

OPERATING NOTES

General Site Requirements

- 1.1 The existing power line crossing the landfill area will be relocated to the west side of the landfill.
- 1.2 Rainwater collection ditches on the east, south and west sides of the landfill area will be constructed. The existing drainage swale south of the site will be maintained.
2. Preparation of Active Waste Placement Cells:

- 2.1 The landfill area is divided into 18 cells of approximately equal volume. Each area is sized to receive about one month's waste volume and daily cover. Filling of these areas will be in a general south to north direction.

- 2.2 Each cell area will be cleared prior to waste placement.

- 2.3 Construct run-on/diversion/runoff collection berms around the active cell. Drainage across the remainder of the site will be maintained away from the active area.

Daily Operations

- 3.1 Place and cover wastes daily. Daily cover will be placed over all exposed wastes to eliminate problems of windblown trash, insects, rodents, etc. A minimum of 6 inches of daily cover will be placed.

- 3.2 The top of the waste fill surface (including daily cover) will be brought to an elevation 3.5 feet below those shown on Figure 3.

- 3.3 Any leachate generated within the active filling area will be collected and properly disposed of.

Final Cover Construction

- 4.1 A 3.5 foot thick final cover will be placed over the waste to bring the completed landfill to the surface elevations shown on Figure 3. The cover will consist of 2 feet of compacted clay, 1.5 feet of dozer "tracked-in-place" fill and 0.5 foot of topsoil. A detail is shown on Figure 3.

- 4.2 The compacted clay layer shall be placed in maximum 9 inch loose lifts and shall be compacted to at least 95 percent of the maximum density determined by the Standard Compaction Test (ASTM D-698). The moisture content shall be at optimum or above.

4.3 The dozer "tracked-in-place" fill shall be placed in loose lifts of sufficient depth such that a final thickness of 12 inches is obtained after 4 passes of the dozer. The final surface elevation of the "tracked-in-place" fill shall be 0.5 foot below that shown on Figure 3.

Topsoil and Revegetation

- 5.1 After completion of the "tracked-in-place" fill layer to the designated elevations, a topsoil layer of approximately 6 inches will be placed so that the final contour elevations shown on Figure 3 are obtained.

- 5.2 The topsoil layer should be evaluated for fertilizer, lime and/or other requirements prior to the establishment of vegetation.

- 5.3 Seeding of topsoil shall generally conform to the requirements of Section 6200, Seeding of Soil, Arkansas Highway Commission Publication "Standard Specifications for Highway Construction". The seeding requirements are as follows:

Seeding Requirements

- 5.4 Fertilizer shall be applied at the rate of 400 pounds per acre of 10-20-10 or the equivalent amount of plant food. The quantity and ratios may be varied to the extent determined under 5.2 above. Fertilizer shall be uniformly incorporated into the soil to a depth of at least .2 inches. It may be worked into the soil alone or mixed with topsoil to the required lime. The fertilizer may be drilled into the soil or applied and mixed with the seed.

- 5.5 Recommended lime application rates are 2 tons per acre unless soil analyses indicate otherwise.

Vegetation Requirements

- 5.6 A mulch cover should be applied at the rate of 2000 pounds per acre after seeding.

Maintenance of Final Cover and Vegetation

- 6.1 Areas of the landfill that have received final cover shall be inspected quarterly to determine if depressions have developed or if the cover materials have eroded. The inspection shall also note any location where there are voids in the vegetation cover.

- 6.2 All locations of depressions or erosion of the final cover shall be corrected; vegetation shall be established on the areas of repair as well as on locations where the vegetation cover is no longer adequate.

Vegetation Requirements

- 7.1 The vegetation shall be selected to withstand the environmental conditions of the landfill.

- 7.2 The vegetation shall be able to withstand the effects of salt spray, wind, and water runoff.

- 7.3 The vegetation shall be able to withstand the effects of soil compaction and root confinement.

- 7.4 The vegetation shall be able to withstand the effects of soil temperature fluctuations.

- 7.5 The vegetation shall be able to withstand the effects of soil moisture fluctuations.

- 7.6 The vegetation shall be able to withstand the effects of soil nutrient fluctuations.

- 7.7 The vegetation shall be able to withstand the effects of soil pH fluctuations.

- 7.8 The vegetation shall be able to withstand the effects of soil salinity fluctuations.

- 7.9 The vegetation shall be able to withstand the effects of soil texture fluctuations.

- 7.10 The vegetation shall be able to withstand the effects of soil organic matter fluctuations.

- 7.11 The vegetation shall be able to withstand the effects of soil nutrient availability fluctuations.

- 7.12 The vegetation shall be able to withstand the effects of soil nutrient leaching fluctuations.

- 7.13 The vegetation shall be able to withstand the effects of soil nutrient immobilization fluctuations.

- 7.14 The vegetation shall be able to withstand the effects of soil nutrient mineralization fluctuations.

- 7.15 The vegetation shall be able to withstand the effects of soil nutrient volatilization fluctuations.

- 7.16 The vegetation shall be able to withstand the effects of soil nutrient adsorption fluctuations.

- 7.17 The vegetation shall be able to withstand the effects of soil nutrient desorption fluctuations.

- 7.18 The vegetation shall be able to withstand the effects of soil nutrient cation exchange fluctuations.

- 7.19 The vegetation shall be able to withstand the effects of soil nutrient anion exchange fluctuations.

- 7.20 The vegetation shall be able to withstand the effects of soil nutrient precipitation fluctuations.

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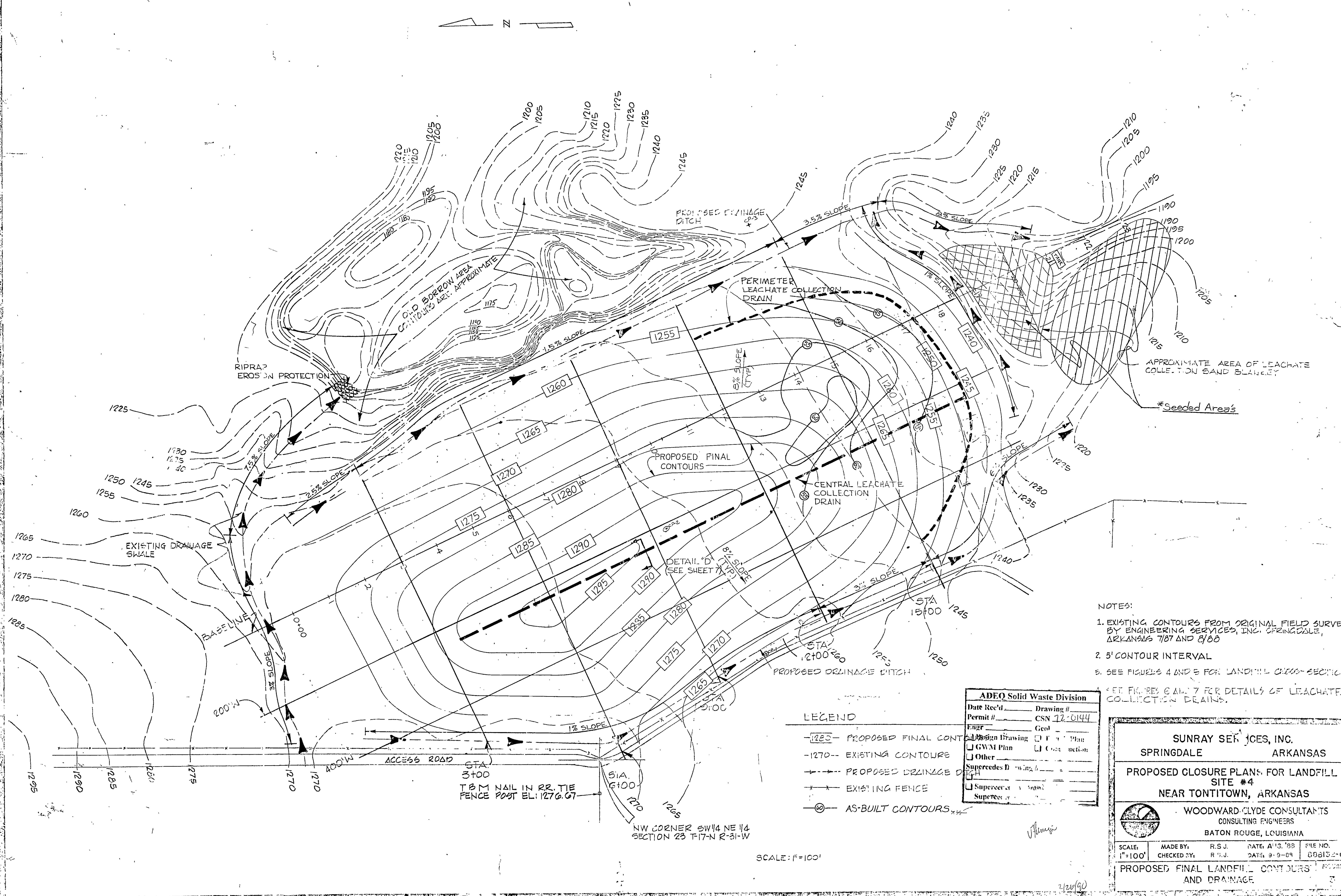
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- 7.82 The vegetation shall be able to withstand the effects of soil nutrient anion exchange fluctuations.

- 7.83 The vegetation shall be able to withstand the effects of soil nutrient precipitation fluctuations.

- <ol style="list



ADEQ Solid Waste Division	
Date Rec'd	Drawing #
Permit #	CSN 72-0144
Engr	Geo
<input type="checkbox"/> Design Drawing	<input type="checkbox"/> Site Plan
<input type="checkbox"/> GWM Plan	<input type="checkbox"/> Construction
<input type="checkbox"/> Other	
Supersedes Drawing #	
<input type="checkbox"/> Supersedes Drawing #	
<input type="checkbox"/> Supersedes Drawing #	
<input type="checkbox"/> Supersedes Drawing #	

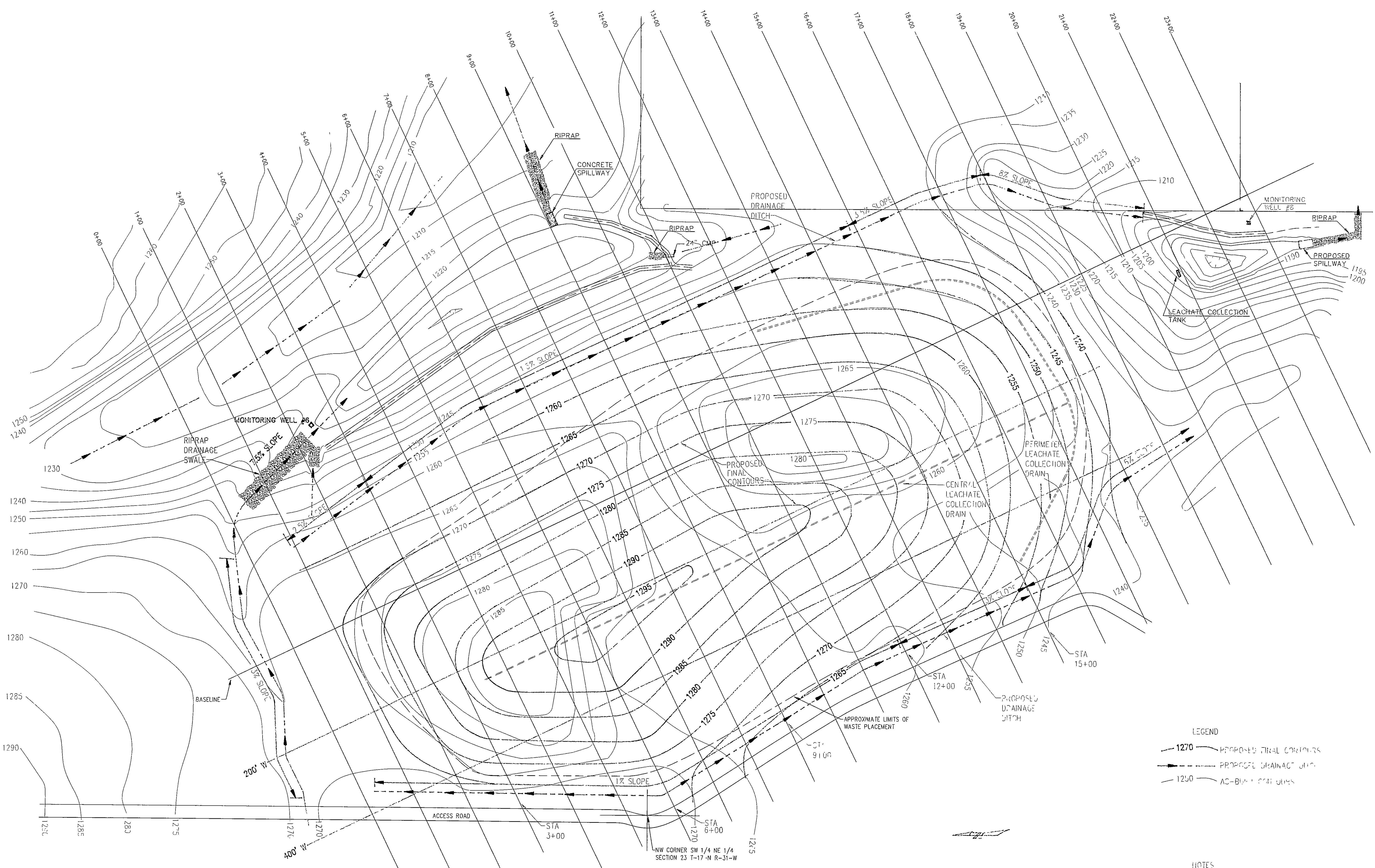
SUNRAY SERVICES, INC.  
SPRINGDALE ARKANSAS

PROPOSED CLOSURE PLANS FOR LANDFILL SITE #4  
NEAR TONTITOWN, ARKANSAS

WOODWARD-CLYDE CONSULTANTS  
CONSULTING ENGINEERS  
BATON ROUGE, LOUISIANA

SCALE: 1"=100'	MADE BY: R.S.J.	DATE: 4/13/88	FILE NO. 086152-C
CHECKED BY: R.S.J.		DATE: 4/9/89	

PROPOSED FINAL LANDFILL CONTOURS AND DRAINAGE



REVISION	NO.	DATE
	AS BUILT CONTOURS KEH/DGC	3/28/90
	AS BUILT CONTOURS KEH	12/12/90
	AS BUILT CONTOURS DGC	3/18/91

SHEET TITLE AS-BUILT CONTOURS VERSUS APPROVED MARCH 1989 CLOSURE CONTOURS  
PROJECT TITLE SUNRAY SERVICES INC. SITE 4  
TONTITOWN, ARKANSAS

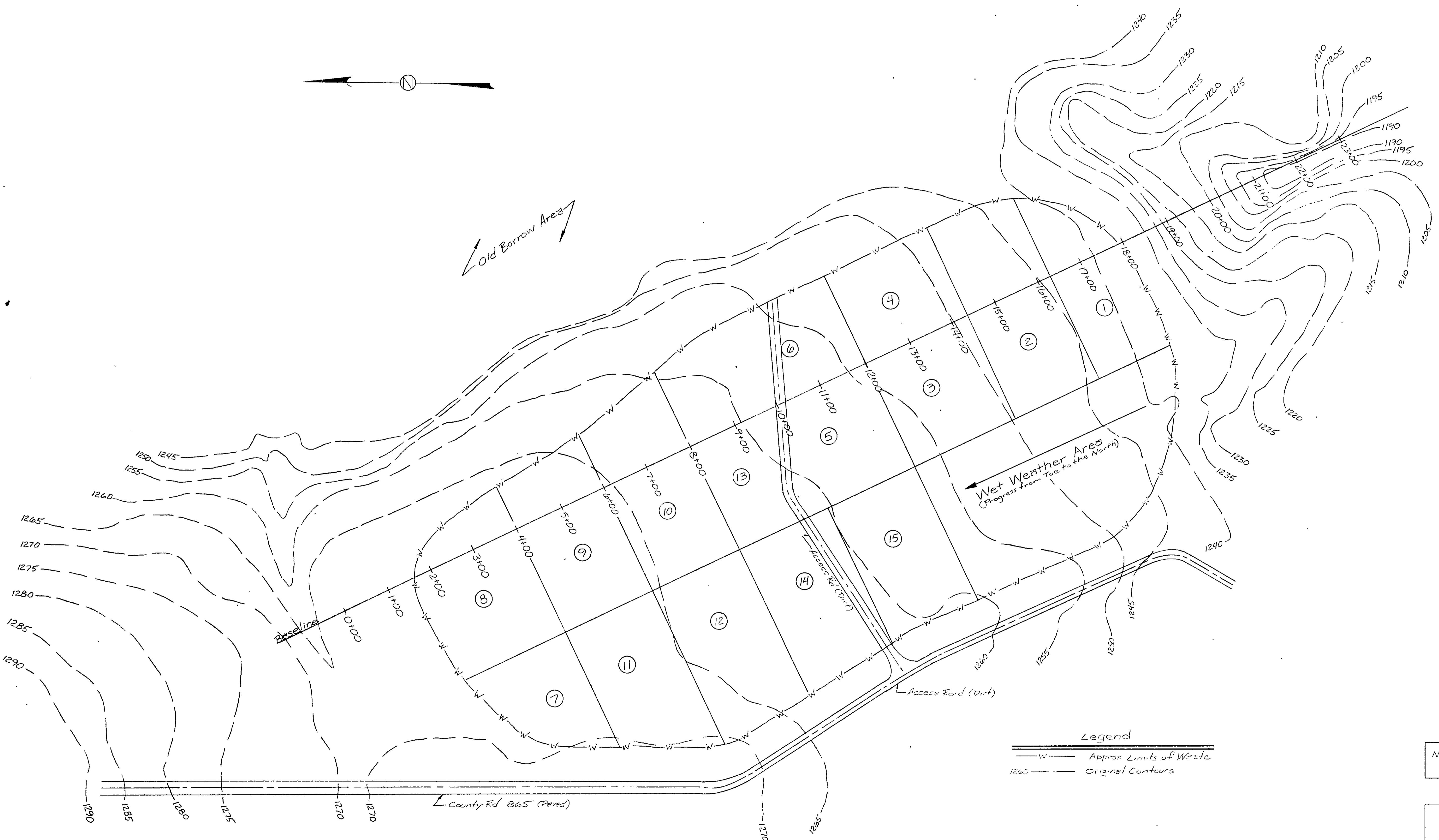
SCS ENGINEERS  
ENVIRONMENTAL CONSULTANTS  
9233 WARD PARKWAY SUITE 360  
KANSAS CITY, MISSOURI 64114  
(816) 333-9233  
DRAWN BY: G CARTER Q/A RW BY: L LOWRY  
CHK BY: K ELLIS APP BY: L LOWRY

720184 ADEQ Solid Waste Di

CAD FILE	RAY02	Drawing No.	0889015
DATE	MARCH 18, 1991	Base Rec'd.	720184
SCALE	1:100	Drawing Comp.	CONTRACT
DRAWING NO.	2	Sheet No.	2
Supersedes Drawing #		Superseded by Drawing #	
		Superseded on Date	

100' 0' 100' 200'  
GRAPHIC SCALE 1"=100'

1. EXCLUDES NO CONTOURS FROM ORIGINAL FIELD SURVEYS BY ENGINEERING SERVICES, INC., SPRINGDALE, ARKANSAS, 7/8/ AND 8/82.  
2. 5 CONTOUR INTERVAL.



ADEQ Solid Waste Division	
Date Rec'd.	Dr. Ing #
Permit #	CSN 72-0144
Engr.	Geol.
<input type="checkbox"/> Design Drawing	<input type="checkbox"/> Unit Plan
<input type="checkbox"/> GWM Plan	<input type="checkbox"/> Cm. Auction
<input type="checkbox"/> Other	
Supersedes Drawing #	
<input type="checkbox"/> Superseded by Drawing #	
<input type="checkbox"/> Superseded on D.	

Note: Original Construction  
by E.S.I., Springdale, AR

Sunray Services, Inc. Springdale Arkansas		
Revised Fill Sequence Site 4		
Permit No 162SR-1		
Scale: 1"=100'	Date: 5/30/90	Drawn by: KEH
Revision of Figure 8 from Approved Closure Plans		