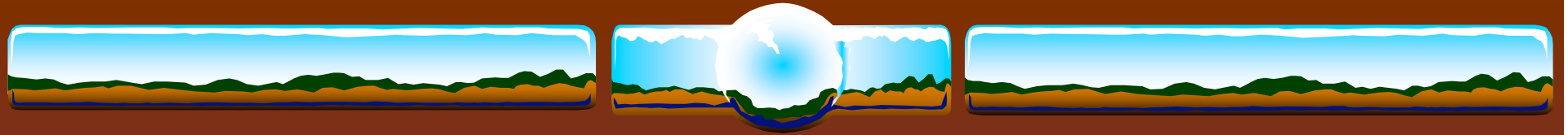
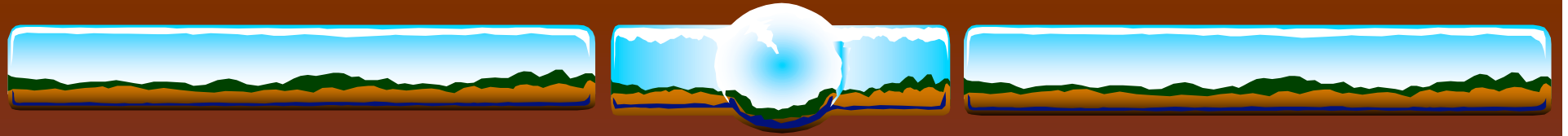


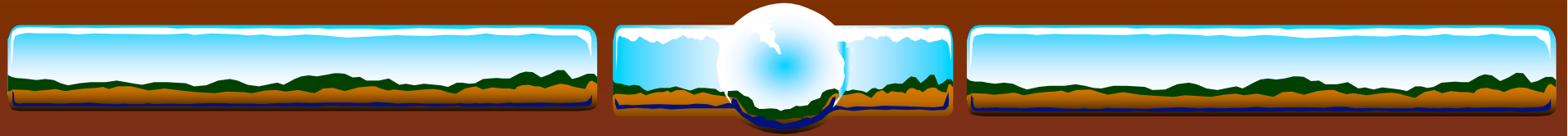
NBEIA CONFERENCE ON CONTAMINATED PROPERTIES



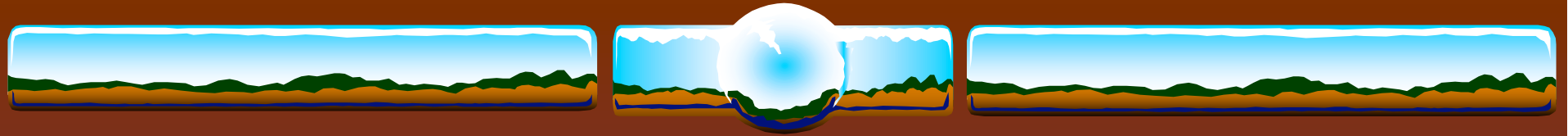
- ❖ Royal Bank strives to be a responsible corporate citizen respecting the environment and ensuring through due diligence process that projects it finances meet and adhere to established environmental guidelines.



- ❖ This is achieved mainly through two vehicles being Phase 1 Site Assessments and Environmental Questionnaires.

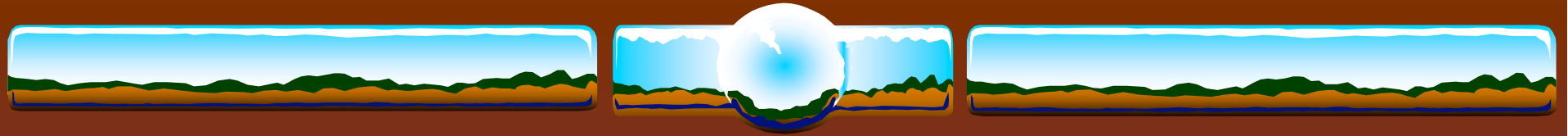


- ❖ The level of investigation is determined based on property type, zoning, industry, financing amount, etc. The Bank defines the level of risk by grouping industries in the following categories:
 - ❖ Category 3 – Highest Risk
 - ❖ Category 2 – Moderate Risk
 - ❖ Category 1 – Some Risk Potential
 - ❖ Other - Minimal Risk



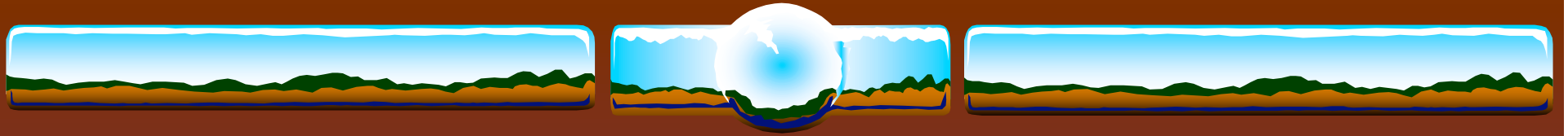
Category 3 Examples:

- ❖ Fertilizer manufacturing
- ❖ Foundries
- ❖ Wood preservation
- ❖ Assessment requires external resources including
Environmental Consultants



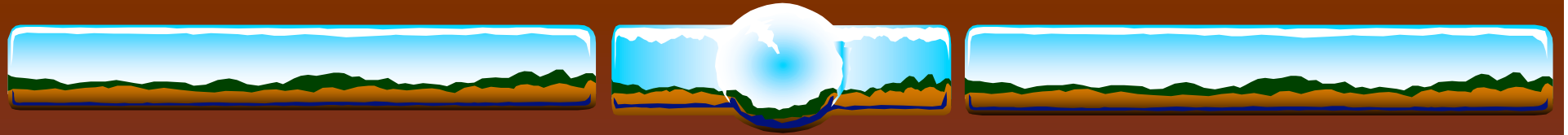
Category 2 Examples:

- ❖ Garages, repairs cars, trucks, etc.
- ❖ Petroleum bulk stations and terminals
- ❖ Service stations
- ❖ Environmental Consultants may be required to address specific risk issues or concerns



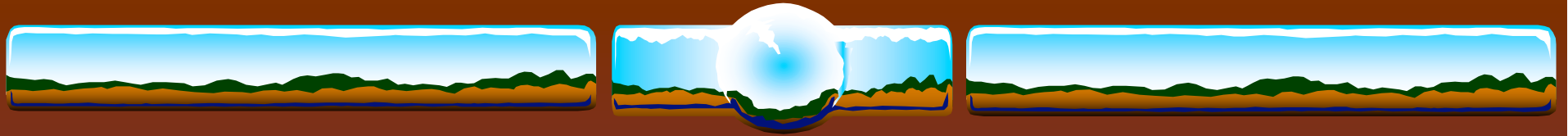
Category 1 Examples:

- ❖ Lumber and wood products
- ❖ Printing and publishing
- ❖ Textile industries
- ❖ Warehousing
- ❖ Mostly commercial operations with some risk potential. The magnitude of which is more easily evaluated.



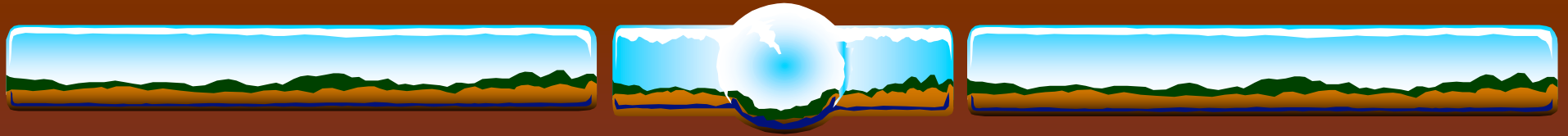
Other Includes:

- ❖ Residential housing of 4 units or less
- ❖ Multi-residential housing, 5 units and greater
- ❖ Risk easily established because of past/future property uses



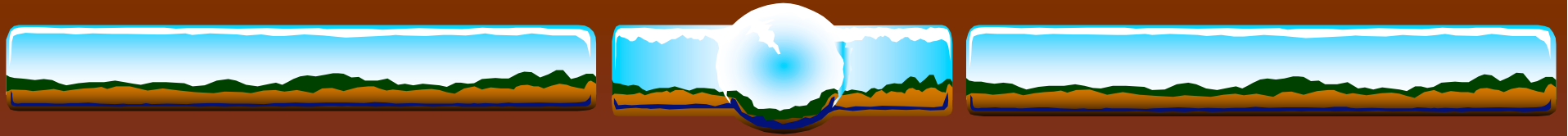
For illustration purposes will detail requirements for:

- ❖ Residential properties up to 4 units
- ❖ Multiple unit residential properties greater than 5 units
- ❖ Commercial mortgages on industrial and higher risk properties



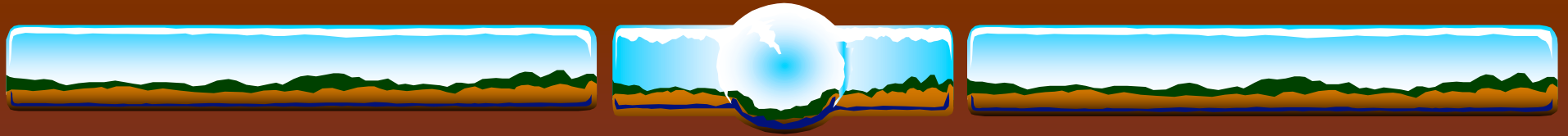
Residential Properties up to 4 units

- ❖ No questionnaire generally required unless adjacent to existing or former gas stations
- ❖ Built on former commercial or industrial sites
- ❖ Appraiser may be asked to comment on prior uses of property and potential presence of asbestos, fuel oil storage tanks, etc.



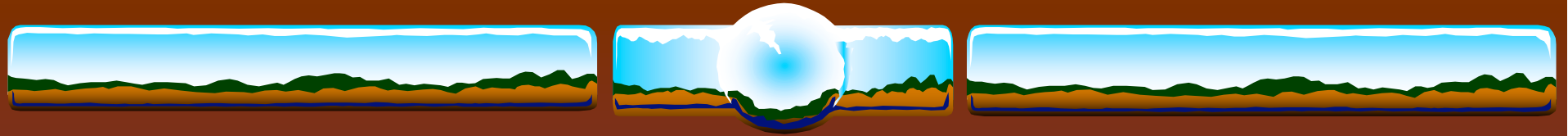
Multiple Unit (5 units or more residential properties):

- ❖ For mortgages less than \$500M
- ❖ Borrower must complete Environmental Questionnaire
- ❖ Account Manager must visit site
- ❖ Further investigation subject to results of Questionnaire



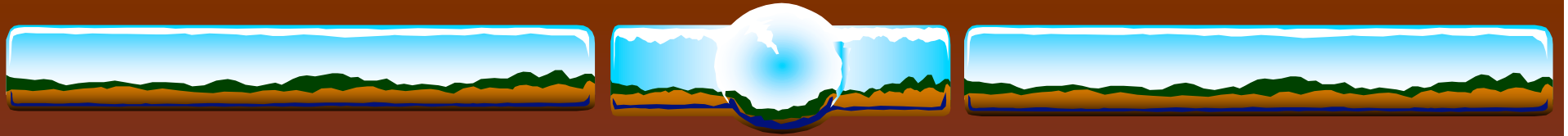
Multiple Unit (5 units or more residential properties):

- ❖ For mortgages over \$500M
- ❖ Phase 1 Environmental Site Assessment must be obtained from an approved Environmental Consultant
- ❖ The ESA must be less than 3 years old
- ❖ Must meet CSA Standard Z-768-01
- ❖ Environmental Consultant must consent to the Bank for reliance on the Phase 1 or 2 ESA as the case may be for financing purposes



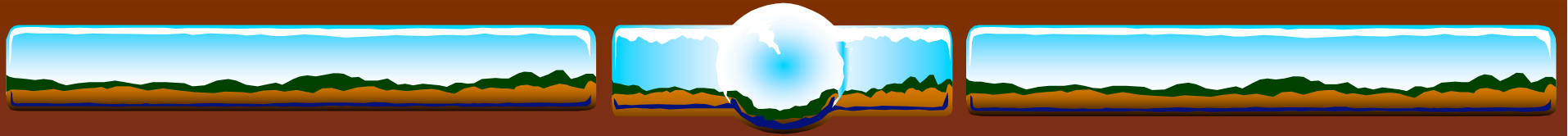
Commercial Mortgages Less than \$500M for Industrial properties:

- ❖ Phase 1 ESA required for all Category 2 and 3 industries
- ❖ Environmental Questionnaire may be sufficient for Category 1 and Other industries



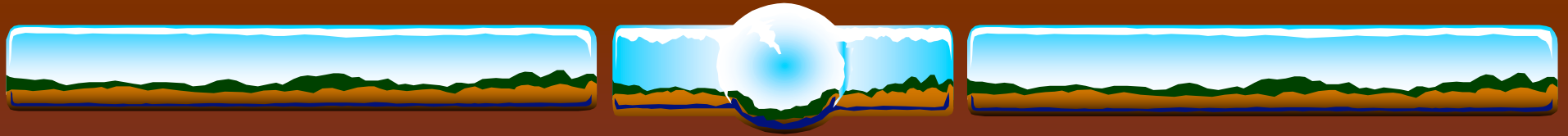
Commercial Mortgages on Industrial Properties over \$500M:

- ❖ Minimum of Phase 1 ESA required for all



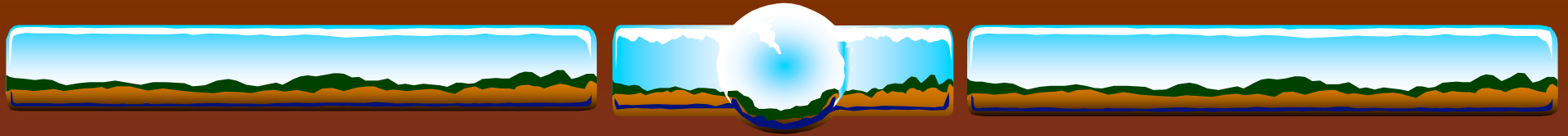
Commercial Mortgage Renewals and Extensions

- ❖ Low Environmental Risk
- ❖ Category 1 Industries and Other
- ❖ Mortgagor must sign a Confirmation Letter stating the status of the site has not changed since the original Questionnaire or ESA was provided




Commercial Mortgage Renewals and Extensions (Cont'd)

- ❖ Higher environmental risk, i.e. Industrial properties and service stations
- ❖ Renewal within 3 to 5 years of loan origination. Mortgagor must provide an update to the original Phase 1 ESA
- ❖ Renewal within 3 years of loan origination. Confirmation letter must be signed confirming site status has not changed



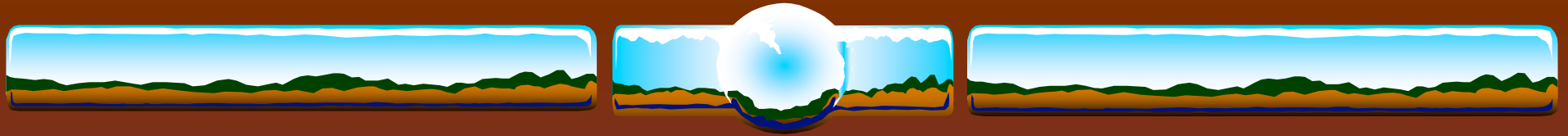
Difficulties encountered in financing Contaminated properties:

- ❖ Mortgages are normally financed over longer periods of 15 – 25 years. Mortgages granted prior to establishment of internal environmental policy are difficult to assess for environmental liability as documentation does not obtain covenants relating to environmental issues



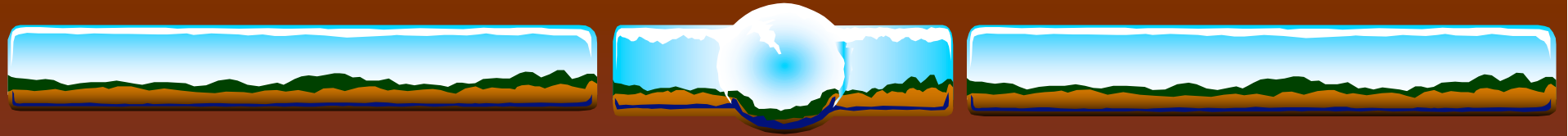
Difficulties encountered in financing Contaminated properties (Cont'd)

- ❖ Marketplace perception of mildly contaminated or even clean site distresses values
- ❖ This makes financing of clean properties more difficult and leads to greater loan losses for the financial institutions



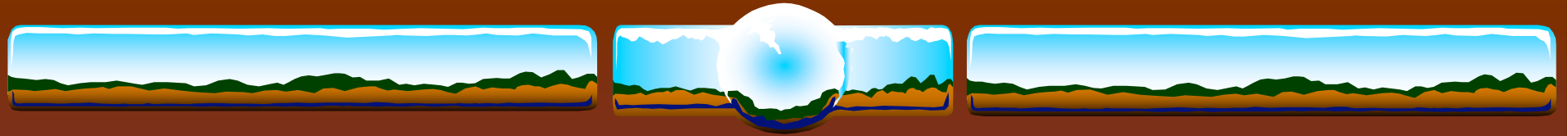
Difficulties encountered in financing Contaminated properties (Cont'd)

- ❖ The Bank prior to realizing on mortgage security obtains a Phase 1 Environmental Site Assessment on all property including residential where there are 5 or more units
- ❖ Residential properties heated by oil are becoming riskier
- ❖ The Bank has realized significant loan losses over the past 5 years associated with contaminated properties. In two situations the Bank has expensed over \$500M in cleaning the properties



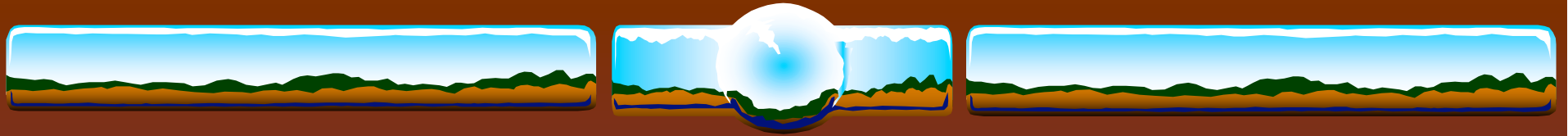
Example One

- ❖ The first situation the Bank was owed approximately \$60M
- ❖ The business filed for bankruptcy
- ❖ Bankruptcy Trustee deeded the property to the Bank
- ❖ The Bank agreed to sell the property for \$20M
- ❖ Purchaser wanted underground storage tanks removed



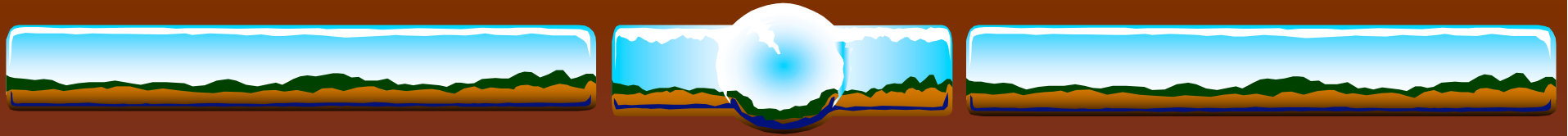
Example One (cont'd)

- ❖ There were no gas pumps when Bank financed the property and the Bank was unaware of storage tanks
- ❖ The Bank has spent approximately \$200M in remediating the Site



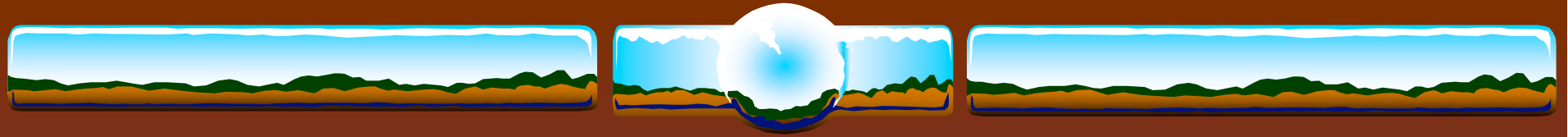
Example Two

- ❖ The Bank foreclosed on a self-storage property on which it had a mortgage of approximately \$90M
- ❖ Subsequently discovered the site was a former service station
- ❖ Underground storage tanks had not been removed and were leaking
- ❖ Bank has paid \$300M to remediate the site and adjoining properties and likely will not be able to sell same



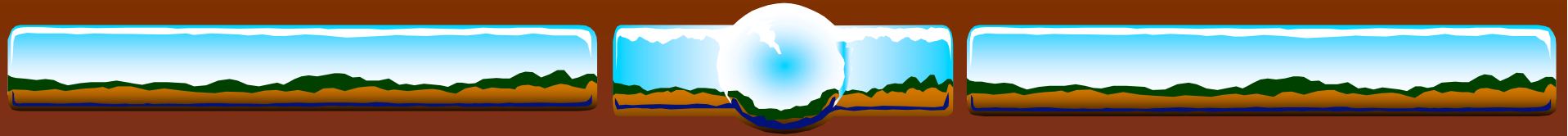
Example Three

- ❖ Bank commenced foreclosure proceedings on a residential property for which it was owed approximately \$40M
- ❖ Residents vacated the property in November
- ❖ Property was oil heated and the Bank ordered oil to ensure the property remained heated
- ❖ The feed on the oil tank was subsequently dislodged
- ❖ Environmental Consultants preliminary estimate indicated clean up costs was more than property value
- ❖ The Bank walked away from its security



Issues with the existing process

- ❖ RBCA is a positive development however is only a guideline
- ❖ Site Remediation is very expensive and process is extended
- ❖ Uncertainty over environmental liability



Issues with the Existing Process (Cont'd)

- ❖ Lack of legislation providing for regulatory approval and confirmation of the acceptability of remediation efforts
- ❖ Lack of legislation providing for clear and inequitable termination of all on site and off site regulatory liabilities upon issuance of regulatory approval of remediation subject only to specified re-openers for fraud