MINUTES

St. Louis Site Remediation Task Force
Local Priorities Working Group

July 12, 1995 Meeting

Berkeley City Hall
Berkeley, Missouri

Participants Attending

Lori Batton, City of Berkeley
Tom Binz, Laclede Gas Company
Dave Braun, Union Electric
Jack Frauenhoffer, Mallinckrodt Chemical Co.
Tom Manning, City of Hazelwood
Josh Richardson, City of Berkeley
Jan Titus, Lambert Airport

Support

Jim Dwyer, Facilitator
Dave Miller, FUSRAP
Sarah Snyder, FUSRAP

Agenda Item	Minutes	Determination
	Jim Dwyer called the meeting to order at 9:40 a.m. He asked the group to consider what they wanted to accomplish at the meeting and to develop an agenda. Jack Frauenhoffer suggested the following agenda: 1. Review Matrix Data 2. Establish Categories of Properties 3. Develop Cost Information 4. Review the Matrix 5. Review Conversation with Dave Adler, DOE-FUSRAP Members of the working group agreed to follow this agenda.	
Review Data	Dave Miller reported that contamination data have been broken down so the working group	

can see the amount in cubic yards on each of the individual properties. Mr. Frauenhoffer distributed charts (ATTACHMENT A) showing the mean and maximum depth of contamination of each property, and other relevant information.

Mr. Miller explained that the maximum depth numbers could be somewhat misleading because, in some cases, the entire depth of the bore hole was sampled, even though contamination may have been found in only a portion of the hole. For example, the information about Coldwater Creek shows a depth of 0-13 feet, but does not mean that the contamination was found at 13 feet, Mr. Miller said, adding that the contamination probably is closer to 2 feet. The same applies to the Pershall Road and Wagner Brake information, which Mr. Miller said probably has contamination at 1.5 feet, not 14 feet, which is the depth of boring.

Similarly, the data from the Riverfront Trail sampling show 39 feet for the depth of the boring. Mr. Miller explained that the boring was done from the top of the levee, which is at least 15 or 20 feet high. Because the levee was built on top of the contamination, the samples were taken through the levee.

He then explained the sum-of-the-ratios method used by the Department of Energy to determine what conditions need to be remediated. The primary isotopes of concern for the St. Louis Site are:

Uranium 238 (U^{238})
Radium 226 (Ra^{226})
Thorium 230 (Th^{230})
Thorium 232 (Th^{232})

However, in developing a cleanup standard, you can't just look at one isotope, because there are combined isotopes that contribute to radioactivity, Mr. Miller said. The ratio is an expression of the contaminant in formulas set

by the U.S. Environmental Protection Agency.

For example:

$$\frac{U^{236} + Th^{230}}{5 \text{ picocuries}} + \frac{U^{238}}{50} \geq 1$$

If the result of this formula is greater than or equal to one, then the contamination exceeds cleanup standards. By way of example, Mr. Miller explained that if you have 3 picocuries each of Ra^{226} and Th^{230} and 10 picocuries of U^{238}, individually they don't trigger the cleanup threshold. However, when they are added together, there is contamination which exceeds allowable standards because the total is 1.4. To be considered "clean," the sum of the ratios must be less than 1 in the equation.

Mr. Miller added that there are some modifications to this criterion for subsurface soils. If the contamination is in the subsurface, the number becomes 15 picocuries instead of 5 picocuries because it is less likely that the contamination will cause harm in the subsurface.

Mr. Miller said he would write up an explanation for the full Task Force.

The data provided to the working group, Mr. Miller said, reflect only the contaminated material. The data show the means and the maximums as calculated within the contaminated boundaries and showing results greater than 1.

Establish Categories

The members of the Working Group then discussed establishing categories for levels of exposure (to be considered in determining cleanup priorities) and agreed to the following:

1	0-10
2	11-100
3	>100 millirem (mrem)

These levels will be useful for determining priorities, Mr. Miller said. Mr. Frauenhoffer

proposed the following categories for addressing the contaminated materials:

1-2	(Low)	Release to landfill
3-50	(Medium)	Treat or consolidate and store
>50	(High)	Ship to Envirocare

Mr. Frauenhoffer said he would apply the "high," "medium," and "low" context to the information on the bar charts.

Using this framework, individual sites fall into the following categories:

1-2 = 17 sites
>2-50 = 13 sites
50+ = 2 sites

Cost Information

Mr. Miller provided members relative cost estimates for shipping wastes to Utah from various existing conditions. He said he developed estimated costs for four categories that reflect a combination of excavation and transportation:

Easy Excavation: $800 per cubic yard to excavate, transport in gondola rail cars, dispose in Utah

Moderately Difficult Excavation: $1,100 per cubic yard. (Same cost if do intermodal transport.)

Difficult Excavation (around utility lines, etc.): $1,300 per cubic yard to excavate, transport in gondola cars, disposal in Utah

Difficult Excavation and Intermodal Transportation: Although not a likely scenario, this would be about $2,000 per cubic yard

Mr. Miller said estimates would need to be developed for all possible disposal sites.

Mr. Miller and Mr. Frauenhoffer will create a table on the factors contributing to the cost estimates.

According to the information provided by Mr. Miller, it would cost about $33 million to remediate the ballfields with disposal in Utah.

Remediation with disposal at the St. Louis Airport Site (SLAPS) would cost about $5.3 million.

Review Matrix

The group reviewed the matrix and filled in information where possible.

Adler Conversation

Mr. Dwyer reported that after the July 11, 1995 Task Force meeting, he and Mr. Miller met with Dave Adler, DOE-FUSRAP. He said Mr. Adler emphasized the importance of the Task Force developing a practical remediation proposal so the Department of Energy can move forward. He reported that Mr. Adler talked specifically about remediating the ballfields as a short-term action and using the SLAPS as an interim repository. If this proposal is unworkable, Mr. Adler wants to know what other options exist.

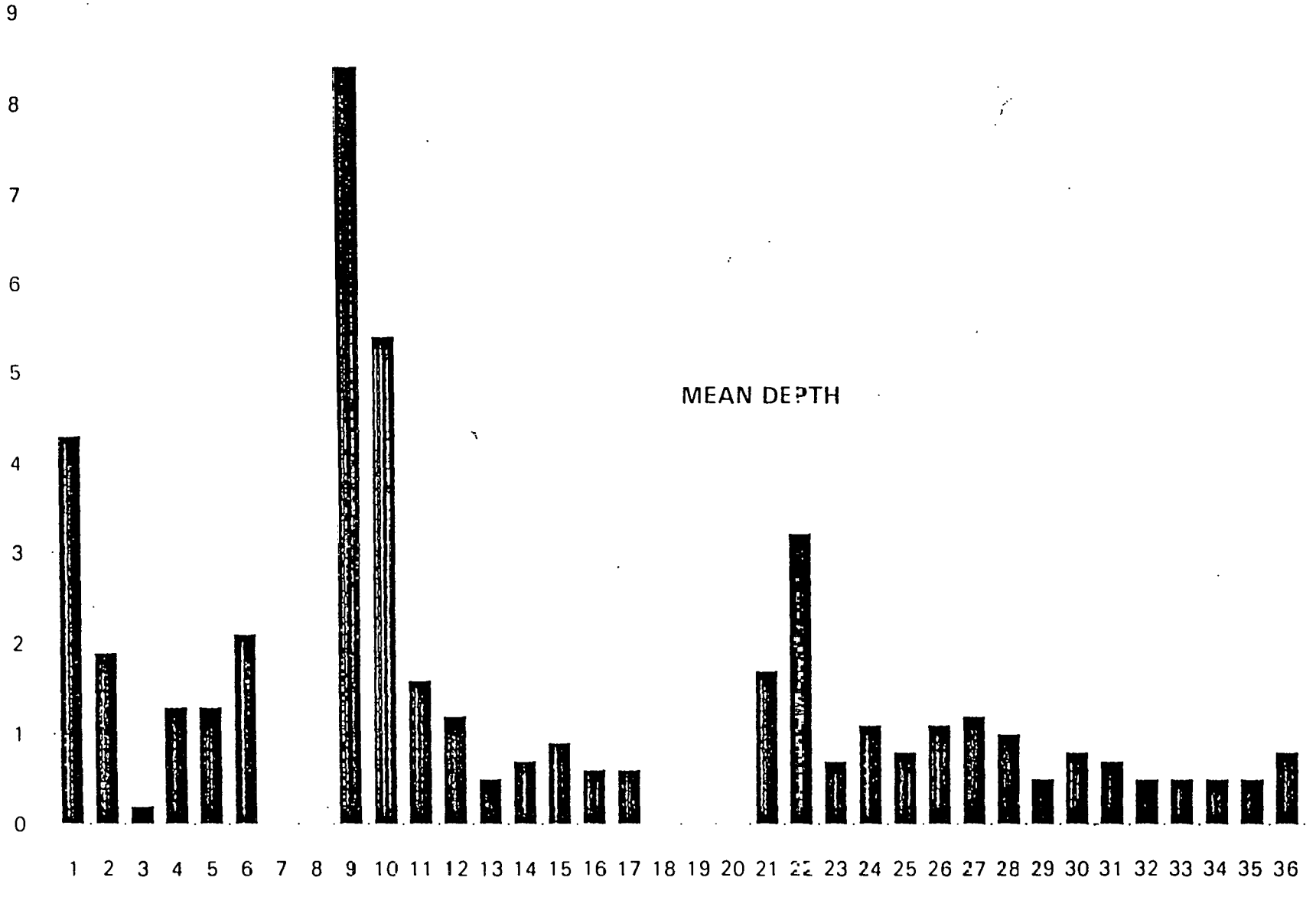
Mr. Miller added that Mr. Adler's strawman proposal addresses interim actions, especially in regard to the $30 million slated for the site over the next two years. A definitive plan is required so planning for fiscal year 1996 can start because the Department of Energy needs to develop specific design plans and cost estimates.

The members also discussed the need for independent technical experts to evaluate the impact of the SLAPS on Coldwater Creek. It was agreed that a statement of work would be developed and potential participants would be identified for an expert panel.

Mr. Miller agreed to draft a statement of work for independent experts.

The next meeting of the Local Priorities Working Group is scheduled for July 26, 1995, at which time it is expected that work on the matrix will be completed. The meeting adjourned at 2:21 p.m.

Approved August 2, 1995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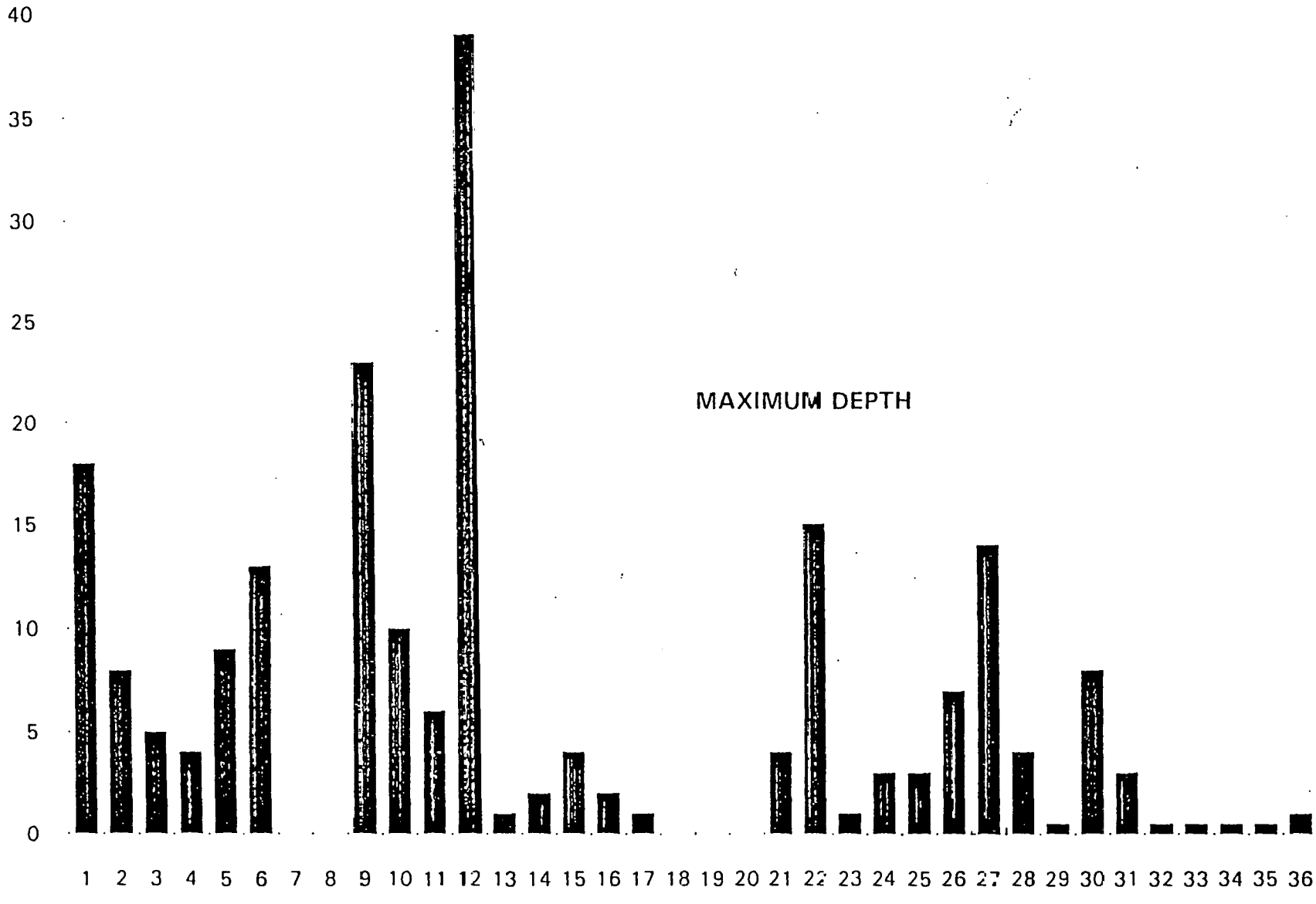
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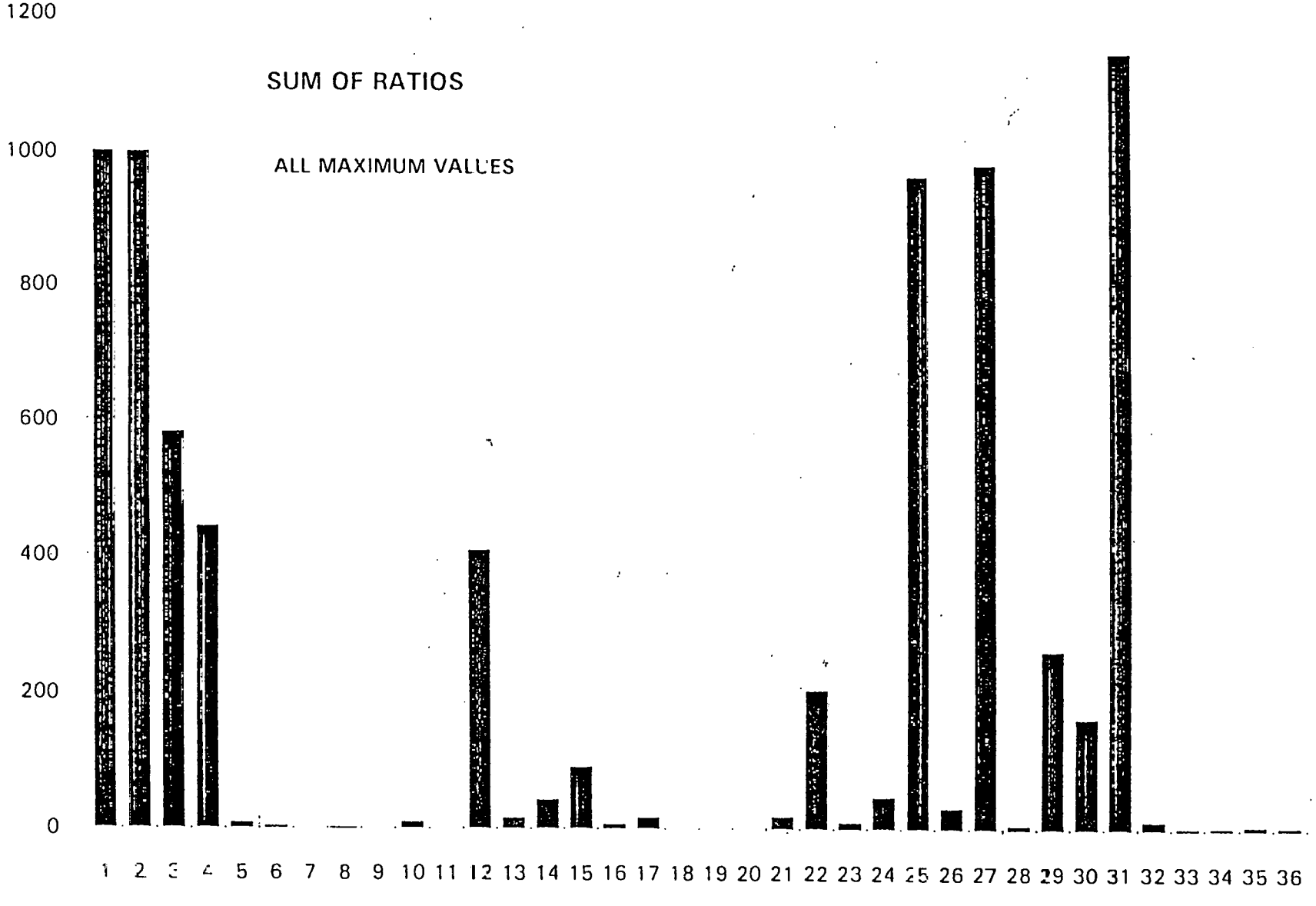
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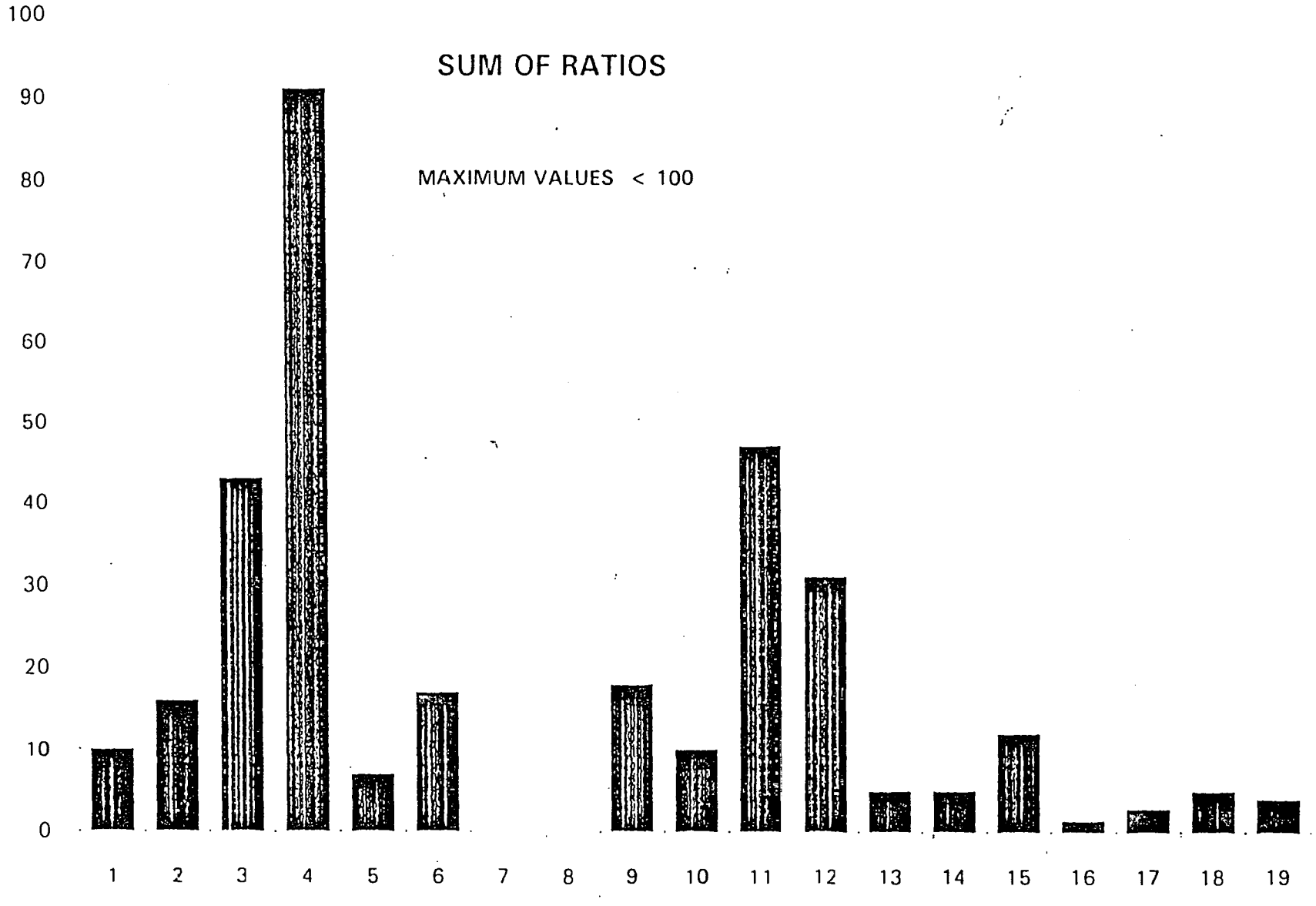
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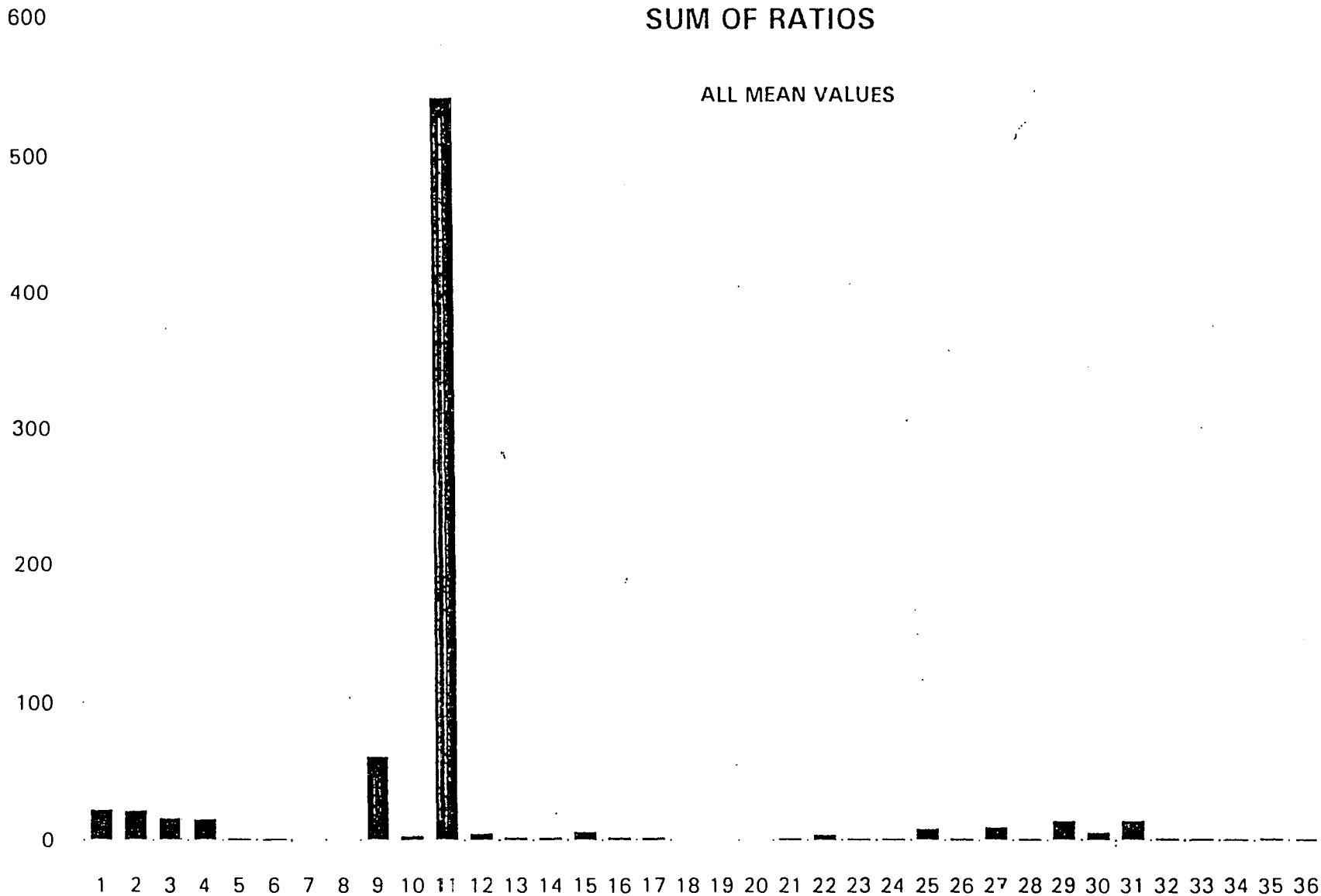
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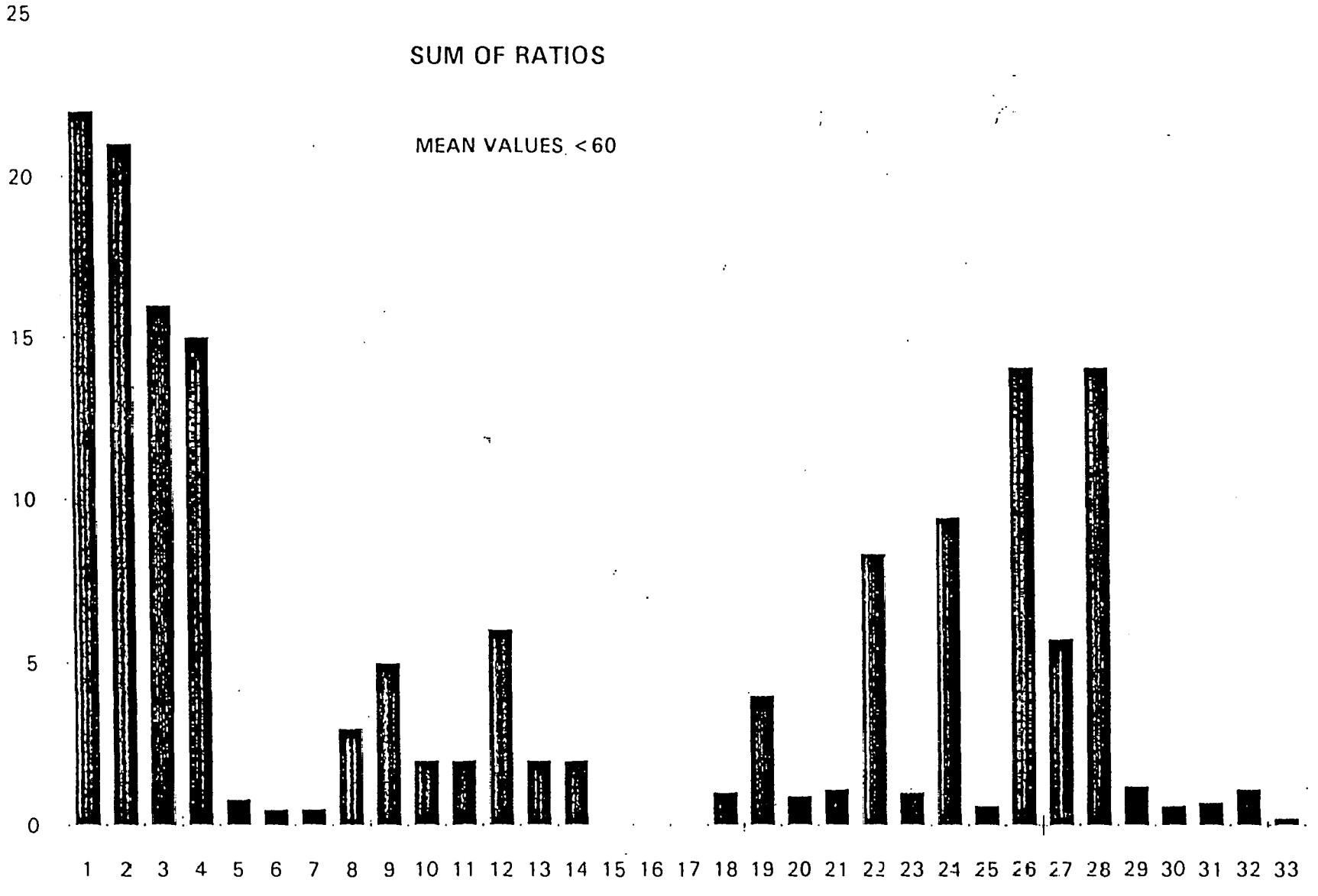
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Formerly Utilized Sites Remedial Action Program (FUSRAP)

ADMINISTRATIVE RECORD

for the St. Louis Site, Missouri

U.S. Department of Energy