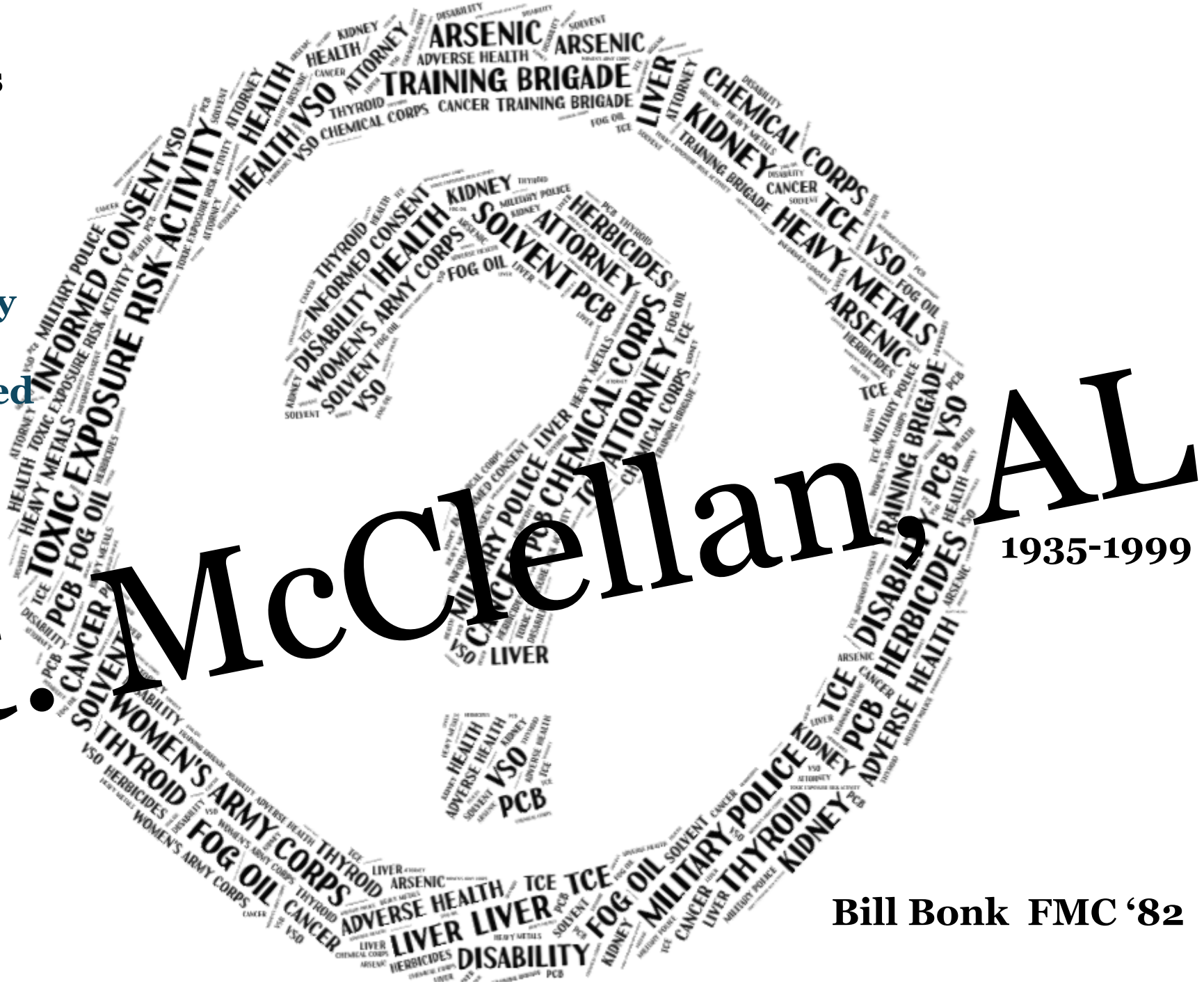
At the -
National Academies
Sciences
Engineering
Medicine

Epidemiologic Study on the Health of Veterans Who Served at Fort McClellan, 1979-1999



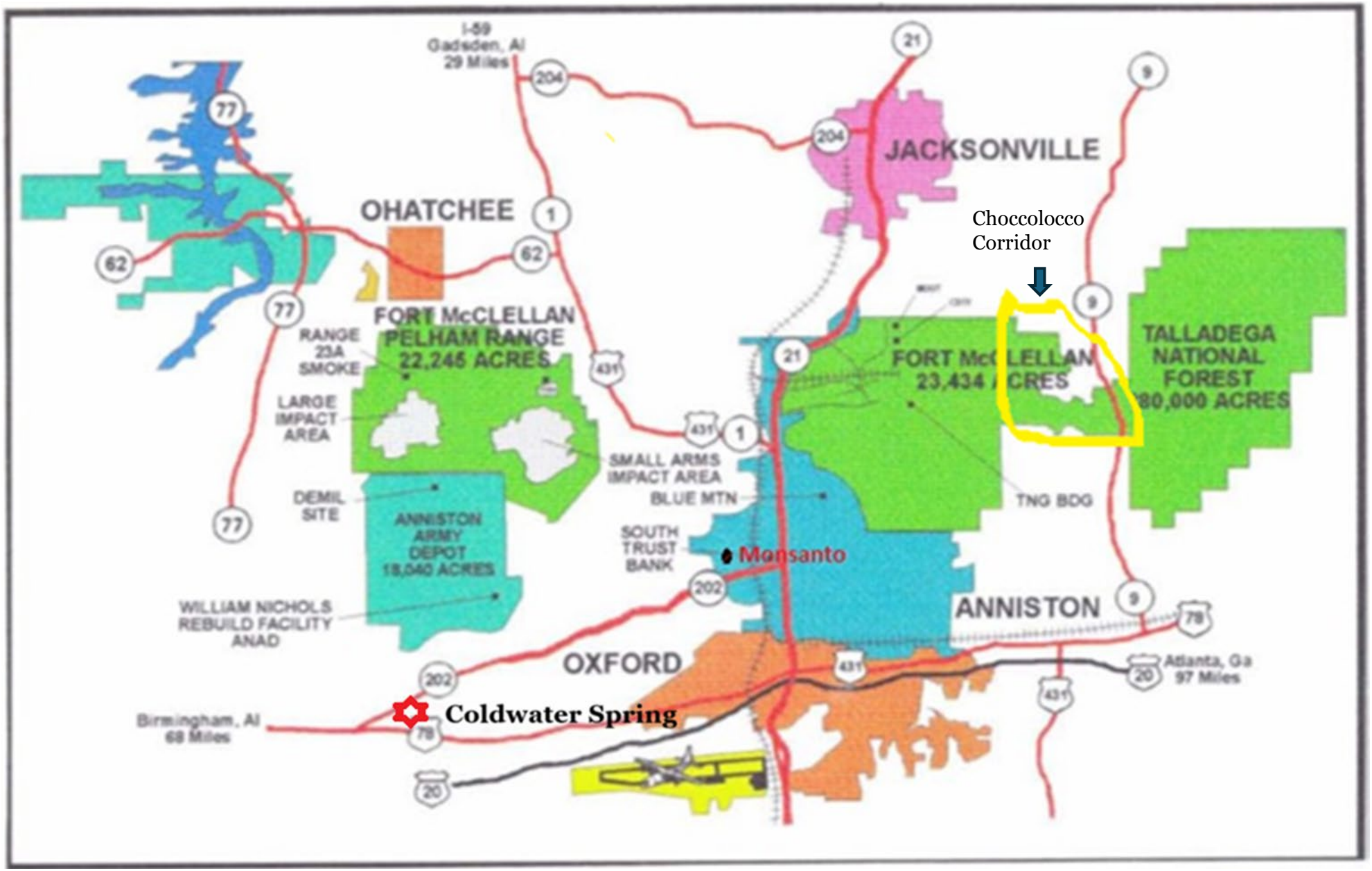
Ft. McClellan, AL

1935-1999

Historical

Bill Bonk FMC '82

Ft. McClellan and Surrounding Areas



RUMINT:
(Rumor Intelligence)

- **The EPA did not shutdown Ft. McClellan.** It was a Base Realignment and Closure Commission decision in 1995. "Decommisioned" May 1999.

- Ft. McClellan was not designated as a Superfund site. Ft. McClellan WAS NOT on the EPAs National Priorities List.
- The Agency for Toxicological Screening and Disease Registry (ATSDR) did not conduct any "Ft. McClellan" Public Health Assessments, Public Health Consultations, or Exposure Investigations until an HC was published in 2025. *"The report does not evaluate exposures during military work-related duties or training." "...in Non-Occupational Areas or While Engaging in Non-Occupational Activities at Fort McClellan."*
- Agent Orange was not manufactured by Monsanto in Anniston. PCBs, 2,4,5-Trichlorophenol and other chemicals were manufactured in Anniston.

- There is no direct evidence documenting "Agent Orange" on Ft. McClellan. There is hearsay. There are rumors. There is circumstantial evidence. AND, we know the components of AO were on Ft. McClellan AND used because they were in inventories and detected decades later facilitywide. Agent White was used on Ft. McClellan – in the inventories and detected.

Key Exposures of Concern:

Health Topics / Potential Outcomes:

Roles or Positions - - Most Likely to Experience Exposures & Why?

Additional Context for the Committee to Consider:

Ft. McClellan Contamination Timeline: (Low Level or Otherwise. Estimated)

Key Exposures of Concern;

- Herbicide Agent Contamination **1956-2000s** 2,4-D, 2,4,5-T, picloram, silvex, arsenic based herbicides, TCDD (dioxin) --- Trichlorophenol, Pentachlorophenol (PCP).
- Solvent Contamination prior to **1977-2026** trichloroethylene (TCE), tetrachloro-ethylene (PCE), dichloroethylene / dichloroethane (DCE), vinyl chloride, benzene
- Heavy Metal Contamination **1970s-2026** arsenic, beryllium, lead, antimony, cadmium, etc
- PCB Contamination **1950s-2026** (Production in Anniston 1929-1971)
- Radiation Contamination **1950s-2002** cesium 137, cobalt-60, Strontium-90
- FOG oil : 77,000 gallons per year; Bad Fog Oil (Carcinogenic before 1986)

County pneumonia cases surged during Army tests

By RAAD CAWTHON
Star Staff Writer

Calhoun County was the only Northeast Alabama county to experience a steep increase in the number of reported pneumonia cases from 1951 to 1952, the year the Army conducted a simulated warfare attack on Ft. McClellan, according to Alabama Health Department figures.

In 1952, C... cent of the st... only three pe... The 1952 ... introduction ... around Ft. ... program of s... conducted at ... cities betwee...

Talladega County's reported cases went from seven in 1951 to eight in 1952. In Clay County, reported instances increased from none in 1951 to one the following year. Cleburne County's reported cases fell from one in 1951 to none in 1952.

In Madison and Etowah counties, which had populations in 1952 about the same as Calhoun, the reported instances of pneumonia ..., according to ... es in Madison ... o two in 1952. In ... s fell from 27 in ... n pneumonia in

Generators used at McClellan to spray bacteria in '52 tests

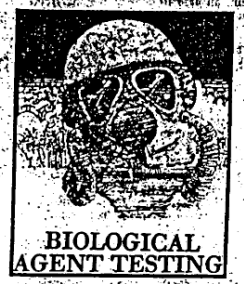
April 21, 1981

EDITOR'S NOTE: This is the third of a four-part series of articles examining a former Army program of large-scale, open-air biological warfare testing. Some of that testing occurred at Fort McClellan.

By DAVID H. MORRISSEY
Star Staff Writer

At the time Army scientists were debating the risks involved in using Serratia marcescens (SM) in open-air biological warfare testing, Fort McClellan was the site for a new round of tests.

In all, there were 21 biological warfare tests at McClellan between July 16 and Sept. 28, 1952. A dozen involved dispersing SM into the atmosphere. In nine SM tests bacteria was spread by powerful generators. Twice it was sprayed by aircraft flying at altitudes of 150 feet. Once it was dispersed by the simultaneous explosion of 38 bacteria-filled bombs.



summarizing the first SM test at McClellan, "the relative recoveries of SM and BG indicate no loss in viability of SM under these test conditions. An ... dicated."

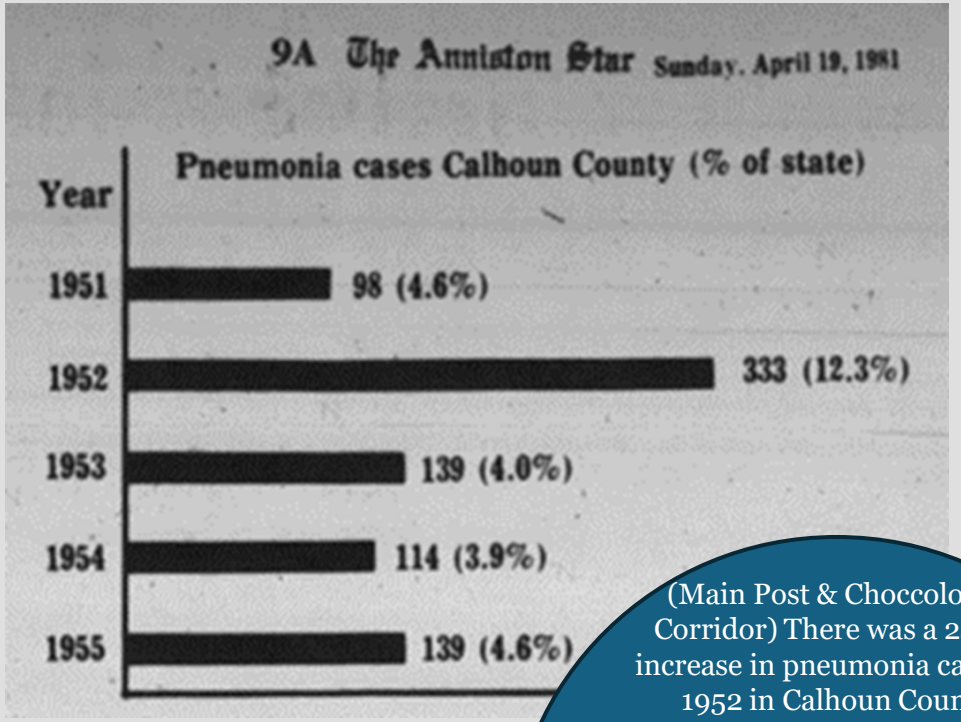
SM was sprayed from generators twice on July 22 over a part of Fort McClellan less than a mile from McClellan Boulevard (Alabama 21), east of what is now the Galloway Gate.

THEN AS NOW, McClellan Boulevard was the major north—south road in the county.

Eight generators were lined up 50 yards apart on the post's 10th Street. SM was then sprayed over buildings on Fifth, Seventh, Eighth and Ninth streets. The wind at the time was blowing at about 3 mph north-northeast, or about parallel to McClellan Boulevard, Army reports say.

The first test occurred at 5:30 a.m. on a Tuesday morning and the area "was "blanketed with an aerosol cloud producing high level human respiratory exposures," the Army report says. The second occurred at 6:35 a.m.

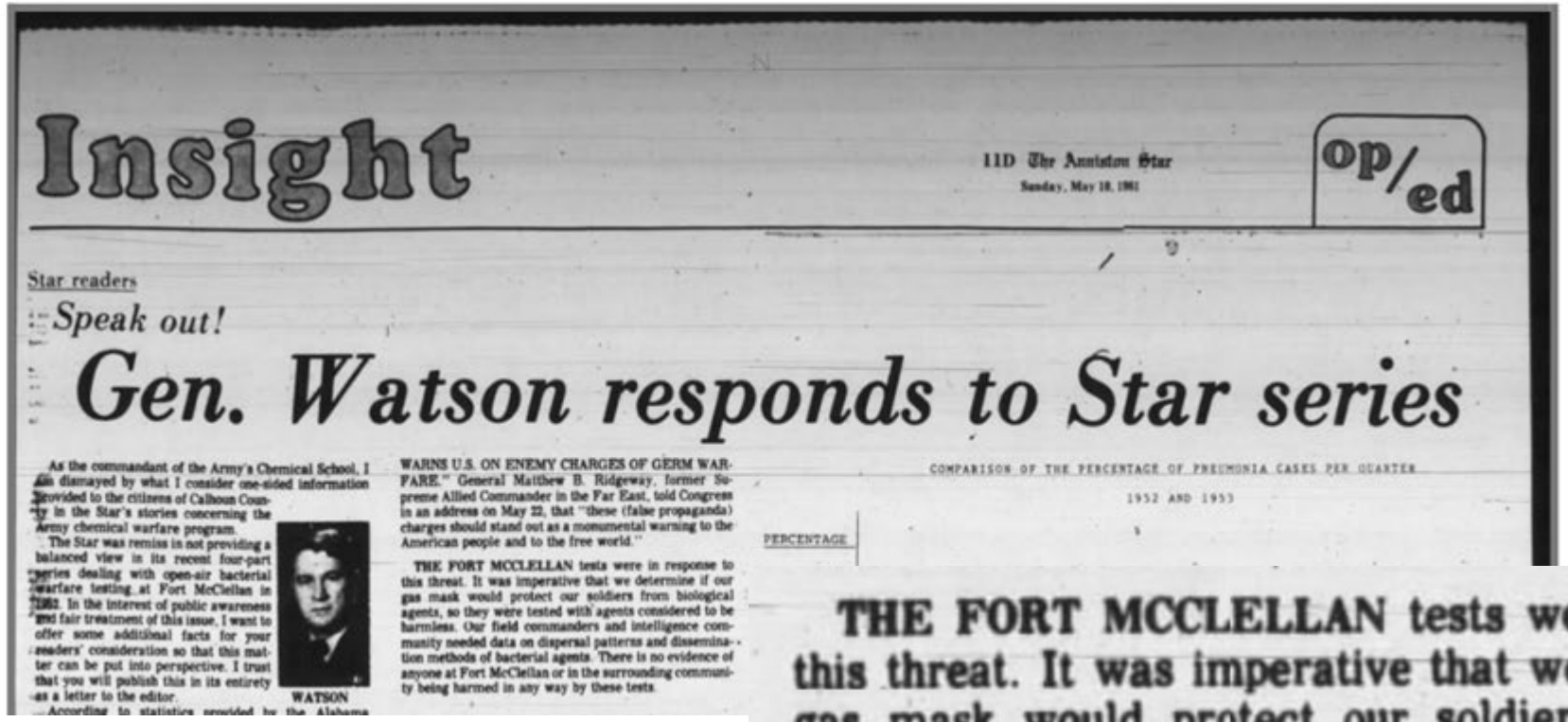
The Anniston Star › Tue, Jan 04, 1977 › Page: 1



Calhoun County was the only county in Northeast Alabama to experience a significant surge in pneumonia cases during the Army's 1952 Biological tests.

(Main Post & Choccolocco Corridor) There was a 240% increase in pneumonia cases in 1952 in Calhoun County (Alabama) when the Army "surreptitiously" conducted many of the twenty-one biological warfare tests using Serratia marcescens bacteria. S. marcescens has since "been identified as an opportunistic human pathogen that is associated with urinary and respiratory tract, pneumonia, and wound infections in hospital patients."

The Anniston Star (Anniston, Alabama) · Sun, May 10, 1981 · Page 59



Insight

op/ed

Star readers
Speak out!

Gen. Watson responds to Star series

As the commandant of the Army's Chemical School, I am dismayed by what I consider one-sided information provided to the citizens of Calhoun County in the Star's stories concerning the Army chemical warfare program.

The Star was remiss in not providing a balanced view in its recent four-part series dealing with open-air bacterial warfare testing at Fort McClellan in 1952. In the interest of public awareness and fair treatment of this issue, I want to offer some additional facts for your readers' consideration so that this matter can be put into perspective. I trust that you will publish this in its entirety as a letter to the editor.

WATSON

According to statistics provided by the Alabama

WARNS U.S. ON ENEMY CHARGES OF GERM WARFARE." General Matthew B. Ridgeway, former Supreme Allied Commander in the Far East, told Congress in an address on May 22, that "these (false propaganda) charges should stand out as a monumental warning to the American people and to the free world."

THE FORT MCCLELLAN tests were in response to this threat. It was imperative that we determine if our gas mask would protect our soldiers from biological agents, so they were tested with agents considered to be harmless. Our field commanders and intelligence community needed data on dispersal patterns and dissemination methods of bacterial agents. There is no evidence of anyone at Fort McClellan or in the surrounding community being harmed in any way by these tests.

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Eleven patients developed serratia marcescens(SM) infections. And one of them — died when the bacteria made its way into his heart.

The True Story of the Military's Secret 1950 San Francisco Biological Weapons Test

LISTEN

By Katherine Monahan Nov 6, 2025 Save Article

Chemical Warfare Material

1969 - (Main Post) *** One standard operating procedure required that **dead experimental animals be decontaminated, bagged in plastic. and put in regular sanitary landfills.***** The Standing Operating Procedure for Nerve Agent Effects Demonstration, 8 April 1969, states that **dead animals will be incinerated at the hospital after being decontaminated**.***

In 1971, as a part of the joint service training school, my friend Dave spent time at Ft. McClellan as part of his training as a 55D - EOD Specialist.

FT McCLELLAN ALA
TOXIC GAS HANDLER
CHECK FOR ORGANO
PHOSPHATE POISON

SUMMARY

1976. Eight one-ton containers of HD mustard, some mustard-tilled 155mm projectiles and GB-filled 105mm projectiles, and a 20-ml vial of GB moved from Fort McClellan to Anniston Army Depot. The eight one-ton containers were consolidated as part of the stockpile at Anniston Army Depot.

"Soils in Fort McClellan, Alabama are highly polluted with sulfur mustard and its many impurities (Dacre 1994)."58

ATSDR Tox Profile for Sulphur Mustard September 2003

"How clean is clean?" Decontamination of chemical agent compounds, in the scope of the training exercise, was termed as "**clean for personnel mobility without casualties**." **This was for short-term exposure of young, healthy adults. What was adequate in agent training may not be adequate when soil residual standards are set which will consider long-term exposures to humans** and animals.

Solid Waste Special Study No. 99-056-73/76. Clearance of Toxic Agent Training Areas, Fort McClellan, AL, July 1973 - August 1975, USAEHA, APG, MD 21010

"**However, current analytical capabilities are inadequate to quantify very low level, contaminant concentrations; furthermore, criteria for chronic exposure levels have not been developed**."

- U.S. Government reports pertaining to Ft. McClellan published in 1983 and 1984 (two versions) titled, "Reassessment of Fort McClellan," documented this statement by the Army.
- A inquiry today might be: "Have criteria for "chronic exposure levels" been developed? If so, when? And if so, how can the results be shared because it seems like the clock stopped in 1999…

The VA “Public Health” section does not publicly acknowledge potential “Herbicide” exposure relating to Ft. McClellan service.

- “…While Appellant complains that the residuals for commercial herbicides linger in the soil, the Public Health section determined that there was no evidence of exposure at levels capable of producing adverse health effects and that there are no conditions currently associated with service at Fort McClellan and that VA does not presume that any adverse health conditions are associated with service there.” 2020

Herbicides Used

Coincidence, Reasonable Suspicion ?

TABLE II-8. PESTICIDES AND QUANITY USED AT FORT McCLELLAN (1974 THROUGH 1976)

Material	Concentration	Quantity
Diazinon	0.50% (Water)	6,523 gallons
Baygon	1.10% (Water)	1,338 gallons
Malathion	95.00% (Kerosene)	166 gallons
Chlordane	1.00% (Water)	5,691 gallons
Pyrethrum	3.00% (Mineral Oil)	8 gallons
Baygon Bait	2.00% (Inert Ingredients)	32 pounds
Lindane Dust	1.00% (Talcum Powder)	46 pounds
Malathion	3.00% (Kerosene)	36 gallons
Dibrome (Naled)	0.80% (Diesel Oil)	2,558 gallons
*Mirex (Kepone)	0.15% (Inert Ingredients)	193 pounds
Anticoagulant (Rat Bait)	0.25% (Inert Ingredients)	775 pounds

* Used in 1974 and 1975 only.

TABLE II-9. HERBICIDES AND QUANTITY USED AT FORT McCLELLAN

Name	1974	1975	1976
Silvex	8,000 gallons		
24D	7,200 gallons	6,000 gallons	4,800 gallons
245T	1,800 gallons		10,000 gallons
OIN DMA	12,000 gallons		
Silvex		18,480 gallons	41,460 gallons
Pichloram (#160)		4,000 gallons	
Arseniccrg		8,000 gallons	6,400 gallons
OPH (Tordon 101)		20,300 gallons	
OINDMA		4,000 gallons	
OPN (FORE)			1,200 gallons

U.S. Army Environmental Hygiene Agency Study from March 1976 titled “Installation Pest Management Program Review No. 62-522-76” Reported in 1990 and 1998 Reports

- Herbicide agents 2,4-D – 2,4,5-T – Picloram (Tordon 101) and or TCDD Dioxin (dangerous byproduct of 2,4,5-T) were used or detected on Ft. McClellan before, during, and after decommissioning in 1999 – the herbicides being documented in 1974, 1975, 1976, 1980, 1990, 1991, 1992, 1994, 1998, 1999, 2000, 2001, 2002, 2004, 2008 reporting.

Summary of Findings:

"**Pesticides and herbicides** application is known to have occurred **facilitywide.**"

- https://www.va.gov/vetapp25/Files12/A25108615.txt
- https://www.va.gov/vetapp21/Files12/21075526.txt
- “…Veteran's attorney submitted a comprehensive report from a professor who specialized in horticulture. The professor stated that, "It is my professional opinion as a weed scientist, that it is more likely than not; in fact, it is to a reasonable degree of certainty, that those serving and/or living at Ft. McClellan between 1962-1976; 1976-1979, 1979-1999 (with overlap exposure 1985-1988 and 1989-1993) were exposed to the herbicide agents discussed herein- the same ones used in Vietnam, via at least one or more exposure routes."

“TC E, or no TCE, that is the question”

- 2008 - “An estimated 4,455,280 gallons (~27 million pounds) of TCE [trichloroethylene] is present in groundwater at the ANAD [Anniston Army Depot]” and comingling with groundwater from Ft. McClellan.

[Over 90% of TCE use in the DoD is from ANAD [*https://apps.dtic.mil/sti/pdfs/ADA568309.pdf*]

Groundwater Elevations
Former Mock Village at Yahou Lake, Parcel 130Q-X
Fort McClellan, Calhoun County, Alabama

Well Location	Date	Depth to Water (ft BTOC)	Top of Casing Elevation (ft amsl)	Ground Elevation (ft amsl)
BK-YAHOU	16-Apr-02	7.12	995.10	992.97
	17-Dec-02	4.72		
HR-130Q-MW01	16-Apr-02	4.96	992.14	989.06
	17-Dec-02	6.59		
HR-130Q-MW02	16-Apr-02	37.67	989.28	986.59
	17-Dec-02	39.49		
HR-130Q-MW03	16-Apr-02	1.79	989.52	986.99
	17-Dec-02	2.60		

- … no available method is ideally suited to getting rid of the remaining TCE. An Army contractor estimated in 2006 that it would take 110 to 3,600 years to make the rest of the tainted groundwater beneath the depot acceptable under the federal drinking standard.

Army's emergency TCE plan includes debit cards

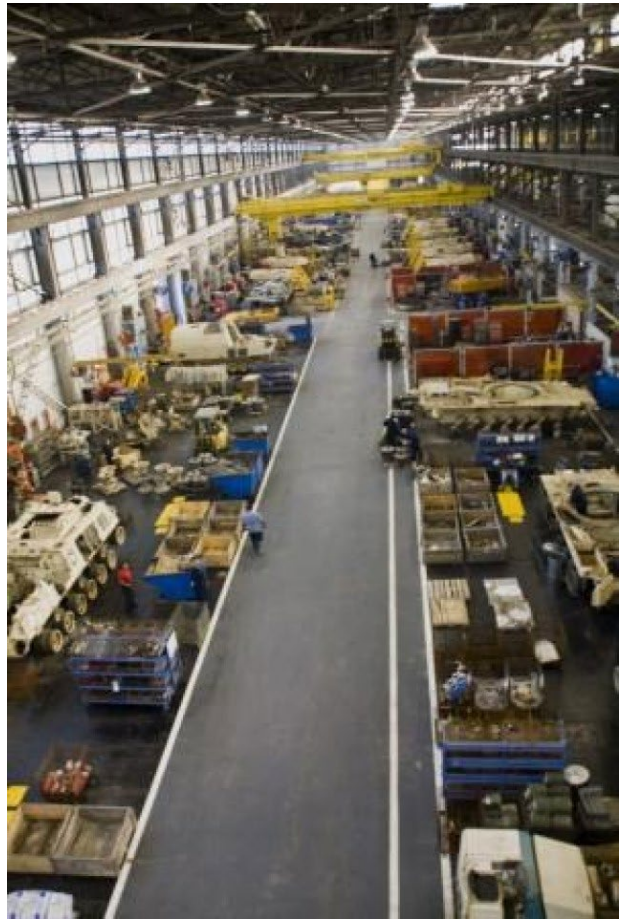
BY JEREMY COX
Special to The Star

"The problem with the disaster plan is that it works for the Army because they don't live here," said Jim Miller, by Anniston Water Works so customers could buy bottled water until the emergency passed. The card system would every five molecules of TCE found in the spring, four originated at the depot.

TCE doesn't appear naturally

The Army used liberal risk calculations that essentially guaranteed the plan would never have to be implemented. TCE concentrations in Coldwater Spring would have had to reach 80 parts per billion — 16 times higher than what the Environmental Protection Agency says is safe for drinking — before debit cards hit mailboxes.

Army reports concede that the Anniston Army Depot's Superfund site is a "likely contributor" to the TCE problem at the spring, which lies about 1 1/2 miles south of the depot. According



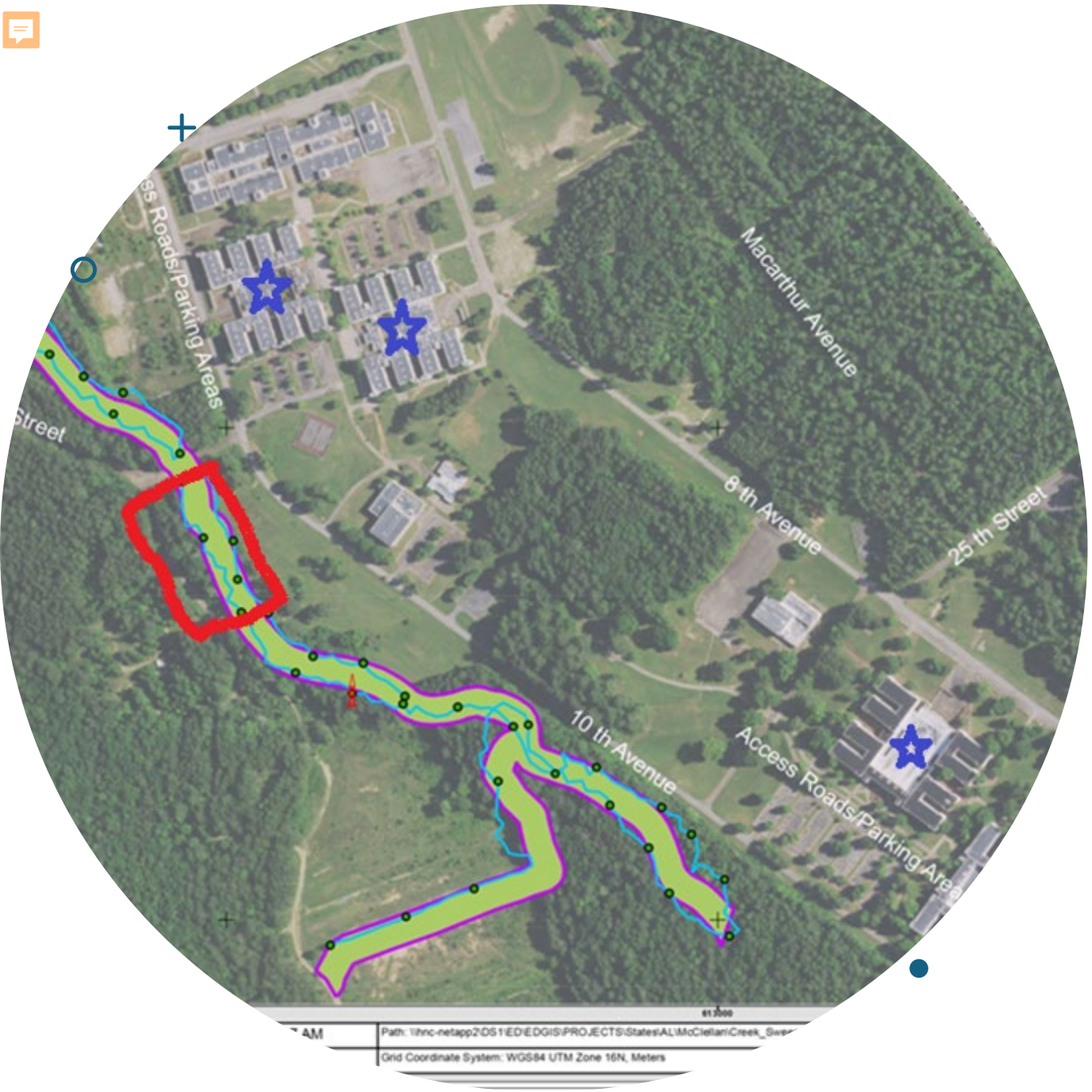
TCE doesn't appear naturally because it's a manmade chemical. The "other" molecule must be coming from somewhere else in Coldwater's recharge area, maybe from a similar TCE plume beneath the former Fort McClellan, experts say.

The source is difficult to track because there are 75 TCE users within a 10-mile radius of the depot, according to an estimate from 2001. TCE amounts in untreated water at Coldwater Spring have been increasing slightly in monthly samples for two decades, and no one knows why.

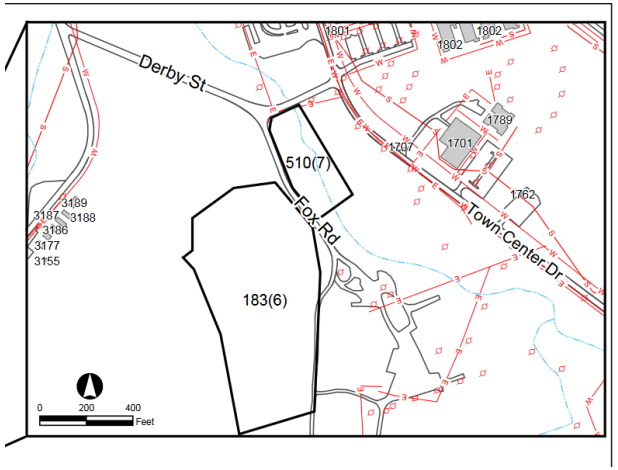
Follow-up Health Consultation
ANNISTON ARMY DEPOT
ANNISTON, ALABAMA
EPA FACILITY ID: AL3210020027
SEPTEMBER 30, **2008** P 6

ATSDR concludes from the review that the **ANAD site currently poses <u>no apparent public health hazard</u> from direct exposure to groundwater,** but that continued monitoring of the path and extent of groundwater contamination migrating from the ANAD site is still recommended due to the complex hydrogeology of the area and the large quantity of contamination still present in the subsurface.

- The Nature and Extent of Groundwater Contamination: **<u>An estimated 4,455,280 gallons (~27 million pounds) of TCE is present in groundwater at the ANAD</u>**.8 Groundwater monitoring revealed that concentrations of TCE in a number of on-site monitoring wells exceeded the maximum contaminant level (MCL) … Bottom of P 7



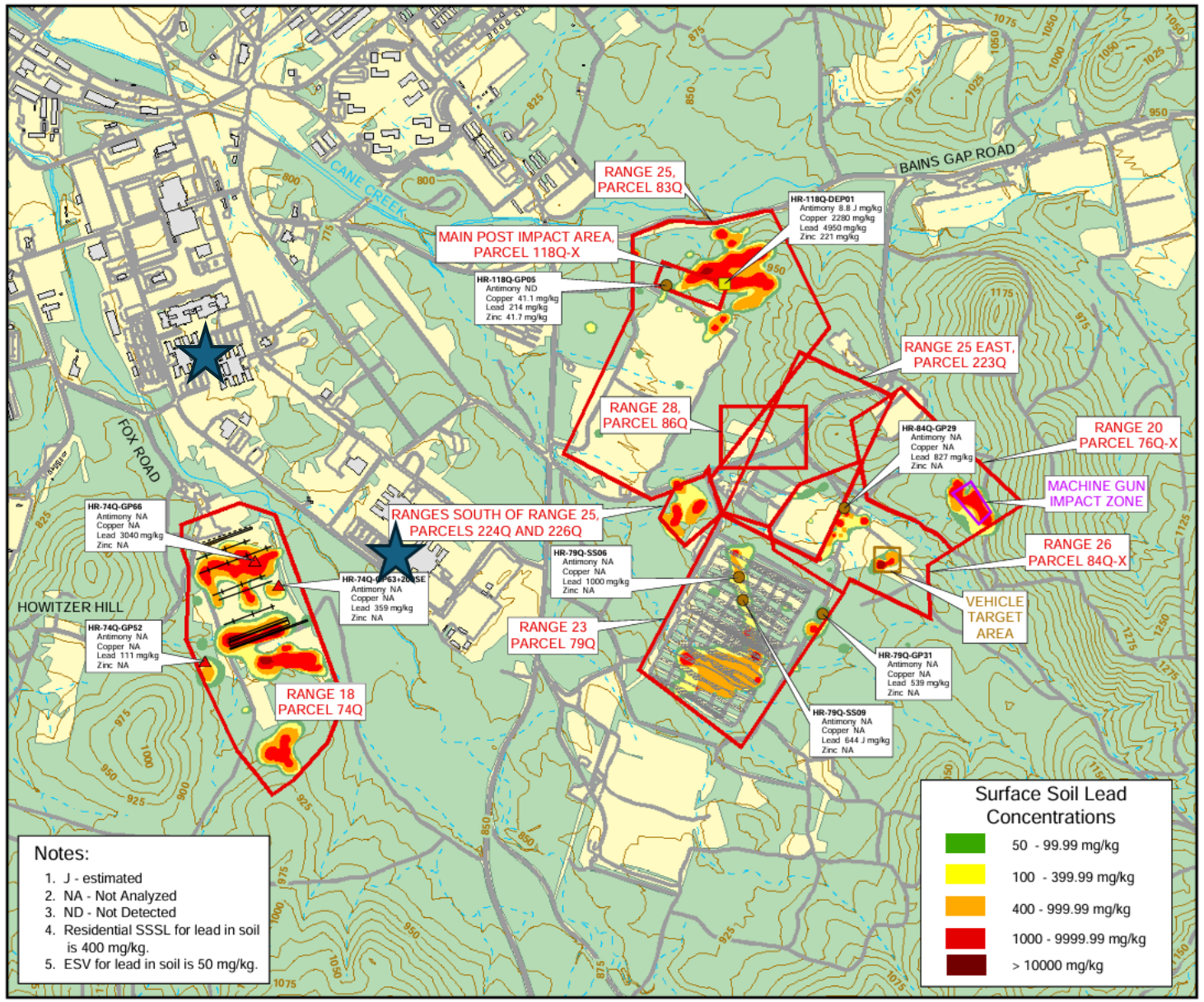
- **2007** "The Final Resource Conservation Recovery Act Facility Investigation covering Training **Area T-6 (Naylor Field)** and **Cane Creek Training Area**" published.]
- [Data collected from the 2001 and 2003 SIs, the 2003 RI, and the 2004/2005 RFI. **The word "plume" is mentioned 190 times in the 179-page report.]**
- **Plumes of 1,1,2,2-PCA, 1,1,2-TCA, chloroform, cis-1,2-DCE, PCE, TCE, and vinyl chloride** have been known to occupy the groundwater beneath T-6 / Cane Creek Training Area.

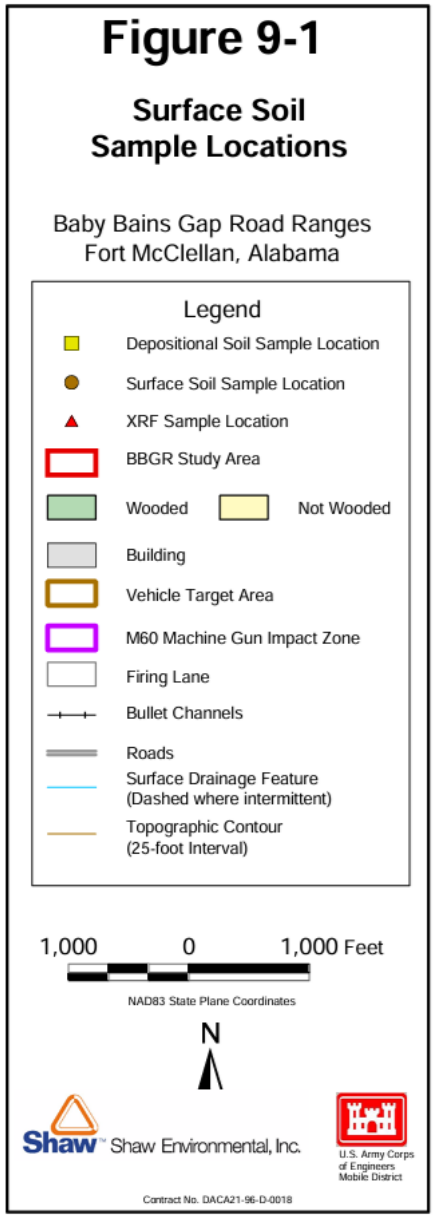


- **[Summarized snippets of general interest include:]**
- • Groundwater VOC contamination exceeding the residential SSSLs included 1,1,1,2-PCA, 1,1,2,2-PCA, 1,1,2-TCA, 1,2-DCA, acetone, bromodichloromethane, chloroform, cis-1,2-DCE, PCE, trans-1,2-DCE, TCE, vinyl chloride.
- • Groundwater metal contamination exceeding the residential SSSLs included nickel and thallium.
- • Surface water VOC contamination exceeding SSSLs included 1,1,2,2-PCA and vinyl chloride. Vinyl chloride exceeded the ESV in surface water.
- • … vinyl chloride exceeded the ESV in sediment.
- • … bis(2-ethylhexyl)phthalate exceeded the ESV in sediment.
- • …, 1,1,2,2-PCA, chloroform, PCE, styrene, and TCE exceeded ESVs in surface and depositional soil at the Site.
- • … hexachlorobenzene and pentachlorophenol exceeded ESVs in one depositional soil sample located in the Cane Creek Training Area near the South Branch of Cane Creek.
- • Surface and depositional soil metal contamination exceeding SSSLs included antimony and zinc. Antimony, mercury, nickel, and zinc exceeded ESVs in surface and depositional soil at the Site.
- • Subsurface soil VOC contamination exceeding SSSLs included 1,1,2,2-PCA. Subsurface soil VOC contamination exceeding ESVs included 1,1,2,2-PCA, chloroform, PCE, TCE, and vinyl chloride.136

Heavy Metals

Heavy Metals



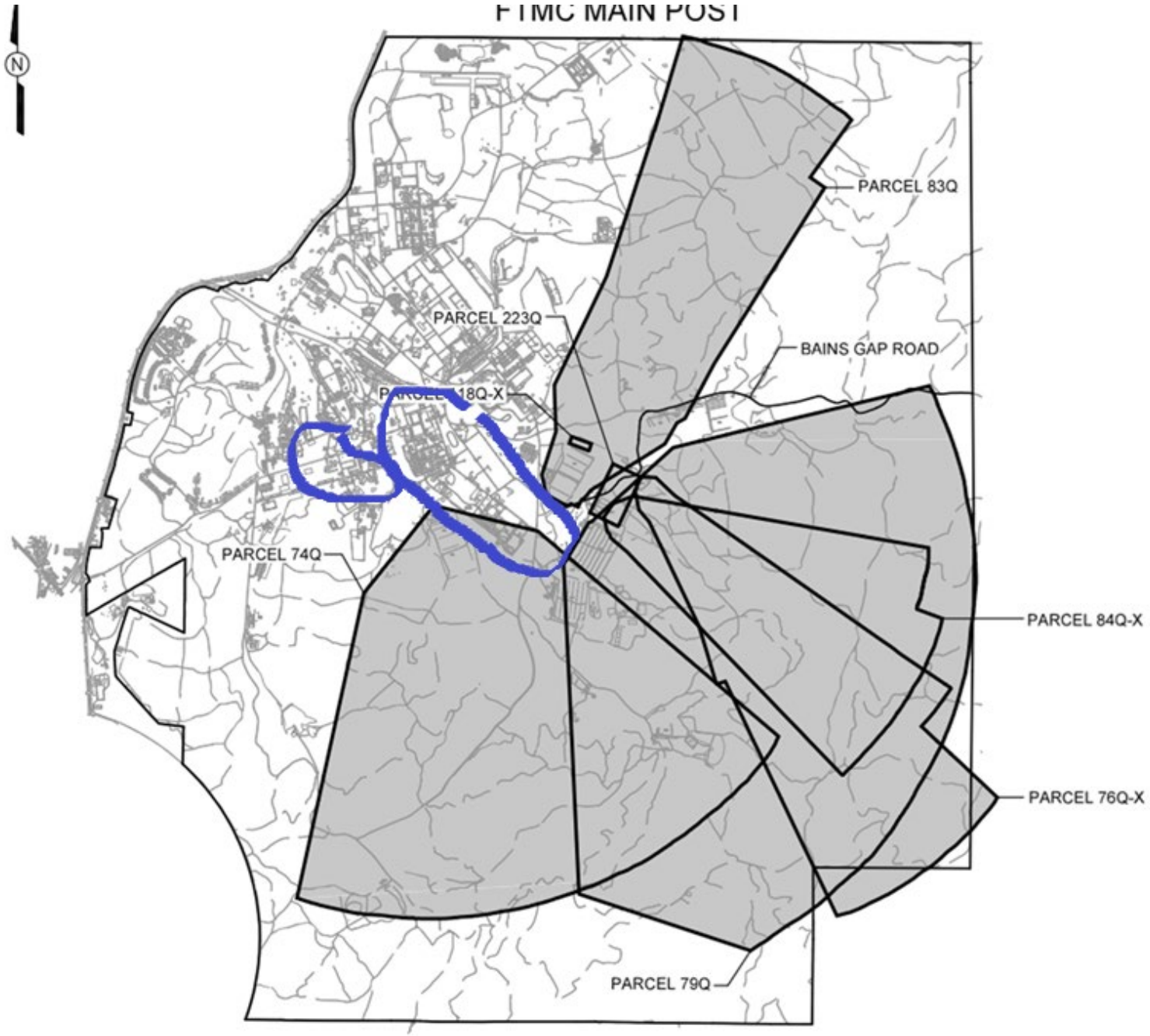


3040 mg/kg
LEAD
Surface Soil

30700
mg/kg
LEAD
Surface Soil
Range 21

34800 or
26200
mg/kg
LEAD
Surface Soil
Range 22

PCBs



Early 2000s (Reported in 2012)
Metals, VOCs, SVOCs, nitroaromatic explosive compounds, pesticides, herbicides, and PCBs were detected in site media.

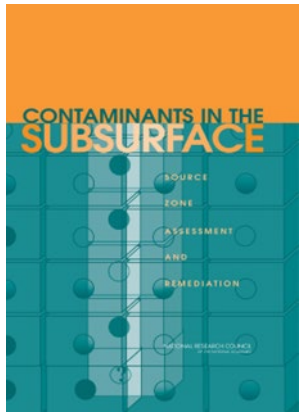
COCs:
Heavy Metals: Lead, Copper, Antimony, Zinc
Pesticides: beta-BHC, Heptachlor, 2,4-D, MCPP, 2,4-DB (contains 2,4-D), Dicamba, Dalapon (used in Vietnam 1962-1964; Lesser Rainbow herbicide), Dichloroprop, Dinoseb as well as a PCB detection -- Trichloroethene, Aroclor 1260

PARCEL	PARCEL NAME
74Q	Range 18, Down Range Feedback (known distance) Range
76Q-X	Range 20, Infiltration Course
79Q	Range 23, Trainfire (record) Range
83Q	Range 25, Known Distance Range
84Q-X	Range 26, Live Fire and Maneuver Range
118Q-X	Main Post Impact Area
223Q	Former Range 25 East

In 1992, a dye tracing study was performed on area springs and wells … , for the Anniston Army Depot…located approximately 4 miles west of the Monsanto facility)15. The results of the study showed that contaminants migrated from the injection point to various locations 360° from that point, and that flow velocities varied from 0.09 to 0.24 miles per day.

PCBs have been found in sediments downstream of the Coldwater Springs intake 11, … However, the municipal water supply has not been sampled for PCBs. Therefore, the groundwater pathway will not be evaluated at this time. ADPH & ATSDR 1996 - HC

A decade later, six years after FMCs “closure”, the National Academy of Medicine report, Contaminants in the Subsurface: Source Zone Assessment and Remediation (2005), recognized that both the groundwater and soil were contaminated at FMC. **There were 67 different disposal sites on Fort McClellan containing volatile organic compounds (VOCs), trichloroethylene (TCEs), PCBs, semi- volatile organic compound (SVOCs), pesticides, explosives, heavy metals (Pb), unexploded ordinance (UXO), radioactive sources and non-stockpile chemical materials.**



National Research Council. 2005. Contaminants in the Subsurface: Source Zone Assessment and Remediation. Washington, DC: The National Academies Press.

https://www.nationalacademies.org/publications/11146

•"…Air emissions were estimated to include 60,000 pounds of PCBs, wastewater discharges were estimated to include about 1.8 million pounds of PCBs, and solid waste was estimated to total at least 87 million pounds of PCB containing waste. In one of the legal proceedings, evidence was submitted reflecting **overall losses of PCBs to the environment estimated for the Anniston plant during 1953-1969, including 39,959 pounds to the air, 1,232,952 to water, and 54,943,434 to dumps, or abut 12 percent of all Aroclors produced.** From 1970-1972, approximately 9,400,000 pounds of PCBs were sent to the landfills. ." Prepared by The Anniston PCB Site Trustee Council State of Alabama ~2010

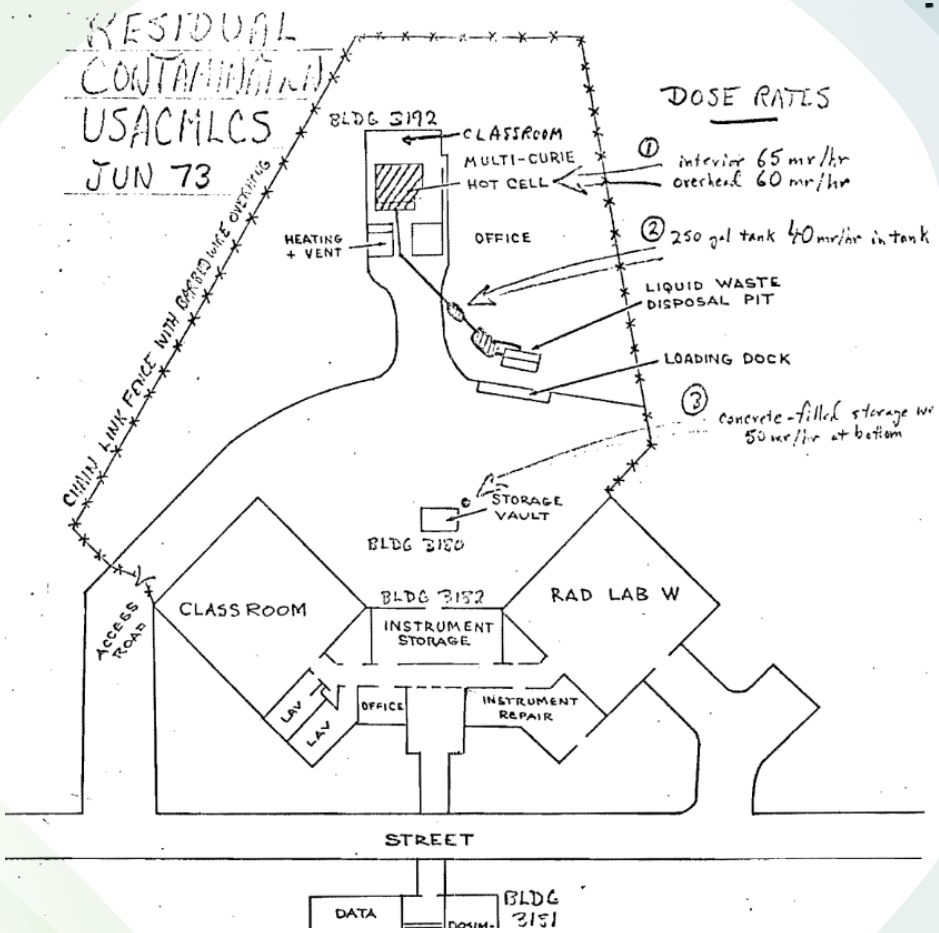
The 13 July 2006 USACHPPM Information Paper (MCHB-TS-RAO) regarding Fort McClellan, Alabama, indicated little to no significant on-post PCB contamination from the nearby Solutia plant, attributing contamination risks mainly to the industrial area of Anniston rather than the Army post.

- **PCB detections on Ft. McClellan: [The following detections were not airborne. The records do not support or suggest an airborne PCB monitoring program in place at Ft. McClellan – especially from 1991 through 2004].**

- 1991: [Main Post] Aroclor 1232 & 1254. Soil Samples.
  1995: [Pelham Range] Old Water Hole. Aroclor 1248. Groundwater.
  1995: [Pelham Range] Lima Pond… PCB. Groundwater.
  1999: Ft. McClellan decommissioned as an active-duty Army base.
  2000: [Pelham Range] Range L (Lima Pond) Aroclor 1248.
  2000: [Main Post] Landfill No. 3: Aroclor 1248. Groundwater.
  2000: Landfill No. 3: One PCB, Aroclor-1242, Fill Material. Detected above the ESV.
  2000: [Main Post] Fill area north of Landfill No. 2 (Aroclor 1260) (3.50E-01 mg/kg) p47
  2000: [Pelham Range] Old Water Hole. Aroclor 1248. Groundwater.
  2001: [Main Post] Ground Scar W Trenches- Driving Course. Aroclor 1260. Surface soil.
  2002: [Main Post] Surface & Depositional Soil. BBGR Rd. Range 23, Par. 79Q Aroclor 1260
  2003: [Main Post] Former Decon Complex (Chem Laundry). Aroclor 1254. Surface soil.
  2003: [Main Post] Former Chemical Laundry and Motor Pool Area 1500.
  Two PCB Aroclors. Subsurface soil sample.
  2003: [Main Post] BBGR Ranges, Surface & Depositional Soil Aroclor 1260
  2004: [Main Post] Landfill No. 2: Aroclor 1260. Fill material.
  2004: [Main Post] Landfill No. 3: Aroclor 1242. Fill material soil.

- **2002, 2006, 2014 USACHPPM Information Papers …**

At some time prior to 1973 , a chemical excursion occurred that caused Co-60 and cesium-137 to be released throughout the facility.,...



1959 **(FMC) "...there is embedded in the concrete pad surrounding the storage vault a stainless steel plaque on which is stamped, "Caution – Radioactive Contamination; Location at a Depth of 6 inches from top surface of concrete; Type – Strontium-90; Half-Life 19.9 Years; 600 mr/hr on 7/28/59 at surface of spill." [Bldg 3180]**

https://www.nrc.gov/docs/ML1008/ML100820460.pdf

1973 Cobalt-60 Chemical form is not known. Physical form is small solid particles absorbed and adsorbed onto permanent metal and concrete surfaces· in three places, all within the fenced area behind Building 3182. Contained within this area is Building 3192, formerly known and referred to as the Hot Cell Facility. Maximum dose rate is 65 mr/hr.

In the same area above there is a 15 feet by 6 inch diameter storage well which reads up to 50 mr/hr about six feet down.

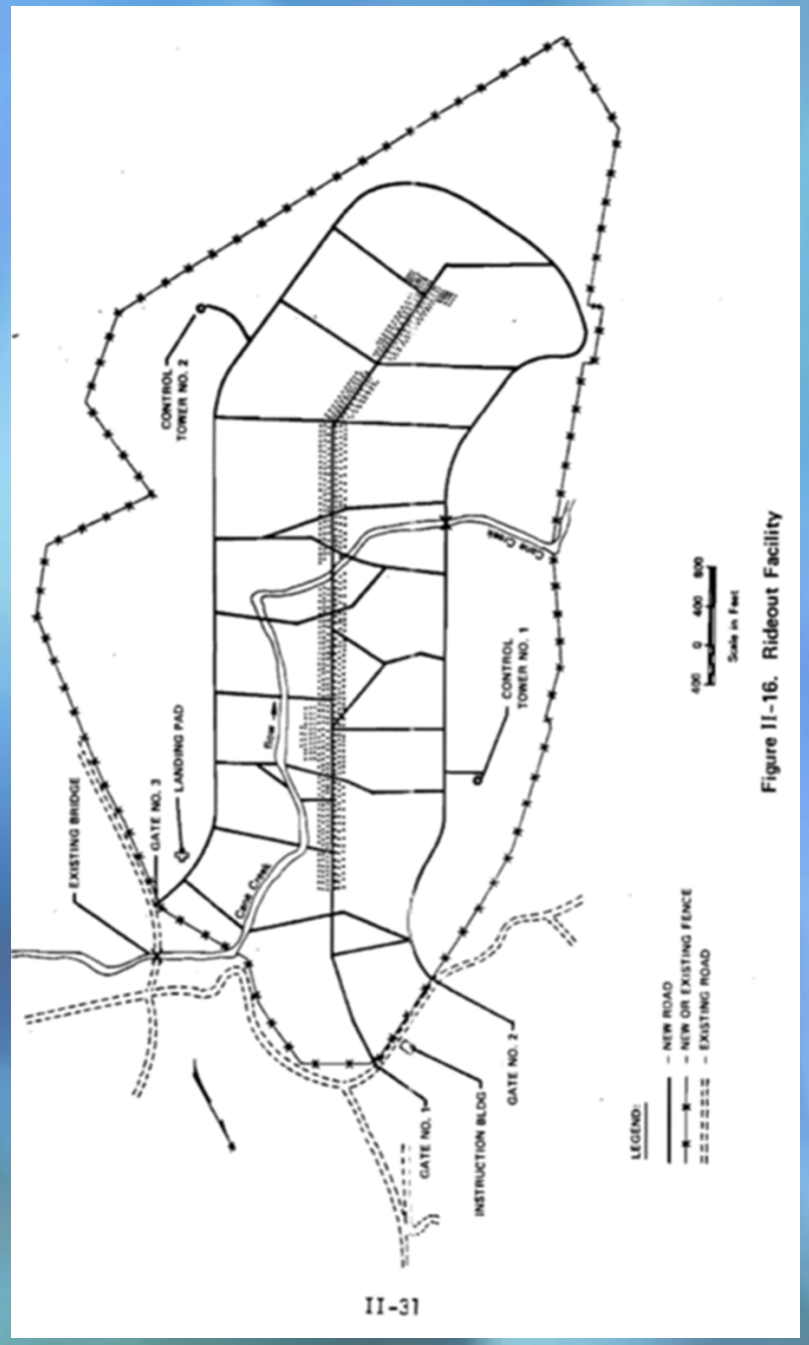


Figure II-16. Rideout Facility

1973 – Decontamination of USACMLCS at Fort McClellan has been carried out in accordance with U.S. Army Environmental Hygiene Report 43-041-73 and AEC Region II Director of Regulatory Operations guidance, both of which sources **recommended leaving these three places contaminated due to time, money, and hazard difficulty in decon.**

1996 – (Pelham Range) "Although this particular speck [of cobalt 60 from Pelham Range] has been remediated, a similar item **would be more than 7 million times the Co-60 activity in soil unrestricted use release criteria.**"

-----1995-1996 - (Pelham Range) The area surrounding the burial mound is utilized as a maneuver training area for students at the U.S. Army Chemical and Military Police Schools, Active Duty Units, Reserve Units and Alabama National Guard Units.62a

1984: (2) Surface contamination was present next to the concrete apron behind building 3182, Military Police Corps Museum. Concentrations ranged up to 91 pCi/g of cobalt-60 and 55 pCi/g of cesium-137

- 1984: 7. CONCLUSION. A review of the findings indicated that a potential health hazard existed at Fort McClellan, Alabama, due to spreading of ionizing radiation producing contamination in and around Building 3192. It was specifically determined that contaminants had spread west of the controlled area and had been released below the surface. The following recommendations are provided to alleviate the potential hazards.

Ft. McClellan – Pelham Range

- A…“characterization study completed in January 1996” revealed:
- The Co-60 concentration varied between 1.6 and 187 pCi/g for the surface samples and from 0 to 330 pCi/g for sub-surface samples. The Cs-137 samples varied from 0.2 to 179 pCi/g for the surface samples and from 0 to 12 pCi/g for the sub-surface samples. One sample contained an individual Co-60 spec with a mass of 0.0043 grams and an activity of 243,000 pCi.
- 2001: The Army expects to generate approximately 392 cubic meters (498 cubic yards) of low-level radioactive waste that they will ship offsite for disposal.

In August 2001, the decommissioning contractor for the Department of the Army discovered approximately 34 millicuries of Cobalt 60 at the Pelham Range at Fort McClellan, Alabama, during decommissioning activities.

*In accordance with the Enforcement Policy, a base civil penalty in the amount of $3,000 is considered for a Severity Level III violation.
https://www.govinfo.gov/content/pkg/FR-2001-01-04/html/01-228.htm
https://www.nrc.gov/reading-rm/doc-collections/enforcement/actions/materials/ea02017

1986 – “The military specification for fog oil was changed after IARC [International Agency for Research on Cancer] (1984) concluded that untreated naphthenic oils were carcinogenic.” [Ft. McClellan was using approximately 77,400 gals of fog oil/year prior to 1986].

Fog oil procured after the new specification was implemented in 1986 is referred to as new fog oil. There is no indication whether “old” fog remained in inventories until utilized or if it was otherwise destroyed).

No hearing protection,
No respirator,
55-gallon drum of pre-1986 fog oil

OIC May 84, July 1985.
Field Operations,
Norman Miller

Health Topics / Potential Outcomes

•Observation: There seems to be a LOT of adverse medical conditions related to WAC service with commonality related to reproductive health, bone, and teeth issues, as well as obscure cancers and potential adverse health conditions passed to their children.

Many of the conditions as recognized under 38 CFR 3.309(e) as presumptive for veterans exposed to herbicide agents and/or specific to radiation-exposed veterans.

- Cancers: Leukemia, non-Hodgkin's lymphoma, liver cancer, biliary tract cancer, lung cancer, bladder cancer, kidney cancer, thyroid cancer, Glioblastoma, etc…
- Organ Damage & Disease: Heart, Severe liver damage, thyroid dysfunction, chronic anemia, and stomach/kidney diseases.
- Neurological & Reproductive Issues: Parkinson's disease, memory problems, infertility, central nervous system issues and birth defects.
- Skin/Autoimmune Conditions: Severe acne (often associated with PCB exposure) and Scleroderma. Endocrine disorders.
- Medically Unexplained Illnesses: Chronic fatigue, fibromyalgia, and functional gastrointestinal disorders
- -- Obscure adverse health conditions like Sclerosing mesenteritis (.06 of population), Neuro-Retinitis, Pheochromocytoma, and Poems Syndrome., SPS, and others…

Roles or Positions - - Most Likely to Experience Exposures & Why?

- Almost Everyone Frequented the Bains Gap Ranges; WACs, Chemical School, MPs, Cadre, Basic Trainees, Guard, Reserves…
- Chemical: Lt . Miller provided his perspective and submitted addl statements to the committee covering a wide swath on Fog Oil.
- The 54B's / Chemical Operations Specialists dealt with live agents – VX, GB, HD. To some degree, they had some PPE – MOPP gear etc. Controlled settings.
- WACS – I think they were the most vulnerable. Mostly because of dermal absorption due to their uniforms at times.
- MPs - Has social media impacted awareness. Proximity to Cane Creek area. Proximity to contaminated areas / ranges. Rideout Hall / Field. Exclusive MP use ? - -- Use of buildings and ranges left contaminated.

The metals and chemical constituents detected in site media do not pose an unacceptable risk to human health and the environment.90

- There is risk? “Acceptable Risk?” In someone’s mind, the risk has not risen to the level of “unacceptable risk.”
- How is unacceptable risk determined?
- What is the acceptable risk?
- And how was it decided?

Additional Context for the Committee to Consider.

With the establishment and functioning of the AFPCB [AFPMB], anytime that a DOD Military Base, e.g., Andersen AFB, Guam, or Osan AB, Korea, requested the use of a herbicide to control plant pests, the selection of the herbicide must have been approved by the Board [Kaufman 1968]. Locally purchased pesticides were to be **approved by the Command Entomologist.** Moreover, the application of the herbicide had to be done by a Board **"certified" (trained) applicator,** and with equipment that had been approved by the USDA, and **under the supervision of the Base Civil Engineer** [Kaufman 1968; AFPCB 1977].

- "1998 Environmental Baseline Survey" maintains the -
- **Pesticide handling at FTMC is conducted under a Pesticide Management Plan developed by the U.S. Army Chemical Center** FTMC,1992). *NOT OVERTLY IN COORRDINATION WITH THE AFPCB/AFPMB, Engineering and Housing, Forestry Staff, or the Entomologist.*
- forestry technicians uncertified in pesticide… …neither the individuals in charge of application nor supervisory personnel at the golf course were certified …
- [The AFPCB is NEVER mentioned in tens of thousands of pages of Ft. McClellan documents AND the Pesticide Plan was created by the Army's Chemical School].

Water.

No PCB testing thru 1996?

- The results of the potable water sampling at the Main Post source (FMP) indicate that the water contains low concentrations of chloroform … trichloroethylene … and the pesticides BHC … hexachlorocyclohexane … isodrin… and lindane…. 54

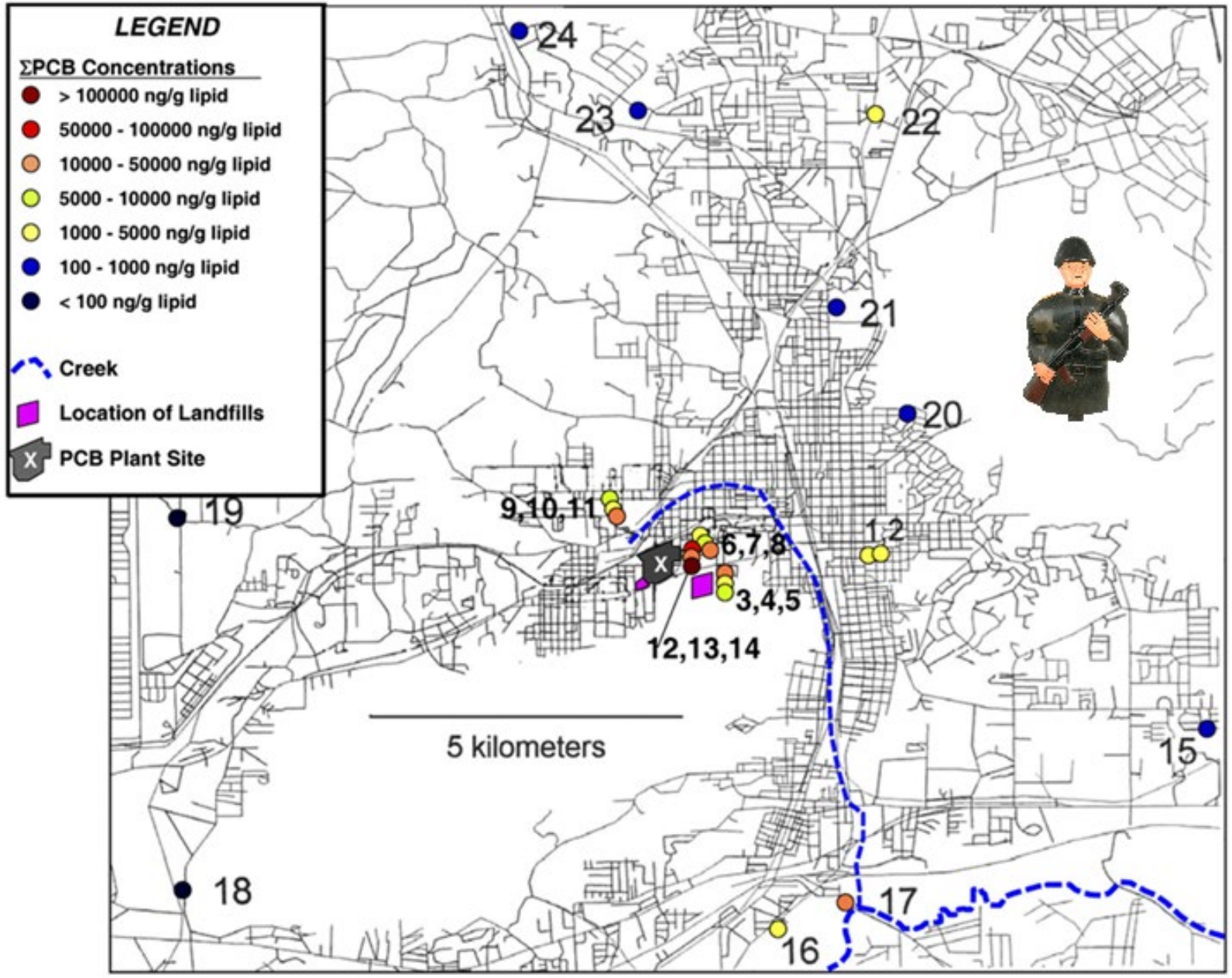
- Groundwater plumes; Beginning in 1976, a “leachate” plume of unknown composition, -Benzene, -Chloroform, -Carbon Tetrachloride, -Vinyl Chloride, -Perchloroethylene (Ethene, Tetrachloroethylene, (PCE),(PERC), -Trichloroethylene (TCE), -1,1,2,2-Tetrachloroethane, 1,1,2,2-PCA , -Trichloroethane .

•***PCBs have been found in sediments downstream of the Coldwater Springs intake …, and no off-site source of contamination is known in that area.*** *One possibility is that contaminants have migrated through groundwater to Coldwater Springs. However,* ***the municipal water supply has not been sampled for PCBs. Therefore, the groundwater pathway will not be evaluated at this time.***[74]

- US Army Toxic and Hazardous Material Agency in 1990 included the following statement: '**No conditions that present an imminent threat to human health were observed on the exhaustive property**."
- The condensed version is that the contractor that compiled the report visited the 46,000- acre Ft. McClellan for **four (4) days in June, 1990**. **There was NO environmental sampling**.
- Look back to the word observed in the statement above. The Team didn't "observe" ionizing radiation in the wild? It was there. The Team didn't "observe" TCE, chloroform, benzene, or other solvents? They were there. The Team didn't observe HD or VX breakdown products? They were there. The Team didn't observe herbicides sprayed in and around barracks, living quarters, and dining facilities? They were sprayed. The Team didn't observe numerous heavy metals in the site media? They were there.
- The report indicates the team conducted (4) in person interviews (and (2) telephonic interviews AND referenced 70 documents to compile the report.
- [The contractor] does not warrant or guarantee that the property is suitable for any particular purpose or certify any areas of the property as "clean." A more thorough investigation, including intrusive sampling and analyses for specific hazardous materials, is recommended prior to reporting this property as excess.

Polychlorinated biphenyls in tre bark near a former manufacturing plant in Anniston, Alabama

Mark H Hermanson 1 ,
Glenn W Johnson
Affiliations PMID: 17307226 DOI: 10.1016/j.chemosphere.2006.11.06 8



PFAS

Reported December 2023

The following locations –
All groundwater and some soil samples contained toxic levels of PFAS.

Old Fire Station
Fire Station (Building 69) (1936-1999)
Fire Training Pit (1961-1986)
Fire Station Warehouse (Building 228)
Nozzle Testing Area (1973-1985)
(5 areas above in vicinity of green squares)
Reilly Airfield (North of the AL National Guard Enclave (orange)

- PFAS do not break down in the environment and are associated with immune system suppression, liver damage, thyroid disease, reduced fertility, high cholesterol, obesity and cancer.

Alabama Department of Public Health
Center for Health Statistics
Division of Statistical Analysis

113 Causes of Death by County of Residence, Race and Sex. ALABAMA

- 2024:
  Calhoun County, Alabama, **exhibits statistically higher mortality rates for heart disease, cancer, chronic lower respiratory disease (CLRD), diabetes, and chronic liver disease compared to other Alabama counties,** driven by high adult obesity and smoking rates. Specific data points include a 7.7% prevalence for coronary heart disease, elevated cancer incidence, and a 14.8% adult diabetes rate.

- It should be noted there are two people named in the Ft. McClellan documentation who if available could shine some light on Ft. McClellan's toxic legacy. Ron Levy, head of Ft. McClellan's Environmental Office during the 1990s/2000s and Staff Sergeant Barthel Truffa who specifically worked to decontaminate the ionizing radiation at FMC before 1973.

- Unfortunately, attempts to reach Mr. Levy were unsuccessful. Open source news reporting suggests he passed in March 2014 at the age of fifty-seven. Further, records suggest Barthel Truffa, who retired as a Sergeant Major passed in March 2000. He would have been fifty-two years old. RIP Soldiers.

Health Assessment Model based on harm associated with repeated exposures to low level / chronic, multiple toxin combinations or toxic cocktails. Chronic exposure to toxic cocktails has a very long documented history on Earth.

Cumulative Exposure, Combined Exposure, and even Multiple Chemical Sensitivity Syndrome.

No mention of ANY "historical reconstruction modeling" in any of the FMC reporting.

...covers destroying chemical weapons, which should be completed by the fall. It also includes the ongoing removal of unexploded ordnance on the former Fort McClellan, cleaning of groundwater near the Anniston Army Depot and hauling away soil contaminated by PCBs and lead, a legacy of Anniston's industrial age.

The Anniston Star

Sunday, May 29, 2011 A home-owned newspaper $1.50

Friends of Will Norton console each other before a news conference with family members in Joplin, Mo. Norton's body was found Friday in a pond after he was pulled out of his vehicle on his way home from his high school graduation.

JOPLIN DEATH TOLL IS DOWN

FOR STORY, SEE PAGE 12A

CALHOUN COUNTY

Storm debris cleanup is to start Tuesday

BY JASON BACAJ

WEBSTER'S CHAPEL — As many as 100 county residents signed right-of-entry forms Saturday to allow Cal-

THE $3.2 BILLION DOLLAR CITY

AnnaMaria Jacob/The Anniston Star

ANNISTON SPARES NO EXPENSE IN NEUTRALIZING 'TOXIC TOWN' REP

Ionizing Radiation :While exposure to radioactive compounds is linked to health risks, **there is no clear evidence of exposures at Fort McClellan to levels that would lead to adverse health effects.**

Fog Oil :However, because **data on actual exposure levels is limited, the health effects from this training remain unclear.**

PCBs : However, **there is limited data on PCB exposure levels for Fort McClellan personnel.**

WHY is that? Why are we 27 years down the road and the best we can do is ….No Clear evidence…. Health effects remain unclear… and there is limited data on PCB exposure levels? WHY?

Are there any questions?