

Gantt Chart		2010												2011												2012											
		Yr 1												Yr 2												Yr 3											
		Dec	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N
Task 1	Project Management and Reporting	Program management and reporting																																			
Task 2	Characterize the OPAS	Choose subcontractor - OPAS data acquisition																																			
	Subtask 2.1.	Acquire geologic, seismic and engineering data																																			
	Subtask 2.2.	Develop regional correlation framework and integrated geomodel																																			
	Subtask 2.3.	Subsurface fluid chemistry and flow regime analysis																																			
	Subtask 2.4.	Gather and interpret KGS's gravity and magnetic data																																			
	Subtask 2.5.	Remote sensing analysis for lineaments																																			
	Subtask 2.6.																																				
Task 3	Geomodel of Mississippian Chat & Arbuckle Group - Wellington field	Collect geologic & engineering data																																			
	Subtask 3.1.	Collect 3D seismic data																																			
	Subtask 3.2.	Process 3D seismic data																																			
	Subtask 3.3.	Collect gravity and magnetic data																																			
	Subtask 3.4.	Interpret seismic, gravimetric, and magnetic data																																			
	Subtask 3.5.	Initial geomodel - Wellington																																			
	Subtask 3.6.																																				
Task 4	Preparation, Drilling, Data Collection and Analysis - Well #1	Locate Permit																																			
	Subtask 4.1.	Drill core, DST																																			
	Subtask 4.2.	Log																																			
	Subtask 4.3.	Completion																																			
	Subtask 4.4.	Log analysis																																			
	Subtask 4.5.	Perf. test, and sample fluids																																			
	Subtask 4.6.	Analyze Arbuckle core																																			
	Subtask 4.7.	Analyze Mississippian core																																			
	Subtask 4.8.	PVT - oil & water																																			
	Subtask 4.9.																																				
	Subtask 4.10.	Geochemical analysis of water samples																																			
	Subtask 4.11.	Microbiological studies on produced water																																			
	Subtask 4.12.	Diagenetic history of fracture fill																																			
	Subtask 4.13.	2D shear wave survey																																			
	Subtask 4.14.	Process & interpret 2D shear																																			
	Subtask 4.15.	Correlate log & core - extend to OPAS																																			
	Subtask 4.16.																																				
Task 5	Preparation, Drilling, Data Collection and Analysis - Well #2	Locate Permit																																			
	Subtask 5.1.	Drill & DST																																			
	Subtask 5.2.	Log																																			
	Subtask 5.3.	Case, cement, perf. test and sample fluids																																			
	Subtask 5.4.	Analyze log																																			
	Subtask 5.5.																																				
	Subtask 5.6.																																				
Task 6	Update Geomodels	Hydrogeologic studies																																			
	Subtask 6.1.	Revise 3D seismic interpretation																																			
	Subtask 6.2.	Update geomodel - Arbuckle & Miss																																			
	Subtask 6.3.																																				
Task 7	Evaluate CO2 Sequestration Potential in Arbuckle Group Saline Aquifer	CO2 sequestration potential																																			
	Subtask 7.1.	Long-term effectiveness of cap rock																																			
	Subtask 7.2.	CO2 sequestered in brine																																			
	Subtask 7.3.	CO2 sequestered as residual gas																																			
	Subtask 7.4.	CO2 sequestered by mineralization																																			
	Subtask 7.5.	Field management - max CO2 entrapment																																			
	Subtask 7.6.	Monte Carlo - total CO2 seq capacity																																			
	Subtask 7.7.																																				
Task 8	Evaluate CO2 Sequestration Potential in Depleted Wellington field	CO2-EOR potential																																			
	Subtask 8.1.	Long-term effectiveness of cap rock																																			
	Subtask 8.2.	CO2 sequestered in brine and residual gas																																			
	Subtask 8.3.	CO2 sequestered by mineralization																																			
	Subtask 8.4.	Field management - optimize CO2-EOR																																			
	Subtask 8.5.	Monte Carlo - total CO2 seq capacity																																			
	Subtask 8.6.																																				
Task 9	Characterize leakage pathways - Risk assessment area	Collect reservoir characterization data - external sources																																			
	Subtask 9.1.	Map fracture-fault network																																			
	Subtask 9.2.	Verify seal continuity and integrity																																			
	Subtask 9.3.	Inventory well status																																			
	Subtask 9.4.	Gather expert advice on well integrity																																			
	Subtask 9.5.																																				
Task 10	Risk assessment related to CO2-EOR and CO2-sequestration in saline aquifer	Model plume - 100, 1000, 5000 yrs after inj																																			
	Subtask 10.1.	Plume attenuation - during/after inj																																			
	Subtask 10.2.	Effects of natural aquifer flow on plume																																			
	Subtask 10.3.	Time-frame for noticeable free-phase CO2																																			
	Subtask 10.4.	Effectiveness of cap rock - contain leak																																			
	Subtask 10.5.	Leakage through abandoned wells																																			
	Subtask 10.6.	Worst-case CO2 leakage																																			
	Subtask 10.7.	Surface effects due to leak																																			
	Subtask 10.8.																																				
Task 11	Produced water and wellbore management plans - Risk assessment area	Identify at-risk wells																																			
	Subtask 11.1.	Recompletion plans - at-risk wells																																			
	Subtask 11.2.	Completion plans of inj																																			
	Subtask 11.3.	Summarize practices in place for wtr disposal																																			
	Subtask 11.4.																																				
Task 12	Regional CO2 Sequestration Potential in OPAS - 17 Counties	Map Arbuckle reservoir compartments																																			
	Subtask 12.1.																																				
	Subtask 12.2.	Coarse-grid sim																																			
	Subtask 12.3.	CO2-EOR potential of larger oil fields - 17 counties																																			
	Subtask 12.4.	OPAS CO2 sequestration potential																																			
Task 13	Regional Source-sink relationship	Map major CO2 point sources in KS																																			
	Subtask 13.1.																																				
	Subtask 13.2.	Map major CO2 sinks in KS - OPAS																																			
Task 14	Technology Transfer	Build and maintain project website																																			
	Subtask 14.1.	Link project web-site to relevant DOE databases																																			
	Subtask 14.2.																																				
	Subtask 14.3.	Submit project results to peer reviewed journals for publication																																			