COLORADO DEPARTMENT OF TRANSPORTATION

JOB SAFETY ANALYSIS

Activity Name: Determining Water-Soulable Chloride Content in Soil.			**Activity Number: CP-L 2104**	
Activity Description & Purpose: Determines procedures for preparing and testing soil for chloride ion content.				
Date Prepared: 1-7-2011				**PPE Required**
Typical Equipment		**Typical Crew Size:**	**Typical Material**	**1-Hard toed boots 2-Chemcial resistant gloves 3-Safety glasses 4-Laboratory coat**
Description	Class Code	(Crew sizes may vary due to different conditions throughout the state).	Description / Class Code	
See associated test procedure		**1**		

Sequence of Job Tasks	**Potential Hazards**	**Safe Job Procedures**	**Never**
1-Prepair Soil Sample	1	There is the possibility of working with a large sample size. Be cautious not to injure back or toes.	
2-Soak soil sample in Deionized water	2,3,4	When the sample is soaked with deionized water it is first shake. There is the potential for the lid of the sample container to come off and splash.	
3-Check pH	2	The sample may be slightly acidic/basic.	
4-Set up Titration Apparatus	2,3,4	The silver nitrate titrant will stain clothing, skin and can cause eye burns.	
5-Prepair Titration Sample	2,3,4	The silver nitrate titrant will stain clothing, skin and can cause eye burns. The Chloride 2 Indicator causes eye and skin burns. The Chloride 2 Indicator is poisonous and a cancer hazard.	
6-Titrate Sample	2,3,4	The silver nitrate titrant will stain clothing, skin and can cause eye burns. The Chloride 2 Indicator causes eye and skin burns. The Chloride 2 Indicator is poisonous and a cancer hazard.	

Notes and Specifications Instructions	**Other Related Resources**