

Date: 23 March 1982

Memorandum for the Record

From: Ms. Betz, Quality Control Lab., Environmental Section, NREAB, BMaintDiv

Subj: Suspected Chemical Dump, Rifle Range Area; Sampling on 18 March 1982 of

- Encl: (1) Figures of Water and Well Depths of the Test Wells
- (2) Table of Sample Information
- (3) Rain Fall Readings

1. On 17 March 1982, Ens. Kalisch's Rad Pool was pumped down, by the Outside Plumbing Shop, to about 8" of water. The bottom was mostly leaves and logs. The water was forced down the hill.

2. On 18 March 1982, Jerry Wallmeyer of LantDiv, Gaines Huneycutt and Elizabeth Betz of NREAB, Wallace Eakes of NEESA, and five men from the Consulting Firm from Gainesville, Fla, went out to the Chemical Dump.

3. Upon arrival the Rad pool was checked and the water level had risen about 4 ft, since the day before.

4. Then the group walked through the Dump. All three wells were located.

5. Portions of the Dump had been prescribed burned. A fire break had been cut through the Dump. The break had disturbed the soil. The barrel that had been in a pool was gone. Traces of a barrel was seen on the fire break. A lot of chemical test kits, consisting of plastic vials, like in Hach kits, were found in the fire break. They were labelled "Sampling Tube-White Dot Tubes." There were other vials that were glass and a little larger. There were some crystals that looked like $CuSO_4$, color wise.

6. Jerry Wallmeyer had brought an Isco pump, Model 1580, and a generator to be used to pump out the Test Wells. He wanted to pump the wells down in the morning and in the afternoon come back and pump them again and take samples. This way the samples would more correctly reflect the ground water. He also wanted to take well depths and water depth.

7. Jerry Wallmeyer started with test well 15, located on the road side edge of the dump. Test Well 15 had an elbow joint in it which made it impossible to take depths and pump. Mr. Wooten, Director of NREAB, who had come out for a few minutes, went back to Mainside and had the necessary tools sent back to take the elbow out of Test Well 15.

8. While waiting for the equipment for Test Well 15, we moved on to Test Well 16. Test Well 16 was determined to be 11'7" deep, with water at 28" from the top. The well was pumped for about 20 minutes, to dry, at 1045. The sample was taken at 1535 that afternoon. See Enclosure (1)

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9. Test Well 17 was determined to be 25'1" with water at 61". This well had never been sampled before. An old hand pump had always been used and no water was ever ob-

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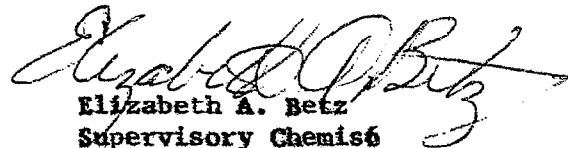
tained. Test Well 17 was pumped down 21'6" at 1120. The hose on the pump was not long enough to pump further. The sample was taken at 1150 that afternoon. See Enclosure (1).

10. After the elbow was removed from Test Well 15, it was determined why it was put there in the first place. The elbow helped to keep the pipe above the surface. The pipe was now 13" below the surface. The part of the elbow that still remained was 8" long, sideways. The well was determined to be 12' deep, with water 48" down from the elbow. The well was pumped dry at 1300 in about 5 minutes. The sample was pumped at 1525. See Enclosure (1).

11. While the Test Wells were left to fill up again, Wallmeyer, Huneycutt and Betz went to the Rifle Range to take samples. The regular five TTHM samples (Trihalomethanes) were taken. Along with the TTHM samples, two sample bottles were filled for Wallmeyer at each TTHM sample point. Wallmeyer also took four additional samples at various points in the treatment process in the Water Plant. Raw Water Wells RR47 and RR45 were running at the time. Samples were also taken from each of the three raw water wells RR97, 47, and 45. For the various sample numbers, times, collectors, and locations see Enclosure (2).

12. A sample was not taken at Ens. Kalisch's Rad Pool even though it had been pumped.

13. Wallmeyer also wanted Rain Fall statistics. Forestry takes readings at 0800 every Monday-Friday, in front of Bldg 1103. Enclosure (3) is a copy of Forestry's readings given to Wallmeyer.


Elizabeth A. Betz
Supervisory Chemist

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Table of Sample Information

<u>Sample #</u>	<u>Sample Location</u>	<u>Time</u>	<u>Collector</u>
576 (THM)	WTP (RR-85) Raw-Below Aerator	1335	Huneycutt
577 (THM)	WTP (RR-85) Treated-From Tap (Delivered)	1340	Huneycutt
578 (THM)	RR-6, Fire House	1345	Huneycutt
RR-6 A&B	RR-6, Fire House	1345	Huneycutt
579 (THM)	RR-10, Snack Bar	1350	Huneycutt
RR-10 A&B	RR-10, Snack Bar	1350	Huneycutt
580 (THM)	RR-92, Sewage Plant	1355	Huneycutt
RR-92 A&B	RR-92, Sewage Plant	1355	Huneycutt
1 A&B	WTP (RR-85) Raw-Below Aerator	1405	Huneycutt
2 A&B	WTP (RR-85) To Filter Pumps	1410	Huneycutt & Wallmeyer
3 A&B	WTP (RR-85) After Filter	1415	Huneycutt & Wallmeyer
4 A&B	WTP (RR-85) After Softener	1418	Huneycutt
5 A&B	WTP (RR-85) Finished Water	1420	Huneycutt
6	WTP (RR-85) Treated-From Tap (Delivered)	1420	Wallmeyer
RR-47	RR-47, Raw Water Well	1435	Huneycutt & Wallmeyer
RR-45	RR-45, Raw Water Well	1440	Huneycutt
RR-97	RR-97, Raw Water Well	1450	Huneycutt
TW-15	Test Well 15, Chemical Dump	1525	Betz, Huneycutt Wallmeyer
TW-16	Test Well 16, Chemical Dump	1535	Betz, Huneycutt Wallmeyer
TW-17	Test Well 17, Chemical Dump	1550	Betz, Huneycutt Wallmeyer

Enclosure (2)

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Rain Fall Readings

For February 1982

Date	Inches
3	1.7
10	0.75
17	2.3
19	0.30
22	0.2

For March 1982

Date	Inches
1	0.80
2	0.2
5	0.1
8	1.6
16	1.15

1. Read at 0800 every Monday-Friday, in front of Bldg 1103(NREAB Office)
2. Missing dates had no recordable rain fall. Above data is from 1 February-19 March

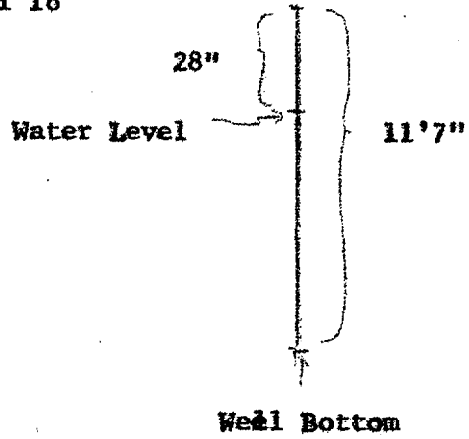
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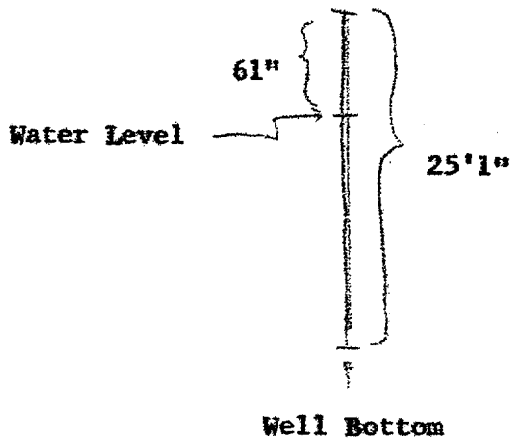
Enclosure (3)

Figures of Water and Well Depths of the Test Wells

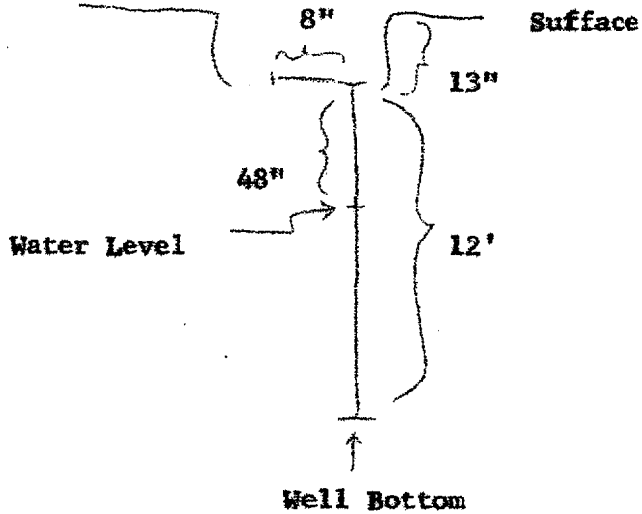
Test Well 16



Test Well 17



Test Well 15



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Enclosure (1)
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