

Docket 40-2061

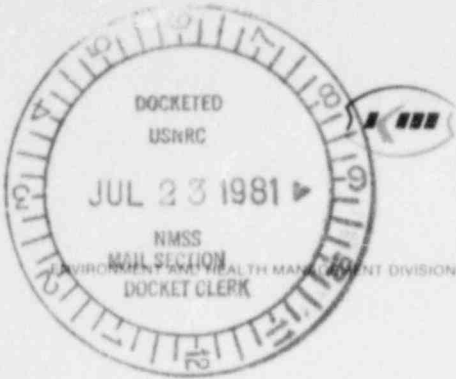
40-2061

PDR

Return to

D. Cramer

396-55



KERR-MCGEE CORPORATION

KERR-MCGEE CENTER • OKLAHOMA CITY, OKLAHOMA 73125

July 10, 1981

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

Mr. W. A. Nixon
 Uranium Process Licensing Section
 Uranium Fuel Licensing Branch
 Division of Fuel Cycle & Material Safety
 U. S. Nuclear Regulatory Commission
 Washington, D. C. 20555



Dear Mr. Nixon:

Please note our letter dated June 24, 1981 reporting radon and thoron measurements for May through mid-June, 1981. The radon and thoron daughter measurements reported for the West boundary location on **6/12/81 require further clarification concerning the sample point distances and local topography. Immediately west of the boundary lies the elevated Elgin, Joliet, and Eastern Railroad track bed, the western side of which leads into an extended gently sloping area. A cross-section sketch of the area is attached.

Before sunrise radon and thoron readings were taken at distance traversing this profile starting at the boundary sample point to note possible effects of nocturnal atmospheric inversion on dispersive air movements in these low lying depressions.



FREE EXEMPT

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As noted, radon and thoron readings were elevated at these points under these conditions in relation to similar samples taken during mid-afternoon:

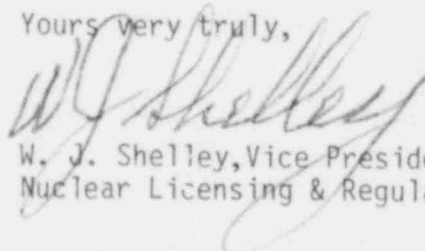
	<u>pCi/l</u>	
	<u>RN</u>	<u>TH</u>
Before Sunrise: Boundary Fenceline	5.0	4.0
50 Feet West	ND	1.6
150 Feet West	ND	4.0
200 Feet West	ND	2.4
Mid-Afternoon: Boundary	0.4	0.048

Similar elevated radon and thoron readings were noted for all four boundary points in samples taken 6/4/81 under similar atmospheric conditions before sunrise as compared to other readings later in the day:

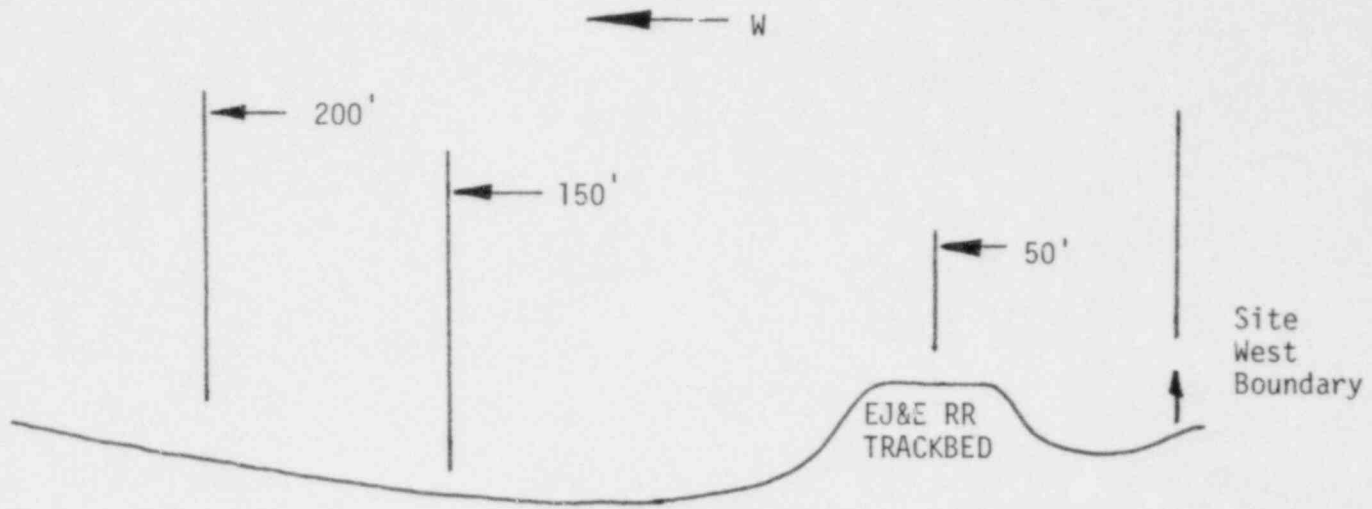
	<u>pCi/l</u>							
	<u>East</u>		<u>North</u>		<u>West</u>		<u>South</u>	
<u>6/4/81</u>	<u>RN</u>	<u>TH</u>	<u>RN</u>	<u>TH</u>	<u>RN</u>	<u>TH</u>	<u>RN</u>	<u>TH</u>
Before sunrise	2.0	0.54	3.0	4.0	7.0	10.2	2.0	0.32
Mid-Morning	0.2	0.024	0.2	0.016	0.2	0.064	0.2	0.016

The significance of this preliminary data is under assessment.

Yours very truly,



W. J. Shelley, Vice President
Nuclear Licensing & Regulation



Topography of site West Boundary
(Sketch not to scale)