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United States Department of the Interior

cc: Pete Wayne w/o

BUREAU OF LAND MANAGEMENT
Price Field Office
125 South 600 West
Price, Utah 84501

Jacoming
AOT/007/001

3485
U-017354
U-067498
(UT-070)

Memorandum

To: State Director, Utah (UT-935)

OCT 17 2000

From: ~~Field~~ Field Manager

Subject: White Oak Mine Subsidence Feature Inspection

For your information, you will find attached a copy of the inspection report from the Price Field Office inspection of White Oak's subsidence features. The inspection was completed on October 6, 2000.

THOMAS E. RASMUSSEN

Attachment
Inspection Report

cc: State Office, Utah (UT-930) (w/Attachment)
Utah Division of Oil Gas and Mining
1594 West North Temple, Suite 1210
Salt Lake City, Utah 84114-5801 (w/Attachment)
Manti-La Sal National Forest
599 West Price River Road
Price, Utah 84501 (w/Attachment)

RECEIVED

OCT 19 2000

DIVISION OF
OIL, GAS AND MINING

Bureau of Land Management

Inspection Report For Coal Operations

Inspection Number JM-101000

Thursday, October 12, 2000

Inspection Date 10/6/00

Quarter 1st Fiscal Year 2001

Mine White Oak Purpose Special

<u>Leases Inspected</u>	<u>Sections</u>	<u>Section Notes</u>
U-017354	NA	Surface Inspection
UTU-70018	NA	Surface Inspection

Current Mine Status

On October 6, 2000 John Walters (Lodestar Engineer), George Tetreault (BLM-PFO), Pete Hess (DOGM-PFO), and Jay Marshall (BLM-PFO) inspected the reported subsidence sinkholes at Lodestar's White Oak operation. The meeting was original scheduled for late September after the Cottonwood Spring meeting with the USFS. Unfortunately, the weather was bad and the inspection had to be rescheduled. John Walters contacted Jay Marshall on October 3rd and requested the inspection as soon as possible to beat the imminent bad weather and suggested October 6th prior to the Elk hunt. DOGM was contacted and messages was left with the USFS. The USFS did not respond and was not present on the October 6 inspection.

The BLM and DOGM met John Walters at the Lodestar office. Dave Miller (Business Manager) joined in the discussion. John presented a map showing the location of the observed subsidence features. A subsidence survey log for the November 1999 subsidence was also presented. The subsidence log matched the subsidence features shown on the map. The subsidence log and map are included with this report. As noted on the subsidence log, many minor subsidence features are present. The inspection was to be limited to the two most significant sites know to the BLM, USFS and DOGM. One of the significant sites is located in Boardinghouse Canyon just inside the USFS boundary. The second site of concern is located near Lodestar's 2nd South sections.

The Boardinghouse site is located approximately 1,500 feet to the West of the existing O'Conner mine road. The site is located in the SE1/4,SE1/4 of Section 36 T13S R6E approximately. The site was accessed from the White Oak mine site via private unimproved road with locked gates. The site is located on a South facing aspen covered hill side. The aspens are moderate in density with the areas in-between covered with various grasses. There are indications that the site is used heavily by wildlife primarily deer and elk. A significant number of water sources are available in the immediate area for wildlife watering. The abundance of water in the general area is believed to be the result of the nearby unnamed North-South trending fault. It was the result of mining into this fault system from underground workings that resulted in the mine entry failures which ultimately caused the sinkhole. The area directly under the sinkhole has not been second mined. The underground mine workings are approximately 300 feet below the surface expression of the sinkhole. As can be seen from Photo #1 of the attached photos the sinkhole is approximately 45' by 30' and approximately 20' deep. The bottom of the sinkhole is filled with water as can be seen by Photos #2 and #6. The water retained at the bottom of the sinkhole indicates that the conduit between the mine and the surface has self healed. If a connection between the mine and the sinkhole still existed the water would not be ponding at the bottom of the sinkhole. Photo #2 also shows a highwall of approximately 15'. This highwall is not significantly different from other highwalls caused from natural stream erosion in the immediate vicinity. The entire sinkhole is surrounded by a two foot high fence that can be seen in Photos #1 and #3. The slope on the up-hill side of the sinkhole and sloping into the deepest part of the sinkhole is shown on Photos #4 and #5. No evidence can be found of any wildlife using the area inside the fence. It appears that water is readily available in many other places other than the sinkhole. The sinkhole does not present any apparent safety hazard. The hillside slope is too steep to allow for ATV travel. The fence will discourage any foot traffic. The trees are too dense around the sinkhole to allow for any snowmobile activity. The slope out of the sinkhole would allow any wildlife to easily exit should any get into the hole. And the entire area is behind locked gates making vehicle access difficult. In order to reclaim this sinkhole an access road would have to be constructed to allow for hauling in backfill material. Should an access road be constructed it would impact a significant amount of trees and grasses and would be difficult to reclaim. A satisfactory borrow area would have to be designated and permitted. The resulting disturbance from reclamation attempts would be more significant than the existing disturbance from the sinkholes.

The 2nd South site is located at the bottom of the South Fork of Eccles Canyon. The old mine works are approximately 300 feet below these subsidence features. The area under these subsidence features was second mined with a combination of pillars being pulled and bottom coal being removed. The site was accessed from the White Oak mine site via private unimproved road with locked gates. The site is located on a West facing aspen covered hill side at the bottom of the drainage. Photos #7, and #8 show subsidence features believed to be #1 and #2 on the subsidence log. These features consist of several areas where the ground has lowered from 4 to 12 feet. The deepest one shown on Photo #7 is a round feature approximately 12' deep. The bottom and side slopes show evidence of vegetation and appears to be well on its way to natural reclamation. Several smaller features are located in a grass clearing just outside of the aspen line. The features located in the grass Photo #8 has evidence of heavy wildlife use. It appears that during wet times these holes fill with water and the elk use them for wallow areas. A depression shown on Photos #9 and #10 appear to indicate a subsidence crack and slumping. A number #42 can be found nailed to trees on both ends of the feature. With close examination of Photo #10 the yellow marker tags can be seen attached to two of the trees. The #42 cannot be found on our subsidence log. If this is a subsidence crack it is well on its way to natural reclamation.

In summary, after visiting the site the BLM recommends that nothing additional be done to reclaim the sites. The sites do not present any apparent hazards and no signs of additional disturbance is evident. The sites appear to be reclaiming naturally and that any attempts to assist in the reclamation will result in additional unnecessary disturbance. In addition, the BLM recommends that the fence around the Boardinghouse site be maintained. Monitoring of the sites should continue until such time that data is presented, and concurrence has been reached between DOGM, USFS and the BLM, that demonstrates subsidence is substantially complete.

Close Out Discussion

Lodestar showed interest in some unleased federal coal next to the existing Lodestar leases. We advised Lodestar that because the desired coal was not adjacent to any existing federal lease that the area was not a candidate for lease modifications but a full LBA would have to be prepared.

The mine indicates that they would like to do some outcrop mining on existing leases. The BLM referred the request to DOGM and informed Lodestar that a revision to the R2P2 would have to be submitted.

1999 SUBSIDENCE SURVEY LOG
November 1999

TAG NO.	DESCRIPTION	LAT ^{39°}	LONG ^{11°}
1	Sinkhole (4' deep) water in bottom	39°52.726"	11°54.631"
2	Sinkhole with surrounding cracks - 8' deep, 12' in diameter - vegetated on interior and exterior	40°01.650"	11°54.159"
3	Sinkhole 4' deep, 5' in diameter - vegetated along edge	39°43"	11°20"
4	Crack length is 3/4 healed, grasses and forbs	39°42.616"	11°10.749"
6	Vegetated, weathered and healing	39°22.445"	11°20.087"
13	Crack approximately 1' deep with grasses and forbs growth along and in crack	39°42.539"	11°25.167"
19	Sinkhole healing - 12' deep, 2' diameter	39°05.618"	11°46.506"
20	Sinkhole continuing to heal, 5 - 15' deep, vegetated	39°49"	11°15"
21	Fracture healing, fracture filled periodically along the length	39°47"	11°15"
22	Continuing to heal, fracture is vegetated	39°08"	11°48"
23	Sinkhole continues to heal, hole located on Forest Service property	39°03.614"	11°32.964"
24	Sinkhole continues to be effected by groundwater seepage	39°02.788"	11°14.970"
25	Continuing to heal, 1' deep, ends of crack are weathering	39°35.307"	11°10.981"
26	Fracture length continues to fill and vegetate	39°35.794"	11°17.138"
27	Multiple fractures, healing well	39°40.614"	11°24.120"
31	No new movement, 3' vegetation established, fracture continues to heal	39°47"	11°09"
35	Fracture length is healing	39°44"	11°11"
36	Fracture is approximately 2' deep, length is 3/4 healed	39°44"	11°09"
37	Fracture continues to weather, vegetated.	39°48"	11°17"
39	Fracture continuing to heal, vegetated	39°27.855"	11°22.084"
50	Fracture continuing to heal, vegetated	39°35"	11°15"
51	Fracture healing and vegetated	NA	NA
53	Fractures continuing to heal	39°15"	11°39"
54	Fracture continuing to heal	39°40"	11°13"

Vegetation
 → 39°35' 5"
 11° 11' 33"
 9336



**#1 Boarding House Canyon Subsidence Sinkhole Item #23
Looking East (Note the Fence)**



#2 Boarding House Canyon Subsidence Sinkhole Item #23 (Standing Water)



#3 Boarding House Canyon Subsidence Sinkhole Item #23
Looking West



#4 Boarding House Canyon Item #23 showing slope into sinkhole.
Looking North



#5 Boarding House Canyon Item #23 showing slope into sinkhole.
Looking South-West



#6 Boarding House Canyon Item #23 showing close-up of standing water in Sinkhole.
Indicates lack of direct link with the mine.



#7 Near 2nd South Section believed to be Item #2. No standing water.



#8 Near 2nd South Section believed to be Item #1. Evidence of wildlife using area for wallow-area.

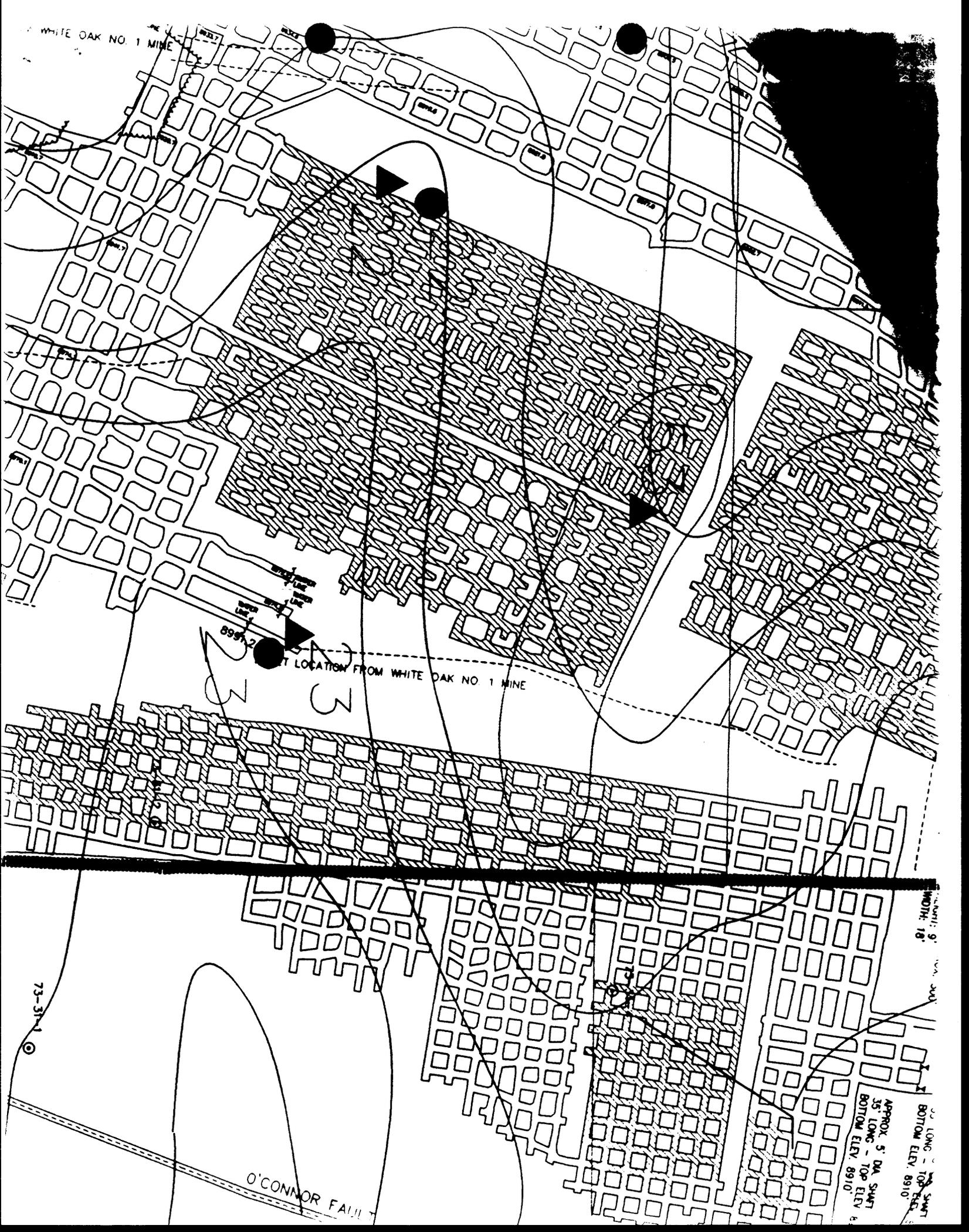


#9 Near 2nd South Section believed to be Item #42 (Crack)
Appears to be naturally occurring and not mining related.



#10 Near 2nd South Section believed to be Item #42 (Crack)
Appears to be naturally occurring and not mining related.

WHITE OAK NO. 1 MINE



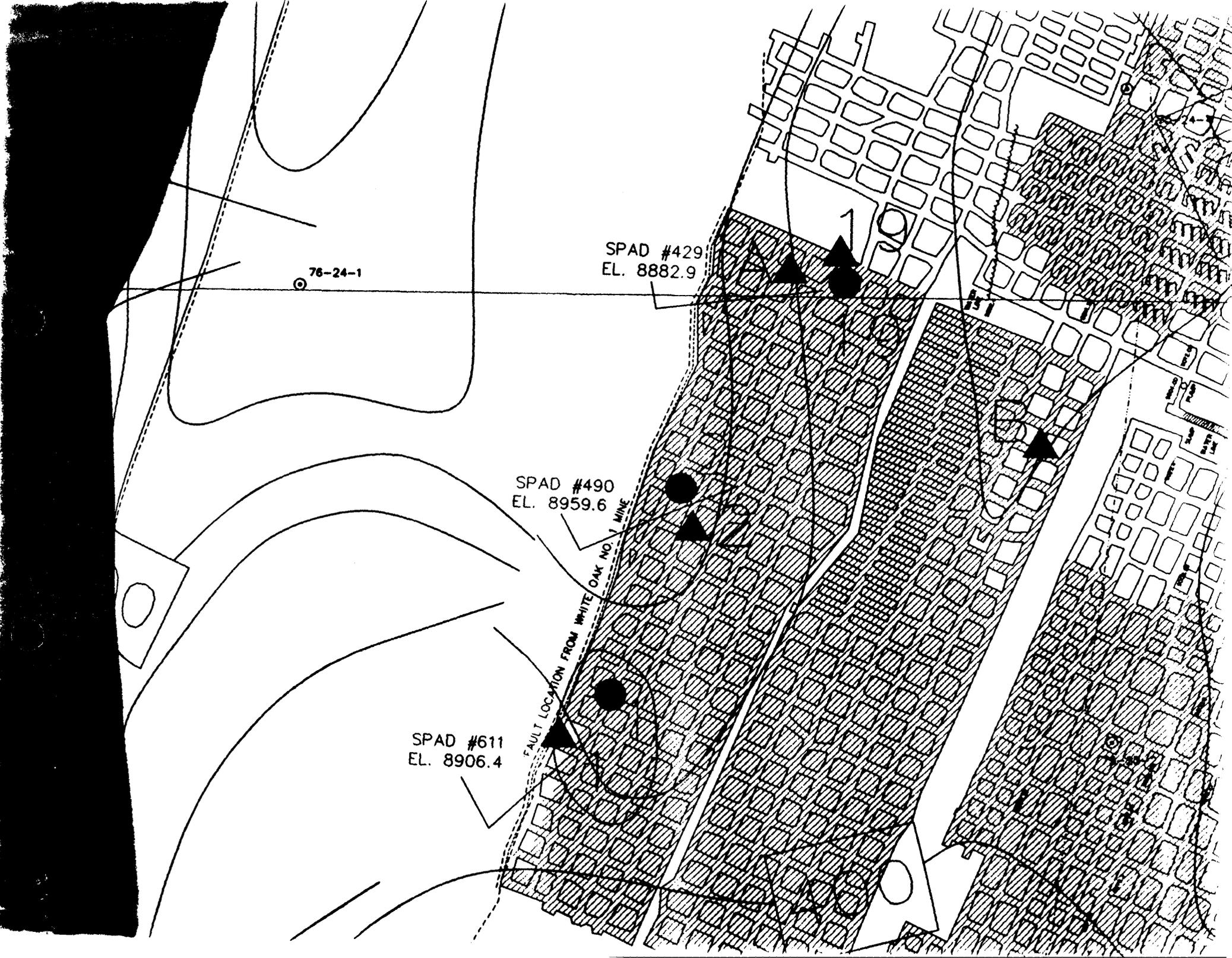
8991.2
 LOCATION FROM WHITE OAK NO. 1 MINE
 N

O'CONNOR FAULT

APPROX. 5' DIA. SHAFT
 35' LONG - TOP ELEV. 8910'
 BOTTOM ELEV. 8910'

WIDTH: 18'
 9'

73-31-1



76-24-1

SPAD #429
EL. 8882.9

SPAD #490
EL. 8959.6

SPAD #611
EL. 8906.4

FAULT LOCATION FROM WHITE OAK NO. 1 MINE