ARKANSAS STATE HIGHWAY AND TRANSPORTATION DEPARTMENT
EQUIPMENT AND PROCUREMENT DIVISION
BID INVITATION

Bid Number: M-13-057P

Bid Opening Date: April 16, 2013 Time: 11:00 a.m.

BID OPENING LOCATION:
AHTD Equipment and Procurement Division
11302 W. Baseline Road
Little Rock, AR 72209

MAIL TO:
AHTD Equipment and Procurement Division
P.O. Box 2261
Little Rock, AR 72203

DELIVER TO:
AHTD Equipment and Procurement Division
11302 W. Baseline Road
Little Rock, AR 72209

Sealed bids for furnishing the commodities and/or services described below, subject to the Conditions on Page 2 of this Bid Invitation will be received at the above-noted mail and delivery locations until the above-noted bid opening date and time, and then publicly opened at the above-noted bid opening location. **Bids must be submitted on this form, with attachments when appropriate, or bids will be rejected. Late bids and unsigned bids will not be considered.**

In compliance with this Bid Invitation and subject to all the Conditions thereof, the undersigned offers and agrees to furnish any and all items upon which prices are quoted, at the price set opposite each item.

Company Name:_____

Address:_____

_____

City:_____ State:_____ Zip:_____

Federal Tax ID or Social Security No.:_____

Name (Type or Print):_____

Title:_____

Phone:_____ Fax:_____

E-mail Address:_____

Signature:_____
Signature must be legible, original (not photocopied) and in ink.
Unsigned bids will be rejected.

1. Asbestos Abatement and Demolition located at Avoca-North Garfield (U.S. Hwy. 62), Route 01 Section 02, Benton County; as per attached work list for Tracts 1XED, 2XED, 3XED, 4XED, 5XED, 7XED, 9XED, 10XED, 16XED, 17XED, 21XED, 51R, 6XR, 8X, 12X, 13X, 14X, 14XR, 15X - Job 090065.

   To meet the requirements of Arkansas State Highway and Transportation Department Specifications and Drawings attached to and made a part of this bid.

   LUMP SUM_____

   Tracts **must** be priced individually as listed on the Work List but bid will be awarded by the Lump Sum.

   Additional tracts and/or structures may be added to this contract from this job.

   Pricing for Additional Pay Items is requested on Page 4.
   (Additional pay item pricing will be on an as needed basis and does not obligate the Department to award any additional tracts.)

   Contacts for Technical Information: Joel Clark, Property Manager (501-569-2317)
   Contacts for Bidding Information: Danny Keene (501-569-2674) or Chicita Pate (501-569-2675)

   Bid price shall include all labor, materials, and equipment necessary to perform the work as specified, and shall further include all licenses, fees, permits, royalties, and all taxes. Bid price shall represent full compensation for completion of the work. This provision supersedes Condition 4 on page 2 of Bid Invitation. Payment will be made in accordance with Arkansas Highway & Transportation Department Standard Specifications and Applicable Special Provisions.

   Bid Bond in the amount of 5% of total bid price required of all bidders at time of bid opening or bid will be rejected. **Personal and company checks are not acceptable as Bid Bonds.** See Condition 3 on page 2 of Bid Invitation.
   Performance Bond only (no checks of any kind allowed) in the amount of 100% of total bid price will be required of successful bidder prior to providing goods/services. See Condition 3 on page 2 of Bid Invitation.

   The successful bidder will be required to submit Notice of Intent (NOI) to ADEQ within 3 days after receipt of Purchase Order and to complete all work within ninety (90) days from the starting date on the NOI. Work not completed within this time frame shall result in the successful bidder being charged $120.00 per day until work is completed.

   Name, Address, Phone No. of Disposal Site:_____

   Bids and Specifications are available on-line by going to the AHTD Web Site – www.arkansashighways.com and clicking on "Commodities and Services Bids/Contracts Information". Tabulations will also be available at this site within 72 hours after bid opening. If you have any questions, call this office at 501-569-2667.

(12-0152) 32-00

ARKANSAS STATE HIGHWAY AND TRANSPORTATION DEPARTMENT

STANDARD BID CONDITIONS

M-13-057P

1. **ACCEPTANCE AND REJECTION:** The Arkansas State Highway and Transportation Department (AHTD) reserves the right to reject any or all bids, to accept bids in whole or in part (unless otherwise indicated by bidder), to waive any informalities in bids received, to accept bids on materials or equipment with variations from specifications where efficiency of operation will not be impaired, and to award bids to best serve the interest of the State.

2. **PRICES:** Unless otherwise stated in the Bid Invitation, the following will apply: (1) unit prices shall be bid, (2) prices should be stated in units of quantity specified (feet, each, lbs., etc.), (3) prices must be F.O.B. destination specified in bid, (4) prices must be firm and not subject to escalation, (5) bid must be firm for acceptance for 30 days from bid opening date. In case of errors in extension, unit prices shall govern. Discounts from bid price will not be considered in making awards.

3. **BID BONDS AND PERFORMANCE BONDS**: If required, a **Bid Bond** in the form of a cashier's check, certified check, or surety bond issued by a surety company, in an amount stated in the Bid Invitation, must accompany bid. **Personal and company checks are not acceptable as Bid Bonds**. Failure to submit a Bid Bond as required will cause a bid to be rejected. The Bid Bond will be forfeited as liquidated damages if the successful bidder fails to provide a required Performance Bond within the period stipulated by AHTD or fails to honor their bid. Cashier's checks and certified checks submitted as Bid Bonds will be returned to unsuccessful bidders; surety bonds will be retained. The successful bidder will be required to furnish a **Performance Bond** in an amount stated in the Bid Invitation and in the form of a cashier's check, certified check, or surety bond issued by a surety company, unless otherwise stated in the Bid Invitation, as a guarantee of delivery of goods/services in accordance with the specifications and within the time established in the bid. **Personal and company checks are not acceptable as Performance Bonds**. In some cases, a cashier's check or certified check submitted as a Bid Bond will be held as the Performance Bond of the successful bidder. Cashier's checks or certified checks submitted as Performance Bonds will be refunded shortly after payment has been made to the successful bidder for completion of all terms of the bid; surety bonds will be retained. Surety bonds must be issued by a surety company authorized to do business in Arkansas, and must be signed by a Resident Local Agent licensed by the Arkansas State Insurance Commissioner to represent that surety company. Resident Agent's Power-of-Attorney must accompany the surety bond. Certain bids involving labor will require Performance Bonds in the form of surety bonds only (no checks of any kind allowed). In such cases, the company issuing the surety bond must comply with all stipulations herein and must be named in the U. S. Treasury listing of companies holding Certificates of Authority as acceptable sureties on Federal Bonds and as acceptable reinsuring companies. Any excess between the face amount of the bond and the underwriting limitation of the bonding company shall be protected by reinsurance provided by an acceptable reinsuring company. Annual Bid and Performance Bonds on file with E & P Division must have sufficient unencumbered funds to meet current bonding requirements, or the bid will be rejected, unless the balance is submitted as set forth above, prior to bid opening.

4. **TAXES:** The AHTD is not exempt from Arkansas State Sales and Use Taxes, or local option city/county sales taxes, when applicable, and bidders are responsible to the State Revenue Department for such taxes. These taxes should not be included in bid prices, but where required by law, will be paid by the AHTD as an addition thereto, and should be added to the billing to the AHTD. The AHTD is exempt from Federal Excise Taxes on all commodities except motor fuels; and excise taxes should not be included in bid prices except for motor fuels. Where applicable, tax exemption certificates will be furnished by the AHTD.

5. **"ALL OR NONE" BIDS:** Bidders who wish to bid "All or None" on two or more items shall so stipulate on the face of bid sheet; otherwise, bid may be awarded on an individual item basis.

6. **SPECIFICATIONS:** Complete specifications should be attached for any substitution or alternate offered, or where amplification is necessary. Bidder's name must be placed on all attachments to the bid.

7. **EXCEPTIONS TO SPECIFICATIONS:** Any exceptions to the bid specifications must be stated in the bid. Any exceptions to manufacturer's published literature must be stated in the bid, or it will be assumed that bidder is bidding exactly as stated in the literature.

8. **BRAND NAME REFERENCES:** All brand name references in bid specifications refer to that commodity or its equivalent, unless otherwise stated in Bid Invitation. Bidder should state brand or trade name of item being bid, if such name exists.

9. **FREIGHT:** All freight charges should be included in bid price. Any change in common carrier rates authorized by the Interstate Commerce Commission will be adjusted if such change occurs after the bid opening date. Receipted common carrier bills that reflect ICC authorized rate changes must be furnished.

10. **SAMPLES, LITERATURE, DEMONSTRATIONS:** Samples and technical literature must be provided free of any charge within 14 days of AHTD request, and free demonstrations within 30 days, unless AHTD extends time. Failure to provide as requested within this period may cause bid to be rejected. Samples, literature and demonstrations must be substantially the same as the item(s) being bid, unless otherwise agreed to by AHTD. Samples that are not destroyed will be returned upon request at bidders expense. Samples from successful bidders may be retained for comparison with items actually furnished.

11. **GUARANTY:** Unless otherwise indicated in Bid Invitation, it is understood and agreed that any item offered or shipped on this bid shall be newly manufactured, latest model and design, and in first class condition; and that all containers shall be new, suitable for storage or shipment and in compliance with all applicable laws relating to construction, packaging, labeling and registration.

12. **BACKORDERS OR DELAY IN DELIVERY:** Backorders or failure to deliver within the time required may constitute default. Vendor must give written notice to the AHTD, as soon as possible, of the reason for any delay and the expected delivery date. The AHTD has the right to extend delivery if reasons appear valid. If reason or delivery date is not acceptable, vendor is in default.

13. **DEFAULT:** All commodities furnished will be subject to inspection and acceptance by AHTD after delivery. Default in promised delivery or failure to meet specifications authorizes the AHTD to cancel award or any portion of same, to reasonably purchase commodities or services elsewhere and to charge full increase, if any, in cost and handling to defaulting vendor. Applicable bonds may be forfeited.

14. **ETHICS:** *"It shall be a breach of ethical standards for a person to be retained, or to retain a person, to solicit or secure a State contract upon an agreement of understanding for a commission, percentage, brokerage, or contingent fee, except for retention of bona fide employees or bona fide established commercial selling agencies maintained by the contractor for the purpose of securing business."* (Arkansas Code, Annotated, Section 19-11-708).

ARKANSAS STATE HIGHWAY
AND TRANSPORTATION DEPARTMENT

NOTICE OF NONDISCRIMINATION

The Arkansas State Highway and Transportation (Department) complies with all civil rights provisions of federal statutes and related authorities that prohibit discrimination in programs and activities receiving federal financial assistance. Therefore the Department does not discriminate on the basis of race, sex, color, age, national origin, religion or disability, in the admission, access to and treatment in the Department's programs and activities, as well as the Department's hiring or employment practices. Complaints of alleged discrimination and inquiries regarding the Department's nondiscrimination policies may be directed to Joanna P. Nelson, Section Head - EEO/DBE (ADA/504/Title VI Coordinator), P. O. Box 2261, Little Rock, AR 72203, (501) 569-2298, (Voice/TTY 711), or the following email address: joanna.nelson@arkansashighways.com.

This notice is available from the ADA/504/Title VI Coordinator in large print, on audiotape and in Braille.

BIDDER:_____

ITEM NO.	DESCRIPTION	AMOUNT
1.	Asbestos Abatement	$_____ Square Foot
2.	Demolition	$_____ Square Foot
3.	Foundation	$_____ Linear Foot
4.	Foundation Slab	$_____ Square Foot
5.	Well Closure	$_____ Each
6.	Septic System Closure	$_____ Each

PROPERTY MANAGEMENT
ASBESTOS ABATEMENT & DEMOLITION CONTRACT

Job 090065
Avoca-North Garfield
(U.S. Hwy. 62)
Route01 Section 02
Benton County
Tracts 1XED, 2XED, 3XED, 4XED, 5XED,
7XED, 9XED, 10XED, 16XED, 17XED, 21XED,
51R, 6XR, 8X, 12X, 13X, 14X, 14XR, 15X

Work Site Directions

Tract 1X at 14176 Sugar Creek Road, Rogers, AR 72756: Traveling northeast on I-540 to Rogers, Ar. Turn right at exit 86 onto Hwy. 62 East. Stay on Hwy. 62 East heading towards Avoca. The highway goes from a four land with a center turn lane back to a two lane highway. As you are coming down a hill with a curve to the right you will cross a creek. Sugar Creek Road or County Road 44 on your left at centerline station 164+25 Lt. The 1-S-Concrete Block Garage is on a concrete slab is sitting at the top of the bank. Note: Extra precautions must be taken to not let the large pine tree fall that sits just north of the garage.

Tract 2X at 14214 Hwy. 62 East. The drive for this tract is approximately 400 ft. east of Tract 1X on Hwy. 62 East. At this location you should find only a concrete slab at centerline station 174+50 Lt.

All remaining tracts for this abatement/demolition job sites are on the right hand side of Hwy. 62 East.

Tract 3X at 14725 Hwy. 62 East. At this site sitting on the right hand side of Hwy. 62 is the 1-S-Metal blue and white garage building with a mechanics pit in the floor. This site is located at centerline station 215+00 Rt.

Tract 51R is at 14801 Hwy. 62 East at centerline station 231+00 Rt. This site is just east of the intersection of Hwy. 62 and Latricia Lane. A 1-S-Brick dwelling with an outbuilding, privacy fence patio and a large concrete drive pad.

Tract 4X at 14929 Hwy. 62 East. Is a 1-S-F Building with a security chain link fence along the front. Located at the centerline station 235+80 Rt.

Tract 5X at 15067 Hwy. 62 East. Here is a 1-S-F & Concrete Block Fruit Stand and greenhouse. Located at the centerline station 241+00 Rt.

Tract 6 XR at 13992 Battlefield Road at centerline station 251+00 Rt. This site is at the corner of Hwy. 62 & Battlefield Road. A 1.5+S-F Dwelling, a framed storage building and satellite dish.

Tract 7X at 15211 Hwy. 62 East. 7X sits about 250 ft east of Battlefield Road (Tract 6X) on the right side of Hwy. 62 at the centerline station 254+00 Rt.

Tract 8X is on Old Wire Road (Hwy. 62 East). Located at centerline station 262+50 Rt. Access to this 2-S-F Dwelling is best from Old Wire Road which is just west of Tract 8XR.

Tract 8XR at 15359 Hwy. 62 East. This tract is just east of (Tract 8X) and has a driveway off of Hwy. 62 at centerline station 264+00 Rt.

Tract 9X at 15467 Boundary Line Road or County Road 856. Boundary Line Road also intersects with Old Wire Road at the edge of Hwy. 62. This is a 1-S-B Dwelling with a large concrete pad in front is located at centerline station 289+00 Rt.

Tract 10X at 15813 Boundary Line Road (Old Wire Road). This site is located at centerline station 292+40 Rt. The only thing at this site should be a concrete slab next to the road.

Tract 12X is across the road just north and east of tract 10X. A 1-S-F (ruins) and has four outbuildings. It is located at centerline station 294+90 Lt. just off of the centerline.

Go back out to Hwy. 62 East and turn right. At approximately centerline station 339+00 to 341+00 Rt. sits **Tract 13X, located at 16239 Hwy. 62**. This property has (2) 1-S-F Dwellings and (1) Mobile Home and (5) outbuildings.

Tract 14X at 14454 Old Liberty Road. This is at centerline station 356+50 Rt. on the right of way plans.

Tract 15X at centerline station 387+55 Rt. on the right of way plans. The only thing at this site is a 1-S-Metal barn/shop with a concrete slab. The mobile home has been moved from the right of way. There is a concrete slab and curb at centerline station 388+35 Rt.

Tract 21X is on Alvin Seamster Road. A 1-S-F Shop Building is at right of way plan centerline station 418+00 Rt.

Tract 16X at 17781 Hwy. 62 East. The concrete slab left from the garage/shop building should be the only thing in the right of way at centerline station 429+40 Rt. The mobile home at this site has been cut–off and is not in the right of way.

Tract 18X is at 17799 Hwy. 62 East. Here you find a ridged frame metal building/garage on a concrete slab. This site is located at centerline station 435+00 Rt.

Job 090065
Avoca-North Garfield
(U.S. Hwy. 62)
Route01 Section 02
Benton County
Tracts 1XED, 2XED, 3XED, 4XED, 5XED,
7XED, 9XED, 10XED, 16XED, 17XED, 21XED,
51 R, 6XR, 8X, 12X, 13X, 14X, 14XR, 15X

Bid Requirements

Bid price shall include all insurance, taxes, permits, ADEQ notifications, license, labor, equipment, and material necessary to complete the work. Actual quantity of material to be removed may differ slightly from the estimated amount shown above. Bid price shall reflect actual quantity of material to be removed and bidders are strongly encouraged to inspect the premises prior to bidding to verify the quantity. All asbestos abatement/demolition work must be done according to the method and requirements contained in the **"SPECIAL PROVISIONS"** and work list which will be attached and made a part of the bid and contract.

Contractor shall comply with all state, local and federal laws associated with this work. All structures must be completely removed, including slabs, footings, foundations, private walkways, decks, basements, posts, poles, fences within Proposed Right of Way along with all debris. Determination of the extent of work necessary for complete removal of the structures is strictly the responsibility of the bidder. Basements (pits, storm shelters, pools) **(if applicable)** will be removed, backfilled with suitable material and left level with the surrounding area. Water wells **(if applicable)** shall have equipment removed and casing securely covered for safety. Septic tanks **(if applicable)**, shall be pumped empty, removed, and void backfilled with suitable material. Contractor will be required to comply with the provisions of "Appendix A" (Required Contract Provisions Federal-Aid Construction Contracts) that will be attached and made a part of the bid and contract.

It is understood that all combustible materials, construction material and all other rubbish, including shrubbery and trees which are cut or uprooted to facilitate operations, will be cleared from the premises by the contractor and **the premises will be left in a generally level, safe, and sanitary condition, a condition in which it can be mowed and maintained safely**. The contractor shall endeavor to avoid unnecessary damage or destruction of trees, shrubs, and plants on the premises.

NOTE: CONTRACTOR MUST FILE TEN (10) DAY NOTICE WITH ARKANSAS DEPARTMENT OF ENVIRONMENTAL QUALITY (ADEQ); HOWEVER, BIDS SHOULD INCLUDE REGISTRATION FEE ON EACH PROJECT. Dumping of demolition waste materials shall be at a landfill permitted by the Arkansas Department of Environmental Quality (ADEQ) or at an un-permitted site approved by ADEQ. Contractor must call ONE CALL for location of other utilities at this job site.

In the event that utility service lines, meters, etc., are disconnected, destroyed or otherwise impaired in any way by reason of performance of this operation by the contractor, the contractor shall, at his own expense, be responsible for all replacement utility service in lieu of those affected. **Contractor must call ONE CALL for location of other utilities at this job site**

Contractor shall be required to hold a current license issued by the Arkansas Department of Environmental Quality for the removal of asbestos. For demolition, State law requires a contractor's license for jobs over $20,000.00. Changes in the scope of work must have prior approval by the Departments Property Manager in order to be eligible for payment.

PROPERTY MANAGEMENT
ASBESTOS ABATEMENT & DEMOLITION CONTRACT BIDS

Job 090065
Avoca-North Garfield
(U.S. Hwy. 62)
Route01 Section 02
Benton County
Tracts 1XED, 2XED, 3XED, 4XED, 5XED,
7XED, 9XED, 10XED, 16XED, 17XED, 21XED,
51 R, 6XR, 8X, 12X, 13X, 14X, 14XR, 15X

Work List of Project

Tract 1XED, 14176 Sugar Creek Rd.	Unit Price	Extended Price
NO ABATEMENT NECESSARY:		
Demolition:		
336 SF 1-S-Concrete Block Garage Building	$ _____ /SF	$ _____
Total Demolition Tract 1X		$ _____

Tract 2XED, 14214 Hwy. 62 East	Unit Price	Extended Price
NO ABATEMENT NECESSARY:		
Demolition:		
800 SF Concrete Slab	$ _____ /SF	$ _____
Total Demolition Tract 2X		$ _____

Tract 3XED	Unit Price	Extended Price
NO ABATEMENT NECESSARY		
Demolition:		
1,290 SF 1-S-RFMB Garage	$ _____ /SF	$ _____
Close & Remove Septic System	$ _____ /EA	$ _____
Total Demolition Tract X		$ _____

Tract 4XED,	Unit Price	Extended Price
Abate Approximately:		
29.5 SF of Floor Tiles & Mastic in (R)	$ _____ /SF	$ _____
Total Abatement		$ _____
Demolition:		
960 SF 1-S- Concrete Block Building	$ _____ /SF	$ _____
Close & Remove Septic System	$ _____ /EA	$ _____
Total Demolition		$ _____
Total Abatement and Demolition Tract 4X		$ _____

Tract 5XED, 15067 Hwy. 62 East	Unit Price	Extended Price
NO ABATEMENT NECESSARY:		
Demolition:		
2,572 SF 1-S-Concrete Block & Frame (Fruit Stand)	$ _____ /SF	$ _____
960 SF Greenhouse	$ _____ /SF	$ _____
Close & Remove Septic System	$ _____ /EA	$ _____
Total Demolition Tract 5XED		$ _____

Tract 6X, 13992 N. Old Wire Road	Unit Price	Extended Price
Abate Approximately:		
All Ceiling Sheet Rock 1,396 SF	$ _____ /SF	$ _____
Total Abatement		$ _____
Demolition:		
1,536 SF 1.5-S-F Dwelling	S _____ /SF	$ _____
12X18 = 216 SF Shed	$ _____ /SF	$ _____
Close & Remove Septic System	$ _____ /EA	$ _____
Satelite Dish	$ _____ /EA	$ _____
40 LF of Fencing	$ _____ /LF	$ _____
Total Demolition		$ _____
Total Abatement & Demolition Tract X		$ _____

Tract 7XED, 15211 Hwy. 62	Unit Price	Extended Price
Abate Approximately:		
1,277.6 SF All Ceiling Sheet Rock	$ _____ /SF	$ _____
3,712.64 SF Sheet Rock Walls	$ _____ /SF	$ _____
Total Abatement Tr. 7 XED		$ _____
Demolition:		
1,440 SF 1-S-F Dwelling & Wooden Deck	$ _____ /SF	$ _____
280 SF Shed	$ _____ /SF	$ _____
Close & Remove Septic System	$ _____ /EA	$ _____
Total Demolition Tract 7 XED		$ _____
Total Abatement & Demolition 7 XED		_____

Tract 8 X, 15359 Hwy. 62 E.	Unit Price	Extended Price
No Abatement Necessary:		
Demolition:		
2,860 SF 2-S-F Dwelling	$ _____ /SF	$ _____
Close & Remove Septic System	$ _____ /EA	$ _____
Total Demolition Tract 8 X		$ _____

Tract 8 XR, 15359 Hwy. 62 E.	Unit Price	Extended Price
Abate Approximately:		
All Ceiling Sheet Rock 733.47 SF	$ _____ /SF	$ _____
1,643.6 SF Sheet Rock Walls (C-H)	_____ /SF	$ _____
Total Abatement Tr. 8 XR		$ _____
Demolition:		
1,440 SF 1-S-B Dwelling	$ _____ /SF	$ _____
572 SF Concrete Patio	$ _____ /SF	$ _____
100 SF Concrete Block Wellhouse	$ _____ /SF	$ _____
450 SF Garage w/ Storm Shelter	$ _____ /SF	$ _____
Close & Remove Septic System	$ _____ /EA	$ _____
Cap Well	$ _____ /EA	$ _____
Total Demolition Tr. 8 XR		$ _____
Total Abatement & Demolition Tr. 8 XR		$ _____

Tract 9 X, 15467 Boundary Line Road	Unit Price	Extended Price
Abate Approximately:		
All Ceiling Sheet Rock 956.97 SF	$ _____ /SF	$ _____
2,691.36 SF Sheet Rock Walls (All)	_____ /SF	$ _____
Total Abatement Tr. 9 X		$ _____
Demolition:		
1,305 SF 1-S-B Dwelling	$ _____ /SF	$ _____
756 SF Concrete Patio	$ _____ /SF	$ _____
100 SF Well House	$ _____ /EA	$ _____
Close & Remove Septic System	$ _____ /EA	$ _____
Total Demolition Tr. 9X		$ _____
Total Abatement & Demolition Tr. 9 X		$ _____

Tract 10XED, 15813 Boundary Line Road	Unit Price	Extended Price
No Abatement Necessary:		
Demolition:		
645 SF Concrete Slab	$ _____ /SF	$ _____
Total Abatement & Demolition Tr. 10 XED		$ _____

Tract 12X, Boundary Line Road (County Rd. 856)	Unit Price	Extended Price
No Abatement Necessary:		
Demolition:		
1,093.5 SF 1-S-F Dwelling	S _____ /SF	$ _____
600 SF Metal Barn/Shed	$ _____ /SF	$ _____
390.4 SF 1-S-M Outbuilding	$ _____ /SF	$ _____
261 SF 1-S-M Outbuilding	$ _____ /SF	$ _____
100 SF Framed Well House	$ _____ /SF	$ _____
48 SF Out House	$ _____ /SF	$ _____
Fill in Pit of Out House	$ _____ /EA	$ _____
Cap Well	$ /LF	$

Total Demolition Tract 12 X $ _____

Tract 13X, 13992 N. Old Wire Road

	Unit Price	Extended Price
Abate Approximately: Dwelling #1		
All Ceiling Sheet Rock 524 SF	$ _____ /SF	$ _____
720 SF Sheet Rock Walls (ABCDE)	$ _____ /SF	$ _____
Total Abatement 13 X #1	$	$ _____
No Abatement Necessary: Dwelling #2		
No Abatement Necessary: Mobile Home		
Demolition:		
1,338 SF 1-S-F Dwelling #1	S _____ /SF	$ _____
25' X 30' 750 1-S-F Dwelling #2	$ _____ /SF	$ _____
1,624 SF Mobile Home	$ _____ /SF	$ _____
Close & Remove 3 Septic Systems	$ /EA	$ _____
Satelite Dish	$ /EA	$ _____
Total Demolition 13 X		$ _____
Total Abatement & Demolition Tract 13 X		$ _____

Tract 14 X, 17522 Alvin Seamster Road

	Unit Price	Extended Price
No Abatement Necessary:		
Demolition:		
1,664 SF 1-S-B Dwelling	$ _____ /SF	$ _____
1,440 SF 1-S RFMB	$ _____ /SF	$ _____
Close & Remove Septic System	$ _____ /EA	$ _____
Total Abatement & Demoliton		$ _____

Tract 15 X, Station 385+40 Rt. on Hwy. 62 E.

	Unit Price	Extended Price
No Abatement Necessary:		
Demolition:		
640 SF 1-S-Metal Barn/Shop with Lean to	$ _____ /SF	$ _____
Close & Remove Septic System	$ _____ /EA	$ _____
5'X8' 40 SF Concrete Slab	$ _____ /SF	$ _____
8X12 96 SF Concrete Slab	$ _____ /SF $	$ _____
Total Abatement & Demolition		$ _____

Tract 16 XED, 17781 Hwy. 62 E.

	Unit Price	Extended Price
No Abatement Necessary:		
Demolition:		
1,456 SF Concrete Slab & Debris	$ _____ /SF	$ _____
Total Demolition Tr. 16 XD		$ _____

Tract 18 X, 17799 Hwy. 62 E.

	Unit Price	Extended Price
No Abatement Necessary:		
Demolition:		
3,036 SF 1-S-RFMB	$ _____ /SF	$ _____
Close & Remove Septic System	$ _____ /EA	$ _____
Total Demolition Tr. 18 XED		$ _____

Tract 21 XED, Alvin Seamster Road	Unit Price	Extended Price
No Abatement Necessary:		
Demolition:		
615 SF 1-S-Framed Building	$ _____ /SF	$ _____
Total Demolition Tr. 21 XED		$ _____

Tract 51 R, 14801 Hwy. 62 E.	Unit Price	Extended Price
No Abatement Necessary:		
Demolition:		
1,687 SF 1-S-F Dwelling	$ _____ /SF	$ _____
100 SF Framed Outbuilding	$ _____ /SF	$ _____
250 LF of Wood Privacy Fence	$ _____ /LF	_____
Close & Remove Septic System	$ _____ /EA	$ _____
Total Demolition Tr. 51 R		$ _____

Total Lump Sum Price of Abatement & Demolition $ _____

Note: This document is to be returned with bid and becomes part of the contract.

Disclaimer:

Samples were collected form materials identified as Homogeneous Materials based upon visual inspection of the site. AHTD is not responsible for assumptions on homogeneity, which prove to be incorrect. In addition, samples collected represent only that portion of the entire homogeneous material. AHTD is not responsible for materials not identified and sampled due to the restraints on accessibility of the material due to the type of construction and finish materials of the building. This report refers to the Site and Facility as it appeared on the day of the inspection. No warranties, expressed or implied, relate to the previous and /or future conditions at the Site.

Analysis was performed by Crisp Analytical Labs, LLC, Carrollton, Texas. Crisp Analytical Labs, LLC, is solely responsible for all analytical results contained in and referred to in this report.

NOTICE TO CONTRACTORS
COMPLIANCE WITH TITLE VI OF THE CIVIL RIGHTS ACT OF 1964
FOR
FEDERAL AID CONTRACTS
APPENDIX "A"

During the performance of this contract, the contractor, for itself, its assignees and successors in interest (hereinafter referred to as the "contractor") agrees as follows:

(1) Compliance with Regulations: The contractor shall comply with the Regulations relative to nondiscrimination in Federally-assisted programs of the Department of Transportation, Title 49, Code of Federal Regulations, Part 21, as they may be amended from time to time, (hereinafter referred to as the Regulations), which are herein incorporated by reference and made a part of this contract.

(2) Nondiscrimination: The Contractor, with regard to the work performed by it during the contract, shall not discriminate on the grounds of race, color or national origin in the selection and retention of subcontractors, including procurements of materials and leases of equipment. The contractor shall not participate either directly or indirectly in the discrimination prohibited by section 21.5 of the Regulations, including employment practices when the contract covers a program set forth in Appendix B of the Regulations.

(3) Solicitations for Subcontracts, Including Procurements of Materials and Equipment: In all solicitations either by competitive bidding or negotiation made by the contractor or work to be performed under a subcontract, including procurements of materials or leases of equipment, each potential subcontractor or supplier shall be notified by the contractor of the contractor's obligations under this contract and the Regulations relative to nondiscrimination on the grounds of race, color, or national origin.

(4) Information and Reports: The contractor shall provide all information and reports required by the Regulations, or directives issued pursuant thereto, and shall permit access to its books, records, accounts, other sources of information, and its facilities as may be determined by the Arkansas State Highway & Transportation Department or the Federal Highway Administration to be pertinent to ascertain compliance with such Regulations or directives. Where any information required of a contractor is in the exclusive possession of another who fails or refuses to furnish this information, the contractor shall so certify to the Arkansas State Highway & Transportation Department, or the Federal Highway Administration as appropriate, and shall set forth what efforts it has made to obtain the information.

(5) Sanctions for Noncompliance: In the event of the contractor's non-compliance with the nondiscrimination provisions of this contract, the Arkansas State Highway & Transportation Department shall impose such contract sanctions as it or the Federal Highway Administration may determine to be appropriate, including, but not limited to:

(a) Withholding of payments to the contractor under the contract until the contractor complies, and/or

(b) Cancellation, termination or suspension of the contract, in whole or in part.

(6) Incorporation of Provisions: The contractor shall include the provisions of paragraphs (1) through (6) in every subcontract, including procurements of materials and leases of equipment, unless exempt by the Regulations, or directives issued pursuant thereto. The contractor shall take such action with respect to any subcontract or procurement as the Arkansas State Highway & Transportation Department or the Federal Highway Administration may direct as a means of enforcing such provisions including sanctions for non-compliance: Provided, however, that, in the event a contractor becomes involved in, or is threatened with, litigation with a subcontractor or supplier as a result of such direction, the contractor may request the Arkansas State Highway & Transportation Department to enter into such litigation to protect the interests of the State, and, litigation to protect the interests of the United States.

ARKANSAS STATE HIGHWAY AND TRANSPORTATION DEPARTMENT
SPECIAL PROVISION

REMOVAL OF SHEET ROCK, WHICH CONTAINS ASBESTOS FROM BUILDINGS TO BE DEMOLISHED

GENERAL

The material which contains asbestos (ACM) has been identified in this building. This building must be demolished as part of the right-of-way clearing for the construction of the above-captioned job. Prior to demolition of these buildings, the ACM must be removed and disposed of in compliance with this special provision and the asbestos regulations promulgated by Arkansas Department of Environmental Quality (ADEQ) and the Environmental Protection Agency.

DESCRIPTION OF WORK:

All work performed under this special provision shall be in compliance with the Arkansas Asbestos Abatement Regulations promulgated by the Arkansas Department of Environmental Quality (ADEQ), as adopted pursuant to Part Two of the Arkansas Water and Air Pollution Act. (Date of Regulations: November 29, 1990)

Except as specified in this special provision, the contractor shall comply with all notification, record keeping, work procedure, containerization, storage, transportation, disposal and licensing requirements of the Arkansas Asbestos Abatement Regulations for the removal of ACM and applicable OSHA worker protection requirements (29 CFR, 1910 - Respiratory protection). Disposal and record keeping requirements of NESHAP - National Emission Standards for Hazardous Air Pollutants (40 CFR 61 Subpart M) shall also be incorporated into the project's work procedures and designated in the work plan of the asbestos abatement contractor.

The general work procedure shall include the removal of the ACM and any associated from the designated area in the identified buildings. Estimated quantities of material to be removed and disposed of are provided in the contract. The removal of the ACM must be conducted in a containment area, which includes polyethylene containment barrier walls. This containment area must also include the use of a negative air filtration system (HEPA filters) to create negative pressure as required by ADEQ regulations. The material shall be removed as required by ADEQ regulations with containerization, storage, transportation and disposal of the ACM accomplished according to ADEQ Asbestos regulations. Wet cleaning and HEPA filter vacuuming shall be repeated until no visible residuals are observed in the work area or until any remaining can be safely encapsulated. All records of the work performed and the disposal at an approved landfill (including the disposal receipt) shall be provided to the Arkansas Highway and Transportation Department within three working days of the completion of the contracted work.

All work shall be performed by a licensed asbestos contractor and by trained asbestos abatement workers as required by ADEQ. All appropriate worker protection rules for this removal of asbestos containing materials shall apply as per OSHA and ADEQ regulations.

A work plan and worker protection plan shall be provided to AHTD prior to the commencement of work for review and approval.

ARKANSAS STATE HIGHWAY AND TRANSPORTATION DEPARTMENT
SPECIAL PROVISION

REMOVAL OF FLOORING WHICH CONTAINS ASBESTOS FROM BUILDINGS TO BE DEMOLISHED

GENERAL

Floor covering which contains asbestos (ACM) has been identified in buildings to be demolished as part of the right-of-way clearing for the construction of the above captioned job. Prior to demolition of these buildings, the ACM must be removed and disposed of in compliance with this special provision and the asbestos regulations promulgated by Arkansas Department of Environmental Quality (ADEQ) and the Environmental Protection Agency.

DESCRIPTION OF WORK:

All work performed under this special provision shall be in compliance with the Arkansas Asbestos Abatement Regulations promulgated by the Arkansas Department of Environmental Quality (ADEQ), as adopted pursuant to Part Two of the Arkansas Water and Air Pollution Act. (Date of Regulations: November 29, 1990)

Except as specified in this special provision, the contractor shall comply with all notification, record keeping, work procedure, containerization, storage, transportation, disposal and licensing requirements of the Arkansas Asbestos Abatement Regulations for the removal of ACM and applicable OSHA worker protection requirements (29 CFR, 1910 - Respiratory protection). Disposal and record keeping requirements of National Emission Standards for Hazardous Air Pollutants (NESHAP) (40 CFR 61 Subpart M) shall also be incorporated into the project's work procedures and designated in the work plan of the asbestos abatement contractor.

The general work procedure shall include the removal of the ACM and any associated mastic material from the designated area in the identified buildings. Estimated quantities of material to be removed and disposed of are provided in the contract. The removal of the ACM flooring must be conducted in a containment area, which includes polyethylene containment barrier walls. This containment area must also include the use of a negative air filtration system (HEPA filters) to create negative pressure as required by ADEQ regulations. The material shall be removed as required by ADEQ regulations with containerization, storage, transportation and disposal of the ACM accomplished according to ADEQ Asbestos regulations. Wet cleaning and HEPA filter vacuuming shall be repeated until no visible residuals are observed in the work area or until any remaining mastic can be safely encapsulated. All records of the work performed and the disposal at an approved landfill (including the disposal receipt) shall be provided to the Arkansas Highway and Transportation Department within three working days of the completion of the contracted work.

All work shall be performed by a licensed asbestos contractor and by trained asbestos abatement workers as required by ADEQ. All appropriate worker protection rules for this removal of asbestos containing flooring shall apply as per OSHA and ADEQ regulations.

ARKANSAS STATE HIGHWAY AND TRANSPORTATION DEPARTMENT

SPECIAL PROVISION

REMOVAL OF FLOOR COVERING MASTIC WHICH CONTAINS ASBESTOS FROM BUILDINGS TO BE DEMOLISHED

GENERAL:

Floor covering mastic which contains asbestos has been identified in a building to be demolished as part of the right-of-way clearing for the construction of the above captioned job. Prior to demolition of this building, the floor covering and associated mastic which contains asbestos must be removed and disposed of in compliance with this special provision and the asbestos regulations promulgated by Arkansas Department of Environmental Quality(ADEQ).

DESCRIPTION OF WORK:

All work performed under this special provision shall be in compliance with the Arkansas Asbestos Abatement Regulations promulgated by the Arkansas Department of Environmental Quality, as adopted pursuant to Part Two of the Arkansas Water and Air Pollution Act. (Date of Regulations: November 29, 1990)

Except as specified in this special provision, the contractor shall comply with all notification, record keeping, work procedure, containerization, storage, transportation, disposal and licensing requirements of the Arkansas Asbestos Abatement Regulations 21 for the removal of floor covering which contains asbestos and applicable OSHA worker protection requirements (29 CFR, 1910 - Respiratory protection). Disposal and record keeping requirements of NESHAP - National Emission Standards for Hazardous Air Pollutants (40 CFR 61 Subpart M) shall also be incorporated into the project's work procedures and designated in the work plan of the asbestos abatement contractor.

The general work procedure shall include the removal of the floor covering and all associated mastic material from the designated area in the identified building. The removal of the ACM mastic and flooring must be conducted in a containment area, which includes polyethylene containment barrier walls. This containment area must also include the use of a negative air filtration system (HEPA filters) to create negative pressure as required by ADEQ regulations. The material shall be removed as required by ADEQ regulations with containerization, storage, transportation and disposal of the ACM accomplished according to ADEQ Asbestos Regulations 21. Wet cleaning and HEPA vacuuming shall be repeated until no visible residuals are observed in the work area or until any remaining mastic can be safely encapsulated. All records of the work performed and the disposal at an approved landfill (including the disposal receipt) shall be provided to the Arkansas Highway and Transportation Department within two working days of the completion of the contracted work.

All work shall be performed by a licensed asbestos contractor and by trained asbestos abatement workers as required by ADEQ. All appropriate worker protection rules for this removal of asbestos containing flooring shall apply as per OSHA and ADEQ Regulations 21.

ARKANSAS STATE HIGHWAY AND TRANSPORTATION DEPARTMENT
SPECIAL PROVISION

REMOVAL OF HARD ASBESTOS-CONTAINING BUILDING MATERIAL IN EXTERIOR SETTING

General:

Siding which contains hard asbestos has been identified on the exterior of a building scheduled for demolition as part of the above referenced job. Prior to demolition of this building, the asbestos-containing building material (ACBM) must be removed and disposed of in compliance with all the Arkansas Department of Environmental Quality (ADEQ) and the Environmental Protection Agency asbestos regulations and these specifications.

Description of Work:

All work performed under this contract shall be in compliance with the Arkansas Asbestos Abatement Regulations promulgated by the Arkansas Department of Environmental Quality's adopted pursuant to Part Two of the Arkansas Water and Air Pollution Act. (Date of Regulations: November 29, 1990)

In addition, the contractor shall comply with all notification, record keeping, work procedure, containerization, storage, transportation, disposal and licensing requirements of the Arkansas Asbestos Abatement Regulations for the removal of hard ACBM in an outdoor setting and applicable OSHA worker protection requirements (29, 1910 - Respiratory Protection). Disposal and record keeping requirements of NESHAP -National Emission Standards for Hazardous Air Pollutants (40 CFR 61 Subpart M) shall also be incorporated into the work plan of the asbestos abatement contractor.

The general work procedure shall include the removal of the ACBM with minimal breakage, sanding or sawing. Wetting procedures shall be utilized as warranted by ADPC&E regulations. ACBM shall be placed in sealable metal drums with proper labeling then stored, transported and disposed of in accordance with ADEQ Asbestos Regulations (November, 1990). All records of the work performed and the disposal at an approved landfill (including the disposal receipt) shall be provided to the Arkansas Highway and Transportation Department within three working days of the completion of contracted work.

All work shall be performed by a licensed asbestos contractor and by trained asbestos abatement workers as required by ADEQ. All appropriate worker protection rules for this outdoor removal activity shall apply as per OSHA and ADEQ regulations.

45x1

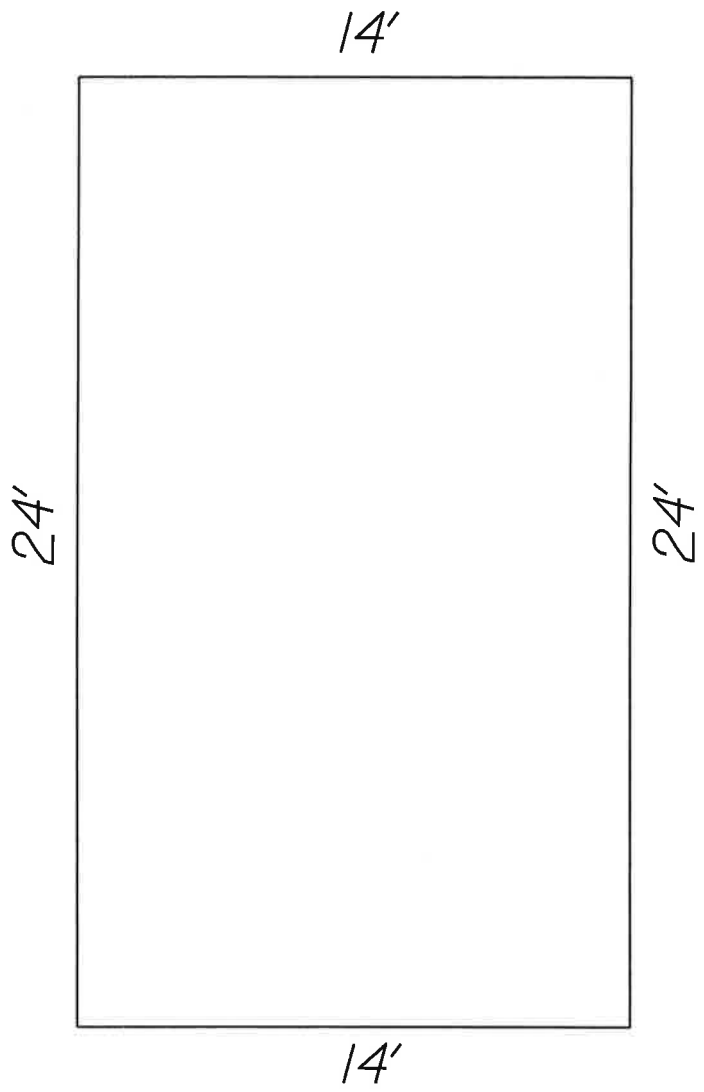
01.22.2013

JOB:	090065	PROPERTY LOCATION	INSPECTED BY
TRACT:	1 X	1-S-Concrete Block Garage	Joel Clark (011518)
DATE:	1/22/2013	14176 Sugar Creek Road	
		Rogers, AR 72756	

Sample Number	Description/ Locaton	Sample Number	Description/ Location
#1		#11	
#2		#12	
#3		#13	
#4		#14	
#5		#15	
#6		#16	
#7		#17	
#8		#18	
#9		#19	
#10		#20	

Homogenous Areas:	
Roofing	Composition Shingle
Siding	Concrete Block
Ceilings	Open Joist
Walls	Concrete Block
Floors	Concrete Slab

NO ACM Suspected



090065 Tract 1 X

1-S-Conc. Block

14176 Sugar Creek Rd.

Rogers, AR

Approx. 336 SF

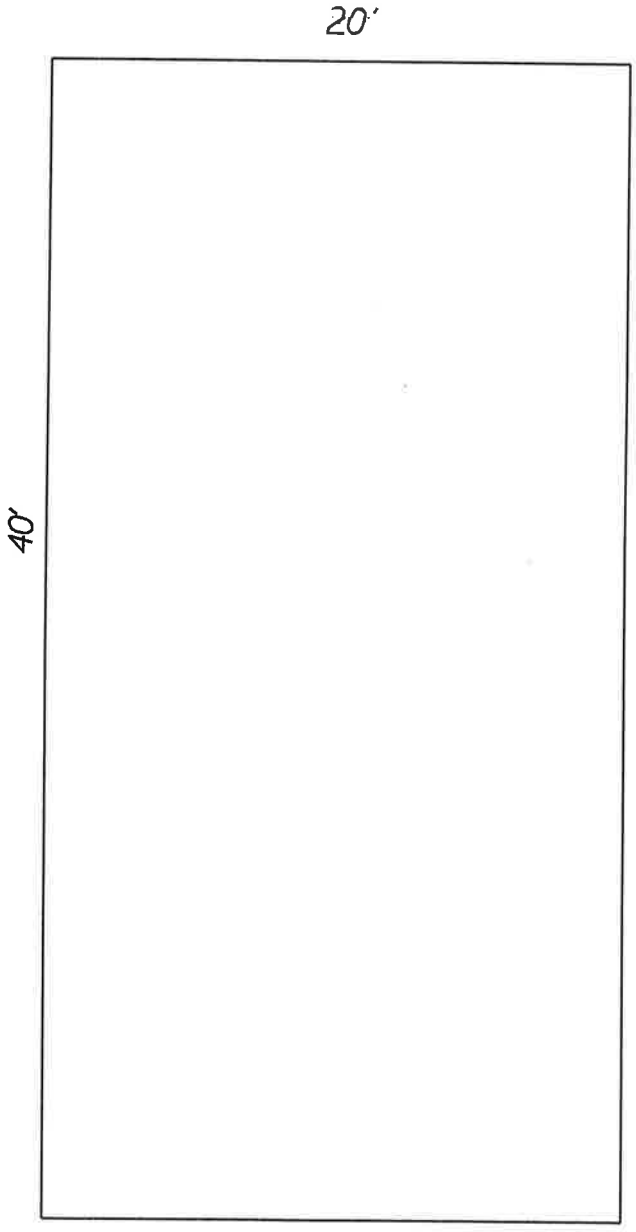
2X

JOB:	090065	PROPERTY LOCATION	INSPECTED BY
TRACT:	2 X	1-S-Frame Barn/Shop	Joel Clark (011518)
DATE:	1/22/2013	14214 Hwy. 62 East	
		Avoca, AR 72711-0037	

Sample Number	Description/ Locaton	Sample Number	Description/ Location
#1		#11	
#2		#12	
#3		#13	
#4		#14	
#5		#15	
#6		#16	
#7		#17	
#8		#18	
#9		#19	
#10		#20	

Homogenous Areas:	
Roofing	Open rafters
Siding	Open Studs
Ceilings	Open Joist
Walls	Open Studs
Floors	Concrete Slab

NO ACM Suspected



090065 Tract 2 X

Conc. Slab

14214 Hwy. 62 East

Avoca, AR 72711-0037

Approx. 800 SF

3XED

01.22.2013

3XED

CA Labs

Crisp Analytical Laboratories, L.L.C.
1929 Old Denton Rd.
Carrollton, TX 75006

Phone: 972-272-2754
Fax: 972-272-2798
Mobile: 214-564-8366

Chain of Custody

Client Name:	AHTD	**CA Labs job**	**CAL# 1301674**
Client Address:	P.O. Box 2261	Billing Address:	
	Room #705	(if different)	
	Little Rock, AR 72203-2261		
phone number:	501-569-2317 or 2318	P.O. # :	090065
fax number:		Project Name:	Tract 3X 14725 Hwy. 62 East
Send Reports to:	Joeld.Clark@arkansashighways.com	Project Number:	090065 Garfield, AR 72732

Total # Samples Submitted: 4	**Total # Samples to be Analyzed: 4**	**Material Matrix:** Air / **Bulk** / Water

Asbestos: *please call ahead for availability of all rush and/or after hours samples.*

TEM	**TA Time**	**PLM**	**TA Time**	**Optical / IAQ**	**TA Time**
Circle analysis and TA time		*Circle analysis and TA time*	*2 hour*	PCM: NIOSH 7400	Note TAT
AHERA	*4 hour*	Improved	4 hour	Allergen Particle:	24 hour
EPA Level II	8 hour	Interim	8 hour	tape/bulk/swab	2 days
Drinking Water	16 hour		16 hour	Cyclex-d cassettes	3 days
Wipe	24 hour	**AHERA**	24 hour	Air-o-cell cassettes	5-10 days
Micro-vac	2 days		2 days	Anderson cultures	Specify
NIOSH 7402	3 days	Point Count -	**3 days**	Bulk/swab cultures	Mold or
Chatfield Bulk	5 days	(NESHAPS)	5 days	Bacteria cultures	bacteria

Please indicate appropriate turn around time. (minimum turnaround - 3 Days for Lead TCLP and water)

Lead: *Circle analysis and TA time*

Sample Information:

Sample #:	Sample Location:	Sample Date/Time:	Sample Volume (L)
090065Tr3X #1	Area (A) Wall	1/22/2013	
090065Tr3X #2	Area (A) Wall	1/22/2013	
090065Tr3X #3	Area (B) Wall	1/22/2013	
090065Tr3X #4	Area (B) Wall	1/22/2013	

Custody Information:

Samples relinquished: Joeld Clark 1/29/13
Signature / Date / Time

Samples received: Matthew Romer 1/30/13 3:30PM
Signature / Date / Time

CA Labs
Dedicated to Quality

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1929 Old Denton Road
Carrollton, TX 75006
Phone 972-242-2754
Fax 972-242-2798

CA Labs, L.L.C.
12232 Industriplex, Suite 32
Baton Rouge, LA 70809
Phone 225-751-5632
Fax 225-751-5634

Materials Characterization - Bulk Asbestos Analysis

Laboratory Analysis Report - Polarized Light

Arkansas State Highway & Transportation Dept.
10324 I-30, Room 705
Little Rock, AR 72209

Attn: Robert Pooler
Customer Project: Tract 3X 14725 Hwy 62 East
Reference #: CAL1301674CP Date: 02/04/13

Analysis and Method

Summary of polarizing light microscopy (PLM / Stereomicroscopy bulk asbestos analysis) using the methods described in 40CFR Part 763 Appendix E to Subpart E (Interim and EPA 600 / R-93 / 116 (Improved). The sample is first viewed with the aid of stereomicroscopy. Numerous liquid slide preparations are created for analysis under the polarized microscope where identifications and quantifications are preformed. Calibrated liquid refractive oils are used as liquid mouting medium. These oils are used for identification (dispersion staining). A calibrated visual estimation is reported, should any asbestiform mineral be present. Other techniques such as acid washing are used in conjugation with refractive oils for detection of smaller quantities of asbestos. All asbestos percentages are based on calibrated visual estimation traceable to NIST standards for regulated of asbestos. Traceability to measurement and calibration is achieved by using known amounts and types of asbestos from standards where analyst and laboratory accuracy are measured. As little as 0.001% asbestos can be detected in favorable samples, while detection in unfavorable samples may approach the detection limit of 0.50% (well above the laboratory definition of trace).

Discussion

Vermiculite containing samples may have trace amounts of actinolite-tremolite, where not found be PLM should be analyzed using TEM methods and / or water separation techniques. Suspected actinolite/vermiculite presence will be indicated through the sample comment section of this report.

Fibrous talc containing samples may even contain a related asbestos fiber known as anthophyllite. Under certain conditions the same fiber may actually contain both talc and anthophyllite (a phenomenon called intergrowth). Again, TEM detection methods are recommended. CA Labs PLM report comments will denote suspected amounts of asbestiform anthophyllite with talc, where further analysis is recommended.

Some samples (floor tiles, surfacings, etc.) may contain fibers too small to be delectable by PLM analysis and should be analyzed by TEM bulk protocols.

A "trace asbestos" will be reported if the analyst observes far less than 1% asbestos. CA Labs defines "trace asbestos" as a few fibers detected by the analyst in several preparations and will indicate as such under these circumstances.

Quantification of <1% will actually be reported as <=1% (allowable variance close to 1% is high). Such results are ideal for point counting, and the technique is mandatory for friable samples (NESHAP, Nov. 1990 and clarification letter 8 May 1991) under 1% percent asbestos and the "trace asbestos". **In order to make all initial PLM reports issued from CA Labs NESHAP compliant, all <1% asbestos results (except floor tiles) will be point counted at no additional charge.**

Qualifications

CA Labs is accredited by the National Voluntary Accreditation Program (NVLAP) for selected test methods for airborne fiber analysis (TEM), and for bulk asbestos fiber analysis (PLM). CA Labs is also accredited by AIHA LAP, LLC. in the PLM asbestos field of testing for Industrial Hygiene. All analysts have a college degree in a natural science (geology, biology, or environmental science) or are recognized by a state professional board in one these disciplines .Extensive in-house training programs are used to augment education background of the analyst. The group leader of polarized light has received supplemental McCrone Research training for asbestos identification. Analysis performed at Crisp Analytical Labs, LLC 1929 Old Denton Road Carrollton, TX 75006

Dallas NVLAP Lab Code 200349-0 TEM/PLM EPA H20 TX 01402 TDH 30-0235
AIHA LAP, LLC Laboratory #102929

CA Labs
Dedicated to Quality

Crisp Analytical, L.L.C.
1929 Old Denton Road
Carrollton, TX 75006
Phone 972-242-2754
Fax 972-242-2798

CA Labs, L.L.C.
12232 Industriplex, Suite 32
Baton Rouge, LA 70809
Phone 225-751-5632
Fax 225-751-5634

Overview of Project Sample Material Containing Asbestos

Customer Project: Tract 3X 14725 Hwy 62 East **CA Labs Project #:** CAL1301674CP

Sample #	Layer #	Analysts Physical Description of Subsample	Asbestos type / calibrated visual estimate percent	List of Affected Building Material Types

No Asbestos Detected.

Dallas NVLAP Lab Code 200349-0 TEM/PLM EPA H20 TX 01402 TDH 30-0235
AIHA LAP, LLC Laboratory #102929

Glossary of abbreviations (non-asbestos fibers and non-fibrous minerals):

ca - carbonate
gypsum - gypsum
bi - binder
or - organic
ma - matrix
mi - mica
ve - vermiculite
ot - other
pe - perlite
qu - quartz
fg - liberglass
mw - mineral wool
wo - wollastinite
ta - talc
sy - synthetic
ce - cellulose
br - brucite
ka - kaolin (clay)
pa - palygorskite (clay)

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Polarized Light Asbestiform Materials Characterization

Customer Info: **Attn:** Robert Pooler
Arkansas State Highway & Transportation Dept.
10324 I-30, Room 705
Little Rock, AR 72209

Phone # 501-569-2317
Fax # 501-569-2018

Customer Project:
Tract 3X 14725 Hwy 62 East
Turnaround Time:
3 Days

CA Labs Project #:
CAL1301674CP

Date: 02/04/13
Samples Received: 1/30/13 3:30PM
Date Of Sampling: 01/22/13
Purchase Order #: 090065

Sample #	Comment	Layer #	Analysts Physical Description of Subsample	Homogeneous (Y/N)	Asbestos type / calibrated visual estimate percent	Non-asbestos fiber type / percent	Non-fibrous type / percent
090065Tr3 X 1		1-1	***Area (A) Wall/*** *tan surfaced white compound*	n	***None Detected***		100% mi,bi,ca
		1-2	*white compound (beneath tape)*	y	***None Detected***		100% mi,ca
		1-3	*white drywall with brown paper*	n	***None Detected***	19% ce 1% fg	80% qu,gy
090065Tr3 X 2		2-1	***Area (A) Wall/*** *white compound*	y	***None Detected***		100% mi,ca
		2-2	*white compound (beneath tape)*	y	***None Detected***		100% mi,ca
		2-3	*white drywall with brown paper*	n	***None Detected***	18% ce 2% fg	80% qu,gy
090065Tr3 X 3		3-1	***Area (B) Wall/*** *purple surfaced white compound*	n	***None Detected***		100% mi,bi,ca

Dallas NVLAP Lab Code 200349-0 TEM/PLM *EPA H20 TX 01402* *TDH 30-0235*

AIHA LAP, LLC Laboratory #102929

Analysis Method: Interim (40CFR Part 763 Appendix E to Subpart E) / Improved (EPA-600 / R-93/116)
Preparation Method: HCL acid washing for carbonate based samples, chemical reduction for organically bound components, oil immersion for identification of asbestos types by dispersion attaining / becke line method.

ca - carbonate	mi - mica	fg - fiberglass	ce - cellulose
gypsum - gypsum	ve - vermiculite	mw - mineral wool	br - brucite
bi - binder	ot -other	wo - wollastinite	ka - kaolin (clay)
or - organic	pe - perlite	ta - talc	pa - palygorskite (clay)
ma - matrix	qu - quartz	sy - synthetic	

Approved Signatories:

Julio Robles
Analyst

QAC
Leslie Crisp, P.G.

Technical Manager
Chad Lytle

1. Fire Damage significant fiber damage - reported percentages reflect unaltered fibers
2. Fire Damage no significant fiber damages effecting fibrous percentages
3. Actinolite in association with Vermiculite
4. Layer not analyzed - attached to previous positive layer and contamination is suspected
5. Not enough sample to analyze
6. Anthophyllite in association with Fibrous Talc
7. Contamination suspected from other building materials
8. Favorable scenario for water separation on vermiculite for possible analysis by another method
9. < 1% Result point counted positive
10. TEM analysis suggested

CA Labs
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Polarized Light Asbestiform Materials Characterization

Customer Info: **Attn:** Robert Pooler
Arkansas State Highway & Transportation Dept.
10324 I-30, Room 705
Little Rock, AR 72209

Phone # 501-569-2317
Fax # 501-569-2018

Customer Project:
Tract 3X 14725 Hwy 62 East
Turnaround Time:
3 Days

CA Labs Project #:
CAL1301674CP

Date: 02/04/13
Samples Received: 1/30/13 3:30PM
Date Of Sampling: 01/22/13
Purchase Order #: 090065

Sample #	Comment	Layer #	Analysts Physical Description of Subsample	Homogeneous (Y/N)	Asbestos type / calibrated visual estimate percent	Non-asbestos fiber type / percent	Non-fibrous type / percent
		3-2	*white compound (beneath tape)*	*y*	***None Detected***		100% mi,ca
		3-3	*white drywall with brown paper*	*n*	***None Detected***	18% ce 1% fg	81% qu,gy
090065Tr3 X 4		*4-1*	***Area (B) Wall/*** *white surfaced white compound*	*n*	***None Detected***		100% mi,bi,ca
		4-2	*white compound (beneath tape)*	*y*	***None Detected***		100% mi,ca
		4-3	*white drywall with brown paper*	*n*	***None Detected***	18% ce 2% fg	80% qu,gy
090065Tr3 X 5		*5-1*	*green self-adhesive floor tile*	*y*	***None Detected***		100% qu,gy,ma
		5-2	*tan mastic*	*y*	***None Detected***		100% gy,bi

Dallas NVLAP Lab Code 200349-0 TEM/PLM *EPA H20 TX 01402* *TDH 30-0235*

AIHA LAP, LLC Laboratory #102929

Analysis Method: Interim (40CFR Part 763 Appendix E to Subpart E) / Improved (EPA-600 / R-93/116)
Preparation Method: HCL acid washing for carbonate based samples, chemical reduction for organically bound components, oil immersion for identification of asbestos types by dispersion attaining / becke line method.

ca - carbonate	mi - mica	fg - fiberglass	ce - cellulose
gypsum - gypsum	ve - vermiculite	mw - mineral wool	br - brucite
bi - binder	ot -other	wo - wollastinite	ka - kaolin (clay)
or - organic	pe - perlite	ta - talc	pa - palygorskite (clay)
ma - matrix	qu - quartz	sy - synthetic	

Approved Signatories:

Julio Robles
Analyst

QAC
Leslie Crisp, P.G.

Technical Manager
Chad Lytle

1. Fire Damage significant fiber damage - reported percentages reflect unaltered fibers
2. Fire Damage no significant fiber damages effecting fibrous percentages
3. Actinolite in association with Vermiculite
4. Layer not analyzed - attached to previous positive layer and contamination is suspected
5. Not enough sample to analyze
6. Anthophyllite in association with Fibrous Talc
7. Contamination suspected from other building materials
8. Favorable scenario for water separation on vermiculite for possible analysis by another method
9. < 1% Result point counted positive
10. TEM analysis suggested

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Polarized Light Asbestiform Materials Characterization

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Little Rock, AR 72209

Phone # 501-569-2317
Fax # 501-569-2018

Customer Project:
Tract 3X 14725 Hwy 62 East
Turnaround Time:
3 Days

CA Labs Project #:
CAL1301674CP

Date: 02/04/13
Samples Received: 1/30/13 3:30PM
Date Of Sampling: 01/22/13
Purchase Order #: 090065

Sample #	Comment	Layer #	Analysts Physical Description of Subsample	Homogeneous (Y/N)	Asbestos type / calibrated visual estimate percent	Non-asbestos fiber type / percent	Non-fibrous type / percent
090065Tr3 X 6		*6-1*	*green self-adhesive floor tile*	*y*	***None Detected***		100% qu,gy,ma
		6-2	*tan mastic*	*y*	***None Detected***		100% gy,bi

Dallas NVLAP Lab Code 200349-0 TEM/PLM *EPA H20 TX 01402* *TDH 30-0235*

AIHA LAP, LLC Laboratory #102929

Analysis Method: Interim (40CFR Part 763 Appendix E to Subpart E) / Improved (EPA-600 / R-93/116)
Preparation Method: HCL acid washing for carbonate based samples, chemical reduction for organically bound components, oil immersion for identification of asbestos types by dispersion attaining / becke line method.

ca - carbonate	mi - mica	fg - fiberglass	ce - cellulose
gypsum - gypsum	ve - vermiculite	mw - mineral wool	br - brucite
bi - binder	ot -other	wo - wollastinite	ka - kaolin (clay)
or - organic	pe - perlite	ta - talc	pa - palygorskite (clay)
ma - matrix	qu - quartz	sy - synthetic	

Approved Signatories:

Julio Robles
Analyst

QAC
Leslie Crisp, P.G.

Technical Manager
Chad Lytle

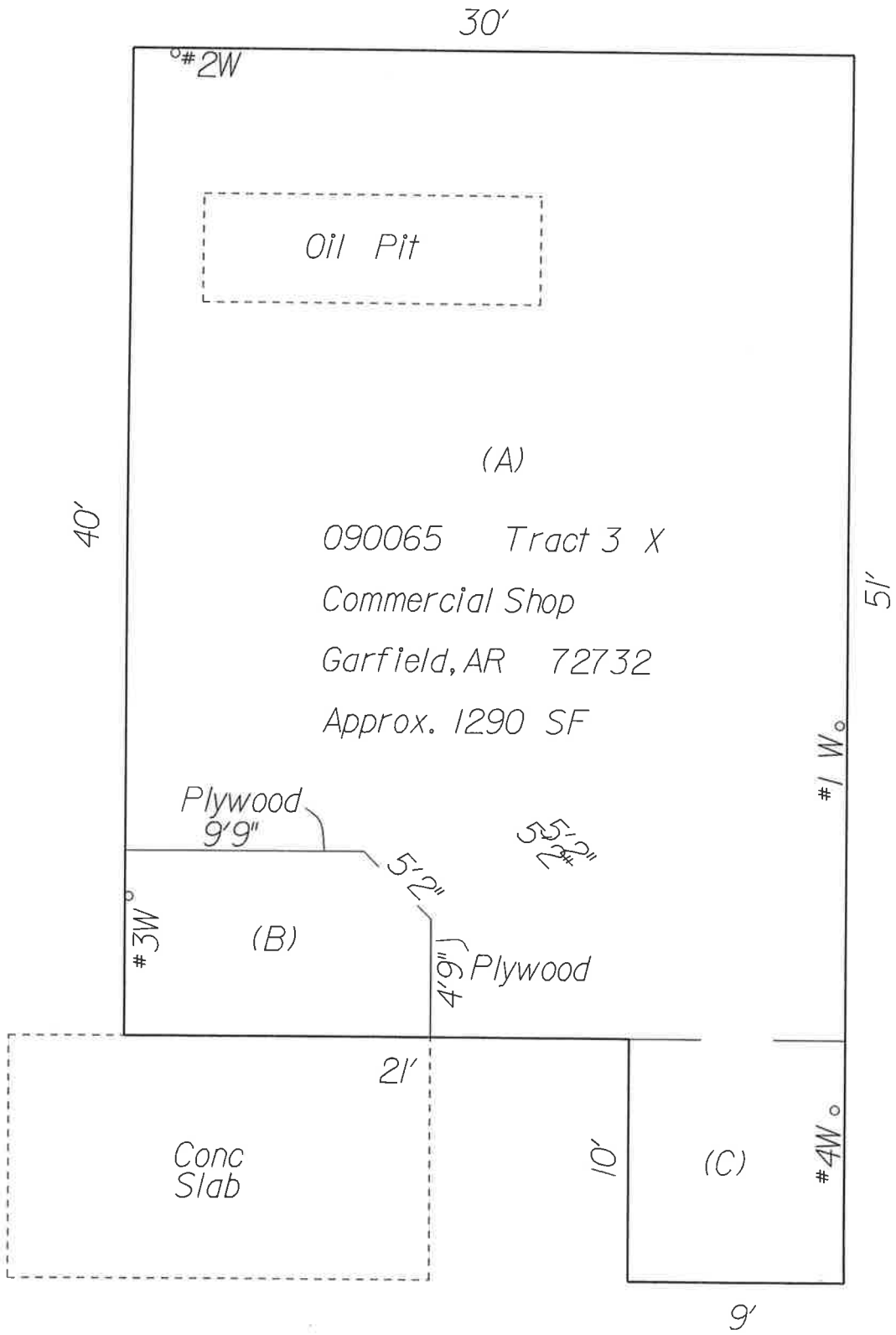
1. Fire Damage significant fiber damage - reported percentages reflect unaltered fibers
2. Fire Damage no significant fiber damages effecting fibrous percentages
3. Actinolite in association with Vermiculite
4. Layer not analyzed - attached to previous positive layer and contamination is suspected
5. Not enough sample to analyze
6. Anthophyllite in association with Fibrous Talc
7. Contamination suspected from other building materials
8. Favorable scenario for water separation on vermiculite for possible analysis by another method
9. < 1% Result point counted positive
10. TEM analysis suggested

INSPECTION FLOOR PLAN

JOB:	090065	PROPERTY LOCATION	INSPECTED BY
TRACT:	3 X	1-S-Metal Garage	Joel Clark (011518)
DATE:	1/22/2013	14725 Hwy. 62 East	
		Garfield, AR 72732	

Sample Number	Description/ Locaton	Sample Number	Description/ Location
#1	A) Wall	#11	
#2	A) Wall	#12	
#3	B) Wall	#13	
#4	B) Wall	#14	
#5		#15	
#6		#16	
#7		#17	
#8		#18	
#9		#19	
#10		#20	

Homogenous Areas:	
Roofing	Metal
Siding	Metal
Ceilings	Open Joist, 2X4 Tiles
Walls	Sheet Rock; Open Studs; Plywood Siding
Floors	Concrete Slab



SIR

51R

SIR

CA Labs

Crisp Analytical Laboratories, L.L.C
1929 Old Denton Rd.
Carrollton, TX 75006

Phone: 972-272-2754
Fax: 972-272-2798
Mobile: 214-564-8366

Chain of Custody

Client Name:	AHTD	**CA Labs job**	**CAL# 1301681**
Client Address:	P.O. Box 2261	Billing Address:	
	Room #705	(if different)	
	Little Rock, AR 72203-2261		
phone number:	501-569-2317 or 2318	P.O. # :	090065
fax number:		Project Name:	Tract 51R 14801 Hwy. 62 East
Send Reports to:	Joeld.Clark@arkansashighways.com	Project Number:	090065 Garfield, AR 72732

Total # Samples Submitted: 6	Total # Samples to be Analyzed: 6	Material Matrix: Air / **Bulk** / Water

Asbestos: *please call ahead for availability of all rush and/or after hours samples.*

TEM	TA Time	PLM	TA Time	Optical / IAQ	TA Time
Circle analysis and TA time		*Circle analysis and TA time*	*2 hour*	PCM: NIOSH 7400	Note TAT
AHERA	*4 hour*	Improved	4 hour	**Allergen Particle:**	24 hour
EPA Level II	8 hour	Interim	8 hour	tape/bulk/swab	2 days
Drinking Water	16 hour		16 hour	Cyclex-d cassettes	3 days
Wipe	24 hour	**AHERA**	24 hour	Air-o-cell cassettes	5-10 days
Micro-vac	2 days		2 days	Anderson cultures	Specify
NIOSH 7402	3 days	Point Count -	**3 days**	Bulk/swab cultures	Mold or
Chatfield Bulk	5 days	(NESHAPS)	5 days	Bacteria cultures	bacteria

Please indicate appropriate turn around time. (minimum turnaround - 3 Days for Lead TCLP and water)

Lead: *Circle analysis and TA time*

Sample Information:

Sample #:	Sample Location:	Sample Date/Time:	Sample Volume (L)
090065Tr51X #1	Area (B) Ceiling	1/25/2013	
090065Tr51X #2	Area (I) Ceiling	1/25/2013	
090065Tr51X #3	Area (H) Ceiling	1/25/2013	
090065Tr51X #4	Area (D) Wall	1/25/2013	
090065Tr51X #5	Area (F) Wall	1/25/2013	
090065Tr51X #6	Area (M) Wall	1/25/2013	

Custody Information:

Samples relinquished: Joel Clark 1 24 13
Signature / Date / Time

Samples received: Matthew Romer
Signature / Date / Time

1/30/13
3:30 PM

CA Labs
Dedicated to Quality

Crisp Analytical, L.L.C.
1929 Old Denton Road
Carrollton, TX 75006
Phone 972-242-2754
Fax 972-242-2798

CA Labs, L.L.C.
12232 Industriplex, Suite 32
Baton Rouge, LA 70809
Phone 225-751-5632
Fax 225-751-5634

Materials Characterization - Bulk Asbestos Analysis

Laboratory Analysis Report - Polarized Light

Arkansas State Highway & Transportation Dept.
10324 I-30, Room 705
Little Rock, AR 72209

Attn: Robert Pooler
Customer Project: Tract 51R 14801 Hwy 62 East
Reference #: CAL1301681CP Date: 02/04/13

Analysis and Method

Summary of polarizing light microscopy (PLM / Stereomicroscopy bulk asbestos analysis) using the methods described in 40CFR Part 763 Appendix E to Subpart E (Interim and EPA 600 / R-93 / 116 (Improved). The sample is first viewed with the aid of stereomicroscopy. Numerous liquid slide preparations are created for analysis under the polarized microscope where identifications and quantifications are preformed. Calibrated liquid refractive oils are used as liquid mouting medium. These oils are used for identification (dispersion staining). A calibrated visual estimation is reported, should any asbestiform mineral be present. Other techniques such as acid washing are used in conjugation with refractive oils for detection of smaller quantities of asbestos. All asbestos percentages are based on calibrated visual estimation traceable to NIST standards for regulated of asbestos. Traceability to measurement and calibration is achieved by using known amounts and types of asbestos from standards where analyst and laboratory accuracy are measured. As little as 0.001% asbestos can be detected in favorable samples, while detection in unfavorable samples may approach the detection limit of 0.50% (well above the laboratory definition of trace).

Discussion

Vermiculite containing samples may have trace amounts of actinolite-tremolite, where not found be PLM should be analyzed using TEM methods and / or water separation techniques. Suspected actinolite/vermiculite presence will be indicated through the sample comment section of this report.

Fibrous talc containing samples may even contain a related asbestos fiber known as anthophyllite. Under certain conditions the same fiber may actually contain both talc and anthophyllite (a phenomenon called intergrowth). Again, TEM detection methods are recommended. CA Labs PLM report comments will denote suspected amounts of asbestiform anthophyllite with talc, where further analysis is recommended.

Some samples (floor tiles, surfacings, etc.) may contain fibers too small to be delectable by PLM analysis and should be analyzed by TEM bulk protocols.

A "trace asbestos" will be reported if the analyst observes far less than 1% asbestos. CA Labs defines "trace asbestos" as a few fibers detected by the analyst in several preparations and will indicate as such under these circumstances.

Quantification of <1% will actually be reported as <=1% (allowable variance close to 1% is high). Such results are ideal for point counting, and the technique is mandatory for friable samples (NESHAP, Nov. 1990 and clarification letter 8 May 1991) under 1% percent asbestos and the "trace asbestos". **In order to make all initial PLM reports issued from CA Labs NESHAP compliant, all <1% asbestos results (except floor tiles) will be point counted at no additional charge.**

Qualifications

CA Labs is accredited by the National Voluntary Accreditation Program (NVLAP) for selected test methods for airborne fiber analysis (TEM), and for bulk asbestos fiber analysis (PLM). CA Labs is also accredited by AIHA LAP, LLC. in the PLM asbestos field of testing for Industrial Hygiene. All analysts have a college degree in a natural science (geology, biology, or environmental science) or are recognized by a state professional board in one these disciplines .Extensive in-house training programs are used to augment education background of the analyst. The group leader of polarized light has received supplemental McCrone Research training for asbestos identification. Analysis performed at Crisp Analytical Labs, LLC 1929 Old Denton Road Carrollton, TX 75006

Dallas NVLAP Lab Code 200349-0 TEM/PLM EPA H20 TX 01402 TDH 30-0235
AIHA LAP, LLC Laboratory #102929

CA Labs
Dedicated to Quality

Crisp Analytical, L.L.C.
1929 Old Denton Road
Carrollton, TX 75006
Phone 972-242-2754
Fax 972-242-2798

CA Labs, L.L.C.
12232 Industriplex, Suite 32
Baton Rouge, LA 70809
Phone 225-751-5632
Fax 225-751-5634

Overview of Project Sample Material Containing Asbestos

Customer Project: Tract 51R 14801 Hwy 62 East **CA Labs Project #:** CAL1301681CP

Sample #	Layer #	Analysts Physical Description of Subsample	Asbestos type / calibrated visual estimate percent	List of Affected Building Material Types

No Asbestos Detected.

Dallas NVLAP Lab Code 200349-0 TEM/PLM EPA H20 TX 01402 TDH 30-0235
AIHA LAP, LLC Laboratory #102929

Glossary of abbreviations (non-asbestos fibers and non-fibrous minerals):

ca - carbonate
gypsum - gypsum
bi - binder
or - organic
ma - matrix
mi - mica
ve - vermiculite
ot - other
pe - perlite
qu - quartz
fg - fiberglass
mw - mineral wool
wo - wollastinite
ta - talc
sy - synthetic
ce - cellulose
br - brucite
ka - kaolin (clay)
pa - palygorskite (clay)

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Polarized Light Asbestiform Materials Characterization

Customer Info: **Attn:** Robert Pooler
Arkansas State Highway & Transportation Dept.
10324 I-30, Room 705
Little Rock, AR 72209

Phone # 501-569-2317
Fax # 501-569-2018

Customer Project:
Tract 51R 14801 Hwy 62 East
Turnaround Time:
3 Days

CA Labs Project #:
CAL1301681CP

Date: 02/04/13
Samples Received: 1/30/13 3:30PM
Date Of Sampling: 01/25/13
Purchase Order #: 090065

Sample #	Comment	Layer #	Analysts Physical Description of Subsample	Homogeneous (Y/N)	Asbestos type / calibrated visual estimate percent	Non-asbestos fiber type / percent	Non-fibrous type / percent
090065Tr51 X 1			***Area (B) Ceiling/*** *tan surfaced*				
		1-1	*white compound*	*n*	***None Detected***		100% mi,bi,ca
		1-2	*white compound (beneath tape)*	*y*	***None Detected***		100% mi,ca
		1-3	*white drywall with brown paper*	*n*	***None Detected***	18% ce 2% fg	80% qu,gy
090065Tr51 X 2			***Area (I) Ceiling/*** *tan surfaced*				
		2-1	*white compound*	*n*	***None Detected***		100% mi,bi,ca
		2-2	*white compound (beneath tape)*	*y*	***None Detected***		100% mi,ca
		2-3	*white drywall with brown paper*	*n*	***None Detected***	19% ce 1% fg	80% qu,gy
090065Tr51 X 3			***Area (H) Ceiling/*** *tan surfaced*				
		3-1	*white compound*	*n*	***None Detected***		100% mi,bi,ca

Dallas NVLAP Lab Code 200349-0 TEM/PLM *EPA H20 TX 01402* *TDH 30-0235*

AIHA LAP, LLC Laboratory #102929

Analysis Method: Interim (40CFR Part 763 Appendix E to Subpart E) / Improved (EPA-600 / R-93/116)
Preparation Method: HCL acid washing for carbonate based samples, chemical reduction for organically bound components, oil immersion for identification of asbestos types by dispersion attaining / becke line method.

ca - carbonate	mi - mica	fg - fiberglass	ce - cellulose
gypsum - gypsum	ve - vermiculite	mw - mineral wool	br - brucite
bi - binder	ot -other	wo - wollastinite	ka - kaolin (clay)
or - organic	pe - perlite	ta - talc	pa - palygorskite (clay)
ma - matrix	qu - quartz	sy - synthetic	

Approved Signatories:

Julio Robles
Analyst

QAC
Leslie Crisp, P.G.

Technical Manager
Chad Lytle

1. Fire Damage significant fiber damage - reported percentages reflect unaltered fibers
2. Fire Damage no significant fiber damages effecting fibrous percentages
3. Actinolite in association with Vermiculite
4. Layer not analyzed - attached to previous positive layer and contamination is suspected
5. Not enough sample to analyze
6. Anthophyllite in association with Fibrous Talc
7. Contamination suspected from other building materials
8. Favorable scenario for water separation on vermiculite for possible analysis by another method
9. < 1% Result point counted positive
10. TEM analysis suggested

CA Labs
Dedicated to Quality

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CA Labs, L.L.C.
12232 Industriplex, Suite 32
Baton Rouge, LA 70809
Phone 225-751-5632
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Polarized Light Asbestiform Materials Characterization

Customer Info: **Attn:** Robert Pooler
Arkansas State Highway & Transportation Dept.
10324 I-30, Room 705
Little Rock, AR 72209

Phone # 501-569-2317
Fax # 501-569-2018

Customer Project:
Tract 51R 14801 Hwy 62 East
Turnaround Time:
3 Days

CA Labs Project #:
CAL1301681CP

Date: 02/04/13
Samples Received: 1/30/13 3:30PM
Date Of Sampling: 01/25/13
Purchase Order #: 090065

Sample #	Comment	Layer #	Analysts Physical Description of Subsample	Homogeneous (Y/N)	Asbestos type / calibrated visual estimate percent	Non-asbestos fiber type / percent	Non-fibrous type / percent
		3-2	*white compound (beneath tape)*	*y*	***None Detected***		100% mi,ca
		3-3	*white drywall with brown paper*	*n*	***None Detected***	18% ce 1% fg	81% qu,gy
090065Tr51 X 4			***Area (D) Wall/ tan surfaced***				
		4-1	*white compound*	*n*	***None Detected***		100% mi,bi,ca
		4-2	*white compound (beneath tape)*	*y*	***None Detected***		100% mi,ca
		4-3	*white drywall with brown paper*	*n*	***None Detected***	18% ce 1% fg	81% qu,gy
090065Tr51 X 5			***Area (F) Wall/ gray surfaced***				
		5-1	*white compound*	*n*	***None Detected***		100% mi,bi,ca
		5-2	*white compound (beneath tape)*	*y*	***None Detected***		100% mi,ca

Dallas NVLAP Lab Code 200349-0 TEM/PLM *EPA H20 TX 01402* *TDH 30-0235*

AIHA LAP, LLC Laboratory #102929

Analysis Method: Interim (40CFR Part 763 Appendix E to Subpart E) / Improved (EPA-600 / R-93/116)
Preparation Method: HCL acid washing for carbonate based samples, chemical reduction for organically bound components, oil immersion for identification of asbestos types by dispersion attaining / becke line method.

ca - carbonate	mi - mica	fg - fiberglass	ce - cellulose
gypsum - gypsum	ve - vermiculite	mw - mineral wool	br - brucite
bi - binder	ot -other	wo - wollastinite	ka - kaolin (clay)
or - organic	pe - perlite	ta - talc	pa - palygorskite (clay)
ma - matrix	qu - quartz	sy - synthetic	

Approved Signatories:

Julio Robles
Analyst

QAC
Leslie Crisp, P.G.

Technical Manager
Chad Lytle

1. Fire Damage significant fiber damage - reported percentages reflect unaltered fibers
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3. Actinolite in association with Vermiculite
4. Layer not analyzed - attached to previous positive layer and contamination is suspected
5. Not enough sample to analyze
6. Anthophyllite in association with Fibrous Talc
7. Contamination suspected from other building materials
8. Favorable scenario for water separation on vermiculite for possible analysis by another method
9. < 1% Result point counted positive
10. TEM analysis suggested

CA Labs
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Baton Rouge, LA 70809
Phone 225-751-5632
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Polarized Light Asbestiform Materials Characterization

Customer Info: **Attn:** Robert Pooler
Arkansas State Highway & Transportation Dept.
10324 I-30, Room 705
Little Rock, AR 72209

Phone # 501-569-2317
Fax # 501-569-2018

Customer Project:
Tract 51R 14801 Hwy 62 East
Turnaround Time:
3 Days

CA Labs Project #:
CAL1301681CP

Date: 02/04/13
Samples Received: 1/30/13 3:30PM
Date Of Sampling: 01/25/13
Purchase Order #: 090065

Sample #	Comment	Layer #	Analysts Physical Description of Subsample	Homogeneous (Y/N)	Asbestos type / calibrated visual estimate percent	Non-asbestos fiber type / percent	Non-fibrous type / percent
		5-3	*white drywall with brown paper*	*n*	***None Detected***	19% ce 2% fg	79% qu,gy
090065Tr51 X 6		*6-1*	***Area (M) Wall/*** *gray surfaced white compound*	*n*	***None Detected***		100% mi,bi,ca
		6-2	*white compound (beneath tape)*	*y*	***None Detected***		100% mi,ca
		6-3	*white drywall with brown paper*	*n*	***None Detected***	19% ce 1% fg	80% qu,gy

Dallas NVLAP Lab Code 200349-0 TEM/PLM *EPA H20 TX 01402* *TDH 30-0235*

AIHA LAP, LLC Laboratory #102929

Analysis Method: Interim (40CFR Part 763 Appendix E to Subpart E) / Improved (EPA-600 / R-93/116)
Preparation Method: HCL acid washing for carbonate based samples, chemical reduction for organically bound components, oil immersion for identification of asbestos types by dispersion attaining / becke line method.

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ma - matrix	qu - quartz	sy - synthetic	

Approved Signatories:

Julio Robles
Analyst

QAC
Leslie Crisp, P.G.

Technical Manager
Chad Lytle

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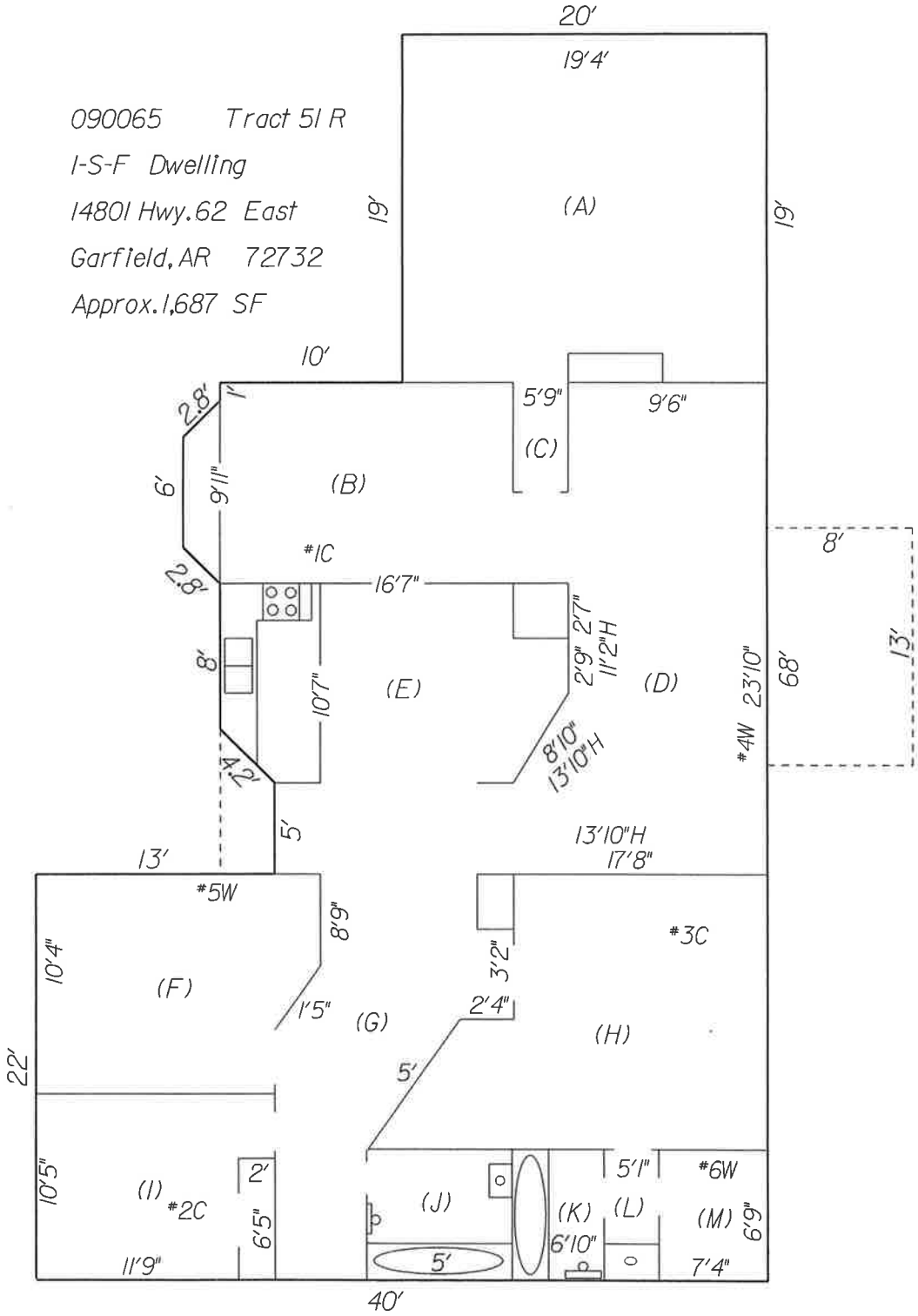
7. Contamination suspected from other building materials
8. Favorable scenario for water separation on vermiculite for possible analysis by another method
9. < 1% Result point counted positive
10. TEM analysis suggested

JOB:	090065	PROPERTY LOCATION	INSPECTED BY
TRACT:	51 R	1-S-F Dwelling	Joel Clark (011518)
DATE:	1/24/13	14801 Hwy. 62 East	
		Garfield, AR 72732	

Sample Number	Description/ Locaton	Sample Number	Description/ Location
#1	B) Ceilling	#11	
#2	I) Ceiling	#12	
#3	H) Ceiling	#13	
#4	D) Wall	#14	
#5	F) Wall	#15	
#6	M) Wall	#16	
#7		#17	
#8		#18	
#9		#19	
#10		#20	

Homogenous Areas:	
Roofing	Compoisition Shingle
Siding	Wood
Ceilings	Sheet Rock (All)
Walls	Sheet Rock (All)
Floors	BEJK) Ceramic Tile
	DFGHLM) Carpet/Concrete Slab



4xED

4XED

CA Labs

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1929 Old Denton Rd.
Carrollton, TX 75006

Phone: 972-272-2754
Fax: 972-272-2798
Mobile: 214-564-8366

Chain of Custody

Client Name:	AHTD	**CA Labs job**	**CAL#** 1301675
Client Address:	P.O. Box 2261	Billing Address:	
	Room #705	(if different)	
	Little Rock, AR 72203-2261		
phone number:	501-569-2317 or 2318	P.O. # :	090065
fax number:		Project Name:	Tract 4X 14929 Hwy. 62 East
Send Reports to:	Joeld.Clark@arkansashighways.com	Project Number:	090065 Garfield, AR 72732

Total # Samples Submitted: 6	**Total # Samples to be Analyzed: 6**	**Material Matrix:** Air / **Bulk** / Water

Asbestos: *please call ahead for availability of all rush and/or after hours samples.*

TEM	TA Time	**PLM**	TA Time	**Optical / IAQ**	TA Time
Circle analysis and TA time		*Circle analysis and TA time*	*2 hour*	**PCM**: NIOSH 7400	Note TAT
AHERA	*4 hour*	Improved	4 hour	**Allergen Particle**:	24 hour
EPA Level II	8 hour	Interim	8 hour	tape/bulk/swab	2 days
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Micro-vac	2 days		2 days	Anderson cultures	Specify
NIOSH 7402	3 days	Point Count -	**3 days**	Bulk/swab cultures	Mold or
Chatfield Bulk	5 days	(NESHAPS)	5 days	Bacteria cultures	bacteria

Please indicate appropriate turn around time. (minimum turnaround - 3 Days for Lead TCLP and water)

Lead: *Circle analysis and TA time*

Sample Information:

Sample #:	Sample Location:	Sample Date/Time:	Sample Volume (L)
090065Tr4X #1	Area (A) Ceiling	1/23/2013	
090065Tr4X #2	Area (A) Ceiling	1/23/2013	
090065Tr4X #3	Area (A) Wall	1/23/2013	
090065Tr4X #4	Area (A) Wall	1/23/2013	
090065Tr4X #5	Area (B) Floor	1/23/2013	
090065Tr4X #6	Area(B) Floor	1/23/2013	

Custody Information:

Samples relinquished: Joe Clark 1-29-13 — Signature / Date / Time

Samples received: Matthew Romer 1/30/13 3:30PM — Signature / Date / Time

CA Labs
Dedicated to Quality

Crisp Analytical, L.L.C.
1929 Old Denton Road
Carrollton, TX 75006
Phone 972-242-2754
Fax 972-242-2798

CA Labs, L.L.C.
12232 Industriplex, Suite 32
Baton Rouge, LA 70809
Phone 225-751-5632
Fax 225-751-5634

Materials Characterization - Bulk Asbestos Analysis

Laboratory Analysis Report - Polarized Light

Arkansas State Highway & Transportation Dept.
10324 I-30, Room 705
Little Rock, AR 72209

Attn: Robert Pooler
Customer Project: Tract 4X 14929 Hwy 62 East
Reference #: CAL1301675CP Date: 02/04/13

Analysis and Method

Summary of polarizing light microscopy (PLM / Stereomicroscopy bulk asbestos analysis) using the methods described in 40CFR Part 763 Appendix E to Subpart E (Interim and EPA 600 / R-93 / 116 (Improved). The sample is first viewed with the aid of stereomicroscopy. Numerous liquid slide preparations are created for analysis under the polarized microscope where identifications and quantifications are preformed. Calibrated liquid refractive oils are used as liquid mouting medium. These oils are used for identification (dispersion staining). A calibrated visual estimation is reported, should any asbestiform mineral be present. Other techniques such as acid washing are used in conjugation with refractive oils for detection of smaller quantities of asbestos. All asbestos percentages are based on calibrated visual estimation traceable to NIST standards for regulated of asbestos. Traceability to measurement and calibration is achieved by using known amounts and types of asbestos from standards where analyst and laboratory accuracy are measured. As little as 0.001% asbestos can be detected in favorable samples, while detection in unfavorable samples may approach the detection limit of 0.50% (well above the laboratory definition of trace).

Discussion

Vermiculite containing samples may have trace amounts of actinolite-tremolite, where not found be PLM should be analyzed using TEM methods and / or water separation techniques. Suspected actinolite/vermiculite presence will be indicated through the sample comment section of this report.

Fibrous talc containing samples may even contain a related asbestos fiber known as anthophyllite. Under certain conditions the same fiber may actually contain both talc and anthophyllite (a phenomenon called intergrowth). Again, TEM detection methods are recommended. CA Labs PLM report comments will denote suspected amounts of asbestiform anthophyllite with talc, where further analysis is recommended.

Some samples (floor tiles, surfacings, etc.) may contain fibers too small to be delectable by PLM analysis and should be analyzed by TEM bulk protocols.

A "trace asbestos" will be reported if the analyst observes far less than 1% asbestos. CA Labs defines "trace asbestos" as a few fibers detected by the analyst in several preparations and will indicate as such under these circumstances.

Quantification of <1% will actually be reported as <=1% (allowable variance close to 1% is high). Such results are ideal for point counting, and the technique is mandatory for friable samples (NESHAP, Nov. 1990 and clarification letter 8 May 1991) under 1% percent asbestos and the "trace asbestos". **In order to make all initial PLM reports issued from CA Labs NESHAP compliant, all <1% asbestos results (except floor tiles) will be point counted at no additional charge.**

Qualifications

CA Labs is accredited by the National Voluntary Accreditation Program (NVLAP) for selected test methods for airborne fiber analysis (TEM), and for bulk asbestos fiber analysis (PLM). CA Labs is also accredited by AIHA LAP, LLC. in the PLM asbestos field of testing for Industrial Hygiene. All analysts have a college degree in a natural science (geology, biology, or environmental science) or are recognized by a state professional board in one these disciplines .Extensive in-house training programs are used to augment education background of the analyst. The group leader of polarized light has received supplemental McCrone Research training for asbestos identification. Analysis performed at Crisp Analytical Labs, LLC 1929 Old Denton Road Carrollton, TX 75006

Dallas NVLAP Lab Code 200349-0 TEM/PLM EPA H20 TX 01402 TDH 30-0235
AIHA LAP, LLC Laboratory #102929

CA Labs
Dedicated to Quality

Crisp Analytical, L.L.C.
1929 Old Denton Road
Carrollton, TX 75006
Phone 972-242-2754
Fax 972-242-2798

CA Labs, L.L.C.
12232 Industriplex, Suite 32
Baton Rouge, LA 70809
Phone 225-751-5632
Fax 225-751-5634

Overview of Project Sample Material Containing Asbestos

Customer Project: Tract 4X 14929 Hwy 62 East **CA Labs Project #:** CAL1301675CP

Sample #	Layer #	Analysts Physical Description of Subsample	Asbestos type / calibrated visual estimate percent	List of Affected Building Material Types
090065Tr4 X 5	5-1	***Area (B) Floor**/ tan thin floor tile*	***2% Chrysotile***	***tan thin floor tile***
090065Tr4 X 6	6-1	***Area (B) Floor**/ tan thin floor tile*	***2% Chrysotile***	

Dallas NVLAP Lab Code 200349-0 TEM/PLM EPA H20 TX 01402 TDH 30-0235
AIHA LAP, LLC Laboratory #102929

Glossary of abbreviations (non-asbestos fibers and non-fibrous minerals):

ca - carbonate
gypsum - gypsum
bi - binder
or - organic
ma - matrix
mi - mica
ve - vermiculite
ot - other
pe - perlite
qu - quartz
fg - fiberglass
mw - mineral wool
wo - wollastinite
ta - talc
sy - synthetic
ce - cellulose
br - brucite
ka - kaolin (clay)
pa - palygorskite (clay)

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Baton Rouge, LA 70809
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Polarized Light Asbestiform Materials Characterization

Customer Info: **Attn:** Robert Pooler
Arkansas State Highway & Transportation Dept.
10324 I-30, Room 705
Little Rock, AR 72209

Phone # 501-569-2317
Fax # 501-569-2018

Customer Project:
Tract 4X 14929 Hwy 62 East
Turnaround Time:
3 Days

CA Labs Project #:
CAL1301675CP

Date: 02/04/13
Samples Received: 1/30/13 3:30PM
Date Of Sampling: 01/23/13
Purchase Order #: 090065

Sample #	Comment	Layer #	Analysts Physical Description of Subsample	Homogeneous (Y/N)	Asbestos type / calibrated visual estimate percent	Non-asbestos fiber type / percent	Non-fibrous type / percent
090065Tr4 X 1		1-1	***Area (A) Ceiling**/ white surfaced white compound*	n	***None Detected***		100% mi,bi,ca
		1-2	*white drywall with brown paper*	n	***None Detected***	19% ce 1% fg	80% qu,gy
090065Tr4 X 2		2-1	***Area (A) Ceiling**/ white surfaced white compound*	n	***None Detected***		100% mi,bi,ca
		2-2	*white compound (beneath tape)*	y	***None Detected***		100% mi,ca
		2-3	*white drywall with brown paper*	n	***None Detected***	18% ce 1% fg	81% qu,gy
090065Tr4 X 3		3-1	***Area (A) Wall**/ white surfaced white compound*	n	***None Detected***		100% mi,bi,ca
		3-2	*white compound (beneath tape)*	y	***None Detected***		100% mi,ca

Dallas NVLAP Lab Code 200349-0 TEM/PLM *EPA H20 TX 01402* *TDH 30-0235*

AIHA LAP, LLC Laboratory #102929

Analysis Method: Interim (40CFR Part 763 Appendix E to Subpart E) / Improved (EPA-600 / R-93/116)
Preparation Method: HCL acid washing for carbonate based samples, chemical reduction for organically bound components, oil immersion for identification of asbestos types by dispersion attaining / becke line method.

ca - carbonate	mi - mica	fg - fiberglass	ce - cellulose
gypsum - gypsum	ve - vermiculite	mw - mineral wool	br - brucite
bi - binder	ot -other	wo - wollastinite	ka - kaolin (clay)
or - organic	pe - perlite	ta - talc	pa - palygorskite (clay)
ma - matrix	qu - quartz	sy - synthetic	

Approved Signatories:

C. T. Ras

Tanner Rasmussen
Analyst

QAC
Leslie Crisp, P.G.

Technical Manager
Chad Lytle

1. Fire Damage significant fiber damage - reported percentages reflect unaltered fibers
2. Fire Damage no significant fiber damages effecting fibrous percentages
3. Actinolite in association with Vermiculite
4. Layer not analyzed - attached to previous positive layer and contamination is suspected
5. Not enough sample to analyze
6. Anthophyllite in association with Fibrous Talc
7. Contamination suspected from other building materials
8. Favorable scenario for water separation on vermiculite for possible analysis by another method
9. < 1% Result point counted positive
10. TEM analysis suggested

CA Labs
Dedicated to Quality

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Carrollton, TX 75006
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Fax 972-242-2798

CA Labs, L.L.C.
12232 Industriplex, Suite 32
Baton Rouge, LA 70809
Phone 225-751-5632
Fax 225-751-5634

Polarized Light Asbestiform Materials Characterization

Customer Info: **Attn:** Robert Pooler
Arkansas State Highway & Transportation Dept.
10324 I-30, Room 705
Little Rock, AR 72209

Phone # 501-569-2317
Fax # 501-569-2018

Customer Project:
Tract 4X 14929 Hwy 62 East
Turnaround Time:
3 Days

CA Labs Project #:
CAL1301675CP

Date: 02/04/13
Samples Received: 1/30/13 3:30PM
Date Of Sampling: 01/23/13
Purchase Order #: 090065

Sample #	Comment	Layer #	Analysts Physical Description of Subsample	Homogeneous (Y/N)	Asbestos type / calibrated visual estimate percent	Non-asbestos fiber type / percent	Non-fibrous type / percent
		3-3	*white drywall with brown paper*	*n*	***None Detected***	19% ce 1% fg	80% qu,gy
090065Tr4 X 4		*4-1*	***Area (A) Wall**/ gray surfaced white compound*	*n*	***None Detected***		100% mi,bi,ca
		4-2	*white drywall with brown paper*	*n*	***None Detected***	18% ce 1% fg	81% qu,gy
090065Tr4 X 5		*5-1*	***Area (B) Floor**/ tan thin floor tile*	*y*	***2% Chrysotile***		98% qu,ca
		5-2	*brown mastic*	*y*	***None Detected***		100% gy,bi
090065Tr4 X 6		*6-1*	***Area (B) Floor**/ tan thin floor tile*	*y*	***2% Chrysotile***		98% qu,ca
		6-2	*brown mastic*	*y*	***None Detected***		100% gy,bi

Dallas NVLAP Lab Code 200349-0 TEM/PLM *EPA H20 TX 01402* *TDH 30-0235*

AIHA LAP, LLC Laboratory #102929

Analysis Method: Interim (40CFR Part 763 Appendix E to Subpart E) / Improved (EPA-600 / R-93/116)
Preparation Melhod: HCL acid washing for carbonate based samples, chemical reduction for organically bound components, oil immersion for identification of asbestos types by dispersion attaining / becke line method.

ca - carbonate	mi - mica	fg - fiberglass	ce - cellulose
gypsum - gypsum	ve - vermiculite	mw - mineral wool	br - brucite
bi - binder	ot -other	wo - wollastinite	ka - kaolin (clay)
or - organic	pe - perlite	ta - talc	pa - palygorskite (clay)
ma - matrix	qu - quartz	sy - synthetic	

Approved Signatories:

C. T. Ras

Tanner Rasmussen
Analyst

QAC
Leslie Crisp, P.G.

Technical Manager
Chad Lytle

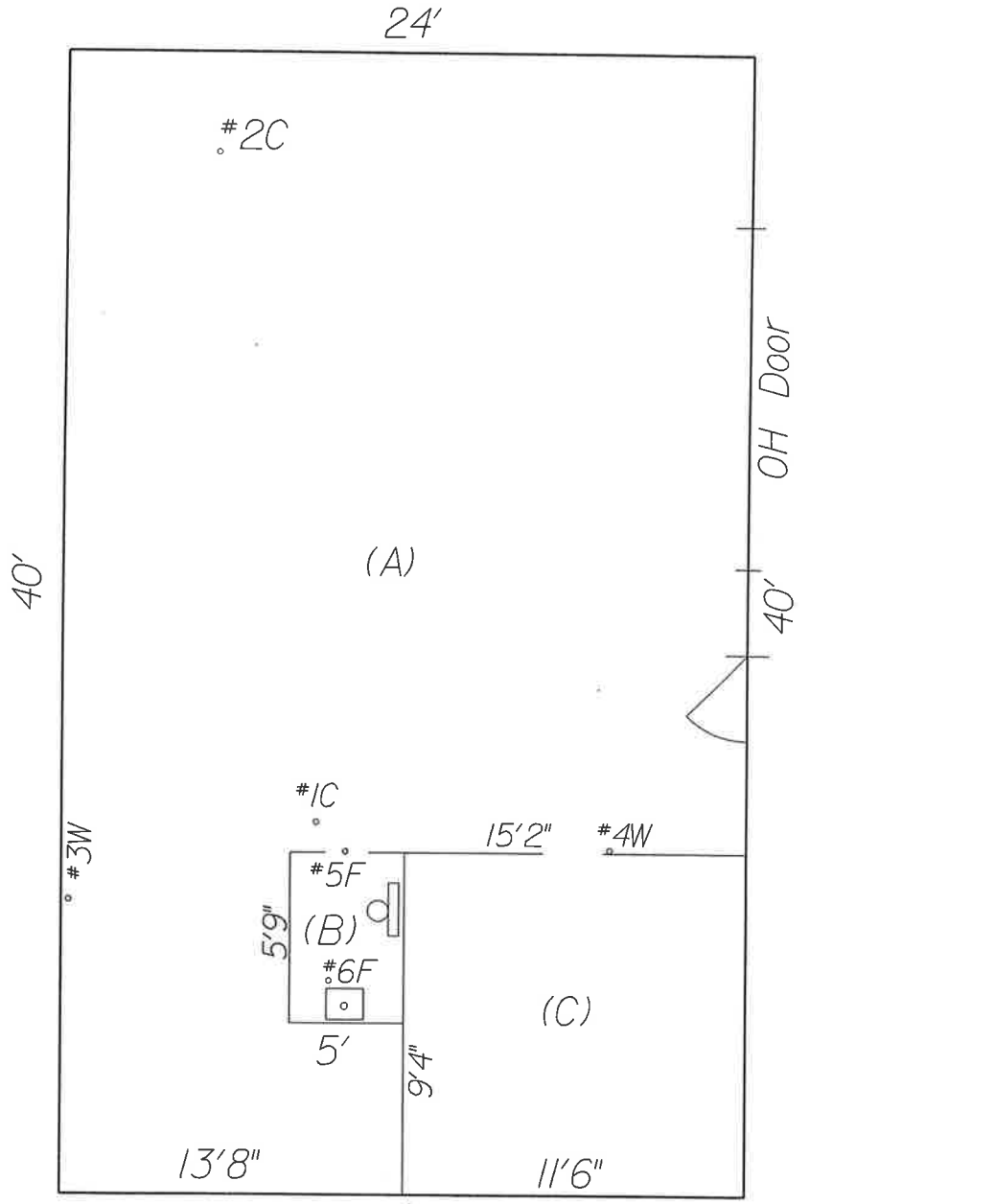
1. Fire Damage significant fiber damage - reported percentages reflect unaltered fibers
2. Fire Damage no significant fiber damages effecting fibrous percentages
3. Actinolite in association with Vermiculite
4. Layer not analyzed - attached to previous positive layer and contamination is suspected
5. Not enough sample to analyze
6. Anthophyllite in association with Fibrous Talc
7. Contamination suspected from other building materials
8. Favorable scenario for water separation on vermiculite for possible analysis by another method
9. < 1% Result point counted positive
10. TEM analysis suggested

INSPECTION FLOOR PLAN

JOB:	090065	PROPERTY LOCATION	INSPECTED BY
TRACT:	4 X	1-S-Frame Building	Joel Clark (011518)
DATE:	1/23/2013	14929 Hwy. 62 East	
		Garfield, AR 72732	

Sample Number	Description/ Locaton	Sample Number	Description/ Location
#1	A) Ceiling	#11	
#2	A) Ceiling	#12	
#3	A) Wall	#13	
#4	A) Wall	#14	
#5	B) Floor	#15	
#6	B) Floor	#16	
#7		#17	
#8		#18	
#9		#19	
#10		#20	

Homogenous Areas:	
Roofing	Composition Shingle
Siding	Aluminium/Wood
Ceilings	Sheet Rock
Walls	Sheet Rock
Floors	(ABC)Concrete Slab
	(B) Tiles/Concrete



090065 Tract 4X

14929 E. Hwy. 62

Garfield, AR 72732

960 SF

Septic

UG Pump Station

5xED

5XED

CA Labs

Crisp Analytical Laboratories, L.L.C
1929 Old Denton Rd.
Carrollton, TX 75006

Phone: 972-272-2754
Fax: 972-272-2798
Mobile: 214-564-8366

Chain of Custody

Client Name:	AHTD	**CA Labs job**	**CAL# 1301676**
Client Address:	P.O. Box 2261	Billing Address:	
	Room #705	(if different)	
	Little Rock, AR 72203-2261		
phone number:	501-569-2317 or 2318	P.O. # :	090065
fax number:		Project Name:	Tract 5X 15067 Hwy. 62 East
Send Reports to:	Joeld.Clark@arkansashighways.com	Project Number:	090065 Garfield, AR 72732

Total # Samples Submitted: 5	**Total # Samples to be Analyzed: 5**	**Material Matrix:** Air / **Bulk** / Water

Asbestos: *please call ahead for availability of all rush and/or after hours samples.*

TEM	TA Time	**PLM**	TA Time	**Optical / IAQ**	TA Time
Circle analysis and TA time		*Circle analysis and TA time*	*2 hour*	**PCM**: NIOSH 7400	Note TAT
AHERA	*4 hour*	Improved	4 hour	**Allergen Particle**:	24 hour
EPA Level II	8 hour	Interim	8 hour	tape/bulk/swab	2 days
Drinking Water	16 hour		16 hour	Cyclex-d cassettes	3 days
Wipe	24 hour	**AHERA**	24 hour	Air-o-cell cassettes	5-10 days
Micro-vac	2 days		2 days	Anderson cultures	Specify
NIOSH 7402	3 days	Point Count -	**3 days**	Bulk/swab cultures	Mold or
Chatfield Bulk	5 days	(NESHAPS)	5 days	Bacteria cultures	bacteria

Please indicate appropriate turn around time. (minimum turnaround - 3 Days for Lead TCLP and water)

Lead: *Circle analysis and TA time*

Sample Information:

Sample #:	Sample Location:	Sample Date/Time:	Sample Volume (L)
090065Tr5X #1	Area (A) Ceiling	1/22/2013	
090065Tr5X #2	Area (A) Ceiling	1/22/2013	
090065Tr5X #3	Area (B) Wall	1/22/2013	
090065Tr5X #4	Area (B) Wall	1/22/2013	
090065Tr5X #5	Roofing	1/22/2013	

Custody Information:

Samples relinquished: Joel Clark 1/23/13
Signature / Date / Time

Samples received: Matthew Romer 1/30/13 3:30PM
Signature / Date / Time

CA Labs
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Carrollton, TX 75006
Phone 972-242-2754
Fax 972-242-2798

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Phone 225-751-5632
Fax 225-751-5634

Materials Characterization - Bulk Asbestos Analysis

Laboratory Analysis Report - Polarized Light

Arkansas State Highway & Transportation Dept.
10324 I-30, Room 705
Little Rock, AR 72209

Attn: Robert Pooler
Customer Project: Tract 5X 15067 Hwy 62 East
Reference #: CAL1301676CP Date: 02/04/13

Analysis and Method

Summary of polarizing light microscopy (PLM / Stereomicroscopy bulk asbestos analysis) using the methods described in 40CFR Part 763 Appendix E to Subpart E (Interim and EPA 600 / R-93 / 116 (Improved). The sample is first viewed with the aid of stereomicroscopy. Numerous liquid slide preparations are created for analysis under the polarized microscope where identifications and quantifications are preformed. Calibrated liquid refractive oils are used as liquid mouting medium. These oils are used for identification (dispersion staining). A calibrated visual estimation is reported, should any asbestiform mineral be present. Other techniques such as acid washing are used in conjugation with refractive oils for detection of smaller quantities of asbestos. All asbestos percentages are based on calibrated visual estimation traceable to NIST standards for regulated of asbestos. Traceability to measurement and calibration is achieved by using known amounts and types of asbestos from standards where analyst and laboratory accuracy are measured. As little as 0.001% asbestos can be detected in favorable samples, while detection in unfavorable samples may approach the detection limit of 0.50% (well above the laboratory definition of trace).

Discussion

Vermiculite containing samples may have trace amounts of actinolite-tremolite, where not found be PLM should be analyzed using TEM methods and / or water separation techniques. Suspected actinolite/vermiculite presence will be indicated through the sample comment section of this report.

Fibrous talc containing samples may even contain a related asbestos fiber known as anthophyllite. Under certain conditions the same fiber may actually contain both talc and anthophyllite (a phenomenon called intergrowth). Again, TEM detection methods are recommended. CA Labs PLM report comments will denote suspected amounts of asbestiform anthophyllite with talc, where further analysis is recommended.

Some samples (floor tiles, surfacings, etc.) may contain fibers too small to be delectable by PLM analysis and should be analyzed by TEM bulk protocols.

A "trace asbestos" will be reported if the analyst observes far less than 1% asbestos. CA Labs defines "trace asbestos" as a few fibers detected by the analyst in several preparations and will indicate as such under these circumstances.

Quantification of <1% will actually be reported as <=1% (allowable variance close to 1% is high). Such results are ideal for point counting, and the technique is mandatory for friable samples (NESHAP, Nov. 1990 and clarification letter 8 May 1991) under 1% percent asbestos and the "trace asbestos". **In order to make all initial PLM reports issued from CA Labs NESHAP compliant, all <1% asbestos results (except floor tiles) will be point counted at no additional charge.**

Qualifications

CA Labs is accredited by the National Voluntary Accreditation Program (NVLAP) for selected test methods for airborne fiber analysis (TEM), and for bulk asbestos fiber analysis (PLM). CA Labs is also accredited by AIHA LAP, LLC. in the PLM asbestos field of testing for Industrial Hygiene. All analysts have a college degree in a natural science (geology, biology, or environmental science) or are recognized by a state professional board in one these disciplines .Extensive in-house training programs are used to augment education background of the analyst. The group leader of polarized light has received supplemental McCrone Research training for asbestos identification. Analysis performed at Crisp Analytical Labs, LLC 1929 Old Denton Road Carrollton, TX 75006

Dallas NVLAP Lab Code 200349-0 TEM/PLM EPA H20 TX 01402 TDH 30-0235
AIHA LAP, LLC Laboratory #102929

CA Labs
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1929 Old Denton Road
Carrollton, TX 75006
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Fax 972-242-2798

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12232 Industriplex, Suite 32
Baton Rouge, LA 70809
Phone 225-751-5632
Fax 225-751-5634

Overview of Project Sample Material Containing Asbestos

Customer Project: Tract 5X 15067 Hwy 62 East **CA Labs Project #:** CAL1301676CP

Sample #	Layer #	Analysts Physical Description of Subsample	Asbestos type / calibrated visual estimate percent	List of Affected Building Material Types

No Asbestos Detected.

Dallas NVLAP Lab Code 200349-0 TEM/PLM EPA H20 TX 01402 TDH 30-0235
AIHA LAP, LLC Laboratory #102929

Glossary of abbreviations (non-asbestos fibers and non-fibrous minerals):

ca - carbonate
gypsum - gypsum
bi - binder
or - organic
ma - matrix
mi - mica
ve - vermiculite
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ta - talc
sy - synthetic
ce - cellulose
br - brucite
ka - kaolin (clay)
pa - palygorskite (clay)

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Polarized Light Asbestiform Materials Characterization

Customer Info: **Attn:** Robert Pooler
Arkansas State Highway & Transportation Dept.
10324 I-30, Room 705
Little Rock, AR 72209

Phone # 501-569-2317
Fax # 501-569-2018

Customer Project:
Tract 5X 15067 Hwy 62 East
Turnaround Time:
3 Days

CA Labs Project #:
CAL1301676CP

Date: 02/04/13
Samples Received: 1/30/13 3:30PM
Date Of Sampling: 01/22/13
Purchase Order #: 090065

Sample #	Comment	Layer #	Analysts Physical Description of Subsample	Homogeneous (Y/N)	Asbestos type / calibrated visual estimate percent	Non-asbestos fiber type / percent	Non-fibrous type / percent
090065Tr5 X 1		1-1	***Area (A) Ceiling/*** *white surfaced white compound*	*n*	***None Detected***		100% mi,bi,ca
		1-2	*white compound (beneath tape)*	*y*	***None Detected***		100% mi,ca
		1-3	*white drywall with brown paper*	*n*	***None Detected***	19% ce 1% fg	80% qu,gy
090065Tr5 X 2		2-1	***Area (A) Ceiling/*** *white surfaced white compound*	*n*	***None Detected***		100% mi,bi,ca
		2-2	*white compound (beneath tape)*	*y*	***None Detected***		100% mi,ca
		2-3	*white drywall with brown paper*	*n*	***None Detected***	18% ce 1% fg	81% qu,gy
090065Tr5 X 3		3-1	***Area (B) Wall/*** *white surfaced white compound*	*n*	***None Detected***		100% mi,bi,ca

Dallas NVLAP Lab Code 200349-0 TEM/PLM *EPA H20 TX 01402* *TDH 30-0235*

AIHA LAP, LLC Laboratory #102929

Analysis Method: Interim (40CFR Part 763 Appendix E to Subpart E) / Improved (EPA-600 / R-93/116)
Preparation Method: HCL acid washing for carbonate based samples, chemical reduction for organically bound components, oil immersion for identification of asbestos types by dispersion attaining / becke line method.

ca - carbonate	mi - mica	fg - fiberglass	ce - cellulose
gypsum - gypsum	ve - vermiculite	mw - mineral wool	br - brucite
bi - binder	ot -other	wo - wollastinite	ka - kaolin (clay)
or - organic	pe - perlite	ta - talc	pa - palygorskite (clay)
ma - matrix	qu - quartz	sy - synthetic	

Approved Signatories:

C. T. Ras

Tanner Rasmussen
Analyst

QAC
Leslie Crisp, P.G.

Technical Manager
Chad Lytle

1. Fire Damage significant liber damage - reported percentages reflect unaltered fibers
2. Fire Damage no significant fiber damages effecting librous percentages
3. Actinolite in association with Vermiculite
4. Layer not analyzed - attached to previous positive layer and contamination is suspected
5. Not enough sample to analyze
6. Anthophyllite in association with Fibrous Talc
7. Contamination suspected from other building materials
8. Favorable scenario for water separation on vermiculite for possible analysis by another method
9. < 1% Result point counted positive
10. TEM analysis suggested

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Polarized Light Asbestiform Materials Characterization

Customer Info: **Attn:** Robert Pooler
Arkansas State Highway & Transportation Dept.
10324 I-30, Room 705
Little Rock, AR 72209

Phone # 501-569-2317
Fax # 501-569-2018

Customer Project:
Tract 5X 15067 Hwy 62 East
Turnaround Time:
3 Days

CA Labs Project #:
CAL1301676CP

Date: 02/04/13
Samples Received: 1/30/13 3:30PM
Date Of Sampling: 01/22/13
Purchase Order #: 090065

Sample #	Comment	Layer #	Analysts Physical Description of Subsample	Homogeneous (Y/N)	Asbestos type / calibrated visual estimate percent	Non-asbestos fiber type / percent	Non-fibrous type / percent
		3-2	*white compound (beneath tape)*	*y*	***None Detected***		100% mi,ca
		3-3	*white drywall with brown paper*	*n*	***None Detected***	19% ce 1% fg	80% qu,gy
090065Tr5 X 4		*4-1*	***Area (B) Wall/*** *white surfaced white compound*	*n*	***None Detected***		100% mi,bi,ca
		4-2	*white compound (beneath tape)*	*y*	***None Detected***		100% mi,ca
		4-3	*white drywall with brown paper*	*n*	***None Detected***	19% ce 1% fg	80% qu,gy
090065Tr5 X 5		*5-1*	***Roofing/*** *black roofing shingle with gray gravel*	*n*	***None Detected***	11% fg	89% qu,bi

Dallas NVLAP Lab Code 200349-0 TEM/PLM *EPA H20 TX 01402* *TDH 30-0235*

AIHA LAP, LLC Laboratory #102929

Analysis Method: Interim (40CFR Part 763 Appendix E to Subpart E) / Improved (EPA-600 / R-93/116)
Preparation Method: HCL acid washing for carbonate based samples, chemical reduction for organically bound components, oil immersion for identification of asbestos types by dispersion attaining / becke line method.

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Leslie Crisp, P.G.

Technical Manager
Chad Lytle

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9. < 1% Result point counted positive
10. TEM analysis suggested

INSPECTION FLOOR PLAN

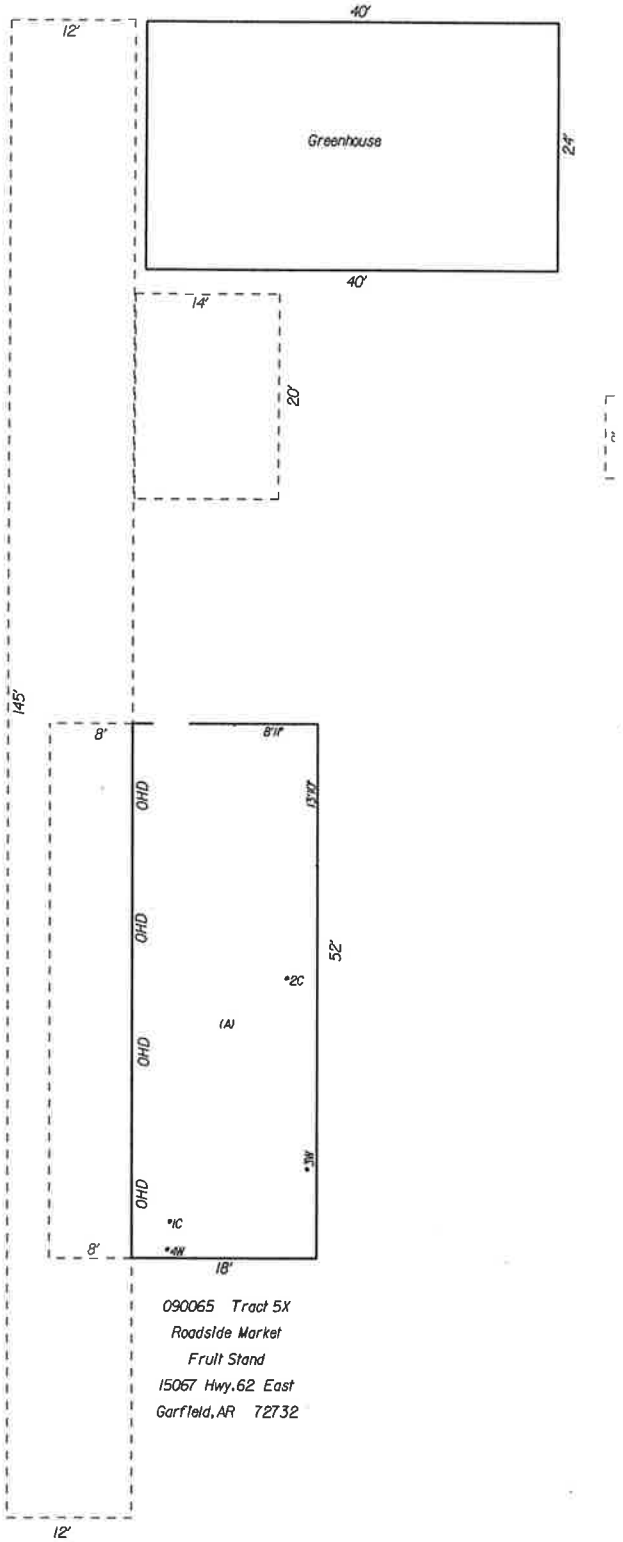
JOB:	090065
TRACT:	5 X
DATE:	1/23/13

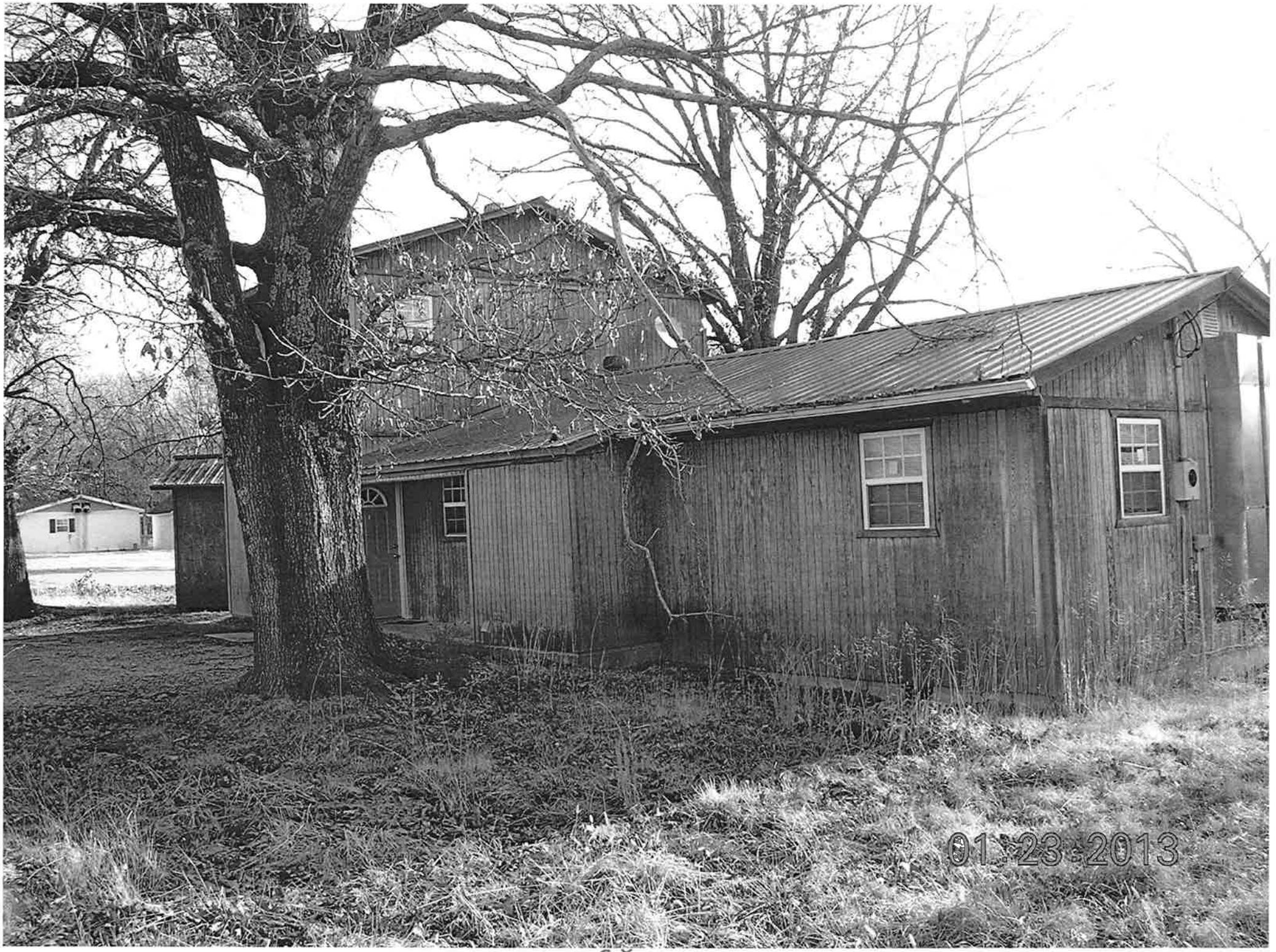
PROPERTY LOCATION
Fruit Stand
15067 Hwy. 62 East
Garfield, AR 72732

INSPECTED BY
Joel Clark (011518)

Sample Number	Description/ Locaton	Sample Number	Description/ Location
#1	A) Ceiling	#11	
#2	A) Ceiling	#12	
#3	A) Wall	#13	
#4	A) Wall	#14	
#5	Roll Roofing	#15	
#6		#16	
#7		#17	
#8		#18	
#9		#19	
#10		#20	

Homogenous Areas:	
Roofing	Metal; Roll Roofing
Siding	Plywood; Roll Roofing
Ceilings	Sheet Rock
Walls	Sheet Rock; Blandex
Floors	Concrete Slab





6X

6X

CA Labs

Crisp Analytical Laboratories, L.L.C
1929 Old Denton Rd.
Carrollton, TX 75006

Phone: 972-272-2754
Fax: 972-272-2798
Mobile: 214-564-8366

Chain of Custody

Client Name:	AHTD	**CA Labs job**	**CAL# 130678**
Client Address:	P.O. Box 2261	Billing Address:	
	Room #705	(if different)	
	Little Rock, AR 72203-2261		
phone number:	501-569-2317 or 2318	P.O. # :	090065
fax number:		Project Name:	Tract 6X 13992 N. Old Wire Rd.
Send Reports to:	Joeld.Clark@arkansashighways.com	Project Number:	090065 Garfield, AR 72732

Total # Samples Submitted: 10	**Total # Samples to be Analyzed: 10**	**Material Matrix:** Air / **Bulk** / Water

Asbestos: *please call ahead for availability of all rush and/or after hours samples.*

TEM	**TA Time**	**PLM**	**TA Time**	**Optical / IAQ**	**TA Time**
Circle analysis and TA time		*Circle analysis and TA time*	*2 hour*	**PCM**: NIOSH 7400	Note TAT
AHERA	*4 hour*	Improved	4 hour	**Allergen Particle**:	24 hour
EPA Level II	8 hour	Interim	8 hour	tape/bulk/swab	2 days
Drinking Water	16 hour		16 hour	Cyclex-d cassettes	3 days
Wipe	24 hour	**AHERA**	24 hour	Air-o-cell cassettes	5-10 days
Micro-vac	2 days		2 days	Anderson cultures	Specify
NIOSH 7402	3 days	Point Count -	**3 days**	Bulk/swab cultures	Mold or
Chatfield Bulk	5 days	(NESHAPS)	5 days	Bacteria cultures	bacteria

Please indicate appropriate turn around time. (minimum turnaround - 3 Days for Lead TCLP and water)

Lead: *Circle analysis and TA time*

Sample Information:

Sample #:	Sample Location:	Sample Date/Time:	Sample Volume (L)
090065Tr6X #1	Area (J) Wall	1/23/2013	
090065Tr6X #2	Area (J) Wall	1/23/2013	
090065Tr6X #3	Area (E) Ceiling	1/23/2013	
090065Tr6X #4	Area (A) Ceiling	1/23/2013	
090065Tr6X #5	Area (B) Ceiling	1/23/2013	
090065Tr6X #6	Area (B) Ceiling	1/23/2013	
090065Tr6X #7	Area (B) Floor	1/23/2013	

Custody Information:

Samples relinquished Joel Clark 1-29-13
Signature / Date / Time

Samples received Matthew Ponder 1/30/13
Signature / Date / Time
3:30 PM

CA Labs

Crisp Analytical Laboratories, L.L.C
1929 Old Denton Rd.
Carrollton, TX 75006

Phone: 972-272-2754
Fax: 972-272-2798
Mobile: 214-564-8366

Chain of Custody

CAL 1301678

Page 2

Sample #:	Sample Location:	Sample Date/Time:	Sample Volume (L)
090065Tr6X #8	Area (B) Floor	1/23/2013	
090065Tr6X#9	Area (D) Wall	1/23/2013	
090065Tr6X#10	Area (D) Wall	1/23/2013	

Custody Information:

Samples relinquished: Joel Cook 1-29-13
Signature / Date / Time

Samples relinquished:
Signature / Date / Time

Samples received: Matthew Romer 1/30/13 3:30pm
Signature / Date / Time

Samples received:
Signature / Date / Time

CA Labs
Dedicated to Quality

Crisp Analytical, L.L.C.
1929 Old Denton Road
Carrollton, TX 75006
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Fax 972-242-2798

CA Labs, L.L.C.
12232 Industriplex, Suite 32
Baton Rouge, LA 70809
Phone 225-751-5632
Fax 225-751-5634

Materials Characterization - Bulk Asbestos Analysis

Laboratory Analysis Report - Polarized Light

Arkansas State Highway & Transportation Dept.
10324 I-30, Room 705
Little Rock, AR 72209

Attn: Robert Pooler
Customer Project: Tract 6X 13992 N Old Wire Rd
Reference #: CAL1301678CP Date: 02/04/13

Analysis and Method

Summary of polarizing light microscopy (PLM / Stereomicroscopy bulk asbestos analysis) using the methods described in 40CFR Part 763 Appendix E to Subpart E (Interim and EPA 600 / R-93 / 116 (Improved). The sample is first viewed with the aid of stereomicroscopy. Numerous liquid slide preparations are created for analysis under the polarized microscope where identifications and quantifications are preformed. Calibrated liquid refractive oils are used as liquid mouting medium. These oils are used for identification (dispersion staining). A calibrated visual estimation is reported, should any asbestiform mineral be present. Other techniques such as acid washing are used in conjugation with refractive oils for detection of smaller quantities of asbestos. All asbestos percentages are based on calibrated visual estimation traceable to NIST standards for regulated of asbestos. Traceability to measurement and calibration is achieved by using known amounts and types of asbestos from standards where analyst and laboratory accuracy are measured. As little as 0.001% asbestos can be detected in favorable samples, while detection in unfavorable samples may approach the detection limit of 0.50% (well above the laboratory definition of trace).

Discussion

Vermiculite containing samples may have trace amounts of actinolite-tremolite, where not found be PLM should be analyzed using TEM methods and / or water separation techniques. Suspected actinolite/vermiculite presence will be indicated through the sample comment section of this report.

Fibrous talc containing samples may even contain a related asbestos fiber known as anthophyllite. Under certain conditions the same fiber may actually contain both talc and anthophyllite (a phenomenon called intergrowth). Again, TEM detection methods are recommended. CA Labs PLM report comments will denote suspected amounts of asbestiform anthophyllite with talc, where further analysis is recommended.

Some samples (floor tiles, surfacings, etc.) may contain fibers too small to be delectable by PLM analysis and should be analyzed by TEM bulk protocols.

A "trace asbestos" will be reported if the analyst observes far less than 1% asbestos. CA Labs defines "trace asbestos" as a few fibers detected by the analyst in several preparations and will indicate as such under these circumstances.

Quantification of <1% will actually be reported as <=1% (allowable variance close to 1% is high). Such results are ideal for point counting, and the technique is mandatory for friable samples (NESHAP, Nov. 1990 and clarification letter 8 May 1991) under 1% percent asbestos and the "trace asbestos". **In order to make all initial PLM reports issued from CA Labs NESHAP compliant, all <1% asbestos results (except floor tiles) will be point counted at no additional charge.**

Qualifications

CA Labs is accredited by the National Voluntary Accreditation Program (NVLAP) for selected test methods for airborne fiber analysis (TEM), and for bulk asbestos fiber analysis (PLM). CA Labs is also accredited by AIHA LAP, LLC. in the PLM asbestos field of testing for Industrial Hygiene. All analysts have a college degree in a natural science (geology, biology, or environmental science) or are recognized by a state professional board in one these disciplines .Extensive in-house training programs are used to augment education background of the analyst. The group leader of polarized light has received supplemental McCrone Research training for asbestos identification. Analysis performed at Crisp Analytical Labs, LLC 1929 Old Denton Road Carrollton, TX 75006

Dallas NVLAP Lab Code 200349-0 TEM/PLM EPA H20 TX 01402 TDH 30-0235
AIHA LAP, LLC Laboratory #102929

CA Labs
Dedicated to Quality

Crisp Analytical, L.L.C.
1929 Old Denton Road
Carrollton, TX 75006
Phone 972-242-2754
Fax 972-242-2798

CA Labs, L.L.C.
12232 Industriplex, Suite 32
Baton Rouge, LA 70809
Phone 225-751-5632
Fax 225-751-5634

Overview of Project Sample Material Containing Asbestos

Customer Project: Tract 6X 13992 N Old Wire Rd **CA Labs Project #:** CAL1301678CP

Sample #	Layer #	Analysts Physical Description of Subsample	Asbestos type / calibrated visual estimate percent	List of Affected Building Material Types
090065Tr6 X 3	3-1	***Area (E) Ceiling**/ white surfaced white compound*	***2% Chrysotile***	***white surfaced white compound***
	3-2	*white compound (beneath tape)*	***2% Chrysotile***	***white compound (beneath tape)***
090065Tr6 X 4	4-1	***Area (A) Ceiling**/ tan surfaced white compound*	***2% Chrysotile***	***tan surfaced white compound***
	4-2	*white compound (beneath tape)*	***2% Chrysotile***	
090065Tr6 X 5	5-1	***Area (B) Ceiling**/ white surfaced white compound*	***2% Chrysotile***	
	5-2	*white compound (beneath tape)*	***2% Chrysotile***	
090065Tr6 X 6	6-1	***Area (B) Ceiling**/ white surfaced white compound*	***2% Chrysotile***	
	6-2	*white compound (beneath tape)*	***2% Chrysotile***	

Dallas NVLAP Lab Code 200349-0 TEM/PLM *EPA H20 TX 01402* *TDH 30-0235*

AIHA LAP, LLC Laboratory #102929

Glossary of abbreviations (non-asbestos fibers and non-fibrous minerals):

ca - carbonate
gypsum - gypsum
bi - binder
or - organic
ma - matrix
mi - mica
ve - vermiculite
ot - other
pe - perlite
qu - quartz
fg - fiberglass
mw - mineral wool
wo - wollastinite
ta - talc
sy - synthetic
ce - cellulose
br - brucite
ka - kaolin (clay)
pa - palygorskite (clay)

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Polarized Light Asbestiform Materials Characterization

Customer Info: **Attn:** Robert Pooler
Arkansas State Highway & Transportation Dept.
10324 I-30, Room 705
Little Rock, AR 72209

Phone # 501-569-2317
Fax # 501-569-2018

Customer Project:
Tract 6X 13992 N Old Wire Rd
Turnaround Time:
3 Day

CA Labs Project #:
CAL1301678CP

Date: 02/04/13
Samples Received: 1/30/13 3:30PM
Date Of Sampling: 1/23/13
Purchase Order #: 090065

Sample #	Comment	Layer #	Analysts Physical Description of Subsample	Homogeneous (Y/N)	Asbestos type / calibrated visual estimate percent	Non-asbestos fiber type / percent	Non-fibrous type / percent
090065Tr6 X 1		1-1	***Area (J) Wall/*** *white surfaced white compound*	*n*	***None Detected***		100% mi,bi,ca
		1-2	*white compound (beneath tape)*	*y*	***None Detected***		100% mi,ca
		1-3	*white drywall with brown paper*	*n*	***None Detected***	19% ce 1% fg	80% qu,gy
090065Tr6 X 2		2-1	***Area (J) Wall/*** *white surfaced white compound*	*n*	***None Detected***		100% mi,bi,ca
		2-2	*white compound (beneath tape)*	*y*	***None Detected***		100% mi,ca
		2-3	*white drywall with brown paper*	*n*	***None Detected***	19% ce 1% fg	80% qu,gy
090065Tr6 X 3		3-1	***Area (E) Ceiling/*** *white surfaced white compound*	*n*	***2% Chrysotile***		98% qu,mi,ca

Dallas NVLAP Lab Code 200349-0 TEM/PLM *EPA H20 TX 01402* *TDH 30-0235*

AIHA LAP, LLC Laboratory #102929

Analysis Method: Interim (40CFR Part 763 Appendix E to Subpart E) / Improved (EPA-600 / R-93/116)
Preparation Method: HCL acid washing for carbonate based samples, chemical reduction for organically bound components, oil immersion for identification of asbestos types by dispersion attaining / becke line method.

ca - carbonate	mi - mica	fg - fiberglass	ce - cellulose
gypsum - gypsum	ve - vermiculite	mw - mineral wool	br - brucite
bi - binder	ot -other	wo - wollastinite	ka - kaolin (clay)
or - organic	pe - perlite	ta - talc	pa - palygorskite (clay)
ma - matrix	qu - quartz	sy - synthetic	

Approved Signatories:

C. T. Ra

Tanner Rasmussen
Analyst

QAC
Leslie Crisp, P.G.

Technical Manager
Chad Lytle

1. Fire Damage significant fiber damage - reported percentages reflect unaltered fibers
2. Fire Damage no significant fiber damages effecting fibrous percentages
3. Actinolite in association with Vermiculite
4. Layer not analyzed - attached to previous positive layer and contamination is suspected
5. Not enough sample to analyze
6. Anthophyllite in association with Fibrous Talc
7. Contamination suspected from other building materials
8. Favorable scenario for water separation on vermiculite for possible analysis by another method
9. < 1% Result point counted positive
10. TEM analysis suggested

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Crisp Analytical, L.L.C.
1929 Old Denton Road
Carrollton, TX 75006
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Polarized Light Asbestiform Materials Characterization

Customer Info: **Attn:** Robert Pooler
Arkansas State Highway & Transportation Dept.
10324 I-30, Room 705
Little Rock, AR 72209

Phone # 501-569-2317
Fax # 501-569-2018

Customer Project:
Tract 6X 13992 N Old Wire Rd
Turnaround Time:
3 Day

CA Labs Project #:
CAL1301678CP

Date: 02/04/13
Samples Received: 1/30/13 3:30PM
Date Of Sampling: 1/23/13
Purchase Order #: 090065

Sample #	Comment	Layer #	Analysts Physical Description of Subsample	Homogeneous (Y/N)	Asbestos type / calibrated visual estimate percent	Non-asbestos fiber type / percent	Non-fibrous type / percent
		3-2	*white compound (beneath tape)*	*y*	***2% Chrysotile***		98% qu,mi,ca
		3-3	*white drywall with brown paper*	*n*	***None Detected***	19% ce 1% fg	80% qu,gy
090065Tr6 X 4		*4-1*	***Area (A) Ceiling**/ tan surfaced white compound*	*n*	***2% Chrysotile***		98% qu,mi,ca
		4-2	*white compound (beneath tape)*	*y*	***2% Chrysotile***		98% qu,mi,ca
		4-3	*white drywall with brown paper*	*n*	***None Detected***	18% ce 1% fg	81% qu,gy
090065Tr6 X 5		*5-1*	***Area (B) Ceiling**/ white surfaced white compound*	*n*	***2% Chrysotile***		98% qu,mi,ca
		5-2	*white compound (beneath tape)*	*y*	***2% Chrysotile***		98% qu,mi,ca

Dallas NVLAP Lab Code 200349-0 TEM/PLM *EPA H20 TX 01402* *TDH 30-0235*

AIHA LAP, LLC Laboratory #102929

Analysis Method: Interim (40CFR Part 763 Appendix E to Subpart E) / Improved (EPA-600 / R-93/116)
Preparation Method: HCL acid washing for carbonate based samples, chemical reduction for organically bound components, oil immersion for identification of asbestos types by dispersion attaining / becke line method.

ca - carbonate	mi - mica	fg - fiberglass	ce - cellulose
gypsum - gypsum	ve - vermiculite	mw - mineral wool	br - brucite
bi - binder	ot -other	wo - wollastinite	ka - kaolin (clay)
or - organic	pe - perlite	ta - talc	pa - palygorskite (clay)
ma - matrix	qu - quartz	sy - synthetic	

Approved Signatories:

C. T. Ras

Tanner Rasmussen
Analyst

QAC
Leslie Crisp, P.G.

Technical Manager
Chad Lytle

1. Fire Damage significant fiber damage - reported percentages reflect unaltered fibers
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6. Anthophyllite in association with Fibrous Talc
7. Contamination suspected from other building materials
8. Favorable scenario for water separation on vermiculite for possible analysis by another method
9. < 1% Result point counted positive
10. TEM analysis suggested

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Polarized Light Asbestiform Materials Characterization

Customer Info: **Attn:** Robert Pooler
Arkansas State Highway & Transportation Dept.
10324 I-30, Room 705
Little Rock, AR 72209

Phone # 501-569-2317
Fax # 501-569-2018

Customer Project:
Tract 6X 13992 N Old Wire Rd
Turnaround Time:
3 Day

CA Labs Project #:
CAL1301678CP

Date: 02/04/13
Samples Received: 1/30/13 3:30PM
Date Of Sampling: 1/23/13
Purchase Order #: 090065

Sample #	Comment	Layer #	Analysts Physical Description of Subsample	Homogeneous (Y/N)	Asbestos type / calibrated visual estimate percent	Non-asbestos fiber type / percent	Non-fibrous type / percent
		5-3	*white drywall with brown paper*	*n*	***None Detected***	20% ce 1% fg	79% qu,gy
090065Tr6 X 6		*6-1*	***Area (B) Ceiling**/ white surfaced white compound*	*n*	***2% Chrysotile***		98% qu,mi,ca
		6-2	*white compound (beneath tape)*	*y*	***2% Chrysotile***		98% qu,mi,ca
		6-3	*white drywall with brown paper*	*n*	***None Detected***	20% ce 1% fg	79% qu,gy
090065Tr6 X 7		*7-1*	***Area (B) Floor**/ off-white linoleum*	*y*	***None Detected***	28% ce 6% fg	66% gy,ma
		7-2	*tan mastic*	*y*	***None Detected***		100% gy,bi
090065Tr6 X 8		*8-1*	***Area (B) Floor**/ off-white linoleum*	*y*	***None Detected***	29% ce 6% fg	65% gy,ma

Dallas NVLAP Lab Code 200349-0 TEM/PLM *EPA H20 TX 01402* *TDH 30-0235*

AIHA LAP, LLC Laboratory #102929

Analysis Method: Interim (40CFR Part 763 Appendix E to Subpart E) / Improved (EPA-600 / R-93/116)
Preparation Method: HCL acid washing for carbonate based samples, chemical reduction for organically bound components, oil immersion for identification of asbestos types by dispersion attaining / becke line method.

ca - carbonate	mi - mica	fg - fiberglass	ce - cellulose
gypsum - gypsum	ve - vermiculite	mw - mineral wool	br - brucite
bi - binder	ot -other	wo - wollastinite	ka - kaolin (clay)
or - organic	pe - perlite	ta - talc	pa - palygorskite (clay)
ma - matrix	qu - quartz	sy - synthetic	

Approved Signatories:

C. T. Ras

Tanner Rasmussen
Analyst

QAC
Leslie Crisp, P.G.

Technical Manager
Chad Lytle

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9. < 1% Result point counted positive
10. TEM analysis suggested

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Baton Rouge, LA 70809
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Fax 225-751-5634

Polarized Light Asbestiform Materials Characterization

Customer Info: **Attn:** Robert Pooler
Arkansas State Highway & Transportation Dept.
10324 I-30, Room 705
Little Rock, AR 72209

Phone # 501-569-2317
Fax # 501-569-2018

Customer Project:
Tract 6X 13992 N Old Wire Rd
Turnaround Time:
3 Day

CA Labs Project #:
CAL1301678CP

Date: 02/04/13
Samples Received: 1/30/13 3:30PM
Date Of Sampling: 1/23/13
Purchase Order #: 090065

Sample #	Comment	Layer #	Analysts Physical Description of Subsample	Homogeneous (Y/N)	Asbestos type / calibrated visual estimate percent	Non-asbestos fiber type / percent	Non-fibrous type / percent
		8-2	*tan mastic*	*y*	***None Detected***		100% gy,bi
090065Tr6 X 9		*9-1*	***Area (D) Wall/*** *yellow surfaced white compound*	*n*	***None Detected***		100% mi,bi,ca
		9-2	*white drywall with brown paper*	*n*	***None Detected***	19% ce 1% fg	80% qu,gy
090065Tr6 X 10		*10-1*	***Area (D) Wall/*** *yellow surfaced white compound*	*n*	***None Detected***		100% mi,bi,ca
		10-2	*white compound (beneath tape)*	*y*	***None Detected***		100% mi,ca
		10-3	*white drywall with brown paper*	*n*	***None Detected***	18% ce 1% fg	81% qu,gy

Dallas NVLAP Lab Code 200349-0 TEM/PLM *EPA H20 TX 01402* *TDH 30-0235*

AIHA LAP, LLC Laboratory #102929

Analysis Method: Interim (40CFR Part 763 Appendix E to Subpart E) / Improved (EPA-600 / R-93/116)
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Approved Signatories:

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Analyst

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Technical Manager
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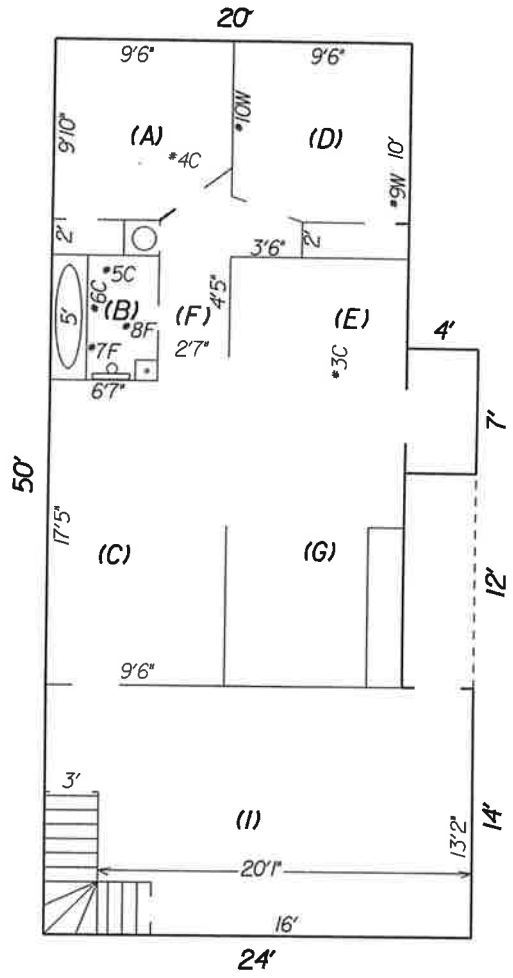
10. TEM analysis suggested

JOB:	090065	PROPERTY LOCATION	INSPECTED BY
TRACT:	6 X	1.5-S-Framed Dwelling	Joel Clark (011518)
DATE:	1/23/13	13992 N. Old Wire Road (BATTLEFIELD RD)	
		Garfield, AR 72732	

Sample Number	Description/ Locaton	Sample Number	Description/ Location
#1	J) Wall	#11	
#2	J) Wall	#12	
#3	E) Ceiling	#13	
#4	A) Ceiling	#14	
#5	B) Ceiling	#15	
#6	B) Ceiling	#16	
#7	B) Floor	#17	
#8	B) Floor	#18	
#9	D) Floor	#19	
#10	D) Floor	#20	

Homogenous Areas:	
Roofing	Metal
Siding	Plywood Lap Siding
Ceilings	Sheet Rock
Walls (ABIJK) Sheet Rock	CEFG) Wood/unfinished Sh. Rock
	Utility Room-Blandex
Floors	ADE)Carpet/Slab; BJ) Ceramic
	CFGIK) Wood Laminate



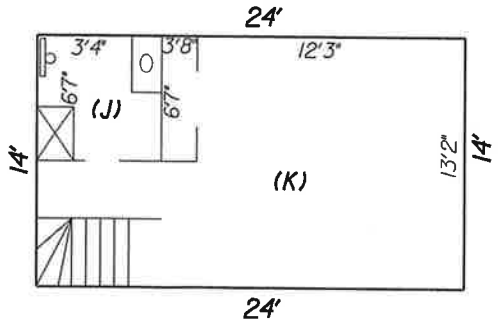
090065 Tract 6 X

1.5 S-F Dwelling

13992 Old Wire Road

Garfield, AR 72732

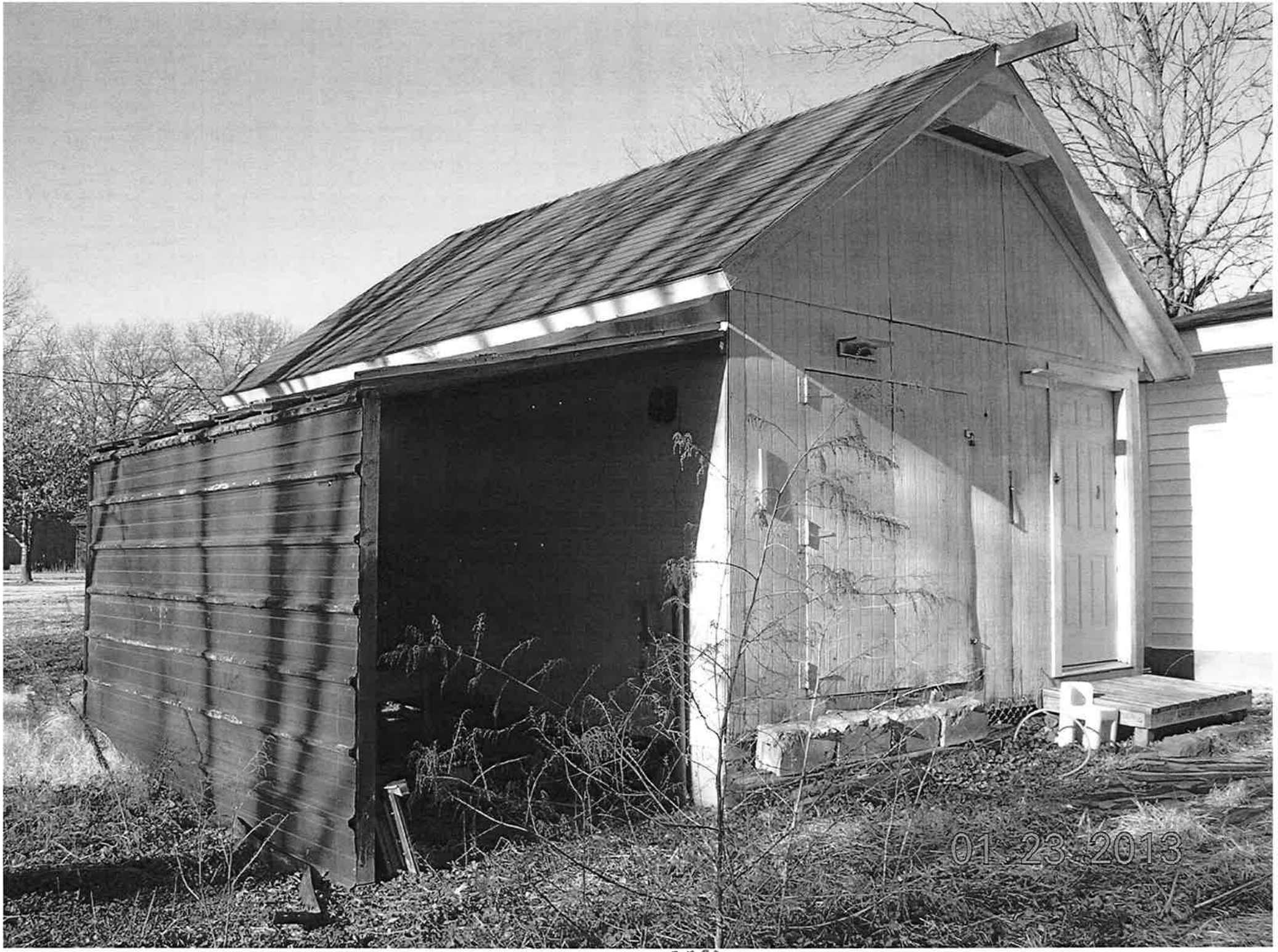
Approx. 1,402 SF



Second Floor

7XED

7 XRD



7 x ED

7 XED

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Dedicated to Quality

Crisp Analytical, L.L.C.
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Carrollton, TX 75006
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Materials Characterization - Bulk Asbestos Analysis

Laboratory Analysis Report - Polarized Light

Arkansas State Highway & Transportation Dept.
10324 I-30, Room 705
Little Rock, AR 72209

Attn: Robert Pooler
Customer Project: Tract 7X 15211 Hwy 62 East Garfield, AR 72732
Reference #: CAL1301677RO Date: 2/4/2013

Analysis and Method

Summary of polarizing light microscopy (PLM / Stereomicroscopy bulk asbestos analysis) using the methods described in 40CFR Part 763 Appendix E to Subpart E (Interim and EPA 600 / R-93 / 116 (Improved). The sample is first viewed with the aid of stereomicroscopy. Numerous liquid slide preparations are created for analysis under the polarized microscope where identifications and quantifications are preformed. Calibrated liquid refractive oils are used as liquid mouting medium. These oils are used for identification (dispersion staining). A calibrated visual estimation is reported, should any asbestiform mineral be present. Other techniques such as acid washing are used in conjugation with refractive oils for detection of smaller quantities of asbestos. All asbestos percentages are based on calibrated visual estimation traceable to NIST standards for regulated of asbestos. Traceability to measurement and calibration is achieved by using known amounts and types of asbestos from standards where analyst and laboratory accuracy are measured. As little as 0.001% asbestos can be detected in favorable samples, while detection in unfavorable samples may approach the detection limit of 0.50% (well above the laboratory definition of trace).

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Quantification of <1% will actually be reported as <=1% (allowable variance close to 1% is high). Such results are ideal for point counting, and the technique is mandatory for friable samples (NESHAP, Nov. 1990 and clarification letter 8 May 1991) under 1% percent asbestos and the "trace asbestos". **In order to make all initial PLM reports issued from CA Labs NESHAP compliant, all <1% asbestos results (except floor tiles) will be point counted at no additional charge.**

Qualifications

CA Labs is accredited by the National Voluntary Accreditation Program (NVLAP) for selected test methods for airborne fiber analysis (TEM), and for bulk asbestos fiber analysis (PLM). CA Labs is also accredited by AIHA LAP, LLC. in the PLM asbestos field of testing for Industrial Hygiene. All analysts have a college degree in a natural science (geology, biology, or environmental science) or are recognized by a state professional board in one these disciplines .Extensive in-house training programs are used to augment education background of the analyst. The group leader of polarized light has received supplemental McCrone Research training for asbestos identification. Analysis performed at Crisp Analytical Labs, LLC 1929 Old Denton Road Carrollton, TX 75006

Dallas NVLAP Lab Code 200349-0 TEM/PLM EPA H20 TX 01402 TDH 30-0235
AIHA LAP, LLC Laboratory #102929

CA Labs
Dedicated to Quality

Crisp Analytical, L.L.C.
1929 Old Denton Road
Carrollton, TX 75006
Phone 972-242-2754
Fax 972-242-2798

CA Labs, L.L.C.
12232 Industriplex, Suite 32
Baton Rouge, LA 70809
Phone 225-751-5632
Fax 225-751-5634

Overview of Project Sample Material Containing Asbestos

Customer Project: Tract 7X 15211 Hwy 62 East Garfield, AR 72732 **CA Labs Project #:** CAL1301677RO

Sample #	Layer #	Analysts Physical Description of Subsample	Asbestos type / calibrated visual estimate percent	List of Affected Building Material Types
090065 Tr 7X #1	1-1	***Area G Ceiling**/ tan surfaced tan compound*	***2% Chrysotile***	***tan surfaced tan compound tan compound (beneath tape)***
	1-2	*tan compound (beneath tape)*	***2% Chrysotile***	
090065 Tr 7X #2	2-1	***Area I Ceiling**/ tan surfaced tan compound*	***2% Chrysotile***	
	2-2	*tan compound (beneath tape)*	***2% Chrysotile***	
090065 Tr 7X #7	7-1	***Area J Wall**/ tan surfaced tan compound*	***2% Chrysotile***	
	7-2	*tan compound (beneath tape)*	***2% Chrysotile***	
090065 Tr 7X #8	8-1	***Area G Wall**/ tan surfaced tan compound*	***2% Chrysotile***	
	8-2	*tan compound (beneath tape)*	***2% Chrysotile***	

Dallas NVLAP Lab Code 200349-0 TEM/PLM EPA H20 TX 01402 TDH 30-0235

AIHA LAP, LLC Laboratory #102929

Glossary of abbreviations (non-asbestos fibers and non-fibrous minerals):

ca - carbonate
gypsum - gypsum
bi - binder
or - organic
ma - matrix
mi - mica
ve - vermiculite
ot - other
pe - perlite
qu - quartz
fg - fiberglass
mw - mineral wool
wo - wollastinite
ta - talc
sy - synthetic
ce - cellulose
br - brucite
ka - kaolin (clay)
pa - palygorskite (clay)

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Polarized Light Asbestiform Materials Characterization

Customer Info: **Attn:** Robert Pooler
Arkansas State Highway & Transportation Dept.
10324 I-30, Room 705
Little Rock, AR 72209

Phone # 501-569-2317
Fax # 501-569-2018

Customer Project:
Tract 7X 15211 Hwy 62 East
Garfield, AR 72732
Turnaround Time:

CA Labs Project #:
CAL1301677RO

Date: 2/4/2013
Samples Received: 1/30/13 3:30PM
Date Of Sampling: 1/24/13
Purchase Order #: 090065

Sample #	Comment	Layer #	Analysts Physical Description of Subsample	Homogeneous (Y/N)	Asbestos type / calibrated visual estimate percent	Non-asbestos fiber type / percent	Non-fibrous type / percent
090065 Tr 7X #1			***Area G Ceiling**/ tan surfaced*				
		1-1	*tan compound*	*n*	***2% Chrysotile***		98% mi,bi,ca
		1-2	*tan compound (beneath tape)*	*y*	***2% Chrysotile***		98% mi,ca
		1-3	*white drywall with brown paper*	*n*	***None Detected***	21% ce	79% qu,gy
090065 Tr 7X #2			***Area I Ceiling**/ tan surfaced*				
		2-1	*tan compound*	*n*	***2% Chrysotile***		98% mi,bi,ca
		2-2	*tan compound (beneath tape)*	*y*	***2% Chrysotile***		98% mi,ca
		2-3	*white drywall with brown paper*	*n*	***None Detected***	24% ce	76% qu,gy
090065 Tr 7X #3			***Area H Ceiling**/ white surfaced*				
		3-1	*white compound*	*n*	***None Detected***		100% mi,bi,ca

Dallas NVLAP Lab Code 200349-0 TEM/PLM *EPA H20 TX 01402* *TDH 30-0235*

AIHA LAP, LLC Laboratory #102929

Analysis Method: Interim (40CFR Part 763 Appendix E to Subpart E) / Improved (EPA-600 / R-93/116)
Preparation Method: HCL acid washing for carbonate based samples, chemical reduction for organically bound components, oil immersion for identification of asbestos types by dispersion attaining / becke line method.

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gypsum - gypsum	ve - vermiculite	mw - mineral wool	br - brucite
bi - binder	ot -other	wo - wollastinite	ka - kaolin (clay)
or - organic	pe - perlite	ta - talc	pa - palygorskite (clay)
ma - matrix	qu - quartz	sy - synthetic	

Approved Signatories:

Keith Malone
Analyst

QAC
Leslie Crisp, P.G.

Technical Manager
Chad Lytle

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4. Layer not analyzed - attached to previous positive layer and contamination is suspected
5. Not enough sample to analyze
6. Anthophyllite in association with Fibrous Talc
7. Contamination suspected from other building materials
8. Favorable scenario for water separation on vermiculite for possible analysis by another method
9. < 1% Result point counted positive
10. TEM analysis suggested

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Polarized Light Asbestiform Materials Characterization

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Arkansas State Highway & Transportation Dept.
10324 I-30, Room 705
Little Rock, AR 72209

Phone # 501-569-2317
Fax # 501-569-2018

Customer Project:
Tract 7X 15211 Hwy 62 East
Garfield, AR 72732
Turnaround Time:

CA Labs Project #:
CAL1301677RO

Date: 2/4/2013
Samples Received: 1/30/13 3:30PM
Date Of Sampling: 1/24/13
Purchase Order #: 090065

Sample #	Comment	Layer #	Analysts Physical Description of Subsample	Homogeneous (Y/N)	Asbestos type / calibrated visual estimate percent	Non-asbestos fiber type / percent	Non-fibrous type / percent
		3-2	*white compound (beneath tape)*	*y*	***None Detected***		100% mi,ca
		3-3	*white drywall with brown paper*	*n*	***None Detected***	23% ce	77% qu,gy
090065 Tr 7X #4		*4-1*	***Area B Ceiling**/ white surfaced white compound*	*n*	***None Detected***		100% mi,bi,ca
		4-2	*white compound (beneath tape)*	*y*	***None Detected***		100% mi,ca
		4-3	*white drywall with brown paper*	*n*	***None Detected***	23% ce	77% qu,gy
090065 Tr 7X #5		*5-1*	***Area A Wall**/ tan surfaced white compound*	*n*	***None Detected***		100% mi,bi,ca
		5-2	*white compound (beneath tape)*	*y*	***None Detected***		100% mi,ca

Dallas NVLAP Lab Code 200349-0 TEM/PLM *EPA H20 TX 01402* *TDH 30-0235*

AIHA LAP, LLC Laboratory #102929

Analysis Method: Interim (40CFR Part 763 Appendix E to Subpart E) / Improved (EPA-600 / R-93/116)
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gypsum - gypsum	ve - vermiculite	mw - mineral wool	br - brucite
bi - binder	ot -other	wo - wollastinite	ka - kaolin (clay)
or - organic	pe - perlite	ta - talc	pa - palygorskite (clay)
ma - matrix	qu - quartz	sy - synthetic	

Approved Signatories:

Keith Malone
Analyst

QAC
Leslie Crisp, P.G.

Technical Manager
Chad Lytle

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9. < 1% Result point counted positive
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Polarized Light Asbestiform Materials Characterization

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10324 I-30, Room 705
Little Rock, AR 72209

Phone # 501-569-2317
Fax # 501-569-2018

Customer Project:
Tract 7X 15211 Hwy 62 East
Garfield, AR 72732
Turnaround Time:

CA Labs Project #:
CAL1301677RO

Date: 2/4/2013
Samples Received: 1/30/13 3:30PM
Date Of Sampling: 1/24/13
Purchase Order #: 090065

Sample #	Comment	Layer #	Analysts Physical Description of Subsample	Homogeneous (Y/N)	Asbestos type / calibrated visual estimate percent	Non-asbestos fiber type / percent	Non-fibrous type / percent
		5-3	*white drywall with brown paper*	*n*	***None Detected***	25% ce	75% qu,gy
090065 Tr 7X #6		*6-1*	***Area I Wall**/ tan surfaced white compound*	*n*	***None Detected***		100% mi,bi,ca
		6-2	*white compound (beneath tape)*	*y*	***None Detected***		100% mi,ca
		6-3	*white drywall with brown paper*	*n*	***None Detected***	22% ce	78% qu,gy
090065 Tr 7X #7		*7-1*	***Area J Wall**/ tan surfaced tan compound*	*n*	***2% Chrysotile***		98% mi,bi,ca
		7-2	*tan compound (beneath tape)*	*y*	***2% Chrysotile***		98% mi,ca
		7-3	*white drywall with brown paper*	*n*	***None Detected***	20% ce	80% qu,gy

Dallas NVLAP Lab Code 200349-0 TEM/PLM *EPA H20 TX 01402* *TDH 30-0235*

AIHA LAP, LLC Laboratory #102929

Analysis Method: Interim (40CFR Part 763 Appendix E to Subpart E) / Improved (EPA-600 / R-93/116)
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ca - carbonate	mi - mica	fg - fiberglass	ce - cellulose
gypsum - gypsum	ve - vermiculite	mw - mineral wool	br - brucite
bi - binder	ot -other	wo - wollastinite	ka - kaolin (clay)
or - organic	pe - perlite	ta - talc	pa - palygorskite (clay)
ma - matrix	qu - quartz	sy - synthetic	

Approved Signatories:

Keith Malone
Analyst

QAC
Leslie Crisp, P.G.

Technical Manager
Chad Lytle

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9. < 1% Result point counted positive
10. TEM analysis suggested

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CA Labs, L.L.C.
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Polarized Light Asbestiform Materials Characterization

Customer Info: **Attn:** Robert Pooler
Arkansas State Highway & Transportation Dept.
10324 I-30, Room 705
Little Rock, AR 72209

Phone # 501-569-2317
Fax # 501-569-2018

Customer Project:
Tract 7X 15211 Hwy 62 East
Garfield, AR 72732
Turnaround Time:

CA Labs Project #:
CAL1301677RO

Date: 2/4/2013
Samples Received: 1/30/13 3:30PM
Date Of Sampling: 1/24/13
Purchase Order #: 090065

Sample #	Comment	Layer #	Analysts Physical Description of Subsample	Homogeneous (Y/N)	Asbestos type / calibrated visual estimate percent	Non-asbestos fiber type / percent	Non-fibrous type / percent
090065 Tr 7X #8		8-1	***Area G Wall/*** *tan surfaced tan compound*	*n*	***2% Chrysotile***		98% mi,bi,ca
		8-2	*tan compound (beneath tape)*	*y*	***2% Chrysotile***		98% mi,ca
		8-3	*white drywall with brown paper*	*n*	***None Detected***	21% ce	79% qu,gy
090065 Tr 7X #9		9-1	***Area F Floor/*** *tan linoleum*	*y*	***None Detected***	18% ce	82% bi
		9-2	*tan mastic*	*y*	***None Detected***		100% mi,ma
090065 Tr 7X #10		10-1	***Area F Floor/*** *tan linoleum*	*y*	***None Detected***	16% ce	84% bi
		10-2	*tan mastic*	*y*	***None Detected***		100% mi,ma

Dallas NVLAP Lab Code 200349-0 TEM/PLM *EPA H20 TX 01402* *TDH 30-0235*

AIHA LAP, LLC Laboratory #102929

Analysis Method: Interim (40CFR Part 763 Appendix E to Subpart E) / Improved (EPA-600 / R-93/116)
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bi - binder	ot -other	wo - wollastinite	ka - kaolin (clay)
or - organic	pe - perlite	ta - talc	pa - palygorskite (clay)
ma - matrix	qu - quartz	sy - synthetic	

Approved Signatories:

Keith Malone
Analyst

QAC
Leslie Crisp, P.G.

Technical Manager
Chad Lytle

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Polarized Light Asbestiform Materials Characterization

Customer Info: **Attn:** Robert Pooler
Arkansas State Highway & Transportation Dept.
10324 I-30, Room 705
Little Rock, AR 72209

Phone # 501-569-2317
Fax # 501-569-2018

Customer Project:
Tract 7X 15211 Hwy 62 East
Garfield, AR 72732
Turnaround Time:

CA Labs Project #:
CAL1301677RO

Date: 2/4/2013
Samples Received: 1/30/13 3:30PM
Date Of Sampling: 1/24/13
Purchase Order #: 090065

Sample #	Comment	Layer #	Analysts Physical Description of Subsample	Homogeneous (Y/N)	Asbestos type / calibrated visual estimate percent	Non-asbestos fiber type / percent	Non-fibrous type / percent
		10-3	*white leveling compound*	*y*	***None Detected***		100% qu,gy

Dallas NVLAP Lab Code 200349-0 TEM/PLM *EPA H20 TX 01402* *TDH 30-0235*

AIHA LAP, LLC Laboratory #102929

Analysis Method: Interim (40CFR Part 763 Appendix E to Subpart E) / Improved (EPA-600 / R-93/116)
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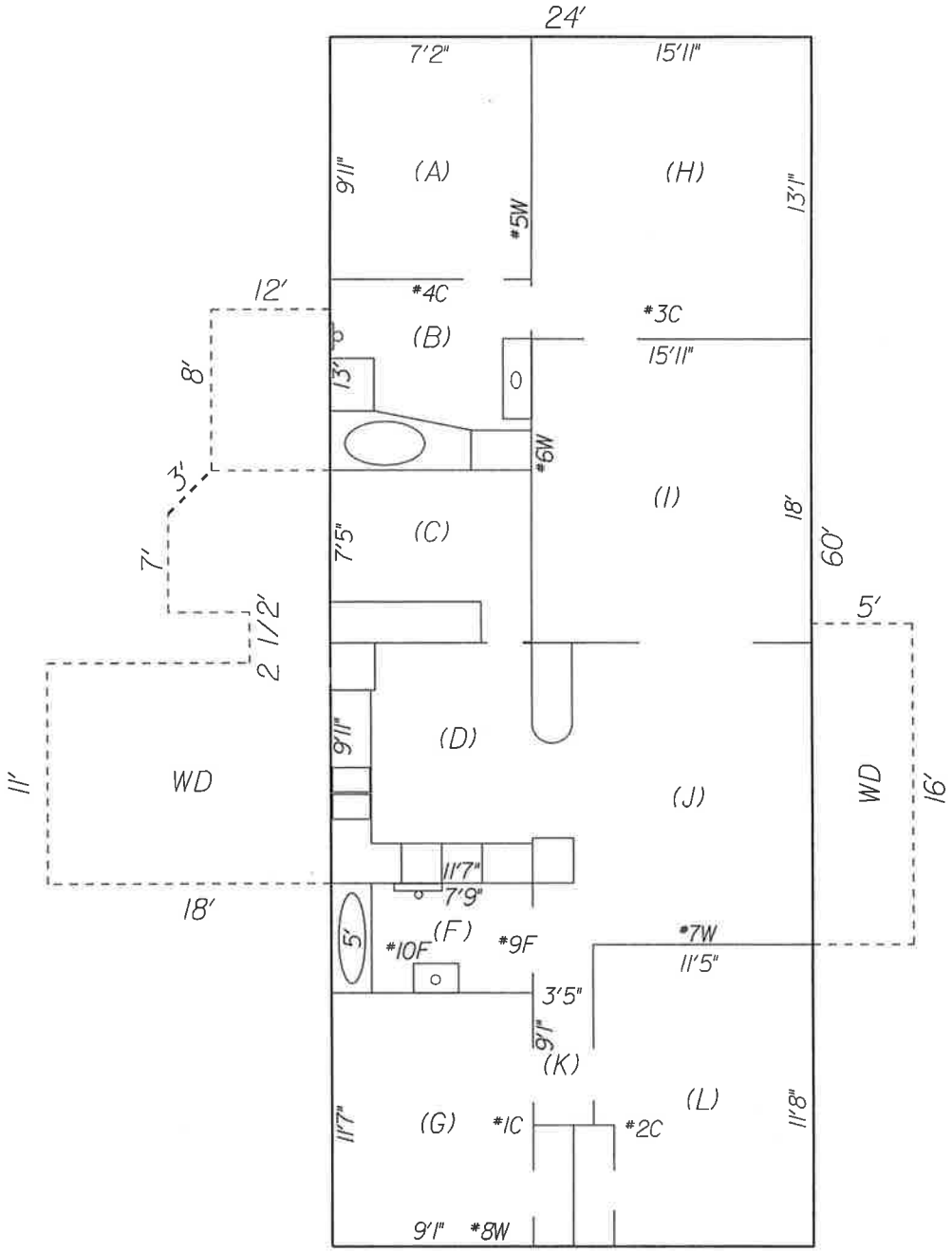
INSPECTION FLOOR PLAN

JOB:	090065	PROPERTY LOCATION	INSPECTED BY
TRACT:	7 X	1-S-Framed Dwelling	Joel Clark (011518)
DATE:	1/24/13	15211 Hwy. 62	
		Garfield, AR 72732	

Sample Number	Description/ Locaton	Sample Number	Description/ Location
#1	G) Ceiling	#11	
#2	L) Ceiling	#12	
#3	H) Ceiling	#13	
#4	B) Ceiling	#14	
#5	A) Wall	#15	
#6	I) Wall	#16	
#7	J) Wall	#17	
#8	G) Wall	#18	
#9	F) Floor	#19	
#10	F) Floor	#20	

Homogenous Areas:	
Roofing	Composition Shingle
Siding	Vinyl/Wood
Ceilings (CFDGL) Sheet Rock	(ABHI) Testured Sheet Rock
Walls	Sheet Rock
Floors AGH) Carpet	BCD) Ceramic Tile/Concrete
	F) Linoleum/Wood



090065 Tract 7 X

15211 Hwy. 62

Garfield, AR 72732

Approx. 1,440 SF

8X

8x

CA Labs

Crisp Analytical Laboratories, L.L.C
1929 Old Denton Rd.
Carrollton, TX 75006

Phone: 972-272-2754
Fax: 972-272-2798
Mobile: 214-564-8366

Chain of Custody

Client Name:	AHTD	**CA Labs job**	**CAL#** 1302173
Client Address:	P.O. Box 2261	Billing Address:	
	Room #705	(if different)	
	Little Rock, AR 72203-2261		
phone number:	501-569-2317 or 2318	P.O. # :	090065
fax number:		Project Name:	Tract 8X 15359 Hwy 62 East
Send Reports to:	Joeld.Clark@arkansashighways.com	Project Number:	090065 Garfield, AR 72732

Total # Samples Submitted: 10	**Total # Samples to be Analyzed: 10**	**Material Matrix:** Air / **Bulk** / Water

Asbestos: *please call ahead for availability of all rush and/or after hours samples.*

TEM	**TA Time**	**PLM**	**TA Time**	**Optical / IAQ**	**TA Time**
Circle analysis and TA time		*Circle analysis and TA time*	*2 hour*	PCM: NIOSH 7400	Note TAT
AHERA	*4 hour*	Improved	4 hour	Allergen Particle:	24 hour
EPA Level II	8 hour	Interim	8 hour	tape/bulk/swab	2 days
Drinking Water	16 hour		16 hour	Cyclex-d cassettes	3 days
Wipe	24 hour	**AHERA**	24 hour	Air-o-cell cassettes	5-10 days
Micro-vac	2 days		2 days	Anderson cultures	Specify
NIOSH 7402	3 days	Point Count -	**3 days**	Bulk/swab cultures	Mold or
Chatfield Bulk	5 days	(NESHAPS)	5 days	Bacteria cultures	bacteria

Please indicate appropriate turn around time. (minimum turnaround - 3 Days for Lead TCLP and water)

Lead: *Circle analysis and TA time*

Sample Information:

Sample #:	**Sample Location:**	**Sample Date/Time:**	**Sample Volume (L)**
090065 Tr. 8X #1	Area (A) Ceiling	2/6/2013	
090065 Tr. 8X #2	Area (B) Ceiling	2/6/2013	
090065 Tr. 8X #3	Area (J) Ceiling	2/6/2013	
090065 Tr. 8X #4	Area (E) Ceiling	2/6/2013	
090065 Tr. 8X #5	Area (C) Wall	2/6/2013	
090065 Tr. 8X #6	Area (D) Wall	2/6/2013	
090065 Tr. 8X #7	Area (I) Wall	2/6/2013	
090065 Tr. 8X #8	Area (K) Wall	2/6/2013	
090065 Tr. 8X #9	Area (E) Floor	2/6/2013	
090065 Tr. 8X #10	Area (A) Floor	2/6/2013	

Custody Information:

Samples relinquished: Joel Clark 2-13-13 10:06
Signature / Date / Time

Samples received: [signature] 02/14/13 10:00AM
Signature / Date / Time

CA Labs
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Materials Characterization - Bulk Asbestos Analysis

Laboratory Analysis Report - Polarized Light

Arkansas State Highway & Transportation Dept. **Attn:** Robert Pooler

10324 I-30, Room 705
Little Rock, AR 72209

Customer Project: Tract 8X 15359 Hwy 62 East Garfield, AR 72732
Reference #: CAL13021173CP Date: 02/18/13

Analysis and Method

Summary of polarizing light microscopy (PLM / Stereomicroscopy bulk asbestos analysis) using the methods described in 40CFR Part 763 Appendix E to Subpart E (Interim and EPA 600 / R-93 / 116 (Improved). The sample is first viewed with the aid of stereomicroscopy. Numerous liquid slide preparations are created for analysis under the polarized microscope where identifications and quantifications are preformed. Calibrated liquid refractive oils are used as liquid mouting medium. These oils are used for identification (dispersion staining). A calibrated visual estimation is reported, should any asbestiform mineral be present. Other techniques such as acid washing are used in conjugation with refractive oils for detection of smaller quantities of asbestos. All asbestos percentages are based on calibrated visual estimation traceable to NIST standards for regulated of asbestos. Traceability to measurement and calibration is achieved by using known amounts and types of asbestos from standards where analyst and laboratory accuracy are measured. As little as 0.001% asbestos can be detected in favorable samples, while detection in unfavorable samples may approach the detection limit of 0.50% (well above the laboratory definition of trace).

Discussion

Vermiculite containing samples may have trace amounts of actinolite-tremolite, where not found be PLM should be analyzed using TEM methods and / or water separation techniques. Suspected actinolite/vermiculite presence will be indicated through the sample comment section of this report.

Fibrous talc containing samples may even contain a related asbestos fiber known as anthophyllite. Under certain conditions the same fiber may actually contain both talc and anthophyllite (a phenomenon called intergrowth). Again, TEM detection methods are recommended. CA Labs PLM report comments will denote suspected amounts of asbestiform anthophyllite with talc, where further analysis is recommended.

Some samples (floor tiles, surfacings, etc.) may contain fibers too small to be delectable by PLM analysis and should be analyzed by TEM bulk protocols.

A "trace asbestos" will be reported if the analyst observes far less than 1% asbestos. CA Labs defines "trace asbestos" as a few fibers detected by the analyst in several preparations and will indicate as such under these circumstances.

Quantification of <1% will actually be reported as <=1% (allowable variance close to 1% is high). Such results are ideal for point counting, and the technique is mandatory for friable samples (NESHAP, Nov. 1990 and clarification letter 8 May 1991) under 1% percent asbestos and the "trace asbestos". **In order to make all initial PLM reports issued from CA Labs NESHAP compliant, all <1% asbestos results (except floor tiles) will be point counted at no additional charge.**

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Dallas NVLAP Lab Code 200349-0 TEM/PLM EPA H20 TX 01402 TDH 30-0235
AIHA LAP, LLC Laboratory #102929

CA Labs
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1929 Old Denton Road
Carrollton, TX 75006
Phone 972-242-2754
Fax 972-242-2798

CA Labs, L.L.C.
12232 Industriplex, Suite 32
Baton Rouge, LA 70809
Phone 225-751-5632
Fax 225-751-5634

Overview of Project Sample Material Containing Asbestos

Customer Project: Tract 8X 15359 Hwy 62 East Garfield, AR 72732 **CA Labs Project #:** CAL13021173CP

Sample #	Layer #	Analysts Physical Description of Subsample	Asbestos type / calibrated visual estimate percent	List of Affected Building Material Types

No Asbestos Detected.

Dallas NVLAP Lab Code 200349-0 TEM/PLM EPA H20 TX 01402 TDH 30-0235
AIHA LAP, LLC Laboratory #102929

Glossary of abbreviations (non-asbestos fibers and non-fibrous minerals):

ca - carbonate
gypsum - gypsum
bi - binder
or - organic
ma - matrix
mi - mica
ve - vermiculite
ot - other
pe - perlite
qu - quartz
fg - fiberglass
mw - mineral wool
wo - wollastinite
ta - talc
sy - synthetic
ce - cellulose
br - brucite
ka - kaolin (clay)
pa - palygorskite (clay)

CA Labs
Dedicated to Quality

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Polarized Light Asbestiform Materials Characterization

Customer Info: **Attn:** Robert Pooler
Arkansas State Highway & Transportation Dept.
10324 I-30, Room 705
Little Rock, AR 72209

Phone # 501-569-2317
Fax # 501-569-2018

Customer Project:
Tract 8X 15359 Hwy 62 East
Garfield, AR 72732
Turnaround Time:
3 Days

CA Labs Project #:
CAL13021173CP

Date: 02/18/13
Samples Received: 2/14/13 10AM
Date Of Sampling: 02/06/13
Purchase Order #: 090065

Sample #	Comment	Layer #	Analysts Physical Description of Subsample	Homogeneous (Y/N)	Asbestos type / calibrated visual estimate percent	Non-asbestos fiber type / percent	Non-fibrous type / percent
090065 Tr. 8X 1		1-1	***Area (A) Ceiling**/ white surfaced white compound*	n	***None Detected***		100% mi,bi,ca
		1-2	*white compound (beneath tape)*	y	***None Detected***		100% mi,ca
		1-3	*white drywall with brown paper*	n	***None Detected***	19% ce 1% fg	80% qu,gy
090065 Tr. 8X 2		2-1	***Area (B) Ceiling**/ white surfaced white compound*	n	***None Detected***		100% mi,bi,ca
		2-2	*white drywall with brown paper*	n	***None Detected***	18% ce 1% fg	81% qu,gy
090065 Tr. 8X 3		3-1	***Area (J) Ceiling**/ white surfaced white compound*	n	***None Detected***		100% mi,bi,ca
		3-2	*white drywall with brown paper*	n	***None Detected***	20% ce 1% fg	79% qu,gy

Dallas NVLAP Lab Code 200349-0 TEM/PLM *EPA H20 TX 01402* *TDH 30-0235*

AIHA LAP, LLC Laboratory #102929

Analysis Method: Interim (40CFR Part 763 Appendix E to Subpart E) / Improved (EPA-600 / R-93/116)
Preparation Method: HCL acid washing for carbonate based samples, chemical reduction for organically bound components, oil immersion for identification of asbestos types by dispersion attaining / becke line method.

ca - carbonate	mi - mica	fg - fiberglass	ce - cellulose
gypsum - gypsum	ve - vermiculite	mw - mineral wool	br - brucite
bi - binder	ot -other	wo - wollastinite	ka - kaolin (clay)
or - organic	pe - perlite	ta - talc	pa - palygorskite (clay)
ma - matrix	qu - quartz	sy - synthetic	

Approved Signatories:

C. T. Ras

Tanner Rasmussen
Analyst

QAC
Leslie Crisp, P.G.

Technical Manager
Chad Lytle

1. Fire Damage significant fiber damage - reported percentages reflect unaltered fibers
2. Fire Damage no significant fiber damages effecting fibrous percentages
3. Actinolite in association with Vermiculite
4. Layer not analyzed - attached to previous positive layer and contamination is suspected
5. Not enough sample to analyze
6. Anthophyllite in association with Fibrous Talc
7. Contamination suspected from other building materials
8. Favorable scenario for water separation on vermiculite for possible analysis by another method
9. < 1% Result point counted positive
10. TEM analysis suggested

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Polarized Light Asbestiform Materials Characterization

Customer Info: **Attn:** Robert Pooler
Arkansas State Highway & Transportation Dept.
10324 I-30, Room 705
Little Rock, AR 72209

Phone # 501-569-2317
Fax # 501-569-2018

Customer Project:
Tract 8X 15359 Hwy 62 East
Garfield, AR 72732
Turnaround Time:
3 Days

CA Labs Project #:
CAL13021173CP

Date: 02/18/13
Samples Received: 2/14/13 10AM
Date Of Sampling: 02/06/13
Purchase Order #: 090065

Sample #	Comment	Layer #	Analysts Physical Description of Subsample	Homogeneous (Y/N)	Asbestos type / calibrated visual estimate percent	Non-asbestos fiber type / percent	Non-fibrous type / percent
090065 Tr. 8X 4		4-1	***Area (E) Ceiling/*** *white surfaced white compound*	*n*	***None Detected***		100% mi,bi,ca
		4-2	*white drywall with brown paper*	*n*	***None Detected***	19% ce 1% fg	80% qu,gy
090065 Tr. 8X 5		5-1	***Area (C) Wall/*** *light green surfaced white compound*	*n*	***None Detected***		100% mi,bi,ca
		5-2	*white drywall with brown paper*	*n*	***None Detected***	18% ce 1% fg	81% qu,gy
090065 Tr. 8X 6		6-1	***Area (D) Wall/*** *blue surfaced white compound*	*n*	***None Detected***		100% mi,bi,ca
		6-2	*white drywall with brown paper*	*n*	***None Detected***	19% ce 1% fg	80% qu,gy
090065 Tr. 8X 7		7-1	***Area (I) Wall/*** *purple surfaced white compound*	*n*	***None Detected***		100% mi,bi,ca

Dallas NVLAP Lab Code 200349-0 TEM/PLM *EPA H20 TX 01402* *TDH 30-0235*

AIHA LAP, LLC Laboratory #102929

Analysis Method: Interim (40CFR Part 763 Appendix E to Subpart E) / Improved (EPA-600 / R-93/116)
Preparation Method: HCL acid washing for carbonate based samples, chemical reduction for organically bound components, oil immersion for identification of asbestos types by dispersion attaining / becke line method.

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bi - binder	ot -other	wo - wollastinite	ka - kaolin (clay)
or - organic	pe - perlite	ta - talc	pa - palygorskite (clay)
ma - matrix	qu - quartz	sy - synthetic	

Approved Signatories:

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Tanner Rasmussen
Analyst

QAC
Leslie Crisp, P.G.

Technical Manager
Chad Lytle

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Polarized Light Asbestiform Materials Characterization

Customer Info: **Attn:** Robert Pooler
Arkansas State Highway & Transportation Dept.
10324 I-30, Room 705
Little Rock, AR 72209

Phone # 501-569-2317
Fax # 501-569-2018

Customer Project:
Tract 8X 15359 Hwy 62 East
Garfield, AR 72732
Turnaround Time:
3 Days

CA Labs Project #:
CAL13021173CP

Date: 02/18/13
Samples Received: 2/14/13 10AM
Date Of Sampling: 02/06/13
Purchase Order #: 090065

Sample #	Comment	Layer #	Analysts Physical Description of Subsample	Homogeneous (Y/N)	Asbestos type / calibrated visual estimate percent	Non-asbestos fiber type / percent	Non-fibrous type / percent
		7-2	*white drywall with brown paper*	*n*	***None Detected***	18% ce 1% fg	81% qu,gy
090065 Tr. 8X 8		*8-1*	***Area (K) Wall/*** *light green surfaced white compound*	*n*	***None Detected***		100% mi,bi,ca
		8-2	*white drywall with brown paper*	*n*	***None Detected***	19% ce 1% fg	80% qu,gy
090065 Tr. 8X 9		*9-1*	***Area (E) Floor/*** *black self-adhesive floor tile*	*y*	***None Detected***		100% qu,gy,ma
		9-2	*tan mastic*	*y*	***None Detected***		100% gy,bi
090065 Tr. 8X 10		*10-1*	***Area (A) Floor/*** *red self-adhesive floor tile*	*y*	***None Detected***		100% qu,gy,ma
		10-2	*clear mastic*	*y*	***None Detected***		100% bi

Dallas NVLAP Lab Code 200349-0 TEM/PLM *EPA H20 TX 01402* *TDH 30-0235*

AIHA LAP, LLC Laboratory #102929

Analysis Method: Interim (40CFR Part 763 Appendix E to Subpart E) / Improved (EPA-600 / R-93/116)
Preparation Method: HCL acid washing for carbonate based samples, chemical reduction for organically bound components, oil immersion for identification of asbestos types by dispersion attaining / becke line method.

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or - organic	pe - perlite	ta - talc	pa - palygorskite (clay)
ma - matrix	qu - quartz	sy - synthetic	

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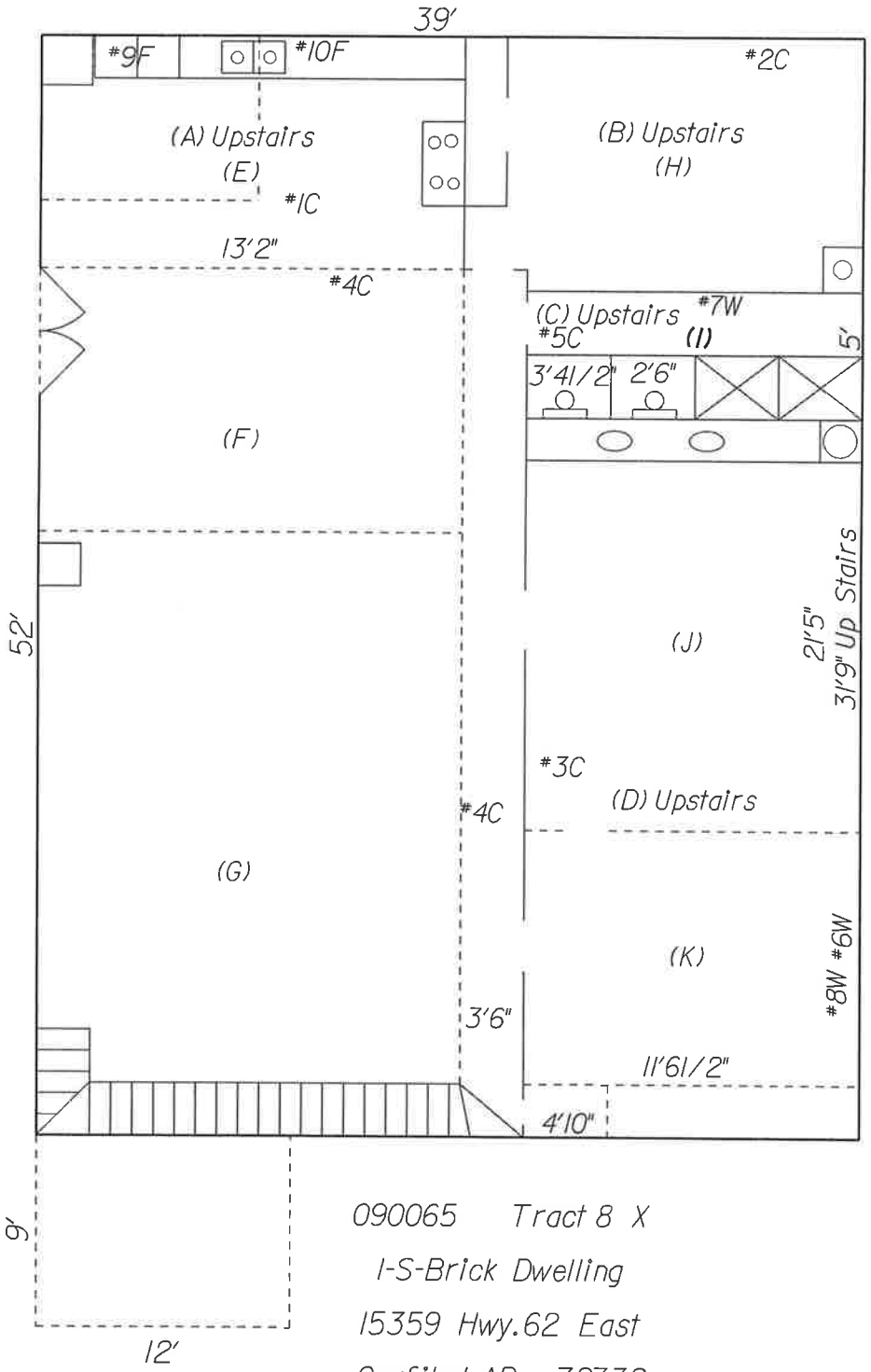
7. Contamination suspected from other building materials
8. Favorable scenario for water separation on vermiculite for possible analysis by another method
9. < 1% Result point counted positive
10. TEM analysis suggested

INSPECTION FLOOR PLAN

JOB:	090065	PROPERTY LOCATION	INSPECTED BY
TRACT:	8 X	2-S-F Dwelling	Joel Clark (011518)
DATE:	2/6/13	15359 Hwy. 62 East	
		Garfield, AR 72732	

Sample Number	Description/ Locaton	Sample Number	Description/ Location
#1	E) Ceiling	#11	H) Floor
#2	C) Ceiling	#12	H) Floor
#3	H) Ceiling	#13	D) Floor
#4	H) Ceiling	#14	D) Floor
#5	A) Wall	#15	
#6	H) Wall	#16	
#7	D) Wall	#17	
#8	G) Floor	#18	
#9	E) Floor	#19	
#10	G) Floor	#20	

Homogenous Areas:	
Roofing	Composition Shingle
Siding	Brick; Wood
Ceilings G & H) Popcorn	(CDEF)Trialed On
Walls (A & B) Painted Wood	(C-H) Sheet Rock
Floors (ABC) Carpet/Slab;	(D,H) Carpet/Linoleum;
E & F) Parka Wood/Linoleum	G) Tile/Slab



090065 Tract 8 X

1-S-Brick Dwelling

15359 Hwy. 62 East

Garfiled, AR 72732

Approx. 1,664 SF

8XR

8 X R

8 of 8

8x8

CA Labs

Crisp Analytical Laboratories, L.L.C
1929 Old Denton Rd.
Carrollton, TX 75006

Phone: 972-272-2754
Fax: 972-272-2798
Mobile: 214-564-8366

Chain of Custody

Client Name:	AHTD	**CA Labs job**	**CAL#**
Client Address:	P.O. Box 2261	Billing Address:	
	Room #705	(if different)	
	Little Rock, AR 72203-2261		
phone number:	501-569-2317 or 2318	P.O. # :	090065 1-S-Brick Dwelling
fax number:		Project Name:	Tract 8XR 15359 Hwy 62 East
Send Reports to:	Joeld.Clark@arkansashighways.com	Project Number:	090065 Garfield, AR 72732

Total # Samples Submitted: 14	**Total # Samples to be Analyzed: 14**	**Material Matrix:** Air / **Bulk** / Water

Asbestos: *please call ahead for availability of all rush and/or after hours samples.*

TEM	**TA Time**	**PLM**	**TA Time**	**Optical / IAQ**	**TA Time**
Circle analysis and TA time		*Circle analysis and TA time*	*2 hour*	PCM: NIOSH 7400	Note TAT
AHERA	*4 hour*	Improved	4 hour	Allergen Particle:	24 hour
EPA Level II	8 hour	Interim	8 hour	tape/bulk/swab	2 days
Drinking Water	16 hour		16 hour	Cyclex-d cassettes	3 days
Wipe	24 hour	**AHERA**	24 hour	Air-o-cell cassettes	5-10 days
Micro-vac	2 days		2 days	Anderson cultures	Specify
NIOSH 7402	3 days	Point Count -	**3 days**	Bulk/swab cultures	Mold or
Chatfield Bulk	5 days	(NESHAPS)	5 days	Bacteria cultures	bacteria

Please indicate appropriate turn around time. (minimum turnaround - 3 Days for Lead TCLP and water)

Lead: *Circle analysis and TA time*

Sample Information:

Sample #:	Sample Location:	Sample Date/Time:	Sample Volume (L)
090065 Tr. 8XR #1	Area (E) Ceiling	2/6/2013	
090065 Tr. 8XR #2	Area (C) Ceiling	2/6/2013	
090065 Tr. 8XR #3	Area (H) Ceiling	2/6/2013	
090065 Tr. 8XR #4	Area (H) Ceiling	2/6/2013	
090065 Tr. 8XR #5	Area (A) Wall	2/6/2013	
090065 Tr. 8XR #6	Area (H) Wall	2/6/2013	
090065 Tr. 8XR #7	Area (D) Wall	2/6/2013	
090065 Tr. 8XR #8	Area (G) Floor	2/6/2013	
090065 Tr. 8XR #9	Area (E) Floor	2/6/2013	
090065 Tr. 8XR #10	Area (G) Floor	2/6/2013	

Custody Information:

Samples relinquished: _____ Signature / Date / Time

Samples received: _____ Signature / Date / Time

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Chain of Custody

Page 2

Sample #:	Sample Location:	Sample Date/Time:	Sample Volume (L)
090065 Tr. 8XR #11	Area (H) Floor	2/6/2013	
090065 Tr. 8XR #12	Area (H) Floor	2/6/2013	
090065 Tr. 8XR #13	Area (D) Floor	2/6/2013	
090065 Tr. 8XR #14	Area (D) Floor	2/6/2013	

Custody Information:

Samples relinquished: _____
Signature / Date / Time

Samples received: _____
Signature / Date / Time

Samples relinquished: _____
Signature / Date / Time

Samples received: _____
Signature / Date / Time

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Materials Characterization - Bulk Asbestos Analysis

Laboratory Analysis Report - Polarized Light

Arkansas State Highway & Transportation Dept.
10324 I-30, Room 705
Little Rock, AR 72209

Attn: Robert Pooler
Customer Project: 1-S-Brick Dwelling, Tract 8XR 15359 Hwy 62 East
Reference #: CAL13021168MR Date: 2/19/2013

Analysis and Method

Summary of polarizing light microscopy (PLM / Stereomicroscopy bulk asbestos analysis) using the methods described in 40CFR Part 763 Appendix E to Subpart E (Interim and EPA 600 / R-93 / 116 (Improved). The sample is first viewed with the aid of stereomicroscopy. Numerous liquid slide preparations are created for analysis under the polarized microscope where identifications and quantifications are preformed. Calibrated liquid refractive oils are used as liquid mouting medium. These oils are used for identification (dispersion staining). A calibrated visual estimation is reported, should any asbestiform mineral be present. Other techniques such as acid washing are used in conjugation with refractive oils for detection of smaller quantities of asbestos. All asbestos percentages are based on calibrated visual estimation traceable to NIST standards for regulated of asbestos. Traceability to measurement and calibration is achieved by using known amounts and types of asbestos from standards where analyst and laboratory accuracy are measured. As little as 0.001% asbestos can be detected in favorable samples, while detection in unfavorable samples may approach the detection limit of 0.50% (well above the laboratory definition of trace).

Discussion

Vermiculite containing samples may have trace amounts of actinolite-tremolite, where not found be PLM should be analyzed using TEM methods and / or water separation techniques. Suspected actinolite/vermiculite presence will be indicated through the sample comment section of this report.

Fibrous talc containing samples may even contain a related asbestos fiber known as anthophyllite. Under certain conditions the same fiber may actually contain both talc and anthophyllite (a phenomenon called intergrowth). Again, TEM detection methods are recommended. CA Labs PLM report comments will denote suspected amounts of asbestiform anthophyllite with talc, where further analysis is recommended.

Some samples (floor tiles, surfacings, etc.) may contain fibers too small to be delectable by PLM analysis and should be analyzed by TEM bulk protocols.

A "trace asbestos" will be reported if the analyst observes far less than 1% asbestos. CA Labs defines "trace asbestos" as a few fibers detected by the analyst in several preparations and will indicate as such under these circumstances.

Quantification of <1% will actually be reported as <=1% (allowable variance close to 1% is high). Such results are ideal for point counting, and the technique is mandatory for friable samples (NESHAP, Nov. 1990 and clarification letter 8 May 1991) under 1% percent asbestos and the "trace asbestos". **In order to make all initial PLM reports issued from CA Labs NESHAP compliant, all <1% asbestos results (except floor tiles) will be point counted at no additional charge.**

Qualifications

CA Labs is accredited by the National Voluntary Accreditation Program (NVLAP) for selected test methods for airborne fiber analysis (TEM), and for bulk asbestos fiber analysis (PLM). CA Labs is also accredited by AIHA LAP, LLC. in the PLM asbestos field of testing for Industrial Hygiene. All analysts have a college degree in a natural science (geology, biology, or environmental science) or are recognized by a state professional board in one these disciplines .Extensive in-house training programs are used to augment education background of the analyst. The group leader of polarized light has received supplemental McCrone Research training for asbestos identification. Analysis performed at Crisp Analytical Labs, LLC 1929 Old Denton Road Carrollton, TX 75006

Dallas NVLAP Lab Code 200349-0 TEM/PLM EPA H20 TX 01402 TDH 30-0235
AIHA LAP, LLC Laboratory #102929

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Overview of Project Sample Material Containing Asbestos

Customer Project: 1-S-Brick Dwelling, Tract 8XR 15359 Hwy 62 East **CA Labs Project #:** CAL13021168MR

Sample #	Layer #	Analysts Physical Description of Subsample	Asbestos type / calibrated visual estimate percent	List of Affected Building Material Types
090065 Tr. 8XR #1	1-1	***Area (E) Ceiling/*** *white surfaced white compound*	***3% Chrysotile***	***white surfaced white compound***
	1-2	*white compound (beneath tape)*	***3% Chrysotile***	***white compound (beneath tape)***
				blue surfaced white compound
				green surfaced white compound
				tan linoleum
090065 Tr. 8XR #2	2-1	***Area (C) Ceiling/*** *white surfaced white compound*	***3% Chrysotile***	
	2-2	*white compound (beneath tape)*	***3% Chrysotile***	
090065 Tr. 8XR #6	6-1	***Area (H) Wall/*** *blue surfaced white compound*	***2% Chrysotile***	
	6-2	*white compound (beneath tape)*	***2% Chrysotile***	
090065 Tr. 8XR #7	7-1	***Area (D) Wall/*** *green surfaced white compound*	***2% Chrysotile***	
	7-2	*white compound (beneath tape)*	***2% Chrysotile***	

Dallas NVLAP Lab Code 200349-0 TEM/PLM *EPA H20 TX 01402* *TDH 30-0235*

AIHA LAP, LLC Laboratory #102929

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Overview of Project Sample Material Containing Asbestos

Customer Project: 1-S-Brick Dwelling, Tract 8XR 15359 Hwy 62 East **CA Labs Project #:** CAL13021168MR

Sample #	Layer #	Analysts Physical Description of Subsample	Asbestos type / calibrated visual estimate percent	List of Affected Building Material Types
090065 Tr. 8XR #8	*8-4*	*tan linoleum*	***22% Chrysotile***	
090065 Tr. 8XR #9	*9-5*	*tan linoleum*	***24% Chrysotile***	

Dallas NVLAP Lab Code 200349-0 TEM/PLM EPA H20 TX 01402 TDH 30-0235
AIHA LAP, LLC Laboratory #102929

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Polarized Light Asbestiform Materials Characterization

Customer Info: **Attn:** Robert Pooler
Arkansas State Highway & Transportation Dept.
10324 I-30, Room 705
Little Rock, AR 72209

Phone # 501-569-2317
Fax # 501-569-2018

Customer Project:
1-S-Brick Dwelling, Tract 8XR
15359 Hwy 62 East
Turnaround Time:
3 Days

CA Labs Project #:
CAL13021168MR

Date: 2/19/2013
Samples Received: 02/14/13 10AM
Date Of Sampling: 2/6/2013
Purchase Order #: 090065

Sample #	Comment	Layer #	Analysts Physical Description of Subsample	Homogeneous (Y/N)	Asbestos type / calibrated visual estimate percent	Non-asbestos fiber type / percent	Non-fibrous type / percent
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		1-2	*white compound (beneath tape)*	*y*	***3% Chrysotile***		97% mi,bi,ca
		1-3	*white drywall with brown paper*	*n*	***None Detected***	18% ce 2% fg	80% qu,gy
090065 Tr. 8XR #2		2-1	***Area (C) Ceiling/*** *white surfaced white compound*	*n*	***3% Chrysotile***		97% mi,bi,ca
		2-2	*white compound (beneath tape)*	*y*	***3% Chrysotile***		97% mi,bi,ca
		2-3	*white drywall with brown paper*	*n*	***None Detected***	19% ce 1% fg	80% qu,gy
090065 Tr. 8XR #3		3-1	***Area (H) Ceiling/*** *white surfaced white compound*	*n*	***None Detected***		100% qu,bi,ca

Dallas NVLAP Lab Code 200349-0 TEM/PLM *EPA H20 TX 01402* *TDH 30-0235*

AIHA LAP, LLC Laboratory #102929

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or - organic	pe - perlite	ta - talc	pa - palygorskite (clay)
ma - matrix	qu - quartz	sy - synthetic	

Approved Signatories:

Julio Robles
Analyst

QAC
Leslie Crisp, P.G.

Technical Manager
Chad Lytle

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7. Contamination suspected from other building materials
8. Favorable scenario for water separation on vermiculite for possible analysis by another method
9. < 1% Result point counted positive
10. TEM analysis suggested

CA Labs
Dedicated to Quality

Crisp Analytical, L.L.C.
1929 Old Denton Road
Carrollton, TX 75006
Phone 972-242-2754
Fax 972-242-2798

CA Labs, L.L.C.
12232 Industriplex, Suite 32
Baton Rouge, LA 70809
Phone 225-751-5632
Fax 225-751-5634

Polarized Light Asbestiform Materials Characterization

Customer Info: **Attn:** Robert Pooler
Arkansas State Highway & Transportation Dept.
10324 I-30, Room 705
Little Rock, AR 72209

Phone # 501-569-2317
Fax # 501-569-2018

Customer Project:
1-S-Brick Dwelling, Tract 8XR
15359 Hwy 62 East
Turnaround Time:
3 Days

CA Labs Project #:
CAL13021168MR

Date: 2/19/2013
Samples Received: 02/14/13 10AM
Date Of Sampling: 2/6/2013
Purchase Order #: 090065

Sample #	Comment	Layer #	Analysts Physical Description of Subsample	Homogeneous (Y/N)	Asbestos type / calibrated visual estimate percent	Non-asbestos fiber type / percent	Non-fibrous type / percent
		3-2	*white drywall with brown paper*	*n*	***None Detected***	18% ce 1% fg	81% qu,gy
090065 Tr. 8XR #4		*4-1*	***Area (H) Ceiling/*** *white surfaced white compound*	*n*	***None Detected***		100% qu,bi,ca
		4-2	*white drywall with brown paper*	*n*	***None Detected***	18% ce 2% fg	80% qu,gy
090065 Tr. 8XR #5		*5-1*	***Area (A) Wall/*** *white surfaced white compound*	*n*	***None Detected***		100% mi,bi,ca
		5-2	*white drywall with brown paper*	*n*	***None Detected***	19% ce 1% fg	80% qu,gy
090065 Tr. 8XR #6		*6-1*	***Area (H) Wall/*** *blue surfaced white compound*	*n*	***2% Chrysotile***		98% mi,bi,ca
		6-2	*white compound (beneath tape)*	*y*	***2% Chrysotile***		98% mi,ca

Dallas NVLAP Lab Code 200349-0 TEM/PLM *EPA H20 TX 01402* *TDH 30-0235*

AIHA LAP, LLC Laboratory #102929

Analysis Method: Interim (40CFR Part 763 Appendix E to Subpart E) / Improved (EPA-600 / R-93/116)
Preparation Method: HCL acid washing for carbonate based samples, chemical reduction for organically bound components, oil immersion for identification of asbestos types by dispersion attaining / becke line method.

ca - carbonate	mi - mica	fg - fiberglass	ce - cellulose
gypsum - gypsum	ve - vermiculite	mw - mineral wool	br - brucite
bi - binder	ot -other	wo - wollastinite	ka - kaolin (clay)
or - organic	pe - perlite	ta - talc	pa - palygorskite (clay)
ma - matrix	qu - quartz	sy - synthetic	

Approved Signatories:

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Polarized Light Asbestiform Materials Characterization

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Arkansas State Highway & Transportation Dept.
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Little Rock, AR 72209

Phone # 501-569-2317
Fax # 501-569-2018

Customer Project:
1-S-Brick Dwelling, Tract 8XR
15359 Hwy 62 East
Turnaround Time:
3 Days

CA Labs Project #:
CAL13021168MR

Date: 2/19/2013
Samples Received: 02/14/13 10AM
Date Of Sampling: 2/6/2013
Purchase Order #: 090065

Sample #	Comment	Layer #	Analysts Physical Description of Subsample	Homogeneous (Y/N)	Asbestos type / calibrated visual estimate percent	Non-asbestos fiber type / percent	Non-fibrous type / percent
		6-3	*white drywall with brown paper*	*n*	***None Detected***	18% ce 2% fg	80% qu,gy
090065 Tr. 8XR #7		*7-1*	***Area (D) Wall/*** *green surfaced white compound*	*n*	***2% Chrysotile***		98% mi,bi,ca
		7-2	*white compound (beneath tape)*	*y*	***2% Chrysotile***		98% mi,ca
		7-3	*white drywall with brown paper*	*n*	***None Detected***	18% ce 1% fg	81% qu,gy
090065 Tr. 8XR #8		*8-1*	***Area (G) Floor/*** *tan mastic*	*y*	***None Detected***		100% gy,bi
		8-2	*tan self-adhesive floor tile*	*y*	***None Detected***		100% qu,gy,ma
		8-3	*tan mastic*	*y*	***None Detected***		100% gy,bi

Dallas NVLAP Lab Code 200349-0 TEM/PLM *EPA H20 TX 01402* *TDH 30-0235*

AIHA LAP, LLC Laboratory #102929

Analysis Method: Interim (40CFR Part 763 Appendix E to Subpart E) / Improved (EPA-600 / R-93/116)
Preparation Method: HCL acid washing for carbonate based samples, chemical reduction for organically bound components, oil immersion for identification of asbestos types by dispersion attaining / becke line method.

ca - carbonate	mi - mica	fg - fiberglass	ce - cellulose
gypsum - gypsum	ve - vermiculite	mw - mineral wool	br - brucite
bi - binder	ot -other	wo - wollastinite	ka - kaolin (clay)
or - organic	pe - perlite	ta - talc	pa - palygorskite (clay)
ma - matrix	qu - quartz	sy - synthetic	

Approved Signatories:

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Polarized Light Asbestiform Materials Characterization

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Phone # 501-569-2317
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Customer Project:
1-S-Brick Dwelling, Tract 8XR
15359 Hwy 62 East
Turnaround Time:
3 Days

CA Labs Project #:
CAL13021168MR

Date: 2/19/2013
Samples Received: 02/14/13 10AM
Date Of Sampling: 2/6/2013
Purchase Order #: 090065

Sample #	Comment	Layer #	Analysts Physical Description of Subsample	Homogeneous (Y/N)	Asbestos type / calibrated visual estimate percent	Non-asbestos fiber type / percent	Non-fibrous type / percent
		8-4	*tan linoleum*	*y*	***22% Chrysotile***		78% gy,ma
	4	*8-5*	*tan mastic*				
090065 Tr. 8XR #9		*9-1*	***Area (E) Floor/ tan mastic***	*y*	***None Detected***		100% gy,bi
		9-2	*white self-adhesive floor tile*	*y*	***None Detected***		100% qu,gy,ma
		9-3	*clear mastic*	*y*	***None Detected***		100% gy,bi
		9-4	*tan mastic*	*y*	***None Detected***		100% gy,bi
		9-5	*tan linoleum*	*y*	***24% Chrysotile***		76% gy,ma

Dallas NVLAP Lab Code 200349-0 TEM/PLM *EPA H20 TX 01402* *TDH 30-0235*

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or - organic	pe - perlite	ta - talc	pa - palygorskite (clay)
ma - matrix	qu - quartz	sy - synthetic	

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Polarized Light Asbestiform Materials Characterization

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1-S-Brick Dwelling, Tract 8XR
15359 Hwy 62 East
Turnaround Time:
3 Days

CA Labs Project #:
CAL13021168MR

Date: 2/19/2013
Samples Received: 02/14/13 10AM
Date Of Sampling: 2/6/2013
Purchase Order #: 090065

Sample #	Comment	Layer #	Analysts Physical Description of Subsample	Homogeneous (Y/N)	Asbestos type / calibrated visual estimate percent	Non-asbestos fiber type / percent	Non-fibrous type / percent
	4	*9-6*	*tan mastic*				
090065 Tr. 8XR #10		*10-1*	***Area (G) Floor/ white self-adhesive floor tile***	*y*	***None Detected***		100% qu,gy,ma
		10-2	*tan mastic*	*y*	***None Detected***		100% gy,bi
		10-3	*white self-adhesive floor tile*	*y*	***None Detected***		100% qu,gy,ma
		10-4	*tan mastic*	*y*	***None Detected***		100% gy,bi
		10-5	*tan linoleum*	*y*	***None Detected***	9% ce 3% fg	88% gy,ma
		10-6	*tan mastic*	*y*	***None Detected***		100% gy,bi

Dallas NVLAP Lab Code 200349-0 TEM/PLM *EPA H20 TX 01402* *TDH 30-0235*

AIHA LAP, LLC Laboratory #102929

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Polarized Light Asbestiform Materials Characterization

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Phone # 501-569-2317
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1-S-Brick Dwelling, Tract 8XR
15359 Hwy 62 East
Turnaround Time:
3 Days

CA Labs Project #:
CAL13021168MR

Date: 2/19/2013
Samples Received: 02/14/13 10AM
Date Of Sampling: 2/6/2013
Purchase Order #: 090065

Sample #	Comment	Layer #	Analysts Physical Description of Subsample	Homogeneous (Y/N)	Asbestos type / calibrated visual estimate percent	Non-asbestos fiber type / percent	Non-fibrous type / percent
090065 Tr. 8XR #11		11-1	***Area (H) Floor/*** *tan linoleum with gray backing*	*y*	***None Detected***	14% ce	86% gy,ma
090065 Tr. 8XR #12		12-1	***Area (H) Floor/*** *tan linoleum with gray backing*	*y*	***None Detected***	15% ce	85% gy,ma
090065 Tr. 8XR #13		13-1	***Area (D) Floor/*** *tan self-adhesive floor tile*	*y*	***None Detected***		100% qu,gy,ma
		13-2	*tan mastic*	*y*	***None Detected***		100% gy,bi
090065 Tr. 8XR #14		14-1	***Area (D) Floor/*** *tan self-adhesive floor tile*	*y*	***None Detected***		100% qu,gy,ma
		14-2	*tan mastic*	*y*	***None Detected***		100% gy,bi

Dallas NVLAP Lab Code 200349-0 TEM/PLM *EPA H20 TX 01402* *TDH 30-0235*

AIHA LAP, LLC Laboratory #102929

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or - organic	pe - perlite	ta - talc	pa - palygorskite (clay)
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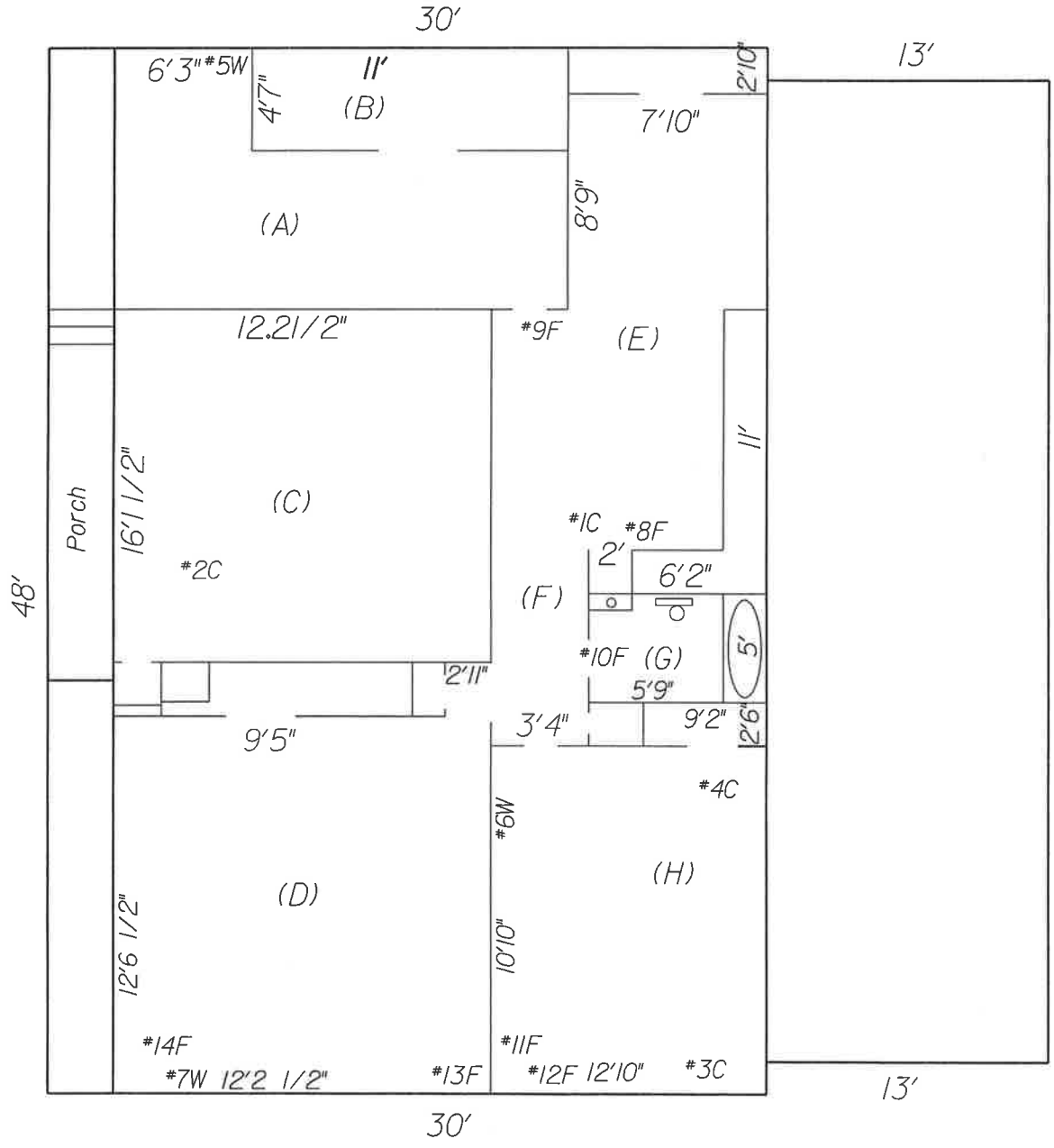
INSPECTION FLOOR PLAN

JOB:	090065	PROPERTY LOCATION	INSPECTED BY
TRACT:	8 XR	1-S-F Dwelling	Joel Clark (011518)
DATE:	2/6/13	15359 Hwy. 62 East	
		Garfield, AR 72732	CECC 800-432-9720
			CECC#52 465 883; Pole #256096

Sample Number	Description/ Locaton	Sample Number	Description/ Location
#1	E) Ceiling	#11	H) Floor
#2	C) Ceiling	#12	H) Floor
#3	H) Ceiling	#13	D) Floor
#4	H) Ceiling	#14	D) Floor
#5	A) Wall	#15	
#6	H) Wall	#16	
#7	D) Wall	#17	
#8	G) Floor	#18	
#9	E) Floor	#19	
#10	G) Floor	#20	

Homogenous Areas:	
Roofing	Composition Shingle
Siding	Brick; Wood
Ceilings G & H) Popcorn	(CDEF)Trialed On
Walls (A & B) Painted Wood	(C-H) Sheet Rock
Floors (ABC) Carpet/Slab; E & F) Parka Wood/Linoleum	(D,H) Carpet/Linoleum; G) Tile/Slab



090065 Tract 8 XR

I-S-Brick & Frame

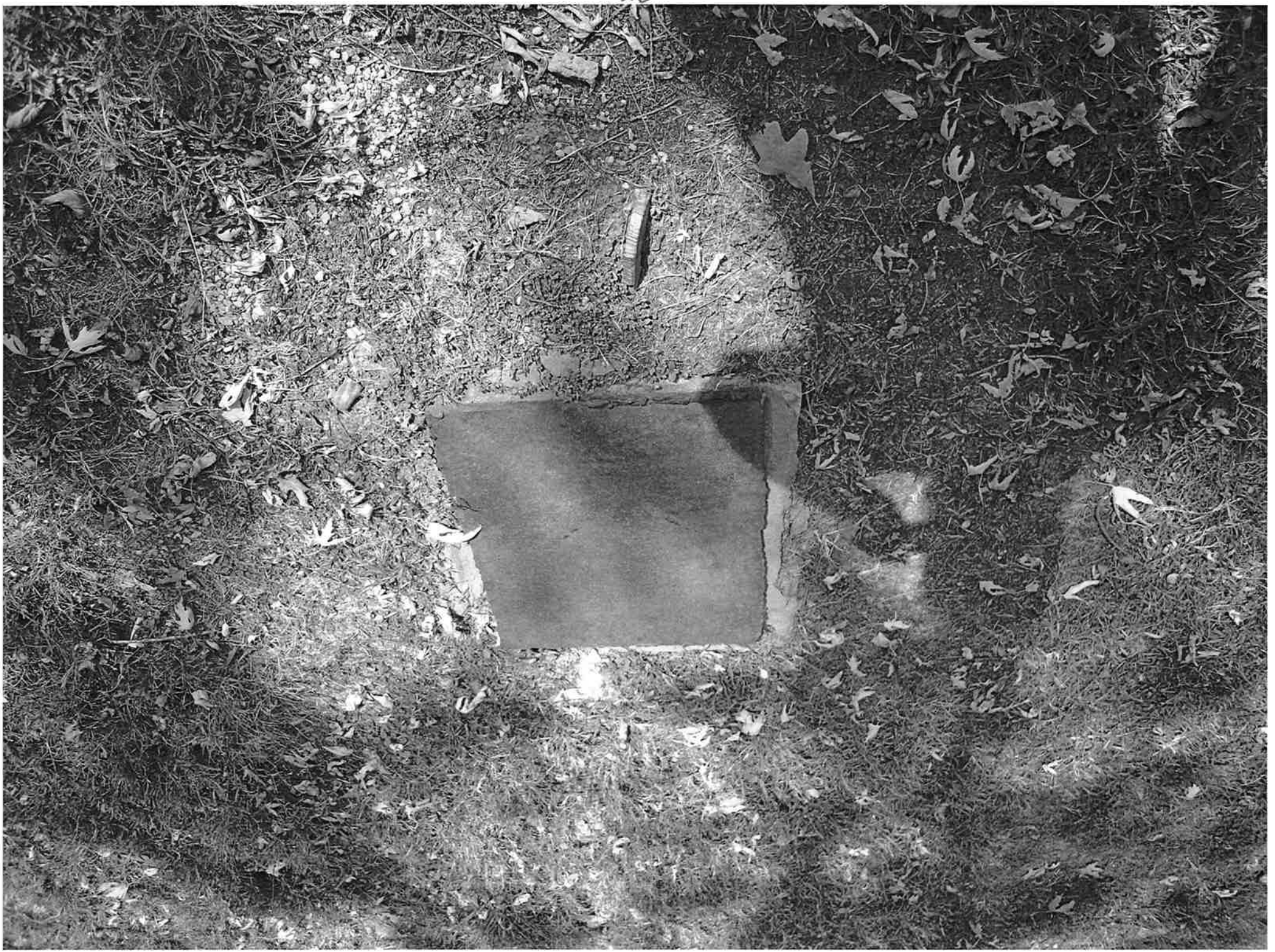
15359 Hwy.62 East

Garfield, AR 72732

X6

x6

X6



9x

CA Labs

Crisp Analytical Laboratories, L.L.C
1929 Old Denton Rd.
Carrollton, TX 75006

Phone: 972-272-2754
Fax: 972-272-2798
Mobile: 214-564-8366

Chain of Custody

Client Name:	AHTD	**CA Labs job**	**CAL#** 13031896
Client Address:	P.O. Box 2261	Billing Address:	
	Room #705	(if different)	
	Little Rock, AR 72203-2261		
phone number:	501-569-2317 or 2318	P.O. # :	090065
fax number:		Project Name:	Tract 9X 15467Boundry Line Rd.
Send Reports to:	Joeld.Clark@arkansashighways.com	Project Number:	090065 Garfield, AR 72732

Total # Samples Submitted: 6	Total # Samples to be Analyzed: 6	Material Matrix: Air / **Bulk** / Water

Asbestos: *please call ahead for availability of all rush and/or after hours samples.*

TEM	TA Time	PLM	TA Time	Optical / IAQ	TA Time
Circle analysis and TA time		*Circle analysis and TA time*	*2 hour*	PCM: NIOSH 7400	Note TAT
AHERA	*4 hour*	Improved	4 hour	Allergen Particle:	24 hour
EPA Level II	8 hour	Interim	8 hour	tape/bulk/swab	2 days
Drinking Water	16 hour		16 hour	Cyclex-d cassettes	3 days
Wipe	24 hour	**AHERA**	24 hour	Air-o-cell cassettes	5-10 days
Micro-vac	2 days		**2 days**	Anderson cultures	Specify
NIOSH 7402	3 days	Point Count -	3 days	Bulk/swab cultures	Mold or
Chatfield Bulk	5 days	(NESHAPS)	5 days	Bacteria cultures	bacteria

Please indicate appropriate turn around time. (minimum turnaround - 3 Days for Lead TCLP and water)

Lead: *Circle analysis and TA time*

Sample Information:

Sample #:	Sample Location:	Sample Date/Time:	Sample Volume (L)
090065 Tr. 9X #1	Area (J) Ceiling	3/6/2013	
090065 Tr. 9X #2	Area (G) Ceiling	3/6/2013	
090065 Tr. 9X #3	Area (A) Ceiling	3/6/2013	
090065 Tr. 9X #4	Area (B) Wall	3/6/2013	
090065 Tr. 9X #5	Area (I) Wall	3/6/2013	
090065 Tr. 9X #6	Area (C) Wall	3/6/2013	

Custody Information:

Samples relinquished: Joel Clark 3-7-13 10:05 — Signature / Date / Time

Samples received: Matthew Romer 3/8/13 10:30Am — Signature / Date / Time

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Materials Characterization - Bulk Asbestos Analysis

Laboratory Analysis Report - Polarized Light

Arkansas State Highway & Transportation Dept.
10324 I-30, Room 705
Little Rock, AR 72209

Attn: Robert Pooler
Customer Project: 090065 Tract 9X 15467 Boundry Line Rd
Reference #: CAL13031896CP Date: 03/12/13

Analysis and Method

Summary of polarizing light microscopy (PLM / Stereomicroscopy bulk asbestos analysis) using the methods described in 40CFR Part 763 Appendix E to Subpart E (Interim and EPA 600 / R-93 / 116 (Improved). The sample is first viewed with the aid of stereomicroscopy. Numerous liquid slide preparations are created for analysis under the polarized microscope where identifications and quantifications are preformed. Calibrated liquid refractive oils are used as liquid mouting medium. These oils are used for identification (dispersion staining). A calibrated visual estimation is reported, should any asbestiform mineral be present. Other techniques such as acid washing are used in conjugation with refractive oils for detection of smaller quantities of asbestos. All asbestos percentages are based on calibrated visual estimation traceable to NIST standards for regulated of asbestos. Traceability to measurement and calibration is achieved by using known amounts and types of asbestos from standards where analyst and laboratory accuracy are measured. As little as 0.001% asbestos can be detected in favorable samples, while detection in unfavorable samples may approach the detection limit of 0.50% (well above the laboratory definition of trace).

Discussion

Vermiculite containing samples may have trace amounts of actinolite-tremolite, where not found be PLM should be analyzed using TEM methods and / or water separation techniques. Suspected actinolite/vermiculite presence will be indicated through the sample comment section of this report.

Fibrous talc containing samples may even contain a related asbestos fiber known as anthophyllite. Under certain conditions the same fiber may actually contain both talc and anthophyllite (a phenomenon called intergrowth). Again, TEM detection methods are recommended. CA Labs PLM report comments will denote suspected amounts of asbestiform anthophyllite with talc, where further analysis is recommended.

Some samples (floor tiles, surfacings, etc.) may contain fibers too small to be delectable by PLM analysis and should be analyzed by TEM bulk protocols.

A "trace asbestos" will be reported if the analyst observes far less than 1% asbestos. CA Labs defines "trace asbestos" as a few fibers detected by the analyst In several preparations and will indicate as such under these circumstances.

Quantification of <1% will actually be reported as <=1% (allowable variance close to 1% is high). Such results are ideal for point counting, and the technique is mandatory for friable samples (NESHAP, Nov. 1990 and clarification letter 8 May 1991) under 1% percent asbestos and the "trace asbestos". **In order to make all initial PLM reports issued from CA Labs NESHAP compliant, all <1% asbestos results (except floor tiles) will be point counted at no additional charge.**

Qualifications

CA Labs is accredited by the National Voluntary Accreditation Program (NVLAP) for selected test methods for airborne fiber analysis (TEM), and for bulk asbestos fiber analysis (PLM). CA Labs is also accredited by AIHA LAP, LLC. in the PLM asbestos field of testing for Industrial Hygiene. All analysts have a college degree in a natural science (geology, biology, or environmental science) or are recognized by a state professional board in one these disciplines .Extensive in-house training programs are used to augment education background of the analyst. The group leader of polarized light has received supplemental McCrone Research training for asbestos identification. Analysis performed at Crisp Analytical Labs, LLC 1929 Old Denton Road Carrollton, TX 75006

Dallas NVLAP Lab Code 200349-0 TEM/PLM EPA H20 TX 01402 TDH 30-0235
AIHA LAP, LLC Laboratory #102929

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Overview of Project Sample Material Containing Asbestos

Customer Project: 090065 Tract 9X 15467 Boundry Line Rd **CA Labs Project #:** CAL13031896CP

Sample #	Layer #	Analysts Physical Description of Subsample	Asbestos type / calibrated visual estimate percent	List of Affected Building Material Types
090065 TR.9X-3	3-2	*white compound (beneath tape)*	***2% Chrysotile***	***white compound (beneath tape)***
				tan surfaced white compound
090065 TR.9X-6	6-1	***Area (C) Wall/*** *tan surfaced white compound*	***2% Chrysotile***	
	6-2	*white compound (beneath tape)*	***2% Chrysotile***	

Dallas NVLAP Lab Code 200349-0 TEM/PLM EPA H20 TX 01402 TDH 30-0235
AIHA LAP, LLC Laboratory #102929

Glossary of abbreviations (non-asbestos fibers and non-fibrous minerals):

ca - carbonate
gypsum - gypsum
bi - binder
or - organic
ma - matrix
mi - mica
ve - vermiculite
ot - other
pe - perlite
qu - quartz
fg - fiberglass
mw - mineral wool
wo - wollastinite
ta - talc
sy - synthetic
ce - cellulose
br - brucite
ka - kaolin (clay)
pa - palygorskite (clay)

CA Labs
Dedicated to Quality

Crisp Analytical, L.L.C.
1929 Old Denton Road
Carrollton, TX 75006
Phone 972-242-2754
Fax 972-242-2798

CA Labs, L.L.C.
12232 Industriplex, Suite 32
Baton Rouge, LA 70809
Phone 225-751-5632
Fax 225-751-5634

Polarized Light Asbestiform Materials Characterization

Customer Info: **Attn:** Robert Pooler
Arkansas State Highway & Transportation Dept.
10324 I-30, Room 705
Little Rock, AR 72209

Phone # 501-569-2317
Fax # 501-569-2018

Customer Project:
090065 Tract 9X 15467
Boundry Line Rd
Turnaround Time:
2 Days

CA Labs Project #:
CAL13031896CP

Date: 03/12/13
Samples Received: 3/8/13 10:30AM
Date Of Sampling: 03/06/13
Purchase Order #: 090065

Sample #	Comment	Layer #	Analysts Physical Description of Subsample	Homogeneous (Y/N)	Asbestos type / calibrated visual estimate percent	Non-asbestos fiber type / percent	Non-fibrous type / percent
090065 TR.9X-1			***Area (J) Ceiling/*** *blue surfaced*				
		1-1	*white compound*	*n*	***None Detected***		100% mi,bi,ca
		1-2	*white compound (beneath tape)*	*y*	***None Detected***		100% mi,ca
		1-3	*white drywall with brown paper*	*n*	***None Detected***	21% ce	79% qu,gy
090065 TR.9X-2			***Area (G) Ceiling/*** *tan surfaced*				
		2-1	*white compound*	*n*	***None Detected***		100% mi,bi,ca
		2-2	*white compound (beneath tape)*	*y*	***None Detected***		100% mi,ca
		2-3	*white drywall with brown paper*	*n*	***None Detected***	22% ce	78% qu,gy
090065 TR.9X-3			***Area (A) Ceiling/*** *green*				
		3-1	*surfaced white compound*	*n*	***None Detected***		100% mi,bi,ca

Dallas NVLAP Lab Code 200349-0 TEM/PLM *EPA H20 TX 01402* *TDH 30-0235*

AIHA LAP, LLC Laboratory #102929

Analysis Method: Interim (40CFR Part 763 Appendix E to Subpart E) / Improved (EPA-600 / R-93/116)
Preparation Method: HCL acid washing for carbonate based samples, chemical reduction for organically bound components, oil immersion for identification of asbestos types by dispersion attaining / becke line method.

ca - carbonate	mi - mica	fg - fiberglass	ce - cellulose
gypsum - gypsum	ve - vermiculite	mw - mineral wool	br - brucite
bi - binder	ot -other	wo - wollastinite	ka - kaolin (clay)
or - organic	pe - perlite	ta - talc	pa - palygorskite (clay)
ma - matrix	qu - quartz	sy - synthetic	

Approved Signatories:

C. T. Ras

Tanner Rasmussen
Analyst

QAC
Leslie Crisp, P.G.

Technical Manager
Chad Lytle

1. Fire Damage significant fiber damage - reported percentages reflect unaltered fibers
2. Fire Damage no significant fiber damages effecting fibrous percentages
3. Actinolite in association with Vermiculite
4. Layer not analyzed - attached to previous positive layer and contamination is suspected
5. Not enough sample to analyze
6. Anthophyllite in association with Fibrous Talc
7. Contamination suspected from other building materials
8. Favorable scenario for water separation on vermiculite for possible analysis by another method
9. < 1% Result point counted positive
10. TEM analysis suggested

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Polarized Light Asbestiform Materials Characterization

Customer Info: **Attn:** Robert Pooler
Arkansas State Highway & Transportation Dept.
10324 I-30, Room 705
Little Rock, AR 72209

Phone # 501-569-2317
Fax # 501-569-2018

Customer Project:
090065 Tract 9X 15467
Boundry Line Rd
Turnaround Time:
2 Days

CA Labs Project #:
CAL13031896CP

Date: 03/12/13
Samples Received: 3/8/13 10:30AM
Date Of Sampling: 03/06/13
Purchase Order #: 090065

Sample #	Comment	Layer #	Analysts Physical Description of Subsample	Homogeneous (Y/N)	Asbestos type / calibrated visual estimate percent	Non-asbestos fiber type / percent	Non-fibrous type / percent
		3-2	*white compound (beneath tape)*	*y*	***2% Chrysotile***		98% mi,ca
		3-3	*white drywall with brown paper*	*n*	***None Detected***	21% ce	79% qu,gy
090065 TR.9X-4		*4-1*	***Area (B) Wall/*** *black surfaced white compound*	*n*	***None Detected***		100% mi,bi,ca
		4-2	*white compound (beneath tape)*	*y*	***None Detected***		100% mi,ca
		4-3	*white drywall with brown paper*	*n*	***None Detected***	22% ce	78% qu,gy
090065 TR.9X-5		*5-1*	***Area (I) Wall/*** *green surfaced white compound*	*n*	***None Detected***		100% mi,bi,ca
		5-2	*white compound (beneath tape)*	*y*	***None Detected***		100% mi,ca

Dallas NVLAP Lab Code 200349-0 TEM/PLM *EPA H20 TX 01402* *TDH 30-0235*

AIHA LAP, LLC Laboratory #102929

Analysis Method: Interim (40CFR Part 763 Appendix E to Subpart E) / Improved (EPA-600 / R-93/116)
Preparation Method: HCL acid washing for carbonate based samples, chemical reduction for organically bound components, oil immersion for identification of asbestos types by dispersion attaining / becke line method.

ca - carbonate	mi - mica	fg - fiberglass	ce - cellulose
gypsum - gypsum	ve - vermiculite	mw - mineral wool	br - brucite
bi - binder	ot -other	wo - wollastinite	ka - kaolin (clay)
or - organic	pe - perlite	ta - talc	pa - palygorskite (clay)
ma - matrix	qu - quartz	sy - synthetic	

Approved Signatories:

C. T. Ras

Tanner Rasmussen
Analyst

QAC
Leslie Crisp, P.G.

Technical Manager
Chad Lytle

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7. Contamination suspected from other building materials
8. Favorable scenario for water separation on vermiculite for possible analysis by another method
9. < 1% Result point counted positive
10. TEM analysis suggested

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Polarized Light Asbestiform Materials Characterization

Customer Info: **Attn:** Robert Pooler
Arkansas State Highway & Transportation Dept.
10324 I-30, Room 705
Little Rock, AR 72209

Phone # 501-569-2317
Fax # 501-569-2018

Customer Project:
090065 Tract 9X 15467
Boundry Line Rd
Turnaround Time:
2 Days

CA Labs Project #:
CAL13031896CP

Date: 03/12/13
Samples Received: 3/8/13 10:30AM
Date Of Sampling: 03/06/13
Purchase Order #: 090065

Sample #	Comment	Layer #	Analysts Physical Description of Subsample	Homogeneous (Y/N)	Asbestos type / calibrated visual estimate percent	Non-asbestos fiber type / percent	Non-fibrous type / percent
		5-3	*white drywall with brown paper*	*n*	***None Detected***	23% ce	77% qu,gy
090065 TR.9X-6		*6-1*	***Area (C) Wall/*** *tan surfaced white compound*	*n*	***2% Chrysotile***		98% mi,bi,ca
		6-2	*white compound (beneath tape)*	*y*	***2% Chrysotile***		98% mi,ca
		6-3	*white drywall with brown paper*	*n*	***None Detected***	21% ce	79% qu,gy

Dallas NVLAP Lab Code 200349-0 TEM/PLM *EPA H20 TX 01402* *TDH 30-0235*

AIHA LAP, LLC Laboratory #102929

Analysis Method: Interim (40CFR Part 763 Appendix E to Subpart E) / Improved (EPA-600 / R-93/116)
Preparation Method: HCL acid washing for carbonate based samples, chemical reduction for organically bound components, oil immersion for identification of asbestos types by dispersion attaining / becke line method.

ca - carbonate	mi - mica	fg - fiberglass	ce - cellulose
gypsum - gypsum	ve - vermiculite	mw - mineral wool	br - brucite
bi - binder	ot -other	wo - wollastinite	ka - kaolin (clay)
or - organic	pe - perlite	ta - talc	pa - palygorskite (clay)
ma - matrix	qu - quartz	sy - synthetic	

Approved Signatories:

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Analyst

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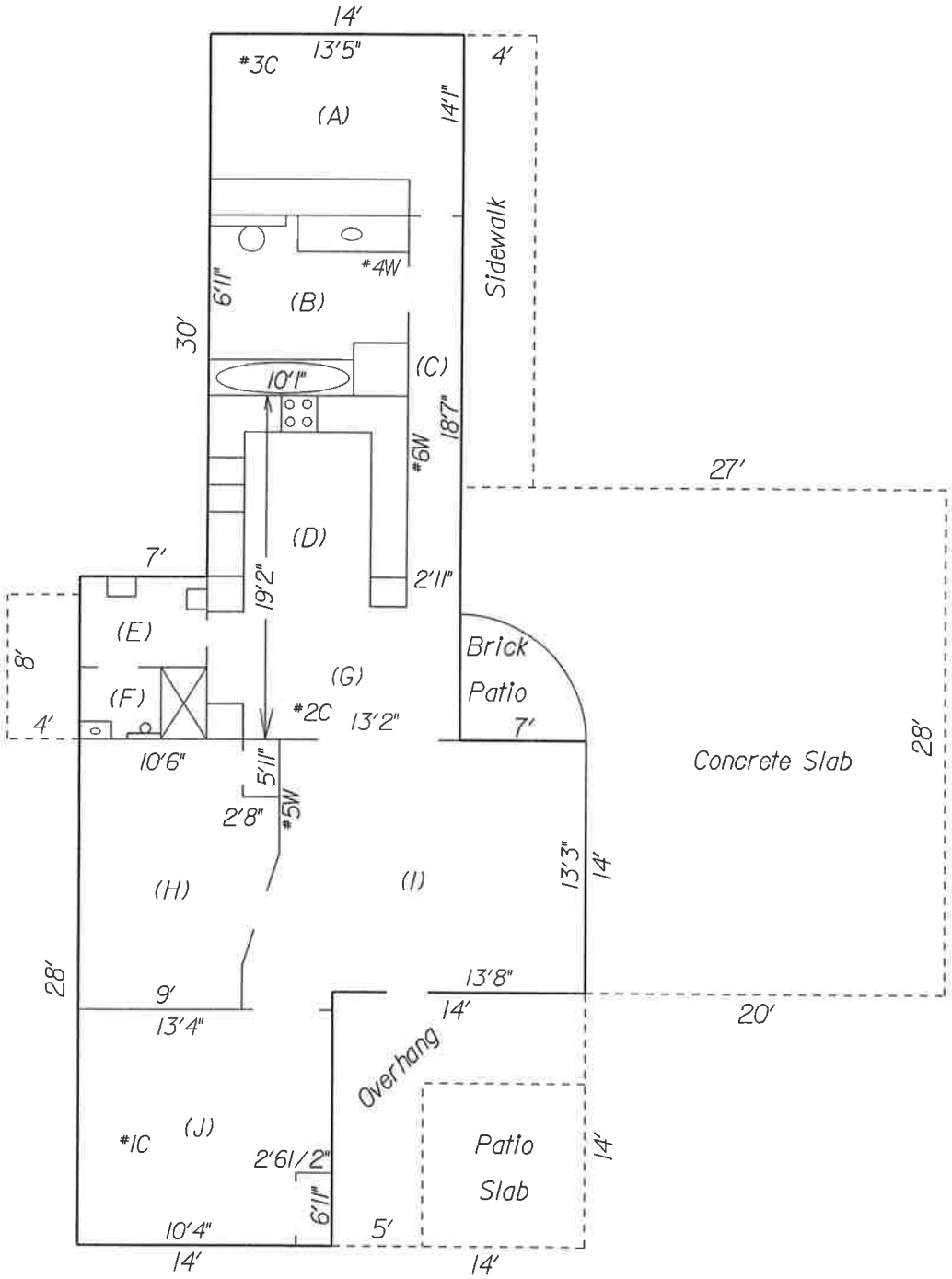
6. Anthophyllite in association with Fibrous Talc
7. Contamination suspected from other building materials
8. Favorable scenario for water separation on vermiculite for possible analysis by another method
9. < 1% Result point counted positive
10. TEM analysis suggested

JOB:	090065	PROPERTY LOCATION	INSPECTED BY
TRACT:	9 X	1-S-Brick Dwelling	Joel Clark (011518)
DATE:	3/6/20013	15467 Boundary Line Road	
		Garfield, AR 72732	

Sample Number	Description/ Locaton	Sample Number	Description/ Location
#1	J) Ceiling	#11	
#2	G) Ceiling	#12	
#3	A) Ceiling	#13	
#4	B) Wall	#14	
#5	I) Wall	#15	
#6	C) Wall	#16	
#7		#17	
#8		#18	
#9		#19	
#10		#20	

Homogenous Areas:	
Roofing	Composition Shingle
Siding	Brick
Ceilings	Sheet Rock
Walls	Sheet Rock
Floors	(BCDEFG) Ceramic Tiles/Wood
	(AHIJ) Carpet/Wood



090065 Tract 9X

15467 BoundaryLine Road

Garfield, AR 72732

Approx. 1,305 SF

10XED

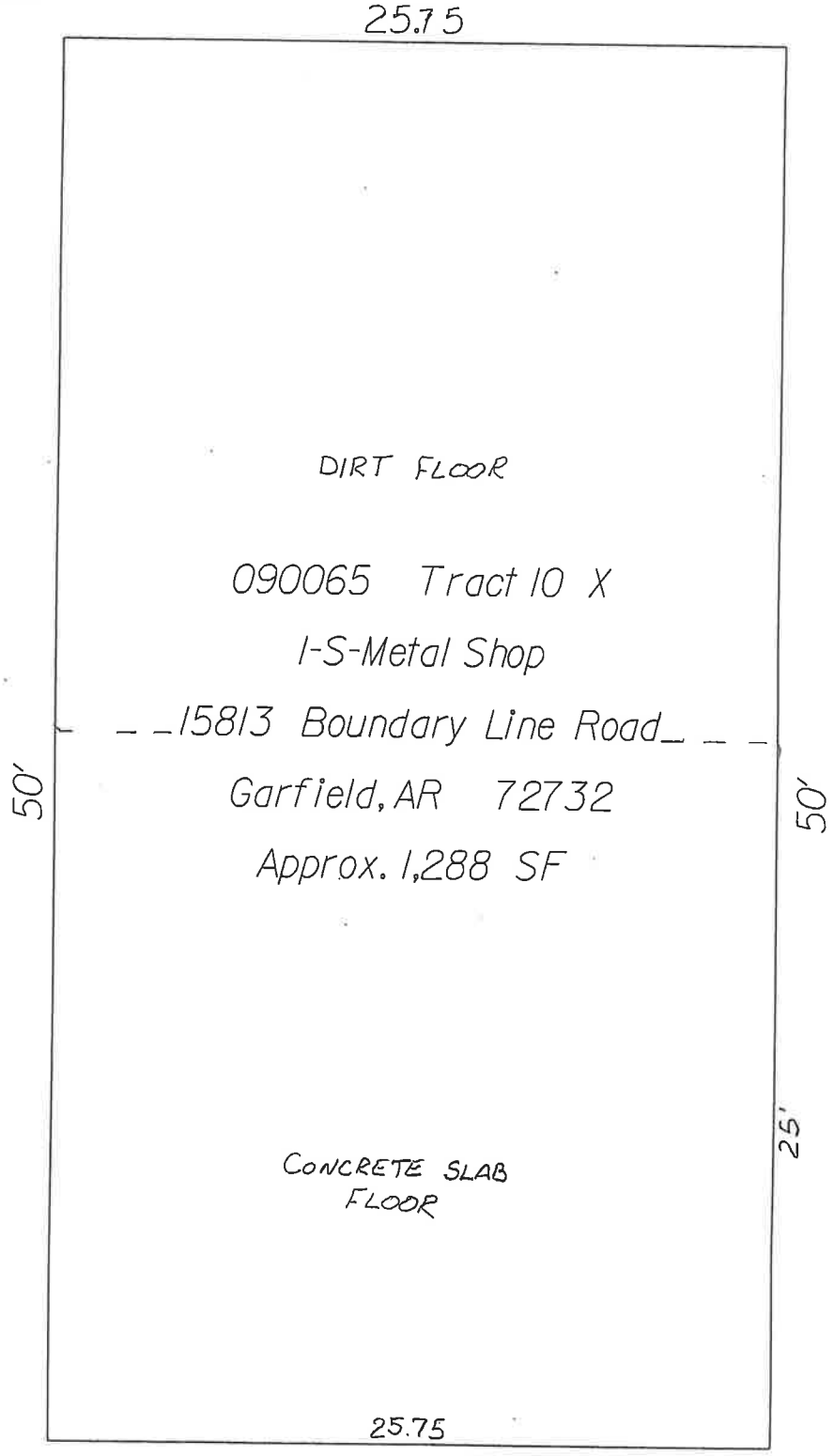
10x8

JOB:	090065	PROPERTY LOCATION	INSPECTED BY
TRACT:	10 X	1-S-Metal Shop Building	Joel Clark (011518)
DATE:	1/24/13	15813 Boundary Line Road	
		Garfield, AR 72732-9149	

Sample Number	Description/ Locaton	Sample Number	Description/ Location
#1		#11	
#2		#12	
#3		#13	
#4		#14	
#5		#15	
#6		#16	
#7		#17	
#8		#18	
#9		#19	
#10		#20	

Homogenous Areas:	
Roofing	Open Rafters
Siding	Open Studs
Ceilings	Open Joist
Walls	Open Studs
Floors	Concrete Slab

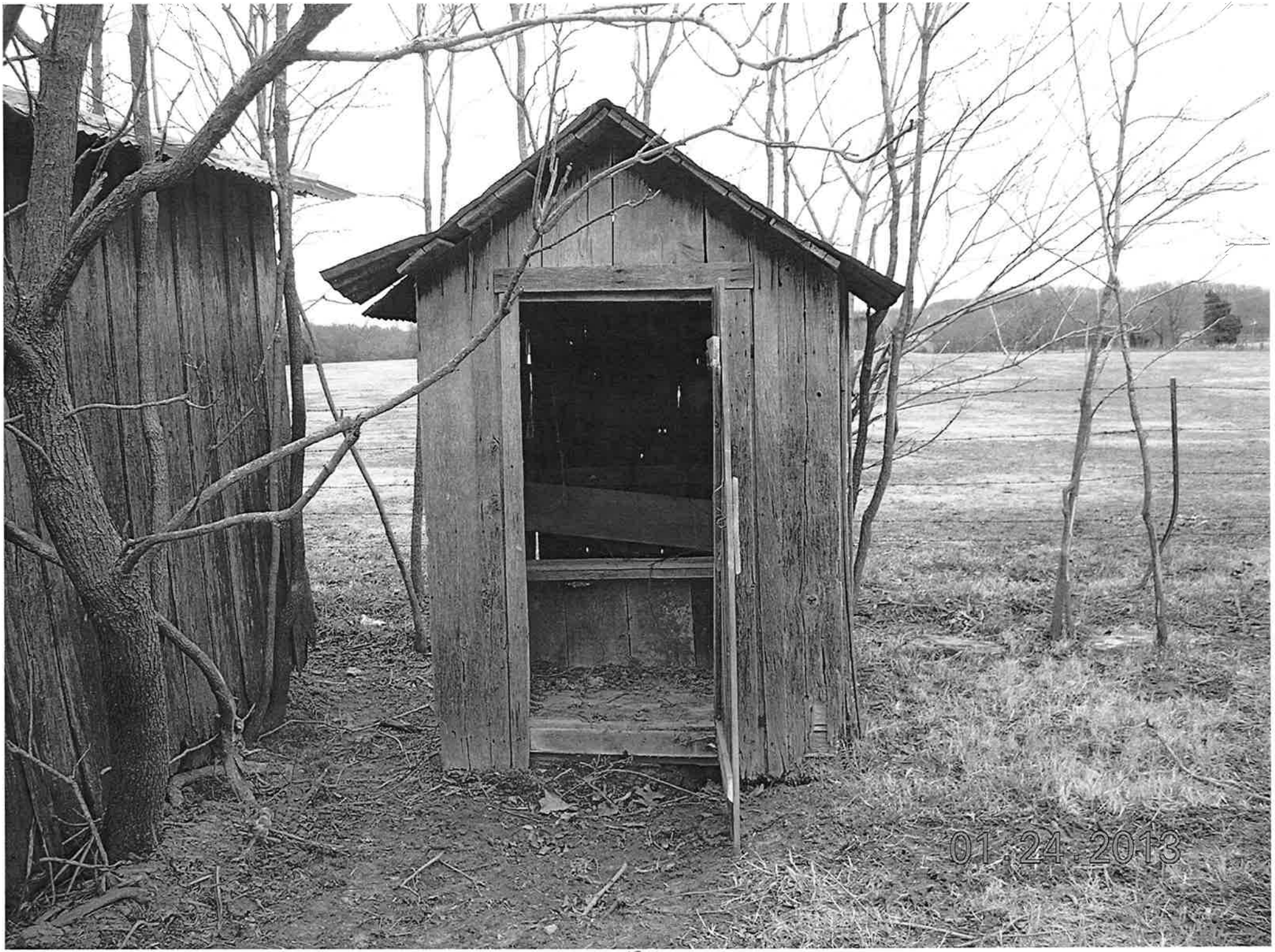
Is being demolished by property owner. Condition of the building at the time of inspection, there was no suspect ACM.



12x

01.24.2013

CONFORMS
01.24.2013



12X

12x

12x

12x

INSPECTION FLOOR PLAN

JOB:	090065	PROPERTY LOCATION	INSPECTED BY
TRACT:	12 X	1-S-Metal Barn	Joel Clark (011518)
DATE:	1/24/13	Boundary Line Road	
		Garfield, AR 72732	

Sample Number	Description/ Locaton	Sample Number	Description/ Location
#1		#11	
#2		#12	
#3		#13	
#4		#14	
#5		#15	
#6		#16	
#7		#17	
#8		#18	
#9		#19	
#10		#20	

Homogenous Areas:	
Roofing	Metal
Siding	Metal
Ceilings	Wood
Walls	Wood
Floors	Dirt

JOB:	090065	PROPERTY LOCATION	INSPECTED BY
TRACT:	12 X	1-S-Framed Shed	Joel Clark (011518)
DATE:	1/24/13	Boundary Line Road	
		Garfield, AR 72732	

Sample Number	Description/ Locaton	Sample Number	Description/ Location
#1		#11	
#2		#12	
#3		#13	
#4		#14	
#5		#15	
#6		#16	
#7		#17	
#8		#18	
#9		#19	
#10		#20	

Homogenous Areas:	
Roofing	Metal
Siding	Wood
Ceilings	Wood
Walls	Wood
Floors	Dirt

JOB:	090065	PROPERTY LOCATION	INSPECTED BY
TRACT:	12 X	1-S-Framed Out House	Joel Clark (011518)
DATE:	1/24/13	Boundary Line Road	
		Garfield, AR 72732	

Sample Number	Description/ Locaton	Sample Number	Description/ Location
#1		#11	
#2		#12	
#3		#13	
#4		#14	
#5		#15	
#6		#16	
#7		#17	
#8		#18	
#9		#19	
#10		#20	

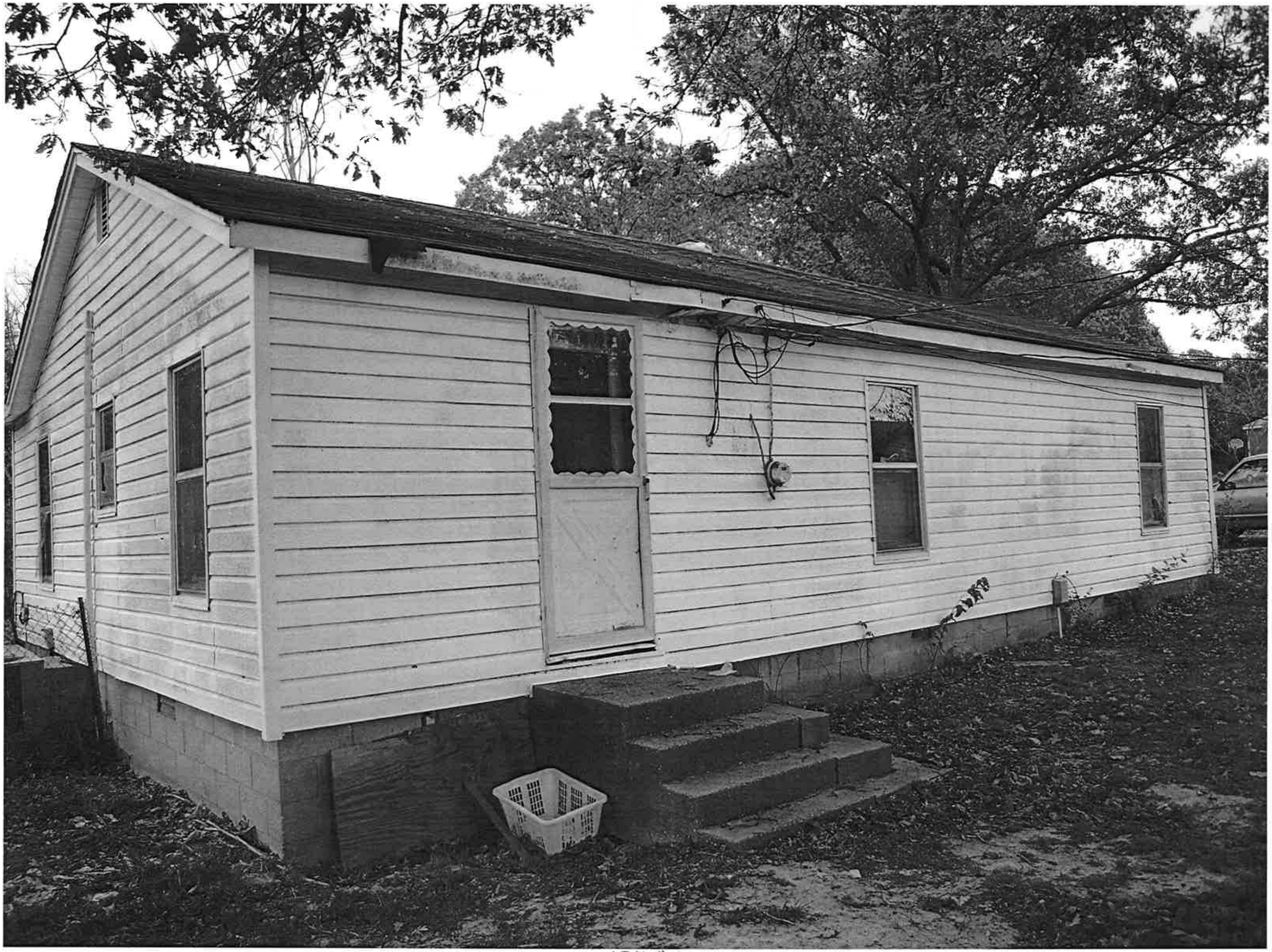
Homogenous Areas:	
Roofing	Metal
Siding	Wood
Ceilings	Wood
Walls	Wood
Floors	Wood

JOB:	090065	PROPERTY LOCATION	INSPECTED BY
TRACT:	12 X	1-S-Framed Well House	Joel Clark (011518)
DATE:	1/24/13	Boundary Line Road	
		Garfield, AR 72732	

Sample Number	Description/ Locaton	Sample Number	Description/ Location
#1		#11	
#2		#12	
#3		#13	
#4		#14	
#5		#15	
#6		#16	
#7		#17	
#8		#18	
#9		#19	
#10		#20	

Homogenous Areas:	
Roofing	Shingles
Siding	Wood
Ceilings	Wood
Walls	Wood
Floors	Dirt

13 X 41



13X#1

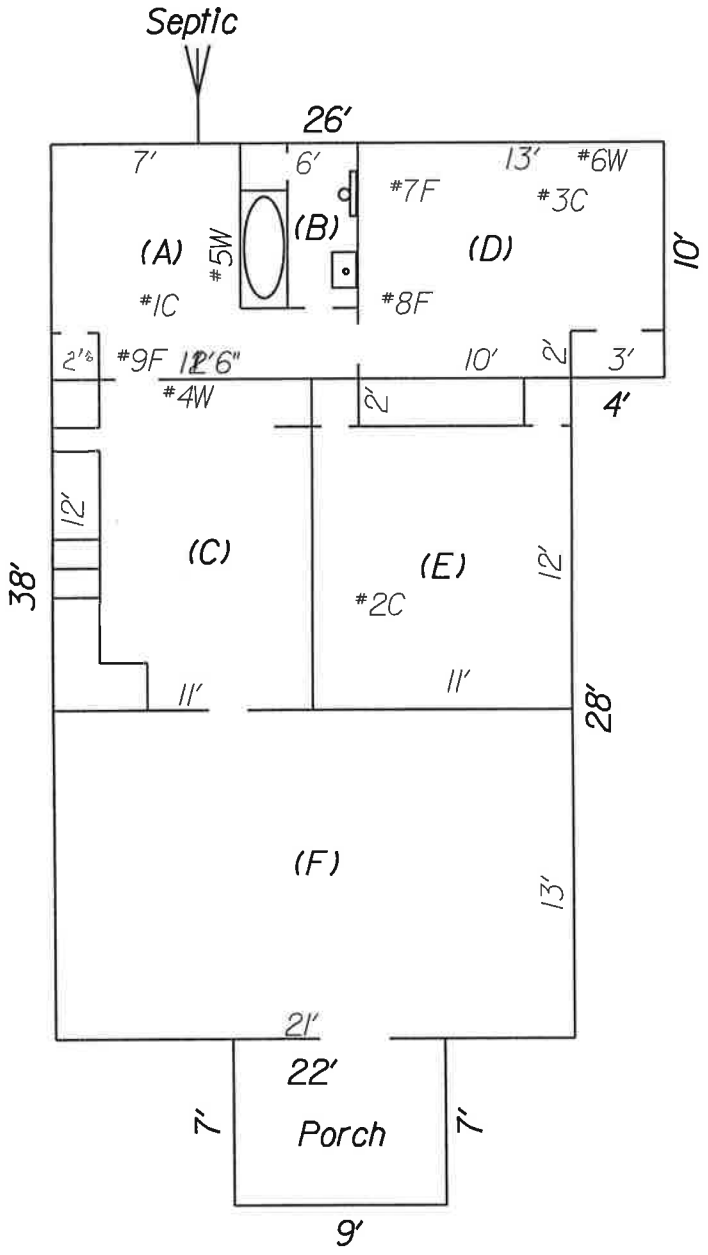
13X #1

~~INSPECTION FLOOR PLAN~~

JOB:	090065	PROPERTY LOCATION	INSPECTED BY
TRACT:	13 X #1	1-S-F Dwelling #1	Joel Clark (011518)
DATE:	2/7/2013	16239 Hwy. 62 East	
		Garfield, AR 72732	

Sample Number	Description/ Locaton	Sample Number	Description/ Location
#1		#11	
#2		#12	
#3		#13	
#4		#14	
#5		#15	
#6		#16	
#7		#17	
#8		#18	
#9		#19	
#10		#20	

Homogenous Areas:	
Roofing	Composition Shingle
Siding	Wood
Ceilings	12"x12" Cellulose Tiles (F)
	Sheet Rock (ABCDE)
Walls	Sheet Rock
	F) PANELING
Floors	Hard Wood ALL
	A & D - LINOLEUM



090065 Tract 13 X

1-S-Framed Dwelling #1

16239 Hwy. 62 East

Garfield, AR 72732

Approx. 876 SF

13X #2

13x

CA Labs

Crisp Analytical Laboratories, L.L.C
1929 Old Denton Rd.
Carrollton, TX 75006

Phone: 972-272-2754
Fax: 972-272-2798
Mobile: 214-564-8366

Chain of Custody

Client Name:	AHTD	**CA Labs job**	**CAL#** 1302171
Client Address:	P.O. Box 2261	Billing Address:	
	Room #705	(if different)	
	Little Rock, AR 72203-2261		
phone number:	501-569-2317 or 2318	P.O. # :	090065 1-F Dwelling #2
fax number:		Project Name:	Tract 13X2 16239 Hwy 62 East
Send Reports to:	Joeld.Clark@arkansashighways.com	Project Number:	090065 Garfield, AR 72732

Total # Samples Submitted:	**Total # Samples to be Analyzed:**	**Material Matrix:** Air / **Bulk** / Water

Asbestos: *please call ahead for availability of all rush and/or after hours samples.*

TEM	**TA Time**	**PLM**	**TA Time**	**Optical / IAQ**	**TA Time**
Circle analysis and TA time		*Circle analysis and TA time*	*2 hour*	PCM: NIOSH 7400	Note TAT
AHERA	*4 hour*	Improved	4 hour	Allergen Particle:	24 hour
EPA Level II	8 hour	Interim	8 hour	tape/bulk/swab	2 days
Drinking Water	16 hour		16 hour	Cyclex-d cassettes	3 days
Wipe	24 hour	**AHERA**	24 hour	Air-o-cell cassettes	5-10 days
Micro-vac	2 days		2 days	Anderson cultures	Specify
NIOSH 7402	3 days	Point Count -	**3 days**	Bulk/swab cultures	Mold or
Chatfield Bulk	5 days	(NESHAPS)	5 days	Bacteria cultures	bacteria

Please indicate appropriate turn around time. (minimum turnaround - 3 Days for Lead TCLP and water)

Lead: *Circle analysis and TA time*

Sample Information:

Sample #:	Sample Location:	Sample Date/Time:	Sample Volume (L)
090065 Tr. 13X2 #1	Area (B) Ceiling	2/7/2013	
090065 Tr. 13X2 #2	Area (A) Ceiling	2/7/2013	
090065 Tr. 13X2 #3	Area (E) Wall	2/7/2013	
090065 Tr. 13X2 #4	Area (B) Wall	2/7/2013	

Custody Information:

Samples relinquished: Joel Clark 2.13.13 10:03
Signature / Date / Time

Samples received: Matthew Romer 02/14/13 10:00AM
Signature / Date / Time

CA Labs
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Materials Characterization - Bulk Asbestos Analysis

Laboratory Analysis Report - Polarized Light

Arkansas State Highway & Transportation Dept.
10324 I-30, Room 705
Little Rock, AR 72209

Attn: Robert Pooler
Customer Project: 1-F Dwelling #2, Tract 13X2 16239 Hwy 62 East
Reference #: CAL13021171CP Date: 02/18/13

Analysis and Method

Summary of polarizing light microscopy (PLM / Stereomicroscopy bulk asbestos analysis) using the methods described in 40CFR Part 763 Appendix E to Subpart E (Interim and EPA 600 / R-93 / 116 (Improved). The sample is first viewed with the aid of stereomicroscopy. Numerous liquid slide preparations are created for analysis under the polarized microscope where identifications and quantifications are preformed. Calibrated liquid refractive oils are used as liquid mouting medium. These oils are used for identification (dispersion staining). A calibrated visual estimation is reported, should any asbestiform mineral be present. Other techniques such as acid washing are used in conjugation with refractive oils for detection of smaller quantities of asbestos. All asbestos percentages are based on calibrated visual estimation traceable to NIST standards for regulated of asbestos. Traceability to measurement and calibration is achieved by using known amounts and types of asbestos from standards where analyst and laboratory accuracy are measured. As little as 0.001% asbestos can be detected in favorable samples, while detection in unfavorable samples may approach the detection limit of 0.50% (well above the laboratory definition of trace).

Discussion

Vermiculite containing samples may have trace amounts of actinolite-tremolite, where not found be PLM should be analyzed using TEM methods and / or water separation techniques. Suspected actinolite/vermiculite presence will be indicated through the sample comment section of this report.

Fibrous talc containing samples may even contain a related asbestos fiber known as anthophyllite. Under certain conditions the same fiber may actually contain both talc and anthophyllite (a phenomenon called intergrowth). Again, TEM detection methods are recommended. CA Labs PLM report comments will denote suspected amounts of asbestiform anthophyllite with talc, where further analysis is recommended.

Some samples (floor tiles, surfacings, etc.) may contain fibers too small to be delectable by PLM analysis and should be analyzed by TEM bulk protocols.

A "trace asbestos" will be reported if the analyst observes far less than 1% asbestos. CA Labs defines "trace asbestos" as a few fibers detected by the analyst in several preparations and will indicate as such under these circumstances.

Quantification of <1% will actually be reported as <=1% (allowable variance close to 1% is high). Such results are ideal for point counting, and the technique is mandatory for friable samples (NESHAP, Nov. 1990 and clarification letter 8 May 1991) under 1% percent asbestos and the "trace asbestos". **In order to make all initial PLM reports issued from CA Labs NESHAP compliant, all <1% asbestos results (except floor tiles) will be point counted at no additional charge.**

Qualifications

CA Labs is accredited by the National Voluntary Accreditation Program (NVLAP) for selected test methods for airborne fiber analysis (TEM), and for bulk asbestos fiber analysis (PLM). CA Labs is also accredited by AIHA LAP, LLC. in the PLM asbestos field of testing for Industrial Hygiene. All analysts have a college degree in a natural science (geology, biology, or environmental science) or are recognized by a state professional board in one these disciplines .Extensive in-house training programs are used to augment education background of the analyst. The group leader of polarized light has received supplemental McCrone Research training for asbestos identification. Analysis performed at Crisp Analytical Labs, LLC 1929 Old Denton Road Carrollton, TX 75006

Dallas NVLAP Lab Code 200349-0 TEM/PLM EPA H20 TX 01402 TDH 30-0235
AIHA LAP, LLC Laboratory #102929

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Phone 225-751-5632
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Overview of Project Sample Material Containing Asbestos

Customer Project: Dwelling #2, Tract 13X2 16239 Hwy 62 East **CA Labs Project #:** CAL13021171CP

Sample #	Layer #	Analysts Physical Description of Subsample	Asbestos type / calibrated visual estimate percent	List of Affected Building Material Types

No Asbestos Detected.

Dallas NVLAP Lab Code 200349-0 TEM/PLM *EPA H20 TX 01402* *TDH 30-0235*
AIHA LAP, LLC Laboratory #102929

Glossary of abbreviations (non-asbestos fibers and non-fibrous minerals):

ca - carbonate
gypsum - gypsum
bi - binder
or - organic
ma - matrix
mi - mica
ve - vermiculite
ot - other
pe - perlite
qu - quartz
fg - fiberglass
mw - mineral wool
wo - wollastinite
ta - talc
sy - synthetic
ce - cellulose
br - brucite
ka - kaolin (clay)
pa - palygorskite (clay)

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Polarized Light Asbestiform Materials Characterization

Customer Info: **Attn:** Robert Pooler
Arkansas State Highway & Transportation Dept.
10324 I-30, Room 705
Little Rock, AR 72209

Phone # 501-569-2317
Fax # 501-569-2018

Customer Project:
1-F Dwelling #2, Tract 13X2
16239 Hwy 62 East
Turnaround Time:
3 Days

CA Labs Project #:
CAL13021171CP

Date: 02/18/13
Samples Received: 2/14/13 10AM
Date Of Sampling: 02/07/13
Purchase Order #: 090065

Sample #	Comment	Layer #	Analysts Physical Description of Subsample	Homogeneous (Y/N)	Asbestos type / calibrated visual estimate percent	Non-asbestos fiber type / percent	Non-fibrous type / percent
090065 Tr. 13X2 1			***Area (B) Ceiling/*** *blue*				
		1-1	*surfaced white compound*	*n*	***None Detected***		100% mi,bi,ca
		1-2	*white drywall with brown paper*	*n*	***None Detected***	24% ce	76% qu,gy
090065 Tr. 13X2 2			***Area (A) Ceiling/*** *tan surfaced*				
		2-1	*white compound*	*n*	***None Detected***		100% mi,bi,ca
		2-2	*white compound (beneath tape)*	*y*	***None Detected***		100% mi,ca
		2-3	*white drywall with brown paper*	*n*	***None Detected***	26% ce	74% qu,gy
090065 Tr. 13X2 3			***Area (E) Wall/*** *blue surfaced*				
		3-1	*white compound*	*n*	***None Detected***		100% mi,bi,ca
		3-2	*white compound (beneath tape)*	*y*	***None Detected***		100% mi,ca

Dallas NVLAP Lab Code 200349-0 TEM/PLM *EPA H20 TX 01402* *TDH 30-0235*

AIHA LAP, LLC Laboratory #102929

Analysis Method: Interim (40CFR Part 763 Appendix E to Subpart E) / Improved (EPA-600 / R-93/116)
Preparation Method: HCL acid washing for carbonate based samples, chemical reduction for organically bound components, oil immersion for identification of asbestos types by dispersion attaining / becke line method.

ca - carbonate	mi - mica	fg - fiberglass	ce - cellulose
gypsum - gypsum	ve - vermiculite	mw - mineral wool	br - brucite
bi - binder	ot -other	wo - wollastinite	ka - kaolin (clay)
or - organic	pe - perlite	ta - talc	pa - palygorskite (clay)
ma - matrix	qu - quartz	sy - synthetic	

Approved Signatories:

Keith Malone
Analyst

QAC
Leslie Crisp, P.G.

Technical Manager
Chad Lytle

1. Fire Damage significant fiber damage - reported percentages reflect unaltered fibers
2. Fire Damage no significant fiber damages effecting fibrous percentages
3. Actinolite in association with Vermiculite
4. Layer not analyzed - attached to previous positive layer and contamination is suspected
5. Not enough sample to analyze
6. Anthophyllite in association with Fibrous Talc
7. Contamination suspected from other building materials
8. Favorable scenario for water separation on vermiculite for possible analysis by another method
9. < 1% Result point counted positive
10. TEM analysis suggested

CA Labs
Dedicated to Quality

Crisp Analytical, L.L.C.
1929 Old Denton Road
Carrollton, TX 75006
Phone 972-242-2754
Fax 972-242-2798

CA Labs, L.L.C.
12232 Industriplex, Suite 32
Baton Rouge, LA 70809
Phone 225-751-5632
Fax 225-751-5634

Polarized Light Asbestiform Materials Characterization

Customer Info: **Attn:** Robert Pooler
Arkansas State Highway & Transportation Dept.
10324 I-30, Room 705
Little Rock, AR 72209

Phone # 501-569-2317
Fax # 501-569-2018

Customer Project:
1-F Dwelling #2, Tract 13X2
16239 Hwy 62 East
Turnaround Time:
3 Days

CA Labs Project #:
CAL13021171CP

Date: 02/18/13
Samples Received: 2/14/13 10AM
Date Of Sampling: 02/07/13
Purchase Order #: 090065

Sample #	Comment	Layer #	Analysts Physical Description of Subsample	Homogeneous (Y/N)	Asbestos type / calibrated visual estimate percent	Non-asbestos fiber type / percent	Non-fibrous type / percent
		3-3	*white drywall with brown paper*	*n*	***None Detected***	23% ce	77% qu,gy
090065 Tr. 13X2 4		*4-1*	***Area (B) Wall/*** *red surfaced white compound*	*n*	***None Detected***		100% mi,bi,ca
		4-2	*white compound (beneath tape)*	*y*	***None Detected***		100% mi,ca
		4-3	*white drywall with brown paper*	*n*	***None Detected***	19% ce	81% qu,gy

Dallas NVLAP Lab Code 200349-0 TEM/PLM *EPA H20 TX 01402* *TDH 30-0235*

AIHA LAP, LLC Laboratory #102929

Analysis Method: Interim (40CFR Part 763 Appendix E to Subpart E) / Improved (EPA-600 / R-93/116)
Preparation Method: HCL acid washing for carbonate based samples, chemical reduction for organically bound components, oil immersion for identification of asbestos types by dispersion attaining / becke line method.

ca - carbonate	mi - mica	fg - fiberglass	ce - cellulose
gypsum - gypsum	ve - vermiculite	mw - mineral wool	br - brucite
bi - binder	ot -other	wo - wollastinite	ka - kaolin (clay)
or - organic	pe - perlite	ta - talc	pa - palygorskite (clay)
ma - matrix	qu - quartz	sy - synthetic	

Approved Signatories:

Keith Malone
Analyst

QAC
Leslie Crisp, P.G.

Technical Manager
Chad Lytle

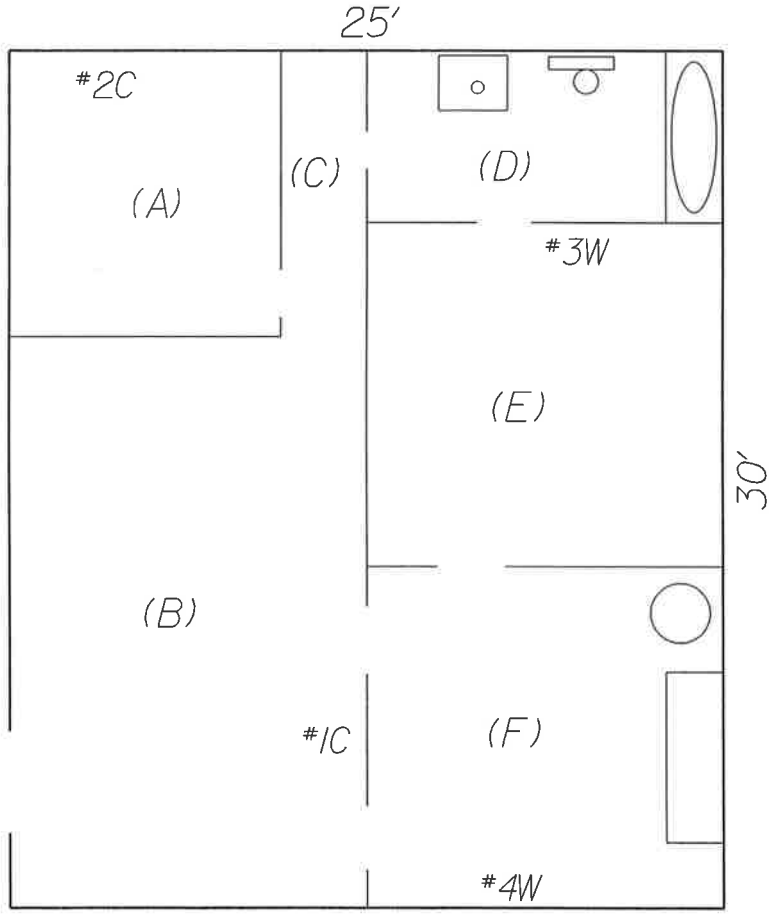
1. Fire Damage significant fiber damage - reported percentages reflect unaltered fibers
2. Fire Damage no significant fiber damages effecting fibrous percentages
3. Actinolite in association with Vermiculite
4. Layer not analyzed - attached to previous positive layer and contamination is suspected
5. Not enough sample to analyze
6. Anthophyllite in association with Fibrous Talc
7. Contamination suspected from other building materials
8. Favorable scenario for water separation on vermiculite for possible analysis by another method
9. < 1% Result point counted positive
10. TEM analysis suggested

INSPECTION FLOOR PLAN

JOB:	090065	PROPERTY LOCATION	INSPECTED BY
TRACT:	13 X #2	1-S-Framed Dwelling #2	Joel Clark (011518)
DATE:	2/7/2013	16239 Hwy. 62 East	
		Garfield, AR 72732	

Sample Number	Description/ Locaton	Sample Number	Description/ Location
#1	B) Ceiling	#11	
#2	A) Ceiling	#12	
#3	E) Wall	#13	
#4	B) Wall	#14	
#5		#15	
#6		#16	
#7		#17	
#8		#18	
#9		#19	
#10		#20	

Homogenous Areas:	
Roofing	Composition Shingle
Siding	Wood
Ceilings	Sheet Rock; Wood
Walls	Sheet Rock; Open Studs
Floors	Carpet/Concrete Slab



090065 Tract 13 X

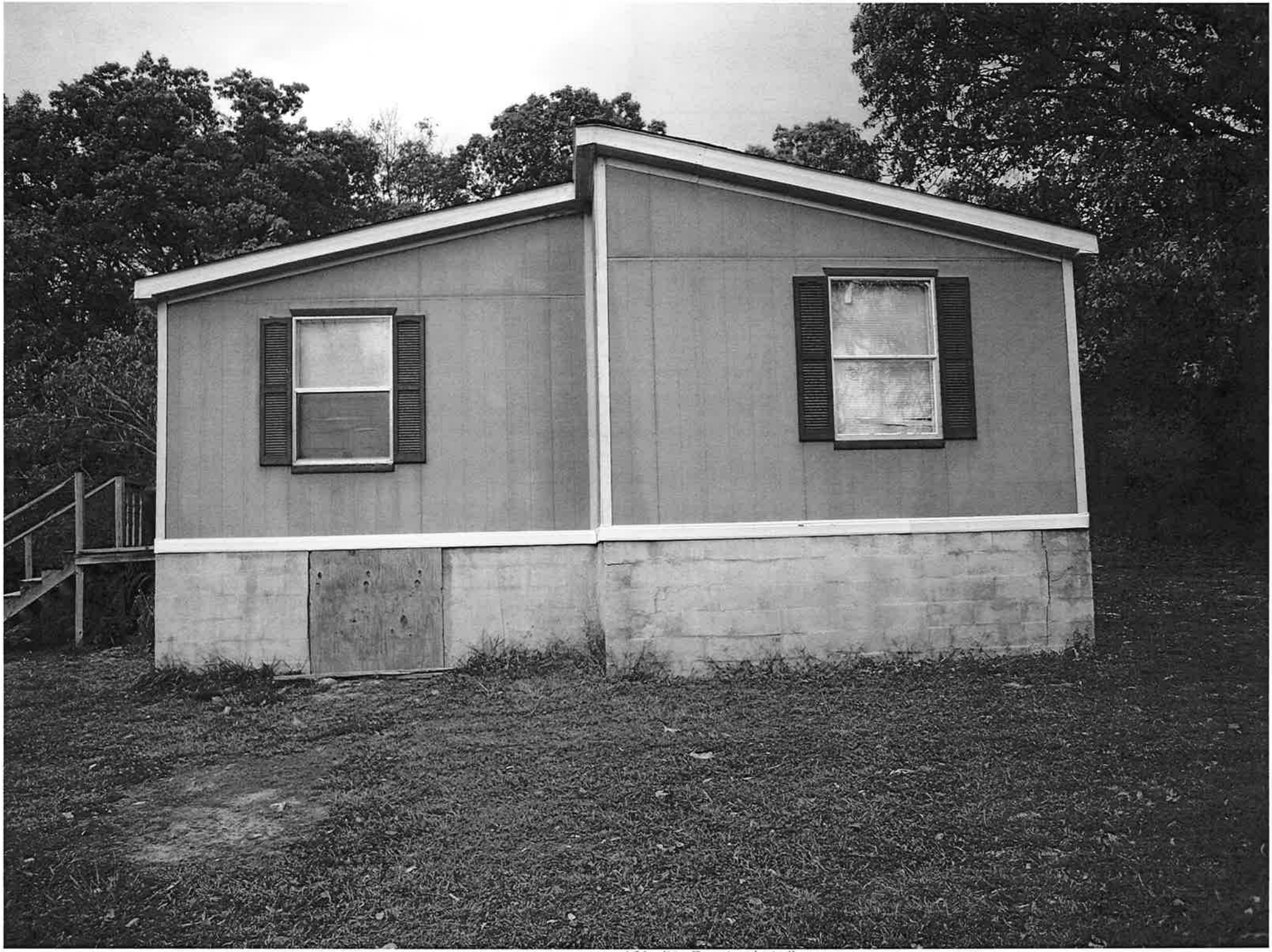
1-S-F Dwelling #2

16239 Hwy.62 East

Garfield, AR 72732

Approx.750 SF

13 X MOBILE HOME



13X MOBILE HOME.

CA Labs

Crisp Analytical Laboratories, L.L.C
1929 Old Denton Rd.
Carrollton, TX 75006

Phone: 972-272-2754
Fax: 972-272-2798
Mobile: 214-564-8366

Chain of Custody

Client Name:	AHTD	CA Labs job	CAL# 130216
Client Address:	P.O. Box 2261	Billing Address:	
	Room: #705	(if different)	
	Little Rock, AR 72203-2261		
phone number:	501-569-2317 or 2318	P.O. # :	090065 Mobile Home
fax number:		Project Name:	Tract 13X 16239 Hwy 62 East
Send Reports to:	Joeld.Clark@arkansashighways.com	Project Number:	090065 Garfield, AR 72732

Total # Samples Submitted:	Total # Samples to be Analyzed:	Material Matrix: Air / Bulk / Water

Asbestos: *please call ahead for availability of all rush and/or after hours samples.*

TEM	TA Time	PLM	TA Time	Optical / IAQ	TA Time
Circle analysis and TA time		*Circle analysis and TA time*	*2 hour*	PCM: NIOSH 7400	Note TAT
AHERA	*4 hour*	Improved	4 hour	Allergen Particle:	24 hour
EPA Level II	8 hour	Interim	8 hour	tape/bulk/swab	2 days
Drinking Water	16 hour		16 hour	Cyclex-d cassettes	3 days
Wipe	24 hour	**AHERA**	24 hour	Air-o-cell cassettes	5-10 days
Micro-vac	2 days		2 days	Anderson cultures	Specify
NIOSH 7402	3 days	Point Count -	**3 days**	Bulk/swab cultures	Mold or
Chatfield Bulk	5 days	(NESHAPS)	5 days	Bacteria cultures	bacteria

Please indicate appropriate turn around time. (minimum turnaround - 3 Days for Lead TCLP and water)

Lead: *Circle analysis and TA time*

Sample Information:

Sample #:	Sample Location:	Sample Date/Time:	Sample Volume (L)
090065 Tr. 13X #1	Area (D) Ceiling	2/7/2013	
090065 Tr. 13X #2	Area (E) Ceiling	2/7/2013	
090065 Tr. 13X #3	Area (I) Ceiling	2/7/2013	
090065 Tr. 13X #4	Area (B) Floor	2/7/2013	
090065 Tr. 13X #5	Area (D) Floor	2/7/2013	

Custody Information:

Samples relinquished: Joeld Clark 2.13.13 10:05
Signature / Date / Time

Samples received: Matthew Romer 02/19/13 10:50AM
Signature / Date / Time

CA Labs
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Crisp Analytical, L.L.C.
1929 Old Denton Road
Carrollton, TX 75006
Phone 972-242-2754
Fax 972-242-2798

CA Labs, L.L.C.
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Baton Rouge, LA 70809
Phone 225-751-5632
Fax 225-751-5634

Materials Characterization - Bulk Asbestos Analysis

Laboratory Analysis Report - Polarized Light

Arkansas State Highway & Transportation Dept.
10324 I-30, Room 705
Little Rock, AR 72209

Attn: Robert Pooler
Customer Project: Mobile Home Tract 13X 16239 Hwy 62 East
Reference #: CAL13021170CP Date: 02/19/13

Analysis and Method

Summary of polarizing light microscopy (PLM / Stereomicroscopy bulk asbestos analysis) using the methods described in 40CFR Part 763 Appendix E to Subpart E (Interim and EPA 600 / R-93 / 116 (Improved). The sample is first viewed with the aid of stereomicroscopy. Numerous liquid slide preparations are created for analysis under the polarized microscope where identifications and quantifications are preformed. Calibrated liquid refractive oils are used as liquid mouting medium. These oils are used for identification (dispersion staining). A calibrated visual estimation is reported, should any asbestiform mineral be present. Other techniques such as acid washing are used in conjugation with refractive oils for detection of smaller quantities of asbestos. All asbestos percentages are based on calibrated visual estimation traceable to NIST standards for regulated of asbestos. Traceability to measurement and calibration is achieved by using known amounts and types of asbestos from standards where analyst and laboratory accuracy are measured. As little as 0.001% asbestos can be detected in favorable samples, while detection in unfavorable samples may approach the detection limit of 0.50% (well above the laboratory definition of trace).

Discussion

Vermiculite containing samples may have trace amounts of actinolite-tremolite, where not found be PLM should be analyzed using TEM methods and / or water separation techniques. Suspected actinolite/vermiculite presence will be indicated through the sample comment section of this report.

Fibrous talc containing samples may even contain a related asbestos fiber known as anthophyllite. Under certain conditions the same fiber may actually contain both talc and anthophyllite (a phenomenon called intergrowth). Again, TEM detection methods are recommended. CA Labs PLM report comments will denote suspected amounts of asbestiform anthophyllite with talc, where further analysis is recommended.

Some samples (floor tiles, surfacings, etc.) may contain fibers too small to be delectable by PLM analysis and should be analyzed by TEM bulk protocols.

A "trace asbestos" will be reported if the analyst observes far less than 1% asbestos. CA Labs defines "trace asbestos" as a few fibers detected by the analyst in several preparations and will indicate as such under these circumstances.

Quantification of <1% will actually be reported as <=1% (allowable variance close to 1% is high). Such results are ideal for point counting, and the technique is mandatory for friable samples (NESHAP, Nov. 1990 and clarification letter 8 May 1991) under 1% percent asbestos and the "trace asbestos". **In order to make all initial PLM reports issued from CA Labs NESHAP compliant, all <1% asbestos results (except floor tiles) will be point counted at no additional charge.**

Qualifications

CA Labs is accredited by the National Voluntary Accreditation Program (NVLAP) for selected test methods for airborne fiber analysis (TEM), and for bulk asbestos fiber analysis (PLM). CA Labs is also accredited by AIHA LAP, LLC. in the PLM asbestos field of testing for Industrial Hygiene. All analysts have a college degree in a natural science (geology, biology, or environmental science) or are recognized by a state professional board in one these disciplines .Extensive in-house training programs are used to augment education background of the analyst. The group leader of polarized light has received supplemental McCrone Research training for asbestos identification. Analysis performed at Crisp Analytical Labs, LLC 1929 Old Denton Road Carrollton, TX 75006

Dallas NVLAP Lab Code 200349-0 TEM/PLM EPA H20 TX 01402 TDH 30-0235
AIHA LAP, LLC Laboratory #102929

CA Labs
Dedicated to Quality

Crisp Analytical, L.L.C.
1929 Old Denton Road
Carrollton, TX 75006
Phone 972-242-2754
Fax 972-242-2798

CA Labs, L.L.C.
12232 Industriplex, Suite 32
Baton Rouge, LA 70809
Phone 225-751-5632
Fax 225-751-5634

Overview of Project Sample Material Containing Asbestos

Customer Project: Mobile Home Tract 13X 16239 Hwy 62 East **CA Labs Project #:** CAL13021170CP

Sample #	Layer #	Analysts Physical Description of Subsample	Asbestos type / calibrated visual estimate percent	List of Affected Building Material Types

No Asbestos Detected.

Dallas NVLAP Lab Code 200349-0 TEM/PLM *EPA H20 TX 01402* *TDH 30-0235*
AIHA LAP, LLC Laboratory #102929

Glossary of abbreviations (non-asbestos fibers and non-fibrous minerals):

ca - carbonate
gypsum - gypsum
bi - binder
or - organic
ma - matrix
mi - mica
ve - vermiculite
ot - other
pe - perlite
qu - quartz
fg - fiberglass
mw - mineral wool
wo - wollastinite
ta - talc
sy - synthetic
ce - cellulose
br - brucite
ka - kaolin (clay)
pa - palygorskite (clay)

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Polarized Light Asbestiform Materials Characterization

Customer Info: **Attn:** Robert Pooler
Arkansas State Highway & Transportation Dept.
10324 I-30, Room 705
Little Rock, AR 72209

Phone # 501-569-2317
Fax # 501-569-2018

Customer Project:
Mobile Home Tract 13X 16239
Hwy 62 East
Turnaround Time:
3 Days

CA Labs Project #:
CAL13021170CP

Date: 02/19/13
Samples Received: 2/14/13 10AM
Date Of Sampling: 02/07/43
Purchase Order #: 090065

Sample #	Comment	Layer #	Analysts Physical Description of Subsample	Homogeneous (Y/N)	Asbestos type / calibrated visual estimate percent	Non-asbestos fiber type / percent	Non-fibrous type / percent
090065 Tr. 13X 1		1-1	*Area (D) Ceiling/ white surfaced white compound*	n	***None Detected***		100% mi,bi,ca
		1-2	*white drywall with brown paper*	n	***None Detected***	19% ce 1% fg	80% qu,gy
		1-3	*yellow foam*	y	***None Detected***		100% qu,or
		1-4	*tan insulation*	y	***None Detected***	66% ce	34% qu,or
090065 Tr. 13X 2		2-1	*Area (E) Ceiling/ white surfaced white compound*	n	***None Detected***		100% mi,bi,ca
		2-2	*white drywall with brown paper*	n	***None Detected***	18% ce 2% fg	80% qu,gy
090065 Tr. 13X 3		3-1	*Area (I) Ceiling/ white surfaced white compound*	n	***None Detected***		100% mi,bi,ca

Dallas NVLAP Lab Code 200349-0 TEM/PLM *EPA H20 TX 01402* *TDH 30-0235*

AIHA LAP, LLC Laboratory #102929

Analysis Method: Interim (40CFR Part 763 Appendix E to Subpart E) / Improved (EPA-600 / R-93/116)
Preparation Method: HCL acid washing for carbonate based samples, chemical reduction for organically bound components, oil immersion for identification of asbestos types by dispersion attaining / becke line method.

ca - carbonate	mi - mica	fg - fiberglass	ce - cellulose
gypsum - gypsum	ve - vermiculite	mw - mineral wool	br - brucite
bi - binder	ot -other	wo - wollastinite	ka - kaolin (clay)
or - organic	pe - perlite	ta - talc	pa - palygorskite (clay)
ma - matrix	qu - quartz	sy - synthetic	

Approved Signatories:

Julio Robles
Analyst

QAC
Leslie Crisp, P.G.

Technical Manager
Chad Lytle

1. Fire Damage significant fiber damage - reported percentages reflect unaltered fibers
2. Fire Damage no significant fiber damages effecting fibrous percentages
3. Actinolite in association with Vermiculite
4. Layer not analyzed - attached to previous positive layer and contamination is suspected
5. Not enough sample to analyze
6. Anthophyllite in association with Fibrous Talc
7. Contamination suspected from other building materials
8. Favorable scenario for water separation on vermiculite for possible analysis by another method
9. < 1% Result point counted positive
10. TEM analysis suggested

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Carrollton, TX 75006
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Fax 225-751-5634

Polarized Light Asbestiform Materials Characterization

Customer Info: **Attn:** Robert Pooler
Arkansas State Highway & Transportation Dept.
10324 I-30, Room 705
Little Rock, AR 72209

Phone # 501-569-2317
Fax # 501-569-2018

Customer Project:
Mobile Home Tract 13X 16239
Hwy 62 East
Turnaround Time:
3 Days

CA Labs Project #:
CAL13021170CP

Date: 02/19/13
Samples Received: 2/14/13 10AM
Date Of Sampling: 02/07/43
Purchase Order #: 090065

Sample #	Comment	Layer #	Analysts Physical Description of Subsample	Homogeneous (Y/N)	Asbestos type / calibrated visual estimate percent	Non-asbestos fiber type / percent	Non-fibrous type / percent
		3-2	*white drywall with brown paper*	*n*	***None Detected***	18% ce 1% fg	81% qu,gy
090065 Tr. 13X 4		*4-1*	***Area (B) Floor/ white linoleum***	*y*	***None Detected***	12% ce 4% fg	84% gy,ma
090065 Tr. 13X 5		*5-1*	***Area (D) Floor/ tan linoleum***	*y*	***None Detected***	12% ce 5% fg	83% gy,ma

Dallas NVLAP Lab Code 200349-0 TEM/PLM *EPA H20 TX 01402* *TDH 30-0235*
AIHA LAP, LLC Laboratory #102929

Analysis Method: Interim (40CFR Part 763 Appendix E to Subpart E) / Improved (EPA-600 / R-93/116)
Preparation Method: HCL acid washing for carbonate based samples, chemical reduction for organically bound components, oil immersion for identification of asbestos types by dispersion attaining / becke line method.

ca - carbonate	mi - mica	fg - fiberglass	ce - cellulose
gypsum - gypsum	ve - vermiculite	mw - mineral wool	br - brucite
bi - binder	ot -other	wo - wollastinite	ka - kaolin (clay)
or - organic	pe - perlite	ta - talc	pa - palygorskite (clay)
ma - matrix	qu - quartz	sy - synthetic	

Approved Signatories:

Julio Robles
Analyst

QAC
Leslie Crisp, P.G.

Technical Manager
Chad Lytle

1. Fire Damage significant fiber damage - reported percentages reflect unaltered fibers
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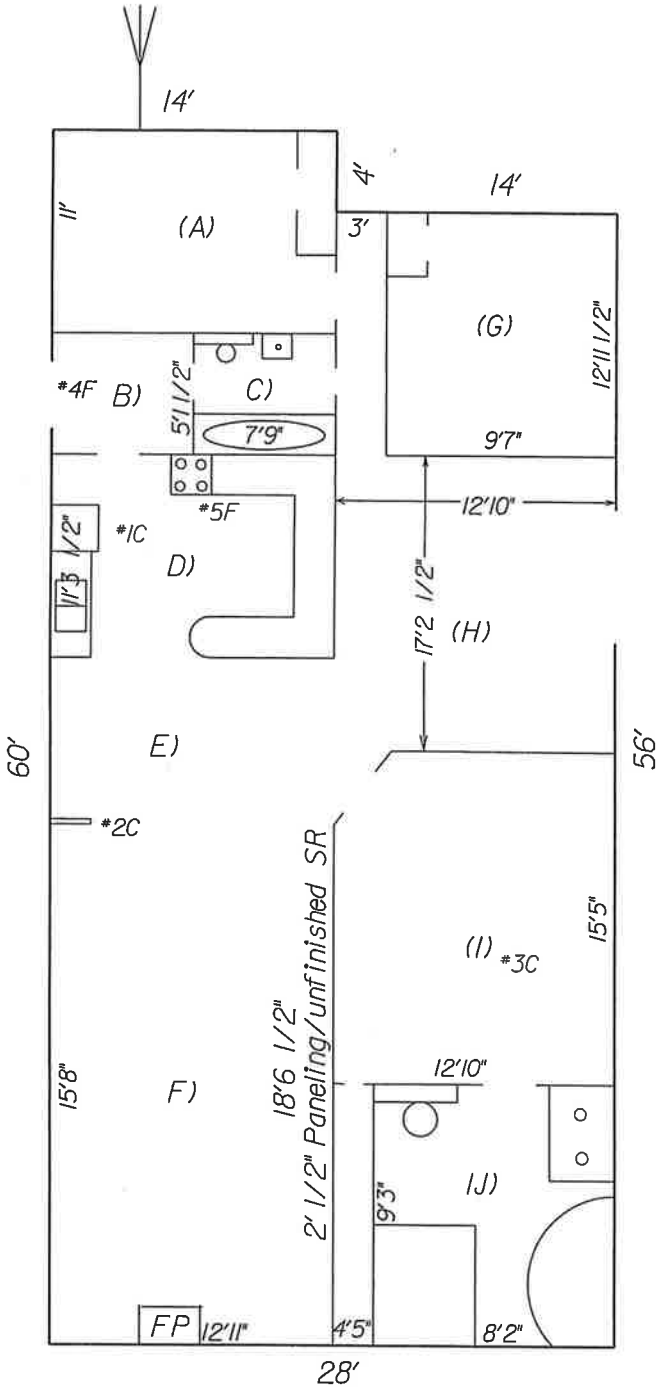
7. Contamination suspected from other building materials
8. Favorable scenario for water separation on vermiculite for possible analysis by another method
9. < 1% Result point counted positive
10. TEM analysis suggested

JOB:	090065	PROPERTY LOCATION	INSPECTED BY
TRACT:	13 X #2	Moble Home	Joel Clark (011518)
DATE:	2/7/2013	16239 Hwy. 62 East	
		Garfield, AR 72732	

Sample Number	Description/ Locaton	Sample Number	Description/ Location
#1	D) Ceiling	#11	
#2	E) Ceiling	#12	
#3	I) Ceiling	#13	
#4	B) Floor	#14	
#5	D) Floor	#15	
#6		#16	
#7		#17	
#8		#18	
#9		#19	
#10		#20	

Homogenous Areas:	
Roofing	Composition Shingle
Siding	Metal
Ceilings	Sheet Rock
Walls	Wood Paneling
Floors	Carpet/Wood



090065 Tract 13X

Mobile Home

16239 Hwy.62 East

Approx. 1,624 SF

13 x

13X

13X

13X

'13x

13X

INSPECTION FLOOR PLAN

JOB:	090065	PROPERTY LOCATION	INSPECTED BY
TRACT:	13 X	Shed w/Lean to	Joel Clark (011518)
DATE:	2/7/2013	16239 Hwy. 62 East	
		Garfield, AR 72732	

Sample Number	Description/ Locaton	Sample Number	Description/ Location
#1		#11	
#2		#12	
#3		#13	
#4		#14	
#5		#15	
#6		#16	
#7		#17	
#8		#18	
#9		#19	
#10		#20	

Homogenous Areas:	
Roofing	Metal
Siding	Wood
Ceilings	Open Joist
Walls	Wood
Floors	Wood

JOB:	090065	PROPERTY LOCATION	INSPECTED BY
TRACT:	13 X	Well House	Joel Clark (011518)
DATE:	2/7/2013	16239 Hwy. 62 East	
		Garfield, AR 72732	

Sample Number	Description/ Locaton	Sample Number	Description/ Location
#1		#11	
#2		#12	
#3		#13	
#4		#14	
#5		#15	
#6		#16	
#7		#17	
#8		#18	
#9		#19	
#10		#20	

Homogenous Areas:	
Roofing	Metal
Siding	Metal
Ceilings	Wood
Walls	Wood
Floors	Wood

JOB:	090065	PROPERTY LOCATION	INSPECTED BY
TRACT:	13 X	Shed/Shop	Joel Clark (011518)
DATE:	2/7/2013	16239 Hwy. 62 East	
		Garfield, AR 72732	

Sample Number	Description/ Locaton	Sample Number	Description/ Location
#1		#11	
#2		#12	
#3		#13	
#4		#14	
#5		#15	
#6		#16	
#7		#17	
#8		#18	
#9		#19	
#10		#20	

Homogenous Areas:	
Roofing	Metal
Siding	Wood/Roll Roofing
Ceilings	Wood
Walls	Wood
Floors	Dirt

JOB:	090065	PROPERTY LOCATION	INSPECTED BY
TRACT:	13 X	Shed	Joel Clark (011518)
DATE:	2/7/2013	16239 Hwy. 62 East	
		Garfield, AR 72732	

Sample Number	Description/ Locaton	Sample Number	Description/ Location
#1		#11	
#2		#12	
#3		#13	
#4		#14	
#5		#15	
#6		#16	
#7		#17	
#8		#18	
#9		#19	
#10		#20	

Homogenous Areas:	
Roofing	Composition Shingle
Siding	Wood
Ceilings	Wood
Walls	Wood
Floors	Wood

JOB:	090065	PROPERTY LOCATION	INSPECTED BY
TRACT:	13 X	Shed	Joel Clark (011518)
DATE:	2/7/2013	16239 Hwy. 62 East	
		Garfield, AR 72732	

Sample Number	Description/ Locaton	Sample Number	Description/ Location
#1		#11	
#2		#12	
#3		#13	
#4		#14	
#5		#15	
#6		#16	
#7		#17	
#8		#18	
#9		#19	
#10		#20	

Homogenous Areas:	
Roofing	Metal
Siding	Wood
Ceilings	Wood
Walls	Wood
Floors	Wood

14X

14X

14 X

14X

CA Labs

Crisp Analytical Laboratories, L.L.C
1929 Old Denton Rd.
Carrollton, TX 75006

Phone: 972-272-2754
Fax: 972-272-2798
Mobile: 214-564-8366

Chain of Custody

Client Name:	AHTD	**CA Labs job**	**CAL#** 13021169
Client Address:	P.O. Box 2261	Billing Address:	
	Room #705	(if different)	
	Little Rock, AR 72203-2261		
phone number:	501-569-2317 or 2318	P.O. # :	090065
fax number:		Project Name:	Tract 14X 14454 Old Liberty Rd.
Send Reports to:	Joeld.Clark@arkansashighways.com	Project Number:	090065 Garfield, AR 72732

Total # Samples Submitted: 6	**Total # Samples to be Analyzed: 6**	**Material Matrix:** Air / **Bulk** / Water

Asbestos: *please call ahead for availability of all rush and/or after hours samples.*

TEM	TA Time	PLM	TA Time	Optical / IAQ	TA Time
Circle analysis and TA time		*Circle analysis and TA time*	*2 hour*	PCM: NIOSH 7400	Note TAT
AHERA	*4 hour*	Improved	4 hour	Allergen Particle:	24 hour
EPA Level II	8 hour	Interim	8 hour	tape/bulk/swab	2 days
Drinking Water	16 hour		16 hour	Cyclex-d cassettes	3 days
Wipe	24 hour	**AHERA**	24 hour	Air-o-cell cassettes	5-10 days
Micro-vac	2 days		2 days	Anderson cultures	Specify
NIOSH 7402	3 days	Point Count -	**3 days**	Bulk/swab cultures	Mold or
Chatfield Bulk	5 days	(NESHAPS)	5 days	Bacteria cultures	bacteria

Please indicate appropriate turn around time. (minimum turnaround - 3 Days for Lead TCLP and water)

Lead: *Circle analysis and TA time*

Sample Information:

Sample #:	Sample Location:	Sample Date/Time:	Sample Volume (L)
090065 Tr. 14X #1	Area (A) Ceiling	2/8/2013	
090065 Tr. 14X #2	Area (H) Ceiling	2/8/2013	
090065 Tr. 14X #3	Area (K) Ceiling	2/8/2013	
090065 Tr. 14X #4	Area (B) Wall	2/8/2013	
090065 Tr. 14X #5	Area (J) Wall	2/8/2013	
090065 Tr. 14X #6	Area (M) Wall	2/8/2013	

Custody Information:

Samples relinquished: Joel Clark 2-13-13 10:05
Signature / Date / Time

Samples received: Matthew Romer 2/14/13 10:00am
Signature / Date / Time

CA Labs
Dedicated to Quality

Crisp Analytical, L.L.C.
1929 Old Denton Road
Carrollton, TX 75006
Phone 972-242-2754
Fax 972-242-2798

CA Labs, L.L.C.
12232 Industriplex, Suite 32
Baton Rouge, LA 70809
Phone 225-751-5632
Fax 225-751-5634

Materials Characterization - Bulk Asbestos Analysis

Laboratory Analysis Report - Polarized Light

Arkansas State Highway & Transportation Dept.
10324 I-30, Room 705
Little Rock, AR 72209

Attn: Robert Pooler
Customer Project: Tract 14X 14454 Old Liberty Rd Garfield, AR 72732
Reference #: CAL13021169CP Date: 02/18/13

Analysis and Method

Summary of polarizing light microscopy (PLM / Stereomicroscopy bulk asbestos analysis) using the methods described in 40CFR Part 763 Appendix E to Subpart E (Interim and EPA 600 / R-93 / 116 (Improved). The sample is first viewed with the aid of stereomicroscopy. Numerous liquid slide preparations are created for analysis under the polarized microscope where identifications and quantifications are preformed. Calibrated liquid refractive oils are used as liquid mouting medium. These oils are used for identification (dispersion staining). A calibrated visual estimation is reported, should any asbestiform mineral be present. Other techniques such as acid washing are used in conjugation with refractive oils for detection of smaller quantities of asbestos. All asbestos percentages are based on calibrated visual estimation traceable to NIST standards for regulated of asbestos. Traceability to measurement and calibration is achieved by using known amounts and types of asbestos from standards where analyst and laboratory accuracy are measured. As little as 0.001% asbestos can be detected in favorable samples, while detection in unfavorable samples may approach the detection limit of 0.50% (well above the laboratory definition of trace).

Discussion

Vermiculite containing samples may have trace amounts of actinolite-tremolite, where not found be PLM should be analyzed using TEM methods and / or water separation techniques. Suspected actinolite/vermiculite presence will be indicated through the sample comment section of this report.

Fibrous talc containing samples may even contain a related asbestos fiber known as anthophyllite. Under certain conditions the same fiber may actually contain both talc and anthophyllite (a phenomenon called intergrowth). Again, TEM detection methods are recommended. CA Labs PLM report comments will denote suspected amounts of asbestiform anthophyllite with talc, where further analysis is recommended.

Some samples (floor tiles, surfacings, etc.) may contain fibers too small to be delectable by PLM analysis and should be analyzed by TEM bulk protocols.

A "trace asbestos" will be reported if the analyst observes far less than 1% asbestos. CA Labs defines "trace asbestos" as a few fibers detected by the analyst in several preparations and will indicate as such under these circumstances.

Quantification of <1% will actually be reported as <=1% (allowable variance close to 1% is high). Such results are ideal for point counting, and the technique is mandatory for friable samples (NESHAP, Nov. 1990 and clarification letter 8 May 1991) under 1% percent asbestos and the "trace asbestos". **In order to make all initial PLM reports issued from CA Labs NESHAP compliant, all <1% asbestos results (except floor tiles) will be point counted at no additional charge.**

Qualifications

CA Labs is accredited by the National Voluntary Accreditation Program (NVLAP) for selected test methods for airborne fiber analysis (TEM), and for bulk asbestos fiber analysis (PLM). CA Labs is also accredited by AIHA LAP, LLC. in the PLM asbestos field of testing for Industrial Hygiene. All analysts have a college degree in a natural science (geology, biology, or environmental science) or are recognized by a state professional board in one these disciplines .Extensive in-house training programs are used to augment education background of the analyst. The group leader of polarized light has received supplemental McCrone Research training for asbestos identification. Analysis performed at Crisp Analytical Labs, LLC 1929 Old Denton Road Carrollton, TX 75006

Dallas NVLAP Lab Code 200349-0 TEM/PLM EPA H20 TX 01402 TDH 30-0235
AIHA LAP, LLC Laboratory #102929

CA Labs
Dedicated to Quality

Crisp Analytical, L.L.C.
1929 Old Denton Road
Carrollton, TX 75006
Phone 972-242-2754
Fax 972-242-2798

CA Labs, L.L.C.
12232 Industriplex, Suite 32
Baton Rouge, LA 70809
Phone 225-751-5632
Fax 225-751-5634

Overview of Project Sample Material Containing Asbestos

Customer Project: Tract 14X 14454 Old Liberty Rd Garfield, AR 72732 **CA Labs Project #:** CAL13021169CP

Sample #	Layer #	Analysts Physical Description of Subsample	Asbestos type / calibrated visual estimate percent	List of Affected Building Material Types

No Asbestos Detected.

Dallas NVLAP Lab Code 200349-0 TEM/PLM EPA H20 TX 01402 TDH 30-0235
AIHA LAP, LLC Laboratory #102929

Glossary of abbreviations (non-asbestos fibers and non-fibrous minerals):

ca - carbonate
gypsum - gypsum
bi - binder
or - organic
ma - matrix
mi - mica
ve - vermiculite
ot - other
pe - perlite
qu - quartz
fg - fiberglass
mw - mineral wool
wo - wollastinite
ta - talc
sy - synthetic
ce - cellulose
br - brucite
ka - kaolin (clay)
pa - palygorskite (clay)

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Baton Rouge, LA 70809
Phone 225-751-5632
Fax 225-751-5634

Polarized Light Asbestiform Materials Characterization

Customer Info: **Attn:** Robert Pooler
Arkansas State Highway & Transportation Dept.
10324 I-30, Room 705
Little Rock, AR 72209

Phone # 501-569-2317
Fax # 501-569-2018

Customer Project:
Tract 14X 14454 Old Liberty Rd Garfield, AR 72732
Turnaround Time:
3 Days

CA Labs Project #:
CAL13021169CP

Date: 02/18/13
Samples Received: 2/14/13 10AM
Date Of Sampling: 02/08/13
Purchase Order #: 090065

Sample #	Comment	Layer #	Analysts Physical Description of Subsample	Homogeneous (Y/N)	Asbestos type / calibrated visual estimate percent	Non-asbestos fiber type / percent	Non-fibrous type / percent
090065 TR. 14X 1		1-1	***Area (A) Ceiling**/ white surfaced white compound*	n	***None Detected***		100% mi,bi,ca
		1-2	*white compound (beneath tape)*	y	***None Detected***		100% mi,ca
		1-3	*white drywall with brown paper*	n	***None Detected***	24% ce	76% qu,gy
090065 TR. 14X 2		2-1	***Area (H) Ceiling**/ white surfaced white compound*	n	***None Detected***		100% mi,bi,ca
		2-2	*white compound (beneath tape)*	y	***None Detected***		100% mi,ca
		2-3	*white drywall with brown paper*	n	***None Detected***	21% ce	79% qu,gy
090065 TR. 14X 3		3-1	***Area (K) Ceiling**/ white surfaced white compound*	n	***None Detected***		100% mi,bi,ca

Dallas NVLAP Lab Code 200349-0 TEM/PLM *EPA H20 TX 01402* *TDH 30-0235*

AIHA LAP, LLC Laboratory #102929

Analysis Method: Interim (40CFR Part 763 Appendix E to Subpart E) / Improved (EPA-600 / R-93/116)
Preparation Method: HCL acid washing for carbonate based samples, chemical reduction for organically bound components, oil immersion for identification of asbestos types by dispersion attaining / becke line method.

ca - carbonate	mi - mica	fg - fiberglass	ce - cellulose
gypsum - gypsum	ve - vermiculite	mw - mineral wool	br - brucite
bi - binder	ot -other	wo - wollastinite	ka - kaolin (clay)
or - organic	pe - perlite	ta - talc	pa - palygorskite (clay)
ma - matrix	qu - quartz	sy - synthetic	

Approved Signatories:

Keith Malone
Analyst

QAC
Leslie Crisp, P.G.

Technical Manager
Chad Lytle

1. Fire Damage significant fiber damage - reported percentages reflect unaltered fibers
2. Fire Damage no significant fiber damages effecting fibrous percentages
3. Actinolite in association with Vermiculite
4. Layer not analyzed - attached to previous positive layer and contamination is suspected
5. Not enough sample to analyze
6. Anthophyllite in association with Fibrous Talc
7. Contamination suspected from other building materials
8. Favorable scenario for water separation on vermiculite for possible analysis by another method
9. < 1% Result point counted positive
10. TEM analysis suggested

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12232 Industriplex, Suite 32
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Phone 225-751-5632
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Polarized Light Asbestiform Materials Characterization

Customer Info: **Attn:** Robert Pooler
Arkansas State Highway & Transportation Dept.
10324 I-30, Room 705
Little Rock, AR 72209

Phone # 501-569-2317
Fax # 501-569-2018

Customer Project:
Tract 14X 14454 Old Liberty Rd Garfield, AR 72732
Turnaround Time:
3 Days

CA Labs Project #:
CAL13021169CP

Date: 02/18/13
Samples Received: 2/14/13 10AM
Date Of Sampling: 02/08/13
Purchase Order #: 090065

Sample #	Comment	Layer #	Analysts Physical Description of Subsample	Homogeneous (Y/N)	Asbestos type / calibrated visual estimate percent	Non-asbestos fiber type / percent	Non-fibrous type / percent
		3-2	*white compound (beneath tape)*	*y*	***None Detected***		100% mi,ca
		3-3	*white drywall with brown paper*	*n*	***None Detected***	19% ce	81% qu,gy
090065 TR. 14X 4		*4-1*	***Area (B) Wall/*** *green surfaced white compound*	*n*	***None Detected***		100% mi,bi,ca
		4-2	*white compound (beneath tape)*	*y*	***None Detected***		100% mi,bi,ca
		4-3	*white drywall with brown paper*	*n*	***None Detected***	20% ce	80% qu,gy
090065 TR. 14X 5		*5-1*	***Area (J) Wall/*** *tan surfaced white compound*	*n*	***None Detected***		100% mi,bi,ca
		5-2	*white compound (beneath tape)*	*y*	***None Detected***		100% mi,ca

Dallas NVLAP Lab Code 200349-0 TEM/PLM *EPA H20 TX 01402* *TDH 30-0235*

AIHA LAP, LLC Laboratory #102929

Analysis Method: Interim (40CFR Part 763 Appendix E to Subpart E) / Improved (EPA-600 / R-93/116)
Preparation Method: HCL acid washing for carbonate based samples, chemical reduction for organically bound components, oil immersion for identification of asbestos types by dispersion attaining / becke line method.

ca - carbonate	mi - mica	fg - fiberglass	ce - cellulose
gypsum - gypsum	ve - vermiculite	mw - mineral wool	br - brucite
bi - binder	ol -other	wo - wollastinite	ka - kaolin (clay)
or - organic	pe - perlite	ta - talc	pa - palygorskite (clay)
ma - matrix	qu - quartz	sy - synthetic	

Approved Signatories:

Keith Malone
Analyst

QAC
Leslie Crisp, P.G.

Technical Manager
Chad Lytle

1. Fire Damage significant fiber damage - reported percentages reflect unaltered fibers
2. Fire Damage no significant fiber damages effecting fibrous percentages
3. Actinolite in association with Vermiculite
4. Layer not analyzed - attached to previous positive layer and contamination is suspected
5. Not enough sample to analyze
6. Anthophyllite in association with Fibrous Talc
7. Contamination suspected from other building materials
8. Favorable scenario for water separation on vermiculite for possible analysis by another method
9. < 1% Result point counted positive
10. TEM analysis suggested

CA Labs
Dedicated to Quality

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Carrollton, TX 75006
Phone 972-242-2754
Fax 972-242-2798

CA Labs, L.L.C.
12232 Industriplex, Suite 32
Baton Rouge, LA 70809
Phone 225-751-5632
Fax 225-751-5634

Polarized Light Asbestiform Materials Characterization

Customer Info: **Attn:** Robert Pooler
Arkansas State Highway & Transportation Dept.
10324 I-30, Room 705
Little Rock, AR 72209

Phone # 501-569-2317
Fax # 501-569-2018

Customer Project:
Tract 14X 14454 Old Liberty Rd Garfield, AR 72732
Turnaround Time:
3 Days

CA Labs Project #:
CAL13021169CP

Date: 02/18/13
Samples Received: 2/14/13 10AM
Date Of Sampling: 02/08/13
Purchase Order #: 090065

Sample #	Comment	Layer #	Analysts Physical Description of Subsample	Homogeneous (Y/N)	Asbestos type / calibrated visual estimate percent	Non-asbestos fiber type / percent	Non-fibrous type / percent
		5-3	*white drywall with brown paper*	*n*	***None Detected***	25% ce	75% qu,gy
090065 TR. 14X 6		*6-1*	***Area (M) Wall**/ green surfaced white compound*	*n*	***None Detected***		100% mi,bi,ca
		6-2	*white compound (beneath tape)*	*y*	***None Detected***		100% mi,ca
		6-3	*white drywall with brown paper*	*n*	***None Detected***	22% ce	78% qu,gy

Dallas NVLAP Lab Code 200349-0 TEM/PLM *EPA H20 TX 01402* *TDH 30-0235*

AIHA LAP, LLC Laboratory #102929

Analysis Method: Interim (40CFR Part 763 Appendix E to Subpart E) / Improved (EPA-600 / R-93/116)
Preparation Method: HCL acid washing for carbonate based samples, chemical reduction for organically bound components, oil immersion for identification of asbestos types by dispersion attaining / becke line method.

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gypsum - gypsum	ve - vermiculite	mw - mineral wool	br - brucite
bi - binder	ot -other	wo - wollastinite	ka - kaolin (clay)
or - organic	pe - perlite	ta - talc	pa - palygorskite (clay)
ma - matrix	qu - quartz	sy - synthetic	

Approved Signatories:

Keith Malone
Analyst

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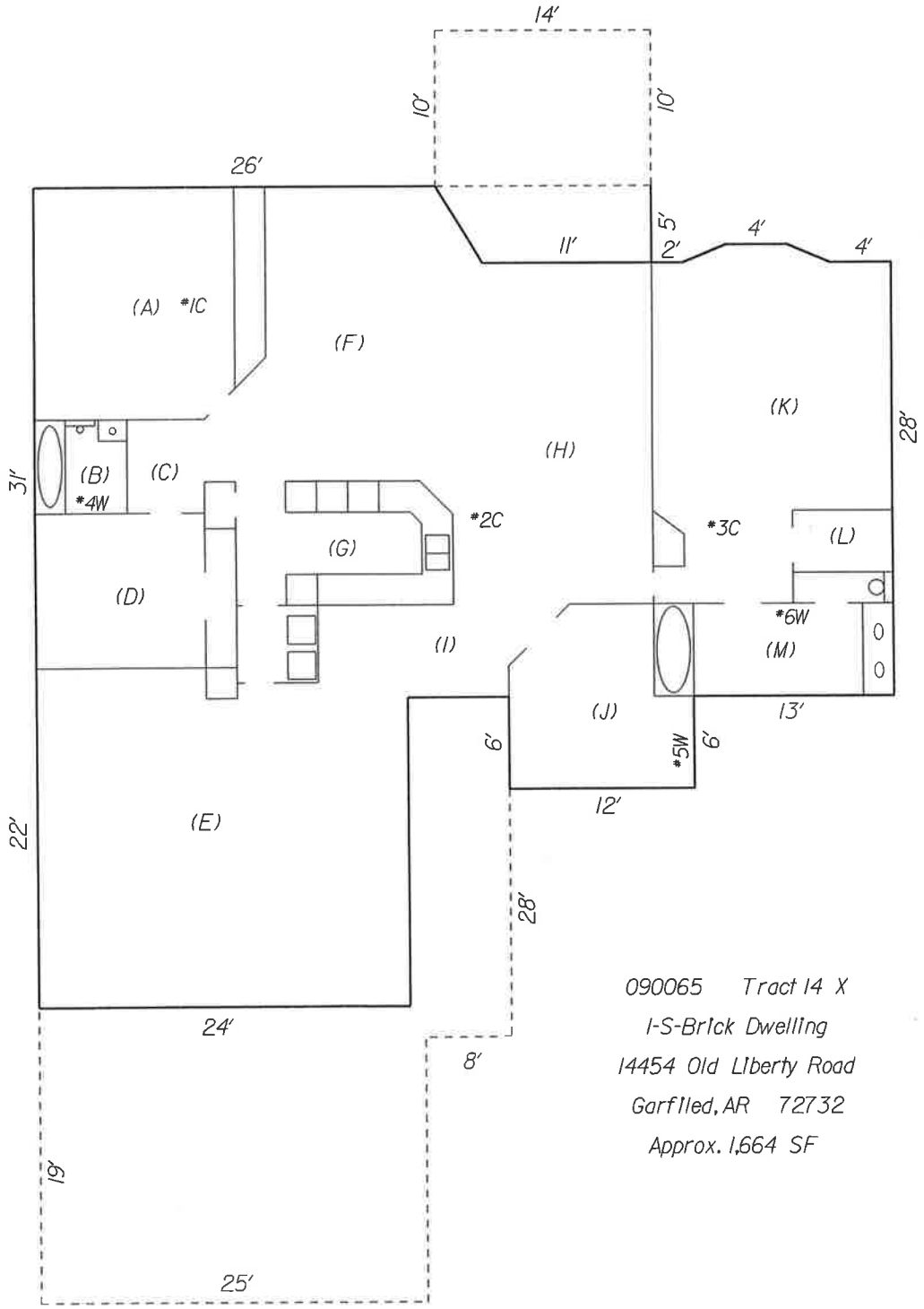
7. Contamination suspected from other building materials
8. Favorable scenario for water separation on vermiculite for possible analysis by another method
9. < 1% Result point counted positive
10. TEM analysis suggested

INSPECTION FLOOR PLAN

		PROPERTY LOCATION	INSPECTED BY
JOB:	090065	1-S-B Dewelling	Joel Clark (011518)
TRACT:	14 X	14454 Old Liberty Road	
DATE:	2/7/2013	Garfield, AR 72732	

Sample Number	Description/ Locaton	Sample Number	Description/ Location
#1	A) Ceiling	#11	
#2	H) Ceiling	#12	
#3	K) Ceiling	#13	
#4	B) Wall	#14	
#5	J) Wall	#15	
#6	M) Wall	#16	
#7		#17	
#8		#18	
#9		#19	
#10		#20	

Homogenous Areas:	
Roofing	Composition Shingle
Siding	Brick
Ceilings	Sheet Rock
Walls	Sheet Rock
Floors	Carpet/Slab; Ceramic Tile/Slab
	Hardwood

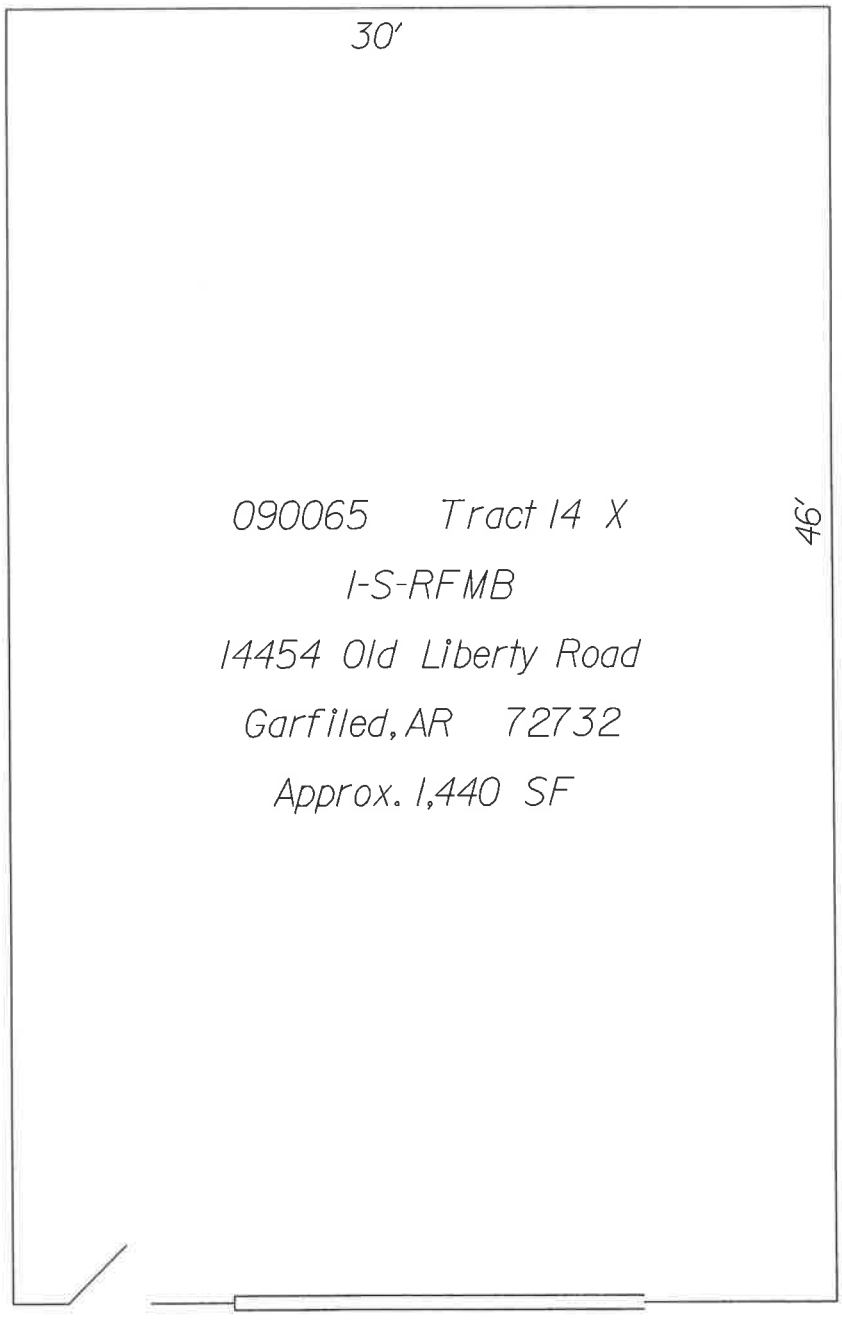


INSPECTION FLOOR PLAN

		PROPERTY LOCATION	INSPECTED BY
JOB:	090065	1-S-RFMB	Joel Clark (011518)
TRACT:	14 X	14454 Old Liberty Road	
DATE:	2/7/2013	Garfield, AR 72732	

Sample Number	Description/ Locaton	Sample Number	Description/ Location
#1		#11	
#2		#12	
#3		#13	
#4		#14	
#5		#15	
#6		#16	
#7		#17	
#8		#18	
#9		#19	
#10		#20	

Homogenous Areas:	
Roofing	Metal
Siding	Metal
Ceilings	Metal
Walls	Metal
Floors	Concrete Slab



XSX

X 51

15X

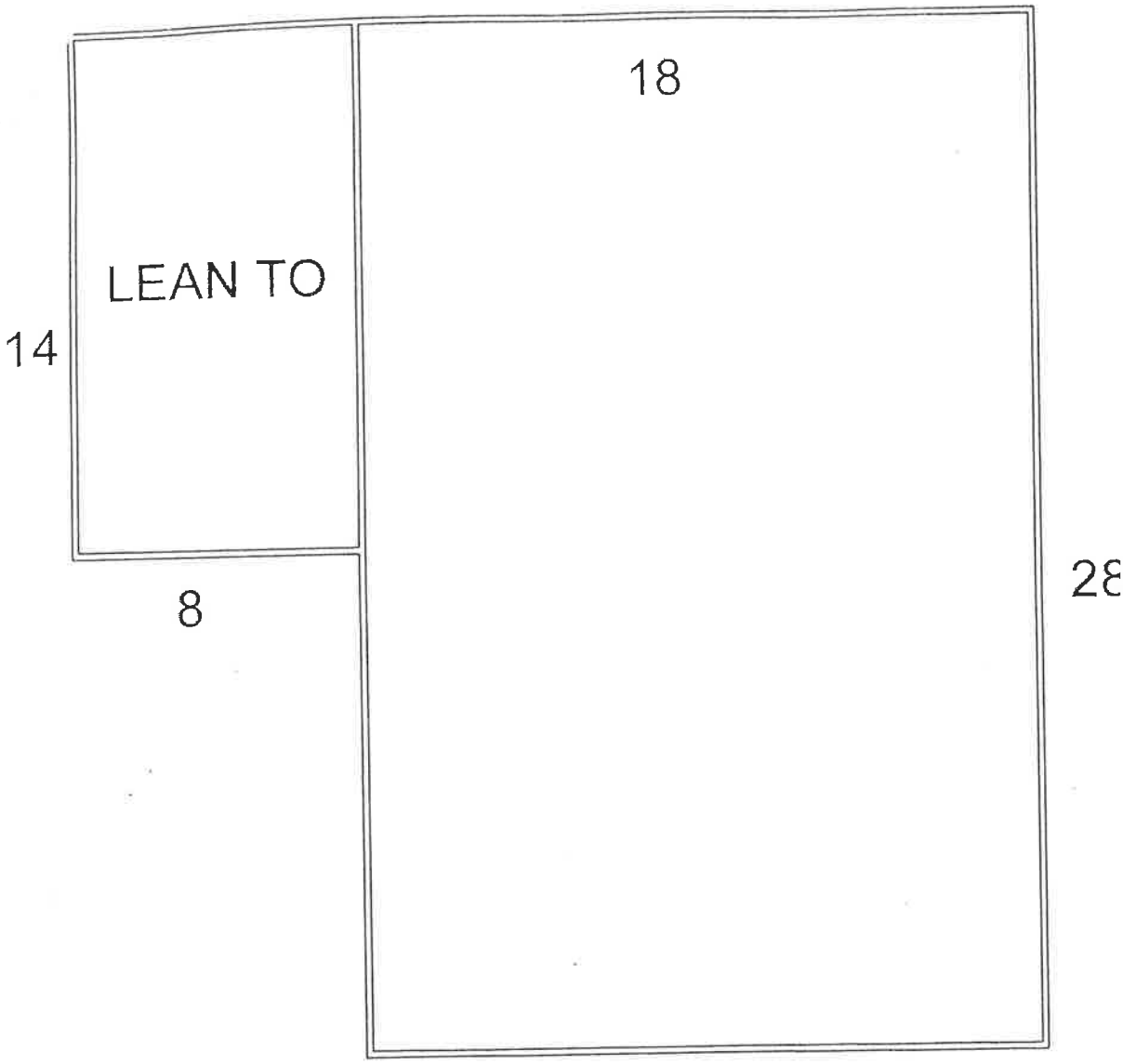
15X

INSPECTION FLOOR PLAN

JOB:	090065	PROPERTY LOCATION	INSPECTED BY
TRACT:	15 X	1-S-Shop/Pole Barn	Joel Clark (011518)
DATE:	1/24/2013	Hwy. 62	
		Garfield, AR 72732	

Sample Number	Description/ Locaton	Sample Number	Description/ Location
#1		#11	
#2		#12	
#3		#13	
#4		#14	
#5		#15	
#6		#16	
#7		#17	
#8		#18	
#9		#19	
#10		#20	

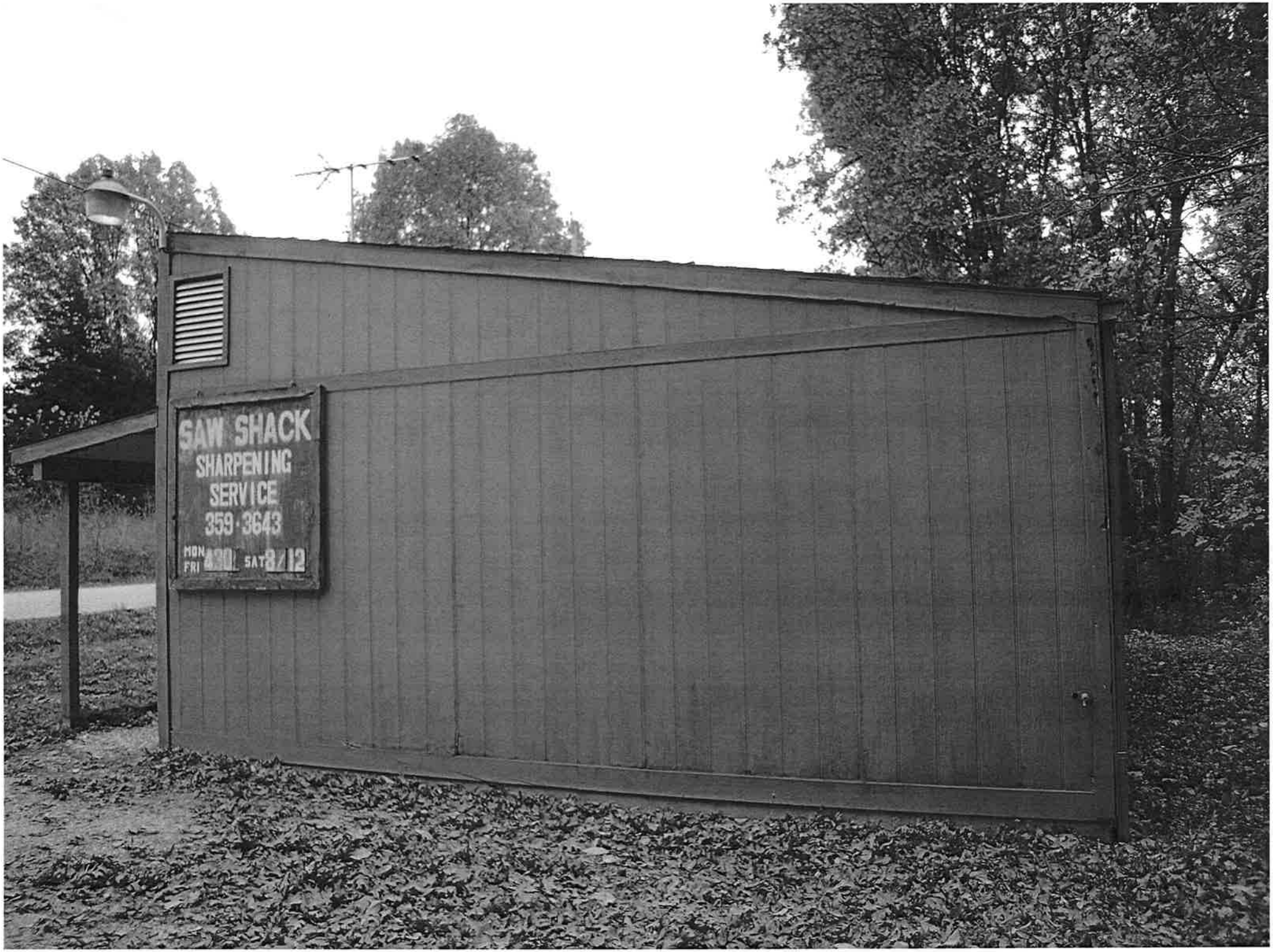
Homogenous Areas:	
Roofing	Metal
Siding	Metal
Ceilings	Open Rafter
Walls	Open Studs
Floors	Concrete Slab



SHOP BUILDING
TRACT 15X
JOB 090065
504SF

ORIGINAL

SAW SHACK
SHARPENING
SERVICE
359-3843
MON
FRI
SAT 8-12


SAW SHACK
SHARPENING
SERVICE
359-3643
MON
FRI
8:30
SAT
8/12

CA Labs

Crisp Analytical Laboratories, L.L.C
1929 Old Denton Rd.
Carrollton, TX 75006

Phone: 972-272-2754
Fax: 972-272-2798
Mobile: 214-564-8366

Chain of Custody

Client Name:	AHTD	**CA Labs job CAL#**	130180
Client Address:	P.O. Box 2261	Billing Address:	
	Room #705	(if different)	
	Little Rock, AR 72203-2261		
phone number:	501-569-2317 or 2318	P.O. # :	090065
fax number:		Project Name:	Tract 21X 17522 Alvin Seamster Rd
Send Reports to:	Joeld.Clark@arkansashighways.com	Project Number:	090065 Garfield, AR 72732

Total # Samples Submitted: 4	Total # Samples to be Analyzed: 4	Material Matrix: Air / **Bulk** / Water

Asbestos: *please call ahead for availability of all rush and/or after hours samples.*

TEM	TA Time	PLM	TA Time	Optical / IAQ	TA Time
Circle analysis and TA time		*Circle analysis and TA time*	*2 hour*	PCM: NIOSH 7400	Note TAT
AHERA	*4 hour*	Improved	4 hour	**Allergen Particle:**	24 hour
EPA Level II	8 hour	Interim	8 hour	tape/bulk/swab	2 days
Drinking Water	16 hour		16 hour	Cyclex-d cassettes	3 days
Wipe	24 hour	**AHERA**	24 hour	Air-o-cell cassettes	5-10 days
Micro-vac	2 days		2 days	Anderson cultures	Specify
NIOSH 7402	3 days	Point Count -	**3 days**	Bulk/swab cultures	Mold or
Chatfield Bulk	5 days	(NESHAPS)	5 days	Bacteria cultures	bacteria

Please indicate appropriate turn around time. (minimum turnaround - 3 Days for Lead TCLP and water)

Lead: *Circle analysis and TA time*

Sample Information:

Sample #:	Sample Location:	Sample Date/Time:	Sample Volume (L)
090065Tr21X #1	Area (A) Ceiling	1/25/2013	
090065Tr21X #2	Area (A) Ceiling	1/25/2013	
090065Tr21X #3	Area (A) Wall	1/25/2013	
090065Tr21X #4	Area (B Wall	1/25/2013	

Custody Information:

Samples relinquished: Joel Clark 1-29-13
Signature / Date / Time

Samples received: Matthew Romero
Signature / Date / Time
1/30/13 3:30PM

CA Labs
Dedicated to Quality

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Baton Rouge, LA 70809
Phone 225-751-5632
Fax 225-751-5634

Materials Characterization - Bulk Asbestos Analysis

Laboratory Analysis Report - Polarized Light

Arkansas State Highway & Transportation Dept.
10324 I-30, Room 705
Little Rock, AR 72209

Attn: Robert Pooler
Customer Project: Tract 21X 17522 Alvin Seamster Rd
Reference #: CAL1301680CP Date: 02/04/13

Analysis and Method

Summary of polarizing light microscopy (PLM / Stereomicroscopy bulk asbestos analysis) using the methods described in 40CFR Part 763 Appendix E to Subpart E (Interim and EPA 600 / R-93 / 116 (Improved). The sample is first viewed with the aid of stereomicroscopy. Numerous liquid slide preparations are created for analysis under the polarized microscope where identifications and quantifications are preformed. Calibrated liquid refractive oils are used as liquid mouting medium. These oils are used for identification (dispersion staining). A calibrated visual estimation is reported, should any asbestiform mineral be present. Other techniques such as acid washing are used in conjugation with refractive oils for detection of smaller quantities of asbestos. All asbestos percentages are based on calibrated visual estimation traceable to NIST standards for regulated of asbestos. Traceability to measurement and calibration is achieved by using known amounts and types of asbestos from standards where analyst and laboratory accuracy are measured. As little as 0.001% asbestos can be detected in favorable samples, while detection in unfavorable samples may approach the detection limit of 0.50% (well above the laboratory definition of trace).

Discussion

Vermiculite containing samples may have trace amounts of actinolite-tremolite, where not found be PLM should be analyzed using TEM methods and / or water separation techniques. Suspected actinolite/vermiculite presence will be indicated through the sample comment section of this report.

Fibrous talc containing samples may even contain a related asbestos fiber known as anthophyllite. Under certain conditions the same fiber may actually contain both talc and anthophyllite (a phenomenon called intergrowth). Again, TEM detection methods are recommended. CA Labs PLM report comments will denote suspected amounts of asbestiform anthophyllite with talc, where further analysis is recommended.

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Dallas NVLAP Lab Code 200349-0 TEM/PLM EPA H20 TX 01402 TDH 30-0235
AIHA LAP, LLC Laboratory #102929

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Baton Rouge, LA 70809
Phone 225-751-5632
Fax 225-751-5634

Overview of Project Sample Material Containing Asbestos

Customer Project: Tract 21X 17522 Alvin Seamster Rd **CA Labs Project #:** CAL1301680CP

Sample #	Layer #	Analysts Physical Description of Subsample	Asbestos type / calibrated visual estimate percent	List of Affected Building Material Types

No Asbestos Detected.

Dallas NVLAP Lab Code 200349-0 TEM/PLM EPA H20 TX 01402 TDH 30-0235
AIHA LAP, LLC Laboratory #102929

Glossary of abbreviations (non-asbestos fibers and non-fibrous minerals):

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gypsum - gypsum
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ve - vermiculite
ot - other
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mw - mineral wool
wo - wollastinite
ta - talc
sy - synthetic
ce - cellulose
br - brucite
ka - kaolin (clay)
pa - palygorskite (clay)

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Polarized Light Asbestiform Materials Characterization

Customer Info: **Attn:** Robert Pooler
Arkansas State Highway & Transportation Dept.
10324 I-30, Room 705
Little Rock, AR 72209

Phone # 501-569-2317
Fax # 501-569-2018

Customer Project:
Tract 21X 17522 Alvin Seamster Rd
Turnaround Time:
3 Days

CA Labs Project #:
CAL1301680CP

Date: 02/04/13
Samples Received: 1/30/13 3:30PM
Date Of Sampling: 01/25/13
Purchase Order #: 090065

Sample #	Comment	Layer #	Analysts Physical Description of Subsample	Homogeneous (Y/N)	Asbestos type / calibrated visual estimate percent	Non-asbestos fiber type / percent	Non-fibrous type / percent
090065Tr21 X 1			***Area (A) Ceiling/*** *tan surfaced*				
		1-1	*white compound*	*n*	***None Detected***		100% mi,bi,ca
		1-2	*white compound (beneath tape)*	*y*	***None Detected***		100% mi,ca
		1-3	*white drywall with brown paper*	*n*	***None Detected***	20% ce	80% qu,gy
090065Tr21 X 2			***Area (A) Ceiling/*** *tan surfaced*				
		2-1	*white compound*	*n*	***None Detected***		100% mi,bi,ca
		2-2	*white compound (beneath tape)*	*y*	***None Detected***		100% mi,ca
		2-3	*white drywall with brown paper*	*n*	***None Detected***	21% ce	79% qu,gy
090065Tr21 X 3			***Area (A) Wall/*** *tan surfaced*				
		3-1	*white compound*	*n*	***None Detected***		100% mi,bi,ca

Dallas NVLAP Lab Code 200349-0 TEM/PLM *EPA H20 TX 01402* *TDH 30-0235*

AIHA LAP, LLC Laboratory #102929

Analysis Method: Interim (40CFR Part 763 Appendix E to Subpart E) / Improved (EPA-600 / R-93/116)
Preparation Method: HCL acid washing for carbonate based samples, chemical reduction for organically bound components, oil immersion for identification of asbestos types by dispersion attaining / becke line method.

ca - carbonate	mi - mica	fg - fiberglass	ce - cellulose
gypsum - gypsum	ve - vermiculite	mw - mineral wool	br - brucite
bi - binder	ot -other	wo - wollastinite	ka - kaolin (clay)
or - organic	pe - perlite	ta - talc	pa - palygorskite (clay)
ma - matrix	qu - quartz	sy - synthetic	

Approved Signatories:

Keith Malone
Analyst

QAC
Leslie Crisp, P.G.

Technical Manager
Chad Lytle

1. Fire Damage significant fiber damage - reported percentages reflect unaltered fibers
2. Fire Damage no significant fiber damages effecting fibrous percentages
3. Actinolite in association with Vermiculite
4. Layer not analyzed - attached to previous positive layer and contamination is suspected
5. Not enough sample to analyze
6. Anthophyllite in association with Fibrous Talc
7. Contamination suspected from other building materials
8. Favorable scenario for water separation on vermiculite for possible analysis by another method
9. < 1% Result point counted positive
10. TEM analysis suggested

CA Labs
Dedicated to Quality

Crisp Analytical, L.L.C.
1929 Old Denton Road
Carrollton, TX 75006
Phone 972-242-2754
Fax 972-242-2798

CA Labs, L.L.C.
12232 Industriplex, Suite 32
Baton Rouge, LA 70809
Phone 225-751-5632
Fax 225-751-5634

Polarized Light Asbestiform Materials Characterization

Customer Info: **Attn:** Robert Pooler
Arkansas State Highway & Transportation Dept.
10324 I-30, Room 705
Little Rock, AR 72209

Phone # 501-569-2317
Fax # 501-569-2018

Customer Project:
Tract 21X 17522 Alvin Seamster Rd
Turnaround Time:
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CA Labs Project #:
CAL1301680CP

Date: 02/04/13
Samples Received: 1/30/13 3:30PM
Date Of Sampling: 01/25/13
Purchase Order #: 090065

Sample #	Comment	Layer #	Analysts Physical Description of Subsample	Homogeneous (Y/N)	Asbestos type / calibrated visual estimate percent	Non-asbestos fiber type / percent	Non-fibrous type / percent
		3-2	*white compound (beneath tape)*	*y*	***None Detected***		100% mi,ca
		3-3	*white drywall with brown paper*	*n*	***None Detected***	23% ce	77% qu,gy
090065Tr21 X 4		*4-1*	***Area (B) Wall/*** *tan surfaced white compound*	*n*	***None Detected***		100% mi,bi,ca
		4-2	*white compound (beneath tape)*	*y*	***None Detected***		100% mi,ca
		4-3	*white drywall with brown paper*	*n*	***None Detected***	19% ce	81% qu,gy

Dallas NVLAP Lab Code 200349-0 TEM/PLM *EPA H20 TX 01402* *TDH 30-0235*

AIHA LAP, LLC Laboratory #102929

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ca - carbonate	mi - mica	fg - fiberglass	ce - cellulose
gypsum - gypsum	ve - vermiculite	mw - mineral wool	br - brucite
bi - binder	ot -other	wo - wollastinite	ka - kaolin (clay)
or - organic	pe - perlite	ta - talc	pa - palygorskite (clay)
ma - matrix	qu - quartz	sy - synthetic	

Approved Signatories:

Keith Malone
Analyst

QAC
Leslie Crisp, P.G.

Technical Manager
Chad Lytle

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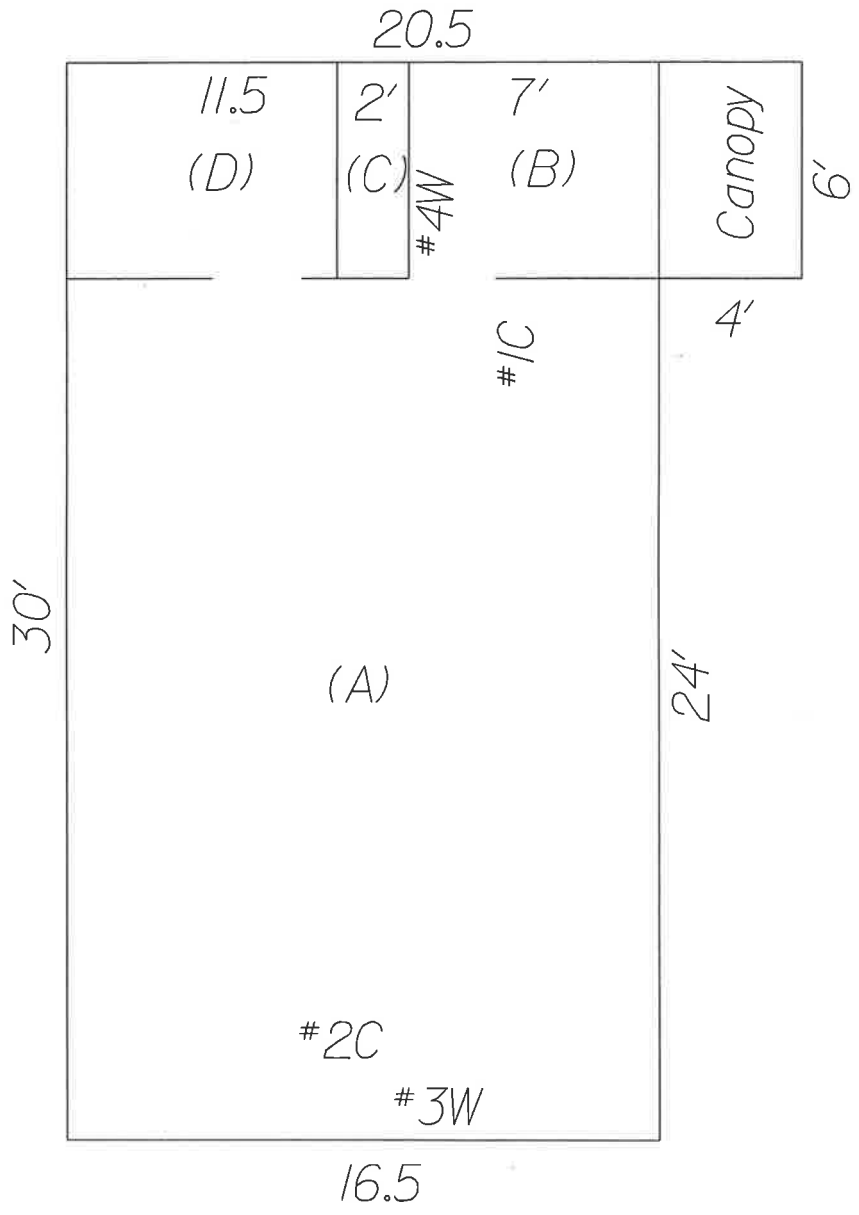
9. < 1% Result point counted positive
10. TEM analysis suggested

INSPECTION FLOOR PLAN

JOB:	090065	PROPERTY LOCATION	INSPECTED BY
TRACT:	21 X	1-S-Frame Shop Building	Joel Clark (011518)
DATE:	1/25/13	17522 Dennis Mitchell Road	
		Garfield, AR 72732	

Sample Number	Description/ Locaton	Sample Number	Description/ Location
#1	A) Ceiling	#11	
#2	A) Ceiling	#12	
#3	A) Wall	#13	
#4	B) Wall	#14	
#5		#15	
#6		#16	
#7		#17	
#8		#18	
#9		#19	
#10		#20	

Homogenous Areas:	
Roofing	Composition Shingle
Siding	Wood
Ceilings	(ACD) Sheet Rock; (B) 2X4
Walls	(A) Open Studs; (BCD) Sheet Rock
Floors	Concrete Slab



Job 090065 Tract 21X

17522 Dennis Mitchell Road

Garfield, AR 72732

Approx. 615 SF

16X

16X

INSPECTION FLOOR PLAN

		PROPERTY LOCATION	INSPECTED BY
JOB:	090065	1-S-Service Garage	Joel Clark (011518)
TRACT:	17 X	17781 Hwy. 62 E.	
DATE:	1/25/2013	Garfield, AR 72732	

Sample Number	Description/ Locaton	Sample Number	Description/ Location
#1		#11	
#2		#12	
#3		#13	
#4		#14	
#5		#15	
#6		#16	
#7		#17	
#8		#18	
#9		#19	
#10		#20	

Homogenous Areas:	
Roofing	Metal
Siding	Metal
Ceilings	Metal
Walls	Metal
Floors	Concrete Slab

18X

18x

X81

CA Labs

Crisp Analytical Laboratories, L.L.C
1929 Old Denton Rd.
Carrollton, TX 75006

Phone: 972-272-2754
Fax: 972-272-2798
Mobile: 214-564-8366

Chain of Custody

Client Name:	AHTD	**CA Labs job**	**CAL#** 1301679
Client Address:	P.O. Box 2261	Billing Address:	
	Room #705	(if different)	
	Little Rock, AR 72203-2261		
phone number:	501-569-2317 or 2318	P.O. # :	090065
fax number:		Project Name:	Tract 18X 17799 Hwy. 62 East
Send Reports to:	Joeld.Clark@arkansashighways.com	Project Number:	090065 Garfield, AR 72732

Total # Samples Submitted: 6	Total # Samples to be Analyzed: 6	Material Matrix: Air / **Bulk** / Water

Asbestos: *please call ahead for availability of all rush and/or after hours samples.*

TEM	TA Time	PLM	TA Time	Optical / IAQ	TA Time
Circle analysis and TA time		*Circle analysis and TA time*	*2 hour*	**PCM**: NIOSH 7400	Note TAT
AHERA	*4 hour*	Improved	4 hour	**Allergen Particle**:	24 hour
EPA Level II	8 hour	Interim	8 hour	tape/bulk/swab	2 days
Drinking Water	16 hour		16 hour	Cyclex-d cassettes	3 days
Wipe	24 hour	**AHERA**	24 hour	Air-o-cell cassettes	5-10 days
Micro-vac	2 days		2 days	Anderson cultures	Specify
NIOSH 7402	3 days	Point Count -	**3 days**	Bulk/swab cultures	Mold or
Chatfield Bulk	5 days	(NESHAPS)	5 days	Bacteria cultures	bacteria

Please indicate appropriate turn around time. (minimum turnaround - 3 Days for Lead TCLP and water)

Lead: *Circle analysis and TA time*

Sample Information:

Sample #:	Sample Location:	Sample Date/Time:	Sample Volume (L)
090065Tr18X #1	Area (A) Ceiling	1/25/2013	
090065Tr18X #2	Area (A) Ceiling	1/25/2013	
090065Tr18X #3	Area (B) Ceiling	1/25/2013	
090065Tr18X #4	Area (C) Ceiling	1/25/2013	
090065Tr18X #5	Area (A) Wall	1/25/2013	
090065Tr18X #6	Area (C) Wall	1/25/2013	

Custody Information:

Samples relinquished: Joeld Clark 1/29/13
Signature / Date / Time

Samples received: Matthew Romer 1/30/13
Signature / Date / Time

3:30 PM

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Fax 225-751-5634

Materials Characterization - Bulk Asbestos Analysis

Laboratory Analysis Report - Polarized Light

Arkansas State Highway & Transportation Dept.
10324 I-30, Room 705
Little Rock, AR 72209

Attn: Robert Pooler
Customer Project: Tract 18X 17799 Hwy 62 East Garfield, AR 72732
Reference #: CAL1301679CP Date: 2/4/2013

Analysis and Method

Summary of polarizing light microscopy (PLM / Stereomicroscopy bulk asbestos analysis) using the methods described in 40CFR Part 763 Appendix E to Subpart E (Interim and EPA 600 / R-93 / 116 (Improved). The sample is first viewed with the aid of stereomicroscopy. Numerous liquid slide preparations are created for analysis under the polarized microscope where identifications and quantifications are preformed. Calibrated liquid refractive oils are used as liquid mouting medium. These oils are used for identification (dispersion staining). A calibrated visual estimation is reported, should any asbestiform mineral be present. Other techniques such as acid washing are used in conjugation with refractive oils for detection of smaller quantities of asbestos. All asbestos percentages are based on calibrated visual estimation traceable to NIST standards for regulated of asbestos. Traceability to measurement and calibration is achieved by using known amounts and types of asbestos from standards where analyst and laboratory accuracy are measured. As little as 0.001% asbestos can be detected in favorable samples, while detection in unfavorable samples may approach the detection limit of 0.50% (well above the laboratory definition of trace).

Discussion

Vermiculite containing samples may have trace amounts of actinolite-tremolite, where not found be PLM should be analyzed using TEM methods and / or water separation techniques. Suspected actinolite/vermiculite presence will be indicated through the sample comment section of this report.

Fibrous talc containing samples may even contain a related asbestos fiber known as anthophyllite. Under certain conditions the same fiber may actually contain both talc and anthophyllite (a phenomenon called intergrowth). Again, TEM detection methods are recommended. CA Labs PLM report comments will denote suspected amounts of asbestiform anthophyllite with talc, where further analysis is recommended.

Some samples (floor tiles, surfacings, etc.) may contain fibers too small to be delectable by PLM analysis and should be analyzed by TEM bulk protocols.

A "trace asbestos" will be reported if the analyst observes far less than 1% asbestos. CA Labs defines "trace asbestos" as a few fibers detected by the analyst in several preparations and will indicate as such under these circumstances.

Quantification of <1% will actually be reported as <=1% (allowable variance close to 1% is high). Such results are ideal for point counting, and the technique is mandatory for friable samples (NESHAP, Nov. 1990 and clarification letter 8 May 1991) under 1% percent asbestos and the "trace asbestos". **In order to make all initial PLM reports issued from CA Labs NESHAP compliant, all <1% asbestos results (except floor tiles) will be point counted at no additional charge.**

Qualifications

CA Labs is accredited by the National Voluntary Accreditation Program (NVLAP) for selected test methods for airborne fiber analysis (TEM), and for bulk asbestos fiber analysis (PLM). CA Labs is also accredited by AIHA LAP, LLC. in the PLM asbestos field of testing for Industrial Hygiene. All analysts have a college degree in a natural science (geology, biology, or environmental science) or are recognized by a state professional board in one these disciplines .Extensive in-house training programs are used to augment education background of the analyst. The group leader of polarized light has received supplemental McCrone Research training for asbestos identification. Analysis performed at Crisp Analytical Labs, LLC 1929 Old Denton Road Carrollton, TX 75006

Dallas NVLAP Lab Code 200349-0 TEM/PLM EPA H20 TX 01402 TDH 30-0235
AIHA LAP, LLC Laboratory #102929

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Baton Rouge, LA 70809
Phone 225-751-5632
Fax 225-751-5634

Overview of Project Sample Material Containing Asbestos

Customer Project: Tract 18X 17799 Hwy 62 East Garfield, AR 72732 **CA Labs Project #:** CAL1301679CP

Sample #	Layer #	Analysts Physical Description of Subsample	Asbestos type / calibrated visual estimate percent	List of Affected Building Material Types

No Asbestos Detected.

Dallas NVLAP Lab Code 200349-0 TEM/PLM EPA H20 TX 01402 TDH 30-0235
AIHA LAP, LLC Laboratory #102929

Glossary of abbreviations (non-asbestos fibers and non-fibrous minerals):

ca - carbonate
gypsum - gypsum
bi - binder
or - organic
ma - matrix
mi - mica
ve - vermiculite
ot - other
pe - perlite
qu - quartz
fg - fiberglass
mw - mineral wool
wo - wollastinite
ta - talc
sy - synthetic
ce - cellulose
br - brucite
ka - kaolin (clay)
pa - palygorskite (clay)

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Polarized Light Asbestiform Materials Characterization

Customer Info: **Attn:** Robert Pooler
Arkansas State Highway & Transportation Dept.
10324 I-30, Room 705
Little Rock, AR 72209

Phone # 501-569-2317
Fax # 501-569-2018

Customer Project:
Tract 18X 17799 Hwy 62 East
Garfield, AR 72732
Turnaround Time:
3 Days

CA Labs Project #:
CAL1301679CP

Date: 2/4/2013
Samples Received: 1/30/13 3:30PM
Date Of Sampling: 1/25/2013
Purchase Order #: 90065

Sample #	Comment	Layer #	Analysts Physical Description of Subsample	Homogeneous (Y/N)	Asbestos type / calibrated visual estimate percent	Non-asbestos fiber type / percent	Non-fibrous type / percent
090065Tr18 X-1		1-1	***Area (A) Ceiling/*** *white surfaced white compound*	*n*	***None Detected***		100% mi,bi,ca
		1-2	*white compound (beneath tape)*	*y*	***None Detected***		100% mi,ca
		1-3	*white drywall with brown paper*	*n*	***None Detected***	19% ce 1% fg	80% qu,gy
090065Tr18 X-2		2-1	***Area (A) Ceiling/*** *white surfaced white compound*	*n*	***None Detected***		100% mi,bi,ca
		2-2	*white compound (beneath tape)*	*y*	***None Detected***		100% mi,ca
		2-3	*white drywall with brown paper*	*n*	***None Detected***	18% ce 1% fg	81% qu,gy
090065Tr18 X-3		3-1	***Area (B) Ceiling/*** *white surfaced white compound*	*n*	***None Detected***		100% mi,bi,ca

Dallas NVLAP Lab Code 200349-0 TEM/PLM *EPA H20 TX 01402* *TDH 30-0235*

AIHA LAP, LLC Laboratory #102929

Analysis Method: Interim (40CFR Part 763 Appendix E to Subpart E) / Improved (EPA-600 / R-93/116)
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or - organic	pe - perlite	ta - talc	pa - palygorskite (clay)
ma - matrix	qu - quartz	sy - synthetic	

Approved Signatories:

C. T. Ras

Tanner Rasmussen
Analyst

E. C., PD

QAC
Leslie Crisp, P.G.

Technical Manager
Chad Lytle

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Polarized Light Asbestiform Materials Characterization

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		3-2	*white compound (beneath tape)*	*y*	***None Detected***		100% mi,ca
		3-3	*white drywall with brown paper*	*n*	***None Detected***	19% ce 1% fg	80% qu,gy
090065Tr18 X-4		*4-1*	***Area (C) Ceiling/*** *white surfaced white compound*	*n*	***None Detected***		100% mi,bi,ca
		4-2	*white compound (beneath tape)*	*n*	***None Detected***		100% mi,ca
		4-3	*white drywall with brown paper*	*n*	***None Detected***	19% ce 1% fg	80% qu,gy
090065Tr18 X-5		*5-1*	***Area (A) Wall/*** *gray surfaced white compound*	*n*	***None Detected***		100% mi,bi,ca
		5-2	*white compound (beneath tape)*	*y*	***None Detected***		100% mi,ca

Dallas NVLAP Lab Code 200349-0 TEM/PLM *EPA H20 TX 01402* *TDH 30-0235*

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		5-3	*white drywall with brown paper*	*n*	***None Detected***	19% ce 1% fg	80% qu,gy
090065Tr18 X-6		*6-1*	***Area (C) Wall/*** *white surfaced white compound*	*n*	***None Detected***		100% mi,bi,ca
		6-2	*white drywall with brown paper*	*n*	***None Detected***	19% ce 1% fg	80% qu,gy
090065Tr18 X-7		*7-1*	*white surfaced white compound*	*n*	***None Detected***		100% mi,bi,ca
		7-2	*white compound (beneath tape)*	*y*	***None Detected***		100% mi,ca
		7-3	*white drywall with brown paper*	*n*	***None Detected***	18% ce 1% fg	81% qu,gy
090065Tr18 X-8		*8-1*	*white surfaced white compound*	*n*	***None Detected***		100% mi,bi,ca

Dallas NVLAP Lab Code 200349-0 TEM/PLM *EPA H20 TX 01402* *TDH 30-0235*

AIHA LAP, LLC Laboratory #102929

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		8-2	*white compound (beneath tape)*	*y*	***None Detected***		100% mi,ca
		8-3	*white drywall with brown paper*	*n*	***None Detected***	19% ce 1% fg	80% qu,gy
090065Tr18 X-9		*9-1*	*off-white linoleum*	*y*	***None Detected***	28% ce 6% fg	66% gy,ma
		9-2	*tan mastic*	*y*	***None Detected***		100% gy,bi
090065Tr18 X-10		*10-1*	*off-white linoleum*	*y*	***None Detected***	29% ce 6% fg	65% gy,ma
		10-2	*tan mastic*	*y*	***None Detected***		100% gy,bi
090065Tr18 X-11		*11-1*	*tan floor tile*	*y*	***None Detected***		100% qu,ca

Dallas NVLAP Lab Code 200349-0 TEM/PLM *EPA H20 TX 01402* *TDH 30-0235*

AIHA LAP, LLC Laboratory #102929

Analysis Method: Interim (40CFR Part 763 Appendix E to Subpart E) / Improved (EPA-600 / R-93/116)
Preparation Method: HCL acid washing for carbonate based samples, chemical reduction for organically bound components, oil immersion for identification of asbestos types by dispersion attaining / becke line method.

ca - carbonate	mi - mica	fg - fiberglass	ce - cellulose
gypsum - gypsum	ve - vermiculite	mw - mineral wool	br - brucite
bi - binder	ot -other	wo - wollastinite	ka - kaolin (clay)
or - organic	pe - perlite	ta - talc	pa - palygorskite (clay)
ma - matrix	qu - quartz	sy - synthetic	

Approved Signatories:

C. T. Ras

Tanner Rasmussen
Analyst

QAC
Leslie Crisp, P.G.

Technical Manager
Chad Lytle

1. Fire Damage significant fiber damage - reported percentages reflect unaltered fibers
2. Fire Damage no significant fiber damages effecting fibrous percentages
3. Actinolite in association with Vermiculite
4. Layer not analyzed - attached to previous positive layer and contamination is suspected
5. Not enough sample to analyze
6. Anthophyllite in association with Fibrous Talc
7. Contamination suspected from other building materials
8. Favorable scenario for water separation on vermiculite for possible analysis by another method
9. < 1% Result point counted positive
10. TEM analysis suggested

CA Labs
Dedicated to Quality

Crisp Analytical, L.L.C.
1929 Old Denton Road
Carrollton, TX 75006
Phone 972-242-2754
Fax 972-242-2798

CA Labs, L.L.C.
12232 Industriplex, Suite 32
Baton Rouge, LA 70809
Phone 225-751-5632
Fax 225-751-5634

Polarized Light Asbestiform Materials Characterization

Customer Info: **Attn:** Robert Pooler
Arkansas State Highway & Transportation Dept.
10324 I-30, Room 705
Little Rock, AR 72209

Phone # 501-569-2317
Fax # 501-569-2018

Customer Project:
Tract 18X 17799 Hwy 62 East
Garfield, AR 72732
Turnaround Time:
3 Days

CA Labs Project #:
CAL1301679CP

Date: 2/4/2013
Samples Received: 1/30/13 3:30PM
Date Of Sampling: 1/25/2013
Purchase Order #: 90065

Sample #	Comment	Layer #	Analysts Physical Description of Subsample	Homogeneous (Y/N)	Asbestos type / calibrated visual estimate percent	Non-asbestos fiber type / percent	Non-fibrous type / percent
		11-2	*tan mastic*	*y*	***None Detected***		100% gy,bi
090065Tr18 X-12		*12-1*	*tan floor tile*	*y*	***None Detected***		100% qu,ca
		12-2	*tan mastic*	*y*	***None Detected***		100% gy,bi

Dallas NVLAP Lab Code 200349-0 TEM/PLM *EPA H20 TX 01402* *TDH 30-0235*

AIHA LAP, LLC Laboratory #102929

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ma - matrix	qu - quartz	sy - synthetic	

Approved Signatories:

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Analyst

QAC
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Technical Manager
Chad Lytle

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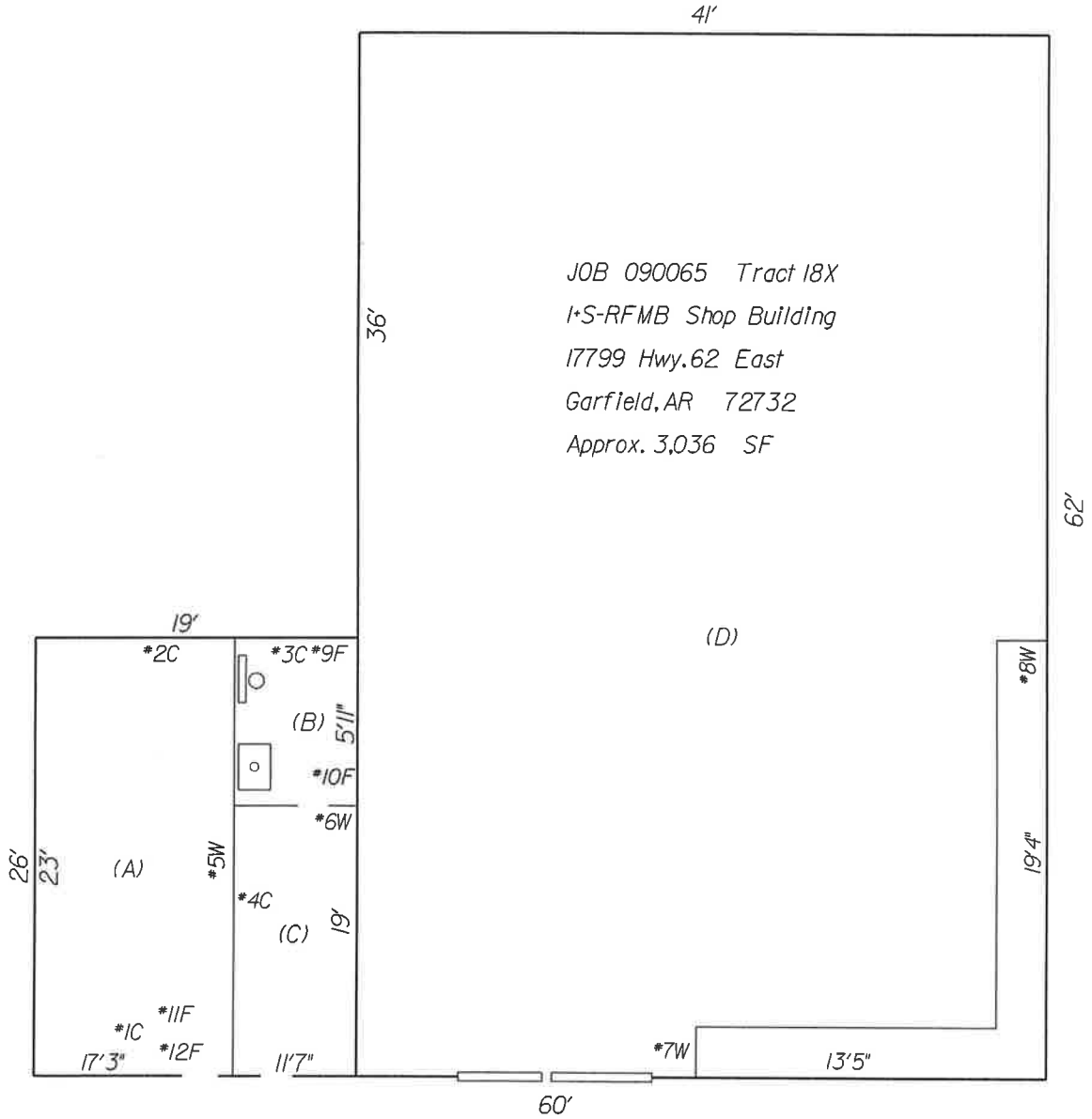
9. < 1% Result point counted positive
10. TEM analysis suggested

INSPECTION FLOOR PLAN

JOB:	090065	PROPERTY LOCATION	INSPECTED BY
TRACT:	18 X	RFMB Shop	Joel Clark (011518)
DATE:	1/25/13	17799 Hwy. 62 East	
		Garfield, AR 72732	

Sample Number	Description/ Location	Sample Number	Description/ Location
#1	A) Ceiling	#11	
#2	A) Ceiling	#12	
#3	B) Ceiling	#13	
#4	A) Wall	#14	
#5	C) Wall	#15	
#6		#16	
#7		#17	
#8		#18	
#9		#19	
#10		#20	

Homogenous Areas:	
Roofing	Metal
Siding	Metal
Ceilings in Office Area (ABC)	(D) Metal
Walls on Office Area (ABC)	32' 9" in Area (D); Metal (D)
Floors	(A) Floor Tile < 50 SF;
	Concrete Slab



090065

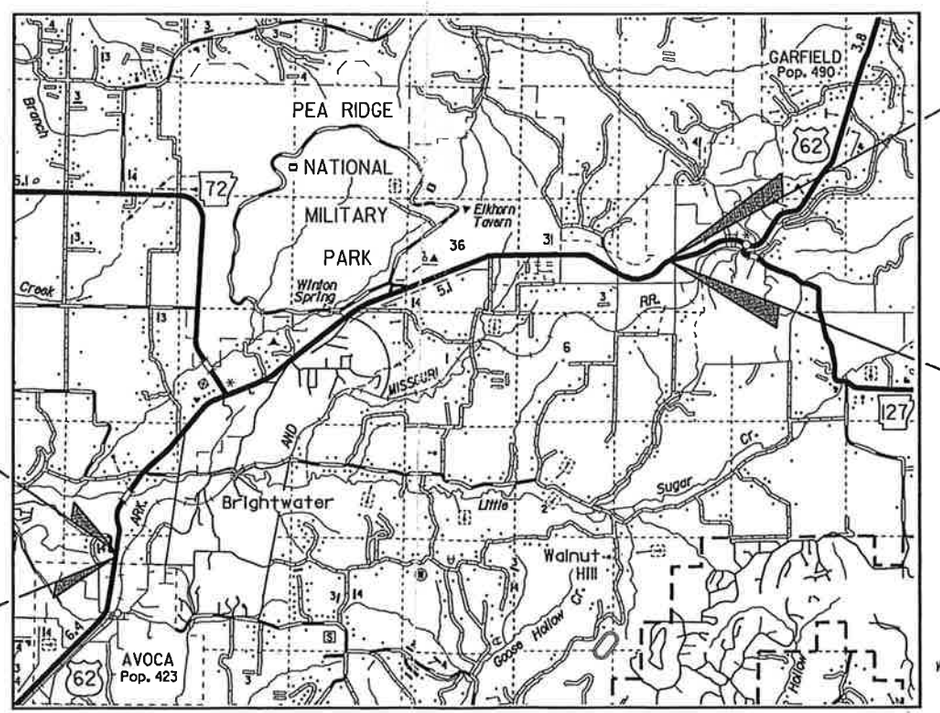
RIGHT OF WAY SIGNS AND SYMBOLS

- SECTION CORNER
- QUARTER CORNER
- QUARTER QUARTER CORNER
- SECTION CENTER
- STATE LINE OR CITY LIMITS
- COUNTY LINE
- TOWNSHIP LINE
- QUARTER SECTION LINE
- PROPERTY LINE
- EXISTING R/W LINE
- PROPOSED R/W LINE
- EXISTING CONTROL OF ACCESS
- PROPOSED CONTROL OF ACCESS
- PROPOSED R/W & CONTROL OF ACCESS
- EXISTING R/W DIMENSION
- PROPOSED R/W DIMENSION
- TEMPORARY & PERMANENT EASEMENT LINE
- EXISTING BRIDGE OR SEPARATION STRUCTURE
- PROPOSED BRIDGE OR SEPARATION STRUCTURE
- EXISTING CULVERT
- RAILROAD
- PAVED ROADS
- GRAVEL ROAD
- DRIVEWAY
- FENCE
- CONSTRUCTION LIMITS
- LEVEE
- TRAIL
- RESIDENTIAL & COMMERCIAL BUILDING
- HEDGE ROW
- SMALL STREAM
- LARGE STREAM
- POND OR LAKE
- TELEPHONE POLES
- POWER POLES
- TRANSMISSION LINES
- TREES
- DECIDUOUS WOODS
- EVERGREEN WOODS
- SET AHTD R/W MONUMENT
- TEMPORARY EASEMENT POINT
- PERMANENT EASEMENT POINT
- EXISTING R/W POINT
- PROPERTY LINE POINT
- FOUND MONUMENT
- SURVEY CALCULATED POINT

STATE OF ARKANSAS
STATE HIGHWAY COMMISSION

RIGHT OF WAY MAP
AVOCA-NORTH GARFIELD
(U.S. HWY. 62)
BENTON COUNTY
ROUTE 01 SECTION 02
JOB 090065

LAYOUT NOT TO SCALE



STA.446+75.60 END R/W ACQ.
JOB 090065

STA.446+50.00 END CONST.
JOB 090065

STA.121+50.00 BEGIN R/W ACQ.
JOB 090065

STA.114+00.00 BEGIN CONST.
JOB 090065

ARKANSAS STATE HIGHWAY AND TRANSPORTATION DEPT.
RECEIVED
OCT 28 2011
PROPERTY MANAGEMENT
RIGHT OF WAY DIVISION

INITIAL INSPECTION: 11-3-11

6/10

SURVEY CONTROL COORDINATES

Project Name: s090065
Date: 5/20/2009
Coordinate System: ARKANSAS STATE PLANE - NORTH ZONE BASED ON GPS CONTROL, PROJECTED TO GROUND.
Units: U.S. SURVEY FOOT

Point Name	Northing	Easting	Elev	Feature	Description
1	759252.8452	702372.9758	1360.26	CTL	T-1•T-20(JOB 090064)
2	760039.8311	702583.7358	1365.03	CTL	T-2•T-21(JOB 090064)
3	764393.7089	703227.5740	1239.05	CTL	T-3
4	765138.2307	703720.5709	1200.89	CTL	REBAR & CAP
5	767425.4282	706081.2896	1319.46	CTL	REBAR & CAP
6	768012.2778	706627.7844	1337.06	CTL	REBAR & CAP
7	768758.2332	707197.5635	1349.38	CTL	REBAR & CAP
8	769261.1318	708145.3058	1365.16	CTL	T-8\GPS
9	769725.3981	709536.5365	1385.36	CTL	REBAR & CAP
10	770215.7573	710598.1479	1397.08	CTL	REBAR & CAP
11	771507.1249	712221.6480	1395.46	CTL	REBAR & CAP
12	772076.8876	713099.1402	1401.47	CTL	REBAR & CAP
13	773318.6517	714783.8088	1395.02	CTL	REBAR & CAP
14	773826.3503	716154.8228	1417.90	CTL	T-14\RBR CAP
15	774500.0871	718067.0134	1417.48	CTL	T-15\RBR CAP
16	775094.6008	719876.3586	1482.21	CTL	REBAR & CAP
17	775359.4065	720663.3184	1479.39	CTL	REBAR & CAP T-17
18	775387.9993	722063.6371	1482.89	CTL	REBAR & CAP T-18
19	775339.8525	724053.8042	1533.94	CTL	8' SPIKE
20	775022.7530	725786.0881	1535.51	CTL	REBAR & CAP T-20
21	774160.6645	727235.6134	1591.39	CTL	REBAR & CAP T-21
22	774090.9690	727633.0025	1603.24	CTL	REBAR & CAP T-22
23	774776.5334	729110.6088	1569.28	CTL	REBAR & CAP T-23
24	774795.5263	729493.0633	1558.63	CTL	REBAR & CAP T-24
25	774945.7578	730095.9498	1510.03	CTL	REBAR & CAP
26	775366.4900	731017.7534	1510.69	CTL	T-26 RBR-CAP
27	775610.4358	731544.4186	1494.31	CTL	T-27 GPS
28	775674.2193	732051.1460	1502.44	CTL	T-28 NAIL BOTTLE CAP
29	775494.3718	732621.1418	1496.01	CTL	T-29 REBAR & CAP
30	775323.5499	732916.0619	1492.06	CTL	T-30 REBAR & CAP
31	775427.8062	733462.1702	1474.24	CTL	T-31 REBAR & CAP
32	775910.5307	733944.1664	1502.24	CTL	T-32 REBAR & CAP
33	776408.7835	734316.7941	1519.13	CTL	T-33 REBAR & CAP
34	776699.2490	734850.5303	1555.29	CTL	T-34 REBAR & CAP
35	777762.1760	735715.2106	1527.44	CTL	T-35 REBAR & CAP
36	778402.3398	736118.9613	1501.57	CTL	T-36 NAIL BOTTLE CAP
38	780119.5743	737186.7571	1521.78	CTL	T-38 REBAR & CAP
39	781087.2609	737525.1790	1539.50	CTL	T-39 REBAR & CAP
40	783082.3001	738142.5408	1595.03	CTL	T-40 REBAR & CAP
41	784440.7616	738755.0599	1637.84	CTL	T-41 REBAR & CAP
42	784952.1445	738877.7382	1641.85	CTL	T-42 REBAR & CAP
43	786509.0167	739458.5707	1636.58	CTL	T-43 REBAR & CAP
44	787056.6368	739787.4354	1623.35	CTL	T-44 REBAR & CAP
45	787674.1789	740281.0655	1608.43	CTL	T-45 REBAR & CAP
46	788753.6678	741428.1863	1594.49	CTL	T-46 REBAR & CAP
47	789504.9120	742346.1710	1564.65	CTL	T-47\REBAR & CAP
48	790377.0105	743271.2096	1555.09	CTL	T-48\REBAR & CAP
49	790489.3934	744787.8516	1539.84	CTL	T-49\REBAR & CAP
50	790202.2384	745113.5011	1546.45	CTL	T-50\REBAR & CAP
51	791569.5188	744646.1967	1561.91	CTL	T-51\REBAR & CAP
100	746093.7962	690870.6884	1353.71	GPS	ROGPORT GPS 1989
101	760564.6788	702721.5652	1362.46	GPS	AHTD CAP GPS 040023A
102	762461.3410	702985.6130	1340.30	GPS	AHTD CAP GPS 040023
103	770803.9228	711008.0502	1389.05	GPS	AHTD CAP GPS 040024A
104	771536.6166	712215.6506	1396.94	GPS	GPS040024 DESTROYED
105	775283.9366	725148.4277	1518.69	GPS	REBAR & CAP 040025A
106	774429.9781	726861.8762	1569.24	GPS	REBAR & CAP 040025
107	781900.9796	737836.2648	1558.79	GPS	GPS NGS PT Z 309
108	783767.1526	738359.2423	1636.68	GPS	GPS Z309A
109	789088.3331	746859.9651	0000.00	GPS	GPS J26A
110	790045.1634	744028.1855	1557.38	GPS	GPS J 26\GOV. BM
111	748162.6287	691570.0948	1353.45	GPS	ROGPORT AZ MK 1989
112	761370.9087	702869.5403	1340.67	CTL	REBAR & CAP
113	763223.5193	703201.7941	1313.79	CTL	REBAR & CAP
114	763948.3829	703124.3459	1265.20	CTL	REBAR & CAP
115	764493.3104	703293.0272	1230.36	CTL	REBAR & CAP
116	765875.5306	704425.3833	1233.05	CTL	REBAR & CAP
117	766278.9766	704748.8320	1249.11	CTL	REBAR & CAP
118	766957.6249	705857.2681	1285.29	CTL	REBAR & CAP
119	769358.6222	708277.5707	1365.28	CTL	REBAR & CAP
120	774174.3048	717304.4209	1414.25	CTL	REBAR W/ ALUM CAP
121	775413.4807	722903.3810	1470.60	CTL	REBAR & CAP T-121
122	778383.9479	724848.4978	1516.25	CTL	REBAR & CAP
123	778141.1231	730794.4619	1504.31	CTL	REBAR & CAP
124	775408.5151	731078.4595	1502.88	CTL	REBAR W/ ALUM CAP
125	775671.5412	732074.7867	1500.81	CTL	REBAR W/ ALUM CAP
900	759167.1258	702578.7127	1358.16	BM	NGS POINT P 26 HALFCAP GONE
901	758279.8009	701811.3697	1351.67	BM	TBM-901\CHISLED SQUARE HEADW ALL
902	759146.9090	702335.7806	1358.68	BM	TBM-902\GPS POWERPOLE
903	762393.8633	702884.7164	1336.05	BM	NGS POINT P 309
904	764932.8973	703616.0916	1206.14	BM	NGS POINT Q 309
905	765897.1554	704497.3765	1233.51	BM	TBM-905\GPS COMBINATION POLE W-GUY
906	767876.2659	706518.9020	1333.84	BM	NGS POINT R 309
907	769240.6066	708321.9479	1367.68	BM	TBM-907\GPS COMBINATION POLE
908	770865.4552	711519.9483	1379.64	BM	TBM-908\GPS POWERPOLE
909	771715.2436	712442.2506	1398.27	BM	NGS POINT S 309
910	774341.6079	717534.8561	1416.53	BM	NGS POINT T 309
911	775469.0336	720883.6650	1472.18	BM	TBM-911\GPS POWERPOLE
912	775343.4484	722254.4166	1479.93	BM	NGS POINT U 309
913	775399.9122	724223.8419	1538.11	BM	TBM-913\GPS POWERPOLE
914	774362.8680	726769.7362	1563.55	BM	TBM-914 GPS POWERPOLE
915	774159.5294	727473.8342	1605.73	BM	NGS POINT V 309
916	774791.9078	729469.2901	1561.31	BM	TBM-916 GPS POWERPOLE
917	775676.0500	731821.1340	1501.72	BM	TBM-917 GPS POWERPOLE LEFT CENTERLINE
918	775294.9111	732339.3837	1515.59	BM	NGS POINT W 309
919	776569.0640	734724.9319	1541.30	BM	NGS POINT X 309
920	777585.1926	735538.0764	1527.37	BM	TBM-920\GPS 24' OAK
921	778949.1725	736572.8174	1465.17	BM	NGS POINT Y 309
922	779882.1180	737123.6758	1512.00	BM	TBM-922 GPS POWERPOLE 14 ' EAST
923	781900.9796	737836.2648	1558.79	BM	NGS POINT Z 309
924	782921.2323	738066.9790	1589.35	BM	TBM-924 GPS POWERPOLE
925	785320.6061	739077.0939	1643.24	BM	NGS POINT G 313
926	789479.7182	742350.7282	1565.13	BM	TBM-926\GPS POWERPOLE
927	790138.1202	743104.0196	1555.89	BM	TBM-927\GPS POWERPOLE
928	790692.4302	744562.8003	1535.72	BM	TBM-928\GPS COMBINATION POLE
999	790001.1471	744167.3666	1557.38	BM	NGS POINT J 26
1500	762869.1071	702967.5568	1347.10	CTL	REBAR/CAP 9' NE OF A POWEPOLE, 5' E OF 5 BARB STEEL POST FENCE
1501	762998.3094	702079.5050	1338.83	CTL	REBAR/CAP 6' NORTH OF 5 BARB FENCE 6' SOUTH OF EDGE OF RUSSELL RD 50' SOUTHWEST OF INTERSECTION ANDY JACK RD & RUSSELL RD
1502	765856.7909	703765.4518	1232.36	CTL	REBAR/CAP 5' WEST OF NORTH CORNER ASPHALT DRIVEWAY, SET IN E EDGE GRAVEL ROAD 10, SOUTHWEST OF 4 MAILBOXES 25' E OF DOUBLE 10' GATES
1503	765736.3481	703351.6883	1215.75	CTL	REBAR/CAP 6' WEST OF 2' STEEL PIPE FENCE 9' SOUTH OF THE CORNER 8' EAST OF EDGE OF COUNTY GRAVEL ROAD
1504	768643.1023	707788.9487	1356.76	CTL	REBAR/CAP 31' NORTHWEST OF A POWERPOLE, 51' SOUTH OF 1-S-F POST OAK PAVILION 60' EEST OF 1-S-F SHED
1505	768135.7535	707911.3210	1348.95	CTL	REBAR/CAP 12' NORTHWEST OF TOP BANK 68' NORTHEAST OF ELECTRIC CAMPER HOOKUP
1506	771451.1894	711526.9224	1380.24	CTL	REBAR/CAP 21' EAST OF CONC. DRIVEWAY TO DWMH IN GRASS FIELD 65' NORTHEAST OF 38' OAK
1507	771053.8885	711028.6349	1379.66	CTL	REBAR/CAP 4' SW OF T POST AT EDGE OF GRASS FIELD CAMPER PARKING
1508	774893.7774	724121.4282	1534.55	CTL	REBAR/CAP 3' WEST OF EDGE PAVEMENT IN FRONT OF A YELLOW HOUSE 39' NORTH OF A GRAVEL DRIVEWAY
1509	774017.3274	724096.1960	1511.89	CTL	REBAR/CAP SOUTH OF EDGE PAVEMENT AT INTERSECTION DENNIS MITCHELL ROAD & PAUL PRATT ROAD
1510	774082.2853	726749.5797	1586.40	CTL	REBAR/CAP 12' WEST OF EDGE PAVEMENT ALVIN SEAMSTR ROAD 36' SOUTH OF TELEPHONE POLE
1511	773619.0989	726772.7750	1547.34	CTL	REBAR/CAP 36' NORTH OF STEEL PIPE GATE 24' EAST OF ALVIN SEAMSTER ROAD IN AW PASTURE
1512	774423.0298	729385.3565	1577.65	CTL	REBAR/CAP 11' WEST OF FIRE HYDRANT NORTHWEST OF 3 WATERMETERS 9' NORTH OF 1 WATERMETER 3' SOUTH OF GRAVEL DRIVEWAY TO NEBCO FIRE DEPARTMENT
1513	774404.2687	729004.8497	1580.45	CTL	REBAR/CAP 6' NORTH OF POWERPOLE WITH LIGHT & TRANSFORMER 6' NORTH OF GRAVEL PARKING FOR COMMUNITY CENTER
1514	776433.7698	734627.6471	1527.50	CTL	REBAR/CAP 40' EAST OF CENTER OF GRAVEL RAILROAD CROSSING, SET IN CENTER OF TRACKS 225' WEST OF RAILROAD MILE MARKER 319
1515	776546.4995	735090.8638	1532.42	CTL	REBAR/CAP 277' EAST OF RAILROAD MILE MARKER 319 IN CENTER OF TRACKS 31' SOUTHEAST OF WATER LINE MARKER
1516	780866.3784	737739.8222	1536.75	CTL	REBAR/CAP 14' EAST OF SOUTHEAST CORNER 1-S-METAL BUILDING FLEA MARKET AROUND JUNK PILE
1517	781202.7465	737383.9140	1537.10	CTL	REBAR/CAP 28' NORTH OF SMALL PLANT POND NORTHEAST MOST POND 42' WEST OF TWIN 28' & 20' OAK

*Note - Rebar and Cap - Standard - 5/8' Rebar with 2' Aluminum Cap stamped
*(standard markings common to all caps), or as indicated
(other markings indicated in the point description of the individual point).
USE CAF = 1.0 FOR STAKEOUT FOR THIS PROJECT
A PROJECT CAF OF 0.999988242 HAS BEEN USED TO COMPUTE THE ABOVE GROUND COORDINATES.
THIS CAF IS INTENDED FOR USE WITHIN THE PROJECT LIMITS.
GRID DISTANCE = GROUND DISTANCE X CAF.
GRID COORDINATES ARE STORED UNDER FILE NAME. S090065GI.CTL
HORIZONTAL DATUM: NAD 83 (1997)
VERTICAL DATUM: NAVD 88 POSITIONAL ACCURACY THIRD ORDER, UNLESS SPECIFIED OTHERWISE AT A SPECIFIC POINT.

REFERENCE POINTS (1500 SERIES) ARE TO BE USED TO ESTABLISH CONTROL IF THE PRIMARY CONTROL POINTS LISTED ABOVE HAVE BEEN DESTROYED.
REFERENCE POINTS ARE NOT TO BE USED FOR VERTICAL CONTROL.

BASIS OF BEARING:
ARKANSAS STATE PLANE GRID BEARINGS - 0301-NORTH ZONE
DETERMINED FROM GPS CONTROL POINTS: 040025-040025A
CONVERGENCE ANGLE: 1-09-26.97754 LEFT AT POINT NUMBER 105
GRID AZIMUTH = ASTRONOMICAL AZIMUTH - CONVERGENCE ANGLE.

NO.	DATE	DESCRIPTION	BY	CK'D

DATE: 6/10 REVISIONS
DESIGNED: DMITCHELL REVIEWED: FRIPPOND

AVOCA-NORTH GARFIELD
(U.S. HWY. 62)
ARKANSAS STATE HIGHWAY COMMISSION
RIGHT OF WAY MAP
JOB 090065 BENTON COUNTY

SCALE 1"=500'

TRACT	OWNERSHIP		AREA IN ACRES: PARCEL	AREA IN ACRES: TO ACQUIRE	AREA IN SQ.FT.: PARCEL	AREA IN SQ.FT.: TO ACQUIRE	REMARKS	PAGE
12XR1	J&C Investments,LLC & Donald Williams	61	0.50	0.50	21,949	21,949		23
8XR2	Joseph & Helen Dorn H/W	47	0.34	0.34	14,956	14,956		21
8XR1	Joseph & Helen Dorn H/W	47	0.01	0.01	370	370		21
50R	Arvest Bank	30REV	0.43	0.43	18,719	18,719		18,19
24R	The Bypass Trust c/u The Lynch Family Trust	3	0.62	0.62	27,162	27,162		12,13
51R	Darren R. & Natausha M. Gould H/W	31	0.37	0.37	16,012	16,012		19
14XR	Stephen R.& Deborah F.Goines H/W	71	0.04	0.04	1,931	1,931		27
18XR	Paul T.& Deborah Plasekl H/W 1/2Int. & James T.Holland 1/2Int.	104	0.83	0.83	36,204	36,204		32
6XR	James L.& Benita E.Yousey, H/W	41	0.11	0.11	4,417	4,417		20
15XR	Diana M.Smith & Donald L.Smith Revocable Trust	78	0.53	0.53	23,101	23,101		29
50	Arvest Bank	30REV	0.61	0.18	26,697	7,978		18,19
49	Carolyn S.Ezell	34	23.13	1.77	1,007,728	77,156		18,19
48	Jim D.& Carol A.Trammell H/W	29	1.05	0.24	45,916	10,571		18
47	Johnny L.& Dawan L.Undernehr, H/W	28REV	2.24	0.72	97,420	31,559		18
46	The Jackson Family Trust	33REV	19.82	0.10	863,212	4,387		18
45	Robert L.& Peggy A.Saylors H/W	26,27	1.17	0.17	50,759	7,593		18
44	MDX Properties,LLC	24REV	2.52	0.06	109,615	2,567		18
43	Har-Ber Foundation	23REVA	2.14	0.09	93,194	4,027	43SGI	18
42	Ray & Kathleen Roney H/W	144REV	UNABLE	0.01	UNABLE	636		17,18
41	Jack A.Wilkey	21	0.72	0.13	31,397	5,821	41SGI	17,18
40	Larry P.& Shanna R.Jenkins H/W	20	1.25	0.12	54,498	5,422	TCE 40E1-0.03 ac.or 1,186 sq.ft. 40SGI	17
39	Laurie J.Stellow Revocable Trust	18	12.81	0.44	558,062	19,253	TCE 39E1-0.06 ac.or 2,720 sq.ft. 39SGI	17
38	Robert L.& Peggy Saylors, H/W	19REV	1.57	0.14	68,458	6,097	TCE 38E1-0.03 ac.or 1,384 sq.ft. 38SGI 38SG2	17
37	The Ruby Faye Holt Revocable 2008 Land Trust	17REV	29.26	0.90	1,274,363	39,218	TCE 37E1-0.04 ac or 1,840 sq.ft.	16,17
36	Chris C.& Sherri R.Nelson H/W	16	62.72	1.37	2,732,050	59,629		16,17
35	Richard L.& Marilyn J.Sears H/W	14	9.03	0.40	393,207	17,464	35SGI	15,16
34	Estate of Charles J.Proper,Deceased 1/2Int. Ronald B.and Janet L.Simrell Revocable Joint Trust,1/2Int.	15REV	2.40	0.16	104,447	7,173	34A1-0.01 ac or 637 sq.ft.(AHC) 34A2-0.09 ac or 3,772 sq.ft.(AHC) 34B-0.06 ac or 2,764 sq.ft.(Benton County)	16
33	John J.Jr.& Karen S.Leroy H/W Alta Leroy	13	1.41	0.25	61,471	64,548	33A-0.18 ac or 7,771 sq.ft.(AHC) 33B-0.07 ac or 3,077 sq.ft.(Benton County)	16
32	Kenneth Wayne Varnell, Bob Ray Varnell Dennis DeWayne Varnell	12	32.93	2.11	1,434,289	91,707		15,16
31	Kenneth Wayne Varnell, Bob Ray Varnell Dennis DeWayne Varnell	12	2.95	0.98	128,633	42,112		15,16
30	Wanda C.Bennett Revocable Trust	10REV	62.10	3.98	2,705,000	173,291	30A-3.93 ac.or 171,117 sq.ft. 30B-0.03 ac.or 1,387 sq.ft. TCE 30E2-0.11 ac or 4,747 sq.ft.	14,15
29	Elmer & Lorene Lynch Burroughs H/W	143	UNABLE	0.07	UNABLE	2,950	29A-0.01 ac.or 471 sq.ft. 29B-0.06 ac.or 2,479 sq.ft.	14
28	Jimmy Lon Webb	8REV-1	1.92	0.08	83,435	3,482		14
27	Wanda C.Bennett a single person Carl G.Bennett a married person	5REV	3.77	0.07	164,386	3,130	TCE 27E1-0.03 ac or 1,466 sq.ft.	13,14
26	Wanda C.Bennett a single person Carl G.Bennett a married person	5REV	28.77	1.20	1,253,222	52,699	26A1-0.17 ac or 7,552 sq.ft. TCE 26E1-0.06 ac or 2,536 sq.ft. TCE 26E2-0.05 ac or 2,237 sq.ft. 26A2-1.00 ac or 43,760 sq.ft. 26B-0.03 ac or 1,387 sq.ft.	13,14
25	The Bypass Trust c/u The Lynch Family Trust	3	0.14	0.14	5,897	5,897		12
24	The Bypass Trust c/u The Lynch Family Trust	3	0.77	0.15	33,488	6,326		12,13
23	Carl Stanley & Julia A.Williamson H/W	4	3.28	0.38	143,065	16,663		12
22	Robert L.Brush	2	38.37	1.54	1,671,607	67,204		11,12
21X	Eugene W.& Lydia Nowak Living Trust	90REV	9.56	0.60	416,354	26,311	21XA-0.39 ac or 16,951 sq.ft.(AHC) TDE 21XED2-425 sq.ft. 21XB-0.21 ac or 9,360 sq.ft.(Benton County)	31
20	NOT USED							
19X	Harold L.Taylor & Barbara Jean Williams	38REV	1.37	0.49	59,491	21,201		19
18X	Paul T.& Deborah Plasekl H/W 1/2Int. & James T.Holland 1/2Int.	104	0.93	0.10	40,659	4,455		32
17X	J.C.Carter	103	2.36	0.25	102,587	10,794	TCE 17XE1-0.04 ac.or 1,571 sq.ft. TDE 17XED2-0.04 ac.or 1,709 sq.ft.	32
16X	Jerry Lemoine & Freda Ruth Wright H/W	102	2.31	0.62	100,468	26,880	TCE 16XE1-0.05 ac.or 2,262 sq.ft. TDE 16XED2-0.10 ac.or 4,453 sq.ft.	32
15X	Diana M.Smith & Donald L.Smith Revocable Trust	78	0.75	0.22	32,690	9,589		29
14X	Stephen R.& Deborah F.Goines H/W	71	5.00	2.57	217,783	111,645	14XA-2.38 ac or 103,486 sq.ft.(AHC) 14XB1-0.06 ac or 2,399 sq.ft.(Benton County) 14XB2-0.13 ac or 5,760 sq.ft.(Benton County)	27
13X	Gerald Steven Burkett	66	7.10	4.79	309,123	208,750		25,26
12X	J&C Investments,LLC & Donald Williams	61	10.28	3.42	447,660	148,836	12XA-6.00275 ac or 119,703 sq.ft.(AHC) 12XB-0.67 ac or 29,133 sq.ft.(Benton County)	23,24
11X	W.R.Ray,ET AL	146	1.12	1.11	48,680	48,537	TDE 11XE1-0.00 ac or 143 sq.ft.	23
10X	Dayne & Lynda Galyen H/W	60	59.62	1.31	2,596,951	57,338	TCE 10XE1-0.06 ac or 2,542 sq.ft. TDE 10XED2-0.05 ac.or 2,292 sq.ft. 10XA-1.10 ac or 48,107 sq.ft.(AHC) 10XB-0.21 ac or 9,231 sq.ft.(Benton County)	23,24
9X	Abel & Maria E.Ballesteros H/W	150	3.94	0.44	171,499	18,985	TDE 9XED2-0.01 ac.or 543 sq.ft.	22,23
8X	Joseph & Helen Dorn H/W	47	1.37	1.02	59,894	44,568	8XA-0.83 ac or 36,277 sq.ft.(AHC) 8XB-0.19 ac or 8,291 sq.ft.(Benton County)	21
7X	Shawn Lee	43REV	1.46	0.42	63,445	18,248	TDE 7XED1-0.02 ac.or 982 sq.ft.	20
6X	James L.& Benita E.Yousey H/W	41	0.32	0.21	13,907	9,490	6XA-0.20 ac or 8,918 sq.ft.(AHC) 6XB-0.01 ac or 572 sq.ft.(Benton County)	20
5X	Harold L.& Carolyn Y.Taylor H/W 1/2Int.& & Barbara Jean Williams 1/2Int.	39REV	4.42	1.12	192,421	48,853	TCE 5XE1-0.06 ac or 2,524 sq.ft. TDE 5XED2-0.08 ac.or 3,281 sq.ft. TDE 5XED3-0.03 ac.or 1,149 sq.ft.	19,20
4X	Edens Family Revocable Trust	32	2.18	0.37	94,787	16,034	TDE 4XED1-0.04 ac.or 1,903 sq.ft.	19
3X	Ingram Revocable Trust	22REV	1.43	0.08	62,424	3,652	TDE 3XED1-0.08 ac.or 3,362 sq.ft.	17,18
2X	Dennis D.& Pamela J.Varnell H/W	11	4.52	2.43	196,941	105,884	TDE 2XED1-0.02 ac.or 1,081 sq.ft.	14,15
1X	Leo Edward Lynch	9	24.98	1.31	1,088,106	57,124	TDE 1XED1-0.02 ac.or 943 sq.ft. TCE 1XE2-0.30 ac.or 13,087 sq.ft.	14

NO.	DATE	DESCRIPTION	BY	CK'D
24	8/15/12	rev ownership tr 37	dm	fr
23	8/9/12	added tce 27E1	dm	fr
22	7/31/12	added tr 12XR-1 & deleted (TCE) 12XE-1	rm	fr
21	7/20/12	rev ownership tr 28	rm	fr
20	7/3/12	rev ownership tr 43	dm	fr
19	6/29/12	added tracts 8XR1 & 8XR2 & deleted TDE 19XED1	dm	fr
18	6/26/12	added Trs 24R and 50R	dm	fr
17	6/19/12	rev ownership tr's 5X and 42 and deleted TCE 9XE1	dm	fr
16	6/11/12	changed TDE10XED1 to 10XED2 and rev ownership tr 3X	dm	fr
15	6/6/12	added tr 51R	dm	fr
14	6/1/12	added tr 14XR(Left)	dm	fr
13	5/31/12	rev ownership trs 44 & 46	rm	fr
12	5/21/12	rev ownership tr 43	dm	fr
11	5/14/12	deleted TCE 18XE1 & TDE 18XED2 & added tr 18XR	dm	fr
10	5/10/12	rev ownership tr 34	dm	fr
9	5/10/12	added tr 6XR	dm	fr
8	4/30/12	Added Tr.15XR; Deleted TCE 15XE1, TCE 15XE2 & TDE 15XED3	rs	fr
7	4/24/12	corrected TCE 11XE1 to TDE 11XE1	dm	fr
6	4/12/12	Rev.ata trs 26,26B & 34; Added TCE 26E2; Rev. ownership tr.50	rs	fr
5	3-26-12	Rev.Ownership trs 38 & 47	rs	fr
4	2/22/12	rev ownership trs 19X,27 & 28; revised (TCE)11XE1; rev tp.ata (12XA) tr 12X; rev ownership,tp.ata (26A2,26B) tr 26; rev ownership,tp.ata (30A,30B) tr 30	dm	fr
3	1-26-12	Rev.Ownership tr 21X	dm	fr
2	12-19-11	Rev. ATA Tr.22, 24, 26, 29, 30, & 47; Added (TCE) 1XE-2,TR & ATA Tr. 28 & 26A-1, 26A-2, 26B, 29A, 29B, 30A, 30B; Deleted (TCE) 23E-1, 28E-1, 29E-1, 30E-1 & 26E-2	JT	FR
1	11/7/11	added 35SGI, 38SGI-2, 39SGI, 40SGI 41SGI, 43SGI	dm	fr

DATE: 11/10 REVISIONS

DESIGNED: D.MITCHELL REVIEWED: F.RIPPOND

EXISTING RIGHT OF WAY AUTHORITY

THE EXISTING R/W SHOWN IS WITHIN THE LIMITS OF THE R/W COVERED BY THE FOLLOWING:

JOB NO.	HWY.	AUTHORITY	BOOK	PAGE	DATE
9433	62	R/W PLANS & DEEDS			
9477	72	R/W PLANS & DEEDS			
490	62	R/W PLANS & DEEDS			
4150	62	COURT ORDER			4/16/1931
090064	62	R/W PLANS & DEEDS			

BIRCHFIELD SUB-DIV. (Sht.16&17)

TRACT	BLOCK	TRACT	SQ.FT.	ACQ.	RESIDUAL
36		1	1,274,767	42,672	1,232,095
		2	218,206	5,562	212,644
		3	218,147	5,428	212,719
		4	1,020,930	5,967	1,014,963

DOGWOOD ADD. (Sht.18&19)

TRACT	BLOCK	TRACT	SQ.FT.	ACQ.	RESIDUAL
48		1A	25,743	10,578	15,165
		2A	20,173	0	20,173

AVOCA-NORTH GARFIELD

(U.S. HWY. 62)

ARKANSAS STATE HIGHWAY COMMISSION

RIGHT OF WAY MAP

JOB 090065 BENTON COUNTY

TRACT	OWNERSHIP	PARCEL TO ACQUIRE AREA IN ACRES±		PARCEL TO ACQUIRE AREA IN SQ.FT.±		REMARKS	PAGE
103	Frank A.& Theresa L.Collins, H/W	155	5.00	0.02	217,676	1,041	21
102	E.M.Ray 5/12%, ET AL	156	4.10	3.25	178,488	141,464	23,24
101	Leilani May Watson, William Gene Watson and Fred Lambert Watson	152	13.76	0.02	599,354	766	11
100	United States of America	N/A	UNABLE	6.34	UNABLE	275,855	100A-6.08 ac.or 264,613 sq.ft.(AHC) TCE 100E2-0.02 ac.or 670 sq.ft. TCE 100E5-0.51 ac.or 22,286 sq.ft.(Benton Co) 100C-0.23 ac.or 9,949 sq.ft.(Benton Co) 100D-0.03 ac.or 1,293 sq.ft.(Benton Co) TCE 100E4-0.08 ac.or 3,697 sq.ft. 22-27
99E	Gustavo & Lourdes Fernandez H/W	149					TCE 99E1-0.06 ac.or 2,502 sq.ft. 19,20
98	DELETED						
97	Mildred L.Jones, Micheal H. Jones Jennifer L. Jones	97	9.36	0.60	407,776	26,040	TCE 97E1-0.10 ac or 4,498 sq.ft. 32,33
96	Town of Garfield	106REV	4.61	0.73	200,777	31,665	TCE 96E1-0.08 ac.or 3,661 sq.ft. 96SGI 32,33
95	Jana K.Wright	105REV	0.98	0.01	42,685	462	TCE 95E1-0.07 ac.or 3,149 sq.ft. 32
94	Garfield First Baptist Church	93,94, 95,96	10.46	0.04	455,560	1,930	TCE 94E1-0.02 ac.or 661 sq.ft. 32
93	Lemoine & Wanda Wright H/W	101	1.45	0.20	63,177	8,662	31,32
92	DG Garfield AR, LLC	100REV	1.25	0.09	54,652	3,838	TCE 92E1-0.05 ac.or 2,070 sq.ft. 31
91	Patricia Knaust & Don D.Knaust	92	24.05	0.09	1,047,710	3,797	31,32
90	Rosemarie Justus Dattel Revocable Living Trust	91	1.23	0.03	53,431	1,247	TCE 90E1-0.03 ac.or 1,495 sq.ft. 31
89	Ajdahan & Wendy Bicak H/W	99	1.85	0.26	80,464	11,424	89A-0.09 ac.or 4,099 sq.ft.(AHC) TCE 89E2-0.05 ac.or 2,245 sq.ft. 89B-0.17 ac.or 7,325 sq.ft.(Benton County) 31
88	Abner Trust,an undivided 50% Int.& Elephant Trust,an undivided 50% Int.	84REV	75.09	0.38	3,270,854	16,886	88A-0.37ac.or 16,312 sq.ft.(AHC) 88B-0.01 ac.or 574 sq.ft.(Benton County) TCE 88E1-0.02 ac.or 1,066 sq.ft. TCE 88E2-0.04 ac.or 1,568 sq.ft. TCE 88E3-0.04 ac.or 1,730 sq.ft. TCE 88E4-0.01 ac.or 400 sq.ft.88SGI 30,31
87	Guillermo V.& Sheila A.Martinez, H/W	89REV	6.51	0.10	283,569	4,335	TCE 87E1-0.02 ac.or 656 sq.ft. 30,31
86	Dorothy S.Robinson & Lele Jean Robinson-Norton	88REV	4.07	0.12	177,108	5,077	TCE 86E1-0.01 ac.or 413 sq.ft. 30
85	Leonard G.Jr.& Ruby B.Matthew H/W	83	39.58	0.04	1,723,922	1,514	29,30
84	James Barry & Marites Chambers, H/W	86REV	1.83	0.15	79,831	6,693	TCE 84E1-0.02 ac.or 889 sq.ft. TCE 84E2-0.03 ac.or 1,239 sq.ft. 29
83	Leonard G.Jr.& Ruby B.Matthew H/W	85,87	37.00	1.07	1,611,773	46,440	TCE 83E1-0.09 ac.or 3,939 sq.ft. TCE 83E2-0.01 ac.or 233 sq.ft. 83SGI 29,30
82E	Patricia A.& Bobby J.Cranford H/W	141					TCE 82E1-0.04 ac.or 1,885 sq.ft. 29
81	Treasa E.Linnell	77	0.56	0.07	24,445	3,261	29
80	Marcela & Carlos Arce, H/W	76REV	3.95	0.58	172,194	25,302	TCE 80E1-0.02 ac.or 765 sq.ft. TCE 80E2-0.03 ac.1,228 sq.ft. 29
79	Country Cabinets,Inc.	75	2.97	0.38	129,263	16,583	TCE 79E1-0.12 ac.or 5,407 sq.ft. 79SGI 79SG2 28,29
78	Russell H.Abild Trust	80	UNABLE	0.02	UNABLE	1,044	TCE 78E1-0.02 ac.or 872 sq.ft. 28
77	Sharif and Sons,LLC	74REV	1.65	0.26	71,741	11,395	TCE 77E1-0.02 ac.or 922 sq.ft. TCE 77E2-0.02 ac.or 1,072 sq.ft. 77SGI 77SG2 28
76	Ofelia Beltran	73	14.12	1.06	614,982	46,275	TCE 76E1-0.09 ac.or 4,055 sq.ft. 28
75	Gregory P.& Deanna E.Jones H/W	72Rev	17.03	3.06	741,814	133,449	TCE 75E1-0.14 ac.or 6,297 sq.ft. 75SGI 27,28
74	Shawn & Sherry Smead H/W	140	5.00	0.22	217,995	9,674	27
73	Kenneth L.& Brenda Wilson Kelley H/W	139	5.00	0.50	217,643	21,602	TCE 73E2-0.05 ac.or 2,337 sq.ft. 27
72	Flying RF,LLC	70REV	5.14	1.33	223,847	58,245	72A-1.21 ac.or 52,803 sq.ft.(AHC) TCE 72E2-0.04 ac.or 1,946 sq.ft. 72B-0.12 ac.or 5,442 sq.ft.(Benton County) 27
71	Gaylord Erwin & Jackie Dean Dart H/W	69REV	59.62	5.89	2,597,018	256,191	TCE 71E1-0.37 ac.or 16,111 sq.ft. 71A-4.94 ac.or 215,003 sq.ft.(AHC) 71B-0.95 ac.or 41,188 sq.ft.(Benton County) 26,27
70	Randall N.& Norma James H/W	65	61.68	5.84	2,686,630	254,426	24,25,26
69	Daniel & Joyce Colf H/W	64	2.24	0.58	97,697	25,101	TCE 69E1-0.03 ac or 1,495 sq.ft. 24
68	Randall & Norma James, H/W	63REV	6.56	1.81	285,677	78,992	TCE 68E1-0.02 ac or 960 sq.ft. 24
67	Victor L.Campbell & Marilyn K. Campbell	59	8.84	0.72	385,169	31,299	22,23
66	Revocable Living Trust Agreement of Donnie Stumpff	49	6.70	2.28	291,970	99,465	21,22
65	Wood Revocable Trust	48REV	1.39	0.49	60,661	21,197	21
64	Evelyn Jean Harris	57REV	4.00	0.09	174,214	4,034	21
63	Leah Jean Whitehead	56	34.86	0.10	1,518,296	4,230	TCE 63E1-0.02 ac.or 814 sq.ft. 63SGI 21,22
62	Ronnie Jay Corbin	55REV	9.83	0.16	428,080	6,946	21
61	Dian Sosaya	45,46	1.62	0.01	70,599	433	TCE 61E1-0.02 ac.or 1,041 sq.ft. 20,21
60	Micheal Ann Brady	44	6.28	0.62	273,627	26,946	TCE 60E1-0.28 ac.or 12,073 sq.ft. TCE 60E2-0.05 ac.or 2,211 sq.ft. 20,21
59	Brenda L.Morris	54REV	20.18	0.58	879,022	25,102	20,21
58	DELETED						
57	Pedro Villamar & Ricardo Botena	42	0.81	0.11	35,291	4,821	20
56	Bob & Laverne Harger H/W	40	1.90	0.76	82,864	33,240	TCE 56E1-0.07 ac.or 2,906 sq.ft. 20
55	Ethel Worrall Revocable Trust	53	14.12	0.19	614,913	8,224	19,20
54	Curtis W. & Olivia L. Olson H/W	37	1.34	0.16	58,556	7,117	19
53	Barbara E.McClure	36REV	3.02	0.22	131,384	9,496	19
52	Betty J. Weston	35REV	2.60	0.28	113,195	12,390	19
51	Darren R. & Natausha M. Gould H/W	31	0.59	0.22	25,790	9,778	19

NO.	DATE	DESCRIPTION	BY	CK'D
20	11/6/12	rev area to acquire tr 92	dm	fr
19	8/28/12	DELETED TR 98 & TCE 98E-1& 98E-2	qe	fr
18	8/17/12	DELETED TR 58	dm	fr
17	7-11-12	Rev. Alt A Tr. 92 & TCE 92E-1	JT	FR
16	7/5/12	rev lp and Cert tr 75	dm	fr
15	6/21/12	rev tce 76E1& rev ala tr 79 & added TCE 84E2 & deleted TCE 100E2	dm	fr
14	6/19/12	rev ownership tr's 96,added ownership tr 102,rev ownership and lp tr 98	dm	fr
13	6/11/12	rev ownership tr 71	dm	fr
12	5/31/12	rev ownership trs 52,53,59,64 & 95	rm	fr
11	5/30/12	deleated tce 9.3el	dm	fr
10	5/24/12	rev ownership tr 65	dm	fr
9	5/21/12	rev ownership tr 77	dm	fr
8	4/24/12	rev ownership tr 84	rs	fr
7	4/23/12	rev ownership tr 80	rs	fr
6	4/17/12	rev ownership tr 68	rs	fr
5	4/12/12	added trs 88A & 88B, deleted trs 73B & 74B, added TP tr 58, Rev.ala tr 58B, added tr 103, Rev. ownership trs 62,72,86,87 & 88	rs	fr
4	2/22/12	added tr 102	dm	fr
3	2/7/12	REV.ALA TR 100,DELETED 100B & ADDED TCE 100E5	dm	fr
2	11/7/11	added 63SGI,75SGI,77SGI-2,79SGI-2, 83SGI,88SGI,96SGI	dm	fr
1	10/28/11	rev ownership tr 92	dm	fr

DATE: 11/10 REVISIONS

DESIGNED: D.MITCHELL | REVIEWED: F.RIPPOND

AVOCA-NORTH GARFIELD
(U.S. HWY. 62)
ARKANSAS STATE HIGHWAY COMMISSION
RIGHT OF WAY MAP
JOB 090065 . BENTON COUNTY

Name	Length	Direction
L1	43.02'	S 40° 37' 56" E
L2	26.97'	S 63° 24' 59" E
L3	68.26'	S 19° 26' 44" W
L4	26.34'	S 86° 37' 07" E
L5	57.91'	N 0° 47' 03" E
L6	24.72'	S 88° 18' 35" E
L7	64.41'	S 34° 12' 16" W
L8	64.00'	N 36° 48' 01" W
L9	32.90'	S 62° 57' 39" E
L10	29.97'	S 74° 53' 20" W
L11	18.84'	N 2° 09' 15" E
L12	22.55'	S 87° 24' 22" E
L13	30.09'	S 87° 22' 22" E
L14	26.96'	S 87° 33' 01" E
L15	12.71'	N 2° 50' 22" E
L16	29.86'	N 2° 41' 00" E
L17	33.89'	N 2° 41' 00" E
L18	44.67'	S 87° 41' 24" E
L19	51.81'	S 2° 02' 02" W
L20	68.89'	N 89° 16' 28" W
L21	33.39'	N 2° 46' 37" E
L22	44.00'	N 0° 56' 21" E
L23	52.87'	N 1° 29' 32" E
L24	35.53'	N 84° 32' 24" E
L25	26.57'	S 1° 16' 03" W
L26	6.15'	S 0° 51' 50" W
L27	34.64'	N 1° 47' 52" E
L28	52.03'	N 1° 47' 52" E
L29	69.05'	N 63° 57' 59" W
L30	21.62'	N 63° 50' 57" W
L31	67.27'	N 76° 35' 09" E
L32	39.31'	S 75° 52' 33" E
L33	20.11'	N 1° 47' 11" E
L34	15.23'	S 3° 40' 10" W
L35	74.84'	S 50° 26' 06" W
L36	64.80'	S 77° 59' 32" W
L37	10.00'	S 35° 55' 07" E
L38	26.00'	S 87° 24' 22" E
L39	67.68'	S 64° 13' 36" W
L40	60.14'	S 63° 12' 36" W
L41	13.10'	S 3° 02' 53" W
L42	53.28'	S 2° 02' 02" W
L43	54.51'	N 86° 42' 42" W
L44	45.54'	S 54° 53' 19" W
L45	41.50'	S 1° 16' 03" W
L46	50.15'	S 45° 05' 49" W
L47	62.95'	S 72° 28' 10" W
L48	52.44'	S 61° 21' 41" W
L49	25.92'	N 73° 04' 09" W
L50	46.13'	N 33° 46' 10" E
L51	45.91'	S 1° 03' 33" W
L52	15.29'	S 15° 13' 41" E
L53	59.89'	N 2° 41' 00" E
L54	39.17'	S 7° 00' 53" E
L55	55.62'	S 69° 51' 52" W
L56	32.55'	S 3° 12' 35" W
L57	46.33'	S 3° 12' 35" W
L58	22.57'	S 64° 51' 10" E
L59	25.71'	S 69° 33' 54" E
L61	34.54'	N 63° 15' 03" E
L62	18.65'	S 86° 39' 16" E
L63	47.65'	N 54° 04' 53" E
L64	21.62'	S 63° 50' 57" E
L65	46.24'	S 59° 59' 57" W
L66	37.64'	S 02° 02' 02" W
L67	49.75'	S 02° 11' 10" W
L68	38.13'	N 01° 57' 43" E
L69	20.00'	S 33° 13' 40" W
L70	21.27'	N 86° 26' 40" W
L72	25.93'	N 63° 15' 03" E
L73	5.64'	S 20° 53' 44" W
L74	5.46'	S 46° 16' 15" W
L75	5.76'	S 28° 54' 53" W
L76	18.78'	N 10° 35' 47" W
L77	45.39'	N 86° 40' 08" E
L78	12.99'	N 6° 49' 04" E
L79	5.20'	N 11° 55' 51" E
L80	64.93'	N 11° 55' 51" E
L81	4.61'	N 86° 40' 08" E
L82	50.00'	S 53° 35' 12" E
L83	57.81'	N 53° 35' 12" W
L84	50.00'	N 53° 35' 12" W
L85	16.43'	N 53° 35' 12" W
L86	35.15'	N 53° 35' 12" W
L87	36.93'	S 37° 27' 22" W
L88	18.42'	S 49° 38' 12" W
L89	10.08'	N 38° 58' 33" E
L90	9.90'	N 65° 50' 44" E
L91	10.33'	N 84° 43' 48" E
L92	10.97'	N 41° 36' 03" E
L93	50.24'	S 44° 33' 28" E
L94	51.95'	S 52° 53' 03" W
L95	68.61'	N 41° 36' 03" E
L96	28.97'	N 1° 44' 20" E
L97	58.47'	N 1° 44' 20" E
L98	34.35'	S 1° 48' 12" W
L99	47.12'	N 2° 37' 34" E
L100	14.43'	N 1° 06' 21" E
L101	20.11'	S 1° 47' 11" W
L102	17.96'	S 11° 44' 36" E
L103	70.64'	S 70° 08' 32" W
L104	15.79'	N 1° 48' 12" E
L105	10.25'	S 19° 11' 10" W
L106	10.18'	S 19° 11' 10" W
L107	14.67'	N 11° 44' 36" W
L108	26.96'	N 1° 39' 15" E
L109	21.22'	N 0° 51' 08" W
L110	23.25'	S 0° 51' 08" E
L111	26.82'	N 70° 44' 02" W
L112	55.82'	N 3° 27' 32" E
L113	26.91'	N 3° 27' 32" E
L114	42.90'	S 87° 20' 40" E
L115	18.48'	N 69° 36' 33" E
L116	10.00'	S 20° 23' 27" E
L117	71.42'	S 20° 38' 14" E
L118	10.00'	N 20° 23' 27" W
L119	47.02'	S 20° 07' 37" E
L120	8.67'	S 20° 07' 37" E
L121	69.99'	S 1° 39' 59" W
L122	36.39'	S 1° 44' 10" W
L123	76.22'	S 20° 00' 49" E
L124	21.22'	N 0° 51' 08" W
L125	18.95'	N 20° 10' 59" W
L126	46.70'	N 20° 10' 59" W
L127	48.84'	S 20° 10' 29" E
L128	43.11'	S 69° 36' 33" W
L129	20.51'	N 0° 51' 30" E
L130	37.09'	S 87° 33' 32" E
L131	11.72'	N 1° 03' 33" E
L132	32.90'	N 62° 57' 39" W
L133	21.62'	S 63° 50' 57" E
L134	69.05'	N 63° 57' 59" W
L135	62.90'	N 76° 35' 13" E
L136	31.21'	N 76° 34' 06" E
L137	22.57'	S 64° 51' 10" E
L138	23.44'	S 87° 18' 16" E
L139	68.17'	S 31° 53' 59" E
L140	20.00'	S 35° 55' 07" E
L141	41.04'	N 31° 53' 59" W
L142	9.18'	S 87° 20' 48" E
L143	73.50'	S 79° 57' 33" E
L144	16.42'	S 67° 23' 33" E
L145	27.74'	S 89° 54' 50" E
L146	10.00'	S 35° 55' 07" E
L147	42.85'	S 54° 04' 53" W
L148	51.57'	S 54° 04' 53" W
L149	55.50'	S 54° 04' 53" W
L150	30.82'	N 82° 02' 19" W
L151	27.65'	S 54° 04' 53" W
L152	9.56'	N 35° 55' 07" W
L153	10.44'	N 35° 55' 07" W
L154	54.94'	S 54° 04' 53" W
L155	40.00'	N 4° 06' 18" E
L156	21.29'	N 54° 04' 53" E
L157	20.00'	S 35° 55' 07" E
L158	70.89'	N 54° 04' 53" E
L159	42.92'	S 1° 25' 37" W
L160	48.65'	N 54° 04' 53" E
L161	20.00'	N 35° 55' 07" W
L162	39.14'	S 47° 34' 02" W
L163	64.73'	S 59° 41' 47" W
L164	53.63'	S 59° 41' 47" W
L165	31.17'	S 84° 07' 58" W
L166	19.55'	N 83° 51' 18" W
L167	26.96'	N 87° 33' 01" W
L168	33.38'	S 82° 57' 26" E
L169	22.32'	S 2° 41' 00" W
L170	28.85'	S 88° 40' 59" E
L171	10.00'	S 1° 19' 01" W
L172	10.00'	N 1° 19' 01" E
L173	70.38'	S 88° 40' 59" E
L174	61.48'	N 87° 37' 33" W
L175	18.31'	N 3° 02' 52" E
L176	12.24'	S 2° 47' 56" W
L177	20.00'	N 1° 19' 01" E
L178	35.99'	S 1° 02' 27" W
L179	29.45'	S 89° 50' 54" W
L180	35.81'	S 1° 11' 40" W
L181	55.82'	N 2° 47' 21" E
L182	52.66'	S 2° 47' 01" W
L183	33.39'	S 2° 46' 37" W
L184	51.81'	N 2° 02' 02" E
L185	55.57'	S 87° 17' 45" E
L186	27.12'	N 2° 47' 20" E
L187	20.00'	S 9° 26' 27" W
L188	20.00'	N 15° 42' 53" E
L189	19.43'	S 1° 44' 19" W
L190	20.71'	N 5° 26' 46" E
L191	25.32'	N 5° 26' 46" E
L192	1.08'	N 68° 48' 22" W
L193	21.82'	N 88° 10' 04" W
L194	45.35'	N 88° 11' 10" W
L195	10.00'	S 9° 26' 27" W
L196	20.00'	N 1° 19' 01" E
L197	32.18'	S 2° 11' 10" W
L198	10.00'	N 21° 59' 19" E
L199	15.76'	N 68° 18' 14" W
L200	30.09'	N 1° 44' 19" E
L201	19.43'	N 9° 05' 56" E
L202	19.18'	S 2° 13' 49" W
L203	55.64'	S 82° 41' 00" E
L204	55.23'	S 82° 41' 00" E
L205	44.13'	S 82° 41' 00" E
L206	42.43'	S 3° 22' 28" W
L207	39.02'	N 56° 46' 20" W
L208	10.55'	N 17° 48' 34" W
L209	36.51'	N 86° 29' 58" E
L210	28.44'	N 2° 30' 06" E
L211	34.34'	S 1° 19' 47" W
L212	26.57'	N 1° 16' 03" E
L213	59.99'	N 84° 32' 24" E
L214	20.00'	N 20° 34' 23" W
L215	19.04'	S 52° 48' 07" W
L216	52.69'	S 86° 36' 42" E
L217	33.34'	N 3° 36' 01" E
L218	28.34'	S 86° 37' 07" E
L219	56.19'	S 86° 38' 06" W
L220	49.81'	S 86° 38' 06" W
L221	73.60'	N 33° 47' 31" E
L222	15.13'	S 41° 36' 03" W
L223	75.46'	S 26° 14' 03" W
L224	49.62'	S 4° 55' 42" W
L225	50.27'	S 52° 53' 03" W
L226	33.99'	S 48° 20' 39" E
L227	58.47'	S 32° 38' 13" W
L228	65.17'	N 41° 43' 27" E
L229	32.20'	N 1° 48' 12" E
L230	18.50'	S 19° 11' 10" W
L231	23.57'	N 68° 46' 54" E
L232	44.04'	S 70° 52' 53" W
L233	15.23'	N 3° 40' 10" E
L234	44.40'	N 69° 50' 34" E
L235	20.49'	S 1° 38' 33" W
L236	16.11'	N 3° 44' 19" E
L237	46.17'	N 69° 50' 34" E
L238	63.37'	S 68° 10' 42" W
L239	15.65'	N 1° 39' 15" E
L240	45.24'	S 12° 05' 11" W
L241	38.46'	S 20° 38' 14" E
L242	75.77'	N 28° 32' 22" W
L243	10.00'	N 20° 23' 27" W
L244	10.00'	S 20° 23' 27" E
L245	21.22'	N 0° 51' 08" W
L246	57.91'	S 0° 47' 03" W
L247	32.91'	S 1° 47' 52" W
L248	62.64'	N 84° 13' 59" E
L249	54.08'	S 54° 01' 53" E
L250	21.84'	S 88° 18' 35" E
L251	55.22'	N 52° 05' 20" E
L252	64.00'	S 36° 48' 01" E
L253	64.31'	N 52° 05' 20" E
L254	48.24'	S 59° 59' 57" W
L255	10.49'	S 31° 53' 59" E
L256	13.98'	S 54° 04' 53" W
L257	34.93'	N 54° 06' 38" E
L258	30.24'	S 1° 14' 15" W
L259	46.29'	S 53° 01' 37" W
L260	18.84'	S 2° 09' 15" W
L261	56.71'	S 68° 44' 11" W
L262	13.10'	N 3° 02' 53" E
L263	20.00'	S 1° 19' 01" W
L264	39.62'	S 88° 40' 59" E
L265	58.16'	S 84° 22' 34" W
L266	29.64'	N 46° 16' 14" W
L267	23.39'	S 88° 40' 59" E
L268	26.93'	S 69° 29' 13" W
L269	44.47'	N 88° 42' 42" W
L270	35.44'	S 2° 46' 25" W
L271	50.43'	N 61° 34' 38" W
L272	20.00'	S 1° 19' 01" W
L274	11.25'	N 1° 41' 10" E
L275	38.13'	S 1° 57' 43" W
L276	51.35'	S 56° 46' 20" E
L277	38.07'	N 75° 26' 15" W
L278	42.84'	N 89° 14' 29" W
L279	28.64'	S 83° 20' 07" E
L280	50.30'	S 03° 23' 00" E
L281	28.61'	N 56° 46' 20" W
L282	23.07'	N 5° 16' 40" E
L283	20.00'	N 3° 58' 39" E
L284	20.00'	N 3° 58' 39" E
L285	44.00'	S 0° 56' 21" W
L286	46.35'	S 49° 50' 11" W
L287	62.28'	S 58° 29' 39" W
L288	74.40'	S 48° 20' 58" W
L289	10.07'	S 1° 25' 02" W
L290	36.34'	S 1° 25' 02" W
L291	20.00'	S 30° 19' 49" E
L292	21.15'	N 1° 38' 57" E
L293	29.15'	N 18° 11' 18" E
L294	35.60'	N 77° 13' 28" E
L295	36.61'	N 87° 15' 28" E
L297	34.99'	S 84° 32' 24" W
L298	35.53'	S 84° 32' 24" W
L299	35.08'	S 87° 14' 21" E
L300	53.16'	S 54° 04' 53" W
L301	53.46'	N 65° 22' 03" E
L302	53.28'	N 2° 02' 02" E
L303	35.20'	S 2° 31' 34" W
L304	47.98'	N 88° 42' 42" W
L305	36.40'	N 75° 21' 33" E
L306	36.41'	S 72° 43' 46" E
L307	70.00'	N 88° 40' 59" W
L308	20.00'	S 33° 13' 40" W
L309	32.19'	N 53° 35' 12" W
L310	10.41'	N 36° 24' 48" E
L311	41.54'	S 2° 21' 32" W
L312	20.00'	N 1° 19' 01" E
L313	48.55'	N 88° 11' 10" W
L314	30.98'	N 56° 46' 20" W
L315	20.38'	N 33° 13' 48" E
L316	16.08'	S 83° 20' 07" E
L317	34.13'	N 85° 14' 38" E
L318	51.98'	N 73° 04' 09" W
L319	45.91'	N 1° 03' 33" E
L320	62.62'	N 54° 02' 50" E
L321	25.92'	N 73° 04' 09" W
L322	46.13'	N 33° 46' 10" E
L323	15.29'	S 15° 13' 41" E
L324	25.71'	N 69° 33' 54" W
L325	59.89'	N 2° 41' 00" E
L326	44.67'	S 87° 41' 24" E
L327	39.17'	S 7° 00' 53" E
L328	55.62'	S 69° 51' 52" W
L329	19.34'	N 87° 31' 49" E
L330	52.77'	S 41° 36' 03" W
L331	49.95'	S 63° 25' 20" W
L332	11.69'	N 89° 03' 18" E
L333	70.98'	S 87° 40' 37" E
L334	56.72'	N 85° 06' 27" W
L335	32.38'	N 86° 26' 40" W
L336	32.55'	S 3° 12' 35" W
L337	46.33'	S 3° 12' 35" W
L338	70.97'	N 87° 40' 37" W
L339	0.01'	N 87° 40' 37" W
L340	33.89'	N 2° 41' 00" E
L341	28.95'	N 85° 06' 27" W
L342	76.29'	S 87° 18' 27" E
L343	29.86'	S 2° 41' 00" W
L344	44.84'	S 31° 31' 47" E
L345	44.81'	S 58° 28' 05" W
L346	23.34'	N 31° 31' 43" W
L347	12.81'	N 31° 31' 42" W
L348	28.58'	N 60° 01' 19" E
L349	31.68'	S 24° 36' 43" W
L350	34.26'	N 65° 23' 26" W
L351	46.66'	N 71° 51' 24" E
L352	41.04'	S 5° 16' 30" W
L353	12.54'	N 5° 16' 30" E
L354	68.00'	N 71° 10' 28" E
L355	16.02'	S 87° 20' 43" E
L356	40.19'	S 1° 38' 16" E
L357	19.29'	N 9° 05' 30" W
L358	9.03'	N 54° 53' 19" E
L359	33.00'	S 21° 04' 21" E
L360	21.51'	S 11° 38' 50" W
L361	27.94'	S 74° 36' 38" W
L362	42.31'	N 18° 41' 14" W
L363	38.16'	N 59° 47' 04" E
L364	19.38'	N 87° 33' 36" W
L365	63.81'	N 1° 24' 13" W
L366	20.60'	N 45° 05' 49" E
L367	13.15'	N 89° 43' 50" W
L368	40.63'	N 0° 16' 10" E
L369	11.78'	N 21° 14' 13" E
L370	52.40'	S 9° 33' 08" E
L371	22.91'	S 23° 17' 16" E
L372	53.34'	S 13° 54' 17" E
L373	21.08'	N 88° 13' 47" W
L374	48.67'	N 3° 50' 16" W
L375	16.35'	N 19° 05' 35" E
L376	54.46'	S 54° 38' 54" E
L377	22.35'	N 89° 14' 29" W
L378	28.56'	S 66° 42' 09" E
L379	46.40'	S 66° 42' 09" E
L380	40.33'	S 05° 16' 30" W
L381	78.08'	N 84° 43' 30" W
L382	12.54'	N 05° 16' 30" E
L383	30.89'	N 30° 20' 35" E
L384	19.30'	S 50° 16' 28" E
L385	29.74'	N 22° 49' 11" W
L386	99.85'	N 10° 10' 00" W
L387	7.90'	S 85° 15' 29" E
L388	44.34'	N 04° 44' 32" E
L389	33.68'	S 85° 15' 29" E
L390	37.98'	N 46° 18' 28" E
L391	48.59'	N 13° 31' 24" E
L392	44.49'	S 76° 28' 36" E
L393	46.27'	N 35° 56' 14" E
L394	5.09'	N 25° 36' 03" E
L395	65.88'	N 56° 00' 08" E

Name	Radius	Length	Cord	Direction
C1	5670.63'	21.61'	21.61'	S 49° 31' 39" W
C2	1559.50'	69.88'	69.88'	N 58° 55' 56" E
C3	2950.53'	151.74'	151.72'	N 68° 08' 09" E
C4	870.49'	69.19'	69.17'	S 75° 42' 55" W
C5	2564.90'	67.68'	67.68'	N 64° 13' 36" E
C6	2564.90'	249.42'	249.32'	N 67° 46' 06" E
C7	2564.90'	254.45'	254.34'	S 60° 37' 43" W
C8	2824.90'	79.62'	79.62'	N 55° 21' 14" E
C9	2824.90'	126.74'	126.73'	N 57° 26' 48" E
C10	1508.12'	141.68'	141.62'	S 18° 12' 16" W
C11	599.10'	8.96'	8.96'	N 21° 24' 29" W
C12	719.00'	61.01'	60.99'	N 26° 04' 56" E
C13	1152.68'	159.11'	158.99'	N 7° 07' 32" E
C14	549.10'	138.11'	137.75'	N 3° 52' 28" E
C15	719.00'	73.62'	73.59'	N 31° 26' 46" E
C16	719.00'	25.52'	25.52'	N 35° 23' 47" E
C17	1175.18'	42.49'	42.49'	N 37° 56' 16" E
C18	1176.13'	38.57'	38.57'	N 39° 54' 46" E
C19	870.49'	103.77'	103.70'	S 62° 20' 46" W
C20	816.60'	128.76'	128.63'	S 52° 05' 04" W
C21	816.60'	44.11'	44.10'	S 58° 08' 56" W
C22	1434.30'	157.05'	156.98'	S 77° 25' 20" E
C23	586.11'	42.63'	42.62'	S 1° 28' 19" W
C24	1389.96'	68.29'	68.28'	N 58° 10' 47" W
C25	1479.50'	52.42'	52.41'	S 81° 17' 17" W
C26	1409.96'	91.01'	90.99'	S 84° 09' 08" W
C27	1489.96'	50.52'	50.52'	S 86° 59' 38" E
C28	1479.50'	98.42'	98.40'	S 56° 29' 15" W
C29	1559.50'	29.69'	29.69'	N 53° 20' 51" E
C30	1214.43'	164.65'	164.53'	S 73° 18' 40" W
C31	4322.04'	43.84'	43.84'	S 43° 52' 09" W
C32	5800.63'	155.39'	155.39'	N 48° 52' 09" E
C33	1479.50'	45.95'	45.95'	S 53° 41' 31" W
C34	1214.43'	145.57'	145.48'	S 56° 14' 09" W
C35	1559.50'	102.22'	102.20'	N 55° 46' 14" E
C36	1544.30'	86.74'	86.73'	N 73° 51' 57" W
C37	870.49'	69.19'	69.17'	S 75° 42' 55" W
C38	2824.90'	79.62'	79.62'	N 55° 21' 14" E
C39	2824.90'	126.74'	126.73'	N 57° 26' 48" E
C40	719.00'	56.78'	56.77'	N 21° 23' 20" E
C41	1544.30'	98.66'	98.64'	S 70° 25' 35" E
C42	1544.30'	15.76'	15.76'	S 68° 18' 14" E
C43	2824.90'	22.93'	22.93'	N 54° 18' 50" E
C44	2564.90'	165.88'	165.85'	N 55° 56' 03" E
C45	870.49'	7.77'	7.77'	S 65° 30' 45" W

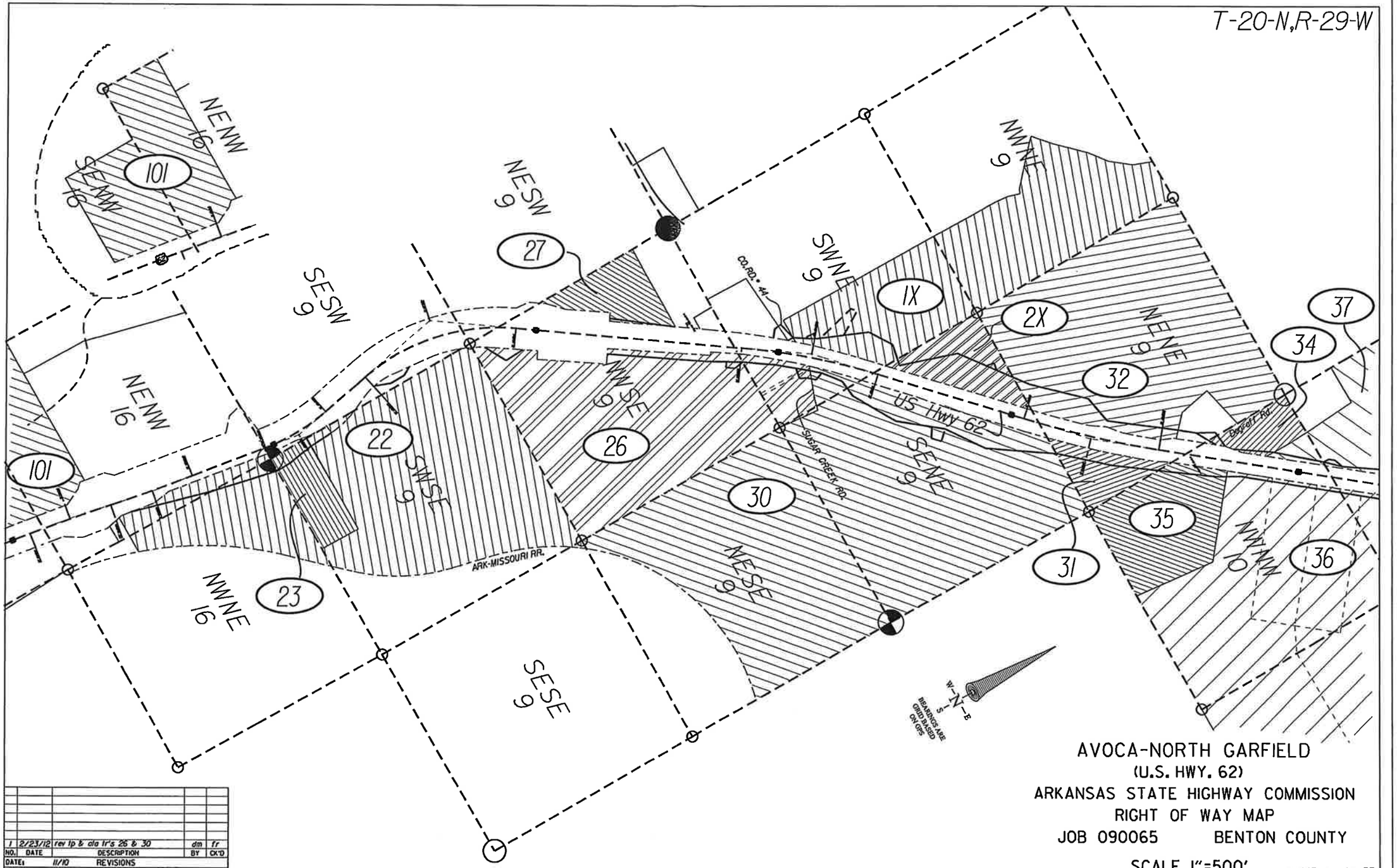
NO.	DATE	DESCRIPTION	BY	CK'D
12	11/21/12	corrected L245	rm	fr
11	11/6/12	rev L385	dm	fr
10	8/28/12	deleted L296	ga	fr
9	8/27/12	added L387-L395	rm	fr
8	8/17/12	deleted L60,L71	dm	fr
7	7/24/12	added L386	RM	FR
6	7/11/12	added L385	JT	FR
5	6/26/12	corrected C40	dm	fr
4	6/21/12	added L385 & L384	dm	fr
3	6/18/12	added L380-L382	dm	fr
2	4/12/12	revised distance on L71,added C45	rs	fr
1	2/29/12	added L378 & L379		

DATE: 11/10 REVISIONS

DESIGNED: DMITCHELL | REVIEWED: F.RIPPOND

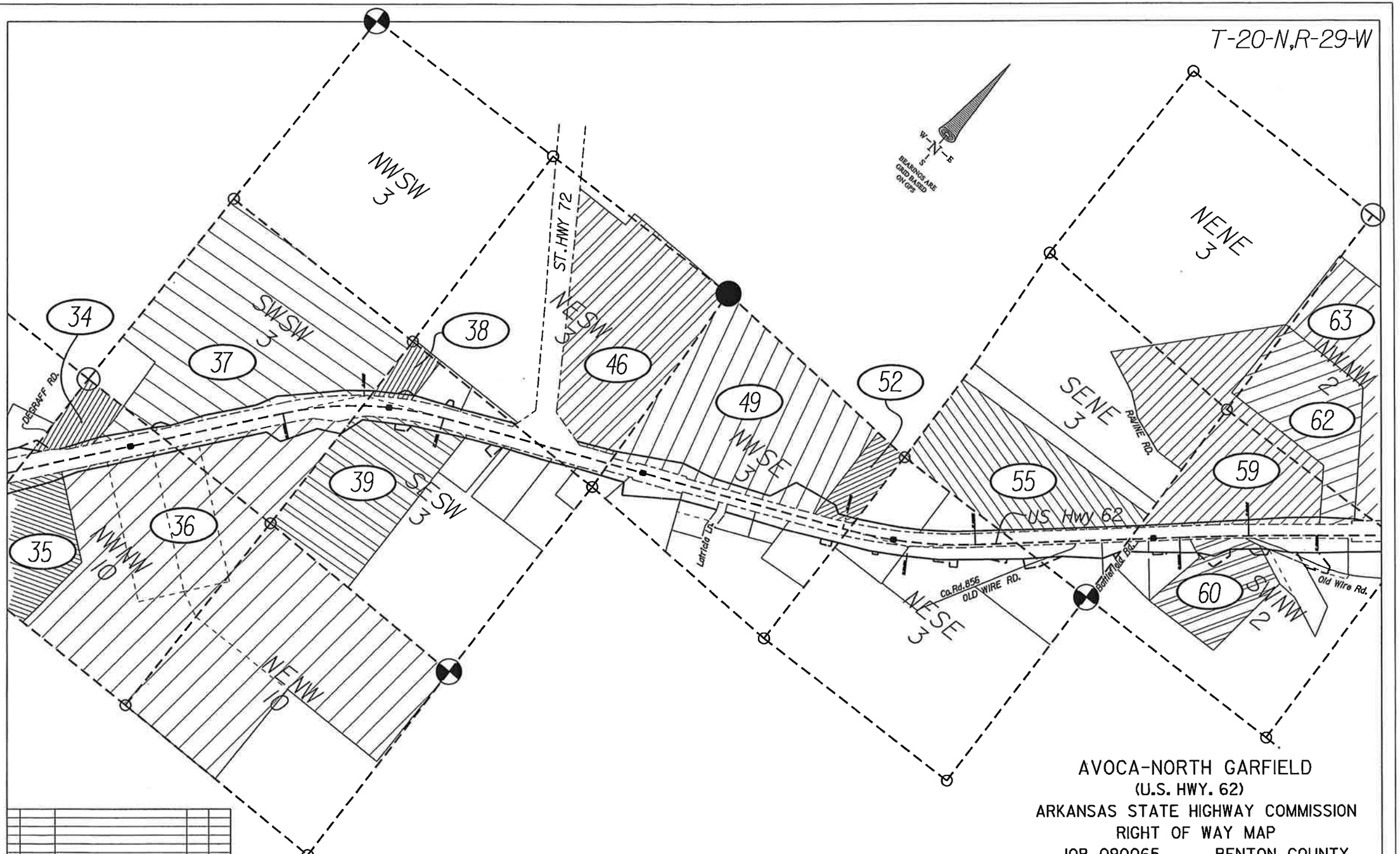
AVOCA-NORTH GARFIELD
(U.S. HWY. 62)
ARKANSAS STATE HIGHWAY COMMISSION
RIGHT OF WAY MAP
JOB 090065 BENTON COUNTY

T-20-N,R-29-W



NO.	DATE	DESCRIPTION	BY	CK'D
1	2/23/12	rev lp & alg lr's 26 & 30	dm	fr
DATE:	11/10	REVISIONS		
DESIGNED:	D.MITCHELL	REVIEWED:	F.RIPPOND	

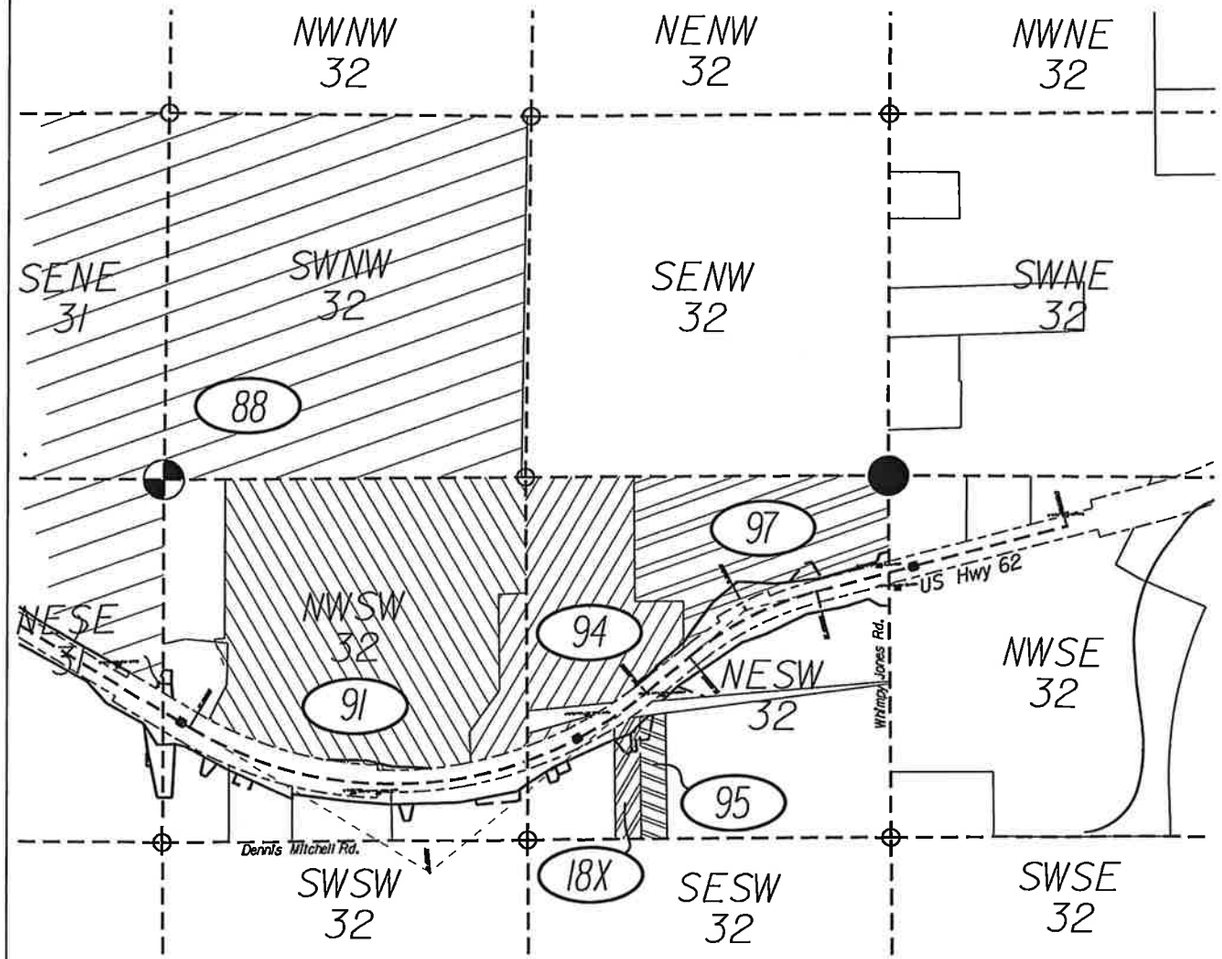
AVOCA-NORTH GARFIELD
(U.S. HWY. 62)
ARKANSAS STATE HIGHWAY COMMISSION
RIGHT OF WAY MAP
JOB 090065 BENTON COUNTY
SCALE 1"=500'

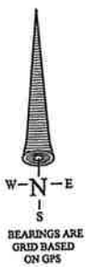


NO.	DATE	DESCRIPTION	BY	CK'D
DATE:	11/10	REVISIONS		
DESIGNED:	DJMITCHELL	REVIEWED:	FRIPPOND	

AVOCA-NORTH GARFIELD
(U.S. HWY. 62)
ARKANSAS STATE HIGHWAY COMMISSION
RIGHT OF WAY MAP
JOB 090065 BENTON COUNTY
SCALE 1"=500'

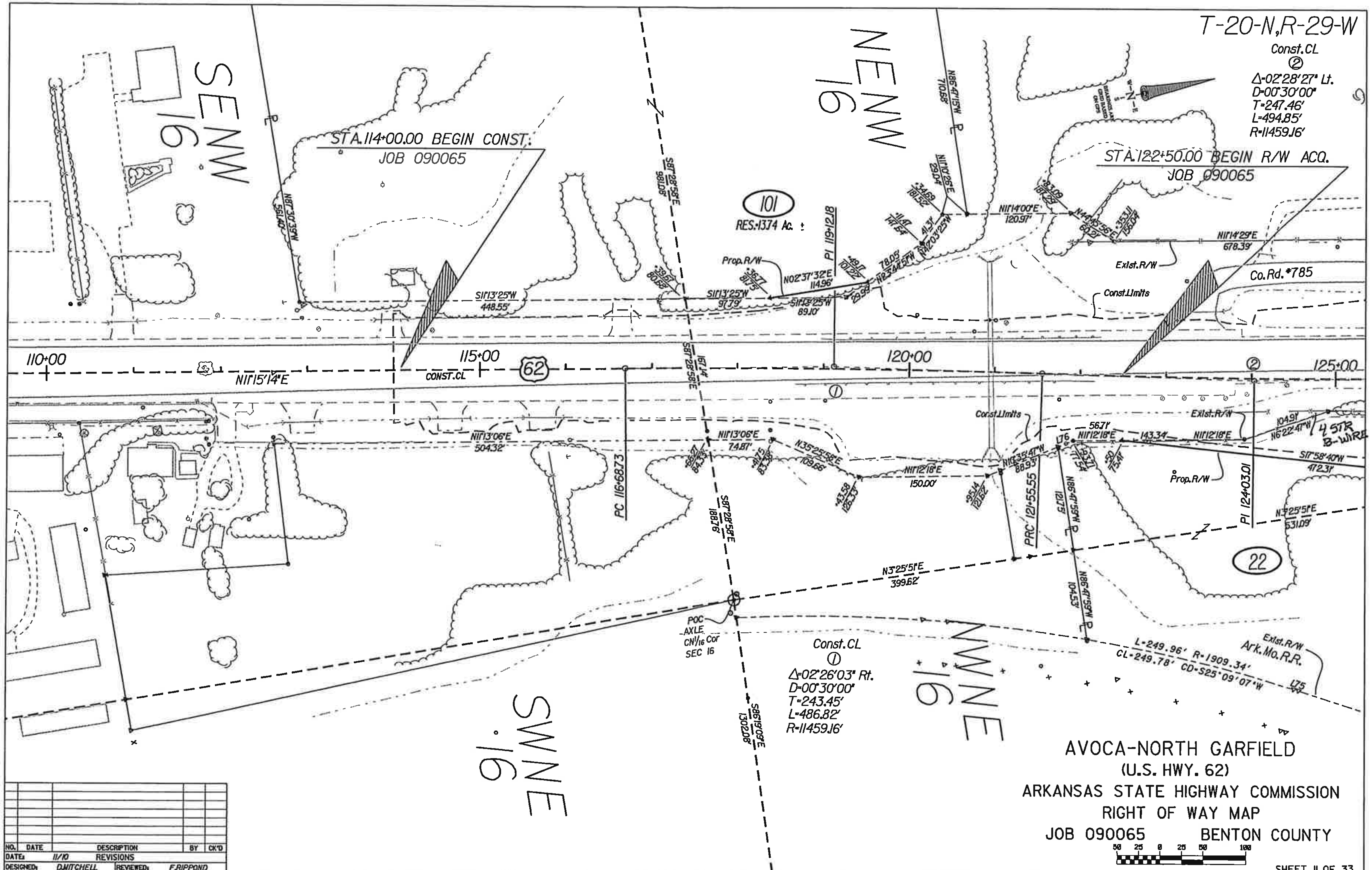
T-21-N,R-28-W





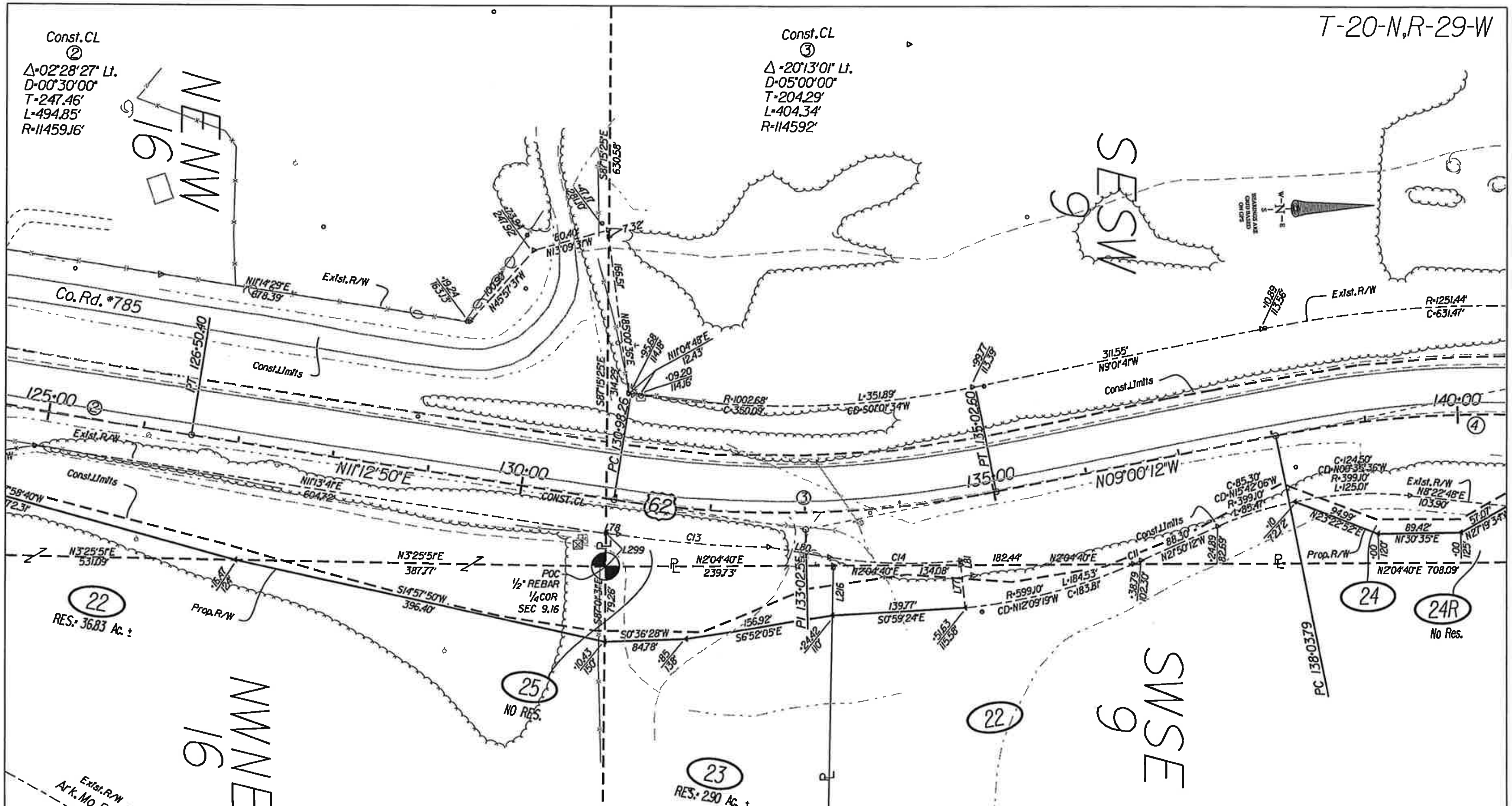
NO.	DATE	DESCRIPTION	BY	CK'D
2	8/28/12	deleted tr 98	go	fr
1	6/20/12	added tr 98	dm	fr
DATE:		11/10 REVISIONS		
DESIGNED:		DMITCHELL REVIEWED: FJIPPOND		

AVOCA-NORTH GARFIELD
(U.S. HWY. 62)
ARKANSAS STATE HIGHWAY COMMISSION
RIGHT OF WAY MAP
JOB 090065 BENTON COUNTY
SCALE 1"=500'



NO.	DATE	DESCRIPTION	BY	CK'D
DATE:	11/10	REVISIONS		
DESIGNED:	D.MITCHELL	REVIEWED:	F.RIPPOND	

AVOCA-NORTH GARFIELD
(U.S. HWY. 62)
ARKANSAS STATE HIGHWAY COMMISSION
RIGHT OF WAY MAP
JOB 090065 BENTON COUNTY



AVOCA-NORTH GARFIELD

(U.S. HWY. 62)

ARKANSAS STATE HIGHWAY COMMISSION

RIGHT OF WAY MAP

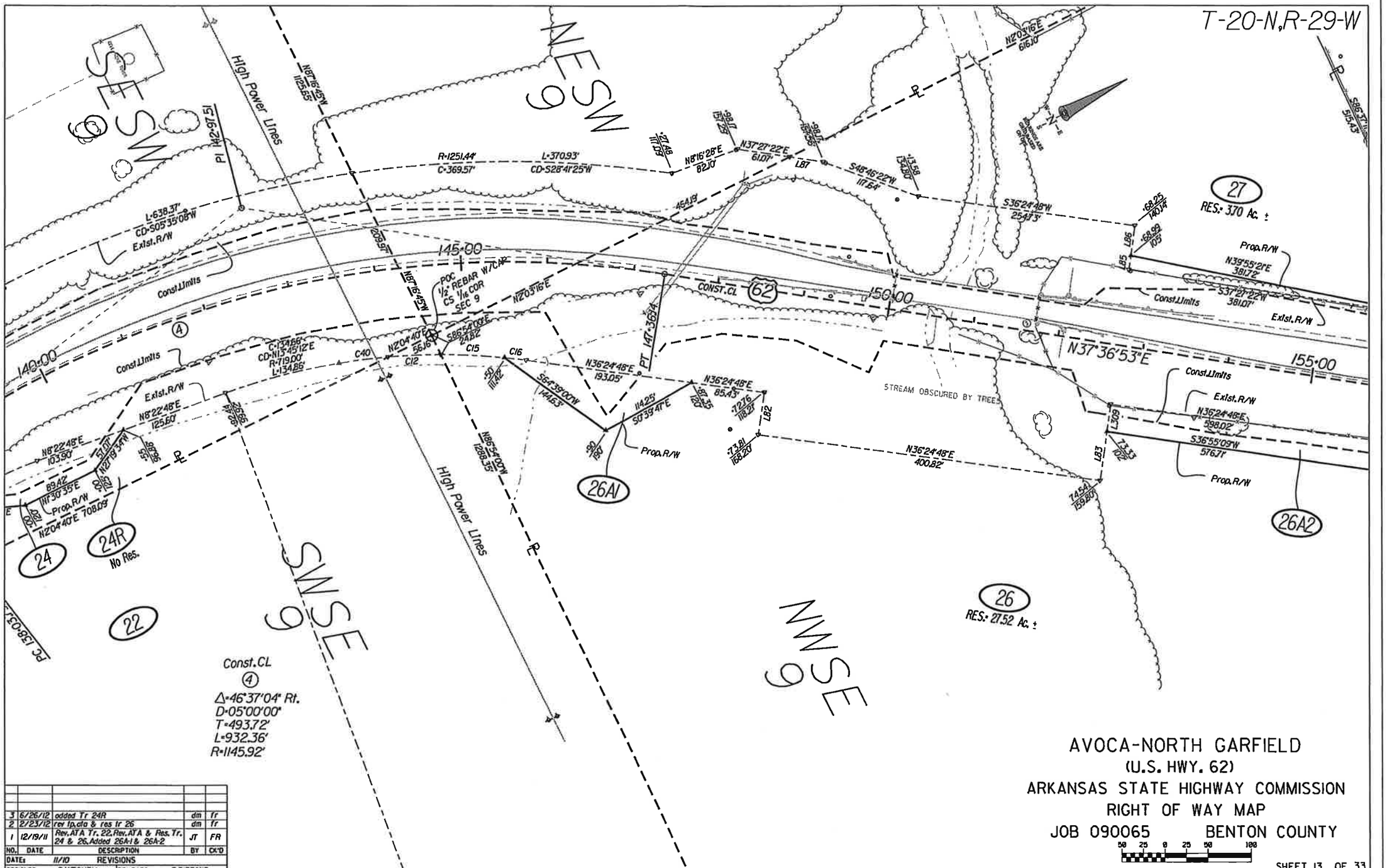
JOB 090065 BENTON COUNTY

SHEET 12 OF 33

NO.	DATE	DESCRIPTION	BY	CK'D
2	6/26/12	added Tr 24R	dm	fr
1	12/19/11	Rev. ATA & Res.Tr. 22, Rev. ATA Tr. 24 & Deleted (TCE) 23E-1	JT	FR

DATE: 11/10 REVISIONS

DESIGNED: D.MITCHELL REVIEWED: F.RIPPOND



NO.	DATE	DESCRIPTION	BY	CK'D
3	6/26/12	added Tr 24R	dm	fr
2	2/23/12	rev tp.cla & res tr 26	dm	fr
1	12/19/11	Rev. ATA Tr. 22, Rev. ATA & Res. Tr. 24 & 26, Added 26A-1 & 26A-2	JT	FR

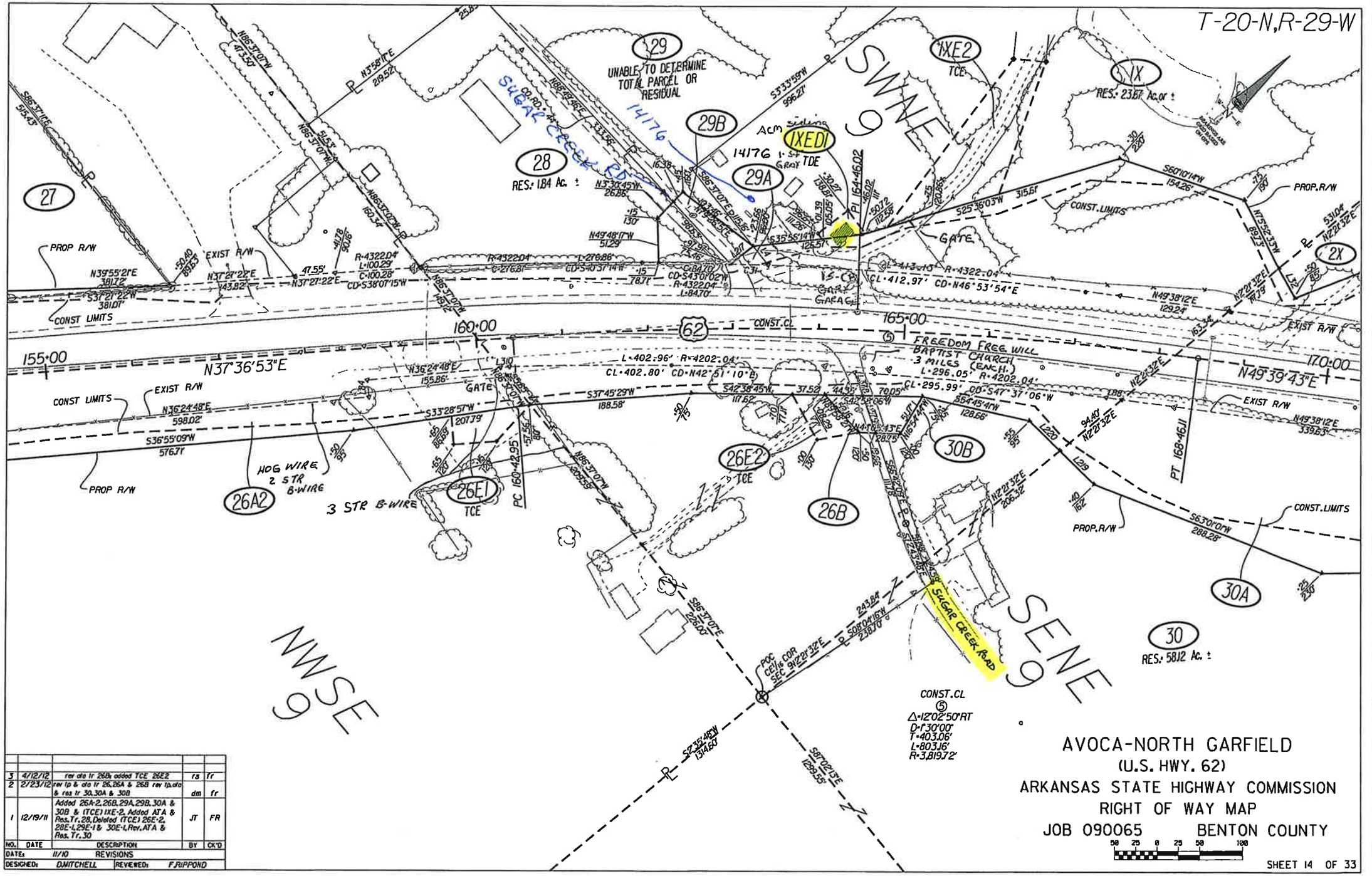
DATE: 11/10 REVISIONS

DESIGNED: DMITCHELL REVIEWED: F.RIPPOND

AVOCA-NORTH GARFIELD
(U.S. HWY. 62)
ARKANSAS STATE HIGHWAY COMMISSION
RIGHT OF WAY MAP
JOB 090065 BENTON COUNTY

50 25 0 25 50 100

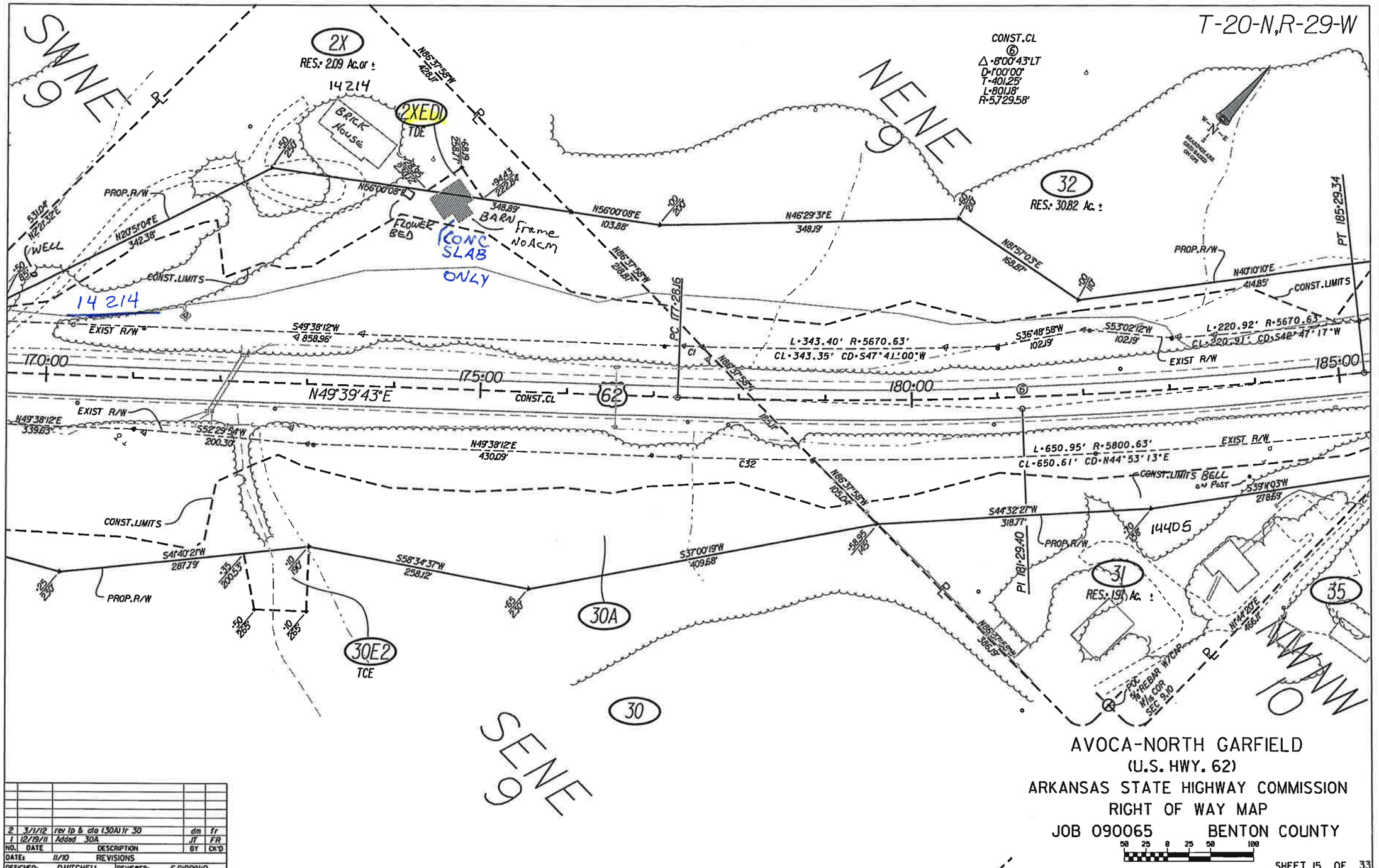
SHEET 13 OF 33



NO.	DATE	DESCRIPTION	BY	CK'D
3	4/12/12	rev alg fr 26B; added TCE 26E2	rs	fr
2	2/23/12	rev tp & alg fr 26, 26A & 26B rev tp, alg & res fr 30, 30A & 30B	dm	fr
1	12/19/11	Added 26A-2, 26B, 29A, 29B, 30A & 30B & (TCE) 1XE-2, Added ATA & Res. Tr. 28, Deleted (TCE) 26E-2, 28E-1, 29E-1 & 30E-1, Rev. ATA & Res. Tr. 30	JT	FR

DATE: 11/10 REVISIONS

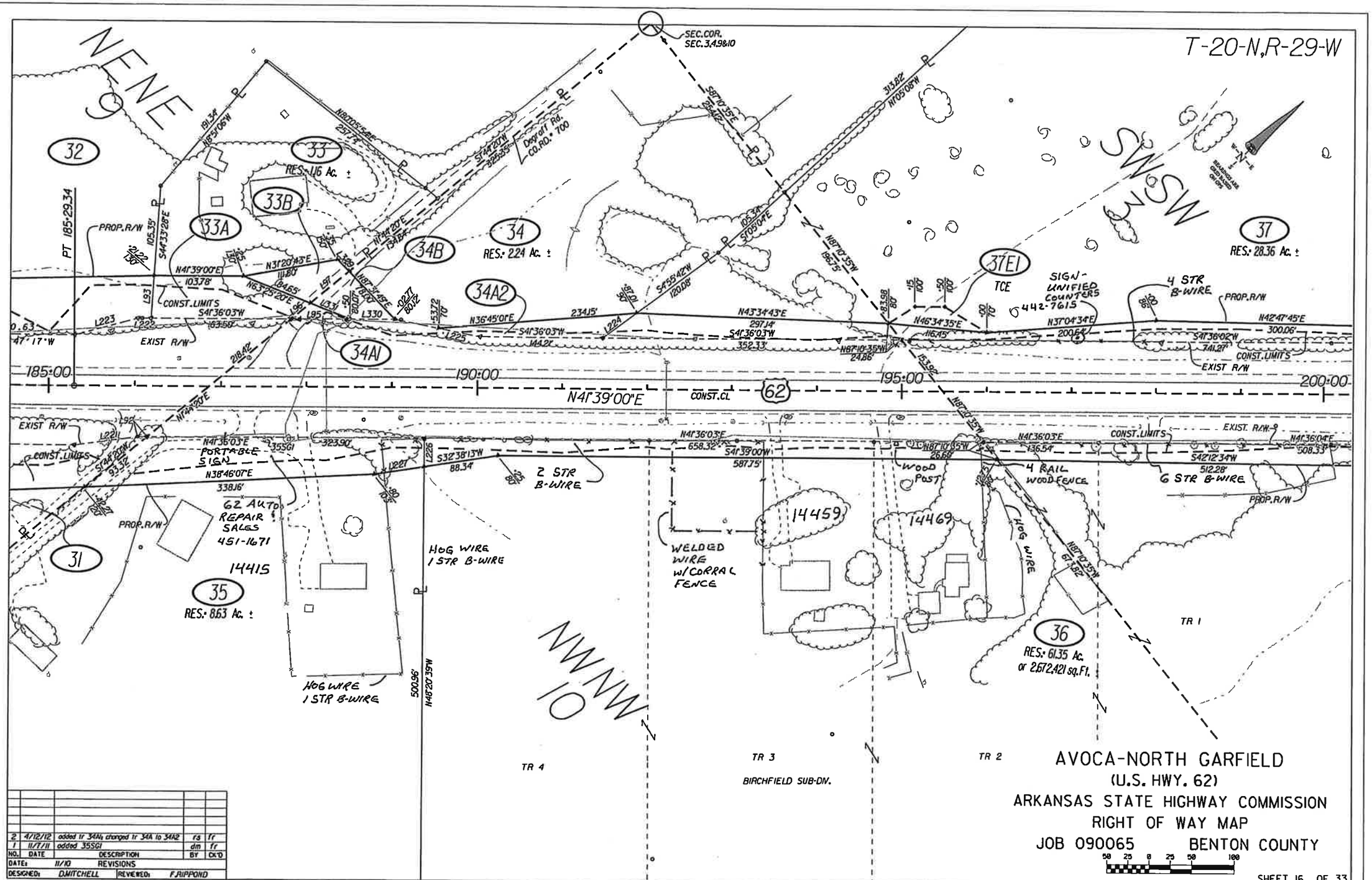
DESIGNED: D.MITCHELL REVIEWED: F.RIPPOND



NO.	DATE	DESCRIPTION	BY	CK'D
2	3/1/12	rev tp & alo (30A) tr 30	dm	tr
1	12/19/11	Added 30A	JT	FR
DATE:	11/10	REVISIONS		
DESIGNED:	DMITCHELL	REVIEWED:	F.RIPPOND	

AVOCA-NORTH GARFIELD
(U.S. HWY. 62)
ARKANSAS STATE HIGHWAY COMMISSION
RIGHT OF WAY MAP
JOB 090065 BENTON COUNTY

50 25 0 25 50 100

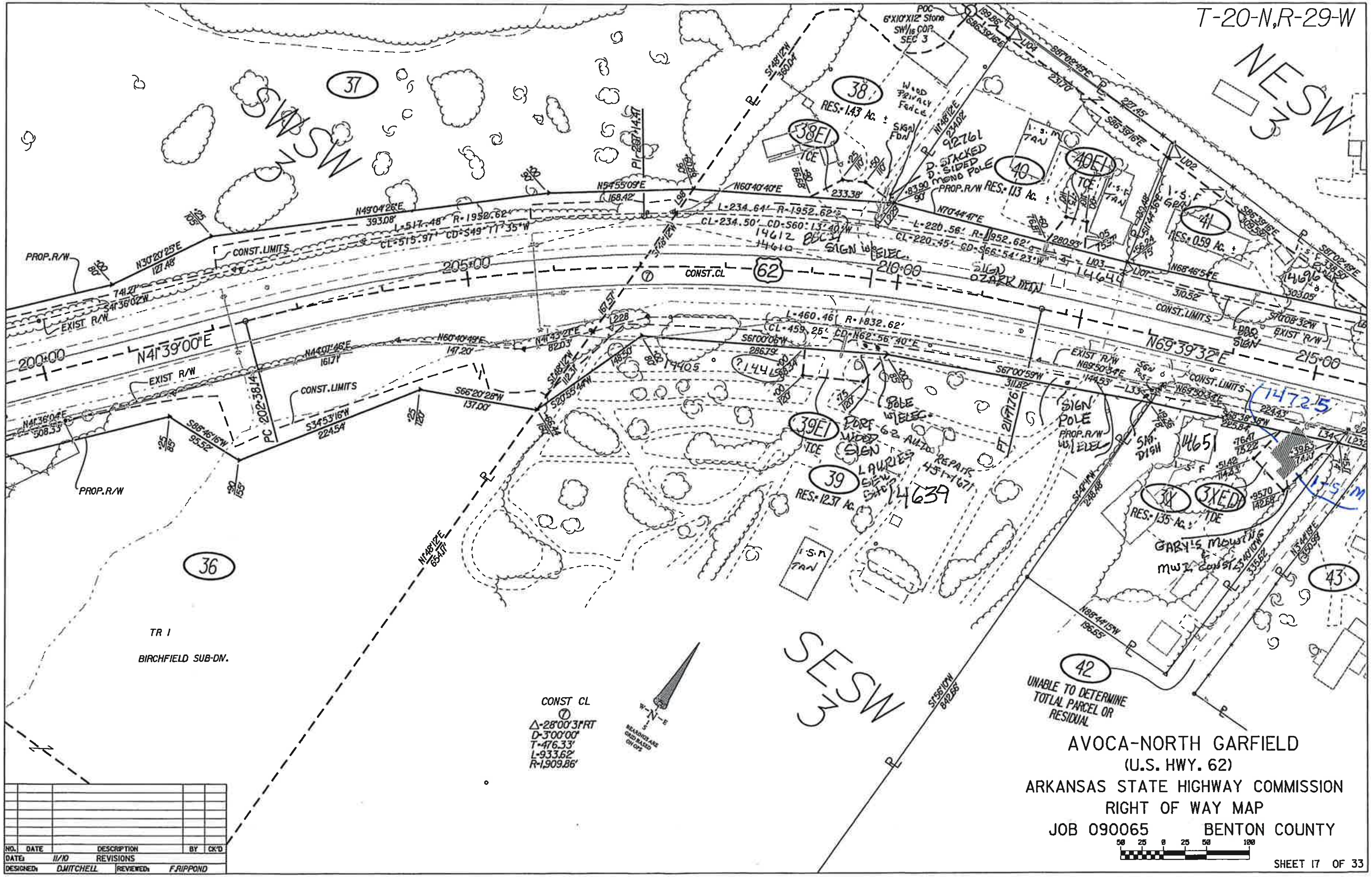


NO.	DATE	DESCRIPTION	BY	CK'D
2	4/12/12	added tr 34N; changed tr 34A to 34A2	rs	fr
1	11/7/11	added 355GI	dm	fr
DATE:	11/10	REVISIONS		
DESIGNED:	D.MITCHELL	REVIEWED:	F.RIPPOND	

AVOCA-NORTH GARFIELD
(U.S. HWY. 62)
ARKANSAS STATE HIGHWAY COMMISSION
RIGHT OF WAY MAP
JOB 090065 BENTON COUNTY

50 25 0 25 50 100

SHEET 16 OF 33



AVOCA-NORTH GARFIELD

(U.S. HWY. 62)

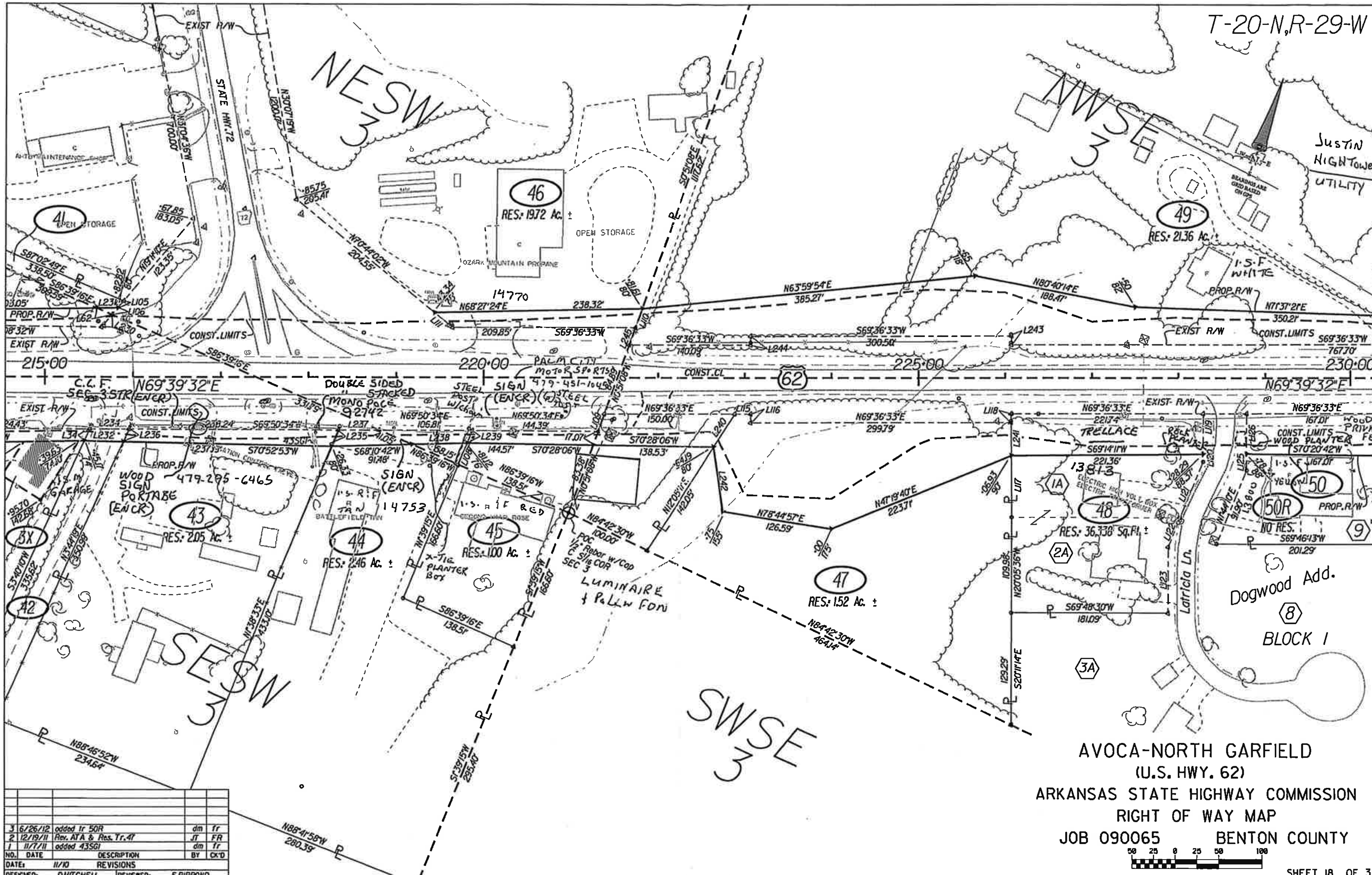
ARKANSAS STATE HIGHWAY COMMISSION

RIGHT OF WAY MAP

JOB 090065 BENTON COUNTY

SHEET 17 OF 33

NO.	DATE	DESCRIPTION	BY	CK'D
DATE: 11/10		REVISIONS		
DESIGNED: D.MITCHELL		REVIEWED: F.RIPPOND		

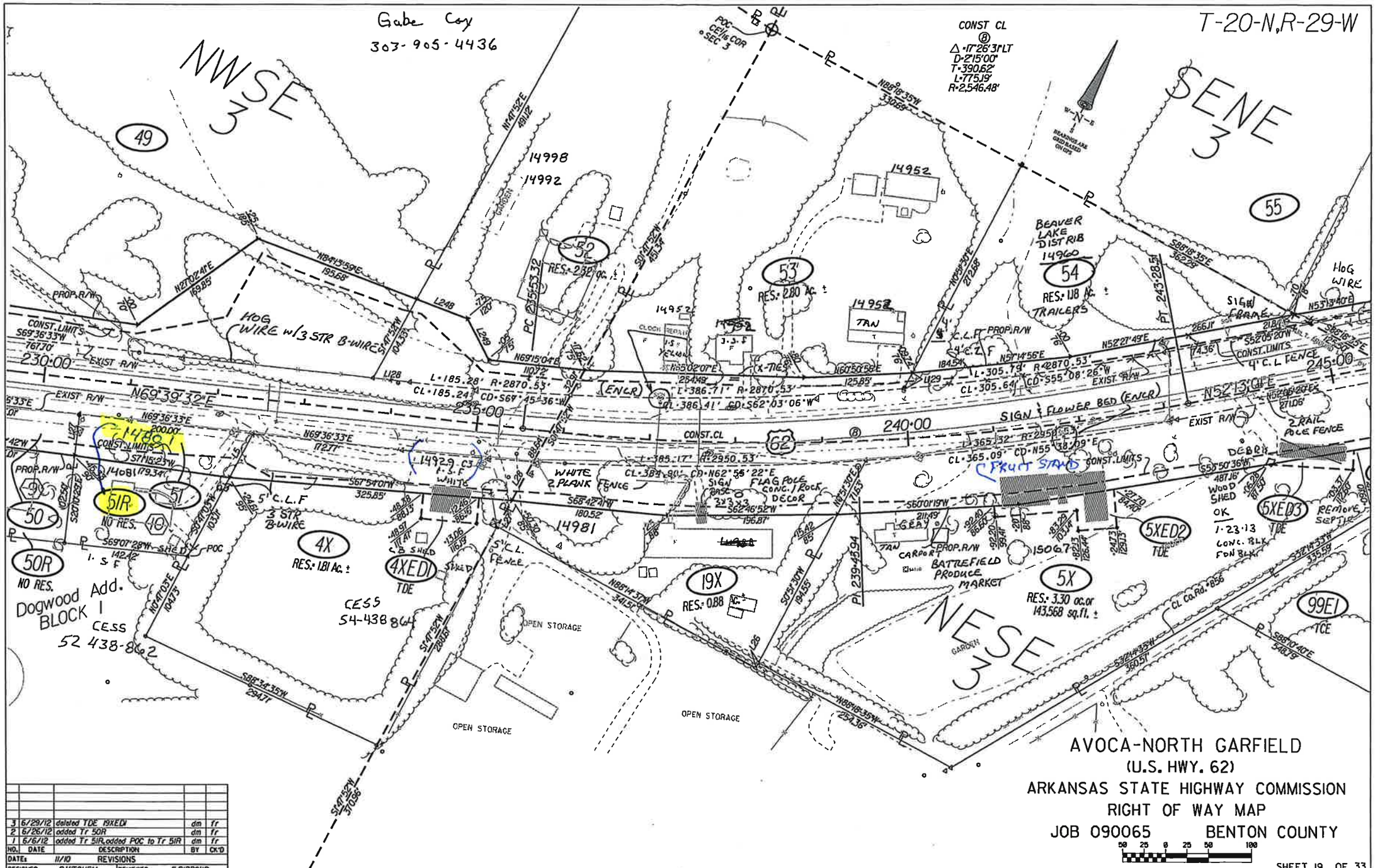


AVOCA-NORTH GARFIELD
(U.S. HWY. 62)
ARKANSAS STATE HIGHWAY COMMISSION
RIGHT OF WAY MAP
JOB 090065 BENTON COUNTY

SHEET 18 OF 33

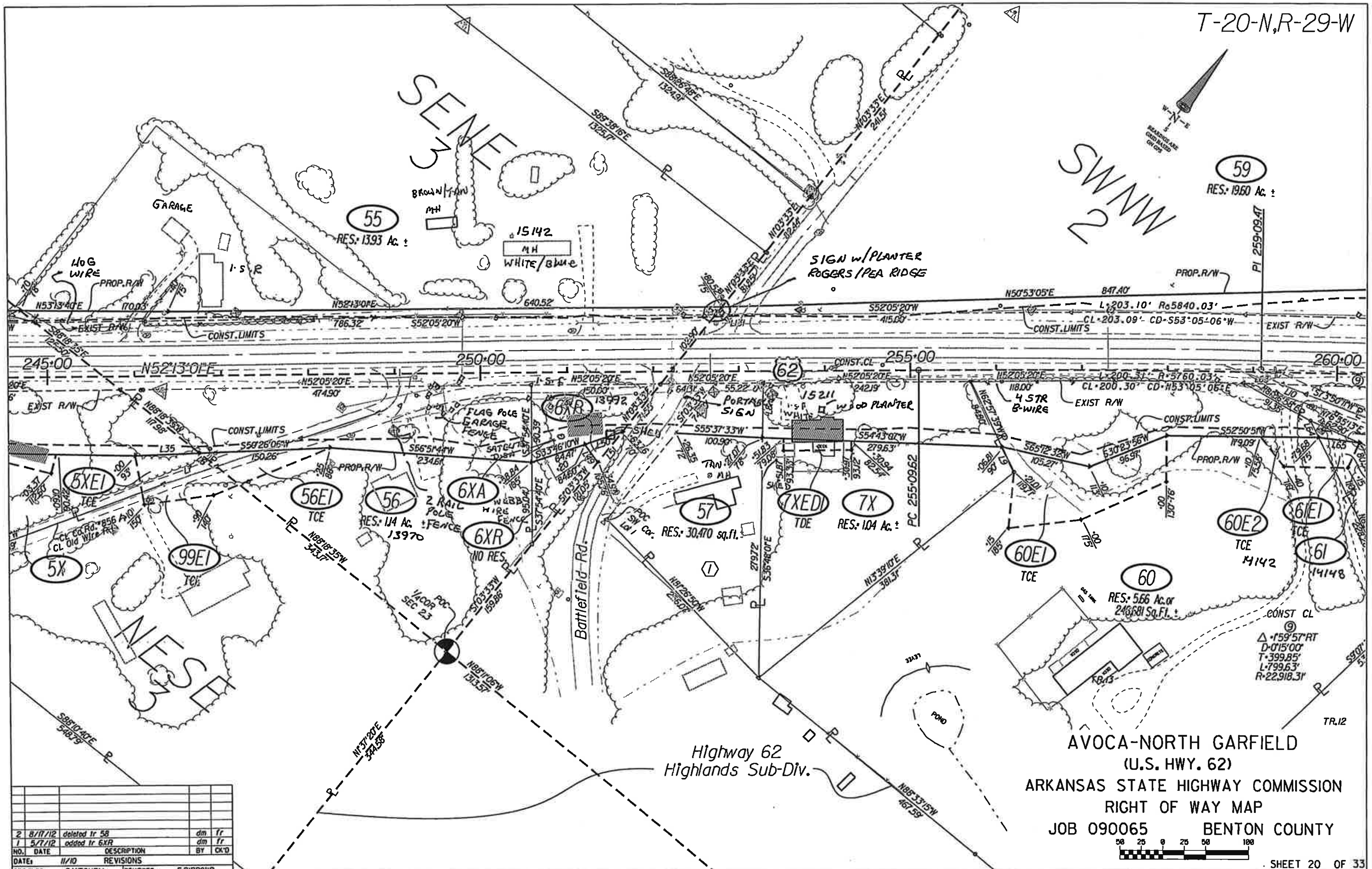
NO.	DATE	DESCRIPTION	BY	CK'D
3	6/26/12	added tr 50R	dm	fr
2	12/19/11	Rev. ATA & Res. Tr. 47	JT	FR
1	11/7/11	added 43SGI	dm	fr

DATE: 11/10 REVISIONS
DESIGNED: D.MITCHELL REVIEWED: F.RIPPOND

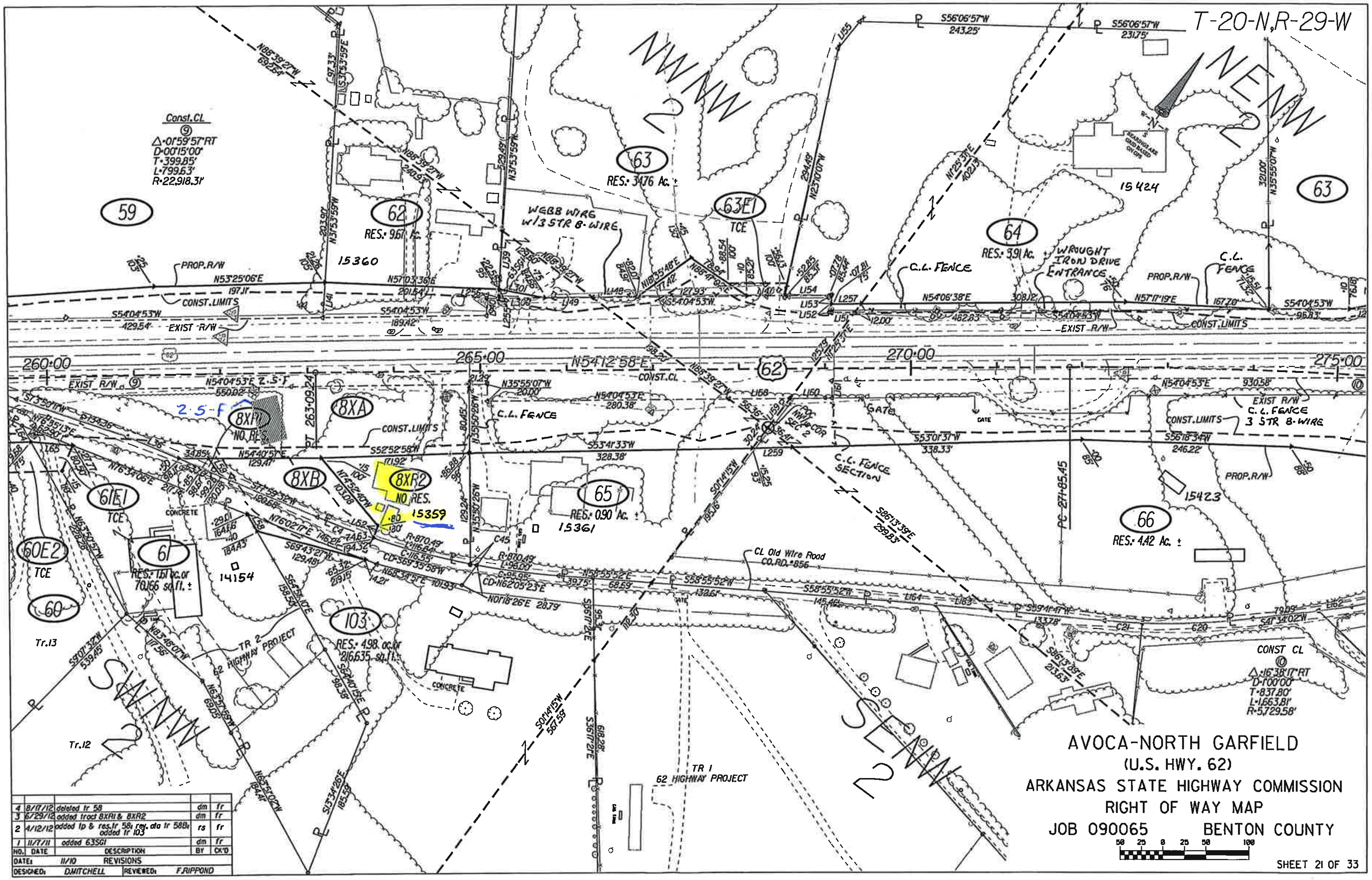


NO.	DATE	DESCRIPTION	BY	CK'D
3	6/29/12	deleted TDE 19XED1	dm	fr
2	6/26/12	added Tr 50R	dm	fr
1	5/6/12	added Tr 51R, added POC to Tr 51R	dm	fr

DATE: 11/10 REVISIONS
DESIGNED: D.MITCHELL REVIEWED: F.RIPPOND



T-20-N,R-29-W
SENE 3
SWNW 2
NESE 3
55
RES: 13.93 Ac. ±
59
RES: 19.60 Ac. ±
56EI
TCE
56
RES: 1.14 Ac.
6XA
6XR
NO RES.
5XEI
TCE
5X
99EI
TCE
57
RES: 30,470 sq.ft.
7XEDI
TDE
7X
RES: 1.04 Ac. ±
60EI
TCE
60
RES: 5.66 Ac.or 246,681 Sq.Ft. ±
60E2
TCE
61EI
TCE
61
Battlefield Rd.
PC 255+09.62
PI 259+09.47
245+00
250+00
255+00
260+00
N52°13'01"E
PROP. R/W
EXIST R/W
CONST. LIMITS
CONST. CL
SIGN w/PLANTER ROGERS/PEA RIDGE
GARAGE
HOG WIRE
FLAG POLE GARAGE FENCE
2 RAIL POLE FENCE
4 STR B-WIRE
PORTABLE SIGN
Highway 62 Highlands Sub-Div.
POND
CONST CL
Δ=1°59'57"RT
D=0°15'00"
T=399.85'
L=799.63'
R=22,918.31'
TR.12
AVOCA-NORTH GARFIELD
(U.S. HWY. 62)
ARKANSAS STATE HIGHWAY COMMISSION
RIGHT OF WAY MAP
JOB 090065 BENTON COUNTY
SHEET 20 OF 33
2 8/17/12 deleted tr 58 dm fr
1 5/7/12 added tr 6XR dm fr
NO. DATE DESCRIPTION BY CK'D
DATE: 11/10 REVISIONS
DESIGNED: D.MITCHELL REVIEWED: F.RIPPOND



AVOCA-NORTH GARFIELD

(U.S. HWY. 62)

ARKANSAS STATE HIGHWAY COMMISSION

RIGHT OF WAY MAP

JOB 090065 BENTON COUNTY

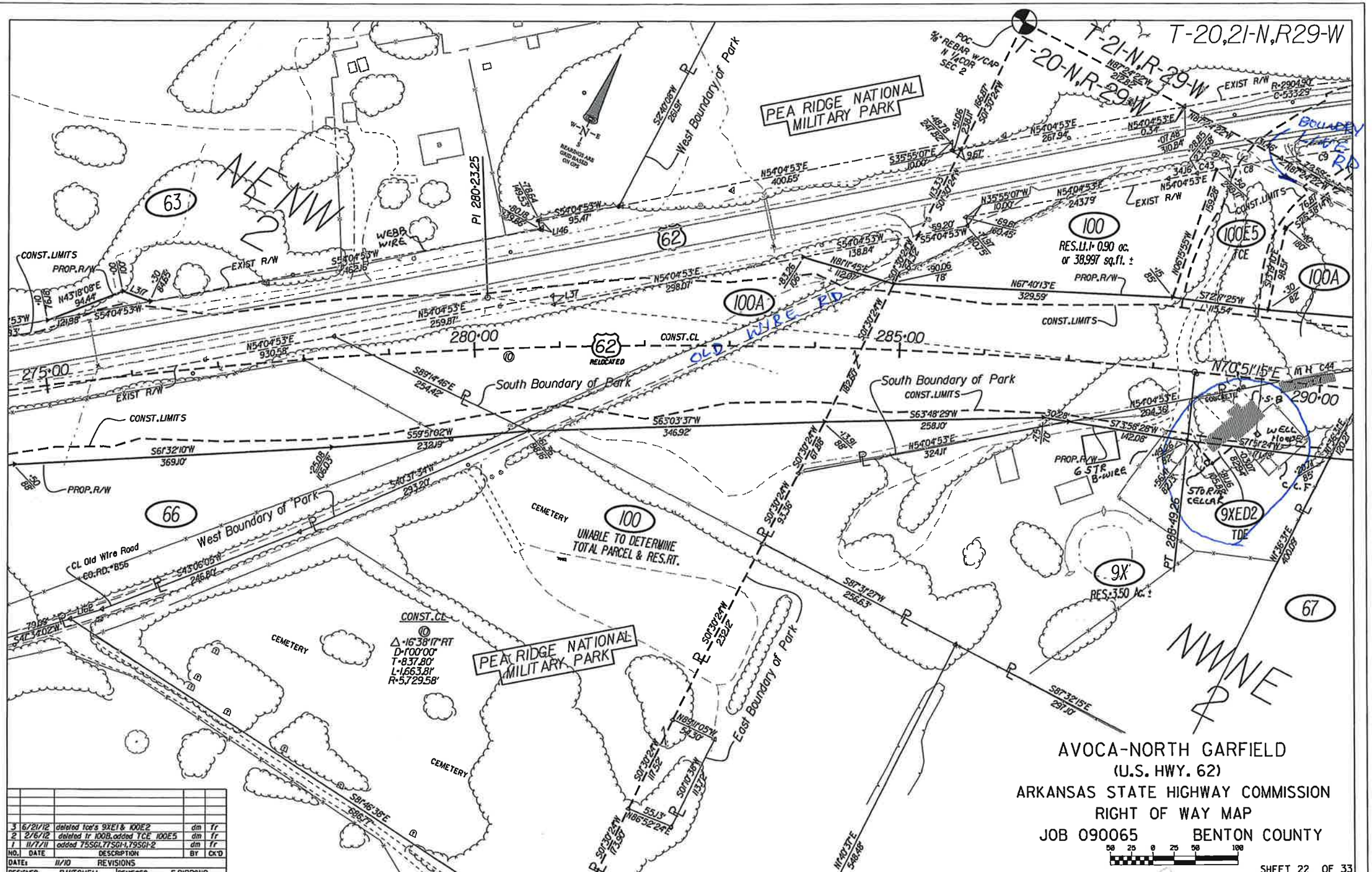
50 25 0 25 50 100

SHEET 21 OF 33

NO.	DATE	DESCRIPTION	BY	CK'D
4	8/17/12	deleted tr 58	dm	fr
3	6/29/12	added tract 8XR1 & 8XR2	dm	fr
2	4/12/12	added tp & res.tr 58; rev. ata tr 58B; added tr 103	rs	fr
1	11/7/11	added 63SG1	dm	fr

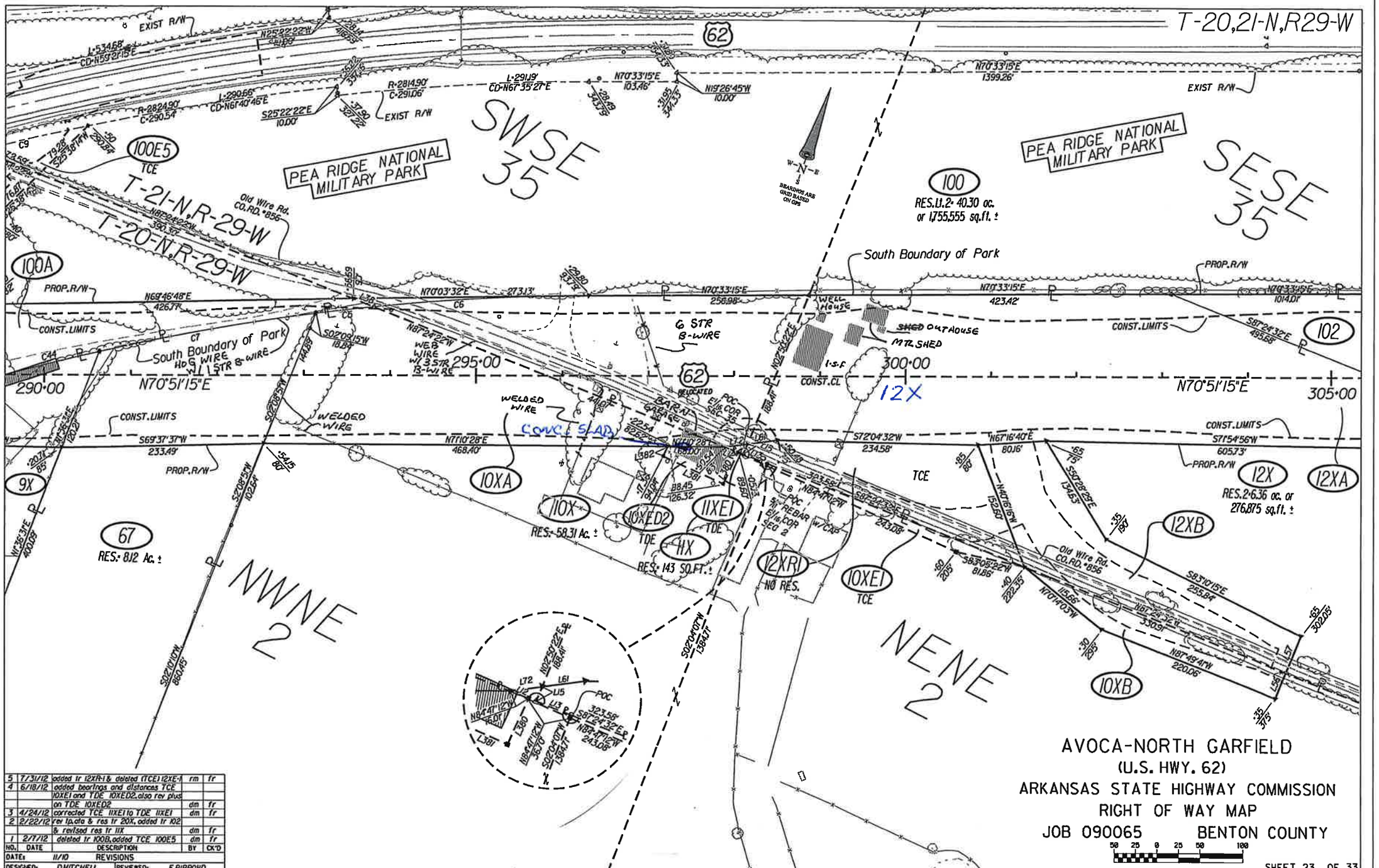
DATE: 11/10 REVISIONS

DESIGNED: D.MITCHELL REVIEWED: F.RIPPOND



NO.	DATE	DESCRIPTION	BY	CK'D
3	6/21/12	deleted tce's 9XE1 & 100E2	dm	fr
2	2/6/12	deleted tr 100B, added TCE 100E5	dm	fr
1	11/7/11	added 75SGI, 77SGI-1, 79SGI-2	dm	fr

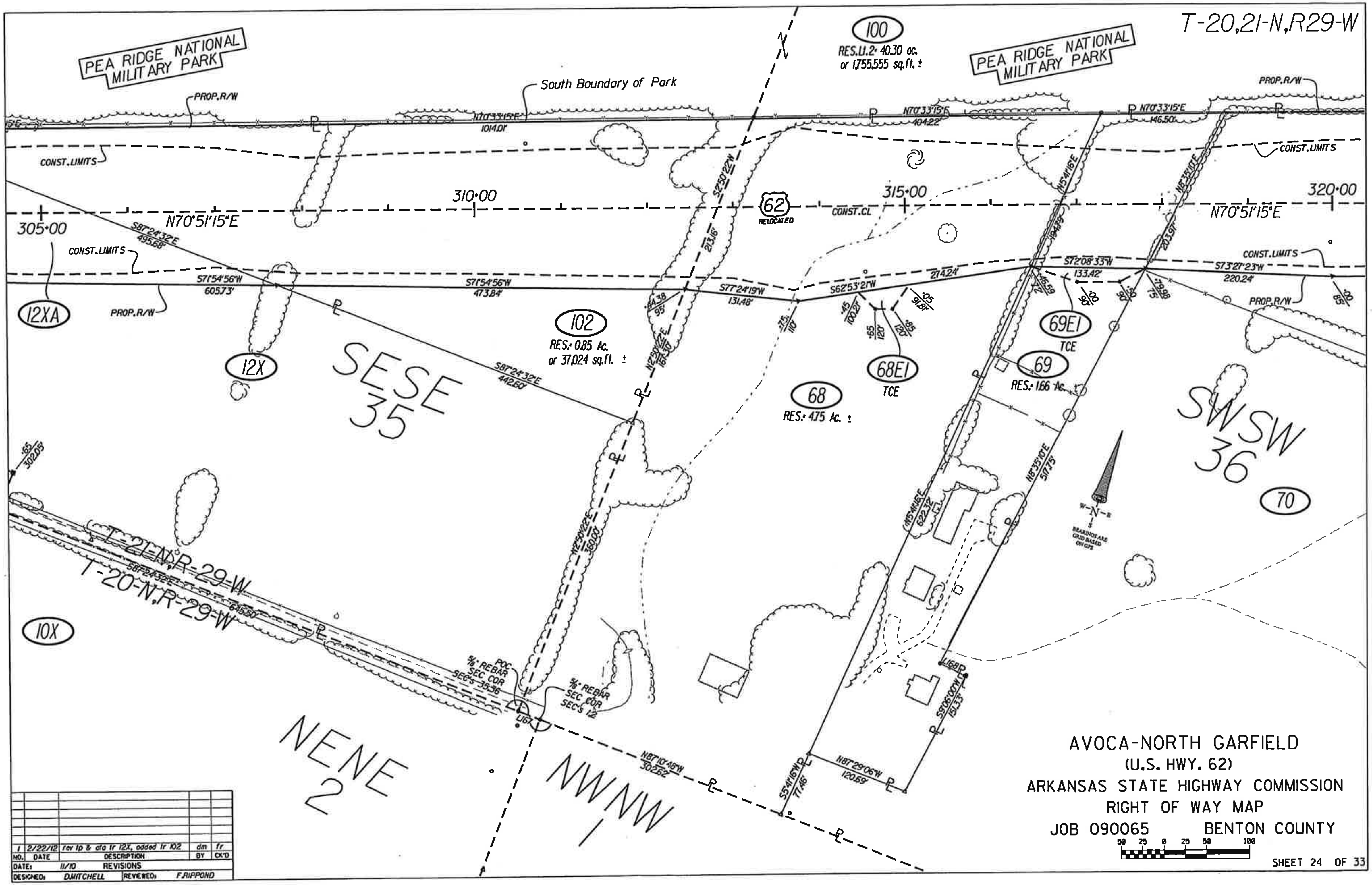
DATE: 11/10 REVISIONS
DESIGNED: DMITCHELL REVIEWED: F.RIPPOND

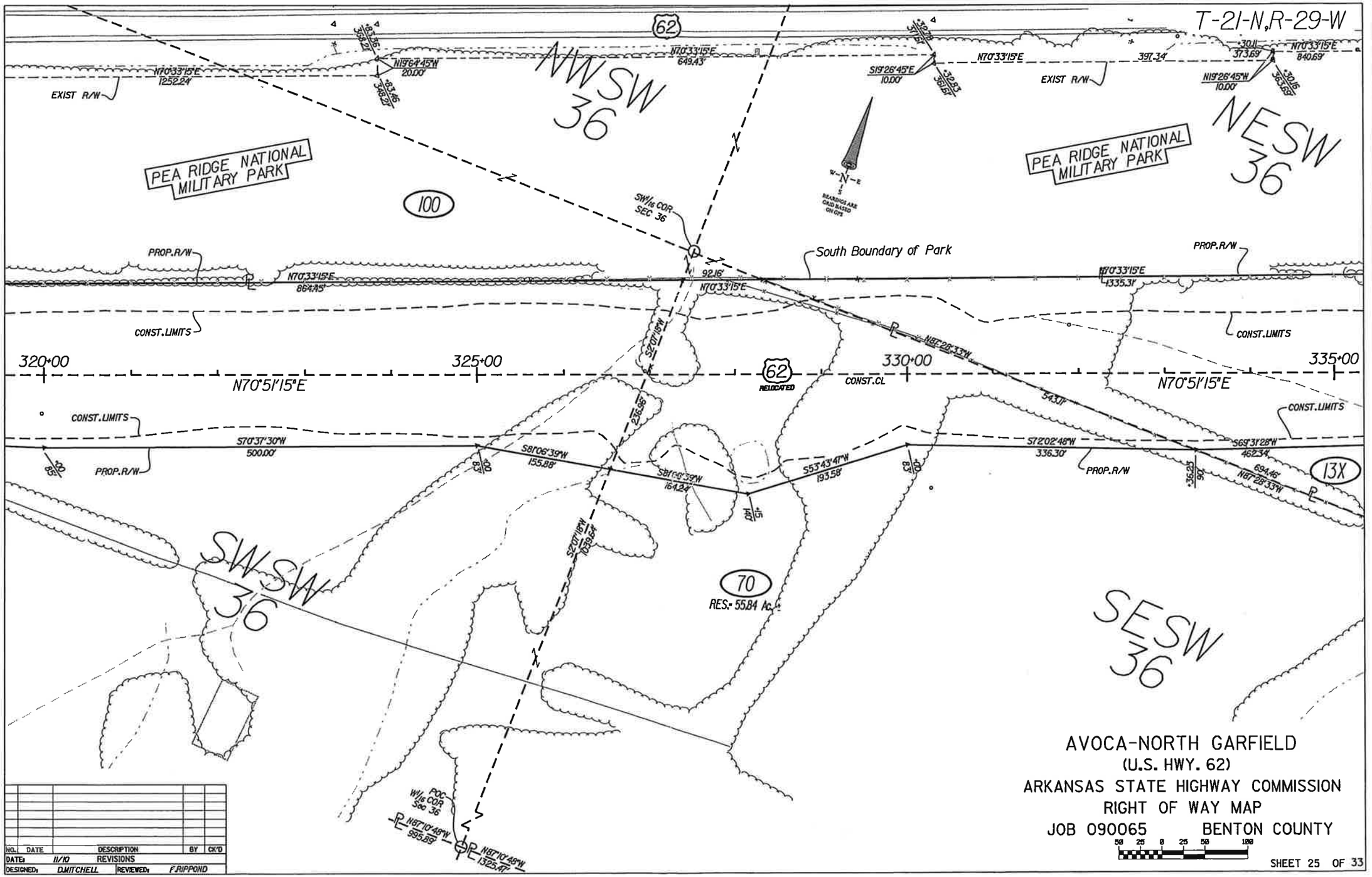


NO.	DATE	DESCRIPTION	BY	CK'D
5	7/31/12	added tr 12XR-1 & deleted (TCE) 12XE-1	rm	fr
4	6/18/12	added bearings and distances TCE 10XE1 and TDE 10XED2, also rev plus on TDE 10XED2	dm	fr
3	4/24/12	corrected TCE 11XE1 to TDE 11XE1	dm	fr
2	2/22/12	rev lp.cds & res tr 20X, added tr X02 & revised res tr 11X	dm	fr
1	2/7/12	deleted tr 100B, added TCE 100E5	dm	fr

DATE: 11/10 REVISIONS

DESIGNED: D.MITCHELL REVIEWED: F.RIPPOND

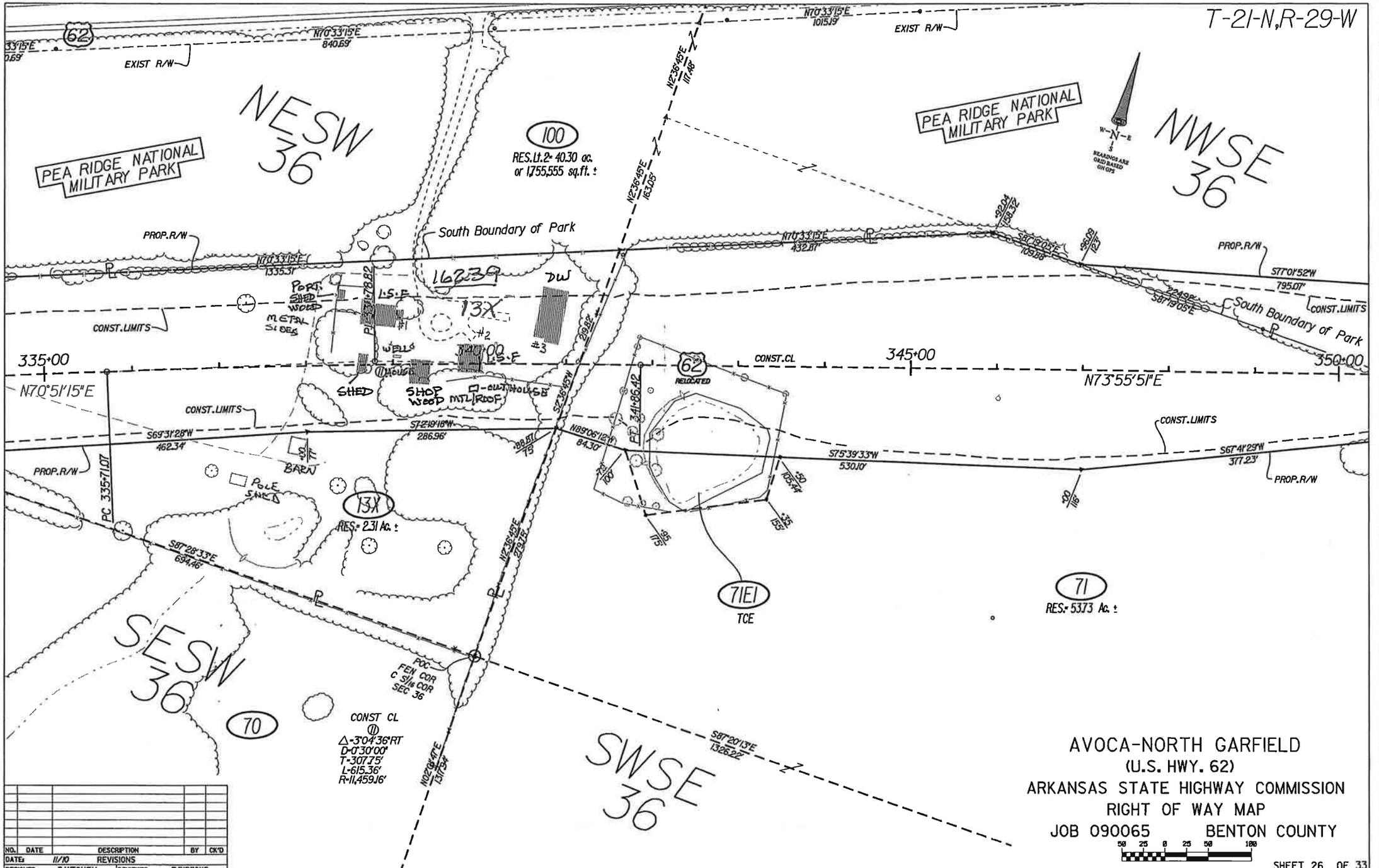

T-20,21-N,R29-W
PEA RIDGE NATIONAL MILITARY PARK
PEA RIDGE NATIONAL MILITARY PARK
100
RES.U.2: 40.30 ac. or 1,755,555 sq.ft. ±
South Boundary of Park
PROP.R/W
CONST.LIMITS
N70°33'15"E 1014.01'
N70°33'15"E 404.22'
N70°33'15"E 146.50'
310+00
315+00
320+00
305+00
N70°51'15"E
N70°51'15"E
62
RELOCATED
CONST.CL
S87°24'32"E 495.68'
S71°54'56"W 605.73'
S71°54'56"W 473.84'
S77°24'19"W 131.48'
S62°53'21"W
S72°08'33"W 133.42'
S73°21'23"W 220.24'
S2°50'22"W 213.16'
12XA
12X
102
RES.: 0.85 Ac. or 37,024 sq.ft. ±
SESE 35
S87°24'32"E 442.60'
68
RES.: 4.75 Ac. ±
68E1
TCE
69E1
TCE
69
RES.: 1.66 Ac.
SWSW 36
70
N15°41'16"E
N8°35'10"E 517.75'
N15°41'16"E 622.32'
S9°06'00"W 151.35'
N87°29'06"W 120.69'
S5°41'16"W 77.46'
N87°10'48"W 302.62'
N2°50'22"E 360.07'
T-21-N,R-29-W
T-20-N,R-29-W
S87°24'32"E 645.50'
10X
POC 5/8" REBAR SEC.COR. SEC'S 35,36
5/8" REBAR SEC.COR. SEC'S 1,2
NENE 2
NWNW 1
BEARINGS ARE GRID BASED ON GPS
AVOCA-NORTH GARFIELD
(U.S. HWY. 62)
ARKANSAS STATE HIGHWAY COMMISSION
RIGHT OF WAY MAP
JOB 090065 BENTON COUNTY
SHEET 24 OF 33
1 2/22/12 rev lp & ata fr 12X, added fr 102 dm fr
NO. DATE DESCRIPTION BY CK'D
DATE: 11/10 REVISIONS
DESIGNED: D.MITCHELL REVIEWED: F.RIPPOND

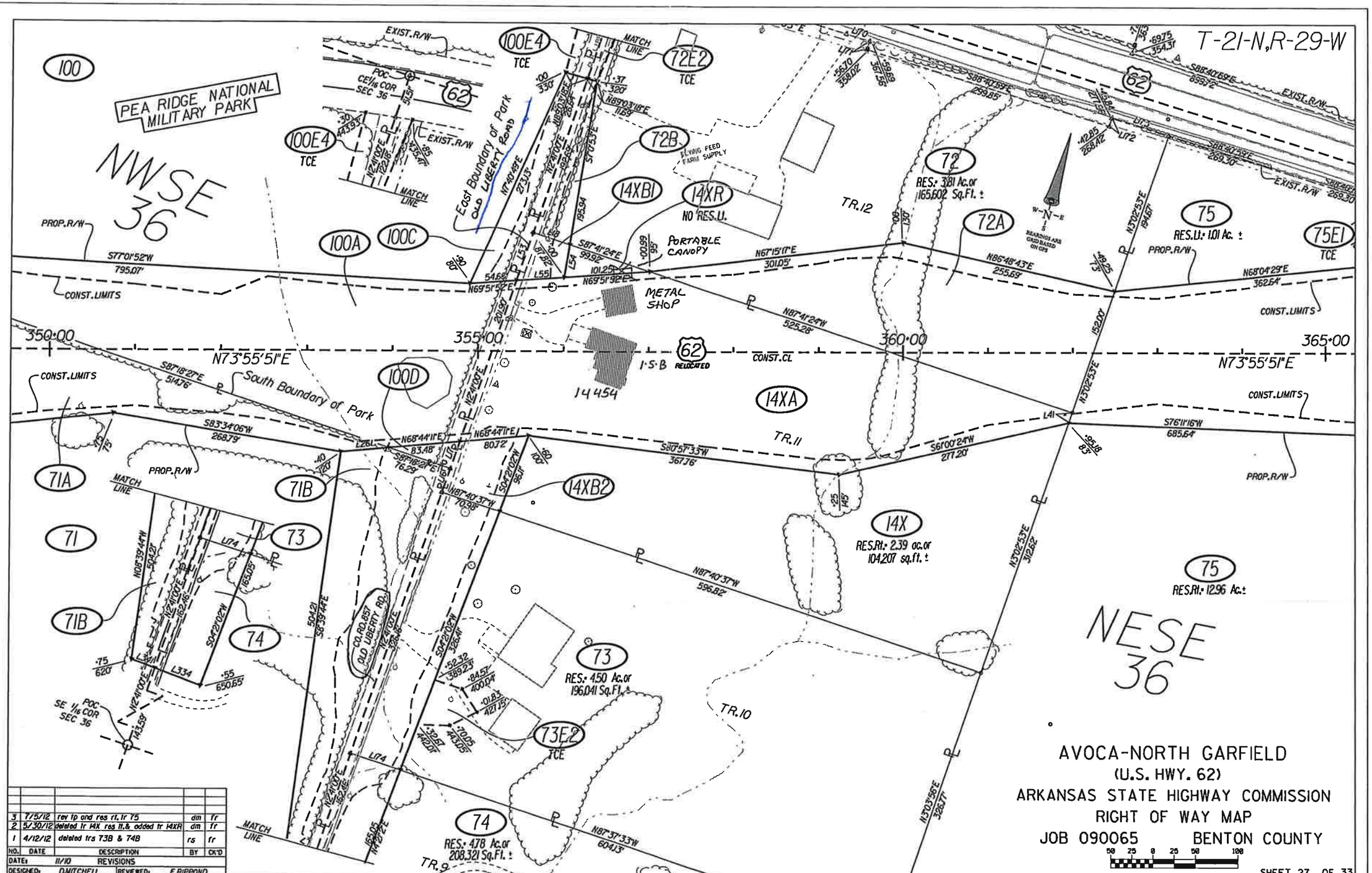


AVOCA-NORTH GARFIELD
(U.S. HWY. 62)
ARKANSAS STATE HIGHWAY COMMISSION
RIGHT OF WAY MAP
JOB 090065 BENTON COUNTY

50 25 0 25 50 100

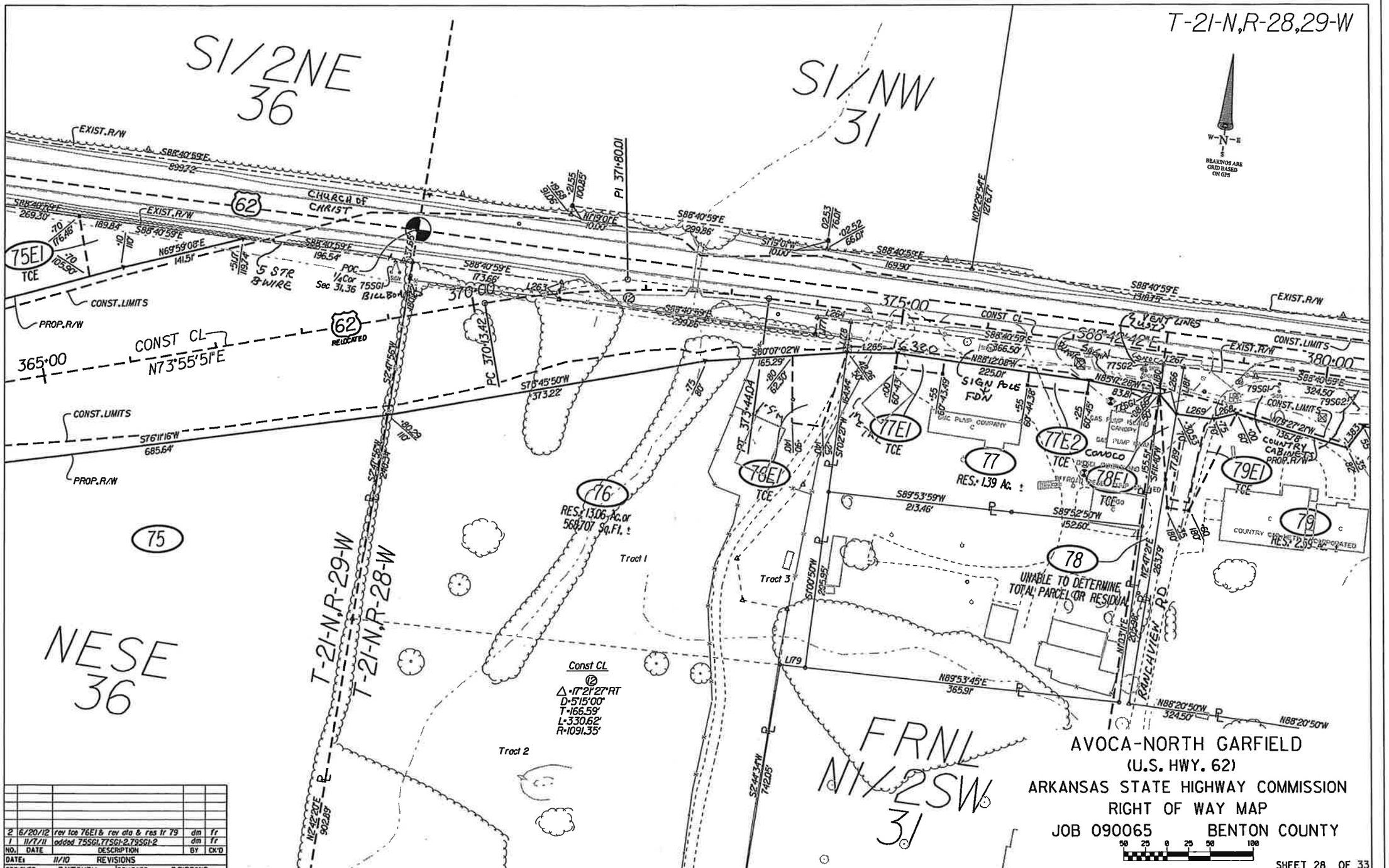
NO.	DATE	DESCRIPTION	BY	CK'D
DATE:	11/10	REVISIONS		
DESIGNED:	D.MITCHELL	REVIEWED: F.RIPPOND		


T-21-N, R-29-W
62
EXIST R/W
N70°33'15"E 840.69'
N70°33'15"E 1015.19'
NESW 36
PEA RIDGE NATIONAL MILITARY PARK
100
RES. Lt. 2 = 40.30 ac. or 1,755,555 sq.ft. ±
N23°36'45"E 117.48'
N23°36'45"E 163.05'
NWSE 36
South Boundary of Park
PROP. R/W
N70°33'15"E 1335.31'
16239
DW
PORT. SHED WOOD
L.S.F
13X
#1
#2
#3
METAL SHEDS
WELLS
HOUSE
SHED
SHOP WOOD MTL ROOF
CULT. HOUSE
CONST. LIMITS
335+00
N70°51'15"E
345+00
350+00
N73°55'51"E
CONST. CL
62 RELOCATED
S23°36'45"W 341.86'
N89°06'12"W 84.30'
S69°31'28"W 462.34'
S72°18'18"W 286.96'
BARN
POLE SHED
PC 335+71.07
13X
RES. = 2.31 Ac. ±
S87°28'33"E 694.46'
N23°36'45"E 279.71'
S75°39'33"W 530.10'
S67°41'29"W 317.23'
N70°33'15"E 432.81'
S67°19'05"E 1091.18'
S77°01'52"W 795.07'
S81°19'05"E 324.98'
71E1
TCE
71
RES. = 53.73 Ac. ±
SESW 36
70
POC FEN COR C S1/16 COR SEC 36
CONST CL
Δ = 3°04'36" RT
D = 0°30'00"
T = 307.75'
L = 615.36'
R = 11,459.16'
N02°28'47"E 137.54'
S87°20'13"E 1326.22'
SWSE 36
AVOCA-NORTH GARFIELD
(U.S. HWY. 62)
ARKANSAS STATE HIGHWAY COMMISSION
RIGHT OF WAY MAP
JOB 090065 BENTON COUNTY
50 25 0 25 50 100
SHEET 26 OF 33
NO. DATE DESCRIPTION BY CK'D
DATE: 11/10 REVISIONS
DESIGNED: D.MITCHELL REVIEWED: F.RIPPOND

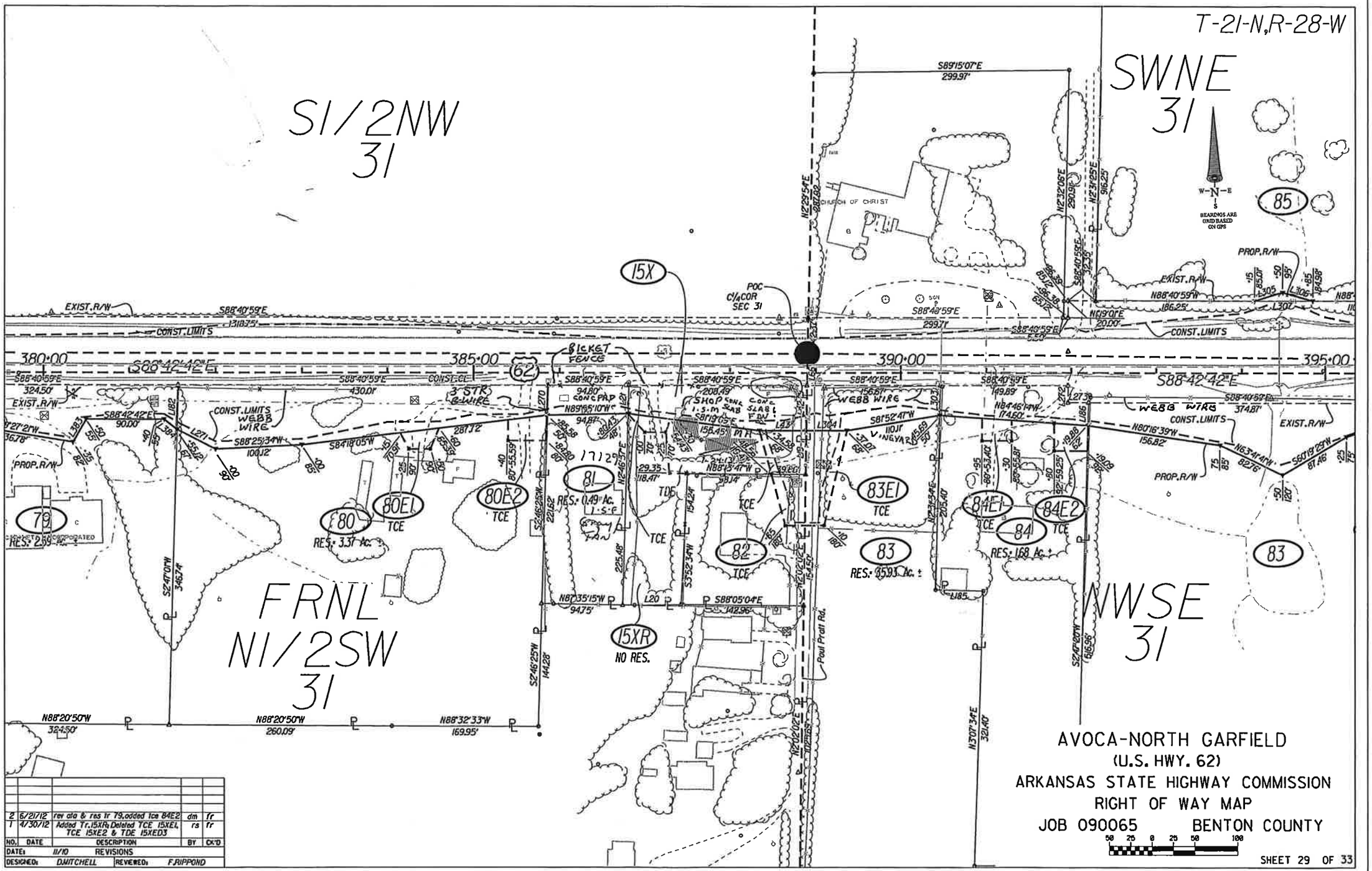


NO.	DATE	DESCRIPTION	BY	CK'D
3	7/5/12	rev tp and res rt. to 75	dm	fr
2	5/30/12	deleted tr 14X res rt.& added tr 14XR	dm	fr
1	4/12/12	deleted trs 73B & 74B	rs	fr

DATE: 11/10 REVISIONS
DESIGNED: DMITCHELL REVIEWED: FRIPPOND

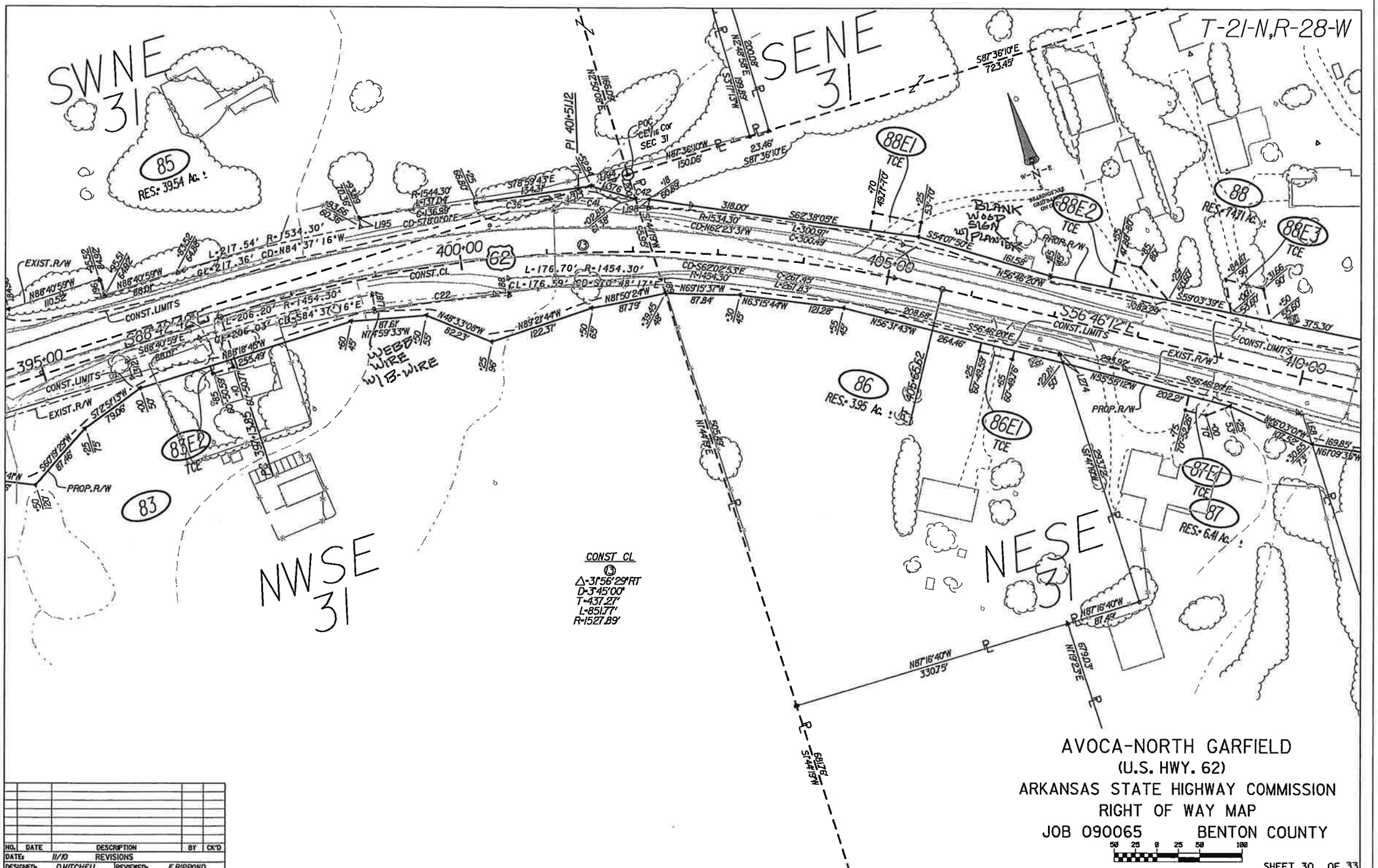


NO.	DATE	DESCRIPTION	BY	CK'D
2	6/20/12	rev tce 76EI & rev ata & res tr 79	dm	fr
1	11/7/11	added 75SGI,77SGI-2,79SGI-2	dm	fr
DATE:	11/10	REVISIONS		
DESIGNED:	DMITCHELL	REVIEWED:	F.RIPPOND	

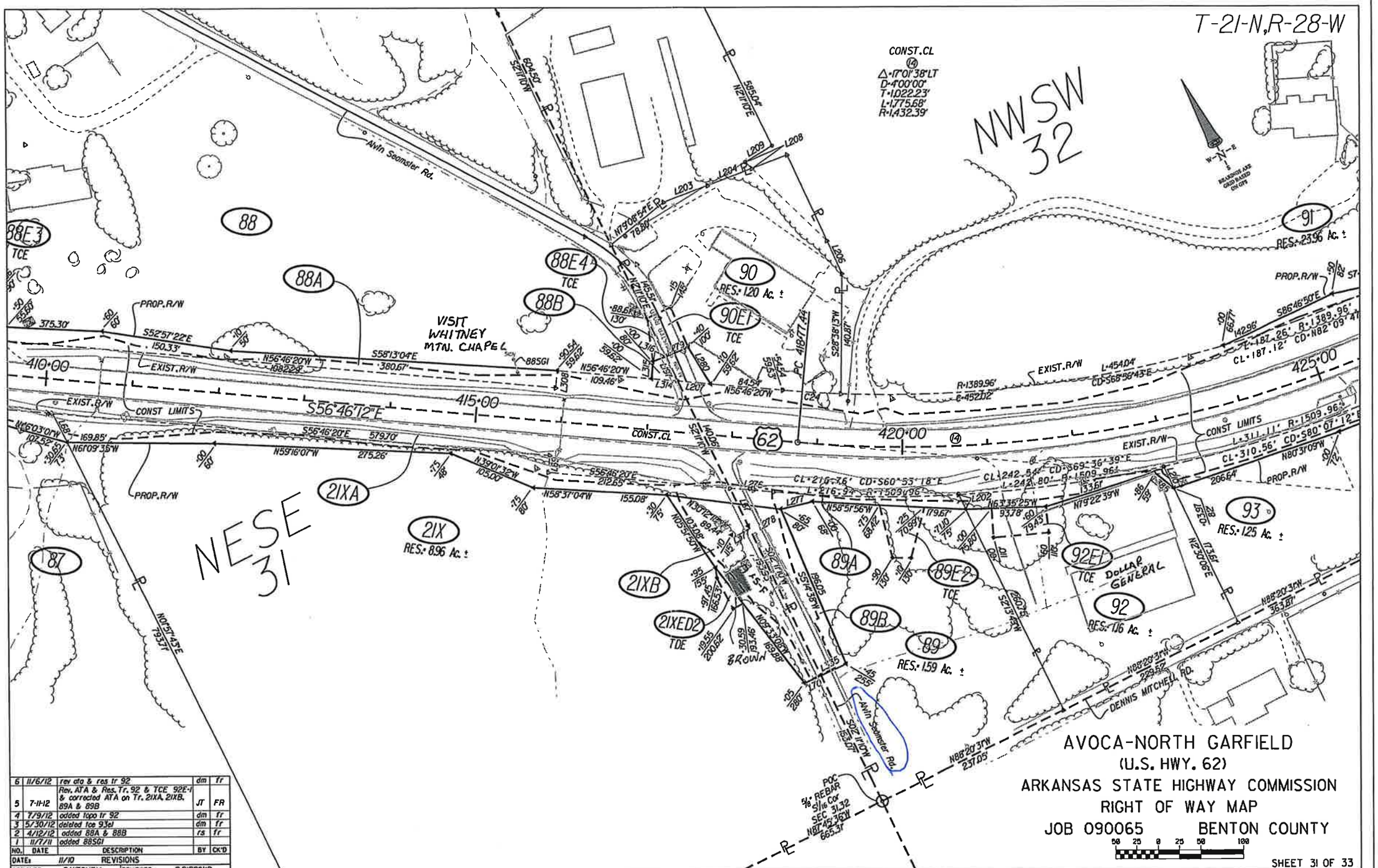


NO.	DATE	DESCRIPTION	BY	CK'D
2	6/21/12	rev dia & res tr 79, added tce 84E2	dm	fr
1	4/30/12	Added Tr.15XR, Deleted TCE 15XE1, TCE 15XE2 & TDE 15XED3	rs	fr

DATE: 11/10 REVISIONS
DESIGNED: DMITCHELL REVIEWED: FJRIPPOND



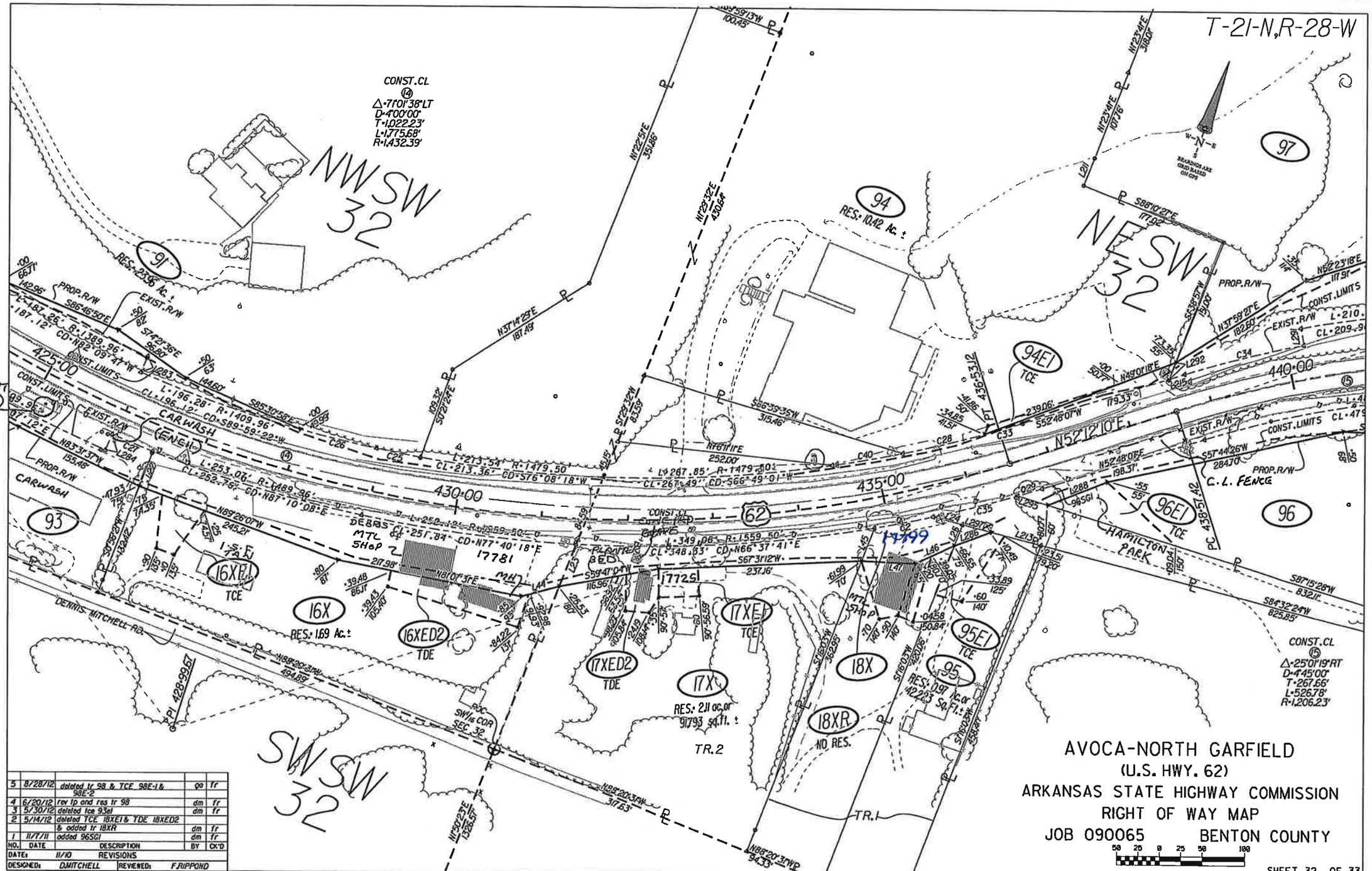
SHEET 30 OF 33



NO.	DATE	DESCRIPTION	BY	CK'D
6	11/6/12	rev ata & res tr 92	dm	fr
5	7-11-12	Rev. ATA & Res. Tr. 92 & TCE 92E-1 & corrected ATA on Tr. 21XA, 21XB, 89A & 89B	JT	FR
4	7/9/12	added topo tr 92	dm	fr
3	5/30/12	deleted tce 93e1	dm	fr
2	4/12/12	added 88A & 88B	rs	fr
1	11/7/11	added 88SGI		

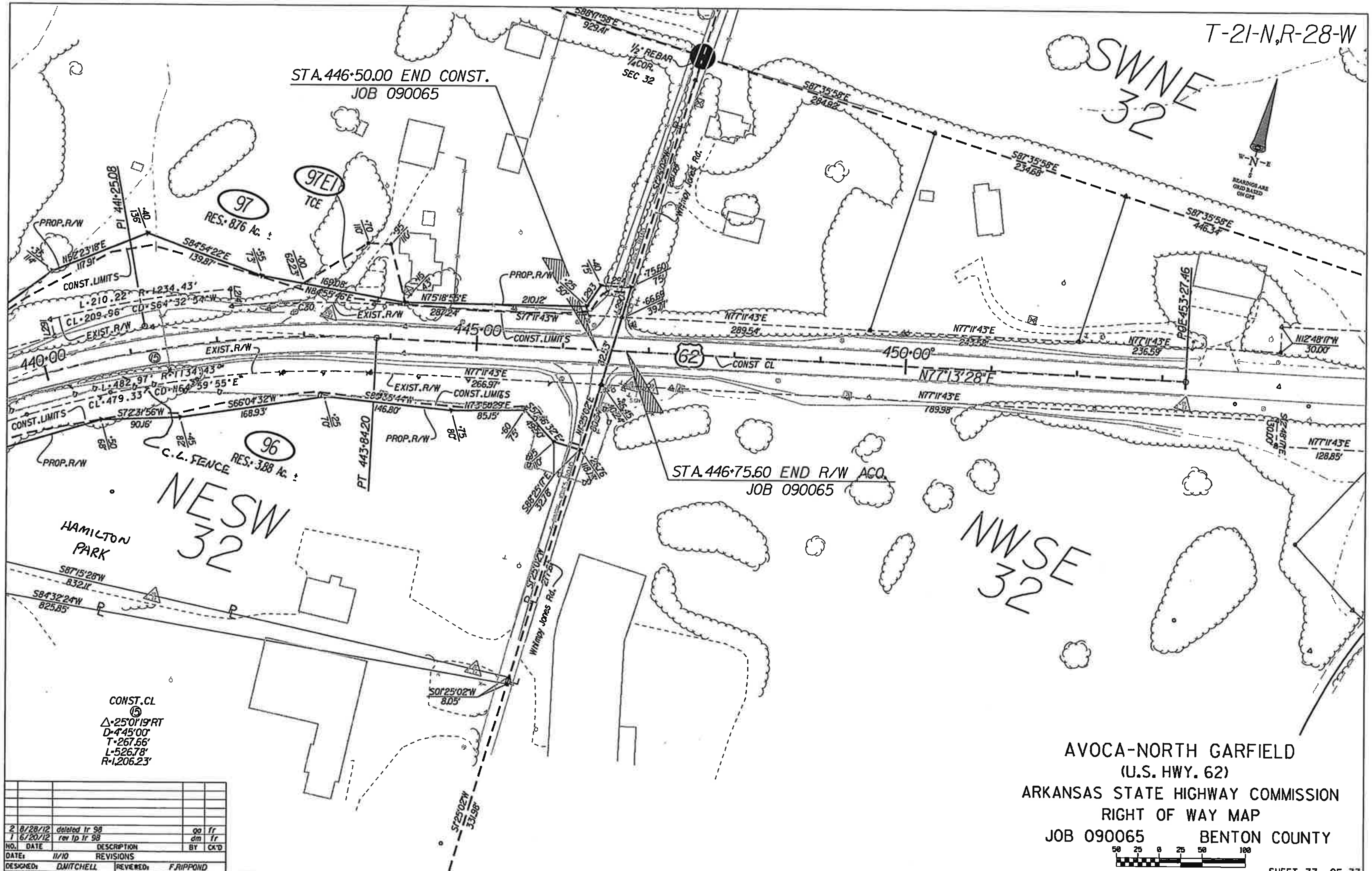
DATE: 11/10 REVISIONS

DESIGNED: D.MITCHELL REVIEWED: F.RIPPOND



NO.	DATE	DESCRIPTION	BY	CK'D
5	8/28/12	deleted tr 98 & TCE 98E-1 & 98E-2	qo	fr
4	6/20/12	rev to and res tr 98	dm	fr
3	5/30/12	deleted tce 93sl	dm	fr
2	5/14/12	deleted TCE 18XE1 & TDE 18XED2 & added tr 18XR	dm	fr
1	11/7/11	added 96SGI	dm	fr

DATE: 11/10 REVISIONS
DESIGNED: D.MITCHELL REVIEWED: F.RIPPOND



NO.	DATE	DESCRIPTION	BY	CK'D
2	8/28/12	deleted tr 98	go	fr
1	6/20/12	rev tp tr 98	dm	fr

DATE: 11/10 REVISIONS

DESIGNED: D.MITCHELL REVIEWED: F.RIPPOND

AVOCA-NORTH GARFIELD
(U.S. HWY. 62)
ARKANSAS STATE HIGHWAY COMMISSION
RIGHT OF WAY MAP
JOB 090065 BENTON COUNTY