

CRANDALL CANYON
VIRGIL BROWN'S NOTES



~~8/5/07~~ - I was in Pittsburgh practicing with the MEO Unit when notified about the incident.

~~8/6/07~~ - 6 a.m. to 2 a.m. on 8/7/07 travel to Price, UT via jet and rental car. Took mini-seismic location system with me on the plane.

8/7/07 - 6 a.m. to 1 a.m. 8/8/07 - took mini-seismic system underground to last fresh air base before second bump. Set up arrays for seismic tests on the roof. Tested for ½ hour in the number 1 entry. Reset arrays on 4 inch steel pipe in the number 2 entry going inby towards where the men were and tested again for another ½ hour.

8/8/07 - prepared apparatus and equipment, ordered satellite system to be shipped from Beckley and set arrays up for Jeff Kravitz' surface satellite system.

8/9/07 - worked from 6 a.m. to 11 p.m. changed batteries on the large seismic system and went underground with the roof control specialist from Tech Support. At 9:58 p.m. first hole through into the mine.

8/10/07 - At borehole measurements worked 6:30 a.m to 7:30 p.m. borehole readings 0.0% CH₄ 8.17% oxygen and 186 ppm CO at 5:10 a.m. at first hole 1876 ft. with 5 ft. of stickup for the steel 1871 ft. from earth tried to ventilate that by pushing air through it the bit was raised 3 ½ ft. from ceiling it had 4 1/8" holes in the bit and there was 5.5 feet of opening in the mine. They listened with a mike and speaker (conspace unit) When they went to pull the mike & speaker out the cable broke into at the coupler and we had to fish it out. There was an 8 7/8" hole at 137 South drilled to entry and then tried to case and grout which should take approximately 12 hours and drilled to 150-200 feet stop drilled and cased the hole. 2 p.m. 8 ¾" hole was at 1504 feet. At 2:55 p.m. we cleared the hole with a Thomas pump, took some readings with handheld detectors ATX620, had 139ppm CO and 7.902 at 3:55 p.m. With an ITX it showed 6.9 oxygen and 193 ppm CO

8/11/07 - 7 a.m. - 5:30 p.m. - capsule arrived by FedEx and was taken to supply trailer. At 8:41 a.m. there was a camera at the top of the coal seam. Underground at 9 a.m. we have loaded coal rubble to crosscut 124 and projected need to go 1950 feet more. The other hole (8 ¾") is 1874 feet collar to seam height to the top of the seam. 1879.7 feet to the bottom which left a 5.78 opening visible to camera and metal rope mesh. No. 1 entry 80 ft inby crosscut 120 we had 73,700 cfm No. 2 entry 2,000 cfm for a total intake of 75,700 cfm No. 3 entry return is 43,100 cfm No. 4 entry return is 42,100 cfm for a total of 85,200 cfm NOTE: difference in reading is due to leakage I was told by Kevin Stricklin that we needed to do an SF₆ survey that sulphur hexafluoride gas vacutainers,

etc.. and started process to locate a drill that was capable of doing a borehole that would accept the capsule (30-36" hole).

8/12/07 - 6 a.m. to 11:30 a.m. - Installed tygon to #5 seal, #9 seal and inby #1 seal. #5 seal just outby #5 seal we had 20.8 O₂, 0.0 CH₄, 7ppm CO. Just outby #9 seal 20.8 O₂, 0.0 CH₄, 8ppm CO. Outby seal #1 19.7 O₂, 0.0 CH₄, 11ppm CO. Inby #1 seal 7% O₂, 147ppm CO. Installed sample line, pulled syringe sample and installed the O₂ and CO conspsect sensors. Direction of flow of air was through the seal and later it changed and was slightly in gas later. 8:15 p.m. under apparatus 2500 psi low man, barometer was 30.2, 10 ft. inby the seal handheld readings were 7.2, 169ppm CO and 0.0 CH₄ at 8:25 p.m. Conspec came up and read oxygen properly, problem with the CO because the sensor was only 0 - 50ppm. 8:42 p.m. we were off oxygen and resealed the seal.

8/13/07 - 6 a.m. to 9:00 p.m. - #2 entry belt inby area = 1.5 1,137 ft/min which = 135 cfm #1 entry - 80 ft inby crosscut 120 we had 24,700cfm, 20.8 O₂, 4ppm CO, and 0.0 CH₄. #1 entry air is 126 sq ft, 510 ft/min for a total of 62,260cfm. Mine foreman stated at 10:25 p.m. Mr. Peacock we were losing too much air at the 1.5 vent located at the tailpiece and that it needed to be closed and he wanted to know why it was there. He thought we were just losing needed air. I explained to him that the reason the vent hole was in the stopping was to keep the CO from building due to the diesel haulers that were being operated near the tailpiece. I also informed him that some of the readings were near the 50ppm allowable limit. At 11:30 a.m. one diesel hauler went down at the tailpiece and the other one went down at 11:40 a.m. due to lack of fuel. The gas was analyzed for the atmosphere behind #1 seal 89.7% nitrogen, 7.5% oxygen, 1.81% CO₂, 2ppm hydrogen and 150ppm CO which meant to me that the sealed area was common with the #1 and #2 entries in where the miners were probably located. 6:07 p.m. 8.2 oxygen behind the #1 seal, 155ppm slightly ingassy

8/14/07 - 6 a.m. to 6 p.m. - #1 seal 5.6 oxygen, 187ppm CO, and new sensor was installed and correctly read on conspec the CO readings. Contacted Doug Conway and Frontier Camper Bob Pond about hoist for lowering capsule. There were stress cracks underground at crosscut #116.

8/15/07 - 6 a.m. to 6:30 p.m. - ordered supplies, filled O₂ bottles, benched more apparatus. 10:51 a.m. 3rd hole was down at crosscut #147. There was a 7.8' void. 12:30 p.m. **was notified that there was activity discovered with the seismic system on the surface.** A signal was 1 ½ seconds apart for 5 minutes. Location was somewhere around #143 crosscut. We cleaned near crosscut #126 1,690 ft. to reach crosscut #139. They were injecting approximately 6-9000cfm of air with 3 compressors down the 8 ¾" borehole. WHO?
WHAT?

8/16/07 - 5:30 a.m. to 6 p.m. - #1 entry 86,310cfm, #2 entry 3,000cfm, #3 entry 47,975cfm, #4 entry 49,140cfm. Crosscut 147 #3 hole had 16.7 O₂, and 19ppm CO. 4th

projected hole #143 they decided to move to crosscut 144 due to surface terrain. South panel #13 at crosscut 107 seal air reading was 18.8 O₂, and 0's on everything. Mag was -.6" water gage. 9:55 a.m. #1 entry 2' x 11' opening see mesh 20' in by and this opening closed with another bump about 10:13 a.m. #1 seal at 2 p.m. mag was -.02" water gage, 3.5 O₂ and 225ppm CO.

8/16/07 - 7p.m. -11:30 p.m. - at 6:39 p.m. received call stating rescuers missing. Traveled from hotel, took all MEU members immediately to mine. 2 fatals, 7 injured put oxygen on Gary Jensen, talked to him, helped load in LifeFlight and he died enroute to hospital. Went in mine to assist with the other injured personnel. #125 stopping blown out. Tagged #14 gas detector to ~~check for hygiene board and readings at time of incident~~. Results later showed concentration behind #1 seal. All it had was peak readings, no hygiene board. Scott Johnson had helped restore ventilation at accident scene and had taken 2 difital photos of accident scene.

8/17/07 - 6 a.m. to 8 p.m. - 4th hole was at 523 ft at 7:50 a.m. Mike Hicks at 8:30 was near Denver, CO with robot and more equipment. Ordered trailers to be used at mine location for roof control specialist to evaluate mine conditions for rescue operations. Ordered a trailer and generator for drill location.

8/18/07 - 6 a.m. to 6 p.m. - drilled hole at 1,580 ft at 7 a.m. Unloaded and charged robot, set up generator at drill site and connected to trailer. At 12:15 p.m. set off 3 surface shots and waited for a response from the miners.

8/19/07 - 6 a.m. to 2:30 p.m. - sent satellite system to drill site Mike Hicks and Aaron (from Tech Support). Set up system and tested. Checked the robot for function of recording capabilities. ~~Was notified~~ that Jerry Bellamy, Bill Cook and Bob Clay would be arriving and I would need to show them what to do at the drill site and have my men assist them on their first day.

8/20/07 - 7 a.m. to 5 p.m. - Worked on masterline pump, took Bellamy to drill site and mine to pickup 4x4 vehicle.

8/21/07 - 7 a.m. to 3:30 p.m. - vehicles switched out, packed up equipment, made flight arrangements, reviewed maps, gave John Urosek quick task training on operation of robot, took samples to Price, UT Field Office, FedExed radios to Beckley for national competition.

8/22/07 - 5:30 a.m. to 7:30 p.m. - flew back to Pittsburgh then drove back to Beckley with Mike Hicks.

137
W/110