Student Notes 1964 Alaska Quake Photos *Name* _____

Based on the Sounds of a quake recording, estimate the MM intensity level: _____

Pictures of 1964 damage – for each photo, estimate the MMI and give your reasoning:
(1) Photo 1: The Five-story J.C. Penney Building, 5th Avenue and Downing Street, Anchorage, Alaska, partly collapsed by the March 28, 1964 earthquake. Note undamaged buildings nearby).
Modified Mercalli Scale estimate _____
Reasoning for this estimate:

(2) Photo 3: Close-up of Government Hill Elementary School, which was destroyed by the Government Hill landslide. Anchorage, Alaska.
Modified Mercalli Scale estimate _____
Reasoning for this estimate

(3) Photo 6: An uplifted dock on Hinchinbrook Island, Prince William Sound. Land in this area rose about 8 feet during the earthquake, and the dock can now be used only at extremely high tides.
Modified Mercalli Scale estimate _____
Reasoning for this estimate

(4) Photo 11: The Hillside apartment building in Anchorage was severely damaged by the earthquake and has been razed. It was a split-level, five story building with steel posts and lintels, concrete floor slabs, and unreinforced concrete block walls and partitions.
Modified Mercalli Scale estimate _____
Reasoning for this estimate

(5) Photo 12: One span of the "Million Dollar" truss-bridge of the former Copper River and Northwestern Railroad was dropped into the Copper River by the earthquake, and the other truss spans were shifted on their piers.
Modified Mercalli Scale estimate _____
Reasoning for this estimate

(6) Photo 13: The earthquake shifted the steel trusses of the Copper River and Northwestern Railroad bridge near Round Island from 1 to 2 feet. This view shows one of the displaced trusses, which pounded against an adjacent steel girder span. The girder span was moved to the right, its concrete pedestal was rotated, and the girder span almost fell into the river. Note the shortening indicated by buckling of the guardrail.
Modified Mercalli Scale estimate _____
Reasoning for this estimate

(7) Photo 14: The rails in this approach to a railroad bridge near the head of Turnagain Arm were torn from their ties and buckled laterally by channel ward movement of the river banks during the earthquake. The bridge was also compressed and developed a hump from vertical buckling.
Modified Mercalli Scale estimate _____
Reasoning for this estimate

(8) Photo 15: Railroad trestle on the Kenai Peninsula southwest of Anchorage. The rails were buckled by lateral movement of the embankment fill toward an underlying culvert, which had collapsed.
Modified Mercalli Scale estimate _____
Reasoning for this estimate

Write a summary describing what a person may see in the landscape after a large magnitude earthquake, and how that is numerically valued on the Modified Mercalli scale using your picture descriptions from the 1964 Alaska Earthquake, above.