

M-d

PEABODY WATER WELL NAVAJO NO. 3 W.W.
SW/NW Sec 14-35N-18E, Navajo Co. 168

County Navajo

Area Black Mesa

Lease No. _____

Well Name PEABODY COAL COMPANY NAVAJO NO. 3, WATER WELL

Location SW/NW Sec 14 Twp 35N Range 18E Footage ~2700 fwl 1400 fwl
Elev 6458 ~~KB~~ 6446 ~~KB~~ GR Spud Date _____ Completed Abandon 4/1968 Total Depth 3600

Contractor _____

Casing Size _____ Depth _____ Cement _____

Drilled by Rotary _____
Cable Tool _____

Production Horizon _____

Initial Production _____

REMARKS _____

Elec Logs INDUCTION-GAMMA RAY LOG

Applic. to Plug _____ Plugging Record _____ Completion Report _____

Sample Log _____

Sample Descript. _____

Sample Set _____

Core Analysis _____

DSTs _____

Water well accepted by _____

Bond Co. & No. _____

Bond Am't. \$ _____

Cancelled _____

Date _____

Organization Report _____

Filing Receipt _____

Dated _____

Well Book _____

Plat Book _____

Loc. Plat _____

Dedication _____

API NO. _____

Permit Number _____

Date Issued _____

W.W. 168

WW 168

NAVAJO No. 3 WELL
LITHOLOGIC SAMPLE LOG

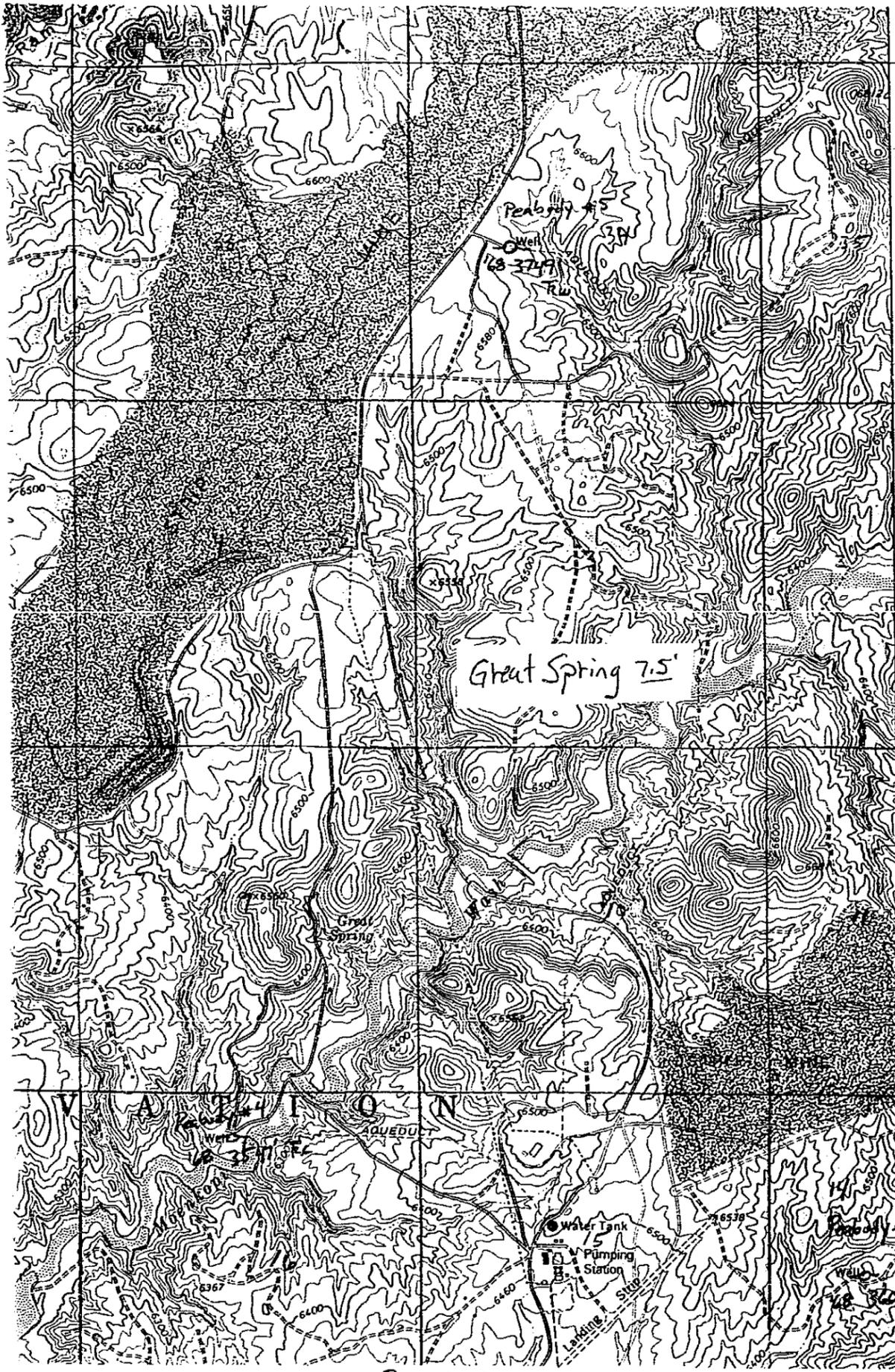
	<u>Depth Interval</u>	<u>Lithologic Description</u>
	150 - 210	Sandstone, light gray, very fine grained with shale.
	210 - 290	Sandstone as above with abundant carbonaceous black shale.
Mesa Verde	290 - 360	Sandstone, white medium grained, friable.
	360 - 400	Sandstone as above with abundant dark shale.
	400 - 430	Sandstone, white, fine to medium grained with abundant gray and black shale.
	430 - 440	Same as above with coal.
	440 - 490	Sandstone and shale as above.
	490 - 520	Sandstone, light gray, very fine grained.
	520 - 530	Sandstone as above with abundant coal.
	530 - 550 540	Sandstone as above.
	550 - 560	Shale, gray abundant.
	560 - 570	Clay, light gray.
Mancos	570 - 690	Shale, gray.
	690 - 870	Shale, light-dark gray.
	870 - 900	Shale, light gray, fissile.
	900 - 930	Same as above with trace of gypsum.
	930 - 1140 1135	Shale, light-dark gray with trace of gypsum.
	1140 - 1220	Shale, light green and white, very fine grained sandstone.
Dakota	1220 - 1250	Shale, reddish brown and light green with white, very fine grained sandstone.
	1250 - 1260	Same as above with white claystone.
	1260 - 1300 1275	Sandstone, white, very fine grained, abundant and shale, claystone as above.
	1300 - 1380	Same as above with reddish brown shale.
	1380 - 1490	Shale, reddish brown with white, transparent and orange, medium coarse sandstone.
	1490 - 1580	Shale, reddish brown and white fine-medium grained sandstone.
	1580 - 1620	Sandstone, transparent-white, fine-medium grained with reddish brown and light green shale.
Morrison	1620 - 1660	Same as above with sandstone becoming very fine grained.
	1660 - 1730	Sandstone, white, very fine to fine grained with shale as above.
	1730 - 1820	Sandstone, white, very fine grained, friable (100%) with cave.
	1820 - 1840	Same as above with 3% reddish brown, very fine grained sandstone.
	1840 - 1850	Sandstone, pink-reddish brown, very fine grained (30%)

Navajo No. 3 Well (continued)

Depth Interval		Lithologic Description
	1850 - 1860	60% sandstone as above.
	1860 - 1890	Cave - poor samples.
	1890 - 1910	Sandstone, pink very fine grained.
	1910 - 1970	Sandstone, pink-reddish brown, very fine grained. (50%)
	1970 - 2000	1990 Sandstone as above with bentonitic clays.
	2000 - 2020	Sandstone, reddish-brown, very fine grained.
	2020 - 2030	Shale, chocolate brown.
Entrada	2030 - 2080	No samples.
	2080 - 2110	Cement.
	2110 - 2120	Sandstone, reddish brown, very fine grained.
	2120 - 2130	Cement.
	2130 - 2200	2170 Cement with reddish-brown shale.
	2200 - 2250	Shale-mudstone, reddish brown.
	2250 - 2260	Mudstone-shale-reddish-chocolate brown.
Carnel	2260 - 2270	Same as above some variated gray, red, brown mudstone.
	2270 - 2300	Same as above with white mudstone.
	2300 - 2330	2330 Same as above with fine to very fine grained sandstone. Quartz grains are transparent.
	2330 - 2370	Mudstone, reddish to chocolate brown with 10% very fine grained sandstone.
	2370 - 2410	Sandstone, transparent-white-reddish brown, very fine grained.
	2410 - 2530	Sandstone, white-pink, very fine grained, friable.
	2520 - 2530	Same as above with reddish brown cave.
	2530 - 2560	Sandstone as above.
	2560 - 2690	Sandstone as above with 50% reddish brown shale and mudstone (cave?)
	2690 - 2710	Sandstone, pink-white very fine grained with 70% reddish brown shale and mudstone. (cave?)
Navajo	2710 - 2820	Sandstone (80%) and shale.
	2820 - 2840	Sandstone, reddish brown, very fine grained with 50% reddish brown shale.
	2840 - 2860	Same as above with white mudstone.
	2860 - 2940	Sandstone, white fine to medium grained with transparent grains.
	2940 - 2990	Sandstone, reddish brown-pink, very fine to medium grained, subrounded to rounded transparent grains.
	2990 - 3020	3020 Sandstone, reddish brown very fine grained, definite grain size change.
Kayenta	3020 - 3030	Sandstone as above with 30% reddish brown shale and siltstone.
	3030 - 3040	Shale, reddish brown.
	3040 - 3050	Same as above with trace of white chalk or mudstone
	3050 - 3060	Shale, reddish brown.

Navajo No. 3 Well (continued)

	<u>Depth Interval</u>	<u>Lithologic Description</u>
	3060 - 3070	Shale as above with trace of white chalk or mudstone.
	3070 - 3210	Shale, reddish brown.
	3210 - 3290	Shale as above with 30% reddish brown very fine grained sandstone.
Wingate	3290 - 3310	Sandstone, very fine to fine grained (90%) with rounded to subrounded transparent quartz grains.
	3310 - 3480	Same as above with grains becoming fine to medium size.
Chinle	3480 - 3500	Sandstone as above with 30% reddish brown shale. Shale, reddish brown (70%).



4038
 4037 T. 36 N.
 T. 35 N.
 4036
 4035
 27' 30"
 See
 Pinion
 1:100,000
 4034
 4033
 CCA HILL
 56 IV NE



OFFICE OF
Oil and Gas Conservation Commission
STATE OF ARIZONA
ROOM 202
1624 WEST ADAMS
Phoenix, Arizona 85007
PHONE: 271-5161

October 2, 1969

Gentlemen:

There has been some misunderstanding expressed concerning my letter to you of September 24, 1969 referring to the wells drilled in the Black Mesa area of Navajo County, Arizona, by Peabody Coal Company.

This information was released for you should you wish to publish same.

Yours truly,

John Bannister
John Bannister
Executive Secretary

Western Oil Reporter
Oil & Gas Journal
P.I.
Utah Oil Report
Munger Oilgram
SW Oil & Gas News
Ariz Natl Resource Serv

September 29, 1969

Mr. Guido Zecca
Gallup Blueprint & Engineering Corp.
303 South 2nd Street
Gallup, New Mexico 87301

Dear Mr. Zecca:

The Arizona Oil and Gas Conservation Commission is releasing all logs and related information concerning six deep water wells drilled by Peabody Coal Company at Black Mesa, Arizona, on the Navajo Reservation.

Under separate cover we are sending you the sepias of the well logs, and a location plat, on a loan basis.

Our release to industry states that interested individuals may obtain a copy of this material from Gallup Blueprint and Engineering Corporation, 303 South 2nd Street, Gallup, New Mexico, Telephone No. (505) 863-9396.

It is our understanding that you have complete responsibility for the handling and sale of this material, and are prepared to render prompt service.

Very truly yours,

John Dannister
Executive Secretary

/vb

September 29, 1969

Mr. Guido Zecca
Gallup Blueprint & Engineering Corp.
303 South 2nd Street
Gallup, New Mexico 87301

Dear Mr. Zecca:

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Very truly yours,

John Bannister
Executive Secretary

/vb

Presenting card

September 24, 1969

Mr. Paul Lewis
Pan American Oil Co.
501 Airport Drive
Farmington, New Mexico 87401

Dear Paul:

I attempted to call you earlier today and failed to get through. I would appreciate it if you would release the attached information at your next scout check.

The Commission does have logs on the wells and, as you noted, we made arrangements for the commercial purchase of this information.

Hope to see you soon.

Sincerely,

John Bannister
Executive Secretary

/vb

Enc.

OFFICE OF
Oil and Gas Conservation Commission
STATE OF ARIZONA
ROOM 202
1624 WEST ADAMS
Phoenix, Arizona 85007
PHONE: 271-5161

September 24, 1969

Gentlemen:

The Arizona Oil and Gas Conservation Commission has released all available information concerning six deep water wells drilled since 1965 in the Black Mesa area, Navajo County, Arizona, on the Navajo Reservation, by Peabody Coal Company.

Shows of oil and gas were encountered in the Dakota during the drilling of one well which had 43 feet of indicated log porosity. A heavy oil scum covered the mud pits, and gas bubbles were visible in the flow line. No shows were reported in the other five wells. All of the wells exhibit considerable structural deformation, and all penetrated the Coconino formation.

A packet of information containing logs and a location plat is available from Gallup Blueprint & Engineering Corp., 303 South 2nd St., Gallup, New Mexico 87301, Telephone No. (505) 863-9396.

Yours truly,

John Bannister
Executive Secretary

/vb

SAMPLE

Mr. Guido Zecca
Gallup Blueprint & Engineering Corp.
303 South 2nd Street
Gallup, New Mexico 87301

Dear Mr. Zecca:

The Arizona Oil and Gas Conservation Commission is releasing all logs and related information concerning six deep water wells drilled by Peabody Coal Company at Black Mesa, Arizona, on the Navajo Reservation.

Under separate cover we are sending you the sepias of the well logs, and a location plat, on a loan basis.

Our release to industry states that interested individuals may obtain a copy of this material from Gallup Blueprint and Engineering Corp., 303 South 2nd Street, Gallup, New Mexico, Telephone No. (505) 863-9396.

It is our understanding that you have complete responsibility for the handling and sale of this material, and are prepared to render prompt service.

Very truly yours,

John Bannister

MINERALS DEPARTMENT

September 22, 1969

Mr. Guido Zecca
Gallup Blueprint & Engineering Corp.
303 South 2nd Street
Gallup, New Mexico 87301

Dear Mr. Zecca:

Delivered herewith are sepias of six wells drilled by Peabody Coal Co., at Black Mesa, in Navajo County, Arizona.

This material has been released by Peabody Coal Co., through the Arizona Oil and Gas Conservation Commission, of Phoenix, Arizona. They are preparing a letter of verification to you.

Interested operators may contact you for copies of this material. This office is not interested whatever in the selling or handling of copies purchased by interested persons, operators, companies, etc.

The following sepias have been loaned to you this date:

Well #1	6 sepias
Well #2	1 sepia
Well #3	1 sepia
Well #4	1 sepia
Well #5	1 sepia
Well #6	1 sepia
<u>TOTAL</u>	<u>11 sepias.</u>

Very truly yours,

/S/ PERRY K. HURLBUT

Perry K. Hurlbut
Minerals Supervisor

Bannistell
Attachments
cc: Chrono
File
PKH:bjm:9/22/69

Memo to Mr. Bannister

September 22, 1969

Memo from J. Lambert

P. K. Hurlbut called today. He is mailing material on the #1 well. Same cover he is furnishing you a letter for the public release for P. I. and many others. He requests that you release the letter as nearly as he has written it as possible. He says that he has labored hard over the text of this letter and hopes that you will see fit to let it go as is. He also has included a letter that he would like for you to send to blue print company at Gallup. He has no druthers on this particular letter.

He has furnished them sepias of the logs on the #1, 2, 3, 4, 5, and 6 wells on a loan basis and apparently this letter is just the Commission's verification of this situation.

He would like for you to release these letters Wednesday if you have the time and inclination. He will talk to you on Monday the 29th or Tuesday the 30th.

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THE NAVAJO TRIBE
WINDOW ROCK, ARIZONA
MINERALS DEPARTMENT

RAYMOND NAKAI
CHAIRMAN, Navajo Tribal Council

NELSON DAMON
VICE CHAIRMAN, Navajo Tribal Council



September 22, 1969

Mr. John Bannister
Arizona Oil and Gas Conservation Commission
1624 West Adams, Room 202
Phoenix, Arizona 85007

Dear John:

The following is a suggested release to P.I. and other agencies concerning the Peabody water wells at Black Mesa:

OIL AND GAS SHOWS REPORTED

The Arizona Oil and Gas Conservation Commission has released all ^{available} information concerning six deep water wells drilled since 1965 in the Black Mesa area, Navajo County, Arizona, on the Navajo Reservation, by Peabody Coal Co.

Shows of oil and gas were encountered in the Dakota during the drilling of one well which had 43 feet of indicated log porosity. A heavy oil scum covered the mud pits, and gas bubbles were visible in the flow line. No shows were reported in the other five wells. All of the wells exhibit considerable structural deformation, and all penetrated the Coconino formation.

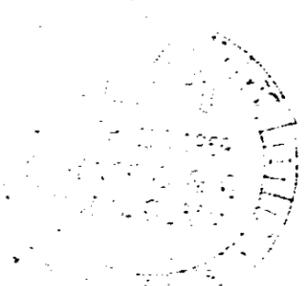
A packet of information containing logs and a location plat is available from Gallup Blueprint & Engineering Corp., 303 South 2nd St., Gallup, New Mexico 87301. Telephone No. (505) 863-9396.

We have this date loaned the sepias of these logs, and a location plat, to Gallup Blueprint. The packet of material they will supply includes one copy each of all logs and the location plat.

We certainly appreciate your assistance in this matter.

Sincerely,

Handwritten signature of Perry K. Hurlbut.
Perry K. Hurlbut
Minerals Supervisor



9-16-69

Johan — a

letter will follow.

Just stick these
in your files.

Mum's the word
until I get the rest of
the facts to you.

about 1 week

PKH

THE NAVAJO TRIBE
WINDOW ROCK, ARIZONA
MINERALS DEPARTMENT

RAYMOND NAKAI
CHAIRMAN, Navajo Tribal Council

NELSON DAMON
VICE CHAIRMAN, Navajo Tribal Council



August 8, 1969

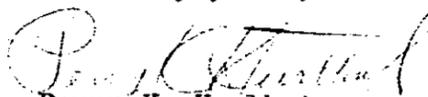
Mr. James Scurlock
Arizona Oil and Gas Conservation Commission
1624 West Adams, Room 202
Phoenix, Arizona 85007

Dear Mr. Scurlock:

The correct log top for the Pdc in the Peabody
#1 water well at Black Mesa is 4963. Measured from the KB
of 6403, this results in a datum of + 1440.

The other five wells did not penetrate the Pdc.
However, if you are interested I can give you the Kd
datums.

Sincerely yours,


Perry K. Hurlbut
Minerals Supervisor



Peabody

- #1 C-20-36N-18E
- 2, SE SE ~~SE~~ " "
- 3, SWNW 14-35N-18E
- 4. NE NW 16-35N-18E
- 5. NE SW 34-36N-18E
- 6. C-N $\frac{1}{2}$ N $\frac{1}{2}$ 26-36N-18E

Elev:

- 1 6403 KB
 - 2 6552 KB
 - 3 6458 KB
 - 4 6241 KB
 - 5 6606 KB
 - 6. 6686 KB
- ~~6606 KB~~ *PKA*

T.D.

- 1- 5149
- 2. 3642
- 3. ~~3742~~ 3602
- 4. 3527
- 5. 3742
- 6. 3564