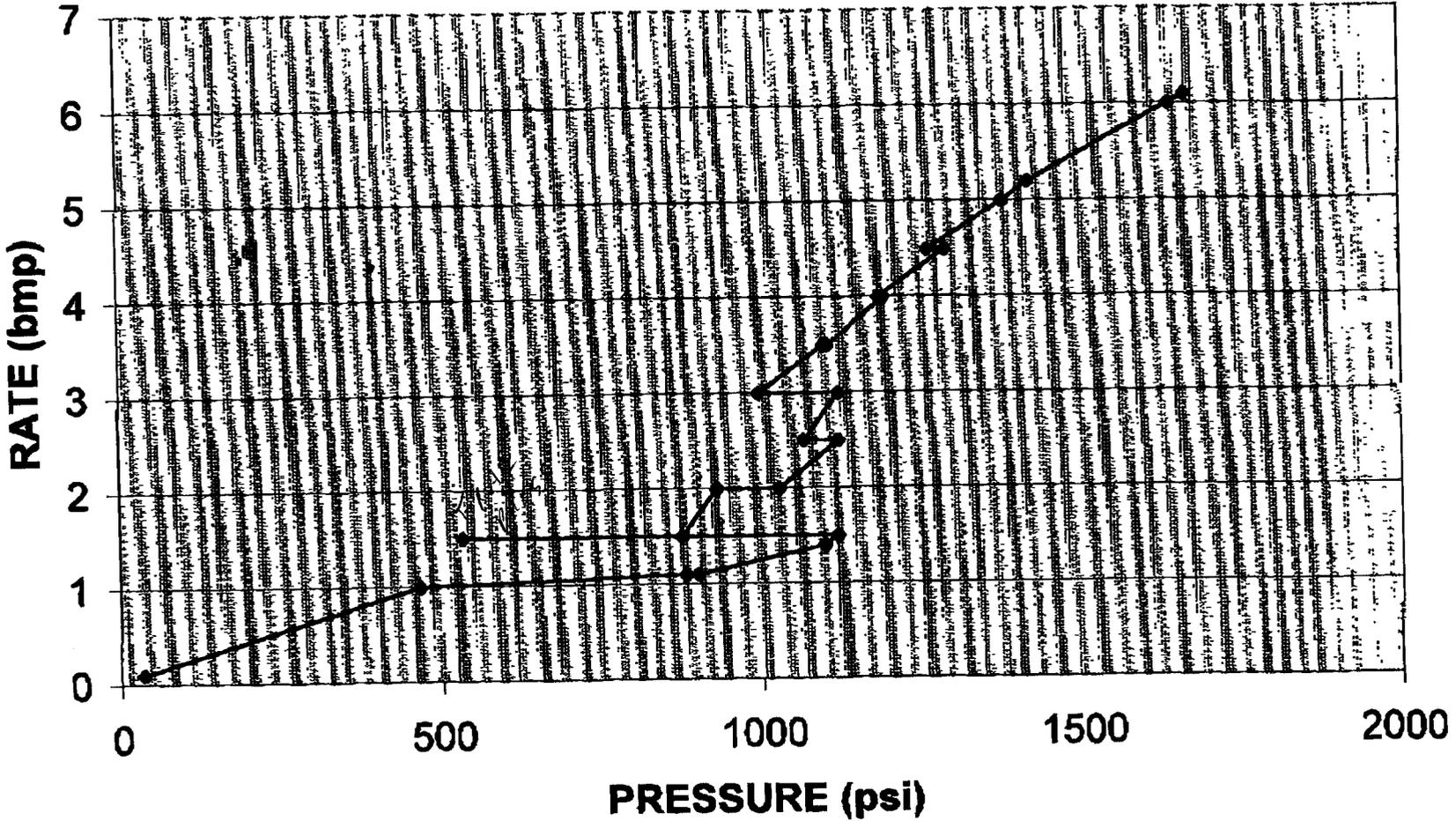
Thank you for your time and patience on this matter.

Don

STEP RATE TEST - SWD 1



STEP RATE TEST - SWD 1





State of Utah
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

ym

Michael O. Leavitt
Governor
Kathleen Clarke
Executive Director
Lowell P. Braxton
Division Director

1594 West North Temple, Suite 1210
PO Box 145801
Salt Lake City, Utah 84114-5801
801-538-5340
801-359-3940 (Fax)
801-538-7223 (TDD)

UNDERGROUND INJECTION CONTROL PERMIT

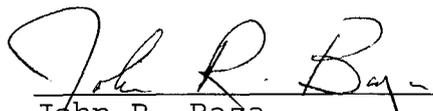
Cause No. UIC-264.1

Operator: Anadarko Petroleum
Wells: Clawson Spring State SWD #1
Location: Section 36, Township 15 South, Range 8 East,
County: Carbon
API No.: 43-007-30721
Well Type: Disposal

Stipulations of Permit Approval

1. Approval for conversion to Injection Well issued on January 4, 2001
2. Maximum Allowable Injection Pressure: 1,400 psig
3. Maximum Allowable Injection Rate: 8,600 BPD
4. Injection Interval: 7,710 feet to 8,225 feet
(Navajo Sandstone, Kayenta Formation and Wingate Sandstone)

Approved by:


John R. Baza
Associate Director

1/29/01
Date

DIVISION OF OIL, GAS AND MINING
UNDERGROUND INJECTION CONTROL PROGRAM

PERMIT
STATEMENT OF BASIS

Applicant: Anadarko Petroleum Corporation Well: Clawson Spring SWD #1

Location: Sec. 36, T 15 S, R 8 E Carbon County API: 43-007-30721

Ownership Issues:

Anadarko Petroleum Corporation is the Mineral owner of the lease where this well is located. The company has notified all of the surface and mineral owners within a half-mile radius of this well that it is being applied for. The well has been published in the Sun Advocate, the Salt Lake Tribune, and the Deseret News. There were no objections or comments received concerning this well.

Well Integrity:

The well is equipped with three strings of pipe which have been cemented in place in the following order:

Surface Casing: 316' 13 3/8", 48Lb/Ft H-40 ST&C, Cemented to surface with 390 sacks of Class G cement 1.16 Cubic Feet per sack, at 15.8 Lbs/gal.

Intermediate Casing: 4,300' 8 5/8", 24#/Ft J-55 ST&C, Cemented to surface with 615 sacks of Hi Lift cement 3.84 Cubic Feet per Sack, and 11.4 Lbs/gal, and 185 sacks of Class G cement 1.61 Cubic Feet per sack, at 15.8 Lbs/gal.

Production Casing: 8,448' 5 1/2", 17Lb/Ft N-80 LT&C, Cemented in three stages with 410 sacks Class G cement 1.15 Cubic Feet per sack at 15.8 Lbs/gal, and 386 sacks Hi Lift cement 3.84 Cubic Feet per sack at 11.0 Lbs/gal, and 120 sacks of Class G cement 1.15 Cubic Feet per sack at 15.8 Lbs/gal. Tail cement top is at 4,100', and a DV Tool was set at 7,200'.

Ground Water Protection:

The geology for this location would indicate that the Upper, Middle and Lower Members of the Emery Sandstone are present in the subsurface stratigraphic section in this area of Carbon County, and that the probability that one or more of these members would have aquifer qualities is high. No water was encountered in any of these near surface sands while drilling, and a log analysis of the Dual

Induction log gamma ray curve indicates that one of the Emery Sands was penetrated at 202-304 feet, however the surface casing was set through this sand and cement was circulated back to surface. Two other minor unnamed sands were penetrated between 780' and 1,000 feet. The Intermediate Casing was set through these sands to the bottom of the Ferron Sandstone at 4,300' the Ferron sand is the gas productive zone in this field. Cement was also circulated to surface on this section of casing giving added protection to the water of the Ferron and the other near surface sands.

Since there are no known Underground Supplies of Drinking Water in this area the probability that there will be any contamination of water supplies is negligible. The surface and intermediate casing and cementing programs are adequate insurance against the migration of water from the injection zone to the surface. The casing and cement program for the injection zones will provide a suitable barrier for the containment of injected water. There are several hundred feet of 100% bond above the injection zone in the Carmel formation.

The Navajo Sandstone formation water at the subject well was tested at 46,600 mg/l TDS by Champion Technologies of Vernal, Utah. Samples were taken 29 November, 2000. The Navajo Sandstone is a known fresh water aquifer at many locations in the state. In the San Rafael Swell area, the quality of Navajo Sandstone ground water is generally best near the outcrop and recharge areas and poorer with increased depth and distance from recharge [Utah State Department of Natural Resources (DNR) Technical Publication # 78]. This premise has been supported by test results on samples taken from the subject well and other disposal wells in the area. The planned injection of Ferron Sandstone Member produced formation water into the specified formations at this location will result in the dilution of the more saline Navajo Sandstone formation water.

The proposed operation is expected to have little effect on the overall hydrology of the aquifer because of its great extent compared to the volume of fluid that will likely be injected. According to DNR Technical Publication #78, the Navajo Sandstone alone contains approximately 94,000,000 acre-feet of water in transient storage. Injection at a rate of 14,400 barrels per day for 10 years would result in approximately 6,775 acre-feet being injected. This equates to about 0.007% of the water already in storage in the Navajo Sandstone and would require at least 143 disposal wells working round the clock for 10 years to inject 1% of the stored volume in the Navajo Sandstone. As stated by the operator on the application, the maximum injection rate proposed is 10 BPM or 14,400 BPD at maximum 1,400 psig. According to the Evaluation of Drunkards Wash Injection Wells Past and Future Performance report prepared by Tesseract Corporation &

Stim-Lab of Duncan Oklahoma, fracture propagation occurs in a downward direction in the Navajo Sandstone. A Hydrogeologic Assessment prepared for the operator in 1997, by Montgomery Watson states that "it is unlikely that injection of Ferron groundwater could adversely affect groundwater quality in the vicinity of future water production sites. This is in part controlled by three zones of impermeable Anhydrite overlying the Navajo Formation, which form a seal and thus become the bounding beds of the injection zone. The step rate test indicates that the operator could inject with surface pressures approaching 3000 psi without causing a breach in the Anhydrite bounding beds above the injection zone.

The step rate test for this well was run 12-January-2001, and was conducted in a manner acceptable to the information required for said test. During the test the well was pressured to 500 psig surface recorded pressure, and a break was observed at that pressure indicating that the formation was fractured at that point. The test was then completed with maximum pressures reaching 1,642 psig (surface pressure), at a rate of 6 BBLs per minute. ISIP was 523 psi. At the established rate the average daily injection volumes would be about 8,500 BBLs per day, which is short of the 14,000 BWPd applied for. A document supplied by the operator January 23, 2001 states that the formation did not fracture according to their interpretation of the data. The feeling of the Anadarko personnel is that the friction pressure accounted for 600 psig of the 1667 Lb injection pressure and that "the remaining surface pressure of approximately 1,100 psig plus the weight of the hydrostatic head of about 3500 psig is not sufficient to create a fracturing gradient at this depth and in this formation."

Based on information gathered from other sources it is possible that the Navajo Formation has two areas of different fracturing gradients, one low gradient if the well is in an area of tension, one high gradient if the well is in an area of compression. It is possible that this well is in a compression area and that the formation did not break down beyond the point where the perforations were cleaned out at 500 psi.

After reviewing applicable information including the application submitted by Anadarko, it is concluded that injection into the Navajo Sandstone, Kayenta Formation, and Wingate Sandstone, at this location, would result in some dilution of the saline water present in the aquifer, and that a pressure increase near the wellbore, created by injection of fluids, would dissipate over time, after injection ceases. No long term negative impacts are anticipated as a result of injection of produced water into the subject well.

Oil/Gas & Other Mineral Resources Protection:

The hydrocarbon and mineral resources of this location consist of the mineral coal, which is saturated with methane gas and water. These resources lie at such a depth that current technology will not allow the mining of the coal due to the excessive amount of overburden, which would need to be propped up, or removed to extract the coal. The methane cannot be developed without the ability to dispose of the water that is entrained in the coal and the overlying Ferron Sand. Therefore the development of this well as a disposal well is of utmost importance to the future development of the field.

The coal and methane resource are protected by the intermediate casing and cement, placed such that the casing and cement cover the entire productive zone of the Ferron Sand and associated coal seam. No other known potentially producible mineral or hydrocarbon zones were encountered during the drilling of the well. The injection zone is isolated nearly 3,500' below the productive interval of the Ferron Sandstone.

Bonding:

Anadarko Petroleum Corporation has an \$80,000 Fee Surety Bond in place, which provides coverage for this well.

Actions Taken and Further Approvals Needed:

Notice of this application was published in the Salt Lake Tribune and The (Price, UT) Sun Advocate. In addition, copies of the notice were provided to the EPA, BLM (Price, UT), Carbon County Planning Office, and River Gas Corporation. The notice stated the proposed interval for injection into the Navajo Sandstone, Kayenta Formation, and Wingate Sandstone was from 7,710' to 8,225'.

Note: Applicable technical publications concerning water resources in the general vicinity of this project have been reviewed and taken into consideration during the permit review process.

Reviewer(s): K. Michael Hebertson Date: 25 - January - 2001



State of Utah
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

B

Michael O. Leavitt
Governor
Kathleen Clarke
Executive Director
Lowell P. Braxton
Division Director

1594 West North Temple, Suite 1210
PO Box 145801
Salt Lake City, Utah 84114-5801
801-538-5340
801-359-3940 (Fax)
801-538-7223 (TDD)

UNDERGROUND INJECTION CONTROL PERMIT

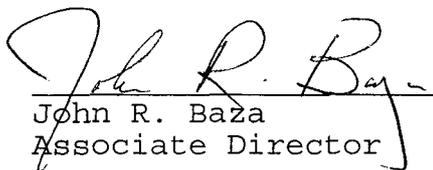
Cause No. UIC-264.1

Operator: Anadarko Petroleum
Wells: Clawson Spring State SWD #1
Location: Section 36, Township 15 South, Range 8 East,
County: Carbon
API No.: 43-007-30721
Well Type: Disposal

Stipulations of Permit Approval

1. Approval for conversion to Injection Well issued on January 4, 2001
2. Maximum Allowable Injection Pressure: 1,400 psig
3. Maximum Allowable Injection Rate: 8,600 BPD
4. Injection Interval: 7,710 feet to 8,225 feet (Navajo Sandstone, Kayenta Formation and Wingate Sandstone)

Approved by:


John R. Baza
Associate Director

1/29/01
Date

DIVISION OF OIL, GAS AND MINING
UNDERGROUND INJECTION CONTROL PROGRAM

PERMIT
STATEMENT OF BASIS

Applicant: Anadarko Petroleum Corporation **Well:** Clawson Spring SWD #1

Location: Sec. 36, T 15 S, R 8 E Carbon County **API:** 43-007-30721

Ownership Issues:

Anadarko Petroleum Corporation is the Mineral owner of the lease where this well is located. The company has notified all of the surface and mineral owners within a half-mile radius of this well that it is being applied for. The well has been published in the Sun Advocate, the Salt Lake Tribune, and the Deseret News. There were no objections or comments received concerning this well.

Well Integrity:

The well is equipped with three strings of pipe which have been cemented in place in the following order:

Surface Casing: 316' 13 3/8", 48Lb/Ft H-40 ST&C, Cemented to surface with 390 sacks of Class G cement 1.16 Cubic Feet per sack, at 15.8 Lbs/gal.

Intermediate Casing: 4,300' 8 5/8", 24#/Ft J-55 ST&C, Cemented to surface with 615 sacks of Hi Lift cement 3.84 Cubic Feet per Sack, and 11.4 Lbs/gal, and 185 sacks of Class G cement 1.61 Cubic Feet per sack, at 15.8 Lbs/gal.

Production Casing: 8,448' 5 1/2", 17Lb/Ft N-80 LT&C, Cemented in three stages with 410 sacks Class G cement 1.15 Cubic Feet per sack at 15.8 Lbs/gal, and 386 sacks Hi Lift cement 3.84 Cubic Feet per sack at 11.0 Lbs/gal, and 120 sacks of Class G cement 1.15 Cubic Feet per sack at 15.8 Lbs/gal. Tail cement top is at 4,100', and a DV Tool was set at 7,200'.

Ground Water Protection:

The geology for this location would indicate that the Upper, Middle and Lower Members of the Emery Sandstone are present in the subsurface stratigraphic section in this area of Carbon County, and that the probability that one or more of these members would have aquifer qualities is high. No water was encountered in any of these near surface sands while drilling, and a log analysis of the Dual

Induction log gamma ray curve indicates that one of the Emery Sands was penetrated at 202-304 feet, however the surface casing was set through this sand and cement was circulated back to surface. Two other minor unnamed sands were penetrated between 780' and 1,000 feet. The Intermediate Casing was set through these sands to the bottom of the Ferron Sandstone at 4,300' the Ferron sand is the gas productive zone in this field. Cement was also circulated to surface on this section of casing giving added protection to the water of the Ferron and the other near surface sands.

Since there are no known Underground Supplies of Drinking Water in this area the probability that there will be any contamination of water supplies is negligible. The surface and intermediate casing and cementing programs are adequate insurance against the migration of water from the injection zone to the surface. The casing and cement program for the injection zones will provide a suitable barrier for the containment of injected water. There are several hundred feet of 100% bond above the injection zone in the Carmel formation.

The Navajo Sandstone formation water at the subject well was tested at 46,600 mg/l TDS by Champion Technologies of Vernal, Utah. Samples were taken 29 November, 2000. The Navajo Sandstone is a known fresh water aquifer at many locations in the state. In the San Rafael Swell area, the quality of Navajo Sandstone ground water is generally best near the outcrop and recharge areas and poorer with increased depth and distance from recharge [Utah State Department of Natural Resources (DNR) Technical Publication # 78]. This premise has been supported by test results on samples taken from the subject well and other disposal wells in the area. The planned injection of Ferron Sandstone Member produced formation water into the specified formations at this location will result in the dilution of the more saline Navajo Sandstone formation water.

The proposed operation is expected to have little effect on the overall hydrology of the aquifer because of its great extent compared to the volume of fluid that will likely be injected. According to DNR Technical Publication #78, the Navajo Sandstone alone contains approximately 94,000,000 acre-feet of water in transient storage. Injection at a rate of 14,400 barrels per day for 10 years would result in approximately 6,775 acre-feet being injected. This equates to about 0.007% of the water already in storage in the Navajo Sandstone and would require at least 143 disposal wells working round the clock for 10 years to inject 1% of the stored volume in the Navajo Sandstone. As stated by the operator on the application, the maximum injection rate proposed is 10 BPM or 14,400 BPD at maximum 1,400 psig. According to the Evaluation of Drunkards Wash Injection Wells Past and Future Performance report prepared by Tesseract Corporation &

Stim-Lab of Duncan Oklahoma, fracture propagation occurs in a downward direction in the Navajo Sandstone. A Hydrogeologic Assessment prepared for the operator in 1997, by Montgomery Watson states that "it is unlikely that injection of Ferron groundwater could adversely affect groundwater quality in the vicinity of future water production sites. This is in part controlled by three zones of impermeable Anhydrite overlying the Navajo Formation, which form a seal and thus become the bounding beds of the injection zone. The step rate test indicates that the operator could inject with surface pressures approaching 3000 psi without causing a breach in the Anhydrite bounding beds above the injection zone.

The step rate test for this well was run 12-January-2001, and was conducted in a manner acceptable to the information required for said test. During the test the well was pressured to 500 psig surface recorded pressure, and a break was observed at that pressure indicating that the formation was fractured at that point. The test was then completed with maximum pressures reaching 1,642 psig (surface pressure), at a rate of 6 BBLs per minute. ISIP was 523 psi. At the established rate the average daily injection volumes would be about 8,500 BBLs per day, which is short of the 14,000 BWPD applied for. A document supplied by the operator January 23, 2001 states that the formation did not fracture according to their interpretation of the data. The feeling of the Anadarko personnel is that the friction pressure accounted for 600 psig of the 1667 Lb injection pressure and that "the remaining surface pressure of approximately 1,100 psig plus the weight of the hydrostatic head of about 3500 psig is not sufficient to create a fracturing gradient at this depth and in this formation."

Based on information gathered from other sources it is possible that the Navajo Formation has two areas of different fracturing gradients, one low gradient if the well is in an area of tension, one high gradient if the well is in an area of compression. It is possible that this well is in a compression area and that the formation did not break down beyond the point where the perforations were cleaned out at 500 psi.

After reviewing applicable information including the application submitted by Anadarko, it is concluded that injection into the Navajo Sandstone, Kayenta Formation, and Wingate Sandstone, at this location, would result in some dilution of the saline water present in the aquifer, and that a pressure increase near the wellbore, created by injection of fluids, would dissipate over time, after injection ceases. No long term negative impacts are anticipated as a result of injection of produced water into the subject well.

Oil/Gas & Other Mineral Resources Protection:

The hydrocarbon and mineral resources of this location consist of the mineral coal, which is saturated with methane gas and water. These resources lie at such a depth that current technology will not allow the mining of the coal due to the excessive amount of overburden, which would need to be propped up, or removed to extract the coal. The methane cannot be developed without the ability to dispose of the water that is entrained in the coal and the overlying Ferron Sand. Therefore the development of this well as a disposal well is of utmost importance to the future development of the field.

The coal and methane resource are protected by the intermediate casing and cement, placed such that the casing and cement cover the entire productive zone of the Ferron Sand and associated coal seam. No other known potentially producible mineral or hydrocarbon zones were encountered during the drilling of the well. The injection zone is isolated nearly 3,500' below the productive interval of the Ferron Sandstone.

Bonding:

Anadarko Petroleum Corporation has an \$80,000 Fee Surety Bond in place, which provides coverage for this well.

Actions Taken and Further Approvals Needed:

Notice of this application was published in the Salt Lake Tribune and The (Price, UT) Sun Advocate. In addition, copies of the notice were provided to the EPA, BLM (Price, UT), Carbon County Planning Office, and River Gas Corporation. The notice stated the proposed interval for injection into the Navajo Sandstone, Kayenta Formation, and Wingate Sandstone was from 7,710' to 8,225'.

Note: Applicable technical publications concerning water resources in the general vicinity of this project have been reviewed and taken into consideration during the permit review process.

Reviewer(s): K. Michael Hebertson Date: 25 - January - 2001

DIVISION OF OIL, GAS AND MINING
UNDERGROUND INJECTION CONTROL PROGRAM

**PERMIT
STATEMENT OF BASIS**

Applicant: Anadarko Petroleum Corporation **Well:** Clawson Spring SWD #1

Location: Sec. 36, T 15 S, R 8 E Carbon County **API:** 43-007-30721

Ownership Issues:

Anadarko Petroleum Corporation is the Mineral owner of the lease where this well is located. The company has notified all of the surface and mineral owners within a half mile radius of this well that it is being applied for. The well has been published in the Sun Advocate, the Salt Lake Tribune, and the Deseret News. There were no objections or comments received concerning this well.

Well Integrity:

The well is equipped with three strings of pipe which have been cemented in place in the following order:

Surface Casing: 316' 13 3/8", 48Lb/Ft H-40 ST&C, Cemented to surface with 390 sacks of Class G cement 1.16 Cubic Feet per sack, at 15.8 Lbs/gal.

Intermediate Casing: 4,300' 8 5/8", 24#/Ft J-55 ST&C, Cemented to surface with 615 sacks of Hi Lift cement 3.84 Cubic Feet per Sack, and 11.4 Lbs/gal, and 185 sacks of Class G cement 1.61 Cubic Feet per sack, at 15.8 Lbs/gal.

Production Casing: 8,448' 5 1/2", 17Lb/Ft N-80 LT&C, Cemented in three stages with 410 sacks Class G cement 1.15 Cubic Feet per sack at 15.8 Lbs/gal, and 386 sacks Hi Lift cement 3.84 Cubic Feet per sack at 11.0 Lbs/gal, and 120 sacks of Class G cement 1.15 Cubic Feet per sack at 15.8 Lbs/gal. Tail cement top is at 4,100', and a DV Tool was set at 7,200'.

Ground Water Protection:

The geology for this location would indicate that the Upper, Middle and Lower Members of the Emery Sandstone are present in the subsurface stratigraphic section in this area of Carbon County, and that the probability that one or more of these members would have aquifer qualities is high. No water was encountered in any of these near surface sands while drilling, and a log analysis of the Dual

Induction log gamma ray curve indicates that one of the Emery Sands was penetrated at 202 - 304 feet, however the surface casing was set through this sand and cement was circulated back to surface. Two other minor unnamed sands were penetrated between 780' and 1,000 feet. The Intermediate Casing was set through these sands to the bottom of the Ferron Sandstone at 4,300' the Ferron sand is the gas productive zone in this field. Cement was also circulated to surface on this section of casing giving added protection to the water of the Ferron and the other near surface sands.

Since there are no known Underground Supplies of Drinking Water in this area the probability that there will be any contamination of water supplies is negligible. The surface and intermediate casing and cementing programs are adequate insurance against the migration of water from the injection zone to the surface. The casing and cement program for the injection zones will provide a suitable barrier for the containment of injected water. There are several hundred feet of 100% bond above the injection zone in the Carmel formation.

The Navajo Sandstone formation water at the subject well was tested at 46,600 mg/l TDS by Champion Technologies of Vernal, Utah. Samples were taken 29 November, 2000. The Navajo Sandstone is a known fresh water aquifer at many locations in the state. In the San Rafael Swell area, the quality of Navajo Sandstone ground water is generally best near the outcrop and recharge areas and poorer with increased depth and distance from recharge [Utah State Department of Natural Resources (DNR) Technical Publication # 78]. This premise has been supported by test results on samples taken from the subject well and other disposal wells in the area. The planned injection of Ferron Sandstone Member produced formation water into the specified formations at this location will result in the dilution of the more saline Navajo Sandstone formation water.

The proposed operation is expected to have little effect on the overall hydrology of the aquifer because of its great extent compared to the volume of fluid that will likely be injected. According to DNR Technical Publication #78, the Navajo Sandstone alone contains approximately 94,000,000 acre-feet of water in transient storage. Injection at a rate of 14,400 barrels per day for 10 years would result in approximately 6,775 acre-feet being injected. This equates to about 0.007% of the water already in storage in the Navajo Sandstone and would require at least 143 disposal wells working round the clock for 10 years to inject 1% of the stored volume in the Navajo Sandstone. As stated by the operator on the application, the maximum injection rate proposed is 10 BPM or 14,400 BPD at maximum 1,400 psig. According to the Evaluation of Drunkards Wash Injection Wells Past and Future Performance report prepared by Tesseract Corporation &

Stim-Lab of Duncan Oklahoma, fracture propagation occurs in a downward direction in the Navajo Sandstone. A Hydrogeologic Assessment prepared for the operator in 1997, by Montgomery Watson states that "it is unlikely that injection of Ferron groundwater could adversely affect groundwater quality in the vicinity of future water production sites. This is in part controlled by three zones of impermeable Anhydrite overlying the Navajo Formation, which form a seal and thus become the bounding beds of the injection zone. The step rate test indicates that the operator could inject with surface pressures approaching 3000 psi without causing a breach in the Anhydrite bounding beds above the injection zone.

The step rate test for this well was run 12-January-2001, and was conducted in a manner acceptable to the information required for said test. During the test the well was pressured to 500 psia surface recorded pressure, and a break was observed at that pressure indicating that the formation was fractured at that point. The test was then completed with maximum pressures reaching 1,642 psia (surface pressure), at a rate of 6 BBLS per minute. ISIP was 523 psi. At the established rate the average daily injection volumes would be about 8,500 BBLS per day, which is short of the 14,000 BWPD applied for. A document supplied by the operator January 23, 2001 states that the formation did not fracture according to their interpretation of the data. The feeling of the Anadarko personnel is that the friction pressure accounted for 600 psig of the 1667 Lb injection pressure and that "the remaining surface pressure of approximately 1,100 psig plus the weight of the hydrostatic head of about 3500 psig is not sufficient to create a fracturing gradient at this depth and in this formation."

Based on information gathered from other sources it is possible that the Navajo Formation has two areas of different fracturing gradients, one low gradient if the well is in an area of tension, one high gradient if the well is in an area of compression. It is possible that this well is in a compression area and that the formation did not break down beyond the point where the perforations were cleaned out at 500 psi.

After reviewing applicable information including the application submitted by Anadarko, it is concluded that injection into the Navajo Sandstone, Kayenta Formation, and Wingate Sandstone, at this location, would result in some dilution of the saline water present in the aquifer, and that a pressure increase near the wellbore, created by injection of fluids, would dissipate over time, after injection ceases. No long term negative impacts are anticipated as a result of injection of produced water into the subject well.

Oil/Gas & Other Mineral Resources Protection:

The hydrocarbon and mineral resources of this location consist of the mineral coal which is saturated with methane gas and water. These resources lie at such a depth that current technology will not allow the mining of the coal due to the excessive amount of overburden which would need to be propped up or removed to extract the coal. The methane cannot be developed without the ability to dispose of the water that is entrained in the coal and the overlying Ferron Sand. Therefore the development of this well as a disposal well is of utmost importance to the future development of the field.

The coal and methane resource are protected by the intermediate casing and cement, placed such that the casing and cement cover the entire productive zone of the Ferron Sand and associated coal seam. No other known potentially producible mineral or hydrocarbon zones were encountered during the drilling of the well. The injection zone is isolated nearly 3,500' below the productive interval of the Ferron Sandstone.

Bonding:

Anadarko Petroleum Corporation has an \$80,000 Fee Surety Bond in place which provides coverage for this well.

Actions Taken and Further Approvals Needed:

Notice of this application was published in the Salt Lake Tribune and The (Price, UT) Sun Advocate. In addition, copies of the notice were provided to the EPA, BLM (Price, UT), Carbon County Planning Office, and River Gas Corporation. The notice stated the proposed interval for injection into the Navajo Sandstone, Kayenta Formation, and Wingate Sandstone was from 7,710' to 8,225'.

Note: Applicable technical publications concerning water resources in the general vicinity of this project have been reviewed and taken into consideration during the permit review process.

Reviewer(s): K. Michael Hebertson Date: 25 - January - 2001

STATE OF UTAH
DIVISION OF OIL, GAS AND MINING

5. Lease Designation and Serial Number:

ML-46106

SUNDRY NOTICES AND REPORTS ON WELLS

6. If Indian, Allottee or Tribe Name:

N/A

Do not use this form for proposals to drill new wells, deepen existing wells, or to reenter plugged and abandoned wells.
Use APPLICATION FOR PERMIT TO DRILL OR DEEPEN form for such proposals.

7. Unit Agreement Name:

N/A

1. Type of Well: OIL GAS OTHER:

8. Well Name and Number:

Clawson Springs State SWD-1

2. Name of Operator:

Anadarko Petroleum Corporation

9. API Well Number:

43-007-30721

3. Address and Telephone Number:

60 South 700 East, Unit #1, Price, Utah 84501; 435-637-3044

10. Field or Pool, or Wildcat:

Undesignated

4. Location of Well

Footages:

716' FNL, 2301' FWL

County: Carbon

QQ, Sec., T., R., M.:

NE/4 NW/4, Section 36, T15S, R8E, SLB&M

State:

Utah

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

NOTICE OF INTENT
(Submit in Duplicate)

- | | |
|--|---|
| <input type="checkbox"/> Abandon | <input type="checkbox"/> New Construction |
| <input type="checkbox"/> Repair Casing | <input type="checkbox"/> Pull or Alter Casing |
| <input type="checkbox"/> Change of Plans | <input type="checkbox"/> Recomplete |
| <input type="checkbox"/> Convert to Injection | <input type="checkbox"/> Reperforate |
| <input type="checkbox"/> Fracture Treat or Acidize | <input type="checkbox"/> Vent or Flare |
| <input type="checkbox"/> Multiple Completion | <input type="checkbox"/> Water Shut-Off |
| <input type="checkbox"/> Other _____ | |

Approximate date work will start _____

SUBSEQUENT REPORT
(Submit Original Form Only)

- | | |
|--|---|
| <input type="checkbox"/> Abandon * | <input type="checkbox"/> New Construction |
| <input type="checkbox"/> Repair Casing | <input type="checkbox"/> Pull or Alter Casing |
| <input type="checkbox"/> Change of Plans | <input type="checkbox"/> Reperforate |
| <input checked="" type="checkbox"/> Convert to Injection | <input type="checkbox"/> Vent or Flare |
| <input type="checkbox"/> Fracture Treat or Acidize | <input type="checkbox"/> Water Shut-Off |
| <input type="checkbox"/> Other _____ | |

Date of work completion _____

Report results of Multiple Completions and Recompletions to different reservoirs on WELL COMPLETION OR RECOMPLETION REPORT AND LOG form.

* Must be accompanied by a cement verification report.

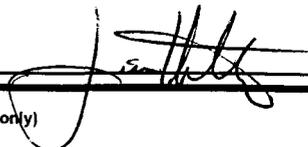
12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS (Clearly state all pertinent details, and give pertinent dates. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)

The Clawson Spring State SWD-1 well commenced injection and was converted to injection status on February 8, 2001 pursuant to the stipulations of the approved UIC Permit and The Oil and Gas Conservation General Rules.

FILE COPY

13.

Name & Signature: _____



Title: _____

Field Foreman

Date: _____

2-22-01

(This space for state use only)

COPY

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

AMENDED REPORT FORM 8
(highlight changes)

WELL COMPLETION OR RECOMPLETION REPORT AND LOG

1a. TYPE OF WELL: OIL WELL GAS WELL DRY OTHER Salt Water Disp

b. TYPE OF COMPLETION: NEW WELL WORK OVER DEEP-EN RE-ENTRY DIFF. RESVR. OTHER _____

5. LEASE DESIGNATION AND SERIAL NUMBER:
ML-46106

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

7. UNIT or CA AGREEMENT NAME

8. WELL NAME and NUMBER:
Clawson Spring State SWD #1

9. API NUMBER:
43-007-30721

2. NAME OF OPERATOR
Anadarko Petroleum Corporation

3. ADDRESS OF OPERATOR
17001 Northchase Drive, Houston, Texas 77060

PHONE NUMBER:
281-875-1101

10. FIELD AND POOL, OR WILDCAT
SWD

4. LOCATION OF WELL (FOOTAGES)

AT SURFACE:
716' FNL & 2301' FWL

AT TOP PRODUCING INTERVAL REPORTED BELOW:
SAME

AT TOTAL DEPTH: SAME

11. QTR/QTR, SECTION, TOWNSHIP, RANGE,
MERIDIAN:
NENW OF SECTION 36, T15S, R8E

12. COUNTY
CARBON

13. STATE
UTAH

14. DATE SPUDED
8/4/00

15. DATE T.D. REACHED
9/13/00

16. DATE COMPLETED:
2/7/01

ABANDONED READY TO PRODUCE

17. ELEVATIONS (DF, RKB, RT, GL):
6796' GL

18. TOTAL DEPTH: MD 8448'
TVD

19. PLUG, BACK T.D.: MD
TVD

20. IF MULTIPLE COMPLETIONS, HOW MANY?
N/A

21. DEPTH BRIDGE MD NONE
PLUG SET: TVD

22. TYPE ELECTRIC AND OTHER MECHANICAL LOGS RUN (Submit copy of each)

CBL/CCL/GR/NEUTRON/DENSITY/GR, DSI/GR - 3/23/01
AIT/LC/GR - 3/23/01 Bond attenuation/GR

23.

WAS WELL CORED? NO YES (Submit analysis)

Drill System Test NO YES (Submit report)

DIRECTIONAL SURVEY? NO YES (Submit copy)

24. CASING AND LINER RECORD (Report all strings set in well)

HOLE SIZE	SIZE/GRADE	WEIGHT (#/ft.)	TOP (MD)	BOTTOM (MD)	STAGE CEMENTER DEPTH	CEMENT TYPE & NO. OF SACKS	SLURRY VOLUME (BBL)	CEMENT TOP **	AMOUNT PULLED
17 1/2"	13 3/8"	48#	0	316'		390SXS		SURFACE	NONE
12 1/4"	8 5/8"	24#	0	4300'		800 SXS		SURFACE	NONE
7 7/8"	5 1/2"	17#	0	8448'		568 SXS		4528'	NONE

25. TUBING RECORD

SIZE	DEPTH SET (MD)	PACKER SET (MD)	SIZE	DEPTH SET (MD)	PACKER SET (MD)	SIZE	DEPTH SET (MD)	PACKER SET (MD)
2 3/8"	7090'	7090'						

26. PRODUCING INTERVALS

FORMATION NAME	TOP (MD)	BOTTOM (MD)	TOP (TVD)	BOTTOM (TVD)	INTERVAL (Top/Bot - MD)	SIZE	NO. HOLES	PERFORATION STATUS
NAVAJO	7706	8218			7706-8218 0A	.66	788	Open <input checked="" type="checkbox"/> Squeezed <input type="checkbox"/>
								Open <input type="checkbox"/> Squeezed <input type="checkbox"/>
								Open <input type="checkbox"/> Squeezed <input type="checkbox"/>
								Open <input type="checkbox"/> Squeezed <input type="checkbox"/>

27. PERFORATION RECORD

28. ACID, FRACTURE, TREATMENT, CEMENT SQUEEZE, ETC.

DEPTH INTERVAL	AMOUNT AND TYPE OF MATERIAL
7706-8218 0A	NO TREATMENT

29. ENCLOSED ATTACHMENTS:

ELECTRICAL/MECHANICAL LOGS
 SUNDRY NOTICE FOR PLUGGING AND CEMENT VERIFICATION

GEOLOGIC REPORT
 CORE ANALYSIS

DST REPORT
 OTHER: _____

30. WELL STATUS:

RECEIVED

MAR 23 2001

DIVISION OF
OIL, GAS AND MINING

INJECTION WELL - PRESSURE TEST

Well Name: <u>Clawson Spring St SWD1</u>	API Number: <u>4300730721</u>
Qtr/Qtr: <u>NENW</u>	Section: <u>36</u>
Township: <u>15 S.</u>	Range: <u>8 E.</u>
Company Name: <u>Anadarko Petroleum Corp.</u>	
Lease: State <u>X</u>	Fee _____
Federal _____	Indian _____
Inspector: <u>Mark F Jones</u>	Date: <u>7/21/2008</u>

Initial Conditions:

Tubing - Rate: 0 Pressure: 0 psi

Casing/Tubing Annulus - Pressure: 0 psi

Conditions During Test:

Time (Minutes)	Annulus Pressure	Tubing Pressure
0	<u>1000 #</u>	<u>0 #</u>
5	_____	_____
10	_____	_____
15	<u>1000 #</u>	<u>0 #</u>
20	_____	_____
25	_____	_____
30	<u>1000 #</u>	<u>0 #</u>

Results: Pass/Fail

Conditions After Test:

Tubing Pressure: 0 psi

Casing/Tubing Annulus Pressure: 0 psi

COMMENTS: Well is not being used currently, passed MIT with no problems.

Ernest Davis
Operator Representative

Division of Oil, Gas and Mining
OPERATOR CHANGE WORKSHEET (for state use only)

ROUTING
 CDW

X - Change of Operator (Well Sold)

Operator Name Change/Merger

The operator of the well(s) listed below has changed, effective:

4/1/2013

FROM: (Old Operator): N0035-Anadarko Petroleum Corporation PO Box 173779 Denver, CO, 80214 Phone: 1 (720) 929-6000	TO: (New Operator): N3940- Anadarko E&P Onshore LLC PO Box 173779 Denver, CO 802014 Phone: 1 (720) 929-6000
---	---

CA No.			Unit:				WELL NAME	SEC	TWN	RNG	API NO	ENTITY	LEASE TYPE	WELL TYPE	WELL STATUS
See Attached List											NO				

OPERATOR CHANGES DOCUMENTATION

Enter date after each listed item is completed

- (R649-8-10) Sundry or legal documentation was received from the **FORMER** operator on: 4/9/2013
- (R649-8-10) Sundry or legal documentation was received from the **NEW** operator on: 4/9/2013
- The new company was checked on the **Department of Commerce, Division of Corporations Database** on: 4/10/2013
- a. Is the new operator registered in the State of Utah: Business Number: 593715-0161
- a. (R649-9-2)Waste Management Plan has been received on: Yes
- b. Inspections of LA PA state/fee well sites complete on: 4/10/2013
- c. Reports current for Production/Disposition & Sundries on: 4/10/2013
- Federal and Indian Lease Wells:** The BLM and or the BIA has approved the merger, name change, or operator change for all wells listed on Federal or Indian leases on: BLM 4/2/2013 BIA N/A
- Federal and Indian Units:**
 The BLM or BIA has approved the successor of unit operator for wells listed on: N/A
- Federal and Indian Communization Agreements ("CA"):**
 The BLM or BIA has approved the operator for all wells listed within a CA on: N/A
- Underground Injection Control ("UIC")** Division has approved UIC Form 5 Transfer of Authority to **Inject**, for the enhanced/secondary recovery unit/project for the water disposal well(s) listed on: 4/10/2013

DATA ENTRY:

- Changes entered in the **Oil and Gas Database** on: 4/11/2013
- Changes have been entered on the **Monthly Operator Change Spread Sheet** on: 4/11/2013
- Bond information entered in RBDMS on: 4/10/2013
- Fee/State wells attached to bond in RBDMS on: 4/11/2013
- Injection Projects to new operator in RBDMS on: 4/11/2013
- Receipt of Acceptance of Drilling Procedures for APD/New on: N/A

BOND VERIFICATION:

- Federal well(s) covered by Bond Number: WYB000291
- Indian well(s) covered by Bond Number: N/A
- a. (R649-3-1) The **NEW** operator of any state/fee well(s) listed covered by Bond Number 22013542
- b. The **FORMER** operator has requested a release of liability from their bond on: N/A

LEASE INTEREST OWNER NOTIFICATION:

- (R649-2-10) The **NEW** operator of the fee wells has been contacted and informed by a letter from the Division of their responsibility to notify all interest owners of this change on: 4/11/2013

COMMENTS:

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 type="checkbox"/> OTHER <u>CBM Wells</u>		5. LEASE DESIGNATION AND SERIAL NUMBER: <u>See Wells</u>
2. NAME OF OPERATOR: <u>Anadarko Petroleum Corporation</u>		6. IF INDIAN, ALLOTTEE OR TRIBE NAME:
3. ADDRESS OF OPERATOR: P.O. Box 173779 CITY <u>Denver</u> STATE <u>CO</u> ZIP <u>80217</u>		7. UNIT or CA AGREEMENT NAME:
PHONE NUMBER: <u>(720) 929-6000</u>		8. WELL NAME and NUMBER:
4. LOCATION OF WELL FOOTAGES AT SURFACE:		9. API NUMBER: <u>See Wells</u>
QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN:		10. FIELD AND POOL, OR WILDCAT:
COUNTY: <u>Denver</u>		STATE: <u>UTAH</u>

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

TYPE OF SUBMISSION	TYPE OF ACTION		
<input type="checkbox"/> NOTICE OF INTENT (Submit in Duplicate) Approximate date work will start: <u>4/8/2013</u>	<input type="checkbox"/> ACIDIZE	<input type="checkbox"/> DEEPEN	<input type="checkbox"/> REPERFORATE CURRENT FORMATION
<input type="checkbox"/> SUBSEQUENT REPORT (Submit Original Form Only) Date of work completion:	<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 checked="" 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 type="checkbox"/> OTHER: _____
	<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.

The operator is requesting authorization to transfer the wells from Anadarko Petroleum Corporation and Anadarko Production Company to Anadarko E&P Onshore, LLC. Please see the attached list of 181 wells that are currently filed under Anadarko Petroleum Corporation and Anadarko Production Company. The state/fee wells will be under bond number 22013542, and the federal wells will be under bond number WYB000291.

Effective 4/1/13

Please contact the undersigned if there are any questions.

RECEIVED
APR 09 2013

Jaime Scharnowske
Jaime Scharnowske
Regulatory Analyst

DIV. OF OIL, GAS & MINING
Jaime Scharnowske
Jaime Scharnowske
Regulatory Analyst

Anadarko Petroleum Corporation **N0035**
P.O. Box 173779
Denver, CO 80214
(720) 929-6000

Anadarko E&P Onshore, LLC **N3940**
P.O. Box 173779
Denver, CO 80214
(720) 929-6000

NAME (PLEASE PRINT) <u>Jaime Scharnowske</u>	TITLE <u>Regulatory Analyst</u>
SIGNATURE <u>Jaime Scharnowske</u>	DATE <u>4/8/2013</u>

(This space for State use only)
APPROVED
APR 11 2013
DIV. OIL GAS & MINING
Rachel Medina

Anadarko Petroleum Corporation (N0035) to Anadarko E&P Onshore, LLC (N3940)
 Effective 1st April-2013

Well Name	Sec	Twncshp	Range	API	Entity No.	Lease Type	Well Type	Well status
HELPER ST SWD 1	03	140S	100E	4300730361	12258	State	WD	A
FED F-2 SWD	08	140S	100E	4300730555	12557	Federal	WD	A
CLAWSON SPRING ST SWD 4	13	160S	080E	4301530477	12979	State	WD	A
CLAWSON SPRING ST SWD 1	36	150S	080E	4300730721	12832	State	WD	I
HELPER FED B-1	33	130S	100E	4300730189	11537	Federal	GW	P
HELPER FED A-1	23	130S	100E	4300730190	11517	Federal	GW	P
HELPER FED A-3	22	130S	100E	4300730213	11700	Federal	GW	P
HELPER FED C-1	22	130S	100E	4300730214	11702	Federal	GW	P
HELPER FED B-5	27	130S	100E	4300730215	11701	Federal	GW	P
HELPER FED A-2	22	130S	100E	4300730216	11699	Federal	GW	P
HELPER FED D-1	26	130S	100E	4300730286	12061	Federal	GW	P
BIRCH A-1	05	140S	100E	4300730348	12120	Fee	GW	P
HELPER ST A-1	03	140S	100E	4300730349	12122	State	GW	P
HELPER ST D-7	04	140S	100E	4300730350	12121	State	GW	P
CHUBBUCK A-1	31	130S	100E	4300730352	12397	Fee	GW	P
VEA A-1	32	130S	100E	4300730353	12381	Fee	GW	P
VEA A-2	32	130S	100E	4300730354	12483	Fee	GW	P
VEA A-3	32	130S	100E	4300730355	12398	Fee	GW	P
VEA A-4	32	130S	100E	4300730356	12482	Fee	GW	P
HELPER ST A-8	02	140S	100E	4300730357	12257	State	GW	P
HELPER ST A-3	02	140S	100E	4300730358	12254	State	GW	P
HELPER ST A-4	02	140S	100E	4300730359	12255	State	GW	P
HELPER ST A-7	02	140S	100E	4300730360	12256	State	GW	P
HELPER ST A-2	03	140S	100E	4300730362	12232	State	GW	P
HELPER ST A-5	03	140S	100E	4300730363	12231	State	GW	P
HELPER ST A-6	03	140S	100E	4300730364	12233	State	GW	P
HELPER ST D-4	04	140S	100E	4300730365	12228	State	GW	P
HELPER ST D-3	05	140S	100E	4300730366	12184	State	GW	P
HELPER ST D-5	04	140S	100E	4300730367	12226	State	GW	P
HELPER ST D-8	04	140S	100E	4300730368	12229	State	GW	P
HELPER ST D-2	05	140S	100E	4300730369	12481	State	GW	P
HELPER ST D-6	05	140S	100E	4300730370	12234	State	GW	P
HELPER ST D-1	06	140S	100E	4300730371	12399	State	GW	P
BIRCH A-2	08	140S	100E	4300730372	12189	Fee	GW	P
HELPER ST A-9	10	140S	100E	4300730373	12230	State	GW	P
HELPER ST B-1	09	140S	100E	4300730376	12227	State	GW	P
HELPER FED F-3	08	140S	100E	4300730378	12252	Federal	GW	P
HELPER FED F-4	09	140S	100E	4300730379	12253	Federal	GW	P
HELPER ST A-10	10	140S	100E	4300730433	12488	State	GW	P
HELPER ST A-11	11	140S	100E	4300730434	12487	State	GW	P
HELPER ST A-12	10	140S	100E	4300730435	12486	State	GW	P
HELPER ST A-13	10	140S	100E	4300730436	12485	State	GW	P
HELPER ST B-2	09	140S	100E	4300730437	12484	State	GW	P
HELPER FED E-7	19	130S	100E	4300730508	13623	Federal	GW	P
HELPER FED B-2	33	130S	100E	4300730530	12619	Federal	GW	P
HELPER FED B-3	33	130S	100E	4300730531	12622	Federal	GW	P
HELPER FED B-4	33	130S	100E	4300730532	12623	Federal	GW	P
HELPER FED B-6	27	130S	100E	4300730533	12644	Federal	GW	P
HELPER FED B-7	27	130S	100E	4300730534	12645	Federal	GW	P
HELPER FED B-8	27	130S	100E	4300730535	12631	Federal	GW	P

Anadarko Petroleum Corporation (N0035) to Anadarko E&P Onshore, LLC (N3940)
Effective 1-April-2013

Well Name	Sec	Twnshp	Range	API	Entity No.	Lease Type	Well Type	Well status
HELPER FED B-9	34	130S	100E	4300730536	12646	Federal	GW	P
HELPER FED B-10	34	130S	100E	4300730537	12626	Federal	GW	P
HELPER FED B-11	34	130S	100E	4300730538	12628	Federal	GW	P
HELPER FED B-12	34	130S	100E	4300730539	12627	Federal	GW	P
HELPER FED B-13	28	130S	100E	4300730540	12621	Federal	GW	P
HELPER FED B-14	28	130S	100E	4300730541	12620	Federal	GW	P
HELPER FED D-2	26	130S	100E	4300730542	12650	Federal	GW	P
HELPER FED D-3	26	130S	100E	4300730543	12634	Federal	GW	P
HELPER FED D-4	35	130S	100E	4300730544	12625	Federal	GW	P
HELPER FED D-5	35	130S	100E	4300730545	12637	Federal	GW	P
HELPER FED D-6	35	130S	100E	4300730546	12635	Federal	GW	P
HELPER FED E-1	29	130S	100E	4300730547	13246	Federal	GW	P
HELPER FED E-2	29	130S	100E	4300730548	12636	Federal	GW	P
HELPER FED H-1	01	140S	100E	4300730549	12653	Federal	GW	P
HELPER FED H-2	01	140S	100E	4300730550	12647	Federal	GW	P
OLIVETO FED A-2	08	140S	100E	4300730556	12630	Federal	GW	P
HELPER FED F-1	08	140S	100E	4300730557	12629	Federal	GW	P
SMITH FED A-1	09	140S	100E	4300730558	13004	Federal	GW	P
SE INVESTMENTS A-1	06	140S	100E	4300730570	12624	Fee	GW	P
HELPER ST A-14	11	140S	100E	4300730571	12612	State	GW	P
HELPER ST A-15	11	140S	100E	4300730572	12613	State	GW	P
HELPER ST E-1	36	130S	100E	4300730573	12615	State	GW	P
HELPER ST E-2	36	130S	100E	4300730574	12614	State	GW	P
HARMOND A-1	07	140S	100E	4300730586	12616	Fee	GW	P
HELPER ST E-3	36	130S	100E	4300730592	12868	State	GW	P
HELPER FED A-6	23	130S	100E	4300730593	12649	Federal	GW	P
HELPER FED D-7	26	130S	100E	4300730594	12651	Federal	GW	P
HELPER FED D-8	35	130S	100E	4300730595	12652	Federal	GW	P
CLAWSON SPRING ST A-1	36	150S	080E	4300730597	12618	State	GW	P
HELPER ST E-4	36	130S	100E	4300730598	12825	State	GW	P
HELPER ST A-16	11	140S	100E	4300730603	12638	State	GW	P
CHUBBUCK A-2	06	140S	100E	4300730604	12648	Fee	GW	P
CLAWSON SPRING ST A-2	36	150S	080E	4300730635	12856	State	GW	P
CLAWSON SPRING ST A-3	36	150S	080E	4300730636	13001	State	GW	P
CLAWSON SPRING ST A-4	36	150S	080E	4300730637	12844	State	GW	P
CLAWSON SPRING ST D-5	31	150S	090E	4300730642	12852	State	GW	P
CLAWSON SPRING ST D-6	31	150S	090E	4300730643	12847	State	GW	P
CLAWSON SPRING ST D-7	31	150S	090E	4300730644	12849	State	GW	P
HELPER FED A-5	23	130S	100E	4300730677	13010	Federal	GW	P
HELPER FED A-7	22	130S	100E	4300730678	13346	Federal	GW	P
HELPER FED B-15	28	130S	100E	4300730679	13015	Federal	GW	P
HELPER FED B-16	28	130S	100E	4300730680	13203	Federal	GW	P
HELPER FED C-2	24	130S	100E	4300730681	13016	Federal	GW	P
HELPER FED C-4	24	130S	100E	4300730682	13012	Federal	GW	P
HELPER FED C-7	21	130S	100E	4300730684	13204	Federal	GW	P
HELPER FED D-9	25	130S	100E	4300730685	13245	Federal	GW	P
HELPER FED D-10	25	130S	100E	4300730686	12993	Federal	GW	P
HELPER FED D-11	25	130S	100E	4300730687	12992	Federal	GW	P
HELPER FED D-12	25	130S	100E	4300730688	13005	Federal	GW	P
HELPER FED E-4	29	130S	100E	4300730689	13229	Federal	GW	P

Anadarko Petroleum Corporation (N0035) to Anadarko E&P Onshore, LLC (N3940)
 Effective 1-April-2013

Well Name	Sec	Twshp	Range	API	Entity No.	Lease Type	Well Type	Well status
HELPER FED A-4	23	130S	100E	4300730692	13009	Federal	GW	P
HELPER FED C-5	24	130S	100E	4300730693	13013	Federal	GW	P
HELPER FED G-1	30	130S	110E	4300730694	13006	Federal	GW	P
HELPER FED G-2	30	130S	110E	4300730695	13007	Federal	GW	P
HELPER FED G-3	31	130S	110E	4300730696	13002	Federal	GW	P
HELPER FED G-4	31	130S	110E	4300730697	13003	Federal	GW	P
HELPER FED H-3	01	140S	100E	4300730698	12831	Federal	GW	P
HELPER FED H-4	01	140S	100E	4300730699	12833	Federal	GW	P
CLAWSON SPRING ST D-8	31	150S	090E	4300730701	12851	State	GW	P
HELPER FED C-3	24	130S	100E	4300730702	13011	Federal	GW	P
CLAWSON SPRING ST J-1	35	150S	080E	4300730726	13299	Fee	GW	P
PIERUCCI 1	35	150S	080E	4300730727	13325	Fee	GW	P
POTTER ETAL 1	35	150S	080E	4300730728	12958	Fee	GW	P
POTTER ETAL 2	35	150S	080E	4300730737	12959	Fee	GW	P
HELPER FED G-5	30	130S	110E	4300730770	13655	Federal	GW	P
HELPER FED G-6	30	130S	110E	4300730771	13656	Federal	GW	P
HELPER FED G-7	31	130S	110E	4300730772	13657	Federal	GW	P
HELPER FED G-8	31	130S	110E	4300730773	13658	Federal	GW	P
GOODALL A-1	06	140S	110E	4300730774	13348	Fee	GW	P
HELPER FED E-8	19	130S	100E	4300730776	13624	Federal	GW	P
HAUSKNECHT A-1	21	130S	100E	4300730781	13347	Fee	GW	P
HELPER FED E-9	19	130S	100E	4300730868	13628	Federal	GW	P
HELPER FED E-5	20	130S	100E	4300730869	13625	Federal	GW	P
HELPER FED E-6	20	130S	100E	4300730870	13631	Federal	GW	P
HELPER FED E-10	30	130S	100E	4300730871	13629	Federal	GW	P
SACCOMANNO A-1	30	130S	100E	4300730872	13622	Fee	GW	P
HELPER FED E-11	30	130S	100E	4300730873	13630	Federal	GW	P
BLACKHAWK A-2	29	130S	100E	4300730886	13783	Fee	GW	P
BLACKHAWK A-3	20	130S	100E	4300730914	13794	Fee	GW	P
BLACKHAWK A-4	21	130S	100E	4300730915	13795	Fee	GW	P
BLACKHAWK A-1X	20	130S	100E	4300730923	13798	Fee	GW	P
HELPER STATE 12-3	03	140S	100E	4300750070	17824	State	GW	P
HELPER STATE 32-3	03	140S	100E	4300750071	17827	State	GW	P
HELPER STATE 32-36	36	130S	100E	4300750072	17825	State	GW	P
VEA 32-32	32	130S	100E	4300750075	17826	Fee	GW	P
CLAWSON SPRING ST E-7	07	160S	090E	4301530392	12960	State	GW	P
CLAWSON SPRING ST E-8	07	160S	090E	4301530394	12964	State	GW	P
CLAWSON SPRING ST E-3	06	160S	090E	4301530403	12965	State	GW	P
CLAWSON SPRING ST E-1	06	160S	090E	4301530404	12966	State	GW	P
CLAWSON SPRING ST E-2	06	160S	090E	4301530405	12961	State	GW	P
CLAWSON SPRING ST E-4	06	160S	090E	4301530406	12962	State	GW	P
CLAWSON SPRING ST C-1	12	160S	080E	4301530410	12617	State	GW	P
CLAWSON SPRING ST B-1	01	160S	080E	4301530427	12845	State	GW	P
CLAWSON SPRING ST B-2	01	160S	080E	4301530428	12846	State	GW	P
CLAWSON SPRING ST B-3	01	160S	080E	4301530429	12848	State	GW	P
CLAWSON SPRING ST B-4	01	160S	080E	4301530430	12854	State	GW	P
CLAWSON SPRING ST B-5	12	160S	080E	4301530431	12963	State	GW	P
CLAWSON SPRING ST B-8	11	160S	080E	4301530432	12863	State	GW	P
CLAWSON SPRING ST B-9	11	160S	080E	4301530433	12864	State	GW	P
CLAWSON SPRING ST C-2	12	160S	080E	4301530434	12850	State	GW	P

Anadarko Petroleum Corporation (N0035) to Anadarko E&P Onshore, LLC (N3940)
 Effective 1-April-2013

Well Name	Sec	Twnshp	Range	API	Entity No.	Lease Type	Well Type	Well status
CLAWSON SPRING ST C-4	14	160S	080E	4301530435	13199	State	GW	P
CLAWSON SPRING ST B-7	11	160S	080E	4301530460	12967	State	GW	P
CLAWSON SPRING ST C-6	14	160S	080E	4301530461	13355	State	GW	P
CLAWSON SPRING ST C-3	12	160S	080E	4301530463	12968	State	GW	P
CLAWSON SPRING ST B-6	11	160S	080E	4301530465	12969	State	GW	P
CLAWSON SPRING ST H-1	13	160S	080E	4301530466	13323	State	GW	P
CLAWSON SPRING ST H-2	13	160S	080E	4301530467	12955	State	GW	P
CLAWSON SPRING ST IPA-1	10	160S	080E	4301530468	12956	Fee	GW	P
CLAWSON SPRING ST IPA-2	15	160S	080E	4301530469	13200	Fee	GW	P
CLAWSON SPRING ST E-5	07	160S	090E	4301530470	12971	State	GW	P
CLAWSON SPRING ST G-1	02	160S	080E	4301530471	13014	State	GW	P
CLAWSON SPRING ST F-2	03	160S	080E	4301530472	13282	State	GW	P
CLAWSON SPRING ST F-1	03	160S	080E	4301530473	13278	State	GW	P
CLAWSON SPRING ST E-6	07	160S	090E	4301530474	13052	State	GW	P
CLAWSON SPRING ST G-2	02	160S	080E	4301530475	12957	State	GW	P
CLAWSON SPRING ST M-1	02	160S	080E	4301530488	13201	State	GW	P
CLAWSON SPRING ST K-1	02	160S	080E	4301530489	13202	State	GW	P
SHIMMIN TRUST 3	14	120S	100E	4300730119	11096	Fee	GW	PA
SHIMMIN TRUST 1	11	120S	100E	4300730120	11096	Fee	GW	PA
SHIMMIN TRUST 2	14	120S	100E	4300730121	11096	Fee	GW	PA
SHIMMIN TRUST 4	11	120S	100E	4300730123	11096	Fee	GW	PA
ST 9-16	16	120S	100E	4300730132	11402	State	GW	PA
ST 2-16	16	120S	100E	4300730133	11399	State	GW	PA
MATTS SUMMIT ST A-1	14	120S	090E	4300730141	11273	State	GW	PA
SLEMAKER A-1	05	120S	120E	4300730158	11441	Fee	GW	PA
JENSEN 16-10	10	120S	100E	4300730161	11403	Fee	GW	PA
JENSEN 7-15	15	120S	100E	4300730165	11407	Fee	GW	PA
SHIMMIN TRUST 12-12	12	120S	100E	4300730168	11420	Fee	GW	PA
JENSEN 11-15	15	120S	100E	4300730175	11425	Fee	GW	PA
BRYNER A-1	11	120S	120E	4300730188	11503	Fee	GW	PA
BRYNER A-1X (RIG SKID)	11	120S	120E	4300730209	11503	Fee	GW	PA
BLACKHAWK A-1	20	130S	100E	4300730885	13798	Fee	D	PA
BLACKHAWK A-5H	20	130S	100E	4300731402	17029	Fee	D	PA
CLAWSON SPRING ST SWD 3	06	160S	090E	4301530476	12978	State	D	PA
HELPER FED C-6	21	130S	100E	4300730683	13008	Federal	GW	S
UTAH 10-415	10	160S	080E	4301530391	12632	State	GW	TA

	API Well Number	Well Name	Qtr/Qtr	Section	Township	Range	Mineral Lease Type	Mineral Lease Number	Well Status
1	4300730189	HELPER FED B-1	NESW	33	13S	10E	Federal	USA UTU 71392	Producing
2	4300730190	HELPER FED A-1	C-SW	23	13S	10E	Federal	USA UTU 58434	Producing
3	4300730213	HELPER FED A-3	SESE	22	13S	10E	Federal	USA UTU 58434	Producing
4	4300730214	HELPER FED C-1	SENE	22	13S	10E	Federal	USA UTU 71391	Producing
5	4300730215	HELPER FED B-5	NENE	27	13S	10E	Federal	USA UTU 71392	Producing
6	4300730216	HELPER FED A-2	NESW	22	13S	10E	Federal	USA UTU 58434	Producing
7	4300730286	HELPER FED D-1	SWNE	26	13S	10E	Federal	USA UTU 68315	Producing
8	4300730378	HELPER FED F-3	NENE	8	14S	10E	Federal	USA UTU 65762	Producing
9	4300730379	HELPER FED F-4	NWNW	9	14S	10E	Federal	USA UTU 65762	Producing
10	4300730508	HELPER FED E-7	SESE	19	13S	10E	Federal	USA UTU 77980	Producing
11	4300730530	HELPER FED B-2	SENE	33	13S	10E	Federal	USA UTU 71392	Producing
12	4300730531	HELPER FED B-3	NESE	33	13S	10E	Federal	USA UTU 71392	Producing
13	4300730532	HELPER FED B-4	NENE	33	13S	10E	Federal	USA UTU 71392	Producing
14	4300730533	HELPER FED B-6	NENW	27	13S	10E	Federal	USA UTU 71392	Producing
15	4300730534	HELPER FED B-7	NESW	27	13S	10E	Federal	USA UTU 71392	Producing
16	4300730535	HELPER FED B-8	SESE	27	13S	10E	Federal	USA UTU 71392	Producing
17	4300730536	HELPER FED B-9	SENE	34	13S	10E	Federal	USA UTU 71392	Producing
18	4300730537	HELPER FED B-10	NWNE	34	13S	10E	Federal	USA UTU 71392	Producing
19	4300730538	HELPER FED B-11	SESW	34	13S	10E	Federal	USA UTU 71392	Producing
20	4300730539	HELPER FED B-12	NESE	34	13S	10E	Federal	USA UTU 71392	Producing
21	4300730540	HELPER FED B-13	SWSE	28	13S	10E	Federal	USA UTU 71392	Producing
22	4300730541	HELPER FED B-14	SWSW	28	13S	10E	Federal	USA UTU 71392	Producing
23	4300730542	HELPER FED D-2	SWNW	26	13S	10E	Federal	USA UTU 68315	Producing
24	4300730543	HELPER FED D-3	SESW	26	13S	10E	Federal	USA UTU 68315	Producing
25	4300730544	HELPER FED D-4	NWNW	35	13S	10E	Federal	USA UTU 68315	Producing
26	4300730545	HELPER FED D-5	SESW	35	13S	10E	Federal	USA UTU 68315	Producing
27	4300730546	HELPER FED D-6	NWSE	35	13S	10E	Federal	USA UTU 68315	Producing
28	4300730547	HELPER FED E-1	NESE	29	13S	10E	Federal	USA UTU 71675	Producing
29	4300730548	HELPER FED E-2	SESW	29	13S	10E	Federal	USA UTU 71675	Producing
30	4300730549	HELPER FED H-1	NENW	1	14S	10E	Federal	USA UTU 72352	Producing
31	4300730550	HELPER FED H-2	SESW	1	14S	10E	Federal	USA UTU 72352	Producing
32	4300730556	OLIVETO FED A-2	NESW	8	14S	10E	Federal	USA UTU 65762	Producing
33	4300730557	HELPER FED F-1	SESE	8	14S	10E	Federal	USA UTU 65762	Producing
34	4300730558	SMITH FED A-1	NWSW	9	14S	10E	Federal	USA UTU 65762	Producing
35	4300730593	HELPER FED A-6	SESE	23	13S	10E	Federal	USA UTU 58434	Producing
36	4300730594	HELPER FED D-7	C-SE	26	13S	10E	Federal	USA UTU 68315	Producing
37	4300730595	HELPER FED D-8	NENE	35	13S	10E	Federal	USA UTU 68315	Producing
38	4300730677	HELPER FED A-5	NENE	23	13S	10E	Federal	USA UTU 58434	Producing
39	4300730678	HELPER FED A-7	SENE	22	13S	10E	Federal	USA UTU 58434	Producing
40	4300730679	HELPER FED B-15	SENE	28	13S	10E	Federal	USA UTU 71392	Producing
41	4300730680	HELPER FED B-16	SWNW	28	13S	10E	Federal	USA UTU 71392	Producing
42	4300730681	HELPER FED C-2	NENW	24	13S	10E	Federal	USA UTU 71391	Producing

API Well Number	Well Name	Qtr/Qtr	Section	Township	Range	Mineral Lease Type	Mineral Lease Number	Well Status	
43	4300730682	HELPER FED C-4	NWSW	24	13S	10E	Federal	USA UTU 71391	Producing
44	4300730683	HELPER FED C-6	SWSE	21	13S	10E	Federal	USA UTU 71391	Shut-In
45	4300730684	HELPER FED C-7	SESW	21	13S	10E	Federal	USA UTU 71391	Producing
46	4300730685	HELPER FED D-9	NWNW	25	13S	10E	Federal	USA UTU 68315	Producing
47	4300730686	HELPER FED D-10	SENE	25	13S	10E	Federal	USA UTU 68315	Producing
48	4300730687	HELPER FED D-11	SESW	25	13S	10E	Federal	USA UTU 68315	Producing
49	4300730688	HELPER FED D-12	SESE	25	13S	10E	Federal	USA UTU 68315	Producing
50	4300730689	HELPER FED E-4	NWNE	29	13S	10E	Federal	USA UTU 71675	Producing
51	4300730692	HELPER FED A-4	SWNW	23	13S	10E	Federal	USA UTU 58434	Producing
52	4300730693	HELPER FED C-5	SWNE	24	13S	10E	Federal	USA UTU 71391	Producing
53	4300730694	HELPER FED G-1	C-NW	30	13S	11E	Federal	USA UTU 71677	Producing
54	4300730695	HELPER FED G-2	SWSW	30	13S	11E	Federal	USA UTU 71677	Producing
55	4300730696	HELPER FED G-3	SENE	31	13S	11E	Federal	USA UTU 71677	Producing
56	4300730697	HELPER FED G-4	SESW	31	13S	11E	Federal	USA UTU 71677	Producing
57	4300730698	HELPER FED H-3	SWNE	1	14S	10E	Federal	USA UTU 72352	Producing
58	4300730699	HELPER FED H-4	NESE	1	14S	10E	Federal	USA UTU 72352	Producing
59	4300730702	HELPER FED C-3	SESW	24	13S	10E	Federal	USA UTU 71391	Producing
60	4300730770	HELPER FED G-5	SWNE	30	13S	11E	Federal	USA UTU 71677	Producing
61	4300730771	HELPER FED G-6	SWSE	30	13S	11E	Federal	USA UTU 71677	Producing
62	4300730772	HELPER FED G-7	NWNE	31	13S	11E	Federal	USA UTU 71677	Producing
63	4300730773	HELPER FED G-8	NESE	31	13S	11E	Federal	USA UTU 71677	Producing
64	4300730776	HELPER FED E-8	SENE	19	13S	10E	Federal	USA UTU 77980	Producing
65	4300730868	HELPER FED E-9	SESW	19	13S	10E	Federal	USA UTU 77980	Producing
66	4300730869	HELPER FED E-5	SWSW	20	13S	10E	Federal	USA UTU 71675	Producing
67	4300730870	HELPER FED E-6	SWNW	20	13S	10E	Federal	USA UTU 71675	Producing
68	4300730871	HELPER FED E-10	NENW	30	13S	10E	Federal	USA UTU 71675	Producing
69	4300730873	HELPER FED E-11	NWNE	30	13S	10E	Federal	USA UTU 71675	Producing
70	4300730119	SHIMMIN TRUST 3	SENE	14	12S	10E	Fee (Private)		Plugged and Abandoned
71	4300730120	SHIMMIN TRUST 1	SESE	11	12S	10E	Fee (Private)		Plugged and Abandoned
72	4300730121	SHIMMIN TRUST 2	SENE	14	12S	10E	Fee (Private)		Plugged and Abandoned
73	4300730123	SHIMMIN TRUST 4	SESW	11	12S	10E	Fee (Private)		Plugged and Abandoned
74	4300730158	SLEMAKER A-1	SWNE	5	12S	12E	Fee (Private)		Plugged and Abandoned
75	4300730161	JENSEN 16-10	SESE	10	12S	10E	Fee (Private)		Plugged and Abandoned
76	4300730165	JENSEN 7-15	SWNE	15	12S	10E	Fee (Private)		Plugged and Abandoned
77	4300730168	SHIMMIN TRUST 12-12	NWSW	12	12S	10E	Fee (Private)		Plugged and Abandoned
78	4300730175	JENSEN 11-15	NESW	15	12S	10E	Fee (Private)		Plugged and Abandoned
79	4300730188	BRYNER A-1	NESE	11	12S	12E	Fee (Private)		Plugged and Abandoned
80	4300730209	BRYNER A-1X (RIG SKID)	NESE	11	12S	12E	Fee (Private)		Plugged and Abandoned
81	4300730348	BIRCH A-1	NWSW	5	14S	10E	Fee (Private)		Producing
82	4300730352	CHUBBUCK A-1	NESE	31	13S	10E	Fee (Private)		Producing
83	4300730353	VEA A-1	SWNW	32	13S	10E	Fee (Private)		Producing
84	4300730354	VEA A-2	NENE	32	13S	10E	Fee (Private)		Producing

	API Well Number	Well Name	Qtr/Qtr	Section	Township	Range	Mineral Lease Type	Mineral Lease Number	Well Status
85	4300730355	VEA A-3	SESW	32	13S	10E	Fee (Private)		Producing
86	4300730356	VEA A-4	NWSE	32	13S	10E	Fee (Private)		Producing
87	4300730372	BIRCH A-2	NWNW	8	14S	10E	Fee (Private)		Producing
88	4300730570	SE INVESTMENTS A-1	NESE	6	14S	10E	Fee (Private)		Producing
89	4300730586	HARMOND A-1	SENE	7	14S	10E	Fee (Private)		Producing
90	4300730604	CHUBBUCK A-2	SESW	6	14S	10E	Fee (Private)		Producing
91	4300730726	CLAWSON SPRING ST J-1	SESW	35	15S	8E	Fee (Private)		Producing
92	4300730727	PIERUCCI 1	SESW	35	15S	8E	Fee (Private)		Producing
93	4300730728	POTTER ETAL 1	SWNE	35	15S	8E	Fee (Private)		Producing
94	4300730737	POTTER ETAL 2	NESE	35	15S	8E	Fee (Private)		Producing
95	4300730774	GOODALL A-1	NWSW	6	14S	11E	Fee (Private)		Producing
96	4300730781	HAUSKNECHT A-1	SWNW	21	13S	10E	Fee (Private)		Producing
97	4300730872	SACCOMANNO A-1	NESE	30	13S	10E	Fee (Private)		Producing
98	4300730885	BLACKHAWK A-1	SESE	20	13S	10E	Fee (Private)		Plugged and Abandoned
99	4300730886	BLACKHAWK A-2	NWNW	29	13S	10E	Fee (Private)		Producing
100	4300730914	BLACKHAWK A-3	SENE	20	13S	10E	Fee (Private)		Producing
101	4300730915	BLACKHAWK A-4	NENE	21	13S	10E	Fee (Private)		Producing
102	4300730923	BLACKHAWK A-1X	SESE	20	13S	10E	Fee (Private)		Producing
103	4300731402	BLACKHAWK A-5H	NENE	20	13S	10E	Fee (Private)		Plugged and Abandoned
104	4300750075	VEA 32-32	SWNE	32	13S	10E	Fee (Private)		Producing
105	4301530468	CLAWSON SPRING ST IPA-1	SESE	10	16S	8E	Fee (Private)		Producing
106	4301530469	CLAWSON SPRING ST IPA-2	NENE	15	16S	8E	Fee (Private)		Producing
107	4300730132	ST 9-16	NESE	16	12S	10E	State	ML-44443	Plugged and Abandoned
108	4300730133	ST 2-16	NWNE	16	12S	10E	State	ML-44443	Plugged and Abandoned
109	4300730141	MATTS SUMMIT ST A-1	NWNW	14	12S	9E	State	ML-44496	Plugged and Abandoned
110	4300730349	HELPER ST A-1	SESW	3	14S	10E	State	ST UT ML 45805	Producing
111	4300730350	HELPER ST D-7	NWSW	4	14S	10E	State	ST UT ML 45804	Producing
112	4300730357	HELPER ST A-8	NWSE	2	14S	10E	State	ST UT ML 45805	Producing
113	4300730358	HELPER ST A-3	NWNW	2	14S	10E	State	ST UT ML 45805	Producing
114	4300730359	HELPER ST A-4	NWNE	2	14S	10E	State	ST UT ML 45805	Producing
115	4300730360	HELPER ST A-7	NESW	2	14S	10E	State	ST UT ML 45805	Producing
116	4300730362	HELPER ST A-2	NENE	3	14S	10E	State	ST UT ML 45805	Producing
117	4300730363	HELPER ST A-5	NESW	3	14S	10E	State	ST UT ML 45805	Producing
118	4300730364	HELPER ST A-6	NESE	3	14S	10E	State	ST UT ML 45805	Producing
119	4300730365	HELPER ST D-4	SWNW	4	14S	10E	State	ST UT ML 45804	Producing
120	4300730366	HELPER ST D-3	NENE	5	14S	10E	State	ST UT ML 45804	Producing
121	4300730367	HELPER ST D-5	NWNE	4	14S	10E	State	ST UT ML 45804	Producing
122	4300730368	HELPER ST D-8	SESE	4	14S	10E	State	ST UT ML 45804	Producing
123	4300730369	HELPER ST D-2	NENW	5	14S	10E	State	ST UT ML 45804	Producing
124	4300730370	HELPER ST D-6	SESE	5	14S	10E	State	ST UT ML 45804	Producing
125	4300730371	HELPER ST D-1	NENE	6	14S	10E	State	ST UT ML 45804	Producing
126	4300730373	HELPER ST A-9	SESW	10	14S	10E	State	ST UT ML 45805	Producing

	API Well Number	Well Name	Qtr/Qtr	Section	Township	Range	Mineral Lease Type	Mineral Lease Number	Well Status
127	4300730376	HELPER ST B-1	SWNE	9	14S	10E	State	ST UT ML 47556	Producing
128	4300730433	HELPER ST A-10	NWNE	10	14S	10E	State	ST UT ML 45805	Producing
129	4300730434	HELPER ST A-11	SWNW	11	14S	10E	State	ST UT ML 45805	Producing
130	4300730435	HELPER ST A-12	NWSW	10	14S	10E	State	ST UT ML 45805	Producing
131	4300730436	HELPER ST A-13	NESE	10	14S	10E	State	ST UT ML 45805	Producing
132	4300730437	HELPER ST B-2	NESE	9	14S	10E	State	ST UT ML 47556	Producing
133	4300730571	HELPER ST A-14	SESW	11	14S	10E	State	ST UT ML 45805	Producing
134	4300730572	HELPER ST A-15	SENE	11	14S	10E	State	ST UT ML 45805	Producing
135	4300730573	HELPER ST E-1	SESW	36	13S	10E	State	ST UT ML 45802	Producing
136	4300730574	HELPER ST E-2	SWNW	36	13S	10E	State	ST UT ML 45802	Producing
137	4300730592	HELPER ST E-3	NENE	36	13S	10E	State	ST UT ML 45802	Producing
138	4300730597	CLAWSON SPRING ST A-1	SWSE	36	15S	8E	State	ST UT ML 46106	Producing
139	4300730598	HELPER ST E-4	SWSE	36	13S	10E	State	ST UT ML 45802	Producing
140	4300730603	HELPER ST A-16	SWSE	11	14S	10E	State	ST UT ML 45805	Producing
141	4300730635	CLAWSON SPRING ST A-2	NWNW	36	15S	8E	State	ST UT ML 46106	Producing
142	4300730636	CLAWSON SPRING ST A-3	NESW	36	15S	8E	State	ST UT ML 46106	Producing
143	4300730637	CLAWSON SPRING ST A-4	NWNE	36	15S	8E	State	ST UT ML 46106	Producing
144	4300730642	CLAWSON SPRING ST D-5	NENW	31	15S	9E	State	ML-48226	Producing
145	4300730643	CLAWSON SPRING ST D-6	SWSW	31	15S	9E	State	ML-48226	Producing
146	4300730644	CLAWSON SPRING ST D-7	NWNE	31	15S	9E	State	ML-48226	Producing
147	4300730701	CLAWSON SPRING ST D-8	NWSE	31	15S	9E	State	ML-48226	Producing
148	4300750070	HELPER STATE 12-3	SWNW	3	14S	10E	State	ST UT ML 45805	Producing
149	4300750071	HELPER STATE 32-3	SWNE	3	14S	10E	State	ST UT ML 45805	Producing
150	4300750072	HELPER STATE 32-36	SWNE	36	13S	10E	State	ST UT ML 45802	Producing
151	4301530391	UTAH 10-415	NENE	10	16S	8E	State	ST UT ML 48189	Temporarily-Abandoned
152	4301530392	CLAWSON SPRING ST E-7	SENE	7	16S	9E	State	ST UT ML 48220-A	Producing
153	4301530394	CLAWSON SPRING ST E-8	SWSE	7	16S	9E	State	ST UT ML 48220-A	Producing
154	4301530403	CLAWSON SPRING ST E-3	SENE	6	16S	9E	State	ST UT ML 48220-A	Producing
155	4301530404	CLAWSON SPRING ST E-1	SENE	6	16S	9E	State	ST UT ML 48220-A	Producing
156	4301530405	CLAWSON SPRING ST E-2	NESW	6	16S	9E	State	ST UT ML 48220-A	Producing
157	4301530406	CLAWSON SPRING ST E-4	NWSE	6	16S	9E	State	ST UT ML 48220-A	Producing
158	4301530410	CLAWSON SPRING ST C-1	SWNW	12	16S	8E	State	ST UT UO 48209	Producing
159	4301530427	CLAWSON SPRING ST B-1	NENW	1	16S	8E	State	ST UT ML 48216	Producing
160	4301530428	CLAWSON SPRING ST B-2	NWSW	1	16S	8E	State	ST UT ML 48216	Producing
161	4301530429	CLAWSON SPRING ST B-3	NWNE	1	16S	8E	State	ST UT ML 48216	Producing
162	4301530430	CLAWSON SPRING ST B-4	SESE	1	16S	8E	State	ST UT ML 48216	Producing
163	4301530431	CLAWSON SPRING ST B-5	SWSW	12	16S	8E	State	ST UT ML 48216	Producing
164	4301530432	CLAWSON SPRING ST B-8	SENE	11	16S	8E	State	ST UT ML 48216	Producing
165	4301530433	CLAWSON SPRING ST B-9	NWSE	11	16S	8E	State	ST UT ML 48216	Producing
166	4301530434	CLAWSON SPRING ST C-2	SENE	12	16S	8E	State	ST UT UO 48209	Producing
167	4301530435	CLAWSON SPRING ST C-4	SWNW	14	16S	8E	State	ST UT UO 48209	Producing
168	4301530460	CLAWSON SPRING ST B-7	NWSW	11	16S	8E	State	ST UT ML 48216	Producing

	API Well Number	Well Name	Qtr/Qtr	Section	Township	Range	Mineral Lease Type	Mineral Lease Number	Well Status
169	4301530461	CLAWSON SPRING ST C-6	SENE	14	16S	8E	State	ST UT UO 48209	Producing
170	4301530463	CLAWSON SPRING ST C-3	C-SE	12	16S	8E	State	ST UT UO 48209	Producing
171	4301530465	CLAWSON SPRING ST B-6	NENW	11	16S	8E	State	ST UT ML 48216	Producing
172	4301530466	CLAWSON SPRING ST H-1	NENW	13	16S	8E	State	ST UT ML 48217-A	Producing
173	4301530467	CLAWSON SPRING ST H-2	NENE	13	16S	8E	State	ST UT ML 48217-A	Producing
174	4301530470	CLAWSON SPRING ST E-5	NENW	7	16S	9E	State	ST UT ML 48220-A	Producing
175	4301530471	CLAWSON SPRING ST G-1	NWNW	2	16S	8E	State	ST UT ML 46314	Producing
176	4301530472	CLAWSON SPRING ST F-2	NESE	3	16S	8E	State	ST UT ML 48515	Producing
177	4301530473	CLAWSON SPRING ST F-1	SENE	3	16S	8E	State	ST UT ML 48514	Producing
178	4301530474	CLAWSON SPRING ST E-6	SESW	7	16S	9E	State	ST UT ML 48220-A	Producing
179	4301530475	CLAWSON SPRING ST G-2	NESW	2	16S	8E	State	ST UT ML 46314	Producing
180	4301530488	CLAWSON SPRING ST M-1	NWNE	2	16S	8E	State	ST UT ML 47561	Producing
181	4301530489	CLAWSON SPRING ST K-1	SESE	2	16S	8E	State	ST UT ML 46043	Producing

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

UIC FORM 5

TRANSFER OF AUTHORITY TO INJECT

Well Name and Number See Wells	API Number See Wells
Location of Well	Field or Unit Name
Footage : _____ County : _____	Lease Designation and Number
QQ, Section, Township, Range: _____ State : UTAH	

RECEIVED

APR 09 2013

DIV. OF OIL, GAS & MINING

EFFECTIVE DATE OF TRANSFER: 4/1/2013

CURRENT OPERATOR

Company: Anadarko Petroleum Corporation Name: Jaime Scharnowske
Address: P.O. Box 173779 Signature: *Jaime Scharnowske*
city Denver state CO zip 80217 Title: Regulatory Analyst
Phone: (720) 929-6000 Date: 4/8/2013

Comments: The operator is requesting authorization to transfer the wells from Anadarko Petroleum Corporation to Anadarko E&P Onshore, LLC. The state wells will be under bond number 22013542, and the federal well will be under bond number WYB000291.

NEW OPERATOR

Company: Anadarko E&P Onshore, LLC Name: Jaime Scharnowske
Address: P.O. Box 173779 Signature: *Jaime Scharnowske*
city Denver state CO zip 80217 Title: Regulatory Analyst
Phone: (720) 929-6000 Date: 4/8/2013

Comments:

(This space for State use only)

Transfer approved by: *Dan Jones*

Approval Date: 4/10/13

Title: *UIC Geologist*

Comments:

API Well Number	Injection Permit Number	Well Name	Section	Township	Range	Mineral Lease Type	Current Well Status	Well Type
4300730361	UIC-201.1	HELPER ST SWD 1	3	14S	10E	ML 45805	Active	Water Disposal Well
4301530477	UIC-266.1	CLAWSON SPRING ST SWD 4	13	16S	8E	ML 48217	Active	Water Disposal Well
4300730555	UIC-243.1	FED F-2 SWD	8	14S	10E	UTU 65762	Active	Water Disposal Well
4300730721	UIC-264.1	CLAWSON SPRING ST SWD 1	36	15S	8E	ML 46106	Inactive	Water Disposal Well

STATE OF UTAH DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS, AND MINING	FORM 9
5. LEASE DESIGNATION AND SERIAL NUMBER: ML-46106	
6. IF INDIAN, ALLOTTEE OR TRIBE NAME:	
7. UNIT or CA AGREEMENT NAME:	
8. WELL NAME and NUMBER: CLAWSON SPRING ST SWD 1	
9. API NUMBER: 43007307210000	
9. FIELD and POOL or WILDCAT: DRUNKARDS WASH	
COUNTY: CARBON	
STATE: UTAH	

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 Water Disposal Well
2. NAME OF OPERATOR: ANADARKO E&P ONSHORE, LLC
3. ADDRESS OF OPERATOR: P.O. Box 173779 , Denver, CO, 80217
PHONE NUMBER: 720 929-6300 Ext
4. LOCATION OF WELL FOOTAGES AT SURFACE: 0716 FNL 2301 FWL QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: Qtr/Qtr: NENW Section: 36 Township: 15.0S Range: 08.0E Meridian: S

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 Approximate date work will start: 5/29/2013	<input type="checkbox"/> ACIDIZE	<input type="checkbox"/> ALTER CASING	<input type="checkbox"/> CASING REPAIR
<input type="checkbox"/> SUBSEQUENT REPORT Date of Work Completion:	<input type="checkbox"/> CHANGE TO PREVIOUS PLANS	<input type="checkbox"/> CHANGE TUBING	<input type="checkbox"/> CHANGE WELL NAME
<input type="checkbox"/> SPUD REPORT Date of Spud:	<input type="checkbox"/> CHANGE WELL STATUS	<input type="checkbox"/> COMMINGLE PRODUCING FORMATIONS	<input type="checkbox"/> CONVERT WELL TYPE
<input type="checkbox"/> DRILLING REPORT Report Date:	<input type="checkbox"/> DEEPEN	<input type="checkbox"/> FRACTURE TREAT	<input type="checkbox"/> NEW CONSTRUCTION
	<input type="checkbox"/> OPERATOR CHANGE	<input checked="" type="checkbox"/> PLUG AND ABANDON	<input type="checkbox"/> PLUG BACK
	<input type="checkbox"/> PRODUCTION START OR RESUME	<input type="checkbox"/> RECLAMATION OF WELL SITE	<input type="checkbox"/> RECOMPLETE DIFFERENT FORMATION
	<input type="checkbox"/> REPERFORATE CURRENT FORMATION	<input type="checkbox"/> SIDETRACK TO REPAIR WELL	<input type="checkbox"/> TEMPORARY ABANDON
	<input type="checkbox"/> TUBING REPAIR	<input type="checkbox"/> VENT OR FLARE	<input type="checkbox"/> WATER DISPOSAL
	<input type="checkbox"/> WATER SHUTOFF	<input type="checkbox"/> SI TA STATUS EXTENSION	<input type="checkbox"/> APD EXTENSION
	<input type="checkbox"/> WILDCAT WELL DETERMINATION	<input type="checkbox"/> OTHER	OTHER: <input style="width: 100px;" type="text"/>

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

The operator requests authorization to plug and abandon the subject well location. Attached is the plug and abandonment procedure.

Approved by the Utah Division of Oil, Gas and Mining
Date: July 19, 2013
By: *Darko Dunt*

NAME (PLEASE PRINT) Teena Paulo	PHONE NUMBER 720 929-6236	TITLE Staff Regulatory Specialist
SIGNATURE N/A	DATE 5/29/2013	



The Utah Division of Oil, Gas, and Mining

- State of Utah
- Department of Natural Resources

Electronic Permitting System - Sundry Notices

Sundry Conditions of Approval Well Number 43007307210000

- 1. Notify the Division at least 24 hours prior to conducting abandonment operations. Please call Dan Jarvis at 801-538-5338.**
- 2. Add Plug #4A: A 100' plug (± 31 sx) shall be balanced from $\pm 356'$ to $256'$. This will isolate the base of the surface casing as required by rule R649-3-24-3.6.**
 - 3. All balanced plugs shall be tagged to ensure that they are at the depth specified.**
 - 4. All annuli shall be cemented from a minimum depth of 100' to the surface.**
- 5. Surface reclamation shall be done in accordance with R649-3-34 – Well Site Restoration.**
- 6. All requirements in the Oil and Gas Conservation General Rule R649-3-24 shall apply.**
- 7. If there are any changes to the procedure or the wellbore configuration, notify Dustin Doucet at 801-538-5281 (ofc) or 801-733-0983 (home) prior to continuing with the procedure.**
- 8. All other requirements for notice and reporting in the Oil and Gas Conservation General Rules shall apply.**

7/19/2013

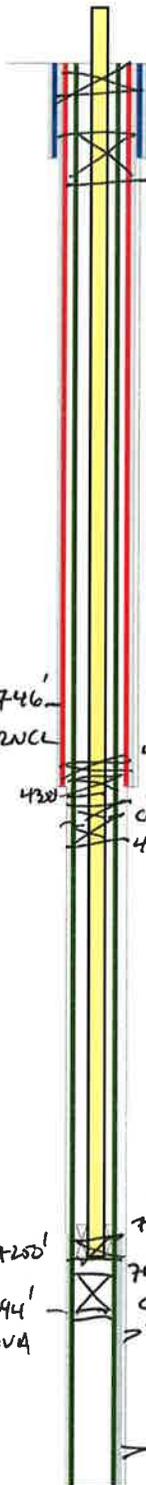
Wellbore Diagram

r263

API Well No: 43-007-30721-00-00 **Permit No:** UIC-264.1 **Well Name/No:** CLAWSON SPRING ST SWD 1
Company Name: ANADARKO E&P ONSHORE, LLC
Location: Sec: 36 T: 15S R: 8E Spot: NENW
Coordinates: X: 502007 Y: 4370287
Field Name: DRUNKARDS WASH
County Name: CARBON

String Information

String	Bottom (ft sub)	Diameter (inches)	Weight (lb/ft)	Length (ft)	Capacity (ft/cf)
HOL1	316	17.5			
SURF	316	13.38	48	316	
HOL2	4300	12.25			
II	4300	8.63	24	4300	2.797
HOL3	8448	7.875			
PROD	8448	5.5	17	8448	7.661
TI	7090	2.375			
PKR	7090				



Plug #5
 100' Cement from 316 ft. to surface
 Surface: 13.38 in. @ 316 ft.
 Hole: 17.5 in. @ 316 ft.
 100' = 315x ✓ OK.

* Add Plug #4A
 * 100' plug across shoe @ 316' (from 366' to 256')
 100' / (1.15) (2.797) = 315x

Cement Information

String	BOC (ft sub)	TOC (ft sub)	Class	Sacks
II	4300	0	LT	615
II	4300	0	G	185
PROD	8448	6950	H	120
PROD	8448	6950	G	410
PROD	8448	6950	LT	386
SURF	316	0	G	390

7 7/8" hole (108) → 2,443

Plug #4
 Cement from 4300 ft. to surface
 Intermediate: 8.63 in. @ 4300 ft.
 Hole: 12.25 in. @ 4300 ft.
 50' / (1.15) (2.797) = 165x
 345x total propose 45x ✓ OK.

Perforation Information

Top (ft sub)	Bottom (ft sub)	Shts/Ft	No Shts	Dt Squeeze
7710	8225			

Plug #3
 50' / (1.15) (7.661) = 65x
 50' / (1.15) (2.443) = 18 5x
 24 5x
 Propose 35x ✓ OK.

Formation Information

Formation	Depth
TNUNK	3739
FRNCL	3746
NAVA	7694

Plug #2
 Cement from 8448 ft. to 6950 ft.
 Packer: @ 7090 ft.
 Tubing: 2.375 in. @ 7090 ft.
 225x = 194'
 TOC @ 7050' ✓ OK.

Plug #1
 Production: 5.5 in. @ 8448 ft.
 Hole: 7.875 in. @ 8448 ft.
 (225x) (1.15) (7.661) = 194'
 TOC @ 7466' ✓ OK.

TD: 8448 TVD: PBTD:

Clawson State Spring #1 SWD
716' FNL & 2301' FWL
NENW SEC. 36, T15S, R8E
Carbon County, UT

KBE: 6804'
GLE: 6795'
TD: 8448'
PBSD: 8400'

API NUMBER: 4300730721
LEASE NUMBER: ML-46106
CURRENT STATUS: INACTIVE

CASING : 17.5" Hole
13.375" 48# H-40 @ 316'
TOC @ Surface

12.25" Hole
8.625" 24# J-55 @ 4300'
TOC @ Surface as per drilling report 8/21/2000

7.875" Hole
5.5" 17# N-80 @ 8448'
DV Tool @ ~7202'
TOC @ ~4530'

PERFORATIONS: Navajo 7706' - 8218'

Tubular	Drift inches	Collapse PSI	Burst PSI	Capacities		
				Gal./ft.	Cuft/ft.	Bbl./ft.
3.5" 9.3# N-80 tbg.	2.867	10530	10160	0.3652	0.0488	0.0087
5.5" 17# N-80 csg	4.767	6390	7740	0.9764	0.1305	0.0232
8.625" 24# J-55 csg.	7.972	1370	2950	2.6749	0.3576	0.0637
13.375" 48# H-40 csg.	12.559	770	1730	6.5962	0.8818	0.1571
Annular Capacities						
3.5" tbg. X 5.5" 17# csg				0.4766	0.0637	0.0113
5.5" csg X 8.625" 24# csg				1.4407	0.1926	0.0343
8.625" csg X 13.375" 48# csg				3.5610	0.4760	0.0848
5.5" csg X 7.875" borehole				1.2960	0.1733	0.0309
8.625" csg X 12.25" borehole				3.0874	0.4127	0.0735
13.375" csg X 17.5" borehole				5.1963	0.6946	0.1237

GEOLOGIC INFORMATION:

Formation	Depth to top, ft.
Emery	202
Tunuck Shale	3739
Ferron Coal	3746
Navajo	7694

CLAWSON STATE SPRING #1 SWD PLUG & ABANDONMENT PROCEDURE

GENERAL

- CEMENT QUANTITIES BELOW ASSUME NEAT CLASS G, YIELD 1.145 CUFT./SX. IF A DIFFERENT PRODUCT IS USED, WELLSITE PERSONNEL ARE RESPONSIBLE FOR CORRECTING QUANTITIES TO YIELD THE STATED SLURRY VOLUME. WHEN SQUEEZING, INCLUDE 10% EXCESS PER 1000' OF DEPTH.
- TREATED FRESH WATER WILL BE PLACED BETWEEN ALL PLUGS INSTEAD OF BRINE.
- ALL DISPLACEMENT FLUID SHALL CONTAIN CORROSION INHIBITOR AND BIOCIDES. PREMIX 5 GALLONS PER 100 BBLS FLUID.
- NOTIFY UDOGM 24 HOURS BEFORE MOVING ON LOCATION.
- A GPS READING WILL NEED TO BE TAKEN AT THE WELL SITE AND RECORDED IN OPENWELLS. PLEASE TAKE IT TO THE 6TH DECIMAL PLACE.

PROCEDURE

Note: An estimated 156 sx Class "G" cement needed for procedure

1. MIRU. KILL WELL AS NEEDED. ND WH, NU AND TEST BOPE.
2. PULL PACKER & TBG & LD SAME. A GPS READING WILL NEED TO BE TAKEN AT THE WELL SITE AND RECORDED IN OPENWELLS. PLEASE TAKE IT TO THE 6TH DECIMAL PLACE.
3. **PLUG #1, ISOLATE NAVAJO PERFORATIONS (7706' – 8218')**: RIH W/ 5 ½" CIBP. SET @ ~7660'. RELEASE CIBP, POOH W/ WIRELINE. TIH W/ WORK STRING. TAG CIBP, PUH 10', BRK CIRC W/ FRESH WATER. DISPLACE A MINIMUM OF **22 SX / 4.5 BBL / 25.2 CUFT**. ON TOP OF PLUG. PUH ABOVE TOC (~7466'). REVERSE CIRCULATE W/ TREATED WATER.
4. **PLUG #2, ISOLATE DV TOOL (~7202')**: PUH TO ~7250'. BRK CIRC W/ FRESH WATER. DISPLACE **22 SX / 4.5 BBL / 25.2 CUFT** AND BALANCE PLUG W/ TOC @ ~7056' (194' COVERAGE). PUH ABOVE TOC. REVERSE CIRCULATE W/ TREATED WATER. TOOH.
5. RIH W/ SPEAR, LATCH ONTO CSG. PULL CSG, REMOVE CSG SLIPS, RELEASE SPEAR, TOOH. LATCH CSG TOP W/ OVERSHOT.
6. RU WIRELINE, RIH W/ FREE POINT TOOL TO DETERMINE BOTTOM OF FREE CASING. TOOH, RIH W/ INTERNAL CSG CUTTER. MAKE CUT @ ~4500' OR DEPTH BASED ON FREE POINT RUN. POOH W/ WIRELINE, RECOVER 5.5" CSG.
7. **PLUG #3, COVER 5.5" CSG STUB (~4500' [OR DEPTH BASED ON FREE POINT RUN])**: TIH W/ WORK STRING TO ~50' BELOW TOP OF CSG STUB. BRK CIRC W/ FRESH WATER. DISPLACE **35 SX / 7.1 BBL / 40.1 CUFT** AND BALANCE PLUG W/ TOC @ ~50' ABOVE CSG STUB (~100' COVERAGE BASED ON OH CEMENT LOG & 1.3 EXCESS FACTOR). PUH ABOVE TOC. REVERSE CIRCULATE W/ TREATED WATER.
8. **PLUG #4, COVER 8.625" CSG SHOE (4300')**: IF 5.5" CSG STUB IS BELOW 8.625" CSG SHOE, PUH TO ~4350'. BRK CIRC W/ FRESH WATER. DISPLACE **45 SX / 9.2 BBL / 51.5 CUFT** AND BALANCE PLUG W/ TOC @ ~4250' (~100' COVERAGE BASED ON OH CEMENT LOG & 1.3 EXCESS FACTOR). PUH ABOVE TOC. REVERSE CIRCULATE W/ TREATED WATER. TOOH.
9. **PLUG #5, SURFACE HOLE**: NDBOP. TIH TO ~100'. BRK CIRC W/ FRESH WATER. DISPLACE **32 SX / 6.5 BBL / 36.6 CUFT** OR UNTIL RETURNS ARE SEEN AT SURFACE. TOOH.
10. CUT OFF WELLHEAD AND INSTALL MARKER PER UDOGM GUIDELINES.
11. RDMO. TURN OVER TO OPERATIONS FOR SURFACE REHAB. SURFACE RECLAMATION TO BE PERFORMED IN ACCORDANCE TO REGULATIONS.

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

FORM 9

5. LEASE DESIGNATION AND SERIAL NUMBER:
ML-46106

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.

6. IF INDIAN, ALLOTTEE OR TRIBE NAME:

7. UNIT or CA AGREEMENT NAME:

1. TYPE OF WELL
Water Disposal Well

8. WELL NAME and NUMBER:
CLAWSON SPRING ST SWD 1

2. NAME OF OPERATOR:
KERR-MCGEE OIL & GAS ONSHORE, L.P.

9. API NUMBER:
43007307210000

3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18th Street, Suite 600, Denver, CO, 80217 3779

PHONE NUMBER: 720 929-6500

9. FIELD and POOL or WILDCAT:
DUBUOKARDS WASH

4. LOCATION OF WELL
FOOTAGES AT SURFACE:
0716 FNL 2301 FWL
QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN:
Qtr/Qtr: NENW Section: 36 Township: 15.0S Range: 08.0E Meridian: S

COUNTY:
CARBON

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 Approximate date work will start: 8/7/2013	<input type="checkbox"/> ACIDIZE	<input type="checkbox"/> ALTER CASING	<input type="checkbox"/> CASING REPAIR
<input type="checkbox"/> SUBSEQUENT REPORT Date of Work Completion:	<input type="checkbox"/> CHANGE TO PREVIOUS PLANS	<input type="checkbox"/> CHANGE TUBING	<input type="checkbox"/> CHANGE WELL NAME
<input type="checkbox"/> SPUD REPORT Date of Spud:	<input type="checkbox"/> CHANGE WELL STATUS	<input type="checkbox"/> COMMINGLE PRODUCING FORMATIONS	<input type="checkbox"/> CONVERT WELL TYPE
<input type="checkbox"/> DRILLING REPORT Report Date:	<input type="checkbox"/> DEEPEN	<input type="checkbox"/> FRACTURE TREAT	<input type="checkbox"/> NEW CONSTRUCTION
	<input type="checkbox"/> OPERATOR CHANGE	<input checked="" type="checkbox"/> PLUG AND ABANDON	<input type="checkbox"/> PLUG BACK
	<input type="checkbox"/> PRODUCTION START OR RESUME	<input type="checkbox"/> RECLAMATION OF WELL SITE	<input type="checkbox"/> RECOMPLETE DIFFERENT FORMATION
	<input type="checkbox"/> REPERFORATE CURRENT FORMATION	<input type="checkbox"/> SIDETRACK TO REPAIR WELL	<input type="checkbox"/> TEMPORARY ABANDON
	<input type="checkbox"/> TUBING REPAIR	<input type="checkbox"/> VENT OR FLARE	<input type="checkbox"/> WATER DISPOSAL
	<input type="checkbox"/> WATER SHUTOFF	<input type="checkbox"/> SI TA STATUS EXTENSION	<input type="checkbox"/> APD EXTENSION
	<input type="checkbox"/> WILDCAT WELL DETERMINATION	<input type="checkbox"/> OTHER	OTHER: <input type="text"/>

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

The operator requests authorization to plug and abandon the subject well location with the revised procedure. Please see the attached plug and abandonment procedure. Thank you.

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

Date: September 05, 2013

By: *D. K. Duff*

NAME (PLEASE PRINT)
Matthew P Wold

PHONE NUMBER
720 929-6993

TITLE
Regulatory Analyst I

SIGNATURE
N/A

DATE
8/7/2013



The Utah Division of Oil, Gas, and Mining

- State of Utah
- Department of Natural Resources

Electronic Permitting System - Sundry Notices

Sundry Conditions of Approval Well Number 43007307210000

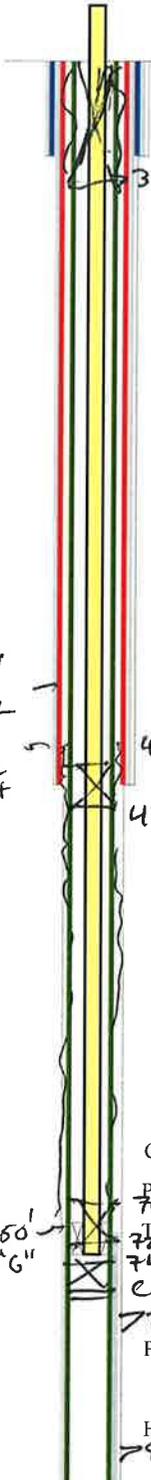
- 1. Notify the Division at least 24 hours prior to conducting abandonment operations. Please call Dan Jarvis at 801-538-5338.**
- 2. Amend Plug #4: This plug shall be an inside/outside plug. RIH and perforate @ 320'. Establish circulation down the 5 1/2" casing back up the 5 1/2" x 8 5/8" annulus. M&P 30 sx cement and balance a plug inside/outside from 320' to 220'. Note: If preferred, cement can be circulated to surface filling casing and annulus from 320' to surface (± 90 sx) eliminating plug #5.**
 - 3. All balanced plugs shall be tagged to ensure that they are at the depth specified.**
 - 4. All annuli shall be cemented from a minimum depth of 100' to the surface.**
- 5. Surface reclamation shall be done in accordance with R649-3-34 - Well Site Restoration.**
- 6. All requirements in the Oil and Gas Conservation General Rule R649-3-24 shall apply.**
- 7. If there are any changes to the procedure or the wellbore configuration, notify Dustin Doucet at 801-538-5281 (of c) or 801-733-0983 (home) prior to continuing with the procedure.**
- 8. All other requirements for notice and reporting in the Oil and Gas Conservation general rules shall apply.**

Wellbore Diagram

API Well No: 43-007-30721-00-00 Permit No: UIC-264.1 Well Name/No: CLAWSON SPRING ST SWD 1
 Company Name: ANADARKO E&P ONSHORE, LLC
 Location: Sec: 36 T: 15S R: 8E Spot: NENW
 Coordinates: X: 502007 Y: 4370287
 Field Name: DRUNKARDS WASH
 County Name: CARBON

String Information

String	Bottom (ft sub)	Diameter (inches)	Weight (lb/ft)	Length (ft)	Capacity (cf/cf)
HOL1	316	17.5			
SURF	316	13.38	48	316	
HOL2	4300	12.25			
II	4300	8.63	24	4300	2.797
HOL3	8448	7.875			
PROD	8448	5.5	17	8448	7.661
T1	7090	2.375			
PKR	7090				



Cement from 316 ft. to surface
 Surface: 13.38 in. @ 316 ft.
 Hole: 17.5 in. @ 316 ft.

* Plug #4

8 7/8" x 5 1/2"

5.192

* perf @ 320' circ to surf.

$320' / (1.15) (7.661) = 36 \text{ SK}$

$320' / (1.15) (5.192) = 54 \text{ SK}$

Cement Information

90 sk total

String	BOC (ft sub)	TOC (ft sub)	Class	Sacks
II	4300	0	LT	615
II	4300	0	G	185
PROD	8448	6950	H	120
PROD	8448	6950	G	410
PROD	8448	6950	LT	386
SURF	316	0	G	390

Cement from 4300 ft. to surface
 Intermediate: 8.63 in. @ 4300 ft.
 Hole: 12.25 in. @ 4300 ft.

Perforation Information

Plug #3

$(12 \text{ SK}) (1.15) (7.661) = 105'$

TOC @ 4250' ✓ OK.

Top (ft sub)	Bottom (ft sub)	Shts/Ft	No Shts	Dt Squeeze
7710	8225			

Plug #2

$22 \text{ SK} = 194'$

Formation Information

Cement from 8448 ft. to 6950 ft.

Formation	Depth
TNUNK	3739
FRNCL	3746
NAVA	7694

Packer: @ 7090 ft.

Tubing: 2.375 in. @ 7090 ft.

Plug #1

$(22 \text{ SK}) (1.15) (7.661) = 194'$

TOC @ 7466' ✓ OK.

Production: 5.5 in. @ 8448 ft.

Hole: 7.875 in. @ 8448 ft.

TD: 8448 TVD: PBD:

Clawson State Spring #1 SWD
 716' FNL & 2301' FWL
 NENW SEC. 36, T15S, R8E
 Carbon County, UT

KBE: 6804'
 GLE: 6795'
 TD: 8448'
 PBSD: 8400'

API NUMBER: 4300730721
 LEASE NUMBER: ML-46106
 CURRENT STATUS: INACTIVE

CASING : 17.5" Hole
 13.375" 48# H-40 @ 316'
 TOC @ Surface

12.25" Hole
 8.625" 24# J-55 @ 4300'
 TOC @ Surface as per drilling report 8/21/2000

7.875" Hole
 5.5" 17# N-80 @ 8448'
 DV Tool @ ~7202'
 TOC @ ~4530'

PERFORATIONS: Navajo 7706' - 8218'

Tubular	Drift inches	Collapse PSI	Burst PSI	Capacities		
				Gal./ft.	Cuft/ft.	Bbl./ft.
3.5" 9.3# N-80 tbg.	2.867	10530	10160	0.3652	0.0488	0.0087
5.5" 17# N-80 csg	4.767	6390	7740	0.9764	0.1305	0.0232
8.625" 24# J-55 csg.	7.972	1370	2950	2.6749	0.3576	0.0637
13.375" 48# H-40 csg.	12.559	770	1730	6.5962	0.8818	0.1571
Annular Capacities						
3.5" tbg. X 5.5" 17# csg				0.4766	0.0637	0.0113
5.5" csg X 8.625" 24# csg				1.4407	0.1926	0.0343
8.625" csg X 13.375" 48# csg				3.5610	0.4760	0.0848
5.5" csg X 7.875" borehole				1.2960	0.1733	0.0309
8.625" csg X 12.25" borehole				3.0874	0.4127	0.0735
13.375" csg X 17.5" borehole				5.1963	0.6946	0.1237

GEOLOGIC INFORMATION:

Formation	Depth to top, ft.
Emery	202
Tunuck Shale	3739
Ferron Coal	3746
Navajo	7694

CLAWSON STATE SPRING #1 SWD PLUG & ABANDONMENT PROCEDURE

GENERAL

- CEMENT QUANTITIES BELOW ASSUME NEAT CLASS G, YIELD 1.145 CUFT./SX. IF A DIFFERENT PRODUCT IS USED, WELLSITE PERSONNEL ARE RESPONSIBLE FOR CORRECTING QUANTITIES TO YIELD THE STATED SLURRY VOLUME. WHEN SQUEEZING, INCLUDE 10% EXCESS PER 1000' OF DEPTH.
- TREATED FRESH WATER WILL BE PLACED BETWEEN ALL PLUGS INSTEAD OF BRINE.
- ALL DISPLACEMENT FLUID SHALL CONTAIN CORROSION INHIBITOR AND BIOCIDES. PREMIX 5 GALLONS PER 100 BBLs FLUID.
- NOTIFY UDOGM 24 HOURS BEFORE MOVING ON LOCATION.
- A GPS READING WILL NEED TO BE TAKEN AT THE WELL SITE AND RECORDED IN OPENWELLS. PLEASE TAKE IT TO THE 6TH DECIMAL PLACE.

PROCEDURE

Note: An estimated 98 sx Class "G" cement needed for procedure

1. MIRU. KILL WELL AS NEEDED. ND WH, NU AND TEST BOPE.
2. PULL PACKER & TBG & LD SAME. A GPS READING WILL NEED TO BE TAKEN AT THE WELL SITE AND RECORDED IN OPENWELLS. PLEASE TAKE IT TO THE 6TH DECIMAL PLACE.
3. **PLUG #1, ISOLATE NAVAJO PERFORATIONS (7706' – 8218')**: RIH W/ 5 ½" CIBP. SET @ ~7660'. RELEASE CIBP, POOH W/ WIRELINE. TIH W/ WORK STRING. TAG CIBP, PUH 10', BRK CIRC W/ FRESH WATER. DISPLACE A MINIMUM OF **22 SX / 4.5 BBL / 25.2 CUFT**. ON TOP OF PLUG. PUH ABOVE TOC (~7466'). TAG TOP OF CEMENT PLUG TO CONFIRM DEPTH; PUH ABOVE CEMENT TOP. REVERSE CIRCULATE W/ TREATED WATER.
4. **PLUG #2, ISOLATE DV TOOL (~7202')**: PUH TO ~7250'. BRK CIRC W/ FRESH WATER. DISPLACE **22 SX / 4.5 BBL / 25.2 CUFT** AND BALANCE PLUG W/ TOC @ ~7056' (194' COVERAGE). PUH ABOVE TOC. TAG TOP OF CEMENT PLUG TO CONFIRM DEPTH; PUH ABOVE CEMENT TOP. REVERSE CIRCULATE W/ TREATED WATER.
5. **PLUG #3, COVER 8.625" CSG SHOE (4300')**: PUH TO ~4350'. BRK CIRC W/ FRESH WATER. DISPLACE **12 SX / 2.4 BBL / 13.7 CUFT** AND BALANCE PLUG W/ TOC @ ~4250' (~105' COVERAGE). PUH ABOVE TOC. TAG TOP OF CEMENT PLUG TO CONFIRM DEPTH; PUH ABOVE CEMENT TOP. REVERSE CIRCULATE W/ TREATED WATER.
6. **PLUG #4, COVER 13.375" CSG SHOE (316')**: PUH TO ~356'. BRK CIRC W/ FRESH WATER. DISPLACE **12 SX / 2.4 BBL / 13.7 CUFT** AND BALANCE PLUG W/ TOC @ ~256' (105' COVERAGE). PUH ABOVE TOC. TAG TOP OF CEMENT PLUG TO CONFIRM DEPTH; PUH ABOVE CEMENT TOP. REVERSE CIRCULATE W/ TREATED WATER. TOOH.
7. **PLUG #5, SURFACE HOLE**: RIH TO ~100' W/ WIRELINE. PERFORATE W/ 1' 4 SPF GUNS. POOH W/ WIRELINE. RU CEMENT SERVICE TO PROD CSG. DISPLACE **30 SX / 6.1 BBL / 34.4 CUFT** OR UNTIL RETURNS ARE SEEN AT SURFACE. NDBOP.
8. CUT OFF WELLHEAD AND INSTALL MARKER PER UDOGM GUIDELINES.
9. RDMO. TURN OVER TO OPERATIONS FOR SURFACE REHAB. SURFACE RECLAMATION TO BE PERFORMED IN ACCORDANCE TO REGULATIONS.



GARY R. HERBERT
Governor

GREGORY S. BELL
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

September 9, 2013

Anadarko E&P Onshore, LLC
1099 18th St. #1800
Denver, CO 80202
Attn: Luke Urban

15S 8E 36

SUBJECT: Pressure Test for Mechanical Integrity, Clawson Springs ST SWD (API# 43-007-30721) Well, Carbon County, Utah:

To Whom It May Concern:

The Underground Injection Control Program, which the Division of Oil, Gas and Mining (DOGM) administers in Utah, requires that all Class II injection wells demonstrate mechanical integrity. Rule R649-5-5.3 of the Oil and Gas Conservation General Rules requires that the casing-tubing annulus above the packer be pressure tested at a pressure equal to the maximum authorized injection pressure or 1,000 psi, whichever is lesser, provided that no test pressure is less than 300 psi. This test shall be performed at least every five-year period beginning October 1982. The following well requires a current test:

Clawson Springs ST SWD 1 43-007-30721

Please make arrangements and ready wells for testing during the week of October 7th, 2013, as outlined below:

1. Operator must furnish connections, and accurate pressure gauges, hot oil truck (or other means of pressuring annulus), along with personnel to assist in opening valves, etc.
2. The casing-tubing annulus shall be filled prior to the test date to expedite testing, as each well will be required to hold pressure for a minimum of 15 minutes.
3. If mechanical difficulties or workover operations make it impossible for the well(s) to be tested on this date the test(s) may be rescheduled.
4. Company personnel should meet a DOGM representative(s) at the field office or other location as negotiated.



Page 2
September 9, 2013
Anadarko E&P Onshore, LLC

5. All bradenhead valves with exception of the tubing on the injection well(s) must be shut-in 24 hours prior to testing.

Please contact me at (435) 820-0862 to arrange a meeting time and place or to negotiate a different date, if the date(s) specified is unacceptable.

Sincerely,



Bart Kettle
Environmental Scientist

bk/dj/js

cc: Dan Jarvis, Operations Manager
Well File

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.		5. LEASE DESIGNATION AND SERIAL NUMBER: ML-46106	
		6. IF INDIAN, ALLOTTEE OR TRIBE NAME:	
1. TYPE OF WELL Water Disposal Well		7. UNIT or CA AGREEMENT NAME:	
2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ONSHORE, L.P.		8. WELL NAME and NUMBER: CLAWSON SPRING ST SWD 1	
3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18th Street, Suite 600, Denver, CO, 80217 3779		9. API NUMBER: 43007307210000	
4. LOCATION OF WELL FOOTAGES AT SURFACE: 0716 FNL 2301 FWL QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: Qtr/Qtr: NENW Section: 36 Township: 15.0S Range: 08.0E Meridian: S		9. FIELD and POOL or WILDCAT: DUBUOKARDS WASH	
		COUNTY: CARBON	
		STATE: UTAH	
11. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA			
TYPE OF SUBMISSION	TYPE OF ACTION		
<input type="checkbox"/> NOTICE OF INTENT Approximate date work will start: <input checked="" type="checkbox"/> SUBSEQUENT REPORT Date of Work Completion: 10/5/2013 <input type="checkbox"/> SPUD REPORT Date of Spud: <input type="checkbox"/> DRILLING REPORT Report Date:	<input type="checkbox"/> ACIDIZE <input type="checkbox"/> CHANGE TO PREVIOUS PLANS <input type="checkbox"/> CHANGE WELL STATUS <input type="checkbox"/> DEEPEN <input type="checkbox"/> OPERATOR CHANGE <input type="checkbox"/> PRODUCTION START OR RESUME <input type="checkbox"/> REPERFORATE CURRENT FORMATION <input type="checkbox"/> TUBING REPAIR <input type="checkbox"/> WATER SHUTOFF <input type="checkbox"/> WILDCAT WELL DETERMINATION	<input type="checkbox"/> ALTER CASING <input type="checkbox"/> CHANGE TUBING <input type="checkbox"/> COMMINGLE PRODUCING FORMATIONS <input type="checkbox"/> FRACTURE TREAT <input checked="" type="checkbox"/> PLUG AND ABANDON <input type="checkbox"/> RECLAMATION OF WELL SITE <input type="checkbox"/> SIDETRACK TO REPAIR WELL <input type="checkbox"/> VENT OR FLARE <input type="checkbox"/> SI TA STATUS EXTENSION <input type="checkbox"/> OTHER	<input type="checkbox"/> CASING REPAIR <input type="checkbox"/> CHANGE WELL NAME <input type="checkbox"/> CONVERT WELL TYPE <input type="checkbox"/> NEW CONSTRUCTION <input type="checkbox"/> PLUG BACK <input type="checkbox"/> RECOMPLETE DIFFERENT FORMATION <input type="checkbox"/> TEMPORARY ABANDON <input type="checkbox"/> WATER DISPOSAL <input type="checkbox"/> APD EXTENSION OTHER: <input style="width: 100px;" type="text"/>
12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.			
<p>THE OPERATOR HAS CONCLUDED THE PLUG AND ABANDONMENT OPERATIONS ON THE SUBJECT WELL LOCATION ON 10/5/2013. PLEASE SEE THE ATTACHED CHRONOLOGICAL WELL HISTORY FOR DETAILS AND UPDATED LATITUDE AND LONGITUDE LOCATION. THANK YOU.</p>			
<p>Accepted by the Utah Division of Oil, Gas and Mining FOR RECORD ONLY December 05, 2013</p>			
NAME (PLEASE PRINT) Teena Paulo		PHONE NUMBER 720 929-6236	TITLE Staff Regulatory Specialist
SIGNATURE N/A		DATE 12/5/2013	

US ROCKIES REGION
Operation Summary Report

Well: CLAWSON SPRING SWD 1

Spud Date: 8/4/2000

Project: UTAH-CARBON

Site: CLAWSON SPRING SWD 1

Rig Name No:

Event: ABANDONMENT

Start Date: 9/19/2013

End Date: 10/5/2013

Active Datum: GL - NO CONFIDENCE @6,795.99usft
(above Mean Sea Level)

UWI:

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation
9/19/2013	7:00 - 19:00	12.00	ABANDP	30		P		MIRU; SET EQUIP., SPOT IN, RIG UP, CHECK PRESSURE - CSG 0, TBG 0, CONTROL - CHG EQUIP TO TBG. ND WELLHEAD NU BOP. RIG UP WORK FLOOR, SPOT IN CATWALK AND 3.5" TBG., RELEASE BAKER LOK-SET PACKER AT 7,553', TALLY AND P/U 4 JTS, 3.5" L-80 TBG., RIH TO 7,680', TOH W/ 46 JTS., 3.5" L-80 TBG. SDFN.
9/20/2013	7:00 - 10:30	3.50	ABANDP	30		P		CONTROL; RIH W/ 46 TBG JTS., 3.5", L-80 TBG., RIG DOWN WORK FLOOR. ND BOP, LAND TBG ON CAMERON KTH FLANGE. NU WELL HEAD, SDFN.
10/2/2013	7:00 - 16:30	9.50	ABANDP	30		P		SET EQUIP., SPOT IN RIG UP, CONTROL. CHG EQUIP TO TBG. ND WELLHEAD, NU BOP. RIG UP WORK FLOOR, TOH W/ 239 JTS. 3.5", L-80 TBG. SDFN
10/3/2013	6:00 - 19:30	13.50						CONTROL, MIRU CUTTERS WIRELINE SERVICE, RIH WET CIBP AT 7,663'. POOH W/ WIRELINE. RIH W/ 243 JTS, 3.5", L-80 TBG. TAG CIBP AT 7,663, LD 1 JT. EOT AT 7,646. MIRU SNAJEL CEMENT EQUIP. TEST LINES. PUMP 5.1 BBLS CEMENT ON PLUG, POOH TO 7,202', REVERSE CIRCULATE, RIH, TAG TOC AT 7,445, PUH TO 7,265' PUMP CEMENT. POOH LD 14 JTS (6,760') REVERSE CIRCULATE. RIH TAG TOC AT 7,044'. POOH LAYING DOWN 3.5" TBG TO 4,362'. PUM PCEMENT. PUH, REVERSE CIRCULATE, EOT AT 3,9209'; SDFN
10/4/2013	6:30 - 16:30	10.00	ABANDP	30	C	P		CONTROL - PICK UP 5 JTS, 3.5", L80 TBG TO TOC AT 4,066', POOH LAYING DOWN 129 JTS. 3.5" TBG. RIG UP CUTTERS WIRELINE EQUIP. RIH PERFORATE 5.5" AT 320', POOH RD WIRELINE, RU SANJEL CEMENT EQUIP CIRCULATE 90 BBLS CEMENT DOWN 5.5" CSG AND UP 8.625" ANNULUS FROM 320' TO SURFACE RD CEMENT EQUIP RD WORKFLOOR ND BOP RIG DOWN LOAD EQUIP. RDMO
10/5/2013	-		ABANDP	53	E	P		Lat. 39.48218 Long. 110.97578 NAD27 P&A RECLAMATION - END REPORT